Roundabout

Magazine of the Transportation Group NZ

Issue 164 June 2020

What will the post-Covid transport world be like?

Also in this edition:

- Raised intersections - Speed limits

- Engineer your career - Christchurch parking saga

- Paired crossings - Funding fairness

And much more

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Roundabout is the magazine of the Transportation Group NZ, published quarterly. It features topical articles and other relevant tidbits from the traffic engineering and transport planning world, as well as details on the latest happenings in the NZ transportation scene.

All contributions, including articles, letters to the editor, amusing traffic related images and anecdotes are welcome. Opinions expressed in Roundabout are not necessarily the opinion of the Transportation Group NZ or the editor, except the editorial of course. There is no charge for publishing vacancies for transportation professionals, as this is considered an industry-supporting initiative.

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Roundabout is published around the 15th of March, June, September and December each year, and contributions are due by the 10th of each publication month.

A monthly Mini-Roundabout email update is circulated on the 15th of in-between months and contributions are due by the 12th of each month.

If somehow you have come to be reading Roundabout but aren't yet a member of the Transportation Group NZ, you are most welcome to join. Just fill in an application form, available from the Group website:
www.transportationgroup.nz

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Editorial

The photos on the front cover of this edition are a stark reminder of how much change we have been through during the COVID-19 lockdown period.

State Highway One at St Marys Bay is one of the busiest parts of Auckland's motorway network but during Alert Level 4 the bottom image shows that traffic almost disappeared. Since the easing of physical distancing restrictions, traffic volumes have returned nearly to pre-lockdown levels (top image).

I, for one, never expected that travel and general society activity could so massively and rapidly be restricted (I guess I never anticipated a pandemic either).

So often we are working towards incremental transport improvements measured in a few percentage points, so a 95% drop in patronage or volumes is hard to contemplate. And yet it did, and we accepted it willingly as a necessary part of saving lives.

One of my over-riding memories isn't the change in traffic flows, but of how people adapted to the new conditions. My street and the streets around me were filled not with cars but with families cycling and walking in groups (bubbles).

Speaking with some of my friends and neighbours, many of them had never felt brave enough to cycle those streets before, despite living there for years. The overwhelming consensus was that people would like to walk and cycle more in their local area, but didn't feel safe due to volume and speed of traffic (so they jump into their cars and become part of the problem).

So the next time someone tells you Aucklanders, or New Zealanders, love their cars, just remember how happily people rode around their neighbourhoods when they had the chance. In particular, I recall mobs (groups? Bubbles?) of kids happily riding around the streets, reminiscent of stories from the 1970s when traffic levels were far lower.

We had never had the opportunity before to 'turn off' the traffic and see what it feels like, and my experience was that people were more active and the environment was better.

The other observation from lockdown was just how quiet it became and how clear the air became without so many vehicles driving around. My family and I spent time walking and cycling up the nearby volcanoes (Mt Eden, Mt Albert, One Tree Hill, etc.) and it was noticeable how far you could see and how many birds could be heard.

This isn't to say we need to start to live in some nirvana where people travel by horse and cart, but I think we've been unaware of just how much our transport emissions are affecting our immediate environment (let's not get into the whole climate change debate). We never had the opportunity before to 'turn off' the traffic and see what it feels like, and my experience was that people were more active and the environment was better.

Not exactly rocket science, but I hope that some actual scientists did some surveying during lockdown and can report results to future Group conferences.

Speaking of which, I was pretty pessimistic after the March conference that NZ would be able to hold large gatherings anytime soon (so was that the last conference for a while?) but I am ecstatic to see that we have returned to the normalcy of Level 1 and we can again plan to gather, share stories, dress up, drink a bit much, and win awards for thought-provoking conference papers.

The Auckland branch is hard at work gearing up for the 2021 conference, so look out for the upcoming call for sponsors and abstracts.

And finally, this edition includes a number of award-winning papers from this year's conference. Enjoy.

TRANSPORTATION GROUP NEW ZEALAND

Daniel Newcombe
Roundabout Editor
@newcombe_dan

Chair's Chat

Every time I sit down to write my chairs chat I think, wow a lot has happened in the last three months…but these last three months are off the chart!

It was just before the Conference that I wrote my last chat and I had no idea at that time that I would feel so relieved that we had the conference at all. We were incredibly lucky, not just from a timing point of view, but also that our international delegates are generally from Australia so we weren't exposed to the infection risks that another conference held in NZ at the same time was.

That conference then became one of the large clusters of cases. Then only two weeks later we are in Alert Level 4 lockdown, and that's when life changed instantly.

Every time I sit down to write my Chairs Chat I think, wow a lot has happened… but these last three months are off the chart!

We all had to set up our work lives at home, some juggling children, some scrapping it out with flat mates or spouses for table space and testing home WiFi connections to their limits. We were lucky that our industry could, for the most part, keep working while sadly some industries ground to a halt.

It is clear that working from home has given people the opportunity to use their time differently, for example no commute for some people meant gaining up to two hours a day. People I have spoken to hope to strike a balance of some days in the office, some days at home as a permanent way of working. Many employers will be open to this and it will reduce traffic on the roads somewhat but also negatively impact public transport revenue.

During Level 4 and then Level 3, we saw many people take to walking and cycling and the mild autumn weather was perfect for this. Bike sales went through the roof and people rediscovered their neighbourhoods, and we heard the birds with no background hum of engines.

Social distancing became our norm. It was great to see the local and international transport response to the pandemic and also the Waka Kotahi Innovating Streets fund emerge. Most responses are a tactical urbanism approach to temporary reallocation of road space, for a great compilation of examples from around the world see the Tactical Space website (see the snippet below).

I suspect, and hope, some responses will move to a permanent solution once people see the benefits. NACTO have set up a website with international COVID-19 Response resources, this is worth a look and will be very useful if this happens again in the future.

We delivered two Group Conference highlights webinars during Level 4 and 3 and these were well attended. Other groups have also been holding webinars and we have been advertising these through various channels.

This has highlighted that we can easily do some things remotely and reach many more people than face to face events.

But going forward we would like to deliver a mix of event types to our members and continue to collaborate with other groups. Your branch committee is working hard to make it happen. At a national level we will also continue to develop webinars that reach all our members and beyond.

The NACTO site has a compilation of webinars and podcasts if you want to find out more about has been happening internationally. We have recently added a calendar to the Group website where we will add events of interest. Keep up the great work everybody!

Jeanette Ward
National Committee Chair
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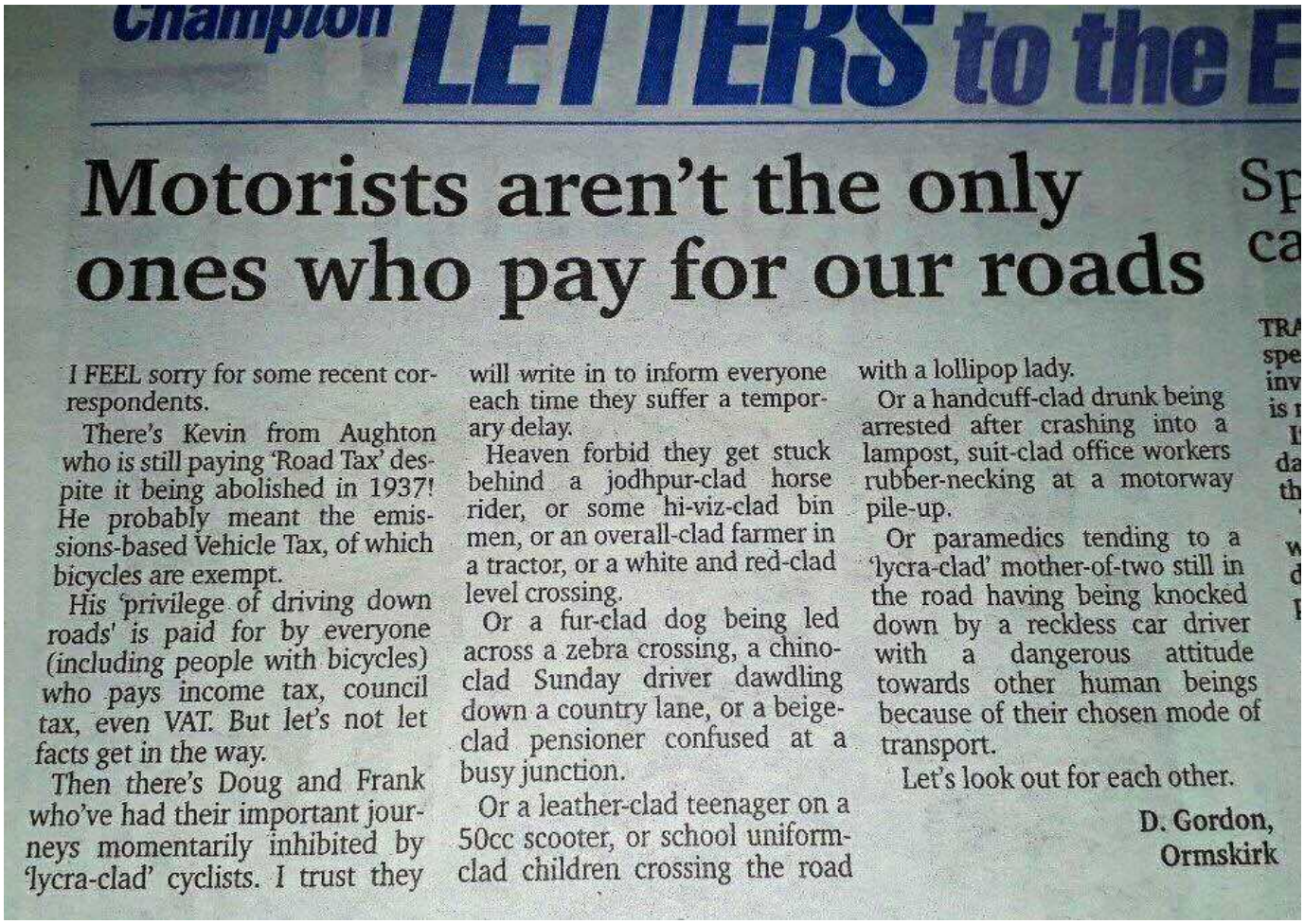
TRANSPORTATION GROUP NEW ZEALAND

Letter to someone else's editor



Champion LETTERS to the E

Motorists aren't the only ones who pay for our roads

I FEEL sorry for some recent correspondents.

There's Kevin from Aughton who is still paying 'Road Tax' despite it being abolished in 1937! He probably meant the emissions-based Vehicle Tax, of which bicycles are exempt.

His 'privilege of driving down roads' is paid for by everyone (including people with bicycles) who pays income tax, council tax, even VAT. But let's not let facts get in the way.

Then there's Doug and Frank who've had their important journeys momentarily inhibited by 'lycra-clad' cyclists. I trust they will write in to inform everyone each time they suffer a temporary delay.

Heaven forbid they get stuck behind a jodhpur-clad horse rider, or some hi-viz-clad bin men, or an overall-clad farmer in a tractor, or a white and red-clad level crossing.

Or a fur-clad dog being led across a zebra crossing, a chino-clad Sunday driver dawdling down a country lane, or a beige-clad pensioner confused at a busy junction.

Or a leather-clad teenager on a 50cc scooter, or school uniform-clad children crossing the road with a lollipop lady.

Or a handcuff-clad drunk being arrested after crashing into a lampost, suit-clad office workers rubber-necking at a motorway pile-up.

Or paramedics tending to a 'lycra-clad' mother-of-two still in the road having being knocked down by a reckless car driver with a dangerous attitude towards other human beings because of their chosen mode of transport.

Let's look out for each other.

D. Gordon,
Ormskirk

NZMUGS Conference update

The NZMUGs Committee have been continuing to meet during the lockdown, with the main topic of conversation being "should we hold the planned 2020 Conference in Christchurch as planned?" This conversation has taken place against a background of changing Covid-19 levels, and uncertainty around what will and won't be possible in September in terms of meeting in groups, the economic effects this might have on our employers, and their ability to send staff on 'nice to have' events such as conferences.

We are aware that some client side organisations are looking at funding shortfalls, and many private side businesses have taken pay cuts. Now we are in Level 1 and some of that uncertainty has been resolved in the sense that we can meet in large groups, and we can travel nationally, but the ongoing effects on the economy are still very much unknown. Somewhat ironically, if only we had more confidence in forecasting right now!

The Committee has decided that we will hold an online based conference for 2020, using technology platforms from Engineering NZ. We know from the lockdown that most attendees will now be used to video conferencing, and removing the cost of the venue, travel, accommodation and catering etc will significantly reduce the costs to organise and attend the conference.

The exact format is being worked out, but the current thinking is that we will hold the conference over two weeks, with opening and closing events, and 3-4 two hour sessions for the presentations. Guest speakers and quick fire presentations will feature again, and we are looking into using conference rooms in the major cities so that locals can gather in person, and some of the social and networking aspects can be maintained (Covid restrictions permitting).

The intention at this stage is to return to Christchurch in 2021 for a traditional (in person) conference, although depending on how successful 2020 is we may look to maintain the virtual attendance option.

We have been able to transfer our venue booking to August / September next year without penalties, so financially we are no worse off. We are looking to confirm those 2021 dates soon and will get back to the membership once we are able.

Please be on the lookout for our call for sponsors and call for papers for the 2020 conference coming soon!

Nathan Harper
NZ Modelling User Group Chair

Making raised intersections work for walking

INTRODUCTION

This paper was motivated by an increased use of raised platforms at cross and T-intersections and concern that the available guidance does not clearly articulate how pedestrians should be catered for. All intersection designs need to consider pedestrians, but the authors are concerned that raised intersections are being seen as a 'silver bullet' as they can reduce the speed of drivers.

Is full consideration being given to the wide range of pedestrians, including visually and mobility impaired, elderly and children, and the issues they may experience issues crossing these types of intersections if traffic volumes are high?

Guidance exists with the Pedestrian Planning and Design Guide (NZTA, 2007) for how to cater for pedestrians crossing the road but this guidance is not always referenced or embedded in the intersection design guidance.

The 'raised intersection' concept can apply at uncontrolled, priority controlled, signalised or roundabout configurations. This paper focuses on priority controlled cross and T-intersections with both fully raised intersections or raised side road intersections, and how guidance can better consider pedestrians. How effective raised intersections are at speed reduction is not assessed.

Traditional cross and T-intersections in New Zealand generally involve wide streets within 20.1m wide road reserves. The street with priority is called the 'major road' and the side streets are called the 'minor road'. The corner radii are generally large and this can mean driver negotiation speeds are high.

These intersections can be difficult for pedestrians to cross. Figure 1 shows the traditional layout and the types of interventions that have been used for some years to improve the pedestrian level of service. The interventions include pedestrian refuge islands to facilitate a two-stage crossing, kerb extensions to reduce the crossing width, or a combination of the two. Raised side road treatments have also been used for a number of years.

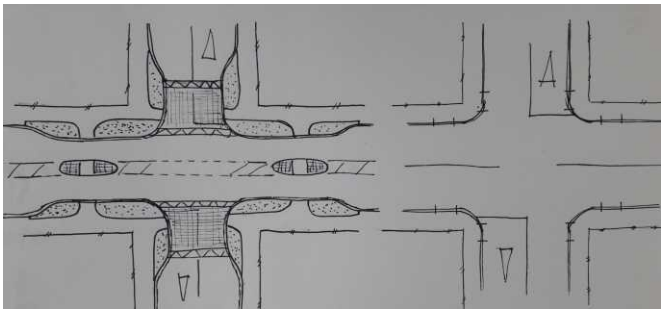


Figure 1 – Traditional intersection layout and methods to improve pedestrian crossing

A raised platform can be used within an entire intersection and generally used in conjunction with kerb extensions as shown in Figure 2. They help to reduce vehicle speed making the intersection safer – assuming the platform ramp gradients are effective.

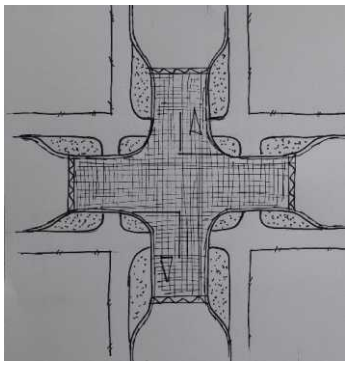


Figure 2 – Typical raised intersection

The design intent is that drivers will yield to pedestrians waiting to cross the road (known as courtesy crossing). The platforms are usually paved so they also contribute to overall attractiveness of the streetscape.

The platforms are either entirely raised so that they are flush with the top of kerb or raised at the centreline but tapered to the kerb fender for drainage reasons.

Raised platforms and intersections are part of the NZTA Standard Safety Interventions Toolkit (NZTA, 2019) and are considered 'low cost, low risk roading improvement projects'.

EXISTING GUIDANCE

There appears to be limited design guidance in New Zealand on how and where to apply raised platforms within intersections. Table 1 (see the full paper HERE) outlines the guidance that exists in Christchurch and Auckland and also within the NZTA Standard Safety Interventions Toolkit (NZTA, 2019). The Toolkit states that the crossing locations within the raised intersection are expected to operate as courtesy crossings ("encourage motorists to yield to pedestrians at the crosswalk").

There is no guidance on the scale of motorised traffic on the intersecting roads, or speed when that may not be appropriate for pedestrians. The NZTA (2019) guidance implies that raised intersections can be used at minor intersections but what 'minor' means is not defined. The NZ Manual of Traffic Signs and Markings (MOTSAM) uses the terms low, medium and high traffic volumes to differentiate between intersection layouts, albeit with no volume values provided to define low, medium or high.

A scan of international guidance from Austroads, Vic Roads (given their guidance was referenced by NZTA) and also NACTO (National Association of City Transportation Officials) showed a similar finding (see Table 2 of the full paper). The focus of guidance relates to conspicuity between road space and pedestrian space, particularly when the platforms are flush with adjacent land. Guidance is provided on additional delineation such as contrasting coloured pavement marking and line marking. NACTO suggests bollards are used for delineation as shown in Figure 3.

Figure 3 – NACTO raised intersection

Guidance within the NZTA Pedestrian Planning and Design Guide (PPDG) (NZTA, 2007) outlines how the level of service for crossing pedestrians can be achieved by using physical aids. These reduce the crossing distance and the amount of traffic the pedestrian has to negotiate at each stage. The crossing distance can be reduced through kerb extensions, medians and pedestrian islands. The amount of traffic the pedestrian has to negotiate at each stage can be halved by separating the crossing into two separate crossing manoeuvres (medians and pedestrian islands). Figure 4 shows how the various aids and combination of aids impact the mean delay to pedestrians as the peak hourly traffic volume increases.

This guidance is relevant to priority controlled intersections, be it raised or flush. Figure 4 illustrates that above approximately 750 vehicles per hour (vph), even with kerb extensions, the delay for pedestrians is no longer satisfactory. A median refuge and a refuge with kerb extensions used with greater than 750 vph reduces the crossing delay and brings level of service back to at least 'satisfactory' until the hourly volume exceeds 1750 vph.

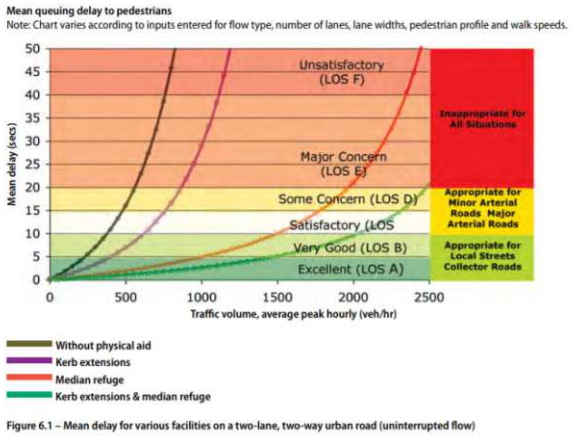


Figure 4 – Mean delay for various facilities on a two-lane, two-way urban road (uninterrupted flow) (NZTA, 2007)

A selection of brief case studies are provided (in the full paper) to provide some context for how guidance for pedestrian considerations might evolve for raised intersections. These studies describe the intersection and outline the observations made.

CONCLUSIONS

The following conclusions are made from the review of guidance and the case studies

• Some guidance exists but the key aspect of when it is not appropriate to use only a raised intersection, because they may have an adverse impact on pedestrian level of service, is not clearly articulated. For example, a raised intersection could also feature refuge islands and/or kerb extensions to improve pedestrian outcomes but there is no direct guidance on the contexts where this may be appropriate. It relies on designers being aware of the impact on the level of service for pedestrians as outlined in the PPDG. The PPDG is not explicitly referenced in the current NZ guidance for raised intersections. It is noted that this level of service aspect is also not explicit in general intersection design guidance.

• The case studies, albeit limited in number, showed that in low traffic volume environments raised intersections work well for pedestrians and the arrangement does not rely on the crossings being 'courtesy crossings'. It is noted that the definitions of 'low', 'medium' and 'high' environments in NZ guidance does not have numerical bands.

• In higher volume environments such as the Sumner Village case study, where peak hour traffic volumes are around 1000 vehicles per hour, pedestrians, particularly less able people, can struggle to find gaps and drivers are not expecting to yield to pedestrians, particularly on a bend or when turning out of a side road. The lack of compliance with the 30km/hour speed limit also contributes to a lack of gaps.

• Pedestrian refuge islands on the minor road, even with low traffic volumes, are a useful provision when the route is on the desire line for walking as intersection turning movements can create complexity for pedestrians crossing. The AT COP encourages this design.

RECOMMENDATIONS

It is recommended that the following be included in the NZ design guidance for raised intersections to improve the outcomes for walking (noting that this should also apply to priority controlled intersections without raised platforms):

1. If the speed limit is greater than 60km/hour then pedestrian refuge islands must be provided on the major road of the raised intersection.
2. If the traffic volumes on the major road exceed 750 vehicles per hour (as discussed earlier) in the peak hour (medium to high traffic volume) then kerb extensions and a pedestrian refuge (either on one or both sides of the intersection), should be included to ensure that pedestrians are able to the cross the road in two stages. Low traffic volume environments (less than 750 vehicles per hour in the peak hour should have kerb extensions but do not need the pedestrian refuge island. The two scenarios are shown in Figure 5.

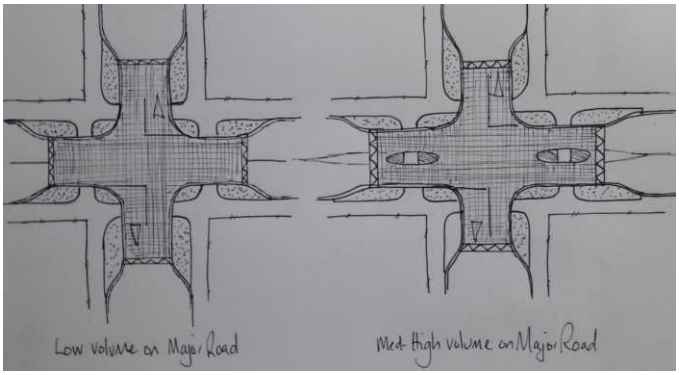


Figure 5 – Traffic volume scenarios and associated pedestrian provision on the major road

3. If the crossing of the minor road is on a key desire line for walking, regardless of traffic volumes, then kerb extensions and a pedestrian refuge island are recommended as shown in Figure 6, and effectively applied in Case Study 4.

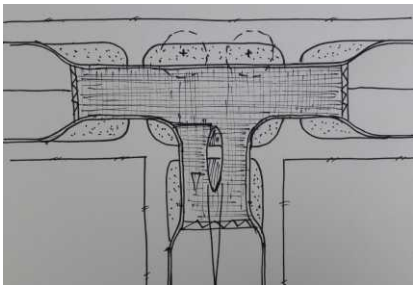


Figure 6 – Pedestrian provision on the minor road to cater for high pedestrian demand

Jeanette Ward, Technical Director, Abley Ltd, Gerry Dance, Team Leader Multi Modal, NZTA, Rahul Kumar, Transportation Engineer, Abley Ltd

Number of e-bike imports hits record high, could soon overtake new cars

The number of new e-bikes and e-scooters imported into New Zealand has hit a new record high of 65,000 in 2019, according to figures from Statistics NZ.

It's a huge jump year-on-year from 47,000 in 2018 and 23,000 the year before, and suggests they could overtake new passenger car sales within the next few years.

There were 104,000 new passenger cars registered in New Zealand last year, plus an additional 140,000 used imports.

E-bikes have become so ubiquitous that New Zealand may need to start re-building its transport priorities around them, micromobility expert Oliver Bruce said.

"They are used in a very different way to regular bikes, we should be thinking of them more like new vehicles," Bruce said.

"The people that are buying them are predominantly boomers, rather than people my age, and they're buying them to commute and using them a lot more frequently than a standard bike."

E-scooters have become increasingly popular for short-distance journeys, and tended to replace walking, driving, and public transport in roughly even amounts. By comparison, e-bikes were used over much longer distances on average and overwhelmingly replaced the use of cars.

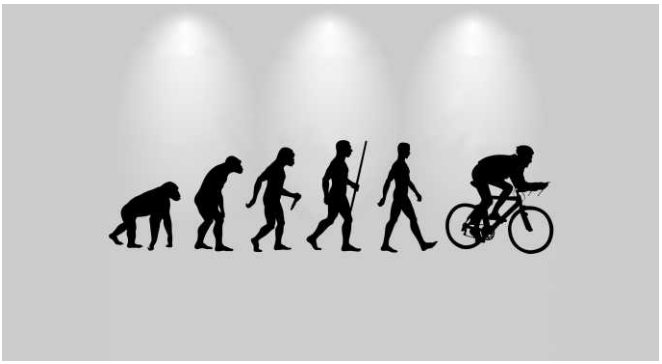
Cycling is up over 40 per cent in Wellington in recently years, largely due to e-bikes, but that hasn't been reflected in the council's roading plans, he said.

The current Wellington City Council plan for bike lanes was developed in 2014, when e-bikes were relatively rare. Bruce sees a major growth opportunity for e-bikes in the coming years.

"Wellington is the perfect city for micro-mobility. It's got hills, which effectively get removed by an electric motor. It's dense, the congestion is bad, and the parking is inconvenient."

In December, associate Transport Minister Julie Anne Genter announced a subsidy of up to 50 per cent on e-bikes for public servants at a number of government agencies.

Source: Stuff



Transport Knowledge Hub updates

We would like to provide you with an update on two initiatives that have been completed as part of the Transport Evidence Base Strategy (TEBS) - Research Strategy.

This aims to create a research environment that maximises the benefits from transport-related research and contribute to delivery of a transport system that improves wellbeing and liveability.

Updated Transport Research Register
The Research Register contains a repository of completed and active New Zealand related transport research. The Register aims to share information about available research from the academic, government and private sector and inform future research. While this list by no means includes all possible research conducted in NZ, it currently includes over 990 entries, and can be found here.

It is anticipated that this will be superseded by the New Zealand Research Information System (NZRIS) in the future.

New Transport Scholarships
To develop capacity and capability within our research community, the Research Strategy highlights the need to provide support for post-graduate transport researchers. To help deliver this initiative, the Ministry of Transport launched the scholarship program late last year to assist outstanding New Zealand students undertake research in fields that are deemed to be of importance to New Zealand's transport sector. We are pleased to announce that we have awarded six graduate research scholarships in 2020. The details can be found here.

Waka Kotahi NZ Transport Agency Research Programme
Through its Research Programme, the NZ Transport Agency invests in innovative and relevant research which plays a critical role in contributing to the government's goals for transport. Visit their research page for an up-to-date list of active research projects and recently published research here.

Transport Knowledge Hub
We hope to resume Transport Knowledge Hub seminars to share our work once we reach Alert Level 1, but for now we will continue to hold these via online webinars. If you have a topic or project that you would like to share, please contact the Transport Knowledge Hub team (knowledgehub@transport.govt.nz).

In the interim, you may be interested in this recent podcast from Professor Simon Kingham, the Ministry of Transport Chief Science Advisor, discussing how coronavirus has already changed the way we move about, and there's more change to come available here.

Transport Knowledge Hub

AITPM postones 2020 conference, announces 2021 dates

Due to the impacts of COVID-19, the AITPM Board made the difficult decision to postpone the Brisbane 2020 AITPM National Conference. Instead, in July we will be hosting a series of national online events so that you can get your conference-fix from the comfort of your home or office - wherever you are.

Our conference team is working hard to create interesting and informative sessions for you, and we will be announcing the details of these sessions in the coming month, so stay tuned for further announcements.

The exciting news is that we can now announce our 2021 National Conference dates!

The 2021 Brisbane AITPM National Conference will be held on Tuesday 27 – Friday 30 July 2021.

AITPM
Leadership in Traffic and Transport

Keep up to date with ENZ Transportation Group happenings:
www.transportationgroup.nz
www.twitter.com/transport_nz
www.facebook.com/TransportationGroupNZ
www.linkedin.com/company/transportation-group-new-zealand

TRANSPORTATION GROUP NEW ZEALAND

Locating collection and delivery points for goods' last-mile travel: A case study in New Zealand

Ashu Kedia (the recipient of the Group's Tertiary Study Award in 2019) won the CILT prize for the best paper on transport and logistics produced in NZ in 2019. The paper was entitled "Locating collection and delivery points for goods' last-mile travel: A case study in New Zealand". The paper describes a portion of the PhD research undertaken by Ashu, supervised by Dr Diana Kusumastuti and Professor Alan Nicholson.

The award was presented by Dr Robin Dunlop (former CILT Chair), who is also a Group member.

A summary is below and the paper was presented by Ashu at the 2019 International Conference on City Logistics (Dubrovnik), and has been published in: Transportation Research Procedia, Volume 46, 2020, Pages 85-92, ISSN 2352-1465. It can be accessed at: https://doi.org/10.1016/j.trpro.2020.03.167 or http://www.sciencedirect.com/science/article/pii/S2352146520303677

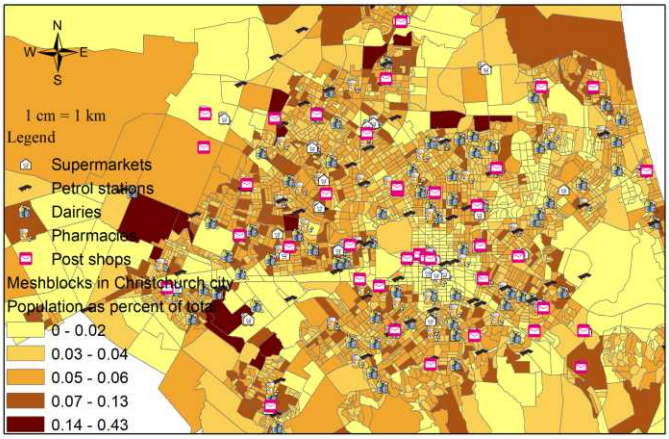
Increased retail online sales throughout the world is likely to have changed the activity and travel patterns of people.

Though their shopping travel might have decreased than during the days when there was no online shopping option available, goods' movement is likely to have increased, particularly in the urban areas. This has created business opportunities for freight service providers, such as courier companies.

However, it has also brought challenges that goods transporters must overcome in order to be able to sustain in the increasingly competitive market. For example, there are several hurdles in conducting last-mile deliveries successfully, such as a high rate of failure of deliveries during first attempts. This may increase the costs for courier companies delivering items bought/sold online.

Also, it may bring adverse traffic impacts, such as increased movements of light commercial freight vehicles in residential areas. Collection and delivery points (CDPs) are among the possible substitutes of standard home deliveries that are most commonly done during 9 am to 5 pm on weekdays.

CDPs have been proved to be efficient in facilitating goods' last-mile deliveries by means of a reduction in the rate of failure of home deliveries in the European market. However, CDPs have only recently been introduced in New Zealand, with a few CDPs being installed on a trial basis in bigger cities, such as Christchurch.



Locations used for setting up CDPs, population density around CDPs and their operating hours are factors having a large effect on their usage. CDPs, if located inadequately or at locations that are not easily accessible for consumers, may not attract the desired consumer patronage.

However, some or all of the locations that are beneficial now, may not remain so after a few years due to possible changes in the land-use and population distribution pattern in the city. Thus, selection of locations for establishing facilities is a step that largely governs their performance. Therefore, this study was aimed at identifying optimal locations for establishing CDPs, using Christchurch as a case study.

Post shops were considered as traditional locations for establishing CDPs, and other facilities, such as supermarkets, petrol stations, dairies and pharmacies, were considered as non-traditional locations for establishing CDPs.

It was found that only a small amount of demand can be covered by using the existing Post shops as CDPs, and thus non-traditional CDPs need to be established in order to be able to provide an accessible CDP service to a larger portion of inhabitants of Christchurch.

Non-traditional CDPs were found able to cover up to 79% of the population while requiring people to travel less than a kilometre for visiting CDPs. It is also worth noting that with an increase in the distance required to be travelled by consumers to visit a CDP, the number of CDPs required (to cover the same or a higher proportion of population) decreases.

I acknowledge the support of my research supervisors, Emeritus Professor Alan Nicholson and Dr. Diana Kusumastuti, and I am grateful to the New Zealand Transportation Group for proving me with the Tertiary Study Grant 2019.

Auckland CBD speed limits to drop

As part of Auckland Transport's (AT) Safe Speeds programme, there will be lower speed limits for about 600 roads in Auckland's city centre, and on some roads in the Rodney local board area and in the Franklin local board area from 30 June.

In 2018, 54 people died on Auckland roads and an additional 595 were seriously injured. In each of these crashes, speed determined the seriousness of the injury.

The speed limit change is part of road safety improvements AT is taking to bring deaths and serious injuries on the Auckland road network to zero by 2050.

To keep road users and residents safe, and to make speeds survivable in case of a crash, most speed limits will go down from 50km/h to 30km/h.

However, Nelson, Hobson and Fanshawe streets will each have a new speed limit of 40km/h, down from 50km/h. Some shared streets like Federal Street will continue to have a 10km/h speed limit.

The changes also include speed limits on State Highway 22 from Drury to Paerata. In Franklin, between 2014 and 2018, there were 89 road deaths or serious injuries; and in Rodney, between 2014 and 2018, there were 108 road deaths or serious injuries.

AT executive general manager of safety Bryan Sherritt said the agency wanted to make Auckland's roads safe for everyone - whether that was people walking and cycling, kids outside schools, senior citizens or people driving.

"People often value to the time they've lost in traffic way more than it actually is [worth]. What we're talking about here is adding seconds to your journey time for the opportunity to save people from being killed or seriously injured, so it is a fairly simple equation," he said.

"Setting safe speed limits is just one part of a significant road safety investment between 2018 and 2028. We can all make some minor changes while we drive … because everyone deserves to get home safely."

Bike Auckland chair Barbara Cuthbert welcomed the change and said the lockdown showed how people were more inclined to get active if the roads were safer.

"If the roads are quieter and safer, more people will ride bikes and walk, so we've got a way more connected and healthy community."
Source: RNZ

Living Streets Aotearoa Golden Foot Awards

In the last Roundabout there was article about the Transportation Group Open Play Street event on Colombo Street just prior to the Group conference.

The event was a finalist in the event category of the Living Streets Aotearoa Golden Foot Awards this year, the award ceremony for which was held via Zoom on 9 June.

The range of category winners included:
Walking and Public transport initiative Award – Be Counted at Palmerston North City He Ara Kotahi Bridge

School projects Award - Brightwater Consultation

Walking Champion Award - Chris Teo-Sherrell

Event Award - Bear Hunt during Lockdown

Research Award - Roger Boulter Book: Planning for Walking and Cycling in New Zealand

Facilities or place-making Award - High Street Trial Auckland Design Office

Huge congratulations to the Bear Hunt event held during lockdown for winning, and the other category winners as listed above. Group members and event organisers Jeanette Ward, Emily Cambridge and Gemma Dioni are pictured here with their finalist certificate.

Ride-sharing apps create 69% more emissions than trips they replace

A new report, "Ride-Hailing's Climate Risks: Steering a Growing Industry Toward a Clean Transportation Future," by the Union of Concerned Scientists (UCS), finds that the rising use of ride-hailing services is increasing carbon emissions, with ride-hailing trips producing nearly 70 percent greater emissions compared to the trips they are replacing.

This dramatic increase in emissions comes in part from "deadheading," the increased miles a driver travels waiting for a ride request or picking up a passenger. In addition, ride-hailing trips frequently replace lower-carbon transportation methods — such as public transit, walking, or biking — that consumers might have used otherwise.

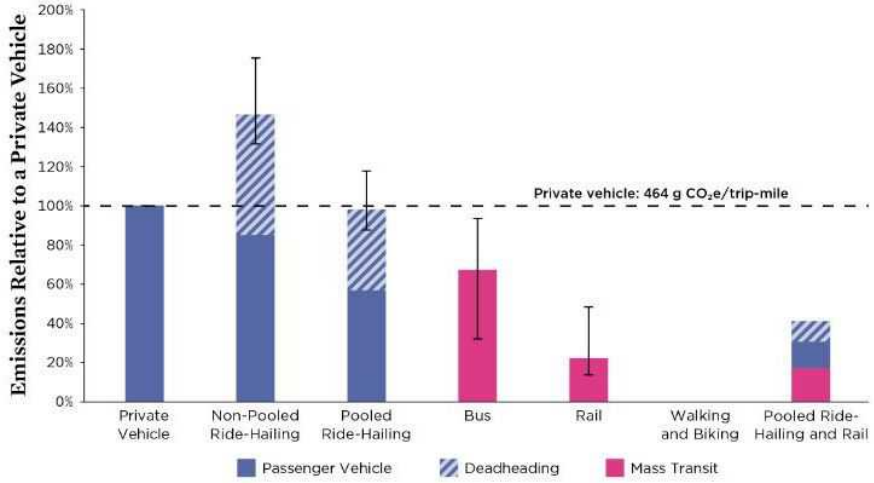
Even when compared to trips made in private vehicles, non-pooled ride-hailing trips on average produce almost 50 percent more emissions, UCS found. With ride-hailing services now providing more trips nationally than taxis, the growth of ride-hailing has directly contributed to increased local pollution and exacerbated traffic congestion in dense urban areas.

"Despite these troubling findings about their climate impacts, ride-hailing services still have the potential to be part of a cleaner, low-carbon transportation future," said Don Anair, deputy director of the UCS Clean Transportation Program and lead author of the report. "Through electrification of vehicles and increased use of pooled rides, we can reduce the climate risks of ride-hailing services."

Ride-hailing companies like Uber and Lyft have experienced exponential growth in a short period of time. The expansion of these services is changing transportation, but that rapid growth also comes with significant risks.

The UCS report found that a pooled ride-hailing trip results in emissions similar to a private vehicle trip. An electric ride-hailing trip can cut emissions by about 50 percent compared to the average private car trip, while an electric and pooled ride-hailing trip can reduce emissions by about 70 percent compared to the average private car trip.

Figure 3. Emissions Impact of Ride-Hailing vs. Other Travel Modes



"The responsibility for change lies first and foremost with the ride-hailing companies themselves," said Jeremy Martin, senior scientist and director of fuel policy at UCS.

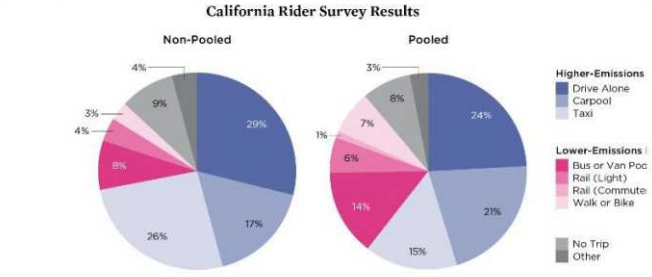
"Ride-hailing companies should take steps to reduce emissions by supporting their drivers in adopting electric vehicles, increasing pooling of rides, and encouraging travel by cleaner modes such as transit, walking, and biking where feasible. Ride-hailing companies should work

to make sure their services complement, rather than replace, these lower-carbon options."

UCS experts recommend that companies encourage the use of electric cars by offering attractive electric vehicle-lease rates to drivers who lease vehicles for use on their platforms.
They also suggest companies work with charging infrastructure providers to increase access to convenient charging for ride-hailing drivers. They can also encourage shared ridership by discounting pooled trips to make them more affordable.

Lyft and Uber have taken some steps to begin to address the climate impacts of their services. For example, last fall Lyft announced a program in Denver to deploy 200 electric vehicles in ride-hailing service.

Figure 4. Travel modes displaced by Ride-Hailing



Rider surveys in California indicate that 24 percent of non-pooled trips and 36 percent of pooled trips would have been by mass transit, walking, or biking, or not taken at all. In other words, ride-hailing users often would have use lower-carbon modes rather than cars.

SOURCE: Circella et al. 2019

Uber announced per-ride driver incentives of up to $20 per week in some cities through their electrification initiative.

Both companies are partnering with transit agencies in various ways, including pilot projects to help people get to or from transit as well as beginning to incorporate transit information into their apps. Lyft has also unveiled a carbon-offset initiative, though programs like this are not a substitute for reducing emissions and congestion.

These companies will need to put in greater effort to substantially reduce emissions and congestion coming from ride-hailing trips.

"The rapid growth of ride-hailing services has cities scrambling to keep up, and much work remains to implement effective policies addressing pollution and congestion," said Martin.

"Policymakers need to ensure that ride-hailing companies take steps to reduce their environmental impact, and ensure that people have a range of clean, safe, accessible, and affordable transportation options.

Some policies cities and states should consider include discounting fees on ride-hailing for pooled and electric rides, incentive programs for electric vehicles and charging infrastructure, setting pollution standards for companies, and increased investment in public transit."

The report suggests that while ride-hailing companies and policymakers bear the biggest responsibility in limiting ride-hailing's negative impacts, individuals can help. Traveling by transit, walking, or biking when and where possible are the best choices for the climate.

And when using ride-hailing, choosing a pooled or shared ride where available, or using ride-hailing to connect to mass transit, are good options. Selecting an electric ride is a good choice as well, though only in a few markets, including Seattle, do riders have this option.

"Ride-hailing services are continuing to grow — so companies like Lyft and Uber, policymakers, and consumers all need to make smart choices now to steer ride-hailing in a cleaner direction," said Anair.

"Ride-hailing can be part of a low-carbon transportation system. But it can't happen without meaningful action from these companies and from policymakers."

engineering new zealand
Institute of Engineering Professionals

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OUR MEMBERSHIP CLASSES

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An engineering student in New Zealand.

- ✓ Studying an accredited engineering programme, or a programme currently working towards accreditation
- ✓ Undergraduate student (postgraduate students may be eligible by request)

- It's totally free
- Gain career connections
- Learn skills to nail job interviews

EMERGING PROFESSIONAL

A recent graduate embarking on their professional career.

- ✓ Completed recognised qualification or has equivalent knowledge
- ✓ Less than five years' experience
- ✓ Commits to ethics and CPD

- Specialised development programme
- Network of young engineers
- Be mentored by the best

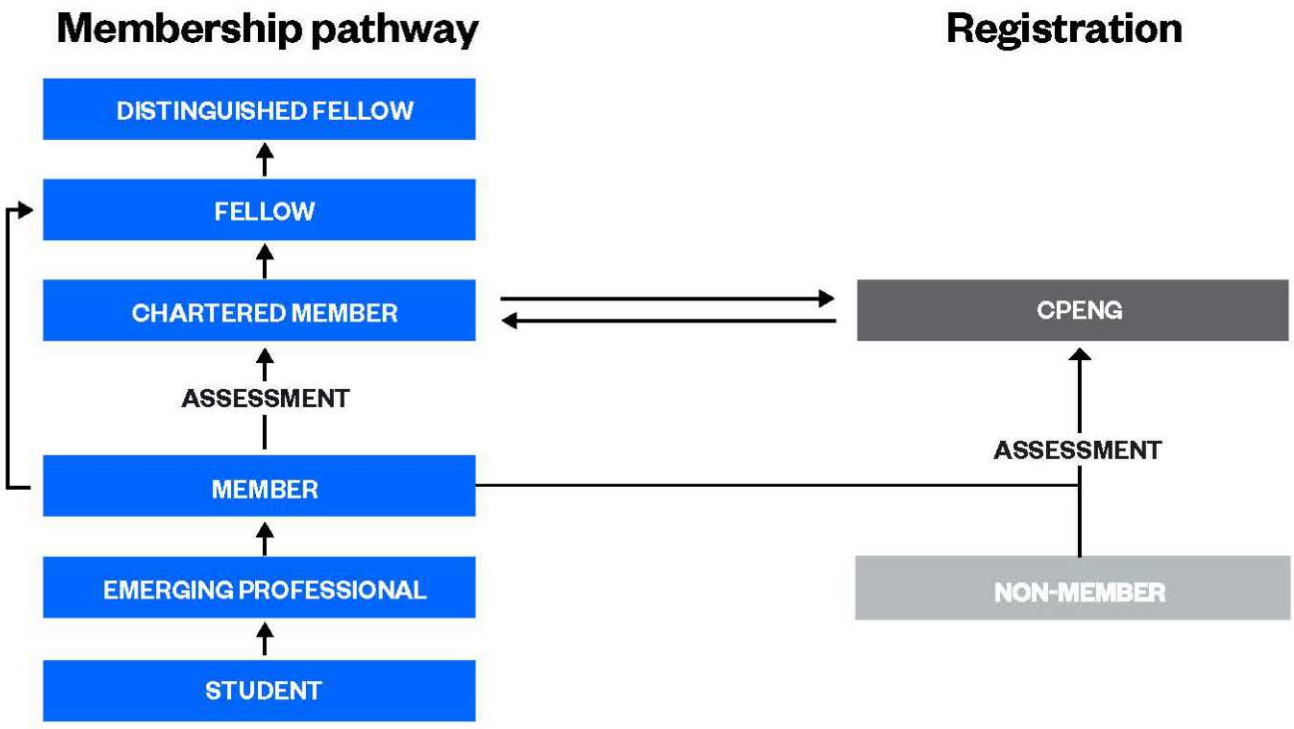
MEMBER

An engineering professional committed to high ethical standards and a broad level of professionalism.

- ✓ Completed recognised qualification or has equivalent knowledge
- ✓ Has five years' experience or has completed Emerging Professional Development Programme
- ✓ Commits to ethics and CPD

- Support to take career breaks
- Help change the industry
- Expand your network

A PATHWAY FOR ALL ENGINEERS



CHARTERED MEMBER

A recognised, engineering professional who has demonstrated engineering competence to an internationally benchmarked standard.

- ✓ Meets all Member requirements
- ✓ Completes assessment to internationally benchmarked standard or has mutual recognition through an international equivalent

- Establish your credibility with this quality mark
- International recognition
- Trusted expert

FELLOW

A member and leader recognised by their peers for their significant contribution to engineering.

- ✓ Nominated by peers and appointed by the Board on recommendation from the Fellowship Panel

- Opportunity to lead the way as a Senior Office Holder on the Engineering New Zealand Board
- Eligible to progress to Distinguished Fellow

DISTINGUISHED FELLOW

A Fellow who is distinguished by their eminent contribution to engineering and its advancement.

- ✓ Nominated by peers and appointed by the Board on recommendation from the Distinguished Fellows Panel

- Respected by all in the industry
- Use of revered post nominal
- Be the judge of the next Fellows

Ethics and ongoing professional development

Our members are marked out as being the best in the profession. That's why our members make an annual commitment to the Code of Ethical Conduct and ongoing professional development. We're raising the standard of engineering across the board and believe staying current through continuing professional development (CPD) is the key.

There's a wide range of activities that count as CPD – from reading and online learning to attending formal courses and on the job training. LEARN+ is our professional development programme, designed with every engineer in mind – whether you're just starting out, or mid-career and wanting to upskill. And if you can't find what you need, we'll create a course for you!

Supporting our Emerging Professionals

The Emerging Professional class is supported by an Emerging Professional Development Programme – a two-to-three year programme designed to help new engineers successfully transition to work and build the skills they need to be outstanding engineering professionals. The programme works alongside any Professional Development Partner (PDP) programme and provides a framework for those not employed by a PDP or outside traditional engineering fields.

Emerging Professionals who complete a development programme can advance to the Member class faster. If they do not complete a programme, they will only advance to the Member class after five years of recognised experience.

SHOWING YOUR MEMBERSHIP

Official member symbol
All classes*

*not available to Student Members

Post nominals
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MEMBER
MEngNZ

CHARTERED MEMBER
CMEngNZ
CMEngNZ (Engineering Technologist)
CMEngNZ (Engineering Technician)
CMEngNZ (PEngGeol)

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DISTINGUISHED FELLOW
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HOW DOES MEMBERSHIP FIT WITH CPENG REGISTRATION?

Registration and membership are two separate things. You can be both a Chartered Member (CMEngNZ) of Engineering New Zealand and a Chartered Professional Engineer (CPEng). Our Chartered Member class recognises engineers who've reached an internationally benchmarked level of experience and competence, measured through an assessment. It's a great way for senior leaders, academics and other types of engineers to be recognised.

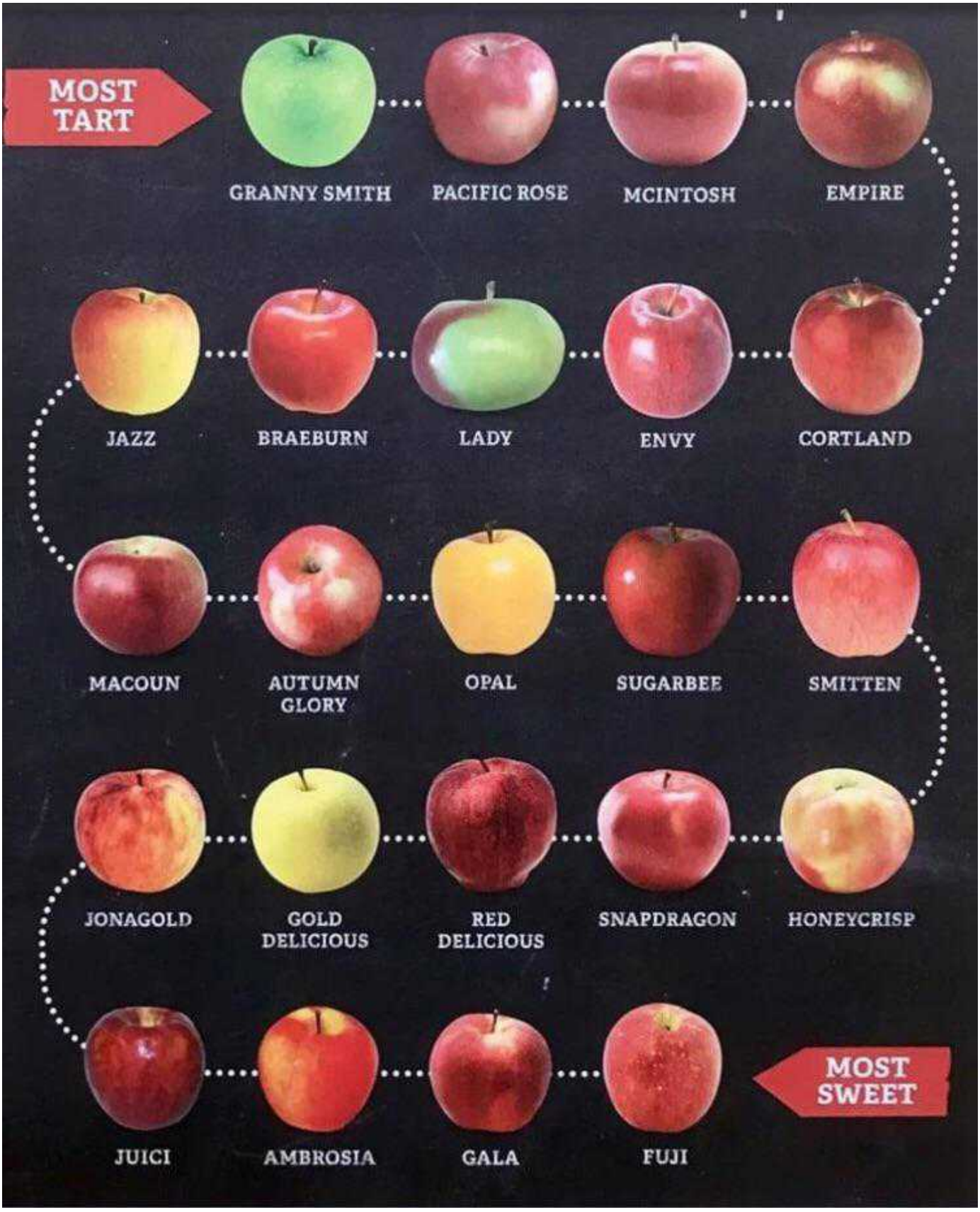
Some engineering work requires CPEng for consent. However, if you don't need CPEng for your work, being a Chartered Member is a great way to recognise your competence. If you are CPEng, then being a Chartered Member as well gives you all the benefits of membership.

The Government has signalled changes to the way engineering is regulated. They want to move to an occupational licensing regime for engineers doing safety-critical work across all fields, which we support. Over the next few years, we will align CPEng to focus on specific technical competence based on agreed Bodies of Knowledge for safety-critical areas.

Which one's right for you?

CHARTERED MEMBER (CMEngNZ)	REGISTRATION (CPEng)
Quality mark of general competence and professionalism	Quality mark of current New Zealand specific competence
Benefits of Engineering New Zealand membership	Independent of Engineering New Zealand and governed by CPEng Act 2002
Assessed once, with annual commitment to ongoing professional development and ethics	Re-assessed at least every six years
Assesses general engineering competence to an internationally recognised standard	Assesses general engineering competence to an internationally recognised standard with current New Zealand specific competence
Basis of eligibility for international registers (IntPE, IntET, IntETn)	May be required depending on your employer or type of work

Important information for apple consumers



Central city parking saga

Nick Lovett - Christchurch City Council

A number of months ago I tweeted a before/after photo of Christchurch's Oxford Terrace following the An Accessible City street upgrade and the opening of the Riverside Farmers market. The intention of the tweet was to illustrate the rosy retrospection that often clouds perception of 'the good old days'.

I felt the images perfectly illustrated the opportunity cost that exists in public spaces in our towns and cities. So often we hear from the business community that car parking plays a preeminent role in supporting social and economic exchange.

What I didn't know was that this argument has been raging for nearly half a century. Recently I stumbled upon this Christchurch Star photo from 1977 showing the newly realigned Durham Street over the Avon river.

Thanks to the help from the amazing staff from Christchurch Libraries I was able to uncover an eerily familiar story about parking and some little known history of a small corner of the city. I thought I would write it down and share it.

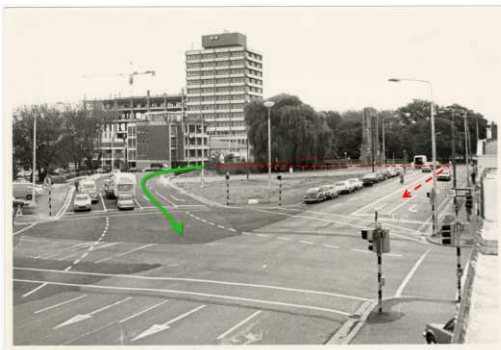


Figure 1 – 1977 Christchurch Star Photo overlaid with previous traffic route (red) and new alignment (green).

The Durham Street Bridge realignment (pictured above) was part of the 1962 Christchurch Master Transportation Plan (If you want to get an idea of the fervour for the plan you can watch this short promo video).

The mid-century traffic plan was subsequently reviewed and the downtown elevated motorways never came to fruition. Instead the one-way arterial system was introduced and it largely persists today. Before these works, southbound traffic on Durham/Cambridge had to dogleg over the Bridge of Remembrance.

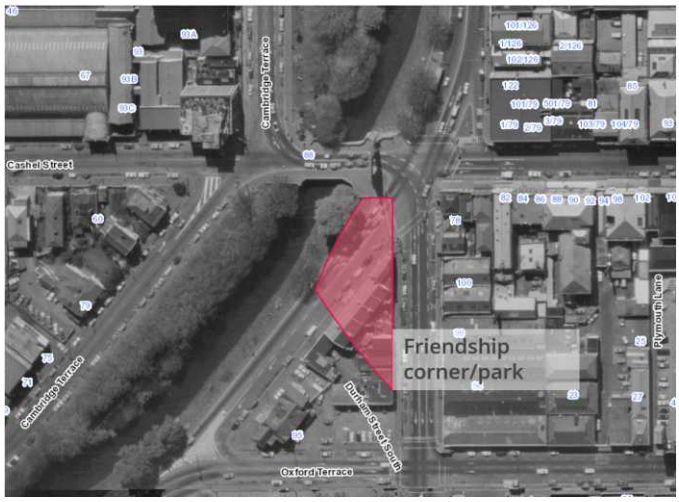


Figure 2- Aerial photo from the early 1970's showing the balance of land before the alignment

The plan called for the realignment of Cambridge/Durham Street with a new bridge. This necessitated property purchase and building demolition on the east bank of the Avon River between Oxford/Lichfield and Cashel street.

You can see the whole site was nearly demolished but the Tudor-style building at 95 Oxford Terrace (more recently known as the Regatta on Avon) survived and still remains today.

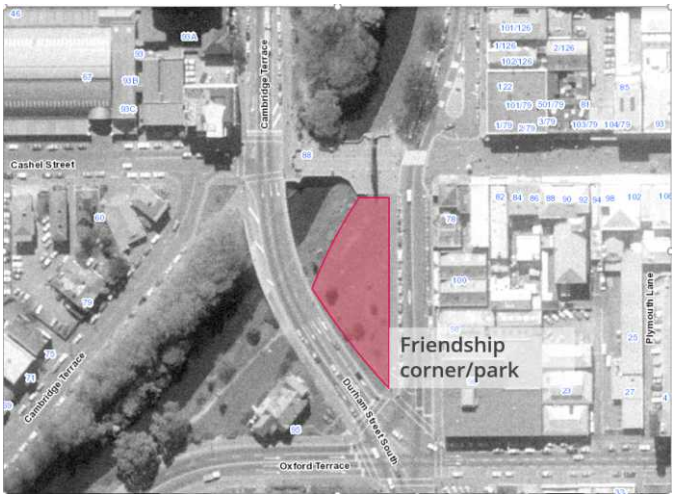


Figure 3 – Post 1977 photo showing the balance of land post demolition and realignment

Once the site was cleared, the plan was to develop a central park for passive recreation on the balance of land. The Parks and Recreation Department described the plan as "Soft landscaping" good for "lingering and meandering, wandering from spot to spot with direction unintended".

However, the 'Cashel Street Businessmen's Association' objected to the plan and said that it needed about 30 parking spaces to compensate for the loss of on-street parking. The Businessmen commissioned Warren and Mahoney to come up with a 36 space carpark and landscaping design and submitted it to the council for consideration—despite the Lichfield Street Parking Building being less than 100m away with an occupancy rate of 45% throughout the year.

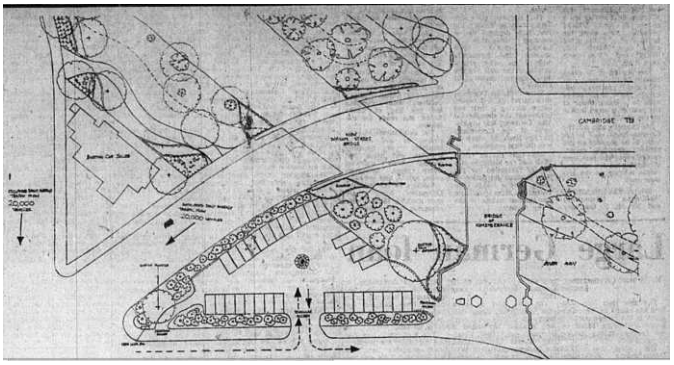


Figure 4 – Indicative sketch of the proposed carpark similar to the one proposed by the businessmen's association.

The businessmen found the ear of sympathetic Councillor Bruce Britten (John Britten's father and former bicycle retailer/manufacturer) who said it would be a sorry day when council acts against business interests. It was a polarising issue among Councillors with Cr Britten saying "I can't imagine anyone using this as an oasis with all the noise and smell of cars rushing past". Councillor Vicki Buck said the proposal to wedge a carpark between two one-way streets was "illogical and stupid".

Even the Christchurch Star which had long been an advocate for the lungs of the city came down on the side of business interests. On Monday the 18th of April 1977 they penned an editorial stating "To turn the triangle into an open space will not add measurably to the city's well-being".

Figure 5 – Protest Picnic held by the Values Party on 14 April 1977

The Values Party were staunchly opposed to the idea that business interests would "gobble-up" planned amenity and recreation space on the bank of the Avon River. The party organised a petition, picketed Council meetings and organised a picnic on the gravel site to emphasise the recreation potential. They were criticised as being "emotive" and "anti-business".

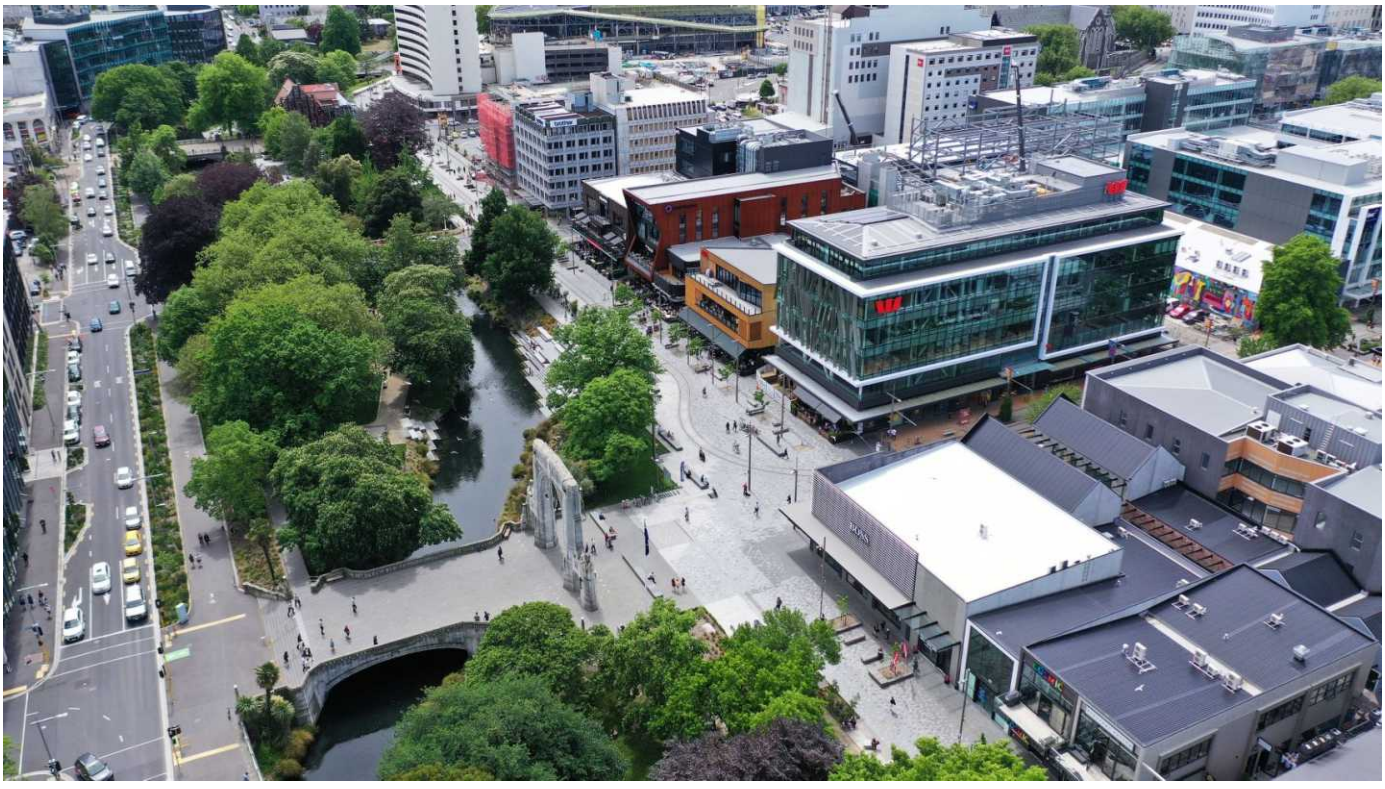
Thankfully the carpark proposal never went ahead and on the 23rd of April 1977, the Council voted 13-7 to turn down the controversial parking proposal put forward by the Businessmen's Association. The Chairman of the Association Mr R. F. Ballantyne criticised the councillors who voted against the proposal suggesting they were "out of touch with reality".

Figure 6 – Image of Friendship Corner shortly after it was officially opened

Friendship Corner was opened on 29 September 1979 next to the Bridge of Remembrance on the banks of the Avon River. The photo above shows that in the beginning it was little more than a patch of grass. However over the years several trees have been planted to acknowledge Christchurch's sister cities.
When the editors of the Christchurch Star argued back in 1977 that the carpark would not have been detrimental to the city's well-being, they did not consider the opportunity cost this would have imposed. Today the park is a noticeable and vibrant feature of the Ōtākaro Avon River Precinct in Christchurch's city centre.

It's a relief to think we came so close to this park not existing and the generations of residents and visitors that might never have enjoyed the mature canopy of trees. Undoubtedly no one would argue for cutting down the trees and reinstating the carpark proposal today. But that is because the benefits of the counterfactual are so plain and obvious. But opportunity cost is virtually overlooked in the parking debates that still rage on till this day.

When business interests demand valuable urban land to feed the insatiable demand for car parking, they are grossly overlooking the long term opportunity cost. I think stories like this one can help us illuminate the consequences of short-term decision making and challenge the 'wisdom' of vested interests.



ITE Update

As we roll into June and Covid Level 1, it's great to see the economy getting back on its feet again. One of the key transport related messages I took from the Prime Ministers announcement on 8 June, was not to lose the gains we've made in flexible working arrangement, and she mentioned reduced congestion as a benefit. This is a topic that's being discussed around the world – just what will the transport world look like post-Covid?

Randy McCourt, the ITE International President had some ideas about the direction and impacts on transport in the ITE June 2020 magazine, which can be accessed through the ITE website. Here are *some of his thoughts:*

Who Will Survive in Mobility?
By Randy McCourt, P.E., PTOE, ITE International President

It seems only yesterday we were debating definitions of mobility as a service (MaaS) and mobility on demand (MOD). Now, with the unusual circumstances we find ourselves in, the very survival of these emerging concepts is being questioned. Just to recap—MOD is a future with transportation as a commodity, and MaaS is aggregation of mobility using subscription services (both use smartphones and expanded mobility choices—including various emerging modes, e-scooters, e-bikes, Uber/Lyft, etc.). At the risk of being wrong like every other prognosticator or narrative-driven writer on this topic, here is my take on the future based on what we currently know:

1. Any technology that shortens travel time and reduces user cost has the potential to quickly fill the gapping vacuum left by COVID-19 for impacted modes. Reduced demand has severely impacted MOD services (60-plus percent reductions seen in Uber/Lyft use). Rail transit is down 90 percent, and buses by 40 percent. If I were forecasting a new player in urban mobility in the trip range vacated by these services, I would look to e-bikes.

2. Any service, land use, or mode complementing the new work-from-home (WFH) normal will be a winner. The days of four percent WFH are over. While we will not sustain the 30 percent rate driven by the crisis, clearly a new normal in the range of 10 to 15 percent could be possible. With that, rideshare services that best address food/goods delivery may find growth. Malls will change. Many were gravitating to more restaurant, entertainment, and living configurations, which may create fresh micromobility opportunities for MOD.

3. Anyone who says cars are dead is looking through blinders. The enduring trust travelers have in autos seems to be strengthening—maybe not for those in major downtowns, but elsewhere. While the financial implications on electric vehicles and connected automated vehicles in the near term will be limiting, if they seize the near-term vacuum in other modes, MaaS/MOD opportunities may grow.

4. Social distancing is gone but so is my job. Will MOD allow greater transportation equity or widen the gap? It seems as if mobility is central to leveling the playing field, a tax or insurance credit for e-bikes for those with economic disadvantages may become a cost-effective way to connect them to work and services.

The race to resilience is on—for air, train, transit, Uber, Lyft, Lime, and Bird. The mode(s) that deliver consumer trust early will benefit. Transit has an uphill cleanliness issue exposed in the pandemic that won't quickly be forgotten. Rural and less dense urban travel options may find new MOD opportunities.

Data will go from being king, to emperor—MOD services generate an immense amount of data, providing a deeper understanding of travel needs and the opportunities/barriers users face. But be aware of the role artificial intelligence will play in MOD's future.

Having transitioned from pandemic urgency to the unwinding process, we will start to see these dynamics play out in real time. MaaS and MOD are on the clock now—either to shape our communities for the future, or get lost in the flotsam and jetsam of the crisis. Which will it be?
(*This column originally appeared in the June issue of ITE Journal, © Institute of Transportation Engineers, Washington, D.C., USA*)

When I think about the longer term impacts of Covid-19, there are a huge number of unknowns – can we open up more space for biking and walking, what does long term public transport usage look like, will congestion and parking demand increase? ITE doesn't have all the answers, but has been exploring the issues through podcasts, learning hub webinars, virtual drop-ins and e-community discussions.

There is also a Covid-19 support page on the ITE website that provides some resources and reference material for different responses to the pandemic. Some of these may prove useful in an NZ context, or at least help to show the differences in responses between countries. Here are some links to a few of the resources;

Transportation Resources

Streets for Pandemic Response and Recovery

NACTO report providing cities around the world with detailed strategies they can use to redesign and adapt their streets for new uses both during the COVID-19 crisis and in the recovery.

Open Streets for Pedestrians and Bicyclists during COVID-19

Webinar discussing the worldwide shifts and trends in adapting streets for increased walking and biking during COVID19 social distancing.

Transportation Talk Spring 2020

Special edition of Transportation Talks from the Canadian District of ITE focused on COVID-19.

Transportation Impacts

TRB Webinar: Traffic Trends and Safety in a COVID-19 World

A free webinar from TRB on Traffic Trends and Safety in a COVID-19 World.

COVID-19 Impact Analysis Platform

The COVID-19 Impact Analysis Platform is developed by University of Maryland CATT Lab and provides comprehensive data and insights on COVID-19's impact on mobility, economy, and society with daily data updates.

Complete Streets + COVID-19

A map tracking community responses related to Compete Streets and complete communities. This is an interesting graphic to show what is being done across the US in terms of changing road layouts to provide for social distancing.

ITE-ANZ Awards

The ITE-ANZ section also has a number of awards coming up towards the end of the year that NZ.

These are not solely for ITE members, so please take a look and let me know if you've got some interesting projects or special people that you want to nominate for these awards. I'm happy to help sort out the details with you.

- Contribution to the Transport Profession
- Outstanding Service to the ITE
- Sustainable Transport
- Emerging Professional
- SIDRA SOLUTIONS Postgraduate Award
- Trafficworks Student Award

ITE-ANZ Seminar

The ITE-ANZ seminar group is looking to put on an event that presents a research perspective on the impacts of COVID-19 on travel. They would like to tap in to the networks across Australia and New Zealand.

Do you know of any academic research groups that are tackling any aspect of COVID-19 on travel? Think broadly! Research on freight, air travel etc. is especially welcome as it is often underrepresented in our presentations.

If you'd like to be involved, please get in touch with Laura or Danielle ASAP so they can move forward with plans for a seminar in **early July**.

Laura.Aston@monash.edu
Danielle.Rebbechi@smec.com

And finally……if you weren't planning on being in New Orleans in August, but wanted to check out some if the ITE Annual meeting papers and speakers, now's your chance! This years event is now entirely on-line, with details below for those interested.

David Mitchell
ITE-ANZ NZ Representative
David.mitchell@nzta.govt.nz

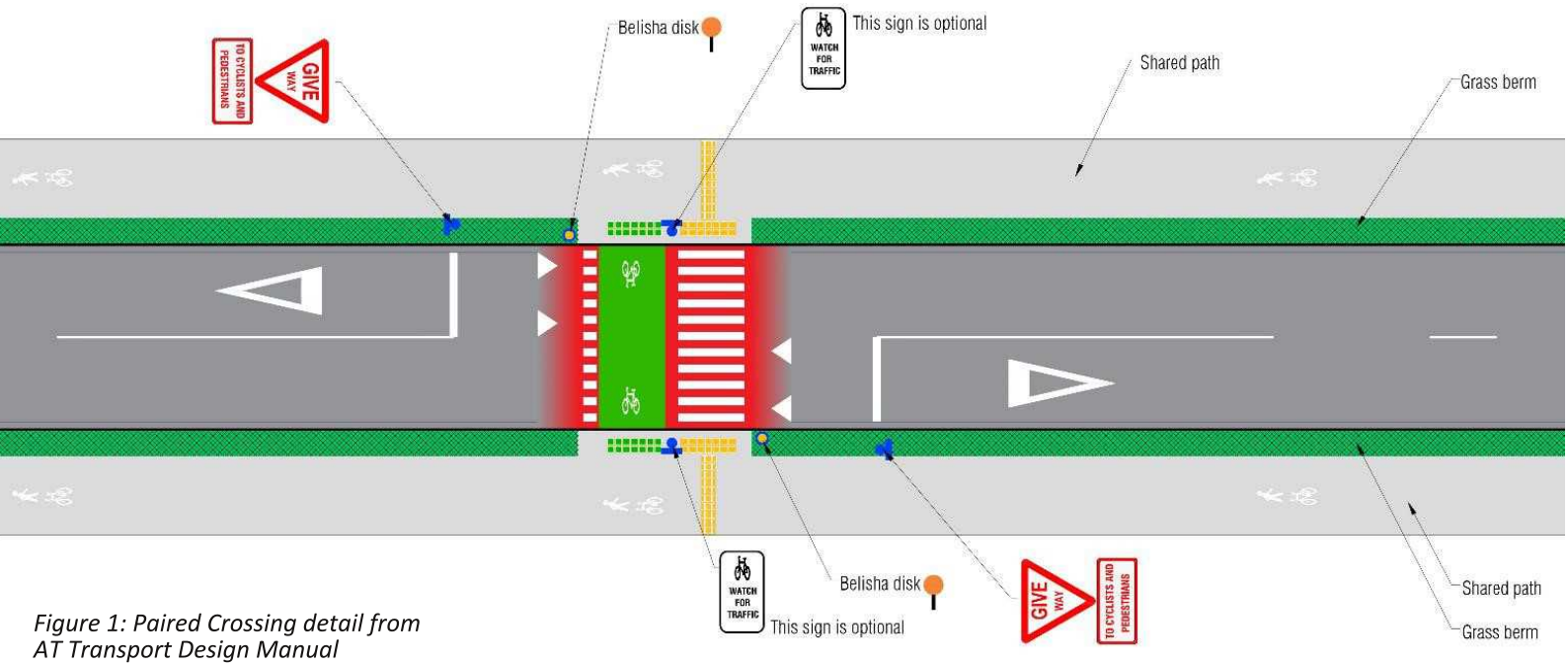


Figure 1: Paired Crossing detail from AT Transport Design Manual

Carrington Road: Don't give Up - paired crossing and other improvements

Ina Stenzel, Principal Specialist – Active and shared modes design, Auckland Transport
Brian Wolfman, Senior Development Planner, Auckland Transport

This round table discussion at the TG 2020 conference was about the challenges of converting an existing zebra crossing into a raised paired (pedestrian and cycling) crossing.

For a paired crossing a give way controlled cycling crossing (applying TCD rule 11.4(5)*) is added next to a zebra crossing. That change legalises people on bikes to cross whilst staying on their bikes and vehicles have to give way to them.

A paired crossing (on a raised table) is now an accepted type of crossing for people on bikes and pedestrians and is included in the Auckland Transport design (TDM) manual as a standard treatment.

Background
The NZ road user rule does not include people on bikes on pedestrian crossings and therefore indicates that people on bikes do not have legal right of way on a zebra crossing, when riding across on their bike. They need to get off their bike and walk across to comply with road user rule 10.1.

Under current New Zealand legislation, only a signalised crossing can provide a legal priority crossing for people on bikes when there is a cycle signal aspect installed. However, in many cases a signal would not be required or justified.

Often signals would not provide the best Level of Service for pedestrians and people on bikes either. By adding a give way control (TCD rule 11.4(5)) for people on bikes on their own or next to a zebra crossing this legal challenge can be overcome under current TCD rules.

Location
The location of the crossing is along the North-western-path where it crosses Carrington Road, an arterial road with approx. 20,000 veh/day. The North-western-path is one of the busiest cycle routes in Auckland with approx. 1000 cyclist/ day.

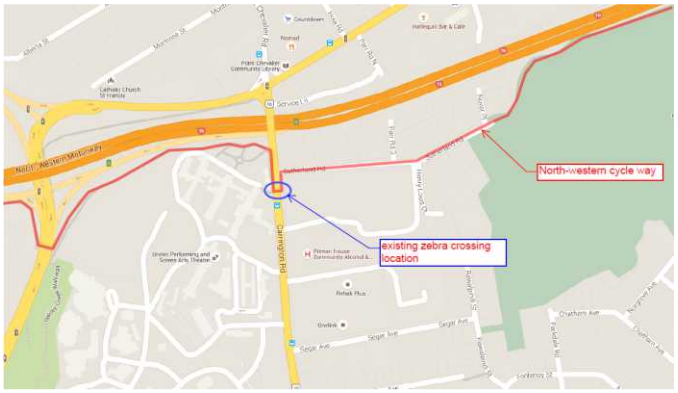


Figure 2: Location map

Desire lines and compliance
Surveys in April 2016 confirmed that people on bikes were the majority users of the zebra crossing. The desire lines clearly show the strong movement of people on bikes across Carrington Road between Sutherland Street and the Unitec path using the existing zebra crossing. The pedestrian movements are mainly along Carrington Road.

The survey data of the behaviour of people on bikes and drivers showed an already very positive behaviour by drivers stopping for people on bikes (and pedestrians) using this crossing. On average 99.3% of cyclists stayed on their bikes while crossing the zebra crossing and an average 99.6% of drivers gave way to cyclists at the

zebra crossing. This existing positive behaviour by drivers was the compelling reason to propose the change for this crossing to a paired crossing.

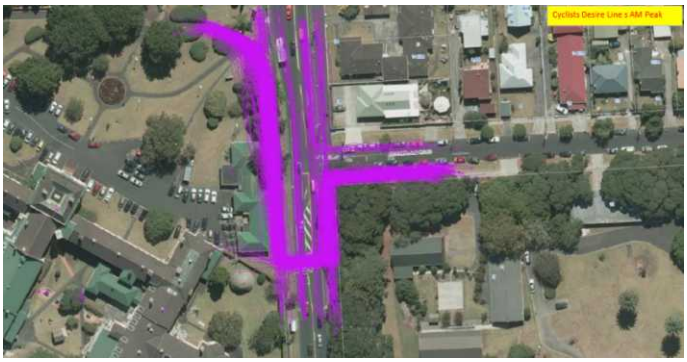


Figure 3: Cyclists desire lines AM peak

Figure 4: Pedestrian desire lines AM peak

Design challenges

In late 2015, when the Carrington Road raised paired crossing project was initiated, this type of crossing was not common in NZ. Multiple concerns were raised during consultation on the initial design:

- A raised table being on an arterial road with high traffic volumes and 50km/h speeds
- The raised tables may not be favourable along a bus route
- Stormwater issues (ponding) needed to be addressed
- Visibility issues with right turning vehicles into Sutherland Street (North-east of the crossing if central island was to be removed)

A lengthy internal consultation process to address these issues had to be managed and the design iterated several times over the duration of about 3 years.

Eventually the change in strategic thinking and a policy towards a vision zero approach and needed improvements to address the safety for vulnerable road users led to an acceptance of the solution in this location, which finally brought the project over the line. Other safety improvements were added and the project extended for more efficient implementation. It was installed in June/July 2019.

The final design included the following features:

- 2m wide cyclist crossing next to a 3.5m wide pedestrian zebra crossing.
- Raised crossing on a speed table (with bus friendly ramps).
- Central island remained and was slightly extended
- Give way signs on both approaches to the crossing with the supplementary sign “to cyclists and pedestrians”.
- Ramps from on road cycle lanes to shared path to access the zebra
- Give way marking on the approaching traffic lanes and cycle lanes.
- The Belisha bacons and lighting poles remained in their original position.
- To overcome the stormwater issues, an innovative solution was found and kerb drains were used.

Figure 5: Final Carrington Road design for paired crossing

Figure 6: Kerb drains used at Carrington Road for stormwater treatment

Figure 7: Carrington Rd Crossing before

Figure 8: Carrington Rd crossing after implementing the raised paired crossing

** Note: TCD rule 11.4(5):*
Control where a cycle path or shared path crosses a roadway
11.4(5) When a cycle path or a shared path used by cycles crosses a roadway, a road controlling authority may, as appropriate, control either the movement of users of the path or traffic along the roadway by means of stop or give way signs or by the installation of traffic signals, in the same manner as described in 10.5 for an intersection.

Vision HERO – Transport Design for Our Times

Duncan Campbell ME (Hns) CMEngNZ IntPE(NZ) MIPENZ , Principal Traffic Engineer, TRAFFESSIONALS

I would like to introduce Vision HERO, which is something that I believe New Zealand and many other places could embrace in these challenging economic times.

With the recent Covid-19 dramatics we appear to have hit a wall in terms of the seemingly unlimited resources for transportation infrastructure.

I say 'seemingly' because the wall has always been there, but I think the New Zealand transport industry in particular has been selectively choosing to ignore it in more recent times of plenty. I think this is a luxury we can no longer afford or should accept.

Most of the infrastructure we do nowadays in New Zealand is picked off the back of what is done elsewhere, and at similar sometimes extravagant expense. Kiwis were once known for Number 8 wire resourcefulness, and that meant innovative thinking.

Although results could vary and did tend to result in 'reinventing the wheel' a bit too often, it usually did get us somewhere better than before and at a reasonable price.

As far as I can tell in the field of transportation, this is now a relatively exceptional occurrence. I personally suspect it is something to do with:

(i) Increasing overview by project manager types rather than hands-on engineers. Spending someone else's money on tried and proven solutions is always easier to justify than taking a risk on something new, even if the results are fairly mediocre to average.

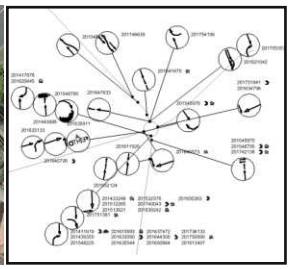
(ii) Availability of the internet. Wonderful for accessing and sharing information, but I suspect this reduces the motivation to innovate i.e. if something can't be easily found on the internet, it isn't deemed to be a thing worth pursuing.

I hope to illustrate this with a few examples:

Waterview Tunnel in Auckland 2017– an acknowledged success story but hardly the most expedient solution. An elevated structure would apparently have been far cheaper, though much less palatable to local residents.

Hemo Road grade separated roundabout in Rotorua 2017 – an award winning project and justifiably so, with cyclists and pedestrians getting the Rolls-Royce treatment. But at $7M or so it will hardly have been the cheapest option, and because of that is unlikely to be repeated very often. And how do cyclists cope at all the other intersections in Rotorua?

Coronation Road roundabout, Auckland. Built quite some time ago and with a readily apparent absence of speed control, this is a good example of imprudent innovation (and false economy) with a prolific crash history to show for it.



Even if you don't entirely agree with each of the above summations, the point I am trying make is this: *We could be achieving a lot more.*

So what does Vision HERO have to offer? Vision HERO is:

1/ **INNOVATIVE** – Think in terms of First Principles and outside the square, and ask the hard questions such as 'why are we trying to do this at all?'

2/ **PUTTING INTO PRACTICE** – Getting past entrenched thinking and putting new ideas into action, can be a big hurdle within the conservative-minded engineering profession. Especially as anything new does involve an element of risk, real and/or perceived.

3/ **BEST VALUE** – The main objective of Vision HERO is to get the best value results. To properly do this one needs to compare all options including the unorthodox.

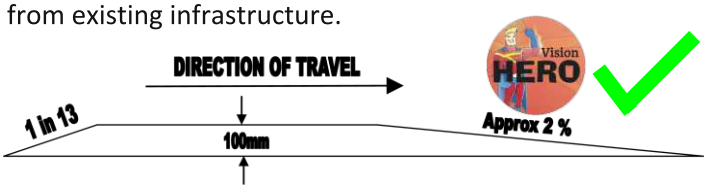
I will again try to illustrate with some examples of what I believe qualify as Vision HERO initiatives, starting with the more familiar:

Wire Rope Barriers – these hardly need an introduction and have multiplied exponentially since the early 2000's, from small beginnings to almost overkill on all our new highways from a bystanders point of view!

Shakespeare Street Roundabout in Cambridge 2014 – wonderful example of a temporary arrangement during downstream construction works, later made permanent by NZTA and Waipa District Council staff who chose to listen to public sentiment. Also great value at just $450K to install the final layout.

Dynamic Traffic Lanes Whangaparaoa in Auckland 2018– Much cheaper than widening a carriageway for 1km or so, and by most accounts a very successful endeavour.

Barkes Corner Roundabout Meter Signals in Tauranga 2018 – Cost-effective way of getting more efficiency from existing infrastructure.



Vertical Deflection Devices – Used more frequently in Auckland the past couple of years, even on arterial roads which would not have been acceptable until recently. Very cost effective way of improving safety and also for helping pedestrians and cyclists.

Compact Urban Roundabouts – developed in New Zealand from 2005 onwards, these can achieve capacity and safety improvements for great value mainly due to their reduced intersection footprint.

Four-way Stops – something quite common in North America and some other countries, and apparently a very cheap way of improving safety at crossroads.

For New Zealand drivers some additional education is likely required, but this should not be seen as an insurmountable barrier and it is suggested they could be used more here.

Flashing Amber Displays – As used in the UK and the United States in a variety of ways, these are a low-tech way of: (i) improving safety for filter turns; and (ii) reducing driver delay, including at off-peak times of the day. The Traffic Control Devices Rule would need amending before similar use in New Zealand.

Sightline Restrictions at Intersections– Obstructing driver sightlines have previously demonstrated to be a viable proposition, and represent a cost-effective way of improving safety in the right circumstances. However, more thorough experimentation is recommended before widespread application.

Although you mightn't be convinced with all of the above suggestions, I am sure there are many other good ideas out there worth following up on. However my main point is this: What have we got to lose by trying?

Moving Forward
Instead of carrying on business as usual, I propose that we use this change of economic circumstances to relook at how we do things. One of the strengths of New Zealand has been the 'can do' attitude, and we should be tapping into that a lot more.

However, instead of the previous 'every man for himself' way of doing things that did not really give a consistent way forward, I believe a government funded Centre of Excellence organisation could put a focus into these efforts and also serve to support Road Controlling Authorities being more adventurous.

The UK had a well-run organisation called the Transport Research Laboratory (TRL) that until the 1990's was publicly owned and operated.

At one time they had a 200 acre facility to trial and error new road layouts with guinea pig drivers, and with that sort of facility they were able to come up with some quite novel ideas in the mid to late 20th century including the modern roundabout as we know it today.

In the long run, I believe the benefits of having a similar thing here would greatly outweigh the costs, and perhaps New Zealand could even become a world leader in the transportation field like the TRL was back then.

In any case and however it comes about, I would argue that it is in New Zealand's best interest to direct a much bigger chunk of transport funding into research and development, simply so we can get much better value out of our very limited resources.

I think we as transportation professionals owe it to the New Zealand taxpayers who indirectly pay our salaries, to do just that.

Henry Ford:
"If I had asked people what they wanted, they would have said faster horses"

Albert Einstein:
"The definition of insanity is doing the same thing over and over again, but expecting different results"

Air transport subsidies survey

A PhD student from the School of Aviation, Massey University has put a call out for a survey on air transport subsidies of different kinds and their impact upon regional wellbeing. Group members may wish to take part.

Here is a brief introduction to the survey:

It is well known that ensuring sufficient regional air connectivity could be essential for the government as it delivers significant benefits to the region, such as the economy, tourism and society. However, local airports and airlines may face a funding crisis, which is confirmed by the New Zealand Airport Association.

Thus, regions and communities may have limited air accessibility, which negatively impacts their economic growth and affects the wellbeing of local communities. Particularly, the country's economy recently has borne a heavy brunt because of the COVID-19. Not to mention the aviation and tourism industry has been hit hard given the immense impact the pandemic has had upon the sectors. We believe that regional air transport could play a crucial part in the regional recovery after the pandemic, and the insights gained from this survey study may be of assistance to better understanding the relationship between air transport and regional wellbeing.

The findings could also be a useful supplement to future policy design for New Zealand regional aviation subsidies and investments. It will take approximately 20 minutes to complete the survey.

The survey link is HERE

ENCYCLOPEDIA OF SANDWICHES

1. BACON, EGG & CHEESE
Fried egg, American cheese, bacon

2. GRILLED CHEESE
Cheese sandwich fried with butter

3. PULLED PORK
Pulled pork shoulder, BBQ sauce, coleslaw

4. BÁNH MÌ
Meat, pickled vegetables, cilantro, mayo

5. BLT
Bacon, lettuce, tomato, mayo

6. ITALIAN SUB
Cured meats, oil, vinegar, onion, lettuce

7. THANKSGIVING
Turkey, stuffing, cranberry sauce

8. LOBSTER ROLL
Lobster meat, mayonnaise, celery

9. TURKEY CLUB
Turkey, lettuce, tomato, bacon, mayo

10. TUNA MELT
Tuna salad, cheese

11. FRIED CHICKEN
Fried chicken breast, lettuce, tomato

12. CHEESESTEAK
Thinly sliced beef, cheese, onions

13. CUBANO
Ham, pork, Swiss cheese, pickles, mustard

14. MEATBALL SUB
Meatballs, marinara sauce, mozzarella

15. CROQUE MONSIEUR
Ham, béchamel, Gruyère, Dijon mustard

16. CROQUE MADAME
Ham, béchamel, Gruyère, Dijon mustard, fried egg

17. REUBEN
Corned beef, Swiss cheese, sauerkraut, Russian dressing

18. GYRO
Grilled meat, tomato, onion, tzatziki

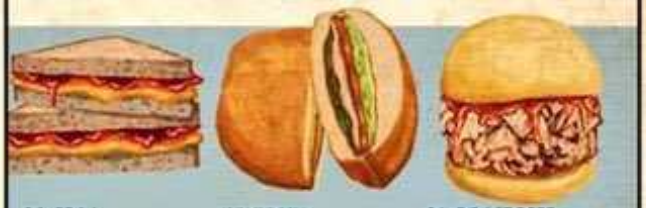
19. PO'BOY
Fried seafood, lettuce, tomato, pickles, mayo, hot sauce

20. CAPRESE
Mozzarella, tomato, basil, olive oil

21. PATTY MELT
Ground beef patty, cheese, caramelized onions

22. EGG SALAD
Chopped boiled eggs, mayonnaise, lettuce

23. FRENCH DIP
Roast beef sandwich dipped in beef jus



24. PB&J
Peanut butter, jelly

25. TORTA
Steak, beans, lettuce, tomato, avocado, cotija

26. ROAST BEEF
Thinly sliced beef, BBQ sauce or horseradish

27. JAMBON BEURRE
French ham, salted butter

28. TONKATSU
Fried pork chop, mayo, tonkatsu sauce

29. MONTE CRISTO
Ham, turkey, Swiss cheese, fried and served with jam

30. HAM & CHEESE
Ham, cheese, lettuce, mustard

31. BAGEL WITH LOX
Bagel, cream cheese, smoked salmon, onion, tomato

32. FALAFEL PITA
Falafel, lettuce, tomato, onion, cucumber, hummus

33. CHICKEN SALAD
Chopped chicken, mayo, celery

34. VEGGIE & HUMMUS
Cucumber, tomato, avocado, carrot, sprouts, hummus

35. BOLOGNA
Bologna, mustard

36. ITALIAN BEEF
Roast beef, green peppers, giardiniera

37. KENTUCKY HOT BROWN
Turkey, bacon, tomato, Mornay sauce

38. BOCADILLO
Jamón, bread rubbed with cut tomato

39. LIVERWURST
Liverwurst, mustard, onions, cucumber pickles

40. CUCUMBER TEA
Cucumber, unsalted butter

Round 2 of the Innovating Streets pilot fund now open

Thanks for all those who submitted in Round 1, we're just finalising approvals and should be able to publicly announce in the next few weeks.

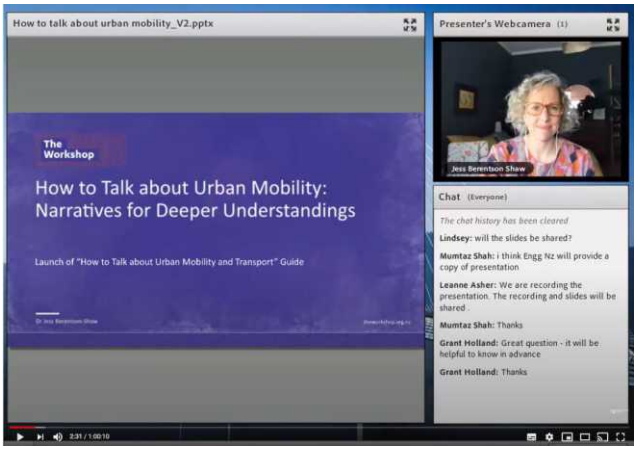
Round 2 opened Monday 8 June and closes on 3 July. We have a slightly different application submission process this time. We've cut back the application form, and provided a separate guide to completing it. The form now needs to be saved as a PDF and submitted online rather than via email. All the information you need is on the updated fund page.

'How to talk about urban mobility' webinar video and guide

At the end of April, Waka Kotahi launched a guide 'How to talk about urban mobility and transport shift', which was commissioned from Dr Jess Berentson-Shaw at The Workshop.

It is based on research The Workshop carried out looking at how to have effective conversations about change in transport systems and the benefits of reducing car dependency as we shape more vibrant, sustainable and healthy communities.

In April a webinar was held to launch the guide. Watch the webinar and access the research guide.



Waka Kotahi is working with the Workshop team over the next year to provide people in our towns and cities with more support to talk about urban mobility well, using evidence-based communication approaches.

Waka Kotahi will continue to share information and resources with the sector as they are developed and will be supporting further training and looking to connect with people working to improve urban mobility over the coming year.

New ad campaign to support walking, cycling and scooting

Recently Waka Kotahi launched a radio and digital campaign encouraging people in Auckland, Wellington and Christchurch to walk, cycle or scoot for some of their trips.

The campaign encourages people to keep up the positive momentum from lockdown, which will help them maintain physical distance and ease the pressure on public transport.

The campaign mentions that some cities are making space for people to walk, cycle and scoot which refers to the Innovating Streets funded COVID-19 response projects but also other towns and cities that have been lowering speeds or introducing space for walking, cycling or physical distancing. The campaign will run until 21 June.

Webinar – COVID-19 transport infrastructure responses worldwide

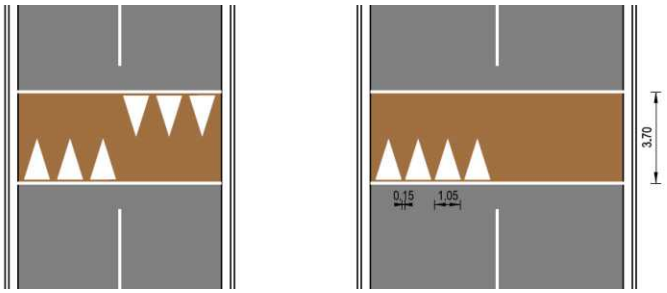
Niels Hoe from the Innovating Streets team presented at a recent webinar looking at how cities are developing active travel infrastructure post-COVID-19. The webinar covers the COVID-19 response from Berlin, European Union initiatives, as well as Innovating Streets. Watch the webinar HERE

Active Modes Infrastructure Group (AMIG) Update

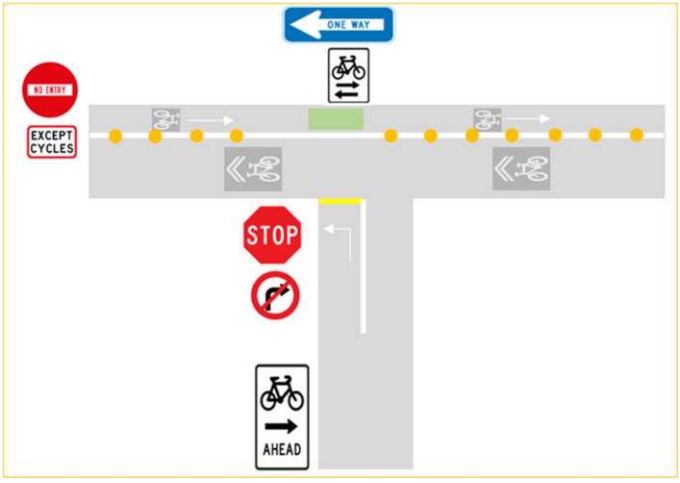
It seems a world away since the last AMIG face-to-face quarterly meeting back in February 2020. Since then, the COVID-19 world closed around us and we have only just returned to some semblance of normality. However, travel around the country to meet in close proximity again is still relatively novel and so it was decided that AMIG would re-convene for now via a series of shorter video-chat meetings.

The first of these was held on June 4th; perhaps not surprisingly the online format allowed a bumper collection of 20 different people from around the country to join in. Although only 2 hours long and with a shorter agenda to match, it was probably to be expected that the discussions were still vigorous and detailed on a range of different topics:

• Speed humps and platforms are an important tool for crossings and speed management; currently the markings used to highlight them are rather inconsistent nationally. Work is underway to develop a standard layout for using "**shark's teeth**" markings, i.e. white triangles used to indicate the sloping portion of the hump/platform. The challenge is that every road is different, so there is some further work needed to come up with a scheme that can vary the size and number of "teeth" and gaps in between.



• A couple of AMIG meetings back we introduced the question of what signs (existing or new) to use to indicate the presence of a **contra-flow cycle facility** to users approaching from side roads. Since then, the Transport Agency has been considering the potential for a range of different sign layouts, depending on the relative level of separation of the contra-flow facility. The trick is to both inform cyclists and warn motorists of the presence of the contra-flow facility, often requiring different signs for each user.



• Dual pedestrian/cycle crossings are starting to appear more frequently around the country as more cycleways and shared paths get developed. The *Cycling Network Guidance* now has some design advice about what is considered best practice, but there are still several sites discussed having variances from these guidelines (and perhaps these guidelines need further refinement). For example, it is preferable that white parallel lines border the green cycle crossing and that zebra crossing stripes don't extend both sides of the cycle crossing.

• There was also time to hear about the first round of applications for the **Innovating Streets Fund** for pilot streetscape and 'tactical urbanism' projects. There was a huge interest in the first application round, with over 30 Councils submitting projects. Some lessons learned from the first round have been used to amend the application process for round 2 (due 3rd July).

• Other items discussed briefly at AMIG this time included progress on tasks for updating NZTA's Pedestrian and Cycling Network Guidance, alternative placement down low of wayfinding signs, and updates on current active modes legislation working its way through the system, including the recently closed Accessible Streets Rules package.

For now at least, the plan is to continue with four-weekly videoconferences, making the next AMIG meeting scheduled for **2nd July 2020**.

The hope is that a return to (at least some) face-to-face meetings will be in a few months, although there is certainly an advantage for some of the more remote AMIG members to be able to connect via an online meeting.

For RCAs who would like to be added to the group, contact co-convenors Wayne Newman (RCA Forum; wayne@cresmere.co.nz) or Gerry Dance (NZTA; Gerry.Dance@nzta.govt.nz). TGNZ members can also talk with me about raising any ideas or issues on your behalf at AMIG as well.

Glen Koorey (Trptn Group AMIG rep), ViaStrada (glen@viastrada.nz, ph.027-739-6905

Transport funding — taxes, fees and fairness

Figure 1 When the town of Springfield decided to build a monorail, it satirically highlighted issues of Process Equity and Social Equity. Are catchy show tunes the best process to determine transport investment? Was the allocation of funds towards a mass transit system proportionate to the needs of a town of 30,000 people?

I've heard many people argue that as motorist, the fuel taxes consumed give them a preeminent right to use the roads — after all, cars use fuel, and fuel taxes pay for roads. On the surface this might seem intuitive, but digging a bit deeper, it becomes apparent that this transactional outlook is overly simplistic.

The distinction between taxes and user fees is an important one because at its essence, we need to ask a fundamental question about who and what transport investment is for. Is it to make driving easier and cheaper?

Or is it to build healthier, greener, more productive and inclusive societies? When thinking about the latter, we might wonder if status quo transport funding system is the best we can do. Perhaps there are fairer way to price and fund transport.

Defining equity and fairness in transport terms can be difficult. Equity in transportation is not an absolute but rather a matter of degree — something can be more or less equitable, never 100%. With that in mind, it is important to consider three main dimensions when discussing transport fairness:

Who Decides?

What is the process to determine what projects to fund(Process Equity)? How do we know that allocating funds is proportionate to need(Social Equity)?

Who Pays/Benefits?

Are those that paying the same ones receiving the benefits(Market Equity)? Are there exacerbators causing the need for an activity and not paying(Justice)? Are the gains and losses for an investments distributed to future or present generations (Intergenerational Equity)?

How, and how much to pay?

Are those at similar income levels/circumstances treated consistently and paying similar amounts (Horizontal Equity)? Are those with means paying more(Vertical Equity)? How burdensome is the payment method, is there any dead-weight loss(Efficiency)?

Fuel taxes are only one part of a larger transport funding and economic equation. While the majority of New Zealand's land transport system is funded from central government from the National Land Transport Fund (NLTF), the remainder is spent by local and regional authorities from funds raised from rates revenue, debt, developer contributions and dividends from investments.

While state highways are 100% funded and operated through the NLTF, they make up less than 12% of the national road network by length, and less than half the national network by volume. Urban centres in particular carry the highest density of traffic per lane kilometre and most of their transport funding comes from property rates — not the NLTF.

Furthermore, increasing vehicle volumes at the local level places demand for associated infrastructure that is not NLTF funded such as parking facilities and management.

While this isn't a problem per se, it can create some distortions about how we perceive the fairness and value of transport investments. In turn these misplaced vales create a negative feedback loop.

Figure 2 – The negative feedback loop

Firstly,at the local level, there is an issue of horizontal equity because property rates fund the majority of local transport budgets. Households that frequently travel in private vehicles will receive a greater benefit than identical household that doesn't–relative to how much they pay in rates.

Conversely, those who live centrally tend to have higher housing costs, but lower transport costs as they and walk and cycle for more of their transport. They end up subsidising the traffic infrastructure to support those living on the urban fringe who have cheaper houses but tend to rely on single occupant vehicle trips for mobility.

Secondly, we don't really know what the willingness to pay for the true cost of out unfettered automobility. Decades of public policy has heavily subsidised the cost of personal mobility to the point where the willingness to pay is less than the cost to build and maintain the infrastructure.

Often we might assess the feasability of a new road by part funding it with a toll. But modelling might indicate that tolls would simply discourage use of the new route instead opting for existing, untolled alternatives.

This brings into question the value of travel time savings if the real-world willingness to pay for those savings is lower than their ascribed value. The result is that public funds continue to be deployed towards modes that we assume people have preferences for.

Finally, by pricing personal journeys below the true cost of provision, people travel unnecessarily at the expense of everyone else. Congestion is probably the most visible example of this, and could be alleviated by pricing-in the costs of traffic delays by location, occupancy or time of day.

Nevertheless, the case for internalising the externalities of motor vehicle travel goes far beyond just managing congestion. The external cost of crashes, air quality and physical health amount to more than six billion dollars annually.

Figure 3- Car and motorcycle, with side car, at a toll gate (in Waitara?) circa 1920s. Photograph taken by Sydney Charles Smith. Alexander Turnbull Library Reference: 1/2–048419; G

Decision makers tend to focus on the tangible effects of congestion over less visible issues of safety, pollution and health. In this regard, road and highway improvements tend to be popular but they also artificially lower the cost of travel, which creates more externalizes and keeps the vicious cycle turning.

In the early part of the twentieth century (when motoring was for the wealthy few), a greater proportion of transport funds were raised from user fees. However as motorists grew to comprise a substantial proportion of the electorate, tolls became increasingly political.

Consequently the distinction between the motorist and the general public became highly conflated in public discourse, even till this day. Something needs to fundamentally change, and a key part of breaking the cycle would be ridding ourselves of this idea that transport funds raised by road users need to strictly be deployed to benefit road users.

The economist Ed Glaeser summarised this in the closing pages of his book — Triumph of the City:

Basic economics tells us that if drivers increase pollution and congestion, they should be charged for those costs. But if the gas taxes they pay are then plowed back into highways, thereby subsidizing more driving, then the benefits of the gas tax largely vanish. To give cities a level playing field, drivers should be charged for the

pollution their gas usage causes, and importantly, they shouldn't get that money back in the form of new roads.

Our transport funding tools are primarily designed to efficiently raise revenue — they are not intended to reflect a marginal cost for accessing a service. The sooner we accept that, the sooner we can start building a more sustainable, equitable and inclusive transport system.

A range of of transport pricing mechanisms already exist and are likely to have major advantages to the status quo funding regime.

• **Comprehensive electronic road pricing systems** (by time, location and vehicle type), is likely the best alternative to fuel excise duties, although technical and implementation issues mean this could be several years away.
• **Targeted Parking Taxes and Levies**, in the interim, appear to be a viable way to manage demand while simultaneously funding transport initiatives.

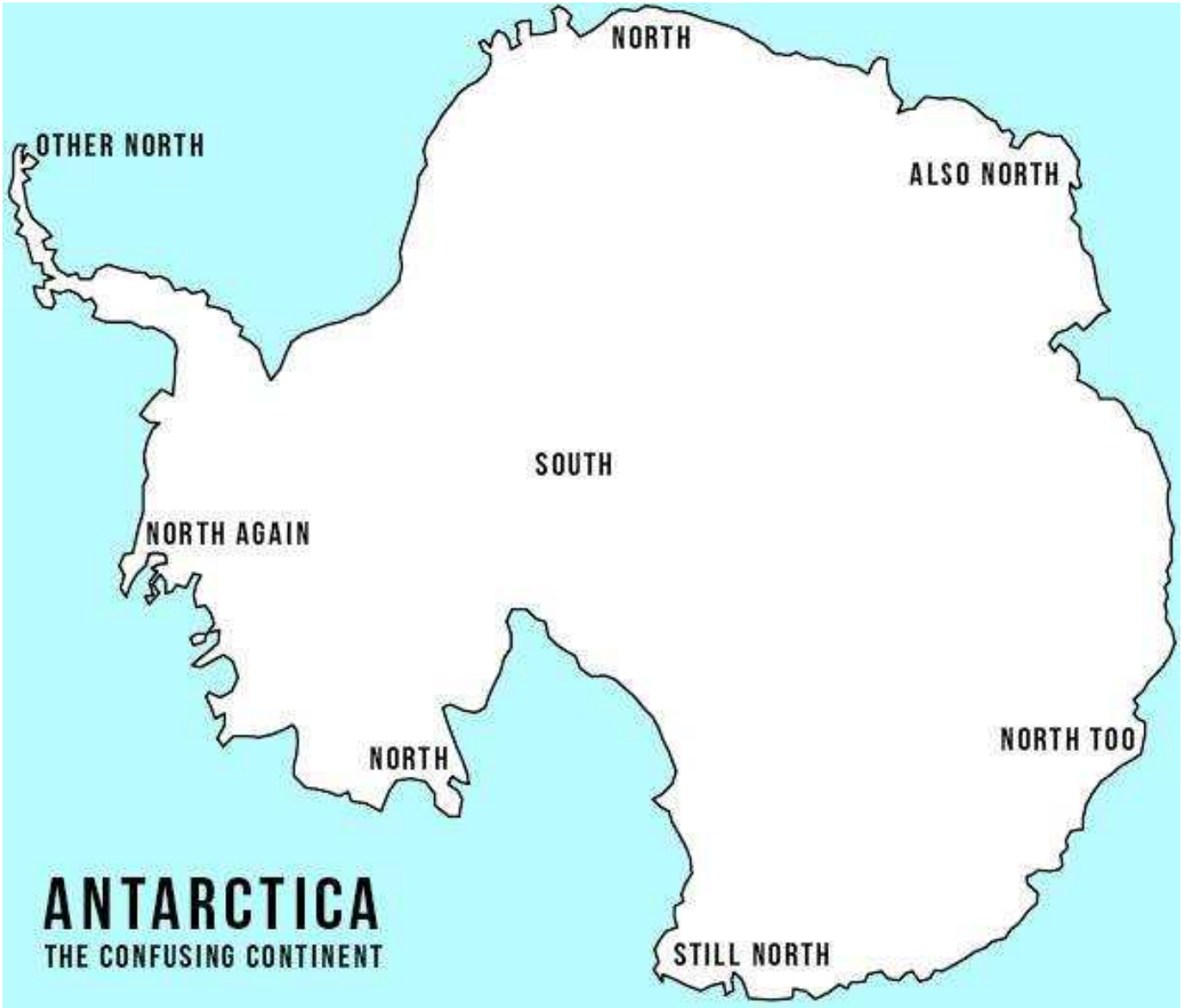
We also need to acknowledge that any new set of funding tools is likely to create winners and losers. Understanding the and targeting these groups will be critical if we are to address inherent inequities in the transport system.

Redistributing revenues progressively, to those most in need, is likely to be the most effective ways to improve overall social welfare.

While this all sounds like a lot of work, our existing transport funding system is simply not designed to address the mounting challenges of climate change, housing affordability, road safety, and public health.

We can no longer afford to accept the status quo as the best we can do and we must start advocating for better alternatives.

Nick Lovett
Christchurch City Council



Northern Pathway moves forward

The Northern Pathway project team is working at speed to deliver a shared walking and cycling path from Westhaven to Akoranga in Auckland, with the Government investing $360 million in the project as part of the New Zealand Upgrade Programme.

The announcement of the COVID-19 Level 4 on 25 March meant face-to-face consultation on design refinements was not possible. So, it was moved to online, phone and postal engagement.

By the time submissions closed on 19 April there were around 1200 responses. That's nearly three times the total number of responses from the two-week public consultation in August/September 2019. The survey responses are around 75 percent in support of the project.

Waka Kotahi Senior Manager Project Delivery, Andrew Thackwray, says most of the feedback affirms public calls to 'just get on with building it'. It's widely understood that the pathway will offer a safer, cleaner and healthier transport alternative, and connect people to a good range of cycling and walking facilities and communities across the city and North Shore.

The project team will now analyse the survey feedback, form their responses, and publish a report to the project website. Subject to the consenting/approvals process, construction is expected to begin in early 2021 and take around two and a half years.

Te Araroa trail to reopen

Following closures during the COVID-19, New Zealanders and any international walkers who have remained here will be able to head back into the hills to enjoy overnight tramping, including section and thru-hikes on Te Araroa trail.

The Department of Conservation has stated that it is preparing to re-open its huts, campsites and other facilities, but with some conditions in place to mitigate the risk of COVID-19 spreading.

Most commercial accommodation providers and supporting services will also be open again, although these may be more limited in some parts of the country. Te Araroa walkers should call ahead to confirm the availability of accommodation or other services they may be relying on before setting out.

If you'd like to stay updated on Te Araroa (whether you are doing a day walk, section hike or thru-hike), register on the website, www.teararoa.org.nz/trailregistration/.

This allows Te Araroa to keep you updated and will simplify contact tracing if any cases of COVID-19 are identified among people walking in the New Zealand outdoors.

City Rail Link update

"Remarkable" Dame Whina Cooper wins CRL vote
City Rail Link's Tunnel Boring Machine (TBM) will share the name of one of New Zealand's most inspirational leaders, Dame Whina Cooper, a woman who spent most of an illustrious life leading the fight for social justice and land rights for Māori.

Dame Whina Cooper's name topped a nationwide poll ahead of internationally recognised Antarctic scientist, Dr Margaret Bradshaw, and the world's first elected openly transgender mayor and Member of Parliament, Georgina Beyer.

"The project is both proud and honoured that our TBM will carry the name of a woman of such mana – Dame Whina Cooper," said City Rail Link Ltd's Chief Executive, Dr Sean Sweeney.

"We were looking for the name of a New Zealand woman who inspired - brave, compassionate and fearless - and all those outstanding leadership qualities are well and truly represented by the very remarkable Dame Whina Cooper."

Dame Whina's family welcomes their mother's new association with a project that will bring many changes to the Auckland she had called her home for many years.

"Mum was very much a people person," says Dame Whina's daughter Hinerangi Puru Cooper.

"She had so much energy and was heavily involved in community projects across Auckland. But to us she was just mum."

Dame Whina was born in 1895 at Panguru, Northland, and died in 1994. She began her first campaigns for Māori as a teenager before moving to Auckland in 1949 where she was identified as one of the "100 Makers of Auckland" in a book featuring influential people who helped develop the city.

Dame Whina was the first president of the Māori Women's Welfare League and played a significant role in improving Māori living conditions across New Zealand. In 1975 aged 80, she led a land rights march from the Far North to Parliament. She was made a Dame in 1981 and was awarded the country's highest honour, the Order of New Zealand, in 1991. Dame Whina, Dr Bradshaw and Ms Beyer were the shortlisted finalists selected from more than 300 women's names nominated by New Zealanders.

Around 3,500 participated in the competition with Dame Whina Cooper securing just under 50 per cent of the final total vote.

"I am grateful to all New Zealanders for their support and their nominations and votes, particularly at a time when we were all grappling with a pandemic. I would also like to thank Dr Bradshaw and Ms Beyer for allowing their names to be considered for our TBM." Dr Sweeney said.

Tradition dictates that a TBM must have a woman's name - a sign of good luck and safety for the project ahead and an acknowledgement to Saint Barbara, the patron saint of those who work underground.

CRL's TBM is due to arrive in kitset sections from China in October.

It will be reassembled at the Link Alliance project site at Mt Eden. The newly named Dame Whina Cooper TBM will be blessed before the Link Alliance starts the first of two 1.6-kilometre underground excavations from Mt Eden to the Aotea Station in the central city to connect with the twin tunnels already built from Britomart Station and under Albert Street.

Transportation Engineering Postgraduate Courses 2020
(Dates provisional)

Department of Civil & Environmental Engineering University of Auckland
For Master of Engineering Studies [MEngSt] and Post Graduate Certificate [PGCert], with / without Transportation specialisation, or for a one-off Certificate of Proficiency, COP

Semester 1 (Mar-Jun 2020)

CIVIL758 – Traffic Systems Design (Monday & Tuesday, three hours / week, 12 weeks)	Traffic signal timing analysis, gap acceptance parameters, intersection analysis of performance (priority, roundabouts, signals), introduction to transportation planning and modelling techniques, RMA and other requirements, computer modelling and simulation.
CIVIL761 – Planning & Design of Transport Facilities (25-27 March & 9-11 May	A range of topics on planning and design of transport facilities including fundamentals of traffic flow, modelling and simulation of transport facilities, macroscopic traffic models and traffic signal safety and operations.
Civil 767 – Pavement Analysis & Design (1-3 April, 13-15 May)	Pavement design philosophy; stresses, strains and deflections in pavements; pavement material properties and characterisation; traffic loading; pavement failure mechanisms; assessment of pavements; empirical and mechanistic pavement design methods; pavement overlay design; asphalt mix design.
CIVIL770 - Transport Systems Economics (11-12 March, 29-30 April, 27-28 May)	Advanced specialist topics in transportation economics including economic analysis, theory of demand and supply of transport, govt. intervention policies, and externalities and agglomeration. A research project analyses 2 major transportation infrastructure projects to determine likely future social benefits and dis-benefits.

Semester 2 (Jul-Oct 2020)

CIVIL759 – Highway & Transportation Design (Thursday and Friday, 3-hrs, 12 weeks)	Economic and environmental assessments of transport projects. Road safety engineering. Crash reduction and prevention methods. Pavement asset management. Pavement rehabilitation techniques. Heavy-duty pavements, highway drainage and chip seal design.
CIVIL765 – Infrastructure Asset Management (12-14 August & 23-25 September)	Advanced theories and techniques fundamental to the management of infrastructure assets, primary focus on Asset Management Plans (AMP). Entire spectrum of infrastructure, roads, water and buildings. Major project incorporates a literature review / critical review of an AMP from industry.
CIVIL 771 – Planning & Managing Transport (29-30 July, 16-17 September & 14-15 October)	An advanced course on integrating land use planning and transport provisions, including planning for different land use trip types and parking, travel demand management techniques, and intelligent transport systems. An independent project applies this specialised knowledge.
CIVIL 773 - Sustainable Transport: Planning and Design (5-6 August, 26-27 August & 1-2 September)	Pedestrian and cycle planning and facility design using best practice (network and route planning, trails, roundabouts, footways, terminals, plazas, footways, escalators, etc.); public transport (bus, rail and LRT) and vehicle operations for compact central urban areas and transit orientated developments, shared spaces and user safety in design assessments.

NOTE: Other relevant courses at the University of Canterbury (e.g. Civil / Transportation) or at Auckland (e.g. in Civil / Construction Management) or elsewhere can be suitable for credit – prior approval is required.

For Admission / Enrolment inquiries contact: Bevan Clement DDI (09) 923 6181
Email: b.clement@auckland.ac.nz Mob: 021 022 65184

Further details, including the course outlines, can be found at:
http://www.cee.auckland.ac.nz/uoa/home/about/ourprogrammesandcourses

Our Masters degree Brochure *https://cdn.auckland.ac.nz/assets/engineering/for/future-postgraduates/documents/Transportation_final_print.pdf*
Our Transportation Research Centre *www.trc.net.nz*

Transportation Engineering Postgraduate Courses 2020

Dept of Civil & Natural Resources Engineering University of Canterbury

Supported by:

The courses below are available for full-time or part-time students studying for the following postgraduate transportation qualifications at Canterbury in 2020:

- Certificate of Proficiency (COP) ~ for individual one-off courses (great for CPD!)
- Postgraduate Certificate in Engineering (PGCertEng) ~ typically four courses
- Master of Engineering Studies (MEngSt) ~ typically eight courses
- Master of Engineering in Transportation (MET) ~ up to six courses plus research project or thesis

Please see the website of the University of Canterbury for fees per course in 2019:
http://www.canterbury.ac.nz/courseinfo/MyGetCourses.aspx?course=&year=2019

All courses run in "block mode" to enable part-time and distance students to easily take part. In 2018, the contact time will be four days (i.e. a 2-day block of 2 blocks), and students taking the courses will be expected to do more reading and learning in their own time. All prospective students must apply to enrol in courses no later than one week prior to the course starting (preferably earlier), otherwise late fees may apply. Candidates with a Bachelor of Engineering OR other relevant degrees (e.g. planning, geography, psychology, maths), OR non-degree qualification and suitable work experience, will be considered for entry.

COURSE	DESCRIPTION (see flyers on website for more details)
Semester 1	
ENTR 401: Fundamentals of Transport Engineering	Self-study course with tutorials at certain times determined by the course coordinator. Traffic engineering; Road geometric design; Highway capacity and level of service; Intersection analysis & design; Traffic flow theory; Traffic signal control; Transportation planning; Accident reduction; Statistical analysis. [bridging course for non-transportation students]
ENTR616: Transport Planning and Modeling	Block dates: 19-20 March, 14-15 May Course coordinator: Dr Diana Kusumastuti Urban transport planning context and process; Transport and land use interaction; Travel demand modelling: Trip generation modelling, trip distribution modelling, mode choice and trip assignment modelling; Choice Modelling; Stated preference; Land use modelling approaches: Models of residential and employment location
ENTR608: Traffic management and monitoring	Block Dates:15-16 April and 18-19 May Course coordinator: Dr. Mehdi Keyvan-Ekbatani Traffic network estimation techniques, including control theory, traffic estimation and traffic control techniques using a variety of simulation and software packages. This course is expected to develop student skills to the level where the student understands the theory behind traffic control and can identify, diagnose and manage traffic flow problem
Semester 2	
ENTR610: Intelligent Transportation Systems and Connected Autonomous Vehicles	Block dates: 15-17 July, 6-7 August Course coordinator: Prof. Panos Prevedouros ITS, active traffic management, incident management, connected and autonomous vehicles, bilateral cruise control
ENTR614: Planning/Design of Sustainable Transport	Block dates: 30-31July, 24-25 Sep Course coordinator: Dr. Diana Kusumastuti Planning and design for cycling (eg cycling facilities between intersections, through intersections and on paths); Pedestrian planning and design (eg pathways and crossings); Audits/reviews of walking and cycling projects; Planning and design of bus public transport facilities (eg network design, routing, connectivity, demand and capacity, service timetabling/scheduling); Economic evaluations
ENTR617: Transport Network Optimization *Block dates: 24-25 August, 28-29 Sep*	Course coordinator: Assoc. Prof. Dong Ngoduy This course introduces advanced concepts and principles of urban transport network optimization. Participants will also obtain skills in the practical application of transport network optimization software (i.e. SATURN).
ENTR615: Advanced Traffic Flow Theory and Simulation *(Block dates: 2-3, 16-17 Sep)*	Course coordinator: Assoc. Prof. Dong Ngoduy This course introduces advanced concepts and principles of traffic flow modelling. Participants will also obtain skills in the practical application of traffic simulation software (i.e. AIMSUN).

Note: Other relevant courses at the University of Canterbury, University of Auckland or elsewhere may also be suitable for credit to a PGCertEng, MEngSt or MET (contact Assoc. Prof. Saleh for approval).

For more details contact:
Associate Professor Mofreh Saleh (Ph. 03 369 5118; Email: mofreh.saleh@canterbury.ac.nz)
Or visit the website: **www.met.canterbury.ac.nz**

This month's photo is of the ugliest house we've seen. It has no windows on the front walls, just two garage doors. It is hard to imagine a less inviting home, one that has no redeeming features for humans who may want to spend time in the front yard (besides perhaps washing one of the two presumed cars). Have you seen a worse house? Send your own photos to:
daniel.newcombe@at.govt.nz

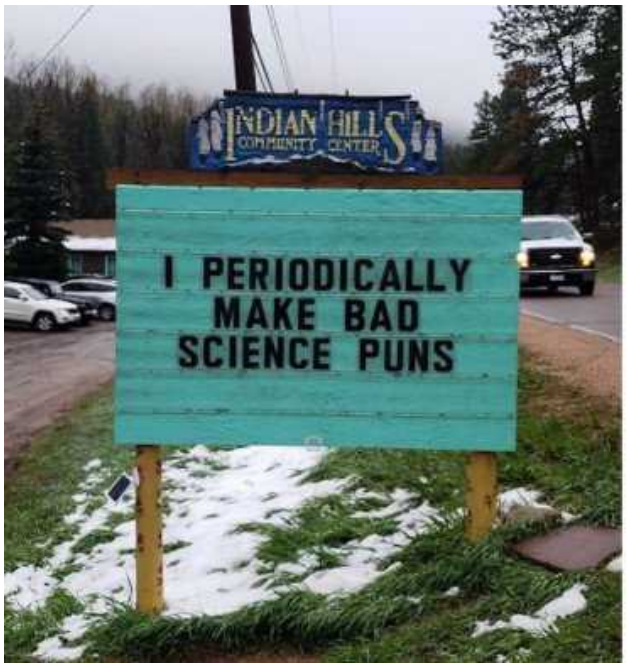
Roundabout of the month

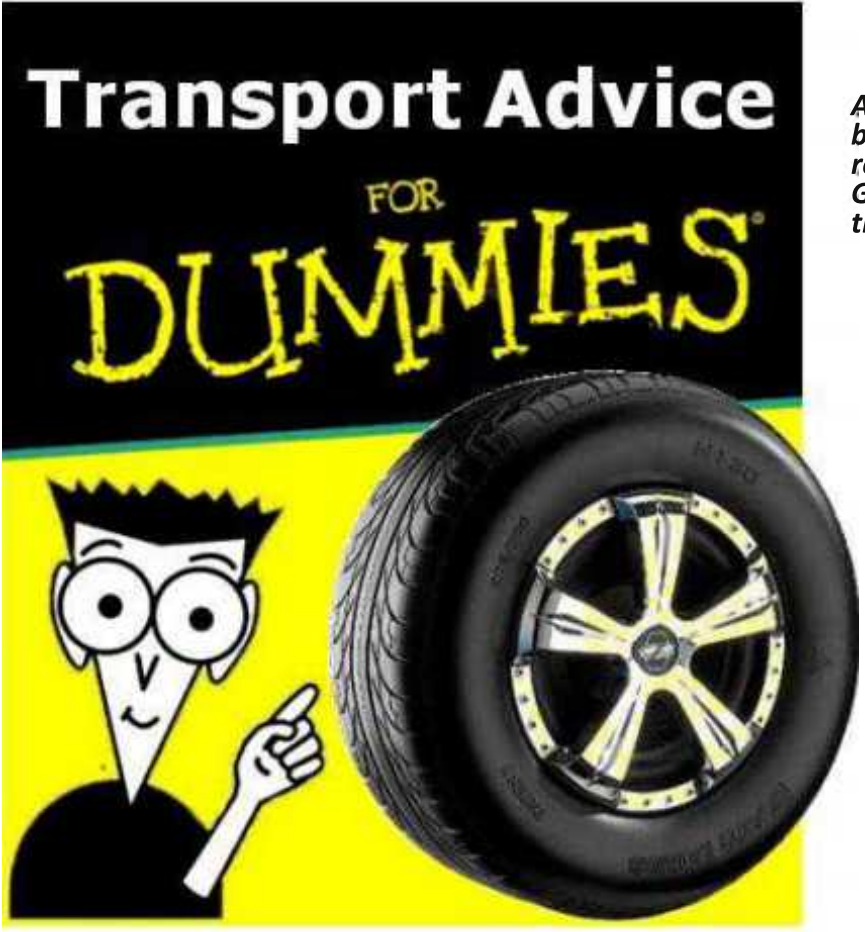
OK, obviously this edition's roundabout isn't really a roundabout, but it does have some weird round garden things in the middle of the spaghetti of ramps. Regardless, it is a cool photo.

Seen a better pic? Email: daniel.newcombe@at.govt.nz

Caption competition

Below, our Minister of Transport shares some important observation with our Minister of Finance. Who knows what is being said? A suggestion has been made. If you have a caption suggestion, or a photo of your own you want captioning, send it to daniel.newcombe@at.govt.nz





A tongue-in-cheek column on transport matters by The Transport Guy. The contents do not represent the views of the Transportation Group NZ, Engineering NZ, or anyone else for that matter. Follow the advice at your own risk.

Dear Transport Guy

I think we will have real problems getting people back onto public transport, as everyone will be afraid of catching COVID-19 or some other lurgy. I think we have to just accept that we'll have to abandon promoting public transport and get on with building more roads and car parks.

Simon, Papamoa

Dear Smeared On

I think if we follow your logic (that people wil avoid other people) then we should stop building roads and start converting them to footpaths and cycleways, because the only travel people will do is gently walking and cycling around the block for exercise, and spending the rest of the time locked safely up at home.

~Transport Guy

Dear Transport Guy

The lockdown was amazing in that it showed just how much our transport system pollutes our local environment. When everyone stopped driving, the air was clear, people could breathe and we could hear Nature in all her glory. Can we use this as a crazy experiment and prove to ourselves that we need to do better in reducing emissions and unnecessary travel.

Barbara, Orakei

Dear Baldy

Yes.

~Transport Guy

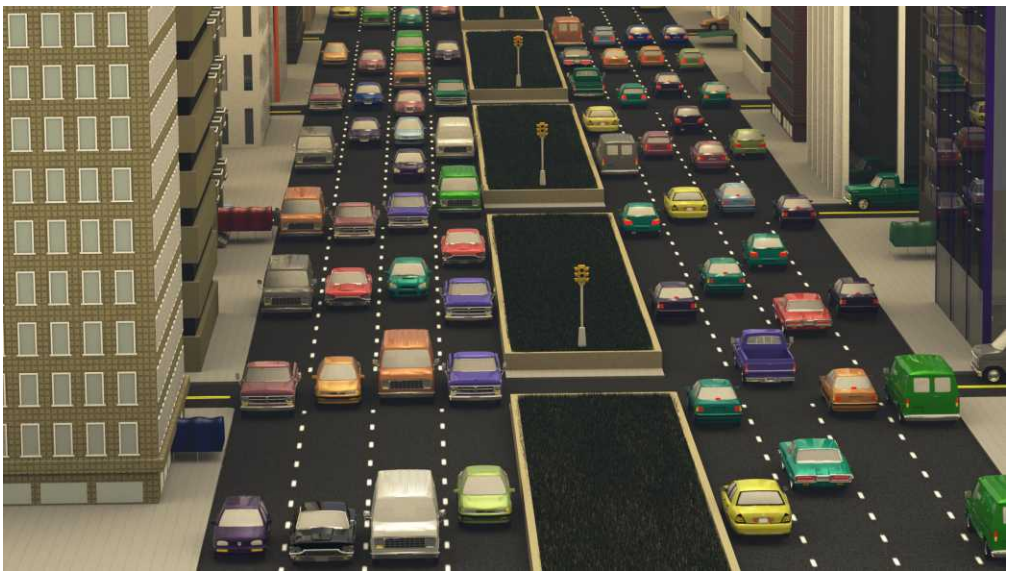
Dear Transport Guy

We have all been through a wild ride with the lockdown and journey through the various Alert Levels. It is clear that things will never be quite as they were before. People won't travel as much, the places they used to go to will be less busy and people may not travel consistently the same way (working from home more often but not all the time). Doesn't that mean all our traffic models are completely redundant?

John, Mairangi Bay

Dear Germ

You are correct that our models will be useless. The good news is that those models were completely wrong anyway, so it may be hard to tell the difference. We just need to agree that we won't use the models for telling us anything more than 'when you assume everyone will drive, the model will tell you that you need lots of big roads'. We can then move on to a more nuanced approach to not just blindly taking a modelling output, but deciding what kind of outcome we want and then working out how to get it. So, thank you COVID-19.



~Transport Guy

Do you have a dumb question for Transport Guy? Email it to:
transportfordummies@gmail.com and he'll do his best to answer...

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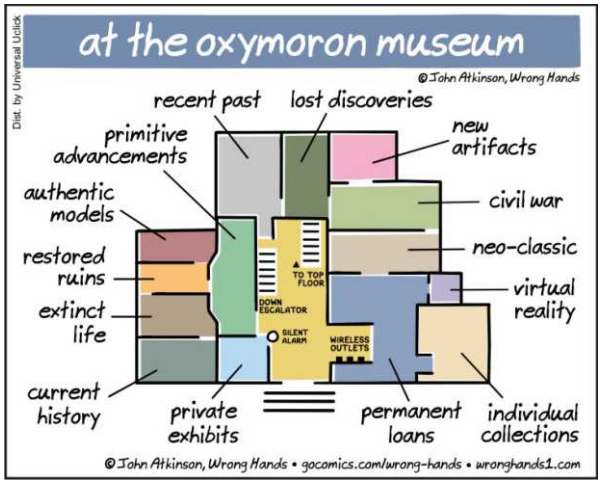

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Kids explain traffic engineering

"Riding during lockdown was cool.
I'd like to be able to do that more."