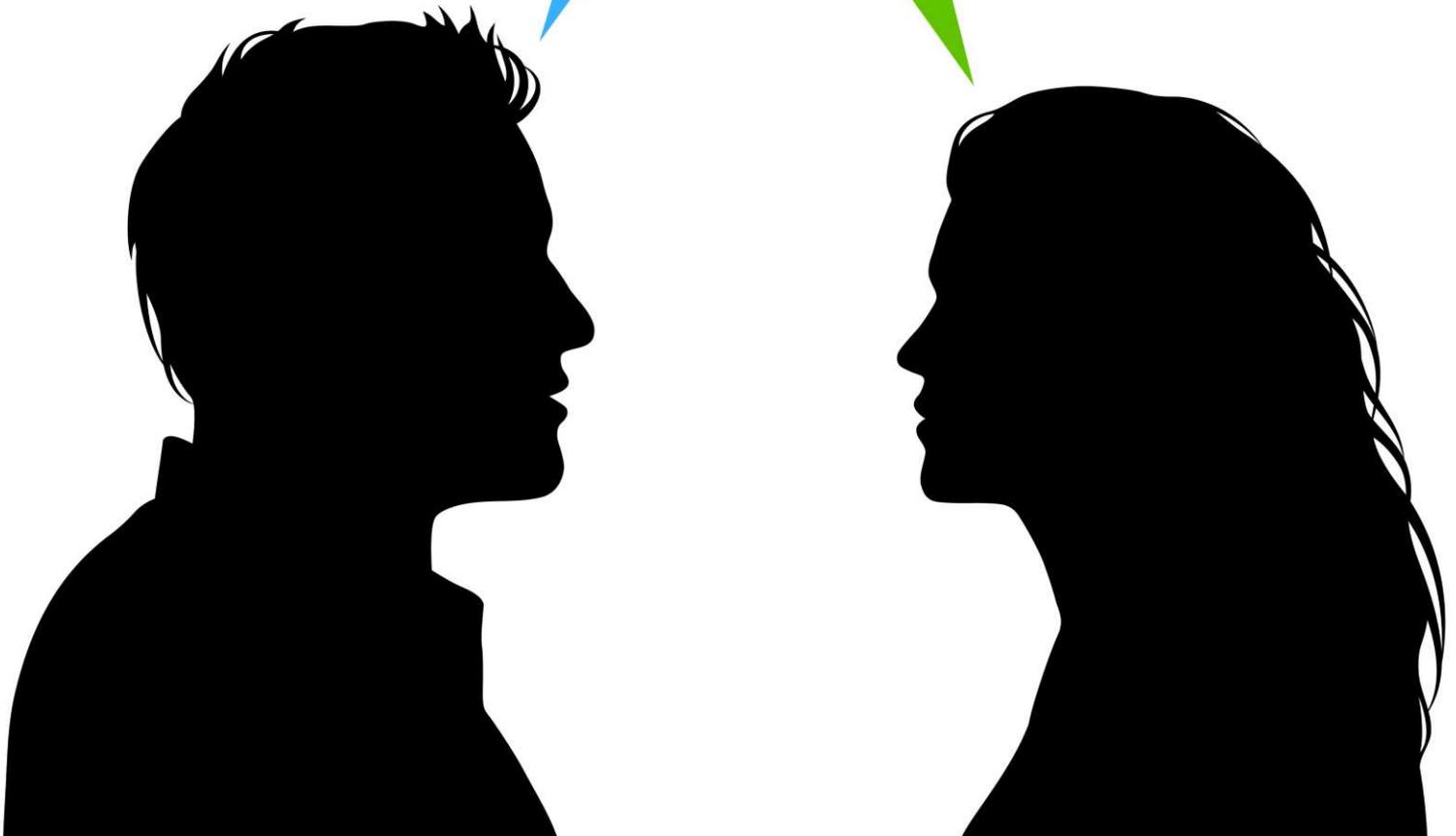


# Roundabout

Newsletter of the IPENZ Transportation Group

Issue 142 December 2014



## **The World is Better with Engineers & Planners Collaborating**

**Also in this edition: Safer Journeys / Parking vs. Cycle Lanes  
Walk21 Sydney Conference / Setting Speed Limits**

# Contents

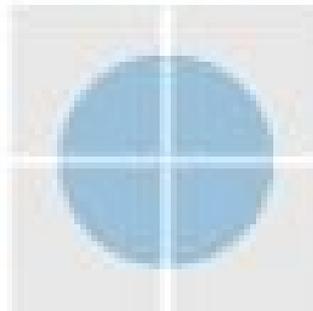
- 3 Editorial
- 4 Chair's Final Final Chat
- 8 Letters to the editor
- 9 AITPM Conference 2015: Report
- 14 Safer Journeys video
- 16 Conference material
- 18 News round-up
- 19 Ghost tube stations go on sale
- 20 News round-up continues
- 22 What can Sydney teach us about walking and cycling?
- 26 Cover story: Engineer + Planners = Success
- 32 Setting Safer Speed Limits: A Safe System Approach
- 34 Branch updates
- 36 Roundabout of the month
- 37 RASCals update
- 38 Essay competition: cycle lanes vs. parking
- 40 Caption competition
- 44 SH20 Waterview update
- 45 Photo competition
- 46 Transport advice for dummies
- 47 Group contact details
- 48 Kids explain traffic engineering

*"Car owners are the creators of wealth. Do you realise that they get exhausted sitting in their cars due to traffic jams and they reach office completely tired?"*  
p20

*"One of the most dramatic and imposing roundabouts I have ever come across."*  
p36

*"I have found the solution - only drive to work at midnight."*  
p46

*"We were aware that cats were trying to take over YouTube, but we didn't realise it was extending to Google Maps."*  
p20



Roundabout is the newsletter of the IPENZ Transportation Group, 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 IPENZ Transportation Group or the editor, except the editorial of course.

Many thanks are due to Opus International Consultants, who sponsor the printing of Roundabout for those members who prefer to receive a hard copy.

Correspondence welcome, to Daniel Newcombe:  
[daniel.newcombe@aucklandtransport.govt.nz](mailto:daniel.newcombe@aucklandtransport.govt.nz)

or c/o Auckland Transport, Private Bag 92250, Auckland 1142

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 IPENZ Transportation Group, you are most welcome to join. Just fill in an application form, available from the Group website:  
<http://ipenz.org.nz/ipenztg/files/TGApp.pdf>

ISSN 01 1 3-9053

# Editorial



I have a confession to make. I'm a planner.

I'm also an engineer (well, I have an engineering degree but am not MIPENZ or CPEng, so maybe I'm just engineer-like). I mention this as this edition's cover story covers the perennial debate about the planning profession versus the engineering profession.

Having a foot in both camps, I'm torn – I don't think either group has a

lock hold on the truth; to create great transport solutions, we need and should value input from both planners and engineers.

In my experience, the best outcomes have occurred not through 'specialists' providing the 'right' answer from their professional viewpoint, but when the project team worked collaboratively on the what would be the best for the customer (usually the public at large).

It occurred when the collective team asked 'what does the customer need and how can we get there?', irrespective of whether that was to be led or determined by one profession or another.

*I've learned...*  
that two people  
can look at the exact  
same thing and see  
something totally  
different.

Conversely, the worst projects I've been involved with are those where turf wars broke out between professions – planners vs. engineers, engineers vs. urban designers, everyone vs. economists – and the purpose of the project was lost.

Often the arguments were ideological and unrelated to the problem at hand, in fact one side 'winning' the argument would mean little for a successful project but would simply let them dominate the process. Funnily enough, most of those projects failed to proceed or took much longer than the ones where collaboration took hold.

***"The worst projects I've been involved with are those where turf wars broke out between professions"***

The cover story – kindly supplied by our ITE brethren – approaches the issue from a fairly high level (and an overseas perspective) but I'm sure much of it will ring true to you. It was thought-provoking when I came across it, which is why I sought permission to reproduce it in Roundabout. Let me know what you think.

Despite my best efforts, Dave Wanty has managed to hang around for one further edition and provides an end-of-series Chair's Chat.

Pravin Dayaram takes over (really this time) for the next one. He has a few new ideas and I hope these will see the light of day over the next few months and be discussed – through the pages of Roundabout, at the Christchurch conference, and elsewhere – for the good of our profession.

It is in all our interests to consider new ways of operating as a profession, building on what worked well in the past but not being beholden to it.

I'm dismayed at the number of times in my career I've come across something I thought needed changing and had an engineer (or a planner for that matter) say 'I'm not sure why we do it like that, but we've always done it that way so we can't change it'.

I personally am not interested in that anymore, and am actively looking to break the mould – why can't we do it? Why not just try and see what happens? Is it the way it is just because no-one has been bothered to change it?

This isn't specifically related to the planning versus engineering theme, but it might as well do – why do we have to operate in professional silos? Why not collaborate? What's the worst that can happen?

**Daniel Newcombe**  
**Roundabout Editor**



# Chair's Final Final Chat



This really is my final 'chat' column, Pravin having requested to take over from January 2015. You might recall that in the last edition I wrote an opinion piece "Moving beyond mediocrity" that looked at the four transport modes and our own profession and our editor added some nice touches. I encouraged some feedback but disappointingly to date none was forthcoming. But you can change that!

## **JOURNEY TO WESTLAND BY ARTHUR'S PASS, RETURNING BY BROWNING'S PASS. OCTOBER, 1865.**

Although the road over Arthur's Pass was pushed on all along the whole line with such energy as never before had been witnessed in the Colony, there was considerable dissatisfaction expressed in the Province that a road was not at once constructed over Browning's Pass at the head of the Wilberforce, notwithstanding that several Engineers had reported as to this alpine saddle being too high and unsuitable for the purpose. Their views were considered to have been biased for some reason or other. The Secretary for Public Works therefore instructed me to visit both Passes, to report generally upon their physical features, and to take also a number of altitude observations

We have reached the end of the IPENZ centenary year. Recently I attended a Tararua Tramping Club (which is NZ's oldest and is celebrating its centenary soon) event on "A history of tramping in NZ" and the authors explained how they added a pre-100 years ago section on tramping with a purpose.

Over the Labour weekend I went on the club's "3 passes" trip up the Waimakariri River, over Harman and Whitehorn passes into the Wilberforce and from Park Morpeth Hut past Clough memorial up Browning Pass and then down the Arahura River following an old gold miners' track. This awesome trip in the spring snow and good weather when everyone else to the north had lousy weather, reminded me of the Canterbury Provincial Council determination to build a road along the

suggested route by Mr Browning (a surveyor) despite the subsequent 'biased' views of engineers as reported by Julius von Hasst (a geologist and explorer, <http://tinyurl.com/davetramp>).

The trip highlighted some other points, including that you cannot take the train to the Waimakariri anymore (it only stops at Arthurs Pass, with Otira upon request), cell phone reception when we reached the road on the West Coast side is limited to a few square metres a few kilometres up the road that few know about, and there are as many wekas on the road as cars or cyclists. Yet there is some amazing new signage (July 2014) and a 'forest' of edge marker posts by the 'offset' car park.

Why you ask? Turns out that this is a new West Coast (cycle) Wilderness Trail that goes off the beaten track from Greymouth to Kumara to Milltown to Kaniere to Hokitika to Ross (refer July 2014 Wilderness magazine). It even has a cycle friendly cattle stop on it, although there is no gate across the track next to it to stop the cattle!

And the nearby 4WD / walking track down to the swingbridge over the Arahura River was in a terrible condition, affected by cattle use (partly the reason why the track up the Johnsonville hill

behind me was regraded in the past months but without anything to prevent the cattle damaging it too). Oh, can anyone tell me why the "Share the Road" signs on the state highways are black on yellow (and not black on white as per photo)?

On the way back from the Coast I met an old MWD carpenter who remembered the last cattle drives up South Westland to the railhead at Ross. Near Arthurs Pass we went past a mountain of bulldozed gravel by Goat Creek I think, towering over the bridge, so if anyone knows of plans there let me know. In Springfield we saw the Rewi Alley Memorial Park (he was the most famous NZer in China for 60 years, establishing industrial co-operatives and technical training schools), before taking route 72 (I wonder what its ONRC is?).

OK, so that's my challenging walking mode experience of late, latest news coming to my attention includes

- The proposed format of the Wellington super-city has been announced, reportedly learning from Auckland by giving local boards greater powers

- New Minister of Transport Simon Bridges has no intention to toll Transmission Gully as it would not speed up its construction. He is very keen though on driverless cars and NZ taking the lead in autonomous vehicles (also said to be keen on electric vehicles).

- Auckland Major Len Brown wants to consider tolling and a regional fuel tax, although someone told me the former Minister of Transport Gerry Brownlee said no way this would happen (not allowed under present legislation and guess who runs parliament!)

- Mercedes hope to release their driverless car in 2017 with swivel seats so it can still be manually driven if need be (this is a Californian requirement that 'upset' Google plans)

- Toyota released a car powered with fuel cells and announced plans for hydrogen stations in Japan (no recent news on the Mazda hydrogen car)

- The reduced driver alcohol limits came into effect on 1 December and Police intend enforcing a zero (1 km/h) speeding tolerance over the summer vacation

- The year to date road toll is running about 8½ percent higher than last year, with the Wanganui/Manawatu region noticeably much worse (breakdown by SH/local road is unavailable)

- The replacement CAS system rollout is delayed slightly to September 2015 (will be free)

- No word as yet from the NZTA about the update to the July 2013 EEM (or incorporation of typos, errors and uncertainty alerted to the NZTA in the past three years)

- The NZTA appear to have introduced for 2015-2018 in the assessment profile, new efficiency thresholds (BCR 2-4 becoming 3-5, refer [www.pikb.co.nz/assessment-framework](http://www.pikb.co.nz/assessment-framework))



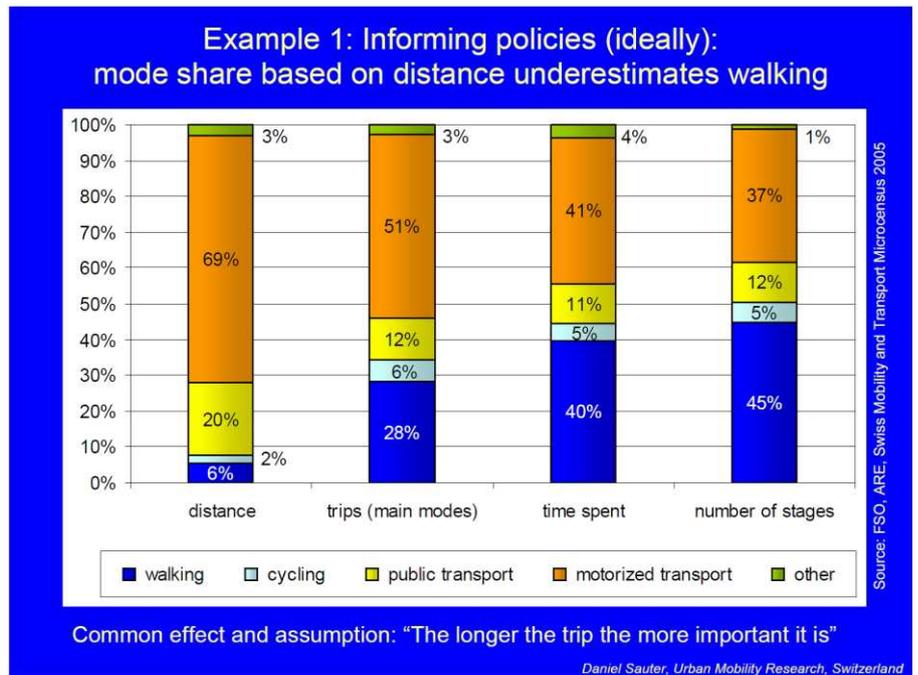
- No website update from the NZTA about the Traffic Control Devices manual however I am pleased to report from recent email correspondence, that Parts 4 (TCD at intersections) and Part 5 (TCD between intersections) are due for consultation in 2015 first quarter and soon after and Part 6 speed management that will be incorporated in a Safer Journeys workstream and output as a guide.

- Our research sub-committee is meeting during our March 2015 conference in Christchurch. They as well as SNUG and National Committee submitted research ideas to the NZTA.

- MoT briefing(s) to their new minister: <http://www.transport.govt.nz/news/ce/bim-released/> It includes within its 46 pages
  - mention of the Urban Cycling Representation Panel to be appointed to investigate opportunities to invest the additional (supplement to the NLTP walking and cycling activity class) \$100 million over four years
  - mention of the Road Efficiency Group and the \$280 million targeted saving by 2016 of state highway and local roading maintenance and renewals
  - map of full (58t) HPMV scheduled routes by 2015 and 50MAX participation by local authorities
  - Ngauranga to Aotea Quay starting 2016/17
  - expectation that from 2018 all road programmes will use the ONRC
  - table of the 14 regional projects in the up to \$212 million Future Investment Fund (June 2014)
  - outline of the \$375 million loan (announced 2014 budget) to accelerate key Auckland projects
  - two part-sections (Rail 2045, Improving Road Policing) curiously blanked out under the OIA

- The MoT is publishing material at the end of the year on the following three project areas
  - transport and the economy: how economic development will shape transport policy
  - future demand: how we will want to use transport in the future
  - future funding: the viability of different funding sources and the optimal level of infrastructure investment.

- The MoT has just published 3 reports in their Strategic Policy Programme (not easy



to find!)  
 - FE transport and the economy: how economic development will shape transport policy

<http://transport.govt.nz/ourwork/keystategieandplans/strategic-policy-programme/economic-development/>  
 - FD future demand: how we will want to use transport in the future

<http://transport.govt.nz/ourwork/keystategieandplans/strategic-policy-programme/future-demand/>  
 - FF future funding: the viability of different funding sources and the optimal level of infrastructure investment

<http://transport.govt.nz/ourwork/keystategieandplans/strategic-policy-programme/future-funding/#publications>

On the Walking and Cycling front, I attended a public address by Daniel Sauter who was a keynote speaker at the 2Walk&Cycle Nelson conference. One aspect I recall is the quoting of mode share statistics. I recorded he said walking was 6% by distance, 28% (main modes), 40% time spent, and 45% change/links). He also stated spending of governments relate to long distance trips yet 63% of trips are < 5 km.

Walking is a key part of most transport journeys. Cycling makes up around 1.4 percent of travel journeys. Figure 10 shows the use of each mode in 100km, per year. Both modes contribute to Initiatives to improve health and physical activity and reduce emissions

TRAVEL MODE	1989/90	1997/98	2003-06	2004-07	2005-08	2006-09	2007-10	2008-11	2009-12	2010-13
Car/van driver	183.2	251.6	290.8	296.2	299.9	302.2	294.4	287.4	291.3	295.3
Car/van passenger	115.5	132.9	150.7	148.1	148.4	149.8	149.2	142.7	146.7	145.0
Pedestrian	8.4	8.9	7.4	8.0	7.9	8.1	7.8	7.8	7.7	7.7
Cyclist	3.5	2.8	2.6	2.6	3.0	2.8	3.5	3.1	3.4	3.0
Motorcyclist	3.1	1.8	2.5	2.4	2.6	1.9	2.4	2.4	2.7	2.8
<b>Public transport</b>										
Bus	15.2	17.7	12.1	11.5	10.4	10.9	11.5	12.7	12.1	11.4
Train	-	-	4.0	3.9	3.3	3.3	3.3	3.2	2.7	3.5

Source: Transport Sector briefing to the incoming Minister (released MoT website 19/11/2014).



Keep up to date with IPENZ Transportation Group happenings:

[www.ipenz.org.nz/ipenztg](http://www.ipenz.org.nz/ipenztg)  
[www.twitter.com/ipenztg](https://twitter.com/ipenztg)  
[www.facebook.com/ipenztg](https://www.facebook.com/ipenztg)



His statements about need to change the priority accorded to walking and cycling through, among other things, how the mode statistics are presented is borne true in the statistics, clearly from the MoT (ongoing) household travel survey, provided to the new Minister Simon Bridges, shown below.

Interestingly no mention of trucks (rail stated as carrying 16% total freight task in tonnes kilometres [cf 18B t/km road, 4.6B t/km rail that gives >20% rail]). Bus and rail boardings for 2013/14 were 109 and 105 million respectively, which to me seems inconsistent with their travel km [cf 165 million bus, rail ferry PT annual trips in the Transport Sector BIM, confirming the inconsistent figures and/or their apparent meaning].

On the National Committee front:

- Alan Gregory has taken over from me as the membership secretary and he intends to stand for the Vice-chair role being advertised shortly

- We have welcomed two new branch chairs this year (Steve Carruthers and Jeanette Ward)

- Pravin becomes the incoming Chair and continues as Treasurer – he should be attending the IPENZ Eng Prof Forum mid-March 2015 in Wellington (maybe I will assist him at the time)

- IPENZ are changing their system affecting generic email addresses so our request for some is effectively dead

- We recently supported an active member's request to help support her to attend and give an address at an overseas conference so expect to hear more on that

- We will be advertising a Research Grant ('complements' the Study Award) around conference time

- We hope to co-sponsor another keynote overseas speaker next year on a speaking tour

- We intend sending out an email to our student and retired/life members initially, asking if any member is interested in being engaged to provide administrative duties for National Committee (if anyone is interested contact Pravin in the first instance)

- At our 2015 Christchurch conference Sun 22- Tue 24 March there will be reduced rates for Young Professionals with students half their rate, so we hope to see many take advantage of this value-for-money.

<http://conf.hardingconsultants.co.nz/ipenzg2015/registration>

- At this stage we have decided not to follow up with the Government re driverless vehicles, instead leaving that matter to ITS New Zealand to pursue if they so wish. Interesting of course how they might fundamentally change our future travel in the long term and hence effect strategic transport modelling.

- Due to a request to postpone at late notice, we have yet to meet with the NZTA to discuss expanding our mutually beneficial participation in their working committees/groups (this can also involve IPENZ national office) and to discuss the next EEM update and concerns we have raised.

- National Committee will be holding pre & post Sunday lunch working sessions at the conference

In case you are wondering, our AGM has shifted back to the Conference where the research sub-committee will also be meeting and Bridget standing down. Our chair's (and possibly) treasurer's report to IPENZ will become available on their website and info re our last AGM is posted in our members only area.

Finally thank you to all who have assisted me in my four years as Vice Chair and Chair. I would encourage you all to support your Branch and National Committee and I look forward to a change

in role assisting Pravin et al for 2015-2016 as immediate past chair. Thanks to the sub-group chairs and secretaries and to Ken Lee-Joe who has stepped aside as SNUG chair.

Thanks to Bridget Burdett who reinvigorated the research sub-committee and I hope someone of like passion will take up the mantle there, which blends in well with our Strategic Plan directives. Huge thanks to Roger Burra who was our able national administrator during his lengthy term and to Renee our IPENZ technical group administrator, plus others of our parent body with whom we have been in liaison (recall my introduction of them at our Wellington 2014 IPENZ centenary conference).

I also thank employers for the time off they allow our representatives to perform duties associated with various tasks and roles, and also to the sponsors of our branch presentations and annual conferences / workshops. Without your support we could not achieve our goals and you are most welcome to contact me at any time to discuss any matter in confidence. I also thank Glenda and her team in making our Group conferences so successful over the years, and I thank our members who help critique the submitted abstract and papers, plus those who judge them. Of course the continued support of 3M as sponsor of our premiere safety award and the NZAA as sponsor of our longest running award is also greatly appreciated.

I encourage members to give active feedback, ideas and contributions to your branch/sub-group and to our erstwhile Roundabout editor Daniel Newcombe to whom thanks are due (and also in his active role as our Awards coordinator). I look forward to catching up with you in Christchurch, to rebuild relationships and our Group community, not just infrastructure.



Map of where Google Streetview is available



## Seminar Invitation: Making Roads Motorcycle Friendly (February 9-13, 2015)

We've all seen the sobering statistics. The risk of a motorcyclist being killed in a crash on New Zealand roads is about 22 times higher than that of a car driver (2008–2012 data).

International road safety expert Kenn Beer will show you how your engineering decisions as roading professionals can help reduce those odds. While at VicRoads, Kenn managed over \$20 million on infrastructure improvements to specifically reduce road trauma for motorcyclists in Victoria.

Come along to our free half-day seminars and help us meet one of the biggest challenges in road safety – how to make roads motorcycle friendly.

Seminars run from 9am to 12.30pm with a free lunch to follow at these venues:

- Jet Park Auckland, Monday 09 February
- Millennium Rotorua, Tuesday 10 February
- Kingsgate Hotel Dunedin, Wednesday 11 February
- Quality Hotel Elms, Christchurch Thursday 12 February
- Kingsgate Hotel Wellington, Friday 13 February

**Hurry! Register your details by Friday 19 December.** To RSVP please click **HERE** or go to <http://churl.co/2ize>

*Brought to you by the Motorcycle Safety Advisory Council.*



# Letters to the editor

Dear editor

Did Campbell Live get Brad Hayes' hackles up? Well Brad's letter got mine up (a tiny bit).

Brad took exception to the idea that we should get children walking and cycling to school, saying children "are precious and their safety should not be sacrificed to reduce congestion" and that "children ought to be dropped off by car because generally they are less visible, slower and their road skills aren't as developed as older road users".

We have progressed beyond the sad old days when road safety professionals went on at health professionals about the 'dangers' inherent in encouraging walking and cycling to school. In fact I'm starting to wonder whether Brad's letter is tongue-in-cheek, written after a shoulder-tap from the Editor, to provoke debate?

However, I'll assume Brad was serious. In which case ponder that children walking and cycling to school will pick up road safety skills, reap valuable preventive health benefits (essential in this age of child obesity), and benefit in their emotional development from the freedom to make their own way (if alone) and from a valuable relationship-building opportunity (if with parents or friends). And that's without even considering congestion issues.

As for the road safety danger, there is a wealth of experience in speed management, traffic calming, urban design and school-based travel planning – not to mention good ol' fashioned traffic management and multi-modal transport planning – and Transportation Group members have been in the forefront of this. But I'm still left wondering whether Brad was tongue-in-cheek, in which case I've been 'had'.

Roger Boulter  
Boulter Consulting

---

*[Please note the following letter was inadvertently omitted from the previous Roundabout edition. My apologies for this - Ed]*

Dear Editor

I would like to make the following comments on items in Roundabout Issue 140.

## **1 Vale Carne Clissold**

I was looking at the photo in Roundabout taken in 1964 and wondered if any of those in the front row are still alive. I was not in the photo because in 1964 I was at the University of NSW. Graeme Bullen, next to Carne, later went back off to the USA from where he had only recently returned. Earl Sanderson is at the left end of the front row and was stationed at the Dunedin office. Two faces in the back row that I recognise are Mike Wesseldine and Roger Chapman. Mike left to join local government and Roger went to University of NSW and then to UCL London. The others in the photo were all 'newbies'.

According to the Transport Department records Carne was born in July 1934, not 1935 per Roundabout, and was the eldest of the surviving cadets who had joined the Department. The system of moving cadets to various districts when they were attempting to complete full-time degrees was not an ideal system. Changing universities resulted in a set back to ones progress. While subjects at different universities had the same name the contents differed. For example Maths 2 at Canterbury was different to Maths 2 at Wellington. The result was that the completion of a degree was stretched out over many years. This may have been the cause of many other cadets resigning. The scheme did little for any kind of personal life.

I joined the Transport Department in 1958 and worked with Carne in the Christchurch office. In 1959 I went to the Wellington office and recall working with Carne on roads in the Hutt valley in the middle of the night on some aspect of visual acuity. Also on several occasions walking in the middle of the road surveying for no-passing lines on SH1. When the new Wellington airport was to be opened we were all invited to Carne's parents' home to view the fly byes of UK air force planes. A vivid memory as one of the big planes scrapped the runway by flying too low.

Carne went off to do the postgraduate Traffic Engineering course at the University of NSW. In 1962, as you say, Carne was sent to the Hamilton office. Ross Palmer who had been the Chief Traffic Engineer died of a heart attack at the age of 34 and that left an opportunity for promotion. 1967 was a windfall for resignations from the Department including mine. I joined the Traffic Commission of Victoria and had occasional visits from Des Hogan [ex District Officer, Christchurch] and Barney Campbell [two along from Carne in the photo].

Must have had correspondence with Carne about the "left turn give way rule" as Victoria had that rule and changed it to left turn has right of way at the time NZ decided to adopt our old rule. I think the last contact I had with him was at an ARRB conference in Sydney when he suggested that I apply for a Churchill fellowship for a time in New Zealand but things were too busy to follow up on that. I gained a lot from working with Carne.

## **2 The Impact of Adaptive lighting on Road Safety**

The authors say that the literature generally associates improved road lighting with crash reduction of 30%. Further they say 'in reports of before and after studies the prior and post levels of lighting are seldom stated' and then state that they know how safety in urban NZ varies with the level of lighting and refer to their Figure 1. Figure 1 shows a simple Night to Day ratio of crashes compared to average luminance. The further propositions in the paper appear to be based on the results in the graph.

I have over the years taken an interest in the claims for crash reduction by improved lighting. I have found that Road Authorities tend to ignore results of studies that do not conform to their pre-conceived notions. For example consider the work by Ted Vincent, a Vic Roads engineer, the essence of which can be found in 'Traffic Accident Evaluation' [Andreassen & Gipps editors, 1983]. He looked at 29 studies of lighting and crashes of which only eleven were original studies. The other published papers merely quoted the results of earlier studies. Vincent showed there was much faulty experimental and analysis techniques in the studies. Only one study met all his criteria and the authors of that paper said they could not find any effects.

I assume that Frith and Jackett might be referring to CIE [1992] in quoting the 30% reduction in crashes. CIE looked at 62 past lighting studies from 15 countries. In many studies the safety effect was determined by the ratio:  $[Na/Nb] / [Da/Db]$   
 Where Na is the number of night crashes after the road lighting was installed  
 Nb ditto before the lighting was installed  
 Da number of day crashes after the lighting was installed  
 Db ditto before the lighting was installed

From 62 Studies there were 104 results -

- 89 showed reductions in crashes and 28 were statistically significant
- 6 results showed increases in crashes, 2 of which were significant
- Of the 89 with reductions, 75 were of the before and after type and of these 26 were significant.

It is clear that only about a quarter of the studies showed a significant reduction in crashes due to lighting improvements. Many of the studies have deficiencies in their method which casts doubts on the validity of individual results. CIE suggested that the before and after studies with control sites as the most reliable. With these dubious results the effects claimed by the authors require some substantiation and clarification.

### Effect of reduced lighting on crashes

A report was done for VicRoads in 2003 by John Piper Traffic Pty Ltd. That report also discussed studies of the effect of altering lighting levels. The AS/NZS 1158: 1997 has lighting categories V1 to V5 that apply to different traffic routes.

#### Route lighting LTP

Category	Initial min. av. carriageway luminance Cd/m <sup>2</sup>	Maintained min. av. carriageway luminance
V1	2	1.5
V2	1.5	1.0
V3	1.0	0.75
V4	0.75	0.5
V5	0.5	0.35

The report has the following points -

A VicRoads Project (2000) investigated the possible benefits of lighting to half the levels of V3 on outer urban main roads (i.e. lighting to  $L_{av} = 0.5 \text{ cd/m}^2$ ,  $U_o = 0.17$  and  $U_L = 0.25$ ). The study compared three roads around the surrounding area, one with lighting and a daily traffic of 15,000 vehicles, one with half V3 with about 10,000 vehicles and one with no lighting and 7,800 vehicles per day. The study found that there was an insufficient number of crashes to perform a statistical analysis and not enough traffic data to reliably calculate crash rates.

The study also surveyed a focus group that provided opinions on the lighting at the three sites. They felt that the site with no lighting would be of concern with regard to personal safety, and the half V3 lighting would contribute to the safety of pedestrians and to their personal security. The study concluded that half V3 could be beneficial in improving the perception of pedestrian safety but could draw no conclusion on the safety benefit of half V3 lighting.

There was some interest in Europe (The Netherlands and the U.K.) in trialling a road lighting dimming system which reduces the overall level of lighting according to the measured traffic volumes, ambient light levels and weather conditions on that road section. In The Netherlands, where the development was a little more advanced, they were trialling three levels of pavement luminance, low (0.2 cd/m<sup>2</sup>), normal (1.0 cd/m<sup>2</sup>), and high (2.0 cd/m<sup>2</sup>). The low level is used for low traffic volumes and good weather and is termed "guidance lighting". The high level is used in poor weather conditions and /or serious incidents together with high traffic volumes. At all other times the normal level is used.

In early trials they found that the low level was used 67% of the time, and the normal level 31% of the time. It was envisaged that in future trials the high level would not be used. Data on the accident statistics had not been released by the time of the 2003 report. A similar installation was put in place in the UK, along seven miles of the M65 motorway where the light levels were arranged to be 100%, 70%, and 50% The calculated light levels along the carriageway were at 100%  $L_{av} = 1.49 \text{ cd/m}^2$ ,  $U_o = 0.62$ ,  $U_L = 0.85$ . The installation was operating in 1999 but no crash data had been released by 2003.

### Does street lighting have a universal effect on crashes

The matter of road lighting and studies of the effects on crashes has, in my opinion, been one that involves a multitude of factors that are seldom taken into account. Some of the factors are listed below -

- The driver population at night differs from the daytime driver population. Thence daytime crashes are not a good comparison for night crashes.
- Figure 1 shows a simple Night to Day ratio compared to average luminance. Many years ago I was out at night with Carne Clissold on the roads on the approach to the yet-to-be-opened Wellington airport. The effect of lantern spacing was demonstrated by MoW staff showing how uniformity of luminance was more important than average luminance. If lantern spacing gave dark patches, a pedestrian who crossed the road in one was invisible to a driver.
- Crashes come in many different types, the type affecting the degree of resulting injury. Little if any work has been done in looking at the effect of lighting on crash types, pedestrian crashes excepted.
- The type of crashes experienced varies between individual roads.
- More drunk driving occurs at night and if intensive enforcement is applied at night that could reduce night crashes independently of any improvement of lighting levels.
- Did the authors use any control locations in their study?
- Were any readings of lighting levels done on wet roads?

As I am critical of the claims of studies of crash reduction due to road lighting I find the same problem with an exact relationship claimed between levels of lighting and crash reduction.

Dr David Andreassen

#### References

CIE [1992] Road lighting as an accident countermeasures. Pubn No 93 CIE Vienna  
 John Piper Traffic [2003] Review of street lighting standards. John Piper Traffic Pty Ltd

# AITPM Conference 2015: report



*Gabriela Surja (Civil Engineer, AECOM) and Craig Mitchell (Senior Transport Planner, Aurecon) recently travelled to the AITPM Conference in Adelaide, Australia with sponsorship assistance from the IPENZ Transportation Group. This is their report on proceedings and learnings from the conference.*

## **Introduction**

The Australian Institute of Traffic Planning and Management (AITPM) held their National Conference in Adelaide in mid-August. This event was attended by over 300 delegates, drawn from local authorities from across Australia, a range of small to large consultants, software vendors and data collection companies, and not to mention a small but keen group of attendees from New Zealand.

The first two days of the conference involved delegates and presenters being split across three streams (transport planning, traffic engineering and transport/ land use modelling). The final day involved forums covering matters such as how to engage communities, design for all in arterial road activity centres and how to use transport models to assess intelligent transport systems and streetscape improvements.

## **Recurring themes**

During the course of the conference, there were a frequent number of presentations that reflected underlying recurring themes. One of these was a very evident tension between delivering big ticket infrastructure and the implications of this on alternative spend for more minor (perhaps less glamorous) projects. This may all

sound quite familiar to Aucklanders given current challenges and conversations around the cost of the City Rail Link and its impact on rates and/ or other council initiatives and transport upgrades.

It seems that this challenge remains no matter the size of the area in question. An interesting perspective on this was a presentation by Mayor O'Loughlin from the City of Prospect, a local government area within Adelaide with a population of only 21,000 residents who discussed a recent urban design upgrade to one of their main streets. While this project only cost \$A3.4m it was still represented a once in a generation investment for the authority, and required a complete freeze on any other capital projects by the authority for two years.

Communication between government authorities or lack thereof was also frequently mentioned has a considerable challenge. Perhaps this was not surprising given the structure of Australian government organisations, for example Adelaide has 18 different local government areas (Sydney has 38!) plus state and federal government departments. Maybe the Auckland Supercity isn't such a bad thing after all!

## **Observations of Adelaide**

One of the side benefits of attending the conference was the chance to see a few of the highlights of Adelaide. As it happens, several parts of Adelaide have



*Conference in action (challenge – spot some NZ delegates)*

come up as examples in recent working life and consequently it was a good chance to see them in practice.

This includes North Terrace, which is an example of urban park treatments along a road corridor and touted as one of the examples to follow for a proposed linear park in centre Auckland. Walking past one lunch time, it was impressive to see how this space generates a range of urban interactions, even against a relatively heavily trafficked road arterial.



*North Terrace, Adelaide*

During this same lunchtime stroll, I also checked out the Adelaide City Centre Bus Interchange. This provided some interesting perspective on the positive and negative aspects of an internal focused bus facility. The logic of building a car park over the bus station was also a curious one.



*Adelaide Bus Station*

However, perhaps with a slight sports bias, without a doubt the most impressive feature within Adelaide (excluding perhaps the beautiful old churches and historic buildings) was the recently upgraded Adelaide Oval, complete with new pedestrian bridge. It now provides by all accounts a real centre of activity for the city centre and makes use of a central location to provide an integrated outcome with the city centre and surrounding transport network. This facility could provide an interesting benchmark for the proposed new stadium within the Christchurch city centre.



*Adelaide Oval*

### Presentations of particular interest

All of the presentation papers are available on the AITPM Conference website [www.aitpm.com.au/conference/papers](http://www.aitpm.com.au/conference/papers). Of course all presentations and presenters were fantastic, but there were a few that particularly caught our interest and are briefly summarised below (along with the presenters' names and the presentation titles).

#### Fainks Rossouw – Road Safety of International Road Users on the Gold Coast

Research shown that international visitors are more likely to be involved in angle type crashes and less inclined to use seatbelts, but no more likely to engage in high risk behaviours such as speeding or driving under the influence of alcohol or drugs. Fatigue is often contributing factor to crashes involving international visitor. It is important to communicate road safety prior to big event attracting international tourist, to remind pedestrian to 'Look Right', and having adequate signage on road safety and rules at the airport arrival area, in rental cars, and accommodation places.

#### Megan Collier – Acceptance of safer Speeds

Speed limit reduction is a key element of the Safe System approach. Proper research and survey in this area is important as if the reduced speed is not generally accepted by public then the higher levels of enforcement and expensive engineering treatments that are required to ensure compliance. The research found that there is good support for reducing speed limits in urban shopping streets at least to 40km/h, and that drivers are more likely to slow down if there is supporting information to justify the speed drop. Below are some examples of signs with supporting information.



#### Freek Faber – Policy Implications of Cooperative-ITS Core Functions

A cooperative-ITS (C-ITS) platform for Australia is currently being proposed. C-ITS is a wireless communication between vehicle, infrastructure and personal devices which aims to improve safety on the road, without compromising privacy of road users. Some of the C-ITS features include automated hazard detection, priority of way, parking management, virtual signage, and multimodal traveller information. Before C-ITS can be interoperable across Australia, care needs to be taken to ensure that the exchange data and the sender can be trusted, privacy of drivers are protected, and the system's safety benefits are proven.

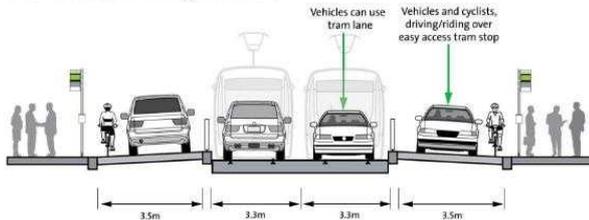


*C-ITS enabling automated surrounding hazard detection*

**Brendan Pauwels – Easy Access Tram Stops on Bridge Road, Richmond**

Melbourne’s Easy Access Tram Stop at Bridge Road involves raising the kerbside lane by 290mm to tie in with the footpath and meet the floor of an adjacent tram. The central lane where trams operate remains at existing level, while tram passengers wait on the footpaths. This provides level access from the footpath onto trams, while maintaining two lanes of traffic during clearway operating hours.

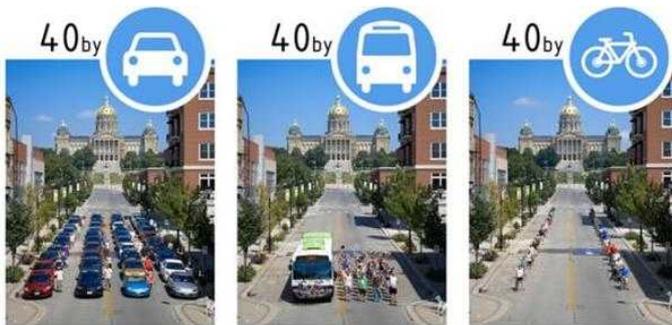
**Cross section of a Bridge Road EAS**



*Typical cross section for Easy Access Stop on Bridge Road*

**Andrew Morse – Why We Need More End of Trip Facilities**

There is an increasing trend in the number of commuting cyclists in Australia. This calls for more End of Trip Facilities (EOTF) which is basically a place to lock bikes, store items in lockers and have showers, for use by people who cycle or run to work. Workplaces with adequate EOTF generally have higher staff retention.



*Space required to transport the same number of passengers by different modes*

**Tony Fitts – Improving Access for Cyclists at Signalised Intersections**

VicRoad aims to increase the number of cyclists on the network by removing gaps and improving the safety for cyclists, and Tony explains some improvements that has been made to the cycling facilities at intersection in the Melbourne network:



*Bank Street 'Before' (Left) and 'After' (Right) – Source: Jensen Planning + Design*

- Bicycle detection system
- Double-phasing for bicycles (outside AM & PM peak hours)
- Early start (up to 6 seconds) for bicycle prior to the vehicle green. This allows cyclists to establish themselves into the intersection and almost complete their movement safely before vehicles enter the intersection.
- Two-way bicycle lanes, as shown below



**Peter Jensen – “Streets for People Showcase” – Innovation through Integrated Transport and Urban Design**

Peter showed several street revitalisation and innovative residential street projects that have incorporated the South Australian Streets for People Compendium’s design principles. Peter also pointed out that on-street parking arrangements can have a significant impact on the widths of footpaths, the provision of cycle lanes, the opportunity for outdoor dining and trading, as well as potential space for public art and landscaping within the footpath. The figure below shows the before and after photos of Bank Street, where the on-street parking spaces have been transformed into seating and outdoor dining spaces.

**Summary**

Attending the 2014 AITPM Conference was a very enjoyable and valuable experience for us; not only did we gain knowledge and insights from listening to transport professionals with various background and projects, we also had the opportunity to broaden our network in Australia. It is amazing to see our Australian counterparts being very passionate about supporting the development and the operational success of the Australian transportation infrastructure, as well as making continuous contribution to travel behaviour improvements.

We would like to thank our employers (AECOM and Aurecon) for the opportunity to attend this event, as well as the IPENZ Transportation Group for their funding assistance.



*Got a  
good  
idea?*

**Hurry! Applications close  
Friday 19th!!**

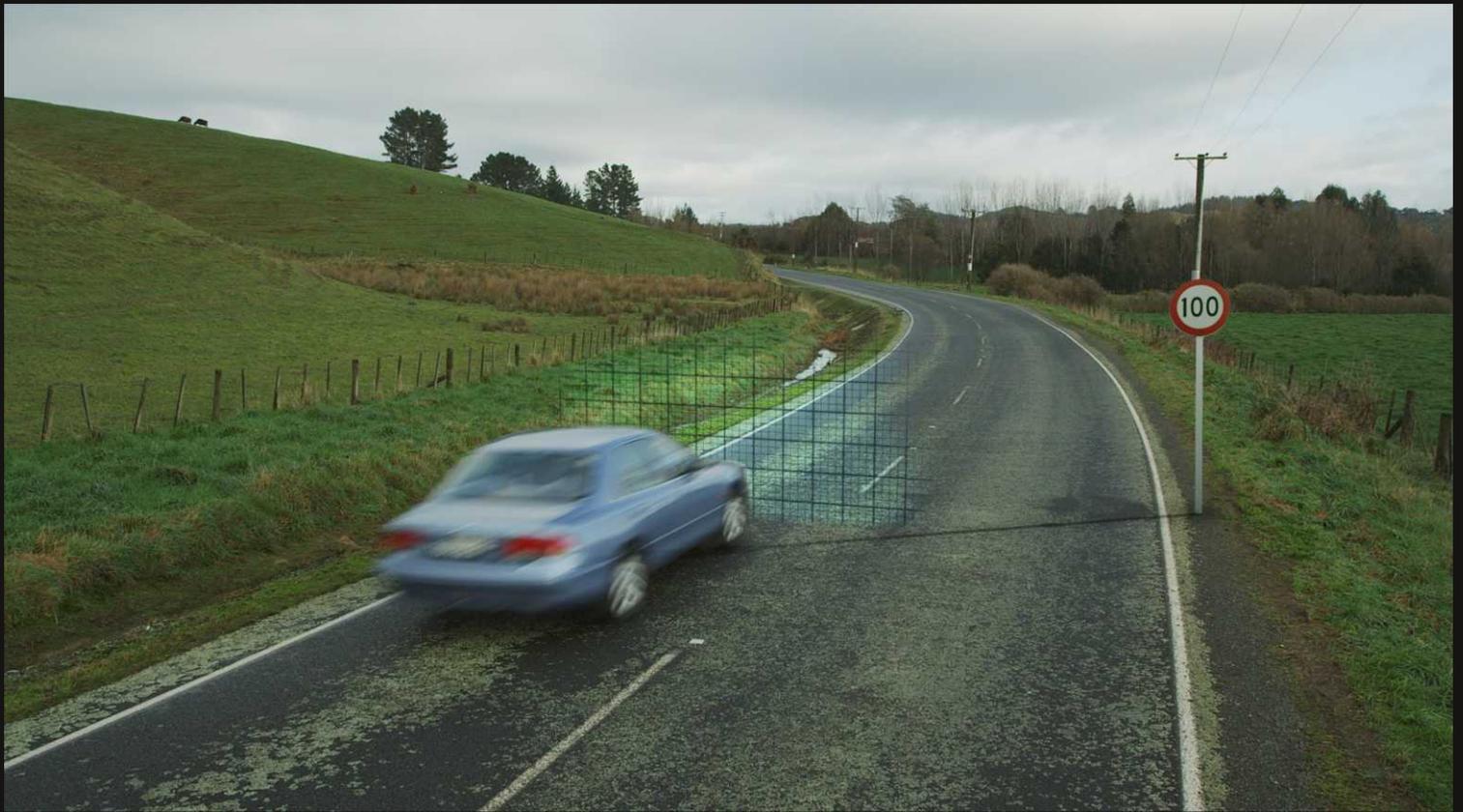
# **IPENZ Transportation Group Study Award 2015**

The IPENZ Transportation Group aims to advance the knowledge base and practice of the transportation profession in New Zealand. Each year the Group provides a Study Award worth up to **\$10,000** for a Group member(s) to undertake study in New Zealand or overseas, to learn about issues that are important and topical in the transportation area, and then to spread that useful and usable knowledge to peers.

If you believe you can help the profession learn more about important transportation issues, apply now for the IPENZ Transportation Group Study Award. The essential requirements are that the study area is relevant to the interests of the Group, and that you document and disseminate your new found knowledge to your Group peers.

The deadline for applications is **Friday 19th December 2014**.  
For details go to: <http://tinyurl.com/studyaward2015>





"I believe.. ...I **truly believe** we can get it to zero.  
We can make it a safe system."

..watch the video to find out who said this..

A message to transport industry professionals:  
**You** are the difference between life and death.

Watch the video at

[www.saferjourneys.govt.nz](http://www.saferjourneys.govt.nz)



# Safer Journeys video - it's for you

Safer Journeys has created a new video: "The difference between life and death". The most important message to transport professionals is the basic one of shared responsibility.

You are key system designers – so you need to share responsibility for reducing crash forces to survivable levels.

For consultants, this means giving advice to the client that is consistent with that big goal, and challenging the client if necessary. Professional advisers such as planners and engineers need to have the knowledge and courage to challenge the status quo... because the status quo creates situations that are less than safe, and it's up to all of us to change things.

## What was the main driver for creating this new resource?

Our two day Safe System in Practice course has been highly successful and we wanted to build on this success by getting the basic messages out to a much wider group of people. We needed to challenge decision makers, community leaders and other influencers such as the media. And we needed to do that in a sustainable way.

So we developed a resource that captured the essence of the two day course and that could be shown anywhere, by anyone, at any time. We hope our partners will take it to council meetings, conferences, industry gatherings, community meetings, classrooms...

It is designed to get people to think differently about road safety and to realise that they have a part to play. We want to create advocates for the safe system approach, because greater understanding of and demand for road safety will lead to the next step change in New Zealand. After all, the safe system is the difference between life and death!

## It's not just for 'safety engineers'. This video is for everyone.

The key objectives of the video are to:

- Increase understanding of and support for the vision, principles and underlying philosophy of the Safe System approach to road safety.

- Increase understanding of the key concepts in each of the four elements of the system – People make mistakes, people are vulnerable, we need to share responsibility, and we need to strengthen all parts of the system.

- To stimulate discussion and motivate viewers to want to play their part in championing the Safe System approach. If viewers believe it has achieved the above – then it's a success.

## How long did it take to produce?

The idea came about in March 2014, and the rest is a story of perseverance and agility over the past 8 months to bring this idea to life.

## Key partners involved and special mentions

Our Safer Journeys partners from Ministry of Transport, Police and ACC got alongside to support the making of this film. A special thanks to NZ Police staff and NZ Transport Agency staff also, who featured in the film. And also our behind the scenes Transport Agency road safety family.

Feedback from world leading road safety practitioners:

*"Simply the best I have ever seen and moved me to the core. Congratulations to all of you it is simply brilliant."* (Iain Cameron)

*"It's a great film and will certainly help change the conversation, even among classic car owners!"* (Tony Bliss)

*"A great piece. I hope it gets widely used in training courses for police, engineers, etc as well as in schools and, above all, in political and senior bureaucratic circles. Well done"* (Ian Johnston)

*"It is wonderful! I am unaware of any jurisdiction producing such a professional road safety educational aid, on such an important, yet complex and fundamental underpinning issue and it is to your great credit that you have done this. Great to see you pressing the agenda hard and being at the top of your game. Congratulations on a strong substantial contribution."* (Eric Howard)

## Road Safety Quiz - how much do you know?

1. Approximately how many people were injured in crashes on NZ roads in 2012?  
a) 3,000 b) 6,000  
c) 9,000 d) 12,000
2. Which of these factors is most common in injury crashes?  
a) Travelling too fast for conditions  
b) Alcohol or drugs  
c) Driver inattention or attention diverted  
d) Driver inexperience
3. What time of day has the greatest number of injury crashes?  
a) 9am-Midday  
b) 3pm-6pm  
c) 9pm-Midnight  
d) Midnight-3am
4. What group have the highest crash risk?  
a) Drivers on a learner licence  
b) Drivers in the first year of their restricted licence  
c) Elderly drivers
5. Do most injury crashes involve?  
a) A driver losing control on a bend  
b) A head-on impact  
c) A rear-end impact  
d) Overtaking or changing lanes
6. Approximately how many road deaths are from crashes involving a single vehicle losing control or running off the road?  
a) 7% b) 17%  
c) 27% d) 37%
7. What age group has the most deaths and injuries from road crashes?  
a) 15-24 year olds  
b) 25-34 year olds  
c) 35-44 year olds  
d) 45-54 year olds  
e) 55-64 year olds  
f) 65+ year olds
8. What is the rate of front-seat safety belt wearing in New Zealand?  
a) 86% b) 90%  
c) 96% d) 99%
9. Approximately how many vehicle occupants who die in a road crash were not wearing a seat belt?  
a) 5% b) 15%  
c) 25% d) 40%
10. How long is the average time for a driver to start reacting to a hazard on the road ahead of them?  
a) Less than a second  
b) 1-2 seconds  
c) 2-3 seconds  
d) 3-4 seconds
11. At 100kph, how far back from the car ahead do you need to be to keep the required 2-second following distance?  
a) 25m b) 35m  
c) 45m d) 55m
12. True or false, occupants in a 5-star ANCAP safety rated car are twice as likely to survive a crash compared to a 1-star rated vehicle?

Check your answers on page 37

# IPENZ Transportation Group 2015 Conference

Rydges Hotel  
Christchurch

22 – 24 March / 2015

[ipenztg2015.co.nz](http://ipenztg2015.co.nz)

## Key Note Speakers



### Smart Transportation for Shared Prosperity

**Chris Bennett**  
Senior Transport Specialist, World Bank



### Demand Management for Major Events

**Rose McArthur**  
Technical Director and  
Travel Demand Management  
Practice Leader, Jacobs Group (UK)



### Bringing Smarter, Safer Transport to NZ

**Craig Burrell and Suzi Shaw Lyons**  
Operations Director, AECOM and Smarter  
Cities Portfolio Executive, IBM.



### Implementation of an Accessible City

**Rob Kerr and Don Miskell**  
Development Director— Anchor Projects,  
Canterbury Earthquake Recovery  
Authority (CERA), and General Manager,  
Design and Planning, Canterbury  
Earthquake Recovery Authority (CERA).



**The Conference theme is, “World Class Transport — Smarter, Stronger, Safer”**

Transportation is crucial to any developed economy. It influences everything we do, and we rely on it every day to transport people and products worldwide. In line with many other economies in the world, significant investment is being made throughout New Zealand’s transport network now and in the near future. Therefore we are at a crucial time to ensure we create and provide for World Class Transport systems that are Smarter, Stronger and Safer as well as meeting the changing needs of the transport users.

More than ever before, the world is a global marketplace; yet New Zealand is a small, isolated island nation. If we are to thrive amongst larger, better-connected nations, every facet of our economy needs to be truly World Class, including our transport systems.

The 2015 IPENZ Transportation Group conference will provide delegates the perfect chance to discuss the catalysts for creating

and sustaining smarter, stronger and safer transport systems and how they can be, or in some cases are being, applied to New Zealand’s transport network. It will also provide the opportunity to showcase ‘world’s best practice’ for transport, be it here in New Zealand or overseas

**Venue and Accommodation**

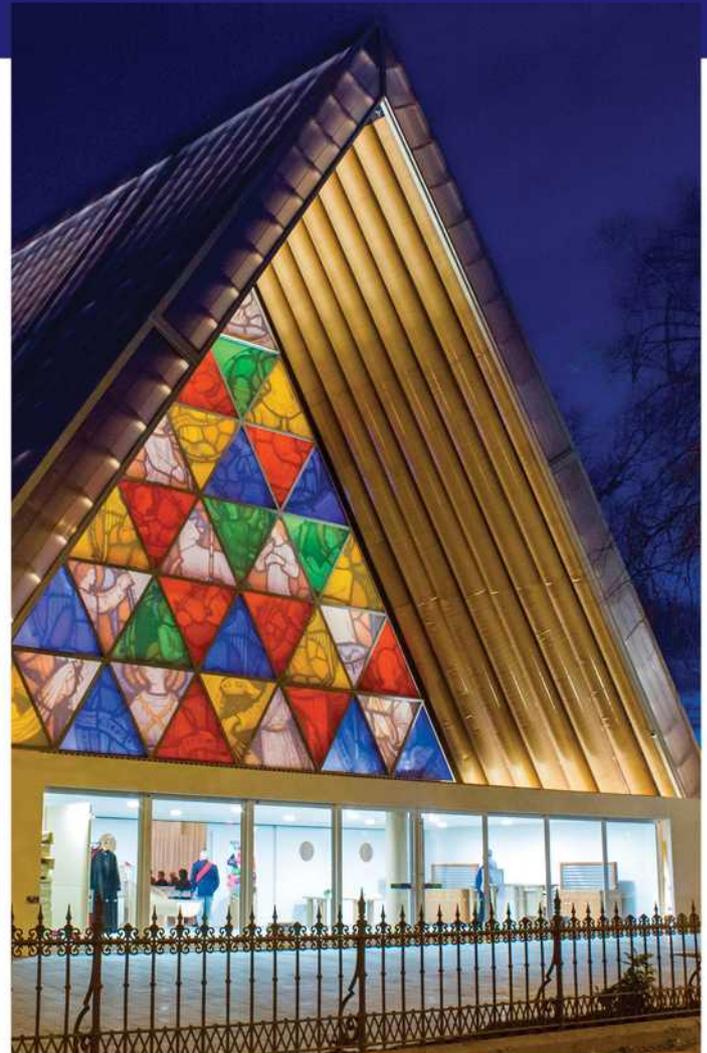
Rydges Latimer Christchurch is a 4.5-star hotel that has undergone a complete rebuild so that guests experience top-of-the-line features and amenities, all 100 percent compliant with the latest building code requirements.

**Early Bird Room Rate:**  
\$179 per night incl GST  
(prior to 22 February 2015)

**Room Rate:**  
\$199 per night incl GST  
(after 22 February 2015)

**Sponsorship**

The sponsorship prospectus is now available with a wide variety of options for sponsors and exhibitors. [Click here](#) to visit the website and see the prospectus.



**Registration**

Registration is now open. Very special pricing is on offer for Young Professionals and Students with significant discounting.

[Click here](#) to visit the registration page to obtain pricing and to register.

**Programme**

A detailed conference programme has been released. [Click here](#) to visit the website.

**Can’t make the Whole Conference? How about just One Day?**

The 2015 IPENZ Transportation Group conference organisers want to encourage more local government delegates to join us in Christchurch. Monday 23rd March is a day focused on issues

of particular interest and value to local government.

The day will feature a variety of interesting presentation formats including:

- A catered breakfast with two Keynote speakers
- Two further Keynote speakers discussing international best practice
- An “Innovation Quickfire” session, showcasing a series of exciting initiatives
- Parallel oral presentation streams on specific topics
- An interactive Poster presentation session, enabling discussion with a number of presenters
- Presentations by the finalists of the 3M Traffic Safety Innovation Award

Some of the topics to be

discussed include:

- Identification of High-Risk Intersections
- Design/Implementation of Segregated Cycleways
- Transport and resilient cities
- A safe systems approach to speed limit setting
- Smart Pedestrian Crossing Tools
- Reducing Highway Operating Speeds via Road Layouts
- Best Practice in Pavement Design
- Making Bus Networks more Efficient
- Landslide Risk Management for Critical Infrastructure
- School Travel Planning
- Improving Road Network Information for RCAs and Road Users

**Technical Tours**

There are 4 exciting technical tours on offer Sunday afternoon. [Click here](#) to view full details of the technical tours.

1. Airport Tour
2. Cycle Tour
3. CBD Anchor Projects Bus Tour
4. CBD Walking Tour

**Contact Details**

**IPENZ TG Conference Organiser:**  
Harding Consultants, PO Box 5512, Papanui, Christchurch

**P:** 03 352 5598  
**F:** 03 352 0197  
**M:** 027 436 3083  
**E:** [info@ipenztg2015.co.nz](mailto:info@ipenztg2015.co.nz)  
**W:** [ipenztg2015.co.nz](http://ipenztg2015.co.nz)

## The radar gun that could catch texting drivers

A Virginia, U.S. company is developing a radar-gunlike device that would help police catch drivers as they text.

The technology works by detecting the telltale radio frequencies that emit from a vehicle when someone inside is using a cellphone, said Malcolm McIntyre of ComSonics. Cable repairmen use similar means to find where a cable is damaged - from a rodent, for instance - by looking for frequencies leaking in a transmission, McIntyre said.

A text message, phone call and data transfer emit different frequencies that can be distinguished by the device ComSonics is working on. That would prove particularly useful for law enforcement in states such as Virginia, where texting behind the wheel is banned but talking on the phone is legal for adult drivers.

He said the device is "close to production" but still has several hurdles to clear, including legislative approval and adoption by law enforcement. There are also privacy concerns, though McIntyre said the equipment could not decrypt the information that is transmitted by drivers.

## The coolest buildings aren't green

The below link shows a short presentation (18 minutes) from Bryn Davidson which explains why the focus on Green Buildings irrespective of location isn't the best approach for reducing the overall carbon emissions. It is location that matters the most, as this determines the transport choices which has a bigger impact on carbon emissions.

<http://tinyurl.com/arentgreen>

## Ever felt like dancing whilst waiting at traffic lights?

If you haven't already seen the latest craze in dance-based pedestrian management at signalised intersections, check out: [www.thehits.co.nz/video/the-dancing-traffic-light](http://www.thehits.co.nz/video/the-dancing-traffic-light)

## Netherlands rolls out glow-in-the-dark road markings

A stretch of glow-in-the-dark road markings has been installed in the Netherlands. Route 66 uses special green paint, charged by daylight.

It is designed to be clearer than existing cat's eye reflective spheres. Its creators are also due to test glow-in-the-dark cycle lanes, which they said had already attracted international interest.



"The glowing lines are a little ... Daft Punk look-alike but they are to do with safety," said artist Daan Roosegaarde, one of the road markings' designers.

"The three lines merge into one and you feel that it guides you. With fog, you see them more than with standard light,"

Their first cycle highway, called the Van Gogh-Roosegaarde Light Emitting Bicycle Path, is due to be launched in December in Nuenen, which was once home to the Dutch post-impressionist artist.

## Keep up to date with Google's driverless car

One of the most common requests to Roundabout is a follow-up on the Google driverless car presentation made at the 2014 IPENZ Transportation Group conference. The presentation was very well-attended and left many waiting in anticipation for the next steps in this fascinating story.

Dave Ferguson, the Google employee who presented that day, has advised - not surprisingly - that there is little he can say beyond what has been announced publicly. Google is being very careful with public statements on the driverless car project, for obvious commercial reasons, and the legislative and safety areas remain complex and evolving in nature.

Dave was kind enough to point Roundabout to the publicly accessible Google+ page for the project (which you can follow yourself on: <http://tinyurl.com/IPENZgoogle>). This will keep you updated on events, news and latest developments.

## New ITE Trip Generation Handbook, 3rd Edition

ITE announces the release of Trip Generation Handbook, 3rd Edition. For the first time, the handbook provides guidance on estimating person-trips in addition to vehicle trips. Guidelines are also provided for estimating trips in mixed-use, urban infill, and transit-related settings, in addition to suburban locations.

The principal objectives of Trip Generation Handbook, 3rd Edition are to provide recommendations for:

- Proper techniques for estimating trip generation, both person and vehicle, for potential development sites in urban, suburban, and rural settings;
- Standardization of trip generation data collection efforts; and

- Ethics and objectivity in the use of Trip Generation Manual data.

To order your copy of Trip Generation Handbook, 3rd Edition, visit [www.ite.org/bookstore](http://www.ite.org/bookstore).



## Ghost tube stations go on sale

Beneath London's buzzing underground rail network, packed at rush hour, are disused spaces worth an estimated £3.6 billion (NZ\$7.4 billion).

Transport for London (TfL) is preparing to invite companies to bid to transform the abandoned underground stations into a network of tourist attractions, retail hubs, hotels and museums.

It is understood that TfL will announce the beauty parade within the next month.

The public body owns 750 disused tube stops and horse tunnels. Some housed migrant workers in the 1940s and others doubled up as air raid shelters during the Second World War.

It is believed to be in talks to decide whether it invites consultancies and construction firms to bid for just one site to kick-start the project, or a collection of the spaces hidden below London.

The idea to tap into the potential riches beneath the capital's streets was first mooted in 2009 by former banker Ajit Chambers, who believes the network is worth £3.6 billion.

The ex-Barclays executive unearthed an old map of "ghost" stations five years ago and has since been working on a proposal to transform TfL's "sleeping portfolio of assets".

The 41-year-old entrepreneur then founded the Old London

Underground Company to pursue his vision to renovate the stations, delivering revenue directly to TfL without disrupting the current rail service.

He has identified 34 possible sites, but the first phase of his plan involves 13 flagship stations, which will be converted into art galleries, nightclubs and, potentially, a National Fire Brigade museum.

Mr Chambers has four investors on board, including Duncan Vaughn-Arbuckle, the founder of Vinopolis, London's wine museum.

He has also been in talks with the Mandarin Hotel Group and West Court Real Estate - led by Vinjay Kapoor, the talent behind the Canary Wharf design.

However, TfL insists there is "no affiliation" with the Old London Underground Company and, in the run-up to the public tender, will not allow Mr Chambers to show potential investors around the site.

A spokeswoman for TfL said, "We cannot show any prejudice ahead of a public tender."

TfL has already begun some conversions. The tunnels below Clapham North are home to a herb farm, and the organisation has signed a deal with Waitrose to run a service where customers pick up goods from lockers at Chalfont & Latimer, on the Metropolitan line.

[www.smh.com.au](http://www.smh.com.au)

## India busway exposes class divide

A government initiative to reduce traffic chaos in the Indian capital, Delhi, by creating a special fast lane for bus users has run into a major controversy.

The city's first experimental Bus Rapid Transit (BRT) corridor system allows bus users a smooth ride through traffic congestion, but it is facing legal challenge from a group which represents car users and has also exposed the class divide in the Indian society.

The Delhi High Court is to soon rule on a petition seeking to scrap the BRT corridor. The petitioners say that private car owners are suffering because of the preferential treatment given to public transport.

"Car owners are the creators of wealth.

Do you realise that they get exhausted sitting in their cars due to traffic jams and they reach office completely tired? It affects their efficiency. Do you want them to perform less?" asks the main petitioner BB Sharan.

His NGO, Nyayabhoomi, has argued in the court that the system has slowed down the traffic and created problems for the people, "without any evident advantage to bus users".

But Geetam Tiwari, a road safety expert and professor at Delhi's Indian Institute of Technology (IIT), disagrees. She says the definition of "people" should include those who walk to work or use bicycles and buses.

"The problem of car users, who are in a minority, is being portrayed in the press as the people's problem.

The fact is that less than 10% people in Delhi use private cars. More than 33% travel by buses and 30% walk to work," she says.

## Giant cat appears on Auckland Google map



The internet's obsession with cats has stretched to tracks marked on Google Maps. A wonky image of a grinning cat on Google Maps caught the eye of one Stuff reader who sent in a screenshot.

The cat's wonky tail stretches off one side of Auckland's Hobson Bay Walkway while its face grins out over the other. According to Google, it would take three minutes to walk the 250m from the tip of the cat's tail to its eyeball.

Driving over the cat is not an option, however, and those hoping to take a stroll along the cat track will be out of luck too, as it seems to only exist in the cyber world. The area it has been drawn over is a mangrove swamp on Hobson Bay.

Google Australia and New Zealand head of communications Annie Baxter said the company was investigating.

"We were aware that cats were trying to take over YouTube, but we didn't realise it was extending to Google Maps. We're looking into this."  
*stuff.co.nz*



## First TDB life member

In November, the Trips Database Bureau (TDB) inducted its first Life Member - Malcolm Douglass (pictured below). Following the presentation, Malcolm gifted two boxed sets of key papers and research related to TDB activities from his archives. These will be scanned and placed on the TDB website for members' reference.



## Gold bars offered to public transport users

Commuters in Dubai are being offered the chance to win lavish prizes if they take public transport.

The emirate's transport authority is giving away 4kg of gold as part of celebrations for Public Transport Day, to try and lure people out of their cars and into mass transit, the Gulf News website reports.

The prizes will be handed out through "raffle draws and other surprises" over the course of a week, it says.

The event is aimed at encouraging people to "shun reliance on private vehicles and switch to using public transport," says Dr Yousuf Al Ali of the Roads and Transport Authority. Car ownership rates in Dubai are among the highest in the world, with an average of 2.3 cars per family, Gulf News reported in September, while only 13% of people use public transport.

It's not just precious metal up for grabs in the bonanza. In total, prizes worth one million dirham (\$272,000) will be handed out, including at a street-ball tournament where the first prize is 10,000 dirham (\$2,700).

There's even a celebrity guest; retired basketball star Kareem Abdul Jabbar will be in attendance during a basketball match at a bus station. But only those committed to using public transport are in with a chance, because commuters have to own a Dubai travel card to enter the competitions.



# 3M Traffic Safety Innovation Award 2015

## Applications close 13 Feb!

Traffic engineers and road safety advocates contribute to society by enhancing the health and wealth of our people and country. Operating and enhancing safe and efficient land transport systems is a challenge and requires consideration of many forces - social, economic, environmental, legal, political, technical and more.

At 3M our commitment to road safety began over 50 years ago by pioneering the use of retro-reflective technology in traffic control and personal safety devices. Throughout our history continuous innovation has been the backbone to ensuring we can deliver a breadth and depth of safety solutions to our clients.

The 3M Traffic Safety Innovation Award recognises outstanding innovation and success in the field of road safety. Enter your innovative project and be in to win a trip of a lifetime to the ITE Conference in the USA and visit the 3M global head office in St Paul, Minnesota.

Enter now! **Applications close 13 February 2015.** For an application form go to <http://conf.hardingconsultants.co.nz/ipenztg2015/> or for queries please email: [daniel.newcombe@aucklandtransport.govt.nz](mailto:daniel.newcombe@aucklandtransport.govt.nz)



**What can Sydney teach us  
about walking and cycling?**



# Walk21 Sydney – A Report from the Field

Sam Corbett, Principal Transport Planner at Auckland Transport, recently attended the Walk21 conference in Sydney. This is his report.

Due to fortuitous timing on a holiday I had planned to visit Sydney, I was able to attend one day of the Walk21 conference in Sydney, which was held from 21-23 October. The Walk21 conference series has been established with the following vision:

*“To support, encourage and inspire professionals to evolve the best policies and implement the best initiatives, which create and promote environments where people choose to walk as an indicator of liveable communities.”*

The sessions that I attended were very much in line with this vision, as I definitely left the conference inspired to work to create more walkable and liveable communities. Here’s my report from the field:

## 1. How do we increase walking rates?

Professor Adrian Bauman of the University of Sydney discussed whether infrastructure or behaviour change interventions were more effective at getting more people to walk.

Professor Bauman noted that programmatic interventions to get more people walking (i.e., providing people with pedometers, 10,000 step programmes, etc) can increase walking by 30-60 minutes per day. Professor Bauman indicated that providing people with pedometers results in increasing walking by 2,400 steps per day on average. There was extensive data on recent trends in walking throughout New South Wales, noting that people in higher income areas walk more than people in lower income areas.

Following considerable effort to increase walking rates throughout New South Wales, Professor Bauman concluded that walking rates had increased in both low and high income areas as a result of the net sum of all efforts (infrastructure and behaviour change interventions) to increase walking.

Professor Corinne Mulley of the University of Sydney suggested that walking is typically the neglected element of a public transport trip and noted that the transport profession has been very slow to respond to the public health message regarding the health



risks of a sedentary and inactive lifestyle.

Professor Mulley proposed the following three pronged policy approach to increase walking rates:

- Reduce harm of driving
- Reduce daily travel by car
- Increase active travel modes

Professor Mulley indicated that walking is the primary mode of accessing public transport in Sydney, with 90% of all bus trips starting with a walking trip and 50% of all rail trips starting with a walking trip. It was also noted that public transport users in Sydney walk an average of 19 more minutes than non-PT users.

It was noted that the transport planning/modelling industry treats walking as a ‘cost’ as opposed to a benefit, which is problematic from a public health perspective.

Professor Mulley suggested that the transport profession needs to progress its thinking on walking to move beyond solely assessing travel time savings or it risks continuing to undervalue pedestrian facilities. She noted that while walking infrastructure does add to a project’s cost, it can add significant benefits, particularly from a public health perspective, and these benefits are often not captured well in the economic assessment of the project. The image below from Circular Quay in Sydney provides an example of how a pedestrian space can add considerable value to a city.

## 2. Active Transport – A tripping hazard for walkable design?

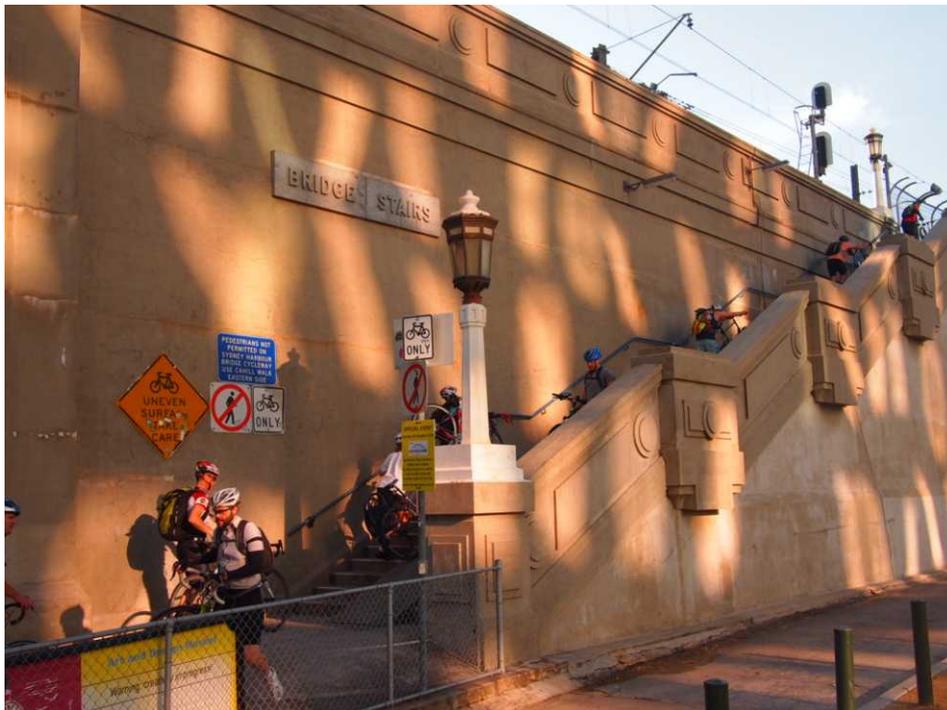
In a thought provoking and somewhat controversial talk, Ben Rossiter of Victoria Walks suggested that the term ‘active transport’ is really code for cycling and noted that walking almost always ends up with the short end of the stick.

Mr. Rossiter indicated that cycling advocates are often the driver behind ‘active transport’ initiatives resulting in ‘dollars for cycling and words for walking’.

Mr. Rossiter noted that walkers are often treated as amorphous, while it is widely acknowledged that there are many types of cyclists. Mr. Rossiter suggested that interventions for walking and cycling should to be considered separately as they have separate characteristics and needs. The Sydney Harbour Bridge does this well by separating pedestrians from cyclists (see image below). He noted that walking is compromised with ‘shared paths’ as pedestrians get pushed to the side as cyclists fly by.

Mr. Rossiter acknowledged that pedestrians are often placed at the top of the road user hierarchy, but lamented that very little funding is actually allocated to walking improvements.

When asked why cycling often trumps walking, Mr. Rossiter commented that the cycling lobby is more mature and is backed by the cycling sports industry. He also noted people who cycle tend to identify strongly as being a cyclists



23% drop in VMT for 19-34 year olds in the US between 2001 and 2009. He noted that the café culture trumps the car culture for the younger generation.

Professor Newman indicated that China is also decoupling GDP from oil by developing extensive public transport systems, including 86 metros and an extensive high-speed rail system. He noted that Shanghai has 8 million people a day riding the metro and Beijing has 9 million people a day on the metro.

Professor Newman stressed the importance of having resilient, green economies for today's cities. He compared the different attributes of the 'walking city', 'transit city' and 'auto city' but noted that most cities tend to have a 1 hour daily travel 'commute shed'.

whereas people who walk (almost everyone) don't typically identify as being a 'walker'.

He concluded by saying that walking groups need to 'stand on their own two feet' by mobilising people behind walking issues so that more people identify as being a walker.

### 3. Peak Car/Peak Oil and Walkable/Bikeable Cities

Professor Peter Newman of Curtin University in Perth stated that the public health industry, which used to promote the suburban lifestyle as a way of providing clean air, access to green space and healthy living, etc, has finally acknowledged that transport does matter and that sprawl can be a significant contributor to a sedentary lifestyle.

Professor Newman noted that decarbonising coal and oil is now a market reality and said that there needs to be a 80% reduction in CO<sub>2</sub> emissions by 2050 to avert a major climate disaster. He indicated that more new investment is going into renewables than coal and oil.

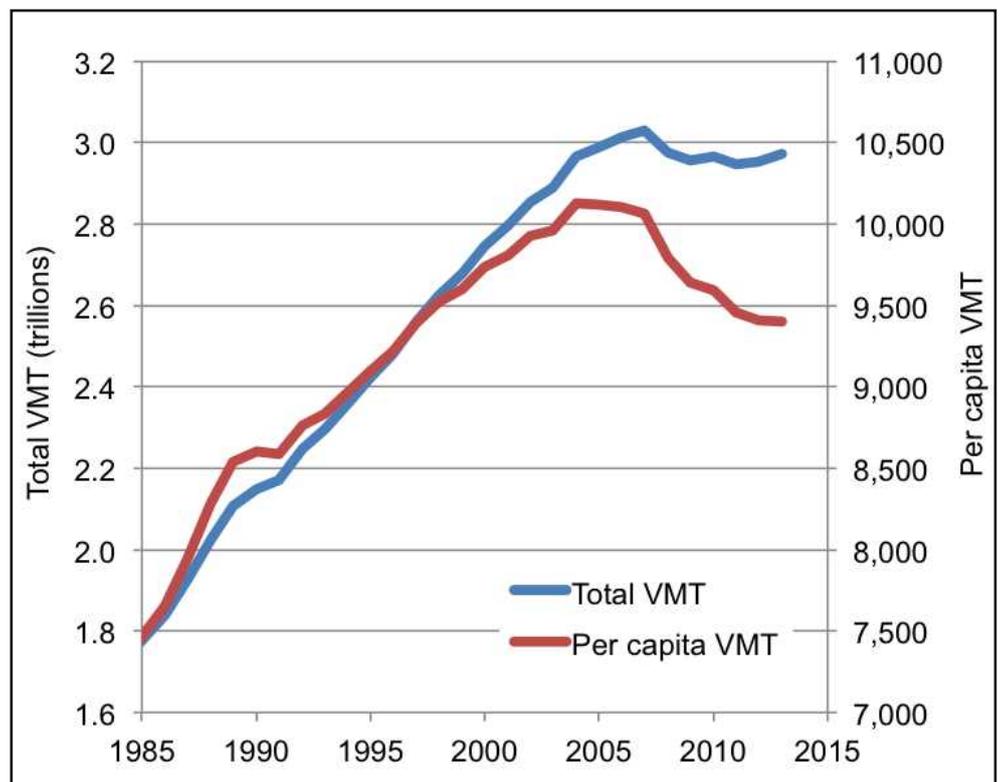
Contrary to popular opinion, he noted that China is closing coal-fired power plants and replacing them with renewable energy power. He also noted that the entire developed world is driving less than they used to - VMT (vehicle miles travelled) in the USA is back to where it was in 1994.

Professor Newman stated that the younger population (<35) gets its independence from their mobile phones more than their car, indicating that there's been a

Professor Newman indicated that the knowledge economy is found in the 'walking city' and the 'transit city' and stressed that innovative and creative cities are all moving in this direction.

He also noted that as cities become more dense, productivity goes up and suggested that cities cannot increase productivity without high-rise apartments. Professor Newman noted that people (old and young) are voting with their feet by moving back into the city to take advantage of greater convenience, services, amenities, etc. after decades of 'urban flight'.

If you're interested in reading more about these trends, Professor Newman has a new book coming out next year titled "The End of Automobile Dependence" published by Island Press.



# Transportation Engineering Postgraduate Courses 2015



The University of Auckland  
NEW ZEALAND



NZ TRANSPORT AGENCY  
WAKA KOTAHU

Department of Civil & Environmental Engineering University of Auckland  
For Master of Engineering Studies (MEngSt) in Transportation and Postgraduate  
Certificate in Engineering (PGCertEng), or for one-off Certificate of Proficiency (COP).

## Semester 1 (March-June 2015)

**CIVIL660 - Traffic Engineering & Planning** (mixed mode\*,  
11, 12, 13 March + Civil 758\*)

A range of selected topics in traffic engineering and transportation planning which will provide a basis for extension into further studies. (Diploma course - is a pre-requisite for several other 700 series courses).

**\*1 x 3-days + integrated with Civil 758, a BE(Hons) course Weds 8-11AM**

**ENTR613:  
Highway Geometric Design**  
(Block dates: 27-29 Jul, 5-7 Oct)

Human and vehicle factors; sight distance; horizontal and vertical alignment; cross-section design; design plans; land use access; signs, marking, delineation; intersection design; major design project.

**CIVIL762 – Transportation Planning** (18, 19, 20 Mar and 6, 7, 8 May)

In-depth exploration of various components of the urban transportation planning process, with emphasis on theories on modelling. The principles of conventional four-stage transport planning model, namely, trip generation, trip distribution, modal split and trip assignment, are covered in detail.

**CIVIL765 – Infrastructure Asset Management** (25, 26, 27 March and 13, 14, 15 May)

Integration of planning and infrastructure asset management, resource management, institutional issues and legal requirements. The process of undertaking asset management plans and specific asset management techniques across all infrastructural assets.

**CIVIL769 – Highway Geometric Design** (1,2, 3 April and 20, 21, 22 May)

Urban goods movement; transport/freight logistics; supply chain management; planning/design for other transport modes (rail, air, sea); major research project.

**CIVIL770 - Transport Systems Economics** (9 & 10 March, 23 & 24 April and 28 & 29 May)

Fundamentals of transport economics incl. supply, demand, pricing, congestion and other externalities; principles of economic evaluation in transport planning.

## Semester 2 (Jul-Oct 2015)

**CIVIL661 - Highway & Pavement Engineering**  
(29, 30, 31 July + Civil 759#)

A range of selected topics in highway engineering and pavement materials which will provide a basis for extension into further studies. (Diploma course - is a pre-requisite for several other 700 series courses).

**#1 x 3-days + integrated with Civil 759, a BE(Hons) course every Fri 3-6PM.**

**CIVIL763 – Transportation Networks Analysis**  
(3, 4, 5 Sept and 1, 2, 3 Oct)

Introduction to logistics and scheduling; Definitions of graph and network theory; Max-Flow problems; Minimal spanning trees and shortest path; Minimal-cost networks; Location problems.

**CIVIL766 – Road Asset Management** (10, 11, 12 Aug and 21, 22 and 23 Sept)

Road asset management concepts, levels & functions; data requirements; evaluation of functional and structural performance; deterioration modelling; economic evaluation and lifecycle analysis; prioritisation and optimisation; risk management; pavement management systems.

**CIVIL 771 – Planning & Managing Transport** (3 & 4 August, 24 & 25 August, 12 & 13 October)

Integrated planning of transport and land use, Outline of transport planning modelling, LTMA and the GPS, District Plans and RMA, Travel, trips and parking. Transport assessments and multi-modal transport, Travel demand management, 'Smart roads', Intelligent transport systems.

**Civil 772 – Public Transport – Planning & Operation**  
(20, 21, 22 August & 17, 18, 19 Sept.)

PT Data Collection; Frequency and Headway Determination; Alternative Timetables; Vehicle and Crew Scheduling; Short-turn Design; PT Network Design; Reliability; Design of Shuttle and Feeder lines; Bus priority and BRT

Other relevant courses at Auckland or Canterbury or elsewhere may also be suitable for credit.

For Admission / Enrolment inquiries contact: **Assoc. Prof. Roger Dunn**, Director of Transportation Engineering  
Phone: (09) 373-7599 x87714 or (09) 923 7714 DDI Email: [rcm.dunn@auckland.ac.nz](mailto:rcm.dunn@auckland.ac.nz)

Further details, including the course outlines, can be found at:

<http://www.cee.auckland.ac.nz/uoa/home/about/ourprogrammesandcourses>

<http://www.engineering.auckland.ac.nz/uoa/home/about/our-staff>



# Engineers + Planners = Success

## The World is Better with Engineers and Planners Collaborating

There was a time when Transportation Engineers and Land Use Planners held sway over their respective domains. The stereotypes of the professions highlight the differences, and all too often the shortcomings, of each group.

When it came to moving people and goods, the engineers dictated modes and routes based on levels of service, safety, and efficiency. When it came to how and where people lived, worked, and played, the planners mapped out colorful land use plans with the necessary zoning and development codes.

Sometimes the transportation network opened up land for development; other times development would dictate the need for certain transportation infrastructure. Historically, engineers and planners played very distinct roles in the development of our towns, cities, and regions. While this resulted in what some would call “orderly” development, it wasn’t necessarily always “best” for everyone in the community.

Today, we are seeing a shift in how engineers and planners carry out their jobs. We are seeing a blurring of the lines in the roles that each profession plays in the development and redevelopment of our communities.

Transportation engineers are increasingly concerned with density and mix of land uses and how they dictates various modes, just as planners are more aware of tying neighborhoods together with multimodal transportation facilities.

At the local level, we see these shifts and the value of the collaboration that have resulted in numerous projects that embrace a multi-disciplined approach. Across the United States, our professional organizations have the ability to cultivate a new foundation for building successful communities.

***“Unless you try to do something beyond what you have already mastered, you will never grow”–***

**Ralph Waldo Emerson**

However, the proposition to truly embrace the convergence of the professions has presented challenges, and too often we see turf wars. One of

the continuing challenges we face as members of professional organizations is choosing where to place our time.

This clash is highlighted in the offerings of the Professional Transportation Planner (PTP) certification from the Institute of Transportation Engineers (ITE) and the American Institute of Certified Planners (AICP Certified Transportation Planner (AICP CTP) through the American Planning Association (APA).

But we have also seen shifts in mindset; shifts that have required the cross pollination of planners and engineers. At the federal level, beginning with the Transportation Equity Act years, we have seen a continuous trend of increasing the requirement for this convergence.

While we do not know the specifics of future transportation bills, it is a safe assumption that this trend will continue to require increased public participation, promoting performance metrics in the process and ultimately dictating that planners and engineers must work together.

This top down approach has bled into our local processes. We are increasingly seeing adoption and implementation of

complete streets ordinances and projects; promotion and consideration for multimodal transportation as well as interconnectivity; connection of the dots between the right-of-way and land uses; successful completion of transit-oriented development; and consideration of healthy living, along with the policies and programmes to support these ideas.

This is a short list of the daily work being done by engineers and planners working side by side to address the needs of all people to improve communities.

Many factors are contributing to this cross-pollination of the engineering and planning professions, such as significant demographic shifts, the impact of the most recession on government revenues, and a growing community interest in sustainability and livability.

The 2010 Census was a real eye opener for policy makers, planners, and engineers. Most notably, the aging of the Baby Boomers into their retirement years and the emergence of the Millennials as the next big generation both have significant potential to drive development and redevelopment of our communities for decades to come.

For the Boomers, the first suburban generation, surveys show an increasing preference for something other than their suburban lifestyle.

Boomers are living longer, and will increasingly outlive their ability to drive, thus dictating the need for greater mobility options in years to come.

For many Boomers, this means looking for housing in neighborhoods with a mix of uses and a variety of transportation options that does not exist in most traditional suburbs.

Similarly, the preferences of the emerging Millennial generation mirror that of the Baby Boomers in many ways, though obviously for different reasons. Whether due to economics or environmental concerns, car ownership among Millennials is down just as transit ridership is up.

Transit is seen by Millennials as a key amenity, one that must effectively connect where they live, work, and play. Millennials are showing a preference for the same low-maintenance/high-amenity housing surrounded by a variety of transportation options as the Baby Boomers.



*Caption: This is a hand rendering of the future Natural Bridge (State Route 115) “Wedge” area with a mix of business uses, outdoor spaces, and transportation uses. This project brought multiple agencies (MoDOT, St. Louis County, the City of Normandy, and East West Gateway Council of Government), together with North County Incorporated, a local non-profit, Great Rivers Greenway, the local trails and greenways provider, and the University of Missouri-St. Louis, to plan and engineer a project that will provide the community a much needed facelift.*

Finally, the increased awareness of sustainability and livability issues by the public are leading to a greater awareness by engineers and planners of the need to do things differently and tackle new issues in new ways.

More and more, communities are looking to engineers and planners to build neighborhoods and infrastructure that provide children and families places to walk and bike because of their focus on healthy living and the conscious decision to limit their carbon footprint in small ways.

For these and many other reasons, citizens, policy makers, and professionals alike are looking for new ways to build and adapt our communities. Ways that break down old barriers, overcome the inefficiencies that stem from working in silos, and result in added value to communities.

Some of these new ways we are seeing more of include: Great Streets and Complete Streets; Transit Oriented Development and Bus Rapid Transit; increased investments in trails and bikesharing programmes.

In the St. Louis, MO, USA region, our 2006 Great Streets Initiative began the expansion of the way communities think about their streets. Rather than viewing a roadway project

as solely a way to move more cars and trucks faster, the goal of the St. Louis Great Streets Initiative is to trigger economic and social benefits by centering communities around interesting, lively, and attractive streets that serve all modes of transportation.

Construction will begin soon on one of the Great Streets projects in St. Louis on Natural Bridge Road (Route 115) that is intended to create a more pedestrian and bike-friendly environment in the municipalities around the University of Missouri - St. Louis campus, without significantly impacting vehicle traffic. With several schools, housing areas, businesses, and campus buildings along this stretch of Natural Bridge Road, this project will improve the livability of an historic neighborhood and boost economic opportunities.

We are excited to see the shifts in transportation planning occurring around the country and what has occurred in our region. However, we see another area of collaboration needed to support our industry and what transportation challenges we face in the future.

As professionals, we often look to our professional organizations for guidance, resources, ideas, and growth. Given the convergence of transportation planning and engineering, we see more collaboration between topics for professional societies as a crucial need.

Just as our professions have worked on separate efforts historically, so have our local professional organisations, to no fault. But with the emerging focus on healthy and active living, demographic shifts, funding, and multimodal transportation options, now is the time to reverse this train of thought.

Don't get us wrong, not all engineering and planning topics are related, but our local APA and ITE leadership have started to see the opportunity and importance of collaboration to provide more efficient and consistent resources for our local members.

Four years ago, our local ITE Chapter started offering six CM credits for planners at our annual fair. That first year we had about a dozen AICPs collect them. The second year we doubled that number! And in the last two years we have averaged between 15 to 25 people.

We see this effort as a huge success to engineers and planners in our metropolitan region, as this means we have topics and conversations uniting transportation planning issues. Most recently, we have already started the discussions to offering PDHs at the upcoming Missouri State APA Conference!

We also want to learn from our past missed opportunities where collaborating between the two organisations would have been extremely beneficial. So after some thought, our local APA leadership, President Justin Wyse and Past President Justin Carney and our local ITE leadership, President Jennifer Pangborn and Past President Tom Blair, discussed how can we collaborate to provide the best, most needed transportation planning resources to our region now that we have recognized this need.

And how can we further our efforts and encourage other local and regional ITE and APA chapters to take the challenge and promote each other's related topics? How can we reduce efforts and share information to improve transportation resources, projects, and planning for the future?

Some small examples of collaboration for professional organizations could be:

- Verbally and electronically share topics and dates of other upcoming events;
- Promote shared topics and emphasize areas to pool resources;
- Encourage speaker ideas for other each other's organizations;

- Offer PDH and CM credits at events;
- Co-host an ITE/APA event; and
- Keep an open mind to how this collaboration could improve the communities we work in and how we can better benefit transportation planning.

So to those reading this at our local level and beyond, we challenge not only transportation planners and engineers, but all professionals in our industry, to start sharing and promoting related topics, events, meetings, and discussions.

We believe that these small steps will encourage a greater movement of collaboration in the industry that can even further promote our passion for improving transportation and the quality of life through transportation.

*By Tom Blair, Jennifer Pangborn-Dolde, Justin Wyse, and Justin Carney*

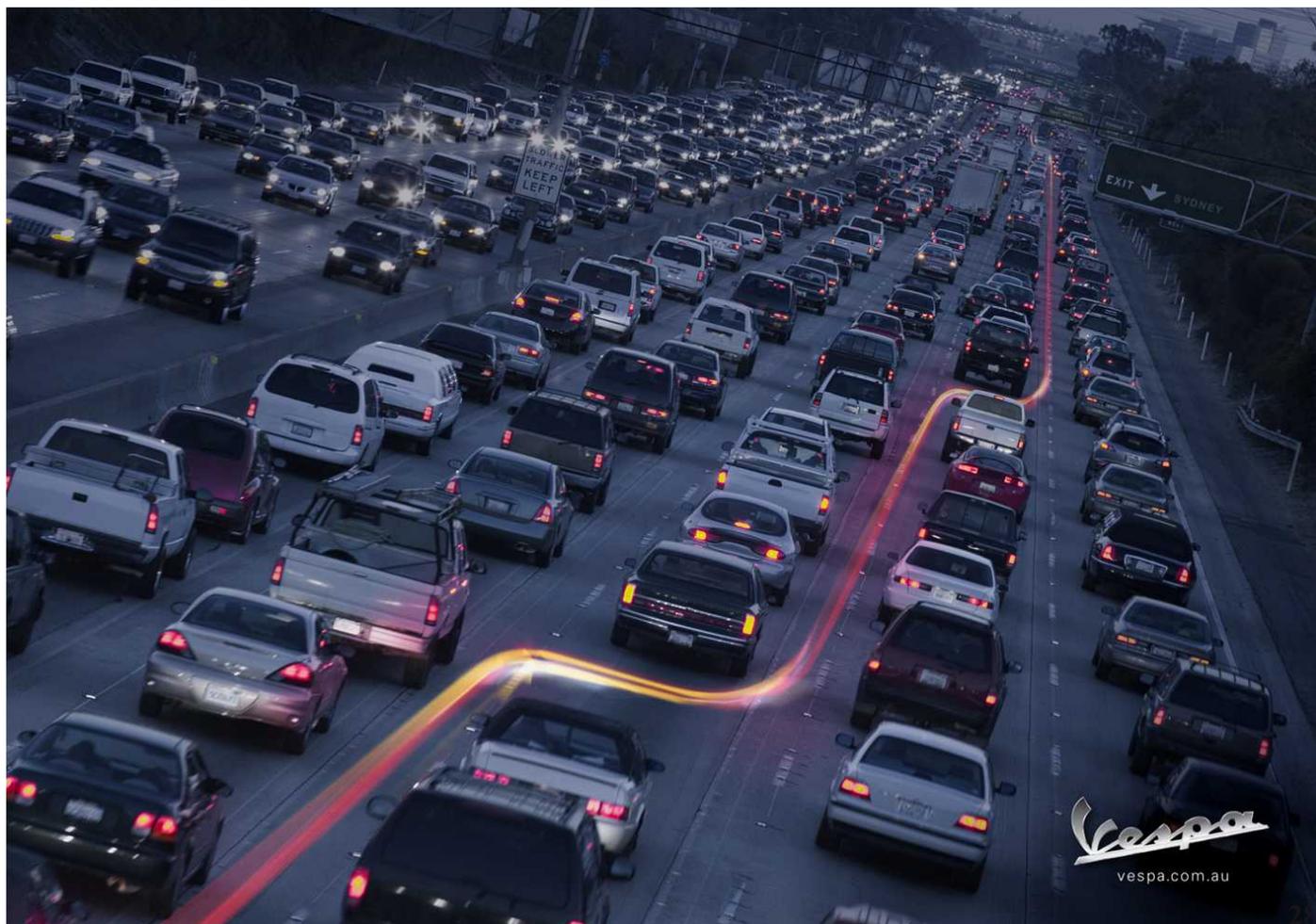
*Tom Blair is the Missouri Department of Transportation's Assistant District Engineer responsible for Operations. Tom is the past president of ITE's TEAM St. Louis.*

*Jennifer Pangborn-Dolde is a senior planner at Parsons Brinckerhoff. Jennifer is the current president of ITE's TEAM St. Louis.*

*Justin Wyse is the assistant city administrator/director of planning and development for the City of Brentwood, Missouri. Justin currently serves as the President of the St. Louis Metropolitan Section of the American Planning Association.*

*Justin Carney is a senior planner in St. Louis County's Comprehensive Planning Division. He is a member of APA/AICP and is the Immediate Past President of the St. Louis Metropolitan Section APA.*

*Reproduced with permission from the June 2014 ITE Journal*





### **Inversnaid**

What would the world be, once bereft  
Of wet and of wildness? Let them be left,  
O let them be left, wildness and wet;  
Long live the weeds and the wilderness yet.

*Gerard Manly Hopkins (1844 – 1889)*

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

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

Domestic student fee per course in 2015 is **\$988 (except \$874 for ENTR401) incl. GST**, + Student Services levy (up to \$372/semester).

*ENTR600-level courses run in "block mode" to enable part-time and distance students to easily take part. Block course dates are given below. 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 with suitable work experience will be considered for entry.*

<b>COURSE</b>	<b>DESCRIPTION (more detailed Flyers available on website)</b>
<b>Anytime (contact Department)</b>	
<b>ENTR401: Fundamentals of Transport Engineering</b> <i>(Self-study at home with 1-day tutorial at UC, date TBC)</i>	Transportation planning; Road link theory & design; Intersection analysis & design; Traffic studies; Accident reduction; Sustainable transport planning & design; Intro to Pavement design. <i>{bridging course for non-transportation students}</i>
<b>Semester 1 (Feb-Jun 2015)</b>	
<b>ENTR611: Planning and Managing for Transport</b> <i>(Block dates: 2-4 Mar, 4-6 May)</i>	Road/transport administration in NZ; Transport legislation in NZ; Communication/presentation skills; Public consultation; Transport assessment; Traffic surveys; Demand management & tolling; Project economics; Construction planning & contract management.
<b>ENTR616: Advanced Transport Planning &amp; Modelling</b> <i>(Block dates: 9-11 Mar, 11-13 May)</i>	Urban transport planning process; Geographic information systems; Travel demand modelling and prediction; Project appraisal; Advanced transport modelling.
<b>ENTR617: Traffic Engineering and Design</b> <i>(Block dates: 16-18 Mar, 18-20 May)</i>	Traffic flow & queuing theory; traffic study design and analysis; local area traffic management; traffic signals; intersection safety; parking planning and design; traffic detection; intelligent transport systems.
<b>Semester 2 (Jul-Oct 2015)</b>	
<b>ENTR 604: Road Asset Management</b> <i>(Block dates: 12-14 Aug, 14-16 Sep)</i>	Road asset management concepts, levels and functions; data requirements; evaluation of functional and structural performance; intervention criteria; deterioration models; rehabilitation and maintenance strategies and priorities.
<b>ENTR613: Highway Geometric Design</b> <i>(Block dates: 27-29 Jul, 5-7 Oct)</i>	Human and vehicle factors; sight distance; horizontal and vertical alignment; cross-section design; design plans; land use access; signs, marking, delineation; intersection design; major design project.
<b>ENTR618: Transport and Freight Logistics</b> <i>(Block dates: 20-22 Jul, 28-30 Sep)</i>	Urban goods movement; transport/freight logistics; supply chain management; planning/design for other transport modes (rail, air, sea); major research project.

*Note: Other relevant courses at Canterbury (e.g. Risk Management and Construction Management courses), Univ. of Auckland or elsewhere may also be suitable for credit to a PGCertEng, MEngSt or MET. For more details contact:*

**Dr Mofreh Saleh**

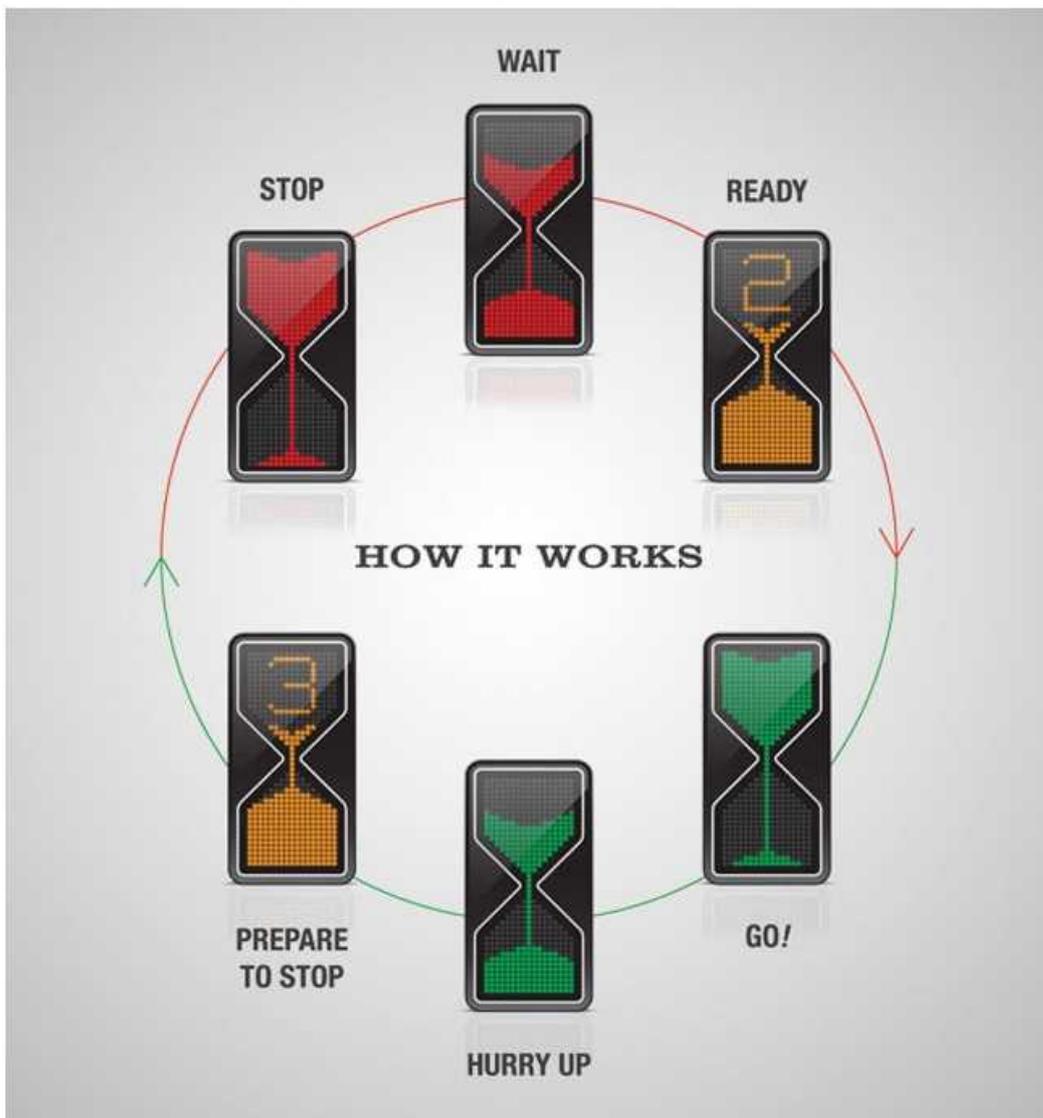
Phone: (03) 364-2987

Or visit the website:

Email: [mofreh.saleh@canterbury.ac.nz](mailto:mofreh.saleh@canterbury.ac.nz)

[www.met.canterbury.ac.nz](http://www.met.canterbury.ac.nz)

# What if we made traffic light displays more informative for users?



*Courtesy Brian Ward*

# Setting Speed Limits: A Safe Systems Approach



*Pippa Mitchell was awarded the IPENZ Transportation Group Study Award in 2013. This is a summary of her research.*

The adoption of the Safer Journeys: New Zealand Road Safety Strategy 2010-2020 (Safer Journeys) marked a shift in New Zealand's treatment of road safety, from an engineering approach to a safe systems approach.

This approach treats the transport system holistically, reframing the way road safety is conceptualised by recognising that both practitioners and road users have shared responsibility and accountability and that the transport system needs to be designed to be more forgiving in order to reduce the seriousness of crashes. The Safer Journeys Safe Speeds Action Plan 2013-15 identified the need for a national review of the current speed setting legislation within this new framework.

In September 2013 I was awarded the IPENZ Transportation Group Study Award. The aim of my research was to evaluate the effectiveness of the current New Zealand speed limits setting process in the context of the safe systems approach with the hope that this research could will contribute to the wider review that was occurring.

The research focuses specifically on the fundamental basis to setting speed limits; the Land Transport Rule: Setting of Speed Limits Rule 54001/2 which was first enacted in 2003 and subsequently amended in 2005 and 2007 (the Rule) and Schedule 1: Speed Limits New Zealand of the Rule (the SLNZ process).

The interest in this area of research stemmed from my professional experience undertaking a number of speed limit reviews throughout the Auckland Region. During these reviews a number of anomalies were identified with the current process indicating the need for further investigation.

I would like to thank the IPENZ Transportation Group for this opportunity and all the individuals who took the time to

complete the online qualitative survey run as part of this research and the follow up discussions that occurred. This article provides a brief summary of three of the key research findings.

For those of you interested in the full report which covers a much greater range of issues please contact me at [pippa@t2engineers.co.nz](mailto:pippa@t2engineers.co.nz).

The research involved an extensive literature review; a qualitative survey of IPENZ Transportation Group member's views on the current Rule and SLNZ process; an investigation of the effects of a lower speed limit threshold tolerance during public holidays drawing on NZ Police information and tube count data collected on various roads in the Auckland Region over the 2014 Easter break; and, two case studies looking at State Highway 16 between Waimauku and Helensville and the Hibiscus Coast Highway between Centreway Road and Florence Avenue to investigate different aspects of the SLNZ process in more detail.

Overall, the Rule and SLNZ process provide an adequate and consistent way to set speed limits in New Zealand and the process is comparable, if not more wide-ranging, than other speed limit setting processes used overseas. However, modifications are required to various aspects of the Rule and the SLNZ process to align it more closely with a safe systems approach.

The literature review revealed that there are a range of different practices around the world to set speed limits. However, these different approaches are effectively variations on a theme, all examining the same data sets but with emphasis on different aspects. What is clear is that there is a paradigm shift internationally away from the dominant engineering approaches towards the safe systems approach.

From the qualitative survey results it is clear that there are quite diverging perspectives and interpretations of how the Rule and SLNZ process are currently implemented. This has led to inconsistencies in how these are applied. The survey results also demonstrated that the wording of the questions meant that they were quite open to interpretation. However, it could also be concluded that this in part reflects the issues with how the current rule and SLNZ process are written.

### 1. Making the crash data analysis more proactive

Recommend a move away from the reactive focus on the 85th percentile crash rate comparison with similar roads and an analysis of the type of crashes. Instead assess the collective and personal risk of the road and the implications of these to determine what speed limit is appropriate and any engineering measures that may be required.

Drawing on KiwiRAP and the recent application of this approach to the local road network by Abley Transportation Consultants Ltd this method provides a proactive means to assess what role the speed limit could play in the severity of crashes.

The SH16 case study demonstrated that under the current system the crash analysis showed there were issues but not specific areas that required attention as the injury crashes were spread out along the route. However, the collective and personal risk assessment indicated specific areas in need of attention (see Figure 1 below).

### 2. Treating Roadside Development and Roadway Features equally.

Section 4.3 of SLNZ states that to calculate the average rating if the roadway rating calculation is higher i.e. recommends a lower speed, than the roadside development rating it 'must be reduced to that of the development rating' (emphasis added).

This approach is not in keeping with the safe systems approach which acknowledges that road users can make mistakes. Poor roadway geometry can lead to more crashes, and poor roadway conditions can lead to more severe crashes.

There is a clear need to re-balance the roadside development and road geometry aspects of the speed limits setting processes. It is recommended that serious consideration is given to the inclusion of additional road design features in the speed rating calculation.

The KiwiRAP Road Protection Score (RPS) assessment provides an excellent reference point for the type of aspects that could be included and given the way it is set up these could be a virtually transferable set of criteria to consider.

Further, the current Table SLNZ9 consideration of road geometry is inadequate and open to interpretation. It is recommended that actual definitions and guidance on how to judge what is meant by open, average and limited visibility are provided. These could be drawn from the research into the visibility requirements for road marking delineations and the Austroads Part 4a Advanced Sight Distance (ASD) requirements.

For example on an 80km/h road with a reaction speed of 2secs a driver needs an ASD of 114m to stop safely. A normal road design would consider a design speed that is 10 to 15% above the posted speed limit. Consequently, for an 80km/h road 'Open Visibility' could equate a distance of or greater than the ASD for a posted speed of 90km/h, 139m.

To determine 'Average Visibility' it could be based on the ASD range between 10km above and 10km below the posted speed. For an 80km/h road that would be between 90km/h and 70km/h so the average visibility would be between 139m and 92m. If the visibility falls below the ASD for the speed that is 10km below the posted speed limit then it could be considered 'Limited Visibility' e.g. below 92m for an 80km/h road.

### 3. Establishing a better way to set speed limits lower than 50km/h.

There has already been extensive work done on recommended changes to Section 3.2(6) of the Rule, which, sets out the criteria of setting speed limits lower than 50km/h by Dr Glen Koorey.

However, the Hibiscus Coast Highway case study demonstrated that there is another problem with this approach. Sometimes the roads don't meet the first criterion that is the road needs to rate at 50km/h.

The presence of Orewa Beach means there are very limited accesses along this section of the highway and so the 50km/h section between Centreway Road and Riverside Drive actually calculated a speed rating of 70km/h.

There are numerous cases such as this where areas likely to attract high volumes of vulnerable users and so potentially be in line for a reduction in the speed and yet they do not meet the criteria set out in the rule.

It is recommended that the rating component of Section 3.2(6) be replaced with a more refined assessment of the vulnerable users including actual counts, the effect a lower speed limit may have on their numbers and whether the surrounding activities do or will attract vulnerable users in high volumes.

In conclusion it is proposed that the recommendations of this research, some of which are summarised here could contribute to the wider discussions occurring on safe speeds in New Zealand and specifically the current national review. Bringing the Rule and SLNZ process in line with the safe systems approach to road safety should provide a more constructive and supportive system to set speed limits in New Zealand.

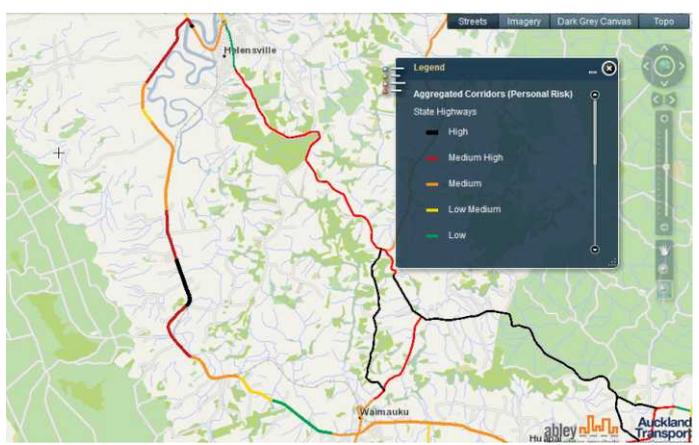
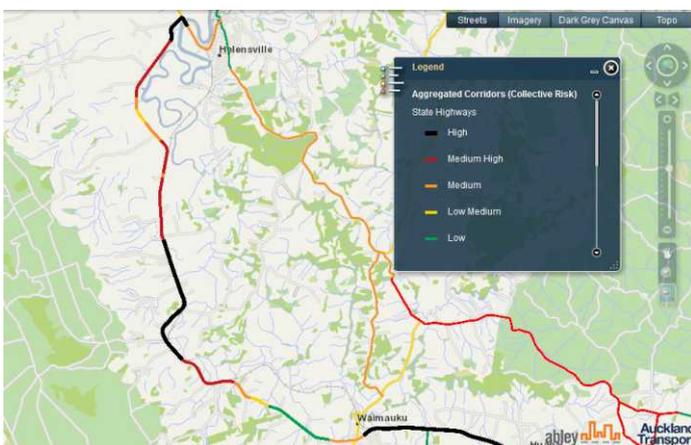


Figure 1: SH16 Waimuku to Helensville Aggregate Corridor Collective and Personal Risk Maps.  
Source: <http://maps.abley.com/AT/RiskMapping/>

## Auckland/Northland Branch

The Auckland/Northland branch has had some exciting events over the past couple of months.

On 14 October we had a technical presentation from Steve Burgess of MRCagney on whether safe road design actually makes safe streets. He talked about the fact that while the trend has been to design roads that are safe for cars to travel on, the side-effects of this approach have not been favourable to people.

Describing what has happened in suburbia as potentially the new asbestosis as people being forced to use vehicles rather than more active modes due to the way roads have been designed. He introduced the concept of Complete Streets which prioritise people and its implications for contemporary transport and traffic engineering in cities like Auckland.

Then on 15 October there was an opportunity for branch members to attend a workshop at the University of Auckland's Engineering School on road safety and skid resistance. With international speaker Minh-Tran Do and PhD candidate Adelia Nataadmadja the workshop explored three examples of the role skid resistance can play in accident reduction as well as the identification of areas of further research.

On 6 November the Branch welcomed Daniel Sauter from Urban Mobility Research in Zurich to give a technical presentation on 'Is Walking Transport'. Daniel is a sociologist and researcher in the promotion of walking, road danger reduction and the analysis of mobility.

He explored the perceptions and paradoxes that undermine good intentions and how these influence policies, effect planning and design of the public realm and which aspects are overlooked and which ones taken for granted.



The highlight of our 2014 year was the main Branch Centenary event held on 27 November. This was an all-day event which involved site visits to the Grafton Gully Cycleway, with the group then splitting into two to visit either the Waterview Connection construction site or do the Auckland Harbour Bridge Climb.

Then in the evening we had our branch Christmas event at Atticus Bar in town. With over 100 attendees split over the two site visits and the Christmas dinner the day was a great success.

We would especially like to thank NZTA and the Well Connected Alliance for organising the site visits which were thoroughly enjoyed by all of those involved. Some photos from the site visits are included below, overpage and on page 37.

As part of the Centenary celebrations a bronze plaque was also commissioned by NZTA to celebrate IPENZ's contributions to New Zealand's transport

infrastructure (see photo above). This will be installed on site once the Waterview Connection is complete.

### Breaking News

For all of those that want to enjoy the annual debate again or missed out we have finally got the video uploaded to YouTube <http://youtu.be/MCa9adO0rhc>. Apologies for the delay there were some technical difficulties to be overcome. As big thank you to all our debate participants again for making it such a fun and enjoyable evening.

### Up-Coming Events

Our branch AGM will be held on Tuesday 3 February. The location is to be confirmed but it will be held in conjunction with an interesting presentation by Sam Corbett and Ina Stenzel from Auckland Transport about lessons they have learnt from recent cycling and walking conferences including Velocity

**Waikato/Bay of Plenty Branch**  
Hmmm





### Central Branch

#### Recent Site Visit:

Mackays to Peka Peka Expressway Coach Tour and Food/Drinks

Our end of year site visit to the Mackays to Peka Peka Expressway was a great success and was very well attended. The visit allowed participants to get up close and personal with some of the earthworks and bridge construction activities. We heard from the Alliance designers construction engineers and traffic manager. It was great to see such a good turn-out for both the visit and the follow-up social event.

#### Central Branch Committee Update:

Three members of the Central Branch committee have elected to step down from their roles in 2015. We would like to thank Glen Prince, Neil Trotter and Andrew Smith for the contributions they have made to the branch. One person has elected to join the committee, Louis Bargh. The new committee will meet early next year to start planning events for 2015.

#### Upcoming Event:

The branch will plan to meet early in the new year for a social event. Watch this space!

### Canterbury/West Coast Branch

#### Events since September:

Over the last few months the Branch Committee organised and ran its AGM on 29 October and then met 5 December 2014 for a Christmas lunch. There have been a few changes to the Branch Committee. Most notably we have a new Chairperson, Jeanette Ward, who was previously the Vice-Chair. Mel Muirson has stayed on as Treasurer and Jared White has stayed on as Administrator. The majority of the Committee members have chosen to stay on for a further year, some have left. Many thanks to those who left the Committee for all of their work.

The Committee focus over the last quarter has been on establishing a 2015 IPENZ TG Conference organising committee, made up of some Branch Committee members and other volunteers from the local industry, and progressing the conference details. The organising committee and Harding Consultants have been doing a great job and we look forward to seeing everyone down here next year!

We held the following Branch events since September:

#### Urban KiwiRAP & TDB Update - Thursday - 18 September

Paul Durdin (Abley) discussed the Urban KiwiRAP project using estimated DSI (Death or Serious injury) casualty equivalents as a means of calculating the risk of fatal and serious crashes occurring in the future at both intersections and along corridors.

Stuart Woods (NZTA) gave a short summary of the Trips Database Bureau (TDB) workshops held recently to enable sharing of best practice and ideas on those key issues being discussed in the industry currently. Topics included ITAs, pass-by and diverted traffic, assessments of mixed-use sites, research topics and what could be done to improve the TDB database.

### AGM & An Accessible City Update - Wednesday 29 October

The AGM this year was preceded by a joint presentation from Angus Bargh (CERA) and Tim Cheesebrough (CCC) on an update on "An Accessible City". This included the current challenges and opportunities in this critical stage of development and a practical overview of the design process including the constraints which have been faced in delivering mode specific road space.

### AITPM Summary and Aussie Walkabout - Wednesday 26 November

Gabriela Surja (AECOM and currently seconded part-time to the CCC) was fortunate to receive the IPENZ TG sponsorship to attend the AITPM conference in Adelaide. At this presentation she shared her observations of Adelaide and the key findings of the conference.

This year Jeanette Ward (Abley) and her family spent 5 months travelling in Australia. They covered 25,000 kms on mainly flat straight roads with a few adventures off the beaten track. Jeanette shared her observations and how these may apply here in NZ (see photos below).

### Industry Transportation Training - A Conversation - Wednesday 3 December

Dr Glen Koorey, who has taught transportation at Canterbury since 2004, led a discussion aimed at identifying types of industry training that employers and practitioners would like to see available. He provided an overview of what is currently available and sought feedback on preferences for content, teaching format, timing, and so on.

Next year we are aiming to hold more regular events with a good range of topics and collaborate with other groups such as CILT, NZPI and the Urban Design Forum.

Of course ideas from Members for future Committee activities and events are always welcome, to the Chair Jeanette Ward ([jeanette.ward@abley.com](mailto:jeanette.ward@abley.com)) or Administrator Jared White ([jared.white@abley.com](mailto:jared.white@abley.com)).

Have a great Christmas break!





# Roundabout of the month



The winner of Roundabout of the Year 2014 goes to the Stonehills roundabout on the A38 in Tewkesbury, Gloucestershire. The huge NZ\$140,000 wooden sculptures of a victorious Yorkist knight on his horse and one of a horse without its Lancastrian rider on a nearby grass verge were put in place this summer.

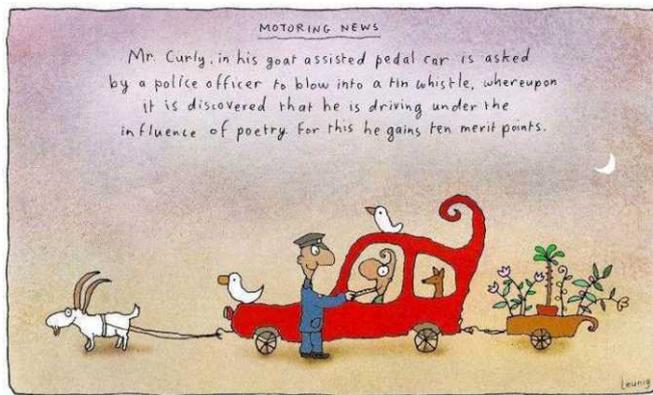
They mark the site of the famous Battle of Tewkesbury in May 1471 during the War of the Roses when the Yorkists defeated the Lancastrians. Kevin Beresford, president of the UK's Roundabout Appreciation Society, described it as “one of the most dramatic and imposing roundabouts I have ever come across. On the approach to the island a gigantic 12ft figure looms into view, it reminds me of the final scene in the cult film the 'Wicker Man,'” he said.

Seen a better one? Email [daniel.newcombe@aucklandtransport.govt.nz](mailto:daniel.newcombe@aucklandtransport.govt.nz)

And in case you were curious about how 'green man' pedestrian symbols are portrayed around the world, wonder no longer.



# Transportation Group Research Advisory Sub-committee (RASCals) Update



The IPENZ TG Research Advisory Subcommittee (RASCals) is inviting topics for research, for us to promote among research funders in the transport industry. We will vote on a list of research questions at our 2015 conference.

Topics are likely to be drawn from recommendations arising from technical papers presented at this, our own conference. However, if you have a burning issue you think warrants research investment, you are welcome to put this forward for consideration. We can then discuss it at the conference, and if others agree with you, it might make our shortlist.

Please forward any research ideas or questions to RASCals convener [Bridget.burdett@tdg.co.nz](mailto:Bridget.burdett@tdg.co.nz)



*Attendees of the Auckland branch recent centenary event enjoyed a spectacular view of the city whilst getting a guided tour of the Auckland Harbour Bridge (thanks NZTA). If you missed out, fear not, you can see pretty much the same view from a car driving over the bridge, albeit at closer to 80km/hr...*

## Answers to quiz on page 13:

- 1d: 12,000 or about 33 each day
- 2c: Driver inattention or attention diverted was a factor in 22% of injury crashes in 2011. Travelling too fast for conditions was a factor in 15%, alcohol or drugs in 14% and driver inexperience in 10%.
- 3b: 3pm-6pm. Out of a total of 9545 injury crashes in 2011, 2299 or 24% happened during these hours.
- 4b: Drivers in the first year of their restricted licence. Young drivers with restricted licences are 7 times more likely to have a crash than men aged 45-49 - who are the safest group of drivers per vehicle km driven
- 5a: A driver losing control on a bend. This was the case in 22% of

- injury crashes in 2011.
- 6d: 37%. In the last 12 months, 107 people have died in single vehicle crashes out of 286 total deaths.
- 7a: 15-24 year olds. 29% of those injured and killed in road crashes in 2011 were in this age group.
- 8c: 96%
- 9c: Approximately 25%
- 10b: An average person will take somewhere between 1-2 seconds to identify the hazard and start taking action in response to it.
- 11d: 55m. At 100kph a vehicle travels just over 27m a second.
- 12: True

# Removing car parking to build cycle lanes is a sensible approach: Arguments for and against



*Recently the Central Branch ran an essay competition on the topic “Removing car parking to provide cycle lanes is a sensible approach”. These are the winners.*



## **AGAINST - Nadine Dodge**

Parking has acquired a bad reputation in recent years, and has been blamed for many of the modern city's problems.

Parking has been blamed as a primary culprit in automobile dependence and is often seen as a primary roadblock to cycle ways. However, I would like to argue that parking in itself is not the problem, rather it is the way it has been provided.

We know that parking provides many valuable functions for the city: it allows for access to destinations for people with disabilities, those who need to carry large loads, and those who live in places where other modes do not provide reliable connections to the city.

For these reasons, it is highly unlikely that the private car and their accompanying parking spaces can ever be eradicated from the city.

Problems with parking only arise when the supply of parking is not in line with demand. Within New Zealand, political realities have resulted in a significant over supply of parking relative to demand. For example, in the Wellington Central City, average on street parking occupancy is around 35%. This pronounced over supply of parking results in large amounts of unused space in high value areas. When this valuable space is seen to be 'wasted', groups may call for it to be converted to alternative uses, such as bike or bus lanes.

However, rather than removing on street parking, local bodies are in an ideal position to set an example for how to manage parking more efficiently. A supply and demand based model for parking would see 24/7 parking metering, with the cost of parking varying by hour according to demand. This model ensures that parks are

always available to those who need and want them most. It ensures that the costs of parking are always passed on to those who use it, rather than being borne by ratepayers and society at large. Additionally, it avoids the negative impacts of too few parks being available: cars driving around searching for parking and the associated increase in air emissions and traffic, and people not able to get where they need to go.

When we move to this more efficient way of providing on street parking, it will be readily apparent where parking is greatly needed and where parking can be removed with few negative impacts. Rather than haphazardly removing parking on streets for cycleways, we should let the forces of supply and demand allocate our valuable street space.

*Nadine is studying towards a PhD in Environmental Studies at Victoria University of Wellington. Her research focuses on the relative costs and benefits of compact and dispersed development in New Zealand cities.*



**FOR  
Roger  
Boulter**

This essay argues “yes”:  
• not because cycle lanes are inherently desirable  
• nor because on-street car parking is inherently undesirable

• nor because cycling, being ‘green’, is preferable to driving but because practically it is very difficult to provide for both in the same stretch of road.

However, there are further reasons. Cycle lanes tend to be needed where motorised traffic is heaviest. This tends to mean arterial routes, where the highest cyclist flows also tend to take place (generally for the same reasons motorists favour them: directness to destination, less on-street parking, higher quality engineering, right-of-way, safety). The ‘roading hierarchy’ concept (of arterials being for through traffic) means that arterial road on-street

- parking is undesirable on traffic grounds – not just for cyclists.

A very significant width is required for both on-street parking and cycle lanes – not only for the cycle lane (about 1.5m in urban settings) and car parking (about 2.0m) but also to allow cyclists to avoid being hit by opening car doors. The total space (in best practice manuals typically in the order of 3.7m-4.2m) will often not be available without compromising width required for general traffic lanes, medians, berms and footpaths. Typically, ‘something needs to give’, and all to avoid restricting on-street parking which does not need to locate on the arterial road anyway.

This of course brings parking policy into play, but realistically the amount of on-street parking needing to be displaced to provide for a cycle lane – in the relatively small number of cases where a cycle lanes would be merited – is likely to be small, and the available locations where it would be displaced to are often readily available. In simple terms, all that is often needed is to park around the corner in a side road.

Maybe do not provide a cycle lane at all? In this case the legal and safe place

for cyclists is in the centre of the traffic lane, well out from parked cars to avoid the opening door hazard. If those arguing the ‘no’ position wish to suggest this, then let them, but I would suggest that traffic efficiency and safety would both be best served by providing cycle lanes.

It may be argued that inability to park freely on arterial roads will hinder the prosperity of a town centre. I suggest this is myth, not supported by evidence. Then consider that encouraging cycling will boost a town centre’s economy through increasing the numbers of people doing business there. The prosperity of urban centres have always derived from large numbers of people doing business together, and this taken place more efficiently with more bikes and fewer cars.

I rest my case!

*Roger Boulter is an urban and transport planner with a long career in cycle planning, including co-authoring the 2004 NZ Cycle Network and Route Planning Guide. In 1999-2000 he used the IPENZ Transportation Group Study Award to undertake the NZ Cycling Strategy Foundation Project, which influenced government strategy*



# Caption competition

Anyone not wearing a hi-vis vest gets buried in a pit. Pass it on.

What was that?

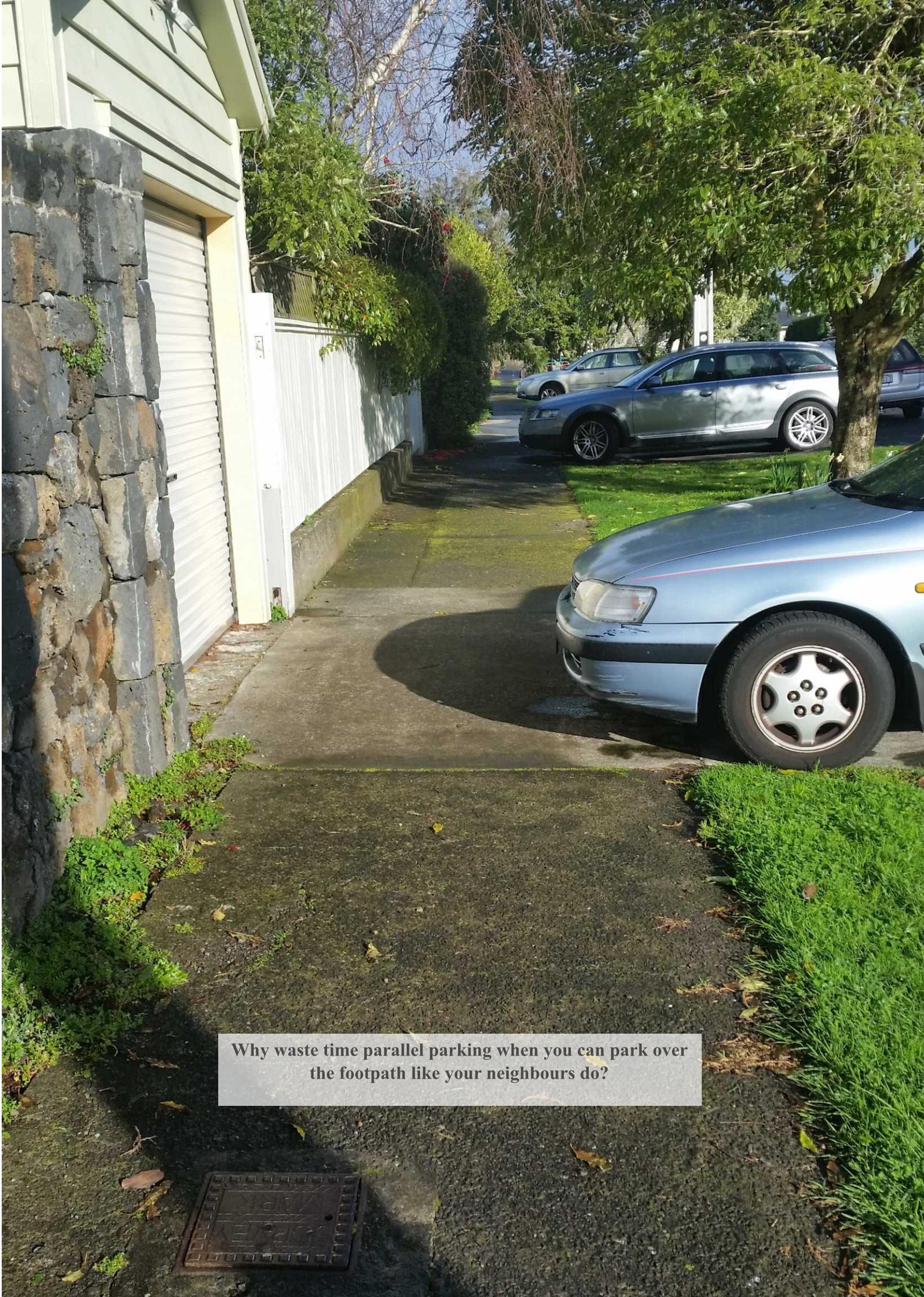


This edition's competition is a photo from the Central branch's end of year site visit to the Mackays to Peka Peka Expressway. Jo Draper appears to be whispering something to the photographer (or trying to avoid being in the photo). Who knows what Jo is saying? A suggestion has been made.

If you think you know better, send your suggestion to [daniel.newcombe@aucklandtransport.govt.nz](mailto:daniel.newcombe@aucklandtransport.govt.nz)



**Builder's humour in Mt Eden**



**Why waste time parallel parking when you can park over the footpath like your neighbours do?**

## Traffic Engineering, Planning and Management

The aim of this five-day programme is to provide you with a solid grounding in the principles, tools and methods of traffic engineering, planning and management, and the contextual issues related to traffic engineering and planning and to managing traffic operations.

### Date and Venue

Monday 9th to Friday 13th February 2015, inclusive. Waipuna Hotel and Conference Centre, Auckland.

### Price (ex GST)

Standard fee - \$2,450      Early Bird fee - \$2,200 (for enrolments more than six weeks before the workshop)

### Description

This is an experiential programme, with cases, examples and discussions, underpinned by solid information and best practice tools and methods. Take-away resources include a substantial course reader that will be an invaluable workplace reference.

The programme draws on the nationally recognised expertise of **Alan Nicholson**, University of Canterbury, **Roger Dunn**, University of Auckland, **Glen Koorey**, University of Canterbury, and **Doug Wilson**, University of Auckland.

It is hosted at Waipuna Hotel, Mount Wellington for driving proximity for Auckland and Hamilton participants, and for airport proximity for participants from other New Zealand centres.

This Auckland occurrence from 9-13 February 2015 will be the only occurrence for calendar 2015.

### Target Audience

This programme is for practitioners or any other professionals who are involved in traffic engineering, planning or management. You will be engaged in policy-making, planning, consenting, consultancy, design, and construction or operation of traffic systems. You may be qualified in policy, planning or engineering; seeking either a solid introduction to traffic engineering, planning and management, or a tools and methods refresher.

### Learning Outcomes

By the end of this programme, you will be able to:

- understand the basic theory and principles of good traffic engineering, planning and management
- apply these basics in your workplace practice
- analyse your and others' experiences relative to these basics
- analyse and deal effectively with situations where standard methods are unlikely to work well.

### Presenters

**Alan Nicholson** is Professor and Director of Transportation Engineering and a former Head of Civil and Natural Resources Engineering at the University of Canterbury. He holds BE (Hons), ME and PhD degrees in Civil Engineering, and an MSc degree in Transportation and Traffic Planning. He is a Fellow of the Institute of Professional Engineers NZ (IPENZ), and was National Chairman of the IPENZ Transportation Group from 2003 to 2006.

Alan has over 35 years of experience in transportation engineering, including five years as a senior engineer in the Ministry of Works and Development, and has been an advisor on transport research to the NZ National Roads Board, Transit NZ, Transfund NZ and Land Transport NZ, plus several overseas organisations, since joining the University of Canterbury in 1981. He was a consultant to the New South Wales (Australia) Road Traffic Authority, for the preparation of their first Strategic Road Safety Plan in 1990, and has worked with several NZ consultants on the development of procedures for the economic

evaluation of transport projects in NZ. In 2010-2011, he was an independent expert advisor to the Nelson City Council for their arterial road study, and in 2010 was a member of the Board of Inquiry for the SH1 (Transmission Gully) project plan change.

Alan's teaching and research interests include transportation system planning and management; accident analysis, reduction and prevention; transport network reliability; risk management; transportation project appraisal and evaluation. He has presented invited lecture series and keynote papers on several of these topics at universities and international conferences in NZ and several overseas countries, including the UK and Australia.

**Roger Dunn**, BE (Civil), BSc (App. Maths), MEngSc (Transport), and Dip TP (Planning), FIPENZ, FITE, is an Associate Professor in the Department of Civil and Environmental Engineering and Director of Transportation Engineering at the University of Auckland. He has won numerous teaching awards including the Inaugural Faculty of Engineering Sustained Excellence in Teaching Award, 2007.

Roger has undertaken a wide range of research and consulting projects - the latter have included assignments overseas as well as in New Zealand. He is a member of the Editorial Panel for Road and Transport Research Journal. He has strong interests in traffic operations and management, and intelligent transport systems. Roger has represented New Zealand on several ITS standardisation committees and has been instrumental in setting up ITS NZ.

Prior to joining the University of Auckland in 1972, Roger worked for the NZ Ministry of Works and Development in Palmerston North and Wellington and then Freeman Fox Wilbur Smith and Associates in London, UK.

Roger is a Fellow and Life Member of the Institution of Transportation Engineers (USA), a Fellow and Life Member of IPENZ, a past Chairman of the Institution of Professional Engineers New Zealand (IPENZ) Transportation Group, and a past Fellow of Institution of Highways and Transportation (UK).

**Glen Koorey** is a Senior Lecturer in Transportation Engineering at the University of Canterbury. He holds BE(Hons) and ME degrees in Civil Engineering, a PhD in Transportation Engineering, and a BSc in Computer Science.

Glen has over 20 years of experience in transportation and traffic engineering, including ten years working as a consultant and researcher for Opus International Consultants before joining the University of Canterbury in 2004. Glen's main teaching and research interests include sustainable transportation (particularly walking and cycling), road safety analysis, speed management, and rural highway design and operations.

**Douglas Wilson** is the Transportation Engineering Group Leader / Senior Lecturer in Transportation Engineering in the Department of Civil and Environmental Engineering and a founding member of the Transportation Research Centre (TRC) at the University of Auckland. He holds a PhD in Transportation Engineering, a BE(Hons) degree in Civil Engineering and an NZCE (Civil) qualification and is a full member of IPENZ.

Doug has had over 15 years of consulting engineering experience in New Zealand in the area of transportation and highway engineering. He has over 14 years lecturing experience at the University of Auckland in the Transportation, Highways and Traffic Engineering areas.

Recent consulting experience includes: Travel Demand Management study for Auckland Council and Auckland Transport; Cost of Congestion Study for NZ Council for Infrastructure Development; road pavement surfacing characteristics and pavement material investigations / data collection / testing systems, skid resistance, road, road and rail asset management systems, highway geometric design, crash investigations, traffic impact assessments, crash reduction and prevention studies, road safety auditing and expert evidence preparation for hearings / Environment Court.

## Information and Registrations

Website: [www.odi.org.nz](http://www.odi.org.nz)

Email: [info@odi.org.nz](mailto:info@odi.org.nz)

Phone: 03 943 2373

# SH20 Waterview update



*Backfilling the first tunnel*

This year has marked the completion of the first tunnel, with the project team hitting the five million manhours mark, but there is a lot more to come.

Alice, the tunnel boring machine, will this month commence boring the second, northbound tunnel following a successful turnaround of the machine over the last few months. Construction will also start on the 16 cross passages in the southbound tunnel the Southern Vent Building will be completed.

Backfilling and drainage construction in northbound tunnel will occur in May and the completion of all tunnelling is expected in October. It's not just hard infrastructure - over 250,000 new plants will be planted alongside the new motorway.

If you want to find out a bit more information on the project, visit: [www.nzta.govt.nz/projects/waterviewconnection](http://www.nzta.govt.nz/projects/waterviewconnection) or [www.facebook.com/AliceTBM](https://www.facebook.com/AliceTBM) for regular updates and some great videos.



*The Hendon Footbridge under construction*

*Some of the 12,000 precast concrete ring segments produced so far.*





# Photo Competition

This photo of a brand new pathway on Auckland's North Shore shows the difficulty of getting usage symbols just right. Separating uphill pedestrians from uphill cyclists seems perfectly sensible. Except that it places them in the path of downhill cyclists (although they may well be slowing for their dinky little Give Way).

Seen a worse example? Send it to:  
[daniel.newcombe@aucklandtransport.govt.nz](mailto:daniel.newcombe@aucklandtransport.govt.nz)

Taken or seen photos you want to share?  
Send them to:  
[daniel.newcombe@aucklandtransport.govt.nz](mailto:daniel.newcombe@aucklandtransport.govt.nz)  
and win the adoration and begrudging respect of your peers.



Perhaps this sign is clearer...



# Transport Advice

## FOR DUMMIES



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

### Dear Transport Guy

I'm angry that Auckland Council wants to charge drivers for using the motorway network. We have already paid for these roads!

**Incensed, Albany**

### Dear Insensitive

You are right. You are being charged for something you have already paid for. But wait - it gets worse! The Council is also charging you for water. But you have already paid for it, drunk it, flushed it, filtered it, had it evaporated and then recollected it as rainwater - probably several times over. Someone should be told!

**~Transport Guy**

### Dear Transport Guy

You traffic engineers are useless. Every morning it takes me at least an hour to drive the few kilometres from my house to the motorway to get over the Harbour Bridge and to the office, yet at midnight this same trip takes only eight minutes. I don't know what you are doing but you are doing it wrong.

**Bruce, Devonport**

### Dear Bruised

You raise a good point. It is a lot quicker to drive at midnight. Hence I have found the solution - only drive to work at midnight. Sure your sleep patterns will be a bit disrupted, you will see less of your family and your workplace may not actually be open - but with all the driving time you are saving, its only a matter of time till everyone else starts doing this. It just makes sense. Of course, this will make the roads much busier at midnight. It might take longer to drive to work... you might need to start going to work around 2am...

**~Transport Guy**

### Dear Transport Guy

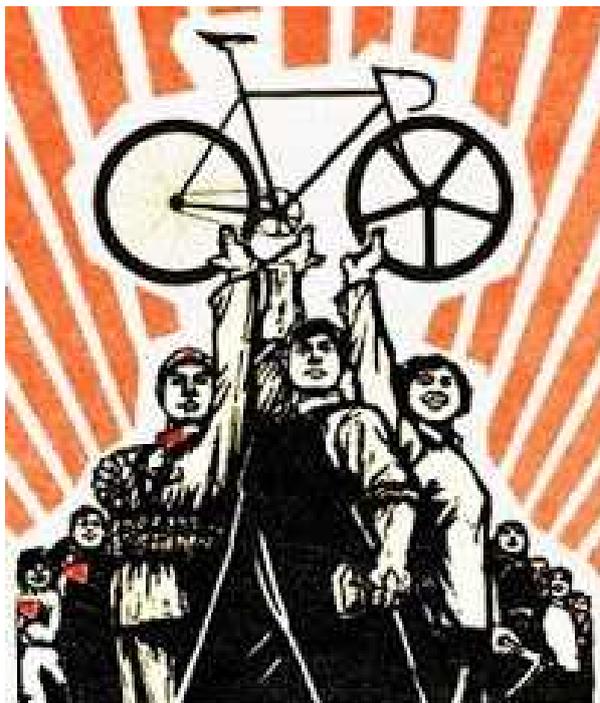
There is some bloke here in Christchurch trying to start up a bike-sharing scheme. We are a prosperous city. Surely we don't need to share our bikes. Why can't we all just use our own? Sounds like communism to me.

**Trevor, Ilam**

### Dear Travesty

You certainly have a good grasp of social, political and economic ideologies. This does sound a lot like

communism, and it is a slippery slope for other forms of transport. Next we'll be asked to share our buses, our taxis, or even the lifts in our buildings.



I suggest you repel this creeping communism in true capitalist fashion - rather than hiring a bike for an hour, just buy it outright. Once you have finished your short cycle journey, just discard the bike, as it will have served its utility for you. Some communist can then try to 'reclaim it for the State' and put it out for some other poor deluded socialist to hire out.

**~Transport Guy**

---

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

# Group Contact Details



**Transportation Group National Committee**  
**National Chairperson, Submissions Coordinator, Membership Coordinator**  
 David Wanty davidwanty@clear.net.nz  
**Vice Chairperson, Treasurer:** Pravin Dayaram  
 Pravin@t2engineers.co.nz  
**Immediate Past Chair:** Mark Apeldoorn mark.apeldoorn@tdg.co.nz  
**Auckland Branch Chair:** Matthew Hinton  
 matthew.hinton@aecom.com  
**Waikato/Bay of Plenty Branch Chair:** Alan Gregory  
 alan.gregory@opus.co.nz  
**Central Branch Chair, Administrator:** Stephen Carruthers  
 Stephen.Carruthers@nzta.govt.nz  
**Canterbury/West Coast Branch Chair, Technical Subgroup Coordinator/Liaison:** James Park James.Park@opus.co.nz  
**Southern Branch Chair:** Phil Dowsett Phil.Dowsett@nzta.govt.nz  
**Website Administrator:** Liam Ryan liam.ryan@tdg.co.nz  
**National Committee Minutes Taker:** Michelle Bound  
 ipenz.auckland@gmail.com

**Branch Administrators**

**Auckland:** Stephanie Spedding  
 stephanie.spedding@beca.com

**Waikato/Bay of Plenty:** Liam Ryan  
 liam.ryan@nzta.govt.nz

**Central:** Josephine Draper  
 josephine.draper@nzta.govt.nz

**Canterbury/West Coast:** Jared White jared@abley.com

**Southern:** Lisa Clifford lcliffor@dcc.govt.nz



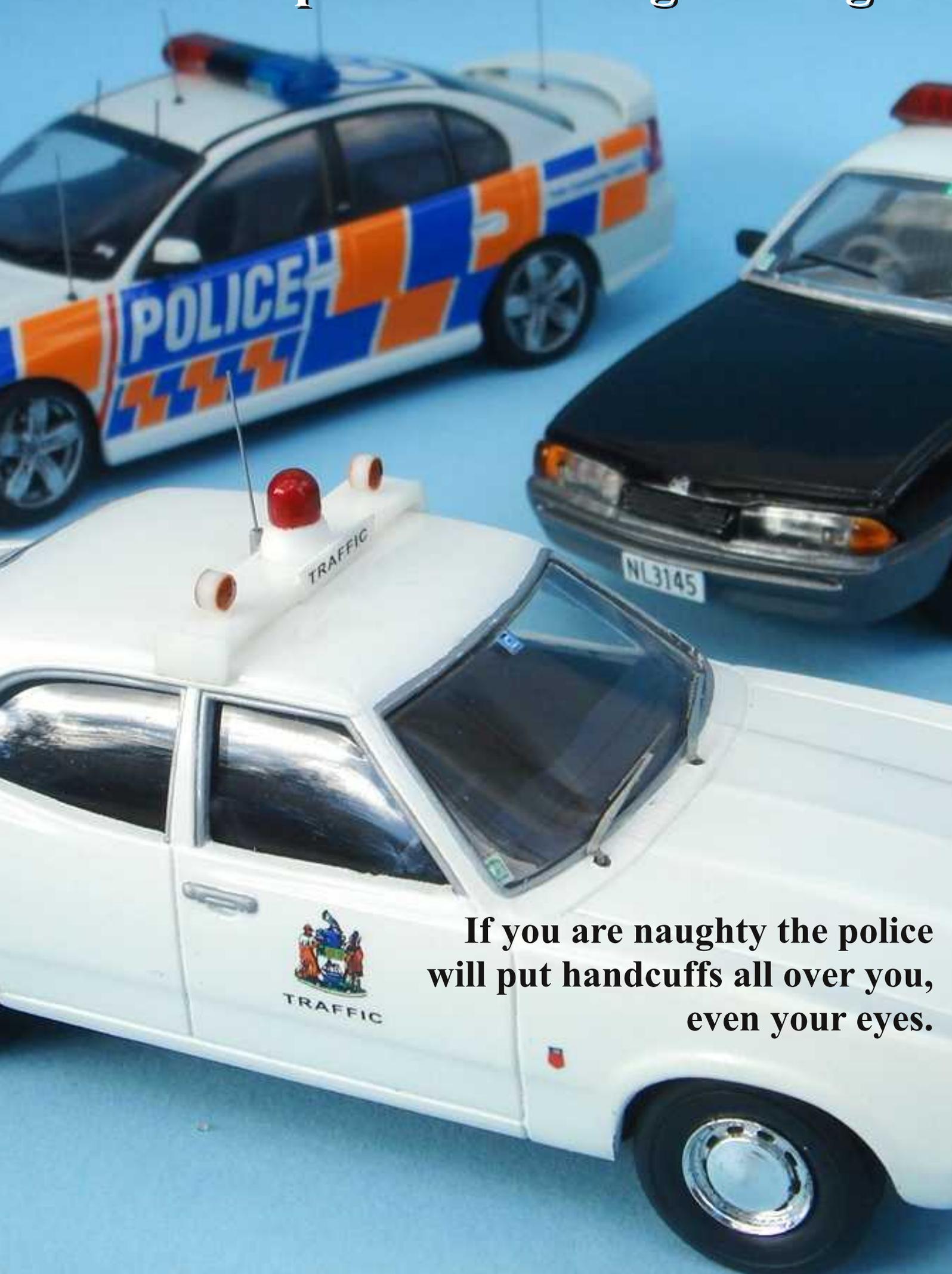
**BUY A TANK THEY SAID**

Roundabout no one will mess with you they said December

**Roundabout Editorial Team**

**Editor:** Daniel Newcombe  
 daniel.newcombe@aucklandtransport.govt.nz  
**Immediate past editor and dogsbody:** Bridget Burdett  
 bridget.burdett@tdg.co.nz

# Kids explain traffic engineering



**If you are naughty the police  
will put handcuffs all over you,  
even your eyes.**