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INCONCEIVABLE!

Roundabout

The Newsletter of the IPENZ Transportation Group

www.ipenz.org/ipenztg



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Chairman's chat

Conference, conference, conference, it's been all go for the Waikato / BOP branch committee and other members from around the country contributing to this event. This intense period of activity leading up to the main event invariably involves the national committee also. There has been a considerable effort by the local team, and I'm pleased to report it is all coming together.

Looking at the national committee activity, this has involved the following subjects of late:

- Fellow nominations
- The new mini-roundabout initiative
- 3M Awards
- Submissions of P5 specification for calcined bauxite
- Group rules
- The Roger Geller national tour
- Co-promotion of events with our partner AITPM Group (Australia)
- Development of a new research sub-committee
- Motor-cycle safety submission (now on website)
- Website development planning
- Christchurch branch support
- Next stage strategic plan
- Co-promotion activities with NZPI, IPENZ, NZIS, CILT, TraffinZ, others

These are just a few of the things engaging committee members and others outside the committee on your behalf at present. There will be more on these key areas of activity as they are developed, however there are a couple of things of note:

- Some members have been enquiring about the AGM at conference. The AGM was notified and held in November last year. There will be a national committee-run workshop at conference this year, and opportunity for members to contribute to the planning directions of the national committee. It would be great to see a strong attendance there;
- The committee has comprehensively reviewed the Group rules, and we have a programme to consult members on this over the coming months;
- We are in the early stages of planning a sub-committee charged with the contributing to the care of future research planning and programming in NZ. We hope to have more about this in the coming months, if you can hold excitement and contributions until then;
- There has been some concern about how members of our group communicate this membership with clients and peers. You will find a separate article in Roundabout on this very important subject.
- Similarly, we have a separate article this month relating to financial risk management considerations and planning for the future financial well-being of the Group. Like many organisations, this is an increasingly important area for the Group.

Other key and forward issues for the Group include engaging with Government on transport strategy, policy and direction (we are communicating with IPENZ on





this), and of course the strategic plan setting a pathway for the next 3 years. There will be some member communication on this in the coming months also.

On those brief notes, I'll leave you to enjoy the substantive contributions in this issue of Roundabout, and the committee sends it best wishes to the organising committee for the imminent IPENZ Transportation Conference. I look forward to seeing you there.



Mark Apeldoorn

March 2012



The Chairman does some research on alternative transport modes on a recent trip to Rotorua





Editorial

Bridget Burdett, Roundabout Editor

Because tempus fugit.

The majority of people who read this editorial will not be attending our Group conference this month. Some would like to, but can't, for reasons relating to our tight fiscal times, or otherwise. A whole lot of people just aren't 'conference-going' types. Some people like to see and be seen – most are quite happy going about their careers in their local area, with their local networks happily rolling along.

Transportation as an industry is changing all the time. When I was at high school, I saw a car-phone for the first time, and just couldn't wait to get home and tell my family how amazing it was, with its curled up cord popping out of the dash. When I was a child, I sat in the boot of our Hillman Hunter station wagon with my sister all the way from Hamilton to Timaru and back, with three other siblings in the bench seat in front, not a seatbelt in sight. When I was a baby, I was carried home in the mini from the hospital in my mother's arms. And let's face it, there will be many members reading this, I'm sure, thinking 'Cars! Crikey, we never had a family car in my day!...'

The question of 'where will change lead' is too hard to ponder; we just don't know what advancements are coming our way. Even though times are tight and 'growth' is slowed, cars get faster and smartphones get smarter.

If time stood still, we wouldn't need Continual Professional Development. *Tempus fugit*. Time flies. So whether or not you attend our Group conference this year, it might be a good year to think about ways to maintain the currency of your professional understanding. Reading *Roundabout* and attending Branch events are great starts – contribute to these; share your knowledge and experience, and you'll help your peers too.





Roundabout is the newsletter of the IPENZ Transportation Group, published quarterly. It features topical articles and other relevant tid-bits 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.

Many thanks are due to Opus International Consultants (see their advertisement on p33), who sponsor the printing of *Roundabout* for those members who prefer to receive a hard copy.

Correspondence welcome, to bridget.burdett@beca.com
Or c/o Beca, PO Box 448, Hamilton 3240

Issue contribution deadlines and publication dates for the coming 12 months are:

June 2012: Contributions due 5th June for publication by 15th June

September 2012: Contributions due 5th September for publication by 15th September

December 2012: Contributions due 5th December for publication by 15th December

To join the IPENZ Transportation Group, fill in an application form, available from the Group website:

<http://ipenz.org.nz/ipenztg/files/TG-App.pdf>



www.twitter.com/ipenztg



www.facebook.com/ipenztg





Snoopy (New news on old members)

Abley Transportation Consultants have recruited two new staff recently:

Andy Carr (ex Traffic Design Group), Principal Associate

Andy specialises in assessing the traffic and transportation effects of land development, and has provided expert advice to many of the country's top developers on numerous high profile projects. He is especially experienced providing expert advice to hearings and the Environment Court. He holds a number of leadership positions and is very highly regarded in the transportation and traffic engineering industry. He has undertaken work in the United Kingdom and New Zealand.

Dave Smith (ex Gabites Porter); Principal Transportation Planner

Dave has a wealth of experience as a strategic transport modeller. His skills and knowledge complement and strengthen the micro-simulation, intersection and accessibility modelling capabilities within Abley. Dave is also very experienced in economic evaluation, crash analysis, land use development, parking studies and traffic surveys.

From ViaStrada:

We have some big news! ViaStrada is being restructured into two separate businesses, effective 1 April 2012. Axel Wilke and Warren Lloyd will manage a traffic engineering and transportation planning business under the familiar ViaStrada banner, continuing to provide high quality and individualised traffic and transport services for clients throughout New Zealand and Australia.

Jeremy Phillips (Director and Senior Planner) and Rhys Chesterman (Senior Traffic Planner) will be joined by other staff from the ViaStrada resource management team to form a separate company focusing on the resource management (planning, traffic & environmental health) and land development consultancy services. Andrew Macbeth (Senior Traffic Engineer and Transportation Planner) has resigned as a director of ViaStrada to advance his career in other directions. Those leaving ViaStrada will be departing with the full support and best wishes of the remaining directors and staff.

Further information can be found on the ViaStrada website:

<http://viastrada.co.nz/news/2012/restructuring>





Member information: IPENZ Fellow

The IPENZ Transportation Group is pleased to announce that Grant Smith, Director of Gabites Porter has been promoted to the class of Fellow of IPENZ from 16 March 2012. Grant will be presented the Fellowship certificate at the Fellows and Achievers Dinner, as one of the 33 Fellowships awarded this year.

Grant graduated from the University of Canterbury in 1972 with a Bachelor of Engineering (Civil). Grant has made a significant contribution across a range of transport areas and geographic regions. He began his career developing travel surveys for the Christchurch Regional Planning Authority in 1969. Grant moved to the UK in 1973, and was involved in major transportation studies in both the UK and Bangladesh.

Returning to NZ in 1975, he joined Gabites Porter's Christchurch office as transportation analyst and traffic engineer. In 1985 he became a director of Gabites Porter Ltd and this firm has, since that time, continued to specialise in transportation planning solutions growing its services to become one of the most innovative specialist transportation consultancies in Australasia. During the 1970s and 1980s, when there was little commercial transportation planning software available Grant developed a suite of transport planning programmes which has evolved into what is now known as TRACKS – which have been widely used in Australasia, and recently South Africa.

Over the years Grant has undertaken transport planning studies in almost every city in New Zealand, as well as extensively in New South Wales, Australia, Malaysia and South Africa.

Grant has appeared frequently as an expert witness in the Environment Court and has written more than 25 conference or technical papers, mostly for the IPENZ conferences, on a broad range of transport planning, modelling, and economic analysis topics. Through his advancement of modelling applications, transport demand forecasting, and economic and financial evaluation, Grant has significantly contributed to the industry's knowledge.

Grant's contribution to the work of IPENZ began in 1977 as the Transportation Group Secretary. He has presented many papers on transportation and public transport modelling at conferences and he received the AA award for papers presented in 1983 and 1989. His most recent papers have been on the Waikato Regional Model in 2010 and the Hawkes Bay Regional Traffic Study in 2011.

Grant has been with Gabites Porter, Christchurch since 1975 and has been a Director for most of these years. Many young engineers have had a useful initiation and mentoring at his hands in Gabites Porter.

The IPENZ Transportation Group offers Grant our sincere congratulations on this achievement.





Member information: Financials

IPENZ Transportation Group – Year End Financial Position Summary

Year End Position

A summary of the year end accounts was presented at the AGM. The accounts were at that time draft and subject to IPENZ Audit procedures. Member enquiries at the AGM also sought to understand more particularly the position of the Group. It was therefore resolved to publish a full and final summary of the accounts in Roundabout.

I am therefore pleased to report the Group position by way of the following summary notes and the summarised tables. Members will observe from the tables that IPENZ administers all accounts, and has established an account numbering reference system. The following key position outcomes are evident:

- Group income exceeded budget, due primarily to the sale of ball bank meters;
- Expenditure was below budget due to:
 - Budgeted web site expenditure not being commissioned. This has been rolled over into the current financial year and planning works to advance the website have been commenced.
 - Visiting speaker, general/sundry, prizes and awards costs below budget; and
 - Roundabout printing and postage savings.
- Regional accounts in general continue to accrue, although Canterbury/West Coast and Central appear to be making effective use of those funds.
- The SNUG conference was not run in 2011 and the account remains as per the 2010 result
- MUGS conference was run, recording a net loss position of about \$6k. The account balance remains healthy, however the loss result is of concern.
- Previous Transportation Conferences have made a net loss. The current net position for the conference accounts accumulated over the last few years is therefore -\$45,612. This includes direct conference and related awards costs.
- Members will find that registration fees will be slightly increased this year to better balance the books and start down the path to recovery of this financial risk.

The overall Transportation Group Balance to 30 September 2011 (including for all unders and overs) is \$195,902.50. This corresponds with a net gain of \$548 for the year.





Looking Forward

The national committee has been developing thinking about developing a future sustainable income for the Group. The expenses are relatively fixed, and previous initiatives have been effective at reducing costs to a minimum and managing membership and conference registration fees without increases, and these efforts are to be commended.

Members have identified a number of future directions at successive AGM's, and this was also recorded this year. Members in general, have indicated the Group should look to be more engaged in, amongst other things the following:

- Supporting the bringing in of overseas speakers where this can add to the professions knowledge;
- Support members growing their knowledge and disseminating that for the benefit of the membership;
- Establish stronger alliances with other international organisations with similar interests;
- Invest in member / branch activities
- Recognise and reward members through awards and prizes; and
- Invest in the future of the profession through research and development.

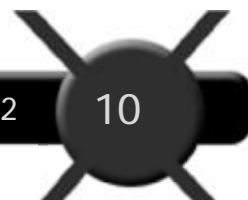
This will be a further subject on the agenda at our meeting planned to be held at the upcoming conference in Rotorua.

For the Group to deliver on these and other measures, it will need to move to a structure that has some administrative support. This is signaled in our current strategic plan and has, if you like, been foretold by previous national committees. With some careful and considered planning, these things will over time be achievable.

In order that the Group (including its Special Interest Sub-groups) and its structure remains financially sustainable, it follows that it must increase its surplus balances year on year. Primary income is derived from:

- Interest on investments;
- Sundry sales, such as ball bank meters; and
- Income from the conference.

The conference and interest on investments are the main and potentially most reliable sources of income that can be managed. Income can be increased by improving on the revenue performance of the conference going forward, and need not necessarily rely on increased costs. I would encourage all members to consider these and other potential opportunities and bring these to the conference meeting, to contribute to our forward planning in this area. For example, can I ask of our membership, what else might the Group engage in, that can deliver it a positive return going forward?





I would put it, and have raised the prospect with Special Interest Sub-Groups, that now is the time we need to consider coming back together at conference, minimising separate administration costs, managing parallel sessions, building gravity around our product and easing the annual sponsorship burden on our most highly valued member clients, while consolidating that sponsorship product to the benefit of the Group and our collective member interests.

I hope you find this a thoughtful and interesting read. I look forward to discussing further at the Conference in Rotorua. Hope to see you there!

Report prepared by: Mark Apeldoorn: Treasurer, IPENZ Transportation Group



"Turning our dismal performance around might be easier if we eliminated our ethics committee."





Memorandum: Representation of membership of the IPENZ Transportation Group

Background

In January 2009, the then Chairman of the Group issued a memo about representation of membership of the IPENZ Transportation Group. The national committee has again received notices about misrepresentation of membership status, such that it has determined a similar advisory note should be issued to members. The committee seeks that all members read this note carefully and that proper representations are made in relation to membership status.

By way of an opening, a small number of members of the IPENZ Transportation Group, a Technical Interest Group (TIG) of IPENZ, are using an incorrect reference to being a member of the IPENZ Transportation Group through the use of either postnominal - MIPENZ (Transport) or MIPENZ (Transportation). The practice of using either of these postnominals is incorrect in relation to being a member of the IPENZ Transportation Group. I am mindful that the use of the postnominal MIPENZ (Transport) or MIPENZ (Transportation) to indicate membership of the IPENZ Transportation Group when a member does not hold competence graded membership of IPENZ is a misrepresentation and accordingly breaches the IPENZ Transportation Group Rules and IPENZ Code of Ethics.

Direction of the IPENZ Transportation Group

The IPENZ Transportation Group Rules are based on IPENZ Rule 27 which pertains to TIGs and which were subsequently adopted at the Group AGM in early November 2008 (<http://www.ipenz.org.nz/ipenztg/members/rules.htm>). Clear direction was provided for through these Rules in regard to membership and representation by members of the IPENZ Transportation Group.

IPENZ Transportation Group *Rule 3.8* states clearly that membership of the Group in itself does not confer the rights of Membership of the Institution (IPENZ). Furthermore, *Rule 12.1* states that in representing themselves in their own activities, outside the activities of the Transportation Group, those members of the Group:

- who hold a competence graded membership arising from *Rules 3.1* and whose competence is aligned with the domain of activity of the group, may use the title of Member of the Group
- other persons admitted under *Rules 3.2* may use the title of Member of the Group and are not to imply by any means that they are Members of the Institution itself,





- all other members may only use the title of Affiliate Member of the Group, and are not to imply by any means that they are Members of the Institution itself unless they hold a competence graded Membership of the Institution.

Further direction has been provided by the IPENZ Engineering Practice Board (EPB) as per the article taken from the December 2008 Engineering Dimension:

http://www.ipenz.org.nz/ipenz/publications/dimension/2008/Dim_Dec08.pdf , Page 10

It is certainly clear that if a member of the IPENZ Transportation Group is not a competence graded Member of the Institution, that fact should be stated clearly and if one does not do so, it is a clear breach of the IPENZ Code of Ethical Conduct which all members of the IPENZ Transportation Group must comply with as a condition of membership.

In this regard, any member of the IPENZ Transportation Group must identify their membership of the IPENZ Transportation Group by using only the statement that they are a "Member of the IPENZ Transportation Group" and must not use any postnominal such as MIPENZ unless they are a competence graded Member of IPENZ.

Any such breaches will be regarded as a breach of the IPENZ Code of Ethical Conduct.

Should you have any questions regarding the above direction from the National Committee of the IPENZ Transportation Group on representation of membership please do not hesitate to contact your local branch representative.

Mark Apeldoorn

Chairman

National Committee

IPENZ Transportation Group





Alternate modes: Invited article from a transport-related industry

This issue of *Roundabout* brings the start of a new regular feature, with an invited article from a professional working in a field other than transportation, though with themes of interest to our Group.



Alex Macmillan is a public health doctor and senior lecturer in environmental health at the School of Population Health, The University of Auckland. This paper summarises part of her doctoral research about commuting and public health.

The Auckland CYCSIM model: simulating the integrated societal costs and benefits of policies to increase commuter cycling

Car use is the dominant mode of transport in short, habitual journeys to work in many cities, including Auckland. It allows access to a range of employment and training while enabling families to manage other responsibilities. However, car dependent commuting has significant negative effects for commuters, the wider community, and local and global ecosystems. Existing evidence about harms is sufficient to seek a commuting mode shift for environmental, health and equity benefits. Health, wellbeing and prosperity begins in peoples' neighbourhoods, streets, schools and workplaces and the trip to work plays an important role in determining community wellbeing.

Although some of the wider public health impacts of car dominant transport are already considered in transport planning to a varying extent, there are considerable challenges for their successful incorporation in decision-making. These include the complexity of the relationships between transport and health, the disparate nature of the evidence, and implicit trade-offs – both between competing interests and between different outcomes. For example health benefits may be traded off against economic ones, but this may represent a false trade, as “win-wins” can often be identified.

Across a range of disciplines, researchers and practitioners have been converging on a set of principles for effective policy decisions in complex systems such as the transport system. These can be summarised as: a systems approach; transdisciplinarity (integrating knowledge for decision making across policy, community and the academic literature); community participation in the



characterisation of problems, as well as the identification and implementation of solutions; and a focus on social justice and equity. These principles formed the basis for this research.

The aims of the project were to develop a commuter cycling and public health model integrating physical, social and environmental wellbeing; and use it to identify effective policy levers for improving public health through commuter cycling.

Participatory system dynamics (SD) modelling was used to combine policy, community and academic knowledge. SD modelling allows the simulation of complex systems that are known to include feedback, time delays, and non-linear relationships between variables. Interviews and workshops with community, health and policy stakeholders led to the development of causal feedback loop diagrams (CLDs) connecting influences on mode share in the journey to work with broad wellbeing outcomes. The CLDs relating to commuter cycling were then developed into a dynamic simulation model, by bringing together routine data with the best evidence from the literature about the relationships between variables and the effectiveness of a variety of interventions.

The dynamic model was then validated against historical data and used to simulate the effects on a range of broad public health outcomes.

The commuter cycling CLDs are shown in Figure 1. The feedback loops are either reinforcing (R) – in other words they are self-perpetuating virtuous/vicious cycles, or balancing (B) loops which dampen the effect of reinforcing loops. Of course there are many other effects on commuter cycling (such as destination facilities, education and promotion, the cost of petrol, weather and hills) which do not take part in the feedback loops identified. This means that these things may play an important part, but are not the dominant forces behind observed trends in commuter cycling in Auckland. The loops with the broken lines in the diagram are ones that were not supported by data to be active at the levels of cycling and car commuting currently seen in Auckland. Although real and perceived safety are combined in the diagram for simplicity, these are not always related in the real system and are treated separately in the simulation model.

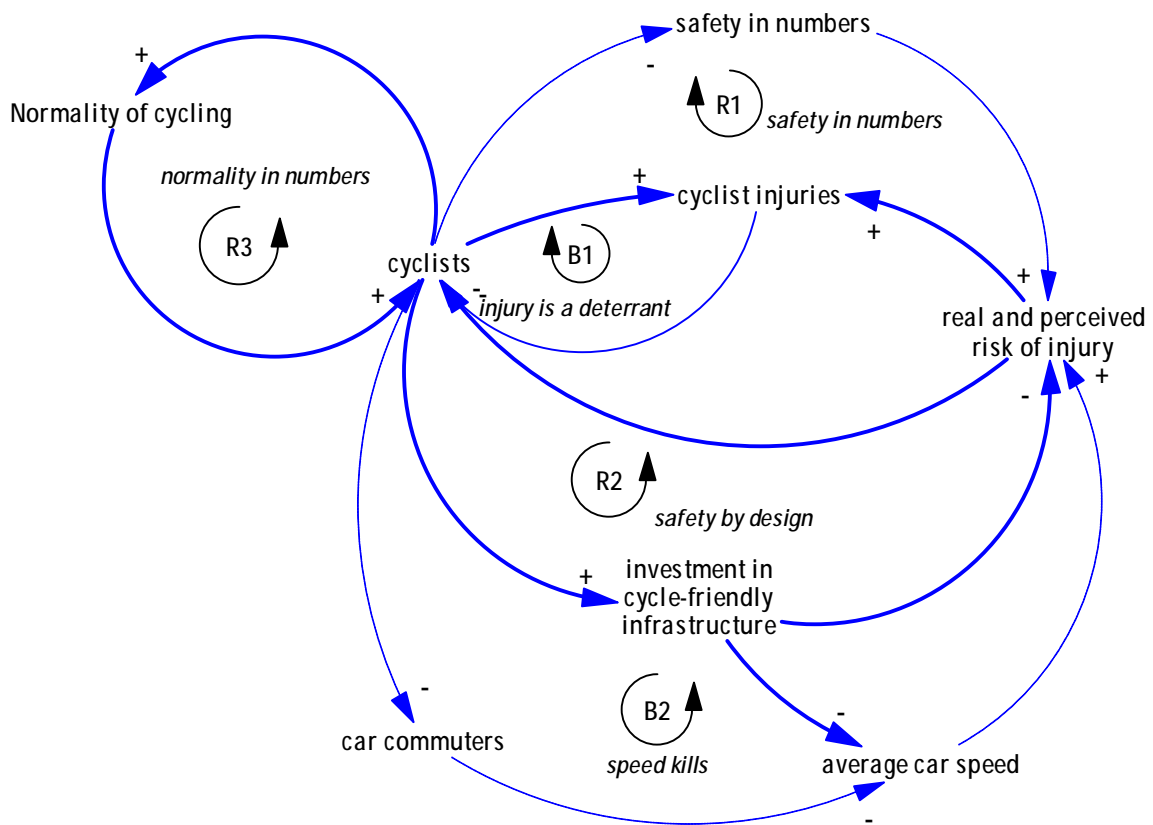


Figure 1 Commuter cycling causal loop diagram for Auckland

Because of the importance of real and perceived safety, five cycle-friendly infrastructure policies have been simulated over 40 years (2012 – 2051). These are:

1. A “no further investments” or “business-as-usual” scenario (BAU)
2. The Auckland Regional Cycle Network (RCN) as it was described in the 2010 Auckland Regional Transport Strategy (a network approach to identified arterial routes using on-road marked lanes, off-road shared walking and cycling paths, and shared bus lanes)
3. A universal approach to the region’s arterial road network that envisions a physically segregated bicycle lane on every arterial road by 2051 (ASBL)
4. A universal approach to the region’s local roads that envisions all local through roads being “self-explaining” liveable streets with aesthetic slow speeds by 2051 (SER)
5. A best practice approach to the road network that combines the ASBL and SER policies





The policies were tested against their ability to meet Auckland's quantified 2040 strategic transport targets to increase the cycling mode share, improve the perception of cycling safety, reduce light vehicle km travelled, reduce road traffic injuries and halve greenhouse gas emissions from the transport sector. In addition to these strategic outcomes, air pollution mortality and morbidity, physical activity savings, and household financial savings were also simulated.

Rather than making point predictions, the model demonstrates the shape, direction and comparative magnitude of changes over time, while accounting for the feedback described above, as well as expected "business-as-usual" trends such as improving fuel efficiency of the light vehicle fleet.

Figure 2 demonstrates the shape and comparative magnitude of change over time for the different policies on three indicative outcomes (cycling mode share in the trip to work, Auckland's per capita CO₂ emissions and annual cyclist injury rates). The benefits of all the intervention policies outweigh the harms; however policies differed in the size of benefits by an order of magnitude. The model was unable to exclude the possibility that the RCN may make commuter cycling more attractive but also more dangerous, because of the nature of the proposed infrastructure. Policy 5 was most likely to meet policy perception of safety, climate change and cycling mode share targets. Significant benefits accrue from improved physical activity and air quality. The combined policy changes the shape of the cycling injury curve to significantly reduce the injury cost of increasing commuter cycling. Health benefits outweigh the costs by about 20:1 in this scenario, although all the intervention policies demonstrated benefit cost ratios an order of magnitude higher than generally seen in transport infrastructure projects.

The CYCSIM represents the first integrated assessment of public health outcomes for specific active transport policies internationally. It was able to demonstrate the comparative costs and benefits of policies to increase commuter cycling, identifying trade-offs between public health outcomes. Creating safe cycling infrastructure will be crucial for increasing commuter cycling. A universal approach that progressively transforms Auckland's arterial and local roads over the next 40 years will be needed if cycling is to assist with achieving the region's quantified sustainable transport targets. This area-wide change would be cost-effective, returning in the order of \$20.00 in quantified public health benefits for every dollar spent, and requiring an investment increasing from about 3% of the total regional transport budget in the first decade. Further well designed studies are needed to improve the robustness of the model by clarifying the relationship between cycling numbers and cyclist safety (safety in numbers) and improving the quality of evidence about the effects of infrastructure.

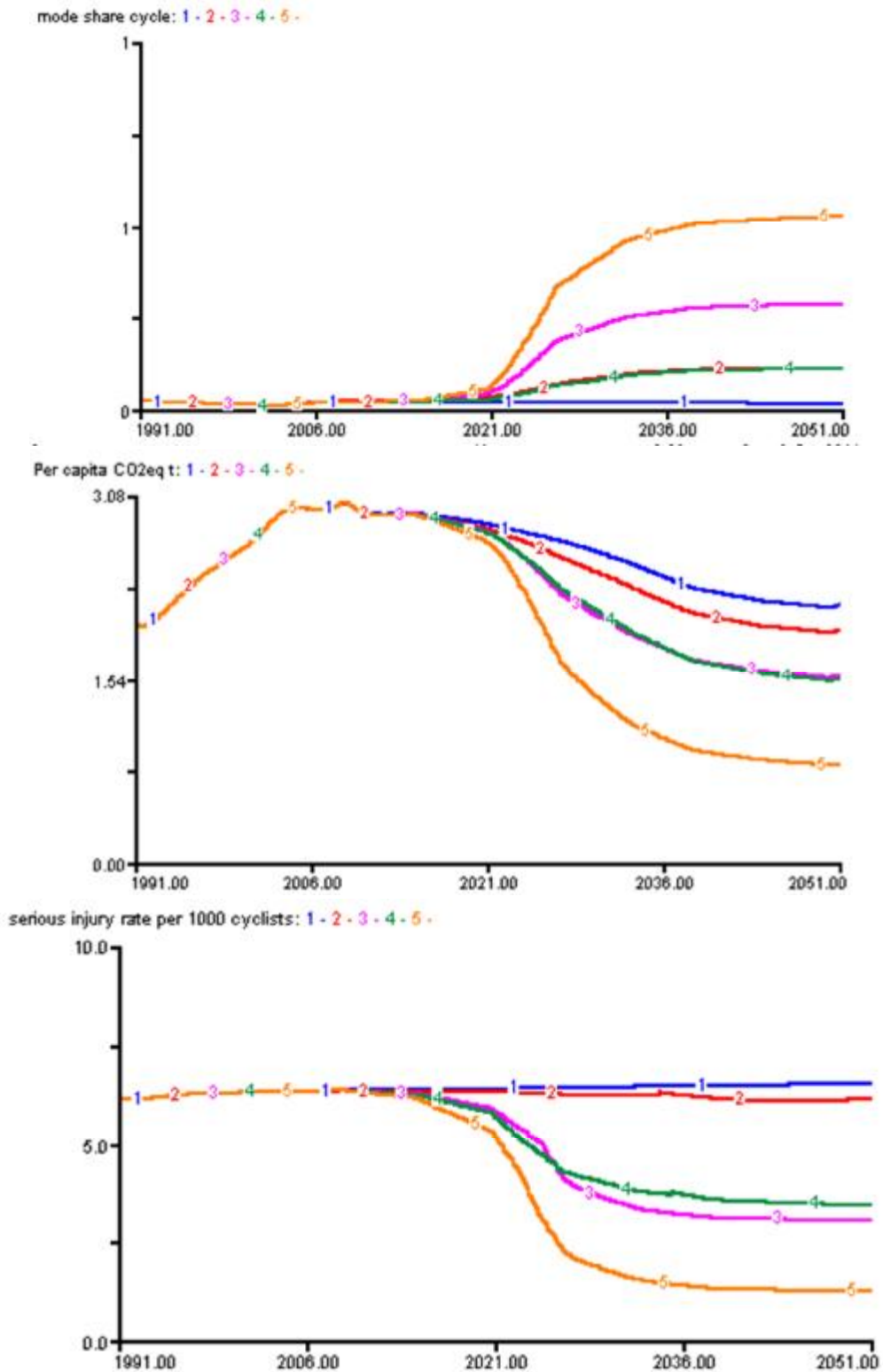


Figure 2 Indicative outcomes for the five policies using the CYCSIM Auckland model (1 – BAU, 2 – RCN, 3 – ASBL, 4 – SER, 5 – ASBL + SER). Top: Cycling mode share of commuting trips, Middle: Annual per capita greenhouse gas emissions

attributable to commuting, Bottom: Serious and fatal injury rate per 1000 commuter cyclists per year.



Study award report

Shared Space Research Tour – Places and people

Mairi Joyce

Flow Transportation Specialists

In 2010 I was awarded the Institute of Professional Engineers (IPENZ) Transportation Group Study Award to travel to Europe and visit shared spaces. The aim of the study tour was to gather information which can be used to create a guidance note for practitioners working on streetscape schemes involving shared space here in NZ. Following a literature review and refinements of the scope with IPENZ, it was decided I would focus on schemes in the UK as this is where the latest research is emerging and parallels between the UK and NZ can be drawn relatively easily. I am currently in the process of writing up the guidance note but this summary note provides an overview of some of the key places and people I visited and what I have learnt from the tour.

In addition to the funds received from the IPENZ Transportation Group, this tour was only possible due to the generosity of the UK practitioners who gave their time and shared their knowledge and experiences. I therefore would like to express my sincere thank you to the IPENZ Transportation Group and everyone involved.

Summary of findings

Shared Space is a term used to describe a particular streetscape design philosophy primarily aimed at changing the impact of motor traffic in public spaces used by pedestrians¹. The design philosophy states that these design treatments enable reduced vehicle speeds due to drivers no longer assuming they have priority and being forced to be aware of other road users. The reduced speed and increased awareness results in an 'environment of care' where the use of the space is more balanced between all road users. Examples include the recently completed Elliot, Darby and Fort Streets in central Auckland and Totara Avenue in New Lynn in west Auckland.

During my tour of the UK, I visited a number of streetscape schemes using shared space principles including those in London, Brighton and Ashford in Kent. I also spoke with various key professionals who are well known for their involvement in shared space design. This note summarises the key observations and findings from each visit.

Overall, I found the study tour to be invaluable as I have learnt a significant amount on how shared space principles can be applied in a variety of contexts.

¹ Department for Transport, November 2009, Shared Space Project, Stage 1: Appraisal of Shared Space



However, more importantly, observing how these streetscapes work in person has provided me with confidence that these principles can be applied more widely here in NZ. My findings will be outlined in full in the guidance note with a few key points being summarised below:

- In the UK the term Shared Space is not used to describe a design type, the term is much broader and encompasses a wide variety of designs which enable pedestrians and vehicles to share a space. This means that there is no design recipe which can be followed to ensure their success. Although there are a number of principles that need to be applied, each street needs to be designed within its own context for the street to be successful
- Reducing separation between vehicles and pedestrians in a slow speed environment is safe! I observed schemes with varying designs, traffic volumes, land uses, pedestrian volumes and in all cases vehicles slowed to watch for pedestrians. There is no evidence of accident rates increasing as result of reducing separation between pedestrians and vehicles or reducing signage and markings and in most cases accident rates have stayed the same or have improved. Yes shared space is a new (ish) idea in NZ but it has been used a lot overseas and I believe we can rest assured the principle is safe
- Speed is the most important factor in ensuring the success of a shared space design. If you can reduce vehicle speed the benefits of shared space will be realised and if the speeds stay high the design will have limited success. If this means that some more traditional traffic engineering measures have to be included (raised tables etc) then install them, with careful design these elements can be installed without compromising the other aims of the street
- NZ drivers will change their behaviour if the design is right, all countries believe they have the worst driving behaviour but the principles of shared space design are based on understanding human behaviour- we are all human beings
- We need to relax a bit, trust our instincts and use our imagination more. Yes a non-standard design is harder work but it is achievable and many practitioners in NZ (transport professionals as well as urban designers, landscape architects etc) are open to these ideas. Many of the best UK schemes have been achieved through the bravery of professionals who were willing to try something new and we need to be prepared to take these same risks. The recently completed shared spaces in Auckland are fantastic but we need to keep developing new ideas and make sure we don't just 'copy and paste' the same designs throughout NZ.





The Places

New Road, Brighton

New Road in Brighton is a famous shared space scheme which has won a number of awards since its completion in 2007. I visited New Road in Brighton on a Friday lunch time, evening and a Saturday morning. Jim Mayor from Brighton and Hove City Council project managed the scheme and was kind enough to meet with me on site on the Friday afternoon and show me round. When I visited the street, my first reaction was that it was just a fantastic place to be. There were lots of people milling around, eating and drinking at cafes, sitting on the public benches and listening to music (street performers). It is hard to believe that before the upgrade New Road was a back street, which was rarely visited by pedestrians.

In terms of the operation of the street as a shared space I observed pedestrians using the entire cross section of the street, some using the strip between café tables and the building line and others using the centre of the carriageway. All vehicles who used the street slowed down to allow pedestrians to move out of the way and people were aware of their surroundings and moved when required. At no time did I feel unsafe or observe any circumstances where I felt people were in danger.



Jim Mayor from Brighton and Hove Council informed me that success stories include a speed reduction to average speeds of around 10 m/hr (16 km p/hr) and an increase in pedestrian flows of 162 %. However, Jim noted that the street itself has always had the potential to be a great street due to its unique land uses, therefore people have to be careful not to assume they will achieve the same success with similar designs in other locations.

Ashford Ring Road, Kent

The Ashford Ring Road project was completed in 2008. Ashford is a town located in the borough of Ashford and Kent in the south east of England. The purpose of the project was to break up the concrete collar around the town centre and create a new, multi-purpose public realm with easier and safer linkages for people to the town centre to aid future growth of the town. The whole inner-ring road has been converted from a one-way to a two-way road, and a third of its length has been transformed into a series of streets where the space is shared between vehicles and pedestrians.





I visited Ashford on a Thursday during the middle of the day and was shown around by Jamie Watson who is a Senior Traffic Engineer at Kent County Council. The higher traffic volumes on this street resulted in a more traffic dominated feel than the more pedestrian focussed examples I visited. It was interesting to note the moderate traffic speeds along even the more traditionally designed parts of the scheme, particularly given there was a lack of pedestrians, as this indicates that the design elements alone were having some impact on traffic speeds.



Jamie provided me with a good background to the development of the scheme. He noted that there had been some negative reaction from the public and Council had had to make some amendments to the design and also retrofit some elements following the opening of the scheme. Significant improvements include the fact that there had been no serious accidents since the scheme opened and average speeds were down to around 21 m/hr (33 km/hr).

Exhibition Road, London

The Exhibition Road project is located in the Royal Borough of Kensington and Chelsea in London. When I visited the street, the project was under construction but it is now completed. I was given a tour by Bill Mount who although recently retired, project managed the scheme for a number of years.



Exhibition Road is home to a number of famous land uses including the Victorian and Albert Museum, the Natural History Museum, the Science Museum, the Royal Albert Hall and Imperial College London. The new design includes a distinctive chequered granite surface which features a single surface running from South Kensington Street Station to Hyde Park the full width of the road (from building to building).

Professionals in the UK are very eager to see how this scheme will work once completed as the traffic volumes make this example quite different and monitoring of the street should provide some useful information on pedestrian/vehicle interaction which can help others working in streetscape design.



The People

John Emslie, MVA

I met with John Emslie, a Transport Planner from MVA consulting who was then in the process of project managing the development of the UK Department of Transport (Dft) Shared Space Local Transport Note (released late in 2011).



John's main point was that there is no recipe to creating a successful streetscape in which people share the space, streets need to be designed within their context and transporting schemes from one location to another is unlikely to work.

Another main theme which came through in our discussion was the idea that there are already many examples of successful shared spaces throughout the UK which were implemented before the term became popular. As part of our interview the team at MVA kindly took me on a tour of some schemes in central London which have been in place for a number of years which gave me great insight into how the principles of shared space can work in different environments.

Martin Stockley, Stockley Associates

My next meeting was with Martin Stockley of Martin Stockley Associates who has worked on a number of schemes involving shared space principles in the UK including New Road in Brighton. Martin is an Engineer who argues that many traditional streetscape designs encourage users who behave perfectly "normally" (eg civilised) in the majority of public spaces to behave "abnormally" when they are using the street (for example drive dangerously in close proximity to pedestrians, speed through intersections). He argues that there are two main reasons for this. The first is that humans do not react well to over regulation, particularly when the regulations go against our nature. The second is because the traditional streetscape environment appears much less hazardous than it actually is, it encourages users to act inappropriately.

Martin argues that the key to creating civilised streets is to enable people to behave in a normal civilised manner and to ensure users are aware of the hazards. Translated into streetscape design this means removing or reducing traffic control devices and ensuring the design itself makes sense to users, allowing them to make their own risk assessments so they can inform themselves of the most appropriate way to behave (for example to drive slowly).

Ben Hamilton Baille, Hamilton-Baille Associates

I then travelled to Bristol to meet with Ben Hamilton-Baille Associates. Ben Hamilton-Baille is an architect and is generally credited with coming up with the



term shared space and is internationally renowned for developing streets using shared space principles. His company was involved in the development of the Ashford Ring Road project, New Road and many other streetscape schemes involving shared space principle located throughout the UK. An important aspect of the discussion was the definition of the term shared space. Ben stated in our interview that when he coined the term he was describing a relationship not a design type and that he is slightly concerned with the way the term is now being used. This is interesting as on the whole, the use of the term in NZ has been limited to streets with level surfaces.



Another key point made was regarding the effect of applying shared space principles in different countries. Ben stated that during his work on the European Shared Space Project it became clear that the impact of culture on driver behaviour was limited. All countries (although all in mainland Europe and the UK) believed they had the worst drivers in the world and were sceptical whether these ideas would work in their country. Ben argues that shared space principles work because they are based on basic human behaviour and because of this the principles (if applied correctly) will work in any developed culture.

Conclusions

Overall, I found the study tour to be invaluable as I have learnt a significant amount on how shared space principles can be applied in a variety of contexts. The people I spoke with were very enthusiastic about the concept and observing how these streetscape designs work in person has provided me with confidence that these principles can be applied more widely here in NZ.

Next time you are working on a streetscape scheme think twice about using the standard designs and consider how you can add value to the context within which you are working. If my observations from the UK are anything to go by, the results will be well worth the effort.



AITPM trip report

The IPENZ Transportation Group maintains a close relationship with its sister organisation the Australian Institute of Traffic Planning and Management (AITPM). The Transportation Group contributes to the cost of sending a member to the AITPM Conference each year and Richard Galloway of Traffic Design Group was invited to attend the 2011 Conference titled 'Linking Communities – Growing, Liveability and Accessibility'. New Zealand was more widely represented at the Conference with around a dozen delegates.

This report sets out brief highlights about how AITPM functions, key themes from the conference, and particular points we can learn from in New Zealand.

AITPM Structure

AITPM is a slightly smaller organisation than the IPENZ Transportation Group with 700 members across Australia. It has a similar structure to the one recently adopted by our Transportation Group with a national committee comprising the State Presidents, the past National President, a Treasurer and a Secretary.

The branches are arranged by state and each has the State Minister for Transport as Patron. This form of interaction with Government could be a useful example for us.

Like us, each branch generally aims to meet monthly. In a commendable bid for continuous improvement there was much discussion at the AGM as to ways to review what works well and therefore increase the frequency of and attendance at meetings.

AITPM generally runs on a lean budget but does include provision to provide full scholarships for a student from each state to attend the National Conference. This seemed effective as my discussions with the students suggests that AITPM had a similar level of visibility at universities as we do. We may wish to consider extending the current initiatives for student and young professional attendance to include a number of full scholarships to attend our conference.

Conference Focus

In opening the three day conference, AITPM's dynamic President Peter Doupe expressed a strong desire that delegates focus on the opportunity to meet each other and swap ideas. A welcoming and friendly atmosphere followed throughout the conference events.

The conference was structured around the key theme of linking communities and taking a close look at issues associated with growing, liveability and accessibility. Of the three, growth seemed to come up the most as an issue which Australia, and Victoria in particular, is having to address at the moment. Community





participation also came up regularly in the keynote presentation and right through a number of the papers.

Some presenters, such as Fay Patterson of Hub, were gutsy enough to present what were ultimately very helpful presentations on projects that had not gone well. The opportunity for the whole industry to learn from the mistakes of others should be encouraged.

http://www.aitpm.com.au/index.php?option=com_docman&task=doc_download&gid=60&Itemid=19

Urban Growth

In his opening address the Honourable Terry Mulder (Victoria Minister for Roads and Minister for Public Transport), noted that accommodating growth would require some densification but also expansion of urban limits. During a later plenary session Yehudi Blacher (Secretary for the Department of Planning and Community Development, Victoria) suggested that it is "naive and elitist" to expect densification alone to provide for growing populations. In Victoria, heavy rail is earmarked to provide for the expanded urban areas.

Jim Betts (Secretary for the Department of Transport in Victoria) made an observation that transport planning and land use planning are not closely inter-related but that they are the same thing, as a change in transport arrangements will ultimately lead to changed land use patterns.

Community Participation

In his keynote address Peter Midgely of gTKP noted his view that community participation is the most important factor in addressing urban mobility around the globe. He noted for example that the London Congestion charge was not implemented overnight but rather that Ken Livingstone spent three years engaging with communities and preparing the way before launching the scheme.

http://www.aitpm.com.au/index.php?option=com_docman&task=doc_download&gid=72&Itemid=19

John Devney of GHD presented on methods to engage with the public to turn them into people who do not just use public transport, but love using it. John had some interest in the examples from Vancouver with an unsurprising focus on internet tools.

http://www.aitpm.com.au/index.php?option=com_docman&task=doc_download&gid=67&Itemid=19

Transport Database Bureau

The work of TDB was noted at the AITPM AGM as being a significant contributor to the whole of Australasia and there is a desire to continue and develop relationships and opportunities for a coordinated effort. Interestingly the restructuring of RTA which had been announced at the time may have some opportunities for TDB to assist in the role which RTA has led so well for decades.



Cycle Tour

The third day of the conference comprised three workshop options, including a cycle tour around Melbourne. We rode bikes from the Melbourne Bike Share scheme, an initiative which appeared to be somewhat frustrated by the compulsory helmet law, even though new helmets are available for just \$5 (note New Mexico evidently repealed a helmet law to facilitate a shared bike scheme). Melbourne's network of paths is being rapidly developed for transport over recreation. Some interesting interventions include short signal phases on local road approaches to arterials, where the aim is to encourage and move cyclists, but leave cars behind in queues. Another was the placement of a cycle lane between the kerb and clearway parking which was a resounding safety success despite the obvious concern.

Conclusion

All of the papers presented at the conference are available on the AITPM website. Overall the opportunity to attend the AITPM Conference was very worthwhile and I recommend it to others. Long may our close relationship with AITPM continue.

http://www.aitpm.com.au/index.php?option=com_docman&task=cat_view&gid=48&Itemid=19.

Richard Galloway





2Walk&Cycle conference

Speed dating or rapid fire – there were some interesting choices! From 22 to 24 February 2012 the first ever 2 Walk and Cycle Conference was held in Hastings, one of the two Walking and Cycling Model Communities. The focus of this conference was on everyday walking and cycling for transport, recreation and tourism. It encompassed all aspects of trips made by these “active modes” (including promotion, infrastructure, safety, policy and training) and their integration with each other, other travel options, and our lifestyles in general.

Whilst planning the next NZ Cycling Conference the organising committee agreed it was time to consider holding a joint walking and cycling conference. This would replace the biennial cycling conference earmarked for late 2011. Discussions were held with Living Streets Aotearoa (organisers of the NZ Walking Conference series) and agreement was reached on this concept. Representatives from Living Streets Aotearoa, CAN (the Cycling Advocates’ Network), NZTA, Hastings District Council, other organisations and a number of interested individuals made up the organising committee.

A very good attendance of nearly 200 delegates showed that combining the two conference streams was a success. Many local authority staff commented that having a combined Walking and Cycling event made it much more relevant for them to attend.

One of the highlights was the walking and cycling awards as part of the conference dinner. Associate Transport Minister Chris Tremain presented the awards, including the inaugural joint walking and cycling award, which went to New Plymouth District Council.

The conference tried many new session formats, and many of them are quite interactive. Apart from the traditional ‘sit and listen’ presentations, the following formats were had:

- poster board presentations, where multiple presenters present their work with the help of a large printed poster;
- workshop presentations, where a moderator runs the session, with much of the interaction and discussion coming from the delegates;
- rapid-fire lectern presentation, where presentation times are much shorter (10 min including questions);
- round table presentation, where multiple presenters at individual tables use aids of their liking to talk about their project followed by in-depth questioning, with delegates moving to a new table every half hour; and





- “speed dating” presentations, where presenters at tables give a quick overview of their project, with delegates moving to a new table every 10 min.

The new session formats were well received overall, with some great suggestions for improvements in the future. Overall, the conference received a great rating (8.4 out of a possible 10), with a majority view for biennial conference occurrence. The organising committee has already expressed a desire to move the series back to the traditional fourth quarter of the year, so the next Walking and Cycling Conference might be held in the later part of 2013.

Axel Wilke (ViaStrada), on behalf of the conference organising committee

More info, photos and copies of papers are available on the conference website:

<http://hardingconsultants.co.nz/2walkandcycle/>



New Plymouth District Council’s Carl Whittleston and Liz Beck receiving the joint walking and cycling award from Associate Transport Minister Chris Tremain (photo : Alastair Smith)



Delegates enjoy the display during the *Frocks on Bikes* lunchtime fashion parade



Branch updates

Central Branch

Chairman - Roger Burra

Central Branch has had a good start to the year. As in 2011 we started off with a presentation on parking, with Wayne King explaining "Why Parking is Now Sexy". It was a most entertaining presentation that stimulated a lot of new ideas about enforcement as well as some robust discussion. During our second event we hosted Roger Geller, visiting from Portland in the USA to talk about cycle freindly cities. As well as hosting him in Wellington, we were very grateful that he was also able to speak to our members in Palmerston North and the Manawatu. For this special thanks are due to Glenn Connelly who organised the event in Palmerston North.

Our next event on 15 March was also designed to cater to members in the wider region. A trip to visit remedial works at the Manawatu Gorge slip was arranged courtesy of the NZTA and MWH. All places for the 15 March event were taken but additional trips may be organised if there is sufficient demand. Other events in the pipeline include:

April - Matt Barnes (NZTA) providing feedback on the transport arrangements for the Rugby World Cup across the country

May - possible trip to visit the Westchester Drive Extension construction site

June - Tom Small (SKM) - modelling the traffic diversion effects of Wellington Tunnel closures using simple methods

Invitaions to these events will be sent out in due course.



**Canterbury/West Coast Branch****Chairman – James Park**

Activity within Christchurch is increasing with the Canterbury Earthquake Recovery Agency (CERA) and associated Stronger Christchurch Alliance becoming more active in road management around eastern Christchurch and the Central City.

The consultative group supporting CERA and representing local professional organisations including IPENZ, NZIA (Architects), NZPI (Planners), NZIQS (Quantity Surveyors), and NZILA (Landscape Architects) has been slow to get going but we hope there will be more opportunities to evolve out of this soon.

Following the Branch submission discussing the key transportation issues on the Draft CCC Central City Plan in Sept 2011, the Committee submitted a paper to the Annual IPENZ TG Conference for March 2012. This paper has been accepted and we will be promoting at the Conference the challenges and opportunities we experienced around the whole process.

The Committee met 14 Dec 2011, and 31 Jan 2012. 2012 has started off with a buzz and the Branch Committee continues to be very active, with its next meeting scheduled for 7 March.

The December 2011 event in Greymouth (in conjunction with IPENZ West Coast Branch) was well received and this may become an annual meeting supporting members in this region.

We hosted Roger Geller (Portland, Oregon) at a well attended event on 20 Feb 2012 in Christchurch with a discussion on "Rebuilding Christchurch as a Cycling-Friendly City - Lessons from Portland, USA." It was encouraging to hear that much of what had been achieved up until Sept 2010 at least in Christchurch was well aligned with his experience of managing bicycle capital, planning and policy projects in Portland. One of his key messages was how investing into infrastructure for cycling has saved Portland tens of millions of dollars in road expansion projects that would otherwise have been necessary.

The Committee has further presentations in the pipeline including:

- Local presenters at the IPENZ TG 2012 Conference, to give presentations locally in March/April.
- Possibly a discussion involving local MoT or NZTA representatives about the Give Way Rule change implications on transport infrastructure and planning.





West Coast members enjoy the Greymouth event, December 2011



Roger Geller presents in Christchurch

Waikato/Bay of Plenty Branch

Deputy Chair – Adam Francis

The Waikato/Bay of Plenty committee have been almost completely preoccupied with the organisation of the Transportation Group Conference being held in Rotorua, 18 – 21 March 2012. Like many branches, we hosted Roger Geller for a well-attended and informative presentation, at Hamilton City Council in February.

We plan to hold our branch AGM in April, and will be looking for nominations for all branch positions, including the coveted, illustrious, prestigious role of Waikato/BOP Branch Chair, as our current Chair Robyn Denton has reluctantly decided to step down. Stay tuned for a meeting invitation.



**Auckland/Northland Branch****Chairman Daniel Newcombe**

The Auckland/Northland branch has run two technical meetings since the last edition of *Roundabout*. The January event was a presentation on NZTA's new business improvement projects (under the banner HEADWAY). Neil Cree outlined the purpose of "Creating transport solutions for a thriving New Zealand" and explained that these projects will significantly affect the way NZTA does business and the business consultants do for NZTA. The same meeting also doubled as the branch AGM, where the entire branch committee was re-elected en masse.

The February event was the most well-attended branch event in living memory, with an estimated 220+ people attending a lunchtime presentation by Roger Geller. With standing room only in a large central city hall, Roger rehearsed his 2 Walk and Cycle conference speech, which he was to make again several times across the country over the coming week. A recording of Roger's talk (from a smaller event in the same venue) will be placed on YouTube and linked to the IPENZ Transportation Group Facebook page (www.facebook.com/ipenztg), so people who could not attend are able to watch the talk.

The upcoming March event is to be a site visit to the Joint Transport Operations Centre (JTOC) in Smales Farm, Takapuna. JTOC is a new partnership between Auckland Transport and the New Zealand Transport Agency, and involves control and monitoring of traffic signals and network operations for the region. A Young Professionals event is also planned for late March, with details to be provided soon. It is intended that the April event will be a presentation by a visiting expert in Transit Orientated Development. The branch is currently developing submissions on the Auckland Council's Long Term Plan, the Regional Land Transport Programme and Auckland Transport's changes to Traffic Bylaws. Central Branch

On the evening of the 27th March there will be a Young Professionals networking event, with IPENZ's Engenerate. The event starts at 5.30pm at the Ivory Lounge bar in Parnell and drinks and nibbles will be provided. Two transportation professionals will be talking about working in transport in Auckland and the key projects they have been involved with. This will be a great opportunity for students and young professionals who work in transport in Auckland to get together, swap notes and experiences and make contacts. Please RSVP to Pippa Mitchell at Pippa@t2engineers.co.nz or ph: (09) 915 2542 by Tuesday 20 March.





A TECHNICAL FOCUS GROUP OF THE IPENZ TRANSPORTATION GROUP

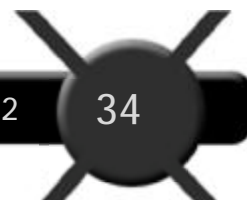
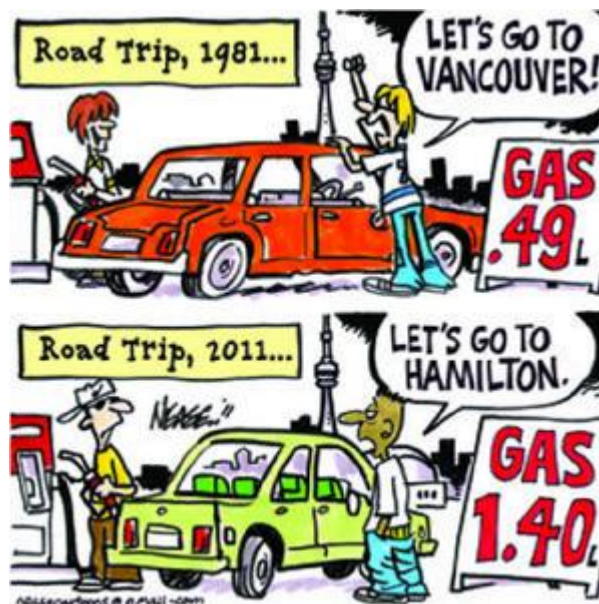
Trips Database Bureau supports and develops a Parking and Trips Rates Database for different land uses for the direct benefit of its member organisations and indirect benefit of the profession at large.

Data includes both New Zealand and Australian information, including the RTA database. TDB also has arrangements with TRICS (UK) for inquiry into United Kingdom data of trip generation, parking, mode split and travel demand information on a site by site basis.

TDB is involved in undertaking transportation and trip generation research on behalf of its membership. This has included several comparative research projects on trips, travel profiling and integrated transportation assessments. These research projects have been supported by grants from the New Zealand Transport Agency's national research programme.

We welcome new member organisation enquiries at all times from both sides of the Tasman. By joining, you become a member and a colleague of a growing focus group of engineers and planners from over 65 member organisations.

If you are interested in finding out more about Trips Database Bureau, please check out our website www.tdbonline.com or email us at admin@tdbonline.com





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) ~ typically five courses
- Master of Engineering Studies (MEngSt) ~ typically ten courses
- Master of Engineering in Transportation (MET) ~ up to six courses plus research project/thesis

All courses run in “block mode” to enable part-time and distance students to take part; dates on the website.

All candidates with relevant degrees and/or suitable transportation work experience will be considered.

2012 Fees are **\$703 incl. GST**, plus a Student Services levy (some rebates available).

Note: Programme may be subject to change; check with the Dept or our website for confirmation.

COURSE	DESCRIPTION
Anytime (contact Department)	
ENTR401: Fundamentals of Transport Engineering	A self-study programme in: Transportation planning; Road link theory and design; Intersection analysis and design; Traffic studies; Accident reduction; Sustainable transport planning and design; Pavement design; Road asset management. <i>{bridging course for non-transportation students}</i>
Semester 1 (Feb-Jun 2012)	
ENTR611: Planning and Managing for Transport	Road/transport administration in NZ; Transport legislative environment in NZ; Communication/presentation skills; Public consultation; Traffic surveys; Transport assessment and economics; Demand management and tolling; Construction planning and contract management.
ENTR602: Accident Reduction & Prevention	Impact on society; Data analysis and interpretation; Hazardous location identification; Road environment factors; Problem diagnosis; Treatment options; Treatment selection; Economic appraisal; Evaluation and monitoring; Safety auditing.
ENTR612: Transport Policy and Demand Management	Transport economics; Travel demand and supply management, congestion pricing; Transport policy objectives and instruments; Traffic management modelling.
Semester 2 (Jul-Oct 2012)	
ENTR603: Advanced Pavement Design	Stresses, strains and deflections in flexible and rigid pavements; Pavement materials characterisation; Mechanistic and mechanistic-empirical design methods; Pavement performance and evaluation.
ENTR614: Planning & Design of Sustainable Trpt	Pedestrian planning and design; Planning and design for cycling; Audits/reviews of walking and cycling; Public transport operations, scheduling and network design; Travel behaviour change and travel plans.
ENTR615: Transport Network Modelling	Principles of transport modelling; Road network modelling; Macro-simulation and micro-simulation; Traffic intersection modelling; Transport network analysis and reliability.

Other relevant courses at Canterbury (e.g. Risk Management and Construction Management courses), Auckland Univ. or elsewhere may also be suitable for credit to a PGCertEng, MEngSt or MET. Special Topics and small research projects may also be available to some students – contact the Department.

For more details contact:

Professor Alan Nicholson, Director of Transportation Engineering

Phone: (03) 364-2233

Email: Alan.Nicholson@canterbury.ac.nz

Or visit the website:

www.met.canterbury.ac.nz



Transportation engineering postgraduate courses 2012



The University of Auckland
NEW ZEALAND



NZ TRANSPORT AGENCY
WAKA KOTAHĪ

Department of Civil & Environmental Engineering University of Auckland
For Master of Engineering Studies (MEngSt) and Graduate Diploma (GradDipEng),
with / without Transportation specialisation, or for one-off Certificate of Proficiency (COP).

COURSE	DESCRIPTION
Semester 1 (Mar-Jun '12)	
CIVIL660 - Traffic Engineering & Planning (extended mode)	A range of selected topics in traffic engineering and transportation planning which will provide a basis for extension into further studies. <i>(Diploma course which is a pre-requisite for several other 700 series courses).</i>
Civil 767 – Advanced Pavement Engineering (block mode)	Pavement construction materials, Analytical and empirical pavement design methods, Pavement maintenance and rehabilitation techniques, Data collection methodologies for the assessment of pavement performance.
CIVIL770 - Transport Systems Economics (extended mode)	Fundamentals of transport economics incl. supply, demand, pricing, congestion and other externalities; principles of economic evaluation in transport planning.
Civil 772 – Public Transport – Planning & Operation (extended or block mode)	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.
Semester 2 (Jul-Oct '12)	
CIVIL661 - Highway & Pavement Engineering (extended mode, integrated with Civil 759).	A range of selected topics in highway engineering and pavement materials which will provide a basis for extension into further studies. <i>(Diploma course which is a pre-requisite for several other 700 series courses).</i>
CIVIL761 – Planning and Design of Transport Facilities (extended mode)	Selected topics from: traffic signal practice/safety audits, two way highways planning, arterial traffic management, modelling and simulation and traffic flow.
CIVIL765 – Infrastructure Asset Management (block mode)	The 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 (TENTATIVE) (block mode)	The geometric design of highways including; user, vehicle, road environment, sight distance, vehicle speed, design consistency, horizontal & vertical curve and cross-sectional design, design plans, signs & marking.
CIVIL 771 – Planning & Managing Transport (extended mode)	Integrated planning of transport and land use, Outline of transport planning modelling, District Plans, Requirements of the NZTS, LTMA and RMA, Travel, trips and parking. Integrated transport assessments with multi-modal transport, Travel demand management, Intro to Intelligent transport systems.

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

<http://www.cee.auckland.ac.nz/uoahome/about/ourprogrammesandcourses/courses-details>



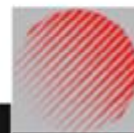


OPUS

Opus International Consultants is a leading infrastructure design consultancy serving local government authorities throughout New Zealand. With 36 offices and testing/research laboratories we are able to provide a local service backed by an international capability.

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- Road and highway design
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- Building design and construction
- Water and wastewater infrastructure
- Asset management of buildings and other infrastructure
- Environmental planning.



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Stand & Deliver



IPENZ Transportation Group Conference
Rotorua
 18 – 21 March / 2012

Venue

The IPENZ Transportation Group Conference will be held in Rotorua at the Rotorua Energy Events Centre. The Rotorua Energy Events Centre is located in the midst of Rotorua's downtown business and retail area. It is just a few minutes walk from major hotels, shops, bars, restaurants and the lakefront.



Accommodation

We have rooms available at the Millennium Hotel Rotorua, Sudima Hotel Lake Rotorua and The Regent of Rotorua. Each of these properties are within walking distance of the venue and bus transport will be provided to the conference venue and social functions.

Registration

Early Bird closes 3 February 2012.

[Click here](#) for more details.

On the registration page you will find a link to the online registration form. The below rates include GST

	Early Bird Prior to 3 Feb 2012	Standard After 3 Feb 2012
Conference Registration Fee	\$875.00	\$985.00
Single Day Registration Fee**	\$415.00	\$525.00
Exhibitor Registration Fee**	\$475.00	\$575.00
Life Member	Comp	Comp
Student Registrations - Single Days**	\$ 34.50	\$ 34.50
Student Registrations - Full Conference**	\$103.50	\$103.50
Young Professionals**	\$ 34.50	\$ 34.50

Social Programme

Welcome Function

The welcome function will be held Redwoods Forest. It is an outside venue so please wear warm clothes and comfortable shoes.



Conference Dinner

The Conference Dinner will be held at Blue Baths and is 'An evening in Las Vegas so please come along dressed to theme.



Programme

A fantastic programme has been designed with great key note speakers include

- Dr Susan Krumdieck (Canterbury University) speaking on the Dunedin Peak Oil vulnerability study and strategic transition plan
- Dr Sam Charlton (Waikato University) talking about What are Safer Speeds?,
- Amanda Douglas, (Wynn Williams) speaking on Case Law; Stand & Deliver Expert Evidence; and
- Matt Barnes (NZTA) speaking about the transport logistics for the rugby world cup.

[Visit the](#) conference website for more details.



Harding Consultants: W: www.hardingconsultants.co.nz/ipenz2012 E: gjenda@hardingconsultants.co.nz
 PO Box 5512, Papanui, Christchurch. P: 03 352 5598 F: 03 352 0197





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Secretary: Bridget Burdett

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Chair: Roger Burra

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Secretary: Joshua Wright

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Canterbury / West Coast

Chair: James Park James.Park@opus.co.nz

Secretary: Ann-Marie Head ann-marie@abley.com

Southern

Chair: Phil Dowsett phil.dowsett@nzta.govt.nz

Secretary: Lisa Clifford lcliffor@dcc.govt.nz



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Vice Chairperson, Membership Coordinator, Submissions Coordinator:

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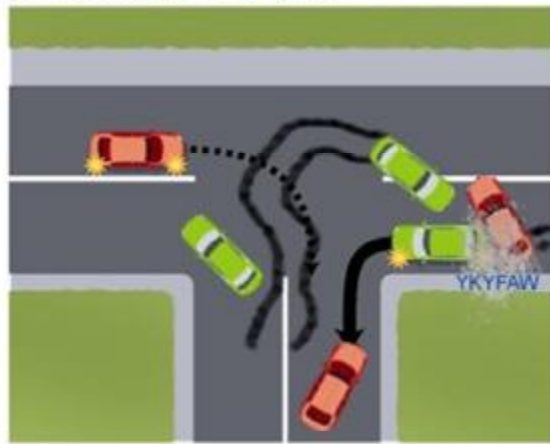


Are you ready for the new road law stuff?

New rule from 25 March



New rule from 25 March



New rule from 25 March



March 25th
A good day to
STAY HOME!!!

