

Transportation
Group New Zealand
Conference
2019

CONFERENCE PROCEEDINGS



**The Changing
Face of Transport
in New Zealand**

3-6 March . Wellington . Te Papa

PLATINUM PLUS



PLATINUM



GOLD



BRONZE



EXHIBITORS



AWARDS SPONSOR



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PROGRAMME

Monday 4 March
Tuesday 5 March
Wednesday 6 March

MONDAY

Greg Ellis
Thomas Small
Mayor Justin Lester
Elizabeth Halsted
Isabel Deding
Mark Ames
Karyn Sinclair
Hon Phil Twyford
Duncan Campbell
Myles Lind
Patricio Gallardo
Jerry Khoo
Amir Kayal
Kevin Reid
Mobility & growth
Resilience
Urban improvement
Road safety

TUESDAY

Dr Glen Koorey
Dr Shane Turner & Mike Smith
Bridget Carden
Andrew Bell

James Campbell
Andrew Martindale
Dr Rodney Tolley
3M finalists
Poster rapid fires & poster viewing
Engagement/people & travel planning
Changing processes & technology
Public transport/road space allocation
Active modes

WEDNESDAY

Claire Pascoe
Mike Davidson
Claire Covacich
Ann-Marie Head
Richard Landon-Lane &
Stuart Hamilton
Land use & planning
Pedestrian & safety
Awards

DELEGATE LIST



Designing tomorrow's transport systems—today

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CONFERENCE WELCOME

Welcome back to Wellington for 2019 Engineering New Zealand Transport Group conference. The organising committee and I are really excited to have you back in our beautiful city, and you're sure to experience the delights it has to offer with the social package developed throughout the event. I am confident the lovely Wellington weather will also be obliging.

The past two years has seen significant change in the way we look at transport in New Zealand. The new Government has developed a very different transport policy from the previous, and our industry needs to be adaptive and responsive to this change. Furthermore, the demands of our stakeholders – the communities to which we serve – is becoming increasingly more diverse and they are keen to see fully integrated, well-thought-out solutions which provide a high level of amenity in the infrastructure we develop. For this reason, we have themed this year's conference 'The changing face of transport in New Zealand'.

We have some fantastic speakers, papers and presentations which I know will challenge the way we view our industry. It's time to make a step change in the way we work with our community and our partners and I hope we provide you the opportunity to reflect on where we are heading and test this with your colleagues in attendance.

The conference committee would like to thank all our speakers, presenters, sponsors and supporters, without you, none of this would be possible. Once again, we are indebted to Glenda and her team at Harding Consultants, who know us better than we know ourselves. I would also like to personally thank the organising committee. The team have put in a significant amount of voluntary hours and we would not be where we are without their commitment.

We would like to thank you all for your continued support and for contributing towards the ongoing development of the transportation industry within New Zealand.

This is your conference; make the most of what we have on offer, talk to our presenters, sponsors and each other and continue the debate into the future.

Tom Small
Conference Convenor



CONFERENCE COMMITTEE



Louis Bargh



Luke Benner



David Huang



Matthew Kilpatrick



Catherine Mills



Claire Pascoe



Ian Robertson



Tom Small

GENERAL INFORMATION

Harding Conferences' team



Glenda Harding



Lizzie Dryden



Libby Hilder

We're here to help at the information desk:

Monday 4 March 7:30am – 5:30pm

Tuesday 5 March 8:00am – 5:00pm

Wednesday 6 March 8:00am – 3:30pm

Bike parking

You can park your bicycle or scooter at the bike racks found behind Quake Braker, near the main entrance.

Useful numbers

Glenda Harding

027 436 3083

Lizzie Dryden

021 250 3931

Libby Hilder

021 226 7899

Air NZ

0800 737 000

Wellington Combined Taxis

04 384 4444

Wellington Hospital

04 385 5999

Car parking

Te Papa offers a special day function attendee rate of \$12.00 from 6am to 6pm and a special evening rate of \$6 from 6:00pm to 2:00am the next day. The maximum charge on a 24-hour period is \$18.

A car parking validator machine is available at the conference information desk. Bring your parking ticket from the barrier arm to the validator and pass it through the machine, then you will need to go to a pay station on departure and the special function attendee rate will apply.

Any personal travelling with items such as bikes, scooters, skateboards, etc. are not allowed inside the museum. The museum has a dedicated parking space outside for these items.

Catering & dietary requirements

Morning/afternoon tea and lunch will be served in the exhibition area. Please have a wander around the exhibitors' booths and spend this time networking.

At each break please go to the information desk to see if you require additional food. Dependent on your dietary requirement you may not require a special meal at each break.

At both social functions, please make yourself known to wait staff.

Luggage storage

Luggage may be left as marked on the maps in either:

- Oceania room, level 3 Exhibition area
- Amokura Gallery, level 4 Plenary room

Wi-Fi

Te Papa Museum offers a complimentary Wi-Fi internet service to all function attendees.

To access, connect to “Te Papa Events” on your device, a Te Papa internet page will pop up when you open your browser, simply type in the access code – “events” – and accept the terms and conditions.



Event app

Event app code: tg19
EventsAIR has all the up-to-date information regarding the conference. Having issues downloading it? Links to download the app are available on the conference website. Come and see us at the information desk if you need assistance.

1. Enter your email (the one you used to register)
2. Use your password (you can reset this if you've forgotten)

Exhibitors' quiz

Make sure you complete the Exhibitors' quiz – the form is in your bag. The winner will be drawn at the end of the conference and receives a \$100 Prezzy card.

Name badges



Coloured lanyards identify each group. For security purposes you are asked to wear your name badge at all times. Should you misplace it please come to the information desk for a replacement.



Evacuation procedures

Fire evacuation

Continuous sound of fire alarms will be activated throughout the building and all occupants should leave the building immediately. Egress is available from all floors and areas in the building via the marked emergency exits or by the main staircase.

Evacuation is essential even if you cannot see or locate the fire. Te Papa Museum hosts will take full charge of the evacuation and will ensure the building has been fully evacuated.

The building is fitted with an automatic sprinkler system, manual fire alarms, fire hose reels and extinguishers on each floor.

The assembly point is in front of Te Papa Museum near Circa Theatre or on Barnett Street corner Cable Street next to Waitangi Park. Te Papa hosts will advise all guests when the building has been cleared for re-entry.

Earthquakes

Please stay away from windows, find cover and remain until all tremors have finished. Should the alarm go off during an earthquake, please remain under the shelter or in the venue. Follow instructions from the Te Papa Museum hosts or the Emergency Warden.

To protect the building from earthquake, the building sits on 150 base isolators. It will sway up to half a metre which is normal. Te Papa is designed to withstand an 8.5 earthquake and is a designated civil defence centre.

Te Papa would be among the safer places in Wellington in a major earthquake.

Tsunami alert

Te Papa Museum hosts will ensure all guests are advised and guided to the higher levels in the building. This will be on Level 4 and above.

Poster session

Posters are in the exhibition area for you to visit throughout the entire conference. A 2-minute rapid fire presentation from each of the authors



will be held from 12:00pm on Tuesday.

Informal networking event

Sunday 3 March

Mac's Brewbar Sunday 3 March
6:00pm

An informal gathering with other delegates. This is a 'pay as you go' event; with complimentary wedges



3M

and fries provided.

3M welcome function

Monday 4 March 5:30pm to 9:30pm

Cable Car, Cable Car Museum, Carter Observatory.

Take a 15 minute walk to the cable car and then ride up, taking in the magnificent views of Wellington. Alight at the Cable Car Museum (where you can enjoy a private 'back of house' tour or head straight on up to Carter Observatory) to enjoy canapés and light 'bowl' food. The planetarium show is a 'must do'.

8:00pm Shuttle service commences back to official hotels (QT Museum, Distinction, West Plaza and Copthorne Oriental Bay Hotels); or take the cable car back down and make your own way home.



9:00pm last shuttle departs.

Stantec conference dinner

Tuesday 5 March 7:00pm

Banquet Hall, Parliament Buildings

Come dressed as either an infamous or favourite politician (from anywhere in the world).

6:45pm Buses collect delegates from official hotels; Copthorne Oriental Bay, QT Museum, Distinction and West Plaza Hotels

7:00pm Stantec conference dinner commences. Life membership and the 3M Traffic Safety Innovation awards will also take place. Join us in celebrating the professional success of your colleagues.

10:00pm Shuttle service commences to official hotels.

11:30pm Last shuttle departs.

Judges

The ENZ Transportation Group also extends its sincere thanks to Dr Fergus Tate, Matt Hawkes and Bill Frith who read all the presented papers and awarded prizes.

Thank you for all your hard work on this.

Paper reviewers

The ENZ Transportation Group 2019 organising committee wishes to convey a very special thank you to everyone involved in managing the conference paper process, including the Paper Convenor and many peer reviewers.

Without, you this conference wouldn't be possible.

Voting for people's choice for best presenters

This is available on the event app. We also have an iPad available at the information desk for those who do not have access to EventsAir.

Delegate survey

Use our event app to give us your feedback. Those who submit their delegate survey go into a draw to win a \$100 Prezzy card.

Presentations and photos

All presentations will be loaded onto the conference website in pdf format within two weeks of the conference.

Photos taken by the professional photographer will be available on the conference website within the next two weeks. You will be able to download them at no cost.

Twitter competitions

Showcase your creativity at the conference by participating in the #enztg19

Entry is via Twitter, Instagram or the Event Stream (on the attendee app) using the hashtag #enztg19

There are three categories for entry:

1. Best Picture

Capture the essence of the annual conference in a single shot.

2. Best Short Film

We're looking for the best video of the annual conference.

3. Best Exhibitor Tweet

Get down to the exhibition and show the exhibitors some love. Bonus points for including their handle(s). The competition is a bit of fun and a chance for you to showcase your team whilst you're in Wellington. Winners announced at the end of conference.

Recycling name badges

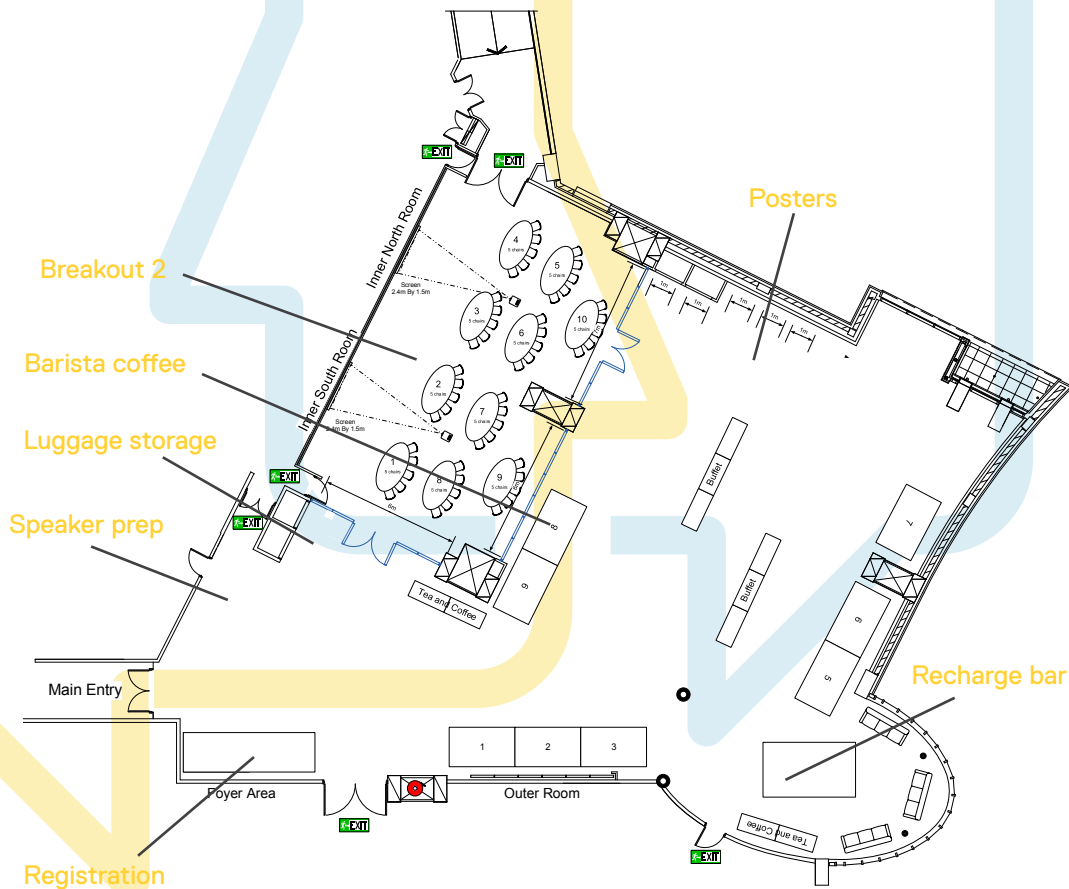
We are happy to recycle name badges if you like. If you want to hand them in at the end of the conference and they are in good condition, we will recycle them. A black box is available at the information desk.

Transport to airport

Contact details of transport providers to the airport can be found on the Event app under transport options.



OCEANIA, LEVEL 3 FLOOR PLAN



Exhibitor key

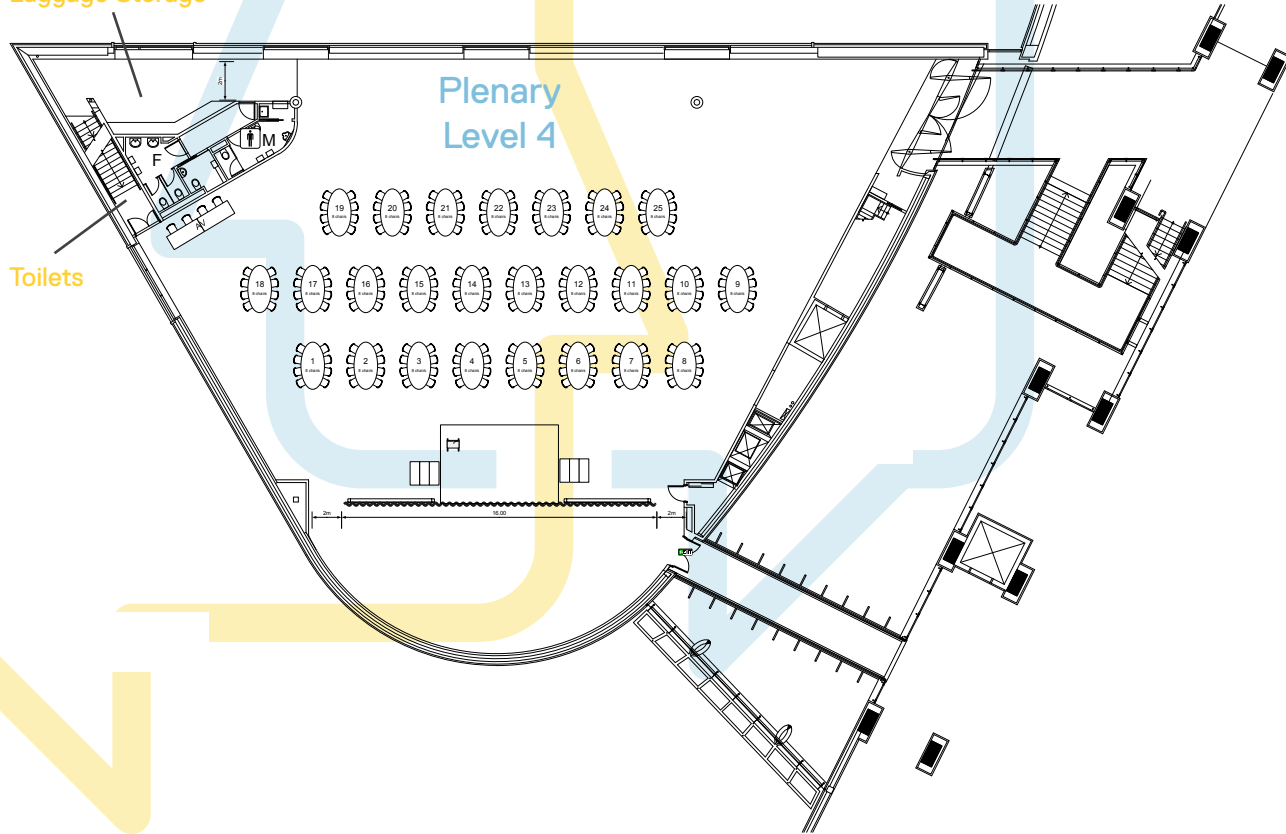
- 2. Engineering NZ
- 3. Matrix Traffic and Transport Data
- 4. Jacobs
- 5. PTV Asia-Pacific
- 6. NZ Transport Agency
- 7. 3M
- 8. Stantec New Zealand
- 9. Stantec New Zealand

AMOKURA GALLERY, LEVEL 4 FLOOR PLAN

Luggage Storage

Toilets

Plenary
Level 4



OUR SPONSORS

The 3M logo is rendered in a bold, red, sans-serif font.

For the past 80 years, 3M have been a part of the ever-evolving driving experience and we understand our important role in making drivers safer. With our innovative collection of road markings and signage, we are preparing for the driving experience of the future. One that promises to be safer and more efficient.

The ARUP logo is displayed in a large, black, serif font.

Arup has been undertaking projects in New Zealand for over 30 years. They have provided various engineering and transport planning services across the country and have worked on iconic projects such as Auckland Light Rail, North Harbour Stadium, PoA Hydrogen Strategy, and Te Papa Museum.

Arup has a strong history in delivering cities, infrastructure, digital, planning, advisory, engineering, and renewable energy services. Arup has established global partnerships with C40, Bloomberg, The Rockefeller and Ellen Macarthur Foundations through which Arup continues to work with cities to reduce their environmental impact and improve their resilience to the effects of climate change.



engineering
new zealand

We're engineers' professional body. Every day we support our 22,000+ members to be the best engineers they can be.

We offer our members a community of experienced and talented engineers across all levels. All members are encouraged to share their expertise, insight and experiences from their life's work to help other members successfully chart their own career.

Combine this with the ability to future-proof your career by creating and maintaining a vast network of contacts. This network of industry contacts will give you access to a continued level of guidance throughout your career, and open you up to incredible opportunities.

We believe engineering is at the heart of all major transformations and we want the world to know. Let's do amazing things together.

OUR SPONSORS



The Australia and New Zealand section of the ITE has long sponsored the student prize to help promote and encourage new and innovative thinking in our industry. This helps fulfil ITE's mission of "shaping the future of the profession and transportation" by supporting the growth of its future leaders. The ITE is a future focused and truly global organisation that seeks to work with industry leaders to guide and shape transportation in a period of new ideas towards technology and the changing concept of personal transport. The students of today are the leaders of tomorrow and the ITEANZ is proud to pledge our ongoing support to the Student Award.

JACOBS

JACOBS leads the global professional services sector delivering solutions for a more connected, sustainable world. With \$15 billion in fiscal 2018 revenue and a talent force of more than 80,000, JACOBS provides a full spectrum of services including scientific, technical, professional and construction- and program-management for business, industrial, commercial, government and infrastructure sectors. In New Zealand, JACOBS employs approximately 400 people across four offices in Auckland, Hamilton, Christchurch and Wellington and provides an extensive range of technical and professional services to private and public clients in the water, power, buildings and infrastructure, transport and environmental and spatial planning sectors. For more information, visit www.jacobs.com.

OUR SPONSORS



Matrix Traffic & Transport Data is located in Auckland. We specialise in data collection & comprehensive reporting, informing traffic engineers, councils & government agencies to make important planning & infrastructure decisions. Our unique data collection systems + expertise, developed over 28 years, enable us to undertake simple to complex surveys. Our experienced staff can assist with survey design, data collection methodologies & customised reporting. We have unique software packages for data quality audit, which is flexible and supports wide ranging reporting requirements. Our knowledge and implementation of safe work practices across our business operations, ensures the safety of our staff and the public.

Our extensive range of survey services include:

- Intersection Counts
- Automatic Traffic Counters (ATC)
- Parking Surveys
- Pedestrian and Cyclist Surveys
- Travel Time Surveys
- Origin Destination Surveys



The NZ Transport Agency's purpose is to create transport solutions that enable New Zealanders to thrive. Transport is an essential part of daily life for everyone in New Zealand, and it's critical to our nation's growth and prosperity. At the Transport Agency, we're focused on creating great journeys that keep New Zealand moving. This means improving the transport system in the context of a rapidly changing world – new technology, pressures on our natural environment, urban growth and changing customer expectations. Our transport system needs to be safe, resilient, sustainable and well integrated with its surroundings to improve access to employment, education, tourism and leisure.

OUR SPONSORS



PTV Group is a software developer and solution provider specialising in Transport Planning and Traffic Engineering. Our core products include traffic simulation Vissim, pedestrian simulation Viswalk and transportation modelling Visum which are widely used around the globe. We are also focusing on new areas of real time traffic forecast and new mobility solutions. PTV Optima is our model based short term traffic state prediction and decision support solution. We have also launched Mobility as a Service (MaaS) solution which allows our users to plan, simulate and operate in real time new mobility modes such as ride sharing, car-pooling, on demand, first and last mile mobility modes.



SIDRA SOLUTIONS is dedicated to the transport profession worldwide for the benefit of the community through contributing to safe, environment-friendly and efficient traffic operations. We have created powerful traffic engineering software to help achieve better solutions to challenges in the areas of road traffic operations, traffic engineering, management and control.



Communities are fundamental. Whether around the corner or across the globe, they provide a foundation, a sense of place and of belonging. That's why at Stantec, we always design with community in mind.

We care about the communities we serve—because they're our communities too. We're planners, designers, engineers, scientists, and project managers, innovating together at the intersection of community, creativity, and client relationships. Balancing these priorities results in projects that advance the quality of life in communities across the globe. Stantec trades on the TSX and the NYSE under the symbol STN. Visit us at stantec.com or social media.

MONDAY 4 MARCH 2019

7:30 AM Registration desk opens; arrival tea & coffee

ROOM Oceania, level 3

PLENARY Conference opening, official welcome, keynote speakers

ROOM Amokura Gallery, level 4

8:30AM **Greg Ellis, Conference MC**
Housekeeping

8:38AM **Tom Small, Conference Convenor**
Welcome to conference

8:40AM **Mayor Justin Lester, Wellington City Council**
Welcome to Wellington

8:45AM **Isabel Dedring, Arup Group**
Delivering Sustainable Urban Growth

9:15AM **Mark Ames, Strategic Cities**
Talking change: manage the conversation about change

9:45AM **Karyn Sinclair, NZ Planning Institute**
Getting the planners in sync with transportation planning (and vice versa)

10:05AM **Hon. Phil Twyford, Minister of Transport**
Working with communities to build a better New Zealand

10:15AM **Q&A for Conference opening, keynotes**

10:30AM Morning break

MONDAY 4 MARCH 2019

PLENARY The big picture

ROOM Amokura Gallery, level 4

11:00AM **Duncan Campbell, Traffessionals**
Vision HERO - transport design for today

11:18AM **Myles Lind, NZ Transport Agency**
Delivering digital engineering for land transport

11:36AM **Patricio Gallardo, University of Canterbury**
New Zealand transition engineering scenario analysis

11:54PM **Jerry Khoo, Beca**
Bio-inspired Auckland transport network

12:12PM **Amir Kayal, Auckland Transport**
Transforming roads and streets in Auckland

12:30PM **Kevin Reid, NZ Transport Agency**
Translating the GPS into a delivery programme

12:48PM **Q&A for The big picture**

1:00PM **Lunch**

Mobility & growth

Resilience

MONDAY 4 MARCH 2019

ROOM Amokura Gallery, level 4	ROOM Oceania 1 & 2, level 3
CHAIR Jeanette Ward	CHAIR Louis Bargh
2:00PM Courtney Groundwater, Abley Accommodating growth on urban networks	2:00PM Stuart Woods, NZ Transport Agency Resilience at the Transport Agency
2:15PM Risto Jounila, WSP Opus Auckland's future mobility - doing well internationally?	2:20PM Mohammad Aghababaei, University of Auckland South Island model: development and calibration
2:30PM Dr. Nadine Dodge, Wellington City Council Did the Inner City Bypass deliver?	2:40PM Pathmanathan Brabhaharan, WSP Opus Changing focus on transport resilience – Wellington
2:45PM Richard Young, Beca Hard-data in a world of truthiness	3:00PM Mujaddad Afzal, University of Auckland Auckland evacuation model: development and calibration
3:00PM Darren Davis, Stantec Getting transit oriented development right	3:20PM Q&A for Resilience
3:15PM Q&A for Mobility & growth	
3:30PM Afternoon break	
Urban improvement	Road safety



MONDAY 4 MARCH 2019

ROOM Amokura Gallery, level 4

CHAIR Karyn Sinclair

4:00PM **Daniel Newcombe, Auckland Transport**
Reshaping Auckland city centre

4:15PM **Sarah Dove, Harrison Grierson & Sid Scull, Mott MacDonald**
How Tauranga's streetscapes are changing face

4:30PM **Claire Davis, Auckland Council**
Successes and challenges of tactical urbanism

4:45PM **Kent Lundberg, MRCagney & Tim Fitzpatrick, Auckland Council**
Access for everyone – Auckland city centre

5:00PM **Amir Kayal, Auckland Transport**
Rethinking road safety through urban design

5:15PM **Q&A for Urban improvement**

5:30PM **Close of conference sessions**

3M Welcome networking event

5:30PM Take a 15 minute walk to the cable car and then ride up, taking in the magnificent views of Wellington. Alight at the Cable Car Museum (where you can enjoy a private 'back of house' tour or head straight on up to Carter Observatory) to enjoy canapés and light 'bowl' food. The planetarium show is a 'must do'.

8:00PM Shuttle service commences back to official hotels (QT Museum, Distinction, West Plaza and Copthorne Oriental Bay hotels); or take the cable car back down and make your own way home.

9:00PM Last shuttle departs

ROOM Oceania 1 & 2, level 3

CHAIR Dr Shane Turner

4:00PM **Bruno Royce, Traffic Engineering Solutions Ltd**
Crash monitoring: proven effective measures

4:20PM **Carl O'Neil, Abley**
Speed management implementation - a case study

4:40PM **Dr Bridget Burdett, Stantec**
Why drivers crash close to home

5:00PM **Fabian Marsh, NZTransport Agency**
Median barriers: dividing fact from fiction

5:20PM **Q&A for Road safety**

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Applied to Life.™

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offers through our
Certified Manufacturers
an extended warranty for
permanent signage for
up to 12 Years*?

3M™ *Digital Diamond*
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3M DiamondWarranty
Programme



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High-quality reflective sheeting for warning, regulatory, guidance, non-critical traffic signs and delineation devices. 3M continues to be the technology leader, meeting the visual requirements of all motorists in today's complex and demanding roadway environment. 3M reflective sheeting comes in a wide range of colours that will meet or exceed all Australian and New Zealand applicable standards.

For more information visit www.3M.co.nz/roadsafety

*For full details of the 3M Extended Warranty for Permanent signs, speak to your local 3M representative or visit www.3M.co.nz/roadsafety

TUESDAY 5 MARCH 2019

8:00AM Registration desk opens; arrival tea & coffee
ROOM Oceania, level 3

PLENARY Increased focus on safety

ROOM Amokura Gallery, level 4

8:30AM **Dr Glen Koorey, ViaStrada Ltd**
The mechanics/politics of changing speed limits

8:50AM **Dr Shane Turner, Transport Consultant & Mike Smith, Stantec NZ**
Understanding vulnerable road user crash risk

9:10AM **Bridget Carden, Abley**
Speedy safety solutions

9:30AM **Andrew Bell, Auckland Transport**
Auckland: the case for Vision Zero

9:50AM **James Campbell, Ministry of Transport**
A new road safety for New Zealand

10:10AM **Q&A for Plenary - Increased focus on safety**

10:30AM **Morning break**

PLENARY **Keynote and 3M Finalist presentations**

ROOM Amokura Gallery, level 4

11:00AM **Andrew Martindale, Jacobs**
Sponsor welcome

11:05AM **Dr Rodney Tolley, Active Transport Consultant**
Not so fast! Slowing down for a healthier, wealthier and more sustainable city

11:35AM **Michael Holderness, 3M**
Welcome from 3M



TUESDAY 5 MARCH 2019

11:40AM **Mike Smith, Project of Stantec NZ and Auckland Transport**
Understanding vulnerable road user crash risk on Auckland's high-risk arterials (CRAF and MUAF)

11:45AM **Jack Donaghy, Project of Safe Roads**
Virtual reality for safe systems design

11:50AM **Bridget Carden, Project of Abley and Northland Transport Alliance**
Northland programming tool

11:55AM **David Boyce, NZ Trucking Association Inc**
Safety MAN road safety truck

12:00PM **Hjarne Poulsen, Project of Dunedin City Council and ViaStrada**
Dunedin Central City Schools Cluster

PLENARY **Poster rapid fires followed by poster viewing**

ROOM Amokura Gallery, level 4 followed by Oceania, level 3 for poster viewing

12:05PM **Anika Bushra, GHD**
Rethinking construction disruption in Auckland city

12:07PM **Rebecca Tuke, Abley**
4x stop; whose move?

12:09PM **Madie Aghili & Jana Tillner, Auckland Transport**
Delivering reliable and efficient bus network

12:11PM **Simon Douglas, NZ Automobile Association**
Innovative ways to communicate speed limits

12:13PM **Pete Moth, Auckland Transport**
Auckland's new bus network

12:15PM Poster viewing

12:30PM **Lunch & ongoing poster viewing**

TUESDAY 5 MARCH 2019

1:00PM TG AGM & President handover

Engagement/people & travel planning

ROOM Amokura Gallery, level 4

CHAIR Axel Wilke

Changing processes & technology

ROOM Oceania 1 & 2, level 3

CHAIR Bruce Walton

1:30PM Susi Marinkovich, Waikato Regional Council
Putting people first

1:30PM William Frith, WSP|Opus Research
LED streetlighting: environment & safety impacts

1:45PM David Willmott, Centre for Urban
& Transport Study
Are we talking reality here?

1:42PM Jessica Tucker, Beca Applied Technologies
Autonomous vehicle certification:
eating the elephant

1:54PM Matthew Ensor, Beca
Moving beyond the A to B

2:00PM Kathy Matete, Beca
How Hackathons and Smart Cities relate

2:06PM Nicholas Lovett, Christchurch City Council
The future of micro-mobility in cities

2:15PM Jeremy Elley-Brown, Auckland Transport
Let's talk about flex

2:18PM Ahmed Beled Marghani, University of Auckland
Developing a new laboratory compaction test

2:30PM Isabella Cawthorn, Confluence Consulting
Sizzle vs sausage: talking about transport

2:30PM Richard Young, Beca
The autonomous electric vehicle myth

2:45PM Q&A for Engagement/people & travel planning

2:42PM Q&A for Changing processes & technology

3:00PM Afternoon break

Public transport & road space allocation

ROOM Amokura Gallery, level 4

CHAIR David Huang

Active modes

ROOM Oceania 1 & 2, level 3

CHAIR Ina Stenzel

3:30PM Dr Ranjan Pant & Kevan Fleckney, NZTA
Improving PT reliability on Auckland's motorways

3:30PM Ben Dodgshun, Stantec New Zealand
Cycleways: the rest of the road

TUESDAY 5 MARCH 2019

3:45PM	Terry Church, Flow Transportation Specialists Whangaparaoa dynamic lanes, sweating the asset	3:50PM	Axel Wilke, ViaStrada Ltd The changing signal faces of cycling
4:00PM	Andrew Macbeth, Greater Wellington Regional Council Public transport park and ride strategy	4:10PM	Celia Wade-Brown, Living Streets Aotearoa No wheels, no Y chromosome: the invisibility of women walking
4:15PM	Reza Chalabianlou, Greater Wellington Regional Council Fares and ticketing transition in Wellington		
4:30PM	Daniel Newcombe, Auckland Transport Rapid transit network planning	4:30PM	Hamish Speakman & Meredith Bates, Harrison Grierson Mangere Bridge safer communities
4:45PM	Q&A for Public transport & road space allocation	4:50PM	Q&A for Active modes
5:00PM	Close of conference sessions		
6:45PM	Buses collect delegates from official hotels; Copthorne Oriental Bay, QT Museum, Distinction and West Plaza Hotels		
7:00PM	Stantec conference dinner in the Banquet Hall, Parliament Buildings. The 3M Traffic Safety Innovation awards will take place at the dinner, so join us in celebrating the professional success of your colleagues. In addition Life membership will be conferred. Come dressed as either an infamous, or favourite politician (from anywhere in the world).		
10:00PM	Shuttle service commences to official hotels		
11:30PM	Last shuttle departs		

WEDNESDAY 6 MARCH 2019

8:00AM Registration desk opens; arrival tea & coffee

ROOM Oceania, level 3

PLENARY Increased focus on active modes

ROOM Amokura Gallery, level 4

8:30AM **Claire Pascoe, NZ Transport Agency**
Reframing our urban mobility challenge

8:50AM **Cr Mike Davidson, Christchurch City Council**
Sustainable transport networks: a political perspective

9:10AM **Claire Covacich, Auckland Transport**
Auckland cycling a decade of change

9:30AM **Ann-Marie Head, Abley**
These streets are made for walkin'

9:50AM **Richard Landon-Lane, WSP|Opus & Stuart Hamilton, Aurecon**
Enjoying the ride, shifting the mind

10:10AM **Q&A for Increased focus on active modes**

10:30AM Morning break

WEDNESDAY 6 MARCH 2019

Land use & planning		Pedestrian & safety	
ROOM	Amokura Gallery, level 4	ROOM	Oceania 1 & 2, level 3
CHAIR	Stephanie Spedding	CHAIR	Dr Glen Koorey
11:00AM	Ellie Craft, MRCagney Inclusive cities – looking at cities through a gendered lens	11:00AM	Bruno Royce, Traffic Engineering Solutions Pedestrian safety - left turns at signals
11:15AM	Ruby Kim, Abley Applying German spatial planning in Auckland	11:20AM	Lukshmi Ranasinghe, Auckland Transport Ponsonby Road pedestrian improvements project
11:30AM	Rebecca Tuke, Abley District plans - fit for purpose?	11:40AM	Ina Stenzel, Auckland Transport Separated paths for peds and pobs
11:45AM	Graeme Steverson, WSP Australia Future ready MRT and land-use integration		
12:00PM	Peter Nunns, MRCagney Modelling and valuing land use change	12:00PM	Ellie Craft, MRCagney Mode biases in transport
12:15PM	Q&A for Land use & planning	12:20PM	Q&A for Pedestrian & safety
12:30PM	Lunch		
1:30PM	Keynote speakers, awards, conference close		
3:30PM	Close of conference		

LET'S DO AMAZING THINGS TOGETHER.

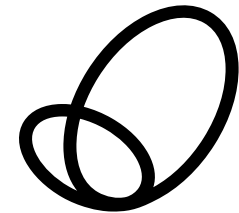
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Monday

GREG ELLIS, CONFERENCE MC

Monday, 4 March, 8:30am – 8:38am



Greg graduated from Victoria University in 1992 with a BA in Theatre and Film. During 1993 Greg trained as a Primary School Teacher and in 1994 graduated with a Diploma in Secondary teaching from Christchurch College of Education. Greg has taught in secondary schools in New Zealand and England. He has taught comedy and improvisation throughout the country for 17 years at secondary and tertiary levels. He has held the Secondary Schools, University, National and Commonwealth Theatresports titles. He has represented New Zealand at Theatresports twice - firstly as part of a Commonwealth competition in 1992 and then at the World Championships in 2006. Greg has appeared in movies, television and radio drama and comedy. His years of experience and understanding interaction with an audience makes him ideally suited for his continuing work on numerous television studio shows. Greg looks forward to MC'ing the conference for the ninth year.

Housekeeping

THOMAS SMALL, JACOBS

Monday, 4 March, 8:38am – 8:40am



Tom Small is the Director of Operations for the Jacobs New Zealand Transport Group. He has been associated with the Transportation Group for the last 12 years and is passionate about bringing the transport community together to discuss and challenge the way we consider how our industry contributes to the success of our communities.

Over the last two years we have seen a significant change in the transport policy in New Zealand and Tom is really excited to have lead a group of dedicated and hard working committee members to bring you the ENZ Transportation Group 2019 conference – the changing face of transport in New Zealand.

This conference is an opportunity to reflect on where we have come from as an industry, and more importantly where we are heading. How do we do things differently to achieve a safe, sustainable and well-integrated transport network in New Zealand?

Welcome to conference

MAYOR JUSTIN LESTER, WELLINGTON CITY COUNCIL

Monday, 4 March, 8:40am – 8:45am



Justin Lester was elected Mayor in 2016 after two terms as a councillor. During his time on Council, Justin has championed the living wage, prioritised good quality local services and supported local businesses. He feels strongly that good local government services make a huge difference in people's lives. Justin's priorities as Mayor include kick-starting the economy, making housing affordable, improving Wellington's transport, replacing outdated bylaws and prioritising arts funding. He also wants to establish the country's first wet house, provide a rates rebate for first-home builders and create the world's first predator-free capital.

Justin grew up in Invercargill. He has an LLB and a BA (German) from the University of Otago and a Masters of Law (LLM) from the University of Heidelberg in Germany. In his mid-twenties, Justin co-founded Kapai, a Wellington food enterprise. Justin has extensive experience in both the public and private sectors.

He was formerly the Director of Property and Asset Management at international commercial property firm Jones Lang LaSalle. He has served on the Boards of Wellington SPCA, Wellington Waterfront Ltd, Capital Football, Johnsonville Charitable Trust, Johnsonville Property Trust, and as a Guardian at Zealandia. Justin and his wife Liz have two young daughters and live in Johnsonville.

Welcome to Wellington

ELIZABETH HALSTED, ARUP

Monday, 4 March, 8:45am – 8:46am



ARUP

Liz has worked in NZ, Australia and the UK in energy, integrated transport, emerging technologies, sustainability and demand management over the last 18 years. Liz leads the Cities, Digital and Place Shaping area for Arup in NZ and sits on the NZ Low Emission Contestable Fund board. She works on various innovative energy policies, pilots and projects including a NZ hydrogen demonstration project. Prior to joining Arup, from 2015-2018 Liz was head of Innovation, Digital and Sustainability at Auckland Transport (AT) where she developed low emission vehicle policies including AT's low emission bus road map, AT's sustainability framework and set up the Auckland public private EV working group.

She returned to NZ in 2014 after working for 11 years in London at Camden Council and Transport for London (TfL). Liz sat on the London Hydrogen

Consortium and the UK Intelligent Mobility working group which helped develop the first UK autonomous car trial in Milton Keynes. She was involved with TfL's electric bus and hydrogen bus trials including the inductive electric bus trial. Liz led on the development of Europe's first ultra-low emission zone, an emissions based road pricing scheme which is being implemented in central London, and developed a transport emissions road map for London up to 2040. From 2005 – 2010 Liz ran an innovation precinct in London which trialled many things including: the UK's first on-street EV charging points and developed London's EV charging network (Source London); pollution eating paving; car sharing; carpooling; London's cycle hire scheme; Legible London (London's pedestrian way-finding scheme) and bio-methane (used cooking oil) rubbish truck trials.

Sponsor introduction to Isabel Dedring

ISABEL DEDRING, ARUP GROUP

Monday, 4 March, 8:45am – 9:15am

ARUP



Isabel Dedring is the Global Transport Leader at Arup where she is responsible for driving the development of the firm's business across the transport sector. Isabel joined Arup in March 2016 from London's City Hall, where she was Deputy Mayor for Transport and Deputy Chair of Transport for London. In this capacity she was responsible for setting policy and ensuring delivery across the Mayor's transport portfolio. Key projects she initiated and delivered included the Tube Reliability Programme which led to a 40% reduction in Tube delays; the £300m Growth Fund to fund transport infrastructure to unlock new house building; the Mayor's new £1b cycling infrastructure programme; and London's first-ever roads strategy and the associated £4b implementation programme. Prior to her transport role, Isabel was the Mayor's Environment Advisor, responsible for delivering large-scale building retrofit programmes, parks and trees programmes and the £100m London Green Fund, among other initiatives. Previous roles include running the policy team at

Transport for London and 4 years as a management consultant at McKinsey. Isabel is a qualified US lawyer.

Delivering Sustainable Urban Growth

Cities around the world are facing substantial challenges related to urban growth; congestion, air pollution, growing inequality, affordable housing, and the need for well-connected high quality jobs to name a few. In principle, transport solutions and policy tools around pricing and social value can be highly effective in addressing these challenges. However, political, financial, and public acceptability barriers stand in the way of delivering solutions – especially in smaller cities. A new approach to sustainable urban growth is needed, combining skills and experience from across disciplines to deliver solutions driven by economic, social and mobility outcomes rather than specific transportation aspirations.

MARK AMES, STRATEGIC CITIES

Monday, 4 March, 9:15am – 9:45am



Mark Ames established Strategic Cities in 2015, offering media management and communications advice to clients who deliver urban change. He has hosted workshops on building public support for change for the councils of the cities of Adelaide, Vincent and Valencia, to Boffa Miskell, Auckland Transport and the University of Amsterdam. He's delivered keynote addresses to the New Zealand Universal Design Conference, the Australian Bicycle Summit and the Velo-City Global cycling conference in the Netherlands in 2017. Mark has previously written about cities, cycling and managing change in The Times, The Guardian, the London Evening Standard, Western Australia Today, Landscape Architecture NZ and The Planner, the magazine of Britain's Royal Town Planning Institute. Broadcast appearances include Sky News, ITV News, BBC London, ABC 702 Sydney, Russia Today, Perth Talk Radio, Public Radio International's The World, Canadian Broadcasting Corporation's As It Happens

and the BBC's flagship current affairs programme Newsnight. He's worked with activists, planners and politicians to help deliver difficult active transport projects, including the Mayor of London's £1 billion Cycle Vision for London and the City of Sydney's new Cycling Strategy and Action Plan. Mark believes understanding the media production process is a vital and underestimated skill for anyone delivering change in cities today. He lives in Sydney, Australia and owns too many bicycles. Connect with Mark at strategic-cities.com or via Twitter.

Talking change: manage the conversation about change

In contested environments, the way we talk about our work can be as important as the work itself.

This interactive presentation will look at the dialogue between projects and the city, how it drives public perceptions and creates media coverage.

Mark Ames from Sydney-based Strategic Cities will share examples from city-changing projects around the world which show why the way we talk about change is critical to success.

From contested cycleways to failed airports, Mark will share real world stories and provide tips on overcoming resistance to change where you work. Lastly, he'll suggest a suite of communication skills that everyone involved in change can adopt.

Everyone has a part to play keeping themselves and others safe on the road.
A safe road system belongs to all of us.

ACCEPT WE ARE HUMAN



People make mistakes

We need to recognise that people make mistakes and some crashes are inevitable.



People are vulnerable

Our bodies have a limited ability to withstand crash forces without being seriously injured or killed.

MANAGE THE SYSTEM



We need to share responsibility

Those who design the road system and those who use the roads must all share responsibility for creating a road system where crash forces don't result in death or serious injury.



We need to strengthen all parts of the system

We need to improve the safety of all parts of the system - roads and roadsides, speeds, vehicles, and road use - so that if one part fails, other parts will still protect the people involved.

Instead of blaming the user, the Safe System asks what *system failures* led to death and serious injury?

For more information go to saferjourneys.govt.nz

KARYN SINCLAIR, NZ PLANNING INSTITUTE

Monday, 4 March, 9:45am – 10:05am



Karyn Sinclair is a town planner with over 30 years' experience, primarily in infrastructure and transportation projects. She is the current chair of the Board of the New Zealand Planning Institute (NZPI). Established in 1949, NZPI has more than 2000 members involved in strategic planning initiatives and implementation of urban and rural plans and work across a range of government, consultancy and industry groups. Karyn's career has spanned several local government positions, both rural and urban, consultancy and self-employment.

Karyn worked on the development of the Waitakere District Plan, which embraced the focus of the Resource Management Act and focussed very directly on effects rather than activities. Now days she works primarily on strategic planning and consenting for infrastructure projects, including leading the consents for projects such as Puhoi to Warkworth, which is currently under construction. Karyn has worked on transport projects from cycle ways, roading improvements for safer cycling to corridor management plans, business case development to significant motorway projects.

While self-employed Karyn obtained her "Making Good Decisions" certification and has sat on a significant number of resource consent, plan change, designation and other hearings. Most notably Karyn chaired the hearing for the Auckland SkyPath proposal, which attracted over 18000 submissions. Karyn's current role as Technical Planning Lead for Jacobs NZ has her involved at all stages of a variety of transportation projects, from leading options evaluation processes to leading resource consent processes and undertaking reviews for compliance during construction.

Getting the Planners in sync with transportation planning (and vice versa)

Karyn will be addressing the changing face of transport in NZ

- Reflecting on the relationship of transportation planners and planners over 30 years of practice;
- The common challenges and opportunities the transportation and planning industries are facing;
- What our collective future might hold; and
- How NZPI and IPENZ could collaborate more and what outcomes that could achieve

If planning and transportation in the 20th century was about distinctive function of roads and land use and the current trends are about integration, what does the future hold for both professions in the face of artificial intelligence, climate change and what our future generations want for their future, the foundations of which will delivered by actions today.

Karyn will discuss her experience working alongside transport planners in recent years, the challenges that the planning profession faces – many of which will resonate with the transportation planning fraternity, and offer some insights where she thinks the two professions work together to progress understanding of our own unique skill bases, that ultimately serve a wider goal for the communities that we live in.

HON PHIL TWYFORD, MINISTER OF TRANSPORT

Monday, 4 March, 10:05am – 10:15am



Hon Phil Twyford was born and raised in Auckland. He is the Labour Member of Parliament for Te Atatu, where he lives. Phil's vision is for New Zealand to deliver hope and opportunity to all people. He is committed to fixing the housing and transport problems that affect our biggest city, as well as much of the rest of the country. After studying politics at Auckland University, Phil worked as a journalist and union organiser before becoming the founding Executive Director of Oxfam New Zealand. Phil's strong belief in justice led to him becoming Oxfam's Global Advocacy Director, based in Washington DC. Upon returning to New Zealand, Phil was elected to Parliament for the Labour Party in 2008. In Opposition, he held the portfolios of Housing, Transport, Auckland Issues, and Disarmament and Arms Control. As Minister for Housing and Urban Development and Transport, Phil is looking forward to working with communities to build a better New Zealand.

Working with communities to build a better New Zealand

DUNCAN CAMPBELL, TRAFFESSIONALS

Monday, 4 March, 11:00am – 11:18am



Duncan has been a practicing traffic engineer for over 20 years, with experience mainly in Auckland. He was main author for several NZTA research topics relating to cyclists, pedestrians and roundabouts, and more recently has undertaken some independent research on driverless vehicles.

Vision HERO – transport design for our times

Standard road treatments such as traffic signals and roundabouts have served cities well enough in the 20th century, and more recent introductions such as in-vehicle air-bags and wire rope median barriers are a wonderful thing for road safety. However, there is no doubt that transport networks of today can be ruinously inefficient and unsafe. Driverless vehicles which have great potential to improve the situation are still many decades away – so until then there should be no excuse for carrying on as usual.

Funding for new infrastructure is not unlimited, and a lot of taxpayer money is often spent on schemes that either have quite limited long-term effects, or whose main objectives could have been achieved at far less monetary cost. It is put forward that governments and designers need to be bold, innovative and resourceful in order to make the best of existing road networks by using achievable technology available to us now.

The purpose of this presentation is to demonstrate how an assertive approach to improve the safety and efficiency of our transportation network could work. One key recommendation is for a new transport research laboratory to be established, its main objective being research and development of transportation initiatives at a rapid pace. It would be a government owned and operated organisation, not dissimilar to the UK Transport and Road Research Laboratory (TRRL) before it was privatised in the 1990's. However, even in the absence of a national centre of excellence as this, there are still a number of ways for Road Controlling Authorities to make value for money differences. Some examples include innovative signal and roundabout design, dynamic lane control systems, and many more. This is Vision HERO – transport design for our times.

MYLES LIND, NZ TRANSPORT AGENCY

Monday, 4 March, 11:18am – 11:36am



Myles is a Chartered Engineer and Member of the Institute of Directors. Myles has over 20 years experience in public infrastructure management. Myles currently holds the position of New Zealand Vice President of the Institute of Public Works Engineers. He has a passion for risk and asset management to benefit sustainable communities which has seen him appointed to the Australasian Audit and Risk Committee for the Institute of Public Works Engineers. He has previously held senior positions at Watercare Services in Auckland and Queenstown Lakes District Council. Myles recently returned to Auckland to deliver the New Zealand Transport Agency's land transport digital engineer programme.

Delivering digital engineering for land transport

The future of transportation is changing. The world has an aging population which will impact New Zealand's workforce capability and capacity. Looking forward, specialist sectors such as transportation will be challenged to secure and retain qualified and experienced staff. There are some places in our country which are experiencing this capacity shortage now.

As an essential public service provider, land transport in New Zealand needs to be ready to respond to this global resource shortage through investing now to enable increased and better use of technology.

In particular, the sector needs to be able to better leverage the potential of data mining and advanced asset management and enable the opportunities of artificial intelligence to maintain and deliver its infrastructure services into the future.

The NZ Transport Agency is working to bring the practice of full-life-cycle asset management into the digital age, revolutionising New Zealand's ability to collaborate when collecting, exchanging, analysing and using all types of infrastructure information. Key enablers of this vision are a national data standard for land transport assets, BIM and GIS technologies. The new approach is expected to extend the 10% savings already occurring in the build phase of capital projects across the entire lifecycle of infrastructure assets and the services delivered to customers. The result will be appropriate for both complex metro networks and simpler rural networks.

The programme builds on the metadata standards work already underway and learnings from councils and the Transport Agency. It spans the whole lifecycle of asset management, all aspects of information from as-builts, maintenance manuals and schedules, spatial information, condition, demand, risk, performance and works information.

PATRICIO GALLARDO, UNIVERSITY OF CANTERBURY

Monday, 4 March, 11:36am – 11:54am



Patricio Gallardo is a PhD Candidate from the University of Canterbury. His research aims to engineer the transition towards an energy resilient freight transportation system.

New Zealand transition engineering scenario analysis

The current New Zealand Government CO₂ emission target is an unconditional reduction of 50% below 1990 levels by 2050. The policy priority for the passenger transportation sector is on uperstake of electric vehicles (EV's). Personal transport is responsible for at least 30% of New Zealand's fossil fuel consumption. Around 78% of electricity is generated from renewable sources, hydro, geothermal and wind. A common assumption is that uptake of EV's to meet a portion of travel demand would directly reduce carbon emissions. We would like to engineer the transition to essentially 80% less fossil fuel demand

for private transport and provide the results to the field. Transition Engineering takes a comprehensive systems view that considers technical, social, economic, energy, land use, infrastructure and policy factors. One of the 7 steps in the methodology is the investigation of a set of specific types of scenarios. We report on the methodology and results of three scenarios for the reduction of fossil fuel use for private transport, which examines the role and roll-out of EV's. We developed a model using the Long-range Energy Alternatives Planning System (LEAP) for use in the technical analysis. The analysis incorporates official datasets of seasonal availability of power plants along with sector specific energy consumption profiles in order to assess the implications of the intermittent nature of renewable resources along with potential demand additions (EV charging) on the power system. The scenario investigations are 1) Retro-Analysis, 2) Technology Substitution, and 3) Efficiency Evolution. The Retro-Analysis approach uses the economics and transport activity of 2013 but superimposes the ultimate policy objective into that system to understand the costs, benefits, consequences and utility. The Technology Substitution scenario contemplates potential additions in electricity generating capacity and the EV's target uptake. The Efficiency Evolution scenario explores ICE technology without VKT demand change.

JERRY KHOO, BECA

Monday, 4 March, 11:54am – 12:12pm



Jerry is Senior Associate at Beca, with experience in transport planning, economics and business case development. Jerry has recently returned to the transport sector after a stint working in the business advisory space with EY. Jerry has worked in a number of countries across New Zealand, Australia, Singapore and a number of countries in the Asia Pacific area.

Bio-inspired Auckland transport network

The transport network that we inherit today are predominantly based on the historic trackways established by early settlers trying to seek the most efficient and direct path, or simply based on routes selected by livestock. The emergence of transport planning and economics theories, and advanced computer-based simulation techniques mean that we may have been, in recent years, relying on purely theoretical frameworks to plan for our cities with limited considerations from bio-inspired and socio-physics angles. There has been breakthrough in recent years in the use plasmodium of slime mould *Physarum polycephalum* to replicate the transport networks. A number of international researchers have found that this plasmodium can find the shortest path, implement storage modification machines, solve Voronoi diagrams, logical computing and process algebra. In this paper, we present the imitation of transport networks in Auckland using this plasmodium. In collaboration with Massey University, a team with background in transport engineering, transport planning, transport economics, advanced mathematics and biological sciences tested how Auckland's current network compares with the slime mould patterns and tested how Auckland's future network could look like from slime mould's point of view. Our team also tested to see what the slime mould tells us about the transport system given existing accessibility it provides (transport outcomes) and how we are meeting the demand (transport input). We believe our cross disciplinary experiments will trigger conversations amongst the transport planning fraternity.

NOTE: The experiments are being carried through September – October and results will be available in late October.

AMIR KAYAL, AUCKLAND TRANSPORT

Monday, 4 March, 12:12pm – 12:30pm



Amir is a qualified senior urban designer with several years of experience in NZ. He is currently working for Auckland Transport.

Transforming roads and streets in Auckland

Roads and streets take up around 13-15% of Auckland's urban area, but provide around 50% of the city's public open space. The scale and pace of growth in Auckland, combined with the development of new urban areas, are placing increased pressure on an already constrained transport network and limited public open space. Concurrently, there is growing demand for safe cycle routes and enhanced public amenity. This increasing pressure on Auckland's roads and streets demands a new approach to how we manage these aspects of our infrastructure. Current approaches have been criticised for not adequately taking into account the wider social, economic and environmental outcomes

and values being sought for Auckland. Roads and streets need to perform beyond the traditional norm of moving traffic and providing access for vehicles to local destinations. They need to powerfully convey Auckland's cultural, social and environmental characteristics and values and contribute significantly to liveability, sustainability, social interaction, economic growth and the provision of a safe and efficient movement network.

How can roads and streets fulfil the complex variety of functions to meet people's needs and support Auckland's journey towards a healthier, more liveable and sustainable city and region? This paper introduces the Roads and Streets Framework and the Transport Design Manual, as two tools to improve integrated planning and design outcomes for more liveable and sustainable roads and streets in Auckland. The paper also outlines the lessons learned from the often bumpy road to getting acceptance of this new integrated approach and tools amongst the various professional groups and organisations involved.

KEVIN REID, NZ TRANSPORT AGENCY

Monday, 4 March, 12:30pm – 12:48pm



Kevin Reid is the Acting Senior Manager, System Design at the New Zealand Transport Agency. Kevin is a Chartered Engineer with over 30 years of experience in the transportation sector. He has worked mainly in the UK and NZ, working for contractors, consultants and clients in transport system planning, design, construction, maintenance and operations. Kevin is also a non-executive director at the Australian Road Research Board, a not-for-profit transport research organisation delivering next generation transport and mobility solutions.

Translating the GPS into a delivery programme

The Government Policy Statement (2018-21) set a new direction for transport investment in New Zealand, prioritising a safer transport network free of death and injury, accessible and affordable transport, value for money and reduced emissions. This required the NZ Transport Agency and Council Investment Partners to develop

new programmes of work and to re-evaluate some programmes developed under the previous GPS to ensure we give effect to this new vision. This presentation will not try to cover all activity classes and programmes being delivered by the National Land Transport Fund. Instead it will use two key initiatives, the Safe Networks Programme and the State Highway re-evaluation programme, to provide some practical examples of how the GPS is changing what and how we plan and deliver transport solutions to meet the GPS strategic priorities.

CONCURRENT SESSION

Monday, 4 March, 2:00pm – 3:30pm

Mobility & growth

Amokura Gallery, level 4

Session chair - Jeanette Ward

2:00pm

Courtney Groundwater, Abley

Accommodating growth on urban networks



2:15pm

Risto Jounila, WSP|Opus

Auckland's future mobility - doing well internationally?



2:30pm

Dr Nadine Dodge, Wellington City Council

Did the Inner City Bypass deliver?



2:45pm

Richard Young, Beca

Hard-data in a world of truthiness



3:00pm

Darren Davis, Stantec

Getting transit oriented development right



CONCURRENT SESSION

Monday, 4 March, 2:00pm – 3:30pm

Resilience

Oceania 1&2, Level 3

Session chair - Louis Bargh

2:00pm

Stuart Woods, NZ Transport Agency

Resilience at the Transport Agency



2:20pm

Mohammad Aghababaei, University of Auckland

South Island model: development and calibration



2:40pm

Pathmanathan Brabhaharan, WSP|Opus

Changing focus on transport resilience –Wellington



3:00pm

Mujaddad Afzal, University of Auckland

Auckland evacuation model: development and calibration



QUESTIONS & ANSWERS

Monday, 4 March, 3:20pm – 3:30pm

Notes



CONCURRENT SESSION

Monday, 4 March, 4:00pm – 5:30pm

Urban improvement

Amokura Gallery, level 4

Session chair – Karyn Sinclair

4:00pm

Daniel Newcombe, Auckland Transport

Reshaping Auckland city centre



4:15pm

Sarah Dove, Harrison Grierson

Sid Scull, Mott MacDonald

How Tauranga's streetscapes are changing face



4:30pm

Claire Davis, Auckland Council

Successes and challenges of tactical urbanism



4:45pm

Kent Lundberg, MRCagney

Tim Fitzpatrick, Auckland Council

Access for everyone – Auckland city centre



5:00pm

Amir Kayal, Auckland Transport

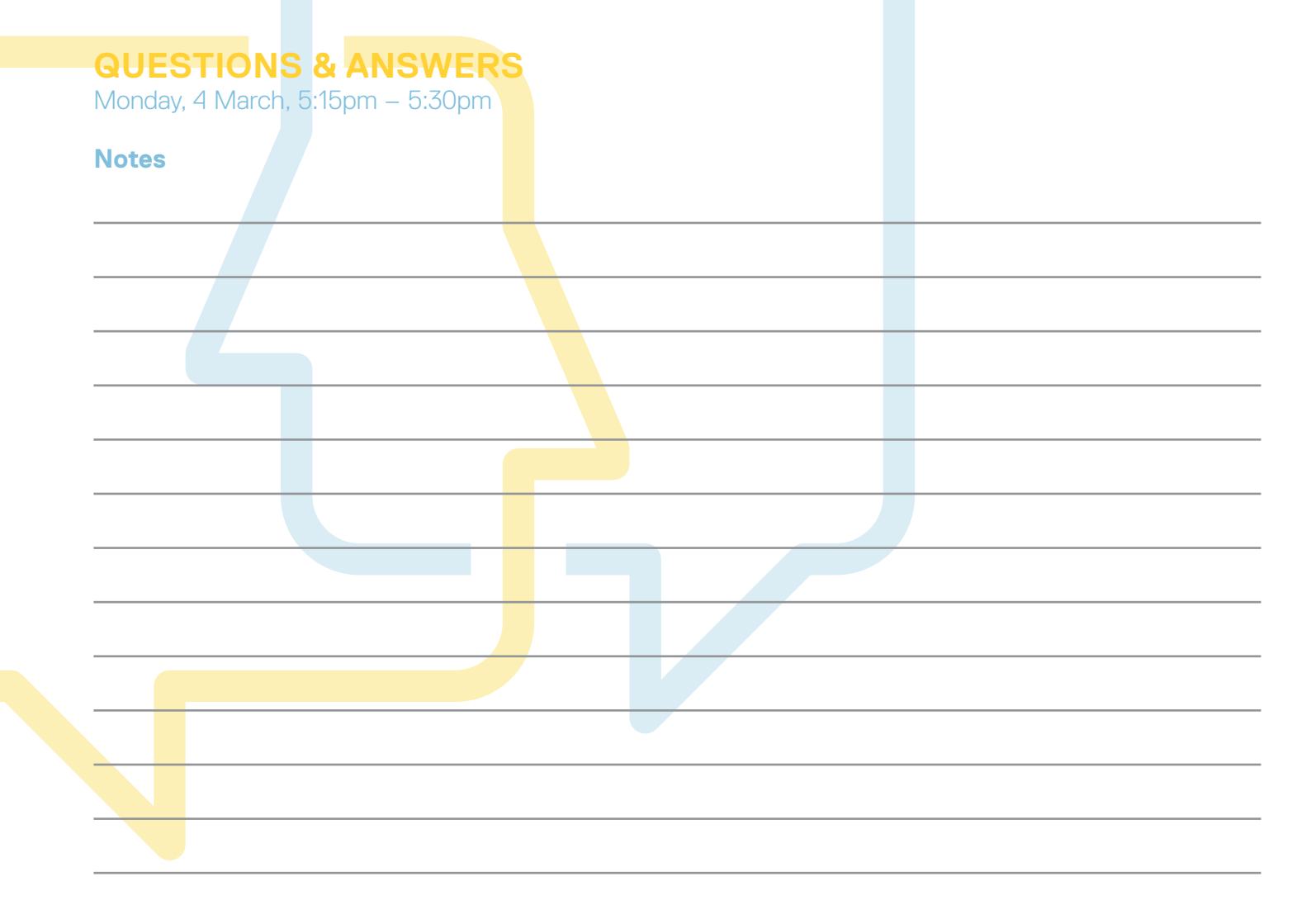
Rethinking road safety through urban design



QUESTIONS & ANSWERS

Monday, 4 March, 5:15pm – 5:30pm

Notes



QUESTIONS & ANSWERS

Monday, 4 March, 5:15pm – 5:30pm

Notes



CONCURRENT SESSION

Monday, 4 March, 4:00pm – 5:30pm

Road safety

Oceania 1&2, Level 3

Session chair – Dr Shane Turner

4:00pm

Bruno Royce, Traffic Engineering Solutions Ltd

Crash monitoring: proven effective measures



4:20pm

Carl O'Neil, Abley

Speed management implementation - a case study



4:40pm

Dr Bridget Burdett, Stantec

Why drivers crash close to home



5:00pm

Fabian Marsh, NZ Transport Agency

Median barriers: dividing fact from fiction



QUESTIONS & ANSWERS

Monday, 4 March, 5:20pm – 5:30pm

Notes





Matrix Traffic & Transport Data – specialists in traffic & transport data services.

Our extensive & comprehensive range of data collection & reporting includes:

- Intersection Counts
- Automatic Traffic Counters (ATC)
- Parking Surveys
- Pedestrian and Cyclist Surveys
- Travel Time Surveys
- Origin Destination Surveys
- Queue Length Surveys
- GIS mapping

Please contact Gi Sun Hong, GM Matrix NZ,
for all quotes: g@matrix888.com

Tuesday

DR GLEN KOOREY, VIASTRADA LTD

Tuesday, 5 March, 8:30am – 8:50am



Glen joined ViaStrada in 2016, having spent the previous 12 years with the University of Canterbury, and prior to that with Opus International Consultants. He has a PhD in Transportation Engineering, as well as Masters and Bachelors degrees in civil engineering and computer science. At Canterbury, Glen taught and undertook research and consulting in a range of topics in transportation planning, traffic engineering and management, highway geometric design, road safety, engineering design, and professional engineering skills. At ViaStrada, he now works for a wide variety of national and local clients providing expert advice on traffic and transportation matters, and helping to develop best-practice transport facilities and guidelines. Glen specialises in road safety and sustainable transport, with particular interest and expertise in walking & cycling and speed/traffic management. He has been investigating the effects of traffic speeds for about a decade, including research on street treatments and speed limits, and has travelled extensively to

study overseas practices in this area.

The mechanics/politics of changing speed limits

With a new government pushing a greater emphasis on road safety, attention is increasing on the role that speed plays in our safety record. For both urban and rural settings, there has been a growing clamour by some elected officials, safety advocates, and the general public for greater use of lower speed limits. Yet, at the same time such changes remain polarising, with other people sceptical of their effect on safety and wary about their impact on network efficiency. The relatively cumbersome process of changing existing speed limits has also been cited as a hurdle to implementing fast change (although others might argue that is an important handbrake in a democratic society).

This paper will investigate the current state of play around setting and changing speed limits in New Zealand. A review of research literature, both here and overseas, will summarise the generally observed effects of changing speed limits (often with little other changes to the road environment or enforcement) in terms of both travel speeds and safety outcomes, whilst also identifying some of the caveats and limitations of this evidence. The paper will also explore some of the current challenges with the existing speed limit legislation in New Zealand (e.g. consultation requirements, default speeds, alignment with observed speeds), and debate some common arguments and concerns raised by people about speed limit changes. Finally, an attempt will be made to identify a productive way forward for all interested parties regarding the use of speed limits.



DR SHANE TURNER, TRANSPORT CONSULTANT & MIKE SMITH, STANTEC NZ

Tuesday, 5 March, 8:50am – 9:10am



Shane is a very experienced road safety engineer and researcher who works at the leading edge of his field. He has an excellent understanding of the safe system approach and what engineering, education and enforcement measures combined need to be applied to achieve it. He is an Adjunct Senior Fellow at the University of Canterbury, where he lectures in road safety. He is also active on two TRB research committees in the USA (Safety Data Analysis and Evaluation and Pedestrians). Shane's experience includes crash reduction studies, safety auditing and risk rating, using strategic tools like KiwiRAP and more detailed analysis tools like those in the Highway Safety Manual (HSM). He has a strong interest in pedestrians and bicycle safety.

With a masters degree in Transportation and a formidable 25 year career as a Senior Road Safety Engineer, Mike offers specialist technical advice to Local Governments, Councils, and the NZ Transport Agency, and overseas Authorities and Governments. His role requires him to provide national technical support in road safety systems including road safety auditing, active transport design, safe systems, and vulnerable road user advice.

Mike's extensive experience in road safety (utilising the Safe System approach), traffic engineering, maintenance contract operations and network operations has enabled him to bring a holistic approach to vulnerable road user studies in New Zealand and Australia. This experience has proved invaluable in the development of a new and exciting process for Auckland Transport's "Understanding Vulnerable Road Users Crash Risk".



Understanding vulnerable road user crash risk

Like many large cities Auckland's busy and high-risk arterials carry the bulk of traffic flows and include a mix of vulnerable road users (people on bike / motorbike / foot pedestrians, bicyclists and motor-cyclists). Auckland Transport is adopting Version Zero and understanding vulnerable road user crash risks on such routes can be difficult due to the wide variety of factors that lead to crashes and the diverse nature of such users, which include many types of impairments. To supplement the limited information available on crash risk from crash history, two new methods have been developed. The Crash Risk Assessment Framework (CRAF) extends the Austroads safe system risk framework (where risk is broken down into exposure, likelihood and severity) to include several new pedestrian and bicycle crash types. CRAF can be used to assess the risk of serious and fatal crashes for existing routes and improvement projects at intersections and short (100 to 200m) mid-blocks. The multi-user assessment framework (MUAF) is a route inspection method that records and rates (from low to extreme) safety issues through observing road user behaviour and looking at operational matters along with design and maintenance faults. It considers different types of vulnerable road users including those with visual, hearing, sensual and physical impairments due to age, disabilities and temporal impairments (e.g. alcohol). The CRAF method focuses attention on medium to higher cost upgrades and speed management, while the MUAF method typically, but not exclusively, identifies lower cost improvements and maintenance activities. This paper will present the use of these tools on Mt Albert and Carrington Roads to assess the crash risk on the existing route and a number of improvement options. The paper will also present the GIS mapping tool that is used to display the results of the analysis and a new crash prediction toolkit for pedestrians and bicyclists.



BRIDGET CARDEN, ABLEY

Tuesday, 5 March, 9:10am – 9:30am



Bridget is a transportation engineer who has developed her skills working in consultancy. Bridget has a wide range of transport experience and is particularly interested in road safety. Bridget's expertise includes network analysis, crash reduction studies, the design of safety interventions and road safety auditing.

Speedy safety solutions

A challenge faced by many road controlling authorities is the lack of resources dedicated to building effective road safety programmes. One of the barriers to developing effective programmes is that identifying high-risk locations and evaluating possible intervention(s) specific situations is a very laborious task. This paper presents an innovative and interactive application that has been developed for the Northland Transportation Alliance to streamline this process.

The application summarises the risk metrics, crash history and proactive safety measures for a user defined corridor. The application then populates a list of recommended safety interventions based on the treatment philosophy (based on risk profile), ONRC, crash history and the characteristics of the road.

This paper will demonstrate how the new application operates, including showing how users build up programmes of work for various corridors and then prioritise programmes based on a number of different metrics (e.g. DSI's per \$ spent or DSI's per kilometre). The presentation will also show how the built-in DSI's reduction & BCR calculators will assist RCA's to collate the necessary information required to gain funding approval.

This paper will be of interest to road controlling authorities and road safety practitioners.



ANDREW BELL, AUCKLAND TRANSPORT

Tuesday, 5 March, 9:30am – 9:50am



Andrew has a background in the Health field. He moved into the transport sector 12 years ago and immersed himself in Strategic Road Safety Planning and Stakeholder Management. Highlights include the establishment of a regional Repeat Drink Driver Rehabilitation Programme, Road Safety Behaviour Change campaigns and development of successive Regional Road Safety Plans.

Auckland: the case for Vision Zero

Vision Zero says that no loss of life on our roads is acceptable. It aims for ZERO deaths and serious injuries. What would it take to make Auckland's roads free of death and serious injury? In 2018, Auckland Transport, with WSP|Opus, aim to answer this question. Deaths and serious injuries have increased by over 70% in Auckland in the last three years, as Auckland's transport demands increase. The Safe System approach accepts that people make mistakes and are vulnerable, so we need to share responsibility and strengthen all parts of the transport system. Vision Zero can be achieved using a broader, values-driven approach that is evidence-based and considers the full journey, from decision for travel to arrival at a destination.

The presentation will focus on the development of a Programme Business Case for road safety in Auckland, and the resultant long term road safety investment programme. Government has signalled long-awaited improvements to the way it invests in road safety. In response, Auckland Transport and WSP Opus are working collaboratively with Road Safety Partners to develop a case for upscaling Auckland Transport's efforts to reduce death and trauma. The target is a transformational shift in safety for Auckland's road network and includes a more integrated approach to delivering road safety improvements.

The project is undertaken in response to worsening road safety trends on Auckland roads, in light of Government exploration of Vision Zero principles and improvements to the Safe System approach.

The development of the business case involves a collaborative approach to identifying the problem, developing strategic responses, identifying innovative & best practice interventions. The outcome will be a recommended long term programme for investment that will succeed in reducing Auckland road trauma and create a strong public appetite for long-term achievement of zero road deaths and serious injuries.

JAMES CAMPBELL, MINISTRY OF TRANSPORT

Tuesday, 5 March, 9:50am – 10:10am



James is a principal policy adviser at the Ministry of Transport. He is a key member of the team working on the road safety strategy and has been heavily involved in all aspects of the strategy development to date, including in engagement with road safety groups across the country. James has worked in a range of policy areas in New Zealand and Australia, including roles relating to transport policy, land use planning, and health and safety at work.

A new road safety for New Zealand

The Ministry of Transport and partners are working to develop a new road safety strategy for New Zealand with a clear ambition to reduce the trauma on our roads. Last year, more than one person a day was killed on our roads, and thousands more were injured. This level of trauma is neither inevitable nor acceptable, and it is clear a new approach is needed.

The new road safety strategy will outline how we will approach the road safety challenges of the next decade and hold ourselves to account to save lives and meaningfully reduce trauma.

The Ministry will be seeking public input into a discussion document in April this year, including seeking input on the development of a more ambitious 'Vision Zero' commitment to improving road safety.

This presentation will outline the Ministry's work to date and provide context ahead of the public consultation in April.

ANDREW MARTINDALE, JACOBS

Tuesday, 5 March, 11:00am – 11:05am



Andrew is a leader in the Jacobs New Zealand, Transport Infrastructure business, and is responsible for the development of our capabilities and specialists across the Transport Engineering, Road Safety, Rail, Maritime, Aviation and Construction disciplines. Andrew is a successful and qualified Civil / Transport Engineer who has an extensive background in project management, design engineering, procurement, construction and asset management with both commercial and public-sector organisations. He is also experienced in planning and organising multi-disciplinary projects across various engineering sectors from initial concepts and scoping through to design, construction, commissioning and maintenance phases.

Sponsor introduction

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GET IN TOUCH:

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JACOBS[®]

DR RODNEY TOLLEY

Tuesday, 5 March, 11:05am – 11:35am



Rodney Tolley - Active Transport Consultant, Researcher, Presenter and Walk21 Conference Director. Dr Rodney Tolley has been involved in the field of active, sustainable transport for over 40 years, first as a university researcher and teacher, and now as an experienced international speaker and consultant. He has led hundreds of presentations, walkabouts and workshops in communities across the world, including over 50 cities in Australasia.

He was a founder member of the Steering Group for Walk21 - the first International Conference on Walking and Livable Cities - and has been the Conference Director for the nineteen Walk21 Conferences since then. He was central to the development of the International Charter for Walking, which is has now been signed by over 500 mayors to lead their communities towards better walkability. He is currently finalising his most recent book (with Paul

Tranter of UNSW Canberra) on 'Future slow cities: Healthier places to live, work and play'. His passion is walking – and talking walking.

Not so fast! Slowing down for a healthier, wealthier and more sustainable city

For more than a century, a principal goal of transport strategies in the city has been for us to 'go faster', in order to save time. It doesn't seem to have worked, does it? And when we see that that going faster isn't saving any time, what do we do? We re-double our efforts, following the dictum of Thomas Eddison:

"I have not failed. I've just found 10,000 ways that won't work".

We have been ignoring the 'speed paradox', that speed steals our time. What's more, it turns out that it steals our money and our health too. So how do we deal with this? Maybe it's time to rethink our transport strategies to make 'try to go slower' the goal.

3M FINALISTS

Tuesday, 5 March, 11:35am – 12:05pm



11:35am

Michael Holderness, 3M

Introduction from 3M



11:40am

Mike Smith, Stantec NZ

Understanding vulnerable road user crash risk on Auckland's high-risk arterials (CRAF and MUAF)



11:45am

Jack Donaghy, Beca

Virtual reality for safe systems design



11:50am

Bridget Carden, Abley

Northland programming tool



11:55am

David Boyce, NZ Trucking Association Inc

Safety MAN road safety truck



12:00pm

Hjarne Poulsen, Dunedin City Council

Dunedin Central City Schools Cluster



POSTER RAPID FIRES FOLLOWED BY POSTER VIEWING

Tuesday, 5 March, 12:05pm – 12:30pm



12:05pm

Anika Bushra, Auckland Transport

Rethinking construction disruption in Auckland city



12:07pm

Rebecca Tuke, Abley

4x stop; whose move?



12:09pm

Madie Aghili Auckland Transport

Jana Tillner, Auckland Transport

Delivering reliable and efficient bus network



12:11pm

Simon Douglas, New Zealand Automobile Association

Innovative ways to communicate speed limits



12:13pm

Pete Moth, Auckland Transport

Auckland's new bus network



CONCURRENT SESSION

Tuesday, 5 March, 1:30pm – 3:00pm

Engagement/people & travel planning

Amokura Gallery, level 4

Session chair – Axel Wilke

1:30pm

Susi Marinkovich, Waikato Regional Council

Putting people first



1:45pm

David Willmott, Centre for Urban and Transport Studies

Are we talking reality here?



2:00pm

Kathy Matete, Beca

How Hackathons and Smart Cities relate



2:15pm

Jeremy Elley-Brown, Auckland Transport

Let's talk about flex



2:30pm

Isabella Cawthorn, Confluence Consulting

Sizzle vs sausage: talking about transport



CONCURRENT SESSION

Tuesday, 5 March, 1:30pm – 3:00pm

Changing processes & technology

Oceania 1&2, Level 3

Session chair – Bruce Walton

1:30pm

William Frith, WSP|Opus Research
LED streetlighting: environment & safety impacts



1:42pm

Jessica Tucker, Beca Applied Technologies
Autonomous vehicle certification: eating the elephant



1:54pm

Matt Ensor, Beca
Moving beyond the A to B



2:06pm

Nicholas Lovett, Christchurch City Council
The future of micro-mobility in cities



2:18pm

Ahmed Beleed Marghani, University of Auckland
Developing a new laboratory compaction test



2:30pm

Richard Young, Beca
The autonomous electric vehicle myth



CONCURRENT SESSION

Tuesday, 5 March, 3:30pm – 5:00pm

Public transport & road space allocation

Amokura Gallery, level 4

Session chair – David Huang

3:30pm

Dr Ranjan Pant, NZ Transport Agency
Kevan Fleckney, NZ Transport Agency
Improving PT reliability on Auckland's motorways



3:45pm

Terry Church, Flow Transportation Specialists
Whangaparaoa dynamic lanes, sweating the asset



4:00pm

Andrew Macbeth, Greater Wellington Regional Council
Public transport park and ride strategy



4:15pm

Reza Chalabianlou, Greater Wellington Regional Council
Fares and ticketing transition in Wellington



4:30pm

Daniel Newcombe, Auckland Transport
Rapid transit network planning



QUESTIONS & ANSWERS

Tuesday, 5 March, 4:45pm – 5:00pm

Notes

A series of horizontal grey lines for taking notes, overlaid with a decorative background of thick, light blue and yellow lines that form a complex, abstract pattern.

CONCURRENT SESSION

Tuesday, 5 March, 3:30pm – 5:00pm

Active modes

Oceania 1&2, Level 3

Session chair – Ina Stenzel

3:30pm

Ben Dodgshun, Stantec New Zealand

Cycleways: the rest of the road



3:50pm

Axel Wilke, ViaStrada Ltd

The changing signal faces of cycling



4:10pm

Celia Wade-Brown, Living Streets Aotearoa

No wheels, no Y chromosome: the invisibility of women walking



4:30pm

**Hamish Speakman & Meredith Bates,
Harrison Grierson**

Mangere Bridge safer communities



Wednesday

CLAIRE PASCOE, NZ TRANSPORT AGENCY

Wednesday, 6 March, 8:30am – 8:50am



Claire Pascoe is the Lead Advisor Urban Mobility at the New Zealand Transport Agency. In her current role, she provides technical expertise and leadership across policy, planning and performance, to ensure that transport investment results in high quality urban environments that provide people with transport choices. She was previously involved in developing and delivering the Urban Cycleways Programme and managing the national cycling culture change programme.

Reframing our urban mobility challenge

Thanks to a Transportation Group Study Grant, Claire Pascoe attended the Planning a Cycling City summer course in July 2018 at the University of Amsterdam. She will present some key learnings from the course, and how these have evolved after 8 months of further reflection back in New Zealand. One of her first tasks when she got home in July was changing her job description from Lead Advisor Multi Modal, to Lead Advisor Urban Mobility. Why? Nine months into a new Government Policy Statement, how is the NZ Transport Agency responding to the new Access and Environment outcomes, and themes of mode-neutrality and integrating land use and transport planning?

MIKE DAVIDSON, CHRISTCHURCH CITY COUNCIL

Wednesday, 6 March, 8:50am – 9:10am



Cr Mike Davidson is a Christchurch City Councillor and Deputy Chair of the Infrastructure, Transport and Environment Committee. Mike also has roles in the Regional Transport Committee, Greater Christchurch Joint Public Transport Committee, Innovation & Sustainable Development Committee and Finance & Performance Committee. Formerly the Chair of the elected Shirley-Papanui Community Board, he was a central figure in the consultation of one of Christchurch's first Major Cycleways, the Papanui Parallel. Mike's local government roles as an elected City Councillor and strong commitment to a sustainable transport network is helping ensure that Christchurch moves in the right direction.

Sustainable transport networks: a political perspective

While the Government's GPS for land transport has signalled a clear change in direction

for New Zealand's transport network with a focus on a safe and accessible network and putting more money towards sustainable options of active and public transport, the ability to deliver this at a local level is placed on to Local Authorities and the political will of local Councillors.

With vocal public opinion divided on the need to invest in transport infrastructure that does not solely benefit passenger vehicles, how do local politicians stay strong amongst this negative public opinion that often becomes personal and heated?

Since 2013 Christchurch has been steadily building cycleways, a network of 13 separated cycleways originally approved to be completed within a five year period, but now planned to be completed by 2028. While an increase in the cost to deliver the programme has not helped, the thought of the public response also plays a part in the delays.

For both active and public transport infrastructure, the removal of on-street car parks from outside businesses and residential properties, the narrowing of traffic lanes, removal of access and the slowing down of streets can all play a part in forming a negative public opinion and pushback on new infrastructure that is designed for people who are using a transport mode which many people see as a mode for the "minority". Although these changes are necessary, can it be done differently to reduce the public backlash?

When designing active and public transport, what can be learnt from Christchurch's current journey towards a sustainable transport network and people friendly streets to help elected members maintain the political will to make these decisions?

CLAIRE COVACICH, AUCKLAND TRANSPORT

Wednesday, 6 March, 9:10am – 9:30am



Claire is primarily a transport planner, currently specialising in design for walking and cycling facilities. Past roles have included strategic road corridor planning, policy development for walking and cycling, strategic public transport planning and being a stay-at-home parent. Auckland-obsessed, keen to make the city as great and as kind as possible for everyone now and in the future.

Auckland cycling a decade of change

Cycling is becoming ever more popular in Auckland. This isn't just evident in the appearance of black and yellow mini-bikes around the streets, the numbers tell us too. Almost every location monitored has seen a substantial increase in numbers of people on bikes over the past ten years. The Auckland Cycling Account reports a 62 per cent increase in cycle trips in the city centre over the past four years. Across Auckland, over 50,000 more people are cycling than five years ago.

As well as increasing numbers of people travelling by bike, there has been a mind-shift with overall support for cycling at 57 per cent, with 34 per cent saying they are 'very supportive' of cycling in their community.

So what has happened over the past decade to produce these changes? How can we reflect on these changes to progress positive change over the coming years? The past decade of central government has seen the beginning of a National Cycleway network and allocation of Urban Cycleway funding. This came with general support but somewhat passive policy for cycling. Nevertheless, it was an important enabler. The Auckland local government restructure with amalgamation of the region's territorial authorities and creation of Auckland Transport as a Council Controlled Authority has brought triumphs and challenges. Of course transport provision has played a role in this increase. Increasing funding – more than fivefold over the past decade – has enabled new cycle infrastructure. Reallocation and prioritisation of road space are shaping our transport environment. We are increasingly experiencing facilities that enable users of all ages and abilities. Fancier bikes are improving ease of access. The past decade has seen significant changes in social norms. Society seems to have more considered views of environmental impacts and individuals' contributing choices. Online and social media has encouraged these conversations. Advocacy has influenced, significantly.

This merger of changing minds and changing places; meaningful investment in improving cycle facilities, societal support, and new technologies; has started something.

ANN-MARIE HEAD, ABLEY

Wednesday, 6 March, 9:30am – 9:50am



Ann-Marie is a Chartered Professional Engineer with 17 years' experience providing transportation planning and traffic engineering advice to public and private sector clients. Ann-Marie has a wide skill base including developing transport strategies, preparing integrated transport assessments, carrying out reviews of District Plans and solving other transport planning-related issues. She has a special interest in multi-modal transport planning and sustainable modes including walking, cycling and public transport. Ann-Marie has recently been involved in the NZ Transport Agency Pedestrian Research project and is currently working on an Austroads project to embed good practice pedestrian guidance into their Australasian suite of guides.

These streets are made for walkin'

Walking is a fundamental human activity, and yet it is often overlooked when planning and designing transport networks. As a means of transport, walking integrates physical activity into everyday life resulting in a multitude of public health benefits, as well as being the most environmentally friendly way to travel. There is a renewed drive in New Zealand and Australia to increase investment in providing for walking in our communities. For this investment to be effective, it is important that up-to-date, best practice guidance is available to practitioners planning and designing improvements to the walking environment. The guidance should be easily accessible, easy to understand and easy to apply, not only for specialists involved in dedicated walking projects, but also for practitioners planning and designing other schemes to ensure these do not result in adverse outcomes for walking or can be designed in such a way to improve the walking environment.

This presentation will discuss recent work reviewing the existing national and Australasian guidance on planning and designing for pedestrians. The work assessed how well the current guidance assists road controlling authorities to plan, design, prioritise and maintain the urban environment to support and encourage walking. The work recommended how the guidance should be updated, expanded and enhanced with reference to local, state and international guidance and tools. The other factors that are critical to making a fundamental step change in our walking environment will also be discussed such as higher level policy and funding approaches; translating good guidance into good practice delivery; and collecting good data on the volumes, frequency, types, safety and people's experience of walking.

The presentation will be useful for all practitioners involved in the planning and design of our towns and cities.

RICHARD LANDON-LANE, WSP|OPUS & STUART HAMILTON, AURECON

Wednesday, 6 March, 9:50am – 10:10am



Richard is a Senior Transportation Engineer with WSP-Opus, he has a masters degree and associated 18 years experience in geometric design and road safety. Since 2016 he has been working on the design and delivery of Christchurch's Major Cycle Route Programme as part of Team Velos, a joint venture with Aurecon, where the main focus has been on developing infrastructure to encourage mode shift for commuters. He has recently been seconded part time to the Transport Agency and is also involved in NCTIR, the rebuilding of the Kaikoura highway.

Stuart is a Senior Civil Designer with Aurecon, he has been working in the area of roading design and design, and road safety for the past 25 years. Stuart was the lead designer for the Velos Cycleway team (partnership between Aurecon and WSP-Opus) to prepare the geometric designs for several of the Christchurch City Council's Major Cycleway Routes. This involved the dealing with the many challenges associated with threading cycleway infrastructure along existing roads and reserve areas. Since Mid 2017 Stuart has been in the role of roading and digital design lead at NCTIR in the rebuild of the transport network along the Kaikoura coast following the Nov 2016 earthquake.



Enjoying the ride, shifting the mind

Christchurch City Council is connecting suburbs, shopping areas, commercial centres, schools and recreation destinations in Christchurch via an integrated 94km network of Major Cycle Routes (MCR). The cycle routes offer a level of service not seen before in Christchurch incorporating features to provide a safe, convenient and enjoyable cycling experience to encourage the 'interested but concerned' riders (that form 50-60% of the population) to get on their bike.

Fully separated cycle paths and neighbourhood greenways (a unique slow and low volume environment designed to allow cyclists and vehicles to safely share the road) are key features of MCR. While commonplace overseas, neighbourhood greenways are a relatively new concept to Christchurch and New Zealand. Building the MCR within an existing transport network requires smart retrofitting, particularly given the existing infrastructure is in operation. This has required context-specific designs and the innovative use of space to take account of heritage values, waterways, and operational requirements. The Uni-Cycle Route travels as a shared path through the Canterbury University campus and playing fields and 'Riccarton House and Bush', a Heritage New Zealand Historic Place Category 1 site, consisting of ornate gardens and a sweeping protected tree-lined carriage drive, bordered by the Avon River. The Rapanui-Shag Rock cycleway creates a shared path through an otherwise underutilised space; the centre of the iconic, 1km long, Linwood Avenue median trees.

Innovative design, enhanced streetscapes and extensive collaboration has shaped a design that is cognisant of heritage, protected trees, ecology, and community needs whilst ensuring a high level of service for cyclists.

The value to the user is evident through the 2017 Life in Christchurch Survey results (4,500 respondents):

1. 31% are travelling by bike more often
2. 70% of cyclists have used new MCRs
3. 82% of users agreed the cycleways made their journey more pleasant.

QUESTIONS & ANSWERS

Wednesday, 6 March, 10:10am – 10:30am

Notes



The page features a yellow header bar at the top left. Below it, the title 'QUESTIONS & ANSWERS' is written in bold yellow text, followed by the date and time 'Wednesday, 6 March, 10:10am – 10:30am' in blue text. Underneath is the word 'Notes' in blue. A decorative graphic consisting of thick blue and yellow lines with rounded corners is positioned on the left side, partially overlapping the horizontal lines. The main body of the page is filled with horizontal grey lines for writing notes.

CONCURRENT SESSION

Wednesday, 6 March, 11:00am – 12:30pm

Land use & planning

Amokura Gallery, level 4

Session Chair - Stephanie Spedding

11:00am

Ellie Craft, MRCagney

Inclusive cities – Looking at cities through a gendered lens



11:15am

Ruby Kim, Abley

Applying German spatial planning in Auckland



11:30am

Rebecca Tuke, Abley

District plans - fit for purpose?



11:45am

Graeme Steverson, WSP Australia

Future ready MRT and land-use integration



12:00pm

Peter Nunns, MRCagney

Modelling and valuing land use change



QUESTIONS & ANSWERS

Wednesday, 6 March, 12:15pm – 12:30pm

Notes



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CONCURRENT SESSION

Wednesday, 6 March, 11:00am – 12:30pm

Pedestrian and safety

Oceania 1&2, Level 3

Session chair – Dr Glen Koorey

Roving mic – Louis Bargh

11:00am

Bruno Royce, Traffic Engineering Solutions Ltd

Pedestrian safety - left turns at signals



11:20am

Lukshmi Ranasinghe, Stantec NZ

Ponsonby Road pedestrian improvements project



11:40am

Ina Stenzel, Auckland Transport

Separated paths for peds and pobs



12:00pm

Ellie Craft, MRCagney

Mode biases in transport



AWARDS

Best Young Author

Presented by: David Mitchell, ITEANZ

Best Practice Paper

Presented by: Jeanette Ward, Transportation Group Chairperson

Best Research Paper

Presented by: Jeanette Ward, Transportation Group Chairperson

AA Award for Best Conference Paper

Presented by: Simon Douglas, NZ Automobile Association

Transportation Group NZ Research award 2019

Transportation Group NZ Tertiary Study Grant 2019

Best Contributor to Roundabout

Best Abstract presentation

Presented by: Jeanette Ward, Transportation Group Chairperson

People's Choice Award – Poster

People's Choice Best Award - Oral

Presented by: Tom Small, Conference Convenor



Delegate list

Name	Position	Organization	City
Mujaddad Afzal		University of Auckland	Auckland
Mohammad Aghababaei		University of Auckland	Auckland
Madie Aghili		Auckland Transport	Auckland
Matt Allan	Graduate Transportation Engineer	Abley	Christchurch
Mark Ames		Strategic Cities	Sydney
Dr Ian Appleton		Retired	Wellington
Jeanine Arundale	Marketing & Communications Specialist - New Zealand	Jacobs	Auckland
Siobhan Bakker	Advisor	NZ Transport Agency	Wellington
Meagan Barfoot	Technical Director	Roadlab	Auckland
Louis Bargh	Design Manager	Jacobs	Wellington
Meredith Bates	Team Leader Transportation	Harrison Grierson	Auckland
Andrew Bell		Auckland Transport	Auckland
Luke Benner	Transport Projects Engineer	Wellington City Council	Wellington
David Bentham		Beca Ltd	Auckland
David Boyce	CEO	NZ Trucking Association Inc	Christchurch
Pathmanathan Brabhakaran	National Technical Leader	WSP Opus	Wellington
Dr Bridget Burdett		Stantec NZ	Hamilton
Anika Bushra		Auckland Transport	Auckland
Duncan Campbell	Principal Traffic Engineer	Traffessionals	Taupo
James Campbell	Principal Adviser, Mobility & Safety	Ministry of Transport	Wellington

Delegate list

Name	Position	Organization	City
Bridget Carden	Senior Transportation Engineer	Abley	Christchurch
Darren Cash	Principal Commercial Engineer	NZ Transport Agency	Auckland
Isabella Cawthorn		Confluence Consulting	Porirua
Reza Chalabianlou	Senior Policy Advisor	Greater Wellington Regional Council	Wellington
Terry Church	Senior Associate	Flow Transportation Specialists	Auckland
Ian Constable	Traffic Engineer	Traffic Solutions Ltd	Taupo
Associate Professor Seosamh Costello	Deputy Head of Department	University of Auckland	Auckland
Claire Covacich	Principal Specialist - Walking And Cycling	Auckland Transport	Auckland
Ellie Craft		MRCagney	Auckland
Simon Davenport	Transportation Team Leader	Timaru District Council	Timaru
Mike Davidson	Councillor	Christchurch City Council	Christchurch
Andrew Davies		3M	Auckland
Claire Davis	Specialist Urban Designer	Auckland Council	Auckland
Darren Davis	Lead Transport & Land Use Integration Specialist	Stantec NZ	Auckland
Pravin Dayaram	Business Unit Leader Transportation	Harrison Grierson	Auckland
Isabel Dedring		Arup Group	London, UK
Lucie Desrosiers	Principal Advisor	Wellington City Council	Wellington
Victor Devyatov	Intermediate Traffic Engineer	Palmerston North City Council	Palmerston North

Delegate list

Name	Position	Organization	City
Dr Nadine Dodge	Senior Advisor	Wellington City Council	Wellington
Ben Dodgshun	Senior Transportation Engineer	Stantec NZ	Christchurch
Jack Donaghy	Programme Manager Safe Roads	Beca Ltd	Auckland
Simon Douglas	National Manager Policy and Research	New Zealand Automobile Association	Wellington
Sarah Dove	Transportation Team Leader	Harrison Grierson	Tauranga
Sarah Downs		NZ Transport Agency	Wellington
Barry Dowsett	Principal Advisor	NZ Transport Agency	Hamilton
Ryan Dunn	Senior Transportation Engineer	Tonkin + Taylor	Wellington
Jeremy Elley-Brown	Senior Travel Demand Planner	Auckland Transport	Auckland
Greg Ellis		Conference MC	Wellington
Matt Ensor	Business Director - Advisory	Beca Ltd	Auckland
Tim Fitzpatrick	Manager, City Centre Design	Auckland Council	Auckland
Kevan Fleckney	Senior Traffic Engineer	NZ Transport Agency	Auckland
Sandy Fong	Principal Domain Strategy	Ministry Of Transport	Wellington
Andrew Ford		Greater Wellington Regional Council	Wellington
Gemma Forlong	Policy Advisor	NZ Transport Agency	Wellington
John Foster	Retired Civil Engineer		Porirua
Bill Frith	Technical Principal	WSP Opus Research	Lower Hutt
Patricio Gallardo		University of Canterbury	Christchurch

Delegate list

Name	Position	Organization	City
Wayne Gallot	Traffic Engineer	Christchurch City Council	Christchurch
Chris Gasson	System Design Manager	NZ Transport Agency	Auckland
Jeremy Gibbons		Bloxam Burnett & Olliver	Hamilton
Caron Greenough	Senior Associate - Transportation Engineering	Beca Ltd	Wellington
Alan Gregory	Principal Transport Planner	Tonkin + Taylor	Hamilton
Courtney Groundwater	Principal Transportation Engineer	Abley	Auckland
Kristen Gunnell	Senior Solicitor	Russell McVeagh	Auckland
Geoffrey Haines	Senior Transport Planner	NZ Transport Agency	Auckland
Dr Mike Hale	Medical Officer Of Health	Auckland Regional Public Health Service	Auckland
Elizabeth Halsted	Cities, Digital and Place Shaping Leader	Arup	Auckland
Stuart Hamilton	Senior Civil Designer	Aurecon	Christchurch
Sharleen Hannon		NZ Transport Agency	Wellington
Brian Hasell		Hasell Consulting Ltd	Wellington
Brad Hayes	Civil Engineer	Bloxam Burnett & Olliver	Hamilton
Ann-Marie Head	Associate	Abley	Christchurch
Joe Hewitt	Principal Advisor	Wellington City Council	Wellington
Tara Hills		Direction Traffic Design	Hamilton
Michael Holderness	Technical Services Manager	3M New Zealand Ltd	Auckland
Gi Sun Hong	General Manager	Matrix Traffic And Transport Data	Auckland

Delegate list

Name	Position	Organization	City
Jeremy Hosking		Jacobs	Auckland
David Huang		Jacobs Engineering Group	Wellington
Gareth Hughes	Road Safety Lead	Jacobs	Auckland
Khandaker Aftab Jahan	Senior Advisor	NZ Transport Agency	Wellington
Kevin John	Director Market Development	Matrix Traffic And Transport Data	Sydney
Risto Jounila	Technical Director	WSP Opus	Auckland
Kavita Kansara		Engineering New Zealand	Wellington
Amir Kayal	Senior Urban Design Specialist, Project Specialists, Design Office, Integrated Networks	Auckland Transport	Auckland
Amy Kearse		NZ Transport Agency	Wellington
Simon Kennett	Senior Multi-modal Specialist	NZ Transport Agency	Wellington
Jerry Khoo	Senior Associate	Beca Ltd	Auckland
Ruby Kim		Abley	Auckland
Peter King	Policy Research Editor	New Zealand Automobile Association	Wellington
Dr Glen Koorey	Principal	ViaStrada Ltd	Christchurch
Michael Kwok	Managing Director	Stellar Projects Limited	Auckland
Chris Lai	Senior Transportation Engineer	Palmerston North City Council	Palmerston North
Sahan Lalpe	Transportation Engineer	Aurecon NZ Limited	Christchurch
Richard Landon-Lane		WSP Opus	Christchurch
Cameron Law	Partner	Russell Mcveagh	Auckland

Delegate list

Name	Position	Organization	City
Ben Leah	Rail Network Adviser	Greater Wellington Regional Council	Wellington
Andrew Leckie	Project Transportation Engineer	Stantec NZ	Christchurch
Mayor Justin Lester		Wellington City Council	Wellington
Andrew Liese		Stantec NZ	Auckland
Myles Lind	Digital Engineering Lead	NZ Transport Agency	Auckland
Kirsten Louw		Stantec NZ	Auckland
Nicholas Lovett		Christchurch City Council	Christchurch
Kent Lundberg		MRCagney	Auckland
Andrew G Macbeth	Senior Policy Advisor	Greater Wellington Regional Council	Wellington
Jamie MacDuff	Principal Consultant	Resolve Group	Auckland
Shendi Mani	Graduate Transportation Engineer	Abley	Christchurch
Ahmed Beleed Marghani		University of Auckland	Auckland
Susi Marinkovich	Customer Focus Team Leader	Waikato Regional Council	Hamilton
Fabian Marsh	Senior Transportation Engineer	NZ Transport Agency	Wellington
Andrew Martindale	Section Leader Transport Infrastructure	Jacobs	Wellington
Kathy Matete		Beca Ltd	Auckland
Rebecca Mather	Engagement Manager - Technical Groups	Engineering New Zealand	Wellington
Peter McCombs	Director	Consultant	Wellington

Delegate list

Name	Position	Organization	City
Michelle McCormick	Regulatory And Transport Policy Manager	NZ Transport Agency	Wellington
John McLaren	Traffic Engineer - Director	Haigh Workman	Warkworth
Lewis Mills	Head of Public Policy - New Zealand	Uber	Auckland
Ron Minnema	Programme and Planning Engineer	Porirua City Council	Paraparaumu
Pete Moth		Auckland Transport	Auckland
Nabi Mussa	Transport Consultant	Commute Transportation	Auckland
Daniel Newcombe		Auckland Transport	Auckland
David Ng	Director Services	PTV Asia-Pacific	Sydney
Sean Nilsson		GHD	Christchurch
Peter Nunns		MRCagney	Auckland
Carl O'Neil	Senior Transportation Engineer	Abley	Christchurch
Dr Ranjan Pant	Principal Traffic Engineer	NZ Transport Agency	Auckland
Claire Pascoe	Lead Advisor Urban Mobility	NZ Transport Agency	Wellington
John Pell		Greater Wellington Regional Council	Wellington
Simon Pilkinton	Senior Associate	Russell McVeagh	Auckland
Richard Porter	Senior Rooding Engineer	Bloxam Burnett & Olliver	Hamilton
Hjarne Poulsen	Traffic Engineering And Road Safety Team Leader	Dunedin City Council	Dunedin

Delegate list

Name	Position	Organization	City
Lukshmi Ranasinghe	Senior Transport and Traffic Engineer	Stantec NZ	Auckland
Kevin Reid	Acting Senior Manager, System Design	NZ Transport Agency	Wellington
Cnr Nicole Reid	Councillor	Selwyn District Council	Rolleston
Matthew Roberts	Senior Transport Engineer	Queenstown Lakes District Council	Queenstown
Ian Robertson	Transportation Engineer	GHD	Wellington
Max Robitzsch	Principal Transport Engineer	Stantec NZ	Auckland
Bruno Royce	Director / Principal Traffic Engineer	Traffic Engineering Solutions Ltd	Auckland
Dr Ralph Samuelson	Principal Advisor	Ministry Of Transport	Wellington
Dean Scanlen		Engineering Outcomes, Ltd	Whangarei
Sid Scull	Senior Transport Planner	Mott MacDonald	Auckland
Alan Shi	Traffic Engineer	Traffic Engineering Solutions Ltd	Auckland
Karyn Sinclair	Chair	NZ Planning Institute	Wellington
Dharmendra Singh	Programme Delivery Engineer	Hamilton City Council	Hamilton
Thomas Small	Director Of Operations	Jacobs	Wellington
Mike Smith	Principal Transportation Engineer	Stantec NZ	Christchurch
Hamish Speakman	Transportation Consultant	Harrison Grierson	Auckland
Stephanie Spedding	Senior Transport Engineer	Jacobs	Auckland
Christophe Steinbach	Senior Associate Transport	SMEC	Newcastle

Delegate list

Name	Position	Organization	City
Ina Stenzel	Principal Specialist Walking & Cycling	Auckland Transport	Auckland
Graeme Steverson		WSP Australia	Sydney
Matthew Sullivan	Wellington Regional Manager	Stellar Projects Limited	Wellington
Eliza Sutton	Head of Transport Infrastructure and Road Safety	WSP Opus	Wellington
Dr Fergus Tate	Technical Director - Transportation	WSP Opus	Wellington
Jana Tillner	Senior Operations Scheduler	Auckland Transport	Auckland
Dr Rodney Tolley	Walk Specialist	Rodney Tolley Walks Ltd	Staffordshire, UK
Irene Tse	Team Leader, Road Safety Engineering	Auckland Transport	Auckland
Jessica Tucker		Beca Applied Technologies	Auckland
Rebecca Tuke	Graduate Transportation Engineer	Abley	Christchurch
Dr Shane Turner	Safe Systems Specialist	Abley	Christchurch
Hon Phil Twyford		Minister of Transport	Wellington
Chris Vallyon	Senior Associate - Transport Analyst, Transport Advisory	Beca Ltd	Wellington
Celia Wade-Brown		Living Streets Aotearoa	Island Bay
Bruce Walton	Regional Manager	Jacobs	Wellington
Jeanette Ward	Associate Transportation Engineer	Abley	Christchurch
Fiona Whyte	Urban Designer	Wellington City Council	Wellington

Delegate list

Name	Position	Organization	City
Gunther Wild	Transport Strategy Manager	Wellington City Council	Wellington
Axel Wilke	Director	ViaStrada Ltd	Christchurch
David Willmott	Co-director	Centre for Urban and Transport Studies	Auckland
Dr Douglas Wilson	Director Of Transportation Laboratories	The University Of Auckland	Auckland
Justine Wilton	Safety and Transportation Engineer	WSP Opus	Tauranga
Chun Wong	Graduate Transport Engineer, WSP	AITPM / WSP Australia	Queensland
Stuart Woods		NZ Transport Agency	Christchurch
James Wratt	Assistant Engineer	NZ Transport Agency	Wellington
Richard Young		Beca Ltd	Hamilton



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