A word with the Managing Director...

Just over two months on from the worst natural disaster in New Zealand’s post European settlement history a new normal is developing for the residents of Christchurch, and a new transport system is morphing from the ruins of the old.

Christchurch remains challenging in terms of an equivalent lifestyle pre the 22nd February earthquake and the energy resilience of the city is being significantly tested. Traffic congestion is common on streets that used to flow freely and travel times change daily. The speed at which cordons can be put up or taken down and intersection configurations changed is impressive. The reaction of motorists to these changes though is less speedy and it is often impossible to miss pinch points so misdirected traffic can have a compounding effect. These issues pale though in comparison to the considerable matter of the central business district now being decentralised (on the outside of the “hub”) and dispersed along and between the spokes. Christchurch now has poly centred employment locations.

This rearrangement of the normal home-to-work trip and the double shifting of schools means travel and energy use in Christchurch has increased. Our very coarse calculations show that overall travel as a result of the earthquake has increased at least 8%. This means that over the next year Christchurch people will spend an extra $42M on petrol placing a further strain on a weakened economy. What this means is that good transportation advice to lessen these effects is even more important than usual – thinking outside the ‘new normal’ is not just important, it is crucial.

My team and I never thought we would have the opportunity to live through such a massive natural disaster. My catch phrase is ‘it remains challenging’. Nevertheless we are totally committed to making sure we stay true to ourselves, our clients and our communities. I look forward to speaking to you soon – we remain open for business.
FEATURE PROJECT: UNIVERSITY OF CANTERBURY EARTHQUAKE RESPONSE

The 22 February earthquake occurred on the second day of the University year. The immediate response involved closing down the campus and then undertaking a progressive re-start of campus activities over a number of weeks as temporary structures became available and buildings were checked and re-opened.

Abley Transportation Consultants Limited has been assisting the University with the transport response for the progressive re-start. As the main car parking areas at the Ilam campus were being used to place temporary structures, Abley assisted with setting up a shuttle bus service from car parking at the Dovedale campus located about 10 minutes walk away to better integrate the two campuses.

Subsequently, the service also assisted students travelling from Ilam to the Dovedale campus as lectures were temporarily relocated there. Abley reviewed the shuttle service each week and suggested modifications based on revised teaching timetables and bus patronage data. We monitored parking patterns around the University, in particular on-street parking, and compared this with similar data we collected in 2008. Abley also provided up to date travel information for publication on the University’s website ensuring that staff and students were kept informed of the changing travel options. The successful operation of the shuttle service ensured that students were able to get to teaching spaces and the anticipated parking problems on nearby streets did not eventuate with the majority of on-street parking areas experiencing similar occupancy to the 2008 surveys.

Over the longer term, Abley are assisting the University to capitalise on the ‘change moment’ that the earthquake has brought about, enabling easier and faster steps to becoming a sustainable travel campus.

FEATURE PROJECT: OAMARU PARKING STUDY

In 2010, Waitaki District Council sought the expertise of Abley to undertake a parking management study for the Oamaru town centre. The existing Pay & Display parking meters that were installed in 2002 are reaching the end of their life, and parking charges have not changed since the meters were installed. Council wished to know how they can better manage parking resources in the town centre.

Firstly, Abley assisted Council to carry out a parking beat survey to understand current parking patterns. Abley then developed a range of options to improve management of the resource including upgrading the meters, changing parking charges, changing the Pay & Display coverage area and increasing parking enforcement. Abley developed a cost / revenue model to test the expected profit or loss of each option. Each option was then ranked against a range of economic, environmental and social objectives and a recommended option was identified.

Abley recommended an option that includes installing new meters and increasing the parking charges so they are more equitable with other towns in New Zealand. The current Pay & Display coverage and level of parking enforcement should be maintained although some small modifications could be made to parking restrictions in some locations so they are more consistent and fair.

Council is now considering the implications of the recommended option with Councillors.

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Abley Transportation Consultants has recently completed a commission to provide strategic planning advice and input to the review of Canterbury’s Regional Land Transport Strategy (RLTS). This commission provided background research on issues ranging from public transport route planning, alignment of regional road safety issues with those identified in the National Road Safety Strategy, defining the strategic transport network in terms of route hierarchy and functionality and the costing of strategic transport options to be adopted within the strategy.

Further to this, Abley has been appointed by Environment Southland to assist in the process of reviewing its current RLTS. Abley has presented a programme based on legislative requirements that will assist in producing a new strategy for the region by the end of 2011. As part of the commission Abley has undertaken a review of the existing RLTS and provided a report in the form of a gap analysis based on the content of the existing strategy, current best practice and required RLTS content as specified within the Land Transport Management Act 2002.

Progress is being made on the NZTA research project Travel Profiling Part B. This research project seeks to unlock the transport information contained within the Ministry of Transport National Household Travel Survey data. The desired outcomes of the research are to understand, at a national and regional basis, changes in New Zealand travel behaviour over time and to explore the potential for the data to be used as a predictive tool to understand the interaction between land use and travel demand.

The research examines travel behaviours that are unique to each region and explores themes such as evidence of peak hour spreading and changes in the complexity of trip chaining. The trend analysis also provides an indicator of transport policy effectiveness and the consequences of current transport policy on travel patterns. The research also focuses on producing a predictor of travel demand by mode of transport for various inputs such as household types, number and by region.

For more information on either of these projects please contact:

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Andy is a principal Transportation Engineer who joined Abley Transportation Consultants as a Senior Transportation Engineer in April 2008. Before coming to Abley he worked for a period of 24 months with MWH in Auckland and Christchurch. Prior to coming to New Zealand from the UK Andy spent 10 years within the field of development planning located in south east England working for both the private and public sector.

Andy graduated from Napier University in Edinburgh with a BEng (Hons) Degree in Civil and Transportation Engineering in 1994 and attained a Masters Degree in Transportation Planning and Management from Westminster University, London in 2002.

Andy’s journey towards his chosen career follows a varied and interesting path having worked in a variety of roles that encompass mechanical engineering, the performing arts, toll bridge operator, patrolman and cycle courier. Andy believes that no knowledge is wasted and applies his experience, judgment and expertise to problem solving within the field of traffic engineering and transportation planning.

Andy has specialist skills in preparing and presenting expert witness statements, integrated transportation assessments, transport research and policy writing and interpretation and presenting transport findings to a range of audiences.

Since joining Abley Andy has become a Chartered Professional Engineer and a member of the Institute of Professional Engineers New Zealand (IPENZ).

Andy is currently managing the delivery of a number of interesting projects, including:

- Unlocking the transport information held within the National Household Travel Survey - Travel Profiling Part B for the NZ Transport Agency;
- Assisting in the review of the Regional Land Transport Strategy for Environment Southland;
- Providing background research papers to support the draft 2012-2042 Regional Land Transport Strategy for Environment Canterbury.

Andy is the father of two special boys, Jake (7 years) and Charlie (4 years) who enjoy the excitement and stimulation that New Zealand has to offer.
The traditional approach to treating crash sites in New Zealand has generally been to focus efforts on reducing crash occurrence at sites with the most observed crashes. This reactive approach to road safety has been the subject of criticism and in recent times has failed to achieve the same level of improvement in road safety as occurred in the latter part of the 20th century. Road controlling authorities throughout New Zealand are now regularly experiencing diminishing safety benefits when treating crash locations. A potential reason for this is that focusing on treating sites with a high crash observation can be fruitless if the crash history is not substantially worse than the underlying likely predicted crash rate for the site.

These factors led our Paul Durdin to develop an innovative method of prioritising sites for investigation where road safety improvements are most likely to yield the greatest road safety benefits. Paul drew on existing crash prediction techniques for assessing road safety and combined this with a specialist GIS analytical approach that enabled the comparative safety performance of every intersection within a road controlling authority area to be evaluated in a very cost-effective manner. This innovative approach compares the crash history of a site against its predicted crash performance and prioritises sites for investigation based on a statistical measure of the difference between the observed crash rate and the predicted crash rate.

In September 2010, Abley approached the Christchurch City Council about the prospect of undertaking an innovative study of this nature to improve the identification of crash sites for investigation in Christchurch city. Thanks to the willingness of Christchurch City Council to embrace innovative thinking this study has recently been completed. Christchurch City now has a prioritised list of more than 1,100 intersections to investigate in more detail.

Innovation is one of Abley Transportation Consultants four values. As such, we are constantly searching to identify new and better methods of delivering quality outcomes for our clients. This project embodies the essence of this value.

The innovative nature of the project was recently recognised at the IPENZ Transportation Group’s annual conference in Auckland, where it was selected as one of three finalists for the prestigious 3M Traffic Safety Award.

The study enables road controlling authorities to ‘look in the right place first’. It overcomes the issue of sites not being considered for intervention because of what may have traditionally been perceived as not having a sufficiently high crash rate to warrant investigation. This study minimises the risk of potential opportunities to improve road safety from being overlooked and maximises the prospects of road safety funds being spent on projects that are most likely to generate the greatest road safety benefits.