

## Mission possible



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Happily, the hard work's paid off. Having recently gained resource consents, the Mission is into serious fundraising mode. Find out more from [www.aucklandcitymission.org.nz](http://www.aucklandcitymission.org.nz).



SUMMER 2010

ROADWAYS

## The changing urban landscape



Much like a skeleton, street networks are the structure and integrity of a community's fabric. However, the underlying framework has often gone unnoticed: developments taking shape with supporting infrastructure retrofitted. Fortunately, that scenario is changing. Transport networks are increasingly recognised as a vital foundation to successful, liveable communities.

This shift is largely due to the growing weight given to the discipline of urban design, particularly since the launch in 2005 of the New Zealand Urban Design Protocol, a voluntary 'code' recognising the impact of urban design on communities. The Protocol promotes seven design qualities and acknowledges the importance of transport networks in connecting and supporting healthy, sustainable neighbourhoods, towns and cities.

As both a signatory to the Protocol and member of the NZ Urban Design Forum, TDG invests significantly in promoting good urban design principles in its day-to-day business.

Harriet Fraser, Principal Transportation Planner in our Wellington office, holds the mantle of TDG's urban design 'champion'.

"We've always promoted quality urban design in our work but there's now a more formalised lexicon for articulating principles in projects." Harriet says this has contributed to a building awareness of the benefits of good urban design and the role transport plays.

Find out more about the New Zealand Urban Design Protocol at: [www.mfe.govt.nz/issues/urban/design-protocol/index.html](http://www.mfe.govt.nz/issues/urban/design-protocol/index.html)

"Decision makers are increasingly taking on board that **applying good urban design principles can deliver broader and, often, better community outcomes** than a tick-the-box approach to consents."

"Most are more prepared to be flexible and take a less prescriptive stand where they can see that quality urban design will deliver a value that stands the test of time."

One example Harriet cites is a more innovative approach to street design in urban residential developments. "In these situations it's often desirable for carriageways to be narrower to encourage lower speeds and provide for shared use. By integrating the concept of 'self explaining' roads, we can achieve outcomes that deliver key safety and liveability objectives that wouldn't otherwise be realised, and with a reduced carbon footprint. Often, it's also cheaper."

An important responsibility of being a signatory to the Protocol is a commitment to further the pursuit of good urban design in your own business. One of the ways TDG is doing this is through increased collaboration. "Increasingly we're incorporating specialist urban design capability on projects, and we've engaged in both master planning and enquiry-by-design processes."

## Serious about safety

Increasing traffic volumes and the attendant risk of injury and loss of life on New Zealand roads is the driver of a new Government road safety strategy *Safer Journeys*. Soon to succeed its predecessor (*Road Safety to 2010*), *Safer Journeys* promotes the safe systems approach to preventing death and serious injuries on the nation's roads. It's an approach that acknowledges that serious road trauma rarely has a single cause and focuses activity in four key areas:

- » safer roads and roadsides
- » safer travel speeds
- » safer vehicles and
- » safer road users.

"Working towards safer roads and roadsides forms a significant proportion of our day-to-day business," says Ian Carlisle, Senior Associate and Branch Manager of TDG's Tauranga office.

"Our expertise is regularly sought by road controlling authorities to assist with a range of crash prevention measures."

Such measures include safety audits, which involve assessing projects, often from inception to completion, to evaluate how well they meet safety requirements before road users get to use them. It's a task well suited to TDG's considerable safety expertise. "We undertake safety audits covering the full spectrum of road environments, from rural roads to urban motorways."

Crash reduction studies are another area in which TDG's expertise is highly sought after. "Collectively we have years of forensic experience in analysing crashes and determining measures that can help prevent reoccurrence."

Crash reduction studies combine an examination of crash records with investigation of crash sites by multi-disciplinary teams typically comprising the road controlling authority, New Zealand Police and consultants. TDG not only analyses the crash records and develops suggested solutions for the clients consideration,

## Expanding services

During a recent review of our Strategic Plan, we identified a client-driven demand for TDG to expand its 'value chain' of services and capabilities. To this end, we're pleased to introduce Richard Gruiters, Principal Design Engineer.



but also considers the holistic safety environment identifying characteristics that will prevent or reduce the severity of potential future crashes.

"The focus of this work is to identify affordable, retrofit solutions that address and prevent the identified issues."

Some common solutions in the safety toolkit include, signage, markings, speed zoning, surfacings, protective barriers – and increasingly – electronic signage. An important challenge in this work is to balance the potential to create over familiarity with prevention measures, with a 'no surprises' road environment. "Getting that balance right," says Ian "delivers the most effective solutions."

Based in our Hawke's Bay office, Richard's considerable geometric design expertise will provide a nationwide capability. Richard's expertise enhances our ability to offer a continuity of service extending from consenting through to roading, access and carpark design, and some construction supervision. Richard joins TDG after running his own civil engineering consultancy service, CivilTech Ltd, for over three years. His 16 years industry experience includes working for a multi-disciplinary consultancy, Hastings District Council and UK transport planning and engineering consultancy JMP Consultants.

## Setting the standard

Land development in this country is about to undergo even more change with the upcoming release of the revised New Zealand Standard for Land Development and Subdivision Design (NZS4404:2010).

The Standard is used as the basis for technical compliance with the Resource Management Act 1991 and covers earthworks, roads, drainage, water supply, services, and landscaping.

TDG Director Mark Apeldoorn has been appointed by the Institution of Professional Engineers of New Zealand (IPENZ) to the review committee.

"While the current Standard, NZS 4404: 2004, provides for flexibility in developing solutions, in practice, alternatives that integrate value-adding urban design outcomes have at times been difficult to achieve. The revised Standard aims to address that."

The review committee set out to create a standard that:

- » encourages sustainable and modern design
- » provides some certainty for designers and territorial authorities and
- » further prevents the potential for poor outcomes.

Mark says the most significant changes centre around roads and stormwater. "The new Standard puts considerably more emphasis on ensuring a road fits the place in which it's built, connecting the land use and transport functions. The focus is very much on achieving safe and 'self explaining' environments and on relating to the functional requirements of land use and adjacent places."

In terms of stormwater, the Standard encourages the management and treatment of stormwater 'before it gets into a pipe'.

"Together with a requirement that new systems consider climate change and potential sea level rise, the revised NZS 4404 strongly encourages designers to consider strategies for design that add value to the community they create."

The standard was distributed for consultation in late 2009. The revised Standard is expected to take effect in early to mid 2010 after submissions are considered.

Find out more at: [www.standards.co.nz](http://www.standards.co.nz)

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[www.tdg.co.nz](http://www.tdg.co.nz)

## Feature

Transport's role in rebuilding the economy

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An integrated approach to safety

The growing influence of urban design

Redeveloping Auckland City Mission

Updating NZS4404

Expanding Services



## Welcome



**“Every new beginning comes from some other beginning’s end”,**

according to Roman Stoic statesman Seneca.

Here at TDG we are already stronger and better equipped than we were in 2009, and we are looking forward to the opportunities 2010 will present.

As a vital element of this country's infrastructure, transport has an important role to play in rebuilding economic strength. Transport infrastructure is the network of arteries through which commerce is conducted, through which lives are lived. This issue of Journeys looks at how Traffic Design Group (TDG) is helping to ensure those arteries are functioning healthily to deliver efficiency, safety, sustainability and 'liveability' in communities all around New Zealand.

And, with the economy now showing some strong signs of recovery, all of us here at TDG wish you the very best for the year ahead and look forward to helping you enjoy a successful 2010.

## Efficient transport the foundation of a strong economy

We weren't long into 2009 when the nervous whisperings of 'recession' turned into a concrete reality. However, a recurrent catch cry that accompanied the headlines of business downsizings and closures as the year progressed was of the need to be prepared for the eventual upswing.

For those involved in transport, that call to action is critical to New Zealand's future: transport has a foundational role to play in supporting economic growth. Think back to this country's settlement – it's only as roads and rail connected towns and communities that a nation-sustaining economy could be built. While today, fundamentally we have the routes needed to maintain our economy, ensuring those routes operate efficiently is vital to building the future prosperity of New Zealanders.

The New Zealand Transport Strategy 2008 (NZTS), released prior to the recessionary bite on the economy, draws a strong link between transport and the economic development of the nation: 'New Zealand needs a transport system that supports and assists long-term economic growth and the more productive use of resources'. In drawing that link, the NZTS also acknowledges the enormity of the task, recognising that 'business as usual' won't achieve the desired results.

TDG Director Mark Apeldoorn says helping clients see new approaches and opportunities is where the company's expertise can offer greatest value in supporting the objectives of the NZTS. "We're currently very focused on how clients can open up opportunities for growth in their activities. This is something we've been involved in for both private and public sector clients, particularly with the development of structure plans and land rezoning projects."

According to Mark, taking a strategic and integrated approach is vital. "We're able to bring to the table skills that enable developments to be well planned, having considered all transport implications. For example, working on a commercial development we'll look to incorporate links with public transport, walking, cycling and travel demand-based facilities from the outset, integrating them right from the development's concept, rather than treating them as add ons. This way, efficiency is achieved almost inherently, and certainly, most cost effectively."

Operational efficiency is a strong feature of the NZTS. The Strategy promotes the application of cost-effective measures that achieve maximum efficiency from any existing network. This is most particularly in light of the rapid increase in the demand for transport – road freight alone is expected



to double by 2040. To deliver such a system brings into play considerations such as the impacts of congestion on supply chains.

In responding to the challenge, the NZTS identifies improving the efficiency of supply chains and ensuring critical transport corridors and infrastructure support the movement of goods, services and people. They are also key drivers for the Government's priority routes, the Roads of National Significance and the emergent thinking around the National Infrastructure Plan.

Mark says TDG's expertise is also helping clients deliver on these goals. "We've got the knowledge, technological tools and proven capabilities to ensure travel is more efficient. We're moving beyond optimisation of the flow path of a single corridor and taking a broader network optimisation view."

This view incorporates all approaches to the main corridor, recognising that while avoiding backlogs on the main corridor is a priority, so is avoiding clogged and emissions-producing feeder roads. "The overall push here is to manage traffic to improve reliability, which along with reduced average journey times, is a key impact on supply chain efficiency. We've invested in software and training, particularly in LinSig, to ensure we can deliver on this need."

Find out more about the NZTS on the Ministry of Transport website: [www.transport.govt.nz/ourwork/KeyStrategies/new-zealand-transport-strategy/](http://www.transport.govt.nz/ourwork/KeyStrategies/new-zealand-transport-strategy/)

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