

TRANSPORTATION 2022 CONFERENCE SETTING UP FOR SUCCESS – DESIGNING FOR PEOPLE THINK PIECE

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ABSTRACT

In New Zealand, planning and design principles are moving towards providing equitable and inclusive transport networks for communities. Over the past decade, the industry has seen significant changes in best practice guidance, particularly for active modes and road safety. At a national level, this has arrived in the form of guidance for walking, cycling and setting of speed limits. The introduction of movement and place into the One Network Framework shows a commitment to integrating the needs of people and place function when planning and design our built environment.

Despite the presence of this national guidance, many new developments and infrastructure projects have been built that have resulted in poor design outcomes. Typical examples include residential collector streets with a speed limit of 50km/h, but that looks more likely an airport runway than a street for people to live in, or local roads with a footpath on one side of the road (or not provided at all!). Taha whānau (social well-being) and Taha tinana (physical health) are more likely in urban environments that create safe and attractive environments for people to walk, cycle and spend time together.

How is guidance at the national level translated into requirements at the local level? What are the key challenges that lead to compromised design outcomes? In this paper, we explore some of the ways that we can enhance and change our processes and traditional thinking. What can we do as individuals and practitioners to provide good design outcomes for people? This paper provides recommendations to enhance existing guidance, planning and design processes and work together to bridge the gap.

1. INTRODUCTION

New Zealand is at the beginning of a step-change in how streets are planned and designed. The focus is shifting from design for moving and storing vehicles to design for people and communities, focused on health, wellbeing and safety. At a national level, this includes:

- the development of the One Network Framework (bringing place as well as movement into our national road classifications)
- the adoption of the Road to Zero Road Safety Strategy 2020-2030 (New Zealand Government, 2019);and
- the development of new design guides for urban streets and pedestrian and cycle networks.

At a local level, many councils have revised district plans and codes of practice with some areas adopting new approaches such as street design guides and toolboxes.

Despite these changes, best practice street design is often not reflected in new subdivision development. With a nationwide focus on delivering more housing in urban centres, developers are responsible for delivering a substantial amount of transport infrastructure that will be in place for many years to come. This infrastructure heavily influences how people travel now and, in the future, so it is essential to develop inclusive designs that promote active travel choices, help to improve road safety and contribute to positive health, wellbeing and social outcomes. People-focused design with good infrastructure and local facilities creates good long-term outcomes and can attract buyers. However, the appeal of these factors to developers can be limited in a buoyant housing market.

This paper examines key barriers to achieving the good design outcomes that are being promoted both nationally and locally. As well as identifying what can and is being done to overcome these barriers in the public sector, we examine what can be done by individuals and practitioners to drive better outcomes in the shorter term.

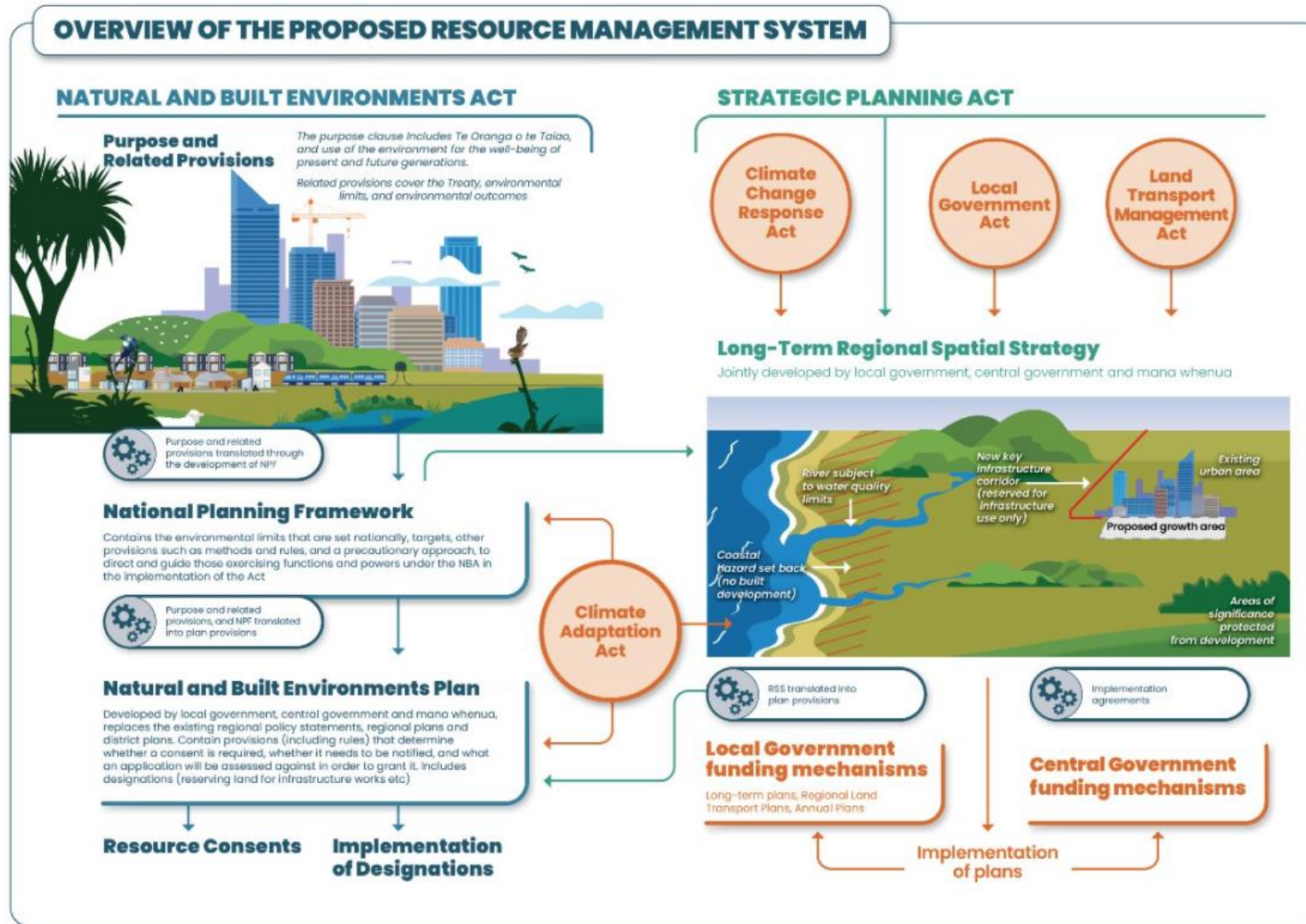
2. EXISTING POLICIES, STANDARDS AND GUIDANCE

2.1. National

Central government sets regulatory, planning and funding frameworks. The delivery of transport infrastructure, particularly related to new development is covered under multiple policies and Acts, which are not always consistent with each other and can be difficult to navigate, requiring specialist input across many fields. Even with proposed RMA reform (**Figure 1**), this remains a complex system.

In addition to the regulatory, funding and policy side, Waka Kotahi and other Government agencies develop a range of guidance and design standards. These range from overarching documents such as Road to Zero and the One Network Framework to detailed specialist areas such as design for vision impaired pedestrians. The recently published “Aotearoa Urban Street Planning and Design Guide. He Whenua, He Tangata” (Waka Kotahi,2021) references well over 100 resources and links to assist in the planning and design of urban streets. Again, this can be difficult to navigate and require multi-disciplinary understanding.

Figure 1 – Overview of the proposed resource management system (Ministry for the Environment, 2021)



2.2. Local

At the local authority level, generic road design requirements for new developments are typically communicated through a mix of District Plan rules and Development Codes of Practice. Some authorities that have reviewed the transport requirements in their codes of practice more recently, such as Auckland Transport and Tauranga City Council, have moved from traditional cross-section design processes to street design guides and tools based on place and link metrics putting people rather than vehicles at the centre of design. This thinking is also now being reflected nationally in the One Network Framework and the draft “Aotearoa Urban Street Planning and Design Guide”.

Whatever the format, design guides and codes of practice do not have any legal status or statutory effect unless they are incorporated into a statutory planning document such as a District Plan. In essence, this means that developers can only be required to meet these requirements at the consent stage if they are included in a plan that has a typically long, expensive and public process for any changes to be effected. This prevents local guidance from being agile to change in a rapidly changing environment.

For specific networks and design in new urban growth areas, structure plans are a useful mechanism for promoting integrated management of environmental issues and providing for the needs of future residents. Covering all elements of infrastructure and place, some structure plans will also identify public transport, walking and cycling networks, specify cross sections for key routes and set rules for how the network is formed. Structure plans that are not incorporated into district plans may be considered as other matter when assessing a resource consent with the weight given to a structure plan in that process being higher when a more robust process of consultation and hearings has been followed. Structure plans take many years to develop and often many more years to roll out. For example, the Pyes Pa West residential structure plan in Tauranga was developed between 2003-2005. The final stages are currently being completed with design outcomes based on matching into existing development using a design model that is almost 20 years old.

3. WHAT IS ROLLING OUT?

As housing shortages and land pressures increase the need for urban intensification, and greenfield growth areas roll out with much higher densities the pressure on transport corridor widths increases. How developers and consenting authorities determine what elements should be included within constrained areas depends on many factors. Street typologies, network designs and the quality of urban form vary significantly across New Zealand and sometimes even within local areas. This can be dependent on how developers perceive their market. In Auckland a new car-free development is proposed, whilst it is not unusual in urban centres for new subdivisions to be developed with 10m carriageways, no cycle facilities and narrow footpaths provided only on one side of the road.

It is notable, that whilst the Road to Zero (New Zealand’s Road Safety Strategy 2020-2030) identifies the need for safety conscious planning to be embedded: *“A safe road network starts with good planning. We need to start by embedding our road safety principles into infrastructure planning, design, operations and maintenance decision-making. Infrastructure is expensive and long-lasting, so it is important to get it right, and to properly prioritise where we invest”*. Safe system design is rarely demonstrated in new developments, with priority controlled cross-road intersections being common and design elements like raised safety platforms being relatively rare.

4. WHAT ARE THE DRIVERS OF POOR OUTCOMES?

Across New Zealand, there is a focus on delivering urban development and new housing with developments being planned or rolling out with an increasing level of urgency. Best practice is evolving rapidly and whilst policy and guidance documents are keeping pace, at least at a national level, there is a lag in this translating to the infrastructure standards and district plans against which transport design for new developments are assessed. With the scale and rate of development occurring nationwide, there is a real risk that the infrastructure being consented is out of date before it is even constructed.

4.1. The bare minimum, or good practice?

The compliance-based structure of District Plans is an enabler of subdivision designs that meet a set of minimum requirements rather than best practice. Where best, or even good practice is not incorporated within the rules, consenting authorities are limited in their ability to require design changes, whether they reflect good practice or not. Meanwhile, the extensive regulatory processes required for District Plan changes mean that councils are limited in their ability to keep their plans up to date with best practice. Even where references are made to external documents, they must be to a specific version of that document and therefore have the same issues in keeping pace with change. This situation means that poor transport design outcomes are not necessarily a barrier to receiving a resource consent.

There are also discrepancies between resource consent, Development Works Approval (DWA), and building consent processes which are often dealt with separately and treated as mutually exclusive. Proposals can meet the requirements of a District Plan and gain resource consent but can then fail to meet code of practice requirements to be vested under the DWA process, and / or fail to achieve transport-related building code requirements. Resource consent cannot be withheld based on these issues, but it is inefficient and often infeasible to substantially alter the design at the later building consent or DWA stages. Based on this regulatory environment, achieving good transport design outcomes can be dependent on the buy-in of developers. In turn this requires developers to identify and understand the value proposition for them in applying good transport design practices.

4.2. Translating policy and guidance into good practice

The latest Waka Kotahi guidance on Street Design, the Aotearoa Urban Street Planning and Design Guide He Whenua He Tangata, references more than 100 resources and links in the street and network design field. This does not include legislation and standards relating to development, such as the Resource Management Act, Building Code or NZS4404: Land Development and Subdivision Infrastructure, or local guidance and codes that would relate to development requirements.

Whilst it is important for new policy being developed, such as The Government Policy Statement for Transport, new Climate Change policies, Vision Zero and National Policy Statements for Urban Development to be translated into guidance for practical application, the result is that developers and transportation practitioners are required to have a deep understanding of wider legislative and design requirements. However, with time and money being of the essence, the default is typically to the minimum requirements of District Plans, NZS:4404 and other documents which are used day to day by developers and designers but have review cycles that are not agile to changing guidance.

4.3. Gaps and inconsistencies

Whilst newer guidance often reflects the latest thinking and policy direction, District Plans and codes of practice, national standards and more traditional guidance documents tend to have more comprehensive review requirements and can be less agile.

For example, vision zero clearly sets out an expectation that safety will not be traded off against other outcomes, and national speed management guidance sets out expectations, but NZS:4404 continues to specify a 50km/h target design speed in suburban areas.

Similarly, NZS:4404 and local Codes of Practice tend to focus on mid-block cross sections, but do not necessarily reflect safe system thinking around wider network design, reinforcing slow speed residential environments or elements like intersection forms and pedestrian crossing points.

4.4. Moving towards better practice – dealing with consistency

Larger structure planned developments can take many years, even decades to roll out and even smaller developments may be split into stages. Standards, guidance and district plan requirements that change between stages will often be successfully argued against on the basis of consistency. Whilst this can be reasonable, it can also lead to developments rolling out to significantly outdated standards. Similarly, it can be difficult for Councils to require developers to provide better infrastructure for intensification or greenfield development where it does not tie into an existing network. With a national focus on delivering new housing stock, these approaches could lead to poor infrastructure outcomes that New Zealanders will be living with for generations to come.

5. HOW OUTCOMES CAN BE IMPROVED

It is clear that the desired outcomes for new developments and thinking around street design is changing significantly and rapidly but that the reform required to force those changes is significantly slower. Steps can still be taken by organisations and practitioners to make meaningful change whilst Resource Management reform and other legislative changes are underway.

5.1. Government and Local Government

There are five main themes to action that could be led nationally and taken up locally to improve outcomes.

Improving clarity

There is a proliferation of policy, legislation, standards and guidelines for street and network design. A better understanding of how these documents fit together and can be used to develop holistic and best practice design could be fostered by developing a national “one stop shop” toolkit of design standards and guidelines. This would include a summary of which documents are the lead documents and which apply in specific circumstances. Over time this could be expanded to include case-studies and examples of best practice.

At a Council level this “one stop shop” could be used as a reference in codes of practice, and as a tool to provide advice on applications. There is also an opportunity for advice to be provided at the Resource Consent stage on issues that may arise at future stages such as DWA to avoid costly re-work.

Change Management and thought leadership

Because of both the pace and scale of change in street design practice, a thorough change management strategy needs to be adopted at a national level to ensure that the right outcomes are sought and achieved. Whilst local government is commonly engaged when new standards and guidelines are developed at the national level, this needs to be expanded to all areas with responsibility for designing and delivering transport outcomes. This would include Local Government, designers and practitioners in the private sector and the development community. One key area where developers can be engaged at a national level is where those developers are government agencies. In particular, the Ministry of Housing and Urban Development, and Kainga Ora, but also other agencies delivering public infrastructure impacting on the transport network such

as the Ministry of Education and the Ministry of Health. If these organisations are at the forefront of best practice design, it provides context and demonstrates the value proposition for the wider private sector development community.

At a local level, Councils can get better buy-in to and understanding of best practice street design when developers and their consultants are actively engaged in the changes to District Plans, Codes of Practice, structure plans and street design guidance and tools. This allows Councils to bring developers and consultants up to speed with their thinking, but also to understand the issues arising from a development perspective. Whilst we continue to operate in a scenario where a bare minimum is acceptable, the value proposition to developers of better practice needs to be promoted and managed to achieve better outcomes.

A role to play in reform

As an industry there is an opportunity to advocate for the RMA reforms to move away from a minimum requirements culture and provide for a more agile approach that allows for continuous improvement and design best practice to be embedded into new developments.

Embedding best practice

Whilst wholesale district plan reviews are likely to be off the table during the RMA review, there are still opportunities to include best practice using other mechanisms. Codes of practice can be reviewed and updated to ensure that they are fit for purpose, and structure plan processes can embed best practice. These measures also allow for meaningful engagement between local government and the development community.

Planning for consistency

One barrier to implementing best practice in new developments is the lack of infrastructure to tie into beyond the development. By working more collaboratively with developers on larger scale developments and structure plans, Councils can identify areas where public infrastructure can be improved so that best practice design in new developments ties into a wider network. Whilst this may not always be practical or affordable, where the opportunity can be taken it allows both developers and Councils to leverage off each other's investments to provide better outcomes for a whole community. This approach also improves the value proposition of better practice for developers.

5.2. Individual practitioners

Whilst a sector wide approach is required for coherence and consistency, individual practitioners across all sectors still have a role to play in promoting better practice and improving outcomes. This can be enabled and supported by professional organisations such as the Transportation Group providing thought leadership in these spaces. This includes:

- Providing advice as consultants to developers on the benefits to them of applying better design practice
- As practitioners assessing development applications, engaging with the development community and using those relationships to be clear on the benefits in applying better practice.
- Leading change and promoting key documents and thinking within our networks
- Engaging with related professions and decision makers to promote better practice and identify the benefits of change. Advocating for transport professionals to be included in wider design teams earlier in the process.
- Develop a community of practitioners and share best practice

CONCLUSIONS AND RECOMMENDATIONS

Overall, it is clear that whilst New Zealand is at the beginning of a step change, there are a plethora of policies, standards and guidelines that are not always consistent with each other and have not always kept pace with the change in thinking. Best practice is not clear to practitioners, and developers are typically focused on delivering at pace and with the best margins. As an industry there are three key steps that can be taken at organisational and practitioner levels to improve outcomes whilst wider legislative change occurs. These are:

Improve Clarity

- Demystify the process - clarify the existing policy, standards, and guidance
- Increase understanding of best practice definition and case studies for transport professionals and land developers, landscape architects, planners and civil engineers through professional groups.

Engage with developers and decision makers

- Work more closely with the development and consulting communities.
- Engage developers early in review of codes of practice and district plan requirements
- Develop and promote the value proposition for developers and decision makers in applying better practice.

Reform

- Advocate for better outcomes through the reform underway – moving resource management away proposals intended to satisfy minimum requirements and creating good design & community outcomes.
- Councils can review codes of practice and district plan requirements as well as how the process from resource consent to development is managed.

AUTHOR CONTRIBUTION STATEMENT

Tracy Fleming – Development of ideas and thoughts, paper review
Bridget Carden – Development of ideas and thoughts, paper review
Clare Cassidy – Literature review and preparation of paper

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