

Āpōpō/UC Event

Infrastructure for People & Communities

Andrew Robinson, Head of Programme Management

Office, Christchurch City Council

17 October 2023

The Infrastructure Challenge

Looking Ahead: The infrastructure challenge



We need to spend **\$60 on maintenance** and renewal for every **\$40** we spend on new infrastructure



Infrastructure construction costs have risen **60% faster than prices** elsewhere in the economy



New Zealand will have a shortfall of **118,500 construction workers** in 2024



Half of population growth will be in **five major centres**



115,000 more homes are needed to fix the current housing crisis



There is a **75%** chance of an Alpine Fault earthquake by 2070



By 2050 **one in four NZers** will be over the age of 65



\$90 billion to fix up water networks



New Zealand's population will grow to **6.2 million people** (or more) over 30 years



\$5 billion of council infrastructure is exposed to sea level rise



Electricity generation capacity needs to **increase by 170%**



The average Auckland commuter spends over **5 days in traffic** per year

Cost Pressures

Wellington Town Hall earthquake-strengthening skyrockets to \$329m

City Rail Link: Officials unsure of cost of budget-breaking project

Government's \$8.7 billion transport projects flash 'red', one year after first budget blowout

Interislander project faces 'significant' cost pressures

\$150m cost blowout as Christchurch stadium delayed again

Beds cut as Dunedin Hospital budget balloons

What I'll cover

- Context and Challenges faced today
- A few Career Project Highlights addressing the Challenges
- My Current Challenges
- How you can develop your career

How I've faced some of the big issues

Challenges & Cost Pressures in NZ Infrastructure Development (Te Waihanga)

Inputs – Labour shortages & capital funding

Productivity - conversion to outputs - value for money and benefits

Geography (NZ context - Soils/EQ/Resilience)

Policy & Regulations (leading to stakeholder engagement)

Projects from down on the farm

- Cow welfare
- Pasture management
- Productivity
- Efficiency
- Environmental improvement
- Asset optimisation and generation
- Teamwork
- The cows don't wait



Public Facilities – What Is Value for Money



- Strong business case
- Wider public/regional advantage
- Very clear Brief and Scope of work
- Cost Estimation vs Project Funding

- Project Controls
- Stakeholder engagement
- Regulatory Environment
- Think with the end in mind

Ageing Infrastructure & Building Resilience

- Understand what you've got
- Risk approach – insurance
- Maybe not always sexy but a great business enabler
- First responders and owners of knowledge
- Client decision making
- Don't leave it too late



NZ Unique Issues

- Understand your environment
- Geological conditions
- Sensitive areas and communities
- Don't forget your body armour
- Consenting timeframes
- Partnerships

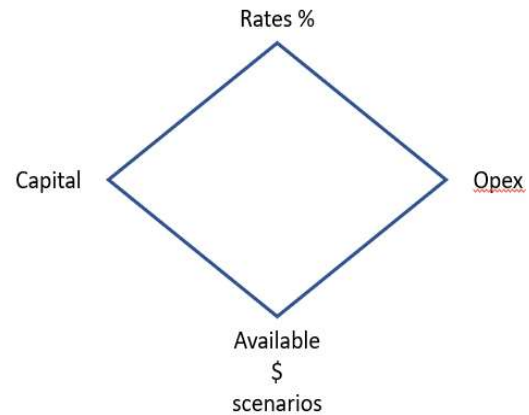


20 October 2023

My Current Challenges

LTPs contain an immense amount of detail and process, but the core issue is always the same – understanding the major drivers, then striking the right balance.

There will be some trade-offs and compromises to these factors and our strategic aspirations.



The CCC Long Term Plan

We need to look after what we've got, and deliver what we say

Deliverability
Affordability
Prioritisation
Looking after existing assets
Recognising constraints

We need to ensure our infrastructure is resilient to impacts of climate change and natural hazards

Anticipate, plan and prepare
Community resilience
Understand and reduce emissions
Strategic decisions as adverse events increase

We need to plan and invest for growing and changing demand

Future-proofing
Growing *and* changing population
Factors outside our control
Shapes our response to climate change, environmental issues and community resilience

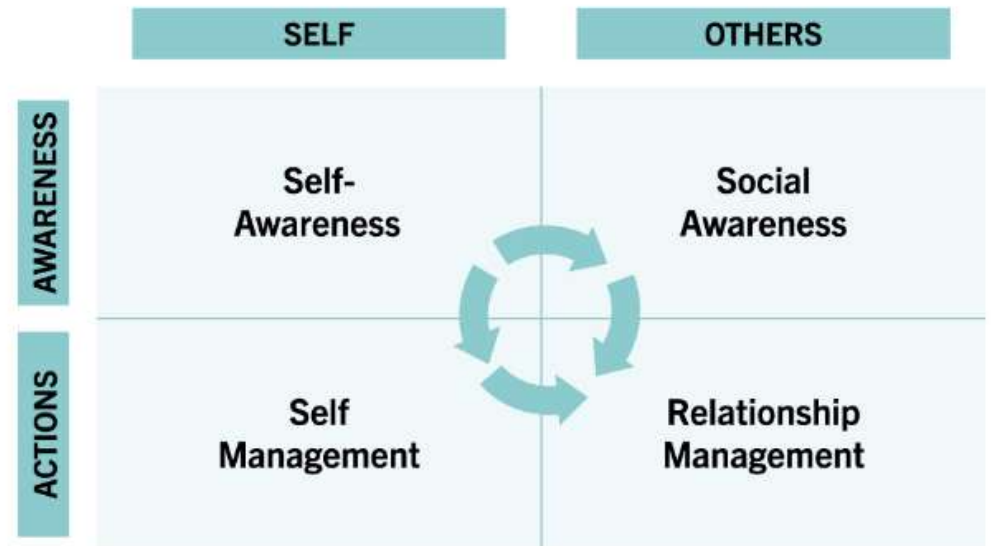
We need to continue to improve our understanding of our infrastructure so we can make the best decisions for our community

Perform, plan and spend the best we can
Understand our infrastructure
Improve value for money
Evidence-based conversations

How can you prepare and develop?

- Develop strategic acumen / curiosity / be inquisitive
- Take an enterprise wide approach – and get inside the head of your clients/customers
- Interpersonal skills / EI / advanced people leadership skills
- Plot a general course but don't be afraid to experiment and take the odd detour
- The opportunity that presents itself rarely comes at the perfect time

- Technical Skills, Qualifications & *Experience*



A few quotes to finish



"We shape our buildings; thereafter they shape us,"

Sir Winston Churchill in his speech to the meeting in the House of Lords, October 28, 1943



You can't manage what
you can't measure

Peter Drucker

Thank you