SCIRT Rebuilding Infrastructure

LEARNING LEGACY

Lessons learned from one of New Zealand's most challenging civil engineering projects: rebuilding the earthquake damaged pipes, roads, bridges and retaining walls in the city of Christchurch 2011 - 2016.

LINZ Forward Works Viewer Brochure

Story: Forward Works Viewer

Theme: Programme Management

A promotional brochure explaining the Forward Works Viewer and that the tool was a key to cost-effective and efficient project delivery in Christchurch.

This document has been provided as an example of a tool that might be useful for other organisations undertaking complex disaster recovery or infrastructure rebuild programmes.

For more information about this document, visit www.scirtlearninglegacy.org.nz

Programme funded by
Christchurch City Council
New Zealand Government

Programme funded by
Christchurch City Council
New Zealand Government
city care
Downer
Fulton Hogan
McConnell Dowell
Fletcher

To date, $4 million of benefits have been attributed to the Forward Works Viewer with $20 million of benefits forecast for the next two years.

"Given the complexity of the rebuild and our own substantial work programme, the Forward Works Viewer has been essential for Southbase to coordinate our planning and programming capability"
- Quin Henderson, Southbase

"We have used the Forward Works Viewer over the last couple of months. It is a useful tool for us because we can use it to see what other work is being planned and organised in the central city. We can determine how this other work will affect our clients work. Consequently it helps us determine how to do our traffic management plans and gives us the ability to work in with other contractors working in the same area."
- Chris White, Whites Traffic Management

To watch a short video about the different ways the Forward Works Viewer is being used to coordinate the rebuild visit:
http://youtu.be/nDX9JlM716Q

To request access to the Forward Workers viewer visit:

www.forwardworks.co.nz

A coordinated Canterbury Rebuild is possible because of the Forward Works Viewer and the willingness of agencies, utilities, telecommunications companies and the private sector construction industry to share data.

The Forward Works Viewer strongly supports agencies responsible for the rebuild and for network operations by:

- Enabling fast-paced project delivery
- Minimising cost for developers and clients
- Keeping transport and utility networks operating
- Sharing road-space appropriately between competing needs
- Minimising issues that burn time to resolve

Christchurch City Council

Christchurch Central Development Unit

CERA Canterbury Earthquake Recovery Authority
Te Mana Haumanu ki Waitaha

Land Information New Zealand
Toitū te whenua

NZ TRANSPORT AGENCY
WAKA KOTAHI

SCIRT
Rebuilding Infrastructure

For further information, call the CERA Construction Management Office (CMO) on 0800 RING CERA or email cmo@cera.govt.nz

Forward Works Viewer

The key to cost-effective and efficient project delivery in Christchurch

www.forwardworks.co.nz

Forward Works Viewer

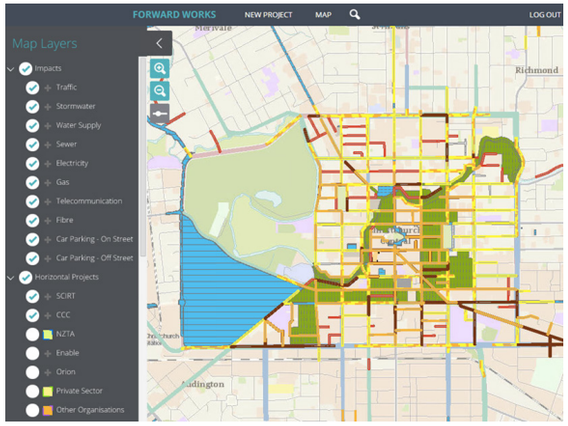
The key to cost-effective and efficient project delivery in Christchurch

The world of project delivery in Christchurch has changed significantly. Today's planners and developers require a holistic view of current and planned vertical and horizontal construction, repair and maintenance activities in order to identify opportunities and to avoid undue network impact or clashes.

To this end, the Forward Works Spatial Coordination Project has developed the Forward Works Viewer. This is a free, secure and interactive online tool that offers users a two-dimensional view of rebuild activity in Christchurch. The system aggregates data from public sector asset owners, utilities, and private sector property developers through into a single viewer.

The Forward Works Viewer enables planners, developers and other industry professionals to visualise forecasted repairs by location and time, helping to minimise disruption and ensure efficient project planning and coordination.

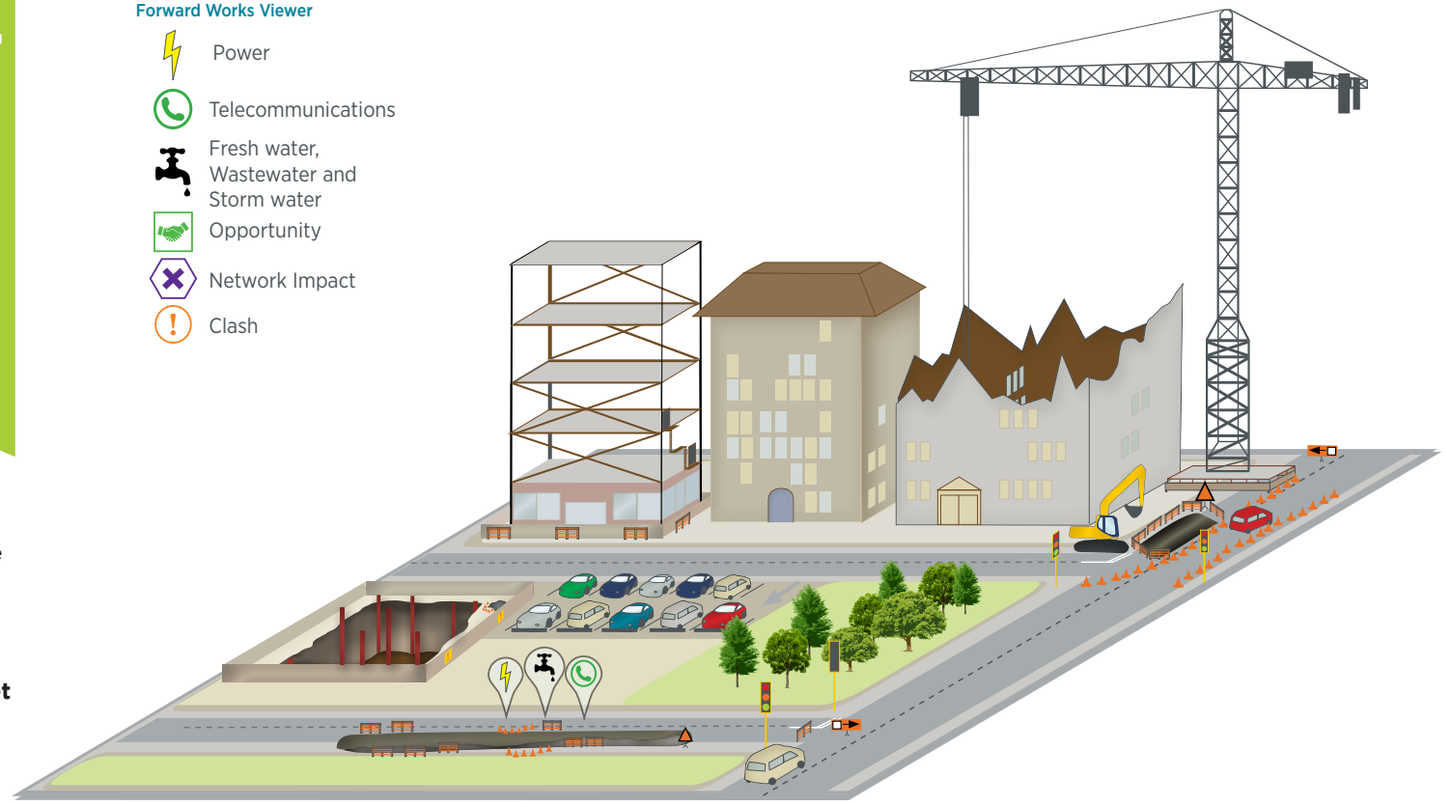
Our city requires projects to be delivered efficiently, on-schedule and on-budget whilst still maintaining essential services to businesses and residents. Your engagement with the Forward Works Viewer will make this possible.



Screenshot of the Forward Works Viewer

Icons relating to the Forward Works Viewer

- Power
- Telecommunications
- Fresh water, Wastewater and Storm water
- Opportunity
- Network Impact
- Clash



Opportunity

Reduce costs and delays by coordinating with other planners and developers working in the same vicinity as you to identify efficiencies.

A shared trench is an example of an opportunity. In this instance work on telecommunications,power and underground infrastructure can be performed concurrently in the same work site,as opposed to impacting the road corridor three separate times.

Use of the Viewer can help to identify opportunities for coordination.

Network Impact

Identify and respond to forecast network impacts.

A network impact is a closure or capacity reduction of the infrastructure network.

Knowledge of network impacts allows network managers to mitigate the effect these impacts can have.

Clash

Identify and respond to clashes before they occur.

Unforeseen clashes occur frequently when project planners do not have visibility of work happening around their site, resulting in potentially significant costs and delays.

For instance, delays to horizontal infrastructure work along a road corridor could occur due to a crane already occupying one lane.