

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.

Engineering collaboration with Red Cross

Story: SCIRT and Red Cross Collaboration

Theme: People and Culture

A document which outlines how SCIRT and the New Zealand Red Cross worked together to aid the recovery of 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



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Engineering collaboration with Red Cross

Wanting to create a better environment for the residents of an earthquake-hit city, the Stronger Christchurch Infrastructure Rebuild Team (SCIRT) and the New Zealand Red Cross (NZRC) joined forces to identify opportunities for project collaboration.



Post-quake, SCIRT and NZRC shared a purpose-built office in pursuit of a shared goal of aiding the recovery of the city and the multiple communities left traumatised. Working in collaboration helped lead to the realisation of those goals.

That collaborative approach was born out of a casual meeting at one of the many recovery workshops held in Christchurch after the earthquakes. Former SCIRT executive general manager Duncan Gibb and principal Red Cross adviser Elizabeth McNaughton fell into conversation, discussing synergies that could be identified if the two groups worked together. The Red Cross was soon invited to share space with SCIRT.

Utilising the strengths and skills of an engineering entity and a humanitarian organisation, a “design thinking” workshop in February 2015 focused on collaborative opportunities that could be trialled. Four concepts were identified, prototyped and refined. A goal was defined: “To enhance service delivery and community resilience in greater Christchurch earthquake recovery projects through collaboration and innovation.”

At the workshop, an action plan – leading to a “wall of opportunities” covered in Post-it note ideas – was

developed. Proposals were ranked on their ease of implementation against the level of impact.

Project pilots

Initially, four projects were piloted:

1. Grow your street

Working with residents, SCIRT and NZRC would help beautify berms in hard-hit areas.

2. Humaneers

Wanting to ensure better outcomes, the partnership between humanitarian workers and professional engineers would be explored. Utilising, for example, the lessons from the emergency response, could a more co-ordinated response ensure a better outcome?

(The science of “humaneering” targets higher levels of individual and operational effectiveness and productivity.)

3. Zipper Plan

Aiming to work more closely, a plan to “zip up” the two organisations and match up key contact points for both groups would be developed.

4. Datasync

Recognising collaboration could take many guises, steps would be taken to share knowledge on how best to capture and display data using GIS. By displaying NZRC information geospatially, this would help identify trends and inform policy decisions.

Seeds of success

Of the initial concepts, the “**grow your street**” idea certainly took root in Christchurch’s east.

With one of the SCIRT delivery teams finishing operations in Southshore, Red Cross and SCIRT took

the opportunity to provide residents a morale boost by beautifying their street berms with a planting day in November 2015.

Red Cross ensured donations were invested back into the community by supplying the plants, using money raised from the Run 2 Remember fun run. Embracing the collaborative approach, the Christchurch City Council provided free mulch and Trees for Canterbury offered the plants at a discounted rate.

SCIRT and Red Cross volunteers were among the “planters” as they shovelled their way through the thick clay underground to plant almost 1000 native grasses and shrubs on the berms of the main road through the earthquake-affected suburb.

Under the “**humaneers**” pilot project, a structured, interactive learning system was introduced so SCIRT engineers and Red Cross leaders could develop their professional skill-sets, in turn creating a “humaneer network” for disaster recovery.

An active learning workshop for shoulder-tapped SCIRT leaders was held to discuss how projects were prioritised early in the Christchurch rebuild, and what could be done to improve outcomes for the community. A handful of Red Cross managers joined the workshop as wild-cards and to ask questions and offer considerations using a humanitarian lens.

Both organisations could value the different ways of thinking. Extra skills and experience could be utilised

by the other organisation. The importance of co-working at an early stage was highlighted by the success of the collaboration.

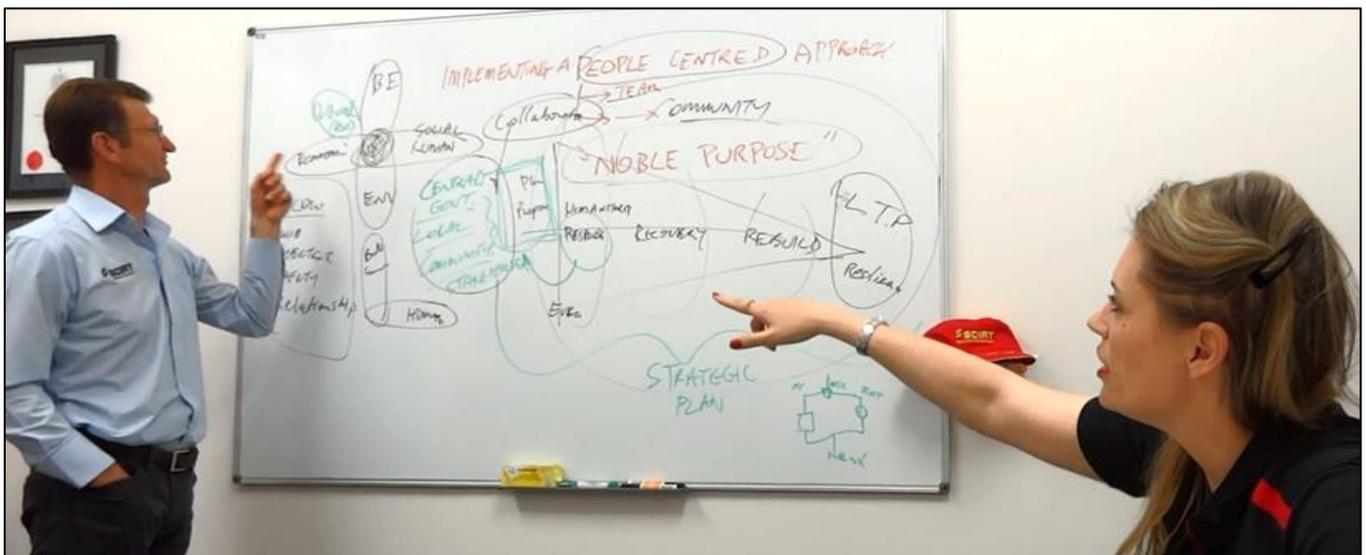
The “**zipper plan**” project saw Red Cross community outreach workers and SCIRT communications people “zipped up” to work together.

The two organisations carried out community door-knocking in some of the city’s worst-hit areas. With a requirement to work in pairs, the support of Red Cross enabled SCIRT to visit more residents and gain a better understanding of residents’ perspectives. Equally, Red Cross members realised the pressure placed on SCIRT workers and helped with community expectations.

The “**Datasync**” project involved SCIRT GIS specialists helping Red Cross recovery team members with several tasks, including data development and knowledge sharing (including training).

The Red Cross recovery team used the information provided by the GIS team to target areas for “Winter Warmer” packages in the residential red zone, and to undertake surveys with those residents for a project with the Human Rights’ Commission. Red Cross then fed back updated information on the status of red-zoned houses so SCIRT could update its records.

Working together and sharing data, information and knowledge provided multiple benefits, offering more opportunities for alignment on post-disaster recovery.



Duncan Gibb, SCIRT and Elizabeth McNaughton, Red Cross, join forces to aid the community.