

Although this model has been largely successful in achieving its goals, with nearly 78% of the projected work completed thus far, there have also been major barriers in re-establishing underground infrastructure in a timely manner. Because the cost of damage incurred was upwards of NZD \$40 billion, a stable funding agreement while initially effective, quickly began to give way.

The three primary funding agencies could not agree on priority funding areas and the scale of rebuild required. The funding responsibilities also became contentious, with the owner-participants being unable to decide what portion of the costs they were required to pay.



Image: A temporary shipping container mall erected to help local businesses recover while the construction of a permanent mall is underway.

The City of Vancouver has been anticipating a major earthquake, predicted by some experts to be a magnitude of 9.0 on the richter scale. While the City has effectively developed an Earthquake Response Plan, based largely on the actions taken by Christchurch immediately post-disaster, the City still lacks an effective framework to address major issues related to the rebuild of critical infrastructure and the various funding strategies required to do this. The structure of this model allows it to be developed before disaster strikes; allowing public sector funders to develop a framework that assigns responsibilities for particular infrastructure projects anticipated in the recovery process. Economic and disaster modelling can provide funders with an anticipated budget and can allow them to develop strategies to meet individual targets. Setting clear priorities ensures that key players are held responsible for contributing the necessary funds to rebuild underground infrastructure after emergency services are delivered.

Potential funders could include local governments, the BC Ministry of Transportation, the Province of British Columbia and the Federal Government. Other funding agencies may also be identified for alternative funds related to emergency housing provisions and the like.

While Christchurch's progress has been slower than most would have anticipated; the scale of destruction, the cost of damage, and the continuous onslaught of aftershocks have proven challenging. These realities however, are ones that need to be recognized by local governments in British Columbia as being the likely outcome of disaster when it strikes. What can be planned for however, is how frameworks can be set up to effectively deal with the enormous cost of rebuilding a city from the pipes up.



Image: Construction continues on the City's main stadium in the downtown core.