

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.

Retaining Wall Assessment and Prioritisation IPWEA Presentation

Story: Retaining Wall Assessment and Prioritisation

Theme: Design

The presentation of the paper to the IPWEA conference.

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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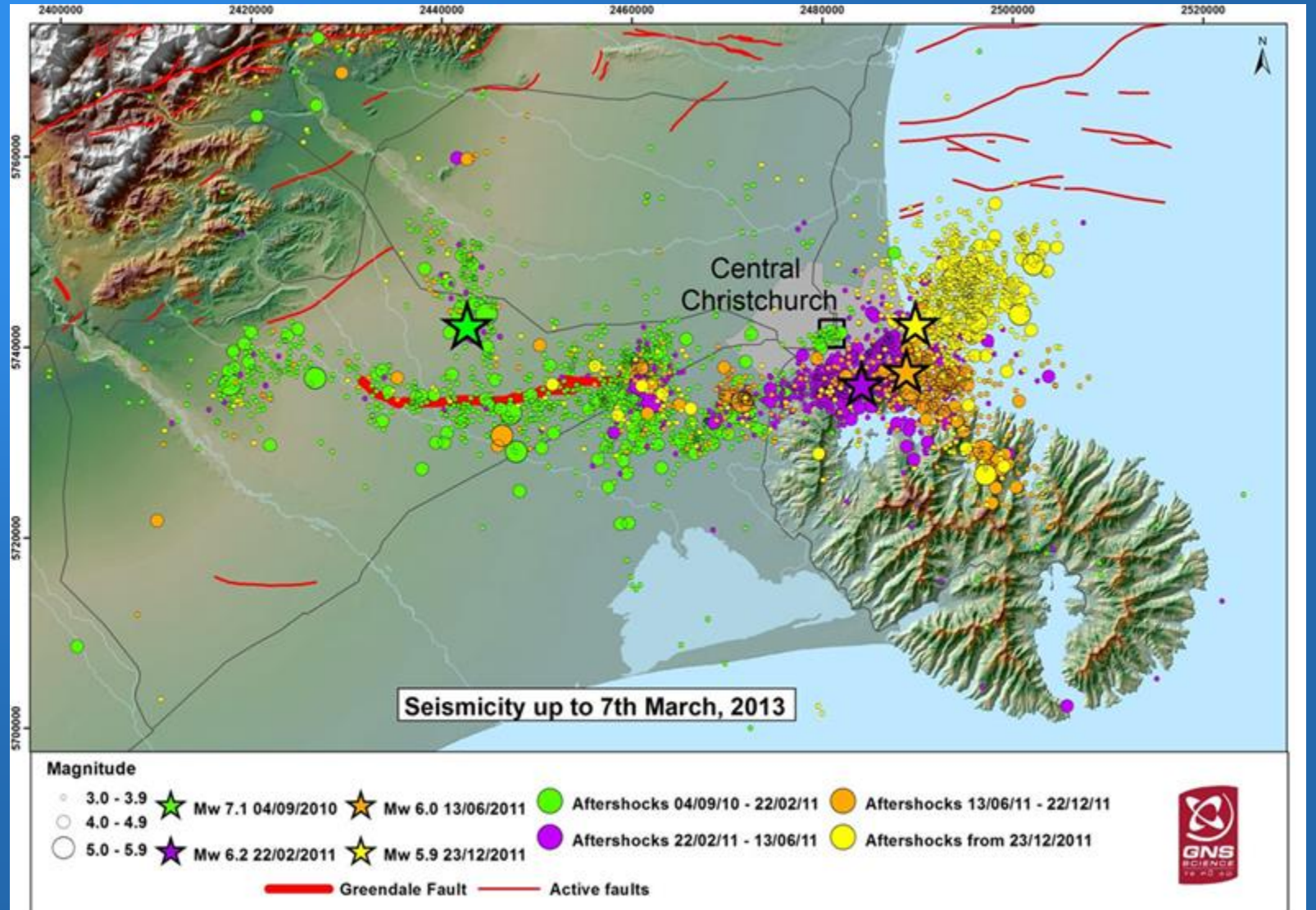
Sustainable Communities
Sharing Knowledge

Christchurch Retaining Wall Rebuild Process Post Earthquake

Phil Wilkins

Senior Structural Engineer
SCIRT / Beca

Canterbury Earthquakes





Lyttelton



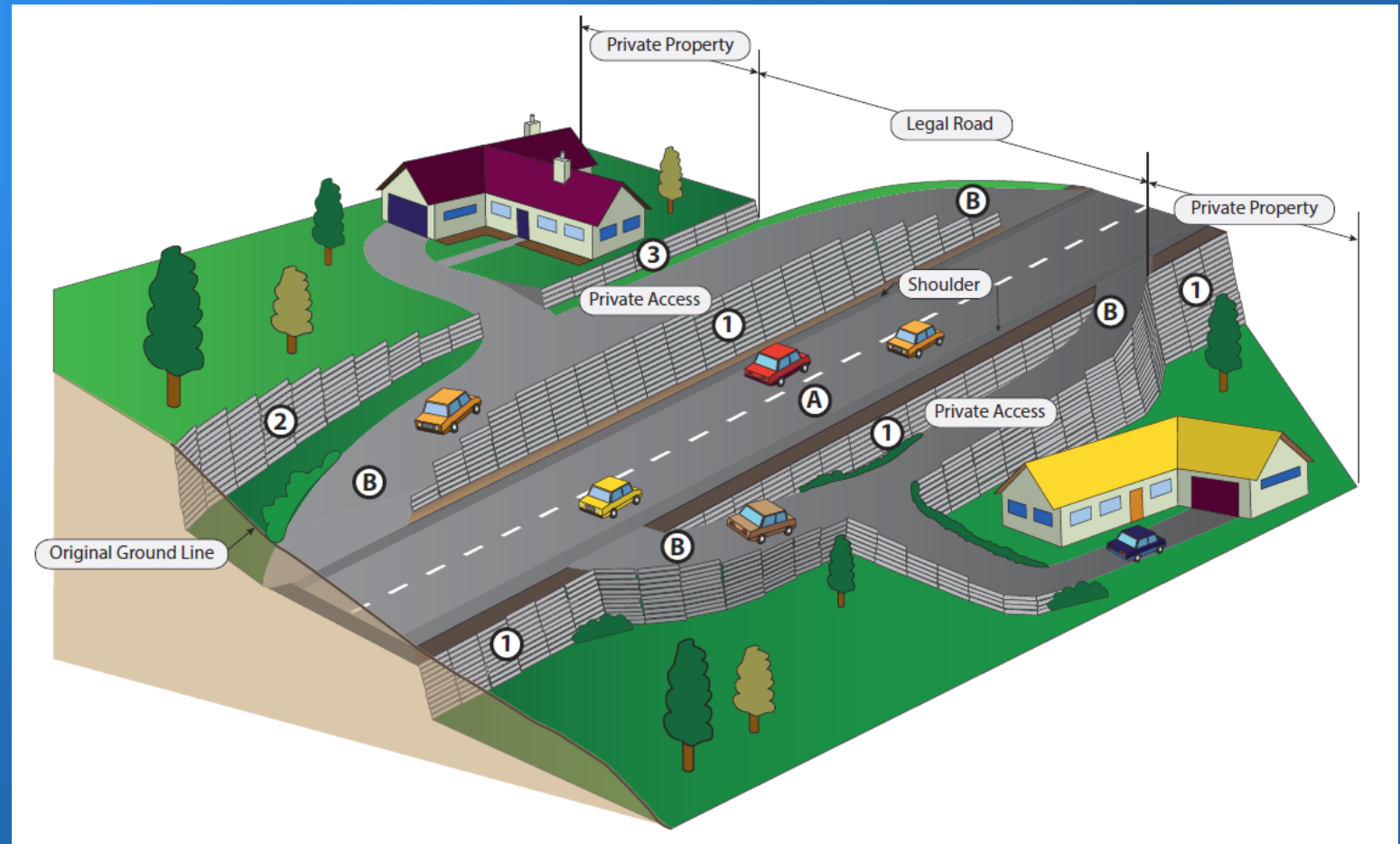
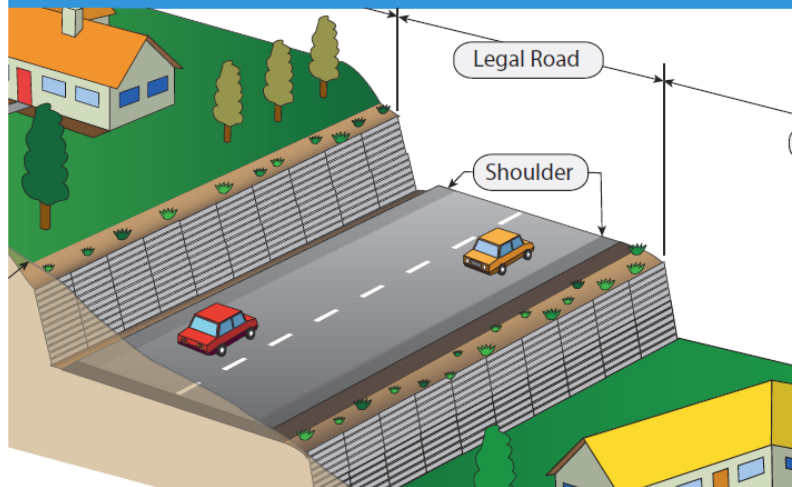
Knowing your assets...



Knowing your assets...

Christchurch City Council

Determining responsibility for retaining walls



Assessment

Pocket RAMM Online

Job List | **Inventory**

Asset Type: Retaining Walls
Search By: Retaining Wall ID
Retaining Wall ID: 1702

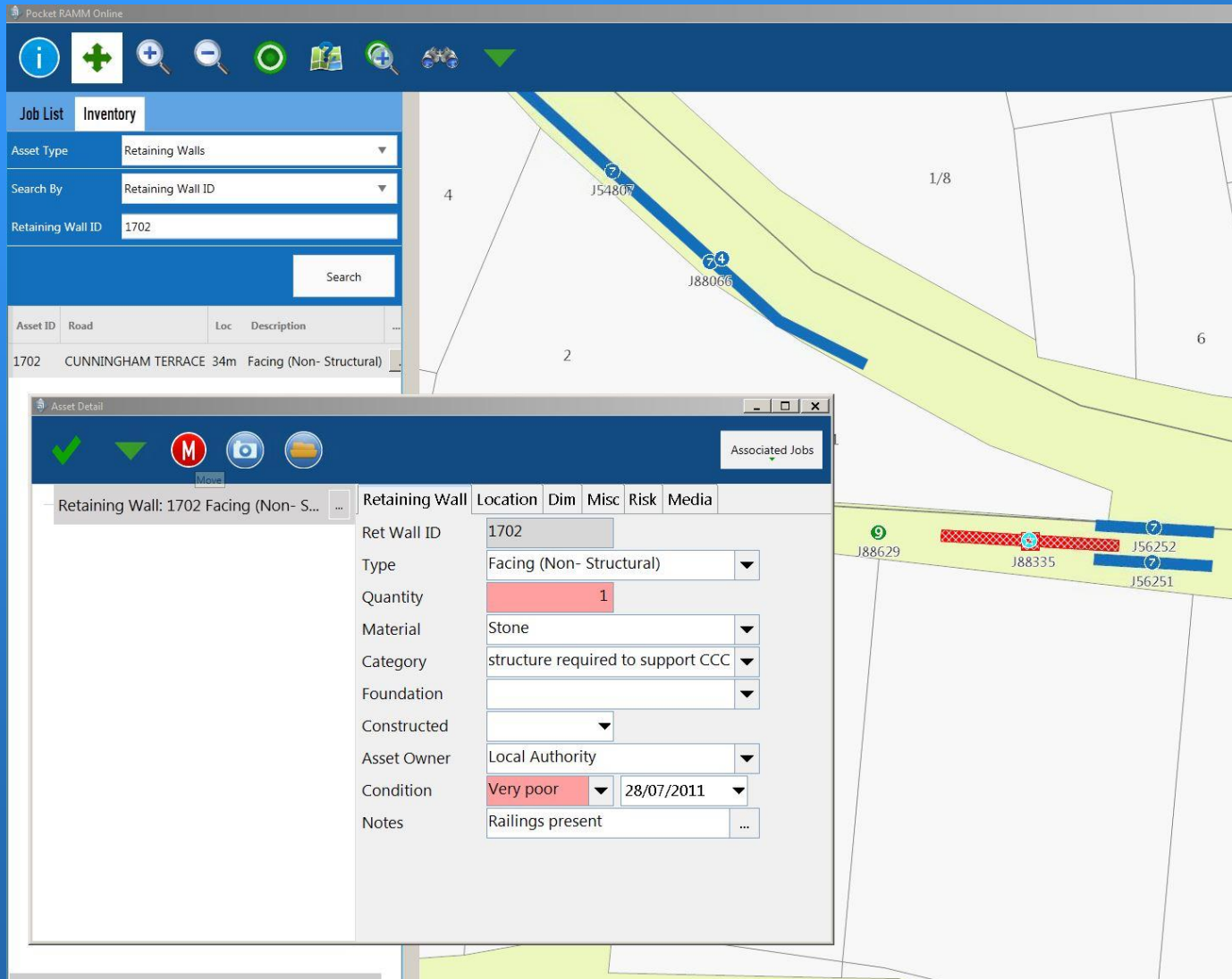
Search

Asset ID	Road	Loc	Description
1702	CUNNINGHAM TERRACE	34m	Facing (Non- Structural)

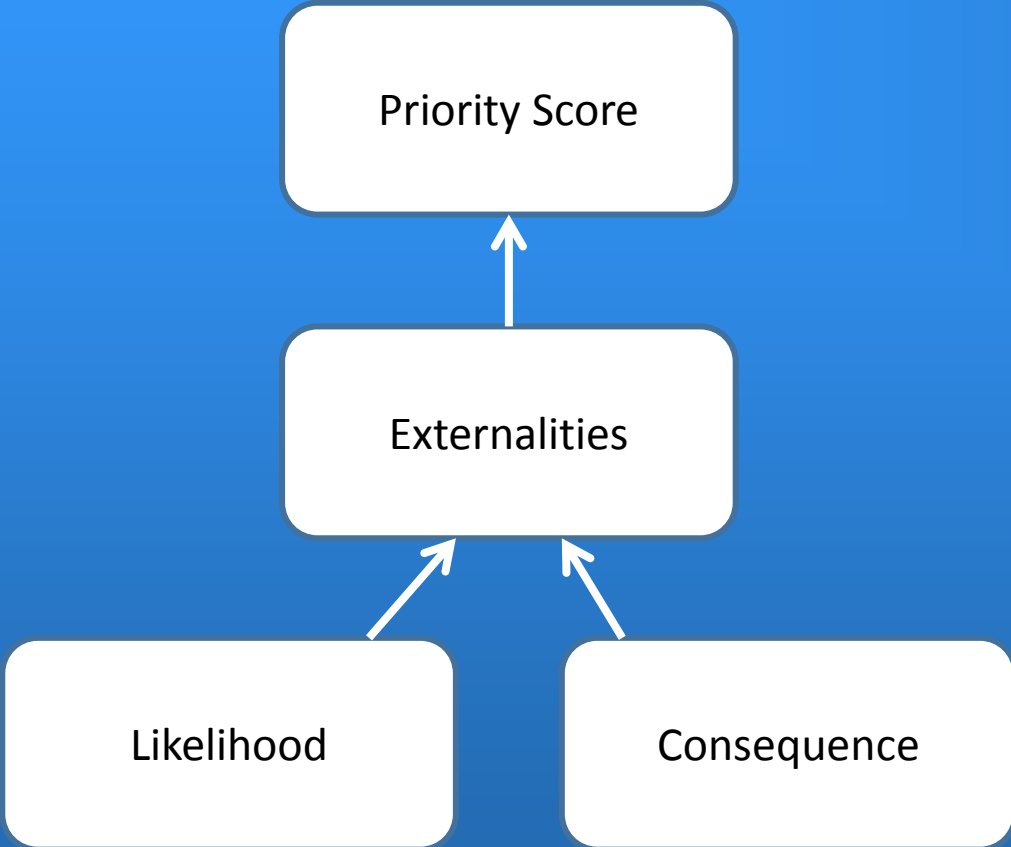
Asset Detail

Retaining Wall: 1702 Facing (Non- S...

Retaining Wall	Location	Dim	Misc	Risk	Media
Ret Wall ID	1702				
Type	Facing (Non- Structural)				
Quantity	1				
Material	Stone				
Category	structure required to support CCC				
Foundation					
Constructed					
Asset Owner	Local Authority				
Condition	Very poor	28/07/2011			
Notes	Railings present				



Prioritisation



Retaining Wall Inspection Report Christchurch City Council

Overall Risk Score (1-5)

Ramm No:					Address:					Next Maintenance (years)			
Date Built:	<1960	1960 - 1990	1990 - 2010	>2010	Date Insp:	2		5		10		>10	
Ownership	CCC	Private	Other (Specify)	Undecided	Engineered Design?	Y		N		Not known			
					Drawing Number(s)								

Dimensions (m, degrees)	L	H _{min}	H _{max}	H _{ave}	Pitch A°				Upslope B°				Downslope C°			
					0	5	14	30	0	30	45	60	0	30	45	60
<p style="text-align: center;">Wall Elevation</p>																

Above Wall Configuration Code (Note: Barriers not shown)														
	flat	flat + bldg	slope	fp + road	road	slope	road	road	road	road	road	road	road	road

Overall Risk Score (1-5)

Final thoughts...

