

## REFERENCE PROJECT

### Explosive Demolition – 220m radio mast

Location: Whitireia Park, Titahi Bay  
Date: February 2016  
Client: Radio New Zealand

Whitireia Park, Titahi Bay is the spiritual home of Radio New Zealand. Amongst the many masts that have been built there this one was the tallest in the country at 220m. Unfortunately, the harsh coastal climate resulted in the mast reaching a stage where the corrosion was beyond repair.

Abseil Access were engaged to demolish the 80 ton mast in the same successful way that we felled the 122m mast in 2005.

Custom made explosive links were designed and tested to meet a load capability of over 300kN whilst being released with only 10g of high explosives. To ensure guaranteed explosive initiation a parallel system of detonators was set up. The links were then incorporated into the southern guy ropes allowing them to be severed simultaneously. The mast would then fall to the North.

Preparation prior to the demolition included removal of the top 30m to eliminate possible impact with the nearby historic archives building. The security fences and aviation lights were also removed.

Abseil Access were also responsible for the site security on demo day as well as setting up a public viewing area to allow for the media coverage required for the historic event.

The demolition went to plan with multiple cameras recording its final moments from all aspects.  
<https://vimeo.com/163331437>

