

Earthquake Prone Marae

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Earthquake Prone Marae

- Approximately 1,300 Marae - some variation
- 35% are used 2-5 times per month and 37% for more than 6 times.
- 70% having at least one building over 50 years
- 66% of them require one or more major upgrades
- 86% of Marae are gazetted as Maori reserve and because most are based on a koha (donation) basis, only 51% have an annual income sufficient to cover normal operating costs.

2017 Earthquake Prone Buildings Act

- All buildings needed to surveyed by TA
- Those with a seismic capacity less than 67% are earthquake risk buildings
- Those less than 34% are earthquake prone buildings
- Submissions in 2013 were ignored by MBIE and while agricultural buildings were excluded Marae were not
- And it gets worse, Marae are classified as 'Priority Buildings'.

The Plan within RNC2

- 1) Earthquake Prone Marae
- 2) A 'Maori Way' to respond to disasters based around case studies with Whanau ora (Chch). This would include the Kaiapoi (2010), Christchurch (2011) and Kaikoura (2016) Earthquakes.



Papauma Marae Aohangā Dannevirke.

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Figure 1: Mangamaunu Marae north of Kaikoura



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te Ore Ore Marae, Masterton: circa 1891

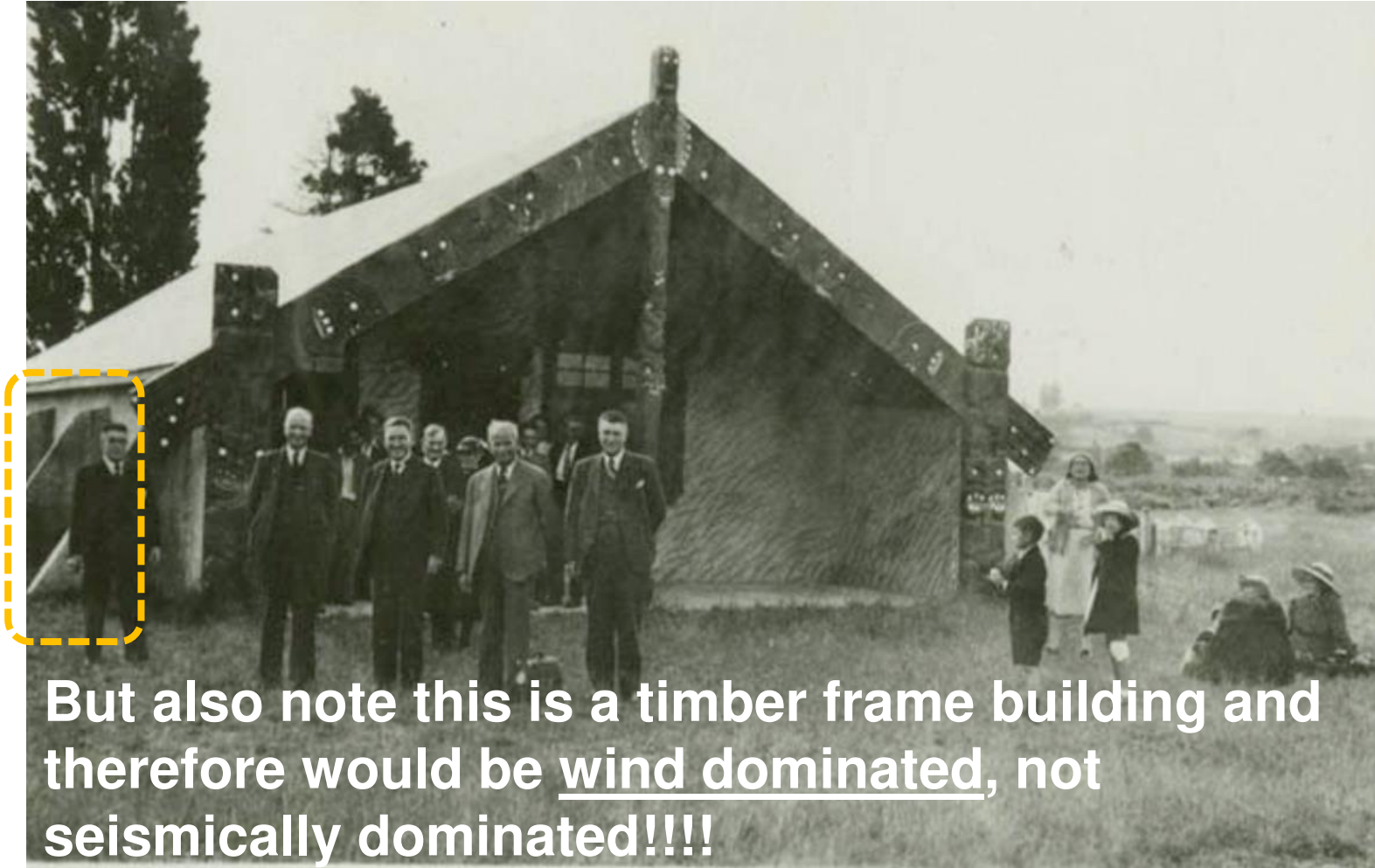


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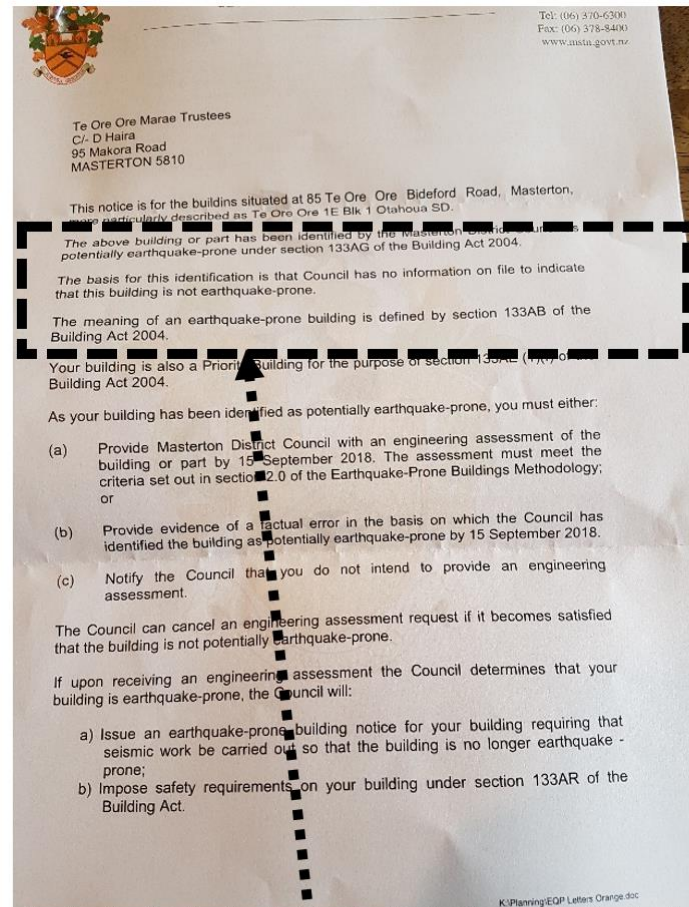
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te Ore Ore 1942



But also note this is a timber frame building and therefore would be wind dominated, not seismically dominated!!!!

te Ore Ore 2017



The above building or part has been identified by the Masterton District Council as potentially earthquake-prone under section 133AG of the Building Act 2004.

The basis for this identification is that Council has no information on file to indicate that this building is not earthquake-prone.

The meaning of an earthquake-prone building is defined by section 133AB of the Building Act 2004.

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te Kainga, Kilbirnie, Wellington



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te Kainga

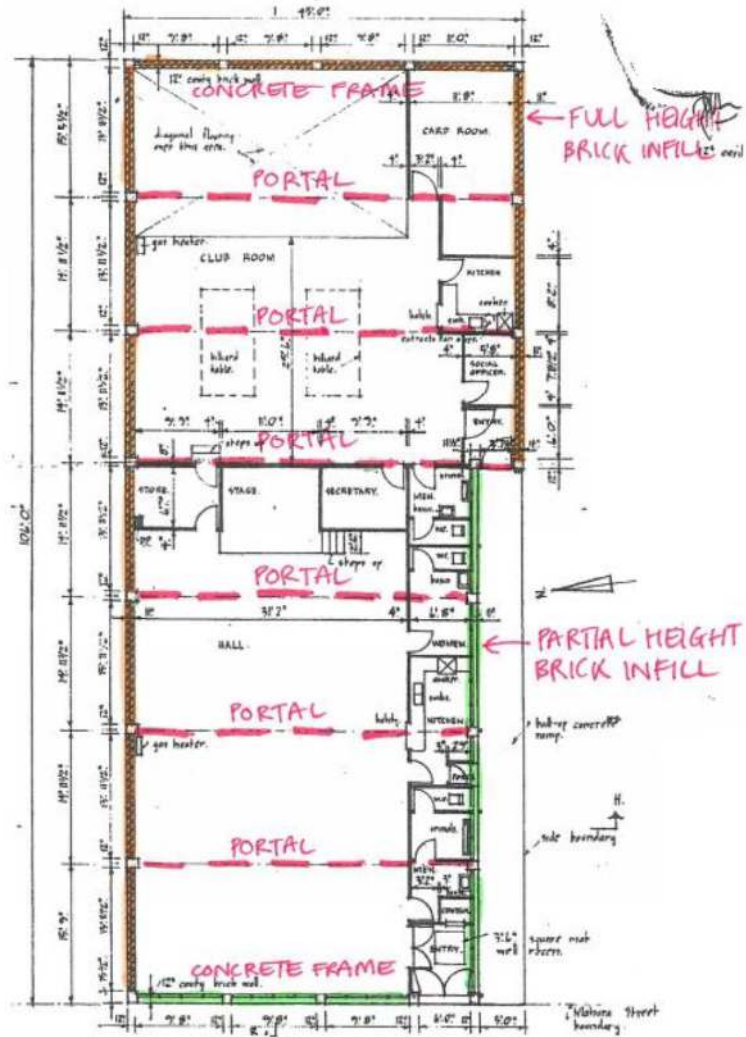
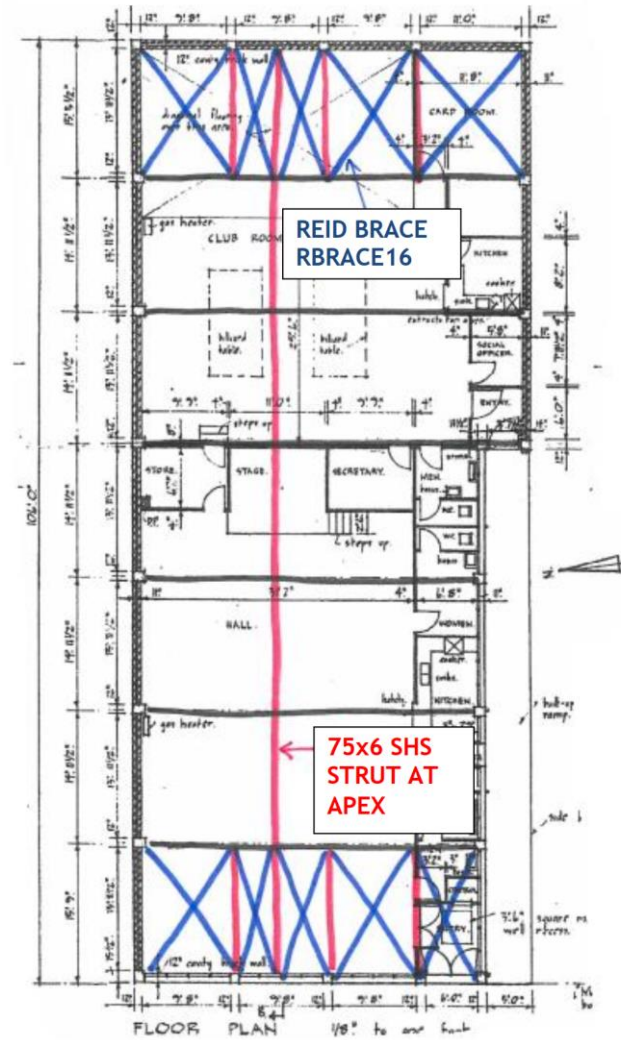
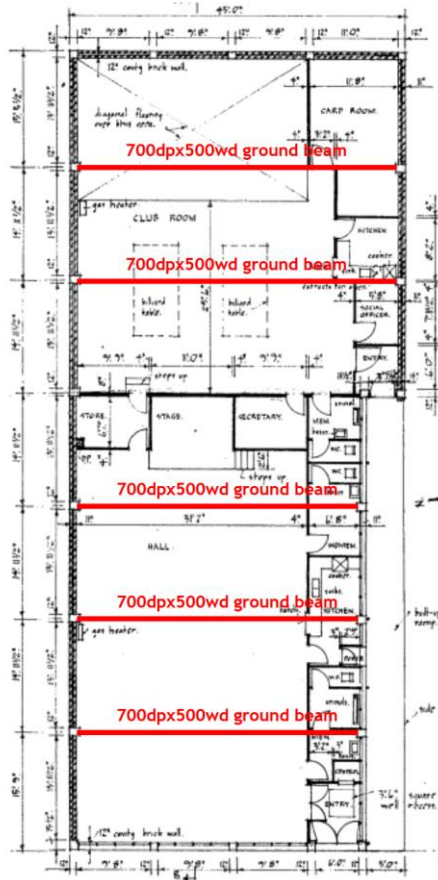


Figure 2. Te Kainga Structural Layout

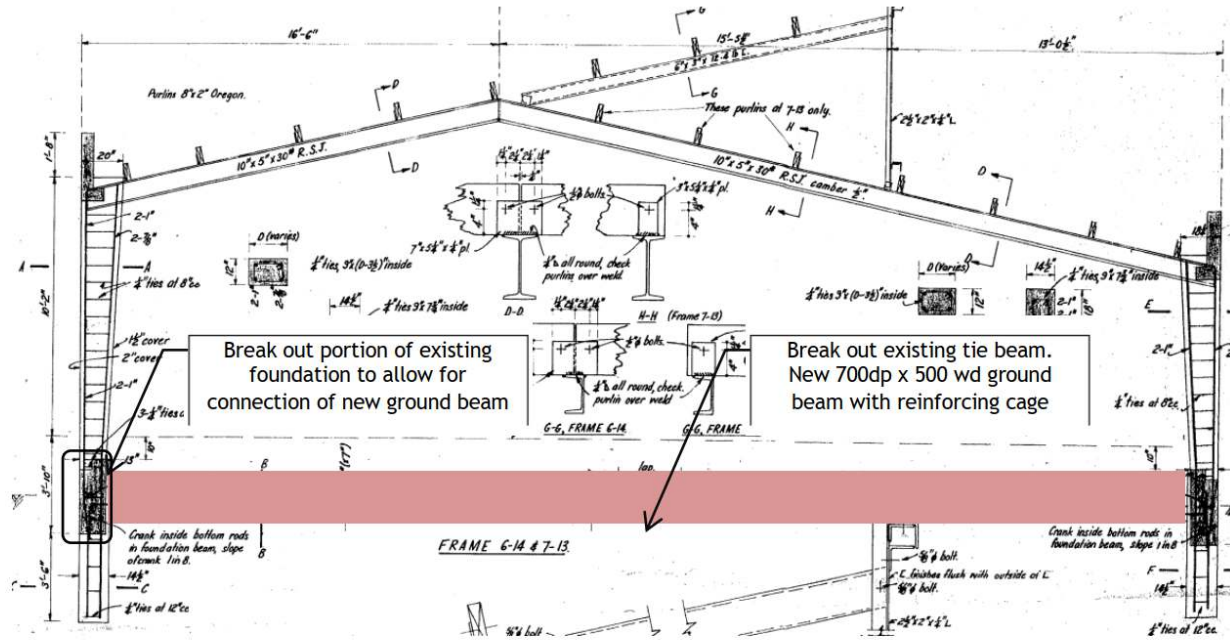
NOTE BRACING TO FOLLOW THE ROOF PLANE



te Kainga

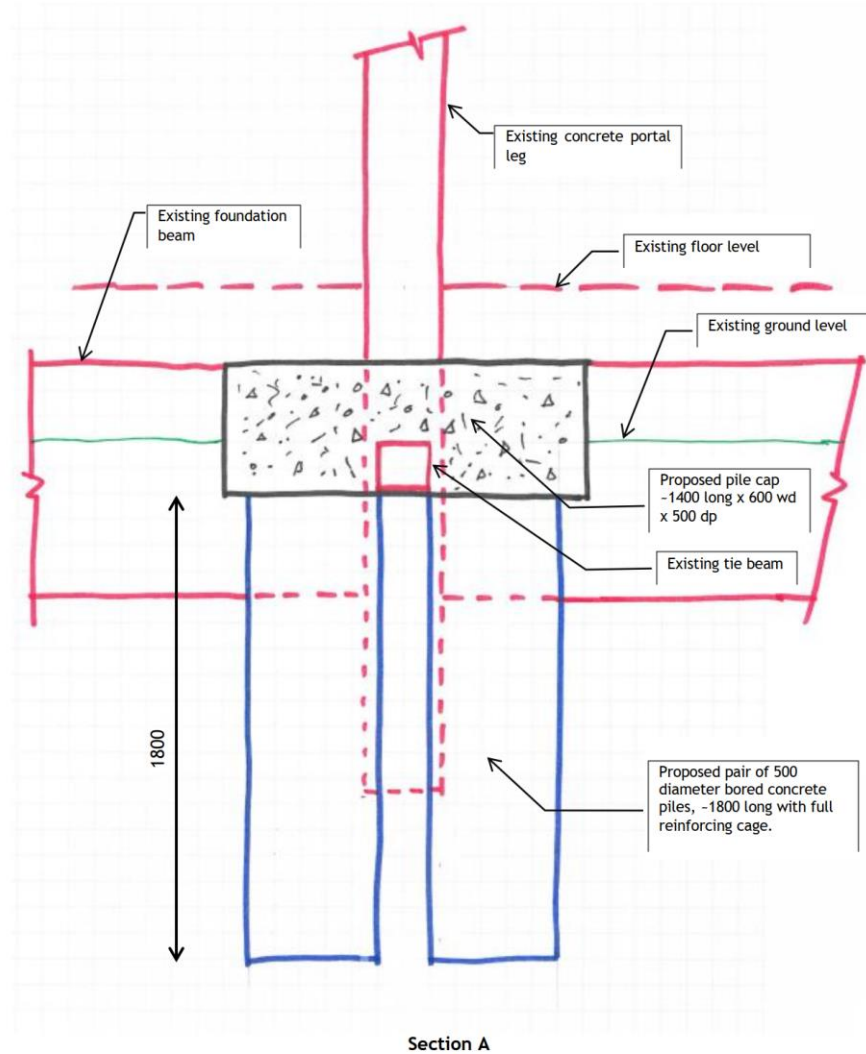
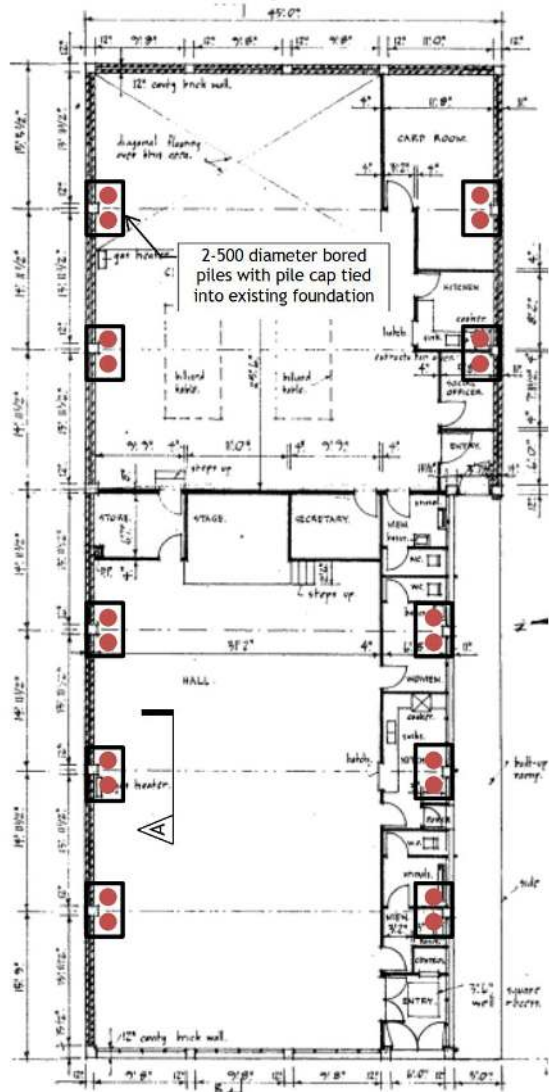


Plan View



Elevation View

te Kainga





Papauma Marae Aohangā Dannevirke.

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