

Earthquake Testing of Anchor Failures on Precast Concrete Panels

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Recent Progress

- We have just arrived back from our research week trip in Whanganui.
- After a long week of 10hr days of construction and testing, we managed to install and test approximately 100 adhesive anchors in an abandoned building near town
- Three different types of anchor lengths were tested as well as 2 different types of epoxy and grout fillings.
- Bed joint shear tests were also implemented in 9 of different walls around the building
- Brick and mortar samples from all tested walls were collected and taken back to the University lab
- An existing anchor from the building was also extracted and taken back to Auckland

Work in Whanganui



- First all holes were drilled in both the ground and first floors of the building
- The masonry walls used for grout anchors needed to be saturated first before installation
- Bricks were extracted to test the mortar and brick strength in each wall
- A steel frame, load cell device, and pressure pump were used to test all of the anchors, recording the displacement and load failure of each
- The results were then graphed in a stress-strain curve and measurements for ultimate failure and residual failure were recorded



- Next week we will be in the lab helping to test the samples we collected from Whanganui
- Also, the concrete panels we made from Week One should be ready to test in the University Lab as well.

CULTURE!

Ate fish and chips by the shore YUM



Bought treats and souvenirs at the local market

Took a ferry to Waiheke for the day



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