

# Mechanical Lift

## Repairing your concrete perimeter foundation

### The team

- **Southern Response**  
The government-owned company responsible for settling claims by AMI policyholders for Canterbury earthquake damage which occurred before 5 April 2012 (the date AMI was sold to IAG)
- **Arrow International**  
The project management company responsible for the building programme for Southern Response customers. Arrow International will engage the engineer, designer and contractor for your repair
- **The Engineer**  
Responsible for determining the repair strategy
- **The Designer**  
Documents the repair for compliance and quality purposes
- **The Contractor**  
The prequalified contractor who will be conducting your repair

### Repairing your foundations

House foundations are the base on which your house is built and are one of the factors in a strong, safe home.

All of the different parts of your house, from the framing to the cladding to the foundations, played a part in how well your house performed in the earthquakes.

The Ministry of Business Innovation and Employment (MBIE) has determined what technical category (TC) of land your property is and we know a lot about the different ways TC1, TC2 and TC3 land are likely to behave in another earthquake. The repair and

re-levelling methods used for foundations are based on the nature and extent of the damage caused by the earthquakes, as well as the type of foundation your house has. The decisions on what methods to use are based on an individual assessment of your house by an independent engineer and a designer, facilitated by Arrow International.

For foundations with a concrete slab, there are a range of solutions to re-level it. These are a mechanical lift using jacking pads, screw piles or the injection of engineered resin.

### Industry information

Methods for assessing and repairing and re-levelling foundations have been published by the MBIE. For further information on the MBIE guide you can visit their website:

[www.dbh.govt.nz/guidance-on-repairs-after-earthquake](http://www.dbh.govt.nz/guidance-on-repairs-after-earthquake)

### Find out more

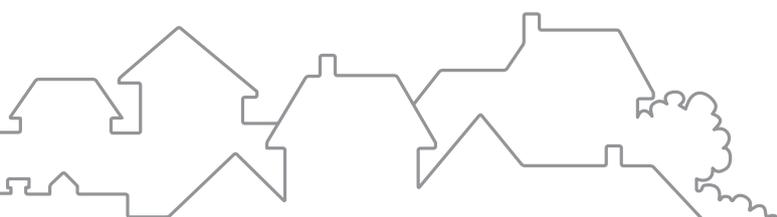
You can find more information about jacking on the MBIE website:

[www.dbh.govt.nz/jacking-up-a-foundation-video](http://www.dbh.govt.nz/jacking-up-a-foundation-video)

For any other information visit: [www.southernresponse.co.nz](http://www.southernresponse.co.nz)

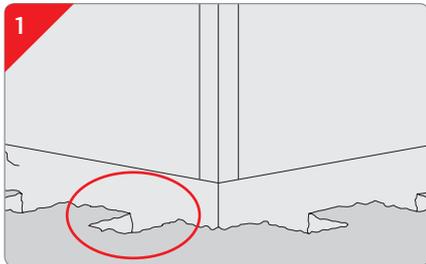
**Disclaimer:** The information and related material is intended as a guide only, and does not constitute legal advice, nor should it be used for actual construction. The content does not represent complete information, and is intended as supplementary information only.

Although we have made every effort to ensure that the information and any related material was correct at the time of printing, due to the nature of the content it may be necessary to change, update or correct at any time and without notice.



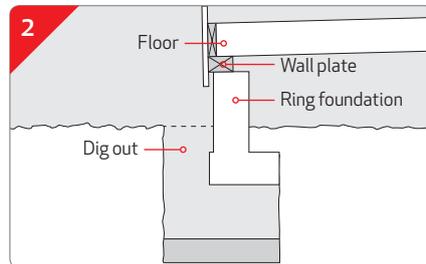
# MECHANICAL LIFT

## THE METHOD

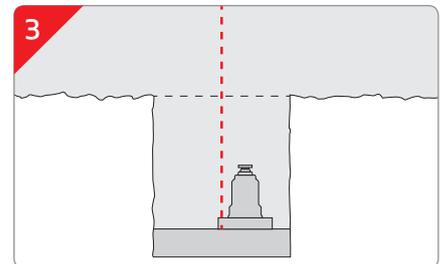


1. Pits are dug out around the perimeter of the foundation at specified spacing and depths.

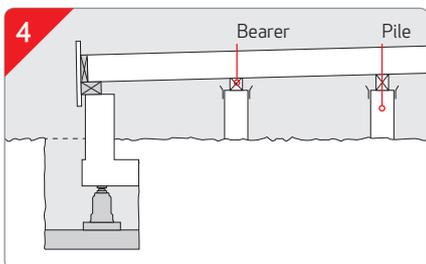
*The cladding, porches and pipework may need to be removed or disconnected.*



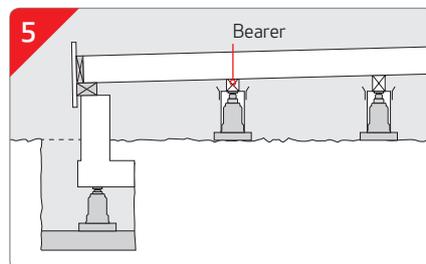
2. The pits are partially filled with concrete.



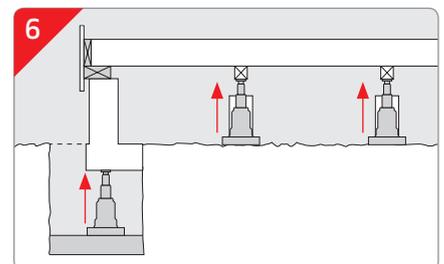
3. Jacks are placed in the pits on the hardened concrete.



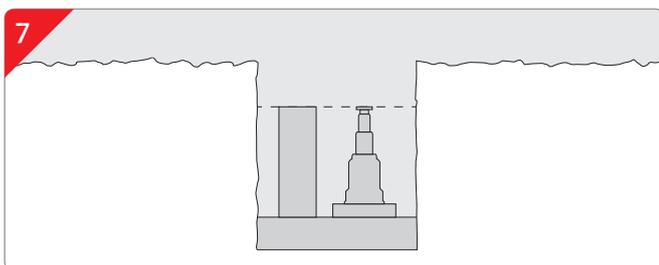
4. The piles are detached from bearers that need lifting.



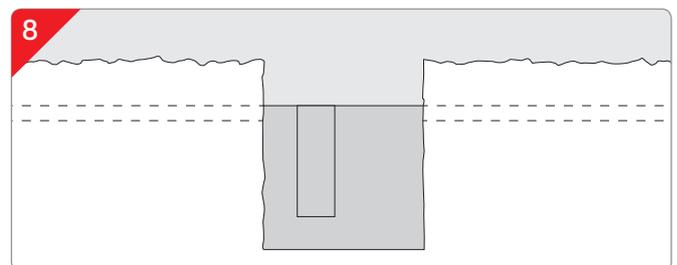
5. The jacks are positioned under supporting walls.



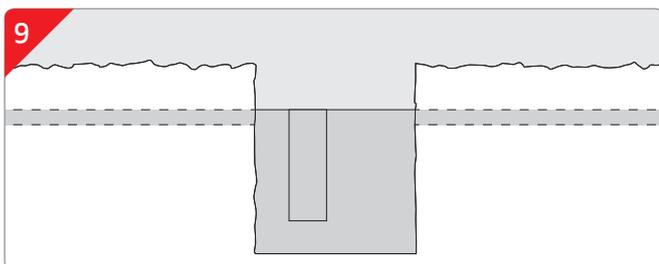
6. The jacks are raised to bring the floor to level.



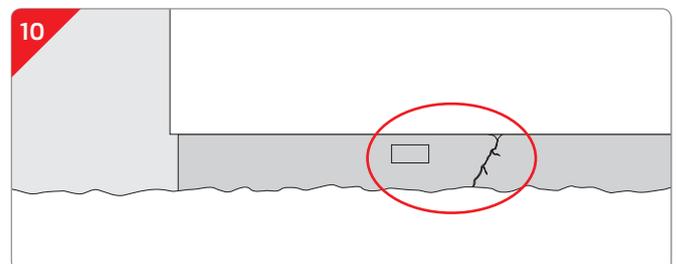
7. The timber blocks are placed tightly under the foundation in the pits.



8. The jack is removed and the pits are filled with concrete.



9. The concrete is vibrated to ensure it settles level and is left to set.



10. If there are any cracks in the concrete perimeter they are filled with epoxy injection.

*Any cladding, porches and pipework that was previously removed are reconnected to match the re-levelled house.*