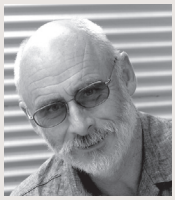

MOVING HOUSE

Relocating an existing house to a new site can be a cheap and effective method of developing a property. So what do you need to consider if you plan to move a house?

By Trevor Pringle, ANZIA, BRANZ Principal Writer

One unique aspect of the New Zealand housing industry is our propensity for moving houses between sites. During the 1970s, towns were developed using houses built in a factory and trucked to the site – Twizel, Turangi and Cromwell are just three examples.

It has become common to consider removing sound houses – typically those with suspended floors – in order to redevelop a site. However, there are a number of factors to consider when relocating a house.

House being moved near Taihape. (Photo courtesy Brittons Housemovers Ltd.)

New site conditions may differ

One concern is the on-going performance of the building in its new location. Many relocated houses are shifted to areas with more severe conditions than the original site. Therefore, Building Consent Authorities and owners need to be sure that the building's structural performance will comply with the Building Code at the new location. The design of the foundations must be suitable for the conditions at the new site. These conditions include the:

- wind zone – for structural wind loadings
- earthquake zone
- snow loadings
- corrosion zone.

In addition to the foundation's structural and durability requirements for a building consent on its new site, the relocated building will also need a consent for the new plumbing and drainage connections. It may also need to comply with Building Code Clauses:

- C *Fire safety*, requiring the installation of smoke alarm
- D1 *Access routes,* for public access to the building and stair design
- E2 *External moisture*, where the building has been shifted in parts and rejoined or the cladding removed
- F2 *Hazardous building materials*, such as glazing, only if altered
- F4 *Safety from falling,* for barriers.

A consent is likely to be required where other renovation work is carried out on the relocated house.

Timber-framed houses easiest to move

One- and 2-storey timber-framed houses with suspended ground floor construction are relatively resilient and can readily accommodate the stresses of a careful moving process, as can cladding and lining materials such as weatherboards, tile and metal roofing or timber board internal linings. There is always a risk that less resilient materials, such as flush-stopped plasterboard and stucco cladding, will crack or suffer other damage.

Although the basic structure of a brick veneer house can be moved, the veneer cladding will have to be demolished and rebuilt at the new site, which typically requires a continuous foundation.

While it's possible to move the framed wall and roof structure of a house built on a concrete slab, it's likely to be expensive, and more repairs will be needed to fix areas of the building, such as cladding or lining, that were removed to gain access to disconnect the house from the slab.

The more sections, the more to fix

It's possible to move a house of almost any size and shape, but a larger house may need to be broken into several sections to transport it to its new site. As the house size increases, so does the number of sections that may be required. Factors to consider include:

- access widths of public roads and driveways (for example, is there a narrow cutting that limits the width of the transported sections?)
- height restrictions (for example, are there any over-bridges or electrified rail lines on the route?)
- bridge load and width restrictions
- access gradients (for example, can the house be moved to its new position considering the site contour and access from the road?).

The more sections the house is broken into, the greater the cost to put it back together and the more difficult it is to maintain structural and weathertightness integrity. It will also cost ➝

more to reinstate the internal finishing, such as replacing the interior trims.

Work after relocation

A range of house styles are available for relocation. Houses in good condition with original features are generally more expensive. Houses that can be relocated in one or two sections may not require significant work.

All relocated houses require service connections at the new site – power, water and sewage. Some also require significant work and money to bring them up to acceptable standards, including upgrading the:

- kitchen and bathrooms
- internal lining and decoration
- insulation
- plumbing and wiring.

Once the house is relocated, other issues that may need to be addressed include the:

- condition of roof and wall claddings (is it weathertight in its current condition?)
- damaged (rot, borer) or sagging roof and wall structure
- window repairs.

Obtaining consents

A building consent, and possibly planning permission, will be required for the house in its new location. When moving the house directly from one site to another, a demolition consent will be required. Relocating a house purchased from a resale yard generally only requires a building consent.

Drawings will be needed to obtain a consent showing the existing building, the proposed location on the new site and any alteration work. Consent documentation also needs to identify the wind zone and earthquake zone, weathertightness risk, the foundation design, service locations and connections.

Some subdivisions may impose covenants that do not allow relocation of a second-hand house. District plan requirements will also need to be complied with or specific planning permission obtained if compliance cannot be achieved.

Defining responsibilities

The key to a successful house-moving project is ensuring that the moving company has the skill and experience to carry out the shift.

Clearly state the moving company's responsibilities in an agreement. In a number of cases, moving companies have limited their responsibility to placing the house on new piles without providing lateral support to meet the requirements of NZS 3604:1999 *Timber framed buildings*. Lateral support needs to be designed to meet wind and earthquake load requirements as part of the consent. If this is to be the responsibility of the moving company, specifically write it into the contract.

If the house is broken into sections for the shift, the agreement also needs to define who is responsible for reconnecting the sections and what method they will use to do so.

Going it alone

If relocating a privately purchased house, consult a removal company to advise on the move – from getting the house off the original site to its location on the new site. This advice should include the cost and extent of any work required to bring the building up to the desired standard.