



Confidence in Concrete

A new initiative aims to increase the use of concrete in residential building.



New Zealand's building statistics show there is plenty of room for growth in the use of concrete in housing construction. Each year some 24,000 residential building permits are issued in New Zealand, but less than two percent of new houses use concrete for the primary wall construction.

Market factors over the past decade, including falling interest rates, low inflation and positive economic growth, have meant that house building has become more affordable and something to which many people aspire. Greater awareness of design is also leading more people to seek the style of an architecturally designed home and the comforts a new house brings.

While many people are turning to the look and feel of European-style masonry homes, they are, in the main, mimicking traditional concrete construction methods with light timber frame (LTF) construction techniques combined with exterior cladding.

Research has found that there are three main barriers preventing greater use of concrete construction. These include: architects and designers who perceive building in concrete to be more complex; a lack of awareness on the part of the consumer about the benefits of masonry construction; and a reluctance by builders to change from the construction methods they know.

In response to this, Firth initiated a nationwide campaign to develop residential concrete construction in New Zealand, which will support the CCANZ's "Cement Your Ideas in Concrete" campaign. In doing so it believes the entire concrete construction industry will benefit.

To address the issues and promote the benefits of concrete construction in residential housing, Firth has established a free planning and home advisory service called Mode, designed to help people build their dream home.

When embarking on the home design and build process, many people feel overwhelmed by the myriad of choices and tasks that lie ahead. To take the headache out of a home building project, Mode consultants are on hand to work with people interested in the benefits of masonry home construction.

Mode consultants can provide advice and guidance with:

- buying a section
- exploring design options
- finding an architect or designer
- costing the project
- choosing a project management option
- sourcing builders/contractors
- getting on-site construction advice
- considering landscaping concepts.

Making it easier to build in concrete
Importantly, Mode addresses the three key issues that have hindered the acceptance of concrete construction in the past.

Working with designers

Building on the foundations created by CCANZ's "Cement Your Ideas in



Concrete” campaign, architects and designers have been identified who are passionate about concrete and who can share their passion with customers to simplify and demystify the design process. Through the Mode service qualified leads are received of people looking to build in concrete. Additionally, in order to assist the design profession in the structural elements of a concrete home, a CD Rom has been created which enables the architect or designer to easily apply the specifications of the new building code NZS4229 for non-specific masonry construction.

Showing the benefits of concrete construction

In order for the market for concrete homes to grow, people have to be convinced of the benefits of concrete construction. These include the facts that masonry homes are durable, contemporary, safe, secure, and fashionable. To give potential new home builders first-hand experience of the look and feel that can be achieved using

concrete construction materials, show homes have been designed and built in Auckland, Wellington, Christchurch, and Hamilton.

At Howick in Auckland, designer David Irwin has designed a home in the style of a traditional French farmhouse (see pictures this page). A steep pitched roof, attic rooms and thick-walled construction combine with Hinuera floors inset with timber and a double-height atrium. Offering European sophistication and modern comforts, this home, built by Ambler Homes, has been visited by more than 5000 people in the past five months.

Visitor numbers at all sites have far exceeded expectations, and as a result a number of new homes are being built using a variety of different concrete solutions – masonry block, Hotbloc, pre-cast panels, and polystyrene block.

A dedicated web site has been established at <http://www.mode.co.nz> and a quarterly newsletter developed to provide information and tips to assist those interested in the process. It also



< Exterior and interior pictures of the new Firth show home in Auckland designed by David Irwin.

> Marshall, The Home Creators Auckland, built this solid character home using Firth Hotbloks. See case study box for more details.



Case Study

This home designed using the Firth Mode service was the winner of the Firth Alternative Building Materials Award and runner-up in the \$450,000 category of the Master Builders House of the Year Award. Glenora Estate, a masonry cottage, was built for Sally and Derek Holland.

“In a high-wind zone and exposed to the elements, we wanted a solidly built home – one with integrity,” says Sally. “My father was a builder and I grew up in homes built of masonry block and have always had great faith in their stability and insulation.

“We are especially happy with our plaster finish, which could only have been achieved over block.

“We have been able to create a strong sense of character for our home, which was modelled on a 17th century English farmhouse and barn. The results and the comments have astounded us, and we feel this could only have been created with the use of masonry. So authentic is the look we have achieved that we are constantly asked *What is this amazing home made of?*”

profiles people who have recently built masonry homes and who are now advocates for concrete construction. Advertising also helps spread the message about the benefits of concrete construction over other building methods.

Broadening the skill base

To address the reluctance of builders to take on ‘new’ construction methods, Firth has launched a builder accreditation scheme. An Accredited Masonry Villa Builder will be experienced in building with concrete and have demonstrated a high level of skill in this area, and will have met strict personal and professional criteria. These builders will be recommended to people involved in the Mode service.

If just one percent of new homes built each year, that’s 240 houses a year, were built in concrete, the growth in dollar terms in the concrete industry would be significant. With these houses worth in excess of \$50 million, concrete – as the primary building material – would take a good slice of the construction cake. **C**