

## Fletcher Living builds duplex home in three days

**Auckland, 24 August 2017:** Fletcher Living, one of New Zealand's leading house builders, has completed a two storey duplex home to weather tightness in just three days, compared to around 50 days for a similar home built using standard methods. They are confident this can be done in two days overall in future after completing the second half of the duplex - essentially one home – in just one day.

The Fletcher designed, quick-build panelised home was assembled on site in Auckland, and is aimed at easing housing shortages through mass production.

Fletcher Residential and Land Development Chief Executive Steve Evans says: "This is the first time anything like this has been done with a multi-tenancy building in New Zealand. With a high demand for new homes and a time consuming on-site build, we're looking at just how fast we can get a house built.

"We are continually looking to improve productivity and build more homes for fast growing regions.

"We put down a challenge to the wider Fletcher businesses to look at alternative house building technologies. The aim was to provide time savings while making sure that the Fletcher Living quality was maintained, and ensuring the ability of council to certify it locally was preserved. One of the key focuses was not just to manufacture a home off-site, but to use Fletcher's experience in factory manufacturing processes most efficiently and then assemble the panels on site.

"Building panelised homes in NZ enables us to better guarantee quality and gain easy and on-the-spot compliance with NZ legislation. This means a good quality product by New Zealanders for New Zealanders."

Steve Evans says other advantages include:

- The time saving for a panelised home is significant: two to four days to weatherproof compared to 50 for a standard built duplex home. Finishing requires a further six weeks to complete - compared to a total 22 weeks for a conventional build.
- The use of 3D BIM design software, efficient use of materials and cutting equipment all reduce volumes of material. Transport to the site is also reduced – the home arrives in four or five consignments using purpose built trailers.

The project came about after Fletcher Living could find nothing nationally or internationally to meet its needs - a quick-build, mass-produced offsite constructed home of more than one level and multiple tenancy, such as a duplex or terraced row of homes.

So, Fletcher Building's Group Innovation team, headed up by Stewart Vaughan, worked with an architect, engineers and a building team to develop an in-house solution. The project took a tested Fletcher Living duplex home and redesigned it into offsite-manufactured components using new systems to join the panels, floor and roof sections. A vacant Laminex factory, also part of the Fletcher Building group of companies, was swiftly turned into a prototyping facility where a pilot panelised home was designed, refined and built.

The first panelised duplex home was delivered to a site in Hobsonville Point, West Auckland in April 2017. In just four days it was weathertight and ready for interior and exterior finishing and six weeks later it was completed and signed off by Auckland Council ready for sale.

"With the first duplex home, we proved to ourselves it could be done, and with this second home we have been speed testing to see just how fast we can do it. We have identified a number of changes we can make in order to build even faster – to one duplex every two days."

"We're now looking at how we can best mass produce these homes and begin building them in large numbers. We have undertaken a lot of work to assess if there is an economic model, and this continues – however the methodology and quality is proven."

## **#ends**

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## **Background information:**

### *About Fletcher Living:*

Fletcher Living is part of the Residential and Land Development Division of Fletcher Building. This Division is led by Chief Executive Steve Evans.

In New Zealand, Fletcher Living currently has 28 projects providing a secure pipeline in excess of 6,000 dwellings.

In Christchurch, four projects will deliver around 400 homes between 2016 and early 2018 in partnership with Government.

In Auckland the first homes were sold at the new developments of Swanson, Whenuapai, Red Beach and Tatua on Eden and Fletcher Living concluded the successful Greenhithe development.

At the Waiata Shores development in South Auckland, the old Manukau Golf Course site, works are well under way to produce in excess of 650 low and medium-density homes.

Work is nearing completion on the first of three phases at the Moire Road development in West Auckland, which is a joint venture between Fletcher Living and Ngāti Whātua Ōrākei, conducted in partnership with the Crown. This will see 196 new dwellings built, including 59 homes below the Government's affordability threshold that will be made available initially for Community Housing Provider housing.

During the financial year Fletcher Living signed an agreement with a number of local stakeholder groups that has enabled construction to begin on its Three Kings housing development. The first stage of the Special Housing Area has been delivered, with the full development set to deliver up to 1,500 homes and community amenities, including a town square, two grass and sand all-weather playing fields, a village green for picnics and recreation and a wetland park.