Just how big is the demand?

Forecast population changes will have huge impacts on the demand for retirement and social community housing. New Zealand’s population is expected to grow by 300,000 by 2021, and to 5.1 million by 2031. Auckland is expected to have the largest population growth (of almost 600,000 by 2031). Together, Auckland, Hamilton and Tauranga will likely house 53% of the population in 2031. The rest of New Zealand, particularly provincial areas, is expected to experience slower, and possibly negative, growth.

At the same time, the population is getting older, with the percentage of people aged over 65 years expected to increase from 13% of the population recorded in 2009 to 21% in 2031 (totalling more than 1 million people). Canterbury is expected to have one of the oldest age profiles in the country (Statement of Intent, HNZC, 2014).

According to CHRANZ’s ‘Older People’s Housing Futures in 2050: Three Scenarios for an Ageing Society’, in 2050 there could be over 800,000 households headed by older people in New Zealand.

In just 35 years’ time, a quarter of the population will be people aged 65 years or more – in the region of 1.35 million people. Most of these older people will live in their own homes, but the numbers of households headed by an older person in the rental market will more than double.

What are the challenges and opportunities?

a) By 2030, New Zealand’s social and built environment will change in dramatic ways
b) 75,000 social and retirement housing units are needed by 2030
c) Current delivery rate is up to 3,000 units per annum so a shortage of about 30,000 homes is forecast by 2030
d) Largely urban locations for housing demand yet widespread delivery of parts needed
e) There is a need for a fit-for-purpose, on-time, on-budget built response that the prebuilt sector should respond to
f) Opportunity for prebuilt bite-sized innovation that can be readily absorbed into business-as-usual

Why Prefab?

Prefabrication, or offsite construction, is a higher quality, faster way to produce multi-residential housing that delivers both social and economic benefits. It is well known that New Zealand needs more quality cost-effective housing.

Construction demand is predicted to increase by 10% per year for the next four years, however past booms have shown that when construction demand goes up – quality goes down.

The benefits of prefab or offsite construction are realised when applied to deliver multiple build programmes. Repetitive prefabricated elements may be modular bathrooms or prefinished wall panels.

Social savings are also important to quantify – they include safer building sites, reduced disruption to neighbourhoods, and reduced environmental waste. Another example is the number of people working on site can be reduced in the range 60%-80%, therefore decreasing on site workplace hazards and accidents.
2030 – is the industry ready?

Changing face of built environment

In 2030 the face of New Zealand’s social and built environment will change dramatically, with national population numbers reaching 5 million, half of whom will be living in the Auckland, Hamilton, Tauranga triangle.

The likelihood is that one-fifth of the population will be aged 65 years and older. With the current under supply of universal and lifetime design homes already at 140,000, it is estimated that this will grow to nearly a quarter million homes by 2030. Coupled with this is the general housing shortage of 100,000 homes, many of which are in the affordable bracket.

Retirement and Social Housing Units demand reaches 75,000

Taking account of current forecasts from government and social agencies there is likely to be a shortfall of homes in the retirement and social housing sectors of up to 75,000 by 2030.

- Ministry of Social Development (MSD) is forecast to purchase around the equivalent of 3,000 homes in the next two years. If this rate is consistent to 2030, it would mean 15,000 homes in total.
- Not-for-profit community housing organisations (CHO) currently provide at least 5,000 homes to more than 15,000 individuals and families in New Zealand. Community Housing Aotearoa (CHA) forecasts demand of 2,000 homes per annum needing to be met, or 30,000 homes by 2030.
- Retirement sector is forecast to need up to 2,000 dwellings by 2030. Based on an average village of 150 dwellings, this would mean a further 30,000 homes would be needed by 2030.
- The local government sector currently provides 13,400 homes

Is supply meeting future demand?

Community Housing Organisations (CHO) are forecasting the delivery of an additional 670 units over the next year. This means a shortfall of over 1,200 homes, a total of 18,000 homes by 2030.

Based on the rate of retirement village units built in the last year (April 2014 – March 2015), supply is predicted to meet demand, reflecting the retirement village sector’s ability to plan ahead and finance its development pipeline. However, the known benefits modern methods of construction provide are still not being utilised ahead traditional methods.

The projected forecast is therefore mainly social housing units, due to a lack of a visible development pipeline, hindered by no financial clarity due in part to the short political planning cycle.

Urban need vs regional delivery

Auckland demand forms almost one half of MSD purchasing intentions and 20% of community provided social housing. With retirement village developments in Auckland increasing to 40%, this indicates that up to a half of all future social and retirement housing development may occur in the Auckland region.

In addition, there are approximately 80,000 to 90,000 households in Auckland (based on 2009/10 numbers) who are working and renting and are permanently locked out of the home ownership market.

However, the construction industry is nationally distributed and made up of 91% of firms consisting of 1-5 people. This means that most builders build only a few houses a year and use traditional methods, incorporating basic prefabricated pre-nailed wall frames and roof trusses.

Prebuilt industry needs to respond

Auckland’s 15 year housing demand shortfall of 5,000 houses a year could be met 60% faster using increased prefabrication. This would mean more production facilities for bathroom pods and wall and roof panels would need to be established.

At this rate, Auckland’s housing demand shortfall of 5,000 houses a year could be met by an additional 25 suppliers assembling 20 houses per month over a 10 month working year.

Innovation can become business-as-usual

There are opportunities for increased prefabrication such as volumetric bathroom pods, roof assemblies at ground, panelised construction, all using durable materials with fast assembly times to get maximum benefits of increase quality, reduced time at site, reduced remedial period, reduced interruption at site, and flow-on cost efficiencies. A way forward is for the prefabrication sector to provide bite-sized, easily-accessible, regionally-available methods of innovation.

Labour force is ageing

As labour force ageing rates increase, it is likely that house construction methods will need to adapt and incorporate less manual work at site.

Simultaneously, more emphasis on health-and-safety will mean more work will take place off site in safer controlled conditions. This will mean increased use of a broader range of prefabricated components, panels and volumes.
Social Housing close-up

- The social housing sector’s dominant provider is Housing New Zealand Corporation (HNZC) with around 69,000 homes. The HNZC Statement of Intent (2014) outlines a future ten-year investment in Canterbury of $1 billion alongside the plan to have built 2,000 new houses nationally in the last two years from 2013-2015. Local Government delivers another 13,400 homes and Community Housing Providers deliver a further 4,000 dwellings to house approximately 15,000 people.

- The new Social Housing Reform (Housing Restructuring and Tenancy Matters Amendment) Act 2013 allows community housing providers (CHPs) to apply for government funding for income-related rents. CHPs fall into two groups of largely registered charities which are affiliated with the sectoral body Community Housing Aotearoa (CHA) and charity providers identified on the charities register as having some sort of housing activity that do not appear to affiliate with CHA.

- The Community Housing Provision (2014) report describes three groups among the CHPs:
  - Firstly, there are those that identify with the housing sector and are aware of and attempting to engage with changes in the social housing sector.
  - Second, there are those charities that provide housing largely detached from the debates around sectoral change.
  - Third, there are also those that have had their strongest connections with health or welfare agencies, rather than the housing sector, and delivered various forms of housing, mainly group housing, through contracts within those sectors.

- Community Housing Aotearoa (CHA), established 10 years ago, is the national umbrella group for the community housing sector. CHA represents 74 members, including councils and not-for-profit organisations delivering community housing solutions.

- CHOs operate throughout the country with houses identified in 58 local authority areas, in both urban and provincial New Zealand. A quarter of the housing stock is in the Auckland region (1,044) followed by the Wellington region (933). Long-term accommodation is the most common type of housing provided by CHOs. The sector also delivers night shelters and emergency accommodation.

- Of the 91 CHOs surveyed they collectively generate annual revenues in excess of $1.3 billion and hold equity of over $2.1 billion against debt of $500 million. The social housing sector takes a considered approach to financial management with those surveyed saying they would take on debt to develop new or acquire existing social and affordable housing only if the right market conditions were present.

- CHOs are currently contributing at least 4,021 homes with a minimum of 9,700 beds. CHA estimates a further 1,000 units likely operated by sector organisations that did not respond to the survey. CHA will continue to use the estimate of 5,000 units as sector portfolio size and further estimates that over 15,000 people are being housed.

- The social housing sector sees a future based on collaboration with the public and private sector to meet the housing needs of families across New Zealand and deliver long term sustainable communities.

Levers for Prefab

It is now vital that we learn from the early adopters and first followers of prefabrication and smooth their path by identifying the levers for prefab and acting on eliminating challenges and creating opportunities. Established residential builders identified the three levers for prefab of scale, liability and show-and-tell:

1. Scale is collaborating on both demand- and supply-side to improve consistency of workflow
2. Liability is clarifying the regulatory compliance process
3. Show-and-tell is communicating prefab benefits to change perceptions

Premade modular bathrooms can be 50% lighter and easier to transport.
Retirement Housing close-up

- In 2050 there could be over 800,000 households headed by older people in New Zealand. The majority of older people will live in their own homes, but the numbers of households headed by an older person in the rental market will more than double. Older people will be more diverse ethnically diverse than today, and there will be more older people entering their eighties and nineties. They will typically live alone or with an older partner.

- More than a million older people will not be in paid employment and well over half a million can be expected to have a disability that impairs their mobility. Around 325,000 older people will not have a drivers licence and even more are likely to be dependent on public transport, walking or on others. (CRESA, October 2009)

- Retirement villages are typically marketed as a lifestyle choice in which retirees can have independent living in a managed facility. New Zealand’s retirement villages range from small facilities with a few units to large complexes. Some retirement villages are also attached to rest homes and high dependency care.

- Around 30,000 people live in the 330 registered retirement villages. Of those, 266 registered villages are members of the Retirement Villages Association. The RVA is made up of 54 percent corporate, 25 percent independent (for profit) and 21 percent not-for-profit providers.

- Around 5 percent of New Zealanders aged 65 years and over live in retirement villages, with the Auckland region having the most villages. Kapiti and Tauranga have 11-14 percent of their older population in retirement villages. The number of retirement village dwellings has grown rapidly. In 1998 there were around 10,000 retirement village dwellings. Those increased to 17,050 dwellings in 2010. The Retirement Villages Association has forecast that operators will need to build 800-1,200 dwellings annually to meet rising demand as New Zealanders age. (CRESA and Public Policy + Research, July 2011)

What next?
PrefabNZ is focused on information, education and advocacy. Levers for Prefab (2015) identified the three levers for prefab of scale, liability and show-and-tell. Several short-term action points formed the Levers for Prefab Action Plan research programme between PrefabNZ, BRANZ, MBIE and industry partners such as Spanbild.

This report is the fourth stage to make visible the pipelines for social and retirement housing. The fifth and final stage is the launch of a competition for an open-source prebuilt component suitable for multi-unit housing.

Keep your eyes peeled for the ‘Unipod’ universal bathroom pod design competition.

Let’s talk
- PrefabNZ is poised to work with stakeholders on this query – to design and construct the future housing for those aged 50+.

- PrefabNZ believes New Zealand can optimise the delivery of innovative, affordable and high-quality buildings through the use of innovative prefabrication technology, delivering measurable and sustainable productivity outcomes to the New Zealand economy.

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PrefabNZ is the hub for pre-built construction in New Zealand it is the front door to the building prefabrication industry, connecting designers, specifiers and producers, with clients and Government to opportunities and challenges facing the built environment.

PrefabNZ believes New Zealand can optimise the delivery of innovative, affordable and high-quality buildings through the use of prefabrication technology, delivering measurable and sustainable productivity outcomes to the New Zealand economy.

PrefabNZ's mission is to double the uptake of prefabrication and offsite construction to 40% in the New Zealand construction sector by 2020.

Membership of PrefabNZ aligns you with strategic industry players, including MBIE, BRANZ, Productivity Partnership and other industry organisations.

Find out more: www.prefabnz.com

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Source Lend Lease

Source Hickory Group