

Facing

Newsletter of Beacon Pathway September 2012



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Christchurch Housing Showcase

The release of the Christchurch Central Recovery Plan in July included a spatial blueprint for the CBD. Enshrined in it is a Housing Showcase, a demonstration of medium density, inner city living being developed by Christchurch City Council and the Ministry of Business, Innovation and Employment. A site has been set aside for the showcase neighbourhood, and Beacon is assisting CCC and MBIE in the development of the first stage, a design competition.

A Vibrant City

Residential Demonstration Project

Whakaaturanga Kāinga

A diverse residential population is essential to support business growth and development, and create a high level of activity. This Recovery Plan complements a regenerated business area with greater opportunities for high quality inner city living.

A range of housing options are needed to match demand, from one-bedroom units through to family houses with several bedrooms that will be affordable to people of all ages and stages of life. There will be opportunities for residential development throughout the central city.

Existing zoning allows for diverse housing within the Avenues, but intensified development has been most prevalent in the north-west of the central city, which offers the attractions of Hagley Park and the Otakaro/Avon River and is close to facilities such as the Arts Centre.

The Frame and other projects will enhance open space and improve amenity to the north and east of the Core, making nearby areas more attractive for residential development.

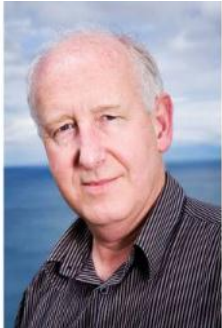
To ensure that a high-quality inner city living environment is created, Christchurch City Council has been directed to review the various Living Zone provisions, including the Special Amenity Areas, via the Statutory Direction to Amend Planning Instruments section of this Plan.

Housing Showcase

Christchurch City Council and the Ministry of Business Innovation and Employment have collaborated on a housing showcase that would be developed with the private sector. It will showcase the opportunities for high-quality, medium density residential development in central Christchurch. The site will be well-connected to open space, public transport, main transport routes, and other facilities.



Location Plan



Message from the CEO

We started the Build Back Smarter project in August 2011, thinking that we would quickly upgrade 10 homes and use what we had learned to move on to 500 more homes. Sad to say, we

are a further 12 months on and we have only just commenced work on our first house.

It has slowly become apparent that very little work (other than cosmetic) has been done on existing houses, particularly those in TC3 zone (the green zone where houses will be retained but which have issues with foundations or liquefaction).

To give you an idea of the magnitude of the damage to homes and the relatively tiny amount of repair work being done, here are some figures:

EQC (responsible for claims less than \$100,000) has completed 20,000 of their 100,000 repairs.

Of their 9730 claims, Southern Response has completed 12 rebuilds and two repairs – less than 5% - with 464 claims settled in cash. (*Press 3 August*),

Of IAG's 6500 claims, they have built 30 houses and completed 21 over \$100k repairs - less than 1%.

Nearly two years after the first September quake, why have so few houses been repaired or rebuilt? Why the atrociously slow response?

- The magnitude of the devastation in Christchurch and surrounding districts of Selwyn and Waimakariri is immense. It has been compounded by multiple events. Unlike comparable quakes in Haiti or Japan, Canterbury is still shaking almost two years on. This has left a legacy of 414,064 building claims to EQC, 15-17,000 homes to be

demolished, and another 15,000 with major repairs.

- Multiple events and split/unclear responsibility leaves insurers and EQC disputing who has responsibility and the extent of contributions to homeowners. These issues are being resolved on a house-by-house basis.
- Other activities have been prioritised over residential repair and rebuild.
 - First priority appears to be commercial claims. For example, IAG has settled 47% of commercial claims.
 - Next priority has been to settle the land (and houses) in the red zone – the area of the City and Kaiapoi where it is no longer viable to repair or rebuild houses. Of the 7253 land owners in the red zone, 5,000 have signed a sale and purchase agreement with the Crown - 70%!
 - Zoning land to the west and south of the City (in areas where there hasn't been destructive seismic activity) for development has also been a priority. There are now over 23,000 sections available, or becoming available shortly. However, there are only 7,253 homes in the red zone
- No single government agency or local government is responsible for housing in the Canterbury rebuild. And within these agencies, there is little attention to housing repair.

So in conclusion, we are one house into a 10 home project, which could have been complete by end of 2011. By now, we should have been well into our 500 homes, and the learning from all 510 homes could have influenced the entire repair programme.

As it is, we will be lucky to complete the project by the end of this year and the repair of those 30,000 plus badly damaged homes in Canterbury is likely to take at least another five years.

Meanwhile, for those of us in other parts of the country, spare a thought for our Cantabrian cousins, many of whom remain uncertain of the outcome for their home and will have to live through several more Canterbury winters with cracks in the walls, leaks to the roof, uneven floors, doors which don't shut properly, timber framing inside supporting their ceiling / walls, and cold draughty houses.

What can we do about this appalling situation?

We can:

- keep pressure on insurers and EQC to speed process up.
- ensure that CERA, in conjunction with the local councils, has responsibility for a Housing Action Plan, in which the number one priority is to get existing houses repaired quickly and to a high standard of performance.

Nick Collins

2012 Green Ribbon Award finalists

New Zealand Steel

Run by the Ministry for the Environment, the Green Ribbon Awards recognise the outstanding contributions of individuals, organisations, businesses and communities to protecting and enhancing New Zealand's environment.

Beacon member, New Zealand Steel, was a finalist in the Green Ribbon Award for large business leadership.



New Zealand Steel operates an integrated steel mill at Glenbrook in Auckland. The company has made good progress towards reducing its environmental impact on a large scale.

Tangible outcomes include 60% of site energy supplied by two co-generation plants; 350,000 tonnes of production waste diverted from landfill; and 98% of site stormwater treated and used within the plant.

The Ministry for the Environment found that New Zealand Steel has demonstrated that good infrastructure and management approaches can foster ongoing environmental improvement. Key challenges of solid waste management, water and energy efficiency, and water treatment have been addressed successfully.

www.mfe.govt.nz/withyou/awards/green-ribbon-finalist-2012.html

Build Back Smarter

First upgrade commences

Huntsbury 2 has proceeded to the repair stage with a 13 week construction period (this is not a badly damaged house!)

The house

Huntsbury 2 is a large house with a first floor extension built in the 1970s and a basement garage. Current ceiling insulation is inadequate, and the house needs under-floor insulation and a vapour barrier.



All of the stucco veneer needs to be replaced downstairs as part of earthquake repairs providing a wall insulation opportunity.

The spare and master bedrooms have large south facing windows, and wooden windows and doors need draught proofing.

Living, dining and kitchen areas are currently heated by a 2001 wood burner which is being replaced as part of earthquake repairs. However, the upstairs extension is very cold and is little used.

The rangehood has no external ventilation and the dryer should be externally vented.

The house has a 1955 hot water cylinder with no pipe insulation – a future option would be a modern hot water cylinder suitable for upgrade to a heat pump system in the future. An ancient solar hot water system has been disconnected.

Planned upgrades

Based on Community Energy Action's assessment (using Beacon's HomeSmart assessment tool), the following upgrade plan was agreed with the homeowners, EECA and PMO Hawkins:

- Draught strip windows where necessary.
- Draught stop two external doors.
- Top up ceiling insulation and insulate pavillion walls in roof space.
- Install under-floor vapour barrier.
- Install insulation under timber floor.
- Install exterior wall insulation to ground floor. Scaffolding will be in place for the lower level only
- Install access hatches into roof spaces.
- Install a rangehood vented to exterior if possible.
- Install thermostat-controlled heat transfer kit from dining room to main bedroom.
- Retrofit low 'e' double glazing to first floor south-facing windows.

Installing the wall insulation

The Huntsbury 2 scope – for both PMO and Build Back Smarter – has changed as repairs progressed. The builder opted to forgo the opportunity to install wall insulation from the exterior face of the building because the weather required building wrap to be fitted progressively as sections of veneer were removed.



Original 1960's construction without wall insulation or building wrap uncovered as veneer removed.

Most interior linings on ground floor external walls were removed because of cracking and to allow sheet bracing to be fitted in conjunction with new plaster board. Surprisingly, early 70s batts had been retrofitted from the inside to two of the lounge walls. There turned out to be no batts in other walls and none in the rest of the older part of the house.



Poorly-fitted fibreglass batts installed in 1970s lounge renovation with no building wrap between insulation and veneer

The difficulty in removing wallpaper also led to the builder removing and replacing most of the first floor wall linings as the quickest option. So this provided the opportunity to insulate the first floor external walls as well. Again, the existing insulation was unexpected - the extension had perforated foil in the wall behind the plasterboard. Building wrap inserts were fixed between the new insulation and the back of the exterior fibre cement board cladding.



CEA worker installs new insulation

Christchurch repairs still slow off the ground

The speed of repairs to earthquake damaged homes in Christchurch continues to be slow.

IAG published its progress in the Press on 17 July. They have completed:

- 21 repairs
- 23 rebuilds

We understand Southern Response (previously AMI) has completed 6 rebuilds. Between them, these two insurers have over 50% of homes insured in Christchurch.

EQC have completed 20,000 of their repairs with 80,000 left.

Beacon's 2012 symposia

New Zealand's housing crisis: A tale of two cities – Christchurch and Auckland

Invitations have now gone out for our 2012 symposia and the Christchurch symposium has already been held.

This year we are focusing the housing crisis faced by our two biggest cities:

- Christchurch faces a post-earthquake repair and rebuild of unprecedented scale: 15-17,000 homes to be demolished; 110,000 homes to be repaired with 15,000 homes needing major repair in excess of \$100,000.
- Auckland needs 10,000 houses every year for the next two decades. The city's 400,000 existing homes are poor performers – cold, damp and adding to the population's health problems

We are holding three symposia: in Christchurch, Auckland and Wellington. The aim is to discuss policy responses to Christchurch and Auckland's housing issues in those respective cities, and take the issues and discussion on to the Wellington session.

Places are still open in the Auckland and Wellington symposia:

- Auckland 11 September
- Wellington 24 September

Please let us know if you would like an invitation and feel free to pass these to anyone in your organisation who might benefit from being part of the conversation.

Find out more information at:

www.beaconpathway.co.nz/further-research/article/2012_beacon_symposia

Programme	
Auckland Council: Achieving the Auckland Vision and the Retrofit Your Home scheme	Raewyn Stone and Damon Birchfield (Auckland Council)
Wellington City Council's Home Energy Saver programme	Zach Rissel (WCC)
Build Back Smarter: Improving the performance of Christchurch's damaged homes	Lois Easton and Bill King (Beacon)
Christchurch Housing Showcase: Demonstrating what can be achieved	Verney Ryan (Beacon) and Duncan Joiner (MBIE)
Building sustainable communities: Hobsonville Point case study	Katja Lietz (Hobsonville Land Company)
Learnings from the NZ Housing Foundation's HomeSmart Home and group builder houses	Lois Easton
Panel discussion: What needs to be done to put New Zealand housing on track?	

Hastings Best Home

A new sustainable home, built by Horvath Homes and Hastings District Council, is under construction in Hawkes Bay.

Beacon has provided technical advice to Hastings District Council and Horvath Homes to design and build this exemplar sustainable home.

The Hastings Best Home will showcase best practice in sustainable building for the Hawkes Bay area. Beacon has used our HomeSmart Home specifications as guides to ensure high performance for the home and assisted with training HDC and builders / tradespeople involved in the project.

The house includes:

- Good passive solar design and use of thermal mass
- High levels of insulation
- Efficient space heating
- Solar energy and solar water heating
- Water efficient fittings
- Rainwater re-use
- Low energy lighting systems
- Kitchen / bathroom ventilation
- External shade for summer cooling
- Electric car charging point in garage
- Rainwater gardens and swales treating all stormwater from site
- Environmentally-verified and low VOC materials
- Extensive recycling of waste and diversion of waste from landfill - with the insulation now in, only 46 kg of construction waste has been sent to landfill so far.

The aim is for the house to achieve a Homestar™ rating of 7 or higher.



Concrete slab with reinforcing for thermal wall



Extensive construction waste recycling



Lois Easton with construction manager, Hugh Campbell, and designer, Andrew Whitney

NZ Housing Futures Conference: Developing more sustainable and affordable housing

Report from the floor

Lois Easton presented at the NZ Housing Futures Conference on how to achieve sustainable AND affordable housing, using the NZ Housing Foundation's HomeSmart Home and Waitakere NOW Home as case studies. There was a lot of interest in her presentation, with many attendees requesting to be added to the Beacon mail-list.

Other presentations focussed on the importance of engagement with the end users of homes, and discussed the current low rate of house construction.

While many presentations identified the scale, nature and future trends of our housing affordability problem, the main insights on how to move forward came from the international keynote speaker, David McLellan, Deputy City Manager, City of Vancouver.

Vancouver has clear housing affordability goals and has made good progress through partnering with developers and community organisations to provide wrap-around services to tenants (e.g. health, budgeting, education), and by encouraging the private sector to provide good rental options. For example, Council allowed intensification in some neighbourhoods as long as homes were rented. Interestingly, David noted that Vancouver's rental housing had a moderating influence – cushioning the city from much of the housing crisis felt across North America.

While New Zealand's rental picture varies from Vancouver, it is clear more New Zealanders are finding themselves in rental accommodation long-term. There is an opportunity for Beacon and its members to look at different models of high quality housing provision.

Beacon has a small project underway to look at the barriers to transforming New Zealand's rental stock to its high performance potential and the conference provided good insights and leads.

Southland Energy Conference 2012

Beacon Pathway is contributing to the programme for Venture Southland's Southland Energy Conference 2012.

Nick Collins will be presenting on 'What makes a sustainable home?' and 'Local government's role in sustainable buildings'; Lois Easton on 'Local council initiatives in other regions'; and Verney Ryan on 'Design specifications for the future' and 'Identifying barriers and priority areas for sustainable buildings in Southland.'

The conference theme is Advancing Energised Buildings:

- What makes a sustainable home?
- Designing, engineering and building more energy efficient buildings
- How can local and central government help?

The conference is aimed at:

- Architects and designers
- Structural engineers
- Builders
- Homeowners
- Developers and property investors
- Real estate agents
- Council staff and councillors

Registrations close on Thursday 27 September 2012.

Find out more:

www.southlandnz.com/Business-in-Southland/Southland-Energy-Conference-2012/Advancing-Energised-Buildings-Conference