Improving Neighbourhood Sustainability

Beacon’s remit is to improve New Zealand’s housing stock: a critical national asset that currently has sub-standard outcomes on a range of levels i.e. dwelling performance, human health, durability, resilience and affordability. Sustainable neighbourhoods have always been part of Beacon’s vision because of the social, economic and environmental importance of wider built environments to sustainability. This has led to the development of a Neighbourhood Sustainability Framework and tools to measure neighbourhood sustainability – both physically and socially – in order to inform decision making.

Why neighbourhoods?

The neighbourhood scale is important because this is the scale at which most people live their daily lives and where communal everyday life also takes place. The neighbourhood is the space residents, workers and visitors collectively experience and influence and it contributes to the sustainability and resilience of the wider settlement too. Within cities, neighbourhoods are often the scale at which individuals, families and groups identify and feel a sense of belonging and capacity to effect change.

As well, neighbourhood sustainability and resilience can impact on sustainability and resilience at both an individual house level and at the city level. The way a neighbourhood is laid out, for example, can impact a home’s solar gain while the location of a neighbourhood can make a direct impact on household travel costs and the viability of city-wide transit systems. Neighbourhoods, therefore, have the potential to incrementally contribute to more sustainable and resilient environments at both the more personal scale and at a wider scale.

Neighbourhoods also represent significant economic, cultural and emotional investment and attachment, often accrued over a great length of time. At the same time, neighbourhoods are anything but static. They are diverse and dynamic, constantly changing with the people living, working, and passing through them. In fact, in order to be sustainable and resilient, neighbourhoods need to be diverse and dynamic, as shown in the recovery phases following the Christchurch earthquakes of 2010 and 2011.

Neighbourhoods, then, are a critical scale for the effective investment into the improved sustainability and resilience of our built environments and the human outcomes that are influenced by these environments.

Measuring and understanding neighbourhood sustainability

From a built environment perspective, neighbourhoods encompass buildings, infrastructure and spaces (such as green and open spaces as well as connecting and dividing spaces). How these are designed, built, managed, maintained and used impacts how they influence the behaviour and outcomes of the communities that live, work and play within them.

Neighbourhood sustainability through the built environment is, therefore, about how buildings and the spaces around them work together with one another as well as with the people that use
them to generate sustainable local outcomes that also contribute to sustainability and resilience at a wider scale. Neighbourhoods that optimise their sustainability performance thus make conscious decisions to work with their assets, both human and physical. To do this successfully New Zealand must encourage new neighbourhoods and renew existing neighbourhoods to be adaptable, liveable and environmentally efficient as well as relevant and useful for the communities that live, work and play in them. These are the underpinning factors of both resilience and sustainability.

There are a growing number of tools directed at improving the design and management of settlements towards more sustainable outcomes. Such tools embrace guidelines based on professional best practice and focus variably on accreditation, decision-making and design assistance. Most are, however, developed outside of New Zealand and few, if any, also consider the involvement of community expertise, experience and aspirations.

Beacon’s Neighbourhoods team has focused on developing tools and data to assess the sustainability of New Zealand neighbourhoods. Beacon’s tools are unique in capturing community voice in relation to neighbourhoods and in fact are the only tools that have been tested with New Zealand data.

**Beacon’s neighbourhoods resources**

Beacon has two resources available to communities, developers, planners, neighbourhood managers, councils and other interested parties:

a) A toolkit, the Neighbourhood Sustainability Framework and Assessment Kit
b) A dataset of neighbourhood sustainability measures in New Zealand neighbourhoods

The kit provides a means to measure and assess the sustainability of both existing and planned neighbourhoods to inform decision making. It references the Neighbourhood Sustainability Framework which links three built environment elements and six critical domains together in order to move towards more sustainable and resilient neighbourhoods. The dataset provides robust data for comparison against actual New Zealand neighbourhoods.

In addition to the tools and supporting data, Beacon offers its expertise, developed through its research and work, to communities, developers, planners, neighbourhood managers and councils. Beacon would like to work together with other stakeholders in neighbourhoods to utilise these tools to improve neighbourhood sustainability and also to further refine and develop the tools to various New Zealand conditions.

Ultimately Beacon would like to work with others to demonstrate the viability and value of sustainable neighbourhoods by implementing decisions as guided by these tools in conjunction with communities and other stakeholders.