

## Short articles

### Housing issues – A summary and critique of the Housing Summit Outcomes report

*The Editor (SEQCA)*

Australia is currently facing a housing “crisis”. One aspect of this crisis results from surging demand and constrained supply. A second aspect, and perhaps the most pressing issue, is the affordability of what is available. This issue relates partly, but not entirely, to constraints in supply. A third issue is dwelling diversity – is the market offering a range of affordable, liveable and sustainable housing options to meet the diverse lifestyle requirements of different households operating on different budgets over different stages of their lives? Liveability and sustainability are crucial to long term affordability and quality outcomes for communities - but rushing to build more cheap homes does not guarantee the delivery of diverse, sustainable and liveable housing options. Simply building more homes will not address all aspects of the housing crisis - the issue is more complex than just resolving a supply and demand equation.

Recognising the complexity of the issue and the need for an array of short, medium and long term actions by various stakeholders, the Queensland Government convened a Housing Summit in October 2022. The proceedings and recommendations of the Summit have been conveniently summarised in the [Queensland Housing Summit: Outcomes Report](#) (November 2022). The Report is relatively brief (23 pages including glossy illustrations) and well worth a read for anyone interested in housing issues, including the associated planning and land-use implications of housing policy.

Page 3 of the report conveniently lists the Queensland Government’s current funding for housing and homelessness services. In the period 2022-2023, the Queensland Government supported more than 240 Specialist Homelessness Services with funding to the tune of \$166.3 million. It also supported 117, 788 households – we are not told at what cost - with private market products such as Rent Connect, Rental Security subsidies and a no interest loan scheme. The big budget items, however, relate to increasing housing supply. The Queensland Government committed \$1 billion to the Housing Investment Fund to drive social and affordable housing supply. At the Housing Summit that funding amount was doubled. There is also a \$70 million fund to support Build-to-Rent projects and \$200 million in the 2022-2023 State budget to build essential infrastructure to support and speed up housing supply in Priority Development Areas (PDAs) and growth areas.

The Housing Summit generated new and additional ideas for action. In addition to doubling the funding for the Housing Investment Fund, new Summit Actions targeting increased housing supply include:

- Strengthening the remit of Economic Development Queensland to drive new housing supply;
- Progressing planning reforms to facilitate and expedite housing supply and support housing diversity;
- \$5 million for a Community Engagement and Awareness Campaign on growth and housing diversity; and
- \$2.5 million for reviewing the South-East Queensland regional plan.

New funding for Housing Support measures was more modest. An additional \$48.5 million will be provided for a variety of measures including \$10 million for expanding private rental assistance

products and services and \$8.5 million to provide additional support for after-hours outreach programs.

It is highly encouraging to see that a range of measures are and will continue to be supported as a result of the Housing Summit. In particular, we welcome the greater investment in social and affordable housing. We note with some caution, however, that the majority of recommendations are aimed at ramping up housing supply with little or no detail on how these measures will simultaneously secure affordable, sustainable, diverse and liveable homes and communities for the people of South-East Queensland. We therefore call upon the Queensland Government and local councils across the SEQ region to ensure the promised Community Engagement and Awareness Campaign and the review of the Southeast Queensland regional plan offer meaningful and genuinely participatory opportunities for the community to engage with, plan for and influence the shape, character and quality of our future residential communities. The SEQ community wants solutions that deliver on *all* aspects of the housing crisis – affordability, sustainability and liveability – and we challenge our governments to listen respectfully to our voices and include us in this most important debate that affects us all.

For some additional ideas on how to address the housing crisis see the submissions to the Housing Summit by one of SEQCA's member groups, the Organisation Sunshine Coast Association of Residents (OSCAR) available [here](#).

## Implementing the '20 minute city' concept in Australian Cities

*Michael Papageorgiou (Director, Arkadia Urban Planning)*

A welcome new term has recently been added to Australian urban planning lexicon– the '20 minute city'. It is easy to understand, focuses on the daily lives of urban dwellers and manages to roll up many of the core principles of modern town planning practice into a desirable view of our future cities, suburbs, and neighbourhoods. In brief, it expresses a desire to achieve an urban form and land use pattern that will allow all residents to meet their daily and weekly needs within their suburb or neighbourhood with a journey time of 20 minutes or less. This is to be achieved by active transport (walking and cycling) and public transport (metro trains, light rail, busways, taxis, and ride share). At present it would be fair to say that Australian urban metropolitan areas would have few suburbs or neighbourhoods where this is possible in full. However, progressing steadily towards this objective (enabling more and more of your necessary trips to meet this target) would be of great benefit to all urban dwellers. It is a serious challenge, but one that is clearly worth pursuing, for social, economic, and environmental reasons.

It is not unusual to use a metaphor like time to describe the vitality of a city. Most would be familiar with the concept of the '24 hour city' as a desirable place to visit. Cities like New York, Tokyo and Las Vegas offer the tourist an urban destination that is always open for entertainment and new activities. Conversely the term '9 to 5 city' describes those mono-cultural city centres (like most Australian CBDs until the 1980s) that are busy with shoppers and office workers during the day but are eerily empty and best avoided after hours. The new twist of the '20 minute city' is that it looks at the city from the individual resident's point of view.

The '20 minute city' builds on earlier planning concepts such as New Urbanism (rediscovering the human scale, mixed use, and diversity of traditional urban settlements), Transit Oriented Development (locating improved public transport infrastructure close to existing and proposed higher density residential neighbourhoods) and Urban Villages (promoting the organic growth of precincts

with diverse local character and opportunities for community interaction). The new concept is soundly based on ecological sustainability principles with an obvious focus on reducing the impact of private car use in our cities. Less time commuting will also underpin planning concepts of healthy cities (less pollution, more time for exercise and local interaction) and local pride in the built environment with good access to nature, open space and sporting facilities through improved pedestrian and cycle pathways and good urban design for city streets.

While it is a simple concept to describe, it has the great attribute that it is clearly measurable. The clue is in the name! There is lots of research on how urban travel is undertaken and its opportunities and constraints. The concept also lends itself to the sort of analysis provided by geographers using spatial thinking and identification of how different patterns of land use perform for different users.

The concept emerged in European cities like Paris and Barcelona about a decade ago and appeared under the title "the 15 minute city". In Australia it was first presented in Plan Melbourne 2014 as the '20 minute Neighbourhood'. Other cities followed using similar descriptions in their planning policy documents and strategic plans. Australian policy makers have modified the term to 'the 20 minute city' to reflect the greater challenge we face as our cities are starting from a very low residential density and much greater dependency on private car use compared to those in Europe.

Nevertheless, I believe we are ready to embrace this focus on our needs as urban dwellers and on the goal of improving our suburbs and neighbourhoods to better meet these needs. During the recent pandemic experience, we were all suddenly placed in the position of rediscovering our local areas due to extended travel restrictions. For many people this meant using local shops and services, parks, and gardens, sporting facilities and meeting places and rediscovering their appeal. To this I can observe that our long term town planning efforts have served us well with most people finding they had access to ample areas for recreation and diverse health, educational and personal services nearby.

Implementing the '20 minute city' concept in Australia has some serious challenges. Firstly, our metropolitan areas are far too big in terms of square kilometres to ever become a 20 minute city overall. So, our focus must be on the suburb and the neighbourhood where we live. We can achieve it in parts of the city (*and the improvement of parts can enhance the whole*). This is a sensible step-by-step approach. In my suburb, the Spring Hill Loop Free Bus shuttle service has expanded its hours to cover evenings and weekends as well: it is now a heavily used service of great benefit to residents, workers and visitors travelling to the CBD and around the key destinations in the suburb itself, including schools, hospitals, and hotels.

Another fundamental challenge is the journey to work: few Australian suburbs have enough jobs within their boundaries to match their total number of residents of working age. So, we need to make sure our future neighbourhoods are even more mixed-use so they can offer more local employment opportunities for those that want this. (*Note that it is not a requirement of the 20 minute city that everyone has to work locally. Instead, the intent is to provide enough jobs that people have the option to work locally*).

To implement the 20 minute city requires substantial new investment in active transport and public transport infrastructure. This can only be an efficient spend if residential densities in the service areas are also substantially increased. It is a virtuous circle in that higher residential densities can help to pay for investment infrastructure, while public transport is the best way to service mobility in high density mixed use areas. But in Australia there are long standing community concerns about increased densities in our cities and this will mean that many people will oppose the 20 minute city concept from

that concern only. In order to be successful as a planning tool, more and more people will need to want to live in this sort of community.

Finally, as European cities are finding, there is not enough land in our existing mixed-use areas to accommodate all the land uses that people may want to access. Large employment clusters, such as airports, industrial estates, universities, hospitals, big box retail and government and institutional uses all require vast land parcels and for most people will be impossible to access without expensive new public transport infrastructure. To accommodate more diverse uses, a new urban form will be needed that can break up these monoliths into smaller more human scale alternatives. Good examples do exist in our inner cities and urban renewal areas of suburbs that go part way to meeting the 20-minute cities concept. We need to produce much better examples in future to provide a proof of concept for urban Australians.

## References

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## Did you know? Revised energy standards for new housing are due to commence in October this year.

*The Editor (SEQCA)*

### Introduction

Changes to the 2022 National Construction Code (NCC) requiring improved energy efficiency in new buildings are due to commence operation in Queensland from 1 October 2023.<sup>1</sup> The main changes will be a requirement for new houses, apartments and major renovations to meet a 7 star energy efficiency requirement instead of the previous 6 stars and a new requirement to measure a building's whole of home (WOH) energy efficiency. The Government is also progressing a voluntary measuring tool for existing houses (due to be available from 2025).<sup>2</sup> This article explains why these changes have been made and what these changes will mean for new homes in SEQ.

### Why these new requirements?

Across Australia, residential buildings account for 7.9% of all energy use, 29% of all electricity use and 11% of all greenhouse gas emissions.<sup>3</sup> The Australian Government is committed to reducing overall greenhouse gas emissions 43% by 2030 and to achieving net zero emissions by 2050. In 2019, Energy Ministers agreed on a *Trajectory for Low Energy Buildings*, a national plan that sets a trajectory

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<sup>1</sup> Victoria has recently announced it will be postponing implementation there until 2024.

<sup>2</sup> See: <https://www.nathers.gov.au/expansion>

<sup>3</sup> See: <https://abcb.gov.au/sites/default/files/resources/2022/NCC-2022-Residential-Energy-Efficiency-Overview-of-Provisions.pdf>

towards zero energy, carbon ready buildings for Australia.<sup>4</sup> Pursuant to this Trajectory, enhanced energy efficiency standards for residential buildings were agreed upon in 2022 and are due to commence in Queensland in October 2023.<sup>5</sup> This reform is not the end goal. Homes reaching a 7 star rating will still need some mechanical heating and cooling to remain comfortable to live in. A truly carbon neutral home should be aiming for a 10 star energy efficiency rating with a Whole of Home ranking close to 100%.

### **How will the new requirements be achieved?**

Passive design principles – and building to suit the site’s climate zone – can play a large role in helping home builders comply with the new 7 star energy efficiency requirement.<sup>6</sup> A government website illustrates how these principles can be applied in different climate zones.<sup>7</sup> Design features particularly relevant for Queensland include:

- Orientation – favour a north facing orientation for principal living areas
- Outdoor living – capitalise on natural breezes and air flow
- Roof and wall colours – use light colours to reflect heat
- Eliminating downlights – these interfere with options for ceiling insulation
- Increase zoning – use doors to close off areas that are likely to use air conditioning; and
- Ceiling fans

Careful attention to these principles, wherever possible, can significantly reduce the cost of meeting the 7 star energy requirement. Interestingly, the guidance also notes: “Landscape and garden design can also play an important role in passive cooling.”<sup>8</sup> Overall, these design principles seem to bear a striking resemblance to the design principles of a traditional Queenslander. Could this be a case of looking “back to the future” for home building?

Whereas the 7 star energy efficiency requirements measure and rate the overall thermal performance of a building’s initial design, the new WOH rating will measure the energy efficiency of a home’s key appliances. The WOH rating will provide a performance ranking out of 100 after measuring the energy use of the following appliances:

- Heating and cooling
- Hot water systems
- Lighting
- Pool/spa pumps
- Cooking and plug-in appliances
- On-site energy generation and storage<sup>9</sup>

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<sup>4</sup> See: <https://www.energy.gov.au/government-priorities/energy-ministers/energy-ministers-publications/trajectory-low-energy-buildings>

<sup>5</sup> [https://www.abcb.gov.au/sites/default/files/resources/2022/NCC-2022-Residential-Energy-Efficiency-Overview-of-Provisions-Text-Transcript\\_0.pdf](https://www.abcb.gov.au/sites/default/files/resources/2022/NCC-2022-Residential-Energy-Efficiency-Overview-of-Provisions-Text-Transcript_0.pdf)

<sup>6</sup> NATHERS newsletter, “Top tips for building for 7 stars” at [https://www.nathers.gov.au/sites/default/files/2022-09/22726\\_Nathers\\_Newsletter.pdf](https://www.nathers.gov.au/sites/default/files/2022-09/22726_Nathers_Newsletter.pdf)

<sup>7</sup> <https://www.yourhome.gov.au/passive-design/passive-cooling>

<sup>8</sup> <https://www.yourhome.gov.au/passive-design/passive-cooling>

<sup>9</sup> <https://www.nathers.gov.au/expansion>

As well as showing home owners how well their new home meets or beats the annual energy use budget,<sup>10</sup> the new WOH rating can be used to help demonstrate compliance with energy efficiency requirements.<sup>11</sup> Hopefully, the WOH rating system will encourage the uptake of more energy efficient appliances in new homes across Australia.

The WOH measures are the biggest update to the Nationwide House Energy Rating Scheme (NatHERS) since it began 30 years ago. We are told the WOH will, “help lower energy use and bills for households across Australia, while also ensuring comfortable and resilient homes for the future.”<sup>12</sup> Disappointingly though, apartments will need to meet lower standards than single dwellings. The ABCB guidance notes: “The annual energy use budget for apartments is around 40 per cent higher (or more lenient) than the budget for houses. This is to account for the practical challenges of installing rooftop PV on apartments.” That’s a significant difference that, once again, may leave those least able to afford high energy residences (e.g. renters, social and affordable housing tenants) with few other options.

### **Are these changes appropriate for Queensland?**

Prior to the adoption of these new energy efficiency standards, the Queensland branch of Master Builders raised a number of concerns about the cost and relevance of the new requirements for Queensland homes.<sup>13</sup> Some of their concerns related to:

- The overall cost impact on new buildings which they estimated at about \$20,000 per house.
- The unnecessary, unsuitable and unreasonable cost of double glazed and tinted glass windows in the Queensland context.
- The unsuitability of sub floor insulation particularly for traditional Queenslanders which are “built to allow cross ventilation to cool the house overnight”.
- The likelihood designers, architects and builders will move away from designs that connect to the outside as the energy standards prioritise a ‘closed box’ to facilitate efficient mechanical cooling.
- Increased requirements for eave overhangs which will prevent many two-storey dwellings being sited on small lots with a knock effect on land affordability.
- Limits on consumer choice caused by restricting building design layouts and imposing restrictions on wall and roof colours across Queensland.<sup>14</sup>

There are good reasons to question these claims. Contrary to the view of Master Builders, the Queensland Government estimates a 7 star rated home will provide an average electricity saving of \$185 per year including an average capital cost of \$1,085 over a payback period of 5.8 years.<sup>15</sup> Secondly, NATHERS sets different requirements for different climatic zones including regionally tailored, climate specific insulation and ventilation standards. The overall heating and cooling expectations for a home in SEQ are lower than for a home in Victoria.<sup>16</sup> Thirdly, as we have seen above,

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<sup>10</sup> The annual energy use budget is based on the societal cost of energy use. The total of energy used by these appliances, minus any energy generated on site must be less than or equal to the annual energy use budget. See, <https://abcb.gov.au/sites/default/files/resources/2022/NCC-2022-Residential-Energy-Efficiency-Overview-of-Provisions.pdf>

<sup>11</sup> If using NatHERS software for compliance purposes, the WOH score must be at least 60%.

<sup>12</sup> <https://www.nathers.gov.au/whole-of-home>

<sup>13</sup> <https://www.mbqld.com.au/about/policy-and-advocacy/measure-twice/our-concerns/energy-efficiency>

<sup>14</sup> <https://www.mbqld.com.au/about/policy-and-advocacy/measure-twice/our-concerns/energy-efficiency>

<sup>15</sup> <https://www.epw.qld.gov.au/about/initiatives/modern-homes/residential-energy-efficiency-standards#:~:text=For%20a%20new%20home%20in,payback%20period%20of%205.8%20years.>

<sup>16</sup> *NatHERS heating and cooling load limits*, ABCB Standard 2019.1. See:

<https://abcb.gov.au/sites/default/files/resources/2022/ABCB-Standard-NatHERS-heating-cooling-load-limits.pdf>

passive design principles are highlighted as key to achieving the new standards. Of relevance to Queensland, good insulation and glazing,<sup>17</sup> tailored to site specifications, can help keep houses cool in summer and warm in winter whether or not the air conditioning is turned on. If their cost is uneconomic, they are only two of many measures that can be included in the overall rating of energy efficiency. Other options and measures include adopting good cross ventilation, natural shading and outdoor living spaces.<sup>18</sup> And of course, our fantastic photovoltaic potential means Queensland residents can readily maximise their WOH ranking and will now have an additional incentive to do so. Lastly, for those of us who are not looking to build a new home, many aspects of the principles (for example, shading, increased insulation, and window design and placement) can also be used in home renovations.

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<sup>17</sup> Up to 87% of a home’s heating energy can be gained and up to 40% lost through windows.

<sup>18</sup> “The main methods to *reduce heat gain* are to include good insulation levels, and shade windows and thermal mass in summer. The main methods to increase heat loss are to place and design openings to allow good ventilation, add ceiling fans or whole-of-house fans, and ensure any air-conditioning works well with building design and insulation.” See: <https://www.yourhome.gov.au/passive-design/passive-cooling>