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# LIVABLE HOUSING DESIGN – IS IT LIKELY TO WORK?

## INTRODUCTION

The lack for accessible housing in Australia has contributed to the marginalisation and exclusion of people with disability, older people and their families (Saugeres, 2010). It has also resulted in significant cost to the community, through an over-reliance on support services and specialist accommodation, and responses to avoidable home-based injuries (Ozanne-Smith, Guy, Kelly & Clapperton, 2008; Saugeres, 2010). To this end, the Commonwealth Government, with key housing industry and community representatives, has committed to a voluntary approach, named Livable Housing Design, to increase the supply of accessible housing. The experience of other countries with similar challenges serves to question whether this approach will work.

This paper examines the context in which Livable Housing Design is being implemented and, based on early findings from case-studies in Brisbane, Queensland, the challenges that may need to be met. In the first section we give some context to Livable Housing Design. In the second section, we explore the implications of a voluntary approach both overseas and in Australia. The third section describes our research into the logics in use by the housing industry in providing accessible housing voluntarily and offers our preliminary findings.

## CONTEXT

The policy direction of the Australian Government towards safer, more inclusive communities and for equity of access for all its citizens has resulted in legislative requirements for non-discriminatory design of public environments. The Building Code of Australia, the mechanism responsible for developing and managing a uniform national approach to building codes and building standards, now must comply with the Access to Premises Standard developed under the *Disability Discrimination Act 1992*. The Building Code of Australia, however, makes no provision for access features in single family dwellings and the internal areas of multi-unit developments. This has resulted in a chronic and increasing need for accessible housing across Australia.

Housing Industry Association (2007), the national peak body for the housing industry, advocates that market forces should stipulate whether access features are included in housing and that regulation is not necessary. To date, voluntary initiatives both in Australia and overseas have not been successful enough to meet the need (Scotts, Saville-Smith & James, 2007). Advocates for people with disability and older people in Australia have been calling for regulation for many years to ensure a reliable supply and adequate standard of accessible housing (Office of the Public Advocate, 2005; Ward, 2005).

The opposing viewpoints of the housing industry and community groups have led to some conflict. In part to avoid this escalating, the Federal Government in 2009 called industry, community and government leaders together to find a non-adversarial approach to increase supply. This group, called the National Dialogue on Universal Housing (National Dialogue), committed to pursue an aspirational target that all new homes will be of an agreed standard by 2020 with interim targets to be set within that 10-year period (National Dialogue on Universal Housing Design, 2010b). The strategy, named Livable Housing Design, received almost universal endorsement from advocacy groups and industry representatives alike. Bill Moss, an outspoken and influential person with disability was an exception. In his article in "The Australian" newspaper, he criticised the Australian Government for not taking strong leadership and deflecting the issue to be resolved through consensus and a voluntary strategy. He wrote, "I am...appalled by this wimpish, legally unenforceable cop-out" (Moss, 2010, July 15). Nevertheless, key advocates for regulation have agreed to support the strategy until 2013 when the first target of 25% of all new housing is to provide the agreed minimum level of access (ANUHD, 2010).

## Terminology and Standards

Various terms to describe physical access in the built environment exist and we do not aim to contribute to the debate on their relative appropriateness. We use the term "accessible" because it is familiar to the lay reader. The term "accessible" is commonly used in legislation and describes the built environment where the design focuses exclusively on accommodating functional impairment, the

result usually meeting the needs of most people (Bringolf, 2009). We also use the more specific term “visitable” to describe the capacity within the design of a dwelling for a broad range of people to visit, stay overnight and join in with the communal activities of a household (Maisel, Smith & Steinfeld, 2008). The National Dialogue and Livable Housing Design use the term “universal housing design” in the agreed strategic plan (Livable Housing Australia, 2011; National Dialogue on Universal Housing Design, 2010b). The concept of universal design is defined as “the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design” (Center for Universal Design, 1997 para. 2). The term “universal housing design” is not strictly accurate in this case but it is considered more palatable (as is the term “livable”) to the general public than those terms that associate with disability or aging. At the risk of discounting design subtleties, we avoid the term “universal”, and use the general term “accessible” and the more specific term “visitable” when we describe housing designed to meet the needs of people with mobility limitations.

A vigorous debate also continues on the appropriate standard for accessibility. We do not aim to contribute to this debate either. We take as given the standard outlined in the Livable Housing Design Guidelines negotiated and agreed to through the processes of the National Dialogue (National Dialogue on Universal Housing Design, 2010a). The Livable Housing Design Guidelines offer three levels of access: the Silver Level which provides access features to allow for a dwelling to be visitable, the Gold Level has some added features to enhance the level of visitability and the Platinum Level offers a comprehensive level of access for most people with disability.

### **The Need for Accessible Housing**

Many countries are aging and, where there is also low population growth, those countries face the issue of decreasing overall productivity with fewer working-aged people to support the older population. The older population is considered by the Australian Government to be the major factor in slowing economic growth and increasing the demand on health and community services. The Australian Government recognises the need for “prudent investment in social and economic infrastructure” to meet this challenge (Australian Government, 2010, pp. ix-xii). The Australian Government’s Productivity Commission has recently reviewed how and where older people and people with disability can best and most efficiently receive the support that they need. Their initial findings recommend an expansion of community-based services, and to keep people at home and in their communities for as long as possible (Productivity Commission, 2011a, 2011b). Both reports acknowledge the integral role accessible housing plays in this recommendation. This is not surprising as the Australian Government has received previous advice to stimulate the supply of accessible housing in a cost effective and planned manner (Beer & Faulkner, 2009; Disability Investment Group, 2009; Jones, de Jonge & Phillips, 2008)

The consequences of a lack of accessible housing for people with disability, older people and those organisations which support them are also of concern. Saugeres (2010) in her Victorian based study of housing and support needs of people with disability, observed that the serious and entrenched shortage of accessible housing exacerbated “their marginalisation and dependency on carers, support agencies and the State” (p. 1) and the Monash University study (Ozanne-Smith et al., 2008) into slips, trips and falls identified high and avoidable costs to the community due to home-based injuries, particularly to older people and children, and concluded that, even considering non-structural factors which may contribute to these injuries, substantial blame can be directed to poor housing design.

The question of how much accessible housing is needed is addressed by Smith, Rayer & Smith (2008) in their study into the aging and disability in the USA and the implications for the housing industry. They estimate a 60% probability that a newly-built single-family dwelling will house at least one disabled person (with significant limitations in daily living activities lasting six months or more) during its lifetime and, when visitors are also considered, the probability rises to 91%. In the absence of an equivalent study in Australia, we consider that equivalent percentages are likely here.

### **EXPERIENCE IN OTHER COUNTRIES OF A VOLUNTARY APPROACH**

Evidence from the implementation of voluntary programs in the United Kingdom, Japan and the USA, however, serves to question whether this strategy will work and whether the goals of Livable Housing Design can be achieved voluntarily (Imrie, 2006, p. 17; Kaminski, Mazumdar, DiMento & Geis, 2006;

Kose, 2003, 2010). Voluntary approaches overall have had limited success and regulation typically provides the most reliable response. Regulation, however, is not without its problems and tends to result in inadequate standards of access and difficulties with enforcement, and is usually limited to new construction.

### **Resistance to Regulation**

The study of Nishita, Liebig, Pynoos, Perelman & Spegal (2007) across the United States of America on the acceptance of the concept of visitability observes consistent resistance to regulation and concludes that the industry's concerns are a lack of demand for accessible housing, leading to some question of the legitimacy of the expressed need, followed by some implementation challenges and perceived unnecessary costs.

The experience of the United Kingdom where basic access requirements have been mandated for all new housing in England and Wales since 1999 adds to this picture. Robert Imrie's (2003) early interviews with builders reveal an initial concern that the regulation was a heavy-handed response to meet the needs of relatively few people and did not warrant the added costs and changes to building practice. Imrie (2006, p. 133) later observes that, with time, regulation is absorbed with minimum disruption into everyday building practice.

### **Lack of Demand**

The study by Smith, Rayer & Smith (2008) offers an explanation for the lack of demand for accessible housing at the time of construction. It concludes that many people who require access features are not in the position to buy new housing, and many buyers who had not experienced disability within their family or close networks were unaware of the benefits access features could bring to their new home. One builder explains:

The problem is that folks who do not need these accommodations simply do not want them in their new home. As a moderate volume homebuilder, our experience with homes that we have been required to build with accessibility improvements has been that these homes are left as the last to sell in the project, and are ultimately sold at discount to purchasers who do not want the enhancements. One of the first things these purchasers typically do is remove the accessibility enhancements. Overall, we have not, to date, seen a demand for this kind of housing. (Lemmon, 2007 para 8)

It is not surprising then that the industry questions the advocacy for an increased supply of accessible housing by either voluntary or regulated means.

Imrie (2006) observes that the overall lack of demand for accessible housing leads to further issues for people who do request it. Many builders, like the broader community, consider people with disability and their families as a minority group with abnormal needs and requirements, who need to be treated differently and are problematic as customers as they require changes to their standard plans and building practice (pp. 47-53). Thomas (2004) confirms this culture in her study of homebuyers with disability. From the perspective of the homebuyer requesting accessible housing, she found that the salespersons are often disinterested and ill-informed about how to meet their access needs.

### **Inadequate Standard**

The study by Nishita et al (2007) notes that the advocacy required to overcome the resistance of the housing industry inevitably leads to a process of negotiation and compromise. The results are standards that often do not meet the needs of many older and more disabled people (Bevan, 2009; Imrie, 2003; Kose, 2010; Nishita et al., 2007). Imrie (2006, p. 8) also suggests that while regulation provides a consistent standard and reliable supply, it encourages a reductionist response and possibly inhibits more inclusive, generous building practices. It is useful to note that the voluntary approach presents different issues. The case-study of Irvine, California (Kaminski et al., 2006), where a voluntary approach was agreed to and implemented, finds that consistent standards for access are not achieved, and the citizens of Irvine have no assurance of a reliable supply in the future.

The reluctance of the housing industry is understandable because there is minimal demand and therefore little justification to change design and construction practice or to incur extra cost in doing so. Imrie (2006) speculates that the building industry is unlikely to respond adequately unless the

development of a standard is driven by a commitment of inclusion of all people and the standard is regulated. He also concludes that the industry is unlikely to adopt practices beyond the minimum agreed standards without a further strengthening of the legislation and possibly the use of financial incentives (p. 67).

## **EXPERIENCE IN AUSTRALIA OF A VOLUNTARY APPROACH**

Livable Housing Design follows previous initiatives to encourage the provision of access features. Many local councils have put in place incentives through their planning and development processes, and the Australian Capital Territory and South Australia have legislated for access to be provided in a small percentage of units within larger developments. Educative approaches have also been tried; some examples being the Queensland Government's Sustainable Homes Design Objectives (Department of Public Works, 2008), New South Wales' LandCom Universal Design Guidelines (Petersen, 2008) and Victorian Building Commission's Build for Life website (Victorian Building Commission, 2009). One would assume these initiatives would result in a significant increase in demand and supply.

### **Lack of Demand**

The study by Karol (2008) of the provision of access features in new private housing in Western Australia indicates the opposite result. She concludes that "there are no signs that the market place is demanding universal design in the home to meet the needs of home occupants over successive generations" (p. 83). In the absence of any national detailed study of the demand for and supply of access features in new housing, we consider various studies on the purchasing behaviour of homebuyers with regard to accessible housing and the housing careers of people who are likely to need accessible housing. Together, they paint a picture that reflects Karol's West Australian findings.

The study by the Australian Housing and Urban Research Institute (AHURI) of the housing needs of older people aged over seventy-five years in Australia (Judd, Olsberg, Quinn & Demirbilek, 2009) observed that this group tend not to move and consider their wellbeing is contingent on staying in the community they know and near their networks of support. They typically consider their current housing to be suitable until a member of the household needs assistance, at which time they prefer to modify their existing home rather than to move.

One would expect families with a younger person with disability to demand access features in new housing as their need is anticipated to be long-term. AHURI's study (Beer & Faulkner, 2009) into the housing careers of people with disability report that these households have complex lives exacerbated by the fact that they typically earn less, own less, and have greater difficulty maintaining the tenure of their home. Housing is not their only issue. These families also must co-ordinate access to support services, transport and employment which are difficult to obtain. It follows that once these families have a suitable dwelling and all these elements to maintain their lifestyle are in place, they rarely move.

On the other hand, imminent retirees or "baby-boomers" consider their housing as an investment rather than a stable family base and are anticipated to change their housing a number of times after they retire (Beer & Faulkner, 2009). This group also indicate they want to stay in the community, live well and participate long after they have retired (Salt & Mikklesen, 2009). A West Australian study into the financial and personal preparation of baby-boomers to 'age in place' by Spanbroek and Karol (2006) observes that, while this group are likely to require accessible housing in the near future, they are not showing signs of planning for the realities of old age, caring for an aging or ill partner, or securing accessible housing.

The study by Crabtree and Hes (2009) of potential home-buyers of environmentally sustainable housing in Victoria and New South Wales leads us to presume that this group may accept access features, as with other sustainable housing features, so long as they are not sold as something special or different, or as an added cost item. This group are found to support socially responsible design initiatives, however, tend to express disinterest in paying extra for some unknown beneficiary or worthy cause, or an unanticipated need in the future.

## **Resistance to Regulation**

Given the lack of demand for access features in new housing it is understandable that the industry in Australia is resistant to regulation and supports a voluntary approach driven by the homebuyer. In a radio interview soon after the Livable Housing Design agreement was signed, Kristin Tomkins, representing Housing Industry Association, summarised their position by saying, "...builders already offer these features to consumers who choose to ask for them, and a really important part of the message is we need to get consumers to ask for them" (ABC, 2010). The Housing Industry Association has rejected regulation for some time, considering it neither appropriate nor cost effective. They prefer "voluntary market-based incentives, improved consumer and industry information, and direct Government assistance" (Housing Industry Association, 2007 1st para.) to meet the need for accessible housing.

## **Inadequate Standard**

The standards developed for Livable Housing Design are also the outcome of negotiation and compromise between housing industry and the community sector representatives (National Dialogue on Universal Housing Design, 2010b). This agreement between industry and community leaders to a national guideline was an impressive achievement given the potentially polarised positions of the contributors and the short time in which it was done. Although the detail of the standard is not our focus, we suggest that, similar to the experiences of UK, USA and Japan (Bevan, 2009; Imrie, 2006; Kose, 2010; Nishita et al., 2007), a consensus process is unlikely to lead to a standard that is adequate to meet the needs of people with more significant disabilities.

## **Summary**

Similar to the overseas experience, people in Australia who need accessible housing are unlikely to buy a new dwelling and buyers of new dwellings are unlikely to request or want to pay extra for access features that they do not envisage they will need, unless there is significant intervention. Livable Housing Design has the support of industry and community alike regarding their national voluntary strategy and deserves to be given a fair go. Not known is what significant intervention is required here in Australia for the housing industry to respond. Our research explores the logics in use of the providers within three housing contexts to respond to a voluntary guideline and, using Livable Housing Design as an example, what is likely to assist and impede the attainment of the 2020 aspirational goal.

## **RESEARCH**

### **Methodology**

Our research looks at the logics in use of people who are providing accessible housing voluntarily and we use Livable Housing Design as an example. We are using program theory as a framework, with a voluntary code as the key intervention, the supply of accessible housing as the outcome, and the Livable Housing Design standard as the key output to date. This research is being carried out as the Livable Housing Design program is being developed; it was launched in July 2010 and planned to be implemented in July 2011. We anticipate Livable Housing Design will have further outputs in the form of a website and training materials, and secondary interventions possibly in the form of incentives. Program theory provides a logical evaluative framework to clarify if, when, how and possibly why the program works or does not work. We find Dahler-Larsen's (2001) constructivist approach to program theory particularly useful as it addresses the process of a changed understanding; in this case, of the benefits and challenges of accessible housing by both providers and homebuyers over time.

We consider a theoretical perspective of critical inquiry, using a framework of immanent critique, to be useful here as the experience of other countries and in Australia invites us to question a voluntary approach, in particular the Livable Housing Design program and its capacity to reach its goals. We have chosen the framework of immanent critique for data analysis because it goes beyond conventional criticism in three logical steps. It teases out the difference between what is said to be done and what is, in fact, done. It then considers what could be done to improve the situation and finally it offers a practical way forward (Sabia, 2010).

## **Case Studies**

Within the research we aim to do twelve case-studies in Brisbane, Australia using in-depth interviews with builders, developers and designers, and site visits and documents describing the projects. The research is using a range of housing types, including apartments and single family dwellings, in social housing and private housing contexts, and within developments under the auspice of the Queensland Government's Urban Land Development Authority. The research is planned to be completed by mid 2012; therefore, we offer only preliminary findings from the data collected and analysed thus far. At this stage we have completed observations on five dwellings, (two in private housing and three in social rental housing) and a total of ten interviews with all three housing contexts represented.

## **PRELIMINARY FINDINGS**

### **Experience of Minimal Demand.**

All interviewees were confident in their capacity to design and build accessible housing. However, the two companies in the private industry estimated around 1% of the dwellings they build are accessible. Both private companies indicated the design features included are those considered to be most popular, rather than "worthy". The smaller family company considered it worthwhile to respond to requests for access features, at an added cost. The larger company took a "take it or leave it" stance, preferring not to respond to requests for modifications, as a strategy to maintain a competitive price. They had developed some designs for accessible housing in the past but these were rarely used.

The social housing providers said they had built and managed accessible housing for many years and experienced significant demand for rental properties due to their particular client group. Of interest was the experience the buyer response to the accessible housing recently built under the National Rental Affordability Scheme. The accessible units were more difficult to sell to the investor market.

### **Many Features Already Included**

All of the dwellings observed provided some of the features of the silver level, for example, 1000mm wide corridors, stepfree entry from the garage, or step-free travel from the boundary or the carport. A small private developer said, "I don't have any problems with the silver level. We virtually just about are there now already". All of the interviewees considered it achievable to include all of the features at an extra cost, further design consideration and a reduction of space in other areas.

They identified some issues, such as steep sites, difficulty in including reinforcement in the bathroom and toilet walls, waterproofing at the front door, and the drainage of a step-free shower. Apart from the issue of access to the entry on steep sites, the other issues were not consistent, and were sometimes dismissed by other interviewees in the same case-study.

### **Training Not Considered Necessary**

All interviewees considered that the current practice of building is sufficient to provide the features listed in the silver level. None of the features was considered to be technically difficult. Of the guidelines, the developer from the small private company said, "These [guidelines] are great. I read the book and that's all I needed to do. I wouldn't need to go to a course or anything, because we are fairly aware of this kind of thing".

All the interviewees expressed some confusion regarding the purpose and benefit of including access features. No interviewee, as yet, has expressed a concern about the lack of accessible housing in the market. Regarding the idea of including the access features as regular practice, the responses varied from supportive to concern about increased cost caused by the needs of a minority group. One designer expressed her surprise at not considering the idea sooner: "...immediately you think universal design is for catering for people with disability...but I mean, the aging population – I think the one that resonated with me was...families with prams – trying to move around in a safe home. It's invaluable – it shouldn't be questioned".

Of interest were the completed dwellings within the social housing case-study. In accordance with the funding requirements of the Nation Building Economic Stimulus Plan, some dwellings were built to the prescriptive Australian Standard 4299 for full accessibility and the rest were built to the less complete universal design guidelines. These less prescriptive universal design guidelines do not require a continuous path of travel from a carport or boundary, a stepfree entry or a toilet useable by people with mobility aids. The developer, designer and builder considered all the dwellings to be visitable because they are described as such. On observation, those dwellings built to the less prescriptive guidelines included a lip at the entry and bathroom, and a small toilet space making them inaccessible to many people with mobility aids.

### **Cost is a Concern**

A number of interviewees raised the concern that this is yet another initiative that would make housing less affordable. Without exception, each interviewee identified the perceived added cost of the access features as the primary concern. One developer said, "It's only cost. So that would be my only reason – none of them are in a planning sense any real imposition - just that little incremental cost on the project". Another builder explained his concern about extra cost: "It's just getting dear for everyone – when you are talking about how much glass [is required] in a place now and insulation [that's] got to go in a place now, I think [of] the first home buyer with all that cost they can't afford".

The perceived extra cost was seen to benefit few at the expense of others. One builder of private housing explained, "I don't really see there's a lot of call for it. I think it probably should be done for particular people who need that type of thing done. Otherwise it just costs everyone money and, you know, it might get used – it might not get used – so, why should people be borne with that cost of doing it if they don't really require it. That's my point of view". A builder of social housing supported this view: "Personally I wouldn't be building one unless someone wants one done – yeah, fair enough, everyone's going to be paying for it. How many houses are they going to build in a year for someone in a wheelchair or something or a disability – if someone wants a house you build one – if someone doesn't want it why put money into one where it's not needed?".

There was recognition that if everyone were providing access features the costs would decrease, however there would be some reluctance to start because of the costs in changing current practice. One builder explains: "...because they would have to redraw all their plans and it would just be too much cost for them to do it."

### **Necessity of Regulation**

In response to what would assist the industry to provide the silver level and eventually meet the 2020 aspirational goal, the consistent answer has been a regulatory approach. While regulation was considered to be necessary to meet the 2020 goal, a number of interviewees recognised that good information and the use of incentives would help prepare those providers who were interested, and would reduce the housing industry's reluctance. There was agreement that incentives would benefit the acceptance of Livable Housing Design, particularly if the incentives targeted the provider rather than the homebuyer as most design decisions were made long before the homebuyer was identified.

An architect explained the challenges of the voluntary approach within a reluctant environment: "If it's not legislated it has to be someone on the project team – the client, the developer, the builder who is passionate about it, who will champion it, otherwise I don't think it is going to happen". Given that cost is the major concern, the family builder explained, "We have to keep competing in the market place so unless it's made compulsory we would probably never go down that line". Another builder explained that if it were regulated they would comply: "Well, we just do what's on the plans – if we are told to do it, we do it. And we don't argue."

## **DISCUSSION**

We acknowledge that the data collected to date are insufficient to do more than identify any similarities with the experience in the United Kingdom and the United States of America, and some possible indicators of what would impede or assist the take up of a voluntary code and Livable Housing Design reaching its 2020 goal. At this stage in the research we offer three points for discussion, which we anticipate will be further developed as the research proceeds.



The first is there appears to be little existing reason for the housing industry to respond voluntarily to providing accessible housing. The demand is considered to be minimal and the proposed changes are considered to benefit a small minority at the expense of many, making housing less affordable. An intensive and significant investment will need to be made to convince the housing industry to provide access features voluntarily and for the homebuyer to demand them. We support the interviewees position that regulation, supplemented by good information and incentives, is likely to be required if a reliable standard and supply is to be achieved by 2020.

The second is that the industry does not consider the provision of access features will require the extra skills needed or training beyond current building practice. This is positive at first glance; however, our interviews and observations of completed dwellings indicate a lack of understanding of the purpose of access features and its interpretation into the built form. We consider at this stage that the industry will require prescriptive standards supported by training, at least until the provision of access features is common practice.

The third is the absence of and the need for an articulated rationale from the Australian Government for the need for accessible housing and its role in inclusive communities. We consider the voluntary approach of Livable Housing Design, and indeed the 2020 aspirational goal, is a formidable challenge for the housing industry. They are being asked to provide accessible housing in spite of minimal demand, to change their design and construction practices and to incur extra costs without assurance of cost recovery. They need to know why. A possible first step is for the Australian Government to develop a clear, cogent reason for them to do so.

## **CONCLUSION**

We suggest the answer is “no” to the question, “Livable Housing Design – is it likely to work?”. Livable Housing Design through the National Dialogue has committed to a goal that will be very difficult to achieve. Nevertheless, this non-adversarial process has resulted in considerable support, at least until 2013 when the 25% target is to be achieved; everyone wants this voluntary strategy to work.

Yet if it doesn't work, and if the lack of accessible housing is to be addressed, a regulatory approach is very likely to be required. As Bill Moss (2010, July 15) predicted, the Australian Government may have to resort to stronger action than a consensus approach, to meet the Livable Housing Design's 2020 goal.

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