



“Let’s do it right first time”

Response to the Consultation Regulatory Impact Statement

Proposal to include minimum accessibility standards
for all housing in the
National Construction Code



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Abbreviations

ABCB	Australian Building Codes Board
ANUHD	Australian Network for Universal Housing Design
BMF	Building Ministers Forum
CBA	Cost/benefit analysis
CIE	Centre for International Economics
COAG	Council of Australian Governments
DCWC	Donald Cant Watts Corke (Quantity Surveyors)
LHA	Livable Housing Australia
LHD	Livable Housing Design
NCC	National Construction Code
NDUHD	National Dialogue on Universal Housing Design
OBPR	Office of Best Practice Regulation
RIS	Regulatory Impact Statement
UNCRPD	United Nations Convention of the Rights of Persons with Disabilities

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Executive summary

ANUHD endorses the stated objective of the RIS with the addition of the word [all]:

to ensure that [all] new housing is designed to meet the needs of the community including older Australians and others with mobility limitations.

ANUHD supports Option 2—“Let’s do it right first time”—which provides the minimum accessibility standard that is compatible with the objective of the RIS. Option 2 is what ordinary Australians want—a home where they feel safe and included and where they can age in place.

ANUHD also supports Dalton/Carter’s¹ recommendation that a further assessment of a combination of options, namely combining Regulation, with Option 5 (a subsidy program to encourage availability of accessible rental properties) as indicated for good economic reasons. It then becomes a policy package that regulates the most cost-effective level of access and stimulates the benefits inherent in the CIE report.

An enhanced matching service would:

- Increase the proportion of the usable life of an accessible home during which it would be occupied by a household that needs it.
- Bring forward the benefits of an accessible home being occupied by a household that needs it, thus reducing the time period for which future benefits would need to be discounted.
- As a result of both of the preceding factors, increase the present value of the benefits that flow from making a new home accessible.

ANUHD refutes the finding of the Consultation RIS that costs outweigh benefits for all Options if a 7% discount rate is applied. This finding is also refuted by Dalton/Carter. Their report finds that benefits outweigh costs in all Options even with a 7% discount rate. Dalton/Carter notes that Option 2 would be the most cost-effective option that both meets the objective of the RIS and provides accessibility for people who use wheelchairs.

ANUHD identifies the following key concerns:

- **The cost/benefit analysis in the RIS warrants scrutiny**

ANUHD challenges a number of assessments in the Consultation RIS, including:

- the adoption of a discount rate of 7% discount rate in the central ‘central case’,
- the true cost of informal care,
- construction and training costs related to accessible housing, and
- the estimation of additional space that would be required, and its cost.

¹ Dalton and Carter Report (2020) was commissioned by the Melbourne Disability Institute and Summer Foundation to provide economic advice to assist with responses to the Consultation RIS.

- **The RIS is incomplete and misleading without qualitative analysis**

The Consultation RIS acknowledges that the quantitative data on which it is based is incomplete and unreliable, but fails to include a proper qualitative analysis.

Furthermore, the Consultation RIS fails to integrate into its analysis the import of over-riding Government policy frameworks in the areas of aged care, disability supports, and human-rights.

- **The Livable Housing Design guidelines are watered down to become inaccessible**

The draft changes to the NCC have watered down the LHD guidelines. The LHD guidelines were agreed to over 10 years ago by housing industry, community and human-rights leaders (NDUHD, 2010). The draft changes to the NCC, as they stand, would render homes built under any of Options 1-4 inaccessible.

- **The consultation process does not meet best practice**

ANUHD conveyed to the ABCB our members' concerns about the consultation process that was adopted. We acknowledge that some concessions were made, but we remain of the view that the consultation process has been confusing and inadequate, particularly for people most affected by the lack of accessible housing.

Finally, the Consultation RIS only gives minimal attention to the significant societal changes that are currently occurring which would be materially impacted by the adoption in the NCC of an access standard for housing.

ANUHD cautions that the answers to the questions in Section 2 must be considered within the broader concerns raised in Section 1, namely, the questionable assessments in the Consultation RIS, the lack of qualitative analyses, and the deficiencies in the consultation process.

Introduction

This paper is the response of the Australian Network for Universal Housing Design (ANUHD) to the Consultation Regulatory Impact Statement: Proposal to include minimum accessibility standards for housing in the National Construction Code.

Australian Network for Universal Housing Design

ANUHD is a national network of designers, builders, researchers, and home occupants who consider that housing is a vital component of Australia's infrastructure which must cater for Australians' current and future needs.

Since 2002, ANUHD has called for minimum access features for all new and extensively modified housing to be mandated in the National Construction Code (NCC). ANUHD's stated position since 2015 has been, and remains, that the LHD guidelines Gold level should be the minimum level of access.

Objective of the RIS

ANUHD endorses the stated objective of the RIS but with the addition of the word [all] namely:

“to ensure that [all] new housing is designed to meet the needs of the community including older Australians and others with mobility limitations.”

An access standard in all new housing would result in accessibility no longer being “an optional extra” or “for special people”. It would provide for most people to inhabit or visit a dwelling throughout its life cycle. Accessibility is for everyone, every time, every day.

This document outlines ANUHD's concerns with the Consultation RIS in Section 1, then responds to the questions provided in the online Consultation Hub in Section 2.

Section 1: Commentary

1. The CIE cost/benefit analysis warrants scrutiny

ANUHD expresses its concern that the cost/benefit analysis in the Consultation RIS has findings that are in direct contrast to the Dalton/Carter Report (2020). Dalton/Carter identifies four key issues with the Consultation RIS:

1. **The CIE's 'problem reduction approach' over-counts the cost side.**
The significant benefits that flow directly from improved design and functionality to the general community are not included.
2. **The CIE's 'willingness to pay' approach under-counts the benefit side.**
A societal perspective should include consideration of both the potential resources savings plus the value of the improved accessibility. This has not been done.
3. **The CIE's approach to the opportunity cost of space ignores capital gain and 'utility of space'.**
In valuing space to the occupants, the CIE only captures the benefits of enhanced functionality. The value of space should be the sum of both the enhanced functionality from improved accessibility and the capital value.
4. **The CIE's discount rate that does not reflect current economic practice.**
The discount rate has a huge impact on the benefit-cost ratios. The CIE uses 7 per cent (as directed by the Office of Best Practice Regulation) when the discount rate widely used in the health sector is 3 per cent.

Table 1 below shows the results if the four problems are addressed. (A ratio greater than 1.0 means the benefits are greater than the costs.)

Table 1. Benefit/cost ratios in the CIE Report and after adjustment using Dalton /Carter Assumptions

	Option 1	Option 2	Option 3	Option 4	Option 5
1. Base case benefit -cost ratios in CIE report in RIS	0.77	0.14	0.11	0.09	1.00
2. Adjust for symmetry in cost and benefits using the 'willingness to pay' approach (25% overlap to allow for building modification being reflected in both approaches)	2.00	0.68	0.54	0.39	1.48
3. Symmetry applied to WTO approach (25% overlap), plus add capital value of space to benefit side	2.46	1.10	0.95	1.03	1.48
4. Add in effect of 3% discount rate to row 3	2.99	1.34	1.16	1.26	1.81

Dalton/Carter acknowledges Option 2 (Gold standard) as the most cost-effective of the options that meet the objective of the RIS and achieve functionality for those in wheelchairs (p. 29).

Below is a more expansive elaboration of ANUHD's concerns regarding the cost/benefit analysis in the Consultation RIS.

1.1. People other than those with mobility limitations are impacted

Consider households and networks, as well as individuals

Although the Consultation RIS acknowledges that *"there is a cost to the community where vulnerable members of the community, such as people with disabilities and older Australians do not have access to housing that meets their needs"* (p. 23), it omits to measure the impact on the whole household. People who need accessible housing are ordinary people who have everyday relationships beyond 'carers'; that is, they have partners, children, parents, extended family, and friends, even if they live alone. If a person is marginalised from their network, discriminated against, or isolated by inaccessible housing design, the people in their network are also impacted.

The Consultation RIS does consider families in the calculations on moving home but does not measure thoroughly the impact of visitability; that is, the ability of a dwelling to provide for visitors as well as residents. Quantitative analyses in the USA (Smith, Rayer, & Smith, 2008; Smith, Rayer, Smith, Wang, & Zeng, 2012) estimate that there is a 60% probability that by 2050 a newly-constructed single-family dwelling (Class 1a) will house at least one resident with a long-term physical limitation during its lifespan. When visitors with similar level of impairment are considered, the probability rises to 91%. These studies are highly persuasive for Australia given that the demographics and housing practices of the USA and Australia are very similar.

Consider self-care as well as mobility limitations

The Consultation RIS (p.142) appears only to include people with mobility impairment who are receiving assistance with mobility (moving about the dwelling, visiting other dwellings); however, as recognised in the Survey on Disability, Ageing and Carers (SDAC), assistance with self-care (showering, and using the toilet safely) is also an important aspect that is affected by housing accessibility.

The Consultation RIS states:

Based on the information available we estimate that the costs associated with a lack of accessible housing could be in a range between around \$2.2 billion and \$2.7 billion per year, with a central case estimate of around \$2.5 billion (based on 2018 data) (table 2.1). As we have

primarily relied on the ABS Survey of Disabilities, Ageing and Carers, these costs mainly relate to people with a long-term disability (defined as longer than 6 months). (p. 24)

This individualised approach focusing on older people and people with long-term disability ignores the benefits for other people, including people with chronic illness, obesity and short-term disability.

Consider people with chronic illness, obesity and short-term disability

Many people with chronic illness do not identify as having a disability. The impact of accessible housing on this expanded cohort should also be measured².

The most recent data from the Australian Bureau of Statistics (2018) finds that just under half (47.3%) of Australians had one or more chronic conditions in 2017-18, an increase from 2007-08 when two-fifths (42.2%) of people had one or more chronic conditions. Chronic health conditions experienced in Australia in 2017-18 that are pertinent here include:

- Back problems - 4.0 million people (16.4%)
- Arthritis - 3.6 million people (15.0%)
- Asthma - 2.7 million people (11.2%)
- Diabetes mellitus- 1.2 million people (4.9%) [Type 1 Diabetes - 144,800 people (0.6%) and Type 2 Diabetes - 998,100 people (4.1%)]
- Heart, stroke, and vascular disease - 1.2 million people (4.8%)
- Osteoporosis - 924,000 people (3.8%)
- Chronic obstructive pulmonary disease (COPD) - 598,800 people (2.5%)
- Cancer - 432,400 people (1.8%)
- Kidney disease - 237,800 people (1.0%)

In 2017-18, two thirds (67.0%) of Australian adults were overweight or obese (12.5 million people), a condition that is on the increase not only in numbers but also in severity. There is also a large increase in the incidence of obesity in people aged 18-24 years. It has been established that, for many people, obesity leads to chronic health problems later in life.

Although not all people with obesity or chronic illnesses have core activity limitations, many do—either lifelong or from time to time. This cohort should be included in the quantitative analysis.

There are also other people who would benefit from accessible housing, including families with small children, pregnant women, people suffering from injuries, furniture

² These groups are considered by the World Health Organisation to be at the higher risk of contracting COVID-19

removalists, paramedics, emergency service workers and so on, albeit for shorter and sporadic periods of time.

The costs of short-term disability or injury (people recovering from an accident or an operation) may be lower per person than the costs per person for people with long-term disability, but the number of persons with a short-term disability or injury is far greater. People who incur a short-term disability are unlikely to have cost-efficient arrangements in place for care and support. Also, many of the people with a short-term disability and their short-term informal carers will still be in the prime working stage of their lives and thus will lose more income for each day of physical restriction.

1.2. Lack of thorough assessment of the baseline

The assessment in the Consultation RIS of what is currently being provided, and for how long, is inadequate. The baseline is described on p. 70:

A key element of a CBA is establishing a 'baseline' against which the costs and benefits of each of the policy options are assessed. A typical baseline is a 'business-as-usual' case; that is, the scenario without the policy (or policies) in question.

As set out in chapter 2, there are a significant number of policies aimed at ensuring that older Australians and people with a disability have access to housing that meets their needs. The baseline scenario assumes that these policies will continue.

Policies and programs without a commitment to meet need, to act, or to achieve measurable outcomes are meaningless and misleading. The Consultation RIS's baseline is based on inadequate assessments on the success or otherwise of existing government initiatives.

The success or otherwise of existing government initiatives

The Consultation RIS is misleading about the outcomes of existing government initiatives. We respond to the statement:

Key policies to ensure that people with disabilities and older people have access to housing that meets their needs include:

- *funding home modifications and other support services (through the NDIS and various aged care policies) to support people with mobility limitations to stay in their own home*
- *funding for residential aged care places*

- *planning policies put in place by some state and local governments to encourage private provision of accessible housing*
- *provision of accessible social and community housing. (p. 24)*

This statement is made without scrutiny of the outcomes for users of these initiatives and for how long the initiatives are expected to continue. We explain below:

Home modifications

Home modification programs across Australia have historically been of variable quality, underfunded and have not met need (Jones, de Jonge, & Phillips, 2008; Layton, 2012; NDCC, 2009). Although there is greater assistance from the NDIS, there is no evidence that this has changed to any great degree. The consultation RIS does not measure the unmet needs that exist, both through ineligibility for funding through the NDIS (80% of people with disability) or aged care packages, or by not having access to alternative government or private funding for home modifications, assessment and advice, and installation. It also does not recognise the costs of providing alternative support for people waiting for home modifications, residential aged care or Specialist Disability Accommodation.

The Consultation RIS also assumes that already modified housing is accessible. Home modifications are changes made for an individual to adapt living spaces to increase usage, safety, security, and independence. It cannot be assumed that they will result in greater accessibility. The recent KPMG report on home modifications (2014) identifies a lack of a reliable standard and variable expertise of assessors and builders. Further, many people who require major modifications to their homes cannot afford them, and they then make do with inadequate housing because they have no alternative (Jones et al., 2008).

Getting home modifications done is complicated, especially when government funding is required. The statement that home modifications can be done in 7 weeks does not consider the preceding stages of referral, assessment, reporting and recommendations, and review and approval processes. Average waiting times for assistive technology, including home modifications, vary from several weeks to more than two years. Most Australians wait between three and six months for initial assessments for complex assistive technology, including home modifications (Pearson, O'Brien, Hill, & Moore, 2013). That is just the time to get the first assessment. The assessment then needs to be translated into a report with recommendations, which is then considered by funding bodies (e.g. state government, aged care, NDIS, injury insurance, or charity grant agencies such as YoungCare) and building compliance processes. This can take an additional three to twelve months. If approved, installation may be completed within three to six months (if tradespeople are available). If declined, another assessment may be required, restarting all the time periods referred to above.

In summary, the costs associated with assessment, recommendations and reporting on home modifications, and the costs of interim alternative arrangements (including hospital admission, greater use of support workers and informal carer support, hire of hoists and other assistive equipment, rental or hotel accommodation) should be thoroughly assessed and factored into the analysis of the cost of home modifications.

Funding for residential aged care places

The Consultation RIS only gives a cursory overview of the residential aged care sector. Although funding for residential aged care places has increased, there is no consideration of whether it is a solution many older people want, or of how long they must wait when alternatives are not tenable. The most recent research reveals that between 78 and 81 per cent of older Australians aged over 55 (depending on age cohort) do not want to go into residential aged care. They want to live in their own home as they age, and placement in residential aged care is typically against their will (AHURI, 2019).

An AHURI study into downsizing (Judd, Liu, Easthope, Davy, & Bridge, 2014) reveals that housing issues for older people are complicated and diverse, and that little is understood about the housing pathways of older Australians; in particular, the who, what, when, where, why, and the how decisions are made.

The recent report from the Royal Commission into Aged Care and Quality (2020) confirms that there are many unfounded assumptions about older people. Most older people want to remain in their own homes and stay connected and contributing to family and friends. Rather than the common assumption that older people are a burden, the report found that:

Older people in Australia are currently playing a vital role in supporting family life by providing free babysitting and childcare, without which many working families acknowledge they would be very financially stretched. Many see older people as enriching our community through their wisdom and knowledge and by passing their experience on to younger generations through storytelling. To do this effectively they need to be present in community living in accessible mainstream housing, not sequestered into retirement villages and aged care residential (p. 8).

This signals that the needs and aspirations of older people have long been ignored, dismissed or misunderstood, to the detriment of their wellbeing and safety. The RIS must consider the findings of the Royal Commission into Aged Care Quality and Safety, together with peer-reviewed research, to appreciate fully the beneficial impact of an access standard for all housing on older people.

State based planning policies

State based planning policies have been tardy in addressing the lack of accessible housing. A handful of planning policies in some state and local governments require between 5-20% of housing to be accessible. ANUHD contests the finding that these initiatives stimulate the private housing sector to provide a reliable supply of accessible housing. Deviations from standard housing practice are considered by many in the building industry as a burden to be avoided if at all possible. Further, none of the national tax-funded incentives for buyers and builders of private housing over the last two decades, including negative-gearing, the First Home Owners Grant, and the recent HomeBuilder grant have required accessibility in their conditions.

The last major incentive which required accessibility was the national stimulus package for social housing in 2009 (Australian Government). It required 20% of its Class 2 dwellings to meet AS 4299 Class C. The remaining 90% had an arbitrary set of access requirements that do not meet the needs of tenants with mobility difficulties.

The exception is the Specialist Disability Accommodation initiative for NDIS clients (NDIS, 2016). This dedicated program is stimulating the private and social housing industry to supply accessible housing for people with severe and profound disability, and has been successful because:

- the incentive is financially very generous
- there are mechanisms to match housing to tenants
- the provision of the access requirements is thoroughly checked before any financial incentive is provided.

Unfortunately, an unintended consequence of this program is that it is yet another example of making accessible housing an expensive and marginalised response to a 'special need' rather than an economic efficiency and social normalisation that would arise from mandating access for housing in the NCC.

Provision of accessible social housing

Social housing makes up less than 5% of Australia's housing stock. Each State and Territory has a different standard and approach to providing accessible housing (ANUHD, 2017); and no jurisdiction has met the agreed target as set out in the 2010-2020 National Disability Strategy; that is, 100 % of all new social housing to Gold level by 2019 (ANUHD, 2010).

There are no long-term government strategies or programs planned to increase social and affordable housing at a rate that would meet the needs of Australia's growing population. Of the 20,400 newly allocated households in public housing 15,600 were households that were in greatest need (AIHW, 2019). Social housing is now more about the provision of crisis accommodation than about the provision of secure long-term housing for people who are unable, for various reasons, to access the private market.

ANUHD acknowledges the tenacious efforts of the social housing sector to address the shortfall in affordable housing, but social housing is not, and is unlikely ever to be, a viable strategy to address the lack of accessible housing in Australia.

Assessment of existing accessible stock

The Consultation RIS states that “*previous estimates and stakeholder feedback suggest that around 5-10 per cent of new stock currently meets LHD Silver standard*”. This is not substantiated.

An unfunded community-based study by ANUHD & RI Australia (2015) concluded that:

In spite of the support of the Australian Government and the sustained efforts of Livable Housing Australia, the housing industry, as a whole, has failed to show signs of voluntary systemic transformation. A generous estimation is that the current voluntary approach will achieve less than 5% of the National Dialogue’s 2020 target. (p. 13)

To our knowledge, this is the only quantitative study available. This study was done in response to the lack of review by the National Disability Strategy or Livable Housing Australia. It should be noted that the study has not been contested and has been cited by researchers, governments and housing industry leaders as the definitive measure of this failure.

In summary, the Consultation RIS has not sufficiently analysed the outcomes of government programs in meeting the need for accessible housing.

1.3. The ‘Central Case’ should be based on a lower discount rate

The Consultation RIS uses a 7 per cent real discount rate as its ‘Central Case’ but notes on page 126 that “*Consistent with OBPR requirements, we also calculate the net benefits under alternative discount rates, 3 per cent and 10 per cent.*” Significantly, when a discount rate of **3 per cent** is used, Option 1 shows a benefit rate of 1.27, as compared with a benefit rate of 0.77 when 7 per cent is used as the discount rate.

At a time of record low nominal and real interest rates, even for bonds extending out 30 years, ANUHD considers that it is inappropriate and unhelpful for policy makers to use a 7% real discount rate as the ‘central case’.

To support this position, we note that:

- The Senate Inquiry into the Australian Government's role in the development of cities (2018) recommended a **4 per cent** discount rate (p. 406)
- The Grattan Institute (2018) advised the Australian Government to consider a discount rate of **3.5 per cent** on projects with very low systematic risk, such as essential urban infrastructure (p. 4).

- The RIS for adaptable housing for the New South Wales Government (Hill PDA, 1999) used **4 per cent** discount rate (p. 14).
- The RIS for adaptable housing for the Victorian Government (2010) used **3.5 per cent** discount rate.
- The RIS for regulatory changes to housing for the City of London (2015) used **3.5 per cent** discount rate (p. 72).
- The discount rate widely used in the health sector is **3 per cent** (Dalton & Carter, 2020).

We acknowledge that a discount rate of 7 per cent is recommended by the OBPR (2016); however, the OBPR also advises that: "*...the preferred approach is to base the discount rate on market-based interest rates, which indicate the value to the current population of future net benefits*" (p. 6). In this sense, the OBPR contradicts itself.

The discount rate has a huge impact on the RIS. Any reduction in discount rate will clearly favour the benefit side more than the cost side. A more realistic discount rate in line with current economic thinking and practice supports the argument for regulation to Gold Level (Option 2).

1.4. Overestimation of the need for additional space and its cost.

The Consultation RIS assumes that any requirement for extra space is purely a cost without any countervailing benefit. It does not take account increased utility and capital gain that occurs in meeting enhanced performance requirements. Wider corridors, more working space in a kitchen etc. can add utility and value to a home. Also, homes, especially apartments, are often valued using a rule of thumb based on the Net Lettable Area of a dwelling. Thus, it is not clear that a builder would necessarily suffer any net cost by making a dwelling marginally bigger than it otherwise would have been, even if it resulted in a lower yield (e.g. fewer dwellings being built on a site).

Many Class 2 designs use passage, bathroom or kitchen space for dual activities; that is, the laundry is in a cupboard in the corridor or in the kitchen, , showers and toilets share access space, and a study nook is often situated near an entry. This is effectively shared space and should be costed accordingly.

The Consultation RIS rejects the idea that the loss of internal floor space can be overcome through better design (p. 80). It takes the position that the assessed additional construction costs plus the value of land where the building footprint expands is a reasonable indicator of costs—regardless of whether the building footprint expands, or additional space requirements are absorbed internally.

The Consultation RIS also assumes that innovation and quality of design does not improve through mandated design requirements. The opposite has been found to be true. The apartment guides in NSW (2015) and Victoria (2017) through State planning mechanisms markedly improved the quality of design and the level of innovation in

apartment construction and ended the proliferation of substandard sole-occupancy units.

The Consultation RIS also does not factor in the recovery of costs through the supply of better designed buildings (lighter, more airy spaces, more thoughtful layouts and greater ease of movement) for early adopters of the standard before it is mandated. The City of London's RIS found that this to be a significant cost recovery factor with the lower end of the recovery range at 60% of costs (EC Harris, 2014).

1.5. No recognition of the benefits for the housing industry

The Consultation RIS has focused on costs and omitted to measure the benefits for the housing industry. Inserting a uniform accessibility standard in the NCC would lead to efficiency gains especially for developers with a nation-wide scope of operation, and for smaller operators who currently tender for work with different accessibility criteria applicable to each project. There would also be material benefits that would accrue to Governments, NGOs and others in not having to spend time and expertise discerning which accessibility standard is appropriate, detailing and explaining to tenderers the specific standards for a particular project, and later checking that the construction work has complied with the accessibility rules that were drawn up for that project.

1.6. Overestimation of transition costs

The Consultation RIS has calculated that, because the proposed changes to the NCC would be significant, industry stakeholders would incur significant one-off costs associated with familiarising themselves with the new code requirements.

This assumes that the proposed changes to the NCC are unfamiliar and the changes will be disruptive. This assumption is disproven in recent research (Ward & Franz, 2015), which found that all the features of the Silver level are used, though not consistently or reliably, in established building practice. (The Consultation RIS also acknowledges this on pp. 93-94.)

The LHD Guidelines were developed with the close involvement of housing industry leaders over a decade ago. Existing training initiatives by the Institute of Access Training Australia³, Building Designers Association Australia⁴, and the Centre for Universal Design⁵ are already in place and there are now many advisors and assessors throughout Australia familiar with the Livable Housing Design . The purpose of these training initiatives has been no more than to promote good design practice using LHD guidelines prior to accessible design becoming mandatory.

³ Institute of Access Training Australia: Livable Housing Australia – [Design Guideline Assessor Course](#)

⁴ Building Designers Association Australia: [Crossing the Threshold](#)

⁵ Centre for Universal Design Australia: [Home Coming](#)

Given that the building industry would have considerable notice of forthcoming changes to the NCC, there would be ample opportunity to transition to the new standards, including building new display homes. The London experience shows that builders recover their costs from adopting the changes ahead of time (EC Harris, 2014).

Overall, these transition cost for architects, building designers, builders & certifiers would be minimal as this sector of the industry is well accustomed to changes in building codes, regional differences in council legislation, specific covenant requirements and DA compliances. It is part of the job.

1.7. Benefits cannot be measured from individual access features

The Consultation RIS notes that *“it is important that the treatment of accessibility features that are already provided under the baseline scenario is consistent for both costs and benefits”* (p. 94). The CIE’s approach, however, is problematic.

Although the individual accessibility features may have individual costings; they do not provide related individual benefit unless a coherent suite of accessibility features is provided. To this end, we submit that the calculation of costs can be individual, but the calculation of benefits must include all of the features of the LHD Silver and Gold levels as a whole.

Where some access features are already included in homes, the additional cost of shifting to an LHD guideline (the marginal cost) would only be the cost of providing the missing access features. Accordingly, the addition of the missing accessibility features would, for a low marginal cost, capture the full benefits of a home being accessible. Dalton/Carter explains this within the principle of symmetry in economic theory and notes that *“to do otherwise would not fairly represent the balance between benefits and costs inherent in the role of economic analysis”*(p. 4).

1.8. Opportunity cost of informal carers is undervalued

ANUHD contests the calculation in the Consultation RIS of the opportunity cost of informal carers. It should be valued using an hourly rate higher than the minimum allowable rate i.e. **\$19.49 per hour**. Most people do not choose to become informal carers as a career option. They take up the role out of love and family responsibility when care alternatives do not work, are unsafe or inadequate, or are simply not available. Deloitte Economics (2020) in their study on the cost of informal care found that, if these carers were formally employed and received, on average, the same rate of pay as the average weekly earnings of representative Australian workers (opportunity cost) they would earn \$1,361.50 per week, which is in excess of **\$35 per hour**.

Carers are often poor because they have taken up caring responsibilities. They were not necessarily poor before they began providing care. Informal care is financially costly for a household and a significant saving for governments. Half of all carers live in

households in the lowest two equivalised gross income quintiles (due to the loss of paid work), twice that of households without caring responsibilities (ABS, 2019).

There are substantial differences in the employment outcomes for carers relative to Australians who do not provide informal care. In 2020, the estimated earnings foregone for primary and non-primary carers was \$11.4 billion and \$3.8 billion, respectively. Combined, the opportunity cost for all carers was estimated at \$15.2 billion. This is equivalent to 0.8% of GDP and 10.6% of the value of formal health care (Deloitte Economics, 2020).

In economic terms, it could be said that the disutility to households with caring responsibilities is significantly higher than for those households with no caring responsibilities. It should be also noted that households providing care attract greater government income support, pay less tax, and accrue less superannuation, and those costs should be taken into the cost/benefit calculation.

1.9. Underestimation of the cost of avoidable bed blocking

ANUHD considers that the costs for avoidable hospital stays are underestimated. Transition care was introduced to reduce the number of people waiting for placement in residential aged care (often because the patient's home was inaccessible) taking up sub-acute care beds. This added, on average, 12 weeks of care within the health system for each person, with the costs shared between State health departments and the Commonwealth.

The figure for wasted cost as a result of bed blocking in rehabilitation care wards is also likely to be underestimated, in part because, as studies (New, Jolley, Cameron, Olver, & Stoelwinder, 2013) indicate, there is a continuing trend towards patients in sub-acute beds being sicker and older than would typically have been the case in the past. This trend is likely to have continued between 2013 and 2020.

There has been minimal research on delayed discharges from acute hospitals caused by patients not having accessible housing. This may be because acute hospitals use non-acute hospitals as a way of moving on patients. The ability of acute hospitals to shift patients to non-acute hospital, however, is diminishing, because of funding cuts in the non-acute hospital sector, and the trend towards replacing sub-acute hospital beds with 'hospital in the home' programs. These changes in the sub-acute hospital sector have the unintended consequence of increasing the costs that result from bed blocking in acute care hospitals.

The Consultation RIS quantifies the cost of a delayed discharge using a calculation based on the daily cost of the bed that was blocked. The analysis, however, should also consider that people who stay in hospital longer than is clinically required tend to suffer adverse consequences such as heightened risk of infection, and loss of independence, which in turn, lead to higher rates of readmission, more accidents, increased need for

greater home care etc. These consequences also need to be included in the cost/benefit analysis.

Bed blocking imposes other costs on the hospital system including:

- **Complicated discharge planning.** As an example, it is often necessary for an occupational therapist to do a home visit to assess whether a patient can be safely discharged and what supports would be needed to allow this to occur. Similarly, health professionals spend considerable time helping patients to find suitable alternative accommodation, and counselling relatives.
- **Delays in admitting new patients.** This harms patients, puts strain on emergency departments and often detains ambulance officers from leaving to attend to other emergency calls. Bed blocking also exacerbates the inordinately long hospital waiting lists of people waiting for vital surgery.

We also note that the Consultation RIS relies on a report about bed blocking in two rehabilitation wards. Most hospitals, whether acute or sub-acute, have a much older and sicker cohort of patients than those in rehabilitation wards. In the report relied on by the Consultation RIS, the average age of the patients was 58.4 years, whereas the average age of patients is likely to be much older today. The trend is for patient cohorts to be older and sicker as the population ages and the competition for scarce hospital beds increases.

There is also evidence that poorer people tend to stay in hospital longer (Gaughan, Gravelle, Santos, & Siciliani, 2017). This may be due to poorer people often having poorer (pre-existing) health than others who are better off and the problem of excessively long hospital stays is exacerbated by substandard housing. It follows that improving accessibility of all homes not only has financial benefits but is also an equity issue.

1.10. False assumptions about buyers of new dwellings

The Consultation RIS considers that a change in the NCC would add little value for first owners of newly constructed housing. In this context we note that it is false to assume that buyers have much influence in the design and construction process. Many homes, especially Class 2 homes, are built 'on spec' and design is decided and locked in well before coming on to the market (Dalton, Wakefield and Horne, 2011).

Developers need to lock in design to get town planning approval and to obtain construction finance. It follows that the design is not based on the preferences of the person who ultimately becomes the first owner, but rather on what the developer thinks will sell the fastest.

Many buyers fail to think about their accessibility needs

Studies by AHURI identify some reasons for this lack of buyer demand. The AHURI study (Judd, Olsberg, Quinn, & Demirbilek, 2010) suggests that older people should be potential buyers of inclusive housing, given their high incidence of home ownership; however, most wish to remain in their existing home and communities for as long as possible. As the design of most housing does not cater for the ageing process, investment in modifications is more common than buying a new dwelling.

Beer and Faulkner's (2009) study into the housing careers of Australians identifies that another potential buyer group, families of younger people with disability, typically move to a new house less frequently than other families. Once these families obtain appropriately designed or modified housing, with access to suitable transport, employment, and support services, they prefer to stay put rather than be troubled with finding suitable amenities and services once again.

Investors in private rental housing generally do not consider people with disability as preferred tenants (Beer & Faulkner, 2009). They have no incentive to pay more to have new housing built with accessibility, particularly when rentals are in high demand.

For renters, lack of long-term lease security disinclines them to invest in their rental property. This problem is aggravated by renters being legally obliged to reinstate the home at the end of the lease. Thus renters must pay to install accessibility features, must pay to have them removed at the end of a lease, and have no certainty that they can remain renting a home for long enough to justify the cost of installing, and later removing, the accessibility modifications.

It has proven to be difficult to educate people as to what design features are needed to make a home accessible. Most people systematically underestimate their need for an accessible home; similarly, to why people did not wear seat belts until they became mandatory. Imminent retirees, mostly 'baby-boomers', indicate they want to stay in the community, live well and for a long time, yet, are not showing signs of planning for the realities of old age, illness or disability; caring for an ageing or ill partner or parent; or for the costs of home modifications that may become necessary (Ozanne, 2009).

A study also found that home buyers in Victoria and New South Wales preferred not to be sold beneficial features as something special or different. While buyers accept energy-sustainable features, for example, they want these added features to be included unobtrusively and without fuss, as normal inclusions. This behaviour suggests that buyers may react similarly to 'special' access features in housing (Crabtree & Hes, 2009).

Volume builders are reluctant to deviate from standard plans

The Consultation RIS has referenced the research of Dr Jane Bringolf on this topic. We make the following additional points:

Overall, the Australian volume housing industry faces challenges, which discourage deviation from established plans and building practice. These include increasing complexity of house-design, the coordination and scheduling of subcontractors who work for various builders, and a currently high incidence of defective work which requires remediation. Builders work to avoid two things: unexpected costs and time delays. Sporadic changes to established practice are the primary cause for both (Dalton, Chhetri, Corcoran, Groenhart, & Horne, 2013).

The Housing Industry Association policy (2018) discourages volume-built accessible products by advising their members that:

- *People with disabilities tend to have specific needs; the level and type of support required varies depending on the nature of disability*
- *The co-operation of people with a disability and their builder to produce a customised solution in their own home, is the most targeted and cost-effective way to modify homes to suit the accessibility needs of an individual.*
- *The overwhelming majority of private homes will not be used, now or in the future, by people requiring wheel chairs.*
- *The [NCC] presently incorporates general accessibility requirements to provide minimum effective access to Class 2/5 to 9 buildings and the provision of other facilities for disabled persons, including reference to AS 1428 and other relevant Australian Standards.*

The study into the barriers of universal design in housing by Bringolf (2011) also identified that the task of buying new accessible housing is unduly difficult. Salesrooms and display homes are often inaccessible, and salespersons are not adequately informed. Bringolf writes:

A common theme for homeowners was problems interacting with house building personnel, both administrative and construction staff. Even if builders agree to accommodate special requests there is no guarantee they will be carried out. . . . Covert discrimination was evident throughout the homeowner experiences where greater access was requested. (p. 266)

Bringolf (2011) argues that the dilemma here for buyers of accessible housing is that they must individually seek it out within the mainstream suppliers. As most homeowners typically buy a new home only once in their lives, they have little understanding of the building process. Builders are typically connected with designers and developers, building material manufacturers, finance intermediaries and land developers, forming a complex interdependent network. When one part of the network changes, it can impact

the whole network risking unforeseen time delays and costs down the chain. Builders are therefore reluctant to respond.

Other barriers

Developers who supply a percentage of accessible housing are typically required to do so by planning laws. They have been found to assume that accessible housing is for people other than their aspirational market, and do not market the accessible dwellings well or at all.

There is also an information imbalance between builders and buyers. Builders build all the time. Buyers buy new homes very rarely and often do not know what they do not know. Although not perfect, regulation and certification has proven to be the most robust safeguard for buyers to be assured of a product that at least meets a minimum standard (Productivity Commission, 2004, p. 32)

Mobility of households that need accessibility

The Consultation RIS assumes that most new homes that are built with accessibility features will not be purchased by people with disability and that therefore the benefits of accessibility should be ignored, at least in respect of the period during which these homes are occupied by the first owner. This assumption is false because:

- Households with existing accessibility needs and looking to purchase a home are more likely to purchase an accessible home.
- One of the reasons that households with accessibility needs who already have housing do not move is that the supply of newly built accessible homes is very limited.
- Another barrier to households moving to new accessible homes is the cost in most States and Territories of land transfer duty. There is currently a strong push to eliminate land transfer duty and, in the case of private homes, to make them subject to land tax. If land transfer duty is eliminated, far more households that need accessibility will move from their existing homes into new-build accessible homes.
- A similar analysis applies to older people who wish to downsize, or simply to move into a residence that would allow them to 'age in place'.

1.11. No integrated qualitative analysis

The COAG Best Practice Regulation requirements (2007) and the guide provided by the OBPR (2016) direct that: "*where quantitative data about such costs are unavailable, a qualitative assessment should be provided*" (p.24). A quantitative assessment seeks to measure in dollars the social costs and benefits of a defined proposal for change. A qualitative assessment captures nuances of lived experiences and impacts on quality of life by gathering powerful stories, integrating the intent of over-riding policy

frameworks, and checking that quantitative measures have not failed to miss matters of importance to the people most impacted by the status quo and proposed changes (Andrich, 2011).

We raise two issues here:

1. The analysis in the Consultation RIS stopped short of completing the analysis by not including a qualitative analysis where quantitative data were incomplete or unreliable.
2. The Consultation RIS failed to integrate the intent of over-riding Government policy frameworks.

We expand on these points below:

Available quantitative data are incomplete and unreliable

The Consultation RIS repeatedly concedes that the available quantitative data are incomplete and unreliable. We share this concern and add that the Consultation RIS does not provide any qualitative analysis in these areas as required (COAG, 2007. p. 24; OBPR, 2016, p.5).

The RIS by Ernst & Young (2018) for the ABCB on accessible adult change facilities found qualitative benefits for society including:

- Improved quality of life, wellbeing and mental health outcomes.
- Improved community inclusion and social participation.
- Increased opportunities to engage with the workforce.
- Reduced reliance on social welfare.
- Greater personal freedom and empowerment.
- Improved quality of life, wellbeing and mental health outcomes for informal carers.
- Better awareness of diversity in society.
- Increased engagement in human-rights and social impact.
- A more equitable society.

Given the similar demographic impacted by an access standard in housing, these benefits are likely to be similar. We understand that the Melbourne Disability Institute is conducting an independent qualitative analysis of the nature and scope that we wish to see integrated into the Final RIS (See Appendix 2 for project timeline).

A number of reports to government in the last decade have already identified the impacts of the lack of accessible housing. These include:

- A report entitled *“21st century housing careers and Australia’s housing future”* (Beer, A., & Faulkner, D., 2009) for the Australian Housing and Research Institute (AHURI). That report found that many of the physical attributes of the Australian housing stock make it difficult, if not impossible, for persons affected by mobility

or other disabilities to occupy those dwellings. The adoption of universal design principles by the NCC would result in a more accessible housing stock.

- The *“Shut-Out”* report (NPDCC. 2009) identified that although the notion of inclusion is generally accepted, many people with disability and their families continue to find themselves socially, culturally and politically isolated. The report identified the expectations of most Australians to have a say over where they live and with whom they live. These expectations are not being met for people with disability.
- The *“The Way Forward”* report by the Australian Government appointed Disability Investment Group (2009) advised that urgent government action was needed because of the predicted rapid increase over the next 40 years in the proportion of the population with disability. They recommended a mandatory access standard for housing in the NCC that would facilitate social inclusion and ageing in place.
- The *“Tomorrow’s suburbs: Building flexible neighbourhoods”* report by the Grattan Institute (Kelly, J., 2012), and the ANUHD/RIA report (ANUHD, & RI Australia. 2015) both identified early on that the LHD strategic plan to reach the 2020 target by voluntary action was destined to fail.
- The *“Concluding Observations”* report by the UN Committee on the Rights of Persons with Disabilities (2019) notes the negative impact of poor housing design on people with disability and their families, the failure of the LHD strategic plan, and the need for Australia to *“amend the federal [code] by including mandatory rules on access for all new and extensively modified housing”* (p. 5).

Failure to integrate the intent of over-riding policy frameworks

ANUHD advised the authors of the Consultation RIS, CIE, in November 2019 that *“a RIS for an accessible housing standard must be cognisant of the current policy pressures in health, disability and for older people that aim to keep people at home, safe, free from abuse and included for as long as possible”*. We also advised that *“the lack of a national housing policy, and references to social housing, various proportional initiatives at the State and Local Government levels and the Specialist Disability Accommodation require CIE’s scrutiny of independent research before alternative options are to be considered viable”* (p. 13).

The Consultation RIS provides an extensive list of social policy issues and government commitments but fails to integrate them into their analysis. ANUHD (2019) also advised the authors of the Consultation RIS to be cognisant of the history of the proposal for an access standard in housing, including the role of the housing industry and COAG in the purpose, development, and failure of the voluntary adoption of the Livable Housing Design. Had this advice been heeded, the Consultation RIS may well have integrated government policy into its analysis, including COAG’s social policy and human-rights commitments.

Without a qualitative assessment to complement and guide the quantitative work done, the Consultation RIS is incomplete and misleading. We understand this gap in analysis is being addressed by an independent study funded by the Melbourne Disability Institute and the Summer Foundation.

2. Impacts on current societal changes

The proposed changes to the NCC would have impacts on significant policy and program shifts being contemplated by the Commonwealth Government; these include:

2.1. Impacts on the recommendations from the Royal Commissions

Two current Royal Commissions, the Royal Commission into Aged Care Quality and Safety and the Royal Commission into Violence, Abuse, Neglect and Exploitation of People with Disability, are currently considering the systemic mistreatment and neglect of people with disability and older people, particularly those in aged care residences and group homes. The findings of these Royal Commissions are likely to have far-reaching impacts on how vulnerable people are currently considered and treated, and how they will be kept safe in the future.

In its interim report, the Royal Commission into Aged Care Quality and Safety found a *“shocking tale of neglect”* where the language of public discourse is about burden, encumbrance, obligation, and whether taxpayers can afford to pay for the dependence of older people (Royal Commission into Aged Care Quality and Safety, 2020a). The management of COVID-19 in residential aged care has recently exemplified this.

The Royal Commission into Violence, Abuse, Neglect and Exploitation of People with Disability was established in response to community concern about widespread and long-term reports of violence against, and the neglect, abuse and exploitation of, people with disability, particularly those in congregate care. The Commission’s terms of reference recognise Australia’s international obligations under the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) and therefore will want to see that appropriate legislative, administrative and other measures are adopted to promote the human-rights of people with disability.

The Commissions’ focus on the historic segregation and mistreatment of vulnerable people will highlight the barriers that occur due to societal disregard, with whom vulnerable people are safest, and where they might choose to live.

2.2. Impacts on the viability of the NDIS and the Aged Care Reforms

The full impact of an accessible standard for housing in the NCC on the National Disability Insurance Scheme (NDIS), and the effects of Aged Care Reforms are unlikely to be measured until both programs are more established.

From its inception, COAG understood the need for boundaries to the NDIS; that it would be unable to take responsibility for everything. Its viability is contingent on complementary mainstream policy, services and amenity, including inclusive and accessible built environments (Productivity Commission, 2011).

The viability of the NDIS is also contingent on people with disability and informal carers getting paid work. The NDIS will better identify the impacts of an accessible standard for housing on productivity as the program becomes embedded in the national economy.

Older Australians are living longer, and this trend is expected to continue. Over the last 40 years, the number of Australians aged 85 years and over increased significantly both in absolute terms and as a share of the Australian population—from 91,640 in 1978 (0.6% of the Australian population) to 503,685 in 2018 (2% of the Australian population).

On current demographic projections, the number of Australians aged 85 years and over will continue to increase to more than 1.5 million in 2058 (3.7% of the Australian population). The cost of aged care will depend on Australia's plans for sustainable, accessible and liveable infrastructure in its cities and regions (Royal Commission into Aged Care Quality and Safety, 2020, p. 7).

2.3. Impacts on the management of COVID-19

The social and economic disruptions by COVID-19 are yet to be fully understood. The pandemic is forcing people to be locked down in their homes and immediate neighbourhoods for extended periods.

What has become apparent is that vulnerable people are safest in their own homes and that congregate care is inherently less safe in these circumstances. It has also become evident that people from lower socio-economic groups, and people who rely on formal support of others are more vulnerable.

The proposed changes to the NCC are likely to have societal and economic benefits by:

- Giving vulnerable people greater choice about where and with whom they live
- Providing homes that are safe workplaces for carers
- Providing affordable alternatives for quarantine and hospital care.

Hospitals across Australia are currently discharging long-stay patients with disability to free up beds during the pandemic. This strategy has already identified the lack of accessible housing as a key barrier (Queensland Government, 2020).

The City of London offers Australia an important lesson in this regard. After the United Kingdom mandated in its Building Regulations (HM Government, 2010) to provide a visitable standard in 1999, the City of London in 2015, with other authorities, considered these access requirements would not meet the changing needs of its population in the future. The City of London now requires new-build housing to meet a higher standard—M4(2) ‘accessible and adaptable dwellings’ (their equivalent of Option 2) with 10 per cent meeting M4(3) ‘wheelchair user dwellings’ (The Mayor of London, 2016, p. 76; HM Government., 2010).

3. Consultation process does not meet best practice

ANUHD has conveyed to the ABCB our members’ concerns about the consultation process that has been adopted. It does not comply with the COAG guidelines (2007) to provide “*consistent consultation procedures can make it easier for stakeholders to participate*” (p. 30) in the following areas:

- The consultation documents make no concession that the people most affected (households with people with disability and older people) might find them technical and incomprehensible.
- The documents do not align with each other. The access requirements documented in the Consultation RIS and the appended DCWC report do not match those in the draft changes to the NCC. Specifically:
 - DCWC costed transitions of no more than 5mm rather than 25mm transition in the shower, bathroom or other internal doorways and corridors.
 - DCWC costed a transition of not more than 25mm at the entry door of Class 2 dwellings, and not as the draft changes to the NCC specify, that is, not exceeding 5mm or a threshold ramp of 56mm.
 - The Consultation RIS varies in its statements about the required the clearance measurement for internal doorways. In table 3.1 on p. 62 the minimum clearance is said to be 800mm, but the diagrams that illustrate the draft changes to the NCC severally use 800mm or 820mm door clearances.

ANUHD is also concerned about the inconsistencies between the draft changes to the NCC and the requirements in the LHD guidelines. Stakeholders quite reasonably would assume that the Consultation RIS and the related documents on the ABCB’s Consultation Hub would align with the LHD Guidelines and with each other, but they do not. When a submission supports Option 1, 2 or 3, the ABCB will not know if this means Option 1, 2 or 3 as described in the Consultation RIS, or as described in the draft changes to the NCC, or as described in the LHD Guidelines, unless the submitter specifically notes what details they support or do not support.

The details of the variations from the LHD guidelines are outlined on p. 30. These affect all building classifications and all Options.

We acknowledge that some concessions were made to our stated concerns, but we remain of the view that the consultation process has been confusing and inadequate, particularly for the people most affected by the lack of accessible housing.

4. Our recommendations

ANUHD supports Option 2—“Let’s do it right first time”—which provides the minimum accessibility standard that is compatible with the objective of the RIS. Option 2 is what ordinary Australians want—a home where they feel safe and included and where they can age in place.

ANUHD also supports Dalton/Carter’s recommendation that a further assessment of a combination of options, namely combining Regulation, with Option 5 (a subsidy program to encourage availability of accessible rental properties) as indicated for good economic reasons. It then becomes a policy package that regulates the most cost-effective level of access and stimulates the benefits inherent in the CIE report.

An enhanced matching service would:

- Increase the proportion of the usable life of an accessible home during which it would be occupied by a household that needs it,
- Bring forward the benefits of an accessible home being occupied by a household that needs it, thus reducing the time period for which future benefits would need to be discounted.
- As a result of both of the preceding factors, increase the present value of the benefits that flow from making a new home accessible.

ANUHD does not support:

- The status quo because doing nothing is not an option.
- Option 1 because it does not meet the needs of people in wheelchairs.
- Option 3 because it is not the least-cost method of achieving the objective of the RIS.
- Option 4 because it does not cover all new housing.
- Option 5 as a stand-alone option because past incentives have had limited effect on their own. They come and go depending on the changing priorities and budgetary requirements of regional and national governments, leaving the housing industry with residual costs.
- Option 6 because similar educative strategies, including those pursued by Livable Housing Australia, have failed to make demonstrable and reliable changes to established design and construction practices.

4.1. Variations from the LHD guidelines

ANUHD **does not support** the dilution of the LHD Guidelines. The BMF (2017) specifically directed that the RIS examine the Silver and Gold levels as described in the LHD guidelines. The draft changes to the NCC diverge materially from the LHD guidelines and effectively render Options 1-4 inaccessible. ANUHD outlines its specific concerns below:

General

ANUHD **does not support** the provision of 800mm clearance of external and internal doors in Option 1. The reason given in the Explanatory Statement for this variation from the LHD guidelines is that it *“allows an 820mm door (the most common size) to be used in a doorway”* (p. 17). AS 1428.1-2009 provides the most reliable and tested information on door openings, and the changes to the NCC should follow this. (See also results of ANUHD members’ survey in Appendix 1.)

Further, the cost difference between standard doors (including 820mm, 870mm and 920mm doors) is about \$10.00. The particular standard door that is mandated will become the cheapest. The construction costs will remain the same.

For Option 1, the LHD guideline requires an 820mm clearance (typically provided by a standard 870mm wide door leaf).

For Option 2, we **recommend** the NCC follows the LHD guideline of 850mm door opening, using an 920mm standard door leaf.

ANUHD **does not support** the provision of a transition of no more than 25mm between internal floor surfaces transitions, including the shower stall. The reason given in the Explanatory Statement is that *“qualification does not exist in the LHD G[uidelines]”* (p. 24). This is incorrect. The LHD guidelines are very clear. They refer readers to Australian Standard 3740-2010: Waterproofing of domestic wet areas, which specifies a maximum of 5mm transition for hobless showers.

These transition and threshold heights are a matter of quality of building practice. The technique to provide 5mm maximum threshold rather than 25mm threshold has minimal cost difference and is an indicator of whether the construction is expedient regarding, or solicitous of, the outcome for users.

Dwelling Access

Access to dwelling (Class 2)

The provision of a step-free path to Class 2 *sole occupancy* dwellings (4 storeys or more) is already mandated in the NCC. ANUHD **recommends** a reasonable variation from the LHD guidelines is for Class 2 buildings to provide accessible carparks to the same ratio as is currently required in public carparks.

ANUHD **does not support** Variation Option to G7.2 (Access to balconies and outdoor areas in Class 2 buildings) —“A less stringent but still effective approach to G7.2 would allow only one step, so as to prevent water ingress.” This Variation is very difficult on balconies of Class 2 buildings because a compliant 1900mm step-ramp would be difficult to install on apartment balconies, which are typically narrow.

Access to dwelling (Class 1a)

ANUHD **does not support** 3.9.3.2 without the addition of words in [], that is: An access path. . . connect to [the front door, or if inaccessible,] an entrance door that complies with 3.9.3.5.

ANUHD **does not support** Variation Option to 3.9.3.2(b)(i); that is, a single step in the pathway.

The reason given in the Explanatory Statement is:

Whilst adoption of this variation option would mean that the access path is not step-free, it will still achieve an outcome whereby there is only one step to be climbed rather than several. It is considered that limiting the number of steps in an access path to only one may still benefit many people who have reduced mobility but who are not wheelchair users. For wheelchair users, the single step could be bridged with a small, retrofitted ramp if necessary. (p. 11)

This explanation does not consider visitors, unless the ABCB expects people to carry a ramp of 1900mm long and install it when they visit. Further, not only is it well-known that a single step is a trip hazard and is to be avoided at all costs, but this is reflected in the NCC-Volume 2 (2019) which notes that “more than 1 riser is considered necessary for a person to observe and adjust to a change in level” (p. 311).

ANUHD **does not support** Variation Option to 3.9.3.3 (Access to balconies and outdoor areas in Class 1 buildings)—“A less stringent but still effective approach to 3.9.3.3 would allow only one step, so as to prevent water ingress/allow for termite management.”

We refer to our comments above regarding the Variation Option to 3.9.3.2(b)(i).

Dwelling entrance

ANUHD **would consider** a threshold that exceeds 5 mm in height, but not exceeds 56 mm in height if a ramped threshold is provided.

Internal transitions and thresholds

ANUHD **does not support** a transition and threshold of 25mm in height between abutting surfaces, provided the lip is rounded or bevelled. ANUHD supports a transition of 5mm maximum height as in the LHD guidelines.

Shower

ANUHD **does not support** the height of any hob, raised step, kerb, step-down or the like, exceeding 5mm. We support no more than 5mm height as in the LHD guidelines. ANUHD notes the referencing in the LHD guidelines of AS 3740-2010: Waterproofing of domestic wet areas for hobless showers.

Carparks

Carparks (Class 2, 4 storeys or more)

ANUHD questions the cost of carparking for Class 2 (4 storeys or more) sole occupancy units. The LHD guideline is open to interpretation and given the differing development codes and local authority requirements for car parking across Australia, ANUHD **recommends** a reasonable variation from the LHD guidelines is for Class 2 buildings to provide accessible carparks (if carparking is included in the development) to the same ratio as is currently required in public carparks.

Conclusion

In Section 1, ANUHD argues that the cost/benefit analysis in the Consultation RIS warrants scrutiny, that imminent changes in government policy have not been considered, and that the Consultation RIS consultation process has not met best practice requirements. In summary, the methodology and findings in the cost/benefit analysis of the Consultation RIS warrant serious scrutiny and revision.

In Section 2, ANUHD has attempted to answer the questions, but cautions that our answers must be considered within the broader concerns raised in Section 1.

Section 2: Response to questions

Questions 1-7 gather personal information and privacy preferences. Question 36 allows for a document to be uploaded

ANUHD provides its answers to Questions 8-35 below:

Statement of the Problem

Question 8

Do you agree the problem is adequately established?

<input type="checkbox"/>	No
--------------------------	----

Does it establish a case for action?

Yes	<input type="checkbox"/>
-----	--------------------------

Please indicate below your opinion, whether the issues described under the problem section (its nature) adequately establish a case for action, or if there are other problems not identified under the status quo:

Please see our response in Section 1 of our submission.

Question 9

Are other problems not identified under the status quo?

Please select only one item

Yes	<input type="checkbox"/>
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Please explain your answer below and if you have other evidence that can assist:

Please see our response in Section 1 of our submission.

Question 10

The impact of a lack of accessible housing on equity, dignity and employment outcomes is difficult to fully measure. How does a lack of accessible housing contribute to these issues?

Please describe how and to what extent:

Impact of a lack of accessible housing on employment outcomes

The Consultation RIS was unable to identify any specific quantitative evidence on the extent to which a lack of accessible housing limits employment opportunities. This is an example of where qualitative analyses can assist.

Inclusion and employability result from a process of building relationships, trust and capacity over time (Ware, Hopper, Tugenberg, Dickey, & Fisher, 2007). The notion of social currency (interpersonal skills, talents and personal attributes) and social capital (the cumulative result of individual social currency) is useful here. People develop social currency through hundreds of everyday interactions, and it is these interactions that build relationships, trust and capacity. They also hold families, communities, and society together (Chenoweth & Stehlik, 2004).

For people to build social currency, and to benefit from, and contribute to, social capital, they need to be present in communities and families to participate and to reciprocate in ordinary ways. This starts by sharing a meal, learning skills, customs, and rituals, and contributing to community and family life. When people age or lose core life activity, they are at home more, and the design of their homes and the homes of others have significant bearing on their inclusion and well-being (de Jonge, Jones, Phillips, & Chung, 2011). Inaccessible housing directly contributes to their marginalisation, isolation, and exclusion, dependency on welfare and ultimately diminishes their personhood (Saugeres, 2010).

It is from this understanding that the UNCRPD and related conventions have identified that accessible housing is a critical factor in achieving social inclusion and employment (United Nations, 2007; People with Disability Australia, 2010).

Question 11

Are the assumptions made to estimate the costs to the community from a lack of accessible housing (set out in Appendices A to H) appropriate?

Please select only one item

	No
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Please explain your answer below and what other evidence could be considered:

The assumptions on costs to the community are inadequate

We have noted earlier the absence of any qualitative analysis where quantitative data is not available or is unreliable. Regarding the quantitative data, we argue in detail in Section 1 that the cost/benefit analysis in the Consultation RIS warrants scrutiny and revision.

Further, costing loneliness alone as an outcome of inaccessible housing trivialises the impact of social isolation, marginalisation and exclusion. Studies identify major personal, economic, health and societal costs that result from loneliness, as well as from neglect and abuse such as loss of personal safety, and untimely death (Royal Commission into Aged Care Quality and Safety, 2020a).

Question 12

What other information could be used to estimate the costs associated with a lack of accessible housing to make estimates more reliable?

Please provide your response below:

Other cost/benefit analyses on accessible housing

Cost/benefit analyses done for New South Wales Government (Hill PDA, 1999) and Victorian Government (2010) offer some insights. Both studies provide quantitative and qualitative analyses for these state-based proposals.

The Hill PDA study (1999) reviewed the potential savings to the NSW Government if adaptable housing standards are applied universally to new house construction. The main economic savings identified include:

- Potential savings in major adaptations costs by providing for such changes in the upfront design of the property.
- Reduced need to move into residential care
- Reduced cost of rehousing
- Reduced government administration costs
- Savings in home care costs for elderly and people with a disability
- Savings in health care costs
- Savings in reduced falls at home

The Victorian Government's RIS (2010) estimated benefits of their equivalent to Option 1 in Victoria. The Victorian RIS acknowledge that the monetary estimates of the benefits excludes the life-changing impact of enabling people with a disability or mobility limitation to participate in key aspects of everyday life. It also excludes the wider amenity benefits of more accessible housing including:

- more timely access by emergency personnel and egress by people with mobility restrictions.
- cost savings in private expenditure on home modifications, home care and aged care services.
- the ageing in place health benefits and cost savings to private expenditure of not having to move, or being able to move to more suitable accommodation nearby.
- the beneficial impact on private carers.

- the ability for people with mobility restricting conditions to return home earlier from acute care or from sub-acute care or rehabilitation because their home had the four accessibility features.

Question 13

Do you have information about the type and cost of home modifications that are made to improve the accessibility of a home?

Please select only one item

Yes	<input type="checkbox"/>
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If yes, please provide sources below:

Rethink costs of home modifications

Home modifications are changes made for an individual to adapt living spaces to increase usage, safety, security, and independence. It cannot be assumed that they will result in greater accessibility. A more useful approach would be to understand what it would cost to retrofit a dwelling to meet LHD Silver or Gold level. The Victorian Government RIS assessed the cost of including the features at the design stage is less than one twentieth of the cost of retrofitting the features in an existing home (Victorian Government, 2010).

Extensive information on home modifications is available on the Home Modification Information Clearinghouse website: <https://www.homemods.info/>

Question 14

In your opinion what is main contributor to a lack of uptake of universal design principles in new dwellings:

Please select all that apply

- buyers failing to think about their future accessibility needs*
- volume builders being reluctant to deviate from standard plans*
- other barriers If other barriers exist, please describe these below:*

Please see our response in Section 1 on p. 20.

Please also see our answer to Question 34 about market failure on p. 49.

Objectives of intervention and options

Question 15

Of the options considered by the Consultation RIS, select from the list below those that are feasible:

Please select all that apply

- Status Quo: No change to the NCC.*
- Option 1: Accessibility standard, broadly reflecting LHD silver standard, in the NCC applying to all new Class 1a and Class 2 buildings.*
- Option 2: Accessibility standard, broadly reflecting LHD gold standard, in the NCC applying to all new Class 1a and Class 2 buildings.*
- Option 3: Accessibility standard, broadly reflecting LHD gold standard (with some platinum features), in the NCC applying to all new Class 1a and Class 2 buildings.*
- Option 4: Accessibility standard, broadly reflecting LHD Gold standard, in the NCC applying to all new Class 2 buildings only.*
- Option 5: A subsidy program to encourage additional availability of accessible rental properties.*
- Option 6: An enhanced approach to voluntary guidance, which includes turning the current proposals into a non-regulatory ABCB handbook*

Given the previous questions, we do not understand the full intent of this question.

Question 16

Are there other feasible regulatory or non-regulatory options with the potential to meet the objective that should be considered?

Please select all that apply

- Applying the accessibility standards to only residential Class 1a (single detached house, row house, town house, terrace house or villa unit) or Class 2 (multi-storey residential) buildings?*

Applying the accessibility standards to only a proportion of residential Class 1a (single detached house, rowhouse town house, terrace house or villa unit) or Class 2 (multi-storey residential) buildings?

Applying a different combination of the LHD elements?

Applying a subset of the LHD elements (e.g. step-free entry, wider doorways only)?

Another option?

	No
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Please provide additional information to support your response (for example, how these options would be delivered in practice) below:

ANUHD supports Option 2—“Let’s do it right first time”—which provides the minimum accessibility standard that is compatible with the objective of the RIS. Option 2 is what ordinary Australians want—a home where they feel safe and included and where they can age in place.

ANUHD also supports Dalton/Carter’s recommendation that a further assessment of a combination of options, namely combining Regulation, with Option 5 (a subsidy program to encourage availability of accessible rental properties) as indicated for good economic reasons. It then becomes a policy package that regulates the most cost-effective level of access and stimulates the benefits inherent in the CIE report.

An enhanced matching service would:

- Increase the proportion of the usable life of an accessible home during which it would be occupied by a household that needs it,
- Bring forward the benefits of an accessible home being occupied by a household that needs it, thus reducing the time period for which future benefits would need to be discounted.
- As a result of both of the preceding factors, increase the present value of the benefits that flow from making a new home accessible.

Question 17

*Which of the options, in your opinion, have the ability to meet the objective?
(select all options which in your opinion can meet the objective from the list below)*

Objective of the proposal

The objective of the regulatory proposal is to ensure that housing is designed to meet the needs of the community, including older Australians and others with mobility limitations.

Please select all that apply

ANUHD supports Option 2—“Let’s do it right first time”—which provides the minimum accessibility standard that is compatible with the objective of the RIS. Option 2 is what ordinary Australians want—a home where they feel safe and included and where they can age in place.

ANUHD also supports Dalton/Carter’s recommendation that a further assessment of a combination of options, namely combining Regulation, with Option 5 (a subsidy program to encourage availability of accessible rental properties) as indicated for good economic reasons. It then becomes a policy package that regulates the most cost-effective level of access and stimulates the benefits inherent in the CIE report.

An enhanced matching service would:

- Increase the proportion of the usable life of an accessible home during which it would be occupied by a household that needs it,
- Bring forward the benefits of an accessible home being occupied by a household that needs it, thus reducing the time period for which future benefits would need to be discounted.
- As a result of both of the preceding factors, increase the present value of the benefits that flow from making a new home accessible.

Please see our comments on this issue in Section 1 and in our answer to Question 16.

ANUHD **does not support** the diminution of the LHD Guidelines as outlined in Section 1 on p. 30. The BMF (2017) specifically directed that the RIS examine the Silver and Gold levels as described in the LHD guidelines. The draft changes to the NCC diverge materially from the LHD guidelines and effectively render Options 1-4 inaccessible.

Question 18

Are there any less intuitive or unintended consequences likely to arise from the adoption of any of these options?

Please select only one item

Yes	
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If yes, please elaborate below:

The current draft changes to the NCC effectively render all of the regulatory options inaccessible. Please see more detail above in Section 1 on p. 30.

Question 19

Which option is your preferred option?

Please select only one item

ANUHD supports Option 2—“Let’s do it right first time”—which provides the minimum accessibility standard that is compatible with the objective of the RIS. Option 2 is what ordinary Australians want—a home where they feel safe and included and where they can age in place.

ANUHD also supports Dalton/Carter’s recommendation that a further assessment of a combination of options, namely combining Regulation, with Option 5 (a subsidy program to encourage availability of accessible rental properties) as indicated for good economic reasons. It then becomes a policy package that regulates the most cost-effective level of access and stimulates the benefits inherent in the CIE report.

An enhanced matching service would:

- Increase the proportion of the usable life of an accessible home during which it would be occupied by a household that needs it,
- Bring forward the benefits of an accessible home being occupied by a household that needs it, thus reducing the time period for which future benefits would need to be discounted.
- As a result of both of the preceding factors, increase the present value of the benefits that flow from making a new home accessible.

Please see our comments on this issue in our answer to Question 16.

Estimating the costs

Question 20

Are the scenarios of possible impact (as described in the DCWC report) broadly representative of the scale of adjustments required to comply with the proposed accessibility standards (Options 1-3)?

Please select only one item

<input type="checkbox"/>	<input type="checkbox"/> No
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Please see our response in Section 1.

Costs weighted in favour of the housing industry

The report by the Quantity Surveyor, Donald Cant Watts Corke (DCWC) has based its costing on the current costs of providing individual features. They have not attempted to estimate the cost reductions that would be captured by a mandatory scheme. Factors such as increased efficiencies of scale, reduced need to develop bespoke solutions for accessible homes, reduced risk of construction errors—especially for volume builders—and removing the need for different government funders and customers to each specify the accessibility standards to apply to their projects.

Specifically, ANUHD questions the cost of carparking for Class 2 (4 storeys or more) sole occupancy units. The LHD guideline is open to interpretation and given the differing development codes and local authority requirements for car parking across Australia, ANUHD **recommends** a reasonable variation from the LHD guidelines is for Class 2 buildings to provide accessible carparks (if carparking is included in the development) to the same ratio as is currently required in public carparks.

Individual reality check on costs

We report on the individual experience of one of ANUHD's members who voluntarily builds to LHD guidelines. Murphy Homes on the Sunshine Coast QLD changed their entire suite of standard plans to be Silver Level compliant. They report that:

- Their 'before' and 'after' floor plans indicate minimal increase to the building footprint. They found that complying with the LHD guidelines doesn't always increase the footprint of the building as most 'standard designs' these days are generous enough to be close to Silver level compliant.
- Costs associated with excavation work on sloping sites are required, regardless of whether or not one is trying to achieve LHD compliance or similar.
- Regarding Dwelling Access, in most instances this is via the double garage for Class 1a dwellings, ensuring that there is at least one step-free transition already.
- No volume home builder is going to retrofit a display home to become compliant.
- Transition cost for architects, building designers, builders & certifiers would be minimal as this sector of the industry is well accustomed to changes in building codes, regional differences in council legislation, specific covenant requirements and Development Application permit requirements. It is just part of the job.
- In their recent experience with home modifications for the NDIS, architects, building designers, builders & certifiers report doing a lot of bathroom modifications involving the provision of step-free showers, wider access doors and reinforcement of walls to support grab rails. These modifications generally

cost around \$30,000 and are paid for by the Australian Government. Future-proofing homes being built now may cost government a small amount now but would save a cost in the order of \$30,000 when the necessity of accessibility becomes apparent.

Question 21

For each of the building types, are the weighted average cost estimates broadly representative of the additional construction costs to comply with the proposed accessibility standards (Options 1-3)?

Please select only one item

<input type="checkbox"/>	<input type="checkbox"/> No
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If no, please clearly describe which classification of building and Option your comment relates to and if you can provide evidence to inform the weightings:

A major cost for Class 2 sole-occupancy dwellings (4 floors and above) is the cost of the carpark. The DCWC has costed each dwelling to have a larger car space. This cost needs further discussion, given that the LHD guideline requires access from the boundary **or** the carpark. A reasonable alternative would be the provision of a percentage of carparks (as the planning requirements dictate) to be accessible, similar to public carparks, and the management of these becomes the responsibility of the body corporate.

We note that the cost estimates of features do not in all cases align with the draft changes to the NCC, namely:

- DCWC costed transitions of no more than 5mm rather than 25mm transition in the shower, bathroom or other internal doorways and corridors.
- DCWC costed a transition of not more than 25mm at the entry door of Class 2 dwellings, and not as the draft changes to the NCC specify, that is, not exceeding 5mm or a threshold ramp of 56mm.
- The Consultation RIS varies in its statements about the required the clearance measurement for internal doorways. In table 3.1 on p. 62 the minimum clearance is said to be 800mm, but the diagrams that illustrate the draft changes to the NCC severally use 800mm or 820mm door clearances.

This affects all building classifications and all Options.

ANUHD questions DCWC's relatively high percentage of custom-built Class 1a dwellings. Customisation needs further explanation. The research by Dalton, Wakefield & Horne (2011) found that builders modified their basic Class 1a dwellings to look different at the front with the key features of the dwelling (corridor and door widths, window sizes, transition details) remaining much the same regardless of price or customer preference. Further, sales people offered cosmetic options as enticements, such as front door

design, tile colours, paint colours, benchtop finishes, and quality of whitegoods) which had little impact on the construction timeline.

The major costs for builders are rectification and time delays. Once a builder has a profitable building method, tradesmen who work to this method and reliable building suppliers, these cosmetic changes have minimal impact on the builder's profit margin.

It is our understanding that truly bespoke designs by architects and building designers are fewer than estimated.

Question 22

Do you agree with the approach taken to valuing the opportunity cost of the additional space required?

Please select only one item

<input type="checkbox"/>	No
--------------------------	----

Please indicate what alternative methodologies you suggest be considered below:

Please see our response in Section 1 on p. 16.

Question 23

Are additional excavation costs likely to be required to provide homes that comply with the regulatory options (Options 1-3)?

Please select only one item

<input type="radio"/> Highly unlikely	<input checked="" type="radio"/> Unlikely	<input type="radio"/> Likely	<input type="radio"/> Highly likely
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Describe where in your opinion this will occur (e.g. which option and building type) and what you have based your answer on below:

The intent behind this question is not clear. Excavation costs are only one of a number of costs to be considered and does not warrant being singled out for special attention beyond the DCWC report.

Notwithstanding this, ANUHD's housing industry members advise that additional excavation costs due to the draft changes of the NCC are unlikely to occur, given that most volume housing developers favour flat sites for other reasons; namely, easier and cheaper construction generally. Additional excavation costs might be an issue with respect to 'difficult' sites, but such sites should not form part of the assessment of costs and benefits of an access standard. The draft changes of the NCC would totally or partially exempt such sites from relevant aspects of the accessibility standard.

The caveat here is the assumption by ANUHD that there is careful design and site preparation, which can address most site access challenges, including a driveway to the carport. Poor site preparation is often addressed by steps at construction completion.

We note also that accessible alternatives to steps and landscaping have been well documented and are regular practice in home modifications (Bridge & Carnemolla, 2012).

Question 24

Are the excavation cost estimates presented in table 5.12 reasonable?

Please select only one item

<input type="checkbox"/>	<input type="checkbox"/> No
--------------------------	-----------------------------

If not, what are your alternative estimates and the basis for the estimates?

Please see answer to Question 23 above.

Question 25

Are there any other costs (e.g. transition costs) not identified for builders to transition to a new accessibility standard under the regulatory Options (Options 1-3)?

Please select only one item

<input type="checkbox"/>	<input type="checkbox"/> No
--------------------------	-----------------------------

If yes, please describe the costs, their extent and who they apply to below:

This is a question weighted to consider costs only. The Consultation RIS has considered the possible costs of transition. ANUHD considers that these costs are over-estimated and the Consultation RIS has omitted to calculate the significant benefits to builders and the housing industry as a whole in the transition to a newly mandated accessibility standard.

Please see our response in Section 1 on p17.

Question 26

Can you provide any other relevant information on costs to inform the impacts of the Options?

Please describe other cost information below:

Please see our concerns about the variations to LHD guidelines in the draft changes to the NCC in Section 1 on p. 30.

Estimating the benefits

Question 27

Are the assumptions relating to the occupation of accessible housing by owner occupiers and renters over time reasonable?

More Information

The analysis discusses the process through which an increasing share of the population would occupy accessible housing is influenced by:

- *the number of newly acquired disabilities, which are a small share of total disabilities in any given period; and*
- *the number of new accessible dwellings, which are initially a small share of the total housing stock; and*
- *the differences between the choices owner occupiers and renters face.*

Please select only one item

	No
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Please outline your assumptions and what evidence could be considered to make the assumptions more robust:

Please see our response in Section 1 on p 20.

Question 28

Do you agree with the assumption of the extent features are currently not provided in new dwellings?

	No
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Please explain the reasons for your answer below:

ANUHD considers the Consultation RIS has not adequately assessed the baseline. Please see our response in Section 1 on p. 11.

Question 29

Do you have any other evidence of the extent that accessibility features similar to those required by Options 1-3 are provided in new dwellings under current arrangements?

The analysis recognises some features are currently installed under the status quo.

The assumed supply of accessibility features in new homes is reflected in table 6.5, 6.6 and 6.7 of the Consultation RIS.

This has reduced both the costs of the proposal and the expected benefits (because the features are already provided).

Please describe what evidence has informed your view below:

Research by Ward & Franz (2015) found that in all mainstream dwelling types studied, some of the LHD Silver level features were found, yet no dwelling type had *all* the features to comply with Silver level. The research also found that all features were used at some time in current volume-building practice.

There is, however, no benefit in a dwelling being a 'little bit' accessible. A dwelling provides *no* benefit unless it provides coherent and reliable access as described in the LHD guidelines, echoed in Options 1 – 3.

Where a coherent suite of accessibility features is not supplied, supplying just some accessibility features adds to cost without capturing the benefits of a properly accessible home.

Please see our response in Section 1 on p. 18.

Question 30

Where dwellings have some accessibility features but not others, would this reduce the size of the problem?

Please select only one item

<input type="checkbox"/>	<input type="checkbox"/> No
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In your opinion, by how much? (please provide your reasoning/data for your estimate below):

Please see our response in Section 1 on p. 18.

Question 31

Do you agree with the assumption that additional features required under accessibility standards in Option 2 and Option 3 would increase the number of beneficiaries compared to Option 1?

Please select only one item

Yes	<input type="checkbox"/>
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Please explain your response and describe what you have based your answer on below:

The Silver and Gold levels were designed to meet different objectives:

- The **Gold level** (Options 2 + 3) provides accessibility; that is, for most people to live in the dwelling as part of the household. There is capacity for self-care, including using the toilet and showering. This level aligns with the objective of the RIS.
- The **Silver Level** (Option 1) provides for visitability only; that is, for most people to visit, go to the toilet, albeit with difficulty, and stay for a short time. It does not allow for people with mobility limitations to live there in the long term, without modifications. It therefore does not meet the objective of the RIS.

The LHD guideline (LHA, 2017) description of Silver level as “*key structural and spatial elements that are critical to ensure future flexibility and adaptability of the home. Incorporating these features will avoid more costly home modification if required at a later date*” (p. 12) is incorrect. The LHD Silver level has features that are overly expensive to change in a home modification, such as insufficiently wide corridors and doors, and insufficient space in front of the toilet. In comparison, Option 2 gets the key features right the first time, avoiding expensive modifications in the longer term.

Please see our recommendation in Section 1 on p. 29.

Question 32

To what extent would better information provision and promotion of an enhanced non-regulatory approach (Option 6) be effective in encouraging the voluntary uptake of universal design principles in new dwellings?

Please select only one item

<input checked="" type="radio"/> Not effective	<input type="radio"/> Somewhat effective	<input type="radio"/> Very effective	<input type="radio"/> unsure
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Please describe the extent this would be effective and your reasoning below:

There have been several voluntary initiatives developed in the last two decades from Federal, State and local governments, as well as the housing industry. These have not made a demonstrable difference to the supply of accessible housing in the mainstream market. They have introduced some ideas, which have been taken up inconsistently and unreliably.

A study into the logics of the housing industry regarding accessibility in housing (Ward, Franz, & Adkins, 2014) found that the LHD strategic plan (NDUHD, 2010) made three false assumptions regarding the willingness of the housing industry to provide accessible housing:

1. The LHD initiative falsely assumed that home builders consider the needs of occupants and visitors of the dwelling throughout the lifetime of the dwelling (approx. 50 years). Instead it was found that home builders typically assigned priority to meeting their immediate contractual obligations.
2. The LHD initiative falsely assumed that individual home builders would follow the voluntary agreement their industry leaders made on their behalf. Instead it was found that most builders saw little reason to change their established practices when there was no pressing reason to do so.
3. The LHD initiative falsely assumed that builders preferred to change their practices voluntarily without being directed to do so by regulation. The study found instead that most home builders did no more than was currently required of them.

Our caveat here is that a further assessment should be conducted of a combination of Regulation along with Option 5 (a subsidy program to encourage availability of accessible rental properties) as indicated for good economic reasons. It then becomes a policy package that regulates the most cost-effective level of access and stimulates the benefits inherent in the CIE report.

Such a service would:

- Increase the proportion of the usable life of an accessible home during which it would be occupied by households that need it.
- Bring forward the benefits of an accessible home being occupied by a household that needs it, thus reducing the time period for which future benefits would need to be discounted.
- As a result of both of the preceding factors, increase the present value of the benefits that flow from making a new home accessible.

Question 33

To avoid attributing benefits to accessibility features already installed in dwellings under current arrangements, the impacts of the proposal have been reduced in proportion to those elements assumed prevalence and weighted average cost.

What additional evidence could we consider to make this assumption more robust?

Please provide any evidence that can inform the assumption:

Please see our response in Section 1 on p.18

Question 34

There is a mismatch between the amount of accessible housing being built and the apparent willingness of many survey respondents (including households without any persons with limited mobility) to pay above cost for Option 1. What explanations are there that could explain this mismatch? Is this a reflection of the market failure?

Explain your reasoning for your answer below:

Please see our response in Section 1 on p. 20. We add the following points with respect to the notion of market failure:

Market Failures

An explanation for the market failure to supply accessible housing comes from two phenomena:

Bounded rationality:

- Buyers often do not understand their present or future needs for accessibility and trust that a home will have been designed to consider all likely uses (Productivity Commission, 2004, p. 32).
- Even where buyers understand that they presently need, or will need an accessible home, they typically do not have a good understanding of the reasonable costs of including the necessary accessibility features. This problem is exacerbated by the tendency of builders to quote inflated prices for including accessibility features (p. 32).
- Builders focus on immediate contractual obligations to the first buyer rather than on future residents and visitors throughout the life of the building.

Optimism Bias:

Most people systematically underestimate their need for an accessible home now, or in the future . They believe that infirmity and disability or other undesirable life events, will happen to others but not to them (Karol, 2008; Spanbroek, & Karol, 2006,) This phenomenon is well recognised in many other settings, including people failing to take out sufficient health cover, ignoring the health impacts of smoking, drinking heavily or over-eating, or failing to make a will.

Market failures account for a large proportion of the mismatch but are not the only causes of the apparent discrepancy.

Other Reasons

Other reasons for the mismatch include:

- Most family homes whether volume-built or otherwise, have the design, products and construction decisions locked in before prospective buyers can have any influence. This is an even bigger problem with new apartments where a developer needs to commit to a design for a proposed building before the developer can obtain town planning approval, or construction finance (Dalton, Wakefield & Horne, 2011).
- Volume builders often inflate the price for including accessibility features into standard designs to manage the risks of time delays and errors in construction, and to dissuade buyers from the idea (Bringolf, 2011).
- A related problem is where builders suggest a cost-plus arrangement. Such open-ended pricing can be worrisome, especially for buyers with highly constrained budgets and little knowledge of housing industry practices (Productivity Commission, 2004).
- Industry members of ANUHD report that buyers on a tight budget tend to underestimate the need for such features to rationalise to themselves a decision to defer an expense.

Question 35

Do you have any other evidence that would make the estimates in the analysis more robust?

Please outline the specific assumption your comment relates to below:

Please see all of our responses in Section 1.

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Appendix 1. ANUHD survey on door clearance & transitions

Full survey results are available [here](#)

1. What clearance does a standard 820mm door leaf reliably provide? (The draft changes to the NCC consider an 820mm door leaf can give 800mm clearance.)

800mm	21%
770mm	66%
750mm	13%

2. What standard width of door leaf is necessary to reach LHD Silver level 820mm clearance?

870mm	87%
920mm	13%

3. What standard width of door leaf is necessary to reach LHD Gold level 850mm clearance?

870mm	11%
920mm	76%
970mm	13%

4. What do you consider is the maximum transition height for abutting floor surfaces into a shower at Silver and Gold levels? (The LHD guidelines are unclear. The draft changes to the NCC proposes a lip of <25mm.)

<5mm	87%
<25mm	13%

5. What do you consider is the maximum transition height for abutting floor surfaces at the entry door? (The draft changes to the NCC provide for <25mm)

<5mm	79%
<25mm	21%

6. What do you consider to be the maximum transition height for floor surfaces at internal doorways? (The draft changes to the NCC provide for <25mm.)

<5mm	87%
<25mm	13%

7. The draft changes to the NCC suggest a less stringent option of a < 190mm high step at the entry door. Do you think this is reasonable, given current building practices?

<190mm	3%
<5mm	97%

8. The draft changes to the NCC suggest a less stringent option of <190mm high step in the pathway to the entry door. Do you think this is reasonable, given current building practices?

<190mm	21%
<5mm	79%

9. You know this because you are a...? (can choose more than one)

Architect/designer	26%
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Access consultant	38%
Builder	15%
OT or health professional	10%
Person who needs accessibility	21%
Family or friend of person who needs access	33%
Other	15%

Appendix 2. Timeline for ABCB Accessible Housing project

Project timelines

