

Universal design goes mobile

A mobile phone app developed by Livable Housing Australia could be valuable if it encourages the uptake of universal design. However, it does have some drawbacks, and our reviewer prefers some web-based Kiwi alternatives.



UNIVERSAL DESIGN, also known as liveable design and design without barriers, is the means of providing people with better daily experiences in their home.

Reflecting its name, universal design is about benefiting all occupants throughout their lifestyle stages - from families with young children to people with a temporary injury through to the elderly.

Better to include in new rebuild

Tackling universal design early in the design stage makes good sense. In New Zealand, it costs homeowners up to 20 times more to retrofit liveable housing design features than the cost of incorporating them from the start - and this without taking into account all the renovation inconvenience.

Various resources are available to assist designers, specifiers and occupants with implementing universal design, with good examples of its use on the BRANZ website at www.branz.co.nz/universal_design.

Australian design guidelines

The *Livable Housing Design Guidelines* were created to provide an Australian-consistent, inexpensive and practical resource to make homes safer, more comfortable and easier to access for people of all ages and abilities. The guidelines provide a simple way to

design with a higher degree of utility than standard houses built today and covers detached, semi-detached, terraces, town-houses or new apartments.

Now available on the go

Recently, these guidelines were translated into a smartphone app that operates as a checklist, with three tiered performance levels reflecting the level of difficulty in achieving a particular level.

These are:

- silver - basic practice
- gold - good practice
- platinum - best practice.

They are not too dissimilar to New Zealand's Lifemark Design Standards, which have a star system to define their three levels.

App usability

Overall, the app layout is visually clean, and

Table 1**COMPARISON OF UNIVERSAL DESIGN APPROACHES**

	NEW ZEALAND – LIFEMARK	NEW ZEALAND – BRANZ	AUSTRALIA – LIVABLE HOUSING DESIGN
Clear opening width of internal door	810 mm	810 mm	820, 850 and 900 mm
Car parking space (garage)	3.5 × 5.0 m	3.5 × 5.7 m	3.2 × 5.4 m; 3.8 × 6 m
Shower cubical width (minimum)	1.2 m	1.05 m	1.2 m
Power point height (from floor)	0.5–1.2 m	0.4–0.5 m	Not lower than 0.3 m
Light switch height (from floor)	0.9–1.2 m	Not specified	0.9 and 1.1 m
Door handle height (from floor)	0.9–1.2 m	1.0 m	0.9–1.1 m
Stair width (minimum)	0.9 m	0.9 m	1.0 m
Transitional flooring height difference (maximum vertical distance)	Not specified	Not specified	5 mm
Kitchen space – walkway	1.2 m	1.5 m	1.2 m; 1.55 m

its simplicity makes it easy to navigate. It closely follows the hardcopy design guidelines, with every design aspect covered for the three performance levels, and moves through the dwelling sequentially.

However, the benefit of this tool as an app over traditional hard or electronic copy isn't clear. It is reasonably text heavy, with many of the dimensioned drawings too small to read on the average-sized smartphone. Although it can be used on an iPad, making it available for Android tablets as well seems sensible. Hopefully, this will be remedied soon.

Comparison with New Zealand tools

It is interesting to compare the Australian requirements with those in similar New Zealand tools (see Table 1).

Although there are small differences between these, depending on the specific

Table 2**LIVABLE HOUSING DESIGN GUIDELINES APP RATING**

POSITIVES	NEGATIVES
● Covers many aspects of universal design ● Backed up by the pdf ● Easy to navigate ● Very affordable ● Small memory footprint	● Lack of cross-platform compatibility ● Some dimensioned drawings unreadable on smartphone ● No extra benefits identified over the hardcopy

issue, they are probably not important. What is important is prompting specifiers to think about and include the features in the first place.

BRANZ sees this *Livable Housing Design Guidelines* app as a useful prompt - but not really more useful than the pdf guideline that it was based on.

For New Zealanders looking for resources around universal design ideas and certification, BRANZ's Universal Design hub (www.branz.co.nz/universal_design) and Lifemark's Design Standards (www.lifemark.co.nz) are recommended as better targeted. ◀

For more The app can be used on both Android and iOS operating systems.