



# Response to the Draft National Construction Code 2022

by

Centre for Universal Design Australia



June 2021

W: <http://universaldesignaustralia.net.au>

E: [udaustralia@gmail.com](mailto:udaustralia@gmail.com)



## Preamble

The Building Ministers' decision "to include minimum accessibility provisions for residential housing and apartment in the National Construction Code (NCC) 2022 based on the Livable Housing Design Guidelines (LHDG) silver standards" is welcomed by Centre for Universal Design Australia (CUDA).

The objective of the regulatory impact assessment was "To ensure that new housing is designed to meet the needs of the community, including older Australians and others with mobility limitations".

We note that while silver level of the LHDG is a positive step in the right direction, we point out that there is considerable evidence (as outlined in our response to the Consultation RIS) to show that gold level meets the objective of the exercise while silver level is a partial response.

While we continue to advocate for gold level and look forward to the proposed guide for such, our response seeks to clarify some points in the current draft NCC.

## Key Points

The key issues are related to level entries and transitions to all parts of the home. Accessibility is a chained concept. If one link in the chain is absent, the chain fails.

The notion that only one floor should be accessible and that level transitions and 920 mm door leaves are not required on other floors is unproductive and defeats the purpose. There are three reasons:

1. When all parts of the home are accessible the home becomes more flexible for modification. Options such as a home elevator extend the use and value of the home. It also takes account of intergenerational homes.
2. Having the same requirements throughout the home also supports consistency in construction and minimises mistakes.
3. Where flexibility is built into the whole dwelling, householders are more likely to undertake modifications and remain ageing in place. Modifications are often required at a time when the householder(s) are least able to cope and major works create greater difficulties for all concerned.

Our responses are as follows in the prescribed format.

## Response Sheet

### Your details

**Name:** Jane Bringolf

**Organisation:** Centre for Universal Design Australia

**Email or Phone No:** udaustralia@gmail.com

## Response

**NCC Volume(s):**  One  Two  Three  Housing Prov.  Livable Housing

**Clause/Figure/Table:** Clause 1.1(1)

### **Recommended change to draft:**

- a. a ~~the~~ pedestrian entry at the allotment boundary **from the ground level of the adjoining land;**

### **Comment/reason for change:**

There could be more than one pedestrian entrance at a boundary to the allotment.

The addition of **from the ground level of the adjoining land** is for the case where there is a difference in height between the accessible property and adjoining land at the point where the accessible path of travel connects with the adjoining land.

---

**NCC Volume(s):**  One  Two  Three  Housing Prov.  Livable Housing

**Clause/Figure/Table:** Clause 1.2

### **Recommended change to draft:**

1.2 Parking space incorporated into step-free access path

- 1 Where one or more car parking spaces are connected to, or form part of a required access path, at least one of the car parking spaces must have –
  - a. A minimum unobstructed space of 3435 mm wide x 5400 mm long.

### **Comment/reason for change:**

Clause 1.2 does not take into account the requirement of Clause 2.3(1):

1. An entrance door that is subject to Clause 2.1 must have a space of at least 1200 mm x 1200 mm on the external (arrival) side of the door that is –
  - a. Unobstructed; and
  - b. Level, or has a gradient not exceeding 1:40 if a gradient is necessary to allow for drainage.

The minimum acceptable width for a vehicle door opening on each side of the vehicle is 565 mm for a non-disabled person. A person with mobility restrictions requires 1000 mm.

---

**NCC Volume(s):**  One  Two  Three  Housing Prov.  Livable Housing

**Clause/Figure/Table:** Clause 2.1(3)

### **Recommended change to draft:**

Delete this clause because there can be no exception for measuring the minimum clear door opening width.

**Comment/reason for change:**

There can be no exception for measuring the minimum clear door opening width. The door must be able to swing open far enough to enable the door hardware to be outside the clear opening width.

Use one measurement or the other. It is confusing to refer to the door opening dimension of 850 mm with a 920 mm door leaf. The size of the door leaf should be sufficient information for all concerned.

Figure 2.1 clearly illustrates the minimum clear opening requirements.

---

**NCC Volume(s):**     One    Two    Three    Housing Prov.    Livable Housing

**Clause/Figure/Table:** 2.3(1)

**Recommended change to draft:**

Add the following:

- a. Unobstructed (**other than by a screen door**);

**Comment/reason for change:**

Many Australians like to have a security screen door. These open out over the landing. This means the landing would need to be increased to account for this to allow level entry.

---

**NCC Volume(s):**     One    Two    Three    Housing Prov.    Livable Housing

**Clause/Figure/Table:** 3.1

**Recommended change to draft:**

The following change is needed:

All internal doors ~~on the ground or entry level~~ **to the habitable rooms, laundry, bathroom and toilet** of the dwelling must provide a minimum clear opening width of at least 820mm measured in accordance with Fig. 2.1.

**Comment/reason for change:**

The object of the whole exercise is was “To ensure that new housing is designed to meet the needs of the community, including older Australians and others with mobility limitations”.

In accordance with H8F1 Livable Housing Design, a dwelling should be capable of easy and cost-effective adaption. This includes the installation of stair incliners, home lifts and other assistive technology. This means the whole dwelling needs a basic level of access, not just one floor one part of the dwelling.

Using the same door size throughout the dwelling will make ordering doors and architraves simpler and thereby minimise mistakes and waste.

---

**NCC Volume(s):**     One  Two  Three     Housing Prov.  Livable Housing

**Clause/Figure/Table:** 3.2

**Recommended change to draft:**

The threshold of an internal door that is subject to Clause 3.1 **and transitions within and between rooms** must –

- (a) be level; or
- (b) **have a height difference not exceeding 5mm between finished floor covering with a rounded or bevelled lip or extruded transition cover.**

**Comment/reason for change:**

Transitions between rooms that do not have a designated door should be treated the same as if there were a door. All surfaces regardless of whether they are at a doorway must be level otherwise the purpose is defeated.

All finished floor transitions, including where tiles, floorboards and/or carpet meet must be level. If there should be a difference in height, it can be no more than 5 mm and then it needs to be fitted with an extruded transition cover or bevelled.

---

**NCC Volume(s):**     One  Two  Three     Housing Prov.  Livable Housing

**Clause/Figure/Table:** 5.2

**Recommended change to draft:**

5.2 Hobless and step-free entry

1. At least one shower **on the entry level** must have a hobless and step-free entry.
2. A lip not exceeding 5 mm in height may be provided for water retention purposes if it is constructed in accordance with the specification given in Clause 3.13.4 and Figure 3.6 of AS 3740.

**Comment/reason for change:**

We recommend that the designated step-free hobless shower in the draft ABCB LHD standard (Clause 5.2) be amended to reflect the requirements in Volume 1 (G7P1(d) and Volume 2 H8P1 (e)), that is, to be on the entry level.

---

**NCC Volume(s):**     One  Two  Three     Housing Prov.  Livable Housing

**Clause/Figure/Table:** 5.3 (1)

**Recommended change to draft:**

All of the shower screen, including the door (if provided), must be capable of being removed without causing damage to adjoining parts of the shower enclosure.

**Comment/reason for change:**

The complete shower screen with or without a door may need to be removed so that a mobility aid such as a wheeled shower commode chair can be used at a later date.

---

**NCC Volume(s):**     One  Two  Three     Housing Prov.  Livable Housing

**Clause/Figure/Table:** 6.2

**Recommended change to draft:**

Construction

1. Reinforcing constructed in accordance with the requirements of (3) must be provided in the locations depicted in –
  - a. Figures 6.2a or 6.2b for walls surrounding a bath; and
  - b. Figures 6.2c or 6.2d for shower walls; and
  - c. Figures 6.2e or 6.2f for a wall adjacent to a toilet.
  
2. Where a wall referred to in (1) (a), or (b) ~~or (c)~~
  - a. is narrower than the width of the area required to be provided with reinforcing; or
  - b. terminates at window sill lower than the height or the area required to be provided with reinforcing –

An alternative Performance Solution to the Performance Requirements H8P1(f) or G7P1(e) is required.

**Comment/reason for change:**

The placement of windows and doors must not be over-ride the capacity to install grabrails at a later date.

There is potential for some flexibility with a Performance Solution for showers and baths, but not for toilets.

---

**NCC Volume(s):**     One  Two  Three     Housing Prov.  Livable Housing

**Clause/Figure/Table:** 6.2 d

**Recommended change to draft:**

Figure 6.2d should show the **total** height of the sheeting at 1850 mm above the shower floor.

**Comment/reason for change:**

See LHDG version 4 p41 for correct measurements.

---

**NCC Volume(s):**     One  Two  Three     Housing Prov.  Livable Housing

**Clause/Figure/Table:** 6.2e

**Recommended change to draft:**

Additional Figure with L shaped grabrail should be given.

**Comment/reason for change:**

Using an L shaped grabrail offers greater layout flexibility to designers (refer Clause 6.2)

---

**NCC Volume(s):**     One  Two  Three     Housing Prov.  Livable Housing

**Clause/Figure/Table:** 11.3.5

**Recommended change to draft:**

- (1) Handrails to a stairway or ramp must –
  - (a) be located along at least one side of the stairway flight or ramp; and
  - (b) be located along the full length of the stairway (including landings between flights) ~~flight~~ or along the full length of the ramp, except in the case where a

handrail is associated with a barrier in which case the handrail may terminate where the barrier terminates; and

- (c) have the top surface of the handrail not less than 865 mm vertically above the nosing of the stair treads, or the floor surface of the ramp (see Figure 11.3.4b)
- (d) be continuous and have no obstruction on or above them that will tend to break a handhold, except for newel posts, ball type stanchions or the like; and
- (e) in the case of a winder stairway, be of the wide side of the tread of a winder step.

~~(2) The requirements of (1) do not apply to—~~

- ~~(a) a stairway or ramp providing a change in elevation of less than 1 m; or~~
- ~~(b) a landing; or~~
- ~~(c) a winder where a newel post is installed to provide a handhold.~~

**Comment/reason for change:**

Refer to the LHDG V4 Silver level, “Stairways in dwellings must feature a continuous handrail on one side of the stairway where there is a rise of more than 1 m”.

Handrails are essential for preventing falls regardless of the number of steps involved and should not be omitted in any design including wider treads.

---