

Alternative Forms of Housing for the Elderly

Part 3: Planning and designing

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Planning and designing

At the European level, it is estimated that functionally impaired people make up 15–20% of the working age population. This means that one of five to six persons of the working age population has either a long-standing health problem or a disability. But there are also people who are not in a working age, especially older people. Considering this group of people, the percentage of functionally impaired people is even higher.

But given the rapidly increasing of older people, especially those above 80 years of age, the percentage of functionally impaired people might be expected to grow very fast in the future.

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In the year 2006 the General Assembly adopted the Convention on the rights of the disabled.

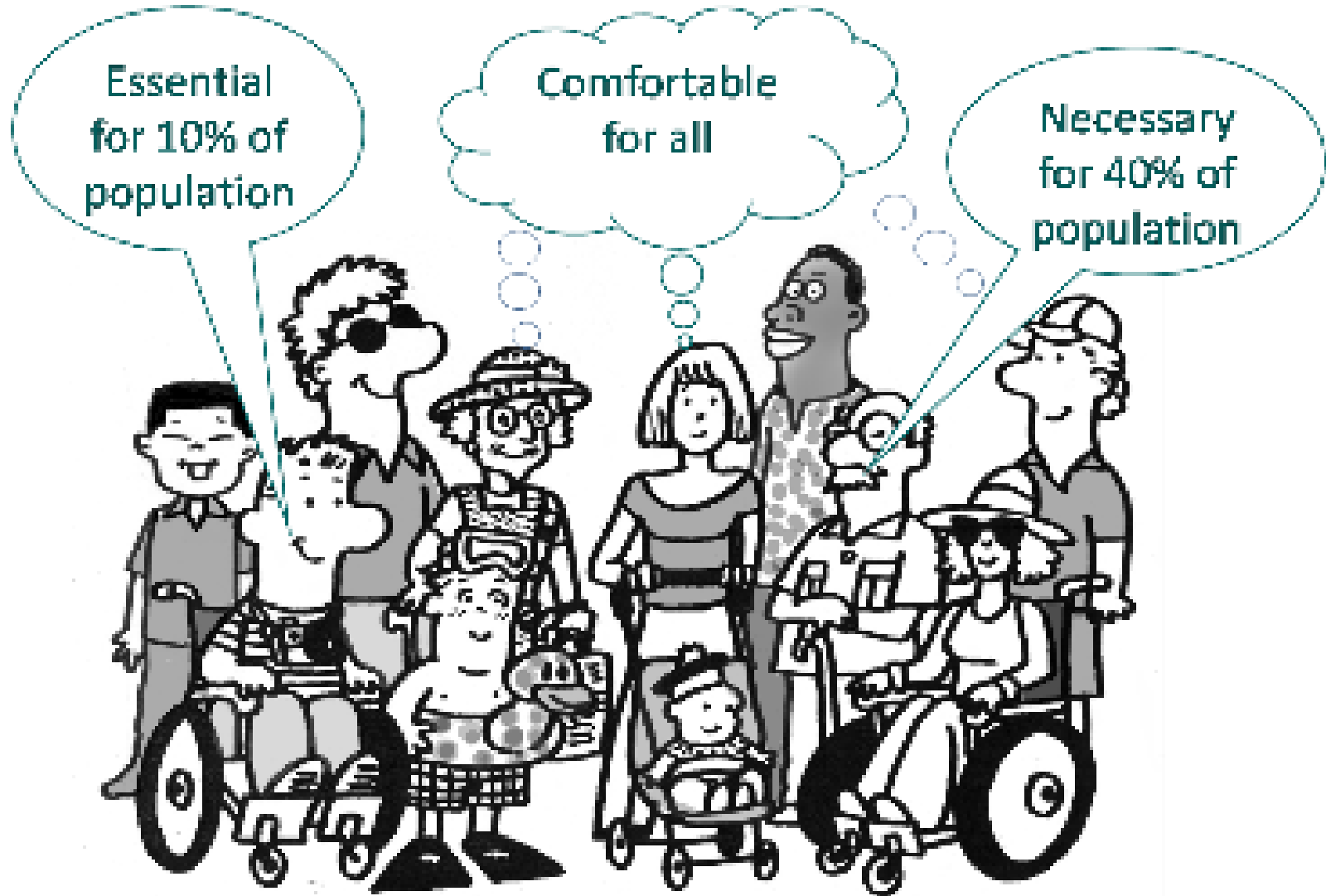
One of the eight guiding principles that underlie the convention is, however, also accessibility to the physical (built) environment in enabling the persons with disabilities to fully exploit and enjoy human rights and basic freedoms.

To realize this vision, accessible built environments must be created.

This is the concept of universal design.

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Universal design



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One application of universal design that encompasses a holistic perspective is the concept of lifetime homes.



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Lifetime home video, which explains that lifetime home is based on universal design

<https://www.youtube.com/watch?v=i5m8bZvRvfA>

Lifetime home video (an example of living in a lifetime home)

https://www.youtube.com/watch?v=bgJq_a52jl0

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Lifetime home videos (examples of living in accessible homes and also about new job and business opportunities for making home accessible).

Lifetime home:

<https://www.youtube.com/watch?v=ZsQXxdiezGs>

Example of living in lifetime home:

<https://www.youtube.com/watch?v=YhYQ57s8Myk>

New jobs and businesses opportunities for making home accessible:

<https://www.youtube.com/watch?v=r1o2MxcjNJc>

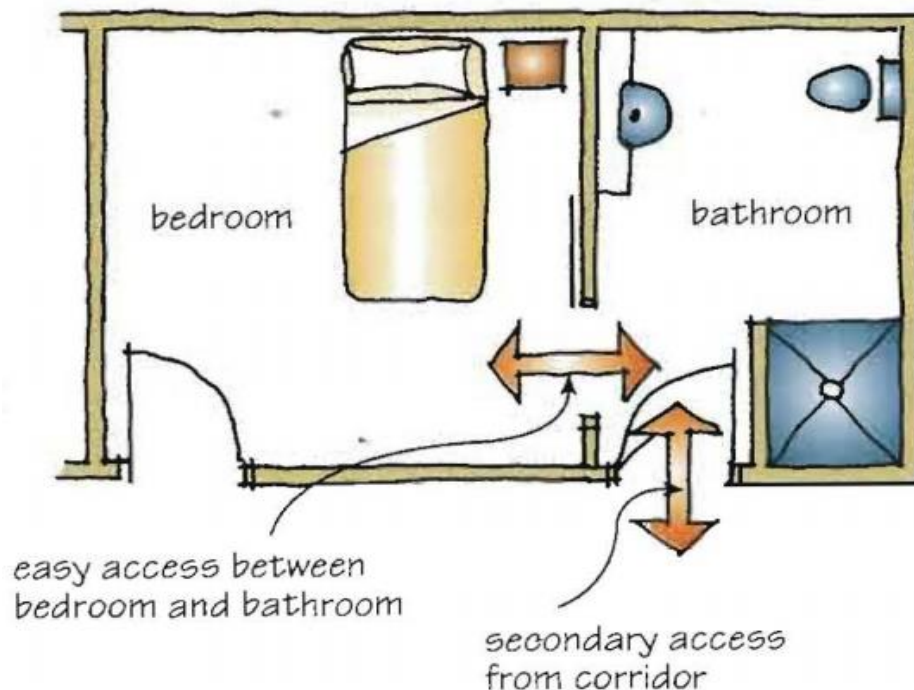
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There are 16 criteria for lifetime homes design standards, which could be found at this link:

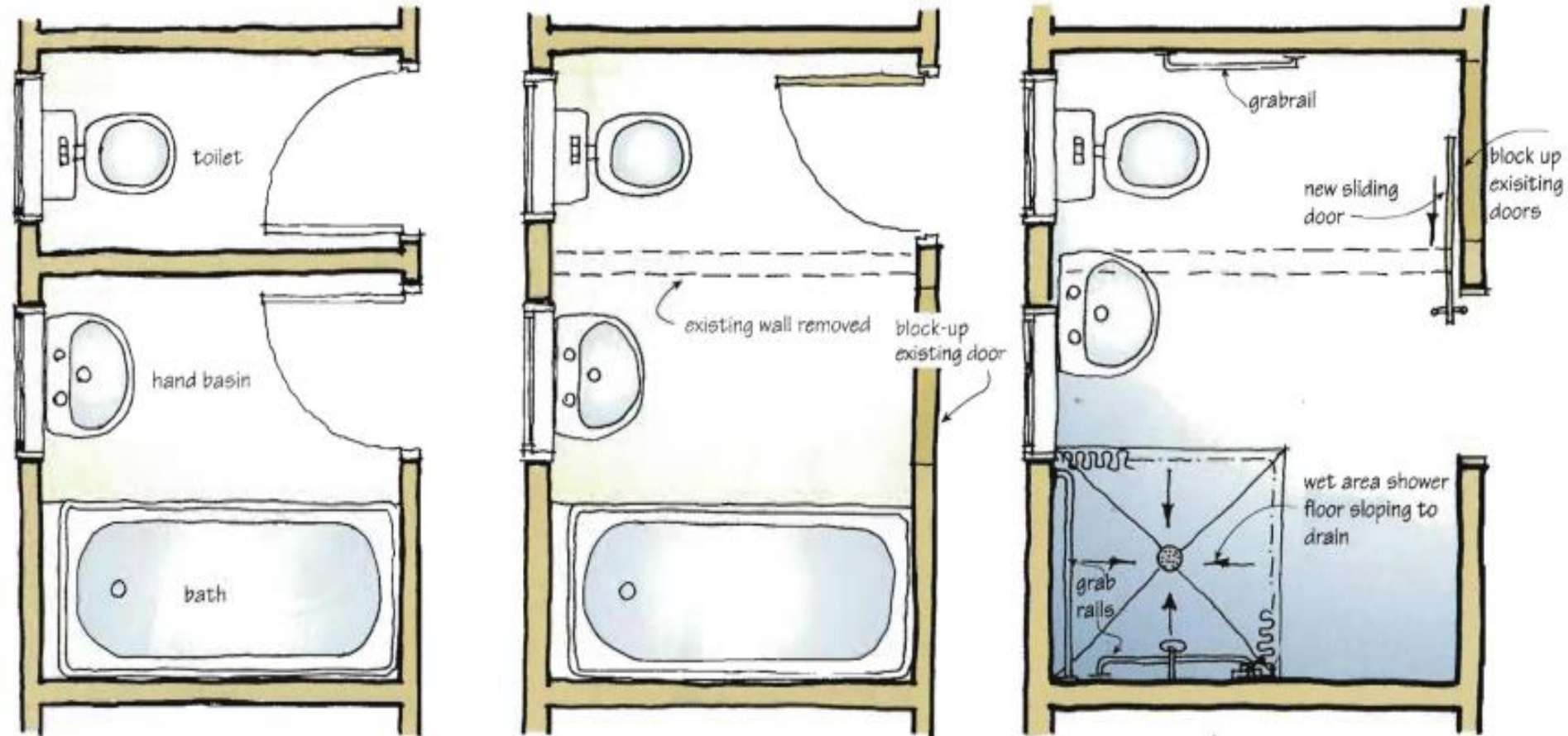
<http://www.lifetimehomes.org.uk/pages/revised-design-criteria.html>

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The bathroom is often the most expensive room in a house to construct and furnish. It is also one of the most important rooms in a home. The functional value of a house is greatly diminished if the occupants cannot comfortably use the bathroom and toilet. An accessible bathroom, providing ease of access, should be, therefore, provided in every dwelling, close to a main bedroom. It is most convenient to have access between the bedroom and the toilet facilities with a layout similar to that illustrated. It is sometimes desirable to extend the use of an en-suite bathroom by adding a second door as shown on the picture.

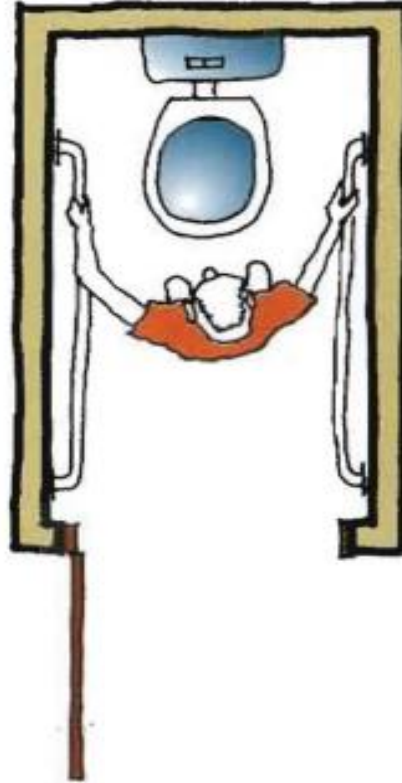


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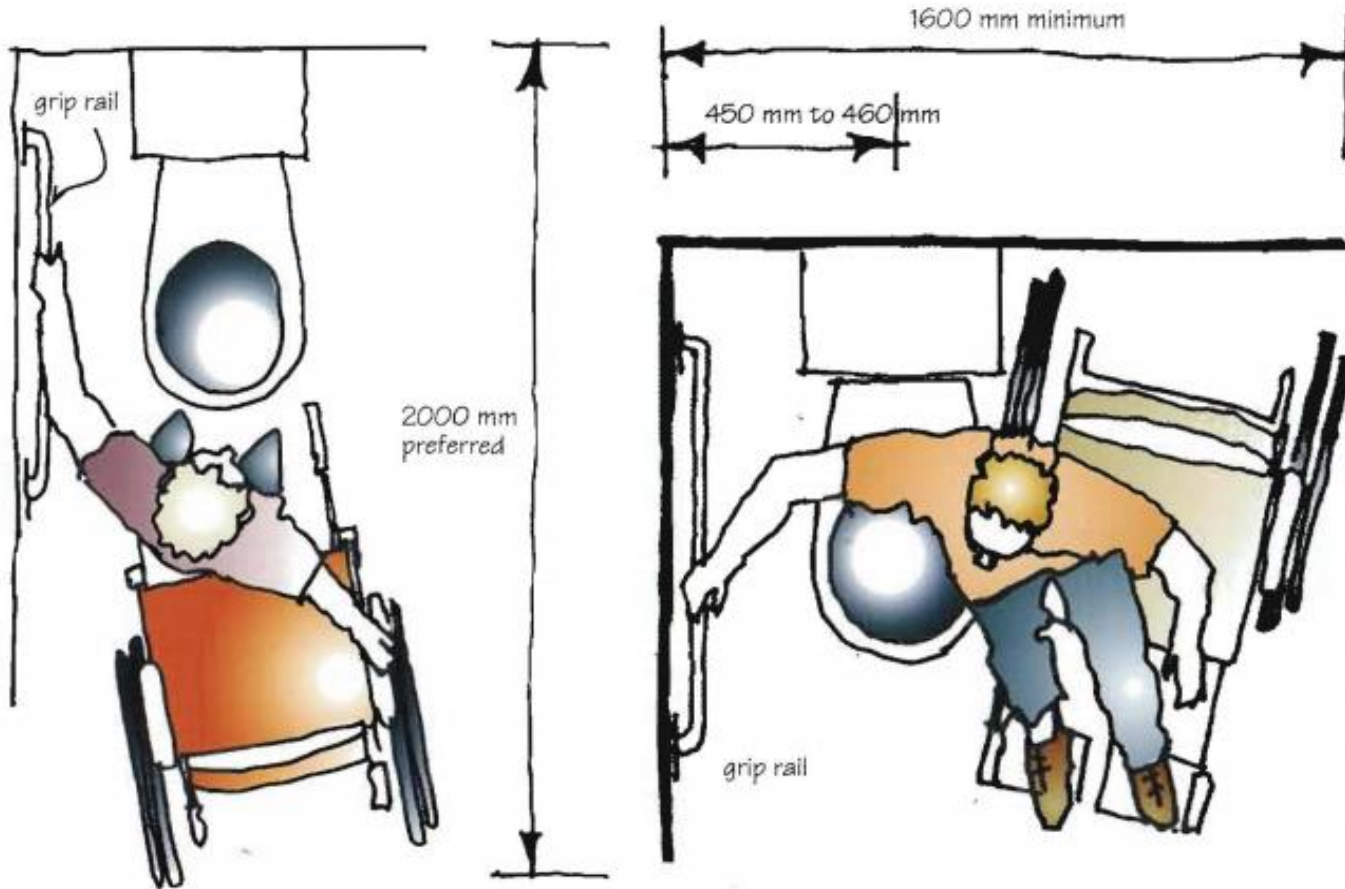
Figures show how a separate bathroom and toilet can be built to allow for future renovations that will join them into a single accessible bathroom and toilet. This strategy could be applied to the design of a new house so that initially separate rooms can be readily integrated if the need arose.

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The standard toilet room is approximately 90 cm wide by 150 cm long, which can be too small to provide access to some people with disabilities. The elderly and others who can walk may be able to use a standard toilet, although some may need grab rails for support as shown in figure. Hinging the door to open outwards can make the space more useable and easier to access.

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People who use wheelchairs will require more space in which to transfer between their wheelchair and the toilet. There are many transfer methods but the most common are side transfer and front transfer.

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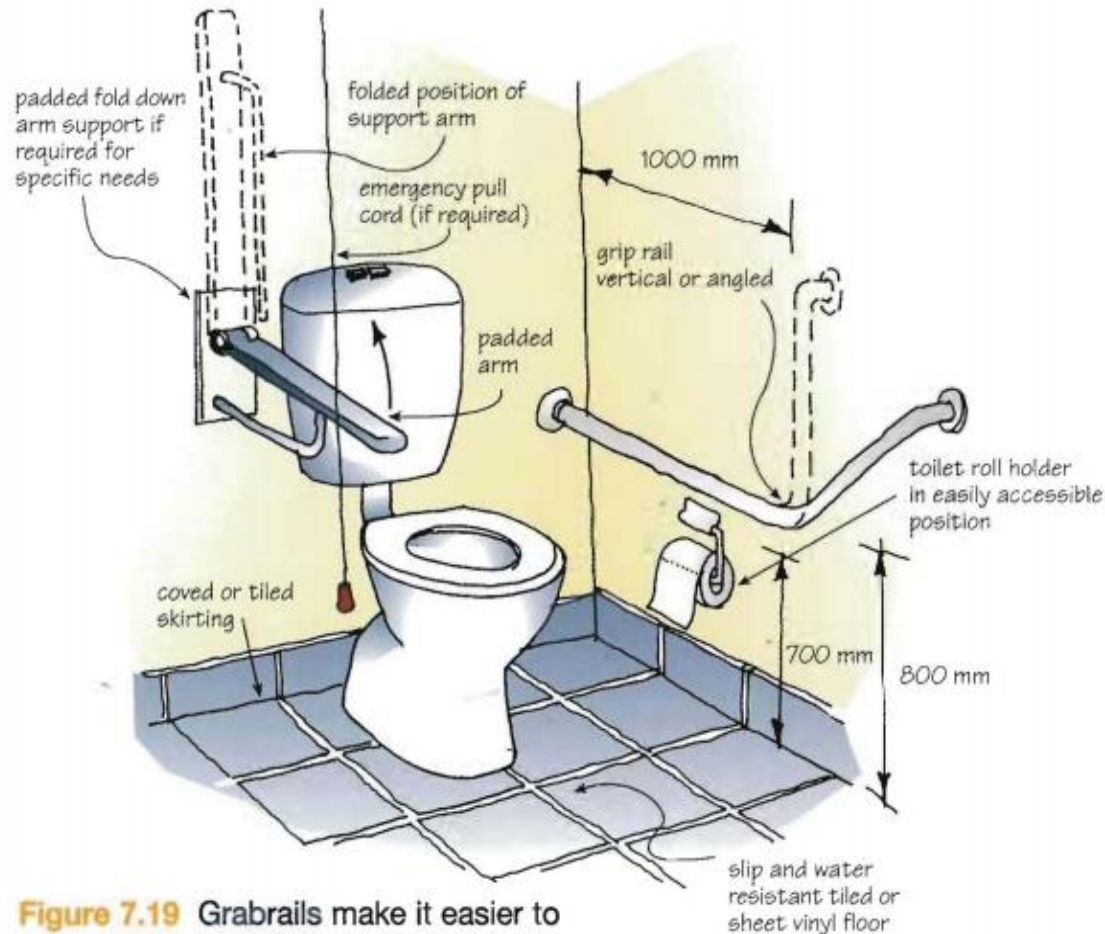
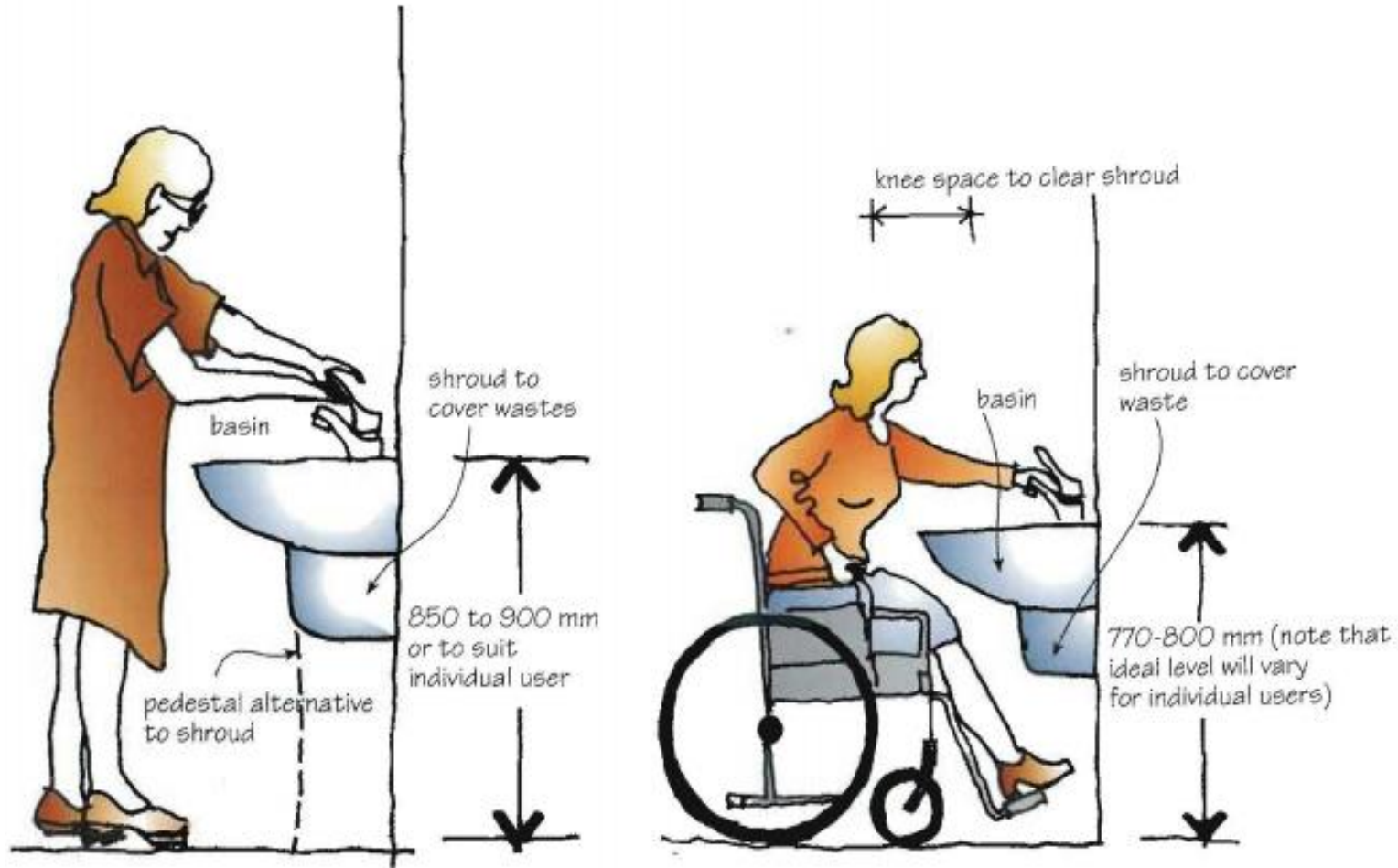


Figure 7.19 Grabrails make it easier to

Grab rails can make an enormous difference to people's ability to use sanitary facilities. Most commonly installed in bathrooms and toilets, grab rails can be used throughout the house to make it easier for people to negotiate changes in floor level, to move between sitting and standing and to maintain their balance. A grab rail needs to be well secured so that when it is grabbed it is strong enough to support the entire weight of the person using it.

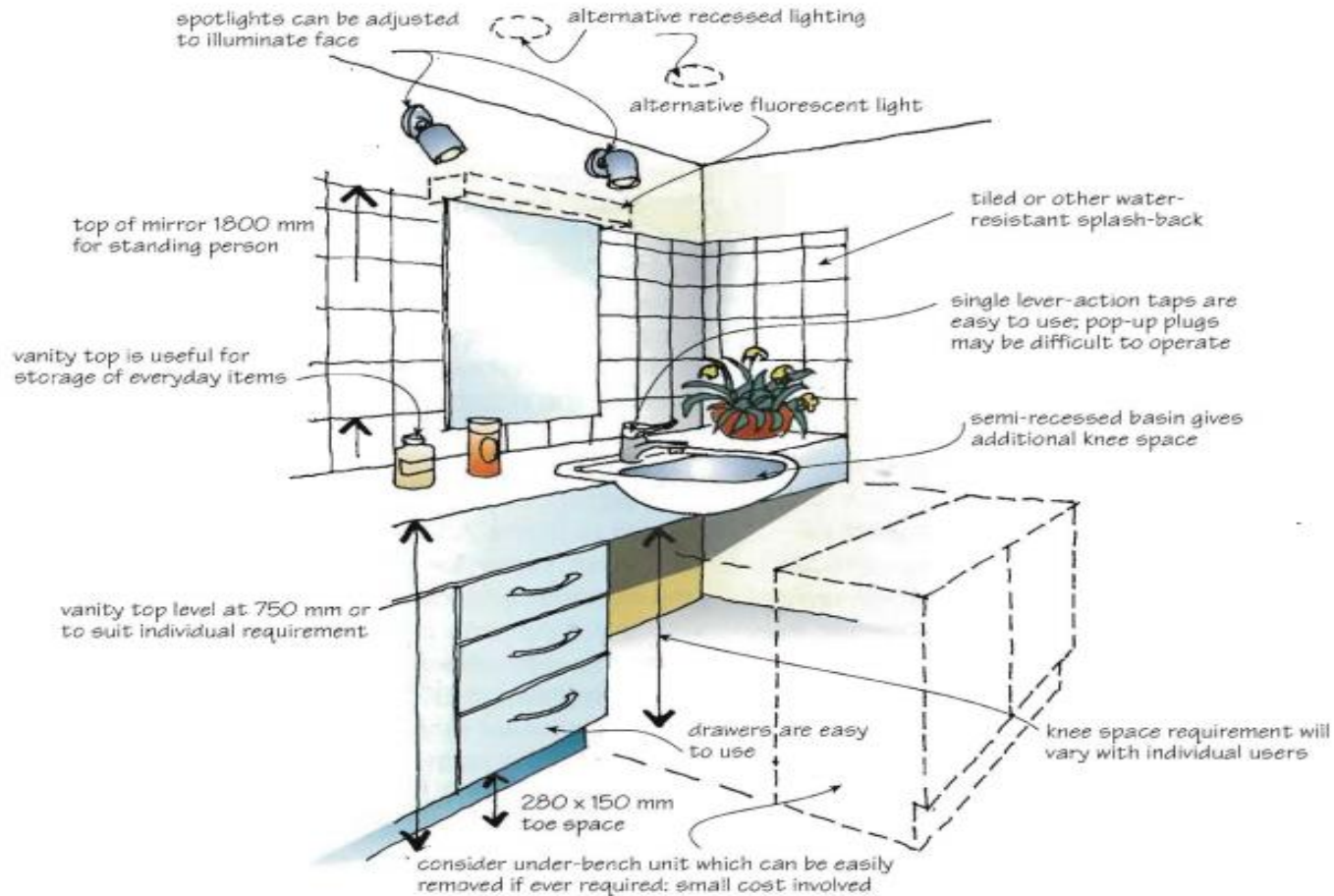
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The standard height for a basin is between 85 cm and 90 cm, as shown in Figure. This height is well suited to standing adults. The basin may be attached to the wall, mounted on a pedestal or located in a vanity top.

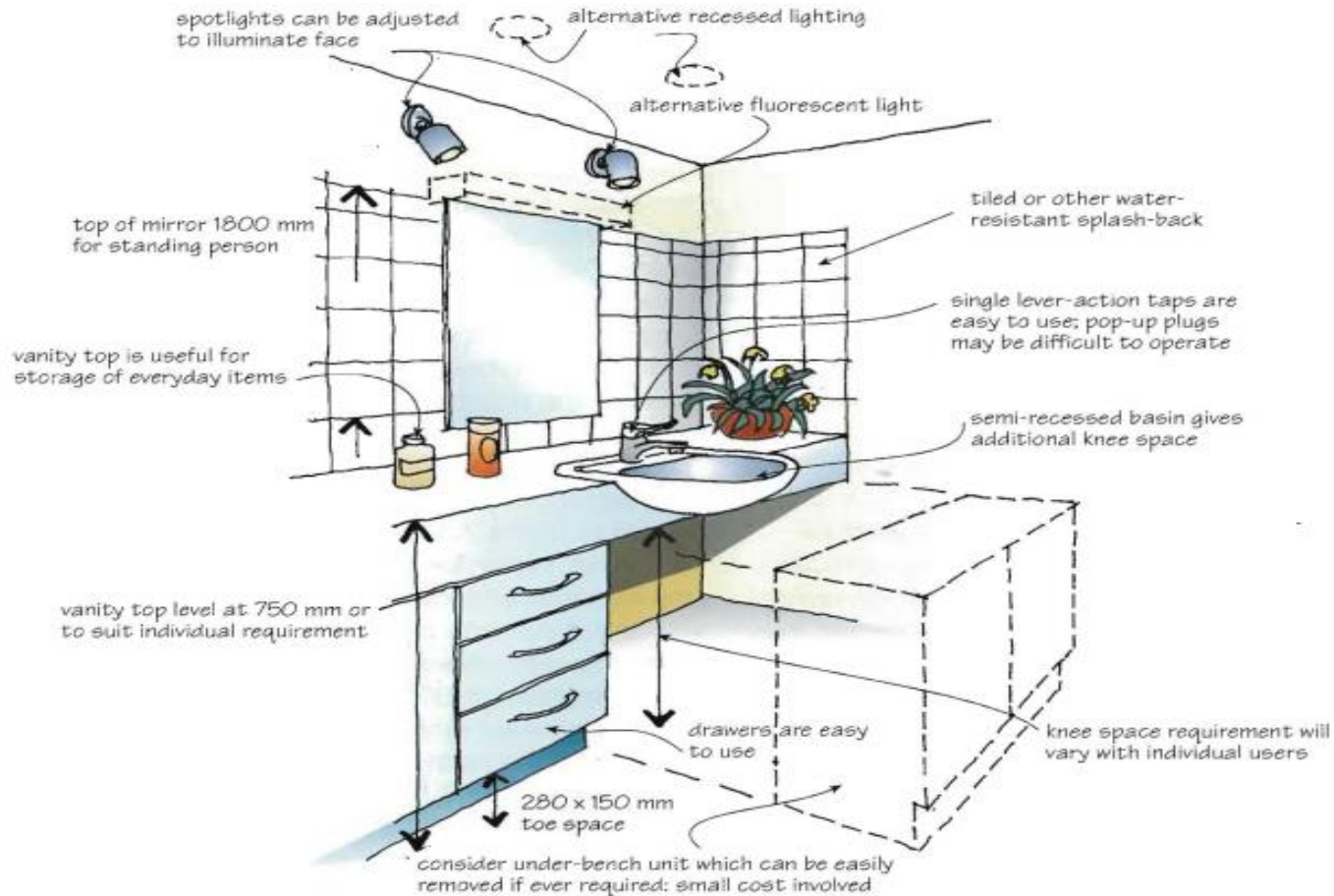
People in wheelchairs need the basin at a lower level and need knee space below it, so that they can wheel right up.

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Semi-recessed basins placed beyond the edge of the vanity are suitable for both standing persons and people in wheelchairs. They provide knee space under the protruding part of the basin, as shown in figure, which also illustrates a vanity unit with a removable storage module under the basin. The module can be removed if the bathroom is to be adapted for use by a person who uses a wheelchair.

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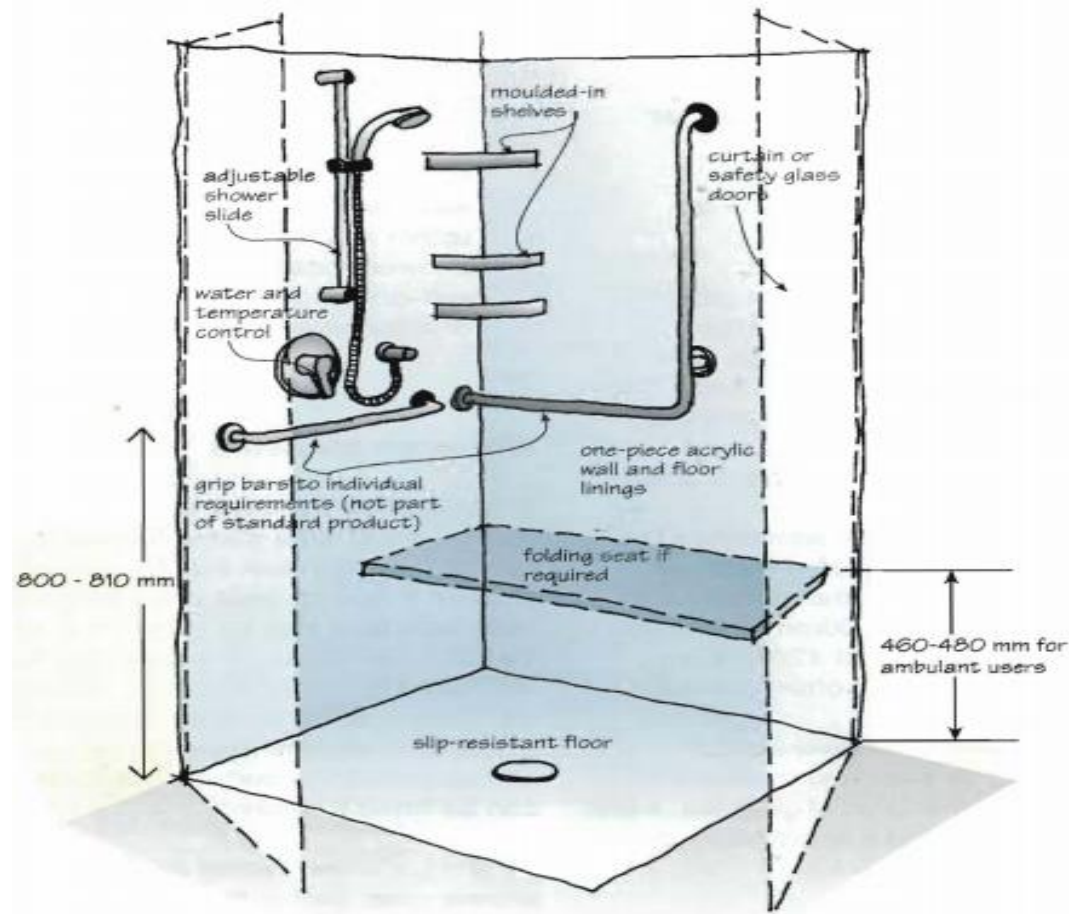
The careful selection of contrasting colours also enhances utility for people with vision impairment. Additional lightning could be added as presented in the Figure.

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Showers are safer and easier to access than baths. Showers are typically set in cubicles, with a raised lip around the base to prevent water escaping. This type of shower is not suited to all users. The upstand edge or hob can be a trip hazard or a barrier that makes it impossible for some people to enter. A standard cubicle is sometimes too small.

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The best size of shower will vary. Depending on the mobility and needs of the user, 90 cm x 90 cm may be adequate, but 120 cm x 120 cm or larger is often preferred. A new or existing shower can be adapted to be safer and more easily used by the provision of grab rails, a slip resistant base and if appropriate, a seat.

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For more see DDA Design (Australia):

<http://ddadesign.com.au/accessible-design/residential-design/>

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Thank you for your kind attention ...



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