City of Albany Guideline

Liveable Housing Design

Disclaimer: This is only a guide and shouldn't be used as a complete reference on the issues covered. Consumers are strongly advised to clarify all costs involved before making any financial commitment. Builders and developers should read these guidelines in conjunction with both the Building Code of Australia and the current Australian Standard for the subject.

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Version Control

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1. Background

These guidelines outline key home design features to meet the changing lifestyle needs of occupants throughout their lifetime. The guidelines are an initiative of Council's Seniors Committee, which identified that many Albany seniors are forced to leave their homes unnecessarily because home modifications which would permit them to stay are cost-prohibitive.

The Seniors Committee therefore undertook to develop guidelines to assist home owners in considering these issues at the time of purchase or renovation, so future home modifications, if required, can be achieved in cost effective ways. Key considerations include the width of doorways to accommodate wheelchairs and other mobility aids, and bathrooms which are accessible and safe for independent use by people living with impaired mobility.

Liveable housing includes living features that aim to make homes easier and safer to use for all occupants including: people with a disability, ageing Australians, people with temporary injuries, and families with young children.

A liveable home is designed to be:

- Easy to enter;
- Easy to move around in;
- Capable of easy and cost-effective adaptation; and
- Designed to anticipate and respond to the changing needs of occupants, ie as people age and/or become less mobile.

Liveable home design seeks to enhance the quality of life for all occupants at all stages of their life, in addition to enabling seniors to remain in their homes as they age.

2. Scope

These guidelines have been developed to assist consumers consider how their changing circumstances might affect their home design needs, in particular what those needs might be should they wish to remain in their homes as they age.

While these guidelines impose no regulatory or statutory obligations over and above the relevant building codes and Australian Standards, developers, builders and architects may also see benefit in applying these guidelines to future housing projects.

3. Relevant Codes and Standards

- BCA: Building Code of Australia
- R Codes: Residential Planning Codes
- NCC: National Construction Code Series (Volume 1, Class 2 to 9 buildings)
- AS1428.1: 2009 Design for Access and Mobility – general requirements for access, new building work
- AS4299: 1995 Adaptable Housing
- AS2890.6: 2009 Off-Street Parking for People with Disabilities

4. Key Design Elements

A Liveable Home has the following essential design elements:

- Flat level walk way to entrance;
- Wide entrance doorway;
- Wide internal doorways and hallways;
- Minimum of one accessible toilet on entry level;
- Minimum of one accessible shower on entry level;
- Reinforced walls in bathroom and toilet; and
- A 'liveable core' with the main bedroom, kitchen, bathroom, living area and laundry located close to front door and garage.

4.1 Dwelling Access

a) Provide a safe and continuous pathway from:

i. The front boundary of the lot; and

ii. A car parking space where provided, which may include the driveway on the lot, to an entrance that is level (step free) as specified in Element 4.2

This provision does not apply where the average slope of the ground where the path would feature is steeper than 1:33 gradient.

b) The path of travel referred to in a) should have a minimum width of 1200mm and include:

i. An even, firm slip resistant surface with an edge giving a required luminance contrast;

ii. A crossfall (surface sloping to enable water run-off) of not more than 1:40 gradient; and

iii. A maximum walkway slope of 1:33 gradient (landings are to be provided at 1200mm intervals).

c) A step ramp may be incorporated where there is a change in height of 190mm or less. The ramp must include landings at the top and bottom with a minimum length of 1200mm if there is no change of direction exclusive of the swing of the door or gate that opens onto them. A minimum step ramp of 1500mm is to be incorporated where a change in direction of travel is required.

d) Reverse arc within driveway.

e) Movement-sensor lighting providing adequate illumination to the path of travel.

f) Covered garage access to house.

g) 1500mm x 1500mm minimum clear space in carport to allow for wheelchair turning circle.

4.2 Dwelling Entrance

a) The dwelling should provide an entrance door with:

i. A minimum clear option width of 900mm (See figure 1);

ii. A level transition and threshold (maximum vertical tolerance of 5mm between abutting surfaces is allowable provided the lip is rounded or bevelled); and

iii. Reasonable shelter from the weather.

b) A level landing area 1500mm x 1500mm should be provided at the level (step-free) entrance door.

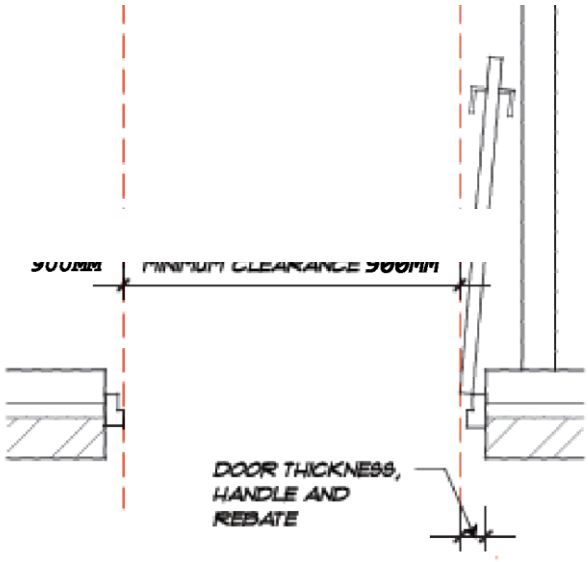
c) Entrance door thresholds should be flush, and timber thresholds should be set down into a rebate at the slab edge;

d) Where the threshold at the entrance exceeds 5mm and is less than 35mm, a ramped threshold no longer than 280mm with a maximum gradient of 1:8 should be located within 20mm of the door it serves.

e) The level (step-free) entrance should be connected to the safe and continuous pathway as specified in element 4.1

The entrance must incorporate waterproofing and termite management requirements as specified in the BCA.

Figure 1: Entrance Door Clearance Specifications



4.3 Car Parking (where part of the dwelling access)

a) Where the parking forms part of the dwelling access the space should incorporate:

   i. Minimum dimensions of at least 3900mm (width) x 7800mm (length);

   ii. An even, firm and slip resistant surface;

   iii. A level surface (1:40 maximum gradient for concrete, 1:33 maximum gradient for bitumen);

   iv. Where practicable, a vertical clearance over the parking space of 2500mm; and

   v. Parking space to be covered to ensure protection from the weather.

b) For grouped dwellings, it is recommended parking spaces be provided as follows:

   i. Where individual parking spaces form part of the individual unit's title, two accessible parking spaces should be provided for each unit, with one space to double as reversing bay; and

   ii. If visitor parking is provided, then the first parking space should be an accessible parking space.

4.4 Internal Doors and Corridors

a) Doorways to rooms on the entry level used for living, dining, bedroom, bathroom, kitchen, laundry and sanitary compartment purposes should provide:

   i. A minimum clear opening width of 900mm; and

   ii. A level transition and threshold (maximum vertical tolerance of 5mm between abutting surfaces is allowable provided the lip is rounded or bevelled).

b) Internal corridors/passageways to the doorways referred to in a) should provide a minimum clear width of 1200mm.

c) Doors to bathrooms/toilets should be sliding doors where possible.

4.5 Toilet

a) Dwellings should have a toilet on the ground (or entry) level that provides:

   i. A minimum clear width of 1200mm between the walls of the toilet if located in a separate room;

   ii. A minimum 1200mm clear circulation space forward of the toilet plan exclusive of the swing of the door in accordance with Figure 2.

   iii. A toilet pan positioned between 450mm – 460mm from the nearest wall as measured from the centre line of the toilet;

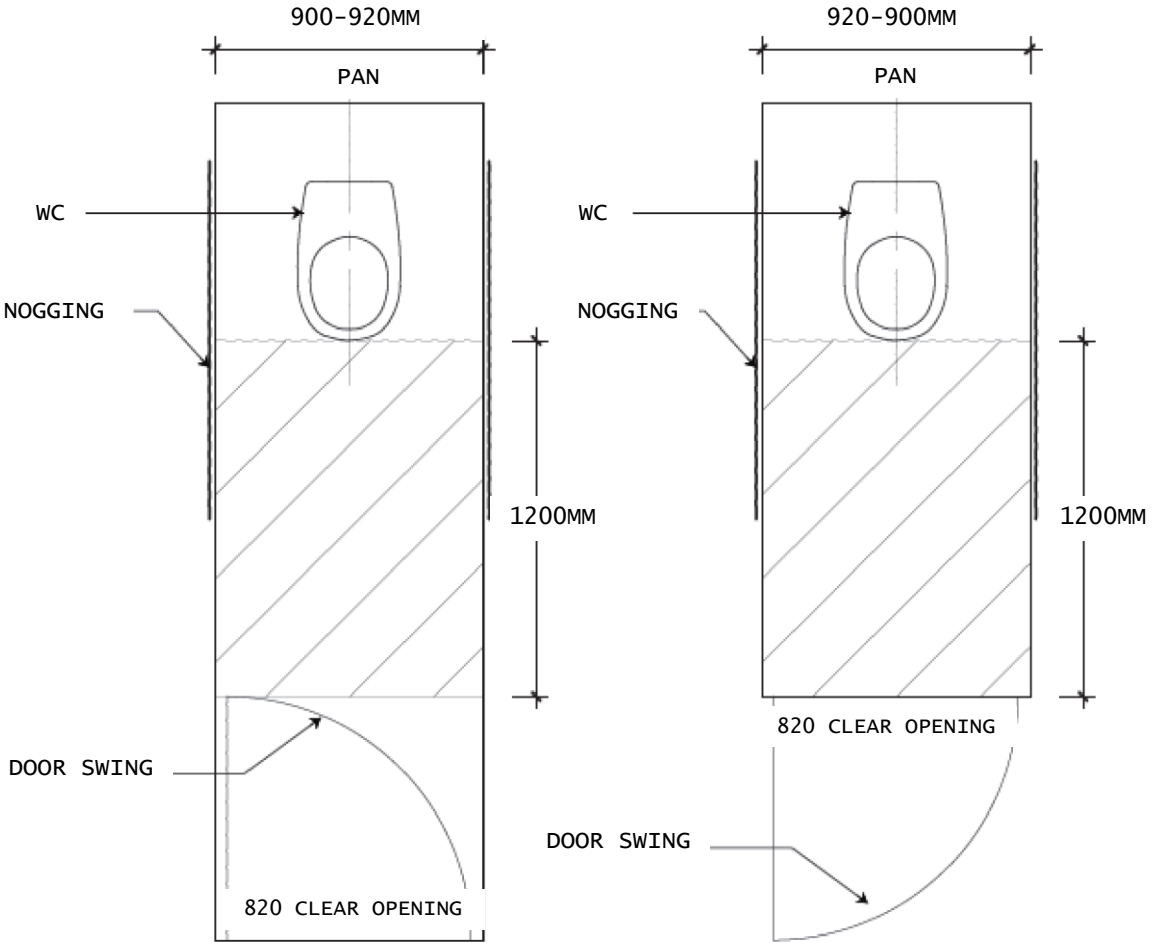
   iv. 600mm minimum clearance forward of the cistern measured from the front of toilet pan. 800 mm (+/- 10mm) clearance is required if the cistern is recessed; and

   v. Height of the toilet pan to be between 460mm – 480mm above the finished floor level.

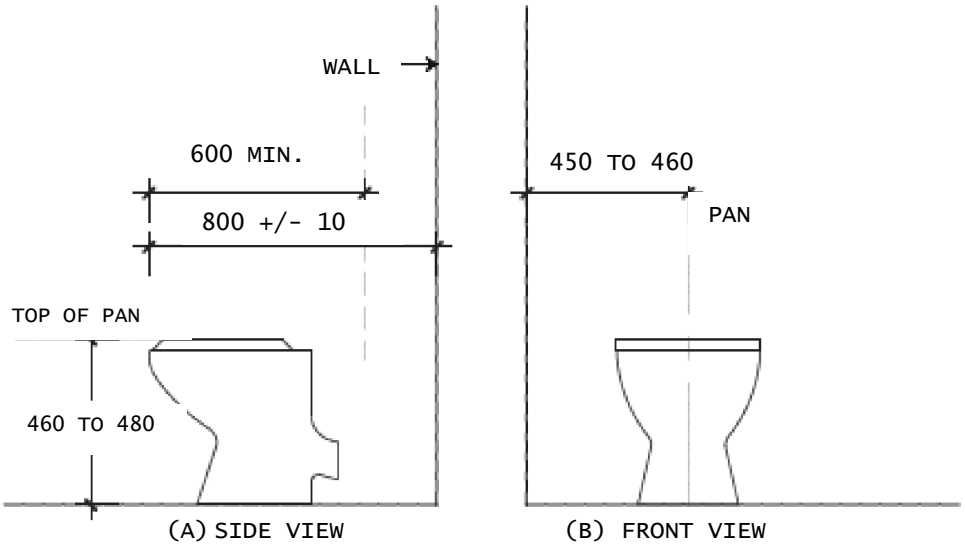
b) If the toilet is located within the ground (entry) level bathroom, the toilet pan should be located in the corner of the room to enable the installation of grab rails.

c) If possible the toilet should be separate next to the bathroom with a partition wall that can be removed.

Figure 2: Specifications for Toilet



GROUND (OR ENTRY) LEVEL TOILET LAYOUT AND SPACE REQUIREMENTS



NOTE FOR THE PURPOSE OF DIMENSIONING, THE FRONT OF THE WC PAN HAS BEEN USED AS THE DATUM PLANE DIMENSIONS IN MILLIMETRES

4.6 Shower

a) One bathroom must have a slip resistant, hobless (step-free) shower recess with a half wall screen with heat lighting and/or underfloor heating (Shower screens are acceptable, provided that they can be removed at a later date) Showers should also feature a sliding shower rose with reinforced slider.

b) The shower recess should be located in the corner of the room to enable the installation of grab rails at a future date.

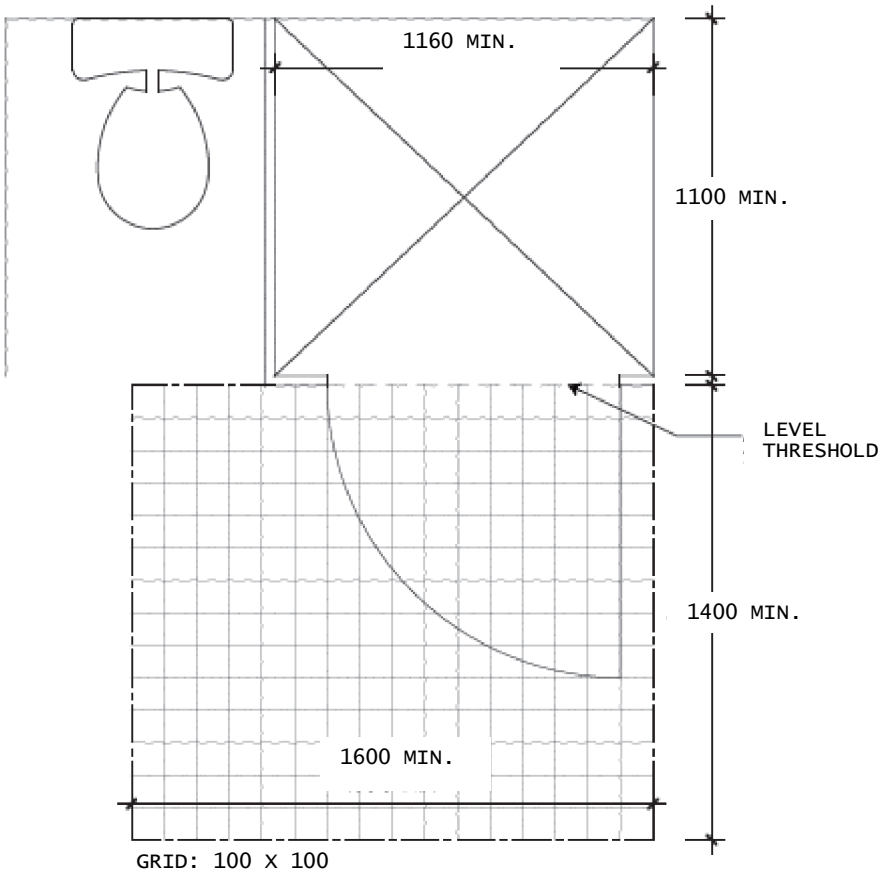
c) The hobless (step free) shower recess described in a) should:

i. Be located in a bathroom on the ground (or entry) level;

ii. Provide dimensions of 1160 mm x 1100mm; and

iii. Provide clear space 1400mm x 1600mm forward of the shower recess entry as detailed in figure below.

Figure 3: Specifications for Shower



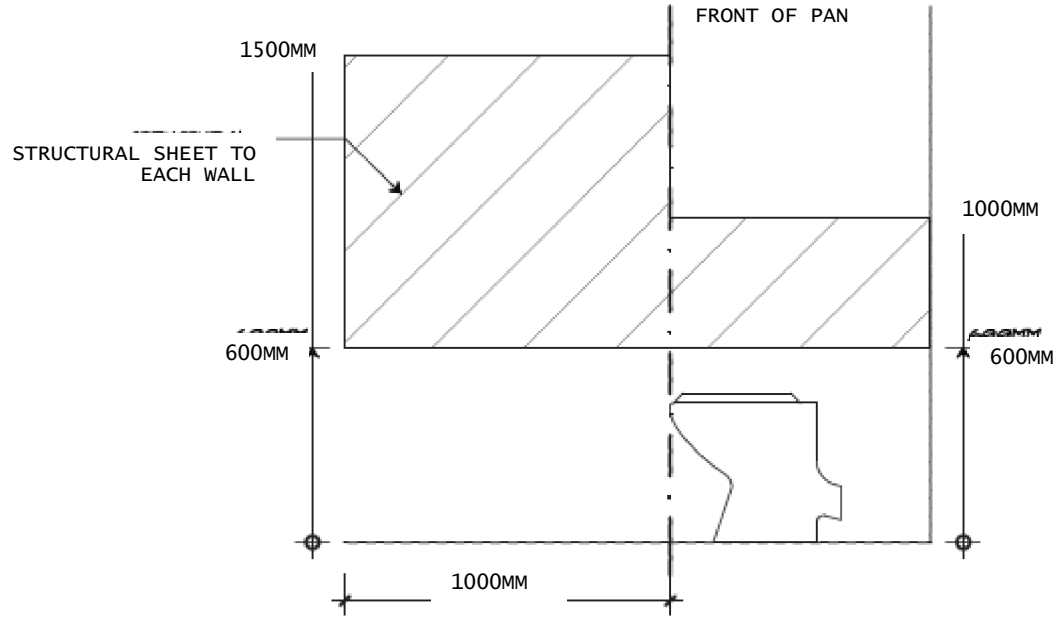
4.7 Reinforcement of bathroom and toilet walls

a) Except for walls constructed of solid masonry or concrete, the walls around the shower, bath (if provided) and toilet should be reinforced to provide a fixing surface for the safe installation of grab rails.

b) The fastenings, wall reinforcement and grab rails combined must be able to withstand 1100N of force applied in any position and in any direction.

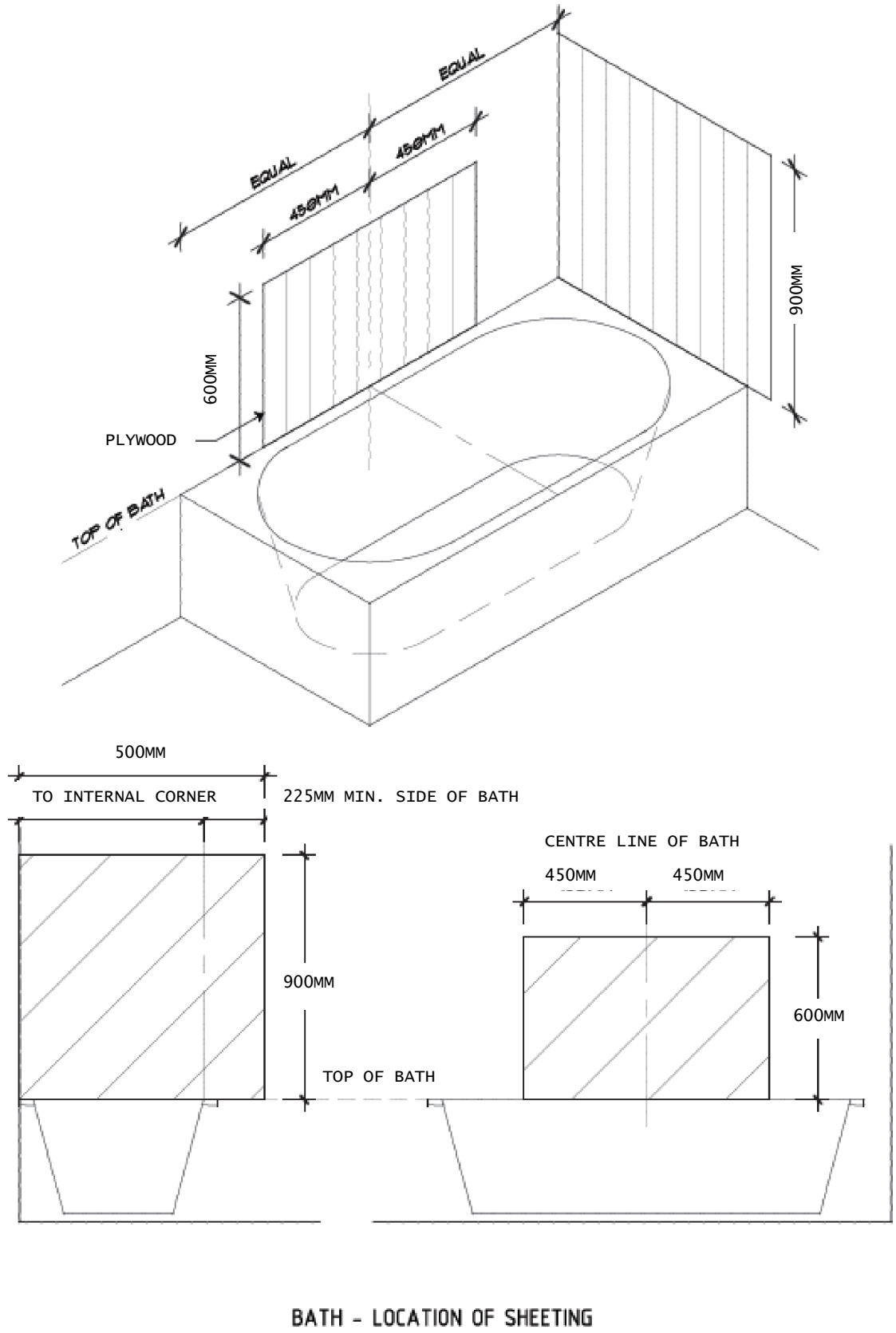
c) The walls around the toilet are to be reinforced by installing sheeting with a thickness of at least 12mm in accordance with Figure 4.

Figure 4: Location of Sheeting for Toilet



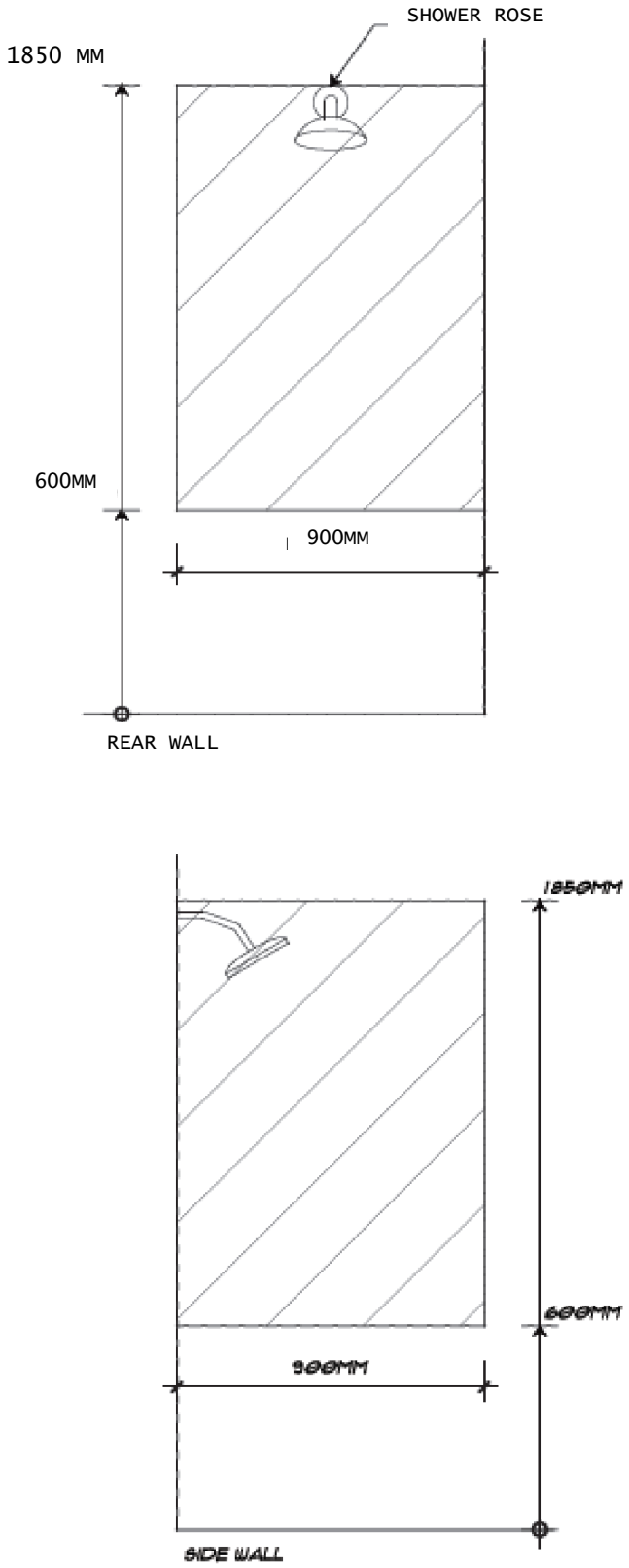
d) The walls around the bath are to be reinforced by installing sheeting with a thickness of at least 12mm in accordance with Figure 5:

Figure 5: Specifications for Bath – Location of Sheeting



e) The walls around the hobless (step-free) shower recess are to be reinforced by installing sheeting with a thickness of at least 12mm in accordance with Figure 6;

Figure 6: Shower Recess – Location of Sheeting



4.8 Kitchen Space

a) The kitchen space should be designed to support ease of movement and adaptation with;

   i. At least 1550mm clearance should be provided in front of fixed benches and appliances;

   ii. Slip resistant flooring;

   iii. Task lighting installed above workspaces;

   iv. Pull out drawers used where possible;

   v. Cupboards to be 150mm off the floor

   vi. Avoid overhead cupboards where possible;

   vii. At least one bench to be placed at seated position height with no cupboards underneath or have a cantilever bench; and

   viii. Sink is to be no more than 155mm deep.

b) Where practicable, floor finishes should extend under kitchen cabinetry to enable cupboards to be removed without affecting flooring.

4.9 Laundry Space

a) The kitchen space should be designed to support ease of movement and adaptation with;

   i. At least 1550mm clearance should be provided in front of fixed benches and appliances;

   ii. Slip resistant flooring;

   iii. Task lighting installed above workspaces;

   iv. Pull out drawers used where possible;

   v. Cupboards to be 150mm off the floor;

   vi. At least one bench to be placed at normal seated position height with no cupboards underneath or have a cantilever bench; and

   vii. Trough is to be no more than 200mm deep.

b) Where practicable, floor finishes should extend under laundry cabinetry to enable cupboards to be removed without affecting flooring.

4.10 Ground (or entry level) Bedroom Space

a) The dwelling should feature a space (or room) on the ground (or entry) level that:

   i. Is of at least 13m2 with the bed located on one wall, with a minimum 1200mm space on three sides, except for the path of travel closest to the door which shall be 1540mm wide x 2070mm long – to accommodate an ambulance stretcher by the bed if required;

ii. Provides a minimum path of travel 1000mm on the remaining side of the bed; and

iii. Any ensuite to the room to have a sliding door, giving a clear opening width of 850mm.

4.11 Switches and Power points

a) Light switches should be positioned in a consistent location:

i. Between 900mm – 1100mm above the finished floor level; and

ii. Horizontally aligned with the door handle at the entrance to a room.

b) Power points should be installed not lower than 900mm above the finished floor level;

c) Light and power point switches should be rocker action, toggle or push pad in design with a recommended width of 35mm.

d) A double power point should be installed in the garage not lower than 900mm above the finished floor level.

4.12 Door and Tap Hardware

a) Doorways should feature door hardware installed at between 900mm – 1100mm above the finished floor.

b) Doorways should feature lever style door hardware, or large knobs on sliding doors; and

c) Basins, sinks and tubs should feature lever tap ware with a central spout.

4.13 Family/Living Room Space

a) The family/living room should be reasonably spacious and should accommodate a free space, 2250mm in diameter, to enable ease of movement clear of furniture.

b) As a guide rooms should be no smaller than 5m x 5m.

4.14 Windows and Window Sills

a) Window sills on the ground (or entry) level in living areas and bedroom spaces should be positioned no higher than 1000mm above the finished floor level to facilitate natural surveillance;

b) Window controls should be easy to operate with one hand and located within easy reach from either a seated or standing position;

c) Skylights or additional windows can be added in living areas to increase natural light; and

d) Windows should have window locks installed that do not require keys and can be easily unlocked by the home owner.

4.15 Flooring

a) All floor coverings should:

   i. Be firm, non slip and even;

   ii. Feature a level transition between abutting surfaces (a maximum vertical tolerance of 5mm between abutting surfaces is allowable provided the lip is rounded or bevelled); and

   iii. Any carpets to be non allergic and low pile.

5. Further Considerations

5.1 Forms of heating

Many people are finding that split system air conditioning units to the living areas are preferable to gas heaters or slow combustion and other fires. The bedrooms can be provided with passive “Ecco-Panel” heaters fixed to the wall which plug into a wall socket, and are very cheap to run.

5.2 Contrasting door frames and skirting

These are important features for visually impaired people. There should be a minimum luminance contrast of 30% between the door and the architrave, and between the skirting and the wall. Outside paths should have contrasting borders, and the luminance contrast should work when the surface is wet. This will greatly assist visually impaired people negotiating paths of travel.

6. Strategic Context

- City of Albany Strategic Plan 2011-2021
- City of Albany Access and Inclusion Plan 2012-2017

7. Review Position and Date

- June 2014