

# INTENTS AND STANDARDS GUIDELINES FOR VISITABLE HOME DESIGN

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Winnipeg Region

Winnipeg VisitAbility Task Force  
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## **INTRODUCTION**

***Intents and Standards Guidelines for VisitAble Home Design: Winnipeg Region*** is offered to serve as a voluntary guideline and is highly recommended by the Winnipeg VisitAbility Task Force for use in achieving modern VisitAble home design in the region of Winnipeg. The focus of this document is primarily for new home construction and for homeowners interested in renovations, where feasible, which address basic accessibility features in their home.

The following documented intents, standards, and considerations are not meant to contradict any local, provincial, national/ territorial building codes or zoning requirements applicable to existing dwellings or new construction. It is encouraged to consult with a building professional in your area to assist you with design and compliance for building code or zoning requirements.

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### **Summary of Intent and Benefits for VisitAble Home Design**

VisitAble home design, or VisitAbility, is a set of design principles meant to encourage greater inclusion in home design through the use of basic accessibility features. It is intended that a VisitAble home enables an individual, who is invited to a home for a visit, a chance to do so safely without facing physical barriers in the design of a home which would prevent this scenario.

This level of basic accessibility is meant to benefit as many individuals in society as possible; friends and family members of any age, parents pushing strollers, individuals using mobility aids or devices, individuals moving furniture or other large items into a home, and any individual otherwise physically encumbered for one reason or another.

Utilizing VisitAble home design also has the added benefit for home owners to live in their homes longer with an age-friendly design which decreases the likelihood of needing to move because of a change in accessibility needs. Furthermore VisitAble home design also serves as a functional and welcoming design for homeowners, or friends or family members, who may have had their mobility needs changed by a temporary injury or illness.

VisitAbility for a home can be accomplished by following certain design principles which apply to 4 main areas of a home, these relevant areas are:

1. Home Entry
2. Doorways and Hallways
3. Washrooms
4. Overnight Spaces

## **1. NO-STEP ENTRY**

**INTENT:** The primary intent of having a no-step entry is to allow a pathway into a dwelling that is free of barriers for any individual using a mobility aid, pushing wheeled equipment or carrying heavy loads when entering or exiting the dwelling, and to improve safety for all by minimizing the risk of tripping on any vertical rises like stairs or other obstructions.

**1.1** To preserve a continuous barrier free path of travel, any sudden rise or drop in any walkway, pathway or threshold including those that are between 7mm to 13mm ( $\frac{3}{8}$ " -  $\frac{1}{2}$ ") in height can serve to restrict mobility aids and therefore these restrictions must be bevelled at a 1:2 ratio.

**1.2** Exterior pathways which serve as a part of a no-step entry thoroughfare must have a 1500mm x 1500mm (60" x 60") level landing to the entrance and therefore any walkways, ramps and handrails located on a VisitAble dwelling property which are a part the thoroughfare must comply with barrier-free provincial and national building code standards (See National Building Code section 3.8). This includes ramps with hand railings sloped at a maximum of a 1:12 ratio as well as landscaped walkways without hand railings sloped at a maximum of a 1:20 ratio.

**1.3** Exterior drop-off or vehicle parking areas on the VisitAble dwelling property must provide direct access to exterior walkways or ramps that provide no-step entry to the dwelling.

**1.4** Lever handles should be installed on no-step entry doors to reduce the requirement for hand strength and rotation for individuals who have reduced hand control due to physical limitations or due to carrying items.

### **Additional Considerations:**

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**A)** Canopy protection located over no-step entries should be considered for the potential benefits in sheltering people from inclement weather and by reducing snow cover and slippery surfaces due to precipitation.

**B)** Installation of a doorbell alongside a no-step entry door is recommended to be located no higher than 1200mm (48") to permit ease of use for individuals using mobility equipment from a seated position. Furthermore if the no-step entry door opens towards the exterior then the doorbell should be placed opposite of the door swing area in an obvious and easily identifiable location. Consideration of a lighted doorbell may also assist with it being easily located.

**C)** Additional thought should be considered to ensure adequate lighting illuminates areas around no-step entries so as to increase the likelihood of recognizing any potential hazards.

**D)** Alternative consideration should be given for locating a no-step entry in a garage area if substantial sloping or other unfavourable conditions prevent the feasibility of exterior barrier-free pathways on the property. In regards to this scenario there should also be consideration made for installing a doorbell in an obvious and easily identifiable location by the garage door exterior which is recommended to be installed no higher than 1200mm (48").

**E)** No-step entry areas, particularly ones without canopy protection, should consider drainage for water due to precipitation.

## **2. DOORWAYS AND HALLWAYS IN THE VISITABLE FLOOR AREA**

**INTENT:** It is intended that the designed environment will allow freedom of movement throughout the visitable floor area for individuals to join with others in social interaction. This freedom of movement is to allow individuals, including those with mobility difficulties, to manoeuvre safely while reducing the potential for surface damage to walls, doors, and door frames from accidental impacts.

**2.1** To provide access to the main living areas of a dwelling (living room, dining room, kitchen, family room, sleeping areas and washroom) for all occupants, doorways must have a door size that is at least a minimum of 915mm (36") in width. This minimum width maintains consideration of basic mobility equipment and the human body's range of motion needed to operate such equipment safely while reducing potential surface damage to walls, doors, and door frames from accidental impacts.

**2.2** Lever handles must be installed on all doors present within the VisitAble floor area to reduce the requirement for hand strength and rotation for individuals who have reduced hand control due to physical limitations or due to carrying items in or out of a room.

**2.3** Hallways must be a minimum width of 1100mm (43") on VisitAble floors to provide clearance for turning and manoeuvring for most mobility equipment utilized by individuals who require it as such.

### **Additional Considerations:**

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**A)** In the event a household member undergoes a decrease in their level of mobility due to injury or illness or the natural course of aging, access to all rooms, even on an additional level, can contribute to the same freedom of movement flexibility within a dwelling as it would to any other individual.

**B)** Swing clear door hinges added to doorways can be considered for maximizing the potential width of passable space for a doorway. Pocket doors can also be utilized for the same purpose provided there is enough space in the designed environment to do so.

**C)** If a hallway on the VisitAble floor ends with no intersection or connection to other rooms, then consideration should be given to ensure there is sufficient space at the end of the hallway to permit an individual using wheeled mobility equipment to turn around. Sufficient space is typically suggested to be a minimum open circular space with a 1500mm (60") diameter.

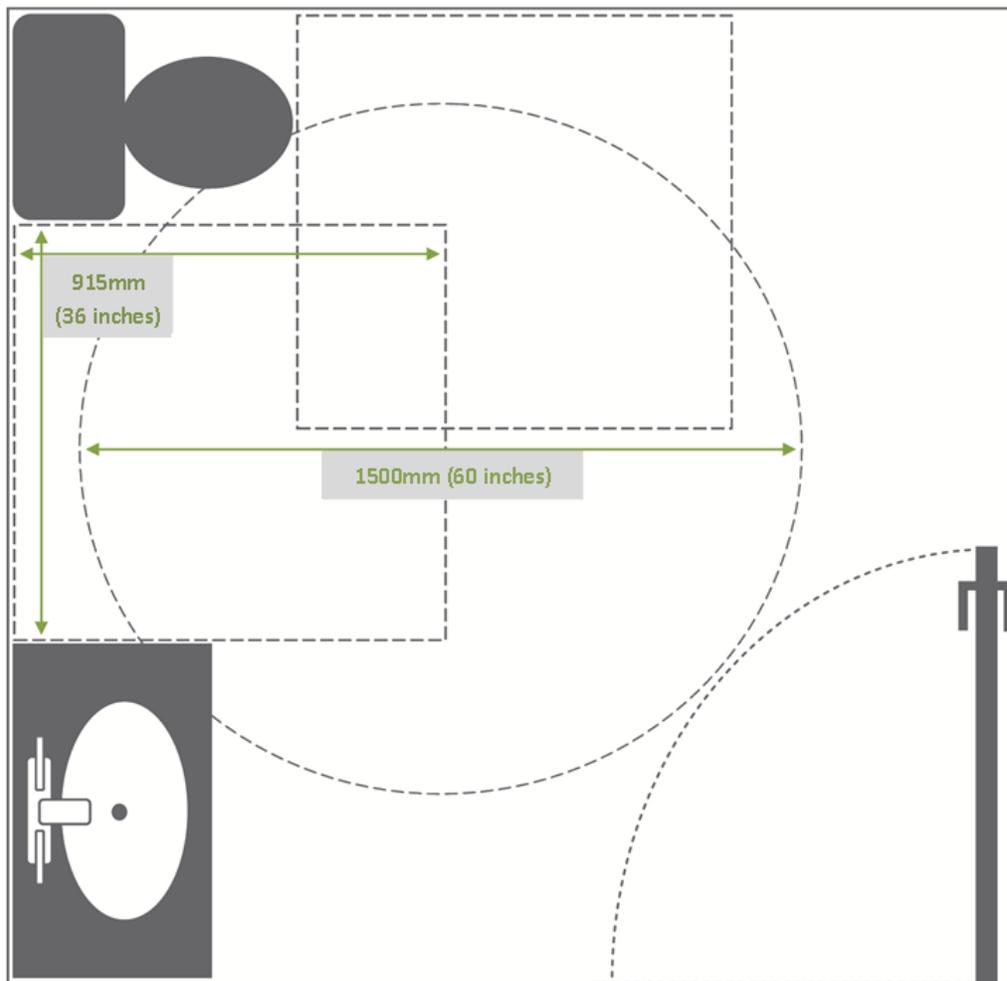
**D)** Consideration should be given to angling or rounding corners along a path of travel to provide easier freedom of movement and to reduce potential wall damage.

### **3. WASHROOM ON VISITABLE FLOOR**

**INTENT:** Areas within washrooms in the VisitAble floor area must allow for the accommodation of individuals using basic mobility equipment such as a manual wheelchair. The intention is to provide an opportunity for an individual to manoeuvre and turn around within the washroom area safely as well as to close and open washroom doors to maintain privacy and dignity.

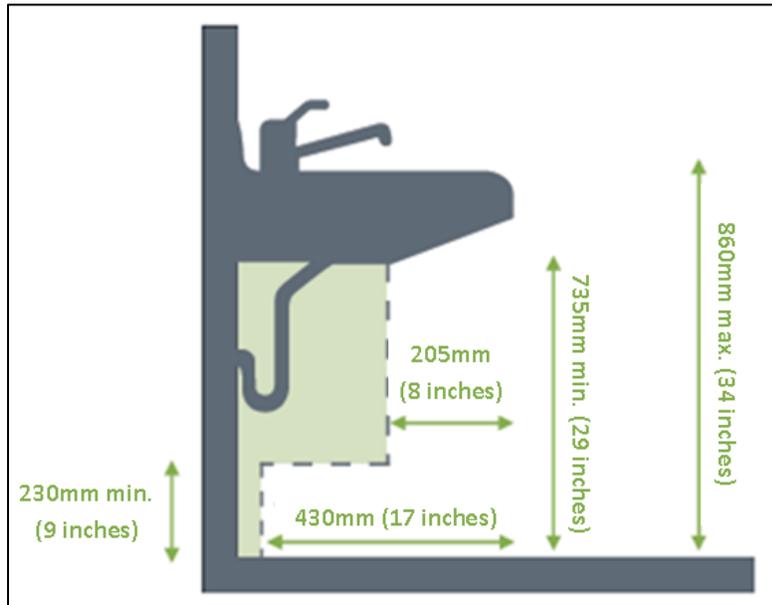
**3.1** A VisitAble dwelling must have at least one washroom located on the VisitAble floor. This washroom must have at least one toilet and sink for all individuals to approach and use.

**3.2** There must also be a minimum 1500mm (60") diameter of open floor space within the washroom to allow wheelchair users to freely turn and position themselves to use the sink, washroom mirror, toilet, and support features where present. A 915mm (36") wide open space beside and in front of the toilet must also be provided for individuals with mobility difficulties to transfer safely. Both the minimum 1500mm (60") diameter and the 915mm (36") spaces can intersect to meet minimum space requirements if needed. (See example in Figure 3.2). These dimensions may also be able to overlay the underside areas of washroom fixtures like the toilet or sink area provided that there is sufficient leg and toe space available for an individual to manoeuvre from a seated position. (See example in Figure 3.3).



**Figure 3.2 (Example of a simple washroom floorplan showing manoeuvre and transfer spaces.)**

**3.3** Vanity counters, where present, and sink height should not exceed 860mm (34") and the depth of the vanity counter or wall-hung sink should be between 550mm to 650mm (22" - 25 ½") to allow for an individual using wheeled mobility equipment to manoeuvre under the sink to be closer to the faucet. Furthermore there should be a minimum free space under the sink area of 735mm (29") in height by 760mm (30") in width. Also, from the front edge of the vanity counter or wall-hung sink, this space should be at minimum 205mm (8") in depth at the height of 735mm (29") to allow for leg space and 430mm (17") in depth at the height of 230mm (9") to allow for toe space. (See example in Figure 3.3)



**Figure 3.3 (Example of minimum leg and toe space requirements and maximum sink/counter height.)**

**3.3- a)** To reduce the risk of burn hazards, insulated piping must be used where exposed pipes exist. This is of particular importance as individuals with certain disabilities may not have full sensory feeling in parts of their body and inadvertently touching an exposed pipe for any length of time has the potential for severe burning. Insulated padding around pipes where present also serves to reduce the hazard from accidental impacts for individuals.

**3.3 - b)** It is intended that the space under the washroom sink area should allow for the free movement for individuals utilizing wheeled mobility equipment. Therefore any bracketing or similar support should not create any barriers for these individuals when they freely swing knees, legs or feet as they turn around in the VisitAble washroom.

**3.3 - c)** The sink faucet should be installed with lever handles for ease of use for individuals who have reduced hand control and grip strength due to physical limitations.

**3.4** Washroom walls must have solid wooden reinforcement between the heights of 460mm to 1675mm (18"- 66") (minimum area) to allow for the attachment of miscellaneous specialties and grab bars to aid in safe position transferring as they cannot be easily pulled out of reinforced walls.

**3.5** Support features must be installed that can be reached with ease from around the toilet area for an individual to hold onto between the heights of 840mm (33") and 915mm (36") in order to safely transfer to and from the toilet.

### **Additional Considerations:**

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**A)** Where present, consideration should be given to vanity counters in the VisitAble washroom that have rounded edges on both the top and underside to reduce the risk of skin abrasion or injury for individuals when approaching and using the vanity, especially from a seated position.

**B)** An offset drain should be considered for meeting minimum washroom sink underside space requirements for individuals approaching from a seated position.

**C)** A single lever or hands-free faucet should be considered for the VisitAble washroom sink as it could benefit all occupants and especially those who have physical limitations pertaining to hand strength and movement.

**D)** The addition of a shower or bathing area in the VisitAble floor washroom should be considered for a variety of reasons. It provides bathing opportunities to individuals who are visiting for longer periods of time as well as for household members who cannot access an alternative washroom due to a change in their abilities or mobility. If a bathing area is to be included in a VisitAble washroom, then the design and construction should ensure that it does not reduce or negatively affect any of the other requirements for a VisitAble Washroom.

**E)** Washroom wall reinforcement is intended to be considered at the point of construction so as to avoid substantial renovations costs for bracing reinforcement of each fixture or future installation of support features (e.g. grab bars).

**F)** In regards to washroom wall reinforcement, 13mm (½") plywood sheathing reinforcement is recommended as an alternative to solid wood blocking reinforcement for the VisitAble washroom as this allows for greater flexibility in changes for washroom specialties such as grab bars and other hardware throughout the lifespan of the dwelling.

**G)** Solid wooden reinforcement installed down to the base of the washroom walls should be considered for reducing accidental piercing damage from mobility equipment.

**H)** Solid wooden reinforcement in washroom walls installed to heights beyond the minimum area stated above in section 3.4 should be considered, as the installation of especially tall vertical grab bars may extend to the height of 1830mm (72").

**I)** Consideration should be made to use grab bars in place of towel holder bars for additional safety in the washroom area.

**J)** Consideration should be given to any wall accessories which protrude out as they could be hazardous to individuals moving through the area of the accessory.

**K)** It is recommended that any grab bars used as support features should be installed behind and beside the toilet to allow an individual to safely transfer to and from the toilet (See National Building Code section 3.8).

**L)** When considering installation of the toilet and associated plumbing within the washroom, it is recommended that the toilet be installed with the toilet's centreline distanced at least 400mm to

500mm (16" - 20") away from the side wall. This enables individuals who use support features beside the toilet to grasp them in a stronger position for transferring safely instead of a more confined space.

**M)** A toilet seat height between 400mm to 460mm (16" - 18") in the VisitAble washroom should be considered for ease in transferring for individuals transferring to or from a seated mobility aid. A separate raised toilet seat attachment can also be used to help meet this dimension.

#### **4. OVERNIGHT SPACE**

**INTENT:** To provide space to stay overnight so as to allow for fuller inclusivity. One such example is the possibility of friends or relatives who have travelled far distances to stay and visit with the owners of a dwelling for multiple days. Additionally, extreme weather events may occur suddenly and require a visitor to stay overnight to shelter from severe rain or snow storms.

This space is also to be available as an alternative accommodation for any household members who have had a change to their circumstances through the course of natural aging, illness or injury which affects their ability to access rooms on other floors within the dwelling.

**4.1** The overnight space need not be a full bedroom but at least an area that can be cleared to make way for a cot, couch, small bed, or similar piece of furniture to sleep on. The space also should be able to be sectioned off for reasons of privacy and dignity. This can be accomplished with a door, a curtain, a moveable privacy screen or other such similar temporary barriers.

#### **OVERALL CONSIDERATIONS**

**A)** If a VisitAble home owner wishes to make an additional floor VisitAble, either in the present or in the future, it is advisable to design the dwelling in such a way that considers the future installation of platform lift systems or residential elevators as well as to include consideration of the minimum doorway and hallway widths covered in section 2.

**B)** If doorways on a VisitAble floor exit or enter from a deck or patio area it should be considered to be designed and constructed as a no-step entry doorway which allows for barrier free paths of travel into and out of these areas.

**C)** Raised electrical outlets installed no lower than 460mm (18") can be considered to permit ease of use for individuals that have difficulties reaching lower areas.

**D)** Consideration should be given to the installation of lowered light switches at the recommended height of 915mm (36") to permit ease of use by individuals who are shorter in stature or in a seated position.

**E)** Thermostats installed no higher than 1200mm (48") can be considered to permit ease of use for individuals reaching from a lower position.

**F)** VisitAble living can be incorporated in both new construction and in renovations of existing dwellings to the benefit of all citizens.