



Ontario Realty Corporation Société immobilière de l'Ontario



International Symbol of Accessibility



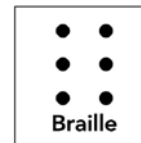
Blind or Low Vision



Assisted Listening Device



Closed Captioning



Braille

## STANDARDS FOR

## BARRIER-FREE DESIGN

## OF

## ONTARIO GOVERNMENT FACILITIES



Audio Description



Large Print



Deaf or Hard of Hearing



Sign Language Interpretation



Volume Control Telephone



Web Access



TTY Teletypewriter

December 31, 2006

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## **Introduction**

On December 14, 2001, the Ministry of Citizenship's accessibility legislation, Bill 125, received royal assent and was proclaimed as the Ontarians with Disabilities Act, 2001 (ODA). The Accessibility for Ontarians with Disabilities Act, 2005 (AODA) received Royal Assent and was proclaimed on June 13, 2005.

Section 4 of the ODA requires the Government of Ontario to develop barrier-free design guidelines through consultation with persons with disabilities and others to promote accessibility to government buildings, structures and premises. The Government of Ontario has directed that those guidelines shall be designated as Standards.

The Ontario Realty Corporation (ORC), on behalf of MBS, initially conducted on-line consultation and focus testing. With the assistance of an architectural consultant, recommendations were made based on information gathered through the consultation process, legislation and other sources. Those recommendations were presented in a report entitled "Report on Recommendations for Barrier-Free Design Guidelines", dated June 6, 2003. Accepted by the Government, that Report formed the basis for these Standards for Barrier-Free Design.

These Standards were further revised in November 2006 to update them in accordance with the revisions to the Ontario Building Code that will come into effect on December 31, 2006 and updates to Ministry of Community and Social Services website information on the AODA.

## **Purpose**

These Standards are intended to inform designers and contractors providing services to the Government of Ontario of the minimum requirements for barrier-free design in Government of Ontario owned and occupied facilities. These standards supersede the 1992 MBS Barrier-Free Design Guidelines and the October 2004 edition of the Standards.

## **Application**

Sub-section 4 (4) of the ODA states: "The Government of Ontario shall ensure that the design of buildings, structures and premises, or parts of buildings, structures and premises, that it purchases, constructs or significantly renovates after this section comes into force complies with the guidelines before occupation or regular use by its employees." The Government of Ontario will also have regard for these Standards when it enters into a 'new lease' with a third party landlord for space to be occupied or used by its employees pursuant to Subsection 4(5) of the ODA.

As Section 4 of the ODA does not apply retroactively, these Standards will be applied and implemented on a "go-forward" basis.

Regardless of the following definitions of applicability for 'New Leases' and 'Significant Renovation', Ministries may and are encouraged to apply these Standards to renovations or changes of smaller spaces and other projects where possible.

The following definitions further clarify application of these Standards.

### **Definition of New Lease**

A New Lease includes new leases, sub-leases and assignments of lease with a third party landlord for space to be occupied by government employees for a term greater than 36 months. This also includes additional space added to an existing lease, by renewal or amendment, where the space is not contiguous or not on the same floor, and does not include:

- i) new leases and sub-leases 36 months or less in duration;
- ii) renewal of lease including those with expansion to include contiguous space on the same floor;
- iii) where a service provider reverts back to the government its services and leased space as a result of termination of a service provider;
- iv) sub-letting of space by government tenants to third party tenants; or
- v) license arrangements.

### **Definition of Significant Renovation**

These Standards will apply to renovations or changes to contiguous government owned or occupied space of at least 10,000 square feet where 50% of the floor space is affected.

Significant renovations do not include projects limited only to repairs or restoration to wall finishes, flooring or ceilings.

The following criteria are to be used in only exceptional circumstances and on a case-by-case evaluation, the impact of which will be considered when determining whether the Standards ought to be applied to a facility:

- i) Whether a particular site offers services to the general public that warrant regular access;
- ii) Whether the requirements and/or restrictions of other applicable legislation will impede the application of these Standards;
- iii) Whether the use of the Standards would obstruct the structural integrity, quality or function of the structure, building or premises; or
- iv) Whether cost, health and safety requirements, or any outside sources of funding will render the application of the Standards unreasonable.

## **Additional Items to Consider**

### Maintenance

It is essential that barrier-free paths of travel and facilities be properly maintained in accordance with other applicable legislation or standard maintenance practices in order to reduce the creation of new barriers. Some examples of maintenance items include:

- Timely removal of snow and ice;
- Timely repair of uneven surfaces;
- Removal of furniture, fixtures and stored items that impede clearance spaces or corridor widths;
- Proper leveling of elevators;
- Adjustment of door closers and elevator doors to prescribed limits;
- Maintenance of prescribed lighting levels; and
- Proper maintenance of non-glare surfaces.

### Emergency Evacuation Planning

Facility Emergency Evacuation Planning should address accessibility procedures for persons with disabilities. Persons with disabilities who regularly occupy a facility should have access to Emergency Evacuation Plans in a range of formats, including large text and electronic formats. This will help to improve the understanding of evacuation methods and promote adequate training of persons with disabilities of the emergency measures.

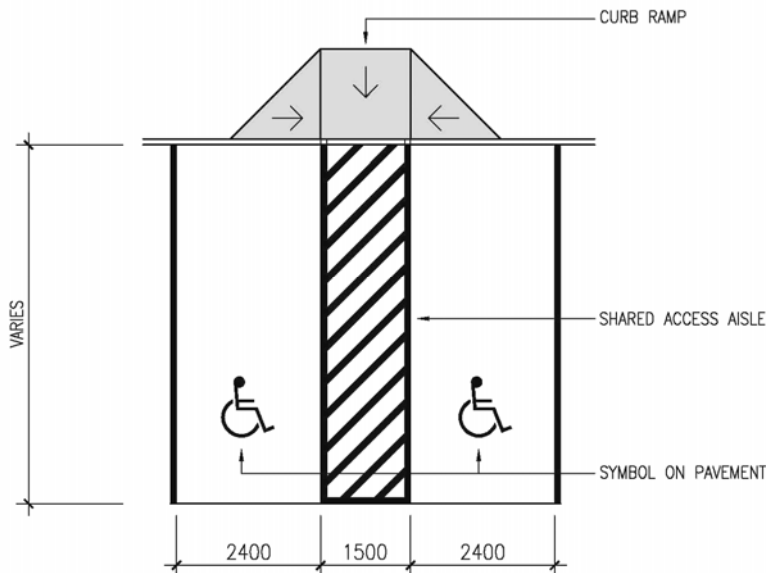
## 1.0 Exterior Areas

### 1.1 Parking and Drop-Off Areas

1.1.1 Provide a minimum number of barrier-free car parking spaces in each parking area as follows:

Total parking spaces provided	Minimum barrier-free car spaces required
1 - 10	1
11 - 20	2
21 - 50	3
51 - 75	4
76 - 100	5
101 - 200	6
over 200	1 additional for each additional 100 spaces or part thereof

1.1.2 Barrier-free car parking spaces shall have a minimum width of 2400mm plus a 1500mm wide access aisle. The access aisle must be level. Length of the space shall be as required by local municipal bylaws. Two adjacent spaces may share the same access aisle. (Figure 1).



**Figure 1 Barrier-Free Car Parking Spaces**

**SYMBOLS OF ACCESS**



International Symbol of Accessibility



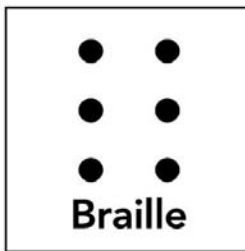
Assisted Listening Device



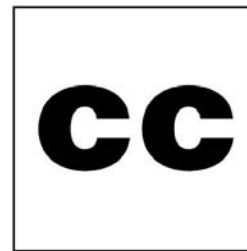
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**Figure 2 Symbols**

1.1.3 In addition to the barrier-free car spaces described in 1.1.1, provide a minimum number of van parking spaces in each parking area as follows:

Total Spaces Provided	Minimum van spaces required
1 – 50	1
51 – 300	2
301 - 700	3
over 700	4

1.1.4 Barrier-free van parking spaces shall have a minimum width of 3500mm plus a 1500mm wide access aisle to accommodate vans with built-in wheelchair lifts. The access aisle must be level. Length of the space shall be as required by local municipal bylaws. Two adjacent spaces may share the same access aisle. (Figure 3).

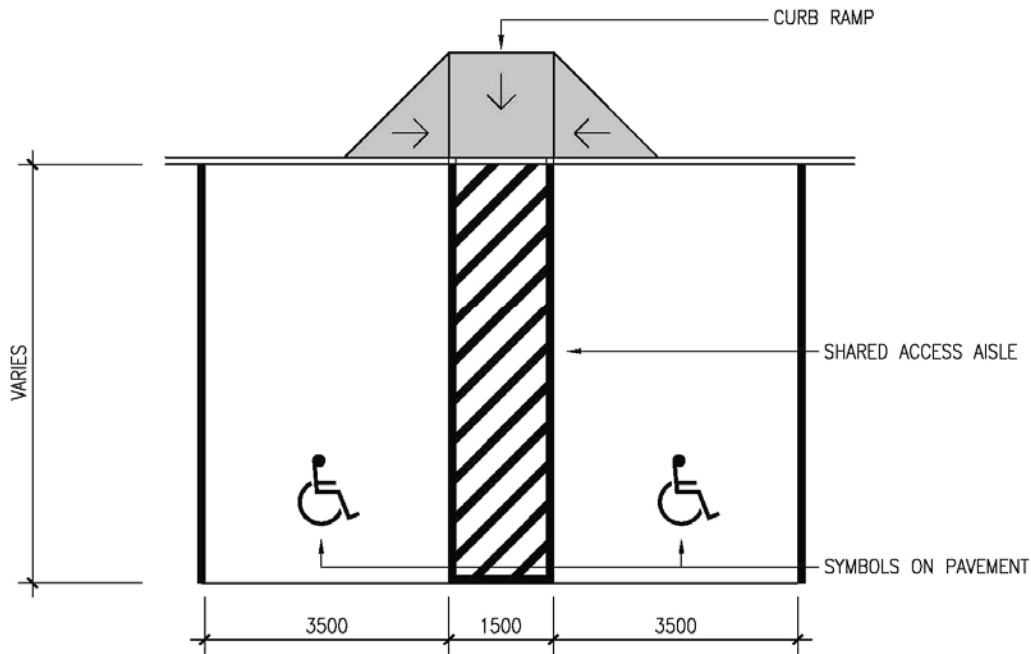
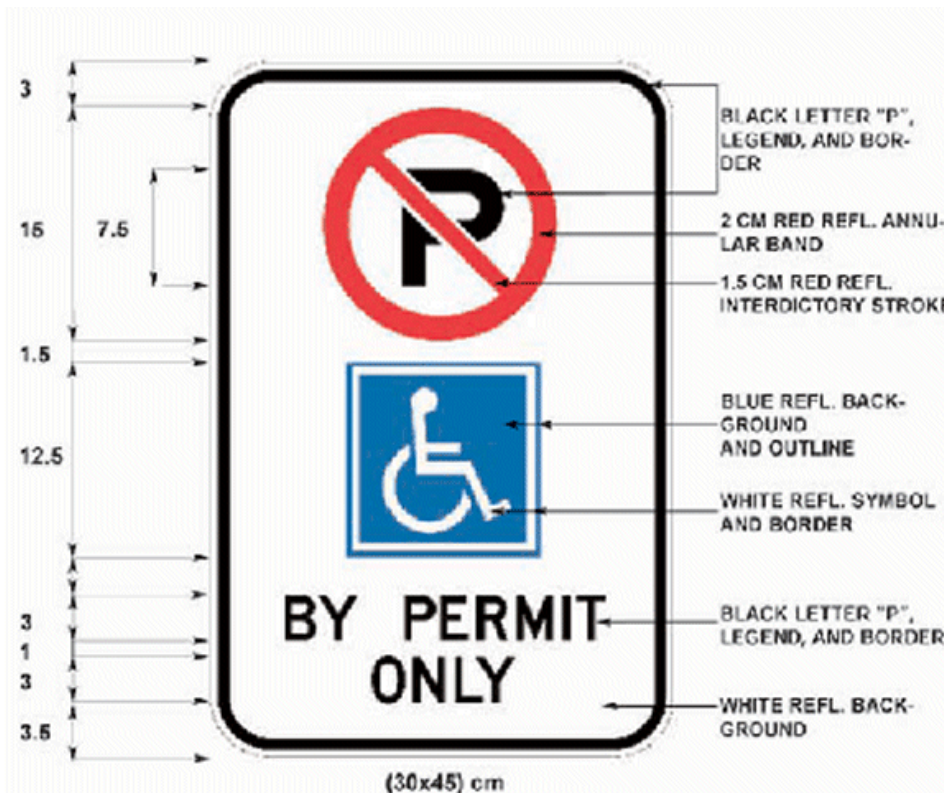


Figure 3 Barrier-Free Van Parking Spaces

1.1.5 Barrier-free car and van parking spaces shall be located as close as possible to the main accessible entrance of the building and shall lead directly to the building entrance without crossing any drive aisles. Provide a curb ramp per 1.2.9. (that will not be blocked by a parked vehicle) directly adjacent to the designated spaces. The accessible route shall be clearly marked.



- 1.1.6 The surface of all barrier-free parking spaces must be level (maximum slope in any direction 2%), firm (no gravel) and slip-resistant. Pavement markings must use non-slip paint. Do not paint the entire surface of the parking space.
- 1.1.7 Provide signage to designate the barrier-free spaces as reserved for permit-holders:
- .1 A vertical post-mounted sign in front of the space, with the centre of the sign between 1500mm and 2000mm above the ground. Sign shall be in accordance with Ontario Highway Traffic Act, Ontario Reg. 581 (Figure 4); and
  - .2 A painted pavement marking in the centre of the space, in contrasting colour to the pavement, 1000mm in length, with the International Symbol of Access. (Figure 1)



**Figure 4 Vertical Parking Sign**

- 1.1.8 Provide an additional sign at van spaces labeled "Van Accessible."
- 1.1.9 Provide a passenger pick-up area at or near the main accessible entrance. The access aisle on passenger side shall be minimum 1500mm wide by 6000mm long.

- 1.1.10 Barrier-free parking spaces and passenger pick-up areas shall have a minimum clear height 2850mm, including along the vehicular access/egress route.
- 1.1.11 Provide a call button or two-way communication system at all underground parking areas that have accessible parking spaces.

## 1.2 Walkways and Ramps

- 1.2.1 Provide an accessible route from streets and parking areas to all accessible entrances. The accessible route shall be minimum 1600mm wide. Surfaces shall be maximum 5% (1:20) running slope and maximum 2% (1:50) cross slope. Where running slope must exceed 5% (1:20), provide a ramp in accordance with 1.2.6.
- 1.2.2 Walkways and ramps shall have an even, firm, slip-resistant surface.
- 1.2.3 Where the accessible route is adjacent to a vehicular route, it shall be separated from it by a cane-detectable curb or railing.
- 1.2.4 Accessible routes must be free from overhead protrusion hazards. Provide a cane-detectable railing, planter or bench anywhere that the overhead clearance is less than 2030mm. (Figure 5)

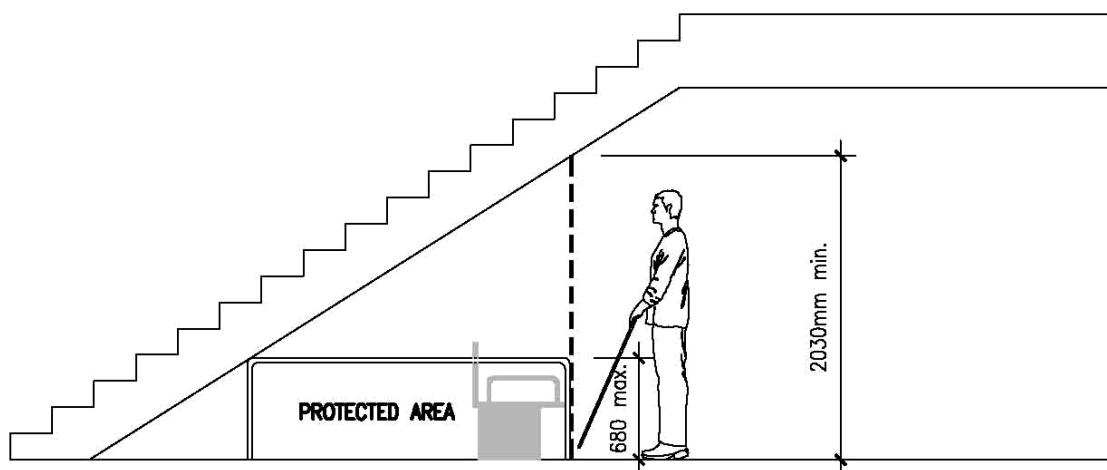
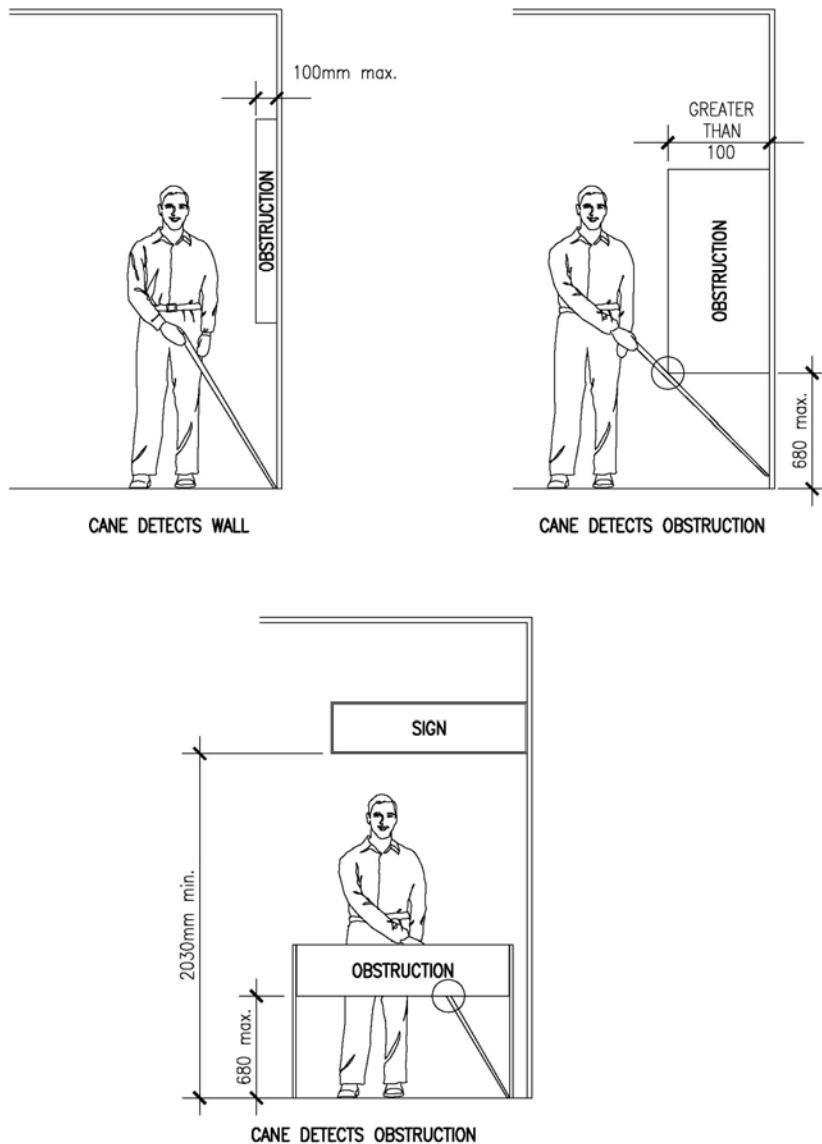


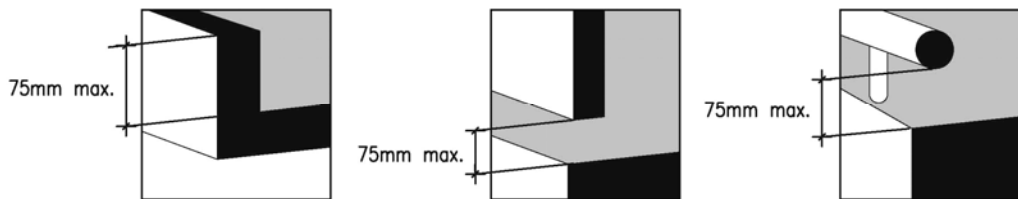
Figure 5 Overhead Hazards



**Figure 6 Cane Detectable Obstructions**

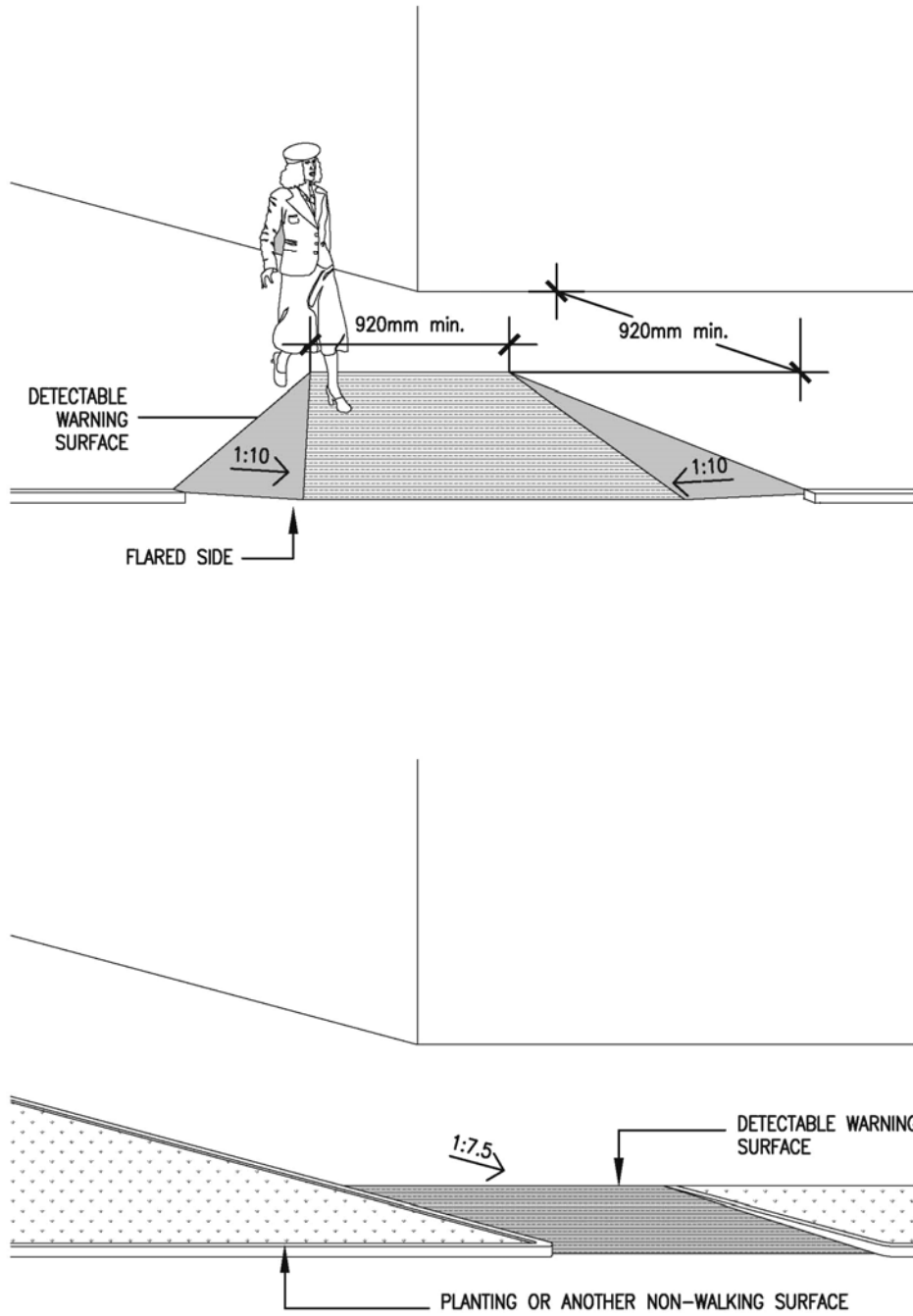
- 1.2.5 Where possible, locate gratings out of the accessible route. Any gratings in accessible routes walkways must be level and have a maximum 13mm wide opening in the direction of travel.
- 1.2.6 A sloped walkway shall be designed as a ramp wherever the gradient exceeds 5% (1:20). Exterior ramps shall have:
- .1 Minimum width of 900mm between handrails;
  - .2 Maximum gradient of 8% (1:12);
  - .3 Level area of at least 1670mm by 1670mm at the top and bottom of the ramp;

- .4 Level area of at least 1670mm long and at least the same width of the ramp at intervals of not more than 9m along its length, where there is a change in direction of the ramp and at any intermediate doors along the length of the ramp;
- .5 Handrails on both sides as described in 2.1.3;
- .6 A wall or guard on each side that is not less than 1070mm above the ramp surface; and
- .7 Edge protection in the form of curb or rail. (Figure 7)



**Figure 7 Ramp Edge Protection**

- 1.2.7 Ramps shall have a colour contrasting, textured, detectable warning surface in accordance with 3.7.2 at the top and bottom a minimum of 920mm from the start of the slope, extending the entire width of the stair or ramp.
- 1.2.8 Where the location of the ramp is not readily evident from the main access route, provide a sign incorporating the International Symbol of Accessibility and a directional arrow indicating the location.
- 1.2.9 Provide curb ramps at all level changes along barrier-free paths of travel. Curb ramps shall have:
  - .1 Maximum gradient of 13% (1:7.5);
  - .2 Minimum width of 1200mm (exclusive of flared sides);
  - .3 A surface (including flared sides) that is slip-resistant, colour and texture contrasted with adjacent surfaces;
  - .4 A smooth transition from the curb ramp to the adjacent surfaces; and
  - .5 Flared sides with a slope of not more than 10% (1:10).
 (Figure 8)



**Figure 8 Curb Ramps**

1.2.10 Provide a detectable hazard surface in accordance with 3.7.3 wherever a walkway adjoins a hazardous area such as an unprotected drop-off, edge of a pool or to separate a walkway from a drive aisle that is at the same level.

1.2.11 Provide a level area in accordance with 2.4.9. adjacent to all accessible entrance doors.

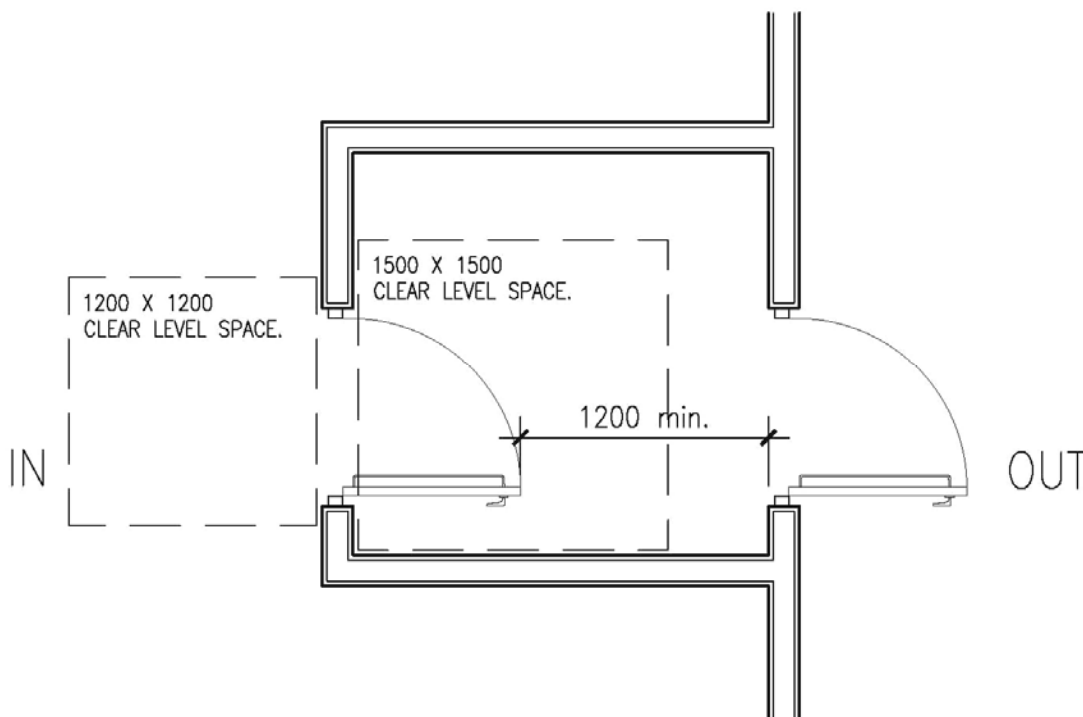
### 1.3 Entrances and Exits

1.3.1 For new buildings, all public entrances shall be barrier-free. For existing buildings, as many as feasible (but no less than one-half of all public entrances) shall be barrier-free. Provide signage incorporating the International Symbol of Accessibility to indicate the location of all barrier-free entrances. The barrier-free entrance must connect the exterior accessible route with the interior accessible route. Where an entrance consists of multiple doors beside each other, only one door in each set need be barrier-free.

1.3.2 All required exits from the ground level must be barrier-free. Signage incorporating the International Symbol of Accessibility shall indicate the location of the barrier-free exits.

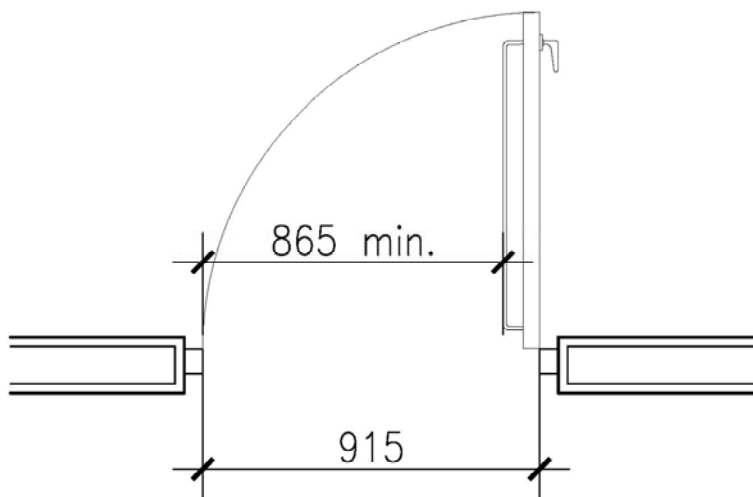
1.3.3 Clear glass doors and sidelights at the entrances shall have a 100mm wide contrasting colour strip mounted continuously 1350mm above the floor.

1.3.4 Two doors in series (such as in vestibules) shall have minimum 1200mm clear between the open doors. (Figure 9)



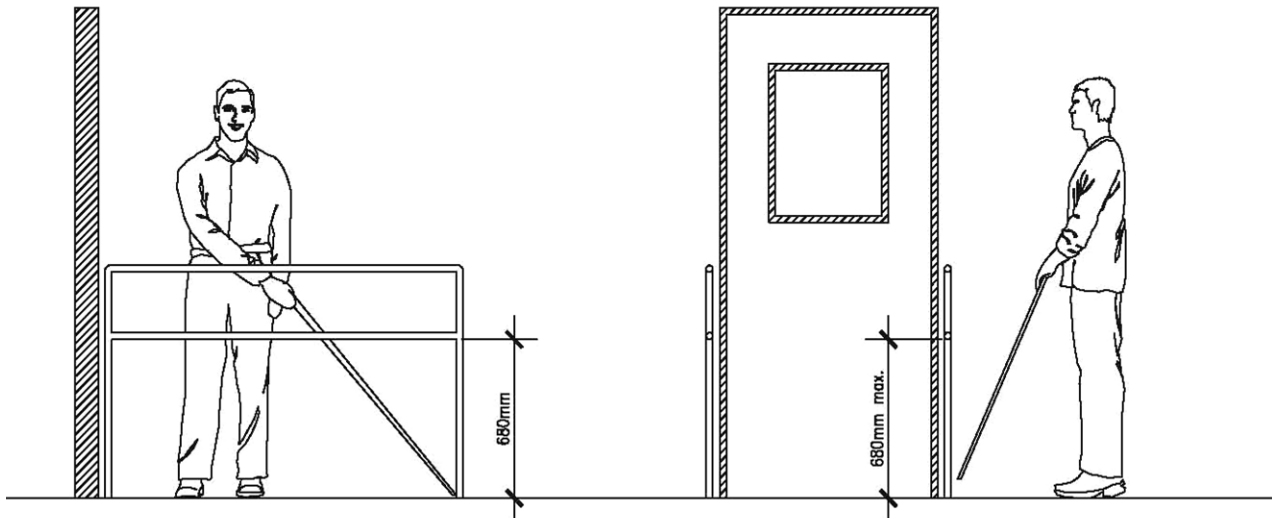
**Figure 9 Vestibule Clearance**

- 1.3.5 Loose floor mats that can cause a tripping hazard or impede wheelchair use are not permitted in the barrier-free path of travel.
- 1.3.6 Barrier-free entrance and exit doors shall be a minimum of 915mm wide, such that frame stops, the door thickness and horizontal hardware such as panic bars shall not reduce the clear width of the doorway to less than 865mm. (Figure 10).



**Figure 10 Door Clear Width**

- 1.3.7 Provide a minimum clear level space on both sides of doors as follows:
  - .1 1500mm x 1500mm on the pull side
  - .2 1200mm x 1200mm on the push side
- 1.3.8 At least one door in every barrier-free entrance and exit (including doors leading from parking areas to the building) shall be equipped with an automatic operator. If there are two doors in series (vestibules), both doors shall have an automatic operator. Doors shall remain open a minimum of 5 seconds and shall take a minimum of 3 seconds to close from a 70 degree position. Pushbuttons, key switches and card readers shall be located in conformance with 3.5. If the automatic door is a swinging door, provide a cane-detectable guard rail with a horizontal member no more than 680mm above the ground. (Figure 11)



**Figure 11 Cane Detectable Railing**

- 1.3.9 Doors shall have lever hardware, push/pull plates or exit devices (panic hardware). Round knobs and thumb-latches are not acceptable.
- 1.3.10 Any exterior door not equipped with an automatic operator shall require a maximum force of 38N to open. Door closers shall take a minimum of 3 seconds to close from a 70 degree position.
- 1.3.11 Where a revolving door is used, an adjacent barrier-free swinging door shall be provided.

## **1.4 Exterior Amenities**

- 1.4.1 Where exterior amenities such as outdoor seating, terraces, playgrounds etc. are provided, ensure that they include accessible components. Tables and seating areas shall have clearances in accordance with 3.9.
- 1.4.2 Where picnic tables or outdoor seating are provided, ensure at least some are placed on a hard surface and are accessible from the barrier-free walkways. If only some are barrier-free, provide signage incorporating the International Symbol of Accessibility indicating the locations.
- 1.4.3 Where kiosks or pay booths are intended to be used by pedestrians, ensure that at least one window is located at a maximum of 860mm above grade and



has an even, level (maximum 2%) access clearance area of not less than 750mm x 1200mm.

## **2.0 Interior Areas**

### **2.1 Stairs and Ramps**

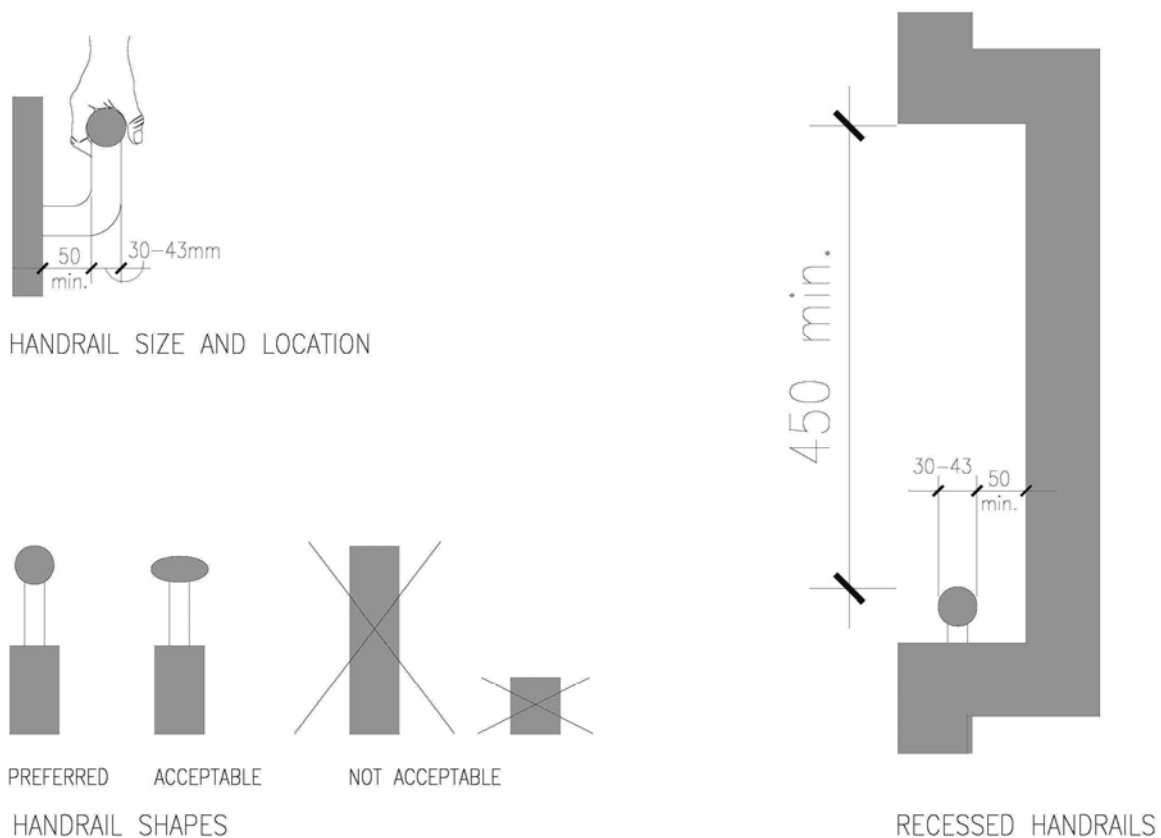
#### **2.1.1 Interior stairs shall have:**

- .1 Closed risers;
- .2 Maximum rake of 60%;
- .3 Uniform riser height (180mm high maximum) and tread depth (280mm deep minimum);
- .4 Maximum nosing projection of 38mm, with a bevel or radius between 6mm and 10mm and no abrupt underside;
- .5 Colour contrasting, slip-resistant nosings 40-60mm deep;
- .6 Minimum light level of 100 lux; and
- .7 Detectable warning surface as per 3.7.2 at top of the stairway.  
(Figure 18)

#### **2.1.2 The underside of all open stairs, escalators and other overhead features must be protected by cane-detectable railings, planters or benches anywhere the overhead clearance is less than 2030mm. (Figure 5)**

#### **2.1.3 Handrails shall:**

- .1 Be provided on both sides of all stairs and ramps;
- .2 Be continuous, except where other paths of travel intercept;
- .3 Be mounted at a uniform height between 865mm and 920mm above the stair nosing or ramp level;
- .4 Have an extension of 300mm beyond the top riser and 300mm plus the tread depth at the bottom riser;
- .5 Have returns (to a post, wall or floor) at all terminations;
- .6 Have a continuous (without interruption by newel posts) graspable profile of 30 - 43mm, with a minimum clearance of 50mm to the adjacent wall;
- .7 Be free of sharp or abrasive elements; and
- .8 Be colour-contrasted from the adjacent wall surface.  
(Figure 12)



**Figure 12 Handrails**

- 2.1.4 Sloped floors shall be designed as a ramp where the gradient exceeds 5% (1:20). Interior ramps shall have:
- .1 Minimum width of 900mm clear between handrails;
  - .2 Maximum gradient of 8% (1:12);
  - .3 Level area of at least 1670mm by 1670mm at the top and bottom of the ramp;
  - .4 Level area of at least 1670mm long and at least the same width as the ramp at intervals of not more than 9m along its length, where there is a change in direction of the ramp, and at any intermediate doors along the length of the ramp;
  - .5 Handrails on both sides as described in 2.1.3;
  - .6 A wall or guard on each side that is not less than 1070mm above the ramp surface;
  - .7 Edge protection in the form of curb or rail (Figure 7); and
  - .8 A minimum light level of 100 lux.
- 2.1.5 Ramps and stairs shall have a colour contrasting, textured detectable warning surface as per 3.7.2, extending the entire width at the top and bottom a minimum of 920mm from the start of the slope or stairs. (Figure 18)

- 2.1.6 Except where the location of the ramp is clearly evident, provide signs incorporating the International Symbol of Accessibility indicating the location of the ramp.

## **2.2 Lobbies and Corridors**

- 2.2.1 All floor levels above or below the main accessible level that are used by the public shall be accessible by ramps (in accordance with 2.1) or elevators (in accordance with 2.3).
- 2.2.2 Interior barrier-free routes shall be minimum 1100mm wide with a 1600mm by 1600mm turn-around space a minimum of 30m apart.
- 2.2.3 Corridors shall be free from overhead and protrusion hazards. Any overhead obstruction shall be minimum 2030mm high. Any horizontal projection more than 100mm into the corridor that is less than 2030mm high shall have a cane-detectable warning no more than 680mm above the floor. (Figure 6)
- 2.2.4 Wherever a turnstile is used, it shall have a gate directly adjacent with a clear width of at least 865mm. Where the location of the gate is not readily apparent, a sign shall indicate its location.
- 2.2.5 All floor surfaces shall be hard, level, slip-resistant, non-glare. Carpets shall be non-static and short, dense pile. Floor patterns shall not be visually confusing.
- 2.2.6 Any gratings or drains in floors shall have maximum 13mm openings in either direction.
- 2.2.7 Provide a detectable hazard surface in accordance with 3.7.3 wherever a walkway adjoins a hazardous area such as an unprotected drop-off or the edge of a pool.

## **2.3 Elevators and Lifts**

- 2.3.1 All passenger elevators shall comply with Appendix E of CSA Standard CAN/CSA-B44 "Safety Code for Elevators and Escalators".
- 2.3.2 Ensure that the emergency communication within the elevator is clearly audible. Do not permit the playing of any music in elevators.

- 2.3.3 Provide a mirror on the back wall of the elevator to assist people in wheelchairs and scooters in backing out of the elevator. However, mirrors on sidewalls should not be permitted due to visual distractions and confusion.
- 2.3.4 Loose mats and loose flooring are not permitted in elevators or lifts.
- 2.3.5 Platform lifts shall be permitted only if the persons using them can independently operate them. Lifts that require a key or assistance from another person are not acceptable.
- 2.3.6 Provide an LED-messaging system in each elevator to enable communication in the event of an emergency with persons who are deaf or hard of hearing.
- 2.3.7 Provide voice-activated speakers in all elevators.

## **2.4 Interior Doors and Doorways**

- 2.4.1 Doors shall be a minimum of 915mm wide, such that frame stops, the door thickness and horizontal hardware such as panic bars shall not reduce the clear width of the doorway to less than 850mm. (Figure 10)
- 2.4.2 All doors shall have lever hardware, push/pull plates, exit devices (panic hardware) or automatic operators. Knobs and thumb-latches are not acceptable.
- 2.4.3 Unless the door is equipped with an automatic operator, provide clearance beside doors as follows:
  - a) 300mm clear beside latch at push side of door
  - b) 600mm clear beside latch at pull side of door
- 2.4.4 Any interior door not equipped with an automatic operator shall be single hand operation and require a maximum force of 22N to open. Door closers shall take a minimum of 3 seconds to close from a 70 degree position.
- 2.4.5 Thresholds shall be maximum 13mm high. Where over 6mm high, shall be beveled at a slope of not more than 1:2.
- 2.4.6 Doors shall have vision panels, either in the door or in a directly adjacent sidelight, except where privacy concerns make them unfeasible. Vision panels shall have the bottom edge no more than 900mm above the floor and no more than 250mm from the latch side of the door.
- 2.4.7 Clear glass doors and sidelights at the entrances shall have a 100mm wide contrasting colour strip mounted continuously 1350mm above the floor.

- 2.4.8 Two doors in series (such as in vestibules) shall have a minimum 1200mm clear between the open doors. (Figure 13)
- 2.4.9 Provide a minimum clear level space on both sides of doors as follows:
  - .1 1500mm x 1500mm on the pull side
  - .2 1200mm x 1200mm on the push side

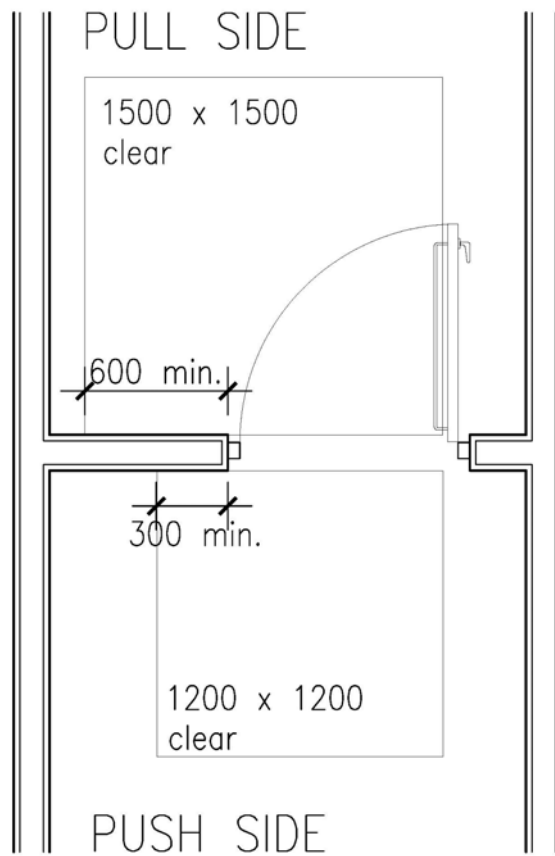


Figure 13 Door Clearances

- 2.4.10 Where a revolving door is used, an adjacent barrier-free swinging door shall be provided.

### **3.0 Facilities**

#### **3.1 Washrooms**

- 3.1.1 Every floor that is served by washrooms shall have either:
- .1 A barrier-free individual washroom as described in 3.1.2; or
  - .2 A barrier-free water closet stall, lavatory and accessories as described in 3.1.3.

For new buildings, or where the extent of renovation includes reconfiguration of washrooms (i.e., new fixture locations), only option 3.1.1.1 is permissible. For renovations where this option is unfeasible, option 3.1.1.2 is acceptable.

- 3.1.2 Barrier-free individual washrooms shall have:
- .1 A door that complies with 2.4.1 through 2.4.5;
  - .2 An automatic operator with the ability to be locked from the inside;
  - .3 A minimum area of 3.5 s.m., with minimum dimension between opposite walls of 1.7m;
  - .4 A clear turning radius of 1500mm (does not include space under lavatory)
  - .5 A water closet that complies with 3.1.4;
  - .6 A lavatory that complies with 3.1.6;
  - .7 A shelf or counter at least 200mm x 400mm, mounted not more than 1000mm above the floor;
  - .8 A hook mounted not more than 1200mm above the floor and projecting not more than 40mm;
  - .9 An automatic hand dryer or paper towel dispenser mounted in accordance with 3.5;
  - .10 Washroom accessories (such as soap dispensers, vending machines, waste receptacles, etc.) that comply with 3.5; and
  - .11 An emergency call button.
- 3.1.3 Barrier-free facilities within a multi-fixture washroom shall have:
- .1 A door that complies with 2.4.1, 2.4.2, 2.4.5, 2.4.6, with an automatic operator, or be designed so that no door is necessary;
  - .2 If there are two doors in series, there shall be at least 1200mm clear between them when open;
  - .3 At least 1500mm x 1500mm clear space in front of the barrier-free water closet stall;
  - .4 At least 750mm x 750mm clear space in front of each barrier-free lavatory;
  - .5 At least one barrier-free water closet stall that complies with 3.1.8;
  - .6 At least one lavatory that complies with 3.1.6 (In new buildings, all lavatories shall comply);
  - .7 If urinals are provided, at least one urinal shall comply with 3.1.5;
  - .8 A shelf or counter at least 200mm x 400mm, mounted not more than 1000mm above the floor;

- .9 Washroom accessories (such as soap dispensers, paper towel dispensers, hand dryers, vending machines, waste receptacles, etc.) shall comply with 3.5; and
  - .10 An emergency call button.
- 3.1.4 Barrier-free water closets shall:
- .1 Be located between 460mm and 480mm from the adjacent side wall;
  - .2 Have a transfer space at least 900mm wide clear on the open side;
  - .3 Have a back support where there is no seat lid or tank;
  - .4 Not have spring loaded seats;
  - .5 Have a seat height of 430mm to 460mm above floor;
  - .6 Have flush controls that are automatic, or are located on the transfer side of the water closet;
  - .7 Have two grab bars that comply with 3.1.7:
    - a) One 600mm long, mounted horizontally, centred on the water closet at a height of 840mm to 920mm above the floor (or 150mm above the tank where there is one), and
    - b) One L-shaped, 760mm x 760mm, mounted with the horizontal portion at a height of 750mm to 900mm above the floor, and the vertical component mounted 150mm in front of the water closet OR one 760mm long, mounted diagonally, sloping upwards at an angle of 30° to 50°, with the lower end 750mm – 900mm above the floor and 50mm in front of the toilet bowl; and
  - .8 Have a non-regulating toilet tissue dispenser mounted in line with the front of the water closet, between 600mm to 700mm above the floor.
- 3.1.5 Barrier-free urinals shall:
- .1 Have a clear space of at least 750mm wide by 1200mm deep (including under the urinal);
  - .2 The urinal rim no higher than 430mm above the floor;
  - .3 Flush controls no higher than 1200mm above the floor; and
  - .4 Vertical grab bars that comply with 3.1.7 on both sides, minimum 600mm long, mounted with the bottom between 600mm – 650mm above the floor, maximum 380mm from the centerline of the urinal.
- 3.1.6 Barrier-free lavatories shall:
- .1 Have a centreline located at least 460mm from the adjacent side wall;
  - .2 Have the top of the counter or lavatory located no more than 840mm above the floor;
  - .3 Have a clear space of 750mm x 750mm in front of the lavatory;
  - .4 Have clearance beneath the lavatory of at least:
    - a) 760mm wide
    - b) 735mm high at the front edge
    - c) 685mm high at a point 205mm back from the front edge
    - d) 230mm high over a distance from a point 280mm back from the front edge to 430mm back from the front edge;

- .5 Be equipped with automatic faucets, or faucets with lever handle(s) at least 75mm long, that are located not more than 485mm from the front of the counter or front edge of lavatory, that are not spring-loaded;
  - .6 A mirror mounted with the bottom edge as low as possible, but not more than 1000mm above the floor;
  - .7 Temperature controlled water to not exceed 55 degrees Celsius; and
  - .8 A soap dispenser mounted within 500mm of the lavatory, no higher than 1100mm, operable with one hand.
- 3.1.7 Grab Bars shall be:
- .1 Slip-resistant ;
  - .2 Diameter of 30mm-40mm;
  - .3 Have a clear space of 30mm – 40mm from the wall; and
  - .4 Be firmly mounted to resist a force of 1.3kN in any direction.
- 3.1.8 Barrier-free water closet stalls shall have:
- .1 A clear space inside of at least 1500mm x 1500mm, clear of the door swing;
  - .2 A door which provides at least 860mm clear width which is capable of being locked from the inside using one hand, with a large thumbturn, with spring hinges to close automatically;
  - .3 A water closet that complies with 3.1.4; and
  - .4 A hook mounted not more than 1200mm above the floor and projecting not more than 40mm.
- 3.1.9 Unless the barrier-free washrooms are directly adjacent to the other washrooms, provide directional signage incorporating the International Symbol of Accessibility indicating the location.
- 3.1.10 Provide a motion detector control for lights in all barrier-free washrooms. In a multi-unit washroom, ensure that the sensor will detect motion within the barrier-free stall.

## **3.2 Shower Facilities**

- 3.2.1 Wherever shower facilities are provided, provide at least one roll-in shower that has:
- .1 An interior clear area of at least 900mm x 1500mm;
  - .2 A clear floor area in front of at least 900mm deep and the same width as the shower;
  - .3 A roll-in threshold not exceeding 13mm high with a maximum bevel slope of 1:2;
  - .4 A floor drain located outside the shower stall;
  - .5 A horizontal grab bar on the side wall at least 600mm long, mounted between 700mm and 800mm above the floor;



- .6 A vertical grab bar on the opposite side wall at least 1000mm long, mounted with the lower end between 600mm and 650mm above the floor and between 35mm and 65mm from the outside edge;
  - .7 A horizontal grab bar on the back wall at least 900mm long, mounted 850mm above the floor;
  - .8 A vertical grab bar on the back wall at least 600mm long, mounted with the lower end between 750mm and 850mm above the floor and between 400mm and 500mm from the side wall with the other vertical bar;
  - .9 A flip-up seat mounted on the side wall with the vertical bar;
  - .10 A hand-held shower head on an adjustable pole;
  - .11 Controls mounted no more than 1200mm above the floor; and
  - .12 A slip-resistant floor.
- (Figure 14)

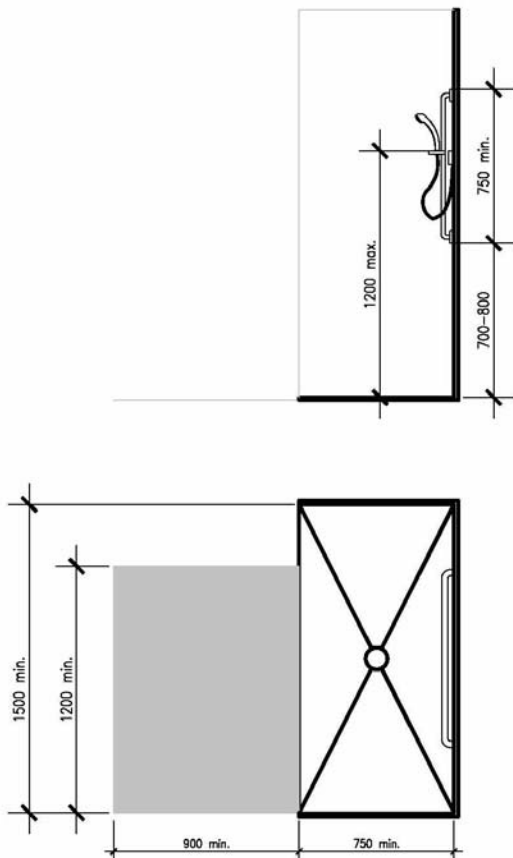


Figure 14 Barrier-Free Shower

### 3.3 Drinking Fountains

3.3.1 Drinking fountains shall have a spout that:

- .1 Is located near the front of the unit;
- .2 Is between 750mm and 900mm above the floor;
- .3 Directs the water flow parallel to the front on the unit; and
- .4 Provides a water flow at least 100mm high.

3.3.2 Controls shall be automatic or operable with one hand using a force of not more than 22N.

3.3.3 Drinking fountains shall have a clear floor area of 750mm wide by 1200mm deep. All drinking fountains must be cane-detectable, recessed or otherwise located out of the route of travel.

3.3.4 Cantilevered fountains shall have:

- .1 Knee clearance at least 750mm wide x 200 mm deep x 680 mm high; and
- .2 Toe space at least 750mm wide x 230mm deep x 230mm.  
(Figure 15)

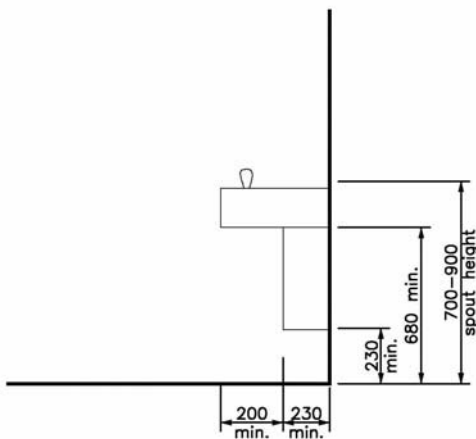


Figure 15 Cantilevered Drinking Fountain

### 3.4 Public Pay Telephones

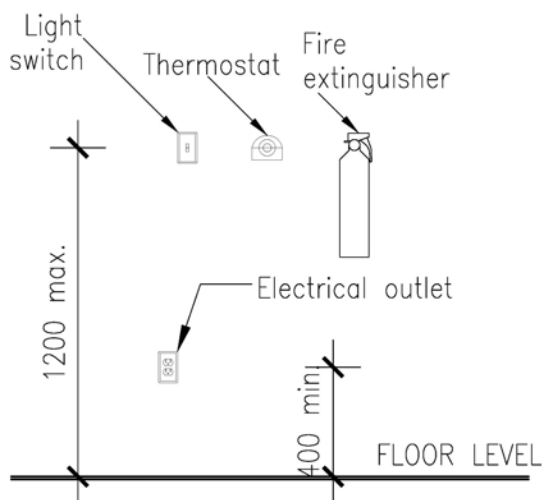
3.4.1 All public pay telephones shall have:

- .1 All operable parts (including coin slot) not more than 1200mm above the floor;
- .2 A clear space of 750mm wide by 1200mm deep;
- .3 A minimum of 680mm clear knee space;

- .4 Illumination level of at least 200 lux; and
  - .5 A level shelf 450mm wide by 300mm deep, between 720mm to 800mm above the floor, with a clear space of 250mm above the shelf.
- 3.4.2 In every facility where public pay telephones are provided, at least one shall have graduated volume control and be identified by the symbol for persons who are hard of hearing.
- 3.4.3 In every facility where public pay telephones are provided, at least one shall be a TTY phone. All TTY locations shall be identified by the symbol for TTY telephones.

### 3.5 Controls

- 3.5.1 All manual controls (light switches, card readers, thermostats, coin slots, control handles, fire alarm pulls, vending machines, etc.) must be:
- .1 Located between 900mm min. and 1200mm max. above the floor;
  - .2 Located with a clear floor space of at least 750mm x 1200mm (clear of door swings);
  - .3 Operable with one hand, without tight grasping, pinching or twisting of the wrist, with a force not to exceed 22N; and
  - .4 Of contrasting colour to the background.
- (Figure 16)



**Figure 16 Control Locations**

- 3.5.2 Push buttons for automatic doors shall have minimum dimensions of 100mm and shall be located such that the opening door does not block them.
- 3.5.3 Information on visual displays shall be supplemented by tactile and/or auditory information.

### **3.6 Signage**

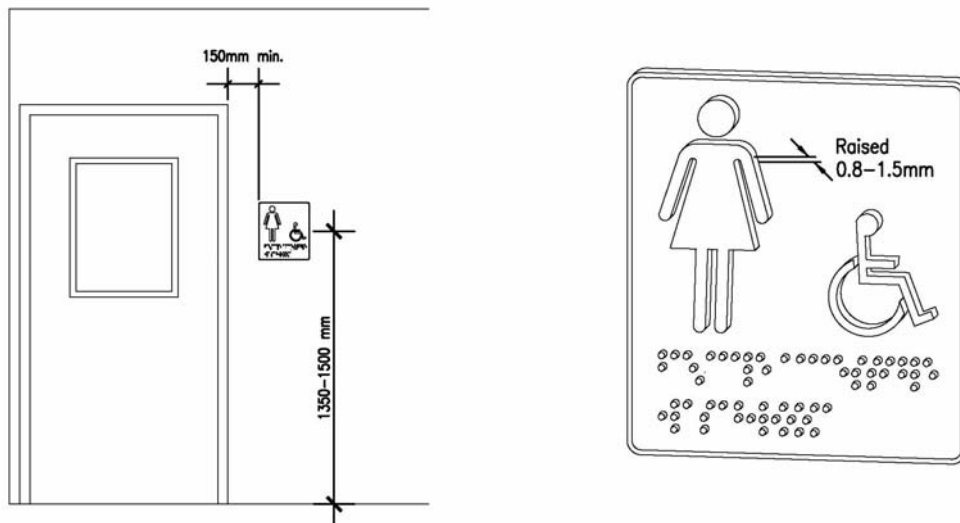
#### **3.6.1 Signage indicating room uses, names or numbers shall:**

- .1 Be consistently located, to the latch side of a door, 150mm from the frame;
- .2 Be mounted at a consistent height, such that all characters and symbols are not less than 1200mm above the floor and not more than 1500mm above the floor;
- .3 Have glare-free surface;
- .4 Have colour contrasted to background;
- .5 Be lit to at least 200 lux; and
- .6 Include appropriate pictograms wherever possible (i.e., washrooms, stairs, etc.)

#### **3.6.2 Characters on signs shall:**

- .1 Be sans serif with Arabic numerals;
- .2 Have a width to height ratio between 3:5 and 1:1 (using an upper case X for character measurement);
- .3 Have a stroke width to height ratio between 1:5 and 1:10;
- .4 Be at least 25mm high (for viewing distance of up to 750mm, higher for signs that are to read further away); and
- .5 Have colour contrasted from the background, light coloured characters/symbols on a dark background or dark coloured characters/symbols on a light background.

#### **3.6.3 Signs that include tactile raised characters (0.8 – 1.5 mm thickness) and Grade 1 Braille, or auditory information shall be provided at identification signs (including building directories, floor designations and room designations), regulatory signs (including identification of building exits) and warning signs. (Figure 17)**

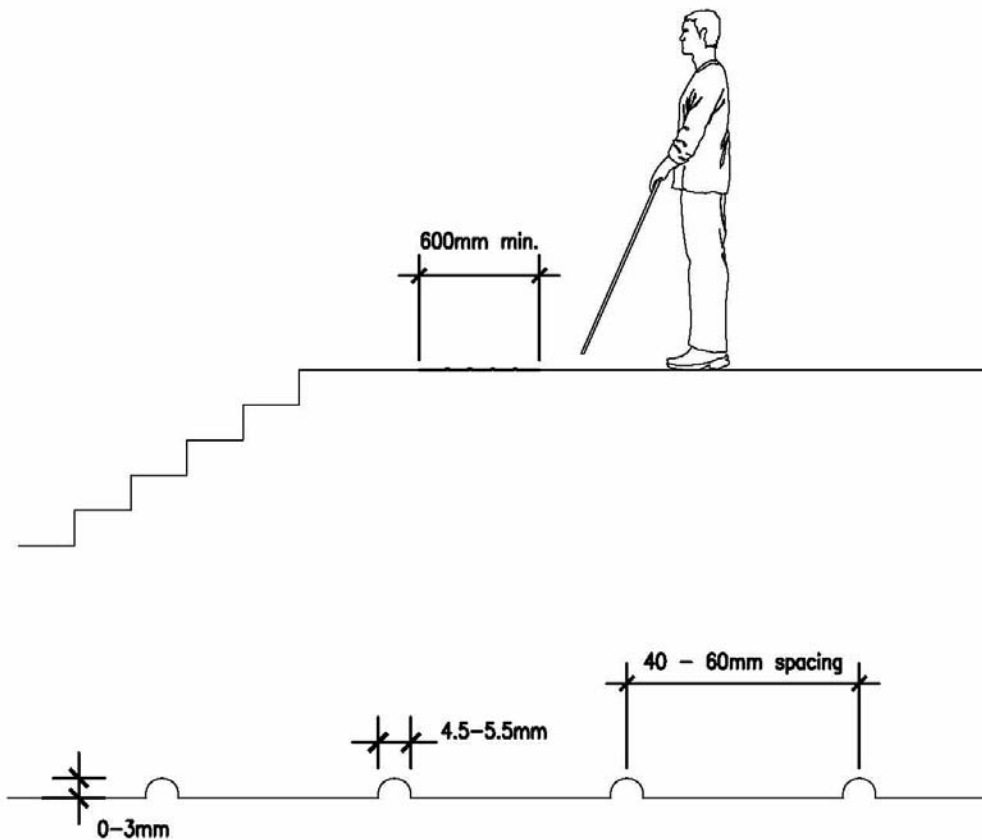


**Figure 17 Tactile Signs**

- 3.6.4 Signs incorporating the appropriate symbols for access shall be provided at all barrier-free facilities such as parking spaces, building entrances, washrooms, showers, elevators, telephones, meeting rooms etc.
- 3.6.5 Provide an audible sign at the main entrance to all buildings to provide information that will assist in way-finding through the building.

### 3.7 Tactile Warnings

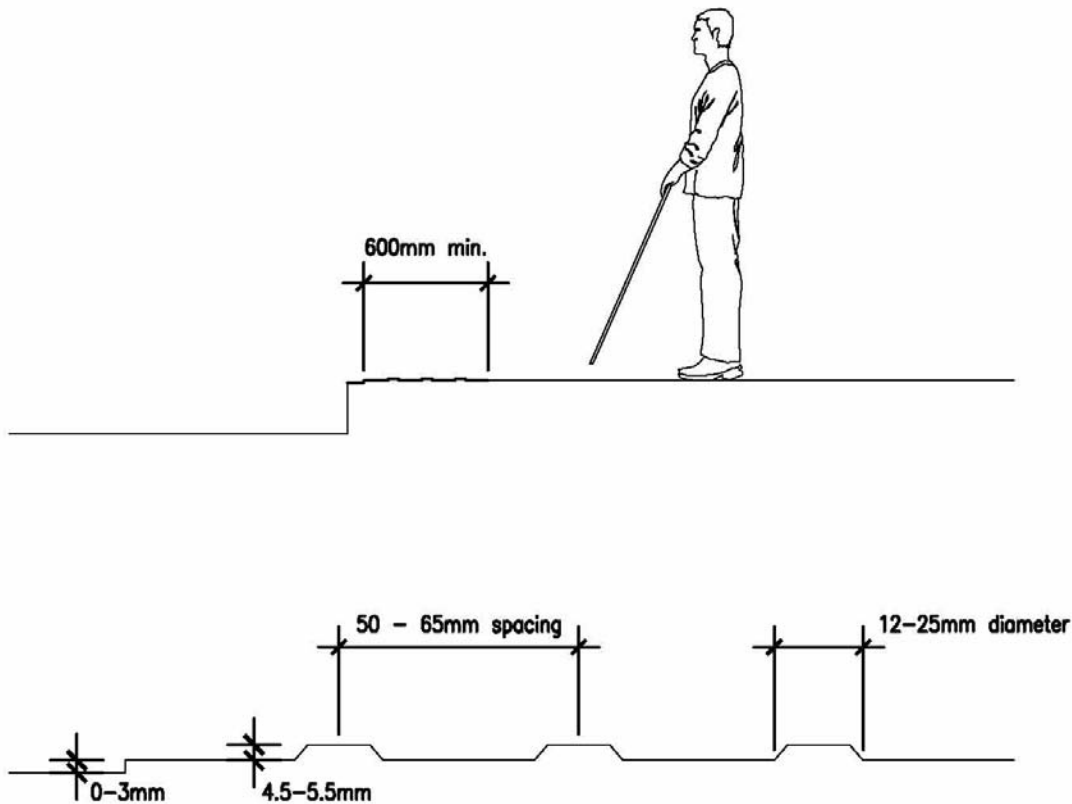
- 3.7.1 Provide tactile warnings (textured surfaces, knurled lever handles etc.) at the following locations:
- .1 Doors to hazardous areas;
  - .2 Tops of all stairs and ramps;
  - .3 Where a barrier-free walkway crosses a vehicular way;
  - .4 The edges of flush pools, planters, etc. that are not protected by curbs.
- 3.7.2 Detectable warning indicators shall be composed of continuous ridges perpendicular to the route of travel, that:
- .1 have a height between 3mm and 5mm;
  - .2 have a width between 4mm and 8mm;
  - .3 are spaced between 40mm to 60mm on centre;
  - .4 are slip-resistant; and
  - .5 have a contrasting colour to the surrounding surface.
- (Figure18)



NOTE: Truncated domes are organized in a grid pattern.

Figure 18 Detectable Warning Indicator

- 3.7.3 Detectable hazard indicators shall:
- .1 be at least 600mm in length;
  - .2 be composed of truncated domes:
    - a. with a height of 4.5mm to 5.5mm;
    - b. with a base diameter of 21mm to 25mm; and
    - c. spaced between 50mm and 65mm on centre;
  - .3 be slip-resistant; and
  - .4 have a contrasting colour to the surrounding surface.
- (Figure 19)



NOTE: Truncated domes are organized in a grid pattern.

Figure 19 Detectable Hazard Indicator

### 3.8 Counters and Line Up Guides

3.8.1 Provide a section at all service counters (reception, public service, coat checks, etc.) with:

- .1 Clear floor space of 750mm wide by 1200mm deep in front;
- .2 Counter height maximum 860mm above the floor; and
- .3 Clear knee space 1000mm wide by 680mm high.

3.8.2 Where line-up guides are provided, they shall:

- .1 Provide a clear width of at least 1100mm;
- .2 Have a minimum space of 1670mm x 1670mm at changes in direction;
- .3 Be cane-detectable at or below 680mm above the floor; and
- .4 Be colour-contrasted from the floor.

### 3.9 Meeting Rooms, Boardrooms, Courtrooms, Assembly Areas, Cafeterias, Coffee Shops, Etc.

3.9.1 Provide designated space for seating for persons in wheelchairs or scooters as follows:

Total seats provided	Minimum designated seating required
Up to 100	2
101 - 200	3
201 - 300	4
301 - 400	5
401 - 600	6
over 600	1% of seating capacity

Designated spaces shall be on a level surface level (maximum slope in any direction 1%), and at least 850mm wide by 1200 mm deep (front or rear access) or 1525mm deep (side access). Where the seating is fixed, at least one fixed seat directly adjacent to each barrier-free seating space shall be signed as reserved for companion seating.

- 3.9.2 Lines of sight must be comparable to other seating and must not be compromised by standing members of the audience.
- 3.9.3 Ensure that tables in areas such as meeting rooms, cafeterias and libraries are a maximum of 860mm high, and have a clear knee space of at least 750mm wide, 480mm deep and 680mm high.
- 3.9.4 Aisles such as cafeteria lines, spaces between tables and aisles between library stacks shall be minimum 915mm wide.
- 3.9.5 Anywhere that coat racks are provided, ensure that at least one section has a rod height not more than 1370mm above the floor.

### 3.10 Assisted Listening Devices

- 3.10.1 Provide an assisted listening device in any auditorium, assembly room, meeting room or theatre with an area greater than 100 s.m. and an occupant load more than 75 people. Such rooms shall be signed with the symbol for persons who are hard of hearing.
- 3.10.2 Any television set displaying information for the public shall include closed-captioning.



### **3.11 Visual and Audible Alarms**

3.11.1 All building alert and alarm signals, including fire alarms, building entrance release hardware and other signals intended for the public to indicate operation of a building access control system shall provide both an audible and a visual signal.

3.11.2 Visual alarms shall:

- .1 Have a light intensity of at least 75 Candelas;
- .2 Be located so that at least one is visible from any portion of a floor area;
- .3 Have a flash rate within the frequency range of 1-3 Hz; and
- .4 Be synchronized to flash in unison wherever multiple alarms may be visible at one time.

### **3.12 Life Safety**

3.12.1 Where the emergency evacuation planning of a facility necessitates that persons with disabilities await assistance in order to be evacuated (example: floor level above grade served by stairs), provide a safe Area of Refuge in a fire-separated room, equipped with two-way communication, emergency lighting and separate ventilation. This requirement is waived for fully sprinklered buildings.

3.12.2 Where a building has an emergency power supply, all automatic door operators will be provided with emergency power.

3.12.3 All facilities shall have an Emergency Policy and Emergency Evacuation Plan that addresses the needs of people with disabilities.

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