

**PROPOSED CHANGE:** Accessibility

**CHANGE NUMBER:** 2018-BCBC-01-Access

**CODE REFERENCE:** 2015 National Building Code – Division B – Section 3.8. and various related references, 2012 British Columbia Building Code – Division B – Section 3.8. and various related references

**DESCRIPTION OF THE PROPOSED AMENDMENT:**

It is proposed to substantially adopt Section 3.8. of the 2015 National Building Code while retaining many of British Columbia’s unique accessibility requirements.

**PROBLEM/GENERAL BACKGROUND:**

The British Columbia Building Code (BCBC) is based substantially on the model National Building Code of Canada (NBC). The NBC is updated about every five years and British Columbia adopts most of the NBC requirements into the next edition of the BCBC. The 2018 BCBC will be based on the 2015 NBC with some changes specific to British Columbia.

Historically, the BCBC accessibility requirements in Section 3.8. have varied considerably from the requirements of the NBC. The BCBC accessibility requirements preceded the development of requirements in the NBC and for many editions the BCBC retained its unique accessibility requirements. The 2015 NBC contains many updates over previous editions of the NBC and the BCBC to increase accessibility in buildings, and is now more closely aligned with the requirements and approaches of most Canadian jurisdictions.

The Province of British Columbia is committed to making buildings more accessible for persons with disabilities. By combining the requirements of the 2015 NBC with the historical requirements of the BCBC, a higher level of building accessibility will be required in British Columbia.

The code language shown is the proposed final code language that will appear in the 2018 BCBC. Comments submitted should focus on the changes noted. Changes from the 2012 BCBC to the 2015 NBC are not identified.

**RATIONALE FOR CHANGE:**

The proposed changes will require a higher level of accessibility in buildings and will align with the requirements of the 2015 NBC and other Canadian jurisdictions.

**JUSTIFICATION/EXPLANATION:**

Significant changes to the accessibility requirements are proposed to be incorporated into the 2018 BCBC. It is proposed that the 2018 BCBC:

- adopt the form and approach of the 2015 NBC, and most of its requirements;
- incorporate historical requirements from the BCBC that provide a higher level of building accessibility; and
- adopt some requirements based on other leading standards or jurisdictions that require a higher level of accessibility in buildings.

## 2018 PROPOSED BRITISH COLUMBIA BUILDING CODE LANGUAGE:

The content displayed in this document is proposed for adoption. Many BC variations are proposed to be carried over into the next edition of the British Columbia Building Code (BCBC), which is substantially based on the model 2015 National Building Code (NBC) content. It is not indicated within this document which content comes from the 2012 BCBC, the 2015 NBC, or in some cases, is newly proposed. This consolidation is the proposed code language on accessibility that will appear in the 2018 BCBC.

The organization of content is based on the 2015 NBC format and conventions. Location and references of content in this document is different from the location and references of content in the 2012 BCBC.

Only the content proposed for the next edition of the BCBC that is related to changes of the accessibility provisions is displayed. Comments should focus on the changes to accessibility requirements.

# Division A

## Part 1 - Compliance

### 1.4.1. DEFINITIONS OF WORDS AND PHRASES

#### 1.4.1.2. Defined Terms

1) The words and terms in italics in this Code have the following meanings:

*Access or accessible* means that a *person with disabilities* is, without assistance, able to approach, enter, pass to and from and make use of an area and its facilities, or both, as required by this Code.

*Adaptable dwelling unit* means a *dwelling unit* designed and constructed to facilitate future modification to provide access for *persons with disabilities*.

*Persons with disabilities* means a person who has a loss, or a reduction, of functional ability and activity and includes a person in a wheelchair and a person with a *sensory disability*.

*Sensory disability* means a loss or reduction of a person's senses, including visual and hearing impairments.

## Part 3 – Functional Statements

### 3.1.1. APPLICATION

#### 3.1.1.2. Application of Functional Statements

1) Except as provided in Sentences (2) to (4), the functional statements described in this Part apply

a) to all *buildings* covered in this Code (see Article 1.1.1.1.), and

b) only to the extent that they relate to compliance with this Code as required in Article 1.2.1.1.

2) Functional Statement F56 applies only to *dwelling units*.

3) Functional Statements F73 and F74 do not apply to

a) *dwelling units*, row houses, boarding houses, lodging houses, and construction camps, except as required by

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- i) Article 3.8.2.12., or
  - ii) Subsection 3.8.5.,
  - b) apartment and condominium *buildings* except to the extent described in Subsection 3.8.2. of Division B,
  - c) Group F Division 1 *occupancies*,
  - d) *buildings* that are not intended to be occupied on a daily or full-time basis, including automatic telephone exchanges, pump houses and substations.,
  - e) public toilet *buildings* described in Clause 3.8.2.1.(1)(e), and
  - f) the *storeys* described in Clauses 3.8.2.1.(1)(f) and (g).
  - 4) Functional Statement F75 applies only to
    - a) one *storey adaptable dwelling units* in multiple unit *residential occupancy buildings* that employ interior corridors or exterior passageways for *access* to the *dwelling units*, and
    - b) the paths of travel and common facilities intended for use by the residents of the *adaptable dwelling units* described in Clause (a).
  - 5) Functional Statements F90 to F93, F95, F96 and F98 to F100 apply only to
    - a) *buildings* of *residential occupancy* to which Part 9 of Division B applies,
    - b) *buildings* containing *business and personal services, mercantile or low-hazard industrial occupancies* to which Part 9 of Division B applies whose combined total *floor area* does not exceed 300 m<sup>2</sup>, and
    - c) *buildings* containing a mix of the *residential* and *non-residential occupancies* described in Clauses (a) and (b).
- (See also Article 1.3.3.3.)

### 3.2.1. FUNCTIONAL STATEMENTS

#### 3.2.1.1. Functional Statements

**F75** To minimize obstacles for future modification to provide *access* for persons with physical or sensory limitations (see Sentence 3.1.1.2.(4) for application limitation).

## Division B

# Part 3 – Fire Protection, Occupant Safety and Accessibility

### 3.2.4. FIRE ALARM AND DETECTION SYSTEMS

#### 3.2.4.19. Visible Signal Devices and Visible Warning Systems

- 1) Visible signal devices shall be installed in addition to *alarm signals*.
  - a) in *buildings* or portions thereof intended for use primarily by persons with a hearing impairment,
  - b) in *assembly occupancies* in which music and other sounds associated with performances could exceed 100 dBA,
  - c) in any *floor area* in which the ambient noise level is more than 87 dBA, and

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- d) in any *floor area* in which the occupants
  - i) use ear protection devices,
  - ii) are located in an audiometric booth, or
  - iii) are located in sound-insulating enclosures.

2) Visible signal devices required by Sentence (1) shall be installed so that the signal from at least one device is visible throughout the *floor area* or portion thereof in which they are installed. (See Note A-3.2.4.19.(2).)

3) Except as provided in Sentence (6), to assist persons with a hearing impairment, a visible warning system conforming to Sentences (4) and (5) shall be installed in locations required by Articles 3.8.2.12.

4) The visible warning system required by Sentences (3), (5) and (6) shall consist of strobe lights supervised, activated and powered by means of the fire alarm system (supervised by the fire alarm system means up to, but not including, the strobe lights), and be connected to, activated by, and powered by, the sounding of the *smoke alarm* and

- a) have a luminous intensity of not less than 2 candelas and produce between 1 and 3 flashes per second,
- b) have a clear or white translucent lens,
- c) have the word "FIRE" clearly visible on the lens or attached nameplate,
- d) be installed in each
  - i) sleeping room or bed space,
  - ii) room closed off from the living area by a door except a bathroom, and
  - iii) living area or hallway serving the living area, and

e) be located in conformance with the installation requirements for visible signal devices in CAN/ULC-S524, "Installation of Fire Alarm Systems."

5) When the strobe lights described in Sentences (4) and (7) are activated by the *smoke alarm*, a separate small indicator light shall be activated and shall be located

- a) immediately adjacent to the strobe lights and clearly identified as "SMOKE," or
- b) on the *smoke alarm*, or immediately adjacent to the *smoke alarm*.

6) When a fire alarm system is not provided in *occupancies* required by Article 3.8.2.12. to have a visible warning system, *smoke alarms* required by Article 3.2.4.20. and Article 9.10.19.1. in such *occupancies* shall be provided with strobe lights, in the locations described in Articles 3.8.2.12. as required to have a visible warning system, that

- a) are connected to, and activated by, the sounding of the *smoke alarm*,
- b) have a luminous intensity of not less than 2 candelas and produce between 1 and 3 flashes per second,
- c) have a clear or white translucent lens,
- d) have the word "SMOKE" clearly visible on the lens or attached nameplate,
- e) are installed in each
  - i) sleeping room or bed space,
  - ii) room closed off from the living area by a door except a bathroom, and
  - iii) living area or hallway serving the living area, and

f) be located not less than 2 100 mm above the floor on a wall or ceiling in a location that will maximize effectiveness.

7) The special outlet boxes and cover plates required by Sentences 3.8.2.12.(5) and 3.8.5.3.(4) shall be

- a) designed and wired specifically to allow strobe lights conforming to Clause (6)(a)

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- i) to operate as required by Sentence (4) for a fire alarm system where a fire alarm system is provided, and
  - ii) to be connected to, and activated by, the sounding of the *smoke alarm* (see also Sentence (5)),
  - b) permanently identified as “FIRE – Strobe Light Connection Only,”
  - c) installed in each
    - i) sleeping room or bed space,
    - ii) room closed off from the living area by a door except a bathroom, and
    - iii) living area or hallway serving the living area, and
  - d) be located not less than 2 100 mm above the floor, on a wall or ceiling, in a location that will maximize effectiveness.
- 8) For the purposes of providing power to the strobe lights that may be connected to the outlets described in Sentence (7), it shall be assumed that the total special outlets for at least 20 percent of the *dwelling units* in the *building* are in use.

### 3.2.4.22. Voice Communication Systems

- 6) Visible signal devices required by Sentence 3.2.4.19.(1) and visible warning systems required by Sentence 3.2.4.19.(3) shall continue to emit a visible signal while voice instructions are being transmitted.

## 3.3.1. ALL FLOOR AREAS

### 3.3.1.7. Protection on Accessible Floor Areas

- 1) Every *floor area* that is not *sprinklered* throughout and that has an *accessible* path of travel shall
  - a) be served by an elevator
    - i) conforming to Sentences 3.2.6.5.(4) to (6),
    - ii) protected against fire in conformance with Clauses 3.2.6.5.(3)(b) or (c), and
    - iii) in a *building* over 3 *storeys* in *building height*, protected against smoke movement so that the hoistway will not contain more than 1% by volume of contaminated air from a fire floor during a period of 2 h after the start of a fire, assuming an outdoor temperature equal to the January design temperature on a 2.5% basis determined in conformance with Subsection 1.1.3.,
  - b) be divided into at least 2 zones by *fire separations* conforming to Sentences (2), (3) and 3.1.8.5.(6) so that
    - i) *persons with disabilities* can be accommodated in each zone, and
    - ii) the travel distance from any point in one zone to a doorway leading to another zone shall be not more than the value for travel distance permitted by Sentence 3.4.2.5.(1) for the *occupancy* classification of the zone,  
(See also Sentence 3.1.8.5.(6) for requirements regarding the passage of smoke.)
  - c) in the case of *residential occupancies*, be provided with balconies conforming to Sentence (4), except on *storeys* containing an *accessible* entrance,
  - d) have an *accessible* exterior *exit* at ground level, or
  - e) have a ramp conforming to Subsection 3.8.3. leading to ground level.  
(See Note A-3.3.1.7.(1).)

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- 2) Except as permitted by Sentence (3), the *fire separations* referred to in Clause (1)(b) shall have a *fire-resistance rating* not less than 1 h.
- 3) The *fire-resistance rating* of the *fire separations* referred to in Clause (1)(b) is permitted to be less than 1 h but not less than 45 min provided the *fire-resistance rating* required by Subsection 3.2.2. is permitted to be less than 1 h for
- the floor assembly above the *floor area*, or
  - the floor assembly below the *floor area*, if there is no floor assembly above.
- 4) A balcony required by Clause (1)(c) shall
- have direct *access* from the *suite* or *floor area*
  - be not less than 1.5 m deep from the outside face of the exterior wall to the inside edge of the balcony, and
  - provide not less than 2 m<sup>2</sup> of balcony space for each *accessible* sleeping room or bed space.
- 5) The *floor area* on either side of a *horizontal exit* conforming to Article 3.4.6.10. is permitted to be considered as a zone in applying the requirements of Clause (1)(b).

### 3.3.1.13. Doors and Door Hardware

- 1) Except as required by Article 3.3.3.4., a door that opens into or is located within a *public corridor* or other facility that provides *access to exit* from a *suite* shall
- provide a clear opening of not less than 800 mm if there is only one door leaf,
  - in a doorway with multiple leaves, have the active leaf providing a clear opening of not less than 800 mm,
  - not open onto a step, and
  - have a threshold not more than 13 mm higher than the surrounding finished floor surface, except where it
    - is used to confine the spillage of *flammable liquids* within a *service room* or within a room in an *industrial occupancy*, or
    - provides access to an exterior balcony, unless the balcony is required by Clause 3.3.1.7.(1)(c).
- 2) Except as provided in Sentences (6) and (7), a door in an *access to exit* shall be readily openable in travelling to an *exit* without requiring keys, special devices or specialized knowledge of the door-opening mechanism.
- 3) Except as permitted by Sentence (4), door release hardware shall comply with Clause 3.8.3.8.(1)(b) and the door shall be openable with not more than one releasing operation. (See also Sentence 3.8.3.6.(4).)
- 4) An egress door from an individual *dwelling unit* or from a *suite* of *residential occupancy* is permitted to be provided with additional devices that require a releasing operation additional to the main door release hardware, provided the devices are readily operable from the inside without the use of keys, special devices or specialized knowledge. (See Note A-3.3.1.13.(4).)
- 5) Except as provided in Sentence 3.4.6.17.(9), door release hardware shall be installed between 900 mm and 1 100 mm above the finished floor.
- 6) An egress door in an *access to exit* serving a *contained use area* or an *impeded egress zone* is permitted to be equipped with locking devices, provided they can be released either locally or remotely in conformance with Sentence (8) or (9). (See Note A-3.3.1.13.(6).)
- 7) A door in an *access to exit* is permitted to be equipped with an electromagnetic lock conforming to Sentence 3.4.6.16.(4) or (5).
- 8) Local locking devices permitted by Sentence (6) shall be operable by a key from both sides of the door.
- 9) Controls for the remote release of door locking devices permitted by Sentence (6) shall be located in an area readily available to security personnel.

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- 10) Locking devices permitted by Sentence (6) that are electrically operated shall be
  - a) designed to operate on emergency power, and
  - b) capable of manual release by security personnel.
- 11) In a doorway, where the threshold is not flush with the floor, the threshold shall be not more than 13 mm higher than the finished floor surface, and where it is higher than 6 mm, shall be beveled to a slope no steeper than 1 in 2.
- 12) Door assemblies providing *access* shall be designed in accordance with Subsection 3.8.3.

### 3.4.6. TYPES OF EXIT FACILITIES

#### 3.4.6.8. Treads and Risers

(See Note A-9.8.4.)

- 1) Except as permitted for *dwelling units* and by Sentence 3.4.7.5.(1) for fire escapes, steps for stairs shall have a *run* of not less than 280 mm between successive steps.
- 2) Steps for stairs referred to in Sentence (1) shall have a rise between successive treads not less than 125 mm and not more than 180 mm.
- 3) Except as provided in Article 3.3.4.7. and except for fire escape stairs, stairs that are principally used for maintenance and service, and stairs that serve *industrial occupancies* other than *storage garages*, steps for stairs shall have no open risers.
- 4) Except in fire escape stairs and where an exterior stair adjoins a *walkway* as permitted in Sentence 3.4.6.3.(3), risers, measured as the vertical nosing-to-nosing distance, shall be of uniform height in any one *flight*, with a maximum tolerance of
  - a) 5 mm between adjacent treads or landings, and
  - b) 10 mm between the tallest and shortest risers in a *flight*.
- 5) Except in fire escape stairs, treads shall have a uniform *run* with a maximum tolerance of
  - a) 5 mm between adjacent treads, and
  - b) 10 mm between the deepest and shallowest treads in a *flight*.
- 6) Treads and risers shall not differ significantly in *run* and rise in successive *flights* in any stair system.
- 7) The slope of treads or landings shall not exceed 1 in 50.
- 8) Except as permitted by Sentence (10), the top of the nosing of stair treads shall have a rounded or beveled edge extending not less than 6 mm and not more than 13 mm measures horizontally from the front of the nosing.
- 9) The front edge of stair treads in *exits* and *public access to exits* shall be at right angles to the direction of *exit* travel.
- 10) If resilient material is used to cover the nosing of a stair tread, the minimum rounded or beveled edge required by Sentence (8) is permitted to be reduced to 3 mm.
- 11) Stairs shall be provided with tactile walking surface indicators conforming to Subsection 3.8.3. unless the stairs are
  - a) stairs within *dwelling units* or serving not more than two *dwelling units*,
  - b) *exit* stairs not normally used for access purposes, or
  - c) fire escape stairs.

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### 3.4.6.16. Door Release Hardware

6) Except as provided in Sentence 3.4.6.17.(9), door release hardware for the operation of the doors referred to in this Section shall be installed at a height between 900 mm and 1 100 mm above finished floor.

## 3.5.4. DIMENSIONS AND SIGNS

### 3.5.4.1. Elevator Car Dimensions

1) Except as permitted in Sentence (3), if one or more elevators are provided in a *building*, each *storey* with access to an elevator shall be served by at least one elevator which has inside dimensions that will accommodate and provide adequate access for a patient stretcher 2 010 mm long and 610 mm wide in the prone position. (See Note A-3.5.4.1.(1).)

2) An elevator satisfying the requirements of Sentence (1) shall be clearly identified on the main entrance level of the *building*.

3) The inside dimensions stated in Sentence (1)

a) are waived for a limited-use / limited-application elevator designed and installed in accordance with ASME A17.1/CSA-B44, "Safety Code for Elevators and Escalators" and

b) do not apply to a lift designed and installed in accordance with CAN/CSA-B355 "Lifts for Persons with Physical Disabilities".

## 3.7.2. PLUMBING FACILITIES

### 3.7.2.1. Plumbing and Drainage Systems

1) Except as permitted in Sentence (2), if the installation of a *sanitary drainage system* is not possible because of the absence of a water supply, sanitary privies, chemical closets or other means for the disposal of human waste shall be provided.

2) Waterless urinals are permitted to be used in *buildings* provided with a water supply.

### 3.7.2.2. Water Closets

1) Except as permitted by Sentence (4), water closets shall be provided for each sex assuming that the *occupant load* is equally divided between males and females, unless the proportion of each sex expected in the *building* can be determined with reasonable accuracy. (See Note A-3.7.2.2.(1).)

2) If a single universal washroom is provided in accordance with the requirements of Section 3.8., the total number of persons in the *building* used to determine the number of water closets to be provided, is permitted to be reduced by 10 before applying Sentence (6), (7), (8), (12), (13) or (14).

3) Except as permitted by Sentence (2), if only one universal washroom is provided in accordance with Section 3.8., the water closet in this room shall not be taken into consideration in determining the number of water closets required by this Article, unless a single water closet is permitted in accordance with Sentence (4).

4) Both sexes are permitted to be served by a single water closet if the *occupant load* in an *occupancy* referred to in Sentence (6), (10), (12), (13), (14) or (16) is not more than 10.

5) Urinals are permitted to be substituted for two thirds of the number of water closets required by this Article for males, except that if only 2 water closets are required for males, one urinal is permitted to be substituted for one of the water closets.



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6) Except as permitted by Sentences (4), (7) and (8), the number of water closets required for *assembly occupancies* shall conform to Table 3.7.2.2.A.

**Table 3.7.2.2.A  
Water Closets for an Assembly Occupancy  
Forming Part of Sentence 3.7.2.2.(6)**

Number of Persons of Each Sex	Minimum Number of Water Closets	
	Male	Female
1 - 25	1	1
26 - 50	1	2
51 - 75	2	3
76 - 100	2	4
101 - 125	3	5
126 - 150	3	6
151 - 175	4	7
176 - 200	4	8
201 - 250	5	9
251 - 300	5	10
301 - 350	6	11
351 - 400	6	12
Over 400	7, plus 1 for each additional increment of 200 males in excess of 400	13, plus 1 for each additional increment of 100 females in excess of 400

7) The number of water closets required for primary schools and daycare facilities for children, shall be at least one for each 30 males and one for each 25 females.

8) The number of water closets required for places of worship and undertaking premises shall be at least one for each 150 persons of each sex.

9) The number of water closets required for a *treatment* or *detention occupancy* shall be determined on the basis of the special needs of the *occupancy*.

10) Except as permitted by Sentences (4) and (7), the number of water closets required for a *care* or *residential occupancy* shall be at least one for each 10 persons of each sex.

11) At least one water closet shall be provided for each *dwelling unit*.

12) Except as permitted by Sentence (4), the number of water closets required for a *business and personal services occupancy* shall conform to Table 3.7.2.2.B.

**Table 3.7.2.2.B  
Water Closets for a Business and Personal Services Occupancy  
Forming Part of Sentences 3.7.2.2.(12)and (16)**

Number of Persons of Each Sex	Minimum Number of Water Closets for Each Sex
1 - 25	1

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26 - 50	2
Over 50	3, plus 1 for each additional increment of 50 persons of each sex in excess of 50

13) Except as permitted by Sentences (4) and (16), the number of water closets required for a *mercantile occupancy* shall be at least one for each 300 males and one for each 150 females.

14) Except as permitted by Sentence (4), the number of water closets required for an *industrial occupancy* shall conform to Table 3.7.2.2.C.

**Table 3.7.2.2.C  
Water Closets for an Industrial Occupancy  
Forming Part of Sentence 3.7.2.2.(14)**

Number of Persons of Each Sex	Minimum Number of Water Closets for Each Sex
1 - 10	1
11 - 25	2
26 - 50	3
51 - 75	4
76 - 100	5
Over 100	6, plus 1 for each additional increment of 30 persons of each sex in excess of 100

15) In a *building* whose *floor area* is more than 600 m<sup>2</sup> and that includes one or more individual tenant spaces for a *business and personal services occupancy* or *mercantile occupancy*, water closets shall be located so that they are accessible to the public when the *building* is occupied.

16) The number of water closets required in a *suite of mercantile occupancy* whose area is not more than 500 m<sup>2</sup> is permitted to be determined in accordance with Table 3.7.2.2.B based solely on the total number of staff.

**3.7.2.3. Lavatories**

1) Except as permitted by Sentence (2), at least one lavatory shall be provided in a room containing one or 2 water closets or urinals, and at least one additional lavatory shall be provided for each additional 2 water closets or urinals.

2) Wash fountains in circular form are permitted to be provided in lieu of lavatories required by Sentence (1) provided each 500 mm of circumference is considered to be the equivalent of one lavatory.

3) Any shelf or projection above a lavatory shall be located so that it will not be a hazard.

4) Lavatories required by Sentence (1) shall be equipped with faucets that

a) operate automatically, or

b) have a manual control that

i) complies with Clause 3.8.3.8.(1)(c),

ii) does not require the application of continuous force to maintain water flow, and

iii) where metered, provides at least 10 s of water flow.

**3.7.2.4. Mobile Home Facilities**

1) If mobile homes do not have individual sanitary facilities connected to a central water supply and drainage system, a service *building* shall be provided for public use.

2) The service *building* required by Sentence (1) shall contain

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- a) at least one water closet for each sex if the service *building* facilities serve not more than 10 mobile homes, and
- b) an additional water closet for each sex for each additional 10 mobile homes.
- 3) If a service *building* is required by Sentence (1), it shall contain lavatories as required by Sentence 3.7.2.3.(1) and at least
  - a) one laundry tray or similar facility, and
  - b) one bathtub or shower for each sex.

### 3.7.2.5. Safety Glass

- 1) Glass, other than safety glass, shall not be used for a shower or bathtub enclosure.

### 3.7.2.6. Surface Protection

- 1) Wall and floor surfaces below the uppermost surfaces of a urinal shall be protected from deterioration by impervious and durable material for a distance from the urinal to a point not less than 900 mm from the projected outline of the urinal on to the wall or floor.
- 2) Floor surfaces around a water closet shall be protected from deterioration by an impervious and durable material for a distance not less than 900 mm from the projected outline of the water closet on the floor.

### 3.7.2.7. Floor Drain

- 1) A floor drain shall be installed in a washroom containing a urinal equipped with an automatic flushing device.

### 3.7.2.8. Grab Bars

- 1) Grab bars shall
  - a) be slip-resistant and free of any sharp or abrasive elements,
  - b) be mounted on surfaces that are free of any sharp or abrasive elements,
  - c) be able to resist a load of not less than 1.3 kN applied vertically or horizontally,
  - d) be 30 mm to 40 mm in diameter, and
  - e) where mounted on a wall, have a clearance of 35 mm to 45 mm from the wall.

### 3.7.2.9. Bathtubs

- 1) Where a bathtub is installed in a hotel or a motel, it shall
  - a) have a clear floor space at least 750 mm wide along its length, except that a water closet or a lavatory is permitted to encroach this space,
  - b) have faucets and other controls that conform to Clause 3.8.3.8.(1)(c),
  - c) have a slip-resistant bottom surface,
  - d) have grab bars that
    - i) conform to Sentence 3.7.2.8.(1),
    - ii) are not less than 1 200 mm long located vertically at the end of the bathtub that is adjacent to the clear floor space, with the lower end between 180 mm and 280 mm above the bathtub rim, and

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- iii) are not less than 1 200 mm long located horizontally along the length of the bathtub at 180 mm to 280 mm above the bathtub rim, and
- e) be capable of being accessed along its full length with no tracks mounted on the bathtub rim.

### 3.7.2.10. Accessible Washrooms

- 1) Where washrooms, baths or showers are required to be *accessible*, they shall conform to Subsection 3.8.3. (See Note A-3.8.)

## Section 3.8. Accessibility

(See Note A-3.8.)

### 3.8.1. SCOPE

#### 3.8.1.1. Scope

- 1) This Section is concerned with the design and construction of *buildings* and *occupancies* to make them *accessible* by *persons with disabilities*.
- 2) *Buildings* and facilities required to be *accessible* in accordance with Subsection 3.8.2. shall be designed in accordance with Subsection 3.8.3.

### 3.8.2. APPLICATION

#### 3.8.2.1. General

(See Note A-3.8.2.1.)

- 1) The requirements of this Section apply to all *buildings* except
  - a) *dwelling units*, row houses, boarding houses, lodging houses, and construction camps, except as required by
    - i) Article 3.8.2.12., or
    - ii) Subsection 3.8.5.,
  - b) apartment and condominiums *buildings*, except that an *accessible* path of travel conforming to Subsection 3.8.3. from *accessible* entrances as described in Article 3.8.2.2. throughout common areas and, if provided, to parking areas and passenger loading zones as described in Article 3.8.2.5. is required unless
    - i) the *building* is not equipped with a passenger-elevating device, in which case an *accessible* path of travel as described in Article 3.8.2.3. need only be provided on the entrance level or levels of an apartment or condominium *building*, or
    - ii) the difference in floor elevation between the entrance level or levels and every *dwelling unit* exceeds 600 mm,
  - c) *buildings* of Group F, Division 1 *major occupancy*,
  - d) *buildings* that are not intended to be occupied on a daily or full-time basis, including, but not limited to, automatic telephone exchanges, pump houses and substations,

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e) public toilet *buildings* located in locations such as highway rest areas, campgrounds, picnic grounds, parks and recreational vehicle parks where an *accessible* path of travel conforming to Subsection 3.8.3. is provided from a roadway to at least one other *accessible* public toilet *building*,

f) the *storey* next above or below the *accessible storey* in a *suite* of not more than two *storeys* where the *accessible storey* is the *first storey* or basement, provided the *storey* next above or below the *accessible storey*

i) is less than 600 m<sup>2</sup> in *floor area*,

ii) contains only facilities that are also contained on the *accessible storey*,

iii) does not contain an *assembly major occupancy* with an area more than 100 m<sup>2</sup>, and

iv) is not served by a passenger-elevating device connecting the *storey* next above or below the *accessible storeys* (see Note A-3.8.2.1.(1)(f) and (g)), and

g) the *storey* next above or below the *accessible storey* in a *building* not more than two *storeys* in *building height*, provided the *storey* next above or below the *accessible storey*

i) is less than 600 m<sup>2</sup> in *floor area*,

ii) contains only facilities that are also contained on the *accessible storey*,

iii) does not contain an *assembly major occupancy* with an area more than 100 m<sup>2</sup>, and

iv) is not served by a passenger-elevating device connecting the *storey* next above or below the *accessible storeys* (see Note A-3.8.2.1.(1)(f) and (g)).

2) *Buildings* and parts of *buildings* required by Sentence (1) and this Subsection to be *accessible* shall comply with Subsection 3.8.3. including without limitation exterior paths and stairs within property lines from roadways, parking areas, exterior passenger-loading zones, and ancillary areas to all *accessible* entrances of these *buildings*.

3) The requirements of this Section take precedence over other requirements contained in this Part and in Part 9.

4) Where an *accessible* path of travel connects to a path of travel on the adjacent side of a *firewall* through a doorway, the requirements of this Section shall apply to the *floor areas* on both sides of the *firewall* as if they were in the same *building*.

5) *Access* shall be provided to *alterations*, additions and changes in *occupancy* to the extent required in Subsection 3.8.4.

#### 3.8.2.2. Entrances

(See Note A-3.8.2.2.)

1) In addition to the *accessible* entrances required by Sentence (2), the principal entrance and not less than 50% of all pedestrian entrances of a *building* referred to in Sentence 3.8.2.1.(1) shall be *accessible* and shall lead from

a) the outdoors at sidewalk or roadway level, or

b) an *accessible* path of travel that complies with Subsection 3.8.3. and leads from a sidewalk or roadway.

2) A *suite* of *assembly occupancy*, *business and personal services occupancy* or *mercantile occupancy* that is located in the *first storey* of a *building*, or in a *storey* to which an *accessible* path of travel is provided, and that is completely separated from the remainder of the *building* so that there is no access to the remainder of the *building*, shall have at least one *accessible* entrance.

3) An *accessible* entrance required by Sentence (1) or (2) shall be designed in accordance with Subsection 3.8.3.

4) At an *accessible* entrance that includes more than one doorway, only one of the doorways is required to be designed in accordance with Subsection 3.8.3.

5) If a *walkway* or pedestrian bridge connects two *accessible storeys* in different *buildings*, the path of travel from one *storey* to the other *storey* by means of the *walkway* or bridge shall be *accessible*.

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6) Where provided, an intercom system shall be installed at the principal conforming to Sentence (1).

**3.8.2.3. Areas Requiring Access**

(See Note A-3.8.2.3.)

- 1) Except as permitted by Sentence (2), *access* from the *accessible* entrances required by Sentences 3.8.2.2.(1) and (2) shall be provided throughout all *storeys* as required by Sentence 3.8.2.1.(1). (See also Article 3.3.1.7.)
- 2) Except for the path of travel that provides protection as required by Article 3.3.1.7., *access* is not required
  - a) to *service rooms*,
  - b) to elevator machine rooms,
  - c) to janitor’s rooms,
  - d) to *service spaces*,
  - e) to crawl spaces,
  - f) to *attic or roof spaces*,
  - g) reserved
  - h) reserved
  - i) within portions of a *floor area* with fixed seats in an *assembly occupancy* where those portions are not part of the *accessible* path of travel to spaces designated for wheelchair use,
  - j) within floor levels of a *suite of residential occupancy* that are not at the same level as the entry level to the *suite*,
  - k) within a *suite of residential occupancy* that has not been designated by an *authority having jurisdiction* to be *accessible*,  
or
  - l) within those parts of a *floor area* that are not at the same level as the entry level, provided facilities and uses provided on any raised or sunken level are also *accessible* on the entry level.
- 3) In an *assembly occupancy*, the number of spaces designated for wheelchair use within rooms or areas with fixed seats shall conform to Table 3.8.2.3. (See also Article 3.8.3.21. for additional requirements.)

**Table 3.8.2.3.  
Designated Wheelchair Spaces  
Forming Part of Sentence 3.8.2.3.(3)**

Number of Fixed Seats in Seating Area	Number of Spaces Required for Wheelchairs
50 and under	2
51 – 150	4
151 – 300	5
301 – 500	6
501 – 5000	6, plus one additional space for each 150 or part thereof
5001 and over	36, plus one additional space for each 200 or part thereof

**3.8.2.4. Path of Travel for Storeys Served by Escalators and Moving Walks**

1) In a *building* in which an escalator or inclined moving walk provides access to any floor level above or below the entrance floor level, an interior *accessible* path of travel shall also be provided to and throughout those floor levels. (See Note A-3.8.2.4.(1).)

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2) The route from the escalator or inclined moving walk to the *accessible* path of travel that leads from floor to floor as required by Sentence (1) shall be clearly indicated by appropriate signs. (See also Article 3.8.2.10.)

#### 3.8.2.5. Path of Travel to Parking Areas and Passenger-Loading Zones

(See Note A-3.8.2.5.)

1) An *accessible* path of travel shall be provided between parking stalls for *persons with disabilities* and an *accessible* entrance referred to in Article 3.8.2.2. (See Note A-3.8.2.5.(1).)

2) Where a passenger-elevating device serves one or more indoor parking levels, an *accessible* path of travel shall be provided between each parking level containing stalls for *persons with disabilities* and all other parts of the *building* required to be *accessible* in accordance with Subsection 3.8.3.

3) Passenger-loading zones shall comply with Subsection 3.8.3. and be provided with an *accessible* path of travel to an *accessible* entrance referred to in Article 3.8.2.2.

#### 3.8.2.6. Controls and Outlets

1) Except as provided in Sentences 3.5.2.1.(3), controls for the operation of *building* services or safety devices, including electrical switches, thermostats, faucets, door and window hardware and intercom switches, that are intended to be operated by the occupant and are located in or adjacent to an *accessible* path of travel shall comply with Subsection 3.8.3. (See Note A-3.8.2.6.(1).)

2) Electrical outlets that are intended for occupant use and are located in an *accessible* path of travel shall be located in conformance with Subsection 3.8.3. (See Note A-3.8.2.6.(2).)

#### 3.8.2.7. Power Door Operators

1) Except as provided in Sentences (2) and (3), every door that provides an *accessible* path of travel through an entrance referred to in Article 3.8.2.2., including the interior doors of a vestibule where provided, shall be equipped with a power door operator that complies with Subsection 3.8.3. and allows persons to activate the opening of the door in the intended direction of travel, where the entrance serves

- a) a hotel,
- b) a *building* of Group B, Division 2 *major occupancy*, or
- c) a *building* of Group A, Group B, Division 3, Group D or E *major occupancy* more than 500 m<sup>2</sup> in *building area*.

2) The requirements of Sentence (1) do not apply to an individual *suite* having an area less than 500 m<sup>2</sup> in a *building* having only *suites of assembly, care, business and personal services* or *mercantile occupancy* if the *suite* is completely separated from the remainder of the *building* so that there is no access to the remainder of the *building*.

3) Only the active leaf in a multiple leaf door in an *accessible* path of travel need conform to the requirements of this Article.

#### 3.8.2.8. Plumbing Facilities

1) Except as permitted by Sentences (2) and (12), and as required by Sentence (3), a washroom in a *storey* to which an *accessible* path of travel is required in accordance with Article 3.8.2.3., shall be *accessible* in accordance with Subsection 3.8.3. (See Note A-3.8.2.8.(1) to (3).)

2) A washroom need not conform to the requirements of Sentence (1) provided

- a) it is located within a *suite of residential occupancy* or a *suite of care occupancy*,
- b) other *accessible* washrooms are provided on the same *floor area* within 45 m along an *accessible* path of travel, or

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c) reserved

d) it is located in a *business and personal service* or *mercantile occupancy*, with multiple *suites*, where at least one *accessible* washroom complying with Subsection 3.8.3. is either

i) available to all *suites*, or

ii) provided in each *suite* not having *access* to a washroom described in Subclause (i).

(See Note A-3.8.2.8.(1) to (3).)

3) In *buildings* and *occupancies* in which water closets are required in accordance with Subsection 3.7.2., at least one universal washroom complying with Subsection 3.8.3. shall be provided in the entrance *storey*, unless

a) an *accessible* path of travel is provided to a universal washroom complying with Subsection 3.8.3. elsewhere in the *building*, or

b) the water closets required by Subsection 3.7.2. are for *dwelling units* only. (See Note A-3.8.2.8.(1) to (3).)

4) Reserved.

5) At least one water-closet stall or enclosure in a washroom required to be *accessible* shall comply with Subsection 3.8.3.

6) Where urinals are provided in an *accessible* washroom, at least one urinal shall comply with Subsection 3.8.3.

7) An *accessible* washroom shall be provided with at least one lavatory that complies with Subsection 3.8.3.

8) Where mirrors are provided in an *accessible* washroom, at least one mirror shall comply with Subsection 3.8.3.

9) Except as permitted in Sentence (12), in each location where drinking fountains are provided, at least one shall comply with Subsection 3.8.3. (See Note A-3.8.2.8.(9).)

10) Except within a *suite* of *residential occupancy*, where showers are provided in a *building*, at least one shower stall in each group of showers shall comply with Subsection 3.8.3.

11) Where a bathtub is installed in a *suite* required to be *accessible*, it shall comply with Subsection 3.8.3.

12) In *occupancies* or parts of *occupancies* designed to be *accessible* and used predominantly by children, in patient areas in Group B, Division 2 *occupancies*, or in resident areas in Group B, Division 3 *occupancies*, it is permissible to design and locate plumbing fixtures and grab bars differently than described in Subsection 3.8.3. to accommodate the special needs of children, patients, residents and care providers.

### 3.8.2.9. Assistive Listening Devices

(See Note A-3.8.2.9.)

1) In a *building* of *assembly occupancy*, all classrooms, auditoria, meeting rooms and *theatres* with an area of more than 100 m<sup>2</sup> shall be equipped with an assistive listening system complying with Subsection 3.8.3.

2) Courtrooms shall be equipped with an assistive listening system complying with Subsection 3.8.3.

### 3.8.2.10. Signs and Indicators

1) Signs complying with Subsection 3.8.3. shall be installed in an *accessible* floor area to indicate the location of

a) *accessible* entrances,

b) alternate *access* routes,



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- c) *accessible* spaces in seating areas,
- d) *accessible* refreshment facilities,
- e) *accessible* checkout lanes,
- f) *accessible* public telephones,
- g) *accessible* washrooms,
- h) *accessible* showers,
- i) *accessible* passenger elevating devices,
- j) *accessible* parking stalls,
- k) *accessible* passenger-loading zones, and
- l) facilities for persons with hearing disabilities.

2) Where a washroom is not designed to accommodate *persons with disabilities* in a *storey* to which an *accessible* path of travel is required, signs shall be provided to indicate the location of *accessible* washrooms.

3) Except as provided in Sentence (4) and Sentence 3.4.6.8.(11), tactile walking surface indicators complying with Subsection 3.8.3. shall be provided

- a) at the top of a stairway and at intermediate landings intercepted by other paths of travel,
- b) at an entry to a vehicular route or area where no curbs or any other element separate the vehicular route or area from a pedestrian route, and
- c) along any edge of a platform that is not protected by a *guard*, and
  - i) higher than 250 mm above the adjacent surface, or
  - ii) above an adjacent slope having a gradient of more than 1 in 3.
- 4) Sentence (3) does not apply to *stages* or loading docks.

### 3.8.2.11. Counters and Counters for Telephones

1) Every counter at which the public is served and intended as a work surface for extended business transactions shall comply with Subsection 3.8.3. (See Note A-3.8.2.11.(1).) (See also Note A-3.8.2.3.)

2) Built-in shelves and counters provided for public telephones shall comply with Subsection 3.8.3.

### 3.8.2.12. Sleeping Rooms and Bed Spaces

1) Sentences (2) and (3) apply to sleeping rooms and bed spaces provided in

- a) residential clubs,
- b) residential schools and colleges,
- c) dormitories, and
- d) hotels and motels.

2) When sleeping rooms or bed spaces are provided, at least one for every 40 or part thereof shall conform to Subsection 3.8.3. (See Sentence 3.8.3.22.(1).)

3) Where sleeping rooms or bed spaces are provided

a) for residential clubs, schools, colleges and dormitories, at least one room or space, in addition to the rooms or spaces described in Sentence (2), shall be equipped with a visible warning system conforming to Article 3.2.4.19., and

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b) for hotels and motels, at least one room or space for every 20 or part thereof, in addition to the rooms or spaces described in Sentence (1), shall be equipped with a visible warning system conforming to Article 3.2.4.19. (See Sentence 3.8.3.22.(2).)

4) Sleeping rooms and bed spaces provided in Group B, Division 3 *occupancies* where the *building* is 3 *storeys* or less in *building height* and equipped with a single-stage fire alarm system shall be equipped with a visible warning system conforming to Article 3.2.4.19. (See also Clause 3.2.4.3.(1)(c).)

5) Each *dwelling unit* in an apartment or condominium *building* designed primarily for senior citizens shall be provided with special outlet boxes and cover plates as described in Sentence 3.2.4.19.(7). (See also Sentence 3.2.4.19.(8).)

**3.8.3. DESIGN**

**3.8.3.1. Design Standards**

1) *Buildings* or parts thereof and facilities that are required to be *accessible* shall be designed in accordance with

a) this Subsection, or

b) the provisions of CSA B651, “Accessible Design for the Built Environment,” listed in Table 3.8.3.1., in their entirety.

(See Note A-3.8.3.1.(1).)

**Table 3.8.3.1.  
Accessible Design Provisions  
Forming Part of Sentence 3.8.3.1.(1)**

<i>Accessible Application</i> (Code References)	Applicable CSA B651 Provisions
Interior accessible routes (3.8.3.2.)	4.3 and 5.1
Exterior accessible routes (3.8.3.3.)	8.2.1 to 8.2.5 and 8.2.7
Passenger pickup areas (3.8.3.4.)	9.3
Ramps (3.8.3.5.)	5.3 and 5.5
Doors and doorways (3.8.3.6.)	5.2
Passenger-elevating devices (3.8.3.7.)	5.6.2
Operating controls (3.8.3.8.)	4.2
Signage and indicators (3.8.3.9.)	4.3.5, 4.5 and 9.4
Drinking fountains (3.8.3.10.)	6.1
Washroom facilities (3.8.3.11. to 3.8.3.15.)	6.2 and 6.3
Bathing facilities (3.8.3.16. and 3.8.3.17.)	6.5
Communication (3.8.3.18. and 3.8.3.20.)	6.6
Counters (3.8.3.19. and 3.8.3.20.)	6.7.1
Spaces in seating areas (3.8.3.21.)	6.7.2

**3.8.3.2. Accessible Path of Travel**

1) Except as required elsewhere in this Part or as permitted by Article 3.8.3.6. pertaining to doorways, an *accessible* path of travel shall have

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a) except for handrails, that are permitted to project not more than 100 mm from either or both sides into the clear area, an unobstructed width of not less than 1 500 mm except that the unobstructed width may be reduced to not less than

i) 1 100 mm between any two structures or fixtures in public aisles in merchandising establishments and exhibition facilities,

ii) 920 mm for permanent food service lines, and

iii) 810 mm wide through turnstiles, controlled checkout lanes or other restricted passageways constructed to control the flow or pedestrian traffic, and

b) an unobstructed height of not less than 1 980 mm for the full width of the route.

2) Interior and exterior walking surfaces that are within an *accessible* path of travel shall

a) have no opening that will permit the passage of a sphere more than 13 mm in diameter,

b) have any elongated openings oriented approximately perpendicular to the direction of travel,

c) be stable, firm and slip-resistant,

d) have a cross slope no steeper than 1 in 50,

e) be beveled at a maximum slope of 1 in 2 at changes in level between 6 mm and 13 mm,

f) be provided with sloped floors or ramps at changes in level more than 13 mm, and

g) be designed as a ramp complying with Article 3.8.3.5. where the floor or walk has a slope steeper than 1 in 20.

(See Note A-3.8.3.2.(2).)

3) An *accessible* path of travel is permitted to include ramps, passenger elevators or other platform-equipped passenger-elevating devices to overcome a difference in level. (See Note A-3.8.3.2.(3).)

4) The width of an *accessible* path of travel that is more than 30 m long shall be increased to not less than 1 800 mm for a length of 1 800 mm at intervals not exceeding 30 m.

### 3.8.3.3. Exterior Walks

1) Exterior walks that form part of an *accessible* path of travel shall

a) have a slip-resistant, continuous and even surface,

b) be not less than 1 500 mm wide, and

c) have a level area conforming to Clause 3.8.3.5.(1)(c) adjacent to an entrance doorway.

2) Exterior walks that form part of an *accessible* path of travel may contain curb ramps that shall

a) have a running slope

i) between 1 in 8 to 1 in 10 where the vertical rise is less than 75 mm, and

ii) between 1 in 10 to 1 in 12 where the vertical rise is 75 mm to 200 mm,

b) have a width of not less than 1 500 mm exclusive of flared sides,

c) have a surface including flared sides that shall

i) be slip-resistant,

ii) have tactile walking surface indicators conforming to Article 3.8.3.9.,

iii) have a smooth transition from the curb ramp to the adjacent surfaces, and

d) have flared sides with a slope of not more than 1 in 10 where pedestrians are likely to walk across them.

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- 3) Curb ramps described in Sentence (2) do not require handrails or *guards*.

### 3.8.3.4. Passenger-Loading Zones

- 1) If a passenger-loading zone is provided, it shall have
  - a) an access aisle not less than 1 500 mm wide and 6 000 mm long adjacent and parallel to the vehicle pull-up space,
  - b) a curb ramp constructed in accordance with Sentence 3.8.3.3.(2), where there are curbs between the access aisle and the vehicle pull-up space and the difference in elevation between levels is not more than 200 mm, and
  - c) a clear height of not less than 2 750 mm at the pull-up space and along the vehicle access and egress routes.

### 3.8.3.5. Ramps

- 1) Except as provided in Sentence 3.8.3.3.(2), a ramp located in an *accessible* path of travel shall
  - a) have a clear width not less than
    - i) 1 500 mm,
    - ii) 915 mm if the ramp serves a passageway that is 6 m or less in width, or
    - iii) 915 mm if a second ramp with a clear width not less than 915 mm also serves a passageway that is greater than 6 m in width,  
(see Note A-3.4.3.4.),
  - b) have a slope not more than 1 in 12 (see Note A-3.8.3.5.(1)(b)),
  - c) have a level area not less than 1 500 by 1 500 mm at the top and bottom and at intermediate levels of a ramp leading to a door, so that on the latch side the level area extends not less than
    - i) 600 mm beyond the edge of the door opening where the door opens towards the ramp, or
    - ii) 300 mm beyond the edge of the door opening where the door opens away from the ramp,  
(see Note A-3.8.3.5.(1)(c)),
  - d) have a level area not less than 1 500 mm long and at least the same width as the ramp
    - i) at intervals not more than 9 m along its length, and
    - ii) where there is an abrupt change in the direction of the ramp, and
  - e) except as provided in Sentences (2) and (3), be equipped with a handrail on each side of the ramp conforming to Article 3.4.6.5., except that they shall be not less than 865 mm and not more than 965 mm high, and
  - f) be equipped with *guards* conforming to Article 3.4.6.6.
- 2) Handrails installed in addition to required handrails need not comply with the height requirements stated in Clause (1)(e).
- 3) The requirement for handrails in Clause (1)(e) need not apply to a ramp serving as an aisle for fixed seating.
- 4) The surfaces of ramps and landings shall
  - a) be hard or resilient where the ramp is steeper than 1 in 15 (see Note A-3.8.3.5.(4)(a)),
  - b) have a cross slope no steeper than 1 in 50, and
  - c) where exposed to water, be designed to drain.
- 5) Ramps and landings not at *grade* or adjacent to a wall shall have edge protection consisting of
  - a) a curb not less than 75 mm high, or

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- b) a raised barrier or rail located not more than 100 mm from the ramp or landing surface.
- 6) Reserved.

### 3.8.3.6. Doorways and Doors

- 1) Except where stated otherwise, this Article applies to swinging and sliding doors.
- 2) Every doorway that is located in an *accessible* path of travel shall have a clear width measured from the face of the door to the outside edge of the stop on the door frame or adjacent leaf not less than 850 mm when the active leaf is in the open position. (See Note A-3.8.3.6.(2).)
- 3) Doorways in an *accessible* path of travel to at least one bathroom within a *suite of residential occupancy* shall have a clear width measured from the face of the door to the outside edge of the stop on the door frame or adjacent leaf not less than 810 mm when the active leaf is in the open position. (See Note A-3.8.3.6.(3).)
- 4) Door-operating devices shall be graspable and operable
  - a) in accordance with Clause 3.8.3.8.(1)(c), and
  - b) at a height between 900 mm and 1 100 mm above the floor.(See also Sentence 3.3.1.13.(3) regarding door release operation.)  
(See Note A-3.8.3.6.(4).)
- 5) A threshold for a doorway referred to in Sentences (2) and (3) shall conform to Sentence 3.3.1.13.(11).
- 6) Power operated doors required by Sentence 3.8.2.7.(1) shall
  - a) have operators that activate automatically or through the use of controls that
    - i) are located in an *accessible* path of travel,
    - ii) are marked with the International Symbol of Access,
    - iii) are located clear of the door swing and no more than 1 500 mm from that door swing,
    - iv) comply with Subclause 3.8.3.8.(1)(a)(ii),
    - v) are operable from a height between 150 mm and 300 mm as well as between 900 mm and 1 100 mm above the floor, and
    - vi) are operable by touching or approaching any part of their surface with a fist, arm or foot, and
  - b) unless equipped with safety sensors have operators that,
    - i) fully open the door in not less than 3 s, and
    - ii) require a force not more than 65 N to stop movement of the door, and
  - c) have a clear and level space extending the height of the doorway and not less than 1 100 mm long by the width of the door assembly on both sides of the assembly plus the arc of the door swing on any side into which the door swings.(See Note A-3.8.3.6.(6) and (7).)
- 7) A cane-detectable *guard* shall be installed on the hinged side of power-assisted doors that swing open into the path of travel. (See Note A-3.8.3.6.(6) and (7).)
- 8) Except as provided in Sentence (9) and except for a door with a power door operator complying with Sentence (6), when unlatched, a door in an *accessible* path of travel shall open when the force applied to the handle, push plate or latch-releasing device is not more than
  - a) 38 N in the case of an exterior swinging door,
  - b) 22 N in the case of an interior swinging door, or

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c) 22 N in the case of a sliding door.

9) Sentence (8) does not apply to a door at the entrance to a *dwelling unit*, or where greater forces are required in order to close and latch the door against the prevailing difference in air pressure on opposite sides of the door. (See Note A-3.8.3.6.(9).)

10) Except for a door at the entrance to a *dwelling unit*, a closer for a door in an *accessible* path of travel shall have a closing period of not less than 3 s measured from when the door is in an open position of 70° to the doorway, to when the door reaches a point 75 mm from the closed position, measured from the leading edge of the latch side of the door. (See Note A-3.8.3.6.(10).)

11) Unless equipped with a power door operator complying with Sentence (6), a door in an *accessible* path of travel shall have a clear and level space extending the height of the doorway and not less than

a) 1 500 mm deep by the width of the door assembly plus not less than 600 mm beside the latching jamb of the door on any side of the assembly into which a swinging door swings, and

b) 1 200 mm deep by the width of the door assembly plus not less than 300 mm beside the latching jamb of the door on any side of the assembly into which a swinging door does not swing,

c) 1 200 mm deep by a width not less than 900 mm, including not less than 50 mm on the latching jamb side where the approach is perpendicular to a sliding door, and

d) 1 050 mm deep by a width not less than 1 350 mm, including not less than 540 mm on the latching jamb side where the approach is parallel to a sliding door.

(See Note A-3.8.3.6.(11).)

12) Doors in an *accessible* path of travel which are installed in series shall be separated by a distance of not less than 1 500 mm plus the width of any door that swings into the space in the path of travel from one door to another. (See also Clauses 3.2.8.4.(1)(a) and 3.3.5.7.(4)(a).)

13) Only the active leaf in a multiple-leaf door in an *accessible* path of travel need conform to the requirements of this Article.

14) Except as provided in Clause 3.8.3.5.(1)(c), the floor surface on each side of a door in an *accessible* path of travel shall be level within a rectangular area

a) as wide as the door plus the clearance required on the latch side by Sentence (11), and

b) whose dimension perpendicular to the closed door is not less than the width of the *accessible* path of travel but need not exceed 1 500 mm.

### 3.8.3.7. Passenger-Elevating Devices

1) A passenger-elevating device in an *accessible* path of travel shall conform to

a) Appendix E of ASME A17.1/CSA B44, "Safety Code for Elevators and Escalators," (see also Sentence 3.5.2.1.(3)) or

b) CSA B355, "Lifts for Persons with Physical Disabilities."

(See also Sentence 3.5.4.1.(3).)

### 3.8.3.8. Controls and Outlets

1) Where located in or adjacent to an *accessible* path of travel, and unless otherwise stated, controls described in this Section shall be

a) mounted 455 mm to 1 200 mm above the floor,

b) adjacent to and centred on either the length or the width of a clear floor space of 1 350 mm by 800 mm, and

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c) operable

i) with one hand in a closed fist position, without requiring tight grasping, pinching with fingers, or twisting of the wrist, and

ii) unless otherwise stated, with a force not more than 22 N.

2) Electrical outlets that are intended for occupant use and are located in an *accessible* path of travel shall be located in conformance with Clause (1)(a). (See Note A-3.8.2.6.(2).)

### 3.8.3.9. Signs and Indicators

1) Signs required by Article 3.8.2.10. shall incorporate the International Symbol of Access or the International Symbol of Access for Hearing Loss and appropriate graphical or textual information that clearly indicates the type of facilities available. (See Note A-3.8.3.9.(1).)

2) Signs required by Sentence (1) shall

a) be located so as to be easily read and understood,

b) be located so as to be seen by a person in a wheelchair,

c) be located so as to avoid shadow areas and surface glare, and

d) have characters and symbols in colours that contrast highly with their backgrounds.

3) Where provided, tactile walking surface indicators shall

a) be slip-resistant,

b) be durable,

c) be not more than 3 mm above or below the surrounding surface,

d) be detectable when walked upon, as being different from the surrounding surface,

e) be in a contrasting colour to the surrounding surface, and

f) when provided at stairs,

i) be located one tread width back from the top riser, and

ii) measure 600 mm to 650 mm by the full width of the stair.

(See Note A-3.8.3.9.(5).)

### 3.8.3.10. Drinking Fountains

1) Drinking fountains required by Sentence 3.8.2.8.(9) shall

a) be located along an *accessible* path of travel,

b) have a minimum clear floor space of 800 mm by 1 350 mm in front of it,

c) where it has frontal access, provide a knee clearance in accordance with Clause 3.8.3.15.(1)(d),

d) have a spout that

i) is located near the front of the unit, at a height between 750 mm and 915 mm above the floor, and

ii) directs water flow in a trajectory that is nearly parallel to the front of the unit, at a height not less than 100 mm, and

e) be equipped with controls that

i) activate automatically, or

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- ii) are located either on the front or on both sides of it and comply with Clause 3.8.3.8.(1)(b).

### 3.8.3.11. Water-Closet Stalls

- 1) Water-closet stalls and enclosures required by Sentence 3.8.2.8.(5) shall
  - a) be not less than 1 500 mm wide by 1 500 mm deep,
  - b) have a clear floor space of not less than 1 500 mm by 1 500 mm in front of the accessible stall,
  - c) be equipped with a door that
    - i) can be latched from the inside with a mechanism conforming to Clause 3.8.3.8.(1)(c),
    - ii) is aligned with either the transfer space adjacent to the water closet or with a clear floor space not less than 1 500 mm by 1 500 mm within the stall,
    - iii) provides a clear opening not less than 850 mm wide when it is open,
    - iv) is self-closing so that, when at rest, the door is ajar by not more than 50 mm beyond the jamb,
    - v) swings outward, unless there is a clear floor space within the stall of at least 800 mm by 1 350 mm plus the arc of the door swing (see Note A-3.8.3.11.(1)(c)(v)),
    - vi) where the door swings outward, is provided with a horizontal, D-shaped, visually contrasting door pull not less than 140 mm long located on the inside such that its midpoint is 200 mm to 300 mm from the hinged side of the door and 900 mm to 1 100 mm above the floor (see Note A-3.8.3.11.(1)(c)(vi)), and
    - vii) is provided with a horizontal, D-shaped, visually contrasting door pull not less than 140 mm long located on the outside such that its midpoint is 120 mm to 220 mm from the latch side and 900 mm to 1 100 mm above the floor,
  - d) have a water closet located so that the distance between the centre line of the fixture and the wall on one side is 460 mm to 480 mm,
  - e) be equipped with an L-shaped grab bar that
    - i) is mounted on the side wall closest to the water closet,
    - ii) has horizontal and vertical components not less than 760 mm long mounted with the horizontal component 750 mm to 850 mm above the floor and the vertical component 150 mm in front of the water closet (see Note A-3.8.3.11.(1)(e)(ii)), and
    - iii) complies with Article 3.7.2.8.,
  - f) be equipped with either one grab bar at least 600 mm long and centred over the water closet, or two grab bars at least 300 mm long and located either side of the flush valve, that
    - i) conform to Article 3.7.2.8.,
    - ii) are mounted on the rear wall, and
    - iii) are mounted at the same height as the grab bar on the side wall or 100 mm above the top of the attached water tank, if applicable,
  - g) be equipped with a coat hook mounted not more than 1 200 mm above the floor on a side wall and projecting not more than 50 mm from the wall, and
  - h) be equipped with a toilet paper dispenser mounted on the side wall closest to the water closet such that
    - i) the bottom of the dispenser is 600 mm to 800 mm above the floor, and
    - ii) the closest edge of the dispenser is 300 mm from the front of the water closet.

### 3.8.3.12. Universal Washrooms



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(See Note A-3.8.3.12.)

- 1) A universal washroom shall
  - a) be served by an *accessible* path of travel,
  - b) have a door complying with Article 3.8.3.6. that
    - i) has a latch-operating mechanism located 900 mm to 1 100 mm above the floor that complies with Clause 3.8.3.8.(1)(b) and is capable of being locked from the inside, and released from the outside in case of emergency, and
    - ii) if it is an outward swinging door that is not self-closing, has a door pull not less than 140 mm long located on the inside so that its midpoint is not less than 200 mm and not more than 300 mm from the hinged side of the door and not less than 900 mm and not more than 1 100 mm above the floor (see Note A-3.8.3.11.(1)(c)(vi)),
  - c) have one lavatory and one mirror conforming to Article 3.8.3.15.,
  - d) have one water closet conforming to Article 3.8.3.13. and Clause 3.8.3.11.(1)(d), with a clear floor space at least 900 mm wide that is parallel and adjacent to the open side of the water closet,
  - e) have grab bars conforming to Clauses 3.8.3.11.(1)(e) and (f),
  - f) have a coat hook conforming to Clause 3.8.3.11.(1)(g),
  - g) have a toilet paper dispenser conforming to Clause 3.8.3.11.(1)(h),
  - h) unless a counter is provided, have a shelf located not more than 1 100 mm mm above the floor, and
  - i) have a clear floor space of not less than
    - i) 3.7 m<sup>2</sup> with no dimension less than 1 700 mm when the door swings out, and
    - ii) 4.0 m<sup>2</sup> with no dimension less than 1 800 mm when the door swings in.

### 3.8.3.13. Water Closets

- 1) A water closet for a person with physical disabilities shall
  - a) be equipped with a seat that is not the spring-up type located 430 mm to 460 mm above the floor,
  - b) flush automatically or be equipped with a flushing control that
    - i) is located 500 mm to 900 mm above the floor,
    - ii) is located not more than 350 mm from the transfer side, and
    - iii) complies with Clause 3.8.3.8.(1)(c),
  - c) be equipped with a seat lid or other back support, and
  - d) where it has a tank, have a securely attached tank top.

(See Note A-3.8.3.13.(1).)

### 3.8.3.14. Urinals

- 1) Urinals described in Sentence 3.8.2.8.(6) shall
  - a) be wall-mounted or floor mounted, with the opening of the basin located not more than 430 mm above the floor,
  - b) be adjacent to an *accessible* route,
  - c) have a clear width of approach of 800 mm centred on the urinal and unobstructed by privacy screens,

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- d) have no step in front of it,
- e) have a flush control that
  - i) is automatic, or
  - ii) complies with Clause 3.8.3.8.(1)(c) and is located 900 mm to 1 100 mm above the floor, and
- f) have a vertically mounted grab bar installed on each side that
  - i) complies with Article 3.7.2.8.,
  - ii) is not less than 600 mm long, with its centre line 1 000 mm above the floor, and
  - iii) is located not more than 380 mm from the centre line of the urinal.

### 3.8.3.15. Lavatories and Mirrors

- 1) Lavatories required by Sentence 3.8.2.8.(7) shall
  - a) be equipped with faucets complying with Sentence 3.7.2.3.(4),
  - b) be located to provide a clear floor area in front of the lavatory of not less than 920 mm wide by 1 220 mm deep centered on the lavatory,
  - c) have a rim height not more than 865 mm above the floor,
  - d) have a clearance beneath the lavatory not less than
    - i) 760 mm wide,
    - ii) 735 mm high at the front edge,
    - iii) 685 mm high at a point 250 mm back from the front edge, and
    - iv) 250 mm high to a point 500 mm back from the front edge,(see Note A-3.8.3.15.(1)(d))
  - e) have insulated water supply and drain pipes where these pipes are exposed (see Note A-3.8.3.15.(1)(e)),
  - f) have a soap dispenser that
    - i) is automatic, or
    - ii) complies with Clause 3.8.3.8.(1)(b) and is located not more than 1 100 mm above the floor, within 500 mm from the front of the lavatory (see Note A-3.8.3.15.(1)(f)), and
  - g) have a towel dispenser or other hand-drying equipment located close to the lavatory, with operating controls not more than 1 200 mm above the floor in an area that is accessible to persons in wheelchairs.
- 2) Mirrors required by Sentence 3.8.2.8.(8) shall be
  - a) mounted with their bottom edge not more than 1 000 mm above the floor, or
  - b) fixed in an inclined position so as to be usable by a person in a wheelchair.

### 3.8.3.16. Showers

- 1) Showers required by Sentence 3.8.2.8.(10) shall
  - a) have an entrance not less than 1 500 mm wide and be not less than 900 mm deep,
  - b) have a clear floor space at the entrance to the shower that is not less than 900 mm deep and the same width as the shower, except that fixtures are permitted to project into that space provided they do not restrict access to the shower (see Note A-3.8.3.16.(1)(b)),

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- c) have no doors or curtains that obstruct the controls or the clear floor space at the entrance to the shower,
- d) have a slip-resistant floor surface,
- e) have a threshold not more than 13 mm higher than the finished floor, and where it is higher than 6 mm, beveled to a slope no steeper than 1 in 2,
- f) have 2 grab bars that
  - i) conform to Sentence 3.7.2.8.(1),
  - ii) one of which is not less than 1 000 mm long and located vertically on the side wall 50 mm to 80 mm from the adjacent clear floor space, with its lower end 600 mm to 650 mm above the floor, and,
  - iii) one of which is L-shaped and located on the wall opposite the entrance to the shower, with a horizontal member not less than 1 000 mm long mounted 750 mm to 870 mm above the floor and a vertical member not less than 750 mm long mounted 400 mm to 500 mm from the side wall on which the other vertical grab bar is mounted,  
(see Note A-3.8.3.16.(1)(f)),
- g) have a hinged seat that is not spring-loaded or a fixed seat with a smooth, slip-resistant surface and no rough edges, the seat being
  - i) not less than 450 mm wide and 400 mm deep,
  - ii) mounted on the same side wall as the vertical grab bar, at 460 mm to 480 mm above the floor, and
  - iii) designed to carry a minimum load of 1.3 kN,
  - iv) impervious to water, and
  - v) designed to be easily cleaned,
- h) have a pressure-equalizing or thermostatic-mixing valve and other controls that
  - i) comply with Clause 3.8.3.8.(1)(c), and
  - ii) are mounted on the wall opposite the entrance to the shower at not more than 1 200 mm above the floor and within reach of the seat,
- i) have a hand-held shower head with not less than 1 800 mm of flexible hose located so that it
  - i) can be reached from a seated position,
  - ii) can be used in a fixed position at a height of 1 200 mm and 2 030 mm, and
  - iii) does not obstruct the use of the grab bars, and
- j) have recessed soap holders that can be reached from the seated position.

### 3.8.3.17. Bathtubs

- 1) Bathtubs required by Sentence 3.8.2.8.(11) shall
  - a) be located in a room with a clear floor space not less than 1 500 mm in diameter except that fixtures are permitted to project into that space provided they do not restrict access to the bathtub,
  - b) be not less than 1 500 mm long,
  - c) have a clear floor space not less than 750 mm wide adjacent to its entire length,
  - d) be capable of being accessed along its full length with no tracks mounted on its rim,
  - e) have a pressure-equalizing or thermostatic-mixing valve and other controls that
    - i) conform to Clause 3.8.3.8.(1)(c), and

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ii) are located on the centre line or between the centre line of the bathtub and the exterior edge of the bathtub rim, at a maximum height of 450 mm above the rim and within reach of the seat,

f) have three grab bars

i) that conform to Sentence 3.7.2.8.(1),

ii) that are not less than 1 200 mm long,

iii) two of which are located vertically at each end of the bathtub, set 80 mm to 120 mm in from the outside edge of the bathtub, with their lower end 180 mm to 280 mm above the bathtub rim, and

iv) one of which is located horizontally along the length of the bathtub at 180 mm to 280 mm above the bathtub rim,

g) have a slip-resistant bottom surface,

h) be equipped with a hand-held shower head that complies with Clause 3.8.3.16.(1)(i), and

i) have a removable seat with a smooth, slip-resistant surface and no rough edges that is

i) wide enough to give stability to the user (see Subclause 3.8.3.16.(1)(g)(i)), and

ii) complies with Subclauses 3.8.3.16.(1)(g)(iii) to (v), and

j) have recessed soap holders that can be reached from the seated position.

(See Note A-3.8.3.17.)

#### 3.8.3.18. Assistive Listening Devices

(See Note A-3.8.3.18.)

1) Except as provided in Sentence (2), assistive listening systems required by Article 3.8.2.9. shall encompass the entire seating area.

2) If an assistive listening system referred to in Article 3.8.2.9. is an induction loop system, only half the seating area in the room need be encompassed.

#### 3.8.3.19. Counters

1) Counters required by Sentence 3.8.2.11.(1) shall have

a) at least one *accessible* section not less than 760 mm long centred over a knee space conforming to Clause (c),

b) a surface not more than 865 mm above the floor, and

c) except as provided in Sentence (2) and where the counter is intended to be used as a work surface, a knee space underneath it that is

i) not less than 760 mm wide,

ii) not less than 685 mm high, and

iii) not less than 485 mm deep.

2) A counter that is used in a cafeteria, or one that performs a similar function where movement takes place parallel to the counter, need not be provided with a knee space underneath it.

#### 3.8.3.20. Shelves or Counters for Telephones

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(See Note A-3.8.3.20.)

- 1) Shelves or counters required by Sentence 3.8.2.11.(2) shall
  - a) be level,
  - b) be not less than 305 mm deep,
  - c) have, for each telephone provided, a clear space not less than 250 mm wide having no obstruction within 250 mm above the surface,
  - d) have a section with a surface not more than 865 mm above the floor serving at least one telephone, and
  - e) have a clear floor space of not less than 800 mm by 800 mm to within 300 mm in front of the telephone.
- 2) Where a wall-hung telephone is provided above the shelf or counter section described in Clause (1)(d), it shall be located so that the receiver and coin slot are not more than 1 200 mm above the floor.

### 3.8.3.21. Spaces in Seating Area

- 1) Spaces designated for wheelchair use referred to in Sentence 3.8.2.3.(3) shall be
  - a) clear and level, or level with removable seats,
  - b) not less than 900 mm wide and 1 525 mm long to permit a wheelchair to enter from a side approach and 1 220 mm long where the wheelchair enters from the front or rear of the space,
  - c) arranged so that at least 2 designated spaces are side by side,
  - d) located adjoining an *accessible* path of travel without infringing on egress from any row of seating or any aisle requirements, and
  - e) situated, as part of the designated seating plan,
    - i) to provide a choice of viewing location,
    - ii) to provide a clear view of the event taking place, and
    - iii) in motion picture theatres, not be in the front third of the seating area.

### 3.8.3.22. Sleeping Rooms and Bed Spaces

- 1) Sleeping rooms and bed spaces required to be *accessible* in Sentence 3.8.2.12.(1) shall have
  - a) a turning area of not less than 1 500 mm diameter on one side of a bed,
  - b) a clearance of not less than 900 mm to allow for functional use of the room or space by persons in wheelchairs,
  - c) where balconies are provided, an *accessible* balcony,
  - d) at least one closet that provides
    - i) a clear opening not less than 900 mm wide,
    - ii) clothes hanger rods capable of being lowered to a height of 1 200 mm,
    - iii) at least one shelf capable of being lowered to a height of 1 200 mm,
  - e) *accessible* light switches, thermostats and other controls that are specifically provided for use by the *occupant* and are located between 900 mm and 1 200 mm above the finished floor and are operable in accordance with Clause 3.8.3.8.(1)(c),
  - f) *accessible* electrical outlets located in conformance with Clause 3.8.3.8.(1)(a), and

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- g) a bathroom, where provided as part of the sleeping room or bed space, or *access* to a bathroom, where not provided as part of the sleeping room or bed space
  - i) conforming to Clauses 3.8.3.11.(1)(a) and (d) with a water closet conforming to Article 3.8.3.13.,
  - ii) provided with grab bars conforming to Clauses 3.8.3.11.(1)(e) and (f), and
  - iii) provided with a lavatory and mirror conforming to Article 3.8.3.15. and a bathtub conforming to Article 3.8.3.17. or shower conforming to Article 3.8.3.16., only to the extent of providing the same type of facilities provided in sleeping units for persons without disabilities.

### 3.8.4. ALTERATIONS AND ADDITIONS TO EXISTING BUILDINGS

#### 3.8.4.1. Application

- 1) Except as provided in Sentence (2), *access* as described in Articles 3.8.4.2. to 3.8.4.8. shall be provided
  - a) to additions to existing *buildings* where such additions have internal pedestrian connections with the existing *buildings*,
  - b) to existing parts of *buildings* to which additions described in Clause (a) are made, and
  - c) to the extent required by Article 3.8.4.5., to existing *buildings*
    - i) where the *occupancy* is changed, or
    - ii) that are altered or renovated.
- 2) This Subsection does not apply to
  - a) *buildings* of new construction,
  - b) vertical additions of one *storey* not more than 600 m<sup>2</sup> in *floor area* regardless of *occupancy*, or
  - c) horizontal or vertical additions to *occupancies* described in Clauses 3.8.2.1.(1)(a) to (g).

#### 3.8.4.2. Specific Requirements

- 1) Exterior *access* shall be provided to an addition except where *access* to the addition is provided by way of the existing *building*.
- 2) Walks and ramps for an addition shall conform to Subsection 3.8.3.
- 3) An entrance to an addition shall be *accessible* except where
  - a) the addition is *accessible* by an *accessible* path of travel from an *accessible* entrance serving the existing *building*, and
  - b) not less than 50% of the pedestrian entrances to the *building* are *accessible*.

#### 3.8.4.3. Vertical Additions

- 1) Where there is a vertical addition of one *storey* and of more than 600 m<sup>2</sup> in *floor area*, or of two or more *storeys* regardless of *floor area*,
  - a) *access* shall be provided to all additional *storeys*, and
  - b) the additional *storeys* shall conform to Subsections 3.8.2. and 3.8.3.

#### 3.8.4.4. Horizontal Additions

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1) Where an existing *building* is extended horizontally, the requirements of Subsections 3.8.2. and 3.8.3. shall be applied to the addition except as described in Articles 3.8.4.2. and 3.8.4.6., and Sentence 3.8.4.8.(2).

### 3.8.4.5. Alterations and Occupancy Change

1) Where an existing *building* is altered or renovated, or where the *occupancy* is changed, *access* shall be provided in conformance with Subsections 3.8.2. and 3.8.3. where

- a) *persons with disabilities* could reasonably be expected to be employed in, or could reasonably be expected to use, such an *occupancy* or *building*, and
- b) providing such *access* would be practical.

### 3.8.4.6. Sleeping Rooms and Bed Spaces

1) Where sleeping rooms or bed spaces are provided in an addition, the percentage of *accessible* sleeping rooms or bed spaces required by Subsection 3.8.2. to conform to Article 3.8.3.22. shall be based on the sum of sleeping rooms or bed spaces in the addition and in the existing *building*.

2) The *accessible* sleeping rooms or bed spaces required by Sentence (1) may be distributed between the addition and the existing *building*.

### 3.8.4.7. Existing Facilities

1) Where an addition is required to be *accessible*, facilities located in the existing *building* that are necessary to the operation of the addition shall be *accessible*.

2) Where *alterations* are made to an existing *building*, universal washrooms complying with Subsection 3.8.3. are permitted to be provided in lieu of facilities for *persons with disabilities* in washrooms. (See Note A-3.8.2.8.(1) to (3).)

### 3.8.4.8. Egress from Floor Areas

1) The egress requirements of Article 3.3.1.7. shall apply to the vertical additions described in Sentence 3.8.4.3.(1).

2) Where an existing *storey* is extended horizontally, the egress requirements of Article 3.3.1.7. shall apply to

- a) the extended portion of the *storey*, or
- b) the combined area of the existing *storey* and the extension.

## 3.8.5. ADAPTABLE DWELLING UNITS

### 3.8.5.1. Application

1) This Subsection applies to

- a) the design and construction of one *storey adaptable dwelling units* in multiple unit *residential occupancy buildings* that employ interior corridors or exterior passageways for *access* to the *dwelling units*, and
- b) the paths of travel and common facilities intended for use by the residents.

### 3.8.5.2. Construction Requirements

1) The construction of *adaptable dwelling units* and the *building* in which they are located shall conform to the requirements in this Subsection and to *access* requirements for *residential occupancy buildings* elsewhere in this Code.

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### 3.8.5.3. Building Access Requirements

- 1) *Buildings* containing *adaptable dwelling units* shall
  - a) be provided with an *accessible* path of travel conforming to Subsection 3.8.3. to an entrance described in Article 3.8.2.2. and to each *adaptable dwelling unit* from
    - i) a roadway,
    - ii) where provided, a parking area,
    - iii) where provided, passenger-loading zones, and
    - iii) where an elevator is provided, to an elevator conforming to Sentence 3.5.2.1.(3),
  - b) conform to Sentence 3.8.2.2.(6), and
  - c) provide *access* to all common facilities.
- 2) Corridors and passageways providing *access* to *adaptable dwelling unit* entrances and common facilities shall
  - a) be not less than 1 220 mm in width, and
  - b) provide a clear area not less than 1 500 mm by 1 500 mm
    - i) adjacent to the elevator entrance, and
    - ii) at intervals not exceeding 9 m measured from the elevator entrance to the end of the corridor or passageway.
- 3) Except as permitted in Sentence 3.8.5.4.(1), doorways and doors in the *accessible* path of travel throughout the *building* shall comply with Article 3.8.3.6.
- 4) Each *adaptable dwelling unit* shall be provided with special outlet boxes and cover plates as described in Sentence 3.2.4.19.(7). (See also Sentence 3.2.4.19.(8).)

### 3.8.5.4. Adaptable Dwelling Unit Doorways

- 1) Within an *adaptable dwelling unit*, doorways providing access to common living areas and at least one bathroom and one bedroom shall have a clear width of not less than 810 mm when the door is in the open position. (See Note A-3.8.5.4.(1).)
- 2) Floor space on both sides of the bathroom and bedroom doors referred to in Sentence (1) shall conform to Article 3.8.3.6.

### 3.8.5.5. Adaptable Dwelling Unit Bathrooms

- 1) The bathroom referred to in Sentence 3.8.5.4.(1) shall be designed to be adaptable for use by persons in wheelchairs by providing
  - a) a dimension from the front edge of the water closet to the facing wall of not less than 800 mm,
  - b) a dimension from the front face of the bathtub or shower to the centre line of the water closet not less than 510 mm, and
  - c) a clear floor area in front of the lavatory not less than 760 mm wide by 1 220 mm deep centred on the lavatory, and
  - d) a clear floor area, exclusive of door swing, not less than 760 mm wide by 1 220 mm deep connecting to the route through the doorway.
- 2) Walls adjacent to the water closet and bathtub or shower shall accommodate the future installation of grab bars conforming to



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- a) Clauses 3.8.3.11.(1)(e) and (f) for water closets, and
  - b) Clause 3.8.3.16.(1)(f) for showers or 3.8.3.17.(1)(f) for bathtubs.
- (See Note A-3.8.5.5.(2).)

### **3.8.5.6. Adaptable Dwelling Unit Kitchens**

- 1) The kitchen in an *adaptable dwelling unit* shall be designed so that the *cooktop* and sink are adjacent or can have a continuous counter between them.

### **3.8.5.7. Controls, Switches and Outlets**

- 1) Controls and switches intended for occupant use, including electrical, telephone, cable and data outlets shall be mounted 455 mm and 1 200 mm above the floor.

## Appendix A

The images and graphics in this document are not updated to reflect the proposed language of the Code or proposed commentary of the Appendix.

A-3.3.1.7.(1) Temporary Refuge for Persons with Disabilities. These measures are intended to provide temporary refuge for persons with disabilities. It is acknowledged, however, that the measures cannot provide absolute safety for all occupants in the fire area. It may, therefore, be necessary to develop special arrangements in the fire safety plan to evacuate persons with disabilities from these areas. Details for a suitable plan are contained in the British Columbia Fire Code.

The protected elevator referred to in Clause 3.3.1.7.(1)(a) is intended to be used by firefighters as a means for evacuating persons with disabilities. It is not intended that this elevator be used by persons with disabilities as a means of egress without the assistance of firefighters.

If an estimate is to be made of the number of persons with disabilities in a floor area who can be accommodated in each zone in Clause 3.3.1.7.(1)(b), this estimate may be based on Table 3.8.2.3., which is used to determine the minimum number of spaces to be provided for wheelchair occupants in fixed seating areas. If more precise information is available, it should be used for sizing the zones.

A-3.5.4.1.(1) Elevator Car Dimensions. In some circumstances it is necessary to maintain a patient on a stretcher in the prone position during transit to a hospital or to treatment facilities. Inclining the stretcher to load it into an elevator could be fatal or at the very least detrimental to the patient's health. Many ambulance services use a mobile patient stretcher whose size is 2 010 mm long and 610 mm wide. As well as space for the stretcher in the elevator, there should be sufficient additional space for at least two attendants who may also be providing treatment during transit. Common elevator units that can satisfy this requirement include:

- a 1 134 kg elevator car with minimum interior dimensions of 2 032 mm wide and 1 295 mm deep with a right or left hand access door. The minimum access door width 1 067 mm and it must be on the 2 032 mm side of the car.
- a 1 134 kg elevator car with minimum interior dimensions of 2 032 mm deep and 1 295 mm wide with a minimum 915 mm wide access door located on the 1 295 mm side.

Limited-use/limited-application (LULA) elevators are limited by size, capacity, speed and rise and are not expected to meet the minimum elevator car dimensions stated in Sentence (1).

A-3.7.2.2.(1) Water Closets. Sentence 3.7.2.2.(1) assumes that there will be a sufficient number of persons in the building to justify the provision of separate water closet facilities for both males and females. In some circumstances overall low occupant loads would not require more than one water closet for males and one water closet for females and yet the building has more than one storey. It is deemed that rooms each containing a single water closet available for both males and females would satisfy the intent of the Code. The total number of water closets must be adequate for the total number of occupants. Requirements for accessibility also need to be considered. If the entrance storey is accessible and the upper storeys are not required to be accessible, a room in the accessible storey must meet the requirements of Section 3.8. and can serve both males and females. If provided, a nonaccessible room, designed to serve both males and females, in each nonaccessible upper storey would be acceptable. Sentence 3.7.2.2.(4) permits a single water closet to serve both males and females if the total occupant load is low.

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A-3.8. Accessible Design Assumptions. This Section contains minimum provisions to accommodate persons with disabilities.

### Building Access Handbook

An illustrated guide and commentary has been produced to assist users of Section 3.8. and other access requirements of the British Columbia Building Code. This handbook contains the entire text of Section 3.8. and other access requirements, and is supplemented by commentary and illustrations on specific requirements.

A-3.8.2.1. Accessibility. Industrial buildings often pose a greater risk to their occupants due to the presence of significant quantities of dangerous materials or the use of hazardous processes. For example, plants which are classified as Group F, Division 2 or 3, may store and use toxic or highly flammable substances in significant quantities, or house processes which involve very high temperatures and which have a high degree of automation. In some facilities, particularly in primary industries such as forestry and metallurgy, the construction normally used and the operations carried out within the space can make compliance with the requirements of Section 3.8. impracticable. It is therefore intended that these requirements be applied with discretion in buildings of Group F, Division 2 or 3 major occupancy. However, where industrial buildings contain subsidiary occupancies, such as offices or showrooms, it is reasonable to require that accessibility be provided in these spaces.

A-3.8.2.1.(1)(f) and (g) Access to Small Storeys. Requiring elevators and elevating devices for people with disabilities can be expensive and in small buildings may form a significant percentage of a building's cost. This Clause is intended to exempt such small second storeys or basements from access requirements when they are self-contained or contain the same facilities as on the first storey. Examples where access is not required are office tenants on the second storey of a small building and the second storey of a restaurant which contains only additional seating. If, on the other hand, the restaurant's washrooms are in the less than 600 m<sup>2</sup> basement there must be access to them as they are an integral part of the principle function and occupancy on the first storey. Likewise, staff lunchrooms and washrooms are integral with the principle function and when they are on a small second storey or mezzanine they must be accessible when a person with disabilities could reasonably be expected to be employed there.

This exemption applies to buildings of two storeys in building height containing not more than three storeys. A building of three or more storeys in building height must be fully accessible.

A-3.8.2.2. Entrances. An accessible route should exist from the sidewalk or roadway and parking area to an accessible building entrance. This route should be located so that persons with physical disabilities do not have to pass behind parked cars. Accessible routes should coordinate with the routes to other buildings and to public transportation stops.

To provide more general access to buildings, not less than 50% of the pedestrian entrances are required to be accessible. This should include a principal entrance. If the 50% calculation results in a fraction, the number of accessible entrances should be the next higher unit value. For the purpose of determining the number of entrances to a building, several adjacent doors in a bank of doors are considered to be a single entrance.

A-3.8.2.3. Access to Rooms and Facilities. If access is required into suites or rooms in Subsection 3.8.2., it is intended that access be provided, with some exceptions identified in Sentence 3.8.2.3.(2), throughout each room or suite including access to all facilities and areas. Some examples of where access is required are as follows:

- within each suite (subject to Clauses 3.8.2.3.(2)(h) to (j)),
- within rooms or areas that serve the public or are designated for use by visitors, including interview rooms, holding rooms, changing rooms, areas in assembly occupancies with fixed seats so as to provide viewing of any entertainment areas, display areas and merchandising departments,
- within each type of membership facility,

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- within rooms or areas for student use in assembly occupancies,
- within general work areas, including office areas and areas with lockers,
- within general use or general service areas, including shared laundry areas in residential occupancies, recreational areas, cafeterias, lounge rooms, lunch rooms and infirmaries,
- within sleeping rooms in hospitals and nursing homes with treatment,
- (if installed), into at least one passenger elevator or elevating device conforming to Articles 3.5.2.1. and 3.8.3.7.,
- into washrooms described in Sentences 3.8.2.8.(1) to (3),
- to any facility required by this Section to be designed to accommodate persons with physical disabilities,
- onto every balcony provided in conformance with Clause 3.3.1.7.(1)(c),
- to service counters used by the general public (examples include sales counters, refreshment stands, drinking fountains, cafeteria counters, checkout counters and bank service counters), and
- to equipment designed to serve the public including automated banking machines and night deposit boxes.

Where one or more hairdressing sinks are provided in barber shops, hairdressing shops and beauty parlours, at least one shall be useable by persons in wheelchairs. Where fitting rooms are provided in a store, an accessible fitting room is required. An enclosure not less than 1 500 mm by 1 500 mm is suggested.

The permission to waive an accessible path of travel for wheelchair access to certain specified areas of a building is not intended to waive accessibility requirements for persons whose physical disabilities do not require special provision for access to raised or sunken levels. Persons with visual or hearing disabilities that do not require the use of a wheelchair can be expected to move throughout a building.

The concept of providing similar amenities and facilities applies, among other things, to food, beverage, and entertainment facilities within restaurants, to smoking and non-smoking areas permitted in accordance with local regulations, and to window areas providing a view of an exterior attraction.

Availability of specific spaces depends on reservation policy and the sequence in which patrons arrive at a restaurant or other facility, and therefore is beyond the scope of this Code.

Accessibility “within” a floor area means that in general all normally occupied spaces and levels are to be accessible, except those areas which are deemed not to require access. Examples of excluded floor areas are small raised office areas in retail and industrial premises and storage platforms in industrial and other occupancies.

Further, an accessible path of travel should be provided where buildings are networked together and as a connection to public transportation stops.

A-3.8.2.4.(1) Path of Travel to Storeys Served by Escalators and Moving Walks. In some buildings, escalators and inclined moving walks are installed to provide transportation from one floor level to another floor level so as to increase the capacity to move large numbers of persons. Some buildings located on a sloping site are accessible from street level on more than one storey and an escalator or inclined moving walk is provided for internal movement from floor to floor. In both these situations, a person with a physical disability must be provided with an equally convenient means of moving between the same floor levels within the building. This can be accomplished by providing elevators or a platform-equipped passenger-elevating device.

A-3.8.2.5. Parking Areas. In localities where local regulations or bylaws do not govern the provision of or dimensions of accessible parking spaces, the following provides guidance to determine appropriate provisions. If more than 50 parking spaces are provided, parking spaces for use by persons with physical disabilities should be provided in the ratio of one for every 100 parking spaces or part thereof. Parking spaces for use by persons with physical disabilities should

- (1) be not less than 2 400 mm wide and provided on one side with an access aisle not less than 1 500 mm wide,

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- (2) have a firm, slip-resistant and level surface,
- (3) be located close to an entrance required to conform to Article 3.8.2.2.,
- (4) be clearly marked as being for the use of persons with physical disabilities, and
- (5) be identified by a sign located not less than 1 500 mm above ground level, with the International Symbol of Access (Figure A-3.8.2.5.-A).

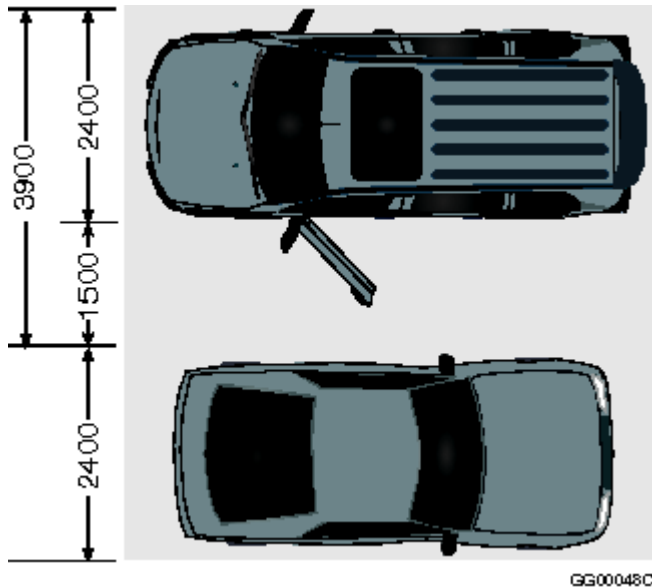


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**Figure A-3.8.2.5.-A  
International Symbol of Access sign**

Asphalt, concrete and firm, compacted gravel are acceptable parking surfaces. Curb ramps should be not less than 1 500 mm wide. Parallel parking spaces should be not less than 7 000 mm long. If more than one parking space is provided for persons with physical disabilities, a single access aisle can serve two adjacent parking spaces. The arrangement shown in Figure A-3.8.2.5.-B allows the shared use of an access aisle to serve two adjacent parking spaces provided for use by persons with physical disabilities.

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**Figure A-3.8.2.5.-B  
Shared access aisle**

A-3.8.2.5.(1) Path of Travel to Parking. It is not intended that a separate accessible entrance must be provided from the parking area. The designer may choose to designate the entrance leading to the parking area as the required entrance or to provide a properly identified and unobstructed path of travel from the parking area to the entrance which is accessible. The entrance chosen should, in any case, be the closest entrance to the parking area and one normally used by the occupants of the building. Long paths of travel are not recommended.

A-3.8.2.6.(1) Application to Security Access Systems. Sentence 3.8.2.6.(1) is not intended to reduce the functionality of security devices that limit access to secure areas and are addressed by other Sections of the British Columbia Building Code.

A-3.8.2.6.(2) Electrical Outlets. Electrical outlets intended for occupant use shall be located so that their height above the finished floor is not a barrier to use. Outlets that are dedicated for specific equipment or functions and not intended to be readily available to occupants need not conform to the location requirements.

A-3.8.2.8.(1) to (3) Washrooms. The primary intent of this requirement is that all regular washrooms be made accessible to all persons, including persons with disabilities, primarily persons who must use a wheelchair. Well-designed washrooms which can accommodate persons with disabilities need not be much larger than conventional washrooms.

The exception in Clause 3.8.2.8.(2)(b) recognizes situations where several washrooms may be provided on a large floor area. In such a case, not all washrooms need to be accessible, provided that an accessible washroom is available within a reasonable distance (45 m) of one that is not and that the location of that accessible washroom is clearly indicated as required by Sentence 3.8.2.10.(2). However, where several washrooms are provided in an area together, the accessible washrooms should be included among them.

Clauses 3.8.2.8.(2)(c), (d) and (e) are intended to address “strip malls” (a shopping mall with no public corridor). Section 3.7., which requires plumbing facilities, does not address the concept of suite and could permit, for instance, a shopping mall containing only Group E occupancies to have only one washroom for each sex located in any one of the suites. It is desirable, however, that washrooms be located so as to be accessible at all times, since the owner or tenant of one suite has no control over the activities of another. These buildings may have either public accessible washrooms in a central location or washrooms which can accommodate persons with physical disabilities in each suite. This arrangement

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relieves any one tenant from having to provide “public” washrooms. Hence, the exception is meant as a relaxation to avoid an unnecessary burden on small facilities but should not be construed as meaning that these buildings need not provide accessible washrooms.

Sentence (3) requires an accessible universal washroom in every building required to have water closets. There are a significant number of persons with disabilities whose daily lives depend heavily on assistance from their spouse or a caregiver of the opposite sex. Providing this assistance in multiple stall public washrooms can be an added challenge. The universal washroom not only solves this problem but also serves the needs of other persons with disabilities who simply prefer the relative ease of using a universal washroom. It can also serve as a washroom for parents with small children and, with the addition of a counter, as a changing room for infants.

A-3.8.2.8.(9) Drinking Fountains. Similar to drinking fountains designed and located to be accessible, bottle filling stations should also be designed and located to be accessible.

A-3.8.2.9. Assistive Listening Devices. Assistive listening devices may be used where audible communication is expected but may be obstructed, such as at screened ticket windows or service counters in noisy areas.

A-3.8.2.11.(1) Counters with Work Surfaces. It is not intended that all counters be accessible, but that sufficient accessible counter space be available. Examples of counters that should be accessible for the purposes of extended business transactions include teller counters in financial institutions and reception areas as well as any counter at which processing and signing of documents takes place. The provision is not intended to apply to the simple exchange of money for goods or services such as at a retail check-out counter or check-in counters where tickets are presented, or to work surfaces in industrial occupancies.

A-3.8.3.1.(1) Accessible Design Standards. Code users who opt to apply the CSA B651 provisions listed in Table 3.8.3.1. must do so without exception: they cannot randomly select and apply a mix of provisions from the British Columbia Building Code and that standard.

A-3.8.3.2.(2) Surfaces in an Accessible Path of Travel. Floor finishes, including walk-off mats and carpet, should be selected, installed and securely fixed to provide a firm and stable surface so that persons using wheelchairs, walkers or other mobility aids can easily travel over them without tripping or expending undue energy. Other than very high-density, short-pile carpeting, most carpeting does not meet these criteria.

Furthermore, where the path of travel is exposed to intense light conditions, such as daylight or directional lighting, a low-glare or matte floor surface should be selected, as glare from floor surfaces can influence all users' perception and be particularly problematic for persons with low vision. For the same reasons, heavily patterned flooring should also be avoided.

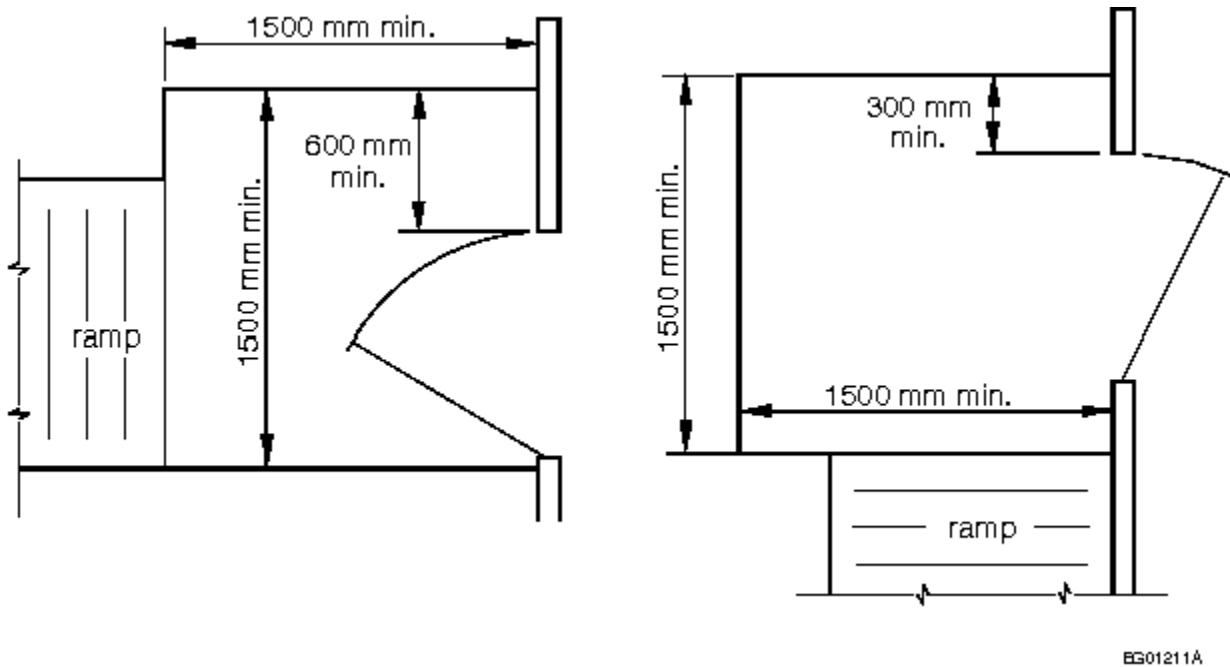
A-3.8.3.2.(3) Passenger-Elevating Devices. Inclined moving walkways that are used to provide access should not have a running slope steeper than 1 in 20.

A-3.8.3.5.(1)(b) Ramp Slopes. Ramps with a slope of more than 1 in 16 can be very difficult for persons with physical disabilities with upper body mobility to manage. Even though they pose less of a problem for persons in motorized wheelchairs, these ramps can be unsafe to descend, especially in cold climates. Although Article 3.8.3.5. permits slopes on ramps as great as 1 in 12 for distances of up to 9 m, slopes of 1 in 20 are safer and less strenuous. When limited space is available, as may be the case during renovations, ramps with a slope of up to 1 in 12 should be restricted to lengths not

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exceeding 3 m whenever possible. A strip contrasting in colour and texture should be used at the top and bottom of ramps to warn persons with low or no vision.

**A-3.8.3.5.(1)(c) Landing Design at Doorways Leading to Ramps.**



**Figure A-3.8.3.5.(1)(c)  
Landing design at doorways leading to ramps**

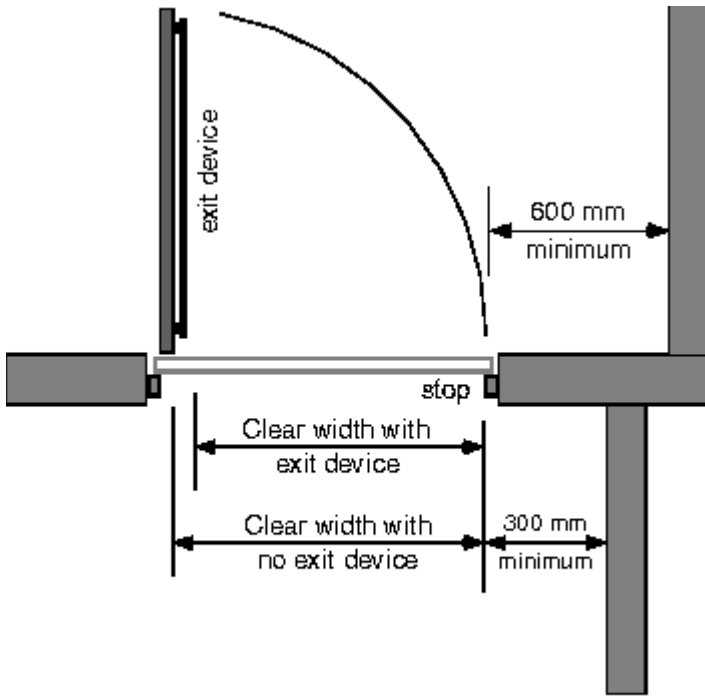
A-3.8.3.5.(4)(a) Surface of Ramps. Sentence 3.8.3.2.(2) requires that all walking surfaces in an accessible path of travel be stable and firm to limit the effort required by persons using wheelchairs or other mobility aids. Therefore, Sentence 3.8.3.5.(4) requires that hard or resilient flooring be used on the surfaces of steeper ramps. Furthermore, carpet and like materials should not be installed on any ramp.

A-3.8.3.6.(2) Doorway Width. Standard wheelchair width specifications indicate a range of sizes from 584 mm overall to 685 mm overall. Every doorway that is located in a accessible path of travel must have a clear width of not less than 850 mm when the door is in the open position and therefore it is important that this dimension be measured correctly. Figure A-3.8.3.6.(2) shows a door opened to 90°. It is clear that the door, and to a lesser extent the stop, impinges on the space within the door frame. The clear width of not less than 850 mm is measured from the face of the door to the outside edge of the stop on the door frame. It is not sufficient just to measure the inside width of the door frame. The hardware selected on sliding doors, such as d-shaped handles, may result in a clear width being substantially less than the inside dimension of the door frame. Other factors, including location of door stops other than on the door frame, and the installation of door closers and exit devices, should be taken into account. The intrusion of a door handle or an exit device into the space is of lesser importance because its height above the floor does not typically obstruct passage of a wheelchair. It is recognized that there are many types of door frame and door mounts but the overall objective is to maintain a clear width of not less than 850 mm. Figure A-3.8.3.6.(2) depicts a somewhat restrictive scenario, as many doors can open wider than 90°, however, a door smaller than 914 mm would not likely be wide enough to ensure the minimum clear width of 850 mm that is required.



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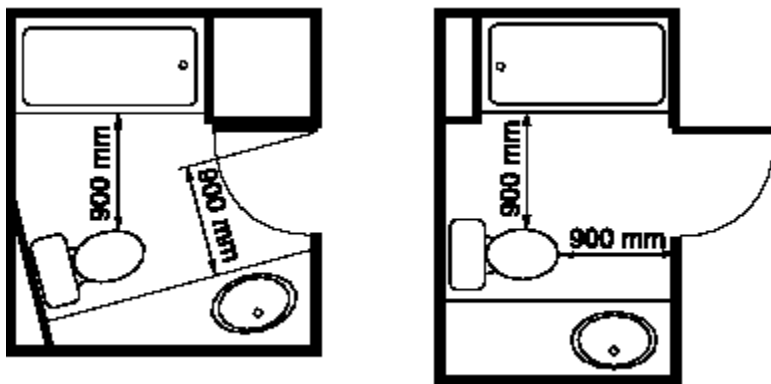
In a doorway with multiple leaves, the active leaf must be capable of providing the required clear width when in the open position. The clear width is measured from the face of the door to the outside edge of the adjacent leaf when the active leaf is in the open position.



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**Figure A-3.8.3.6.(2)  
Clear doorway width**

A-3.8.3.6.(3) Washrooms in Residential Occupancies. This requirement ensures that the doorway to the washroom in a dwelling unit or a hotel or motel suite is at least large enough to accommodate someone using a wheelchair. The Code does not require these washrooms to be accessible, in order to avoid a set of prescriptive requirements which could limit design flexibility. However, it is relatively simple to make washrooms accessible through careful planning and positioning of fixtures and this can be achieved in an area not much larger than that of conventional washrooms.



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**Figure A-3.8.3.6.(3)  
Residential washrooms**

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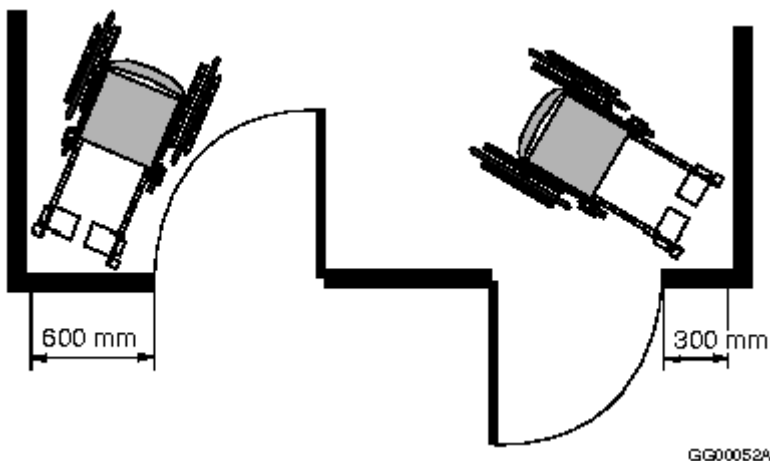
A-3.8.3.6.(4) **Lever Handles.** Lever handles are usable by most persons with limited hand mobility and will meet the intent of this requirement. Lever handles with an end return towards the door are less prone to catch the clothing of someone passing through the doorway. Large D-shaped handles should be used on sliding doors.

A-3.8.3.6.(6) and (7) **Doors with Power Operators.** Doors equipped with a power operator actuated by a pressure plate identified with the international symbol for accessibility or, where security is required, by a key, card or radio transmitter, and that can otherwise be opened manually, meet the intent of the requirement. The location of these actuating devices should ensure that a wheelchair will not interfere with the operation of the door once it is actuated. Swinging doors equipped with power operators which are actuated automatically and open into passing pedestrian traffic should be provided with a guard or other device designed to prevent pedestrians from stepping in the swing area of the door. These guards or devices should be detectable by blind persons. For example, inverted U-shaped guards should have an additional rail at a height not more than 680 mm so that it is detectable by the long cane. These doors should also have a device (mat or other sensor) on the swing side to prevent the door from opening if someone is standing in the swing area.

A-3.8.3.6.(9) **Air Pressure Differences.** Differences in air pressure on opposite sides of a door may be due to the operation of mechanical systems such as those associated with smoke control. So-called “stack action” in buildings in winter can also cause differential pressures due to the buoyancy of warm air. Stack action is usually most noticeable between stairwells and the remainder of the building, and at the entrances to buildings; the taller the building, the greater the effect. Doors with automatic closers have to operate with sufficient opening force to allow the return action to overcome the differential pressure.

A-3.8.3.6.(10) **Delayed Action on Door Closers.** In some circumstances, closers with a delay feature which keeps the door open for several seconds before it begins to close might be desirable. However, closers with this feature have limited back-check, a feature of a normal door closer where resistance to opening increases as the door reaches the full arc of swing. Doors equipped with a delayed action closer are therefore more susceptible to damage should the door be opened with too much force or should someone try to force it closed, thinking the closer has failed to operate. Delayed action closers are not recommended for such occupancies as schools.

A-3.8.3.6.(11) **Clearance at Doorways.** Sufficient clearance must be provided on the latch side of doors for a user to operate the door-opening mechanism and open the door without interference from the wheelchair. This is particularly important for a door swinging towards the approach side. See Figure A-3.8.3.6.(11).



**Figure A-3.8.3.6.(11)**  
**Doorway clearance**

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A-3.8.3.9.(1) Accessibility Signs. The International Symbol of Access shown in Figure A-3.8.3.9.(1)-A indicates to persons with physical disabilities that they will have reasonable freedom of movement within a building so signed. The symbol is usually white on a blue background; where these colours do not stand out, the sign can be set on a white background. An arrow can be added to indicate direction or the location of an accessible space or facility.



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**Figure A-3.8.3.9.(1)-A  
Signs indicating accessible facilities**

The International Symbol of Access for Hearing Loss shown in Figure A-3.8.3.9.(1)-B, which indicates accessibility for persons with hearing loss, should be used to indicate the availability of variable volume controls on telephones, assistive listening systems, and text telephones (TT). These latter devices may also be referred to as teletypewriters (TTY) or telecommunications devices for the deaf (TDD).



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**Figure A-3.8.3.9.(1)-B  
Signs for assistive listening facilities**

When characters are used on signs to indicate accessible features, Arabic numerals and sans-serif letters with a stroke width to height ratio from 1 in 6 to 1 in 10 and a character width to height ratio from 3 in 5 to 1 in 1 should be used. Characters identifying doors and openings that lead from public areas and through which the public is permitted to pass should consist of Arabic numerals or sans-serif letters or both, be not less than 25 mm high and raised between 0.7 mm and 3 mm with a stroke to height ratio for ease of reading by touch. This identification should be located at the side of the doors or openings, centred 1 350 mm above the finished floor and within 150 mm of the jamb.

A-3.8.3.9.(5) Tactile Walking Surface Indicators. Figure A-3.8.3.9.(5) illustrates one acceptable design of tactile walking surface indicators.

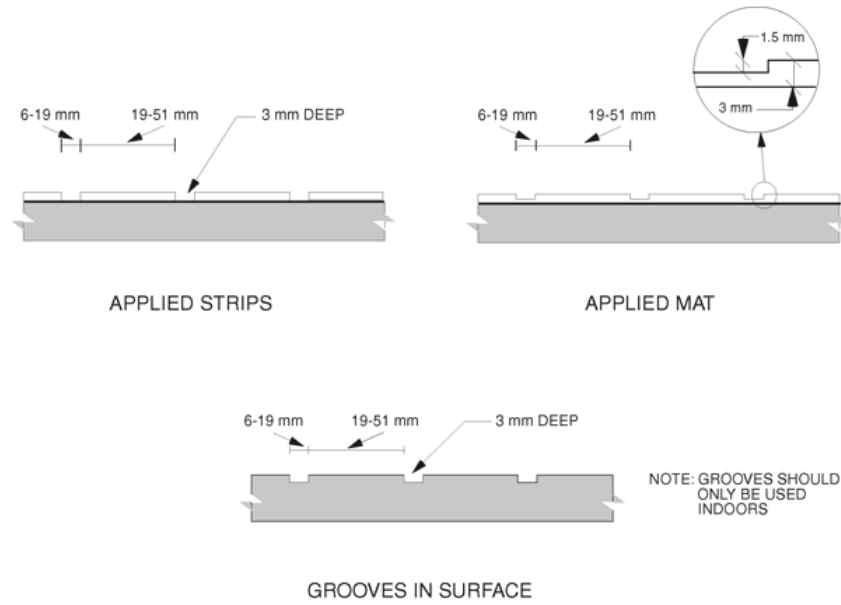


Figure A-3.8.3.9.(5)

Tactile Walking Surfaces Indicators

A-3.8.3.11.(1)(c)(v) Water-closet Stalls. Doors to water-closet stalls for persons with physical disabilities should swing outward, preferably against a side wall.

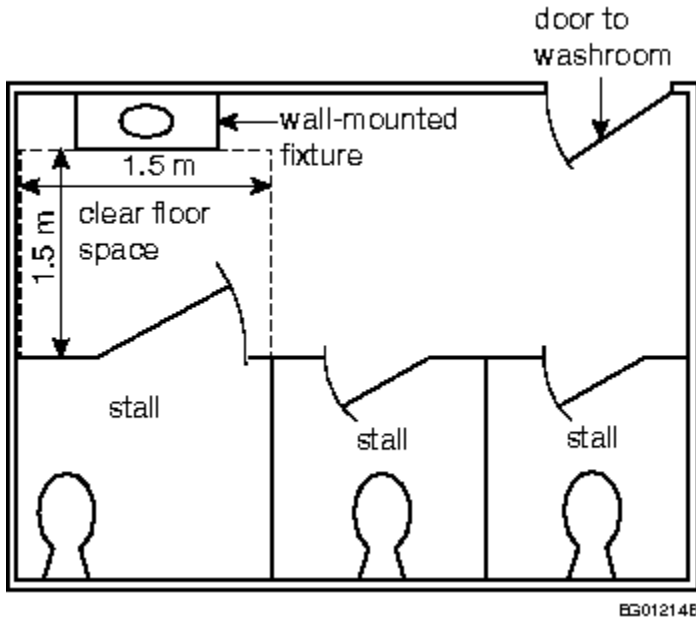
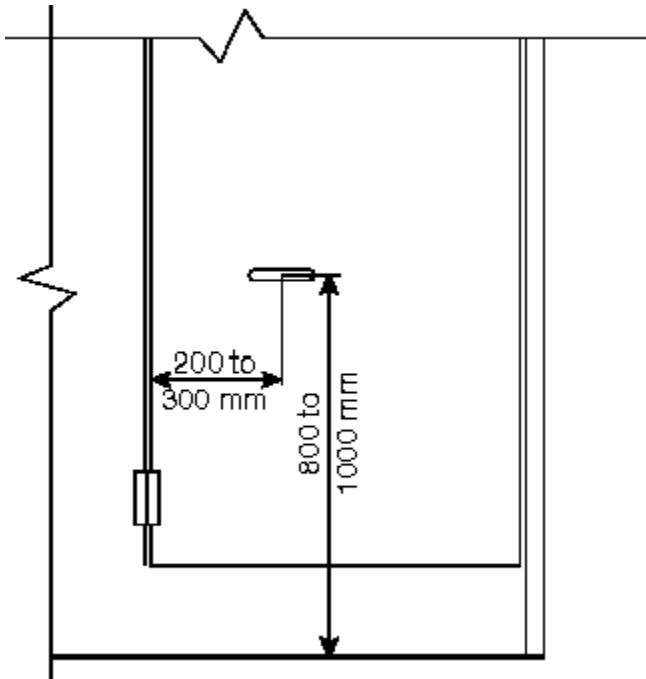


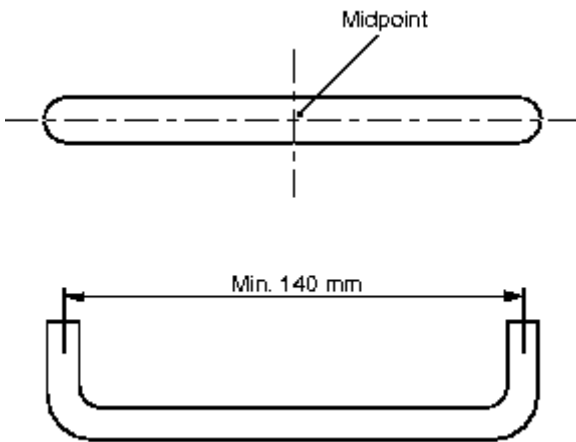
Figure A-3.8.3.11.(1)(c)(v)  
Water-closet stalls

A-3.8.3.11.(1)(c)(vi) Door Pulls. The door pull should consist of a D-shaped handle mounted horizontally. The centre lines are the lines drawn through the long axis and the short axis of the handle. The midpoint of the handle must be located horizontally at 200 to 300 mm from the hinged side of the door and vertically at 900 to 1 100 mm above the finished floor surface.



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**Figure A-3.8.3.11.(1)(c)(vi)-A**  
**Door pull location**



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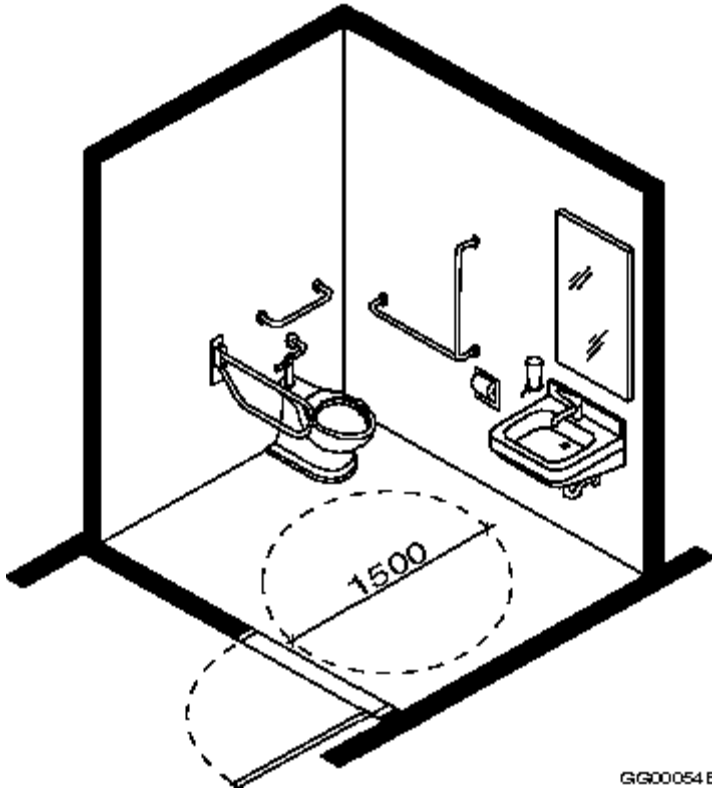
**Figure A-3.8.3.11.(1)(c)(vi)-B**  
**Door pull details**

A-3.8.3.11.(1)(e)(ii) Additional Grab Bars. It is the designer's prerogative to exceed the minimum requirements found in the NBC and specify the installation of additional grab bars in other locations. These additional grab bars may be of different configurations and can be installed in other orientations.

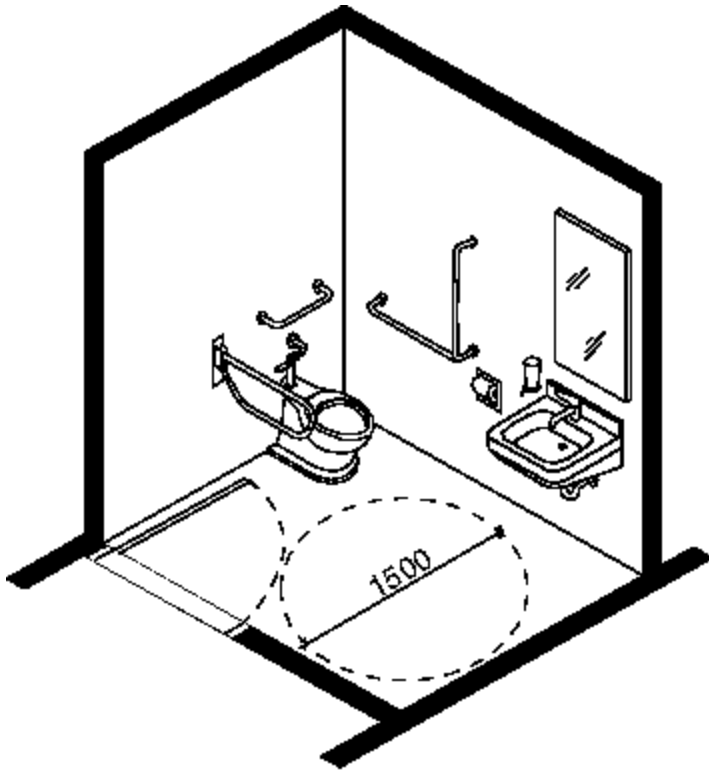
A-3.8.3.12. Universal Washrooms. Unobstructed areas in front of the lavatory, in front of the water closet and on one side of the water closet are necessary for maneuverability of a wheelchair. Fixtures, including additional fixtures, should be located so as to be useable and also to provide maneuverability for persons in wheelchairs. Wall-mounted fixtures may

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project into the required floor space, provided that such projections do not restrict the maneuvering space required for persons in wheelchairs. Although power operated and outward swinging doors are preferable for accessibility, manually operated as well as inward swinging doors are also permitted. Figures A-3.8.3.12.-A and A-3.8.3.12.-B show design options that meet the intent of Article 3.8.3.12.



**Figure A-3.8.3.12.-A  
Universal washroom with outward swinging door**

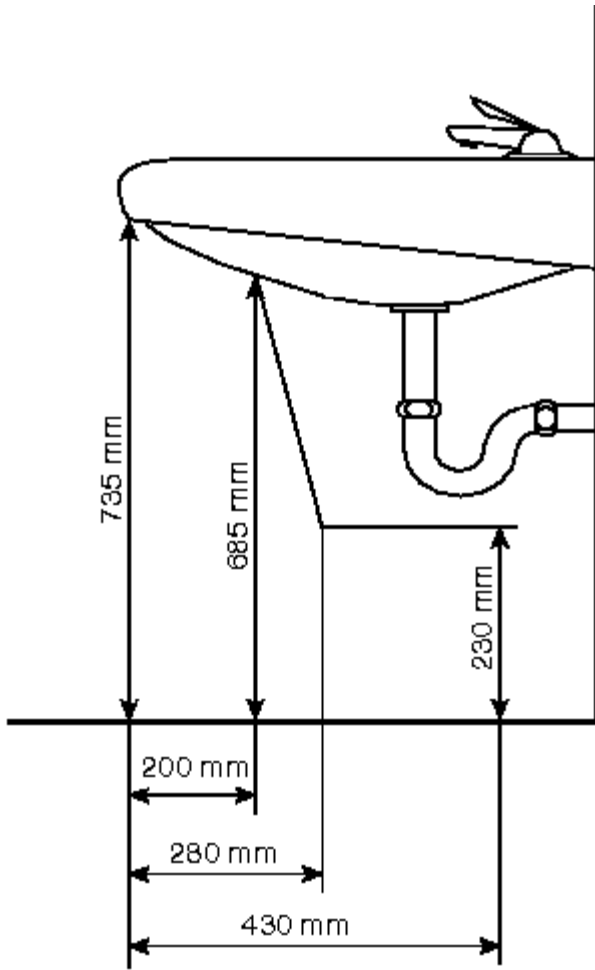


**Figure A-3.8.3.12.-B**  
**Universal washroom with inward swinging door**

A-3.8.3.13.(1) Water Closets. Wall- or floor-mounted water closets with recessed bases are preferable because they provide the least amount of obstruction.

Wheelchair users generally require a higher water closet seat to facilitate transfer from their chair to the water closet. Removable high-lift seats are not recommended in public washrooms as they could be removed or damaged by vandals. Permanently installed vandal resistant high-lift seats are available for installation on standard height water closets and these could be considered in place of the high bowl required.

A-3.8.3.15.(1)(d) Clearances Beneath a Lavatory.



**Figure A-3.8.3.15.(1)(d)**  
**Clearances beneath a lavatory**

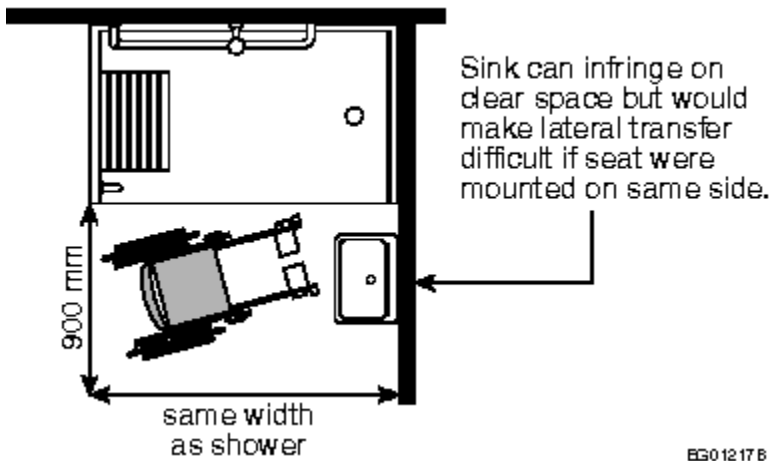
A-3.8.3.15.(1)(e) Pipe Protection. The pipes referred to in Clause 3.8.3.15.(1)(e) include both supply and waste pipes. The hazard can be prevented by insulating the pipes, by locating the pipes in enclosures, or avoided by limiting the temperature of the hot water to a maximum of 45°C.

A-3.8.3.15.(1)(f) Soap Dispenser Location. The location of accessories, such as soap dispensers and faucets, serving accessible lavatories should be established while taking into consideration that their controls must be usable by and within the direct reach of a person in a seated position directly in front of the accessible lavatory.

A-3.8.3.16.(1)(b) Clear Space at Entrances to Showers. The clear space at the entrance to a shower may be encroached upon by fixtures such as a wall hung sink which does not interfere with the leg rests of the wheelchair. However, this sink could restrict movement for persons who need to make a lateral transfer if it were installed at the seat end of the shower.



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**Figure A-3.8.3.16.(1)(b)**  
**Shower design**

ES01217B

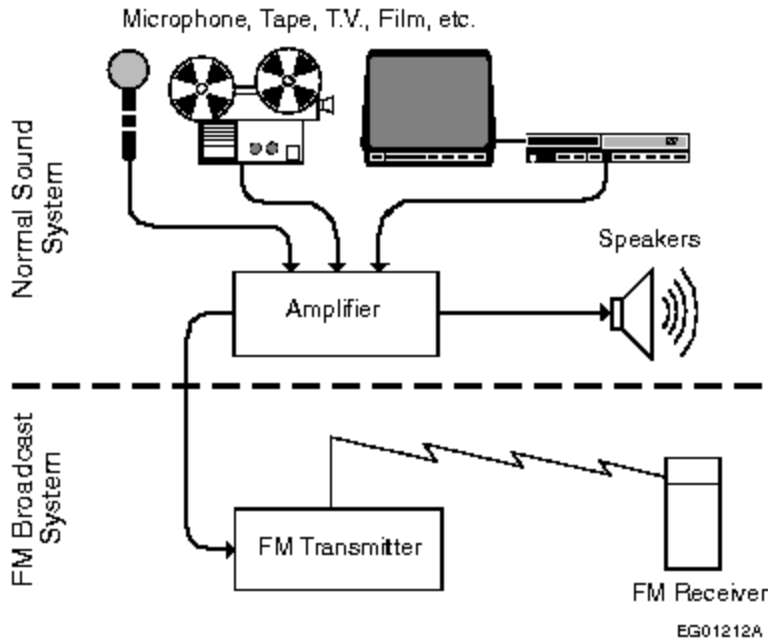
A-3.8.3.16.(1)(f) **Grab Bars.** One L-shaped grab bar is required to be installed on the wall next to the seat. A grab bar behind the seat would prevent the user from leaning back against the wall, while one located on the wall opposite the seat cannot be reached from the seated position. The seat itself may be used in conjunction with the bar for transfer. If design flexibility is required, fold away grab bars can be used as an alternative.

A-3.8.3.17. **Bathtubs.** Hand showers should be located at the same end of the bath as the controls and accessories such as soap holders should be located and useable within direct reach of a person in a seated position.

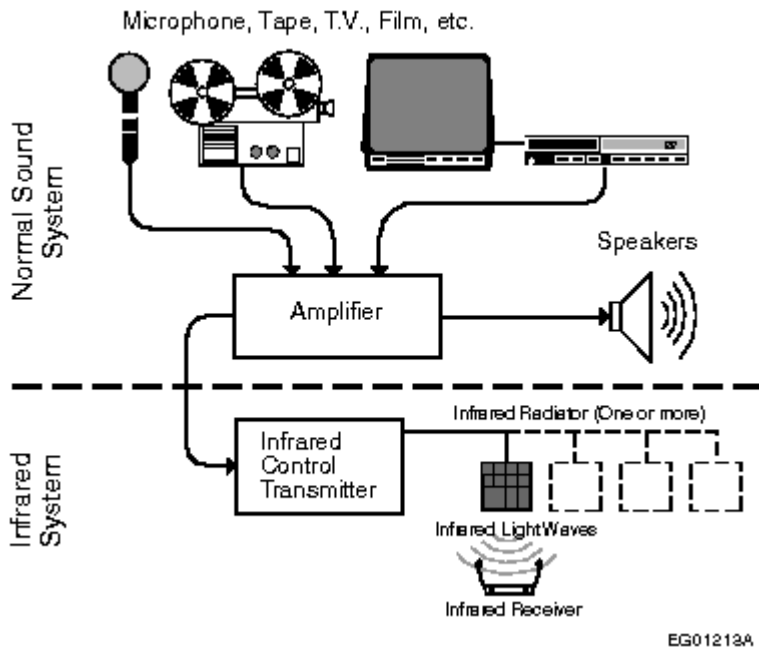
A-3.8.3.18. **Assistive Listening Systems.** Wireless sound transmission systems, including FM, infrared or magnetic induction loop systems, improve sound reception for persons with hearing disabilities by providing amplification which can be adjusted by each user while blocking out unwanted background noise. These systems transmit a signal that is picked up by a special receiver available for use by a person with a hearing disability, whether or not a hearing aid is used. Neither system interferes with the listening enjoyment of others.

The transmitter can be jacked into an existing P.A. system amplifier or used independently with microphones. The induction loop system requires users to sit in the area circumscribed by the loop; though installation of the loop is relatively simple, the installer should be knowledgeable about these systems if proper functioning is to be achieved. FM or infrared systems can be designed to broadcast signals which cover the entire room and thus do not restrict seating to any one area. Figures A-3.8.3.18.-A and A-3.8.3.18.-B show the general configuration of FM and infrared systems. Although portable systems (FM in particular) are available, these are best suited to small audiences. Generally, the systems installed in church halls, auditoria, theatres and similar places of assembly are not easily portable, as they are installed in a fixed location by a sound technician and form an integral part of the P.A. system of the room or building.

Hard-wired systems (where a jack is provided at a particular seat) will not meet this requirement unless adequate provisions are made to accommodate persons with hearing aids. In choosing the most appropriate system, a number of factors must be taken into account including cost, installation and maintenance, suitability to the audience, ease of operation and the need for privacy. Information on designers and suppliers of these systems may be obtained from the Canadian Hearing Society.



**Figure A-3.8.3.18.-A**  
**FM sound transmission system**



**Figure A-3.8.3.18.-B**  
**Infrared sound transmission system**

A-3.8.3.20. Telephone Shelves or Counters. Built-in shelves or counters for public telephones must be designed to accommodate persons using text telephones (TT). These devices may also be referred to as teletypewriters (TTY) or telecommunication devices for the deaf (TDD). These devices require a level surface at least 305 mm deep by 250 mm wide with no obstruction above that space within 250 mm. If a wall-hung telephone or other obstruction extends to less than 250 mm from the shelf or counter, an equivalent clear space must be provided on either side of each telephone. At least one telephone should be equipped with a volume control on a receiver that generates a magnetic field compatible with the T-switch of a hearing aid. The lower portion of the shelf or counter is intended for persons using a wheelchair;

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therefore all parts of the operating mechanism of the telephone above this portion should be within reach of a wheelchair user.

Signage should identify accessible public telephones as being useable by persons in wheelchairs and persons with a hearing disability.

A-3.8.5.4.(1). Adaptable Dwelling Unit Doorways. Where sliding doors are used to provide access, it is necessary to consider the door hardware when determining clear width. Accessible hardware described in Sentence 3.8.3.6.(4) may result in a sliding door standing out from the jamb when in the open position. If not provided with the door during initial construction, accessible hardware when installed must not reduce the clear width of opening to less than required for access.

A-3.8.5.5.(2) Grab Bar Installation. This provision is intended to ensure there is adequate backing for the installation of grab bars by a future occupant of the adaptable dwelling unit. For example, plywood or solid lumber behind the wall finish and encompassing the location of future grab bars located as described in Clause 3.8.3.11.(1)(e) and Clause 3.8.3.16.(1)(f) or 3.8.3.17.(1)(f) would provide suitable backing for the grab bar fasteners.

# Part 9 Housing and Small Buildings

## 9.5.2. ACCESS

### 9.5.2.1. General

- 1) Except as provided in Article 3.8.2.1., every *building* shall be designed in conformance with Section 3.8.

### 9.5.2.2. Protection on Accessible Floor Areas

- 1) Where *access* is required to any floor area, the requirements in Article 3.3.1.7. shall apply.

### 9.5.2.3. Reserved

## 9.7.2. REQUIRED WINDOWS, DOORS AND SKYLIGHTS

### 9.7.2.2. Reserved

## 9.8.5. RAMPS

### 9.8.5.1. Application

- 1) This Subsection applies to pedestrian ramps, except ramps in an *accessible* path of travel.
- 2) Ramps in an *accessible* path of travel shall conform to the requirements in Section 3.8.

## 9.8.6. LANDINGS

### 9.8.6.1. Application

- 1) This Subsection applies to landings, except landings in an *accessible* path of travel.
- 2) Landings in an *accessible* path of travel shall conform to the requirements in Section 3.8.

## 9.9.6. DOORS IN A MEANS OF EGRESS

### 9.9.6.8. Effort Required to Open

- 1) Every *exit* door, except doors serving a single *dwelling unit*, shall be designed and installed so that when the latch is released the door will open in the direction of *exit* travel under a force of not more than 90 N applied to the door release hardware. (See Sentence 3.8.3.6.(8) for door opening forces in an *accessible* path of travel.)

## 9.31.1. SCOPE

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### 9.31.1.1 Application

- 1) This Section applies to the plumbing facilities and *plumbing systems* within *dwelling units*.
- 2) In *occupancies* other than *dwelling units*, plumbing facilities, grab bars, floor drains, and floor and wall finishes around urinals shall conform to Subsection 3.7.2. (See also Section 3.8. regarding *accessible* plumbing facilities.)

# Appendix A

### A-9.5.5.3. Doorways to Rooms with a Bathtub, Shower or Water Closet.

If the minimum 860 mm hallway serves more than one room with identical facilities, only one of the rooms is required to have a door not less than 760 mm wide.

If a number of rooms have different facilities, for example, one room has a shower, lavatory and water closet, and another room has a lavatory and water closet, the room with the shower, lavatory and water closet must have a minimum 760 mm wide door. Where multiple rooms provide the same or similar facilities, one of these rooms must comply with the requirement to have at least one bathtub or shower, one lavatory and one water closet. Where fixtures are located in two separate rooms served by the same hallway, the requirement for the minimum doorway width would apply to both rooms.

If the minimum 860 mm hallway does not serve any room containing a bathtub, shower and water closet, additional fixtures do not need to be installed.

# Division C

## Part 2 Administrative Provisions

### 2.2.2. INFORMATION REQUIRED FOR PROPOSED WORK

#### 2.2.2.2. Site Plans

- 2) Site plans shall show
  - a) by dimensions from property lines, the location of the proposed *building*,
  - b) the similarly dimensioned location of every adjacent existing *building* on the property,
  - c) existing and finished ground levels to an established datum at or adjacent to the site,
  - d) the access route for firefighting, and
  - e) the *accessible* paths of travel to the *building* from
    - i) the roadway, and
    - ii) if provided, parking stalls for *persons with disabilities* and passenger-loading zones.