

Barrier-Free Design

Promoting safe, healthy, habitable buildings

February 2026

This guide was prepared with the participation and assistance of the following:

- Saskatchewan Human Rights Commission
- Ministry of Social Services
- Barrier-free Saskatchewan

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This advisory is published by the Saskatchewan Ministry of Government Relations to provide information to users on the topic contained herein. In case of conflict between <i>The Construction Codes Act</i> (the CC Act), <i>The Building Code Regulations</i> (the BC Regs), the National Building Code of Canada (NBC) 2020, CSA B651-18 “Accessible Design for the Built Environment” and this advisory, provisions of the Acts, Regulations, NBC 2020 and CSA B651 shall apply.	

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Abbreviations and Acronyms

The following acronyms are used throughout this booklet:

Short Form	Long Form
the BC Regulations	<i>The Building Code Regulations</i>
BTS	Building and Technical Standards Branch, Ministry of Government Relations
the CC Act	<i>The Construction Codes Act</i>
CSA	Canadian Standards Association
NBC	National Building Code of Canada
SHRC	Saskatchewan Human Rights Commission

Compliance with *The Construction Codes Act*, *The Building Code Regulations* and the National Building Code of Canada (NBC) 2020 is addressed in this guide.

Current Versions of Standards

The following are the current versions in force for Saskatchewan, referenced for *barrier-free* design:

- **NBC 2020 Division B, Section 3.8.** – National Building Code of Canada 2020, Division B, Section 3.8. “Accessibility”
- **CSA B651** – Canadian Standards Association (CSA) B651-18 “Accessible Design for the Built Environment”

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Introduction

This guide is intended to provide advice to *owners*, building occupants, designers, building officials (BOs) and other stakeholders regarding the various requirements for *barrier-free* design applicable to buildings in Saskatchewan. While every attempt has been made to be as thorough as possible, this guide is not intended to address every situation that a building owner may encounter. It is strongly recommended that building *owners* contact their local authority to discuss specific situations.

This guide has been developed through collaboration between officials from the ministries of Government Relations and Social Services and the Saskatchewan Human Rights Commission (SHRC).

Scope

Barrier-free is defined in the National Building Code of Canada (NBC) 2020 as “a building and its facilities that can be approached, entered and used by persons with physical or sensory disabilities.”

This guide represents the minimum accessibility standards for accessibility in buildings as legislated by *The Construction Codes Act* (the CC Act) and as referenced in the NBC.

The minimum accessibility standards are found in the NBC. Building *owners* are given the option within the NBC to use the requirements of CSA B651 “Accessible Design for the Built Environment” (CSA B651) for compliance. Either the NBC requirements or the CSA B651 requirements for the design and installation of *barrier-free* building components will demonstrate compliance with the NBC.

The three appendices in this guide can be used to support a review of barrier-free requirements for site-specific conditions.

Definitions

Appeal Board means the Saskatchewan Construction Standards Appeal Board. (the CC Act)

Appropriate local authority means the local authority that has jurisdiction over the geographical area in which a building is or is to be situated (the CC Act).

Authority having jurisdiction, when used in the Code, means the *appropriate local authority* or a building official appointed by the *appropriate local authority* (the BC Regulations).

In Saskatchewan, this includes:

- The Government of Saskatchewan, referred to as the “Crown” as defined by the CC Act
- Municipalities that are the “local authority” as referenced in the CC Act
- A regional park authority within *The Regional Parks Act, 2013*
- Parkland within the meaning of *The Parks Act*
- The Global Transportation Hub

Barrier-free means a building and its facilities can be approached, entered and used by persons with physical or sensory disabilities (NBC).

Owner means:

- (a) Any person who has any right, title, estate or interest in land, improvements or premises other than that of a mere occupant, tenant or mortgagee
- (b) Any person, firm or corporation that controls the property under consideration
- (c) If the building is owned separately from the land on which the building is located, the owner of the building (the CC Act)

The Construction Codes Act governs construction, accessibility and energy standards for buildings in Saskatchewan (the CC Act).

The Building Code Regulations adopt the National Building Code of Canada in Saskatchewan, including Saskatchewan-specific amendments (the BC Regulations).

Legislative and Regulatory Framework

The Construction Codes Act

The CC Act and associated BC Regulations provide the framework for which buildings are constructed or renovated in Saskatchewan, including when accessibility and energy efficiency standards apply. This framework is guided by the Five Principles of Construction:

- Building *owners* are responsible for compliance.
- Municipalities are responsible for the administration and enforcement of the CC Act in their jurisdiction.
- The Government of Saskatchewan is responsible for the legislative, regulatory and high-level policy framework.
- Building officials work for local authorities.
- Professional designers and contractors work for building *owners*.

No person who is required to comply with the CC Act and the regulations shall fail to comply with the NBC, as adopted by Saskatchewan, which was in force at the time the permit for the work was issued.

The Building Code Regulations

The BC Regulations provide for the adoption of the NBC, which includes accessibility standards, for the province of Saskatchewan. The edition of the NBC that applies to a building is the edition of the NBC which is in effect on the day the permit for construction is issued. The BC Regulations may also contain any amendments to the NBC which are specific to buildings in Saskatchewan.

For existing buildings, to determine which edition of the NBC was in effect for a specific building on the date of construction/renovation, please contact your local authority or the Building and Technical Standards branch.

Roles and Responsibilities

The CC Act provides the framework for ensuring buildings in Saskatchewan are constructed in a safe, healthy and habitable manner. An overview of the roles and responsibilities of each party in the construction process is described here.

Owner

An owner is defined in the CC Act as any of the following:

“owner” means:

- (a) any person who has any right, title, estate or interest in land, improvements or premises other than that of a mere occupant, tenant or mortgagee;
- (b) any person, firm or corporation that controls the property under consideration; or
- (c) if the building is owned separately from the land on which the building is located, the owner of the building;”

As the owner of a building controls the property and is responsible for employing contractors and design professionals, the building owner is ultimately responsible for compliance with the requirements adopted by the CC Act, including minimum accessibility, energy efficiency and construction standards.

Work done or not done by a local authority or BO to enforce the requirements of the CC Act or the issuance of a permit by a local authority in violation of the CC Act does not relieve a building owner from their obligation to comply with the requirements of the CC Act.

Local Authority

A local authority (including a municipality) is responsible for enforcing the CC Act, associated BC Regulations and all provisions of the NBC, including *barrier-free* standards that apply to a building. Local authorities often use bylaws to administer building standards, but the lack of a building bylaw does not absolve a local authority from its responsibility to enforce the CC Act.

Government of Saskatchewan

The Government of Saskatchewan is responsible for establishing the legislative framework, high-level policy development, licensing of BOs and providing support to stakeholders. The Ministry of Government Relations is assigned responsibility for the CC Act and the BC Regulations. The ministry provides support to *owners*, industry, local authorities, BOs, the fire service and other code users on the application of the NBC, the National Energy Code of Canada for Buildings and accessibility standards.

The Government of Saskatchewan is also responsible for supporting the Saskatchewan Construction Standards Appeal Board, which hears appeals of BO orders and requests from building *owners* for exemptions from accessibility standards.

Building Official

A BO is appointed by and works for a local authority to provide plan review, inspection and enforcement services of the minimum standards required by the CC Act. BOs must be licensed by the Government of Saskatchewan before providing BO services.

BOs have the following powers under the CC Act:

- Entering a building at a reasonable hour
- Ordering the production of documents, tests, certificates, etc., related to a building
- Taking material samples
- Issuing notices to *owners* that order actions within a prescribed time
- Eliminating unsafe conditions
- Completing actions, upon an owner's non-compliance with an order and adding the expenses incurred to the tax payable on the property
- Obtaining restraining orders

Design Professional

A design professional (a licensed architect or professional engineer) is required to provide the design or design review of large buildings or a specific building component. Design professionals provide services either directly or indirectly to building *owners*. All buildings falling within the scope of Part 3 of the NBC must have the design or design review completed by a design professional.

Smaller buildings (i.e., those that are three storeys or less and less than 600 m² in building area and of specific occupancy classification) may be designed by a competent person acceptable to the local authority. A competent person is a person who is fluent in the NBC requirements found in Part 9 of the NBC and is experienced in building design.

Buildings that are subject to the accessibility standards must have the accessibility components designed by a design professional or have the design reviewed by a design professional.

Constructor

A building constructor, including a contractor and sub-trades, is employed by a building owner to complete the construction and/or renovation of buildings. All work must be completed to comply with the design of the building and in compliance with the NBC and, if applicable, *barrier-free* design/construction.

Background

The distinct needs of people with disabilities have continued to gain awareness in recent decades as a human right. Building *owners* need to ensure that their structures do not present unnecessary barriers to all people who will be using those structures including individuals with disabilities. Except for personal residences, nearly all new buildings in Saskatchewan are required to meet minimum accessibility standards found in the NBC.

In Saskatchewan, the adoption of the 1985 edition of the NBC, effective June 6, 1988, provided the first provincial building code that outlined provisions for *barrier-free* design of buildings. Many of these initial provisions are similar to provisions in more recent editions of the NBC. As awareness of the needs of individuals with disabilities continues to grow, it is expected that future editions of the NBC will continue to incorporate best building practices to address these needs.

Legislation and Regulations

Minimum construction standards for buildings in Saskatchewan are governed by the legislative requirements of the Government of Saskatchewan. The CC Act, the BC Regulations and the NBC 2020 establish the minimum *barrier-free* requirements.

The CC Act provides for the adoption of the NBC, which is the minimum standard applicable to the design, construction, renovation, alteration and addition to buildings, which may involve *barrier-free* requirements. The BC Regulations provide for the particular edition of the NBC that applies to a building as well as for any Saskatchewan-specific amendments.

The NBC, in combination with amendments made under the BC Regulations, provides the owner of the building with the minimum parameters for compliance with the legislative requirements of the province of Saskatchewan.

The Saskatchewan Construction Standards Appeal Board (Appeal Board)

The *Appeal Board* is delegated authority under the CC Act to allow exemptions to accessibility standards where a building owner can demonstrate (show evidence) to the *Appeal Board's* satisfaction that at least one of the following four conditions has been met:

1. Compliance with provincial accessibility standards would cause undue hardship to the building owner.
2. Compliance with provincial accessibility standards is impractical or inappropriate.
3. The building owner submits a proposal for accessibility that is equal to or better than the standards required or intended by accessibility standards.

It is important to note that decisions of the *Appeal Board* are subject to review by SHRC. As such, in a situation where the *Appeal Board* has granted an exemption from accessibility standards to a building owner, this decision could be appealed to the SHRC to have the exemption overturned and to have the accessibility standards reinstated.

National Building Code of Canada Requirements for Barrier-free Design

The NBC Division B, Section 3.8. Accessibility includes the primary requirements for *barrier-free* design of buildings. It should be noted that other sections of the NBC provide requirements for when *barrier-free* design is required; however, the SHRC has the authority to override minimum requirements found within the NBC and place stricter guidelines for when *barrier-free* designs are to be applied. For example, in a situation where a ramp slope may meet the minimum design criteria of the NBC but is found to be impractical for a person with a disability to use, the SHRC can require a different ramp slope to be applied.

It should be noted that within NBC Division B, Section 3.8. there is a subsection that allows for compliance with CSA B651. NBC outlines that the owner can choose compliance from either NBC Division B, Subsection 3.8.3. or CSA B651 in its entirety, but not a combination of provisions from both documents.

For example, if a lavatory is to be installed, the rim height could not exceed 865 mm from the floor, following NBC Division B, Article 3.8.3.15., whereas in CSA B651, the rim height of the lavatory has a range of 810 to 860 mm. In this example, the NBC does not have a minimum height but a set maximum, whereas the CSA B651 has a range of heights that the lavatory is allowed.

Below is a chart (Figure 1) showing the corresponding articles of the NBC with CSA B651:

<i>Barrier-free Application</i>	NBC Provision	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
<i>Ramps</i>	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	3.8.3.9.	4.5 and 9.4
Drinking fountains	3.8.3.10.	6.1
Washroom facilities	3.8.3.12. to 3.8.3.16.	6.2 and 6.3
Bathing facilities	3.8.3.17. and 3.8.3.18.	6.5
Communication	3.8.3.19. and 3.8.3.21.	6.6
Counters	3.8.3.20. and 3.8.3.21.	6.7.1
Spaces in seating areas	3.8.3.22.	6.7.3

Figure 1 – NBC and CSA B651 Barrier-free Application Chart

The Building Code Regulations Requirements for Barrier-free Design

The BC Regulations provide the framework for *barrier-free* design in Part 9, Subsection 38(1), which states:

“Subject to subsection (2), the owner of each building in Saskatchewan shall ensure that the building meets the accessibility standards.”

While Subsection 38(1) outlines the need to comply with *barrier-free* requirements for new and extensively renovated buildings, *owners* need to consider whether their building is exempt from *barrier-free* design. The NBC allows for exceptions from the application of *barrier-free* requirements in some cases (NBC Division B, Article 3.8.2.1.). The following buildings are not required to comply with *barrier-free* design:

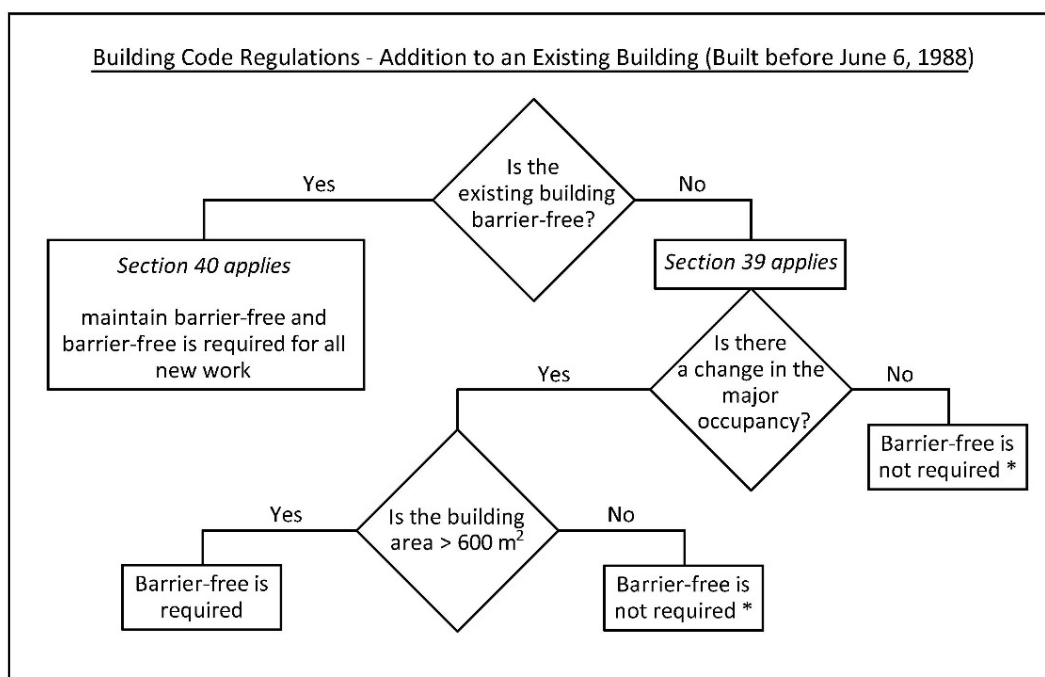
- Houses (detached, semi-detached, houses with a secondary suite, duplexes, triplexes, townhouses, row houses and boarding houses);
- Buildings of F1 occupancy; or,
- Buildings that are not intended to be occupied on a daily or full-time basis, including automatic telephone exchanges, pump houses and substations.

The BC Regulations also provide some exceptions from the need to comply with *barrier-free* requirements. Under the BC Regulations, Part 1, Subsection 2(1):

“‘existing building’ means a building:

- i) on which construction was commenced or completed prior to June 6, 1988; or
- ii) for which a building permit was issued pursuant to a bylaw of the *appropriate local authority* prior to June 6, 1988.”

Figure 2 illustrates the process for determining *barrier-free* compliance for design in existing buildings:



* A complaint lodged on the basis of discrimination under The Saskatchewan Human Rights Code, 2018 could overrule this exemption

Figure 2 – Compliance Path with Existing Buildings

Saskatchewan has made amendments to NBC Division B, Section 3.8. through the BC Regulations. For amendments to the NBC, the BC Regulations have added two articles to NBC Division B, Section 3.8. the first amendment to NBC Division B, Section 3.8. is Article 3.8.2.13., which states:

“(1) Notwithstanding Sentence 3.8.2.8.(3), in a building of residential occupancy, except where dwelling units are intended to be individually controlled by separate *owners*, at least the greater of:

- (a) one, or
- (b) 5 per cent

of the suites required to be accessible shall be *barrier-free* in conformance with Article 3.8.3.23. (refer to Article 3.8.2.1. and Article 9.5.2.3.).

(2) For the purposes of sentence (1), the following table represents the minimum number of suites in a building which are required to be accessible.”

Table To Calculate Required Accessible Suites Per Building (forming part of Sentence 3.8.2.13.(1))	
Suites In Building	Required Number of Accessible Suites
1-20	1
21-40	2
41-60	3
61-80	4
81-100	5
+1 for each additional increment of 20 suites	

The second amendment for NBC Division B, Section 3.8. is Article 3.8.3.23., which states requirements for the *barrier-free* design of the suites within residential occupancies.

“(1) Except as provided in this Article, accessible suites within a residential occupancy shall conform to the applicable requirements of this Article.

(2) An accessible washroom shall conform with Article 3.8.3.13.

(3) An accessible bathtub shall conform with Article 3.8.3.18.

(4) An accessible shower shall conform with Sentence 3.8.3.17.(1).

(5) An accessible kitchen shall have a clearance of not less than 1,700 mm between counters and all opposing base cabinets, countertops, appliances or walls.

(6) An accessible sleeping room shall have a clear turning circle of not less than 1,700 mm in diameter on one side of the bed.

(7) An accessible balcony shall be barrier-free and shall conform to the design requirements of Sentence 3.3.1.7.(4).

(8) Kitchen sinks, laundry sinks and other types of sinks shall have controls in conformance with Clause 3.8.3.8(1)(b).

(9) An accessible door must conform with Article 3.8.3.6.

(10) A barrier-free path of travel within a suite must conform with Article 3.8.3.2.”

National Building Code Accessibility Requirements

National Building Code of Canada Division B, Section 3.8. – Accessibility

NBC Division B, Section 3.8. is the basis for applying *barrier-free* design to buildings. Specifically, NBC Division B, Subsection 3.8.2. – Application provides the parameters for the application of the design requirements for either NBC Division B, Subsection 3.8.3. or CSA B651 for compliance.

The following requirements must be met for compliance with the NBC and are prerequisites to the design requirements for both NBC Division B, Subsection 3.8.3. and CSA B651:

- Exceptions
- Entrances
- Areas requiring a barrier-free path of travel
- Access to storeys served by escalators and moving walks
- Exterior barrier-free paths of travel to building entrances and exterior passenger-loading zones
- Controls
- Power door operators
- Plumbing facilities
- Assistive listening devices
- Signs and indicators
- Counters
- Telephones
- Residential occupancies (Saskatchewan Amendment)

Exceptions (NBC Division B, Article 3.8.2.1.)

Exemptions for the application of *barrier-free* requirements are provided in NBC Division B, Article 3.8.2.1. – Exceptions, in addition to the exemptions provided in the CC Act and the BC Regulations (refer to page 15). The NBC *barrier-free* application applies to all buildings except for:

- Houses (detached, semi-detached, houses with a secondary suite, duplexes, triplexes, townhouses, row houses and boarding houses)
- F1 occupancy buildings
- Buildings not intended to be occupied on a daily or full-time basis (i.e., automatic telephone exchanges, pump houses, substations, etc.)

Entrances (NBC Division B, Article 3.8.2.2.)

Entrances are a basic requirement of all buildings constructed; having an accessible entrance is key for compliance with the NBC. Below are the requirements from the NBC for entrances.

All pedestrian entrances to a *barrier-free* storey of a building shall be *barrier-free*, which shall connect to a *barrier-free* path of travel that must conform to Sentence 3.8.2.5.(1) (refer to page 19 for “Access to Barrier-Free Paths of Travel to Building Entrances and Exterior Passenger-Loading Zones” design compliance).

Where there is more than one doorway at an entrance, only one doorway is required to meet the design requirements.

Walkways or pedestrian bridges connecting two *barrier-free* storeys in different buildings, the path of travel from one storey to the other storey shall be *barrier-free*.

Areas Requiring a Barrier-Free Path of Travel (NBC Division B, Article 3.8.2.3.)

A *barrier-free* path of travel shall be provided for the entrance storey and all other normally occupied floor areas that are served by an elevator or other such passenger elevating device (escalator, inclined moving walk, etc.).

Note: There are some requirements for those floor areas that are above or below the first storey in a building that is not sprinklered throughout and also contains a *barrier-free* path of travel. (Refer to NBC Division B, Article 3.3.1.7. – Protection on Floor Areas with a Barrier-Free Path of Travel and 9.5.2. – Barrier-free Design).

There are exemptions for a required *barrier-free* path of travel. The following areas are not required to have a *barrier-free* path of travel for persons in a wheelchair:

- Service rooms;
- Elevator machine rooms;
- Janitor’s rooms;
- Service spaces;
- Crawl spaces;
- *Attic or roof spaces*;
- Floor levels above or below the entrance level in buildings no more than two *storeys* in *building height* or in two *storey suites* that:
 - Are not served by a passenger elevator, platform-equipped passenger elevating device and escalator or an inclined moving walk;
 - Are less than 600 m² in floor area;
 - Contain facilities that are not integral to the entrance level; or
 - Have an assembly occupancy of more than 100 m² in *floor area*;
- Parking levels that do not contain barrier-free parking spaces;
- High-hazard industrial occupancies (distilleries, grain elevators, wastepaper processing plants, etc.);
- Portions of floor areas in an assembly occupancy (theatres, arenas, clubs, restaurants, etc.) where there are no paths of travel serving spaces designated for wheelchair use;
- Suites of residential occupancy that are not on the same level as the entry-level to the suite;
- Within the suite of residential occupancy that has not been by the *authority having jurisdiction* to be accessible for use by persons with disabilities; or
- Floor areas that are not on the same level as the entry-level, provided that any amenities that are on the raised or sunken level are accessible on the entry-level that has a *barrier-free* path of travel.

Finally, within spaces that require either wheelchair or adaptable seating, there are applications for either the number of seats required or the application for where they are to be applied. Some examples of where *barrier-free* seating may be required are assembly occupancies (theatres, arenas, clubs, restaurants, etc.), waiting rooms or areas of a building with fixed seating (refer to page 94 for design requirements and clarification).

Access to Storeys Served by Escalators and Moving Walks (NBC Division B, Article 3.8.2.4.)

Any building that has an escalator or inclined moving walk that provides access to any level above or below the entry-level shall have an interior *barrier-free* path of travel on those levels. In addition, there shall be appropriate signs indicating which levels have *barrier-free* access (refer to page 52 for clarification).

Access to Barrier-Free Paths of Travel to Building Entrances and Exterior Passenger-Loading Zones (NBC Division B, Article 3.8.2.5.)

One key component of *barrier-free* design is access from a *barrier-free* passenger loading zone or parking area. The following requirements are needed for *barrier-free* compliance:

- A *barrier-free* path of travel must be provided between a *barrier-free* entrance and:
 - A designated barrier-free parking area (where provided)
 - An exterior passenger loading zone
 - A public thoroughfare
- Where a storage garage has parking levels with *barrier-free* parking, a *barrier-free* path of travel is required to all other parts of the building with *barrier-free* access
- Exterior passenger-loading zones shall comply with the design requirements (see page 30 for clarification)

Controls (NBC Division B, Article 3.8.2.6.)

All controls that are designed to be used by the occupants of the building shall conform to the design requirements listed in NBC Division B, Subsection 3.8.3. – Design, including, but not limited to:

- Thermostats
- Electrical switches
- Door hardware
- Faucets

Power Door Operators (NBC Division B, Article 3.8.2.7.)

Every door that is part of a *barrier-free* path of travel, including interior doors of vestibules, shall be equipped with a power door operator that complies with NBC Division B, Subsection 3.8.3. or CSA B651, allowing the person to activate the opening of the door in the intended direction of travel in the following locations:

- Required *barrier-free* entrances, including interior doors of a vestibule (refer to 3.8.2.2. on page 17 for application)
- In a *barrier-free* path of travel and entrance doors to suites or rooms off a public corridor
- Entrance doors for washrooms that contain a *barrier-free* water closet

For doors with multiple leaves, only the active leaf of a multiple-leaf door in a *barrier-free* path of travel shall need to comply with the requirements listed above.

Similarly, when there is more than one doorway at a *barrier-free* entrance, only one is required to comply with design requirements.

Plumbing Facilities (NBC Division B, Article 3.8.2.8.)

Washrooms (either universal, water closets or urinals) are required to be *barrier-free* when they are installed in a storey where a *barrier-free* path of travel is required.

Where there are more than two water closets (toilets) or more than one water closet and one urinal located in a washroom in a storey with a *barrier-free* path of travel, at least one water closet shall meet *barrier-free* requirements (refer to page 61 for clarification).

Washrooms are not required to be *barrier-free* when located in a suite of residential occupancy (refer to SK Amendment on page 15 for potential application) or a suite of care occupancy.

At least one water closet is required to be *barrier-free* and provided in the entrance storey unless:

- There is a *barrier-free* path of travel to a *barrier-free* water closet somewhere else in the building; or
- It is in a dwelling unit.

New to the NBC 2020 are application thresholds for both water closets and urinals for people with limited mobility. In these circumstances, there are specific design requirements that differ from an accessible washroom stall (refer to page 72 for the design requirements).

Lavatories that are installed in *barrier-free* washrooms shall meet the design requirements (refer to page 77).

Where a bathtub is installed in a suite of residential occupancy that is to be *barrier-free*, it shall meet the *barrier-free* design requirements (refer to page 85).

Where the following items are installed, at least one shall comply with the *barrier-free* requirements:

- Water closet stall/enclosure in a *barrier-free* washroom (refer to page 61)
- Urinals in a *barrier-free* washroom (refer to page 73)
- Mirror in a *barrier-free* washroom (refer to page 77)
- Drinking fountains (refer to page 57)
- Water-bottle filling stations (refer to page 59)

Except for suites of either care or residential occupancy, where showers are provided in a building, at least one shower of a group of showers shall meet the requirements of *barrier-free* access (refer to page 80).

Also new with the NBC 2020 is the application for one universal dressing and showering room that shall conform to the *barrier-free* requirements when provided for use to the general public, customers or as a common use area for employees.

Where alterations are made to an existing building, a universal washroom may be an alternative to facilities normally required to meet the design requirements found on page 66. This option could benefit *owners* of existing buildings, which may have insufficient area to accommodate the design requirements for the *barrier-free* plumbing facilities in existing washrooms.

Lastly, there shall be at least one universal washroom on the storey of the main *barrier-free* entrance to the building; for buildings containing a major occupancy of assembly (group A), treatment (group B2) or mercantile (group E) occupancies where at least one of the major occupancies has a load of more than 500.

Assistive Listening Devices (NBC Division B, Article 3.8.2.9.)

New for the NBC 2020, in a building of assembly occupancy where there are locations for information, goods or services being provided at service counters, they shall be equipped with either:

- An assistive listening system or adaptive technology (refer to page 88 for design requirements); or
- An amplification system where there is a barrier to communication, such as a glass screen.

In a building of assembly occupancy, all classrooms, auditoria, meeting rooms and theatres with an area of more than 100 m² shall be equipped with an assistive listening device (refer to page 88).

Signs and Indicators (NBC Division B, Article 3.8.2.10.)

Signs that comply with the requirements of NBC Division B, Section 3.8. (refer to page 52) shall be installed in the following locations:

- *Barrier-free* entrances
- *Barrier-free* washrooms
- *Barrier-free* showers
- *Barrier-free* elevators
- *Barrier-free* parking spaces
- Assistive listening systems or adaptive technologies

Where a washroom is designed to accommodate persons with physical disabilities in a storey where a *barrier-free* path of travel is required, signs with both visual and tactile information shall be provided to indicate the location of the *barrier-free* facilities.

Signage at or near doors shall provide the same information in both visual and tactile forms. However, directional signage shall provide visual information (refer to page 52 for clarification).

Counters and Counters for Telephones (NBC Division B, Article 3.8.2.11.)

When service counters are provided, at least one section shall be *barrier-free* (refer to page 91 for design requirements).

Telephones (NBC Division B, Article 3.8.2.12.)

When one or more public telephones are installed, at least one section shall be *barrier-free* (refer to page 92 for design requirements).

Residential Occupancies (The BC Regulations, Appendix, Article 3.8.2.13.)

“(1) Notwithstanding Sentence 3.8.2.8.(3), in a building of residential occupancy, except where dwelling units are intended to be individually controlled by separate *owners*, at least the greater of:

- (a) one, or
- (b) 5 per cent

of the suites required to be accessible shall be *barrier-free* in conformance with Article 3.8.3.23. (Refer to Article 3.8.2.1. and Article 9.5.2.3.).

(2) For the purposes of sentence (1), the following table represents the minimum number of suites in a building which are required to be accessible.”

Table To Calculate Required Accessible Suites Per Building (forming part of Sentence 3.8.2.13.(1))	
Suites In Building	Required Number of Accessible Suites
1-20	1
21-40	2
41-60	3
61-80	4
81-100	5
+1 for each additional increment of 20 suites	

Barrier-free Design Requirements (NBC Division B, Subsection 3.8.3. and CSA B651)

Barrier-free design requirements apply to all buildings except the following:

- Detached houses, semi-detached houses, houses with a secondary suite, duplexes, triplexes, townhouses, row houses and boarding houses
- Buildings of Group F, Division 1 major occupancy – high-hazard industrial occupancy (i.e., chemical manufacturing/processing plant, distilleries, etc.)
- Buildings not intended to be occupied on a daily or full-time basis, including automatic telephone exchanges, pump houses and substations

As mentioned earlier in this guide, the CC Act and BC Regulations outline other buildings to which the *barrier-free* design requirements are to be applied (refer to page 15 for clarification).

In this guide, each heading represents the applicable Code requirements and is in numerical order as outlined in the NBC (refer to [Figure 1](#) on page 14 for clarification). Both the NBC and CSA B651 requirements will be shown for clarity in illustrations.

Barrier-free Path of Travel

NBC Division B, Article 3.8.3.2. – Barrier-Free Path of Travel and Article 3.8.3.3. – Exterior Walks

A *barrier-free* path of travel is permitted to include ramps, passenger elevators or other platform-equipped passenger-elevating devices to overcome any difference in level.

Except for doors and doorways, the unobstructed width of a *barrier-free* path of travel shall not be less than 1,000 mm (40 inches).

A new provision in the NBC 2020 is the allowance for a reduced clear width in a *barrier-free* path of travel. The clear width may be reduced to 850 mm for a length of not more than 600 mm, provided that there is a level and clear floor area of not less than 1,000 mm in width (refer to [Figure 3](#)).

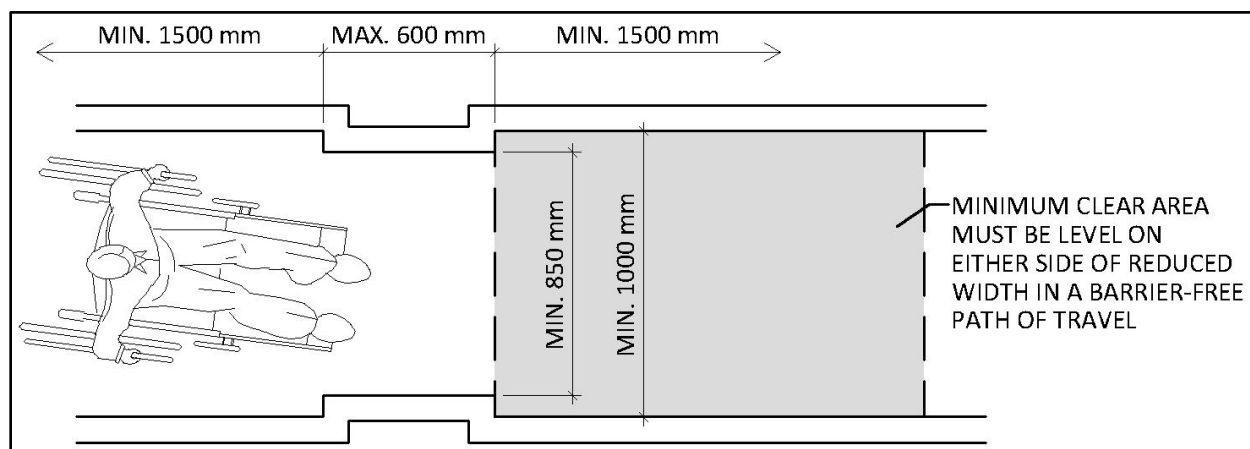


Figure 3 – Barrier-Free Path of Travel Decreased Clear Width (NBC)

The width of a *barrier-free* path of travel that is more than 24 m long shall be increased to not less than 1,700 mm for a length of 1,700 mm at intervals not exceeding 24 m in length (refer to [Figure 4](#)).

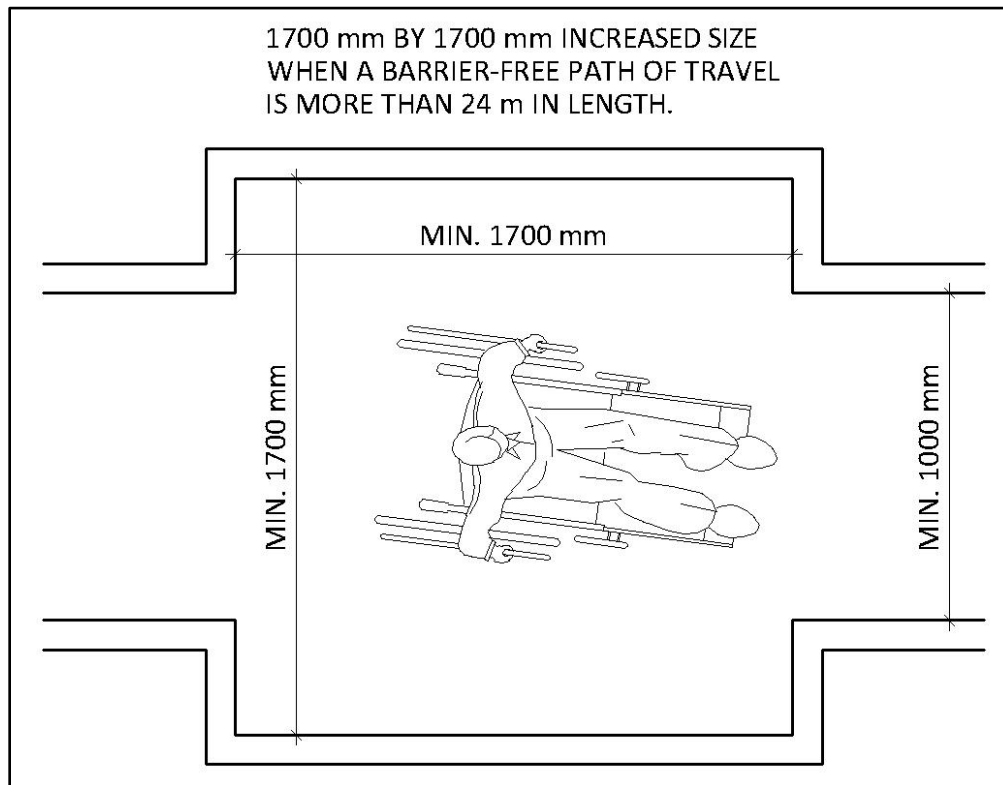


Figure 4 – Barrier-Free Path of Travel Increased Area (NBC)

Other requirements for *barrier-free* paths of travel include the following, specifically relating to the surfaces:

- Have no opening that will permit the passage of a sphere more than 13 mm in diameter ([Figure 5](#))
- Have any elongated openings oriented approximately perpendicular to the direction of travel ([Figure 6](#))
- Be stable, firm and slip-resistant
- Have a cross slope no steeper than 1:50 ([Figure 7](#))
- Be bevelled at a maximum slope of 1:2 at changes in level between six and 13 mm ([Figure 8](#))
- Be provided with sloped floors or ramps at changes in level more than 13 mm

Note that any changes in levels greater than 13 mm should be handled with sloped floors or ramps (refer to “Ramps” on page 32).

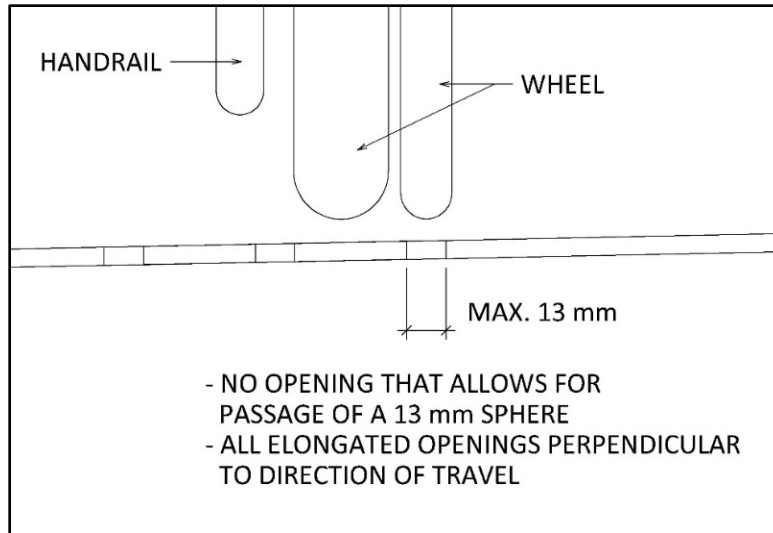


Figure 5 – Allowable Openings in a Barrier-Free Path of Travel Surface (NBC)

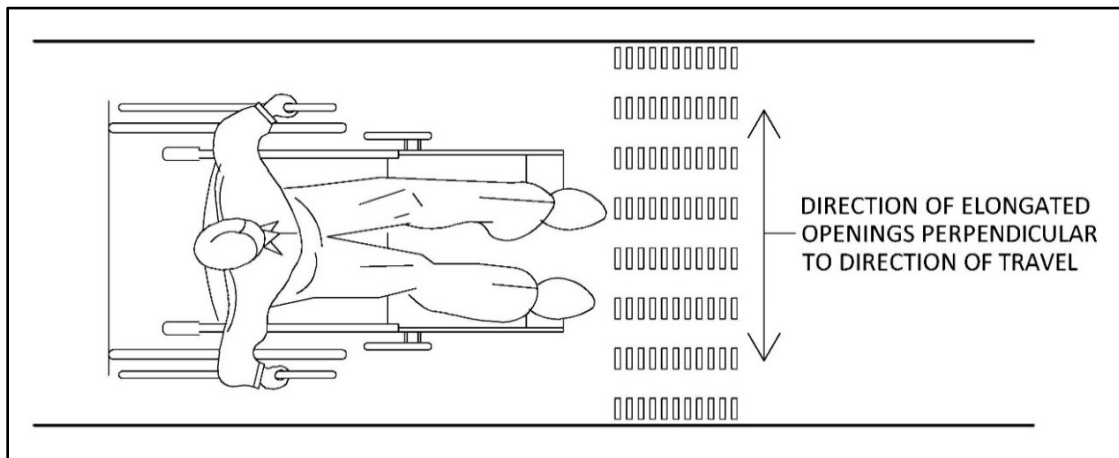


Figure 6 – Direction of Elongated Openings in a Barrier-Free Path of Travel Surface (NBC)

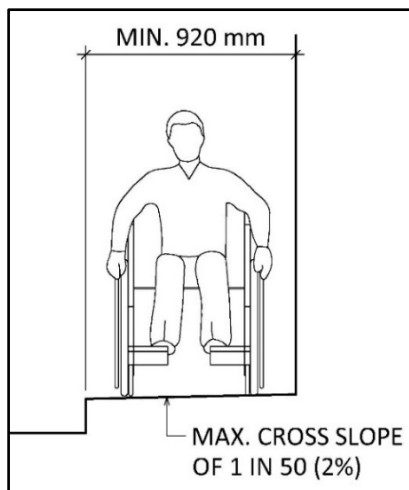


Figure 7 – Allowable Cross Slope (NBC)

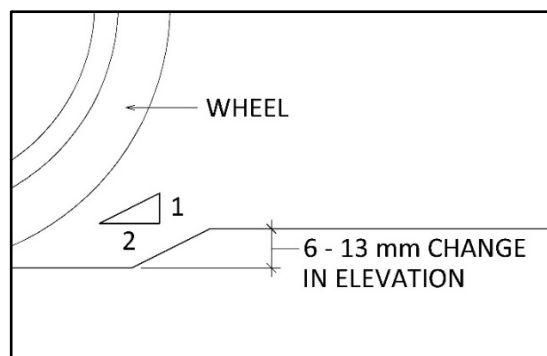


Figure 8 – Slope for Changes in Elevation Between 6 and 13 mm (NBC)

When a *barrier-free* path of travel is less than 1500 mm wide for a distance greater than 12 m, it shall end with a clear floor space of:

- A minimum 1,700 mm turning diameter (refer to [Figure 9](#));
- A minimum 1,700 by 1,500 mm dimensioned area (refer to [Figure 10a or 10b](#)); or
- A T-shaped area with overall dimensions of 1,700 wide by 1,500 mm long, where the two arms of the “T” are not less than 1,000 mm wide and extend not less than 300 mm from each side of the base of the “T” and then the base is not less than 1,000 mm wide and extends not less than 500 mm from each arm (refer to [Figure 11](#)).

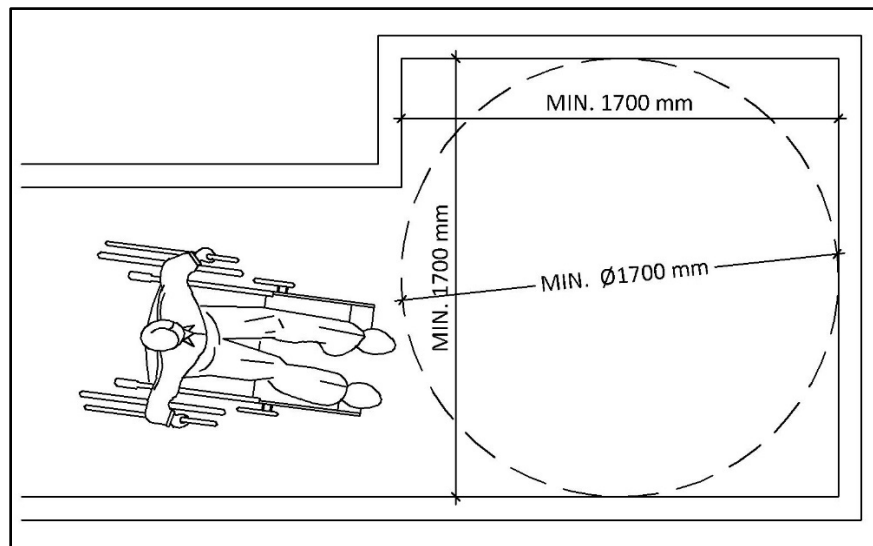
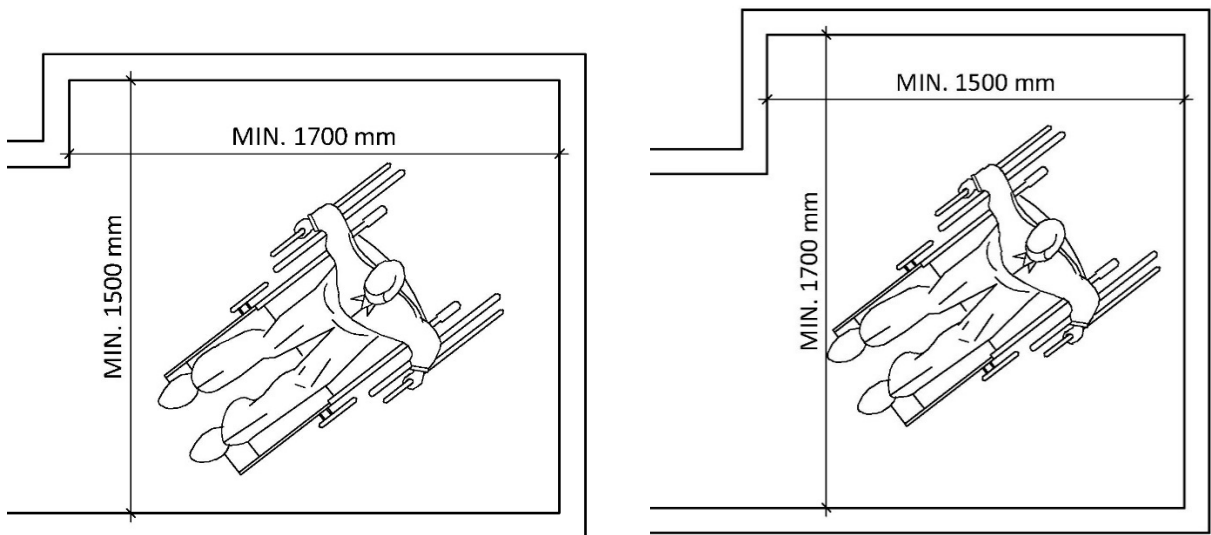


Figure 9 – Barrier-free Path of Travel Clear Floor Area (NBC)



Figures 10a and 10b – Barrier-free Path of Travel Clear Floor Area (NBC)

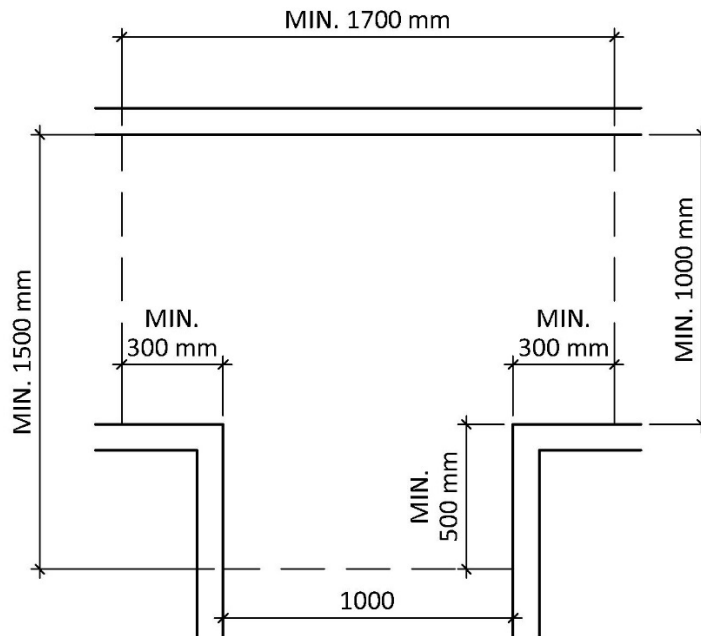


Figure 11 – Barrier-free Path of Travel Clear Floor Area (NBC)

CSA B651, Clause 4.3 – Floor or ground surfaces and Clause 5.1 – Accessible routes

There are additional requirements for the *barrier-free* path of travel, which is referred to as “accessible routes” in CSA B651.

Starting with general requirements for floor or ground surfaces, they shall:

- Be stable and firm
- Be slip-resistant
- Produce minimal glare
- Not have strong visual patterning

With changes in level, they are permitted to be:

- Vertical, when the change in elevation is 0 to 6 mm;
- Bevelled and not steeper than 1:2 when the change in elevation is 7 to 13 mm; or
- Not steeper than a 1:12 (8.33 per cent) when over a 13 mm change in elevation.

When a floor surface is carpeted (roll or carpet tile), the surface shall:

- Have a low, firm and level pile or loop
- Have a combined carpet and pad height of not more than 13 mm
- Be securely fastened
- Comply with the changes in elevation described above
- Be backed or underlaid with firm materials only, if installed with a cushion, underpadding or backing

When gratings are used for the pedestrian surface (ramps, walkways, etc.), they shall:

- Not have an opening greater than 13 mm wide in one direction
- Be placed so that the long dimension of the opening is perpendicular to the direction of travel (refer to Figure 6b for clarification)

Within CSA B651, there is an emphasis on tactile walking surfaces. If tactile walking surfaces are going to be installed, it is recommended to obtain a free copy of the CSA B651-18 standard for reference.

For the design of an accessible route, the following dimensions shall be used for configuration when using the CSA B651 path for compliance.

Similar to the NBC, there is an allowance for a reduced clear width to 850 mm for a length of not longer than 600 mm. Note that there is no requirement for a level floor surface on either side of the allowable reduced width (see [Figure 3](#) for reference).

The width shall be at least 1,700 mm for a length of 1,700 mm when an accessible path is more than 30 m long.

In addition, checkout lanes are required to have a clear width of not less than 1,000 mm to meet an accessible route.

The slope for accessible routes shall not exceed the ratio of 1:20 (five per cent) and if the slope for the accessible route is steeper than 1:20 (five per cent), it shall be designed in conformance with a ramp.

When there are obstacles present in an accessible route that a “U-turn” will be required to navigate around the obstacle, the clear width shall be:

- 1,100 mm wide when the obstacle is less than 1,200 mm wide (refer to [Figure 12](#) for reference), or
- 1,000 mm when the obstacle is greater than 1,200 mm wide (refer to [Figure 13](#) for reference).

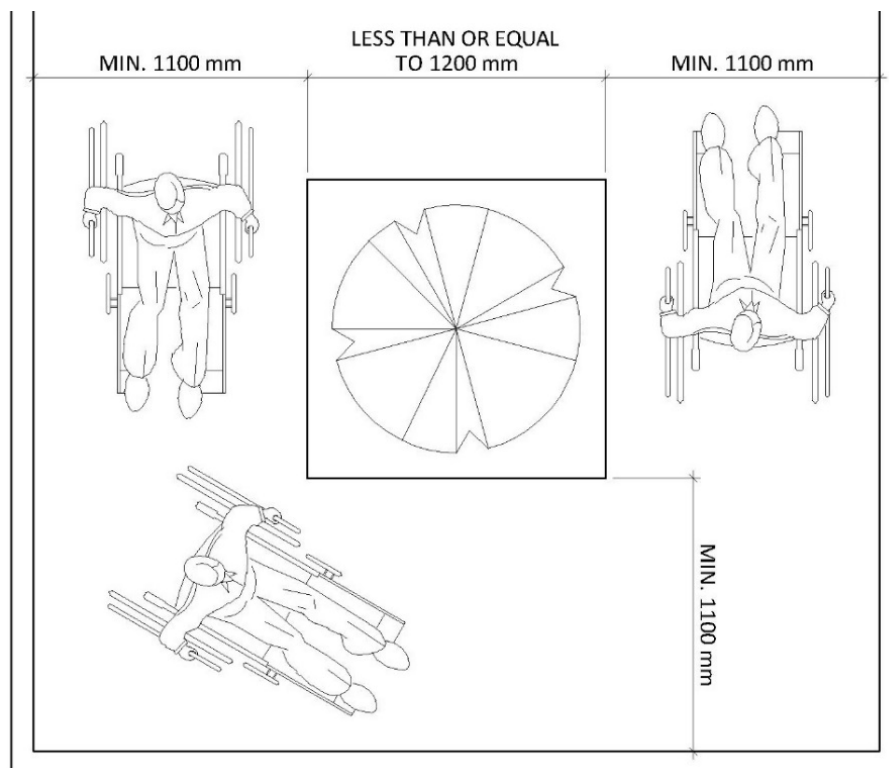


Figure 12 – Barrier-free Path of Travel Around Obstacles (less than 1200 mm)(CSA)

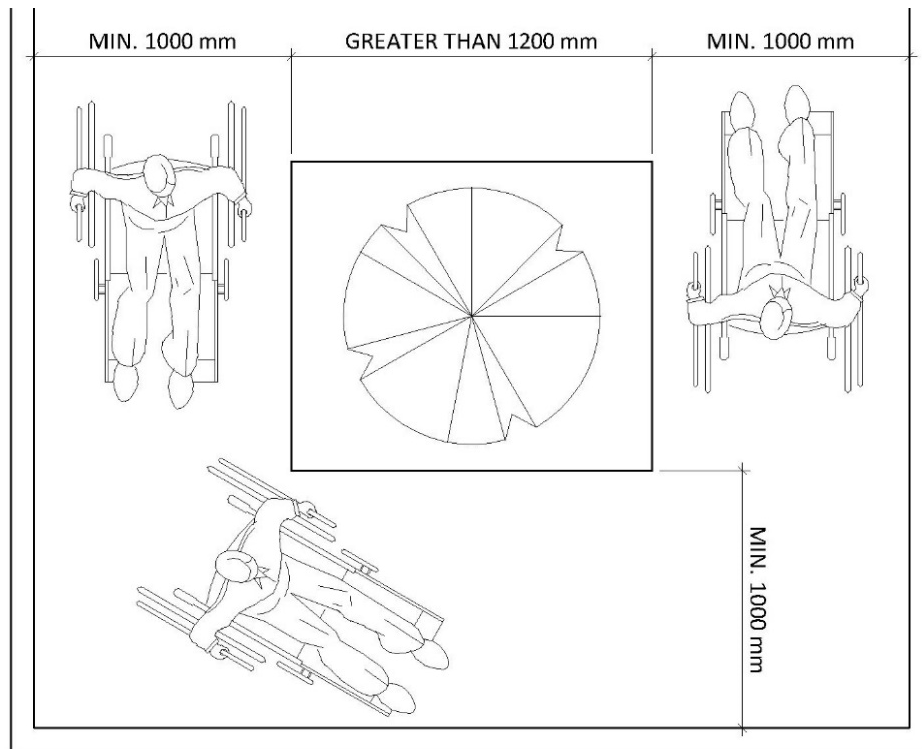


Figure 13 – Barrier-free Path of Travel Around Obstacles (greater than 1200 mm) (CSA)

Exterior Walks

NBC Division B, Article 3.8.3.3. – Exterior Walks

Exterior walks that are part of a *barrier-free* path of travel shall:

- Have a slip-resistant, continuous and even surface
- Not be less than 1,600 mm wide
- Have a level area that conforms to Clause 3.8.3.5.(1)(c) adjacent to an entrance doorway (refer to page 32 for reference)
- Be designed following Clause 8.2.1 of CSA B651 (refer below for reference)

CSA B651, Clauses 8.2.1 to 8.2.5 and 8.2.7 – Accessible routes

CSA B651 – Clause 8.2.1 – General

Exterior accessible routes shall have the following characteristics:

- Shall comply with Clauses 4.3.1, 4.3.2, 4.3.4 and 4.4 (refer to page 27 for clarification)
- Be separated from a vehicular route by:
 - A curb with a curb ramp;
 - A railing or other barrier; or
 - A tactile attention indicator surface complying with Clause 4.3.5 of CSA B651.
- Bollards, when used, shall prevent vehicles from entering a pedestrian route and shall comply with Clause 8.3.9.
- Delineation on both sides by texture and colour contrasting surfaces at least 300 mm wide.

CSA B651 – Clause 8.2.2 – Width

- A minimum width of 1,600 mm or, where adjacent to a curb ramp, at least 1,350 mm

CSA B651 – Clause 8.2.3 – Slope

- A cross slope not greater than two per cent (1:50) (refer to [Figure 7](#) on page 25 for clarification)

CSA B651 – Clause 8.2.4 – Edge drainage

- Be well-drained to prevent ice and water accumulation where no downspouts or other drainage flows across it

CSA B651 – Clause 8.2.5 – Edge protection

- Have (edge protection a minimum of 100 mm high) when there is a drop of between 75 and 600 mm deep adjacent to the pedestrian route.
 - If the vertical drop is greater than 600 mm, there shall be a handrail complying with Clause 5.5.8.
 - Edge protection is not required for a standard road curb.
 - Edge protection is not required on the active side of a transit platform where the vertical drop is more than 250 mm. If the drop at a transit platform is greater than 250 mm, the edge shall be protected with a tactile attention indicator that complies with Clause 4.3.5.3.

CSA B651 – Clause 8.2.7 – Exterior ramps

- Ramps shall:
 - Have a width of at least 1200 mm
 - Conform to Clause 5.5.

Exterior Passenger-Loading Zones

NBC Division B, Article 3.8.3.4. – Exterior Passenger-Loading Zones

Where an exterior passenger-loading zone is provided, it shall have:

- An access aisle not less than 1,500 mm wide and 6,000 mm long adjacent and parallel to the pickup space (refer to [Figure 14](#))
- A curb ramp, where there are curbs between the access aisle and the vehicle pull-up space
- A clear height of not less than 2,750 mm at the pull-up space and along the vehicle access and egress routes

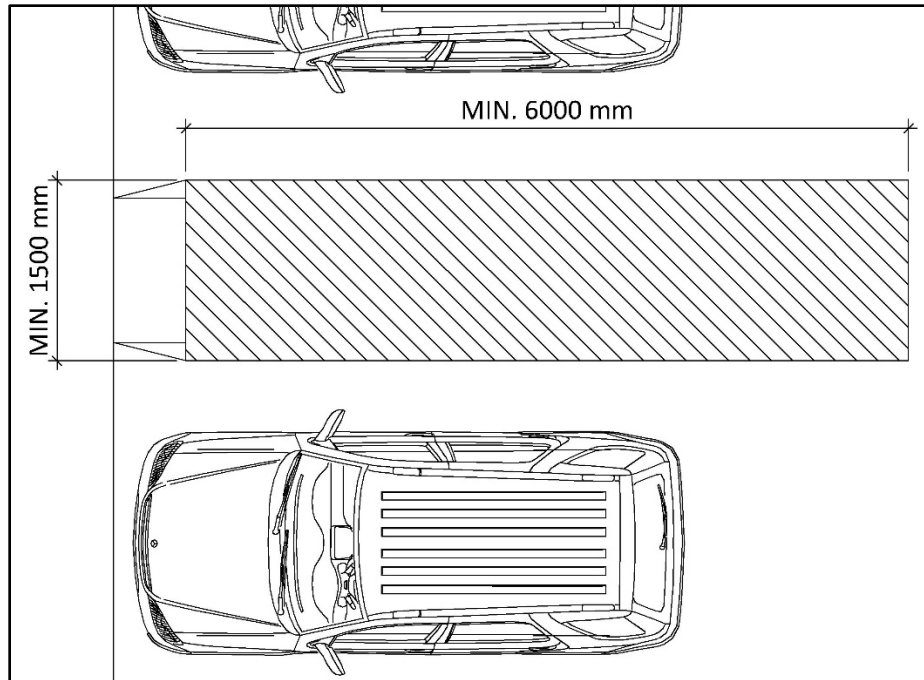


Figure 14 – Barrier-Free Path of Travel Increased Area (NBC)

CSA B651, Clause 9.3. – Passenger pick-up areas

A passenger pick-up area with a side access aisle shall be provided on a roadway that:

- Is adjacent and parallel to an accessible route (refer to [Figure 15](#))
- Is at least 1,500 mm wide and 7,000 mm long
- Is separated from a walkway that is either:
 - A curb with a curb ramp complying with Clause 8.3.3; or
 - A tactile attention indicator surface that complies with Clause 4.3.5.3.
- Has a height clearance of at least 3,000 mm for the pick-up area and along the vehicular route from the site entrance
- Is identified with a sign indicating the clearance height

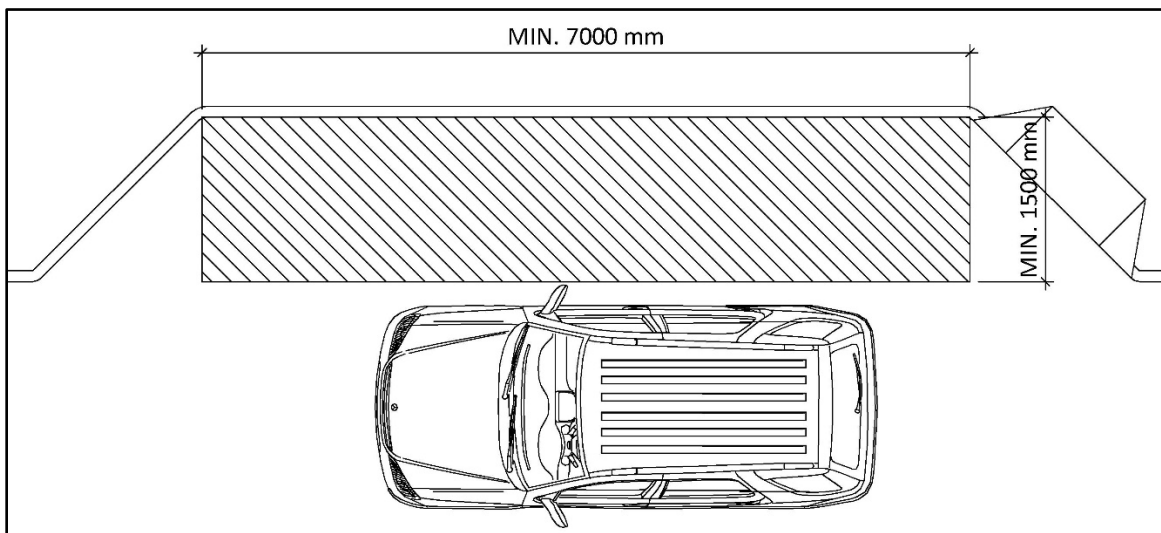


Figure 15 – Barrier-Free Path of Travel Increased Area (CSA)

Ramps

NBC Division B, Article 3.8.3.5. – Ramps

A ramp located in a *barrier-free* path of travel shall:

- Have a clear width not less than 1,000 mm
- Have a slope not more than 1:12 (refer to [Figure 16](#))
- Have a level area not less than 1,700 by 1,700 mm at the top and bottom and the level area extends not less than:
 - 600 mm beyond the edge of the door opening where the door opens towards the ramp (refer to [Figure 17](#)); or
 - 300 mm beyond the edge of the door opening where the door opens away from the ramp (refer to [Figure 18](#)).
- Have a level area not less than 1,350 mm and at least the same width as the ramp:
 - At intervals not more than 9 m along its length (refer to [Figure 19](#))
 - Where there is an abrupt change in the direction of the ramp (refer to [Figure 20](#))
- Be equipped with a handrail at a height between 865 and 965 mm;
- Be equipped with a guard conforming with other regulations in the NBC Division B, Article 3.4.6.6. (refer to [Figure 21](#))
- Handrails do not apply to ramps serving as an aisle for fixed seating
- The surfaces of ramps and landings shall:
 - Be hard or resilient where the ramp is steeper than 1:15
 - Have a cross slope not steeper than 1:50
 - Where exposed to water, be designed to drain
- Ramps and landings not at grade or adjacent to a wall shall have edge protection consisting of:
 - A curb not less than 75 mm high; or
 - A raised barrier or rail located not more than 100 mm from the ramp or landing surface.
- Floors or walks in a *barrier-free* path of travel having a slope steeper than 1:20 shall be designed as a ramp.

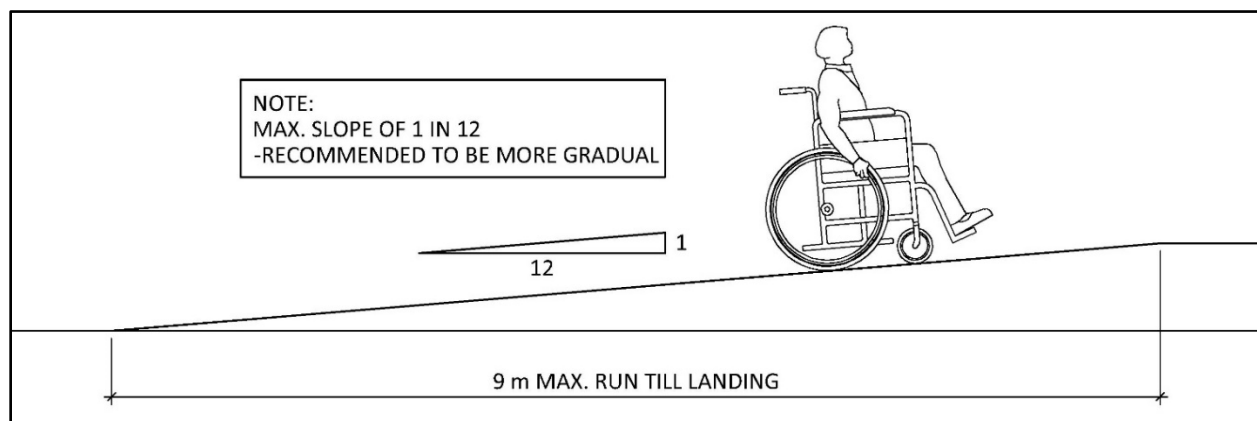


Figure 16 – Ramp Slope (NBC)

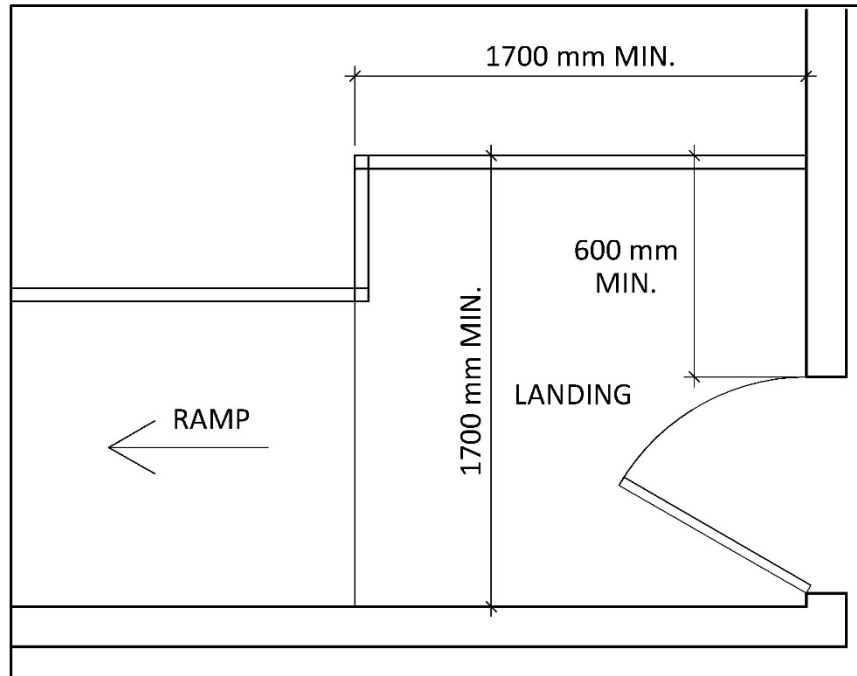


Figure 17 – Landing Configuration – Door Swinging Towards Ramp (NBC)

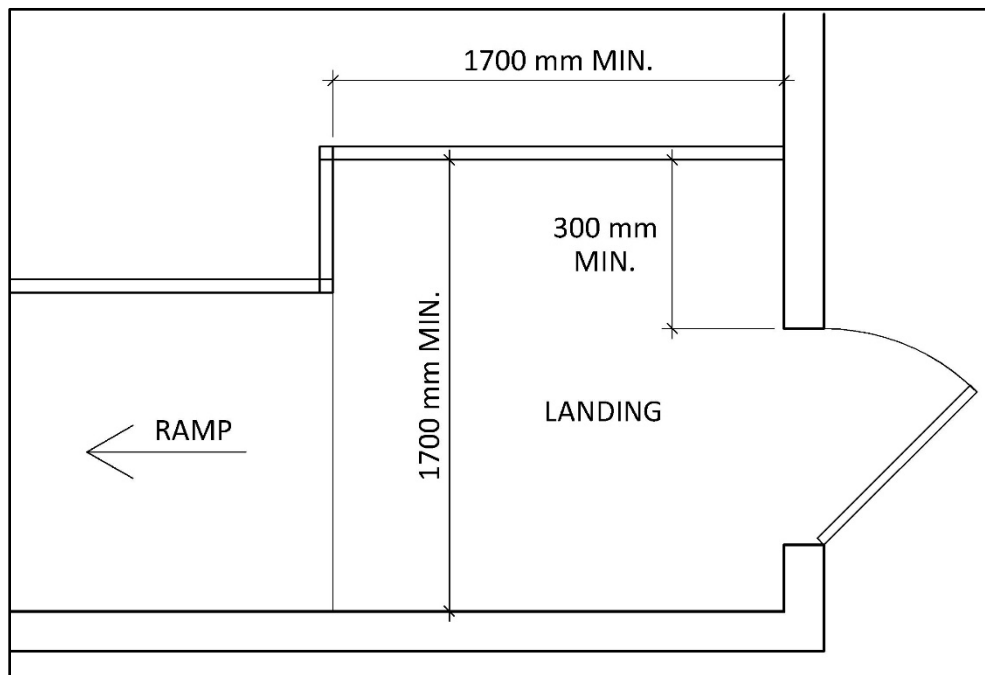


Figure 18 – Landing Configuration – Door Swinging Away from Ramp (NBC)

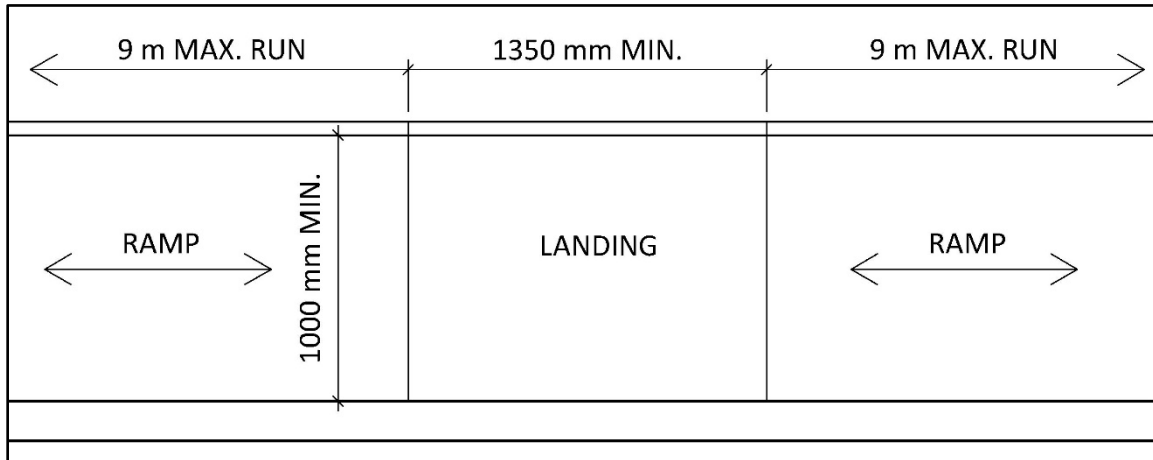


Figure 19 – Landing Configuration When Ramp Exceeds 9 m In Run (NBC)

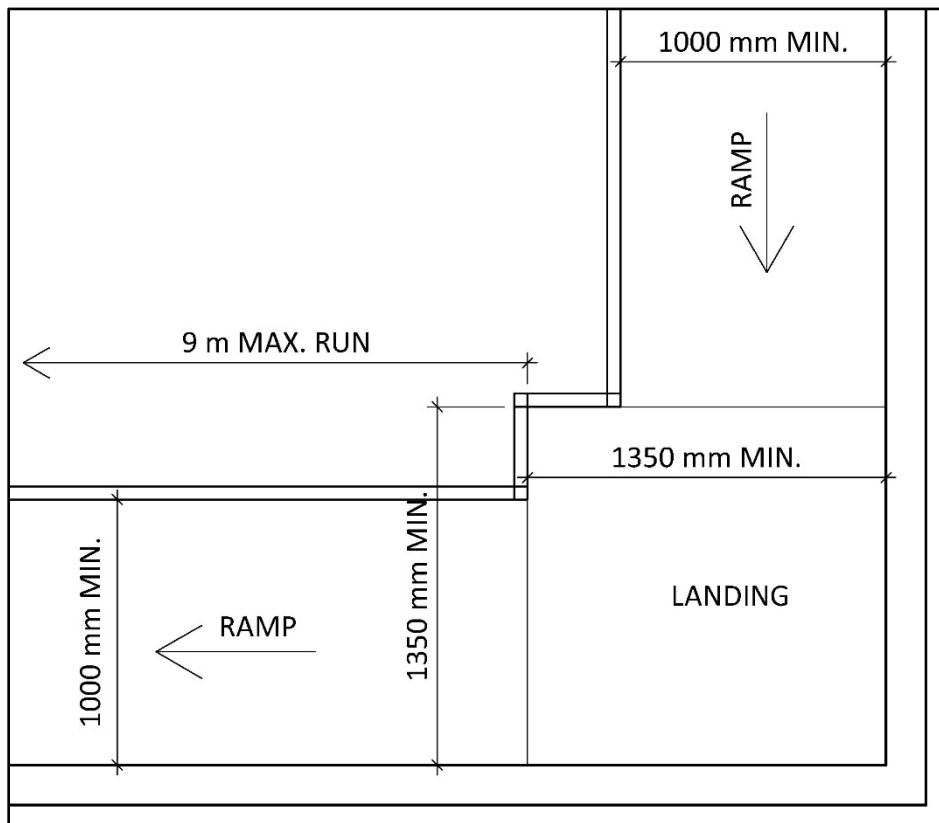


Figure 20 – Landing Configuration for Change of Direction (NBC)

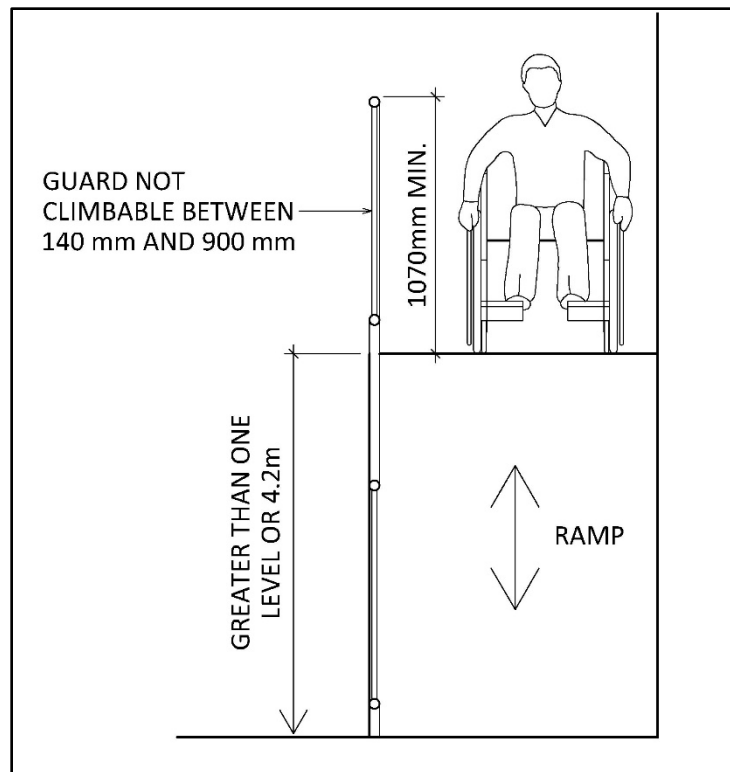


Figure 21 – Guard Requirements for Ramps (NBC)

CSA B651 – Clause 5.5 – Ramps

Ramps required shall:

- Have a running slope with the ratio between 1:12 (8.33 per cent) and 1:20 (five per cent)
- Have a maximum distance between level landings of 9,000 mm
- Have a cross slope of the ramp surface not steeper than 1:50 (two per cent) (refer to [Figure 7](#) on page 25)
- Have a clear width of not less than 1,000 mm
- Have landings that are level and:
 - Be supplied at the top and bottom of each ramp
 - Be provided with all changes of ramp direction
 - Be at least as wide as the widest ramp leading to it
 - Have a length not less than 1,500 mm (refer to [Figure 22](#))
 - At doorways serving accessible routes, have an area not less than 1,700 by 1,700 mm (refer to Figure 23)
 - Where it meets a slope change, have a 50 +/- 10 mm wide colour-contrasted and slip-resistant strip equal to the width of the ramp
- Have edge protection when ramps or landings are not at grade or adjacent to a wall in the form of either:
 - A curb with a minimum height of 100 mm; or
 - A raised barrier or rail with its lower edge not more than 100 mm from the ramp or landing surface.
- Have a minimum illumination at the surface level and landings of at least 50 lx

- Have handrails on both sides of the ramp that:
 - Comply with the regulations that are outlined in this guide (refer to “Handrails” page 37)
 - Are continuous on the ramp and around landings
 - Are colour-contrasted with their surroundings
 - Have at least one set of handrails with a clear width between 920 and 1,000 mm between the rails
 - Have a height between 860 and 920 mm, measured from the ramp surface to the top of the rail
 - Have horizontal extensions beyond the top and bottom of the ramp:
 - At least 300 mm long
 - That is returned to the post, floor or wall

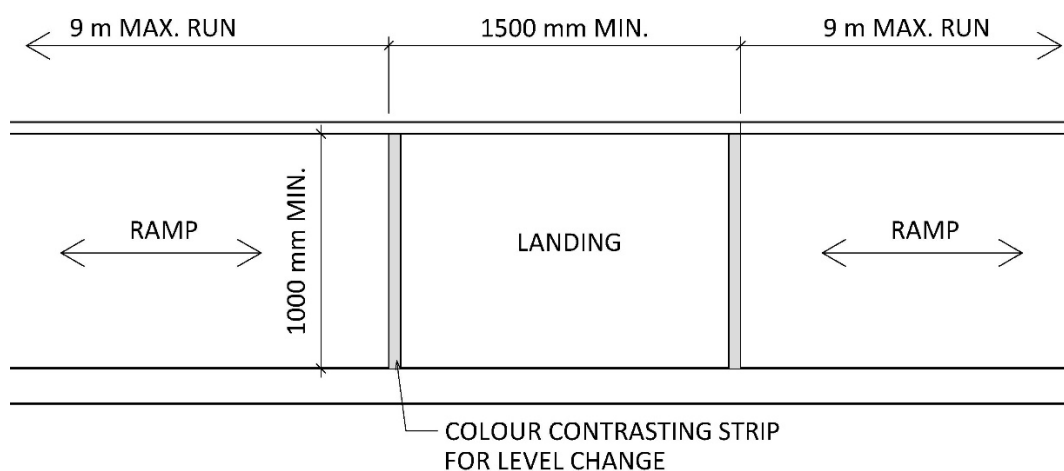


Figure 22 – Colour Contrasting Strips (CSA B651)

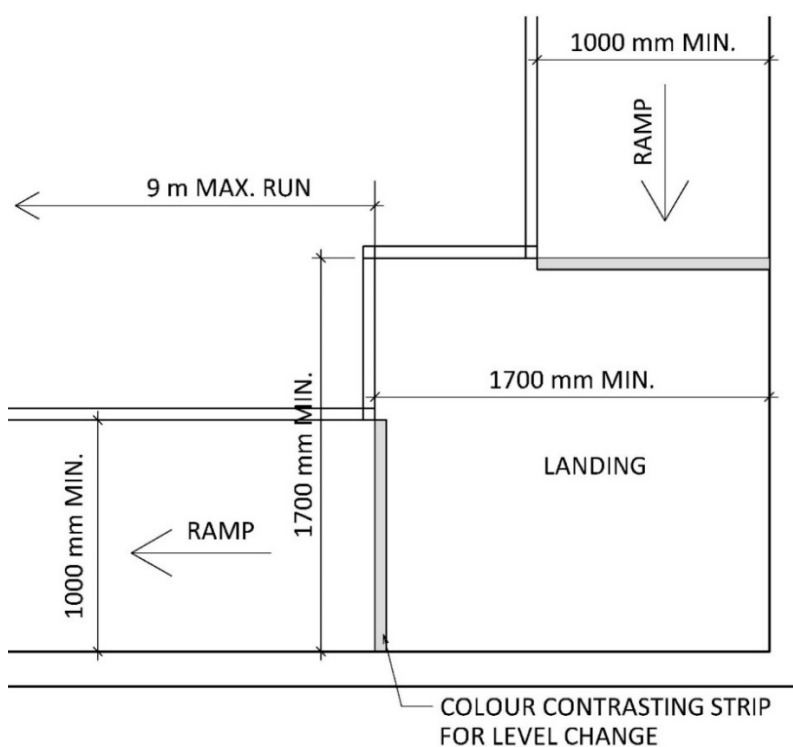


Figure 23 – Landing Complete with Colour Contrasting Strips (CSA B651)

Handrails

NBC Division B, Article 3.4.6.5. – Handrails

When handrails are required shall:

- Be supplied on one side of stairs that are less than 1,100 mm in width
- Have one handrail on each side of:
 - Stairs that are 1,100 mm or more in width
 - Curved flights of stairs that are any width
 - Ramps
- Be continuously graspable along the entire length and free of any sharp or abrasive elements and shall have ([refer to Figure 24](#)):
 - A circular cross-section with an outside diameter not less than 30 mm and not more than 50 mm; or
 - A non-circular cross-section with a perimeter not less than 100 mm and not more than 160 mm and whose largest cross-sectional dimension is not more than 57 mm.
- Be measured vertically from the top of the handrail to:
 - A straight-line drawn tangent to the tread nosings of the stair or aisle stop served by the handrail; or
 - The surface of the ramp, floor or landing served by the handrail.
- Have an installed height for both ramps and stairs of:
 - Not less than 865 mm
 - Not more than 1,070 mm
- When required, be continuously graspable throughout the length of:
 - The ramp
 - A flight of stairs, from the bottom riser to the top riser
- When interrupted by a doorway, have at least one handrail that is continuous throughout the length of the stairway or ramp, including at landings
- Terminate in a manner that will not obstruct pedestrian travel or create a hazard
- Have at least one handrail that extends 300 mm horizontally beyond the top and bottom of the stairway or ramp
- Have a clearance behind the handrail of at least:
 - 50 mm; or
 - 60 mm if the surface behind the handrail is rough or abrasive.
- Be designed complete with the supports, to withstand the loading values of not less than:
 - 0.9 kN (approximately 202 lbs) applied at any point and any direction
 - 0.7 kN (approximately 158 lbs) applied uniformly in any direction not located in dwelling units

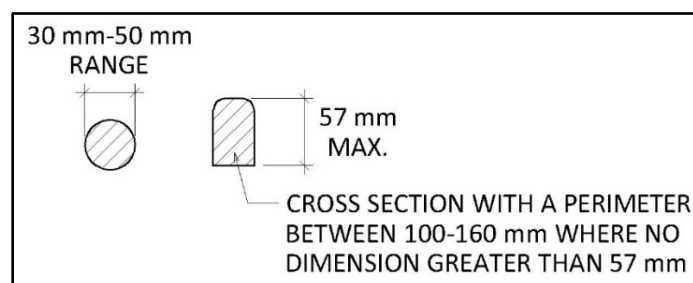


Figure 24 – Handrail Requirements (NBC)

CSA B651, Clause 5.3 – Handrails

When handrails are required shall:

- Resist a force of 1.3 kN (approximately 292 lbs) applied in any direction
- Have a graspable cross-section that is either (refer to [Figure 25](#)):
 - Circular with an outside diameter of between 30 and 40 mm; or
 - Elliptical with an outside perimeter between 100 and 125 mm, with the largest cross-sectional dimension not more than 45 mm.
- Be free of any sharp or abrasive elements
- Have a continuous gripping surface, without interruption by newel posts or other construction elements or obstructions that interrupt a hand hold
- Have a clear space between the handrail and the wall and underneath the handrail, as follows:
 - Between 35 and 45 mm wide for a smooth wall surface
 - Between 45 and 60 mm wide for a rough wall surface
- Be colour-contrasted with the surrounding wall surface

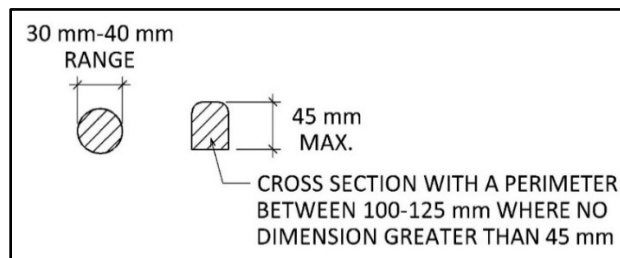


Figure 25 – Handrail Requirements (CSA B651)

Doors and Doorways

Clear Width

NBC Division B, Sentence 3.8.3.6.(2) – Doors and Doorways

Doorways in a *barrier-free* path of travel shall have a clear width not less than 850 mm when the door is in the open position (refer to [Figure 26](#)).

CSA B651 – Clause 5.2.1 – Opening width

Clear opening width shall be at least 850 mm (refer to [Figure 26](#)).

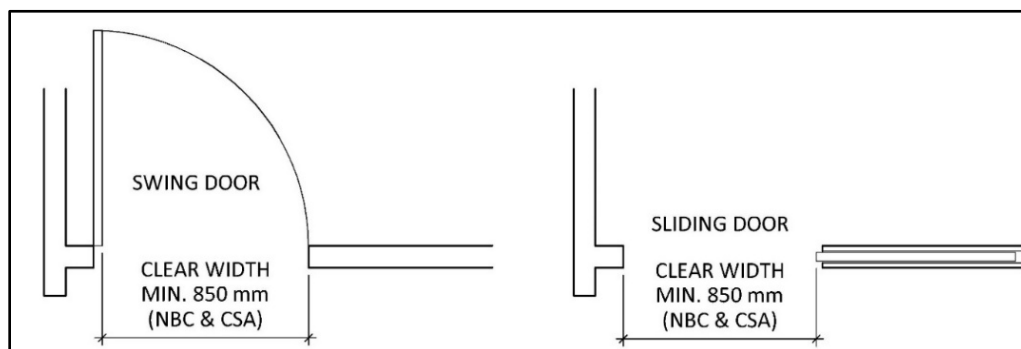


Figure 26 – Clear Width (NBC and CSA B651)

Door Operating devices (handles, pulls, latches or locks)

NBC Division B, Sentence 3.8.3.6.(4) – Doors and Doorways

Door operating devices shall be operable at a height between 900 mm (36 inches) and 1,100 mm (44 inches) above the floor. Operating door devices shall meet the operable requirements of 3.8.3.8.(1)(b).

CSA B651, Clause 5.2.7 – Door hardware

Door operating devices shall be mounted between 900 and 1,100 mm from the floor. On a sliding door, the operating devices shall be exposed and usable on both sides of the door.

Both NBC Sentence 3.8.3.6. and CSA B651 requirements for door operating devices shall be operable:

- With one hand in a closed fist position, without requiring tight grasping, pinching with fingers or twisting of the wrist
- Unless otherwise stated, with a force not more than 22 N

Threshold

NBC Division B, Sentence 3.8.3.6.(5) – Doorways and Doors

CSA B651 – Clause 5.2.6 – Thresholds

The threshold for a doorway in a *barrier-free* path of travel including at least one bathroom, shall not be more than 13 mm high (refer to [Figure 27](#)).

If using the CSA B651 path for compliance, there is a requirement that thresholds greater than 6 mm high shall be bevelled at a slope not steeper than 1:2 (50 per cent).

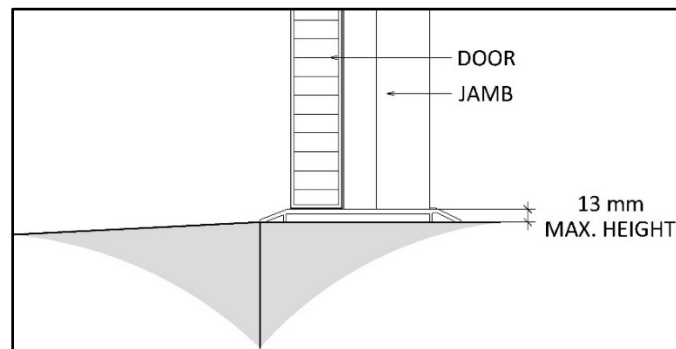


Figure 27 – Threshold (NBC and CSA B651)

Power Door Operator

NBC Division B, Sentence 3.8.3.6.(6) – Doorways and Doors

Doors required to have power door operators in a *barrier-free* path of travel shall activate either automatically or by the use of controls and have the following:

- Markings with the International Symbol of Access
- Located clear of the door swing, but within 1,500 mm (five feet) of the door swing
- Controls that conform to the design requirements of “Controls” (refer to page 50)

- Operable controls from the 150 and 300 mm as well as the 900 to 1,100 mm range above the floor
- Operable controls by touching or approaching any part of their surface with a fist, arm or foot

Unless equipped with safety sensors, the power door operator shall:

- Fully open the door in not less than three seconds
- Require a force of not more than 65 N (14 lbs) to stop the movement of the door

CSA B651, Clause – 5.2.9 – Power-assisted doors

Doors required to have power assist shall have the following requirements:

- Take three seconds (3 s) or more from a closed to a fully open position
- Remain fully open for a minimum of five seconds
- Require a force of not more than 66 N (15 lbs) to stop door movement
- When the door opens into a route of travel, it shall have a cane-detectable guardrail or barrier at right angles to the wall with the door in it (refer to [Figure 30](#) and [Figure 31](#))

Cane-Detectable Guard

A cane-detectable guard is required whenever there is an automatic door opener that is activated by a motion sensor. A guard is not required when a manual activation button is used. Both the NBC and CSA B651 address the requirements for the guard for automatic power-assisted doors.

NBC Division B, Sentence 3.8.3.6.(7) – Doorways and Doors

A cane-detectable guard shall be installed on the hinged side of a power-assisted door that swings into a *barrier-free* path of travel.

A cane-detectable guard required for automatic power-assisted doors shall not be more than 680 mm high to be cane-detectable (refer to [Figure 28](#) and [Figure 29](#)).

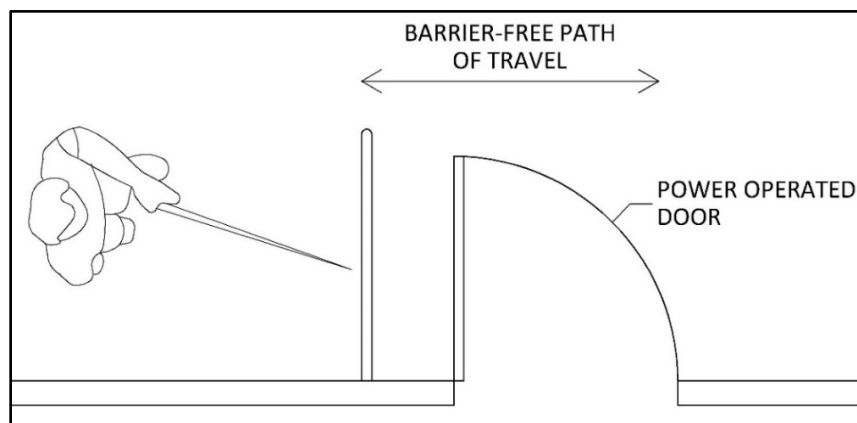


Figure 28 – Cane Detectable Guard (NBC)

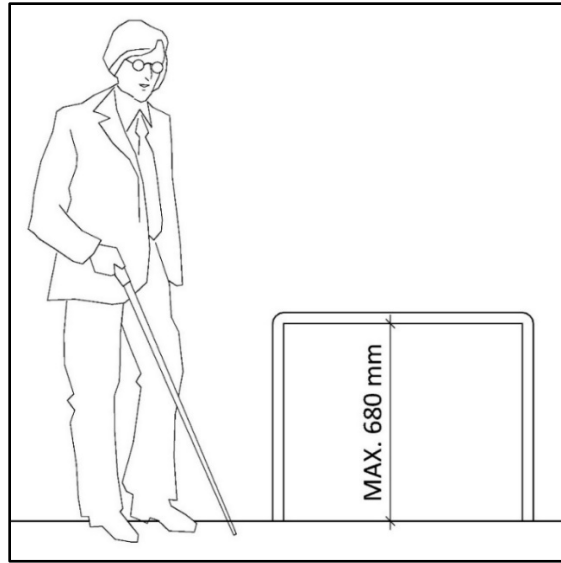


Figure 29 – Cane Detectable Guard Height (NBC)

CSA B651, Clause – 5.2.9 – Power-assisted doors

When the door opens into a route of travel, it shall have a cane-detectable guardrail or barrier at right angles to the wall with the door in it (refer to [Figure 30](#)).

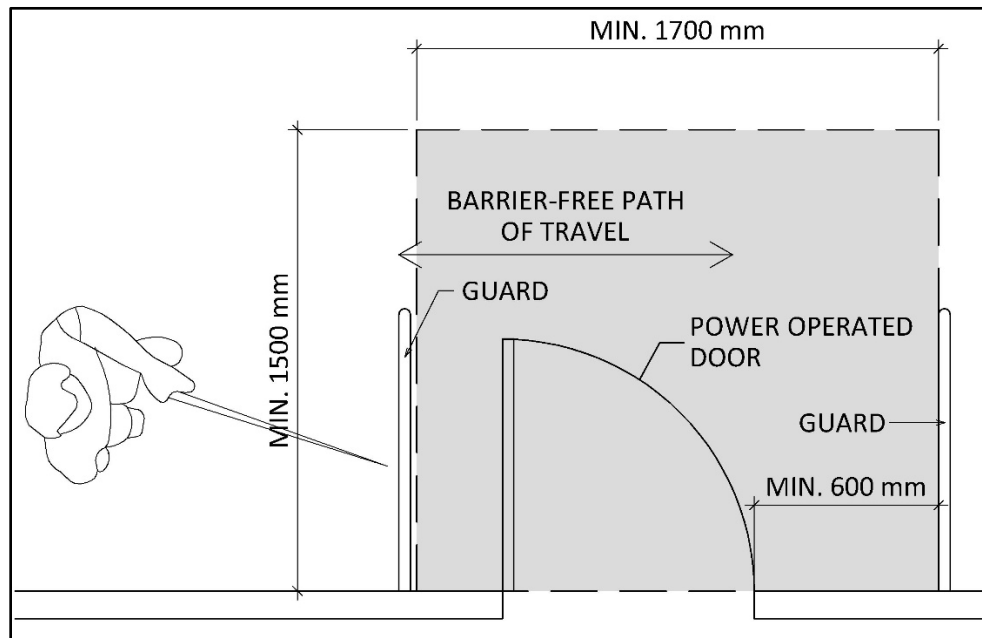


Figure 30 – Cane Detectable Guard (CSA B651)

A cane-detectable guard required for automatic power-assisted doors shall not be more than 685 mm high to be cane-detectable (refer to [Figure 31](#)).

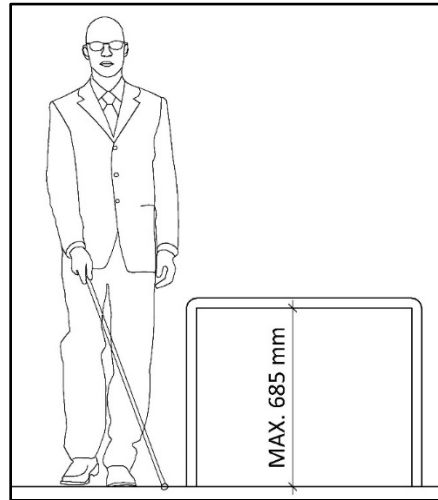


Figure 31 – Cane Detectable Guard Height (CSA B651)

Force Required

NBC Division B, Sentence 3.8.3.6.(8) – Doorways and Doors
CSA B651, Clause 5.2.8 – Door opening force

The force required to open doors in *barrier-free* paths of travel shall be the following:

- 38 N (8.5 lbs) for an exterior swinging door;
- 22 N (5 lbs) for an interior swinging door; or
- 22 N (5 lbs) for a sliding door.

Closer

NBC Division B, Sentence 3.8.3.6.(10) – Doorways and Doors

A closer for an interior door in a *barrier-free* path of travel shall have a closing period of three seconds from the open position (approximately 70 degrees) till the door reaches 75 mm from the closed position (refer to [Figure 32](#)).

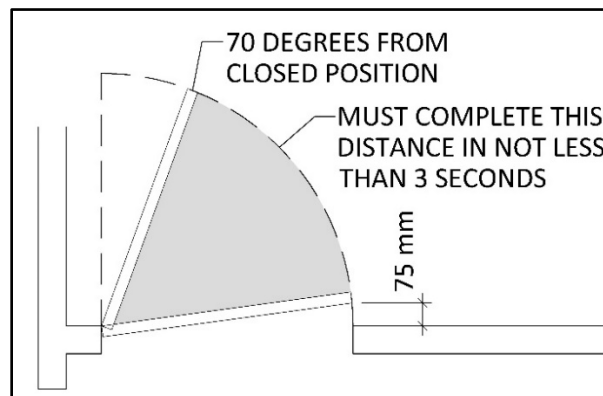


Figure 32 – Closer (NBC)

CSA B651, Clause 5.2.7.2 – Door closers

The sweep period of door closers shall be adjusted so that the door will take three seconds (3 s) or more to move from the open position of 90 degrees to a semi-closed position of approximately 12 degrees (refer to [Figure 33](#)).

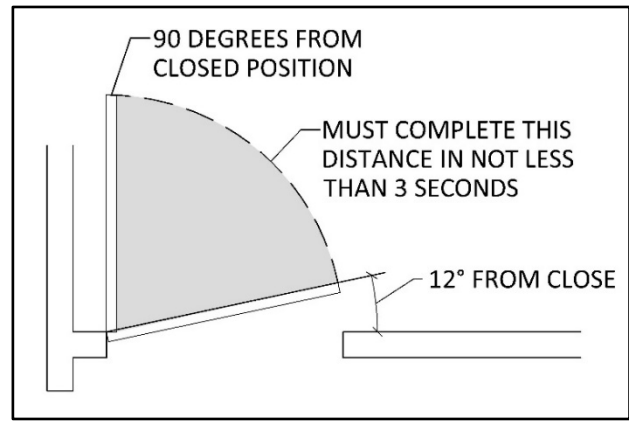


Figure 33 – Closer (CSA B651)

Clearance for Doorways

NBC Division B, Sentence 3.8.3.6.(11) and 3.8.3.6.(14) through 3.8.3.6.(16) – Doorways and Doors

A swinging door without a power door operator situated in a *barrier-free* path of travel shall have a clear space on the latch side not less than ([Figure 34](#)):

- 600 mm beyond the edge of the door opening if the door swings toward the approach side
- 300 mm beyond the edge of the door opening if the door swings away from the approach side

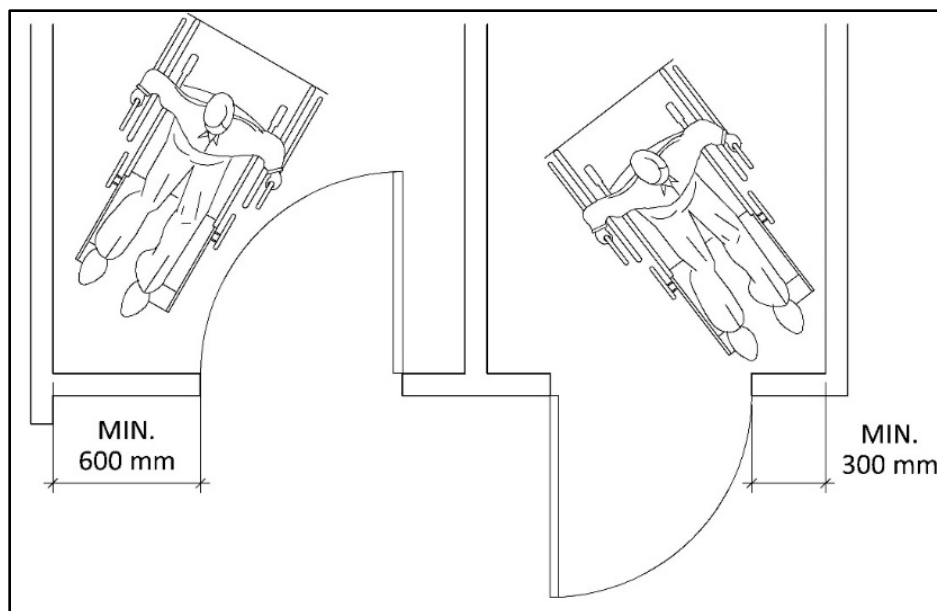


Figure 34 – Clearances for Doorways (NBC)

Within the NBC, Sentences 3.8.3.6.(11) and 3.8.3.6.(14) through 3.8.3.6.(16), minimum clear floor spaces for doorways are directly related to power door operators for design requirements (refer to [Figure 35](#) and [Figure 36](#)).

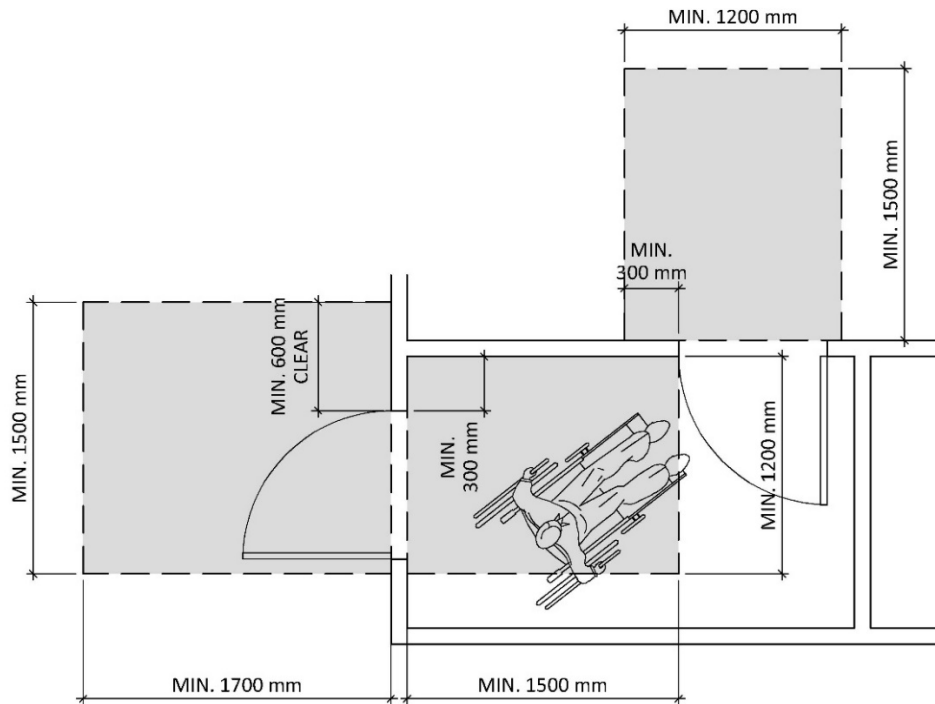


Figure 35 – Clearances for Doorways without Door Operator (NBC)

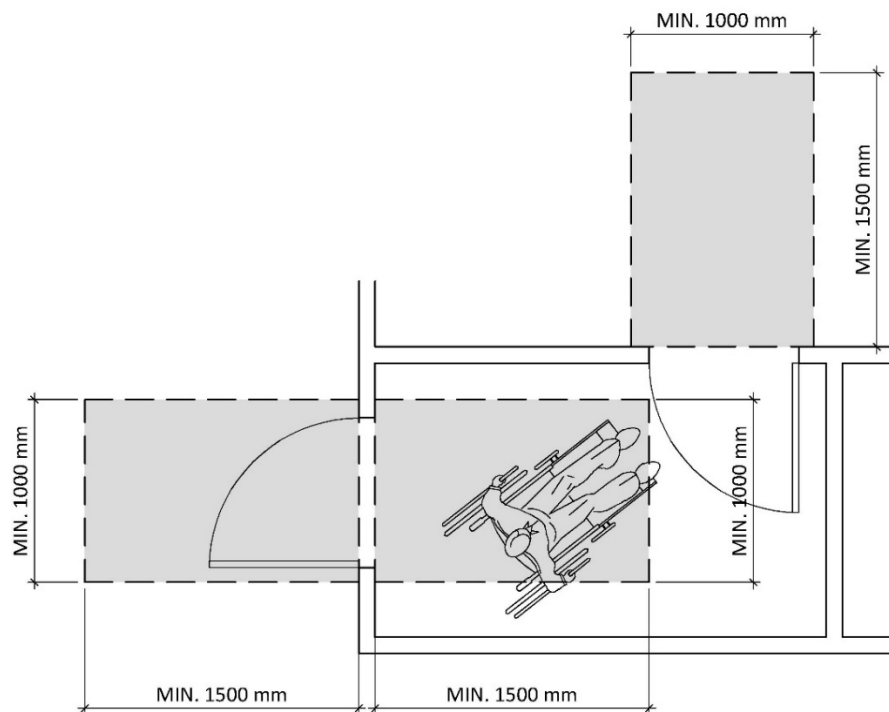


Figure 36 – Clearances for Doorways with Door Operator (NBC)

CSA B651, Clause 5.2.2 – Maneuvering area at doors

CSA B651 also has several requirements for doors and doorways. These are dependent on the situation of the occupant with the door and doorway approach for clear floor space requirements (refer to [Figure 38](#) through [Figure 41](#)).

CONTEXT	CLEAR FLOOR AREA REQUIRED, mm		DISTANCE FROM DOOR OPENING MEASURED AT THE LATCH EDGE, mm
	DEPTH	WIDTH	
SWINGING DOOR			
FRONT APPROACH			
PULL SIDE	1500	1700	600
PUSH SIDE	1350	1200	300
LATCH EDGE APPROACH			
PULL SIDE	1500	1200	600
PUSH SIDE	1500	1050	600
HINGE EDGE APPROACH			
PULL SIDE	1500	1700	600
PUSH SIDE	1500	1050	600
SLIDING DOOR			
FRONT APPROACH	1350	1200	300
SIDE APPROACH	1100	1350	600

Figure 37 – Level Floor Area for Doorways (CSA B651)

Illustrations complete with required clearances are available for the following scenarios:

- Front approach to a swinging door ([Figure 38](#))
- Latch edge approach ([Figure 39](#))
- Hinge edge approach ([Figure 40](#))
- Sliding door ([Figure 41](#))

Note: Level areas required for ramps may contain other provisions that supersede this requirement (refer to page 35).

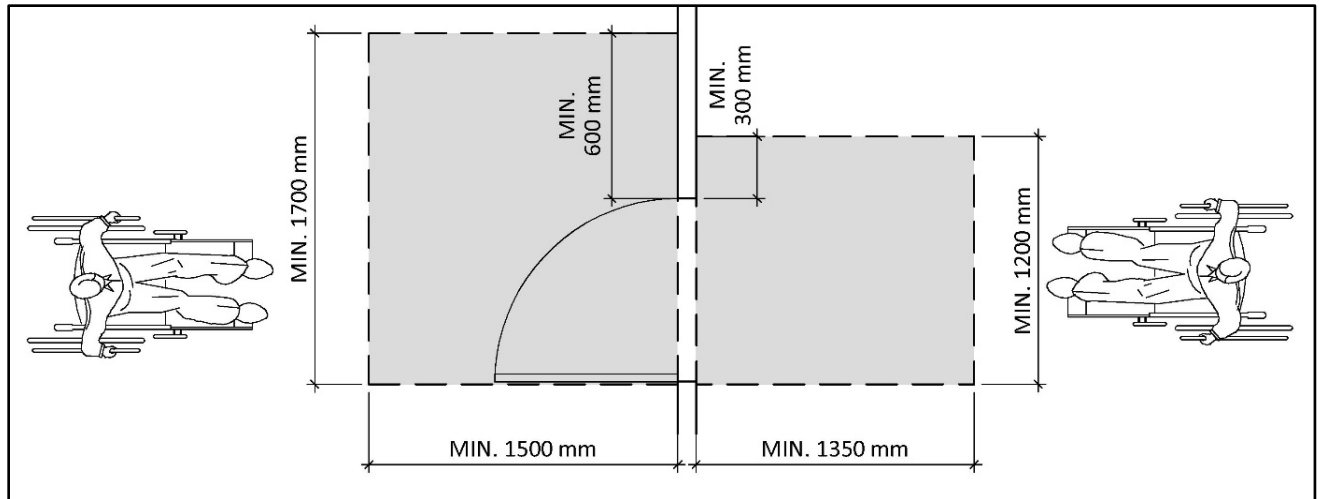


Figure 38 – Clearances for Doorways – Front Approach (CSA B651)

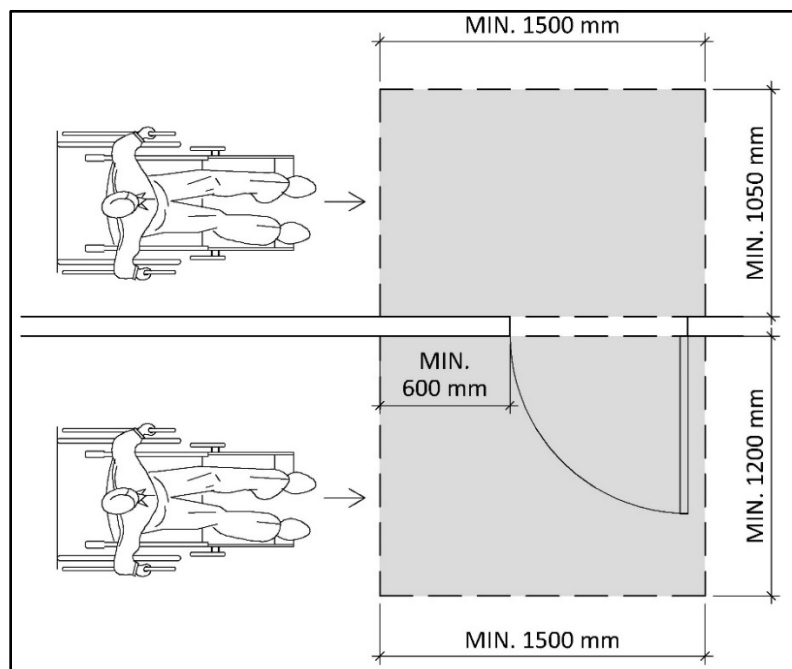


Figure 39 – Clearances for Doorways – Latch Edge Approach (CSA B651)

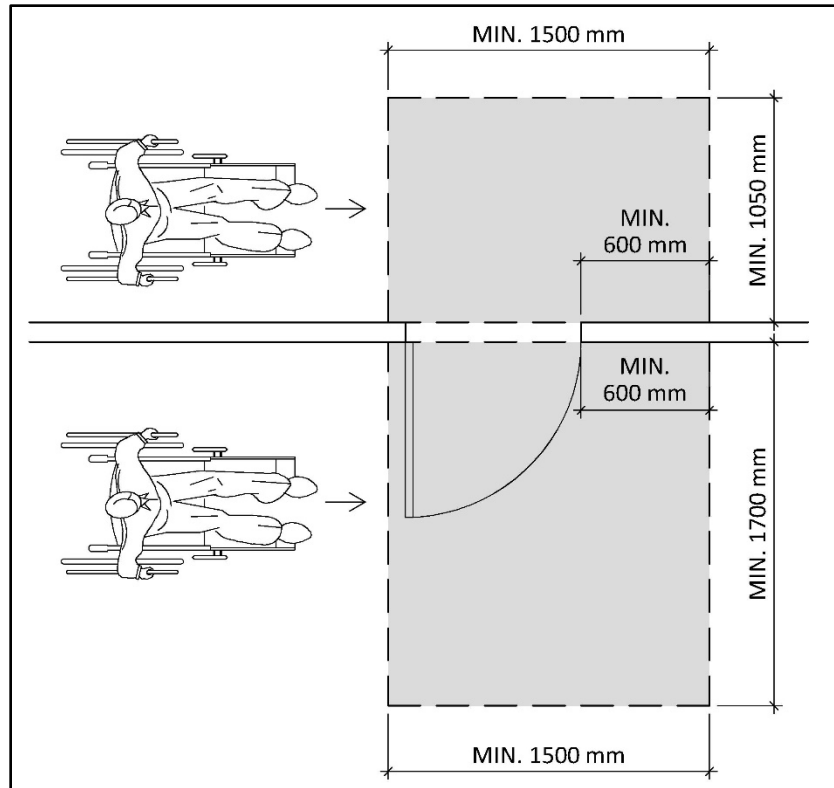


Figure 40 – Clearances for Doorways – Hinge Edge Approach (CSA B651)

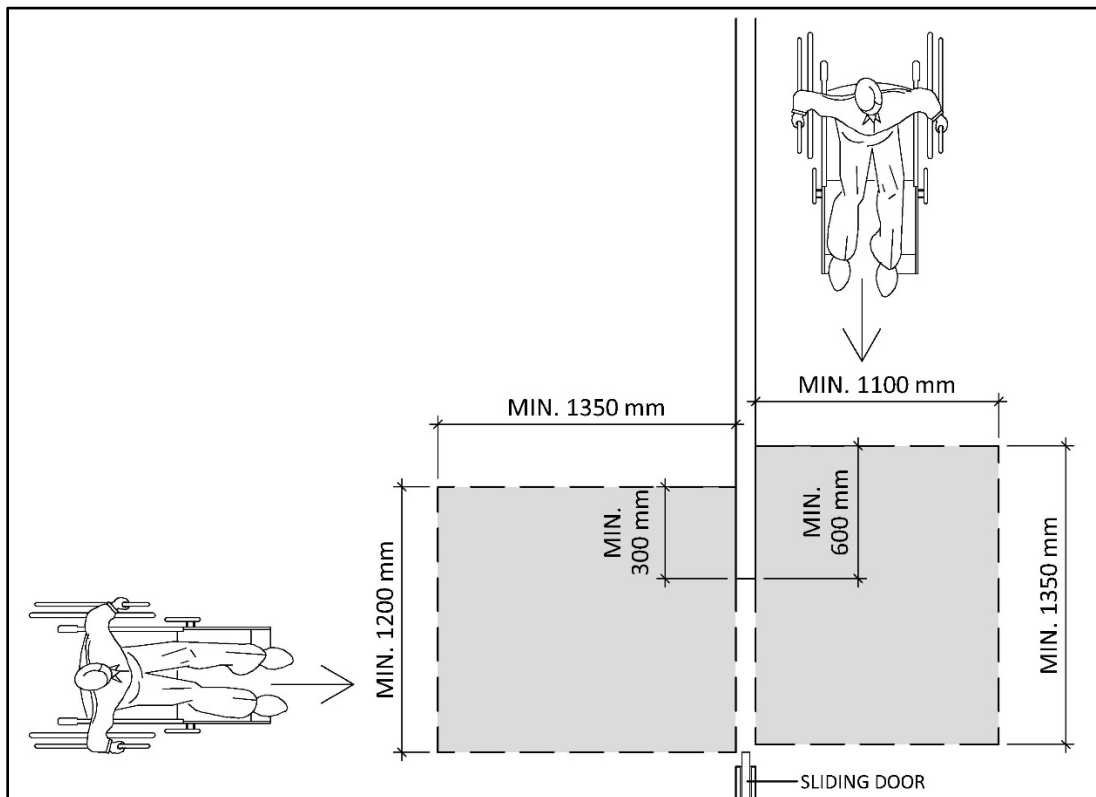


Figure 41 – Clearances for Doorways – Sliding Door (CSA B651)

Doors in Series (Vestibule)

NBC Division B, Sentence 3.8.3.6.(12) – Doorways and Doors
CSA B651, Clause 5.2.5 – Two doors in series

Doors in vestibules that swing in series shall allow for an accommodation of not less than 1,350 mm plus the width of the door that swings into the path of travel from one door to another (refer to [Figure 42a](#) and [Figure 42b](#)).

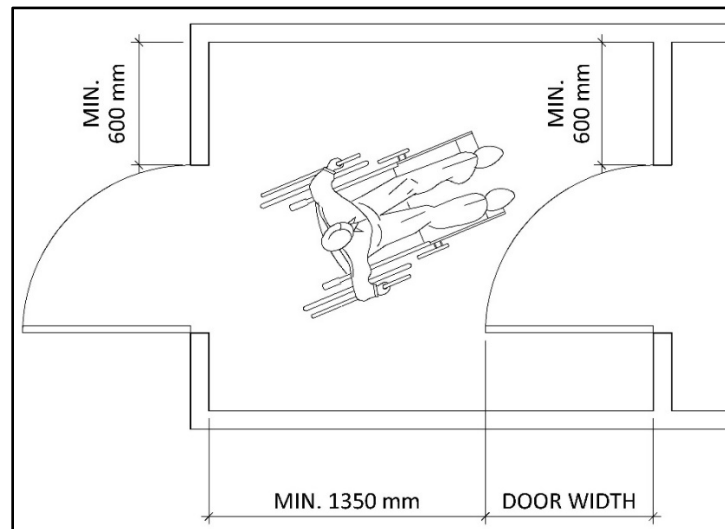


Figure 42a – Doors In Series (NBC and CSA B651)

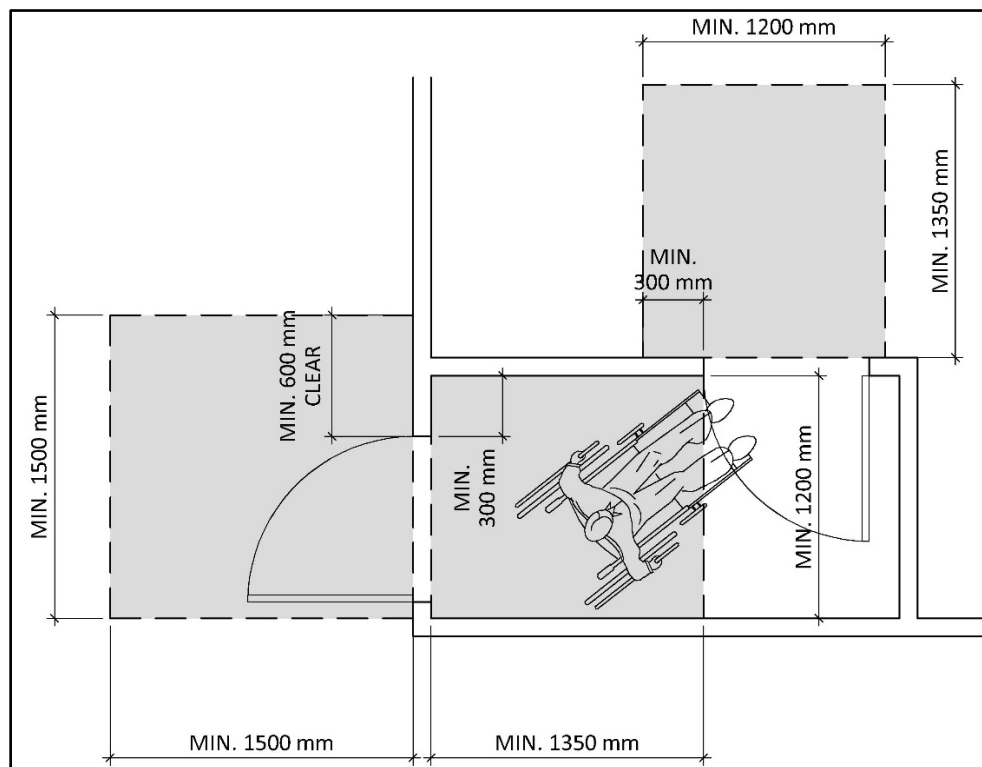


Figure 42b – Doors In Series (NBC and CSA B651)

Multiple-leaf Doors

NBC Division B, Sentence 3.8.3.6.(13) – Doorways and Doors

Only the active leaf in a multiple-leaf door in a *barrier-free* path of travel needs to conform to the requirements of the NBC.

CSA B651, Clause 5.2.3. Multiple-leaf doorways and Clause 5.2.4 Revolving doors

Additionally, CSA B651 mentions revolving doors and that where a revolving door is used, an adjacent door shall be provided that complies with the door regulations in CSA B651 (Clause 5.2.1 Opening width and Clause 5.2.2 Maneuvering area at doors).

Contrast of Doors

NBC Division B, Sentence 3.8.3.6.(17) – Doorways and Doors

Within the NBC, doors in a public corridor or exit are required to have visual contrast with adjacent walls.

Note: This requirement is exempt for facilities with people who have a cognitive disability such as dementia.

Passenger-Elevating Devices

NBC Division B, Article 3.8.3.7. – Passenger-Elevating Devices

The NBC states the following:

- A passenger-elevating device referred to in Article 3.8.2.3. located in a *barrier-free* path of travel shall:
 - Conform to CSA B355, “Platform lifts and stair lifts for barrier-free access”
 - Have a clear floor space not less than 1,500 mm long by 1,000 mm wide
 - Have entry doors or gates:
 - Providing a clear width, not less than 850 mm in the open position if located on the short side of the passenger-elevating device; or
 - Providing a clear width not less than 1,000 mm in the open position if located at either end of the long side of the passenger-elevating device.

CSA B651, Clause 5.6.2 – Platform lifts

Similarly, CSA B651 states the following:

- Elevating devices such as platform lifts shall comply with CSA B355 and the requirements of authorities having jurisdiction.

CSA B651 goes on to define the term platform lift as any of the following:

- An elevating device that is installed at a permanent location in a building structure and is used to transport persons with disabilities on a platform that moves between permanent levels.
- Enclosed stair lift – an inclined lift where the platform runway is separate from the stair circulation space.

- Enclosed vertical lift – a vertical lift with an enclosed platform runway.
- Unenclosed stair lift – an inclined lift where the platform or chair runway is within the stair circulation space.
- Unenclosed vertical lift – a vertical lift with a partially enclosed or unenclosed platform runway.

Controls

NBC Division B, Article 3.8.3.8. – Controls

Controls described in the NBC shall:

- Where located in or adjacent to a *barrier-free* path of travel and unless otherwise stated:
 - Be mounted 400 to 1,200 mm above the floor (refer to [Figure 44](#))
 - Be adjacent to and centered on either the length or the width of a clear floor space of 1,350 by 800 mm (refer to [Figure 43](#))
- Be operable:
 - With one hand in a closed fist position, without requiring tight grasping, pinching with fingers or twisting of the wrist
 - Unless otherwise stated, with a force not more than 22 N

Note: The operation of controls is the same as for CSA B651.

CSA B651, Clause 4.2 – Operating controls

CSA B651 expands on the requirements in this document. The CSA standard defines operating controls as:

- Door handles and locks
- Window operators and locks
- Faucets and adjustable shower heads
- Electrical outlets and switches
- Thermostats
- Elevator call stations
- Fire alarm pull stations
- Activation switches
- The area in front of the operating control shall be at least 800 by 1,350 mm, level and adjacent to the operating control (refer to [Figure 43](#)).
- The height of the controls shall be located in a range between 400 and 1,200 mm from the floor (refer to [Figure 44](#)).
 - Control Devices – Shall provide tactile and/or auditory information, indicating the function and position of controls.
 - Visual Displays – Information on visual displays shall be supplemented by tactile and/or auditory information; colour-contrasted; and located on a glare-free surface.
 - Colour Contrast – Operating controls shall be colour-contrasted with their background.

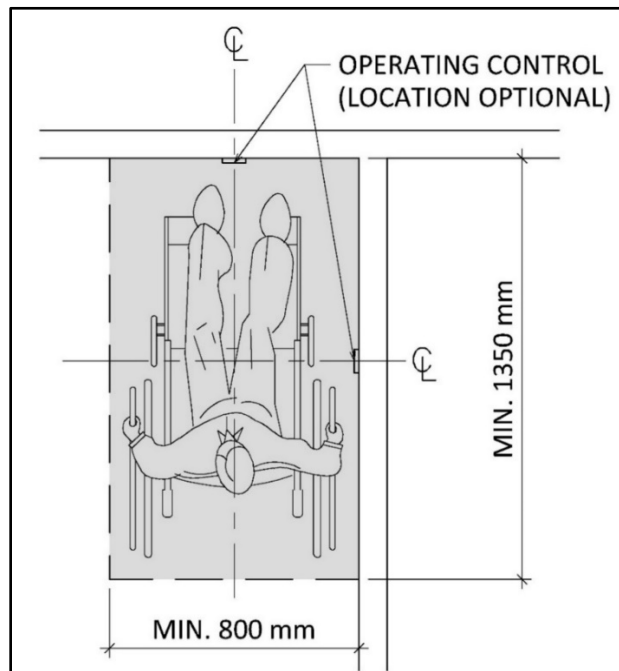


Figure 43 – Controls w/ Clear Area Requirements (NBC and CSA B651)

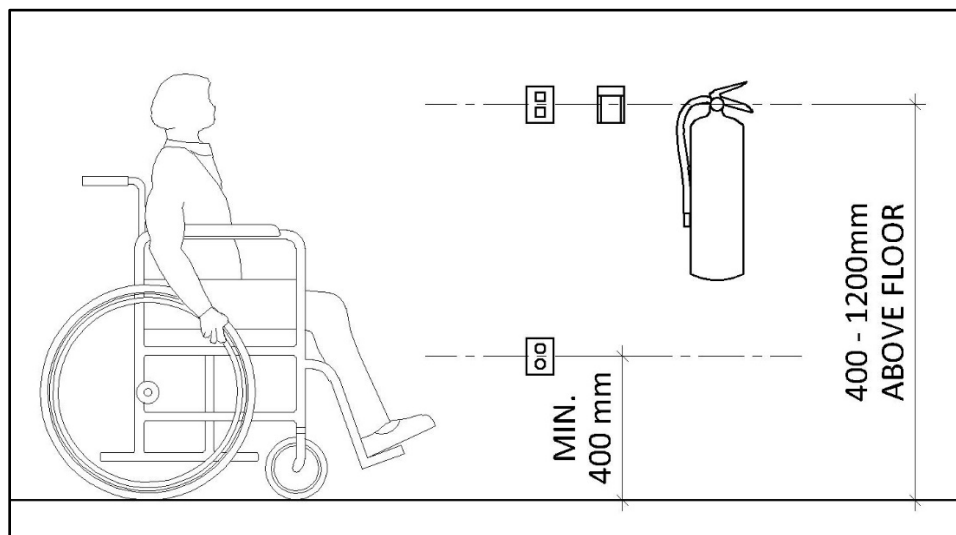


Figure 44 – Control Height Requirements (NBC and CSA B651)

Accessibility Signage

NBC Division B, Article 3.8.3.9 – Accessibility Signs

Signs shall be required to indicate the location of:

- Barrier-free entrances
- Barrier-free washrooms
- Barrier-free showers
- Barrier-free elevators
- Barrier-free parking spaces
- Facilities for persons with hearing disabilities

Where a washroom is not designed to accommodate persons with physical disabilities in a storey to which a *barrier-free* path of travel is required, signs providing visual and tactile information shall be provided to indicate the location of *barrier-free* facilities.

Signs shall be installed at or near doors and shall provide the same information in both visual and tactile forms in accordance with Subsection 3.8.3. (Doors that serve service spaces or are located within a *suite* are exempt from this requirement).

Directional signs shall provide visual information in accordance with Subsection 3.8.3. (see below for details).

Where there are visual information signs required by the NBC, they must:

- Comply with CSA B651 Clauses 4.5.2. through 4.5.4.
- Have braille and tactile characters in accordance with Clauses 4.5.6.2 and 4.5.6.3 of CSA B651, “Accessible design for the built environment”
- Be installed on the wall closest to the latch side of the door or on the nearest wall on the right side of the door, where there is no wall at the latch side (refer to [Figure 46a](#))
- Be centred 1,500 mm above the finished floor with the edge of the sign located not more than 300 mm from the door (refer to [Figure 46b](#))

All signs shall incorporate the International Symbol of Access or the International Symbol of Access for Hearing Loss ([refer to Figure 45](#)) and appropriate graphical or textual information that clearly indicates the type of facilities available.

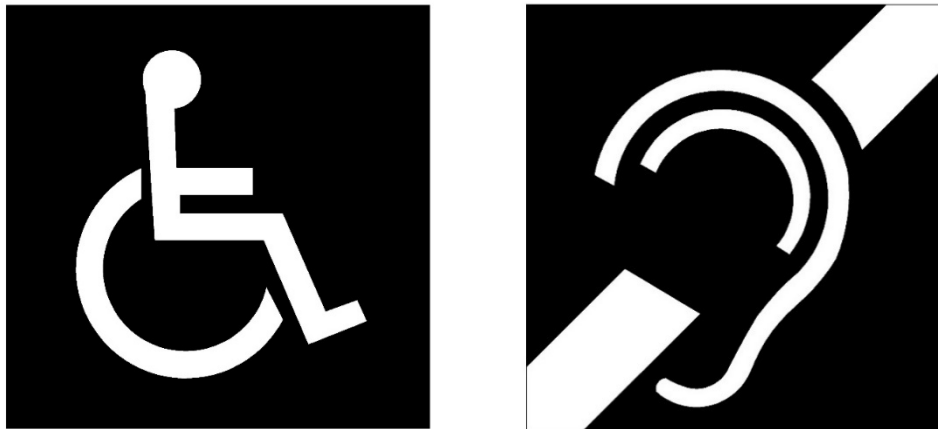


Figure 45 – International Symbol of Access and the International Symbol of Access for Hearing Loss

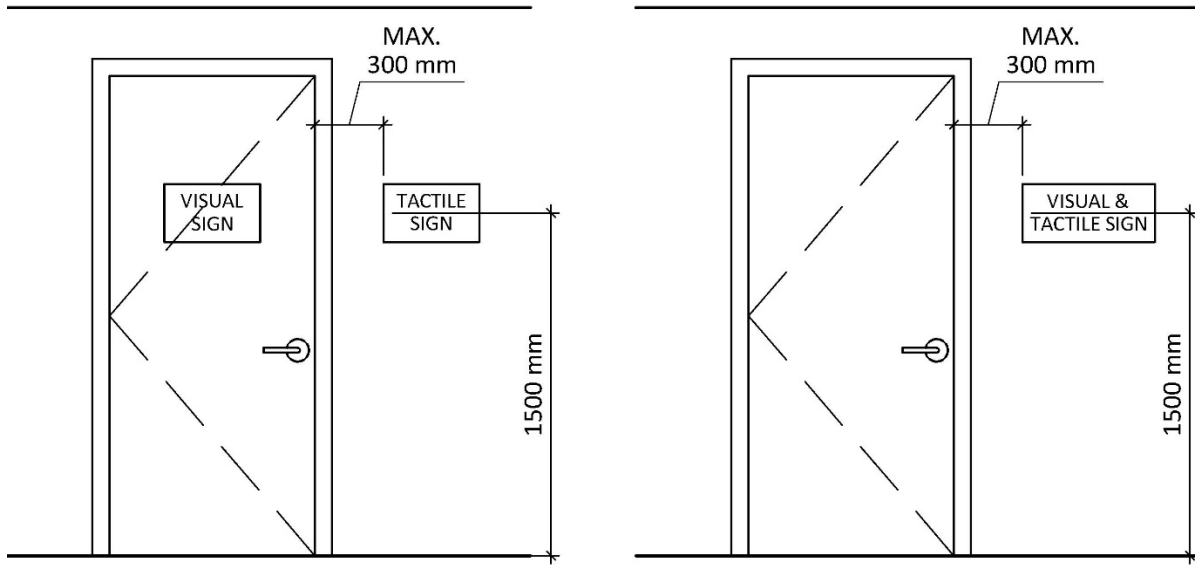


Figure 46a – Accessible Signage Installation Locations

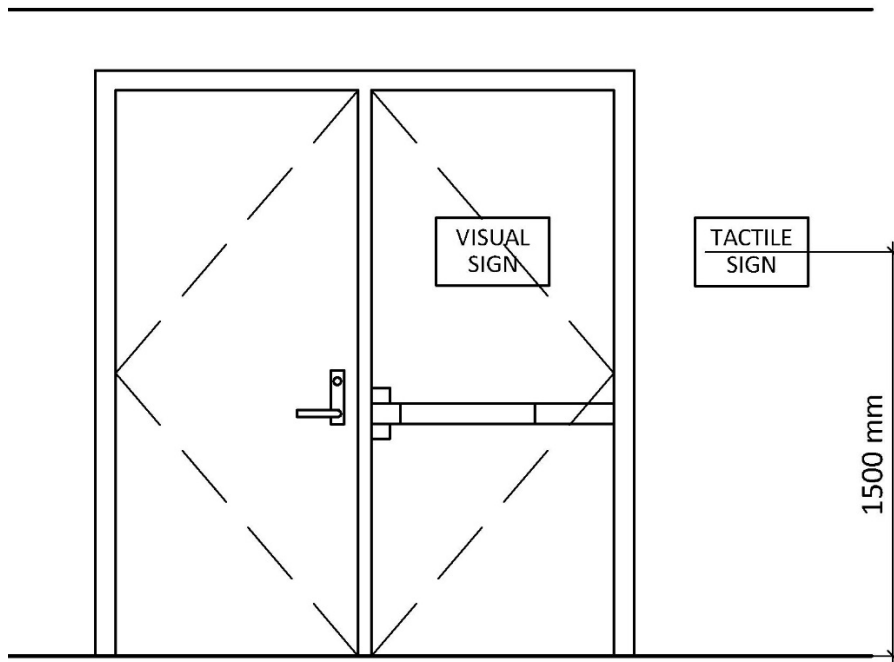


Figure 46b – Accessible Signage Installation locations

CSA B651 – Clause 4.5 – Signage

CSA B651 has an expanded amount of signage requirements.

Location

Where signage, including electronic displays, is provided, it shall be:

- Consistently located
- Positioned to avoid shadow areas and glare

Configuration of Signs

Where signage, including electronic displays, is provided, it shall:

- Have a glare-free surface
- Be of uniform design
- When used to give the same type of information within the same facility, be consistently shaped, coloured and positioned
- Be colour-contrasted with its background ([refer to Figure 47](#))

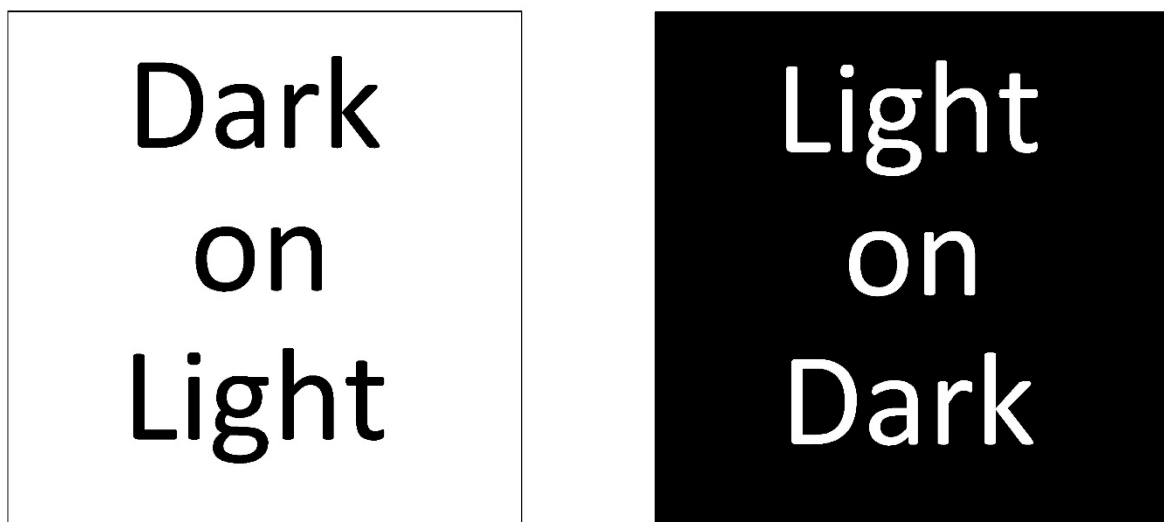


Figure 47 – Colour Contrasting of Signage

Characters

On signs, letters and numerals shall:

- Be sans serif
- Have Arabic numbers
- Have a width-to-height ratio between 3:5 and 1:1
- Have a stroke-width-to-height-ratio between 1:5 and 1:10
- Be colour-contrasted by at least 70 per cent with its background
- Have a character height relative to the intended viewing distance comply with [Figure 48](#)
- Use an upper case “X” for character measurement

Minimum character height, mm	Maximum viewing distance, mm
25	750
50	1500
75	2250
100	3000
150	4500
200	6000
250	7500
300	9000

Figure 48 – Character Height Relative to Viewing Distance

Pictograms and Symbols

Pictograms and symbols shall be colour-contrasted by at least 70 per cent with their background.

Illumination

The illumination level required for signs shall be at least 200 lx.

Tactile Signs

Signs with tactile markings shall supplement the text of:

- Regulatory signs such as prohibition and mandatory signs
- Warning signs such as caution and danger signs
- Identification signs such as rooms, titles, names or numbers

The characters for signs with tactile markings shall be:

- Raised between 0.8 and 1.5 mm above the surface
- Sans serif
- 16 to 50 mm in height
- Accompanied by braille near the bottom edge of the sign
- Colour-contrasted with their background by at least 70 per cent

Pictograms and symbols used for signs with tactile markings shall be:

- Raised between 0.8 and 1.5 mm above the surface
- At least 150 mm in height
- Accompanied by the equivalent description in braille, uncontracted and placed directly below the pictogram or symbol
- Colour-contrasted with their background by at least 70 per cent

Signs with tactile markings shall be located (refer to [Figure 49](#)):

- If used for a door, be mounted on the wall beside the latch edge of the door
- Where applicable, have the leading vertical edge 150 +/- 10 mm from the door jamb
- Where double-leaf doors are used, or no wall space adjoins the door's latch edge, be mounted on the nearest adjacent wall
- Allow a person to approach the sign to within 100 mm without encountering protruding objects or standing within a door swing
- Be mounted with the horizontal centerline 1,500 +/- 25 mm from the floor
- Have a clear wall area around the sign at least 75 mm wide

Where there are facilities or elements for accessibility, the symbol of accessibility shall be the International Symbol of Access.

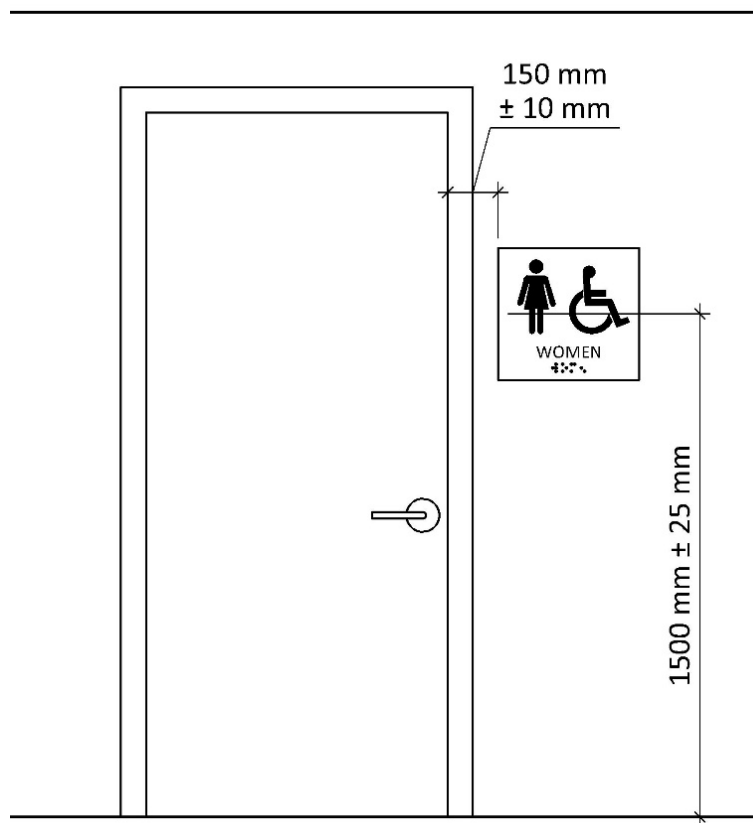


Figure 49 – Accessible Signage Installation Locations (CSA B651)

Drinking Fountains

Drinking fountains are not a mandatory requirement by the NBC. Once any fountains are installed or proposed to be installed, they could require either the NBC or CSA B651 to be applied.

NBC Division B, Article 3.8.3.10. – Drinking Fountains

When drinking fountains are supplied, at least one shall conform to *barrier-free* requirements and shall (refer to [Figure 50](#)):

- Be located along a *barrier-free* path of travel
- Have a minimum clear floor space of 800 by 1,350 mm in front of the fountain
- Have knee clearance following the dimensions for lavatories
- Have a spout that:
 - Is located near the front of the unit, at a height between 750 and 915 mm above the floor
 - Directs water flow to be parallel to the front of the unit and at a height approximately 100 mm above the fountain
- Be equipped with controls that:
 - Activate automatically; or
 - Are located either on the front or both sides of the fountain, complete with the requirements of “operable controls” covered earlier in this guide (refer to page 51).

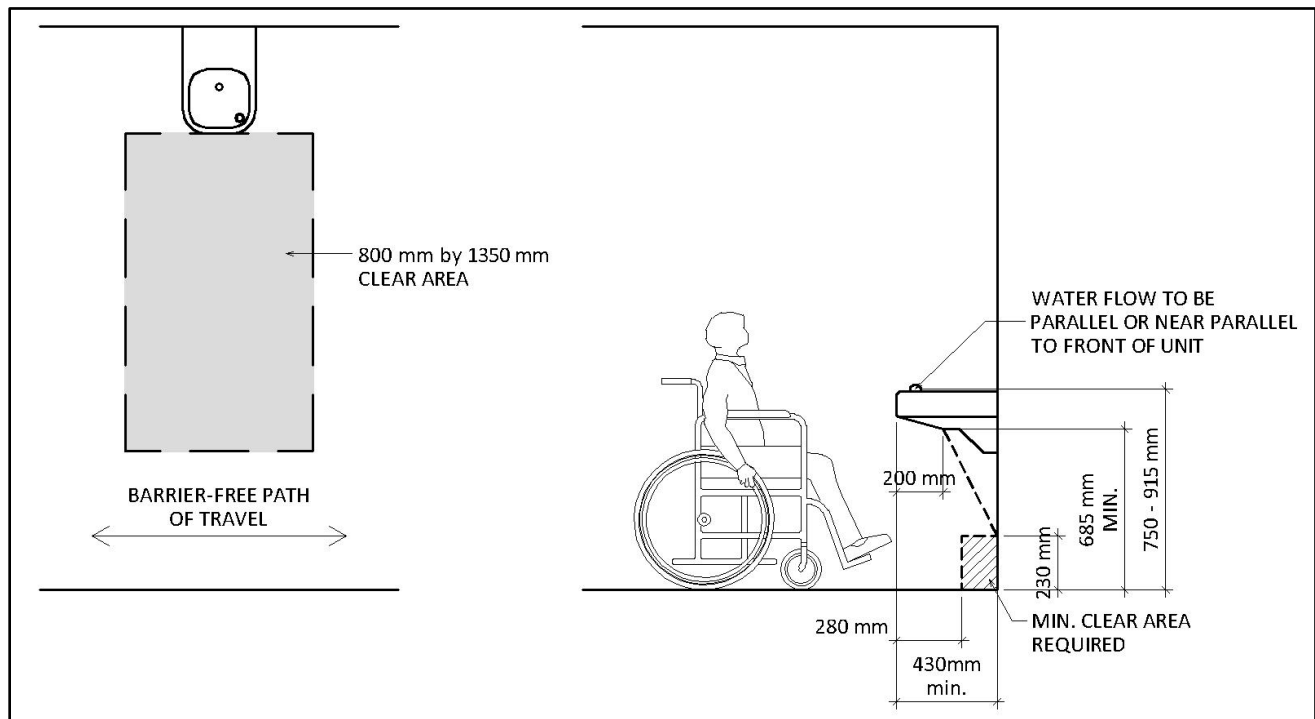


Figure 50 – Clear Floor Area and Clearances for Water Fountains (NBC)

CSA B651, Clause 6.1 – Drinking fountains

CSA B651 provides similar requirements to the NBC; however, there are some subtle differences in the dimensions used.

Spouts

The spout shall be between the dimensions 750 and 900 mm from the floor, located near the front of the unit. It shall direct the flow parallel or nearly parallel to the front of the unit and shall be at a height of at least 100 mm above the fountain level.

Controls

The controls shall:

- Not be foot-operated
- Allow the user the ability to control the timing and water delivery height
- Comply with the “operating controls” guidelines
- Be located at or near the front of the fountain

Floor Area

The floor area shall have a clear floor area of at least 800 by 1,350 mm in front of the unit (refer to [Figure 51](#)).

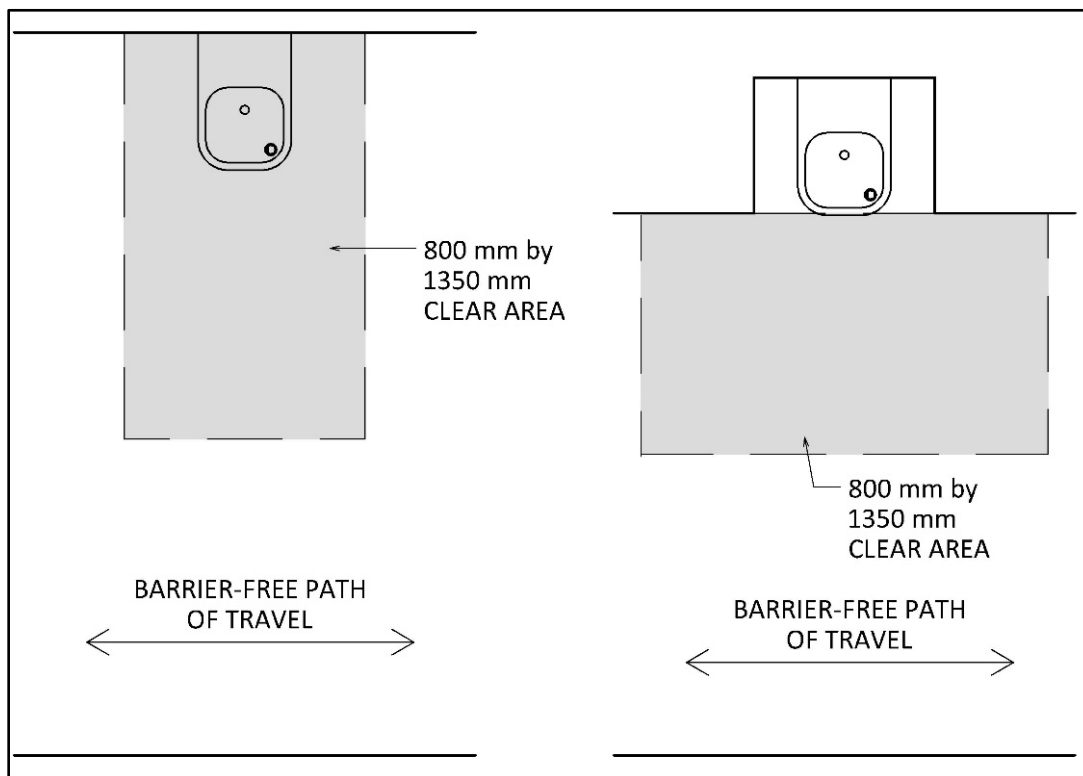


Figure 51 – Clear Floor Area for Water Fountains (CSA B651)

Colour Contrast

The fountain shall be colour-contrasted from the background surrounding the unit.

Cantilevered and Recessed Fountains

Cantilevered drinking fountains shall (refer to [Figure 52](#)):

- Have a knee clearance between the bottom of the apron and the floor at least 800 mm wide by 200 mm deep by 685 mm high
- Have a toe space at least 800 mm wide by 230 mm deep and 230 mm high
- Be cane-detectable, recessed or otherwise located out of the route of travel

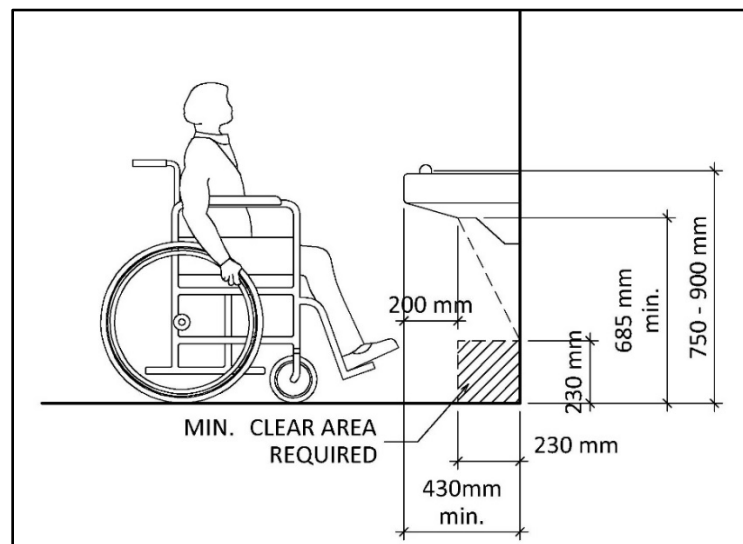


Figure 52 – Clearances for Water Fountains (CSA B651)

Water-Bottle Filling Stations

Similar to drinking fountains, water-bottle filling stations are not a mandatory requirement by the NBC; however, once any fountains are installed or proposed to be installed, they could require either the NBC or CSA B651 to be applied.

NBC Division B, Article 3.8.3.11. – Water-Bottle filling stations

When drinking fountains are supplied, at least one shall conform to *barrier-free* requirements and shall be:

- Located along a *barrier-free* path of travel
- Have a minimum clear floor space of 800 by 1,350 mm in front of the fountain ([refer to Figure 53](#))
- Have knee clearance following the dimensions for lavatories for front access
- Operable at a height of not more than 1,200 mm above the floor
- Equipped with controls that:
 - Activate automatically; or
 - Are located either on the front or both sides of the fountain, complete with the requirements of “operable controls” covered earlier in this guide (refer to page 50).

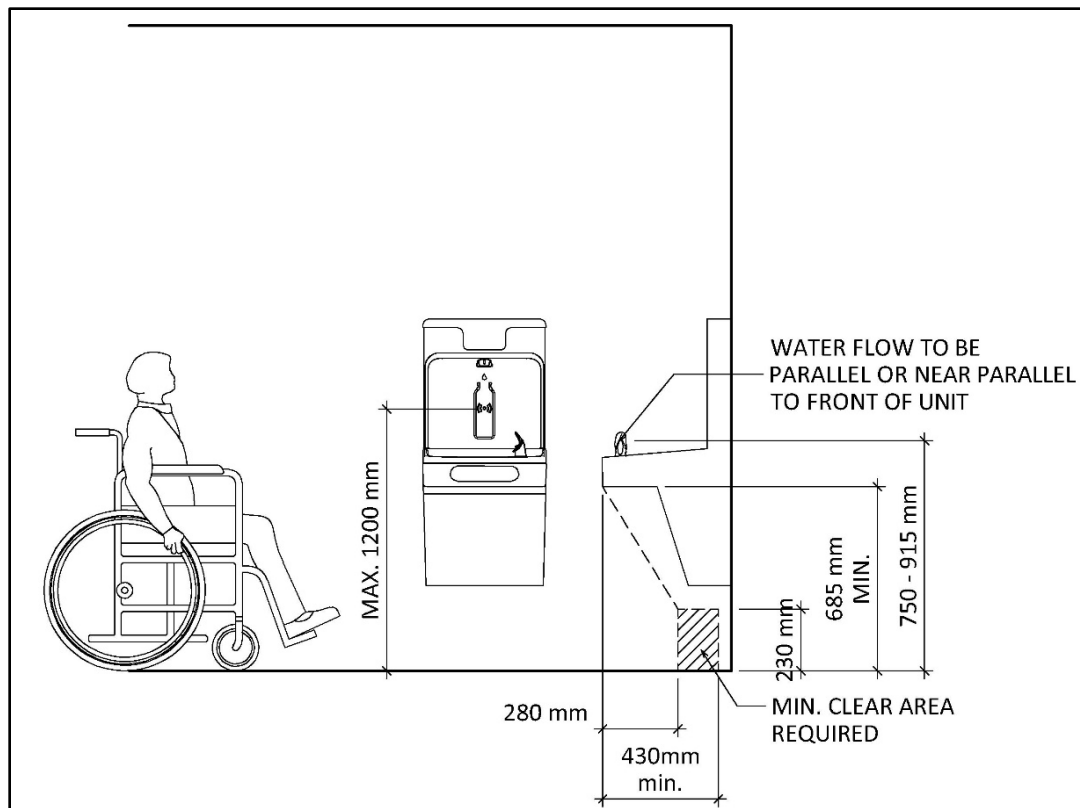


Figure 53 – Clearances for Water-Bottle Filling Station (NBC)

Grab Bars

Grab bars are listed in both NBC and CSA B651 and are directly referenced throughout for washroom facilities for *barrier-free* design.

NBC Division B, Article 3.7.2.7. – Grab Bars

Grab bars shall:

- Be slip-resistant and free of any sharp or abrasive elements
- Be mounted on surfaces that are free of any sharp or abrasive elements
- Be able to resist a load of not less than 1.3 kN (approximately 292 lbs) applied vertically or horizontally
- Be 30 to 40 mm in diameter
- Where mounted on a wall, have a clearance of 35 to 45 mm from the wall

CSA B651, Clause 6.2.5 – Grab bars

A grab bar shall:

- Be slip-resistant
- Have a diameter between 30 and 40 mm
- Where mounted adjacent to a wall, have a space between 35 and 45 mm between the wall and the grab bar
- Not rotate within its fittings

Structural strength

A grab bar shall be installed to resist a force of at least 1.3 kN (approximately 292 lbs) applied in any direction.

Surfaces

A grab bar and adjacent surfaces shall be free of any sharp or abrasive elements.

Water-Closet Stalls

Barrier-free water closet stalls and enclosures are required by the respective standard.

NBC Division B, Article 3.8.3.12. – Accessible Water-Closet Stalls

Refer to [Figures 54](#) and [Figure 55](#) for clarification.

As outlined in the NBC, accessible water closet stalls shall:

- Not be less than 1,500 mm wide by 1,500 mm deep
- Have a clear floor space in front of the accessible water closet stall that is 1,700 by 1,700 mm
- Have a door that:
 - Is latchable from the inside of the water closet stall with an accessible mechanism
 - Is aligned with the transfer space adjacent to the water closet, or with a clear floor space 1,700 by 1,700 mm within the stall
 - Has a clear opening of not less than 850 mm wide when in the open position
 - Is self-closing so that, when at rest, the door is ajar by not more than 50 mm beyond the jamb
 - Swings outward, unless there is sufficient floor space within the stall for the door to swing inward in addition to a clear floor space of at least 800 by 1,350 mm
 - Where the door swings outward, is provided with a D-shaped horizontal, visually contrasting door pull not less than 140 mm long, located on the inside such that its midpoint is 200 to 300 mm from the hinged side of the door and 800 to 1,000 mm above the floor
 - 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 200 to 300 mm from the latch side of the door and 800 to 1,000 mm above the floor
- Have a water closet that the centre line is between 460 and 480 mm from the wall on one side
- Have an L-shaped grab bar that (refer to [Figure 55](#)):
 - Is mounted on the side wall closest to the water closet
 - Has horizontal and vertical components not less than 760 mm long, with the horizontal component 750 to 850 mm above the floor and the vertical component 150 mm in front of the water closet
 - Complies with the requirements for grab bars (refer to “Grab Bars” on page 60)
- Be equipped with either one grab bar 600 mm long centered over the water closet or two grab bars at least 300 mm long and located on either side of the flush valve that:
 - Conform to the requirements of grab bars (refer to “Grab Bars” on page 60)
 - Are mounted on the rear wall
 - 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

- Be equipped with a coat hook mounted not more than 1,200 mm above the floor on the side wall and projecting not more than 50 mm from the wall
- Be equipped with a toilet paper dispenser mounted on the side wall closest to the water closet such that:
 - The bottom of the dispenser is 600 to 800 mm above the floor
 - The closet edge of the dispenser is 300 mm from the front of the water closet

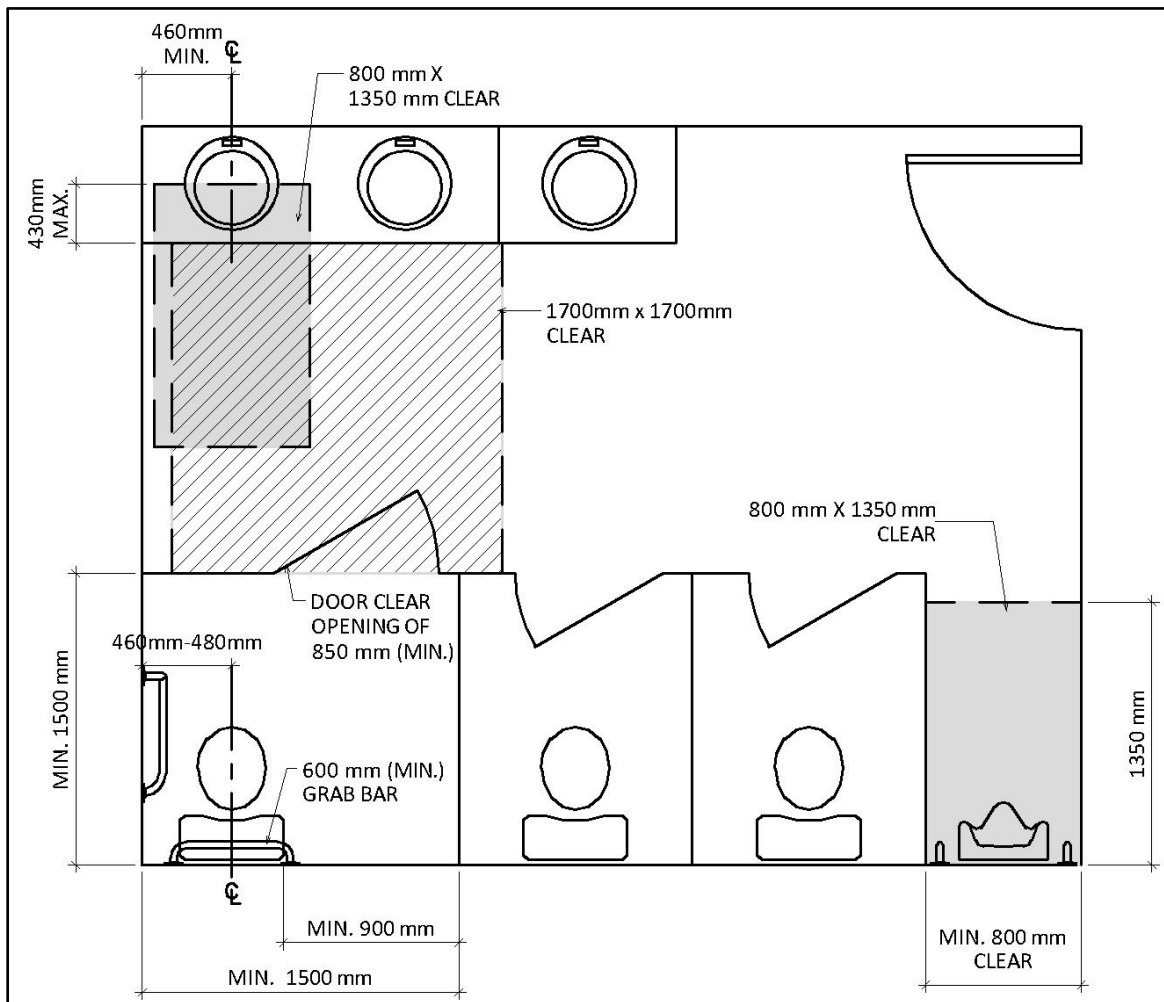


Figure 54 – Washroom Layout Requirements (NBC)

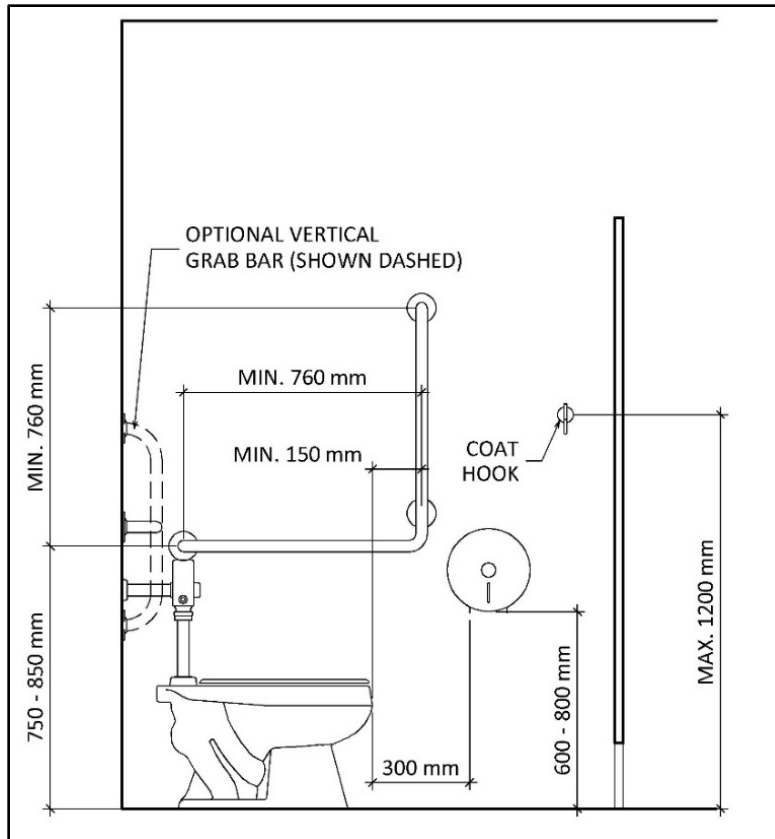


Figure 55 – Water Closet Stall Requirements (NBC)

CSA B651, Clause 6.2.7 – Toilet stalls

CSA B651 contains many similar requirements to the NBC with some modifications for dimensions (refer to [Figures 56](#) and [Figure 57](#) for clarification).

Toilet stalls shall:

- Not be less than 1,600 mm wide by 1,500 mm deep
- Have a hook on a side wall:
 - Mounted not more than 1,200 mm above the floor
 - Projecting not more than 40 mm from the wall

Toilet stall doors shall:

- Provide a clear opening of at least 850 mm with the door in the open position
- Be aligned with the transfer space adjacent to the water closet
- Swing outward, unless additional space is provided within the stall for the door swing
- Have a D-type door pull at least 140 mm long, mounted horizontally on the inside of an out-swinging door that:
 - Has its centerline located between 200 and 300 mm from the hinge edge
 - At a height between 800 and 1,000 mm from the floor
- Have a D-type door pull at least 140 mm long, mounted horizontally on the outside:
 - With its centreline located between 120 and 220 mm from the latch edge of the door
 - At a height between 800 and 1,000 mm from the floor

- Be self-closing so that at rest, the door will be ajar not more than 50 mm beyond the jamb
- Be latched from the inside that complies with the requirements for operating controls (refer to “Controls” page 50)
- Have a clear area of at least 1,700 by 1,700 mm in front of the stall
- Have an L-shaped grab bar that (refer to [Figure 57](#)):
 - Is wall-mounted on the wall closest to the water closet
 - Has horizontal and vertical components not less than 760 mm long, with the horizontal component 750 to 850 mm above the floor and the vertical component 150 mm in front of the water closet
 - Complies with the requirements for grab bars (refer to “Grab Bars” on page 60)
- Be equipped with either one grab bar 600 mm long centered over the water closet, or two grab bars at least 300 mm long and located on either side of the flush valve that:
 - Conform to the requirements of grab bars (refer to “Grab Bars” on page 60)
 - Are mounted on the rear wall
 - 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
- Have a toilet paper dispenser that shall be located:
 - So that the dispensing of the paper is in line with the front of the seat
 - At a height between 600 and 700 mm from the floor

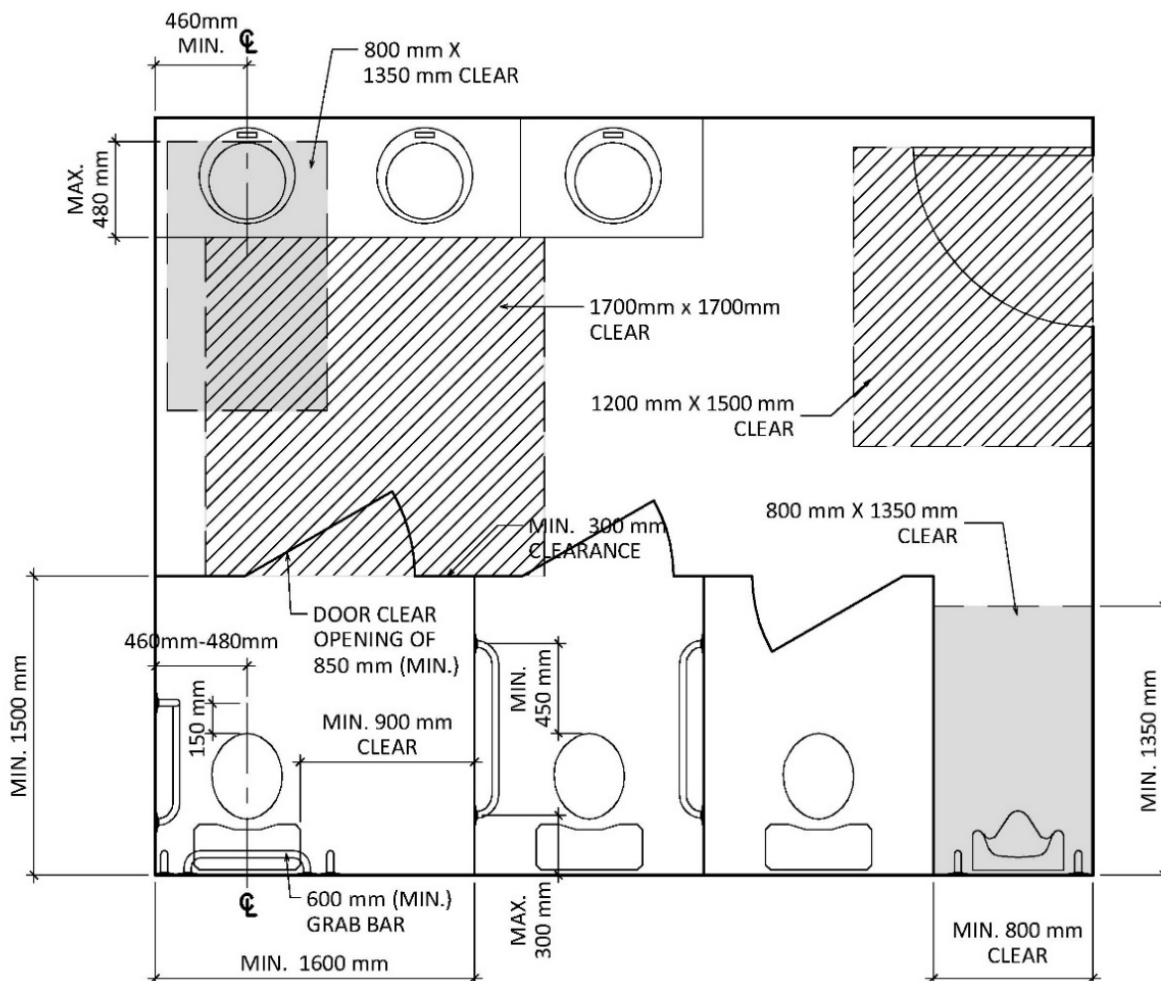


Figure 56 – Washroom Layout Requirements (CSA B651)

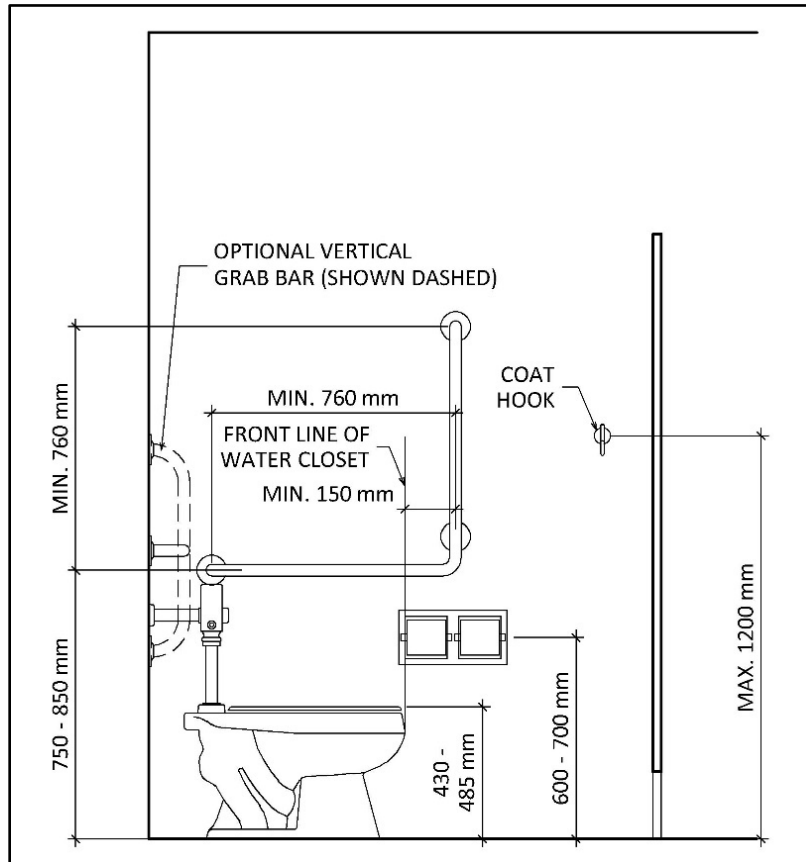


Figure 57 – Toilet Stall Requirements (CSA B651)

Universal Washrooms

NBC Division B, Article 3.8.3.13 – Universal Washrooms

Refer to [Figure 58a](#), [Figure 58b](#) and [Figure 59](#) for clarification.

Refer to page 77 for the installation of accessible washroom accessories.

As outlined in the NBC, universal washrooms shall:

- Be served by a *barrier-free* path of travel
- Have a door complying with the door requirements as outlined earlier in this guide (refer to “Doors and Doorways”, pages 38 and 43) and that:
 - Has a latch-operating mechanism located between 900 and 1,100 mm above the floor, is lockable from the inside and can be released from the outside in an emergency
 - When it is an out-swinging door that is not self-closing, it 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
- Have one lavatory conforming to NBC requirements
- Have one water closet conforming to NBC requirements and with clear floor space at least 900 mm wide and at least 1,500 mm long that is parallel and adjacent to the water closet
- Have grab bars that conform to NBC requirements

- Have a coat hook that conforms to NBC requirements
- Have a toilet paper dispenser that conforms to the NBC requirements
- Have a shelf located not more than 1,200 mm above the floor, unless a counter is provided
- Be designed to permit a wheelchair to turn in an open space, not less than 1,700 mm in diameter

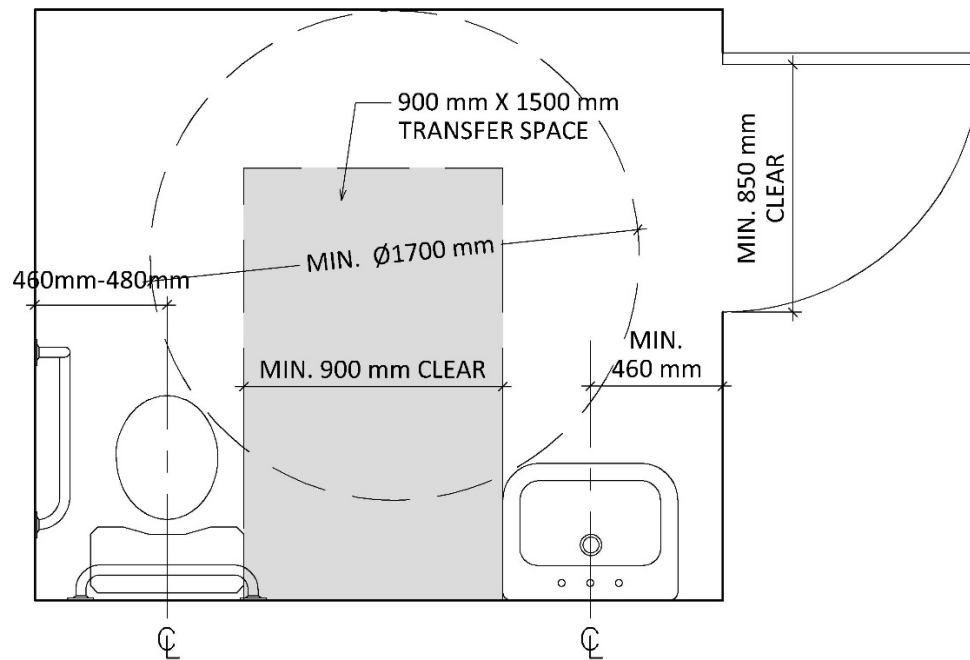


Figure 58a – Universal Washroom Layout (NBC)

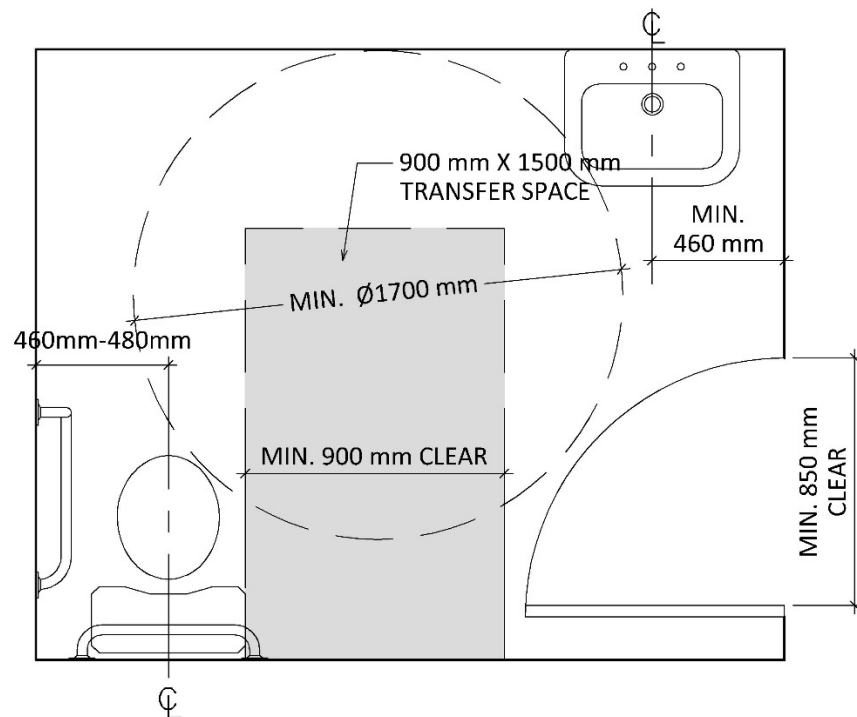


Figure 58b – Universal Washroom Layout (NBC)

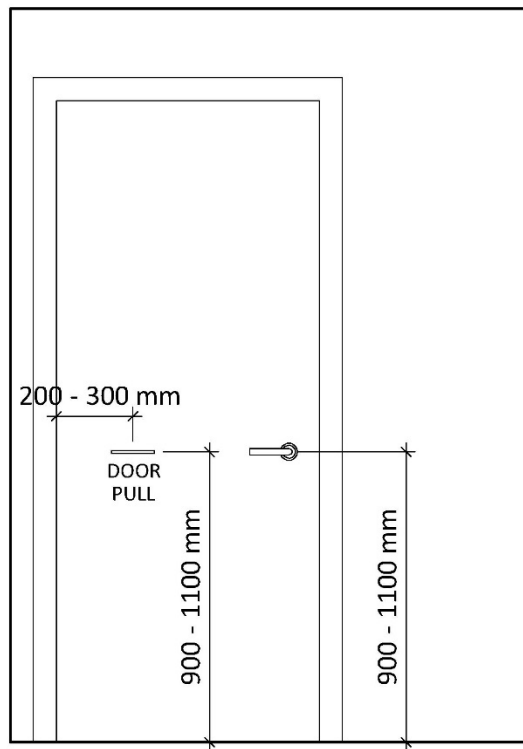


Figure 59 – Universal Washroom Door Layout (NBC)

Universal washrooms that install accessible change spaces shall:

- Be equipped with an adult-sized change table
- Have a clear floor space of 810 mm wide by 1,830 mm long that does not overlap with the clear floor spaces required with the:
 - Lateral transfer space for a water closet;
 - 1,700 mm diameter clear turning area; or
 - Clear space for the lavatory (refer to [Figure 60](#)).
- Have a clear transfer space of 900 by 1,350 mm adjacent to the long side of the adult-sized change table

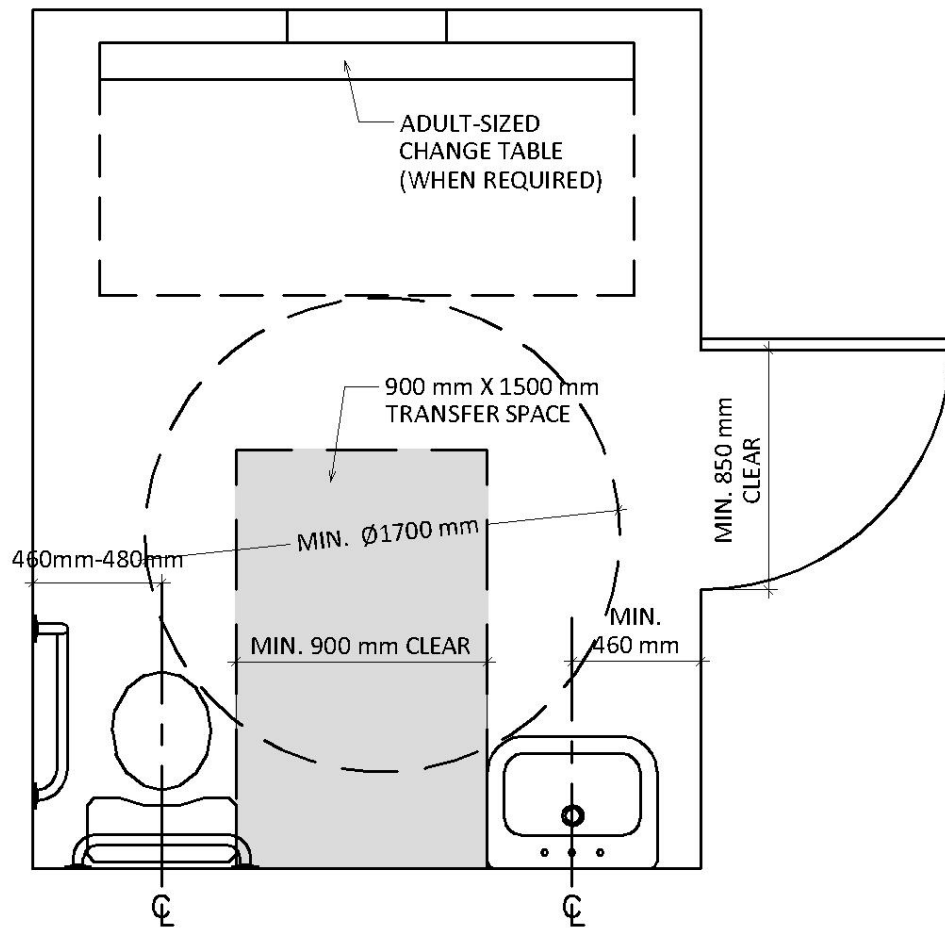


Figure 60 – Universal Washroom with Adult-sized Change Table Sample Layout (NBC)

CSA B651, Clause 6.3 – Universal washrooms

Refer to [Figure 61](#) and [Figure 62](#) for clarification.

As outlined in CSA B651, a universal washroom shall:

- Have an electronic emergency call system complete with signage (with 25 mm high lettering), that provides audible and visual signals inside and outside the washroom when activated
- Provide a clear area of at least 1,700 by 1,700 mm
- Have a lavatory that complies with CSA B651 (refer to page 78)
- Have a toilet that complies with CSA B651 (refer to page 71)
- Have grab bars that comply with CSA B651 (refer to page 60)
- Be identified by a sign that:
 - Complies with CSA B651 (refer to “Accessibility Signage”, page 54)
 - Shows a male and female pictogram or gender-neutral pictogram and the International Symbol of Access (refer to [Figure 62](#))

The door for a universal washroom shall:

- Comply with the requirements of CSA B651 (refer to “Doors and Doorways”, pages 38 and 45)
- Have a locking mechanism that conforms to CSA B651 and may be unlocked from the outside in an emergency

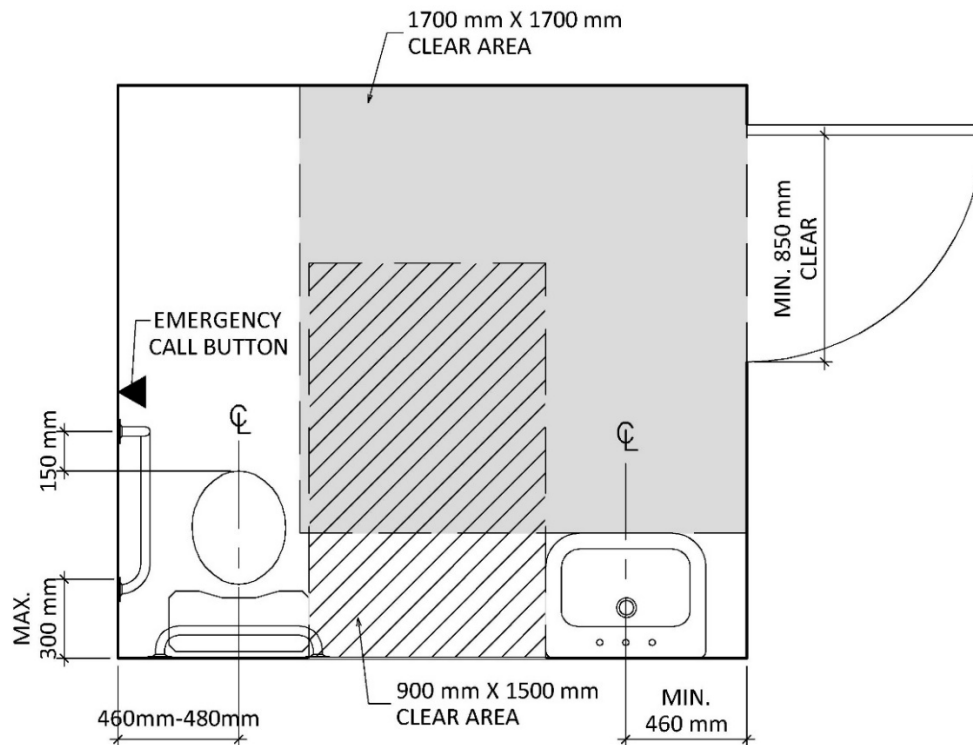


Figure 61 – Universal Washroom Layout (CSA B651)



Figure 62 – Universal Washroom All Gender Sign (CSA B651)

CSA B651, Clause 6.3.4. – Adult change table

When an adult change table is provided, they shall (refer to [Figure 63](#)):

- Be located on an accessible route
- Be at least 760 mm wide by 1,830 mm long
- Have a surface height above the finished floor that can be adjusted from between 450 and 500 mm at the low range to between 850 and 900 mm at the high range
- Have surfaces free of sharp edges, corners or abrasive materials
- Be easy to clean
- Support a weight of at least 250 kg (approximately 551 lbs)
- Have a clear transfer space of 900 by 1,500 mm adjacent to the adult change table
- Not encroach into the clear transfer space; if controls are present, they shall not be installed higher than 1,200 mm above the finished floor
- Comply with CAN/CSA-Z10535.1, “Hoists for the transfer of disabled persons – Requirements and test methods,” and shall be installed as per CSA Z10535.2, “Lifts for the transfer of persons – Installation, use, and maintenance.”
- Have a horizontal grab bar that:
 - Is centred on the long dimension of the table
 - At least 1,200 mm long
 - Is mounted regardless of table height adjustment

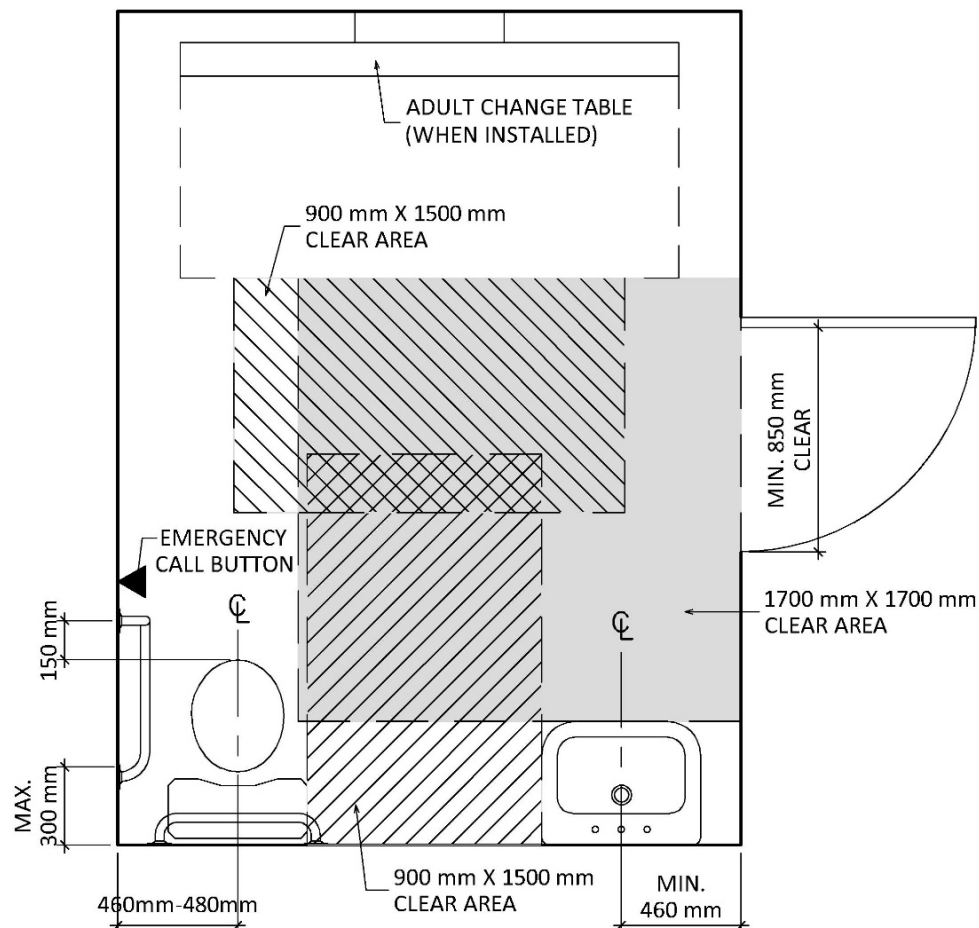


Figure 63 – Universal Washroom with Adult Change Table (CSA B651)

Water Closets

NBC Division B, Article 3.8.3.14. – Water Closets

As outlined in the NBC, water closets (toilets) shall (refer to [Figure 64](#)):

- Have a water closet with the seat located 430 to 460 mm above the floor
- Have an automatic flusher or be equipped with a flushing control that:
 - Is located 500 to 900 mm above the floor
 - Is located no more than 350 mm from the transfer side
 - Complies with 3.8.3.8.(1)(b) – (refer to “Controls,” page 50)
- Be equipped with a seat lid or other back support
- Where it has a tank, have a securely attached tank top

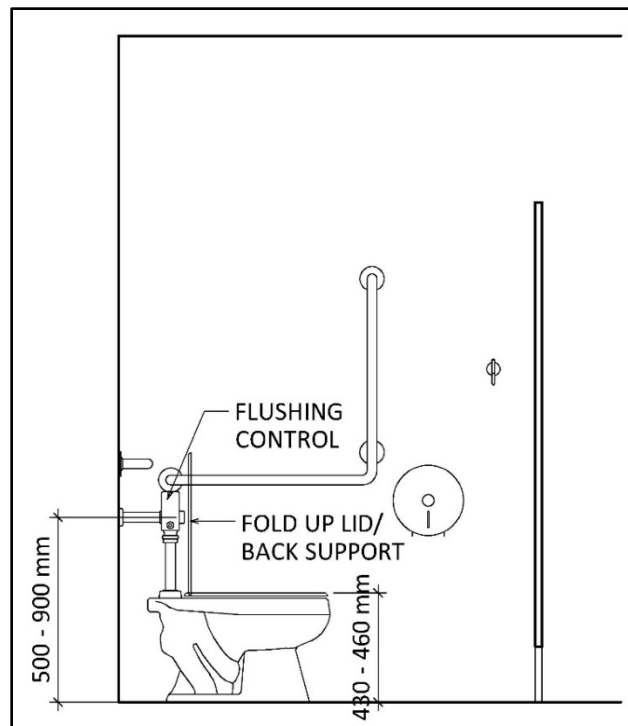


Figure 64 – Water Closet Requirements (NBC)

CSA B651, Clause 6.2.6 – Toilets

As outlined in the CSA B651, water closets (toilets) shall have (refer to [Figure 65](#)):

- The top of the seat is between 430 and 485 mm from the floor
- No spring-activated seat
- A back support where there is no seat lid or tank
- Where there is a tank, a tank lid that is securely attached

The location of a toilet shall (refer to [Figure 61](#)):

- Have its centerline between 460 and 480 mm from an adjacent wall
- Have a clear transfer space at least 900 mm wide by 1,500 mm long on its open side, where the width is measured from the edge of the toilet bowl

The flush controls for the toilet shall:

- Be automatically activated; or
- Be hand-operated by a device that:
 - Complies with 4.2 of CSA B651 (refer to “Controls,” page 50)
 - Is located not more than 350 mm from the transfer space side of the toilet

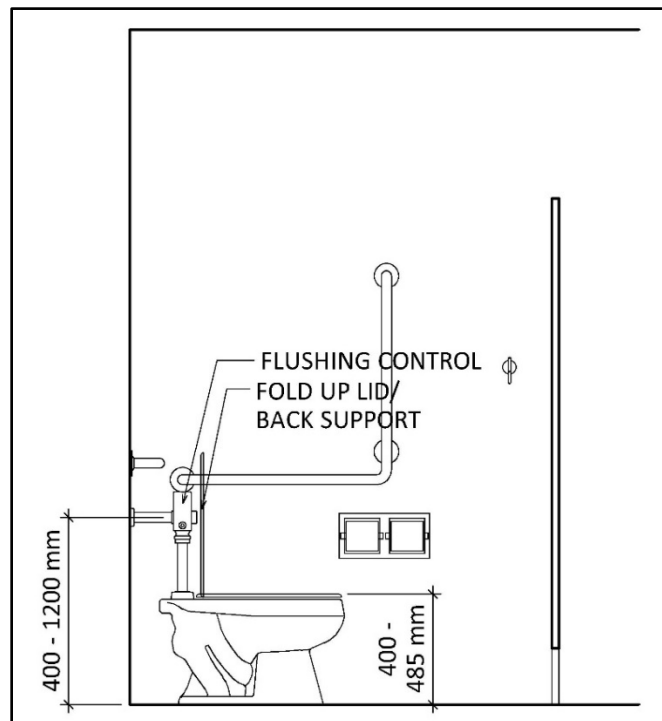


Figure 65 – Toilet Requirements (CSA B651)

NBC Division B, Article 3.8.3.15. – Water-Closet Stalls and Urinals for Persons with Limited Mobility

Required water-closet stalls for persons with limited mobility shall:

- Be at least 1,500 mm deep and 890 to 940 mm wide
- Have a door that:
 - Has a latch-operating mechanism as per Clause 3.8.3.8.(1)(b) (refer to page 50 for reference)
 - Has a clear opening width of not less than 850 mm when opened
 - Swings outward from the stall, unless the clear dimensions can be maintained and do not overlap inside the stall when the door swings into the stall
 - Is self-closing so that, when at rest, the door is ajar not more than 50 mm beyond the jamb (refer to [Figure 66a](#) for reference)
 - Has a door pull on both sides of the door, near the latch side, located between 900 mm and 1,100 mm above the finished floor
- Have a water closet that follows Article 3.8.3.14. (refer to page 71)
- Have a horizontal grab bar that conforms to Article 3.7.2.7. and is on each side of the stall that:
 - Is located 750 to 850 mm above the floor
 - Begins not more than 300 mm from the wall behind the water closet and extends 450 mm in front of the toilet
- Have a coat hook not more than 1,200 mm above the floor and projecting not more than 50 mm from the wall

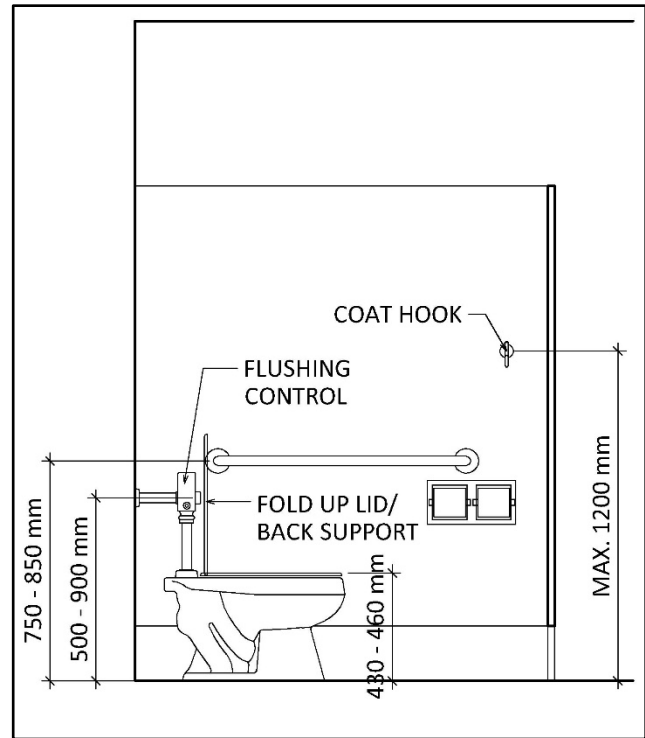
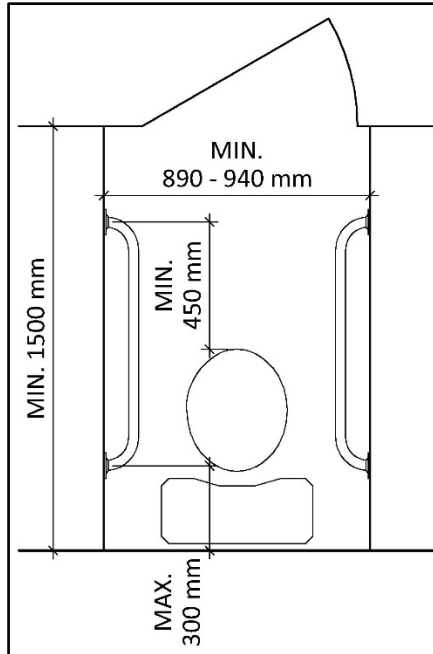


Figure 66a and 66b – Stalls for Person with Limited Mobility Plan and Elevation (NBC)

Urinals

Where urinals are installed, they shall (refer to [Figure 67](#)):

- Be wall-mounted, with the opening of the basin located not more than 430 mm above the floor
- Be adjacent to an accessible route
- Have a clear width of 800 mm by 1,350 mm long, centred on the urinal and unobstructed by privacy screens (refer to [Figure 54](#))
- Have no steps in front of it
- Have a flush control that:
 - Is automatic; or
 - Is located between 900 and 1,100 mm and conforms to the requirements of the controls (refer to “Controls,” page 50).
- Have vertical grab bars on each side that:
 - Complies with the requirements for grab bars in the NBC (refer to “Grab bars,” page 60)
 - Are not less than 600 mm long, with their centre line 1,000 mm above the floor
 - Are located not more than 380 mm from the centre line of the urinal

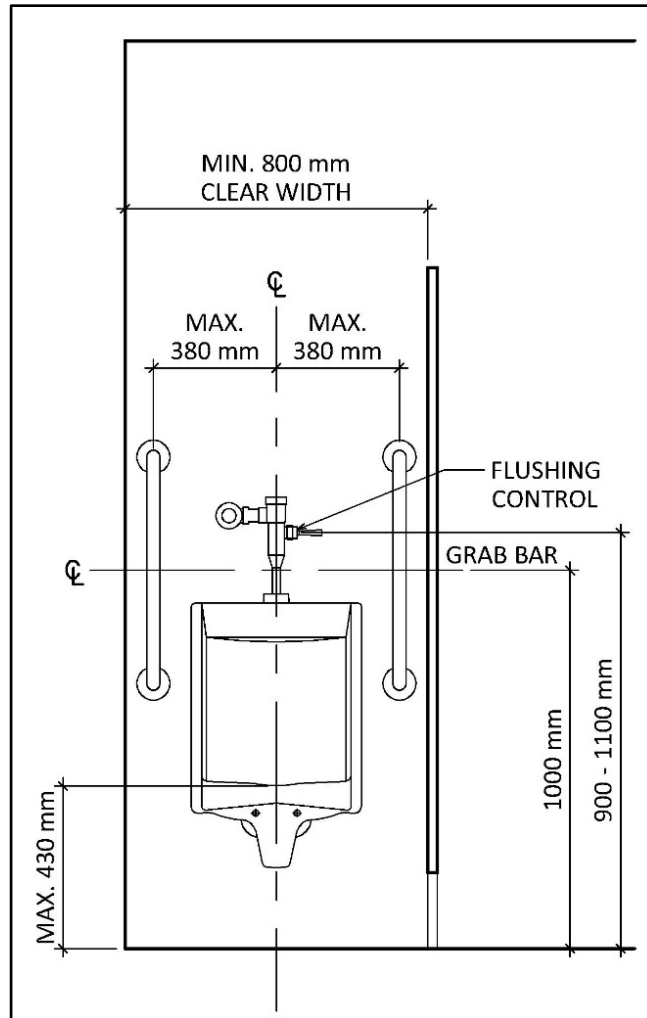


Figure 67 – Urinal Requirements (NBC)

CSA B651, Clause 6.2.7.3. – Toilet stalls for users with limited mobility

CSA B651 has some slight variations from the NBC requirements for toilet stalls for people with limited mobility.

Required water-closet stalls for persons with limited mobility shall:

- Be a standard-sized toilet stall
- A horizontal grab bar that conforms to Clause 6.2.5. (refer to page 60) and is on each side of the stall:
 - Is located 750 to 850 mm above the floor
 - Begins not more than 300 mm from the wall behind the water closet and extends 450 mm in front of the toilet
- A toilet that meets Clause 6.2.6.1. (refer to page 72)

- Have a door that:
 - Has a latch-operating mechanism as per Clause 4.2.4. (refer to page 50 for reference)
 - Swings outward from the stall
 - Is self-closing so that when the door is at rest is not more than 50 mm beyond the jamb (refer to [Figure 68a](#) for reference)

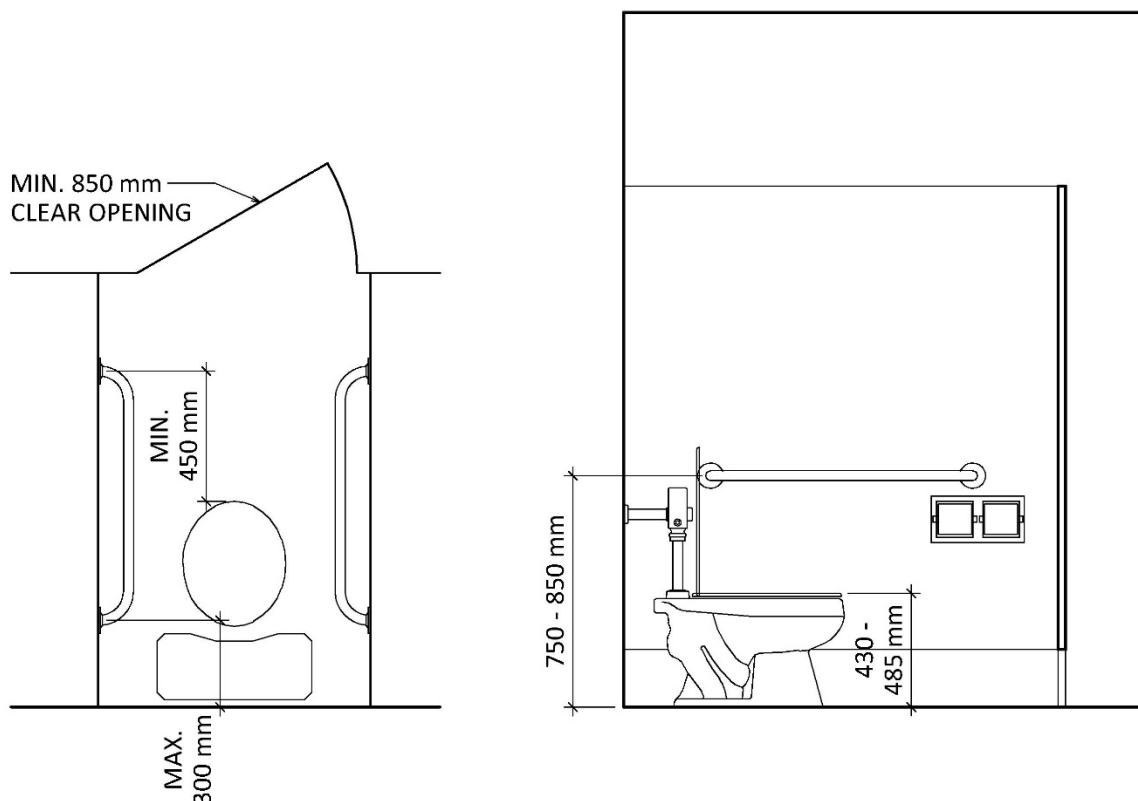


Figure 68a and 68b – Stalls for Person with Limited Mobility Plan and Elevation (CSA B651)

CSA B651, Clause 6.2.8 – Urinals

The requirements for urinals in CSA B651 have similar requirements to the NBC as follows (refer to [Figure 69](#)):

The urinal shall:

- Be a stall or wall-hung type with the well located so that:
 - The lower rim is not higher than 430 mm from the floor
 - The upper rim is not lower than 860 mm from the floor
- Have a clear floor area in front of the urinal that is:
 - Adjacent to an accessible route
 - Centred on the urinal
 - At least 800 mm wide and 1,350 mm deep (refer to [Figure 56](#))
 - Unobstructed by floor-level changes or privacy screens
- Have flush controls that are:
 - Automatically operated; or
 - Hand-operated complying with controls earlier in the standard (refer to “Control,” page 50).

The grab bars for urinals shall:

- Be at least 600 mm long
- Be mounted vertically on the back wall:
 - On each side of the urinal
 - Not more than 380 mm from the centre of the urinal
 - With the centre line 1,000 mm from the floor
- The colour-contrasts with the back wall

A unique requirement for this CSA standard is a centerline indicator. The centerline of a urinal shall be indicated by a vertical element that:

- Is centred on the urinal
- Extends to a height of at least 1,300 mm from the floor, but never less than 150 mm above the upper urinal rim
- Is at least 50 mm wide
- Is raised at least 3 mm from the wall surface
- Is colour-contrasted not less than 70 per cent with the back wall

Of note for the centerline indicator is that exposed piping or other architectural features may be used for the centerline indicator. The centerline indicator shall apply to all urinals when there is more than one present.

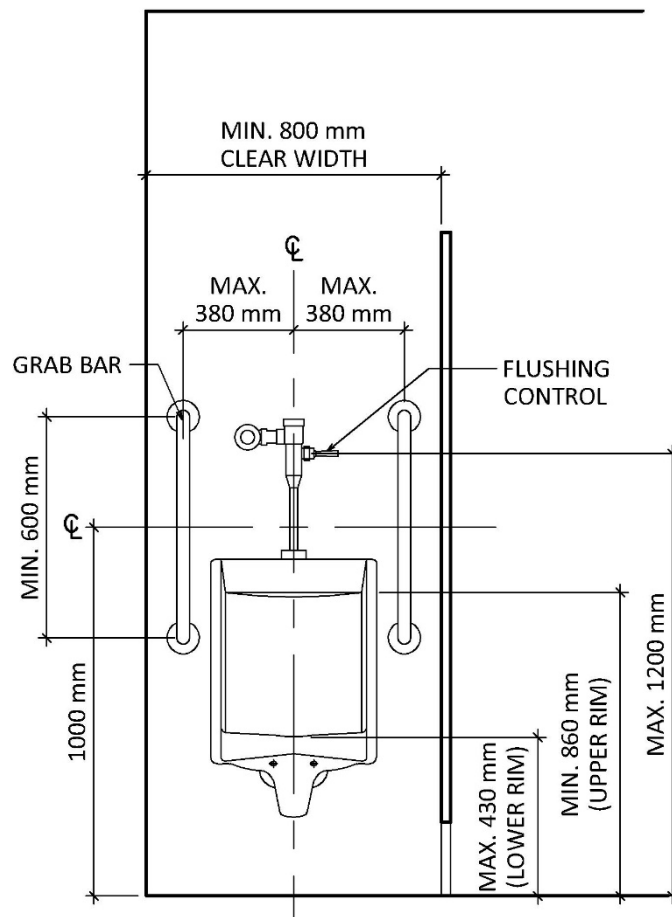


Figure 69 – Urinal Requirements (CSA B651)

Lavatories and Mirrors

NBC Division B, Article 3.8.3.16. – Lavatories and Mirrors

When required, lavatories shall (refer to [Figure 70](#)):

- Be equipped with faucets that are either automatically operated or have a manual control
- Be located so that the distance between the centre line of the lavatory and any side wall is not less than 460 mm
- Have a clear floor area in front of the lavatory that is at least:
 - 800 mm wide, centred on the lavatory
 - 1,350 mm long, of which not more than 430 mm is beneath the lavatory
- Have the height to the rim not more than 865 mm from the floor
- Have a clearance beneath the lavatory not less than:
 - 800 mm wide, centred on the lavatory
 - 735 mm high at the front edge
 - 685 mm high at a point 200 mm back from the front edge
 - 230 mm high over the distance from a point 280 mm to a point 430 mm back from the front edge
- Have insulated water supply and drainpipes where these pipes are exposed (see Note A-3.8.3.15.(1)(e) for exceptions)
- Have a soap dispenser that is:
 - Automatic
 - Operable with one hand (refer to “Controls,” page 50) is located not more than 1,100 mm above the floor and within 500 mm from the front of the lavatory
- Have a towel dispenser or other hand-drying equipment located close to the lavatory and not more than 1,200 mm above the floor

The mirrors (when required) shall be:

- Mounted with the bottom edge not more than 1,000 mm above the floor; or
- Fixed in an incline position to be usable by a person in a wheelchair.

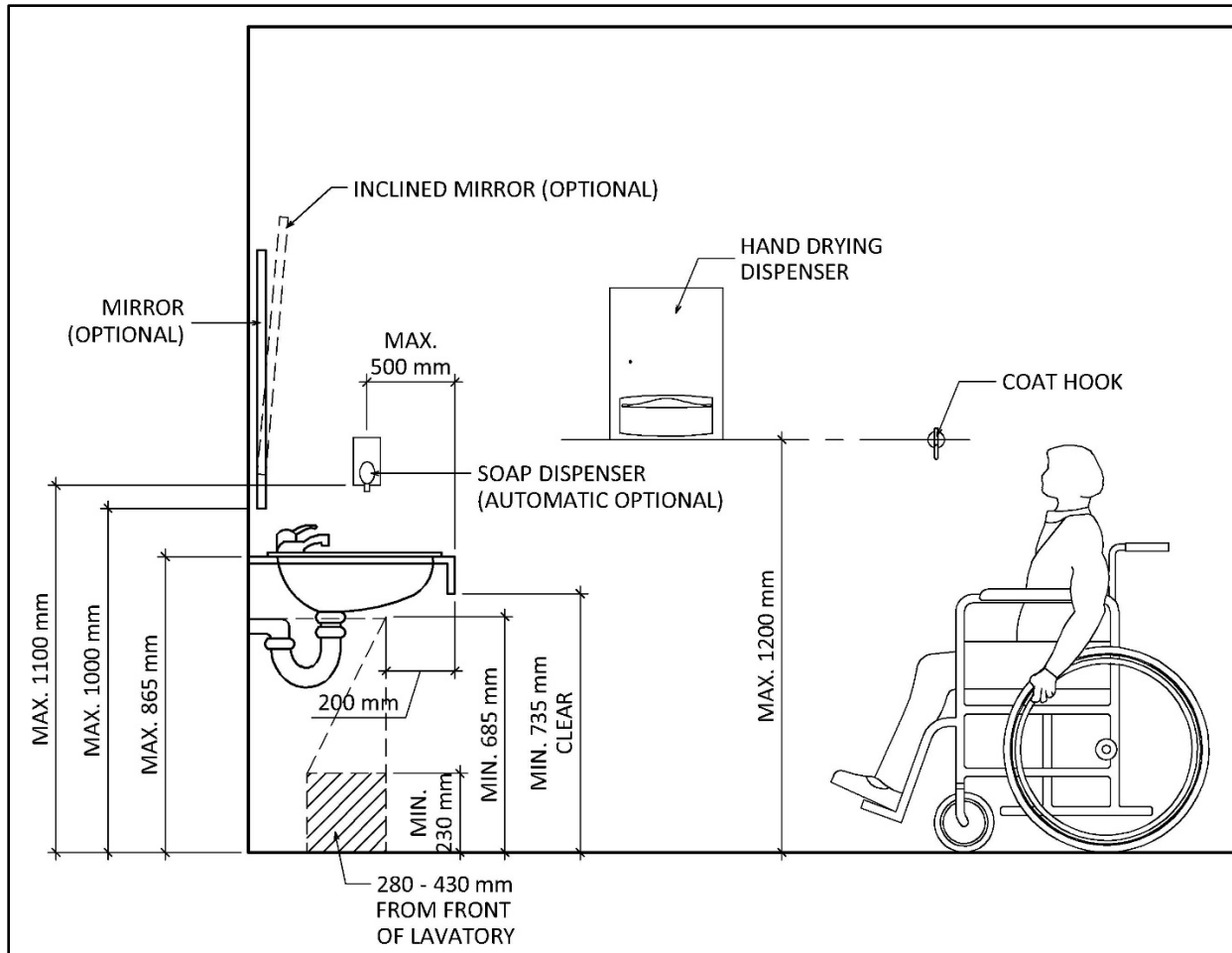


Figure 70 – Lavatories, Mirrors and Accessories (NBC)

CSA B651, Clause 6.2 – Washroom facilities

Under CSA B651, the requirements of lavatories and mirrors are as follows (refer to [Figure 71](#)):

The lavatory shall:

- Be mounted with the centerline at least 460 mm from a side wall
- Have the top of the lavatory located between 810 and 860 mm from the floor
- Have a knee space centred on the lavatory at least 800 mm wide by 200 mm deep by 680 mm high, with an additional toe clearance of at least 800 mm wide by 230 mm deep by 230 mm high
- Have a clear floor area centred with the lavatory at least 800 by 1,350 mm, of which not more than 480 mm may be under the lavatory
- Have hot water and drainpipes offset to the rear

Lavatory counters shall:

- Have a knee clearance at least 800 mm wide by 685 mm high when there is a front apron

The faucets shall:

- Meet the requirements of Operating Controls as found in CSA B651 (refer to “Controls,” page 50)
- Not require the application of continuous force to maintain water flow
- Where metered, will provide at least 10 seconds of water flow

The maximum water temperature supplied to the lavatory shall not exceed 49°C.

Mirrors shall be mounted where the bottom edge is not more than 1,000 mm from the floor.

Soap dispensers shall:

- Be located within 500 mm reach of a person seated at the lavatory
- Not be higher than 1,100 mm from the floor
- Operable with one hand to dispense soap on the palm

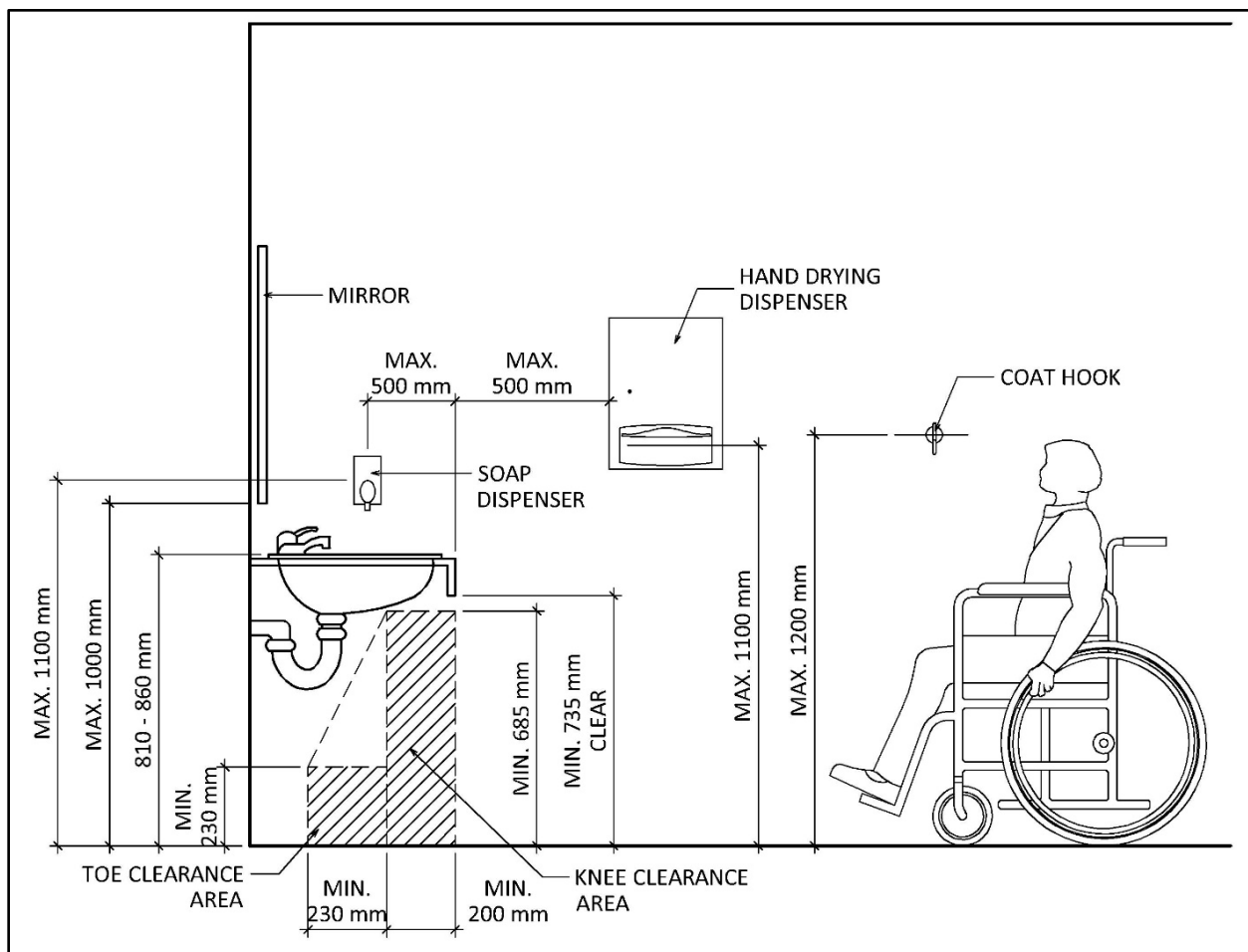


Figure 71 – Lavatories, Mirrors and Accessories (CSA B651)

Showers

NBC Division B, Article 3.8.3.17. – Showers

Refer to [Figure 72](#) and [Figure 73](#) for clarification.

When required, showers shall:

- Not be less than 1,500 mm wide and 900 mm deep
- 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
 - A fixture is permitted to project into the clear space if it does not restrict access to the shower
- Not have any doors or curtains that obstruct the controls or the clear floor space at the shower entrance
- Have a slip-resistant floor surface
- Have a threshold not more than 13 mm higher than the finished floor and, when higher than six millimetres (6 mm), bevelled to a slope no steeper than 1:2
- Have two grab bars that:
 - Are slip-resistant and free of any sharp or abrasive elements
 - Are mounted on surfaces that are free of sharp or abrasive elements
 - Can resist a load of not less than 1.3 kN (292 lbs) applied vertically or horizontally
 - Be 30 to 40 mm in diameter
 - Are mounted on a wall with a clearance of 35 to 45 mm from the wall
 - Have one of the bars that is not less than 1,000 mm long and located vertically on the side wall 50 to 80 mm from the adjacent floor space, with its lower end 600 to 650 mm from the floor
 - Have an L-shaped bar located on the opposite wall of the entrance to the shower, with a horizontal member not less than 1,000 mm long mounted 750 to 870 mm from the floor and a vertical member not less than 750 mm long, mounted 400 to 500 mm from the side wall on which the other vertical grab bar is mounted
- Have a hinged seat that is not spring-loaded or a fixed seat that has a smooth, slip-resistant surface with no rough edges, with the following specifications:
 - 450 mm wide and 400 mm deep
 - Mounted on the same wall as the vertical grab bar, at 460 to 480 mm from the floor
 - Resist a minimum load of 1.3 kN (292 lbs)
- Have a pressure-equalizing valve or thermostatic-mixing valve and other controls that:
 - Conform to the controls as specified earlier in this guide (refer to “Controls” page 50)
 - Are mounted on the wall opposite the entrance of the shower and not more than 1,200 mm above the floor and within reach of the seat
- Have a hand-held shower head with not less than 1,800 mm of flexible hose located so that it:
 - Can be reached from a seated position
 - Can be used in a fixed position at a height between 1,200 and 2,030 mm (approximately four to six feet, nine inches)
 - Does not obstruct the use of the grab bars
- Have a recessed soap holder that can be reached from the seated position

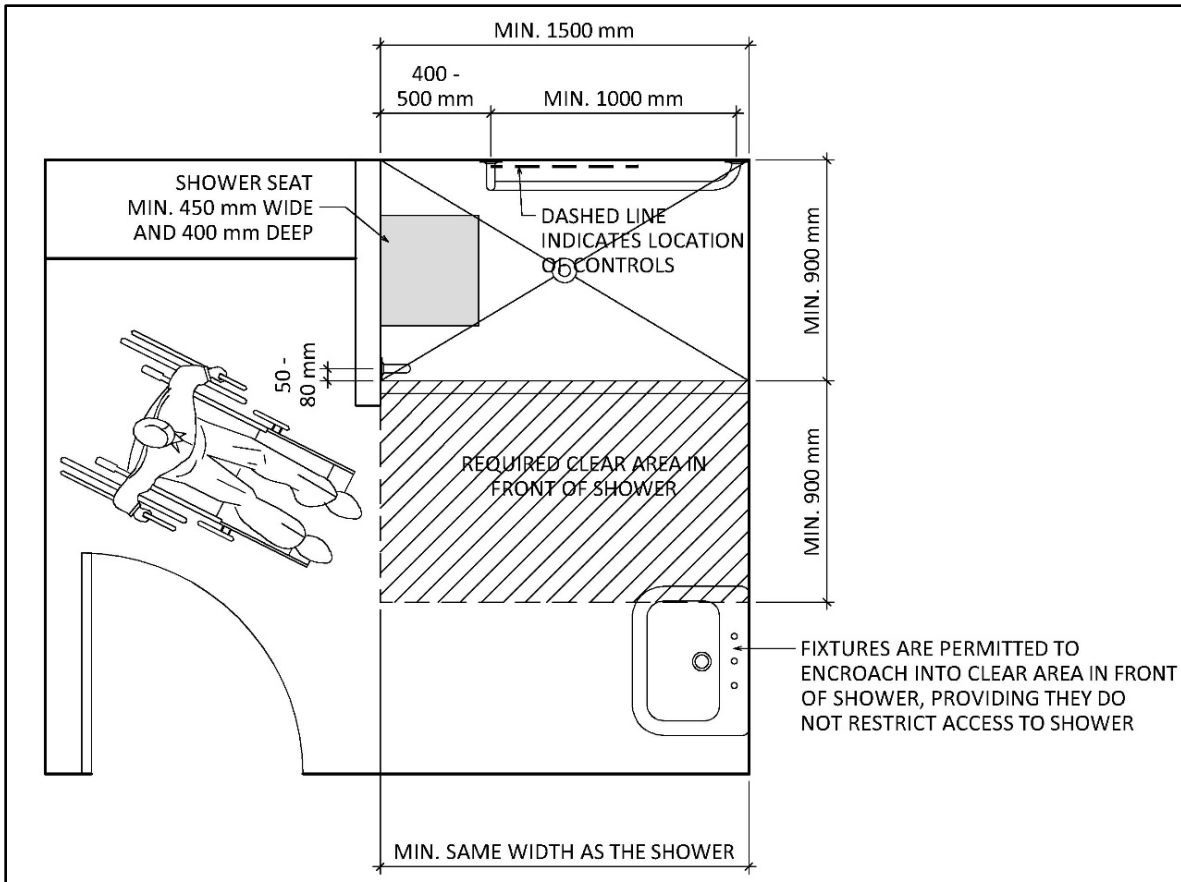


Figure 72 – Shower Requirements, Plan View (NBC)

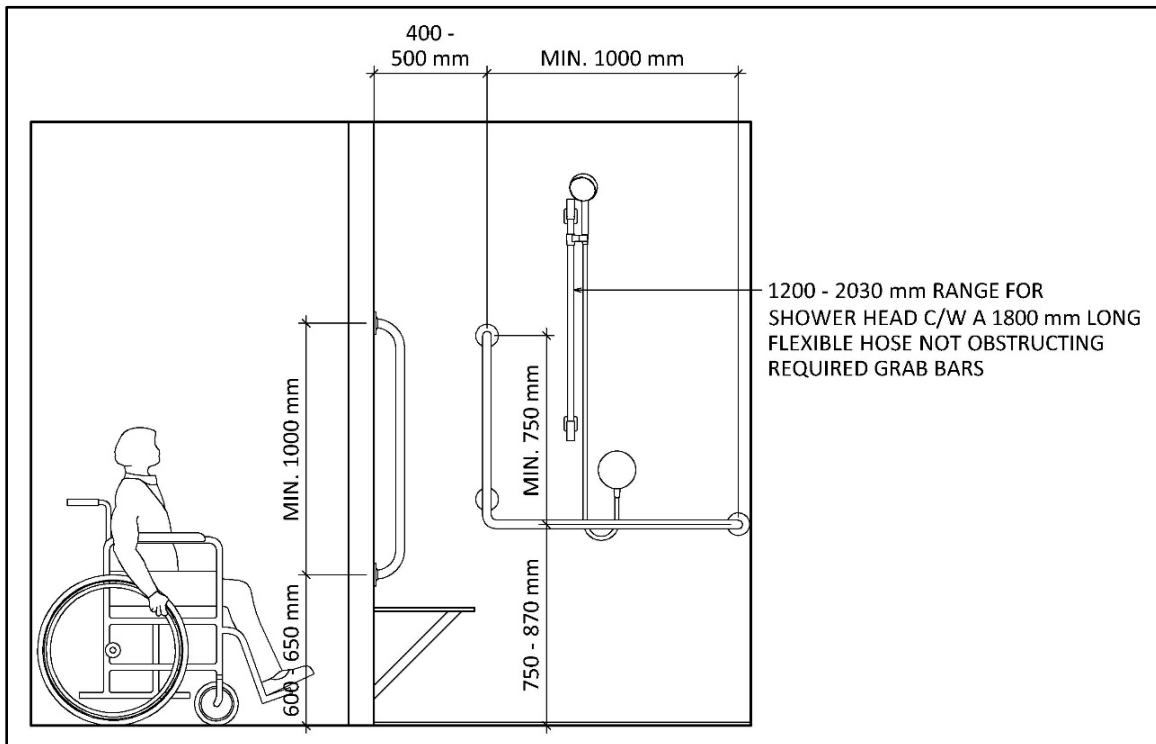


Figure 73 – Shower Requirements, Elevation View (NBC)

At least one universal dressing and shower room shall be provided at each location where there are showering rooms for use by the general public, customers or in common use areas by employees.

A universal dressing and shower room shall (refer to [Figure 74](#)):

- Be located in a *barrier-free* path of travel
- Have a door capable of being locked from the inside and released from the outside in the event of an emergency
- Have a lavatory and mirror as per Article 3.8.3.16. “Lavatories and Mirrors” (refer to page 77)
- Have a shower as per this Article
- Have a bench that is at least 1,830 mm long by 760 mm wide and 480 to 520 mm high
- Have a clear transfer space adjacent to the long side of the bench that is 900 mm wide and as long as the bench
- Be equipped with a coat hook mounted not more than 1,200 mm above the floor on the side wall and projecting not more than 50 mm from the wall

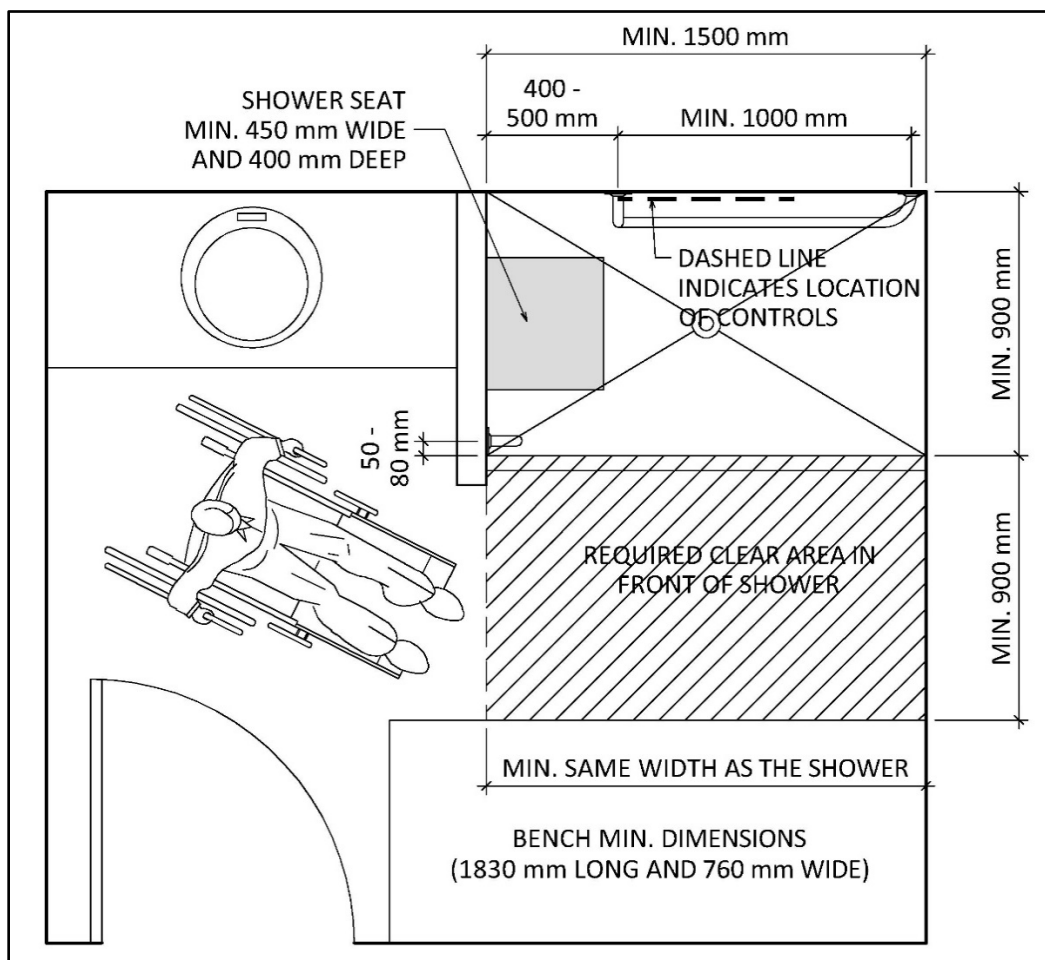


Figure 74 – Universal Dressing and Shower Room Requirements (NBC)

CSA B651, Clause 6.5.5 – Roll-in shower stalls

CSA B651 has two sets of shower specifications.

The first is a roll-in shower stall (refer to [Figure 75](#) and [Figure 76](#)):

- Maximum water temperature supplied to the shower shall not exceed 49°C
- Shower heads shall:
 - Be a handheld type
 - Be provided with a hose a minimum of 1,800 mm long
 - Allow for use in a fixed position.
 - Be mounted vertically where:
 - It is adjustable between 1,200 and 2,030 mm for the floor
 - It does not obstruct the use of grab bars
- When there is an enclosure, any door or curtain shall not obstruct the controls or transfer space.
- The shower floor shall be:
 - Slip-resistant even when wet
 - Slope minimally for drainage
- Roll-in shower stalls shall have an interior clear area of a minimum 900 by 1,500 mm
- The access area shall be clear in front of the shower entrance at least 900 by 1,500 mm (refer to [Figure 75](#))
- Grab bars shall:
 - Have one horizontally on a side wall at least 600 mm in length and between 750 and 850 mm from the floor
 - Have one vertically on the opposite side wall at least 1,000 mm in length, with the lower end between 600 and 650 mm from the floor and between 50 and 80 mm from the adjacent clear area in front of the entrance
 - Have a horizontal grab bar on the back wall that is a minimum of 1,000 mm in length and between 750 and 850 mm from the floor
 - Have a vertical grab bar on the back wall at least 750 mm in length with the lower edge between 50 and 60 mm above the horizontal grab listed above and located between 400 and 500 mm from the side wall on which the other vertical grab bar is mounted
- Controls for the showers shall:
 - Comply with the specifications for controls in CSA B651 discussed earlier in this guide (refer to “Controls,” page 50)
 - Be mounted in the centre of the back wall opposite the shower entrance
 - Be not more than 1,200 mm above the floor
- Thresholds shall:
 - Not exceed 13 mm in height
 - If between seven (7) and 13 mm in height, be bevelled at a slope not steeper than the ratio of 1:2

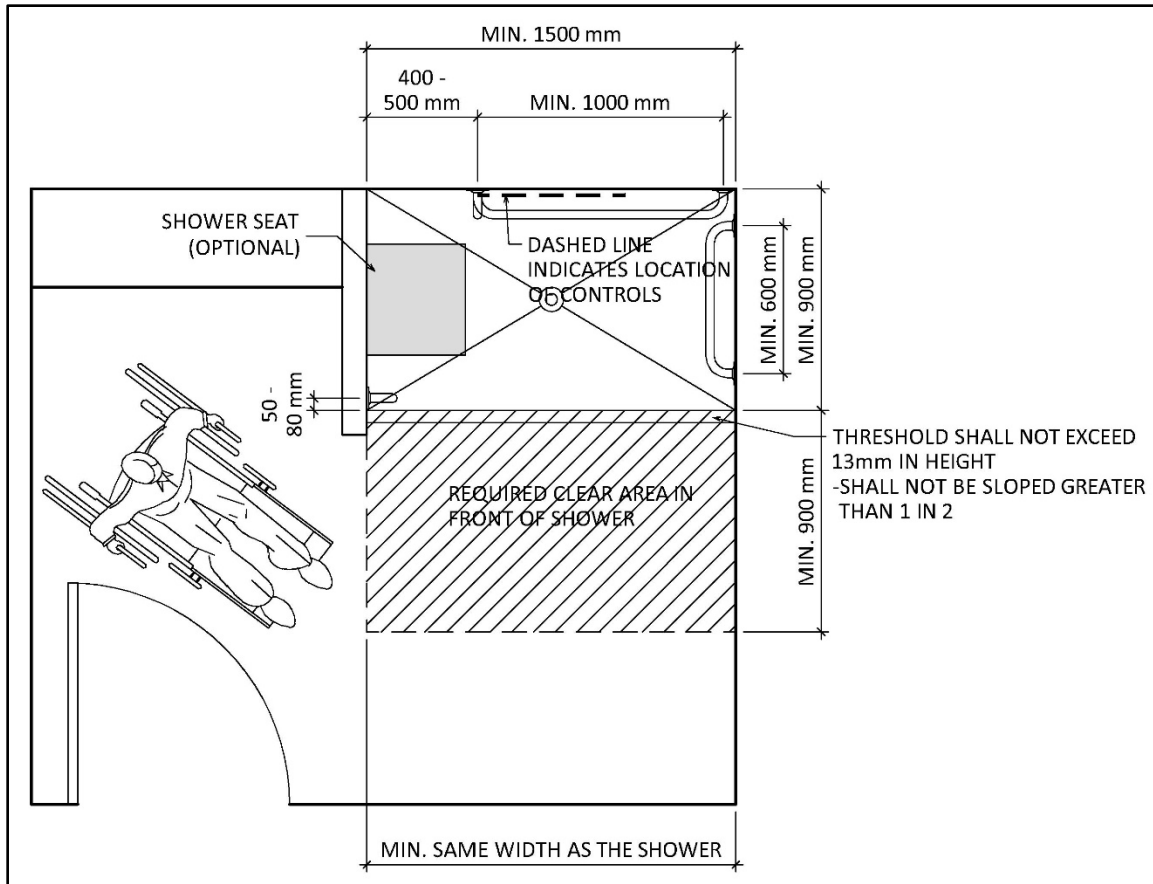


Figure 75 – Roll-in Shower Requirements, Plan View (CSA B651)

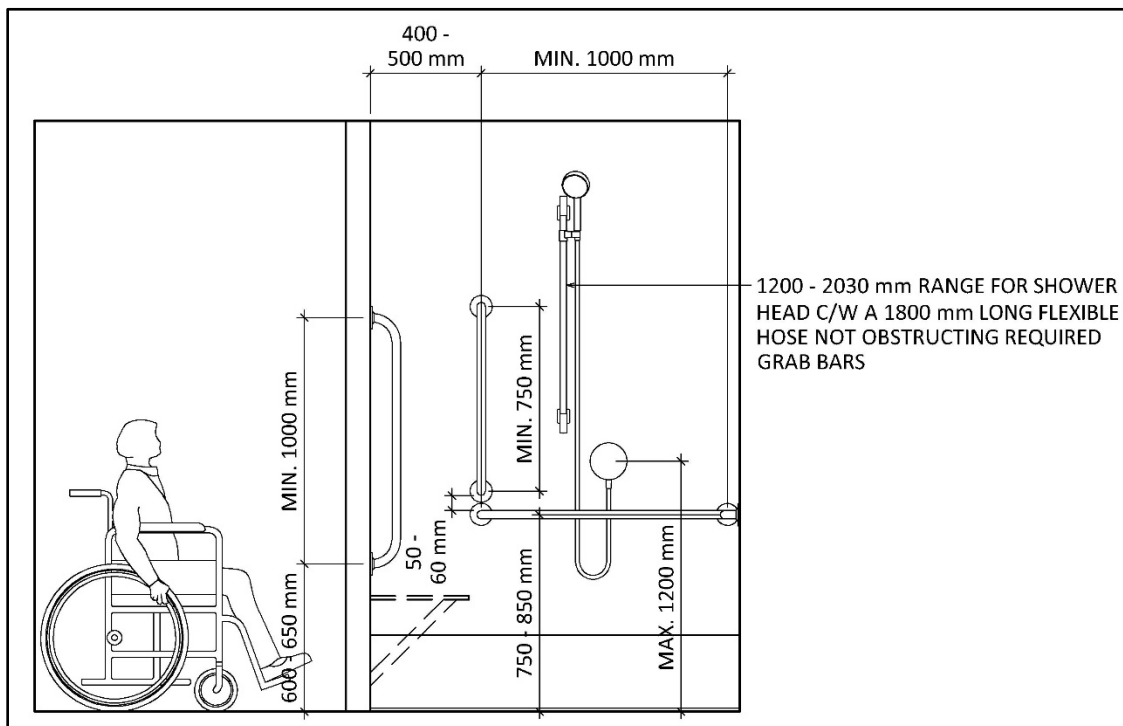


Figure 76 – Roll-in Shower Requirements, Elevation View (CSA B651)

Bathtubs

NBC Division B, Article 3.8.3.18. – Accessible Bathtubs

When required, bathtubs shall (refer to [Figure 77](#) and [Figure 78](#)):

- Be located in a room with a clear floor space not less than 1,700 mm in diameter
- Not be less than 1,500 mm long
- Have a clear floor space not less than 900 mm wide adjacent to the entire length of the bathtub
- Be capable of being accessed along the full length of the bathtub with no tracks mounted on its rim
- Have faucets with controls that:
 - Conform to the requirements discussed earlier in this guide (refer to “Controls,” page 50)
 - Are installed on the centerline of the tub and the exterior edge of the tub rim and at a maximum height of 450 mm above the rim
- Have three grab bars that:
 - Conform to the requirements of grab bars covered earlier in this guide (refer to “Grab Bars,” page 60)
 - Are not less than 1,200 mm long
 - Two of which are located vertically at each end of the bathtub, set 80 to 120 mm from the outside edge of the tub and the lower end is between 180 and 280 mm above the bathtub rim
 - One is located horizontally along the length of the bathtub at 180 to 280 mm above the bathtub rim
- Have a slip-resistant bottom surface
- Have a hand-held shower head with a flexible hose not less than 1,800 mm in length and can be fixed between a height of 1,200 to 2,030 mm

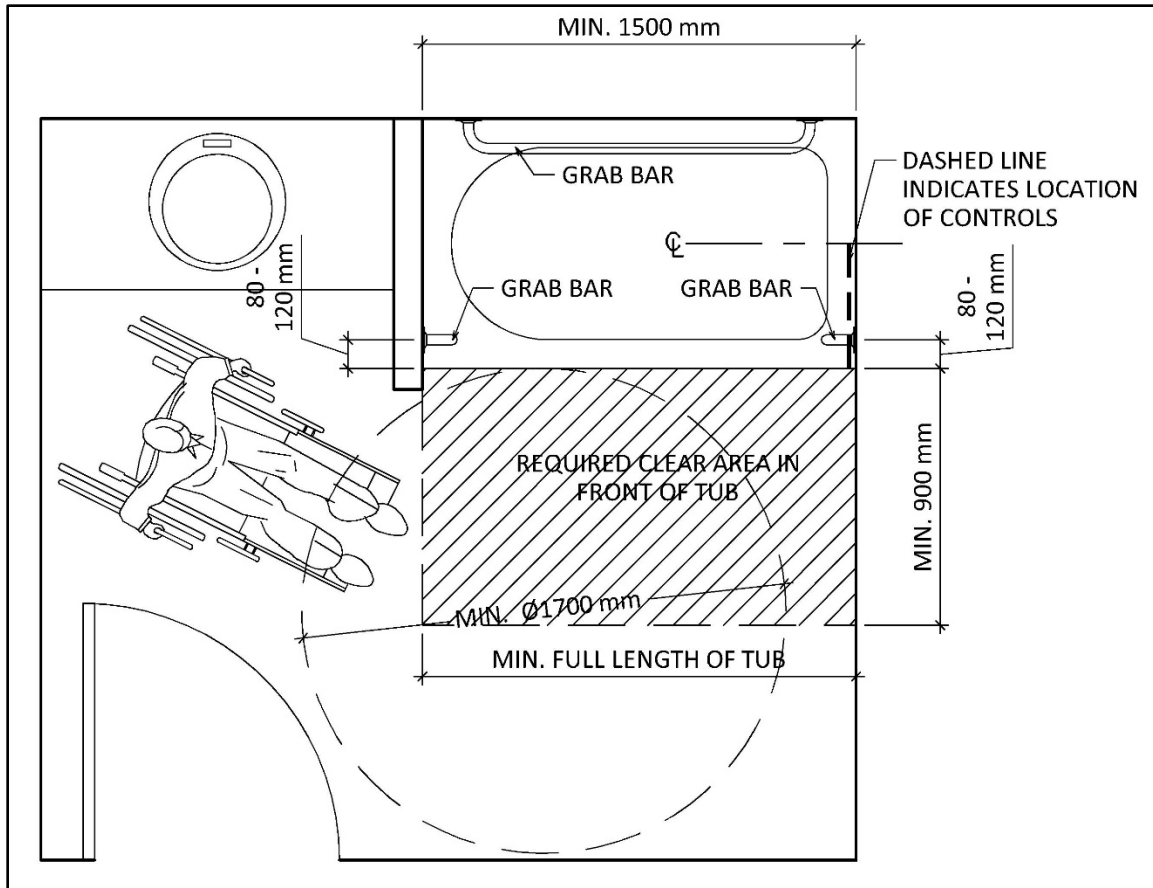


Figure 77 – Bathtub Requirements, Plan View (NBC)

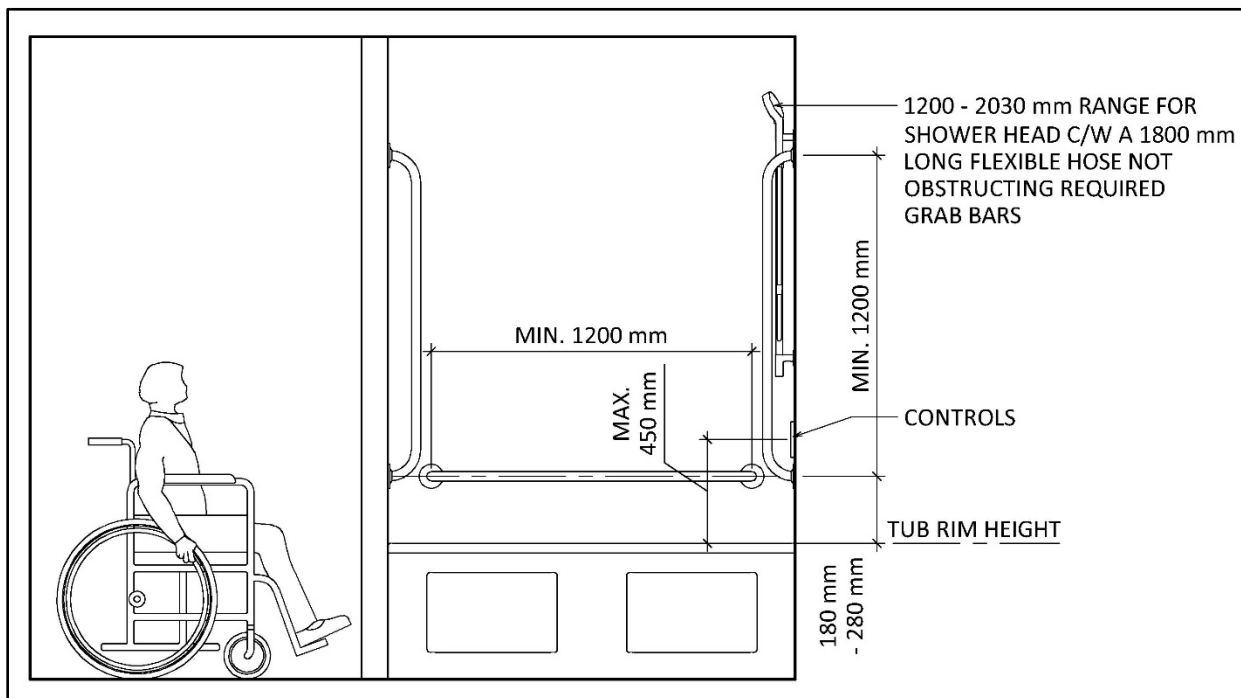


Figure 78 – Bathtub Requirements, Elevation View (NBC)

CSA B651, Clause 6.5.6 – Bathtubs

Refer to [Figure 79](#) and [Figure 80](#) for clarification.

When required, bathtubs shall:

- Have a clear floor area 800 mm wide over the entire length of the bathtub
- Have three grab bars where:
 - One is horizontally centred along the length of the tub, with a length not less than 1,200 mm and is mounted between 180 and 280 mm above the bathtub rim
 - One vertically at each end of the tub, mounted on the foot end of the tub:
 - A minimum of 1,200 mm in length
 - With the lower end between 180 and 280 mm above the bathtub rim
 - Between 80 and 120 mm from the adjacent floor area
- Controls for the bathtub shall:
 - Meet the requirements as covered earlier in this guide (refer to “Controls,” page 50)
 - Be located at the foot end of the tub between the centerline of the bathtub and the clear floor area
 - Be located not more than 450 mm above the bathtub rim

Not have an enclosure

- Have a slip-resistant base

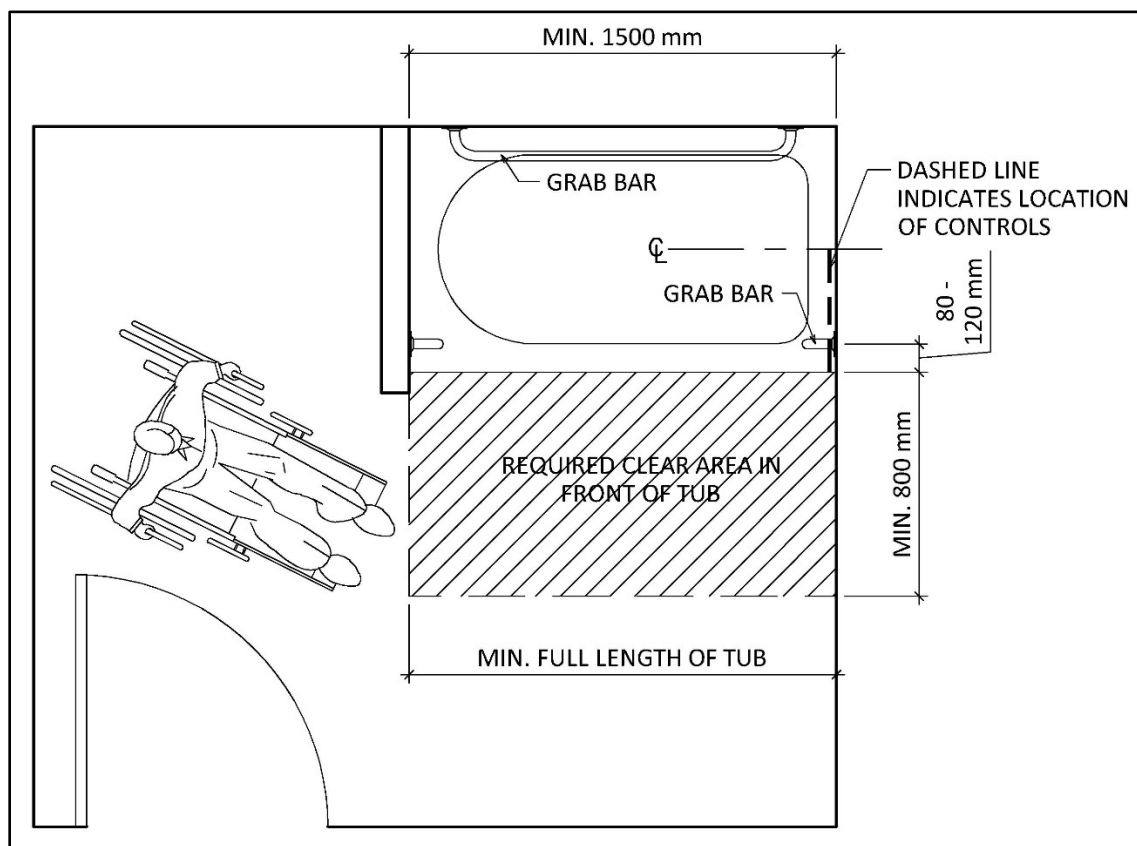


Figure 79 – Bathtub Requirements, Plan View (CSA B651)

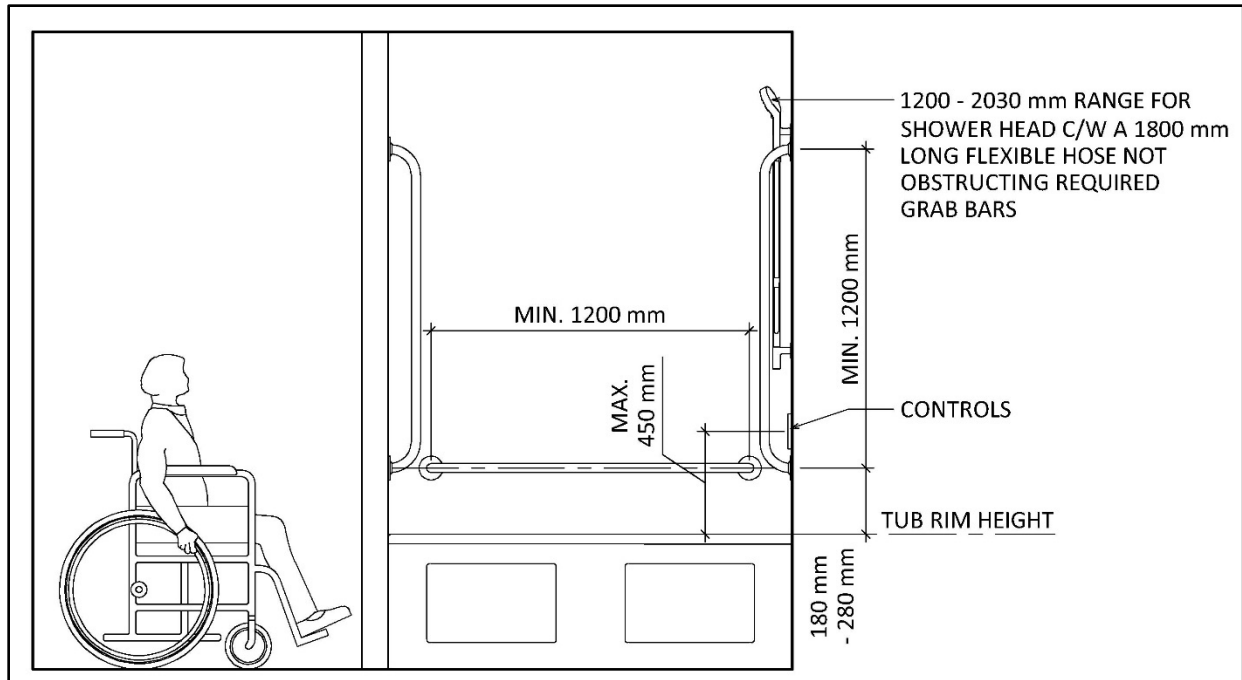


Figure 80 – Bathtub Requirements, Elevation View (CSA B651)

Assistive Listening Devices

NBC Division B, Article 3.8.3.19. – Assistive Listening Systems

When required, assistive listening devices and systems shall:

- Encompass the entire seating area
- Provide for the clear communication required for the exchange of information, goods and services

CSA B651, Clause 6.6.1 – Assistive listening systems

- Where an assistive listening system is provided, an induction loop, infrared system or radio frequency system shall be used.

Counters

NBC Division B, Article 3.8.3.20 – Counters

Shelves or counters required shall (refer to [Figures 81a and 81b](#)):

- Have a *barrier-free* section not less than 800 mm long centred over a knee space as detailed below
- Have a surface not more than 865 mm above the floor
- Have a knee space under the surface that is:
 - Not less than 800 mm wide
 - Not less than 685 mm high
 - Not less than 485 mm deep

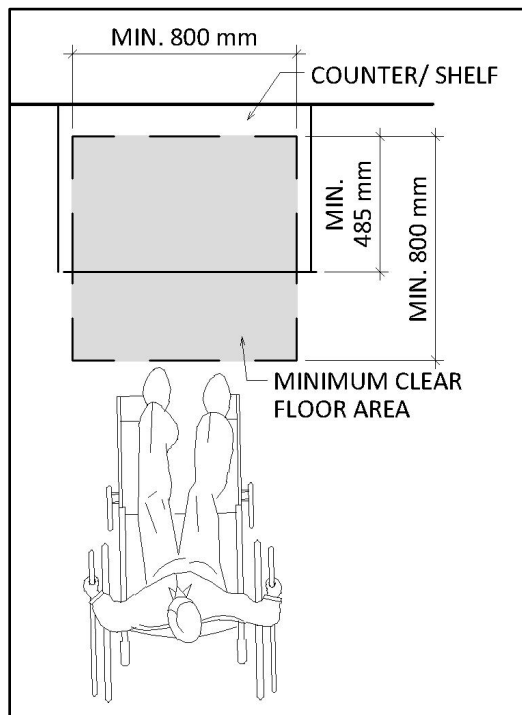


Figure 81a – Counter Requirements (NBC)

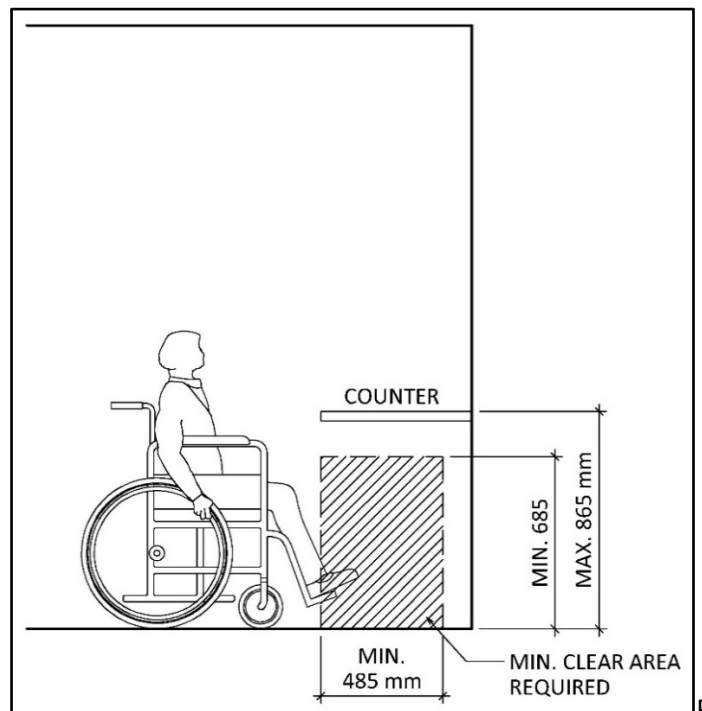


Figure 81b – Counter Requirements (NBC)

CSA B651, Clause 6.7.1 – Spaces at tables and counters

Shelves or counters required shall (refer to [Figures 82a and 82b](#)):

- Have a clear floor area not less than 800 by 1,350 mm, with manoeuvring space to approach it
- Be at a height between 730 and 860 mm from the floor
- Have a knee clearance that is:
 - 800 mm wide by 480 mm deep and 680 mm high, where the overlap of the clear floor area is not more than 480 mm

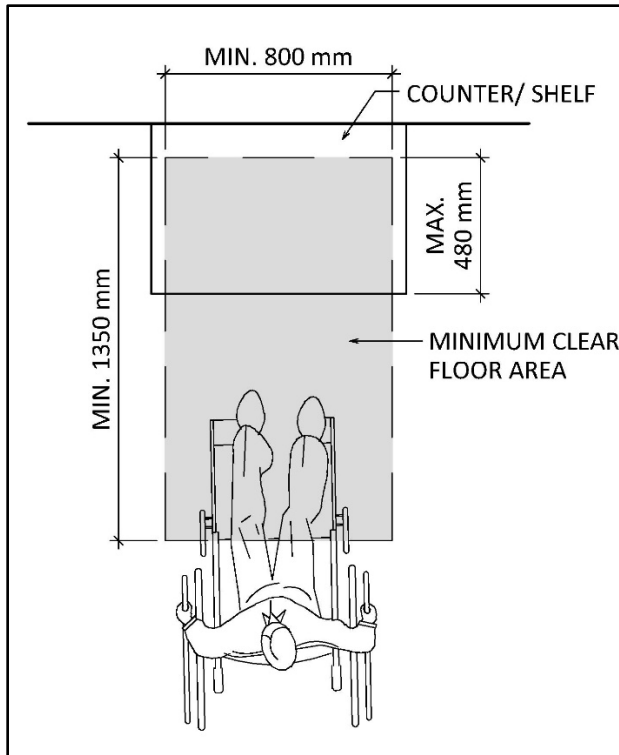


Figure 82a – Counter Requirements (CSA B651)

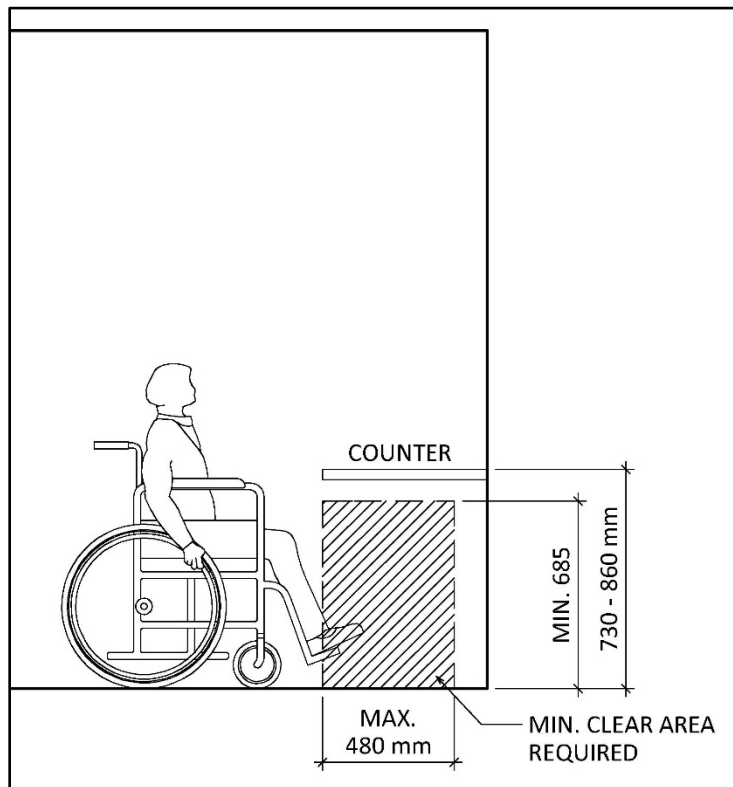


Figure 82b – Counter Requirements (CSA B651)

Shelves and Counters for Telephones

NBC Division B, Article 3.8.3.21. – Telephones

Telephones are required to be *barrier-free* under 3.8.2.12. (refer to [Figure 83a and 83b](#)) shall:

- Be adjacent to and centred on either the length or the width of the clear floor area of not less than 1,350 by 800 mm
- When approached from the front, there shall be a knee space underneath the counter
- Have the receiver and operable parts not more than 1,200 mm above the floor

Where provided, shelves or counters for public telephones shall:

- Be level
- Not be less than 305 mm (12 inches) deep
- Have, for each telephone provided, a clear space not less than 250 mm wide, having no obstruction within 250 mm above the surface
- Have a section with a surface not more than 865 mm above the floor serving at least one telephone

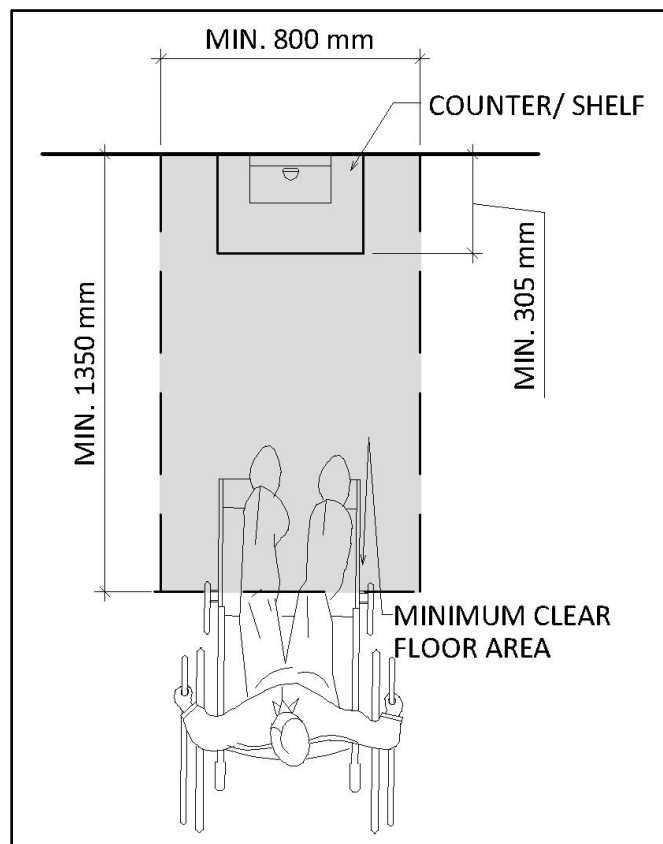


Figure 83a – Shelves or Counters for Telephone (NBC)

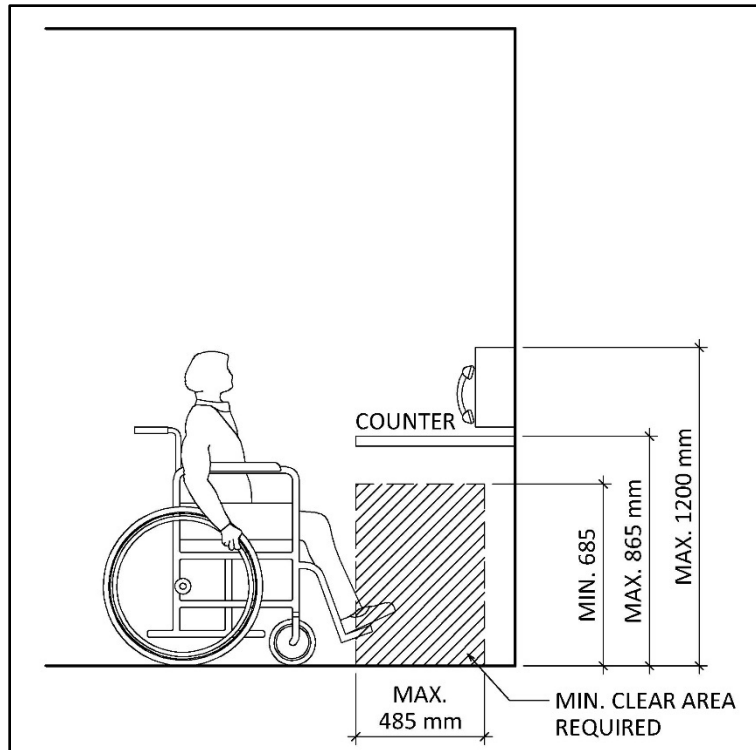


Figure 83b – Shelves or Counters for Telephone (NBC)

CSA B651, Clause 6.6.2 – Public telephones

Refer to [Figures 84a and 84b](#) for clarification.

The telephone shall have:

- A keypad and function keys that comply with CSA T516, “Telecommunications Telephone Terminal Equipment Requirements for Pay Telephone Keypads and Function Keys with Particular Regard to Use by Persons with Disabilities”
- Operable parts, including the coin slot:
 - Not more than 1,370 mm from the floor
 - Not more than 1,200 mm from the floor if the telephone is designed for use by people seated
- The handset cord length shall be at least 1,000 mm

Shelves or counters for telephones required for standing persons shall:

- Be a minimum of 450 mm wide by 300 mm deep
- Provide a space of at least 250 mm high by 225 mm wide for teletypewriter (TTY) or text telephone (TT)
- Be at a height between 730 and 860 mm from the floor

When telephones are on counters for seated persons, the counters shall:

- Have a clear floor area of at least 800 mm wide by 1,350 mm deep, which shall extend to not more than 480 mm under the shelf or counter
- Have a knee clearance between 685 and 730 mm high

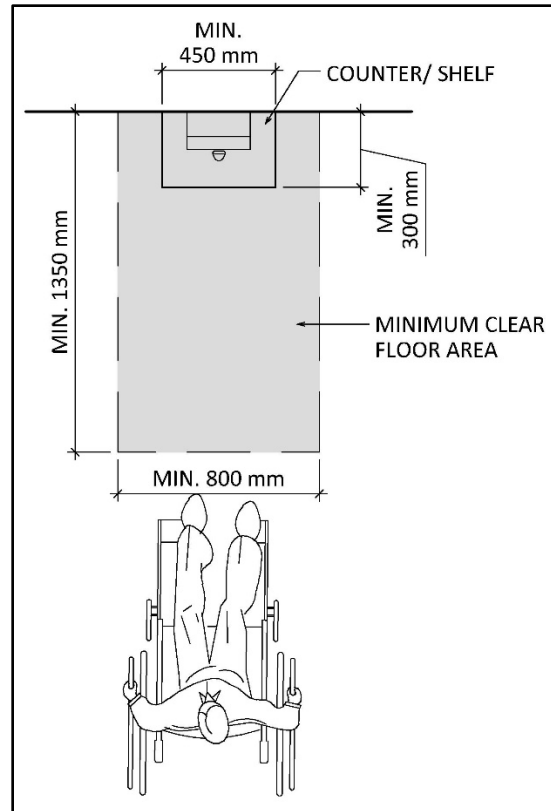


Figure 84a – Shelves or Counters for Telephone (CSA B651)

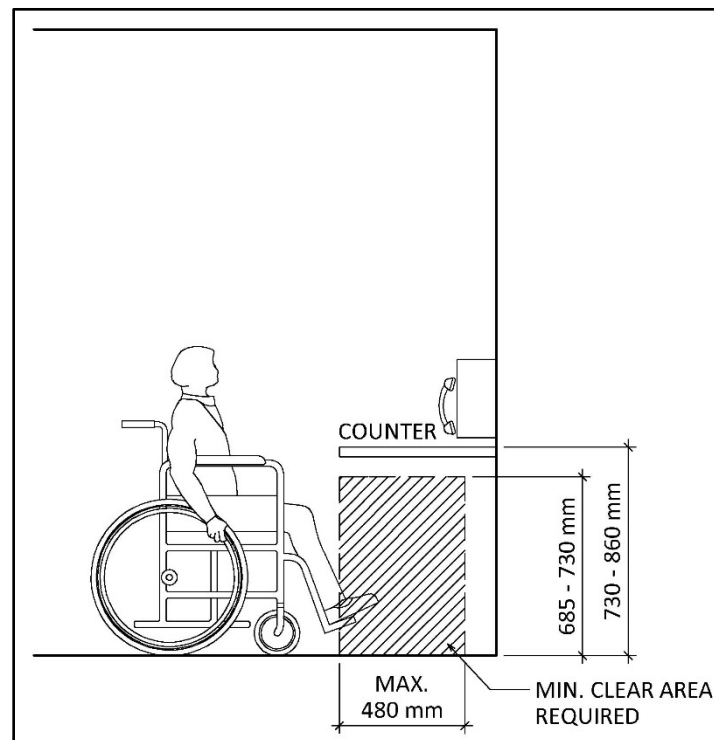


Figure 84b – Shelves or Counters for Telephone (CSA B651)

Spaces in Seating Area

NBC Division B, Article 3.8.3.22. – Spaces in Seating Area

Within the NBC, there are two scenarios for *barrier-free* seating accommodations. The first scenario is for buildings of assembly occupancy (Group A).

Spaces designed for wheelchair use required by the NBC shall (refer to [Figure 85a, 85b and 85c](#)):

- Have at least one designated space that shall be clear and level for each increment of 200 seats and the remaining designated spaces shall be level and have removable seats
- Not be less than 900 mm wide and 1,700 mm long to allow a wheelchair to enter with a side approach and 900 mm wide by 1,350 mm long when the wheelchair can enter from the front or rear of the space
- Be arranged so that:
 - At least two designated spaces are side by side
 - At least one fixed seat is located beside each designated space
- Be located adjoining a *barrier-free* path of travel without infringing on egress from row seating or any aisle requirements
- Have seats throughout as part of a seating plan, to provide a choice of viewing locations with clear views of the event taking place

The second scenario involves spaces designated for wheelchair use in waiting rooms or areas that are required to provide *barrier-free* seating, which shall:

- Be clear and level
- Have at least one designated space that shall be clear and level for each increment of 200 seats and the remaining designated spaces shall be level and have removable seats
- Not be less than 900 mm wide and 1,700 mm long to allow a wheelchair to enter with a side approach and 900 mm wide by 1,350 mm long when the wheelchair can enter from the front or rear of the space

Adaptable seating that is required shall:

- Be located adjoining an aisle without infringing on egress from any row of seating or any aisle requirements
- Be equipped with a movable or removable armrest on the side of the seat adjoining the aisle
- Be situated as part of the designated seating plan to provide a choice of viewing locations with a clear view of the event taking place

Storage spaces for mobility aids shall be provided in a location:

- That is on the same level as and in proximity to the adaptable seats required (refer to page 96 for reference)
- That is within the room side of a fire separation (refer to NBC 2020, Division B, Article 3.3.2.2. for application)
- Where it will not infringe on egress (exit)

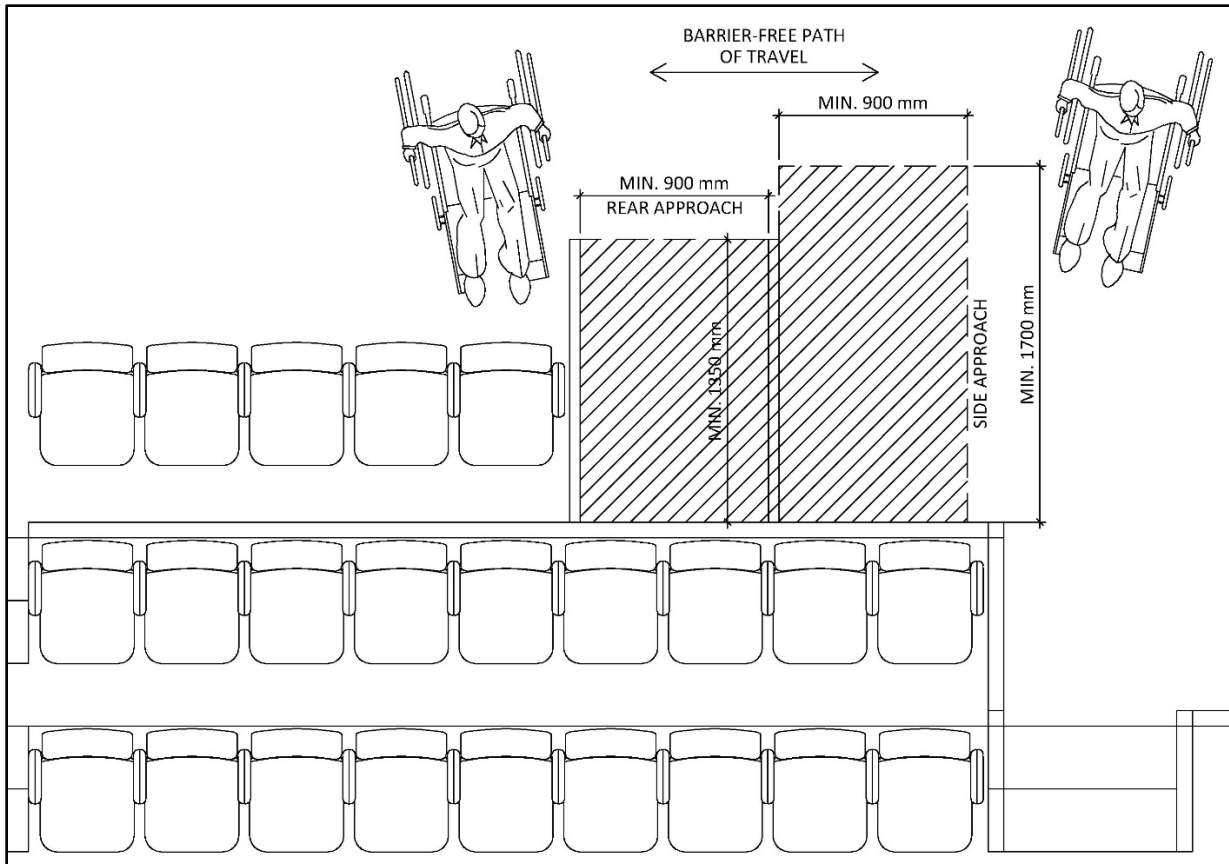


Figure 85a – Spaces in Seating Areas (NBC)

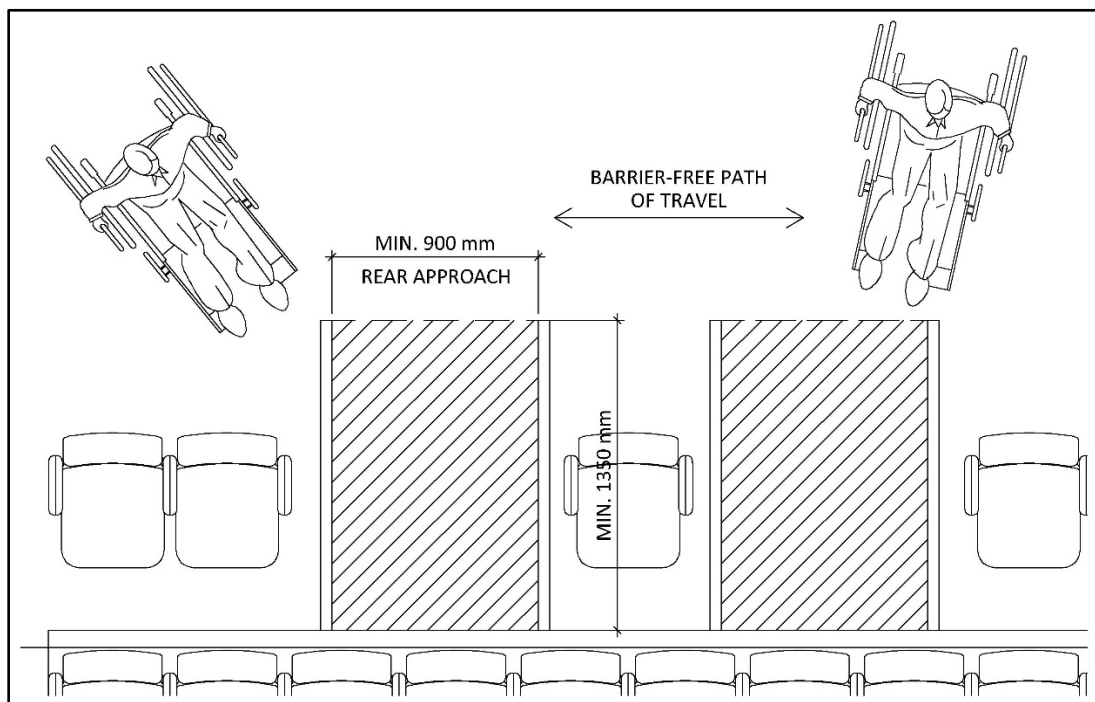


Figure 85b – Spaces in Seating Areas (NBC)

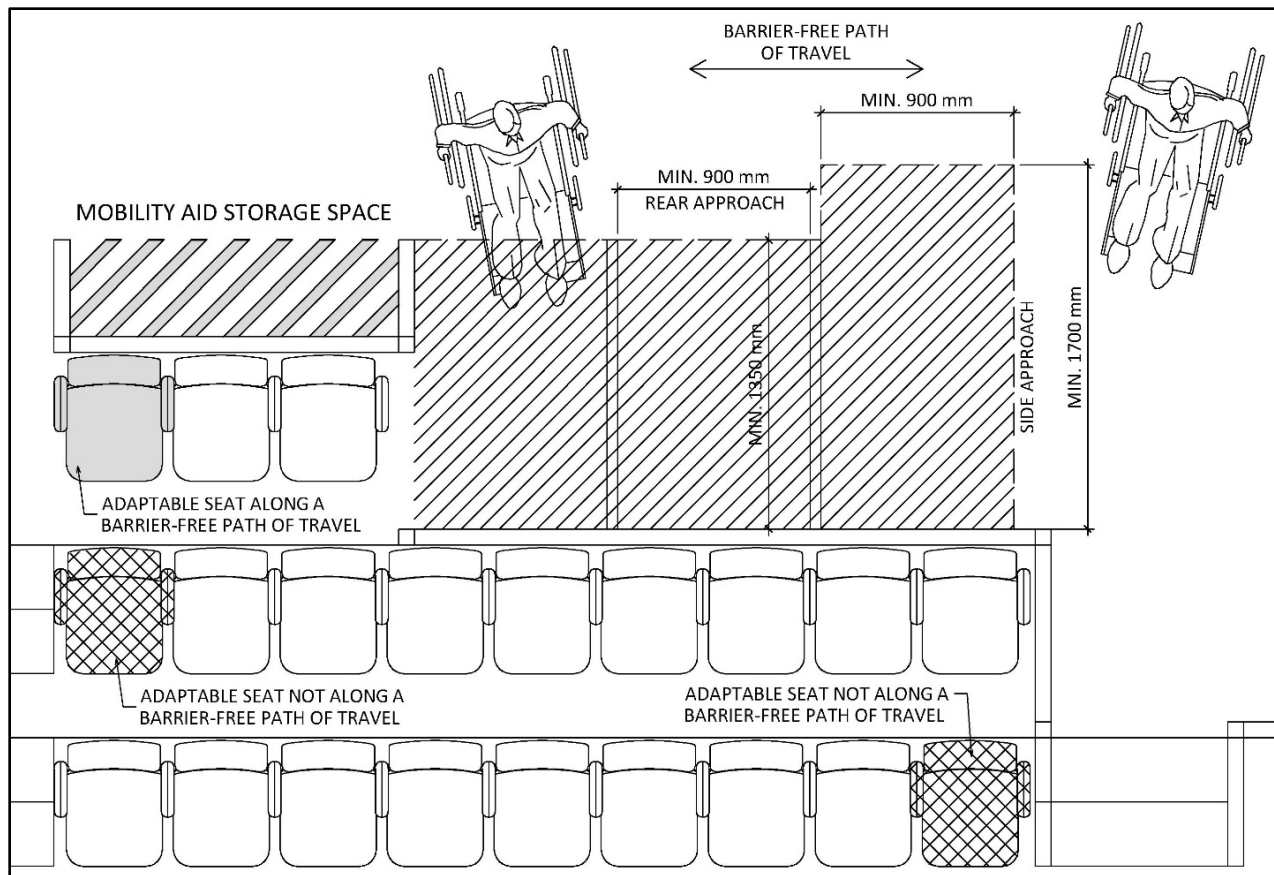


Figure 85c – Spaces in Seating Areas (NBC)

Minimum Designated Wheelchair Spaces

NBC Division B, Article 3.8.2.3. – The minimum number of designated wheelchair spaces shall conform to the following table:

Number of Fixed Seats in Seating Area	Number of Spaces Required for Wheelchairs
2 - 99	2
100 - 499	3, plus 1 for each additional increment of 70 seats in excess of 100
500 - 1999	9, plus 1 for each additional increment of 80 seats in excess of 500
2000 - 7999	28, plus 1 for each additional increment of 95 seats in excess of 2000
OVER 7999	91, plus 1 for each additional increment of 100 seats in excess of 8000

CSA B651, Clause 6.7.2 – Rest area seating

Spaces designed for wheelchair use required, shall (refer to [Figure 86](#)):

- Have a clear floor area of 850 by 1,350 mm
- Have a clear and level surface
- Be located adjacent to a means of egress
- Be an integral part of the seating plan which would be dispersed throughout the seating area on all levels
- Be adjacent to other seating
- Provide half of the accessible seating to be placed side by side
- Have sight lines that are comparable to seating positions and not reduced or obstructed by standing members of the audience

Adaptable seating shall:

- Be located along a *barrier-free* path of travel without infringing on egress from any row of seating or aisle requirements
- Be equipped with a movable or removable armrest on the side of the seat along the *barrier-free* path of travel
- Be located as part of the seating plan to provide a choice of viewing locations and a clear view of the event taking place

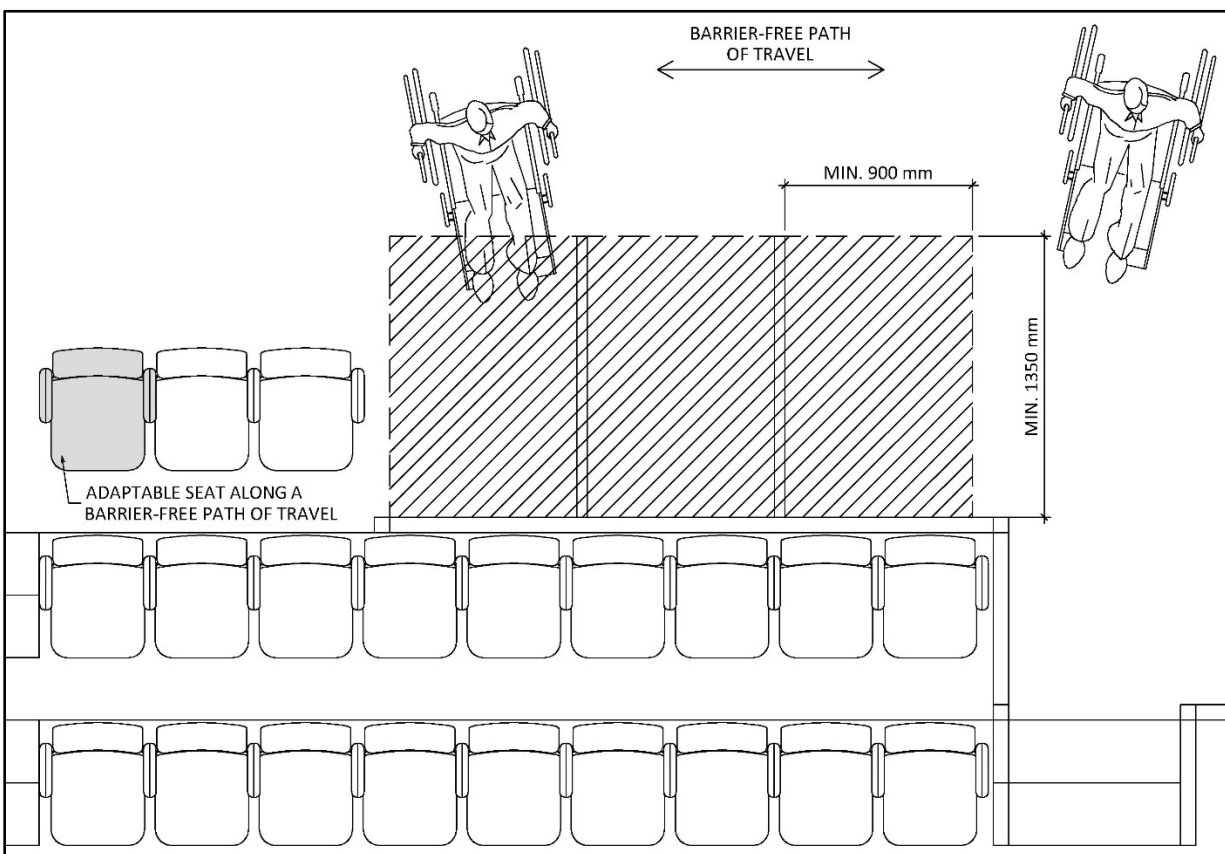


Figure 86 – Spaces in Seating Areas (CSA B651)

Minimum Wheelchair Viewing Spaces

CSA B651, Clause 6.7.3.3, Table 6. – The minimum number of wheelchair viewing spaces shall conform to the following table:

Number of Fixed Seats in Seating Area	Number of Spaces Required for Wheelchairs
4 to 25	1
26 to 50	2
51 to 150	4
151 to 300	5
301 to 500	6
501 to 5,000	6, plus 1 for each 150, or fraction thereof
Over 5,000	26, plus 1 for each 200, or fraction thereof

Clear Sight Lines

Both the NBC Division B, Article 3.8.3.22. and CSA B651, Clause 6.7.3.3. have the same requirement of unobstructed lines of sight for the wheelchair spaces when required in fixed seating areas.

The following illustration clarifies the issue (refer to [Figure 87](#)).

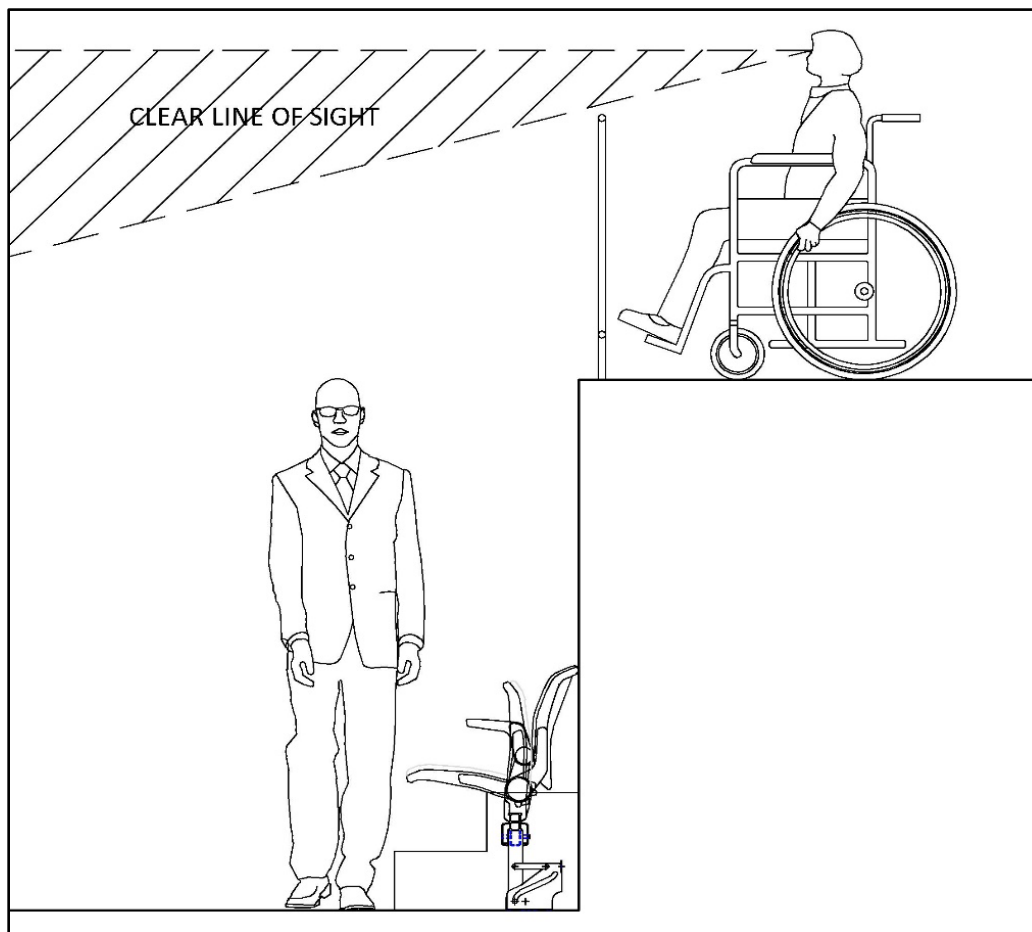


Figure 87 – Clear Sight Lines (NBC and CSA B651)

Other Information

The NBC references many standards, such as CSA B651. These are published by accredited standards development organizations in Canada and other countries. Referencing a document in a code has the effect of making the provisions of that document part of the code.

Documents referenced in a code apply only to the extent that they relate to buildings and the part of the Codes where they are referenced. If there is a conflict between a code provision and a referenced document, the provisions of the codes govern.

Referenced documents shall be the edition designated by the codes currently in use in Saskatchewan.

Appendices

- Appendix A – Barrier-Free Application Checklist
- Appendix B – Barrier-Free Design Requirements (NBC)
- Appendix C – Barrier-Free Design Requirements (CSA B651)

Appendix A – Barrier-Free Application Checklist

Appendix A – Barrier-Free Application Checklist

Item		Status		
NBC – Exceptions (NBC, Division B, Article 3.8.2.1.)	Authority	✓	X	N/A
Is the proposed building for construction one of the following: - House (detached, semi-detached, house with a secondary suite, duplexes, triplexes, townhouses, row houses and boarding houses) - Building of Group F1 occupancy - Building that is not intended to be occupied on a daily or full-time basis (i.e., automatic telephone exchanges, pump houses and substations) If yes, then the barrier-free requirements do not apply.	NBC 3.8.2.1.	☐	☐	☐
NBC – Area Requiring a Barrier-Free Path of Travel	Authority	✓	X	N/A
A barrier-free path of travel from the entrance storey and within all normally occupied floor areas served by a passenger elevator, escalator, inclined moving walk or other platform-equipped passenger-elevating device (exemptions exist – refer to page 17 for clarification).	NBC 3.8.2.3.	☐	☐	☐
Existing Building exemption provision	Authority	✓	X	N/A
- Is the existing building barrier-free? - Is the building greater than 600 m²? - Do the barrier-free requirements apply? NOTE: Consult the decision tree on Figure 2 page 15 for clarification	BC Regs Section 39, 40 and 41	☐	☐	☐
Residential Occupancy Barrier-Free Requirements (SK Amendment)	Authority	✓	X	N/A
The BC Regulations Amendment, NBC 3.8.2.13. – Residential Occupancies In a building of residential occupancy, suites that are not individually controlled shall have at least: - One (1), or - Five (5) per cent of the suites required to be accessible by a barrier-free path of travel shall be barrier-free in conformance with Article 3.8.3.23. (Sask Amendment) Note: Refer to page 16 for clarification of requirements for 3.8.3.23.	BC Regs, SK Amendment (NBC 3.8.2.13)	☐	☐	☐
Path of Compliance	NBC	CSA B651		
Note: Either NBC Division B, Section 3.8. <u>or</u> CSA B651 “Accessible Design for the Built Environment” shall be used in its entirety for compliance with barrier-free design. Reference: NBC Division B, Subsection 3.8.3. – “Design”				

Appendix B – Barrier-Free Design Requirements (NBC)

[illegible]

Appendix B — Barrier-Free Design Requirements (NBC)

Exterior Passenger-Loading Zones	Authority	✓	X	N/A
Key elements - Access aisle not less than 1,500 mm wide by 6,000 mm long - Curb ramp (where curbs exist) - A clear height of not less than 2,750 mm at the pull-up space and along vehicle access	NBC 3.8.3.4.	☐	☐	☐
Ramps	Authority	✓	X	N/A
Key elements - The slope is not steeper than 1:12 (8.333 per cent) - Clear width of 1,000 mm - Cross slope not steeper than 1:50 (two per cent) - Hard or resilient surface when steeper than a 1:15 (6.667 per cent) slope - Level area not less than 1,700 by 1,700 mm at the top, bottom and intermediate levels of a ramp (complete with clearances at doorways serving the level areas) - Level landings that are a minimum of 1,350 mm and the width of the ramp, where: - The ramp runs are greater than nine metres (9 m) in length, or - There is an abrupt change in direction. - Handrails that meet NBC 3.4.6.5. (refer to page 37) and are installed between 865 and 965 mm from the ramp surface - Equipped with guards that conform to NBC 3.4.6.6 - Edge protection when not at grade level or adjacent to a wall shall be either: - A minimum 75 mm high, or - A raised barrier or rail located not more than 100 mm from the ramp or landing surface.	NBC 3.8.3.5.	☐	☐	☐
Handrails	Authority	✓	X	N/A
Key elements - Two handrails, continuously graspable throughout - Handrails have the following dimensions: 30 to 50 mm circular diameter, or - With a perimeter of a minimum of 100 mm with a maximum perimeter of 160 mm with the largest dimension not more than 57 mm. - Be able to withstand loading requirements: 0.9 kN (approximately 202 lbs) applied at any point and any direction and 0.7 kN (approximately 158 lbs) applied uniformly in any direction not located in dwelling units. - Handrail height between 865 and 1,070 mm - Minimum one handrail that continues 300 mm beyond the top and bottom of the stairway or ramp - Clearance behind the handrail and the surface behind shall be 50 mm or 60 mm if the surface behind is rough or abrasive	NBC 3.4.6.5. & 3.8.3.5.	☐	☐	☐

Appendix B — Barrier-Free Design Requirements (NBC)

Doorways and Doors	Authority	V	X	N/A
Key elements				
When in a barrier-free path of travel, a clear width of not less than 850 mm when in the open position	NBC 3.8.3.6.	☐	☐	☐
Operating device in the range 900 to 1,100 mm		☐	☐	☐
Threshold requirements for doors in a barrier-free path of travel are a maximum 13 mm high (including one bathroom, if applicable)		☐	☐	☐
- Power door operators that: - Are complete with markings of the International Symbol of Access - Are located clear of the swing but within 1,500 mm of the door swing - Have controls that are in the 150 to 300 mm range as well as the 900 to 1,100 mm range above the floor - Can be activated by a fist, arm or foot - Open the door in not less than three seconds - Requires less than 65 kN (14 lbs) to stop the movement of the door		☐	☐	☐
- Takes three seconds or more from a closed to a fully open position - Remains fully open for a minimum of 5 seconds - Requires a force not more than 65 N (15 lbs) to stop door movement		☐	☐	☐
Cane detectable guard that is located on the hinge side of a power-operated door, that swings into a barrier-free path of travel		☐	☐	☐
- The maximum force required to open the door: 38 N (8.5 lbs) for an exterior swinging door. 22 N (5 lbs) for an interior swinging door; or 22 N (5 lbs) for a sliding door.		☐	☐	☐
- Doors with a closure for an interior door in a barrier-free path of travel shall: - Not close from a position of 70° in the open position till 75 mm from the closed position on the latch side in less than three seconds (refer to page 42 for reference)		☐	☐	☐
- Clearance for doorways: - Any door with a power operator has a clear space on the latch side that is: 600 mm when the door swings toward the approach side 300 mm when the door swings away from the approach side		☐	☐	☐
Doors in series (i.e., vestibules) must maintain a clear space of 1,350 mm plus the width of the door that swings into a path of travel		☐	☐	☐
- Multiple-leaf doors: - Only one active leaf in multiple-leaf doors in a barrier-free path of travel shall conform to the requirements		☐	☐	☐

Appendix B — Barrier-Free Design Requirements (NBC)

- Level floor surface at doors and doorways with a clear rectangular area of not less than: 1,700 by 1,500 mm on the pull side of a swinging door, measured from the hinged side of the door; 1,200 mm (parallel to door) by 1,500 mm (perpendicular to door) for sliding doors, or 1,000 mm wide by 1,500 mm long when equipped with a power door operator. - The door and/or door frame has visual contrast with adjacent wall surfaces (facilities for persons with cognitive disabilities, such as dementia are exempt)		☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
Passenger Elevating Devices	Authority	✓ X N/A
- Passenger elevating device meets the standard CSA B355 “Lifts for Persons with Physical Disabilities” - Has a clear floor space of not less than 1,500 mm long by 1,000 mm wide - Has entry doors or gates that: - Have a clear width of not less than 850 mm in the open position if located on the short side of the passenger elevating device; or - Have a clear width of not less than 1,000 mm in the open position if located on the long side of the passenger elevating device.	NBC 3.8.3.7.	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
Controls	Authority	✓ X N/A
- Controls that are: - Adjacent to the barrier-free path of travel - Mounted 400 to 1,200 mm above the floor - Operable with one hand in a closed fist position, not requiring more than 22 N (approximately five pounds (5 lbs) force) - Clear floor area centred on the control that is a minimum 800 mm wide by 1,350 mm long - Colour contrasting controls from the background - If providing feedback to use, it shall be both audible and visible	NBC 3.8.3.8.	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
Accessible Signs	Authority	✓ X N/A
- Visual information signs that comply with CSA B651 Clauses 4.5.2., 4.5.3. and 4.5.4. (refer to page 52 for reference) - Signage that: - Has braille and tactile characters (refer to CSA B651, Clauses 4.5.6.2. and 4.5.6.3.) - Is installed on the wall closest to the latch side of the door or on the nearest wall on the right side of the door (when there is no wall at the latch side) - Is centred 1,500 mm above the finished floor and not more than 300 mm from the door	NBC 3.8.3.9.	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Appendix B — Barrier-Free Design Requirements (NBC)

Signs shall incorporate the International Symbol of Access or the International Symbol for Access for Hearing Loss and appropriate graphical or textual information. Note: Signage must be required as per NBC 2020, Subsections 3.4.5., 3.4.6. or Article 3.8.2.10. Accessible Signs		☐	☐	☐
Drinking Fountains	Authority	✓	X	N/A
Drinking fountains that are located along a barrier-free path of travel have: - A minimum clear floor space of 800 mm wide by 1,350 mm long - A knee clearance that is a minimum 200 mm deep and 680 mm high and the same width as the clear floor space - A toe space that is a minimum 800 mm wide by 230 mm high and is a minimum of 430 mm from the front of the unit - A spout that is near the front of the unit, at a height between 750 and 915 mm - A water flow that is parallel to the front of the unit and at a height of approximately 100 mm above the fountain - Controls that: - Activate automatically; or - Comply with Clause 3.8.3.8(1)(b) on the front or both sides of the fountain (refer to “Controls,” page 50).	NBC 3.8.3.10.	☐	☐	☐
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		☐	☐	☐
Water-Bottle Filling Stations	Authority	✓	X	N/A
Water-bottle filling stations that are located along a barrier-free path of travel shall have: - A minimum clear floor space of 800 mm wide by 1,350 mm long - A knee clearance that is a minimum 200 mm deep and 680 mm high and the same width as the clear floor space - A toe space that is a minimum 800 mm wide by 230 mm high and is a minimum of 430 mm from the front of the unit - A water flow that is parallel to the front of the unit and at a height of approximately 100 mm above the fountain - Controls that: - Activate automatically; or - Comply with Clause 3.8.3.8(1)(b) on the front or both sides of the fountain (refer to “Controls” page 50)	NBC 3.8.3.11.	☐	☐	☐
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Accessible Water Closet Stalls	Authority	✓	X	N/A
Water closet stalls shall: - Be not less than 1,500 by 1,500 mm - Have a clear lateral transfer space adjacent to the water closet that: - Is at least 900 mm wide by 1,500 mm long - Have a clear space in front of the stall that is 1,700 by 1,700 mm - Have a door that: - Has a clear opening of 850 mm wide in the open position - Is latchable from the inside with an accessible mechanism	NBC 3.8.3.12.	☐	☐	☐
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Appendix B — Barrier-Free Design Requirements (NBC)

○ Is aligned with a transfer space adjacent to the water closet, or that has a clear floor space that is 1,500 by 1,500 mm within the stall ○ Swings outward of the stall, or if it swings inward, has a clear floor space of at least 800 by 1,350 mm in addition to the door swinging inward ○ Is equipped with a “D” shaped ring for an out-swinging door, mounted at the dimensions listed on page 61 of the guide		○	○	○
● Have a water closet with a centre line between 460 and 480 mm from a wall on one side ● Have an “L” shaped grab bar ● Are equipped with either a grab bar(s) on the back wall of the water closet ● Have a coat hook that is mounted not more than 1,200 mm from the floor and at least 50 mm out from the wall on which it is mounted ● Are equipped with a toilet paper dispenser that conforms to the specified dimensions (refer to page 61)		○	○	○
		○	○	○
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		○	○	○
		○	○	○
Universal Washrooms	Authority	✓	X	N/A
Universal washrooms shall:	NBC 3.8.3.13.	○	○	○
● Be served by a barrier-free path of travel ● Have a door complying with the requirements stated in “Doors and Doorways” (refer to pages 38 and 43) that: ○ Has a latch operating mechanism located between 900 and 1,100 mm above the floor ○ When there is a non-closing, out-swinging door, there is a door pull that conforms to the requirements on page 66 ● Have a lavatory that meets the NBC requirements (refer to page 71) ● Have a water closet that meets the NBC requirements (refer to page 71) complete with a clear floor space a minimum 900 mm wide and 1,500 mm long that is parallel and adjacent to the water closet ● Have grab bars that meet the design requirements (refer to page 60) ● Have a coat hook that is mounted not more than 1,200 mm from the floor and at least 50 mm out from the wall on which it is mounted ● Have a toilet paper dispenser that conforms to the requirement referred to earlier in this document (refer to page 62) ● Have a shelf located not more than 1,200 mm above the floor unless a counter is provided ● Allow a wheelchair to turn into a 1,700 mm diameter		○	○	○
If equipped with an accessible change space, it shall:		○	○	○
● Be equipped with an adult-sized change table ● Have a clear floor space that is 810 mm wide by 1,830 mm long and does not overlap with the clear spaces required elsewhere for a universal washroom (refer to page 68) ● Have a clear transfer space of 900 by 1,350 mm adjacent to the long side of the clear floor space		○	○	○

Appendix B — Barrier-Free Design Requirements (NBC)

Water Closet (Toilet)	Authority	✓	X	N/A
Water closets as outlined, shall: - Have a seat located between 430 and 460 mm above the floor - Have an automatic flusher where the flusher is: - Located 500 to 900 mm above the floor - Located no more than 350 mm from the transfer side - Complies with the design requirements for controls (refer to page 50) - Be equipped with a seat lid or other back support - Where it has a tank, have a securely attached tank top	NBC 3.8.3.14	☐	☐	☐
Water Closet Stalls and Urinals for Persons with Limited Mobility When water closet stalls are installed for persons with limited mobility, they shall: - Be at least 890 to 940 mm wide and 1,500 mm deep - Have a door that: - Has a clear opening of 850 mm wide in the open position - Is latchable from the inside with an accessible mechanism - Is aligned with a transfer space adjacent to the water closet, or that has a clear floor space that is 1,500 by 1,500 mm within the stall - Swings outward of the stall, or if it swings inward, has a clear floor space of at least 800 by 1,350 mm in addition to the door swinging inward - Is equipped with a “D” shaped ring for an out-swinging door, mounted at the dimensions listed on page 73 of the guide - Meet the requirements of 3.8.3.14 that are centred in the stall - Have a horizontal grab bar that: - Is installed on either side of the stall - Is located 750 to 850 mm above the floor - Begins not more than 300 mm from the wall behind the water closet - Extends at least 450 mm in front of the toilet seat - Be equipped with a coat hook not more than 1,200 mm above the floor and project not more than 50 mm from the side wall of the stall When urinals are installed, they shall: - Be wall-mounted, with the opening of the basin not more than 430 mm above the floor - Be adjacent to an accessible route - Have a clear floor area that is 800 mm wide and 1,350 mm long, centred on the urinal and unobstructed by privacy screens - Have no steps in front of it - Have a flush control that: - Is automatic; or - Is located between 900 and 1,100 mm and conforms to the requirements of “Controls” (refer to page 50). - Have grab bars on either side that: - Conform to the requirements of grab bars	NBC 3.8.3.15.	☐	☐	☐

Appendix B — Barrier-Free Design Requirements (NBC)

○ Are not less than 600 mm long, with the centre line 1,000 mm above the floor ○ Are located not more than 380 mm from the centre line of the urinal		☐ ☐ ☐ ☐ ☐ ☐
Lavatories and Mirrors	Authority	✓ X N/A
When lavatories are required, they shall:	NBC 3.8.3.16.	
• Be equipped with faucets that operate automatically, or manually controlled as specified under “Controls” (refer to page 50)		☐ ☐ ☐
• Be located so that the distance between the centre line of the lavatory and any side wall is not less than 460 mm		☐ ☐ ☐
• Have a clear floor space in front of the lavatory that is at least:		
○ 800 mm wide, centred on the lavatory		☐ ☐ ☐
○ 1,350 mm long, with no more than 430 mm beneath the lavatory		☐ ☐ ☐
• Be at a height not more than 865 mm from the floor		☐ ☐ ☐
• Have the following clearances:		
○ 800 mm wide centred on the lavatory		☐ ☐ ☐
○ 735 mm high at the front edge		☐ ☐ ☐
○ 685 mm high at a point 200 mm back from the front edge		☐ ☐ ☐
○ 230 mm high over the distance from a point 280 mm to a point 430 mm back from the front edge		☐ ☐ ☐
• Have insulated water supply and drain lines when the pipes are exposed		☐ ☐ ☐
• Have a soap dispenser that is:		
○ Automatic; or		☐ ☐ ☐
○ Is operable with one hand, is located not more than 1,100 mm above the floor and within 500 mm from the front of the lavatory.		☐ ☐ ☐
• Have a towel dispenser or other hand-drying equipment close to the lavatory and not more than 1,200 mm above the floor		☐ ☐ ☐
• When mirrors are installed, they shall be mounted with the bottom edge not more than 1,000 mm above the floor and fixed in an incline position so they are usable by a person in a wheelchair		☐ ☐ ☐
Showers	Authority	✓ X N/A
When required, showers shall (refer to page 80):	NBC 3.8.3.17.	
• Not be less than 1,500 mm wide and 900 mm deep		☐ ☐ ☐
• 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		☐ ☐ ☐
• Not have any doors or curtains that obstruct controls or the clear floor space at the entrance		☐ ☐ ☐
• Have a slip-resistant floor surface		☐ ☐ ☐
• Have a threshold not more than 13 mm higher than the finished floor and when higher than six millimetres (6 mm), bevelled at a slope no steeper than 1:2		☐ ☐ ☐
• Have two grab bars that meet the requirements found on page 80		☐ ☐ ☐
• Have a hinged seat meeting the requirements found on page 80		☐ ☐ ☐

Appendix B — Barrier-Free Design Requirements (NBC)

• Have a pressure-equalizing valve or thermostatic-mixing valve and other controls that meet the requirements of the section “Controls” and are not mounted more than 1,200 mm above the floor • Have a hand-held shower head that has a flexible hose not less than 1,800 mm in length, reachable from the seat and can be in a fixed position between 1,200 and 2,030 mm from the floor • Have a recessed soap holder that can be reached from the seat When a universal dressing and shower room is installed, it shall: • Be located in a barrier-free path of travel • Have a door that shall be capable of being locked from the inside and released from the outside in the event of an emergency • Have a lavatory and mirror that meet the NBC requirements (refer to page 77) • Have a bench that is at least 1,830 mm long by 760 mm wide and 480 to 520 mm high • Have a clear transfer space adjacent to the long side of the bench that is 900 mm wide and as long as the bench • Have a coat hook conforming (refer to page 82)		☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
Bathtubs	Authority	✓ X N/A
When required, bathtubs shall: • Be located in a room with a clear floor space with not less than 1,700 mm diameter • Not be less than 1,500 mm long • Have a clear floor space not less than 900 mm wide adjacent to the entire length of the tub • Be capable of being accessed along the full length of the tub without tracks mounted onto the rim • Have faucets that: ○ Conform to the requirements found in “Controls” (refer to page 50) ○ Are installed on the centre line of the tub and the exterior edge of the tub rim and at a maximum height of 450 mm above the rim • Have three grab bars that: ○ Meet the requirements of “grab bars” (refer to page 60) ○ Are not less than 1,200 mm long ○ Two of which are located vertically at each end of the tub, set 80 to 120 mm from the outside edge of the tub, where the lower end is located 180 to 280 mm above the bathtub rim ○ One is located horizontally along the length of the tub at 180 to 280 mm above the bathtub rim • Have a slip-resistant surface • Have a hand-held shower head with a flexible hose that is not less than 1,800 mm in length and can be fixed at a height of 1,200 to 2,030 mm	NBC 3.8.3.18.	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Appendix B — Barrier-Free Design Requirements (NBC)

Assistive Listening Devices	Authority	✓	X	N/A
Assistive listening devices shall: • Encompass the entire seating area • Shall provide for clear communication for the exchange of information, goods and services	NBC 3.8.3.19.	☐	☐	☐
Counters	Authority	✓	X	N/A
Shelves or counters required shall: • Have a barrier-free section not less than 800 mm long, centred, complete with a knee space • Have a surface not more than 865 mm above the floor • Have a knee space under the surface that is: ○ Not less than 800 mm wide ○ Not less than 685 mm high ○ Not less than 485 mm deep	NBC 3.8.3.20.	☐	☐	☐
Telephones	Authority	✓	X	N/A
Telephones shall: • Be adjacent to and centred on either the length or the width of clear floor space, not less than 1,350 by 800 mm • Have a knee space underneath it conforming to “Counters” requirements (refer to page 89) when it is a forward approach • Be located so that its receiver and operable parts are not more than 1,200 mm above the floor Any counters or shelves required for telephone use shall: • Be level • Not be less than 305 mm (approximately 12 inches) deep • Have a clear space not less than 250 mm wide where there is no obstruction within 250 mm above the surface • Have a section with a surface not more than 865 mm above the floor serving at least one telephone • When a wall-hung telephone is provided above the counter specified above, the telephone shall be located so that the receiver and the coin slot are not more than 1,200 mm above the floor	NBC 3.8.3.21.	☐	☐	☐
Spaces in Seated Areas	Authority	✓	X	N/A
Spaces designed for wheelchair access in seated areas shall: • Have the minimum required spaces as referenced on table 3.8.2.3.(3) (refer to page 96) • Be clear and level, or level with removable seats • Not be less than 900 mm wide and 1,700 mm long for a side approach and 900 mm wide by 1,350 mm long when accessible from the front or rear • Be arranged so that at least: ○ Two designed spaces are side by side ○ One fixed seat is located beside each designated space • Be located adjoining a barrier-free path of travel, without any infringement on egress from row seating	NBC 3.8.3.22.	☐	☐	☐

Appendix B — Barrier-Free Design Requirements (NBC)

- Have seats as part of the designated seating plan, for a choice of viewing locations and a clear view of an event taking place Spaces designed for wheelchair use in waiting rooms or areas required shall: - Be clear and level - Have a clear floor area of 900 mm wide by 1,700 mm long to permit a wheelchair-side approach and 1,350 mm long for a front or rear approach Adaptable seats when required shall: - Be located along an aisle without encroaching on egress for any row-to-aisle requirements - Be equipped with a movable or removable armrest on the side of the seat next to the aisle - Be located as part of the seating plan, so there is a choice of viewing locations and a clear view of the event Storage spaces for mobility aids shall be provided in a location that: - Is on the same level as and in proximity to the adaptable seats (when required) - Is within the room side of the fire separation required - Do not encroach on egress		○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○
Residential Occupancies* (Sask Amendment)	Authority	✓ X N/A
Accessible suites within a residential occupancy shall conform to the applicable requirements, including: - An accessible washroom shall conform to Article 3.8.3.13. (refer to page 65) - An accessible bathtub shall conform to Article 3.8.3.18. (refer to page 85) - An accessible shower shall conform with Article 3.8.3.17(1) (refer to page 80) - An accessible kitchen shall have: - Clearance of not less than 1,700 mm between counters and all opposing base cabinets, countertops, appliances or walls - A clear turning circle of not less than 1,700 mm in diameter below countertop height - An accessible sleeping room shall have a clear turning circle of not less than 1,700 mm in diameter on one side of the bed - An accessible balcony shall be barrier-free and shall conform to the design requirements of Sentence 3.3.1.7.(4) which shall: - Have direct <i>barrier-free</i> access from the <i>suite or floor area</i> - Be not less than 1.5 m deep from the outside face of the exterior wall to the inside edge of the balcony - Provide not less than 1.5 m² of balcony space for each non-ambulatory occupant and 0.5 m² for each ambulatory occupant	NBC 3.8.3.23., within the BC Regulations	○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○

Appendix B — Barrier-Free Design Requirements (NBC)

• Kitchen, laundry and other types of sinks shall have controls in conformance with Clause 3.8.3.8.(1)(b) (refer to page 50) • An accessible door must conform to Article 3.8.3.6. (refer to pages 38 and 43) • A barrier-free path of travel within a suite must conform with Article 3.8.3.2. (refer to page 23)		☐ ☐ ☐
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Appendix C – Barrier-Free Design Requirements (CSA B651)

(APPLIES TO ALL BUILDINGS EXCEPT AS LISTED IN DESIGN REQUIREMENTS EXEMPTIONS PAGE 13)

CSA B651 Design Requirements					
Barrier-free Path of Travel (Accessible Routes)	Authority	✓	X	N/A	
Interior accessible routes shall: • Be stable, firm, slip-resistant, produce minimal glare and do not have strong visual patterning • Have a cross slope not greater than 1:50 (two per cent) • Have a bevel of not greater than a 1:2 slope for changes in elevation between 6 and 13 mm • Have a provision for a sloped floor or ramp for changes in elevation greater than 13 mm • Have an unobstructed width of a minimum of 1,000 mm throughout • Be at least 850 mm wide when there are indentations up to 600 mm in length • Be 1,100 mm wide when there is a U-turn around an obstacle less than 1,200 mm wide • Be at least 1,000 mm wide when there is a U-turn around an obstacle more than 1,200 mm wide • Have an increase of 1,700 by 1,700 mm at intervals not greater than 30 m, if the path of travel is greater than 30 m long • Have a minimum clear width of 1,000 mm for check-out lanes • Have no opening that permits the passage of a sphere 13 mm in diameter • If there are elongated openings present, they are oriented to be perpendicular to the direction of travel	CSA B651 Clauses 4.3., 5.1. and 8.2.	☐	☐	☐	
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Exterior accessible routes shall: • Have a minimum clear width of 1,600 mm • Have a minimum clear width of 1,350 mm when adjacent to a curb • Have running and cross slopes that conform to Clause 5.1.2. • Have edge protection when there is a vertical drop in elevation adjacent to the accessible route		☐	☐	☐	
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Appendix C — Barrier-Free Design Requirements (CSA B651)

A clear height of not less than 2,750 mm at the pull-up space and along vehicle access		
Exterior Passenger-Loading Zones	Authority	✓ X N/A
- Access aisle not less than 1,500 mm wide by 6,000 mm long - Curb ramp (where curbs exist) - A clear height of not less than 2,750 mm at the pull-up space and along vehicle access	CSA B651 Clause 9.3.	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
Ramps	Authority	✓ X N/A
Ramps shall: - Have a slope between 1:12 (8.333 per cent) and 20 (five per cent) - Not have a horizontal distance of more than nine metres (9) m between level landings - Have a cross slope not steeper than 1:50 (2 per cent) - Have a clear width of 1,000 mm - Have level landings that: - Must be provided at the top and bottom of each ramp - When there are changes in ramp direction - Have a minimum length of 1,500 mm and the width of the ramp - Are 1,700 by 1,700 mm when at doorways serving an accessible route - Have 1,700 by 1,700 mm passing spaces - Have a colour-contrasting strip to indicate slope changes - Be stable, firm, slip-resistant produce minimal glare and do not have strong visual patterning - Edge protection (by either a curb or raised barrier) of a minimum of 100 mm high from the ramp or landing surface - Have illumination at the surface level of at least 50 lx - Have handrails that: - Comply with Clause 5.3. (refer to page 35) - Are continuous on-ramp and landings - Are colour-contrasted with their surroundings - Have a least one set of handrails with a clear width between 920 and 1,000 mm between the rails - Have a height between 860 and 920 mm from the ramp surface and top of the rail - Have a horizontal extension beyond the top and bottom of the ramp that: - Is at least 300 mm long - Is returned to a post, floor or wall	CSA B651 Clause 5.5.	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Appendix C — Barrier-Free Design Requirements (CSA B651)

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Appendix C — Barrier-Free Design Requirements (CSA B651)

- Level floor surface: - Level floor area at doors and doorways as specified in their respective standards		☐ ☐ ☐
Passenger Elevating Devices	Authority	✓ X N/A
Passenger elevating devices shall meet: - Appendix E of ASME A17.1/CSA B44 “Safety Code for Elevators and Escalators,” or - The standard CSA B355 “Platform Lifts and Stair Lifts for Barrier-free Access.”	CSA B651 5.6.2.	☐ ☐ ☐ ☐ ☐ ☐
Operating Controls	Authority	✓ X N/A
Signage that is colour contrasted from its background and meets the requirements as referenced in the standard. Operating controls shall: - Be mounted 400 to 1,200 mm above the floor - Be operable with one hand in a closed fist position, not requiring more than 22 N (approximately 5 lbs) force - Have a clear floor area centred on the control that is a minimum of 800 mm wide by 1,350 mm long - Provide tactile and/or auditory information to indicate function, position, and conformation of activation - Be illuminated to a level of: 100 lx minimum 200 lx, when reading is necessary for the operating control 50 lx to 100 lx when an operating control has its own illumination or is backlit without any reading required for operation - Be colour-contrasting controls from the background	CSA B651 Clause 4.2.	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
Signage	Authority	✓ X N/A
Signage that is colour contrasted from its background and meets the requirements as referenced in the standard.	CSA B651 Clauses 4.5. & 9.4.4. (parking)	☐ ☐ ☐
Drinking Fountain	Authority	
Drinking fountains that: - Are located along a barrier-free path of travel must: - Have a minimum clear floor area that is 800 by 1,350 mm long in front of the unit. - Be colour contrasted from the background. - Be either cantilevered or recessed. - Have a knee clearance that is a minimum of 800 mm wide by 200 mm deep and 680 mm high. - Have a toe space that is a minimum of 800 mm wide by 230 mm deep and 230 mm high. - Signage that is colour contrasted from its background and meets the requirements as referenced in the standard.	CSA B651 Clause 6.1.	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Appendix C — Barrier-Free Design Requirements (CSA B651)

Grab Bars	Authority	v	X	N/A
A grab bar shall:	CSA B651 Clause 6.2.5.	☐	☐	☐
• Be slip-resistant		☐	☐	☐
• Have a diameter between 30 to and 40 mm		☐	☐	☐
• Have a clearance space between 35 and 45 mm when mounted to a wall		☐	☐	☐
Not rotate within its fittings		☐	☐	☐
• Be free of sharp or abrasive elements, either for the grab bar or adjacent surfaces		☐	☐	☐
• Be able to resist a load of not less than 1.3 kN (approximately 292 lbs) applied vertically or horizontally		☐	☐	☐
Drinking fountains that:				
• Are located along a barrier-free path of travel must:		☐	☐	☐
○ Have a minimum clear floor area that is 800 by 1,350 mm long in front of the unit		☐	☐	☐
○ Be colour contrasted from the background		☐	☐	☐
○ Be either cantilevered or recessed		☐	☐	☐
○ Have a knee clearance that is a minimum of 800 mm wide by 200 mm deep and 680 mm high		☐	☐	☐
○ Have a toe space that is a minimum of 800 mm wide by 230 mm deep and 230 mm high		☐	☐	☐
Toilet (Water Closet)	Authority	v	X	N/A
Toilet stalls installed shall:	CSA B651 Clause 6.2.7.	☐	☐	☐
• Have a minimum size of 1,600 mm wide by 1,500 mm deep		☐	☐	☐
• Have a clear space in front of the stall that is 1,700 by 1,700 mm		☐	☐	☐
• Have a toilet that complies with Clause 6.2.6. (refer to page 71)		☐	☐	☐
• Have a door that:		☐	☐	☐
○ Has a clear opening of 850 mm with the door in the open position		☐	☐	☐
○ Is aligned with the transfer space		☐	☐	☐
○ Swings outward, unless there is additional space for it to swing inward		☐	☐	☐
○ Has a “D” type door pull on the inside of an out-swinging door that meets the dimensions on page 63 of the guide		☐	☐	☐
○ Has a “D” type door pull on the outside of the door, mounted at the dimensions listed on page 63 of the guide		☐	☐	☐
○ Is self-closing and will rest not more than 50 mm ajar from the jamb		☐	☐	☐
○ Is latchable from the inside with a mechanism that conforms to the requirements for operating controls (refer to page 50)		☐	☐	☐
○ Has a coat hook that is not more than 1,200 mm from the floor and projects not more than 40 mm from the wall		☐	☐	☐
• Has grab bars that conform to the specifications of CSA B651 Clause 6.2.6.4. (refer to page 60)		☐	☐	☐

Appendix C — Barrier-Free Design Requirements (CSA B651)

Universal Washrooms	Authority	v	X	N/A
Universal washrooms shall: • Have a clear floor area of not less than 1,700 by 1,700 mm • Have a lavatory that meets Clause 6.2.3. (refer to page 78) • Have a toilet that meets Clause 6.2.6. (refer to page 71) • Have a sign identifying the washroom and shall conform to Clause 4.5.6. complete with the requirements for a gender-neutral pictogram (refer to page 68) • Have an emergency call system complete with signage (refer to page 68) • Have a door that shall: ○ Meet the requirements of Clause 5.2. (refer to pages 38 and 46) ○ Has a locking mechanism on the inside that is mounted 400 to 1,200 mm above the floor, is operable with one hand in a closed fist position and does not require more than 22 N (approximately 5 lbs) force ○ Have a power-assisted door opener ○ Be capable of being unlocked from the outside in the case of an emergency • Have all accessories (mirrors, soap dispenser, etc.) meet Clause 6.2.4. (refer to page 78) • Have a shelf or counter at least 200 by 400 mm • Have a coat hook that is not more than 1,200 mm from the floor and projects not more than 40 mm from the wall	CSA B651 Clause 6.3.	☐	☐	☐
Adult Change Table	Authority	v	X	N/A
When an adult change table is provided in a universal washroom it shall:	CSA B651 Clause 6.3.4.	☐	☐	☐
• Be located in an accessible route • Be at least 760 mm wide by 1,830 mm long • Have an adjustable height between 450 and 500 mm on the lower range and 850 and 900 mm on the high range • Have surfaces free of sharp edges, corners or abrasive materials • Be easy to clean • Be designed to support a weight of 250 kg (approximately 551 lbs) • Have a horizontal grab bar that is: ○ 1,200 mm long ○ Centred on the long dimension of the change table ○ Mounted to be able to be used regardless of the bench height range • Have a clear transfer space of 900 by 1,500 mm adjacent to the change table • Have controls that are no higher than 1,200 mm from the floor • Have a personal lifting device (if installed) to meet the standard CAN/CSA-Z1055.1 and shall be installed under CSA Z10535.2		☐	☐	☐

Appendix C — Barrier-Free Design Requirements (CSA B651)

Toilet (Water Closets)	Authority	✓	X	N/A
Toilets shall: • Have a seat between 430 and 485 mm above the floor • Not have a spring-activated seat • Have back support where there is no seat lid or tank installed • When a tank is installed, must be securely attached • Be located: ○ 460 to 480 mm from the adjacent wall ○ Have a clear transfer space at least 900 mm wide by 1,500 mm long on the open side measure from the edge of the toilet • Have flush controls that: ○ Are automatically activated, or ○ Hand-operated, complete with hand controls that comply with the requirements from page 50 located on the transfer side.	CSA B651 Clause 6.2.6.	○ ○ ○ ○	○ ○ ○ ○	○ ○ ○ ○
Toilet Stalls for Persons with Limited Mobility	Authority	✓	X	N/A
Toilet stalls for persons with limited mobility shall: • Be a standard-sized stall • Have horizontal grab bars on either side of the stall that: ○ Comply with Clause 6.2.5. (refer to page 60) ○ Are located 750 to 850 mm above the floor ○ Begin not more than 300 mm from the wall behind the toilet and extend 450 mm in front of the toilet • Have a toilet that meets Clause 6.2.6.1. (refer to page 71) • Have a door that: ○ Has an outward-opening door ○ Is self-closing ○ Is latchable from the inside by a device that complies with Clause 4.2.4. (refer to page 50) • Have a sign that: ○ Complies with Clause 4.5. (refer to page 54) ○ Indicates the stall is suitable for users who may require grab bar assistance	CSA B651 Clause 6.2.7.3.	○ ○ ○ ○	○ ○ ○ ○	○ ○ ○ ○
Urinals	Authority	✓	X	N/A
When urinals are installed, they shall: • Be a stall or wall-hung type, with the well located where: ○ The lower rim is not higher than 430 mm from the floor ○ The upper rim is located not lower than 860 mm from the floor • Have a clear floor area in front of the urinal that is: ○ Adjacent to an accessible route ○ Centred on the urinal ○ At least 800 mm wide and 1,350 mm deep ○ Unobstructed by floor-level changes or privacy screens	CSA B651 Clause 6.2.8.	○ ○	○ ○	○ ○

Appendix C — Barrier-Free Design Requirements (CSA B651)

- Have flush controls that are: - Automatic operators - Hand-operated controls conforming to Clauses 4.2.3. and 4.2.4. (refer to page 50) - Have grab bars that are: - Colour contrasted with the back wall - At least 600 mm long - Mounted vertically on the back wall on either side of the urinal - Not more than 380 mm from the centre of the urinal, the centre line is 1,000 mm from the floor - Have a centre line indicator that: - Is centred on the urinal - Extends to a height of at least 1,300 mm from the floor but not less than 150 mm above the upper urinal rim - Is at least 50 mm wide - Is raised at least three millimetres (3 mm) from the wall surface - Is colour contrasted not less than 70 per cent with the back wall		☐	☐	☐
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Appendix C — Barrier-Free Design Requirements (CSA B651)

Showers	Authority	v	X	N/A
When required, showers shall:	CSA B651 Clauses 6.5.	☐	☐	☐
• Have a maximum water temperature set at 49°C		☐	☐	☐
• Have shower heads that shall:		☐	☐	☐
○ Be of a handheld type		☐	☐	☐
○ Be at a fixed height between 1,200 and 2,030 mm from the floor		☐	☐	☐
○ Be provided with a hose not less than 1,800 mm long and not obstruct any grab bar		☐	☐	☐
○ Be protected with a valve in compliance with ASSE 1016/ ASME A112.1016/ CSA B125.16		☐	☐	☐
• When an enclosure is present, the controls or transfer space shall not be obstructed.		☐	☐	☐
• Have a floor that is slip-resistant when wet and sloped minimally for drainage		☐	☐	☐
• Have a minimum clear area in front of the shower of at least 900 by 1,500 mm for roll-in showers with 1,500 mm dimension parallel to the shower entrance		☐	☐	☐
• Have four grab bars that meet the requirements of Clause 6.2.5. (refer to pages 60 and 83 for locations and dimensions)		☐	☐	☐
• Have controls that meet the requirements of “Controls” (refer to page 50) are not more than 1,200 mm above the floor. Controls shall be mounted on the wall that:		☐	☐	☐
○ In the case of a roll-in shower, is opposite the entrance to the shower, or		☐	☐	☐
○ In the case of a shower with a curb, within reach of the seat on the opposite wall.		☐	☐	☐
• The threshold for a roll-in shower shall not exceed 13 mm and if the threshold is between 7 and 13 mm, it shall be bevelled at a slope not more than 1:2 (50 per cent).		☐	☐	☐
• If a seat for the shower is provided, it shall:		☐	☐	☐
○ Be on the side wall with a vertical grab bar		☐	☐	☐
○ Be at least 400 mm wide and the full depth of the shower stall (minus the shower curtain)		☐	☐	☐
○ Be between 430 to 485 mm from the floor		☐	☐	☐
○ Have a smooth non-slip surface without rough edges		☐	☐	☐
Bathtubs	Authority	v	X	N/A
When required, bathtubs shall:	CSA B651 Clause 6.5.6.	☐	☐	☐
• Have a clear floor area at least 800 mm wide over the entire length of the bathtub		☐	☐	☐
• Have two grab bars that:		☐	☐	☐
○ One is horizontally centred along the length of the tub, with a length not less than 1,200 mm and mounted 180 to 280 mm above the tub rim		☐	☐	☐
○ One is vertically mounted on the foot end of the tub:		☐	☐	☐
▪ 1,200 mm in length		☐	☐	☐

Appendix C — Barrier-Free Design Requirements (CSA B651)

- Where the lower end is between 180 and 280 mm above the tub rim - Between 80 and 120 mm from the adjacent floor area - Have controls that: - Meet the requirements set out in “Controls” (refer to page 50) - Are located at the foot end of the tub between the centre line of the tub and the clear floor area - Are located not more than 450 mm above the bathtub rim - Not have an enclosure - Have a slip-resistant base		☐	☐	☐
Assistive Listening Devices	Authority	✓	X	N/A
Assistive listening devices shall: Use an induction loop, infrared system or radio-frequency where an assistive listening system is provided	CSA B651 Clause 6.6.1.	☐	☐	☐
Shelves/Counters	Authority	✓	X	N/A
Shelves or counters required shall: - Have a clear floor area not less than 800 by 1,350 mm - Be at a height between 730 and 860 mm from the floor - Have a knee clearance that is a minimum of 800 mm wide, 480 mm deep and 685 mm high, where an overlap of the clear floor area is not more than 480 mm	CSA B651 Clause 6.7.1	☐	☐	☐
Public Telephones	Authority	✓	X	N/A
Public telephones shall: - Be free and clear of objects, including: - A clear headroom of 2,050 mm - Any obstructions that are greater than 100 mm from the wall have a detectable obstruction that is not more than 685 mm from the floor Any counters or shelves required for telephone use shall: - Have a minimum of 450 mm wide by 300 mm deep - Provide a space of at least 250 mm high and 225 mm wide for a teletypewriter (TTY) or text telephone (TT) unless provided - Be at a height between 730 and 860 mm from the floor - When the telephone is on a counter, it shall: - Have a clear floor area of at least 800 mm wide and 1,350 mm deep, which shall extend to not more than 480 mm under the shelf or counter - Have a knee clearance between 685 and 730 mm high	CSA B651 Clause 6.6.2.	☐	☐	☐
Viewing Spaces in Assembly Areas	Authority	✓	X	N/A
Spaces designed for wheelchair access in seated areas shall: - Be located adjacent to an accessible route - Have a clear, level floor area of 850 mm wide by 1,350 mm long - Have a firm and level surface	CSA B651 Clause 6.7.3.	☐	☐	☐

Appendix C — Barrier-Free Design Requirements (CSA B651)

• Have a minimum number of spaces as per Table 6 in CSA B651 • Be part of the seating plan and be dispersed throughout the seating area on all levels • Be adjacent to other seating • Provide half of the accessible seating to be placed side by side • Have sight lines that are comparable to seating positions and not reduced or obstructed by standing members of the audience • Have adaptable seating that shall be: ○ Located adjoining a barrier-free path of travel without infringing on egress ○ Equipped with a movable or removable armrest on the side of the seat adjoining the barrier-free path of travel ○ Situated as part of the designated seating plan to provide a choice of viewing locations	○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○
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