Facility Accessibility Design Standards

(FADS)

Kawartha Lakes
Jump In

Accessible Boardwalk by the Lindsay Old Mill

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Kawartha Lakes is committed to complying with the Accessibility for Ontarians with Disabilities Act (AODA) in order to create a barrier-free Ontario. We are committed to the four core principles of dignity, independence, integration and equal opportunity. We support the full inclusion of persons as set out in the Canadian Charter of Rights and Freedoms and the AODA. Alternate formats for this document are available upon request or for information concerning the 2024-2029 Accessibility Plan, contact the Inclusion, Diversity, Equity, Accessibility (IDEA) Partner at 705.324.9411 extension 2136 or accessibility@kawarthalakes.ca.

Acknowledgements

Re: Facility Design Standard

Dear reader / user of these standards,

On behalf of the Corporation of the City of Kawartha Lakes, we are pleased to present the **Facility Accessible Design Standards** for City Facilities (FADS). The use of the **Facility Accessible Design Standards** is mandatory for all new construction, additions, renovations and capital replacements at City owned buildings, including leased buildings and temporary structures.

The City of Kawartha Lakes would like to extend gratitude to the Town of Oakville for granting exclusive access to this comprehensive guide and would like to recognize those that have reviewed and contributed to the content:

- Members of the Kawartha Lakes Accessibility Advisory Committee
- CAO and Senior Management Team
- Richard Holy, Manager of Policy Planning, DS-Policy Planning
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- Christina Sisson, Supervisor, Development Engineering, EA-Engineering-Development
- Ryan Smith, Capital and Special Projects Supervisor, CS-PR-Capital and Special Projects Supervisor
- Oliver Vigelius, Manager, PW-West B
- Christine Briggs, IDEA Partner

Introduction

The City of Kawartha Lakes is committed to providing accessible facilities, programs and services and to be the most livable Municipality in Canada. **The Facility Accessibility Design Standards** was developed to help staff realize this commitment and provides an innovative and detailed approach for the design of barrier free and accessible facilities. A made-for City of Kawartha Lakes standard and **its use is mandatory for all construction projects at City facilities including new construction, additions, renovations and capital replacements**.

The Facility Accessibility Design Standards (FADS) is intended to provide an inclusive, user friendly and accommodating built environment through design and the careful use of materials and equipment. It reconciles legislative changes with respect to accessibility under the Ontario Building Code and the Accessibility for Ontarians with Disabilities Act (AODA). It also incorporates recent ergonomic research from the United States and best practices from other municipalities and organizations. All of the design requirements use universal design principles as the core principle.

"The design of products and environments to be useable by all people, to the greatest extent possible, without the need for adaptation or specialized design."

— Ronald Mace, The Center for Universal Design

The Principles of Universal Design

1. **Equitable Use:** the design is useful and marketable to people with diverse abilities.
2. **Flexibility in Use:** the design accommodates a wide range of individual preferences and abilities.
3. **Simple and Intuitive Use:** use of the design is easy to understand, regardless of the user's experience, knowledge, language skills or current concentration level.
4. **Perceptible Information:** the design communicates necessary information effectively to the user, regardless of ambient condition or the user's sensory abilities.
5. **Tolerance for Error:** the design minimizes hazards and the adverse consequences of accidental or unintended actions.
6. **Low Physical Effort:** the design can be used efficient and comfortably with a minimum fatigue.
7. **Size and Space for Approach and Use:** appropriate size and space are provided for approach, reach, manipulation and use, regardless of user's body position, size, posture or mobility.

Note: The Principles of Universal Design were developed by NC State University, The Center for Universal Design.

In addition to following the principles of universal design, any changes to building and site elements must consider the intent of the Ontario Human Rights Code towards respecting the dignity of individuals with varying abilities.

"The phrase 'respect their dignity' means to act in a manner which recognizes the privacy, confidentiality, comfort, autonomy and self-esteem of persons with disabilities, which maximizes their integration and which promotes full participation in society."

— Ontario Human Rights Commission

Architects / Project Designers must exercise professional judgment and expertise when using the document. The Facility Audit Design Standard (FADS) does not release the consultant from liability or the need for due diligence in the design and construction process. A City Staff Team (as appointed by the CAO and Senior Management Team) will review and / or update the document every five years under the coordination of the Accessibility Officer to reflect changes in legislation, technological advancement and new construction practices.

How to use the Standards

The Facility Accessibility Design Standards (FADS) have been formatted specifically to assist the reader by providing a user friendly document with easy to read language and many images and diagrams.

The standard has three major sections:

Administrative Provisions

The **Administrative Provisions** section includes the scope of the document and how it will be applied to different types of construction (new construction, additions, renovations, and replacements) and a glossary of defined terms which listed alphabetically and further italicized throughout the document.

Design Standards

The **Design Standards** section is divided into four parts:

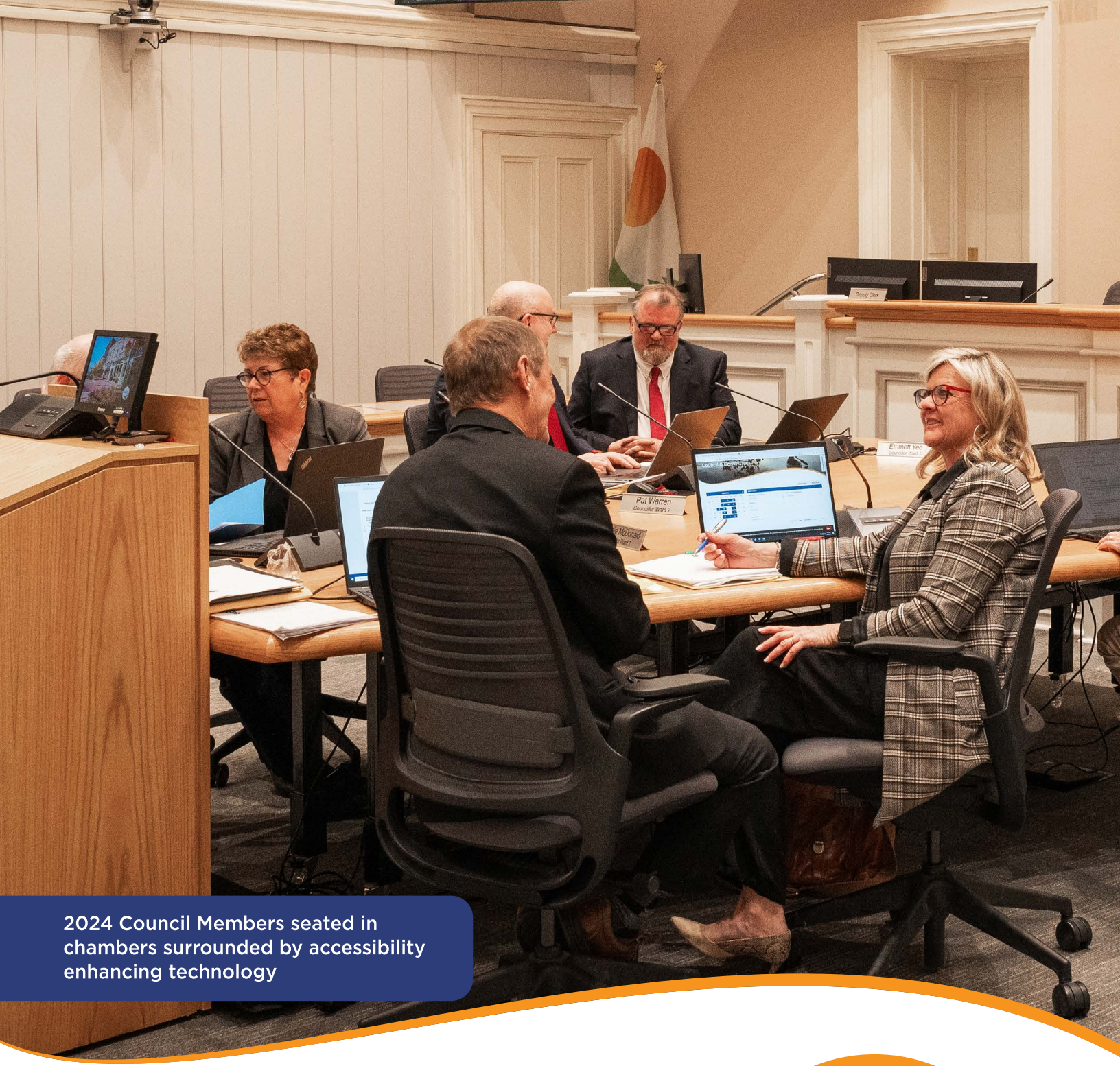
- Common Exterior and Interior Design Elements
- Interior Elements and Amenities
- Exterior Elements
- Facility Specific Requirements

The four parts are then divided into building elements. Each element, such as “Entrances” on page 39, has an objective or an important factor to note in the blue box. Unless otherwise noted, all requirements are to be applied to both interior and exterior elements.

Renovation Permissions

Asterisks (*) provided beside the requirements in the **Design Standards** section of the standard denote a renovation permission for that specific requirement.

Renovation Permissions are applicable to the renovation of existing buildings and additions to an existing building to accommodate universal design access. It is also applicable where the requirement under the **Design Standards** section is technically infeasible.



2024 Council Members seated in chambers surrounded by accessibility enhancing technology

Administrative Provisions

Scope

The use of the **Facility Accessibility Design Standard (FADS)** is **mandatory** for the maintenance, repair, and construction of all City owned buildings and including those leased by the City or operated by the City.

When conflict arises between the **FADS** and other municipal, provincial, or federal legislation, the requirements that will result in the most accommodating environment shall be used but never less than the minimum requirements in the current Ontario Building Code (OBC) and the Accessibility for Ontarians with Disabilities Act (AODA) Design of Public Spaces Standard.

It will be the responsibility of the design/architect consultant to note any design departures from the **Design Standards** section. Any departure must be carefully assessed to determine the validity of the application, must be noted, highlighted and require consultation with the Kawartha Lakes Accessibility Advisory Committee prior to Departmental approval and prior to proceeding. The highlighted departure must be documented along with approved resolution and kept with the building file should the departure be publically questioned.

Exception

The **FADS** does not apply to service rooms or areas, for example: electrical rooms, sprinkler rooms, janitor rooms, crawl spaces, attics, etc.

The **FADS** does not apply to structures that are not occupied such as telephone exchanges, pump houses etc.

Building Additions

Additions to existing facilities are considered to be new construction and as such must meet all of the requirements in the **Design Standards** section. The resultant addition must be on an accessible path (interior and exterior) and have an accessible path of travel to existing washrooms, change rooms, drinking fountains, and other amenities if these are also accessible.

Technically Infeasible

The term ‘technically infeasible’ refers to the renovation or replacement of a building element that cannot meet the requirements of the **Design Standards** section based on the following:

- Existing structural conditions would require moving or altering a load-bearing member which is an essential part of the structural frame; and/or
- Other existing physical or site constraints prohibit modification or addition of necessary elements, spaces, or features to be incompliance with the **Design Standards** section.

If the proposed work is technically infeasible, refer to the **Renovation Permissions** section.

Renovations and Replacements

Where possible, renovations will meet the requirements of the **Design Standards** section. Where it is technically infeasible to meet these requirements, every effort will be made to make the space / area as accessible and barrier-free as possible.

- If the replacement of different building elements, when considered together, results in the renovation of a room or space, the entire space must be made accessible and meet the requirements of the **Design Standards** section,
- If an escalator or stairs are proposed as a means of access then provide another means of access that is accessible even if major structural modifications are necessary for such installations,

- If a renovation or replacement is done to an existing entrance, it must be accessible and meet the requirements of the **Design Standards** section unless it is technically infeasible, and
- Painting, wallpapering or any other changes to existing finishes is considered to be a replacement and must meet the requirements of the **Design Standards** section for finishes and colour / tonal contrast.

Unless technically infeasible, the renovation or replacement of existing building elements must be on an accessible path (interior and exterior) and have an accessible path of travel to existing washrooms, change rooms, drinking fountains, and other amenities if these are also accessible.

Heritage Properties

The use of FADS is mandatory for renovations and replacements to City owned properties. However, the Ontario Human Rights Code provides allowances for modifications to defining features of a heritage property such that the renovation or replacement should not alter the essential nature of the heritage elements. As such, any work on heritage properties must be assessed on an individual basis to determine the most effective and least disruptive means of renovation or replacement and the extent to which the property can be made accessible.

As well, all work must consider the following:

- If the work does not affect defining features of the heritage property, it should meet the requirements of the **Design Standards** section,
- Heritage properties that are used by the public and have undergone extensive modernization must be made accessible and meet the requirements of the **Design Standards** section. If accessibility is limited by non-heritage elements, those elements must be made accessible, and
- If the main public entrance to a heritage property cannot be made accessible without impacting the historic significance of the facility, access must be provided at an alternative and accessible entrance with directional signage from the main public entrance.

It is desirable to provide a complete experience of a heritage property. If a property cannot be made accessible, every effort should be made to provide access to as much of the facility as possible while still maintaining the heritage aspects of the property.

Dimensions

Dimensions used in this standard are in metric units (millimetres) and shown as mm. Dimensions that are not indicated within a range (max or min) are absolute and must be met unless noted otherwise.

Enforcement

Designing and constructing in accordance with this standard will be included as a **mandatory** requirement in all City of Kawartha Lakes Request for Proposals, tender documents, and construction contracts. **All City departments managing construction projects** shall ensure compliance with this standard during the pre-planning, design, construction documents, preparation, and contract administration phases.

If the design and construction does not meet the requirements of the **Design Standards** section, Renovation Permission must be followed.

Defined Terms

The following defined terms are used often throughout the document. Their meanings are provided below for clarification.

Accessible: Describes design elements of the built environment that comply with the requirements of this standard.

Accessible path: A continuous unobstructed path connecting accessible elements and spaces at the exterior of a building and within the interior spaces of a building. Interior accessible paths include corridors, floors, ramps, elevators, and clear floor spaces at fixtures. Exterior accessible paths include parking access aisles, curb ramps, crosswalks, etc.

Accessible space: The design of the built environment to be useable by all people, to the greatest extent possible, without the need for adaptation or specialized design.

Addition: Adding usable square foot area to a temporary or permanent structure or building.

A.F.F.: At Finished Floor

Area of refuge: An area which has direct access to an exit, where people who are unable to use stairs may remain temporarily in safety to await further instructions or assistance during emergency evacuation.

Building: A structure occupying an area greater than ten square meters and consisting of walls, roof, and floor or other types of structures designated as buildings under the Ontario Building Code.

Clear floor space: The minimum unobstructed floor or ground space required to accommodate a person in a wheelchair, scooter, or other mobility aid.

Colour / tonal contrast: A significant contrast (minimum 70%) in colour or tone between an element and its surrounding environment.

Cross slope: The slope that is perpendicular to the direction of travel. (See running slope).

Curb ramp: A short ramp cutting through a curb or built up to a curb to provide access from a driveway / parking area to a sidewalk.

Design of Public Spaces: The Design of Public Spaces Standard primarily regulates outdoor spaces, but also regulates indoor elements not including in the Ontario Building Code, such as service counters and fixed queuing guides.

Elevated Platforms: Elevated platforms include, but not limited to, stage areas, speaker podiums and other raised areas.

Facilities: A City owned building/ structure on Municipally owned property.

Forward approach: Where a person must make use of a feature, amenity or element of the built environment by positioning their body and/or mobility aid directly in front of and facing the feature, amenity or element.

Heritage property: Heritage property are those properties that are protected through the Ontario Heritage Act (OHA); based on it having “cultural heritage value” either in the physical structure or in landscape features to the property.

Max: Maximum

Min: Minimum

Mobility aids: Refers to a range of assistive equipment used by persons with disabilities to assist with mobility. Examples include crutches, manual or powered wheelchairs, scooters, walkers, and canes.

New construction: Site preparation for, and construction of, entirely new structures or buildings and including adjacent and surrounding site area whether or not the site was previously occupied.

Off Street Parking: Designated spaces where vehicles can be parked on a temporary basis, whether or not there is a charge for parking. This includes open area parking lots and structures, such as visitor parking spaces in lots.

On Street Parking: Designated spaces where vehicles can be parked on a temporary basis, located on a public highway, street, avenue, parkway or similar type of road. On Street Parking spaces often provide direct access to shops, offices and other facilities.

Operable portion: A part used to insert or withdraw objects, or to activate, deactivate, or adjust the equipment or appliance (for example coin slot, push button, handle).

Power door operator: A power operated mechanism that allows a door to open by activating a push button, bar or automatic sensor.

Primary path: An accessible path designed to accommodate two persons in mobility devices. The path is utilized by a frequent flow of people throughout the course of a day.

Public spa: Identified in the Ontario Building Code as hydro-massage pool, commonly referred to as a 'hot tub'.

Ramp: A sloped surface that provides an accessible connection between changes in ground elevation. The ramp includes all elements and features necessary to provide an accessible path as described in this standard.

Renovation: Construction or modifications to existing buildings or site elements but that retains some parts of the existing structure or layout or finishes. The renovation may or may not impact the existing character, structural uniqueness, heritage value, or aesthetic appearance of all or part of the building. Material alterations to walls, ceilings and floors are considered to be a renovation.

Replacement: Construction, modification or material alteration of a building element.

Running slope: A slope that is parallel to the direction of travel. (See cross slope).

Secondary path: An accessible path designed to accommodate one person using a mobility device and one ambulatory person. The path is considered a main access path for the building; however the flow of people using the path is not constant, nor is it considered a high traffic route.

Service Areas: Areas within the building that include service rooms, elevator machine rooms, janitor rooms, service spaces, crawl spaces, attic or roof spaces.

Signage: Displayed verbal, symbolic and tactile, information and pictorial illustrations.

Storey(s): That portion of a building included between the upper surface of a floor and the upper surface of the floor next above. If such portion of a building is not designed to be occupied, it is not considered a storey for the purposes of this standard. There may be more than one floor level within a storey, as in the case of a mezzanine or mezzanines.

Technically Infeasible: During the process of renovation or replacement, an improvement required by this standard cannot be met and as result the design must fall back on the **renovation permissions**.

TTY: Teletypewriter. (See text telephone)

Tactile: Describes an object that can be perceived using the sense of touch.

TWSI - Tactile Walking Surface Indicators: A standardized surface feature built into or applied to walking surfaces or other elements to warn persons with a visual impairment of hazards on a circulation path.

Text telephone (TTY): Machinery or equipment that employs text-based communication through the transmission of coded signals across the standard telephone network. Text telephones can include, for example, devices known as TDDs (telecommunication devices for persons with hearing impairments) or computers with special modems. Text telephones are also called TTY, an abbreviation for teletypewriter.

Rivera Park Accessible Playground in Lindsay

Design Standards

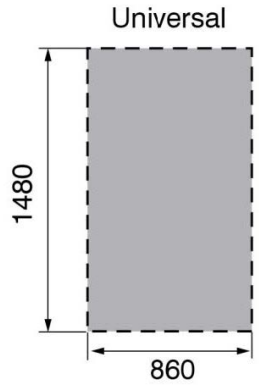
Common Exterior and Interior Elements

1. Space and Reach Requirements

The following dimensions and diagrams represent space and reach requirements for persons using mobility devices, to assist in the planning stages of construction projects.

1.1 Clear Floor Space

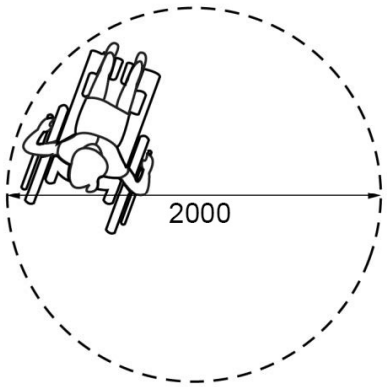
An **860 mm x 1480 mm clear floor space** [Diagram 1.A] is recognized as the universal mobility device size that would accommodate 95% of mobility devices utilized in Canada. Unless otherwise specified, the clear floor space must be provided in areas that require access to wall mounted controls, power door operators, tactile signage, information counters, workstations, or under any table tops, and under lavatories, sinks, or drinking fountains. For clear space requirements specific to the various building elements, refer to the appropriate part in the **Design Standards** section.



[Diagram 1.A] Clear Floor Space

1.2 Turning Circles

A **2000 mm** turning circle is recognized as the dimension that would accommodate 95% of mobility devices. Unless otherwise specified, a **2000 mm** turning circle must be provided throughout the building. [Diagram 1.B] For turning circle requirements specific to the various building elements, refer to the appropriate part in the **Design Standards** section.



[Diagram 1.B] Turning Circle

1.3 Forward Reach Range

For a front approach to an object or item; the forward reach range requires the object to be between **400 mm and 1200 mm** AFF [Diagram 1.C].

1.4 Forward Reach Range over an Obstruction

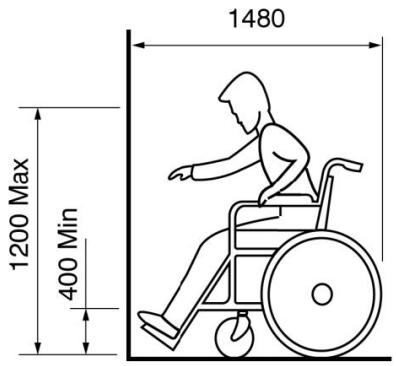
For a front approach to an object or item over an obstruction with a max of **865 mm** in height, the forward reach requires the object to be max **500 mm deep and max 1200 mm** AFF [Diagram 1.D].

1.5 Side Reach Range

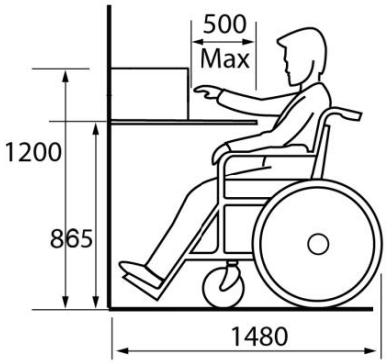
For a side approach to an object or item, the side reach range requires the object to be between **230 mm and 1200 mm** AFF. [Diagram 1.E].

1.6 Side Reach Range over an Obstruction

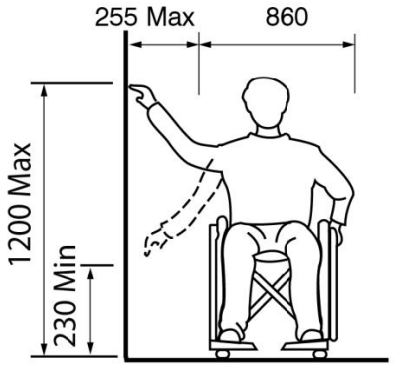
For a side approach to an object or item over an obstruction with a max of **610 mm** in width and **865 mm** in height, the side reach range requires the object to be between **865 mm to 1170 mm** AFF [Diagram 1.F].



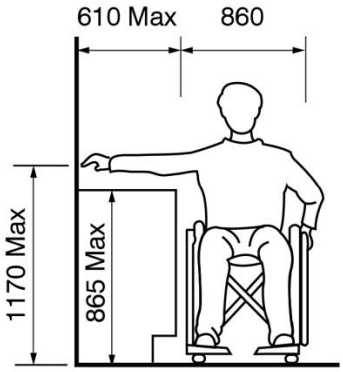
[Diagram 1.C] Forward Reach Range



[Diagram 1.D] Forward Reach Range over an Obstruction



[Diagram 1.E] Side Reach Range



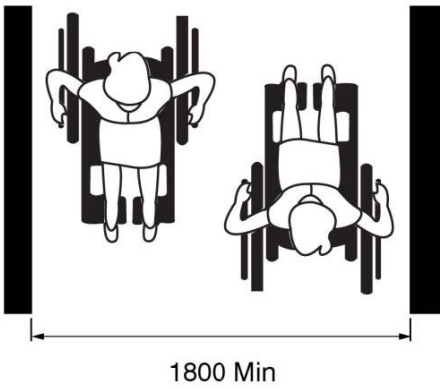
[Diagram 1.F] Side Reach Range over an Obstruction

2. Interior Accessible Paths

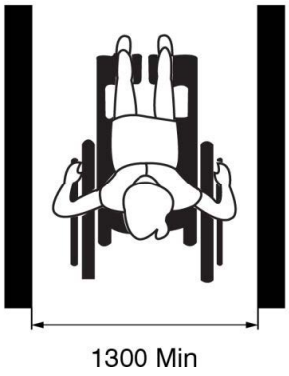
Interior accessible paths are continuous unobstructed paths that connect accessible elements and spaces of a building or structure.

2.1 Path Widths

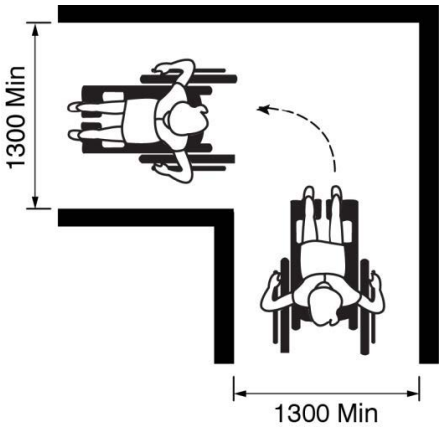
1. Accessible paths are required throughout new construction, additions and renovations.(*)
2. Paths must comply with the following:
   a) Primary accessible path min **1800 mm**(*) clear floor space [Diagram 2.A],
   b) Secondary accessible path min **1300 mm**(*) clear floor space [Diagram 2.B],
   c) Accessible path between workstations min **1100 mm** clear floor space,
   d) For 90 degree turns, min **1300 mm**(*) clear floor space [Diagram 2.C], and
   e) For 180 degree turns, min **2000 mm**(*) clear floor space [Diagram 2.D].
3. For requirements relating to exterior accessible paths, refer to section [38. Exterior Paths].



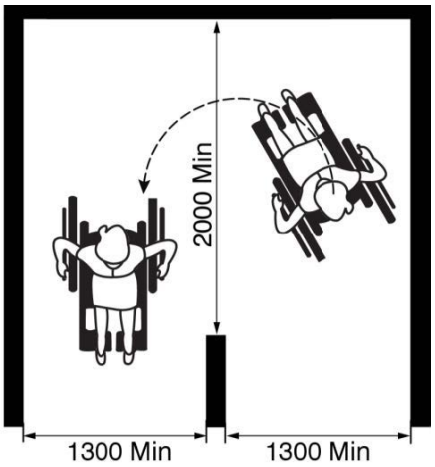
[Diagram 2.A] Primary Path



[Diagram 2.B] Secondary Path



[Diagram 2.C] 90 Degree Turn



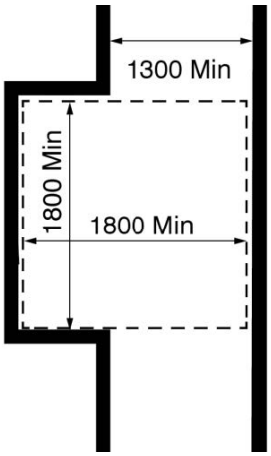
[Diagram 2.D] 180 Degree Turn

2.2 Path Slope

1. Slopes are required to conform to the following:
   a) Running slope of max **1** in **25 (4%)**(*), and
   b) Cross slope of max **1** in **50 (2%)**.
2. Accessible paths with a running slope more than **1** in **25 (4%)** must be designed as ramps and meet criteria in section [5. Ramps].

2.3 Passing Area

1. Where the path of travel is less than 1800 mm, provide passing areas that are:
   a) Min 1800 **mm** x **1800 mm**, and
   b) Located every **30 m** on an accessible path [Diagram 2.E].



[Diagram 2.E] Passing Areas

2.4 Changes in Level

1. Edge protection must be provided at changes in level between **200 mm** and **600 mm**; except at stairs, performance areas, or loading docks.
2. Changes in level greater than **600 mm** or within **1500 mm** of a drop off greater than **600 mm** must be protected by a guard on both sides.
3. Edge protection must consist of a curb min **75 mm** on the edge with colour / tonal contrast.
4. Refer to section [5.7 Edge Protection] for edge protection requirements in the interior environment and section [38. Exterior Paths] for edge protection requirements in the exterior environment.

2.5 Exceptions

1. Accessible paths are not required in the following locations:
   a) Service areas or high-hazard industrial occupancies,
   b) Within portions of a floor area with fixed seats in an assembly occupancy that are not part of an accessible path to spaces designated for mobility device use, or
   c) Within a suite of a residential occupancy.

3. Ground and Floor Surfaces

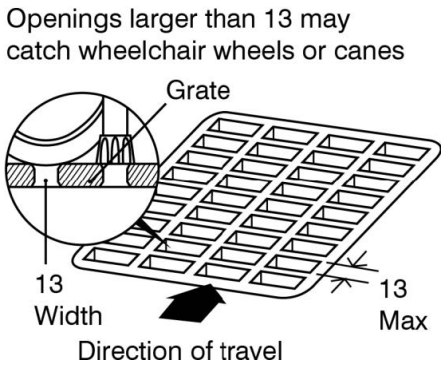
Ground and floor surfaces are to be continuous with high visual colour and tonal contrast from surrounding surfaces.

3.1 Surface

1. Ground and floor surfaces must:
   a) Be level, firm and stable, and
   b) Allow for the easy movement of mobility devices.
2. Where possible, include heating cables on ground surfaces where ice may accumulate at main or service entrances.

3.2 Carpets

1. Carpets must:
   a) Be a max height of **13 mm**,
   b) Be securely fixed to the floor,
   c) Have a firm, low level loop,
   d) Have a firm cushion, pad or backing,
   e) Have **10** or **12** gauge non-static fiber, and
   f) Have a non-zipper, cut or uncut pile.



[Diagram 3.A] Gratings

3.3 Gratings and Floor Drains

1. Gratings and floor drains must:
   a) Be max **13 mm** wide, and
   b) Have openings in one direction and perpendicular to the dominant direction of travel [Diagram 3.A].

3.4 Finishes and Materials

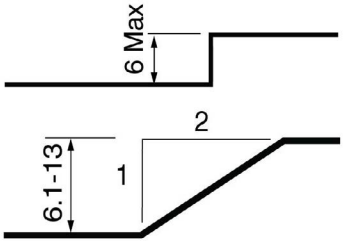
1. Finishes and materials must:
   a) Have high visual colour / tonal contrast between floor surfaces, the surrounding environment and any changes in level, and
   b) Not incorporate disruptive or large scale patterns or designs.

3.5 Floor Mats

1. Floor mats must:
   a) Have a max height of **13 mm**,
   b) Have a bevelled edge,
   c) Be non-slip between underside of mat and floor finish,
   d) Be weighted, securely fixed or placed in a depression that is level with the surrounding floor, and
   e) Have colour / tonal contrast from surrounding surfaces.

3.6 Changes in Level and Thresholds

[Table 3.6] identifies the required edge treatment based on the vertical rise of the ground or floor surface [Diagram 3.B].



[Diagram 3.B] Changes in Level and Thresholds

[Table 3.6] Vertical Rise and Required Edge Treatment

Vertical Rise	Edge Treatment
0 mm to 6 mm	Vertical — does not require a slope
6.1 mm to 13 mm	Bevelled — max slope 1 in 2 (50%)
Greater than 13 mm	Must be treated as a slope

4. Headroom — Overhanging and Protruding Objects

When headroom is reduced, a cane detectable guard at floor level helps persons with low or no vision detect an obstruction.

4.1 Clear Width

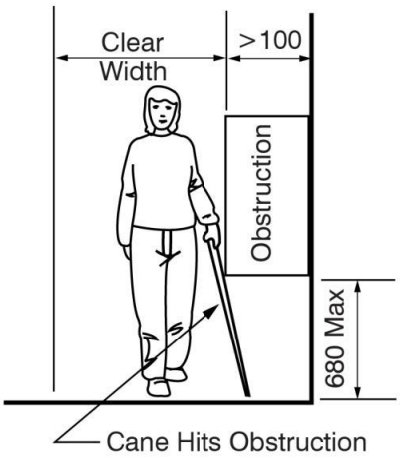
Protruding objects must not reduce the clear width of an accessible path to less than required in sections [2. Interior Accessible Paths] and [38. Exterior Paths].

4.2 Protruding Objects

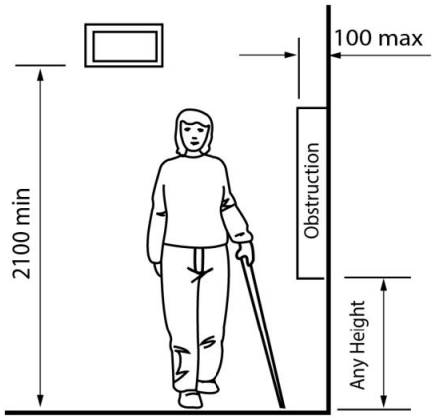
Objects protruding on accessible paths must not protrude more than **100 mm** unless they are cane detectable at or below **680 mm** AFF [Diagram 4.A].

4.3 Headroom

1. Headroom must:
   a) Have a min **2100 mm** clear height AFF, and
   b) Be cane detectable at or below **680 mm** where headroom is less than **2100 mm** [Diagram 4.B].



[Diagram 4.A] Protruding Objects



[Diagram 4.B] Overhead Obstruction and an Acceptable Protruding Obstruction

5. Ramps

Walkways and paths of travel with a slope steeper than 1 in 25 (4%) must be designed as ramps.

5.1 Clear Width

Ramps must have a min **1100 mm** clear width [Diagram 5.A].

5.2 Slope

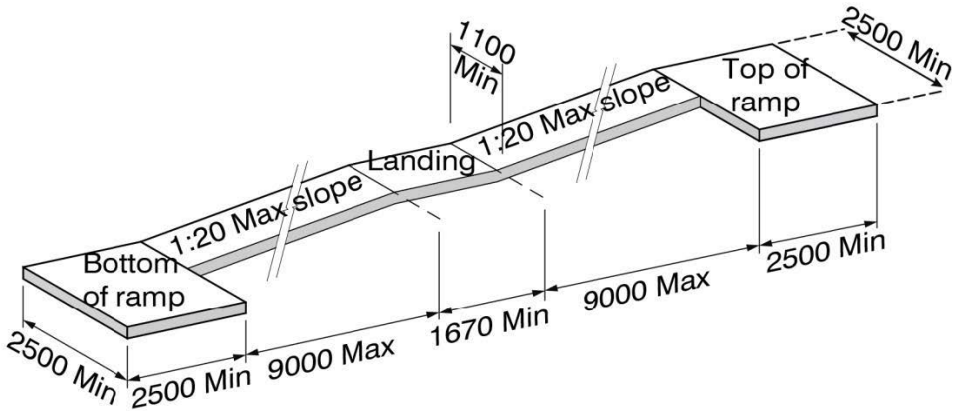
1. Ramps must have a:
   a) Max running slope of min **1 in 15 (6%)** to max **1 in 20 (5%)**(*) [Diagram 5.A provides max measurements], and
   b) Max cross slope of **1 in 50 (2%)**.

5.3 Surface

The ramp surface must meet criteria in subsections [3.1 Surface], [3.3 Gratings], and [3.4 Finishes and Materials].

5.4 Landing Location

1. Landings must be provided:
   a) At least every **9000 mm** [Diagram 5.A],
   b) At the top and bottom of the ramp, and
   c) At any change of direction on the ramp.

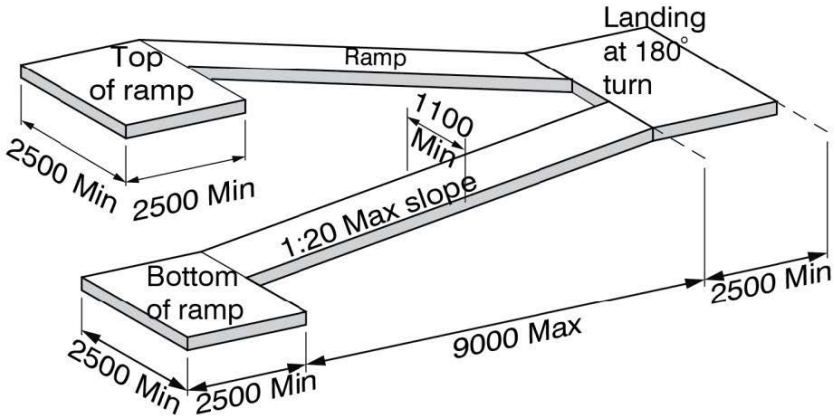


[Diagram 5.A] Landings Required at Every 9 Metres

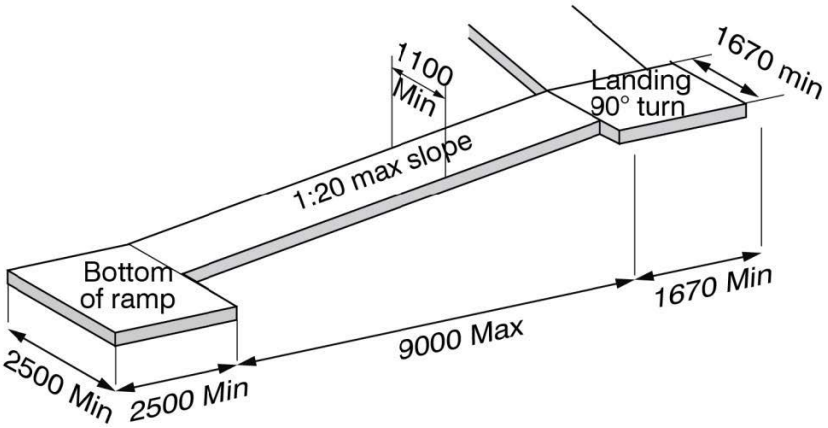
5.5 Landing Design

Landings must be:

a) Min **2000 mm** x **2000 mm** to a Max **2500 mm** x **2500mm** at the top and bottom of the ramp and at intermediate landings with a **180 degree** turn [Diagram 5.B shows max measurements],(*)
b) Min **1670 mm** x **1670 mm** at **90 degree** turns [Diagram 5.C], and
c) Min **1670 mm** in length for inline landings [Diagram 5.A].



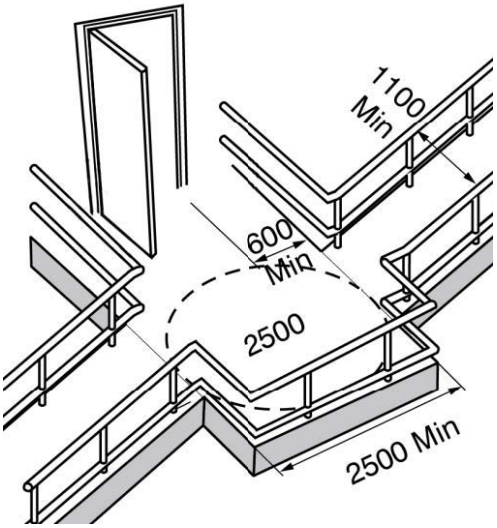
[Diagram 5.B] 2500 mm x 2500 mm Landings at Top, Bottom and at 180 Degree Turns



[Diagram 5.C] 1670 mm x 1670 mm Landings 90 Degree Turns

5.6 Doors on Landings

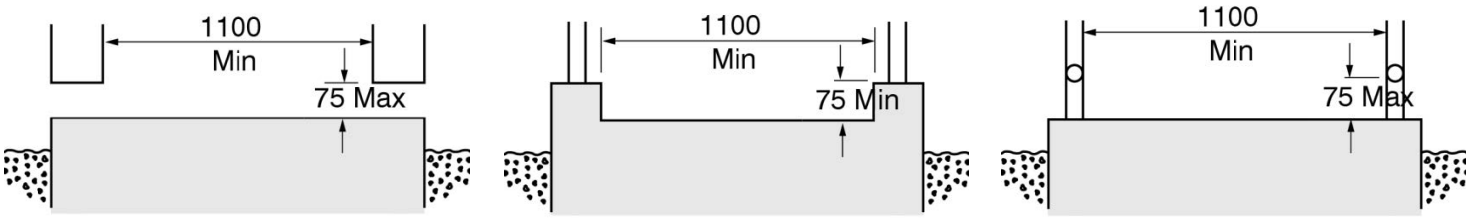
Where doors swing into the landing space, there must be a min **2500 mm** x **2500 mm** of clear floor space [Diagram 5.D]. (*)



[Diagram 5.D] Doors on Landings

5.7 Edge Protection

Edge protection is required where ramp surfaces are not at grade or protected with a wall or a guard on both sides. Edge protection must be min **75 mm** height. Alternatively, handrails can extend to within **75 mm** of the ramp [Diagram 5.E].



[Diagram 5.E] Edge Protection for Ramps

5.8 Handrails

Handrails are required on both sides of a ramp and must meet requirements in section [7. Handrails].

5.9 Colour Contrast

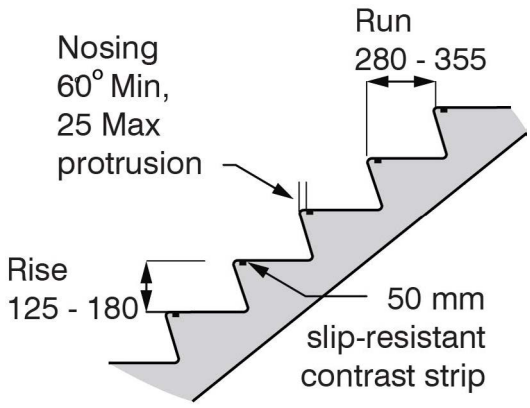
A visual pattern with colour / tonal contrast must be used to demarcate the beginning and end of a ramp.

6. Stairs

Cues warning a person with no or low vision of an upcoming set of stairs is vitally important and is provided by tactile walking surface indicators (TWSI).

6.1 Treads and Risers

1. Treads and risers must:
   a) Be uniform in tread depth and riser height [Diagram 6.A],
   b) Be made of closed risers,
   c) Have a rise between **125 mm** and **180 mm**,(*) and
   d) Have a run between **280 mm** and **355 mm**.(*)
2. Risers must be uniform in height in any one flight with a max tolerance of **5 mm** between adjacent treads or landings and **10 mm** between the tallest and shortest risers in a flight.
3. Treads must be uniform in height in any one flight with a max tolerance of **5 mm** between adjacent treads and **10 mm** between the deepest and shallowest treads in a flight.
4. The cross slope on treads must not exceed **1** in **50**.



[Diagram 6.A] Treads, Risers and Nosing of Stairs

6.2 Nosing

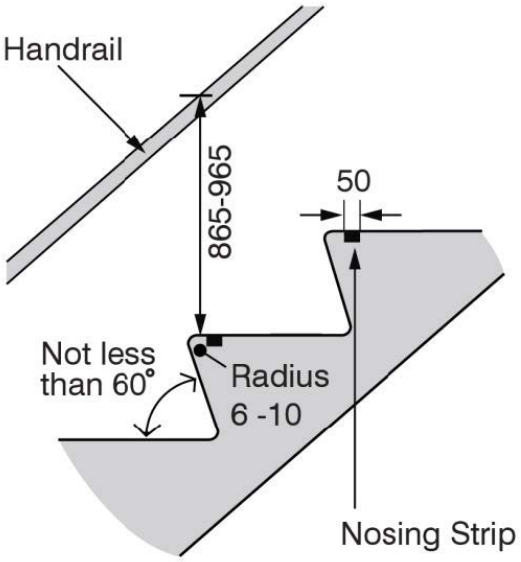
The nosing must have:
   a) Max **25 mm** projection, sloped at an angle greater than **60 degrees** to the horizontal,
   b) **6 mm** to **10 mm** beveled tread edge,
   c) **50 mm** slip-resistant colour / tonal contrast strip, extending the full width of the tread, and
   d) Colour / tonal contrast from the rest of the stair surface [Diagram 6.B].

6.3 Guards

Guards are required on both sides of a stair where the elevation change is greater than **600 mm**.

6.4 Handrail Location and Design

Handrails must be provided on both sides of a stair and must meet the criteria in section [7. Handrails] [Diagram 6.B].

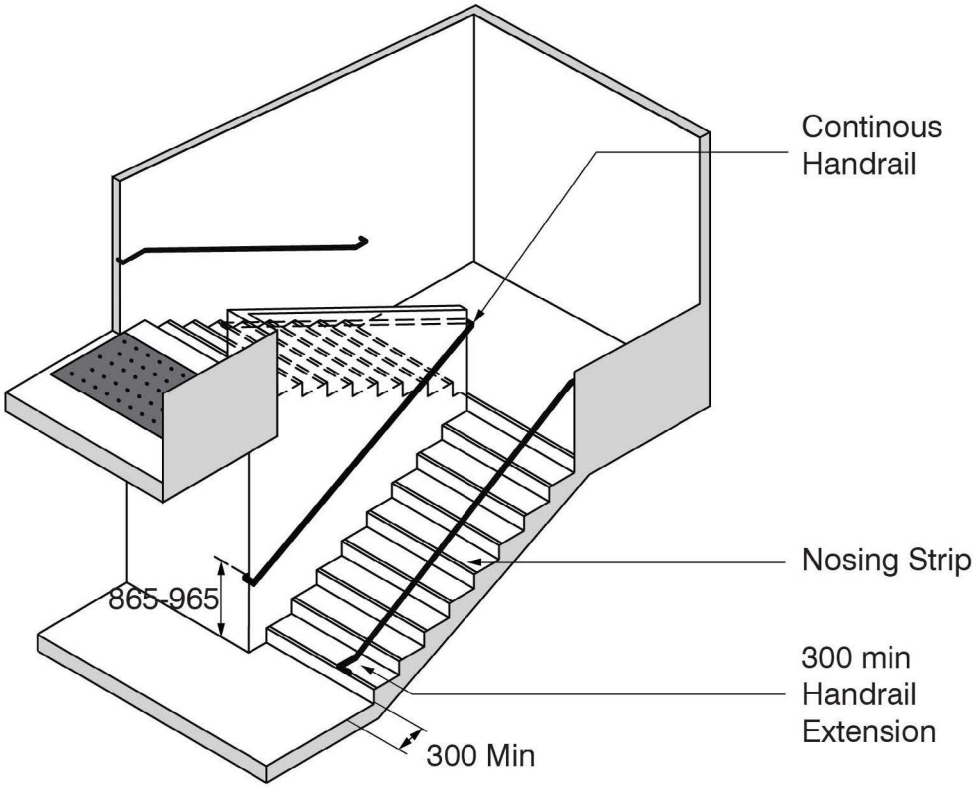


[Diagram 6.B] Contrast Strip on Tread

6.5 Tactile Walking Surface Indicators (TWSI)

TWSI must:

a) Be min **920 mm** wide,
b) Be located one tread depth back from the first stair at the top and at any intermediate landings where doors open onto the landing,and
c) Meet the criteria provided in section [8.Tactile Walking Surface Indicators (TWSI)].



[Diagram 6.C] Stair Design Criteria

7. Handrails

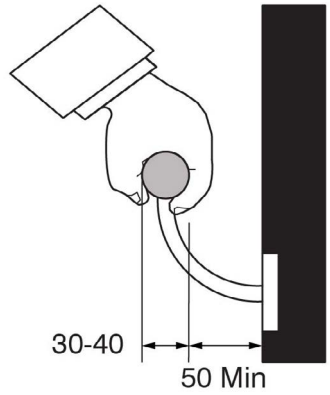
Handrails help people to avoid tripping or falling down stairs or ramps.

7.1 Handrail Locations

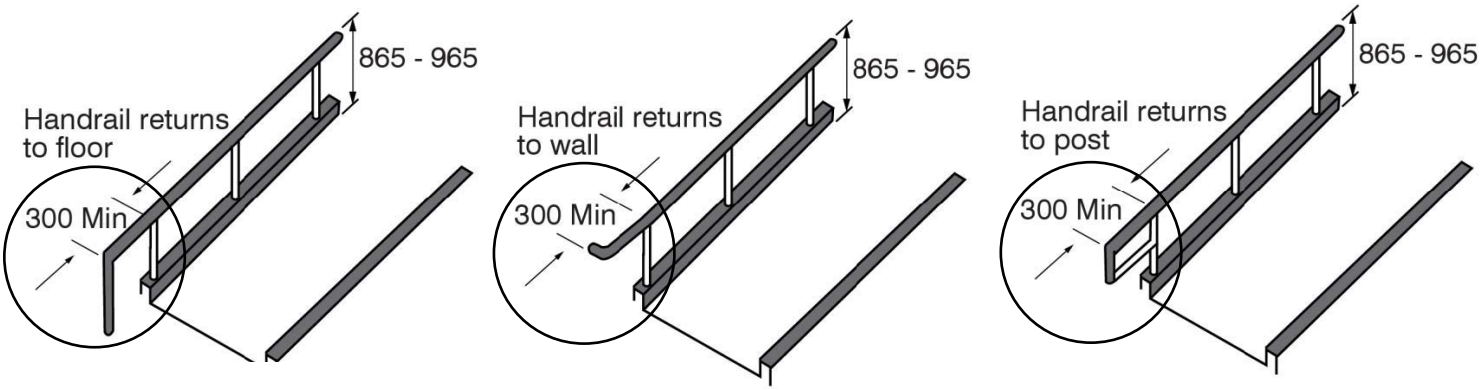
1. Handrails are required on both sides of a ramp or stair.
2. Intermediate handrails are required where stairs or ramps are wider than **2200 mm**. The clear width between the intermediate handrail and one set of handrails must be at least **900 mm** [Diagram 7.C].

7.2 Handrail Design

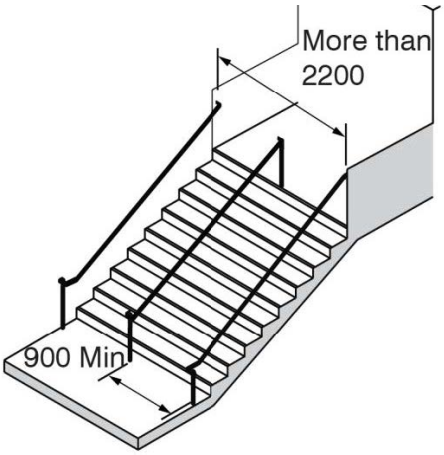
1. Handrails must be designed to:
   a) Be continuously graspable along entire length,
   b) Have a circular cross-section with an outside diameter between **30 mm** and **40 mm** [Diagram 7.A],
   c) Have a min clearance of **50 mm** between the handrail and any wall immediately adjacent or **60 mm** where adjacent wall is a rough surface [Diagram 7.A],
   d) Be uniform in height ranging **865 mm** to **965 mm** above surface, measured from the leading edge of the stair nosing to the top of the rail [Diagram 7.D],
   e) Have a continuous inside handrail on switch back stairs [Diagram 6.C],
   f) Extend horizontally **300 mm** beyond the top and bottom and return to the post, floor or wall [Diagram 7.B], and
   g) Have colour / tonal colour between handrail and surrounding wall.
   h) be designed and constructed such that handrails and their supports will withstand the loading values obtained from the nonconcurrent application of a concentrated load not less than **0.9 kN** applied at any point and in any direction for all handrails and a uniform load not less than **0.7 kN/m** applied in any direction to the handrail



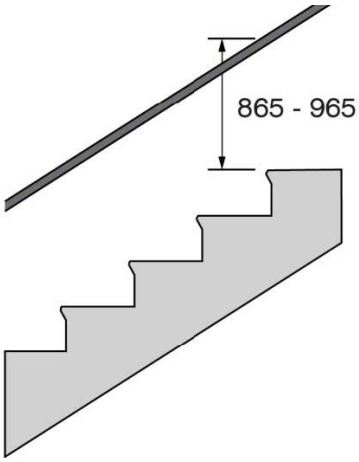
[Diagram 7.A] Handrail Diameter and Distance to Wall



[Diagram 7.B] Horizontal Handrail Extensions



[Diagram 7.C]
Intermediate Handrail



[Diagram 7.D] Height of
Handrail over Tread

2. Loading properties for the guard and handrail design must meet current OBC requirement and sustain a concentrated load min **0.9kN/m** and a uniform load min **0.7kN/m**.

8. Tactile Walking Surface Indicators (TWSI)

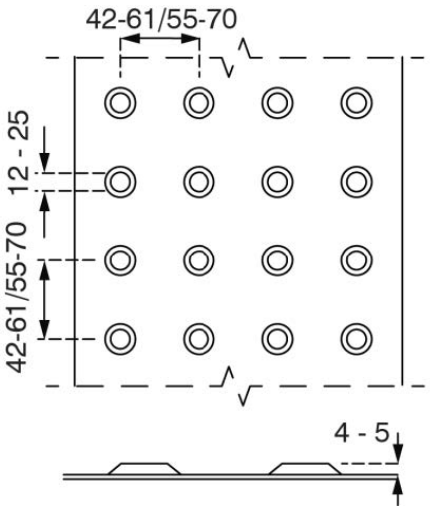
Applying paint to a concrete surface is not appropriate for a TWSI.

8.1 TWSI Design

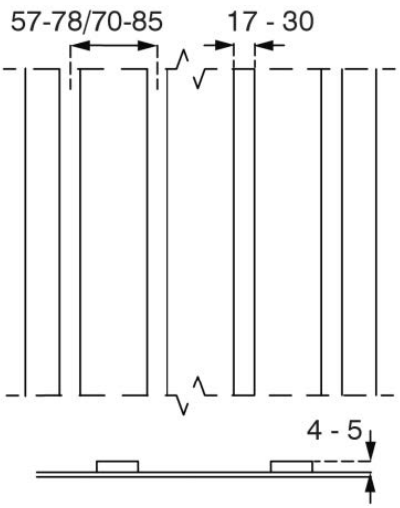
All Tactile Walking Surface Indicators (TWSI) must meet the requirements in ISO 23599:2012.

8.2 Types of TWSI

1. TWSI are used to inform persons who are walking over them of two possible situations:
   a) Attention indicators (truncated domes) signal a need for caution at a change in elevation or the location of a vehicular route [Diagram 8.A], and
   b) Direction indicators (linear bar surface) facilitate wayfinding in open areas and indicate a possible path that may be taken [Diagram 8.B].
2. Refer to ISO 23599 for detailed information on spacing and sizing of both attention and direction indicator TWSI.



[Diagram 8.A] Attention Indicators



[Diagram 8.B] Direction Indicators

8.3 Locations for Direction Indicators

Direction indicator TWSI should be considered to facilitate wayfinding to major destinations and along the primary path within a building and throughout the site.

8.4 TWSI Surface

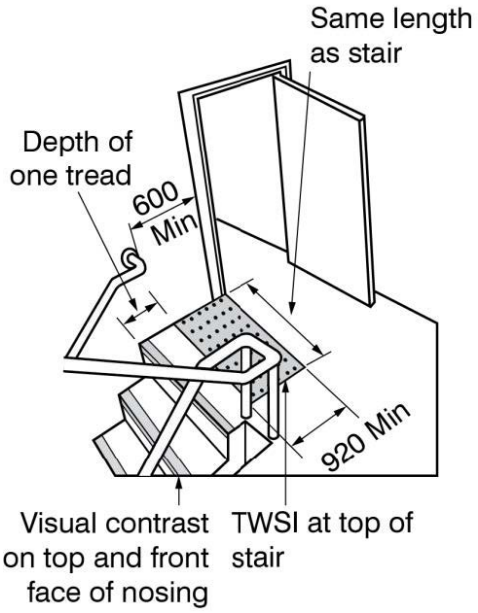
TWSI must:

a) Be consistently used throughout a facility,
b) Be slip-resistant,
c) Not exceed a glare factor of **15**- matte finish,
d) Have a colour / tonal contrast from adjoining surfaces,
e) Be detectable when walked upon by being different in texture from adjoining surfaces,
f) Have edges bevelled or level with the surrounding surface, and
g) Be installed in a manner that avoids interference from an irregular walking surface, does not create a tripping hazard, and is slip-resistant.

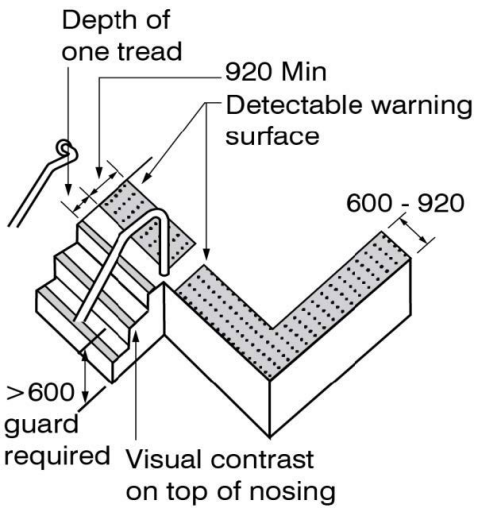
8.5 Locations for Attention Indicators

Attention indicator TWSI must be installed:

a) At the tops of all stairs and escalators, and on landings where a door opens onto the landing. TWSI must extend the full width of the stair or escalator and be min **920 mm** deep, commencing one tread depth back from the stair or escalator edge [Diagram 8.C],
b) At curb ramps identified in section [39. Curb Ramps] [Diagrams 39.A to F], and
c) At elevated platforms not protected by a guard with the TWSI being between **600 mm** to **920 mm** wide, flush from the open edge and meeting criteria in section [30. Elevated Platforms] [Diagram 8.D].



[Diagram 8.C] TWSI on Stairs



[Diagram 8.D] TWSI on an Elevated Platform

9. Operable Controls and Mechanisms

Examples of elements with controls and mechanisms that must be made accessible include (but are not limited to): electrical switches, remote controls, intercom switches, window operating devices, wall outlets, alarm pulls, thermostats, door hardware, faucets, and vending and ticket machines.

9.1 Operable Controls and Mechanisms

Controls must be accessible and intuitive. Where possible, operating controls must have multiple forms of feedback (audible, visual, tactile, etc.).

9.2 Clear Floor Area

A clear floor space min **860 mm** wide x **1480 mm** long must be maintained adjacent to controls.

9.3 Hand Operated Mechanisms

1. Hand operated mechanisms must:
   a) Be capable of operation with one closed fist hand,
   b) Not require tight grasping, pinching or twisting of the wrist,
   c) Require a max force **22N**, and
   d) Have colour / tonal contrast from their surrounding environment.

9.4 Emergency Exit Controls

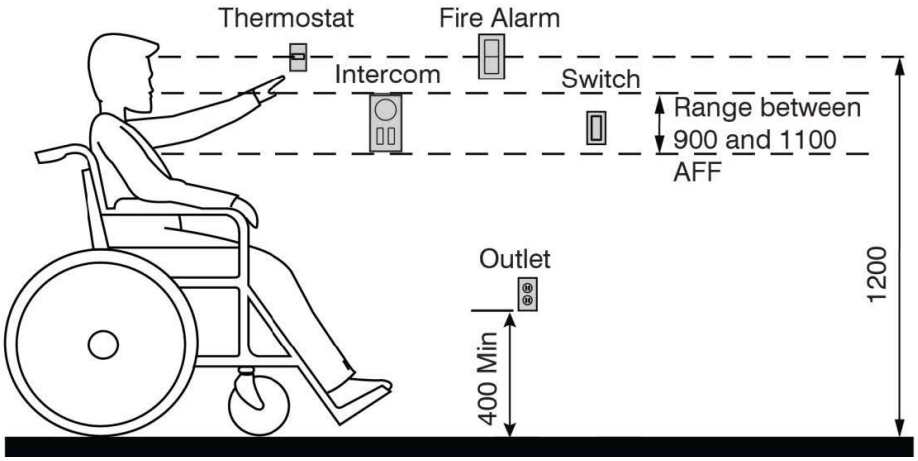
Emergency alert controls must be linked to a central and manned monitoring location and have a visual and audible signal indicating help is on the way.

9.5 Encoded-Entry/Exit or Card-Entry Systems

1. Encoded or card entry/exit systems must:
   a) Have operable portions max **1200 mm** AFF,
   b) Have operable features such as card slots, key pads, or buttons illuminated or have colour / tonal contrast from the mounting plate to surrounding wall, and
   c) Be distinctive in colour, texture, or raised graphic lettering. If numerals or letters are required they should be tactile and raised.
   d) Automatic sensors at controlled access points are preferred rather than systems requiring contact, dexterity, or close physical presence to operate.

9.6 Reach Requirements

1. Operable portions must be between **900 mm** and **1100 mm** AFF [Diagram 9.A] with the exception of thermostats and manual pull stations which must be **1200 mm** AFF.
2. Electrical outlets and receptacles must be min **400 mm** AFF [Diagram 9.A].
3. Reach requirements to any operable controls must consider section [1.Space and Reach Requirements].



[Diagram 9.A] Required Range for Mounting Heights

10. Lighting, Light Sources and Glare

Lighting levels are to be measured at floor level. Caution should be taken to avoid light pooling and shadows.

10.1 Lighting Design

1. Provide even light distribution at floor level for all occupied floor areas, including at the leading/trailing edge of stairs, ramps, and escalators.
2. Reduce pools of light and areas of shadow.
3. Fixtures must shield light sources and cast indirect light.
4. Lighting in meeting rooms and assembly areas must be adjustable.

10.2 Reflective Glare

1. Any frosting applied to glass must not enhance the reflective properties of the glass.
2. Consideration must be given to avoid creating a reflective glare of surfaces.

10.3 Interior Illumination Levels

[Table 10.3] identifies the min required interior lighting levels for the specified locations. Locations not identified in [Table 10.3] must accommodate a min lighting level of **100 lux**.(*)

[Table 10.3] Required Lighting Levels – Interior Locations

Location	Lighting Level (Lux)
Interior Paths	200
Elevator Lobby	100
Elevator Cab	100
Stairs and Escalators	100
Washrooms	150
Waiting Areas	200
Reception / Inquiry Stations	500
Offices	300
Lounges	200
Computer Workstations	300

10.4 Exterior Illumination Levels

[Table 10.4] identifies the required min exterior lighting levels for the specified locations.

[Table 10.4] Required Lighting Levels – Interior Locations

Location	Lighting Level (Lux)
Accessible Paths (pathways,walkways, stairs, ramps)	30
Accessible Parking	50
Accessible Path from Accessible Parking	50
Passenger Drop-Off Area	50
Main Entrance	100
General Parking Areas	10
Main Driveway	30
Exterior Signage (building sign)	30
Exterior Signage (directional and traffic)	30

11. Signage and Information Systems

Signage must be simple, uncluttered and incorporate plain language. The use of graphic symbols is helpful for individuals with limited literacy or those who speak a different language.

11.1 Accessible Signage

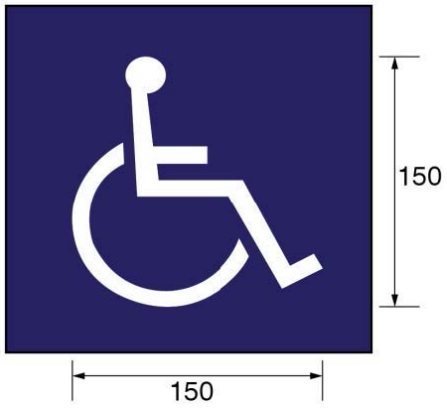
1. Signs that provide direction to or information about functional spaces must meet the requirements in this section.
2. Facility directories, menus, and temporary signs do not need to comply.

11.2 Permanent Signage

Permanent rooms or spaces must have wall mounted signs that include tactile characters and numbers.

11.3 International Symbol of Accessibility

1. Spaces or elements that require the International Symbol of Accessibility [Diagram 11.A] are:
   a) Parking spaces, designated as reserved for individuals with disabilities,
   b) Accessible passenger-loading zones,
   c) Accessible ramps located on an accessible path serving a building entrance,
   d) Accessible entrances when not all are accessible. Entrances that are not accessible must have directional signage to indicate the path to the nearest accessible entrance,
   e) Accessible toilet and bathing facilities,
   f) Accessible telephones,
   g) Accessible elevators and other elevating devices, and
   h) Accessible means of egress; and areas of refuge.



[Diagram 11.A] International Symbol of Accessibility

11.4 Design Requirements

1. Letters and numbers on signs must
   a) Be Sans Serif [Diagram 11.B],
   b) Have Arabic numbers (0, 1, 2, ...etc.),
   c) Have a width-to-height ratio between **3** in **5** and **1** in **1**, and
   d) Have a stroke-width-to-height ratio between **1:5** and **1:10**.
2. The character height of lettering is dependent on the viewing distance of character. Refer to [Table 11.4] for information on minimum character heights based on viewing distance.

This is a serif font

This is a sans serif font

[Diagram 11.B] Sans Serif Font

[Table 11.4] Character Height Requirements

Minimum Character Height, mm.	Maximum Viewing Distance, mm.
200	6000
150	4600
100	2500
75	2300
50	1500
25	750

11.5 Location of Room Signs

1. Signs must be located max **1200 mm** AFF, mounted on the wall adjacent to the latch side of the door. Where there is no wall space on the latch side of the door, including at the double leaf doors, signs must be placed on the nearest adjacent wall.

11.6 Tactile Sign Requirements

1. Permanent signage must be tactile.
2. Where signs are required to be tactile, the text must be:
   a) Raised min **0.8 mm**,
   b) **16** to **50 mm** tall,
   c) Smooth edged,
   d) Sans Serif(*) font, and
   e) Accompanied by Grade 2 Braille.

11.7 Sign Finishes

Signs must have:
a) A matte or glare-free finish for characters symbols and backgrounds,
b) Colour / tonal contrast, and
c) Either light characters on a dark background or dark characters on a light background.

The most visible colours on signs are white on black, charcoal or Lake Blue. Other acceptable options are Jump In Gold on black or Lake Blue, black or Lake Blue on white and white on Field Green or Barn Red.

1. Pictograms must be a min **150 mm** tall and accompanied with equivalent visual and tactile text and placed directly below the pictogram [Diagram 11.C].

11.9 Electronic Signage

1. Alternate formats must be provided for any type of electronic signage. For example, video display terminals must provide alternative formats, such as audio, Braille and min **16 pt** large-text print on highly contrasting background. Consideration must be given to the future use and requirements, such as wire drops of infrared and digital audible signs.
2. Touch screens and any buttons must be mounted **900 mm** to **1200 mm** AFF, be clearly identifiable by colour from background, where required have tactile text and meet requirements in section [9. Operable Controls and Mechanisms].

[Diagram 11.C] Pictograms

12. Materials and Finishes

Appropriate selection of finishes can aid in the physical, visual, and auditory navigation of the built environment. Bright colours should be used to assist with wayfinding strategies.

12.1 Design

Refer to the City of Kawartha Lakes – Community Design Manual - Guidelines for New Developments and Downtown Revitalization - Streetscape and Façade Guidelines.

12.2 Exterior Finishes

1. Design joints in exterior walking surfaces must be no greater than **6 mm**, with variations in level not more than **3 mm**. Joints must be laid to prevent the accumulation of rain water.
2. Ground surfaces must be firm and finished with a non-slip material.
3. Provide wayfinding through the use of colour contrast and directional TWSI for primary paths and public spaces.

12.3 Texture and Colour

Heavy or distinct patterns can cause visual confusion. Simple, repetitive, non-directional patterns that use monochromatic or low-colour contrast must be used.

12.4 Colour Contrast

1. Min colour / tonal contrast is required for signage, see section [11. Signage and Information Systems].
2. Colour / tonal contrast must be used as a safety measure to define edges or boundaries of objects.
3. End or return walls in long corridors should have visual definition at the end of the space to also identify a change in direction.

12.5 Textural Cues

Textural cues on floors, as noted in section [8. Tactile Walking Surface Indicators] or a change in materials can help define the junction between spaces.

12.6 Interior Finishes

1. Carpets must be a low-level loop of **10** or **12 gauge** non-static fibre, non-zippered, and anti-microbial. Carpets must be directly glued to the subfloor.
2. Hard surfaces must be non-slip and non-glare.
3. Tiles must be laid flush and must have joints no greater than **6 mm** wide.
4. Floor patterns must not be visually confusing.
5. Provide wayfinding through the use of colour contrast and directional TWSI for primary paths and public spaces.

12.7 Acoustics

1. The sound transmissions of different areas can be used as an orientation cue and help to navigate a space.
2. Floor, wall, and ceiling surfaces must aid in reducing unnecessary sound levels within a space.
3. It is recommended that accessible paths in large facilities should vary materials used for primary and secondary paths so they can be differentiated by feel and sound.
4. When designing spaces, consideration should be given to the acoustic requirements of the space in order to reduce echoing and sound distortion.

Hard surfaces such as marble or terrazzo amplify sounds, such as footsteps, and add another level of confusion for persons who are hearing or visually impaired.

12.8 Wayfinding — Using Materials and Finishes

Wayfinding strategies must be considered when selecting exterior and interior finishes. Texture, colour, and acoustics are elements that can aid in wayfinding.

13. Entrances

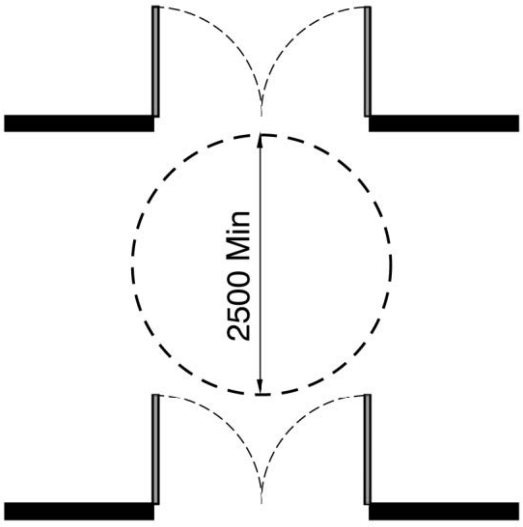
An entrance is any access point into a building or facility used for the purposes of entering.

13.1 Entrance Requirements

1. Main Entrances must be 100% accessible.(*). All projects are to be looked at independently to determine need to include other accessible entrances.
2. The main entrance must be located as close as possible to accessible parking and to passenger loading zones. (within **30 m** of accessible entrance is preferred)

13.2 Vestibules

Entry vestibules must have a min **2000 mm** clear turning circle plus the width of the door swing [Diagram 13.A].



[Diagram 13.A] Vestibules

13.3 Ground Floor Entrances

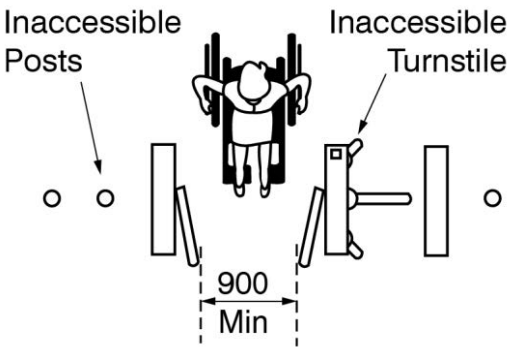
1. All common areas on the main floor must be accessible.
2. At a minimum (50%) but not less than one accessible entrance must be provided to every space or suite located on the ground floor.

13.4 Gates

Gates must have a min clear width of **900 mm** [Diagram 13.B].

13.5 Controlled Entrances

Turnstiles, mullions, revolving doors, or other barriers used to control access must have an adjacent accessible gate or door. The clear width for the adjacent accessible gate or door must be min **900 mm** [Diagram 13.B].



[Diagram 13.B] Accessible Gates

13.6 Other Access Points

1. Provide an interior accessible path to entrances and exits within a building and an exterior accessible path leading away from the exits at grade. (*) The exterior path must meet the requirements in section [38. Exterior Paths] and must lead to a public thoroughfare.
2. Where access is provided for pedestrians from a pedestrian tunnel, walkway or pedestrian bridge, at least one entrance to the facility from each tunnel, walkway, or bridge must be accessible.
3. Loading docks are not considered an entrance and are not required to be accessible.
4. If the only entrance to a facility or tenancy is a service entrance, that entrance must be accessible.
5. Accessible paths must be provided from transit stops, parking lots, or pedestrian paths to all accessible entrances of a building.

13.7 Signage

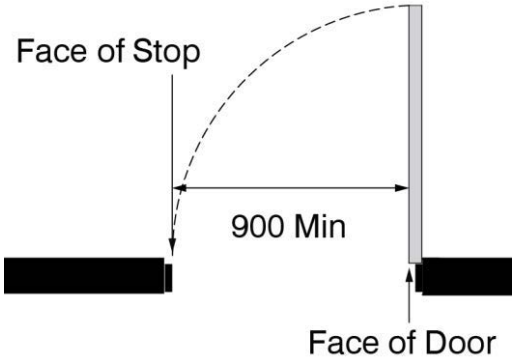
1. Signage must:
   a) Have directions indicating the nearest accessible entrance where building entrances and exits are not accessible, and
   b) Comply with section [11. Signage and Information Systems].

14. Doors

Revolving doors are not considered an accessible means of entry into a building.

14.1 Door Specifications

1. All doors in a building must:
   a) Have a min **900 mm** clear width(*) [Diagram 14.A], and
   b) Have colour / tonal contrast to differentiate the door frame from the adjacent wall and floor. The door and the door frame can be the same colour. If there is no closer provided on the door, the edge of the door must have colour / tonal contrast from the door face.
2. Doors not requiring full user passage, such as shallow closets, must have a min **510 mm** clear width and meet all space and reach requirements.
3. Where panic hardware is provided on a door, the clear width must be measured from the face of the panic hardware to the face of the door stop.



[Diagram 14.A] Clear Door Width

14.2 Maximum Opening Force of Doors

1. Max opening force of **38N** for exterior doors.
2. Max opening force of **22N** for interior doors and sliding doors.

14.3 Latch Side Clearances

1. Sliding doors must have **300 mm** latch side clearances on both sides of the door.
2. Swing doors must have latch side clearances meeting the requirements in [Table 14.3] [Diagram 14.D].

[Table 14.3] Latch Side Clearances

Door Side	Min Latch Side Clearances	Min Manoeuvring Space at Doors
Push Side	300 mm	1300 x 1300 mm
Pull Side	600 mm	1600 x 1600 mm

14.4 Vision Panels in Doors

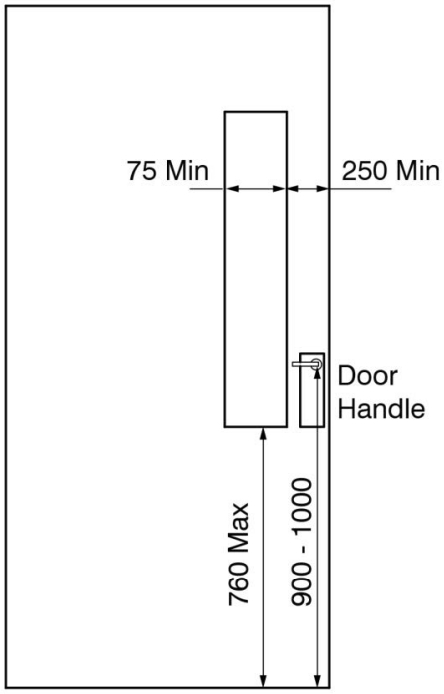
1. Vision panels must:
   a) Be min **75 mm** wide,(*)
   b) Have the bottom edge of the panel max **760 mm** AFF, and
   c) Have the side edge of the panel max **250 mm** from latch side [Diagram 14.B].

14.5 Door Hardware

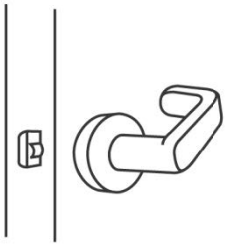
1. Door hardware must:
   a) Be operable by a closed fist [Diagram 14.C],
   b) Not require fine finger control, tight grasping, pinching, or twisting of the wrist, such as lever hardware, and
   c) Be mounted **900 mm** to **1000 mm** AFF.
2. Colour / tonal contrast must be used to differentiate the door operating mechanism from the door itself.

14.6 Guards for Doors

1. Where doors swing into a path of travel, a cane detectable guardrail or other warning barrier must be located at right angles to the wall containing the door, extending **300 mm** beyond the full length of the door [Diagram 14.E].
2. Door guards shall have a height of **865 - 965 mm** AFF with a portion of the guard located at max **680 mm** AFF for cane detection.

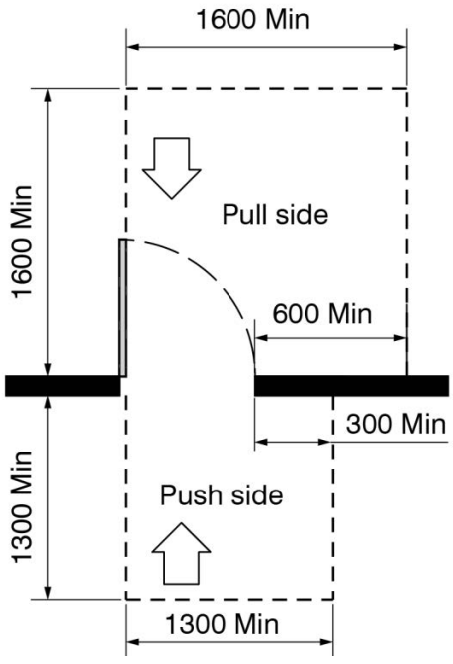


[Diagram 14.B] Vision Panel in Doors

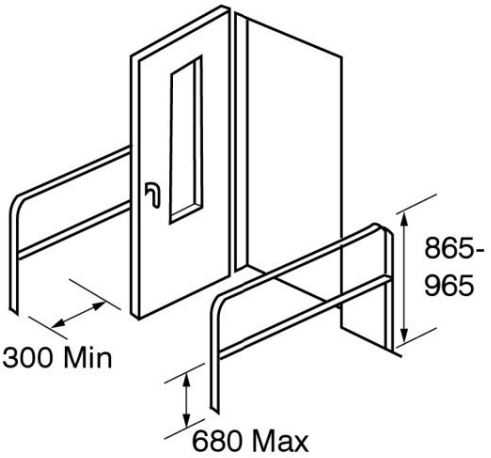


Lever type hardware is acceptable

[Diagram 14.C] Door Hardware



[Diagram 14.D] Latch Side Clearances and Manoeuvring Space



[Diagram 14.E] Guards for Doors

14.7 Door Closers

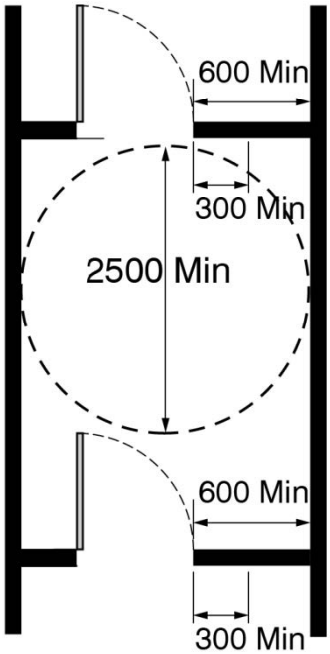
Closing period for a door must not be less than **3 seconds**, measured when the door is in an open position of **70 degrees** to the doorway to when the door reaches a point **75 mm** from the closed position.

14.8 Glass Doors and Vision Strips

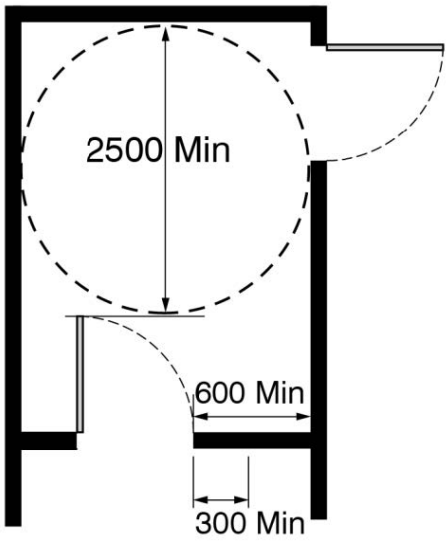
1. When frameless glass doors are provided, a colour / tonal contrasting strip is required on the full height of the outer edge of the door.
2. Vision strips are required on glass doors and must meet the criteria in subsection [16.1 Vision Strips].

14.9 Doors in Series

Where there are two doors in series, they must be designed to accommodate a clear floor space at least **2000 mm** [Diagrams 14. F and G]. (*)



[Diagram 14.F] Doors in Series, Straight Run



[Diagram 14.G] Doors in Series, 90 degree turn

15. Power Door Operators

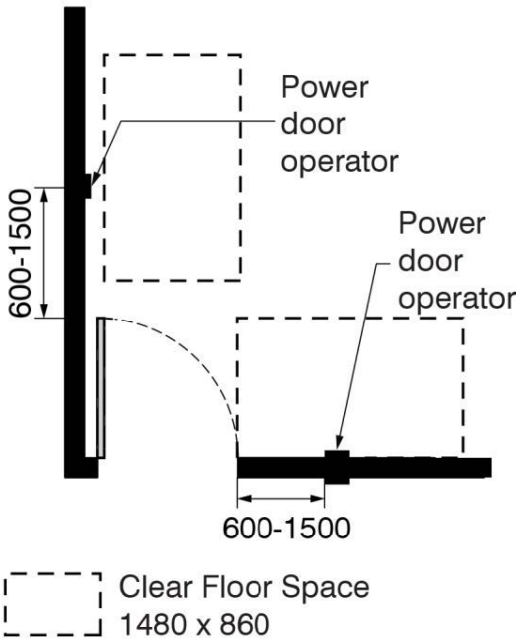
Power door operators increase the level of accessibility of an entire building, enabling all to enter.

15.1 Types

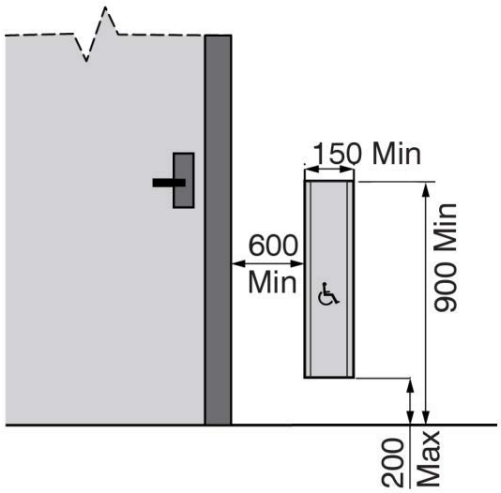
1. There are two types of power door operators:
   a) An elongated single activation device (push panel) spanning **200 mm** to **900 mm** AFF [Diagram 15.B], and
   b) A circular device (push button) min **150 mm** in diameter [Diagram 15.C].
2. Providing automatic sliding doors for high traffic areas will be determined by project.

15.2 Required Locations

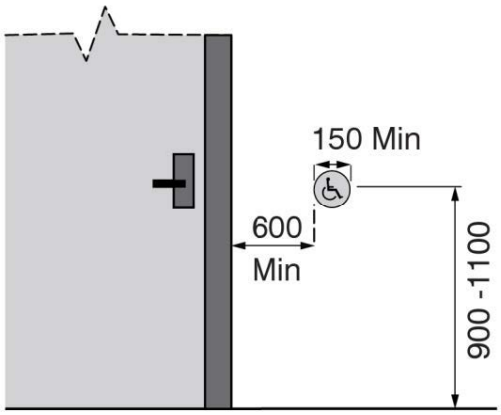
1. Power door operators must be installed at:
   a) All accessible entrances,
   b) Interior doors along accessible paths, except for doors with an electromagnetic hold-open device,
   c) Doors entering into accessible washrooms and change rooms,
   d) Doors entering into all public meeting rooms,
   e) 10% of staff utilized meeting rooms,
   f) Doors entering into publicly accessed reception areas, and
   g) Doors leading to an area of refuge.



[Diagram 15.A] Locations of Power Door Operators and Required Clear Floor Space



[Diagram 15.B] Elongated Power Door Operator (push panel)



[Diagram 15.C] Circular Power Door Operator (push button)

15.3 Placement

1. Power door operators must be:
   a) Clearly visible on the push and pull side of the door,
   b) Be located to allow persons to activate the opening of the door from either direction,
   c) Be located so the path of travel is not obstructed,
   d) Located min **600 mm** from any inside corner or door [Diagram 15.A], and
   e) Located max **1500 mm** beyondthe door swing [Diagram 15.A].
2. The power door operators must be located between **900 mm** to **1100 mm** AFF if a circular power door operator is installed and max **200 mm** AFF if an elongated power door operator panel is installed [Diagram 15.B and C].

15.4 Additional Design Requirements

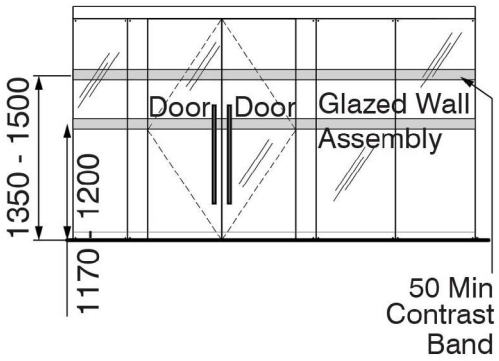
1. A clear floor space of **860 mm x 1480 mm** must be maintained in front of the power door operator [Diagram 15.A]. Refer to [Diagram 14.D] for latch side clearance and maneouvering space and [Diagram 14.E] for doors opening into an accessible path.
2. The power door operator (button or panel) must incorporate the International Symbol of Accessibility.
3. Each power door operator must have colour / tonal contrast from its surroundings.
4. It must take the power door operator a max of **3 seconds** to move from the closed position to a fully open position.
5. A max force of **66N** is required to stop door movement.
6. Where door operators are activated by proximity scanning sensors or pressure mats, they must be capable of detecting individuals using mobility aids.

16. Windows and Glazing

Design consideration for windows and glazing allows for viewing by all building occupants.

16.1 Vision Strips

1. Where glazing starts below **680 mm** AFF, windows, glazed screens or vision panels must be marked with vision strips unless equipped with a mullion that has colour / tonal contrast with the surrounding environment [Diagram 16.A].
2. Vision strips must:
   a) Be located at **1350 mm** to **1500 mm** and at **1170 mm** to **1200 mm** AFF,
   b) Span across the full length of the glazed area,
   c) Be min **50 mm** wide,
   d) Be primarily solid, and
   e) Have colour / tonal contrast.



[Diagram 16.A] Vision Strips

16.2 Sill Height

1. Windows must:(*)
   a) Be max **760 mm** AFF, and
   b) Not have horizontal transoms located between **1060 mm** to **1220 mm** AFF.

16.3 Glazed Vision Panels

Where provided, full height glazed vision panels must meet criteria in subsection [14.4 Vision Panels in Doors].

16.4 Operable Windows

1. Operable windows must:
   a) Have opening hardware mounted **400 mm** to **1200 mm** AFF, and
   b) Be operable using one hand.
2. It is recommended to provide hardware that does not require fine finger control, tight grasping, pinching, or twisting of the wrist.

17. Passenger Elevators and Escalators

Passenger lifts are considered accessible if they can be operated independently and better service the area.

17.1 Elevator Design

This section is adopted from the CSA B6S1-12 Annex E and includes only some of the requirements within the CSA standard. For a complete understanding of all requirements for the design of passenger elevators refer to the CSA Standard and the OBC.

17.2 Elevator Doors

Elevators doors must:

a) Have a min **915 mm**(*) clear width [Diagram 17.A],
b) Slide horizontally only,
c) Have a matte finish to reduce glare,
d) Be capable of operating independently, and
e) Open and close automatically.

17.3 Door Reopening Device/Sensor

1. The elevator car door must automatically open if an object or a person obstructs the door.
2. Physical contact with an obstruction is not required for the doors to reopen automatically.
3. Reopening devices located **125 mm ± 25 mm** to **735 mm ± 25 mm** AFF.
4. If door closes it must reopen automatically if an object or person is still in the doorway.

17.4 Door and Signal Timing

Door and signal timing must be:

a) Min **5 seconds** hall call notification time, and
b) Min **10 seconds** for elevator doors to remain open.
c) Be min **50 mm** wide,
d) Be primarily solid, and
e) Have colour / tonal contrast.

17.5 Elevator Cab Design

1. Cabs must be **2030 mm x 1295 mm** cab size with a centre door or **1725 mm x 1295 mm** cab size with an off-centre door.(*)
2. Handrails must be on the cab interior wall except where the elevator door is located, and meet requirements in section [7. Handrails].
3. Mirrors must be provided on the wall opposite the door, angled downwards at the top of the cab. Mirrors must not be used elsewhere within the elevator cab.
4. The cab interior must have a glare free finish.
5. Floor surface must be firm, level, and slip resistant.

17.6 Colour Contrast in Elevator Cabs

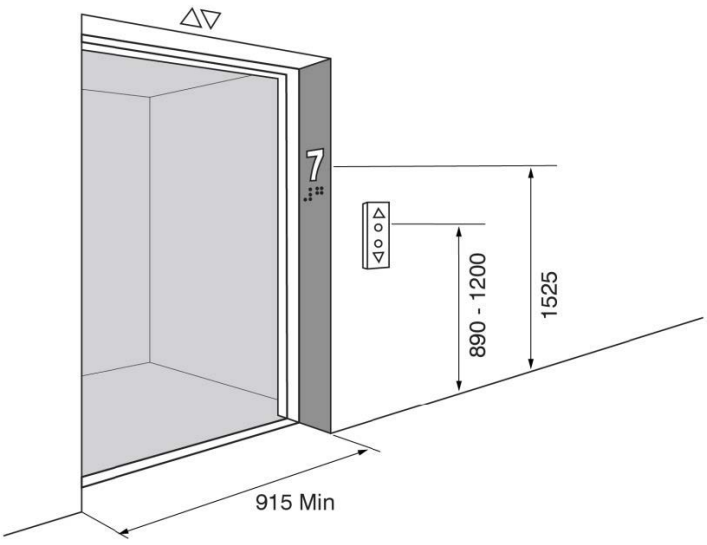
1. Colour / tonal contrast must be provided:
   a) Between control buttons and control panel,
   b) Between floor surface and elevator car walls, and
   c) Between elevator lobby floor and car walls and floor.

17.7 Manoeuvring Space in Elevator Lobbies

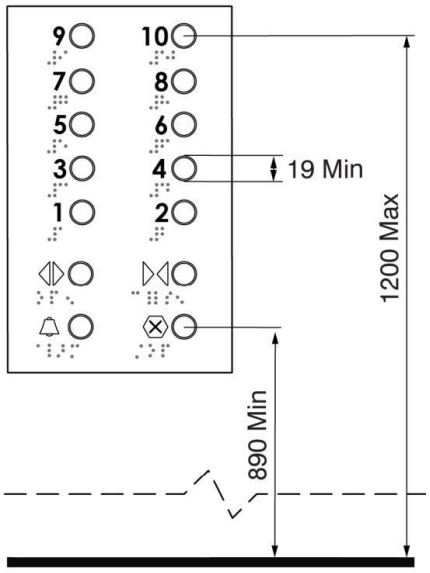
1. Provide a min clear floor space of **2500 mm x 2500 mm** in front of elevator doors.(*)
2. Elevator lobbies must be connected to an accessible path.

17.8 Elevator Signage

1. Elevator signage must be:
   a) Placed on door jamb **1525 mm** above floor to the centre of number [Diagram 17.A],
   b) Min **50 mm** high, and
   c) Repeated in Braille [Diagram 17.B].
2. The main floor level must be indicated by a raised “star” symbol [Diagram 17.B].



[Diagram 17.A] Elevator Cab and Elevator Lobby



[Diagram 17.B] Elevator Car Control Buttons

17.9 Visual and Audible Signals

1. Audible and visual signals must be provided in the elevator cab interior and every elevator lobby and must:
   a) Indicate which elevator car is answering the call,
   b) Indicate the direction of travel,
   c) Be visible within the elevator lobby,
   d) Be located above the elevator door in the elevator lobby, and
   e) Have voice annunciation [Diagram 17.B].
2. Audible signals must be a min **10%** above the ambient noise level to max **80dBA**.

17.10 Elevator Operation and Levelling

Elevator operation and level must be automatic. The elevator cab must be equipped with an automatic self-levelling device to maintain a max floor level difference of **13 mm**.

17.11 Elevator Car Control Buttons

1. Elevator car control buttons must:
   a) Be located **890 mm** to **1200 mm** AFF, [Diagram 17.B]
   b) Be min **19 mm** in diameter,
   c) Have numbers arranged in ascending order from left to right on panel,
   d) Have a raised collar surrounding button min **1.5 mm**,
   e) Have raised tactile characters,
   f) Have Braille located immediately adjacent to which they apply,
   g) Have an alarm button located at the bottom of the panel, directly connected to monitor system,
   h) Have operable portions of card access readers located **900 mm** to **1200 mm** AFF,
   i) Have visible signals that show when a call has been registered, and
   j) Provide hands free emergency signaling and communications.

17.12 Escalator Requirements

1. Escalators are not considered accessible; therefore, where escalators are used, an alternative accessible path of travel must be provided.
2. The path of travel must be conveniently located adjacent or near the escalator and signage must clearly identify access to the accessible path.

17.13 Escalator Contrast and Finish

1. Tread edges, nosing and handrails must have colour / tonal contrast from their surrounding environment.
2. Matte finish must be used to minimize reflected glare.

17.14 Tactile Walking Surface Indicators (TWSI) Location

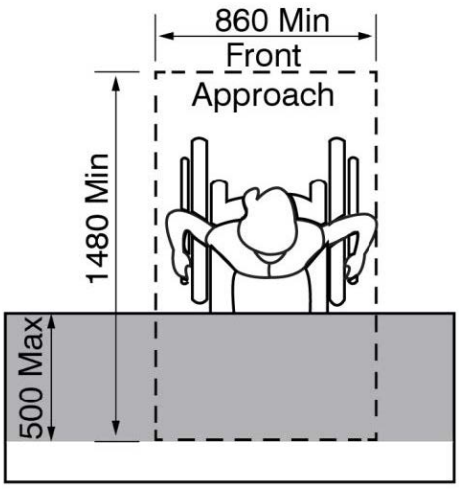
Escalator landings must have TWSI at the top and bottom of the escalator and must meet the requirements in section [8. Tactile Walking Surface Indicators (TWSI)].

18. Service Counters and Related Areas

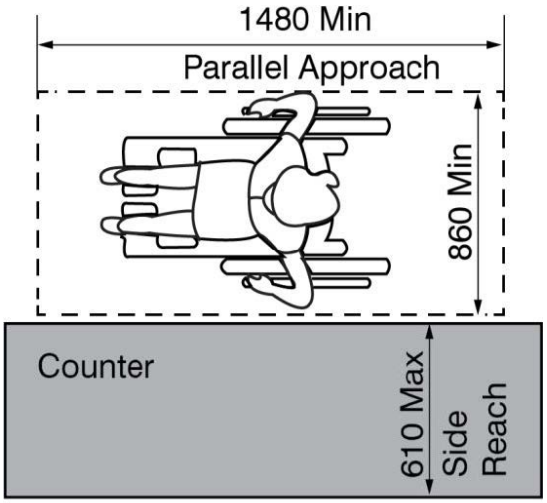
Tables, counters, and work surfaces must accommodate the needs of a range of users for both employees and the public. All Service Counters must meet the requirements of the Design for Public Spaces.

18.1 Service Counters

1. At least **10%**, but not less than one, of every type of service counter must be accessible and must:
   a) Be clearly identified with signage,
   b) Be located on an accessible path, and
   c) Have a min **860 mm x 1480 mm** clear floor space where a max of **500 mm** can be below counter if front approach is required [Diagram 18.A and B].



[Diagram 18.A] Clear Floor Space at Service Counters (Front Approach)



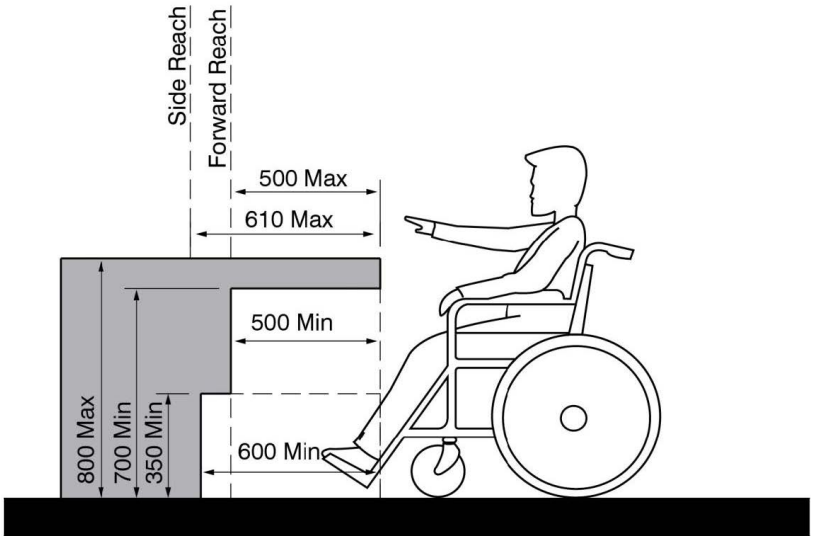
[Diagram 18.B] Clear Floor Space and Reach Range at Service Counters (Side Approach)

18.2 Speaking Ports

Any speaking ports provided must have the open portion between **900 mm to 1200 mm** AFF and meet requirements in section [1. Space and Reach Range].

18.3 Accessible Service Counter Dimensions

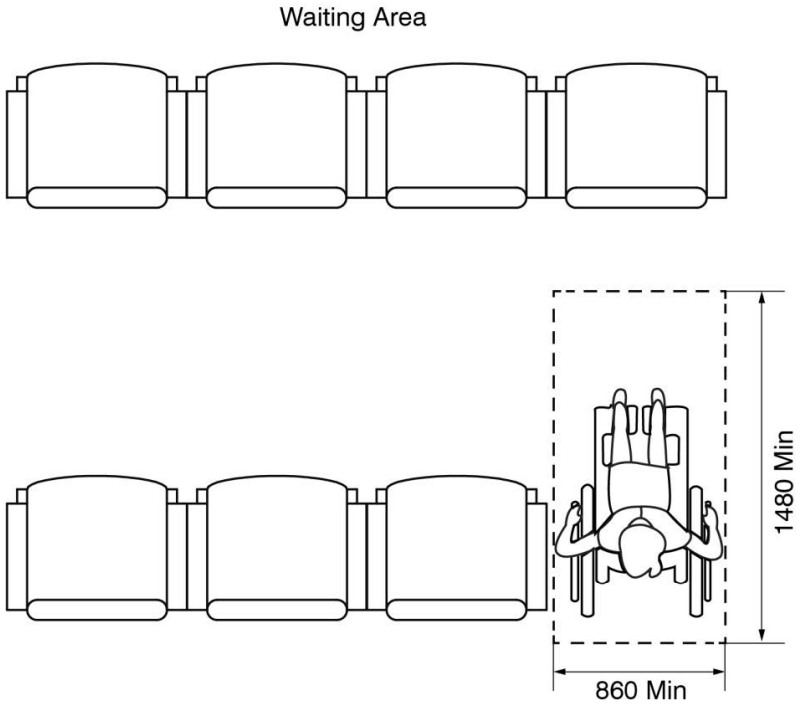
1. Accessible service counters must:
   a) Have a max **800 mm** height to the counter surface [Diagram 18.C],
   b) Have a knee space that is **700 mm** tall **x 900 mm** wide **x 500 mm** deep, and
   c) Have a toe space that is **350 mm** tall at a min **600 mm** from the front edge of the desk for toe clearance.
2. Ensure any design features available are designed in accordance with section [1. Space and Reach Requirements].



[Diagram 18.C] Clear Floor Space at Service Counters

18.3 Waiting Areas

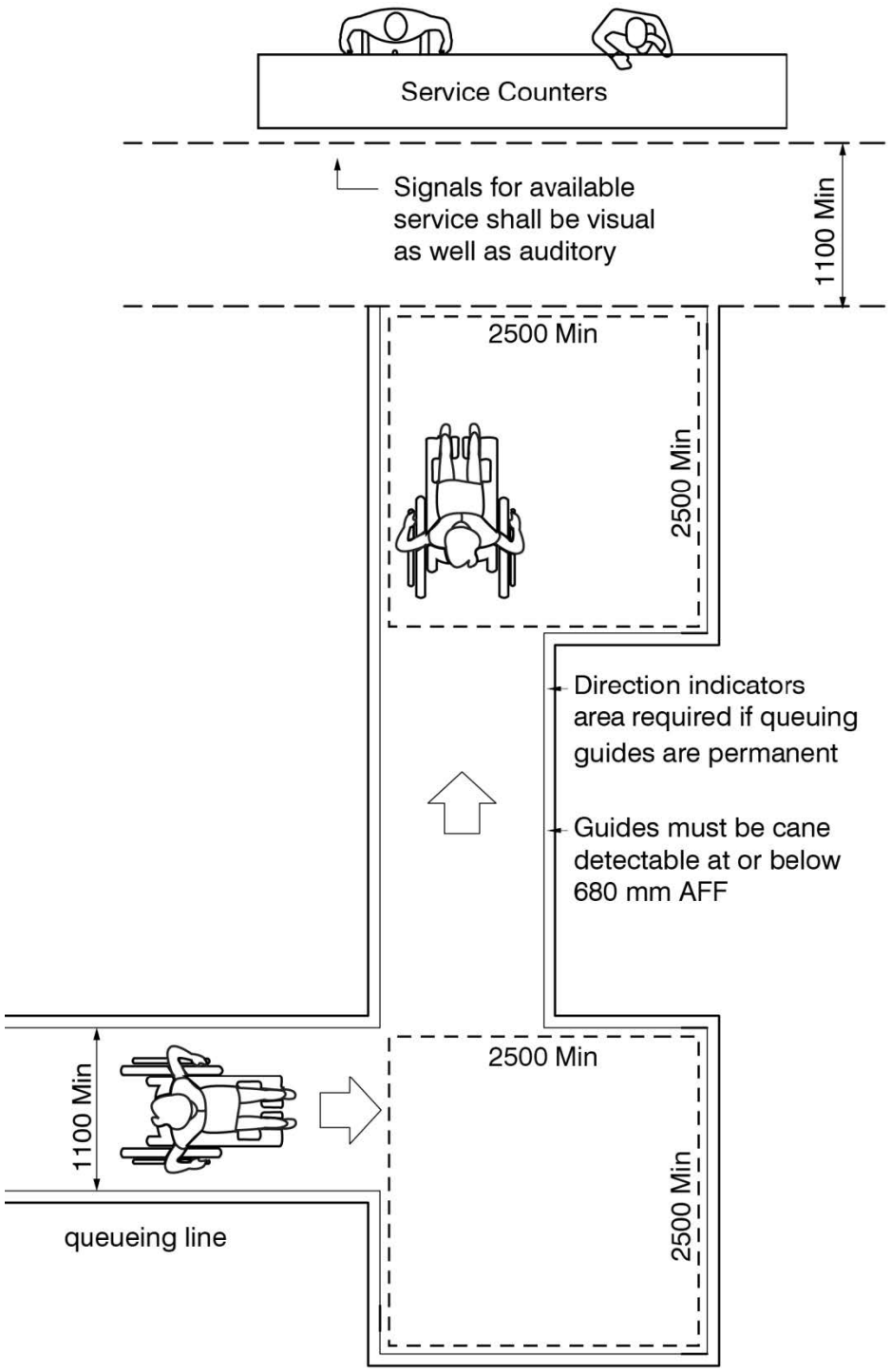
1. At least **10%** of waiting area spaces should accommodate a person using a mobility device.
2. Accessible waiting areas must be located on an accessible path, with a min **860 mm x 1480 mm** clear floor space, located outside the path of travel and integrated into the seating [Diagram 18.D].



[Diagram 18.D] Rear Access Waiting Area

18.4 Queuing Guides

1. A clear width min **1100 mm** must be provided between fixed queuing guides such as ropes, bars, or solid barriers. Guides must be laid out in parallel lines [Diagram 18.E].
2. Queuing guides must have colour / tonal contrast to surroundings.
3. Directional indicating TWSI meeting the requirements of section [8. Tactile Walking Surface Indicators (TWSI)] are required if queuing guides are permanent.
4. Provide a clear floor space of **2500 mm x 2500 mm** at points where there is a change in direction [Diagram 18.E].
5. Visual and auditory signals must be provided at service counters to indicate when service is available and at what location.



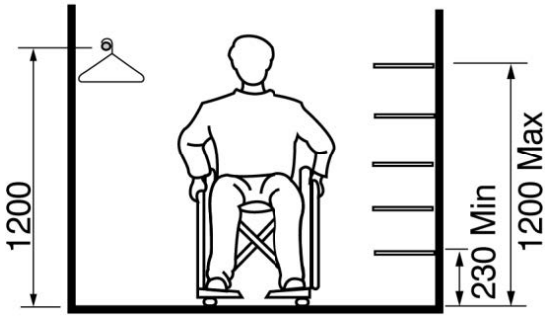
[Diagram 18.E] Clear Floor Space at Queuing Guides

19. Millwork, Storage and Shelving

If fixed or built-in storage units such as cabinets, closets, shelves and drawers, are provided in accessible spaces, at least one of each type provided must be accessible.

19.1 Accessible Storage, Shelving and Display Units Design Requirement

1. Accessible storage, shelving, and display units must meet the following:
a) **860 mm x 1480 mm** clear floor space for forward or parallel approach,
b) Max **1200 mm** AFF for collapsible hooks or closet rods [Diagram 19.A],
c) **230 to 1200 mm** AFF for shelves [Diagram 19.A], and
d) Touch latches or u-shaped pulls must be used. Any hardware used must meet criteria in section [9. Operable Controls and Mechanisms].



[Diagram 19.A] Accessible Storage and Shelving

20. Multi-Stall Washrooms

Accessible multi-stall washrooms and accessible universal washrooms are required on each floor.

20.1 Amount of Accessible Water Closet Stalls

1. The number of accessible water closet stalls is required to comply with [Table 20.1].

[Table 20.1] Number of Accessible Water Closets Required

Number of Water Closet Stalls	Number of Accessible Water Closet Stalls Required
1-9	1
10-16	2
17-20	3
21-30	4
Greater than 30	5 + 1 for every additional 10 water closet stalls

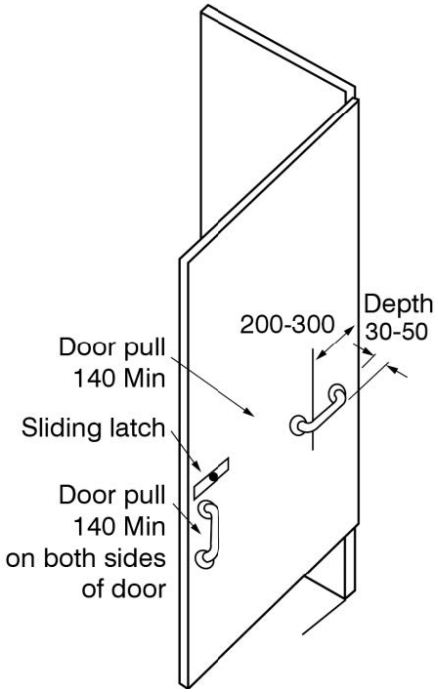
20.2 Accessible Water Closet Stall Door

1. Stall doors for accessible water closet stalls must:
a) Be min **900 mm** in clear width [Diagram 20.B],(*)
b) Swing outward,(*)
c) Be equipped with gravity hinges, and
d) Have colour / tonal contrast from the stall walls.

20.3 Accessible Stall Door Hardware

1. Accessible stall door hardware must:
a) Have visually contrasting "D type" door pulls,
b) Be min **140 mm** long and have a depth between **30 mm** to **50 mm**,
c) Have one door pull mounted on both sides vertically with the centreline **120 mm** to **220 mm** from the latch,
d) Is capable of having the latch released from the outside in case of an emergency,
e) Have one door pull mounted horizontally **200 mm** to **300 mm** from the hinge side of the door,
f) Be mounted **800 mm** to **1000 mm** AFF, and
g) Have locks operable with a closed fist hand and not require fine finger control, tight grasping, pinching, or twisting of the wrist [Diagram 20.A]

2. Collapsible coat hooks must be provided, projecting a max **50 mm** outward, with a height between **900 mm and 1200 mm** AFF.

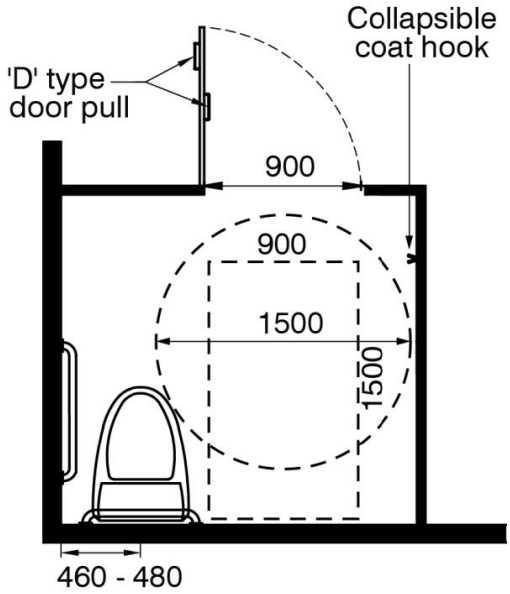


[Diagram 20.A] Accessible Water Closet Stall Door

20.4 Accessible Water Closet Stall

Where required, the accessible water closet stall must:

a) Have a clear floor space in front of the stall or enclosure of at least **1500mm** in diameter,
b)Have min **1500 mm** turning circle [Diagram 20.B],
c) Have min **900 mm x 1500 mm** clear transfer space on one side of the water closet [Diagram 20.B],
d) Have a water closet conforming to subsection [20.6 Accessible Water Closets], and
e) Have grab bars and toilet paper dispensers conforming to section [21. Grab Bars and Toilet Paper Dispensers].

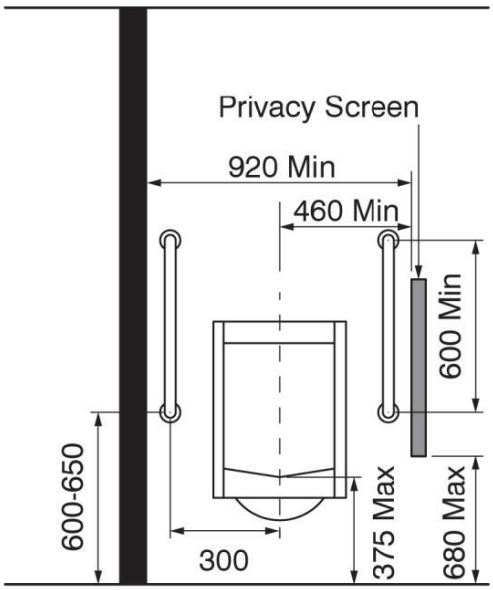


[Diagram 20.B] Accessible Water Closet Stall

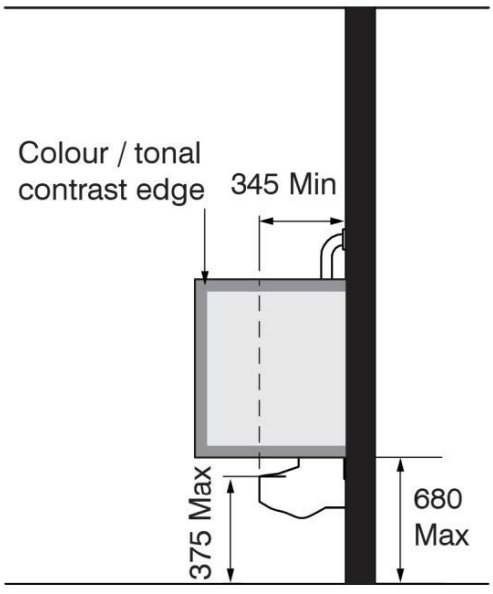
20.5 Accessible Urinals

Where more than one urinal is provided, at least one urinal must be accessible. Accessible urinals must:

a) Have a **860 mm x 1480 mm** clear floor space, without any steps in front of the accessible urinal [Diagram 20.C],
b) Have min **920 mm** clearance between privacy screens or walls,
c) Privacy screens must be min **460 mm** from the centre line of the urinal and have a colour / tonal contrasting edge [Diagram 20.C],
d) Be max **375 mm** AFF to the urinal rim or located on the floor [Diagram 20.C],
e) Have min **345 mm** depth [Diagram 20.D],
f) Have automatic flush controls, mounted **1200 mm** AFF, and
g) Flushing controls must be operable using a closed fist and with a force of not more than **22.2N**,
h) Have grab bars meeting criteria in subsection [21.4. Urinal Grab Bars] [Diagram 20.C]



[Diagram 20.C] Accessible Urinal Front Elevation

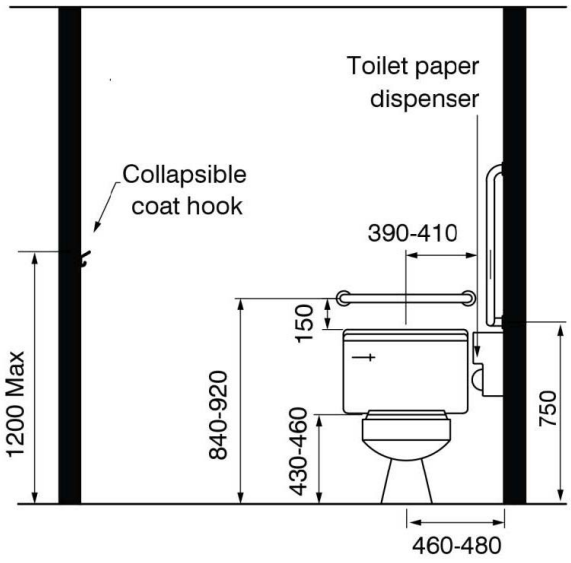


[Diagram 20.D] Accessible Urinal Side Elevation

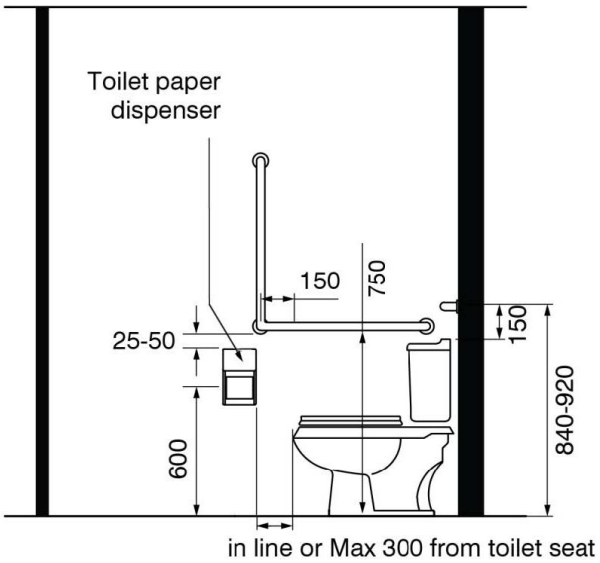
20.6 Accessible Water Closets

1. The accessible water closet must be **460 mm to 480 mm** from the centreline of the water closet to the adjacent wall [Diagram 20.B].
2. The seat of an accessible water closet must be located **430 mm to 460 mm** AFF, must be securely mounted and not spring activated [Diagram 20.E].
3. Flush controls must be automatic and should be located such that when open, the seat cover will not block the sensor.
4. Flushing control is located between **500mm** and **900mm** AFF
5. Flushing control is operable from the transfer side,
6. Flushing control is operable using a closed fist and with a force of not more than **22.2 N**,
7. Where seat covers are not provided, a back support must be installed.

Measure the width of the clear transfer space from the edge of the water closet bowl or tank (whichever protrudes further) to adjacent obstruction.



[Diagram 20.E] Accessible Water Closet and Grab Bars Front Elevation

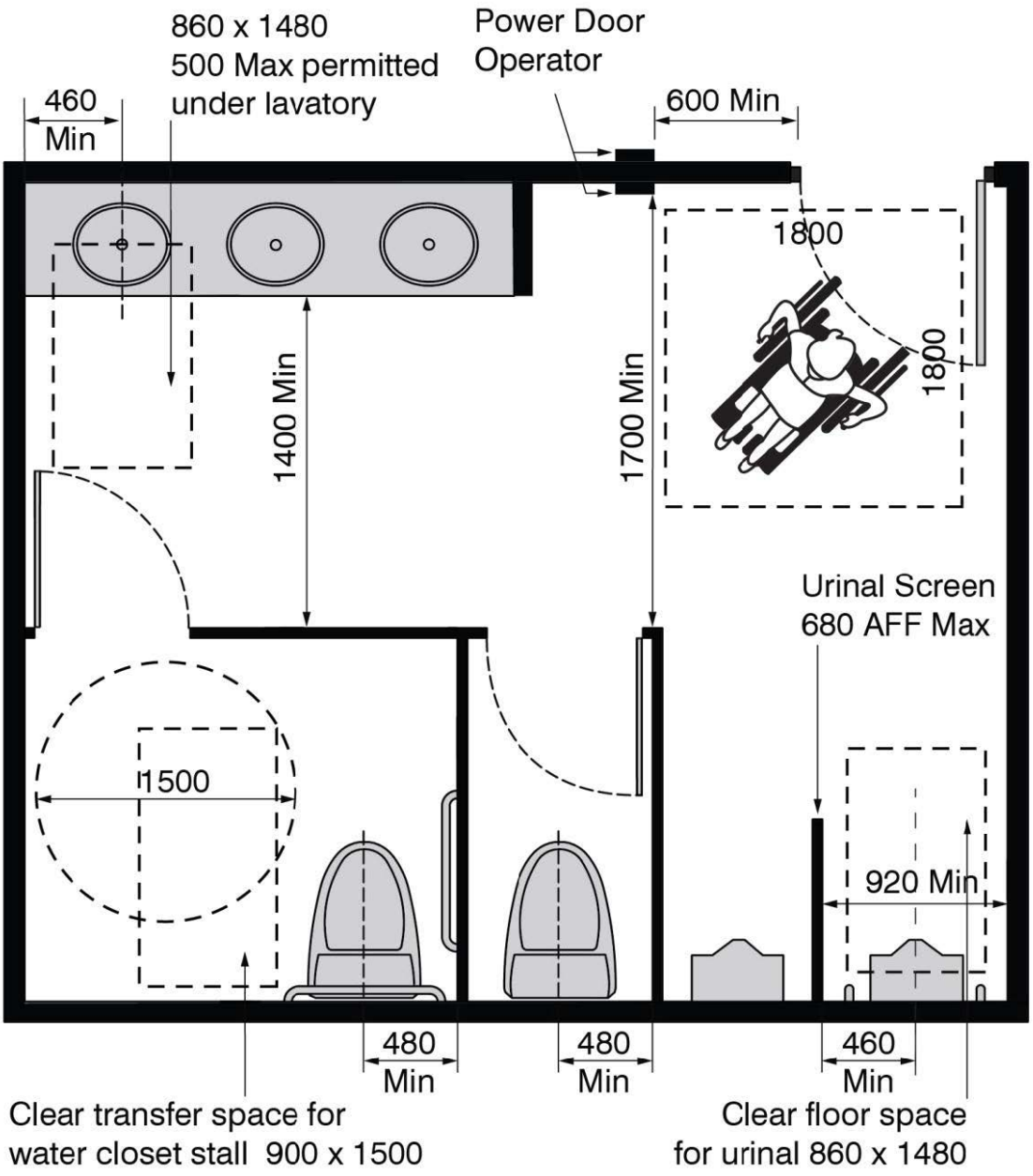


[Diagram 20.F] Accessible Water Closet and Grab Bar Side Elevation

20.7 Multi-Stall Washroom:

Accessible multi-stall washrooms must:

a) Incorporate a clear floor space of **1800 mm x 1800 mm** [Diagram 20.G],
b) Have min **1700 mm** clearance between inside face of an in-swinging entrance door and the outside face of adjacent toilet stall [Diagram 20.G], and
c) Have min **1400 mm** clearance between outside face of the accessible stall and any wall-mounted fixture or obstruction [Diagram 20.G].



[Diagram 20.G] Washroom Dimensions

20.8 Signage

Where accessible water closets are not provided in a gender specific washroom and the universal washroom is not visible from the entrance to the common or multi-stall washroom, directional signage must be provided and meet requirements in section [11. Signage and Information Systems].

21. Grab Bars and Toilet Paper Dispensers

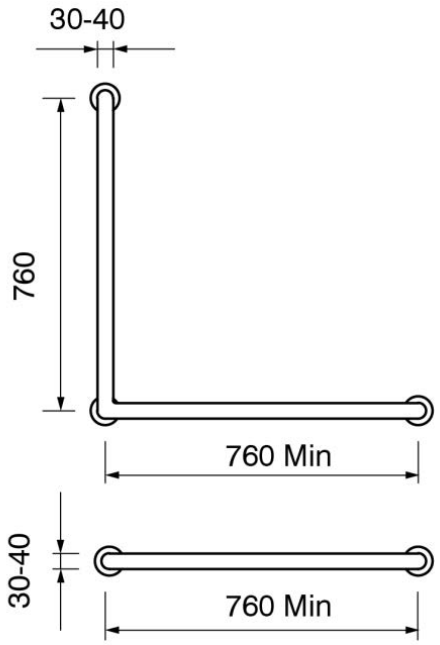
Every accessible water closet and accessible urinal must have grab bars, which must be securely attached to the wall to support the weight of a person.

21.1 Grab Bar Dimensions

1. Grab bars must have:
   a) A diameter between **30 mm and 40 mm** [Diagram 21.A],
   b) A **50 mm** clearance between the grab bar and the wall,
   c) No sharp or abrasive elements, and
   d) A slip-resistant surface.

21.2 Water Closet Grab Bars

1. Two grab bars are required to be mounted adjacent to an accessible water closet. They are as follows:
   a) One **760 mm** long grab bar mounted behind toilet, between **840 mm** and **920 mm** AFF [Diagram 20.E and 21.A], and
   b) One **760 mm** by **760 mm** L-shaped grab bar on the wall beside the water closet, with the horizontal component mounted **750 mm** AFF, and the vertical component located **150 mm** from edge of water closet [Diagram 20.F and 21.A].(*)



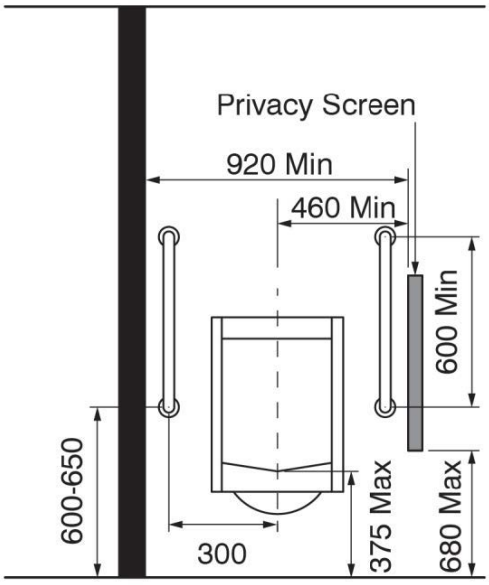
[Diagram 21.A] Grab Bar Dimensions

21.3 Toilet Paper Dispenser

1. The toilet paper dispenser must
   a) Be located below the grab bar,
   b) Be inline or max **300 mm** in front of toilet seat to operable portions of the toilet paper,
   c) Dispense toilet paper at **600 mm** AFF, and
   d) Have a min **25 mm** to **50 mm** clearance from the grab bar to any part of the dispenser [Diagram 20.F].

21.4 Urinal Grab Bars

Accessible urinals require two grab bars **600 mm** long, vertically mounted **300 mm** from the centreline of the urinal with the lowest end mounted **600 mm** to **650 mm** AFF [Diagram 21.B].(*)



[Diagram 21.B] Accessible Urinal with Grab Bars Front Elevation

22. Lavatories

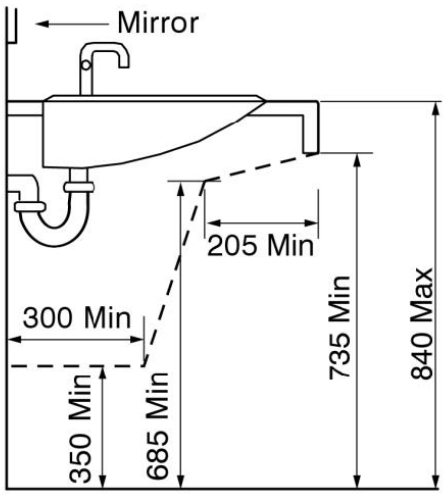
If consistency is intended in design, provide all lavatories at an accessible height with clear knee and toe space.

22.1 Application

Provide at least one accessible lavatory in every accessible washroom.

22.2 Knee and Toe Clearance

1. Knee and toe clearance must be provided for every accessible lavatory and conform to the following:
   a) Max **840 mm** AFF to top of vanity [Diagram 22.A],
   b) **920 mm** wide x **500 mm** deep x **735 mm** high from the underside of the lavatory,
   c) Have a knee space that is **685 mm** high at min **205 mm** from the front edge of lavatory, and
   d) Have a toe space that is **350 mm** high at min **300 mm** from the wall.



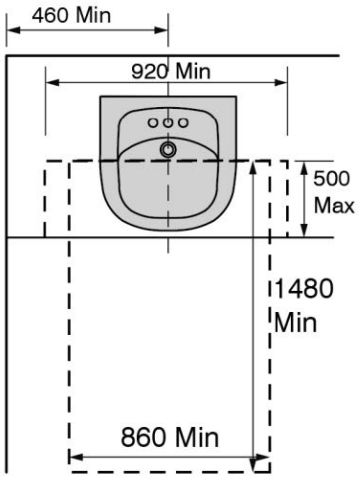
[Diagram 22.A] Lavatory Design

22.3 Lavatory Clear Floor Space and Location

1. Min **860 mm x 1480 mm** clear floor space in front of the lavatory, where max **500 mm** can be below the lavatory [Diagram 22.B].
2. Lavatory must be min **460 mm** from the centreline of the lavatory to the adjacent wall [Diagram 22.B].

22.4 Other Design Considerations

1. Faucet handles must be lever type or automatic sensors.
2. Exposed pipes must be insulated to prevent burns or the water temperature must be limited to max **43ºC**.
3. Soap and towel dispensers must be located max **610 mm** from the front edge of the lavatory and meet criteria in section [23. Washroom Accessories].



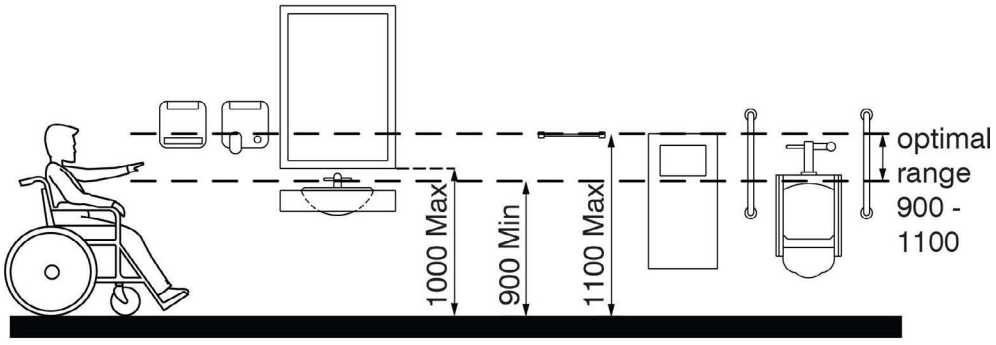
[Diagram 22.B] Accessible Lavatory Plan

23. Washroom Accessories

Washroom accessories include (but are not limited to): paper towel dispensers/ disposal receptacles, shelves, hand dryers, paper towels, soap dispensers, and vending machines. Grab bars and toilet paper dispensers have specific mounting requirements and can be found in section [21. Grab Bars and Toilet Paper Dispensers]

23.1 Washroom Accessories

1. A clear floor space of **860 mm x 1480 mm** is required in front of controls and operating mechanisms for washroom accessories.
2. The dispensing height and operable portion of washroom accessories must be between **900 mm** and **1100 mm** AFF [Diagram 23.A].
3. A max of **100 mm** can protrude into the accessible path within the washroom, otherwise, the item must be cane detectable at max **680 mm** AFF.
4. Accessories must be automatic or operable with one closed fist.
5. Waste receptacles must be open topped, and located out of the accessible path.
6. Mirrors must be max **1000 mm** AFF or inclined to the vertical. Full length mirrors should start max **175 mm** AFF.



[Diagram 23.A Washroom Accessory Mounting Heights

24. Universal Washroom

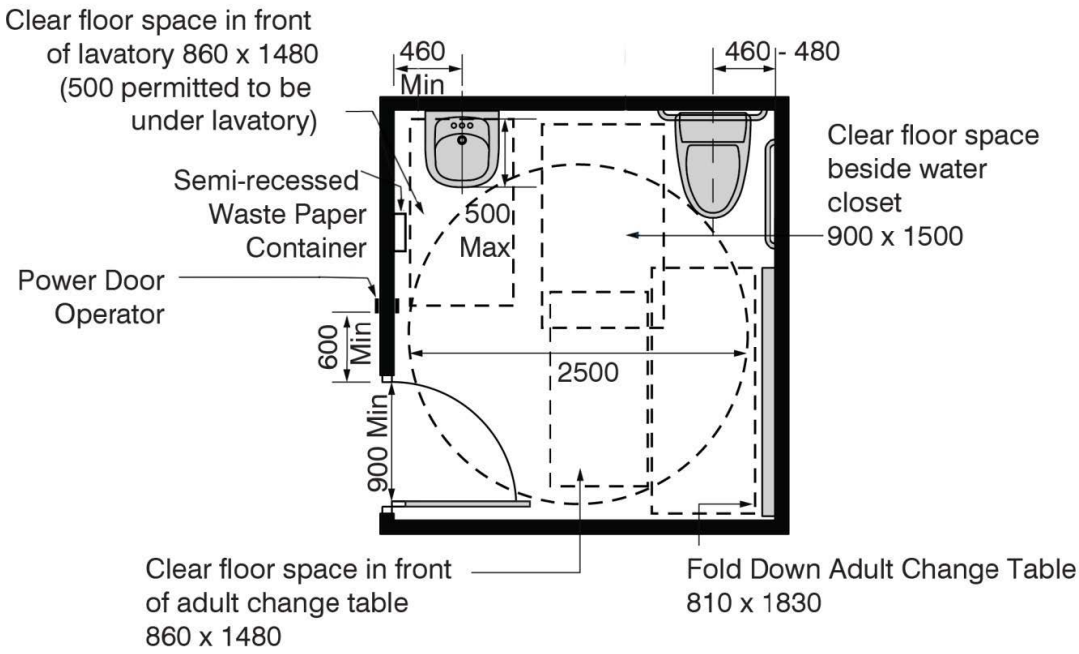
Universal washrooms benefit persons with attendants of opposite gender, families, and persons who prefer alternatives to multi-stall washrooms.

24.1 Amount

At least one universal washroom must be provided on every floor in addition to any accessible multi-stall washrooms and no further than **45 m** from multi-stall washrooms.

24.2 Clear Floor Space

1. Min **2500 mm** turning circle, clear of obstruction [Diagram 24.A].
2. Min **900 mm x 1500 mm** clear transfer space on one side of the water closet.
3. Provide at least one min **810 mm x 1830 mm** adult change table with an **860 mm x 1480 mm** clear floor space in front of the adult change table and meet the requirements in subsection [24.5. Adult Change Table].



[Diagram 24.A] Universal Washroom

24.3 Washroom Door

1. The door must be equipped with a power door operator that must coordinate with an automatic locking system.
2. The door has a graspable latch-operating mechanism that is operable using a closed fist and with a force of not more than **22.2 N**, and is located between **900mm** and **1000mm** AFF,
3. The door must be capable of being locked from inside and must be able to be released from the outside in case of emergency.

24.4 Fixtures

1. Provide at least one collapsible coat hook, max **1200 mm** AFF and max projection **50 mm** from the wall [Diagram 24.A].
2. Provide a shelf max **1200 mm** AFF and located not to create an obstruction.
3. An optional fold-down grab bar min **760 mm** in length, mounted **420 mm** to **440 mm** from the centreline of the water closet on the transfer side, **630 mm** to **690 mm** AFF.
4. The following sections and subsections also apply to the Universal Washroom:
   a) Subsection [20.6 Accessible Water Closet],
   b) Section [21. Grab Bars and Toilet Paper Dispenser],
   c) Section [22. Lavatories], and
   d) Section [23. Washroom Accessories].

24.5 Adult Change Table

The adult change table must:

a) Be a min **810 mm x 1830 mm** in size,
b) Have a reinforced wall to sustain a load of **1.33 kN** for an of adult change table [Diagram 24.A],
c) Be mounted max **865 mm** AFF, and
d) Have operable portions max **1200 mm** AFF.

24.6 Emergency Call System

1. A visual and audible signal device must be located inside and outside of the universal washroom and connected to an occupied reception or security desk [Diagram 24.A].
2. Signage must be provided to read “In the event of an emergency, push emergency button and audible and visual signal will activate.” Letters must be min **25 mm** tall, with a **5 mm** stroke that is posted above the emergency button. Tactile and Braille signage must also be provided and meet the criteria in section [11.7 Tactile Sign Requirements].
3. The emergency button must be located within reach of the water closet but not be located to be accidently pulled when reaching for toilet paper or using any grab bars. The button is to be mounted between **900 mm** and **1200 mm** AFF.
4. The signal must be located directly above the washroom door on both sides.

24.7 Occupied Notification

The occupied signal must:

a) Be located on the outside of the universal washroom, mounted between **900 mm** and **1200 mm** AFF, and
b) Be illuminated when the “Push to Lock” button on the inside of the universal washroom is activated to verify that the room is occupied.

25. Accessible Shower

Any additional enclosures for the shower stall must not obstruct transfer from a mobility device onto the shower seat.

25.1 Showers

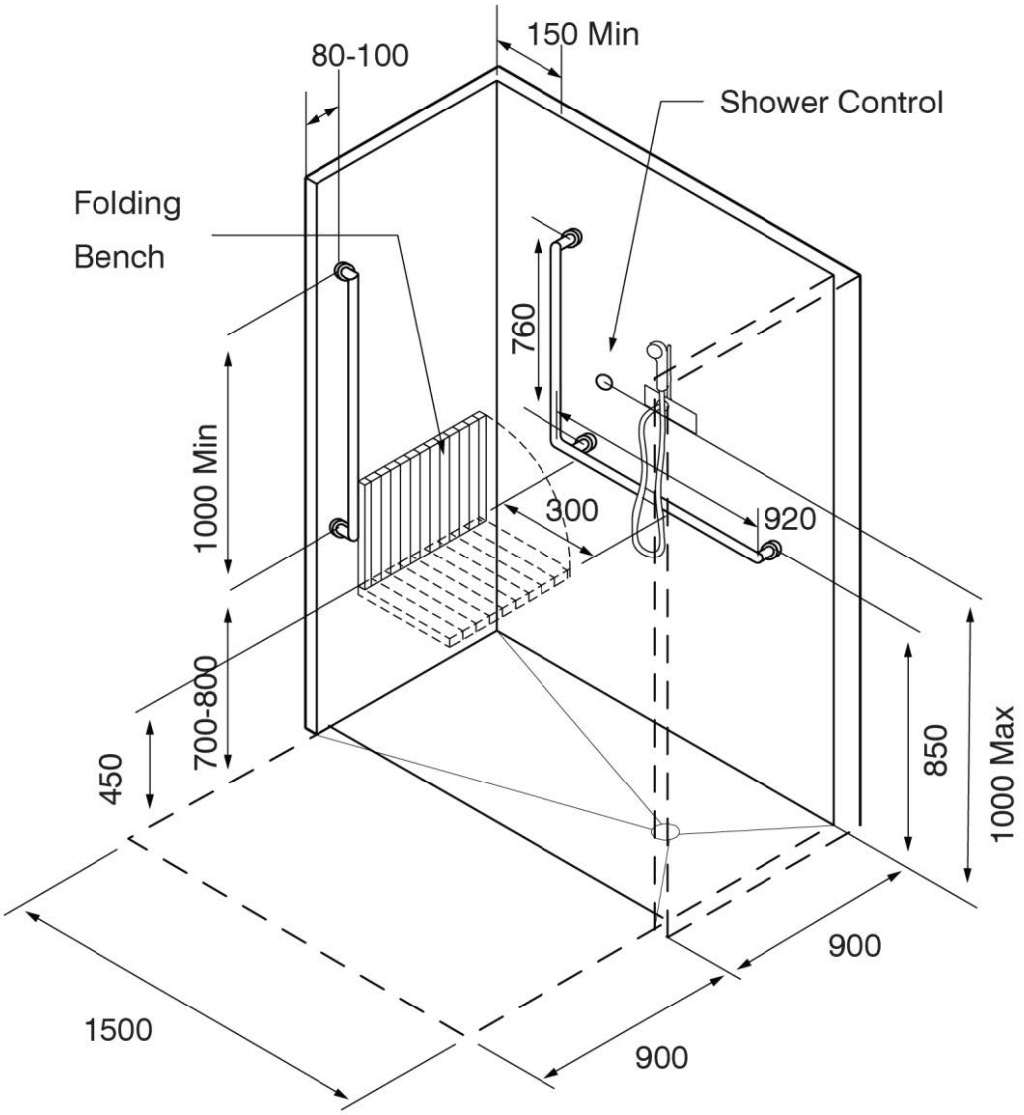
1. **1 in every 7** showers but no less than one must be accessible.
2. The interior shower space must be a min **1500 mm** wide **x 900 mm** deep. [Diagram 25.A]. The clear floor space in front of the shower must be **min 900 mm** deep and the same width as the shower.
3. Have no doors that obstruct the shower controls or the clear floor space.
4. Have a slip-resistant floor surface.
5. The threshold for the roll-in shower must be max **13 mm** high.

25.2 Shower Accessories and Controls

1. A shower seat must be provided that is **450 mm wide x 400 mm** deep, mounted **450 mm** AFF, designed to carry load of **1.3kN** [Diagram 25.A].
2. Controls must be automatic or lever type, and must be accessible from the seated position.
3. Controls must be located within **500 mm** of the edge of the seat.
4. Shower controls must be a pressure equalizing or thermostatic mixing valve.
5. The shower head must be hand held with a flexible hose min **1800 mm** long, reachable from the shower seat, mounted max **1000 mm** AFF, and located max **685 mm** away from seat, while not obstructing the L-shape grab bar [Diagram 25.A]. (*)
6. If provided, a recessed soap holder must be located within reach of the seat, mounted with the centreline between **900 mm** and **1200 mm** AFF.(*)
7. Furthermore, ensure all shower accessories meet the requirements in section [1. Space and Reach Requirements].

25.3 Shower Grab Bars

1. One vertical grab bar must be installed min **1000 mm** long, **700 mm** to **800 mm** AFF, **80 mm** to **120 mm** from the outside edge of the shower, adjacent to the bench [Diagram 25.A].
2. One L-shaped grab bar must be installed min **760 mm x 920 mm** long, **850 mm** AFF, located on wall opposite the entrance to the shower, with not less than **300 mm** of its length at one side of the seat, mounted min **150 mm** from the side wall.
3. Grab bars must meet requirements in section [21. Grab Bar and Toilet Paper Dispensers].



[Diagram 25.A] Accessible Shower

26. Change Rooms

Accessible change rooms allow for social inclusion and all individuals can equally access all amenities pre and post activities.

26.1 Clearances and Clear Floor Space

1. A primary accessible path, min **1800 mm**, must be maintained throughout the space and must meet criteria in sections [4. Headroom - Overhanging and Protruding Objects] and [14. Doors].

26.2 Lockers and Storage

1. A min **10%** of all lockers (full height and half height) must be accessible and evenly dispersed throughout the room.
2. A min **860 mm x 1480 mm** clear floor space must be provided in front of accessible lockers. Fixed benches must not overlap the clear floor space.
3. Each accessible locker must have at least one shelf with a height **400 mm** to **1200 mm** AFF.
4. Locks, hooks and any operable portions of lockers must be **900 mm** to **1200 mm** AFF.
5. Numbers or names on lockers must be tactile surfaces mounted on a colour / tonal contrast background.
6. Any storage racks must be max **680 mm** AFF and have a continuous colour contrasting strip on the edge.

26.3 Additional Requirements

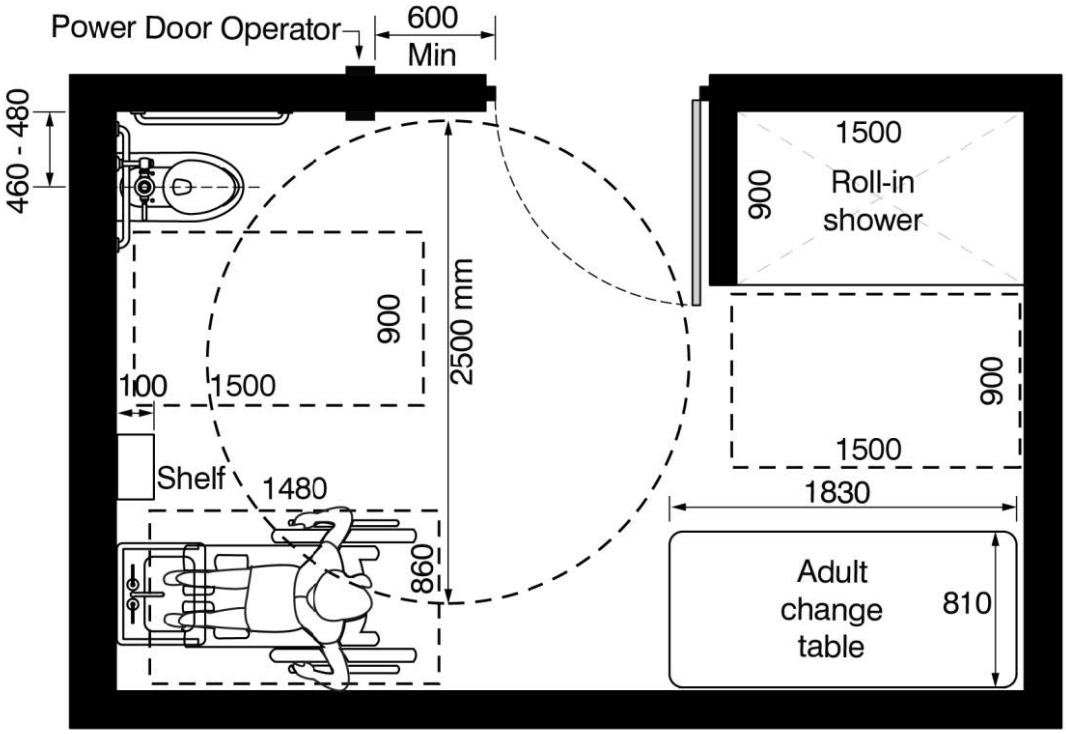
1. Shower facilities must meet the criteria in section [25. Accessible Shower].
2. Water closet and lavatory facilities must meet criteria in sections [20. Multi-Stall Washroom] and [22. Lavatories].
3. Dressing stalls must meet criteria in section [28. Accessible Dressing Stall].
4. Fixed hair dryers must be located in a separate room or an alcove that meets the min clear floor space requirements in section [1. Space and Reach Requirements]. Hair dryers must be in close proximity to mirrors and electrical outlets. Shelves must be provided for personal grooming equipment.
5. Full length mirrors must start max **175 mm** AFF.
6. Handrails can be used along circulation routes from change rooms to activity areas and meet the criteria in section [7. Handrails].
7. Flooring must be slip resistant and meet criteria in section [3. Ground and Floor Surfaces].

27. Universal Change Room

Universal change rooms are accessible, gender neutral, single use spaces that accommodate for privacy and assistance from persons of the opposite gender.

27.1 Amount

1. At least one universal change room must be provided in every building with team or gender specific change rooms. It must be equipped with an accessible shower, a universal washroom and meet requirements in sections [24. Universal Washroom] and [25. Accessible Shower] A power door operator must be provided and meet the requirements in subsection [15.3. Placement] [Diagram 27.A].
2. The following sections and subsections also apply to the universal change room: [20.6. Accessible Water Closets], [21. Grab Bars and Toilet Paper Dispensers], [22. Lavatories], [23. Washroom Accessories], [24.2 Clear Floor Space], [24.5 Adult Change Table], and [24.6 Emergency Call System].



[Diagram 27.A] Universal Change Room

28. Accessible Dressing Stalls

An accessible dressing stall is intended to accommodate two people and a mobility device, along with benches and accessories.

28.1 Amount

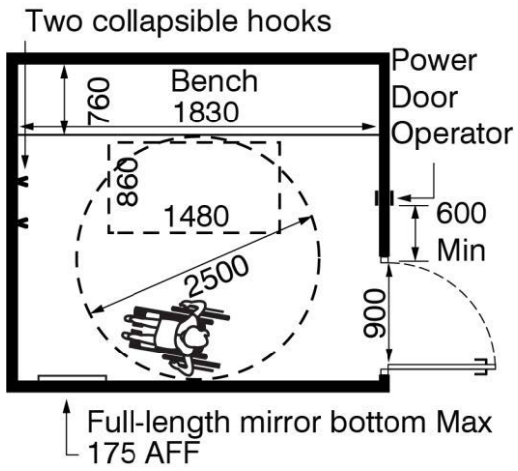
At least **10%** but never less than one private accessible dressing stall must be provided in accessible change rooms.(*)

28.2 Accessible Dressing Stalls

1. Accessible dressing stalls must have a clear turning circle of **2500 mm** and a door with a clear width of **900 mm**.

28.3 Bench and Other Accessories

1. An accessible dressing stall must have a bench that meets the following requirements:
   a) Min **760 mm x 1830 mm**,(*) mounted **450 mm** to **500 mm** AFF [Diagram 28.A],
   b) Designed to carry a min load of **1.33 kN**, and
   c) Min **860 mm x 1480 mm** clear floor space adjacent to the bench.
2. Two coat hooks must be provided that are collapsible-style, projecting not more than **50 mm**, mounted max **1200 mm** AFF and max **500 mm** from the bench.
3. Mirrors must be full length, mounted with the bottom at **175 mm** AFF.



[Diagram 28.A] Accessible Dressing Stall

28.4 Surfaces

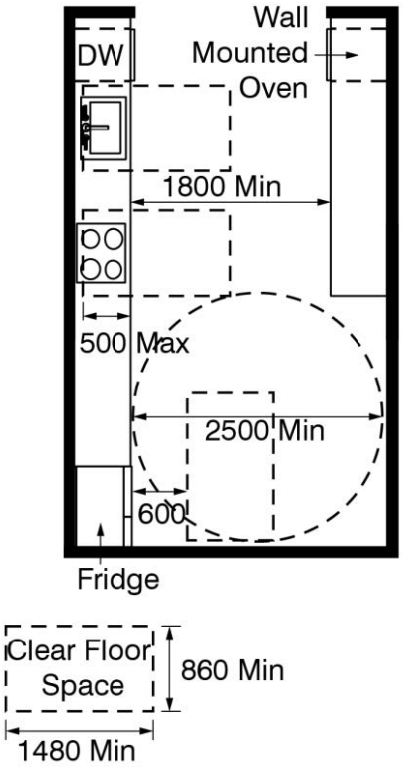
Accessible dressing stalls near wet areas must have slip resistant floors that must also prevent the accumulation of standing water.

29. Public and Staff Kitchens and Kitchenettes

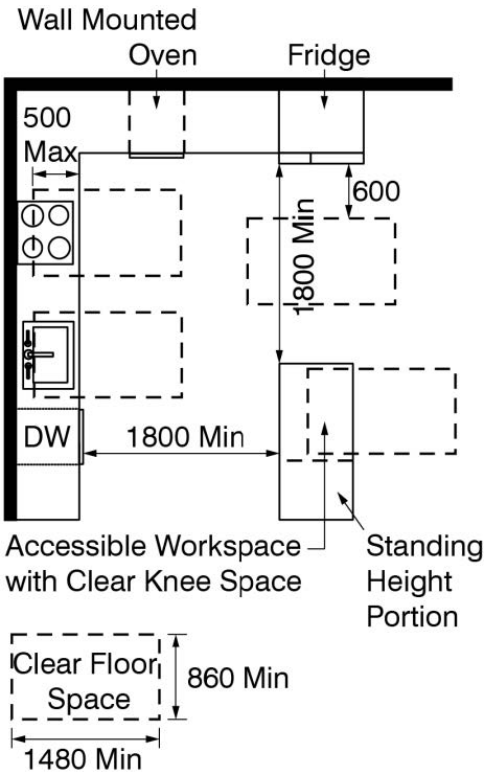
A forward approach to work surfaces and appliances is preferred, with the exception of refrigerators.

29.1 Kitchen Design

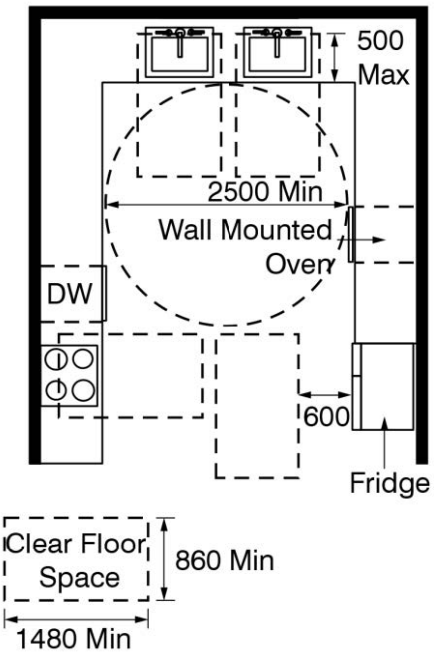
1. Min **1800 mm** clear width for galley or L-shaped kitchens [Diagram 29.A] [Diagram 29.B].(*)
2. Min **2500 mm x 2500 mm** clear floor space in a U-shaped kitchen [Diagram 29.C], and min **2500 mm** turning circle at dead end conditions.(*)
3. A min of **50%** of shelf space in for kitchens must be accessible.



[Diagram 29.A] Galley Kitchen



[Diagram 29.B] L-Shaped Kitchen



[Diagram 29.C] U-Shaped Kitchen

29.2 Colour and Tonal Contrast

Colour / tonal contrast must be provided:

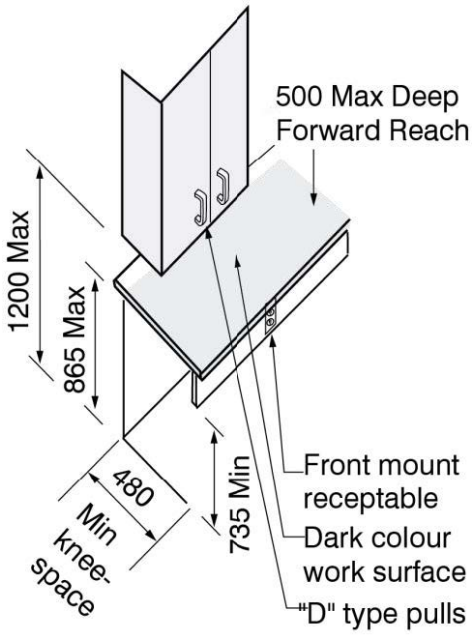
a) Between counter tops and cabinets and walls [Diagram 29.D], and
b) Between operable hardware on cabinets and cabinet surfaces.

29.3 Dishwashers

When provided, a dishwasher door in the open position must not obstruct the clear floor space for the cooktop or the sink. A clear floor space of **860 mm x 1480 mm** must be provided in front of the dishwasher when in the open position [Diagram 29.C].

29.4 Cabinet Hardware, Faucets and Appliance Controls

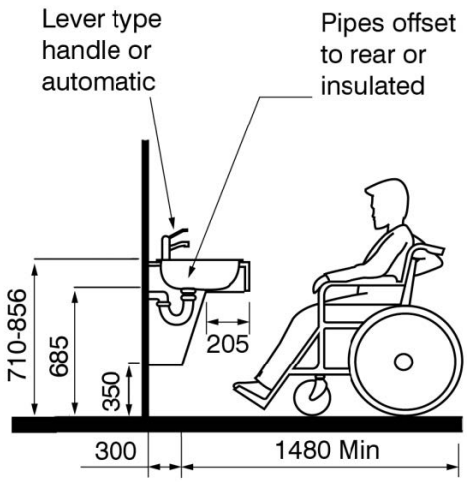
1. Any operable portions on cabinetry or appliances must be mounted **900 mm** to **1200 mm** AFF and must meet criteria in section [9. Operable Controls and Mechanisms] [Diagram 29.D].
2. Faucet handles must be lever type or automatic.
3. Max **500 mm** from the centre line of the faucet basin to front edge of sink [Diagram 29.C].
4. Exposed pipes must be insulated to prevent burns or the water temperature must be limited to max **43ºC**.



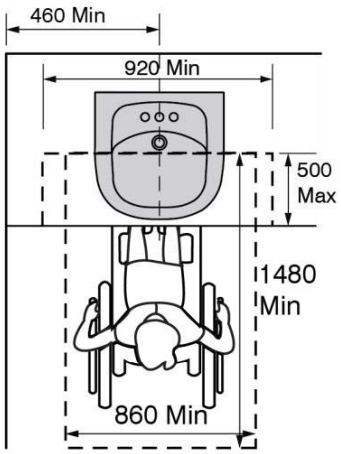
[Diagram 29.D] Cabinet and Counters

29.5 Sink and Countertop Knee Clearances

1. Clear knee space must be provided for both the sink and countertop. They must be:
   a) **710 mm** to **856 mm** AFF to top of counter [Diagram 29.E],
   b) **920 mm wide x 500 mm** deep [Diagram 29.F],
   c) **735 mm** high at the front edge [Diagram 29.D],
   d) **685 mm** high at **205 mm** from front edge of counter [Diagram 29.E], and
   e) **350 mm** high at **300 mm** from the wall [Diagram 29.E].
2. Where two sinks are provided, one for prep and one for sanitary purposes, both sinks must be accessible as they serve different purposes [Diagram 29.C].



[Diagram 29.E] Sink and Counter Top Access

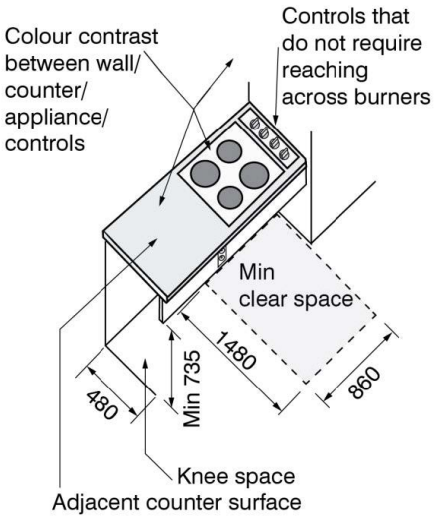


[Diagram 29.F] Sink Floor Plan

29.6 Ranges

1. Ranges selected must be appropriate to prevent burns, abrasions, or electrical shock. Controls must not require user to reach across burners.
2. Knee clearances must meet criteria in subsection [29.5. Sink and Countertop Knee Clearances] [Diagram 29.G].

Safety switches should be provided to deactivate appliance controls for ranges, cooktops, and ovens in facilities with children's programs.

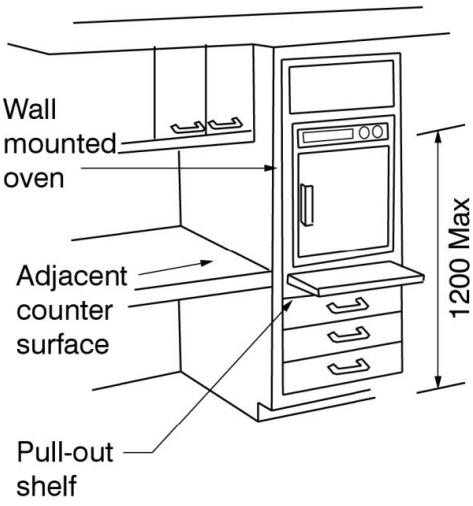


[Diagram 29.G] Range Access

29.7 Ovens

1. Provide a side-hinged door oven with an adjacent work surface positioned to the latch side of the door, at a max height of **1200 mm** AFF.
2. Controls must be mounted no higher than **1200 mm** AFF.
3. Incorporate a pull-out shelf below the oven for easy removal of hot items [Diagram 29.H].

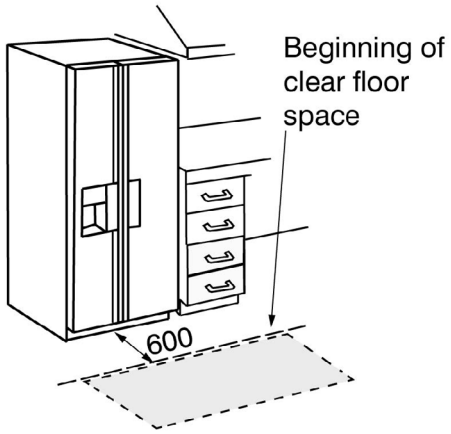
A parallel approach to the countertop is accepted where there is no cook top provided.



[Diagram 29.H] Ovens

29.8 Refrigerators and Freezers

1. Refrigerators and freezers in accessible kitchens must be configured with a min of **50%** of shelving max **1200 mm** AFF. This is typically accommodated by a side-by-side fridge / freezer or a fridge with a freezer drawer located on the bottom.
2. An **860 mm x 1480 mm** clear floor space must be provided for parallel approach offset **600 mm** from the front face of the refrigerator [Diagram 29.I].



[Diagram 29.I] Clearances in Front of Refrigerator or Freezer

29.9 Additional Requirements

Kitchens must also comply to the following:

a) Section [1. Space and Reach Requirements],
b) Section [3. Ground and Floor Surfaces],
c) Section [9. Operable Controls and Mechanisms],
d) Section [10. Lighting, Light Sources and Glare], and
e) Section [12. Materials and Finishes].

30. Drinking Fountains and Bottle Filling Stations

Provide accessible drinking fountains and accessible bottle filling stations in close proximity to each other.

30.1 Amount

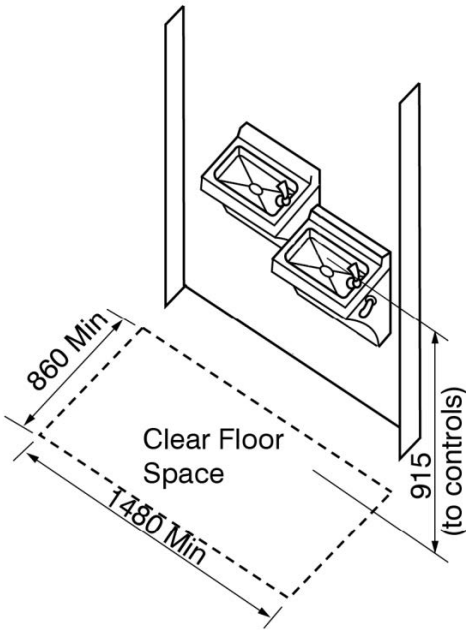
There must be at least one accessible drinking fountain and bottle filling station in every building.

30.2 Drinking Fountains or Bottle Filling Locations

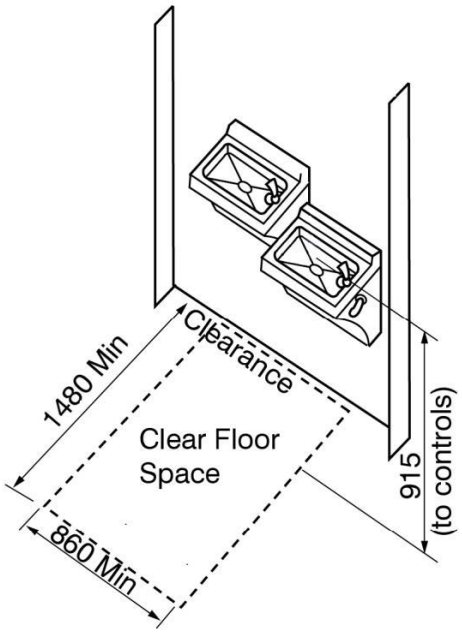
1. Both drinking fountains and bottle filling stations must be provided with a clear floor space of **860 mm x 1480 mm**.
2. When non-recessed drinking fountains project into the accessible path more than **100 mm**, cane detection must be provided to a max of **680 mm** AFF.

30.3 Clear Floor Space

1. Clear floor space must not overlap the min space requirements of the accessible path and must be:
   a) Min **1480 mm wide x 860 mm long** with one unobstructed side adjoining an accessible path for side approach [Diagram 30.A], or
   b) Min **860 mm wide x 1480 mm long** for forward approach [Diagram 30.B].



[Diagram 30.A] Clear Floor Space for a Water Fountain (Side Approach)



[Diagram 30.B] Clear Floor Space for a Water Fountain (Forward Approach)

30.4 Knee and Toe Clearance (*)

1. Drinking fountains are required to be provided with clear knee space. Bottle filling stations do not require clear knee space, provided the max reach required to access the bottle filling station is not more than **600 mm**. Knee and toe clearances for drinking fountains must be:
   a) Min **735 mm** AFF and **900 mm wide x 500 mm** deep below fountain [Diagram 30.C and D],
   b) Min **350 mm** AFF, **205 mm** from front edge of fountain [Diagram 30.C], and
   c) Have a toe space that is min **350 mm** high at min **300 mm** from the wall.
2. The clear floor space requirements can overlap with knee and toe clearance below a drinking fountain.

30.5 Water Spout

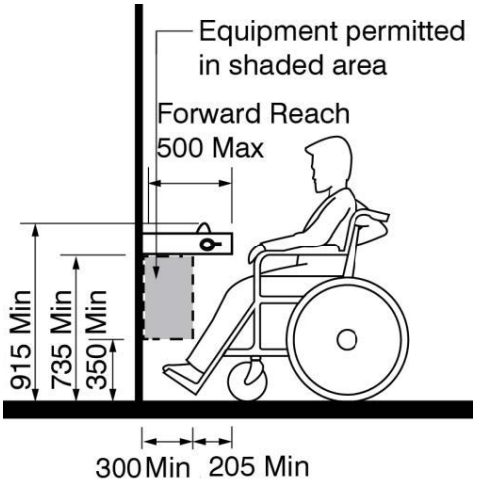
1. The water spout must be
   a) Max **915 mm** AFF,
   b) Max **125 mm** from front of fountain, and
   c) Project water min **100 mm** high.
2. Water stream must be provided at either an angle of **30 degrees** max where water spouts are located less than **75 mm** from the front or **15 degrees** max where water spouts **75 mm** to **125 mm** from front edge.

30.6 Contrast

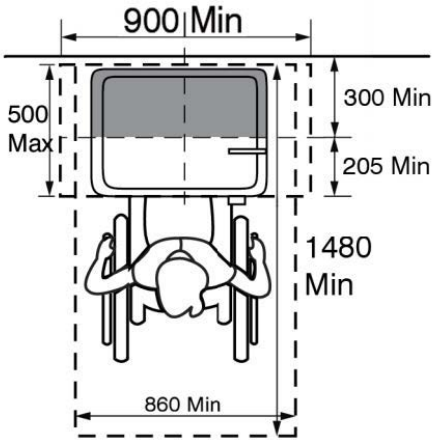
The water fountain must have colour / tonal contrast from the background.

30.7 Controls

1. Controls must be
   a) Max **915 mm** AFF,
   b) Located in front of fountain,
   c) Not foot operated, and
   d) Automatic or require max force of **22N** to activate.



[Diagram 30.C] Knee and Toe Clearance (Elevation)



[Diagram 30.D] Knee and Toe Clearance (Plan)

31. Public Telephones

31.1 Amount of Accessible Phones

1. Where public telephones are provided, at least one telephone unit must be accessible and must meet [Table 31.1].
2. A min of one TTY telephone must be provided where interior accessible phones are located.
3. All accessible phones and a min **25%** of all phones must be equipped with volume control.

[Table 31.1] Number of Accessible Telephones Required

Number of Telephones Provided on Each Floor	Number of Accessible Telephones Required
1 or more single units	1 per floor
1 bank	1 per floor
2 or more banks	1 per floor

One bank of telephones = 2 or more telephones.

31.2 Dimensions

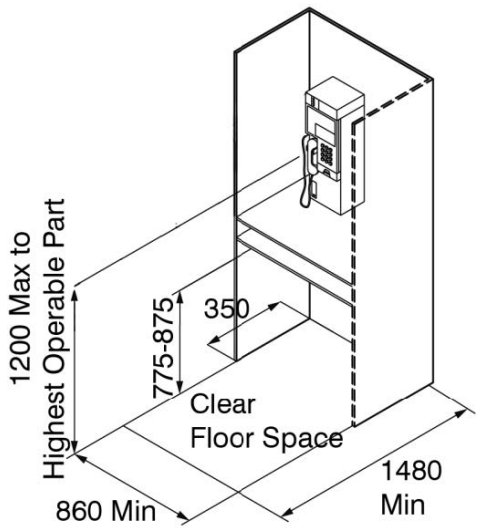
1. Public telephones must have:
   a) Min **2100 mm** clear height above telephone area,
   b) Max **1200 mm** AFF to operable portions [Diagram 31.A and B], and
   c) Min **1000 mm** handset cord length.

31.3 Knee and Toe Clearance

Provide knee and toe clearance for the accessible phone that is min **735 mm** AFF and **860 mm** wide [Diagram 31.A and C].

31.4 Clear Floor Space

1. Provide a clear floor space in front of every accessible telephone that is:
   a) Min **860 mm** wide x **1480 mm** long for forward approach [Diagram 31.A and C], or
   b) Min **1480 mm** wide x **860 mm** long with one unobstructed side connected to an accessible path for parallel approach [Diagram 31.A and C].
2. The clear floor space must not overlap the min space requirements of accessible path for the building.
3. Centre the clear floor space within counter section.



[Diagram 31.A] Accessible Public Telephone

31.5 Shelf

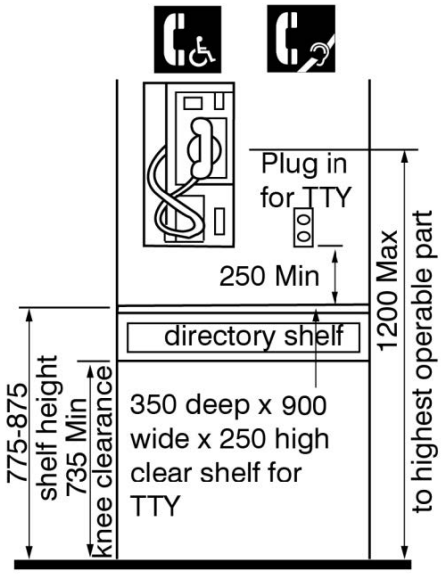
1. Provide a shelf at every accessible telephone that complies with the following:
   a) Min **900 mm wide x 350 mm** deep,
   b) **775 mm** to **875 mm** AFF, and
   c) Min **250 mm** clear space above [Diagram 31.B].(*)

31.6 Signage

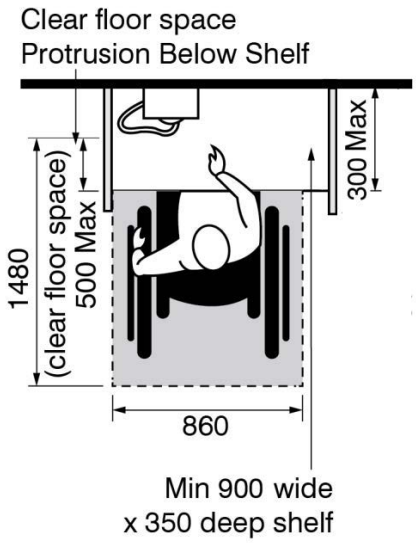
1. The accessible telephone must be identified with the International Symbol of Accessibility [Diagram 31.B].
2. Signage must be provided when the accessible telephone is not visible from the bank of telephones.

31.7 Text telephones (TTY)

1. TTY phones must be provided for public phones and must be:
   a) Independent from phones used for individuals using wheeled mobility devices,
   b) Identified with the International Symbol of Accessibility for Hearing Loss [Diagram 31.B], and
   c) Permanently affixed within or adjacent to the telephone enclosure.



[Diagram 31.B] Public Telephone Elevation



[Diagram 31.C] Public Telephone Floor Plan

32. Interior Elevated Platforms

All interior elevated platform areas must be accessible and meet the requirements below.

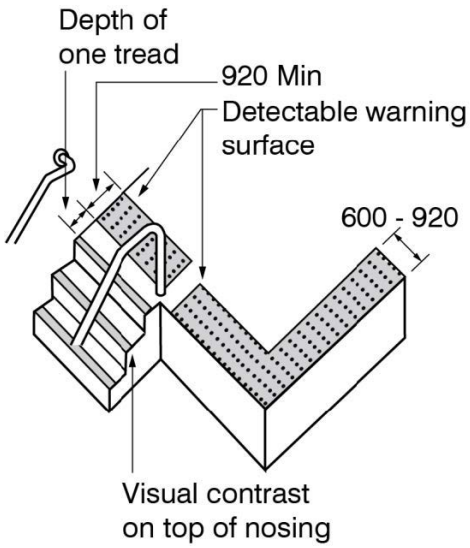
32.1 Design

Elevated platforms must:

a) Be located on an accessible path,
b) Be illuminated to at least **200 lux** and must meet requirements in section [10. Lighting, Light and Glare Sources],
c) Be sized to safely accommodate mobility devices in compliance with section [1. Space and Reach Requirements], and
d) Have TWSI as specified in section [8.Tactile Walking Surface Indicators (TWSI)] along the perimeter of open platform edges [Diagram 32.A].

32.2 Temporary Platforms

Where possible, temporary platforms should meet the requirements in subsection [32.1. Design].



[Diagram 32.A] Elevated Platform Requirements

33. Accessible and Adaptable Fixed Seating

Adaptable seating is designed to accommodate persons who require flexibility within a fixed seat, along a barrier-free path of travel. Accessible seating is a clear floor space capable of accommodating a mobility device.

33.1 Number of Adaptable and Accessible Seating

Areas with fixed seating must provide the number of accessible and adaptable seating identified in [Table 33.1.].

[Table 33.1] Number of Accessible and Adaptable Seating Spaces

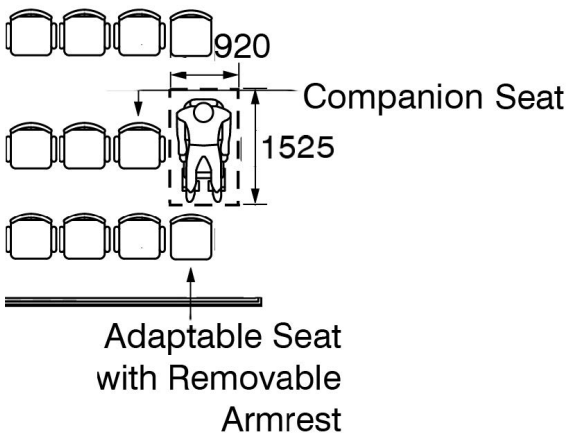
Number of Fixed Seats in Seating Area	Min Number of Accessible Spaces	Min Number of Adaptable Spaces
Up to 20	2	1
21-40	2	2
41-60	2	3
61-80	2	4
81-100	3	5
Over 100	3% of the seating capacity	5 seats or 5% of the aisle seating capacity

33.2 Location

1. Adaptable and accessible spaces must be located on an accessible path without infringing on the egress of other seating spaces.
2. Adaptable and accessible spaces should be provided at the front, middle, and top of the public seating areas to allow for a choice of admission prices and sight lines [Diagram 33.A].

33.3 Signage

Signage must be located at the ticket office to notify patrons of the availability of accessible and adaptable seating and must meet criteria in section [11. Signage and Information Systems].



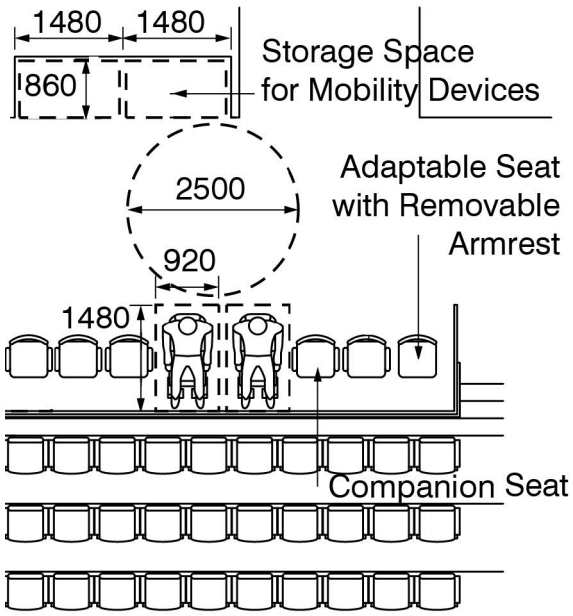
[Diagram 33.A] Side Entry Accessible Seating

33.4 Adaptable Seating

1. Adaptable seating must consist of a fixed aisle seat with no armrest on the aisle side or must have a removable or folding armrest on the aisle side and the ability to remove the seat adjacent to the adaptable fixed seat.
2. At least two storage spaces that are min **860 mm x 1480 mm** are required in close proximity to the accessible seating spaces. This can be achieved by providing an alcove outside the path of travel or by the provision of a separate storage room that is close to the seating area.

33.5 Accessible Seating

1. Accessible seating must have the following:
   a) Min **920 mm wide x 1525 mm long** for side approach entry [Diagram 33.A],(*) or
   b) Min **920 mm wide x 1480 mm long** for front or rear entry [Diagram 33.B].(*)
2. For front or rear entry accessible seating, a **2500 mm** diameter clear floor space must be provided in front or behind the accessible seat.(*)
3. At least one companion seat must be provided adjacent to every accessible space.



[Diagram 33.B] Rear Entry Accessible Seating

The companion seating is to be calculated in addition to the required number of accessible seating spaces.

34. Office Areas and Meeting Rooms

A quiet acoustic environment would benefit all persons but particularly those with a hearing impairment. Background noise from mechanical equipment such as fans should be minimized with sound absorbing wall or ceiling tiles.

34.1 Circulation and Clear Floor Space

1. An accessible path must be provided throughout the office area.
2. A primary and secondary accessible path, should be provided throughout the office areas. Refer to section [2. Interior Accessible Paths].
3. A min **1100 mm** accessible path is required between workstations and meeting access requirements as specified in sections [2. Interior Accessible Paths], [4. Headroom - Overhanging and Protruding Objects], and [14. Doors].
4. A **2500 mm x 2500 mm** clear floor space must be provided at main access points.(*)

34.2 Office Furniture and Equipment

1. Accessible office furniture must have a max 800 mm height to the countertop and a **700 mm tall x 900 mm wide x 500 mm deep** knee clearance.
2. An **860 mm x 1480 mm** clear floor space must be in front of all equipment, such as photocopiers.
3. Storage and shelves must be accessible and meet criteria in section [19. Millwork, Storage, and Shelving].

Tables with adjustable heights provide flexibility to users who require different height levels of table top surfaces.

34.3 Meeting Rooms

1. **10%** of all meeting rooms but not less than one in every department must be accessible.
2. A min **1100 mm** accessible path around the perimeter of the accessible meeting room table is required.
3. A **2500 mm x 2500 mm** clear floor space must be provided at the main access point of the meeting room.(*)
4. In all meeting rooms, use wall or ceiling finishes that dampen sound and aid the reduction of ambient noise.

35. Fire and Life Safety Systems

Fire safety elements and systems must be useable by any individuals with disabilities in emergency situations. Signals intended to notify the public must consist of both visual and audible components.

35.1 Locations of Visual and Audible Fire Alarm Devices

1. This section applies to buildings required by the OBC to have a fire alarm system.
2. Locate visual and audible fire alarm devices in:
   a) A building or portion of a building intended for use primarily by persons with hearing loss,
   b) Public corridors and all general use areas such as lobbies, offices, meeting rooms and all washrooms, including single use washrooms, and
   c) Mechanical rooms where there is a concern with noise levels.

35.2 Mounting of Visual Fire Alarm Strobes

1. Visual fire alarm strobes must be placed so that the signal from at least one device is visible throughout the floor area or compartment where they are installed.
2. Mounting heights of fire alarms must meet the requirements in the OBC, NFPA and the Ontario Fire Code, as amended.

35.3 Signal Requirements of Visual Fire Alarm Strobes

1. Visual signalling components must conform to the requirements in 18.5.3 (Light, Colour, and Pulse Characteristics) of NFPA 72, “National Fire Alarm and Signaling Code” as amended.
2. Signals must meet the requirements in the OBC, NFPA and the Ontario Fire Code, as amended.

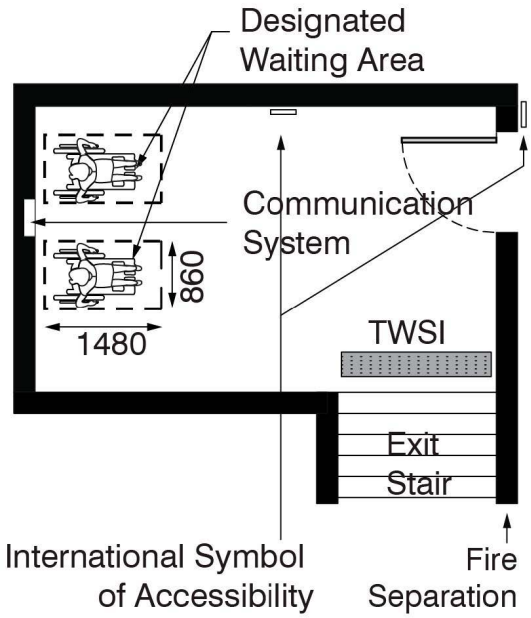
35.4 Eye Wash Stations

1. Where eye wash stations are provided they must be accessible and located at a max height of **850 mm** AFF.
2. Eye wash stations must meet the requirements found in section [1. Space and Reach Requirements].

35.5 Areas of Refuge

Where required exits from a floor area are not accessible, areas of refuge must be provided with the following requirements:

a) Located on an accessible path,
b) Equal to the number of exits,
c) Min clear floor space of **860 mm x 1480 mm** per non-ambulatory occupant on floor, but no less than two [Diagram 35.A],
d) Must be separated from the floor area by a fire separation(*) having a fire-resistance rating at least equal to that required for an exit,
e) Have a direct connection to an exit stair, or a firefighter's elevator,
f) Designated as an area of refuge for persons with disabilities on the facility fire safety plan,
g) Provide signage indicating the location of the area of refuge,
h) Incorporate a 2-way voice communication system, mounted **900 mm** and **1100 mm** AFF, for use between each area of refuge and the buildings annunciator panel, and
i) Identified with signage that must meet criteria in section [11. Signage and Information Systems].



[Diagram 35.A] Area of Refuge

36. Assistive Listening Devices

Assistive Listening Devices (ALDs) are an important design feature in areas where audible communication is integral to the use of the space.

36.1 Assembly Areas

For areas where audible communication is integral to the use of the space, provide assistive listening devices (ALDs). Concert theatres, meeting rooms, classrooms and auditorium are examples of rooms where ALDs are required.

36.2 Locations

1. Permanently installed listening systems/ALDs must be included for:
   a) Rooms that accommodate at least **50** persons,
   b) Rooms that have audio amplification systems greater than **100 square metres**, or
   c) Rooms that have fixed seating.

36.3 Portable Assistive Listening Devices

1. Rooms must provide access to electrical outlets or supplementary wiring to support a portable device.
2. A min **4%** of the total number of seats, but no less than two, shall have receivers.

36.4 Types of Assistive Listening Systems

Induction loops, infrared systems, and FM radio frequency systems are acceptable types of ALDs.
Design Requirements

1. Where an FM loop system or other ALDs exist, portable headsets that are compatible with personal hearing aids must be made available.
2. Where an induction loop system is utilized, at least **50%** of the seating area shall be encompassed.
3. Where ALDs serve individual seats, these seats must be within **15 m** viewing distance of the stage.
4. Signage must be provided to notify patrons of the availability of the listening system and comply with section [11. Signage and Information Systems].

36.5 Interference with Assistive Listening Systems

1. Please note the following:
   a) Dimmer switches or any controls with transformer coils can interfere with the audio induction loop, and
   b) Overhead incandescent lights can cancel out the infrared signal at the receiver.
2. These items should be located where they cannot interfere with the transmission of sound of the ALDs.

37. Public Address Systems

Public address systems must be easy to hear above the ambient background noise and there must be no distortion or feedback.

37.1 Location

1. Public address systems must be mounted meeting the requirements in section [4. Headroom - Overhanging and Protruding Objects].
2. Mount in common use areas such as: corridors; offices, assembly and meeting rooms; recreational and entertainment facilities, training areas, washrooms, and any other common areas.

37.2 Controlled Broadcast

1. Public address systems must be zoned to allow for targeted broadcast and serve the entire facility.
2. Paging systems for staff or other key persons must be discreet and low volume.
3. Paging must be targeted to devices or locations where such persons might be expected to be located.

38. Exterior Paths

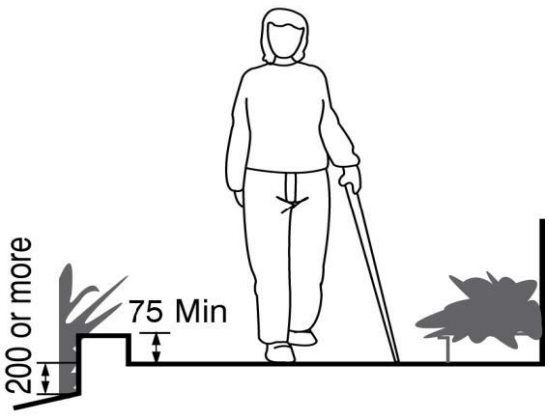
Exterior paths serving a building must be accessible. Unit pavers are accessible if they meet the requirements of section [3. Ground and Floor Surfaces]. Permeable pavers are not accessible and do not provide an accessible path.

38.1 Clear Path Width

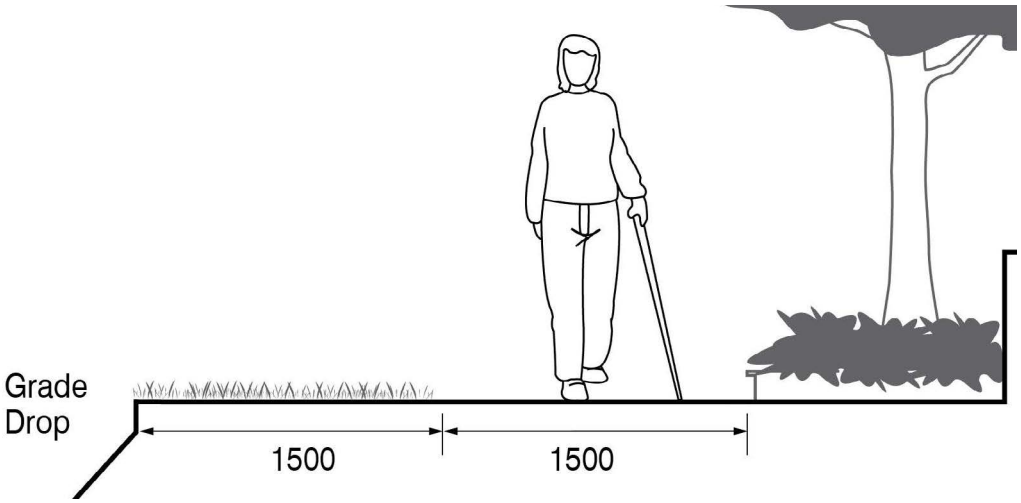
1. Primary and secondary exterior paths require a clear width min **1500 mm**.
2. Where the path of travel is less than **1800 mm** provide passing areas min **1800 mm x 1800 mm** and located every **30 m** on an accessible path.

38.2 Exterior Edge Protection

1. Exterior edge protection is required at changes in grade between **200 mm** and **600 mm**, except at stairs [Diagram 38.A].
2. Exterior edge protection is not required where there is no change in adjacent ground level for a min of **1500 mm** wide [Diagram 38.B].
3. Must be min **75 mm** high and **50 mm** wide. Ensure width does not allow for someone to walk along edge protection.
4. Must have colour / tonal contrast from the walkway surface. Contrast must be on the edge and not on the walkway surface.
5. The path surface must be designed to allow drainage.
6. A change in level greater than **600 mm** on exterior paths must be protected by a guard meeting criteria in the current OBC.
7. Exterior gates must maintain a clear width of **900 mm** and meet the requirements in subsection [13.4. Gates].



[Diagram 38.A] Exterior Edge Protection



[Diagram 38.B] Edge Protection Not Required

38.3 Alternative Accessible Paths

Where stairs are located on exterior paths, an alternative accessible path must be provided immediately adjacent to the stairs. This may include either a ramp or another accessible means of negotiating an elevation change.

38.4 Path Slope

1. The running slope must be max **1** in **20** (**5%**).(*)
2. The cross slope must be min **1** in **50** (**2%**) but need not exceed the running slope.(*)

38.5 Additional Requirements

For additional requirements, refer to the following:

a) Section [1. Space and Reach Requirements],
b) Section [3. Ground and Floor Surfaces],
c) Section [4. Headroom - Overhanging and Protruding Objects],
d) Section [5. Ramps],
e) Section [6. Stairs],
f) Section [8. Tactile Walking Surface Indicators (TWSI)],
g) Section [10. Lighting, Light Sources and Glare], and
h) Section [12. Materials and Finishes].

39. Curb Ramps

Curb ramps must be designed to minimize water accumulation on the accessible path.

39.1 Clear Width

Exclusive of return curbs, the min width of a curb ramp is **1500 mm** [Diagram 39.A to F].

39.2 Ground Surface

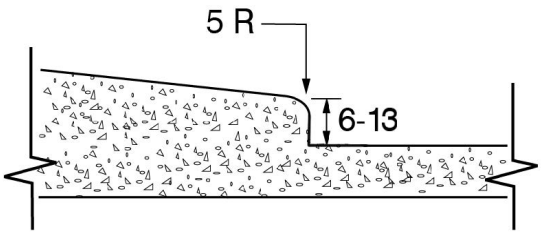
1. Exterior paths must meet the criteria in section [3. Ground and Floor Surfaces].
2. TWSI must meet the criteria in section [8. Tactile Walking Surface Indicators (TWSI)].

39.3 Cross slope

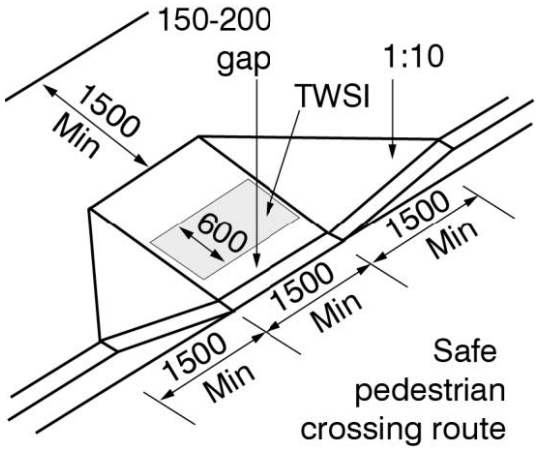
1. Min slope required for drainage must not exceed the ratio of **1** in **50** (**2%**) on paved surface or **1** in **20** (**5%**) on unpaved surfaces.
2. Max difference between a curb ramp and all surrounding surfaces must not be more than **10%**.

39.4 Slope

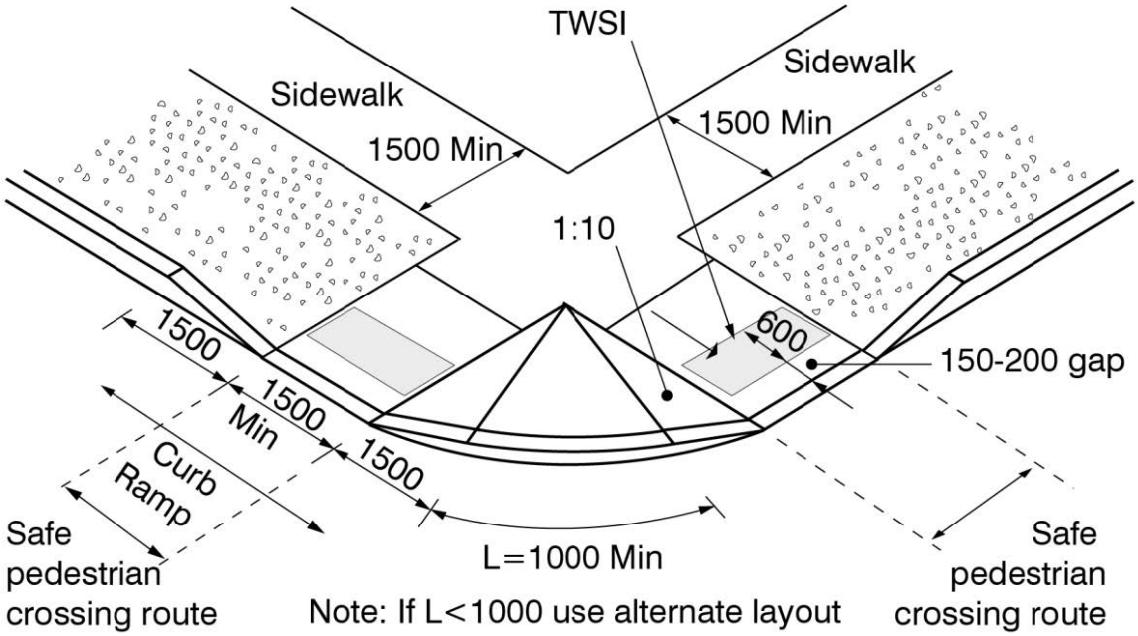
1. Slope of max **1** in **10** (**10%**) [Diagrams 39.A to F].
2. Counter slope of gutters and road surfaces immediately adjacent to the bottom of the curb ramp max **1** in **20** (**5%**).
3. Colour / tonal contrast must be used on the outside of the return curbs [Diagrams 39.A to F].



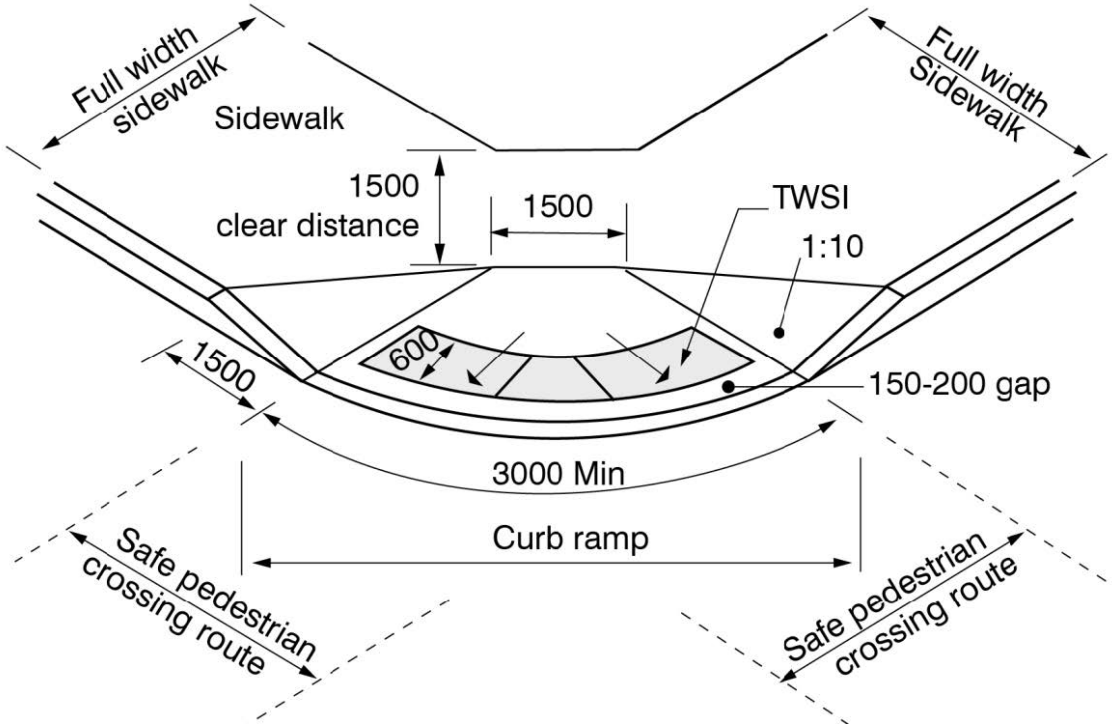
[Diagram 39.A] Curb Ramp Transition at Pavement



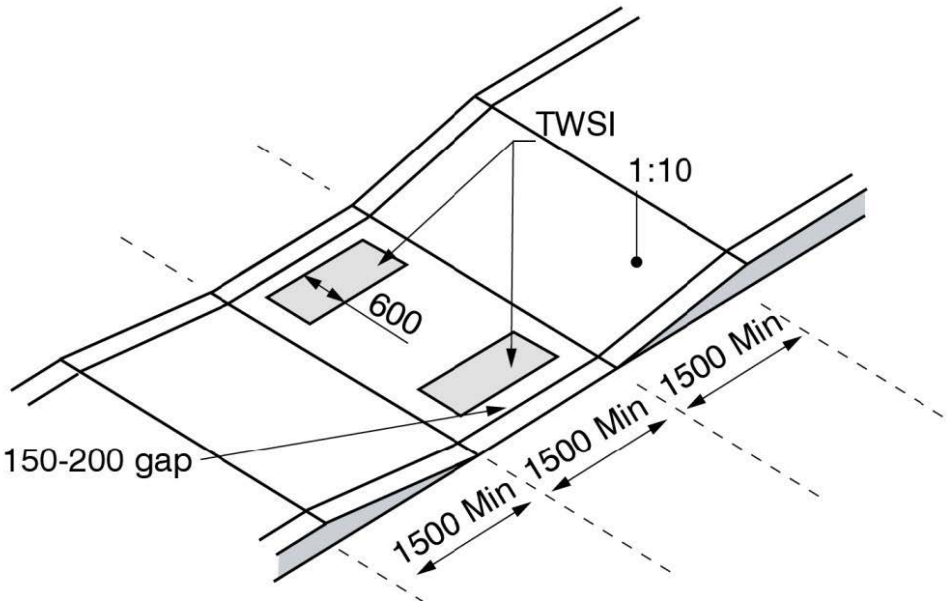
[Diagram 39.B] Curb Ramp at Mid-Block Crossing



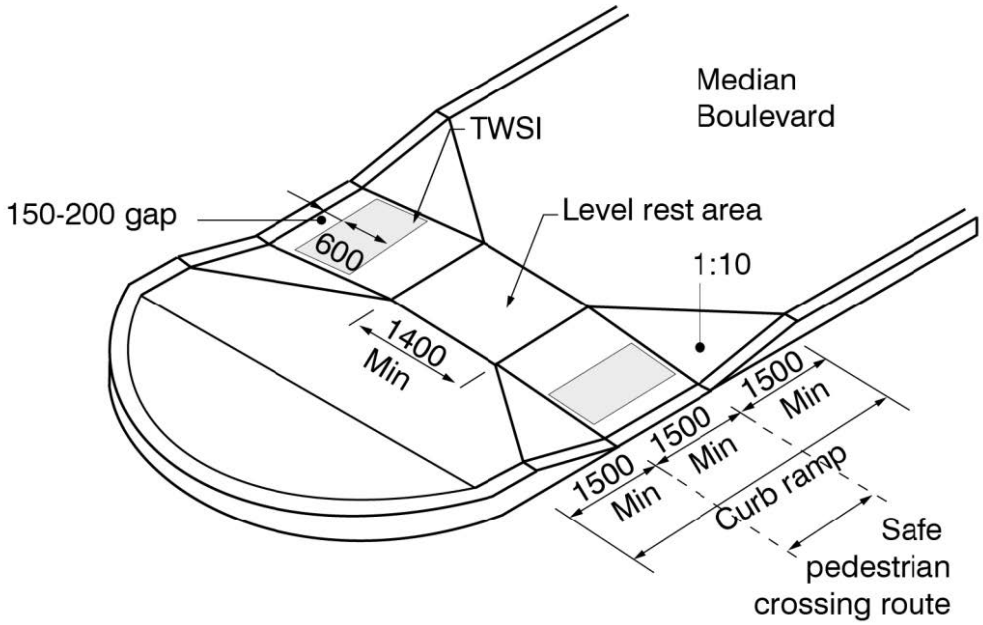
[Diagram 39.C] Standard Curb Ramp



[Diagram 39.D] Alternate Curb Ramp



[Diagram 39.E] Curb Ramp at Narrow Sidewalk



[Diagram 39.F] Curb Ramp at Wide Median Sidewalk Crossing

40. Passenger Loading Zones

Passenger-loading zones must be provided when passengers transfer from vehicles or Para-transit to a pedestrian area. Bus stops and bus shelters are not considered passenger-loading zones.

40.1 Location of Passenger Loading Zones

Passenger Loading Zones must be:

a) Located on an accessible path,
b) Designed with a curb ramp,
c) Removed from the flow of traffic, and
d) As close as possible to the main entrance.

40.2 Access Aisle

1. A min **2020 mm wide x 7000 mm long** access aisle must be provided adjacent and parallel to the vehicle pull up space [Diagrams 40.A and B].
2. Where there is a raised curb around the drop off, a clear path of travel min **1500 mm** wide must connect to an accessible exterior path that meets the criteria in section [38. Exterior Paths] adjacent to the vehicle to provide access to the curb ramp [Diagram 40.B].

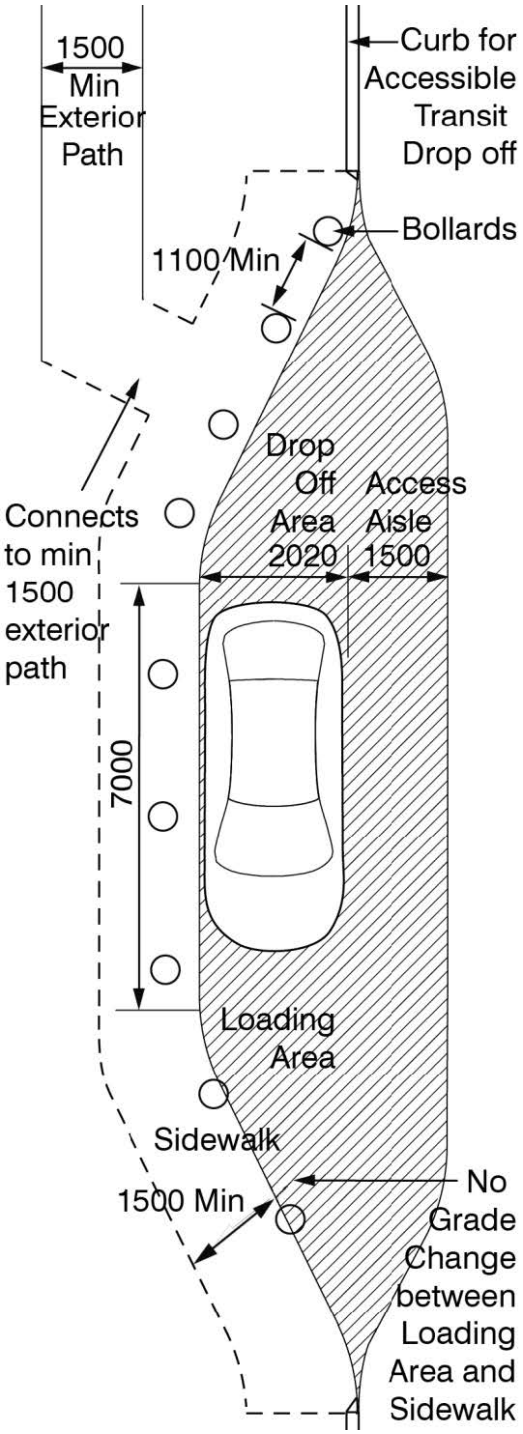
40.3 Height Clearance

1. A min vertical clearance of **3600 mm** is required for the passenger loading zone and the vehicle access path leading to it.

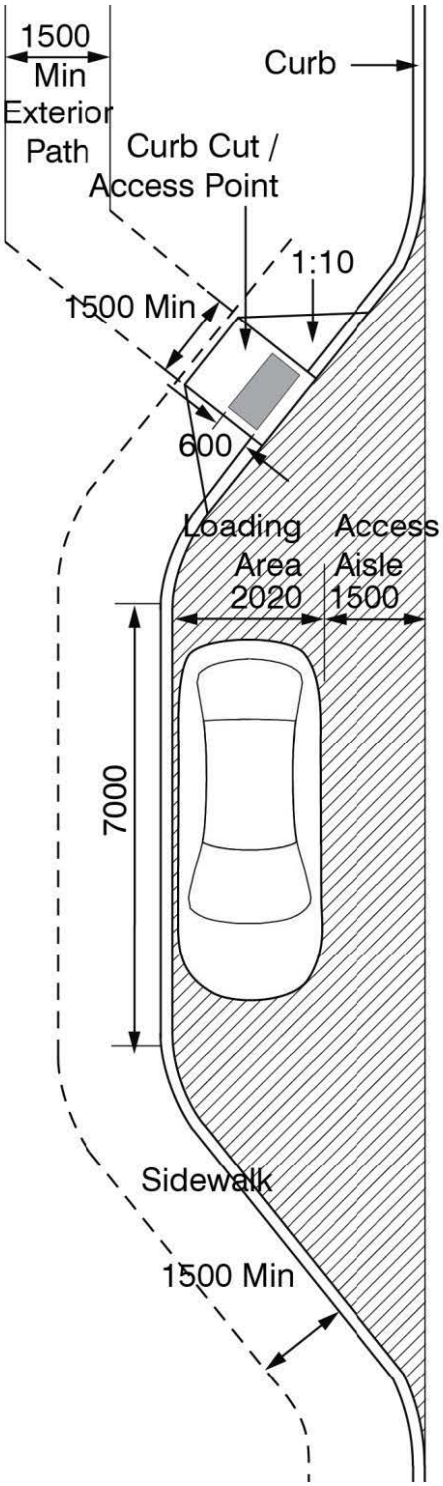
40.4 Additional Requirements

Passenger Loading Zones must also meet the requirements in the following:

a) Section [3. Ground and Floor Surfaces],
b) Section [4. Headroom - Overhanging and Protruding Objects],
c) Section [8. Tactile Walking Surface Indicators (TWSI)],
d) Section [10. Lighting, Light Sources and Glare],
e) Section [11. Signage and Information Systems],
f) Section [12. Materials and Finishes],
g) Section [38. Exterior Paths],
h) Section [39.Curb Ramps], and
i) Section [45 Landscaping and Community Gardens].



[Diagram 40.A] Passenger Loading Zone (no curb)



[Diagram 40.B] Passenger Loading Zone (curb condition)

41. Accessible Parking

There are three types of accessible parking spaces:
Type A Parking: Van Accessible
Type B Parking: Car Accessible
Type C Parking: Courtesy/Limited Mobility and Caregiver Parking

41.1 Dimensions

Accessible parking spaces must be

a) Type A min width **3650 mm** [Diagram 41.A],
b) Type B min width **2700 mm** [Diagram 41.A],
c) Min height clearance **2750 mm** for exterior and **2590 mm** for interior, and
d) Min length of **5700 mm**.

41.2 Accessible Parking Routes

1. Accessible paths must be provided from the accessible building entrance to the accessible parking.
2. Where possible, the path must not enter vehicle traffic and should be as short as possible.
3. Curb ramps must be provided if there is a change in level to the sidewalk or accessible path and must meet the requirements in section [39. Curb Ramps].

41.3 Amount

1. The amount of accessible parking must be **50%** Type A and **50%** Type B. Wherever an uneven amount of parking is required, the remaining spot is permitted to be a Type B parking space. The required number of accessible parking spaces are identified in [Table 41.3]

[Table 41.3] Required Number of Type A and B Parking Spaces

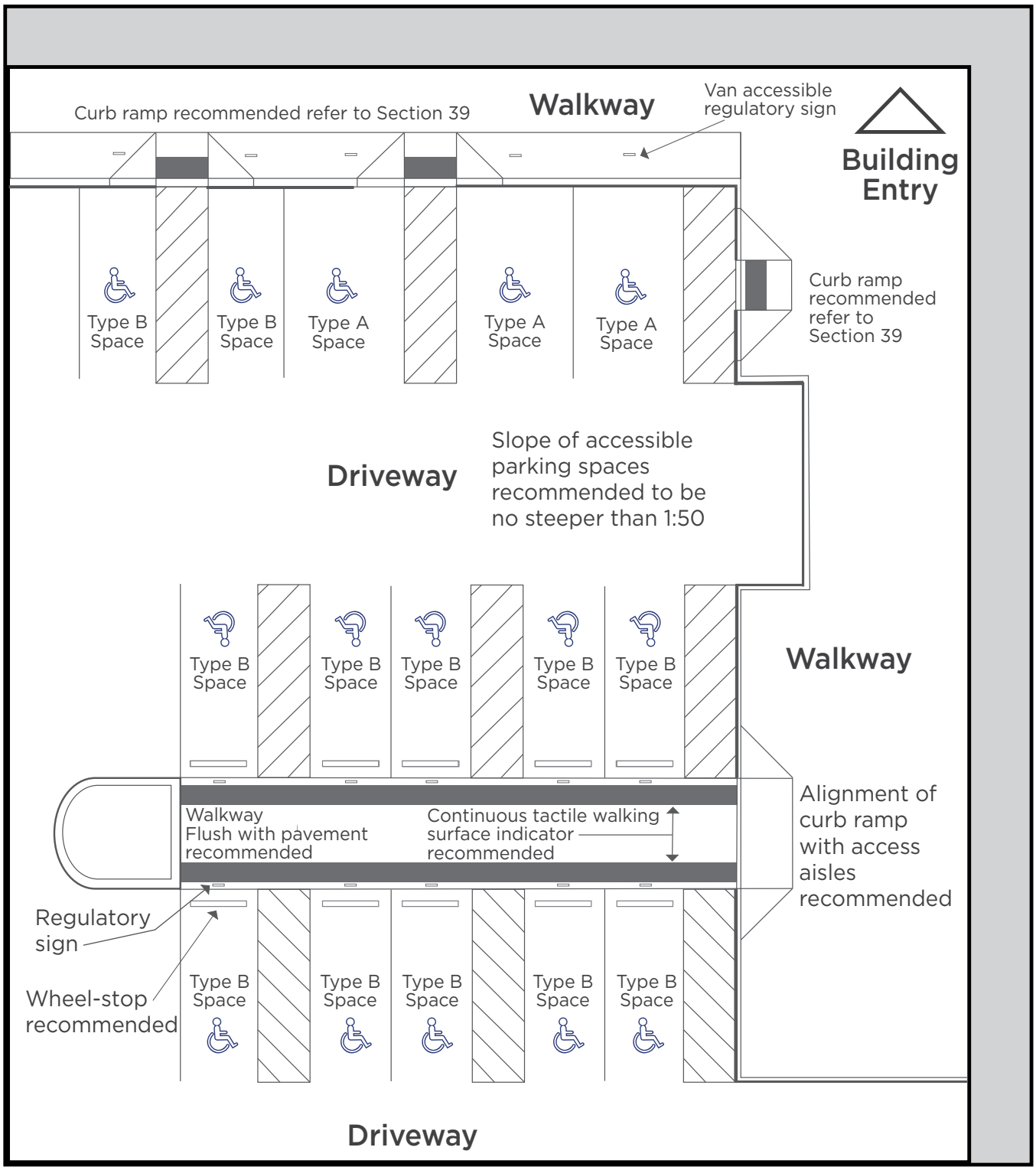
Total Number of Parking Spaces	Amount of Accessible Parking Spaces Required (Type A and B)
Less than 12	**1** Type A
13 to 100	**4%** of total
101 to 200	**3%** of total plus 1
201 to 1000	**2%** of total plus 2
Greater than 1000	**1%** of total plus 11

41.4 Access Aisle Design

1. Access aisles must be:
   a) A min width **1500 mm** [Diagram 41.A],
   b) A min width of **2020 mm** for parallel spaces plus a **1500 mm** access aisle,
   c) Connected to an accessible path and must be clearly marked, and
   d) A full length extension of the parking space it serves.

Better Practice courtesy of the illustrated Technical Guide to the Design of Public Spaces

Design criteria for Access Aisles. Shows 15 accessible parking spaces arranged in 3 rows. Three are type A spaces and the remaining 8 spaces are type B spaces. All show shared access aisles and both the pavement and regulatory signposts. The second and third row of parking are arranged facing each other, separated by a walkway that is flush with the pavement that leads to a depressed curb that transitions to the walkway to the building entrance.



41.5 Parking Surface

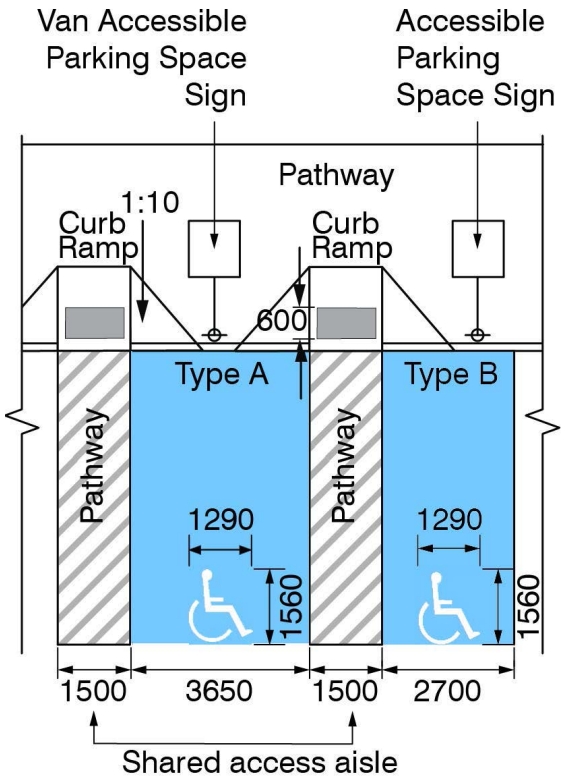
1. Accessible parking spaces, access aisles and the accessible path to the building must:
   a) Be on a firm, stable and slip resistant surfaces and must meet criteria in subsection [3.1 Surface] [3.3 Gratings] [3.4 Finishes and Materials],
   b) Have a running slope max **1** in **20** (**5.0%**),
   c) Have a cross slope max **1** in **50** (**2.0%**), and
   d) Be painted blue with the international symbol of accessibility painted white [Diagram 41.C].

41.6 Accessible Parking Signage

1. Signage must:
   a) Be mounted **1500 mm** to **2500 mm** from centre of sign to ground surface and in front of each accessible parking space, and
   b) Include the International Symbol of Accessibility painted on pavement in white measuring min **1560 mm** by **1290 mm** [Diagram 41.C].
2. Parking lot signage must also meet the requirements in the section [11. Signage and Information Systems].
3. Include parking signage indicating accessible van parking for Type A parking spaces and accessible car parking for Type B parking spaces [Diagram 41.D and E].
4. Include signage describing that misuse could result in fines ranging from $300 to $5,000. [Diagram 41.F Add on for Type A and B]

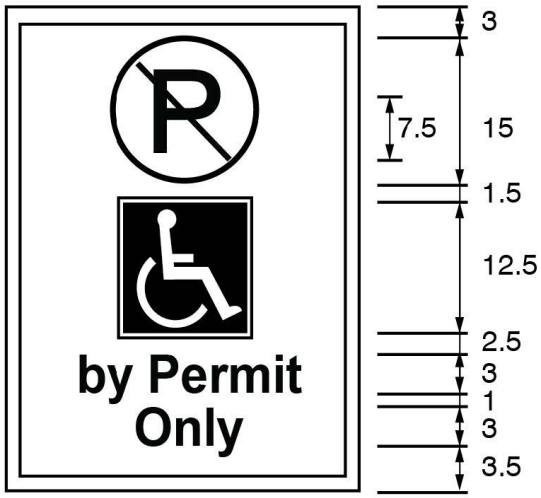
Parking lots must also meet the requirements in the following:

a) Section [3. Ground and Floor Surfaces],
b) Section [4. Headroom — Overhanging and Protruding Objects],
c) Section [8. Tactile Walking Surface Indicators (TWSI)],
d) Section [10. Lighting, Light Sources and Glare],
e) Section [12. Materials and Finishes],
f) Section [38. Exterior Paths], and
g) Section [39. Curb Ramps].



[Diagram 41.C] Type A and B Parking Size Requirements

[Diagram 41.D] Type A Parking Signage



[Diagram 41.E] Type B Parking Signage

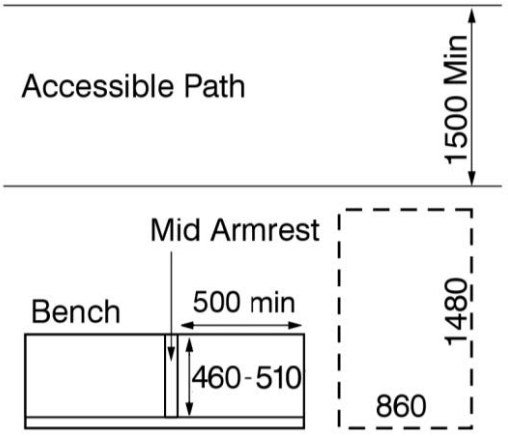
[Diagram 41.F] Add on for Type A and Type B Parking Signage

42. Site Furniture

Site furniture includes, but is not limited to, waste receptacles, light standards, signs, planters, mailboxes, vending machines, picnic tables and any furniture located outside of facilities.

42.1 General

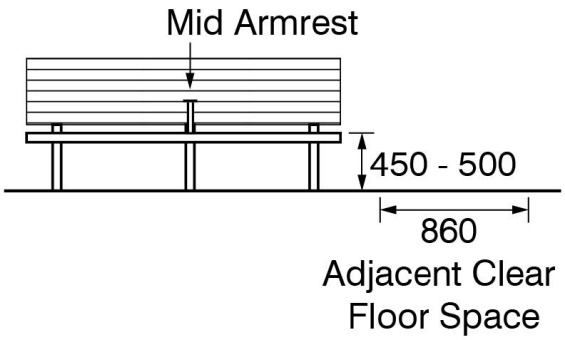
1. Site furniture must be cane-detectable and have colour / tonal contrast from the surrounding environment.
2. Furniture must be securely mounted to firm, stable ground and must meet criteria in section [2. Interior Accessible Paths].
3. Furniture must not reduce the width of an accessible path and must meet criteria in sections [2. Interior Accessible Paths] and [4. Headroom - Overhanging and Protruding Objects].
4. Any operable controls must meet criteria in section [9. Operable Controls and Mechanisms].



[Diagram 42.A] Bench and Adjacent Clear Floor Space

42.2 Benches

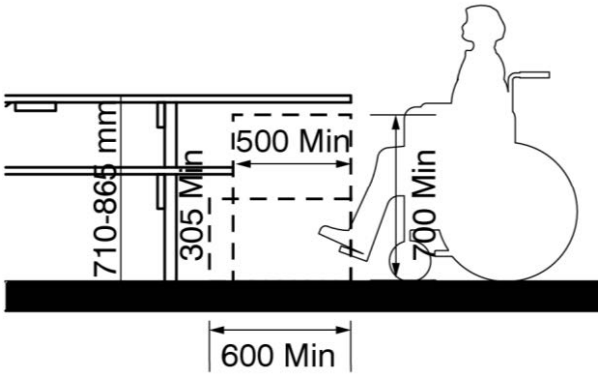
1. **20%** of benches must be accessible with no less than **1**. Accessible benches must be located adjacent to an accessible path and must meet the criteria in section [38. Exterior Paths].
2. Accessible benches must have a clear floor space of **860 mm x 1480 mm** for a mobility device to rest adjacent to the bench. For accessibility, the armless side of the bench must be adjacent to the clear floor space [Diagram 42.A].
3. The seat of a bench must be **450 mm** to **500 mm** from the ground and have a seat dimension between **460** and **510 mm** deep by min **500 mm** wide [Diagram 42.B].
4. Accessible benches must have a back and must vary between having arm rests and being armless.
5. Accessible benches must have colour / tonal contrast from the adjacent ground surface.



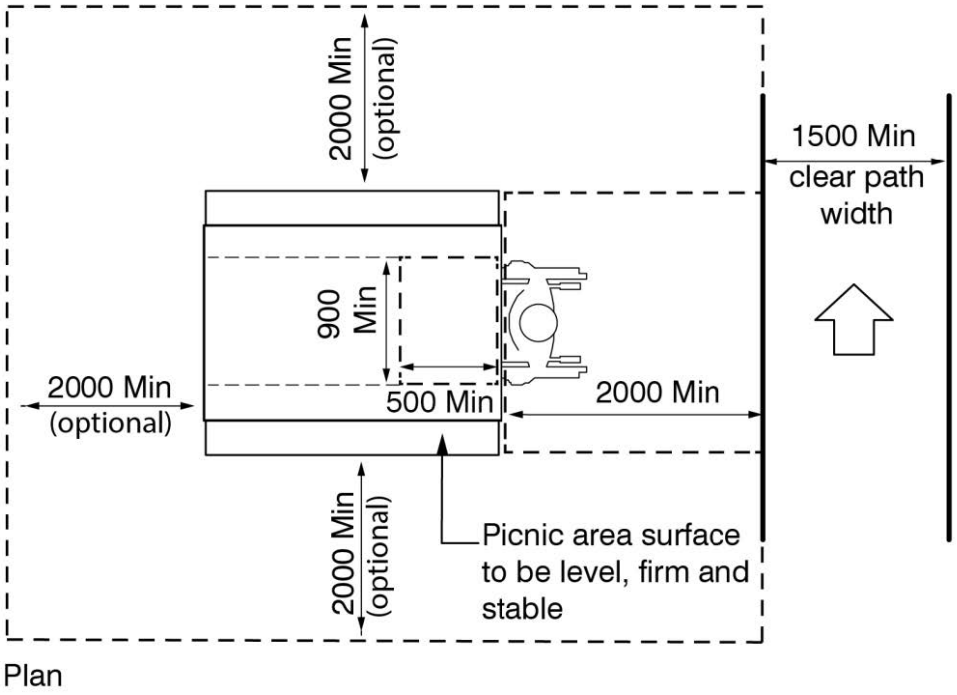
[Diagram 42.B] Accessible Picnic Tables

42.3 Picnic Tables

1. At least **20%** of picnic tables must be accessible, but not less than one for each group of picnic tables.
2. Accessible picnic tables must be located on an accessible path and must meet the criteria in section [38. Exterior Paths].
3. Knee space must be provided under the accessible picnic table and must be min **900 mm** wide, **500 mm** deep and **700 mm** high [Diagram 42.C and D].
4. The picnic tabletop surface must be located between **710 mm** to **865 mm** above the ground surface.
5. Accessible picnic tables must have colour / tonal contrast from the adjacent ground surface.
6. The ground floor surface should extend a min **2000 mm** where accessible space is provided at the picnic table and must meet criteria in section [3. Ground and Floor Surfaces] [Diagram 42.D].



[Diagram 42.C] Accessible Picnic Tables



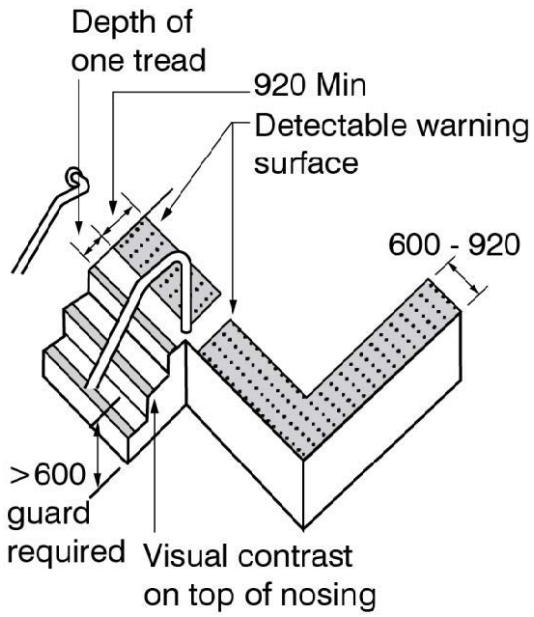
[Diagram 42.D] Clear Floor Surface for an Accessible Picnic Table

43. Exterior Elevated Platforms

Exterior Elevated platforms include, but are not limited to, stage areas, speaker podiums and other raised areas.

43.1 Design

1. Elevated platforms must:
   a) Be located on an accessible path,
   b) Be illuminated to at least **100 lux** and must meet requirements in section [10. Lighting, Light Sources and Glare],
   c) Be sized to safely accommodate mobility devices in compliance with section [1. Space and Reach Requirements], and
   d) Have TWSI as specified in section [8. Tactile Walking Surface Indicators (TWSI)] along the perimeter of open platform edges [Diagram 43.A].
2. Where possible, temporary elevated platforms must meet the requirements above.



[Diagram 43.A] Elevated Platform Requirements

44. Porches, Balconies, Terraces and Patios

Porches, balconies, and terraces must be designed to be accessible to all.

44.1 Design Porches, Balconies, Terraces and Patios

1. Porches, balconies, terraces, and patios must be located on an accessible path and have a min depth of **2500 mm**.
2. Publicly used porches, balconies, and terraces should also be equipped with power door operators to improve access to the space.
3. Porches, balconies, terraces, and patios must meet the requirements in the following sections and subsections: [3. Ground and Floor Surfaces], [3.6 Changes in Level and Thresholds], [13. Entrances], and [38. Exterior Paths].

44.2 Railings and Guards

Guardrails protecting occupants from heights greater than **600 mm** above grade must meet criteria in the OBC. The railing must have colour / tonal contrast with the adjacent floor / ground surface.

44.3 Exterior Seating

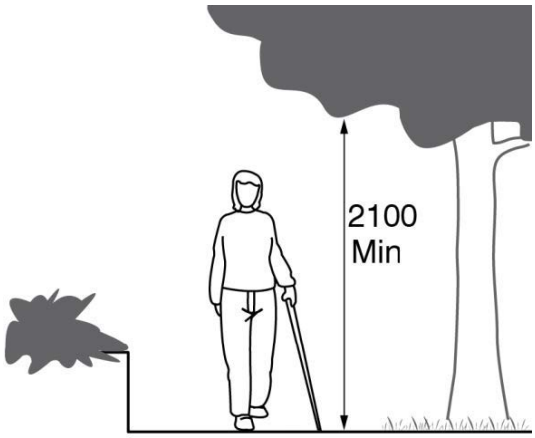
Any site furniture used must meet criteria in section [42. Site Furniture].

45. Landscaping and Community Gardens

Landscape materials must be selected with a variety of users in mind. A variety of fragrances and contrasting colours provide cues to an individual with visual impairment.

45.1 Landscaping

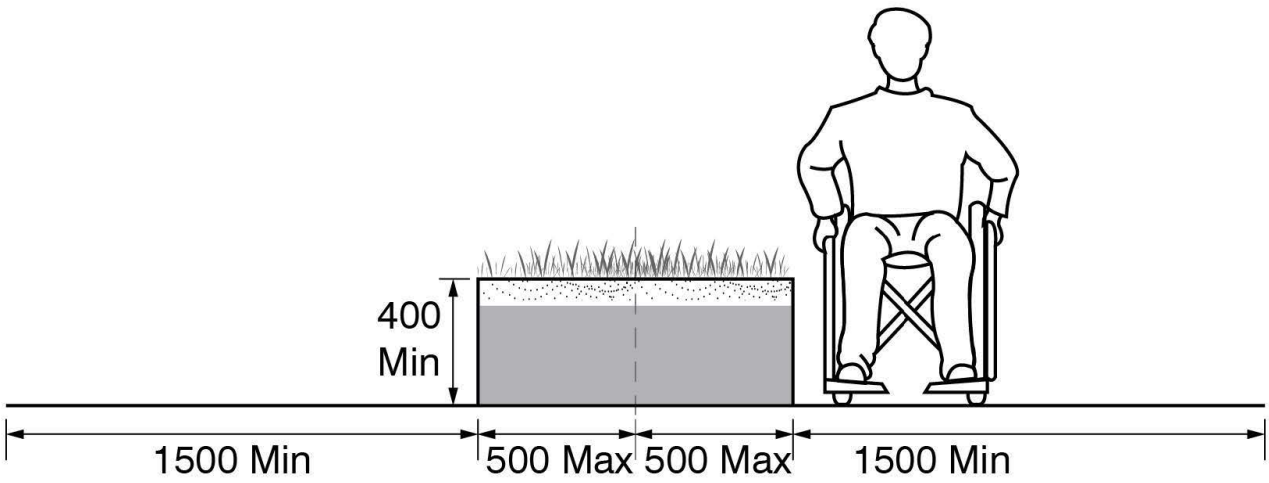
1. In locations where plant beds are on an accessible route, they must be cane detectable and have curbs that are min **75 mm** high.
2. Shrubs and thorns and sharp edges must be planted min **920 mm** away from the accessible path and seating areas.
3. Tree branches along an accessible path must be cut to a min height of **2100 mm** from the ground [Diagram 45.A].
4. Trees that drop large seed pods must not overhang or be positioned near accessible paths.
5. Any paths circulating landscaping must meet the requirements in section [38 Exterior Paths].



[Diagram 45.A] Clearance Height for Branches

45.2 Accessible Plant Beds at Community Gardens

1. **10%** of community garden plots in an area, but not less than one must be accessible.
2. Accessible plant beds must be **1000 mm** wide and **400 mm** AFF [Diagram 45.B and C] and follow the guidelines in sections [1. Space and Reach Requirements] and [38. Exterior Paths].



[Diagram 45.B] Accessible Plant Bed (Elevation)

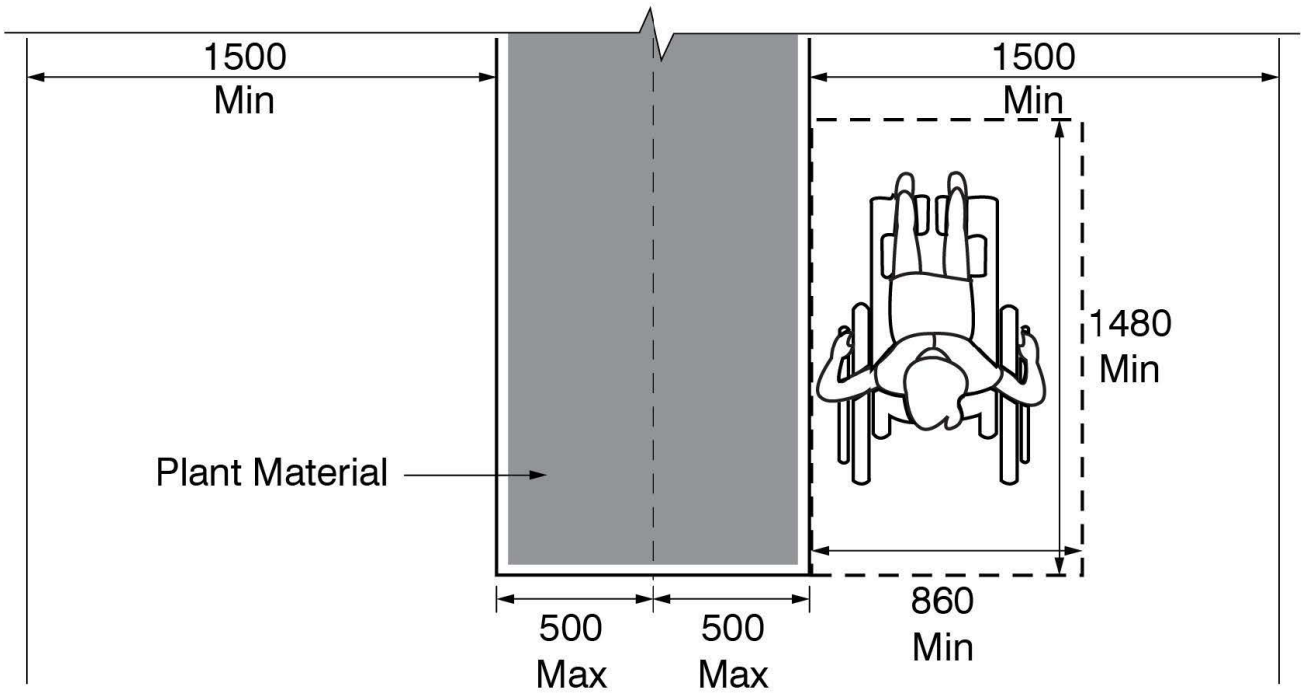


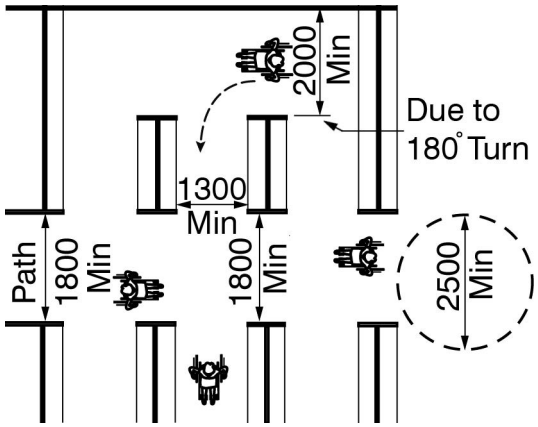
Diagram 45.C] Accessible Plant Bed (Plan)

46. Libraries

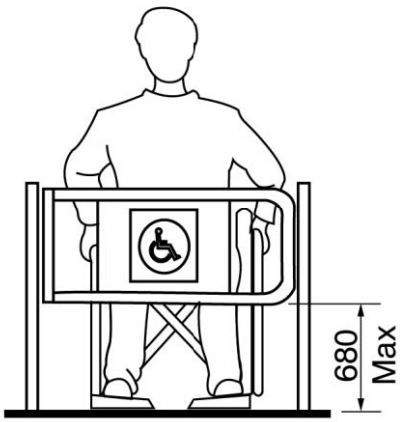
Libraries should provide flexible, accessible spaces for people to read, write, meet and focus.

46.1 Accessible Paths

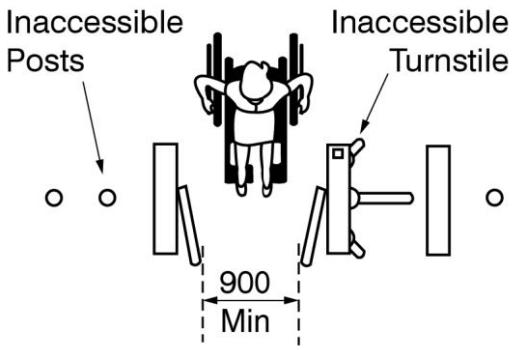
1. Accessible paths to and within the library must meet criteria in sections: [1. Space and Reach Requirements], [2. Interior Accessible Paths], [3. Ground and Floor Surfaces], and [4. Headroom - Overhanging and Protruding Objects].
2. Min of **1800 mm** must be provided for primary paths and card catalogues / computer catalogues.
3. Min of **1300 mm** must be provided between stacks is required [Diagram 46.A].
4. Min of **1100 mm** must be provided between fixed seating, tables, and study carrels.
5. Min of **2000 mm** must be provided wherever **180 degree** turns occur, following the requirements in section [2.1. Path Widths].
6. Security gates must be min **900 mm** wide and meet the requirements in subsection [13.4. Gates] [Diagrams 46.B and C].



[Diagram 46.A] Accessible Paths in Libraries



[Diagram 46.B] Accessible Gate in Elevation



[Diagram 46.C] Accessible Gate in Floor Plan

46.2 Accessible Libraries

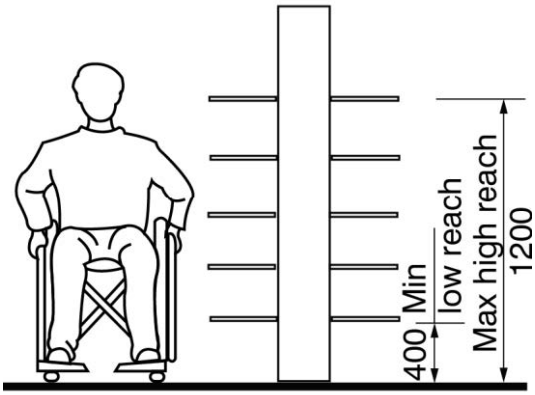
1. **50%** of fixed seating, tables, and study carrels provided must be accessible.(*)
2. One moveable chair must be provided at every information service counter, computer catalogue, or workstation.

46.3 Study Carrels and Work Stations

1. Study carrels and workstations must have:
   a) Max **800 mm** to the height of the surface,
   b) Max **915 mm** of table depth,
   c) Knee clearance of **700 mm tall x 900 mm wide x 500 mm deep**, and
   d) Toe clearance of **350 mm** tall at a min **600 mm** from the front edge of the desk.
2. Ensure any design features available to the user must consider section [1. Space and Reach Requirements].
3. An electrical outlet must be provided within the study carrels and must be at min **400 mm** above the study carrel desktop.

46.4 Shelving

50% of shelving must be located **400 mm** to **1200 mm** AFF [Diagram 46.D].



[Diagram 46.D] Accessible Shelving in Libraries

46.5 Book Drop Slots

Book drop slots must:

a) Be located on an accessible path,
b) Have clear floor space of **2500 mm** by **2500 mm**, (*)
c) Be operable using one hand, and
d) Be located **900 mm** to **1100 mm** AFF.

46.6 Lighting Requirements

Lighting must meet min requirements in section [10. Lighting, Light Sources and Glare] and the requirements in [Table 46.6].

[Table 46.6] Minimum Lighting Levels Required in Libraries

Location	Lighting Level (Lux)
Stacks	200
Study Carrels and Computer Workstations	300
Soft Seating Space	200
Service Counters and Help Desks	500
Meeting Spaces	200

46.7 Acoustics

1. Acoustic quality must be designed to minimize unnecessary background noise to allow for comprehension by persons with limited hearing.
2. Where CD's, tapes, talking books etc. are available as part of the library resource materials, or for loan purposes, a separate space should be provided for reviewing this material without disturbing other library users.

46.8 Additional Requirements

1. Libraries must also meet the requirements in the following:
   a) Section [1. Space and Reach Requirements],
   b) Section [2. Interior Accessible Paths],
   c) Section [3. Ground and Floor Surfaces],
   d) Section [4. Headroom - Overhanging and Protruding Objects],
   e) Section [9. Operable Controls and Mechanisms],
   f) Section [10. Lighting, Light Sources and Glare],
   g) Section [12. Materials and Finishes],
   h) Section [16. Windows and Glazing], and
   i) Section [18. Service Counters and Related Areas].

47. Public Swimming Pools, Spas and Saunas

Ensure public swimming pools and public spas meet the requirements of the current OBC.

47.1 Access

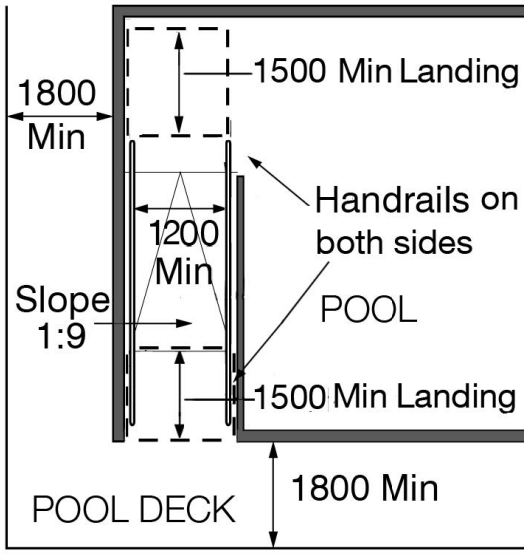
1. Access to the public pool deck and public spa must be provided by means of a primary accessible path through the change rooms and onto to the pool deck. The path must meet requirements of section [2. Interior Accessible Paths].
2. Access into the pool must be provided either by a ramp or a pool lift meeting the requirements of the current Ontario Building Code.
3. Access into the public spa must be provided by transfer walls and accessible deck or by means of a pool lift [Diagram 47.B to D].

47.2 Pool Ramp

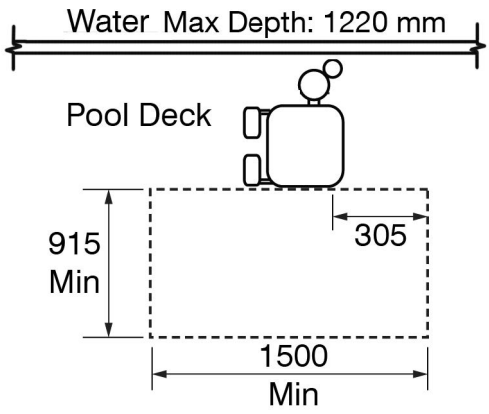
1. Where provided, a submerged pool ramp must meet the requirements in OBC Article 3.11.3.3., and have:
   a) Min **1100 mm** clear width,
   b) Min **1300 mm** clear width where landings are **90** or **180 degrees**,
   c) A landing at the top and bottom that is as wide as the ramp and a min of **1500 mm** long, and
   d) Max **1** in **12** slope for the non-submerged portion and max **1** in **9** slope for the submerged portion. [Diagram 47.A].
2. Submerged portions of the ramp and curbs must have colour / tonal contrast from the pool walls and bottom.

47.3 Ramp Handrails

1. Handrails must be provided on both sides of the pool ramp and must:
   a) Be **865 mm** to **965 mm** above ramp surface,
   b) Extend **300 mm** beyond top and bottom of surface, and
   c) Have colour / tonal contrast.



[Diagram 47.A] Submerged Pool Ramp



[Diagram 47.B] Pool Lift

47.4 Pool Deck

1. The pool perimeter must be defined by textural and have colour / tonal contrast.
2. Steps must have colour / tonal contrast strip that is **50 mm** wide, at both the riser and the tread.
3. Any ceiling/roof protrusions greater than **2100 mm** above floor must meet criteria in section [4. Headroom - Overhanging and Protruding Objects].
4. The pool deck must:
   a) Be firm and slip-resistant,
   b) Be non-abrasive and easy to clean, and
   c) Have adequate drainage.
5. Diving boards, lane markers, starting blocks, life guard chairs, slides and other pool related structures must have colour / tonal contrast from their surrounding environment and not create a tripping hazard.

47.5 Pool Curbs

1. Pool curbs must:
   a) Be **200 mm** to **400 mm** in height,
   b) Have rounded edges, and
   c) Have a coved base.
2. Raised nosing should be provided at the top to serve as a finger hold for a bather in the water.
3. Pool curbs must have colour / tonal contrast from the pool deck surface and the pool wall.
4. Pool depth markings must be identified with dark background and white / light letters with appropriate colour / tonal contrast.

47.6 Pool Lifts

1. Pool lifts can be provided where the water depth is not greater than **1220 mm**.
2. Pool lifts must be capable of independent operation and must:
   a) Have a min capacity **135 kg**,
   b) Have min static load of **1.5** times the rated load, and
   c) Have the centreline of the seat be located over the deck and a min of **400 mm** from the edge of the pool when in the raised position [Diagram 47.B].
3. The clear deck space located parallel with the seat and on the side of the seat opposite the water must be at least **915 mm** wide and extend forward min **1500 mm** from a line located **305 mm** behind the edge of the seat.

47.7 Signage

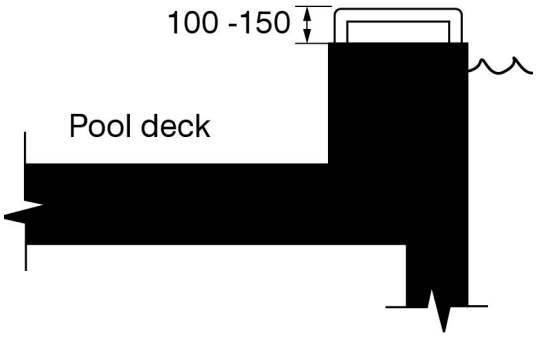
1. “Caution- No Diving” signage must have lettering **150 mm** tall.
2. Signage must comply with section [11. Signage and Information Systems]

47.8 Wading Pools

Wading pools must be safe and gradual with a slope of **1** in **20** so that a child with a disability can be assisted into the water easily and/or use a mobility device to enter.

47.9 Public Spa Accessible Entry

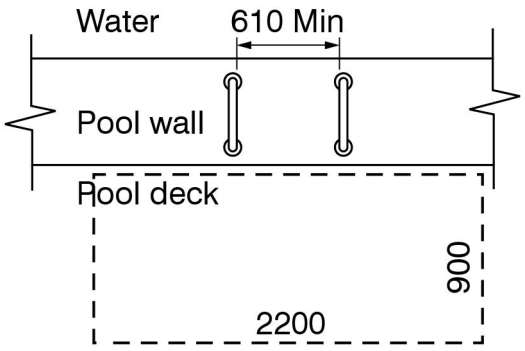
1. A transfer wall from the spa deck into the spa must have two grab bars that are perpendicular to the pool and extend the full depth of the transfer wall [Diagram 47.C and D].
2. The transfer grab bars must be located **100 mm** to **150 mm** from the top of the transfer wall, with a min **610 mm** clearance between the grab bars [Diagram 47.C and D]. The grab bars that meet the criteria in subsection [21.1. Grab Bar Dimensions].
3. The deck area required to make a lateral transfer to the transfer wall must be located on an accessible path but not protrude into the accessible path.
4. A min **900 mm x 2200 mm** clear deck space must be provided with a max **1** in **50** (**2%**) slope at the base of the transfer wall surface [Diagram 47.D].



[Diagram 47.C] Transfer Wall Sectional View

47.10 Saunas

1. Saunas must:
   a) Be connected to an accessible path and meet the requirements of section [2. Interior Accessible Paths],
   b) Have a door that swings outwards meeting the requirements in section [14. Doors],
   c) Have a threshold at the door that is flush with the remainder of the floor,
   d) Have a min **2500 mm** turning circle within the sauna,
   e) Provide a clear floor space of **860 mm** by **1480 mm** within the seating area,
   f) Have benches with smooth edges that have colour / tonal contrast to the adjacent surroundings, and
   g) Have colour / tonal contrast between the walls and floor.
2. At least one bench within the sauna must be accessible and:
   a) Be between **610 mm** to **762 mm** deep,
   b) Be a min **1100 mm** wide,
   c) Be **430 mm** to **482 mm** AFF,
   d) Have a backrest,
   e) Have an armrest within the middle of the bench, and
   f) Have an adjacent clear floor space of **860 mm** by **1480 mm**.



[Diagram 47.D] Transfer Wall Plan View

48. Arenas

Every person should have equal access to participate in recreational sporting activities.

48.1 Accessible Paths

1. Arenas must be provided with an accessible primary path to all main activities with a min clear width of **1800 mm**.(*)
2. The threshold between the rink and the arena floor surface can be max **13 mm** beveled at a slope of **1** in **2**.

48.2 Additional Requirements

1. Accessible change rooms - **10%** of change rooms but no less than **1** type of each change room (team change room, family change room, and referee change room) must be accessible and meet the requirements in subsection [28.2. Accessible Dressing Stalls].
2. Accessible change rooms must include universal washrooms facilities and meet the requirements in section [24. Universal Washroom].
3. Arenas must meet the requirements in:
   a) Section [1. Space and Reach Requirements],
   b) Section [2. Interior Accessible Paths],
   c) Section [3. Ground and Floor Surfaces],
   d) Section [4. Headroom - Overhanging and Protruding Objects],
   e) Section [5. Ramps],
   f) Section [6. Stairs],
   g) Section [8. Tactile Walking Surface Indicators (TWSI)],
   h) Section [9. Operable Controls and Mechanisms],
   i) Section [10. Lighting, Light Sources and Glare],
   j) Section [12. Materials and Finishes],
   k) Section [13. Entrances],
   l) Section [16. Windows and Glazing],
   m) Section [18. Service Counters and Related Areas], and
   n) Section [33. Accessible and Adaptable Fixed Seating].

Accessible picnic table at Old Mill Park in Lindsay

Renovation Permissions

Renovation Permissions

There are two types of renovations that can occur to an existing building: a **basic renovation** and an **extensive renovation**.

The Ontario Building Code (OBC) describes a basic renovation as construction that is carried out to maintain the existing performance level of all or part of an existing building by the reuse, relocation, or extension of the same or similar materials or components.

A basic renovation retains the existing character, structural uniqueness, heritage value or aesthetic appearance of all or part of a building and does not adversely affect the fire safety, structural adequacy of the building, nor does it create an unhealthy environment in the building.

An extensive renovation is described as the substantial removal of interior walls, ceilings, floor or roof assemblies in an existing building, and new walls, ceilings or floor assemblies are installed.

Renovation permissions are intended to apply to both basic and extensive renovations of existing buildings, where compliance with **Design Standards** in this document cannot be achieved.

It is not acceptable to use the **renovation permissions** unless it is an addition to an existing building to accommodate universal design access to the building or unless extenuation circumstances prevail.

It will be the responsibility of the Architects/ Project Leads to note any design departures from the Design Standards section. Any departure must be carefully assessed to determine the validity of the application, must be noted, and require consultation with the Kawartha Lakes Accessibility Advisory Committee. The highlighted departure must be documented, along with committee consultation notes, and kept with the building file. Final approval of the deviation rests with the Building Services Division.

R-2.1(1) Interior Accessible Path Widths

In renovations of existing buildings, where technically infeasible to provide an accessible path to the entire building, it is permitted to provide an accessible path only to main areas required to be accessible.

R-2.1(2) Interior Accessible Path Width

Where accessible path widths cannot be accommodated, the path of travel is permitted to be reduced to minimum **1100 mm** wide. This applies to primary and secondary paths and **90** and **180 degree** turns.

R-2.2 Interior Accessible Path Slope

Where a running slope of **1:25** (**4%**) is technically infeasible, a running slope of **1:20** (**5%**) is permitted.

R-5.2 Ramp Slopes

In locations where a **1** in **20** (**5%**) slope cannot be achieved, the maximum running slope for a ramp is permitted to be reduced to the OBC requirement but should be as gentle as possible.

R-5.5 Ramp Landing Design

In locations where it is technically infeasible to provide **2500 mm x 2500 mm** landings at the top, bottom, and at **180 degree** turns, the landing size is permitted to be reduced to not less than **1670 mm x 1670 mm**.

R-5.6 Doors on Ramp Landings

In locations where it is technically infeasible to provide **2500 mm x 2500 mm** landings where doors swing onto the landing, the landing size is permitted to be reduced to **1670 mm x 1670 mm** with an additional **600 mm** beyond the latch side of the door opening if the door opens onto the ramp or an additional **300 mm** beyond the latch side of the door when the door opens away from the ramp.

R-6.1 Treads and Risers

Rise and run on existing stairs or where technically infeasible can meet OBC requirements.

R-10.3 Illumination Levels
In locations where it is technically infeasible to provide **100 lux**, exception may be provided. Consultation with the City of Kawartha Lakes Building Division is required prior to moving forward with reduced lighting levels.

R-13.1 Entrance Requirements
Where it is technically infeasible to make the **100%** of the main entrances accessible, **50%** of the main entrances are to be accessible.

R-13.6 Other Access Points
In locations where it is technically infeasible to provide an accessible path leading away from building exits, exemption may be provided. Approval by the City of Kawartha Lakes Building Division is required.

R-14.1 Door Specifications
Where it is technically infeasible to accommodate a clear door width of **900 mm**, the clear door width is permitted to be reduced to minimum **860 mm**.

R-14.4 Vision Panels
Where an existing vision panel is less than **75 mm** wide but still extends to **760 mm** max AFF, the door is permitted to remain.

R-14.9 Doors in Series
Where technically infeasible to provide **2500 mm** between doors in series, the clear space between doors can be reduced to **1500 mm** provided that power door operators are installed on each door that forms part of the series.

R-16.2 Sill Height
In locations where the existing windows and/or glazed screens are not being replaced and are located more than **760 mm** AFF, they are permitted to remain in their existing location.

R-17.2 Elevator Doors
Where the existing elevator door provides a clear width less than **915 mm** but not less than **860 mm** wide and it is technically infeasible to modify, it is permitted to remain.

R-17.5 Elevator Cab Design
Where an existing elevator is less than the required cab size and it is technically infeasible to modify, it is permitted to remain.

R-17.7 Manoeuvering Space in Elevator Lobbies
Where technically infeasible to provide **2500 mm x 2500 mm** in front of elevators, the clear floor space is permitted to be maintained provided it is not less than **1100 mm**.

R-20.2 (A) Accessible Water Closet Stall Door
Where it is technically infeasible to provide an accessible water closet stall door of **900 mm** clear width, the door is permitted to be no less than **860 mm** in clear width.

R-20.2 (B) Accessible Water Closet Stall Door
In locations where an outward swing door is technically infeasible, an inward swing door is permitted provided that a clear floor area of **820 mm x 1440 mm** is provided within the stall to permit the door to close without interfering with the individual using a mobility device.

R-21.2 Water Closet Grab Bars
In existing conditions where the water closet is not close to an adjacent wall, a fold down grab bar can be provided in lieu of an L-shaped grab bar. The fold down grab bar must be mounted **750 mm** AFF on the wall behind the water closet, **390 mm** to **410 mm** from the centre line of the water closet.

R-21.4 Urinal Grab Bars
Where it is technically infeasible to provide vertical grab bars on either side of the urinal, a horizontal grab bar above the urinal mounted max **1200 mm** can be installed.

R-25.2 Shower Accessories and Controls
The use of two fixed-height shower heads is permitted in facilities subjected to vandalism. Height of the higher shower head must be **1825 mm**, and lower shower head must be max **1300 mm**.

Where it is technically infeasible to recess a soap holder in an existing shower, a soap holder projecting max **100 mm** from the wall is permitted to remain.

R-28.1 Amount of Accessible Dressing Stalls
In existing facilities where it is technically infeasible to provide accessible dressing stalls, at least one universal change room must be provided in close proximity to change rooms.

R-28.3 Dressing Room Bench
Where it is technically infeasible to provide a bench that is **1830 mm** long, the bench may be reduced to **800 mm** long.

R-29.1(1) Kitchen Design
In existing facilities where it is technically infeasible to provide a clear width of **1800 mm** in a kitchen, the clear width is permitted to be reduced to no less than **1100 mm** wide.

R-29.1(2) Kitchen Design
In existing facilities where it is technically infeasible to provide a clear turning circle of **2500 mm**, the clear turning circle is permitted to be reduced to **1500 mm**.

R-30.4 Knee and Toe Clearance for Drinking Fountains
Existing drinking fountains not provided with clear knee space are permitted to remain, provided that they meet the minimum requirements for a side approach.

R-31.5 Public Telephone Shelf
In existing facilities where the shelf and phone cannot be inset into the wall, there must be cane detection around the phone and shelf that it ensures it is cane detectable at max **680 mm** AFF. This can be provided by guards similar to those outlined in subsection [14.6 Guards for Doors] or by the provision of walls.

R-33.5 (1) (A) and (B) Accessible Seating
In existing facilities where it is technically infeasible to provide **920 mm** wide x **1525 mm** long or **920 mm** wide x **1480 mm** long, the existing condition should be reviewed with the City of Kawartha Lakes Building Division to determine if the existing condition is acceptable.

R-33.5 (2) Accessible Seating
Where technically infeasible to provide a **2500 mm** clear turning circle behind an accessible seat, the clear floor space can be reduced to **1500 mm** clear turning circle, behind the accessible seat.

R-34.1 and 34.3 Meeting Room
In locations where it is technically infeasible to provide **2500 mm x 2500 mm** at main access points the size is permitted to be reduced to **1500 mm x 1500 mm**.

R-35.5 (D) Area of Refuge
Where it is technically infeasible to provide a fire separation having a fire-resistance rating at least equal to that required for an exit, the area of refuge can be smoke protected.

R-38.4 (1) and (2) Path Slope
In locations where a **1:20** (**5%**) slope cannot be achieved, the max running slope is permitted to be reduced to the AODA Design of Public Spaces Standard, but should be as gentle as possible.

R-46.2 Accessible Libraries
Where **50%** of the furniture and fixtures cannot be accessible, at least **10%** but no less than one of each fixed seating, tables, study carrels, and checkout areas must be accessible. At least **50%** of computer catalogues must be accessible.

R-46.5 Book Drop Slots
In locations where it is technically infeasible to provide **2500 mm x 2500 mm** at book drop slots the size is permitted to be reduced to **1500 mm x 1500 mm**

R-48.1 (1) Accessible Paths
In locations where it is technically infeasible to provide a min clear width of **1800 mm**, the clear width is permitted to be reduced to no less than **1500 mm** wide.

Feedback Form

The City of Kawartha Lakes would like to receive comments and information related to proposed changes to the Accessibility Design Standards.

Please include section referencing, revised wording and your reasons for the proposed change.

Submitted by:

Name: _____

Company/Organization: _____

Phone Number: _____

Address: _____

Email: _____

Proposed Changes:

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_____

Thank you for your feedback! You have 3 options to submit your proposed changes:

Click the "Submit Now" button

Submit Now

or print and mail to:
IDEA People Partner
C/O People Services
28 Francis Street
Lindsay ON, K9V 5R8

or email to:
accessibility@city.kawarthalakes.on.ca