CAN-ASC-2.1

Standard on outdoor spaces
Public Review Draft

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Preface

This the first edition of Standard on outdoor spaces.

This Standard was prepared by the Technical Committee on Outdoor Spaces through an accredited standards development process. The Technical Committee that developed this Standard was comprised of diverse stakeholder groups that all have an interest in providing accessible outdoor spaces. This Standard has been created to help designers, builders, policy makers, and other stakeholders involved in the development of built and natural outdoor spaces.

Diverse people with disabilities contributed their expertise and lived experiences in these stakeholder groups. This supports the key principle of “Nothing Without Us,” an accessibility strategy designed to prepare the public service to lead by example and become a model of accessibility for others, not just for people with disabilities but for all other marginalized groups. People with disabilities must be involved in decision-making that has an impact on their lives and the environments around them. This aligns with the sixth principle of the *Accessible Canada Act*.

By ratifying the United Nations’ *Convention on the Rights of Persons with Disabilities* in 2010, the Government of Canada recognizes the importance of promoting, protecting, and upholding the human rights of persons with disabilities to participate fully in their communities.

While this Standard focuses on accessibility as it pertains to people with disabilities, it respects and recognizes that all people of diverse abilities, ages, and populations, including children, women, Indigenous Peoples, racialized people, people of colour, gender-diverse persons (LGBTQ2IAA+), and those living in poverty can experience additional barriers and disparities in participating fully in their communities.

It is recognized that in addition to the requirements in this Standard, safety standards would also need to be met.

Notes:

1) *Use of the singular does not exclude the plural (and vice versa) when the sense allows.*

2) *Although the intended primary application of this Standard is stated in its Scope, it is important to note that it remains the responsibility of the users of the Standard to judge its suitability for their particular purpose.*

3) *This Standard was developed by consensus, which is defined by Accessibility Standards Canada as general agreement characterized by the absence of sustained opposition to substantial issues by a concerned interest, and by a process that takes into account the views of all parties concerned, and reconciles any conflicting arguments. It is consistent with this definition that a member may be included in the Technical Committee list and yet not be in full agreement with all clauses of this Standard.*

4) *To submit a request for interpretation of this Standard, please send the following information to Info.Accessibility.Standards-Normes.Accessibilite.Info@hrsdc-rhdcc.gc.ca and include "Request for interpretation" in the subject line:*

   a) *define the problem, making reference to the specific clause, and, where appropriate, include an illustrative sketch;*

   b) *provide an explanation of circumstances surrounding the actual field condition; and*

   c) *where possible, phrase the request in such a way that a specific "yes" or "no" answer will address the issue.*

   Committee interpretations are processed in accordance with Accessibility Standards Canada documents governing standards development.

5) *This Standard is subject to review within four years from the date of publication. Suggestions for its improvement will be referred to the appropriate committee. To submit a proposal for change, please send the following information to Info.Accessibility.Standards-Normes.Accessibilite.Info@hrsdc-rhdcc.gc.ca and include "Proposal for change" in the subject line:*

   a) *standard designation (number);*

b) *relevant clause, table, and/or figure number;*

c) *wording of the proposed change; and*

d) *rationale for the change.*

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1 Introduction

1.1 Intended audience

This Standard provides information on spaces that are universally designed, accessible, inclusive, barrier-free, and safe for a wide array of people with different disabilities. It promotes universal accessibility, a principle that ensures no one is left behind and provides all users with a safe and convenient experience.

This Standard is intended for federally regulated entities. Lands that are federally managed and facilities located on those lands are also expected to comply with this Standard regardless of land or facility ownership. Lands jointly managed by federal and other agencies should not be exempt from this expectation.

This Standard may also be used in the design of provincial, municipal, and private outdoor spaces.

This Standard is intended to be used in consultation with persons with disabilities.

1.2 Design principles

This Standard provides a description of the five design principles that should be taken into consideration during the site planning process for any outdoor space, which can include all types of land uses, site sizes, and landforms:

a) context;

b) identity;

c) user experience;

d) movement; and

e) lifespan.

See Clause 5 for definitions and criteria that should be addressed when applying these design principles during the site planning process.

Note: *See Annex B for information on how these design principles were developed.*

2 Scope

2.1 General

This Standard applies to the maintenance, design, construction, alteration, reconstruction, and use of outdoor spaces.

Examples of outdoor spaces include but are not limited to

a) recreational trails;

b) streets, roadways, sidewalks, and pedestrian crossings;

c) campgrounds;

d) outdoor public eating areas;

e) outdoor play spaces, playgrounds, sports fields, and classrooms;

f) exterior paths of travel, boardwalks, and beach access routes;

g) accessible parking areas;

h) obtaining services (e.g., service counters, ticket booths);

i) ramps and curb ramps;

j) transit facilities;

k) viewing platforms;

l) docks/boat access; and

m) temporary surfaces for construction.

This Standard also includes those structures that permit and enhance the use of those outdoor spaces, such as kiosks, transit shelters, and maintenance sheds/workshops.

Any exceptions or exclusions will be referenced in Clause 2.3 and throughout the Standard.

2.2 Inclusions

This Standard applies to outdoor spaces and lands administered by organizations, including but not limited to

a) national parks;

b) marine parks and marine protected areas;

c) Parliamentary bodies, including

   i) the Senate;

   ii) the House of Commons;

   iii) the Library of Parliament;

   iv) office of the Senate Ethics Officer;

   v) office of the Conflict of Interest and Ethics Commissioner; and

   vi) the Parliamentary Protective Service;

d) the office of the Parliamentary Budget Officer;

e) federal courts and tribunals;

f) the Government of Canada, including government departments, agencies, and Crown corporations;

g) the Canadian Armed Forces and the Royal Canadian Mounted Police (RCMP), taking into account certain job needs (e.g., being physically able to do the job); and

h) private sector bodies under federal rule, including organizations in

   i) the federal transportation network;

ii) the broadcasting and telecommunications sectors; and

iii) the banking sector.

2.3 Exemptions

2.3.1 General

Except as otherwise stated in this Standard, all newly constructed or redeveloped outdoor spaces, facilities, and areas undergoing major renovation are expected to comply with this Standard.

2.3.2 Natural, cultural, or historic significance

Natural, cultural, or historic significance should be preserved. Except as permitted in Clause 2.3.4 and as provided in Clause 2.3.5, alternate solutions may be used where compliance with this Standard cannot be achieved due to impacts on the natural, cultural, or historic significance of a protected facility or environment.

Note: *For example, a recreational trail in an environmentally sensitive area is exempt from providing accessibility features if it can be demonstrated that providing those features would have a negative impact on the sensitive or protected aspect of the environment.*

2.3.3 Impacts on continued use of the outdoor space

Except as permitted in Clause 2.3.4 and as provided in Clause 2.3.5, alternate solutions may be used where compliance with this Standard cannot be achieved due to impacts on the continued use of the facility or environment.

2.3.4 Health and safety

Except as provided in Clause 2.3.5, alternate solutions may be used where compliance with this Standard cannot be achieved while maintaining government health and safety standards.

No exemption to compliance with this Standard is permitted for facilities and environments with life-saving functions (e.g., emergency lighting, alarms, notification systems, egress routes, signage).

2.3.5 Partial exemption

When full compliance with this Standard cannot be achieved without impacting the site's natural, cultural, or historic significance (see Clause 2.3.2); continued use of the facility or environment (see Clause 2.3.3); or the site's health and safety (see Clause 2.3.4), the site is expected to comply with this Standard to the greatest extent possible.

As much as possible, the minimum exemption will be implemented in the form of an alternate solution that provides, to the greatest extent possible, the same user experience. In those cases, the rationale for the exemption and technical information supporting the exemption will be documented in writing and made available to the public.

2.3.6 Areas not accessible to the public

Areas that are not open to the public (e.g., employee-only areas) are expected to comply with this Standard. Exceptions to this include

a) crawlspaces;

b) catwalks;

c) elevator rooms;

d) utility vaults; and

e) other areas that are not normally occupied on a daily basis by people.

2.4 Language and terminology

2.4.1 Language

Accessibility Standards Canada models the language used in the *Accessible Canada Act* and *CRPD* by using person-first language. Careful selection of language when referring to a group of people is vital as the proper use of language conveys respect, dignity, and value while moving away from labelling, stereotyping, and discrimination.

2.4.2 Terminology

In this document, "shall" is used to express a requirement, i.e., a provision that the user is obliged to satisfy to comply with the

requirements set out in the document; “should” is used to express a recommendation or that which is advised but not required; and “may” is used to express an option or that which is permissible within the limits of the document.

Notes accompanying clauses do not include requirements or alternative requirements; the purpose of a note accompanying a clause is to separate from the text explanatory or informative material.

Notes to tables and figures are considered part of the table or figure and may be written as requirements.

Annexes are designed normative (mandatory) or informative (non-mandatory) to define their application.

2.5 Measurements

SI units are used in this Standard with most measurements provided in millimetres (mm).

3 Reference publications

CSA Group (Canadian Standards Association)

CSA B651:23

Accessible design for the built environment

CSA Z614:20

Children’s playground equipment and surfacing

Government of Canada

Accessible Canada Act (S.C. 2019, c. 10)

ISO (International Organization for Standardization)

ISO 7001:2007 (R2013)

Graphical symbols — Public information symbols

United Nations

Convention on the Rights of Persons with Disabilities, 2010

World Wide Web Consortium

Web Content Accessibility Guidelines

www.w3.org/WAI/standards-guidelines/wcag

4 Definitions

The following definitions shall apply in this Standard:

Accessibility — ensures, to persons with disabilities, access on an equal basis with others to the physical environment, transportation, information and communications (including information and communications technologies and systems), and to other facilities and services open or provided to the public.
Source: *United Nations Convention on the Rights of Persons with Disabilities (CRPD)*, *Article 9 – Accessibility.*

Accessible journey — all the steps needed for a person to plan for and use an outdoor space.

Accessible route — a pedestrian path of travel within the interior or exterior environment that is without barriers, as defined in this Standard, and usable by all persons, including those with physical, sensory, communication, or cognitive disabilities.
Source: CSA/ASC B651.

Auditory — relating to what can be understood or read through hearing.

Barrier — anything (including anything physical, architectural, technological, or attitudinal; anything that is based on information or communications; or anything that is the result of a policy or a practice) that hinders the full and equal participation in society of persons with an impairment, including a physical, mental, intellectual, cognitive, learning, communication or sensory impairment or a functional limitation.
Source: *Accessible Canada Act.*

Clear width — the width of the usable surface of a path of travel, measured perpendicular to the direction of travel.

Cross slope — the slope perpendicular to the direction of travel.

Crosswalk — a pedestrian route within a vehicular route.

Curb ramp — a sloped surface that allows people to move safely and efficiently between vehicular and pedestrian routes.

Disability — any impairment (including a physical, mental, intellectual, cognitive, learning, communication, or sensory impairment) or a functional limitation, whether permanent, temporary, or episodic in nature — or evident or not — that, in interaction with a barrier, hinders a person's full and equal participation in society.
Source: *Accessible Canada Act.*

Equipment — any non-permanent assistive device that enables barrier-free participation in activities that take place outdoors.

Notes:

1) *See Annex A for more information on and examples of types of equipment.*
2) *This excludes furniture and lifting devices mentioned in this Standard, as well as vehicles and other modes of transportation such as, but not limited to, gondolas, ski lifts, trolleys, and golf carts.*

Furniture — items, either movable or fixed, that support various activities (e.g., eating, sleeping, storing, and sitting) and facilitate use of the outdoor space.

Path — a utilitarian access route linking together the different elements of a site.

Person-first language — language and expressions that emphasize the individual first rather than the disability.

Pictogram — a pictorial symbol or image that represents activities, facilities, spaces, or concepts.

Ramp — a sloped surface that elevates the path of travel above the surrounding terrain.

Running slope — the slope of the surface in the direction of travel.

Slope — the ratio of rise to run on an inclined surface.

Tactile — relating to what can be understood or read through touch.

Tactile attention indicator surface — a surface comprising of truncated domes that signals a need for caution at a change in elevation, a vehicular route, train tracks, or other potential hazard.

Trail — a recreational route offering a variety of user experiences to a variety of destination points.

Transition — as related to road curbs, a change in slope that allows for access to surfaces with varying levels of height.

Universal design — the design of products, environments, programs, and services to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design. “Universal design” does not exclude assistive devices for particular groups of persons with disabilities where this is needed.
Source: *CRPD Article 2.*

Visual — relating to what can be understood or read through sight.

Wayfinding — the process of choosing a path to a destination while providing an experience that is safe, accessible, and enjoyable.

5 Site planning

Note: *This Clause provides a high-level picture of the design and technical aspects required for any type of development being proposed regardless of size and scope. Reflecting best practices in universal design, urban design, and site planning, these principles support the main goal of creating accessible developments that provide access to people of all ages and abilities, while also ensuring developments are compatible with their surrounding areas and contribute to the economic, social, and environmental vitality of the outdoor space.*

5.1 Design principles applicable to all outdoor spaces

5.1.1 General

In the built environment, all elements of a site or facility should be accessible to the greatest extent possible, taking into account the broadest range of human abilities and ensuring a true accessible journey, linking each of these elements where possible.

It is also recommended from a macro-planning perspective that sites be developed or modified in a manner that achieves harmony between recreation expectations and the environment. The goal is to present a diverse spectrum of activity and recreation setting opportunities, ranging from highly developed to rustic/primitive, from which people can choose with the expectation of achieving specific recreation experiences.

Notes:

1) *As an example, a highly developed visitor centre with paved parking lots and trails would not be undertaken in rustic/primitive settings, just as rustic outhouses are not typically found in more developed settings. Similarly, a person can expect to encounter less evidence of other people and expect fewer facilities and supports in more rustic/primitive settings.*

2) *It is recognized that accessibility might be challenging in outdoor environments with steep slopes or ecological sensitivity. Careful consideration and a thorough assessment will enable accessibility to such challenging environments.*

Clause 1.2 lists the five high-level design principles that should be considered during the planning process for sites of all sizes, shapes, and locations. Clauses 5.1.2 to 5.1.6 outline a list of key criteria under each of these design principles to provide additional clarity.

5.1.2 Context

Context provides an understanding of how the siting and design of spaces and/or buildings within an existing natural and/or built environment work together with the social, cultural, and economic

aspects of the people who use the site to help create a space that is usable for all.

Key criteria for context include the following:

a) Where appropriate, designs of spaces shall consider form, massing, and density to ensure designs of areas, structures, facilities, and buildings provide accessible spaces that integrate well within the subject site and do not have a negative impact on surrounding sites.

   Note: *Massing refers to the bringing together of objects and buildings into a mass, and how the building environment looks in terms of basic masses.*

b) Sites, buildings, and structures shall provide entrances and openings along street/open space/walkway/trail edges that are convenient and safe for all users, particularly those persons with disabilities.

c) Site entrances shall face the public street, if applicable, and be connected to a sidewalk, car parking area, play space, etc., with direct, well-defined, and accessible pedestrian connection(s) for people of all ages and abilities.

d) Entrances to sites and buildings shall be easily recognizable to all users and, where applicable, well-coordinated with adjacent pedestrian/cycling routes, adjacent parking facilities, and public transit.

e) Developments should be designed to take advantage of the site's characteristics, including its proportion, topography, aspect, and geographic location to ensure the site is accessible to as many users as possible.

f) Sites, buildings, and structures should be designed to mitigate against increases in wind, runoff, shadowing, glare, and noise, as well as reduced air quality and loss of privacy, to minimize their negative effects and impact on users.

5.1.3 Identity

Identity refers to the character of a space and how it comes from the way the landform, vegetation, buildings, streets, infrastructure, and other aspects of the space combine with the history, culture, and users to influence how people experience, interact, and use the space.

Key criteria for identity include the following:

a) The width and number of driveway entrances into a site shall be minimized to ensure the lowest amount of disruption to a public sidewalk as possible.

b) All sidewalks crossing a driveway shall be maintained in level, colour, and materiality to ensure the highest level of comfort and safety for pedestrians.

c) Vehicle turning radii at intersections shall be kept to a minimum.

Notes:

1) *The turning radius of a vehicle is the radius of the smallest circular turn that the vehicle is capable of making.*

2) *This helps to slow down turning vehicles and provide shorter crossing distances for pedestrians.*

d) Spaces, structures, or buildings shall be compatible in their scale, proportion, architectural treatment, and relationship to adjacent heritage sites, and shall be designed to improve the accessibility of the site without negatively impacting surrounding sites.

e) The existing character within and around all sites should be retained and strengthened while providing accessible spaces.

5.1.4 User experience

The full range of human diversity with respect to a person’s ability, language, culture, gender, age, and other forms of human difference shall be fully considered in the design of the space.

Key criteria for user experience include the following:

a) All facilities shall be designed to accommodate as many modes of travel (e.g., walking, wheeling) as possible. Information should be

provided about the type of surfaces and location of rest areas for the user to make the appropriate decision.

b) Sites shall be safe and convenient for all users, no matter their ability.

c) A well-defined and comfortable pedestrian circulation system shall be created to provide direct connections to public sidewalks, transit stops, parks, site features and amenities, and adjacent development. This system shall include the following basic elements:

   i) be designed from a Universal Design perspective (i.e., fully accessible to all ages and abilities);

   ii) be separated from vehicular traffic with adequate space for landscaping;

   iii) be designed with CPTED in mind to eliminate isolated areas or the feeling of entrapment; and

   Note: *CPTED refers to Crime Prevention Through Environmental Design, a multi-disciplinary approach of crime prevention that uses urban and architectural design and the management of built and natural environments*

   iv) provide clear sightlines for pedestrians and vehicles (see Clauses 6.6 and 6.9).

Pedestrian drop-off areas shall be located and designed to provide convenient and safe connections to accessible entrances and other key areas of interest. Depending on their design, spaces should provide regularly occurring rest areas to offer respite for users.

5.1.5 Movement

5.1.5.1 General

Movement refers to how a successful space offers a complete accessible journey within the space for all users by providing connectivity within and around the space itself and to other nearby spaces, destinations, places, and communities.

Key criteria for movement include the following:

a) For parks and green spaces, significant consideration shall be given to accessibility to park services, amenities, and circulation routes.

b) Site features (e.g., seating, benches, viewing areas, picnic and day use areas, playground equipment) shall be connected by accessible routes. Routes should be direct and logical, taking into consideration how a person would access each feature and circulate around the site.

c) Decision points shall be designed so that the user can determine which path or trail is the most suitable for their ability.

Note: *Decision points refer to points along a path or trail where the user can decide which direction to take.*

d) Access to services and site amenities shall be provided to all users. Direct and independent access to site services and amenities should be prioritized.

e) Lighting shall be designed in such a way that it enhances accessibility and complies with Clause 6.8.

f) All pathways and trails shall be designed to accommodate as many types of users as possible (see Clause 8). Information should be provided about the type of surfaces and location of rest areas to help the user make the appropriate decision.

g) Pedestrian trails and walkways should be designed to provide clear sightlines that ensure personal safety (see Clauses 6.6 and 6.9).

h) All users should have equal opportunities and choice to independently circulate throughout the site by walking or wheeling to experience outdoor spaces, facilities, programs, and services within the site and to any surrounding sites where applicable.

i) Accessible seating locations should have clear sightlines (see Clause 6.6).

j) Where guardrails, handrails, or fences separate viewing areas from performance areas, care should be taken to ensure sightlines are appropriate (see Clause 6.9).

k) Landscaping and vegetation should be planned to not block sightlines, sight triangles, signage, or direct and safe pedestrian movement.

l) Landscaping and vegetation should be planned to not encroach on accessible surfaces or create safety issues (e.g., create a slippery or uneven surface because of wet leaves or pinecones).

m) Sightlines from all entrances (e.g., trailhead, park, plaza, facility) to the passenger loading area and parking lots should be uninterrupted.

5.1.5.2 Transit stops or stations

Transit stops or stations shall be

a) designed to be fully accessible for users of all ages and abilities;

b) located as close as possible to the nearest accessible entry point to the space or building; and

c) located as close as possible to the most convenient and safest road crossing (i.e., signalized intersection or zebra crossing).

5.1.5.3 Parking areas

Parking areas shall

a) be designed to provide safe and accessible paths of travel throughout, including over motorized vehicle circulation lanes;

b) provide designated accessible parking spaces that are easy to find, located adjacent to an accessible route, and designed to provide an appropriate width and depth; and

c) have all accessible routes located outside the parking/vehicle area so that users do not have to circulate or manoeuvre within a parking area, with the exception of access aisles which should be located adjacent to the parking area.

In addition, parking areas should provide a passenger loading zone that is visible from a waiting area and, when intended for night use, provide adequate lighting for nighttime wayfinding, safety, and security.

5.1.5.4 Legibility and wayfinding

5.1.5.4.1 General

Signs and lighting shall be integrated into the overall design, with particular emphasis on their quality and safety, ability to minimize visual and physical clutter, and contribution to the site and surrounding area.

Cues in the environment (e.g., scent, light, auditory, touch) should be used to provide orientation for a person who is blind or partially sighted.

Attention tactile indicators (see Clause 9.3.7) should be used to warn of level changes and hazardous areas in addition to graphic symbols that aid in identifying and minimizing hazards (e.g., crosswalks, traffic edges).

Note: *Textural changes can be used in addition to attention tactile indicators to convey information. A consistent approach is important.*

5.1.5.4.2 Legible wayfinding systems

Legible wayfinding systems (including landmarks and decision points) shall enable a person to

a) easily and successfully find their destination;

b) understand where they are with respect to other key locations;

c) orient themselves in an appropriate direction with little misunderstanding or stress; and

d) discover new places and services.

5.1.5.4.3 Legibility of signage

Legibility of signage within a wayfinding system should be consistent throughout the entire space and accessible for all users of a building or facility.

Legible signage should

a) facilitate wayfinding by providing and transmitting information that is clear, easy to find, and easy to read; and

b) favour the use of standardized pictograms.

5.1.6 Lifespan

5.1.6.1 General

Well-designed spaces sustain their beauty and accessibility over the long term. They are inclusive, barrier-free, accessible, and safe for diverse persons with disabilities to use while also easy and affordable to maintain. They are sustainable and have an emphasis on quality and simplicity that makes them easier to maintain over time.

5.1.6.2 Utilities infrastructure

Key criteria for lifespan include the following:

a) Tactile and visual cues shall be provided to indicate a surface storm drain or drainage structure that could be a hazard.

Note: *Tactile cues pertain to information that can be understood or read through touch. Visual cues pertain to information that can be understood or read through sight.*

b) Construction details (e.g., conduits, grates, utility covers, animal exclusion gates) should not create hazards or barriers. Accessible options should be provided in areas where barriers created by temporary or permanent construction details are unavoidable.

c) Stormwater features should not create hazards or barriers. Accessible options should be provided where hazards or barriers created by stormwater features are unavoidable.

d) Microclimate control is especially important for people who are adversely affected by bright light, glare, cold drafts, and excessive heat (e.g., a lightly shaded area without strong wind is a preferred environment). Plant material may be used to mitigate the effects of wind, glare, reflection, temperature, and humidity.

e) Outdoor conversation areas should be buffered from interfering noise whenever possible, such as with earth berms or vegetation buffers.

f) Abrupt changes in light intensity can be difficult for some people. Careful choice and placement of trees, arbours, trellises, and

similar devices can soften the transition between darkly shaded and brightly sunlit areas.

5.1.6.3 Planting design

5.1.6.3.1 General

In planting design, the following types of plants shall be avoided:

a) poisonous plants (especially those with brightly coloured berries and leaves);

b) plants with foul-smelling odours that can cause nausea (e.g., Siebold viburnum, female ginkgo);

c) plants with thorns or spikes (e.g., barberry, quince, hawthorne, locust, holly); and

d) fruiting trees near eating/seating areas that might attract stinging insects and pests.

5.1.6.3.2 Planting adjacent to pathways

In planting design adjacent to pathways, the following types of plants shall be avoided:

a) plants with berries, cones, pods, and nuts adjacent to pathways, as these can be slippery and difficult to walk or wheel on;

b) trees prone to branch breakage (e.g., birch, silver maple, box elder, chestnut, tulip tree);

c) trees with drooping branches that drop below minimum clearances on walkways or streets and can be hazardous to pedestrians (e.g., birch, willow, pin oak); and

d) plants with shallow roots that can cause pathways to heave and crack, causing trip hazards and barriers (e.g., willow, red maple, beech, poplar varieties).

5.1.6.4 Public art

Key criteria for public art placed in outdoor spaces should include

a) an accessible path provided to the artwork;

b) associated signage that is accessible to all users (e.g., tactile, large font, accessible placement);

c) incorporation of common measures (e.g., knee clearance, clear space);

d) the means to approach and touch the artwork;

e) artwork placed in an accessible location (i.e., on a flat and level space); and,

f) artwork that appeals to all senses wherever possible.

5.1.6.5 Amenities

If provided, key criteria for amenities in outdoor spaces include

a) providing accessible washrooms in numbers that comply with Clause 7.1.4;

b) locating amenities like seating, garbage, recycling bins, and other such items together in one place within a facility or along a trail; and

Note: *This is especially important for the convenience of users and for maintenance considerations.*

c) providing seating that complies with Clause 6.6.1.

Note: *This is especially important in areas where people will be spending several minutes or more and might need a spot to rest (e.g., viewing areas, playgrounds, drop-off areas, and meeting places).*

5.2 Signage

Note: *See Annex C for a list of international symbols for accessibility services.*

5.2.1 General

Exterior signage shall be located at every public site, building, structure, or facility to help a person locate appropriate parking, accessible entrances, emergency information/egress, and navigational information. Both permanent and temporary signage shall be accessible.

Note: *Temporary signage includes but is not limited to warning signs for construction/cleaning, signs put up temporarily for promoting special events, and signs for wayfinding to temporary events.*

Signs shall be accessible to all users of the building, facility, or outdoor space. Navigational, informational, and interpretive signs for the outdoor space (i.e., all publicly available information) shall include more than one mode for presenting information and may include tactile, audio, or other modes of presentation (see Clause 9.3.4).

Tactile markings shall be required for

a) pedestrian-related regulatory signs, such as prohibition and mandatory signs;

b) permanent warning signs, such as caution and danger signs; and

c) identification signs, such as for rooms, titles, names, and numbers.

Exceptions shall include overhead signs, road signs, and other signs not intended to be read at approximate eye level.

5.2.2 Signage requirements

5.2.2.1 Configuration

Where signage is provided, it shall

a) have a glare-free surface;

b) when used to give the same type of information within the same facility, be consistently shaped, coloured, and positioned; and

c) be luminance (colour) contrasted by at least 70% with its background to comply with Clause 6.8.3.

5.2.2.2 Location

Where signage is provided, it shall be positioned to avoid shadow areas, glare, and visual obstructions.

The clear headroom of a sign mounted overhead shall be at least 2050 mm from the floor.

When signs are tactile, they shall

a) if used to identify a door, be mounted on the wall beside the latch edge of the door, with the leading vertical edge 150 ± 10 mm from the door jamb;

b) where double-leaf doors are used or no wall space adjoins the door's latch edge, be mounted on the nearest adjacent wall;

c) when mounted on walls, be located such that characters, symbols, and pictographs are not less than 1200 mm above the floor or ground surface from the lowest tactile character, and not more than 1500 mm above the floor or ground surface from the highest tactile character (this limits sign size to 300 mm tall). An exception may be made for signage specifically designed for children, where the installation height requirements may be lowered;

   Note: *In areas of large snowfall, an additional sign may be installed, such as on the second floor of a building.*

d) allow a person to approach the sign to within 100 mm without encountering protruding objects or standing within a door swing;

e) have a clear wall area around the sign at least 75 mm wide; and

f) for signs meant to be read looking down (i.e., mounted on a standalone pole either parallel or angled to the ground), be located between 730 mm to 860 mm above the ground so it can be viewed from a seated position.

Note: *Consistent location of signage in outdoor environments enables a person to anticipate where and when signage can be found. If adhering to these requirements is not feasible in an outdoor environment, a consistent tactile information system (e.g., change in surface texture) could be implemented to identify signage locations. For example, at trail intersections the signage can be in advance of the intersection, located to the right at a fixed height above the ground.*

5.2.2.3 Characters, pictograms, and symbols

Characters, symbols, and backgrounds of signs shall have an eggshell, matte, or other glare-free finish.

Characters, pictograms, and symbols shall be luminance (colour) contrasted by at least 70% with their background (see Clause 6.8.3).

On signs, all letters and numbers shall

a) be sans serif font;

b) present Arabic numerals;

c) have a width-to-height ratio between 3:5 and 1:1;

d) have a stroke width-to-height ratio between 1:5 and 1:10;

e) have the character height sized relative to the intended viewing distance (see Table 1);

f) use a mix of uppercase and lowercase letters (i.e., not appear in all-caps);

g) avoid use of italics;

h) use a monospaced font rather than proportionally spaced; and

i) present spacing between lines of text at least 25% to 30% of the point size.

Note: *See Clause 5.2.2.4 for additional requirements related to tactile signs.*

Table 1

Directional signage character height relative to viewing distance

(See Clause 5.2.2.3.)

This table shows the minimum character height allowed for a maximum viewing distance. There are two columns. The column on the left shows character heights, in millimetres, ranging from 25 to 300 mm. The column on the right shows the maximum viewing distance, in millimetres, for the character height.

Minimum character height, mm	**Maximum viewing distance, mm**
25	750
50	1500

75	2250
100	3000
150	4500
200	6000
250	7500
300	9000

Note: *Use an uppercase X for character measurement.*

5.2.2.4 Tactile signs

Tactile signs are signs that are designed to be read by touch. Except for overhead or road signs (which are not intended to be read at approximate eye level), or for temporary signage, tactile markings shall be used for pedestrian-related regulatory signs (e.g., prohibition and mandatory signs), permanent warning signs (e.g., caution and danger signs), and identification signs (such as for rooms, titles, names, and numbers).

In addition, tactile signs shall

a) not have sharp or abrasive edges;

b) include characters that are sans serif and not be italic, oblique, script, highly decorative, or displayed in other unusual forms;

c) include characters that are 16 mm to 50 mm in height based on the height of the uppercase letter “X”;

d) have letters in a colour that contrasts with the background by at least 70% to comply with Clause 6.8.3; and

e) be located as defined in Clause 5.2.2.2.

Tactile signs with raised characters shall have raised characters located a minimum 0.8 mm above their background. Tactile signs with raised characters should also be accompanied by braille.

Note: *Motion sensors that trigger an audio recording of the information and other technologies that automatically read aloud text are examples of valid options that can be used instead of braille.*

5.2.2.5 Illumination

Illumination levels on signs shall be at least 200 lux.

5.2.3 Parking signage

5.2.3.1 Signage for designated accessible parking

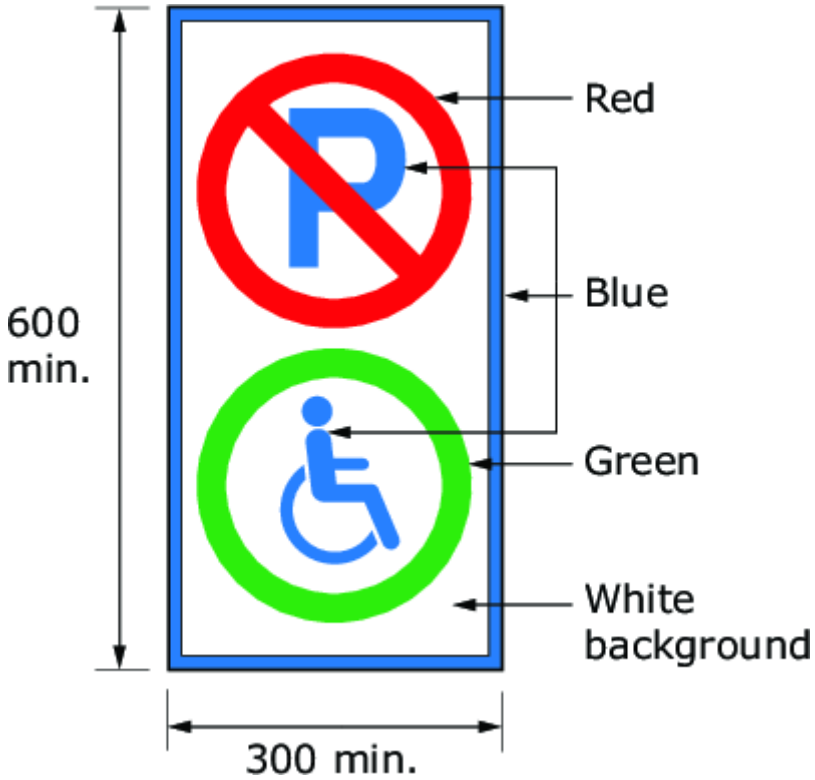
A designated accessible parking space shall be identified by a vertically mounted sign, as shown in Figure 1.

If the designated accessible parking space is paved, the International Symbol of Access shall be painted on the pavement (see Annex C).

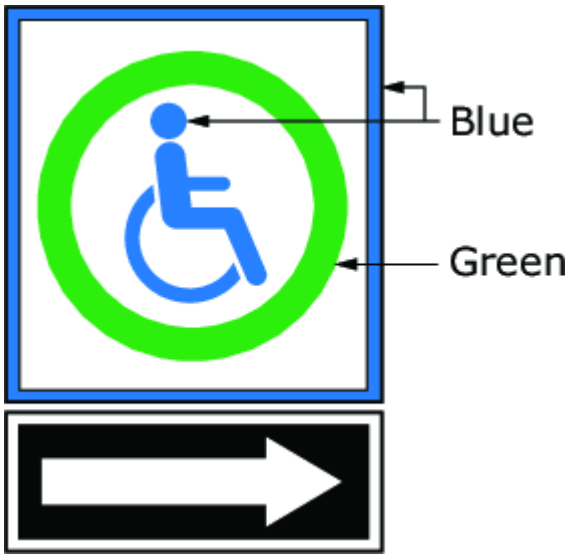
Figure 1

Designated accessible parking sign

(See Clause 5.2.3.1.)



This example of a designated accessible parking sign is a 300 by 600 mm vertical uniform traffic control sign. There is a blue rectangle with two circles inside it. The top circle is a red circle with a red line through the centre, and a blue letter P underneath the red line. The bottom circle is a green circle surrounding a blue illustration of a person using a wheelchair.



This example is a directional sign to parking spaces. There is a blue square with a green circle surrounding a blue illustration of a person

using a wheelchair. The blue square is accompanied by a white arrow against a black background directly underneath.

5.2.3.2 Vertically mounted signs

A vertical sign shall

a) be at least 300 mm wide by 450 mm high;

b) have the centre of the sign between 1500 and 2000 mm from the ground; and

c) incorporate the International Symbol of Access (see Annex C).

5.2.3.3 Pavement signs

A painted sign on the pavement shall

a) be located in the centre of the parking space; and

b) have the International Symbol of Access (see Annex C)

   i) at least 1000 mm long; and

   ii) luminance (colour) contrasted with the background pavement by at least 70% to comply with Clause 6.8.3.

5.2.3.4 Parking sign location

Parking signs shall follow the provisions for signage location in Clause 5.2.2.2.

5.2.4 Enclosed outdoor toilet facilities

For enclosed outdoor toilet facilities (i.e., portable toilets), a washroom identification sign complying with Clause 5.2 shall be mounted on the outside wall of the entrance, where applicable.

If there is insufficient space, then the sign may be mounted in the centre of the door with a centreline at a height of 1500 mm from the ground and the International Symbol of Access (see Annex C) mounted below the sign with a centreline at 1350 mm.

6 Common accessibility measures

6.1 General space requirements

6.1.1 General

Where constructed, all outdoor facilities, surfaces, and furniture shall comply with common accessibility measures outlined in Clause 6.

The requirements for accessibility apply to both paved and unpaved surfaces and to all facilities, whether public or employee-only, in urban, rural, and wilderness settings.

6.1.2 Clear floor space

A clear floor space shall be a minimum of 900 mm (width) by 1500 mm (length). This shall include but is not limited to

a) areas that require access to operating controls and hooks (see Clause 6.5);

b) power door operators;

c) tactile signage;

d) service counters;

e) workstations;

f) areas adjacent to any tabletops, lavatories, sinks, drinking fountains, or waste receptacles/recycle bins;

g) spaces for transferring to benches, equipment, or other facilities; and

h) doorways/gates/entrance spaces.

A front approach should be favoured over a side approach. In instances where a front approach is provided at a counter, table, or other working surface, up to 500 mm may be located under the counter.

A side approach that enables a mobility device to be positioned parallel to an object or an item shall have a minimum clear floor space of 900 mm (width) by 2200 mm (length).

6.1.3 Turning space

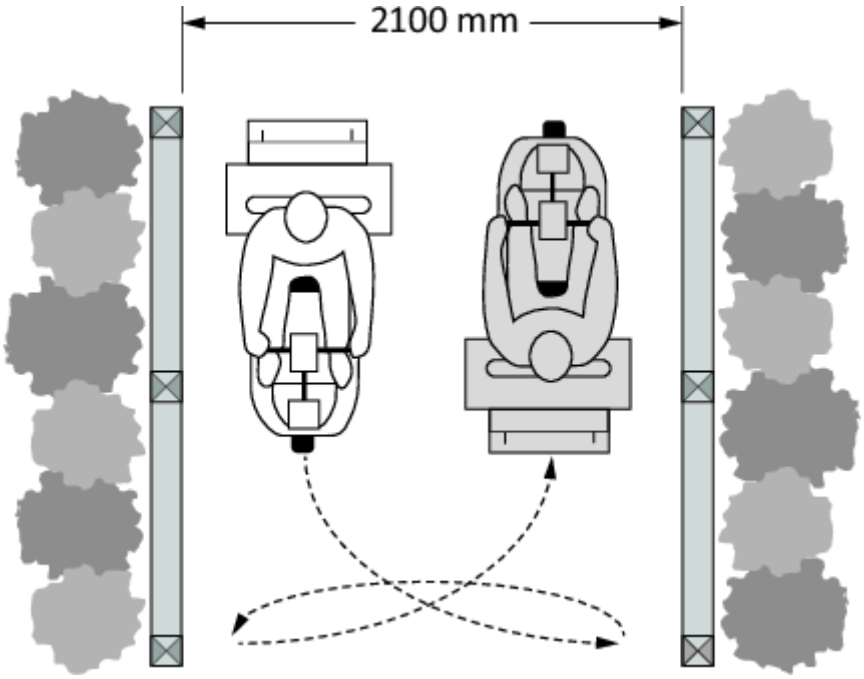
Where a user is required to perform a turning manoeuvre, there shall be a minimum turning space of 2100 mm by 2100 mm (see Figure 2a).

Where a user is required to perform a 180° turn around an obstacle, there shall be a minimum space of 2000 mm by 2100 mm (see Figure 2b).

Figure 2a

Minimum turning space

(See Clause 6.1.3.)

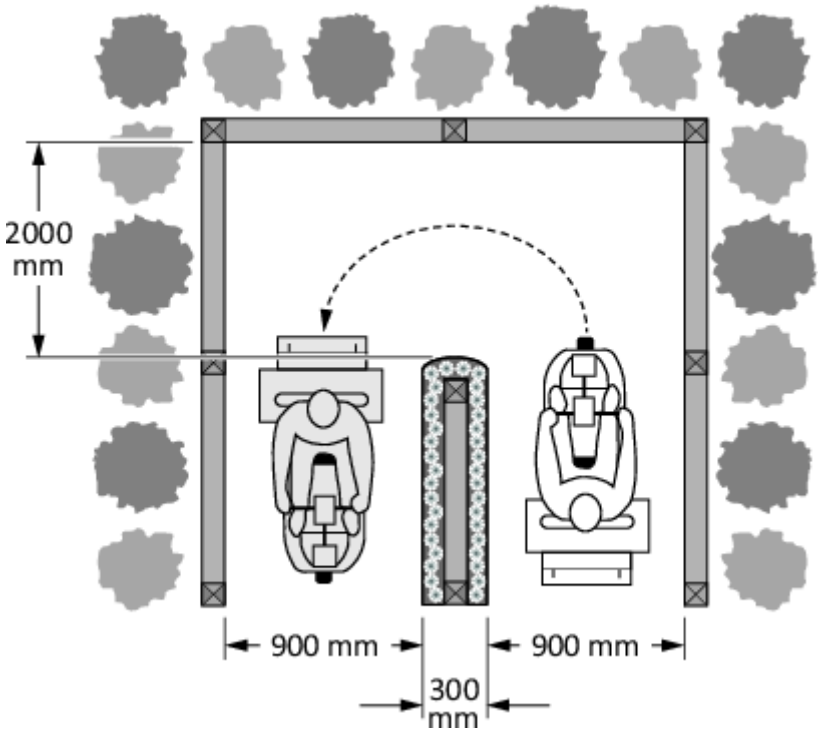


This figure shows a path with the minimum turning space needed for users with assistive mobility devices. The image shows a person with an assistive mobility device travelling on a path that is at least 2100 mm wide, with directional arrows showing how the user would complete a three-point turn to travel in the opposite direction.

Figure 2b

Clear width needed to manoeuvre around a 300 mm wide obstacle

(See Clause 6.1.3.)



This figure shows a person with an assistive mobility device navigating a 180-degree turn around an obstacle that is 300 mm wide. The path of the turn around the obstacle is illustrated with a dotted line. The space needed to make the turn is labelled 2000 mm deep from the end of the obstacle, with a width of 900 mm wide on each side of the 300 mm wide obstacle.

6.2 Reach range requirements

6.2.1 Reach range

To accommodate a general reach range for adults (seated or standing), objects shall be mounted between 460 mm and 1100 mm above the surface of the finished floor or ground.

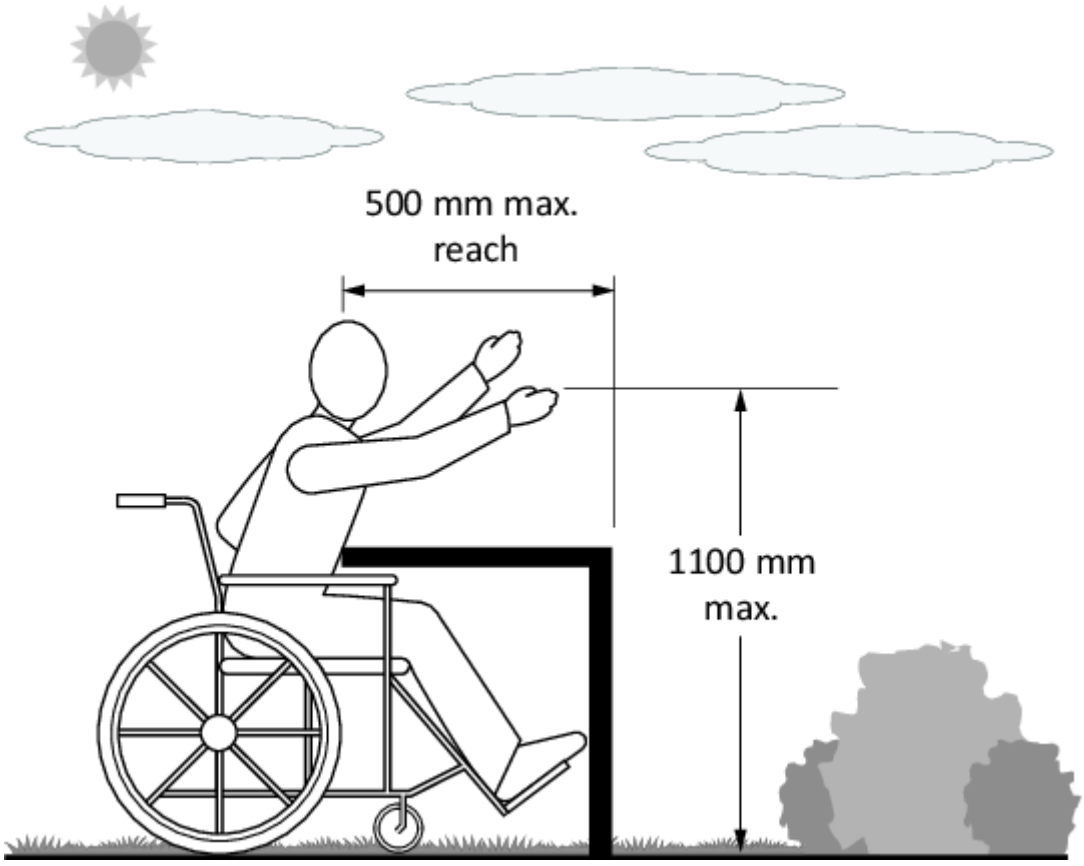
6.2.2 Reach range over an obstruction

When there is an obstruction, the object shall be located above the top of the obstruction at a height no greater than 1100 mm. The maximum depth of the obstruction should be 500 mm (see Figure 3).

Figure 3

Reach range over an obstruction

(See Clause 6.2.2.)



This figure shows a person using a wheelchair with their legs underneath a counter-style obstacle. The person is leaning forward slightly with their arm outstretched, illustrating the furthest a person using a wheelchair can reach over the obstacle. The person's maximum reach height of 1100 mm and maximum depth of obstruction of 500 mm are shown.

6.3 Knee and toe clearances

6.3.1 General

Where amenities protrude in a way that make knee/toe clearances necessary, the following provisions shall apply:

a) Knee clearances shall be at least 820 mm wide, 280 mm deep, and 685 mm high, and accompanying toe clearances shall be at least 820 mm wide, 430 mm deep, and 230 mm high. Exceptions include tables (including picnic tables), workspaces, or counters

where a forward approach is used; in those instances, knee clearances shall be a minimum 820 mm wide, 480 mm deep, and 685 mm high.

b) Knee and toe clearances should be oriented to allow access or appropriate use of the facility, including participation with other users.

6.3.2 Knee and toe clearances for children's facilities

Where play tables, sinks, or other facilities are intended for the use of children, knee clearance of not less than 610 mm high, 430 mm deep, and 760 mm wide shall be provided. The height of rims, curbs, or other obstructions shall not be greater than 785 mm.

Counters, tables, and surfaces designed or constructed primarily for children ages five and under need not provide knee clearance if

a) there is a minimum clear ground space of 760 mm by 1220 mm;

b) there is a maximum slope of 1:50 (i.e., 2% slope);

c) the approach is arranged for a parallel approach; and

d) the height of the rim surface is not greater than 790 mm.

6.4 Doorways, gates, and open entrances

6.4.1 General

A level (maximum 5% slope) and firm surface shall be provided on both sides of a door or gate.

Manoeuvring area on both sides of the door shall be a minimum 1700 mm by 1500 mm, as measured from the inside of the doorway, with 600 mm minimum beside the latch on the pull side.

Where manual or mechanical gates or doorways are provided, they should have a clear opening width that is a minimum of 850 mm and operating controls that comply with Clause 6.5.

Gate hardware operating mechanisms should be mounted at a height of between 460 mm and 1100 mm from the surface or ground.

6.4.2 Space between doors or gates

Where two doors or gates are in series, the vestibule area shall provide a minimum of 1500 mm by 1500 mm floor space that is clear of door swings and other obstacles to allow the manoeuvring of mobility aids (see Figures 4a and 4b).

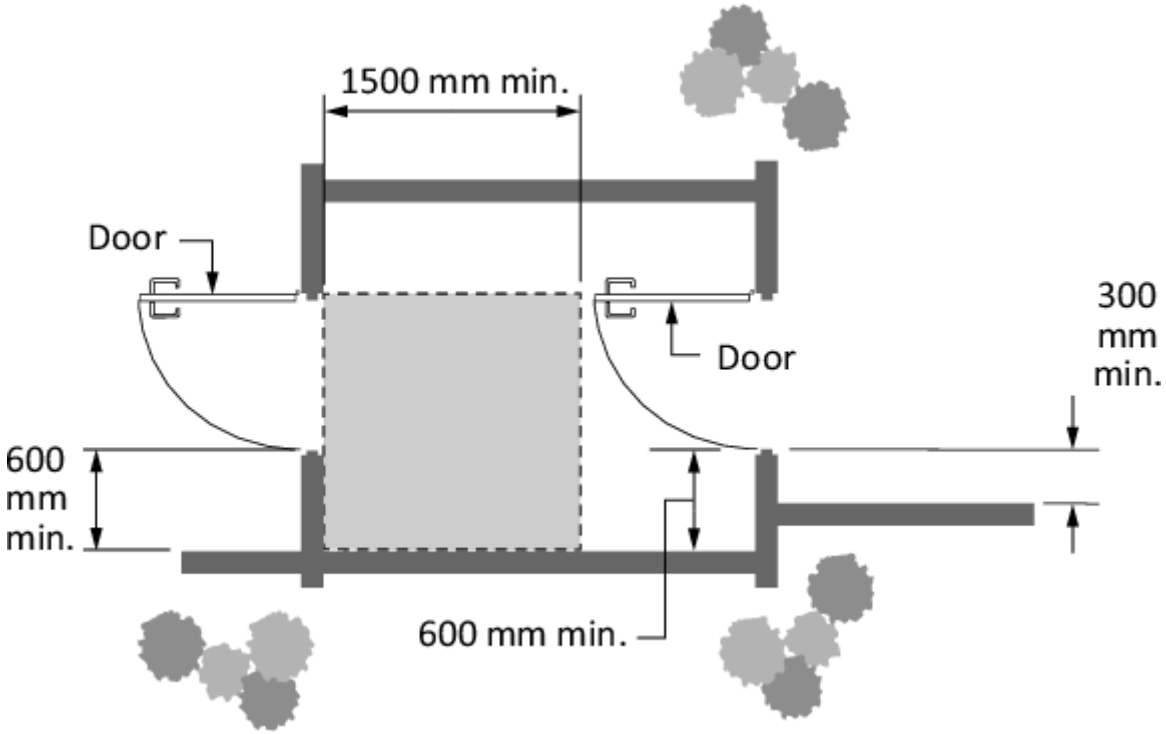
Where doors swing towards the person, at least 600 mm of manoeuvring space beside the latch shall be provided to allow people using mobility aids easy access to the door.

Where doors swing away from the person, at least 300 mm of manoeuvring space beside the latch shall be provided.

Figure 4a

Space between doors or gates

(See Clause 6.4.2.)



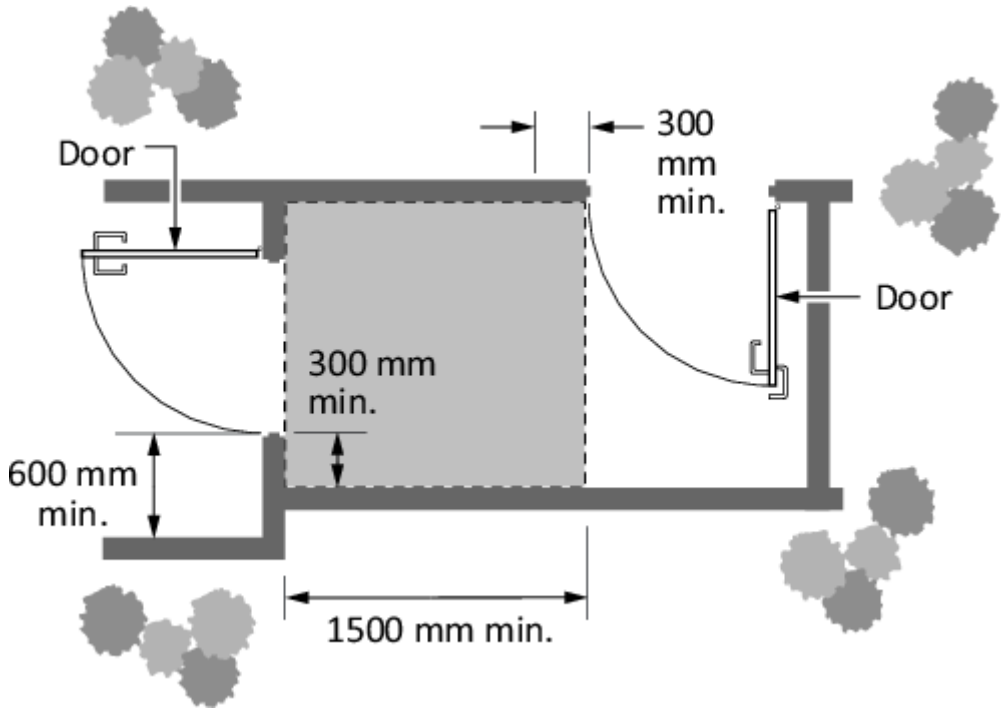
This figure shows a layout of an entryway and vestibule with multiple doors. The amount of clear space required in front of the door to avoid being in the path of the door swing is delineated by a dotted line and shaded in grey. Measurements of the clear vestibule area space are

labelled as 1500 mm minimum. An additional 600 mm of manoeuvering space beside the latch of the door is labelled. A minimum 300 mm of manoeuvering space next to the latch on the opposite side of the door swing is labelled.

Figure 4b

Manoeuvring area at perpendicular swinging doors

(See Clause 6.4.2.)



This figure shows a layout of an entryway and vestibule with swinging doors in a series that swing in the same direction but are located on perpendicular walls. The amount of clear space required in front of the door to avoid being in the path of the door swing is delineated by a dotted line and shaded in grey. Measurements of the clear vestibule area space are labelled as 1500 mm minimum. A minimum 300 mm of manoeuvering space next to the latch on the opposite side of the door swing is labelled.

6.5 Operating controls

6.5.1 Operability of controls

Clause 6.5 addresses the recognition, accessibility, and operability of operating controls in outdoor environments. Operating controls can include but are not limited to light switches, outlets, alarm pulls, door handles, lever hardware, vending machines/ticket machines, dials, and faucets.

Where supplied, operating controls shall be operable

a) with a closed fist;

b) without the need for the user to tightly grasp, pinch, or twist their wrist; and

c) with a force of not more than 22.2 N (2.3 kg).

6.5.2 Design and placement

Operating controls

a) shall be luminance (colour) contrasted with the background by at least 70% (see Clause 6.8.3);

b) shall be designed so that they do not interfere with features intended to prevent the inappropriate use of the amenities (e.g., by animals or children);

c) shall be accessed from a clear floor space to comply with Clause 6.1.2; and

d) should be operable from a seated position (see Clause 6.2).

Trash and recycling containers with hinged lids and controls designed to keep out large animals are not required to comply with this Clause.

Notes:

1) *Wherever possible, controls should be located at the middle of the reach range height requirement (see Clause 6.2).*

2) *Automatic water faucet controls are preferred.*

6.5.3 Lighting of controls

The illumination of controls, including liquid crystal displays (or equivalent) that are used as controls and operating mechanisms, shall comply with Clause 6.8.

Note: *Many controls have liquid crystal display (LCD) panels that are not backlit, which means for some displays an appropriate amount of front lighting will be needed to enable the user to read the display.*

6.6 Seating

6.6.1 Accessible seating and benches

Accessible seating and benches (including seating for picnic tables) shall

a) have a seating/bench surface located at a height of 430 mm to 500 mm above the surrounding grade;

   Note: *Children might prefer seats as low as 350 mm. These lower benches may be provided in addition to required accessible seating in spaces intended to be used by children.*

b) be 380 mm to 510 mm deep;

c) have a level bench with a maximum slope of 1% for drainage;

d) provide a backrest or support for at least 50% of the seating positions. Backrests shall extend from a point 50 mm (maximum) above the seat to a point 455 mm (minimum) above the seat;

e) provide a minimum clear space in compliance with Clause 6.1.2 for a wheelchair user at the end of a bench, with one side of the space adjoining an accessible route and positioned to allow wheelchair users to be seated shoulder to shoulder with a person seated on the bench;

f) have clear space in compliance with Clause 6.1.2 for a wheelchair user at the end of the bench with a surface that is firm and stable, with slope between 2% and 3% in any direction;

g) provide a minimum of one armrest that is not located at the end of the bench that abuts the wheeled mobility device parking space;

h) should have a luminance (colour) contrast from the surrounding environment and surface colour by at least 70% to comply with Clause 6.8.3;

i) have adequate space beneath the bench or seat to allow users to lean forward to stand; and

j) for tables, provide adequate clearance underneath for ease of cleaning.

Note: *Providing adequate heel space makes rising from a seated position easier. This also provides space for a person to put their feet and bags underneath and potentially even provide a place for service dogs to rest. A variety of bench types accommodates different abilities.*

In facilities where only one bench or picnic table is provided, that bench or picnic table shall be accessible. Where there are multiple benches or multiple picnic tables, the number of accessible benches or picnic tables provided shall comply with Clause 7.1.4.

Notes:

1) *When providing benches or seating, consider surface materials that are appropriate for the climate. In colder climates, select materials that are warmer (e.g., wood) and avoid metal. Surfaces should prevent accumulation of water, snow, and debris.*

2) *In situations where several benches are placed together, benches facing each other or placed at a 90° angle can help persons with hearing requirements to communicate better.*

6.6.2 Seating for lifts

Seating for lifts shall consist of a seat that is

a) a minimum of 450 mm wide;

b) 405 mm to 485 mm above the floor or ground in its resting position;

c) located a minimum 400 mm from (including but not limited to)
   i) the centre line of the pool lift seat;
   ii) the edge of the pool (for pools);
   iii) the edge of the dock (for docks); or
   iv) the obstacle/edge being negotiated;

d) equipped with a footrest;

e) equipped with a removable armrest;

f) able to sustain a weight capacity of at least 180 kg;

g) able to sustain 1.5x the minimum static load; and

h) for pools, able to submerge to a maximum depth of 455 mm below the stationary water level.

Note: *Lifts can be used in a variety of outdoor environments (e.g., a lift into a boat or a sit ski), so this Clause applies not just to pool environments.*

6.7 Accessible table and counter surfaces

6.7.1 Height of top surfaces of accessible tables and counters

The top surface of accessible tables and counters shall be between 730 mm and 860 mm from the floor or ground, or be height-adjustable with operable parts that comply with Clause 6.5.

6.7.2 Clearances and manoeuvring spaces

Knee and toe clearance shall comply with Clause 6.3 where a forward approach is used, or with Clause 6.1.2 where a side approach is required.

The clear floor or ground space provided at each accessible seating space (positioned for a forward approach to the table) shall adhere to Clause 6.1.2.

A clear floor space complying with Clause 6.1.2 shall be provided on two sides of the table, with the path or trail able to overlap a clear floor space at each seating space.

6.7.3 Number of tables/counters

The number of accessible spaces shall comply with Clause 7.1.4 for each type of service, including but not limited to

a) exterior reception desk or lobby;

b) security;

c) information;

d) ticket teller;

e) payment; and

f) food.

There shall be a minimum of two accessible spaces in high-use areas and where users are anticipated to be served for longer periods of time.

6.8 Illumination and contrast levels

6.8.1 General lighting requirements

All lighting shall

a) provide a clear luminance (colour) contrast (see Clause 6.8.3); and

b) be evenly distributed to minimize cast shadows.

6.8.2 Minimum lighting levels

Where lighting is provided for use of a facility outside of daylight hours, the following minimum lighting levels shall be provided during the hours the facility remains open for use (see Table 2):

Table 2

Minimum lighting levels

(See Clause 6.8.2.)

This table shows the minimum lighting levels that facilities must provide outside of daylight hours while open. There are two columns. The left column shows two examples of minimum lighting levels, and the right column shows examples of locations that must meet either of the listed minimum lighting levels.

Minimum lighting level	**Location**

50 lux	Accessible parking Accessible path of travel from accessible parking to building entrance Passenger loading zones Entrances Hazardous areas such as stairs (excluding play structures) Ramps Other potential hazards/obstacles
30 lux	Main driveway

Note: *See Clause 5.2.2.5 for external signage lighting levels.*

Stairs and ramps should be located where there is adequate natural light. If used at night, such as in outdoor amphitheatres or near buildings or campsites, they should have appropriate artificial lighting. Where possible, lighting should come from overhead to shadow the risers and illuminate the treads.

Where provided, outdoor showers shall have lighting that is waterproof and at least 50 lux.

Outdoor lighting should be situated so that light patterns intersect at 2100 mm above ground. Low-level fixtures and posts (below 1500 mm) should be placed to avoid glare. Low-level lighting shall be high enough to clear normal snow accumulation.

Supplementary lighting should be provided to highlight key signage and orientation landmarks (see Clause 9).

Note: *Adequate lighting in high-traffic public areas helps facilitate lip reading and sign language communication.*

6.8.3 Contrast

When luminance (colour) contrast is required, there shall be a minimum of 70% contrast between the two

surfaces/facilities/items/etc., as measured by the Weber contrast equation:

($L1$ + 0.05) / ($L2$ + 0.05)
where

L1 = the relative luminance of the lighter of the colours
L2 = the relative luminance of the darker of the colours

6.9 Sightlines

Safe and independent use of outdoor facilities shall have a clear view of the surrounding environment.

Facilities shall provide the same unobstructed view between 800 mm and 1300 mm above the surface or ground in addition to the unobstructed view provided for a standing adult.

Structures or vegetation shall not obstruct the clear view.

Note: *The standing adult sightline is approximately 1500 to 1900 mm.*

6.10 Common measures for outdoor surfaces

6.10.1 General

Outdoor surfaces are any surfaces that enable people to circulate throughout outdoor spaces that are found in but are not limited to the outdoor spaces mentioned in Clause 2.1. Outdoor surfaces could be at ground level, above ground level, or below ground level. They may be natural or built materials.

Additional requirements for surfaces specific to trails, beach access routes, playgrounds, docks and water access points, surfaces for accessing outdoor fire pits/cooking facilities/hot ovens, and temporary surfaces can be found in Clause 8.

6.10.2 Exemptions

An exemption for outdoor surface accessibility can occur if the facility meets one or more of the criteria for exemption specified in Clause 2.3.

6.10.3 Firmness

All outdoor surfaces shall be firm under typical user conditions.

Note: *A firm surface is one that does not deform more than 20 mm in response to a vertical force of 9 kg per 645 mm2.*

6.10.4 Stability

All outdoor surfaces shall be stable under typical user conditions.

Note: *A stable surface is one that does not deform more than 20 mm in response to a rotational force of 9 kg per 645 mm2.*

6.10.5 Slip resistance

Under dry conditions, all outdoor surfaces shall be slip-resistant unless they are part of a facility intended to provide a sliding experience (e.g., water slide, ice surface for skating).

Note: *A slip-resistant surface is one that does not deform more than 20 mm in response to an oblique force of 9 kg per 645 mm2.*

6.10.6 Drainage

The drainage of water from the surface shall not affect surface firmness or stability.

6.10.7 Texture

The surface texture should enable a smooth path of travel that does not cause instability or vibration that can affect the user.

6.10.8 Visual patterns and glare

The surface shall create minimal glare and not have strong visual patterning.

6.10.9 Changes in surface texture or type

A change in surface texture or type shall be used to delineate the accessible path of travel. The different surface texture or type should be at least 250 mm in width along both sides of the accessible path.

6.10.10 Use of surface texture or type to convey information

A change in surface texture or type shall be used to indicate to a person who is blind or partially sighted that there is information (e.g., interpretive signage) or facilities (e.g., a bench) available adjacent to the path of travel. The different surface texture or type should extend

at least 250 mm in the direction of travel and across the full width of the path.

6.10.11 Slope of outdoor surfaces

6.10.11.1 General

The slope shall be the minimum slope permitted by the terrain and required for drainage. Slope can be in the direction of travel, perpendicular to the direction of travel or at another angle.

6.10.11.2 Measurement

The slope of surfaces is measured as the maximum slope over a 1000 mm distance at any point across the full width of the surface.

6.10.11.3 Maximum slope

The slope shall be less than 1:20 (5%) whenever possible. The maximum slope shall not exceed 1:10 (10%). If one or more of the criteria for exception is met (see Clause 2.3), then the slope may increase to a maximum of 1:7 (14%) for a distance of 1500 mm if the surface is firm and stable.

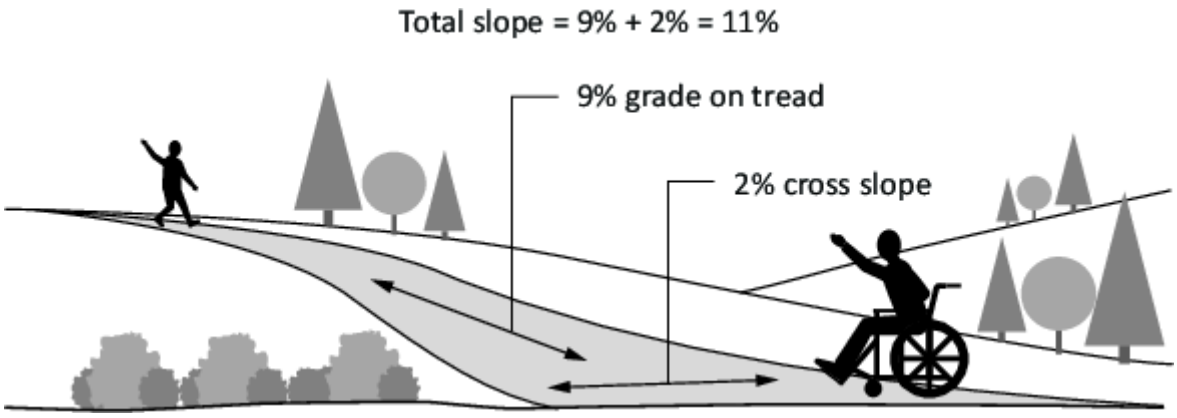
6.10.11.4 Total slope

On paved surfaces, the total of running and cross slopes shall not exceed 8%. The total of running and cross slopes on unpaved surfaces shall not exceed 15% (see Figure 5).

Figure 5

Slope

(See Clause 6.10.11.4.)



This figure shows an illustration of a surface with one person walking at one end and another person using a wheelchair at the other. The surface is labelled to show the 9% grade and the 2% cross slope, for a total slope of 11%.

6.10.11.5 Rest area

Rest areas shall be provided where the slope exceeds 1:20 (5%). Rest areas are not required for slopes of 1:20 (5%) or less. The maximum interval between rest areas shall be 60 m. All rest areas shall have a slope of less than 1:20 (5%).

Rest areas should be located outside of the path of travel and at least 1500 mm in diameter. The steeper the slope, the more frequent the rest areas should be.

6.10.11.6 Amenities or elements

Where there are amenities or elements intended for use or operation by users, an area shall be provided adjacent to all operating sides of the amenity or element. If the adjacent area has a slope, then it shall have a slope of 1:20 (5%) or less. The adjacent area shall be at least 900 mm in length perpendicular to and 1500 mm in length parallel to the amenity.

Note: *“Elements” refers to objects constituting part of an outdoor space, outdoor area, facility, site, etc.*

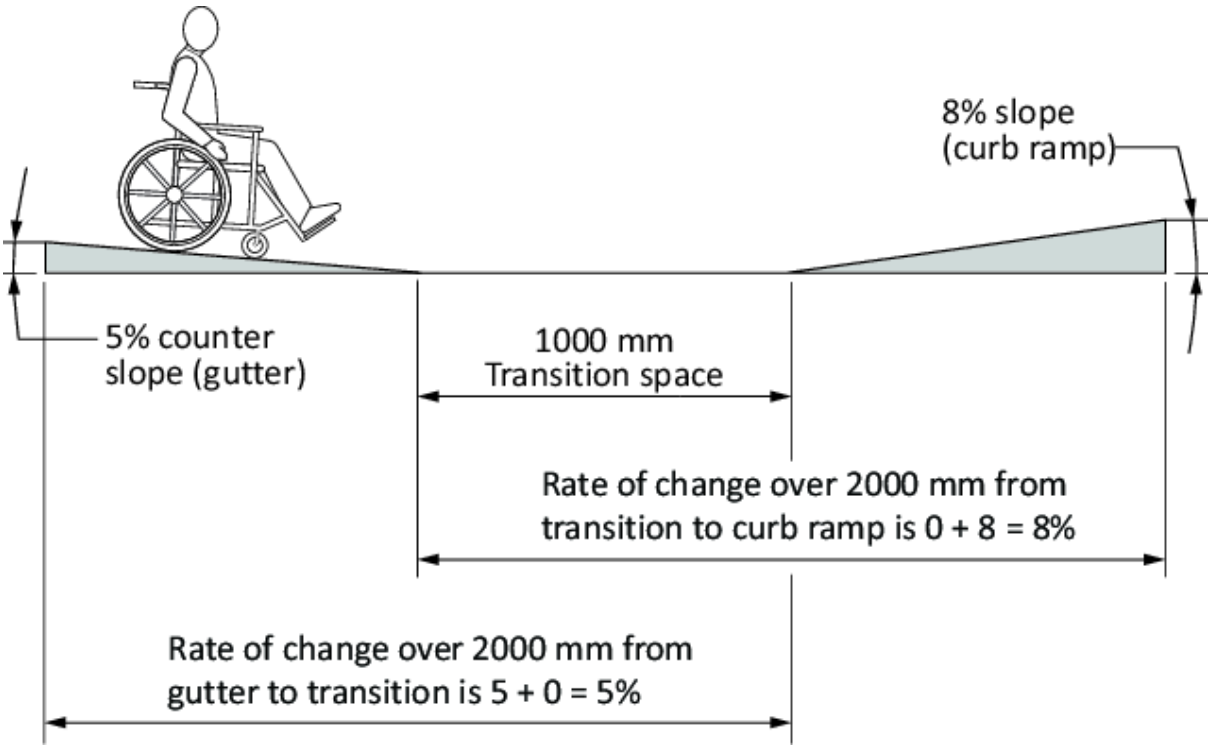
6.10.11.7 Rate of change for slope transitions

The rate of change of slope over a 2000 mm distance shall not exceed 10% (see Figure 6). Rate of change is calculated as the sum of any adjacent slopes (in %) within a 2000 mm distance.

Figure 6

Slope transitions

(See Clause 6.10.11.7.)



This figure shows a person using a wheelchair descending a slope of 5% and approaching a level transition space before ascending a third part of the pathway with an 8% slope.

6.10.11.8 Provision of information

Information about slopes exceeding 1:20 (5%) should be provided to users before use of the surface is required. Information on alternate routes with lower slope and the direction of travel (i.e., uphill vs. downhill) over slopes exceeding 1:20 (5%) is recommended. Provision of this information shall comply with all wayfinding provisions in Clause 9.

6.10.11.9 Slopes for elevation change

Where the surface has a slope of more than 1:20 (5%) and elevates the user above the surrounding terrain, the elevated section shall be considered a ramp and therefore comply with Clause 6.15.

6.10.11.10 Surfaces within vehicular rights of way

Where the running slope of a vehicular route does not comply with this Clause, the adjacent pedestrian route shall have a running slope equal to or less than the vehicular route.

6.10.11.11 Alternative path of travel

Where slope exceeds 1:20 (5%) on accessible exterior routes, trails, or walkways, stairs and an accessible means of negotiating the elevation change should be provided as an alternative path of travel.

In situations where stairs are provided, the stairs shall not be the only means of access when striving for accessibility of an exterior route, trail, or walkway. The alternative route should be immediately adjacent to the accessible exterior route, trail, or walkway.

Notes:

1) *Surface slope is important for accessibility. Surface firmness, stability, and slip resistance affect the effort required for a specific slope. Negotiating slopes is particularly difficult for a person using crutches, a walker, or a manual wheelchair.*

2) *Accessibility recommendations typically specify running and cross slope separately because slopes are minimal in most indoor environments and where significant slopes occur (e.g., a ramp) the direction of travel is clearly defined. However, the direction of travel on many outdoor surfaces is highly variable (e.g., sports fields) and turning to look in a different direction can easily change the relative slope. This Standard therefore addresses slope surface and changes in slope surface, regardless of the direction of travel.*

3) *For outdoor surfaces, slope is essential for controlling water flow. Water flow on paved and flat surfaces can be controlled with a 2% slope. As running slope increases, cross slope would also increase to move water off the surface. On unpaved surfaces, high water flow causes erosion and the absorption of water decreases surface firmness and stability.*

4) *Consistent slope over long distances can be fatiguing.*

5) *Transitions between two slopes are areas of risk, particularly for a person using a wheeled mobility device. Sudden changes of slope can jam wheels into an uphill surface or cause the mobility device to tip forward onto a downhill surface. The risk is increased if there is a change in level at the transition between two slopes.*

6.11 Clearances on or above outdoor surfaces

6.11.1 Clear width of path of travel

6.11.1.1 General

The minimum clear width is the width of the usable tread at the narrowest point on the surface. Vertical clearance is the distance between the surface and overhead surfaces (e.g., as in caves) or objects (e.g., tree branches, signs).

A clear width path of travel shall be provided to access facilities or furniture, including but not limited to accessible parking, play spaces, picnic tables, benches, potable water sources, dog off-leash areas, sport courts, outdoor assembly areas, waterfront areas, hot springs, and camping facilities.

6.11.1.2 Minimum clear width of path of travel

Outdoor surfaces shall have a clear width of at least 2000 mm to allow people to pass in opposite directions, with the following exceptions:

a) The clear width may be reduced to no less than 1200 mm where one or more conditions in Clause 2.3 exist. In areas where the clear width is less than 2000 mm, a passing space at least 2000 mm in width shall be provided at intervals of 100 m.

b) This provision does not apply in areas where at least 1000 mm clear width cannot be provided because one or more conditions for departure in Clause 2.3 exist.

c) If the surface is limited to travel in one direction or use of the surface is low (i.e., people are unlikely to have to pass others going in the opposite direction), the clear width shall be at least 1200 mm. Passing spaces at least 2000 mm in width shall be provided at intervals of 100 m or line of sight, whichever is longer.

The path of travel measurement may be included in the passing space width.

d) Fixed queuing guides shall have a minimum clear width path of travel of 1200 mm between posts/tapes.Fixed queuing guides shall also be cane-detectable. Where they require a change in direction, turning space requirements shall comply with Clause 6.1.3.

6.11.2 Protruding objects and vertical clearance

6.11.2.1 Minimum headroom

Objects that protrude into the space above the surface shall provide at least 2050 mm of clear headroom.

6.11.2.2 Detection of reduced headroom

Where vertical clearance is reduced to less than 2050 mm because one or more exemptions in Clause 2.3 exist, a barrier shall be provided to warn people who are blind or partially sighted. The barrier shall be located less than 700 mm above the surface. The barrier shall extend the full width of the area with reduced vertical clearance or at least 400 mm, whichever is less.

Note: *Barriers enable reduced overhead clearances to be detected by someone who is blind or partially sighted and navigating with a cane.*

6.11.2.3 Reduced headroom information

Where vertical clearance is reduced to less than 2050 mm because one or more exemptions in Clause 2.3 exist and a barrier cannot be provided to warn people who are blind or partially sighted, information about the potential for reduced headroom shall be provided. The information shall be available at the entry point to the surface or facility and made available to potential users prior to arrival.

6.11.2.4 Transit facilities

The clearance from the pavement to the underside of any ceiling structure or hanging object shall be at least 3000 mm at the passenger pick-up area and identified with a sign indicating the clearance height.

6.12 Changes in level and surface openings

6.12.1 Thresholds and changes in level

6.12.1.1 Vertical thresholds and changes in level

Vertical thresholds or changes may be vertical for a change in level of less than 25 mm.

6.12.1.2 Bevelled thresholds and changes in level

Thresholds and changes in level 25 mm to 200 mm shall be bevelled at a maximum slope of 1:3 (33%).

6.12.1.3 Large thresholds and changes in level

Changes in level greater than 200 mm shall be sloped and comply with Clauses 6.15.2 and 6.15.3.

6.12.2 Openings in the surface

6.12.2.1 Maintaining a level surface

Openings in the surface (e.g., grates or spaces between boards on a boardwalk) shall be designed so as not to allow any permitted users or their assistive devices to sink below the level of the surrounding surface.

6.12.2.2 Size of opening

The opening shall not allow passage of a sphere 13 mm in diameter.

6.12.2.3 Elongated openings

Elongated openings shall have the long dimension of the opening perpendicular or diagonal to the direction of travel.

6.13 Curb ramps and crosswalks

6.13.1 Curb ramp

A curb ramp shall be required when the elevation of the vehicular route is different from the elevation of the pedestrian route.

6.13.2 Accessible route

Curb ramps and crosswalks shall be aligned to provide a continuous, clear, and accessible route across the vehicular route.

6.13.3 Surface

The surfaces of curb ramps and crosswalks shall comply with Clause 6.10 except as specified in Clause 6.10.11.4.

6.13.4 Slope of curb ramps and transitions

The slope shall not exceed 1:10 for curb ramps and 1:20 for transitions.

6.13.5 Curb ramp sides

6.13.5.1 Return curb

Whenever possible, a return curb shall be used over the full length of the curb ramp to separate the edges of the ramp from the surrounding terrain. The return curb shall have a high tonal contrast of at least 70% and a change in texture at the outside of the return curb to designate it as not intended for pedestrian travel (see Figure 7).

Notes:

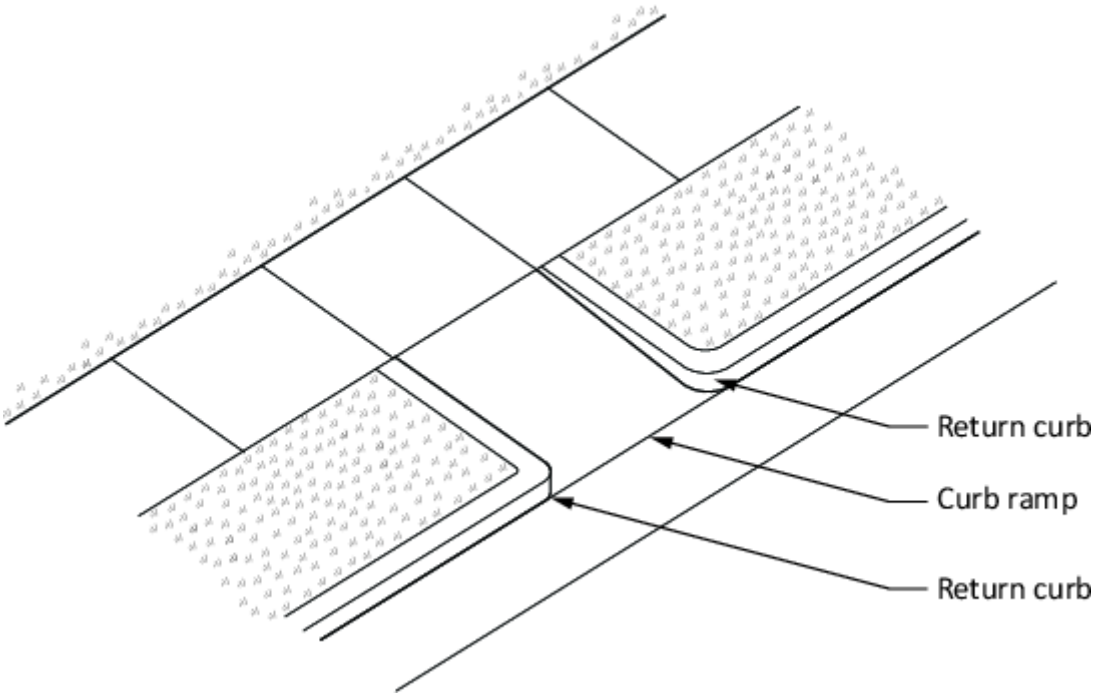
1) *A return curb is an edge that defines both sides of the curb ramp. Return curbs can also provide directional information for those who are partially sighted.*

2) *A change in texture would be if a concrete ramp is surrounded by wood, grass, or any other material.*

Figure 7

Return curbs

(See Clause 6.13.5.1.)



This figure shows a sidewalk as seen from above, with a curb ramp sloping down to the street and return curbs and grass on either side of the curb ramp.

6.13.5.2 Flared sides

Flared sides shall not be permitted for

a) new construction; or

b) extensive alteration unless existing infrastructure prevents the installation of a perpendicular or parallel curb ramp design.

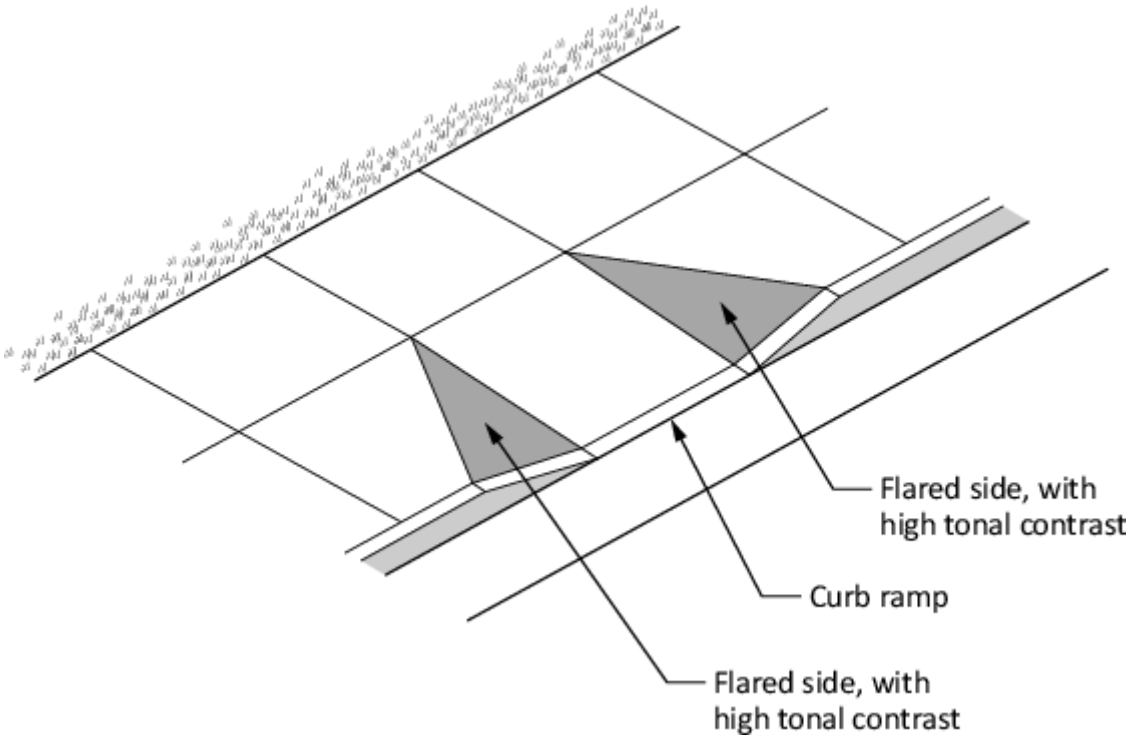
When flared sides are the only option, they shall not be steeper than 1:10 (10%). Flared sides shall have high tonal contrast of at least 70% with the ramp and with other surroundings. Flared sides shall be clearly demarcated (see Figure 8).

Note: *Flared sides are graded transitions between a ramp and a surrounding sidewalk.*

Figure 8

Flared sides

(See Clause 6.13.5.2.)



This figure shows a sidewalk as seen from above, with a curb ramp sloping down to the street and concrete flared sides, with high tonal contrast, on either side of the curb ramp.

6.13.6 Alignment

Curb ramps and crosswalks shall be aligned to provide pedestrians with the shortest distance of travel within the vehicular route. Wherever possible, the path of travel should be perpendicular to the vehicular route. Curbs and return curbs shall be used to define and convey the crossing direction.

6.13.7 Location and design of tactile attention indicator surfaces

Curb ramps shall have a tactile attention indicator surface that complies with Clause 9.3.7 to clearly delineate when the pedestrian is moving onto the adjacent vehicular surface. The tactile attention indicator surface shall extend across the full width of the curb ramp and the location of the surface shall comply with Clause 9.3.7.4.

6.13.8 Edge markings

The edges of curb ramps and crosswalks shall be marked by a surface that is permanent, has a high tonal contrast of at least 70%, is of a

different texture, and is at least 500 mm in width. Edge markings shall be placed on both edges of the curb ramps and on crosswalks parallel to the direction of travel.

6.13.9 Refuge area

Curb ramps and crosswalks shall provide a refuge area outside of the vehicular route that is a minimum of 1500 mm by 1500 mm in size with a slope not exceeding 1:20 (5%). A refuge area shall be provided as required by the crossing distance, calculated with a pedestrian crossing speed of 0.7 m/s. Refuge areas shall be on an accessible route.

Note: *A refuge area provides an area of safety for pedestrians.*

6.13.10 Pedestrian bypass

Pedestrian paths of travel for those not entering the vehicular route shall not encroach on the curb ramp or crosswalk.

6.13.11 Drainage

Curb ramp and crosswalk design shall provide for drainage to minimize water or ice accumulation on the accessible route. Drainage structures should not be located in the curb ramp or crosswalk surface.

6.13.12 Sightlines

Curb ramp and crosswalk design shall maintain adequate sightlines for the pedestrian to view the movement of traffic and for drivers to see the pedestrian. Sightlines shall be appropriate for pedestrians who are standing or seated in a mobility device. Parked vehicles shall not reduce the sightlines.

Notes:

1) *A well-designed curb ramp can be spoiled by an uneven or gapped transition between the road surface and curb ramp. While a smooth transition and minimal slope are ideal for someone using a wheeled mobility device, such smooth transitions are a potential hazard to people who are blind or partially sighted, children, or people with cognitive disabilities who might not recognize the transition from sidewalk to street.*

2) *Poor curb ramp design can present a tripping hazard for ambulatory people or a tipping hazard for people using mobility devices. Further research is needed to address the safety issues associated with all curb ramp designs (including specifications for grooves).*

3) *There is a need to design curb ramps and crosswalks with adjacent free space for snow storage. See Clause 10.5 for more details.*

4) *See Clause 7.15 for accessibility details related to beacons, signal activation, etc.*

6.14 Stairs and handrails

6.14.1 General

All stairs except stairs into water (see Clause 6.14.8) shall comply with the provisions in Clauses 6.14.2 to 6.14.7.

6.14.2 Riser height and tread depth

A flight of stairs shall have

a) uniform riser heights and tread depths;

b) risers not more than 180 mm high;

c) treads not less than 280 mm deep, measured from riser to riser; and

d) no open risers.

6.14.3 Tread surface

A flight of stairs shall have treads that are slip-resistant.

The leading edge of a stair tread shall have a durable strip with a high luminance (colour) contrast to the stair tread that is designed to

a) extend the full width of the tread;

b) be between 40 mm and 60 mm in depth; and

c) be luminance (colour) contrasted at least 70% with the tread and riser to comply with Clause 6.8.3.

6.14.4 Nosing

The nosing shall

a) project not more than 38 mm;

b) have no abrupt undersides;

c) have a radius of curvature at the leading edge of the tread not more than 13 mm;

d) where projecting, be sloped to the riser at an angle greater than 60° to the horizontal; and

e) have a horizontal strip 50 mm ± 10 mm deep that

   i) is luminance (colour) contrasted at least 70% with the tread and riser to comply with Clause 6.8.3; and

   ii) extends the full width of the tread.

6.14.5 Tactile attention indicator surfaces and stairs

A tactile attention indicator surface complying with Clause 9.3.7 shall

a) be located at the top of stairs;

b) be continuous across the width of the stair with a maximum gap of 75 mm to the stringer or end of the tread;

c) have a depth between 600 mm and 650 mm, commencing one tread depth from the edge of the stair;

d) be provided at stairs that are not enclosed; and

e) be provided at each landing, incorporating an entrance into a stair system where the regular stairway pattern is broken and where the run of a landing with no continuous handrail is greater than 2100 mm.

6.14.6 Stair handrails

Handrails shall

a) be installed on both sides of the stairs;

b) be of uniform height, from 860 mm to 920 mm, measured vertically from the leading edge of the tread;

c) be continuous around landings less than 2100 mm in length, except where the landing

   i) is intersected by an alternative path of travel; or

   ii) has an entry door leading onto it;

d) at the top of the stairs, extend at least 300 mm parallel to the floor surface;

e) at the bottom of the stairs, continue to slope for a distance equal to the depth of one tread and then extend at least 300 mm parallel to the floor surface;

f) have the rail extension return to the post or floor; and

   Note: *This is a potential hazard where there is cross-traffic, particularly for those who are partially sighted. The rail extension should always have to return to the floor or a post so that it is cane-detectable.*

g) be between 24 mm and 40 mm in diameter or maximum cross-section.

6.14.7 Handrails for play spaces

Handrails provided in play spaces shall meet the following requirements:

a) Handrails shall be between 25 mm and 40 mm in diameter or maximum cross-section.

b) The top of handrail gripping surfaces shall be between 510 mm and 710 mm above the ramp surface.

c) Handrails shall not be required at ramps located within ground-level protective surfacing zones. This includes

   i) ground-level ramps from the play spaces to the defined perimeter edge; and

   ii) ground-level ramps within a play space protective surfacing zone.

6.14.8 Stairs into water

Stairs leading into water shall have

a) a minimum width of 915 mm;

b) uniform riser heights (≥ 102 mm but < 153 mm); and

c) uniform tread depth (≥ 153 mm).

Handrails should extend 300 mm parallel to the water and should not end abruptly.

6.15 Ramps

6.15.1 General

Ramps shall comply with the provisions of Clauses 6.15.2 to 6.15.8, with the exception that ramps into water shall comply with Clause 6.15.9.

6.15.2 Running slope and length

A ramp shall have

a) a maximum running slope of 1:20 (5%); and

b) a horizontal distance between level landings not greater than 9000 mm.

Note: *Where one of the conditions for exemption occurs (see Clause 2.3), the running slope of the ramp may be increased to a maximum ratio of 1:12 (8.33%) as long as handrails that have a clear width of 920 mm to 1200 mm between the handrails are provided.*

6.15.3 Cross slope

The cross slope of an unpaved ramp surface shall not be steeper than the ratio of 1:20 (5%).

The cross slope of a paved ramp surface shall not be steeper than the ratio of 1:50 (2%).

6.15.4 Width

The clear width on a ramp shall be at least 1200 mm, including the handrails. A level passing space or landing shall be provided every 9000 mm.

6.15.5 Landings

A level landing shall

a) be provided at the top and bottom of each ramp;

b) be provided at all changes of ramp direction;

c) be at least as wide as the widest ramp leading to it;

d) have a length not less than 1500 mm;

e) have a width not less than 1500 mm; and

f) where it meets a slope change, have a 50 mm ± 10 mm wide luminance (colour) contrasted and slip-resistant strip equal to the width of the ramp that complies with Clause 6.14.3 b).

There shall be a level landing of a minimum area of 1700 mm by 1700 mm at openings and entrances to accessible routes.

Level landings shall include passing spaces that consist of a minimum area of 1700 mm by 1700 mm between two ramp segments of different levels and where there is a turn between two ramp segments.

6.15.6 Surface

A ramp surface shall comply with all provisions of Clause 6, except as noted in Clause 8.

Ramp surfaces shall be flush with adjoining path surfaces available for pedestrian use.

6.15.7 Edge protection

On ramps and landings that are not at grade or adjacent to a wall, protection shall be provided on all edges as specified in Clause 6.16.

6.15.8 Handrails on ramps

Ramps shall have handrails on both sides that

a) are continuous on both sides of the ramp and around landings, except where the landing

   i) is intersected by an alternative path of travel; or

   ii) has an entry door leading onto it;

b) are luminance (colour) contrasted with their surroundings by at least 70% to comply with Clause 6.8.3;

c) have a height between 860 mm and 920 mm, measured from the ramp surface to the top of the rail;

d) at the top of the ramp, extend at least 300 mm parallel to the floor surface;

e) at the bottom of the ramp, continue to slope for a distance of 300 mm and then extend at least 300 mm parallel to the floor surface; and

f) have the rail extension return to the post or floor.

   Note: *This is a potential hazard where there is cross-traffic, particularly for people who are blind or partially sighted. The rail extension should return to the floor or a post so that it is cane-detectable.*

6.15.9 Ramps into water

See Clause 7.10.4.2.

6.16 Edge protection and guards

6.16.1 General

Edge protection or guards shall be provided on surfaces where there is an immediate drop that is between 200 mm and 600 mm adjacent to the surface. Edge protection is not required for a standard road curb.

6.16.2 Surfaces near water

Guards complying with Clause 6.16.4 shall be provided on surfaces adjacent to water that has a depth of at least 600 mm.

6.16.3 Edge protection

Where required, edge protection shall be provided on all edges where the adjacent surface is at least 200 mm above or below the level of the outdoor surface. Edge protection shall have a curb at least 100 mm in height or have railings or other barriers that extend to within 100 mm of the outdoor surface.

6.16.4 Guards

For grade differentials greater than 600 mm, guards shall be provided. Guards shall be vertical and not less than 1070 mm to 1380 mm in height measured vertically to the top of the guard from the adjacent surface. To prevent climbing and maintain safety, a 100 mm sphere shall not pass through the lower 865 mm of the guard system.

6.16.5 Drainage

Edge protection and guards shall be designed so as not to impede drainage of the surface.

6.16.6 Tonal or texture contrast

Where edge protection or guards are provided, the edge protection or guard shall have a luminance (colour) contrast of at least 70% with the surrounding surface to comply with Clause 6.8.3 and/or a texture contrast marking.

7 Facilities and furniture

7.1 General

7.1.1 Inclusions

“Facilities and furniture” includes but is not limited to

a) tables;

b) benches;

c) light standards;

d) planters;

e) ticketing dispensers;

f) payment machines;

g) tree grates;

h) signposts;

i) transformers;

j) mailboxes;

k) newspaper stands;

l) trash containers;

m) planters;

n) bus shelters;

o) benches;

p) A-frame or sandwich board signs;

q) bike racks;

r) publication structures;

s) information/wayfinding pillars;

t) poster kiosks; and

u) drinking fountains and water bottle filling stations.

Facilities and furniture should be designed to enhance the accessible journey, whether they are reserved for use only by people with disabilities (e.g., accessible parking spaces) or are designated accessible facilities that can also be used by those without disabilities (e.g., accessible toilet stall).

All facilities and furniture shall comply with the provisions in Clause 6 in addition to those specified in this Clause.

7.1.2 Clear width

Facilities and furniture shall not overlap or reduce the clear width of the outdoor path of travel.

7.1.3 Adjacent access

Facilities and furniture shall be adjacent to the outdoor path of travel and connected to the path of travel by an accessible surface.

7.1.4 Number of facilities/furniture items

Where only one of each type of facility or furniture is provided, it shall comply with this Standard.

Where more than one of each type of facility or furniture is provided in the same area/facility or for the same purpose (e.g., multiple benches or parking spaces, staff and visitor parking spaces or entrances), the number required to comply with this Standard for each type shall be as shown in Tables 3 and 4.

Table 3

Facilities and furniture not reserved for people with disabilities

(See Clause 7.1.4.)

This table shows the minimum number of accessible facilities or furniture required for the total number of the facilities or furniture. The table has two columns. The left column shows the total number of each type of facilities or furniture. The right column shows the minimum number of accessible units required for each type of facilities or furniture.

Total number of each type of facilities or furniture	**Minimum number of accessible for each type of facilities or furniture**
2–10 per type of facilities or furniture	2 accessible
11–30 per type of facilities or furniture	3 accessible
31 or more per type of facilities or	10% of total number

furniture	

Table 4

Facilities and furniture reserved for people with disabilities

(See Clause 7.1.4.)

This table shows the minimum number of accessible facilities or furniture required to be reserved for people with disabilities for the total number of the facilities or furniture. The table has two columns. The left column shows the total number of each type of facilities or furniture. The right column shows the minimum number of accessible units required for each type of facilities or furniture.

Total number of each type of facilities or furniture	**Minimum number of accessible for each type of facilities or furniture**
2–30 per type of facilities or furniture	2 accessible
31–59 per type of facilities or furniture	3 accessible
60 or more per type of facilities or furniture	5% of total number

Note: *For example, if there are 10 drinking fountains/bottle filling stations, then there would be two that are accessible. If there is a 300-seat outdoor amphitheatre, then 30 seats would be accessible or 15 seats would be reserved for people with disabilities.*

7.2 Parking and vehicle amenities

7.2.1 Parking spaces

7.2.1.1 Automobile parking spaces

The number of designated accessible parking spaces shall be determined as shown in Clause 7.1.4.

A designated accessible parking space that is reserved for people with disabilities or, where provided as a courtesy, a parking space for users with limited mobility shall

a) be at least 2600 mm wide and 7500 mm long;

b) have an adjacent side access aisle that complies with Clause 7.2.2 and is at least 2000 mm wide; and

c) have an adjacent rear access aisle that complies with Clause 7.2.2 and is at least 2000 mm long.

7.2.1.2 Van parking spaces

A designated van accessible parking space that is reserved for people with disabilities or, where provided as a courtesy, a parking space for users with limited mobility shall

a) be at least 3400 mm wide and 7500 mm long;

b) be provided for every six accessible automobile parking spaces;

c) have an adjacent side access aisle that complies with Clause 7.2.2 and is at least 2000 mm wide; and

d) have an adjacent rear access aisle that complies with Clause 7.2.2 and is at least 2000 mm long.

7.2.1.3 Camper or recreational vehicle parking spaces

A designated accessible parking space for campers and recreational vehicles that is reserved for people with disabilities or, where provided as a courtesy, a parking space for users with limited mobility shall

a) be at least 6000 mm wide and 6000 mm long;

b) have an adjacent side access aisle that complies with Clause 7.2.2 and is at least 2000 mm wide and as long as the parking space; and

c) have an adjacent rear access aisle that complies with Clause 7.2.2 and is at least 2000 mm wide and 6000 mm long.

7.2.2 Parking space identification

A designated accessible parking space (whether for automobile, van, or camper/RV) that is reserved for people with disabilities or, where provided as a courtesy, a parking space for users with limited mobility shall be identified by

a) a vertically mounted sign that is at least 300 mm wide by 450 mm high, is mounted such that the centre of the sign is between 1500 mm and 2000 mm from the ground, and incorporates the International Symbol of Access (see Annex C); and

b) if the parking space is paved, a painted sign on the pavement that is in the centre of the parking space, luminance (colour) contrasted with the background pavement by at least 70% to comply with Clause 6.8.3, at least 1000 mm long, and incorporates the International Symbol of Access (see Annex C).

7.2.3 Parking space location

7.2.3.1 Parking space distribution and distance

A designated accessible parking space that is reserved for people with disabilities or, where provided as a courtesy, a parking space for users with limited mobility shall be distributed to best ensure accessibility and user convenience. The parking space shall be located within 30 m of the main accessible entrance (whether for a building, park, or trailhead). The parking space shall provide a clear and unobstructed view of the facility entrance and be connected to the entrance by an accessible route.

7.2.3.2 Adjacent curb ramp for on-street parking

A designated accessible parking space that is reserved for people with disabilities or, where provided as a courtesy, a parking space for users

with limited mobility that is located on a vehicular route shall be located within 6 m of a curb ramp that provides access to the adjacent pedestrian route.

7.2.3.3 Surrounding vegetation

Parking spaces shall provide a minimum 1000 mm of clear area from surrounding forest and/or vegetation. The clear area should be maintained so that it continues to be clear of any encroaching vegetation or plantings.

7.2.4 Access aisles and passenger loading and unloading/drop-off zones

7.2.4.1 Identification

Access aisles and passenger loading and unloading/drop-off zones shall have diagonal markings that resist fading or removal and are luminance (colour) contrasted with the surrounding surface by at least 70% (see Clause 6.8.3).

7.2.4.2 Facility connections

Passenger loading and unloading/drop-off zones and parking spaces shall have an access aisle that is adjacent and parallel to the vehicle pull-up or parking space and complies with the provisions in Clause 6. The accessible route shall connect with nearby facilities and furniture.

Note: *Accessible facility connections are key to creating an accessible journey.*

7.2.4.3 Adjacent curb ramp for on-street facilities

Access aisles and passenger loading and unloading/drop-off zones that are located on a vehicular route shall be located within 6 m of a curb ramp that provides access to the adjacent pedestrian route.

7.2.4.4 Passenger waiting areas

Passenger loading and unloading/drop-off zones should provide seating areas that

a) comply with the provisions in Clause 6;

b) are located adjacent to the accessible entrance; and

c) provide an unobstructed view of the passenger loading and unloading/drop-off area.

Note: *Providing a covered seating area can enhance accessibility for facilities used during inclement or sunny weather.*

7.2.5 Power charging stations for electric vehicles

7.2.5.1 General

Power charging stations shall comply with the provisions in Clause 6. Parking spaces provided to access the charging station shall comply with all provisions in Clause 7.2.

7.2.5.2 Exposure to elements

Power charging stations should be located under cover to protect the user and the charger from extreme weather conditions.

7.3 Outdoor play facilities

7.3.1 General

Outdoor play facilities are any designed and/or constructed structures or spaces that children are expected to use for play. These may include but are not limited to

a) natural areas (e.g., areas that contain logs, rocks, sand, or water);

b) constructed play areas;

c) areas for water or sand play;

d) climbing facilities;

e) sports fields and courts;

f) spray pads/spray parks/splash pads; and

g) swings.

Accessible play facilities should provide all children with access to play opportunities. They should also provide opportunities for parents/guardians/caregivers with disabilities to play with their children.

Play experiences for children who have disabilities shall be integrated and similar to those provided for all children. Consideration shall be given to providing sensory and active play experiences.

Note: *An example of a play experience could be a hill without a structure.*

7.3.2 Design

Outdoor play facilities shall comply with all provisions in Clause 6 in addition to the requirements specified in Clause 7.3 with the following exceptions:

a) Elevated surfaces may be reduced in width to 1000 mm provided that a turning space 1500 mm in diameter is provided in cases where the restricted accessible route is greater than 1000 mm in length.

b) In playgrounds less than 100 m_2 in size, the clear width of ground level accessible routes may be reduced to a minimum of 1000 mm provided at least one turning space 1500 mm in diameter is provided in cases where the restricted accessible route is greater than 1000 mm in length.

7.3.3 Ground level play components

7.3.3.1 Number of ground level play components

Where ground level play components are provided, at least one of each type of component shall be located on an accessible route.

Ground level play components that would be required by the provisions set out in Clause 7.1.4 shall not be required provided at least

a) 50% of the elevated play components are connected by an accessible route; and

b) three of the elevated play components connected by an accessible route are components with notably different play experiences (i.e., including sensory, physical, imaginative, social, and creative play).

7.3.3.2 Use of ground level play components

Ground level play components shall provide appropriate activities and challenges for users who are either standing or in a seated position on the ground.

7.3.3.3 Play tables

Where play tables are provided, knee clearance shall be provided and comply with Clause 6.3.2. The height of rims, curbs, or other obstructions shall also comply with Clause 6.3.2.

Play tables designed or constructed primarily for children ages five and under need not provide knee clearance if

a) the clear ground space is arranged for a parallel approach; and

b) the height of the rim surface is not greater than 785 mm.

7.3.4 Elevated play components

7.3.4.1 Number and use of elevated play components

Where provided, elevated play components shall

a) have at least 50% of play features and elements located on a surface meeting accessibility requirements and on an accessible route; and

b) provide appropriate activities and challenges for users who are either standing or in a seated position.

7.3.5 Water play areas

7.3.5.1 Luminance (colour) contrast

Wet surfaces shall be luminance (colour) contrasted from surrounding areas by at least 70% (see Clause 6.8.3). Areas where there are slope transitions shall be luminance (colour) contrasted. Upright features shall be luminance (colour) contrasted from the ground surface.

7.3.5.2 Sightlines, shade, and seating

Any seating around water play areas shall have clear sightlines to the water play area. Opportunities for both shade and seating should be provided.

7.3.5.3 Washrooms and changerooms

Where washrooms or changerooms are provided, they shall comply with all provisions in Clauses 6 and 7.1.4.

7.4 Furniture and amenities

7.4.1 General

All furniture and amenities shall comply with Clause 6 in addition to requirements specific to bicycle amenities, telescopes and periscopes, and eating areas provided in Clauses 7.4.2 to 7.4.5.

7.4.2 Bicycle racks, storage, and lock-ups

Where bicycle racks, storage, and lock-ups are provided, at least one shall be a minimum 1800 mm high by 1000 mm wide by 1500 mm deep.

The number of accessible bicycle racks, storage facilities, and lock-ups shall comply with Clause 7.1.4.

A clear ground space in front of bicycle racks, storage facilities, and lock-ups shall adhere to the provisions in Clause 6.1.

7.4.3 Telescopes and periscopes

Where provided, at least one telescope and/or periscope shall be suitable for use from a seated and standing position.

The eyepiece for the telescope or periscope that is usable from a seated position shall be at a height of 1090 mm to 1295 mm above the surface.

The clear floor space and accessible path to the telescope or periscope shall allow a forward approach to comply with Clause 6.3.1. The clear floor space shall be positioned so that the eyepiece of the telescope or periscope is centred on the space.

7.4.4 Tables

Where provided, tables shall provide knee and toe clearance that complies with the provisions in Clause 6 on at least one side of the table.

Note: *Tables that are not eating tables include but are not limited to craft tables, fish-cleaning tables, and registration tables.*

7.4.5 Eating facilities

7.4.5.1 Accompanying facilities

Where additional facilities (e.g., parking, toilets, potable water sources) are provided, eating facilities should be located within 200 m of those facilities.

7.4.5.2 Eating facility distribution

Accessible picnic tables should be located throughout the picnic area. If shaded areas or shelters are provided, the number of accessible picnic tables in these areas shall comply with Clause 7.1.4.

7.4.5.3 Outdoor fire pits or cooking facilities/hot stoves

Where outdoor fire pits or cooking facilities/hot stoves are provided in outdoor public use areas, they shall be located on a surface with high tonal and textural contrast with the adjacent surfaces. The clear space around all usable sides of the fire pit or cooking facility shall comply with Clause 6.1.2.

Note: *Aspects of fire-building surfaces such as height and wall thickness are not addressed in this Standard as these can vary by design.*

7.5 Service animal facilities

7.5.1 Service animal relief area

If provided, service animal relief areas shall be at least 3000 mm by 3000 mm and located on an accessible path of travel within 30 m of entrances and exits. The relief area should consist of a grass surface. Waste receptacles should be provided on an accessible path adjacent to the relief area.

Signage in compliance with Clause 5.2 should clearly designate the use of the area by service animals. The service animal relief area should be located away from busy pedestrian areas such as access routes and patios.

7.5.2 Tethering hooks

Tethering hooks for service animals should be provided and located on pool decks or perimeter areas that are at the same surface level as the owner. Clear sightlines between the service animal and owner shall be provided. The clear space or stall for each hook shall be a minimum 1600 mm wide and 1300 mm deep. Tethering hooks should be located near a drain or on a permeable surface.

7.6 Assembly areas and amphitheatres

7.6.1 Seating spaces for people using wheeled mobility devices

Seating spaces for people using wheeled mobility devices shall be located on an accessible route. The number of wheeled mobility device seating spaces shall comply with the provisions in Clause 7.1.4.

Two seating spaces accessible for persons using a wheeled mobility device should be provided side by side in any one location with adjacent seating provided for ambulatory companions.

Wheeled mobility device seating spaces should be dispersed throughout the seating area to provide sightlines that are comparable in all viewing areas. Fixed seating adjacent to the wheeled mobility seating spaces shall have a movable armrest to facilitate the ability of someone to transfer from their own mobility device into the fixed seating. Wheeled mobility device seating may be provided by temporarily removing seats.

Note: *Aisles that have a minimum width of 600 mm measuring from the front of the bench to the back of the bench of the aisle in front are helpful to people of all abilities.*

7.6.2 Stages

Stages should provide an accessible surface (see Clause 6.10) and be located on an accessible route.

Note: *This requirement is intended to ensure that the stage surface itself is accessible (i.e., to clarify that accessibility requirements for assembly areas and amphitheatres do not apply just to patrons watching the performance).*

7.6.3 Lighting for assembly areas and amphitheatres

Assembly areas and amphitheatres shall provide sufficient lighting to enable patrons to move throughout the space as needed, including for emergency egress. Lighting shall also be sufficient to enable a clear view of sign language interpreters.

7.6.4 Amplification of sound in assembly areas and amphitheatres

Audio systems in assembly areas and amphitheatres shall be compatible with personal amplification systems.

Note: *Personal amplification systems currently use infrared or other similar technology. However, with technology in this field rapidly changing, specifying a certain technology might mean it could be outdated by the time this Standard is published. The wording in this Clause ensures the system only has to be compatible, regardless of format.*

7.7 Marina environments, docks, and piers

7.7.1 Docks

Note: *Clauses 7.7.1.1 and 7.7.1.2 apply to both fixed and mobile docks.*

7.7.1.1 Extended support railing

A railing that extends 450 mm beyond the edge of the dock and over the watercraft should be provided for added stabilization when entering and exiting a watercraft.

7.7.1.2 Identification of dock edge

The edge of the dock should be emphasized with a luminance (colour) contrasting strip that is at least 50 mm wide in compliance with Clause 6.8.3. The strip should extend across the entire length of the dock edge except where a guard or handrail is provided as a barrier.

7.7.2 Sea walls and piers

7.7.2.1 Accessible space

Accessible spaces (e.g., viewing spaces, fishing spaces) shall be a minimum 1200 mm by 1200 mm for each person intended to be in the space.

7.7.2.2 Top rail position

The top railing of guardrails should be slanted toward the person to provide an armrest.

The height of the safety guardrail shall comply with all provisions in Clause 6, with the exception that a portion of the safety rail may be lowered to 800 mm if needed to facilitate fishing and other activities by users who are seated.

7.7.2.3 Shade, shelter, and seating

Shade, shelter, and seating should be provided. Where possible, at least one seat for each two accessible spaces should be provided.

7.7.3 Boat launches

Boat launches shall be located on an accessible route. The portion of the accessible route located within the launch ramp shall comply with all provisions in Clause 6 except for the slope requirements in Clause 6.10.11.

7.8 Outdoor showers

7.8.1 Seating

An outdoor shower mounted on a wall or pole shall have a seat that is 450 mm wide and 400 mm deep. The seat may be fixed or hinged to

fold down from the wall or pole. The seat should be able to carry a load of 1300 N.

7.8.2 Grab bars for outdoor showers and rinsing showers

Outdoor showers and rinsing showers mounted on a wall or pole shall provide a grab bar.

For outdoor showers and rinsing showers where the shower head is mounted on a post, a vertical or circular grab bar shall be provided:

a) For vertical grab bars, the bar shall be installed directly under the shower head. It shall extend from no more than 840 mm above the floor or ground to within 75 mm of the shower head.

b) A circular grab bar, which may be used in place of a vertical grab bar, shall surround the usable part of the post and be installed under the shower head between 840 and 915 mm above the ground or floor.

For outdoor showers and rinsing showers where the shower head is mounted on a wall, a horizontal grab bar shall be provided. The bar shall be installed under the shower head between 840 mm and 915 mm above the ground or floor and extend at least 455 mm in both directions from the centre line of the shower head.

7.8.3 Fixed shower heads

Outdoor showers shall have two fixed shower head spray positions:

a) one that is mounted at a height between 1200 mm and 1350 mm for a low-rinsing shower; and

b) one that is mounted at a height between 1850 mm and 2030 mm for a standing shower.

An adjustable shower head may be used as an alternative to having two shower heads. If an adjustable shower head (i.e., shower wand) is used, then it shall meet the same requirements for reach ranges as fixed shower heads.

Whether a fixed shower head or an adjustable shower head is used, both types shall meet all requirements for operating controls (see Clause 6.5).

7.8.4 Handheld shower heads

Outdoor showers that provide a handheld shower spray unit shall have a hose length of 1800 mm.

7.8.5 Water temperature

The temperature of the water delivered through outdoor showers shall not exceed 49 °C.

7.8.6 Clear space around shower

The clear floor space shall be centred on the showerhead and located so that the showerhead is at the rear of the space.

7.9 Outdoor toilets

7.9.1 Toilet paper dispensers

If provided, a toilet paper dispenser and/or hand sanitizer dispenser shall comply with Clause 6.

7.9.2 Grab bars

Grab bars shall be provided for outdoor toilets if the structural support (e.g., walls) is available to enable compliance. The grab bars shall

a) be able to resist a force of 1.3 kN in any direction;

b) be slip-resistant;

c) have a diameter between 30 mm and 40 mm; and

d) where mounted adjacent to a wall, have a space of between 35 mm and 45 mm between the grab bar and the wall.

Two grab bars, one horizontal and one vertical and each at least 760 mm in length, should be provided on the side of each accessible outdoor toilet. The horizontal bar shall be 760 mm to 850 mm above the floor. The vertical bar shall be located immediately above the

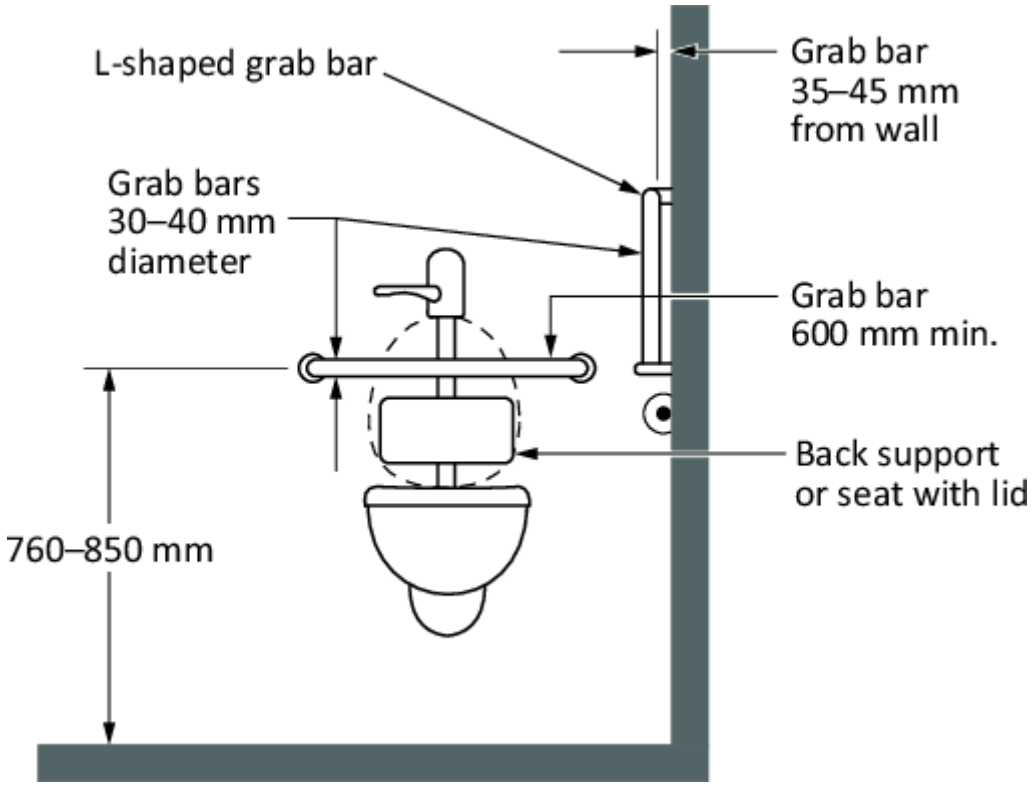
horizontal bar and 150 mm in front of the toilet (see Figures 9a and 9b).

A horizontal grab bar should be provided on the rear wall, centred above the toilet. This rear wall grab bar should be not less than 600 mm long and mounted 760 mm to 850 mm above the floor, except where the toilet has an attached water tank, in which case the grab bar shall be mounted 100 mm above the top of the tank.

Figure 9a

Grab bars

(See Clause 7.9.2.)

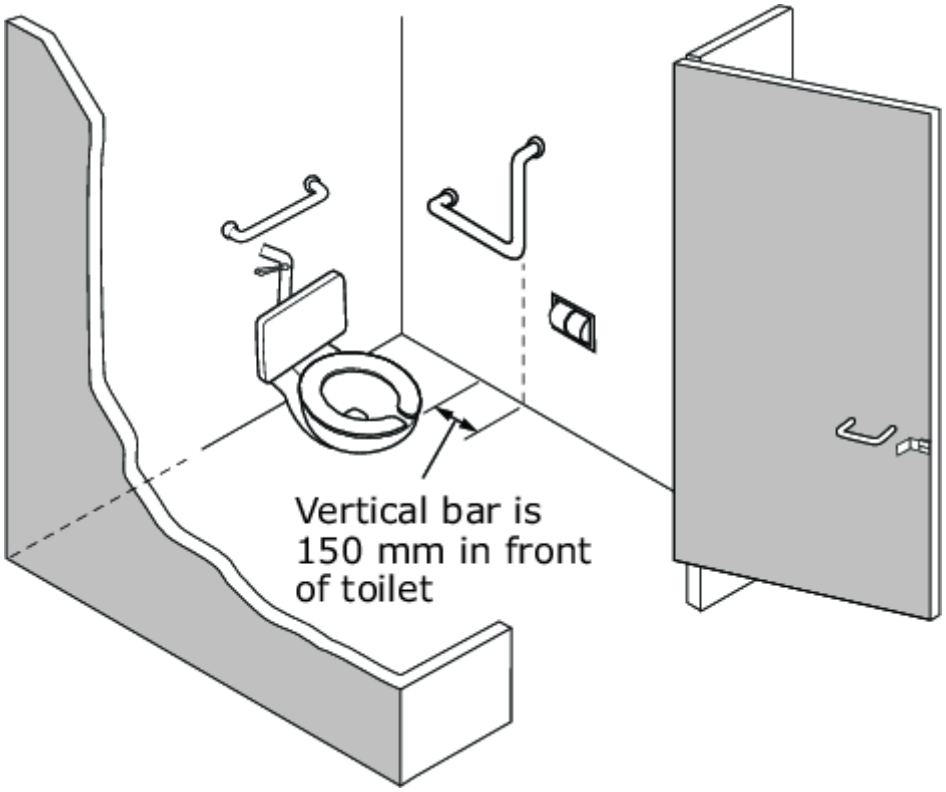


This figure shows an illustration of a toilet seen from the front, the grab bar behind it, and the grab bar to the side of it. The rear grab bar does not obstruct the flush handle of the toilet. The dimensions of the horizontal rear grab bar are labelled as follows: height of 760 mm to 850 mm, a minimum length of 600 mm, and a diameter of 30 mm to 40 mm. All grab bars are shown to be 35 mm to 45 mm from the wall.

Figure 9b

Positioning of vertical grab bars for accessible toilets

(See Clause 7.9.2.)



This figure shows a toilet stall as seen from a three-quarters view and slightly above, with the toilet and rear and side grab bars in full view. The distance between the front edge of the toilet and the side grab bar is 150 mm.

Notes:

1) *Figures 9a and 9b apply to outdoor toilets only where walls exist.*

2) *In cases where there are no side walls or side walls that could safely accommodate grab bars that comply with Clause 7.9.2, two flip-down wall-mounted grab bars could be considered for installation on both sides of the toilet secured to the wall behind the toilet.*

3) *An L-shaped grab bar would be a suitable substitute for horizontal and vertical bars. Any other added elements should not interfere with the functionality of the grab bar.*

7.10 Facilities for activities in water

7.10.1 General

All facilities that provide activities carried out in water sources (e.g., pools, hot tubs, spas, hot springs, lakes, ponds) shall comply with this Clause.

7.10.2 Identification of water edge

Pool and hot tub/spa edges shall be

a) a high-contrast colour (luminance) to comply with Clause 6.8.3; and

b) a texture that differs from the surrounding surfaces.

7.10.3 Entry into water facilities

Entry into a pool, hot tub/spa, or hot spring shall be by ramp, transfer platform, or both. A lift may also be provided.

7.10.4 Ramp entrances to water facilities

7.10.4.1 Identification of ramp entrance

The entrance to ramps providing access to pools and hot tub/spas shall be

a) a high-contrast colour (luminance) to comply with Clause 6.8.3; and

b) a texture that differs from the surrounding surfaces.

7.10.4.2 Pool ramps

Pool ramps shall

a) have surfaces that are slip-resistant;

b) have a slope not exceeding 1:12; and

c) be at least 920 mm wide.

Water depth at and near the foot of a pool ramp shall not exceed 750 mm.

7.10.4.3 Water wheelchair

A water wheelchair shall be provided for all pools and hot tubs/spas that have a ramp entrance.

7.10.5 Lifts into water facilities

Mechanical lifts and swings are the least desirable form of pool entry. Removable lifts are preferable (to minimize damage to the lift when not in use).

Where lifts are provided, they should

a) be located where the water level is shallower than 1220 mm;

b) be next to a 900 mm wide by 2200 mm deep clear deck space that

   i) is parallel for transfer onto the pool lift seat; and

   ii) is 305 mm measured from a line located behind the rear edge of the seat; and

c) have a 1:50 (2%) maximum running slope at deck surface from the centre line of the pool lift seat to the pool edge.

7.11 Campgrounds

7.11.1 General

All amenities within accessible campsites/campgrounds including but not limited to clear ground space around tent pads/platforms, operating controls, and eating areas shall comply with Clause 6. Signage provided at campgrounds shall comply with Clauses 5.2 and 9.

7.11.2 Parking for campsites

Accessible drive-in campsites shall include an accessible parking space on the site. Campsites that can only be reached by hiking or paddling shall provide an accessible parking space at the access point or trailhead.

7.11.3 Connections

Accessible campsites shall be connected to accessible washrooms, hook-ups, program areas, and other facilities by an accessible route.

7.12 Temporary facilities

Where temporary facilities are provided, the temporary facilities shall comply with the relevant Clauses of this Standard.

Note: *Examples of temporary facilities include portable toilets, temporary seating, amusement rides that are not permanent, tents, and temporary eating facilities.*

7.13 Passenger lift systems

7.13.1 General

Passenger lift systems include gondolas, trams, chair lifts, rope tows, lift harnesses, and other devices that transport passengers uphill, either at ground level or elevated above the ground.

7.13.2 Transport of mobility devices

Passenger lift systems should be designed so that mobility devices used by the passenger can be transported with the owner.

7.13.3 Accommodation of mobility devices

Passenger lift systems should be designed so that the passenger is not required to transfer out of their mobility device in order to utilize the lift.

7.13.4 Speed of loading

Passenger lift systems may provide options to enable a slower speed during loading or allow the passenger compartment to be stationary during loading to increase accessibility.

Note: *See Clause 6.6 for provisions related to the configuration of the lift seat and height of the seat from the snow.*

7.14 Power charging stations for mobility devices

7.14.1 General

Where provided, power charging stations for powered mobility devices shall comply with Clause 6.

7.14.2 Exposure to elements

The power charging station should be located under cover to protect the user and the charger from extreme weather conditions.

7.15 Pedestrian beacons and signals

7.15.1 General

Where provided, pedestrian beacons and signals shall comply with Clause 6.

7.15.2 Location

The beacon/signal shall be located on an accessible path of travel. It shall not be located on a curb ramp. Access to the signal shall not be affected by weather, street furniture, or by snow clearing/snow storage.

7.15.3 Auditory signal

The beacon/signal shall emit an audible signal to identify the safe crossing time and direction. The audible signal shall respond to ambient sound levels, being quieter in times with less traffic.

8 Additional requirements for accessible surfaces

8.1 General

Outdoor surfaces include surfaces on all outdoor spaces listed in Clause 2.1.

All outdoor surfaces shall comply with Clause 6 except as indicated in Clauses 8.2 to 8.6.

The requirements for accessibility shall apply to both paved and unpaved surfaces and to surfaces located in urban, rural, and wilderness settings. The requirements shall apply to all surfaces, whether accessible to the public or employees only.

8.2 Trails

8.2.1 Trail surfaces

All trail surfaces shall comply with Clauses 6.10.2, 6.10.3, 6.10.4, 6.10.6, 6.10.9, and 6.10.11. The surface of a trail may comply with Clauses 6.10.5, 6.10.7, and 6.10.8.

8.2.2 Use of surface texture or type to convey information

A change in surface texture or type should be used to indicate to a person who is blind or partially sighted that there is information (e.g., interpretive signage) or facilities (e.g., a bench) available adjacent to the trail. The different surface texture or type should continue across the full width of the trail for a distance of at least 250 mm.

8.2.3 Trail tread width

8.2.3.1 Minimum trail tread width

Except as specified in Clause 8.2.3.2, trails shall have a clear width of at least 1000 mm. Passing spaces that are at least 1700 mm in width shall be provided every 100 m or within the user's line of sight, whichever is shorter.

8.2.3.2 Trail tread width for higher-use trails

Where trails are designed with the expectation that users will need to pass others who are moving in the opposite direction at intervals of 5 min or less or distances of 100 m or less, the tread width shall comply with Clause 6.11.1.2.

8.3 Beach access routes

8.3.1 General

Except as provided in Clause 2.3, permanent or removable beach access routes shall comply with all provisions in Clauses 6 and 8.

The beach access route shall extend from the parking or arrival areas to the high tide level at tidal beaches, to the mean high-water level at river beaches, or to the normal recreation water level at lakes, ponds, and reservoir beaches.

Beach access routes shall not be required where pedestrian access to the beach is not permitted.

8.3.2 Beach access route locations

Beach access routes shall be provided in a number that complies with Clause 8.3.3 where any of the following facilities to serve the beach are constructed or altered, or when a beach nourishment project is undertaken for a developed beach which permits pedestrian access:

a) where circulation routes such as boardwalks, walkways, or dune crossings are provided along or across developed beach sites to provide pedestrian access to the beach or shoreline;

b) where parking facilities are provided at developed beach sites and pedestrian access to the beach is provided near the parking facilities;

c) where shower and toilet facilities are provided at developed beach sites and pedestrian access points to the beach are provided near the shower and toilet facilities; or

d) where a beach boat launch is located.

8.3.3 Minimum frequency of beach access routes

At least one beach access route shall be provided for each 500 m of shoreline where required by Clause 8.3.2.

The number of beach access routes shall not be required to exceed the number of pedestrian access points that are provided to a beach.

8.3.4 Connections

Beach access routes shall coincide with or be located in the same general area as the pedestrian access points to the beach.

8.3.5 Outdoor constructed features

Where provided on beach access routes, outdoor constructed features (e.g., picnic tables, grills, water hydrants) shall comply with Clause 7.

8.3.6 Removable beach access routes

Removable beach access routes may be moved to a protected storage area during storms and other periods when the routes might be subject to damage. Removable beach access routes shall be returned to their appropriate position when the environmental conditions that required the removal of the temporary beach access route have abated.

8.3.7 Access into the water

Ramps or stairs complying with Clauses 6 and 7.10 may be provided to facilitate access into the body of water. A dry level place at least 1800 mm by 1800 mm to park mobility devices should be provided adjacent to the water's edge.

Note: *When access to an outdoor environment is no longer permitted, management of the accessible route ensures a person does not mistakenly enter the closed outdoor environment (see Clauses 9 and 10).*

8.4 Docks and water access points

The surface of the dock or water access point shall comply with Clauses 6 and 7.10. Compliance of a floating dock with this Standard shall be met when the dock is not affected by wind or waves.

8.5 Surfaces for accessing outdoor fire pits, cooking facilities, or hot ovens

8.5.1 Clear width

Surfaces for accessing outdoor fire pits, cooking facilities, or hot ovens shall comply with Clause 6. If one or more than one of the conditions for exemption in Clause 2.3 exists, then the clear tread width may be reduced to no less than 1200 mm (the exception outlined in Clause 6.11.1.2 b) does not apply).

8.5.2 Slope

The maximum permitted slope on surfaces for accessing outdoor fire pits, cooking facilities, or hot ovens shall be 1:33 (3%). No exceptions shall be permitted.

8.6 Temporary surfaces

8.6.1 Description

Temporary paths are surfaces that are or can be installed or removed. Examples include

a) mats for crossing beaches or soft sand surfaces at low tide;

b) paths installed temporarily for special events; and

c) paths for providing accessibility for people using mobility devices.

Temporary surfaces can also be installed when construction or maintenance activities affect the accessible path of travel.

8.6.2 General

Temporary paths shall comply with Clauses 6 and 7. Temporary paths shall be durable, water-resistant, and securely positioned so that they cannot move during use. Temporary paths shall comply with this Standard at all times when in use.

8.6.3 Conveying information

Information that complies with Clause 9.3.4.2 regarding the location of, conditions on, and how to access the temporary path shall be available at the point of access and prior to arrival at the site.

9 Wayfinding and communicating universal information

Note: *This Clause describes the wayfinding requirements that allow a person to plan and safely enjoy an outdoor experience. To achieve this in outdoor spaces, information needs to be clear and simple while still offering enough detail to accommodate the diverse range of abilities of individuals, the variety of assistive devices that are used, and any supports that might be available. It includes information to plan a trip and to safely travel to and around a destination, as well as options for providing feedback so that the experience can be improved in the future. Audio-visual communications, paper-based brochures, maps, directions and associated description, signage, and design*

considerations for wayfinding in outdoor environments are addressed. Additionally, feedback mechanisms that allow for concerns and suggestions help ensure the experience is continually improved and benefits everyone.

9.1 General

9.1.1 Format

Information shall be provided so that persons with disabilities receive any publicly available information (including information about regulations, services, facilities, directions, and available equipment) in ways that are accessible to them. This means offering printed or electronic information in alternative formats in addition to conventional print and video with closed captioning.

Alternative formats should ensure that everyone has equal access to the information. Alternative formats include but are not limited to

a) accessible electronic text formats;

b) large print;

c) audio formats;

d) braille;

e) pictures or pictograms;

f) plain language; and

g) sign language.

Information on websites or in other electronic formats shall be compatible with adaptive technology, including software that converts text to voice (i.e., screen readers) for persons who are blind or partially sighted.

Although websites are available 24/7, other means of communication such as telephone relay services and video relay services might only be available during regular business hours. Information regarding the hours of operation for these alternative services should be provided, including how they can be accessed.

Notes:

1) *A communication is in plain language if its wording, structure, and design are so clear that the intended audience can easily find what it needs, understand what it finds, and use that information.*

2) *"Large print" is defined as text that is at least 16 pt in font size and displayed in a sans serif font.*

9.1.2 Navigational technology

Any existing or future technologies that provide wayfinding information (e.g., websites, digital maps, mobile applications) shall be made accessible to persons with disabilities.

Additional technologies including but not limited to beacons, the Internet of Things, and smart city devices should also be considered to improve accessible navigation of the outdoor environment. When included in an outdoor space, the format and content of these systems shall comply with Clause 9.1.3 and 9.2, where applicable.

Note: *The World Wide Web Consortium's Web Content Accessibility Guidelines (WCAG) is one example of an international resource that describes how to make content accessible to persons with a wide range of disabilities. Examples of web accessibility include WCAG 2.0, WCAG 2.1, and EN 301 549.*

9.1.3 Information content for marketing

All marketing materials should include some representation of people with disabilities and accessible features of the park.

Marketing materials should state the accessibility of the environment and services. The accessibility information provided should be obtained from a qualified accessibility professional and the organization should document the source of that information.

Note: *The International Symbol of Accessibility (see Annex C) is only to be used when compliance with the international standard has been certified.*

9.2 Trip planning

9.2.1 Information for trip planning

Note: *Every effort should be made to keep the following information up to date in all communications, including advance warnings about planned disruptions.*

9.2.1.1 Information requirements

To assist people in planning their journey within the outdoor space, the following information shall be provided to assist people who are familiar or unfamiliar with outdoor spaces:

a) location of accessible parking and any special rules that might be applicable to those with accessible parking placards;

b) presence of stairs, ramps, accessible entrances, and accessible washrooms;

c) presence and location of landmarks, benches, and drinking fountains; and

d) availability of onsite assistive or adaptive equipment (see Annex A).

9.2.1.2 Information recommendations

To assist people in planning their journey within the outdoor space, the following information should be provided to assist people who are familiar or unfamiliar with outdoor spaces:

a) sidewalks, paths, and trails that do not comply with Clauses 6 and 8;

b) presence of sidewalks and curb ramps;

c) presence of unique sensory experiences (such as but not limited to visual, auditory, olfactory, and tactile experiences);

d) the location of temporary obstructions, as well as their nature and the duration of their presence; and

e) downloadable GPS tracks for trails, when available.

9.2.2 Communications

9.2.2.1 Remote communications

Where telephone numbers are offered to the public for activities (such as making reservations or accessing site- specific information), other options shall be made available by email, telephone relay service or video relay service, or other means.

The organization responsible for administering the outdoor space should publish the appropriate email address, telephone number, or both that can be used to access the telephone relay services and describe how to access a telephone or video relay service.

9.2.2.2 Person-to-person communications

All personnel (including those personal delivering services under contract) who interact with the public shall be well-versed about the accessibility of the site.

When communicating with a person with a disability, they should consider and adjust their communication based on

a) the nature of the person’s disability;

b) whether the person uses a device to help them hear, see, or communicate;

c) whether a person uses a particular method of communication, such as sign language; and

d) whether there are ways to support communication with the person, such as gestures, plain language, or writing information.

9.3 Arrival and experience

9.3.1 General

Information about travel and features within an outdoor space, including the boundaries of that space, should be accessible to all. This includes directions to the entrances, parking, and trailheads.

9.3.2 Directions to accessible entrances

Directions to accessible entrances shall be available to those planning trips through offsite information.

The information format shall adhere to all requirements in Clause 9.2.

9.3.3 Entrance location directing to accessible parking

Signs directing visitors to the main entry, accessible parking, and other important features of the site shall be present at the entrance location of the outdoor space. The design of the sign shall adhere to specifications outlined in Clauses 5.2 and 9.3.4.

9.3.4 Wayfinding signage

9.3.4.1 General

Every outdoor space shall have a comprehensive exterior signage and wayfinding system to assist a person in locating appropriate parking, accessible entrances, emergency information/egress, and navigational information. Considerations regarding the signage or the wayfinding system shall apply to both permanent and temporary signage.

Signs shall be accessible to all users of the building, facility, or outdoor space, and should employ several modes to present information (e.g., visual, tactile, audio).

9.3.4.2 Trailhead signs

At the start of trails, and wherever trail conditions change significantly, the following information shall be provided on trailhead signs:

a) length or distance of the trail or trail segment;

b) the maximum and typical running slope and the maximum and typical cross slope;

c) surface type, firmness, and stability;

d) presence of any obstacles (including stairs) or hazards; and

e) the minimum and typical width.

Notes:

1) *The location of amenities (if present) should also be provided.*

2) *A significant change in trail conditions includes but is not limited to large changes in incline, type of ground cover, trail width, and the frequency/size of trail obstacles.*

9.3.5 Onsite maps — Directory and wayfinding kiosks

Directories and wayfinding kiosks should indicate current location (i.e., “You Are Here”), details to help with orientation (e.g., north arrow, landmarks, buildings), distances, and accessibility conditions (i.e., gradient, surface conditions, widths, obstacles, and hazards).

Format of the onsite map layout should adhere to Clauses 9.2 and 9.3.4.

9.3.6 Illumination

Illumination should be provided to delineate the pedestrian route, identify areas of refuge, or emphasize building features (e.g., entrances, stairs, ramps, signage).

See Clause 6.8 for required illumination of other spaces.

9.3.7 Directional and attention tactile indicators

9.3.7.1 General

Tactile walking surface indicators are used to inform persons both visually and by contact under foot or cane of two possible situations:

a) an attention indicator (e.g., truncated domes) to signal a need for caution at a change in elevation, a vehicular route, train tracks, etc.; or

b) a direction indicator (e.g., elongated flat top bar surface) to facilitate wayfinding in open areas and indicate a possible route that can be taken.

Tactile direction indicators should be located in large open floor areas to facilitate wayfinding by indicating the primary route of travel. The indicated route should lead from the entrance to major destinations including but not limited to information kiosks, registration desks, stairways, and elevators.

9.3.7.2 Surface

A tactile walking surface shall

a) have the base surface level with the surrounding surface, or with its edges bevelled and not more than 3 mm above the surface to which it is applied (see Figure 10);

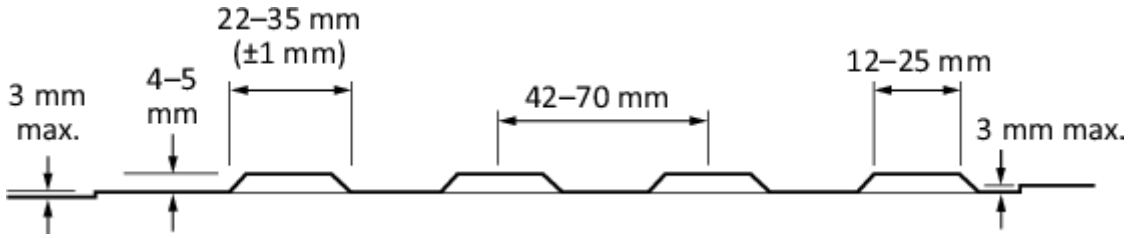
b) be slip-resistant; and

c) have any adjacent walking surface smooth for a width of at least 600 mm.

Figure 10

Truncated domes

(See Clause 9.3.7.2.)



The figure shows a cross-cut illustration of truncated domes. The difference between the base surface level and the surface to which the domes are applied is labelled as a maximum 3 mm. Also labelled are the 4 mm to 5 mm maximum height of the dome, the 22 mm to 35 mm (±1 mm) maximum width of the base of each dome, the 12 mm to 25 mm maximum width of the top of each dome, and the 42 mm to 70 mm maximum distance between the centres of the domes.

Notes:

1) *Truncated domes are organized in a regular pattern.*

2) *Tactile attention indicator surfaces that are uneven or too high will cause some pedestrians, including those using wheeled forms of mobility, to become unstable.*

9.3.7.3 Configuration

A tactile attention indicator surface shall be composed of truncated domes

a) with a height of between 4 mm and 5 mm;

b) with the top diameter between 12 mm and 25 mm and the base diameter 10 mm ± 1 mm greater than the top diameter;

c) arranged in a square grid; and

d) with a centre-to-centre distance of adjacent domes complying with Table 5.

Table 5

Dome diameter and spacing combinations

(See Clause 9.3.7.3.)

This table shows the maximum and minimum dome diameter spacing combinations for tactile walking surface indicators. The table has three columns. The left column shows the top surface diameter in millimetres, the middle column shows the base surface diameter in millimetres, and the right column shows the distance between the centers of adjacent domes in millimetres.

Top surface diameter, mm	**Base surface diameter, mm (±1 mm)**	**Centre-to-centre distance between domes, mm**
12	22	42–61
15	25	45–63
18	28	48–65
20	30	50–68

25	35	55–70

9.3.7.4 Location

A tactile attention indicator surface shall be located at the following locations unless the location is protected by a guard complying with Clause 6.16.4:

a) stairs, to comply with Clause 6.14.5;

b) a paved and unprotected drop-off edge, such as a transit platform, where

   i) the change in elevation is greater than 250 mm; or

   ii) the slope is steeper than in a ratio of 1:3 (33%);

c) the unprotected edges of a reflecting pool, to comply with Clause 9.3.7;

d) curb ramps, to comply with Clause 6.13.7; and

e) an entry into a vehicular route or area where no curbs or other elements separate the vehicular route from a pedestrian route.

9.4 Feedback

9.4.1 Feedback on the outdoor space

The service provider (i.e., the person/group/organization managing the space) shall establish a process for receiving and responding to feedback about conditions (including but not limited to environmental conditions, amenities, information sources, and staff interactions) affecting accessibility. This process shall also gather and respond to feedback on the manner in which the service provider delivers programs and services to persons with disabilities.

The service provider shall ensure the feedback process is accessible to persons with disabilities by providing, or arranging for the provision of, accessible formats and communication supports on request.

9.4.2 Feedback on documents

The service provider shall make information about the feedback process readily available to the public. The feedback process should specify the actions that the provider will take if a complaint is received.

The service provider shall, upon request, provide or arrange for the provision of the document or the information contained in the document to the person in an accessible format. This can also be achieved with communication support in a timely manner that takes into account the person's accessibility needs at a cost that is no more than the cost charged to others requesting the same.

The service provider should consult with the person making the request in determining the suitability of an accessible format or communication support.

10 Maintenance for accessibility

10.1 General

Outdoor facilities, features, surfaces, and environments shall be regularly maintained so that they remain in compliance with Clauses 6 to 9.

10.2 Maintenance plan

A maintenance plan shall be developed that specifies the type and frequency of the routine maintenance that will be performed. The maintenance plan shall specify the clearing of ice/snow/water and vegetation, and provide timelines for responding to weather issues as part of maintaining an accessible surface.

The maintenance plan shall be made publicly available.

10.3 Need for repair of damage

Information describing damaged facilities, furniture, outdoor surfaces or wayfinding resources shall be made publicly available within 24 h of the land management agency becoming aware of the damage. The information shall be made available at the entrance to the facility or outdoor surface in a format that complies with Clause 9. The information shall also be provided in a format that the public can

access prior to arrival (e.g., website) and that complies with Clause 9. The information shall describe the type and extent of damage, whether continued use of the damaged facility or outdoor surface is permitted, and the timeframe for expected repair. The information shall be provided until the damage has been repaired.

10.4 Maintaining accessibility

10.4.1 Maintenance activities

Accessible facilities, furniture, outdoor surfaces, and environments shall be maintained as specified in the annual maintenance plan. Maintaining accessible routes shall be prioritized when dealing with climate impacts (e.g., snow, ice, flooding, etc.). Maintenance and repair activities shall not limit the use of accessible facilities, furniture, outdoor surfaces, or environments unless limiting the use is required for safety purposes.

10.4.2 Snow clearing

10.4.2.1 Snow removal and ice control

Snow removal and ice control on publicly accessible paths of travel shall be maintained at a level that allows access for all users regardless of age, size, and ability.

10.4.2.2 Snow and ice control plans

Snow and ice control plans shall ensure that all paths of travel are maintained to a level that allows users to access the facilities.

Organizations that administer an outdoor space shall review and update their snow and ice control policies and procedures as needed to ensure accessibility according to Clause 10.

10.4.3 Location of alternate facilities, furniture, outdoor surfaces, or wayfinding resources

If any accessible facility, furniture, outdoor surface, or wayfinding resource cannot be used during maintenance and repair activities, then an alternative shall be provided.

The alternative shall be located in the same vicinity as the temporarily unavailable resource and shall be located within the site to comply with Clause 10.1.

The alternative shall provide the same lighting as the temporarily unavailable resource to comply with Clause 6.8.2.

10.4.4 Maintaining an accessible path of travel

When an accessible path of travel is temporarily closed for maintenance or repair activities, an alternative accessible path of travel connecting the same point of origin and destination and complying with Clauses 6 and 8 shall be provided.

10.5 Designing for climatic conditions

Facilities, furniture, outdoor surfaces, or wayfinding resources shall be designed for the outdoor climatic conditions in their location. Materials and design components shall ensure adequate drainage and remain accessible throughout all seasons of permitted use. Storage of snow or other materials shall not affect the accessibility of facilities, furniture, surfaces, or wayfinding resources.

Annex A (informative)

Equipment to access outdoor activities

Note: *This Annex is not a mandatory part of this Standard.*

A.1 General equipment information

A.1.1 Applicability

This Annex outlines considerations when choosing equipment to access outdoor activities. This information is provided to facilitate adoption of equipment to access outdoor activities by anyone involved in planning or enhancing outdoor spaces and activities.

This Annex applies to equipment that is designed and designated for people of all abilities to access and participate in outdoor activities. This is not an exhaustive list of equipment to access outdoor activities. The information provided outlines general features for commonly used

devices that improve accessibility. Emerging technologies and innovation will continue to influence the considerations included in this Annex, which will be updated in accordance with ASC reviewing standards.

A.1.2 Definition

For the purposes of this Annex, the term “equipment” is defined as any non-permanent assistive device that enables barrier-free participation in activities that take place outdoors. This excludes furniture and lifting devices that are included in the body of this Standard, and it also excludes vehicles and other modes of transportation that include but are not limited to gondolas, ski lifts, trolleys, and golf carts.

A.1.3 General equipment considerations

A.1.3.1 Safety

When choosing or providing equipment for outdoor activities, products should meet basic safety requirements in accordance with all applicable safety standards or regulations.

A.1.3.2 Training

Wherever possible, staff should be appropriately trained in providing accessible customer service and available to assist with the use of onsite equipment, including onboarding/offboarding assistance.

A.1.3.3 Maintenance

All onsite supplied equipment should undergo regular maintenance and safety checks to ensure proper functioning.

A.1.3.4 Promotion

For the purposes of planning, equipment descriptions and availability should be included in any promotional or communications material, including ability to book equipment in advance, if applicable (see Clause 9.2.1).

A.1.3.5 General space requirements

Where applicable, the approach and loading/unloading areas to access equipment where applicable should meet general space requirements as outlined in Clause 6.1.

A.1.3.6 Sensory kits

A sensory kit is a site/facility-connected equipment consideration integral to planning an accessible journey and supporting people who are neurodiverse. The provision of sensory kits onsite could include one or more portable container types (e.g., box, bag, waist belt, bin) that are designated to keep meaningful tools that could satisfy the sensory needs of a person visiting the site. The tools in the sensory kits could be used to help to reduce anxiety and agitation while promoting self-regulation and safe activity engagement.

The sensory kit should include cleanable, durable, and lightweight tools offering visual, auditory, tactile, olfactory, vestibular, and proprioception elements that provide sensory input and controls to be used by both children and adults. Examples of tools include but are not limited to

a) tactile tools (e.g., fidget toys);

b) visual tools (e.g., coloured sunglasses to promote calm or provide a brighter visual experience outdoors, binoculars);

c) auditory tools (e.g., headphones or earplugs to dampen noise, amplifiers to enhance nature noises); and

d) other sensory tools (e.g., nose plugs to reduce odours).

Notes:

1) *Some of the sensory tool examples above may satisfy multiple sensory needs.*

2) *Some of the sensory tool examples above may not fit in a backpack or waist pack and could be offered as additional sensory tools available onsite.*

3) *See Clause B.4 for more on the importance of including neurodiversity in design.*

A.1.3.7 Assistive mobility devices

Where assistive mobility devices are provided to access outdoor activities, the following features should be considered:

a) all-terrain tires;

b) adjustable seat depth (i.e., has seat extension capabilities);

c) adjustable leg rests;

d) adjustable length lap belt or chest harness; and

e) positioning accessories such as side and lumbar support, or headrests.

Regular maintenance and cleaning between use of this equipment is recommended. If an assistive mobility device includes pneumatic tires, an air pump and patch kit should be stowed on the device.

A.2 Campgrounds

A.2.1 Portable ramps

Considerations for use: For existing structures (e.g., yurts, camping pods) that do not have accessible entrances, consider providing a portable ramp. Similar to permanent or non-permanent threshold ramps, portable ramps provide a simple and safe way to navigate through doorways, raised landings, curbs, and other changes in level.

General features: Portable folding ramps can fold up for added portability. Some models in this category are lightweight, and some can be carried like a suitcase. Rolled ramping is also portable and, similar to folding ramps, can be rolled and carried from one location to another. For use in outdoor environments, portable folding or rolled ramps should be rust-resistant, durable, and slip-resistant.

Note: *See Clause 6.15 for other ramp elements and guidance for set-up.*

A.2.2 Tenting

Considerations for use: If provided, tents and tenting gear should adhere to Clauses 7.11 and 7.12, where applicable.

General features: When provided, accessible tents should have wide covered entrances and spacious interiors to allow manoeuvring of wheeled or other assistive mobility devices. Accessible tents can also include LED lighting.

A.2.3 Transport cart/wagon

Considerations for use: Pull/push wheeled devices to transport gear and supplies to and from campsites (where campsites have only walk-in access) should be considered to offer additional assistance for all people.

General features: When provided, push/pull wheeled devices or utility carts should be lightweight and sturdy while allowing push/pull manoeuvring with one arm. The cart should be made of a rust- and mould-resistant material, and should permit a large weight capacity.

A.3 Marinas, beaches, and water environments

A.3.1 Adapted watercrafts (motorized and non-motorized)

Considerations for use: In areas where motorized and/or non-motorized watercrafts are provided, an accessible launch (see Clause 7.7.3) should be provided alongside provision of an adaptive watercraft as described below would facilitate easier use.

A.3.2 Adapted kayaks/canoes

Considerations for use: Adapted kayaks and canoes allow persons of various disabilities to independently use the watercraft. A variety of accessible features of the kayak or canoe may be included to provide equitable use.

General features: Where provided, adaptive kayaks and canoes can include adaptive seating, paddling, or other support systems, such as stabilizing outriggers to provide extra stability to the watercraft.

Supportive paddling seats should allow options to tilt and adjust, with easy installation and removal, if necessary. The ability to independently adjust each component, with or without additional supportive harnesses, permits a wider range of comfort and support where needed. Seats should be padded for comfort; additional

removable cushioning can be considered for comfort and positioning of one's feet/legs.

Where an accessible boat launch is not provided, a transfer bench or other portable transfer chair should be provided, allowing independent or assisted transfers for the paddler from a wheeled assistive mobility device to the kayak/canoe. The portable transfer bench/chair should be lightweight, with adjustable handles and permit transfers from wheelchair height (see Clause 6.1).

Paddle adaptations may permit those with a wide range of abilities to easily use the kayak or canoe. Adaptations can include attachments which reduce hand or wrist demands and/or allow one-arm use. Any paddle attachments should allow easy removal or release ensuring safe use.

A.3.3 Adapted paddleboards

Considerations for use: Where paddleboards are provided, offering adapted paddleboards should be considered for use by people with various disabilities.

General features: Adapted paddleboards should be lightweight and include removable outriggers for those requiring additional stability when on the water. The paddleboard should also include an all-terrain surf chair or be designed to accommodate a wide range of wheelchairs with locking mechanisms to safely secure the assistive mobility device. The paddleboard should also include a custom ramp or allow use with a wide variety of existing ramps so that a user can mount the board unaided. Positioning belts/harnesses could also be provided for secured use of a seated user, if required.

Paddle adaptations may permit those with a wide range of abilities to easily use the paddleboard. Adaptations can include attachments which reduce hand or wrist demands and/or allow one-arm use. Any paddle attachments should allow easy removal or release ensuring safe use.

A.3.4 Beach wheelchairs

Considerations for use: Beach wheelchairs provide users of wheeled mobility devices easier access to sand and water. A transfer out of their personal mobility device and onto a beach wheelchair would be required.

General features: Both power and manual beach wheelchairs are available; however, it should be noted that some power beach wheelchairs are not intended for use in water.

When provided, both floatable and non-floatable manual beach chairs should be considered for use. Floatable and non-floatable devices can have some consistent features, including large wheels that make movements through sand easier and transport directly into water. However, floating devices will have floatable armrests and tires and are able to maintain buoyancy in the water with a user onboard. Devices (whether floatable or non-floatable) should be rust-resistant and easy to clean, and can include adaptable features such as harness or waist belts for additional support, headrests, or other removable cushioning.

In addition to floatable and non-floatable beach wheelchairs, provision of powered track devices that attach directly to the user's own wheelchair can be considered. These devices allow improved traction and off-road capability when manoeuvring across the sand. Features of such devices should include durability, easy attachment to the user's own wheelchair, easy operating controls, and sufficient battery life.

A.3.5 Swim aids and flotation devices

Considerations for use: Personal flotation devices such as swim aids, lifejackets, or inflatable equipment permit greater independence for all users in swimming environments (e.g., lakes, oceans, pools, hot tubs).

General features: There are many different types of swim aids and flotation devices available that differ on the degree of support provided. Swim aids and flotation devices should be lightweight, durable, rustproof, and comfortable to use. Support can be provided for the

upper body (i.e., supportive rings, float belts), the head (i.e., head floats), or the entire body (i.e., sectional rafts).

A.3.6 Water crutches

Consideration for use: Water crutches are designed to make it easier for users to walk over the sand and to keep their balance in water.

General features: Some water crutch models are made of plastic (with sand-weighted bottoms) and some are made of aluminum. Those made of aluminum have the advantage of floating while the person is swimming. The base of these crutches is made of rubber. Larger tips and removable stabilizing discs are also an available option.

A.3.7 Aquatic wheelchair/pool chair

Considerations for use: A pool wheelchair, also known as an aquatic wheelchair or a pool access wheelchair, allows safe access into roll-in aqua experiences, such as roll-in pools, hot tubs, spas, and showers for all people, regardless of ability.

General features: When provided, the pool or aquatic wheelchair should be waterproof and intended to be fully submerged. The inclusion of anti-slip handgrips and available seating straps/belts provide additional support when required. Removable or adjustable armrests and footrests should be considered to allow for easy transfers to and from the chair. Consideration for providing aquatic wheelchairs made of non-corrosive materials and designed for access into the water will protect the water from contamination and avoid damage to personal wheelchairs.

A.4 Winter activities

A.4.1 Adapted skis and snow equipment for hills and mountains

A.4.1.1 Adapted skis

Considerations for use: Where ski equipment is provided, adapted ski equipment should also be provided. Adapted ski equipment permits greater independence for users, optimizing ability and safety for the winter mountain or hill experience. There are many other different

types of adapted skis available and they differ based on the type or degree of support provided. Where adaptive ski equipment is provided, trained personnel should also be available onsite to assist as needed.

General features: Adapted skis can feature a moulded bucket seat (sit ski) mounted to a frame above the one ski (mono ski), two skis (bi ski/dual ski) or three skis (3-track ski), with a shock absorber linking the frame to the ski(s). An adjustable seat position, adjustable footrest position, and options for piloted, tandem/assisted, or independent use should be included. Adapted skis should have a user-friendly loading mechanism, be lightweight and strong, and have suspension compliance or shock compression system.

Note: *If providing adapted skis, then ski harnesses, ski ties, or ski bras should also be provided.*

A.4.1.2 Outriggers

Considerations for use: An outrigger is similar to a small ski attached to a pole with a hand rest and cuff. These pieces of equipment are used by para-skiers to assist with balance, speed, turning, stopping, and amplifying the direction of turns. They vary in size and height, and can include different features.

General features: Outriggers should be lightweight and height-adjustable, with an option for additional arm supports and tips.

A.4.1.3 Adapted snowboards

Considerations for use: Where snowboarding equipment is provided, adapted snowboarding equipment should also be provided. Adapted snowboarding equipment permit greater independence for users, optimizing ability and safety for the winter mountain or hill experience. There are many other different types of adapted snowboards available and they differ based on the type or degree of support provided. Where adaptive snowboarding equipment is provided, trained personnel should also be available onsite to assist as needed.

General features: There are three styles of boards: freestyle or twin tip, freeriding or directional boards, and alpine/race boards. The twin tip board has an equally turned-up tip and tail, allowing the rider to ride easily in either direction. It also makes a good choice of board for

beginners. The freeriding board is slightly stiffer than the freestyle board, which features a soft flex. The alpine board's nose is more upturned than the tail, and it also has a narrower midsection. It's not as versatile as the freeriding board, but it's good for high responsiveness and carving deeply through gates. There could be additional adaptations available for each type of board. Other types of adapted snowboarding equipment include the mono-board (good for sit-snowboarding), ski poles and bamboo poles (for assistance with balance), and outriggers (to improve stability). Tandem boards are also available.

A.4.1.4 Snow sliders

Considerations for use: Snow sliders are for those skiers with more severe balance challenges who ski in a standing position.

General features: A snow slider is a mounted frame that clicks into separate skis. It has the features of a walker that has the equipment to be attached to skis.

A.4.1.5 Adapted toboggan/sled

Considerations for use: Where tobogganing equipment is provided, adapted tobogganing equipment should also be provided. There are many types of adaptations available and they differ based on the type or degree of support needed. Where adaptive tobogganing equipment is provided, trained personnel should also be available onsite to assist as needed.

General features: Adapted snow sleds should feature a system that provides lateral protection for riders with disabilities. Two independently operating brakes, a tail brake, and a swivel-coupled platform built to withstand extreme use are suggested for safer use. Ergonomically shaped front and rear sections and incorporated footrests increase safety and are good weight-bearing characteristics. An injection-moulded shell with padded seat, safety straps, raised back support, and headrest are also strongly suggested.

A.4.1.6 Ski equipment transport carts

Considerations for use: Ski equipment transport carts are made to accommodate adapted ski systems (i.e., sit skis) and allow someone

using a mobility device to push or pull the cart with their equipment from ground transportation to ski facilities. It is important that transport carts be stable, secure, and easy to use. Some assistance may be needed to bring the cart to the skier.

General features: These carts are built with durable material and come with all-terrain use features. They make it easy to connect to sit ski systems and for users to have access in an autonomous way.

A.4.2 Cross-country adapted skis and snow equipment

A.4.2.1 Cross-country ski sledge

Considerations for use: Where cross-country skis are provided, provision of a cross-country ski sledge should be provided to allow accessible cross-country skiing.

General features: Feature options for solo or dual cross-country skis could include a moulded seat (bucket) mounted to one or two skis. It could also include shocks, brakes, positioning belts, and other adjustable features.

A.4.2.2 Adapted cross-country skis

Considerations for use: Where cross-country skis are provided, provision of adapted cross-country skis should be considered to enable inclusive cross-country ski experiences.

General features: Consider offering options for piloted, tandem/assisted, or independent use. Features could include safety belts and harnesses, as well as adjustable and lightweight shock-absorption components with adjustable height and tip options.

A.5 Trails

A.5.1 Adapted bicycles, off-road hand cycles, and attachments

A.5.1.1 Adapted bicycles

Considerations for use: Where bicycles are made available, adapted bicycles for people of all abilities should be provided. Adapted bicycles

are specifically designed for people with disabilities to enable an inclusive bicycle riding experience.

General features: Adapted bicycles include options for piloted, tandem/assisted, or independent use and allow the user to choose recumbent, semi-recumbent, or tandem positioning. Adjustability in seat (including tilt and recline options), handles, and pedal positioning allow for safer and more comfortable riding. Inclusion of an optional third wheel (tricycle) and/or wide rear axle can support/increase cycling balance. A hand brake and/or emergency brake with an electrical assist option ensures safer use.

A.5.1.2 Hand cycles and hand bicycle attachments

Considerations for use: Where bicycles are provided, hand bicycle attachments should be provided.

General features: Features can include recumbent seating, adjustable hand controls and brake, seating and positioning accessories, built-in suspension, wheels to accommodate rough terrain, and easy installation and removal of attachments.

A.5.2 Adapted hiking transport chair/carrier

Considerations for use: An adapted hiking transport chair/carrier should be considered where a person needs to be transported to an outdoor activity site or within an outdoor activity location, with or without equipment. They are typically required when personal mobility devices cannot negotiate the terrain. They require an attendant to assist to carry/push or pull the adapted hiking transport chair/carrier through trails or uneven terrain.

General features: Features can include supportive seating system with safety harnesses, easy to carry or push, lightweight, easy to store and assemble, option for electric assist, and an option for multiple carriers to assist in mobility. There are many adapted hiking transport devices available requiring 1-2 person carry. Some hiking chairs have a single wheel in the front and two large wheels in the rear with an attendant handle to pull or push the chair across or up/down inclines. Many adapted hiking devices include canvas and screen enclosures to protect from insects and weather elements.

A.5.3 All-terrain power assist mobility base for wheelchair

Considerations for use: This could be considered to improve negotiation and manoeuvrability of a user's manual wheeled mobility device on outdoor terrain, by use of power or other add-on components.

General features: These types of equipment are compatible with most manual wheelchairs and include user hand control and/or attendant controls, a long-lasting rechargeable battery, and adjustable speeds, with most models easy to assemble and install.

A.5.4 All-terrain wheelchair (power and manual)

Considerations for use: Where wheeled mobility devices are provided, such as golf carts or other people carriers, consideration should be given to providing all-terrain wheelchairs. All-terrain wheelchairs (whether manual or power) are intended for people who use wheeled mobility devices in situations where these devices are not easily manoeuvrable across all terrain. Some models can enter the water and provide better mobility on beach sand, snow, and other uneven terrain. A common adaptation among different designs is to have extra-wide wheels or tires, which increases stability on uneven or unsteady terrain.

General features: Features can include built-in suspension, wheels or tracks to accommodate rough terrain, seating and positioning accessories, power assist options, long battery life with waterproof battery casing, closed cell foam seat for water resistance, aluminum and foam-style neoprene frame, knobby tires, thick pneumatic casters for traction, and durable and rugged frames.

A.5.5 All-terrain walkers, trekking poles, and traction devices

A.5.5.1 All-terrain walkers

Considerations for use: All-terrain walkers assist people who use walkers or who require more stability on uneven surfaces.

General features: Features can include a three-wheeled design, pneumatic tires, integrated seat for resting, lightweight, a long and wide base, and hand and foot brake options.

A.5.5.2 Trekking poles

Considerations for use: Trekking poles (also known as hiking poles, hiking sticks, or walking poles) are a common hiking accessory that assist walkers with their rhythm and provide stability on rough terrain.

General features: Features can include dual walking poles, adjustable height, and optional alternative hand grips and tips.

A.5.5.3 Traction devices

Considerations for use: These are devices that remain in position and are easily applied to footwear to improve grip.

General features: Features can include rubber frame or fabric straps to attach cleats or spikes to the sole of a shoe or boot to provide improved traction while walking/hiking.

A.6 Toilet and shower facilities

A.6.1 Wheeled shower commode

Considerations for use: Where shower facilities are available, a wheeled shower commode assists people who require a seat in a shower stall while permitting transfers to the seat to occur outside of the shower area.

General features: When provided, a wheeled shower commode should be lightweight, easy to clean, rust-resistant, and durable. The wheeled shower commode can also have an adjustable seat height, padded seats and arms for additional comfort, and a removable pail for commode use. If footrests are provided, they should be adjustable or removable. The wheeled shower commode provided should also be one that includes a large weight capacity and has a maximum width that ensures doorway clearance. Locking mechanisms for the wheels/castors ensures safe use of the device.

A.6.2 Raised toilet seat

Considerations for use: Where toilet facilities are available, a raised toilet seat offers support for people when toileting as some toilet seats can be too low for comfortable or safe use. Raised toilet seats can be permanent or portable/removable.

General features: When provided, a non-permanent raised toilet seat should be lightweight and easy to clean. The raised toilet seat should secure to the toilet easily without tools. Optional supportive arms/handles can be included for added safety.

A.6.3 Portable shower ramp

Considerations for use: In shower facilities that do not meet accessibility requirements, a short- term solution could be to provide a portable shower ramp to assist with navigating raised thresholds between the shower surface and adjacent floor.

General features: When portable shower ramps are provided, they should be rust-resistant and durable. To ensure safe use, the portable shower ramp should be slip-resistant and have luminance (colour) contrast with the shower surface and adjacent floor (see Clause 6.8.3).

Note: *See Clause A.2.1 for additional ramp considerations and Clause 6.15 for other ramp elements and guidance for set-up.*

A.7 Rest areas

A.7.1 Cooling solutions

Considerations for use: Cooling solutions should be considered for rest areas during hot weather.

General features: Several types of cooling solutions can be considered. Cool mist canopies or fans help cool people and service animals during hot weather. Provision of tents or umbrellas as sources of shade can assist with cooling. Providing a water source and suitable relief area for service animals should also be considered at rest areas.

A.7.2 Air compressor for wheeled mobility

Considerations for use: Provision of an air compressor at locations such as rest areas, facility entrances, or washrooms can assist those with wheeled mobility devices or cycling equipment.

General features: When provided, the air compressor should be portable. If battery-operated, a charging station should accompany the device. Multiple adaptors should be included to ensure various tires/devices are able to use the air compressor provided. An air compressor with a visible pressure gauge should be included, allowing a person to monitor tire pressure.

A.8 Equestrian activities

Considerations for use: Where equestrian activities are offered, such as horseback riding, an accessible mounting platform and ramp should be provided to facilitate transfers onto horseback for people using mobility devices, and for anyone needing to mount/dismount the horse from a height closer to the horse's back height. Consideration should also be given to training horses and riding staff to facilitate safe mounting/dismounting from the mounting platform prior to offering this accessibility equipment to the public.

General features: Where provided, the raised mounting platform and ramp could be permanent or portable. If a permanent structure is provided, the ramp should meet requirements outlined in Clause 6.15. If the raised mounting platform is a portable unit, then a portable ramp could be considered (see Clause A.2.1). The minimum platform dimensions should be at least 2100 mm by 2100 mm, which would facilitate a turning manoeuvre and the possibility of having a support person or trainer. The platform height should be between 600 mm and 920 mm above the surface that the horse is standing on. Handrails should be installed on two sides of the platform, allowing clearance on the ramp side and clearance on the horse mounting/dismounting side (see Clause 6.14).

Note: *Portable ramps and heightened platforms have safety risks (e.g., lack of handrails) that should be carefully explored before use.*

Annex B (informative)

Development of design principles

Note: *This Annex is not a mandatory part of this Standard.*

B.1 General

The principles identified in Clause 1.2 and detailed in Clause 5.1 were developed by using the following concepts to ensure people of all ages and abilities are fully considered.

B.2 Principles from the *Accessible Canada Act*

The following is excerpted from the *Accessible Canada Act*:

“The Act is to be carried out in recognition of, and in accordance with, the following principles:

a) all persons must be treated with dignity regardless of their disabilities;

b) all persons must have the same opportunity to make for themselves the lives that they are able and wish to have regardless of their disabilities;

c) all persons must have barrier-free access to full and equal participation in society, regardless of their disabilities;

d) all persons must have meaningful options and be free to make their own choices, with support if they desire, regardless of their disabilities;

e) laws, policies, programs, services and structures must take into account the disabilities of persons, the different ways that persons interact with their environments and the multiple and intersecting forms of marginalization and discrimination faced by persons;

f) persons with disabilities must be involved in the development and design of laws, policies, programs, services and structures; and

g) the development and revision of accessibility standards and the making of regulations must be done with the objective of achieving the highest level of accessibility for persons with disabilities."

B.3 Inclusive design

Inclusive design considers the full range of human diversity with respect to a person's ability, language, culture, gender, age, and other forms of human difference.

B.4 Neurodiversity

Creating sensory-friendly outdoor spaces that support neurodiversity is an important consideration for inclusive design. If applicable, pre-visit materials may include social narratives, sensory maps of the site (indicating areas that can be loud, quiet, crowded, etc.), visual schedules (e.g., photos or symbol images that represent activities, locations, or times that could be arranged in a sequence so the user can better understand the schedule of the upcoming activity), and tip sheets offered in alternate formats.

Note: *A social narrative is an evidence-based learning tool designed for neurodiversity that teaches someone how to do something new, like experiencing a new place or activity.*

B.5 Gender-based analysis (GBA+)

GBA+ is an analytical process used to assess how diverse groups of women, men, and gender-diverse people experience policies, programs, and initiatives. The "plus" in GBA+ is not just about biological (sexes) and socio-cultural (genders) differences. We all have multiple characteristics that intersect and contribute to who we are. GBA+ considers many aspects of intersectionality. Intersectionality is the interconnected nature of identity factors (e.g., race, ethnicity, culture, spirituality, religion, age, disability), and how the interaction between these factors influences the way we might experience government policies and initiatives. Users of this Standard are encouraged to consider intersectionality in the design of outdoor spaces.

B.6 Universal design

This Standard uses the internationally recognized principles of Universal Design, which are founded on the philosophy that accessibility is a fundamental condition of good design. Initially focused on disability rights, Universal Design has slowly expanded to concern itself with social justice for all. It is "a process that enables and empowers a diverse population by improving human performance, health and wellness, and social participation" (Universal Design: Creating Inclusive Environments, Steinfeld and Maisel, 2012).

The seven principles of Universal Design are

a) equitable use — useful and marketable to people with disabilities;

b) flexibility in use — accommodates a wide range of individual preferences and abilities;

c) simple and intuitive use — easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level;

d) perceptible information — communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities;

e) tolerance for error — minimizes hazards and the adverse consequences of accidental or unintended actions;

f) low physical effort — can be used efficiently and comfortably with minimal fatigue; and

g) size and space for approach and use — appropriate size and space is provided for approach, reach, manipulation, and use.

Source: Principles of Universal Design (© 1997 NC State University, The Center for Universal Design)

Annex C (normative)

Public information symbols

Notes:

1) *This Annex is a mandatory part of this Standard.*

2) *See ISO 7001 for accessibility symbols approved for use on signage.*

Table C.1

International symbols for accessibility services

(See Clauses 5.2, 7.2.2, and 9.1.3.)

This table presents examples of public information symbols. There are two columns. The column on the left presents the accessibility symbols. The column on the right offers brief definitions for the accessibility symbols.

The first symbol is the revised International Symbol of Access. It shows a person using a wheelchair and the lines of the figure are slightly thick with round ends.

The second symbol is the traditional International Symbol of Access. It shows a person using a wheelchair and the lines of the figure are slightly thin with square ends.

The third symbol is the Dynamic Symbol of Accessibility. It is a simplified line drawing of a person using a wheelchair leaning forward with their arm back as if they are pushing the wheelchair quickly.

The fourth symbol is the symbol for braille. There are two parallel lines of three dots aligned vertically.

The fifth symbol is the symbol used to indicate assistive listening systems. There is a simplified line drawing of an ear with a thick black diagonal line behind it.

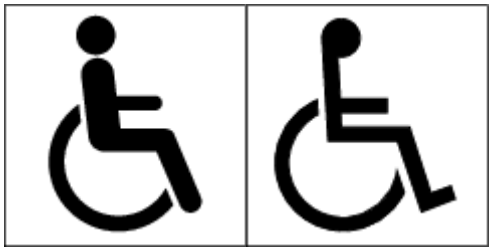
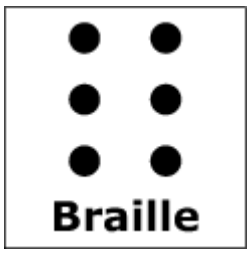
The sixth symbol is the symbol used for closed captioning. There are two lowercase Cs next to each other.

The seventh symbol is the symbol used to indicate sign language interpretation. There are two hands each with their thumb and forefinger together and the last three fingers outstretched. One hand is upside down in relation to the other.

The eighth symbol is the International Symbol of TTY. There is a telephone receiver on top of three rows of black squares to indicate a typing pad.

The ninth symbol is used to indicate volume control telephones. There is a telephone receiver with curved vertical lines coming from the earpiece to indicate sound.

The tenth symbol is used to indicate a place to find information. There is a question mark inside a circle.

	International Symbol of Access — to be used when identifying a facility or its elements as accessible.
	Dynamic Symbol of Accessibility — an alternative to the International Symbol of Access. **Note:** *The dynamic symbol is not equivalent in all jurisdictions and is not recognized by ISO as an alternative to the International Symbol of Access.*
	Braille — indicates printed material is available in braille (including exhibition labelling, publications, and signage) in addition to tactile and other required accessible forms (see Clause 5.2.2.4). All pictograms or symbols, when used on signs, may have accompanying braille.

	Assistive Listening Systems — indicates assistive listening systems such as infrared, loop, and FM systems are available to transmit amplified sound via hearing aids, headsets, or other devices.
	Closed Captioning (CC) — also commonly known as subtitles, enables people who are deaf or hard of hearing to read a transcript of the audio portion of a video, film, exhibition, or other presentation. As the video plays, text captions transcribe (although not always verbatim) speech and other relevant sounds.
	Sign Language Interpretation — indicates sign language interpretation is provided for a lecture, tour, film, performance, conference, or other program.
	International Symbol of TTY — indicates a teletypewriter communication device is available for people who are deaf or hard of hearing. **Note:** *It might be preferable to provide access to wireless technology so that users can access their own devices.*

	Volume Control Telephones — indicates volume control telephones are available for people with auditory requirements. **Note:** *It might be preferable to provide access to wireless technology so that users can access their own devices.*
	Information — indicates the location for specific information or materials concerning access, such as large print materials, audio recordings of materials, or sign-interpreted tours.

Annex D (informative)

Bibliography

Note: *This Annex is not a mandatory part of this Standard.*

For recommended further reading on designing for accessibility and other resources consulted while developing this Standard, please see the list below.

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