

**Recommendations for**

**Park Accessibility Standards**

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# Recommendations for park accessibility standards

The acronym for our project (Providing Accessible ReCreation Outdoors: User-driven Research on Standards (PARCOURS) is a French word for trail, i.e., “un chemin pour aller d'un point à un autre,” which emphasizes our project's bilingual focus on developing standards to improve accessibility in parks across Canada. There is mounting evidence about the physical, social, psychological and health benefits of access to green and blue spaces (Gascon et al., 2017; James et al., 2018; Labbé et al., 2019; Markevych et al., 2017; Merrick et al., 2021; Rugel, 2015; Rugel et al., 2019; Shanahan et al., 2016). However, many people with disabilities are excluded from these spaces because of accessibility issues (Burns et al., 2009). Canada’s national parks are world-renowned. Unfortunately, despite some recent attempts to improve access, many are not universally accessible to people with disabilities (Marcastel, 2019).

Historically, standards have focused on promoting access for people with physical disabilities, however, existing accessibility standards are relatively dated, and have had less emphasis on meeting the needs of people who experience cognitive or sensory challenges (i.e., visual or auditory) (Parks Canada, 1994). For example, wayfinding is emerging as a critical topic for different types of disabilities, to not only identify accessible routes for planning purposes but also to enable real-time navigation. Given the presence of a variety of temporary obstructions on sidewalks, standards are also required regarding how people should be re-routed in these circumstances. Furthermore, some people with disabilities are excluded because the size of their mobility device exceeds the space provided under existing building codes (Jang, Mortenson, Hurd, & Kirby, 2019). A further complication is that environmental features intended for one group (e.g., tactile sidewalk sections for people with vision problems) may make it challenging for people from another group (e.g., those who use mobility devices like wheelchairs) (Ormerod et al., 2015), so it is important to avoid developing standards in a siloed manner (i.e., with only one disability group in mind).

The PARCOURS team’s recommendations to inform the development of accessibility standards for trails and features are provided below as well as a discussion of broader considerations for park design, development, and management. These recommendations were developed through the PARCOURS project research activities, which are detailed in our research report and include: a scoping review of existing standards, mobile and virtual participant interviews, and a Delphi Panel consensus building process. We have combined what we learned about trails and features to inform accessible park planning more generally (e.g., activity zones of accessible trails and features, and focus on intersection of visitor priorities and core competencies/experiences the park offers).

## Trip Preparation

The trip preparation phase is a considerable challenge for those with disabilities as many variables must be considered. In fact, people with disabilities may be reluctant to consider national parks as potential destinations if information isn't available that can help them plan a safe, accessible, and enjoyable trip. Park agencies can assist with this through their websites, call centres, visitor centres, and staff in parks. The following recommendations address best practices and the insights of participants and experts that were provided during the study.

* Park websites should meet web accessibility standards (WCAG 2.0), including alt tags for images.
* Contact information should be put at the top and bottom of the page.
* Accessibility information (length, width, slope and surface type of paths and the location of amenities) should be easy to find by fully integrating it into the website or by an easy to find link on the home page.
* Information about accessible transportation options to parks should be provided (including where to park or be dropped off, accessible shuttle options).
* Information about accessible washrooms and their locations is essential.
* Websites should provide simple information about the accessibility of activities and trails in the park (including downloadable maps with accessibility information).
* Maps should pinpoint places of interest and communicate animal policies such as those for service and guide dogs.
* Park accessibility should be provided through text, image, audio, and other visual representations.
* Park staff (on-site or at call centres) should have received disability awareness and accessibility orientation training (specific for each park).
* Information that park visitors rely on during the trip planning phase must match the conditions in the park.

## Arrival

Transportation was a critical issue for people with disabilities to be able to reach a park. Participants had mixed opinions about how it was implemented in the parks they visited. Most parks in the study were short driving distances away from participants’ homes. However, traveling to the park site still presented major challenges for those without their own vehicle or aid from friends and family. Considering most national parks are far from population centres, transportation becomes an even bigger issue. Depending on the transportation mode used, initial arrival to a national park may be by car, bus, transit, train, plane, boat, or by foot (urban parks). Park agencies need to consider both the standards for each element in the arrival experience and how arrival is integrated into the network of trails, amenities, and activities that the park has to offer. The following recommendations for standards are provided for parking, drop-off areas, and transit.

### Parking

* Parking should be as close to entrances, trailheads, and major activity areas in parks as possible.
* Van parking that allows for wider and longer vehicles should be made available close to park entrances and trailheads and should have signs that are visible when snow piles up.
* Accessible parking spots should never be used to store snow, equipment, or park vehicles.
* Signs guiding people from accessible parking to park facilities should be clearly visible from the parking area.
* Pay stations, where they are provided, should be accessible to get to and use based on common measures.

### Drop-off Areas

* Drop-off areas should be close (less than 60m) to park facilities and trailheads.
* Potential hazards should be mitigated in drop-off areas.

### Transit Stops

* Transit stops must be well marked visually and tactilely.
* Transit stops must have a shelter that is easily accessible, free of obstacles and include a suitable bench.
* Other services like shuttles should be considered for accessing parks and they should be accessible to people with a wide variety of disabilities.

Overall, arrival should be safe and reduce the burden on access to the main features in parks. While being close to a washroom is also important, it should not be the only accessible element in the park. Signage is also very important at arrival to assist with orientation and heading. Signs and maps that indicate "You Are Here", where features are, and show an accessible path to those features (including accessible washrooms), as well as indicate any regulations that may be in force, will improve the park experience for all (see Wayfinding section for more details on signage).

## Park Mobility

Park mobility includes the paths, trails, boardwalks, footbridges, etc. that allow people to reach amenities and activities in the park. Outdoor parks introduce challenges that are less likely to be found in urban spaces where challenges such as slope and surface conditions are often manageable. Universally in our study, participants believe the essence of the park and issues of sustainability should lead the way. Once these criteria are addressed, the accessibility of the park network should fit, as seamlessly as possible, into the park environment. For example, the idea of paving trails to make them more accessible was rarely seen as the best solution as this would ruin the experience for everyone and undermine the accessibility effort. However, it was also noted that there were still many aspects of parks, especially the mobility network, that needed to be addressed.

### Trails

Standards for trails were identified that have been divided into two areas: physical infrastructure and wayfinding which will be addressed in more detail in a section below.

Some of the standards include:

* Limiting slope (less than 8%) and cross slope (less than 3.5%) where possible but making allowances for drainage.
* Solid, smooth, firm, and non-slippery trail surfaces with the smallest possible joints or no joints surfaces at all.
* Where hazards may exist, all efforts should be made to make trail surfaces smooth to allow travelers to remain aware of hazards.
* Maximizing widths for straight travel (at least 1500mm) and wider (at least 2000mm) to allow for larger mobility devices to turn.
* Maintenance and design practices that limit hazards (overhead, protruding, ground, drop-offs without edges).
* Less than 60m from parking to trailheads or popular activities (e.g., beach, viewpoint) where possible.
* Rest Areas on the trails and path be present at regular intervals to allow everyone to rest.
	+ Rest areas should have benches and shelters that are firm, level, and stable.
	+ Water and washroom facilities should be available nearby.

### Boardwalks

* Surfaces should not have gaps > 6 mm that run perpendicular to the path of travel (planks should be perpendicular to the path of travel
* Surfaces should be non-slip and have edge protection and/or handrails where drop-offs are more than 680 mm
* Where scenic views are available, an unobstructed view should be provided between 800 mm and 1200 mm (but narrow enough to not permit a child to climb through

### Gondolas

* Gap between platform and gondola should be level and less than 13 mm, otherwise, assistance should be provided.
* Marked designated seating should be provided.
* The interior of the gondola should allow for a 1750 mm X 1750 mm clear turning space if the entrance and exit are the same.

### Stairs and Ramps

* Maximum ramp slopes of 7%, cross slope of 3%, and minimum 1000mm widths.
* Safety standards for warning texture and/or colour on ramp/staircase and colour contrast with the immediate environment.
* Flat landing spaces at the top and bottom of ramps that allow large mobility devices to turn directions.
* No more than 10 steps for any set of stairs.
* Safety standards for warning texture and/or colour on ramp/staircase and colour contrast with the immediate environment.
* Handrails should be made of materials that are non-slip and enhance gripping.

## Wayfinding

Depending on the layout of a park, wayfinding can play a particularly important role in making parks safe, accessible, and enjoyable. Where parks have complex layouts and/or changing terrain, simple information about conditions is required.

### Wayfinding

* Provide clear sightlines between 800 mm to 1500 mm high at clearings and vistas (include signs or maps at these locations, if possible).
* Utilize colours, shapes, and landmarks to help with orientation.
* Provide signage before and after decision points to help confirm heading.

### Signs

* Signs should contrast with the environment.
* Signs should have a clear, level surface in front of them so they can be approached closely.
* Signs should be free of glare and their placement should take into consideration the impacts of sun on being noticed.
* Signs should be clear of any obstacles that may obscure them.
* Signs at entrances should contain information about the park, park hours, park regulations, and emergency contact information.
* Non-visual formats should be available for hazards.
* Non-visual guides for alerting a traveler that non-visual information is available.

### Maps

* Maps should follow the design and placement standards for signs.
* Maps should have a "You Are Here" indicator that is easy to find.
* Maps should include pertinent trail information - maximum slope, obstacles and hazards, accessible washrooms, landmarks, activities.
* Alternate (non-visual) format should be available online, at park entrances, and at staging areas within the park.

### Landmarks

* It is suggested to utilize landmarks, where they exist, to assist with orientation by featuring them on maps.
* Distance markers should be used for trails longer than 1 km.

## Amenities

Amenities play a significant role at parks and support the enjoyment of activities. In particular, accessible washrooms are necessary considering most journeys to parks span several hours, days, or weeks. The placement of washrooms and other amenities such as benches, garbage cans, and kiosks are nearly as important as their accessibility. Common measures such as clear, level spaces (1750 mm radius), knee clearance (at least 690 mm), counter/eating surfaces (less than 720 mm high), door dimensions (at least 810 mm wide, thresholds less than 13mm, and easy to use handles), and reach heights (800 mm to 1200 mm high).

### Washrooms

* Washroom dimensions should follow CSA standards with at least enough turning space inside to get in, transfer to the toilet, and get out for pit toilets.
* Washrooms should be within 60 m of entrances, accessible campsites, and popular activity sites.

### Benches

* Benches should have a backrest and two armrests.
* Clear, flat, firm surfaces should be in front of and beside a bench.
* Benches should have a flat, clear space beside the bench.

### Refuse

* Garbage, recycling, and animal waste bag dispensers should be available along an accessible path.
* Dispenser lids should be easy to open and between 800 mm and 1200 mm high.

### Kiosks

* An accessible route to and into a kiosk should be available.
* Adequate turning space inside a kiosk should be available.
* Any accessories inside the kiosk should be within reach and easy to use.

## Food and Drink

### Cafés

* Paths to, in, and around should meet the standards of common measures.
* Mixed seating options (booths and chairs) should be available and meet common measure standards.

### Water Fountains

* Approach, knee clearance, and controls should all meet the standards for common measures.
* Management of spaces around fountains that are situated on a natural surface should minimize puddles and mud.

### Picnic Areas

* Accessible path to picnic table and through picnic area.
* Clear, level space that meets the standards of common measures.

### Firepits/Grills

* Firepits/grills should be along an accessible path close to camping or picnic table.
* Firepits should have a protected ring around the edge.
* Grill surfaces should be at 800 mm to 1200 mm high.

##

## Leisure and Recreation

The biggest attraction for most parks is the leisure and recreational activities that are available. This includes summer and winter activities that take place on land and on the water. They are reached by the trails and wayfinding already described as well as supported by amenities.

### Recreation Areas

* Recreation areas should have surfaces to, in, and onto that are accessible

### Beaches and Pools

* Paths to and onto beaches should be accessible.
* Paths to the water's edge should be provided where safe.
* Ramps with handrails into the water should be provided.
* Adapted equipment (such as beach chairs) should be available and signage directing someone to where they can be found should be provided.

### Snowsports (Ski and Skate)

* Accessible paths should be available from parking to features.

### Docks and Piers

* Dock ramps should meet ramp slope standards.
* Dock ramps should have graspable handrails.
* Docks should have no gaps > 13 mm wide.
* Docks should have colour contrasted edge protection.
* Swimming or docks used for boating should have transfer bar.
* Fishing piers should have secure places to sit.

### Playgrounds

* Paths to, in, and around a play area should be accessible.
* Play areas should meet CSA standards with firm, level surfaces.
* Play structures should be accessible and offer a variety of accessible and sensorial experiences.

### Amphitheatres

* Route to the amphitheatre should meet path standards.
* Clear sightlines should be provided for in designated accessible seating areas.

### Lookouts and Viewpoints

* Viewpoints should have firm, clear, flat surfaces at viewpoints.
* View scopes, if provided, should be between 800 mm and 1200 mm high with at least 680 mm high knee clearance and be easy to use.

## Other Considerations

Standards should be seen as just the minimum design specifications in ideal environmental conditions. Because natural environments are subject to weathering and erosion, building to minimum standards is building for failure. Each environment takes a different toll on the environment and the design and management of each park and even section of park may require more stringent standards and frequent maintenance. For example, concrete picnic table surfaces often erode from the surrounding natural surface, thus creating a dangerous drop-off.

Another consideration is the distribution and composition of features within a park. Amenities should be available throughout a park, with more offered around key activity areas. In other instances, allowances for more benches along longer trails may be necessary. In parks with many kilometres of trails and tens to hundreds of features, upgrading facilities may not be financially feasible. In those instances, strategic decisions about how to maximize the provision of safe, accessible, and enjoyable experiences will need to be made. Assessing the overall network of trails and features is necessary to identify what actions need to be taken to provide seamless experiences. Balancing the preferences of people with disabilities and the cost of upgrades should be made through collaboration between park agencies and those they serve.

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