

ACCESSIBILITY GUIDANCE FOR GRANT FUNDED PROJECTS



The Wisconsin Department of Natural Resources provides equal opportunity in its employment, programs, services, and functions under an Affirmative Action Plan. If you have any questions, please write to Equal Opportunity Office, Department of Interior, Washington, D.C. 20240.

This publication is available in alternative format upon request. Please call 608-266-7555 for more information.

PUBLICATION NUMBER CF-031-2014
PREPARED BY THE DNR BUREAU OF COMMUNITY FINANCIAL ASSISTANCE
JULY 2014

Accessibility Guidance for DNR Grant-Funded Projects

Wisconsin Dept. of Natural Resources
Bureau of Community Financial Assistance

Introduction

Applicants for state or federal grants to help with the cost of public parks, trails, boat landings or other recreational facilities must meet the same standards for ADA accessibility that is required of governmental units. The following guidance is intended to provide project sponsors an overview of design elements required to allow persons of all abilities to use these facilities to the extent possible.

Exceptions to accessibility standards are only possible in limited circumstances:

- If alterations necessary to achieve the standards would fundamentally alter the function or the purpose of the facility or setting.
- If the standards cannot be achieved with prevailing construction practices.
- If accessibility designs would result in violation of laws protecting the environment, endangered or threatened species, or historical and/or archaeological resources.

All projects involving new facilities or alterations to existing facilities must be designed to be accessible to individuals within the broadest range of abilities practical. This means avoiding stairs, surface elevations of more than ½ inch, or other obstructions to individuals in wheel chairs or other mobility devices.

Your grant specialist will need to see that you've addressed accessibility in the design plans for your project. Final payment on grants will be made after the completed project has been inspected and found to have met accessibility standards. Your grant specialist can provide technical assistance related only to the application for, and administration of, grant awards. As the grantee, it will be your responsibility to see that your design plans and finished project meet the **2010 Standards for Accessible Design and any other applicable building codes**.

Professional design and engineering costs incurred in the preparation of applications are eligible for reimbursement through most grant programs. Contact your grant specialist as early as possible to confirm cost eligibility under the program for which you wish to apply. Additional details and explanations of accessibility design standards are available on the United States Access Board web site, at www.access-board.gov, or more locally, at www.adagreatlakes.org. Staff at the Great Lakes ADA Center in Chicago can be reached weekdays between 8 a.m. and 5 p.m. at 800-949-4232.

Table of Contents

I. Access Routes.....	3
II. Parking Facilities.....	5
III. Benches.....	6
IV. Picnic Tables.....	6
V. Cooking Grills and Campfire Rings.....	7
VI. Drinking Fountains.....	7
VII. Toilet Stalls.....	8
VIII. Urinals, Other Fixtures.....	9
IX. Controls.....	10
X. Showers.....	10
XI. Trash Receptacles/Recycle Bins.....	11
XII. Campsites.....	11
XIII. Amphitheaters and Gathering Areas.....	13
XIV. Shelters.....	14
XV. Playgrounds.....	14
XVI. Information Kiosks, Fee Collection Boxes.....	14
XVII. Nature Trails and Hiking Paths.....	15
XVIII. Boating Facilities.....	15
XIX. Fishing Piers and Decks.....	17
XX. Shooting Ranges.....	18

Appendix A. Images for Accessible Nature Trails and Hiking Paths

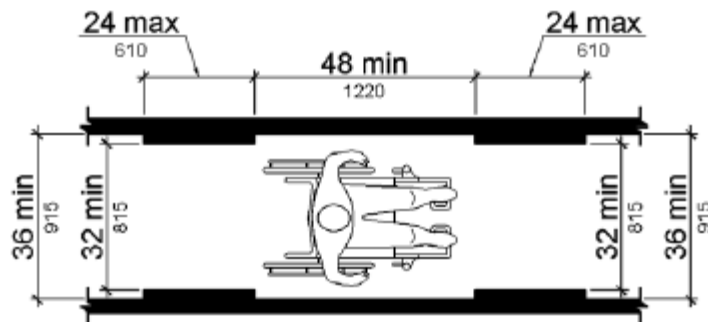
I. Access Routes

There are many factors involved in providing accessible routes of travel for people with disabilities. For details, refer to Section 402 of the U.S. Department of Justice's *2010 ADA Standards for Accessible Design* at:

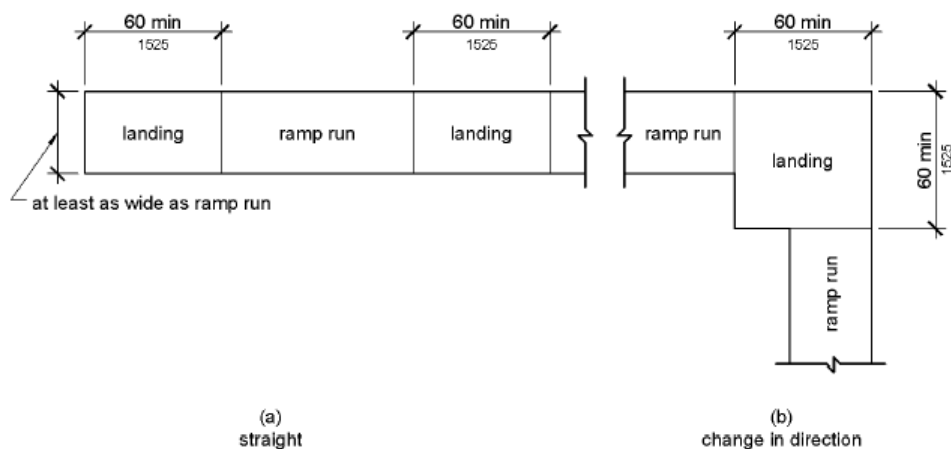
<http://www.access-board.gov/guidelines-and-standards/buildings-and-sites/about-the-ada-standards/ada-standards/chapter-4-accessible-routes#402> Accessible Routes

This guide attempts to identify some of the key elements.

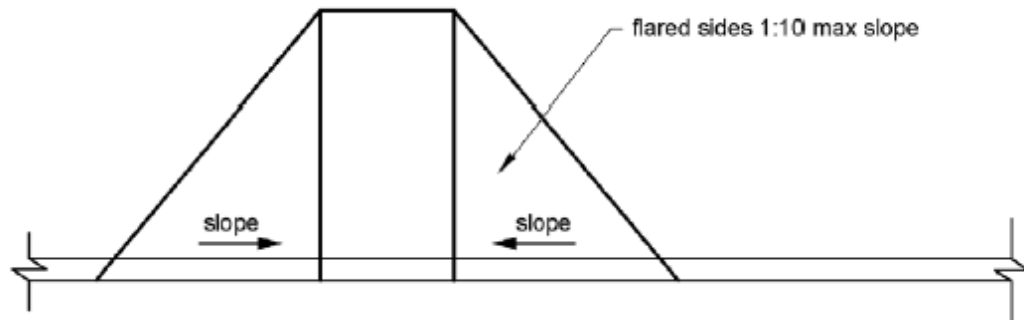
ADA standards require a clear width of 36 inches to accommodate persons using wheel chairs.



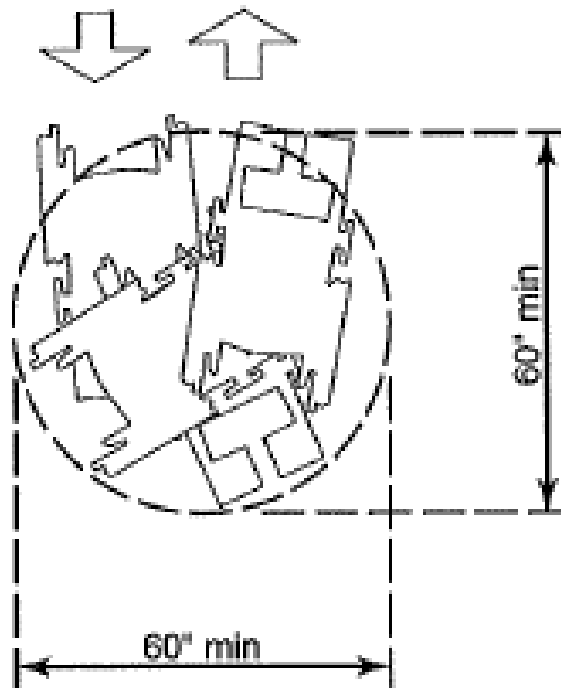
The minimum **passage width** for routes to facilities is 60 inches. Design for least possible slope, with **slopes** no greater than 1:20 (5%) and cross slope of no more than 1:50 (2%). **Surface** shall be firm and stable, either paved or constructed of highly compactable material that can accommodate wheel chairs or other mobility devices. Surface slopes exceeding 5% are considered **ramps**. Ramp slopes may not exceed 1:12 (8.33%), may include a rise of no more than 30 inches, and shall include a 60 x 60 inch level landing, or resting pad, every 30 feet. On ramp slopes between 1:16 and 1:20, the distance between landings may be up to 40 feet. (Sec. 405, 2010 ADA Stds.)



Curb ramps intended for single passage shall be a minimum 36 inches in width and may not extend into the route below. Landings above and below the ramp shall be at least 36 x 36 inches (3 feet). The slope of the curb ramp may not exceed 1:20 (5%), and the slope of the ramp flarings may not exceed 1:10 (10%). (Sec. 406, 2010 ADA Stds.)



The minimum **turning radius** for accessible routes is 60 inches. Turning areas on ramps shall be level. If a **doorway** is located at a landing, a level space at least 60 inches wide, extending at least 24 inches beyond the door pull edge of door is required.



Turning Radius

Ramps exceeding 1:12 slope shall have **handrails** on both sides (Sec. 505, 2010 ADA Stds.). <http://www.access-board.gov/guidelines-and-standards/buildings-and-sites/about-the-ada-standards/ada-standards/chapter-5-general-site-and-building-elements#505> Handrails

Handrails on ramps shall be:

- 1 ¼ - 2 inches in diameter, located at least 1½ inch from other surfaces or objects, and shall not rotate in their fittings.
- mounted 34-38 inches above and parallel to the floor or ground surface
- extended at least 12 inches beyond the top and bottom of the ramp segment, remaining parallel to walking surface.
- rounded or returned smoothly to wall or landing surface.
- continuous if on the inside of a dogleg or switchback ramp.

II. Parking Spaces

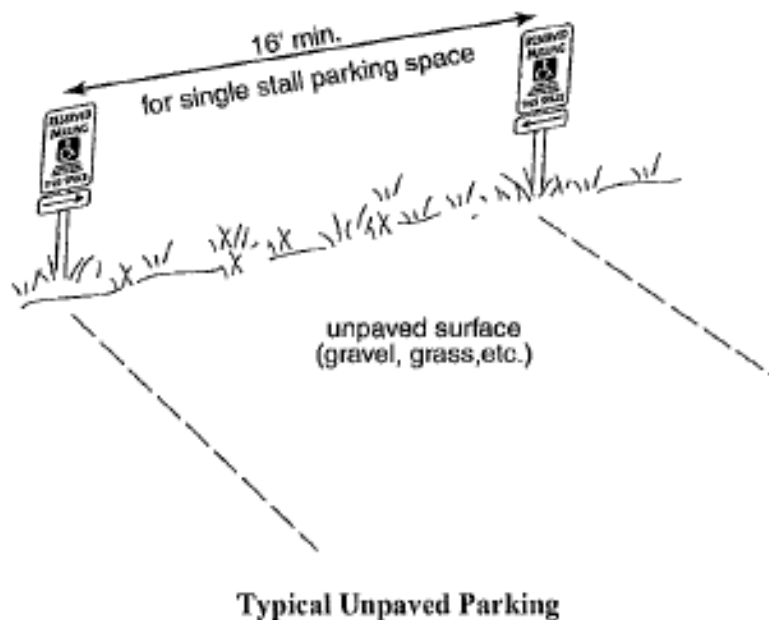
Disabled use only parking spaces should be located as close as possible to project facilities or use areas. At a minimum, one accessible van space 11 feet in width must be reserved for individuals with disabilities. Additional disabled use only spaces are **required for every 25 regular parking spaces** provided except in lots with more than 100 spaces, after which one disabled use only space shall be provided for each additional 50 regular spaces. For every six disabled use only spaces provided, one must be van accessible. (Sec. 208, 2010 ADA Stds.) <http://www.access-board.gov/guidelines-and-standards/buildings-and-sites/about-the-ada-standards/ada-standards/chapter-2-scoping-requirements#208> Parking Spaces

Accessible car spaces must be a minimum 8 feet in width. All disabled use only parking spaces must be adjacent to a 5 foot wide access aisle, and each should be clearly marked with an official, 12 x 18 inch sign meeting DOT sign standards. Bottom of sign shall be no less than 4 feet above ground or surface. (Sec. 502, 2010 ADA Stds.) <http://www.access-board.gov/guidelines-and-standards/buildings-and-sites/about-the-ada-standards/ada-standards/chapter-5-general-site-and-building-elements#502> Parking Spaces



Each space shall be served by a **5 foot wide access aisle**, although the same aisle can serve two disabled spaces. **Curb ramps** should be provided as needed at convenient locations, preferably adjacent to access aisles.

Where parking is provided on **unpaved surfaces**, disabled use only parking area and route to facilities and use areas shall be constructed of highly compactable material. Disabled use only signs should be located on the outside edges of a 16 foot wide parking space, with arrows indicating the space location.

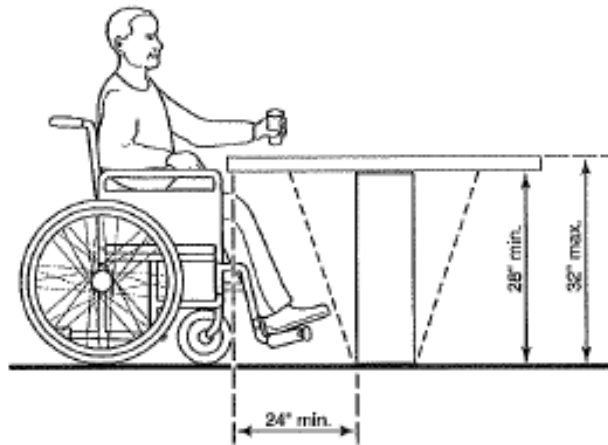


III. Benches

Benches should be located on an accessible route of travel, should be at least 4 feet long, and have back support and arm rests. The seat should be 14 to 16 inches deep and 17 to 19 inches off the ground with a minimum 30 x 48 inch clear space next to the bench.

IV. Picnic Tables

Newly purchased picnic tables must be of accessible design with at least one side open to wheelchair access. This requires a space at least 28 inches high, 30 inches wide and 24 inches deep. (Sec. 306, 2010 ADA Stds.)



Side View of Picnic Table

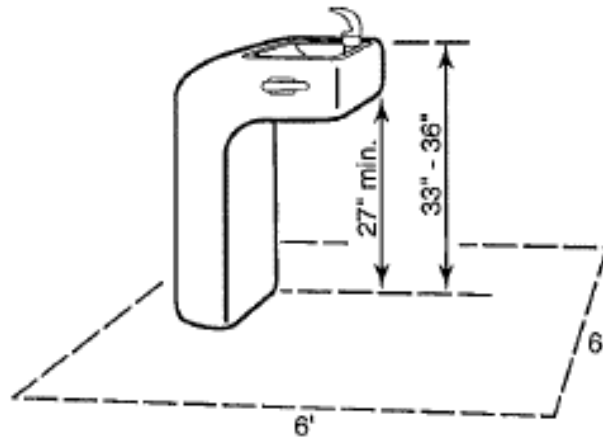
A minimum 36 inches of clear ground space is required around the perimeter of the table, although 48 inches is recommended. This space may overlap with the clear space required for other elements, *i.e.* grill, but not that of another picnic table. The surface of the clear ground space around the picnic table must be stable, firm, slip-resistant, and evenly graded, with a maximum slope of 1:50 (2%) in all directions.

V. Cooking Grills and Campfire Rings

Access should be by a firm, level surface. Cooking surface for grills shall be 15-34 inches above the ground. Fire-building surface for campfire rings shall be at least 9 inches above the ground. A clear, 48 x 48 inch ground space should be provided on all usable sides.

VI. Drinking Fountains

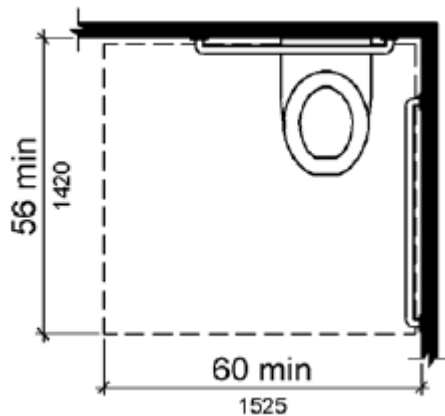
Must be located on a smooth, firm surface with level approach (no rises more than ½ inch). Controls shall be operable with one hand and not require tight grasping, pinching, or twisting of the wrist. Spout outlets shall be no more than 36 inches from the floor or ground, a minimum of 15 inches from vertical support, and no more than five inches from the front edge of the unit. Provide at least 27 vertical inches of clearance under basin. (Section 602, 2010 ADA Stds.) <http://www.access-board.gov/guidelines-and-standards/buildings-and-sites/about-the-ada-standards/ada-standards/chapter-6-plumbing-elements-and-facilities#602> Drinking Fountains



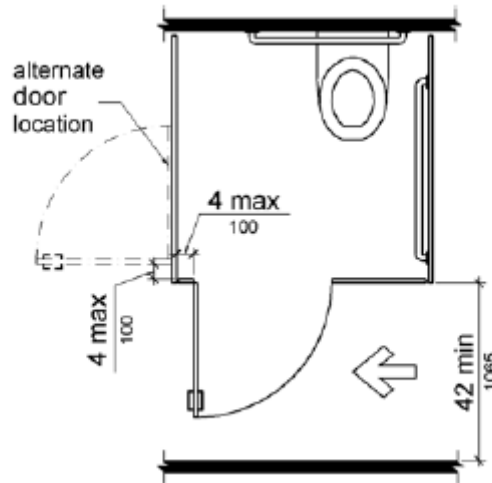
Drinking Fountain

VII. Toilet Stalls

Where toilets are provided, toilet stalls must afford at least 56 x 60 inches of clear floor space. Use regular-sized tissue dispensers that permit continuous paper flow, not the oversized dispensers which block grab bars and use leg and knee space. (Section 603, 2010 ADA Stds). <http://www.access-board.gov/guidelines-and-standards/buildings-and-sites/about-the-ada-standards/ada-standards/chapter-6-plumbing-elements-and-facilities#603> Toilet and Bathing Rooms



Where 6 or more stalls are provided in a toilet room, a second type of stall must be provided in addition to the standard stall. This 35-37 inch width x 60 inch depth **ambulatory stall** is designed for use by people who use crutches, walkers, or canes or need grab bars within reach.

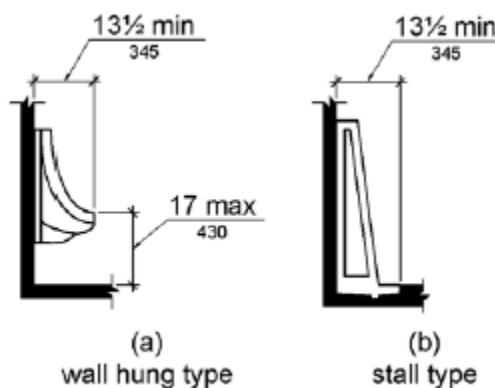


If **portable toilets** are used, an accessible unit must be provided on an accessible route of travel adjacent to any parking that is provided. Units must be inspected to ensure they are installed properly for stability, slope, gap between adjoining path and entry, and placement of railings and grab bars.

VIII. Urinals, Other Fixtures

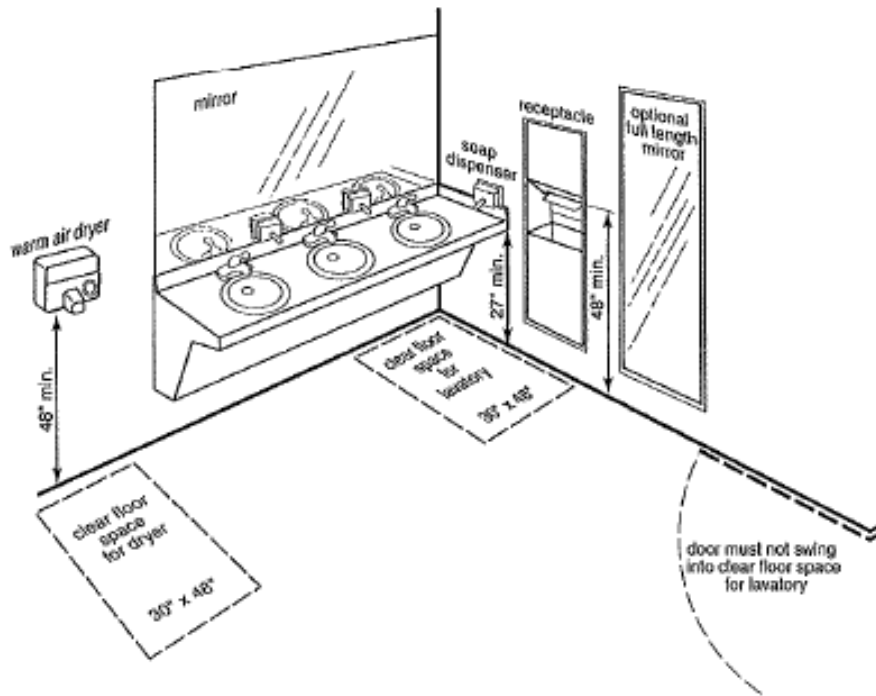
If one or more urinals are provided at least one should be floor mounted with clear floor space provided. Otherwise, basin rim shall be no more than 17 inches above the floor. Basin depth shall be a minimum 13 1/2 inches. (Sec. 605, 2010 ADA Stds.)

<http://www.access-board.gov/guidelines-and-standards/buildings-and-sites/about-the-ada-standards/ada-standards/chapter-6-plumbing-elements-and-facilities#605 Urinals>



A 30 x 48 inch clear space must be provided in order to use a fixture (urinal, sink, etc.). Up to 19 inches of the 48 may serve as knee space below the fixture. (Sec. 306, 2010 ADA Stds.)

<http://www.access-board.gov/guidelines-and-standards/buildings-and-sites/about-the-ada-standards/ada-standards/chapter-3-building-blocks#306 Knee and Toe Clearance>



Faucets shall be lever-operated, push type, or electronically controlled to be operable by persons with disabilities. A single full length mirror can accommodate all people.

IX. Controls

Controls and operating mechanisms shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. Switches and controls for light, heat, ventilation, windows, draperies, fire alarms, and all similar controls of frequent or central use should be placed at a height of 32-46 inches.

X. Showers

Curb into the shower should be no higher than ½ inch. Seat (folding or stationary) shall be mounted 17-19 inches above the floor. Grab bars should extend around three sides of the shower, be 1 ¼ - 1 ½ inch in diameter, mounted 1 ½ inch from wall, and shall not rotate within fittings. Controls must be operable with one hand, without twisting the wrist.

Bathtub and Shower spray unit should have a hose at least 59 inches long. (Sec. 608, 2010 ADA Stds.) [http://www.access-board.gov/guidelines-and-standards/buildings-and-sites/about-the-ada-standards/ada-standards/chapter-6-plumbing-elements-and-facilities#608 Shower Compartments](http://www.access-board.gov/guidelines-and-standards/buildings-and-sites/about-the-ada-standards/ada-standards/chapter-6-plumbing-elements-and-facilities#608-Shower%20Compartments)

XI. Trash Receptacles/Recycle Bins

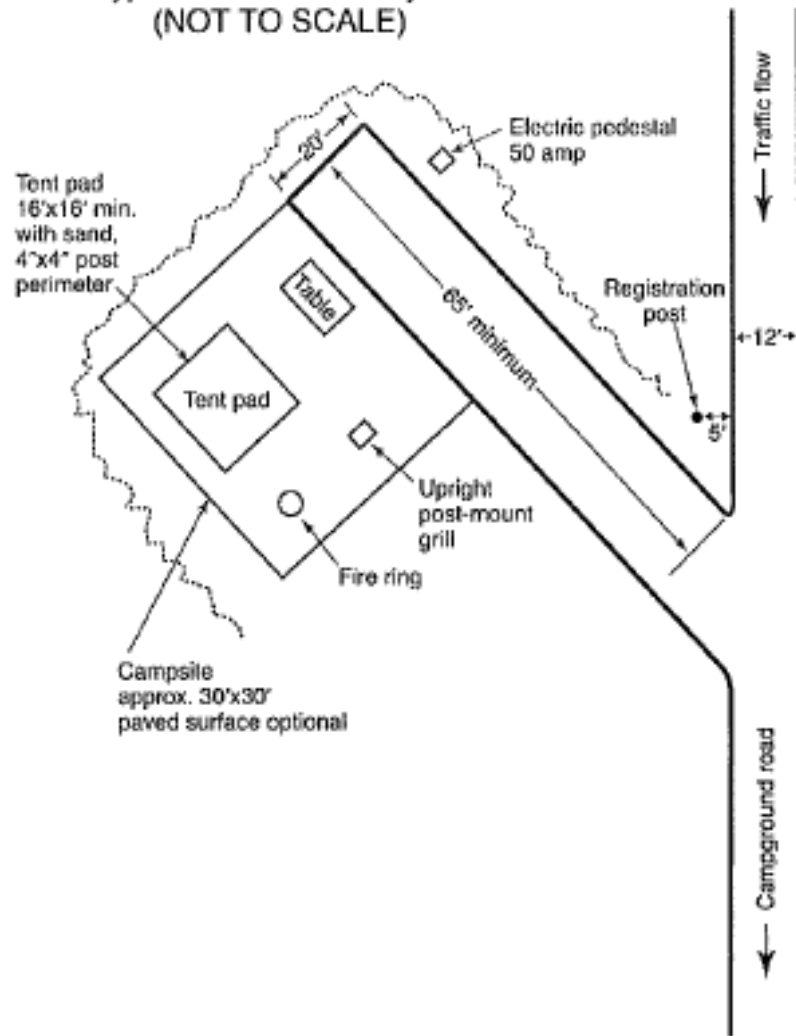
Trash receptacles/recycle bins must be located along accessible routes of travel with clear ground space to allow access by individuals in wheel chairs. With the exception of dumpsters and other receptacles with hinged lids to prevent access by large animals the opening should be no more than 36 inches from the ground.

XII. Campsites

Accessible campsites should be dispersed throughout the property, with at least one for use by campers with RVs, and one for tent campers. A five foot wide, firm-surfaced path should link these to a barrier-free restroom facility, accessible drinking fountain, and water supply. The site should be firm and level, with less than a 1:50-1:60 (2-3%) slope. It should include accessible table, cooking grill, and campfire ring. The site should have electricity to meet any medical equipment needs. **Power pedestal** should be no more than 40" in height. The site should be identified as accessible by a 4 x 4 inch accessibility symbol mounted under the card clip on the registration post.

Spur and parking space should be at least 65 feet long, and 16 feet wide for tent sites/20 feet wide for RV sites. The cleared campsite area should adjoin the parking space and be approximately 30 by 30 feet. If a paved surface is provided to accommodate the picnic table and cooking grill, it should be near or adjacent to the parking space. Cooking grills and/or campfire rings should be installed along the outside edge of the "living area".

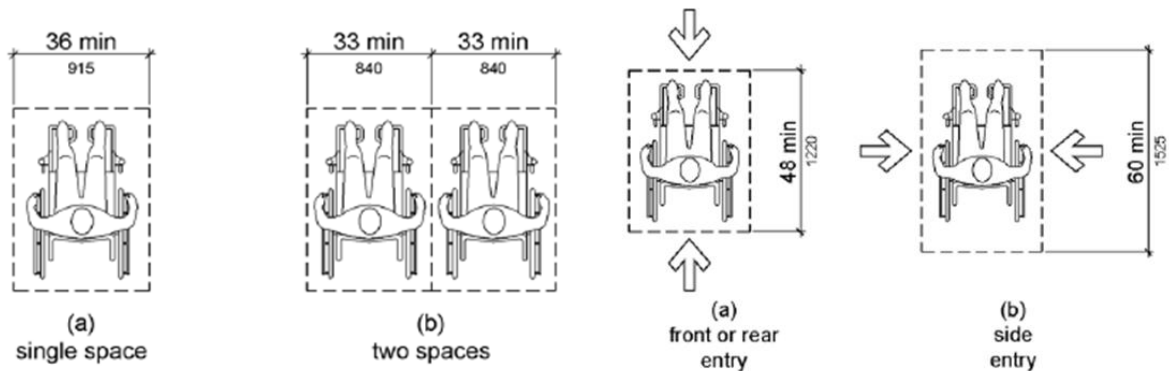
Typical "ADA" Site Layout
(NOT TO SCALE)



Total Number of Camping Units Provided in Camping Facility	Minimum Number of Accessible Camping Units Required
1	1
2 to 25	2
26 to 50	3
51 to 75	4
76 to 100	5
101 to 150	7
151 to 200	8
201 and over	8, plus 2% of the number over 200

XIII. Amphitheaters and Gathering Areas

Accessible seating must be an integral part of the seating plan so that people using wheelchairs are not isolated from other spectators or their friends or family. Seating for people with wheelchairs should be dispersed throughout the facility, and allow spectators with disabilities to sit side-by-side with companions in regular seating. It should be on a level, solid surface with entry from the front, rear, or side.



Wheelchair seating locations must be provided in all nature or interpretive specialty areas where programming occurs and allow a view comparable to that enjoyed by the general public. Wheelchair seating locations must be on an accessible route that provides access from parking and transportation areas and that connect to all public areas, restrooms, stages or performance areas, and exits. In addition to wheelchair seating locations, at least one percent of all fixed seating areas must be aisle seats with no armrest, or with a removable or fold armrest, on the aisle side.

Number of Seats Minimum Number of Required Wheelchair Spaces

4 to 25	1
26 to 50	2
51 to 150	4
151 to 300	5
301 to 500	6
501 to 5000	6, plus 1 for each 150, or fraction thereof, between 501 through 5000
5001 and over	36, plus 1 for each 200, or fraction thereof, over 5000

XIV. Shelters

Picnic shelters should be accessible by a firm, level route of travel at least 5 feet wide. The path should be flush with the elevation of the floor and with other accessible facilities in the vicinity.



XV. Playgrounds

Playgrounds should provide opportunities for children with varying abilities. Accessibility guidelines or standards on how to make a playground accessible are extensive. The following components are basic summary guidelines included in the standards:

- Designated parking must be provided near the playground.
- A firm, level route of travel must be provided to the play area.
- A shaded area, drinking water, and benches should be available near the playground.

Additional information on accessible playgrounds can be found at:

<http://apps.npr.org/playgrounds>

XVI. Information Kiosks, Fee Collection Boxes

Provide a paved or otherwise firm and level approach allowing persons using wheel chairs, scooters, crutches or walkers to get close enough to access fee envelopes, pencils and deposit slots, and to clearly view materials posted. Use **larger type and graphics** where possible, and make sure materials and postings are at a height that will serve individuals with a broad range of physical and visual abilities.

XVII. Nature Trails and Hiking Paths

Trails and paths, by their nature, may involve steep grades and rugged terrain. Trails may be held to lesser standards of accessibility based on the exceptions outlined in the introduction to this guide. In such cases, federal standards still require that a best effort be made to make as much of the facility as possible accessible to people with the broadest possible range of abilities.

Where possible, the objective is to provide trail surfaces meeting the slope standards outlined earlier in this guide, and affording clear, **unobstructed foot paths or “treads”** at least 36” in width. Surfaces may be native materials, or may be improved with imported materials to improve stability and allow for occasional grading. Surfaces, in all cases, should be firm and stable.

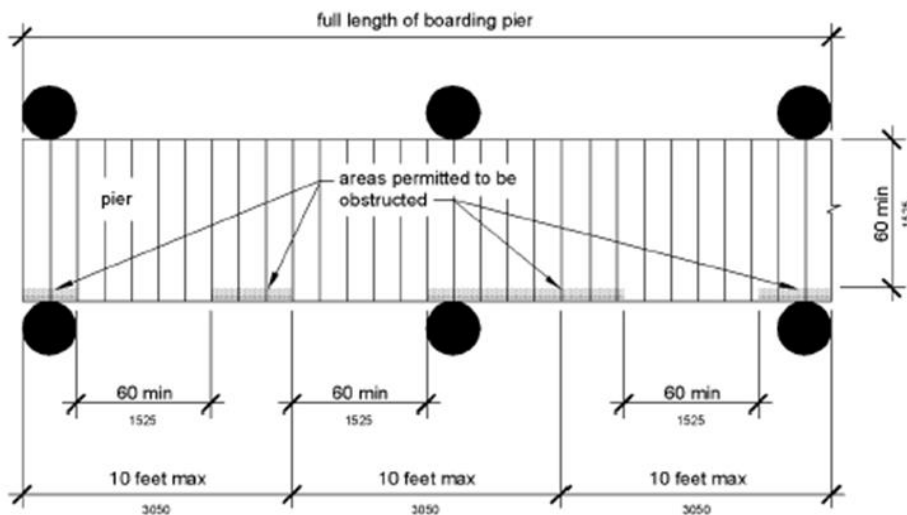
Five-by-five foot passing spaces should be provided at least every 1000 feet, and 5 x 5 foot level resting areas should be provided immediately before and after any trail segment with a slope exceeding 1:20 (5%). No more than 30% of the total trail should be steeper than 8.3% (1:12). Effort should be made to level out changes in slope or grade exceeding 1:9 (11%). See images in Appendix A.

At least 20% of the facility’s constructed features, including trail heads, viewing areas, camping or picnic facilities should be designed to meet ADA standards. Where signage is provided, it should include the trail segment’s length, surface type, typical tread width, and typical grade and out slope. Every effort should be made to make constructed features and trail highlight areas accessible to people of all abilities, even if the trail itself is not. There is no way to know how persons with disabilities may make their way to these features. Such efforts should be rewarded by allowing them full opportunity to enjoy them.

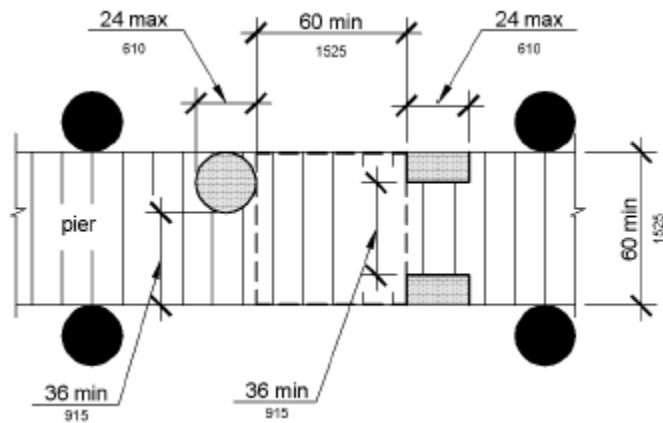
XVIII. Boating Facilities

Boarding docks/piers must be barrier-free and built with durable, slip-resistant materials, providing the best-possible opportunity for persons of all abilities to board and exit watercraft. (Sec. 1003, 2010 ADA Stds.) <http://www.access-board.gov/guidelines-and-standards/buildings-and-sites/about-the-ada-standards/ada-standards/chapter-10-recreation-facilities#1003> Recreational Boating Facilities

- The dock surface should be 18-22 inches above the water to allow easy loading. Lower elevation may be allowed under specific conditions.
- Minimum width for a boarding dock is 60 inches (5 feet), though 6 foot width is recommended for stability.
- A 5 foot clear space is required every 10 feet to allow unimpeded boarding.



- A 60 inch clear pathway is required down the length of the dock, though 36 inches is acceptable for lengths of up to 24”.



- Cleats or tie rails may be provided.

Floating docks are preferred since their surface is always at a uniform elevation above the water, regardless of water level fluctuations. Design plans should show the mechanisms by which floating docks are allowed to rise and fall with the water level, and how they are anchored to the river or lake bed.

Fixed, or stationary, docks may be supported by treated timber piles, steel pipe, or steel H-piles. Planking on fixed docks must be level with no gaps between planks of more than 1/4 inch at construction or 1/2 inch after shrinkage, and all parts must be flush to within 1/4 inch.

Reference the States Organization for Boating Access Design Handbook for Recreational Boating and Fishing Facilities for dock stability specifications. www.sobaus.org

A **ramp or gangway** may be used to bridge differences in height between the dock surface and shore abutment. The bridge section must be long enough to insure that its slope does not exceed 1:12 (8.33%) under normal water level fluctuations. Handrails on the bridge sections are optional, but not recommended. Flexible connections at the dock and shore abutment accommodate fluctuations in water level. **Transition plates** at these connections are used to prevent gaps exceeding ½ inch and surface elevation differences exceeding ¼ inch. Transition plates must be of the same width as the dock.

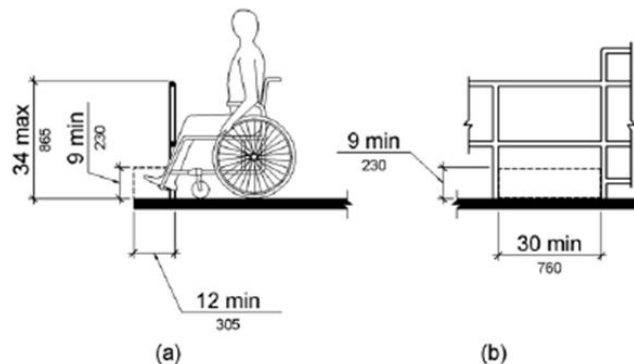
XIX. Fishing Piers and Decks

Fishing piers may also be fixed or floating and must be built to the same standards as boarding docks, above. Floating structures may be more desirable in areas with water level fluctuations greater than one foot. Fishing piers extending over the water are typically T-shaped with an approach section and a fishing structure. (Sec. 1005, 2010 ADA Stds.) <http://www.access-board.gov/guidelines-and-standards/buildings-and-sites/about-the-ada-standards/ada-standards/chapter-10-recreation-facilities#1005> Fishing Piers and Platforms

- The approach section must be at least 5 feet wide. Six is preferable, and 8 feet is desirable if this area is to be used for fishing. Hand rails (see details below) may be provided.
- A fishing structure can be built to varying widths, but must be at least 10 feet on its narrow axis if benches are provided. An 8 foot narrow axis is acceptable if no benches are provided. Sixty inch turning radius must be provided at each fishing station.

Fishing Platforms are typically fixed structures built on the shoreline and may be cantilevered over the water. As with docks and piers, these must be connected to nearby parking by a firm, stable accessible route.

Railings are optional. When railings are provided on a fishing pier or platform, at least 25% of the railing must be 34 inches or less in height at fishing stations. **Fish retrieval slots** at least 9 inches wide from the top of the rail to the deck surface are required every 8 feet. If deck does not extend beyond railing, provide edge protection at least two inches in height. If railings are not used, edge protection 2-4 inches in height and two inches in width is recommended.



XX. Shooting Ranges

At least one shooting bench, or a minimum of 5%, shall be served by an accessible route and designed to meet ADA standards. Access path and ground surfaces associated with shooting benches, sitting benches, and paths to targets shall be firm and stable. Accessible shooting benches shall have a knee clearance at least 27 inches high, 30 inches wide, and 24 inches deep. Aiming/work surface should be at a height of 30-34 inches. Approach to bench shall include a 60 x 60-inch, clear, turning radius with slopes not to exceed 1:48 (2%). The sitting bench shall follow the guidelines for “Benches” above. Paths to targets shall follow the guidelines for “Access Routes.” (Chapter 4, 2010 ADA Stds.) <http://www.access-board.gov/guidelines-and-standards/buildings-and-sites/about-the-ada-standards/ada-standards/chapter-4-accessible-routes#402> Accessible Routes

Appendix A. Images for Accessible Nature Trails and Hiking Paths

See following pages.

Clear Tread Width



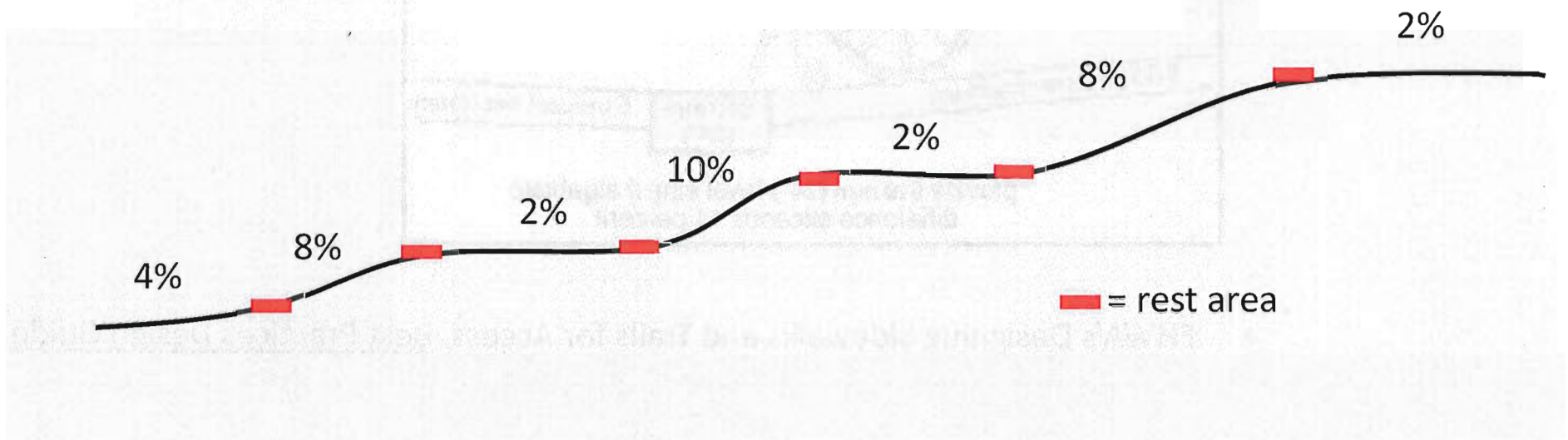
Clear Tread Width - Exception

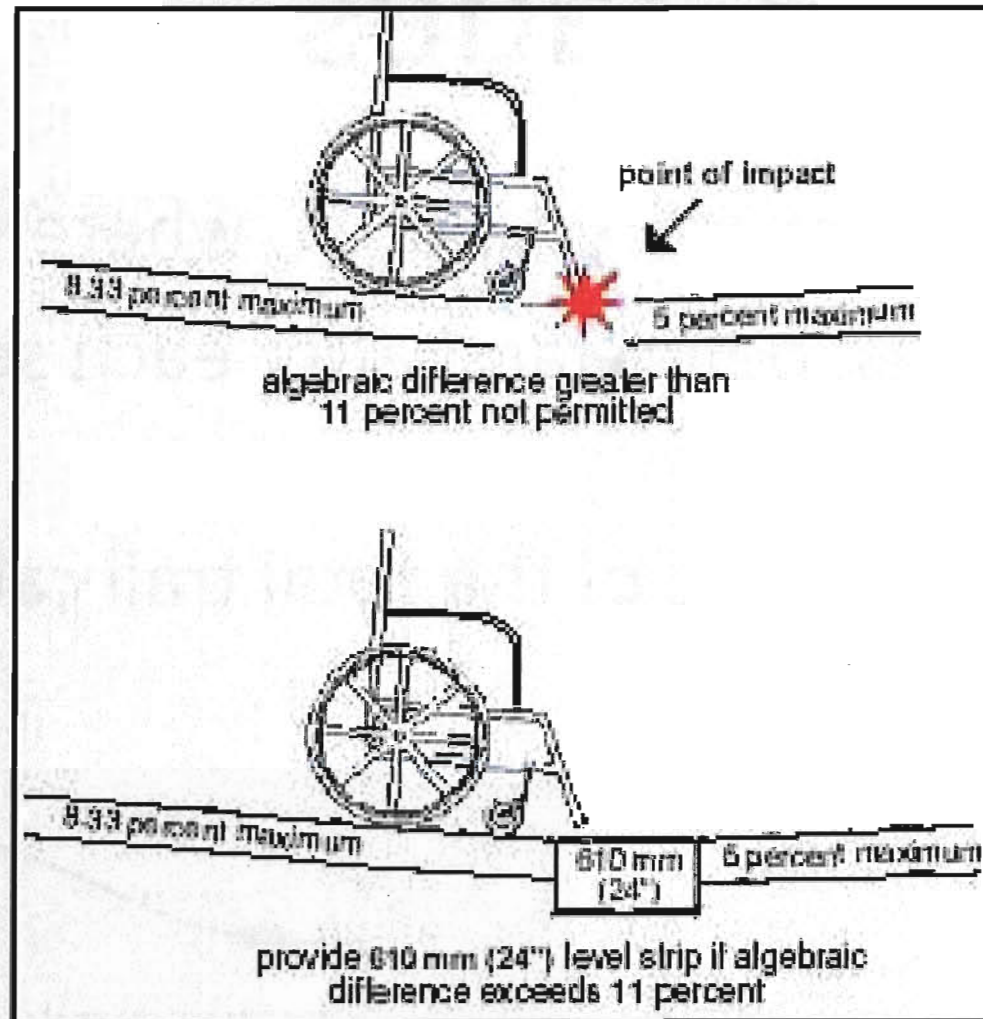


- ▶ Can go down to 32" width for max of 24"
- ▶ Condition for exception must be met

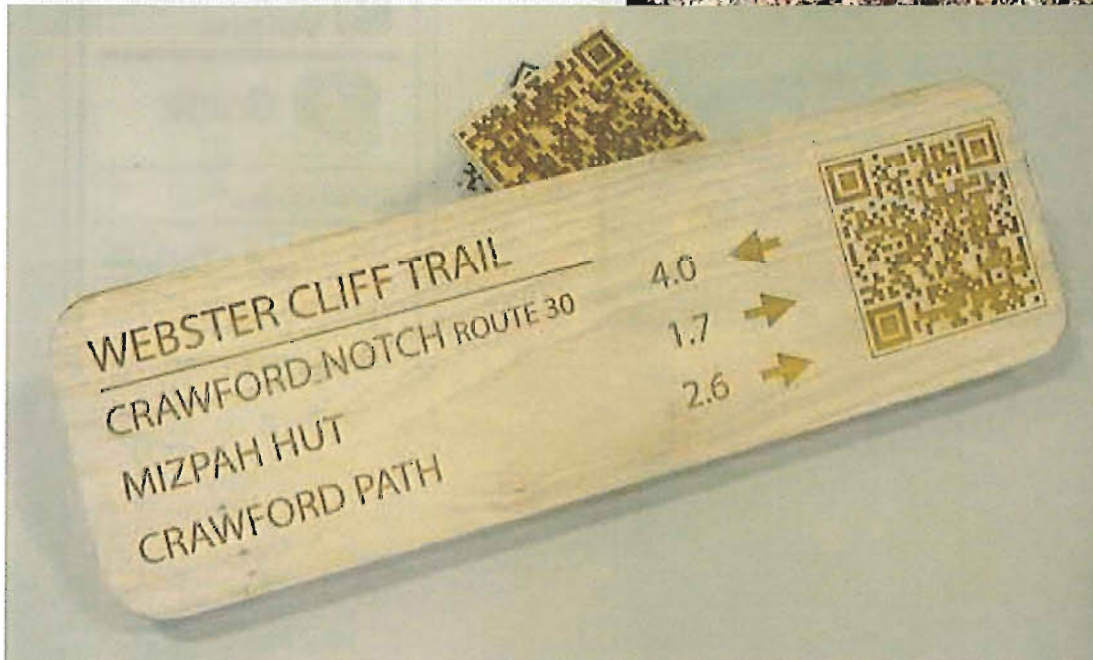
Grades

- ▶ Passing spaces: every 1,000 ft. where $< 60''$ w
- ▶ Resting areas: before and after each section more than 5%
- ▶ No more than 30% of the total trail can be steeper than 8.3%





- FHWA's Designing Sidewalks and Trails for Access, [Best Practices Design Guide](#)



Truckee River Bike Path
 Fisherman's Park to Rock Park
 Length 1.1 mi (1.7 km)

 **Hiking**

 **Bicycling**

 **No Motorized Vehicles**

 **Grade**
 Typical Grade 1.3%
 3% of the trail is 7% to 10%
 10 ft (3 m) is 11% to 16%
 8% grade is a standard ramp


 **X-Slope**
 Typical Cross Slope 1.6%
 54% of the trail is 3% to 5%
 112 ft (34 m) is 6% to 8%


 **Tread Width**
 Typical Tread Width
 9 ft (2.6 m)


North Cascades National Park Service
 U.S. Department of the Interior
 North Cascades National Park Service Complex
 Park & Wildlife Information Center


HAPPY CREEK NATURE TRAIL


Trail Length: 1/3 Mile (.5 Kilometers)
Total Elevation Change: 50 Feet (15 Meters)

 **Cross-Slope:** 0 to 3%

 **Trail Width:** 6 Feet (1.8 Meters)

 **Inclination:** 0 to 8.3%

 **Surface:** Boardwalk

 **Obstacles:** Slippery when wet

EXPERIENCE YOUR AMERICA

The Nature Trail
 Round Trip from Parking Lot
 Rancho San Rafael Park

Length 1.1 mi (1.8 km)

 **Hikers**

 **Dogs on Leash**
 per posted restrictions

 **No Bikes**

 **No Motorized Vehicles**

 **Grade**
 Typical Grade 5.9%
 21% of the trail is 8% to 14%
 424 ft (129 m) is 14% to 25%
 8% grade is a standard ramp