



Oregon Parks and Recreation Department
**Accessibility Design Standards
for all Future Projects**

July 2023



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Acknowledgements & Project Summary

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Cover Photo: Silver Falls State Park

Acknowledgements & Project Summary

Project Summary

On behalf of the Oregon Parks and Recreation Department (OPRD) we are pleased to present our 2023 Accessibility Design Standards. OPRD has developed this document to promote a consistent approach to incorporate improved accessibility, beyond the foundational standards when feasible, in the development of all future projects.

We strive to welcome park visitors of all abilities and are working diligently to remove barriers to accessing our facilities, programs, and services. Our ultimate goal is to improve outdoor recreational opportunities for everyone.

Each of our state parks is an individual place where people play, picnic, camp, explore, hike, rest, and renew. They are an everyday reminder of the things that make Oregon great. We recognize that Oregon's resilience and beauty are strengthened by its diverse communities. Our commitment is to serve everyone by striving to provide safe and equitable access to state parks and agency programs. The standards in this document were developed in collaboration with OPRD staff, the disabilities community, professional organizations, and government partners.

These standards are a key component of OPRD's vision for improved accessibility to ensure our State Parks are a welcoming place for everyone.

Oregon State Parks Mission

The mission of the Oregon Parks and Recreation Department (OPRD) is to provide and protect outstanding natural, scenic, cultural, historic, and recreational sites for the enjoyment and education of present and future generations.

Project Origin

Many parks and recreation settings across Oregon are not accessible to people with disabilities. Through the work of the OPRD Americans with Disabilities Act (ADA) Coordinator in development of the OPRD ADA Transition Plan, and the Oregon Office of Outdoor Recreation (OREC) in development of the 2020 Framework for Action, OPRD has identified key improvements to remove barriers and improve accessibility in our parks.

This foundational work resulted in House Bill (HB) 2171, which was introduced by Governor Brown in 2021 as one of her priority bills. HB 2171 was intended to implement many of the recommendations from the Governor's Task Force on the Outdoors, facilitated by OREC, that developed the Framework for Action, and recognized the need to develop and implement design standards for new park improvements.

Acknowledgements & Project Summary

The specific section from HB 2171 regarding development of the Statewide Design Standards reads as follows:

“SECTION 4. (1) The State Parks and Recreation Department shall establish statewide recommended standards for the design of recreation projects, including trails, docks, and public recreation access points, to ensure that state recreation areas are accessible to members of the public of all mobility levels.

(2) The department shall apply the statewide recommended standards to all future department recreation projects.”

Development of these standards spanned a period of seventeen months starting in the fall of 2021. An Advisory Working Group was formed to help guide the process and provide direction on the design requirements.

The goals of these standards are to:

- Where feasible, exceed ADA and Architectural Barriers Act (ABA) Standards by incorporating universal access concepts and user feedback into design standards.
- Ensure design standards allow for broad and flexible application across multiple sites and jurisdictions, including consideration that demographics, regulations, and technology may change in the future.
- Create consistency in design standards incorporating elements that directly benefit visitors with disabilities.

These standards provide key resources and illustrate standards for recreation facilities listed in HB 2171 Section 4 and are intended to serve as a resource to OPRD as well as other communities, in the design, construction, and alteration of outdoor recreation facilities. Recognizing the ADA, ABA, and other existing standards are the minimum legal requirements and broad in application, OPRD’s goal is to exceed the minimum legal requirements of ADA and ABA, when feasible, in an effort to respond proactively to the needs of all of our visitors.

1

Introduction

Chapter Contents

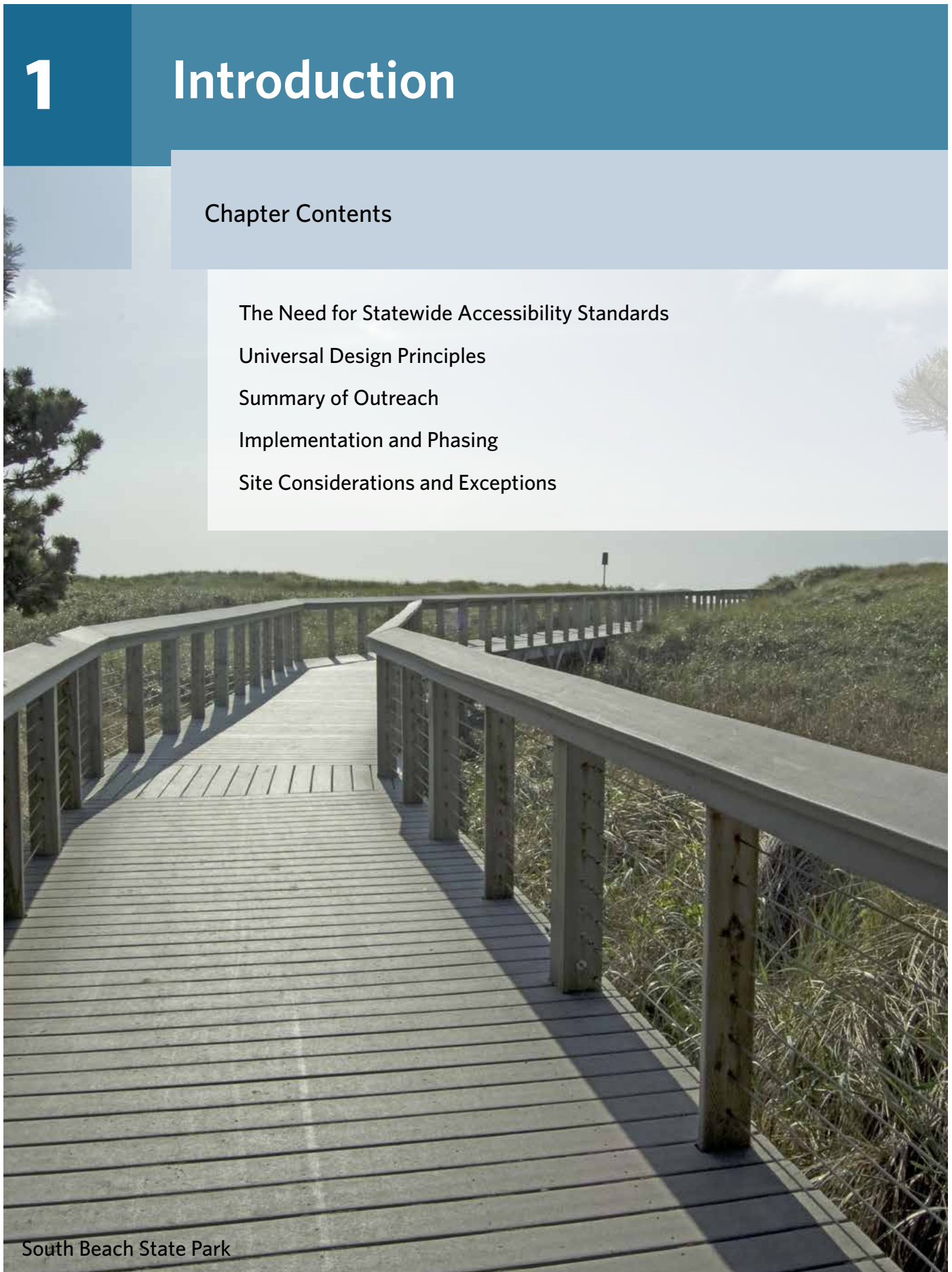
The Need for Statewide Accessibility Standards

Universal Design Principles

Summary of Outreach

Implementation and Phasing

Site Considerations and Exceptions



South Beach State Park

The Need for Statewide Accessibility Design Standards

Access to publicly owned lands is a basic civil right guaranteed to everyone in the community, including people with disabilities. The Disability Rights Movement began in large part in the 1960s and 1970s with the push for passage of Section 504 of the Federal Rehabilitation Act. People with disabilities continue to advocate for their right to access and enjoy public spaces; not separate and equal, but as part of a fully integrated and equitable experience.

Today, we have a wide range of legal standards to refer to in the design, alteration, construction, and maintenance of Oregon's state parks and outdoor recreational facilities. This includes the Americans with Disabilities Act Standards for Accessible Design (ADA, 2010) and the Architectural Barriers Act Accessibility Standards (ABA, 2015), which ensure that baseline access to public lands for the disability community is achieved. However, we recognize that within the ADA and ABA, a holistic consideration of the broader spectrum of disability identities is needed in order to meet the needs of the range of the experiences of people with disabilities. With our Statewide Accessibility Design Standards, OPRD aims to take the minimum requirements provided by the ADA and ABA and go beyond these standards to meet the needs of a broader range of people and provide access to a wider range of experiences, to ensure the inclusion of the disability community, and the opportunity for diverse adventures for all.

As of 2019, 14.8% of Oregonians have a disability; roughly 618,685 of 4,180,300 Oregonians. Many of these people experience barriers to accessing or using their state parks. People with disabilities represent a broad spectrum of park visitors with a range of ability levels, which frequently influence a deep social identity within the disability community and its diverse members. This spectrum ranges from physical and mobility disabilities to sensory, neurocognitive, mental, and intellectual disabilities. Many people identify with multiple disabilities across this diverse spectrum and each person has unique needs and desires for accessing and enjoying public spaces. Often, there is limited information specific to this broad range of the experiences of people with disabilities within the existing regulations. Research outside these regulations continues to grow, with some of the most powerful research being influenced directly by the lived experience of members of the disability community.

Universal Design

The Center for Universal Design defines universal design as “the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design.” The concepts of universal design, when coupled with feedback from stakeholders with disabilities, can help us design beyond the minimums of technical standards and codes, and to consider the needs and desires of the broad community of people using our parks.

Universal Design Principles

Universal design is a term coined in the 1900s by Ronald Mace, an architect and wheelchair user who was instrumental in the development of early accessibility legislation.

Mace put forward the following seven principles of universal design:

- » **Equitable Use.** The design is useful and marketable to people with diverse abilities.
- » **Flexibility in Use.** The design accommodates a wide range of individual preferences and abilities.
- » **Simple and Intuitive Use.** Use of the design is easy to understand, regardless of the user’s experience, knowledge, language skills, or current concentration level.
- » **Perceptible Information.** The design communicates necessary information effectively to the user, regardless of ambient conditions or the user’s sensory abilities. i.e. braille, raised characters, auditory, etc.
- » **Tolerance for Error.** The design minimizes hazards and the adverse consequences of accidental or unintended actions.
- » **Low Physical Effort.** The design can be used efficiently and comfortably and with a minimum of fatigue. This can be adapted for the outdoor environment to offer the opportunity for challenge and fatigue, while still addressing access barriers.
- » **Size and Space for Approach and Use.** Appropriate size and space is provided for approach, reach, manipulation, and use regardless of user’s body size, posture, or mobility.

Although no design methodology will meet every individual person’s needs and desires, when we build on the foundational technical standards with universal design goals based on the lived experience of people with disabilities, we can create more inclusive and accessible state parks. Engaging people with disabilities in the development of design and construction standards is key to this process. In this way, we can create parks, trails, and outdoor facilities that are safe, comfortable, and welcoming for everyone.

Summary of Outreach

Over a six-month period (March – June 2022) several tools and strategies were utilized to engage a variety of voices in the creation of these standards. OPRD engaged with several state agencies, local communities, and professional partners to lead outreach efforts within the disability community which represented people with various types of disabilities such as mobility-related disabilities, visual-impairments, neurodivergent, and hearing-impaired.

The feedback from people with lived experience is critical to ensure the accessible design standards consider the needs and desires of people with disabilities. Participants' feedback was gathered through a series of four workshops and a questionnaire.

In addition to the workshops, OPRD formed an Advisory Working Group composed of people with various disabilities and state agency staff. The group met monthly to review technical information, set priorities, and provide input on the draft standards.

Feedback was compiled and reviewed by OPRD staff, the Advisory Working Group, and the consultants in an effort to consider multiple perspectives, set priorities, and refine accessible design standards.

Workshop #1 March 21st, 2022

The first workshop focused on learning and listening to each participant's individual experience in parks and what access meant to them. A range of perspectives were shared regarding the importance of access for physical, mental, and spiritual wellbeing.

Workshop #2 April 13th, 2022

The second workshop focused on specific barriers and needed improvements regarding design of outdoor recreation facilities focused on camping, trails, and day use amenities.

Workshop #3 May 4th, 2022

The third workshop focused on specific actions and processes partner agencies are taking regarding accessibility improvements around design and engaging in dialog around their efforts.

Workshop #4 June 21st, 2022

The fourth and final workshop was an opportunity to thank everyone who participated, recognizing the commitment of their time and energy, and give an overview of the process. OPRD provided draft examples of how the material was being incorporated and emphasized the value of everyone's comments.

Advisory Working Group Meetings: The Advisory Working Group was composed of consultants, state agencies, disability community representatives, and OPRD staff. The group met monthly from January through July to help set project goals, priorities, guide process, review workshop materials, and give feedback on draft standards. The members of the Advisory Working Group and meeting summaries can be found in the appendix.

Disability Community Workshop Sessions: The purpose of the Disability Community Workshop Sessions was to gather input, desires, and needs from a broad spectrum of the disability community; provide feedback; and to guide the development of OPRD’s “Accessibility Design Standards” (the Standards).

The Advisory Working Group then reviewed community session material and input to determine priority topics for the next community session, and request feedback for further development of the Standards, in an iterative process between the community and Advisory Working Group.

A few of the key themes that were repeated throughout the workshops are summarized below and were incorporated into the design standards.

- People want information about site conditions, it’s not necessarily about making everything accessible.
- Better information on websites and at sites and trailheads, including information about site elements that are not accessible to allow informed decisions.
- Include braille at kiosks, maps, and signage.
- Provide more van accessible parking spaces and larger access aisles to accommodate a variety of vehicles and mobility devices.
- Greater trail width and more space between elements.
- Minimize abrupt vertical grade changes and trip hazards by providing smooth transitions.
- More frequent resting spaces and benches.
- More stable smooth surfaces and more paved surfaces.
- More accessible campsites, cabins, and yurts.
- Improve beach accessibility.

Implementation

The items listed in this document as standards are requirements for new construction and alteration of recreation facilities in state parks. Where the standards are unable to be met, they should be followed to the maximum extent feasible. Where multiple requirements are not able to be met, the ADA Coordinator should be consulted.

Additional site considerations that are not included in these standards will be reviewed and considered for each project based on feasibility, site conditions, and the opportunity to provide diverse levels of difficulty and accessibility for all users. The Project Manager is encouraged to solicit feedback from the ADA coordinator, lead engineer, or a qualified accessibility design consultant, if necessary. These standards will be incorporated to the maximum extent feasible, recognizing that they will greatly improve the experience of park visitors. The standards and best management practices will also guide the development of new OPRD standards in the future. These should be considered in all design projects.

Site Considerations and Exceptions

Application of the Accessibility Design Standards will require flexibility to allow for creative solutions of many visitors while meeting accessibility needs. Implementation of specific design standards may be limited in certain circumstances due to unique site conditions or constraints. Circumstances that could result in an exception to the specific scoping or technical provisions of the design standards are included below.

Conditions requiring exceptions may include sites where application of the standard:

- Would impact sensitive, protected, endangered species or habitat.
- Is significantly limited due to slopes, unstable soils, property lines, or geographic features limiting space for route adjustments.
- Would impact cultural resources.
- Would alter the unique attributes of the site or purpose of the facility.
- Is precluded by the following code requirements:
 - Endangered Species Act (16 U.S.C. §§ 1531 et seq.),
 - National Environmental Policy Act (42 U.S.C. §§ 4321 et seq.),
 - National Historic Preservation Act (16 U.S.C. §§ 470 et seq.),
 - Wilderness Act (16 U.S.C. §§ 1131 et seq.), or
 - Other Federal, State, or local law, the purpose of which is to preserve threatened or endangered species; the environment; or archaeological, cultural, historical, or other significant natural features.

Where site conditions restrict accessible design opportunities, the Project Manager should explore and document potential solutions and alternatives. The Project Manager should work with OPRD's ADA Coordinator, in an effort to ensure access is provided to the maximum extent feasible. Analysis may include consultative review of the project design documents, conducting a site assessment, and consideration of alternative solutions.

When accessible design is infeasible due to one of the conditions for exceptions listed above, the OPRD ADA Coordinator will work with the project manager to document the reasoning and also provide alternative solutions to equitable access. This can include but is not limited to directional signage at the park and the park's website that directs visitors to a nearby park with similar features that are accessible. In addition, while these standards apply to all new projects, they will also be applied to renovations, small park improvements, and maintenance projects, and will complement OPRD's ADA Transition Plan and ongoing efforts to remove existing barriers in parks. The ADA Transition Plan identified existing barriers within State Park's facilities and categorized them into a low, medium, or high barrier which determines their timeline for remediation. Some barrier remediation may require significant new construction, under such circumstances the agency will refer to this Accessibility Design Standards for guidance.

These standards are not all-inclusive and should be considered a starting point to improve access and remove barriers, and will require further refinement based on individual site conditions and visitor needs. As a working document, these standards will be reviewed and updated regularly to ensure the most recent technology, regulation, applicability, and visitor needs are reflected.



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Design Standards

Chapter Contents

- 2.1 Site Arrival Points and Parking
- 2.2 Routes of Travel and Circulation
- 2.3 Site Elements
- 2.4 Campsites, Cabins & Yurts
- 2.5 Water Access
- 2.6 Assembly Areas



Harris Beach State Park

This chapter includes a series of facility and site feature categories in response to the requirements of HB 2171, with best practices for accessible design and siting considerations, accompanied by illustrative diagrams for a selection of site elements. These details begin to go beyond the technical design minimums outlined in the required legal standards, by incorporating universal design principles, standards from other recreation agencies, direct feedback received through the community sessions, and OPRD Advisory Working Group workshops.

In consideration of the existing required standards, similar recreation facility guidelines in other jurisdictions, and specific feedback from the community, the items identified in Chapter 2 have been selected for inclusion in OPRD's Accessible Design Standards. Where dimensions are included, they are generally greater than the minimum legal requirements.

About Required Standards

The "Required Standard" sections cited in these standards reflect the most current published versions of the listed standards as of the publication of this document on June 30, 2023. The required legal standards, such as ADA and ABA, are managed and adopted by separate entities, and the scope, organization, and requirements of applicable accessibility standards may change over time. It is the responsibility of the design team to review and apply the strictest provisions of the most recent applicable standards. For more information consult the U.S. Access Board website (www.access-board.gov), the Oregon Building Codes Division (www.oregon.gov/bcd/codes-stand/pages/index.aspx), and the additional resources listed in the Appendix.

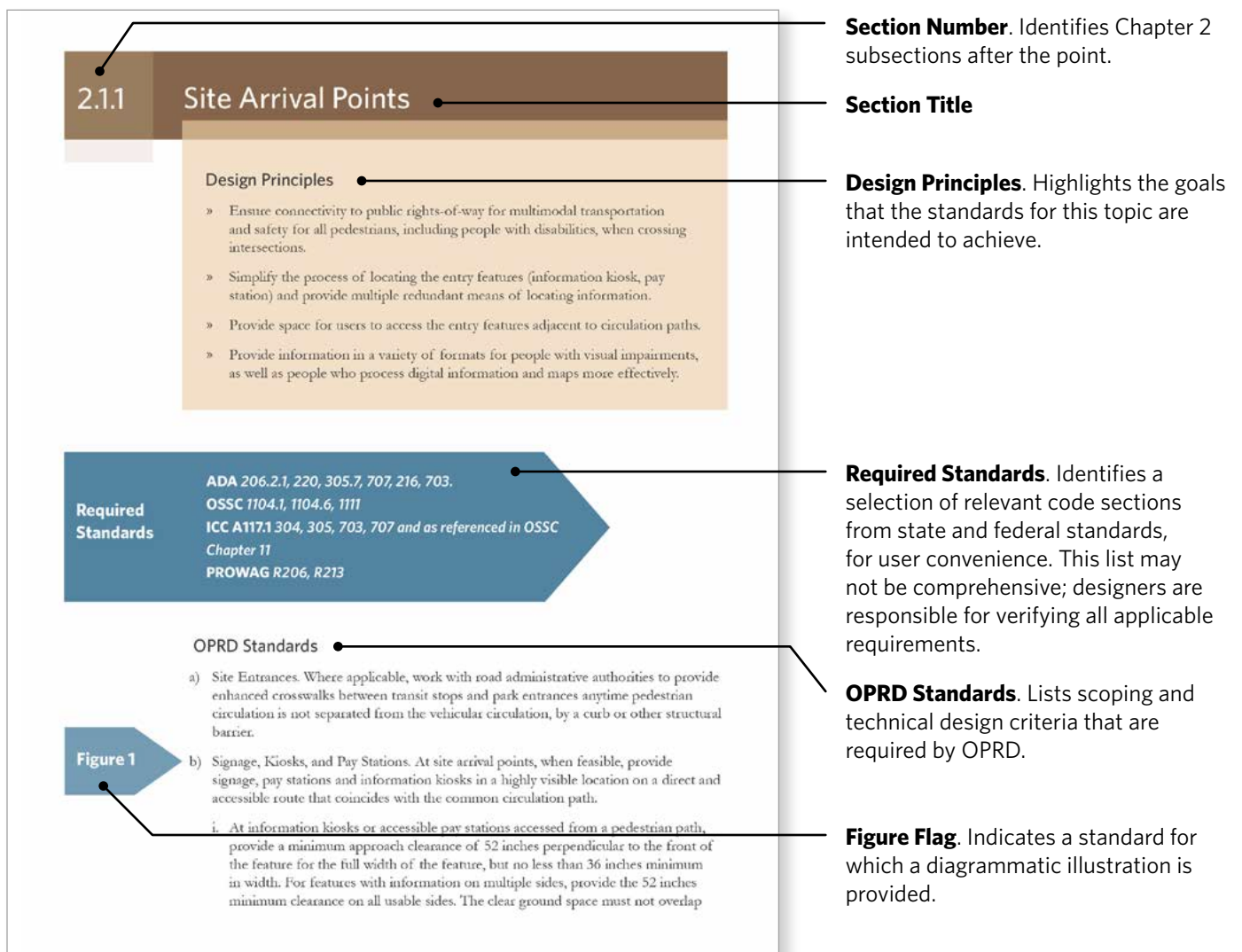
As a public entity covered by Title II of the ADA, OPRD must ensure that its programs, facilities, and services are accessible to people with disabilities, even in cases where technical specifications for the types of facilities or features involved have not been adopted by the Department of Justice (DOJ). In such cases, public entities are obliged to comply with available published guidance, a precedent set by the Ninth Circuit Court Opinion on *Fortyune v. City of Lomita* in 2014 (<http://cdn.ca9.uscourts.gov/datastore/opinions/2014/09/05/12-56280.pdf>). For this reason, technical standards which do not explicitly apply to OPRD facilities, such as the ABA Standards, are listed as Required Standards for features not covered by other applicable standards. The ABA provides designers with scoping minimums and a best practice on how to make these unique facilities accessible to all.

See Appendix A.1 for Background Documents and Resources, Appendix A.2 for Existing Standards and Guidelines and Appendix A.3 for Abbreviations and Definitions.

How to Use This Manual

The following technical standards are organized by site feature categories. In addition to listing OPRD's design standards, each subsection identifies supporting principles and other required standards.

Where multiple accessibility standards apply to a site feature, the most restrictive requirement must be met. OPRD Standards are in addition to, and do not supersede, other local, state and federal requirements. Designers are responsible for ensuring that their design complies with all applicable regulations in addition to OPRD's standards.



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2.1 Site Arrival Points & Parking

Section Contents

2.1.1 Site Arrival Points

2.1.2 Parking



Silver Falls State Park, North Falls Day Use Area

Design Principles

- » Ensure connectivity to public rights-of-way for multimodal transportation and safety for all pedestrians, including people with disabilities, when crossing intersections.
- » Simplify the process of locating the entry features (information kiosk, pay station) and provide multiple redundant means of locating information.
- » Provide space for users to access the entry features adjacent to circulation paths.
- » Provide information in a variety of formats for people with visual impairments, as well as people who process digital information and maps more effectively.

Required Standards

ADA 206.2.1, 220, 305.7, 707, 216, 703

OSSC 1104.1, 1104.6, 1111

ICC A117.1 304, 305, 703, 707 and as referenced in OSSC Chapter 11

PROWAG R206, R213

OPRD Standards

- a) Site Entrances. Where applicable, work with road administrative authorities to provide enhanced crosswalks between transit stops and park entrances anytime pedestrian circulation is not separated from the vehicular circulation, by a curb or other structural barrier.
- b) Signage, Kiosks, and Pay Stations. At site arrival points, when feasible, provide signage, pay stations and information kiosks in a highly visible location on a direct and accessible route that coincides with the common circulation path.
 - i. At information kiosks or accessible pay stations accessed from a pedestrian path, provide a minimum approach clearance of 52 inches perpendicular to the front of the feature for the full width of the feature, but no less than 36 inches minimum in width. For features with information on multiple sides, provide the 52 inches minimum clearance on all usable sides. The clear ground space must not overlap adjacent circulation path or interfere with other safety elements. This requirement does not apply to drive-up pay stations.

Figure 1

- ii. Pay stations are recommended to incorporate features identified within ADA 707 for Automatic Teller Machines and Fare Machines, when feasible.
- iii. At information kiosks, consider incorporating raised characters, braille, and tactile maps to communicate key trail information. See ADA 703.2 and 703.3 for detailed guidance on raised characters and braille. Additionally, provide QR codes so information may be accessed by a visitor's personal device.
- iv. At trailheads, provide trail information signage complying with ABA 1017.10 and OPRD 2.2.3

Figure 1 : Clearances at Pay Stations and Information Kiosks

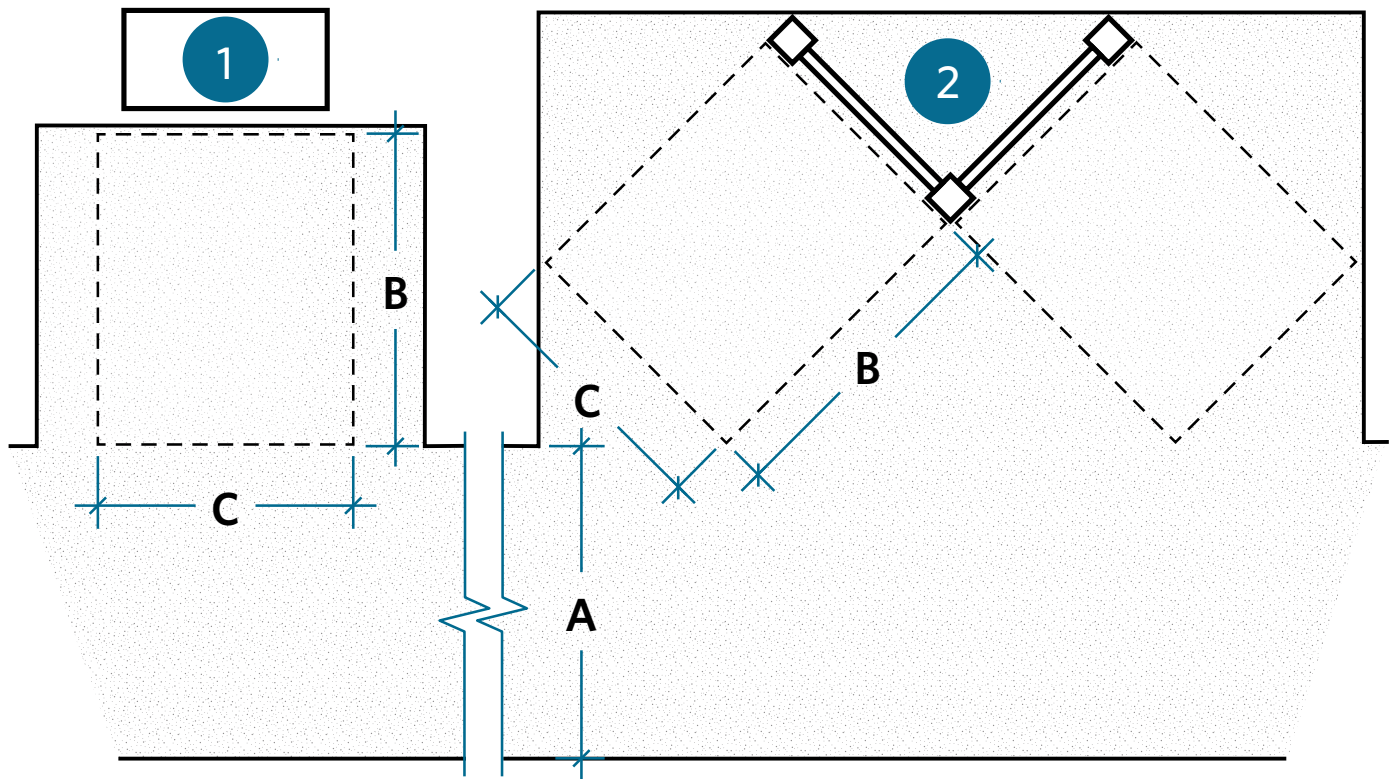


FIGURE 1 KEY:

Dimensions:

- A. Clear width of accessible route, as provided.
- B. 52 inch minimum clearance depth.
- C. 36 inch minimum clearance width, or the full width of the feature, whichever is larger.

Notes:

1. Pay station
2. Information kiosk (signage, bulletin boards, etc.)

Design Principles

- » Provide more van accessible spaces than the minimums required by other standards.
- » Provide wider access aisles to accommodate a variety of mobility devices, people with visual impairments, and service animals.
- » Provide options to accommodate a wider range of modified vehicles and mobility devices and give users space to navigate, maneuver, and use van ramps or other vehicle modifications comfortably.
- » Provide designated accessible parking at trail heads with gravel or natural-surface parking areas.
- » Provide accessible on-street parking where parking lots are not provided.
- » Minimize safety hazards for people with visual impairments who are exiting vehicles.

Required Standards

ADA 208, 302, 307, 502, 503, 403

ABA 1012

OSSC 1106

Oregon Transportation Commission (OTC) Standards for Accessible Parking Places as referenced by OSSC Chapter 11

ICC A117.1 302, 502, as referenced by OSSC Chapter 11

PROWAG R214, R309

OPRD Standards

- a) Where on-site visitor parking is provided, up to 30 percent, but no fewer than one space, of all the accessible parking spaces provided on the site should be van-accessible parking spaces. When possible, consider additional van parking in lieu of standard car accessible spaces.
 - i. Access aisles serving accessible van parking spaces are recommended to be 108 inches wide. Where four or more van spaces are provided, three access aisles should be 108 inches minimum in width; the remaining access aisles may be 96 inches minimum in accordance with OTC Standards.

- ii. Where four or more accessible parking spaces are provided, consider including an access aisle on both the passenger's and driver's side of the parking stall for up to 50 percent of the accessible parking spaces, when feasible.
- b) Where parking is provided at trailheads, accessible parking spaces and access aisles must be provided with a stable, firm, and slip-resistant surface per ADA 302, including at gravel and natural-surface parking areas. Paved (asphalt or concrete) pads for accessible spaces should be oversized beyond the required parking space striping by 3 feet on all sides.
- c) Where parks or trailheads are accessed from on-street parking, work with road administrative authorities to provide accessible on-street parking spaces, when feasible and safe to do so.
- d) Slopes and cross-slopes shall comply with ADA 403.
- e) Accessible parking space minimum lengths are recommended as follows:
 - i. 19 feet minimum in length for a 90 degree perpendicular parking space.
 - ii. 19 feet minimum in length for a 30 to 60 degree angled parking space.
 - iii. 23 feet minimum in length for a 0 degree (parallel) parking space.
- f) RV and Trailer Parking Spaces.
 - 1. Where RV or trailer parking spaces (non-camping spaces) are provided, at least one accessible RV and/or trailer parking space shall be provided.
 - ii. Access aisles for accessible RV spaces should be 10 feet wide minimum to accommodate ramps or lifts and maneuvering space, and extend the full length of the space.
 - iii. Accessible RV or trailer parking spaces should be 45 feet minimum in length and 10 feet minimum in width. Provide additional width where feasible and in campsites.

Figure 2

Figure 3

Reminder for Complying with Multiple Standards

Where multiple accessibility standards apply to a site feature, the most restrictive requirement must be met. For example, the OTC Standards for Accessible Parking Places, listed under "Required Standards," requires a larger parking space dimension than the ADA standard requires. A design must follow the more restrictive dimension from the OTC standard in order to comply with both requirements.

Figure 2 : Parking

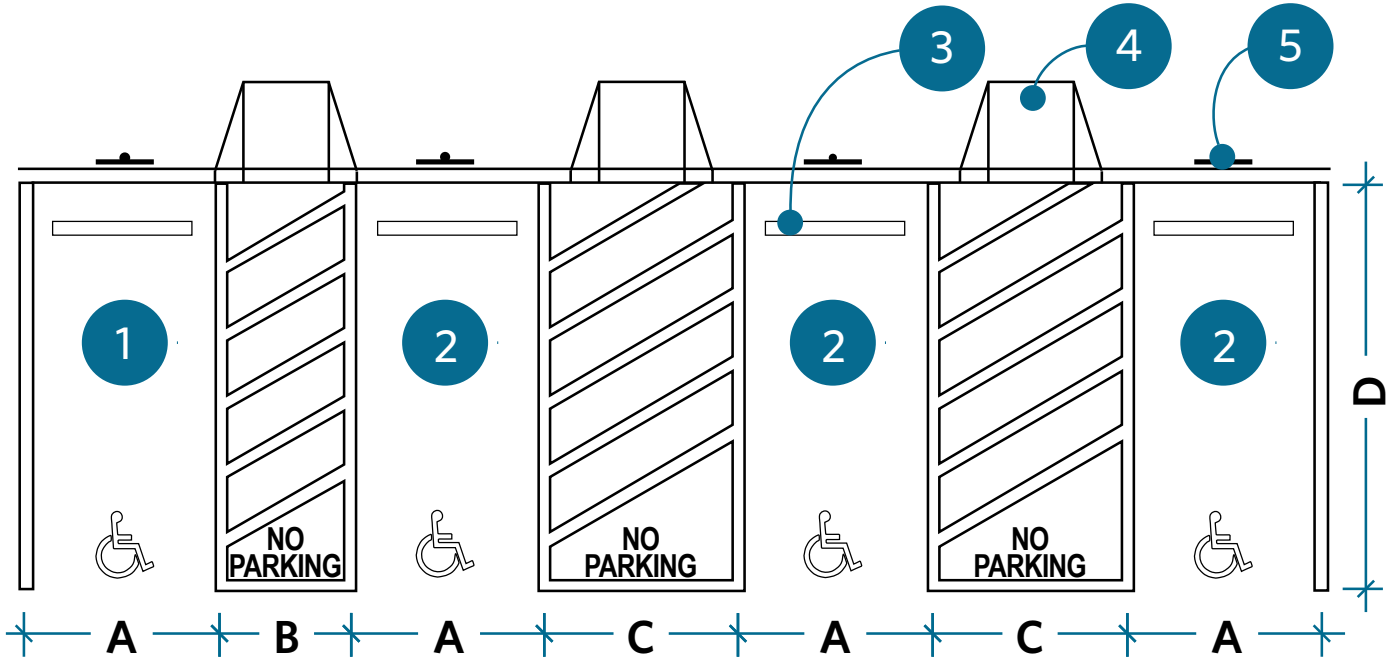


Figure 3 : RV Parking

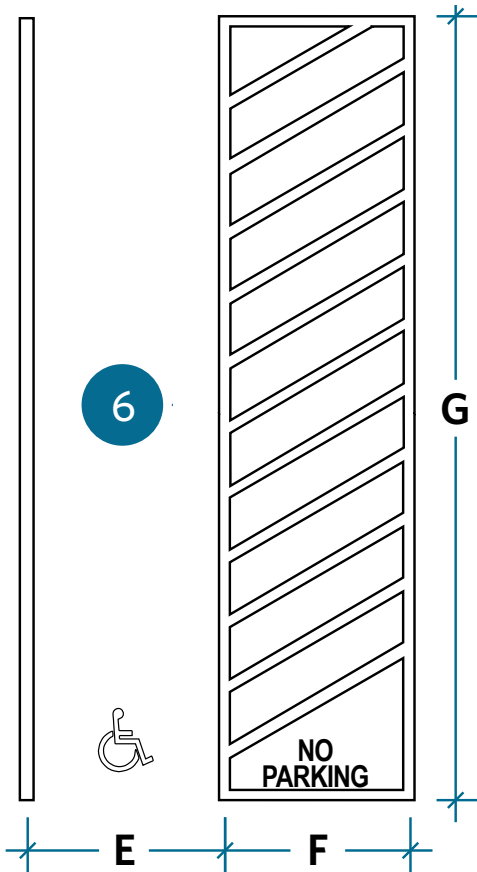


FIGURE 2 & 3 KEY:

Dimensions:

- A. 9 foot minimum accessible parking space width (per OTC Standards).
- B. 6 foot minimum aisle width for standard accessible spaces (per OTC Standards).
- C. 9 foot minimum van-accessible parking aisle width (per OPRD 2.1.2 Standards).
- D. 19 foot minimum parking space length.
- E. 10 foot minimum RV parking space width.
- F. 10 foot minimum RV aisle width.
- G. 45 foot minimum RV parking space length.

Notes:

- 1. Standard accessible parking space.
- 2. Van-accessible parking space.
- 3. Wheel stop.
- 4. Curb ramp (at curbed conditions).
- 5. Signage per OTC Standards.
- 6. Accessible RV parking space.

2.2 Routes of Travel & Circulation

Section Contents

- 2.2.1 Accessible Routes
- 2.2.2 Outdoor Recreation Access Routes (ORAR)
- 2.2.3 Trails



Design Principles

- » Provide multiple routes to each park feature to the greatest extent feasible.
- » Prevent users from having to travel behind or alongside vehicles, which poses a significant safety risk.
- » Increase the width and frequency of passing spaces to accommodate a variety of mobility devices, adaptive equipment, and people with service animals.
- » Minimize fatigue caused by traveling steep slopes.
- » Provide ease of access for people with limited hand or limb dexterity.
- » Ensure obstacle-free routes and include wayfinding elements to navigate circulation paths.

Required Standards

ADA 206, 302, 303, 401-406
OSSC 1104.2, 1104.6
ICC A117.1 302-305, 401-406

OPRD Standards

- a) Provide at least one accessible route directly connecting accessible parking to key park information and amenities such as pay stations, information kiosks, and restrooms.
 - i. Provide at least one accessible route directly connecting accessible parking to park recreation amenities, including drinking fountains, informational signage, accessible picnic table(s), barbeque grills, garbage receptacle(s), trailhead(s), viewpoint(s), and water access.
 - ii. When feasible, create options by providing more than one accessible route.
 - iii. Accessible route surfaces must be stable, firm and slip resistant, and should be paved, where feasible.
- b) Accessible routes that do not overlap vehicular lanes are recommended. Where accessible routes run parallel with and contiguous to vehicular traffic, provide separation by surface markings, material changes, curbs, bollards, guardrails, handrails, or by raising the accessible route above the level of the vehicular traffic surface.

- c) Exterior accessible routes should be 72 inches clear width, where feasible.
- d) Design ramps on accessible routes with the lowest slope feasible; a maximum slope of 7.5 percent and a maximum cross slope of 1.5 percent are recommended in order to accommodate construction tolerances. Landings and handrails shall be included in accordance with ADA 405.

Surfaces and Transitions

Providing a firm and stable surface is a core criteria when providing accessible paths such as accessible routes (ADA 302), outdoor accessible routes (ABA 1016.2), and accessible trails (ABA 1017.2). Paved surfaces including concrete, asphalt, wood, and pavers are generally considered firm and stable. A variety of softer surfaces, including compacted fine aggregate, native soil, and geotextile have the potential to be stable and firm at the time of installation if they meet U.S. Access Board criteria using a rotational penetrometer, but can deteriorate over time. Seasonal weather can temporarily or permanently degrade surface conditions, reducing or negating accessibility. Regular maintenance is important on all accessible paths and trails.

Surface Material Considerations include:

- » Tree roots, frost heave, and subsurface conditions such as springs can impact any surface.
- » Wooden decking can warp over time resulting in an uneven surface. Decking must also comply with ADA 302.3 Openings.
- » Transitions which can create a barrier for mobility devices and unknown obstacles for visually impaired people should be monitored to ensure that changes in level (ADA 303) don't develop.
- » Pavers are prone to heaving and not recommended for accessible paths or spaces.
- » Rounded gravel and larger aggregate tend to be loose and unstable, and are rarely accessible.
- » Aggregate surfaces with added stabilizer require greater attention to drainage similar to pavement.
- » Engineered wood fiber rarely remains accessible unless stabilized with binder and regularly maintained.
- » Wood chips are not firm and stable and do not provide an accessible surface.
- » Maintenance considerations for the surface selected should be included in an Operations and Maintenance Manual for the site.

- e) If feasible, at automatic and power-assisted doors and gates where push plates or button-activated door openers are provided to open swinging doors and gates, consider installing push plates at different heights. Suggested dimensions:
 - i. Locate the centerline of the lower push plate between 7 inches minimum and 8 inches maximum above the floor or ground surface.
 - ii. Locate the centerline of the upper push plate or button between 30 inches minimum and 44 inches maximum above the floor or ground surface.
- f) Entrance doorways to public buildings, restrooms, cabins and yurts, should exceed the required 32 inches minimum clear width (ADA 404.2.3) and be as wide as possible, up to 36 inches nominal panel width, measured from the face of the door open at 90 degrees to the stop.
- g) At swinging pedestrian gates, provide 36 inches minimum or as much clear width as possible, measured from the face of the gate open at 90 degrees to the stop. For pedestrian gates wider than 48 inches per leaf, sliding operation is recommended. Provide operable parts complying with ADA 309.4 and 404.2.7.



Design Principles

- » Maintain stable, firm, and slip-resistant walking surfaces.
- » Implement preventative measures to minimize barriers and tripping hazards associated with natural environments.
- » Accommodate various mobility devices, people with visual impairments, companions walking side-by-side, people communicating through sign language, and people with service animals.
- » Minimize the use of steps, which are a barrier to access for many people with disabilities..
- » Implement standard accessible dimensions for common-use elements to the greatest extent feasible.
- » Provide tactile safety cues for people with visual impairments to prevent falls at a drop off.

Required Standards

ADA 303.2, 303.3, 504, 705
ABA F244.5, F245.5, F246.4, F247.3.2, 1016

OPRD Standards

- a) Outdoor recreation access routes (ORARs) are permitted in lieu of accessible routes for certain facility types in accordance with ABA F247, such as connections from parking, and routes to and within campsites, campgrounds picnic facilities, viewing areas, and designated trailheads. See OPRD 2.2.1 for locations where accessible routes are required by this standard.
- b) ORARs that are not paved must be composed of a stable, firm, and durable natural material, hard-packed soil, or compacted gravel with fines. Rock type, depth, and compaction is dependent on existing ground conditions and soil types. Loose large gravel, sand, or woodchips are not compliant surface types.. Modular pavers are not desirable and should be avoided as they are unlikely to meet criteria for a firm and stable surface over time.
- c) When feasible, locate ORARs away from large trees to avoid roots, or build up the trail with compacted material, ensuring limited impact to the health of the tree.

- d) ORAR connecting site elements should be 72 inches in clear width, where feasible.
- e) Provide ramps and sloped walking surfaces in lieu of steps wherever feasible. Where steps are necessary due to site conditions, they must comply with ADA 504.
 - i. Short trail segments exceeding slope criteria may provide an alternate, barrier free access opportunity, should include handrails on both sides, and should be labeled for clarity.
- f) Where stairs occur on paved paths and sidewalks, a detectable warning zone may be installed at the top and mid landings. When used, detectable warnings shall comply with ADA 705.



Design Principles

- » Provide space for people to easily turn around if they choose not to enter the trail.
- » Accommodate mobility devices, companions walking side-by-side, people communicating through sign language, and people with service animals.
- » Provide information through signage, websites, or other means of communication that enables users to plan and evaluate their ability to navigate and enjoy the trail.
- » Minimize fatigue caused by traveling steep slopes with landings, resting intervals and seating areas.
- » Minimize the risk of wheelchairs and adaptive devices tipping, falling, or sliding off the edge of the trail.
- » Provide tactile safety cues and/or a guidance system for people with visual impairments to independently locate and navigate hiking trails and amenities.
- » Accommodate people with limited physical stamina while allowing space for faster-moving users to pass.
- » Implement standard accessible dimensions, such as clear ground spaces, for common-use elements to the greatest extent feasible.
- » Allow people with a lower view height such as people in mobility devices or of short stature to enjoy viewpoints without compromising fall protection elements.
- » Prevent entrapment of mobility devices and injury of people and service animals.
- » Minimize barriers and tripping hazards.

Required Standards

ABA F201.4.1, F216.13, F246, F247, 703, 1015, 1017, 1019
ICC A117.1 304, 305

OPRD Standards

- a) Accessible trails must comply with ABA 1017.
 - i. Accessible hiking trails should be 48 inches minimum in clear width, when terrain and resource considerations allow.
 - ii. Resting intervals such as landings must be provided at the top and bottom of steeper trail segments. (ABA 1017.7 and 1017.8) Resting interval spacing shall not be greater than the maximum length of segment for the trail slope.
 - iii. Passing spaces (ABA 1017.4) shall be provided at an interval of every 750 feet on trails less than 5% slope and 60 inch width.
 - iv. To the extent feasible, limit cross slopes to 1:25 (4 percent) maximum and provide edge protection at the low side of the trail to minimize tipping and falling risk.
 - v. Provide smooth transitions between natural surfaces and paved surfaces, bridges, boardwalks or other hard surfaces.
- b) Where an accessible route terminates at a trail head or a dead end, provide a turning circle or t-shaped space that includes a 60 inch by 64 inch minimum turning space with a slope of no more than 2 percent in any direction.
- c) When provided, trailhead signage should comply with ABA F216.13, 703, and 1017.10, and include maps containing additional information on location of barriers, key features, viewpoints, and trail seating areas, when feasible.
 - i. Signs shall comply with ABA 703.5. While tactile characters are not required on exterior signage, where feasible incorporate raised characters and braille, (ABA 703.2 - 703.4) to improve communication for visually impaired visitors.
- d) Consider installing tactile safety cues such as concrete curbs, secured logs, stones, fencing, or other natural materials along trails and access routes where abrupt vertical changes in level of 6 inches or more occur adjacent to the edge of the route.

Site and Trail Information

Consider providing detailed site and trail information online in addition to the trailhead signage required by ABA 1017.10. Information such as location, hours, amenities present (both accessible and inaccessible), trail design details (slope, cross slope, surface, length, obstacles), site photos, maps, and other applicable information can help inform prospective visitors on what to expect. Providing this information allows visitors to make their own decisions about their ability to use a trail or amenity at a site. Guidelines for Providing Trail Information to People with Disabilities developed by Access Recreation (Appendix A.2), provides detail on the types of information to include and examples.

Figure 4

- e) In addition to resting intervals and passing spaces (OPRD 2.2.3(a) ii and iii), provide trail seating areas on accessible trails at a minimum of every 1000 feet for the first mile, and every 2,000 feet beyond the first mile. Greater frequency of trail seating areas may be needed on trails that have steeper slopes or difficult terrain. A trail seating area should also be provided at each trail viewpoint and key feature where site conditions permit. Trail seating areas shall include benches and clear ground space as described in 2.3.1 Site Elements item (b). Trail seating areas may coincide with resting intervals and passing spaces.
- f) Where handrails are provided, they must comply with ADA 505. Where provided, panels or fencing beneath the rail should utilize materials that maximize visibility such as cables or mesh. Openings in infill panels or fences must not permit the passage of a 4 inch sphere.

Figure 5

- g) At bridges and boardwalks intended to accommodate more than one person at a time, provide a minimum clear width of 60 inches, and up to 72 inches or more, when site conditions permit. Viewing platform areas, if provided, should not overlap the minimum clear width of the trail, and should include a trail seating area as detailed in item (e) above.
 - i. Bridge and boardwalk decking must comply with ADA 302.3 and ABA 1017.6. Surface material should have a solid appearance such as natural wood, composite boards, or pultruded fiberglass decking. For service animal comfort, avoid decking with a toothed surface.
 - ii. Sides of bridges and boardwalks should include a barrier such as a curb, handrail or bull rail.
 - iii. Bridges and boardwalks with running slopes exceeding 5% must provide handrails and edge protection and comply with ADA 405 for Ramps.
- h) Limit the use of steps on all trails; where steps are necessary due to site conditions, add an adjacent trail to bypass the barrier, where feasible (OPRD 2.2.2(d)).



Beaver Creek State Park

Figure 4 : Trail Seating Areas

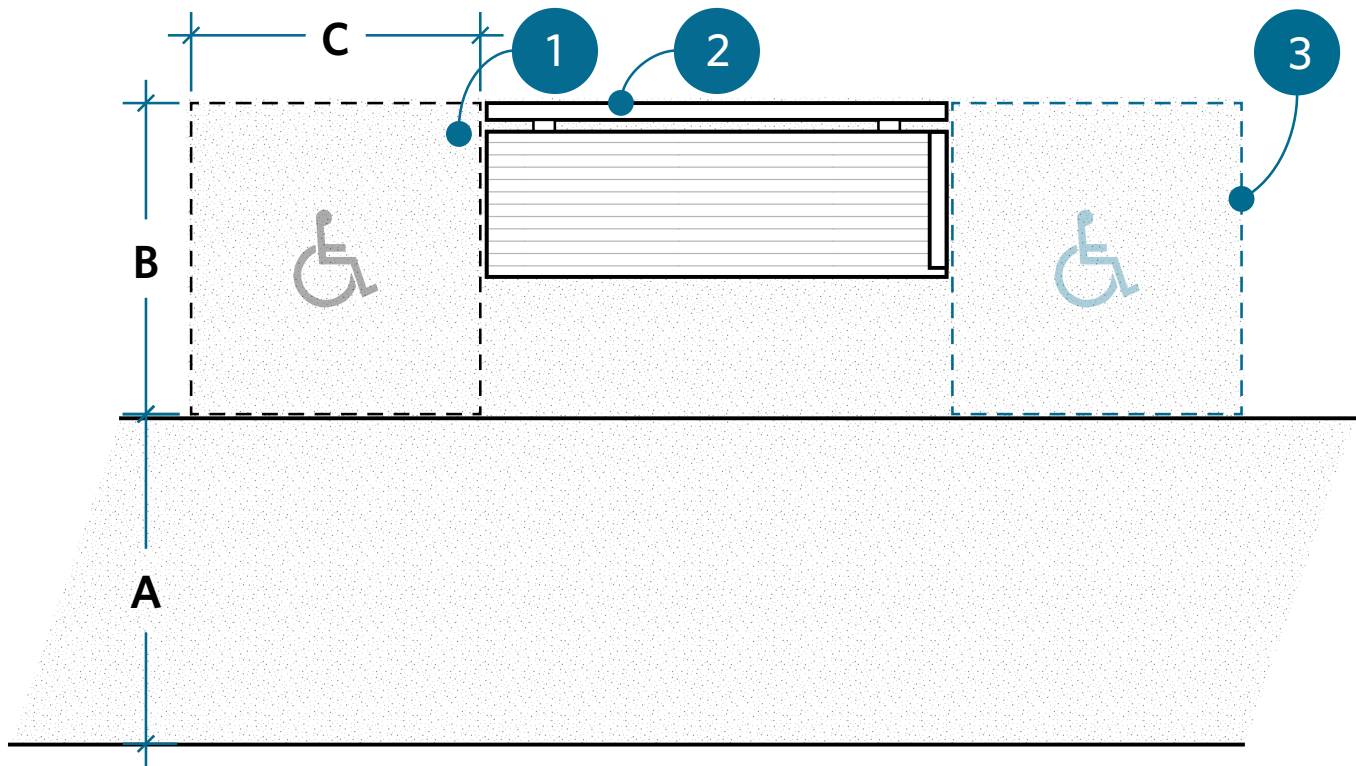


FIGURE 4 KEY:

Dimensions:

- A. 48 inch minimum clear width at adjacent trail, not overlapping wheelchair space.
- B. 52 inch minimum wheelchair space depth, aligned with bench seat back.
- C. 48 inch minimum wheelchair space width.

Notes:

- 1. Stabilized trail surface to extend under bench and wheelchair spaces.
- 2. Bench dimensions per OPRD 2.3.1(b)
- 3. Where conditions allow for additional seating, add resting spaces for wheel chairs at a ratio of 2:1

Figure 5 : Bridges and Boardwalks

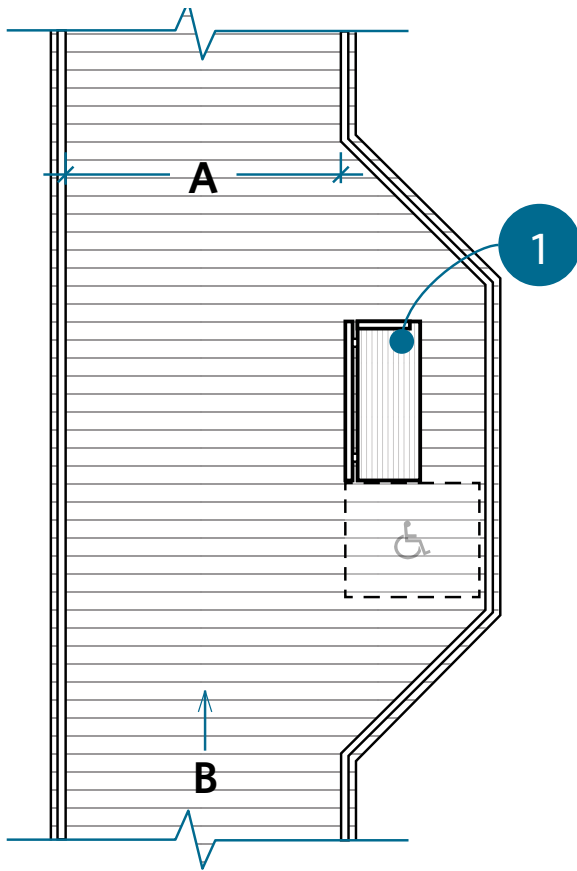


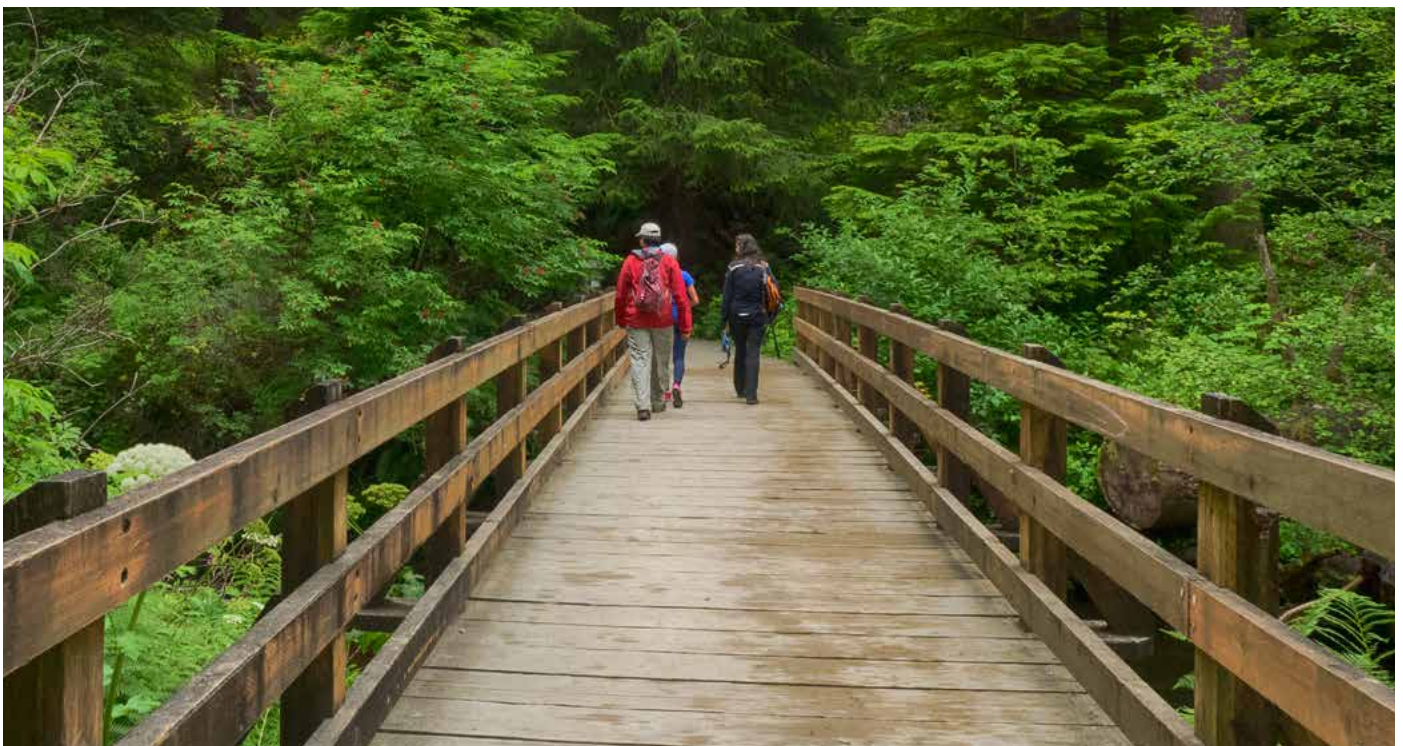
FIGURE 5 KEY:

Dimensions:

- A. 60 inch minimum clear width.
- B. 5% maximum running slope; running slopes up to 8.33% are permitted with handrails, edge protection, and other provisions from ADA 405 for ramps.

Notes:

- 1. Where provided, viewing platform areas should be in addition to the boardwalk clear width and include a trail seating area as detailed in 2.2.3 item (e).



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2.3 Site Elements

Section Contents

2.3.1 Outdoor Constructed Features



Viento State Park

Design Principles

- » Ensure a sense of inclusion, integration and increased enjoyment for people using adaptive equipment, as well as convenience for parents with children in strollers.
- » Provide extra maneuvering space for mobility devices of various shapes, sizes, and styles; companions walking side-by-side, people communicating through sign language, and people with service animals.
- » Provide seating with back support and armrests for people with limited stamina or mobility.
- » Provide room for wheelchair, walker, or stroller user to sit next to a companion, out of the main circulation path.
- » Allow people to pass without colliding with bench users.
- » Provide accessible water bottle filling stations.
- » Minimize collision and tripping hazards associated with site elements.
- » Provide clear access to trash and recycling receptacles.
- » Extend functionality and safety intended in the design of the fire ring to include people with disabilities.
- » Minimize hazards associated with low-hanging structural items for people with visual impairments.

Required Standards

ABA F244, F245, 1011

ADA 204, 205, 211, 226, 307, 309, 602, 903

ICC A117.1 304, 305, 307, 309, 602

OSSC 1108.2.9, 1109.5, 1109.11, 1109.13

OPRD Standards

- a) Where outdoor constructed features are provided, at least 25% but no less than 1 of each type shall be accessible and comply with these standards.
- b) **Picnic tables:** picnic tables in accessible sites must provide at least one wheelchair space for each 14 linear feet of usable table surface perimeter. Wheelchair spaces should be a minimum of 36 inches wide by 52 inches deep oriented for a forward approach (A117), where feasible, with knee and toe clearance complying with ADA 306. Additional considerations are as follows:
 - i. Where space allows, a 48 inch wide wheelchair space is preferable.
 - ii. Prioritize integrating wheelchair seating space into the table design and not limiting accessible spaces to the ends of the table.
 - iii. If seating is provided at the short end of the table, add at least 6 inches of additional clear space at one end of table.
 - iv. Provide a clearance of 48 inches minimum on all usable sides of the table, measured from the back edge of fixed bench seating, and up to 60 inches where feasible.
- c) **Benches:** at least 50 percent of benches provided within common use areas should comply with the following:
 - i. Provide a wheelchair space 52 inches in depth and 48 inches in width adjacent to the bench on the short side, aligned with the backrest of the bench. The ground surface beneath the wheelchair space should be firm and stable, with slopes no more than 2% in any direction, to the extent feasible.
 - ii. Benches and adjacent wheelchair space should not overlap circulation paths, accessible routes, outdoor recreation access routes, trails, or other pedestrian walkways.
 - iii. Bench seat should be 22-24 inches in depth, and 17-19 inches above the ground surface.
 - iv. The bench should have back support extending from a point 2 inches maximum above the seat surface to a point 18 inches minimum above the seat surface. The back support should be located 2-1/2 inches maximum from the rear edge of the seat, measured horizontally.
 - v. Provide an arm rest on one side of the bench, on the side opposite from the wheelchair space.
- d) **Drinking fountains:** Drinking fountains and water bottle filling stations must comply with applicable requirements of ADA 602 for Drinking Fountains, and ADA 309 for Operable Parts.


 Figure 6

- i. Drinking fountains and water bottle filling stations must be positioned so as not to encroach into pedestrian routes of travel.
 - ii. Drinking fountains set back from pedestrian circulation must provide a clearance 36 inches wide minimum and 18 inches deep minimum in front of the fountain, outside the circulation area.
- e) **Trash and recycling receptacles:** at accessible trash and recycling receptacles, provide a 52-inch-long approach clearance parallel to the receptacle opening, extending for a width of 48 inches. Where a receptacle can be approached and used from multiple sides, the clearance must be provided on at least one approach connected to an accessible route or ORAR. Trash and recycling receptacles must also comply with ADA 309 for Operable Parts.
- f) **Fire Rings:** fire building surfaces at all fire rings must be 9 inches minimum above the ground, and cooking surfaces must be between 15 inches and 34 inches above the ground (ABA 1011.5). Ensure that fire rings are installed and backfilled properly, to establish appropriate fire building and cooking surface elevations. A 52 inch wide clear ground space should be provided on all usable sides of a fire ring, grill, fireplace, or wood stove. Unless otherwise specified, an accessible route must connect the fire ring, grill, fireplace, or wood stove to other accessible site elements.
- g) **Shelters:** when an open shelter or shade structure is provided, ensure adequate clearances within the structure. Provide a height clearance of 84 inches minimum between the lowest element of the shelter covering and the finished floor or ground surface.

Figure 6 : Bench Dimensions

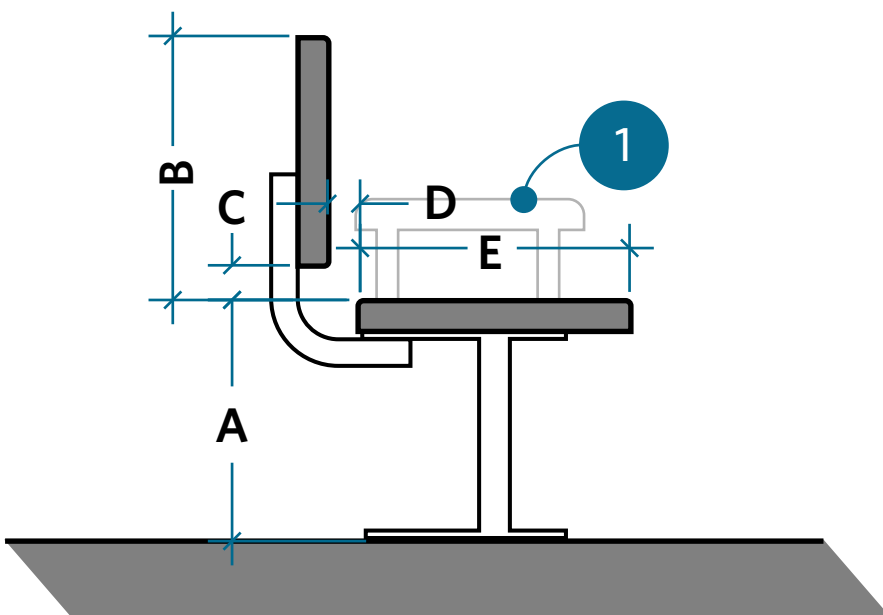


FIGURE 5 KEY:

Dimensions:

- A. 17-19 inch seat height.
- B. 18 inch minimum back support height.
- C. 2 inch maximum vertical gap between seat and back support.
- D. 2-1/2 inch maximum horizontal gap between seat and back support.
- E. 22 - 24 inch seat depth.

Notes:

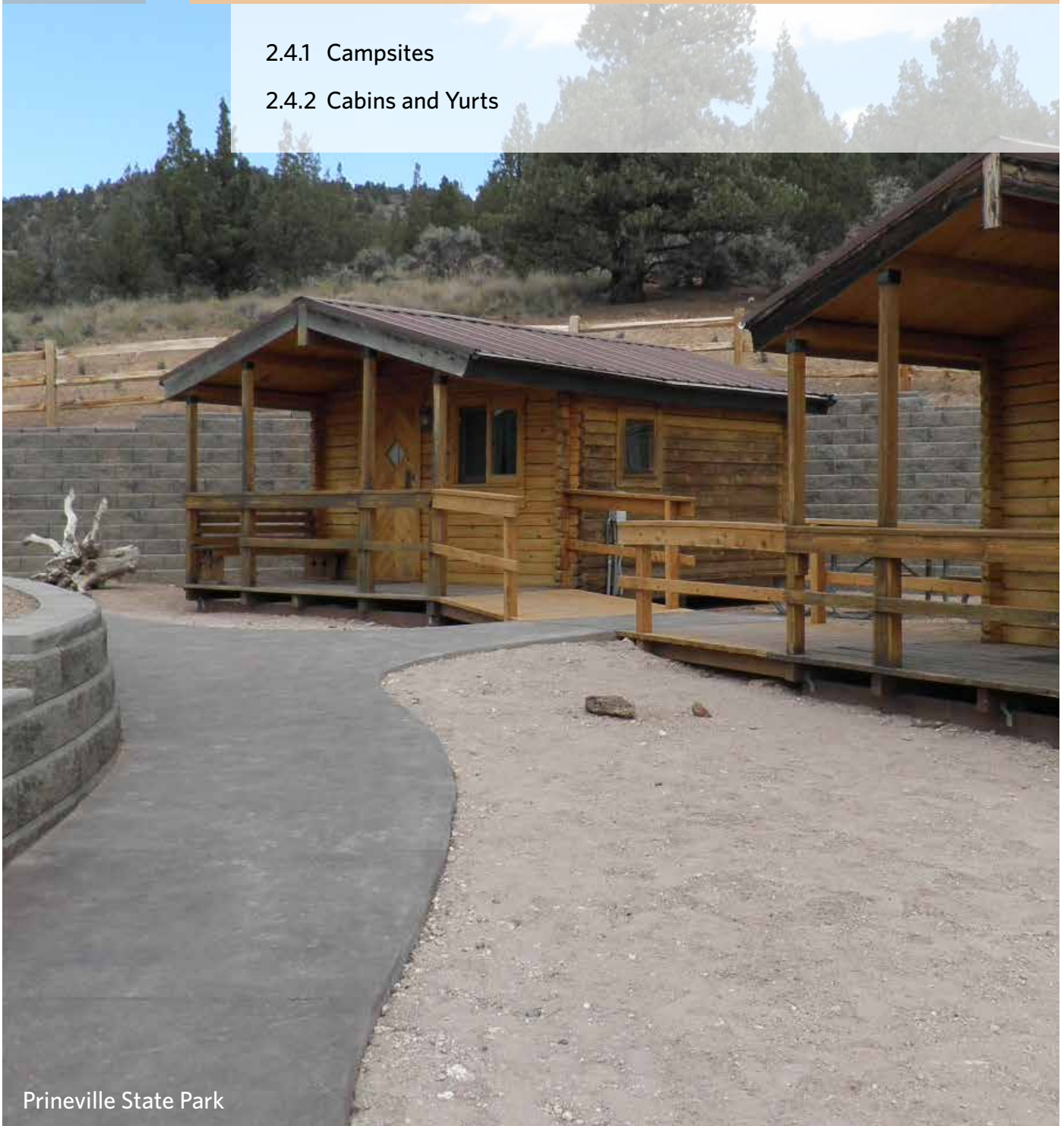
- 1. Armrest opposite the wheelchair space.

2.4 Campsites, Cabins & Yurts

Section Contents

2.4.1 Campsites

2.4.2 Cabins and Yurts



Prineville State Park

Design Principles

- » Enable more people with disabilities to use camping facilities at the same time.
- » Provide for people with disabilities to have an equitable range of choices in site location and recreation experiences.
- » Accommodate various mobility devices, people with visual impairments, companions walking side-by-side, people communicating through sign language, and people with service animals.
- » Increase connectivity between campsite, bathrooms, and other accessible elements beyond the minimums required by other standards.
- » Support visibility for users with visual impairments to identify and access key features at night or in low light.
- » Accommodate a wide variety of recreational vehicles and associated maneuvering space.

Required Standards

ABA F244, 303, 1011, 1012, 1013, 1016

OPRD Standards

- a) Where five or more campsites are provided, at least one accessible campsites should be provided. The total quantity of accessible campsites should be based on the table below. Features complying with ABA and this standard should be incorporated into as many campsites as feasible. Sites may have accessible elements and outdoor constructed features without being designated accessible sites.

Total Number of Campsites at the Park	Minimum Number of Accessible Campsites
1 to 5	1
6 to 25	3
26 to 50	4
51 to 75	6
76 to 100	8
100 and over	8, plus 4% of the number over 100 sites

- b) Locate accessible facilities such that accessible campsites, cabins, or yurts are distributed in a variety of locations throughout the campground, with varying levels of seclusion, proximity to parking and restroom facilities, and rustic versus developed experience.
- i. Accessible campsites should be dispersed between the types of campsites available at a given park, to provide a range of camping experiences. For example, at least one accessible RV site and one accessible tent site at a campground providing both types.
 - ii. Locate at least one accessible campsite within 200 feet of an accessible restroom.
 - iii. Where utilities are available and appropriate for the intended campsite experience, provide water and/or electricity at accessible tent sites.
- c) Within an accessible campsite, an ORAR must connect outdoor constructed features. A minimum of 48 inches clear width should be provided around all usable sides of campsite features, including site elements, tent pads, and utilities in accordance with ABA 1011.2.1 and 2.3 Site Elements. Where feasible, provide 72 inches to accommodate a wider range of users.
- d) All pedestrian pathways connecting accessible campsites to restrooms and common-use facilities or features must be accessible routes or outdoor recreation access routes.
- e) Slopes in accessible campsites, including parking spaces, tent pads, turning space, and clear ground space, shall not exceed 2% in any direction. ORAR's can exceed 2% in the direction of travel in the spaces between connected features.
- f) Ensure that transitions between surface materials in accessible campsites are installed and maintained in accordance with ABA 303.
- g) When feasible, locate outdoor recreation access routes away from large trees to avoid roots, or build up the trail with compacted material, ensuring limited impact to the health of the tree.



**Figures
7 & 8**

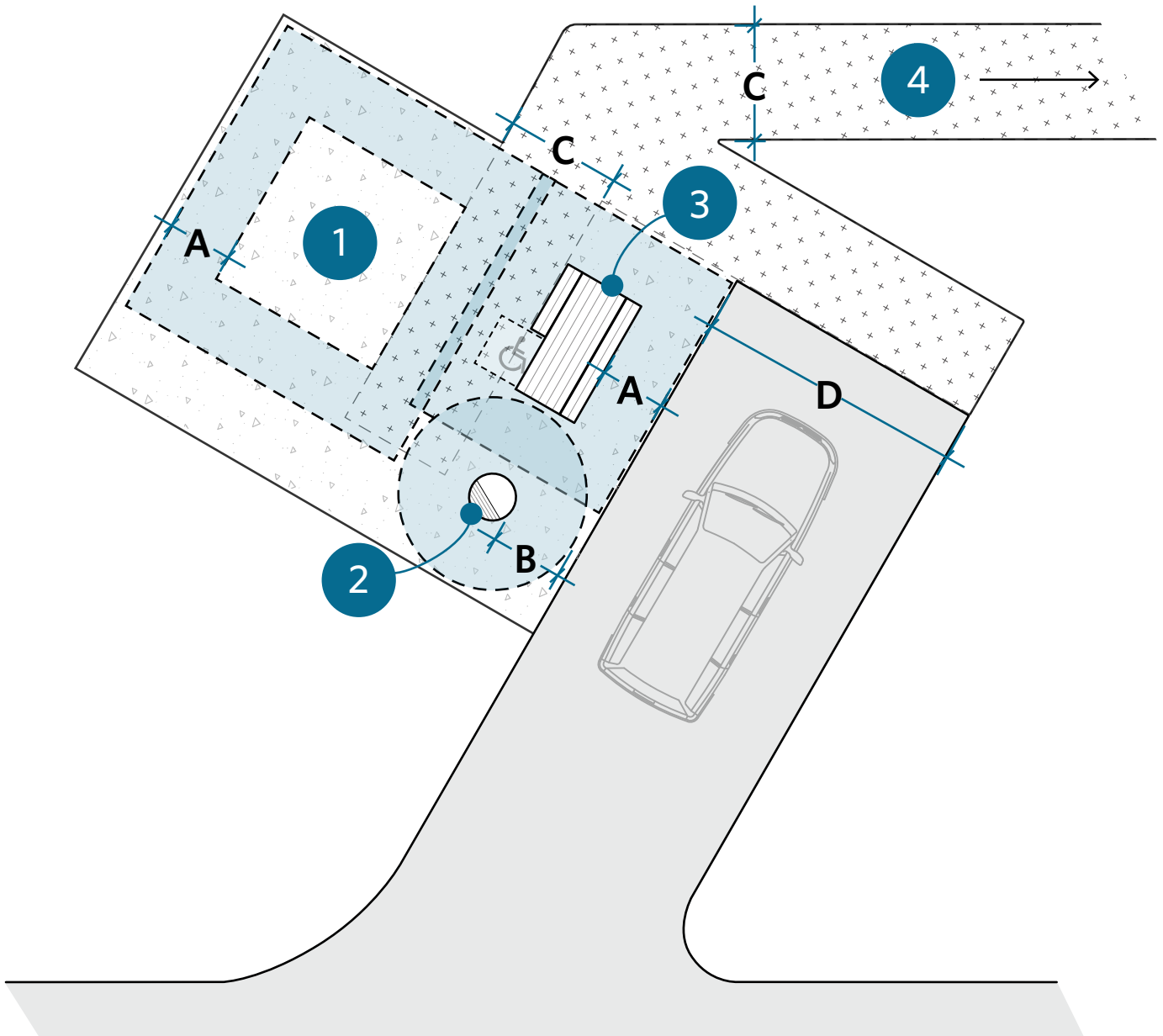
- h) Where utilities are available and appropriate for the intended campsite experience, provide lighting at restrooms, parking areas, along accessible routes, and at accessible cabins and yurts. Lighting should be angled down and away from adjacent campsites. Motion-activated lighting should have an “off” switch complying with ADA 309 for Operable Parts.
- i) Campsite parking spaces shall comply with OPRD 2.1.2
 - i. Accessible tent campsite parking spaces should be a minimum of 18 feet in width and 24 feet in length.
 - ii. Accessible RV campsites should be a minimum of 20 feet in width and 45 feet in length.
 - iii. Where space allows, provide an additional 3 feet width at accessible sites to allow maneuvering around the vehicle.
- j) Tent pad size should be 15 feet by 15 feet minimum in total, including the 48 inch minimum clear width around the tent required by item (c).

Figure 8



Fort Stevens State Park

Figure 7 : Campsites

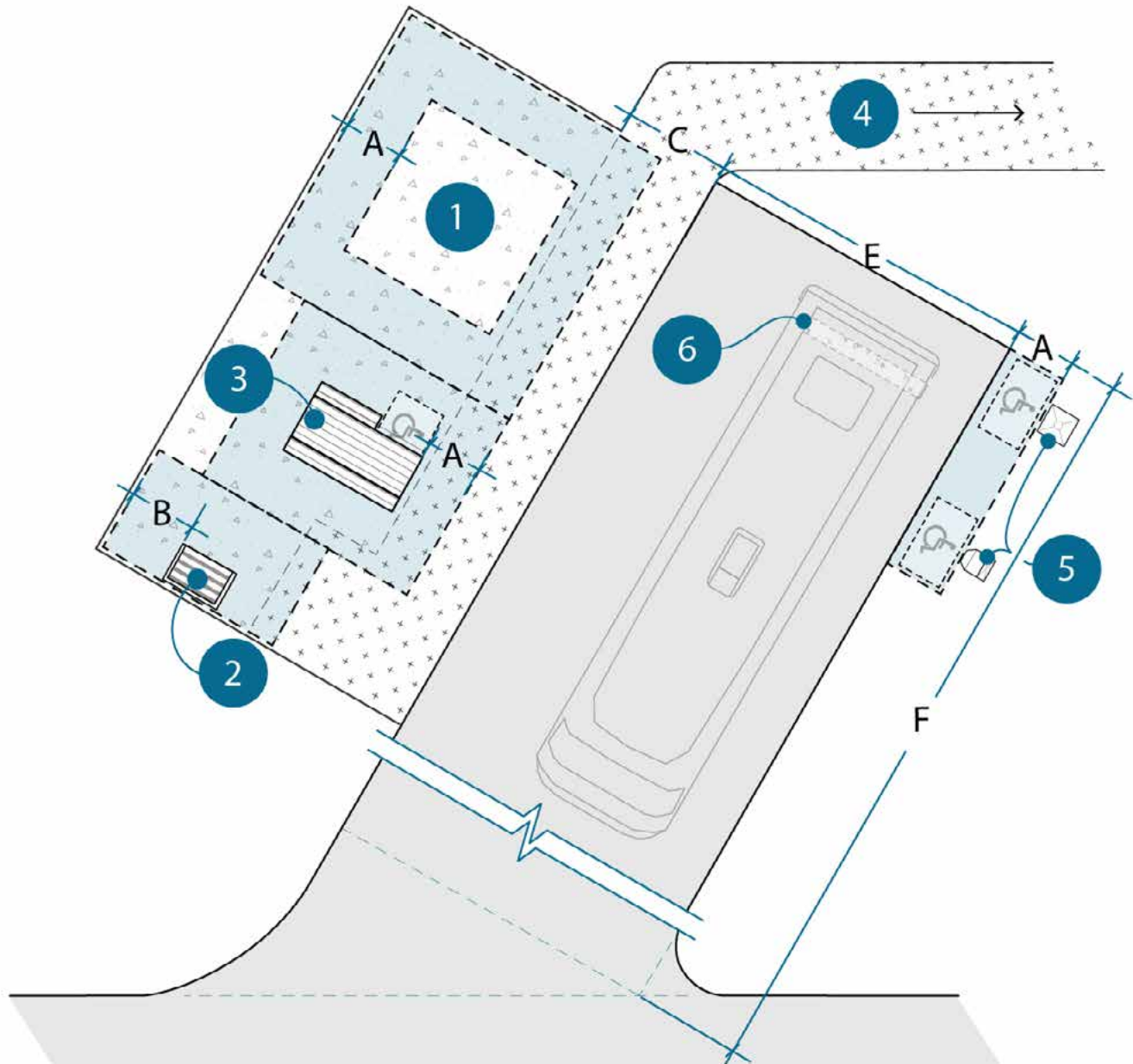


FIGURES 7 & 8 KEY:

Dimensions:

- A. 48 inch minimum clearance around usable sides of campsite features. Clearances are permitted to overlap each other.
- B. 52 inch minimum clearance around usable sides of fire rings and grills (OPRD 2.3.1(f)).
- C. 72 inch minimum outdoor recreation access route (ORAR), where feasible. ORARs are permitted to overlap clearances around campsite features.
- D. 18 foot minimum parking width for non-recreation vehicles.
- E. 20 foot minimum parking width for RVs, with 3 feet additional clear width where space allows.
- F. 45 foot minimum parking pad length.

Figure 8 : RV Campsites

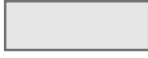

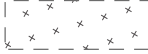
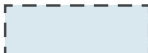




FIGURES 7 & 8 KEY:

Notes:

1. 15 x 15 foot tent pad (including clearance area)
2. Fire pit or grill.
3. Picnic table with wheelchair space per OPRD 2.3.1
4. ORAR connecting to shared campground amenities such as restrooms, showers, cooking facilities, etc.
5. RV utility hookups with clear ground spaces per ABA 1011.2.1
6. Wheel stop. Place 6 foot minimum distance from edge of parking pad.

Patterns:

	Vehicular ways and parking
	Campsite area
	Outdoor Recreation Access Route (ORAR)
	Campsite feature clearance area
	Clear ground spaces per OPRD 2.3.1 and/or ABA 1011.2.1
	

2.4.2

Cabins and Yurts

Design Principles

- » Accommodate various mobility devices, people with visual impairments, companions walking side-by-side, people communicating through sign language, and people with service animals.
- » Ensure that people using mobility devices can access and use cabins and yurts that are not level with the surrounding grade.
- » Ensure that users with disabilities that affect their reach range, dexterity, or strength can access cabin and yurt facilities such as windows, appliances, and other interior elements.

Required Standards

ABA F244, 1012

ADA 206.5.3, 224, 309, 402, 404, 405, 806

OSSC 1007.1 - 1007.4, 1107.6.1

ICC A117.1, 1102, 304, and 305

OPRD Standards

- a) Where 1 or more cabins or yurts are provided, at least one shall be accessible and provide mobility features complying with ADA 806.2. Where between 5 and 10 cabins or yurts are provided, at least 2 shall be accessible and provide mobility features complying with ADA 806.2.
- b) Where 2 or more cabins or yurts are provided, a visible doorbell notification device shall be provided at at least 2 cabins as required by ADA 224.4 and 806.3.2. Cabins and yurts with visual doorbell notification devices shall be dispersed according to ADA 224.5.
- c) Where parking is provided at cabins and yurts with mobility features one space must be a van space complying with OPRD 2.1.2.
- d) Provide a 72 inch by 72 inch minimum clear area at cabin and yurt entrances that is protected from rain or snow and free from obstructions, where feasible.

- e) Accessible cabins and yurts with mobility features must provide roll in access and have an accessible route to the entry (ADA 402 and 404). Where the cabin or yurt is elevated above surrounding ground surface, a ramp complying with ADA 405 must be provided.
- f) Locks and hardware for access to cabins and yurts must comply with ADA 309 for Operable Parts.
- g) Accessible cabins and yurts shall include accessible toilet and bathing facilities, or be located within 200 feet of an accessible restroom.
- h) Outdoor constructed features provided at cabin and yurt sites shall comply with ABA F244 and OPRD 2.3.
- i) Along accessible routes and at clear floor or ground spaces, ensure ground surface changes in level are 1/4 inch maximum vertically or 1/2 inch maximum if beveled. Transitions between differing surfaces from parking spaces, picnic areas, ramps, etc. should comply with this section.

Figure 9 : Cabin and Yurt Entries



FIGURE 9 KEY:

Dimensions:

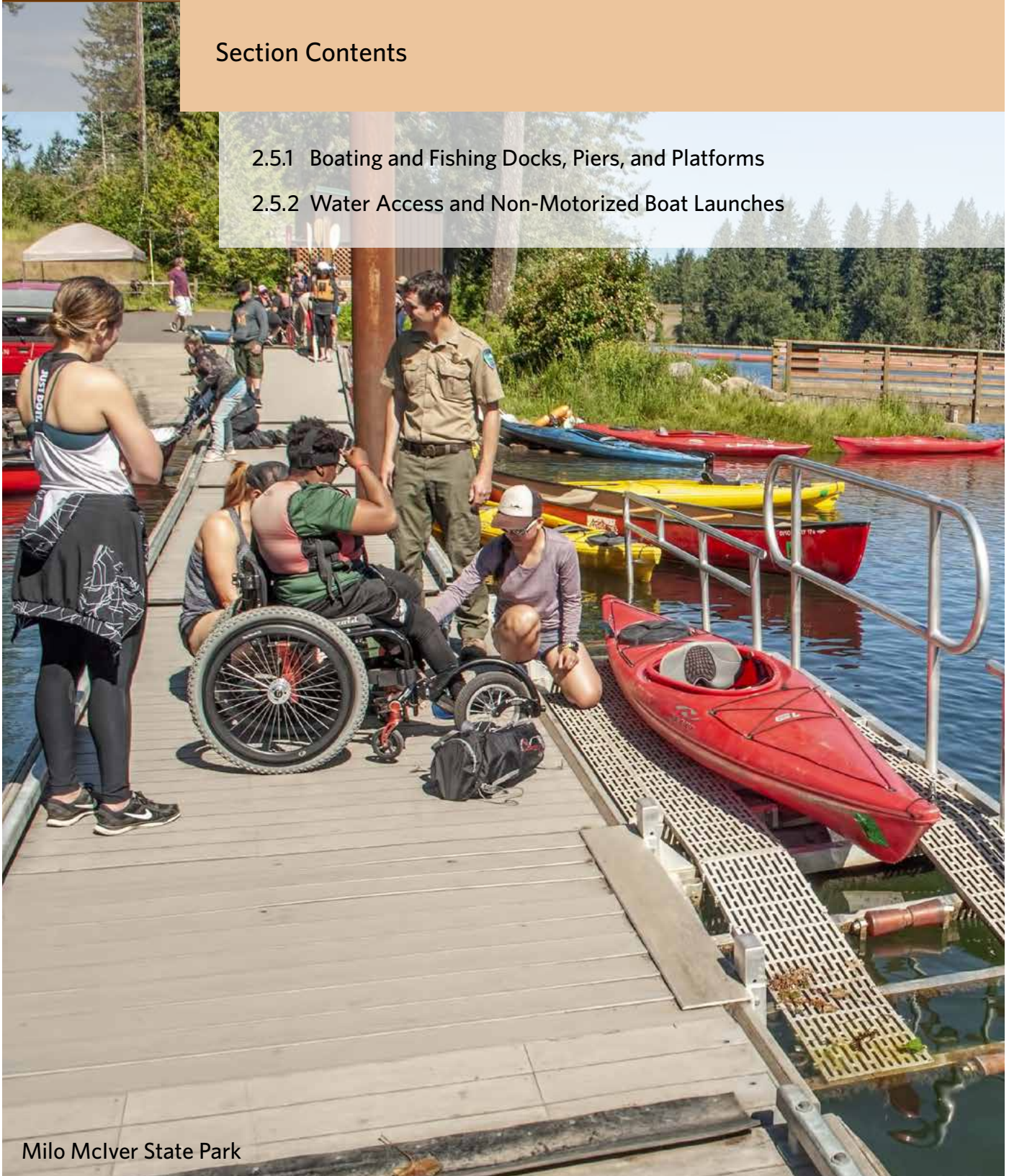
A. 72 x 72 inch minimum clearance.

2.5 Water Access

Section Contents

2.5.1 Boating and Fishing Docks, Piers, and Platforms

2.5.2 Water Access and Non-Motorized Boat Launches



Milo McIver State Park

Design Principles

- » Accommodate various mobility devices, people with visual impairments, companions walking side-by-side, people communicating through sign language, and people with service animals.
- » Allow people with a lower view height such as people using wheelchairs and people of short stature to enjoy the view without compromising fall protection elements.
- » Provide walking surfaces that are safe and comfortable for service animals, and that prevent entrapment of mobility devices.
- » Minimize slopes on gangways to the extent possible.

Required Standards

ADA 206.2.14, 235, 237, 302.3, 303, 1003, 1005
OSMB 4.01-4.03, 4.05, 7.01-7.03

OPRD Standards

- a) Design docks to be as wide as feasible between railings or bull rails. Docks exceeding 72 inches in width may require design for light penetration through the surface of the dock. Confirm requirements with the applicable environmental permitting agency. Look for options that are smooth pultruded fiberglass. Avoid metal grates, expanded mesh, or decking with a toothed surface, which may be dangerous to service animals.
- b) Gaps in dock and pier surface must comply with ADA 302.3 for openings. When openings greater than a half inch are required because of site conditions, a transition plate must be mounted over the opening. Expanded metal, grates, and mesh surfaces must be smooth, considering the comfort of animals and people moving on the surface. Refer to light penetration requirements when selecting decking.
- c) At fishing areas, provide one or more benches per accessible fishing platform if space allows and function is not inhibited. Each bench should have a 52 inch by 48 inch minimum wheelchair space adjacent to the bench, per OPRD 2.3.1(b). The ratio of benches to wheelchair fishing areas should be no more than 2:1. Railings and edge protection are not required; where provided, include lower railings in front of wheelchair seating to allow for visibility and casting per ADA 1005.

Figure 10

Figure 10 : Fishing Piers

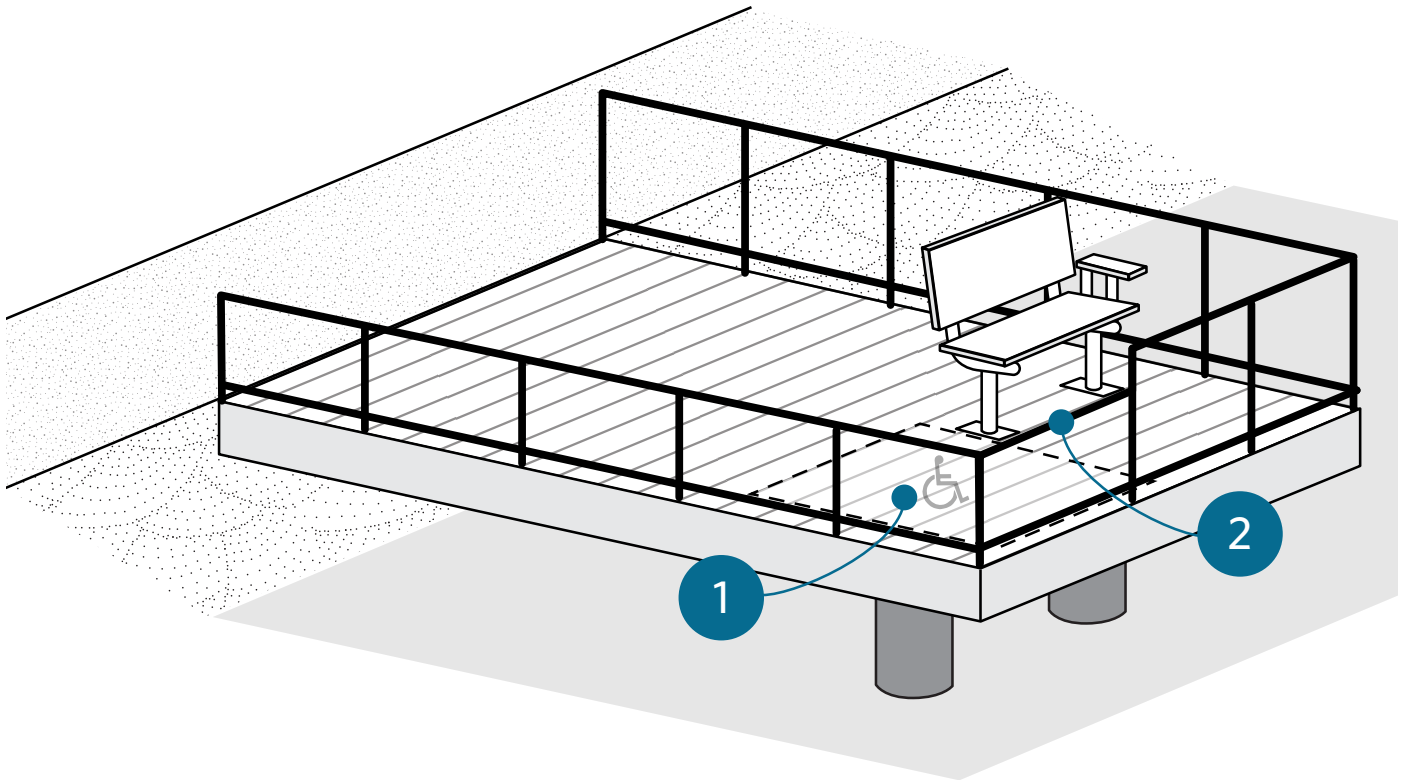


FIGURE 10 KEY:

Dimensions:

1. 52 inch x 48 inch wheelchair space.
2. Lowered railing for an individual in a wheelchair or a person of short stature to view and cast.



2.5.2

Water Access & Non-Motorized Boat Launches

Design Principles

- » Accommodate various mobility devices, people with visual impairments, companions walking side-by-side, people communicating through sign language, and people with service animals.
- » Provide a transfer system for non-motorized boats.
- » Provide direct access to the water for people with mobility disabilities and/or mobility devices.
- » Provide more than the minimum number of accessible beach routes.
- » Ensure mobility device users can access beaches and water where feasible.

Required Standards

ADA 205, 206.2.10, 206.7.10, 235, 405, 1003

ABA 248, 1018

OSMB Section 3.04, 3.06

ICC A117.1 304, 305

OPRD Standards

- a) Gangways and ramps to the dock or water should minimize slope and maximize width as much as feasible. When feasible, provide 72 inch minimum width ramps at docks to access boats.
- b) Vehicular boat launches should comply with Oregon State Marine Board design requirements to ensure adequate launching and retrieval, and may exceed accessible ramp slopes.
- c) Integrate accessibility for wheelchair access to launch non-motorized watercraft. When feasible, integrate an accessible transfer system for kayaks and canoes from a dedicated non-motorized boat launch, tailoring design solutions to address site conditions.
- d) Where swimming is allowed off a dock, consider including a sloped entry ramp with submerged landing or transfer system below water level, in accordance with ADA 1009 to transition to swimming activities. Swimming in combination with motorized boating should be prohibited.

Figure 11

- e) Where feasible, provide multiple beach access routes for people with disabilities to access beaches, with an equitable variety of experiences. Provide at least one accessible route to associated site elements such as accessible parking, restrooms, lockers, and life jacket stations.
- f) Provide removable beach access routes (mats or similar) when permanent beach access routes are not feasible or not practical due to weather and water conditions. Removable beach access routes are not required to comply with specific provisions for slopes, resting intervals, or dune crossings.
 - i. Ensure removable beach access routes are secured to avoid changes in level when in use.
 - ii. Where temporary or permanent beach access is infeasible due to site conditions, provide signage and information about alternative sites that offer access.



Eel Lake, William M. Tugman State Park

Figure 11: Water Access Ramps & Steps

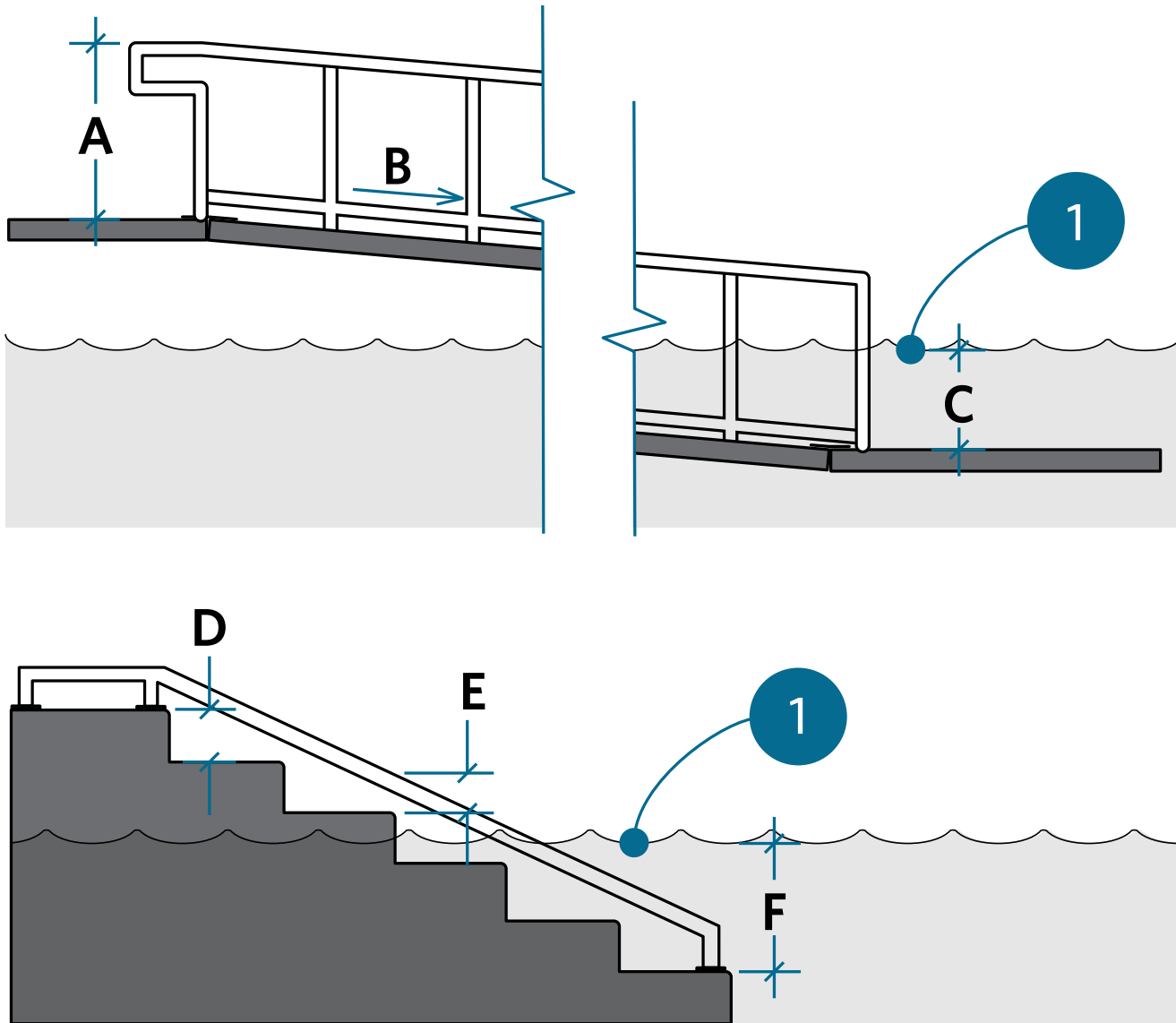


FIGURE 4 KEY:

Dimensions:

- A. 34-38 inch handrail height; clear width between handrails should be 33-38 inches per ADA Standards.
- B. 8.33% maximum slope.
- C. 24-30 inch submerged depth at landing.
- D. 8 inch maximum transfer step height.
- E. 4-6 inch grab bar height above transfer step nosing.
- F. 18 inch minimum submerged depth of lowest step.

Notes:

1. Average stationary water level

2.6 Assembly Areas

Section Contents

2.6.1 Amphitheatres and Lawn Seating



Prineville Reservoir State Park

Design Principles

- » Allow for people with hearing disabilities to communicate in visual and sign languages by maintaining the line of sight between event attendees.
- » Accommodate various mobility devices, people with visual impairments, companions walking side-by-side, people communicating through sign language, and people with service animals.
- » Incorporate access considerations for presentations and gatherings that take place in settings other than amphitheaters.
- » Provide access to all stages and platforms for performers with disabilities and enable individuals with disabilities to perform safely and comfortably.
- » Promote social interaction among visitors and accommodate various seating needs.

Required Standards

ADA 206.2.4, 206.2.6, 221, 302, 303, 802
OSSC 1108.2
ICC A117.1 802

OPRD Standards

- a) Where site conditions allow, arrange permanent seating in an arc or semicircle layout.
- b) Accessible routes connecting to lawn seating should provide a clear width of 72 inches whenever possible.
- c) Where a wheelchair space is required by ADA 221.2 at fixed seating, the wheelchair space must be 52 inches minimum in depth and 48 inches minimum in width. Provide multiple points of entry from the front, sides, or rear, where feasible.
 - i. Consider multiple seating options for an individual using a mobility device to position themselves in the audience, including companion seating, and areas that allow group seating of more than (1) person using a mobility device.
 - ii. Wheelchair spaces shall provide a firm and stable surface with slopes not exceeding 2% in any direction.
 - iii. Create sight lines for persons using mobility devices to view interpreter locations, captions in digital presentations, and other performance elements.

Figure 12

- d) Where provided, stages, platforms, and performance areas must be on an accessible route and have an accessible route to the stage or platform. Provide edge protection at the edge of the stage or platform. The performance area surface must comply with ADA 302 and 303 and must not have slopes greater than 1:48 (2 percent) in any direction.

Figure 12 : Amphitheaters and Lawn Seating

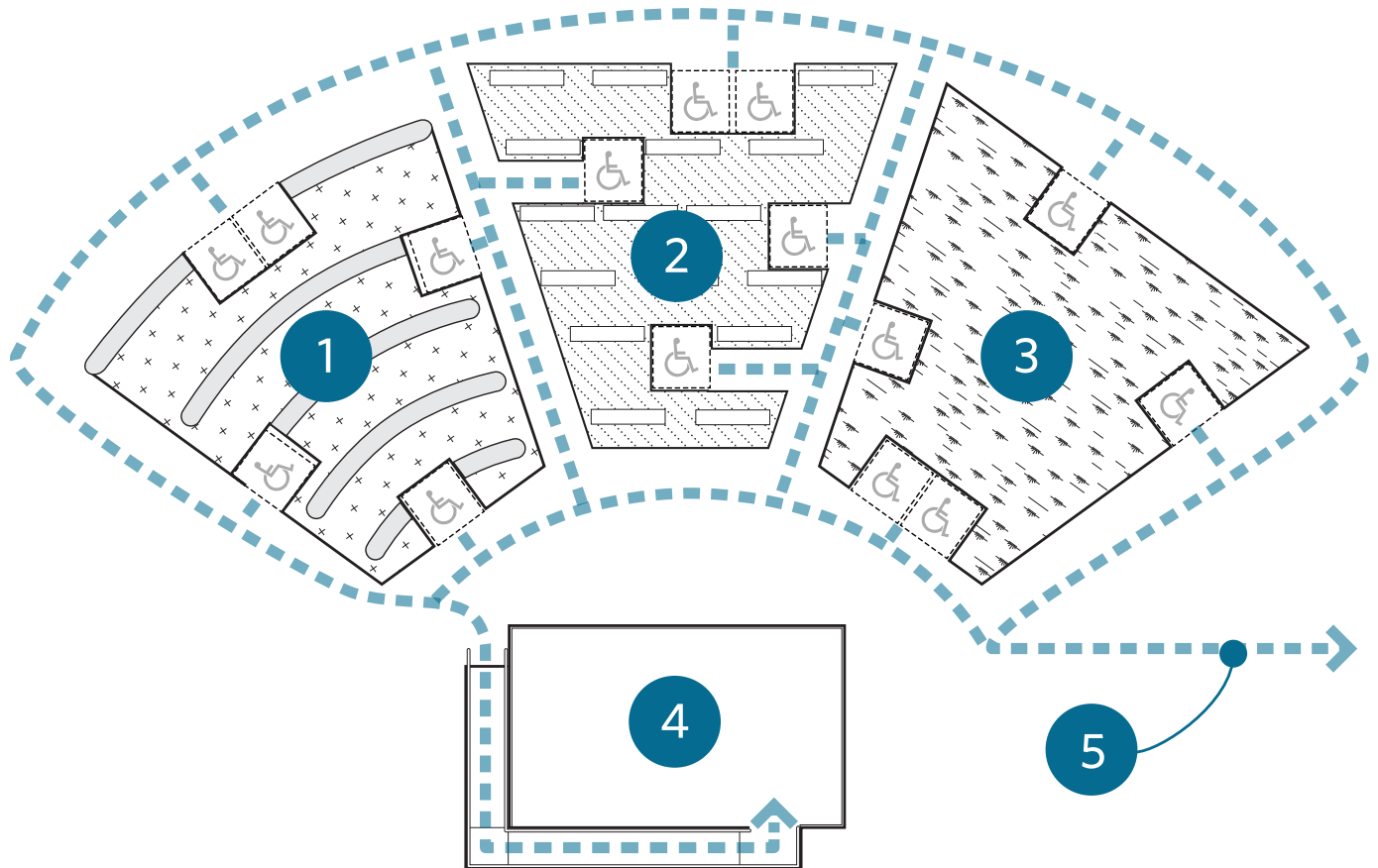


FIGURE 12 KEY:

1. Example of typical terraced landscape seating with sitting walls and integrated accessible seating spaces.
2. Example of typical sloped surface amphitheater with benches and integrated accessible seating spaces.
3. Example of typical section of sloped lawn seating with integrated accessible seating spaces (2% maximum slope and firm, stable surface required at wheelchair spaces).
4. Raised stage, platform, or performance area w/ accessible ramp.
5. Accessible routes to wheelchair seating spaces, stage, and connecting to parking and other areas

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Appendix

Contents

A.1 Background Documents and Resources

A.2 Existing Standards and Guidelines

Standards OPRD is Required to Apply to the Design of Facilities

Additional Recreation Standards and Guidelines (Not Required)

A.3 Abbreviations and Definitions



Ecola State Park

Background Documents and Resources

- **OPRD ADA Transition Plan** - OPRD's ongoing record of architectural barriers to be remedied, as required by the ADA. [www.oregon.gov/oprd/AO/Documents/ACCESS-2021-ADA-Transition-Plan.pdf]
- **Oregon Legislature House Bill** - The legislation that initiated the creation of these standards. [2171 <https://olis.oregonlegislature.gov/liz/2021R1/Downloads/MeasureDocument/HB2171/Enrolled>]
- **Governor's Task Force on the Outdoors** - High-level recommendations on increasing outdoor participation among traditionally underserved communities, among other topics. [<https://www.oregon.gov/orec/Documents/OREC-Gov-Task-Force-Outdoors-2020.pdf>]



This section serves as a resource to assist in locating existing accessibility standards for guidance and best practices to achieve accessible design in OPRD parks and outdoor facilities. Some of the standards below are also referenced in Chapter 2: Design Standards.

Standards OPRD is Required to Apply to the Design of Facilities:

The ADA Accessibility Standards and the ABA Accessibility Standards serve as the technical design minimums for accessibility requirements to be achieved at each facility within the OPRD's responsibility. In the absence of adopted technical design standards, public agencies have an obligation to make their programs accessible to all users. When designing for accessibility in the absence of adopted technical standards Title II entities should consider comparable design standards or guidance or comparable program access.

Americans with Disabilities Act Accessibility Standards, 2010 (ADA): The 2010 Americans with Disabilities Act Standards for Accessible Design are the required minimum accessibility standards for new construction and alterations of state and local government facilities. The ADA Standards are based on guidelines established by the US Access Board and are issued and enforced by the Department of Justice and the Department of Transportation (<https://www.access-board.gov/ada/>). The ADA Standards were first implemented in 1991, and with the adoption of the 2010 ADA Standards, recreation facilities were incorporated into the standards.

Architectural Barriers Act Accessibility Standards, 2015 (ABA): The 2015 ABA Accessibility Standards are the required minimum accessibility standards for facilities designed, built, altered, or leased with federal funds. The ABA Standards are based on guidelines established by the U.S. Access Board and are issued by the General Services Administration, the Department of Defense, the Department of Housing and Urban Development, and the U.S Postal Service (<https://www.access-board.gov/aba/>). In addition, the 2013 Accessibility Guidelines for Outdoor Developed Areas have been incorporated into the 2015 ABA Accessibility Standards. These standards are the minimum accessibility standards for outdoor recreation facility elements that are not included in the 2010 ADA Accessibility Standards. An illustrated guide to the outdoor developed areas standards is available online (<https://www.access-board.gov/files/aba/guides/outdoor-guide.pdf>).

(Proposed) Public Rights-of-Way Accessibility Guidelines (PROWAG): The Access Board is developing new guidelines under the Americans with Disabilities Act (ADA) and the Architectural Barriers Act (ABA) that will address access to sidewalks and streets, crosswalks, curb ramps, pedestrian signals, on-street parking, and other components of public rights-of-way, such as shared use paths for transportation and recreation purposes. The Access Board issued proposed guidelines for public comment and is in the process of finalizing these guidelines. Until they are adopted, these guidelines represent the minimum best practice standards for public rights-of-way. (<https://www.access-board.gov/prowag/>)

State of Oregon Accessibility Standards: The State of Oregon Department of Consumer and Business Services, Building Codes Division establishes the standards for construction through the Oregon Structural Specialty Code adopted pursuant to OAR chapter 918, division 8. As of the writing of this document, the State provisions for accessibility standards are the 2022 Oregon Specialty Structural Code (OSSC), Chapter 11, and incorporated by reference the International Code Council (ICC) standard called A117.1-2017 Accessible and Usable Buildings and Facilities, and the Oregon Transportation Commission (OTC) Standards for Accessible Parking Places dated August 2018. Because building codes are updated every few years, OPRD should regularly review changes and update policies and procedures related to accessibility to ensure compliance with current code. (<https://www.oregon.gov/bcd/codes-stand/pages/index.aspx>)

Additional Recreation Standards and Guidelines (Not Required):

In development of OPRD's standards, other recreation agencies' accessibility design guidelines were reviewed for relevant information related to facility types and features currently included in OPRD's park system. The following is a summary description of the standards and guidelines reviewed that have informed the development of these standards and may be useful tools for addressing specific features or amenities:

Accessibility Toolkit for Land Managers, 2020 (Toolkit): The Accessibility Toolkit for Land Managers is a set of tools and Universal design-oriented guidelines developed by Ashely Schafer and Barton Robinson that outlines and illustrates specific barriers encountered on trails by people in the disability community and provides recommendations and quick tips to improve these issues.

Access Recreation Guidelines for Providing Trail Information to People with Disabilities (2013, 2020). The Guidelines for Providing Trail Information to People with Disabilities were developed by a committee of disability advocates and agency partners in the Portland, Oregon metropolitan area. The Guidelines are intended to provide guidance in development of web-based tools to provide critical information to park and trail users. (https://www.accessrecreation.org/Trail_Guidelines/Title_page_files/Trail%20Guidelines%20in%20PDF%202020.pdf)

The Access Trails website, was developed as a continuation of the Access Recreation committees work, providing an example of the application of the Guidelines for Providing Trail Information for 36 trails in the Portland Metro area. (<https://www.accesstrails.org/overview/map/index.html>)

California State Parks Accessibility Guidelines, 2015 (CSPAG): Accessibility Standards, California Title 24 Part 2 - Access Compliance Advisory Reference Manual, and other standards that California State Parks implements. The guidelines focus on outdoor developed recreation areas and related facilities in CA State Parks.

US Department of Agriculture Accessibility Guidebook for Outdoor Recreation and Trails, 2012 (USDA): The USDA Accessibility Guidebook for Outdoor Recreation and Trails includes applications for standards taken from the Forest Service Outdoor Recreation Accessibility Guidelines (FSORAG) and the Forest Service Trail Accessibility Guidelines (FSTAG), which are used for legal enforcement of accessibility on National Forest System lands. Additionally, the USDA has a resource for accessible gates online. (www.fs.usda.gov/sites/default/files/Accessible-Gates.pdf)

US Department of Interior Bureau of Reclamation Recreation Facilities Design Guidelines, 2013 (RFDG): The US Reclamation Recreation Facilities Design Guidelines include guidance for the design of recreation facilities, with standards taken from the US Access Board's Accessibility Guidelines for Outdoor Developed Areas for campgrounds and campsites, picnic facilities, viewing areas, outdoor recreation access routes, trails and trailheads, and beach access.



Abbreviations

A117.1	International Code Council A117.1 Accessible and Usable Buildings and Facilities
ABA	Architectural Barriers Act (Used in this document to refer to either the legislation or the ABA Standards)
ADA	Americans with Disabilities Act (Used in this document to refer to either the legislation or the ADA Standards)
ICC	International Code Council
OPRD	Oregon Parks and Recreation Department
ORAR	Outdoor recreation access route
OSSC	Oregon Structural Specialty Code
OSMB	Oregon State Marine Board Design Guidelines for Recreational Boating Facilities
PROWAG	Public Rights-of-Way Accessibility Guidelines
RV	Recreation Vehicle

Definitions

Terms used in these standards are intended to follow the definitions provided in the most recent versions of the ADA and ABA standards. The definitions of frequently used terms are reproduced below for user convenience. Additional terms unique to these standards are indicated with an asterisk (*). For terms not listed in this section, the ADA, the ABA, or other referenced standard, default to the common-use definition that the context implies.

Accessible Route. A continuous, unobstructed pedestrian path that complies with ADA 402.2 and all applicable requirements of ADA Chapter 4.

Alteration. A change to a building or facility that affects or could affect its usability. Alterations include, but are not limited to: remodeling, renovation, rehabilitation, historic restoration, and resurfacing of circulation paths or vehicular ways. Normal maintenance is not an alteration unless it affects the usability of the building or facility.

Assembly Area. A facility or portion thereof used for the purpose of entertainment, educational or civic gatherings, or similar purposes. Examples include outdoor classrooms, performance areas, amphitheatres, arenas, stadiums and grandstands.

Building. Any structure used or intended for supporting or sheltering any use or occupancy.

Cabin*. A rentable, permanent enclosed structure with facilities for sleeping. Cabins may or may not also include electricity, heat, lights, and kitchen or bathroom facilities.

Campground*. A site, or portion of a site, developed for outdoor recreational purposes that contains camping units.

Campsite*. An outdoor space in a campground used for camping that contains outdoor constructed features, parking spaces for recreational vehicles or other vehicles, tent pads or tent platforms, or camp shelters.

Characters. Letters, numbers, punctuation marks and typographic symbols.

Cross Slope. The slope that is perpendicular to the direction of travel (see running slope).

Curb Ramp. A short ramp cutting through a curb or built up to it.

Detectable Warning. A standardized surface feature built in or applied to walking surfaces or other elements to warn of hazards on a circulation path.

Element. An architectural or mechanical component of a building, facility, space, or site.

Enhanced Crosswalks. Pedestrian crossing countermeasures used in addition to the pavement markings typically used at pedestrian crossings not controlled by a traffic signal or STOP sign. Countermeasures can include median refuge islands, curb extensions, Recreational Rapid Flashing Beacons (RRFBs), and High-Intensity Activated Crosswalk beacons (HAWK beacon).

Entrance. Any access point to a building or portion of a building or facility used for the purpose of entering. An entrance includes the approach walk, the vertical access leading to the entrance platform, the entrance platform itself, vestibule if provided, the entry door or gate, and the hardware of the entry door or gate.

Facility. All or any portion of buildings, structures, site improvements, elements, and pedestrian routes or vehicular ways located on a site.

Gangway. A variable-sloped pedestrian walkway that links a fixed structure or land with a floating structure. Gangways that connect to vessels are not addressed by this document.

Information Kiosk*. A digital or non-digital structure that displays information related to park access, hours, rules and regulations, features, amenities, and orientation.

Mobility Device*. A device designed to assist walking or otherwise improve the mobility of a person with a mobility disability. Mobility devices may include powered and non-powered wheelchairs, scooters, canes, crutches, walkers, and rollators, among others.

Operable Part. A component of an element used to insert or withdraw objects, or to activate, deactivate, or adjust the element.

Outdoor Constructed Features. Picnic tables, fire rings, grills, fireplaces, wood stoves, trash and recycling receptacles, water hydrants, utility and sewage hookups, outdoor rinsing showers, benches, and viewing scopes provided at outdoor recreation facilities.

Outdoor Recreation Access Route. A continuous, unobstructed path that is intended for pedestrian use and that connects accessible elements, spaces, and facilities within camping and picnic facilities and at viewing areas and trailheads (see ABA 1016 for requirements).

Picnic Facility. A site, or portion of a site, developed for outdoor recreational purposes that contains picnic units.

Picnic Unit. An outdoor space in a picnic facility used for picnicking that contains outdoor constructed features.

Ramp. A walking surface that has a running slope steeper than 1:20.

Running Slope. The slope that is parallel to the direction of travel (see cross slope).

Site. A parcel of land bounded by a property line or a designated portion of a public right-of-way.

Space. A definable area, such as a room, toilet room, hall, assembly area, entrance, storage room, alcove, courtyard, or lobby.

Tactile. An object that can be perceived using the sense of touch.

Trail. A pedestrian route developed primarily for outdoor recreational purposes. A pedestrian route developed primarily to connect elements, spaces, or facilities within a site is not a trail.

Trailhead. An outdoor space that is designated by an entity responsible for administering or maintaining a trail to serve as an access point to the trail. The junction of two or more trails or the undeveloped junction of a trail and a road is not a trailhead.

Transition Plate. A sloping pedestrian walking surface located at the end(s) of a gangway.

Viewing Area. An outdoor space developed for viewing landscapes, wildlife, or other points of interest.

Walk. An exterior prepared surface for pedestrian use, including pedestrian areas such as plazas and courts.

Wheelchair Space. Space for a single wheelchair and its occupant.

Yurt*. A rentable permanent or semi-permanent enclosed structure, composed of membrane walls stretched over a structural frame, with facilities for sleeping. Yurts may or may not also include electricity, heat, lights, and kitchen or bathroom facilities.