



2013 Accessibility Guidelines for Trail Design & Construction



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Session Objectives

- **Define “Trail” as it applies to the guidelines**
- **Changes in the 2013 Federal Accessibility Guidelines for Outdoor Developed Areas**
- **Technical Provisions**
- **Identify When, Where and to Whom These Rules (Guidelines) Apply**
- **Review Guideline Conditions for Exceptions**

What is a Trail?

- A pedestrian route developed primarily for outdoor recreation purposes.



Hiking is the experience. Not just a way to get to another facility or primarily a transportation route

What is not a Trail?

Pedestrian routes connecting facilities, spaces or elements within a site.

- Outdoor Recreation Access Routes (ORAR's)
- Exterior Routes of Travel (ERT's)



ORAR



ERT

Shared Use Paths

- Used for transportation

Trail Designations

- Equestrian
- Mountain Bike



Other Trail Uses



Other Trail Uses

History Of Accessible Trails

The Architectural Barriers Act Passed in 1968 (Built Environment)



- **1990**- Americans With Disabilities Act of 1990 (ADA)
- **1997**- Regulatory Negotiating Committee on Accessibility Guidelines for Outdoor Developed Areas was Formed “REGNEG”
- **1999**- REGNEG produced its proposed guidelines
- **2005**- California State Parks Adopts REGNEG Guidelines as policy
- **2007**- Report was subjected to public review & comment under the **Architectural Barriers Act (ABA)** (October 2007)
- **2009** – Report was revised “Draft Final Guidelines” and sent out for additional comments
- **2013** - Trails guidelines incorporated into **Architectural Barriers Act (ABA)**

The Architectural Barriers Act

Whom do the Guidelines Apply to?

- **Federal Agencies** that administer outdoor areas developed for recreation purposes
- Private or public entities constructing or altering trails on **Federal Lands** (i.e. concessions, local governments, non-profits)
- Private or public entities entering into partnerships with **Federal Agencies** (i.e. grant funding)

Are Guidelines Law?

- **Access Guidelines became law November 2013 when incorporated into ABA (Federal Agencies)**
- **Guidelines will/may become law at the State and Local level once incorporated into relevant code (11B CA)**
- **Until the Access Guidelines become law they represent the “Best Available Information” on Accessible Trail Design.**
- **California State Parks and Federal Government have adopted guidelines as policy.**

However.....

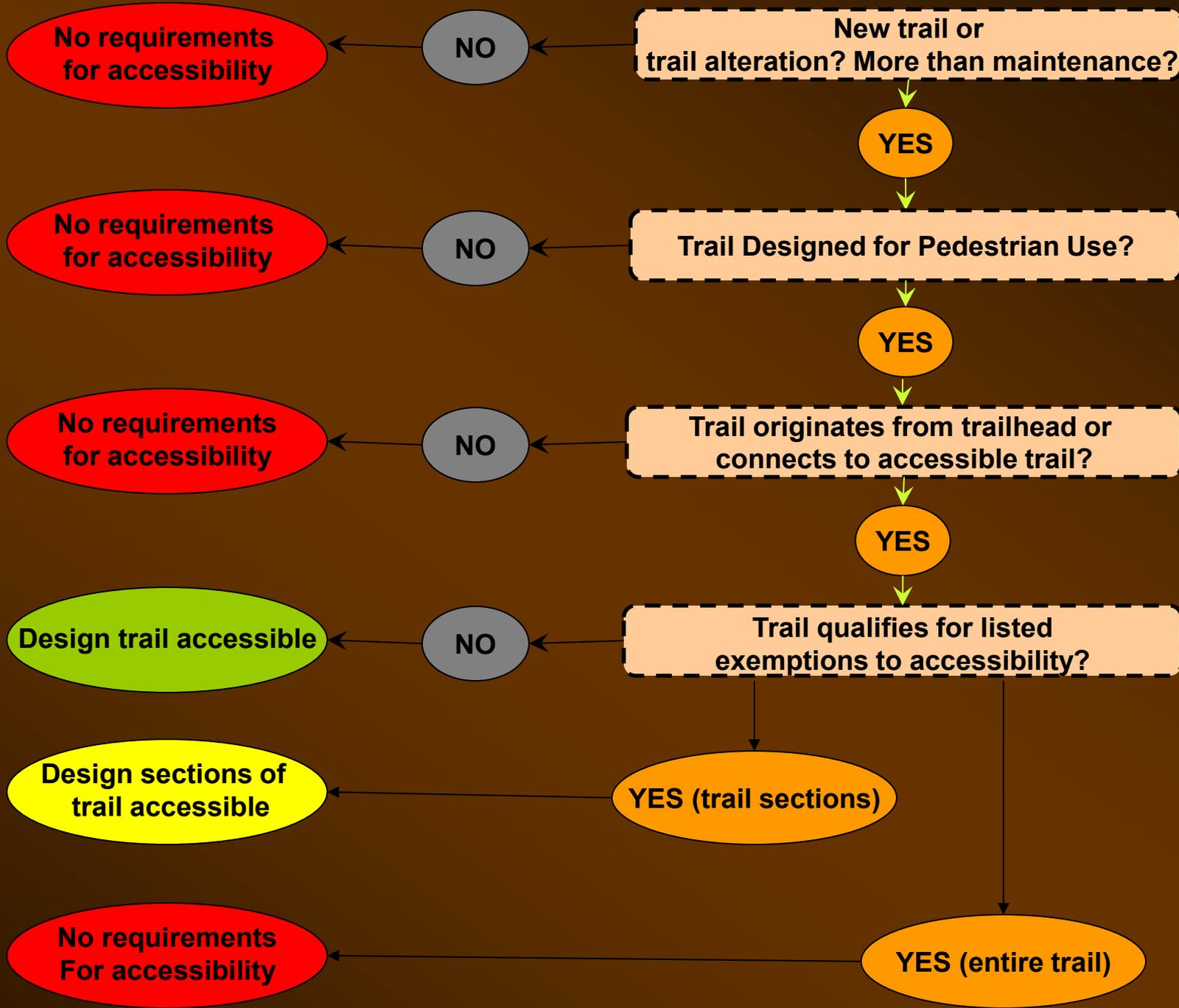
Title II of the ADA states:

“A public entity may not deny the benefits of its programs, activities and services to individuals with disabilities because its facilities are inaccessible.

- This could be applied to trails on public lands**

Do all trails have to be accessible?

- **Guidelines mandate you follow a process to address accessibility, but do not mandate that all trails be accessible.**



The Guidelines Only Apply to New Trail Construction and Trail Alterations



Alterations are defined as:

- Changes in the design, function or purpose of the trail
- Changes in the overall grade, width, or surface of an existing trail or significant reroute of an existing trail



Routine Maintenance work is exempt from the guidelines when:

- **Work is performed to return a trail segment back to the original design standard**

Brushing, trail clearing, down tree and rock removal...



Tread maintenance: slough and berm removal, out-sloping and turnpike resurfacing...



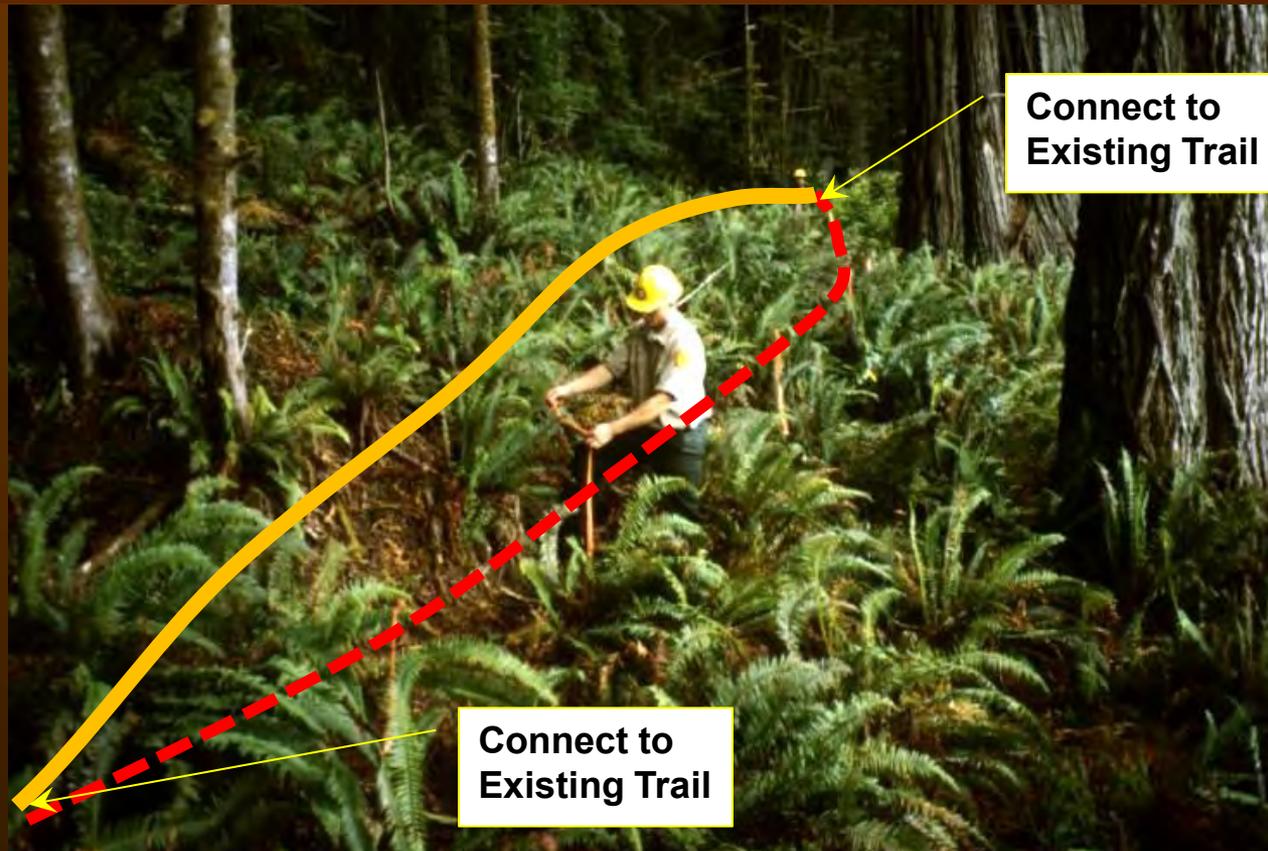
Replacing trail features, i.e. retaining walls, steps etc...



Repair or replacement of bridges and boardwalks...



Minor trail reroutes that do not change the trail's design or purpose are not considered alterations...



Maintenance

- **There is an opportunity to improve access during maintenance procedures**
- **Every time a trail receives maintenance, we can improve access**

Guidelines Apply only to Trails Designed for Pedestrian Use.

- Trails designated specifically for other uses such as equestrian, mountain bike or off highway vehicle use are exempt from the guidelines.
- Multiuse trails with a pedestrian component are not exempt.



These guidelines only apply to pedestrian trails or multi-use trails with a pedestrian component that are **connected to a trailhead or an accessible trail. Trails not connected to either of these facilities are exempt from the guidelines.**

Trailhead is defined as:

- An outdoor space developed to serve as an access point to a trail.
- A trail junction of two or more trails where no other access point is provided to the trails is not a trailhead.



Trailhead



Not a trailhead

Technical Provisions

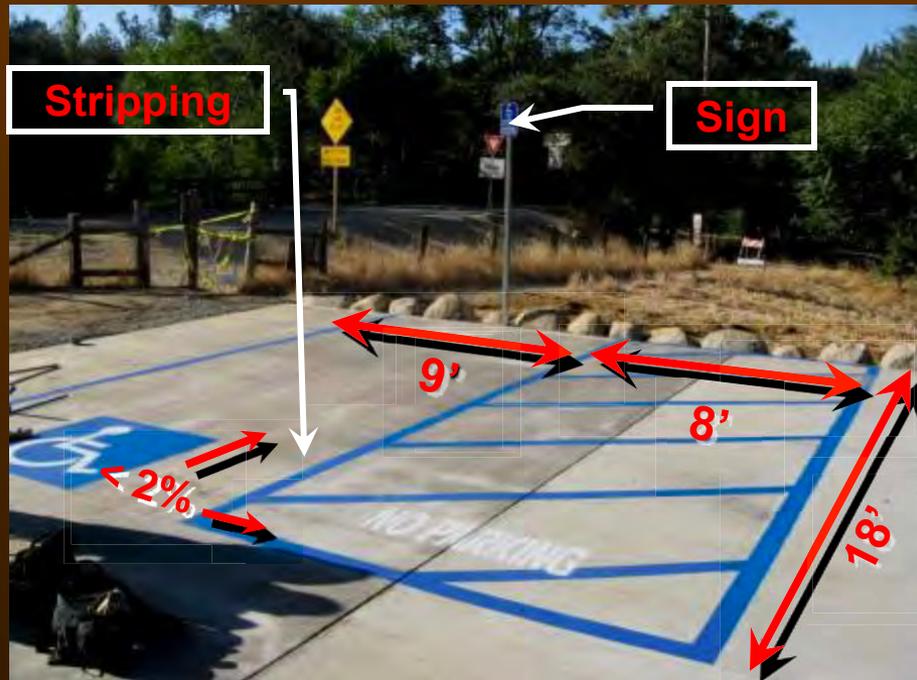
(Outdoor Developed Area Guidelines for Accessibility)

Trailhead Parking

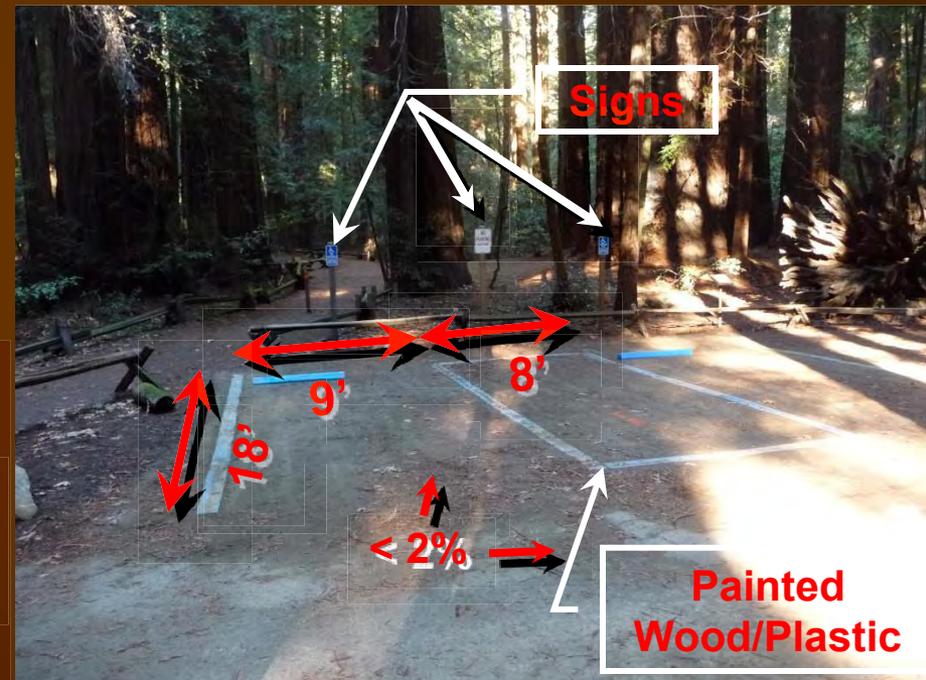
Accessible Parking

Route from Parking to Trail

Accessible Trail



Paved



Non-Paved

Surface firm and stable

Must maintain cross slopes

When outdoor constructed features are provided at trailheads or along the trail at least 20% but not less than one of each feature shall be accessible at each location



Provide Trail Signage Information to include:

Trail signs required
regardless of whether
the new or altered
trail is accessible

• Typical and
Maximum
tread
width



New

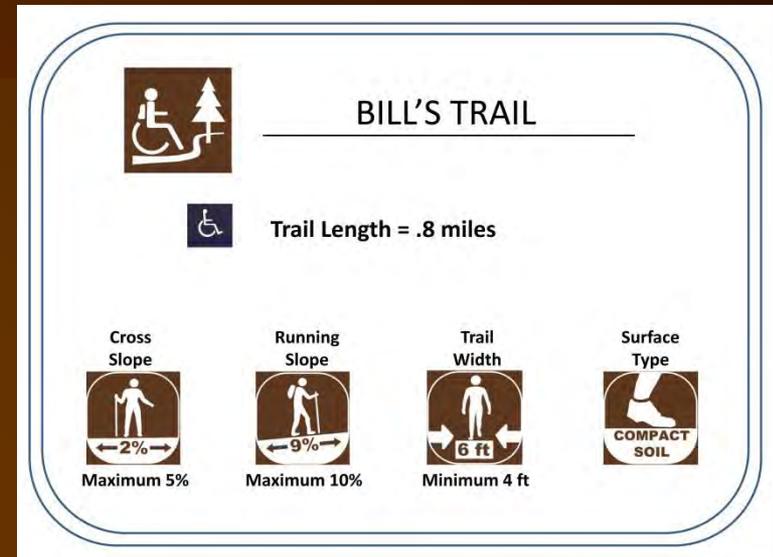
• Typical and
Maximum
running slope



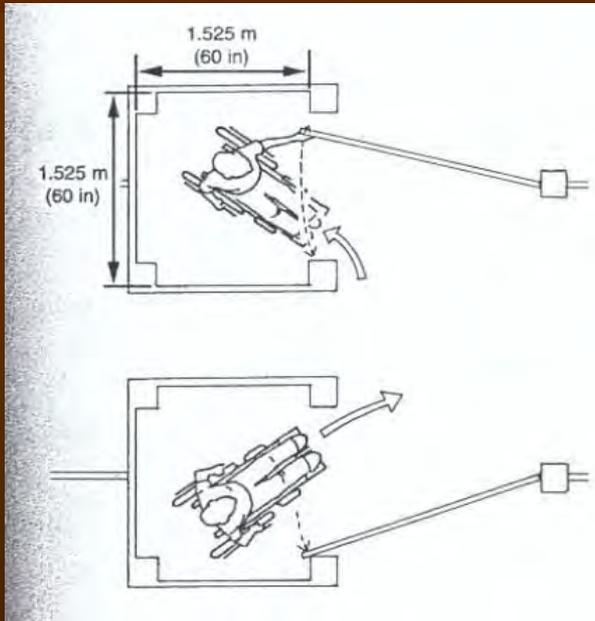
• Typical and
Maximum Cross
Slope



Old



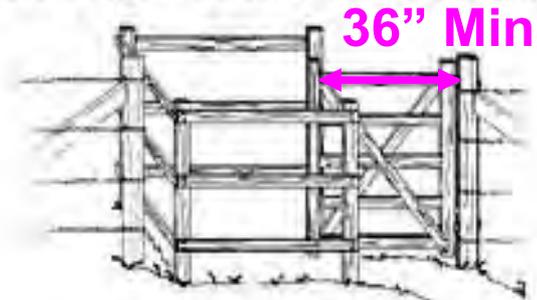
Gates when installed shall be accessible....



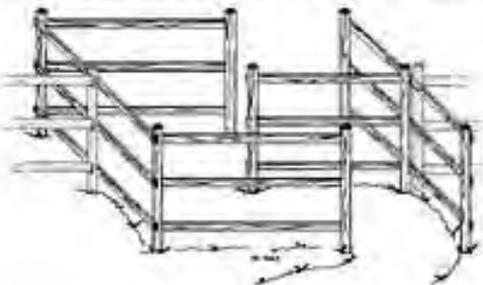
Operate gate handle with a closed fist



Timber Kissing Gate with Wheelchair Accessibility



Chicane for Wheelchair Accessibility



Forest Road Closure Gate with Wheelchair Accessibility



Facilities located along trails shall meet accessible guidelines for that type of facility.



Picnic facilities

Regardless of whether or not the facility is located along an accessible trail



Overlooks



Campsites



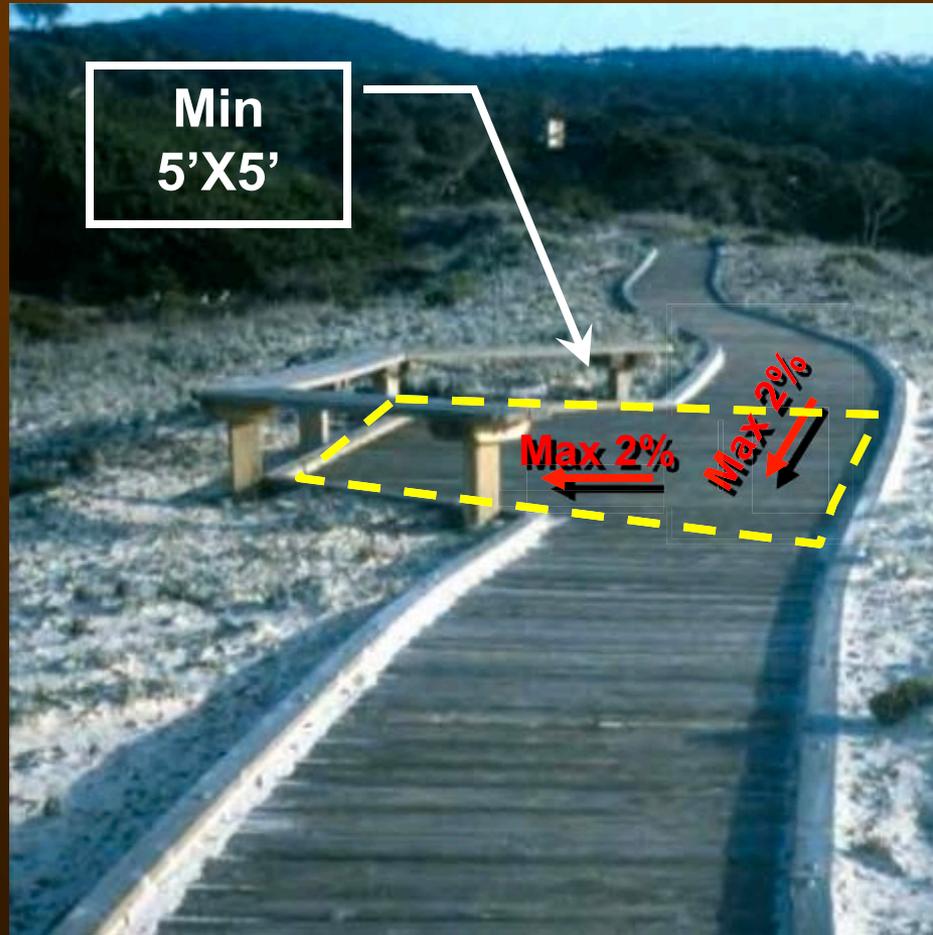
Fishing Piers

Clear Tread Width

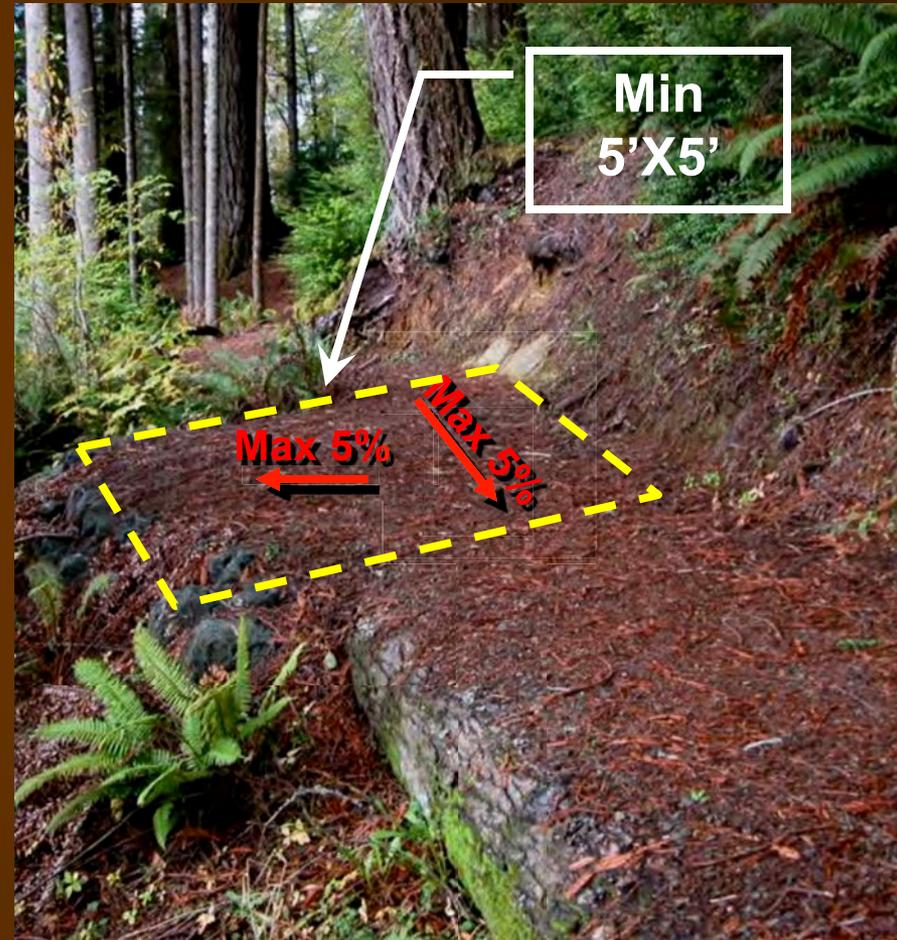


**36"
Minimum**

If tread width is less than 60", passing spaces required every 1000'



Concrete, Asphalt and Board Surfaces



Other surfaces

The Trail Tread Must be Firm And Stable:

- A stable surface remains unchanged by applied force so that when the force is removed the surface returns to its original condition
- A firm surface resists deformation by indentations



Linear Grade or Running Slope

Shall be:

- **0%-5%** for any distance
- **5.1%-8.3%** for up to 200 ft
- **8.3 %-10%** for up to 30 ft
- **10.1%-12%** for up to 10 ft
- **Slopes >12%** not allowed



Rest Areas are Required at The Beginning and End of Each Trail Segment in Excess of 5%

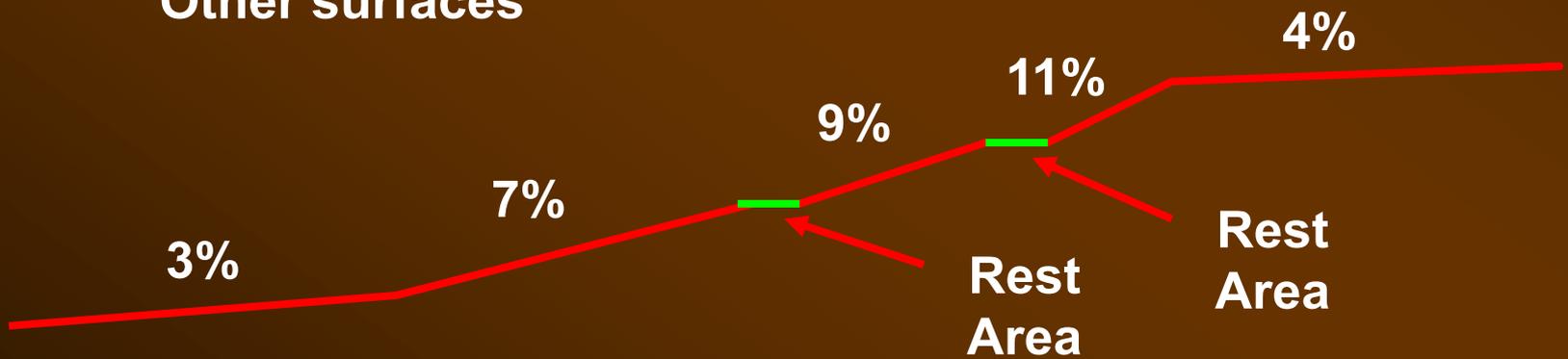


Concrete, Asphalt and Board Surfaces

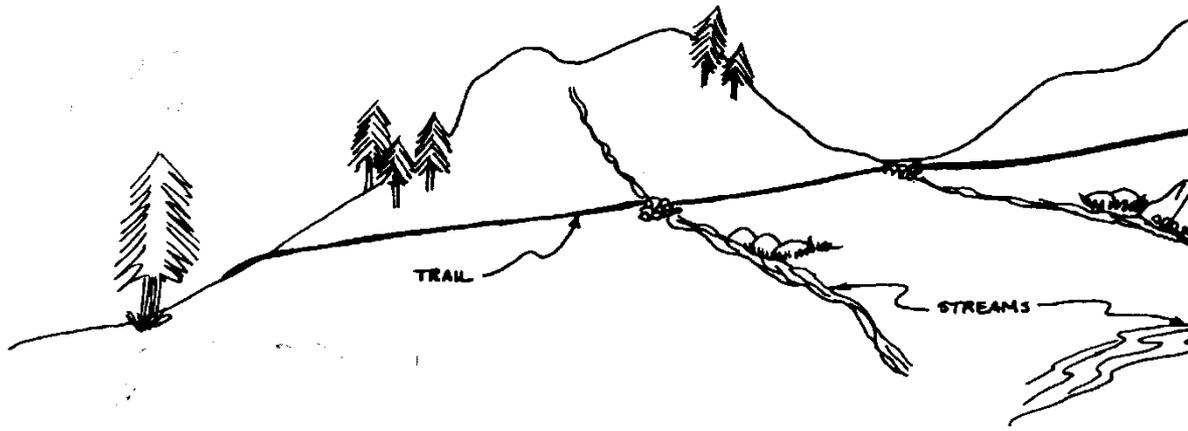
Rest Areas



Other surfaces



Example



**No more than
30% of the
total trail
length shall
have a running
slope steeper
than 8.33%**

TOPOGRAPHIC PROFILE OF TRAIL LAYOUT

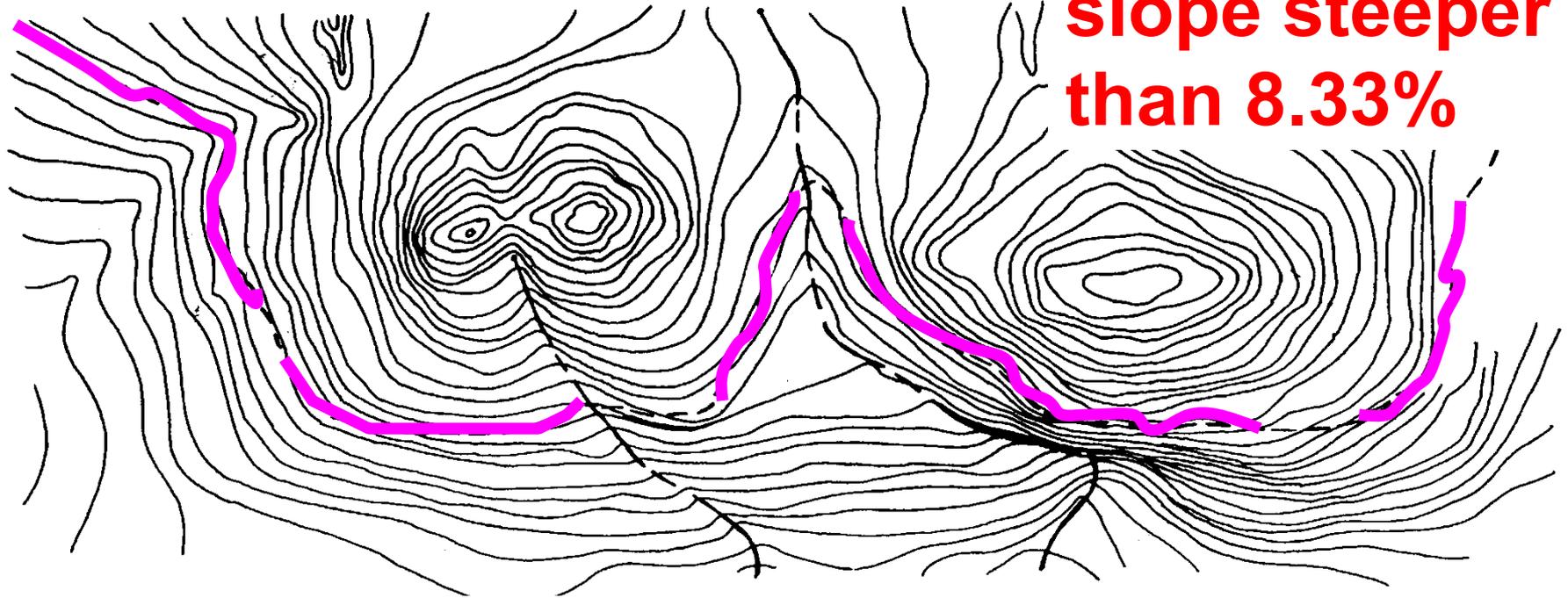


Figure 10.3

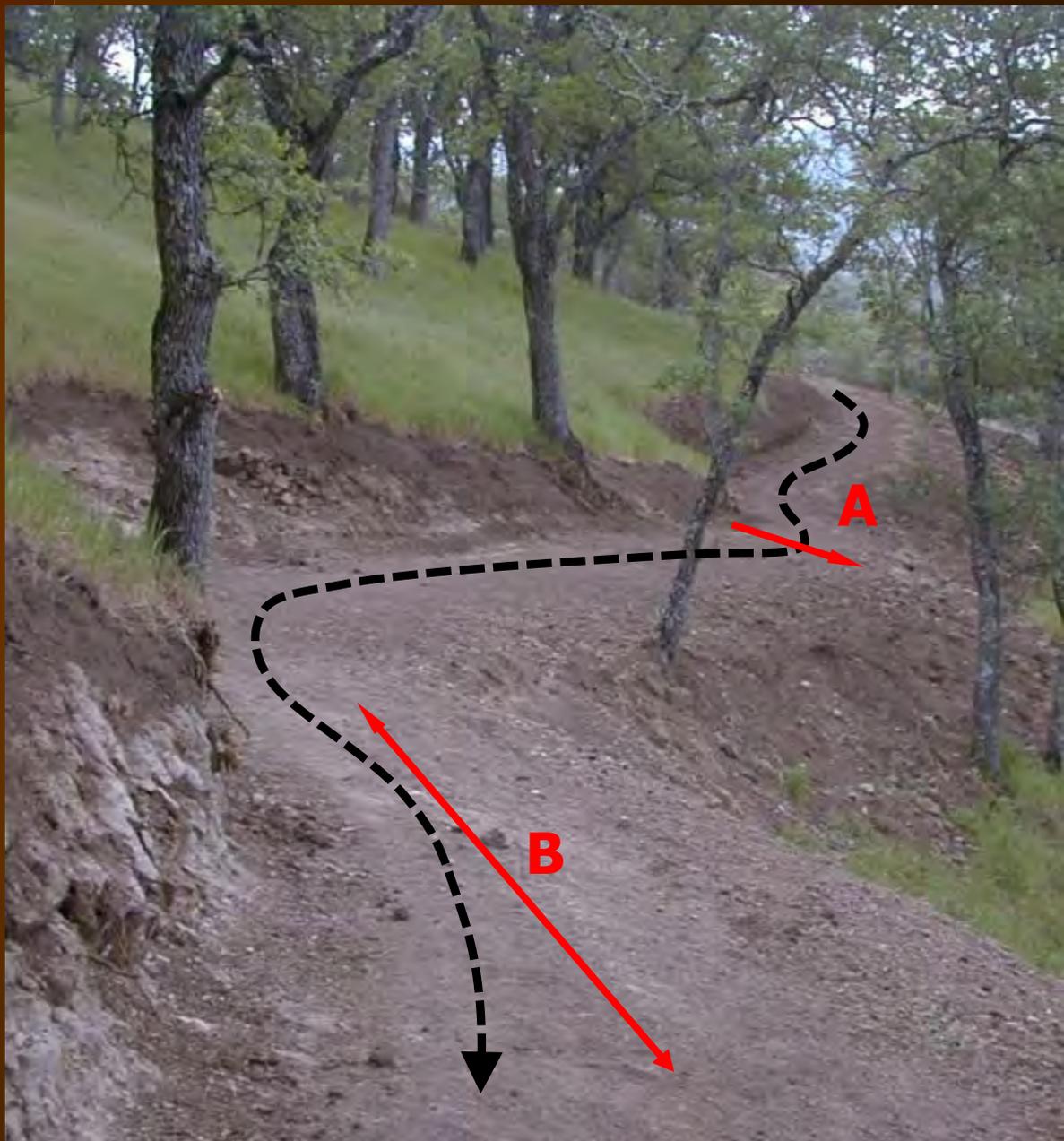
Grade or Running Slope

Slopes

Cross Slope “A”

Linear Grade “B”

Are Key
Elements of
Accessibility



Cross Slopes

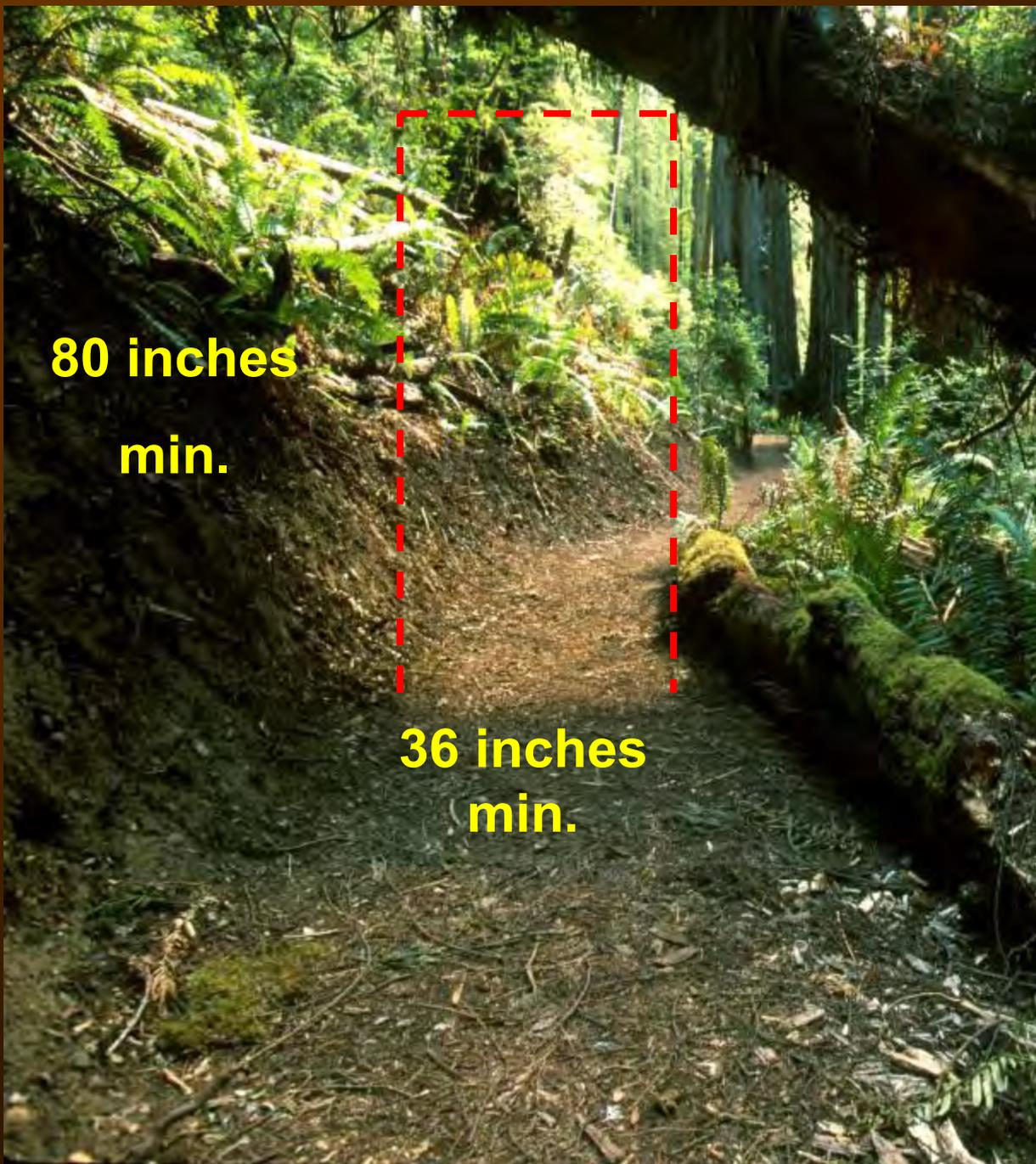
2% Maximum
on concrete,
asphalt or
board
surfaces



Cross Slopes

5%
Maximum
on other
surfaces





**80 inches
min.**

**36 inches
min.**

The area over the trail tread must be clear of protruding objects to a height of 80"

**Tread obstacles
concrete, asphalt
& board
surfaces....**

**Standard 1/2"
max. height**



Tread obstacles concrete, asphalt & board surfaces

Standard 1/2"
max height

Minimum
spacing of 48"
between
obstacles
(advisory)



Tread obstacles other surfaces

Standard 2"
max height

Minimum
spacing of 48"
between
obstacles
(advisory)



**The Trail Tread Has a
Maximum Opening of
 $\frac{1}{2}$ "**

Openings

**$\frac{1}{2}$ " Max. When
Openings are
Perpendicular
to Travel**



Overlooks

Provide unobstructed views between 32"-51" at each distinctive view point.



Conditions for Exceptions

- There are Four Conditions That When Present Can Act as Exceptions to the “Guidelines”
- When designing and laying out a trail make every attempt to comply with the Guidelines.
- Don't seek out exemptions. Seek out solutions.

Conditions for Exceptions

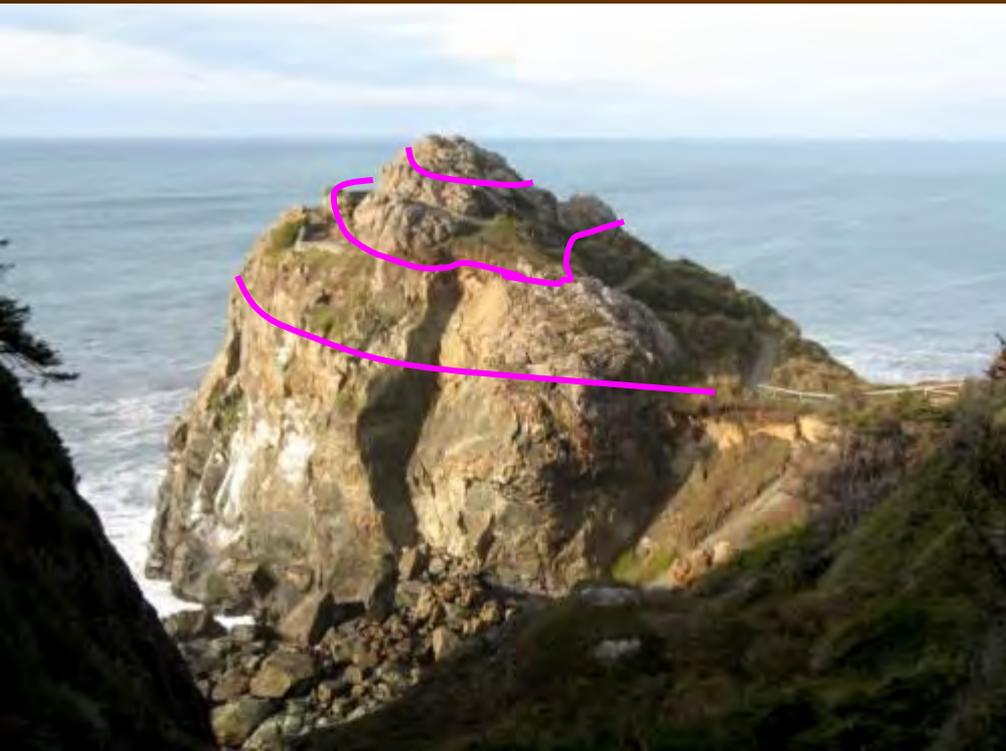
#1. Where compliance is not feasible due to terrain

Steep Topography and No Reroute Options

- Insufficient Land Base
- Unsustainable Design



Sometimes elevation differences and a limited landform prohibit staying within the linear grade guidelines



Conditions for Exceptions

#2. Where compliance cannot be accomplished with the prevailing construction practices

Available Labor Force Lacks Requisite Skills, Knowledge or Equipment



Conditions for Exceptions

#3. Where Compliance Would Fundamentally Alter the Function or Purpose of the Facility or the Setting

**Alter the
Nature of
Setting or
Purpose of the
Facility or
Setting**



Conditions for Exceptions

- #4 Compliance is precluded by:
- Endangered Species Act
- National Environmental Policy Act (NEPA, CEQA)
- National Historic Preservation Act
- Wilderness Act
- Other Federal, State, or Local Government Laws whose purpose is to preserve natural, historic or cultural resources

Accessible compliant trail alignments may impact Rare, Threatened or Endangered Plants



Accessible compliant trail alignments may impact Rare, Threatened or Endangered Animals



Accessible compliant trail alignments may impact significant archeological resources



Accessible
compliant trail
alignments may
impact significant
historic resources

- Historic CCC
steps



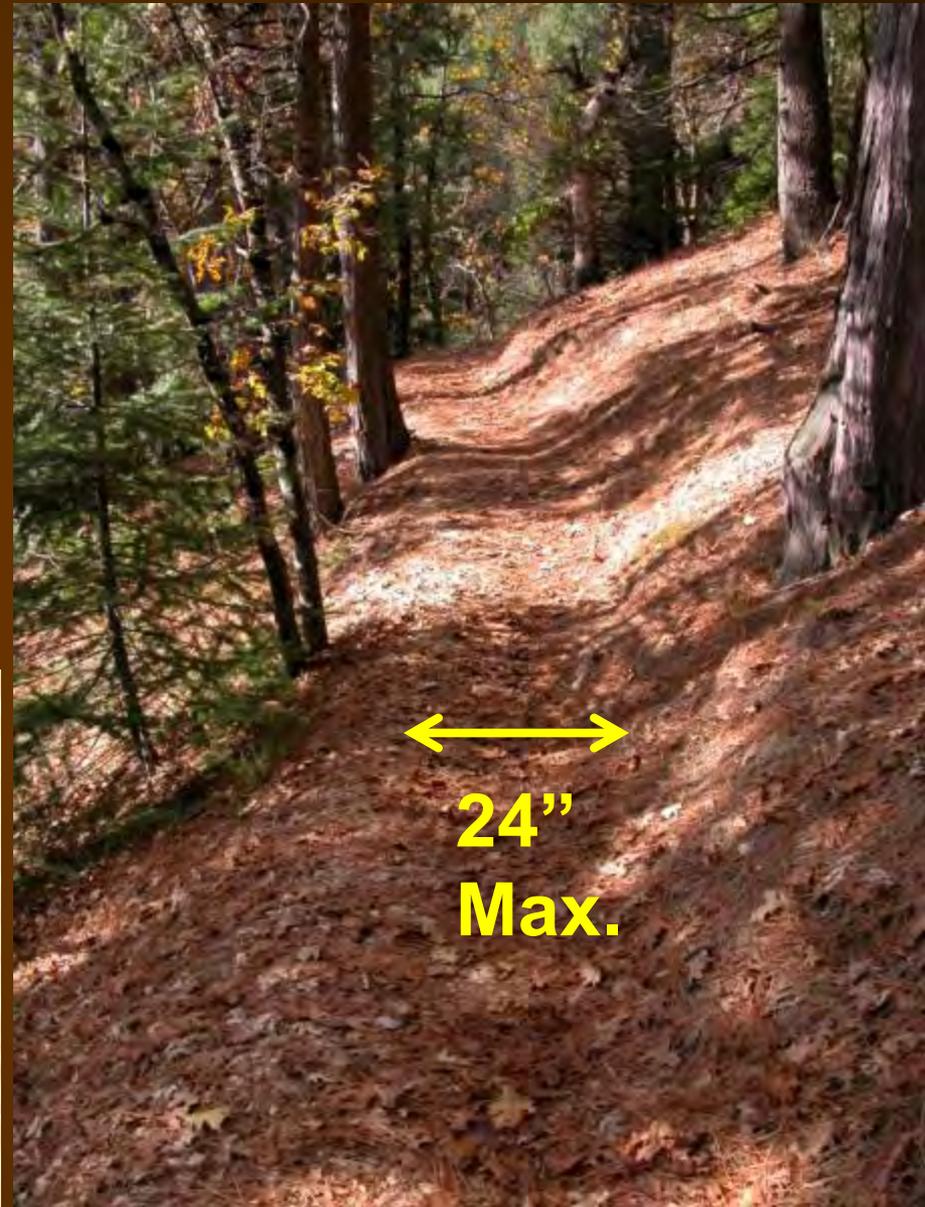
Construction Methods or Materials Prohibited by Regulation or Statute



Tool & Material Restrictions (Wilderness)



Construction Methods or Materials Prohibited by Regulation or Statute



Compliance with Accessibility Guidelines is Determined by following sound Planning, Design, Layout & Construction Processes. These efforts are Documented in CEQA/NEPA Environmental

Document the basis for the determinations, and maintain the documentation with the project records.

Conditions for Exceptions

- When a condition is encountered where it is unfeasible to comply with the guidelines due to one or more of the conditional exceptions then those portions of the trail are exempt. However, those portions of the trail where the exceptions do not apply are required to comply with the technical provisions to the maximum extent practicable.

Trailhead

Fern Falls Trail

1.5 miles long

Steep terrain
requiring steps

**The remainder of
the trail must be
compliant**

Fern Falls



Conditions for Exceptions

- If the land management agency evaluates the trail alignment and determines that the magnitude of the exceptions make it impracticable for the entire trail to comply with the technical provisions then the entire trail is exempt from the guidelines

Trailhead

Fern Falls Trail

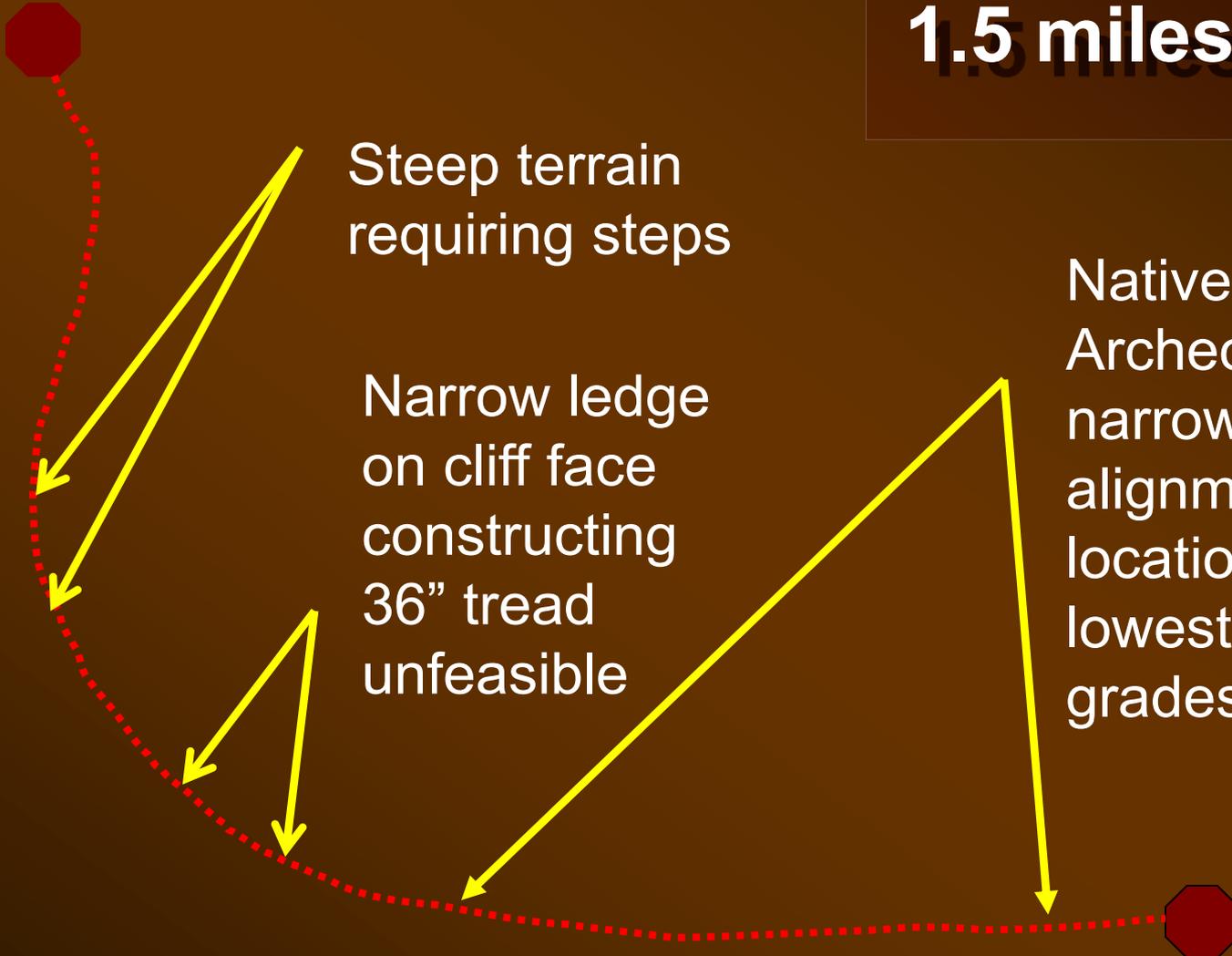
1.5 miles long

Steep terrain
requiring steps

Narrow ledge
on cliff face
constructing
36" tread
unfeasible

Native American
Archeological Site
narrows trail
alignment to a
location where the
lowest linear
grades are 10%

Fern Falls

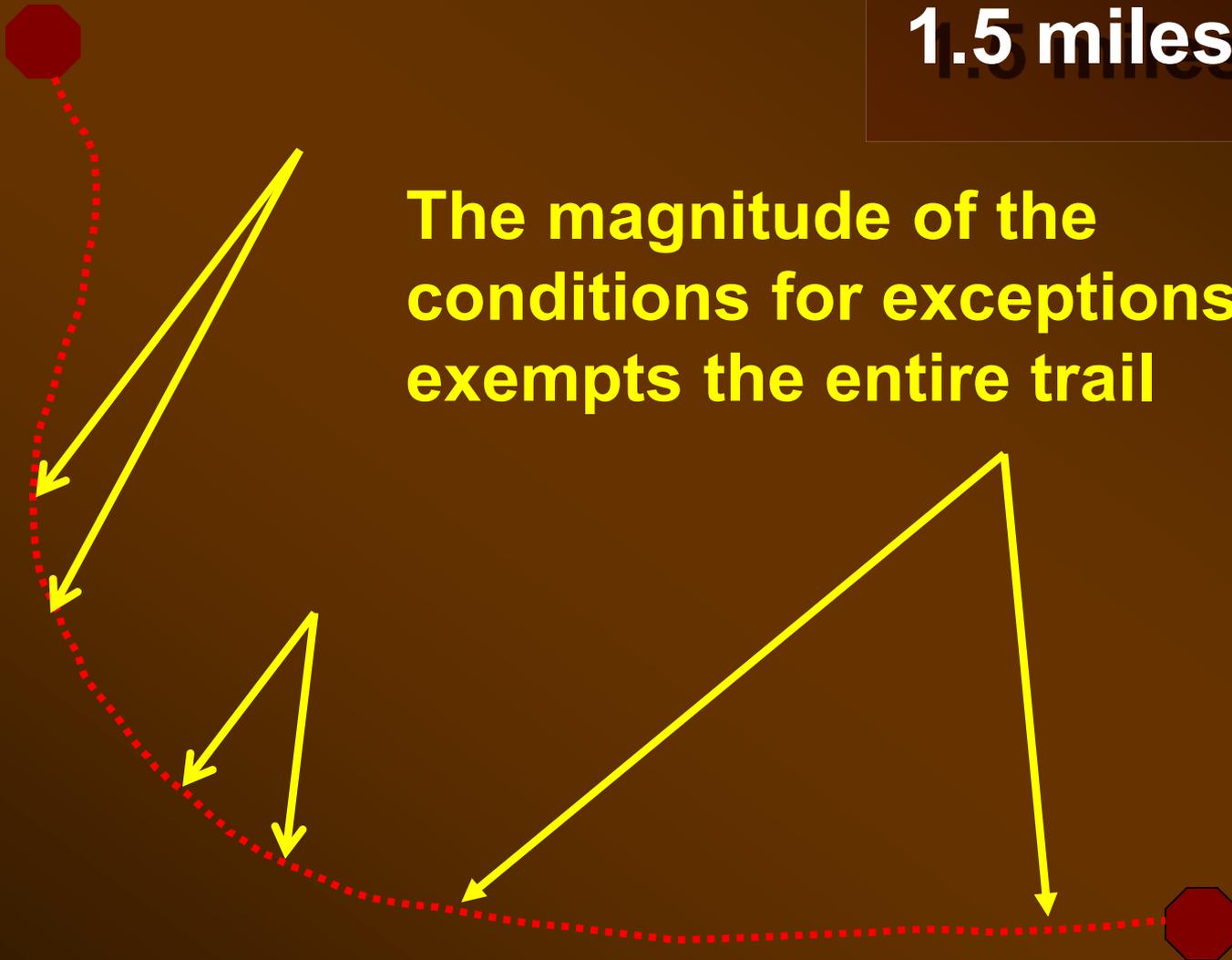


Trailhead

Fern Falls Trail

1.5 miles long

The magnitude of the conditions for exceptions exempts the entire trail



Fern Falls

Conditions for Exceptions

- Document the basis for the determinations, and maintain the documentation with the records for the construction or alteration project. The draft final accessibility guidelines do not prescribe any particular format for the documentation.
- The Access Board plans to monitor situations where the exceptions for trails result in exempting an entire trail. A provision is added that requires Federal agencies to notify the Access Board when an entire trail is exempted. The provision does not require approval or any other action on the part of the Access Board or the Federal agency.

Session Objectives Review:

- **Accessible trails are pedestrian routes or multi-use trails with a pedestrian component developed primarily for outdoor recreation purposes**
- **Hikers with disabilities represent a significant portion of our population**
- **Developing accessible trail guidelines has been a long and difficult process**
- **These guidelines apply to new trail construction or trail alterations to pedestrian trails or multi-use trails with a pedestrian component connected to a trailhead or another accessible trail**

Conclusion:

- **Providing accessibility to the outdoors requires a mind set change**
- **Accessible trails can be designed and constructed without causing significant harm to natural and cultural resources**
- **Accessible designs are typically sustainable designs**
- **Well designed and constructed accessible trails can provide a high quality outdoor recreation experience for all users**