

## Recreational Trail Access Guidelines and Applications



### Trail Guidelines, Recommendations and Status Session Objectives:

- Identify Who are Our Users
- Identify a Brief History of Trail Accessibility and Rule Making
- Identify When and Where These Rules (Guidelines) Apply
- Identify What is Routine Maintenance and What can be Done to Improve Accessibility

## **Trail Guidelines, Recommendations and Status**

**Session Objectives:**

- **Review Proposed Critical Components of “Report on Outdoor Developed Areas - Trails”**
- **Review Proposed Guidelines Points of Departure and Exceptions**
- **Review Critical Components of USDA Forest Service Trail Accessibility Guidelines**

**Who are we Designing and  
Constructing These Trails for ?**







## Base line Statistics For Potential Hikers With Disabilities

- There are over 30 million people with a disability in the US
- There are over 35 million people over the age of 65 in the US
- 45% of those people have a disability
- 31% of the people in the US (93 million) are obese
- There are 16 million children under 4 years old

# History Of Accessible Trails

## The Architectural Barriers Act Passed in 1968 (Built Environment)



## After two Unsuccessful Attempts the Regulatory Negotiating Committee on Accessibility Guidelines for Outdoor Developed Areas was Formed “REGNEG”

- In 1999 this committee produced its proposed guidelines
- The US Access Board prepared a notice of rule making (social and economic impacts)
- Report was recently subjected to public review & comment under the Architectural Barriers Act “Federal Agencies Only”
- After comment period a final rule will be sent to the Office of Budget and Management for their approval

- Once approved it will be published in the Federal Register
- The rule will be sent to the General Services Administration and the Department of Defense for their adoption
- Once the ABA rule making process is completed the Access Board will submit the proposed rule for public comment under the American Disabilities Act (ADA)
- The same process if followed except that once it is approved by the Office of Budgets and Management it is sent to the Department of Justice to become Federal Law
- State and Local Governments then adopt the federal standards or develop their own as long as they are equal to or greater than the federal standards

## The REGNEG Committee Operated Under the Following Guidelines

- Protect resource and environment
- Preserve experience
- Provide for equality of opportunity
- Maximize accessibility
- Be reasonable
- Address safety
- Be clear, simple and understandable

## The REGNEG Committee Operated Under the Following Guidelines

- Provide guidance
- Be enforceable and measurable
- Be consistent with the Americans With Disabilities Act (as much as possible)
- Be based on independent use by persons with disabilities

Until the REGNEG Guidelines Become Law They Represent the “Best Available Information” on Accessible Trail Design. USFS has Developed their own Guidelines “Policy”



## **Outdoor Access Guidelines and Trails**

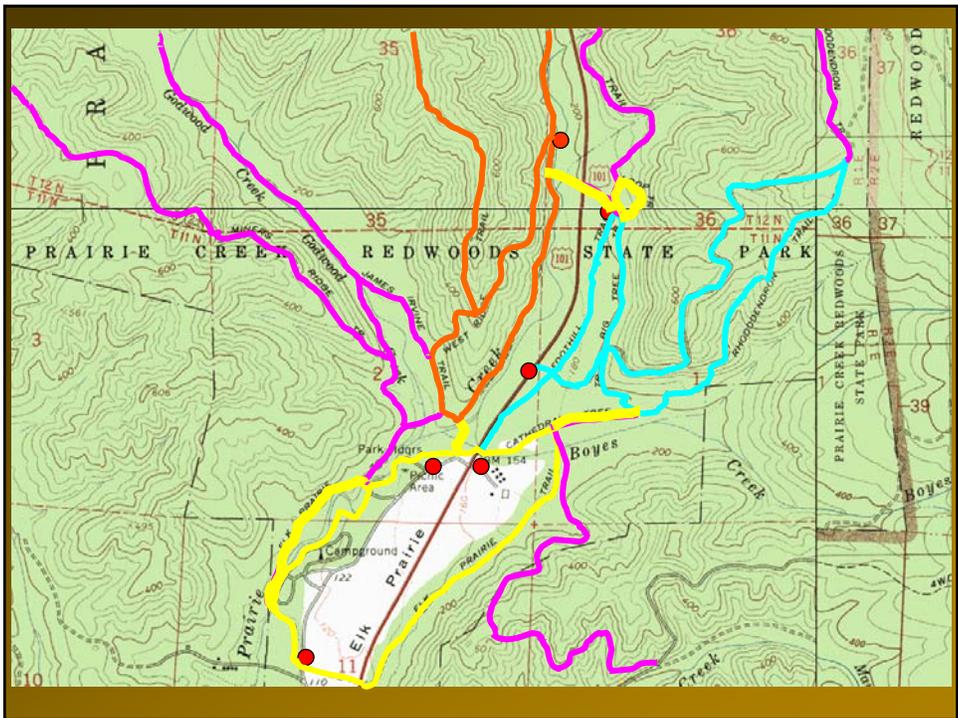
- **How Do These Guidelines Apply?**
- **As a Park Manager What Do We Need to Know and Do?**

**These guidelines apply only to pedestrian trails. Trails designated specifically for either equestrian, mountain bike or off highway vehicle use are exempt from the guidelines.**



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

# The REGNEG Guidelines Apply to New Trail Construction and Trail Alterations



## Maintenance

- **Guidance is Provided on Maintenance Activities**
- **Maintenance would be exempt when:**
- **Work is Performed to Return a Trail Segment Back to the Original Design Standard**

## Brushing, Trail Clearing, Down Trees and Rock fall Removal



## Repair of Tread Surfaces, Replacing Trail Features, i.e. Retaining Walls, Steps etc.



## Erosion Control and Drainage Structure Installation, i.e. rip rap, reroutes around bogs and marshes



## Repairs of Bridges and Turnpikes



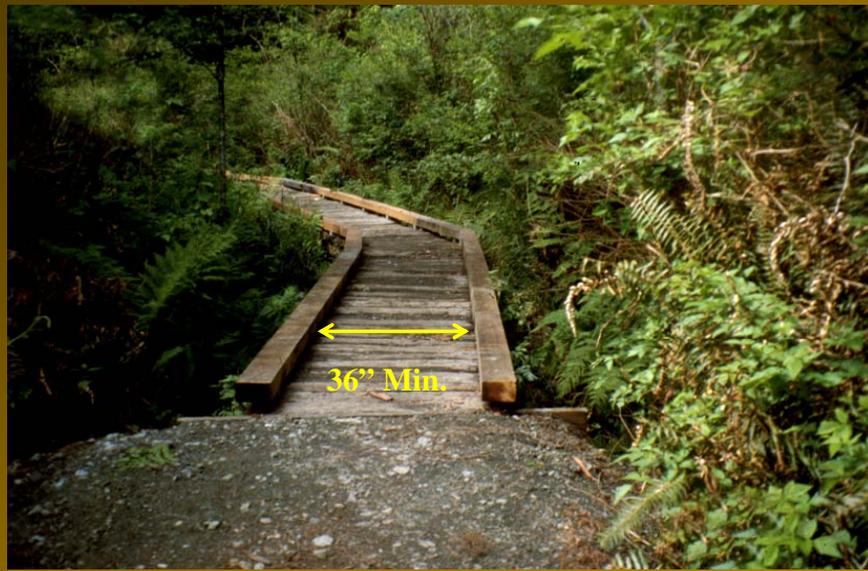
## Maintenance

- **There is Access Improvement Opportunity During Maintenance Procedures**
- **Every Time a Trail Receives Maintenance, We Can Improve Access**

Drop Off Along Edge of Bridge, Plus Steps  
Creates Hazard and Barrier to Users



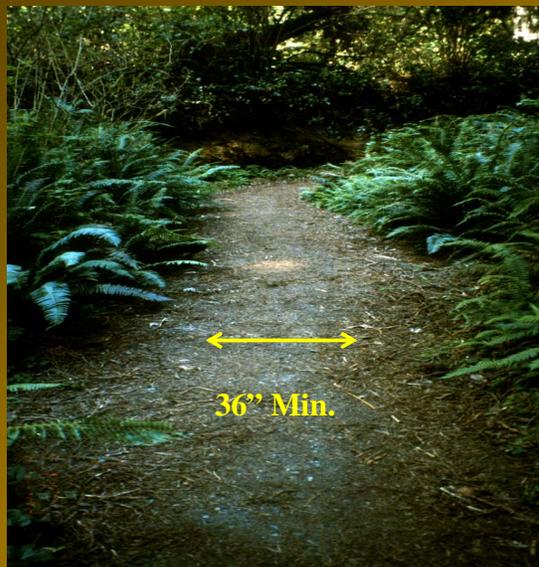
Solution : Install Elevated Curbing on  
Bridge Structures and Grade Trail to Deck



## Tread Surface Soft and Unstable



## Solution: Build Up with Gravel and Soils (Turnpike) to Stabilize



Trail Routes Along Stream Terraces that Periodically Flood and Have Saturated Unstable Tread



Solution: Reroute Trail Away From Stream Terrace and Turnpike to Stabilize Trail Tread



## Reroute of Poor Trail Alignments



## Reroute of Poor Trail Alignments



## Technical Provisions (Guidelines)





The Trail Tread Must be Firm And Stable  
Standards for Firmness and Stability and  
Instruments to Measure Tread Surfaces have  
been Developed



## Grade or Running Slope

Shall be:

- 5% (1:20) or less for any distance
- 8.3% (1:12) max up to 200 ft
- 10% (1:10) max up to 30 ft
- 12% (1:8) max up to 10 ft



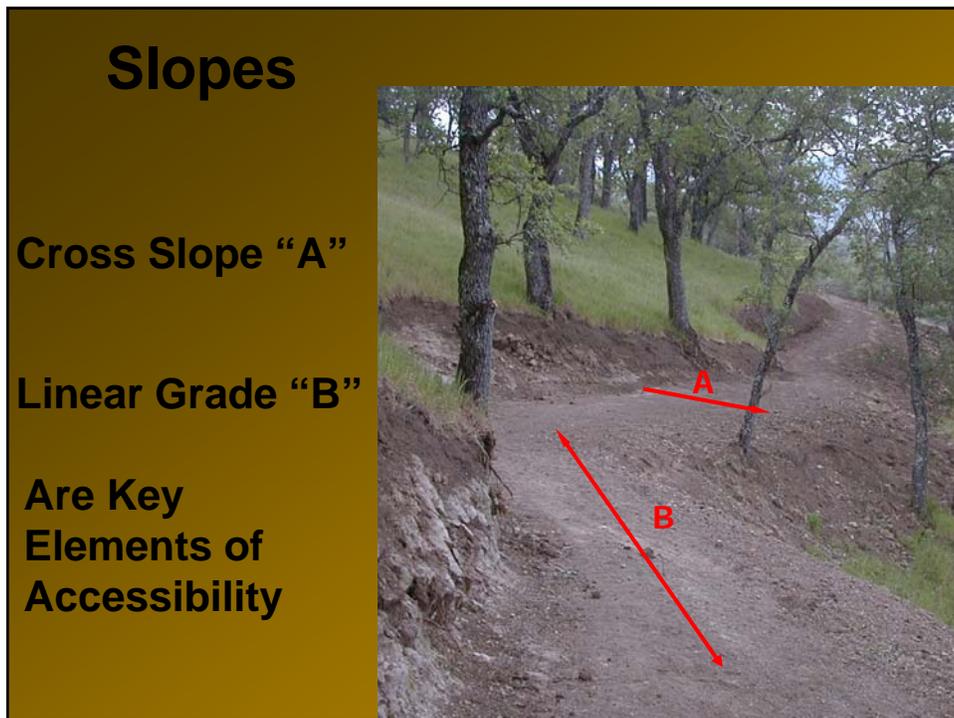
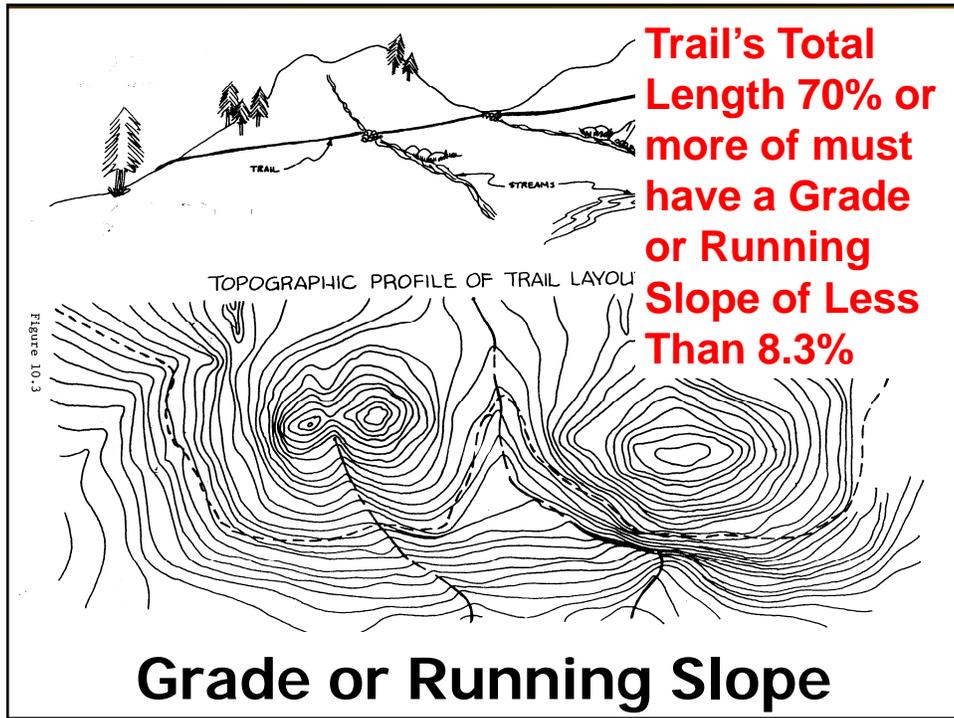
## Rest Areas are Required at The Beginning and End of Each Trail Segment in Excess of 5%



8.33 % for max. 200'

Rest area 5' length min. with max. 5% grade & cross slope. Width is as wide as widest portion of trail segment



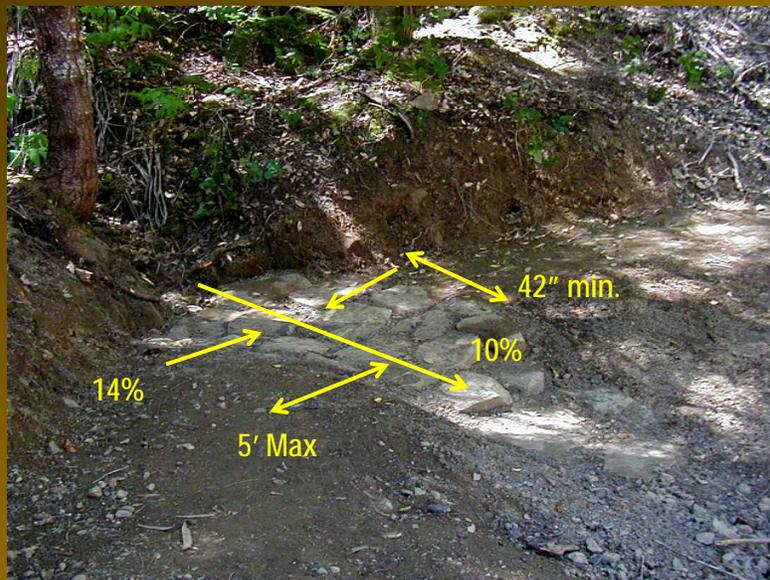


# Cross Slopes

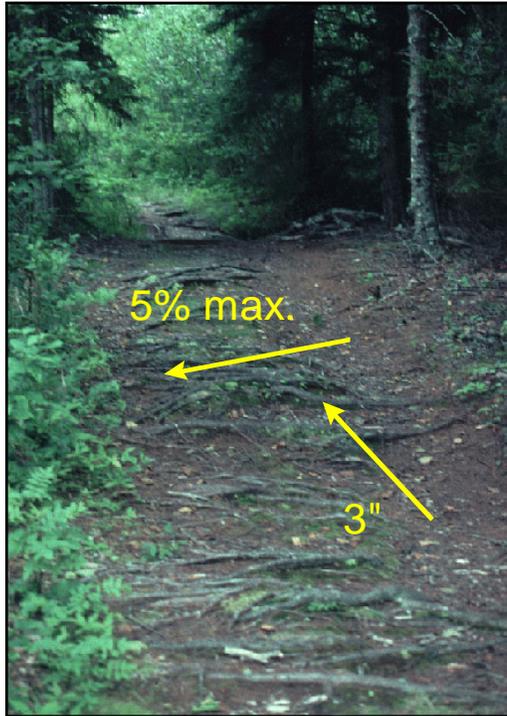
5%  
Maximum



14% Linear Grades and 10% Cross Slopes  
are Allowed at Drainage Crossings





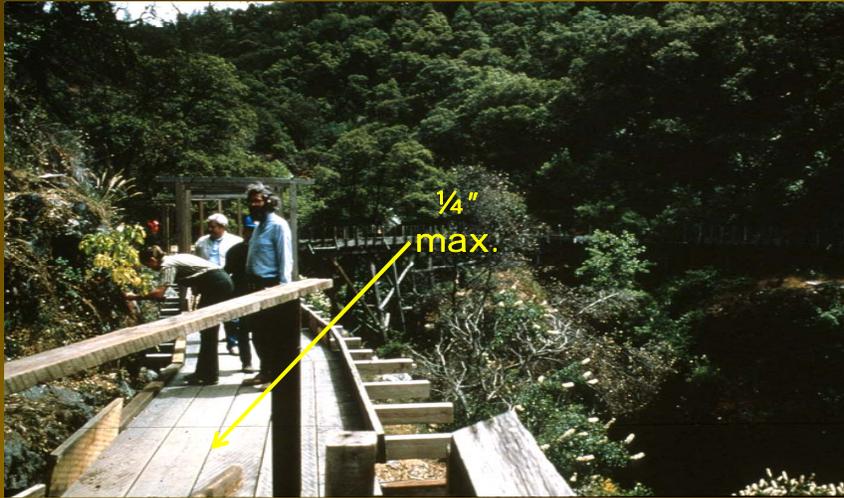


**Tread obstacles**

**Exceptions:**

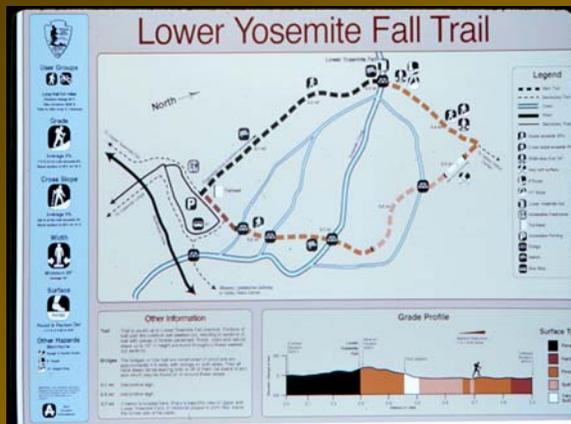
**3" max height up to a maximum slope in any direction of 5%**

The Trail Tread Has a Maximum Opening of 1/4" When They are Parallel to the Direction of Travel





Provide Trail Signage Information: Total Distance of the Accessible Segment and Location of the First Point of Departure From the Accessible Provisions. Accessible Trails Must Also be Signed with the Appropriate Logo



**Turkey Hollow**  
Turkey Run State Park

**Trail Uses**

- Hiking
- No bikes
- No equestrians

**Other Obstructions**

- Rocks: 5-14 inches
- Vertical: 10 inches
- Roots: 4-9 inches

**Trail Length 0.6 miles (1.0 km)**

Turkey Hollow Trail descends down the hill from the Turkey Run Inn and Cabins. The trail meanders through an old, hardwood forest of maple, oak, and hickory trees. Several stream crossings are encountered and water levels vary depending on seasonal rains.

**Cumulative Elevation Change** Gain 60 ft (18 m) Loss 17 ft (5 m)

**Typical Grade is 2.4%**

- 2% of the trail is between 0% and 10%
- 24 ft (7 m) is between 14% and 10%
- 0% grade is a standard ramp.

**Typical Cross Slope is 2.2%**

- 10% of the trail is between 3% and 12%
- 28 ft (9 m) is between 0% and 12%

**Minimum Trail Width is 36 in (91 cm)**

**Maximum Trail Width is 72 in (183 cm)**

**Minimum Clearance is 26 in (66 cm)**

**Trail surface is Soil**

44% of the trail is Hard

1778 ft (542 m) of the trail is Firm

**Trailhead Location**  
Behind Cabins

**Trail Access Information**

Warning: Trail conditions may have changed since this trail was assessed. Temporary obstructions (e.g. fallen trees or sand dunes) were mapped. Maximum grade and cross slope may vary by 50% of the actual value measured (e.g. a maximum grade of 50% that actually is 3% more or less than the required value).

## Edge Protection is Provided Where Needed



## Conditions for Departure

- There are Four Conditions That When Present Can Act as Exemptions to the Technical Provisions (Guidelines)
- If Any of the Four Conditions for Departure Constitute over 15% of the Trails Length, Then the Trail Does Not have to Comply with the Technical Provisions (Guidelines) *After* the First Point of Departure.

## **Conditions for Departure**

- **If the Segment Between the First Point of Departure and the Trailhead is less Than 500 Feet, Then the Technical Provisions do not Apply**
- **However, If There is a Prominent Feature Less Than 500 Feet From the Trailhead, the Trail Segment Between the Feature and the Trailhead Shall Comply With the Technical Provisions**

## **Conditions for Departure**

### **1. Where Compliance Could Cause Substantial Harm**

- **To Cultural, Historic, Religious, or Significant Natural Features or Characteristics**

**Where  
Compliance  
Could Cause  
Harm to a  
Natural or  
Cultural  
Feature**

**Such as a  
Historic Steps**



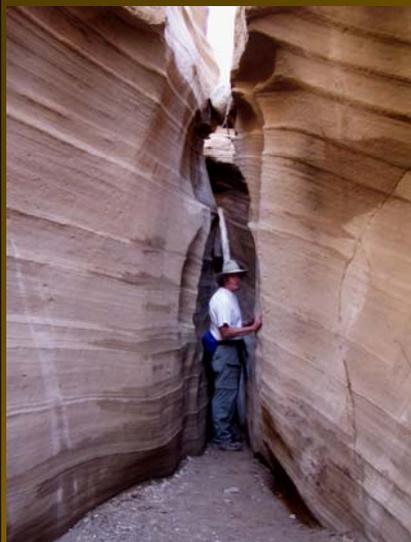
## **Conditions for Departure**

- 2. Where Compliance Would Alter the Nature of Setting or Purpose of the Facility or Setting**

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



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



## Conditions for Departure

3. Where Compliance Would Require Construction Methods or Materials Prohibited by Regulation or Statute

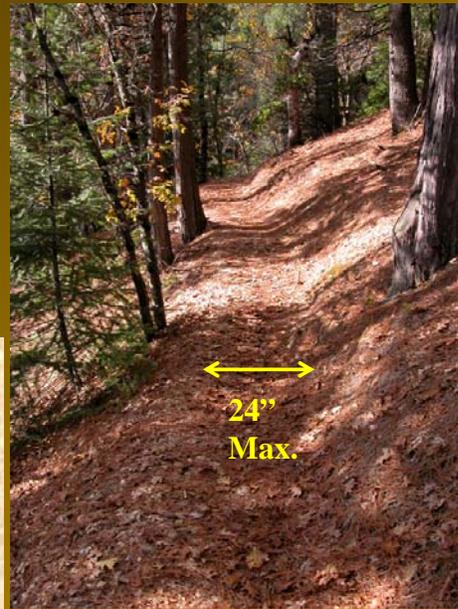
Construction Methods or Materials Prohibited by Regulation or Statute



Tool & Material Restrictions (Wilderness)



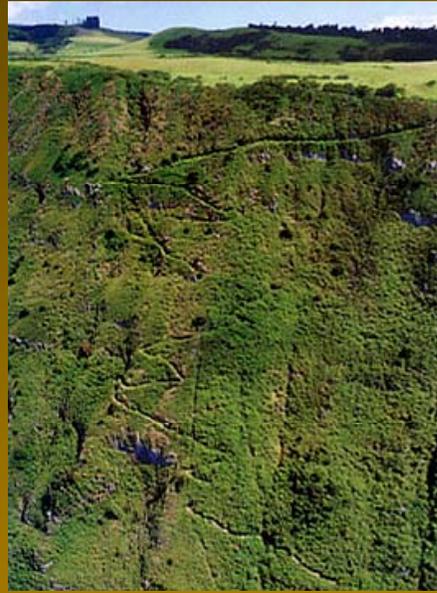
**Construction  
Methods or  
Materials  
Prohibited by  
Regulation or  
Statute**



**Conditions for Departure**

- 4. Where Compliance Would Not be Feasible Due to Terrain or Prevailing Construction Practices**

**Compliance Not Feasible due to terrain**  
**Steep Topography and No Reroute Options**



**Available Labor Force Lacks Requisite Skills, Knowledge or Equipment**



## **Exceptions to Technical Provisions**

- **In addition to the Conditions for Departures, REGNEG Recognized that Where Certain Physical Conditions Existed it Would be Impractical to Require That the Accessibility Guidelines be Met**
- **There are Four Exceptions That When Present Can Act as Exemptions to the Technical Provisions (Guidelines)**
- **When a Combination of One or More of the Conditions for Departure Exist and One or More of the Exemptions Exist, the Guidelines will not Apply Beyond the First Point of Departure**

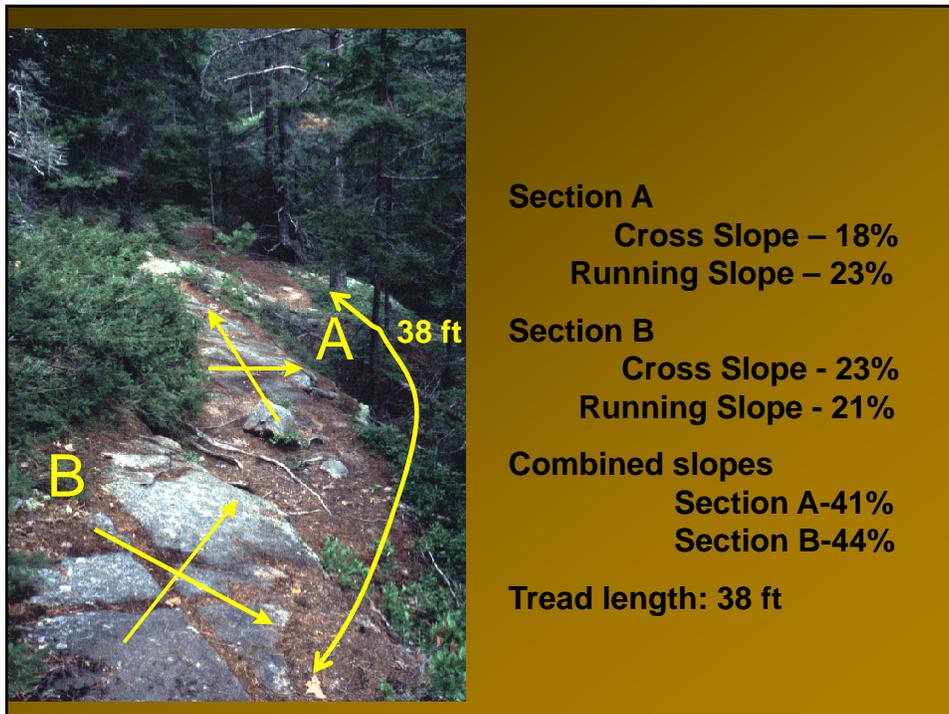
## **Exceptions to Technical Provisions**

- **If the Segment Between the First Point of Departure and the Trailhead is less Than 500 Feet Then the Technical Provisions do not Apply**
- **However, If There is a Prominent Feature Less Than 500 Feet From the Trailhead, the Trail Segment Between the Feature and the Trailhead Shall Comply With the Technical Provisions**

## Exceptions to the Technical Provisions (Guidelines)

### Conditions:

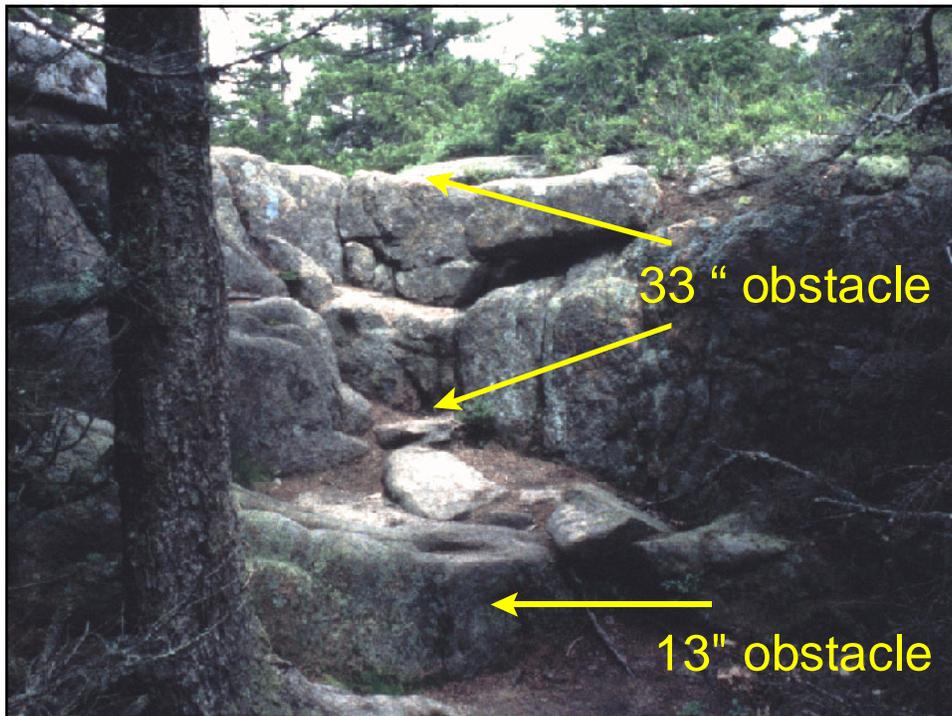
1. Cross Slope and Grade Combined, Exceed a Total of 40% for More than 20'



## Exceptions to the Technical Provisions (Guidelines)

### Conditions:

2. Tread Obstacle 30" High or More Across Full Tread Way



## Exceptions to the Technical Provisions (Guidelines)

### Conditions:

3. Tread Surface Not Firm and Stable for 45' or More



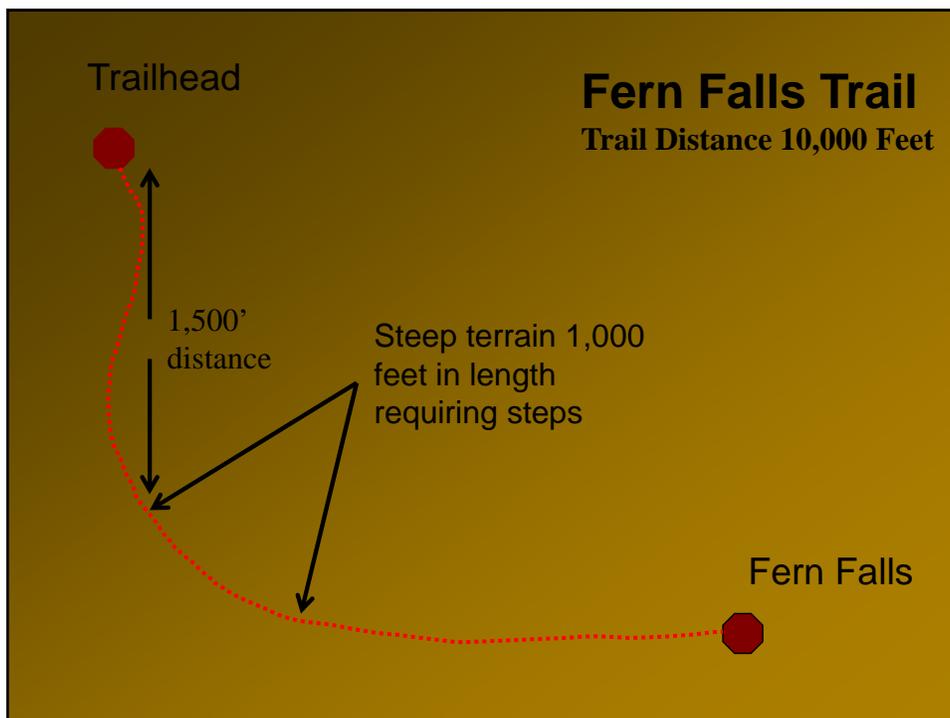
## **Exceptions to the Technical Provisions (Guidelines)**

### **Conditions:**

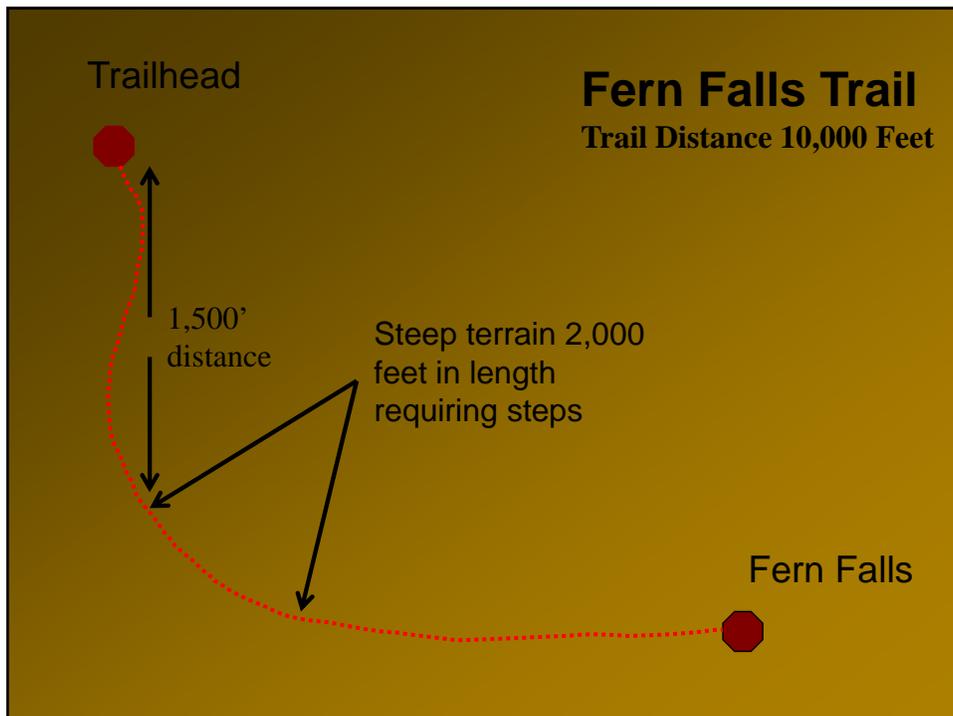
- 4. Tread Width is Less Than 12" for 20 Feet or More**



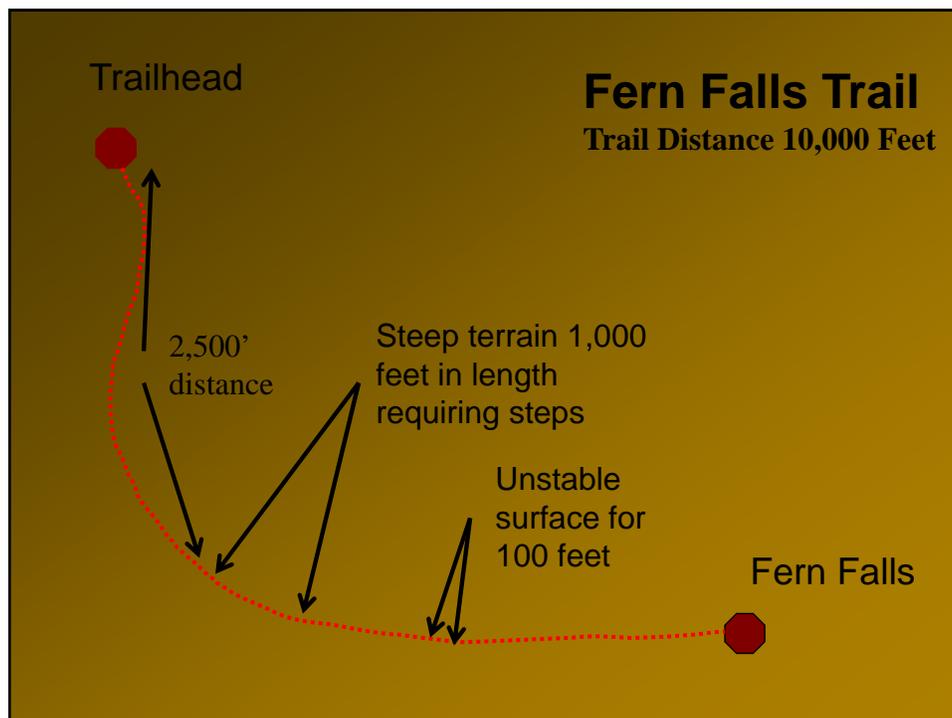
## Conditions for Departure and Exceptions Review



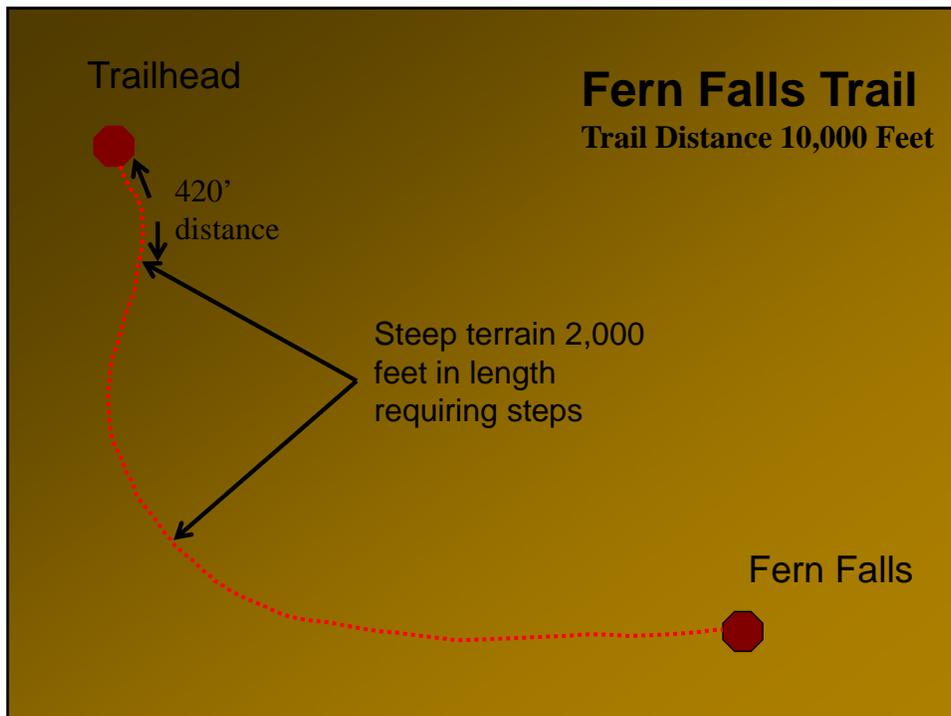
**If Any of the Four Conditions for Departure Constitute less than 15% of the Trails Length, Then the Trail Does have to Comply with the Technical Provisions (Guidelines) *Before* and *After* the Area of Departure.**



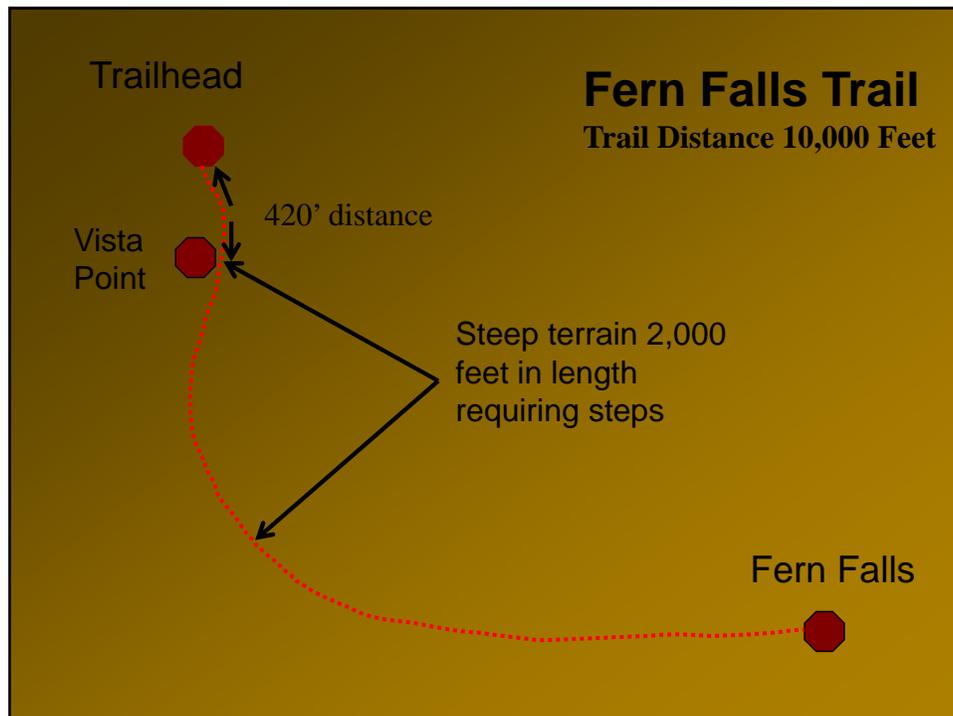
**If Any of the Four Conditions for Departure Constitute over 15% of the Trails Length, Then the Trail Does Not have to Comply with the Technical Provisions (Guidelines) *After* the First Point of Departure.**



**When a Combination of One or More of the Conditions for Departure Exist and One or More of the Exemptions Exist, the Guidelines will not Apply Beyond the First Point of Departure**



**If the Segment Between the First Point of Departure and the Trailhead is less Than 500 Feet, Then the Technical Provisions do not Apply**



**If There is a Prominent Feature Less Than 500 Feet From the Trailhead, the Trail Segment Between the Feature and the Trailhead Shall Comply With the Technical Provisions**

Compliance with Accessibility Requirements is Determined by Reconnaissance and Planning Efforts. Documented in NEPA/Environmental Process.



## Key Differences In USDA Forest Service Trail Accessibility Guidelines

- Identifies a change in trail class as an additional condition for departure under “Alter the nature or purpose of the setting”
- Exception: Combination of trail grade and cross slope exceeds 20% for over 40 feet (40% x 20')
- Exception: Minimum trail width is 18 inches or less for a distance of at least 20 feet (12" x 20')
- Written documentation is required when a determination is made that the technical provisions do not apply

## Key Differences In USDA Forest Service Trail Accessibility Guidelines

- Passing space design shall comply with the Architectural Barriers Act (T shaped)
- Where vertical clearance is reduced to less than 80 inches due to one or more of the conditions for departure a barrier shall be provided to warn hikers with visual impairments
- Identifies placement and content of trail signs

## **Trail Guidelines, Recommendations and Status**

### **Session Objectives Review:**

- **Identified who are users are**
- **Reviewed how accessible trails got to this point**
- **Reviewed when and where accessible guidelines apply**
- **Enhance Accessible Characteristics While Maintaining Trails**

## **Trail Guidelines, Recommendations and Status**

### **Session Objectives Review:**

- **Reviewed the proposed REGNEG guidelines**
- **Reviewed the four conditions for departure**
- **Reviewed the four exceptions to the guidelines**

## **Trail Guidelines, Recommendations and Status**

### **Conclusion:**

- **It is a Mind Set Change**
- **Design Accessible Components  
Without Resource Damage**
- **Provide Quality Outdoor Experience  
For All Users**