

Trails Technical Document #2

Trail Signage Guidelines for the NYS Park System

Prepared by
NYS Office of Parks, Recreation and
Historic Preservation
Planning Bureau
Agency Building 1
Empire State Plaza
Albany, NY 12238

April 29, 2010



Trail Signage Guidelines for the NY State Park System

A primary goal for all New York State Parks Trail Systems is to develop sustainable trails that have minimal impacts on the environment, require little maintenance, and meet the needs of the users. This document is one of a series of technical documents developed by State Parks to provide standards and guidelines for trail design and development, accessibility, and trail assessment and maintenance techniques that help ensure a sustainable trail system. Additional topics include guidelines for trail signage, trail monitoring, and trail closure and restoration. The complete list of technical documents is provided on the web at: <http://www.nysparks.state.ny.us/recreation/trails/technical-assistance.aspx>.

These documents were designed for use within New York State Parks but can be used as resources for trail projects outside of the Parks. Within State Parks, use of these documents for implementation of trail projects will be done in conjunction with a review and approval process as laid out in *Technical Document 7 - Trail Project Approval Process for NYS Parks*. These documents may be updated periodically. Additional documents will be developed in the future as part of this series.

This document describes common types of trails in New York State, reviews trail information that is used as a basis for producing trail signage, and then presents sign design standards and guidelines for State Park trails. Sign maintenance is briefly addressed, trail signage resources are listed, and supplementary material is attached.

Trail Signage Guidelines for the NY State Park System

March 2010



State of New York
David A. Paterson, *Governor*

Office of Parks, Recreation and Historic Preservation
Carol Ash, *Commissioner*

TRAIL SIGNAGE GUIDELINES FOR THE NEW YORK STATE PARK SYSTEM

STATE OF NEW YORK
David A. Paterson, *Governor*

OFFICE OF PARKS, RECREATION AND HISTORIC PRESERVATION

Carol Ash, *Commissioner*
Andy Beers, *Executive Deputy Commissioner*
Tom Alworth, *Deputy Commissioner for Natural Resources*
Thomas Lyons, *Director of Resource Management*

BUREAU OF RESOURCE AND FACILITY PLANNING

Robert Reinhardt, *Director*
Kurt Seitz, *Project Manager*
Diana Carter, *Associate Natural Resource Planner*
Christina Croll, *Senior Natural Resource Planner*
Richard Doll, *Parks & Recreation Aide*
Nancy Stoner, *Trails Planner*

OTHER OPRHP CONTRIBUTORS

Laura Conner, *Environmental Educator*
Eric Humphrey, *Park Manager, Minnewaska SPP*
Dominic Jacangelo, *Special Projects*
Audrey Nieson, *Interpretive Programs Coordinator*
Robin Schumacher, *Artist/ Designer*
Gregory Smith, *Historic Preservation Program Analyst*
Edward Yetto, *Artist/ Designer*

Bureau of Resource and Facility Planning
NYS Office of Parks, Recreation and Historic Preservation
Agency Building 1, 17th Floor
Empire State Plaza
Albany, NY 12238
Robert.Reinhardt@oprhp.state.ny.us
(518) 486-2909
Fax: (518) 474-7013

TABLE OF CONTENTS

INTRODUCTION.....	4
TYPES OF TRAILS.....	5
TRAIL INFORMATION.....	7
Names.....	7
Trail Assessment.....	7
Ratings.....	9
Etiquette.....	9
Safety.....	10
SIGN DESIGN.....	11
Materials, Graphics, and Techniques.....	11
Symbols.....	13
Markers and Blazes.....	13
Directional Signs.....	16
Trailhead Signs.....	17
Kiosks.....	20
Interpretive Signage.....	21
Regulatory and Cautionary Signs and Pavement Markings.....	23
SIGN MAINTENANCE.....	24
RESOURCES.....	25
APPENDIX 1: Sign Samples.....	28
APPENDIX 2: Schematic Drawings of Kiosks.....	34

INTRODUCTION

It is important that trail users have access to information regarding trails to enhance their experience. Trail information can be disseminated in a wide variety of formats, including kiosks, brochures, websites, guidebooks, and on-trail signs and blazes. But even with good trail guides and websites available, trail signage is indispensable. If trail users are uncertain about trail location or direction, they may become disoriented, or they may create new trails that damage the environment and become a challenge to rehabilitate.

A standardized sign system is a means of creating a cohesive and consistent image for State Parks, enhancing the overall appearance of parks, and providing simple guidelines that managers can follow to sign trails. However, care is needed to ensure that trail signs are harmonious with the nature of the trail environment while also being visible. A trail management plan should provide specific and detailed design recommendations, as well as information about installation of trail signs. The plan should ensure that signs do not overwhelm the trail in complexity or number, especially along backcountry trails. Too many signs deter from the trail experience and compete for the attention of the user. A balance must be reached between providing adequate signage for users to find their way and avoiding “sign pollution”.

Providing trail signs comes with a responsibility for long-term management. Managers should ensure that trail signs are maintained in good order and that the signs continue to reflect the nature of the trail. It should also be noted that any signage within a highway right-of-way must be approved by the managing highway agency.

The objectives of trail signing are to:

- improve the trail user experience;
- enhance the safety of people, vehicles, and property;
- improve travel within and between trail systems;
- increase comfort and confidence in navigating the statewide trail system;
- promote recreational trail use;
- protect the environment by directing visitors onto designated trails, thereby helping to avoid trampling of fragile trailside vegetation and prevent erosion.

The Trail Signage Guidelines provide guidance in achieving a comprehensive and uniform statewide system of trail signing for State Parks by:

- encouraging park managers to employ signage consistently and in a manner that is highly visible and clear;
- being flexible enough to accommodate special circumstances;
- utilizing standardized components, thereby reducing production, administrative, and maintenance costs;
- utilizing standard nomenclature and symbols that are consistent with NY State Parks Rules & Regulations.

This manual, designed for use by OPRHP park managers and staff, describes common types of trails in New York State, reviews trail information that is used as a basis for producing trail signage, and then presents sign design standards and guidelines for State Park trails. Sign maintenance is briefly addressed, trail signage resources are listed, and supplementary material is attached. This manual is provided to help guide development of future trail signage projects as well as provide guidance as outdated or worn trail signage/markers are replaced in parks. Park management is not expected to replace all trail signage to meet these guidelines.

Note: As part of any trail plans, trail signage modifications and trails map updates, managers are encouraged to provide updated trail maps and trails information to the park police. This is a critical link in cases of emergency as park police may coordinate with 911 centers and local emergency responders.

TYPES OF TRAILS

There are a variety of uses for trails and the type of signage for a specific trail is often dependent on what the trail is designed for. The trails framework categorizes trails by designed use, the use by which trails are most often identified. The designed use standard is the intended use that requires the highest level of development. Although numerous uses of a trail may be allowed, only one use is identified as the designed use with the exception of greenway trails, which are designed for multiple uses. **Accessible** trails are *frontcountry* pedestrian trails (greenway trails, short distance hiking trails, and interpretive trails) that are additionally designed to meet certain standards to accommodate persons with disabilities.

This document does not provide signage guidelines for highway routes used for recreational purposes, including bicycle routes and recreational motor routes. Signage guidelines for all highway uses are provided in the Federal Highway Administration Manual on Uniform Traffic Control Devices (MUTCD). Specifically, Section 9 of the MUTCD addresses Traffic Controls for Bicycle Facilities. Signage along public roads is usually managed by either the state Department of Transportation (DOT) or the local or county highway department.

Greenway trails are those shared use trails known variably as greenways, rail trails, recreationways, bicycle paths, bikeways, carriage roads, and community trails. They often have gentle grades, turns that are more rounded than on other types of trails, and surfaces hardened with asphalt or crushed stone. Greenway trails are therefore able to accommodate a multitude of uses that may include bicycling, hiking, strolling, jogging, inline skating, birdwatching, dogwalking, cross country skiing, snowmobiling, horseback riding, and picnicking, and trail users often travel at a higher rate of speed than users of other types of trails. User education about standards of behavior is encouraged through the use of trailhead signage. Greenway trails are often marked at regular intervals with distance markers, which show the mileage point from one end of the trail. Distance markers may include an official symbol for the trail and usually no other route markers are needed; however, directional, regulatory, and cautionary signs are all typically used along greenway trails.

Hiking trails are designed specifically for foot travel. Backcountry foot trails are typically designed to be the least intrusive type of trail upon the natural environment and therefore often have the fewest and simplest signs. Along many backcountry hiking trails, blazes or markers are the only type of signage used, other than directional signs at trail junctions. For marking and signing designated long distance trails, follow the guidelines approved by the managing agency or trail organization for each specific trail.

Mountain bike trails are typically designed for low-impact use and can range from general use to challenging. In addition to markers and regulatory signage that keep bikers on the designated trail route, mountain bike trails may also include signs that rate the trail's level of difficulty.

Horse trails are natural surface trails designed for equestrian use. They may be either double or single track and are most often part of a designated trail system where there is adequate space for a trail loop or a series of loops. Many horse trails are shared use trails and often accommodate winter

uses, such as snowmobiling or cross country skiing. Horse trail signs are generally placed at a higher level than signs for other summertime uses.

Cross country ski trails are designed specifically for skiing and are often a system of looped trails of varying difficulty over rolling terrain. Other winter uses are often prohibited along designated ski trails unless there is space alongside the ski tracks for the additional use. However, ski trails are often compatible with a variety of summer uses. Although it is possible for cross country skiers to use many different types of trails, those trails designed as ski trails should be designated and signed as such and may include signs that rate the trail's level of difficulty. Cross-country ski trails should be marked so that travelers unfamiliar with the trails can follow them during poor weather conditions, when there are no tracks to follow and when the lighting is poor.

Interpretive trails are pedestrian trails designed for interpreting natural or cultural features in the landscape. They are relatively short and are often laid out as a loop trail. Interpretive trails are often similar to greenway trails in construction and are often accessible to persons with disabilities but are not designed for through traffic. Interpretive trails usually have a very gentle grade and are meant for strolling at a casual pace. **Nature trails** are interpretive trails designed to educate users about natural features, natural history, or wildlife along the trail. **Fitness trails** are designed with specific features that can be used to increase the physical fitness of persons using the trail. Other interpretive trails are designed to educate users about cultural history along the trail. Interpretive trails are posted with distinctive interpretive signage and often with directional and regulatory signs as well. Fitness trail signs are similar to other interpretive trail signs, but they guide users in interpreting special fitness features of the trail.

Snowmobile trails form an extensive network across the state. OPRHP has produced a separate *New York State Snowmobile Trail Signing Handbook*, the guidelines of which should be followed for marking and signing designated snowmobile trails. Although most snowmobile trails are for snowmobile use only, there are other trails that allow snowmobile use. Proper signage is required for all users to safely share the trail.

Motor vehicle trails are not provided within the State Park System; therefore, guidelines are not provided within this manual for signing all-terrain vehicle (ATV), off-highway motorcycle (OHM), and four-wheel-drive (4WD) trails. In such special cases where off-highway motor vehicle use is permitted, such as ocean beach access, park managers should follow the general signage format provided in the MUTCD, available at <http://mutcd.fhwa.dot.gov>.

Water trails are recreational water routes that are designated for travel using either motorized or non-motorized water craft. In order to adequately accommodate recreational use, they need facilities such as docks, boat launch sites, day use areas, campsites, parking lots, and adequate public access. Although this manual may be used for general signage guidance, specific guidelines for providing signage along water trails should be sought elsewhere. Individual water trails may have trail-specific signs and signage guidelines that should be followed when available. American Rivers provides general water trail signage guidance at <http://www.bluetrailsguide.org/promote/>.

Park managers should refer to the U.S. Army Corps of Engineers Sign Standards Manual at <http://corpslakes.usace.army.mil/employees/sign/manual.html> or contact the U.S. Coast Guard First District Aids to Navigation Office at 616-223-8338 for waymarking standards for all navigable waterways.

TRAIL INFORMATION

The basis for producing trail signage is to provide information to trail users. It is appropriate to provide more information about a trail than simply marking a line on a map. It is therefore important to first fully understand what information is desired and to review the information you wish to present to be sure it is helpful and appropriate for each specific trail. Providing accurate, objective information about actual trail conditions will allow people to assess their own interests, experience, and skills in order to determine whether a particular trail is appropriate or is sufficiently accessible to them.

This section is meant to provide information to assist managers in producing signage and printed material. This information may not apply to all trails or all uses and should only be used in trail brochures or posted on kiosks as desired. It is important to not overwhelm trail users with too much information.

A variety of information formats may be used to convey trail information. Consideration should be given to providing written information in alternative formats such as Braille, large print, multiple languages, or an audible format. For example, the text of a trailhead sign could be made available on audiocassette or using a digital voice recorder. In addition, simplified text and reliance on universal symbols would provide information to individuals with limited reading abilities or limited understanding of the English language.

Names

Naming trails in State Parks may seem quite simple. However, some names, such as Mud Slinger Trail, could imply improper use of the park resource, poor environmental conditions, or access to a dangerous area. To avoid these situations, following some simple guidelines may help.

- Avoid naming trails after people.
- Avoid names that describe adverse conditions or improper use of the resource.
- Do not use a name that may be disrespectful to any cultural or ethnic group.
- Names that imply a destination or end point such as “Overlook Trail” or “Waterfall Trail” may be appropriate, but don’t use these types of names if the feature is an attractive nuisance or does not have appropriate viewing facilities.
- Names that have historic meaning are often used as long as there is no implication of an attractive nuisance or damage to cultural or archaeological resources.
- Trail names can be colors as long as the trail markers are coordinated to match the name. Don’t name a trail the “Blue Trail” and then mark it with a different colored trail marker.
- Trail names that describe a natural feature may be used. Names such as “Ridge Trail”, “Rim Trail” and “Valley Trail” are appropriate.

Trail Assessment

In order to provide adequate information about a trail or trail segment so that persons with disabilities can easily understand the difficulties they will encounter before setting out on that particular trail, it is necessary to evaluate the trail for accessibility. Accessible is a term used to describe a facility or trail that can be approached, entered, and used by persons with disabilities and that complies with standards established under the Americans with Disabilities Act (ADA) and Architectural Barriers Act (ABA). If a particular trail doesn’t meet those standards, the information obtained is still useful for individuals to determine whether or not that trail is appropriate for them. Objective information

about the trail conditions will enhance the accessibility, safety, and satisfaction of all trail users, both with and without disabilities.


The *Draft Final Accessibility Guidelines for Outdoor Developed Areas* (AGODA), published in 2009 by the federal Architectural and Transportation Barriers Compliance Board (“Access Board”), are the most recent standards used to design and construct pedestrian trails to be accessible, and to assess accessibility. Although the AGODA only applies to federal agencies or for trails that are designed or constructed using federal funds, OPRHP will follow the proposed guidelines as closely as practicable and apply standards consistently on all State Park pedestrian trails. For further details on accessible standards, refer to the AGODA at <http://www.access-board.gov/outdoor/index.htm>.

It is a goal of State Parks to assess trails for accessibility. As time and resources permit, the Geographic Information Systems (GIS) Unit of the OPRHP Planning Bureau collects basic trail data on the ground through the use of the Global Positioning System (GPS). All trails, but especially *frontcountry* pedestrian trails (greenway trails, interpretive trails, and hiking trails which have trailheads at a road), should be evaluated to determine the following, when practicable:

- Total trail length (in linear feet)
- Length of trail segments meeting accessible standards (in linear feet)
- Location of the first point of exception to accessible standards
- Running slope (average and maximum)
- Maximum cross slope
- Minimum clear tread width
- Surface type, firmness, and stability
- Tread obstacles that limit accessibility
- Elevation (trailhead, maximum, and minimum)
- Total elevation change

GPS data collection provides most of the information above but does not assess trails to determine whether or not they can be designated as accessible. Refer to the technical provisions of the AGODA for details on how measurements should be made to assess trails for accessibility. It should be noted that the assessment needs to include the distance from the user’s vehicle to the trailhead, as well as along the trail itself.

One method of trail evaluation uses the Universal Trail Assessment Process (UTAP), a system to collect and provide detailed information to the public about grade, cross slope, surface type, obstacles, and width of any type of trail. Beneficial Designs, Inc. developed UTAP to objectively document conditions in outdoor, natural environments in order to provide useful information for anyone who might want to use a trail, regardless of ability. UTAP training sessions are provided periodically and have been coordinated through Parks & Trails New York (518-434-1583 or ptny@ptny.org). More information on UTAP is provided on the National Trails Training Partnership website at <http://www.americantrails.org/resources/accessible/UTAPsum.html>.

In addition to physical design standards, accessible trails also have **official** sign design standards. Signs identifying trails and trail segments that have been designated as accessible shall be placed at the trailhead and at all designated access points. These signs shall display the official symbol  designating that the trail or trail segment is accessible, and shall include the total distance of the accessible trail or trail segment and the location of the first point of exception to accessible standards. Refer to the design guidelines for trailhead signs on pages 17-20 of this document for guidelines on signing **all** State Park trails with information on accessibility.

Ratings

Mountain bike and cross-country ski trails can be rated to signify their comparative level of difficulty. Difficulty ratings are based on the degree of challenge a trail presents to an average user's physical ability and skill by using trail condition and route location factors such as alignment, steepness of grades, gain and loss of elevation, and natural barriers that must be crossed. It should be noted that conditions are subject to change due to weather and other factors. Standard guidelines and symbols used for rating trails are outlined below.

Mountain bike trail difficulty ratings:



Easy (green): Appropriate for all users. Follows obvious, well-marked trails and roads. Grades are gentle, tread is firm and stable, and only minor obstacles may be encountered.



More Difficult (blue): Appropriate for users of intermediate to advanced ability. May have steeper terrain, narrower trail, variable tread, and some unavoidable obstacles.



Most Difficult (black): Advanced to expert. Requires great physical ability and navigational skill. Terrain steep. May be narrow with unavoidable obstacles and much variability in tread.

Cross country ski trail difficulty ratings:



Easy (green): Skiers need only basic knowledge and limited experience in the diagonal stride, snowplowing, and side stepping. Trail may have short downhill and uphill stretches.



More Difficult (blue): Skiers must be able to ski variably steeper terrain requiring turning, snowplowing, herringboning, and diagonal stride.



Most Difficult (black): Skiers must be experienced. Terrain is frequently extreme. Turns are often sharp and linked together with no room to snowplow or herringbone.

Etiquette

The following are suggested points to include in trailhead kiosk signage and in printed material for public distribution. These may be condensed for use as text on signs. This information will not apply to all trails or all uses and should only be posted as necessary in appropriate locations.

- Be friendly and courteous.
- Take only pictures. Leave what you find.
- If you carry it in, carry it out.
- Stay on the trail. Shortcutting the trail and bypassing muddy areas destroys vegetation, leads to erosion, reduces habitat quality, and causes unsightly damage to the landscape.
- Avoid using trails when they are excessively muddy.
- Respect wildlife. Keep your distance. Never feed wild animals.
- Respect private property.
- Respect other visitors and their experience. Avoid excessive noise.
- Use extra caution when using headphones. You may not be able to hear warnings.
- Keep your dog under control at all times.
- Follow "Leave No Trace" principles.
- Keep yourself and your bike or horse under control and proceed at a safe speed and within your ability at all times. Anticipate other trail users around blind curves.
- Share the trail. Keep to the right except to pass. When in doubt, give the other user the right of way. Warn people when you are planning to pass.

- Bicyclists yield to pedestrians and equestrians. Runners and hikers yield to equestrians.



Safety

The following are suggested points to include in trailhead kiosk signage and in printed material for public distribution, as appropriate. These may be condensed for use as text on signs. This information will not apply to all trails and should only be posted as necessary in appropriate locations.

- Do not leave anything valuable in your car. If you do experience a break-in, be sure to report it to law enforcement authorities.
- Do not leave food in your car or in a trail shelter. Any food that is left in an unsealed container is an attraction for wildlife. Bears have been known to break into cars if they smell food. Even unopened containers left in trail shelters have been broken into by wildlife. If you must leave food, use a bear-proof canister and secure it out of the reach of bears.
- Do not drink unpurified water from open streams, lakes, or ponds. Bring water from home or use a water purifier.
- Be aware of your surroundings and be prepared to report your location by trail name and distance from significant landmarks or trailheads in the event of an emergency.
- Avoid dehydration by drinking water regularly. You know you are drinking enough if you urinate often and the urine comes out clear.
- Avoid getting lost by staying with your group, staying on the trail, and paying attention to trail markers. If lost, either backtrack or use a cell phone to call for assistance.
- Avoid heat exhaustion and heat stroke, which can be deadly. Stay cool and avoid the sun in the heat of the day. Drink plenty of water. Wear lightweight, light-colored clothing that blocks and reflects the sun.
- Avoid hypothermia by staying dry, wearing appropriate layered clothes (no cotton), avoiding exposure to wind, drinking plenty of water, and eating high-energy food in cold weather to stay warm. Hypothermia usually occurs gradually and hypothermic people are often not aware that they need help. Hypothermia can result in shivering, stumbling, slurred speech, reduced breathing rate, fatigue, and eventually cardiac and respiratory failure and death.
- Avoid insect pests by learning which insects are prevalent in your area at the time you are on the trail, wearing protective clothing, avoiding perfumes, including perfumed hair sprays, shampoos, and soaps, and covering exposed areas of your body with insect repellent.
- Avoid exposed areas when thunderstorms may occur. Take cover in advance of a storm and stay away from tall trees and bodies of water. Take off metal backpacks. Crouch down on dry ground with an insulating object under your feet.
- Avoid poisonous plants by learning to recognize poison ivy, poison oak, and poison sumac. Avoid contact by wearing long pants and sleeves in areas where poisonous plants occur and washing your clothes when you leave the trail.
- Be prepared for inclement weather by checking the weather forecast before you hit the trail. Be aware of signs of worsening weather and prepare to take an alternate route or return to your vehicle. Carry alternate clothing, plenty of food and water, and map and compass if necessary.
- Be prepared for adverse trail conditions, including fallen trees, washouts, landslides, floodwaters, and patches of ice and deep snow.

SIGN DESIGN

Signs should be located where they can easily be seen by trail users and should present information in a format that is easy to understand by all users. The text should be limited to what is necessary and should be supplemented by graphics that are universally understood. Design standards and guidelines for OPRHP interpretive signage have not yet been developed; consult with the Interpretation Unit at Peebles Island State Park for design guidance and review, or for design services, for interpretive signs. Detailed design guidelines for various types of signs are listed in the Resources section of this document and may be helpful for additional guidance.

Materials, Graphics, and Techniques

Signs may be constructed using different types of materials, which may vary depending on the type of sign being produced. Sign faces that are constructed from metal or synthetic materials can be painted or colored to match the environment. Factors to consider when choosing materials include budget, aesthetics, durability, maintenance costs, and replacement cost due to vandalism or theft.

- **Wood** is traditionally used for many types of trail signs since it is a natural material, aesthetically pleasing, and readily available. Wood can be used as backing for signs, support for signs, or as the signs themselves. When choosing wood, particular consideration needs to be given to adaptability and resistance to weather conditions. Locust and oak are extremely durable but not easy to work with and subject to splitting and warping. Cedar is weather-resistant and easy to work with but not as vandal-resistant. Wood should be straight-grained, dry, knot-free, and at least two inches thick. Proper sealing and preserving of wood will enhance its durability. Linseed oil is a natural preservative and sealer that provides a natural appearance but it gradually darkens the wood and should be reapplied each year. Wood may not be the most environmentally sustainable material to use when taking into consideration the entire life cycle of the sign, including all required materials and energy, as well as disposal of materials. If wood is used for making signs, consideration should be given to choosing wood that grew locally or that has been certified sustainable by a reputable wood certification system.
- **Plastics, Fiberglass (fiber-reinforced polyester), and Composites** are widely available, easily adaptable, weather-resistant, fairly inexpensive, and a good choice for smaller signs and for signposts. Reflective material may be desirable for sign surfaces for high visibility in the dark. Plastics may not be appropriate in more primitive locations.
- **Aluminum** is widely available, lightweight, durable, and most useful for traffic control signs. However, aluminum is more expensive and may not be appropriate for larger signs, especially where a more natural appearance is desired.
- **Steel** is more affordable and durable, but it weighs more than aluminum and requires special treatment to inhibit rust (stainless or galvanized steel).
- **Stone** is best used for cairns where other methods of marking trails are impractical, and as a decorative base for larger signs that require posts.

An effectively designed sign face is clear, concise, simple, and legible with well-spaced typography and plenty of space in the margin. Text for signs should be left-justified and use both capital and small-case lettering (except for *wooden* directional signs, which use all capital lettering). Universal symbols should be used when possible. The following fonts are preferred for OPRHP trail signs, with the exception of *wooden* directional signs and interpretive signs:

Gatineau

Souvenir

Helvetica

The chart below is a guide to determining the **minimum** letter size based on the desired **maximum** distance at which a proposed sign is to be viewed. A research ophthalmologist working with the U.S. Army Corps of Engineers established a viewing distance of 28 feet per inch of letter height for Helvetica Medium font and a visual acuity of 20/40.

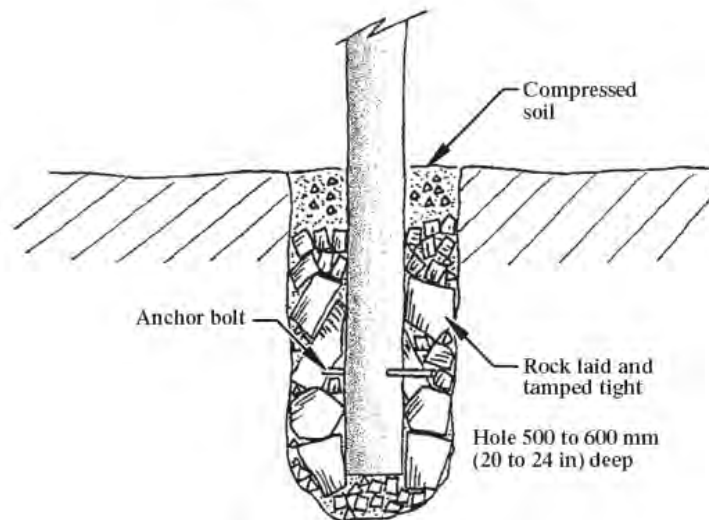
Viewing distance (feet)	Capital letter height (inches)
0-20	0.75
21-27	1
28-41	1.5
42-55	2
56-83	3
84-111	4

Standard colors are white lettering on a brown background. Paint should be high-quality (two part epoxy will not fade) and compatible with the surface it is used on, as well as compatible with any preservatives used on wooden surfaces. Reflective paint, which may be desirable for high visibility in the dark, is available in Pantone Matching System (PMS) 1615, a shade of brown that is similar to that used on highway signs. PMS 1615 is suggested as the standard background color for OPRHP signs (PMS 1615 color samples shown below are from various sources and are not exact).











Signs needing their own support should be installed using one or two 4"x4" posts eight feet long placed approximately 24" into the ground with a theft-resistant anchor bolt. Posts of brown or gray recycled composite material are best for more developed areas (dark brown is suggested as the standard). A single wooden signpost may be used in primitive areas (cedar is best). Postholes should be filled with either concrete or rocks and covered with compressed soil. The sign should be attached to the post using theft-resistant, corrosion-resistant hardware such that the top of the sign is level and even with the tops of the signposts.








Signpost Installation



Symbols

The following recreation symbols should be used on trailhead signs, at trail junctions and road crossings, and on maps to indicate permitted uses of the trail. In addition, trail difficulty rating symbols can be used on mountain bike and cross country ski trails that have been rated for level of difficulty. Except for difficulty rating symbols, colors can be modified to coordinate with trail markings.

Symbol	Use
	Hiking (pedestrian)
	Snowmobiling
	Equestrian (horse trail)
	Bicycling
	Mountain Biking
	Cross Country Skiing
	Interpretive (cultural history or nature trail)
	Fitness

Symbol	Use
	Accessible (must conform to specific standards)
	Inline Skating (roller blading)
	Skateboarding
	Snowshoeing
	Easiest (green)
	More Difficult (blue)
	Most Difficult (black)

Markers and Blazes

The most basic trail signs are those that identify the trail. These signs may provide the name of the trail, mark the route of the trail, or include simple information, such as difficulty rating, mileage point, and symbols that show allowable uses of the trail. Where directional signs are used, identification of the trail is often incorporated into the directional sign.

Waymarks are small, simple signs that mark the route of the trail and reassure trail users that they are on the trail. Trails can be marked in many ways. Blazes can be painted on trees, stakes, or other objects, posts can be set into the ground, markers can be nailed to trees or posts, or cairns (piles of rocks) can be carefully erected. Regardless of the method used or type of trail being marked, each specific trail should be marked clearly and consistently and the marking should conform to a standard

color, shape, and size. Where trail conditions prevent the use of the standard marker, an alternative can be used.

The preferred method of marking NY State Park system trails is to use colored plastic or metal markers nailed to trees or posts. Plastic markers are less expensive but may not last as long as metal markers. Markers of various colors, shapes, and sizes are useful for distinguishing between multiple trails and between different types of trails. However, it should be noted that a large number of people are unable to distinguish between different colors; therefore, trail intersections should be well-labeled using different symbols or text (on markers or signs) to signify different trails. Markers with arrows may be used to indicate major changes in direction along a trail.

Distance markers may be used to show the mileage from either end of the trail or from a designated trailhead. These types of markers, typically used along greenway trails, can be very useful in emergency situations and for maintenance purposes. They are often placed every quarter mile, although placement at tenth-mile intervals may be preferable. Use of distance markers is encouraged along all frontcountry trails and should include a unique identifier, such as the trail name. Where distance markers are used, other methods of marking the trail are usually unnecessary. Distance markers are often imbedded in a post that is placed into the ground alongside the trail using vandal-resistant hardware. Alternatively, distance markers can be metal or plastic markers nailed to trees or attached to posts; however, these types of specialized markers are prone to theft. Whichever method is used, the design of distance markers should be consistent along the entire length of the trail on which they are placed.

On long distance trails, it is not cost effective or desirable to use official trail markers as the sole method of marking a trail. Other less costly, less visually obtrusive, and more vandal-resistant methods should be used between widely-spaced markers. The preferred method is to use paint blazes, typically vertical rectangles painted on trees, posts, and other objects along the trail. The typical standard size for trail blazes is 2"x6", although the New York – New Jersey Trail Conference standard is 2"x3" (2"x4" for the Long Path). Acceptable blaze sizes along OPRHP trails are 2"x3", 2"x4", and 2"x6"; however the size of blazes must remain consistent along each particular trail. To maintain continuity along designated long distance trails, such as the Appalachian Trail, follow the marking guidelines approved by the managing agency or trail organization for each specific trail.

The following guidelines should be followed when deciding which type of marker to use for each type of trail. Note that shape and color may be indicative of the difficulty rating for mountain bike and cross country ski trails. Along shared use trails, typically only one method of marking or type of marker should be used, with the exception of snowmobile trails.

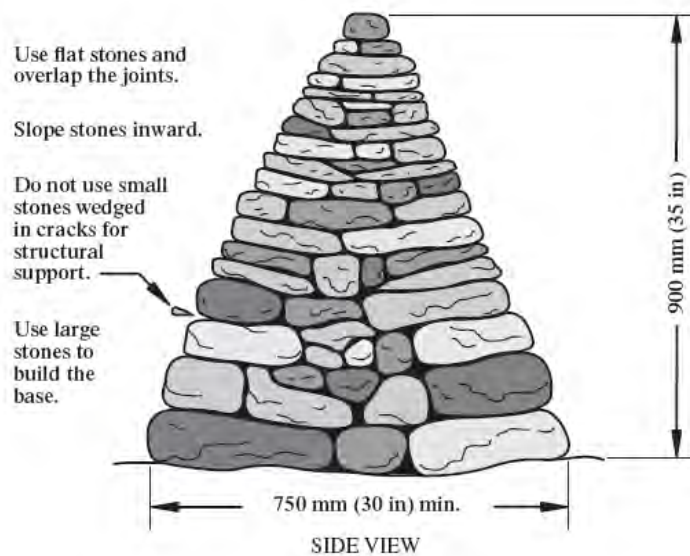
- **GREENWAY TRAILS:** Use distance markers and/or 4" square markers. Do *not* use BLUE or BLACK background colors; *avoid* ORANGE in areas with snowmobile trails.
- **HIKING TRAILS:** Use 3" round markers OR blazes. A symbol or "FOOT TRAIL" text may be included on markers. Do *not* use GREEN colors. On long distance trails, blazes may be used as the standard method; markers with trail-specific symbols should be used at trail intersections and at quarter-mile intervals along the trail.
- **MOUNTAIN BIKE TRAILS:** Use distance markers and/or 3" round markers. A symbol or "BIKE TRAIL" text may be included on markers. Difficulty rating symbols may be used if trail is rated (optional); use GREEN, BLUE, and BLACK background colors *only in association with the corresponding difficulty rating of the trail.*
- **HORSE TRAILS:** Use distance markers and/or 3" or 4" round markers. A symbol or "HORSE TRAIL" text may be included on markers. Along trails shared with cross country skiers or mountain bike users: use GREEN, BLUE, and BLACK background colors *only in association with the corresponding difficulty rating of the trail.*

- **CROSS COUNTRY SKI TRAILS:** Use 3” or 4” round markers OR 4” square diamonds. A symbol or “SKI TRAIL” text may be included on markers. **YELLOW** or **RED** colors are preferred, not **WHITE**; avoid **ORANGE** in areas with snowmobile trails. Difficulty rating symbols may be used if trail is rated (optional); use **GREEN**, **BLUE**, and **BLACK** background colors only in association with the corresponding difficulty rating of the trail.
- **INTERPRETIVE TRAILS:** Use distance markers, if necessary.
- **SNOWMOBILE TRAILS:** Refer to the NYS Snowmobile Trail Signing Handbook.

Samples of trail markings are provided below.





Cairns



Trail markings should be visible, yet unobtrusive, balanced according to the characteristics of the trail. In addition to indicating the trail route and reassuring users that they are on the trail, markers can also serve to influence the path taken by trail users, thereby helping to avoid trampling of fragile trailside vegetation and to prevent erosion.

General guidelines to use when marking trails:

- Use aluminum nails for attaching markers. Aluminum resists corrosion better than other metals and will not damage a saw when a future cut is made across a hidden nail.
- When driving nails into trees, be sure to leave a sufficient length protruding (approximately ½ inch) to allow for future tree growth. An exception can be made in areas of frequent vandalism or theft.
- Place waymarks at eye level of the user, when possible. Eye level will be different depending on the type of trail user and amount of snow cover. (Waymarks should be placed higher on horse and cross-country ski trails.)
- Be sure to mark trails in both directions, first from one direction and then from the opposite direction, in order to gain each perspective. It may not be appropriate to simply put markers on opposite sides of the same tree.
- Trails need to be continuously marked, including when they follow roads. Mark trails such that the next waymark is clearly visible from the previous one. However, avoid placing waymarks so that more than one is readily obvious from the previous. One well-placed blaze or marker is better than several poorly placed blazes or markers.
- Be sure to keep vegetation pruned from in front of waymarks at all times, sufficiently allowing for summer growth.
- Painted blazes should have sharp corners and straight edges so that they are easily distinguished from natural objects when viewed from a distance. Blazes are best painted on trees larger than 3” in diameter with thick, darker bark that has been scraped smooth before painting.
- A double blaze, one above the other, signifies a sharp turn in the trail. Double blazes may be offset to signify the direction of the turn such that  signifies a right turn and  signifies a left turn.

Directional Signs

Directional (destination or wayfinding) signs are rectangular and are placed at trailheads, trail junctions, and road crossings. Directional signs should be mounted on a 4”x4” post and must be readily visible to trail users. Information on directional signs includes:

- the name of the trail
- significant destinations (maximum of 4)
- the distance to each destination
- the direction to each destination (an arrow, unless the direction is obvious by the placement of the sign)
- the name or logo of the managing agency and/or maintaining organization may also be included.

The suggested material to be used for directional signs is a composite of phenolic resin with a polycarbonate laminate surface. This type of material is extremely durable and resistant to weather, ultraviolet radiation, and vandalism. Specific details on composite material for signs are available from the Saratoga-Capital Region’s Sign Shop. When composite signs are used, the above guidelines for Materials, Graphics, and Techniques (pages 11-12) should be followed and consideration should

be given to using reflective surfaces for high visibility in the dark. A vertical format may be used (long side is vertical) if the lettering conforms to the minimum size standards (see chart on page 12).

In primitive backcountry locations, it may be desirable to construct directional signs in a more traditional manner using wood. In this case, the text would consist of all capital letters, 2" high for the trail name with all other letters 1" high; letters may be routed first before they are painted white. The following examples of directional signs have the traditional design using wood.



Trailhead Signs

A trailhead is the primary starting point of a trail. A trailhead sign is used to provide trail-specific information at the trailhead of each trail. However, trailhead signs may be posted on an informational kiosk if the kiosk is at the trailhead of a single trail. In locations without a trail-specific kiosk, the single-sided trailhead sign should be posted conspicuously so that it is readily visible to users entering the trail. At secondary trail junctions and road crossings, managers may choose to use marker posts to provide trail-specific information instead of using trailhead signs.

Information on **all** trailhead signs should include:

- Trail name
- Symbols showing allowable uses of the trail
- Total trail length
- Trailhead elevation along with maximum and minimum trail elevations
- Surface type, firmness, and stability
- Known trail hazards
- Difficulty rating for cross country ski and mountain bike trails, if rated. Most trails should only have a statement of difficulty that "Most people will find this trail to be..."
- A statement that posted information reflects the conditions of the trail when it was constructed or assessed (include the date) and that events beyond the control of park staff can make trails temporarily inaccessible.
- Map of trail: either a trail-specific map or a park/ vicinity map with the trail highlighted. A standard trail map (example on page 19) comprises approximately half of the trailhead sign. Copies can also be printed on paper for patron use.



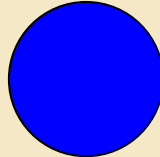
New York State Office of Parks, Recreation and Historic Preservation
Saratoga-Capital Region

Happy Falls Trailhead

Trail Length: 2.3 miles



FOLLOW



MARKERS

The Happy Falls Trail is one of the most scenic trails within Happy Falls State Park. Most people will find this trail to be moderately challenging. Known hazards include steep drops, poisonous plants, and roots and large rocks in the treadway. This trail is open for hiking, mountain biking, and snowshoeing only.

Trailhead Elevation: 1103 feet

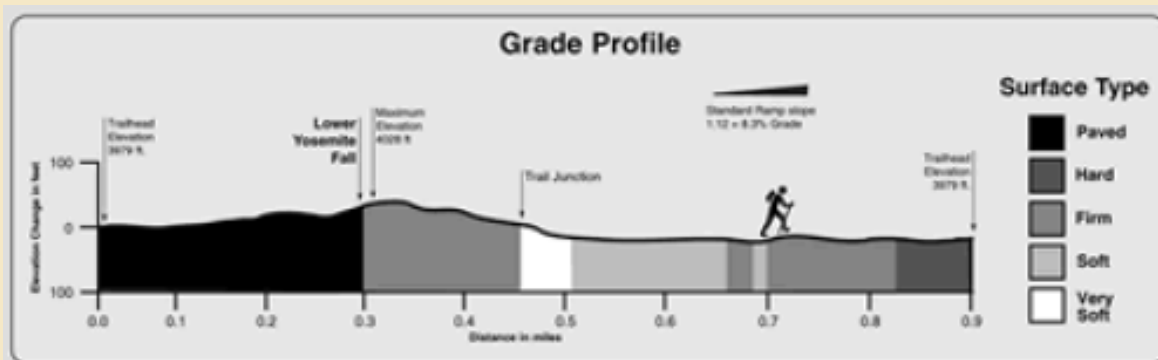
Maximum Elevation: 1288 feet

Minimum Elevation: 1004 feet

Cumulative Elevation Change: Gain 327 feet, Loss 426 feet

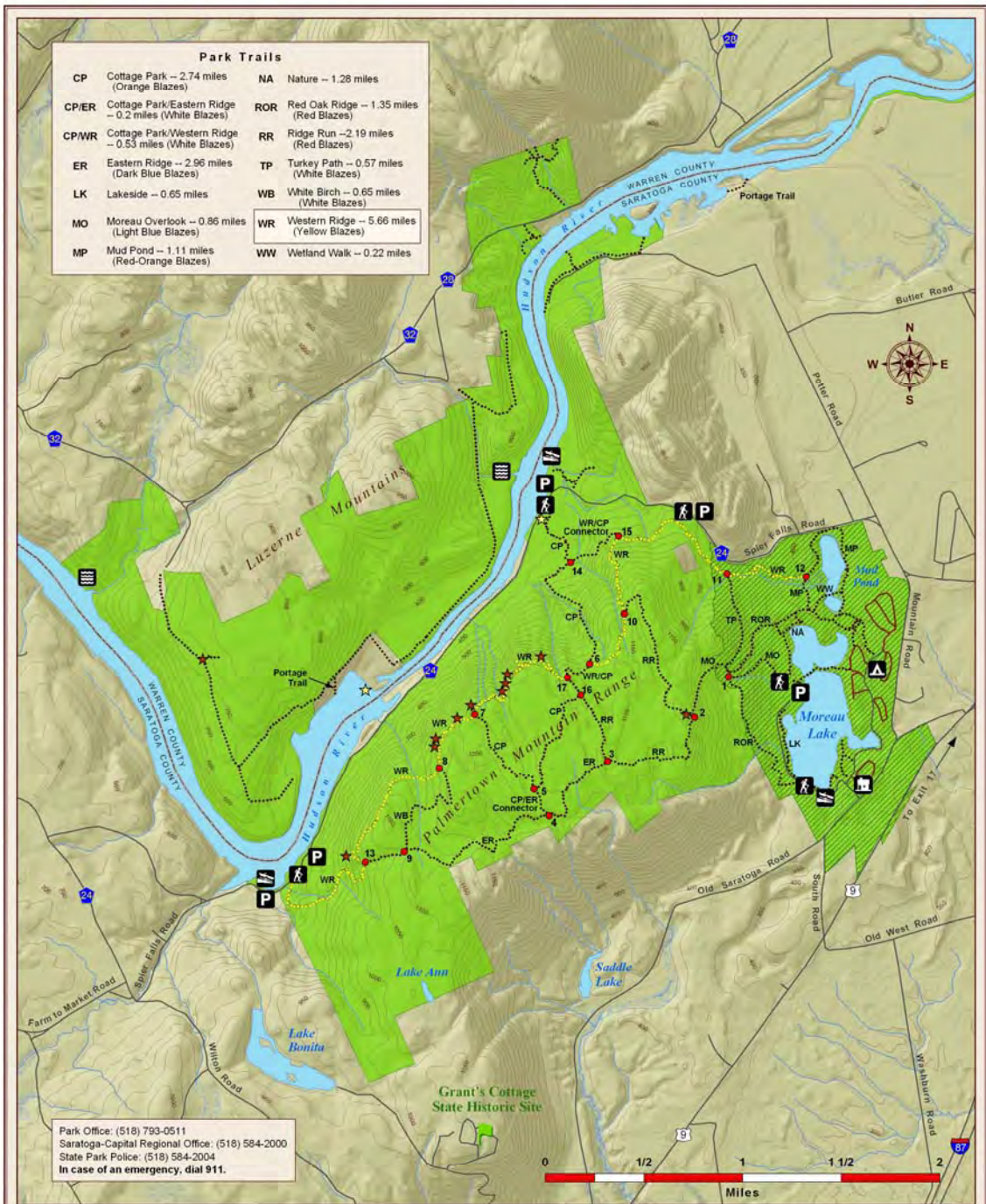
Trail Surface: natural; roots, rocks, and soft spots

Average Grade: 6%



PLEASE NOTE: Trail conditions may have changed since this trail was assessed. Information is accurate as of the assessment date. Events beyond the control of park staff can make trails temporarily inaccessible. Obstructions may include fallen trees, landslides, washouts, etc. For your safety, please remain on marked trails.

August 2009



TRAIL MAP


Moreau Lake State Park

Map produced by NYS Office of Parks, Recreation and Historic Sites, September 2005

Legend

state park	park office
state park (no hunting)	parking
water	trailhead
wetlands	camping
streams	water access camping
50' contour	boat launch
roads	historic sites
camping loops	scenic overlook
trails	intersection

Please be considerate of other park users.
Please report any accident/incident immediately to park staff.

Accessible trails: Signs identifying trails and trail segments that have been **officially** assessed and designated as accessible to persons with disabilities shall be placed at the trailhead and at all designated access points. These signs shall display the official symbol  designating that the trail or trail segment is accessible, and shall include the total distance of the accessible trail or trail segment and the distance to the location of the first point of exception to accessible standards. Marker posts may be used to display accessibility information at access points without trailhead signs. Decals are readily available to attach to flexible fiberglass marker posts. Where more extensive trail information is provided, the location of specific trail features and obstacles that do not comply with accessible standards should be identified.

When available, the following additional information should be included on trailhead signs:

- Trail-specific trail symbol
- Running slope (average and maximum grade)
- Cross slope (average and maximum)
- Cumulative elevation change (gain and loss)
- Profile of the trail grade showing changes in surface type and accessibility
- Clear tread width (minimum and average)
- Tread obstacles (magnitude and frequency)
- Any major height obstacle, such as boulders, in the trail tread

The conceptual sign presented on pages 18-19 is intended for use as a template to guide the design of OPRHP trailhead signs. The two pages represent two halves of a single trailhead sign, which may be integrated into a larger trailhead kiosk if desired. The size of the trailhead sign should be such that both text and graphics are easily readable. The minimum size should be 12"x18". Background colors, margins, and sizes of text and images are subject to change. The information included on each sign is subject to what is available.

It is recommended that **all** OPRHP trailhead signs conform to the style of this template. The standard for a trailhead sign that is presented here provides for a very simple sign that will be readily recognizable as the trailhead sign while avoiding an excessive amount of information that may deter some trail users from reading the sign. However, it may be desirable to provide other information, such as interpretive text and images, at a trailhead kiosk in addition to the standard trailhead sign. In this case, the standard sign can be integrated with the additional signage; however, the standard trailhead sign should retain its distinctive character as a separate section of the larger sign.

Kiosks

Trail information kiosks provide a central location, typically near trailheads or adjacent to parking areas, to welcome visitors to one or more trails and to prevent sign clutter by consolidating visitor information in one place. If there is only a single trail in the area, the kiosk may be located at the trailhead and include the trailhead sign. All kiosks should display an overall park map showing facilities and trails, either as part of the trailhead sign or displayed separately. A map of a large park could be displayed across one entire side of the kiosk. The trail information kiosk may also include brochures and maps, provide a location for a trail register, and provide additional information such as trail conditions and amenities, trail etiquette, area characteristics, local history, trail organizations, degree of accessibility, rules and regulations, interpretive programs, and upcoming events. Emergency contact information should be clearly posted on kiosks and should include State Park Police contact information.

Interpretive kiosks are used to educate visitors about natural, cultural, historical, or recreational features of a park or trail. An interpretive trail may have a series of kiosks at intervals along the trail. For other trails, there may be only a single interpretive kiosk at or near the trailhead. Design standards for OPRHP interpretive kiosks are not yet in place but will be added to this document once they are developed.

Design specifications for two types of kiosks used in state parks are attached as an appendix to this document and can be used as a basis for designing trailhead kiosks. One design includes a single panel on each side of the kiosk and the other design is for duplicate panels on each side. Although these designs accommodate 32"x48" panels, the size and style of the kiosk can vary depending on what is needed for each specific site. For example, a bulletin board could be included for patrons to post temporary notices, or a single large panel could accommodate several smaller signs. Be sure that the kiosk is designed to accommodate the needs of its intended location.

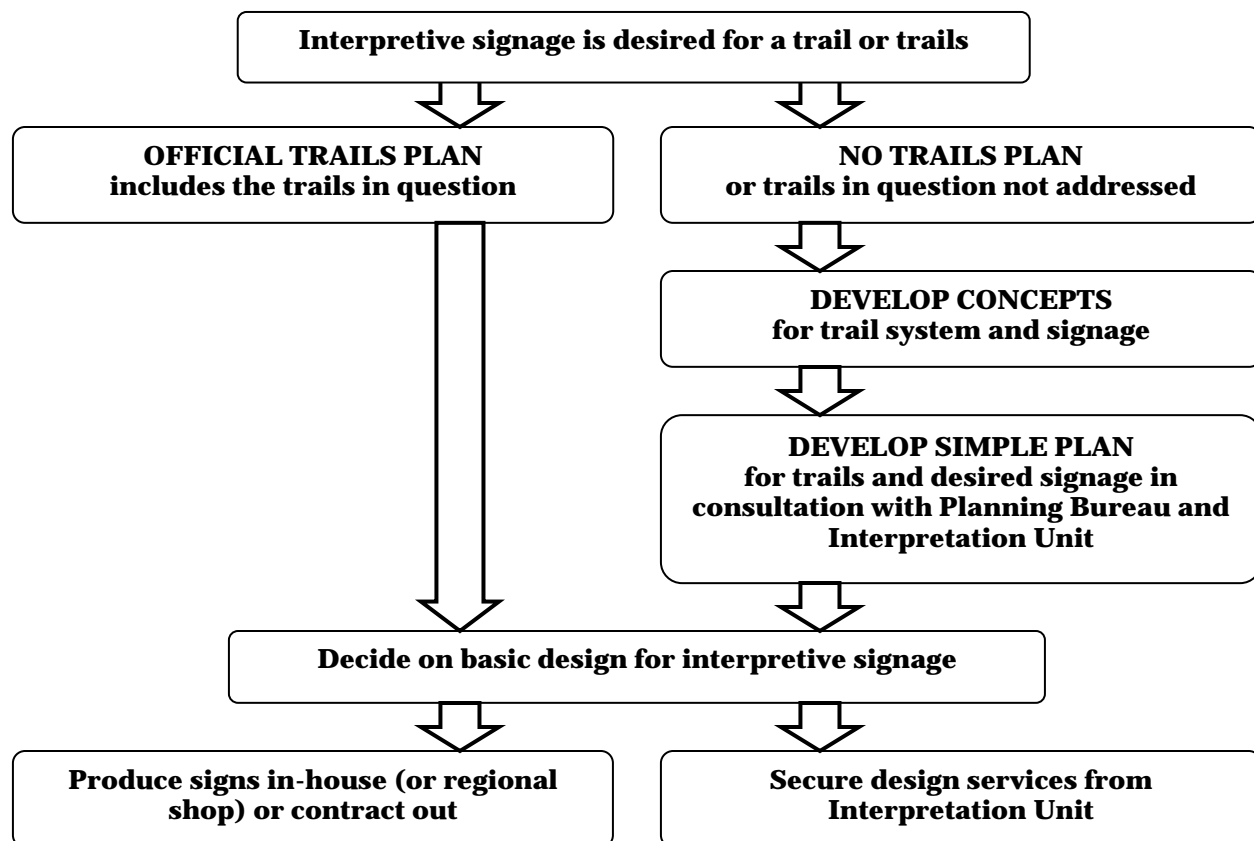


Pelton Pond Trailhead Kiosk, Fahnestock SP

Archery Field Interpretive Kiosk, Letchworth SP

Interpretive Signage

Interpretive signs point out features of interest along the trail and educate trail users about those features, which can be natural, cultural, historical, or recreational. Interpretive signs can also direct users to avoid impacting ecologically sensitive areas and educate recreational users about the environment, thereby creating a new purpose for recreational trails. The completion of a trails plan prior to producing interpretive signs will accelerate the design process, as outlined below.



OPRHP does not currently have standards in place for interpretive signage. When standards and guidelines are developed, they will be added to this document. In the absence of an official trails plan, individual parks should consult with the Interpretation Unit at Peebles Island State Park and with the OPRHP Planning Bureau for design guidance and review. When selecting projects for which it will provide design services, the Interpretation Unit will consult with the Trails Planner and the head of the GIS Unit (both within the Planning Bureau) and with the Environmental Educator. The Interpretation Unit can not provide design services for all signage projects.

The following sign manuals may be helpful when planning for interpretive signage:

- *Lake Champlain Wayside Exhibit Manual, Second Edition*. April 2004.
<http://www.lcbp.org/wayside/manual.htm>
- *New York State Coastal Resources Interpretive Program (NYSCRIP) Signage Design Guidelines*. January 2003.
http://nyswaterfronts.com/downloads/pdfs/NYSCRIP_FINAL_VERS_1_27_03.pdf
- *New York State Scenic Byways Sign Manual*. August 2005.
<https://www.nysdot.gov/programs/scenic-byways>
- *New York State Canal System Signage Design Guidelines*. March 1999.
<http://www.nyscanals.gov/corporation/signage-guidelines.pdf>
- **National Park Service UniGuide Sign Program**. 2002-2008. Documents available from the OPRHP Planning Bureau or the Saratoga – Capital Region Sign Shop. Background information available at these websites: <http://www.nps.gov/hfc/products/uniguide.htm>
http://nps.buntinggraphics.com/pages/uniguide/UniGuide_Overview.pdf
- *U.S. Army Corps of Engineers Sign Standards Manual*. June 2006.
<http://corpslakes.usace.army.mil/employees/sign/manual.html>

- **U.S. Bureau of Reclamation *Sign Guidelines for Planning, Designing, Fabricating, Procuring, Installing, and Maintaining Signs for Outdoor Public Use Areas***. October 2006. <http://www.usbr.gov/pmts/planning/signguide2006.pdf>

Regulatory and Cautionary Signs and Pavement Markings

Some regulatory signs convey information about park and trail regulations and others serve as traffic control devices. To present a positive tone and to reduce over-signing, regulatory signs should emphasize allowable uses and, where possible, use symbols instead of text. In problem areas, prohibited uses can be shown as symbols with a slash across them. Regulation signs should be placed on trailhead kiosks; other regulatory signs should only be used along trails as necessary. Boundary signs are placed along State Park boundaries, both to mark the boundary and to provide regulatory information to trail users entering or leaving the park.

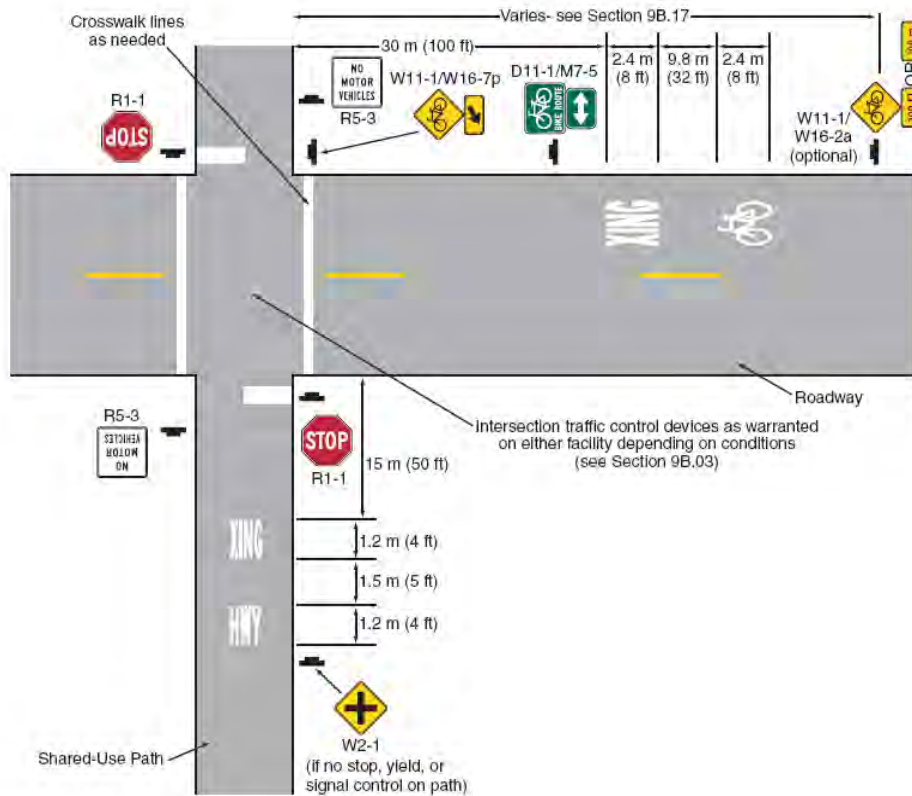
Some cautionary signs point out potentially hazardous conditions along the trail, such as road crossings, narrow bridges, barriers, surface changes, sharp turns, and steep drops. They should generally be posted in advance of the specific area or site of concern. Other cautionary signs provide important information for the safety and well-being of visitors. These informational signs should be limited to trail information kiosks.

Be especially conscious of the potential for too many regulatory and cautionary signs and try to keep trailhead kiosks aesthetically pleasing by designing and arranging signs in a harmonious fashion. Having an excessive number of signs may result in signs losing their effectiveness as they compete for the attention of trail users. Improper signing can be as detrimental as inadequate signing.

Standard traffic control signs should only be used when necessary, mainly along greenway trails with a high level of use. It is unnecessary to use full-size highway signs on trails. Refer to Part 9: Traffic Controls for Bicycle Facilities of the MUTCD at <http://mutcd.fhwa.dot.gov>, which addresses both signs and pavement markings. Painted markings may be used on paved trail surfaces; however, they should be used sparingly and only to supplement signage in critical areas, not as the only method of alerting trail users or motorists. Pavement markings can become worn and covered with leaves, dirt, or snow. The *NYS Snowmobile Trail Signing Handbook* addresses regulatory and cautionary signage on trails with snowmobile use.

Road and trail intersections should include both signs and pavement markings. Painted crosswalk markings give pedestrians the right-of-way when crossing a road. At a minimum, stop signs should be posted at road crossings on trails that may have recreationists moving faster than a normal walking pace (ex. bikers, in-line skaters). “Stop Ahead” signs should also be used on trails with faster moving recreationists, particularly greenway trails. Road signs should clearly show the location of a trail crossing, as well as alert motorists well in advance of the crossing. Motorists could be required to stop at trail crossings on low-volume park roads. However, be aware that any signs and pavement markings on public roads outside the park must conform to MUTCD standards and must first be approved by the local or state transportation agency. Road and trail intersection safety is addressed in a report by Parks & Trails New York (PTNY) and available on the internet at <http://www.ptny.org/greenways/roadtrails/>. PTNY also provides a web page with extensive information and resources on safe trail crossings for trail builders and managers at www.ptny.org/greenways/roadtrails/safecrossings.shtml.

Example of signing and marking a road and trail intersection, from the MUTCD.



SIGN MAINTENANCE

Regular maintenance of signage should be part of any trail plan. Signs are highly visible and their maintenance or lack of maintenance leaves the visitor with a positive or negative impression about the trail and the park. Well-maintained signs convey a sense of pride and reduce vandalism while poorly maintained signs may contribute to a diminished visitor experience, including disorientation of trail users.

The following guidelines are recommended:

- Maintain a record of all signage, including location, type of sign, and photo.
- Inspect signs regularly, especially after each winter season, for weathering and visibility.
- Repair or replace damaged or missing signs as soon as possible.
- Secure loose or tilting signs in an upright position.
- Clear vegetation from around signs to maintain visibility.
- For signs mounted on living trees, loosen fasteners as necessary to accommodate growth of the tree.
- Review signage content to ensure continued relevance and accuracy.
- Obsolete, damaged, or surplus signs should be reused or recycled whenever possible.

When signs have been weathered or otherwise damaged or destroyed, consider the reasons for the damage. If the sign was eaten by wildlife, consider less palatable materials. If weather or natural events damaged the sign, consider stronger materials, a different location, or a different system for mounting the signs. If the sign is damaged by water or decay, consider applying a sealer or preservative (assuring compatibility with color, aesthetics, and environmentally sustainable practices) or replacing the sign with a more water-resistant material.

RESOURCES

- American Rivers. <http://www.americanrivers.org>
- American Trails. <http://www.americantrails.org/>
- Architectural and Transportation Barriers Compliance Board (2007). *Architectural Barriers Act (ABA) Accessibility Guidelines for Outdoor Developed Areas; Proposed Rule*. Retrieved December 18, 2008 from <http://www.access-board.gov/outdoor/nprm.pdf>
- Beneficial Designs. <http://www.beneficialdesigns.com>
- Birchard, William, and Robert Proudman (2000). *Appalachian Trail Design, Construction, and Maintenance, Second Edition*. Harpers Ferry, WV: Appalachian Trail Conference.
- Capital District Transportation Committee (2001). *Bicycle Signage Guidelines for the Capital District*. May 2001. Retrieved December 18, 2008 from <http://www.cdtempo.org/policy/june07/bp-doc.pdf>
- Cross Country Ski Areas Association. "Trail Signs." Retrieved December 23, 2008 from http://www.xcski.org/trail_signs.php
- East Coast Greenway Alliance (2006). *Draft Trail Signage Manual*. June 2006. Retrieved December 2008 from http://www.greenway.org/trailcouncil/trail_signage_manual.pdf
- Flink, Charles A., Kristine Olka, and Robert M. Searns; Rails-to-Trails Conservancy (2001). *Trails for the Twenty-First Century, Second Edition*. Washington, DC: Island Press.
- Freeman, Rich. "Guidelines for Trail Marking". <http://www.footprintpress.com/Articles/BlazingTheTrail.htm>
- GORP. Yellowstone National Park: Skiing: Trail Ratings. http://gorp.away.com/gorp/resource/us_national_park/wy/ski_yell.htm
- International Mountain Bicycling Association (2007). *Managing Mountain Biking: IMBA's Guide to Providing Great Riding*. Boulder, CO.
- International Mountain Bicycling Association (2004). *Trail Solutions: IMBA's Guide to Building Sweet Singletrack*. Boulder, CO.
- Lake Champlain Basin Program (2004). *Lake Champlain Wayside Exhibit Manual, Second Edition*. April 2004. Retrieved December 18, 2008 from <http://www.lcbp.org/wayside/manual.htm>
- Minnesota Department of Natural Resources (2007). *Trail Planning, Design, and Development Guidelines*. Trails & Waterways Division, St. Paul, MN.
- Mohonk Preserve, Inc. (1995). *Mohonk Preserve Signage Design Guidebook*. New Paltz, NY. Pp. 15-34.
- National Park Service (1996). *North Country National Scenic Trail Handbook for Trail Design, Construction, and Maintenance*. August 1996. Retrieved July 2007 from <http://www.nps.gov/noco/parkmgmt/ncttrailconstructionmanual1.htm>
- National Park Service. *NPS UniGuide Manual*. Retrieved December 16, 2008 from Office of NPS Identity, NPS UniGuide Sign Program, Center for Media Services, Harpers Ferry, WV.
- National Park Service (2008). *Visitor Information Sign System*. December 2008. Office of NPS Identity, NPS UniGuide Sign Program, Center for Media Services, Harpers Ferry, WV.

- New York State Canal Corporation (1999). *New York State Canal System Signage Design Guidelines*. March 1999. Retrieved December 18, 2008 from <http://www.nyscanals.gov/corporation/signage-guidelines.pdf>
- New York State Department of State (2003). *New York State Coastal Resources Interpretive Program (NYSCRIP) Signage Design Guidelines*. January 2003. Retrieved December 18, 2008 from <http://nyswaterfronts.com/index.asp>
- New York State Department of Transportation (2005). *New York State Scenic Byways Sign Manual*. August 2005. Albany, NY.
- New York State Office of Parks, Recreation and Historic Preservation (2005). *New York State Snowmobile Trail Signing Handbook*. Revised October 2005. Albany, NY.
- New York State Office of Parks, Recreation and Historic Preservation (1995). "Signs 101: A primer on sign design & fundamentals." Prepared by SmithKraham Design, August 1995.
- North Country Trail Association. <http://www.northcountrytrail.org/>
- Parks & Trails New York. <http://www.ptny.org>
- Parks & Trails New York (2007). *Road and Trail Intersection Safety*. Retrieved February 11, 2009 from <http://www.ptny.org/greenways/roadtrails/index.shtml>
- Rathke, David M. and Melvin J. Baughman (2008). "Recreation Trail Design and Construction". <http://www.extension.umn.edu/distribution/naturalresources/DD6371.html#step7>
- Scholfield, Diane. "Circles, squares and diamonds: Understanding trail designations." http://www.winterfeelsgood.com/winterfeelsgood.php?section=learn&page=slope_signs
- Trails for All Ontarians Collaborative (2006). *Ontario's Best Trails: Guidelines and Best Practices for the Design, Construction and Maintenance of Sustainable Trails for All Ontarians*. Retrieved December 19, 2008 from <http://www.ontariotrails.on.ca/about-the-otc/trail-advocacy/trail-planning/>
- United States Access Board (2007). *Regulatory Assessment: Accessibility Guidelines for Outdoor Developed Areas*. April 2007. Retrieved December 22, 2008 from <http://www.access-board.gov/outdoor/assessment.pdf>
- U.S. Army Corps of Engineers (2006). *Sign Standards Manual*. June 2006. Retrieved December 2008 from <http://corpslakes.usace.army.mil/employees/sign/manual.html>
- USDA Forest Service (2007). *Equestrian Design Guidebook for Trails, Trailheads, and Campgrounds*. December 2007. Technology & Development Program, Missoula, MT.
- USDA Forest Service (2006). *Forest Service Trail Accessibility Guidelines*. Retrieved December 18, 2008 from <http://www.fs.fed.us/recreation/programs/accessibility/FSTAG.pdf>
- USDA Forest Service (2008). *National Trail Classification System*. October 2008. Retrieved December 23, 2008 from <http://www.fs.fed.us/recreation/>
- USDA Forest Service. Stanislaus National Forest: Trail Difficulty Ratings. <http://www.fs.fed.us/r5/stanislaus/visitor/trailrating.shtml>
- USDA Forest Service (2007). *Trail Construction and Maintenance Notebook*. July 2007. Retrieved December 23, 2008 from <http://www.fs.fed.us/t-d/pubs/htmlpubs/htm07232806/>

- U.S. Department of the Interior, Bureau of Reclamation (2006). *Sign Guidelines for Planning, Designing, Fabricating, Procuring, Installing, and Maintaining Signs for Outdoor Public Use Areas*. October 2006. Retrieved December 2008 from <http://www.usbr.gov/pmts/planning/signguide2006.pdf>
- U.S. Department of Transportation, Federal Highway Administration (2007). *Manual on Uniform Traffic Control Devices, 2003 Edition Including Revision 1 dated November 2004 and Revision 2 dated December 2007*. Retrieved December 2008 from http://mutcd.fhwa.dot.gov/kno_2003r1r2.htm
- Waterfront Regeneration Trust (2007). *Design, Signage and Maintenance Guidelines: Waterfront Trail*. Retrieved December 2008 from <http://www.waterfronttrail.org/library-publications.html>
- Wilderness.net. "Signs and Posters Toolbox." Retrieved December 22, 2008 from <http://www.wilderness.net/index.cfm?fuse=toolboxes&sec=signsPosters>
- Wisconsin Department of Natural Resources (2004). *Trail Signing Handbook: Guidelines for signing snowmobile and ATV trails*. Retrieved December 2008 from <http://www.dnr.state.wi.us/org/caer/cfa/Grants/Forms/TrailSignBook04.pdf>
- Zeller, Janet, Ruth Doyle, Kathleen Snodgrass (2006). *Accessibility Guidebook for Outdoor Recreation and Trails*. May 2006. Missoula Technology and Development Center, USDA Forest Service. Retrieved December 18, 2008 from <http://www.fs.fed.us/recreation/programs/accessibility/>

APPENDIX 1: SIGN SAMPLES

Please note: the sign samples included in this appendix are not meant for use as designed. They are merely examples of designs for signs that may be adapted for the individual needs of trails and parks. When posting signs on trail information kiosks, be conscious of the potential for an excessive number of informational signs and try to keep the area aesthetically pleasing by designing and arranging signs in a harmonious fashion.

Herkimer Home East

Length 1.0 mi (1.6 km)
Linear trail

Hiking

Bicycling

Equestrian

Typical Grade 0.4%

100% of the trail is 0% to 9%

5280 ft (1609 m) is 0% to 9%
8% grade is a standard ramp.

Typical Cross Slope 2.2%

100% of the trail is 0% to 6%

5280 ft (1609 m) is 0% to 6%

Typical Tread Width 120 in (305 cm)

Minimum 120 in (305 cm)

Maximum 120 in (305 cm)

Crushed Stone (Fines)

100% is Firm or better


5279 ft (1609 m) is Firm or better

Trail Access Information

Warning: Trail conditions may have changed since this trail was assessed. Temporary obstructions (e.g. fallen trees or land slides) may not have been mapped. Maximum grades and cross slopes may vary. This report is generated by TrailWare which has been created by Beneficial Designs, Inc.

Jul 30, 09

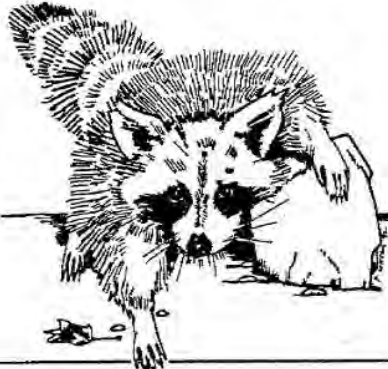
Example of a trailhead sign for a UTAP assessed trail (above).




I'm Cute, and I Bite!

And I may have rabies.

- Raccoons infected with rabies have been found in the area.
- For your safety, do not feed, attract, touch, or harass wildlife.
- Rabies is fatal to humans, but it can be prevented if people who have been exposed seek prompt treatment.
- Report oddly behaving raccoons or any bites, scratches or other contact with a wild or domestic animal to a park official right away.



- Keep your pet on a leash, and do not leave it unattended.



Example of a cautionary sign for a kiosk (above).

WARNING !!!!!!!



**DON'T BE BEAR CARELESS
OR YOU COULD BE CAR-LESS!**

Black bears have a keen sense of smell and are highly intelligent animals.
They can smell food **inside** your car.

Bears broke into 3 cars last year looking for food.
Once they have learned this behavior they will repeat it.

Do not store any food or scented items in your car.

- Bears recognize ice chests, cans, bottles, and grocery bags. Even if they are empty a bear may attempt to enter a car to explore them. Store them the same way as food.
- Remove trash, candy wrappers and clutter from vehicle.
- Children's car seats should be removed when a vehicle is parked overnight.
- Double bag all food to minimize smells.
- Store **anything** with a scent in your cabin, even if you don't consider it food, a bear will!
This includes: garbage, recyclables, soap, sunscreen, first aid kits, window cleaner, baby wipes, scented tissue, air fresheners, pet food, insect repellent, perfume, tobacco products, hairspray, tooth paste and other toiletries.
- Garbage and recyclables should be disposed of daily, preferably before evening.
- When in the campground or at a trail head, put all food and related supplies, including ice chests in the vehicle trunk with food sealed in air tight containers.
- In vehicles without trunks, all food and related supplies must be stored out of sight, as low in the car as possible. Cover them completely to hide from view.

NOTE:

These precautions help decrease the chance of personal injury or property damage. However, bear damage and confrontations are still possible.

Bears are individuals and wild animals and therefore unpredictable.



Example of a cautionary sign for a kiosk (above).

Leave No Weeds



Spotted Knapweed

WHY ARE THEY BAD?

Noxious weeds are exotic plants that crowd out native vegetation. They upset the delicate balance of nature and spoil our beautiful landscapes. These invasive plants:

- Decrease diversity
- Degrade wildlife and fish habitat
- Reduce water quality
- Increase soil erosion
- Reduce recreation opportunities



Leafy Spurge



Houndstongue

WHAT CAN YOU DO?

Be Aware & Prepare

- ✓Clean and check your clothing, footwear, packs, bikes and equipment for weed seeds
- ✓Brush animals before and after back country trips to remove weed seeds
- ✓Feed stock certified weed seed free feed several days before and during your trip
- ✓Learn to identify noxious weeds found in this area (Contact your local Extension Office or Weed District)



Oxeye Daisy



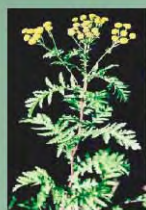
Canada Thistle

Protect Weed Free Areas

- ✓Stay on established roads and trails
- ✓Keep dogs on leash
- ✓Camp only at existing campsites
- ✓Avoid traveling or camping in weed infested areas
- ✓Avoid disturbing vegetation and soil



St. Johnswort



Common Tansy

Pull & Pack Out Weeds When Possible

- ✓Pull weeds when soil is moist in the spring and fall to get the entire root system and kill the plant - Wear gloves
- ✓Pull only weeds you can identify
- ✓Pulling is most effective on taproot species such as knapweed, musk thistle and houndstongue
- ✓Bag and pack out seed producing parts. Be careful not to spread seeds on the way home!
- ✓Dispose of seeds in a sanitary landfill or burn them



Dalmatian Toadflax



Sulfur Cinquefoil

Report It!

- ✓Report small or new weed infestations to the responsible land management agency or landowner
- ✓Bring in a sample for identification
- ✓Report location of weed infestations found in wilderness areas on wilderness registration forms



Orange Hawkweed



PLEASE HELP US PROTECT OUR WILD PLACES
BY PREVENTING THE SPREAD OF NOXIOUS WEEDS

Example of a cautionary sign for a kiosk (above).

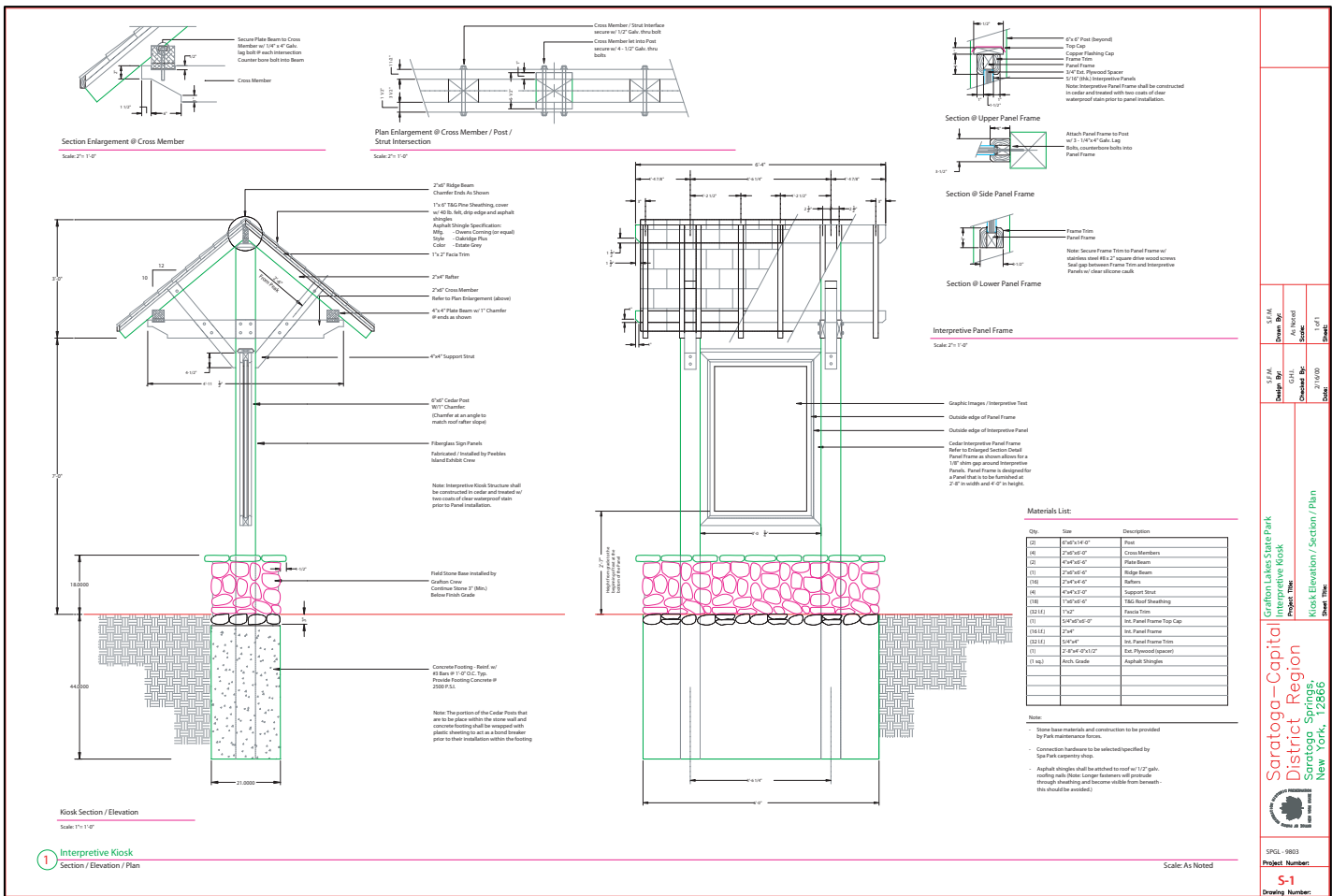


Example of a regulatory/cautionary sign (above) that could be used at a trailhead kiosk, or could be posted at a trailhead without a kiosk.



Example of a trailside regulatory sign (above).

APPENDIX 2: SCHEMATIC DRAWINGS OF KIOSKS



Two-panel kiosk with stone masonry base (above).

