



BOLTON CONSERVATION TRUST



# Town of Bolton Massachusetts

# Conservation Trails

## Sign Manual

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This document has been reviewed and approved for use by the Bolton Conservation Trust and the Bolton Conservation Commission.

Bolton Conservation Trust

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Bolton Conservation Commission

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## Introduction

Conservation Trails are one of the most important natural features of Bolton that create its rural appeal. The creation and maintenance of a healthy and sustainable trail system provides quality, passive recreational opportunities in the form of walking, hiking, mountain biking, horseback riding, cross-country skiing, as well as access to points of educational and historical interest with minimal impact to the resource or habitat.

This Sign Manual is to serve as a reference guide for standardizing the marking and signing of Conservation trails throughout the Town of Bolton to be used by the Bolton Conservation Commission, Bolton Conservation Trust, the Bolton Trail Committee and its volunteers to support proper trail use .

It is the objective of the Bolton Conservation Commission and the Bolton Conservation Trust to achieve a comprehensive and uniform level of trail signing for trails across all of Bolton.

## Uniform Trail Signing

**Providing uniform signing of the conservation trails will;**

- a) Enhance the safety of persons, and property,
- b) Improve travel within and between local conservation areas,
- c) Professionalize and promote the multi-use trail system.

## Purpose of Trail Sign

**The purpose of trail signs is to;**

- a) Guide the users along the trails,
- b) Warn users of trail characteristics and potential hazards,
- c) Provide information necessary for the enjoyment of the recreational opportunity,
- d) Educate trail users in highlighting points of interest

## **Responsibilities**

Setting clear and achievable guidelines for the uniform signing of the Bolton Conservation Trails is the joint responsibility of the Bolton Conservation Commission and the Bolton Conservation Trust.

Responsibility for the installation, maintenance, and removal of trail signing in accordance with the guidelines rests with the Bolton Conservation Commission and the Bolton Conservation Trust or their appointed joint designee (i.e. Bolton Trails Committee) for trails located within their jurisdiction.

Adhering to a recognized signing standard is likely to minimize the liability accompanying this responsibility.

Sign policies and standards for recreational trails in the Town of Bolton are detailed in this manual.

The sign policies and standards for the Bolton trail system will provide the methods and procedures needed to prepare/design, install and maintain its signs. Individual judgment must be applied to properly locate each sign given unique locations.

## Signs

Signage is one of the most important elements of the trail. It allows trail maintenance volunteers a vehicle to communicate with the trail users. Signs can enhance or degrade the trail experience. Signs can be used to inform, guide, direct, interpret, educate, regulate, restrict, and attract. It is important that the trail is sufficiently signed to aid the recreational user while avoiding excessive signage that can become a visual pollutant and requires time and money to maintain. Signage along Bolton trails should:

1. **Identify and Confirm the Trail Route** - This is the most basic signing element along the trail. The most novice trail user must be able to identify the trail and follow the route easily.
2. **Be Consistent** - Consistent signage develops trust among trail users and reassurance along their journey. This significantly enhances the trail experience by reducing the fear of being lost or confused. It can also build trail support through positive experiences.
3. **Minimize Confusion** - Excessive, unnecessary, and duplicative signing not only diminishes the quality of the experience, but can lead to confusion. Confused and lost trail users seldom become supporters or volunteers for the conservation trail. As with all relationships, clear and concise communication builds confidence, respect and support for trails.
4. **Quality** – Signing of the Bolton trails should be reflective of the guidelines discussed in this manual. Quality signage is visible, durable and tamper resistant.
5. **Cost** - Signs need to be of sufficient quality without being prohibitively expensive to build and maintain.
6. **Placement** - Signs should be placed to be informative, directional, and maximize public recognition and protection to enhance the experience and avoid visual pollution.
7. **Materials** - Sign materials should support the natural environment, be durable, and cost efficient.
8. **Recognition** - Recognition and awareness help build support for the trails throughout Bolton.
9. **Project a Friendly, Good Host Attitude** - Messages must be inviting and friendly; think of trail users as invited guests. Signage should emphasize responsible trail stewardship rather than prohibited activities. Too many negative messages are likely new to turn trail users off.
10. **Educate Users** - Trailheads, and bulletin boards as well as hiking guides and brochures provide excellent opportunities to highlight points of interest and share information such as "Leave No Trace" or "Pack it in, Pack it out".

### Developing a Sign Plan and Inventory

The first step in effective signage is through an inventory and evaluation of trail locations and existing signs. This assessment is essential to the development of a sign plan. It is VERY important to view and judge each section of trail as if no signs were present. What signs would be needed to assist first time visitors to the area? What is obvious to experienced trail users may be confusing to someone hiking through for the first time. Evaluation of the trail needs to be done from both directions. A sign visible traveling from north to south may be poorly located for a hiker traveling south to north and may be missed.

A comprehensive sign plan provides the framework for managing effective signage to guide decisions involving new installation, replacements, removals, maintenance, and budget preparation. In addition, it provides for smooth transitions between those responsible for trail maintenance. Sign plans should contain inventories, inspection and maintenance records, and relevant physical, technical, and management information needed to effectively administer the sign program.

A sign inventory should include a description of each existing and planned sign, their supports, locations, conditions, and any relevant vandalism history. The description should contain sufficient detail to be able to re-create the sign if it is damaged or missing. This kind of detail will allow those responsible for a

section of trail to evaluate the effectiveness of the signing. Listed below are some of the details needed for the inventory.

1. **Photographic Record** - Photographs help to confirm the written notes in sign inventory, and after all, "a picture is worth a thousand words".
2. **Assign ID number** - Each sign should be assigned a unique identification number for use in developing the plan, recording maintenance, and for future reference.
3. **Sign Text** - Describe the message exactly as it appears on the sign.
4. **Sign Type and Size** - Document overall size of the sign panel, the type of material, and type of sign.
5. **Text Size** - Document the font characteristics of text on sign.
6. **Sign Location** - Placement along the trail. Indicate on trail map and in notes, coded according to map number, sign number, and type of sign.

## **Annual Evaluation of Signs**

Annual evaluation of signs along the trail allows you to assess a trail and determine if there is additional signage needs. Are there signs missing? What is the condition of the sign? Are there any signs that are no longer necessary or appropriate? Are signs in the proper location? If the annual evaluation results in sign relocation or removal, it is very important to reflect those changes in the inventory records along with the date that changes were made.

In addition to evaluating signage along the trail itself, it is very important to evaluate the trail's visibility to the general public. We often develop a conservation area complete with Conservation Area signs, yet forget to lead the public to the trailhead or access point. If our visitors can't find access to our trails, there certainly is little need for other signage.

Once the inventory and evaluation are complete, an action plan can then be developed based on the information collected for ordering and installing new or replacement signs and maintaining existing signs. This detailed plan with cost estimates and inventory and evaluation documentation will then be presented to the Trust and Conservation Commission for approval. Thorough and accurate records showing type and frequency of maintenance performed will aid in determining service life of the sign, future budget needs and effectiveness of the sign program.

## Blazing and Signing the Trail

There are two distinct components of proper marking of trails in Bolton.

**Trail Blazing** – A marker identified by its shape used to direct trail users to stay on a conservation trail

**Trail Signs** – A marker with text used to identify trail names, conservation areas, regulatory concerns, interpretive/educational locations, or to identify road crossings

### Blazing

No trail building technique is more important than proper blazing. A properly blazed trail will permit the trail user to enjoy the woods while not being continuously concerned about the route, or worse still, losing the trail. Blazes should be frequent enough to assure the trail user that he or she is on a conservation trail. Normally, this is accomplished by placing the blazes so that when the user is passing one, another blaze comes into view. Terrain may dictate the blazes being placed closer together, or further apart, but the route must be easy to follow. It is necessary to blaze road connectors.

Another way to evaluate blazing frequency is when a trail is conspicuous, place one blaze every five minutes of hiking time or about six per mile in each direction. Where you run into hard to follow sections, blaze more frequently, but never blaze so that more than one blaze is visible ahead, except at trail junctions, road crossings, and similar confusing areas. Blazing every other telephone pole is sufficient along paved roads as confidence or reassurance blazes.

Trails should be blazed in only one direction at a time. What you notice in one direction may not be obvious from the other. If equally visible from either direction, blazes may be placed on opposite sides of trees or posts in order to facilitate trail maintenance for trail builders. Select live trees or other objects such as fence posts and poles that catch the eye and appear firmly placed. Do obtain permission to use fence posts and poles, especially power poles. Look for trees whose branches will not grow out to obscure the blaze. It may be necessary to place posts where the trees are too far off the trail. **Blazes should be placed approximately six and one-half to seven feet off the ground.**

### All Bolton Conservation Trails will be marked with a Yellow Triangle

All Bolton conservation trails will be marked with a Yellow Three Inch Equilateral Triangle. There are two types of materials that can be used for blazing:

- Painted Triangles
- Plastic Triangles

### Painted Triangles

Before you head out on the trail take a moment to consider which of several blazing techniques to use. Some people prefer using a stencil while others simply use a straight edge or blaze freehand gauging the size of each blaze with a cardboard template.

The object in any case is to master a technique that you can perform neatly, consistently leaving standard sized blazes. Avoid at all costs blemishing trees and rocks with pudgy blotches or oversized triangles. Be careful to avoid dripping paint on trees, rocks and leaves.

Prepare the surface carefully with a scraper (minimize scraping as much as possible) rub clean with a rag.

The blaze should be a triangle three inches on each side preferably on a tree wide enough to provide a contrast for the paint (see Figure 1).

The official Bolton Trail blaze paint is a acrylic water-base, high-gloss enamel. Experience has demonstrated that spray paint is a poor substitute for the more durable, uniform blaze painted with a brush on a properly scraped surface. One gallon bleach bottles with the spout cut out and handle retained make excellent carriers for paint, brush, and scraper. A wooden box five inches wide by 5 inches deep by 15 inches long with a handle is big enough to carry 2 one quart cans of paint, one quart of water, brushes, jars to paint from and rags.

The official color of Bolton trail yellow blaze paint is:  
80-151 (OSHA Yellow)

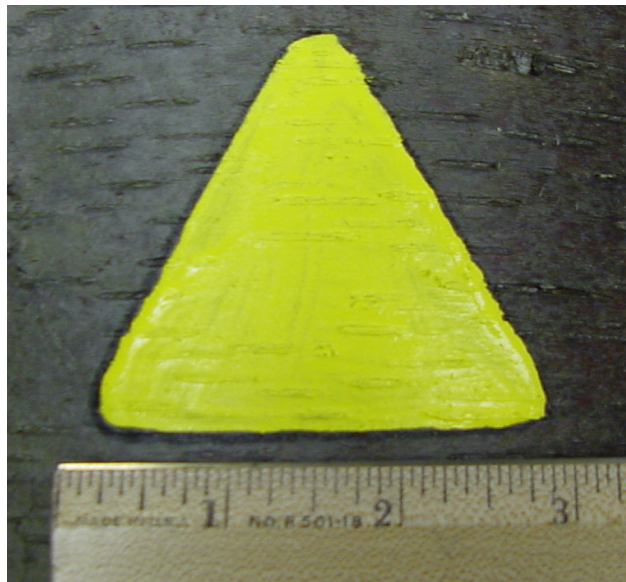


Figure 1: Painted three inch equilateral triangle

### Plastic Triangles

The Town of Bolton is fortunate to have a neighbor like the National Plastics Center and Museum, located on RT117 in Leominster. The plastics museum allows the Bolton Conservation Commission and the Bolton Conservation Trust access to the Museum to produce yellow plastic trail blazes (see fig 2) on their injection-

molding machine. This is a time consuming, but inexpensive process. The machine produces a plastic, three inch, equilateral triangle that works well for blazing the trails.

When attaching the triangles to trees use aluminum roofing or siding nails 8 penny approximately three inches in length with a large head. Do not bang the nail in all the way. Rather, leave the nail sticking out one half inch to allow for tree growth.

Avoid the use of steel nails. Years later, hidden in the wood they can cause damage and injury when hit by chain saws or band saws during clearing or harvesting operations.



Figure 2: Plastic three inch equilateral triangle

## Types of Signs

There are five types of signs that should be used to identify the trails in Bolton:

1. **Trail Name Signs** – display the trail name (or names) and direction of the trails
2. **Conservation Area Signs** – display the name of the Conservation Area
3. **Regulatory Signs** – display laws, rules or regulations governing a trail
4. **Interpretive/Educational Signs** – display special places, historic events, or the plants and animals along a trail
5. **Road Intersection Signs** – display the road name and route number of the road the trail crosses

## Trail Name Signs

Trail name signs are used to display the name (or names) of the trail and the direction of travel. They enable trail users to confirm a location on the trail, and mark their progress. Limit the number of trails listed on one sign to 1 or 2 if possible. Only the most well traveled, main trails will be named and signed.



Figure 3: Trail Sign

Trail name signs should be placed at major trailheads, as well as at trail intersections to show direction. These signs should be manufactured of decay-resistant wood (redwood, mahogany, Pressure Treated Lumber, TREX, etc.), and painted or stained (brown). Trail names should be routed into the sign face and painted a contrasting color (white). The letters on the sign should be 1.5” – 2” in height.

- 1) The signboards should be 1-2 inches thick to avoid warping. Signs should be either 3.5” wide for a sign displaying one trail name or 5.5” wide for signs displaying 2 trail names. Signs should be attached by (2) three-inch long lag bolts that are countersunk to aid in reducing vandalism. Signs can be mounted on a single 4-inch by 4-inch wooden post or tree if location is appropriate. Trail signs set on a tree should be at a height of six and a half feet, signs set on a post can be at a height of five feet.

### **Conservation Area Signs**

Conservation Area signs are used to display the name of the conservation area. These signs should be placed in a prominent location along a road or parking area. The purpose of the sign is for identifying the location as well as advertising the conservation area. These signs would be composed of decay-resistant wood (redwood, cypress, mahogany, Pressure Treated Lumber, TREX, etc.), and painted or stained brown, (see fig. 4). Messages would be routed into the sign face and painted a contrasting color (white). Major trailheads, especially when accessed from a paved road, require a large sign, 48-inch wide, mounted on two 4 by 4 wood posts 7 to 10 feet long depending on terrain. Posts are buried at least 2 ft deep with a one foot rebar cross pin near the bottom to improve security. The top panel is 2 by 10, the second panel 2 by 6, each 5 ft long. Additional panels can be hung from the second panel if needed.



Figure 4: Conservation Area Sign

### **Regulatory Signs**

Regulatory signs are used to notify trail users of laws, regulations, and rules governing a specific section of the trail. These laws and regulations will vary based on land management/ownership. As much as possible, regulatory signage should be concentrated at trailheads and major trail access points to maintain the minimum number of signs possible on the trail. However, if it is necessary to post regulatory signs along the Trail, use high quality materials, keep narrative concise and to the point, and try to avoid negative signing.

### **Interpretive/Educational Signing**

Interpretive/educational signing provides an additional element to the Trail experience. These signs can introduce trail users to special places, historic events, unique habitats and indigenous plants and animals along the trail. Quality interpretive and educational signage follows a theme that guides the location and narrative of the signs.

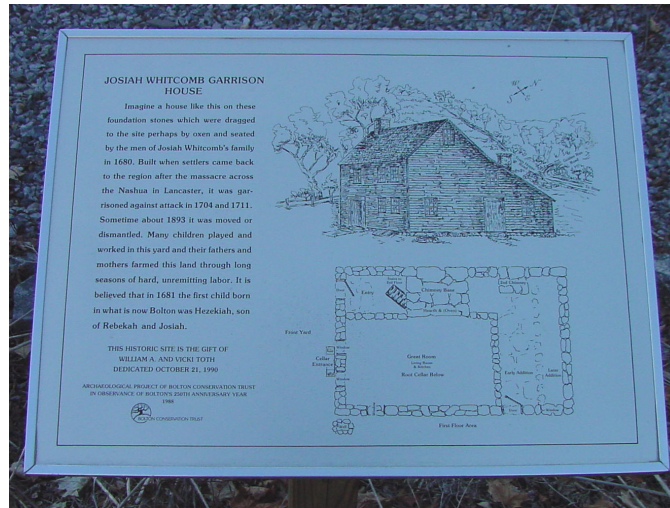


Figure 4: Interpretive/Educational Sign

Quality interpretive and educational signs can be very expensive and can require high maintenance. It is recommended that interpretive and educational signing be accomplished as much as possible at the trailhead and through brochures and trail guides. These types of media allow for easy inspection, replacement, and updates. However, if it is desirable to place interpretive messages along the Trail, try to place them within a reasonable distance of an access point and keep the signs small and natural in appearance. Anodized aluminum signs can work well in this situation and are long lasting.

### Signage at Trail and Road Intersections

These intersections can provide opportunities for educating the public or improving access to the trail, but they can also be safety hazards and points of conflict. Proper trail planning and signing can help to minimize the safety hazards and conflicts. Intersections with roads and trails require signing for two groups. Signs should be placed to notify the trail user of the trail or road crossing. Most often, this is more to help them identify their location along the Trail and to warn them to use care when crossing a road or trail which has high volume or speedy traffic. Signs should also be placed to notify the vehicles or users on the road or trail that they are approaching a trail crossing.

Signage of any vehicular road or highway must be coordinated with the appropriate authority responsible for managing that road or highway. There are numerous laws and regulations guiding signage along roads and highways. Signs generally must be of a certain size, with specific lettering, and materials. Before installing signs along federal and state highways or public roads, coordinate with the Bolton Highway Department.

The main benefit of signing for vehicular traffic, beyond the safety aspects is public awareness. People will begin to associate the recreational Trails and will hopefully be intrigued enough to find out more about it.

## Bolton Loop Trail

The Bolton Loop Trail (BLT) is a 15 mile loop trail to be constructed around the town of Bolton connecting Bolton trail systems to neighboring conservation areas of Harvard, Stow, Berlin, Hudson and Lancaster. It will take a concerted effort by many of the town organizations and the town's residents to forge this cross-town connection trail. A trail designated as part of the Bolton Loop Trail needs to be clearly marked and signed to achieve and maintain consistency along the entire trail. The goal of highlighting this trail is to garner support and raise the level of comfort and reassurance of trail users who expect a clearly marked trail, and to ensure that the BLT gain the positive visibility to make the trail a reality. We would like to begin marking designated portions of the BLT as they are designated.

To give the BLT the required visibility throughout town the trails and road crossings will be marked with a special marker denoting they are part of the Bolton Loop Trail.



**8 - inch Marker** – Where the BLT crosses secondary roads (paved or aggregate surface), the road signing would consist of a 8-inch logo sign on each side and be mounted on a 4-inch by 4-inch wooden post, with one sign facing each direction of traffic.

**5 – inch Marker** - The purpose of the 5-inch marker is to identify the BLT to the person approaching from a side trail. It is to be used only on the BLT at common access junctions, at intersections with other trails, and where needed as a reassurance sign. The 5-inch marker is not intended as a trail blaze. Use of the 5-inch marker shall be minimized as much as possible.

Use nonferrous fasteners (aluminum, etc) when mounting on live trees .