

Sign Maintenance

*Projecting your image,
Protecting your investment*

A comprehensive guide to sign installation
and maintenance

within the

**Delaware & Lehigh
National Heritage Corridor**



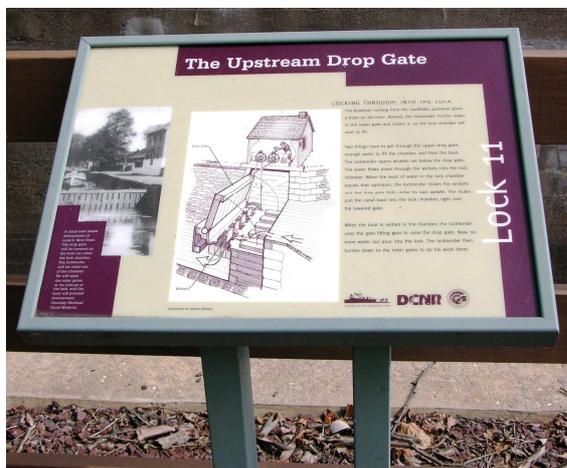
Introduction

The Delaware & Lehigh National Heritage Corridor (D&L) is a joint effort of private groups and interested citizens, county and municipal governments, the Commonwealth of Pennsylvania and the federal government to conserve cultural and natural resources in the five-county region of Pennsylvania that traverses the historic Delaware and Lehigh Canals (see map on adjacent page). Since the Delaware & Lehigh's designation by Congress in 1988, it has been our mission to restore historic places, conserve green space for public use, and preserve and interpret our heritage to enhance life for generations to come.

One mandate of the D&L is to help visitors and residents navigate the Corridor and better understand its rich and complex history, culture, and landscape. Creating and maintaining signs that direct travelers, welcome visitors, and interpret sites is an important means of fulfilling that mandate. We hope that you will take advantage of this opportunity to project a positive image to the public.

The D&L staff developed this sign maintenance booklet to help local partners assure the maximum service life of interpretive and directional signs, “blades,” and mile markers. The partners’ agreement to and compliance with these guidelines will help assure the optimal installation and replacement support by the D&L.

Please note that this booklet should supplement *not substitute* consultation with D&L staff members. Our staff is trained in the proper maintenance of signs and always available to assist you. Refer to the back page of this booklet for the appropriate contact information.



Signs are an effective means of communicating with the public and projecting a positive image. Without the proper care, however, signs communicate the wrong message. The sign on the left has been well maintained. The panel colors are bright, the text is easy to read, there is minimal fading, and it has not been vandalized. The sign on the right has been neglected. Weather and dirt have faded and obscured the message and graffiti has not been removed. **With proper maintenance, life expectancy of signs is approximately 10 years.**

Receiving New Signs

Proper maintenance of your signs begins from the moment they are delivered by the manufacturer. You must open all sign packages *within seven days* to confirm that:

- 1) **The signs have not been damaged during shipment.** The sign manufacturer goes to great lengths to properly wrap new signs, but accidents still happen. Check for evidence of rubbing, cracked or chipped corners and surfaces, or any other damage. Document in writing and with photographs any signs that are not in satisfactory condition and immediately report the damage to the D&L.
- 2) **The text and graphic contents of the signs match the finalized proofs.** Carefully compare the sign to the proof, checking for consistency. Document in writing and with photographs any signs that do not match the proofs and immediately report the errors to the D&L.

Replacement Panels:

Each new interpretive sign comes with one duplicate, replacement panel. Take great care in documenting these replacement panels in your sign inventory (see page 5) and storing them in a safe location that will prevent scraping, warping, or unnecessary exposure to the elements. Consider that you may not need the replacement panels or sign materials for many years and your organization's staff may change by then. They should be stored in a place that you and subsequent volunteers are able to find easily.



Inspect every shipment of signs and report damage or inaccuracies within seven days.

Installing New Signs

Installation is not provided by the sign manufacturer or the D&L. D&L staff can offer technical assistance or arrange for a contractor to install the signs for a fee.

Proper installation is the first step in ensuring the optimal appearance and longevity of your signs. Please refer to *Visually Speaking* DG.6.13 and DG.6.14 for installation standards.

Sign Placement

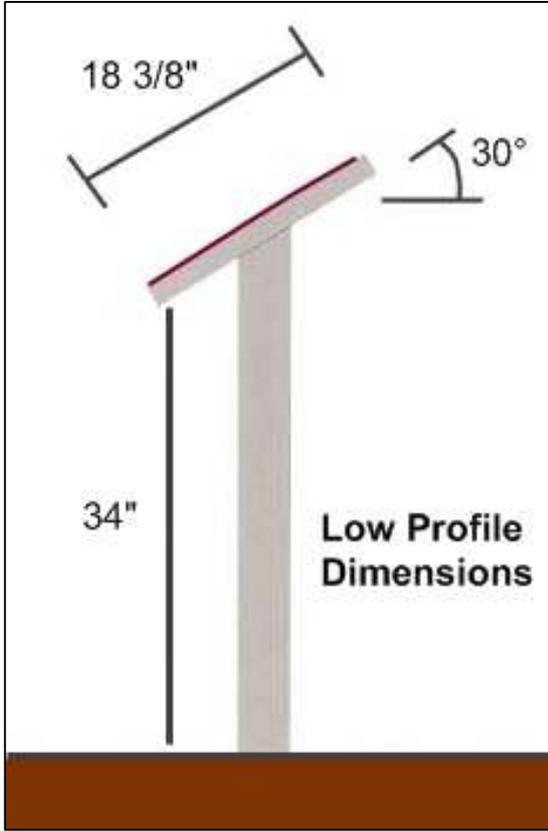
Consider the following tips:

- Never allow a wayside to block a view. Let the site speak for itself.
- Use the sign to supplement the natural view.
- Place the panel so the reader can glance from the sign to the place it discusses.
- Consider visitors' safety. Be sure readers have a safe place to stand while viewing the wayside.
- Make sure you do not overload your site with signs. Too many signs are a distraction.
- Consider future landscape maintenance. Will it be easy to access and maintain the sign in the future?
- If possible, choose locations to minimize vandalism.
- Consider road or street right of ways, and consult with local municipalities for proper placement.



**Carefully consider the placement of your new signs.
Volunteers can install the majority of new signage.**

Installing a Low-Profile Wayside

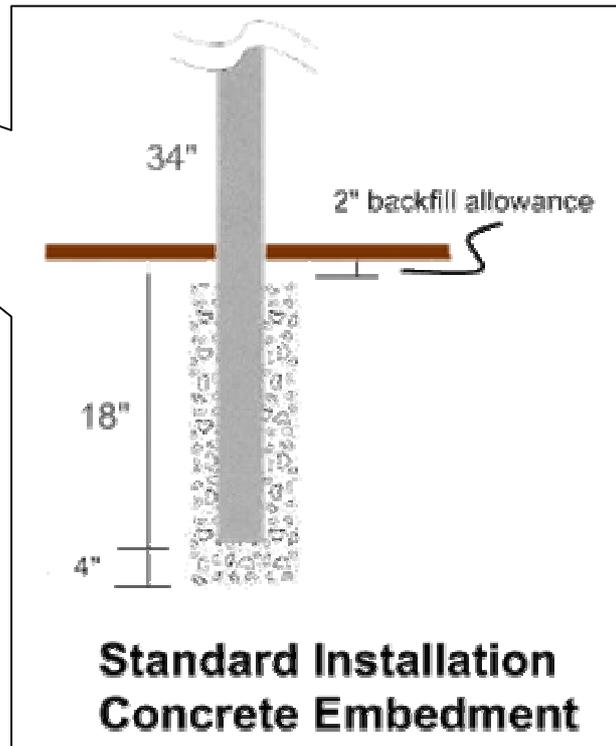


The following is an overview of the sign installation process. For a detailed explanation or recommendations, please contact the D&L.

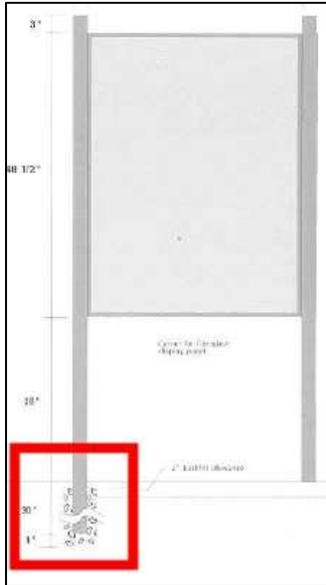
Installing a low-profile sign is very easy and can be done with simple equipment.

- 1) Measure the length of the posts. Dig a hole deep enough that the panel portion of the sign is 34" above the surface of the ground. Leave 2" on each side of the posts for soil backfill and 4" to fill out bottom of hole with concrete.
- 2) Insert sign post. Fill with quick-setting concrete. Use level to straighten. Square sign to trail or viewing area.
- 3) Unscrew the top of the panel frame. Insert the fiberglass panel and reattach with rivets.

D&L staff is always available to answer your questions regarding sign installation. Please contact us for recommendations on equipment, planning, installation, and maintenance.



Installing a High-Profile Wayside

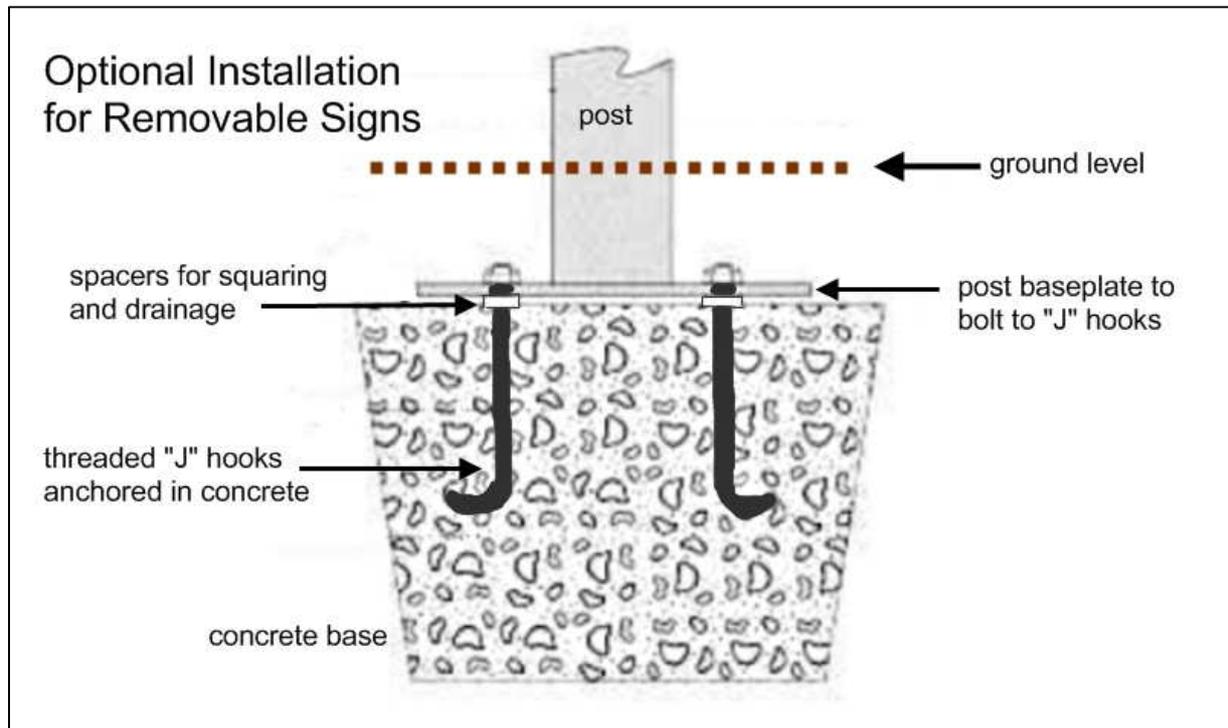


These signs are installed in the same manner as low-profile waysides.

- 1) If installing a kiosk or multiple connected signs take careful measurements and plan hole location accordingly.
- 2) Dig one hole for each post. Measure the length of the post. Dig the holes deep enough that the panel frame is 28" above the surface of the ground. Leave 2" backfill allowance and 4" to fill out bottom of hole with concrete.
- 3) Insert sign post. Fill with quick-setting concrete. Use level to straighten. Square sign to trail or viewing area.

Installing Removable Signs

Some types of signage come with a baseplate on the end of each post. These signs are bolted onto threaded "J" hooks, embedded in a concrete base for easy removal or safe breakaway.



Creating a Sign Inventory

Keeping track of your signs and their condition can be tedious. If you create a simple inventory of your signs, as you install them, it will make the process very easy. Even if you are only installing a few signs, such a system will help you record installation and location specifics and help you track maintenance activities.

We recommend using standard database software, such as Excel, to create a simple database. Create separate columns for **location, GPS coordinates, sign title, sign type, year installed, condition, date of last inspection, maintenance recommendations, photos**, or any other information that might be helpful (see facing page). For interpretive signs, be sure to note any replacement panels you have in storage.

The D&L maintains a Corridor-wide inventory of all signs. To aid in this effort, please email your site's inventory, with photos, to the D&L each time you install or replace signage.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
	LOCATION	COUNTY	TITLE	GPS Coordinates	TYPE	YEAR INSTALLED	CONDITION	DATE OF LAST INSPECTION	RECOMMENDATIONS	PHOTO					
1				N 40 30.355 W075 04.421	high profile wayside	1999	1- good	9/29/2008	clean and repair						
2	Bristol														
3	Bristol, Bristol														
4	Bristol, Bristol														
5	Bristol, Bristol														
6	Bristol, Bristol	Bucks	The Basin	N 40 30.355 W075 04.421	high profile wayside	1999	1- good	9/29/2008	clean and repair						
7	Bristol, Bristol	Bucks	Delaware Canal	N 40 17.408 W074 52.631	trail entrance	1998	1 - new	9/29/2008	repair or replace						
8	Fallsington	Bucks	Historic Fallsington	N 40 17.408 W074 52.631	Entrance	2007	3 - letters chipping, faded	9/17/2008	repair or replace						
9	Bristol	Bucks	The Basin	N 40 30.355 W075 04.421	high profile wayside	1999	3 - discolored	9/29/2008	clean and repair						
10	Bristol, Bristol	Bucks	The Ring	N 40 30.355 W075 04.421	high profile wayside	2001	3 - sign missing?	9/29/2008	replace missing sign?						
11	Bristol, Bristol	Bucks	Plants and Animals at Bristol Marsh	N 40 17.408 W074 52.631	low profile wayside	2001	3 - one side scraped; other side severely scraped by graffiti removal	9/29/2008	repair or replace						
12	Bristol, Bristol	Bucks	Delaware Canal Trail	N 40 30.355 W075 04.421	entrance pedestrian trail entrance (directional blade)	2001		9/18/2008	repair or replace						
13	Bristol, Bristol	Bucks	Delaware Canal	N 40 17.408 W074 52.631	entrance	1998	1 - good	9/29/2008	repair or replace						
14	Fallsington	Bucks	Historic Fallsington	N 40 17.408 W074 52.631	Entrance	2007	1 -good	9/17/2008	repair or replace						
15															
16															

Creating a sign inventory is easy and will help you document the location and condition of your signs for maintenance.

Location

Describe the location of the sign (i.e., “Bristol, south of the marsh” or “northeast of pavilion”).

GPS Coordinates

If you have a GPS receiver, use it to mark the exact location of the sign.

Sign Title

Record the title of the sign (i.e., “Exploring the Corridor”). This information is very important for ordering replacements or additional quantities.

Sign Type

Is the sign directional or interpretive? If interpretive, is it low-profile or high-profile?

Year Installed

This information will help you prioritize maintenance and replacement schedules.

Condition

Record the condition of the sign, even if it is good or new. Update this column after every inspection. If your database will include a large number of signs, create a condition rubric (i.e., from “1 – new” to “3 – faded, chipped, damaged”) so that you can easily prioritize maintenance and replacement. Try to use consistent descriptions so that all staff members or volunteers can understand.

Date of Last Inspection

Update this column after each inspection so that you do not fall behind. Use this column to prioritize volunteer inspections.

Maintenance Recommendations

Recommendations should be based on the condition report (see page 8) and can range from simple cleaning to replacement. Make recommendations clear enough for a volunteer to address the issues listed under “Condition.”

Photos

A photo is worth a thousand words, so take several and include them in your database. Try to take a photo from each of three perspectives:

- 1) Surroundings: Take a wide shot that shows the sign and the area around it. This will document the need for landscaping work and repositioning, if the sign is leaning.
- 2) Whole sign: Take a shot of the panel and base. This will help document overall fading of the sign and frame, chipping, oxidization, and other obvious damage.
- 3) Close ups: Take close-up shots of specific damage or problems that would not be clear from the other photos.

If you make reference to specific maintenance issues in the “condition” or “recommendations” column, be sure to document them with photographs. This will help volunteers and other staff members (and even you) better understand how to approach the issue.

Developing a Maintenance Plan

Although *Visually Speaking* signs are fabricated to resist premature weathering, they require periodic maintenance to ensure their proper appearance and long life. ***Every partner should have a plan for maintaining their signs.***

The plan can be broken down into four steps: **inventory, condition reports, maintenance, and replacement.**

1) Inventory

Use the inventory to record important information and prioritize maintenance and replacement schedules. Always keep the inventory updated to reflect recent condition reports or newly installed signage. Also use the inventory to manage your supply of replacement interpretive panels. (Refer to pages 8-9 for information on creating an inventory.)

2) Condition Reports

You should set a rigid schedule of sign inspection. ***No more than one year should pass between inspections.*** Ideally, someone will document the condition of each sign once every six months.

This is a great job for volunteers. Provide them with a condition report template so that they gather all of the appropriate information (see page 11). Provide a digital camera, or ask them to bring their own. If you have gathered GPS coordinates, condition surveys can be made into a type of geocaching game, with participants tracking down signs and gathering important information in the process.

Condition reports are only helpful if they are consistently added to the inventory database for future reference.

3) Maintenance

Use the inventory and condition reports to determine when and how to conduct maintenance. As a general rule, ***each sign should be cleaned once a year.*** You might want to combine your annual condition survey with your annual cleaning rounds, noting damage that will require additional work as you go.

Refer to page 10-13 for specific maintenance instructions.

4) Replacement

Even under the best conditions, your signs will not last forever. If your sign is severely damaged, no longer accurate, or no longer projecting a positive image, it must be replaced. For interpretive signs, use the replacement duplicate you received upon delivery. If you do not have a replacement panel, please contact the D&L to arrange a replacement order. Keep in mind that reproduction of existing signs is much cheaper than producing the originals. Ask for a quote.

Sample Sign Condition Report

<u>Sign Condition Report</u>	
Inspected by _____	on _____
Location: _____	GPS Coordinates: _____
Sign Title: _____	Sign Type: _____
Condition: _____	

Maintenance Actions taken: _____	
Maintenance Recommendation: _____	

Please send a copy of this condition report and all photographs to:	
Name of Site or Inventory Manager	
Email Address	
<i>Thank you for supporting our sign maintenance program!</i>	

Hand out copies of blank condition reports to volunteers, send them out through email, and upload them to your website. You might be surprised by the number of volunteers willing to collect information on your signs. Then, do your part by entering the collected data into an up-to-date inventory. Remember to periodically forward your inventory to the D&L, so we can keep the Corridor-wide sign inventory updated.

◆ In 2007 and 2008, the Delaware Water Gap National Recreation Area completed an inventory of its 1,008 signs, complete with condition reports and photographs. From spring 2008 to spring 2009, the D&L complete an inventory of its own 600 or so signs. Both organizations used little more than an Excel spreadsheet, camera, and volunteer help. If we can do it, so can you. ◆

Maintenance Guidelines

Cleaning

Removing dirt, dust, bird droppings, and other substances on a regular basis can significantly improve the appearance and longevity of your signs. Signs should be cleaned as often as possible. ***Basic cleaning should be done at least once every year.***

Cleaning should include the sign panel, as well as the base.

While cleaning a sign panel, be careful not to scratch the surface of the sign or use any cleaning chemicals that might damage the fiberglass or aluminum. Generally, a mild detergent (such as dish soap or diluted laundry detergent) and water can be used to clean both fiberglass and aluminum signs. Use a soft cloth or sponge to lightly scrub the surface. For more stubborn stains, solvents such as Bestine or Acetone may be used. However, extensive use of Acetone may cause painted surfaces to fade and lose their luster. *Before using a cleanser or other solvent on a sign, test the product on a very small, inconspicuous portion of the sign to determine its effect on the paint or surface.*

Aluminum: Use special care on aluminum signs with vinyl lettering, as these can easily be scraped off. When cleaning is necessary, use diluted laundry detergent or mild dish soap and a very soft cloth. Regularly clean aluminum signs with a soft cloth and water to avoid dirt build up that will be difficult to remove.

Fiberglass and Polymer-Fiberglass: Use diluted laundry detergent or mild dish soap and a soft cloth to clean a fiberglass sign. If the panel is especially dirty or oxidized, you may use a buffing wax similar to those used on the fiberglass bodies of RVs and boats. **Do not use cleansers that contain abrasives.** Use a soft cloth or sponge that will not scrape the sign surface.

Sign Bases: Bases are usually made out of aluminum, which means that they can be scratched if cleaned carelessly. Use the same precautions and cleaning approach as aluminum signs.



Aluminum and fiberglass cleaning supplies can be found in most local hardware stores or through online retailers, such as Hamilton Marine (www.hamiltonmarine.com). **Remember that the safest and cheapest cleanser is mild dish soap mixed with water and used in conjunction with a soft, non-abrasive cloth or sponge.**

Removing Graffiti

Graffiti is a significant problem. Removing graffiti often permanently damages the surface of the sign. Carefully weigh the options before attempting to remove the graffiti. Use traditional graffiti removal methods only after less-abrasive methods have been exhausted.

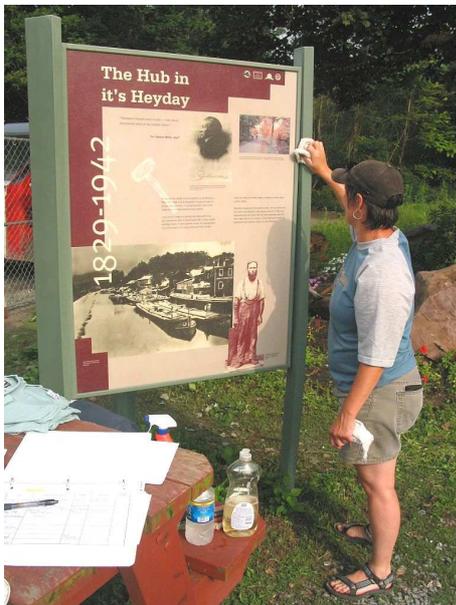
A number of products, such as Tagaway and SoSafe Yellow, claim to remove graffiti from painted aluminum or fiberglass surfaces without harming the surface or removing paint. Use these products at your own risk and only after other methods have been exhausted. Always try the product on a small, inconspicuous portion of the sign to determine its effect.

Aluminum: There are few options but buffing. Sometimes it is better to leave inoffensive graffiti in place to avoid destroying a large area of the sign's surface. In the case of significant graffiti or vandalism, replacement may be the only option.

Fiberglass: An automotive cleanser or rubbing compound can sometimes remove the graffiti. Try to limit damage to the surface of the sign. On older signs, graffiti removal will be more difficult. In the case of significant graffiti vandalism, replacement may be the only option.

Prevention and Persistence

The best way to counter graffiti is to limit its occurrence. It is impossible stop all graffiti, but locating signs in high-traffic areas and encouraging volunteers and visitors to report suspicious behavior and graffiti immediately can cut down on all but the most malicious vandalism. Work with your local police department to develop a site plan for vandalism, and contact the D&L for advice on sign locations and graffiti removal. *Above all, remain persistent in your efforts to confront graffiti.*



Graffiti can be disheartening, but a persistent response will indicate to vandals and the community that your organization is committed to improving the site.

Landscaping

Signs should never be obscured by brush, grass, or overhanging limbs. Many of the problems of landscaping can be avoided by considering landscape maintenance and future growth of vegetation in the choice of an installation location.

Approach a sign from multiple angles to determine if it is significantly obstructed. Signs that have become obscured by brush or grass should have the vegetation cleared to restore the desired visibility. When clipping, pruning, or mowing, consider the rate of growth of surrounding vegetation and how the location might look during different seasons. Always take great care not to damage the sign.

The D&L recommends planting **low-maintenance, native plants** at the base of the sign to minimize maintenance responsibilities and maintain the ecological integrity of the land. The D&L can provide technical assistance with the selection and planting of the appropriate native plants.



A sign should never be obscured by surrounding vegetation.

A selection of low-growing, native plants can limit the need for landscape maintenance and provide a pleasing setting for your signs.



Additional Tips

- 1) **Get volunteers involved from the beginning.** Ask volunteers to help unpack the signs, document any damage, and properly store duplicates. Ask volunteers to “adopt-a-sign” and periodically clean it or document its condition. Incorporate sign condition surveys and sign maintenance into your outings and events.
- 2) **Be pro-active, when it comes to sign maintenance.** Signs are not cheap. The only way to make the investment worthwhile is to prolong the life of the signs and to make sure they have a positive impact on every person who sees them. Consistent, proper maintenance is the only way for that to happen.
- 3) **Ask the D&L for technical assistance.** D&L staff members are always available to offer technical, storage, inventory, installation, maintenance, and replacement advice. We are not able to install or store signs for you, but we can offer contractor contacts and best practice recommendations. In some instances, our volunteers may be able to assist you with your sign maintenance needs.
- 4) **You have a vested interest in the condition of your signs.** The D&L wants all *Visually Speaking* signs to look great. More importantly, you should too. Signs are often the most tangible interaction your organization will have with site visitors, and you want them to project the most positive image as possible. Make these reasons clear to your volunteers. Sign maintenance might not be a glamorous job, but it is an essential one.



Project a positive public image. Protect your investment.

We hope this pamphlet has provided a quick introduction to the sign maintenance process. Of course, D&L staff members are always available to assist you with any aspect of the process. Feel free to contact the following staff members.

Signage Program and Funding:

Elissa Thorne
610-377-4063
Elissa@DelawareandLehigh.org

Interpretive Signage:

Amey Senape
610-923-3548 (ext.229)
Amey@DelawareandLehigh.org

Directional and Entrance Signage:

Scott Everett
610-923-3548 (ext.232)
Scott@DelawareandLehigh.org

D&L Trail Tenders:

Dennis Scholl
610-923-3548 (ext.225)
Silas@DelawareandLehigh.org

Delaware and Lehigh National Heritage Corridor

2750 Hugh Moore Park Road

Easton, Pennsylvania 18042

610-923-3548

www.DelawareandLehigh.org



Edited by Silas Chamberlin: 5/21/09