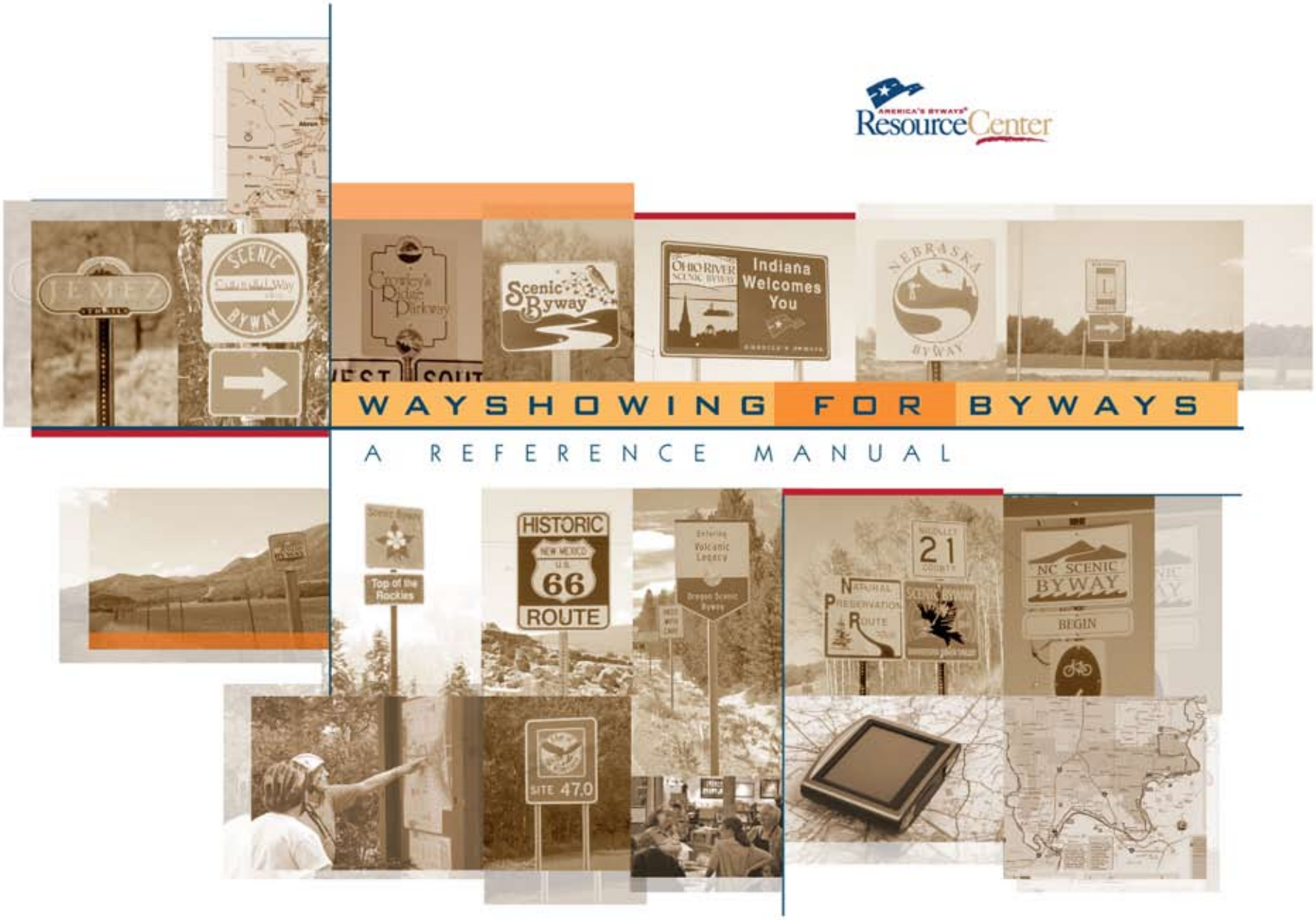
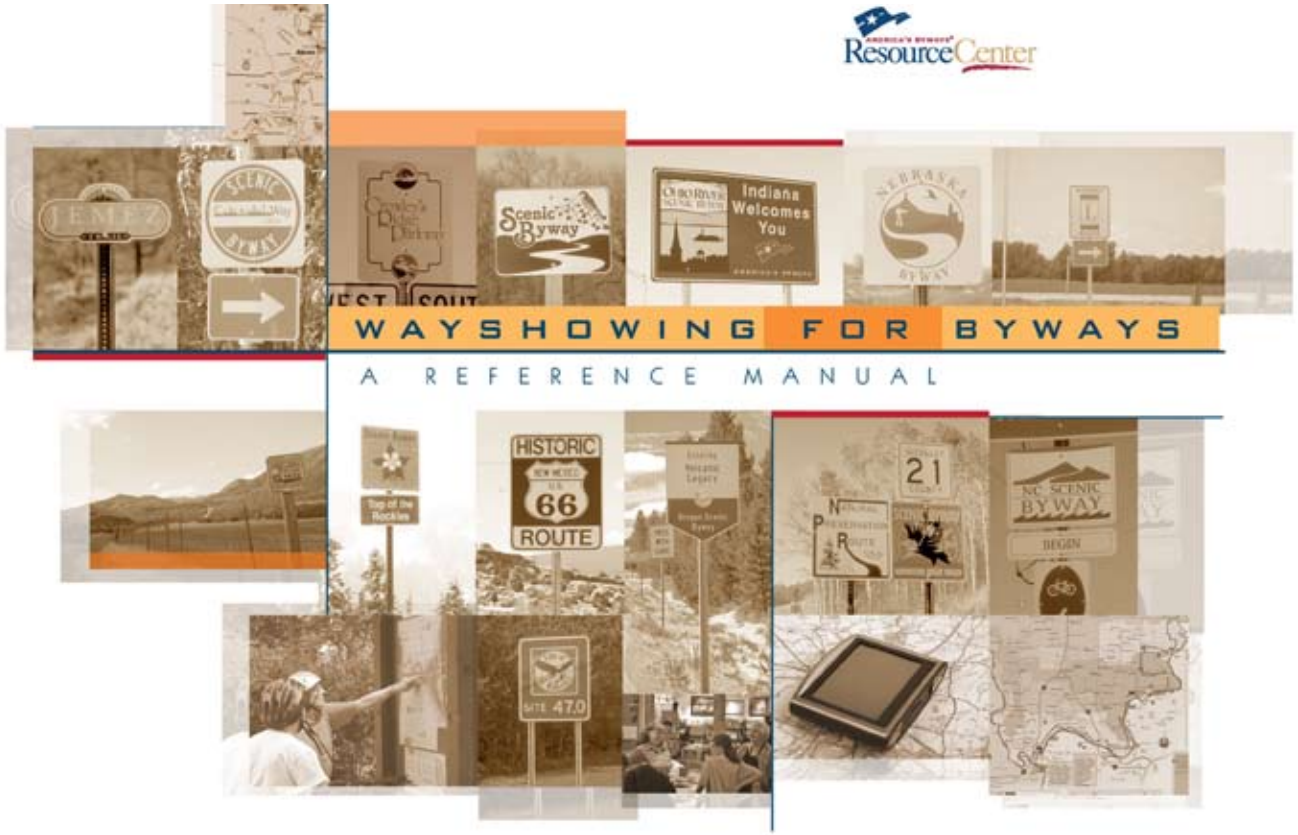
America's Byways Resource Center



WAYSHOWING FOR BYWAYS

A REFERENCE MANUAL



March 28, 2011

Credits

Wayshowing for Byways
A Reference Manual

A product of an initiative of the America's Byways Resource Center to assist byway organizations help travelers find their way to and along America's Best Roads.

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We welcome comments and feedback on the concepts contained within Wayshowing for Byways. Please direct any comments and feedback to Curt Pianalto, Associate Director at America's Byways Resource Center. He can be reached at cpianalto@byways.org.

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March 28, 2011

TABLE OF CONTENTS

CHAPTER ONE

Wayshowing for Byways: A Reference Manual 1-1
- What are the purposes of the manual? 1-2
- How is the manual arranged? 1-3
- How can the manual be used? 1-3

CHAPTER TWO

A Wayfinding Introduction 2-1
- Wayfinding and Wayshowing : Who does what? 2-2
  - What is it like to be lost as seen through a visitor's eye? 2-2
- Wayfinding Questions that need Wayshowing Answers 2-3
- The Three Stages of a Byway Experience 2-4
  - Pre-Visit Stage 2-5
  - Visit Stage 2-5
  - Post-Visit Stage 2-6
- Media Relevancy and Wayshowing Tools 2-8
- Wayfinding Needs and Opportunities at Each Stage 2-10
  - Wayshowing Opportunities at the Pre-Visit Stage 2-10
  - Wayshowing Opportunities at the Visit Stage 2-10
  - Wayshowing Opportunities at the Post-Visit Stage 2-12
- Comprehensive Wayshowing for Byways 2-13
  - Information that Communicates a Route 2-13
  - Integrating Information to Communicate a Route 2-14
- The Manual on Uniform Traffic Control Devices for Streets and Highways 2-22
  - Implementing State MUTCD Standards 2-22
  - Obtaining the MUTCD 2-23

CHAPTER THREE

An Introduction to Wayshowing for Byways 3-1
- An Introduction to the National Scenic Byways Program 3-2
  - Legislation 3-2
  - The Three Core Elements: CMPs, IQs, and the Visitor Experience 3-3
  - America's Byways Designation 3-5
  - The National Scenic Byways Program Grants 3-5
  - Other Byway-Related Programs 3-6
- Understanding Wayfinding and Wayshowing 3-8
  - Wayfinding 3-8

Wayfinding Questions that Need Wayshowing Answers....3-8
The Three Stages of a Byway Experience....3-10
Pre-Visit Stage....3-11
Visit Stage....3-11
Post-Visit Stage....3-12
Media Relevancy at Each Stage of the Byway Visitor Experience....3-14
The Visitor Experience Hierarchy....3-15
A Pledge of Customer Service....3-16
Integrating Wayshowing with Corridor Management and Other Byway Activities 3-17
The America's Byway Resource Center Provides Byway Training Resources....3-19

CHAPTER FOUR

The Visitor's Eye Perspective.... 4-1
Taking a Basic Visitors Approach to Understanding Your Byway....4-2
Eight Wayshowing Components:....4-2
Wayfinding Questions that Need Wayshowing Answers....4-3
Wayfinding Needs at Each Stage of the Byway Experience....4-4
Customer Pledge....4-5
A Wayshowing Self-assessment for Byway Providers....4-6
Activities that Develop a Visitor's Eye Perspective....4-7
Front Seat-Back Seat Observation....4-7
Downloadable Maps....4-9
Good Trip-Bad Trip....4-10

CHAPTER FIVE

Planning and Implementing a Comprehensive Byway Wayshowing System.... 5-1
Review of Key Wayfinding and Wayshowing Concepts for Byways....5-2
Wayshowing: The Importance of Thinking and Acting Comprehensively....5-5
Characteristics of Byway Alignment and its Influence on Providing Effective Wayshowing Systems....5-6
The Manual on Uniform Traffic Control Devices for Streets and Highways....5-9
MUTCD Application to Byways....5-9
The Components of a Comprehensive Byway Wayshowing System....5-12
Representational Wayshowing Components....5-14
Physical Wayshowing Components....5-22
Collaborative Engagement and Commitment of Key Parties....5-27
Personal Wayshowing Component....5-34

Graphic Identity: Considerations for Logos, Marks and Signs 5-36
What is "Graphic Identity"? 5-36
Where a Byway Graphic Identity Can be Used 5-36
Graphic Identity for Individual Byways 5-37
Graphic Identity for Byway Collections 5-38
Suggestions for Developing or Updating a Byway Graphic Identity 5-40
General Principles for Graphic Identity 5-42
Funding Considerations and Sources for Wayshowing Improvements 5-43
National Scenic Byways Grants Program 5-43
Other Funding Sources 5-44
Priorities for Implementation and Roles of the Byway Organization 5-45
Byway Wayshowing Assessments 5-46
Sustaining a Byway Wayshowing System 5-49

CHAPTER SIX

A Wayshowing Guide for State and Tribal Byway Coordinators 6-1
The Role of the State and Tribal Byway Coordinators in Creating Effective Wayshowing Systems 6-2
General Roles of State/Tribal Byway Program Agencies 6-2
The Role of State/Tribal Byway Program Coordinators: Wayshowing Knowledge 6-3
The Role of State/Tribal Byway Coordinators: Wayshowing Practice 6-3
The Manual on Uniform Traffic Control Devices for Streets and Highways 6-4
Purpose and Principles of the MUTCD 6-4
Design, Placement and Operations 6-5
Responsibility and Authority for Placement of Traffic Control Devices 6-5
Classification of Signs 6-6
Implications of the MUTCD for State/Tribal Byway Program Coordinators 6-10
Use of the America's Byways Sign 6-11
Examples of Statewide Approaches to Wayshowing Signs 6-13
State Policies on Byway Signing 6-16
Integrating Wayshowing into other Byway Activities 6-17
Marketing 6-17
Interpretation 6-17
Context Sensitive Solutions (CSS) 6-18

CHAPTER SEVEN

A Wayshowing Guide for Road Management Authorities 7-1
An Introduction to the National Scenic Byways Program for Transportation Officials 7-2

The National Scenic Byways Program 7-3
Legislation 7-4
Other Byway-Related Programs 7-5
The Case for Developing Effective Byway Wayshowing 7-6
The Unique Challenges of Byways 7-6
Basic Byway Wayshowing Concepts 7-7
Comprehensive Byway Wayshowing 7-9
The MUTCD and Implications for Byways 7-10
The Use of America's Byways Logo 7-11
References 7-12
Examples of Statewide Approaches to Wayshowing Signs 7-13
State Policies on Byway Signing 7-17
GLOSSARY OF TERMS G-1
REFERENCES R-1

PREFACE

Wayfinding is essentially about knowing where you are and finding where you want to go. Wayshowing gives you the means to do both. That sounds simple and straightforward.

But the experiences of travelers, as well as byway organizations and byway experience providers, suggests otherwise.

Responding to the needs of byway travelers and the organizations that create, manage and sustain high-quality byway experiences, the America's Byways Resource Center is pleased to offer the experience, concepts, observations, and practical references contained in this manual.

***Wayshowing for Byways—A Reference Manual** is organized so you may find the information you need based on your level of knowledge and your frame of reference for the topics of wayfinding and wayshowing for byways. You may go directly to the chapter that is best suited for your needs and interests.*

Welcome to this manual, and we hope it will help you to help others enjoy America's Byways®.

CHAPTER ORIENTATION MAP

CHAPTER ONE Wayshowing for Byways: A Reference Manual

Wayshowing for Byways: A Reference Manual is arranged into seven chapters that focus on various aspects of understanding, designing, planning, implementing, and maintaining effective wayshowing features for byways.

Specifically, this manual is designed for people who may be

- new to the National Scenic Byways Program
- new to byways
- seeking an introduction to the concepts of wayfinding and wayshowing
- considering or are in the midst of byway designation efforts
- creating a byway corridor management plan

This manual is also designed to help meet the needs of providers and planners who

- plan and implement byway projects, products, or media
- are interested in improving byway projects, products, or media by taking a Visitor's Eye Approach
- plan and implement roadside directional signs, route-marking signs, signing systems, and other signs along a byway
- plan and implement comprehensive wayshowing systems along specific byways

This manual's information is provided for

- byway organizations, providers, representatives, stakeholders and partners, consultants, contractors and vendors
- state and tribal byway coordinators who are responsible for a statewide or tribal byway program or collection of byways
- state and tribal byway coordinators who are considering a consistent wayshowing approach within a collection of byways
- state, local, and tribal transportation officials who assist byway providers in developing and implementing signing and wayshowing systems along byways
- traffic engineers, transportation planners, sign fabricators, right of way officers, and others who work with byways

"The principles of wayfinding are simple, the practicalities are very complex."

–Nainoa Thompson

What are the purposes of the manual?

This manual is a resource for people who are new to byways and for people who have experience and want to have information in one place as a reference. The goal is to present basic information on wayfinding and wayshowing in approaches common to most byways. Information about the National Scenic Byways Program, corridor management plans, and comprehensive wayshowing systems is also included. Byway planners and providers, who want more information about signs and rights-of-way issues, traffic and safety, and transportation issues will find resources in this manual.

Fig. 1.1 Lakes to Locks Passage, New York (www.byways.org)

Fig. 1.2 Native American Scenic Byway, South Dakota (www.byways.org)

Fig. 1.3 Flaming Gorge - Uintas National Scenic Byway, Utah (David L. Dahlquist)

Fig. 1.4 Historic Bluff County Scenic Byway, Minnesota (www.byways.org)

Fig. 1.5 Staunton-Parkersburg Turnpike, West Virginia (www.byways.org)

Fig. 1.6 Woodward Avenue (M-1) Automotive Heritage Trail, Michigan (www.byways.org)

How is the manual arranged?

Each chapter can be used as a stand-alone document containing examples, references, and commonly used terms. Some aspects of wayshowing should be developed in steps, a sequence that should be followed and we have presented them that way. Other wayshowing tasks apply when byways are "ready" for them. Not every byway will need to employ all of the features described in this manual. This manual provides many diagrams and photos to illustrate the features of wayshowing. A complete glossary and list of references is provided at the conclusion of the manual.

How can the manual be used?

The manual can be used by people new to wayshowing to learn about the options they have for wayshowing on their byway. The first two chapters identify steps that can be taken to get basic wayshowing elements in place.

The manual can be used as a reference guide by state byway coordinators who routinely provide guidance and support to local byway providers.

It may be used as a document that contains information that can be uniformly applied throughout the various types of byways governance and management. If a byway corridor crosses jurisdictional boundaries, the information contained in the manual can improve the effectiveness of joint projects and priorities.

CHAPTER TWO A Wayfinding Introduction

If you are new to the concepts and principles of wayfinding and wayshowing, this chapter will help you think about what you need to do first and understand why you need to do it.

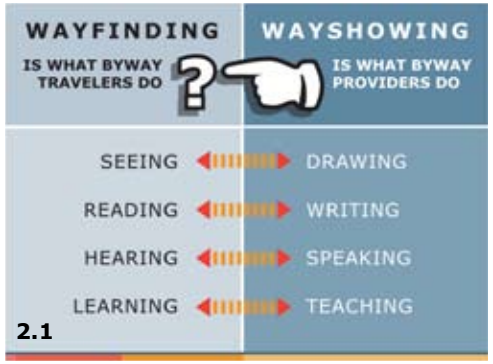
At the end of this chapter, you will know:

- the difference between wayshowing and wayfinding
- the five skills travelers employ when trying to find their way
- the three stages and five activities of byway travel
- the wayshowing tools that can help you communicate a route
- that safety is a primary goal of the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD)

You can use this knowledge to:

- consider the effectiveness of your byway's media in each of the three stages and five activities of byways travel
- download the MUTCD

Please note: Traffic signs are an important part of wayshowing for byways. While the photographs presented in this chapter illustrate existing examples of signs installed on byways, they may not necessarily represent complete compliance with the standards presented in the MUTCD. Please engage local and state traffic and safety authorities when planning and designing traffic signs that support byway travel.



To help travelers do their best job wayfinding, you must understand a key element of your wayshowing job: helping visitors travel your byway safely and without getting lost.

Fig. 2.1 Wayfinding is what travelers do. Wayshowing is what byway providers do.

Wayfinding and Wayshowing : Who does what?

The difference between *wayfinding* and *wayshowing* depends which end of a pointing finger you are on.

Wayfinding is the job of travelers. They look for clues to reassure them they are where they planned to be, and they look for information and amenities to make their experience pleasant and enjoyable.

Wayshowing is the job of byway providers and includes preparing travel information, designing maps and travel brochures, planning or installing signs, or providing other navigational help in person or by electronic means. Wayshowing requires a variety of skills such as writing, speaking, teaching, or drawing as well as planning, project management, graphic design, and site planning and traffic engineering that help meet travelers' wayfinding needs.

Travelers have found their way along the roads of your byway for decades, but as soon as the roads become a designated byway, travelers' expectations are raised. Byway travelers expect byway-specific tools (e.g., signs, brochures, and maps), that help them navigate, learn about, and enjoy the byway.

For decades, many travelers found their way along the roads that now make up your byway with little difficulty: those motorists likely were local residents or they had other more practical reasons to often travel your roads. But as soon as those roads became a designated byway, new travelers arrived and their wayfinding needs and expectations were fundamentally different. Your new byway travelers naturally don't have the local knowledge of your area enjoyed by many other travelers. Your byway travelers need and expect byway-specific tools (e.g., signs, brochures, and maps), that help them navigate, learn about, and enjoy the byway.

What is it like to be lost as seen through a visitor's eye?

One of the most important tasks for byway providers is *to see their byway through the visitor's eye.* Although this may seem obvious, it can be difficult and challenging to do. Visitors experience emotions as they travel and byway providers should understand the relationship of essential wayshowing tools to visitor perceptions.

Being lost brings to mind many strong negative emotions — negative emotions that are felt in our very core. Resentment, fear, and anger are feelings that can become the lasting memories of a trip. Travelers may share their memories of being afraid or of missing attractions because they were lost. Personal recommendations are very authoritative and convincing.

At best, negative feelings fade quickly and are replaced by pleasant memories or pride in having overcome a small challenge. At worst, they become strong recommendations to others to avoid traveling along a byway.

At best, negative feelings fade quickly and are replaced by pleasant memories, or pride, in having overcome a small challenge. At worst, travelers may strongly recommend that others should avoid a byway.

What does it cost to be lost? Travelers must be able to travel safely without uncertainty. Lost travelers can incur property damage, damage byway assets, and suffer personal injury or death. Byway attractions suffer reduced income when travelers cannot find them.

Wayfinding Questions that need Wayshowing Answers

In most cases, travelers all have basic wayfinding needs. Travelers need to learn and employ five skills that will lead to their having a successful visit.

Travelers need to:

- know where a byway begins and ends, when they are accessing a byway, and when they are leaving a byway environment;
- create, refresh, and expand their mental maps of a byway corridor;
- establish and strengthen their orientation to a byway and the corridor that surrounds a byway;
- follow a reliable and easily recognizable sequence of visual clues to follow when travelling along a byway; and
- locate and safely travel to planned stops and special places to fulfill their desired byway experience.

To meet these needs and help them orient and navigate, travelers can learn and employ five skills.

1. Identify their original starting location and their destination.
2. Determine whether they need to turn right or left or go straight to stay on course.
3. Identify distinct segments of the total route and the cardinal direction of travel for each.
4. Recognize on-route and distant landmarks.
5. Mentally embed or visualize the route in a larger reference frame, a *cognitive map*.

The byway travel experience occurs in stages. During each stage, travelers perform various activities that make up the total byway experience. Travelers need the support of effective wayshowing components during all stages and activities.

The Three Stages of a Byway Experience

Travelers usually experience byways in three stages,

1. the Pre-Visit Stage
2. the Visit Stage, and
3. the Post-Visit Stage.

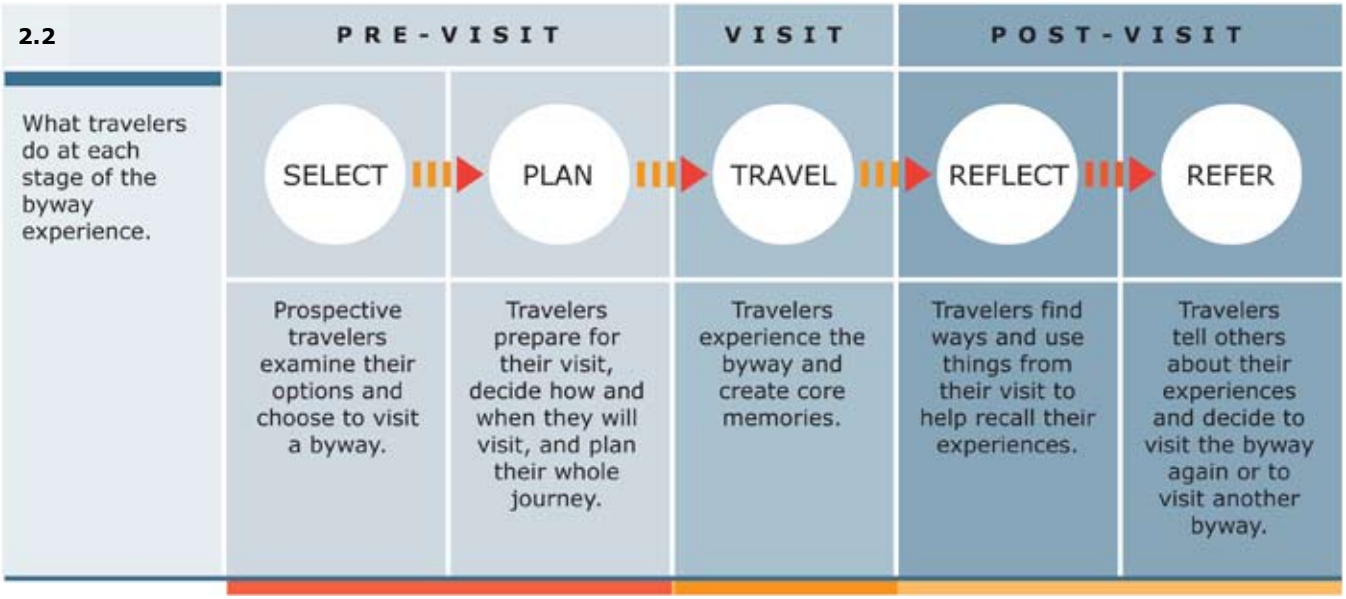


Fig. 2.2 Wayfinding Needs at Each Activity Stage

In the Pre-Visit Stage, byway providers can use wayshowing tools such as up-to-date websites, accurate downloadable maps, and interesting brochures. If these tools are not available or are not current and accurate, it will be more difficult to capture and hold travelers' interest at all stages of the experience.

In the Visit Stage, byway providers should use wayshowing tools such as guide signs, electronic guidance, and information about byway destinations and wayside interpretive exhibits.

In the Post-Visit stage, byway providers can use wayshowing tools such as guide signs, destination merchandise, and websites.

These three stages can be broken down into five activities travelers do at each stage of the byway experience (Figure 2.2).

Pre-Visit Stage

Select
This stage begins even before people know they are planning to visit your byway—it happens the moment they decide to take a trip. Design your brochures, websites, and advertising, to catch the prospective travelers' attention and persuade them to select your byway.

After your brochures, websites, or advertisements have caught their attention, your prospective travelers may plan to visit your byway or jump right in the car for a spontaneous adventure on your byway.

Travelers who are already on the road may decide to visit your byway after they pick up brochures or maps at an information center or road-side orientation stop. These travelers may visit your byway after they notice or come across a guide sign or the marked entrance.

Plan
At this stage, travelers make conscious efforts to investigate the byway using information from websites, brochures or maps. Provide sufficient information to address travelers' questions about your byway.

Travelers who are already on the road may stop at a wayside interpretive exhibit and change their plans. An interesting guide sign may prompt a spontaneous detour to visit the byway's intrinsic qualities (IQs) and attractions.

The Visitor's Eye Perspective, Chapter Four, provides more specific information about how byway providers can identify wayshowing opportunities and assess traveler needs at each stage of the byway experience.

Visit Stage

Travel
The trip along the byway corridor is definitely the big event—it's what all your media is about. At this stage, your travelers focus on enjoying the byway's IQs and moving about the byway safely. Some people may be content to meander along the byway, unconcerned about making it to their destination. Driving and sightseeing may be their goals. Others may see the route as a means of getting from one destination to another and count on being able to navigate the route efficiently.

Travelers expect and deserve accurate wayshowing literature (e.g., schedules of special events, open times, and seasonal closings of attractions) guide signs, and wayside interpretive exhibits. Some visitors purchase destination merchandise for the Post-Visit stage when they reflect on or refer to their visit.

Travelers have questions that reflect their wayfinding needs.

No matter how much planning travelers have done, unanticipated needs may arise. Traffic delays, weather, or unpredictable and spontaneous needs for fuel or food may require travelers to leave the byway. In these situations, byway providers must provide wayshowing assistance in the form of signing or easy-to-locate directions to help travelers find services or return to the byway.

Post-Visit Stage

Reflect
This stage begins when travelers head for home and review their byway experiences. Travelers may reflect on what they saw and did, write in a travel diary, or talk among themselves. For instance, travelers might say, "Do you remember that amazing landform?"; "I sure liked that restaurant. Remember the story that waitress told about the area?"; "I had such a good time, I'd like to return."

Byway providers use wayshowing tools and clues to meet these needs.

A byway visit, however short or long, should produce experiences worth recalling in both the near- and long-term. Wayshowing tools acquired during the byway visit (e.g., interpretive brochures, maps, destination merchandise or a book about an IQ attraction) or other media (e.g., websites or travelers' photos) extend the byway experience.

Refer
Travelers who have navigated successfully and traveled safely may choose to repeat their trip. Because they feel confident navigating to and along the byway, travelers may share brochures and maps, travel merchandise and their photos with others. These byway ambassadors may encourage others to visit the byway website and provide travel advice.

Figure 2.3 summarizes the activities and typical wayfinding questions that travelers may have at each stage of the byway experience.

2.3	PRE-VISIT		VISIT	POST-VISIT	
Travelers have questions that reflect their wayfinding needs.	SELECT	PLAN	TRAVEL	REFLECT	REFER
Byway providers use wayshowing tools and clues to meet these needs.	Where is the byway? What is there to see and do? How much time should it take to travel the byway? What is the big story? How will we benefit from this experience?	How will we get there? Where will we stay? eat? shop? How much time will it take to travel to and from the byway? What are the intrinsic qualities of the byway? What wayside interpretive exhibits and attractions will we find?	Where are the entry points to the byway? How will we know this is a byway? Where are travel services located? How do we get back on when we've gotten off the byway? Where are the byway's attractions?	What good things will we remember? Do we remember bad parts of the experience? Have we kept maps, pictures, or souvenirs so we could remember our experience? What emotions will we remember?	How will we share our experiences? What will we tell others about our experiences? Will we go back for another visit? Will we visit another byway? Will we recommend that others visit the byway?

Fig. 2.3 Typical wayfinding questions at each stage of the byway experience

Perhaps one of the most important ideas for byways providers to understand is that travelers need to learn to navigate. Learning to navigate means learning what wayshowing tools to look for and knowing where to look for these tools. When people learn to use particular tools, they come to expect that they will find the tools in reliable, standardized locations and that the clues will be usable no matter what kind of tools they encounter.

Media Relevancy and Wayshowing Tools

Starting a new byway can be overwhelming because it may seem as though everything needs to be done at the same time. In fact, there are a small number of tools to develop first because they are used by greatest number of travelers. These tools help people navigate the byway without getting lost.

Perhaps one of the most important ideas for byways providers to understand is that travelers expect that they will find the wayshowing tools in reliable, standardized locations. Further they expect that the wayshowing tools will be usable and accurate. Some examples of tools travelers expect to be available include printed brochures and maps, official byway guide signs along the route, downloadable maps and information, tour guide services, and recorded interpretation provided through cell phones.

Well-placed wayshowing media, tools and visual clues help travelers with all levels of experience to navigate, locate and safely travel a byway. Some clues, such as hills or rivers, are naturally present in the landscape as are some landmarks, such as buildings and towns or unique features such as a bridge or an inspirational vista. Byway providers must create and place wayshowing tools along the route because travelers depend upon them.

Generally, byway providers should develop some basic wayshowing tools in sequence. This manual describes methods for developing these tools in more detail in later chapters.

Basic wayshowing tools include: printed brochures, websites, advertising, guide signs, electronic guidance systems, wayside interpretive exhibits, and merchandise. Wayshowing tools are valuable in the three stages of the wayfinding experience. However, not all of these basic wayshowing tools figure prominently in every wayfinding stage.

Figure 2.4 shows the basic wayshowing tools and their relative importance at each of the three stages and five activities of a wayfinding experience.

Byway providers have many wayshowing responsibilities because travelers expect wayshowing tools during all stages of their byway travel experience.

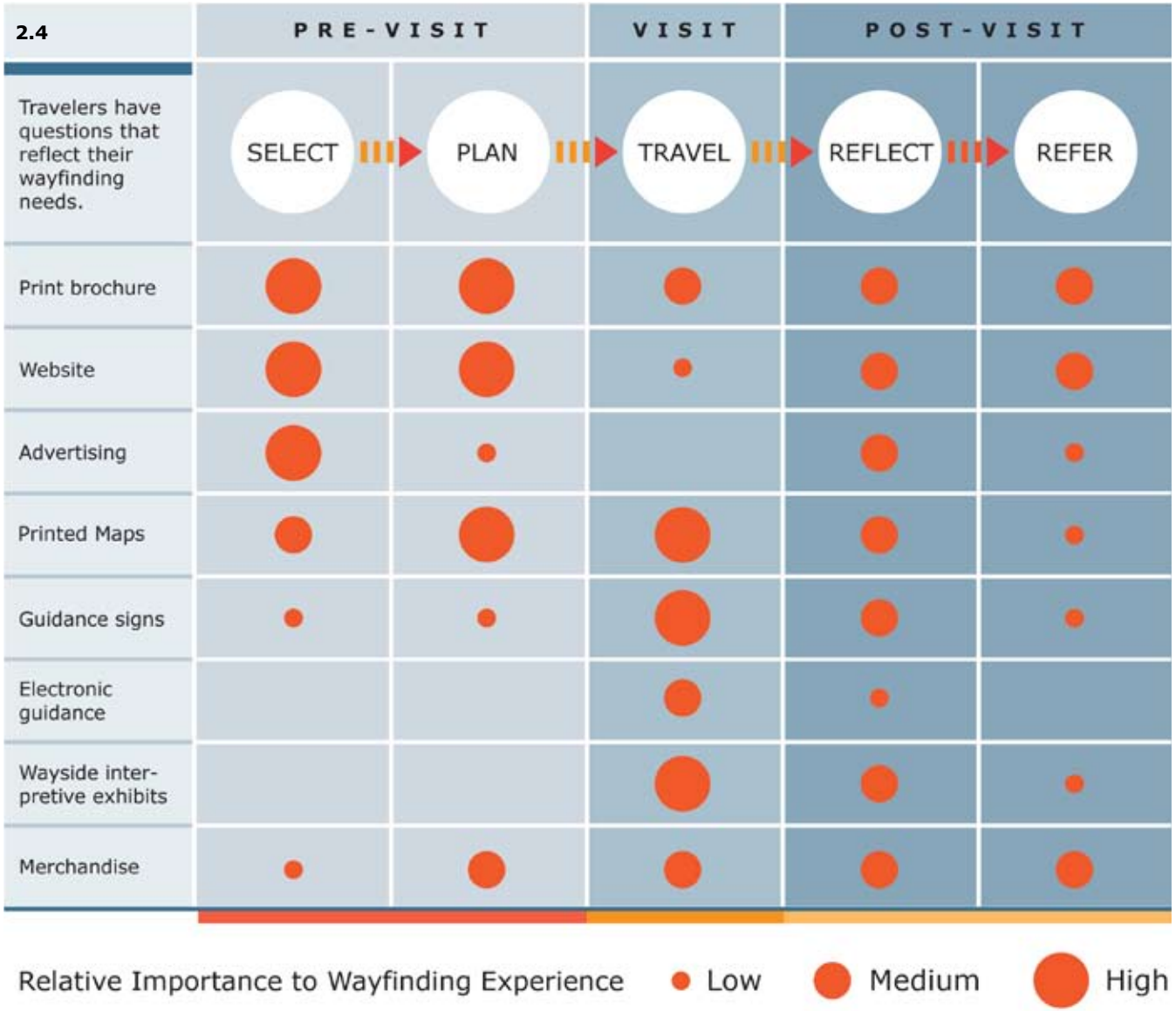


Fig. 2.4 Basic wayshowing tools and their relative importance at each stage of a wayfinding experience

Byway providers should consider providing for various traveler wayfinding needs during each stage of a byway experience.

Wayfinding Needs and Opportunities at Each Stage

When byway providers understand the stages of a wayfinding experience, they can plan and prioritize the wayshowing tools they provide for travelers. Some wayshowing tools need to be planned and installed in a sequence, but some services can be added or changed as needs arise.

Each stage of the byway experience offers opportunities to provide essential wayshowing information that fulfills the visitor's wayfinding needs. Byway providers can provide wayshowing tools to potential travelers, travelers that are currently in the midst of visiting your byway, and travelers that have already visited the byway. **More simply, byway providers should consider providing for various traveler wayfinding needs during each stage of a byway experience.**

Some wayshowing tools may be more important during some stages of a visit than during other stages. For example, brochures and information from websites are very important when potential travelers are selecting and planning their byway visit but guide signs are very important during the actual visit stage when travelers are navigating the byway.

Wayshowing Opportunities at the Pre-Visit Stage

The Pre-Visit stage is comprised of two distinct activities. Travelers select a byway and plan their visit. Byway providers may build trust in potential travelers by providing easily accessible and accurate information that helps travelers consider options and select a byway to visit. Examples of wayshowing tools used by potential travelers are websites and advertisements.

Once potential travelers have selected a byway and related activities, they use different wayshowing tools as they plan their visit. Travelers may require more detailed information to help them plan their visit. Wayshowing tools provided for travelers in this stage should also allow them to assemble detailed and vital information that can be brought along and used during the byway visit.

Wayshowing Opportunities at the Visit Stage

The Visit Stage is when accurate and adequate wayfinding information may be the most important to travelers. Motorists are underway and need very timely information such as signs to help them make turns safely and find services such as restrooms, hospitals, or fuel. Batteries in on-line navigation aids can fail and travelers may need to rely on permanent signs and traditional clues.

Travelers expect and deserve accurate wayshowing literature (e.g., schedules of special events and open times and seasonal closings of attractions), guide signs, and wayside interpretive exhibits.

Some visitors purchase destination-related merchandise for the Post-Visit stage when they reflect on or refer to their visit.

Without these most basic clues and tools that communicate unique features, travelers are likely to be unaware they are on a byway, much less notice when they leave a byway. Basic clues and tools increase the likelihood that travelers may happen onto a byway, recognize it as one, and choose to follow the byway.

Opportunities Provided by Electronic Tools
This list shows some of the electronic and broadcast tools that travelers may rely on during the Visit stage.

- Personal GPS—Handheld or dashboard installed
- Smartphone applications
- Short range FM-AM radio broadcasts
- Audio CDs and Video DVDs with driving instructions and interpretive stories
- Laptops or handheld devices with Internet connections
- On-board telematics communication systems such as OnStar or SYNC®
- Commercial GPS activated audio messages and devices
- Downloaded audio tours via MP3 or other systems
- Electronic book readers

Travelers using electronic media may do so to the exclusion of other basic tools, such as printed maps and tour guides or signs. This may seem to make these basic (i.e., non-electronic) tools seem less necessary. However, electronic tools are not yet universally available nor are they available in all of the languages travelers may need. If your byway provides electronic data, it may not match with the electronic equipment the travelers may carry. Pride in having and knowing how to use electronic tools, and the enjoyment of using them are emotions that will strongly appeal to some travelers. Balancing the implementation of these electronic options, with the investment of labor and money necessary for them, is a choice for each byway provider to make.

Dangers Associated with Electronic Tools
As you consider making electronic media available to travelers, you always need to be mindful of the extent to which these media may contribute to the dangerous practice of distracted driving.

2.5

Figure 2.5 illustrates the Put It Down public education logo provided by the U.S. Department of Transportation to increase the awareness of distracted driving. According to www.distraction.gov,

> *Distraction is defined by National Highway Traffic Safety Administration as a specific type of inattention that occurs when drivers divert their attention away from the task of driving to focus on another activity instead. These distractions can be electronic distractions, such as navigation systems and cell phones, or more conventional distractions, such as interacting with passengers and eating. These distracting tasks can affect drivers in different ways and are categorized into the following three types—visual, taking your eyes off the road; manual, taking your hands off the wheel; and cognitive, taking your mind off the road.*

The vehicle parking areas of roadside pull-offs, orientation stops, and visitor centers offer places that can be designated 'Out of Traffic Areas' for personal electronic usage.

Wayshowing Opportunities at the Post-Visit Stage

As travelers **reflect** upon their experiences they may turn to literature, merchandise, or videos/ photos of their trip to relive the memories. The wayshowing tools you provide can help travelers bond with special places by ensuring they have access to take-home materials that carry the overall message of your byway. These informational items should consistently carry the graphic identities unique to your byway.

The last activity for travelers is one where you hope they **refer** others to your byway and plan repeated trips themselves. As an example, the take-home literature and merchandise that carries information on current websites will make this possible.

Fig. 2.5 "Put It Down" public education logo provided by the U.S. Department of Transportation

Effective wayshowing needs representational, physical and personal elements.

Comprehensive Wayshowing for Byways

The act of wayshowing involves providing wayshowing tools for travelers. These tools provide the clues travelers expect at the right time and in the right place so they can safely and successfully navigate the byway. Byway providers should undertake comprehensive wayshowing — providing tools for all visitor stages throughout the entire byway — and ensure that wayshowing information is accurate and up to date. It is necessary to periodically review wayshowing tools. Most byway providers have some idea about how often their wayshowing tools should be reviewed or changed; this workflow is discussed in greater detail in Chapter Five. Some tools, such as highway route signs, are developed and installed, checked now and then, and replaced when roads are changed or when the signs are damaged or faded.

Some traveler clues and wayshowing tools should be updated more often. For example, informational brochures probably need to be updated seasonally to reflect changes in the schedule of events or changes in the times when attractions open or close.

Byway providers should conduct an annual review of wayshowing tools to ensure consistency among logos on websites, directional maps, and slogans on recorded messages. Road construction, detours, and rerouting events also trigger the need for a change in wayshowing tools.

Information that Communicates a Route

The most basic task of wayshowing is providing information that effectively and safely communicates a route. Travelers have a wide range of skills in using wayshowing tools. You may get positive feedback about experiences where traveler's skills were perfectly matched with your wayshowing tools. You will also receive complaints from travelers whose skills were completely unsuited for the wayshowing tools along your byway.

Byway providers should develop accurate and up-to-date information that communicates the route for the widest range of travelers. This will result in positive wayfinding experiences. Effective wayshowing tools provide written information, audible information, and graphics or pictorial information.

Written Information

Travelers need information they can *read*. Most information should be easy to read, and aimed at a 4th to 6th grade reading level, similar to that of most newspapers. Brochures for pre-trip planning should be engaging; interpretive signs for special sites should be informative. Information on websites should be both engaging *and* informative. Writing for travelers should be done by people who have the proper skills to match the purpose to the reader.

Audible Information
Travelers benefit from information they can *hear.* Audible elements assist travelers who are not strong readers. They can also assist drivers travel safely and without interruption to stop to read. An advantage of audible elements is that they can often be changed easily and quickly. Live interpreters can match their delivery to their audience. Conversing with a guide at a counter; or listening to a radio/electronic transmission along a route are examples of audible wayshowing tools.

Graphics and Pictorial Information
Travelers use graphics to quickly *recognize* common wayshowing elements. Effective graphics use colors and images to catch the eye of a byway visitor and can be found in many different medium. Recognizable graphics, pictorial information and appropriate color contrast almost instantly mark a route, confirm a turn, or highlight a feature. Therefore these are especially helpful to drivers who must make safe navigational decisions very quickly. Graphics perform these functions despite difficulties travelers might have with reading or understanding the language.

Integrating Information to Communicate a Route

Byway providers can integrate these three kinds of information—written, audible, and pictorial/graphic—into eight families of wayshowing tools:

- travel directions and route clarity;
- digital data;
- orientation stops;
- identification of byway attractions; and
- maps;
- marked byway entrances and exits;
- byway guide signs;
- trained hospitality personnel.

2.6

Driving the Ridge

The Arkansas segment of the Crowley's Ridge Parkway is a series of federal, state and county highways linked to traverse the entire crescent-shaped ridge. For the best experience, consider the official route as a trunk with numerous branches spreading out to be explored.

Directions:

Cross the St. Francis River on U. S. 62 from Campbell, Mo., into St. Francis, Ark., then south to Piggott.

Fig. 2.6 Travel directions - Crowley's Ridge Parkway, Crowley's Ridge Parkway Driving Tour Guide

1. Travel Directions and Route Clarity: Turn-by-turn narrative descriptions of each distinct route segment of a byway

The byway's route must be clearly defined, continuous, and described in terms of route segments. Byway providers must be able to describe discrete segments of the byway in these essential terms:

- an identified route, street, or road name;
- the distance of each distinct segment of the byway's overall route;
- the distance between landmarks or decision points;
- the direction of travel; and
- what to do at decision points.

Figure 2.6 is an example of turn-by-turn narrative for a byway segment.

It is a good practice to include compass directions as well as turn directions. For example, a byway could be described in these terms:

> *Travel west on State Route 46 from the roadside vista for a distance of 23 miles. At the intersection with US Route 40 turn north—make a right turn from State Route 46 onto US Route 40—and travel 14 miles until you reach the town of Smithville.*

2. Maps:
Graphic (cartographic) displays of a byway, its surrounding corridor and regional setting

Maps provide the total picture of the entire byway and its corridor. In addition to printed maps, travelers need a mental image—a *cognitive map*—of the entire byway. Travelers whose cognitive map helps them develop and maintain a sense of where they are relative to the entire byway are less likely to get lost.

Travelers usually have an internalized system for wayfinding problem solving in unfamiliar travel environments. They may intuitively realize they have made a wrong turn or gone too far. Travelers bring their travel experiences—their self-navigation tools—with them each time they travel. They may more or less continually sense whether they are on the right path, or their travel partner may say, "Dear, we are lost!" or "You made the wrong turn. should have been reading the map!"

Maps are essential to successful wayfinding. Maps are the foundation that put byway stories and intrinsic qualities into a larger, meaningful perspective. Figure 2.7 illustrates a byway map that serves as a pictorial wayshowing component.

Fig. 2.7 International Selkirk Loop Map (www. selkirkloop.org)

3. Digital Data:
Media provided for consumer electronic devices

Many travelers rely on electronics for navigation. Travelers who can afford them adopt digital services and consumer-based electronic devices. The value that digital data and the associated applications bring to wayfinding cannot be underestimated.

During all stages of a byway travel experience—Pre-Visit, Visit, or Post-Visit—you should consider the wayshowing ramifications of using an electronic information delivery system. The fundamentals of wayshowing described in this manual apply to digital services and consumer electronic devices. Many byways offer access to electronic wayfinding information. Many individual byway websites can be found at www.byways.org.

Here is a sample of the many byway websites that offer a variety of interactive maps and applications.

www.ncdot.org/travel/scenic/ (Figure 2.9)

www.illinoisriverroad.org

www.lakestolocks.com/map.php?region=3

www.kansaswetlandsandwildlifescenicbyway.com/maps

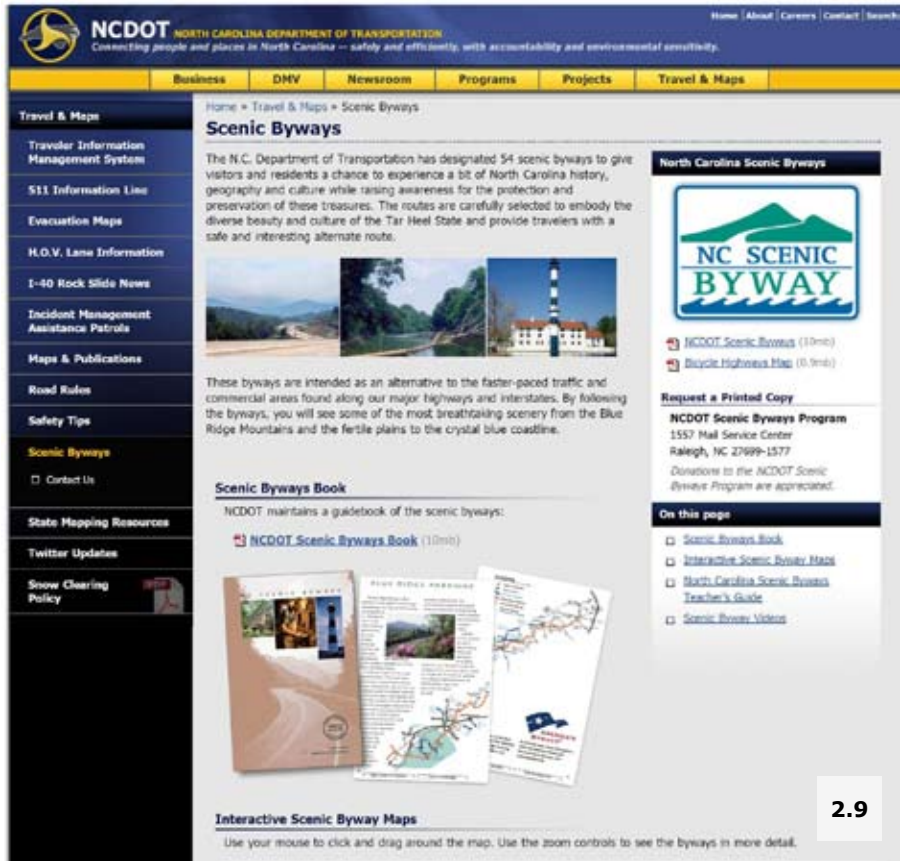


Fig. 2.8 Popular consumer electronics

Fig. 2.9 North Carolina Scenic Byways website (www.ncdot.org/travel/scenic/)

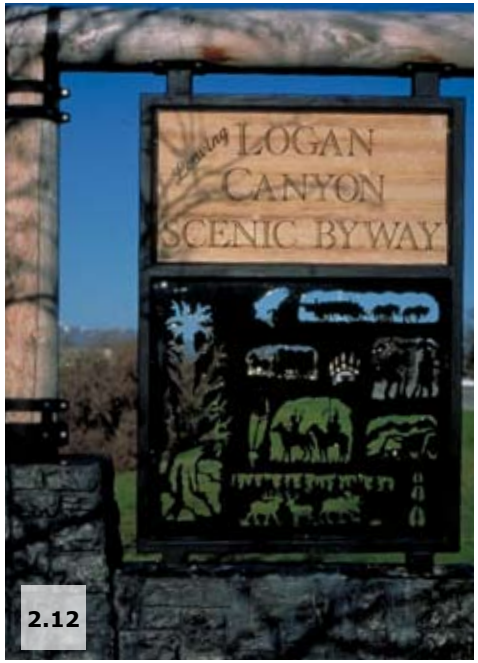
2.10

4. Marked Byway Entrances and Exits: Signs and entry monuments that signify the beginning, ending, and major intersecting points of a byway

Travelers need to know when they have arrived and when they have left the byway. Answering the "Are we there yet?" question is essential for some travelers to know when they should start having fun. The question is equally essential to successful wayfinding. Although some travelers may use a satellite-based global positioning system (GPS) to learn when they have arrived at the byway, other travelers appreciate physical and visual wayshowing tools to indicate when they have arrived.

Byway providers successfully deploy a variety of features to provide this clue. Some byway providers use highly landscaped and decorative markers, gateways or arches for entrances and exits to byway corridors. Other byway providers use simple BEGIN and END auxiliary signs as part of their byway guide signs. The discussion of the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) below contains information about byway signing.

Byway providers need to ensure that byway travelers can access tangible clues for when they arrive and when they leave the byway corridor.



2.12

2.11

2.13

Fig. 2.10 Entrance sign - Colorado Byway (ABRC)

Fig. 2.11 Exit sign - Colorado Byway (ABRC)

Fig. 2.12 Exit sign - Logan Canyon Byway, Utah (ABRC)

Fig. 2.13 Developed byway entrance - Edge of the Wilderness Byway (ABRC)

2.14

2.15

Fig. 2.14 Free-standing orientation stop – Utah (ABRC)

Fig. 2.15 Visitor Center, Meeting of the Great Rivers Scenic Route, Illinois (ABRC)

5. Orientation Stops:
Visitor centers and roadside pull-offs where travelers can obtain an overall orientation to the byway corridor

Orientation stops are pull-offs, turn-outs and other places where motorists can create, refresh and expand their mental maps of a byway corridor. These locations may have exhibits, maps, or other means of communication to help travelers learn about the intrinsic qualities of the byway, and the overarching interpretive themes. These orientation stops are best located at key entry and access points of the byway.

An orientation stop allows byway providers to provide the wayshowing tools travelers need to orient to the big picture of a place or a byway corridor. Orientation stops should help travelers develop a cognitive map that can mature and become increasingly valuable to the travelers as they explore each segment in the byway trek.

To illustrate this concept, consider how a cognitive map develops in your mind as you orient to your immediate surroundings. You build upon the relationship of those surroundings within a network of details you've learned to use for navigation. In the beginning of a trip into a new area, your cognitive map might not be very useful. Think about a weeklong trip you made to an area that you had not previously visited. Recall your feelings on the first day of your trip. Recall your understanding of the street or road network, your confidence at venturing away from your hotel or temporary residence, and the number of times you were unsure about reaching your destinations.

Cognitive maps continually develop and become more valuable as travelers acquire more knowledge about the local geography. Travelers' sense of safety and confidence builds as their cognitive maps develop. They may recognize landmarks and understand the geography of the place much better and be able to take the risk of navigating through a previously unexplored area. Here's an example of a cognitive map in action: "Let's see. I think that if the big mountain is up there and we are here, then our campground must be over there. Great! We are not lost."

Visitor and welcome centers can provide travel literature, or trained hospitality personnel who can customize travel instructions to help travelers orient to the byway.

2.16

6. Byway Guide Signs:
Highway and road signs which guide motorists to and along a byway route

Some people argue that adding highways signs that have been customized for their byway is all they need to do to ensure that travelers won't get lost. Others argue that any sign placed in the seen-environment will represent an unsightly form of visual pollution. Yet others argue that byway guide signs aren't needed if travelers obtain guidance information from an electronic device like a GPS unit or a Smartphone. However, well-developed byway route guide signs provide *all* byway travelers with the essential clues that enable them to successfully travel along and through a byway's corridor.

Guide signs placed adjacent to the roadway provide essential verification for a traveler to follow written or oral directions, maps and GPS-directed travel. And when a byway's guide sign system is based on principles set forth in the MUTCD, those route signs will:

- fulfill a need;
- command attention;
- convey a clear, simple meaning;
- command respect from road users; and
- give adequate time for proper response.

2.17

2.18

Fig. 2.16 Byway Guide Sign, Iowa Great River Road (ABRC)

Fig. 2.17 Byway Guide Sign, Ohio River Scenic Byway (ABRC)

Fig. 2.18 Byway Guide Sign, Utah (David L. Dahlquist)

2.19

2.20

7. Identification of Byway Attractions:
Signs and graphics with the names of places where travelers are encouraged to stop along a byway

Travelers need signs to help them find byway attractions such as scenic overlooks, trails, information stops, interpretive centers and wayside exhibits. Byway attractions need to be well-marked with the byway identity to show that they are part of the overall byway.

2.21

2.22

Fig. 2.19 Visitor information - Historical site identification signs, Utah (David L. Dahlquist)

Fig. 2.20 National Forest Scenic Byway information identification sign, Utah (David L. Dahlquist)

Fig. 2.21 National Forest Service Interpretive Area identification sign, Oregon (ABRC)

Fig. 2.22 Cherokee Foothills Byway Information identification sign, South Carolina (ABRC)

8. Trained Hospitality Personnel:
Visitor center staff, interpreters, volunteers, park rangers and other people who have the duty to provide information to travelers and visitors

At every stage—Pre-Visit, Visit, and Post-Visit—trained hospitality personnel can efficiently answer traveler's questions. Trained hospitality personnel can customize directions, authoritatively estimate time required to travel, inform travelers about dynamic weather and road conditions, and recommend where travelers may stay, eat, and shop.

Fig. 2.23 Traveler at Visitor Center information desk (David L. Dahlquist)

Fig. 2.24 Story teller and audience (ABRC)

Fig. 2.25 Interpretive presentation (ABRC)

Fig. 2.26 "Miss Lily" at Historic Rice Mill (David l. Dahlquist)

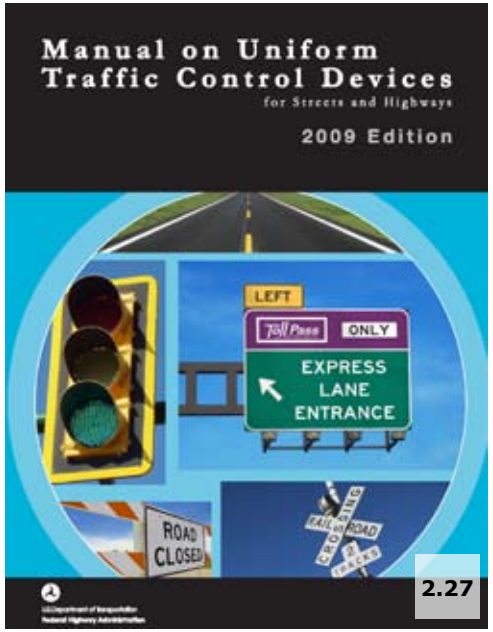


Fig. 2.27 2009 Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD)

The Manual on Uniform Traffic Control Devices for Streets and Highways

Byway guide signs are key elements to effective, safe wayshowing. It is important to understand that the design and implementation of roadside signs—including byway guide signs—are directed and governed by rules and standards.

The principal resource in conveying these national standards is the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) (Figure 2.27). The official website for the MUTCD is: www.mutcd.fhwa.dot.gov. A primary goal of the MUTCD is **safety**.

The MUTCD defines minimum standards for road managers who install and maintain traffic control devices on all streets, highways, bikeways, and private roads that are open to public travel. Road managers include state, tribal and local transportation planners; traffic engineers; and local public works departments who design roads and place traffic control devices. Traffic control devices are signs, traffic signals, and pavement markings. Byway organizations are typically most interested in signs.

The MUTCD can have implications for design and installation of wayshowing components such as byway entrances and byway guide signs. Byway providers should identify the appropriate road management authority personnel who can help them understand the state's MUTCD standards and guidelines. For example, the design and implementation of wayshowing components, such as byway entrances and existing byway guide signs, requires the support and approval of your local road manager. Guide signs — trailblazing or route-marking signs — must be integrated with and respond to the requirements of the state's interpretation and application of the MUTCD.

Implementing State MUTCD Standards

Although the MUTCD is the national standard for the design and placement of traffic control devices; state transportation agencies determine how they comply with MUTCD standards. For example, some states adopt the MUTCD as their standard. Other states adopt the national MUTCD along with a state supplement that might prescribe which of several allowable options are selected for the state's specific purposes. Still other states use the national MUTCD as the basis for developing their own State Traffic Control Device manuals, which must be in substantial conformance to the national MUTCD.

Most of the states with state MUTCDs or supplements make them available electronically on their state websites. You can search for state-specific information at: www.mutcd.fhwa.dot.gov/resources/state_info/index.htm

Obtaining the MUTCD

The MUTCD is published by the Federal Highway Administration (FHWA) under 23 Code of Federal Regulations (CFR), Part 655, Subpart F. The 2009 edition of the MUTCD is the most current and you can download the official PDF version at www.mutcd.fhwa.dot.gov/pdfs/2009/pdf_index.htm

The state or tribal byway program coordinator may be able to help byway providers interpret the relevant information in the MUTCD. It is important to note that the MUTCD is primarily a technical standards document and it might not be necessary for byway providers to engage with the entire document. It is more important to learn how a state implements the provisions of the MUTCD as it relates to guide and tourism-related signing and traffic control devices.

CHAPTER THREE An Introduction to Wayshowing for Byways

At the end of this chapter, you will know

- about the National Scenic Byways Program (NSBP)
- the three core elements from the NSBP Interim Policy
- the relationship between wayfinding and wayshowing
- media relevancy at each stage of the byway experience
- about pledges of customer service

You can use this knowledge to

- locate the NSBP Interim Policy
- obtain information about byway grants and America's Byways nomination
- create a pledge of customer service for your byway

This chapter is designed for

- people and organizations who may be new to byways
- people and organizations who may be new to the NSBP
- users who are considering or are in the midst of byway designation efforts
- authors and creators of byway corridor management plans (CMP)
- grant writers and grant-seeking organizations

Please note: Traffic signs are an important part of wayshowing for byways. While the photographs presented in this chapter illustrate existing examples of signs installed on byways, they may not necessarily represent complete compliance with the standards presented in the MUTCD. Please engage local and state traffic and safety authorities when planning and designing traffic signs that support byway travel.

3.1

An Introduction to the National Scenic Byways Program

The National Scenic Byways Program (NSBP) was established under the Intermodal Surface Transportation Efficiency Act of 1991; reauthorized in 1998 under the Transportation Equity Act for the 21st Century; and reauthorized and amended in the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) in 2005.

Under the NSBP, the U.S. Secretary of Transportation recognizes certain roads as National Scenic Byways or All-American Roads based on six intrinsic qualities (IQ): archaeological, cultural, historic, natural, recreational, and scenic qualities.

A designated byway is a public road that has one or more of these intrinsic qualities that have been recognized through legislation or another official declaration.

Road and *highway* are synonymous and do not define higher or lower functional classifications or wider or narrower cross-sections. Moreover, the term *byway* refers not only to the road or highway itself but also to the *corridor* through which it passes (Federal Highway Administration Interim Policy, May 18, 1995).

Byways offer driving experiences where travelers can explore and experience the scenery, culture, history, and special features of an area. Byways provide opportunities we might otherwise miss. In fact, byways are roads that tell stories, serve as gateways to unique adventures, and are paths that help people better understand America's history and cultures.

The NSBP considers byways to be roads that have special significance not only for their scenic quality, but also for archaeological, cultural, historic, natural or recreational IQs.

The Federal Highway Administration (FHWA) manages the NSBP as a community-based program. FHWA headquarters staff who are based in Washington, D.C. work closely with FHWA division offices in each state to administer the NSBP. In turn, byway contacts in division offices work on a day-to-day basis with state and Indian tribe byway coordinators on all matters that affect grants and nominations.

Legislation

United States Code

The National Scenic Byways Program is part of the U.S. Department of Transportation, Federal Highway Administration. It was established in Title 23, Section 162 of the United States Code under the Intermodal Surface Transportation Efficiency Act of 1991 and reauthorized and expanded significantly in 1998 under TEA-21 and again under SAFETEA-LU in 2005. The program is a grass-roots collaborative effort established to help recognize, preserve and enhance selected roads throughout the United States.

Fig. 3.1 National Scenic Byways Program (NSBP) logo

Road and highway are synonymous and do not define higher or lower functional classifications or wider or narrower cross-sections.

The following link provides access to portions of the U.S. Code and SAFETEA-LU that are relevant to the National Scenic Byways Program:
www.bywaysonline.org/program/us_code.html#program

The Interim Policy
The Interim Policy is the principal policy guiding the National Scenic Byways Program, published in the Federal Register, Vol. 60, No. 96, May 18, 1995. This policy establishes the designation criteria for roads as National Scenic Byways or All-American Roads based upon their scenic, historic, recreational, cultural, archaeological and/or natural intrinsic qualities, and the required 14 points (17 points for All-American Roads) to address in a corridor management plan. Although it is entitled "Interim Policy," it is still the current and applicable policy for the Program.

To read the Interim Policy online, go to:

http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=1995_register&docid=fr18my95-105

The Interim Policy establishes the three core elements that are the foundation of the NSBP, corridor management plans (CMP), intrinsic qualities (IQ), and the visitor experience. The criteria for designating roads as National Scenic Byways or All-American Roads is based upon the six IQs.

The Three Core Elements: CMPs, IQs, and the Visitor Experience

Byway refers not only to the road itself but also to the corridor through which the road passes.

The Interim Policy spells out the three interdependent core elements—planning, intrinsic qualities (IQs), and visitor experience—that are the foundation of the NSBP.

Corridor Management Plans
A CMP is required for an organization to pursue designation of a local road as one of America's Byways. States may or may not require a CMP for state designation. The local organization is responsible for preparing, adopting, approving, amending and updating the CMP for its road.

CMPs are written documents that outline how an organization will protect, promote, enhance, and manage the intrinsic qualities of its byway. Overall CMPs usually include plans for wayshowing, marketing, and signing.

In addition, byway CMPs must address these 14 points:

1. Route identification
2. Intrinsic qualities
3. Maintaining and enhancing the byway's intrinsic qualities
4. Responsibilities for the byway

5. Development and preservation strategies
6. Public participation
7. Byway safety
8. Commerce and user facilities
9. Efforts to minimize intrusions and enhance experiences
10. Outdoor advertising
11. Signing
12. Marketing
13. Roadway design standards
14. Interpreting significant byway resources

In addition to these 14 points, CMPs for All-American Roads must address these three points, for a total of 17 required points.

15. International promotion, interpretation, and market development
16. Accommodations for increased tourism
17. Multi-lingual information

Intrinsic Qualities
FHWA Interim Policy defines the six intrinsic qualities (IQ) as "scenic, historic, recreational, cultural, archaeological or natural features that are considered representative, unique, irreplaceable, or distinctly characteristic of an area" (1995).

IQs arise from a byway's particular combination of resources that define its character, interest, and appeal. These resources are the special views, places, buildings, sites and other features that residents enjoy and interest travelers. A resource can be natural, such as a gorge, mountain or lake, or it may be the result of human activity, such as a historic building, a battle site, or a well-designed parkway. A byway organization must prove the regional or national significance of the IQs to pursue designation as a National Scenic Byway or an All-American Road.

Visitor Experience
Byway organizations need to plan for how to safely and effectively guide the traveler to a positive experience with signing, maps and other means. Creating effective wayshowing is integral in the larger picture of overall byway visitor experience.

3.2

America's Byways Designation

Under the NSBP, the U.S. Secretary of Transportation designates certain roads as National Scenic Byways or All-American Roads based on their archaeological, cultural, historic, natural, recreational and scenic qualities. The Interim Policy establishes the designation criteria for roads as National Scenic Byways or All-American Roads based upon their scenic, historic, recreational, cultural, archaeological and/or natural intrinsic qualities, and the required 14 points (17 points for All-American Roads) to address in a corridor management plan. Although it is titled "Interim Policy," it is the current and applicable policy for the NSBP.

The FWHA promotes the collection as America's Byways or the America's Byways collection. More information about becoming designated to the America's Byways collection can be found at: www.bywaysonline.org/nominations/

To be designated as a National Scenic Byway, a road or highway must significantly meet at least one of the six scenic byways IQs. The characteristics associated with the IQs are distinct and most representative of the region. The significance of the features contributing to the distinctive characteristics of the corridor's intrinsic quality is recognized throughout the region.

To be designated as an All-American Road, the highway must meet the criteria for at least two of the six IQs. It must also be considered a destination unto itself and provide an exceptional traveling experience. In other words, travelers will recognize the highway as a primary reason for driving the route. The characteristics associated with the IQs are those which best represent the nation and which may contain one-of-a-kind features. Further, the significance of the features that contribute to the distinctive characteristics of the byway's IQ should be nationally recognized.

As of 2010, there are 150 nationally designated byways in 46 states. The FHWA promotes the collection as America's Byways. The American Byways program is a voluntary, grassroots program founded upon the strengths of the leaders of the individual byway organizations. The National Scenic Byways Program recognizes and supports outstanding roads and provides resources to help manage the IQs within the broader byway corridor so they can be treasured and shared.

The National Scenic Byways Program Grants

The National Scenic Byways discretionary grants program provides competitive funding for byway-related projects each year. Congress has authorized a total of $403 million for the Program (1991–2009). States, Indian tribes, and local communities use grants from this program to fund a variety of projects based on defined eligibility categories and administrative criteria. Complete information about this program is online at: www.bywaysonline.org/grants/.

Fig. 3.2 America's Byways Brand Identity (FHWA)

A project submitted for consideration should benefit the byway traveler's experience, whether it will help manage the intrinsic qualities that support the byway's designation, shape the byway's story, interpret the story for visitors, or improve visitor facilities along the byway.

Once the Secretary of Transportation selects a project for funding, the byway organization must work with the state byway coordinator, Indian tribe byway coordinator, and/or byway contact in the FHWA division office to implement the project and to be reimbursed for eligible expenses.

In accordance with Title 23 Section 162(c), the National Scenic Byways Grants program lists eight categories of project activities that are eligible for grants.

1. State and Indian Tribe Scenic Byway Programs
2. Corridor Management Plans
3. Safety Improvements
4. Byway Facilities
5. Access to Recreation
6. Resource Protection
7. Interpretive Information
8. Marketing Programs

Although creating effective wayshowing systems typically falls under CMP and CMP implementation activities, marketing and interpretive projects often include wayshowing elements.

If you are considering applying for a National Scenic Byways Grant for your wayshowing project, your byway organization should verify the category under which your project would be eligible.

Additionally, early communication with your state byway program coordinator will increase the likelihood for a successful wayshowing grant application.

See *Integrating Wayshowing with Corridor Management and other Byway Activities* at the end of this chapter for more information about the roles of wayfinding and wayshowing with your byway.

Other Byway-Related Programs

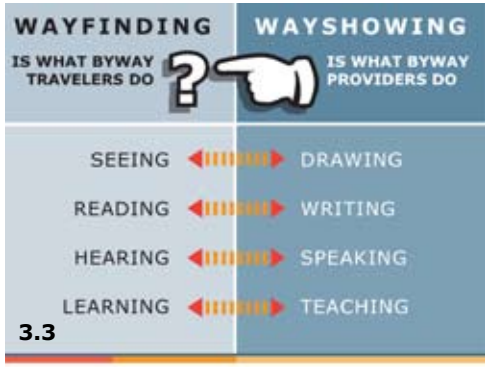
In addition to America's Byways that are part of the NSBP, several other types of byways are recognized through other programs. Some of these byways may also be designated as part of the America's Byways collection but not necessarily.

Examples include:

- United States Department of Agriculture (USDA): U.S. Forest Service Byways
- United States Department of the Interior (USDI): National Park Service (NPS) Parkways
- USDI: Bureau of Land Management (BLM) Byways and Backways
- USDI: U.S. Fish and Wildlife Service Refuge Roads

The Federal Highway Administration and its partnerships with the agencies listed above share a common goal: the recognition and appropriate management of our nation's most significant roadways.

Additionally, states and Native American Indian Tribes designate thousands of miles of byways at the state and tribal level.



Regardless of the specific designation a byway may have, wayfinding and wayshowing are the basic elements of the relationship between byway travelers and byway providers. This is an inherent element of every byway.

Fig. 3.3 Wayfinding is what travelers do. Wayshowing is what byway providers do.

Understanding Wayfinding and Wayshowing

Regardless of the specific designation a byway may have, wayfinding and wayshowing are the basic elements of the inherent relationship between byway travelers and byway providers. The difference between *wayfinding* and *wayshowing* depends which end of a pointing finger you are on.

Wayfinding is the job of travelers. They look for clues to reassure themselves they are where they planned to be, and they look for information and amenities to make their experience pleasant and enjoyable.

Wayshowing is the job of byway providers and includes preparing travel information, designing maps and travel brochures, planning or installing signs, or providing other navigational help in person or by electronic means. Wayshowing requires a variety of skills such as writing, speaking, teaching, or drawing as well as planning, project management, graphic design, and site planning and traffic engineering that help meet travelers' wayfinding needs.

Wayfinding

Travelers have found their way along the roads of your byway for decades, but as soon as your roads become a designated byway, travelers' expectations are raised. Byway travelers expect byway-specific tools (e.g., signs, brochures, and maps) that help them navigate, learn about, and enjoy the byway.

To help travelers do their best job wayfinding, you must understand a key element of your wayshowing job: helping visitors travel your byway safely and without getting lost.

Wayfinding Questions that Need Wayshowing Answers

Wayfinding questions that need wayshowing answers derive from basic wayfinding needs, wayfinding skills, and confidence gained from successfully employing those skills.

Travelers need to

- know where a byway begins and ends, when they are accessing a byway, and when they are leaving a byway environment;
- create, refresh, and expand their mental maps of a byway corridor;
- establish and strengthen their orientation to a byway and the corridor that surrounds a byway;
- follow a reliable and easily recognizable sequence of visual clues to follow when travelling along a byway; and
- locate and safely travel to planned stops and special places to fulfill their desired byway experience.

To meet these needs and to help them orient, navigate, and travel safely, travelers need to learn and employ five skills.

1. Identify their original starting location and their destination.
2. Determine whether they need to turn right or left or go straight to stay on course.
3. Identify distinct segments of the total route and the cardinal direction of travel for each.
4. Recognize on-route and distant landmarks.
5. Mentally embed or visualize the route in a larger reference frame, a *cognitive map*.

Travelers who have successfully employed these skills gain confidence from

- knowing exactly where to start and where they will end the trip,
- understanding where they are in the byway and in the byway corridor,
- believing they will always go the right way and never make wrong turns,
- thinking they won't stop too soon or go too far, and
- knowing what they are looking at.

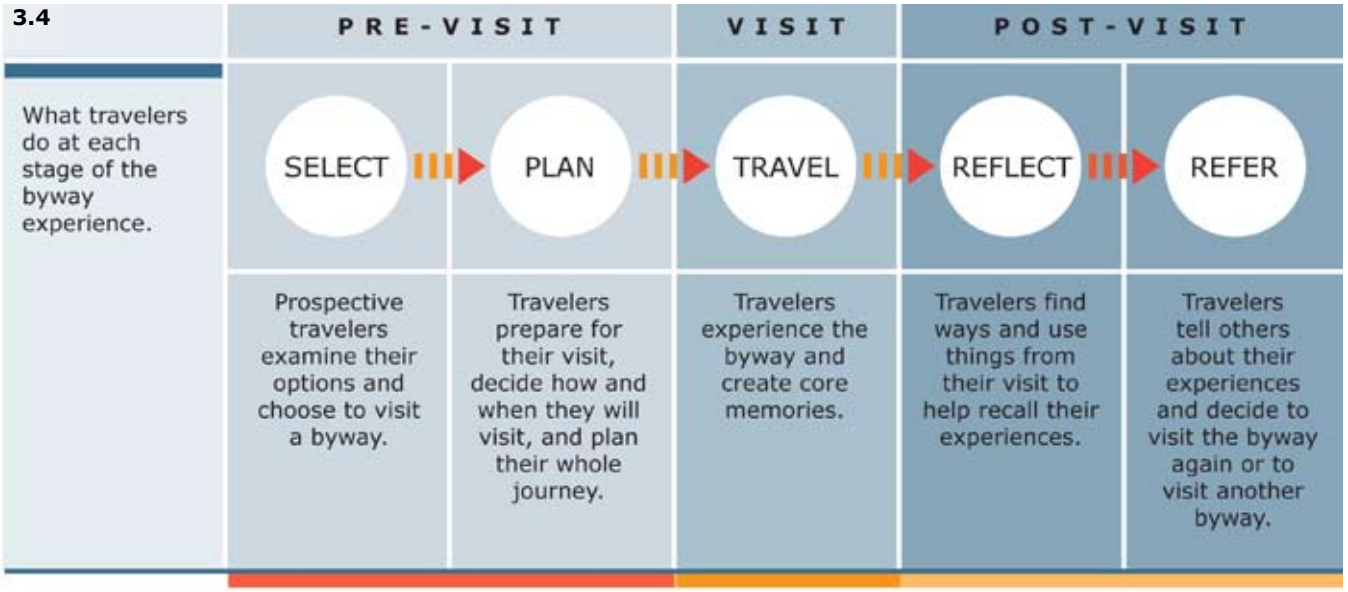
In addition to recognizing that travelers need to succeed in exercising five essential wayfinding skills, byway providers need to recognize that the byway experience occurs in stages that include wayshowing components.

The Three Stages of a Byway Experience

Travelers usually experience byways in three stages,

1. the Pre-Visit Stage
2. the Visit Stage, and
3. the Post-Visit Stage.

These three stages can be broken down into five activities. (Figure 3.4)



In the Pre-Visit Stage, byway providers can use wayshowing tools such as up-to-date websites, accurate downloadable maps, and interesting brochures. If these tools are not available or are not current and accurate, it will be more difficult to capture and hold travelers' interest at all stages of the experience

In the Visit Stage, byway providers should use wayshowing tools such as guide signs, electronic guidance, and information about byway destinations and wayside interpretive exhibits.

In the Post-Visit stage, byway providers can use wayshowing tools such as guide signs, destination merchandise, and websites.

Fig. 3.4 What travelers do at each stage of byway travel

The following section provides more details about the five activities travelers do at each stage of the byway experience and the types of wayfinding information they might seek at each stage. (See figure 3.5)

Pre-Visit Stage

Select
This stage begins even before people know they are planning to visit your byway—it happens the moment they decide to take a trip. Design your brochures, websites, and advertising, to catch the prospective travelers' attention and persuade them to select your byway.

After your brochures, websites, or advertisements have caught their attention, travelers may plan to visit your byway or jump in the car for a spontaneous adventure on your byway.

Travelers who are already on the road may decide to visit your byway after they pick up brochures or maps at an information center or road-side orientation stop. These travelers may visit your byway after they notice a guide sign or marked entrance.

The Refer activity in the Post-Visit stage of the byway experience matters at the Pre-Visit Stage. Personal referrals from friends, relatives, or coworkers are strong motivators. Imagine the power of a shared brochure along with an endorsement like this: "You've just got to take a weekend and drive up there!"

Plan
At this stage, travelers make conscious efforts to investigate the byway using information from websites, brochures, or maps. Provide sufficient information to address travelers' questions about your byway. As they plan, travelers ask questions like these.

How far is the byway from our home? How long will it take to get to the byway? Can we visit the byway in a weekend? Where will we stay? Are the roads hard-surfaced for our motorcycles?

Travelers who are already on the road may stop at a wayside interpretive exhibit and change their plans. An interesting guide sign may prompt a spontaneous detour to visit the byway's IQs and attractions.

Visit Stage

The trip along the byway corridor is definitely the big event—it's what all your media is about. At this stage, your travelers focus on enjoying the byway's IQs and moving about the byway safely. Some people may be content to meander along the byway, unconcerned about their destination. Driving and sightseeing may be their goals. Others may see the byway as a route from one

destination to another and count on being able to navigate efficiently.

Byway providers must ensure that wayshowing tools are readily available in standardized locations. Travelers have learned to navigate by looking in particular places for information (e.g., brochures and maps at information centers, symbols for IQs and attractions on maps).

Travelers expect and deserve accurate wayshowing literature (e.g., schedules of special events and open times and seasonal closings of attractions), guide signs, and wayside interpretive exhibits. Some visitors purchase destination-related merchandise for the Post-Visit stage when they reflect on or refer to their visit.

Post-Visit Stage

Reflect
This stage begins when travelers head for home and review their byway experiences. Travelers may reflect on what they saw and did, write in a travel diary, or talk among themselves. For instance, travelers might say, "Do you remember that amazing landform?"; "I sure liked that restaurant. Remember the story that waitress told about the area?"; or "We had such a good time, I'd like to return."

A byway visit, however short or long, should produce experiences worth recalling in both the near- and long-term. Wayshowing tools acquired during the visit (e.g., interpretive brochures, maps, destination merchandise or a book about an IQ or attraction) or other media (e.g., websites or travelers' photos) extend the byway experience.

Refer
Travelers who have navigated successfully and traveled safely may choose to repeat their trip. Because they feel confident in navigating to and along the byway, travelers may share brochures and maps, travel merchandise, and their photos with others. These byway ambassadors may encourage others to visit the byway website and provide travel advice.

At this stage, your meticulous attention to details will pay off. Make sure contact information is accurate and websites and social networking media are up to date. These wayshowing tools provide opportunities for byway travelers to provide feedback and submit requests that byway providers may use to improve the byway.

3.5	PRE-VISIT		VISIT	POST-VISIT	
Travelers have questions that reflect their wayfinding needs.	SELECT	PLAN	TRAVEL	REFLECT	REFER
Byway providers use wayshowing tools and clues to meet these needs.	Where is the byway? What is there to see and do? How much time should it take to travel the byway? What is the big story? How will we benefit from this experience?	How will we get there? Where will we stay? eat? shop? How much time will it take to travel to and from the byway? What are the intrinsic qualities of the byway? What wayside interpretive exhibits and attractions will we find?	Where are the entry points to the byway? How will we know this is a byway? Where are travel services located? How do we get back on when we've gotten off the byway? Where are the byway's attractions?	What good things will we remember? Do we remember bad parts of the experience? Have we kept maps, pictures, or souvenirs so we could remember our experience? What emotions will we remember?	How will we share our experiences? What will we tell others about our experiences? Will we go back for another visit? Will we visit another byway? Will we recommend that others visit the byway?

Fig. 3.5 Typical wayfinding questions at each stage of the byway experience

Media Relevancy at Each Stage of the Byway Visitor Experience

Each stage of the byway visitor experience lends itself to different media that can best inform your travelers. You can help travelers enjoy your byway by providing media in the right places for them to find in each stage of their travel. (Figure 3.6)

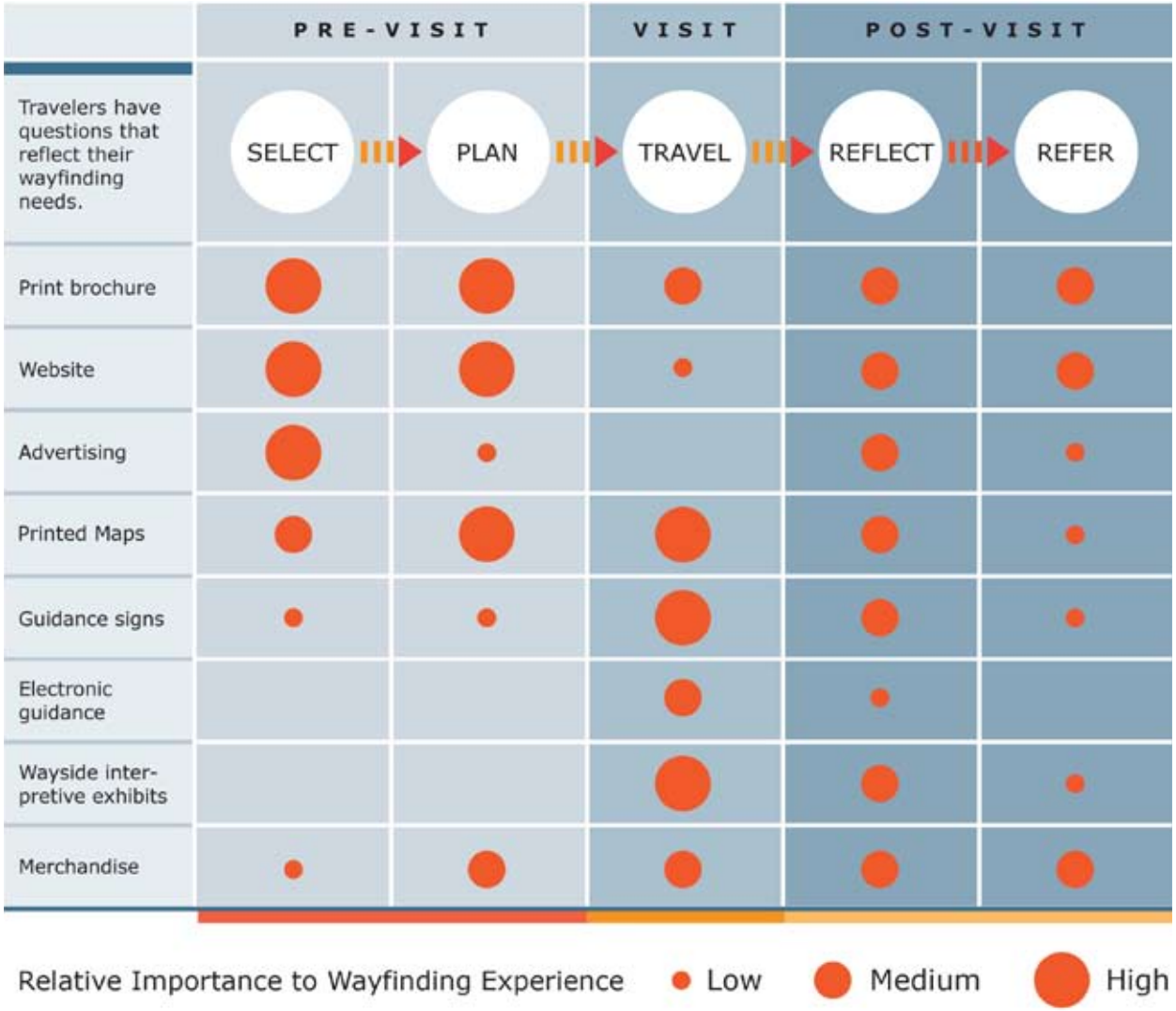


Fig. 3.6 Basic wayshowing tools and their relative importance at each of the three stages of a wayfinding experience

The Visitor Experience Hierarchy

The visitor experience hierarchy has three levels, two that build to the third: commitment and repeat customers. The first level represents travelers' basic needs for safe travel and successful, convenient navigation.

The second level represents satisfying, authentic experiences with IQs and attractions. Experiences at the second level (e.g., enjoying local cuisine or music, or viewing a grand landscape) help travelers move to the top level.

At the third level, travelers are committed to your byway and may make return visits and encourage others to visit.

Travelers' experiences at all three levels depend on effective wayshowing systems. (Figure 3.7)

Fig. 3.7 Pyramid of visitor experience (ABRC)

A Pledge of Customer Service

A pledge to your byways travelers may help you emphasize to your present group of byway providers and future group members that you take the travelers' experience seriously. A pledge can put the focus on aspects of the experience that you most want to affect or highlight how your unique byway affects travelers.

Here is a sample customer pledge.

We pledge to provide these things to travelers on our byway.

1. A clearly delineated route that is planned and presented for your enjoyment and benefit.
2. Reliable, in-depth information at all stages of your travel experience.
3. A reasonably safe roadway.
4. Interesting places and stories to experience that are authentically presented.
5. Resources that are appreciated locally and protected for their long-term well being.
6. Hospitality services within a reasonable distance of your travel.
7. Opportunities on or near the byway that satisfy the variety of interests that may occur in your travel party.
8. Public access to all resources.
9. Experiences that are consistent with larger travel and cultural contexts.
10. Opportunities to share feedback about your travel experiences.

Integrating Wayshowing with Corridor Management and Other Byway Activities

Wayshowing should be integrated with corridor management plans and other byway activities.

Corridor Management Planning: All 14 points of corridor management planning in the Interim Policy have some connection to wayshowing.

At a minimum, you must incorporate wayshowing tools that ensure that travelers can travel safely and navigate successfully. This is a summary of the 14 points of corridor management planning that can be integrated with wayshowing planning, design, implementation, and maintenance.

1. **Route Identification**: Route identification is central to wayfinding. It means identifying a continuous sequence of public road segments that describe the designated byway route from beginning to end.
2. **Intrinsic Qualities**: Significant physical features that represent your byway's intrinsic qualities—mountains, rivers, trails, towns, parks, outstanding buildings—serve the added benefit of giving your travelers real tangible destinations with which they can navigate to. Effective wayshowing is inherent in providing directions to those IQ's so that travelers can actually experience those IQ's.
3. **Maintaining and Enhancing the Byway's Intrinsic Qualities**: Maintaining and enhancing the tangible resources that aid in successful wayfinding by your travelers is critical. Travelers need to be able to find and recognize tangible resources and sites that support your byway's intrinsic resources.
4. **Responsibilities for the Byway**: In most cases, planning, designing, implementing and sustaining effective wayshowing components will be responsibility shared by multiple organizations and agencies: your CMP gives you the opportunity to define and secure the commitments of your partners to provide your byway's travelers with what they need to find their way to and along your byway.
5. **Development and Preservation Strategies:** Addressing, planning and putting into action the steps your byway organization needs to take to implement and sustain wayshowing components is a key purpose of this portion of the CMP.
6. **Public Participation**: If your CMP is based on the premise that "public" includes your byways travelers, then the CMP needs to support your organization's efforts to continually measure the effectiveness of your information delivery. Your information delivery should help your byway travelers succeed in solving their wayfinding problem-solving challenges.

3.8

7. **Byway Safety**: It is hard to expect that a traveler's byway experience will be positive if his or her experience is threatened with conditions that are inherently unsafe. Lack of adequate wayshowing information—maps, travel directions, guide signs, etc.—contributes to a driver's inability to travel safely along your byway. The CMP gives you the opportunity to proactively plan and support providing these essential ingredients to safe travel. Likewise, incorporate appropriate provisions for reducing risks that may lead to distracted driving. See this website for more information: www.distraction.gov.
8. **Commerce and User Facilities**: Private-sector byway experience providers such as lodging, restaurants, shops can play an important role in answering travel questions and wayfinding questions.
9. **Efforts to Minimize Intrusions and Enhance Experiences**: Key wayshowing features and landmarks need to be preserved for quick and accurate identification by travelers.
10. **Outdoor Advertising**: Efforts to minimize the intrusions of outdoor advertising as well as identifying how outdoor advertising may appropriately assist or reinforce wayshowing techniques should be addressed by your CMP. Consult state and tribal policies regarding outdoor advertising.
11. **Signing**: Signing, as one of the key components in your byway's delivery of effective wayshowing clues includes a variety of policy considerations covered throughout this manual.
12. **Marketing**: Marketing or providing compelling information that prospective visitors need in the places where they are looking plays a critical role because it equips visitors with the foundational information they need to commit to, find, and travel to your byway.
13. **Roadway Design Standards:** Highway guide signing, orientation stops for the byway, all traffic control devices and consistent management of the roadside features are topics that need to be emphasized in the CMP.
14. **Interpreting Significant Byway Resources:** Most of your byway travelers will "really get it" when the intrinsic resources of your byway are effectively interpreted. Reading and viewing an interpretive wayside exhibit, participating with a trained interpreter in a compelling presentation, or listening to a downloaded audio story about the place can offer travelers a breakthrough in understanding the geography of your byway's corridor. Building and expanding one's cognitive map of an otherwise unfamiliar and mysterious place is essential to successful wayfinding and the directional problem solving that goes with it.

Fig. 3.8 "Put It Down" public education logo provided by the U.S. Department of Transportation

3.9

3.10

The America's Byway Resource Center Provides Byway Training Resources

Byway leaders, local groups, volunteers, organizations and State coordinators responsible for the planning and marketing involved with nationally designated byways can look to the America's Byways Resource Center for the training, information and expertise that paves the way to better byways.

America's Byways Resource Center, established by Congress originally as the National Scenic Byways Resource Center, opened in January 1999 as a division of the Arrowhead Regional Development Commission. Funding is provided through an agreement with the FHWA.

The FHWA leads and manages the National Scenic Byways Program as a community-based program.

Together, the America's Byways Resource Center and the FHWA share a strong commitment to the success of America's Byways. The America's Byways Resource Center provides useful training and reference tools, including:

3.11

Byways 101:
www.byways101.org/

Universal Design for Byways:
www.bywaysresourcecenter.org/resources/universal-design/accessibility/

Economic Impact Tool for Byways:
www.bywaysresourcecenter.org/resources/specialprojects/economicimpacttool/

Access other tools and resources from the America's Byways Resource Center at: www.bywayresourcecenter.org

Fig. 3.9 Byways 101 (ABRC)

Fig. 3.10 Universal Design for Byways (ABRC)

Fig. 3.11 Economic Impact Tool (ABRC)

CHAPTER FOUR The Visitor's Eye Perspective

At the end of this chapter, you will be able to

- recall that byway visitors may have different perspectives of your byway
- list the questions travelers ask at the three stages of a byway experience
- understand why habituated thinking by byway providers can turn into ineffective wayshowing systems
- recall three activities that develop a visitor's eye perspective

You can use this knowledge to

- implement a wayshowing pledge of service
- implement a wayshowing self-assessment along your byway
- evaluate your byway's wayshowing effectiveness with the understanding that more signing is not necessarily the answer

This chapter is intended for byway providers and planners who are planning and implementing byway projects, products, and media, and for byway providers and planners who want to improve byway projects, products, and media by taking a visitor's eye approach toward developing those products and media.

Please note: Traffic signs are an important part of wayshowing for byways. While the photographs presented in this chapter illustrate existing examples of signs installed on byways, they may not necessarily represent complete compliance with the standards presented in the MUTCD. Please engage local and state traffic and safety authorities when planning and designing traffic signs that support byway travel.

Taking a Basic Visitors Approach to Understanding Your Byway

As a foundation for considering the components of wayshowing, this chapter encourages byway providers to take a **visitor's eye perspective**—one that is sure to improve how you help travelers find their way along your byway.

Travelers who are unfamiliar with a route or byway learn to navigate the route by using available tools or clues to guide them safely and successfully to their destinations. Some travelers require or prefer fewer tools such as maps, signs or PDA's. Other travelers may benefit from using all available tools. Regardless of personal preference or overall availability, travelers will use a variety of external clues to support their travel; particularly if they've never traveled a route before. Travelers who are unfamiliar with a byway simply do not have the repeated and successful experience—the internal cognitive map of driving a route—to draw upon. They have only the clues, tools and communications media that you have provided.

As strange as this may sound, many byway providers know their byway too well. They travel it frequently, know the tricky intersections and turns, have stopped at all the attractions, and feel like they could drive it in their sleep. The knowledge serves them well, both as they travel the byway and in service to the organization that sponsors the byway.

However, byway providers too often take for granted the difficulty level of the necessary problem solving and decision-making facing byway travelers; especially for travelers who are experiencing an area for the first time. As byway providers, habituated thinking can arise from the repeated behavior of experiencing the byway on a day to day basis. In other words, byway providers no longer need to make conscious decisions about how to travel along their byway. This type of thinking masks the complexity facing travelers. Byway providers hold a byway view, but in essence need to take a visitor's eye view.

For example, we can compare what we know with dilemmas a first-time traveler might face. On one hand, we know how long it takes us to travel the byway, but visitors might wonder how long it will take to travel the route when they are concerned with dilemmas like, "Where's the lodge we are staying at tonight, that one we booked on the Internet?" "Which turn do I take? Right? Left? Hard right or do I stay straight?" "I can't believe we just drove past the scenic overlook—the map makes it look like it is still ahead!"

As byway providers, we should consider the eight wayshowing components from the visitor's eye perspective.

Eight Wayshowing Components:

1. **Travel Directions and Route Clarity**: Turn-by-turn narrative descriptions of each distinct route segment of a byway

2. **Maps**: Graphic (cartographic) displays of a byway, its surrounding corridor and regional setting
3. **Digital Data:** Media provided for consumer electronic devices
4. **Marked Byway Entrances and Exits**: Signs and entry monuments that signify the beginning and ending points of a byway
5. **Orientation Stops**: Visitor centers and roadside pull-offs where travelers can obtain an overall orientation to the byway corridor
6. **Byway Guide Signs**: Highway and road signs that guide motorists to and along a byway route
7. **Identification of Byway Attractions**: Signs and graphics with the names of places where travelers are encouraged to stop along a byway
8. **Trained Hospitality Personnel**: Visitor center staff, interpreters, volunteers, park rangers and other people who have the duty to provide information to travelers and visitors

Wayfinding Questions that Need Wayshowing Answers

All travelers have some basic wayfinding needs. Dr. Reginald Golledge, who was a leading expert on the science of how people find their way in unfamiliar environments, identified basic traveler's needs. The byway travelers' needs are adapted from Golledge's work.

Travelers need to

- know where a byway begins and ends, when they are accessing a byway, and when they are leaving a byway environment;
- create, refresh, and expand their mental maps of a byway corridor;
- establish and strengthen their orientation to a byway and the corridor that surrounds a byway;
- follow a reliable and easily recognizable sequence of visual clues to follow when travelling along a byway; and
- locate and safely travel to planned stops and special places to fulfill their desired byway experience.

Byway providers should think in terms of these traveler needs when they are considering what wayshowing tasks to undertake.

Wayfinding Needs at Each Stage of the Byway Experience

Each of the three stages and five activities that make up the byway experience stem from questions that travelers—or prospective travelers—may ask. These questions can be thought of as opportunities for byway providers to fulfill wayfinding needs with effective wayshowing tools. The three stages of the byway experience and five activities that byway travelers do can be seen in Figure 4.1.

4.1	PRE-VISIT		VISIT	POST-VISIT	
Travelers have questions that reflect their wayfinding needs.	SELECT	PLAN	TRAVEL	REFLECT	REFER
Byway providers use wayshowing tools and clues to meet these needs.	Where is the byway? What is there to see and do? How much time should it take to travel the byway? What is the big story? How will we benefit from this experience?	How will we get there? Where will we stay? eat? shop? How much time will it take to travel to and from the byway? What are the intrinsic qualities of the byway? What wayside interpretive exhibits and attractions will we find?	Where are the entry points to the byway? How will we know this is a byway? Where are travel services located? How do we get back on when we've gotten off the byway? Where are the byway's attractions?	What good things will we remember? Do we remember bad parts of the experience? Have we kept maps, pictures, or souvenirs so we could remember our experience? What emotions will we remember?	How will we share our experiences? What will we tell others about our experiences? Will we go back for another visit? Will we visit another byway? Will we recommend that others visit the byway?

Fig. 4.1 Typical wayfinding questions at each stage of the byway experience

Customer Pledge

A pledge to your byway's travelers may help you emphasize to your present and future byway provider group members that you take the travelers' experience seriously. A pledge can put the focus on aspects of the experience that you most want to affect or highlight how your unique byway affects travelers.

Here is a sample customer pledge.

We pledge to provide:

1. A clearly delineated route to travel that is planned and presented for your enjoyment and benefit.
2. Reliable, in-depth information for all stages of your travel experience.
3. A reasonably safe roadway.
4. Interesting places and stories to experience that are authentically presented.
5. Resources presented that are appreciated locally and protected for their long-term well-being.
6. Hospitality services within a reasonable distance of your travel.
7. Opportunities on or near the byway to satisfy a variety of interests that may occur in your travel party.
8. Public access to all resources.
9. Experiences that are consistent with larger travel and cultural context.
10. Opportunities to share feedback about your travel experience.

Positive statements in the pledge can become goals to review. The pledge may also become a set of standards you can use to judge new features or ideas. For example, you might ask, "Does this new feature offer public access?" or "Does this feature offer opportunities for travelers to share feedback?"

See Planning and Implementing a Comprehensive Byway Wayshowing System, Chapter Five, for additional wayshowing assessment activities.

A Wayshowing Self-assessment for Byway Providers

Positive answers to the questions in this list may indicate that byway travelers need better wayshowing and may reveal where improvements could be made.

1. In the last six months, have you received any complaints from travelers or the general public about problems they have encountered in driving to and along your byway?
2. Is there more than one highway route number along the entire byway?
3. Does your byway lack any of the following features?
   - Entry and exit points clearly marked at all major intersections.
   - Places conveniently located where travelers can stop and see maps for driving the entire byway.
   - Route markers regularly placed that travelers can follow to be reassured they are on the designated byway.
   - Directional signing that alert and safely lead byway travelers to approaching attractions, overlooks, or side roads to byway destinations.
   - Byway maps readily available that support the entire byway experience including wayfinding, interpretation of intrinsic qualities and travel services.
4. Has wayshowing slipped from being one of the top priorities of your byway's corridor management plan?
5. Are there staff and volunteers who provide face-to-face contact with the public at byway visitor information centers who have not traveled the entire byway in the last year?
6. Are you unsure who to call to fix sign problems on your byway?

Activities that Develop a Visitor's Eye Perspective

Just as you can't understand people until you have walked in their shoes, you can't truly understand your byway until you have developed a visitor's eye perspective.

The best long term planning and development of effective travel products occurs when byway providers consider a visitor's eye perspective during the design of websites, travel brochures, driver navigation maps, roadside interpretive panels, or audio media intended for travelers.

As byway providers you are probably so familiar with your byway that you navigate through it almost instinctively. You may find yourself making turns and estimating distances out of habit, and maybe even arriving at your destination without having been aware of driving there. You are very likely habituated to the features and navigational tasks on your byway. This makes it more difficult to develop effective travel products with the right clues for first-time travelers along your byway.

The activities described here can help you develop and periodically refresh your understanding of what travelers—especially first-time visitors—experience on your byway. The Front Seat–Back Seat, Downloadable Maps, and Good Trip–Bad Trip activities can be used to gather data for strategic byway improvements.

"More people are looking to the internet for information than ever before. You could be an arm-chair traveler with this technology, so we are focusing our efforts on developing effective interpretation to go with the mapping technology." Janet Kennedy of Lakes to Locks Passage, Inc., New York.

Front Seat-Back Seat Observation

This activity tests your assumptions about how easy it is to find sites or follow a route. The wayshowing objective is to provide signs, maps or other media. This media helps unfamiliar travelers navigate to locations where they must make decisions. It is particularly important to identify locations that cause confusion or indecision, as safety is an important goal of effective wayshowing.

The Front Seat–Back Seat exercise requires a driver and navigator who are completely unfamiliar with the area and roads; these two comprise the front seat team. The front seat team obtains the available route information from a visitor center and can only use the available maps or descriptions to follow a byway. No added navigation tools can be used. Back seat observers simply observe the behavior and tabulate results.

Observation of new travelers who use the available materials to find sites on the byway provides important lessons about the byway vistas and features that can actually be experienced while navigating the road. Shirley Fredericksen of Golden Hills Resource Conservation and Development, Inc, describes her experience driving the Loess Hills Scenic Byway in western Iowa with two women who were unfamiliar with the byway who served as her navigators.

> *We drove and asked the older passengers to find their way using the maps, written instructions, and following the signs, and then we recorded where the problems were at on the Byway. There was one place where we took the same loop twice because they could not figure out which way to go when they returned to the byway spine. We also had decision issues when we got into larger cities where there were many more distractions and they had more difficulty finding directional signs quickly among all of the other signs. If your byway demographics show you have predominantly older travelers, you'd better test your byways with older travelers.*

You can also use this activity to test information before it goes to final production. This activity is a very economical way to prevent having to reprint or live with a poor map.

A valuable back seat observation is that travelers can spend an inordinate amount of time navigating and less time actually experiencing the byway and appreciating the landscape. This activity can provide a realistic idea of how byway travelers can struggle to follow a combination of maps and brochures.

In January 2008, planners in southeastern Colorado conducted a multi-route set of exercises. In this case, a total of eight driver-navigators formed two teams and drove each route. The Colorado Department of Transportation traffic engineer for that region was an observer in one car, and the multiple-team approach yielded good quality information for the byway organization.

Melissa Hendricks, byway coordinator for Illinois DOT, observed the reaction of learners at a conference, "A lot of people were really engaged in looking at the maps at their table. Some of the maps were a real eye-opener on the difficulties a map that lacks necessary details can cause".

Downloadable Maps

This activity helps people understand how visitors might choose and plan a visit to a byway. You will focus on the media a potential traveler may consult at the Pre-Visit, selection stage of the byway experience. It is reasonable to assume that some travelers arrive at a byway serendipitously with no information while others arrive with considerable background information.

Maps of many destinations and byways that are locally or regionally produced are available for downloading. Other forms of information such as event schedules or brochures may also be downloadable. In fact, several byway groups are developing materials directed at these connected travelers. "More people are looking to the Internet for information than ever before," according to Janet Kennedy of Lakes to Locks Passage, Inc., New York. "You could be an arm-chair traveler with this technology, so we are focusing our efforts on developing effective interpretation to go with the mapping technology."

Set up this activity by dividing the larger group into "families" that are charged with making travel decisions about a byway visit the following day. Each family receives a set of downloaded materials that constitute all of the information they have about their byway. Each family must assign this set of tasks and evaluations based only on their available material.

1. **Make decisions** about the planning roles of family members.
2. **Decide how will you spend your day**, and with your family, outline a day-long itinerary.
3. **Evaluate the byway experience.** Does the map give clues to the byway's intrinsic qualities?
4. **Assess the map.** Acknowledge that this byway has taken the initiative to create a downloadable tool for their visitors. What can you learn from them?
5. **Think about important considerations for maps.** Brainstorm as a group important considerations and elements that should be included in maps like these.

After the families have had time to complete the tasks, bring them back together to share their experiences. The resulting discussion and observations generally produce a clear direction for more comprehensive visitor planning and suggest design features that should be included in a byway's media options.

You may see how important it is to provide information about the time needed both to drive the route and to experience places along it. You may discover how to present resource information and activity sites so travelers can make good judgments about the value of different sites. This exercise is effective at creating an "ah-hah moment" that helps byway providers generate new criteria for examining the effectiveness of their downloadable maps.

Good Trip-Bad Trip

This activity is most effective with diverse groups that might include a range of byway leaders and advocates. The experience helps participants make a connection between their emotions—good or bad feelings about a personal trip—and the physical attributes of a trip they took.

Break the larger group into groups of two or three participants and ask them to recall, think about, and discuss a recreational driving trip taken somewhere other than on their byway. Have them first list the elements or features that made the trip experience a good one, then list elements or features that contributed to a bad trip experience.

An example of a good trip emotion and experience might be linked to friendly service, and a bad trip emotion might be the result of a lack of directional signs that led to getting lost.

Reconvene the larger group and have each small group share their lists. Tabulate the items in two columns for a good trip and bad trip and remove duplicate items. The resulting list that is based on personal travel experiences might become a checklist of important services, resources, or travel tools byway providers might want to include in their byway corridor management plans.

In this activity, the importance of visitor needs is reinforced through repetition when a good trip attribute of "have marker guide signs" is complemented by a bad trip attributes like "no guide signs to follow" or "got lost without signs." A longer example list of paired comments is in the January/February 2009 issue of *Vistas* (Adams, 2009).

On the Flaming Gorge Scenic Byway in Utah, the group included these terms among the Good Trip attributes:

- Informative signs
- Clean, well-maintained facilities
- Good food
- Safe experience
- Accessibility
- Convenient and easy to identify resources

They included these descriptions among their Bad Trip list:

- Bad directions and travel information
- Bad customer service

- Not authentic
- Getting lost

During the discussion following the exercise and presentation, the group discussed how they might repackage their existing brochures so that one is a lure piece and the other is available for those travelers actually visiting the byway.

You may discover obvious needs that have been overlooked. For example, you may consider having several brochures with different levels of detail which could provide anything from introductory information to actual maps which could be used by travelers.

CHAPTER FIVE

Planning and Implementing a Comprehensive Byway Wayshowing System

This chapter offers information for byway providers and planners who are planning and implementing a comprehensive wayshowing system for a byway. Route descriptions, maps, electronic applications, byway entrances, directional and route-marking signs, orientation stops and trained personnel are among the topics discussed.

At the end of this chapter, you will be able to

- recall the key principles of byway wayshowing that have been introduced in earlier parts of the reference manual
- list and explain the components of a comprehensive byway wayshowing system
- recall key activities necessary to make wayshowing improvements
- explain key considerations in the development of logos and other graphic identification
- list tips for making wayshowing improvements along a byway

At the conclusion of reading this chapter, you can use the information to

- evaluate and assess the effectiveness of a byway's wayshowing system
- apply key activities necessary to make wayshowing improvements
- prioritize the improvements needed to increase the effectiveness of your wayshowing elements
- discuss wayshowing and wayshowing components with your organization, your stakeholders, and other affected parties
- find examples of successful wayshowing grants from the National Scenic Byways Program (NSBP) at www.bywaysonline.org

Please note: Traffic signs are an important part of wayshowing for byways. While the photographs presented in this chapter illustrate existing examples of signs installed on byways, they may not necessarily represent complete compliance with the standards presented in the MUTCD. Please engage local and state traffic and safety authorities when planning and designing traffic signs that support byway travel.

This chapter covers the following topics:

Review of Key Wayfinding and Wayshowing Concepts for Byways 5-2
Wayshowing: The Importance of Thinking and Acting Comprehensively..... 5-5
The Manual on Uniform Traffic Control Devices for Streets and Highways..... 5-9
The Components of a Comprehensive Byway Wayshowing System 5-12
Graphic Identity: Considerations for Logos, Marks and Signs 5-36
Funding Considerations and Sources for Wayshowing Improvements 5-43
Priorities for Implementation and Roles of the Byway Organization.....5-45

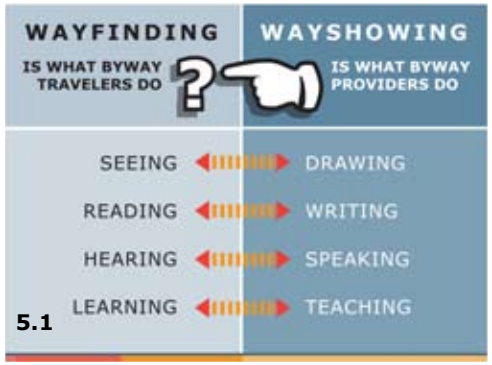
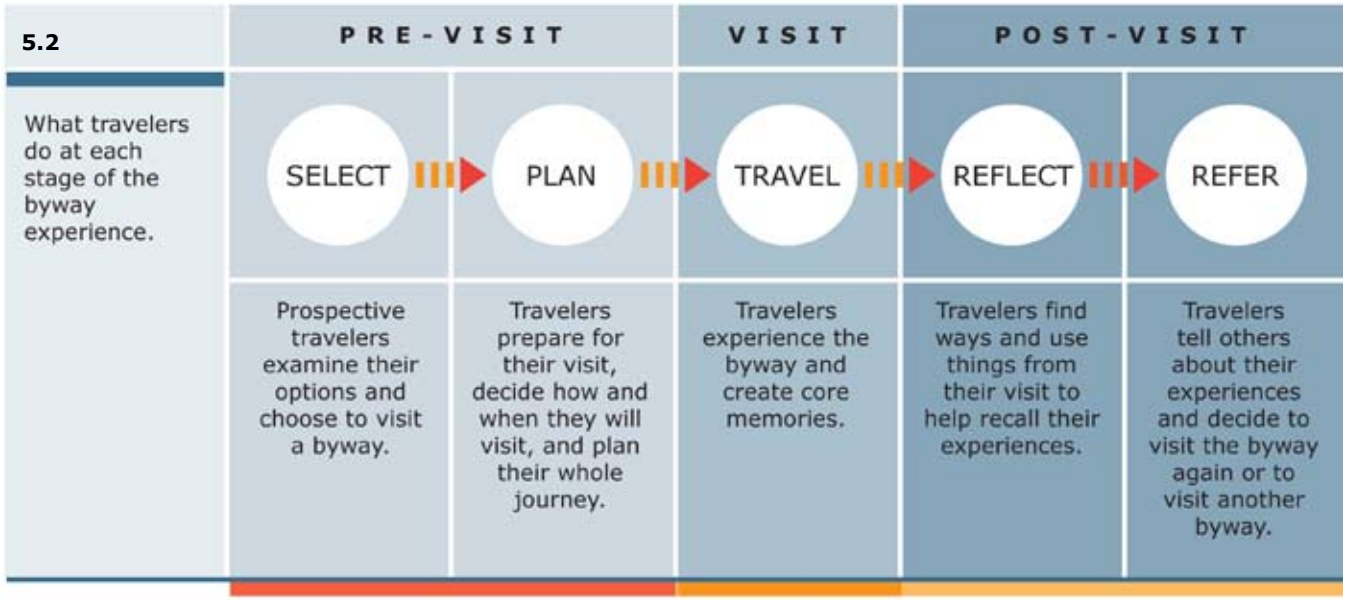


Fig. 5.1 Wayfinding is what travelers do.
Wayshowing is what byway providers do.

Review of Key Wayfinding and Wayshowing Concepts for Byways

Wayfinding is a critical part of what travelers experience. They may find their way safely to and along your byway without getting lost and disoriented or, they may experience frustration, negative feelings or a risk to their safety. What you provide along your byway through wayshowing will largely determine if visitors will have positive or negative experiences. In previous chapters, several key points are presented to set the stage for this chapter, including:

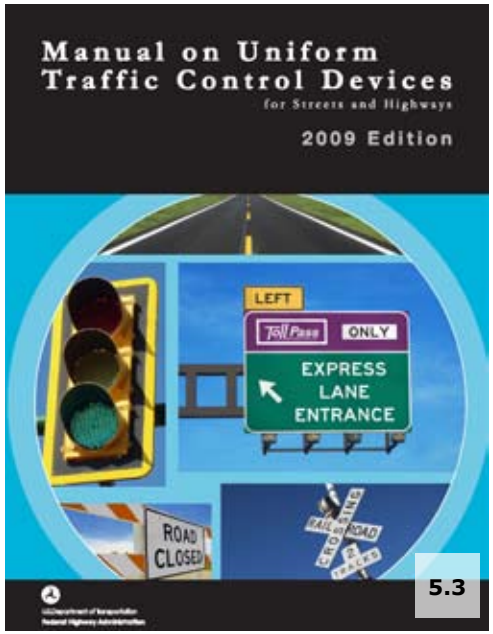
- Wayfinding is the problem-solving that travelers do to successfully follow a route and arrive at their desired destinations. Wayshowing is the assistance — travel directions, maps, and signs, etc. — which byway providers offer to travelers so that their wayfinding problem-solving can be successful.
- Visitor wayfinding experiences can be understood (and hence planned and provided for) in three distinct stages: Pre-Visit, Visit, and Post-Visit. As travelers move through these stages, they engage in five sequential activities: select, plan, travel, reflect and refer. Appropriate wayshowing information needs to be provided in a variety of media which is available to the visitor at each stage.
- Byway visitors traveling to and on routes which are unfamiliar to them need multiple wayshowing clues to be successful in their wayfinding. No single wayshowing media — signs,



maps, or knowledgeable visitor center staff, etc. — can be relied on alone to be effective at assisting travelers in finding their way. Effective wayshowing relies on the implementation of multiple wayshowing components.

- Effective wayshowing for byways is clearly supported, if not mandated, with policies, standards and funding at various agency levels. The federal policy which supports the NSBP and the designation of All-American Road and National Scenic Byways; the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD); a variety of state-level byway program policies; and individual byway corridor management plans provide a broad support for planning, implementing and sustaining effective wayshowing measures for nationally-, state-, tribal-, and locally-designated byways.
- Safe travel on safe roadways should be a primary objective of implementing effective

Fig. 5.2 Wayfinding Needs at Each Activity Stage



wayshowing assistance for byways. The MUTCD offers five guiding principles for effective byway wayshowing. Just as highway signs regulate, warn and guide motorists, byway wayshowing media and tools should

- fulfill a need;
- command attention;
- convey a clear, simple meaning;
- command respect from road users; and
- give adequate time for proper response

Fig. 5.3 2009 Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD)

Wayshowing: The Importance of Thinking and Acting Comprehensively

Approximately 40% of Americans report they drive for pleasure—an activity that ranks in the top two or three of nearly 40 significant outdoor recreation activities as recently tracked for the Recreation Roundtable by Roper Starch Worldwide.

Driving for pleasure—the afternoon ride into the countryside, the week-long trek across unexplored back roads, or a trip of a lifetime following a great river or a national historic trail—has long been one of the most popular forms of outdoor recreation and tourism. Approximately 40% of Americans report they drive for pleasure—an activity that ranks in the top two or three of nearly 40 significant outdoor recreation activities as recently tracked for the Recreation Roundtable by Roper Starch Worldwide (www.funoutdoors.com).

For some leisure travelers, heading out on the road involves little more than throwing a few essentials in the back of the car and heading in whatever direction the wind is blowing. However, the growing majority of travelers plan trips to explore the intrinsic archeological, cultural, historical, natural, recreation or scenic resources of a region. These travelers seek authentic experiences so they can build, reflect upon, and share their travel memories. Effective wayshowing tools—accurate, timely, complete information presented in several media—help ensure pleasant memories.

An effective wayshowing system is the necessary foundation of a successful byway visitor experience. For visitors and residents alike, a byway designation means that roads and the surrounding corridor represent:

- A clearly defined route for travel with multiple access points. The route is mapped and signed and has clear navigation instructions for driving to and along it from all directions.
- Safety conditions have been identified and addressed. Information is available for special road conditions (e.g., winter weather or high water) or traffic characteristics (e.g., the seasonal presence of agricultural equipment).
- A collection of attributes or intrinsic qualities and attractions with abundant wayshowing tools (e.g., maps, brochures, websites, observation points and interpretive exhibits).
- The identified intrinsic qualities are significant, respected, and preserved.
- Visitor services and amenities (e.g., restrooms, fuel, food, and lodging) are available in reasonable distribution.
- Wayfinding needs for byway travelers are met with accurate and complete wayshowing tools (e.g., signs, maps, narrative driving instructions, and electronic data).

Characteristics of Byway Alignment and its Influence on Providing Effective Wayshowing Systems

A byway's alignment and routing intricacy have a direct bearing on the success travelers have in finding their way. Two examples represent the ends of the spectrum of wayfinding challenges. Some byways have relatively simple wayfinding challenges. For example, Skyline Drive in Virginia has only four access points or entries, no intersecting roads or highways, and clearly marked and defined stops along the route. Getting lost on Skyline Drive, while not impossible, is not very likely.

Others, such as the Grand Rounds National Scenic Byway in Minneapolis, Minnesota, have:

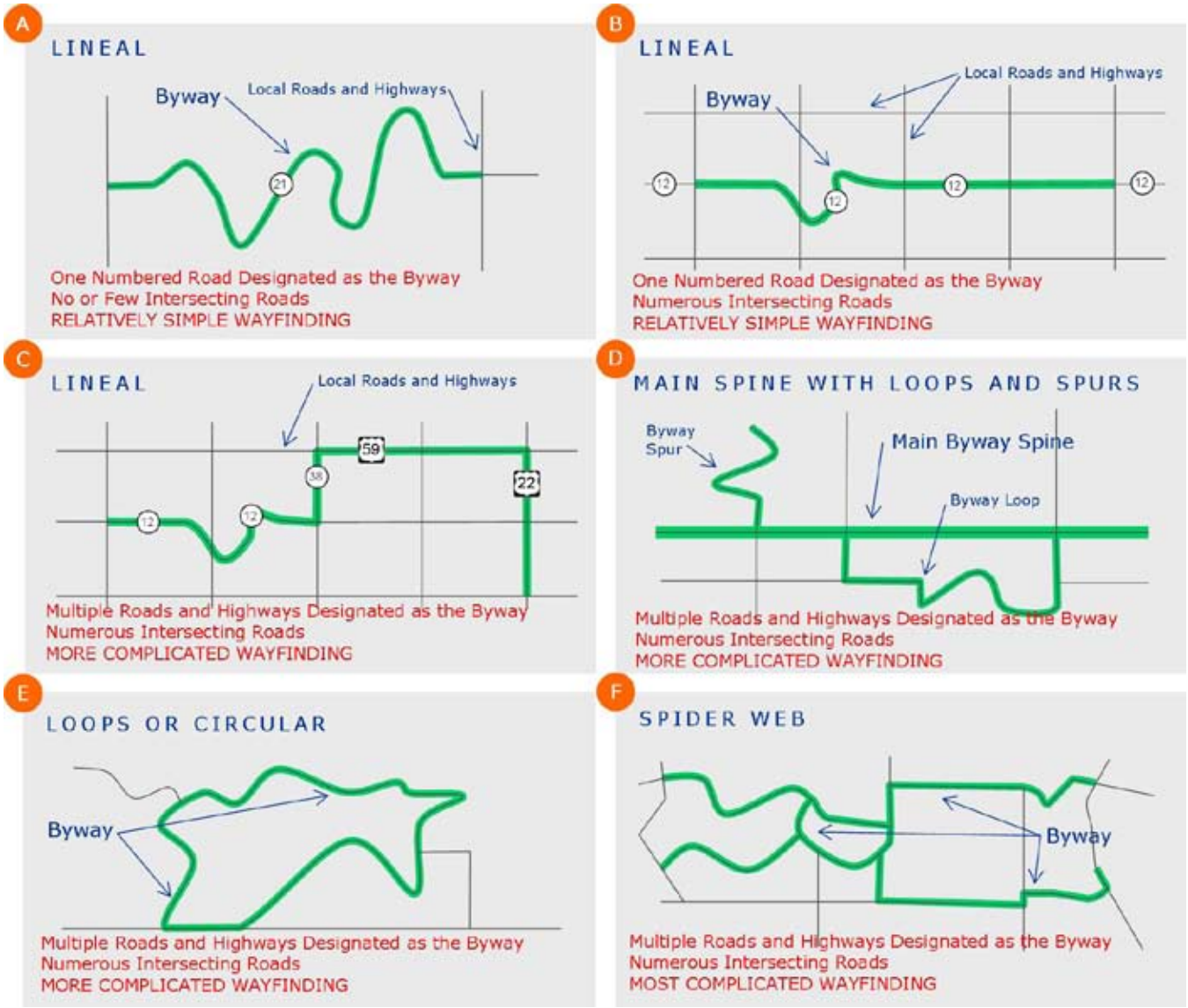
- hundreds of intersecting streets and arterials;
- a mix of one-way and two-way traffic;
- intermingling of pedestrian and bicycle trails; and
- highly varied land uses and complex visual environments set in dynamic urban settings.

Every byway has a unique set of circumstances that should be addressed with effective wayshowing. In the end, effective wayshowing for a particular byway will be the result of applying a family of components which directly respond to the byway's alignment and specific site conditions.

Some byways make the traveler's job of wayfinding relatively uncomplicated. Byways with clear lineal configurations, one numbered route, and few intersecting highways provide travelers with few wayfinding problems. On the other hand, byways that have multiple routes, loops, and multiple intersecting highways increase the complexity of wayfinding and hence need greater attention to wayshowing. Figure 5.6 illustrates a range of factors that influence wayfinding complexity along byways.

Fig. 5.4 Skyline Drive, Virginia (www.byways.org)

Fig. 5.5 Aerial photo of a portion of the Grand Rounds Byway, Minnesota (David L. Dahlquist)



5.6

Fig. 5.6 Typical byway configurations

Other factors that contribute to the complexity of wayfinding include:

- The number of intersecting highways, arterials, and roads. Consideration should be given to how many of the intersecting highways serve as routes byway travelers use to access the byway. A byway's intersection with 'feeder' routes indicates that these could be candidate locations for marked byway entrances and exits as well as orientation stops.
- The number of highway authorities that control route delineation and maintenance. First-time byway travelers rely on highway numbers and roadway names to lead them along their desired route. When route numbers or names change as the byway changes (e.g., from rural to urban or by crossing county or state lines) travelers should have
    - consistent travel directions;
    - reliable and easily accessible maps; especially those that highlight where routes and route numbers change;
    - uniformly positioned byway guide signs; and
    - identification of byway attractions.
- The presence of a visually dominant landform such as a mountain range, a river, or a lakeshore that parallels a byway for its length is usually a major asset for wayfinding. A byway that traverses a variety of landscapes without a visually dominant landform often presents greater wayfinding challenges for travelers. Effective maps and byway guide signs are particularly necessary for byways that are based in complex and diverse landscapes.
- Byways that include both rural and town or city environments are often more complex than byways through homogenous environments (e.g., national forests, wildlife areas, or parks). In diverse corridors with complex and changing environments, travelers rely on effective maps, orientation stops, byway guide signs, and the personal assistance of trained hospitality personnel.
- As byway complexity increases, so does the need to provide all of the wayshowing byway guide components. Byways that exhibit greater complexity in configuration, access, number of routes, and diversity of landscape pose a higher risk that travelers may lose their orientation to the route. Complexity increases the likelihood that travelers may lose their way if wayshowing information is not effectively designed, implemented and maintained.

Each byway organization should assess the specific conditions of its byway corridor. Byways exhibit a broad array of conditions which influence wayfinding. Therefore, the information provided below provides an overview of many of the conditions, considerations and successful examples in providing wayshowing assistance to travelers.

When used in the MUTCD, the headings of Standard, Guidance, Option, and Support shall be defined as follows:

Standard—a statement of required, mandatory, or specifically prohibitive practice regarding a traffic control device. Standard statements shall not be modified or compromised based on engineering judgment or engineering study.

Guidance—a statement of recommended, but not mandatory, practice in typical situations, with deviations allowed if engineering judgment or engineering study indicates the deviation to be appropriate.

Option—a statement of practice that is a permissive condition and carries no requirement or recommendation. Option statements sometime contain allowable modifications to a Standard or Guidance statement.

Support—an informational statement that does not convey any degree of mandate, recommendation, authorization, prohibition, or enforceable condition.

The Manual on Uniform Traffic Control Devices for Streets and Highways

Signs installed along a byway can be effective wayshowing features for byway travelers. Byways signs can announce byway entry points, lead travelers along the designated route and confirm where travelers are departing the byway's corridor. Signs are technically known as 'traffic control devices'. Signs in the roadway environment must be carefully planned, regulated and installed to assure the safety of all road users. The national standard for all traffic control devices installed on any street, highway, bikeway, or private road open to public travel is the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD). The MUTCD is referred to frequently in this and other chapters in this wayshowing reference manual.

The MUTCD is introduced in Chapter Two of this manual, and it will be referred to in later sections of this chapter. Chapters Six and Seven present additional discussions on the MUTCD relative to state/tribal byway coordinators and other road management authorities.

The MUTCD is arguably the most often referenced, if not most important, manual in the entire world of transportation. In a single document the domain of influence covers all traffic control devices—signs, traffic signals and pavement markings—for all types of highway—freeways, expressways, conventional highways, road, streets and private roads open to public travel. The application and reference to the MUTCD is made in federal, state and local law, rules, policies and procedures. Every state, federal land department and agency, and tribal organization has legally binding obligations under the scope and detail of the MUTCD.

MUTCD Application to Byways

For byways, the MUTCD (Part 2, 2009 Edition, MUTCD) guides and regulates the design, fabrication, and installation of signs. As such, this reference manual includes very basic information from the MUTCD.

The MUTCD classifies signs by function:

Regulatory signs give notice of traffic laws or regulations.

5.7

Fig. 5.7 Regulatory Signs (2009 MUTCD Chapter 2B)

Warning signs give notice of a situation that might not be readily apparent.

5.8

Guide signs show route designations, destinations, directions, distances, services, points of interest, and other geographical, recreational, or cultural information.

5.9

Relative to the use of signs, the 2009 MUTCD, Part 2 – Signs, Chapter 2A – General, offers this guide:

> *Regulatory and warning signs should be used conservatively because these signs, if used to excess, tend to lose their effectiveness. If used, route signs and directional guide signs should be used frequently because their use promotes efficient operations by keeping road users informed of their location.*

For individuals and professionals who are assisting byway organizations with developing, upgrading, or managing a road signing element of a byway, it is recommended that you obtain several chapters of the 2009 MUTCD for reference. The MUTCD is one of the few major transportation documents that are available for free downloading at www.mutcd.fhwa.dot.gov/. Please note that your state may have adopted documents or procedures that supersede or supplement the foundational basis of the 2009 MUTCD. (See Chapter Six for more information)

The first of two chapters of the 2009 MUTCD suggested for your reference is Part 2 – Signs, Chapter 2A – General (approximately 20 pages in length). Chapter 2A covers the following topics that may be of specific interest to byway providers:

- Design of Signs
- Retroreflectivity and Illumination
- Sign Colors

Fig. 5.8 Warning Signs (2009 MUTCD Chapter 2C)

Fig. 5.9 Guide Signs (2009 MUTCD Chapter 2D)

- Dimensions
- Symbols
- Word Messages
- Sign Borders
- Standardization of Location
- Mounting Height
- Posts and Mountings
- Maintenance

Next, Part 2- Signs, Chapter 2D - Guide Signs – Conventional Roads of the 2009 MUTCD (approximately 44 pages) provides information on topics related to:

- Design, Color, Retroreflectivity, Size of Signs
- Auxiliary Signs
- Sign Assemblies
- Destination Signs
- National Scenic Byway Signs

Check with the appropriate road management authorities for your byway to determine the applicability of federal lands, state, and local provisions that may supplement or amend the standards and guidance provided by the 2009 MUTCD.

5.10

5.11

Fig. 5.10 International Selkirk Loop Map (www. selkirkloop.org)

Fig. 5.11 Byway Guide Sign, Iowa Great River Road (ABRC)

The Components of a Comprehensive Byway Wayshowing System

Effective wayshowing for byway travelers relies on a family of components or features being in place and made available to travelers. Here, the term 'comprehensive' means that a variety of wayshowing features all should be made available, integrated, and continually maintained so that travelers can fulfill their wayfinding needs.

Here are five key challenges that a traveler faces in solving the problem of getting from here to there along trails, roads or a set of highways. Regardless of their familiarity with a region or locality, in order to be successful at wayfinding, travelers must be able to

1. Identify their original starting location and their destination.
2. Determine whether they need to turn right or left or go straight to stay on course.
3. Identify distinct segments of the total route and the cardinal direction of travel for each.
4. Recognize on-route and distant landmarks.
5. Mentally embed or visualize the route in a larger reference frame, a *cognitive map*.

The implementation of effective byway wayshowing components can help travelers succeed at these challenges. Successful wayfinding is essential to positive byway traveler experiences. You can help assure that your byway travelers are well-served by providing and sustaining these eight wayshowing components for your byway:

1. **Travel Directions and Route Clarity**: Turn-by-turn narrative descriptions of each distinct route segment of a byway
2. **Maps**: Graphic (cartographic) displays of a byway, its surrounding corridor and regional setting
3. **Digital Data**: Media provided for consumer electronic devices
4. **Marked Byway Entrances and Exits**: Signs and entry monuments which signify the beginning, ending and major intersecting entry points of a byway
5. **Orientation Stops**: Visitor centers and roadside pull-offs where travelers can obtain an overall orientation to the byway corridor
6. **Byway Guide Signs**: Highway and road signs which guide motorists to and along a byway route
7. **Identification of Byway Attractions**: Signs and graphics with the names of places where travelers are encouraged to stop along a byway

5.12

5.13

8. **Trained Hospitality Personnel**: Visitor center staff, interpreters, volunteers, park rangers and other people who have the duty to provide timely and factual information to travelers and visitors

The eight wayshowing components can be considered in three broad categories:

Representational

Physical

Personal

Figure 5.14 illustrates that each wayshowing component meets certain essential wayfinding challenges shared by all travelers.

ESSENTIAL WAYFINDING NEEDS	Travel Directions	Maps	Digital Data	Entrances and Exits	Orientation Stops	Byway Guide Signs	Attraction Identification	Hospitality Personnel
Identify origin and destination	✓	✓	✓	✓	✓		✓	✓
Determine turn angles	✓	✓	✓		✓	✓		
Identify segment links and directions of movement	✓	✓	✓		✓	✓		
Recognize on-route and distant landmarks		✓			✓		✓	✓
Mentally embed a cognitive map		✓	✓	✓	✓		✓	✓
REPRESENTATIONAL								
PHYSICAL								
PERSONAL								

WAYSHOWING COMPONENTS

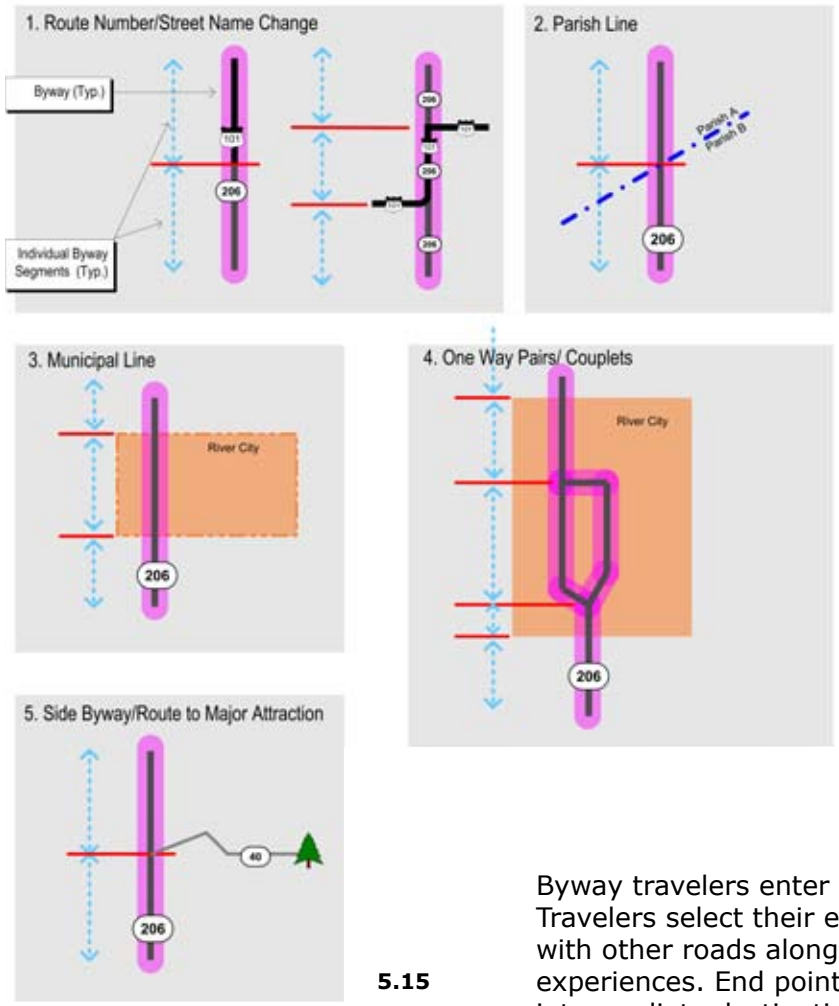
5.14

Fig. 5.12 Cherokee Foothills Byway Information identification sign, South Carolina (ABRC)

Fig. 5.13 Traveler at Visitor Center information desk (David L. Dahlquist)

Fig. 5.14 Essential wayfinding needs met by wayshowing components

Representational Wayshowing Components



5.15

Fig. 5.15 Byway segment definitions, Louisiana Byways Program (David L. Dahlquist)

Travel Directions and Route Clarity

When we are familiar with a region such as our neighborhoods, we rely on well-used and reliable mental or cognitive maps to find our way to work, the grocery store, or our favorite park. We use repeated and successful experiences and memories to travel in and around territory we know. When we are familiar with a territory, we unconsciously use the knowledge that we already have to travel to a new friend's home or a new place of work. When what was once unfamiliar geography becomes familiar through repeated travel, we no longer have to logically solve the navigation dilemmas of "Where are we?" and "Where do we want to go?"

When we are in unfamiliar territory, we must consciously use physical clues along the roadway. We can also use measurable information such as turn-by-turn instructions and maps to logically solve our wayfinding challenges. Research conducted by the late Dr. Reginald Golledge of the University of California, Santa Barbara, has identified specific steps that we use to orient ourselves and navigate in unfamiliar locations including:

1. Identify their original starting point and their destination.
2. Determine whether they need to turn right or left or go straight to stay on course.
3. Identify distinct segments of the total route and the cardinal direction of travel for each.
4. Recognize on-route and distant landmarks.
5. Mentally embed or visualize the route in a larger reference frame, *a cognitive map*.

Byway travelers enter the byway, travel along the route, and ultimately reach an end point. Travelers select their entry points (e.g., either end of a lineal byway or one of several intersections with other roads along the byway). Travelers also determine where they end their byway experiences. End points may be the other end of a lineal route, an intersecting highway, or an intermediate destination. No matter where byway travelers begin and end their visits, the byway route is fixed. The route is the connected and continuous sequence of segments of highways, roads and streets that carry the byway designation.

With few exceptions, a byway's designation occurs as an overlay designation on otherwise officially numbered or named highways, roads, and streets. Well-established conventions are used to name highways, road and streets (e.g., Interstate 29, U.S. Trunk Highway 40, County Road-38, and Main Street). Travelers expect that every stretch of road has a name and/or number that will help locate features or addresses.

Wayshowing tools for byways should use a road's named or numbered identity to convey travel directions to travelers who are unfamiliar with the byway and its corridor.

Here is a commonly accepted protocol for conveying travel directions from a hypothetical Point A to Point B.

Depart Point A on Highway 16 and travel south for 5 miles,

Turn Right (west) onto Main Street and travel 1.2 mile,

Turn Left (south) onto County Road 67 and travel 8.5 miles,

Arrive at Point B.

Now let's examine these directions with the five steps of successful travel as identified above.

Depart Point A [**Origin**] on Highway 16 and travel south for 5 miles,

Turn Right [**Turn Angle**] (***west***) [**Direction of Movement**] onto Main Street [**On Route Landmarks**] and travel 1.2 miles [**Segment Link**],

Turn Left (south) onto County Road 67 and travel 8.5 miles,

Arrive at Point B [**Destination**].

5.16

Driving the Ridge

The Arkansas segment of the Crowley's Ridge Parkway is a series of federal, state and county highways linked to traverse the entire crescent-shaped ridge. For the best experience, consider the official route as a trunk with numerous branches spreading out to be explored.

Directions:

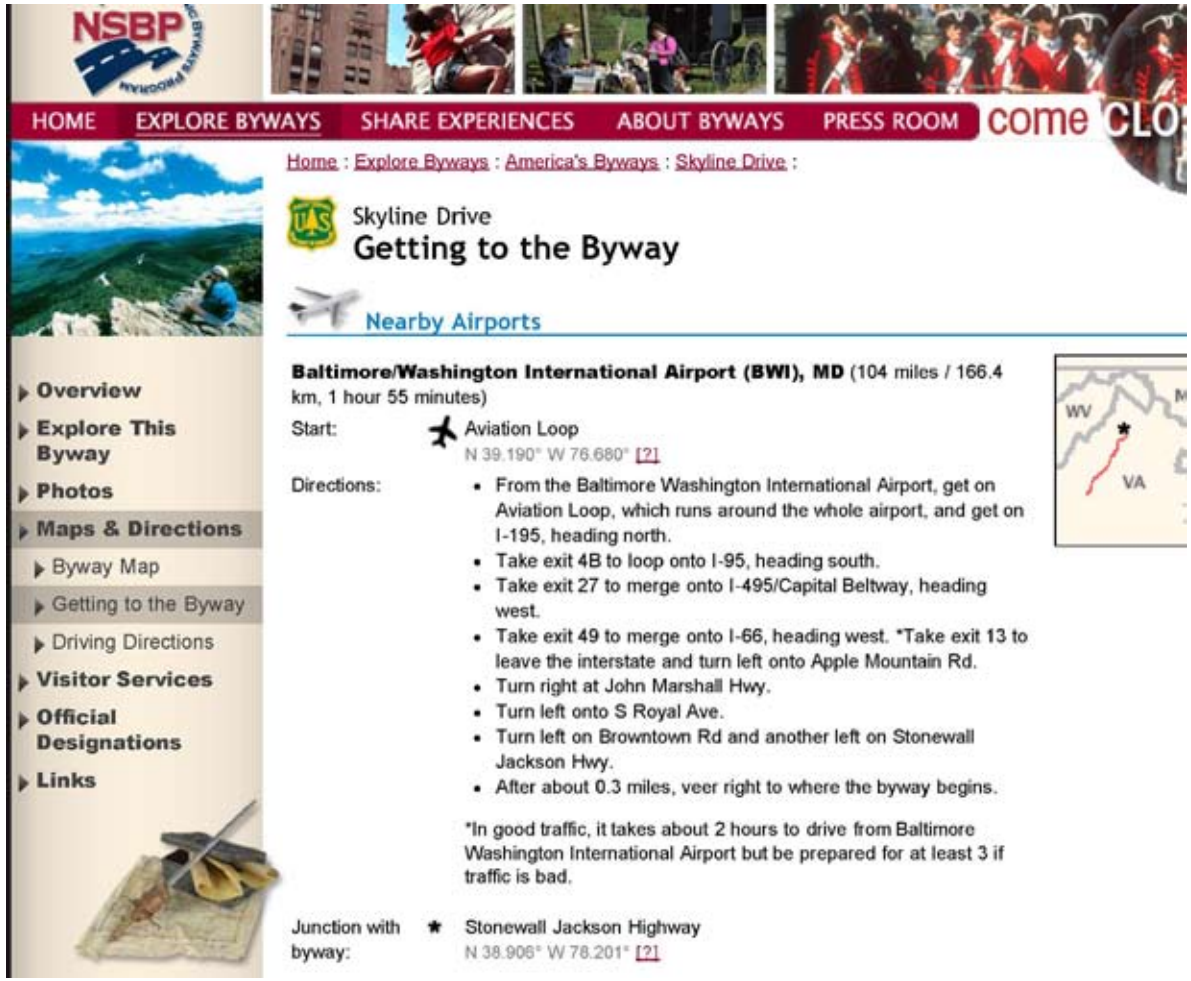
Cross the St. Francis River on U. S. 62 from Campbell, Mo., into St. Francis, Ark., then south to Piggott.

Fig. 5.16 Travel directions - Crowley's Ridge Parkway (Crowley's Ridge Parkway Driving Tour Guide)

Preparing a 'Point A to Point B' or turn-by-turn description of a byway's route is typically a task or product of the byway's corridor management plan. A segment-by-segment narrative is often required as a condition of byway designation at state and national levels. Communicating the turn-by-turn directions to travelers is particularly important. Many travelers prefer to navigate unfamiliar routes and areas using this method over all others—there are many people who are not accustomed to reading or navigating with the aid of maps.

Providing turn-by-turn directions in both directions of travel on your byway is the first important wayshowing component in a comprehensive system. Communication of byway travel directions should be provided in print, electronic and even audio versions.

Figures 5.16 and 5.17 illustrate examples of byway travel directions that use a 'Point A to Point B' or turn-by-turn approach.



5.17

Fig. 5.17 Travel direction to Skyline Drive from Baltimore/Washington International Airport (www.byways.org)

Sample Maps

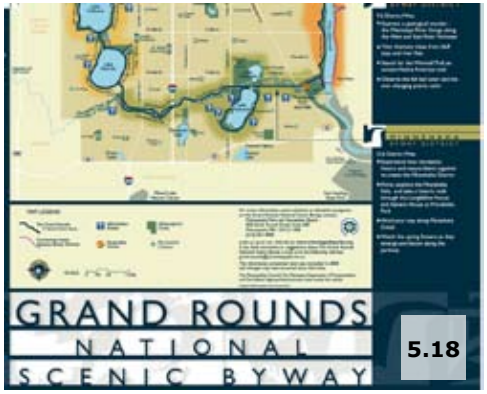


Fig. 5.18 Orientation Map (partial) Grand Rounds Byway, Minnesota (David L. Dahlquist)
Fig. 5.19 Byway Segment Map (partial) Grand Rounds Byway, Minnesota (David L. Dahlquist)

Maps

The Value of Byway Maps

Byway travelers in unfamiliar territory rely on maps as much as any other wayshowing component. In the Pre-Visit Stage, maps support the traveler's decisions and planning activities. Maps and byway guide signs provide the essential information for a traveler to answer these wayfinding questions:

- Where are we now (origin)?
- Where do we wish to go (destination)?
- Which road or highway should we take next (segment)?
- How far do we go before we turn or stop (segment length)?
- What way will we be traveling (direction)?

During the Visit stage, providing essential information through maps allows travelers to answer immediate questions, such as:

- Where are the scenic views, the historic sites, the parks and trails, the wildlife viewing areas we want to stop at today?
- Where can we eat, shop, hang out, get fuel, check e-mails, etc.?

During the Post-Visit stage, maps are an important tool travelers use to recall, refresh and refer to the memory of a rewarding byway experience.

Types and Sources of Maps

Byway travelers rarely will find a single map that provides all of the geographical information needed to plan and execute a long distance trip. Travelers on a long trip may use several cross-country travel maps from different sources. Some examples include:

- digital maps obtained from Internet servers, (e.g., MapQuest, Google Maps, or from highway department websites);
- official state highway or transportation maps (fold-out printed);
- map atlases such as a *Delorme Atlas & Gazetteer*;
- official state visitor guides, or;
- GPS navigational systems such as *TomTom*.

Sample Maps

5.20

5.21

Fig. 5.20 Byway map as part of an interpretive exhibit, Sheyenne River Valley Byway, North Dakota (ABRC)

Fig. 5.21 Orientation map showing byway corridor, Connecticut River Byway; VT, MA, NH (ABRC)

Travelers may continue to use their cross-country travel maps, or they may seek a localized map from an area visitor center.

Maps today are an electronically derived product often being an output of a geographic information system (GIS). Historically, professionally trained cartographers designed and drew graphic products. Today, effective maps are produced by people who are technically and professionally trained in GIS and graphic design. A byway organization should plan to make initial and periodic financial investments to acquire effective byway mapping products. Map information should be updated to reflect changing conditions along and in the organization's byway and attendant corridor. Map products can be produced across different media with high efficiency; mainly because electronic geographic databases and sophisticated graphic software are now more available and accessible. Byway providers can now use common map images for websites, brochures and portable maps, fixed wayside exhibits, wall maps; reports and short-term communications, planning and management documents, and other applications. Multi-use applications represent a good return on financial investment and assure that travelers will receive common and consistent delivery of wayshowing information. Geo-data that can be used for developing byway corridor maps can be obtained from State DOTs, regional planning organizations, and county as well as municipal planning agencies.

Make Maps Communicate What Your Travelers Need

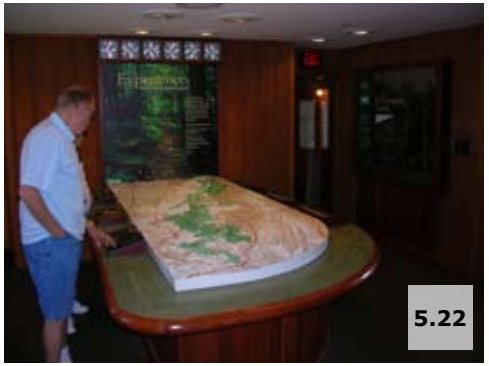
Although maps may seem like they are objective and accurate in their presentations, they are actually very biased—mapmakers determine what is (and what is not) shown on a map. Mapmakers control lines, shapes and symbols with different weights, sizes, colors, positions, backgrounds and labels to direct attention toward features and de-emphasize or omit other features. The geographic features—roads, political subdivisions, rivers, parks, land covers, mountain peaks, etc.—and how they are rendered or graphically weighted are determined by the mapmaker and the objectives which you use to plan a byway map. A map showing land use, zoning, or underground utilities will look different than a map illustrating native vegetation or sub-surface geology.

An important point about mapmaking is that maps should be created with a particular audience and purpose in mind. Land use or zoning maps serve public officials and property owners. Vegetation, wetlands or subsurface geological maps are designed for scientific, engineering or academic use. Trail maps are created for trail users. State park visitors use park maps to find the campgrounds, shelter houses, trailheads and swimming beaches.

Keep byway maps simple by limiting the potential audiences and key objectives. A byway wayshowing map cannot show every detail someone might wish to see.

Maps of byways should be planned, designed, produced and distributed for the purpose of serving the needs of people who want to drive and experience a byway and its intrinsic qualities. Byway

Sample Maps



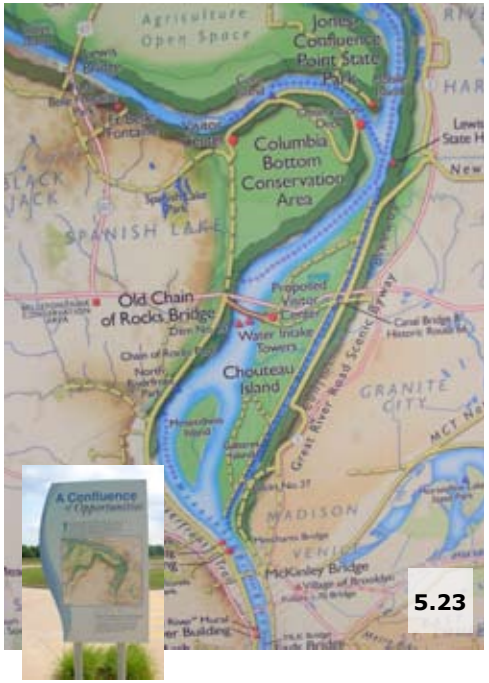


Fig. 5.22 3-D map, Skyline Drive, VA (David L. Dahlquist)

Fig. 5.23 Orientation map, Meeting of the Great Rivers Byway (David L. Dahlquist)

organizations may need multiple maps in different mediums to most effectively represent your byway to all of your targeted audiences.

Map Features and Considerations

Byway wayshowing maps features could:

- Prominently display the byway's route among all highways and roads.
- Label the number and/or name of all highways, roads or streets that make up the byway's route. Include the same for all roads that lead to byway attractions. Confirm how each highway and road are signed in the field.
- Indicate the byway's corridor.
- Illustrate byway attractions with shapes, points or symbols and labels. Provide street addresses as needed.
- Use symbols, line weights, colors, patterns and fonts to consistently communicate a common meaning. For example, all interstate highways use a common line; all water bodies are blue; or all cities of a certain range of population have the same symbol.
- Mark visitor services such as restrooms and vehicle services, particularly if those facilities are dispersed or not within a reasonable distance of the byway.
- Exhibit essential intrinsic qualities and resources such as rivers, lakes, mountain peaks, oceans, and other significant geological features. These often assist with basic orientation and wayfinding.
- Provide graphic illustrations or photographs of significant natural and cultural landmarks that serve visual, in-route destinations.
- Instruct travelers to look for and follow the byway's graphic identity or byway guide sign.
- Indicate portions of the byway route that may not be hard surfaced or subject to seasonal closure. Mark alternative routes so that there is a distinct route to follow for all vehicles and in all seasons.
- Indicate major political subdivisions and all towns and cities on and near the byway.
- Indicate byway orientation stops, visitor centers and other public locations where travel information may be obtained.

Sample Digital Data

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Fig. 5.24 www. byways.org

Fig. 5.25 www.woodwardavenue.org/tour

Fig. 5.26 "Put It Down" public education logo provided by the U.S. Department of Transportation (www. distraction.gov)

Digital Data

Electronic devices and associated data and information systems are widely available and used by travelers. These applications can support and enhance the byway traveler's experience. However, these applications are rapidly changing with developments in technology. In 2010 travelers used a wide range of electronic and broadcast tools to assist them during all stages of their byway experience including:

- Personal GPS—Handheld or dashboard installed
- Smartphone applications
- Short range FM-AM radio broadcasts
- Audio CDs and video DVDs with driving instructions and interpretive stories
- Laptops or handheld devices with Internet connections
- On-board telematics communication systems such as OnStar or SYNC®
- Commercial GPS activated audio messages and devices
- Downloadable audio tours via MP3 or other systems
- Electronic book readers

Byway organizations may deploy new electronic technologies to distribute narrative, maps, GPS points, and other content to assist travelers in finding their way to and along the byway. Electronic technologies can assist in providing fundamental traveler needs, including; helping to develop an effective cognitive map of the byway's corridor; determining where they want to travel (destination); and identifying how to find their way.

However, as you consider making electronic media available to travelers, be mindful of the extent to which these media may contribute to the dangerous practice of distracted driving. According to www.distraction.gov,

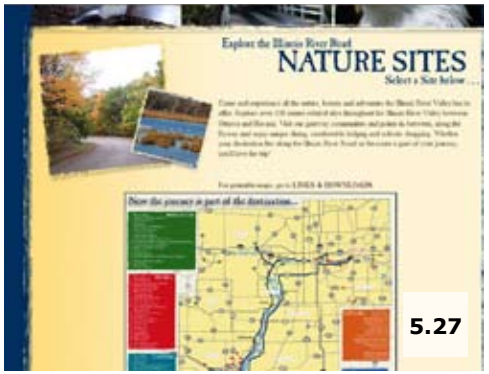
> *Distraction is defined by the National Highway Traffic Safety Administration as a specific type of inattention that occurs when drivers divert their attention away from the task of driving to focus on another activity instead. These distractions can be electronic distractions, such as navigation systems and cell phones, or more conventional distractions, such as interacting with passengers and eating. These distracting tasks can affect drivers in different ways and are categorized into the following three types—visual, taking your eyes off the road; manual, taking your hands off the wheel; and cognitive, taking your mind off the road.*

put it down

5.26

Sample Digital Data

As you share information regarding your byway for prospective travelers in their Pre-Visit Stage or during their Visit Stage, remind and caution them of the dangers of distracted driving. Many states have enacted laws regarding the use of cell phones and texting while driving and out-of state travelers may not be fully aware of the rules and regulations for your state.



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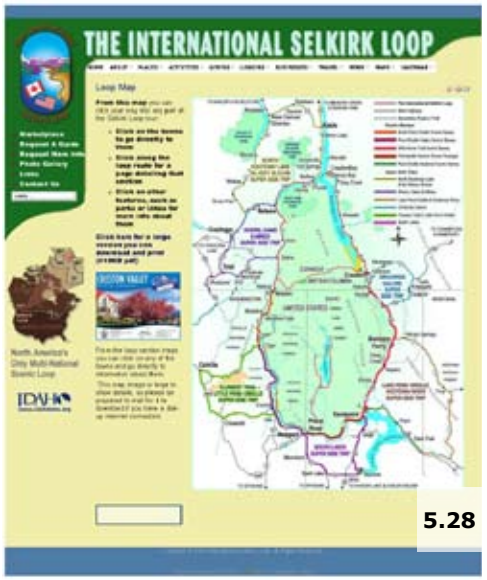

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Fig. 5.27 www.illinoisriver.org

Fig. 5.28 www.selkirkloop.org

Fig. 5.29 www.lakestolocks.com/map.php?region=3

Sample Entrance/Exit Signs

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Fig. 5.30 Begin sign, Ohio and Erie Canalway, OH (ABRC)
Fig. 5.31 End sign, Ohio and Erie Canalway, OH (ABRC)
Fig. 5.32 Loess Hills Byway, IA (ABRC)
Fig. 5.33 River Road Scenic Byway, MI (ABRC)
Fig. 5.34 Edge of the Wilderness Byway, MN (ABRC)
Fig. 5.35 Historic Columbia River Highway, OR (David L. Dahlquist)

Physical Wayshowing Components

Marked Byway Entrances and Exits

A critical function in wayshowing is that of physically marking or identifying byway entrances with signs, monuments, or landscape development. Travelers need to know when they have arrived and when they are leaving your byway environment.

A number of road management authorities use two auxiliary signs prescribed in the MUTCD: the BEGIN auxiliary sign (M4-14) and the END auxiliary sign (M4-6) to indicate the respective points on designated byways. BEGIN and END auxiliary signs are typically mounted in assemblies with byway guide signs and directly above the standard byway guide signs.

Byway entrance and exit locations offer the opportunity to:

- make a significant positive first impression for travelers;
- provide constant reminder to local residents and travelers of the presence of their byway;
- manifest a sense of community pride and participation in the support and recognition of the byway.

A range of marking byway entrances and exits are illustrated here.

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Sample Orientation Stops

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Fig. 5.36 Sheyenne River Valley Byway, ND (ABRC)
Fig. 5.37 Cherokee Foothills Byway, SC (ABRC)
Fig. 5.38 The Energy Loop Byway, UT (ABRC)

Orientation Stops

Early in the Visit Stage of byway travelers' experience, their wayfinding tasks are often simplified if they have the opportunity to receive an overall orientation to the byway corridor. The knowledge and emotional appreciation that can be gained at the beginning of travel will likely enhance the overall byway experience in many ways. Orientation stops can significantly influence and shape a traveler's early or immature cognitive (mental) map of an unfamiliar area.

Orientation stops prepare travelers for their byway excursion by offering these types of information:

- Overall byway corridor map(s)
- Travel tips for enjoyable and safe travel, what to do in the case of an emergency, and special travel restrictions
- Useful clues to signify "You are here"
- Essential services and locations for restrooms, refreshments, meals, vehicle services, lodging, etc.
- Messages about intrinsic qualities and interpretive themes
- Optional attractions and features that might be further ahead
- Descriptions on where to obtain additional information
- Special travel and detour information
- Identity graphics and information for responsible organizations and agencies

Orientation stops may include roadside pull-offs or turn-outs. Travelers can safely stop and depart their vehicle to access a freestanding wayside exhibit with maps, illustrations and narrative. These orientation stops are usually in an exterior or outdoor setting for around-the-clock accessibility without personnel staffing to assist visitors. Hard surface or all weather walking surfaces should be provided from the designated parking areas. Attractive landscape plantings, benches and trash receptacles are often added features. The principles of Universal Design are important considerations for constructing and maintaining orientation stops. See figures 5.36 through 5.41 for examples of free-standing, non-staffed orientation stops.

A second level of orientation stop can occur in conjunction with visitor information centers, also called welcome centers or interpretive centers. Visitor center volunteers and staff can answer questions and offer advice and supply or direct visitors to orientation information located within the facility. Visitor centers typically include restrooms and refreshments, extensive brochure

Sample Orientation Stops

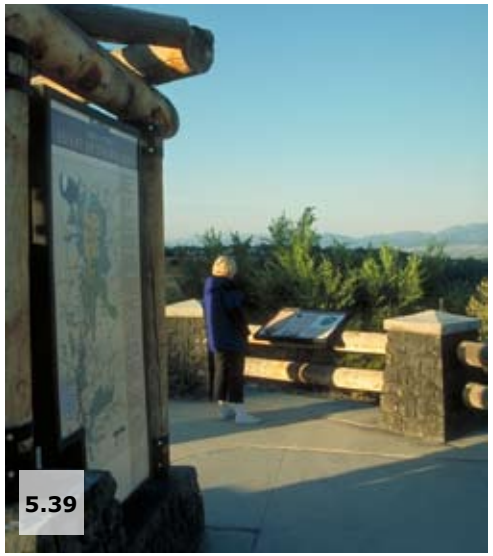

Fig. 5.39 Logan Canyon Byway, UT (ABRC)

Fig. 5.40 Grand Rounds Byway, MN (David L. Dahlquist)

racks, souvenirs, travel guides, supplies and books for purchase. Public visitor centers provide the important communication and service function of providing byway orientation for travelers. Here are some of the typical visitor centers that provide byway orientation:

- Interstate or highway oriented welcome or visitor centers
- State, regional, county or municipal visitor information centers
- County or state park visitor or interpretation centers
- Federal lands and tribal lands visitor or interpretation centers, museums, nature centers, park entrance and user permit centers, etc. Federal agencies that offer numerous such facilities include but are not limited to the National Park Service, the USDA Forest Service, the Bureau of Land Management, Fish and Wildlife Service, and the US Army Corps of Engineers.

Frequently, freestanding orientation exhibits as described above are located on the grounds of a visitor center building.

A third approach to providing the orientation stop function for byway travelers is through privately owned and operated commercial establishments. Often these entities have an inherent stake in the success and viability of the byway. They may provide an important traveler service such as a restaurant or coffee shop, a service station, a gift shop, a private museum, a lodging facility, a campground, and more. The vital functions outlined above for freestanding orientation stops apply to the information that might be conveyed at a private or commercially operated facility.

Regardless of how the orientation function is provided on your byway—free-standing orientation stop, full service visitor center, or through private commercial offerings—it is essential to remember this is a first impression situation. Information should to be up-to-date and useful. Litter and vandalism cannot be tolerated. Unfavorable first impressions are instantly made when they see dirty exhibits, poorly maintained grounds and constructed features, inhospitable or uninformed personnel. Remember the wise saying, "You only have one chance to make a good first impression." It surely applies for the orientation function or service you provide to your byway travelers.

Orientation stops should be located where your travelers are entering the byway. If your byway has a distinct or geographically limited entry point due to the limitations of mountains, rivers or other geographic conditions, then the solution is clear—orientation stops need to be at the two or three obvious entrances. Many byways have multiple access points since their routes are designated from within a grid or network of intertwining interstates, highways, local roads and street. Travelers have multiple points of access, and multiple opportunities to locate a limited number of orientation stops. In these situations, consider:

Sample Orientation Stops

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- comparing actual traffic counts on intersecting highways.
- identifying the routes most byway travelers will use in arriving at the byway. For example, the major traveler market segment may reside to the south of the byway. As such, most people take an available state highway to travel north to your byway even though an interstate highway crosses the byway in a northern segment. If that interstate highway delivers a relatively small number of motorists to your byway, then you may want to focus on the travelers arriving from the south on the state highway.
- using any well-established visitor centers in the vicinity of your byway that serve leisure travelers arriving to the region before acquiring land, property or a building for a free-standing orientation stop directly on your byway route.

You can help travelers find the byway's orientation stops by:

- Placing the orientation stop where the travelers are already stopping.
- Promoting the orientation stop as: "The (insert your byway's name) Orientation Stop" or a different term. In the Pre-Visit Stages of communication, you should inform prospective byway travelers of the benefits of your orientation stop(s).
- Identifying the orientation stop with a clearly marked sign, name, or graphic to announce and confirm that this location and facility is "The (insert your byway's name) Orientation Stop."
- Assuring that appropriate directional signs will help travelers locate the orientation stop if it is not immediately adjacent to your byway.

Byway providers should concentrate on providing and delivering high quality information for travelers to use in the Pre-Visit **planning stage.** If they cannot provide the orientation stop function, use brochures, Internet websites, social media, and other communication to fill in the gap of wayshowing information that would otherwise be provided by an orientation stop.

Fig. 5.41 Great River Road, IA (ABRC)

Fig. 5.42 Skyline Drive, VA (David L. Dahlquist)

Byway Guide Signs

The wayshowing component of byway guide signs is, within the overall purpose of Guide Signs as established in the MUTCD. From the MUTCD, Guide Signs are:

"essential to direct road users along streets and highways, to inform them of intersecting routes, to direct them to cities, towns, villages, or other important destinations, to identify nearby rivers and streams, parks, forests, and historical sites, and generally to give such information as will help them along their way in the most simple, direct manner possible."

Sample Byway Guide Signs

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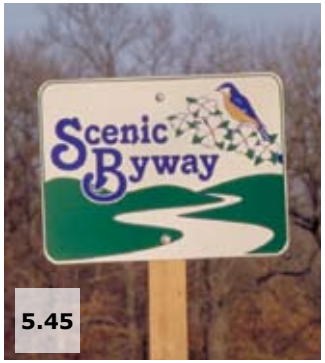

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For many byway providers, byway guide signs are the most important of the eight wayshowing components. Byway guide signs are the wayshowing feature seen and used by all travelers, regardless of ability to own and operate electronic technologies. A complete and properly installed system of byway guide signs may help prevent:

- byway traveler disorientation;
- byway travelers becoming lost;
- byway travelers with negative emotions; and
- byway motorists making unsafe traffic movements.

Byway guide signs are present 24 hours a day, 365 days a year to guide byway travelers to and along the designated route. Travelers may not realize they have entered a byway corridor, and byway providers create a "lost opportunity" situation for the businesses and attractions located further along the byway.

Most byways are comprised of multiple numbered highways and named local roads and streets. Few byways follow a single highway from beginning to end. Byway travelers are often confronted

Fig. 5.43 Great River Road, IA (ABRC)

Fig. 5.44 Lincoln Highway, IL (ABRC)

Fig. 5.45 Missouri Byways Sign, MO (ABRC)

Fig. 5.46 Nebraska Byways Sign, NE (ABRC)

Byway providers who develop a comprehensive wayshowing system for a byway must respect and enhance the existing numbers or names of each segment as well as the route's existing or established guide signs.

with decisions to follow a US highway for a while, and then turn onto a state highway, and then turn to follow a local road or city street before again turning back onto a different US highway. Travel along many byways requires drivers to change from one route to another.

The act of designating segments of a roadway as a byway, effectively overlays an additional navigation identity to an already numbered or named route. Byway providers who develop a comprehensive wayshowing system for a byway must respect and enhance the existing numbers or names of each segment as well as the route's existing or established guide signs. Some travelers may be more likely to follow the signed identity of the byway than a sequence of changing highway numbers or road names. This should be a major consideration when planning, designing and installing a byway guide sign system. The single and consistent byway identity may be more effective in guiding byway travelers than the changing identities of multiple numbered highways and local roads and streets. Consequently byway guide signs must guide travelers from one byway segment to the next, connecting across highways and roads that may otherwise have very little in common. Byway guide signs must not interfere with the functionality and visibility of highway guide signs. However byway guide signs should provide constant and continuous byway identification across multiple highways, road, and streets.

An effective byway guide sign system is the product of much more than an attractive graphic identity. Developing or updating the byway's guide signs often requires byway providers to integrate the following:

1. collaborative engagement and commitment of key parties
2. comprehending the underpinnings of applicable policies
3. effective application of the byway's graphic identity
4. understanding guide sign assemblies.

Collaborative Engagement and Commitment of Key Parties

Establishing and updating a system of byway guide signs is a lengthy process.

Establishing and updating a byway guide sign system is a lengthy process. Many parties are often involved including: state and local officials; planners, designers and engineers; sign fabricators and installers (if contracted by road management authorities); funding and contract administrators; and road management field representatives. A two- to three-year timeframe is commonly required to develop and implement a byway guide sign project.

Collaborative engagement of byway organization representatives with the state or tribal byway coordinator, and appropriate road management authorities is necessary. This collaboration is necessary to plan, install, and maintain effective byway guide signs. Representatives of road

management authorities involved with byway guide signs may include headquarters and district personnel of the state department of transportation (DOT); representatives from federal or tribal lands; and county and municipal jurisdictions located along the byway route. State, district and local road authorities have the exclusive authority to add, change and maintain the integrity of traffic control devices and signs occurring in the highway or road right-of-way.

Local byway organizations have the opportunity and responsibility to be represented in decisions and actions related to byway signing. Byway organizations typically do not have the authority to make actual changes to the signing along the corridor of a byway. But, byway organizations can monitor the signing and act as an advocate. As an example, your byway organization members can communicate to the appropriate jurisdiction when signing needs obstruction clearance, or when a sign has fallen.

Underpinnings of Applicable Policies
Jurisdictional laws, administrative rules and related operating policies govern and guide the installation and maintenance of byway guide signs. Byways that are designated on federal lands, (i.e. U.S. Forest Service or National Park Service) have appropriate department and agency policies, rules, and guidelines for signs on roads within these public lands. Tribal agencies likewise have enabling provisions regarding road signs on tribal-managed roads.

State laws, administrative rules (or their equivalents), traffic and transportation safety manuals, design guidelines and operating procedures support the installation and maintenance of highway and byway guide signs for most state-designated byways. Local governments have similarly defined responsibilities for assuring travelers can find their way along local streets, roads and highways.

The most important document that requires and regulates highway signs is the MUTCD (see discussion on the MUTCD throughout this manual). **FHWA Interim Policy, May 18, 1995, National Scenic Byways Program**, recognizes and supports implementing a variety of wayshowing components to enhance travel safety and provide information for byway travelers. In turn, the Interim Policy requires that individual byways prepare corridor management plans (CMP) to address safety and signing to support the visitor experience.

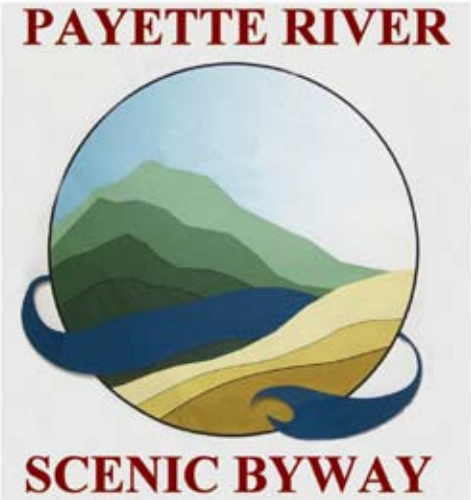

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Fig. 5.47 Idaho Byways logo example (Idaho DOT)

Application of Byway Graphic Identities
A byway's graphic identity is an important consideration in the planning and implementation of byway guide signs. Later in this chapter, considerations for developing a graphic identity for byways will be discussed. First, here are key considerations relating to the visibility of byway guide signs.

Image readability: Too often what seems like an attractive byway graphic identity on paper or computer screen, turns out to be largely unreadable in a roadway environment. Motorists have only seconds to recognize and comprehend or process the graphic identity while they are traveling by

at 45 to 70 miles an hour. Signs may become difficult to read where there is not adequate lighting and during some weather conditions. When byway travelers are routed through traffic in congested areas, the visual field is likewise congested making graphic readability critical. Before final decisions are made, full-size mockups of a byway graphic identity applied to a guide sign should be field-tested with motorists traveling in vehicles along a byway. Testing should occur in several locations. Designs which place significant emphasis on the readability of the byway name and/or scenic byway legend will more appropriately conform with basic principles of traffic sign and route marker design.

Fig. 5.48 Typical byway guide sign assembly, NY (New York DOT)

Fig. 5.49 New York Byway graphic identities (New York DOT)

Retroreflectivity: All highway guide signs, including byway guide signs, are required by the 2009 MUTCD to have and maintain acceptable levels of retroreflectivity. Retroreflectivity is the characteristic of a sign that will essentially return light back in general direction from where it originated. This causes the sign to be visible at night under headlamp illumination by an approaching vehicle.

Shape and Proportion: Check the 2009 MUTCD, Chapter 2D, for guidance on typical dimensions and shape for guide signs.

Information not included on Byway Guide Signs: Street addresses, telephone numbers, web addresses, time of operation, etc. are not allowed on byway guide signs. This provides too much detail that cannot be 'comprehended' by a roadway traveler.

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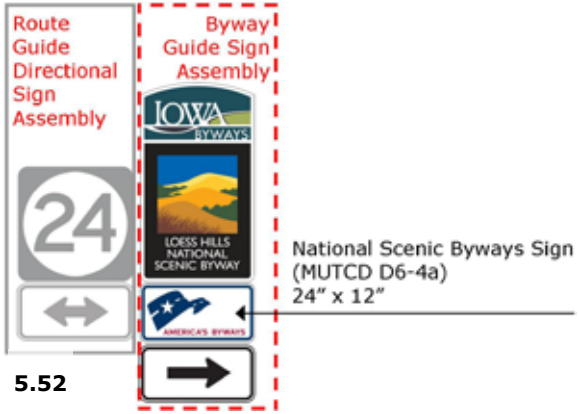

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Byway Guide Sign Assemblies

Byway guide signs are mounted on posts and other structures. Often this is done effectively in combination with already existing numbered highway route signs and auxiliary signs. In this case, byway guide signs are generally mounted to the right or below the numbered route assembly.

Chapter 2D of the MUTCD provides the standards for a variety of guide sign assemblies. The most commonly used assemblies for byways are the:

- Junction Assembly—a sign assembly installed in advance of every intersection where a numbered route is intersected or joined by another numbered route. The Junction assembly alerts the traveler of an upcoming route change
- Directional Assembly—a sign assembly typically installed on the near right corner of the intersection where a numbered route is intersected or joined by another numbered route. The

Fig. 5.50 Ohio River Byway, OH (ABRC)

Fig. 5.51 Highland Scenic Highway, WV (ABRC)

Fig. 5.52 Iowa Byways guide sign assembly, IA (Iowa DOT)

Directional Assembly includes a route sign and a Directional Arrow auxiliary sign that directs the traveler to go straight or to turn right or left.

- Confirming Assembly—a sign assembly installed just beyond intersections of numbered routes. The Confirming Assembly provides immediate confirmation for travelers that they have made the correct decision or turn at the intersection.
- Reassurance Assembly—a sign assembly installed at such intervals as necessary to keep road users informed of their routes. Reassurance Assemblies provide periodic indications that travelers continue to be on their desired route. Interval spacing of Reassurance Assemblies are based on the local conditions such as urban or rural areas.

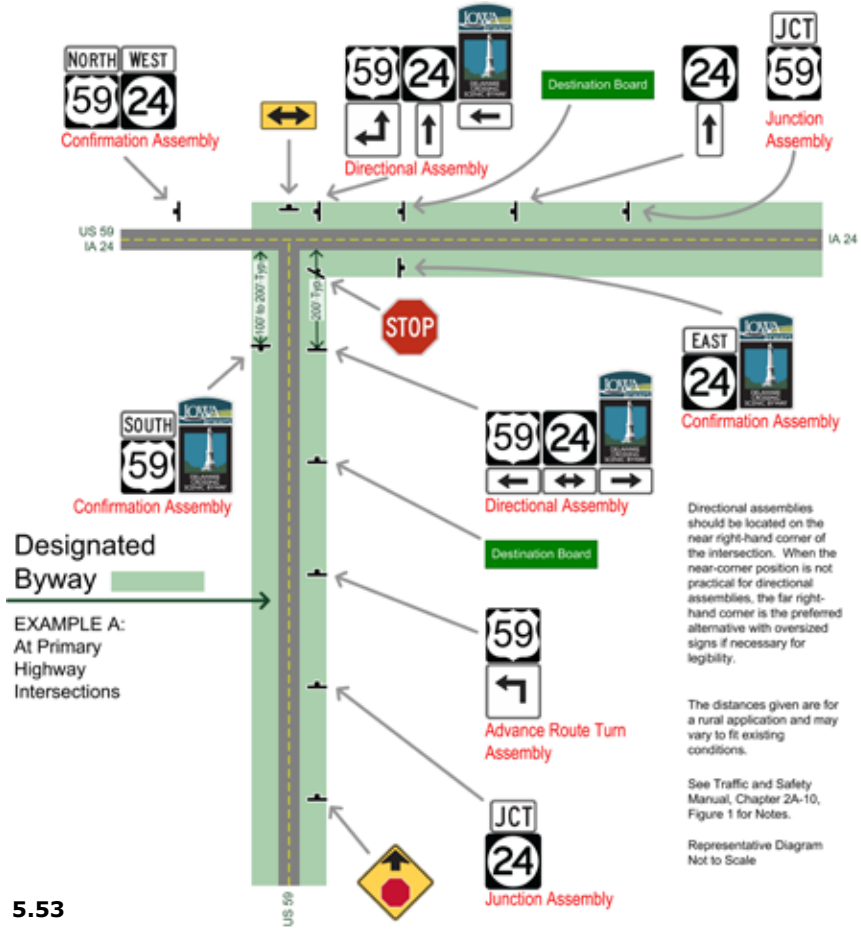

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Fig. 5.53 Example of byway guide sign locations (Iowa DOT)

Figure 5.53 illustrates the installation guidelines for byway guide sign assemblies at the intersection of primary highways which are also designated a state byway by the Iowa Department of Transportation.

Please note this reference manual is not a substitute for the MUTCD or local requirements. Local road management authority(s) has legal jurisdiction over your byway and will have guide sign policies with installation and maintenance procedures that must be followed.

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Fig. 5.54 Visitor Center, Great River Road, MN (ABRC)

Fig. 5.55 Big Fork entrance, Edge of the Wilderness Byway, MN (ABRC)

Identification of Byway Attractions

The term "byway attraction" as used here refers to any place or point that is intended for byway travelers to notice or stop while touring along the byway corridor. Byway attractions could include scenic overlooks, historic sites, parks, trails, information stops, interpretive centers and wayside exhibits. Usually they are part of the overall byway experience and interpretation efforts. They may include any physical place where you intentionally want travelers to stop. Wayshowing components such as travel directions, maps, byway guide signs and others should be available to assist travelers in navigating to the intended byway attractions (see discussion in other parts of this chapter).

An important service for travelers and for your byway organization resource partners is the physical identification of byway attractions. Physical identification allows travelers to confirm the identity of recommended in-route destinations. Examples of byway attractions include but are not limited to scenic overlooks, historic sites, parks, trails, museums, information stops, interpretive centers, and wayside exhibits. Physical identification should be placed where by byway travelers who want to confirm that they have arrived at an authentic byway attraction can see it. Surprisingly, few byways do this. More often travelers follow a byway to an intended byway site, but they have little or no confirmation that they have found (destination arrival confirmation) the site integral to the byway's experience offering. To emphasize the importance of physically identifying a byway attraction using the reliable graphic identity, consider the following scenario:

> The 'Historic Scenic Valley Byway' features a series of homes and historic sites that are an intrinsic part of the byway's theme. You added a couple of extra days to the business trip so you could tour this part of the country. You've been following the Historic Scenic Valley Byway for a day now and it's lived up to all your expectations. Other byways you've toured have been fun discoveries and this one seems to be no different. You've been enjoying the scenery and occasionally stopping along the byway. The byway guide signs are doing their job leading you through the switchback highways of the byway: you've come to repeatedly rely on that byway sign image of the valley's limestone bluffs anytime you come up on confusing intersections of county and state highways. After pulling off the road at a safe location, you notice on your downloaded byway map that there is another historic site ahead. However, it's not directly on the byway; it appears to be several miles to the right. There, just to the right on the other side of the fence is a sign pointing to the "Historic General Johnson's Plantation Home". It's a different sign but a sign nonetheless. You turn and follow a curving county road through a small town and there's another sign. You think you're on the right path but you begin to wonder a bit. And then, rounding another curve, there

it is--a small cabin on the edge of the woods not necessarily what you thought a 'plantation home' should be. There's a sign in the front yard, similar to the quaint homemade signs you have followed along the county road to get here. It looks like it says "General Johnson's Home—a Property of the Jones County Historical Society. Tourists Welcome. Parking in the Back."

It's getting a little late in the day. There's only one car in the graveled parking area. Do you check it out or do you turn around and get back to the byway? You think, "I've come to rely on those byway signs. They're reassuring, but the last one I saw was two miles back on the main highway."

You turn around, drive back down the curvy county road. But what you do not know is you have just missed the most delightful Miss Lily who is the great granddaughter of General Johnson. Miss Lily has volunteered here every afternoon for the past 10 years, serves her homemade molasses cookies to everyone who stops, and tells the most endearing stories of growing up on the "plantation". You missed an hour with Miss Lily because you weren't sure if the "Plantation Home" was really a stop on the Historic Scenic Valley Byway.

Create and provide wayshowing components that are consistent and reliably accurate. Byway wayshowing components should confirm that the attractions promoted are intended as part of the experience. Travelers begin to rely on the recognizable and repeated image. The byway's image should be confirmed at key wayfinding decision points. A byway traveler may ask "Do I stop or do I go?" You might have stopped at the "Plantation Home" if you'd had the reassurance given by seeing a graphic image of the byway's limestone bluffs or a phrase in the sign copy that read something to the effect, "A partner of the Historic Scenic Valley Byway".

Fig. 5.56 Site identification sign, Edge of the Wilderness Byway, MN (ABRC)

Fig. 5.57 Traveler at Visitor Center information desk (David L. Dahlquist)

Fig. 5.58 Story teller and audience (ABRC)

Personal Wayshowing Component

Trained Hospitality Personnel

Travelers with special information requests or who are navigationally challenged often highly value personal wayshowing advice. Warm hospitality and information gained from a conversation with trained personnel can often make a difference between a good trip and a bad trip, an extra night's stay, or a great recommendation given back at the traveler's home.

Trained hospitality personnel who are prepared to address a wide variety of travel and visitor experience topics often staff orientation stops. Yet it is surprising how often the authors of this manual have stopped at state welcome centers, visitor information outlets, interpretive centers and found that the front line staff have little or no knowledge of nearby byways. Byway providers should avoid the missed opportunities for travelers and byway businesses by assuring that front desk staff can describe nearby byways for travelers. As the authors have discovered in conducting the Good Trip-Bad Trip Exercises (See Chapter Four), unclear directions and unfriendly customer service are two of the reasons many people credit for having had a bad trip.

One of the core activities of preparing and maintaining a corridor management plan is inventorying, cataloging and quantifying places, conditions, resources and partner agencies along a byway. Byway organizations should be proficient at this in order to secure and sustain their byway's state and national designation. Byway organizations or providers should include an inventory of the public visitor-oriented facilities at locations where trained hospitality personnel engage with the traveling public. Byway providers should periodically check if the trained hospitality personnel have accurate knowledge and personal information about your byway.

Within the regional vicinity of most byways are a number of visitor centers or public information outlets representing untapped human hospitality—wayshowing--resources for byways. Trained hospitality personnel within a reasonable geographic range of influence can provide byway travelers with recommendations and information. The public places listed below may be appropriate locations for byway travelers to interact with trained hospitality personnel.

- State border welcome centers staffed by state DOTs or offices of tourism, or every location in your state that provides statewide traveler information.
- Interstate welcome centers staffed by state DOTs or offices of tourism.
- County or municipal tourism or visitor centers – every county and municipality that exists in or near your byway's corridor.
- Local convention and visitor bureaus with visitor centers -- within 10 to 25 minutes driving distance of your byway.
- Interpretive centers for state, county and municipal parks; historic sites; museums; wildlife areas; winter sports facilities; marinas; etc. – within 10 to 25 minutes driving distance of your byway.

These places are important because your byway travelers are also potential visitors to many of the places listed above.

Here are some specific steps you can take to capitalize on the pool of trained hospitality staff that exist in the region of your byway region.

- Inventory and share the completed inventory with all locations.
- Provide information packets with facts about your byway, its designation, why the byway is important and the benefits it offers to residents and visitors. Most importantly provide information about wayshowing components that are available for your byway.
- Provide sufficient copies of your byway brochures.
- Provide website linkage.
- Provide brief and personal training for hospitality personnel, interpreters, park rangers, volunteers and others who meet the traveling public.
- Provide organized familiarization (FAM) tours or incentives for personnel to drive and explore your byway.

Grassroots Byway Hospitality Training

The America's Byways Resource Center acknowledges the importance of trained hospitality staff. In April 2008, twenty-two byway providers met in Denver, Colorado to become certified trainers for the 2007 Scenic Byway Award-winning Grassroots Byway Hospitality Training Program. This program was developed specifically to teach byway representatives how to train visitor center staff and volunteers; front line hotel, restaurant and retail employees; and other members of the community who regularly interact with travelers. Participants are trained about all aspects of the local byway from the byway's interpretive message to current resource protection strategies. The training program's strategic principle is that local individuals should teach each other, building on the foundation of existing knowledge.

The Grassroots Byway Hospitality Training Program includes creative learning tools, such as games, interactive activities, map-making and quizzes.

The Grassroots Byway Hospitality Training Program includes creative learning tools, such as games, interactive activities, map-making and quizzes. Its innovative content is the heart of the program, generating a dynamic atmosphere that engages participants to discuss not only standard visitor experience issues but byway ethics and expected behavior as well. Activities can be delivered in a variety of means, from day long workshops with front line staff to brown bag lunches with long-time community members and business leaders. More information on how to contact a certified trainer near you can be found at:

www.bywaysresourcecenter.org/about/news/archives/2008/06/03/1234/

Fig. 5.59 "Miss Lily" at Historic Rice Mill (David L. Dahlquist)

Graphic Identity: Considerations for Logos, Marks and Signs

Fig. 5.60 Lakes to Locks Passage, NY (New York DOT)

What is "Graphic Identity"?

For this manual, the term "graphic identity" refers to a visual illustration that is consistently used in association with the communication of information about a byway. Shape, line, color, image or subject, and short text or titles are often the visual features of a graphic identity. The term graphic identity can generally be interchanged with the terms graphic design, logo, icon, a mark, brand image, symbol, and other similar terms. The graphic identity of a byway, or for that matter any product, service, organizations, etc., is a consistently and repeatedly presented image that signals or associates information about the byway to the viewer. An effective graphic identity allows a viewer to "short cut" the processing of information. Once a viewer knows that a graphic identity is associated with or signifies a particular meaning, he or she does not need to re-learn that association each time the image is presented with other information. In other words, the meaning is mentally processed unconsciously and immediately. The image of the United States flag; a stop sign; your favorite soft drink, automobile or brand of cloths; and those of countless other products, services, and organizations each convey an immediate association of information to the viewer.

Where a Byway Graphic Identity Can be Used

Byway organizations have many situations where an effective graphic identity can be used. Here are some typical uses:

- Printed brochures and tour guides,
- Promotional ads in magazines,
- Websites for individual byways, state and federal agency websites, and www.byways.org
- Maps,
- Digital data and downloadable applications,
- Marked byway entrances and exits,
- Orientation stops,
- Byway guide signs,
- Identification of byway attractions,
- Wayside exhibits and other interpretive media,

An effective graphic identity allows a viewer to "short cut" the processing of information.

- Merchandise,
- Organizational communications such as letterhead, business cards, etc,
- Newsletters and press releases.

There are numerous ways in which prospective byway visitors, byway travelers, byway organization stakeholders, local residents and others benefit from the immediate recognition and understanding that an effective byway graphic identity can provide.

Graphic Identity for Individual Byways

An effective graphic identity can be considered a necessary feature for an individual byway. A byway organization can benefit from consistently and repetitively using an effective byway graphic identity. A graphic identity is not required to achieve byway designation. However, the benefits of using a consistent and repeated byway identity are numerous. Here are a few of those benefits described within the three stages of a byway experience:

- Pre-Visit
    - Increases awareness and distinction of a particular byway that will aid the prospective byway traveler in making a selection to visit a particular byway
    - When planning a visit to a byway, the consistent and multiple use of the byway's graphic identity reassures the traveler of his or her choice and can aid in organizing various sources of information
- Visit
    - Confirms the traveler's decision to travel to the selected byway
    - Marks byway entrances and exits
    - Symbolizes a byway's route on maps
    - Aids communication of information at orientation stops
    - Provides repetitive route marking for byway guide signs
    - Indicates which attractions support a byway's intrinsic qualities, interpretive themes, and individual interpretive messages
    - Aids in identifying special events associated with a byway
    - Stimulates travelers to purchase byway-related merchandize
    - Adds to the overall creation of Post-Visit reflection and referral activities

- Post-Visit
    - Aid travelers in a wide variety of ways to recall their first-hand experiences with a byway
    - Provides a tool for travelers to communicate their experience to others and to reinforce their decision to return to a byway and to travel to other byways

Graphic Identity for Byway Collections

Frequently, individual byways are presented as being members of a collection of byways, all of which contribute to a larger overall value. Each byway in the collection uniquely contributes an experience and intrinsic resources to a larger story or collection. A larger collection could be regional, cross state lines or consist of all of the byways within a state or tribe. The larger collection of byways can benefit by having a collective graphic identity. In turn each individual byway benefits from the market exposure and other resources afforded by the entire collection.

California, Colorado and Maryland are among a number of states that use a common graphic identity to signify the state's collection of byways.

Others, such as Minnesota and Idaho, rely fully on the graphic identities that are uniquely developed for each of the state's designated byways. These states do not have a common or single graphic identity representing its collection of byways.

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Fig. 5.61 Colorado Byway graphic identity (ABRC)

Fig. 5.62 Sample Minnesota Byway graphic identities (ABRC)

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Iowa and Oregon are among states that have created a collection graphic identity as well as individual graphic identities for each byway. The statewide or collection graphic identity can be used in combination with individual byway graphic identities or may be used as a stand along image. Each byway then has the ability to use its unique graphic identity with or without the addition of the statewide collection identity.

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Fig. 5.63 Sample Oregon Byway graphic identities (ABRC)

Fig. 5.64 Sample Iowa Byway graphic identities (David L. Dahlquist)

Individual byway organizations should be aware of the policies and practices that federal agencies, state DOT's and tourism offices have established and use for byway collection graphic identities. Some states will only use a single statewide graphic identity for byway guide signs on all of its byways. States may do this for consistency and repetition.

Other states may allow unique or individual graphic identities for byway guide signs. Byway organization leaders should know the provisions that their state byway coordinator enforces for the establishment and use of individual byway graphic identities. Furthermore, byways that cross federal or tribal lands will likely have additional provisions that pertain to the use and application of byway graphic identities.

See Chapter Six, A Wayshowing Guide for State and Tribal Byway Coordinators, Use of the National Scenic Byways Sign, for discussion on the use of the America's Byways logo as guided by the MUTCD and the National Scenic Byways Program.

Suggestions for Developing or Updating a Byway Graphic Identity

Establishing a byway graphic identity is a significant experience that will have many lasting effects for the life of the byway and its parent organization. This process can be an empowering, positive activity. It can also be very difficult, and time consuming. Naturally, people want to be proud of the symbol that will come to represent their byway. Here are suggestions for improving the efficiency and effectiveness of developing a byway graphic identity.

- **Use a consensus orientation**: It should be made clear early and often that a graphic identity is a byway communication tool that has specific and limited purposes. Committees can reach a stalemate when personal preferences get in the way of the group decision-making. The orientation of the group continually needs to be focused on consensus and agreement that serves larger purposes.
- **Remind members that it's the essence, not the story**: Effective graphic identities capture a core essence of the place in the simplest of presentations. They should avoid trying to tell the whole byway story. Nor should a graphic identity try to include representations of all of its various geographic pieces. There are many effective ways to tell your byway stories through brochures, wayside exhibits, maps, and the intrinsic resources. Travelers generally do not have time to "read" the graphic identity. The graphic identity needs to spark an immediate sensation in the mind of the viewer. For a variety of reasons a simple design with one subject matter is far better than multiple subjects. An effective graphic identity is one which employs a simple design, is distinctive and recognizable, and consistently used.

A graphic to be used on a highway guide sign should be very simple. A graphic to be used on letterhead or in a promotion piece can contain more detail.

- **Follow a process**: Follow a progressive deliberate process. This makes it possible to consider multiple factors—not just the appearance appeal factor only. Here is a sequence of steps that have proven successful for byway organizations:
    - Establish a review committee to participate in the process
    - Set core objectives and list all of the applications where the byway's graphic identity will be used
    - Consider variations on graphics, for different uses. As an example, a graphic to be used on a highway guide sign should be very simple. A graphic to be used on letterhead or in a promotion piece can contain more detail.
    - Review existing graphic identities that are used in connection with the byway—determine what images are already in the marketplace to avoid duplication
    - Collect open-ended written input from individuals as to the essential character or image to be expressed in the graphic identity—reviewing intrinsic qualities are particularly helpful
    - Engage the agency traffic engineer that has jurisdiction over the area early in the process to help ensure that the graphic identity will be in compliance with the MUTCD
    - Have graphic designer prepare preliminary alternatives
    - Field-test alternatives—view them as full-size full color mock-ups in an exterior setting to replicate the view from a motor vehicle on the road of the byway
    - Give typical viewers an opportunity to comment on first impressions of the graphic identity
    - Select preferred alternative based on field-test conducted by the graphic designer and members of the review committee
    - Graphic designer refines and makes appropriate refinements—preserve alternatives for future reference
    - Field-test preferred alternative again with review committee
    - Confirm selection of preferred alternative
    - Make final adjustments and prepare electronic files for various applications
    - Secure legal protection for the rights to use and distribute the graphic identity

- Hire or engage a **professional environmental graphic designer** with proven experience in:
  - helping committees and organizations reach consensus;
  - designing signing to be used in roadway environments;
  - producing alternative design options or variations; and
  - preparing electronic or digital design files in various professional formats that can be used by different vendors who produce print, website, and physical signs.

General Principles for Graphic Identity

Here are a few general principles that can guide the development of a byway's graphic identity. Also consider the relationships of components of a comprehensive wayshowing system to one another.

- **Images should be distinctive, recognizable, and translatable.** The image should always support the byway's essential character or intrinsic resource. Avoid trendy or over stylized appearances, colors, fonts, etc. Graphics should be clean, simple and fun. Signing, exterior exhibits and information kiosks become in themselves a visual 'icon' in the landscape. Graphic elements should be readily shared across different media and signing.
- **Materials should be functional, adaptable, and appropriate.** Materials should be sustainable and environmentally appropriate and durable. Installation should be easy, maintenance and replacement reasonable, and initial cost understood in terms of the expected communication life of the media and how many people will be reached with the communication.
- **Sign structures should be safe, accessible and useful.** All sign structures should be installed for the safety of byway users and designed for universal access and readability.
- **All communications media should use an organizing grid, typography family, and graphic marks and icons**. All communications media should adhere to rules of organization, a limited set of typography or fonts, a hierarchy of point sizes, and the precise replication of graphic marks and icons.
- **Consistent communication media size, orientation and proportions should be used throughout the byway.** Additional consideration should be given to choice of materials such as in the construction of orientation and wayfinding signing framing or the choice of paper in printed materials.
- **Graphic color selection and control enhance the graphic identity usefulness.** A limited number of compatible colors, a consistent color family, should be used in sign structure, exhibit production, brochure design, and the byway's website. The use of a distinctive color or a combination of unique colors can greatly enhance how recognizable and effective the graphic identity is particularly in wayfinding signing.

All communications media should adhere to rules of organization, a limited set of typography or fonts, a hierarchy of point sizes, and the precise replication of graphic marks and icons.

Funding Considerations and Sources for Wayshowing Improvements

Securing funding for the development and maintenance of a wayshowing system is an ongoing obligation and challenge for byway organizations. This is similar to the need to provide for the stewardship of a byway's intrinsic resources, promotional activities and capital development. All of these activities will assure that byway travelers have positive and rewarding experiences. Financial resources are often limited. Some aspects of effective wayshowing can be expensive such as installing sophisticated electronic systems, building orientation stops, and maintaining highly trained visitor service personnel. However, many basic improvements for effective wayshowing are common sense, no-cost considerations. As an example make sure that brochures or maps that may be produced for other purposes contain basic and essential wayshowing information.

National Scenic Byways Grants Program

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Fig. 5.65 National Scenic Byways program logo (FHWA)

The National Scenic Byways Program (NSBP) discretionary grants program provides competitive funding for byway-related projects each year. Congress has authorized a total of $403 million for the Program (1991–2009). States, Indian tribes, and local communities use grants from this program to fund a variety of projects based on defined eligibility categories and administrative criteria. Complete information about this program is online at www.bywaysonline.org/grants/.

The Secretary of Transportation makes grants to states and Indian tribes to implement projects on highways designated as National Scenic Byways or All-American Roads, or as state or Indian tribe scenic byways.

A project submitted for consideration should benefit the byway traveler's experience, such as through helping to manage the intrinsic qualities that support the byway's designation, shape the byway's story, interpret the story for visitors, or improve visitor facilities along the byway.

Once the Secretary of Transportation selects a project for funding, the byway organization must work with the state byway coordinator, Indian tribe byway coordinator, and/or byway contact in the FHWA division office to implement the project and to be reimbursed for eligible expenses.

In accordance with Title 23 Section 162(c), the National Scenic Byways Program lists eight categories of project activities that are eligible for NSBP grants.

1. State and Indian Tribe Scenic Byway Programs
2. Corridor Management Plans
3. Safety Improvements

4. Byway Facilities
5. Access to Recreation
6. Resource Protection
7. Interpretive Information
8. Marketing Programs

Although creating effective wayshowing systems typically falls under CMP and CMP implementation activities, marketing and interpretive projects often include wayshowing elements.

Your byway organization should verify which category your project may be eligible for if considering a National Scenic Byways Program grant application for your wayshowing project. Additionally, early communication with your state byway program coordinator will increase the likelihood for a successful wayshowing grant application.

Check www.bywaysonline.org/grants/examples for examples of tips and suggestions in planning and preparing a NSBP grant application.

Other Funding Sources

Maintenance or replacement activities are not generally eligible for NSBP grants. So you may need to find other funding sources for these types of activities. In addition to NSBP grants, here are some options to consider:

- For byways which are in the formative stages of designation, a number of states mandate that their department of transportation will initially provide and install byway signing along the routes.
- State departments of transportation contract for annual sign replacement throughout the state's network of freeways, expressways and highways. Including byway signing in an annual replacement program requires advanced planning and coordination.
- State departments of transportation and offices of tourism regularly update their official websites. These are often highly visited Internet portals to byways and affiliated travel destinations. Byway organizations may provide timely new and up-to-date wayshowing information that could be included during these updates.
- State departments of transportation annually, sometimes biannually, update the official state transportation or highway map. The updates afford the opportunity to assure that accurate information about byways is included in these highly used state maps. Also, most state DOTs post their official highway map on-line.

- Road improvement or reconstruction projects that occur on designated byways may include installation of new signing along the project. Consult early with your transportation official to verify that byway guide signs would be included with other new signing.
- Many byways benefit from having a variety of websites hosted by byway partners and stakeholders. These affiliated or linked websites offer many opportunities to provide wayshowing information for travelers. It is important to monitor and correct misinformation on websites used by travelers.

Priorities for Implementation and Roles of the Byway Organization

Byways and the organizations that support them should proactively engage in the development of wayshowing components. The amount of work required will vary depending upon byway length and complexity, organizational maturity, and the authorities or resources that a byway organization has available. Here are suggestions for wayshowing management:

- Place wayshowing among your byway's highest priorities: travelers will continually want to know where your byway is located; what's involved with traveling to and on it; and how they can recall and share their experiences.
- Build and sustain relationships with all the road management agencies that have authority for signing on the streets, road and highways of your byway.
- Regularly monitor what your byway visitors are expressing about traveling on your byway and specifically to the satisfaction they express about finding their way to and along your byway.
- Work continually to develop and maintain a "Visitor's Eye Perspective"—visitors to your byway do not have in-depth knowledge of the route and its various wayfinding challenges.
- Stay informed of proposed and pending road improvement projects that may necessitate a construction detour away from or to your byway route. Travelers will need to know about detours when planning and driving. These pending projects may also provide opportunities to improve the byway's wayshowing components.
- Regularly monitor the development of any road improvement projects that may cause even a minor change in the routing of your byway—pay particular attention to municipal-based projects that may create additional signing needs for one-way paired streets on your byway.

For organizations or groups that are working toward byway recognition and designation or which have recently received National Scenic Byway designation, here are some tasks that may need to be completed early on:

- Invest in preparing a graphic identity. A graphic identity can be used effectively in a variety of settings ranging from highway signs to brochures to electronic applications. Establish long-term rights protection for the graphic image and establish procedures to control the acceptable use of the graphic identity by other parties.
- Establish a means for producing accurate and complete maps for your byway. Also consider the media and distribution systems —brochures, website, wayside exhibits, etc.—for getting the maps to prospective and existing travelers.
- Make a list of the public places where your visitors may stop to ask questions, and obtain local travel information. Provide byway information and orientation to the managers and hospitality personnel who greet and converse with the public at these locations.

For byway organizations which have succeeded in reaching a level of maturity and their byway is well recognized, here are some points that may be worth considering:

- Conduct an annual wayshowing audit to assess the accuracy and quality of the wayshowing information. More importantly, test the reliability of how your wayshowing components are delivered to your byway travelers. See Sustaining a Byway Wayshowing System below for more information.
- Measure the effectiveness of your byway's graphic identity—your byway's brand image.

Byway Wayshowing Assessments

Byway organizations should methodically assess the effectiveness of their wayshowing components

Byway organizations should periodically assess the effectiveness of their wayshowing components. Additionally, assess the functionality of each component and how it works in combination with the others. Progressive levels of wayshowing assessments offer byway organizations the ability to identify shortcomings or risks of their wayshowing components.

LEVEL ONE: Wayshowing Self-assessment
Description: Regularly conduct this self-assessment by answering yes or no to six simple questions. "Yes" answers may show where improvements are immediately needed or that a Level Two or Level Three assessment effort should be undertaken.

1. In the last six months, have you received any complaints from travelers or the general public about problems they have encountered in driving to and along your byway?

2. Is there more than one highway route number along the entire byway?
3. Does your byway lack any of the following features?
    - Entry and exit points clearly marked at all major intersections
    - Places conveniently located where travelers can stop and see maps for driving the entire byway.
    - Route markers regularly placed that travelers can follow to be reassured they are on the designated byway.
    - Directional signing that alert and safely lead byway travelers to approaching attractions, overlooks, or side roads to byway destinations.
    - Byway maps readily available that support the entire byway experience including wayfinding, interpretation of intrinsic qualities and travel services.
4. Is wayshowing one of the top priorities of your byway's CMP?
5. Are there staff and volunteers providing face-to-face contact with the public at byway visitor information centers who have not traveled the entire byway in the last year?
6. Do byway organization representatives know who to call to fix sign problems on your byway?

LEVEL TWO: Wayshowing Canvas and Reporting

Description: The second level of wayshowing assessment focuses on conducting an on-site canvas of a randomly selected byway segment. The canvas involves observing, recording, and preparing a report which may suggest the adequacy of the byway's overall wayshowing components. The outcome is a list of specific items that should be addressed throughout the entire length of the byway. The advisability of conducting a Level Three In-depth Assessment can also be considered.

A wayshowing canvas process should include:

- Information Collection: Collect and review all information—brochures, maps, website pages, etc.—that is readily available to the traveling public. A focus of the canvas is on what travelers have access to, not planning reports or design drawings.
- Segment Selection: From the public byway information, randomly select a 20- to 30-mile segment for field driving and observation—attempt to include one major entrance or intersection with a state or federal highway.
- Drive the Segment: Drive the selected byway segment in one direction and then return. Traverse one major entrance route such as an intersecting US or state route and a major

arterial. Record the travel track on a printed map or with a hand-held GPS unit. Take representative photographs of entrances, route turns, any existing orientation stops, typical route marker or guide sign locations, and directional signing planned stops and identification of byway attractions. Record notes and observations of what contributed to successful wayfinding. Also, record areas where the decisions of where to go, turn or stop were challenging. As with all field work on byways, please do not drive and record at the same time—use two people: a driver and a recorder.

- Media Reevaluation: Reevaluate the travel brochures, maps and websites to estimate the likelihood that wayshowing components might be similar over the entire course of the byway.
- Report: Prepare a report of findings and recommendations for action.

LEVEL THREE: In-depth Wayshowing Assessment and Reporting
Description: An in-depth assessment of an entire byway length. The assessment is designed to report on specific site conditions and make recommendations for wayshowing improvements. The report identifies specific items that need to be addressed along the entire byway length. It also addresses the presence and effectiveness of the eight wayshowing components. Depending on the byway length and complexity, this assessment may require multi-day site visits and may require the use of trained personnel. This level of assessment may be part of preparing a complete wayshowing plan for the byway.

The scope of a byway wayshowing assessment should include:

- The application of items and activities identified above for a wayshowing audit.
- Use of Global Positioning System (GPS) site recording technology.
- Use of geographic information system (GIS) technologies to map, organize and display conditions and recommended improvements.
- All entrance and exit zones for the byway should be investigated.
- All byway attractions should be visited to record the effectiveness of wayshowing media in guiding byway travelers to its attractions and back to the byway.
- Orientation stops should be visited and evaluated for the relevancy of exhibits, narratives, maps, and other related topics.
- General responsiveness of hospitality personnel should be observed.
- Compliance with Universal Design principles should be observed.
- The wayshowing assessment should produce a report describing the field processes used by the

evaluators along with their findings and recommendations. Pay particular attention to priorities and fiscal impacts.

Contact the America's Byways Resource Center for information on conducting any of these assessments (www.bywaysresourcecenter.org/about/contacts/).

Sustaining a Byway Wayshowing System

Here's a checklist of tasks to help you keep wayshowing components up-to-date and well maintained for your byway travelers.

Drive the entire byway once every year in both directions to assure that travel directions continue to accurately reflect the true turn-by-turn decisions. Include all attractions and amenities which are located of the byway route in your confirmation tour.

1. **Travel Directions and Route Clarity**:
   a. Drive the entire byway once every year in both directions to assure that travel directions continue to accurately reflect the true turn-by-turn decisions a new traveler must make. Visit all attractions and amenities that are located on the byway route.
   b. Confirm that the travel directions to your byway from major cities, airports, interstate highways and other traffic generators are up-to-date and accurate.
   c. Monitor websites to assure accuracy, usability and consistency in the travel directions pertaining to the byway. Include www.byways.org; your official state tourism and transportation department websites; local tourism websites; and byway partners.
2. **Maps:**
   a. Confirm the accuracy of your maps and brochures every time they are reprinted. Confirm the accuracy of your byway website when it is updated.
   b. Monitor websites for map accuracy and usability.
   c. Engage with your state's DOT and tourism office to assure that the byway will be accurately printed in accord with the state's policy every time your state's Official Transportation or Highway Map is published.
   d. Assure continued financial support for the reprinting of an adequate supply of brochures, tear-off sheets and other types of guides byway travelers use.
3. **Digital Data:**
   a. Stay informed about the latest developments in technology.
   b. Regularly check the functionality of your website and other digital delivery systems from a variety of computers and phones to assure prospective visitors and actual travelers are able to access the digital assistance you provide.

c. Conduct regular maintenance and updating of your website.

d. Provide current or seasonal road conditions and/or special traffic precautions. Clearly identify the location of any portions of your byway that are gravel or other non-hardened surfacing. Use the website for announcing short-term or construction detours, bridge closings or outings, high water, snow closures. Provide alternative routing that is focused on byway travel patterns.

e. Review the electronic communications associated with your byway and modify or remove digital sources that contribute to distracted driving.

4-6. Marked Byway Entrances and Exits, Orientation Stops, and Byway Guide Signs:

Maintain a contact list of the road management authorities

a. Maintain a contact list of the road management authorities who are responsible for the maintenance and replacement of byway guide signs.

b. Regularly monitor the existence and quality of byway guide signs and report any loss or deterioration to the appropriate road management authority. Check for vegetation or other obstructions that may block visibility of signs from the byway traffic lanes. Assure signs are maintained in an appropriate upright or vertical position.

c . Explore opportunities to provide volunteer assistance with roadside maintenance of vegetation and trash pick-up with the proper road management authorities.

7. Identification of Byway Attractions:

a. Regularly monitor the quality and existence of highway signs and site identification signs of the byway attractions that are critical describing the story and experience along the byway.

b. Assure that wayside exhibits for your byway are kept clean of dirt, debris, mildew, insects, grass clippings, etc. Immediately repair vandalism. Monitor for environmentally caused deterioration, UV damage, fading etc. of materials and surfaces that contain exterior and interior exhibits.

8. Trained Hospitality Personnel:

a. Regularly update your contact list of the visitor information centers, interpretation centers, parks and other public outlets where travelers obtain information about your byway so that you can maintain regular communications.

b. Offer to provide orientation, lunch and learn sessions, byway familiarization (FAM) tours, etc. for the people who staff the visitor centers which provide byway information to the touring public.

c. Periodically check the visitor sign-in guest books and the results of visitor profile or satisfaction surveys that are maintained by visitor centers in your corridor to determine if wayfinding is an issue.

d. Conduct 'secret shopper' visits to your local visitor centers to observe how hospitality personnel respond to questions about your byway.

In the big picture, a life-cycle approach similar to the illustration in Figure 5.66 should be taken to sustain a byway's wayshowing system. While the periodic cycles should vary from one component to another – websites might be on an annual cycle, whereas byway guide signs might have a six- to eight-year cycle – all components should be thought of in terms of origination, implementation, use, renovation and updating.

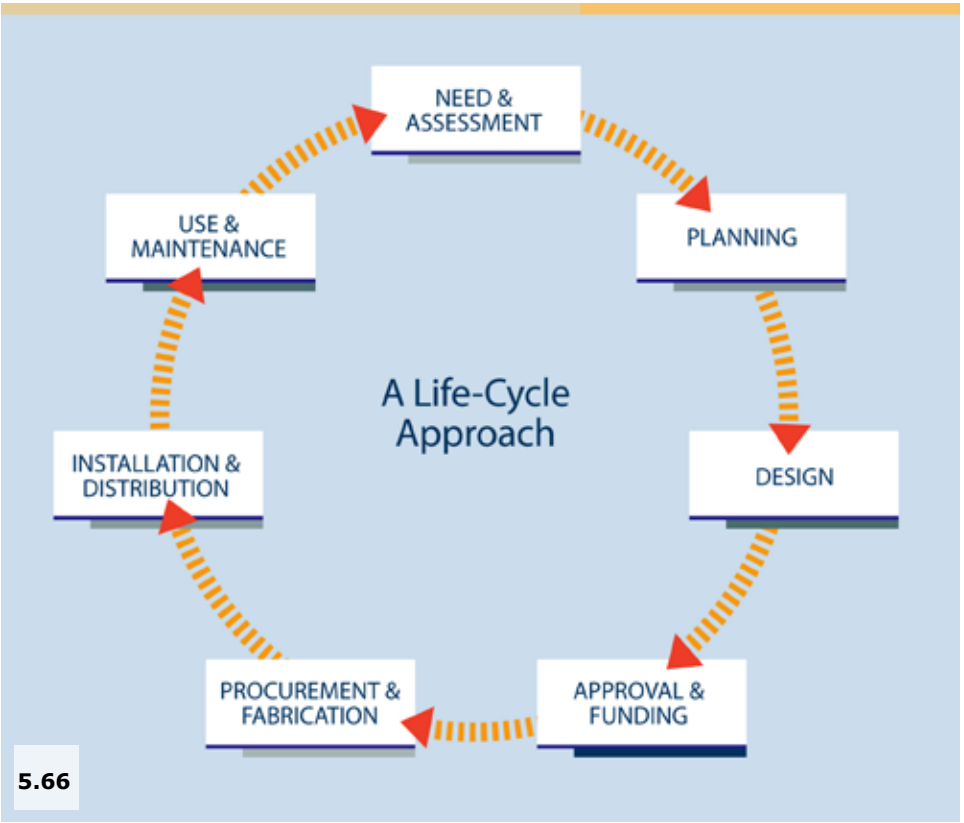


Fig. 5.66 Life-cycle approach for wayshowing communication media

CHAPTER SIX A Wayshowing Guide for State and Tribal Byway Coordinators

At the end of this section, you will know

- the official roles of a State or Tribal Scenic Byways Agency as identified in the National Scenic Byway Program (NSBP) Interim Policy
- the key wayshowing areas of knowledge and practices necessary for State or Tribal byway program coordinators
- key signing classification types from the 2009 Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) that are pertinent to byway corridors
- ways to integrate wayshowing into other byway activities

You can use this knowledge to

- download the current version of the 2009 MUTCD
- locate signing and logo policies from other states and other entities that manage roads
- find examples of statewide/tribal strategic signing or wayfinding strategic plans

This chapter is intended for state and tribal byway coordinators who are responsible for statewide or tribal byway programs and/or collections of byways and who want to develop a consistent wayshowing approach.

Please note: Traffic signs are an important part of wayshowing for byways. While the photographs presented in this chapter illustrate existing examples of signs installed on byways, they may not necessarily represent complete compliance with the standards presented in the MUTCD. Please engage local and state traffic and safety authorities when planning and designing traffic signs that support byway travel.

*See Chapters Two and Five for discussions on **distracted driving**.*

The Role of the State and Tribal Byway Coordinators in Creating Effective Wayshowing Systems

State and tribal byways program coordinators play a vital role in implementing the NSBP at the local level. These positions require building relationships and communicating with byway organizations; strategic planning for and managing a state or tribal program and nominations for state, tribal and/or national designation; and managing the prioritization and flow of grant funds.

General Roles of State/Tribal Byway Program Agencies

The five roles of the State Scenic Byways Agency, as identified in the Interim Policy, are to

- submit the grants and nominations to the Federal Highway Administration (FHWA),
- be responsible for administering the State Scenic Byways program activities,
- determine if the scenic byway possesses significant intrinsic qualities,
- ensure that the intrinsic qualities of a designated byway are properly maintained, and
- comply with laws on control of outdoor advertising.

Overall, the six roles of the Indian Tribe programs in the National Scenic Byways Program, as identified by SAFETEA-LU in relation to the Interim Policy, are to

- be responsible for administering the Indian Tribe Scenic Byways Program activities;
- submit grants directly from Tribes to FHWA,
- determine if the scenic byway possesses significant intrinsic qualities,
- ensure that the intrinsic qualities of a designated byway are properly maintained,
- nominate tribal byways for national designation, and
- maintain tribal byways.

As a state or tribal byway program coordinator, you are inherently part of these agencies and are most likely responsible for the implementation of tasks listed above.

The Role of State/Tribal Byway Program Coordinators: Wayshowing Knowledge

In terms of creating effective wayshowing systems on byways, state and tribal byways program, coordinators should have a basic understanding of

- key wayfinding and wayshowing concepts,
- the MUTCD, its key principles and the implications to byway guide signing, and
- your state's own process of developing and implementing traffic control devices.

The Role of State/Tribal Byway Coordinators: Wayshowing Practice

The Interim Policy defines the roles of a state byway agency. However, creating effective state byways programs goes beyond the official roles outlined in the Interim Policy. States have the opportunity to be strategic with their byway programs in terms of wayshowing, marketing, and interpretation. In terms of wayshowing practice, you should be able to

- understand your state's specific policy toward byway–related signs including beginning and ending signs, byway guide signs and directional signing that lead motorists to attractions;
- understand your state's specific policy toward service, tourist-oriented destinations, and recreational/cultural interest area signing and know who the key contacts within your agency are;
- determine whether a statewide strategic approach toward byway signing and wayshowing is allowable and advisable under your state's official policies and laws;
- understand guidelines and implications for using the National Scenic Byways sign as part of your state's byways signing and wayshowing efforts.

6.1

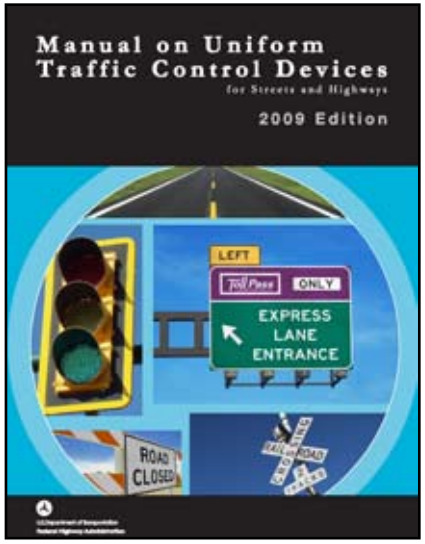


Fig. 6.1 2009 MUTCD

The Manual on Uniform Traffic Control Devices for Streets and Highways

Although in-depth knowledge of the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) may not be necessary, a general understanding of the MUTCD and its key principles can be important as you implement programs and assist byways in your state or on tribal lands.

Purpose and Principles of the MUTCD

The MUTCD defines the criteria for road managers who install and maintain traffic control devices on all streets, highways, bikeways, and private roads that are open to public travel.

Road managers include state, tribal, and local transportation planners; traffic engineers; and local public works departments who design our roads and locate the traffic control devices that help drivers navigate them safely. Traffic control devices include signs, traffic signals, and pavement markings.

The MUTCD is the resource for conveying these national standards. A primary goal of the MUTCD is **safety**. More specifically, the MUTCD goal is to promote highway safety and efficiency for all road users on streets and highways throughout the nation.

To be effective, traffic control devices should meet five basic requirements. They must

- fulfill a need;
- command attention;
- convey a clear, simple meaning;
- command respect from road users; and
- give adequate time for proper response.

As a byway program coordinator, you should understand that traffic engineers will be gauging whether byway guide signing meets those five basic criteria.

Although the MUTCD is the national standard for the design and placement of traffic control devices, state transportation agencies determine how they comply with MUTCD standards. For example, some states adopt the national MUTCD as their standard, but other states adopt the national MUTCD along with a state supplement that might prescribe which of several allowable options are selected for the state's specific purposes. Still other states use the national MUTCD as

the basis for developing their own state traffic control device manuals, which must be in substantial conformance to the national MUTCD.

Most states that have their own MUTCD or state supplements make them available electronically on their state websites. You can search for state-specific information at: mutcd.fhwa.dot.gov/resources/state_info/index.htm.

As a state or tribal byway program coordinator, you should understand the approach taken by your state in regards to the MUTCD. You should also have access to that version of the MUTCD.

Design, Placement and Operations

The MUTCD provides guidance for the **design** of traffic control devices. Traffic control devices should be designed so that they

- draw attention with size, shape, color, composition, lighting or retro-reflection, and contrast;
- produce clear meaning with size, shape, color, and simplicity of message;
- permit adequate time for response with legibility, size and placement; and
- command respect with uniformity, size, legibility, and reasonableness of message.

The MUTCD provides guidance for the **placement and operation** of traffic control devices. Traffic control devices should be placed so that they

- are within the road user's view, so that adequate visibility is provided;
- are positioned with respect to the location, object, or situation to which it applies;
- provide the road user adequate time to make proper response in both day and night;
- are located in a consistent and uniform manner; and
- limit the placement of unnecessary traffic control devices.

Responsibility and Authority for Placement of Traffic Control Devices

The responsibility for the design, placement, operation, maintenance and uniformity of traffic control devices rests with the public agency or the official having jurisdiction of the roadway. Traffic control devices, and other signs or messages within the right-of-way, shall be placed only as authorized by a public authority or the official having jurisdiction.

Classification of Signs

The MUTCD defines three basic classifications of signs:

- **Regulatory Signs:** These signs give notice of traffic laws or regulations. Examples include stop signs, yield signs, speed limit signs and turning instructions.

R1-1 R1-2 R3-2 R2-1 R7-1

6.2

- **Warning Signs:** These signs give notice of a situation that might not be readily apparent to the driver. Examples include *Slippery When Wet*, *Road Narrows*, and *Fallen Rocks*.

W1-1 W7-1a W11-1* W11-5 W5-1

6.3

Fig. 6.2 Regulatory Signs (2009 MUTCD Chapter 2B)

Fig. 6.3 Warning Signs (2009 MUTCD Chapter 2C)

It is important to remember that signing—guide signing as defined by the MUTCD, or byway route signing—is only one part of creating effective wayshowing along byways.

- **Guide Signs:** These signs direct road users along streets and highways to inform them of intersecting routes; to direct them to cities, towns, villages, or other important destinations; to identify nearby rivers and streams, parks, forests, and historical sites; and to generally give information that will help them along their way in the most simple, direct manner possible.

6.4

In terms of byways and creating effective wayshowing along byways, you will be most concerned with guide signs. The MUTCD defines many types and classifications of guide signs, and some types of guide signs may impact the activities and sites located along byways, including general service signs, specific service signs, tourist-oriented directional signs, and recreational or cultural interest area signs.

General Service Signs

According to the MUTCD, on conventional roads, commercial services such as gas, food, and lodging generally are within sight and are available to the road user at reasonably frequent intervals along the route. Consequently, on conventional roads there usually is no need for special signs calling attention to these services. Moreover, general service signing is usually not required in urban areas except for hospitals, law enforcement assistance, tourist information centers, and camping.

However, the MUTCD acknowledges that service signs may be used where such services are infrequent and are found only on an intersecting highway or crossroad. This may be important to byways, especially to those in remote, rural areas, where traveler safety may be in question.

6.5

6.6

Fig. 6.4 Guide Signs (2009 MUTCD Chapter 2D)

Fig. 6.5 Example of General Service Sign 1 D9-18b (2009 MUTCD Chapter 2I)

Fig. 6.6 Example of General Service Sign 2 D9-18c (2009 MUTCD Chapter 2I)

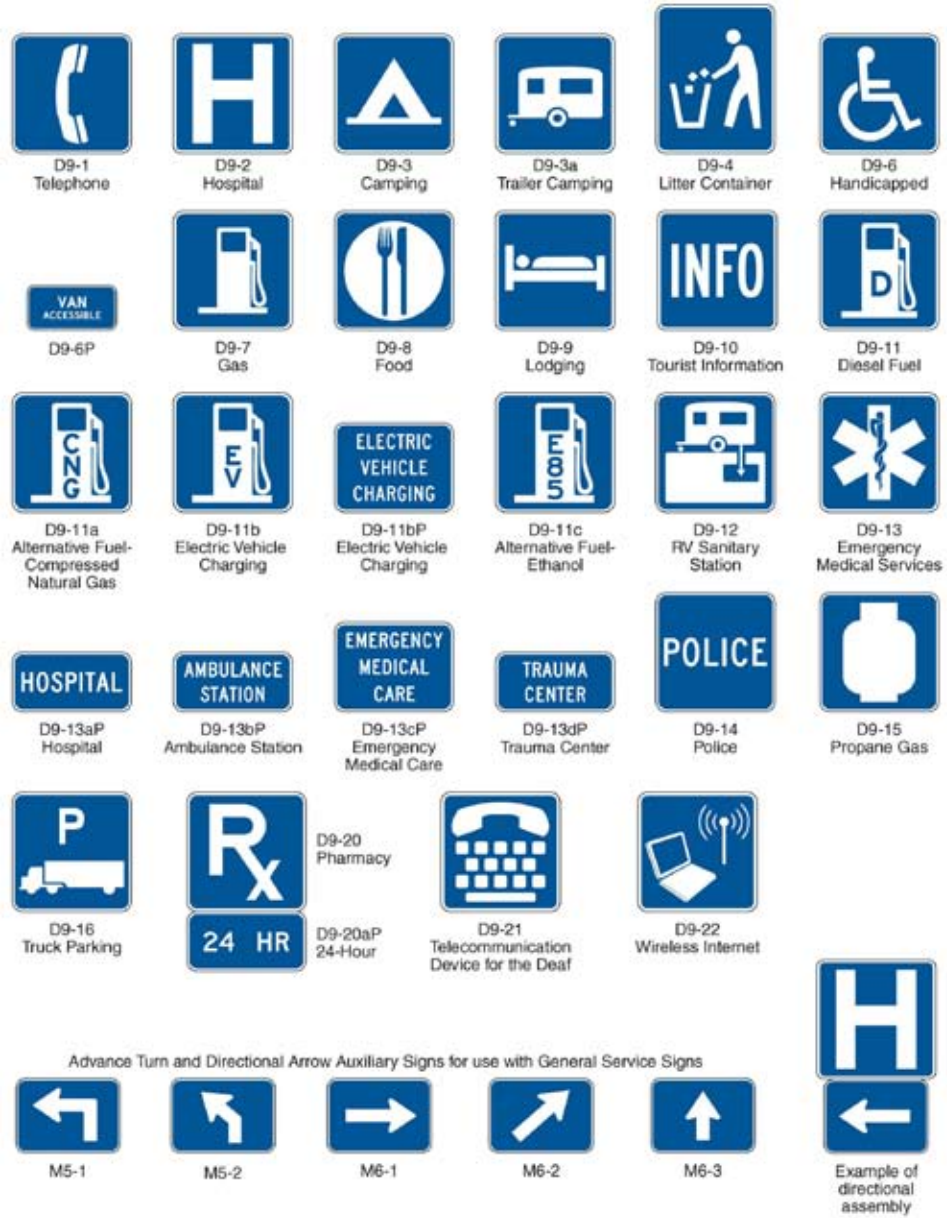
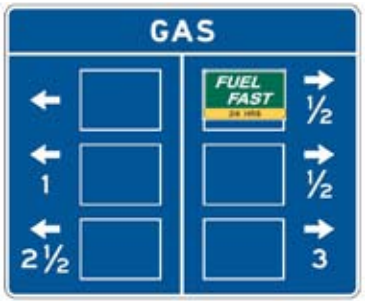


Fig. 6.7 General Service Signs and Plaques (2009 MUTCD Chapter 2I)

6.7



6.8

6.9

Specific Service Signs
Specific service signs shall be defined as guide signs that provide road users with business identification and directional information for services and for eligible attractions. Eligible service categories shall be limited to gas, food, lodging, camping, attractions, and 24-hour pharmacies. Eligible service facilities shall comply with laws concerning the provisions of public accommodations without regard to race, religion, color, age, sex, or national origin, and laws concerning the licensing and approval of service facilities. The attraction services shall include only facilities which have the primary purpose of providing amusement, historical, cultural, or leisure activities to the public. The MUTCD recommends that States or local agencies that elect to provide Specific Service signing have a policy on the criteria for the availability of the various types of services.

Tourist-oriented Directional Signs
Tourist-oriented directional signs are guide signs with one or more sign panels that display the business identification of and directional information for eligible businesses, services, and activity facilities. A facility shall be eligible for tourist-oriented directional signs only if it derives its major portion of income or visitors during the normal business season from road users not residing in the area of the facility.

Recreational or Cultural Interest Area Signs
Recreational or cultural interest areas are attractions or traffic generators that are open to the general public for the purpose of play, amusement, or relaxation. The purpose of recreation and cultural interest area signs is to guide road users to a general area and then to specific facilities or activities in the area.

Recreational attractions include such facilities as parks, campgrounds, gaming facilities, and ski areas. Cultural attractions include museums, art galleries, and historical buildings or sites.

We have included these examples as references, but each state/tribal agency determines specific policies for the usage of service, tourist-oriented directional and recreational/cultural interest area signs. Most states/tribes will have already installed these types of guide signs.

However, guide signs can be integral in developing effective wayshowing along byways. These signs can assist in providing directions to key visitor services, and interest areas along byways. State/tribal byway coordinators should encourage their byways and byway organizations to identify the current locations of guide signs within their byway corridors.

6.10

Fig. 6.8 Example of Specific Service Sign (2009 MUTCD Chapter 2J)

Fig. 6.9 Example of Tourist-Oriented Directional Sign (2009 MUTCD Chapter 2K)

Fig. 6.10 Examples of Recreational and Cultural Interest Area Guide Signs (2009 MUTCD Chapter 2M)

6.11 R1-1

Implications of the MUTCD for State/Tribal Byway Program Coordinators

This manual provides basic principles of the MUTCD so you can understand the decisions that traffic engineers must make regarding the use of signing on roadways and the implications of those decisions. The MUTCD and the local personnel who must make decisions about placement of traffic control devices must consider the safety applications of all signs that are placed in the right-of-way.

The MUTCD is designed to protect the integrity of roadside traffic control devices. You are responsible for the general leadership of the byway program within your state or tribal areas. You must remember that traffic control devices—signs—are not arbitrary tools that can be placed without purpose. For example, it is very clear to road users what they must do when they approach an octagonal red sign. Even without seeing the words on the sign, road users know they need to stop.

The principles for design, placement, uniformity, responsibility, and other principles discussed here are guides for state/tribal byway program coordinators. Examples have been provided to set a framework for understanding the general process for installing signs along a byway corridor and for seeing all of the types of signs that are, or already may be, to help create effective wayshowing. State/tribal coordinators should consult their state's version of the MUTCD for more details on each of these principles.

The MUTCD can have implications for byway providers who are implementing effective wayshowing. For example, a byway logo sign would not be allowed in right-of-way if it could in any way be confused as a red octagon. Byway guide signing must be integrated with and respond to the requirements of your state's interpretation of the MUTCD. Further, the design and implementation of guide signs cannot happen without the support of your local road manager.

Byway providers and state/tribal byway program coordinators should develop relationships with the appropriate road management authority personnel so they can understand the state's MUTCD standards and guidelines in relation to byway travelers' needs.

Fig. 6.11 Stop Sign (2009 MUTCD Chapter 2B)

6.12

6.13

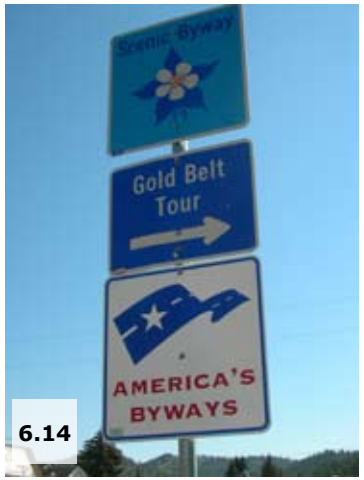
Use of the America's Byways Sign

The 2009 MUTCD includes information on America's Byways guide signs. Inclusion of the America's Byways auxiliary sign in the MUTCD signifies the importance of the National Scenic Byways Program and the Secretary of Transportation's designation of America's Byways.

It should be noted, that in the 2009 MUTCD these signs are referred to as National Scenic Byways Signs. But they are referred to in this document as America's Byways signs that are to be used on both National Scenic Byways and All-American Roads.

Byways that are part of the America's Byways collection should work with their state/tribal agency to get the America's Byways sign installed in an appropriate manner. As a state/tribal byway program coordinator, you can help facilitate that process, but the responsibility for designing, creating and placing America's Byways signs rests with your state or appropriate road management authority.

If byways in your state are part of the America's Byways collection, America's Byways signs can be installed along the byway, according to your state's policies.



6.14

Figures 6.12, 6.13 and 6.14 show permitted uses of the America's Byways sign. State and local highway agencies may install America's Byways signs at entrance points to a route that has been recognized by the U.S. Secretary of Transportation as a National Scenic Byway or an All-American Road. As illustrated in figures 6.15 and 6.16, D6-4 or D6-4a signs may be installed on route sign assemblies or as part of larger roadside structures. America's Byways signs may also be installed at periodic intervals along the designated route and at intersections where the designated route turns or follows a different numbered highway. Figure 6.15 illustrates the standard sizes of the America's Byways sign, and figure 6.16 illustrates typical installation assemblies.

At locations where roadside features have been developed to enhance the travelers' experience, such as rest areas, historic sites, interpretive facilities, or scenic overlooks, the America's Byways sign may be placed on the associated sign assembly to inform travelers that the site contributes to the byway travel experience.

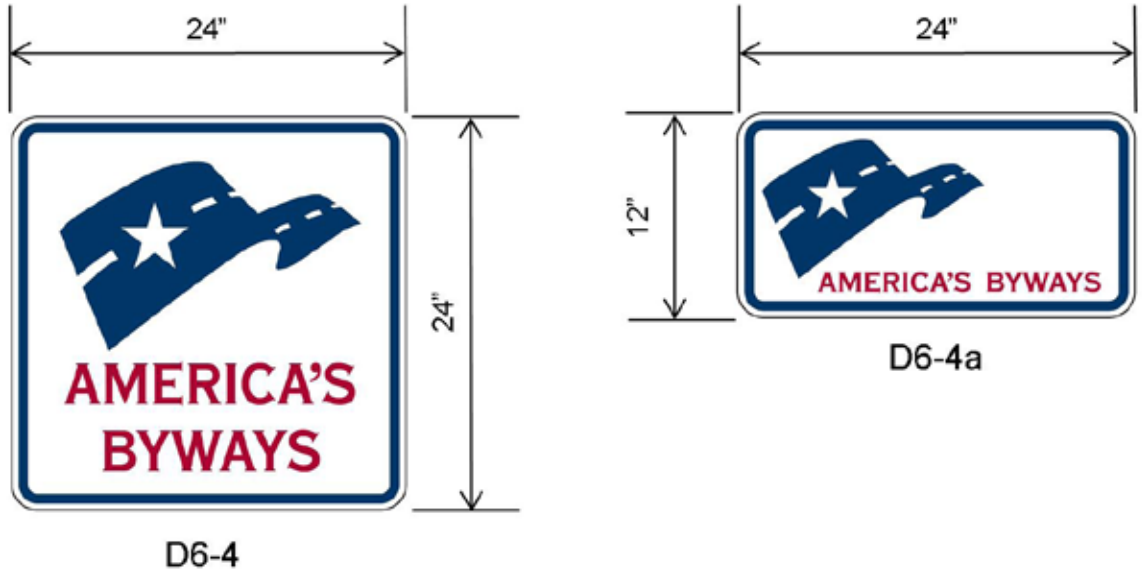
If you would like to create a sign displaying the America's Byways® logo on your byway, you can download the digital artwork for the logo at:
www.bywaysonline.org/program/marketing/downloads.html
For more information about the use of the America's Byways logo see:
www.bywaysonline.org/program/marketing/manual/logo-usage-specifications

Fig. 6.12 America's Byway Sign (ABRC)

Fig. 6.13 America's Byway Sign - Iowa Great River Road (ABRC)

Fig. 6.14 America's Byway Sign - Gold Belt Tour (ABRC)

6.15



6.16

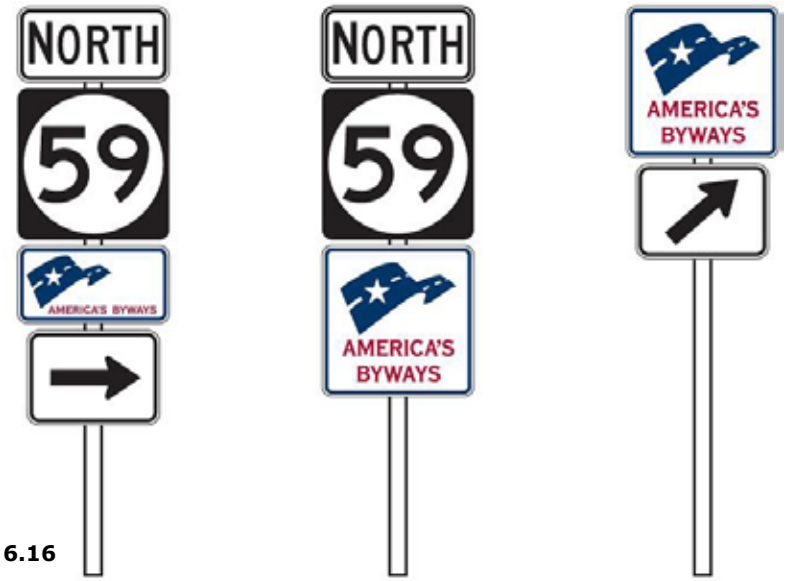


Fig. 6.15 National Scenic Byway Sign with 24" x 24" and 12" x 24" options (2009 MUTCD, Chapter 2D with dimensions added)

Fig. 6.16 America's Byways Sign typical assembly installations (2009 MUTCD, Chapter 2D)

See graphic identity discussion in Chapter Five.

Examples of Statewide Approaches to Wayshowing Signs

Byway signs that are derived from MUTCD-defined guide signs can help create a visual identity for a byway and for a collection of byways. The America's Byways sign adds value by showing that a byway is part of a larger collection. Highway guide signs that exhibit a byway's graphic identity can be highly effective for route marking and at byway entrances/exits as well as to support wayfinding in general. Chapter Five provides more details on effective byway signs.

It is important to understand that adding more signs to the roadway environment for the sake of adding signs is not acceptable. Any sign considered for placement along a byway corridor must serve a purpose, fulfill a need, and respond to the specific design requirement set forth by your state's interpretation of the MUTCD.

It is important to understand, however, that adding more signs to the roadway environment for the sake of adding signs is not acceptable. Any sign considered for placement along a byway corridor must serve a purpose, fulfill a need, and respond to the specific design requirement set forth by your state's interpretation of the MUTCD.

States/tribes take different approaches to the ways in which byways are signed and recognized. The following examples show different approaches to wayshowing signs by various states. However, this manual does not recommend one approach over another, rather suggests that the best approach is one that is strategic and creates consistent and safe visitor experiences.

The examples illustrated below all assume that the America's Byways sign could be added to byway guide sign assemblies.

Unique Byway Graphic Identity without a State Byway Collection Identity
Minnesota's state byway program supports each of the state's byways using a unique graphic identity. The state byway program or the collection of Minnesota byways does not presently use a graphic identity to represent Minnesota's state collection of byways. (Figure 6.17)

6.17

Fig. 6.17 Sample Minnesota Byway graphic identities (ABRC)

6.18

Unique Byway Graphic Identity Combined with State Byway Collection Identity
This approach to byway guide signing presents travelers with a combination of graphic identity of a state collection of byways combined with the unique graphic identity associated with a specific byway. In most cases a name or title is associated with the state collection as well as the individual byway. Appropriate auxiliary signs are added as needed. (Figures 6.18 and 6.19)

6.19

Fig. 6.18 Sample Oregon Byway graphic identities (ABRC)

Fig. 6.19 Sample Iowa Byway graphic identities (Iowa DOT)

Every Byway within the State's Collection is Represented by a Single Collection Graphic Identity

This approach incorporates one graphic identity to communicate all roads and highways that are designated as byways within a state. In some cases the common graphic identity is supplemented with an auxiliary sign that states the name of the byway and other auxiliary signs that are appropriate or necessary for effective road user guidance.

Please refer to Chapter Five for additional information on graphic identities for byways.

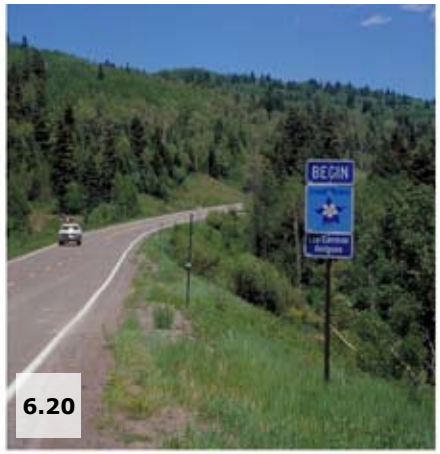


Fig. 6.20 Colorado Byway graphic identity (ABRC)

Fig. 6.21 Utah Byway graphic identity (David L. Dahlquist)

Fig. 6.22 Iowa Byway graphic identity (scheduled for replacement 2011) (ABRC)

State Policies on Byway Signing

These examples reflect signing policies for the design, fabrication, implementation and installation of byway signing in the various states. These links are provided as examples and basic references for state/tribal byway coordinators with no one policy being recommended over another.

Washington
This link provides access to the state of Washington's Department of Transportation's *Scenic Byway Logo Signing Guidelines* (May 2007). The purpose of these guidelines is to provide Washington State Department of Transportation (WSDOT) traffic engineers, WSDOT planners, and scenic byway organizations with an operational tool that will assist them in the implementation of scenic byway logo signing.

www.wsdot.wa.gov/publications/manuals/fulltext/M3001/ScenicBywayLogoSigningGuidelines.pdf

Idaho
This link provides access to Idaho's byway signing policy manual. The user can see policy on design, fabrication, and installation of byway signing along Idaho's byways:

itd.idaho.gov/highways/docs/Scenic%20BywaySignProcedures%202007-06.pdf

New York
This link provides access to the *New York State Scenic Byways Sign Manual* that gives an overview of the byways program in New York. It also provides an overview of classified sign types in New York, the planning process for byway signing implementation, and graphic standards for the family of New York byway signs.

www.nysdot.gov/portal/page/portal/programs/scenic-byways/files/signmanual.pdf

Oregon
This link provides a display of Oregon's individual byway logos and shows how they are integrated into a family of statewide byway signs:

egov.oregon.gov/ODOT/HWY/SCENICBYWAYS/logos.shtml

Integrating Wayshowing into other Byway Activities

Effective byway wayshowing is integral to other key byway activities and efforts. It is not a coincidence that successful byways with effective design guidelines and sustainable byway organizations also are successful at marketing, interpretation, and context-sensitive solutions. All of these efforts are also intertwined with developing effective byway wayshowing.

Marketing

Marketing is about communicating with existing and potential customers— travelers—and promoting a product—a byway. Marketing involves identifying target markets (groups of people), then influencing those people to use your product (byway). Promoting a product often occurs before that product is purchased or used.

In terms of the stages of the byway experience, promotion usually occurs at the Pre-Visit Stage when potential travelers are selecting and planning to experience a byway region. (See Chapter Two.) It is imperative that promotional media, such as brochures, websites, and travel guides, lay the groundwork for effective wayshowing by being integrated into marketing planning efforts.

As a state/tribal byway program coordinator, you can provide direction for integrating marketing into specific byway projects, as well as any statewide/tribal strategic marketing efforts.

Interpretation

According to the National Association of Interpretation (NAI), interpretation is a communication process that forges emotional and intellectual connections between the interests of the audience and the inherent meanings in the resource. On byways, interpretation often manifests in the form of wayside kiosks, displays at museums, educational brochures, murals, and other mediums. In most cases, interpretation happens during the visit stage as travelers experience an area firsthand.

Context Sensitive Solutions (CSS)

Context sensitive solutions (CSS) is defined by the Federal Highway Administration as a collaborative, interdisciplinary approach that involves all stakeholders to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic and environmental resources, while maintaining safety and mobility. The CSS approach considers the total context within which a transportation improvement project will exist, and CSS principles include employing early, continuous, and meaningful involvement of the public and all stakeholders throughout the project development process.

www.fhwa.dot.gov/context/what.cfm

A roadway project along a byway is a perfect opportunity to implement a CSS approach. You can help facilitate that process by identifying who within your agency is responsible for CSS planning and implementation. Additionally, a wayshowing project may be a perfect example of a type of project that can be done in a context sensitive way.

For example, the State of Maryland has implemented guidelines for staff to apply in roadway projects along the designated Maryland byways.

www.marylandroads.com/exploremd/oed/scenicByways/css-3.pdf

A statewide strategic approach to these efforts (marketing, interpretation, CSS and others) helps create sustainability for the byways program as a whole. Successfully implemented statewide strategic marketing, interpretation, byway signing and byway context sensitive design plans and guidelines can help the individual byways become sustainable and successful and can create more consistent projects and communication processes with travelers.

CSS is at the Center for Environmental Excellence by AASHTO. Several byway projects are featured at the Center's website:

www.environment.transportation.org

Fig. 6.23 Edge of the Wilderness National Scenic Byway, Best CSS Project 2005, American Association of State Highway and Transportation Officials (AASHTO) (ARBC)

Fig. 6.24 Grand Rounds National Scenic Byway, Wayshowing project recognized for design excellence, 2007, (AASHTO) (David L. Dahlquist)

CHAPTER SEVEN

A Wayshowing Guide for Road Management Authorities

At the end of this chapter, you will know

- the National Scenic Byways Program (NSBP) definition of a byway
- components that makeup a comprehensive byway wayshowing system
- the key implications of the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) for local byways and byway travelers

You can use this knowledge to

- find the Interim Policy for the NSBP
- locate the MUTCD section that acknowledges the America's Byways logo sign

The intended audience for this chapter includes state, local, and tribal transportation officials who help byway providers develop and implement signing and wayshowing systems such as traffic engineers, transportation planners, sign fabrication shop workers, and right-of-way officers.

Please note: Traffic signs are an important part of wayshowing for byways. While the photographs presented in this chapter illustrate existing examples of signs installed on byways, they may not necessarily represent complete compliance with the standards presented in the MUTCD. Please engage local and state traffic and safety authorities when planning and designing traffic signs that support byway travel.

An Introduction to the National Scenic Byways Program for Transportation Officials

This section has been created for officials who have authority to make decisions relating to traffic control devices along roadways, specifically, the roadways within your auspices that may be currently designated as a state, tribal, or national byway. Additionally, this manual may be helpful for officials within a region where byway designation is being considered.

As a transportation official who uses and implements the guidance set forth in your state's MUTCD, you already understand the principles and practices set forth in that document. It is important to understand that this manual does not advocate that signing be the only device along byways to create effective wayshowing. Effective wayshowing is only created by using a holistic approach that involves several mediums. Chapter Five provides more details about this holistic approach.

The efforts of local organizations that attain a state, tribal or national byway designation for a roadway convey a strong sense of community and regional pride. Designation of a byway is an important accomplishment that is not easily achieved and often involves a lengthy and difficult application process. Local organizations that sponsor the byway must prove the significance of its intrinsic qualities and meet other criteria.

Once a roadway has been designated as a state, tribal or national byway, byway signing is one of the first projects the byway management organization usually works to implement. In addition to the safety measures and travel assistance that byway signing provides, signing also can represent the culmination and public acknowledgement of that organization's efforts. In most cases signing efforts focus on either showing the byway's logo or the logo approved for the state's collection of byways.

In fact, byway organizations often install byway signs before they fully understand the complexity of installing signs or traffic control devices. Although signing is the most readily visible medium for byways and the organizations that manage them, appropriate use of byway signing is regulated by state MUTCDs.

7.1

The National Scenic Byways Program

The Federal Highway Administration (FHWA) manages the National Scenic Byways Program (NSBP) as a community-based program. FHWA headquarters staff, who are based in Washington, D.C., work closely with FHWA division offices in each state to administer the NSBP. In turn, byway contacts in division offices work on a day-to-day basis with state and Indian tribe byway coordinators on all matters that affect grants and nominations.

The NSBP was established under the Intermodal Surface Transportation Efficiency Act of 1991; reauthorized in 1998 under the Transportation Equity Act for the 21st Century; and reauthorized and amended in the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users in 2005.

Under the NBSP, the U.S. Secretary of Transportation recognizes certain roads as National Scenic Byways or All-American Roads based on six intrinsic qualities (IQ): archaeological, cultural, historic, natural, recreational, and scenic qualities.

A designated byway is a public road that has one or more of these intrinsic qualities that have been recognized through legislation or another official declaration.

Road and highway are synonymous and do not define higher or lower functional classifications or wider or narrower cross-sections. Moreover, the term byway refers not only to the road or highway itself but also to the corridor through which it passes (FHWA Interim Policy, May 18, 1995).

Byways offer driving experiences where travelers can explore and experience the scenery, culture, history, and special features of an area. Byways provide opportunities we might otherwise miss. In fact, byways are roads that tell stories, serve as gateways to unique adventures, and are paths that help people better understand America's history and cultures.

The NSBP considers byways to be roads that have special significance not only for their scenic quality, but also for archaeological, cultural, historic, natural or recreational IQs.

Byways are usually manifested as a lineal corridor, and IQs and attractions are located along the corridor. Byways differ in the complexity of their alignment. See Chapter Five for a discussion on the different characteristics of byway alignment.

Additionally, many states enact specific policies for the management of byways within that state. Your state and/or tribal byway program coordinator can provide that information for your particular state.

A list of state and tribal byway program managers and FHWA division representatives for each state can be found at: www.bywaysonline.org/contacts/states.html

Fig. 7.1 National Scenic Byways Program Logo (FHWA)

Legislation

United States Code

The National Scenic Byways Program is part of the U.S. Department of Transportation, Federal Highway Administration. Established in Title 23, Section 162 of the United States Code under the Intermodal Surface Transportation Efficiency Act of 1991 and reauthorized and expanded significantly in 1998 under TEA-21 and again under SAFETEA-LU in 2005. The program is a grass-roots collaborative effort established to help recognize, preserve and enhance selected roads throughout the United States. The following link provides access to portions of the U.S. Code and SAFETEA-LU that are relevant to the National Scenic Byways Program:
www.bywaysonline.org/program/us_code.html#program

The Interim Policy

The Interim Policy is the principal policy guiding the National Scenic Byways Program, published in the Federal Register, Vol. 60, No. 96, May 18, 1995. This policy establishes the designation criteria for roads as National Scenic Byways or All-American Roads based upon their scenic, historic, recreational, cultural, archaeological and/or natural intrinsic qualities, and the required 14 points (17 points for All-American Roads) to address in a corridor management plan. Although it is entitled "Interim Policy," it is still the current and applicable policy for the Program.

To read the Interim Policy online, go to:

www.frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=1995_register&docid=fr18my95-105

Although it is called an interim policy, it is the current (in 2010), applicable policy for the NSBP. The Interim Policy establishes the three core elements that are the foundation of the NSBP: corridor management plans (CMP), intrinsic qualities (IQ), and the visitor experience. The criteria for designating roads as National Scenic Byways or All-American Roads are based upon the six IQs (scenic, historic, recreational, cultural, archaeological, or natural).

Other Byway-Related Programs

In addition to America's Byways that are part of the NSBP, several other types of byways are recognized through other programs. Some of these byways may also be designated as part of the America's Byways collection but not necessarily.

Examples include:

- United States Department of Agriculture (USDA): U.S. Forest Service Byways
- United States Department of the Interior (USDI): National Park Service (NPS) Parkways
- USDI: Bureau of Land Management (BLM) Byways and Backways
- USDI: U.S. Fish and Wildlife Service Refuge Roads

The FHWA and its partnerships with the agencies listed above share a common goal: the recognition and appropriate management of our nation's most significant roadways.

Additionally, states and Native American Indian Tribes designate thousands of miles of byways at the state and Tribal level.

The Case for Developing Effective Byway Wayshowing

The Unique Challenges of Byways

Byways represent unique challenges for road management authorities, especially as they relate to signs and other traffic control devices. As a lineal corridor, the organizations that manage byways work to create themed driving experiences for travelers, based on the intrinsic qualities for which that byway was designated. Byway travelers are very different from other roadway users and might be

- traveling in an unfamiliar environment;
- visiting from a different region or country, where the driving norms are very different;
- visiting from a different region or country, where the driving topography and landscape are very different;
- traveling with a more relaxed mindset and pace than commuters or commercial drivers; and
- looking for a set of clues to follow to lead them to their next stop.

Byway organizations are structurally diverse, and the grass-roots and volunteer nature of the organizations that sponsor byways also adds to the challenges. In many cases, organizations may not have the authority to implement physical projects along designated byways. In other cases, byways may already be linked to government or quasi-government agencies (e.g., regional planning commission, municipality, or county government) which may streamline the implementation of physical projects along byways.

As a representative of a road management authority, consider that

- byway travelers have needs that may be different than other roadway users (e.g., commuters or commercial drivers);
- byway organizations work to create themed traveler experiences;
- themed traveler experiences depend entirely on effective wayshowing systems; and
- safety is the primary objective of an effective wayshowing system.

Other objectives of effective wayshowing include producing

- positive economic impacts,
- pleasurable and authentic traveler experiences, and
- the sense of community pride and accomplishment a byway organization experiences when it completes a successful wayshowing project.

Basic Byway Wayshowing Concepts

The unique challenges of byways are met through byway wayshowing concepts.

Traveler Experience

Safety and successful navigation are travelers' greatest needs. Effective wayshowing systems are essential to the safe, successful navigation that allows travelers to fully experience the byway's memorable attractions.

A byway's IQs and attractions engage travelers in ways that are satisfying or authentic. Authentic experiences (e.g., partaking in local cuisine or music, or feeling the vast expanse of a grand landscape) encourage travelers to return and share their experience with others.

The Stages of a Traveler Experience

Travelers usually experience byways in three stages,

1. the Pre-Visit Stage
2. the Visit Stage, and
3. the Post-Visit Stage.

These three stages can be broken down further into five activities.

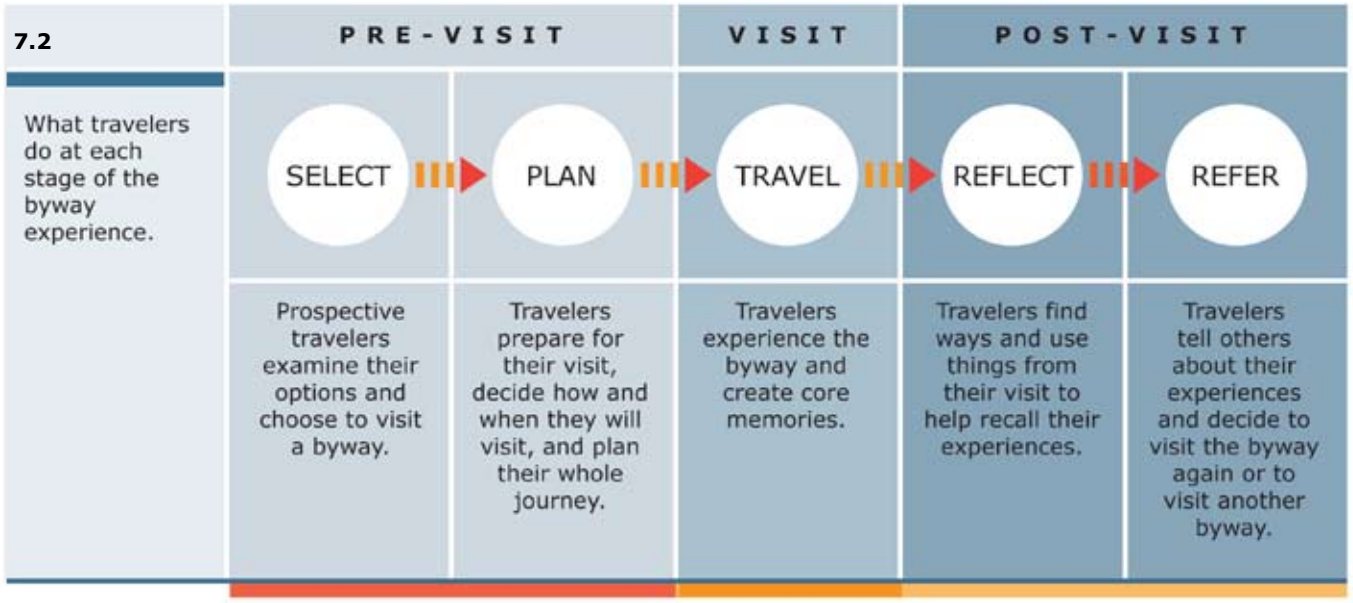
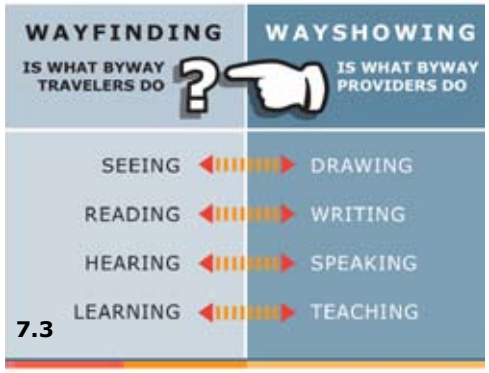


Fig. 7.2 What travelers do at each stage of byway travel



This manual advocates the use of many types of wayshowing tools to assist travelers during each stage; details of these tools can be found in Chapter Five.

Wayshowing and Wayfinding: What's the difference?
Wayfinding and wayshowing are the basic elements of the relationship between byway travelers and byway providers (the organizations that support and sponsor byway activities).

Wayfinding is the job of travelers. They look for clues to reassure themselves they are where they planned to be, and they look for information and amenities to make their experience pleasant and enjoyable.

Wayshowing is the job of byway providers and includes preparing travel information, designing maps and travel brochures, planning or installing signs, or providing other navigational help in person or by electronic means. Wayshowing requires a variety of skills such as writing, speaking, teaching, or drawing as well as planning, project management, graphic design, and site planning and traffic engineering that help meet travelers' wayfinding needs.

Traveler Wayfinding Needs
Dr. Reginald Golledge, who was a leading expert on the science of how people find their way in unfamiliar environments, identified basic wayfinding needs. The needs identified below have been adapted from Golledge's work.

Travelers need to

- know where a byway begins and ends, when they are accessing a byway, and when they are leaving a byway environment;
- create, refresh, and expand their mental maps of a byway corridor;
- establish and strengthen their orientation to a byway and the corridor that surrounds a byway;
- follow a reliable and easily recognizable sequence of visual cues to follow when travelling along a byway; and
- locate and safely travel to planned stops and special places to fulfill their desired byway experience.

Fig. 7.3 Wayfinding is what travelers do. Wayshowing is what byway providers do.

See Chapter Five for detail on the eight components of a comprehensive wayshowing system for byways.

Comprehensive Byway Wayshowing

Implementing comprehensive wayshowing systems is the best way to meet travelers' wayfinding needs. The comprehensive wayshowing system in this manual includes:

1. **Travel Directions and Route Clarity**: Turn-by-turn narrative descriptions of each distinct route segment of a byway
2. **Maps**: Graphic (cartographic) displays of a byway and its surrounding corridor and regional setting
3. **Digital Data:** Media provided for consumer electronic devices
4. **Marked Byway Entrances and Exits**: Signs and entry monuments that signify the beginning and ending points of a byway
5. **Orientation Stops**: Visitor centers and roadside pull-offs where travelers can obtain an overall orientation to the byway corridor
6. **Byway Guide Signs**: Highway and road signs that guide motorists to and along a byway route
7. **Identification of Byway Attractions**: Signs and graphics with the names of places where travelers are encouraged to stop along a byway
8. **Trained Hospitality Personnel**: Visitor center staff, interpreters, volunteers, park rangers, and other people who have the duty to provide information to travelers and visitors

This manual advocates for a holistic approach to developing byway wayshowing that includes each of the eight components listed above. Emphasis is also placed on recognizing and reducing communication media that may contribute to distracted driving. As a transportation official, you have direct influence over the implementation of

- marked byway entrances and exits,
- byway guide signs, and
- identification of byway attractions.

You also may have influence over the creation of statewide maps that identify byway routes and orientation stops at wayside pullouts.

The MUTCD and Implications for Byways

Byway travel trips are very different from other forms of trips, such as commuter, work-based, or commercial trips. Byway travelers may have a different mindset than road users who live and work along and regularly travel the byway. In fact, byway travelers may be experiencing a travel region for the very first time.

Byway travelers, especially first-time travelers, will be looking for a system of consistent clues to help them navigate to the special places along byways. As a transportation official, consider the following implications for byway travel and travelers.

- First-time byway travelers require clear, consistent information that helps them navigate along byways safely and effectively.
- First-time travelers may be more prone to distractions, and wayshowing devices should not contribute to distracted driving.
- MUTCD-defined guide signs (i.e., general service signs, specific service signs, tourist-oriented directional signs, and recreational and cultural interest area guide signs) are essential for effective wayshowing systems.
- Byway graphic identities—logos—offer reliable and consistent communication with byway travelers.
- Use of the National Scenic Byways sign is officially recognized in the 2009 MUTCD.

7.4

7.5

The Use of America's Byways Logo

The 2009 MUTCD includes information on America's Byways guide signs. The America's Byways auxiliary sign signifies the importance of the National Scenic Byways Program and the Secretary of Transportation's designation of America's Byways.

It should be noted, that in the 2009 MUTCD these signs are referred to as National Scenic Byways Signs. But they are referred to in this document as America's Byways signs that are to be used on both National Scenic Byways and All-American Roads.

Byways that are part of the America's Byways collection should work with their state/tribal agency to ensure that America's Byways signs are installed appropriately. As a transportation official, you can help facilitate that process, but the responsibility for designing, creating and placing America's Byways signs rests with your state or appropriate road management authority.

If byways in your state are part of the America's Byways collection, America's Byways signs can be installed along the byways in accordance with your state MUTCD.

The examples to the left show permitted uses of America's Byways signs. State and local highway agencies may install America's Byways signs at entrance points to a route that has been recognized by the U.S. Secretary of Transportation as a National Scenic Byway or an All-American Road. Auxiliary signs D6-4 or D6-4a may be installed on route sign assemblies or as part of larger roadside structures. America's Byways signs may also be installed at periodic intervals along the designated route and at intersections where the designated route turns or follows a different numbered highway. Figure 7.7 illustrates the standard sizes of America's Byways signs, and Figure 7.8 illustrates typical installation assemblies.

At locations where roadside features have been developed to enhance the travelers' experience (e.g., rest areas, historic sites, interpretive facilities, or scenic overlooks) America's Byways signs may be placed on the associated sign assembly to inform travelers that the site contributes to the byway travel experience.

If you would like to create a sign displaying the America's Byways® logo on your byway, you can download the MUTCD sign logo at:
www.bywaysonline.org/program/marketing/downloads.html

The responsibility to install and maintain National Scenic Byways signs rests with your state or appropriate road management

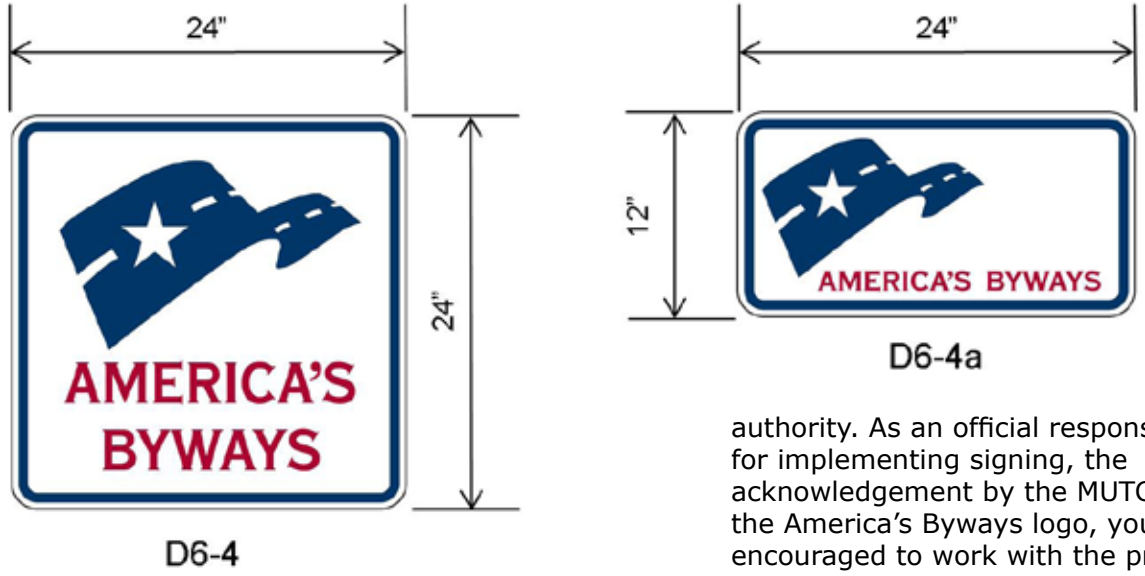
7.6

Fig. 7.4 America's Byway Logo Sign (ABRC)

Fig. 7.5 America's Byway Logo Sign-Iowa Great River Road (ABRC)

Fig. 7.6 America's Byway Logo Sign-Gold Belt Tour (ABRC)

7.7



7.8

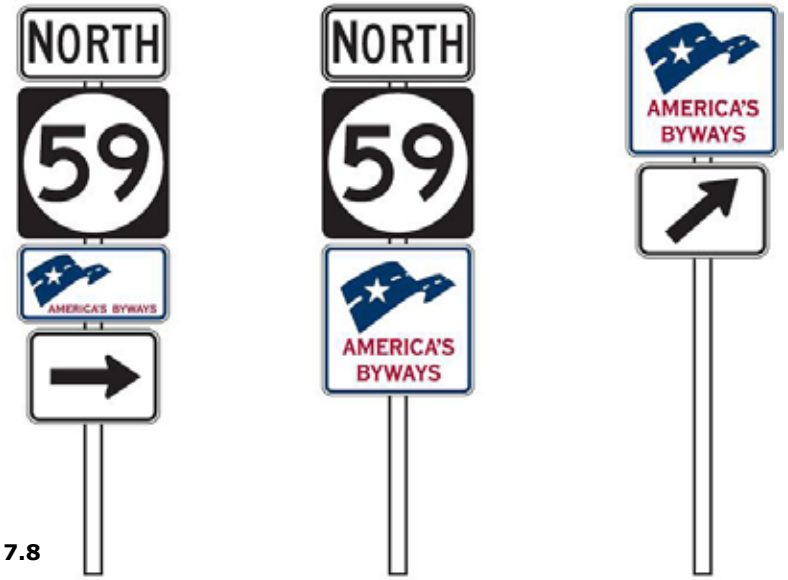


Fig. 7.7 National Scenic Byways Sign with 24" x 24" and 12" x 24" options (2009 MUTCD, Chapter 2D with dimensions added)

Fig. 7.8 National Scenic Byways Sign typical assembly installations (2009 MUTCD, Chapter 2D)

authority. As an official responsible for implementing signing, the acknowledgement by the MUTCD of the America's Byways logo, you are encouraged to work with the program coordinator within your state/tribe.

References

It may be helpful to see how other states have implemented byway-related signing.

These examples are indicative of the approach taken by many states, but the examples are not intended to recommend specific practices. This reference manual does not advocate for one approach over another. However, a transportation official may take a strategic approach toward byway signing, and these examples might provide ideas or justification for an appropriate or possible approach in your jurisdiction.

See graphic identity discussion in Chapter Five.

Examples of Statewide Approaches to Wayshowing Signs

Byway signs that are derived from MUTCD-defined guide signs can help create a visual identity for a byway and for a collection of byways. The America's Byways sign adds value by showing that a byway is part of a larger collection. Highway guide signs that exhibit a byway's graphic identity can be highly effective for route marking and at byway entrances/exits as well as to support wayfinding in general. Chapter Five provides more details on effective byway signs.

It is important to understand, however, that adding more signs to the roadway environment for the sake of adding signs is not acceptable. Any sign considered for placement along a byway corridor must serve a purpose, fulfill a need, and respond to the specific design requirement set forth by your state's interpretation of the MUTCD.

States/tribes take different approaches to the ways in which byways are signed and recognized. The following examples show different approaches to wayshowing signs by various states. However, this manual does not recommend one approach over another, rather suggests that the best approach is one that is strategic and creates consistent and safe visitor experiences.

The examples illustrated below all assume that the America's Byways sign could be added to byway guide sign assemblies.

Unique Byway Graphic Identity without a State Byway Collection Identity
Minnesota's state byway program supports each of the state's byways using a unique graphic identity. The state byway program or the collection of Minnesota byways does not presently use a graphic identity to represent Minnesota's state collection of byways. (Figure 7.9)

7.9

Fig. 7.9 Sample Minnesota Byway graphic identities (ABRC)

7.10

Unique Byway Graphic Identity Combined with State Byway Collection Identity
This approach to byway guide signing presents travelers with a combination of graphic identity of a state collection of byways combined with the unique graphic identity associated with a specific byway. In most cases a name or title is associated with the state collection as well as the individual byway. Appropriate auxiliary signs are added as needed. (Figures 7.10 and 7.11)

7.11

Fig. 7.10 Sample Oregon Byway graphic identities (ABRC)

Fig. 7.11 Sample Iowa Byway graphic identities (David L. Dahlquist)

Every Byway within the State's Collection is Represented by a Single Collection Graphic Identity

This approach incorporates one graphic identity to communicate all roads and highways that are designated as byways within a state. In some cases the common graphic identity is supplemented with an auxiliary sign that states the name of the byway and other auxiliary signs that are appropriate or necessary for effective road user guidance.

Please refer to Chapter Five for additional information on graphic identities for byways.

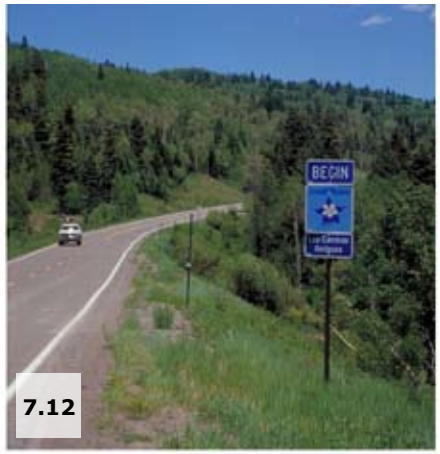


Fig. 7.12 Colorado Byway graphic identity (ABRC)

Fig. 7.13 Utah Byway graphic identity (David L. Dahlquist)

Fig. 7.14 Iowa Byway graphic identity (scheduled for replacement 2011) (ABRC)

Byway Information in Freeway Interchange Exit Direction Signs and Overhead Guide Signs on Conventional Roads

A byway's graphic identity is not appropriate for incorporation into primary or supplemental Freeway guide signs because the graphics are generally unrecognizable at such a high speed of travel. In the majority of cases, the most appropriate way to sign for a byway for a freeway or expressway is with the title of the byway. In general, the goal of freeway guide signing is to provide the information in as direct and simple a manner as possible to help the driver determine where to exit the freeway. In this regard, the driver will not have been exposed to the byway route sign along the freeway, so there is no reason to introduce it on the freeway. Once out of the freeway environment and onto conventional roads, then the byway route signs can be use in Directional Assemblies in accordance with the MUTCD. Illinois, Iowa, North Dakota and South Carolina are among states which provide byway guide information on freeway interchange exit direction signs and on overhead guide signs on conventional roads.

State Policies on Byway Signing

These examples reflect signing policies for the design, fabrication, implementation and installation of byway signing in the various states. These links are provided as examples and basic references for state/tribal byway coordinators with no one policy being recommended over another.

Washington
This link provides access to the state of Washington's Department of Transportation's *Scenic Byway Logo Signing Guidelines* (May 2007). The purpose of these guidelines is to provide Washington State Department of Transportation (WSDOT) traffic engineers, WSDOT planners, and scenic byway organizations with an operational tool that will assist them in the implementation of scenic byway logo signing.

www.wsdot.wa.gov/publications/manuals/fulltext/M3001/ScenicBywayLogoSigningGuidelines.pdf

Idaho
This link provides access to Idaho's byway signing policy manual. The user can see policy on design, fabrication, and installation of byway signing along Idaho's byways:

itd.idaho.gov/highways/docs/Scenic%20BywaySignProcedures%202007-06.pdf

New York
This link provides access to the *New York State Scenic Byways Sign Manual* that gives an overview of the byways program in New York. It also provides an overview of classified sign types in New York, the planning process for byway signing implementation, and graphic standards for the family of New York byway signs.

www.nysdot.gov/portal/page/portal/programs/scenic-byways/files/signmanual.pdf

Oregon
This link provides a display of Oregon's individual byway logos and shows how they are integrated into a family of statewide byway signs:

egov.oregon.gov/ODOT/HWY/SCENICBYWAYS/logos.shtml

GLOSSARY OF TERMS

Wayshowing and Wayfinding Terms

America's Byways Logo: The America's Byways logo is an important part of the America's Byways brand. The logo should be used whenever possible to help build consistency, recognition and pride for the collection of distinct and diverse roads designated by the U.S. Secretary of Transportation. When using the logo on signing, the America's Byways logo is to be used ONLY to indicate the USDOT collection of nationally designated byways. The logo cannot be used to indicate other state and federally designated byways.

Byway Attractions: *Byway Attractions* are public places where travelers are encouraged to stop and take in a view; read a wayside exhibit; visit an interpretive center, museum, visitor center; stay at a park; or hike a trail, etc. which contributes to the byway's visitor experience and the telling of the stories of the byway's intrinsic qualities. *Byway Attractions* are located directly on the byway or within a reasonable driving distance of the byway.

Byway Guide Signs: A key component for comprehensive byway wayshowing. Highway guide signs which consistently use a byway's graphic identity or other distinctive graphic mark to provide continual wayshowing assistance along the entire length of the byway in both directions. *Byway Guide Signs* are permanently installed in the roadway right-of-way. The byway signs and their auxiliary signs are added to the sign assemblies for route markers where feasible. Byway guide signs should replicate the functions of 1) junction assemblies, 2) advance route turn assemblies, if needed, 3) directional assemblies, 4) confirming assemblies and 5) reassurance assemblies as defined by the MUTCD and state supplements. *Byway Guide Signs* need to meet all appropriate size, installation, retroreflectivity, location, and crash breakaways requirements. *Byway Guide Signs* also include the highway signs that are installed to guide motorists to turn off the byway in order to travel to a byway attraction. Depending on the locations of the attractions, *Byway Guide Signs* may be warranted to guide travelers back to the byway.

Byway Guide Sign assemblies are typically installed and maintained in the public right-of-way by federal lands management agencies, tribal roads agencies, state departments of transportation, county roads departments, and municipal streets departments.

Byway Portable Maps: A key component for comprehensive byway wayshowing. A carry-on map of a byway corridor and its various attractions and amenities. A carry-on *Portable Map* should work in conjunction with the physical elements of entrances, exits, and gateways; orientation stops; byway guide signs, and the identification of byway attractions.

Byway Provider: A broad term that refers to any individual, stakeholder or organization that assumes a responsibility for providing the byway's experience for travelers: protecting, managing and interpret the intrinsic qualities and resources of a byway; and the overall planning and

(MUTCD) indicates terms used in the 2009 Manual on Uniform Traffic Control Devices for Streets and Highways

sustainability of a byway's corridor. *Byway Providers* typically include byway leaders, coordinators, and individuals, professionals, state DOT byway coordinators, volunteers, public officials, special interest representatives, etc.

Byway Graphic Identity: The graphic image or mark that identifies a particular byway. A *Byway Graphic Identity* is used across various communication media including guide signs, interpretive and wayside exhibits, printed brochures and travel guides, electronic media and websites.

Cognitive Map: A mentally embedded or visualized image in a larger reference frame: a *Cognitive Map*; or an overall mental image or representation of the space and layout of a setting. Thus the act of *Cognitive Mapping* is the mental structuring process leading to the creation of a *Cognitive Map*.

Source: Wayfinding: People, Signs, and Architecture, *Arthur P, Passini R*., Toronto: McGraw-Hill Ryerson (1992)

Digital Data: *Digital Data* is any form of data and information (narrative, numerical, graphics, illustrations, photographs, maps, video, audio, geospatial data, etc.) that is transferred electronically for viewing and used on any type of consumer-based electronic device (internet-connected computer, MP3 player, cell phone, Smart phone, personal data assistant, GPS unit and others). "Apps" refer to applications or programs which make the electronically transferred data useful to the viewer.

General Service Signs (MUTCD): On conventional roads, commercial services such as gas, food, and lodging generally are within sight and are available to the road user at reasonably frequent intervals along the route. Consequently, on conventional roads, there usually is no need for special signs calling attention to these services. Moreover, *General Service Signing* is usually not required in urban areas except for hospitals, law enforcement assistance, tourist information centers, and camping. However, the MUTCD acknowledges that *General Service Signs* may be used where such services are infrequent and are found only on an intersecting highway or crossroad. This may be important to byways, especially to those in remote, rural areas, where traveler safety may be in question.

Guide Signs (MUTCD): *Guide Signs* are essential to direct road users along streets and highways, to inform them of intersecting routes, to direct them to cities, towns, villages, or other important destinations, to identify nearby rivers and streams, parks, forests, and historical sites, and generally to give such information as will help them along their way in the most simple, direct manner possible. Many marked byway entrances and exits, as well as byway guide signs, are considered *Guide Signs*.

Identification of Byway Attractions: A key component for comprehensive byway wayshowing.

(MUTCD) indicates terms used in the 2009 Manual on Uniform Traffic Control Devices for Streets and Highways

A permanent or fixed graphic or narrative communication associated with a Byway Attraction (see Byway Attractions) which indicates that the attraction is a resource associated with the byway. *Identification of Byway Attractions* typically are in the form of a sign located so travelers receive a visual confirmation that they are arriving at a destination associated with the byway they are traveling. The *Identification of the Byway Attraction* can be secondary to the primary name and identity of the attraction.

Geographic Information System (GIS): A system that captures, sorts, analyzes, manages, and presents data that are linked to location. This data may exist as maps, 3D virtual models, tables, and/or lists.

Global Positioning Systems (GPS): A navigational system involving satellites and computers that can determine the latitude and longitude of a receiver on Earth by computing the time difference for signals from different satellites to reach the receiver.

Local Road Management Authorities: The individual state and local highway agencies (state DOT, tribal, county or municipal) that select, install, operate, and maintain all traffic control devices on all roadways (including the Interstate and the U.S. numbered systems) nationwide. Each state enacts its own laws regarding compliance with standards for traffic control devices in that State. If the state law has adopted a State Supplement or a State MUTCD that FHWA has found to be in substantial conformance with the national MUTCD, then those State requirements are what the local road agencies (as well as the state DOT) must abide by. For further definitions and exceptions see mutcd.fhwa.dot.gov/knowledge/faqs/faq_general.htm#q7

***Manual on Uniform Traffic Control Devices for Streets and Highways* (MUTCD):** The Federal Highway Administration (FHWA) publishes the *MUTCD*, which contains all national design, application, and placement, standards, guidance, options, and support provisions for traffic control devices. The purpose of the *MUTCD* is to provide uniformity of these devices, which include signs, signals, and pavement markings, to promote highway safety and efficiency on the nation's streets and highways. The *MUTCD* is published by the Federal Highway Administration (FHWA) under 23 Code of Federal Regulations (CFR), Part 655, Subpart F. The MUTCD can be found online at: mutcd.fhwa.dot.gov/index.htm

Maps: A key component for comprehensive byway wayshowing. *Maps* are visual representations of geographic, natural, historic, cultural and social information using graphic marks each of which means something. *Maps* are made by people (cartographers) who decide what and what not to communicate to other people with the map. *Maps* are, by applying precise rules concerning scale, content, and meaning coupled with artistic skills, designed to assure readability and aesthetic beauty. To be effective, *Maps* need to be conceived, constructed, designed, tested and produced with a user group's needs fully in mind.

(MUTCD) indicates terms used in the 2009 Manual on Uniform Traffic Control Devices for Streets and Highways

Marked Byway Entrances, Exits and Gateways: A key component for comprehensive byway wayshowing. Permanent physical roadside elements that are constructed, fabricated and/or installed to identify to travelers where they enter and exit a byway environment (corridor). Entrances and exits can also be thought of as gateways. Entrances, exits, and gateways can be manifested in byway guide signs (with appropriate 'Begin', 'Exit' or similar auxiliary messages) and/or gateway monument structures. Entrances, exits, and gateways can convey a message of welcome and thank-you and should be integrated with applicable state and local MUTCD standards and Federal/Tribal Lands sign guidelines.

MUTCD: See *Manual on Uniform Traffic Control Devices for Streets and Highways*

Orientation Stops: A key component for comprehensive byway wayshowing. These are pull-offs, turn-outs, and other places along a byway, where motorists can stop and help themselves create, refresh, and expand their cognitive maps of a byway corridor, its intrinsic qualities, and overarching interpretive theme with exhibits, maps, and other means of communication. Tourist Information Centers, Visitor Welcome Centers, Interpretive Center, and other similar public facilities that provide the public with local travel and attraction information are also considered *Orientation Stops* if the facility provides significant information about local and regional byways. *Orientation Stops* and any signing needed to announce them should be integrated with applicable state and local MUTCD standards and Federal/Tribal Lands sign guidelines.

Recreational and Cultural Interest Area Signing: The purpose of *Recreation and Cultural Interest Area Signs* are to guide road users to a general area and then to specific facilities or activities within the area. Recreational or cultural interest areas are attractions or traffic generators that are open to the general public for the purpose of play, amusement, or relaxation. Recreational attractions include such facilities as parks, campgrounds, gaming facilities, and ski areas, while examples of cultural attractions include museums, art galleries, and historical buildings or sites.

Byway providers should understand their state's policies towards Recreational and Cultural Interest Area Signing. This signing can be an important part of effective wayshowing on byways, specifically by providing directions to byway attractions.

Regulatory Signs (MUTCD): A sign that gives notice to road users of traffic laws or regulations. *Regulatory Signs* shall be used to inform road users of selected traffic laws or regulations and indicate the applicability of the legal requirements.

Retroreflectivity: The characteristics of a sign that will essentially return light the general direction from where it originated such that the sign will display the same shape and similar color by both night and day.

(MUTCD) indicates terms used in the 2009 Manual on Uniform Traffic Control Devices for Streets and Highways

Sign: Any traffic control device that is intended to communicate specific information to road users through a word, symbol, and/or arrow legend. *Signs* do not include highway traffic signals, pavement markings, delineators, or channelization devices.

Signing: Individual signs or a group of signs, not necessarily on the same support(s), that supplement one another in conveying information to road users.

Sign Assembly (MUTCD): A group of signs, located on the same support(s) that supplement one another in conveying information to road users.

Specific Service Signs: *Specific Service Signs* are guide signs that provide road users with business identification and directional information for services and for eligible attractions. Eligible service categories shall be limited to gas, food, lodging, camping, attractions, and 24-hour pharmacies. Eligible service facilities shall comply with laws concerning the provisions of public accommodations without regard to race, religion, color, age, sex, or national origin, and laws concerning the licensing and approval of service facilities. The attraction services shall include only facilities which have the primary purpose of providing amusement, historical, cultural, or leisure activities to the public.

Stage of Travel – Pre-Visit: The time before an actual trip is made by a prospective visitor. The *Pre-Visit Stage* encompasses the steps taken by a potential visitor to choose or selects a particular byways trip opportunity from all the available options. This includes the stage when the prospective byway traveler plans and prepares for the trip.

Stage of Travel - Post-Visit: The time period following a byway visit. During this period, byway providers have an opportunity to provide visitors ways to help them recall impressive sites, interpreted stories, and personal experiences. During the *Post-Visit* time period, visitors could decide to revisit the byway, travel to another byway, and/or encourage someone else to visit the byway. Likewise if visitors have negative experiences, they could decide not to visit other byways in the future.

Stage of Travel – Visit Stage: The time period when a prospective visitor becomes an actual visitor along your byway; when a visitor enters the byway environment (corridor) and ultimately exits the byway environment (corridor). The *Visit Stage* is when the visitor can create core memories.

State-Adopted MUTCD: Title 23 of the Code of Federal Regulations requires all states to do one of three things within two years after a new national MUTCD edition is issued or any national MUTCD amendments are made: 1) adopt the new or revised national MUTCD as the standard for traffic control devices in the state; 2) adopt the national MUTCD with a State Supplement that is in substantial conformance with the new or revised national MUTCD; or 3) adopt a State MUTCD that

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is in substantial conformance with the new or revised national MUTCD. To understand how your state operates, contact your state scenic byway coordinator. *See also Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD)*

Tourist-Oriented Directional Signs (TODS): *Tourist-Oriented Directional Signs* (TODS) are a type of guide sign with one or more sign panels that display the business identification of and directional information for eligible business, service, and activity facilities. Each state that elects to use *TOURIST-ORIENTED DIRECTIONAL SIGNS* shall adopt a policy that complies with MUTCD provisions. Byway providers should understand their state's policies towards TODS. TODS can be an important part of effective wayshowing on byways.

Traffic Control Devices (MUTCD): A sign, signal, marking, or other device used to regulate, warn, or guide traffic, placed on, over, or adjacent to a street, highway, private road open to public travel, pedestrian facility, or shared-use path by authority of a public agency or official having jurisdiction. The purpose of *Traffic Control Devices* is to promote highway safety and efficiency by providing for the orderly movement of all road users on streets, highways, bikeways, and private roads open to public travel throughout the Nation. *Traffic Control Devices* notify road users of regulations and provide warning and guidance needed for the uniform and efficient operation of all elements of the traffic stream in a manner intended to minimize the occurrences of crashes.

Trained Hospitality Personnel: A key component for comprehensive byway wayshowing. *Trained Hospitality Personnel* are individuals and teams of individuals who are made available to answer questions of the traveling public and provide information that will assist travelers in being successful in finding their way to and along a byway. *Trained Hospitality Personnel* may be paid staff, interns, volunteers, park rangers, interpreters and anyone else representing a byway or a byway attraction who frequently comes into contact with the traveling public.

Travel Directions: A key component for comprehensive byway wayshowing. Written or spoken instructions that communicate route segments of a path or byway. To be complete, the instructions need to include 1) starting point or origin; 2) name or number of the first travel segment; 3) segment distance; 4) direction of travel at the completion of traveling the first segment—turn left, turn right, stay straight, etc.; and 5) next destination.

Visit Stage of Travel: *See Stage of Travel*

Warning Signs (MUTCD): *Warning Signs* call attention to unexpected conditions on or adjacent to a highway, street, or private roads open to public travel and to situations that might not be readily apparent to road users.

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Wayfinding: The mental process, performed by byway travelers, that turns a traveler's goal into decisions, actions, and behaviors. *Wayfinding* is continuous problem solving performed by byway travelers under the uncertainty of traveling in an unfamiliar environment.

Wayfinding is the process of determining and following a path or route between and origin and a destination.

Wayshowing: The communication of information, intentionally undertaken by byway providers, to aid travelers in setting desired goals, making decisions, and taking appropriate actions.

Mental Map: See *Cognitive Map*.

Origin (as used in reference to wayfinding): One's present location as in, I am here now, the point of beginning for the next wayfinding decisions. *Origin* may represent the entry points of a byway or any point along a route. In the problem solving of wayfinding, *origin* can also be thought of as one's position anywhere on or near a byway as in "I am here (*origin*), and I desire to go there (destination)."

Destination (as used in reference to wayfinding): One's desired travel goal: where you wish to go to as a wayfinding goal. *Destination* may represent the end or exit points of a byway as well as any desired stop in the byway's corridor—scenic overlook, historic sites, parks, lodging, restrooms, even the next intersection where number routes change on the byway, etc. In the problem solving of wayfinding, *destination* can be the place where one desires to travel to as in "I am here (origin), and I want to go there (*destination*)."

Turn Angle: During the course of wayfinding, a traveler will usually experience decision points in which a change in straight-line course will need to be made. Succeeding in wayfinding depends on one determining whether to go straight, turn in a right-hand direction or turn in a left-hand direction. Sometimes these decisions are communicated in terms of cardinal directions of north, east, south or west.

Segment length and direction: A portion of a path or byway that does not require a traveler to make a decision to turn or change overall direction. To be successful in wayfinding, a traveler must have a basic understanding of the length and direction of a *segment* of travel.

Landmarks: During the course of wayfinding, a traveler often needs a distant and recognizable object with which to confirm his or her approach to and arrival at an intermediate or final travel destination. *Landmarks* may be physical as in a mountain top; built as in a large building that stands out from its surroundings; or as small as a sign the confirms the correct route selection or name of the park at its entry.

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National Scenic Byway Terms:

All-American Road: To be designated as an *All-American Road*, the road or highway must meet the criteria for at least two of the intrinsic qualities. The road or highway must also be considered a destination unto itself. To be recognized as such, it must provide an exceptional traveling experience; visitors recognize the highway as a primary reason for driving the route. The characteristics associated with the intrinsic qualities are those which best represent the nation and which may contain one-of-a-kind features. The significance of the features contributing to the distinctive characteristics of the corridor's intrinsic quality is recognized nationally.

America's Byways: Under the National Scenic Byways Program, the U.S. Secretary of Transportation recognizes certain roads as National Scenic Byways or All-American Roads based on their archaeological, cultural, historic, natural, recreational and scenic qualities. As of 2010, there are 150 nationally designated byways in 46 States, consisting of National Scenic Byways and All-American Roads. The Federal Highway Administration promotes the collection as *America's Byways* or the *America's Byways Collection*.

America's Byways Resource Center: *America's Byways Resource Center* supports the National Scenic Byways Program by providing education, training and resources to nationally designated byways and the larger byway community. It was established by Congress originally as the National Scenic Byways Resource Center and opened in January 1999 as a division of the Arrowhead Regional Development Commission in Duluth, Minnesota. Funding is provided through a cooperative agreement with the Federal Highway Administration. The *America's Byways Resource Center* serves as a hub of information and services to byway leaders, volunteers, State and Indian tribe coordinators who look for information, connections and expertise to pave the way for better byways.

Byway: A public road having special scenic, historic, recreational, cultural, archaeological, and/or natural qualities that have been recognized as such through legislation or some other official declaration. The terms "road" and "highway'" are synonymous. They are not meant to define higher or lower functional classifications or wider or narrower cross-sections. Moreover, *Byway* refers not only to the road or highway itself but also to the corridor through which it passes (FHWA Interim Policy, May 18, 1995).

Byway Responsibility: Designated byways respect and protect the integrity of resources and intrinsic qualities. Byways are expected to offer and promote authentic and diverse experiences to travelers of all ages, abilities and interests. Each byway organization is accountable to all the others to create a shared standard of high quality throughout the collection.

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Each byway organization's mission directs its responsibilities and the realization of those efforts through the National Scenic Byways Program. Byway leaders are responsive to their local communities and the travelers they welcome.

Byway Story: A *Byway Story* is the intentional, coordinated message that the byway conveys to visitors about the resources and qualities that it promotes. This message may be interpreted through written materials, signs, wayside exhibits, information kiosks, guides, videos and other media. Most importantly, the *Byway Story* is conveyed through the direct experiences that the visitor encounters along the trip.

The *Byway Story* refers to the inherently interesting and valuable tale that most roadways can tell about the history, culture and environment of the surrounding landscape and communities.

Byway Visitor Experience: The *Visitor Experience* of a place involves both the tangible and the intangible, together meeting travelers' needs and expectations. An effective scenic byway accommodates these needs and interests to create a positive and rewarding experience. *Visitor Experience* emphasizes the places visitors should go and the people they could meet.

Effective wayshowing (the communication of information to aid travelers to find their way to and along byways), interpretation, visitor information centers, design elements, and marketing are among the many variables that influence how travelers discover and remember your byway and its story. By understanding the visitor experience, byway organizations can offer a safe, rewarding and authentic experience that travelers will want to repeat.

Corridor Management Plan The *Corridor Management Plan* is a tool that supports the local focus of a byway, empowering the byway group and stakeholders to develop the details and direction of their planning efforts.

Development of a byway's corridor management plan is as much about the process as it is about the product. Some byway organizations choose to develop their corridor management plan completely at the local level, while others want or need to obtain professional assistance from a consultant experienced in writing byway corridor management plans.

Federal Highways Administration: The Federal Highway Administration manages the National Scenic Byways Program as a community-based program. FHWA headquarters staff is based in Washington, D.C. Staff members work closely with the FHWA division offices in each State in administering the Program. The division office byway contacts, in turn, work day-to-day with the State and Indian tribe scenic byway coordinators on all matters affecting grants and nominations.

Grassroots: The National Scenic Byways Program philosophy emphasizes that byways should be conceived by, shaped and managed to serve the community or communities through which they

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pass. While byways must recognize and address the traveler's needs, byway strategies should be a product of the communities of people who live in and near the byway and those who may interact with and potentially benefit from travelers.

Intrinsic Quality: *Intrinsic qualities* arise from a byway's particular combination of resources that define its character, interest and appeal. These resources are the special views, places, buildings, sites and other features that residents enjoy and interest travelers. A resource can be natural, such as a gorge, mountain or lake; or it may be the result of human activity, such as a historic building, battle site or well-designed parkway.

National Scenic Byway: To be designated as a *National Scenic Byway*, a road or highway must significantly meet at least one of the six scenic byways intrinsic qualities. The characteristics associated with the intrinsic qualities are distinct and most representative of the region. The significance of the features contributing to the distinctive characteristics of the corridor's intrinsic quality is recognized throughout the region.

National Scenic Byways Program: The National Scenic Byways Program (NSBP) was established under the Intermodal Surface Transportation Efficiency Act of 1991, reauthorized in 1998 under the Transportation Equity Act for the 21st Century, and reauthorized and amended in the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users in 2005. Under the NSBP, the U.S. Secretary of Transportation recognizes certain roads as National Scenic Byways or All-American Roads based on their archaeological, cultural, historic, natural, recreational and scenic qualities. As of 2010, there are 150 nationally designated byways in 46 States. The Federal Highway Administration promotes the collection as America's Byways.

National Scenic Byways Program Interim Policy: The Interim Policy is the principal policy guiding the National Scenic Byways Program (NSBP), published in the Federal Register, Vol. 60, No. 96, May 18, 1995. This policy establishes the designation criteria for roads as National Scenic Byways or All-American Roads based upon their scenic, historic, recreational, cultural, archaeological and/or natural intrinsic qualities, and the required 14 points (17 points for All-American Roads) to address in a corridor management plan. Although it is entitled *Interim Policy*, it is still the current and applicable policy for the NSBP.

State and Indian Tribe Scenic Byways Programs: Many states have scenic byway programs, usually administered through the state department of transportation or state tourism offices. For information on a particular state byway program, go to individual state pages via the US map and "Local Information" links www.byways.org. Indian tribes may also establish scenic byway programs.

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REFERENCES

The section lists references that relate to the topics of wayfinding and wayshowing. It is presented as a sampling of references and resources and not a comprehensive review of available literature and websites.

General Reference Books, Articles and Papers

Adams, D.; Dahlquist, D.; Eells, J.; Pianalto, C. (2010) *Improving the Effectiveness of Wayshowing for America's Byways® Using a "Visitor's Eye" Perspective: Concepts and Techniques to Increase Appreciation and Action by Byway Providers.* Transportation Research Board Paper.

Adams, D., Hundrieser, B., Knapp, K., and Pianalto, C. (2009) The Three Core Elements of Byway Sustainability. *Vistas Newsletter*, January-February, pp. 8–9.

Arthur, P. & Passini R. (1992). *Wayfinding—People, Signs, and Architecture*. New York: Van Nostrand Reinhold Company.

Berger, C. M. (2005). *Wayfinding – Designing and Implementing Graphic Navigational Systems.* Switzerland: RotoVision SA.

Brewer, C. A. (2005). *Designing Better Maps – a Guide for GIS Users.* New York: ESRI Press.

Federal Highway Administration. (1997) Flexibility And Highway Design

Golledge, R. G. (1999). *Wayfinding Behavior: Cognitive Mapping and Other Spatial Processes*. Baltimore and London: Johns Hopkins University Press.

Jacobson, R. (1999). *Information Design.* Cambridge, MA: M.I.T. Press.

Krygier, J. & Wood, D. (2005). *Making Maps –A Visual Guide to Map Design for GIS.* New York: The Guilford Press.

Lidwell, W., Holden, K., & Butler, J. (2003). *Universal Principles of Design*. Gloucester, MA: Rockport Publishers, Inc.

Lynch, K. (1960). *The Image of the City*. Cambridge, MA: M.I.T. Press.

MacEachren, A. M. (2004). *How Maps Work.* New York: The Guilford Press.

Mollerup, P. (2006). *Wayshowing--A Guide to Environmental Signage Principles and Practices.* Baden, CH: Lars Muller Publishers.

Pianalto, C. (2009) Downloadable Maps Provide Functionality to Your Byway Website, *Vistas Newsletter*, May-June, pp. 6–9.

Thompson, N. (2010) *Wayfinding: A Pacific Odyssey*. www.pbs.org/wayfinders.

Wood, D. (1992). *The Power of Maps.* New York: The Guilford Press.

Wurman, R. S. (1997). *Information Architects.* China: Palace Press International.

Wurman, R. S. (2001). *Information Anxiety 2.* Indianapolis, IN: Que.

Signing References, Plans and Guidelines

United States Department of Transportation: Federal Highway Administration. *Manual on Uniform Traffic Control Devices for Streets and Highways,* 2009 Edition.

mutcd.fhwa.dot.gov/

United States Department of Transportation: Federal Highway Administration . *Standard Highway Sign and Markings Book*

www.mutcd.fhwa.dot.gov/ser-shs_millennium.htm

Federal Land Management Agency Signing Guidelines

Land management agencies develop signing guidelines for roadways within their jurisdictions. Land management agencies often have their own design standards for signing and other traffic control devices which may deviate from those of a given state within which it might be located.

U.S. Department of Interior, Bureau of Land Management (BLM). *Sign Guidebook*, Denver, Colorado, 2004. BLM WY/AE-05/010+9130.170pp.

www.usbr.gov/pmts/planning/signguide/SignGuide-ch1-3.pdf

www.blm.gov/wy/st/en/Sign_Center.html

U.S. Department of Interior, National Park Service. *NPS UniGuide Standards: Volume 1: Park and Facility Identity Signs*

A User Guide for the Sign Sizing Program of the USDA Forest Service

www.fs.fed.us/rm/pubs/rmrs_gtr040.pdf

Sign Standards Manual by U.S. Army Corps of Engineers, 2006.

www.usace.army.mil/publications/eng-pamphlets/ep310-1-6a/toc.htm

Sample Sign Plan for the Schuylkill River National & State Heritage Area

www.schuylkillriver.org/pdf/SRHASignageManual07-2005.pdf

Sample State Byway Signing Guidelines

Idaho Transportation Department: Division of Highways. *Standards and Procedures for Multi-Colored Byway Signs (Historic or Scenic Byways) on the State or Local Highway System*, June, 2007.

Iowa Department of Transportation. *Iowa Byways Guide Sign Policy Manual*, 2010

Minnesota Department of Transportation: Office of Environmental Services. *General Guidance for Scenic Byway Logo Design and Development and Sign Placement.*

New York State Department of Transportation. *New York Scenic Byways Sign Manual*, August, 2005.

Washington State Department of Transportation, Highway and Local Programs Division. *Scenic Byway Logo Signing Guidelines*, February 2007.