Supplement One

Wayfinding Signage Design Guidelines

Overview

The *Albemarle Regional Bicycle Plan* recommends a comprehensive network of on- and off-road bicycle facilities. Many of these facilities explicitly incorporate regulatory, warning, and wayfinding signs. Wayfinding signs are a primary element of bicycle boulevards and signed routes on low-traffic roadways, for example. Other facilities, such as bicycle lanes, paved shoulders, and sharrows, do not explicitly require wayfinding signs to function. Wayfinding can enhance these facilities, however, by guiding bicyclists to their destinations along preferred routes. For this reason, wayfinding should be overlaid over the full network of bicycle facilities in the Albemarle region as that network is built out.

This supplement to the *Albemarle Regional Bicycle Plan* outlines a branded wayfinding strategy for the Albemarle region to complement and enhance the infrastructure recommendations of that plan. The strategy was developed based on national best practices in wayfinding, and with guidance and direction from the bike plan's steering committee.

Wayfinding implementation can precede bicycle facility implementation in some cases. The branded wayfinding recommendations of this chapter, for example, can be applied immediately to locations where signed routes are recommended in the *Albemarle Regional Bicycle Plan*. These roadways are already comfortable and safe for bicycling today. Wayfinding can also be implemented along, and around, the existing multi-use trails of the region.

Wayfinding may be implemented along other roadways before facilities are implemented at the discretion of local planners. Rural roadways with low traffic where paved shoulders are recommended, for example, may benefit from wayfinding in the shorter-term, before paved shoulders can be installed with repavement. Local planners should work with NCDOT to identify candidates for wayfinding in the short-term, and continue to install wayfinding as new facilities are put into place.

Chapter Contents

Overview
Goals
Sign Types
Customized MUTCD Signs
Localized Signs
Pavement Markings

Goals

Several goals guided the development of this supplement.

Design signs that reflect the character of the region

A regional logo was developed and incorporated throughout the different sign types of this supplement. This establishes a brand for bicycling in the Albemarle region and communicates to current and potential cyclists that they are riding on one piece of a broader network of facilities.

Establish flexible guidelines that can be adopted in versatile ways by the many jurisdictions in the region

The jurisdictions of the Albemarle region have varying levels of pedestrian and vehicular wayfinding in place currently, and varying branding strategies. While some jurisdictions sought fully branded signage, others were interested in simple add-on signs or a logo that could be added to their existing signage schemes. To accommodate varying needs, this supplement provides a range of sign types that can be flexibily applied and localized, while maintaining a regional theme.

Propose signs that can be applied on state roads

As part of the flexible strategy described above, the signage scheme presents options that follow the Manual on Uniform Traffic Control Devices guidelines followed by NCDOT precisely, as well as options that are fully branded to reflect regional and local character. Since all signs carry a cohesive element – the regional logo – the MUTCD-based signs can be applied on state-owned roads and localized signs on locally-owned roads. Upon implementation, local jurisdictions can work with NCDOT to select signage for a particular roadway.

Sign Types

Effective signage can provide successful identification, branding, and navigation of a bicycle network. The sign types selected for the Albemarle region are based on several national guidelines, including the Manual on Uniform Traffic Control Devices (MUTCD), the American Association of State Highway and Transportation Officials' Guide for the Development of Bicycle Facilities (AASHTO), and the National Association of City Transportation Officials' Urban Bikeway Design Guide (NACTO). These sign types will provide a comprehensive wayfinding system for bicycle facilities in the Albemarle region, from here on termed the 'Albemarle Bikeways'.

Albemarle Bikeways Logo

A new logo for the Albemarle Bikeways has been developed for the purpose of branding the bike network, establishing a consistent graphic to be used for wayfinding, and creating an awareness of the bikeway system.

Inspiration for the logo resonates from one of the most recognized elements of the bicycle...the wheels. A bicycle wheel with spokes is easily identifiable and provides a direct association to the bicycle. Therefore, a pictogram of the bicycle tire was used as the basis of the new Albemarle Bikeways logo.

Early bicycle with iconic, oversized spoked wheel.

A CMYK color palette is provided at right for the logo but Grayscale or Black and White Versions would also be acceptable in approved instances. The font used in the logo is "University Roman Bold BT" and should never be altered or changed. Versions of the logo are available in .ai and .eps formats with the fonts outlined. The logo should not be reproduced or duplicated without the approved vectorized typeface.

Albemarle Bikeways logo

COLORS:

C: 29	*C: 4*	*C: 0*
M:0	*M:0*	*M:0*
Y:0	*Y:0*	*Y:0*
K:60	*K:7*	*K:0*

FONT: University Roman Bold BT

Introduction to the Sign Types

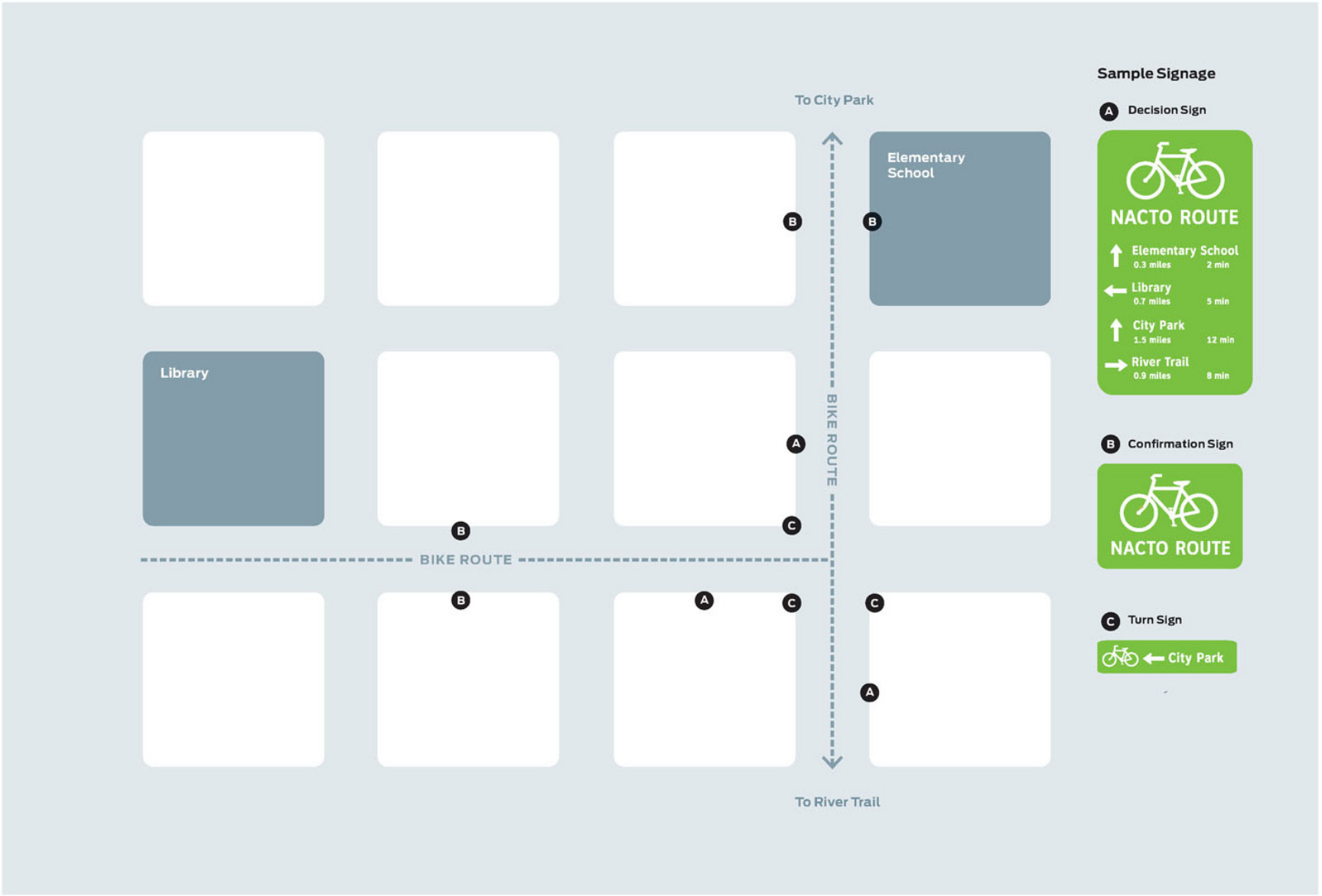
The Albemarle sign family creates a cohesive identity for the regional and local bicycle system. The colors, fonts, symbology and design of each sign have been crafted to improve navigation, encourage use, and provide an identity for bikeways. Sign types include regulatory information, regional and cultural details, identification markers, biking distances and timing, and geographical references. Each signage component works together to complete a system of comfortable bike routes for multiple types of cyclists. Recreation, fitness, and transportation users are considered when placing each sign type. Community Signs direct users toward trails and indicate to non-users the locations of bikeways within the Albemarle Region.

The signs are not only for the bicyclist's benefit but provide a safety measure for pedestrians and other modes of transportation by creating a constant reminder of the presence of bicyclists. An awareness of bicycles and their routes will deter accidents and increase safety for all.

There are four general types of wayfinding signs:

- **Confirmation Signs** - Make cyclists and motorists aware that they are traveling on a designated bikeway.
- **Turn Signs** - Indicate where a bikeway turns from one road onto another.
- **Decision Signs** - Mark the junction of multiple bikeways and inform cyclists of the routes available to reach key destinations.
- **Community Signs** - Indicate the presence of a bikeway to users of a crossing roadway.

A visual depiction of the application of the first three sign types is presented at right, and greater detail on each of the four sign types is provided on the following pages.



Source: NACTO Urban Bikeway Design Guide

Example of a Decision sign (MUTCD sign D1-3c)

Decision Signs

Users can orient themselves within the bikeway system based on key destinations including culturally significant landmarks, shopping districts, and other recreational facilities. These signs provide geographical context, reference points, destinational direction, and approximate times in which to get there. This sign type functions like an abbreviated map showing geographical highlights of the communities in and around the cyclist. These signs often:

- Mark the junction of two or more bikeways.
- Inform bicyclists of the designated bike route to access key destinations.
- Provide distances and travel times to destinations. These are optional but recommended.

Example of a Turn sign (MUTCD signs D11-1, M5-1)

Turn Signs

The network of on- and off-road Albemarle Bikeways may be confusing without proper directional signage. Turn signs are one of the key points of navigation for bikeway users. They serve a similar purpose of that of an airline co-pilot; they give clear direction for the pilot allowing him or her to concentrate on the operation of the plane. Similarly, turn signs direct the cyclist where to turn, allowing the cyclist to dedicate most of her attention to riding safely and responsibly. These sign types typically:

- Provide clear direction for cyclists to turn when a bikeway transitions from roadway onto another.
- Could be a pavement marking as well as a traditional sign.

Confirmation Signs

Confirmation signs are an integral component of any trail or bikeway system that crosses roads, changes direction, and has ingress / egress points between trail or route beginning or end. Placement builds confidence that the user is on the correct path or route and has not strayed from the intended route. These sign types:

- Are spaced periodically along a route or trail to maintain a consistent level of confidence in users.
- Do not indicate a change in direction.
- Are placed near points of egress / ingress along a trail or on-road bikeway.
- Sometimes have informational content such as the name of the route, mileage, etc.
- Could be a pavement marking as well as a traditional sign.

Community Signs

Community signs are part navigation and part encouragement programming. These signs are placed within communities off of the bikeway system itself to direct intended users as well as potential new users to the trail or bikeway system. These signs build awareness of the system by creating a presence for bike routes outside of the bikeway system. This sign typology may also be attached to posts of existing signage as well as to community light posts to minimize costs.

Example of a Confirmation sign (MUTCD sign D11-1)

Example of a Confirmation sign (MUTCD sign M1-8)

Example of a Community sign indicating the location of a bike route (MUTCD sign D11-1, M6-4)

Customized MUTCD signs

For the regional roads within the Albemarle Bikeway network, and local roads as preferred, the wayfinding and signage system will utilize standard MUTCD signs with marginal modifications to include the Albemarle Bikeways logo and other relevant information.

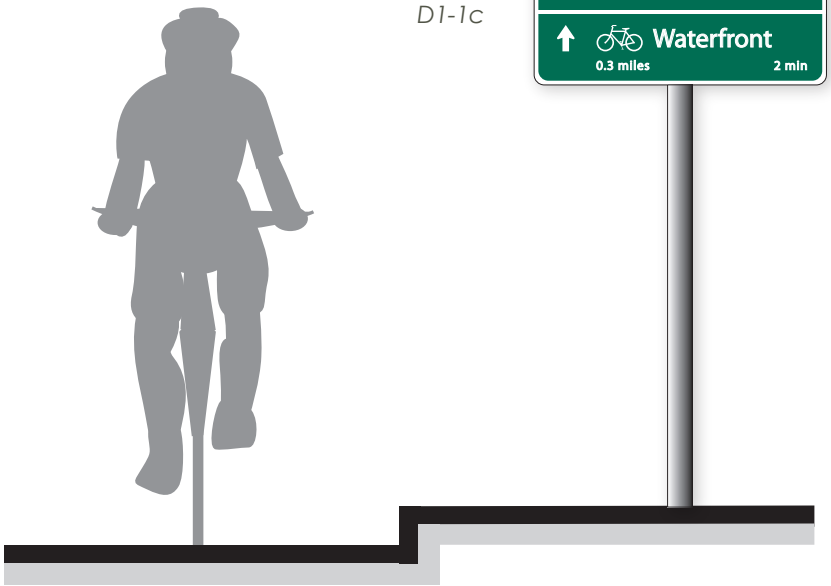
Application

- State roads
- Local roads where desired

Types

- Decision signs
- Turn signs
- Confirmation signs
- Community signs

***Decision signs** orient users within the local context and provide directions to one or more key destinations.*



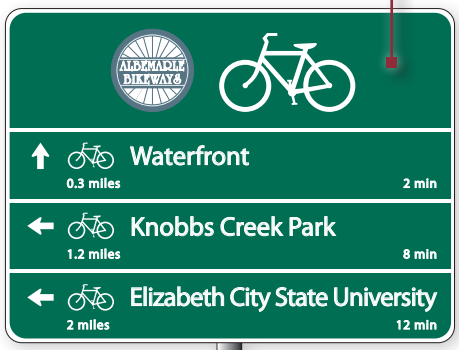
Decision Signs

Single destination sign

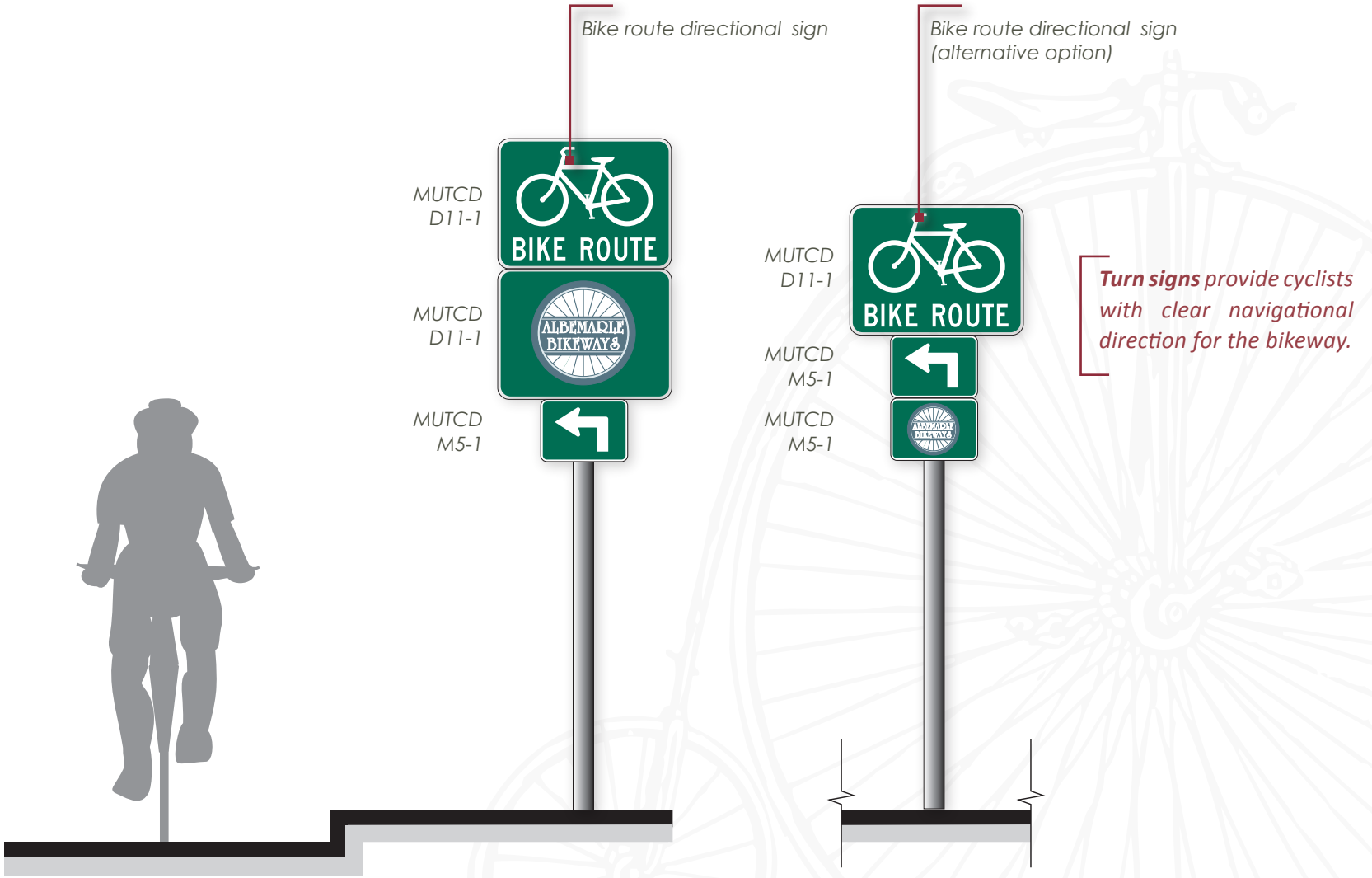
MUTCD D1-1c

Multiple destination sign

MUTCD D1-3c



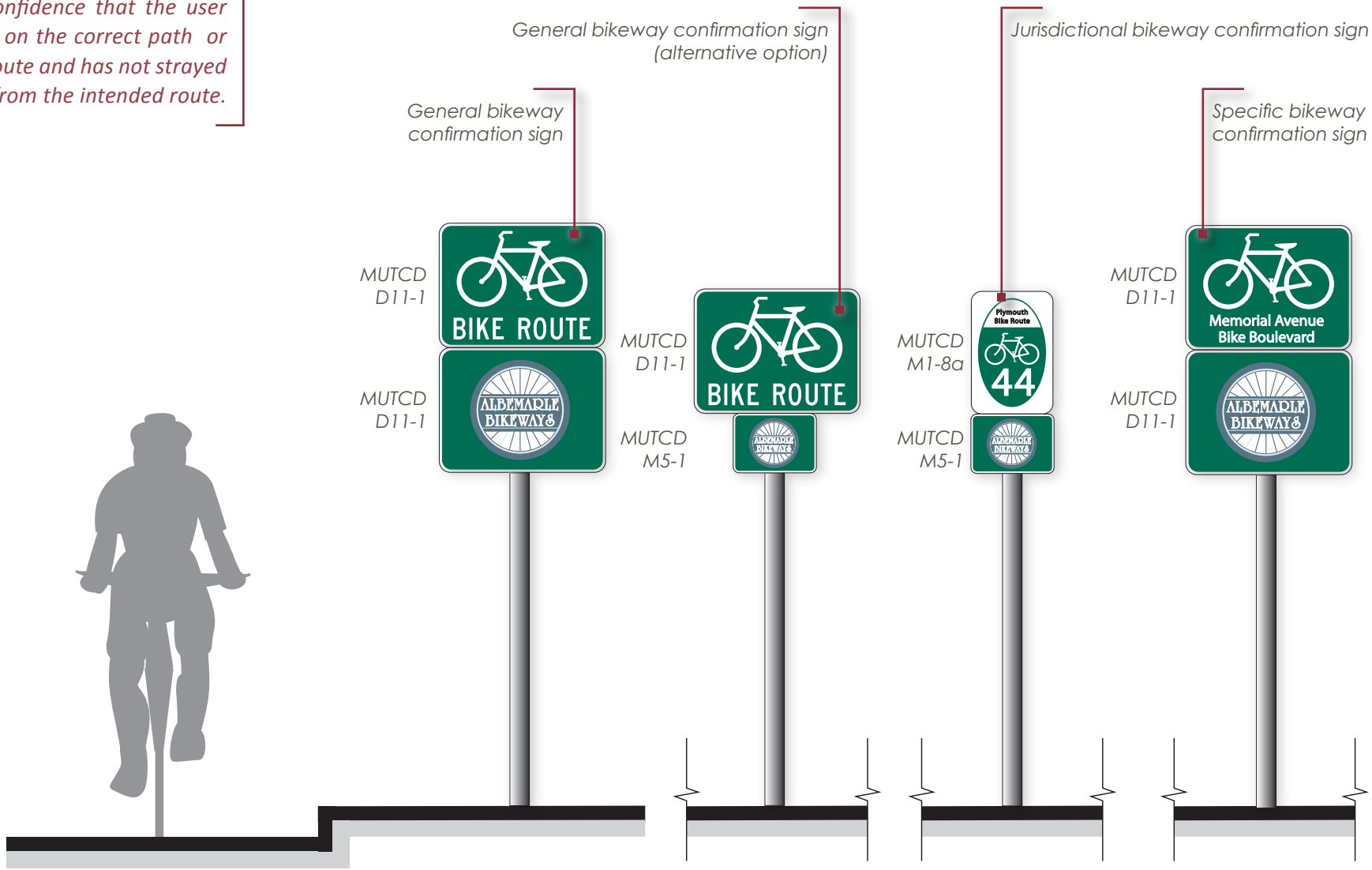
Turn Signs



***Turn signs** provide cyclists with clear navigational direction for the bikeway.*

Confirmation Signs

Confirmation signs *build confidence that the user is on the correct path or route and has not strayed from the intended route.*



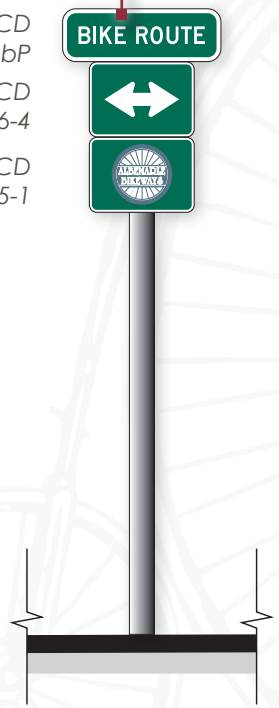
Confirmation Signs - Continued

Bikeway confirmation logo sign mounted onto existing signage

MUTCD D11-1

Community Sign

Community sign providing awareness of a bikeway crossing



MUTCD D11-1bP

MUTCD M6-4

MUTCD M5-1

Manufacturing Info

See MUTCD manual for specific dimensions, materials, colors, fonts, etc.

Community signs are placed within communities to direct intended users as well as potential new users to the trail or bikeway system.

Localized Signs

The localized sign family creates a unique personal identity for local trails and bikeways. The colors, fonts, symbology and design of each sign have been crafted to improve navigation, encourage use, and provide an identity for local communities, trails, and bikeways. Recreation, fitness, and transportation users should be considered when placing each sign type.

Application

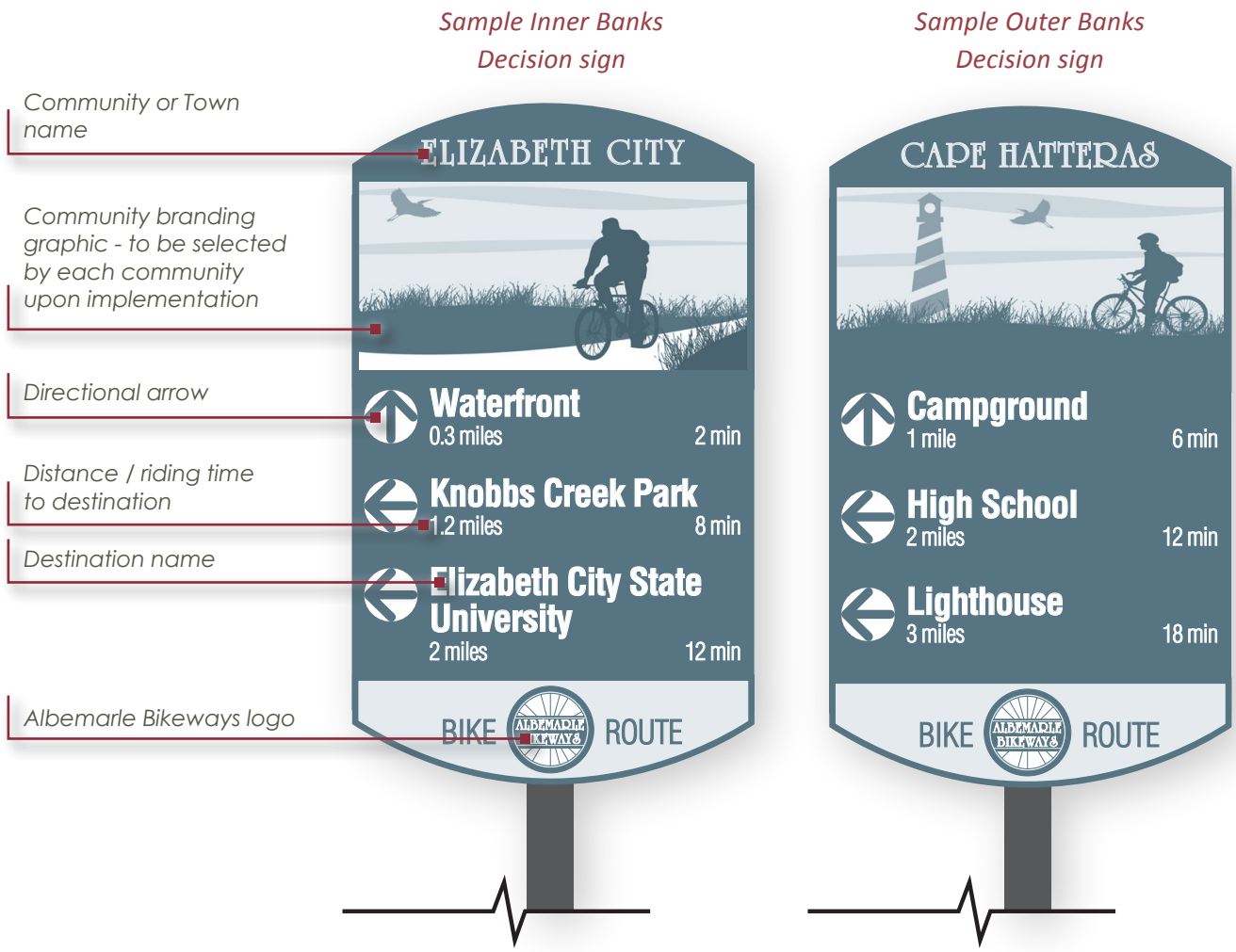
- Local roads
- Multi-use trails
- Select state roads

Types

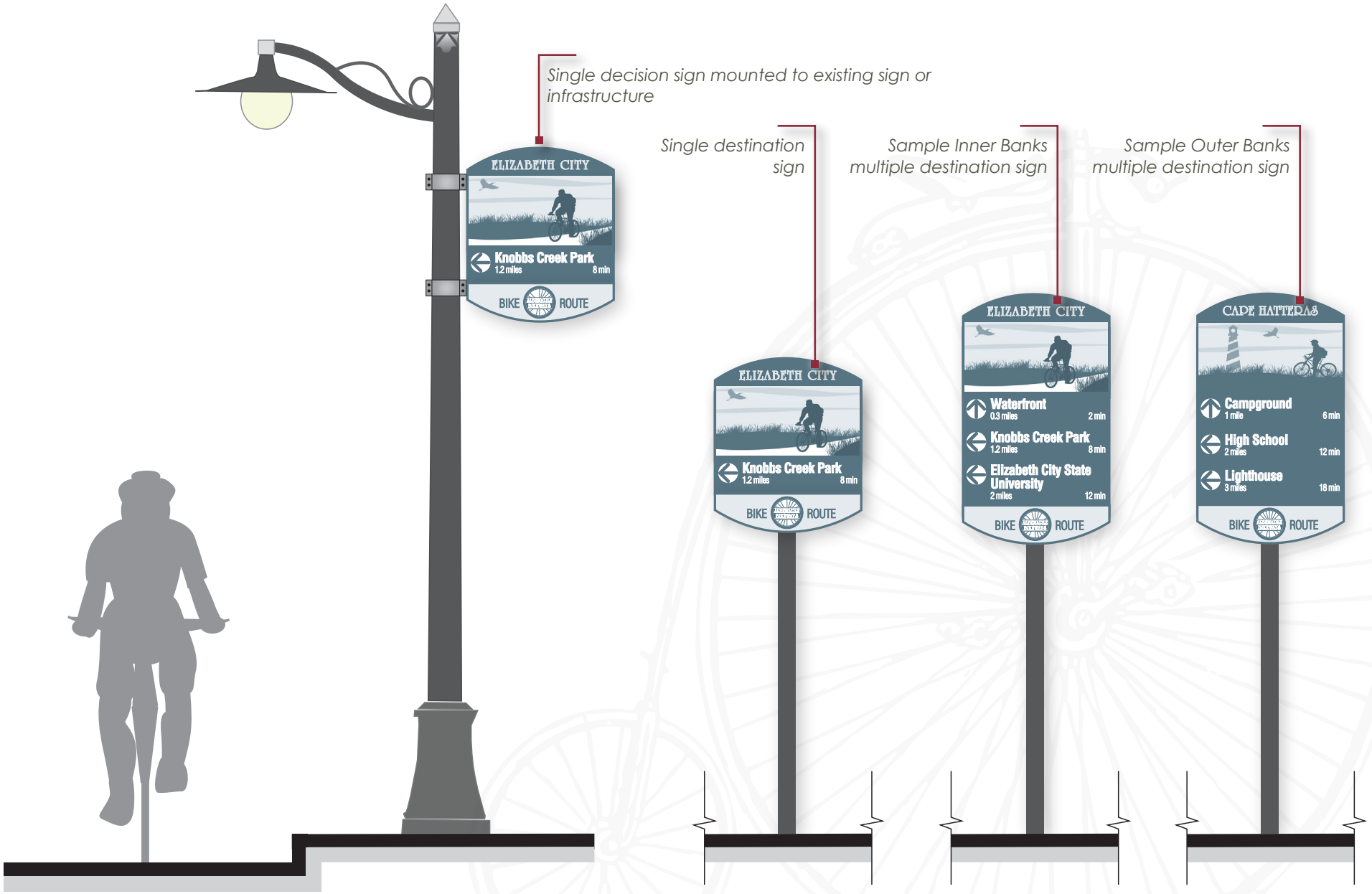
- Decision signs
- Turn signs
- Confirmation signs
- Trail signs
- Information kiosk

***Decision signs** orient users within the local context and provide directions to one or more key destinations.*

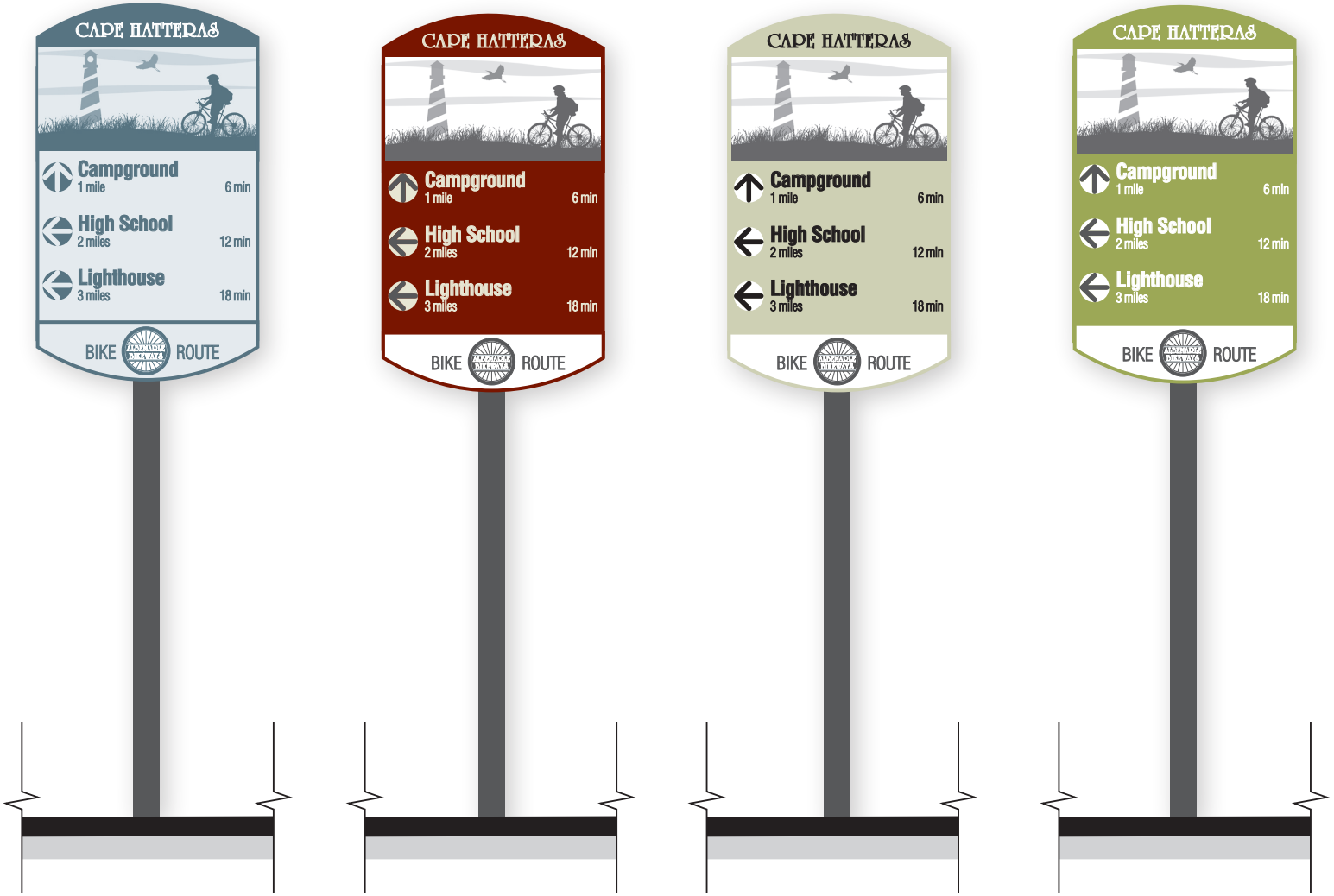
Decision Signs



Decision Signs



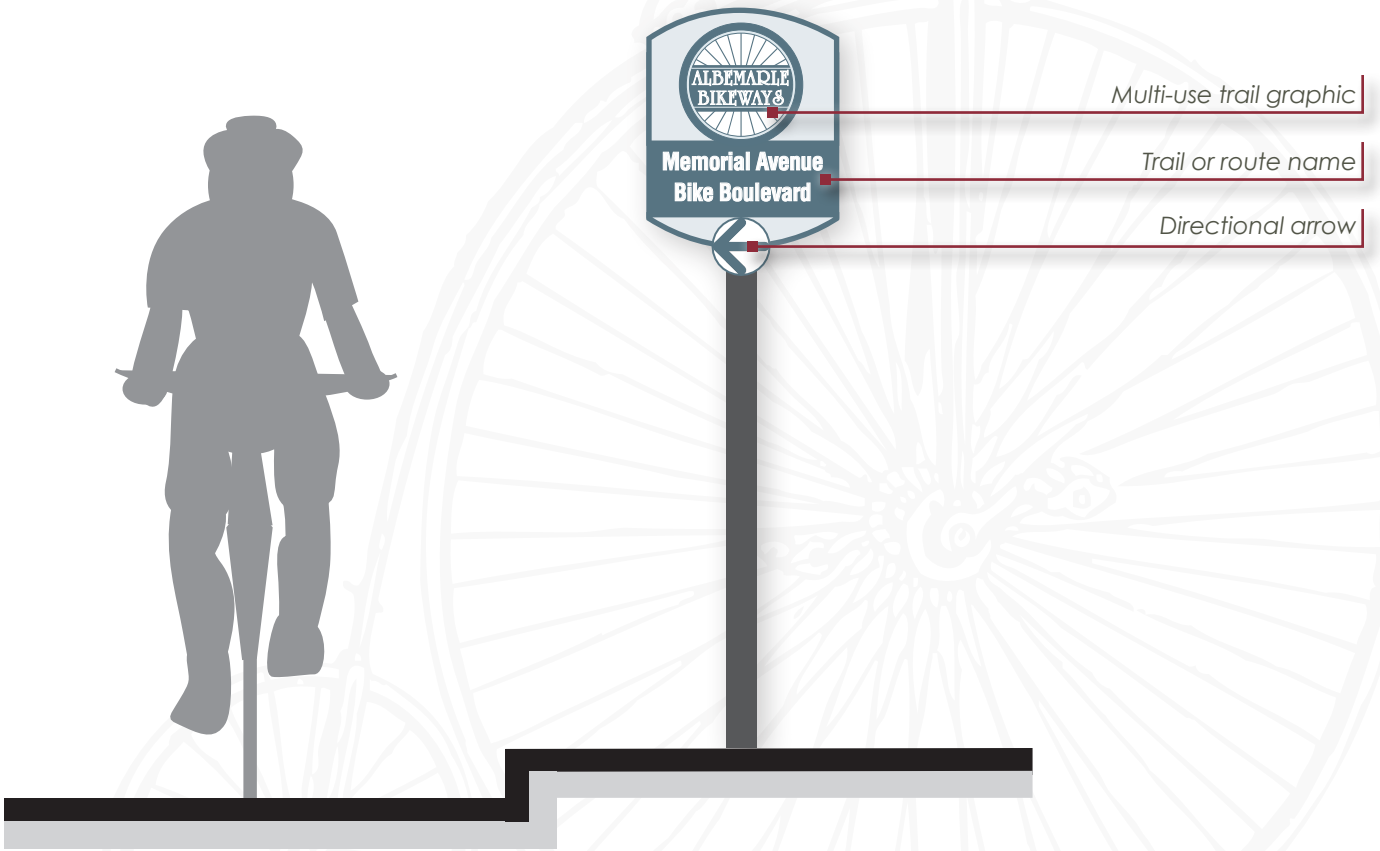
Decision Signs (Alternate Color Schemes)



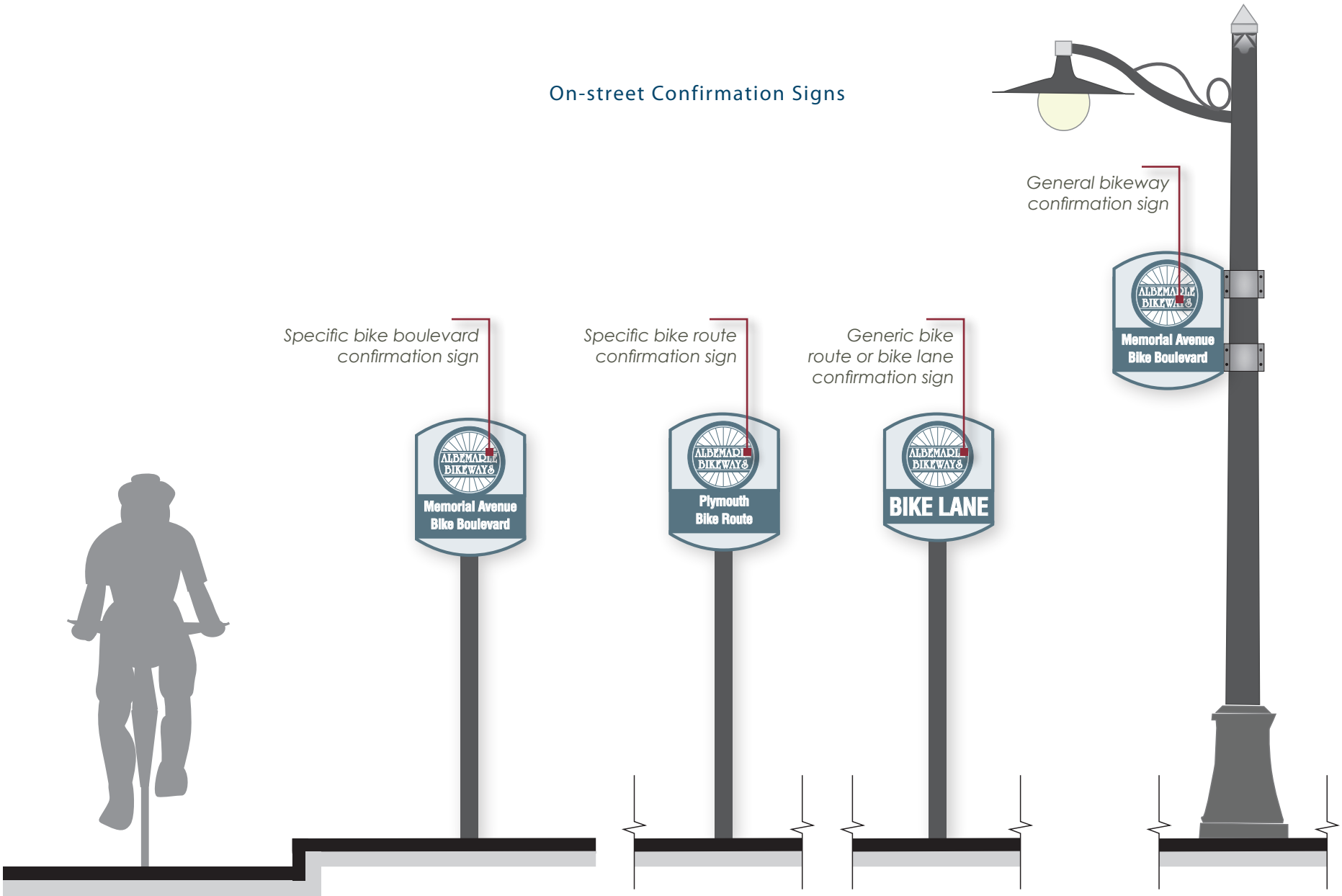
Turn Signs

All local signs have the potential for individual communities to further differentiate their communities' signage by varying the color schemes of the signage but maintaining the overall design aesthetic. Suggested alternative color schemes are presented here.

Turn signs *provide cyclists with clear navigational direction for the bikeway.*

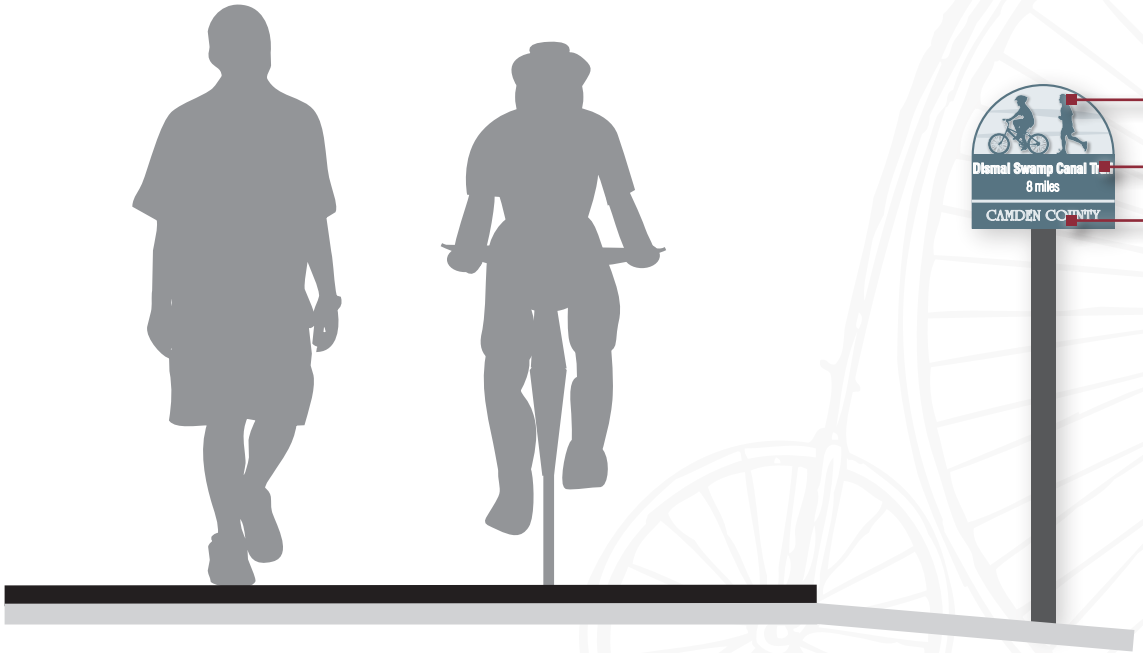


On-street Confirmation Signs



Off-Street Confirmation Sign

Confirmation signs *build confidence that the user is on the correct path or route and has not strayed from the intended route.*



Informational Kiosk

Informational Kiosks *are typically placed at trailheads or located at key points along a trail or bikeway network to serve as system-wide education tools, trip planning devices, regulatory information centers, and interpretive signage.*

Pavement Markings

The use of pavement markings is encouraged in conjunction with the wayfinding signage system. With proper placement, these markings can be a valuable supplement to a traditional signage system and provide an alternative method of navigation and identification for all modes of travel.

Application

There are many instances in which pavement markings are appropriate and have a variety of benefits. The use of pavement markings for the following purposes could greatly benefit the Albemarle Bikeways network:

- Supplement traditional confirmation and turn signage
- Reduce the volume of signs needed
- Provide wayfinding in locations where signs are hard to see (i.e. due to vegetation)
- Provide additional visual cues to motorists about the presence of cyclists on the roadway

Design

The primary types of pavement markings proposed for the bikeway system include **confirmation** and **turn pavement markings**. These two types of signage could be executed using one of the following:

- Standard MUTCD pavement markings
- Custom pavement markings incorporating the Albemarle Bikeways logo
- Combination of MUTCD pavement markings with custom graphics

Materials

There are many material choices for pavement markings that have various advantages and disadvantages. In some instances, it may make sense to use a combination of materials instead of just one material. Of the many materials choices available, the following are recommended for the Albemarle Bikeways:

- Liquid marking paints (waterborne & solventborne)
- Thermoplastic

Liquid Marking Paints

Pros:

- Easy application and cleanup
- Economical and versatile
- Low in volatile organic compounds
- Good reflectivity

Cons:

- Not as durable as other materials (wears off quickly and must be repainted with higher frequency than thermoplastic)
- Limited applications
- Best suited for single color shapes

Thermoplastics

Pros:

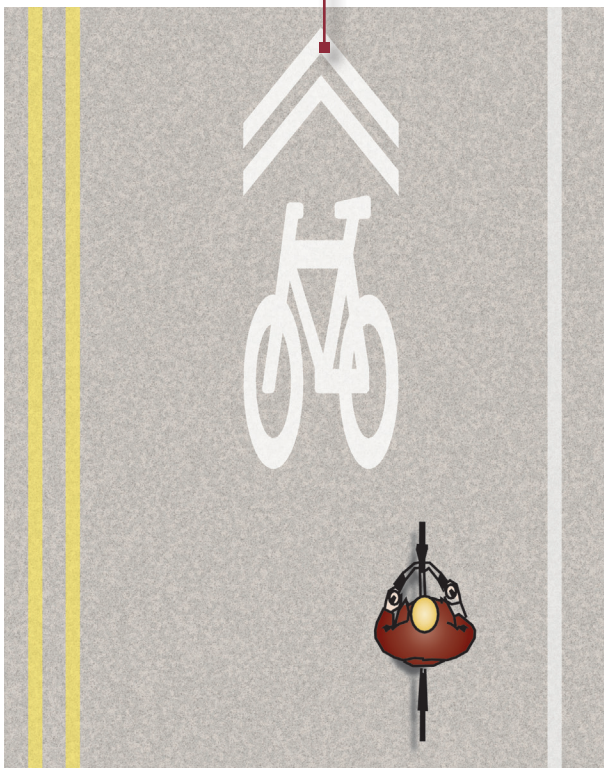
- Very durable
- Mechanically bonds to asphalt pavement
- No volatile organic compounds
- Good reflectivity
- Fast dry times
- Ability to do complex logos, and multi-colored graphics

Cons:

- More costly than paint
- Slippery when wet and a source of concern for traffic engineers with regard to vehicle accidents
- Replacement costs are expensive

Bikeway Confirmation Pavement Markings

Standard MUTCD sharrow pavement marking. Thermoplastic or paint.



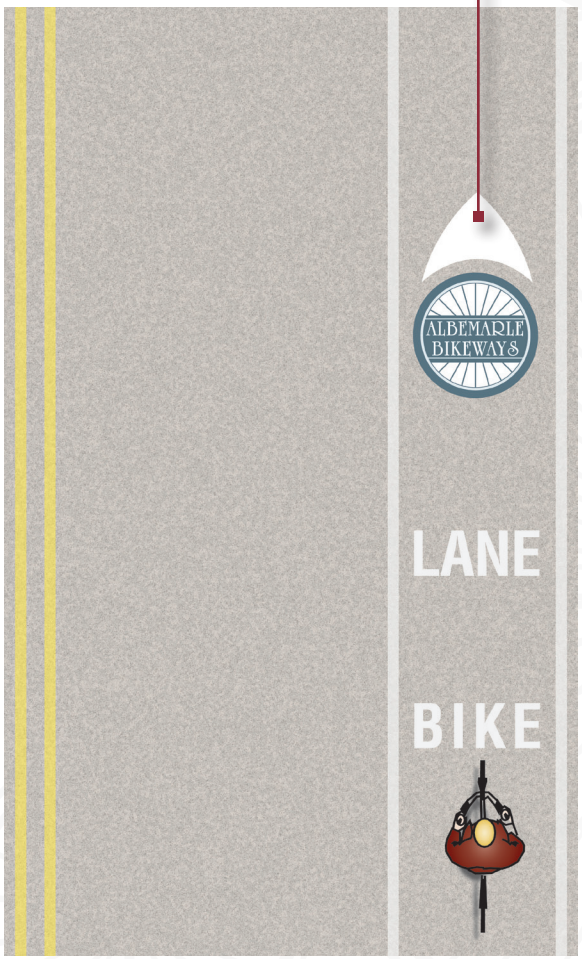
Custom Albemarle Bikeways logo with directional arrow. Thermoplastic

Custom Albemarle Bikeways logo with directional arrow and standard MUTCD bike graphic pavement marking. Thermoplastic.

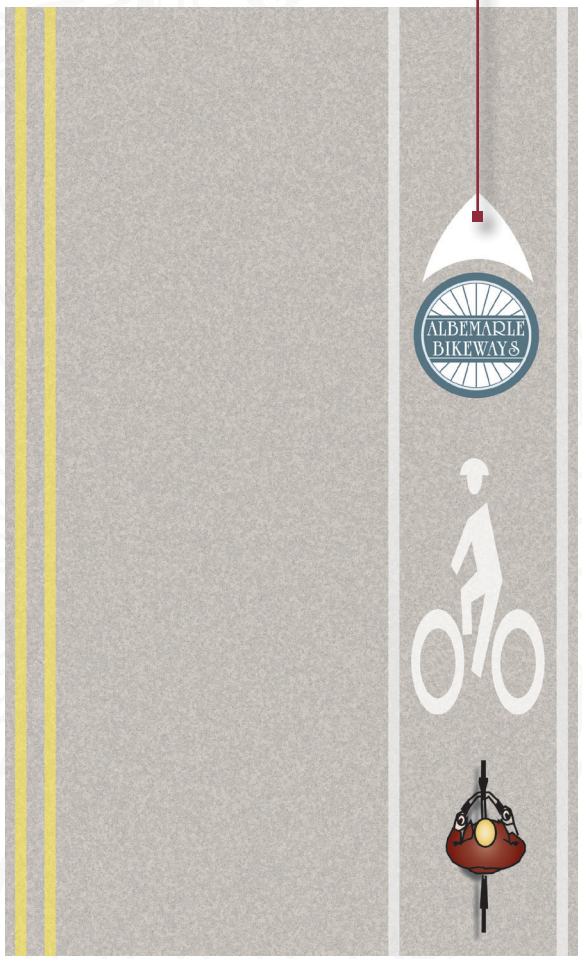
Bike Lane Confirmation Pavement Markings

Standard MUTCD bike lane pavement marking. Thermoplastic or paint.

Standard MUTCD "BIKE" "LANE" pavement marking with custom Albemarle Bikeways logo and arrow. Thermoplastic.



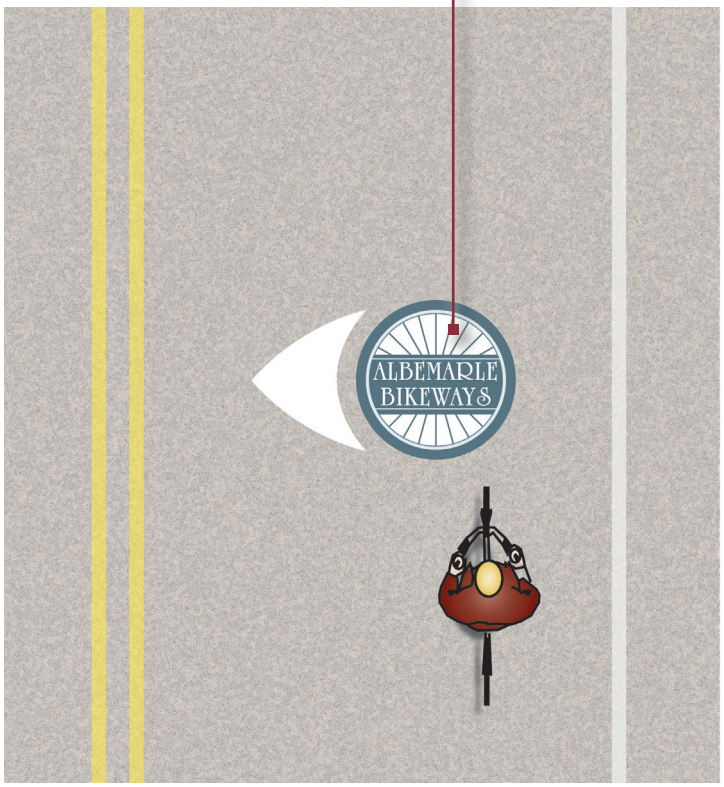
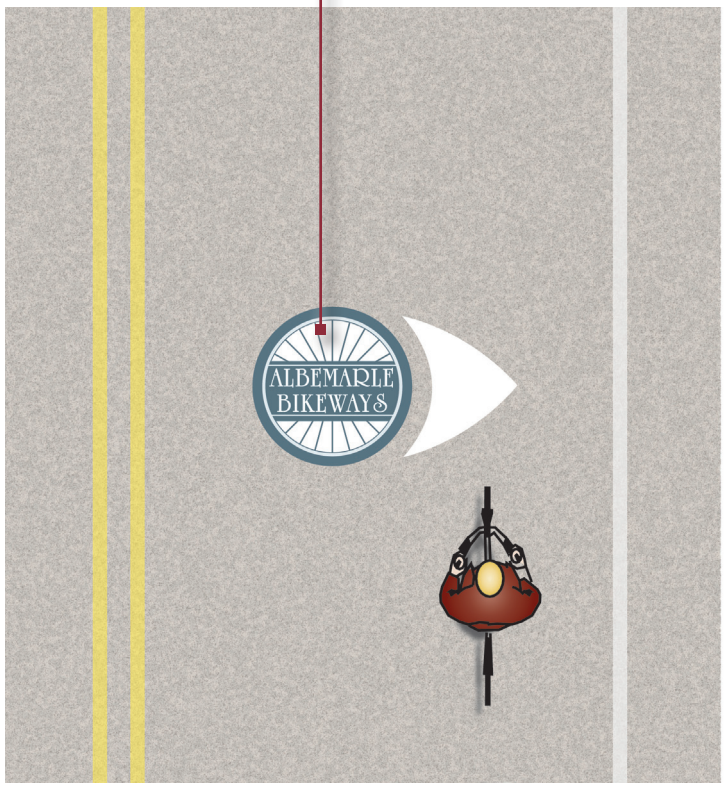
Standard MUTCD bike graphic pavement marking with custom Albemarle Bikeways logo and arrow. Thermoplastic.



Custom Turn Pavement Markings

Turn Pavement markings *used along bikeways would be placed prior to an intersection in which the route changes direction. These notify the rider of the upcoming turn and direction.*

Custom Albemarle Bikeways logo with left turn arrow. Thermoplastic.



Custom Albemarle Bikeways logo with right turn arrow. Thermoplastic.