

Wayfinding Resources for Rural Transportation

NADO Research Foundation

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Wayfinding is the practice of guiding people through and between communities using a combination of visual cues, signage, natural landmarks, and digital tools. It encompasses both physical and cognitive elements that guide travelers—whether on foot, by bike, or by vehicle—through environments that typically lack dense infrastructure or landmarks. An effective wayfinding system in rural areas helps individuals orient themselves, make informed decisions at route intersections, stay confidently on track throughout their journey, and recognize when they’ve reached their destination—ultimately fostering a sense of ease and intuitive movement across unfamiliar terrain. The main goals of wayfinding are:

- Connecting users to transit and other bikeways, enhancing network integration.
- Reducing trip-planning effort by providing clear and consistent navigational cues.
- Improving access to comfortable and safe bike facilities, making biking a more viable everyday travel option.
- Promoting bicycle tourism, supporting local economies and recreational use.

Resources and Guides

The *Manual on Uniform Traffic Control Devices for Streets and Highways* (MUTCD) defines the standards used by road managers nationwide to install and maintain traffic control devices on all streets, highways, pedestrian and bicycle facilities, and site roadways open to public travel. The 11th edition of the MUTCD was published by the Federal Highway Administration (FHWA) in 2023 under 23 CFR, Part 655, Subpart F.

- Section 2D.55 “Community Wayfinding Signs,”
https://mutcd.fhwa.dot.gov/pdfs/11th_Edition/Chapter2d.pdf
- Chapter 2H “General Information Signs,”
https://mutcd.fhwa.dot.gov/pdfs/11th_Edition/Chapter2hthu2n.pdf

Designating Scenic Bikeways: A Framework for Rural Road Owners (2019) was produced for FHWA by the Western Transportation Institute to assist land management agencies and road owners to develop bikeways to support recreation and tourism, https://www.fhwa.dot.gov/clas/pdfs/bikeway_designation_framework_fhwa_flh_19-004.pdf.

The Massachusetts Department of Transportation (MassDOT) produced the *Bike Wayfinding Design Guide* (2022) on behalf of the MassTrails initiative to support wayfinding that aids people on and en route to high-comfort bike lanes, paths, and quiet streets, <https://www.mass.gov/doc/masstrails-bike-wayfinding-design-guide/download>.

Bike Route Wayfinding: Adapted from Urban Bikeway Design Guide, Third Edition (2025), <https://nacto.org/publication/urban-bikeway-design-guide/designing-bikeways-for-all-ages-and-abilities/bike-wayfinding>.

The paper “Accessible wayfinding and navigation: a systematic mapping study” (2021) presents a systematic mapping study of scientific literature proposing devices, and software applications, <https://link.springer.com/article/10.1007/s10209-021-00843-x>.

“Six Wayfinding Design Principles” help practitioners create a clear wayfinding experience and achieve a more navigable bicycle network, <https://altago.com/wayfinding-design>.

About this Resource Sheet

This resource does not provide an exhaustive list of potential sources. Any mention of a specific company, product, service, or website in this publication does not constitute or imply an endorsement by the research team. This resource was authored by Research Engineer Rebecca Gleason from Western Transportation Institute at Montana State University and Senior Program Manager Krishna Kunapareddy and published by the National Association of Development Organizations (NADO) Research Foundation with support from the U.S. Department of Agriculture Rural Development through a contract to provide technical assistance to rural communities. USDA is an equal opportunity provider. Any opinions, findings and conclusions, or recommendations expressed in this publication are those of the authors and do not necessarily reflect the views of the funding agency.

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