Wayfinding and Signage

What is it?
Wayfinding is the process used to orient and navigate oneself through the built environment using spatial and environmental cues such as signage. Wayfinding can be described as orientation with respect to nearby places and the target destination, route decision choice to reach that destination efficiently, route monitoring that includes reassurance elements, and destination recognition to determine when the desired location has been reached.

The Federal Highway Administration’s (FHWA) Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) provides federal and state standards for wayfinding signage (design, size, lettering, and location) that are intended only to direct motorists on highways. As the MUTCD does not apply to wayfinding on local streets, many cities have installed local wayfinding signage that is designed to be unique and foster community identity. Wayfinding in urban settings can serve as a tool for marketing a city, creating a cohesive identity and advertising lesser-known attractions.

In addition to being well-designed, wayfinding signage should highlight important destinations and be functional for users of all modes of transportation. Signs should be contextual, based on the application and the primary audience. For example, pedestrian signage that is designed to be seen at close distance can have smaller type and a more elaborate font than roadway signage, which should be large and clear enough to be readable from moving vehicles. Signage can also incorporate real-time displays to help provide efficient direction (e.g., available parking at nearby garages).

For transit, wayfinding involves providing information to transit riders before a trip, during a trip, and at stations regarding how to reach a destination. Transit wayfinding can range from simple bus maps and schedules to state-of-the-art trip planners and real-time arrival systems.

What are the benefits?

- **Mobility**: Reduces vehicle miles traveled (VMT) by enabling efficient route choice.
- **Accessibility**: Improves ease of connections by providing efficient route direction and monitoring for all modes.
- **Environmental**: Reduces the emission of criteria air pollutants and greenhouse gas emissions (GHGs) that are harmful to the environment and human health by reducing VMT.
- **Quality of Life**: Enhances journey ambiance by providing distinct, cohesive signage that can enhance community character and identity.
Where is it being used?

Wayfinding and signage are keystones of successful urban districts across the world. Relevant examples in the Pacific Northwest include:

- **Pedestrian Wayfinding Signage System**, Portland, OR
- **Wayfinding Sign Project**, Forest Grove, OR
- **West Seattle Trails Wayfinding Kiosk**, Seattle, WA

How effective is it?

Truly effective wayfinding systems are a hallmark of great cities and can make a positive impact on community interaction while greatly enhancing the urban landscape and encouraging travel and exploration in unfamiliar areas. Wayfinding is also an important tool for economic development for cities by helping to attract businesses, residents, and tourists. Making the parking and walking experience pleasant and attractive increases the appeal of the location and can increase repeat visits to primary and secondary destinations by as much as 30%. These benefits more than make up for the low cost of installing these systems.

When determining route choice, developing a high-quality pedestrian environment with proper wayfinding can significantly alter a person’s walking experience and increase the utility of walking along a certain path. While signage is often seen as a secondary feature of developing pedestrian-friendly places, there is value added in terms of human scale, complexity, coherence, and sense of place.

One case study found that providing high quality navigation tools to employees resulted in a 17% shift in primary commute mode from automobile to walking, cycling, or transit. While this likely represents the higher end of travel impacts (because it was applied when the worksite location was moving), the finding speaks to the potential of wayfinding programs to have larger impacts when implemented as part of

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3. Photo courtesy of CH2M HILL.
4. In this summary, the best available data on program effectiveness is used. Whenever possible, information is provided for the referenced examples; however, that information was not always available.
comprehensive Transportation Demand Management (TDM) programs that include a variety of improved travel services, incentives, and marketing activities.\(^7\)

Signage can have safety benefits as well. Studies have shown that placing advance street name signs reduced the likelihood of sideswipe crashes by 10% at study intersections in Massachusetts, Wisconsin, and Arizona. The signs were most effective at three-legged intersections in high volume areas or where there were a large expected number of crashes. The low cost of installing more signs would achieve a 2:1 benefit-cost ratio if crashes were reduced by 0.01 per intersection-year.\(^8\)

In Williamsburg, Virginia, the Historic Triangle Wayfinding Sign System was evaluated to determine its effectiveness in providing motorists with guidance and directional information. The signs were found to have no effect on the number of crashes and to provide several benefits, including improved navigation and guidance for motorists to access tourist destinations.\(^9\)

**How much does it cost to implement?**

Program cost information was not readily available; however, wayfinding systems are expected to involve mostly modest investments in program development, installation, management, and ongoing maintenance. The program must evolve as nearby destinations change and new investments are made in a local area.

**Implementation resources**

Resources that may help jurisdictions implement wayfinding and signage systems are below:

- Manual on Uniform Traffic Control Designs, Federal Highway Administration
- Principles of Urban Wayfinding Systems, Institute of Traffic Engineers Journal
- Wayfinding Design Guidelines, Cooperative Research Centre for Construction Innovation
- Guidelines for Transit Facility Signing and Graphics, TCRP Report 12
- You Are Here: A Guide to Developing Pedestrian Wayfinding, Victoria Department of Transport
- Traveler Information Systems and Wayfinding Technologies in Transit Systems, US DOT
- Multimodal Navigation Tools, VTPI

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