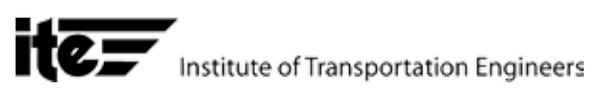


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# Pathways to Better Community Wayfinding



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# Introduction

**W**hat is wayfinding? It is the process by which we find our way from place to place, an essential part of everyday life that makes it possible for us to move about in and engage with our communities, whether we live in a huge metropolis or a small town. Wayfinding either helps or hinders our use of all forms of transportation from walking to driving to taking the bus or train. In the United States, communities are not created equal when it comes to wayfinding. We discover that fact when we get lost or “turned around” or otherwise have trouble finding our way. These differences reflect gaps in knowledge and an absence of standards and best practices to guide community decision-making, as well as existing infrastructure or facilities that may not have been designed for optimal wayfinding.

*Pathways* builds upon the work of the Centers for Disease Control and Prevention’s Healthy Aging Research Network (CDC-HAN), Easter Seals Project ACTION, the Institute for Transportation Engineers and key partners to examine wayfinding through a broad lens. We developed a conceptual framework for community wayfinding, reviewed and developed a synthesis of published research and literature on practice and policy, and prepared a compendium of practice and policy resources. These activities provided the foundation for *Pathways*. In addition, we convened an expert panel of

representatives from the fields of planning, engineering, architecture, transportation, public health and universal design to share their perceptions of wayfinding barriers, best practices and sector-specific and cross-sector recommendations. The panel came together for a “cross-fertilization” meeting to define key themes and recommendations for *Pathways*.

*Pathways* looks at what we know about wayfinding, how communities currently approach wayfinding, and what needs to be done to create better wayfinding for all people, regardless of age or ability. We believe that the community vision of wayfinding should be expanded well beyond tourism, city image and commercial goals. Indeed, good wayfinding is basic to vital and livable communities and supports public health and safety of all motorists, walkers, cyclists and transit users. A broad vision of wayfinding makes for the best possible use of community resources.

We offer *Pathways* as a catalyst for community wayfinding practice and policy improvement. Planners and policy makers can use it to assess community practices and wayfinding-relevant policies across all transportation modes. The content and recommended action steps in *Pathways* can also serve as a starting point for dialogue among citizens and professionals of differing backgrounds toward the goal of improved wayfinding for people of all ages and abilities. Together we can find the way!



**What's your  
experience with  
wayfinding?**

## Have you ever...



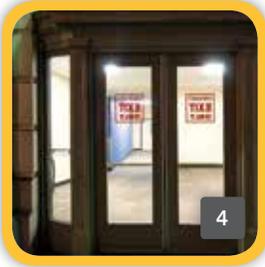
1 Asked for directions multiple times?



2 Missed your turn because of a confusing road sign?



3 Come to a halt outside a transit station not knowing which way to turn?



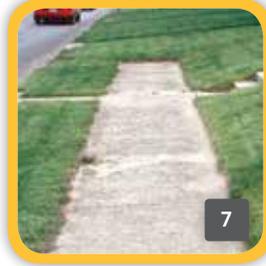
4 Walked around a building searching for the entrance?



5 Lost your car in a parking lot?



6 Had trouble figuring out where to safely cross a highway?



7 Had to turn back because of a gap in the sidewalk?



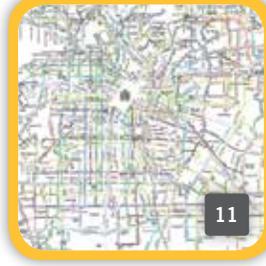
8 Been overloaded with information?



9 Been unable to reach the pedestrian push button at an intersection?



10 Had trouble seeing an important sign because it was dirty, faded or obstructed?



11 Been unable to locate yourself on a bus stop map?



# Why should we care about wayfinding?

**W**ayfinding, the process of finding our way from place to place, is something we all do daily. In our own neighborhoods, we rarely give wayfinding a second thought because we are familiar with the layout of streets and with landmarks or other cues that help us know where we are. Once we venture into less familiar territory or travel to unknown places, wayfinding requires more thought. If wayfinding is difficult, we may be less willing to explore new places whether traveling on foot or by cycling, driving or using public transit. If wayfinding is easy, we are more likely to patronize businesses, visit cultural or entertainment sites, and walk or use public transportation with confidence.<sup>1-3</sup>

Good wayfinding enhances quality of life for individuals *and* for communities, whether large cities or small towns. It affects how easily and often we travel and how engaged we are with others. Ultimately, it influences our health. Good wayfinding supports economic and commercial vitality for communities and improves public health through increased walking and cycling with reduced pedestrian and motor vehicle injuries and fatalities. Air quality benefits when drivers are efficient in wayfinding and when more people find it easy to walk, cycle or use public transit, rather than driving. All in all, ease of wayfinding is integral to more livable communities for everyone.

Impact of Good Wayfinding	
<i>Individual Impact</i>	<ul style="list-style-type: none"> <li>■ Enhances access to goods and services</li> <li>■ Makes it easier to walk, cycle and use public transportation</li> <li>■ Reduces risk of getting lost or injured</li> <li>■ Creates opportunities for community engagement</li> </ul>
<i>Community Impact</i>	<ul style="list-style-type: none"> <li>■ Fosters economic/commercial vitality</li> <li>■ Facilitates ease of walking, cycling and use of public transportation</li> <li>■ Helps prevent vehicle/pedestrian/bicycle crashes and near misses</li> <li>■ Benefits air quality through reduced dependence on automobile use and efficient traffic flow</li> <li>■ Benefits livable, identifiable neighborhoods</li> <li>■ Supports equitable use for all people</li> </ul>

But achieving ease of wayfinding in communities is easier said than done. When urban planner Kevin Lynch introduced the concept of wayfinding in 1960, he called for rebuilding increasingly complex and confusing American cities so residents and visitors alike could navigate easily and move about freely and with enjoyment.<sup>1</sup> Today's cities are even more complex than in Lynch's time, and while all of them devote resources to support wayfinding, the results are mixed. This unevenness reflects gaps in knowledge and an absence of standards and best practices to guide community decision-making, as well as problems with existing infrastructure and facilities.

Drawing upon the work of the CDC-Healthy Aging Research Network and many partnering organizations, *Pathways* looks at what we know about wayfinding, how communities currently approach wayfinding, and what needs to be done to create better wayfinding for all people, regardless of age or ability. We offer it to bring together citizens and professionals from different backgrounds, create a broader focus on wayfinding that includes public health goals, and promote best practices.



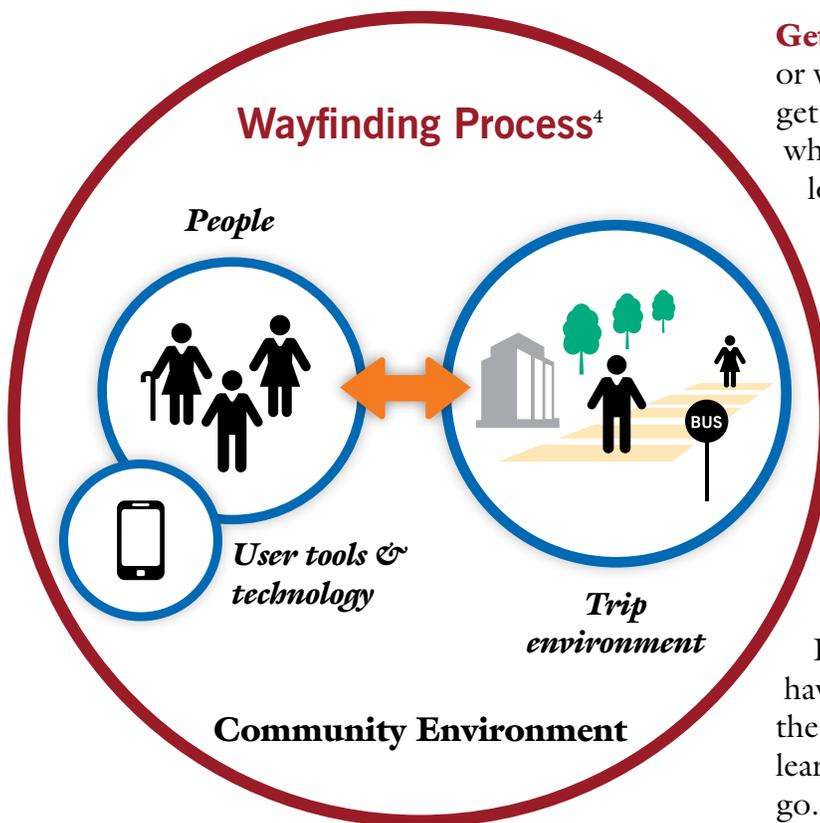
# What do we know about wayfinding?

**B**y understanding how wayfinding works, we can create better wayfinding in our communities and better tools for personal use. Think of it this way: when reading this page, we piece together words, sentences, and paragraphs to understand the message—navigating from beginning to end. In the community, we use a similar method, but the symbols are no longer words and punctuation. Instead they are environmental cues and aids such as landmarks, pathways, and signs that help to guide us, identify our location and return us to our starting point, whether our journey is short—like a quick walk or drive to the grocery store—or long—like a journey to another city by a combination of walking, flying and taking transit.

The figure on this page illustrates the process of wayfinding, showing people traveling within an overall community (city or town) environment along a specific route or path within a trip environment. The trip environment includes all the elements not only of the route, but also of the surroundings, such as businesses, people on the street, lighting and other factors. People might be walking or driving to a shopping area in the city, perhaps using a map or other tools, and finding the way by taking note of the aids and cues along the route. Any given community is made up of many routes or trip environments that are likely to vary in the quality of the wayfinding support they offer. Some of the elements that we associate with wayfinding are highlighted below.

**Getting your bearings.** In a new location or when lost, people often say, “Let me get my bearings.” Most of us like to know where we are in relationship to other key locations. In fact, many people take pride in pinpointing their location and knowing what direction to take to find key landmarks or places of interest or importance. We often use the term *mental map* to describe this image in our minds. These images vary from person to person, growing out of personal travel experience. They are almost never exactly what would appear on an official city map, but they enable us to get around nonetheless.

In a place that is new to us, we may not have general knowledge of the layout of the community, so we initially rely only on learning routes to the places we need to go. Over time we fill in the spaces to have a more complete mental map.



**Navigating.** For any given trip, we may plan a route ahead of time or choose a path as we go along, looking for signs, landmarks or other cues that help us know where we are and if we are headed in the right direction. Such cues and aids also help us make turn-by-turn decisions and find our way back. If walking or cycling, the sensory feel and experience of moving along a pathway can help us learn and remember the route. Sights, sounds, smells and the feel of the pathway all contribute to memory of the route. The entire wayfinding process is an interaction between people and features of the environment.

We may also use tools, such as maps, smartphones or vehicle navigation applications, to assist us in navigating. Technologies, such as GPS (global positioning systems) in particular, have emerged as widely available and convenient tools for reaching destinations with little if any planning. Despite this benefit, we may be less likely to commit routes to memory and develop overall knowledge of a place when we rely on these handy tools.

**Different situations, different travelers, different needs.** We are all different and our needs vary from situation to situation, travel mode to travel mode, and person to person. Situation matters. If we are upset, distracted or carrying heavy bags, we don't have access to all of our physical and mental resources for wayfinding and rely more on the environment for help. Travel mode also matters. When driving, for example, we must respond quickly to information, and a failure to do so can have deadly consequences. When walking, by contrast, we are traveling slowly but are at greater risk for fatigue if lack of clear information means we have underestimated distances.

Using transit is even more complex since it typically requires more advance planning, timing and coordination of other travel modes, such as driving or walking.

Young children, older adults and people with physical or cognitive disabilities face particular challenges in wayfinding, as may people who do not speak English or who are from a different culture. They may have trouble in situations where their needs have not been taken into consideration. Under age 12, children lack key wayfinding abilities, such as place recognition; thousands of children get lost each year.<sup>5</sup> People with losses in memory, judgment or sensory ability may have difficulty recalling landmarks, recognizing locations and seeing or comprehending signs in time to react and avoid hazards along roadways and pathways. People with visual impairments rely on their hearing, smell and touch, as well as aids, to avoid obstacles and negotiate a route, including street crossings. Pedestrians using walkers or wheelchairs may have a harder time seeing signs or other information intended for

the average-size standing adult. Some older adults must devote more mental resources to the processes of moving, reducing resources available for wayfinding and making it more challenging. U.S. communities typically make little provision for people who may not read or speak English.



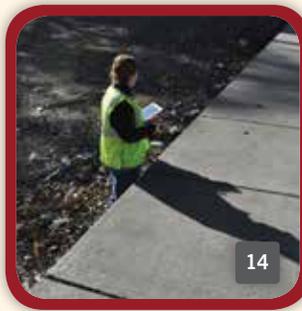
## Wayfinding and Accessibility

Good accessibility and ease of wayfinding go hand in hand. Essential are uninterrupted, well-maintained, obstacle-free walkways; curb ramps and safe crossings that can accommodate slower walkers and people with low vision; handrails and barriers when needed for safety; and easy access to/from transit. The good news is that most of the accommodations that we associate with special groups are used by all of us at some point during our day, our week or over time. By paying attention to the needs of people who may be vulnerable, we help everyone during the times when we especially need a well-designed environment.



13

Blind pedestrian crossing outside of crosswalk



14

Location where railing is needed



15

Goat path both unsafe and inaccessible



16

Well-designed crosswalk with pedestrian signals and curb ramps with tactile aids



17

Easy access to train for man in wheelchair; also easy for people with bicycles, bags or baby strollers



18

Median island providing safe and accessible refuge for all

Safe and supportive communities with good wayfinding can help ensure that *all of us* can participate fully in community

life. In the next sections, read more about what features and practices make for ease of wayfinding.

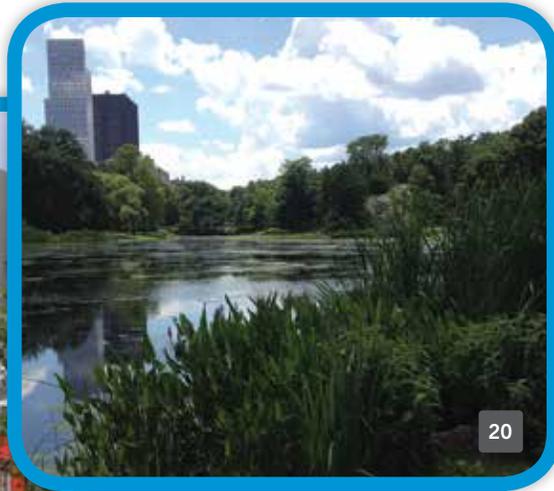


# What does the community say?

## Our cities and towns don't talk, but they do communicate with us.

**Remember me.** Some places are very easy to remember, whether through Mother Nature's kindness or the human touch. In Denver, you are never far from a view of the mountains, while other places offer waterways or other distant vistas that help us orient ourselves. Toronto's CN Tower and St. Louis' Gateway Arch mark downtown no matter where you are in the city. In other places, parks and overall lively design help us form our mental maps and make wayfinding easier.

**Landmarks** are objects that stand out, for example, distinctive buildings, monuments, fountains or distant mountains, which help us orient ourselves or serve as a marker (or bread crumb) for finding our way. Studies suggest that landmarks are the **most important element in wayfinding** for a majority of people.



**Follow me.** Several community features suggest where to go. Paths (streets, sidewalks, trails and other travel channels) ideally lead us where we need to go, for example, to the proper place to cross the street or to a building's entrance. Features also direct us, such as use of color, plantings and tactile surfaces, the

relationship of buildings to one another and to paths and streets. Still other features may tell us where not to go or let us know that we have reached a boundary, for example, a shoreline or a neighborhood flag that lets us know we have arrived at a different district or section of town. Signage also plays a role here.

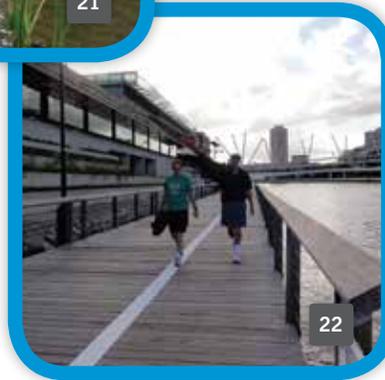
**Read me.** Some communities are laid out in a consistent pattern with very logical street naming and numbering. Chicago, for example, has streets that are numbered to provide information about direction and distance from a specific reference point, making it easier to tell exactly how



to find a location of interest. Lynch called this *legibility*, a characteristic that makes it easier for people to form a mental map of the community. Other factors contribute to legibility, such as the accessibility and quality of information. Today the Legible Cities movement is structured around this key concept.

**Ask me.** City governments and transportation authorities install a variety of information resources to provide assistance to users. Resources include information kiosks, directional signs, panel maps and manned booths to provide wayfinding information. Typically, such information is placed near intersections or in public spaces and very often where we must make route decisions.

**Have confidence in me.** Places that are memorable, legible, have clear pathways and boundaries, and provide good information inspire our confidence as travelers. In such communities, we are more likely to be walking, exploring and taking full advantage of all they have to offer.



**Interact with me.** Well-designed wayfinding is inviting and engaging. We are invited to stay, play, walk and interact with our environment.





# What are best practices in wayfinding?

**W**ayfinding best practices include good community and transportation design and development, integrated wayfinding systems, and sound management and maintenance. We'll highlight each of these below.

**Design planning and development.**

Ideally, architects, landscape architects, planners and developers include ease of wayfinding as a key component of designing and building commercial, residential and mixed-use developments, as well as public spaces, schools and retirement communities. The best design complements the natural features of the local landscape. The elements are designed on a human scale and support comfort and safety.

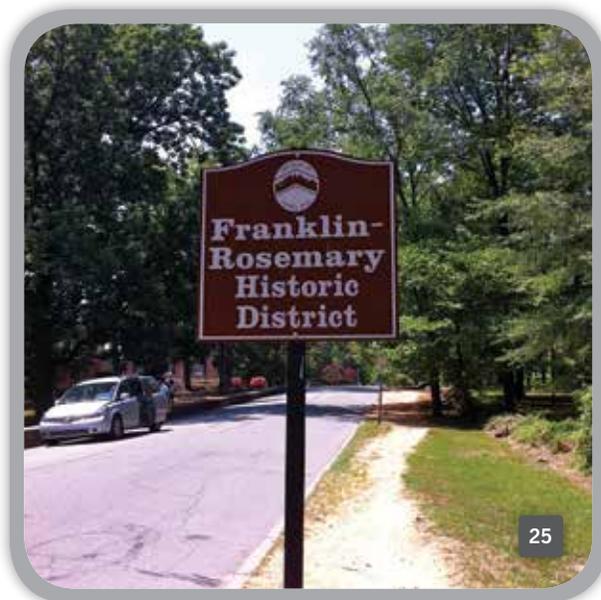
Some design features that aid wayfinding:

- Distinctive, memorable buildings and spaces
- Clear, unobstructed sight lines so that you can see what is ahead of you
- Simple spatial layout of spaces and buildings
- Defined walkways from parking lots to clearly marked entrances
- Color and tactile treatments for walkways that signal transitions
- Good lighting at different levels for walkers and motorists
- Identifiable neighborhoods, for example, with flags or lamppost banners

**It's not just about the sign!**

People often equate wayfinding with signs, but there is much more to wayfinding! Good design reduces the need for signs, while signs can only do so much to improve poor design. Sign clutter adds to mental clutter!

Ease of wayfinding is also a critical element for engineers and planners when shaping the street network and in integrating the needs of drivers, pedestrians, cyclists and transit users. The principles of the smart growth ([www.smartgrowth.org](http://www.smartgrowth.org)) and complete streets ([www.smartgrowthamerica.org/complete-streets](http://www.smartgrowthamerica.org/complete-streets)) movements are relevant to the design of environments that support wayfinding. A complete street is one that accommodates vehicles, pedestrians (including those who use wheelchairs or require other assistance), cyclists, transit users and those who live or work along the way. As of August 2013, 500 U.S. communities had adopted complete streets policies. The policy and practice change that is integral to smart growth and complete streets is fertile ground for wayfinding improvement as well.



Here are some transportation design strategies that aid wayfinding:

- **Design for *all* users** rather than just the “average” user. Does the design accommodate parents with strollers, wheelchair users, and people with low vision or health problems, among others? Universal design principles are a good guide to achieve this goal. And remember that it is crucial to involve users very early in the planning process.
- **Door to destination** and back again: design for the whole journey. Is the overall design seamless so that travelers can easily transition from their homes to walkways to transit and/or personal vehicles?
  - Ensure continuity of walkways and cycling paths.
  - Create easy connections from walkways to cycling to transit to driving to ferries.



- Apply **context sensitive solutions** to achieve balance among various needs at different locations. See *Designing Walkable Urban Thoroughfares: A Context Sensitive Approach*, ITE, 2011, ([www.ite.org/css/](http://www.ite.org/css/)). Rather than a one size fits all approach to planning roadways and walkways, consider location-related factors, such as density, roadway type and types of activities. Context not only varies from rural to urban, but also varies from neighborhood to neighborhood and site to site within any community.
- Design the **best (safest) possible crossing facilities** for your particular location. Poorly designed, inaccessible and unsafe crossings are significant wayfinding barriers and the underlying cause of many injuries and deaths. Audible beeps at crossings are very helpful for people who have vision impairments. In some places, pedestrian control boxes are equipped with a vibration device or spinning cone as a tactile alternative to let users know when to cross. Timing of signals is also of critical importance, especially for pedestrians with mobility limitations or who walk at a slower pace than the average person.
- Address wayfinding in all **transportation infrastructure planning**. Don't let wayfinding be an afterthought!

**Wayfinding Systems.** A wayfinding system is a unified series of related informational, advisory and directional aids to help travelers move about successfully, safely and with confidence. The system should help us answer basic questions:

- Where am I?
- How do I get where I want to go?  
What is the quickest route? Safest?  
Most attractive?
- How long will it take or how far is it?
- Where can I find amenities I may need or want, such as restrooms, places to rest, shopping, places of interest?
- Where can I cross the street and do so safely?
- Where can I connect to other forms of transport, for example, trains, buses or ferries?
- Where can I get help or additional information?

Wayfinding systems in the U.S. tend to emphasize road wayfinding for drivers, with less attention to helping pedestrians and cyclists. Transit facilities often have their own wayfinding systems that are totally unrelated to the larger community system. The best systems take a **unified approach to user needs across all modes of travel**, while recognizing the individual demands of the different modes. The table shows the basic elements of wayfinding systems.

Elements		Types	Locations
<p><i>Gateways &amp; identity</i></p>		<p>Welcome and goodbye signs, flags or related markers</p>	<p>Entrances and exits; on posts or buildings at regular intervals within a given district</p>
<p><i>Street signs</i></p>		<p>Street names in text on posts, overhead or on buildings; advance street name signs (signs posted in advance of an intersection) may also be used</p>	<p>Sidewalk buffer zone; over roadway or on buildings at each intersection or decision point; Advance street name signs placed prior to intersection for motorists</p>
<p><i>Directional signs</i></p>		<p>Signs with names of destinations and arrows pointing the direction of each</p>	<p>Near major decision points such as intersections or transportation hubs.</p>
<p><i>En route signs</i></p>		<p>Typically narrow posts with signs pointing in selected directions (often called finger posts)</p>	<p>Usually in between other more detailed information sources</p>
<p><i>Information panels</i></p>		<p>Fixed or interactive maps and other information on panels. Can be combined with directional signs.</p>	<p>In high pedestrian traffic areas and near transportation hubs</p> <p style="text-align: right;"><i>Continues.</i></p>

Elements		Types	Locations
<p><i>Complementary information</i></p>		<p>Online or on-demand information (via audio, Braille or QR [Quick Response] barcodes to be scanned); print information, such as pocket maps. Complements and is coordinated with other information types</p>	<p>Various locations—information or transit centers; information panels; via computer or smartphone</p>
<p><i>Trail markers</i></p>		<p>Pedestrian and/or bicycle oriented</p>	<p>At pedestrian, bicycle or multi-use trails</p>
<p><i>Advisories</i></p>		<p>Permanent pedestrian crossing warnings; speed limit; railroad crossings; temporary warnings</p>	<p>At intersections and crossings, potentially hazardous locations</p>
<p><i>Lighting</i></p>		<p>Roadway or pedestrian oriented; ambient; information related</p>	<p>Along roadways and paths, spotlighting landmarks and information kiosks</p>
<p><i>Intermodal transit information</i></p>		<p>Integrated across modes of travel and in real time</p>	<p>At transit stations/stops and via smartphone and related devices</p>

### *Here are some best practices for wayfinding systems:*

- **Keep it in the family.** Cities, towns and neighborhoods want to have an identity or recognizable brand. The best systems advance city image while also keeping signage, informational, directional and advisory aids related to one another and part of an overall design concept across roadway, walkway and transit applications.
- **Location, location, location.** We want information near places where we have to make decisions, for example, close to intersections and at the exit from the subway or bus station. We depend on information being consistently located. It can be very confusing, for example, if street names are sometimes on buildings, sometimes overhead and sometimes on signposts. Accessible information locations are also important, especially for pedestrians. A map might be terrific, but if it is too high up to read from a wheelchair, then it is ineffective.
- **Repeat, repeat, repeat.** Once is not enough! Information needs to be repeated at decision points. People look for confirmation that they are headed in the right direction. It is also helpful to have information provided in more than one format, for example, pairing text with icons.
- **A picture is worth a thousand words.** Two types of “pictures” are especially effective in pedestrian and bicycle wayfinding: maps and images of landmarks. The best maps include:
  - **Heads-up mapping.** In this type of map, the top of the map is the direction ahead of the person viewing the map, as opposed to always facing north. This type of map is easy to understand and does not require mental gymnastics.
  - **You are here icons.** A big star or other prominent symbol to show the viewer where s/he is on the map is always helpful.
  - **Walking time contours.** Circling areas within a 5- and 15-minute walk provides valuable information to pedestrians and encourages walking. Walking routes with safe crossings might also be marked. Time estimates may also be included in cycling maps.
  - **Key destinations and facilities,** including restrooms, places to rest, transit stops, information centers, and images of key landmarks.

### **Maps are for motorists, too!**

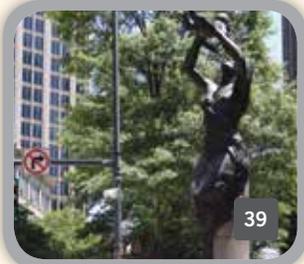
Recent research indicates that motorists benefit from directional signs with simplified maps included. This helps them quickly form a mental image of the area in which they are traveling.



*Used with permission of MD Skiles. Skiles MD, Howarth JT. From signs to minds: Spatial information design and mental maps. Cartographic Journal. 2012, 49(4):312-325.*

## Anatomy of a city wayfinding system

**Charlotte, North Carolina.** Historically, the city of Charlotte has been well known not only for tree-lined boulevards, but also for automobile dominance. In recent years, Charlotte has worked to become a much more pedestrian and bicycle friendly city, adding resources for wayfinding among many other improvements.



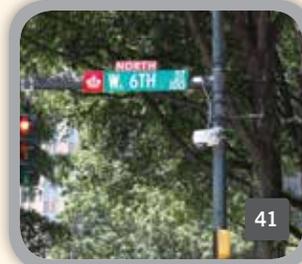
39

Landmark where districts intersect



40

Directional sign with district identified



41

Street sign with color coding and district (named in red)



42

Directional sign with information panel including map and key destinations and QR code



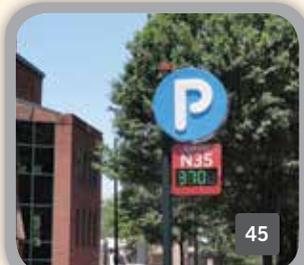
43

“Heads-up” map with “you are here” icon, walking contour, icons for transit, parking and destinations



44

Attached panel with local history; another panel with events (not shown)



45

Real-time parking information at site and online for planning ahead



46

Pedestrian countdown signal with generous crossing time



47

Places to rest at transit stop and also along walkway

- **QR (Quick Response) barcodes.** Scanning these codes via smartphone allows viewers to see and download additional information.
- **International symbol of accessibility.** This standard image is understood by all users as the way to signify an inclusive design feature such as a route, entrance or restroom.
- **Let the light shine.** The best signs and information panels or kiosks will be of little value if they cannot be seen after dark.
- **Complement** on-street aids with online and print and/or audio resources, including trip planners and real time transit information.
- **Spread the word!** Highlight the best your city has to offer by identifying points of interest, such as historic sites and museums and adding interpretive and artistic elements. Recreational facilities might also be highlighted to encourage physical activity. These add to the enjoyment of visitors and residents alike.



**Management and maintenance.** If resources are to be used efficiently and public trust maintained, an effective system of asset management is crucial. Easy, economical maintenance of signage investments requires high-quality, graffiti-resistant, durable materials. Attention to routine cleaning and maintenance is needed, for example, keeping shrubbery trimmed away from signs. Also necessary are system inventories and speedy repairs or replacements. Replacement is aided by maintaining a supply of substitute products that can readily be put into circulation, as well as by planning for long-term maintenance funding. Print materials and online resources and systems also need monitoring and prompt updating. In all cases, citizens can play an important role in alerting public works to problems via websites or hotlines.



**What are  
communities  
doing right  
now?**

**T**he good news is that most of our towns and cities, whether large or small, already invest resources in wayfinding. The not-so-good news is that most places see wayfinding from a somewhat narrow perspective. Most use wayfinding to promote tourism and commerce through various signs directing visitors toward popular destinations and facilitating traffic flow to those destinations. Most communities are also interested in branding, the creation of a distinct overall identity as well as neighborhood identities that can be emphasized by some wayfinding resources. Only recently have towns and cities begun to think about the potential for wayfinding cues and aids to meet other important goals such as promoting walking, cycling and use of public transit, and helping keep traffic-related air pollution to a minimum.

Clearly, drivers, pedestrians, bicyclists and transit riders all need safe facilities and information to help them get from point A to point B. Historically, however,

The *Manual on Uniform Traffic Control Devices for Streets and Highways* (MUTCD) provides explicit guidelines for conventional roadway signage including height of letters, background color, placement, allowable content and other features. The MUTCD prescribes pathway and intersection design to ensure accessibility and aid wayfinding of blind and visually impaired individuals. The MUTCD also addresses wayfinding signage for cyclists, but does not define other areas that might be wayfinding relevant (e.g., directional design of bike lanes). Wayfinding resources for cyclists are inconsistently developed. [mutcd.fhwa.dot.gov/](http://mutcd.fhwa.dot.gov/)

communities have directed wayfinding resources primarily toward drivers, following the driver-oriented guidelines of the Manual for Uniform Traffic Control Devices (MUTCD). Aside from the MUTCD, few wayfinding standards and best practices are available, contributing to a wide variation in community practices and frequently a lack of focus on the wayfinding needs of pedestrians, cyclists and road users who may be more vulnerable, such as older drivers.

The quality of wayfinding resources typically declines the further you go from downtowns or central business districts. In addition, there is frequently poor interface between public and private spaces. For example, college campuses or older adult residential communities may have great internal wayfinding systems but be poorly connected to the larger community, creating access barriers to students and residents.

Overlapping wayfinding systems are haphazard and uncoordinated, resulting in too little information in some places and too much information in

others, and they are likely to promote confusion among residents and visitors alike. When communities have uncoordinated wayfinding systems in their districts or neighborhoods or in transit, the costs for signage and maintenance also increase. The lack of citywide and regional coordination also makes it more challenging for people to find their way on trips that take them outside their neighborhoods or to a different city.





# What are promising new directions?

Across the world and in the U.S., we are seeing exciting new approaches to wayfinding. With livability and walkability now broadly endorsed as goals, mayors and city councils increasingly recognize the need to create communities designed for people, not just cars. Key movements, like smart growth, complete streets and sustainable communities ([www.sustainablecommunities.gov](http://www.sustainablecommunities.gov)), are highly compatible with the precepts of good wayfinding; sidewalks, crosswalks and well-planned street networks are integral to wayfinding. Adoption of complete streets policies should go hand in hand with implementing a wayfinding system to ensure that people of all ages and abilities have safe places to walk and bike and the confidence to find their destination.

Initiatives like Legible Cities point to new directions for the future planning and



implementation of wayfinding systems.

**Legible London** ([www.tfl.gov.uk/microsites/legible-london/](http://www.tfl.gov.uk/microsites/legible-london/)) in particular has made great strides to transform London from a confusing and intimidating city for pedestrians to an inviting, walk-friendly city. Legible London has an explicit

## Other U.S. Wayfinding Highlights



### Wayfinding for Tourism

**Grand Rapids, MI**, implemented a wayfinding system to help the city's increasing number of visitors navigate the confusing street network. The system divided the city into four districts and used color-coding and symbols featuring popular landmarks to brand the districts. Pedestrian maps provided information on popular destinations within a 5-minute walking radius of the visitor's current location. The system also helps drivers by using the city seal and symbols to point to the districts and specific destinations and parking areas within each district.

For additional information, visit [www.corbindesign.com/case-studies/civic-wayfinding/gov-grand-rapids.html](http://www.corbindesign.com/case-studies/civic-wayfinding/gov-grand-rapids.html)

public health agenda to increase walking for health as well as to foster economic and environmental benefits. The Legible London study<sup>6</sup>, conducted in 2006 by the Applied Information Group and the Central London Partnership, looked at how residents and visitors found their way about the city and what might be done to encourage people to walk more through better, more consistent information. Working with local governments and citizens, Legible London uncovered significant barriers to walking, including the presence of 32 distinct, unrelated wayfinding systems within the city. The study also found that people lacked information to make decisions about walking vs. transit; 55% of trips made by Tube (subways) would have been quicker to walk.

With the goal of helping pedestrians readily create a mental map, the city developed and implemented a comprehensive plan, applying key design principles such as “don’t make me think” (providing information that is clear and intuitive, keeping the effort required to understand



## Wayfinding Across Transportation Modes

**Philadelphia, PA**, coordinated signage systems for walking, driving and taking transit into a comprehensive, multi-modal wayfinding system. The Center City Business Improvement District runs the system, tracking the conditions of the signs and maintenance needs using an asset management database. A maintenance fund was created from the beginning and relies solely on contributions from businesses highlighted on the signs and other private sources to fund the long-term maintenance needs.

Walk!Philadelphia, the pedestrian system, was called the “largest comprehensive system of wayfinding signs in the U.S.” by the Walk Friendly Communities Program.<sup>9</sup> The pedestrian wayfinding system includes directional signs at corners and heads-up maps.

For a presentation by David Kanthor, Manager of Transportation and Public Spaces, visit [www.dvrpc.org/Transportation/BicyclePedestrian/Summit/14.Walk%20Philadelphia%20and%20Wayfinding%20in%20Center%20City%20-%20Kanthor.pdf](http://www.dvrpc.org/Transportation/BicyclePedestrian/Summit/14.Walk%20Philadelphia%20and%20Wayfinding%20in%20Center%20City%20-%20Kanthor.pdf)

to a minimum), progressive disclosure (providing information in a step-wise fashion), and consistency in placement of aids and naming conventions. The wayfinding system is integrated to promote seamless journeys across all modes of travel and is updated systematically through a central information source addressing status and changes in maps, signs and websites and other public information.

Evaluation of the new London wayfinding system showed that people have indeed changed their transportation habits and increased their walking while enjoying time savings in their trips. Overall, this wayfinding system shows promise for a positive cost benefit ratio through results such as reduced transit congestion and improved efficiency of the pedestrian experience.<sup>7</sup>

**New York City** has launched an integrated map-based wayfinding system similar to London's. "We have a great system of signage for cars, but we don't have a good system of signage for people," Jeanette Sadik-Khan, NYC's Transportation Commissioner has said.<sup>8</sup> This work complements the city's extensive work in recent years to improve pedestrian and bicycle safety and enjoyment.

Wayfinding that includes a specific health focus is catching on in the U.S. **Nashville, TN** started NashVitality ([www.nashvitality.org](http://www.nashvitality.org)) as part of the CDC's Communities Putting Prevention to Work program. To promote physical activity, the Departments of Health and Public Works collaborated on the Metro Nashville Wayfinding and Traffic Guidance Project that was already in progress. NashVitality identified "high-risk"

## Other U.S. Wayfinding Highlights: *Work in progress*

**Alexandria, VA**, is installing a wayfinding system based on their Wayfinding Design Guidelines Manual developed in 2010. The system will "project a consistent image for the entire city; reduce visual clutter; and promote walking, bicycling and use of mass transit." The Manual was created with input from various stakeholders including businesses, civic groups, City Commissions and boards that formed the Wayfinding Stakeholder Advisory Group.<sup>10</sup>

Find out more at: [www.alexandriava.gov/Wayfinding](http://www.alexandriava.gov/Wayfinding)

**Annapolis, MD** (2011 population 38,880), adopted a Wayfinding and Signage Master Plan in the spring of 2013 with installation to follow. Mayor Josh Cohen describes the system as providing "simple, concise, attractive signs... that will be appropriate for Annapolis and also...help people get around."<sup>11</sup>

Find out more at: [www.annapolis.gov/government/city-departments/planning-and-zoning/wayfinding](http://www.annapolis.gov/government/city-departments/planning-and-zoning/wayfinding)

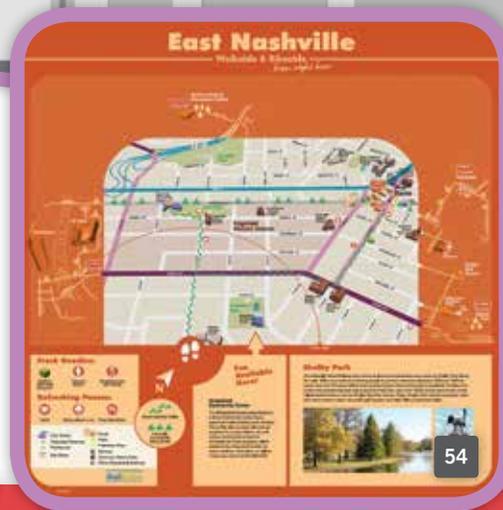
**Davidson, NC**. As part of their Active Transportation Master Plan, the small town of Davidson, NC (2011 population 11,188), plans to include wayfinding signage to promote bicycling and walking. They hope to include calorie and physical activity information on their signs. The plan is currently under development.

Find out more at: [www.ci.davidson.nc.us/index.aspx?nid=68](http://www.ci.davidson.nc.us/index.aspx?nid=68)

neighborhoods for health interventions and expanded the pedestrian wayfinding system into those neighborhoods. Signs direct people to outdoor recreational opportunities and encourage walking and biking. The system uses heads-up maps that are simple and easy to understand. Maps and mobile apps are also available.

**Minneapolis, MN**, ([www.minneapolismn.gov/health/living/cppw/signs](http://www.minneapolismn.gov/health/living/cppw/signs)) is another U.S. city that has recently installed pedestrian and bicycle wayfinding information systems to promote physical activity.

These and the initiatives described below suggest potential roles for public health practitioners in other cities to promote the health benefits of a systematic community-wide wayfinding system, along with the recognized economic benefits for commerce and tourism.



**Austin, TX**, finalized the Downtown Austin Wayfinding Master Plan in June 2013 with implementation planned for early 2014. Wayfinding was identified as part of the broader Downtown Austin Plan with “aims to integrate a range of navigation and communication tools for traversing the downtown area, such as signage, brochures, kiosks and smart-phone applications.”<sup>12</sup> The plan is organized around four core strategies: management, wayfinding, design and maintenance.

Find out more at: [www.austintexas.gov/department/downtown-austin-wayfinding-program](http://www.austintexas.gov/department/downtown-austin-wayfinding-program)

**Seattle, WA**. In the neighborhood of West Seattle in Seattle, WA, a local pedestrian advocacy group, Feet First, spearheaded the wayfinding signage system. Feet First worked with community groups and local artists to plan and design a series of wayfinding signs and kiosks for the neighborhood, funded by the Seattle Department of Neighborhoods. The kiosks feature pedestrian maps developed by Feet First that highlight nearby services, parks and walking routes, including the trail system.

Find out more at: [www.westseattleherald.com/2011/04/08/news/slideshow-wayfinding-kiosks-going-around-west-sea](http://www.westseattleherald.com/2011/04/08/news/slideshow-wayfinding-kiosks-going-around-west-sea)



### How can communities get the right wayfinding expertise for their projects?

Local officials often look to consulting firms for help in developing wayfinding strategies and systems. With different professions approaching wayfinding from different perspectives, making the best choice can be challenging. As we have seen, sound wayfinding planning is rarely as simple as placing a few signs, no matter how attractive and legible they may be.

To find the wayfinding expertise that is right for your project:

- Conduct a scoping exercise to clearly define the requirements and possibilities for your project.
  - What commercial, tourism, safety and public health wayfinding goals are to be met by the project?
  - What segments do you hope to reach?
  - What modes of transportation and how many jurisdictions will be involved?
  - What are the current barriers to and facilitators of wayfinding, including neighborhood design, transportation infrastructure, information and maintenance issues? To answer this question, you might conduct a thorough wayfinding audit to include resident as well as professional assessment.
- Determine which prospective consulting firms have the requisite qualifications, based on the scoping exercise, for your particular project. For example, if you are seeking to improve pedestrian or transit wayfinding, then you will need expertise in whichever one of those specific areas you choose.

## Other U.S. Wayfinding Highlights



### Wayfinding for Bicyclists

**Gresham, OR**, has focused its wayfinding efforts on bicycle routes. The city installed directional signs with arrows pointing to nearby destinations and how many miles and minutes it will take to bike there. Gresham describes the motivation behind the project as “good for community,” highlighting that the system encourages riding, promotes health and reduces unnecessary driving.

Find out more at: [greshamoregon.gov/city/city-departments/environmental-services/transportation-streets/template.aspx?id=21170](http://greshamoregon.gov/city/city-departments/environmental-services/transportation-streets/template.aspx?id=21170)



**What is the  
best path  
ahead?**

The path ahead to better wayfinding in U.S. communities will not be straightforward or easy to navigate. As we have seen, there are many detours and dead ends to avoid, but also some exciting and visionary work underway to offer guidance. In this section, we propose key strategies to move toward the goal of a successful journey to comprehensive wayfinding that meets the needs of all people.

### 1. Embrace a broad vision of wayfinding.

We believe that a community's vision of wayfinding should be expanded well beyond tourism, city image and commercial goals. Ease of wayfinding is crucial to the public health and safety of all motorists, walkers, cyclists and transit users. A broad vision of wayfinding makes for the best possible use of public dollars and benefits the most people.

**2. Integrate wayfinding planning.** To achieve and implement a broad vision of wayfinding, we first must partner across a broad range of professions and roles. Design professionals, urban planners, engineers, public health personnel, elected officials, consultants, transportation planners, developers, public works officials and citizens need to work together. Integrated systems' thinking is vital to the path ahead. The most effective wayfinding solutions will be seamless, intermodal and based on the idea of the journey, recognizing that most people use multiple modes of transportation to get from place to place. Key action steps include:

- **Educate and empower key stakeholders.** The various benefits of good wayfinding are well known to some stakeholders. Others, such as elected officials, public health personnel, aging and disability organizations,

private sector organizations such as chambers of commerce, recreational facilities, or citizens, may have little if any familiarity with the term or what it means for themselves or for their community. One of the first steps to improve wayfinding is to educate these groups and to bring them into a dialogue with the designers, planners, developers and engineers who are actively involved in wayfinding work.

*Pathways* may be used get various groups on the same page with regard to wayfinding and as a starting point for discussion. By working together, the various public and private sector stakeholders can achieve a common vision of community wayfinding and a more comprehensive understanding of features that contribute to or detract from good wayfinding.

- **Assess the current wayfinding systems in the community.** The assessment could engage key stakeholders (as listed above) and generate not only useful data, but also ideas about ways the wayfinding might better meet community and user needs and promote walking, cycling and use of transit, as well as tourism and commerce.
- **Create and implement comprehensive master plans.** Don't think about wayfinding in isolation. Instead, integrate it into transportation infrastructure planning with attention to all modes of travel and all travelers. The concepts, vision and requirements of the master plan should be widely shared.



*Non-standard stop sign can create confusion*

- **Weave attention to wayfinding into existing initiatives and new opportunities.** Once a community-wide concept is endorsed and agreed upon, make it a priority to get it integrated into existing initiatives and new opportunities, just as many of the communities featured in this document have done. Implementing a comprehensive approach to wayfinding need not be onerous or expensive; in fact, there are potential savings and efficiencies to be enjoyed by following the approaches outlined in *Pathways*.

### 3. **Employ a multi-jurisdictional approach.**

Like an intermodal approach, a multi-jurisdictional approach will result in a better traveler experience by minimizing jarring differences between neighborhoods or entire communities. To accomplish this means working across wards, city, regions and even state government entities. Two key collaborators are metropolitan planning organizations and state departments of transportation.

4. **Design for all users.** We mentioned this earlier, but it is so important, we'll mention again! Let's take the idea of accessibility to an advanced level by creating communities appealing and inclusive to all. To do so, wayfinding resources must be not only be of excellent quality, but also be consistent and predictable, sensitive to the needs of different groups, and offer different ways to get needed information. For example, an information kiosk might offer information not only in English text, but also in Spanish and audio.

5. **Manage assets wisely.** The work doesn't end once the signs go up! Ongoing maintenance is needed to keep signs in good shape and information up to date. Use systems like databases and GIS to monitor and track maintenance needs, and set aside a maintenance fund with a steady funding source. These actions are key to getting the most out of the initial investment your community makes to improve wayfinding.

### 6. **Assess status, progress and lessons learned.**

There is a great deal we do not know about wayfinding and how best to address particular challenges, for example, how to support wayfinding in poorly designed monotonous spaces. We all need more and better data to document costs and benefits of particular approaches, as well as the human and environmental costs of inaction.

Periodic assessment of the wayfinding environment is essential to determine barriers and inform planning. Wayfinding environmental assessment and planning should be integrated into any new development or redevelopment preparations. It might also be included in environmental assessment and health impact assessment.

Finally, we also need to monitor and share work in progress across the country and the world so that we can learn from others. Projects like Legible London that build in evaluation and report on outcomes are especially valuable, offering a model for others to follow.

7. **Continue to develop, refine and disseminate best practices, guidelines and standards.** We need to continue to identify best practices and encourage their widespread use to improve all of our journeys.

Ideally, all communities would have access to a catalogue of context-specific best practices in wayfinding to include the full continuum from rural to urban settings. The implications of those practices for key groups, such as children, commuters, visitors, people with disabilities and older adults would be transparent. Over time, identified practices would be carefully assessed with selected practices becoming guidelines or standards. At present, we are not quite there, although some cities have endorsed certain

practices and developed them into guidelines for development and redevelopment within their borders. Such guidelines are key not only to planners and designers but also to developers, builders, landscapers and public works officials who translate plans into action and/or subsequently carry responsibility for maintenance.

*So let's get busy—together we can find the way!*

### A Word to Citizens: Here's What You Can Do

If you are a community resident, **you can play a key role in improving wayfinding in your neighborhood or city.** One strategy is to join with neighbors in conducting a neighborhood wayfinding assessment. Download the Easter Seals PROJECT ACTION Neighborhood Wayfinding Assessment Pocket Guide ([www.prc-han.org/docs/espa\\_cdc\\_han\\_wayfinding\\_guide.pdf](http://www.prc-han.org/docs/espa_cdc_han_wayfinding_guide.pdf)) and use it to evaluate how well the infrastructure in your neighborhood helps people find their way. Consider inviting your city council representative or your local pedestrian or transportation planner to join you in conducting the assessment. Getting them involved will help to spur action.

You can take the assessment results to a city planning meeting or work through established committees or programs that **focus on pedestrian or bicycle concerns, healthy living or healthy aging in your area.**

You can also share your assessment results directly with community leaders, such as the local planning, engineering, public works or public health department. In addition, many communities have specific directions on their government websites or dedicated phone numbers for reporting problems with walkways, signs, crossings and road conditions. See if your community or local safety advisory boards have interactive maps for reporting concerns.

You might volunteer to join a citizen advisory committee, commission or board that focuses on public health, recreation, urban design, transportation, or specifically on wayfinding. **Volunteering is a great way to have impact over time.**

Share *Pathways* with staff in the public health, transportation, and planning departments to **help them make the connection between good community wayfinding and better health and economic vitality in your town.**



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# Endnotes

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- 13 Blind pedestrian outside crosswalk, Ed Stollof
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- 28 Yuma gateway lightpost banner, Ed Stollof

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- 31 En route sign/Low directional signpost, Rebecca Hunter
- 32 Information panel/map, Ed Stollof
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- 35 Advisories/warnings, Ed Stollof
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- 37 Intermodal transit information (train), Ed Stollof
- 38 Motorist map, MD Skiles
- 39 Landmark where districts intersect, Rebecca Hunter
- 40 Directional sign for district, Rebecca Hunter
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- 42 Directional sign with information panel, Rebecca Hunter
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**Download the CDC-HAN Community Wayfinding Grey Literature Compendium at [www.prc-han.org/tools-environment#envaudit](http://www.prc-han.org/tools-environment#envaudit) for additional best practices, case studies and online resources.**

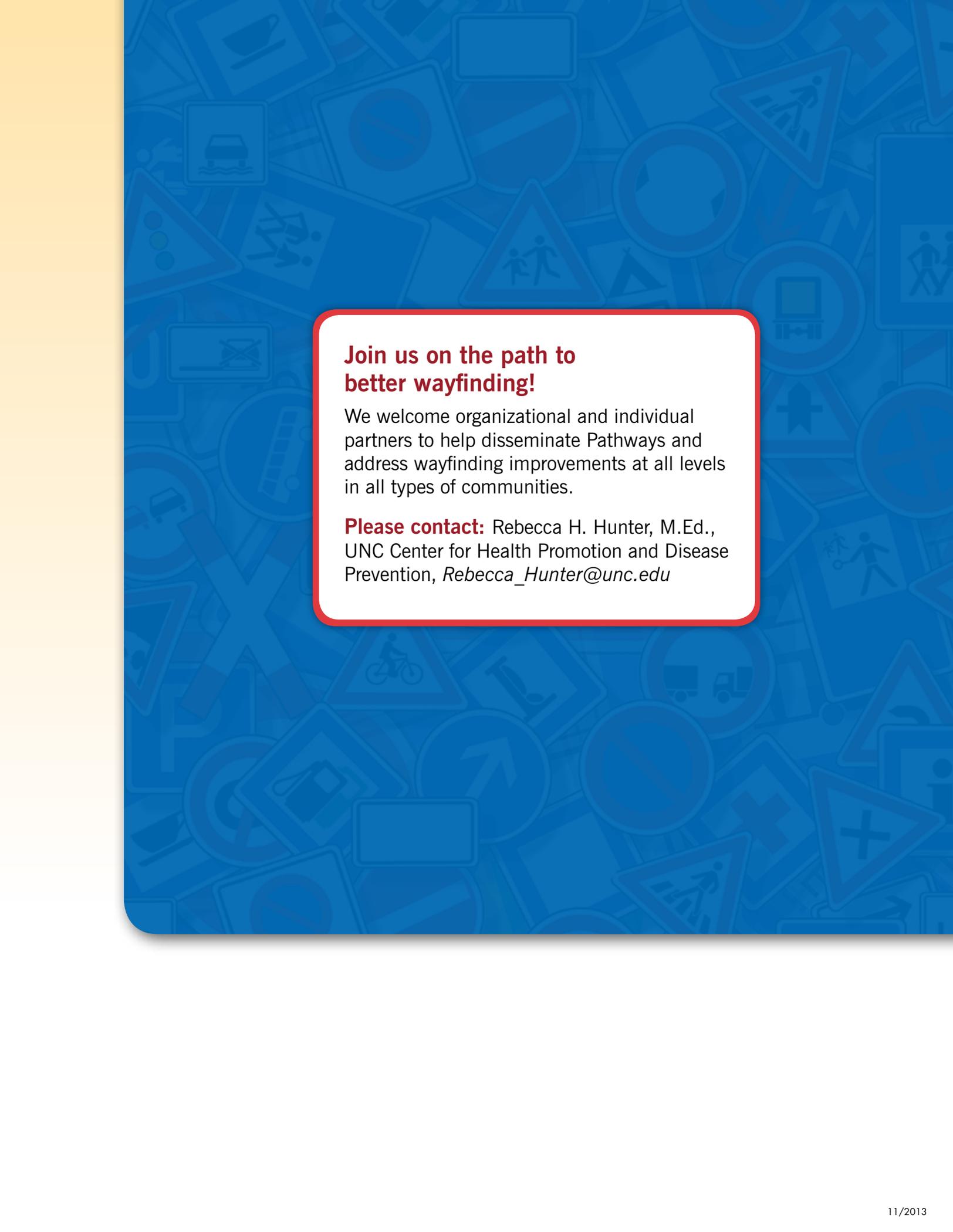
**For additional resources pertaining to walking and cycling, see:**

Pedestrian and Bicycle Information Center, extensive resources pertaining to safe walking and cycling. [www.pedbikeinfo.org](http://www.pedbikeinfo.org)

WalkSteps, an online resource focused on creating walkable communities, [www.walksteps.org](http://www.walksteps.org)

Every Body Walk!, site for a campaign aimed at getting Americans up and moving, [www.everybodywalk.org](http://www.everybodywalk.org)





**Join us on the path to  
better wayfinding!**

We welcome organizational and individual partners to help disseminate Pathways and address wayfinding improvements at all levels in all types of communities.

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