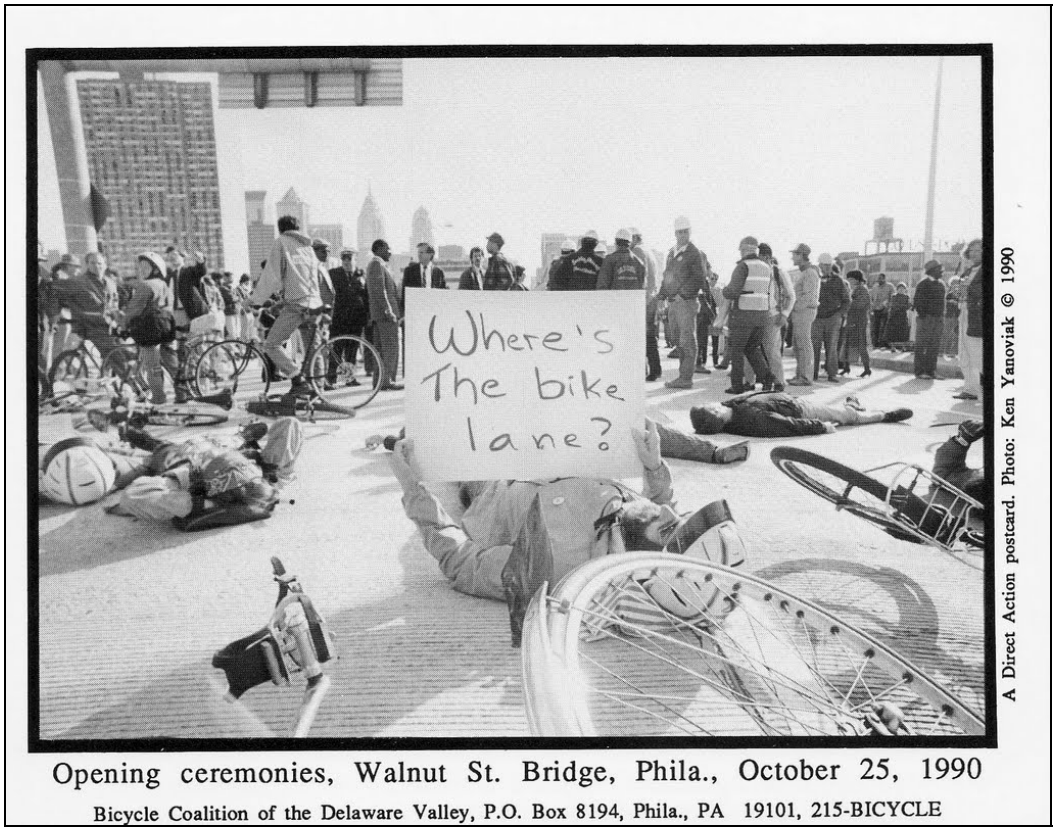
LEAGUE OF AMERICAN BICYCLISTS

POLICY RESEARCH REPORTS



Bridging the Gaps in Bicycling Networks

An advocate's guide to getting bikes on bridges



Bridges are important. Whether over rivers, lakes, or built obstacles such as freeways, bridges are critical to bicyclists. Inaccessible bridges can force substantial detours or sever routes entirely, effectively discouraging or eliminating bike travel. As veteran Seattle bike and pedestrian planner Peter Lagerwey says: "If you can't get across the bridges, nothing else matters." In addition to their practical worth, bridges are also often high-profile, large-scale projects; the inclusion of bicycle facilities is an important symbolic recognition of the role of bicycling and walking in transportation networks.

Bicyclists can expect to see more and more bridges under construction in the coming months and years, creating opportunities (and risks) for bicyclists. According to the Government Accountability Office**, one quarter of the 602,977 bridges on the country's roadways is either structurally deficient and in need of repair**, or functionally obsolete and is not adequate for today's traffic needs. Seventy-one thousand of them are considered structurally deficient, with a major defect in structure or deck. In some states, more than 20 percent of the bridges fit this description. A 2010 report by the U.S. PIRG Education Fund observes that, "Generally, engineers build bridges in the United States for a useful life of 50 years. The average age of America's bridges is now 43 years, with 185,000 over 50 years old. By 2030, that number could double." These overdue bridge repair or replacement projects mean more chances to open up bridges to biking and walking than ever before. But if they are replaced without proper accommodation then it means a once-in-a-generation missed opportunity.

Recognizing the critical importance of bridge access for cyclists, in March 2010 the U.S. Department of Transportation (DOT) released a much-heralded policy statement on bicycling and walking that encourages state DOTs to include biking and walking accommodations on all bridge projects. Some transportation agencies already provide safe and well-designed accommodations for bicyclists and pedestrians on their bridges. But far too many do not do so reliably. As one advocate said about his DOT's bridge engineers, "They hadn't even thought of bicyclists before we started showing up to meetings." This is why advocacy campaigns are so important.

Thousands of overdue bridge projects mean more chances than ever before to provide accommodations for bicycling and walking.

Failure to do so means missing a once-in-a-generation opportunity.

This report identifies some of the common objections to bridge accommodations for biking and walking and offers suggestions on how to answer them. It also contains recommendations based on the experience of several successful and ongoing advocacy campaigns. Experienced advocates have learned that bridge campaigns require the same basic organizing techniques that will serve them well in most

This is an Advocacy Advance Project — a partnership between the League of American Bicyclists and the Alliance for Biking & Walking.

major campaigns. They took advantage of all public input opportunities and built a coalition of organizations, grassroots supporters and volunteers, and internal champions. They took advantage of opportunities that came up, focused on design issues, remained committed and patient throughout long campaigns, and sought to institutionalize good planning practices for the future.

As the stories in this report demonstrate, bridge campaigns can be long and challenging, but the hard work can pay off. There are many examples where the combined efforts of advocates and supportive insiders have been able to dramatically improve transportation access for people on bike and on foot. Other regions have not been so lucky. See Appendix II for examples where failure to include safe bike access on bridges is still impacting bicyclists.

ANSWERING COMMON CHALLENGES TO BIKE ACCOMODATIONS ON BRIDGES

Bridge access is a perennial issue for bicyclists and, through the years, we have heard common objections. Here are some of them, accompanied by successful counter-arguments.

"The federal government won't let us."

Not true. The U.S. Department of Transportation has frequently reaffirmed the need to accommodate cyclists on bridges built or refurbished with federal money. The U.S. DOT's policy statement on bicycling and walking recommends "integrating bicycle and pedestrian accommodation on new, rehabilitated, and limited-access bridges" with connections to streets or paths.[i] The federal government does not own many bridges, and it does not provide design guidance; they direct people to the AASHTO guide.

Title 23 United States Code section §217 requires that bridges being replaced with federal funds include safe accommodation for bicyclists:

> *Bicycle transportation and pedestrian walkways*
> (e) Bridges.--In any case where a highway bridge deck being replaced or rehabilitated with Federal financial participation is located on a highway on which bicycles are permitted to operate at each end of such bridge, and the Secretary determines that the safe accommodation of bicycles can be provided at reasonable cost as part of such replacement or rehabilitation, then such bridge shall be so replaced or rehabilitated as to provide such safe accommodations.[ii]

The Federal Highway Administration Web site summarizes this way: **"**Federal surface transportation law places a strong emphasis on creating a seamless transportation system that all users can enjoy and use efficiently and safely."[iii]

"Bikes are not allowed." (for interstate bridges)

No federal law prohibits bicycles on interstates or other highways.[iv] In fact, there are numerous examples of interstate or other major bridges with bicycle accommodations: the Woodrow Wilson Bridge that carries I-95 across the Potomac River near Washington, D.C.; the George Washington Bridge (I-95) over the Hudson River; I-90 floating bridge across Lake Washington in Seattle; the Golden Gate Bridge (US 101) in San Francisco; and the Cooper River Bridge (US 17) in Charleston, SC. See Appendix III for more examples of bicycle accommodations on major bridges.

I-90 floating bridge across Lake Washington in Seattle

However, individual states have restricted access. A 2001 report from the Mineta Transportation Institute describes the policy in each state.[v] Western states often allow bike access on interstates, in part, because there is no alternative available.[vi] Even when states prohibit bicycling on the interstate highway, bicycle accommodations can and should be provided on interstate bridges (with connections for bicyclists from other roads).

Federal law requires the consideration of bicycle and pedestrian travel. The federal statute on bicycle planning and pedestrian planning, 23 U.S.C. 217(g), states:

(g) Planning and Design.—

1. In General — Bicyclists and pedestrians shall be given due consideration in the comprehensive transportation plans developed by each metropolitan planning organization and State in accordance with sections 134 and 135, respectively. Bicycle transportation facilities and pedestrian walkways shall be considered, where appropriate, in conjunction with all new construction and reconstruction of transportation facilities, except where bicycle and pedestrian use are not permitted.
2. Safety considerations — Transportation plans and projects shall provide due consideration for safety and contiguous routes for bicyclists and pedestrians. Safety considerations shall include the installation, where appropriate, and maintenance of audible traffic signals and audible signs at street crossings.

Advocates in Florida are working to gain bike access to selected bridges on limited access facilities (LAFs), such as interstates, by citing the safety record in states like Arizona. Florida Bicycle Association board member, Mike Lasche, says, "We addressed the safety concern, by citing the Arizona study[vii] that

showed that Arizona had only nine bicycle crashes over 11.5 years, on its 2,000 miles of LAFs. During this same period, Arizona had 25,563 bicycle crashes statewide. Thus, LAFs accounted for less than four hundredths of one percent of all their bicycle crashes, a miniscule portion." They then argued that minimum speed requirements did not apply because cyclists would be on the shoulder.[viii] "It's a statutory, not alone a policy issue," says Mary Anne Koos of the Florida DOT Roadway Design Office, "It has helped quite a bit that there has been back and forth discussion between FDOT and bicycle advocates and that we've had time to review and amend the draft language to address concerns that had not been identified in the initial version."

Note that when it comes to interstates, bike advocates are asking for wide shoulders and separated accommodations, not to use travel lanes.

"It costs too much."

When a city builds a street, it doesn't ask how much the drainage and sewage will cost before including them, nor does the city raise concerns about liability. They are included because the street wouldn't be complete without the utilities. The same should be true of space for bicyclists and pedestrians on bridges. These accommodations should not be an add-on or an afterthought. As FHWA guidance suggests, they should be automatically included at the beginning of a project because bridges should be built for everyone, including the one-third of the U.S. population that does not drive and people who choose to ride and walk.[ix] Building bridges with biking and walking facilities is the best way to avoid costly retrofitting. In some cases, traffic levels will allow traffic lanes to be narrowed to provide space for bicyclists.

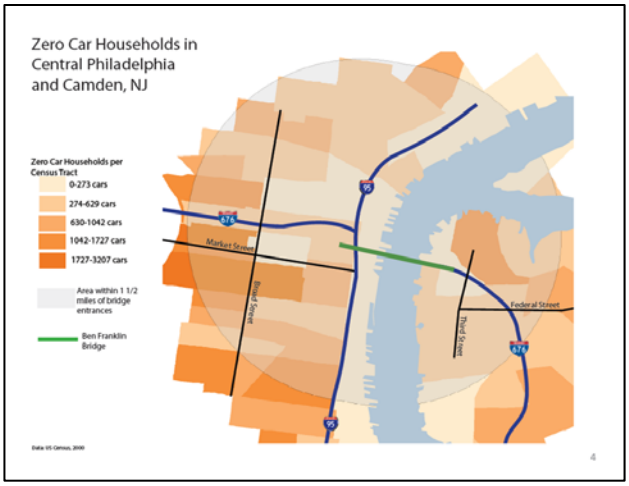
Furthermore, since biking and walking facilities should be automatically included, they should be paid for with the same sources as the rest of the bridge, whether it is federal funding,[x] tolls, bonds, or other mechanisms. **Federal Bridge Program funds may be used** for biking and walking elements, such as bicycle lanes on roadways, paved shoulders, and new or retrofitted sidewalks.[xi] Federal **Surface Transportation Program funds may be used** for biking and walking elements, such as bicycle lanes on roadways, paved shoulders, shared use paths and trails, and new or retrofitted sidewalks.[xii]

Bridge projects using federal funds **must** include bike access as long as bikes are allowed on both approaches and safe accommodation does not represent an excessively disproportionate cost. FHWA suggests "excessively disproportionate" as "exceeding twenty percent of the cost of the larger transportation project."[xiii] Twenty percent is also the standard set for disproportionality in the Americans with Disabilities Act.[xiv] It is the percentage of total costs, not the dollar amount of the facilities that should deem bike/ped facilities excessive or not. Under normal conditions, a large financial cost is not an appropriate reason not to accommodate bicyclists. Even on large projects like the bridge

at the Port of Long Beach, where the separated bicycle facility could cost $45 million, it would cost less than 5 percent of the bridge's $1 billion total.

"No one will use it."

You cannot measure demand for a bridge by counting the number of people currently swimming across the river. That goes for car drivers as well as cyclists. Another strategy is to point to well-designed bridges that have large numbers of bicyclists and walkers. Advocates in the San Francisco Bay Area got a bike path included on the new eastern span of the Bay Bridge by using bike counts on the Golden Gate Bridge: 220-250 bikes per hour. Twenty percent of all of the traffic on the Hawthorne Bridge in Portland, Ore. is made up of bicyclists. New York City's bridges carry nearly 40,000 inbound cyclists per day in the spring, summer, and fall. Failure to provide accommodations for pedestrians and bicyclists means a lifetime of detours and stymied travel. Bay Area advocates also point out that the shuttle that takes cyclists over the bridge with their bikes is over-subscribed. A rider typically needs to arrive by 6:30 a.m. to have a reasonable shot at a spot. Few commuters have the flexibility to deal with the uncertainty of getting a spot.[xv]



The Bicycle Coalition of Greater Philadelphia created this map to illustrate the number of no-car households within 1.5 miles of the bridge.

There are creative ways to illustrate latent demand. Nearly 50 percent of the households within two miles of the Benjamin Franklin Bridge do not possess a car. The Bicycle Coalition of Greater Philadelphia created a map showing the number of no-car households within 1.5 miles of the bridge access points and included it in their well-crafted report, "Crossing the Delaware for Transportation Independence."[xvi] Also see how travel demand was forecast for the I-5 Columbia River crossing between Portland, Ore. and Vancouver, Wash.[xvii]

"Bicyclists and pedestrians cannot get on and off safely."

Both to promote use and for safety, proper approaches to the bridge are critical. If bicyclists and walkers can't get to the bridge, they can't use it. But as transportation engineer Anthony Powers says, "This is a design problem, not a reason for not providing accommodation."[xviii] The design and engineering of the

approaches require at least as much attention as any other component of the project. Approaches for pedestrians and bicyclists are likely far less expensive than approaches for motor vehicles, or can be built concurrently.

Remember, your DOT's engineers are talented problem-solvers. You do not need to know the engineering solution – you just need to strongly articulate the need for one. See the end notes for some examples of engineering solutions.[xix]

"The structure cannot hold the weight."

This can be true. Agencies need to conduct a study to determine if a path can be added to an existing bridge. In some cases, there can be engineering solutions. For example, for the Tower Bridge, a historic lift bridge in Sacramento, Calif., weight limitations could not accommodate the originally intended concrete path. A decking material called FRP was used successfully instead.[xx] Other creative solutions, such as signage, yellow warning lights, and traffic calming, should be considered when a retrofit is deemed structurally impossible.

"We're already too far into the design process to include bikes."

Public input is generally required for large infrastructure projects. It is important to be involved as early as possible. However, there are examples in which bicycling advocates have been able to improve designs. For example, advocates in Boston, Mass. found out about a bridge project that was in "90 percent design" status and they were able to apply sufficient pressure through a public awareness campaign to change the plans to include bicycling facilities.

To illustrate the importance of early involvement, Anthony Powers, the engineer and bicycling advocate with Folsom Area Bicycle Advocates (FABA) in California shared this example:

> "A local success story that I was involved with was the recently opened Folsom Lake Crossing. When a two-lane 'temporary' bridge with no bike or pedestrian facilities was first proposed, we started pushing for both Class I and II [paths and lanes] facilities on the new bridge, on the basis that it would be providing a direct connection to both. Several years later, when the project got funded as a 'permanent' bridge, Class I and II facilities were in the very first preliminary designs, and ended up being constructed."[xxi]

"It is a national security risk."

In fact, national security benefits outweigh the risk. Evacuees in both New York City and Washington, D.C., depended on bicycle and pedestrian facilities to cross bridges and evacuate after the World Trade Center and Pentagon attacks. National security threats should not be used as a reason to limit transportation options on bridges. Benefits to health, transportation, and tourism are too great. In fact, experts believe that only a small number of high-profile bridges are likely targets of terrorism because "an attack on smaller bridges and tunnels could be interpreted as a sign of terrorist weakness."[xxii]

Realistically, pedestrians and bicyclists are far less likely to be threats to bridges than motor vehicles – and having them there provides additional "eyes on the street" to ward against threats. But proper security measures need to be – and have been – taken to protect the country's infrastructure. Since September 11, 2001, there have been increased security measures on San Francisco's Golden Gate Bridge, New York's Brooklyn Bridge, the Potomac River bridges in Washington, D.C., and other bridges to guard against a terrorist attack. These efforts sometimes include a focus on the bicycle and pedestrian paths. For example, the California Highway Patrol implemented a bicycle patrol program to monitor and patrol the path on the Golden Gate Bridge.[xxiii]

The Golden Gate Bridge draws over two hundred cyclists an hour, and extra security. Photo by Roger Wendell, http://rogerwendell.com

"It would threaten the historic character of the bridge."

There are many examples of historic bridges that have been refurbished to include bicycle facilities. Engineering and design solutions can often be found to preserve the historic character and enhance use. The Tower Bridge described above is one example. That engineering solution earned the approval of the State Historic Preservation Officer. The Francis Scott Key Bridge in Washington, D.C., is another example. In the case of the Key Bridge, the bike/ped paths were cantilevered off of the existing bridge. Furthermore, historic bridges may be best preserved if converted from motor vehicle use to pedestrian and bicycle use. There are many examples of historic preservation projects involving bridges. Many were funded with Transportation Enhancement (TE) funds.[xxiv]

Covered Bridge with separated path.
www.pedbikeimages.org/ Dan Burden, 2006

Reasons to include cyclists on bridges

Accommodating cyclists and pedestrians on bridges brings numerous benefits to communities. Here are just some of the benefits:

- Economic development[xxv]
- Increases opportunities to improve health[xxvi]
- Connects communities
- Promotes sustainability
- Creates a legacy – bridges can last 50 to 100 years
- Provides alternate emergency route and a maintenance/repair lane
- Costs are small part of total bridge
- Incorporating non-motorized accommodations is cheaper than building a separate biking and walking bridge; and finally,
- They're popular

LESSONS LEARNED FROM BRIDGE CAMPAIGNS

Bridge campaigns require core organizing techniques, like building public support, forming coalitions, and persuading key decision-makers. For this reason and because of their importance, advocates

frequently select bridge campaigns as their issue at Winning Campaigns Trainings with the Alliance for Biking & Walking. Bridge campaigns also require greater patience, attention to detail, and focus on engineering aspects than most advocacy campaigns. Below are examples from recent and current advocacy campaigns in Missouri, South Carolina, Massachusetts, California, and Washington.

Organizing grassroots support, a public response campaign, and forming coalitions

If you are launching a campaign to get biking and walking access on a bridge, you probably already know that such accommodations are not already planned for that bridge. It is unlikely that you can change this just by stating your case. All of the advocates interviewed talked about the need to demonstrate widespread support for the project. They did this by:

1. Joining forces with other community organizations,
2. Making sure bicyclists made their voices heard at meetings and public input sessions and launching public awareness and letter-writing campaigns, and
3. Building relationships with government officials

Bicycling and walking advocates can increase their influence by forming coalitions with local health, environmental, economic development, and social justice organizations. Charleston Moves worked with the local chapter of the Sierra Club, Earth Force, the Coastal Conservation League, and Community Health Partners. The LivableStreets Alliance works with WalkBoston, MassBike, the Charles River Conservancy, and the Institute for Human-Centered Design. The logos for all of the groups appear on correspondence related to the campaign to demonstrate that the issue is important to a broad coalition of stakeholders.

Riders enjoy the two-way path on the Heart of America Bridge in Missouri. The path was put in after a campaign to get accommodations onto an Interstate.

The Missouri Bicycle and Pedestrian Federation cast a wide net to find partners and champions. It approached and worked with the downtown chamber of commerce, the city council, and the Metropolitan Planning Organization. “We were very methodical,” Executive Director Brent Hugh says. Another advocate said, “Some alliances were a natural fit. Others took energy. But they are worth it, because they help you get things done.”

Once they built a coalition, the advocates had to build grassroots support and make their voices heard. LivableStreets gave presentations to neighborhood groups and other organizations in and around the Charles River, the focal-point of their campaign. The advocates all mentioned the importance of attending public meetings – every single time. "A lot of people came out to the meetings," said Livable Streets Director, Jacqueline Douglas, of Boston's efforts. "We sent the word out through blogs and listservs, and it went viral." LivableStreets provided talking points in Citizen Information Handouts to help focus the message. These meetings don't often draw a lot of public attention, so regular attendance and a handful of attendees speaking favorably about bikes can make a difference.

The East Bay Bicycle Coalition organized a phone bank to vocalize support for a bike path on the Bay Bridge, which connects Oakland and San Francisco. Program Director Dave Campbell said, "This was easily the most fun thing we did. You ask people to come to a meeting and they say no, but you ask them to call some of their neighbors and they say 'Sure!'"

All of these grassroots efforts are important, Douglas says, because "It gives you the leverage to say, 'we have the support of all of these bridge-users.'"

Finding your targets

Deciding who should be the target of a campaign is a critical first step. Because bridges often span jurisdictions, campaigns can be complicated by the array of agencies, officials and elected leaders involved. Advocates may have to work with transportation agencies from multiple states, the Metropolitan Planning Organizations (MPOs), and cities, as well as harbor commissions, the Federal Railroad Administration, the U.S. Coast Guard, the Army Corps of Engineers, the National Park Service, or independent bridge and toll authorities.

A few key questions to ask are:

- Who owns the bridges and the approaches on both sides?
- What agencies do I need to deal with?
- Who influences those agencies?

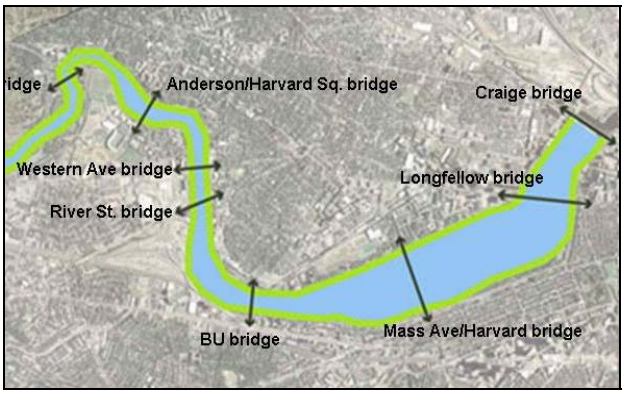
In Missouri, advocates worked with the Chief Engineer at the Missouri Department of Transportation. Advocates working to secure separated bike lanes on a $1 billion bridge at the Port of Long Beach got letters of support from three local council people, the League of American Bicyclists, the Adventure Cycling Association, Downtown Long Beach Associates, two local bike clubs, an Olympic Cycling Gold Medalist, and multiple port employers. In the Bay Area, the East Bay Bicycle Coalition and the San

Francisco Bicycle Coalition got the signatures of all nine Bay Area Congressmen on a letter of support for bike lanes on the Bay Bridge. "Even though they had no direct authority," says Campbell, "it was when the letter started going around that things started to change."

Taking advantage of opportunities, building relationships, and attention to detail – Lessons from Boston

Advocates need to pay attention to the condition of key bridges in their areas and be prepared to engage in an advocacy campaign as soon as they hear that their transportation agency is planning a new bridge construction or rehabilitation project. You never know when you are going to need to start a campaign, or when an opportunity you can take advantage of will arise.

In Boston, that opportunity came along in 2008 when Massachusetts announced the $3 billion "Patrick-Murray Accelerated Bridge Program," which would reconstruct more than 100 bridges across the state by 2016. Initially, the board and staff at LivableStreets, who already had been re-imagining how Boston's bridges could be more bicycling and walking friendly, thought, "This is a great opportunity to see change in the transportation system." But then they discovered that the bill spoke only to the structure of the bridge and not the on-street design. However, with the state putting up the money, they had to have an open, public process.



Charles River Basin. The LivableStreets Better Bridges Campaign targets six bridges that help one million people on either side cross the Charles River.

Douglas of LivableStreets learned early on in the campaign the importance of working with the right people. Along with a board member, she had created a strongly worded flier that encouraged people to attend an important community meeting to voice dissatisfaction with the proposed design and call for a redesign. A few days before the meeting, Douglas sent a draft of the flier to her friends at the state Department of Conservation and Recreation (DCR). The prompt response from the department was, "Please don't send the flier." The DCR set up an in-person meeting to hear the concerns of LivableStreets. Douglas and two board members attended a meeting with the commissioner and his chief of staff, the head of government relations, the head of the committee on retrofitting, and the head

engineer. Douglas says, "The power of having the commissioner there *with* the engineer was critical because we had our alternative plans and vision for the bridge." The officials took the advocates' plan seriously. They included some of the advocates' ideas in their public presentation. LivableStreets' flier still called people to the meeting, but the message changed from one of complete disappointment to "improvements are needed." The interaction with the department demonstrated the power of building relationships with the people and agencies that have jurisdiction over the project and maintaining open communications. Douglas says this moment was "a huge turning point that led to many accomplishments."[xxvii]

Because of their large scale and engineering complexity, bridges are lengthy projects. They take years from start to finish. It requires endurance to stay involved until the end so that critical details that impact the quality of the facility do not change in the late stages. Advocates must make their voices heard early and throughout the design, construction and/or renovation process. When asked to give advice to advocates, Douglas replied with one word, "patience."[xxviii]

Institutional change

A good advocacy campaign can mean that the agency learns the value of including the facilities from the very beginning of all bridge projects. Sometimes even though advocates don't get everything they want, bicyclists still come away with improved bridge access.

> The Missouri Bicycle and Pedestrian Federation recently won a separated bike lane on the Heart of America Bridge in Kansas City. As Executive Director, Brent Hugh, told the Alliance for Biking & Walking, "We came out of this [campaign for interstate bridge access] with a regional bike-ped River Crossings Policy and now MoDOT [Missouri Department of Transportation] District 4 is working on its first ever District-wide Bicycle and Pedestrian Plan — one that will be a model for the other nine MoDOT districts across the state."[xxix]

Officials have already agreed to provide biking and walking facilities on the Chouteau Bridge, two miles from the first bridge. Those victories came after an unsuccessful effort to get access on an interstate highway bridge.

2009 rally for bike and pedestrian access on I-90 bridge in Cleveland, Ohio. (GreenCityBlueLake, http://www.gcbl.org)

"We were able to mobilize supporters and members around these issues of regional importance. It really focused everyone's attention and MoDOT realized that they didn't have [bike bridge access] policies in place. They had never really thought of it before. But we made it clear that a heck of a lot of people care about this."

In Cleveland, advocates fought for biking and walking lanes on an interstate bridge that is being replaced. The Ohio DOT objected to the bike lanes on the interstate bridge. In response to political pressure, the support of cyclists, and a lawsuit, the department agreed to invest in bicycle and pedestrian infrastructure with on-street and off-street paths on neighboring streets and an alternative bridge. With the continuing pressure, the proposal has grown in value from $800,000 to $5 million and higher. Lois Moss from the advocacy group Walk+Roll Cleveland says, "This controversy seems to have been a catalyst in changing many peoples' minds about building streets and bridges for more than cars and trucks."

Last year in Minnesota, the legislature implemented a bridge improvement program for Mn/DOT bridges. The law says: "(d) All bridge projects funded under this section in fiscal year 2012 or later must include bicycle and pedestrian accommodations if both sides of the bridge are located in a city or the bridge links a pedestrian way, shared-use path, trail, or scenic bikeway."[xxx] The new policy is paying off. For example, the Lafayette Bridge, which carries US 52 and spans the Mississippi River in downtown St. Paul, will have a 12-foot-wide shared-use path where the existing bridge does not.[xxxi] Mary Elizabeth Jackson, a Pedestrian and Bicycle planner for Mn/DOT says, "This will be a valuable and well-used bike/ped facility that will tie into communities on either side of the river and also tie in with the new Central Corridor Light Rail." The approaches on either side of the river are also being designed into the project.

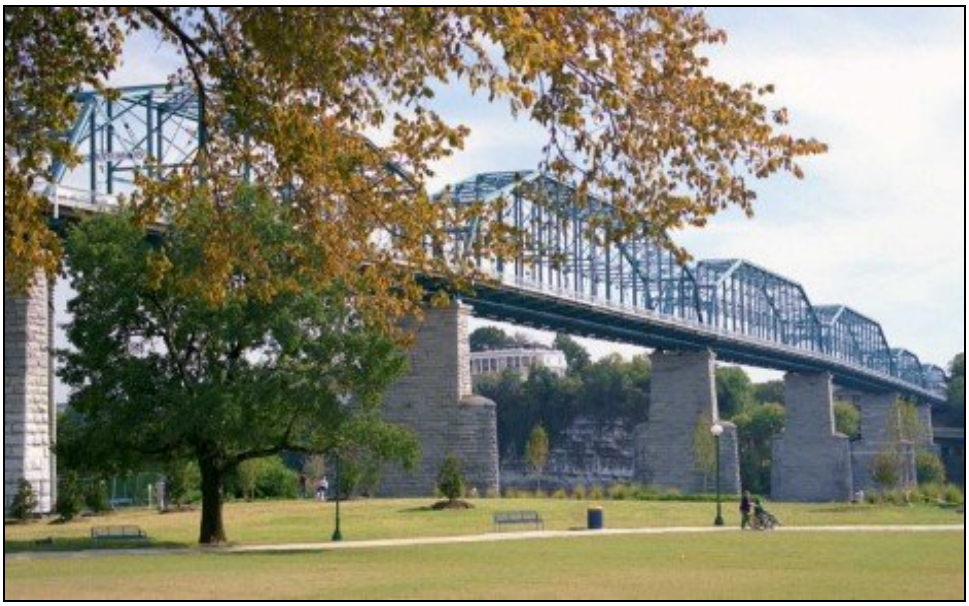
"The key is affecting policy across the state," says Douglas, of LivableStreets. "If you can do it on the bridges, you can do it anywhere."

Conclusion

Bridges provide critical connections in a transportation network. After a generation of building bridges exclusively for cars, it is time for a more inclusive approach. A true 21st century bridge is one that will

safely and pleasantly accommodate all users. Bicyclists and pedestrians need bridges at least as much as any other road users, and advocates are increasingly making progress with transportation agencies.

However, because of their scale and complexity, advocates often need to undertake serious, concerted campaigns to ensure accommodations are made. Agencies may use the arguments above or others to avoid providing walking and biking accommodations on bridges, but there are examples of all of them being overcome all across the country. Historic bridges have been improved with bike lanes. Outmoded bridges, like the Walnut Street Bridge in Chattanooga, Tenn., have been converted to walking and biking bridges, as have rail bridges like the Hudson-Poughkeepsie Bridge over the Hudson in New York. Iconic bridges, like the Brooklyn Bridge and the Golden Gate Bridge, draw thousands of cyclists and walkers every day. Huge infrastructure projects, like the Ravenel Bridge in Charleston, S.C., have increased community health by including paths. And dozens of interstates include accommodations for biking and walking. Traditional organizing tactics have been used successfully to improve designs and revolutionize active transportation opportunities.



Walnut Street Bridge. A closed auto bridge was converted to a walking and biking bridge has helped revitalize downtown and the waterfront in Chattanooga, TN. (Photo http://www.bikekatytrail.com/walnutstreet.asp)

Appendix I – Case Study

Wonders Way – "Can't wait to bike and walk the new bridge"

Perhaps the most famous successful bridge-access campaign is Wonders Way, a 2.7 mile long, 12-foot-wide, bi-directional, shared-use facility on the Ravenel Bridge, over the Cooper River, Charleston, S.C. Through dedication and creativity, advocates were able to convince the South Carolina DOT to include the path in the largest and most expensive single infrastructure project in the state's history. The path has become so popular that SCDOT now happily takes credit for the idea.

Today's Ravenel Bridge replaced two bridges that, by the late 1970s, had become functionally obsolete. The original plans for the new bridge did not include accommodations for bicycling and walking. A group of citizens, including members of the Charleston Bicycle Advocacy Group (CBAG,) now Charleston Moves, like Don Sparks, a professor at the Citadel, thought, "This is crazy!" The bridge would last for 100 years and cut off bicyclists and pedestrians from two of South Carolina's largest cities on either side, Charleston (2nd largest) and Mount Pleasant (5th largest).

The early advocates knew that they would need to organize a coalition of groups to make their vision of a more inclusive bridge become a reality. Charleston Moves joined forces with environmental, social justice, and health organizations like the local chapter of the Sierra Club, Earth Force, the Coastal Conservation League, and Community Health Partners. They identified the important decision-makers they needed to work with and, according to one account, they participated in "over 75 meetings with the mayors of Charleston and Mt. Pleasant, planners, engineers, environmentalists, the Charleston Area Highway Study (CHATS) members, bridge designers and consultants, Senator Hollings, the Charleston-Berkeley-Dorchester Council of Governments, [and] SCDOT."[xxxii]

The advocates heard some familiar arguments against the bridge path and some novel ones. They were concerned about the estimated $25 million cost of the facility, assumed no one would use it, and

claimed that it would encourage suicide jumpers. Some "upstate" officials scoffed at the idea, asking "Why not allow horse-drawn carriages on the bridge?"

That's when their campaign kicked into high gear behind the slogan, "Can't wait to bike and walk the new bridge!" (See image on previous page.) They printed it on hundreds of T-shirts and thousands of bumper stickers. The backs of the bumper stickers could be peeled off and used as postcards to be sent to the Charleston Mayor's office. They were handed out at a bridge-walking event. Thirty thousand postcards were sent. The Mayor's secretary complained that she had never seen so many cards and letters about one issue.

Half-page ad thanking the South Carolina DOT for the bridge – published before the decision was final.

They were able to get Charleston Mayor Joseph Riley on board early; and eventually, Mt. Pleasant Mayor Cheryll Woods-Flowers supported it, as well. Within a few weeks, SCDOT got behind the idea, too. What convinced them? Sparks says, "It became obvious that this was something they couldn't fight" because the public supported it. When it appeared that the politicians were becoming amenable to including a bike and pedestrian path, Charleston Moves took out a half-page ad in the local newspaper thanking the DOT – even before the deal was done![xxxiii]

However, even once the DOT agreed to the new plan, the financing for the biking and walking portion of the project periodically came into doubt. Charleston Moves stayed with it, writing letters to the editor, op-ed pieces, and conducting TV and radio interviews. This determination paid off and, after several years of construction, the project was completed. The multi-use path was named Wonders Way in honor of Garrett Wonders, a local cyclist who was killed while riding his bicycle.

The bridge has been a phenomenal success. Use has been much greater than expected and there have been measurable health benefits because the new bridge is giving residents of Charleston and Mt. Pleasant a safe way to get active. Two-thirds of Wonders Way's users are getting more exercise because of the bridge, and 85 percent of African American bridge users say they're more active because of the bridge. That's a big deal in state where three-fifths of adults are obese or overweight.[xxxiv]

Appendix II

Missed Opportunities

Here are several examples of missed opportunities that have cost bicyclists:

The Verrazano-Narrows Bridge, NY. "Currently there is no way to cross the Verrazano under one's own power, no opportunity to stop and savor the kaleidoscope of city, sea and sky," says Transportation Alternatives in New York City of the only bridge connecting Brooklyn and Staten Island. The bridge does not include bikes facilities, despite that fact that it was built with extra space to allow for them to be included at some point.[xxxv]

Chesapeake Bay Bridges and other area bridges. Cyclists crossing the 4.4-mile "William Preston Lane, Jr. Memorial Bridge" (known as the Bay Bridge) must call a private service in advance to arrange for pick up. Cyclists must also book a $12 shuttle to cross the Chesapeake Bay Bridge-Tunnel. Shuttles like this are better than nothing, but not ideal. The Virginia Department of Transportation's Bicycle Guide notes that the Nice Bridge connecting Virginia and Maryland (Rte 301) is inaccessible to cyclists and "There is no alternate crossing nearby."[xxxvi]

The Daniel Hoan Memorial Bridge, Milwaukee. The Hoan connects downtown Milwaukee with the Bay View neighborhood and is bookended by popular biking and trail systems. A bike count showed 40,000 users at either end of the bridge and the traffic levels do not warrant the current number of lanes on the bridge, yet bicycle lanes are not provided.[xxxvii]

"Big Dig," Boston. Despite claims during the design and planning process that bicyclists would be accommodated, the $22 billion Big Dig left Boston cyclists wondering where they fit in. "Conditions for cyclists on most of the streets designed as part of the Big Dig project [are] poor, with little attention to intersections and connectivity," Jeff Rosenblum, co-founder LivableStreets Alliance , wrote in a 2007 open letter.[xxxviii]

These missed opportunities can set cycling back for a generation.

Appendix III

Selected Interstate Bridges with Bicycle Access		
Interstate/Bridge	**Location**	**Facility Type**
I-5 Columbia River	Vancouver, WA	Sidewalks on both sides
I-10	Colorado River, Blythe, CA	
I-66 /Theodore Roosevelt Memorial Bridge	Potomac River, Washington, D.C.	Opened in 1964, no records of when bike/ped access opened- Immediately adjacent sidewalks on each side separated by guard rail
I-76 Ben Franklin Bridge	PA-NJ	
I-80 Bay Bridge	San Francisco Bay	Bike facilities to be included on east span. 68 year campaign still in progress for west span.
I-80 Delaware Water Gap	NJ/PA	Part of Appalachian Trail
I-80 Yolo Causeway Bridge	Sacramento and Davis, CA	Approximately 3-mile section over the Yolo Bypass that includes a bike path physically separated by a barrier from the westbound traffic lanes
I-80 Carquinez Bridge	Vallejo and Crockett, CA, over Carquinez Strait and San Pablo Bay	12-foot-wide path separated bicycle/pedestrian path
I-82 Columbia River Bridge	Columbia River, WA/OR	
I-84 Bulkley Bridge	Connecticut River, Hartford, CT	Sidewalk on south side of bridge for bicycle/pedestrian use, separated by concrete barrier
I-84 Hamilton Fish Newburgh-Beacon Bridge	Hudson River, NY	In 1980, a second bridge -- with 8-foot bicycle lanes -- was built parallel to the original 1963 bridge.
I-90	Fox River in the Chicago area	Bicycle path underneath the main bridge
I-90 Seattle	Lake Washington, Seattle, WA	Motor traffic lanes plus bike/ped lane immediately adjacent, separated by a cement barrier.
I-95 Scudder Falls bridge	Pennsylvania and New Jersey	

I-95 George Washington Bridge	NY-NJ	Includes a sidewalk accessible to pedestrians on the south side and a path accessible to bicyclists and pedestrians on the north side
I-95 Gold Star Memorial Bridge	Thames River, New London, CT	The bridge's southbound span has a sidewalk/bike path
I-95 Woodrow Wilson Bridge	MD/VA	1.1 mile, 12-foot wide multi-use trail allows bikers and pedestrians to travel between Alexandria, Va. Across District of Columbia boundary and into Prince George's County, Md.
I-278 Triboro Bridge	New York City	Narrow pathway across 2 mile span; cyclists required to walk bikes
I-279	Allegheny River in Pittsburgh	12 ft ADA compliant ped/bike lane cantilevered off the superstructure
I-395/ George Mason Memorial Bridge/14th St. Bridge	Potomac River, Washington, D.C.	Immediately adjacent sidepath separated via jersey barriers- southbound span bike/ped access opened in 1962
I-494/ Wakota Bridge	Mississippi River near Minneapolis, Minnesota	Immediately adjacent to the freeway, separated by a stone barrier with pathway maintained by St. Paul
I-680/George Miller Jr. Bridge	Benicia-Martinez Bridge/San Francisco Bay	

*Source: **Thanks to Brent Hugh of the Missouri Bicycle and Pedestrian Federation** for compiling the majority of these bridges: http://mobikefed.org/2006/05/bicycle-paths-on-interstate-freeway.php*

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