

**WEST HARTFORD
MASTER BIKE PLAN**

On August 14, 2007, the Town Council of West Hartford unanimously passed a resolution creating a Bike Task Force and charged the Task Force with developing a Master Plan to make the Town a bike friendly community. The goal of this Plan is to make recommendations about an accessible and convenient network of improvements such as bike paths, bike routes, bike lanes and secure bike racks, to suggest ways to educate, encourage and enforce safe cycling, and, finally, to provide a framework for evaluating this Plan. Adopting this Plan, and making it reality, will make West Hartford a better place within which to live, work and ride a bicycle. It's the right thing to do – on many different levels.

I. Current Conditions for Bicycling in West Hartford

West Hartford has a large and diverse population of bicyclists. And the number of bicyclists appearing on West Hartford's streets is increasing. Some are pursuing recreation. Others are on their way to or from work. And still others, judging by the baskets affixed to their bikes, are going shopping. The Task Force conducted a survey, the results of which are summarized below. The vast majority of cyclists have indicated that they are disappointed with what the Town has done -- or not done -- to accommodate bicyclists. Specifically, 92% of respondents indicated in the survey that the Town does not do enough to encourage bicycling within the Town. Residents are demanding a change.

Not only are residents demanding change, but businesses support the cause of making communities like West Hartford more bike friendly. For instance, Recreational Equipment, Inc. (REI), a national retail cooperative providing outdoor gear and clothing, has embarked on several efforts to make communities across the United States more bike friendly. REI recently opened its doors in West Hartford as one of the major tenants in Blue Back Square. REI is selling bikes. Originally, there were no bike racks to be found anywhere outside its doors. However, because of REI's repeated requests, a large rack will be installed. Ironically, there is no way to ride a bicycle safely along Raymond Road where the store is located.

West Hartford, unlike surrounding towns, has no bike lanes, no bike paths, no bike signage, and few bike racks. Many of the roads provide no room for cyclists. And recent road improvement projects have failed to accommodate the needs of cyclists.

Riding a bicycle on any of the major thoroughfares in West Hartford is a hazardous activity for any cyclist. These thoroughfares are the streets that connect the major commercial hubs, lead to and from Hartford and neighboring towns, and provide access among the residential neighborhoods. Some have been designed to move as many cars as possible as fast as possible, e.g., Trout Brook Drive, North Main Street, and New Britain Avenue, leaving no room for marked shoulders to offer at least a perception of a safe zone for a cyclist. Some have recently incorporated traffic calming features to slow down cars but again with no special accommodation for cyclists. There is no consistent effort to define the driving lane from the shoulder with a painted line; in some cases the line is present for a while and then disappears. And in others the line is present but the shoulder width varies with no warning.

Vehicle-activated traffic signals can be a frustration for cyclists trying to abide by the rules of the road. Of the one hundred and five signals in West Hartford, forty four are operated by the State, and their signals will not respond to the presence of a cyclist, leaving him or her with unsafe choices. The remaining signals are Town-owned and are being converted to video operated signals which can “read” any object, in a designated travel lane, moving toward the intersection.

Facilities for parking and locking bicycles are sporadic, and consist almost entirely of the slot-for-the-front-wheel-type bike racks, which are not recommended. The known exception is the inverted U type at the Bristow Middle School. Blue Back Square has installed, albeit improperly, three bollard/loop type racks in the south garage and three behind Crate & Barrel, providing storage for six bikes. As a proportion of the capacity of the garages (1,026 cars) these six racks are much too few.

The surface quality of the roads and streets throughout the Town -- an important feature to bicyclists -- is generally good. However, leaves and other roadside debris are sometimes allowed to build up on the sides of streets, creating a hazard to cyclists. Ill-fitting utility covers and broken-up pavement present additional hazards.

Several residential neighborhoods offer extensive riding opportunities on networks of connected quiet streets, which include an occasional school, recreational area or cemetery. There are also some pathways, mostly serving as access to school yards. The Metropolitan District Commission water bureau property, including Canal Road, offers an extensive trail system for road and mountain bikers, although crossing Albany Avenue is hazardous.

In addition, the Town is currently planning an off-road paved trail paralleling Trout Brook, running from Elmwood to the University of Connecticut campus on Asylum Avenue. At present one section is complete: from Boulevard north to Farmington Avenue. The section from New Park Avenue to Quaker Lane has been designed and funds are in place for construction.

Despite the rising popularity of bicycling in West Hartford, some Town staff have been slow, and in some instances, opposed to meeting the needs of bicyclists. The Town Council, through the resolution appointing this Task Force, has unequivocally recognized the residents’ demand that the Town be made bike friendly.¹

Survey Results: The Task Force conducted an on-line survey as a component in developing the

¹The Task Force appreciates the resources offered by The League of American Bicyclists, whose mission is to promote bicycling for fitness, fun, and transportation and work through advocacy and education for a bicycle-friendly America. Many of these resources can be located in Appendix E. The Town Council should, in addition to adopting this Plan and making real its recommendations, pledge to become a Bicycle Friendly Community by passing an appropriate resolution in 2008 along the lines set forth in by the League of American Bicyclists, and ultimately seek recognition by that organization for the Town’s efforts to make West Hartford a bike friendly community.

Bicycle Plan for West Hartford. The survey was distributed via the town's email distribution list. Questions were focused on two areas: (1) perceived or experienced bicycle riding conditions within the Town and (2) general questions regarding interests in bicycling within West Hartford. A total of 763 responses were received. Overall the responses identify a need for the town to improve conditions for bicycling within the Town.

The responses were split between those who ride often, categorized as bicycling more than a few times a year (57%), and those who bicycle only a few times a year (43%). The two primary locations respondents would like to bike to within the Town included West Hartford Center (44% of respondents) and to the MDC Reservoir area (24% of respondents).

Respondents who are not currently active bicyclists identified a lack of bike routes (59%); too much traffic (49%) and concerns with bicycling safety (49%) as key issues why they do not cycle more in the Town. Again, 92% of respondents indicated that the Town does not do enough to encourage bicycling within the Town.

Active cyclists responded to a number of questions on specific issues related to cycling within West Hartford. Only 16% of active cyclists feel they have a safe place to bicycle on roads within the Town. Key issues related to the feeling of insecurity while bicycling within the Town included too much traffic or fast moving traffic (53%), bicycle lanes or paved shoulders disappear on roads (51%) and a general feeling there is no space for bicyclists to ride on the road (43%).

Regarding actual road surfaces within the Town, 49% of respondents described the road pavement as in good condition for cycling. Key issues affecting road conditions were too much cracked or broken pavement (28%), dangerous drain grates, utility covers or metal plates (25%) and uneven road surfaces (20%).

Respondents were offered a variety of options to improve cycling in West Hartford. Seventy four percent (74%) of respondents identified marked bike lanes as a key component to making bicycling easier in Town. Also ranking high were wider shoulders for bicycles (64%), signed bike routes (55%) and more bike racks at key destinations (55%).

II. Why Should West Hartford Become Bike Friendly?

Bicycle-friendly communities experience reduced traffic congestion, higher property values, improved air quality, and better public health. They also have much lower accident rates for cyclists and pedestrians, preventing injuries and saving lives. In addition, bicyclists tend to shop locally, boosting the local economy.²

According to the 1995 Nationwide Personal Transportation Survey, 25% of all trips are

² The information presented in this section was largely derived from information provided by the League of American Bicyclists at its website located at www.bikeleague.org.

made within a mile of home, 40% are within two miles, and 50% of the population commutes five miles or less to work-- all distances easily traveled by bike. Yet, more than 82% of trips five miles or less are made by personal motor vehicle.

Our nation as a whole is experiencing alarming rates of overweight and obesity, due to sedentary living and poor diets, which contributes to 300,000 deaths a year. Studies show a correlation between exclusive reliance on motor vehicles for transportation and being overweight. Bicycling is one of the best exercises for weight reduction and cardiovascular fitness, and is low-impact, making it suitable for middle-aged and older adults as well as for children. Bicycling has also been shown to lead to reduced stress levels and heightened self-confidence.

Riding a bicycle also gets you to your destination without burning fossil fuels, emitting air pollutants, adding to the congestion on the roads or requiring scarce and expensive parking. Lastly, for most Americans, transportation expenses are second only to housing. The average American devotes eighteen cents of every dollar spent to getting around. In some metropolitan areas, households spend more on transportation than on housing. The vast majority of that spending, 98% is for the purchase, operation, and maintenance of automobiles. Most American families spend more on driving than on health care, education or food.

One of the ideas of Smart Growth and New Urbanism is to restructure public policy and development practices to support mixed-use development, such as Blue Back Square, and to support communities designed for pedestrians and cyclists, thereby reducing dependence upon the automobile. Becoming a bike friendly community can further improve the quality of life exemplified by our vibrant Town center and quality public schools, which can lead to business growth and higher property values. Surveys have repeatedly shown that the best way to encourage people to cycle is to provide safe, convenient bike lanes, bike paths and facilities.

III. Core Recommendations

The Task Force's recommendations are divided into the following six areas that are critical for creating a bike friendly community.

- A. Infrastructure
- B. Policy and Procedures
- C. Education
- D. Enforcement
- E. Encouragement
- F. Evaluation and Planning

A. Infrastructure

Six areas of infrastructure improvement are recommended³:

³ For definitions and pictorial examples of bicycle facilities used in this Plan, see Appendix A.

1. Shared Use Trails
2. Safe Streets
3. Road Maintenance
4. Functional and distinctive signage
5. Bicycle parking
6. Traffic signal detection

1. Shared Use Trails

There are two opportunities for trail development within West Hartford, and several possibilities that can be explored further. These are all illustrated on Map 1 (green), attached as Appendix B.

a. Trout Brook Trail

Town staff already have a seven phase plan in place to create a multi-use trail from New Park Avenue and the proposed busway station to the West Hartford branch of the University of Connecticut and St. Joseph's College. At issue is the proposed width of the trail. This will be a high traffic density trail, e.g., walkers, runners, in-line skaters, and cyclists, and needs to be at least twelve feet in width for high volume areas according to the American Association of State Highway and Transportation Officials Guide. The Town of Farmington is using thirteen feet as a minimum for its trails. The trail should have a minimum two foot graded area on either side of the trail.

The section currently designed is far too narrow. Current standards recommend a ten foot cross section at a minimum, with twelve feet advised where a trail is expected to be used by both bicyclists and pedestrians. The section from New Park Avenue north is designed to an eight foot cross section, which will be inadequate when the entire trail is completed. No specific plans are in place for connections between the trail and destinations along the route. This trail system, however, will provide access/exit points along the way so it can serve the many different needs of the trail users. This trail might eventually connect to an important trail juncture, where the Piper Brook, Trout Brook, and South Branch of the Park River join. The City of Hartford is currently constructing a trail along the South Branch and the Newington Greenway Alliance is interested in the possibility of locating a trail along the Piper Brook.

b. Canal Road

Because there is currently no safe way to cross Albany Avenue, this would be an "out and back" trail. Canal Road is a full width road so that it is an excellent place for learning how to ride a bicycle and a optimal place for young

families to ride/walk in a safe area. There is access to Canal Road at the many intersections with town roads. However, parking at these points is either limited or non-existent. In addition, the roads leading to Canal Road are steep, making it difficult for beginning bicyclists to ride to this road. Canal Road does connect with the West Hartford Reservoir. Having bicycles access Canal Road in a more direct manner than is currently available is necessary and would require working with the Metropolitan District Commission. For Canal Road to be used by a large segment of the population, these access issues have to be resolved. If an extension of this trail can be made south of Farmington Avenue, linkages could be made to the mall area and eventually to Stanley Park in New Britain. The trail would then serve increased recreation users as well as shoppers going to West Farms.

c. Other Trail Possibilities

There are several other possibilities for trail development. For each of these, the town should consider developing bicycle facilities. These other trail possibilities are as follows:

- i. Along the Interstate 84 right of way, from the Park Road entrance, eastward to the Hartford line
- ii. Branching to the east off of Trout Brook Avenue, along Hart Meadow Brook and Willow Brook
- iii. Along the North Branch of the Park River, connecting to a trail being planned in the City of Hartford
- iv. Existing links to schools: these links provide convenient shortcuts and access to schools, such as pathways to Bugbee and Solomon Schechter schools

2. Safe Streets

Although there are possibilities for limited trail development in town, much more is needed for residents and visitors to be able to bike for regular transportation needs. Therefore, the Task Force has identified a network of streets that form the backbone of the bikeable West Hartford road system. Some of the identified streets are already comfortable for bicyclists. The challenge will be to maintain bike safety. Others are not currently sufficient for average bicyclists and improvements are needed. See Map 1, attached as Appendix B, shows the recommended safe streets network. This network will allow bicyclists to ride to destinations within town and to link with neighboring towns. The Town should recognize any transportation improvement project as an opportunity to improve bicycle safety, even if the project is not on one of the below identified roadways.

This network of safe streets should include bicycle routes, bike lanes, shoulder lanes, and sharrows. Sharrows – share the road arrows -- are placed on the road, at a

point where the cyclist will avoid hitting an opening door of a parked car. Examples can be found in Appendix A. In some cases, a road can be marked immediately as a bicycle route with no improvements needed, because the road has a low enough volume of traffic and low enough speeds that bicyclists are well accommodated.

The Bike route map identifies these types of facilities:

- a. Through bike routes, east-west and north-south (red)
- b. Connections Needed (orange)
- c. Access ways to local places of interest (blue)

a. Through Bike Routes

These routes are designed to provide access through the length and breadth of town and to adjoining towns. The roads selected for these routes are those which are currently comfortable for biking, or for which changes in striping or operation can make them bike friendly. Attention was also paid to the distance between designated routes and the ability for all neighborhoods to access the through routes. Routes marked with a dashed line are alternate through routes that can substitute for the parallel solid line. For the designated through routes, the following should be provided:

- i. Signage designating the road as a bike route and notifying drivers they should expect to see bicyclists.
- ii. Accommodation for bicyclists, either with a bike lane, a shoulder, a sharrow, or other designation on the pavement
- iii. Careful treatment at all intersections to assure bicycle safety.
- iv. Road improvements for these routes should be considered an opportunity enhancing bicycle safety.

The recommended through routes are listed below:

North-South Routes: Recommended north south routes for bicycle travel are:

North Main Street: North of the center, consideration should be given to converting this road to a single lane in each direction with bike lanes on either side. Turn lanes can be provided at intersections to accommodate traffic flow. This road is a much more preferable north south bike route than Trout Brook Drive, plus it provides access to the commercial areas at Bishops Corner.

Mountain Road: Mountain Road is used by many bicyclists. Designation of a wide shoulder with striping would improve the ability of bicyclists and motorists to safely share the road. On the southern

end, a link to Tunxis Avenue and Woodruff, provides connectivity to South Street and the mall area.

Steele and North Steele Roads: Steele and North Steele Roads currently provide an effective link from Fern Street to Route 185 (making use of Mohawk and Mohegan to connect.)

King Philip Drive: This road can provide an alternate to Main Street, north of Albany Avenue.

Beverly /Walbridge Roads: Beverly Road, from Boulevard to Farmington, and then Walbridge north from Farmington to Birch, provides a connector to Steele Road.

Sylvan/Whitman/Arlington/Riggs: These residential streets are currently comfortable for bicycling and serve to link Fern Street to Boulevard.

Lemay/Westminster/Belcrest/Foxridge/Berkshire: These residential streets are comfortable for bicycling and serve to link Boulevard to Conard high school and the mall area.

Raymond/Overbrook/Chamberlin/Mayflower: These streets serve to link Boulevard to New Britain Avenue. The majority of this route is highly bikeable today, with the exception of Raymond Road between Boulevard and Park, and the connection between Raymond and Overbrook.

Oakwood: If a connection can be made from Flatbush to New Park, Oakwood Avenue can serve as an effective link from Boulevard to New Park Ave.

New Park Avenue: The City of Hartford has already striped bicycle lanes on New Park Avenue from the West Hartford line north. Extending these lanes to New Britain Avenue will provide excellent access to this growing retail area, and to the West Hartford stations on the proposed New Britain Busway.

East-West Routes: Although the Task Force would otherwise prefer to have easy bicycle access along Farmington Avenue, which is the main thoroughfare through the Center, the current project east of the Center has been designed and is being constructed with no consideration to bicyclists, despite the Town Council's acceptance of the goal of making West Hartford bicycle friendly. Therefore the Task Force focused on the roads that are most adaptable to bike safety improvements:

Asylum Avenue

Fern Street

Boulevard

Shepard/Greenhouse Boulevard: Currently these streets do not link, but a walking path between the two termini of these roads shows that a connection is in use. Providing a bikeable connection at this location will provide a very useful route parallel to New Britain Avenue, making use of **Elmfield Street** and terminating at Newington Road.

c. Connections Needed

There are several locations where a linkage is needed to connect the bike network. These include:

- i. Bike/pedestrian way across Route 44 linking Canal Road to the paths north of Route 44.
- ii. A bicycle connection between Shepherd Road and Greenhouse Boulevard will allow local streets to provide a bicycle route parallel to New Britain Avenue.
- ii. Permitting bicycles to use the closed portion of Oakwood Avenue will make Oakwood Avenue an effective north south connector from Boulevard to New Park Avenue.
- iv. The recommended street network avoids New Britain Avenue, but from Newington Road to New Park Avenue, there is a need for accommodation of bicyclists along New Britain Avenue, to assure connection to New Park Avenue and the proposed busway stations.

d. Access Ways to local places of interest

The through routes will be the major bike arteries, the access ways will provide access throughout town to parks and schools (the initial locations that we will want to assure have good bicycle access). Some of these roads already provide safe bicycle access and must continue to do so. In addition, there are roads that need improving to provide this access.

Accessways include:

Flagg Road, linking to Westmoor Park

Pioneer-Harvest-Asylum-Foxchase-Brookside-Cliffmore, providing access to the Bugbee neighborhood

Chatfield to Elmfield, linking with the back parking lot of Corbins Corner.

Flatbush Avenue, to the playing fields area.

Sedgwick from Mountain to Cornerstone Aquatic Center and Veteran's Memorial Skating Rink.

3. Road Maintenance

Potholes, wet leaves, roadside debris, sunken utility covers, drainage grates can all cause serious problems for bicyclists. Unattended roadway defects decrease the safety, comfort and appeal of cycling, and can cause cyclists to sway unexpectedly out of line to avoid hazards. The following is recommended:

- a. Establish a Spot Maintenance Program for low-cost, cyclist-requested repairs. Based on a well-regarded Seattle program, this program allows cyclists to telephone, fax or email information about trouble spots that need quick, low-cost remediation. Cyclists are usually in the best position to spot such hazards;
- b. Establish routine and long-term maintenance plans under the leadership of a responsible individual such as the Director of Public Works, giving special attention to the “Through Bike Routes”;
- c. Conduct quarterly inspections of the “Through Bike Routes” to identify areas in need of repairs and improvements. Develop annually a list of high-priority bicycle maintenance projects.
- d. Devise a procedure for monitoring work performed on the streets by town crews, utilities, and private contractors. Ensure that utility covers are flush with pavement surfaces; require high-quality patching after construction work; repair asphalt buckles and bulges caused by heavy equipment, especially when occurring near the right-hand edge of the street.

4. Functional and Distinct Signing

The Town should provide functional and distinct signs along key bicycling routes. “Share the Road” Sharrows, “Ride with Traffic signs and bicycle route signs are an integral part of a making the Town bicycle friendly. The Town should provide functional and distinct signs along key bicycling routes. This signage helps reinforce the rights of the bicyclist to be on the road with motorists. Moreover, bicycle route signs can direct bicyclists to the roads in the bicycle network. Various examples of signage can be found in Appendix I.

The Signage shall conform to the recommendations set forth in the Manual on Uniform Traffic Control Devices. The chapter from the Manual on Uniform Traffic Control Devices on 'Traffic Controls for Bicycle Facilities' is attached as appendix B

5. Bicycle Parking

The town needs to undertake a focused effort to develop adequate bike parking. Bike racks provide a place for cyclists to park their bikes. Their mere presence encourages others to consider the possibility of biking. Bicyclists must have safe and secure parking available at their destinations. Bike racks should be located close to the building entrance, highly visible, and if possible, protected from the weather. They should be located at all municipal buildings, schools, recreational sites as well as retail sites throughout the town. A bike rack should support the bike in two places and allow the frame and one wheel to be locked to the rack. Two examples of recommended racks

are the inverted U-type and the post and ring. Photos, rack design, spacing and location are in Appendix C.

Some communities have conducted bicycle rack design contests to develop bike racks that also serve as public sculpture. Appendix D includes guidelines for bike rack design competitions to insure that the resulting racks work well for their intended purpose, storing bicycles.

6. Traffic Signal Detection

Signal lights need to be designed so that a bicycle will activate the trigger. The older versions of signal light triggers are buried in the roadway. There are ways to tune these antennae so they can detect a bicycle. A mark is placed on the road at this optimum point and a sign is posted to let cyclist know that this light will be triggered for them. The traffic signals controlled by loops buried in the road should be "tuned" to detect bicycles, and the tuned "sweet spot" marked on the pavement to show where the bicyclist must stop to be able to trigger the light. In addition, a sign posted nearby will instruct the bicyclist of this procedure.

When lights are not triggered by the bicyclist, they must wait for a car to arrive to trigger the light, or more than likely, the bicyclist will attempt to cross the intersection on a red light. For the intersections under its jurisdiction, the Town is moving toward a detection system which makes use of cameras, and these will be capable of detecting bicycles. Tests should be made, with bicycles, to insure that this is the new detection system in fact detects bicycles.

A Concluding Remark on Implementing Infrastructure Changes

Implementing some of these recommendations regarding infrastructure changes will obviously bear a cost to the Town. However, in some instances, the cost will not be significant, and the return on the investment will not only far outweigh the cost, but it will stimulate the demand for a bike friendly community among residents and corporate friends to greater heights. The cost, for instance, of painting bike lanes, which 74% of the surveyed respondents support, is not prohibitive. In neighboring Hartford, where bike lanes have been painted on over a dozen main roads in the last few years, the cost for doing so was twenty cents per linear foot, and forty five dollars per bike symbol. Despite the modest cost of such lanes, having such lanes painted on one or more roads will have an enormous impact on the Town because the Town will have done something; it will have committed not only by word, but by action, to making the community bike friendly. Whether it is bike lanes, bike trails, signage, or bike racks, or all of the above, the Task Force urges the Town Council to take action -- however modest at first. People will support these efforts, and ask that more be done to make West Hartford a bike friendly community.

B. Policy and Procedures

1. Adopt a Complete Streets Policy

Many communities around the country have recognized that their streets cannot be considered adequate if they only serve motor vehicles. Therefore, they have adopted complete street policies, which recognize that streets serve bicyclists, pedestrians, transit users, and motor vehicles. A complete streets policy can be very simple. The City of Chicago adopted this statement:

The safety and convenience of all users of the transportation system including pedestrians, bicyclists, transit users, freight, and motor vehicle drivers shall be accommodated and balanced in all types of transportation and development projects and through all phases of a project so that even the most vulnerable—children, elderly, and persons with disabilities—can travel safely within the public right of way.

Adoption of a simple policy such as this will have far reaching consequences because it requires that the needs of bicyclists and pedestrians be considered along with the needs of motor vehicle traffic. Important actions that should be taken along with the adoption of a complete streets policy include:

Create a **Bicycle Advisory Committee** consisting of interested West Hartford residents that would be consulted on any road improvement projects. This committee would work with Town staff and other civic associations in Town to make them aware of the effort to be more bike friendly.

Review all existing projects to ensure they provide accommodations for bicyclists. (The Bicycle Advisory Committee should be involved in this task.)

Create a checklist for town staff to use to ensure that transportation and development projects accommodate bicycle transportation.

Adopt Town **Bicycle Facility Design Guidelines**, which will provide guidance for the design of bike paths, bike lanes, and sharrows.

2. Develop Procedures to Maintain and Improve Bikeability

Procedures that should be developed to maintain and improve bikeability include the following:

Create a schedule for street and trail sweeping, landscape maintenance, repaving, restriping, and snow removal

Create a mechanism for Citizens to report problems, maintenance

issues with these bicycle facilities.

3. Develop Zoning Ordinances

The town should modify its zoning ordinances relative to parking to require bicycle parking be provided with any new large scale developments. The code should include a requirement for bike parking per square foot of office space, per residential dwelling unit (for developments over a particular size), and per square foot of retail space. It should address placement of bike parking. Threshold development sizes might be included, above which showers for employees and some bike lockers would be required.

C. Education

The Town should create a bicycle safety education program to inform motorists, cyclists, and children. Brochures, such as the “Share the Road” should be placed at the Town libraries, schools, Town hall, and on the Town’s website. Moreover, the education program should provide a means for certifying interested cyclists as League of American Bicyclists instructors. School children should be educated through Leisure Services programs and school programs.

The education program should provide courses for: (1) cyclists that will include learning to ride safely and legally in traffic, on multi-use trails and tips on bicycle commuting; (2) motorists that will educate and inform the vehicle driver on how to share the road safely with a cyclist; (3) kids that will involve teaching parents how to choose a bike, fit a helmet, teach your child to ride and learn traffic rules and skills to bike safely through the neighborhood streets and to school. The League of American Bicyclists provides such courses. See Appendix E.

D. Enforcement

The League of American Bicyclists courses should be provided for police, addressing enforcement of laws for both motorists and cyclists, and concentrating on those areas of enforcement most important to safety. For cyclists, the most important areas of traffic law to focus on include riding with traffic, obeying traffic laws, and using lights at night. For motorists, the focus should be on the legal responsibility to yield to cyclists, stay out of bicycle lanes, pass safely, and follow cyclists at a safe distance (codified in various sections of Title 14 of the Connecticut General Statutes).

The Town should enact local ordinances and policies to empower local police to enforce those laws vital to bicycle safety.

E. Encouragement

The Town should sponsor at least one bike to work event each year, a family bike ride at least once a year (this could be cosponsored with the Town Leisure Services Departments), and a Safe Routes to Schools program at least one elementary school each year. Students and town employees should be given incentives to bicycle, and Town government should be a model of

bicycle use. The Town should encourage bicycling to Town events, by for instance, setting up valet bicycle parking for those who bicycle to Town events.

F. Evaluation

The Town of West Hartford should have a system in place to evaluate the implemented bike plan. The task force suggests the town measure the following:

- Increase in number of bicyclists
- Miles of bike lanes marked
- Miles of bike shoulder/parking lane provided (where the parking lane is available more than 75% of the time for bicycling)
- Miles of bike path constructed
- Number of appropriate bike racks installed
- Number of bikes parked at town hall
- Number of students biking to school
- Number of children taught through Youth Safety Education Program
- Number of adults taught through education program
- Number of citations given for motorist's violations of bicycle right of way
- Number of crashes and fatalities

The data should be analyzed at least annually to measure and assess progress.

Conclusion

As the survey results demonstrate, Town residents are demanding that West Hartford become a bike friendly community. So are our corporate neighbors. The Task Force hopes that the Town Council not only adopts the recommendations set forth in this Master Plan, but takes action to make them a reality.

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Examples and definitions of bicycle routes, bicycle lanes, shoulder lanes and sharrows.

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Task Force Created Map

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APPENDIX D

Bike rack design contest guidelines

APPENDIX E

League of American Bicyclists Materials

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APPENDIX I

Examples of signage from the Manual on Uniform Traffic Control Devices

APPENDIX A

The following materials are from *Guide for the Development of Bicycle Facilities*, 1999, by the American Association of State and Highway Officials, Washington, D.C. Used by permission.

APPENDIX A

Examples and Definitions of Bicycle Facilities (definitions as included in the American Association of State and Highway Officials *Guide for the Development of Bicycle Facilities*, 1999.)

Bicycle Facilities: A general term denoting improvements and provisions made by public agencies to accommodate or encourage bicycling, including parking and storage facilities, bicycle lanes, bicycle paths and shared roadways not specifically designated for bicycle use.



A bicycle facility can be as simple as a channel allowing bicycles to make use of a stairway.

Bikeway: A generic term for any road, street, path or way which in some manner is specifically designated for bicycle travel, regardless of whether such facilities are designated for the exclusive use of bicycles or are to be shared with other transportation modes.

Bicycle Lane or Bike Lane: A portion of a roadway which has been designated by striping, signing and pavement markings for the preferential or exclusive use of bicyclists.



A bicycle lane on Day Hill road in Windsor



A bicycle lane on Capitol Avenue in Hartford

Note: Bicycle lanes are provided on both sides of the streets. Provision of a bicycle lane on only one side of the street can lead to wrong way riding.

Bicycle Path, Bike Path, Multi use Path, Shared Use Path: A bikeway physically separated from motorized vehicular traffic by an open space or barrier and either within the highway right-of-way or within an independent right-of-way. Shared use paths may also be used by pedestrians, skaters, wheelchair users, joggers, and other non-motorized users.



The Riverfront Trail in East Hartford.



Farmington River Trail in Farmington



A side path in Montreal. Side paths must be separated from the adjacent roadway.

Rail-trail: a shared use path, either paved or unpaved, built within the right-of-way of an existing or former railroad.



Rail with trail in Traverse City Michigan



Rail-trail under construction in Simsbury

Shared Roadway: A roadway which is open to both bicycle and motor vehicle travel. This may be an existing roadway, street with wide curb lanes, or road with paved shoulders.

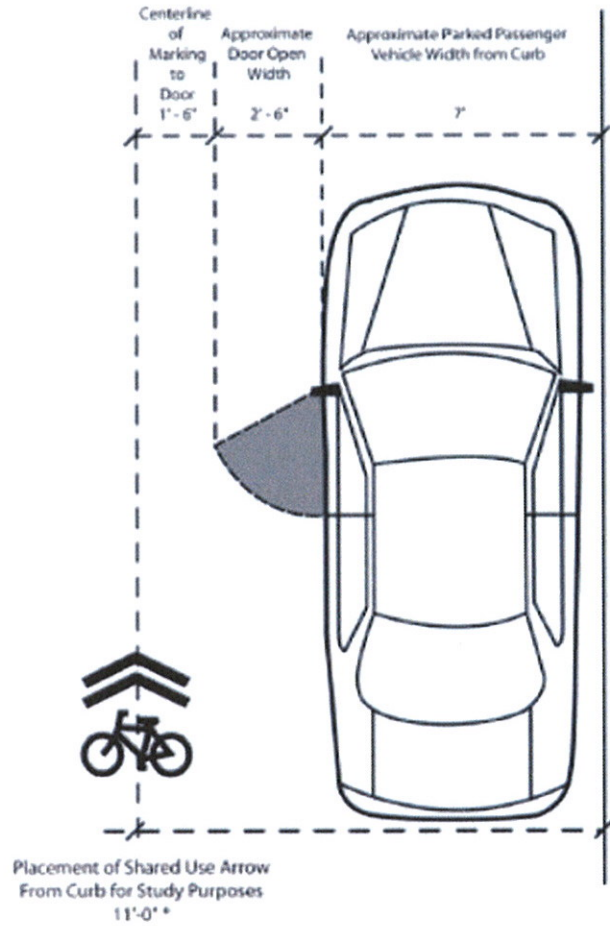


A shoulder which provides a travel way for bicyclists.



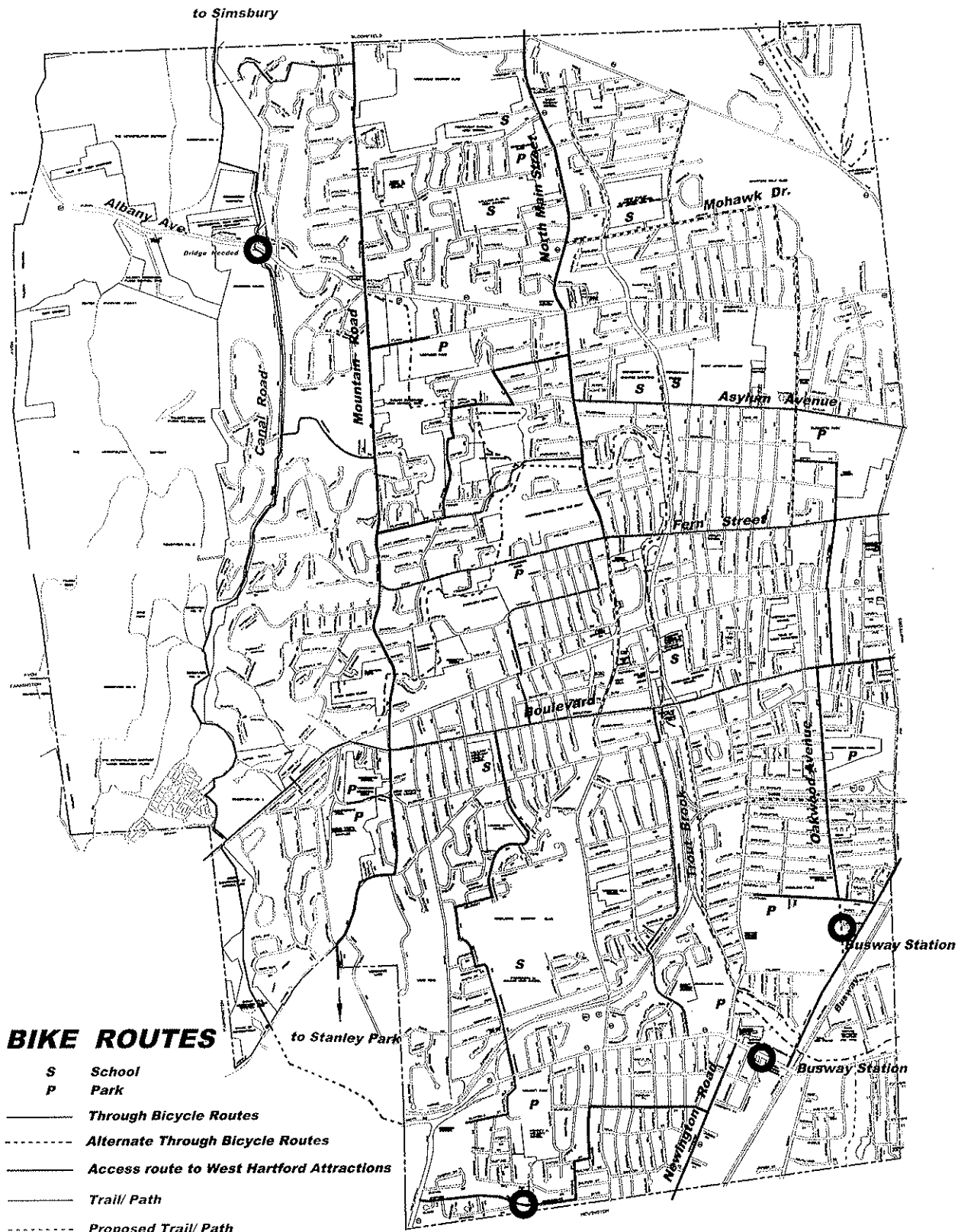
A bicycle boulevard in Palo Alto California. Note the sign which labels this as a bicycle boulevard. These are roads designated for bicycle travel because they are low volume and low speed. Sometimes motor vehicle traffic is diverted away from bicycle boulevards. Soemtimes bicycles can travel trthrough on bicycle boulevards but motor vehicles must turn off.

Sharrow: A marking placed in the roadway used to show motorists that cyclists may “take the lane” and showing cyclists good lane positioning.



APPENDIX B

The Task Force Created Map



BIKE ROUTES

- S School
- P Park

- Through Bicycle Routes
- - - - - Alternate Through Bicycle Routes
- Access route to West Hartford Attractions
- Trail/ Path
- - - - - Proposed Trail/ Path

○ Bike connection needed

APPENDIX C

The Task Force thanks the Association of Pedestrian Bicycle Professional Guide to Parking for its permission to reproduce materials attached. The Association of Pedestrian Bicycle Professional is currently located at PO Box 93, Cedarburg, WI 53012-0093.

BICYCLE PARKING



GUIDELINES

A set of recommendations from the Association of Pedestrian and Bicycle Professionals [apbp]



"I would ride to work if there was a safe place to lock my bike."

INTRODUCTION

The lack of a secure parking space keeps many people from using their bikes for basic transportation. Leaving a bicycle unattended, even for short periods, can easily result in damage or theft. Finding a bike rack that doesn't work or isn't conveniently located makes for a frustrating experience.

The purpose of this document is to assist with the selection and placement of appropriate bicycle racks for short-term parking. Four major components will be discussed.

1. The rack element. This device supports the bicycle.
2. The rack. It is important to understand how bikes interact with each other when rack elements are assembled together.
3. Combining of multiple racks into a bicycle parking lot.
4. Locating the rack, and the relationship of the rack to the building entrance it serves and the cyclists' approach to that entrance.

The discussion will focus on outdoor installations. The racks are intended to accommodate conventional, upright, single-rider bicycles. It is assumed the cyclist will use a solid, U-shaped lock, or a cable lock, or a combination of the two.

The appb Task Force that developed this guide is also developing recommendations for other important bicycle parking-related issues including:



- a. Assessing the appropriate number of bicycle parking spaces for different buildings and land uses, including the use of bicycle parking ordinances.
- b. Long-term bicycle storage facilities such as lockers and bicycle parking garages.
- c. Indoor bicycle parking and the carriage of bicycles in transit vehicles.

1. THE RACK ELEMENT

Definition: the rack element is the part of the bike rack that supports one bicycle.

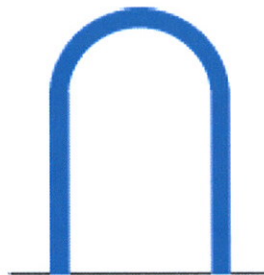
The rack element should:

- Support the bicycle upright by its frame in two places
- Prevent the wheel of the bicycle from tipping over
- Enable the frame and one or both wheels to be secured
- Support bicycles without a diamond-shaped frame with a horizontal top tube (e.g. a mixte frame)
- Allow front-in parking: a U-lock should be able to lock the front wheel and the down tube of an upright bicycle
- Allow back-in parking: a U-lock should be able to lock the rear wheel and seat tube of the bicycle

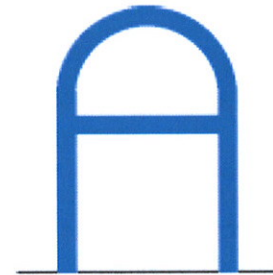


Comb, toast, school-yard, and other wheel-bending racks that provide no support for the bicycle frame are NOT recommended.

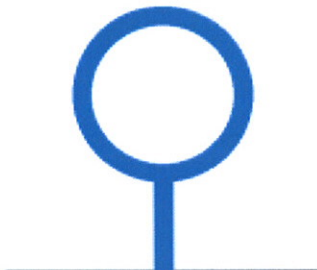
The rack element should resist being cut or detached using common hand tools, especially those that can be concealed in a backpack. Such tools include bolt cutters, pipe cutters, wrenches, and pry bars.



INVERTED "U"
One rack element supports two bikes.



"A"
One rack element supports two bikes.



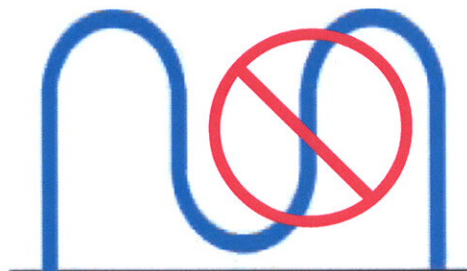
POST AND LOOP
One rack element supports two bikes.



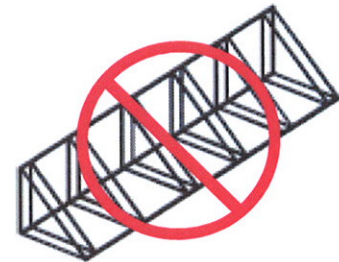
COMB
One rack element is a vertical segment of the rack.



Not recommended



WAVE
One rack element is a vertical segment of the rack.
(see additional discussion on page 3)

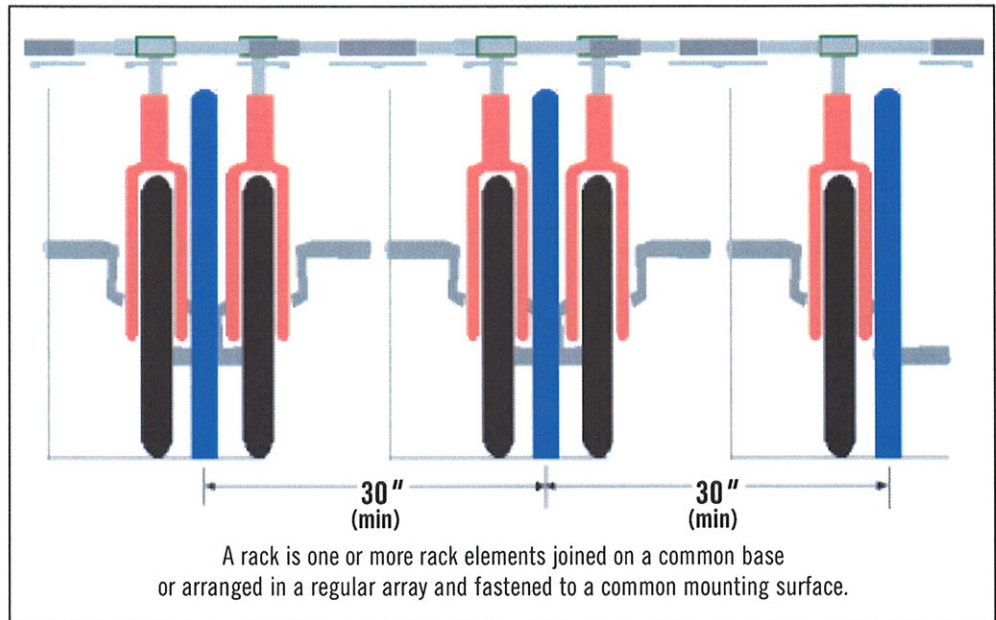


TOAST
One rack element holds one wheel of a bike.

2. THE RACK

Definition: a rack is one or more rack elements joined on any common base or arranged in a regular array and fastened to a common mounting surface.

The rack should consist of a grouping of rack element. The rack elements may be attached to a single frame or remain single elements mounted within close proximity to each other. The rack elements should not be easily detachable from the rack frame or easily removed from the mounting surface. The rack should be anchored so that it cannot be stolen with the bikes attached—vandal-resistant fasteners can be used to anchor a rack in the ground. An exception is a rack that is so large and heavy that it cannot be easily moved or lifted with the bicycles attached.



The rack should provide easy, independent bike access. Inverted “U” rack elements mounted in a row should be placed on 30” centers. This allows enough room for two bicycles to be secured to each rack element. Normally, the handlebar and seat heights will allow two bicycles to line up side-by-side if one of them is reversed. When there is a conflict, the bikes can be placed slightly offset from one another as shown. If the elements are placed too close together, it becomes difficult to attach two bikes to the same element. If it is too inconvenient and time consuming to squeeze the bikes into the space and attach a lock, cyclists will look for an alternative place to park or use one rack element per bike and reduce the projected parking capacity by 50 percent.

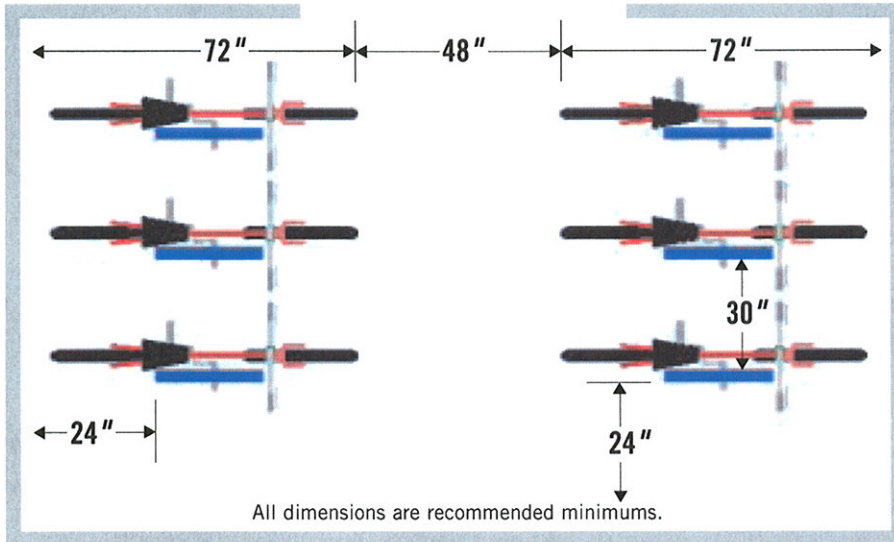


Wave style racks are not recommended. Bicyclists commonly use a “wave” rack as if it were a single inverted “U.” This limits the actual capacity of the rack to two bikes regardless of the potential or stated capacity. Bicycles parked perpendicular to a wave rack (as intended by the manufacturer) are not supported in two places and are more likely to fall over in the rack. The advertised capacity of a wave rack is usually much higher than the practical capacity.

An empty rack should not create a tripping hazard for visually impaired individuals.

3. THE RACK AREA

Definition: the rack area is a bicycle parking lot where racks are separated by aisles.



A rack area or “bicycle parking lot” is an area where more than one rack is installed. Aisles separate the racks. The aisle is measured from tip to tip of bike tires across the space between racks. The minimum separation between aisles should be 48 inches. This provides enough space for one person to walk one bike. In high traffic areas where many users park or retrieve bikes at the same time, the recommended minimum aisle width is 72 inches.

The rack area is a bicycle parking lot where racks are separated by aisles.

72 inches (six feet) of depth should be allowed for each row of parked bicycles. Conventional upright bicycles are just less than 72 inches long and can easily be accommodated in that space. Some rack types will allow the racks to be mounted closer to the wall. This will not change the space required by the bicycles or the aisles.

Large rack areas with a high turnover rate should have more than one entrance. This will help facilitate the arriving and departing of cyclists and pedestrians.

If possible, the rack area should be protected from the elements. Racks along building walls can be sheltered by an awning. Even though cyclists are exposed to sun, rain, and snow while en route, covering the rack area keeps the cyclist more comfortable while parking, locking the bike, and loading or unloading cargo. An awning will also help keep the bicycle dry, especially the saddle.



4. THE RACK AREA SITE

Definition: the rack area site is the relationship of the rack area to a building entrance and approach.

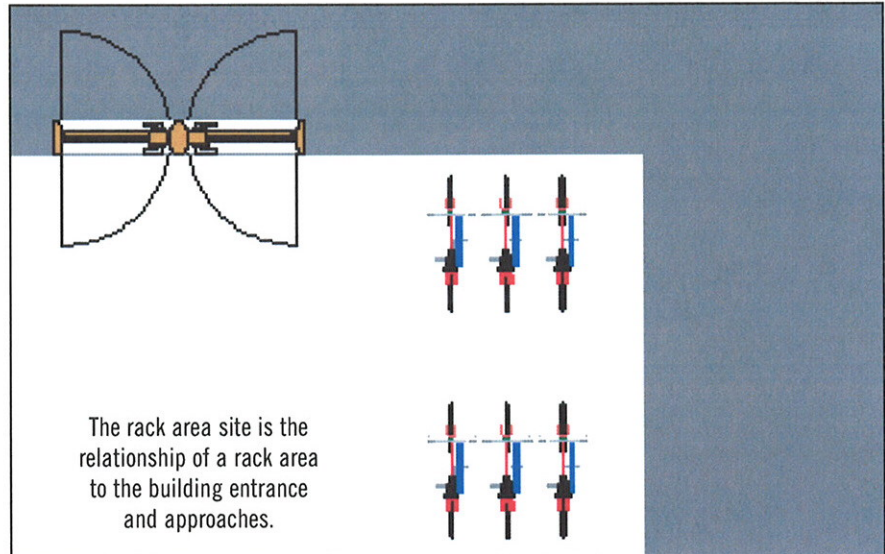
The location of a rack area in relationship to the building it serves is very important. The best location for a rack area is immediately adjacent to the entrance it serves. Racks should not be placed so that they block the entrance or inhibit pedestrian flow in or out of the building. Racks that are far from the entrance, hard to find, or perceived to be vulnerable to vandalism will not be used by most cyclists.

It is important to understand the transition a cyclist makes from vehicle to pedestrian. The cyclist approaches the building mounted on the bicycle. At some point, the cyclist stops, dismounts, and walks the bike to a rack.

The bicycle is attached to the rack and any cargo is removed. The cyclist now walks into the building carrying the cargo. Adequate space must be provided to allow for this transition.

The rack area should be located along a major building approach line and clearly visible from the approach. The rack area should be no more than a 30-second walk (120 feet) from the entrance it serves and should preferably be within 50 feet.

A rack area should be as close or closer than the nearest car parking space. A rack area should be clearly visible from the entrance it serves. A rack area should be provided near each actively used entrance. In general, multiple buildings should not be served with a combined, distant rack area. It is preferred to place smaller rack areas in locations that are more convenient.



5. CREATIVE DESIGNS



The recommended practices above are not intended to stifle creativity. There are many creative, three-dimensional bicycle parking racks that work very well. Whether the rack is a type of “hanger”, “helix” or another

configuration, the critical issue is that the rack element supports the bike in two places and allows the bicycle to be securely locked.



Creative designs should carefully balance form with function. For example, the distinctive “croquet

set” rack shown here likely has a smaller effective capacity than might be immediately apparent because one or more of the rack elements is not accessible. Similarly, the “hanger” racks shown below must be carefully manufactured and maintained to prevent weaknesses at the joints of the hanger and rack—such weakness might compromise the security of bicycles locked to the rack. In addition, the “coat hanger” elements should be spaced at least 30” apart.

CONCLUSION

More information about bicycle parking is available from a wide variety of sources. Visit www.bicyclinginfo.org to access many of those sources, and to find a list of bicycle parking manufacturers.

More information about the Association of Pedestrian and Bicycle Professionals is available at www.apbp.org.



BICYCLE PARKING GUIDELINES

Adopted by the Association of Pedestrian and Bicycle Professionals
Spring 2002

ACKNOWLEDGMENTS

apbp wishes to acknowledge and thank Reed Kempton, Bicycle/Multi-modal Planner with the Maricopa County Department of Transportation, for his work as the primary author of the recommended practice. Members of the Best Practices Task Force ably assisted Reed in this task.

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Washington, DC 20026
pedbike@aol.com



ASSOCIATION OF PEDESTRIAN
AND BICYCLE PROFESSIONALS

Appendix D

Criteria for Bicycle Rack Design:

While the Inverted U is the accepted standard for bicycle parking in the public right-of-way, other rack designs may be accepted. Alternate parking devices must meet the following criteria:

- Support the bicycle frame at two points not only by the wheel. Solid supporting material on 2 vertical lines 28 inches apart, and spanning an area along each vertical line between 24" and 34" from the rack bottom.
- Must accept a myriad of bicycle frame sizes and styles.
- Must allow for the use of a cable as well as a U-type lock.
- Allow for the frame and at least one wheel of the bicycle to be locked to the rack.
- Must be tall enough to be "seen" by pedestrians and the visually impaired yet not be monumental in scale to the bicycles to be parked to the device. Minimum height 34 inches.
- Must be maintenance free or fabricated from materials which wear in an aesthetically pleasing manner.
- Must have a simple, rather than complex, design which allows the user to easily figure out and utilize the rack. Moving parts are not acceptable or must be kept at a minimum.
- Must not require the user to lift the bicycle onto the parking device.



APPENDIX F

The members of the West Hartford Bike Task Force are Jamie Sullivan, Charlie Beristain, Richard Hughes, Carmen Yiamouyiannis, and Richard Raport. The alternate members are Rob Johnson, Jeff Boneham, Ken Livingston, and Leon Rosenblatt. Sandy Fry and Allan Williams have been active and invaluable consultants to the Task Force. Without their assistance, this Report would not have been possible. Finally, the Task Force thanks Bill Dunakin for his assistance, especially his careful review of the drafts and helpful revisions.

On January 7, 2008, the Task Force unanimously adopted the Master Plan.

APPENDIX E

The following material is reproduced with permission from the League of American Bicyclists and such material can be found on the League's website at www.bikeleague.org.

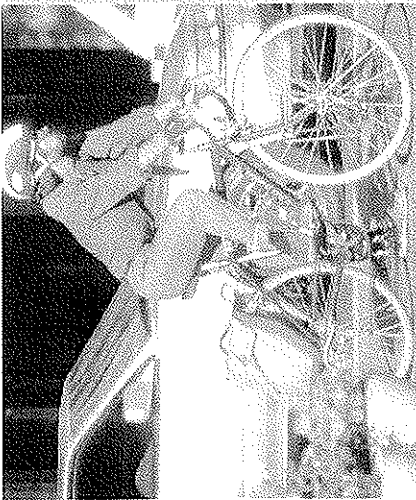


Photo by © Dennis Coello

Next Steps

- 1 Access the application and resources at www.bicyclefriendlycommunity.org.
- 2 Seek the endorsement and assistance of local officials in completing the application.
- 3 Return the completed application for review. Each application is reviewed by a committee selected to provide both a local and national perspective.
- 4 If approved, a designation of bronze, silver, gold or platinum level Bicycle Friendly Community status is awarded. Periodic announcements will provide national exposure for newly awarded communities and will be followed by a local award presentation.



Photo by © Dennis Coello

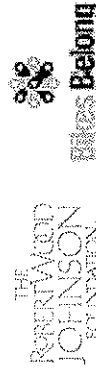
The League of American Bicyclists

promotes bicycling for fun, fitness and transportation, and works through advocacy and education for a bicycle-friendly America. The League represents the nation's +2.5 million cyclists. With a current membership of 300,000 affiliated cyclists, including 40,000 individuals and 600 organizations, the League works to bring better bicycling to communities around the country.



Photo by James Mackey

Bicycle Friendly Community Campaign Partners



League of American Bicyclists

1612 K St. NW, Suite 800
Washington, DC 20006-2826

Ph: (202) 822-1333

Fax: (202) 822-1334

<http://www.bikeleague.org>

bikeleague@bikeleague.org

www.bicyclefriendlycommunity.org

Bicycle Friendly Community

Your Guide to Becoming a

Bicycle Friendly Community

The Bicycle Friendly Community

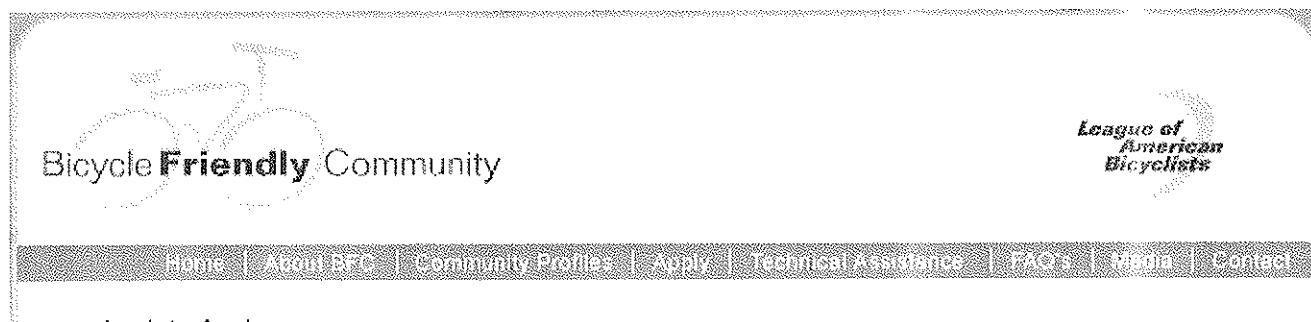
Program provides incentive

technical assistance, and awards

for municipalities that actively

support bicycling.





[back to Apply page](#)

How to Turn Your Town into a Bicycle Friendly Community

What is the next step if you feel that your community has taken significant steps to be bicycle-friendly or if you would like it to move in that direction? You and other bicyclists in the community can bring this program, particularly the application, to your mayor or county council to initiate positive change in your neighborhood.

Here are the steps you can take to bring bicycling improvements in your town:

1. Download the Bicycle Friendly Community information packet. As you review the materials, you'll see that all types and sizes of communities can be positively affected by increased bicycle accommodations. Whether decisions that affect your bicycle plan, routes, and facilities occur in a township, town, borough, city, or county level, this application can help framework a discussion with your decision makers.
2. Review the application yourself to see how bicycle-friendly your community is today. Is there a written policy on maintaining bicycle safe streets? Is there a bicycle advisory committee and/or a bicycle coordinator? These basic resources can be vital to a town's ability to respond to bicyclist's needs. Highway engineers often will not change their practices unless written policy tells them to do so. A bicycle advisory committee is a good structure for getting such new policies written and formally proposed. Having someone on staff designated as bicycle coordinator can be crucial in achieving these measures. (Remember, it is a cardinal rule in every bureaucracy that any task not specified as someone's job is a task that will never get done.)
3. Plan your strategy for pitching bicycle-friendly improvements. Obviously, if the mayor is a ride leader in the local bicycle club, your strategy is simple - show him or her the application! Most communities will take a little more work. First, you must identify the decision makers responsible for the policy changes you seek. In big cities, the mayor's office would typically delegate responsibility to the city's head of transportation or public works. In a smaller town, there may be a full-time city manager that reports to a citizen city council. In any event, you must make some calls to determine who needs to be persuaded before you can set out to persuade them. Next, find one or two bicyclists who have some influence with the decision maker. If you're lucky, there is a local government official who is an avid cyclist. Without such a person, identify the most visible bicycle dealer in town and the leader of a local bicycle club. Ask around and find support. If you find a bicyclist who are already known and trusted by government leaders, your work will be much easier.
4. Gather support. Ask for a letter recommending the Bicycle Friendly Community program from any organization that might be inclined to support better bicycling. The local bicycle club is a natural first choice, but local environmental groups, civic organizations and others will tend to cooperate if you make it easy enough for them. Draft the letter for them so they know exactly what you need to minimize the amount of work you ask of them. The Bicycle Friendly Communities program frames positive change for bicyclists

into the form of a "yes or no" question to a political leader: "Will you support this program?" Politicians hate to say "No" to anyone. They especially do not want to say "No" to an organized group of people. And it's not likely they will want to say no to many different groups.

5. Call your government official and request a meeting. Attend with your best spokesperson and copies of the letters of support with you to the meeting. Talk about the benefits that the bicycle improvements you desire, as well as the benefits of a Bicycle Friendly Community designation.
6. Ask for something specific and try to get a specific commitment. A good starting point is to ask if the person will submit the application for Bicycle Friendly Community status. Another good ask is how long it will take to designate a bicycle coordinator. You could propose working with the new coordinator on implementing the other bicycle-friendly criteria items (such as convening the bicycle advisory committee, proclaiming Bike to Work Day, developing bicycle safe engineering policies, etc.). Be specific in your requests and, if the official raises concerns, ask him or her to be specific. Following the meeting, write a thank you memo that spells out your understanding of what was agreed to.
7. Follow up and follow up (and follow up). Lack of persistence is the downfall of many a bicycle advocate. Motivated people motivate politicians and their employees. If you raise an idea and then don't pursue it, they grow suspicious about just how important that idea is to you. So many people are clamoring for their time and attention, they will forget if you make yourself forgettable. Keep calling back and keep going back. Commit to the result and make it happen!

[Home](#) | [About BFC](#) | [Community Profiles](#) | [Apply](#) | [Technical Assistance](#) | [FAQ's](#) | [Media](#) | [Contact](#)

Maintained by the Pedestrian and Bicycle Information Center for the League of American Bicyclists.
The League of American Bicyclists, 1612 K Street NW, Suite 800 Washington, DC 20006-2802
phone - 202-822-1333 fax - 202-822-1334 email - bikeleague@bikeleague.org



LEAGUE OF AMERICAN BICYCLISTS
1612 K St., NW, Suite 800
Washington, DC 2006-2850
WEBSITE www.bikeleague.org
EMAIL bikeleague@bikeleague.org
PHONE 202.822.1333
FAX 202.822.1334

The League of American Bicyclists
Bicycle Friendly Communities Campaign

Thank you for your interest in becoming a designated Bicycle Friendly Community. Please complete Part I. Visit www.bicyclefriendlycommunity.org or call 202-822-1333 for more information and resources.

APPLICATION PART I

CONTACT INFO

Name of Community _____

Mayor or top elected official in municipality _____

Contact Name _____

Position _____

Employer _____

Address _____

Address line 2 _____

City _____

State _____

Zip _____

Phone _____

Fax _____

Email _____

Website _____

COMMUNITY PROFILE

1. Population _____
2. Square mileage of municipality _____
 - Total area _____
 - Water area _____
 - Land area _____
3. Population density _____
4. Climate
 - Average temperature for January _____
 - Average temperature for April _____
 - Average temperature for July _____
 - Average temperature for October _____

 - Average precipitation for January _____
 - Average precipitation for April _____
 - Average precipitation for July _____
 - Average precipitation for October _____
5. Median income \$ _____
6. Age distribution
 - % under 20 _____%
 - % age 20-64 _____%
 - % age 65-84 _____%
 - % age 85+ _____%
7. Race
 - a. % Hispanic or Latino (of any race) _____%
 - b. % Not Hispanic or Latino _____%
 - c. % One race _____%
 - d. % White _____%
 - e. % Black or African American _____%
 - f. % American Indian and Alaska Native _____%
 - g. % Asian _____%
 - h. % Native Hawaiian and Other Pacific Islander _____%
 - i. % Some other race _____%
 - j. % Two or more races _____%
8. If you have Journey-to-Work census data on bicycling to work, what percentage of people in your community bike to work? _____%

Directions (Questions 9-14): Please circle the choice that reflects the best answer for your community.

9. How many households are within ¼ mile of a retail or business area?

(All) (Most) (Some) (Few)

10. How many neighborhoods have significant grass, flowers, and trees?

(All) (Most) (Some) (Few)

11. How many neighborhoods have significant amenities such as parks, water fountains, benches, and public art?

(All) (Most) (Some) (Few)

12. How many neighborhoods in your community would you consider a good place to raise children?

(All) (Most) (Some) (Few)

13. Do you have a Bicycle Master Plan?

(Yes) (No)

14. Do you have a written bicycle accommodation policy?

(Yes) (No)

Directions (Questions 15-18): Please answer the following questions on a separate sheet of paper. All answers should be typed and numbered accordingly.

15. What was your community's most significant investment for bicycling in the past year?

16. List current community activities that encourage/promote bicycling.

17. Bicycle Coordinator & Government Staff

a. List your official bicycle/pedestrian coordinator or bicycle issues contact person on government staff.

b. What department is the bicycle coordinator located in?

c. How many hours are spent per year in this capacity?

- d. List all other government staff or contractors whose primary duties are devoted to bicycling issues.

18. Do you have a Bicycle Advisory Committee, Ped/Bike Council or other venue for citizen input?

- a. List the name of the Chair and their contact information.

Thank you for providing preliminary information. Please mail the completed application to:

*League of American Bicyclists
1612 K Street, NW #800
Washington DC 20006*

After careful review of your general community profile, the League will inform you if you have met the basic criteria to begin Part II of the application process.



LEAGUE OF AMERICAN BICYCLISTS
 1612 K St., NW, Suite 300
 Washington, DC 20006-2850
 WEBSITE www.bicyclefriendlycommunity.org
 EMAIL bikeleague@bikeleague.org
 PHONE 202.822.1333
 FAX 202.822.1334

**The League of American Bicyclists
 Bicycle Friendly Communities Campaign**

www.bicyclefriendlycommunity.org

*Part II is a detailed audit of the engineering, education, encouragement, enforcement, evaluation and planning efforts in your community. **Complete this application on www.bicyclefriendlycommunity.org.** This comprehensive inquiry is designed to yield a holistic picture of your community's work to promote bicycling. Technical assistance for completing Part II is available at www.bicyclefriendlycommunity.org or by calling the League at 202-822-1333.*

APPLICATION PART II

ENGINEERING

1. Do you have a policy that requires the accommodation of cyclists in all new road construction and reconstruction and resurfacing? Please include a copy of this legislation or policy.
2. Have you provided training for your engineers and planners on how to accommodate cyclists? Please describe. Is there a mechanism to provide training on an on-going basis?
3. How many bridges are in your community? How many are closed or inaccessible to cyclists? Of those accessible by bike, how many have shoulders, bike lanes, wide curb lanes, or multi-use paths?
4. Do you have a bike parking ordinance? If yes, please include a copy of your ordinance:
5. Are there bike racks or storage units at:

Schools	(All)	(Most)	(Some)	(Few)	(None)
Libraries	(All)	(Most)	(Some)	(Few)	(None)
Transit stations	(All)	(Most)	(Some)	(Few)	(None)
Recreation centers	(All)	(Most)	(Some)	(Few)	(None)
Government buildings	(All)	(Most)	(Some)	(Few)	(None)
Office buildings	(All)	(Most)	(Some)	(Few)	(None)
Retail centers	(All)	(Most)	(Some)	(Few)	(None)
Public spaces and parks	(All)	(Most)	(Some)	(Few)	(None)



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Washington, DC 20006-2850
WEBSITE www.bicyclefriendlycommunity.org
EMAIL bikeleague@bikeleague.org
PHONE 202.822.1333
FAX 202.822.1334

6. If your community has transit service:
 - a. Are buses equipped with bike racks? (All) (Most) (Some) (Few) (None) (N/A)
 - b. Can bikes be brought inside transit vehicles?
7. How many miles of bike lanes do you have? How many miles of bike lanes are in your bicycle master plan? What is the mileage of your total road network? In rural communities, rideable paved shoulders may also be considered.
8. What percent of arterial streets have bike lanes or paved shoulders?
9. How many miles of designated bike routes do you have? How many miles of signed bike routes are in your bicycle master plan?
10. Please describe any maintenance programs or policies that ensure bike lanes and shoulders remain usable.
 - a. Routine maintenance
 - b. Capital improvements
11. Please describe initiatives your community has taken to ensure or improve bicycle access, safety and convenience at intersections, including bicycle detection, signing and marking.
12. How many miles of paved or hard surface trails (e.g. asphalt, concrete, crushed rock) do you have? How many miles of paved or hard surface trails are in your bicycle master plan?
13. How many miles of natural surface trails (singletrack) do you have? What is the total mileage of natural surface trails that are open to mountain bikes?
14. What is the estimated acreage of open space and public lands within the community (city, county, state, and federal public lands)? Are these areas open to cyclists?
15. Please describe maintenance programs or policies for your Multi-use Paths.
 - a. Routine maintenance
 - b. Capital improvements
16. Does your community have an ordinance or local code requirement for employers to provide bicycle parking, shower facilities, etc.? If yes, please describe or include a copy.
17. Please describe recreational facilities for cyclists such as low traffic rural roads and signed touring routes.
18. Are there other facilities that have been created to promote bicycling in your community? If yes, please describe.



LEAGUE OF AMERICAN BICYCLISTS
1612 K St. NW, Suite 800
Washington, DC 20006-2850
WEBSITE www.bicyclefriendlycommunity.org
EMAIL bikeleague@bikeleague.org
PHONE 202.822.1333
FAX 202.822.1334

EDUCATION

1. How do you educate motorists to share the road with cyclists? Please describe. How many community motorists do you reach with these efforts?

(All) (Most) (Some) (Few) (None)

2. Are there other bicycle education opportunities for adults? Please describe.
3. Do you have a bicycle safety program for children in schools? How many schools participate?
(All) (Most) (Some) (Few) (None)
4. What other types of bicycle safety and education opportunities are available for children? Please describe. How many children participate?
5. Do you make bicycle safety materials available to the public? Please describe.
6. Do you have a bicycle ambassador program that educates community members on local opportunities for bicycling and answers their questions?
7. Do you have League Cycling Instructors in your area? Please list active instructors.
8. Is bicycle safety education included in routine local activities (e.g. tax renewal, drivers licensing and testing, or inserts with utility bills each month)? If so, please describe.



LEAGUE OF AMERICAN BICYCLISTS
1612 K St., NW, Suite 800
Washington, DC 20006-2850
WEBSITE www.bicyclefriendlycommunity.org
EMAIL bikeleague@bikeleague.org
PHONE 202.822.1333
FAX 202.822.1334

ENCOURAGEMENT

1. How do you promote National Bike Month in May (or another month)? Please describe.
2. How many people do you reach with events and activities during this celebration?
3. Do you actively promote Bike to Work Day or other bicycle commuting incentive programs? Please describe. What portion of the community workforce do you reach?
(All) (Most) (Some) (Few) (None)
4. Is there an annual bike tour or ride promoted to the general public in your community? Please describe.
5. Are there community road or mountain bike clubs, bicycle advocacy organizations or racing clubs? Please describe.
6. How many specialty bicycle retailers (i.e. bike shops, not big box retailers like K-Mart or Wal Mart) are there in your community?
7. Are there other bicycling areas or facilities such as BMX tracks, velodromes or mountain biking centers in your community?
8. Does your trails system have a unit of the National Mountain Bike Patrol? Patrollers inform, assist and educate mountain bikers and other trail users.
9. Are there opportunities to rent bicycles in your community or other recreational opportunities involving bicycling? Please describe.
10. Do you have Safe Routes to School program that includes bicycling? How many schools are involved?
(All) (Most) (Some) (Few) (None)
11. Does your community have youth recreation and intervention programs that are centered around bicycling?
12. Do you publish a bike map and keep it up to date?
13. Do you publish a map of mountain bike trails?
14. Please describe any other efforts in your community to encourage cycling.



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ENFORCEMENT

1. Is your local police department addressing the concerns of cyclists in your community? Is there a liaison that communicates with the bicycling community?
2. Do you offer specific training to police officers regarding traffic law as it applies to bicyclists?
3. Do you use targeted enforcement to encourage cyclists and motorists to share the road safely?
4. Do you have public safety employees on bikes? Indicate the number of employees on bike as well as the size of the entire staff.
5. Do you have a mandatory helmet law? If so, is the requirement a state law or local ordinance? To what ages does it apply?
6. Do you have a mandatory sidepath law? If so, is the requirement a state law or local ordinance? Is it enforced?



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EVALUATION & PLANNING

1. Do you have any information on the number of trips by bike in your community including census data? Please describe.
2. How many cyclist/motor vehicle fatalities have occurred in your community in the past five years?
3. How many cyclist/motor vehicle crashes have occurred in your community in the past five years?
4. Do you have a specific plan or program to reduce these numbers?
5. Do you have a system in place that allows bicyclists to submit ideas and concerns to public officials? Please describe.
6. Do you have a comprehensive bicycle plan? Please include a copy. When was it passed or updated? Is it funded? What percentage has been implemented?

(All) (Most) (Some) (Few) (None)

7. Do you have a trails master plan that addresses mountain bike access, and are there ongoing relations between the mountain biking community and the community recreation and planning staff.
8. Is your bicycle network part of broader development plans, land use plans and ongoing development projects? How many trails, bike lanes, paved shoulders, and bike routes connect with each other to provide seamless transportation options?

(All) (Most) (Some) (Few) (None)

9. Have you evaluated your transportation network and prioritized bicycle improvements based on hazards and needs?
10. What specific improvements do you have planned for bicycling in the following year?
11. What are the three primary reasons your city deserves to be designated as a Bicycle Friendly Community?
12. What are the three aspects of your community most in need of improvement in order to accommodate bicyclists?



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FEEDBACK

1. How has completing this application affected your awareness of improvements which may be made for bicyclists?
2. Are you planning any new projects based on your involvement with the Bicycle Friendly Community program? Please describe.
3. How do you foresee this designation affecting your community's outlook on bicycling?
4. How do you foresee this designation affecting future bicycle improvement efforts?
5. Are you aware of other communities which should be involved with this program? Please list below.

Yes!

I am interested in taking one or more of the following BikeEd courses:

- Road I
- Road II
- Bicycle Commuting
- Motorist Education
- Instructor Certification Seminar
- Kids I
- Kids II

Name:

Address:

E-mail:

Phone:

Contact the instructor below for a course schedule or more information:

--

Visit www.bikeleague.org or call 202.822.1333 for more info.



League of American Bicyclists
1612 K Street, NW Suite 800
Washington, DC 20006



BikeEd



Setting the National Standard
in Bicycle Education Programs

Do you want the **confidence** to ride in traffic?

Would you like to **learn techniques** to teach your child to ride a bicycle safely?

Are you **interested** in learning to change a tire or other basics of bicycle maintenance?

If you said 'yes' to any of these questions, then you should enroll in a League of American Bicyclists BikeEd course. Knowledgeable, certified instructors are available throughout the United States to teach you to be a safe and proficient cyclist. Whether you are a long-time commuter, an avid club rider, or haven't ridden in years, these fun fact-filled courses are sure to increase your knowledge, skill and confidence.



Road I
Develop your bicycle handling and traffic skills. Learn to ride safely in traffic and on multi-use trails, and to fix common mechanical problems.

Road II
Build upon the cycling and mechanical skills learned in Road I.

Bicycle Commuting
Learn the tips and tricks to getting to work or running errands by bike.

Motorist Education
Discover how a motor vehicle driver can share the road safely by learning to think like a cyclist.

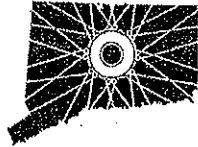
Kids I
Parents — learn how to choose a bike, fit a helmet and teach your child to ride.

Kids II
Enroll your middle school aged child to learn the traffic rules and skills to bike safely on neighborhood streets.

Safe Routes to School
Middle school aged students will learn and practice the skills to walk and bicycle safely to school. Adults can acquire the teaching materials and skills to train students.

APPENDIX G

Links to design guides



Design Guide

Home	Contact the CCBA	About the CCBA	Membership	Sponsor
Bike to Work	Event Calendar	Advocacy	Volunteer	Links
hartfordbiketour.org	Design Guide	Accident Prevent		

Bicycle and Pedestrian Planning/Guideline Documents

West Hartford Bike Task Force Resolution

AASHTO 1999 Guide for the Development of Bicycle Facilities

Manual on Uniform Traffic Control Devices (MUTCD)

Traffic Signal loop Tuning

Detection of Bicycles by Quadrupole Loops at Demand-Actuated Traffic Signals

Chicago Bike Lane Design Guide

Chicago Bike Plan 2000

Greenwich Bicycle Master Plan

Glastonbury Bike Plan (draft)

IPBI Bikeways Course-Portland

**Supplemental Design Guidelines-Bicycle Plan Update -
San Francisco**

League of American Bicyclists web site

Rules for Riding on the Road-LAB Chapter 3

Becoming a Bicycle Friendly Community-LAB

Making Alexandria a Bicycle Friendly Community

Wisconsin Bicycle Friendly Initiative

**Help make Durham a Bicycle Friendly Community
Workshop**

**Application for Bicycle Friendly Community Status -
LAB**

Bikeability Check List - Rate Your Community

Hazards of Sidewalk Bikeways - Orlando

Advantages of Paved Shoulders - Tucson Az

Re-evaluating Traffic Signal Detector Loops

APBP Bicycle Parking Guidelines

**Association of Pedestrian and Bicycle Professionals
site**

City of Batavia Ill. Bicycle Plan 2007

City of Batavia Ill. Planning Process

Bike Lane Fact Sheet

Benefits of Cycling in Minnesota

DC Bicycle Master Plan

Complete Streets Home Page

Countermeasure Selection System by Bikesafe

**Create your own SafeRoutes or note unsafe conditions
in and around West Hartford**

League of American Bicyclists Web Site

Commuting Trends in Pittsburgh Web Site

Complete The Streets PowerPoint Presentation

Sharrows recommended to become a federal standard

Sharrows - Montreal implementation

Painting a Sharrow Video

Sharrows Video

The Minnesota DOT Bicycle Modal Plan

Minnesota Bikeway Design Manual

ADA Best Practices Tool Kit for State and Local Governments

Bicycle Element- Scottsdale Transportation Master Plan

Law Enforcement -League of Illinois bicyclists

Chicagoland Bicycle Federation 20 year vision

Portland's Video - Celebrating America's most livable city

Perceptions of Bicycle Safety - an online quiz

Safe Routes to School - 2007 report





NHTSA - Resource Guide on Laws Related to Pedestrian and Bicycle Safety

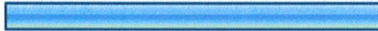

Please cite the CCBA & link to CCBA website if you borrow content from this website.
For problems or questions regarding this web contact webmaster@wecyclelect.org
Last updated: December 09, 2007.

APPENDIX H

Survey and survey results

West Hartford Bicycle Survey

1. How often do you bicycle in West Hartford?		
	Response Percent	Response Count
Daily 	7.9%	53
Once or twice a week 	22.4%	150
A few times a month 	25.9%	173
A few times a year 	43.8%	293
	<i>answered question</i>	669
	<i>skipped question</i>	54

2. If you rarely bicycle in West Hartford, would you like to answer some general questions about biking or would you like to answer some specific questions on biking within West Hartford?		
	Response Percent	Response Count
I would like to answer general questions on biking and methods to increase biking in West Hartford. 	53.0%	325
I would like to answer specific questions regarding my experiences biking in West Hartford 	47.0%	288
	<i>answered question</i>	613
	<i>skipped question</i>	110






3. If you biked in West Hartford, what would be your primary purpose for biking?

		Response Percent	Response Count
Recreation/Enjoyment		70.5%	277
Run errands		29.8%	117
Bike to work		12.7%	50
Exercise		56.5%	222
Bike to school		4.3%	17
Other (please specify)			9
		answered question	393
		skipped question	330



4. If you were to bike more in West Hartford, what would be your primary destination?






		Response Percent	Response Count
West Hartford Center		44.4%	172
Elmwood		5.9%	23
Bishops Corner		7.8%	30
Corbins Corner/Westfarms Mall Area		2.3%	9
Neighborhood schools		4.4%	17
MDC Reservoir area		24.0%	93
Other (please specify)		11.1%	43
		answered question	387
		skipped question	336




5. Why do you not bike more in West Hartford?




	Response Percent	Response Count
Lack of time 	18.7%	68
Concerns with safety 	48.5%	176
Too much traffic 	48.8%	177
Lack of bike routes 	59.2%	215
Lack of off-road trails 	19.0%	69
Other (please specify)		39
	answered question	363
	skipped question	360








6. Do you feel West Hartford does enough to encourage bicycling within the town?

	Response Percent	Response Count
Yes 	7.6%	29
No 	92.4%	352
Other (please specify)		25
	answered question	381
	skipped question	342








7. Why do you bike?		
	Response Percent	Response Count
For exercise/physical fitness 	86.6%	361
Commuter to work 	6.7%	28
Run errands 	30.9%	129
Bike to work 	13.9%	58
To be outdoors 	64.3%	268
Other (please specify)		33
	answered question	417
	skipped question	306

8. Which of the these phrases best describes your bicycling capabilities?		
	Response Percent	Response Count
An advanced, confident rider who is comfortable riding in most traffic situations 	47.4%	203
An intermediate rider who is not really comfortable riding in most traffic situations 	42.1%	180
A beginner rider who prefers to stick to a bike path or trail 	10.5%	45
	answered question	428
	skipped question	295

9. When you bike are you more often:			
		Response Percent	Response Count
Riding alone		58.1%	248
Riding with on a group or club ride		3.7%	16
Riding with friends or family		38.2%	163
<i>answered question</i>			427
<i>skipped question</i>			296

10. Within West Hartford, do you have a place to bicycle safely on the road, sharing the road with motor vehicles?			
		Response Percent	Response Count
Yes		15.9%	65
There is no space for bicyclists to ride		42.8%	175
Bicycle lanes or paved shoulders disappear on roads		51.8%	212
Traffic is too heavy and/or fast-moving		53.1%	217
Too many trucks or buses		12.7%	52
There is no space for bicyclists on bridges		15.2%	62
Poorly lighted roadways		7.3%	30
Other (please specify)			53
<i>answered question</i>			409
<i>skipped question</i>			314

11. In general, how would you describe road surfaces for biking in West Hartford?








	Response Percent	Response Count
Good 	49.6%	201
Too many potholes 	13.6%	55
Too much cracked or broken pavement 	28.4%	115
Too much debris (e.g. broken glass, sand, gravel, etc.) 	18.8%	76
There are dangerous drain grates, utility covers or metal plates 	25.4%	103
Surface is uneven or has gaps 	19.5%	79
Surfaces are slippery when wet (e.e bridge decks, construction plates, road markings) 	5.2%	21
Other (please specify)		25
	answered question	405
	skipped question	318

12. In general, within West Hartford, when biking how are the intersections you ride through?

		Response Percent	Response Count
Good		42.6%	165
Had to wait too long to cross intersection		23.3%	90
Couldn't see crossing traffic		4.9%	19
Signals don't give me enough time to cross the road		12.7%	49
Signals don't change for a bicycle		25.3%	98
Unsure where or how to ride through intersections		17.6%	68
Other (please specify)			43
		answered question	387
		skipped question	336









13. How do drivers behave to bicyclists in West Hartford?



		Response Percent	Response Count
Nice/accomodating to bicyclists		18.6%	74
Drive too fast		55.8%	222
Pass to close		59.8%	238
Do not signal		31.9%	127
Harrassing		8.0%	32
Cut off bicyclists		26.9%	107
Run red lights or stops signs, disregarding bicyclists		30.4%	121
Other (please specify)			46
		answered question	398
		skipped question	325

14. What would make it easier to bike in West Hartford?			Response Percent	Response Count
Better signage and instructions for drivers			27.4%	115
Marked bike lanes (on what street(s))			74.0%	311
Shoulder space for bicycles (on what street(s))			64.3%	270
More bike racks at key destinations			54.5%	229
Signed bike routes			55.2%	232
Bike maps/guides			22.6%	95
Less traffic			25.7%	108
		Other (please specify)		96
		answered question		420
		skipped question		303

15. Overall please rate your perception of the safety of bicycle riding in West Hartford:							
	Extremely Unsafe	Unsafe	Safe	Extremely Safe	N/A	Rating Average	Response Count
On-street safety	8.8% (37)	55.2% (233)	35.3% (149)	0.5% (2)	0.2% (1)	2.28	422
Safety through intersections	10.3% (43)	46.2% (193)	41.4% (173)	1.4% (6)	0.7% (3)	2.34	418
Off-road/on trail safety	0.0% (0)	3.5% (14)	50.8% (202)	22.6% (90)	23.1% (92)	3.25	398
					Other comments on safety		50
					answered question		424
					skipped question		299

16. What is your home zip code?		
		Response Count
		601
<i>answered question</i>		601
<i>skipped question</i>		122

17. What is your age?		
	Response Percent	Response Count
0 - 15 	0.8%	5
16 - 20 	0.3%	2
20 - 30 	3.6%	23
30 - 40 	21.1%	134
41 - 50 	34.3%	218
51 - 60 	23.9%	152
60 - 70 	11.3%	72
70 plus 	4.7%	30
<i>answered question</i>		636
<i>skipped question</i>		87

18. What is your sex?		
	Response Percent	Response Count
Male 	50.9%	323
Female 	49.1%	311
<i>answered question</i>		634
<i>skipped question</i>		89

APPENDIX I

Examples of signage from the Manual on Uniform Traffic Control Devices

BEGIN
RIGHT TURN LANE
YIELD TO



LANE

Manual on Uniform Traffic Control Devices

for Streets and Highways

2003 EDITION

Part 9 Traffic Controls for Bicycle Facilities



U.S. Department of Transportation
Federal Highway
Administration

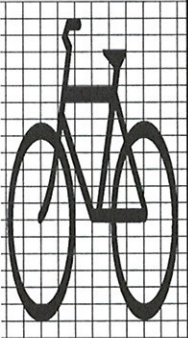
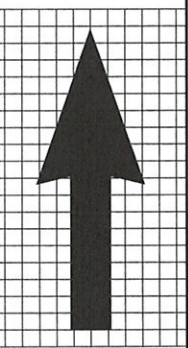


Figure 9B-2. Regulatory Signs for Bicycle Facilities



R1-1



R1-2



R3-17



R3-17a



R3-17b



R4-1



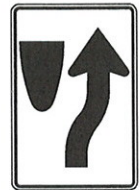
R4-2



R4-3



R4-4



R4-7



R5-1b



R5-3



R5-6



R7-9



R7-9a



R9-3c



R9-3a



R9-5



R9-6



R9-7



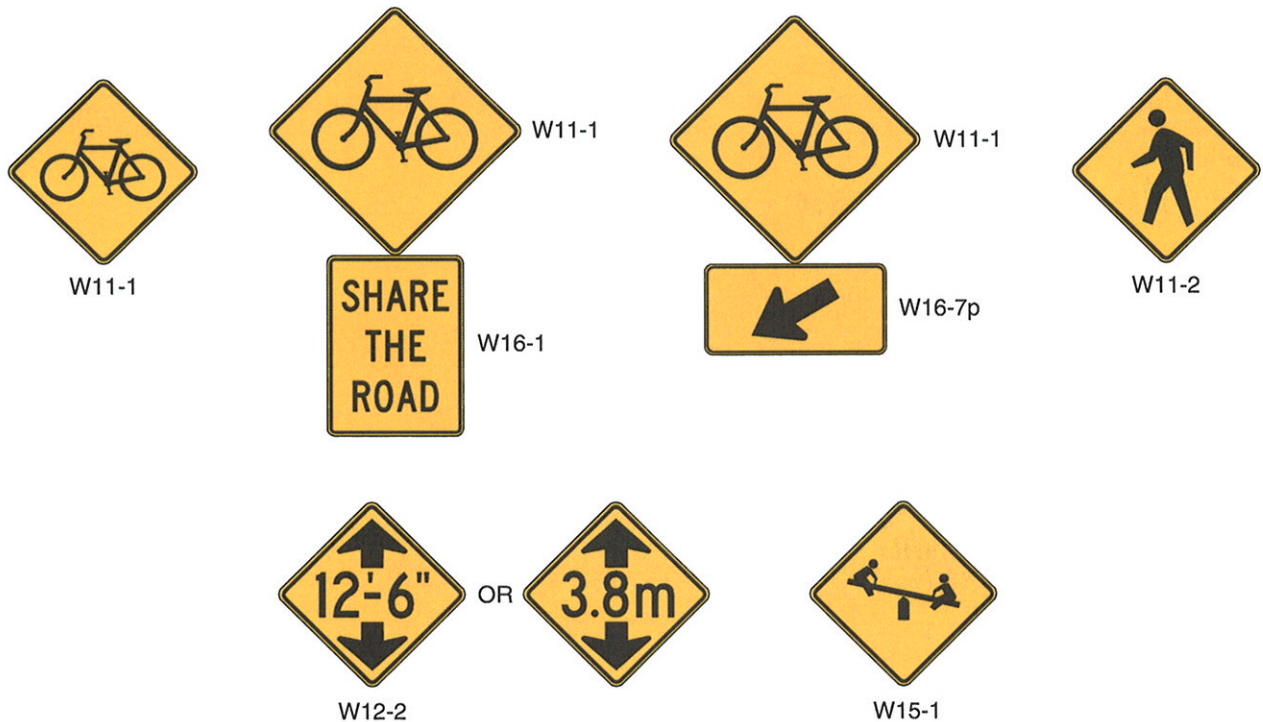
R10-3



R10-22



R15-1

Figure 9B-3. Warning Signs for Bicycle Facilities (Sheet 2 of 2)**Section 9B.18 Other Bicycle Warning Signs****Option:**

Other bicycle warning signs (see Figure 9B-3) such as BIKEWAY NARROWS (W5-4a) and Hill (W7-5) may be installed on bicycle facilities to warn bicyclists of conditions not readily apparent.

In situations where there is a need to warn motorists to watch for bicyclists traveling along the highway, the SHARE THE ROAD (W16-1) plaque (see Figure 9B-3) may be used in conjunction with the W11-1 sign.

Guidance:

If used, other advance bicycle warning signs should be installed no less than 15 m (50 ft) in advance of the beginning of the condition.

Where temporary traffic control zones are present on bikeways, appropriate signs from Part 6 should be used.

Option:

Other warning signs described in Chapter 2C may be installed on bicycle facilities as appropriate.

Section 9B.19 Bicycle Route Guide Signs (D11-1)**Guidance:**

If used, Bicycle Route Guide (D11-1) signs (see Figure 9B-4) should be provided at decision points along designated bicycle routes, including signs to inform bicyclists of bicycle route direction changes and confirmation signs for route direction, distance, and destination.

If used, Bicycle Route Guide signs should be repeated at regular intervals so that bicyclists entering from side streets will have an opportunity to know that they are on a bicycle route. Similar guide signing should be used for shared roadways with intermediate signs placed for bicyclist guidance.

Support:

Figure 9B-5 shows an example of the signing for the beginning and end of a designated bicycle route on a shared-use path. Figure 9B-6 shows an example of signing for an on-roadway bicycle route. Figure 9B-7 shows examples of signing and markings for shared-use paths.