

## Bicycle Facility Design Guidelines Chapter 6—Support Facilities

### Bicycle Accommodations

**Bicycle Banners**—Bicycle Banners are an excellent way to promote a bicycle program along a city street or trail. In some cities bicycling is a major part of the economy and bicycles are used to brand a city or town.

**Bicycle Banner Criteria:** Bicycle Banners must meet the following criteria:

- Street light poles must be able support a banner and only one per pole may be installed (banners may be double sided).
- Banner must be limited to 3.5 square feet.
- Banners must be replaced on a regular basis.
- No advertising is allowed on banners, including website addresses and business names.
- All installations on public ROW are subject to Public Works review and approval.



**Above:** The proposed banners from Minneapolis, MN and from Clayton, MO represent two types of messaging. The banner on the left is being used as a public service announcement to promote one of the reasons to bike. The banner on the right directs trail users from the Midtown Greenway to the shops and restaurants along the Lake Street corridor.



**Above:** Bicycle Banner in Montreal.



**Above:** Bicycle Banner in Berkeley, California.

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**Bicycle Maps**—Bicycle Maps are extremely important to bicycle facility users. Maps in combination with bikeway signage can assist bicyclists with trip planning and with negotiating the trail and roadway system by bike. Maps are also important to those who are using the bicycle system for the first time.

**Online Tools**—Websites have become an excellent source of information for bicyclists as they plan their trip. There are a number of local websites and technologies to map recommended routes based on origin, destination, and roadway suitability. Other websites have used a wiki format where numerous users can provide input based on their experience. Attributes can be added to provide additional information (such as traffic volumes, detour information, elevations, and points of interest).

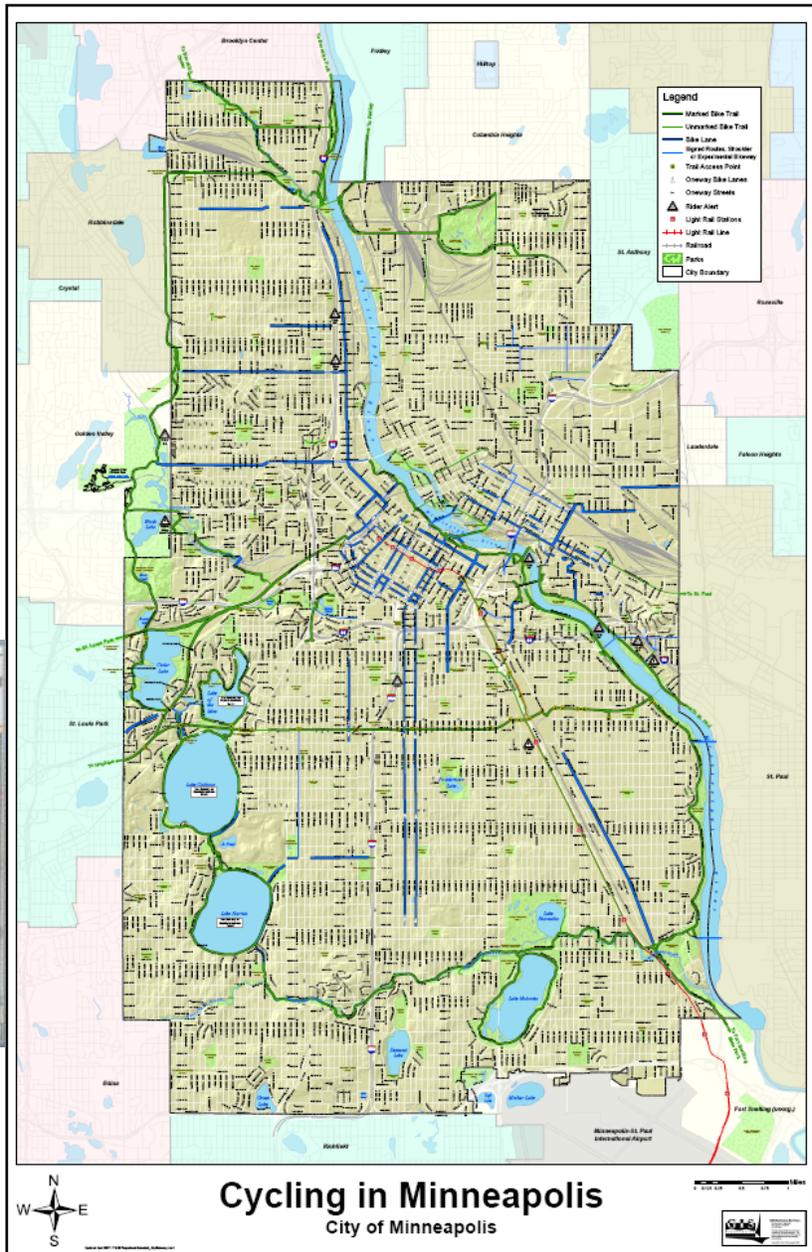


**Above:** Cyclopath is a local website maintained by the University of Minnesota that allows bicyclists to add information to an online bicycle route map. The website also features recommended routes for bicyclists.



**Above:** The Hennepin County Road and Bike Map is updated and distributed regularly and is a very useful map showing major bikeways within the county.

**Below:** The City of Minneapolis Bike Map



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**Bicycle Repair Stations**—Bicycle Repair Stations are places where bicyclists can work on their bicycles and are typically placed in dense areas. One of the most significant barriers for potential bicyclists is the fear of getting a flat or having their bicycle need repair when far away from work or home. Bicycle repair stations offer a place to change a tire, to tighten loose bicycle parts, and to perform routine maintenance.

Types of Tools: Bicycle Repair Stations should be equipped with an air pump, a flat head screwdriver, a Phillips screwdriver, a Crescent wrench (or several sizes of wrenches), Allen wrenches, tire levers, and a torque wrench. Cables may be used to fasten the tools to minimize theft and vandalism. A bicycle repair station should offer the ability for the bicycle to be hung.

**Below:** Bicycle Repair Station.



**Above:** Madison, Wisconsin Bicycle Repair Station.



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**Above:** Bicycle Repair Station.



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**Bicycle Share Stations**—Bicycle Share Stations are placed at regular intervals throughout the city and are intended to provide a way for employees, commuters, and residents to make short trips by bike instead of by car. Bicycle share programs have been effectively implemented worldwide. A bicycle can be checked out with a membership card that can be purchased on-line or with a credit card at a payment kiosk.



**Above:** Bicycle Share Station in Paris France



**Above:** Bicycle Share Station in Washington, DC.



**Above:** Bicycle Share Station in Taipei, Taiwan.



**Above:** Bicycle Share Station in Montreal, Canada.



**Above:** Bicycle Share Station in Barcelona, Spain.



**Above:** Bicycle Share Station in Philadelphia, PA.



**Above:** Call a bike program in Berlin, Germany.

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**Bicycle Station**—A Bicycle Station is a full service indoor bicycle storage facility that is typically staffed or has membership access. Bicycle Stations generally include a secure place to store a bike and may provide services such as bike repair, bike rentals, concessions, bicycle sales, and merchandising. Some bicycle stations include restrooms, drinking fountains, lockers, and shower facilities. Bicycle Stations are excellent locations to distribute maps and to provide the public with basic information about local trails, safety, and rules of the road. Bicycle Stations are also good locations for bicycle maintenance workshops, community gatherings spots, and for bicycling clubs to meet or rest. Successful Bicycle Stations can be found throughout the country but the concept is relatively new to the Upper Midwest. The Midtown Greenway Bicycle Center is a good example of a public private partnership with positive results, however these facilities are financially risky and must be placed in high density areas with market potential.

**Photos:** The Midtown Bicycle Center was completed in 2008 and provides short term and long term bicycle storage, bicycle rentals, bicycle sales, bicycle merchandise, bicycle repair, showers, and lockers. The Midtown Bicycle Center is located along the Midtown Greenway and is located next to the Midtown Exchange and Abbot Northwestern hospital.



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### Bicycle Station—Examples



Above: Bike Barn in Davis, California.



Above: Bike Station in Berkeley, California.



Above: Bike Center in Washington, D.C.



Above: Bike Center in Washington, D.C.



Above: Millennium Bike Station in Chicago.



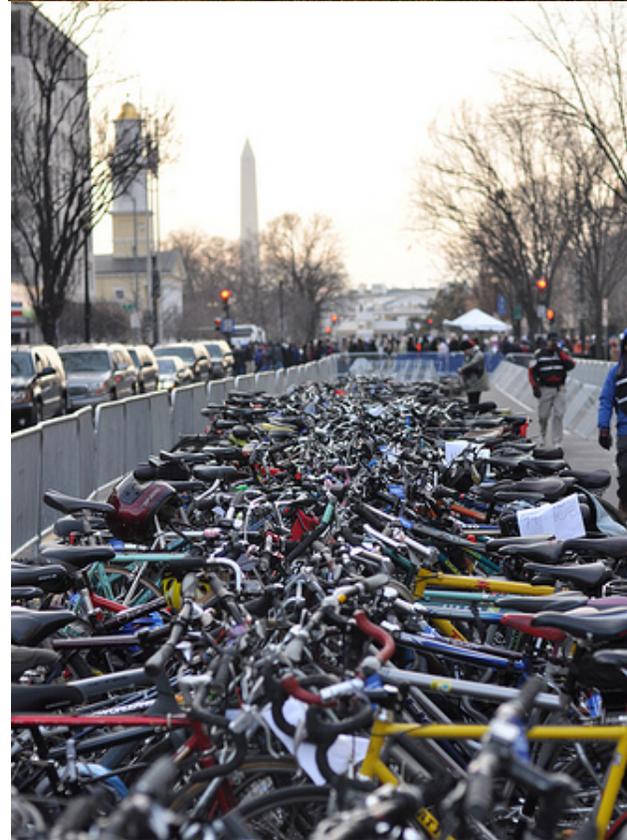
Above: Millennium Bike Station in Chicago.

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**Bicycle Valet (Bicycle Corral)**—Bicycle valet zones or bicycle corrals are temporary bicycle parking lots that are administered by staff for a given event. Bike valets are often promoted in advance of an event and are typically free. Bicycle valets are set up like a coat check at a restaurant and bicyclists are given a numbered receipt or a token to claim their bike after the event. Bike valet zones are becoming more common throughout the United States as more people choose to bike to major events. Bicycle valet zones should be set up at convenient locations near the event entrance and should be fenced to prevent bicycle tampering and theft. Large bicycle valet areas are set up in zones to allow for efficient drop off and pick up. One volunteer or employee per 50-100 bicycles is recommended for an efficiently run event and there should be enough bicycle parking for 5-10% of the total expected event crowd. This ratio also prevents bicycle theft. A standard lightweight bicycle rack that holds 12 bicycles will take up approximately 80 square feet of space in addition to aisle space. Bicycle valet zones should also be located a safe distance from moving vehicles. Bicycle corrals have been successfully implemented at a number of Twin Cities events including the Taste of Minnesota, Minnesota State Fair, and Mn Twins games. Bicycle corrals are typically staffed by local bicycle clubs or bicycle advocacy organizations and bicycle rack vendors or the local community provide the temporary bike racks. Local businesses often financially sponsor the bicycle corral to advertise and promote their goods and services.

**Photos:** Washington DC 2009 Presidential inauguration bicycle valet service. There were over 2,000 parked bicycles at this event. Photos courtesy of the Washington Area Bicyclist Association (WABA).



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**Pedicabs**—Pedicabs are a non-motorized 3-wheeled bicycle used to carry passengers for hire. There are several privately owned pedicab companies in Minneapolis that are permitted by the city. Most local pedicabs are used for tourism or for short trips in dense congested areas. Pedicabs are required to be stored on private property and pedicabs cannot use public streets or public property as a waiting area. Since pedicabs are wider than bicycles, they are not recommended for use on sidewalks or narrow trails.

Design: Bikeway design must consider the width of a typical pedicab when new facilities are being proposed. Most pedicabs are 8 to 10 feet long and between 3.7 to 4.3 feet wide. Facilities that carry pedicabs should be at least 6 feet wide and be constructed to a 20 mph design speed.



**Above:** This pedicab stand in New York City stores bicycles in the public right-of-way. Care is taken to ensure that bikes do not impede pedestrian flow.



**Above:** Pedicab in Prague, Czech Republic.



**Above:** Pedicab along Broadway Avenue in New York City.

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**Showers and Clothing Storage**— Bicycle shower and clothing storage locker facilities are logical investments. The lack of shower and clothing storage locker facilities at destinations is a significant barrier for bicyclists. Per City of Minneapolis Ordinances, shower and lockers are required in any new development exceeding 500,000 square

*Minneapolis Ordinance 549.170. Bicycle facilities in new developments. (a) In general. All developments containing five hundred thousand (500,000) square feet or more of new or additional gross floor area shall include secure bicycle parking spaces, shower facilities and clothing storage areas as provided in Table 549-3, Required Bicycle Facilities. Such facilities shall be for the use of the employees and occupants of the building. Where a development includes automobile parking spaces that are monitored or are covered or weather protected, bicycle parking spaces required by this section shall be provided on the same basis. For the purposes of this section, a secure bicycle parking space shall include a bicycle rack that permits the locking of the bicycle frame and one (1) wheel to the rack, and that supports the bicycle in a stable position without damage to wheels, frame or components. (b) Exceptions. This section shall not apply to buildings used primarily as hotels or for retail or residential purposes.*

Table 549-3 Required Bicycle Facilities

Minimum Required Facilities	Building Area				
	At Least 500,000 sq. ft.	At Least 750,000 sq. ft.	At Least 1,000,000 sq. ft.	At Least 1,250,000 sq. ft.	At Least 1,500,000 sq. ft.
Bicycle Parking Spaces	30	45	60	75	90
Showers*	4	5	6	7	8
Full-Size Lockers*	15	22	30	37	45

\*The minimum required shall be distributed between men's and women's facilities



**Above:** Clothing Storage Lockers at the Millennium Park Bicycle Station in Downtown Chicago.

**Left/Right:** Federal Building showers and clothing storage lockers. The Hawthorne Transportation Center at the intersection of 10th Street and Hawthorne also has showers and clothing storage lockers for public use. These facilities can be rented in addition to bicycle lockers. Several Downtown Minneapolis companies including Target and Ameriprise provide showers and clothing storage areas for employees in addition to secure bicycle parking.

