

# Section 6

## Supplemental

### Facilities

#### 6.1 - Parking

Provision for bicycle parking facilities is perhaps the most important link in a comprehensive bicycle facilities system. This is an essential element in an overall effort to promote bicycling. If parking is not available, the incentive to use bicycles as a means of transportation is seriously undermined.

##### 6.1.1 Need For Parking

Where adequate parking is not provided or properly designed and located, bicyclists will lock their bicycles to the nearest available object, whether it is a tree, a post, a parking meter or a handicap handrail. This random parking is undesirable, as it can damage the object, produce bicycle clutter, interrupt the normal pedestrian flow and be potentially dangerous to pedestrians.

##### 6.1.2 Planning Details

Several factors should be considered when planning and providing bicycle parking facilities:

- Care should be given in selecting bicycle parking locations to ensure that bicycles and motor vehicles will not damage each other.
- Facilities should be designed so people parking their bicycles will not disturb other parked bicycles.
- Facilities should be able to accommodate a wide range of bicycle shapes and sizes including tricycles and trailers if used locally.
- Facilities should be simple to operate. If possible, signs depicting how to operate the facility should be posted.

Bicycle parking facilities should be provided at both the trip origin and trip destination sites and should offer protection from theft, vandalism and other damage. The amount of security needed to prevent theft should be evaluated for each area. Often racks or lockers perform best when in clear view of the main entry where any tampering would be noticed. Racks placed as little as 15 m (50 feet) out of view may go completely unused. Signs should be used to indicate the location of bicycle parking.



*Single racks can be simple. One of the best is the simple hitching post, which offers ample locations for locking the bike, or simply resting the bike when seating is nearby.*





*This Danish circular rack is one of the most space conscious and attractive. Parking should be kept in public view, under lighting when available, and near all rest stops, attractions and scenic views.*



The wide variety of bicycle parking devices fall into two categories of user needs: commuter or long-term parking and convenience or short term parking. The minimum needs for each use differ, and will affect their placement and protection.

Long-term parking is needed at locations such as employment centers, transit or subway stations and multi-family dwellings. Facilities should be provided which secure the frame, both wheels, and accessories. These facilities should offer protection from weather. Bicycle lockers and attended storage areas are good examples of long-term parking facilities.

Short-term parking is needed at locations such as the main entrance of shopping centers and outside office buildings for visitors and couriers. It is also needed at libraries, recreation areas and post offices. Facilities should be very convenient and be near building entrances or other highly visible areas which are self-policing. The facilities should be designed so they will not damage bicycles. Bent rims are common with racks that only support one wheel.

## 6.2 Bicycle Racks on Buses

Provisions should be considered for interfacing bicycle travel with public transit. Several manufacturers make bike racks for buses. Buses can be converted to carry bicycles aboard. Also, programs allowing bicycles on rapid rail facilities will increase bicyclists' opportunities.

Providing bicycle facilities on transit vehicles increases the opportunity for transit to serve customers. The service range of transit is increased allowing transit to better serve low density areas. Potential transit users who find the walk to the transit stop or from the transit stop to their final destination to long would be able to ride a bike to the transit stop, saving time and providing additional mobility at his destination.

Bicyclist also benefit. By using transit a commute which is too long for a bike ride may now be combined with transit. Facilities on transit can provide additional confidence to a bicyclist by serving as a secondary method of getting to a destination in case of bad weather or mechanical breakdown.

## 6.3 Other supplemental facilities.

There are several other improvements that encourage bicycle use. Showers and clothing lockers make it more convenient for employees to ride bicycles to work. Printing and distributing bicycle route maps is highly beneficial to

bicyclists. Maps are a relatively low cost project. Maps can help bicyclists locate bikeways, parking facilities, and identify the relative suitability of different segments of the road system. Also, maps can help bicyclists avoid narrow, high speed, or high volume roads, one-way streets, barriers and other problems. In addition, maps can provide information on Rules of the Road, bicycle safety tips, and interfacing with mass transit.

#### 6.4 Operation and Maintenance

The agency responsible for the control, maintenance and policing of bicycle facilities should be established prior to construction. The costs involved with the operation and maintenance should be considered and budgeted for when planning a facility. Neglected maintenance will render bicycle facilities unrideable and increase risk to those who do ride. Path users should be encouraged to report paths and roadways needing maintenance.

Bikeways and roadways with bicycle traffic are often susceptible to having debris, such as glass or sand, accumulate in the area where bicyclists ride. Therefore, regular sweeping is necessary. A smooth surface, free of potholes and debris, should be provided. The pavement edges should be uniform.

Signs and pavement markings should be inspected regularly and kept in good condition. Highways with bicycle traffic may require a more frequent and a higher level of maintenance than other highways.

For shared use paths, attention should be given to maintaining the full paved width and not allowing the edges to unravel. Trees, shrubs, and other vegetation should be controlled to provide adequate clearances and sight distances. Trash receptacles should be placed and maintained at convenient locations. Seeded and sodded areas in the vicinity of shared use paths should have a regular schedule of mowing.

In colder climates, winters may warrant snow removal. It should be in the form of plowing, since deicing agents and abrasives can damage bicycles.

The routine maintenance of roadways provides an excellent opportunity to improve the bicycle travel on those roads. Several bicycle facilities described in this handbook can be implemented during routine maintenance activities.

#### 6.5 Laws and Other Principles

Bicycle programs must reflect applicable state laws and ordinances. Bicycle facilities must not encourage or require



*Getting There. Paths work better when you don't need lots of auto parking. Consider a long term investment in land, water, rail and air transportation. Today there are many paths that have limited ways to get there. Even when there are buses or trains, there may not be a way to transport bicycles.*





bicyclists, pedestrians, or motorists to operate in a manner inconsistent with the adopted rules of the road as described in Chapter 11 of the Uniform Vehicle Code (UVC).

The UVC and state and local laws and ordinances should be reviewed before decisions are made on the type of facilities desired.

The design of paths and bicycling facilities is a relatively young science. A successful path typically calls for a multi-disciplinary team of engineers, planners, architects, environmentalists, path users, neighbors and other stakeholders.

Design should be an interactive and fun process. We hope and trust that this handbook has given you the basics and some new ideas to advance the state of the art.