

A RESOLUTION REGARDING THE DESIGN OF BICYCLE RACKS REQUIRED FOR  
CERTAIN LAND USES

Draft Resolution No. 6/2012-13

WHEREAS, the Board of Aldermen adopted the Comprehensive Bicycle Transportation Plan on March 24, 2009, which includes bicycle parking design guidelines; and,

WHEREAS, on June 19, 2012, the Board of Aldermen adopted an ordinance requiring bicycle parking for certain land uses within new developments; and,

WHEREAS, at the June 19, 2012, meeting, the Board expressed an interest in further review of bicycle parking design;

NOW, THEREFORE BE IT RESOLVED by the Carrboro Board of Aldermen that:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

This is the 4<sup>th</sup> day of September in the year 2012.



Fig. 7-57. Bicycle parking wayfinding signage will inform the bicyclist about where facilities exist.



Fig. 7-58. An example of a covered bicycle parking facility

## 7.6 Ancillary Features

### Bicycle Parking

As more bikeways are constructed and bicycle usage grows, the need for bike parking will climb. Long-term bicycle parking at bus stops and work sites, as well as short-term parking at shopping centers and similar sites, can support bicycling. In addition to providing the venue for parking, bicycle parking wayfinding signage will help provide direction to the facilities. Bicyclists have a significant need for secure long-term parking because bicycles parked for longer periods are more exposed to weather and theft, although adequate long-term parking rarely meets demand.

When choosing bike racks, there are a number of things to keep in mind:

- The rack element (part of the rack that supports the bike) should keep the bike upright by supporting the frame in two places allowing one or both wheels to be secured.
- Install racks so there is enough room between adjacent parked bicycles. If it becomes too difficult for a bicyclist to easily lock their bicycle, they may park it elsewhere and the bicycle capacity is lowered. A row of inverted "U" racks should be installed with 15 inches minimum between racks.
- The inverted "U" shaped bicycle racks are preferential for short term parking due to their efficient use of space, ease of use and security, while bicycle lockers provide

a safe and secure option for long term bicycle parking (Figure 7-61).

- Empty racks should not pose a tripping hazard for visually impaired pedestrians. Position racks out of the walkway's clear zone.
- When possible, racks should be in a covered area protected from the elements. Long-term parking should always be protected (Figure 7-58).
- For safety and visibility, provide lighting in bicycle parking areas through overhead or bollard lighting fixtures.

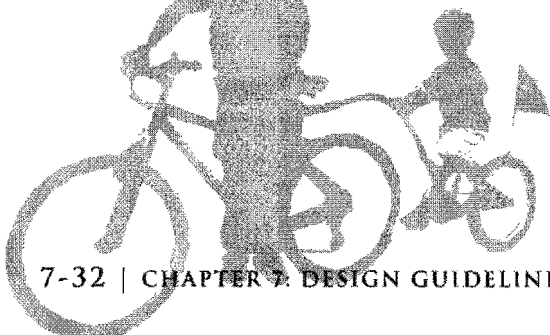
For more information on bicycle parking facilities please visit:

<http://www.apbp.org/pdfsanddocs/Resources/Bicycle%20Parking%20Guidelines.pdf>

<http://www.ibike.org/engineering/parking.htm>



Fig. 7-59. Bicycle parking in downtown Carrboro.



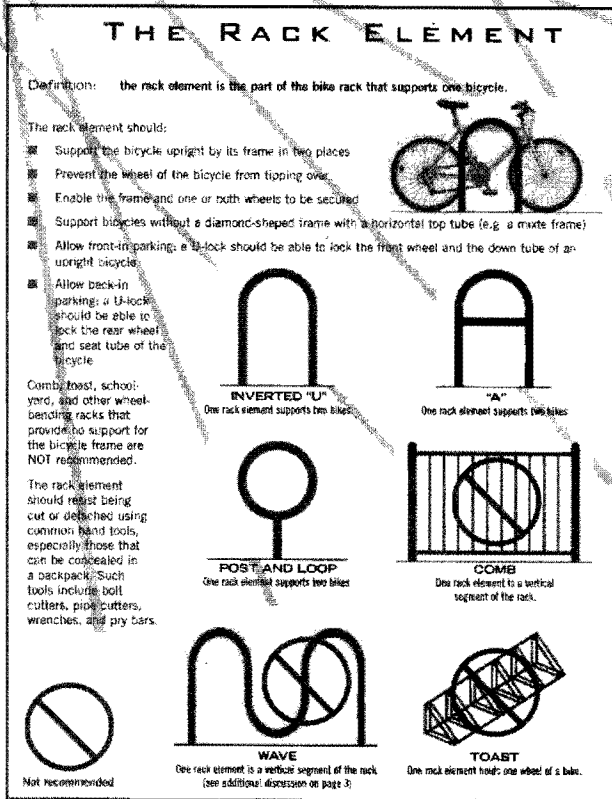


Fig. 7-60. Recommended bicycle parking facilities, Source: APBP. ([www.apbp.org](http://www.apbp.org))

### Bicycle Storage

Bicycle lockers are a crucial component of the bicycle system. They offer safe and secure storage at transit centers and destinations. Parking rates are reasonable at about 3-5 cents per hour. Bicycle lockers are designed to be secure and flexible so that the individual bikes with panniers, computers, lights, etc. can be left on the bike. Some designs of bike lockers can be stacked so there is twice the parking density. Good protection from the weather is another benefit. Bike lockers tend to be used most for long term bicycle commuter parking in area without a lot of continuous oversight. Carrboro's future mixed-use developments (which may include residential use) would benefit from these types of storage facilities.

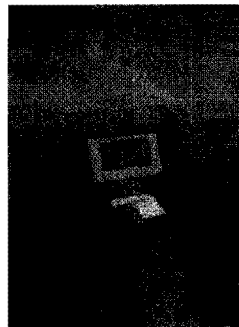


Fig. 7-61. Bicycle locker facility and pay stations offer long-term parking.



*Art. XVIII PARKING*

(b) Every vehicle accommodation area shall be designed so that vehicles cannot extend beyond the perimeter of such area onto adjacent properties or public rights-of-way. Such areas shall also be designed so that vehicles do not extend over sidewalks or tend to bump against or damage any wall, vegetation, or other obstruction.

(c) Circulation areas shall be designed so that vehicles can proceed safely without posing a danger to pedestrians or other vehicles and without interfering with parking areas.

(d) Vehicle storage areas are not required to observe any particular configuration but shall be so located and designed so that the entire amount of required square footage of such areas can be used for the purpose intended without creating any substantial danger of injury to persons or property and without impeding vehicular movement in the adjacent street. (AMENDED 2/4/86)

(e) To the extent practicable, parking shall not be allowed between a building façade and a street right-of-way in the B-1(c), B-1(g), and B-2 zoning districts.

**Section 15-295.1 Design Standards for Bicycle Parking (AMENDED 6/19/12)**

(a) Bicycle parking may be located in any parking area or in other locations that are easily accessible, clearly visible from the entrance it serves, and do not impede pedestrian or motorized vehicle movement into or around the site. At least 50 percent of bicycle parking shall be sheltered. Designating space for bicycle parking within buildings is an option to consider when feasible.

(b) When a percentage of the required motorized vehicle spaces are provided in a structure, an equal percentage of the required bicycle spaces shall be located inside that structure, unless an equivalent number of other accessible covered bicycle parking spaces are located elsewhere on the site.

(c) Where bicycle parking facilities are not clearly visible to approaching cyclists, signs shall be posted to direct cyclists to the facilities.

(d) Facilities shall provide at least a 30 inch clearance from the centerline of each adjacent bicycle rack/support structure and at least 24 inches from walls or other obstructions.

(e) An aisle or other space shall be provided for bicycles to enter and leave the facility. The aisle shall have a width of at least four feet to the front or the rear of a standard six-foot bicycle parked in the facility.

(f) Each bicycle parking space shall be sufficient to accommodate a bicycle at least six feet in length and two feet wide. Overhead clearance shall be at least seven feet.

*Art. XVIII PARKING*

- (g) Bicycle parking spaces shall be clearly marked as such and shall be separated from motorized vehicle parking by some form of physical barrier designed to protect a bicycle from being hit by a motorized vehicle.
- (h) Each bicycle parking space shall be provided with some form of stable frame permanently anchored to a foundation to which a bicycle frame and both wheels may be conveniently secured using either a chain and padlock or a U-lock. The frame shall support a bicycle in a stable position without damage to the frame, wheels, or components. The rack designs commonly known as “inverted U”, “A”, and “post-and-loop” are preferred types. The “wave”, “toast”, and “comb” racks, as described in Chapter 7, Figure 7-60, of the Comprehensive Bicycle Transportation Plan, are discouraged.
- (i) Bicycle racks should be designed and constructed according to Design Guidelines of the Carrboro Bicycle Plan.

**Section 15-296 Vehicle Accommodation Area Surfaces**

(a) Subject to subsections (e), (f), (g), and (h) vehicle accommodation areas that (i) include lanes for drive-in windows; (ii) are required to contain more than 1,000 square feet of vehicle storage area; or (iii) contain parking areas that are required to have more than ten parking spaces and that are used regularly at least five days per week shall be graded and surfaced with asphalt, concrete or other material that will provide equivalent protection against potholes, erosion, and dust. Specifications for surfaces meeting the standard set forth in this subsection are contained in Appendix D. **(AMENDED 2/4/86; 3/4/86; 6/26/90; 5/6/03)**

(b) Vehicle accommodation areas that are not provided with the type of surface specified in subsection (a) shall be graded and surfaced with crushed stone, gravel, or other suitable material (as provided in the specifications set forth in Appendix D) to provide a surface that is stable and will help to reduce dust and erosion. The perimeter of such parking areas shall be defined by bricks, stones, railroad ties, or other similar devices. In addition, whenever such a vehicle accommodation area abuts a paved street, the driveway leading from such street to such area (or, if there is no driveway, the portion of the vehicle accommodation area that opens onto such streets), shall be paved as provided in subsection (a) for a distance of fifteen feet back from the edge of the paved street. This subsection shall not apply to single-family residences, duplexes, multi-family residences consisting of two dwelling units, homes for the handicapped or infirm, or other uses that are required to have only one or two parking spaces.

(c) Parking spaces in areas surfaced in accordance with subsection (a) shall be appropriately demarcated with painted lines or other markings. Parking spaces in areas surfaced in accordance with subsection (b) shall be demarcated whenever practicable.

(d) Vehicle accommodation areas shall be properly maintained in all respects. In particular, and without limiting the foregoing, vehicle accommodation area surfaces shall be kept in good