

COCHISE BICYCLE ADVOCATES

# Bicycle Parking Facilities Guidelines

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The purpose of this document is to summarize for business owners and managers factors to consider with the selection, capacity, and placement of bicycle parking facilities for customer and employees.

## Benefits of bicycle parking facilities

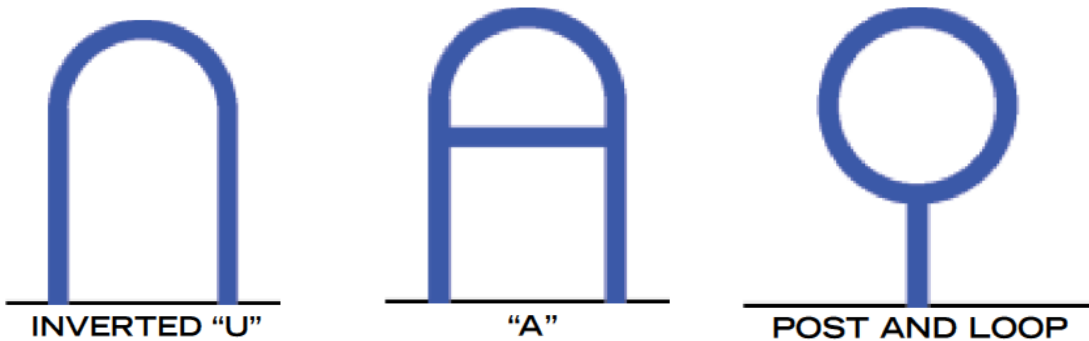
Bicycle racks benefit business by attracting bicycle-riding customer, controlling where bikes are parked to present an orderly appearance, and preventing bikes from blocking walkways or streets. Racks announce to customers this business is environmentally aware and supports sustainable transportation.

The lack of secure bicycle parking keeps many people from using their bikes for basic transportation. Leaving a bicycle unattended, even for short periods, may result in damage or theft. Finding a bike rack that can't be properly used or isn't conveniently located is a frustrating experience for bike riders.

## Types of racks

Bike racks will be used only when they provide stability and security. Racks should support the bike frame in at least one place (two places is best) so bikes cannot fall over. Racks which hold only the front wheel are not desirable, because bikes can easily fall over, damaging the wheels or other parts of the bikes. When only the front wheel can be locked to the rack, it is easy to release the wheel and steal the bicycle. Racks should enable the bike frame to be locked to the rack with a high-security U-shape lock and accommodate locking the wheels with a cable lock. Racks should be anchored so they cannot be moved.

Bicycle racks that best meet the above guidelines are the U-style, A-style, and post and loop. These racks support the bike frame in two places and enable the bike to be easily secured.

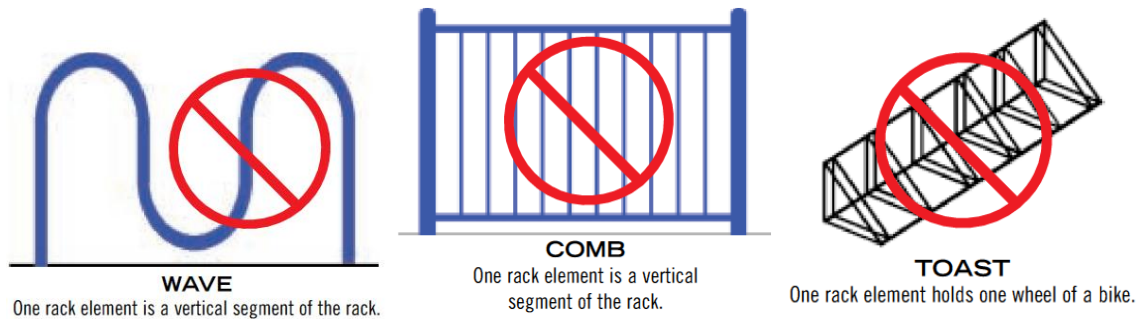


INVERTED "U"      "A"      POST AND LOOP  
One rack element supports two bikes.    One rack element supports two bikes.    One rack element supports two bikes.

Bicycle racks NOT meeting the above guidelines are the wave, comb, and toast type racks.

The popular wave-style rack can accommodate several bikes and support the frame at one place. However, bicyclists commonly use the “wave” rack as if it were a single inverted “U” (by placing their bikes alongside the rack.) This limits the capacity of the rack to two bikes regardless of the potential 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 often higher than the practical capacity.

The comb, toast, and other wheel-securing racks provide no support for the bicycle frame, making it more likely for the bicycle to fall over in the rack. Securing only the wheel increases the likelihood of bending the wheel. The advertised capacity of a wheel-securing rack is often higher than the practical capacity.



## Number of bicycles to accommodate

Business owners can determine the capacity of bike racks to provide by applying standards or considering how many bike riders they would like to accommodate. One standard requires the following parking spaces, with a minimum of 2 spaces and fractional racks being rounded up to the next whole number:

- General food sales or groceries – 1 space for each 8,000 s.f. of floor area
- Restaurant – 1 space for each 40 customer seats.
- General retail – 1 space for each 20,000 s.f. of floor area
- Office – 1 space for each 20,000 s.f. of floor area.

Business wishing to attract more bicycle riders or groups of bicycle riders may provide more parking spaces. Groups of bike riders would patronize businesses when proper bike parking facilities are provided.

## Locations of racks

- **Accessibility:** Racks should be placed close to building entrances for convenience – a maximum distance of 50 feet and be readily accessible from the street. Buildings with multiple entrances should have racks at each entrance.

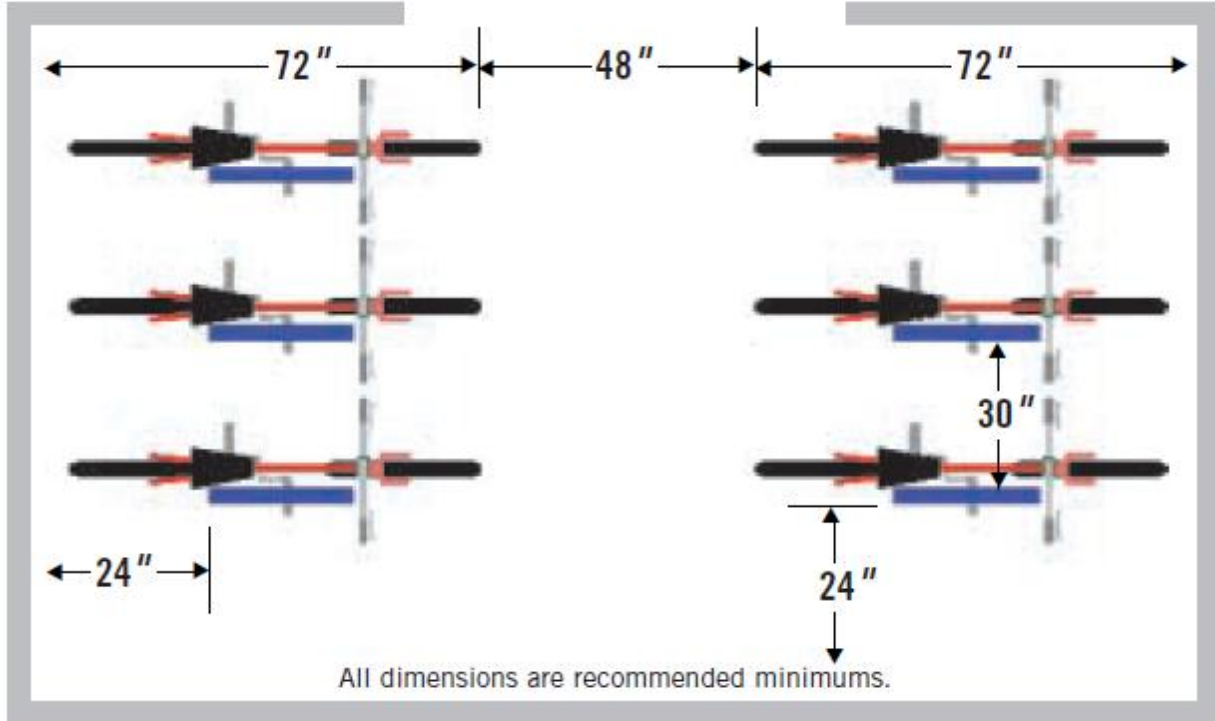
- **Visibility:** Racks should be easily spotted by cyclists as they arrive from the street or parking lot. Signs may be used to direct cyclists to the rack.
- **Security:** Racks should be in view of passers-by, retail activity, and when practical, in front of building windows to deter thieves and vandals. Where feasible, racks should be covered by roof overhangs for protection from sun and rain.
- **Avoid Conflict with Pedestrians:** Locate racks so bicycles in the racks do not block walkways, handicap facilities, building entrances or extend into roadways.
- **Positioning racks:** To serve their purpose, racks must be located so bikes can be placed in them as intended. Many racks in cannot be used as designed, because the racks' locations do not provide space for the bikes to be properly placed in the racks. The most common problems are placing racks too near building walls and not providing clearance for walkways. The following rules of thumb will permit racks to be used as designed:
  1. Provide 3 feet of clearance between bicycle racks and building walls, walkways, streets, and adjacent (side by side) racks.
  2. Provide 4 feet of clearance between bicycles parked one behind another.
  3. Wave style racks are designed to have bikes placed into the rack from both sides, so are best positioned perpendicular to walls or at least 7 feet from wall parallel to the rack.
  4. Adult bicycles are approximately 6 feet long, for considering clearance needs.

## Examples of properly installed bicycle racks

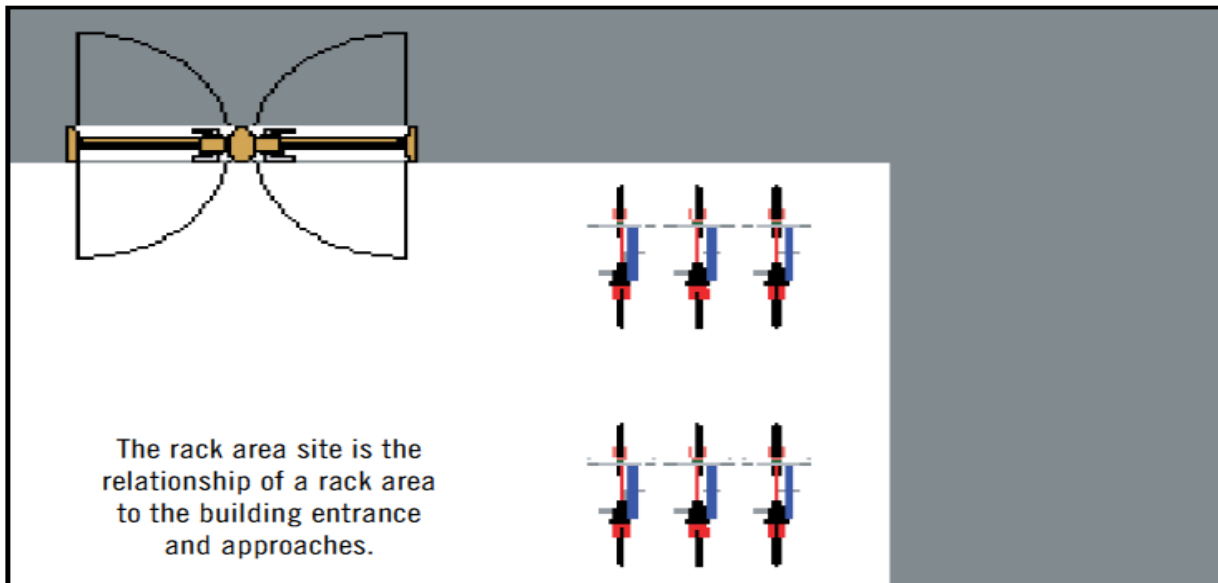
Properly installed bicycle racks may be seen at the following locations:

- U-type racks – The Cove Aquatic Center
- Ring-type racks – Fire Station #7
- Wave style rack – City Hall

Customer bicycle facility layout design



Not shown in this diagram are the pedestrian, car doors, entrance zone clearances which has a 48 inch minimum width



## **Employee Bicycle Parking**

Bicycle racks for long-term employee parking should be of the preferred types described above that enable the bike frame and wheels to be locked to the rack. The parking should be located in areas not accessible or frequented by the public and which are observed by staff of the business. Protection from the weather is more important than for short-term parking. Ideally, bicycles would be parked inside the building or bicycle storage lockers.

### Appropriate Bicycle Parking Facilities



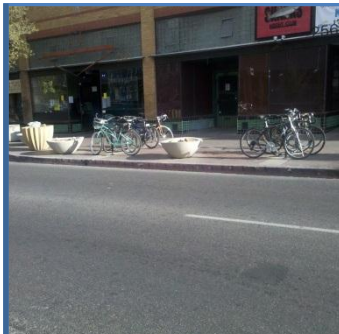
"U" racks support bike frame at 2 places and provide space for a trailer



"U" type racks recommended distances provide maximum flexibility



"U" type racks with angled design allows for maximum space efficiency



Good parking options for many bikes



Designs can be simple with anchored rods and a supporting bar



Designs can be artistic

### Inappropriate Bicycle Parking Facilities



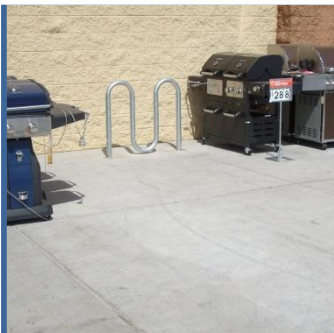
Bike blocking walkways.



Bikes blocking walkways



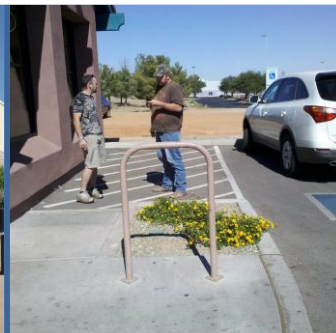
Bike blocking handicap access



Rack too close to the wall and not visible



Rack too close to the wall and the front wheel can easily be removed resulting in stolen bike.



Rack placed so bikes would block sidewalk and extend into driveway



## Bicycle Parking Checklist

1. Is there at least 3 feet of clearance between the bike rack and structures or other racks – to provide room to properly place bicycles in the rack?
2. Does the bike rack support the bicycle frame at least one place (support at 2 places is preferable)?
3. Are pedestrian walkways clear when bicycles are in the bike rack?
4. Is the bike rack easily accessible from the street?
5. Is the bike rack conveniently located to the building entrance and visible from the building?
6. Are parked bicycles protected from pedestrian and vehicle traffic?
7. Is there capacity to park the number of bicycles expected at any time?
8. Is the bike rack anchored so it cannot be moved?
9. Is parking for employees' bicycles in an area not accessible or frequented by the public?
10. Individuals with questions regarding bicycle parking facilities are invited to contact Cochise Bicycle Advocates at [CochiseBicycleAdvocates@gmail.com](mailto:CochiseBicycleAdvocates@gmail.com)

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