

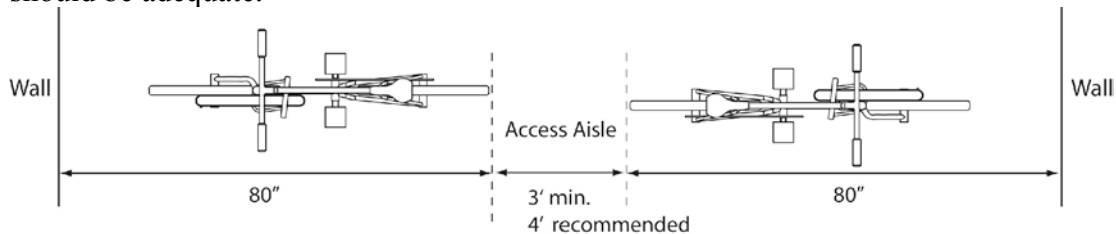
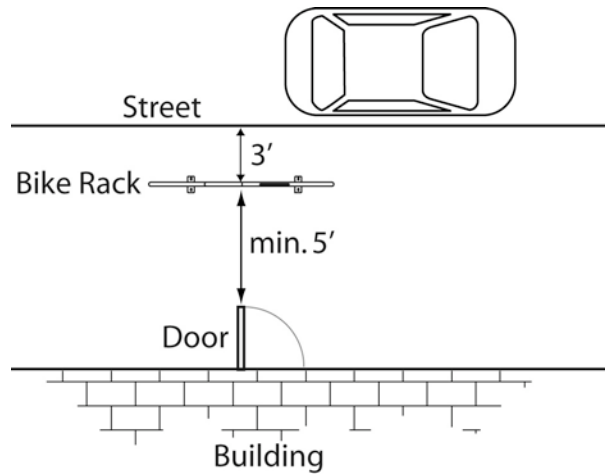
# Bicycle Parking Guidelines

## Sidewalk Layouts:

### Building & Street Setbacks and traffic aisles

When placing bike racks you have to be mindful of a couple issues:

- 1) That there will be enough space for snow removal, sweeping equipment and handicapped access. Other cities require a minimum of 5' of clearance (the distance from the building to the bike handlebar). If you locate your bike rack at least 6' from the nearest obstruction on a building, you should be OK.
- 2) Car access: If you place your bike rack too close to the street, you may interfere with people trying to get in and out of their cars. Generally a 2'-3' setback from the street should be adequate.



### Good bike rack placement

If you want your bike rack to be used, you need to find a good place for it; preferably by main entrances. If you hide your bike rack in the back of the building, chances are it won't be used and you will have wasted your money. It is always good to place the bike rack in a place that is visible so it makes it difficult for thieves to work, and in a place where it has some cover from the elements.

Tips on locating a bike rack: Look around and see where bikes are

locked to parking meters, handrails, trees, gas meters, etc. Where there is a lot of illegal bike parking, there probably needs to be a bike rack.



Bike parking is most effective when racks are grouped in odd numbers. We recommend a minimum of three racks (Hoop or Hitch style) at a site, if space is available.

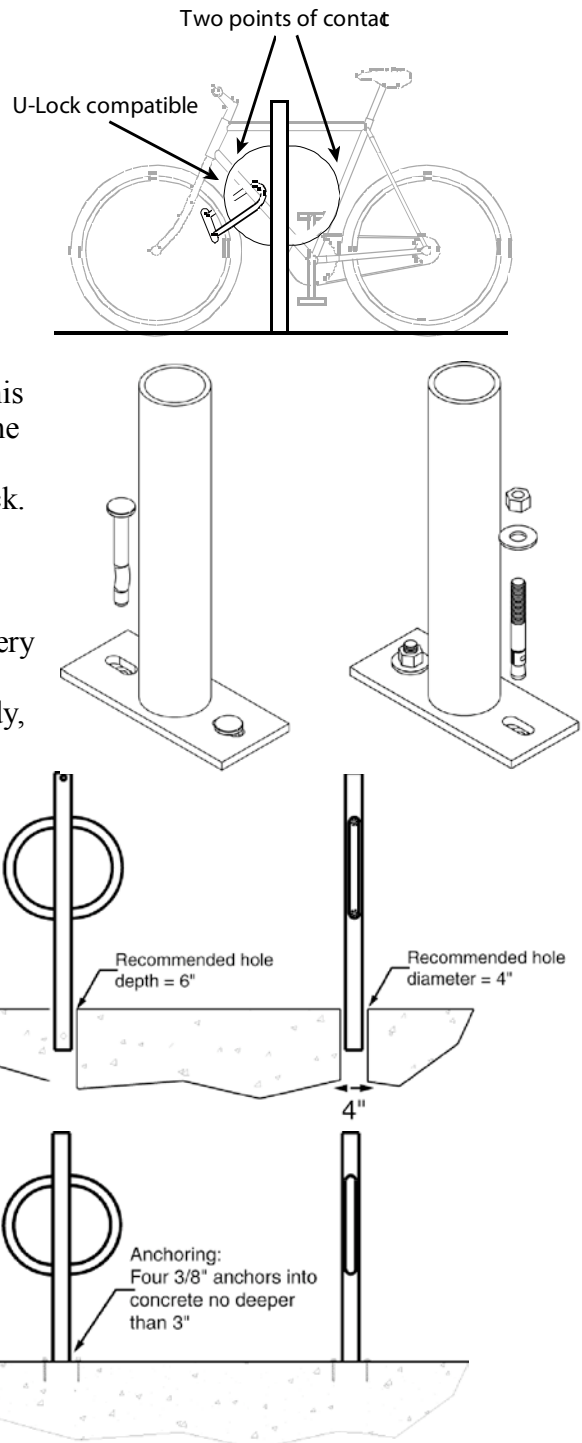
**Business districts:** Even if the bike parking is designed for the business district, it should not be isolated from the businesses. Instead of siting a large group of racks far away from each business, place racks throughout the business district. Site bike parking no further from a business than the closest car parking.

**In ramps:** Bicycle parking in ramps provides sheltered and secure parking and is appropriate for employees who are working all day. To be secure, racks must be properly sited. They should be in front of or near the ticket booth and visible by security cameras. Cyclists should be able to access the bike racks through the main auto entrance and exits. Surface racks vs. mounted racks are more appropriate in ramps.

**Signage :** Bike parking should be sited in front of the building in a visible place whenever possible. If that location is not available, the business must provide signage at the front entrance directly cyclists to the bike parking.

### What makes for a good bicycle rack

- 1) **U-lock compatible:** Most bicyclists use u-style bike locks. Some bike racks are not compatible with u-locks so you get bikes either parked incorrectly to the rack using up much more space than they should, or they will only be locking the front tire of their bike to the rack, making it an easy target for bike thieves. Ever see a single tire locked to a rack, but no bike attached to it? If you look around, you will see this quite often, especially around the universities. The rack should allow the bicyclist to lock both the frame of the bike and at least one wheel to the rack.
- 2) **Two points of contact:** If there are at least two points of contact with the bike, the bike will have better support and be less likely to tip. Several bikes tipping on a bike rack can make for some very messy bike parking.
- 3) **Security:** Make sure the rack is made out of sturdy, high quality materials and can't be disassembled. Use security anchoring systems for securing the rack to the ground. Illustrated here are a couple different anchoring systems. The concrete spike is difficult to work with but it is a permanent anchor so that once the rack is installed, it can't be removed by thieves. The other option is to use a removable anchor, but use a tamper proof fastener so it can be removed by installers who have an access tool. This option is good for locations where the racks may have to be removed in the future.

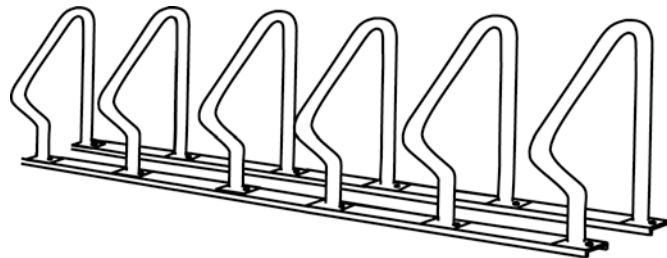


### Installation Options

There are three basic types of installations: In ground mount, surface mount and free-standing/rail mounted.

- 1) **In Ground Mount:** This option is usually where the rack is actually poured into the concrete bed. It has a nice clean, permanent look, but, the downside is that its permanent. One will often see this option when there is new construction. This option is also often used where there is no concrete surface to mount, like on asphalt or in grass. Usually a footing is dug and then concrete is poured and the rack placed into the footing.
- 2) **Surface Mount:** This is the most common type of installation and is usually done where there is an existing concrete pad. It is usually quite inexpensive and easy to do. The rack has a flange plate with mounting holes. Place the rack in the desired location, mark the holes, drill out the holes and then attach the rack with mechanical anchors of your choice. Several of these mechanical anchors are illustrated above. 90% of the installations done in the City of Minneapolis are this type of install. This option does not work on asphalt or pavers.

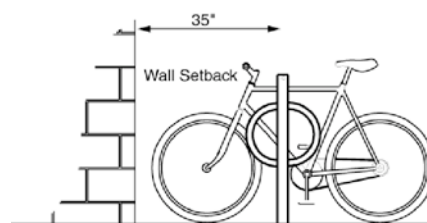
**Free-standing/Rail Mounted:** This is where the rack is left free-standing and is kept in place by its own weight. This is the most flexible and often the easiest option. This style is often used when anchoring is not an option. For example, the University of Minnesota uses this option almost exclusively because they have snow-removal issues and often the surfaces where they have the rack are not suitable for anchoring for various reasons. The most common reasons for not being able to anchor the racks are:



- a) Pavers or bricks are the base materials
- b) Asphalt is the base material
- c) There are hidden obstructions under the concrete – e.g. in parking ramps they often have post-tension cables running through the concrete meaning the floor would have to be x-rayed before it can be pierced.
- d) There is a coating on the surface and by piercing the coating it can void a warranty.
- e) There is some type of membrane system under the concrete.

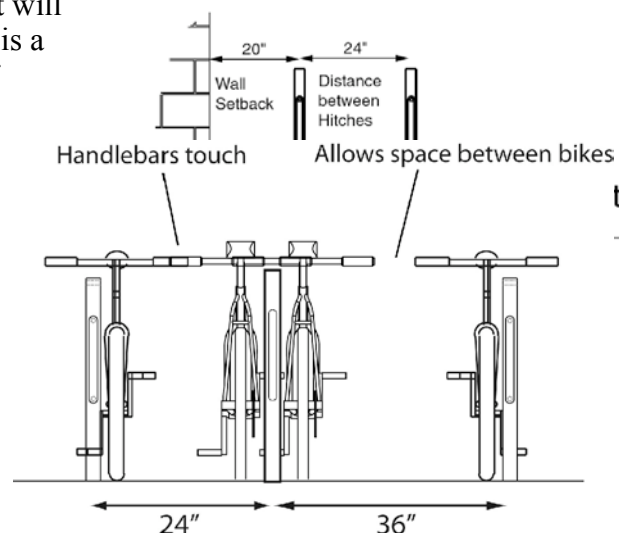
### Maintenance:

We recommend galvanized steel since it is the most durable and cost-effective. These racks last about 20 years and will never require repainting. Powdercoat will look good for several years but will need to be repainted eventually. Stainless steel is a nice option but it is about 4-5 times the price of standard steel.



### Bike Sizes & Spacing

When planning a bike facility it is important to know how much space a bike takes. Most bikes are about 70" long, 44" tall and about



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24" wide. On a Bike Hitch or inverted U, count with the space it takes up as an 80"x44" high, by 30" box. Furthermore, you will need access aisles to get your bike in and out. When placing several bike racks like the Bike Hitch side by side, install the Hitches no less than 24" apart, but 35" is the recommended distance. Count with a 4' access aisle to get your bikes in and out.

