



Montgomery County Planning Department

# bicycle parking guidelines

version 2.0

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## abstract

Abstract: These bicycle parking guidelines are a resource intended to help developers, planners, architects, and property owners provide high-quality bicycle parking in Montgomery County. The guidelines summarize the bicycle parking requirements in Section 59 of the County Code and identify recommended practices and practices to avoid. The full text of the County Code is available at: <http://www.montgomerycountymd.gov/mcg/county-code.html>.

Note: References to the County Code are current as of August 10, 2020 and should be verified.

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# Introduction

## 01

Bicycling is increasing in Montgomery County and across the region. As the number of bicyclists grows, the need for safe, secure, and accessible bicycle parking is becoming more apparent.

Recognizing this need, Montgomery County included a major overhaul to bicycle parking requirements for new development and redevelopment projects in a 2020 zoning text amendment. Expanding on the 2014 update to bicycle parking requirements, the new ordinance enhances bicycle parking and end-of-trip facility requirements, reorganizes the previous zoning text for clarity, and meets industry best practices. This update to the zoning code will help ensure appropriate levels of bicycle parking for Montgomery County employees, visitors, and residents as part of new development projects.

These bicycle parking guidelines will help developers, planners, architects and property owners provide high-quality bicycle parking in Montgomery County. The guidelines summarize the requirements in the County Code with citations and identify recommended practices and practices to avoid. The full text of the County Code is available at: <http://www.montgomerycountymd.gov/mcg/countycode.html>.

The guidelines are divided into five sections:

- Parking Space and Aisle Dimensions
- Long-Term Bicycle Parking
- Short-Term Bicycle Parking
- Wayfinding
- Bicycle Support Facilities

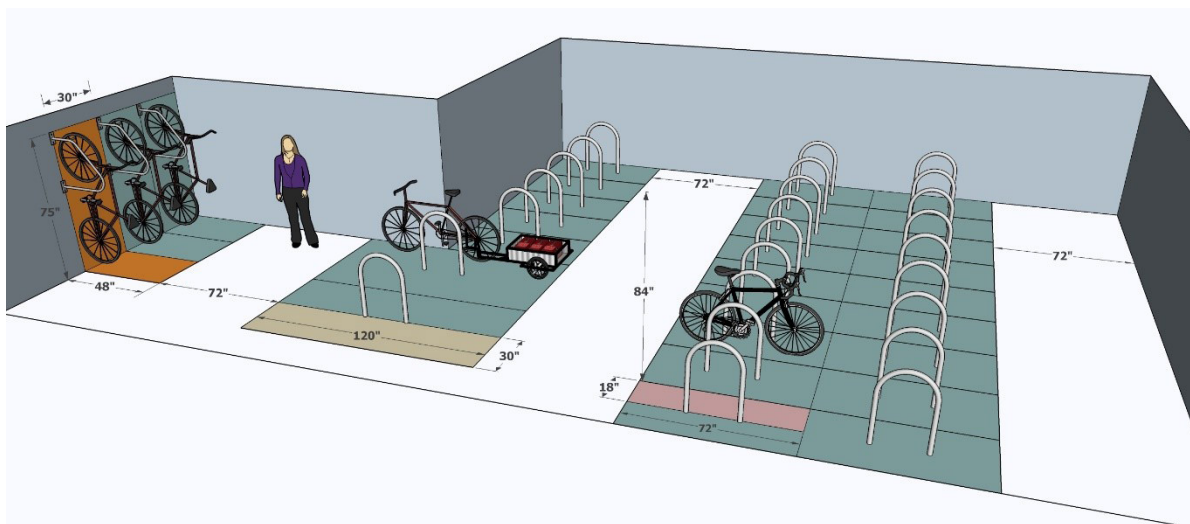



## Parking Space Dimensions And Requirements



Appropriate dimensions for parking spaces and aisle width aids for both short- and long-term bicycle parking spaces are listed below:

- Each horizontal parking space (a space where both wheels rest on the ground) must have a minimum length of 72 inches, a minimum width of 18 inches, and a minimum height of 84 inches. If an inverted-U or similar rack is provided, one rack may serve two bicycles if it is installed so that it provides the minimum parking space dimensions on each side. (6.2.6.A.1.a.)
- When an upright parking space is provided (a space where only the back wheel touches the ground), the vertical clearance of the space must be a minimum of 75 inches and the depth (measured along the floor from the anchoring wall) must be a minimum of 48 inches. The width of the space must be a minimum of 30 inches. (6.2.6.A.1.b.)
- A minimum of 10 percent of long-term parking spaces must be at least 120 inches long and 30 inches wide to accommodate non-standard bicycles. (6.2.6.A.1.c.)
- A long-term bicycle parking facility must have an access aisle that is a minimum of 72 inches on at least one side of a row of parked bicycles. (6.2.6.A.1.d.)



 A bicycle room with appropriate dimensions.

Total bicycle parking space requirements are based on zoning, a metric specific to each use, a maximum number of total bicycle parking spaces and a percent of the total spaces that are intended for short-term and long-term use. Table 1 lists the bicycle parking space requirements for Agricultural, Rural Residential, Residential and Industrial Zones, while Table 2 lists the bicycle parking space requirements for Commercial/Residential and Employment Zones.

Table 1: Bicycle Parking Spaces – Agricultural, Rural Residential, Residential & Industrial Zones<sup>1</sup>

USE or USE GROUP	Metric	Minimum (Maximum)	% Long Term
<b>RESIDENTIAL</b>			
Household Living			
Multi-Unit Living	Dwelling Unit (10+ Units Only)	0.35 (100 max per building)	95%
Group Living			
Dormitory Independent Living Facility for Seniors or Persons with Disabilities Personal Living Quarters Residential Care Facility (except Assisted Living/Memory Care Facility)	Dwelling Unit (20+ Units Only)	0.25 (50 max)	95%
Residential Care Facility (Assisted Living/Memory Care)	Total Employees	0.10 (25 max)	95%
<b>CIVIC AND INSTITUTIONAL</b>			
Charitable, Philanthropic Institution	5,000 SF of GFA	1.00 (5 max)	85%
Cultural Institution	10,000 SF of GFA	0.50 (10 max)	15%
Day Care Facility			
Day Care Center Group Day Care (excluding Home-Based Day Care)	5,000 SF of GFA	1.00 (5 max)	85%
Educational Institution (Private)	Total Students	0.05 (50 max)	0%
	Total Employees	0.10 (15 max)	100%
Hospital	25,000 SF of GFA	1.00 (50 max)	85%
Private Club, Service Organization	10,000 SF of GFA	0.50 (10 max)	15%

<sup>1</sup> Requirements are current as of August 10, 2020. Please verify the numbers in Section 59 of the County Code (Section 6.2.4.C) at [http://www.amlegal.com/codes/client/montgomery-county\\_md/](http://www.amlegal.com/codes/client/montgomery-county_md/)

USE or USE GROUP	Metric	Minimum (Maximum)	% Long Term
Religious Assembly	The greater of 2,000 SF of GFA or 200 fixed seats	1.00 (25 max)	15%
Swimming Pool (Community)	5,000 SF of GFA	1.00 (25 max)	15%
<b>COMMERCIAL</b>			
Eating and Drinking			
Restaurant	10,000 SF of GFA	1.00 (10 max)	15%
Lodging			
Hotel, Motel	10 Guest Rooms	--	--
Medical and Dental			
Clinic Medical, Dental Laboratory	5,000 SF of GFA	0.5 (25 max)	85%
Office and Professional			
Life Sciences Office Research and Development	5,000 SF of GFA	0.5 (100 max)	85%
Recreation and Entertainment			
Conference Center Health Clubs and Facilities Recreation and Entertainment Facility	10,000 SF of GFA	0.5 (50 max)	15%
Retail Sales and Service			
Retail/Service Establishment	10,000 SF of GFA	0.75 (50 max)	15%
<b>INDUSTRIAL</b>			
Manufacturing and Production			
Light Manufacturing and Production Medical/Scientific Manufacturing and Production	10,000 SF of GFA	0.5 (15 max)	100%
Transportation			
Bus, Rail Terminal/Station	100 average daily riders	3.5 (100 max)	85%



Table 2: Bicycle Parking Spaces – Commercial / Residential & Employment Zone <sup>2</sup>

USE or USE GROUP	Metric	Minimum (Maximum)	% Long Term
<b>RESIDENTIAL</b>			
Household Living			
Multi-Unit Living	Dwelling Unit (10+ Units Only)	0.5 (100 max per building)	95%
Group Living			
Dormitory Independent Living Facility for Seniors or Persons with Disabilities Personal Living Quarters Residential Care Facility (except Assisted Living/Memory Care Facility)	Dwelling Unit (20+ Units Only)	0.25 (50 max)	95%
Residential Care Facility (Assisted Living/Memory Care)	Total Employees	0.10 (25 max)	95%
<b>CIVIC AND INSTITUTIONAL</b>			
Charitable, Philanthropic Institution	5,000 SF of GFA	1.00 (5 max)	85%
Cultural Institution	10,000 SF of GFA	1.00 (10 max)	15%
Day Care Facility			
Day Care Center Group Day Care (excluding Home-Based Day Care)	5,000 SF of GFA	1.00 (5 max)	85%
Educational Institution (Private)	Total Students	0.05 (50 max)	0%
	Total Employees	0.10 (15 max)	100%
Hospital	25,000 SF of GFA	1.00 (50 max)	85%
Private Club, Service Organization	10,000 SF of GFA	1.00 (10 max)	15%
Religious Assembly	The greater of 2,000 SF of GFA or 200 fixed seats	1.00 (25 max)	15%
Swimming Pool (Community)	5,000 SF of GFA	0.50 (25 max)	15%

USE or USE GROUP	Metric	Minimum (Maximum)	% Long Term
<b>COMMERCIAL</b>			
Eating and Drinking			
Restaurant	10,000 SF of GFA	1.00 (10 max)	15%
Lodging			
Hotel, Motel	10 Guest Rooms	1.00 (25 max)	100%
Medical and Dental			
Clinic Medical, Dental Laboratory	5,000 SF of GFA	1.00 (25 max)	85%
Office and Professional			
Life Sciences Office Research and Development	5,000 SF of GFA	1.00 (100 max)	85%
Recreation and Entertainment			
Conference Center Health Clubs and Facilities Recreation and Entertainment Facility	10,000 SF of GFA	1.00 (50 max)	15%
Retail Sales and Service			
Retail/Service Establishment	10,000 SF of GFA	1.00 (50 max)	15%
<b>INDUSTRIAL</b>			
Manufacturing and Production			
Light Manufacturing and Production Medical/Scientific Manufacturing and Production	10,000 SF of GFA	1.00 (25 max)	100%
Transportation			
Bus, Rail Terminal/Station	100 average daily riders	7.00 (100 max)	85%

2 Requirements are current as of August 10, 2020. Please verify the numbers in Section 59 of the County Code (Section 6.2.4.C) at [http://www.amlegal.com/codes/client/montgomery-county\\_md/](http://www.amlegal.com/codes/client/montgomery-county_md/)

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# long-term bicycle parking

Long-term bicycle parking is intended to provide sheltered and secure bicycle storage for residents, employees and visitors who are leaving their bicycles in a residential or commercial building for several hours or longer and therefore need their bicycles to be protected from vandalism, theft and the elements. All long-term spaces must be outfitted with a rack to lock the bicycle to. (6.2.6.B.1.e.v.)

When a development project includes multiple buildings, the total number of parking spaces required will be calculated for the entire project and distributed proportionally to each building based on its share of the total parking space requirement. When the long-term bicycle parking for multiple buildings is co-located, it must be within 200 feet of an entrance to each of the participating buildings. (6.2.6.B.1.c.)

Stacked bicycle racks are a common way to provide a large number of long-term bicycle parking spaces in less space. To ensure all users can access them, stacked bicycle racks must:

- include a mechanism that lowers upper-level loading trays;
- have an aisle with a minimum width of 84 inches; and
- be designed so that users can easily lock the bicycle from the aisle. (6.2.6.B.1.i.)

## 3.1 types of long-term bicycle parking

There are four types of bicycle parking in residential and commercial Buildings (6.2.6.B.1.b):

- Bicycle rooms on the ground floor.
- Bicycle rooms in a parking garage.
- Bicycle cages in a parking garage.
- Secure parking areas, which are weather-protected, standalone bicycle parking structures or building extensions with shared racks and access control. (6.2.6.)



## 3.1.1

### bicycle rooms on ground floor

A bicycle room located on the ground floor of a commercial or residential building is the preferred form of long-term bicycle parking because it provides:

- Highly secure bicycle storage in an enclosed facility.
- Direct access to the street or sidewalk.
- Little or no conflict with automobiles.

Requirements:

- Clearly marked as a long-term bicycle parking space. (6.2.6.B.1.e.i.)
- Available and accessible to all building tenants during the building's hours of operation. For residential tenants, each space must be accessible 24 hours a day, 7 days a week. (6.2.6.B.1.d.)
- Located in a well-lit, visible location near the main entrance or elevators. (6.2.6.B.1.e.i)
- Must not be accessible to anyone without authorized access.(6.2.6.B.1.f.)
- Must be well-maintained and well lit. (6.2.6.B.1.g.)
- If the bicycle storage area requires the use of doors, doors must be fully automatic or automatically open with the push of a button. (6.2.6.B.1.h.)

Recommended:

- Ability to communicate between bicyclists and building security.

## 3.1.2

### bicycle rooms in a parking garage



● A bicycle room with stacked bike racks.

A bicycle room located in the parking garage of a commercial or residential building is the second best form of long-term bicycle parking because it provides:

- Highly secure bicycle storage in an enclosed facility.
- Indirect access to the street or sidewalk through a parking garage.
- Some conflict with automobiles as cyclists navigate through the parking garage.

#### Requirements:

- Clearly marked as a long-term bicycle parking space. (6.2.6.B.1.e.i.)
- Located no lower than the first complete parking level below grade, and no higher than the first complete parking level above grade. (6.2.6.B.1.e.ii.)
- Available and accessible to all building tenants during the building's hours of operation. For residential tenants, each space must be accessible 24 hours a day, 7 days a week. (6.2.6.B.1.d.)
- Located in a well-lit, visible location near the main entrance or elevators. (6.2.6.B.1.e.iii.)
- Must not be accessible to anyone without authorized access. (6.2.6.B.1.f.)
- Must be well-maintained and well lit. (6.2.6.B.1.g.)
- If the bicycle storage area requires the use of doors, doors must be fully automatic or automatically open with the push of a button. (6.2.6.B.1.h.)

#### Recommended:

- Ability to communicate between bicyclists and building security.
- Bicyclists should have direct bicycle access to bicycle room so that they do not need to take their bicycles through building lobbies. However, if garage ramps are excessively steep, elevators should be sized to accommodate bicycles.
- Parking garage gate arms should be positioned to allow bicycles to pass by.

## 3.1.3

### bicycle cages in a parking garage

A bicycle cage located in the parking garage of a commercial or residential building is the third best form of long-term bicycle parking because it provides:

- Secure bicycle storage in a facility typically constructed of chain-link fence, which can be cut and leaves bicycles visible to vandals and thieves.
- Indirect access to the street or sidewalk through a parking garage.
- Some conflict with automobiles as cyclists navigate through the parking garage.

#### Requirements:

- Clearly marked as a long-term bicycle parking space. (6.2.6.B.1.e.i.)
- Located no lower than the first complete parking level below grade, and no higher than the first complete parking level above grade. (6.2.6.B.1.e.ii.)
- Available and accessible to all building tenants during the building's hours of operation. For residential tenants, each space must be accessible 24 hours a day, seven days a week. (6.2.6.B.1.d.)
- Located in a well-lit, visible location near the main entrance or elevators. (6.2.6.B.1.e.iii.)
- Must not be accessible to anyone without authorized access. (6.2.6.B.1.f.)
- Must be well-maintained and well lit. (6.2.6.B.1.g.)
- If the bicycle storage area requires the use of doors, doors must be fully automatic or automatically open with the push of a button. (6.2.6.B.1.h.)

#### Recommended:

- Bicyclists should have direct bicycle access to bicycle room so that they do not need to take their bicycles through building lobbies. However, if garage ramps are excessively steep, elevators should be sized to accommodate bicycles.
- Parking garage gate arms should be positioned to allow bicycles to pass by.



● A bike cage at The Citron in Downtown Silver Spring.

## 3.1.4

### secure parking areas

A secure parking area is a weather-protected, standalone bicycle parking structure or building extension with shared racks and access control. It allows for flexibility in the provision of bicycle parking since secure parking areas can exist without or in addition to an associated building.

#### Requirements

- Clearly marked as a long-term bicycle parking space. (6.2.6.B.1.e.i.)
- Must be well-maintained and well lit. (6.2.6.B.1.g.)
- If the bicycle storage area requires the use of doors, doors must be fully automatic or automatically open with the push of a button. (6.2.6.B.1.h.)



● A secure parking area at MIT. (Source: [www.flickr.com/photos/prayitnophotography/8280068212/](https://www.flickr.com/photos/prayitnophotography/8280068212/))



## 3.2 recommended practices

A number of recommended practices can enhance the quality of long-term bicycle parking, but are not required by the Montgomery County Zoning Ordinance.

### 3.2.1 entrances

In addition to the requirement for automated doors, entrances to long-term bicycle parking locations should be designed with bicyclist's needs in mind:

- Doorways should be wide enough for a bicyclist to comfortably walk through with a bicycle and a trailer.
- There should be adequate space on either side of the door for a bicycle to maneuver and bicyclists to wait for someone else to enter or exit.
- The panel for the key fob or access code should be visible and easily accessed by the user, who will be simultaneously maneuvering a bicycle and operating the door.

### 3.2.2 vertical racks



Vertical racks are challenging for some people to use and do not accommodate all types of bicycles.

While the zoning code permits both standard inverted-u racks and vertical racks on the wall, it is recommended that vertical racks only be used as overflow parking beyond the typical demand. Vertical racks are commonly used as a way to incorporate bicycle parking in a smaller footprint, however, they have several disadvantages:

- It can be a challenge for some users to lift their bikes onto these racks.
- They do not fit many non-standard bicycles, including children's bicycles.
- They require removal of accessories.

### 3.2.3

#### building management policies

Bicycle parking in commercial and residential buildings can be compromised if building owners do not communicate their bicycle parking policies and requirements to building managers and security employees.

### 3.2.4

#### security cameras

Security cameras can help monitor use of bicycle parking areas and may be helpful when thefts occur. Cameras also serve to deter theft. If a building has a system of cameras for security monitoring, incorporating additional cameras for this purpose will generally be of small incremental cost and can provide bicycle owners added comfort.

# short-term bicycle parking

Short-term bicycle parking is intended to provide quick access to short-term destinations, such as shops, offices, and civic facilities, and therefore should be convenient and easy to use. It is typically located in highly visible locations, in front of building entrances and along streets and bikeways, and is available for public use. (6.2.6.C.1.a.)



## 4.1 types of short-term bicycle parking

Short-term bicycle parking is typically located in two areas:

- **Sidewalk:** Many communities begin their short-term bicycle parking programs by installing bicycle racks on sidewalks or adjacent to sidewalks. In locations without on-street parking, sidewalks may be the only space available for bicycle racks. Bicycle parking on the sidewalk should be located at a sufficient distance from the intersection so it does not inhibit a motorist's ability to see what is happening around the corner and does not obstruct pedestrian movement.
- **On-Street Parking:** Since sidewalk space is often limited in commercial areas, in some instances it may be more appropriate to locate bicycle parking in an on-street parking space. On-street parking, also known as "bike corrals," increases parking capacity for all users, since one car space is equivalent to 8 to 12 bicycle spaces, and increases the visibility of bicycling. Bike corrals are non-standard for Montgomery County and installation must be approved by the Montgomery County Department of Transportation.



● A conventional inverted-u rack (left).

● A temporary bike corral installed in Downtown Silver Spring (right).



## 4.2 relationship to the street and buildings

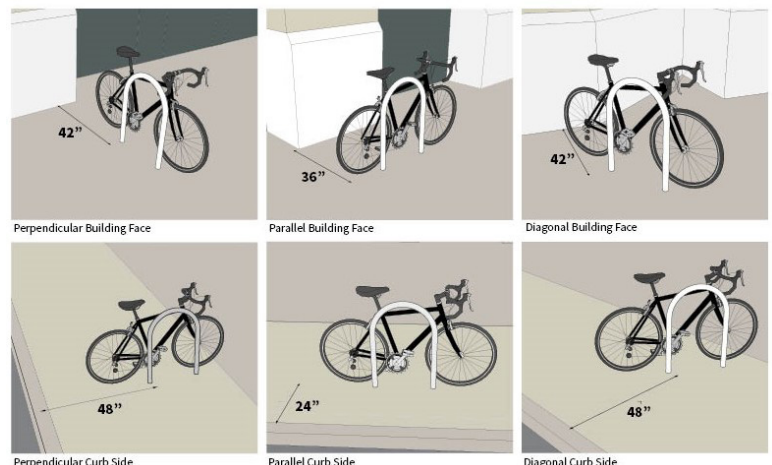
A lack of convenient bicycle racks often results in bicycles locked to sign posts, trees, and street furniture. Bicycles locked to these objects are vulnerable to damage and theft, and can damage the object to which they are locked. If not properly located, bicycle racks can impede pedestrian travel on the sidewalk, access to buildings, and emergency responders.

- Each bicycle parking facility is prohibited from obstructing pedestrian traffic or interfering with the use of the pedestrian area. (6.2.6.C.1.b.)
- Each sidewalk rack must be a minimum of 14 feet from any standalone fire hydrant. (6.2.6.C.1.d.)
- Each parked bicycle must be accessible without moving another bicycle. (6.2.6.C.1.e.)

Short-term bicycle parking adjacent to the street is typically located parallel, perpendicular, or diagonal to the curb.

- Parallel to the curb: Short-term bicycle parking is located parallel to the curb when there is a desire to limit the amount that bicycles protrude into the sidewalk. Any sidewalk rack that is parallel to the curb must be located so the nearest vertical component of the rack is a minimum of 24 inches from the curb face and 36 inches from the building face. (6.2.6.C.1.c.i.)
- Perpendicular to the curb: Short-term bicycle parking is located perpendicular to the curb when more parking spaces are desired and when there is sufficient sidewalk space. Any sidewalk rack aligned perpendicular to the curb must be located so the nearest vertical component of the rack is a minimum of 48 inches from the curb face and 42 inches from the building face. (6.2.6.C.1.c.ii.)
- Diagonal to the curb: Short-term bicycle parking is located diagonal to the curb when more parking spaces are desired and sidewalk space is somewhat limited. Any sidewalk rack aligned diagonal to the curb must be located so the nearest vertical component of the rack is a minimum of 48 inches from the curb face, and 42 inches from the building face, measured in a line parallel to the orientation of the rack. (6.2.6.C.1.c.iii.)

● Minimum dimensions for short-term bicycle parking.



## 4.3 locating short-term parking

The location of short-term bicycle parking is an important determinant of how well the parking space is used. Bicycle racks that are located in convenient, well-lit and visible locations will have greater use. Short-term bicycle parking spaces must therefore be:

- Available to the public.
- Located in a convenient, well-lit area that is clearly visible to both a visitor to the building and a person who is on the sidewalk that accesses the building's main entrance. (6.2.6.C.1.a.ii)
- Within 90 feet from: 1) the main entrance of any building; or,
- 2) at least one main entrance of a building with more than one main entrance; unless 3) the applicable deciding body approves an alternative location during the site plan or conditional use process. (6.2.6.C.1.a.iii)

## 4.4 rack selection

Accessibility to and proper location of bicycle parking facilities are not the only requirements in the provision of high-quality bicycle parking. The most accessible and well-located bicycle parking is insufficient if bicyclists are concerned about their security or the security of their bicycles. Bicycles parked in both short- and long-term spaces benefit from being in a visible location with moderate to high levels of pedestrian traffic. The presence of nearby activity diminishes the risks of theft and damage. Bicycle parking located in well-lit, high-visibility areas can increase the safety of people using the bicycle parking.

Proper rack selection is essential for secure bicycle parking. The requirements specified in the Montgomery County Zoning Ordinance reflect best practices recognized by the Association of Pedestrian and Bicycle Professionals (APBP), rack manufacturers and other bicycle-friendly jurisdictions. Racks known as "inverted-u" racks are the preferred style in most cases. Other considerations that enhance the security of bicycle parking include:

- **Bicycle rack materials:** Bicycle racks are available in a range of materials and finishes. It is important to select racks manufactured with thick exterior walls that resist cutting by tools commonly used by thieves, including bolt cutters and hand saws. The rack finish should be rust-resistant, as rusting can compromise the strength of the rack over time. Powdercoat or thermoplastic finish options are available.
- **Type of lock:** Bicyclists are expected to provide their own locks to secure their bicycle to a rack, but developers and property management companies can provide signage to educate users about the proper way to lock a bicycle. As required by the Montgomery County Zoning Ordinance, all bicycle racks must be compatible with a standard U-lock, which is more difficult to sever than a cable lock.

According to the Montgomery County Zoning Ordinance, bicycle racks must:

- Permit a bicycle frame and one wheel to be locked to the rack with a high security lock. (6.2.6.A.2.a.)
- Permit a bicycle to be securely held with its frame supported in at least 2 places. (6.2.6.A.2.b.)
- Be durable and securely anchored. (6.2.6.A.2.c.)
- Have a locking surface thin enough to allow standard u-locks to be used, but thick enough so the rack cannot be cut with bolt cutters. (6.2.6.A.2.d.)
- Not include any elements within the interior space. (6.2.6.A.2.e.)

The Montgomery County Department of Transportation maintains guidelines on the selection of bicycle racks at: [www.bikemontgomery.com](http://www.bikemontgomery.com).

The Essentials of Bike Parking, prepared by the Association of Pedestrian and Bicycle Professionals, identifies several styles of bike racks that are not recommended.

- Schoolyard racks (top) and wave racks (bottom) do not support a bicycle with two points of contact, leading to inefficient, haphazard parking that can damage bicycles.



## 4.5 rack installation

The Montgomery County Department of Transportation requires bicycle racks be installed on a stable concrete or asphalt surface with a security bolt to prevent tampering and provide stability. Installing bicycle racks into concrete is the most secure option. If bicycle racks are being installed after concrete has been poured, or in an interior space that cannot be drilled, the racks should be affixed with tamper-resistant hardware. Anchor bolts should be approximately 6 inches long and drilled into a concrete base. Bicycle racks should not be anchored to bricks or pavers but they can be anchored through bricks or pavers so long as they are anchored into concrete underneath.

The Montgomery County Department of Transportation maintains guidelines on the installation of bicycle racks at: [www.bikemontgomery.com](http://www.bikemontgomery.com)

## 4.6 custom designs

On occasion, property owners request permission to install custom-designed bike racks. These bike racks must meet the requirements set forth in the Montgomery County Zoning Ordinance and must be approved by the Montgomery County Department of Transportation and Department of Permitting Services.

## 4.7 recommended practices

A number of recommended practices can enhance the quality of short-term bicycle parking, but are not required in the Montgomery County Zoning Ordinance.

### 4.7.1 sheltered bicycle parking

Sheltered bicycle racks help to protect cyclists and their bicycles from rain and snow, and can make bicycling a year-round mode of transportation. Shelters can include awnings, roofs or enclosed structures. Location selection should consider how the structure affects sight distances and pedestrian travel.



● Sheltered bicycle parking in Seattle.  
Source: Dan Malouff



## 4.7.2 elongated racks

Elongated U-racks, like the one shown below, provide additional support and points of contact for bicycles with longer frames or trailers. The ability to lock both the frame of the bicycle and add-on accessories helps prevent damage and improves security.

- Elongated-U racks like this at the Silver Spring Metrorail Station accommodate a variety of bicycle types.



# bicycle parking wayfinding

Bicycle signs are required to direct bicyclists to bicycle parking spaces and can be used to provide bicyclists with information about bicycle support facilities and bicycle routes.

## Required

- If a long-term bicycle parking facility is not visible from the street or main building entrance, the property owner must post a sign in a lobby or common area indicating the location of the bicycle parking. (6.2.6.B.2.)

## Recommendation

- In addition to indicating the location of bicycle parking, signs and pavement markings can be used to inform bicyclists and other users of the location of other bicycle support facilities, such as showers, lockers, changing rooms, and repair stations, and provide information about bicycle routes in the surrounding area.



- Signs direct bicyclists to parking at this Target in Seattle. Source: Google Maps.



- The 2011 Maryland Manual of Uniform Traffic Control Devices (MUTCD) includes D4-3 is the bicycle parking sign.



# bicycling support facilities

Bicycling support facilities include lockers for storing helmets and clothes, changing rooms, showers, and bicycle repair stations with air pumps and tools to complete simple repairs. These types of facilities encourage bicycle use by addressing potential concerns, such as bicycle maintenance and physical appearance and hygiene after a bicycle commute.

While bicycling support facilities encourage longer-distance bicycle commutes by providing a place for employees to change clothing, and can extend the commuting season by providing a place to store the extra gear needed for riding in inclement weather, bicyclists are not the only beneficiaries. In an office setting, showers and lockers can also be used by employees who walk to work, commute using a combination of transit and walking or biking, or who may exercise before or during the workday. Overall, physically active employees are more productive, take fewer sick days, and can help lower health insurance costs, all of which improve a company's bottom line.

## 6.1 showers

Showers allow bicycle commuters to refresh and change clothes after their ride to work, so that they can maintain a professional appearance.

### Required

- Any individual tenant space with more than 50,000 square feet of nonresidential gross floor area (excluding retail or uses with less than 50 employees during the largest shift) must have at least two all-gender, single-stall, combined shower/changing rooms for each building. If a development with more than 50,000 square feet of nonresidential gross floor area (excluding retail or uses with less than 50 employees during the largest shift) has shower and changing facilities in a common area that is available to all tenants, at least two all-gender, single-stall, combined shower/changing rooms must be provided for each building.
- Two additional showers and changing facilities must be installed for every additional 50,000 square feet of nonresidential gross floor area (excluding retail), up to a maximum of 8 for each building. Additional showers beyond the first two all-gender, single-stall facilities may be co-located into gender-specific, multi-stall facilities evenly distributed between genders. (6.2.6.B.3.a.)

## Recommended

- Provide mirrors, sinks, toilets in close proximity, outlets for electric razors and hair dryers, irons and ironing boards, first-aid kits, hooks for towels and clothes. Shower rooms should have non-slip surfaces, adequate lighting and ventilation, and be included in regular cleaning and maintenance programs.

## 6.2 lockers

Lockers provide a space to store clothing, tools, and supplies away from work areas.

### Required

- If a long-term bicycle storage facility is required for a nonresidential use, the facility must have a minimum of 0.6 clothing lockers for each required long-term bicycle storage space. Each clothing locker must be:
  - A minimum of 12 inches wide, 18 inches deep, and 36 inches high.
  - Available for use during all hours that employees are on-site.
  - Installed adjacent to the showers and changing facilities in a safe and secured area. (6.2.6.B.3.b.)

### Recommended

- All lockers should be secure and designed to ensure proper ventilation. Additional lockers can be provided for those who walk or jog to work, or exercise during the workday. Locker use should be monitored on a regular basis to ensure cleanliness and availability. The dimensions specified in the Montgomery County Zoning Ordinance will accommodate most hangers, which are about 18 inches in length. However, taller, deeper lockers better accommodate hanging clothing.



## 6.3 repair stations

Bicycle repair stations are now required in Montgomery County Code. They help bicyclists complete routine maintenance tasks and encourage bicycle use by providing the tools necessary to perform simple bicycle repairs. Repair stations can be installed indoors or outdoors and do not take up much space.

A multi-unit dwelling with 10 or more units and buildings with more than 50,000 square feet of commercial gross floor area must provide at least one bicycle repair station or equivalent facilities for bicycle repair and maintenance. The repair station should be co-located with long-term bicycle parking and include a repair stand. The repair stand must include a clear area measuring a minimum of 90 inches by 45 inches, with the back of the repair stand placed at least 12 inches from the wall.

A basic repair stand should have:

- a supporting arm to hold a bicycle without causing damage;
- basic tools attached to the stand with tamper-proof hardware; and
- an air pump attached to the stand with tamper-proof hardware. (6.2.6.B.4.)

● A self-service bicycle repair station at the Blair's in Silver Spring.



## 6.4 electric bicycle charging




Electric bicycles are quickly growing in popularity, and charging the battery is a necessary part of storage.




All long-term bicycle parking facilities must be equipped with at least one outlet for every five spaces, evenly distributed throughout the long-term bicycle parking facility. (6.2.6.B.5.)



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## Appendix A: Types of Bicycles

Type of Bicycle	Description	Photo	Approximate Dimensions (L x W x H)
Standard bicycle	<ul style="list-style-type: none"> <li>Designed for a single rider.</li> <li>May have racks or panniers that add extra width.</li> <li>Different frame styles and materials.</li> </ul>		72" x 24" x 48"
Recumbent bicycle	<ul style="list-style-type: none"> <li>Pedals are located in front of rider, rather than below.</li> <li>Seated position allows the rider's weight to be more evenly distributed over a larger area.</li> <li>May be difficult to lock using a standard U- lock.</li> </ul>		82" length
Adult tricycle	<ul style="list-style-type: none"> <li>Has three wheels to provide more stability than a standard bicycle.</li> <li>Many have racks in the back for carrying cargo.</li> <li>Wider than a standard bicycle, which may make it difficult to lock using a standard U lock.</li> </ul>		72" x 30" x 48"

Type of Bicycle	Description	Photo	Approximate Dimensions (L x W x H)
Cargo bicycle	<ul style="list-style-type: none"> <li>• Single set of pedals.</li> <li>• May carry goods or children.</li> <li>• May have a compartment in front or rear.</li> <li>• Longer and heavier than a standard bicycle.</li> </ul>		96" x 24" x 43"
Tandem bicycle	<ul style="list-style-type: none"> <li>• Designed for a single rider.</li> <li>• Battery pack to help conquer inclines. The battery pack may detach or be fixed to the bicycle.</li> <li>• May be heavier than a standard bicycle.</li> </ul>		72" x 24" x 48"
Electric bicycle	<ul style="list-style-type: none"> <li>• Designed for a single rider.</li> <li>• Battery pack to help conquer inclines. The battery pack may detach or be fixed to the bicycle.</li> <li>• May be heavier than a standard bicycle.</li> </ul>		72" x 24" x 48"

Type of Bicycle	Description	Photo	Approximate Dimensions (L x W x H)
Bicycle Trailer	<ul style="list-style-type: none"> <li>• Attaches to the back of a bicycle.</li> <li>• May carry goods or children.</li> <li>• Makes bicycle longer.</li> </ul>		Cargo Trailer - size varies 27" x 34" x 24" Child Trailer - size varies 50" x 35" x 33" Bicycle and trailer 117" length
Trailer bike for children	<ul style="list-style-type: none"> <li>• Attaches to the back of a bicycle.</li> <li>• Has smaller handlebars, seat, pedals and rear wheel.</li> <li>• Makes bicycle longer.</li> </ul>		Adds approximately 36" in length

## Appendix B: Additional Resources and Guides

1. American Association of State Highway and Transportation Officials. Guide to Bicycle Facilities, 4th Edition, 2012. [https://bookstore.transportation.org/item\\_details.aspx?ID=1943](https://bookstore.transportation.org/item_details.aspx?ID=1943)
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4. Arlington County, Virginia. Arlington Master Transportation Plan – Bicycle Element, July 2008. <http://arlingtonva.s3.amazonaws.com/wp-content/uploads/sites/31/2014/02/DES-MTP-Bicycle-Element.pdf>
5. Arlington County, Virginia. Guide to Effective Bicycle Parking, February 2014. [http://www.commuterpage.com/tasks/sites/cp/assets/File/Arlington\\_Bicycle\\_Parking.pdf](http://www.commuterpage.com/tasks/sites/cp/assets/File/Arlington_Bicycle_Parking.pdf)
6. City of Davis, California. Beyond Platinum, Bicycle Action Plan, 2014. <http://cityofdavis.org/home/showdocument?id=979>
7. City of Portland, Oregon. Bicycle Parking. <http://cityofdavis.org/home/showdocument?id=979>
8. City of Somerville, Massachusetts. Bicycle Parking and Installation Guide for Development and Redevelopment Projects. [http://www.ci.somerville.ma.us/sites/default/files/BicycleParkingGuide\\_0.pdf](http://www.ci.somerville.ma.us/sites/default/files/BicycleParkingGuide_0.pdf)

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Montgomery County Planning Department

# bicycle parking guidelines

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