Bike Parking Guide

Department of Mobility and Infrastructure

TABLE OF CONTENTS

INTRODUCTION

WHY BICYCLE PARKING

Bicycling is an efficient way of getting around the City of Pittsburgh. Because of the dense urban environment and moderate city size, many daily trips can easily be accomplished by bike. Providing a quality place for people to park bikes encourages people to use bicycles for transportation. Since 2000, there has been a 61% increase in bike commuting with as many as 786,000 commuters nationwide in 2019. (1)

Enhancing and promoting sustainable transportation is a cornerstone of the City's policies. Designated areas for bicycle parking lend a more orderly appearance to buildings and prevent people from locking their bikes to unacceptable fixtures such as trees, benches, signs or railings. However, if bicycle racks appear insecure, do not function well, or are poorly located, people will not use them. Providing ample and secure bicycle parking is a crucial component in the provision of infrastructure to encourage bicycling. Including parking as part of bicycle infrastructure takes the entire trip into account: secure long-term storage at home, safe paths on the road, and secure temporary storage at the destination (2). The guidelines detailed in this document are intended to provide information on approved rack design, placement, and quantity to ensure that racks appropriately serve the public's needs.

1. https://thebikeadviser.com/bike-commuting-united-states/
2. Van der Spek, Stefan Christiaan, and Noor Scheltema, The Importance of Bicycle Parking Management, 15 Research in Transportation Business & Management, 39 (Jun. 2015).

BICYCLE PARKING - SHORT TERM

Short-term bicycle parking is intended to be used for less than two hours. (3) Short term parking should have a simple design and be accessible to the public. Places that you may find short-term bicycle parking are:

- Commercial, entertainment and retail facilities
- Medical / health care facilities
- Parks and recreation facilities
- Libraries and civic buildings
- Community centers, and
- Schools and colleges.

DOMI installs racks in the Right of Way under our bicycle parking program. Businesses that are required to provide bike parking for code compliance must locate bike parking on private property.

Short-Term Considerations for parking on private property

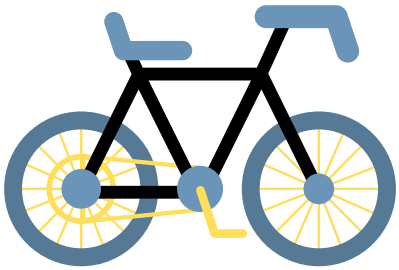
- If multiple entrances exist, place signage at secondary entrances to direct bicyclists to bicycle parking or install bike racks at each location.
- Racks should not obstruct sidewalk movements. The pedestrian right of way should be at least 4 feet wide (5 feet or more is preferred). The rack installation should be within 18" inches of the curb.
- Racks should be placed at convenient, usable and visible locations in close proximity (within 25 to 50-feet) of the destination/building entrances without impeding pedestrians or blocking building entrances. Racks should be located as close as the most convenient car parking space, at minimum.
- Wayfinding is required if the bicycle parking location is not visible from the site or building entrance.
- Provide signage to clarify if bicycle parking is for customer use only.

3. https://thebikeadviser.com/bike-commuting-united-states/

BICYCLE PARKING - LONG TERM

Long-term bike parking is intended to be used for more than 2 hours. This parking type can also take multiple forms. Typical locations include:

- Apartment buildings or multifamily residences
- Parking garages
- Places of employment
- Transit facilities
- Schools and colleges
- Stadiums



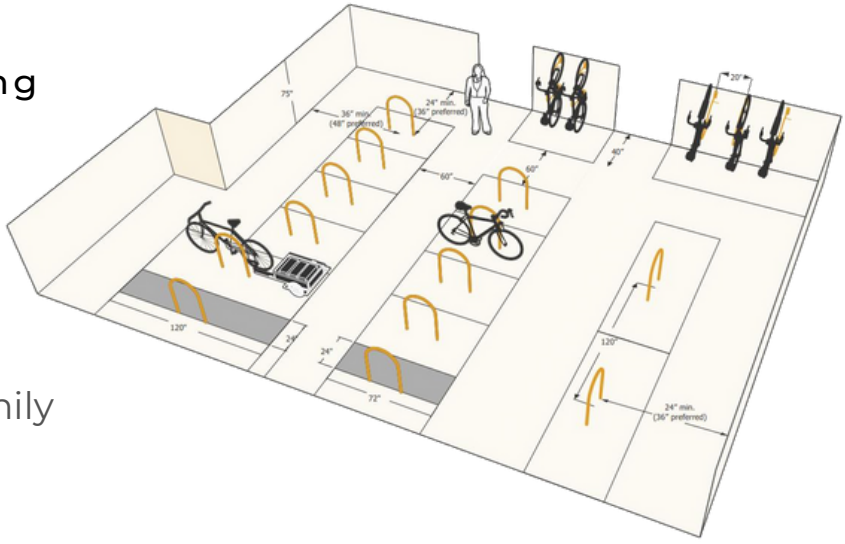
Long-Term Considerations

- Controlled access (users need a key, fob, or pass code to get in).
- If located outside the building, should be less than 50 feet from a main pedestrian accessible entrance.
- Compliance with Americans with Disabilities Act (ADA) (4)
- Well lit.
- On-street corrals must be oriented so that bicyclists can safely enter and exit without conflicting with motor vehicles or pedestrians.
- Avoid areas adjacent to public utilities or curbsides that are prone to flooding.
- Corner locations may be preferred as they help to reduce illegal parking and improve sight lines from cross streets.
- The location should be in a ground level entrance, i.e. no stairs, so that things like cargo bikes and e-bikes can be locked up without having to haul them up a flight of stairs.
- If there are stairs, a runnel or ramp should be added to retrofit the facility.
- If possible, visible surveillance cameras or nearby security guards greatly increase security.

4. https://groundcontrolsystems.com/resources/tools-assets/ada-accessible-bike-parking/#:~:text=Maintaining%20the%20continuous%20width%20of,bikes%20from%20obscuring%20these%20spaces.

INDOOR BICYCLE PARKING

Secured indoor parking areas design should focus on ensuring safety for the users while maintaining exclusive, secure access to these areas



Typical locations include:

- Apartment buildings or multifamily residences
- Parking garages
- Places of employment
- Transit facilities
- Schools and colleges
- Stadiums

Indoor Considerations

- Consider amenities in the bike room such as: maps, wayfinding signage and art
- Enclosure for extra safety
- Make parking infrastructure easy and intuitive to use
- Ensure multiple types of parking to accommodate a wide variety of bikes such as e-bikes and cargo bikes
- Install vertical systems no more than 1.5 ft from ground (5) to maximize floor space for hard to lift bikes
- Ensure security by installing cameras in room with an established, keyed entry procedure.
- Well lit with charging infrastructure for e-bikes
- Should include tools / maintenance accessories for bike repair
- Ensure electrical charging is near the parking

5. https://groundcontrolsystems.com/resources/tools-assets/ada-accessible-bike-parking/#:~:text=Maintaining%20the%20continuous%20width%20of,bikes%20from%20obscuring%20these%20spaces.

HOW TO REQUEST BICYCLE PARKING

Requests for standard U-racks installed and maintained by DOMI in the ROW can be submitted through the City of Pittsburgh's 311 line. Requests are routed to DOMI staff and can be made several different ways

- MyBurgh App
- 311 Website
- Twitter @PGH311
- Calling 311

Schools:

- Requests should include written approval from the School administrator and a rack location (the surface needs to be concrete).
- Racks should be located near the primary entrance in an area that does not interfere with bus loading/unloading and is protected from the elements.
- Each school can request up to two U-racks. Requests for additional racks will be evaluated on a case-by-case basis.
- DOMI will work with the school to install the racks.
- Requests will be accommodated based on available resources.
- A request can be submitted through the online form on the Safe Routes To School (SRTS) Website, or by emailing SRTSpgh@pittsburghpa.gov

Custom Racks:

Business owners, business district and others can request permission to install custom bike racks or bike corrals. In all cases, must comply with DOMI specs (pg. 8,9,10)

- Applicant submits a Art Commission Application
- DOMI reviews the application, assesses the design's eligibility for the street and potentially provides a letter of support. DOMI may require revisions or updated drawings from the applicant.
- Once a permit is issued the applicant will install the custom rack in the approved location, meeting all requirements of the minor encroachment

DOMI will assume ownership and maintenance of standard bicycle racks and corrals located in the ROW installed under the 311 program. Racks located on public property will be maintained by the associated City department or institution (Library, Parks, Schools, etc.). Use the 311 Response Center to report rusted or damaged bike racks in the ROW.

DESIGN SPECIFICATIONS

Surface Mount Racks

Surface mount racks shall be a standard inverted-U shaped rack with a minimum 1.5 inch and maximum 2 inch schedule 40 uncoated pipe (1.90 inch OD) OR 2 inch x 2 inch by 0.188 inch wall square tube Reference: ASTM A500 Standard Specification for Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes.

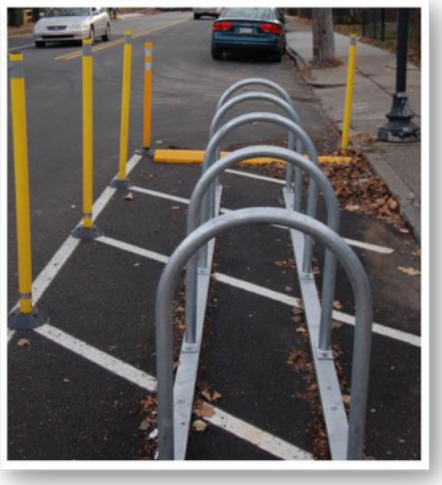
The rack should be 32-36 inches in height installed, and a maximum 24 inches from the outside of each footing. Surface-mount racks will have feet which are secured to a concrete base with 4 to 8 concrete wedge anchors and/or concrete spikes. In order to minimize theft, each footing shall have at least one tamper resistant nut or concrete spike. The concrete spikes should be carbon steel mushroom head, 3/8 by 3 inch, "Spike" #5550 fasteners as manufactured by Powers Fasteners or other approved vendor.

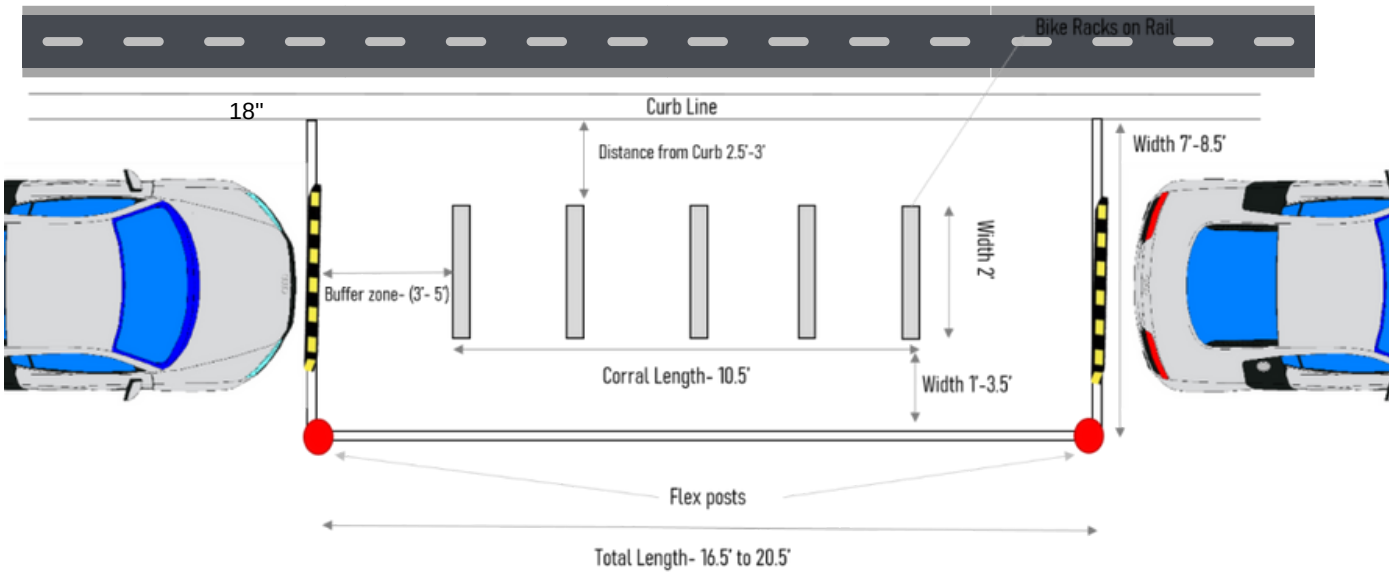
- Minimum Spacing Requirements
- From bus shelter/Bus stop (Parallel rack) -48” Min.
- Pedestrian clearance- 48” min.
- Corral rack hoop distance- 36” min.
- Fire Hydrant- 60” min.
- Building adjacent perpendicular -24” min.
- From Curb to parallel racks - 24” min.
- From Curb to parallel racks with parking present- 24” min if placed between two space, 30”
- street furniture sitting arrangement - 36" min
- street furniture - newspaper rack , trash can , mail box - 30" min
- light pool 36" min
- handicap parking parallel no rack
- parking meter 48" min
- tree pit 36" min
- from crosswalk 60" min
- placed parallel to the space.

SIZING REQUIREMENTS

Bike Corrals - On-street bicycle parking area that can accommodate more bicycles than typical sidewalk rack

- Should support the bikes in at least two places, including one wheel.
- Must be easy to lock a bike to with a typical “U” or cable lock.
- Surface mounted rack- must have steel base plates of a minimum of 1/4” thickness that can be bolted to a concrete pad in four places, minimum. Installing a rack on pavers or bricks requires a concrete pad to be poured before install.
- The top of the bicycle rack design must be a minimum of 34” tall.
- Adhere to all (ADA) standards for protrusions in the ROW
- The shortest section of bicycle rack must be a minimum of 27" tall
- The space between the rack features must be larger than 9 inches and smaller than 3.5 feet
- Design must not include sharp edges
- Bicycle racks must be galvanized steel (raw or powder coated), aluminum or stainless steel. Preferred color is silver for typical U Racks and black for corrals.
- No other furnishes, including hand painted finish will be accepted unless approved by The Public Art and Committee and Civic Design Committee





POGOH BIKE SHARE STATIONS

POGOH is Pittsburgh's non-profit bike share system which aims to provide Pittsburgh with a sustainable and affordable mobility service for all residents and visitors. POGOH bike share stations are designed to help make folks make short bike trips a part of their regular routine. Visit POGOH.com for more information.

Places that you might find bike stations are:

- Commercial / business districts, particularly near hotels, apartment buildings or apartment venues
- Medical / health care facilities
- Parks and recreational facilities
- Libraries or community centers
- Colleges and universities
- Transit facilities

POGOH

POGOH bike share stations can be configured in multiple ways. A station can be:

- solar or electric
- installed in the public right of way or on private property
- on the sidewalk or in the street

POGOH BIKE SHARE STATION REQUIREMENTS

IN THE PUBLIC RIGHT OF WAY

- Minimum station sizing includes 19 docking points. Each additional 10' added provides 4 additional docking points
- Minimum station size for a sidewalk installation is 50' x 6'
- Must provide at least 5' of clear pedestrian pathway
- Minimum station size for an on-street installation is 50x7
- street type speed limit and use should be considered
- Locating near existing bike infrastructure is highly recommended
- Stations should be at least 20' away from a bus stop
- Stations should be at least 20' from an intersection
- Bikeshare stations cannot cover or block access to utilities, loading zones, accessible parking, ramps, curb cups, entryways or other assets in the right of way
- Solar stations are a good solution if power cannot be found at the site
- Solar bike share stations can dock pedal and e-assist bikes, but are unable to charge e-assist bikes
- Electric stations are the industry standard
- electric bike share stations require installation near a power source. Commonly, the power source is a city owned street light
- Electrical consumption is comparable to a household appliance
- Can operate on 110v or 240v power
- Bike share stations should be well lit at night - private part

POGOH INSTALLATIONS FOR PRIVATE PARTY

- Bike share stations must be visible and available for public use 24/7
  - Stations cannot be indoors, behind gates / fences, or inside of parking garages
  - Stations should be installed at ground level (i.e. no stairs)
- POGOH is responsible for station maintenance, including snow and debris removal
- Bike share stations
- Stations cannot be indoors, behind gates fences, or inside parking garages
- Stations should be installed at ground level (i.e. no stairs)
- POGOH is responsible for station maintenance, including snow and debris removal
- Bike share stations are typically within 1/4 mile of each other
- usage data can be provided

<u>How to request a POGOH:</u>

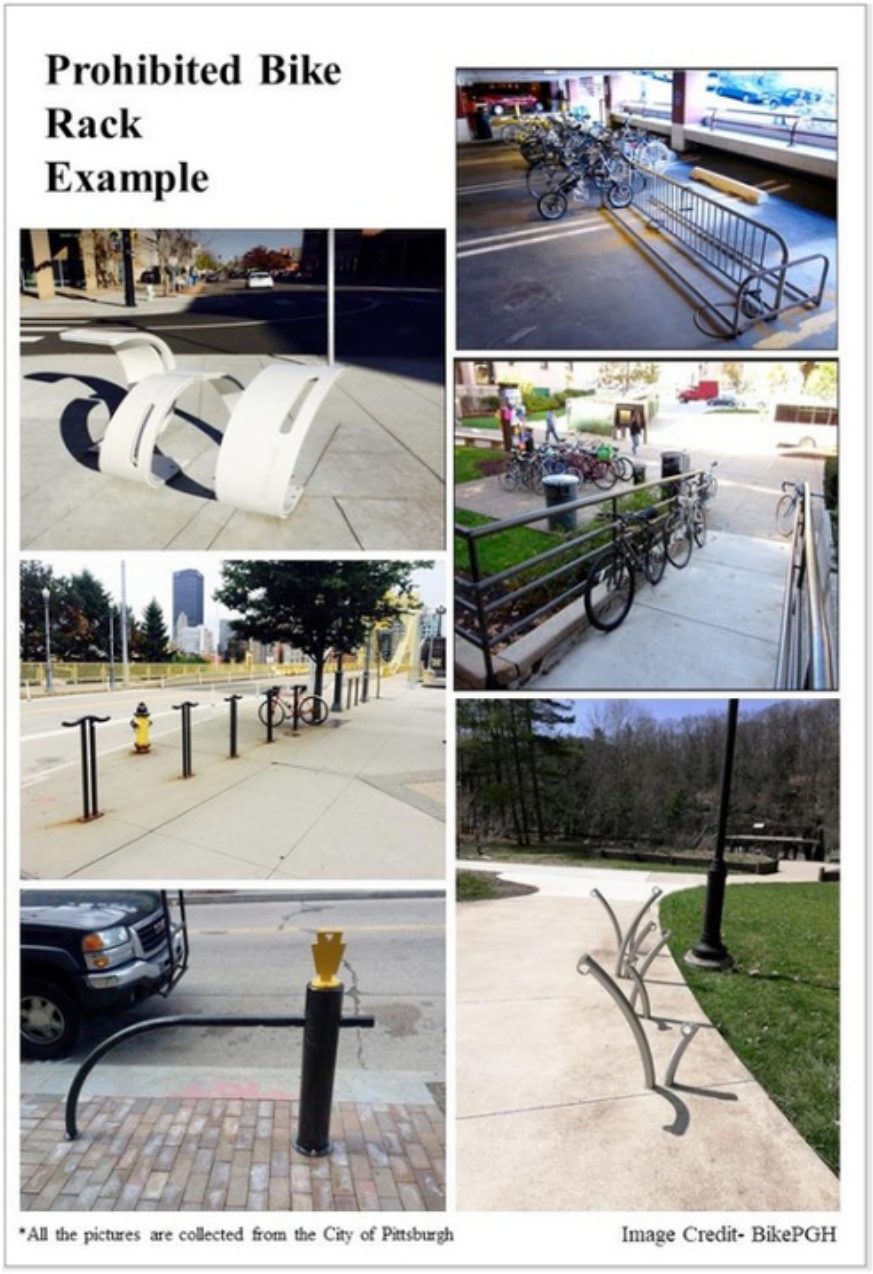
Contact: info@pghbikeshare.org
412 621 0464

POGOH 11

PROHIBITED BIKE RACKS

Because of poor performance, the following types of rack are prohibited from if they:

- Support the bicycle at only one point
- Allow the bicycle to fall, which can damage the bike and block the pedestrian ROW
- Have sharp edges that can be hazardous to the visually impaired
- Support the bicycle by one wheel
- Connect to each other with a bar on top that can block handlebars and baskets
- Suspend any part of the bike in the air or require that the bicycle be lifted to get it into position
- Are on ineligible conditions such as: asphalt, brick/pavers, cracked concrete, a sidewalk with insufficient width.



REQUIREMENTS

How Much Bicycle Parking is Required?

Bicycle Parking Spaces shall be provided in accordance with the following tables:

Non-Residential

Gross Floor Area	Minimum # of Bike Spaces
0-6,000 sqft	0
6,001-20,000sqft	1
20,000sqft	1 per every addition 10,000 sqft

Multi-Unit Residential

Number of Dwelling Units	Minimum # of Bike Spaces
Less Than 12	0
12 or more	1 per every 3 additional units

Commercial Parking and Parking Structure

Number of Automobile Spaces	Minimum # of Bike Spaces
0-4	0
4-20	1
21-40	2
Over 40	1 per every additional 10 spaces

Hotel / Motel

Number of Employees	Minimum # of Bike Spaces
0-5	0
6-20	1
21-80	2
Over 80	1 per every additional 20 employees

APPENDIX

Pittsburgh Zoning Code: Title 9_Article VI Section 914.05

914.05. Bicycle Parking

To further the intent of this Chapter to allow flexibility and equity in addressing vehicle parking issues and to present a menu of parking allocation strategies, this section requires and incentivizes bicycle parking. This section seeks to facilitate the lessening of car-related congestion in the City by promoting bicycle commuting by requiring the provision of adequate and safe facilities for the storage of bicycles. Further, this section allows a reduction in required automobile parking spaces when bicycle parking is accommodated, creating a benefit for meeting the requirements of this Chapter.

914.05.A Special Definitions

1. Bicycle Parking Space means a four (4) feet by six (6) feet space provided for locking up to two (2) bicycles to a City approved Bicycle Rack or a bicycle locker that can store up to two (2) bicycles per unit.
2. Bicycle Rack means a stationary device with a base that can wedge anchors for surface mounting, provides steel tubing one (1) inch to four (4) inches thick, containing locking points between one (1) feet and three (3) feet off the ground and a gap near the bottom for pedal clearance, enabling one to lock a bicycle frame and one (1) of the wheels with a standard U-Lock. Such a rack must be able to accommodate at least two (2) bicycles upright by rack frame.
3. Protected Bicycle Parking Spaces are secure facilities which protect the entire bicycle, its components and accessories against theft and against inclement weather, including wind-driven rain. This type of facility includes, but is not limited to bicycle lockers, check-in facilities, monitored bicycle parking, restricted access parking, and personal storage.
4. Unprotected Bicycle Parking Spaces are Bicycle Racks which permit the locking of the bicycle frame and one (1) wheel to the rack and which support the bicycle in a stable position without damage to wheels, frame or components.
5. Low Occupancy Facility means a building or use with limited customer or non-employee contact and less than one (1) employee per every ten thousand (10,000) square feet of gross floor area.

914.05.B Locations and Facilities

1. Bicycle parking shall be provided in a well-lighted area.
2. Bicycle parking shall be at least as conveniently located as the most convenient automobile spaces, other than those spaces for persons with disabilities. Safe and convenient means of ingress and egress to bicycle parking facilities shall be provided. Safe and convenient shall include, but is not limited to stairways, elevators and escalators.
3. Bicycle Parking facilities shall not interfere with accessible paths of travel or accessible parking as required by the Americans with Disabilities Act of 1990.
4. Protected and Unprotected Bicycle Racks shall be located in highly visible areas to minimize theft and vandalism.
5. In cases of structured automobile parking, Protected Bicycle Parking Spaces shall be used.
6. Alternative Locations and facilities. In the event that compliance with Section 914.05.B or 914.05.C may not be feasible or ideal because of demonstrable hardship or due to a creative design alternative, the Zoning Administrator may approve an alternative storage location. The Zoning Administrator shall be guided by the following criteria:

a. Such alternative facilities shall be well-lighted and secure.
b. All Bicycle Parking Spaces outside of a building shall be located within a one hundred (100) foot diameters of the primary building entrance.
c. Bicycle Racks may be placed in the public right-of-way provided that the building owner attains an encroachment permit for the installation of racks in the public right-of-way from the Department of Mobility and Infrastructure.

914.05.C Layout of Spaces

Bicycle Parking Spaces or alternative spaces approved by the Zoning Administrator shall be laid out according to the following:

1. All bicycle parking areas shall afford a four (4) foot wide access aisle to ensure safe access to spaces.
2. Bicycle parking and automobile parking shall be located so as to protect bicycles from damage.
3. In cases where Bicycle Parking Spaces are not visible from the primary street, signage shall be used to direct cyclists safely to bicycle parking areas.
4. All Bicycle Racks and lockers shall be securely anchored to the ground or building structure.
5. Bicycle Parking Spaces shall not interfere with pedestrian circulation and shall adhere to ADA requirements.
6. Bicycle parking shall be an integral part of the overall site layout and designed to minimize visual clutter.

914.05.D Bicycle Parking Requirement

Bicycle Parking Spaces shall be provided in accordance with the following tables:

For all Non-Residential uses except, Hotel/Motel, Commercial Parking, Parking Structure, and Low Occupancy Facilities (as defined in Section 914.05.A.5):

https://library.municode.com/pa/pittsburgh/codes/code_of_ordinances?nodeId=PIZOCO_TITNINEZOCO_ARTVIDEST_CH914PALOAC_914.04OREPAEXREAR