Bicycle Parking Guidelines

September 2025

Version 1.0

The City *of* Worcester

Department of Transportation & Mobility

Contents

Introduction

The City of Worcester strives to be the most vibrant and livable mid-sized city in the country, and a multi-modal transportation network is central to that goal. Biking becomes a more attractive mode of transportation when destinations, whether they be places of employment, education, shopping, or recreation, have safe and convenient places to store those bikes upon arrival.

Promoting biking as a mode of transportation has been identified as a priority across City departments through the Complete Streets Policy (2017), Green Worcester Plan (2020), Worcester Now|Next Citywide Long-range Plan (2024), the Mobility Action Plan (2024), the 2024 Greater Worcester Community Health Assessment, and the Vision Zero Safety Action Plan.

Providing the infrastructure to support active transportation choices is critical to creating a transportation network in Worcester that is safe, equitable, connected, and sustainable. With these guidelines, we aim to ensure that residents, workers, students, and visitors to Worcester have secure and convenient bike parking options.

Applicability

The guidelines in this document shall apply to all projects within the public right of way and serve as a resource to the Planning Board and Zoning Board of Appeals in their review of private commercial and residential developments

The provisions of this document supersede any prior City of Worcester guidance related to the placement of bicycle parking in the public way (e.g. City of Worcester Streetscape Policy (2012)) other than current ordinances such as the Worcester Zoning Ordinance. As of this writing, the Zoning Ordinance includes only very limited requirements pertaining to bicycle parking.

Project sponsors are encouraged to include both short-term bike parking for visitors as well as long-term bike parking for employees and/or residents in their submitted plans.

Bike Rack Selection

Performance Criteria

While a wide variety of bike rack styles exist, not all of them perform in the same way. The Association of Pedestrian and Bicycle Professionals (APBP) have developed five performance criteria which have become the industry standard. All bike racks installed in the City of Worcester should meet these criteria.

1. **Bike racks should support an upright bike by providing two points of contact.**

2. **Bike racks should accommodate a variety of bike styles (cargo bikes, tandem, etc.).**

3. **Bike racks should allow locking of the bike frame and one wheel with a U-lock.**

4. **Bike racks should provide security and longevity features appropriate for the intended location.**

5. **Bike racks should be intuitive and user-friendly.**

Preferred Bike Racks

Based on the performance criteria outlined on the previous page, **the City of Worcester has chosen two standard rack styles that meet all five criteria: the Inverted U** (also known as Hoop) **and the Post & Ring** (otherwise known as a Hitch).

The standard is a black, powder-coated rack that is securely mounted in-ground or bolted to the sidewalk on the public way (see **Figures 1 and 2** for detailed specifications).

These are the only racks permitted on City sidewalks unless specific permission is granted by the Commissioner of Transportation and Mobility or their designee.

Due to their compact profile, Post & Ring style racks are the preferred racks to be used along the sidewalk adjacent to parked cars. For racks located in off-street locations, including parking lots, parking garages, schools, parks, and playgrounds, the preferred styles are the Inverted U, galvanized metal, mounted on rails in sets of 3, 4, 5, or 6.

FIGURE 1: Inverted Loop, also called a stable loop.

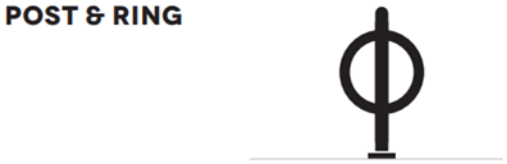

FIGURE 2: Post and ring style rack

Figures 1 & 2 Source: Essentials of Bike Parking", Association of Pedestrian and Bike Professionals. Revision1.0, September 2015, Nathan Brown, lead author p. 6.

Racks to Avoid

Most bike racks, even some styles that are economical or aesthetically pleasing, do not meet the five performance criteria outlined previously. Common problems include:

- Not providing two points of support for an upright bike. This can cause a bike to fall and be damaged.
- Supporting the bike only at one wheel. This makes the bike vulnerable to theft or wheel damage.
- Connecting the rack with a bar at the top. This style cannot be used by bikes with baskets or other attachments.
- Not allowing for easy locking of both the bike frame and wheel.
- Proper use of some bike racks is confusing or not intuitive.

SCHOOLYARD
also called
comb, grid

WAVE
also called undulating
or serpentine

FIGURE 3: Schoolyard style rack.

FIGURE 4: Wave style rack.

Figures 3 & 4 Source: Essentials of Bike Parking", Association of Pedestrian and Bike Professionals. Revision1.0, September 2015, Nathan Brown, lead author p. 8.

The schoolyard and wave style racks are commonly found throughout the city. Neither of these styles provide two points of support for an upright bike. Neither style can accommodate larger bikes or those with baskets, attachments, or wider tires.

Location and Siting

General Considerations

When choosing a location for placement of a bike rack, security, convenience, and proper clearance for other uses of the sidewalk are all equally important factors.

Table 1: General Considerations

Short-Term Parking	Long-Term Parking
Purpose: Accommodates quicker trips to stores, etc.	**Purpose:** Accommodates all-day or multi-day parking.
Security Considerations: Preferably, racks should be installed in-ground on a hard surface (unless a bike corral) and visible from the street and to the public. Alternatively, the racks can be bolted into the ground with at least 4 bolts.	**Security Considerations:** Within a parking lot or garage, bike racks should be located close to the street entrance, where there is more pedestrian activity and visibility. If located adjacent to vehicular parking or loading or in an open area, use bollards and curb stops to mark off the space and protect from vehicles. Preferably, racks should be installed in-ground on a hard surface. Alternatively, the racks can be bolted into the ground with at least 4 bolts. Locate in area with adequate lighting.
Convenience Considerations: Locate close to destinations. 50' or less from an entrance is recommended. If possible, locate under shelter.	**Convenience Considerations**: Should be covered to protect from the weather and easy to find. If racks are in a garage, signage indicating bike parking is useful.
Clearance Considerations: Racks must not obstruct pedestrian path, ADA ramps, ADA parking or access to fire hydrants, bus stops, etc. See details under "Placement of Racks".	**Clearance Considerations:** Racks must not obstruct the pedestrian or ADA accessible path.

Within the Public Right-of-Way

The City of Worcester offers the following guidelines on how to properly place bike racks in the public right-of-way. In general, bike racks in the public right-of-way should be placed curbside to ensure consistent pedestrian walkways. The measurements below are minimum requirements.

Table 2: Bike Parking on Sidewalks

Bike Rack Location	**Sidewalk Width Needed**
Parallel to Curb	7’
45° Angle to Curb	12’6”
Perpendicular to Curb	13’
Walking Path Clearance	4’
Distance from Curb	
Parallel to curb	3’ (2’ if no parking)
Perpendicular or angled to curb	4’
Clearance from fire hydrants, ADA ramps, bus shelters and stop and commercial loading zone	5’
Clearance from trees, trash cans, benches	3’
Distance between racks:	
End-to-End	8’
Side-by-side	3’
Clusters of racks	Clusters of racks installed on the sidewalk should not be used adjacent to paralleled parked cars.

Bike Corrals

Bike corrals are a group of racks installed adjacent to the curb within the parking lane of a roadway. When deployed in high-traffic areas, bike corrals can accommodate more visitors than would be possible if that space was used for motor vehicle parking.

Bike corrals in the City of Worcester shall be inverted-U style racks in galvanized metal, mounted to rails in sets of 3, 4, 5 or 6. Each bike corral shall include 2 wheel stops to prevent intrusion by motor vehicles, one located at each end, and 2 flexible delineator posts, one located at each end.

All bike corrals are subject to approval by the Commissioner of Transportation and Mobility prior to installation.

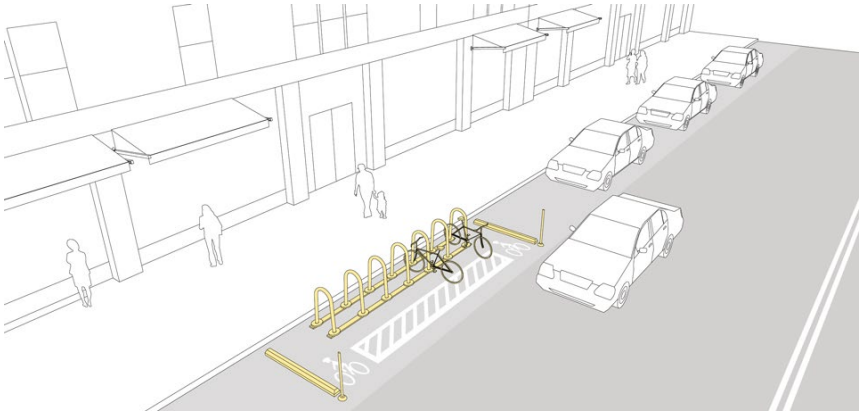

Figure 5: Bike corral
Source: "Urban Street Design Guide", National Association of City Transportation Officials

Table 3. Bike Corrals

Distance from curb	2'
Distance from travel lane	3'
Distance from wheel stop to rack	3'
Distance between racks	3'
Rack orientation	Perpendicular to curb *or* 45-degree angle

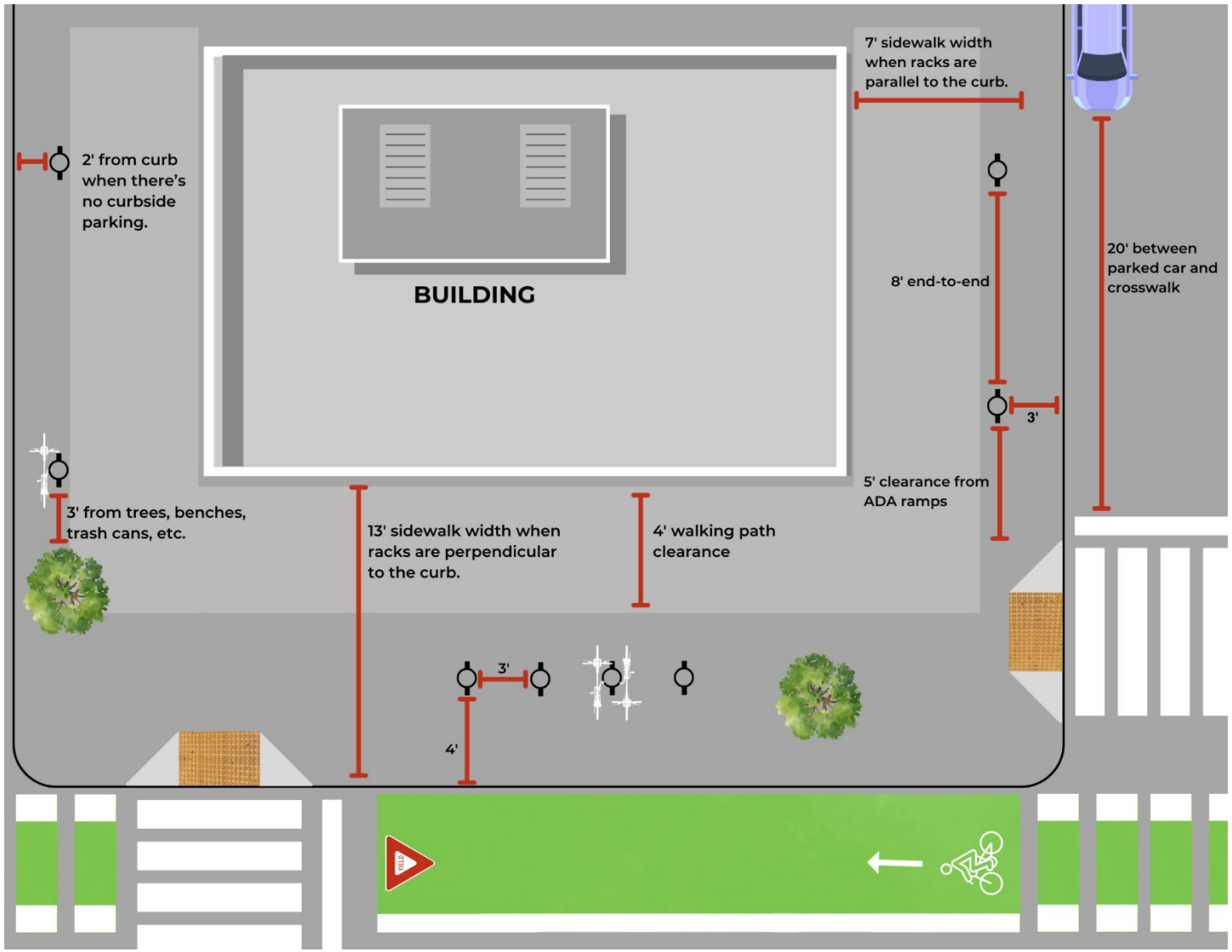

Figure 6: Bike Parking on Sidewalks

Off-Street Parking Guidelines

Off-street parking lots and garages and private property can be attractive locations for groups of bike racks, particularly for long-term parking. Due to their performance, the Inverted-U and Post and Ring racks remain the preferred rack style. However, in constrained indoor spaces, two-tier racks with a lift assist on the top tier may be suitable. Please consult the Department of Transportation and Mobility when considering alternative rack styles.

In addition to the security, convenience, and clearance guidelines in **Table 1**, the recommended spacing for off-street bike racks is:

Table 4: Off-Street Bike Parking Siting

Distance between end of rack and the wall	2’
Distance between racks	3’
Distance between the side of the rack and wall	3’
Passage between rows of bike racks (measured from tire to tire)	5’
Parking length for a standard bike	6’
Parking length for a longer bike, such as a cargo	10’

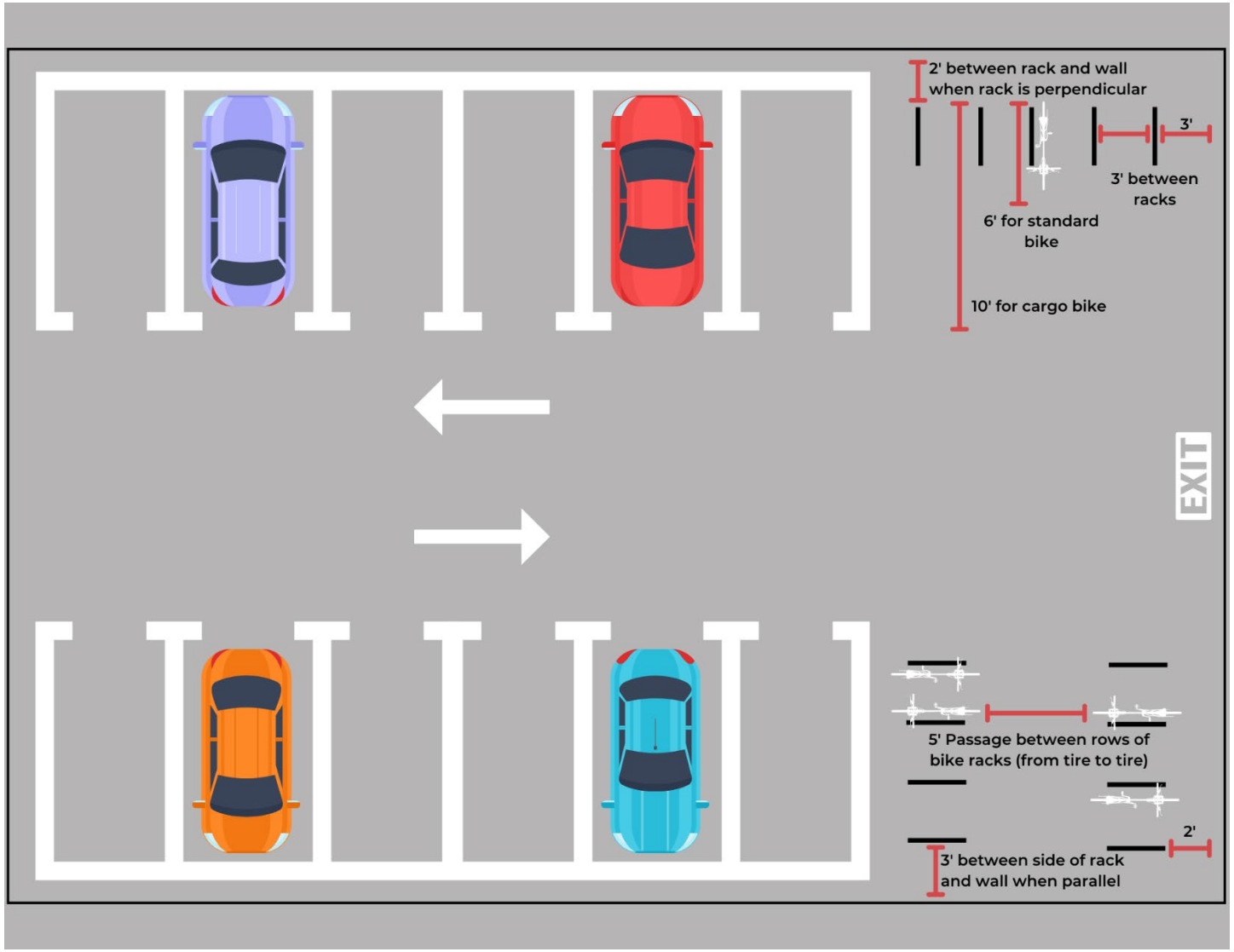

Figure 7: Off-Street Bike Parking

Installation

Installation of bike racks should generally follow the manufacturer's instructions. It is preferred that the racks be installed in-ground for security reasons and should be placed on a hard surface, rather than on soft ground.

If a concrete pad is created specifically for the bike parking, it should follow the basic guidelines for the space needed to support the length of the bike.

The bike rack in **Figure 8** is an example of improper placement. Although the rack is adjacent to the sidewalk and is near the building entrance, it is installed on a soft surface that will not properly support a parked bike. Additionally, the perpendicular orientation of this rack will result in a bike overhanging into either the sidewalk or adjacent parking space.

Figure 8: Poor placement of a bike rack.