



APPENDIX D:
BIKE PARKING

THE IMPORTANCE OF BIKE RACKS

People riding a bicycle for transportation need to be confident that they will have a place to safely store their bicycle while they are at their destination. Lakewood Zoning Ordinance requires most developers to install short-term bicycle parking, but there's more to consider than just having a bike rack available. Successful bike parking is accommodating for different styles of bicycles, is accessible and visible from the nearest entrance or bike route, and enables secure locking.

Accommodating

Bike racks that provide at least 3 feet of space between bikes and do not require lifting the bicycle to lock it to the rack are the most accommodating to large bikes, cargo bikes, and bikes with any type of storage (Figure D-1). Bicyclists should not need to move another bicycle to lock or unlock their own. Various designs of bike rack and their levels of accommodation are discussed on page 72.

Accessible & Visible

Bike parking should be easily accessible from the nearest bike route, allowing bicyclists to ride up to the rack without having to lift their bike onto a platform or across landscaping. To make bike racks more intuitive for visiting bicyclists, bike racks should be placed in plain sight, ideally within close proximity to the nearest building entrance. When this is not possible, bike parking directional signage (MUTCD D4-3) should be provided.

Secure

Bike rack designs that accommodate high-security U-locks locked to two different parts of the bike frame are more secure than designs that only allow locking to one part of the frame (Figure D-3), require a long cord or chain lock to reach the rack, or only provide a locking point for one wheel (Figure D-4). Bike parking should also be located in a highly visible and well-lit location to ensure safe use for the bicyclist and reduce opportunity for theft.

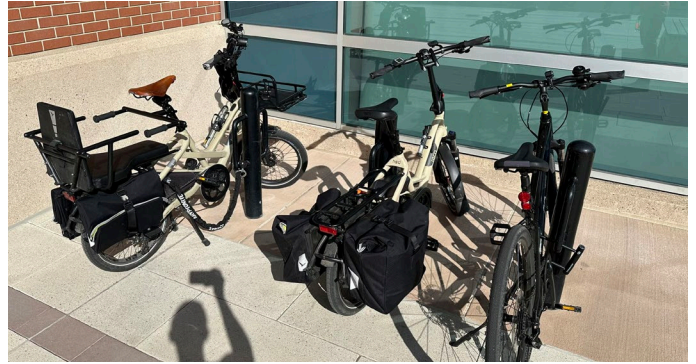


Figure D-1: E-bikes, cargo bikes, and bikes with panniers may require extra space that not all types of bike rack accommodate.

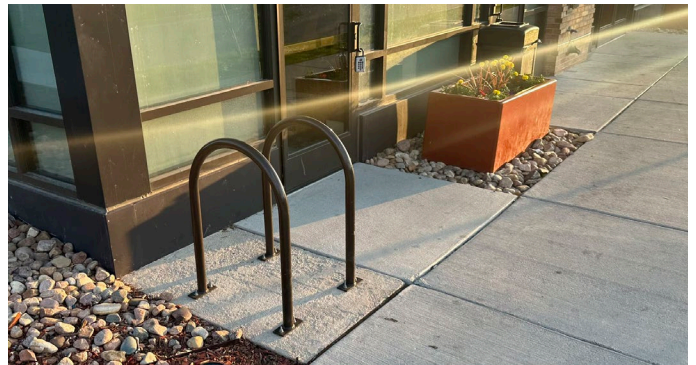


Figure D-2: Bike racks placed directly next to a business entrance are easy to find and more likely to be secure due to being in plain sight.



Figure D-3: Wave racks can provide high-volume bike parking with minimal drilling required, but offer less security than other racks.



Figure D-4: Bicyclists opt to lock their bikes to a nearby railing instead of the available schoolyard rack.

Inverted U



Post & Ring



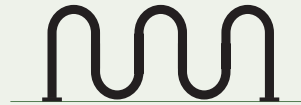
Preferred Bike Rack Types

Inverted U racks (also known as staple or loop racks) and Post & Ring racks are the most secure and accommodating styles of bike rack. Both provide two locking points and can be spaced to allow any size of bicycle to lock to either side of the rack.

Accepted but Not Recommended

The designs shown to the right are five of many designs that are not as secure, intuitive, or accommodating as the preferred racks in the section above, but more effective than the racks in the section below. Where Inverted U or Post & Ring racks are not practical, any of these styles of rack may be installed if approved by City staff. Other designs not shown, including any decorative racks (see page 74), also fall into this category.

Wave / Ribbon



Spiral



Coathanger



Horned



Bollard



No Longer Accepted

Schoolyard



Wheelwell



Schoolyard racks (also known as comb or grid racks) and Wheelwell racks only allow locking to a single wheel, often lead to inefficient parking due to their lack of intuitiveness, and can damage bicycle wheels. These designs are no longer accepted to fulfill bike parking requirements in the 2025 update to Lakewood's zoning code.

Existing Bike Rack Inventory Grading System

In order to provide a high-level understanding of the current quality of publicly accessible short-term bike parking in Lakewood, existing bike racks were inventoried by the project team during Summer 2024 and the grading system in Table D-1 below was developed based on the information collected. See Figure D-5 on the following page for a map of existing bike rack locations, their assumed capacities, and their grades.

Grade	Rack Designs	Obstruction	In Plain Sight
A	Inverted U, Post & Ring	None, Low, Medium	Yes
B	Inverted U, Post & Ring	None, Low, Medium, High	No
	Inverted U, Post & Ring	High	Yes
C	Wave, Spiral, Coathanger, Horned, Bollard, Other	None, Low, Medium	Yes
	Wave, Spiral, Coathanger, Horned, Bollard, Other	None, Low, Medium, High	No
D	Wave, Spiral, Coathanger, Horned, Bollard, Other	High	Yes
	Schoolyard, Wheelwell	All	All

Table D-1: Grading system for existing bike racks in Lakewood. See Figure D-5 for a map of graded bike racks.

EXISTING BIKE RACK INVENTORY

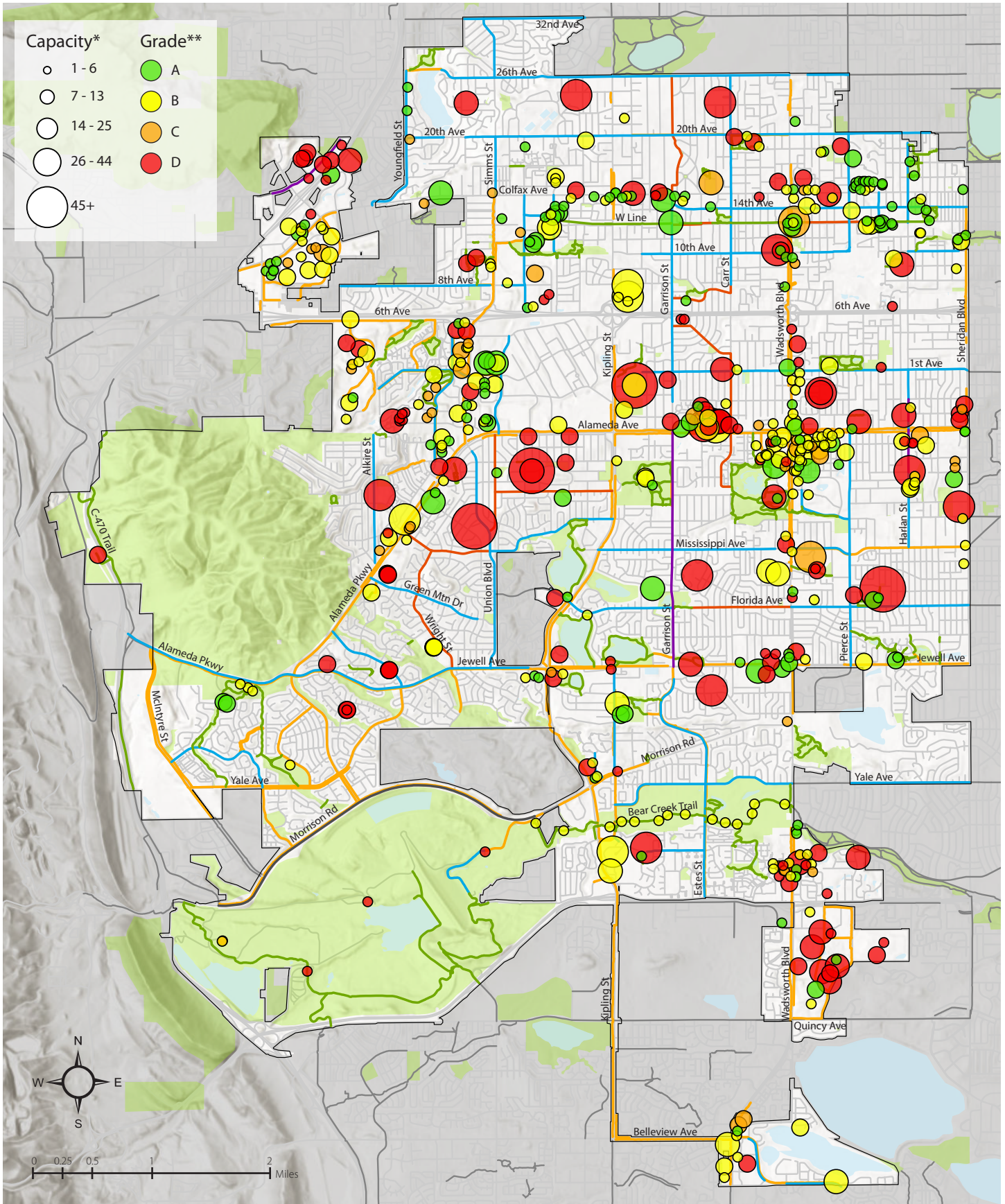


Figure D-5: Inventory of existing publicly accessible bike racks as of August 2024. * = capacity figures assume that each rack is used as intended with standard-sized bicycles and no obstruction, and may not reflect usable capacity for all racks. ** = see Table D-1 on page 72 for determination of grade.

While inventorying existing publicly accessible bike racks is an important step towards improving the quality of short-term bike parking throughout Lakewood, a process should be developed to keep the inventory updated and make improvements over time. Because the majority of bike racks are on private property, partnerships and grants may be explored for a collaborative approach to improving Lakewood’s network of bike racks.

ADDITIONAL RECOMMENDATIONS

Decorative Racks

In addition to providing a secure place for people to park their bicycles, bike racks can also contribute to the aesthetics and branding of a business or neighborhood. The rack designs on page 72 can be painted to serve a decorative purpose, a branded plaque or other type of addition can be added, or a unique shape of bike rack can even be installed (Figure D-6). The decorative nature of such racks should not conflict with the recommended standards for accommodation, accessibility, and security.



Figure D-6: 40 West ArtLine stylized bike racks outside Casa Bonita provide secure and artistic bicycle parking.

Additional Amenities

In combination with secure and accessible bike racks, other end-of-trip facilities can make bicycling for transportation more convenient and comfortable. Bicycle pumps and repair stations (Figure D-7), water fountains, benches (Figure D-6), shade structures, and trash cans can all improve a bicycling trip and any associated stops.



Figure D-7: A bike repair station with a pump located near a sheltered bench along the Alameda Ave side path.

Community Events

For large events that typically require event parking or traffic control, providing a staffed bike valet is a great way to encourage attendees to leave their cars at home and ride their bikes to the event. This way they don't have to worry about parking, and it can be an incentive for some to try bicycling as a new mode of transportation.



Figure D-8: Free Bike Valet parking is provided to attendees at Lakewood's Earth Day Celebration and Cider Days each year.

More Information

This appendix is intended to provide high-level information about features that affect the quality of short-term bike parking as an important part of a successful bicycling network. For information on additional bike rack designs, long-term bike parking, bike rack materials and installation, and specific placement recommendations, refer to the Association of Pedestrian and Bicycle Professionals (APBP) Essentials of Bike Parking guide (Figure D-9) and Chapter 16 of the AASHTO Guide for the Development of Bicycle Facilities.



Figure D-9: The APBP Essentials of Bike Parking guide (2015).