2021-3 (2ND READING): TO AMEND APPENDIX A ZONING OF THE CODE OF ORDINANCES, ARTICLE 10 PARKING AND LOADING REQUIREMENTS, TO REQUIRE BICYCLE RACKS IN ALL COMMERCIAL, CIVIC, AND MAJOR SUBDIVISION CONSTRUCTION PROJECTS; AND TO ADD APPENDIX B. ASSOCIATION OF PEDESTRIAN AND BICYCLE PROFESSIONALS (APBP) ESSENTIALS OF BIKE PARKING.

Applicant/Purpose: City of Myrtle Beach Bicycle and Pedestrian Advisory Committee / to amend Appendix A of the Zoning Code, Article 10 Parking & Loading Requirements, to require bicycle racks in all new and substantially renovated commercial, civic & major subdivision construction projects.

Brief:

- The Covid-19 pandemic has led to record bicycle sales & repairs at the two in-city bike shops.
- The committee believes the investment residents have made in bicycles & related equipment is significant enough to expect increased bicycle usage to continue beyond the pandemic.
- Although the city has extensive requirements for off-street parking for automobiles, there are currently no requirements to provide parking facilities for bicycles.
- The proposed Ordinance, if it passes, would:
  - Require all new commercial, civic, & major subdivision construction projects to install a bicycle rack on-site;
  - Substantial renovations to existing commercial, civic, & major subdivisions would also be required to install a bicycle rack on-site
- 2/2/21: Planning Commission recommends approval as presented (7-0).
- No changes since 1st reading.

Issues:

- Racks shall be designed and installed to hold a minimum of two bicycles.
- In Zoning Districts where the use requires no on-site parking, a fee of $600 may be paid in lieu of installing bike racks;
  - Monies will be earmarked by the city to install public bicycle parking in the area.
- Racks in major subdivisions will be located at amenities and designated common areas.
- Racks would have to meet professional standards of the Association of Pedestrian and Bicycle Professionals (APBP), which is recognized by USDOT, NHTSA, as the authoritative guide for bike rack design and installation.
- Bicycle locks & chains can damage trees, fences & benches when adequate bicycle parking facilities are lacking
- Required bicycle parking is new to Myrtle Beach.

Public Notification: Agenda published and posted. Legal ad ran in the Myrtle Beach Herald.

Alternatives:

- Modify the proposed ordinance.
- Deny the proposed ordinance.

Financial Impact: N/A.

Manager's Recommendation:

- I recommend 1st reading (2.9.21).
- I recommend approval (2.23.21).

Attachment(s): Proposed ordinance, supporting materials.

ORDINANCE 2021-3

CITY OF MYRTLE BEACH
COUNTY OF HORRY
STATE OF SOUTH CAROLINA

TO AMEND APPENDIX A ZONING OF THE CODE OF ORDINANCES, ARTICLE 10 PARKING AND LOADING REQUIREMENTS, TO REQUIRE BICYCLE RACKS IN ALL COMMERCIAL, CIVIC, AND MAJOR SUBDIVISION CONSTRUCTION PROJECTS; AND TO ADD APPENDIX B. ASSOCIATION OF PEDESTRIAN AND BICYCLE PROFESSIONALS (APBP) ESSENTIALS OF BIKE PARKING.

WHEREAS, the Covid-19 pandemic has led to record bicycle sales and repairs at the two in-city bike shops, namely Beach Bike Shop and Pee Dee Bicycles; and

WHEREAS, Bicycle & Pedestrian Advisory Committee members and staff have seen a notable increase in bicycle usage in our community; and

WHEREAS, the investment residents have made in bicycles and related equipment is significant enough to expect increased bicycle usage to continue beyond the pandemic; and

WHEREAS, city residents, visitors, and workers all use bicycles as a mode of transportation; and

WHEREAS, bicycle racks demonstrate the city's priority of improving our Bronze Level Bicycle Friendly Community designation; and

WHEREAS, bicycle riders need a safe and secure place to store their bicycles upon arrival at their destination; and

WHEREAS, bicycle locks and chains can damage trees, fences and benches when adequate bicycle parking facilities are lacking;

NOW, THEREFORE, IT IS HEREBY ORDAINED that Section 1001 Purpose and Intent, Article 10 Parking and Loading Requirements, Appendix A, Zoning of the Code of Ordinances is amended as follows:

Section 1001. Purpose and Intent
To have safe, well designed parking areas that successfully accommodate automobiles, bicycles, and ~~the~~ pedestrians, and are subordinate in design and appearance to adjacent buildings.

IT IS HEREBY FURTHER ORDAINED that Section 1002 Location, Article 10 Parking and Loading Requirements, Appendix A, Zoning of the Code of Ordinances is amended as follows:

Section 1002. Location.
1002.A. All parking spaces required herein shall be located on the same lot with the principal building or use or uses served except under standards as

addressed in section 1007 - Standards for Off-Site Parking Facilities of this Ordinance.

1002.BNo parking spaces shall be located such that parked vehicles will block sight lines or sight triangles as defined in Article 2 Definitions.

1002.C Bicycle parking shall be installed in accordance with Section 1009 and located as approved by the zoning administrator so as to be accessible from the nearest bike lane, path or trail in a travel way of minimal conflict with the automobile.

IT IS HEREBY FURTHER ORDAINED that Article 10 Parking and Loading Requirements, Appendix A, Zoning of the Code of Ordinances is amended to add new Section 1009 as follows and the tables of contents adjusted accordingly:

Section 1009. Bicycle Parking
All commercial, civic, and major subdivision construction projects shall include a bicycle rack installed on-site in accordance with the Association of Pedestrian and Bicycle Professionals (APBP) Essentials of Bike Parking (Appendix B).

1009.A. Racks shall be designed and installed to hold a minimum of two bicycles.

1009.B. Racks shall be constructed of stainless steel or powder-coated galvanized steel.

1009.C. In districts where the proposed use requires no on-site parking, a fee of $600 may be paid in lieu of installing a bike rack, monies to be used by the city to install public bicycle parking.

1009.D. Racks shall be maintained so as to be continually safe, secure, and structurally sound.

1009.E. Racks in major subdivisions will be located at amenities and designated common areas.

IT IS HEREBY FURTHER ORDAINED that Appendix A, Zoning of the Code of Ordinances is amended to add new Appendix B as attached and the tables of contents adjusted accordingly.

This ordinance will take effect upon second reading.

_____
BRENDA BETHUNE, MAYOR

ATTEST:

_____
JENNIFER ADKINS, CITY CLERK

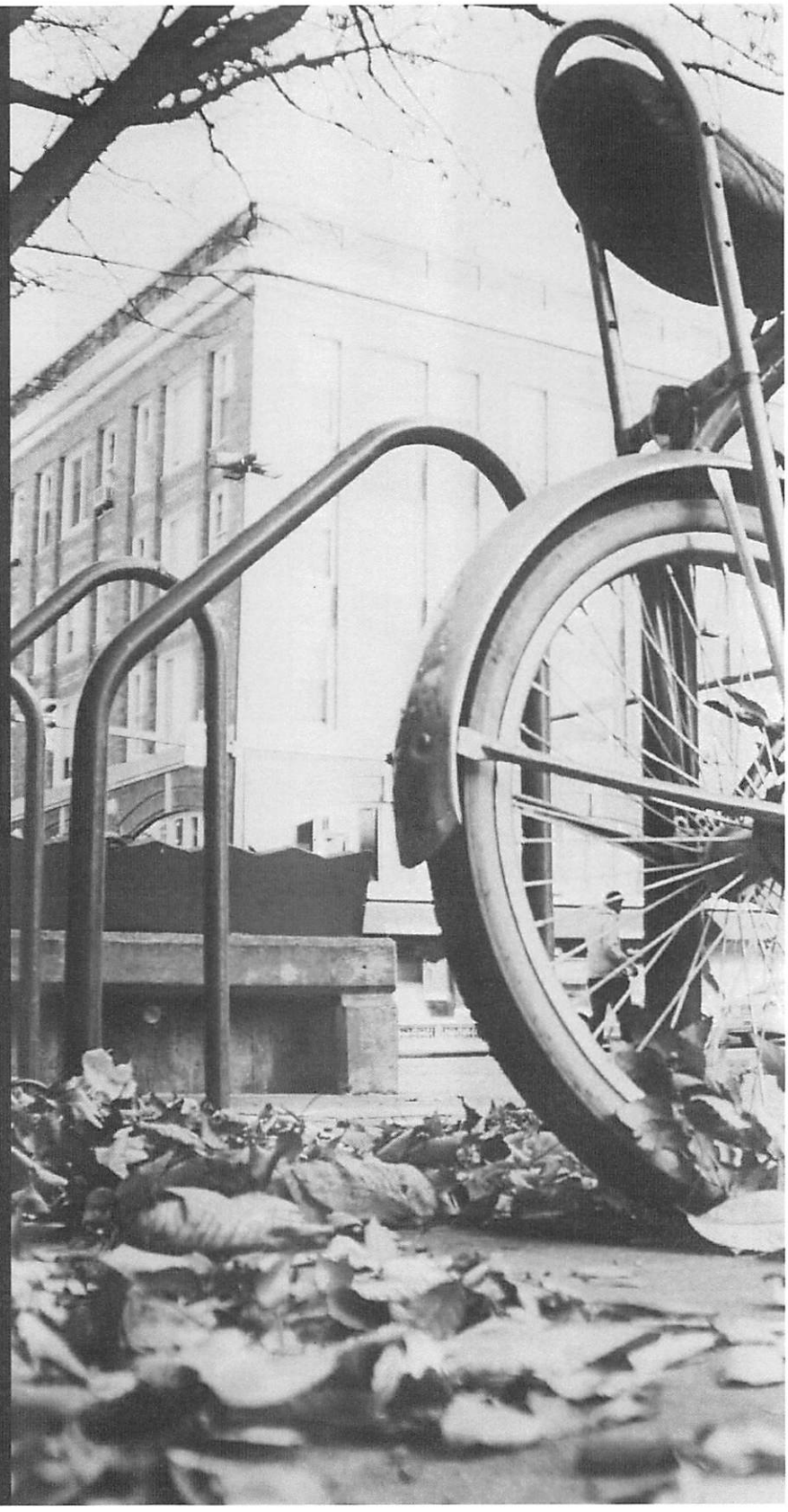
1st Reading: 2-9-2021
2nd Reading: 2-23-2021

Appendix B

ESSENTIALS OF BIKE PARKING

Selecting and installing bicycle parking that works

apbp
Association of Pedestrian and Bicycle Professionals
Expertise for Active Transportation



Essentials of Bike Parking
Revision 1.0, September 2015

Acknowledgments

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Alta Planning + Design donated their expertise in the design and illustration of this guide. Cat Cheng, lead designer, Julian Portelance, production designer.

Cover image: Sign D4-3 from Standard Highway Signs, 2004 Edition, http://mutcd.fhwa.dot.gov/ser-shs_millennium_eng.htm

Bicycle parking manufacturers and distributors shall not use APBP's logo or imply product endorsement by APBP without express written permission from APBP.

APBP is an association of professionals who plan, implement and advocate for walkable and bicycle-friendly places.

Association of Pedestrian and Bicycle Professionals

bikeparking@apbp.org
www.apbp.org

TABLE OF CONTENTS

INTRODUCTION

Among the necessary supports for bicycle transportation, bike parking stands out for being both vital and easy. Still, it requires some attention to get it right. Bike parking may go unused if it's not more appealing to users than the nearest sign post. A minor mistake in installation can make a quality rack unusable. The variety of bicycle sizes, shapes, and attachments continues to increase, and good bike parking should accommodate all types.

The Association of Pedestrian and Bicycle Professionals (APBP) prepared this guide for people planning to purchase or install bike parking fixtures on a limited scale. It is a brief overview of APBP's comprehensive *Bicycle Parking Guidelines* handbook, available at www.apbp.org.

This guide divides bike parking into short-term and long-term installations. These two kinds of parking serve different needs, and the starting point for most bike parking projects is recognizing whether the installation should serve short-term users, long-term users, or both. If users will typically be parking for two hours or longer, they are likely to value security and shelter above the convenience and ease that should characterize short-term parking.

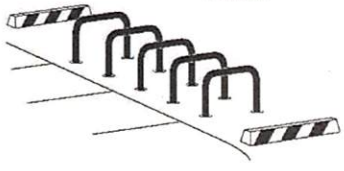
SHORT-TERM PARKING

Effective bike parking for short-term users depends on two main factors: 1) proximity to the destination and 2) ease of use.

Short-term parking is designed to meet the needs of people visiting businesses and institutions, and others with similar needs—typically lasting up to two hours. Short-term users may be infrequent visitors to a location, so the parking installation needs to be readily visible and self-explanatory.

INVERTED U

POST & RING



CORRAL

SITE PLANNING

Location

Short-term bike parking should be visible from and close to the entrance it serves—50' or less is a good benchmark. Weather-protected parking makes bicycle transportation more viable for daily and year-round use, and it can reduce the motivation for users to bring wet bicycles into buildings. Area lighting is important for any location likely to see use outside of daylight hours.

Security

All racks must be sturdy and well-anchored, but location determines the security of short-term parking as much as any other factor. Users seek out parking that is visible to the public, and they particularly value racks that can be seen from within the destination. Areas with high incidence of bicycle theft may justify specific security features such as specialty racks, tamper-proof mounting techniques, or active surveillance.

Quantity

Many jurisdictions have ordinances governing bike parking quantity. APBP's full *Bicycle Parking Guidelines* offers complete recommendations for the amount and type of parking required in various contexts. In the absence of requirements, it's okay to start small—but bear in mind that perceived demand may be lower than the demand that develops once quality parking appears.

BIKE CORRALS

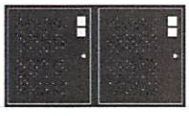
Some cities with limited sidewalk space and strong bicycle activity place bike parking in on-street "bike corrals" located in the street area adjacent to the curb. Bike corrals can sometimes make use of on-street areas that are unsuitable for auto parking. When replacing a single auto parking space, a corral can generally fit 8 to 12 bicycles. APBP's full *Bicycle Parking Guidelines* provides details about designing and siting bike corrals. **apbp.org**

1

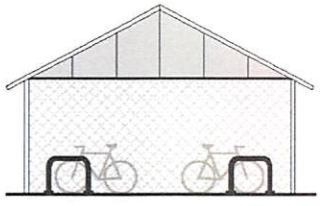
LONG-TERM PARKING

Users of long-term parking generally place high value on security and weather protection. Long-term parking is designed to meet the needs of employees, residents, public transit users, and others with similar needs. These users typically park either at home or at a routine destination such as a workplace. They often leave their bicycles unmonitored for a period of several hours or longer, so they require security and weather protection that let them park without unreasonable concern for loss or damage.

Long-term parking can take a variety of forms, including a room within a residential building or workplace, a secure enclosure within a parking garage, or a cluster of bike lockers at a transit center. Some long-term parking is open to the public—such as a staffed secure enclosure at a transit hub—and some of it is on private property with access limited to employees, residents, or other defined user groups.



BIKE LOCKERS



SHELTERED SECURE ENCLOSURE

SITE PLANNING

Location

Appropriate locations for long-term parking vary with context. Long-term parking users are typically willing to trade a degree of convenience for weather protection and increased security. Long-term installations emphasize physical security above public visibility. Signage may be needed for first-time users.

Security

Security is paramount for quality long-term parking. Access to parked bicycles can be limited individually (as with lockers) or in groups (as with locked bike rooms or other secure enclosures). Options for access control include user-supplied locks, keys, smart cards, and other technologies.

Quantity

Refer to local ordinances or the comprehensive APBP *Bicycle Parking Guidelines* to determine the amount and type of parking required for various contexts.

SPECIAL CONSIDERATIONS FOR LONG-TERM PARKING

In many ways, short-term and long-term parking function similarly and are served by the same guidelines. Some exceptions are noted below.

Density

The competition of uses for high-security and sheltered locations creates particular pressure on long-term parking to fit more bicycles in less space. When parking needs cannot be met with standard racks and spacing recommended in this guide, consider rack systems designed to increase parking density. See the high-density racks table on page 7. Note that increasing density without careful attention to user needs can create parking that excludes people because of age, ability, or bicycle type. This may result in people parking bicycles in other less desirable places or choosing not to bike at all.

Bicycle design variety

Long-term parking facilities should anticipate the presence of a variety of bicycles and accessories, including—depending on context—recumbents, trailers, children's bikes, long-tails, and others. To accommodate trailers and long bikes, a portion of the racks should be on the ground and should have an additional 36" of in-line clearance.

Performance criteria

The bike rack criteria in the next section apply to racks used in any installation, regardless of its purpose. Long-term installations often use lockers and group enclosures not discussed in this guide. Such equipment raises additional considerations that are discussed in detail in APBP's full *Bicycle Parking Guidelines*. **apbp.org**

INSTALLATION

Selecting an appropriate installation surface and technique is key to creating bicycle parking that remains secure and attractive over time.

INSTALLATION SURFACE

A sturdy concrete pad is an ideal surface for installing bicycle parking. Other surfaces often encountered include asphalt, pavers, and soft surfaces such as earth or mulch. These surfaces can accommodate in-ground mounting or freestanding bike racks such as inverted-U racks mounted to rails. See APBP's *Bicycle Parking Guidelines* for details. **apbp.org**

INSTALLATION FASTENERS

When installing racks on existing concrete, consider the location and select appropriate fasteners. Drill any holes at least three inches from concrete edges or joints. Some locations benefit from security fasteners such as concrete spikes or tamper-resistant nuts on wedge anchors. Asphalt is too soft to hold wedge and spike anchors designed for use in concrete. Installing bike parking on asphalt typically requires freestanding racks and anchor techniques specific to asphalt.

FASTENERS

CONCRETE SPIKE		Installs quickly in concrete with a hammer. Tamper-resistant. Removal may damage concrete and/or rack.
CONCRETE WEDGE ANCHOR		Allows for rack removal as needed. Not tamper-resistant, but can accommodate security nuts (below).
SECURITY NUTS		Use with concrete wedge anchors. Security nuts prevent removal with common hand tools.

INSTALLATION TECHNIQUES

When installing racks on existing concrete, choose those with a surface-mount flange and install with a hammer drill according to the specifications of the mounting hardware selected. When pouring a new concrete pad, consider bike parking fixtures designed to be embedded in the concrete. Because replacing or modifying an embedded rack is complicated and costly, this installation technique requires particular attention to location, spacing, rack quantity, and material.

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BICYCLE RACK SELECTION

PERFORMANCE CRITERIA FOR BIKE PARKING RACKS

These criteria apply to any rack for short- or long-term use.

CRITERIA	DETAILS
Supports bike upright without putting stress on wheels	The rack should provide two points of contact with the frame—at least 6" apart horizontally. Or, if a rack cradles a bicycle's wheel, it must also support the frame securely at one point or more. The rack's high point should be at least 32".
Accommodates a variety of bicycles and attachments	The racks recommended on page 6 ("racks for all applications") serve nearly all common bike styles and attachments—if installed with proper clearances (see placement section). Avoid designs and spacing that restrict the length, height, or width of bicycles, attachments, or wheels.
Allows locking of frame and at least one wheel with a U-lock	A closed loop of the rack should allow a single U-lock to capture one wheel and a closed section of the bike frame. Rack tubes with a cross section larger than 2" can complicate the use of smaller U-locks.
Provides security and longevity features appropriate for the intended location	Steel and stainless steel are common and appropriate materials for most general-use racks. Use tamper-resistant mounting hardware in vulnerable locations. Rack finish must be appropriate to the location (see materials and coatings section).
Rack use is intuitive	First-time users should recognize the rack as bicycle parking and should be able to use it as intended without the need for written instructions.

1

RACK STYLES

The majority of manufactured bike racks fall into one of the categories on pages 6-8. Within a given style, there is wide variation among specific racks, resulting in inconsistent usability and durability. APBP recommends testing a rack before committing broadly to it.

RACKS FOR ALL APPLICATIONS

When properly designed and installed, these rack styles typically meet all performance criteria and are appropriate for use in nearly any application.

INVERTED U
also called staple, loop

Common style appropriate for many uses; two points of ground contact. Can be installed in series on rails to create a free-standing parking area in variable quantities. Available in many variations.

POST & RING

Common style appropriate for many uses; one point of ground contact. Compared to inverted-U racks, these are less prone to unintended perpendicular parking. Products exist for converting unused parking meter posts.

WHEELWELL-SECURE

Includes an element that cradles one wheel. Design and performance vary by manufacturer; typically contains bikes well, which is desirable for long-term parking and in large-scale installations (e.g. campus); accommodates fewer bicycle types and attachments than the two styles above.

This guide analyzes the most common styles of bike racks, but it is not exhaustive. Use the performance criteria on page 5 to evaluate rack styles not mentioned. Custom and artistic racks can contribute to site identity and appearance, but take care that such racks don't emphasize appearance over function or durability.

HIGH-DENSITY RACKS

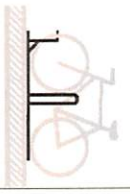
These rack styles do not meet all performance criteria but may be appropriate in certain constrained situations.

High-density rack systems can maximize the use of limited parking space, but they don't work for all users or bicycles. If installing these racks, reserve additional parking that accommodates bicycles with both wheels on the ground for users who are not able to lift a bicycle or operate a two-tier rack, or for bikes that are not compatible with two-tier or vertical racks.

STAGGERED WHEELWELL-SECURE

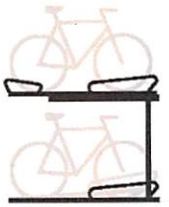
Variation of the wheelwell-secure rack designed to stagger handlebars vertically or horizontally to increase parking density. Reduces usability and limits kinds of bikes accommodated, but contains bikes well and aids in fitting more parking in constrained spaces.

VERTICAL



Typically used for high-density indoor parking. Not accessible to all users or all bikes, but can be used in combination with on-ground parking to increase overall parking density. Creates safety concerns not inherent to on-ground parking.

TWO-TIER



Typically used for high-density indoor parking. Performance varies widely. Models for public use include lift assist for upper-tier parking. Recommend testing before purchasing. Creates safety concerns not inherent to on-ground parking, and requires maintenance for moving parts.

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2

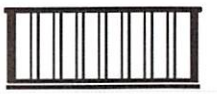
RACKS TO AVOID

Because of performance concerns, APBP recommends selecting other racks instead of these.

WAVE
also called undulating or serpentine

Not intuitive or user-friendly; real-world use of this style often falls short of expectations; supports bike frame at only one location when used as intended.

SCHOOLYARD
also called comb, grid



Does not allow locking of frame and can lead to wheel damage. Inappropriate for most public uses, but useful for temporary attended bike storage at events and in locations with no theft concerns. Sometimes preferred by recreational riders, who may travel without locks and tend to monitor their bikes while parked.

COATHANGER

This style has a top bar that limits the types of bikes it can accommodate.

WHEELWELL

Racks that cradle bicycles with only a wheelwell do not provide suitable security, pose a tripping hazard, and can lead to wheel damage.

BOLLARD

This style typically does not appropriately support a bike's frame at two separate locations.

SPIRAL

Despite possible aesthetic appeal, spiral racks have functional downsides related to access, real-world use, and the need to lift a wheel to park.

SWING ARM SECURED

These racks are intended to capture a bike's frame and both wheels with a pivoting arm. In practice, they accommodate only limited bike types and have moving parts that create unneeded complications.

RACK MATERIALS & COATINGS

Most bicycle parking racks are made of carbon steel or stainless steel. Carbon steel requires a surface coating to resist rust while appropriate grades of stainless steel need no coating. Not all materials and coatings with the same name perform equally. Square tubing provides a security advantage as round tubing can be cut quietly with a hand-held pipe cutter. Before purchasing racks, talk to suppliers about your particular conditions and choose a material and coating that suit your needs. The following are common choices, depending on local considerations and preferences.

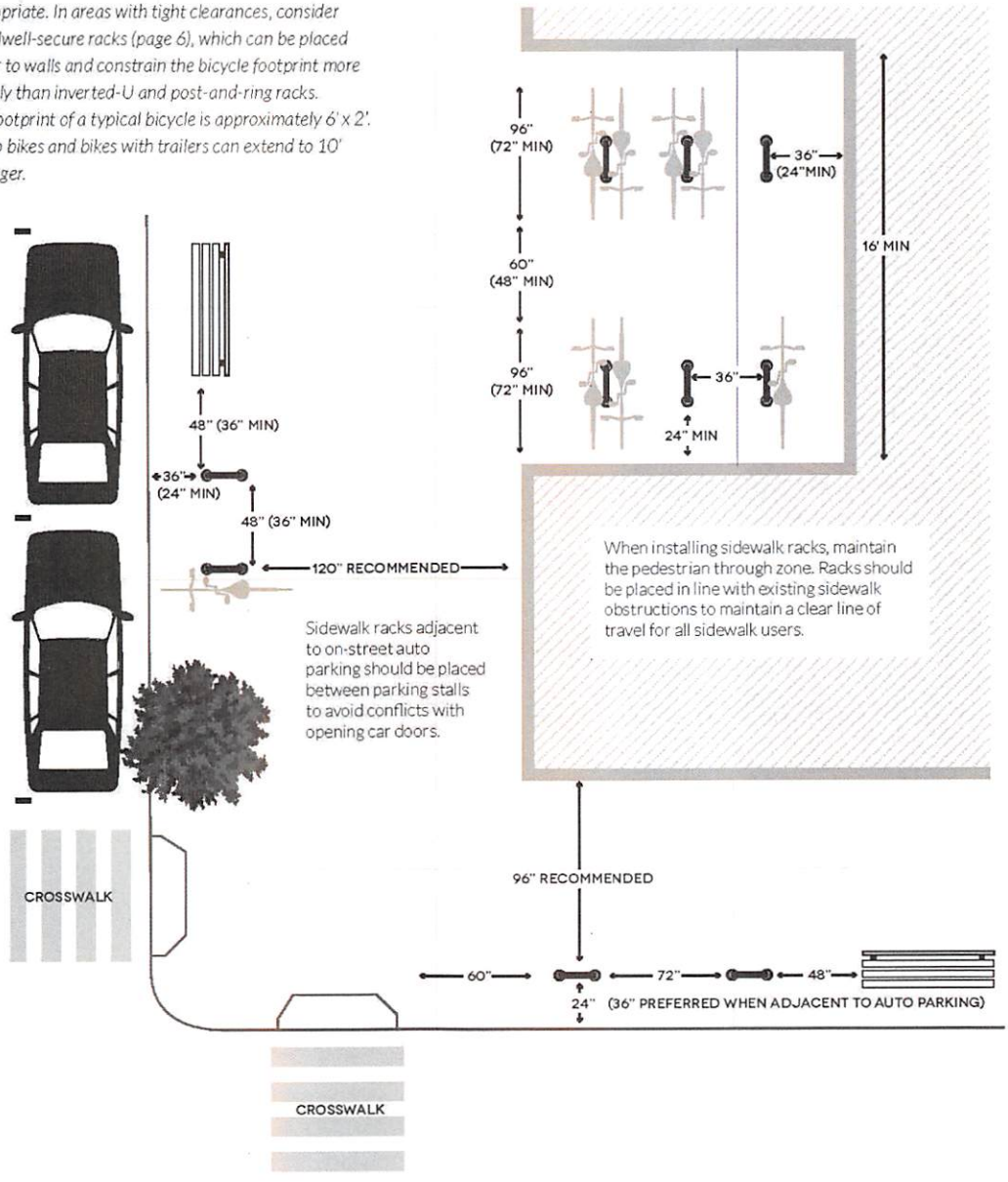
RACK MATERIAL – COATING	RELATIVE PURCHASE COST	DURABILITY	CAUTIONS
Carbon steel - galvanized	Usually lowest	Highly durable and low-maintenance; touch-up, if required, is easy and blends seamlessly	Utilitarian appearance; can be slightly rough to the touch
Carbon steel - powder coat* (TGIC or similar)	Generally marginally higher than galvanized	Poor durability	Requires ongoing maintenance; generally not durable enough for long service exposed to weather; not durable enough for large-scale public installations
Carbon steel - thermoplastic	Intermediate	Good durability	Appearance degrades over time with scratches and wear; not as durable as galvanized or stainless
Stainless steel - no coating needed, but may be machined for appearance	Highest	Low-maintenance and highest durability; most resistant to cutting	Can be a target for theft because of salvage value; maintaining appearance can be difficult in some locations

** When applied to carbon steel, TGIC powder coat should be applied over a zinc-rich primer or galvanization to prevent the spread of rust beneath the surface or at nicks in the finish.*

1

PLACEMENT

The following minimum spacing requirements apply to some common installations of fixtures like inverted-U or post-and-ring racks that park one bicycle roughly centered on each side of the rack. Recommended clearances are given first, with minimums in parentheses where appropriate. In areas with tight clearances, consider wheelwell-secure racks (page 6), which can be placed closer to walls and constrain the bicycle footprint more reliably than inverted-U and post-and-ring racks. The footprint of a typical bicycle is approximately 6' x 2'. Cargo bikes and bikes with trailers can extend to 10' or longer.



STAFF COMMENTS:

Fire, Police, Zoning: No Concerns

Section 403. Findings of Fact Required

In reviewing any petition for a zoning amendment, the Planning Commission shall identify and evaluate all factors relevant to the petition, and shall report its findings in full, along with its recommendations for disposition of the petition, to the City Council. Factors shall include, but shall not be limited to, the following:

403.A. Whether or not the requested zoning change is consistent with the Comprehensive Plan or is justified by an error in the original ordinance.

403.B. The precedents and the possible effects of such precedents, which might result from approval or denial of the petition.

403.C. The capability of the City or other government agencies to provide any services, facilities, or programs that might be required if the petition were approved.

403.D. Effect of approval of the petition on the condition or value of property in the City.

403.E. Effect of approval of the petition on adopted development plans and policies of the City.