

## BICYCLE PARKING



Photo by Clarence Rivera

## Agenda



- Why Bicycle Parking Matters
- City of Austin Bicycle Parking Code
- City of Austin Auto Parking Code
- Bicycle Parking on City Websites
- Bicycle Advisory Council Draft Recommendation
- Resource List



# WHY BICYCLE PARKING MATTERS



## Why Bicycle Parking Matters - Visibility

- Increases Visibility
  - Drivers are instantly made aware that there are people on bikes in the area
  - Potential Cyclists more likely to ride their own bikes once aware that others ride bikes in the area



## Why Bicycle Parking Matters - Economy

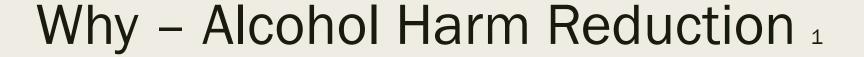




Photo by Raquel Ortega

#### Improves Local Economy

- People who biked and walked to the area spent more money in the area per month than those who drove there. (Bloor Street)
- Customers who arrive by automobile spend the most per visit across all of the establishments, but cyclists spend the most per month. (Greater Portland)





- Austin Citywide alcohol sales hit \$64.1 million in December 2017
- Impact of Auto Crash vs. Bicycle Crash
  - Force = Mass \* Acceleration
  - (Avg. Weight of Vehicle + Avg. Weight of Adult) \* Average Speed = Force
    - Bicycles: (15 lbs. + 181 lbs.) \* 9.6 mph = 1,886 lbs. of force on impact
    - Automobiles: (4079 lbs. + 181 lbs.) \* 28 mph = 119,294 lbs. of force on impact
- Insufficient Public Transportation
  - Limited Night Owl bus runs do not accommodate "Last Mile"
  - Downtown rail service ends too early Bars close at 2 AM. Service industry staff do not leave work until 2:30 AM at earliest. Trains needed until 3 AM.
    - 6:43 PM Monday Thursday last train
    - 12:30 AM Friday and Saturday last train
    - 1:45 AM Friday and Saturday last train (Pilot Program)





Venues that serve alcohol can be part of the solution to reducing drunk driving

- Reduce number of spaces for auto parking
- Create or increase bicycle parking
- Increase potential revenue

In 2010, Jesse McCann was looking for a building to open a bar in Portland...he finally found one with a big parking lot right out front with room for five cars. ...he fenced it off and filled the space with outdoor seating and a rack for 63 bicycles. ...McCann's investment paid off—from the day Apex Bar opened, its outdoor tables and bike racks have been full to overflowing on nice days.

(Apex Portland)



## Why - Bad Racks Decrease Confidence 1



Would you lock your bike to these racks?





Photos by Raquel Ortega

## Why - Bad Racks Decrease Confidence 2



Would you lock your bike here?





Photos by Raquel Ortega

## Why - Bad Racks Decrease Confidence 3



People on bikes will lock to city signage rather than lock to faulty, inadequate, or non-existent bike racks.





Photos by Raquel Ortega



# CITY OF AUSTIN BICYCLE PARKING CODE



## Current COA Bicycle Parking Code § 25-6-477 - BICYCLE PARKING

- (A) Off-street parking facilities for bicycles as prescribed in Appendix A (Tables Of Off-Street Parking And Loading Requirements) must be provided for each use on a site, and shall be calculated prior to any reductions approved under this article for motor vehicle parking.
- (B) Any addition or enlargement of an existing building or use or any change of occupancy or operation that increases the number of required motor vehicle parking spaces above the existing spaces on an existing site shall require a proportional increase in bicycle parking adhering to **Appendix A, Part 2 ( Bicycles )** for the new use or expanded use or change in occupancy.
- (C) A required bicycle space must comply with the requirements of the Transportation Criteria Manual.
- (D) The location of an off-street bicycle parking facility shall comply with the following requirements:
  - (1) A minimum of 50% of all required bicycle parking shall be located within 50 feet of the principal building entrance which shall not be obscured from public view; and
  - (2) The remaining required bicycle parking may be located as follows:
    - a. in a secure location within 50 feet of other building entryways other than the principal building entrance;
    - b. at employee only entrances;
    - c. within a building; or
    - d. in a covered motor vehicle parking facility within 50 feet of a street level entrance.
  - (3) The closest bicycle parking facility must be no farther than the closest motor vehicle parking space, excluding accessible parking spaces.
- (E) A provision of this article that is applicable to off-street motor vehicle parking also applies to bicycle parking, unless the provision conflicts with this section.
- (F) The city manager may waive a requirement relating to the number or type of bicycle spaces or approve an alternate method of compliance after considering the characteristics of the use, the site, and the surrounding area. A waiver may not reduce the number of required bicycle spaces to less than two.

Source: Ord. 031120-44; Ord. 031211-11; Ord. 20060504-039; Ord. 20130523-104.



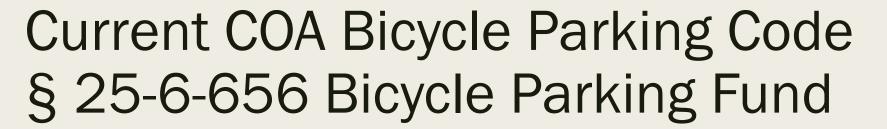
## Current COA Bicycle Parking Code § 25-6 Appendix A, Part 2 Bicycles

PART 2 - BICYCLES		
Use Classification	Minimum Off-Street Parking Requirement	
Residential uses other than condominium residential or multifamily residential	None	
Commercial uses:		
Carriage stable		
Scrap and salvage services		
Stable		
Vehicle storage		
Industrial uses:		
Resource extraction		
Stockyards		

Use Classification	Minimum Off-Street Parking Requirement
Civic uses:	
Detention facilities	
Local utility services	
Agricultural uses	
Commercial uses:	2 spaces
Agricultural sales and services	
Automotive rentals	
Automotive repair services	
Automotive sales	

Use Classification	Minimum Off-Street Parking Requirement
Automotive washing	
Building maintenance services	
Campground	
Commercial off-street parking	
Convenience storage	
Equipment repair services	
Equipment sales	
Exterminating services	
Civic uses:	

Use Classification	Minimum Off-Street Parking Requirement
Aviation facilities	
Cemetery	
Convalescent services	
Residential uses:	5 spaces or 5% of the motor vehicle spaces required whichever is greater
Condominium residential	
Multifamily residential	
Commercial uses not listed above	
Industrial uses not listed above	
Civic uses not listed above	





#### § 25-6-656 - BICYCLE PARKING FUND.









- (A) An applicant may request to pay a fee instead of installing bicycle parking by filing a written request at the time the person submits a permit application in the manner prescribed by the director. An applicant who has not filed a request at the time of application, may later amend the application to request to pay the fee instead of installing a bicycle parking.
- (B) Fund use and administration. The Bicycle Parking Fund is collected and administered by the Public Works Department Neighborhood Connectivity Division. The funds collected will be used to install bicycle parking and associated improvements in the right-of-way in the same service area as the subject property in the application. The service area boundaries shall be determined by the Planning and Development Review Department.
- (C) For bicycle parking required under <u>Section 25-6-477</u> ( *Bicycle Parking* ), the director shall approve payment of a fee instead of installation of a bicycle parking space if the director determines that:
  - (1) on the date the property was subdivided, the land development regulations did not include a bicycle parking requirement; and
    - (2) there is not sufficient area on or in the premises to accommodate the minimum required bicycle parking; and
      - (3) more than 50 percent of the block face on which the property is located has available space for bicycle parking.
- (D) The director may approve payment of a fee instead of installation of bicycle parking if the director determines that installation is impractical because:
  - installation of the bicycle parking would require the removal of a protected tree or other major obstruction within the right-of-way;
     or
  - (2) other unusual circumstances make the bicycle parking installation requirement unreasonable or inappropriate.
    - (E) The amount of the fee is the current bicycle parking materials and installation cost and will be determined by Administrative Rule.
      - (F) A fee paid under this section must be used to install bicycle parking in the same service area, as established by the Administrative Rules.
- (G) The City may refund the fee to the applicant if it is not spent or allocated for a specific project within 10 years of the date of its collection. Source: Ord. 20130523-104.



## CITY OF AUSTIN AUTO PARKING CODE

## Current COA Auto Parking Code § 25-6 Appendix A Excerpts – Commercial 1

Туре	Land Use	Parking Ratio
Commercial	Admin./Prof. Office	1 space/275 sq. ft.
Commercial	Automotive Repair	1 space/275 sq. ft.
Commercial	Auto Sales or Rental - Office	1/275 s.f.
Commercial	Auto Sales or Rental - Indoor Sales	1/500 s.f.
Commercial	Auto Sales or Rental - Outdoor Sales	1/750 s.f.
Commercial	Auto Sales or Rental - Indoor Warehs/Mfg	1/1000 s.f.
Commercial	Auto Sales or Rental - Outdoor Storage	1/2000 s.f.
Commercial	Auto Washing - Automatic	1 space per 2 employees and 6 queue spaces per queue line
Commercial	Auto Washing - Manual (coin-op)	3 queue spaces per queue line (the car wash bay may be counted as 1 space)
Commercial	Cocktail Lounge - up to 2,500 sq. ft.	1 space/100 sq. ft.
Commercial	Cocktail Lounge - 2,501 to 10,000 sq. ft.	1 space/50 sq. ft.
Commercial	Cocktail Lounge - 10,000+ sq. ft.	1 space/25 sq. ft.
Commercial	Convenience Storage (Mini-warehouse)	1 space per 4,000 sq. ft.
Commercial	Meeting Halls	1 space per 50 sq. ft.
Commercial	Financial Services	1 space/275 sq. ft.
Commercial	Financial Services - Drive-In	8 queue spaces/lane
Commercial	Food Sales (Conv. Store)	1 space/275 sq. ft.
Commercial	Furniture or Carpet Store	1 space/500 sq. ft.
Commercial	General Retail Sales (Convenience or general)	1 space/275 sq. ft.
Commercial	Hotel/Motel	1 space/room
Commercial	Hotel/Motel - Other uses within hotel-motel	If not an accessory use, 80% of parking otherwise required by the Code



SOCIAL CYCLING AUSTIN

Туре	Land Use	Parking Ratio
Commercial	Indoor Sports and Rec. (except Billiard Parlor or Bowling Alley)	1 space/500 sq. ft.
Commercial	Indoor Sports and Rec Billiard Parlor	1 space/100 sq. ft.
Commercial	Indoor Sports and Rec Bowling Alley	1 space/275 sq. ft.
Commercial	Liquor Sales (Package Store)	1 space/275 sq. ft.
Commercial	Medical Office - Free-standing clinic or office	1 space per 200 sq. ft.
Commercial	Medical Office - Within shopping ctr or mixed use bldg.	1 space per 275 sq. ft.
Commercial	Personal Improvement Services	1 space/275 sq. ft.
Commercial	Personal Services	1 space/275 sq. ft.
Commercial	Pet Services	1 space/275 sq. ft.
Commercial	Restaurant - <2,500 sq. ft.	1 space/100 sq. ft.
Commercial	Restaurant - 2,500+ sq. ft.	1 space/75 sq. ft.
Commercial	Restaurant - If no customer service or dining area provided	1 space/275 sq. ft.
Commercial	Restaurant - Drive-thru Lanes	8 queue spaces/lane
Commercial	Service Station/Lube	1 space/bay plus 3 queuing spaces/bay
Commercial	Warehouse/Mfg Office	1 space per 275 sq. ft.
Commercial	Warehouse/Mfg Indoor sales/serv.	1 space per 500 sq. ft.
Commercial	Warehouse/Mfg Outdoor sales/serv.	1 space per 750 sq. ft.
Commercial	Warehouse/Mfg Indoor storage, mfg/serv.	1 space per 1,000 sq. ft.
Commercial	Warehouse/Mfg Outdoor storage	1 space per 2,000 sq. ft.



## Current COA Auto Parking Code § 25-6 Appendix A Excerpts - Civic

Туре	Land Use	Parking Ratio
Civic	Convalescent Services	1 space per 4 beds patient cap. plus 1 per 2 employees max. shift
Civic	Guidance Services - Residential	1 space per 4 patients
Civic	Guidance Services - Non-Residential	1 space/275 sq. ft.
Civic	Day Care Services	1 space per employee
Civic	Hospital Services - General	1 space/4 beds patient cap. plus 1 space/2 employees max. shift
Civic	Telecommunication Tower	Director Determination
Civic	Religious Assembly - Within mixed use shopping ctr/bldg.	1 space per 275 sq. ft.
Civic	Religious Assembly - Stand-Alone Site Fixed Seating	1 space/10 seats in sanctuary (18" linear pew space equals 1 seat)
Civic	Religious Assembly - Stand-Alone Site Non-Fixed Seating Sanctuary/Lobby	1/70 s.f.
Civic	Religious Assembly - Stand-Alone Site Non-Fixed Seating Fellowship Hall	1/150
Civic	Religious Assembly - Stand-Alone Site Non-Fixed Seating Religious. Ed.	1/200
Civic	Religious Assembly - Stand-Alone Site Non-Fixed Seating Kitchen	1/2000
Civic	Religious Assembly - Stand-Alone Site Non-Fixed Seating Office	1/275 s.f.
Civic	Religious Assembly - Stand-Alone Site Non-Fixed Seating Halls/Restrooms	None



## Current COA Auto Parking Code § 25-6 Appendix A Excerpts - Residential

Туре	Land Use	Parking Ratio
Residential	Single Family Residential	2 spaces/dwelling unit
Residential	Duplex or Single Family Attached (Standard)	2 spaces/dwelling unit
Residential	Duplex or Single Family Attached (Greater than 4,000 sq. ft. or more than 6 bedrooms)	1 space per bedroom
Residential	Townhouse Residential	2 spaces/dwelling unit
Residential	Lodginghouse Residential (Bed and Breakfast)	1 space/dwelling unit plus 1 space/rented room
Residential	Multifamily or Condominium - Efficiency	1.0 spaces/unit
Residential	Multifamily or Condominium - One Bedroom	1.5 spaces/unit
Residential	Multifamily or Condominium - Two Bedroom	2.0 spaces/unit
Residential	Multifamily or Condominium - Three Bedroom	2.5 spaces per unit
Residential	Multifamily or Condominium - Each Additional Bedroom after 3	0.5 spaces per bedroom per unit
Residential	Group Residential (Boarding House)	1 space/dwelling unit plus 1 space per 2 lodgers or tenants



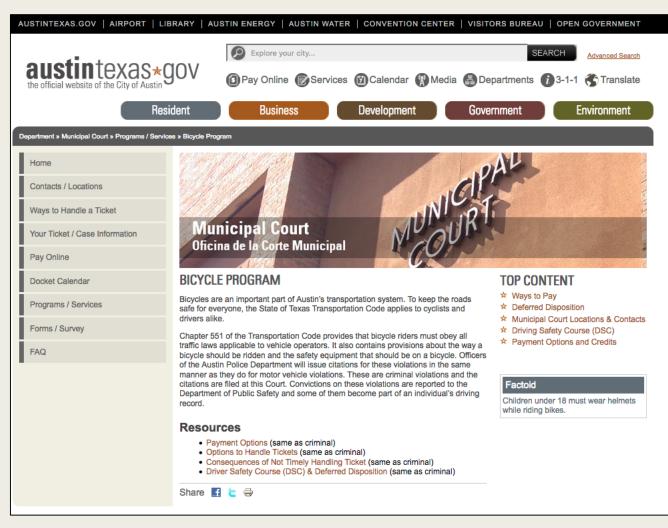
# BICYCLE PARKING ON CITY WEBSITES

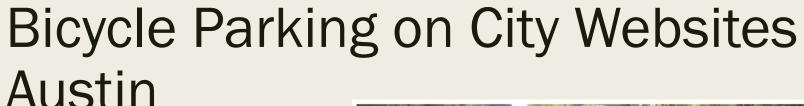
Bicycle Parking on City Websites

Austin

Austintexas.gov | Aupport | Library | Austin energy | Austin water | Convention Center | Visitors Burea











#### **BICYCLE PARKING**

As more Austin residents and visitors discover the joy and efficiency of riding a bike, secure and convenient bike parking becomes increasingly important. We encourage property owners and managers to provide secure bike parking to customers and tenants.

The City of Austin's Active Transportation Program is here to help by installing free bike parking. U-racks can be installed onto existing concrete within the right of way, and bike corrals repurpose a vehicle parallel parking spot with an on-street bicycle parking facility. Installing bike parking on the street frees up valuable sidewalk space and enhances the visibility and attractiveness of nearby storefronts. Bike corrals may accommodate 6-14 bicycles. The City of Austin is taking applications for additional bicycle locations throughout Austin's core.

#### Request a bicycle corral

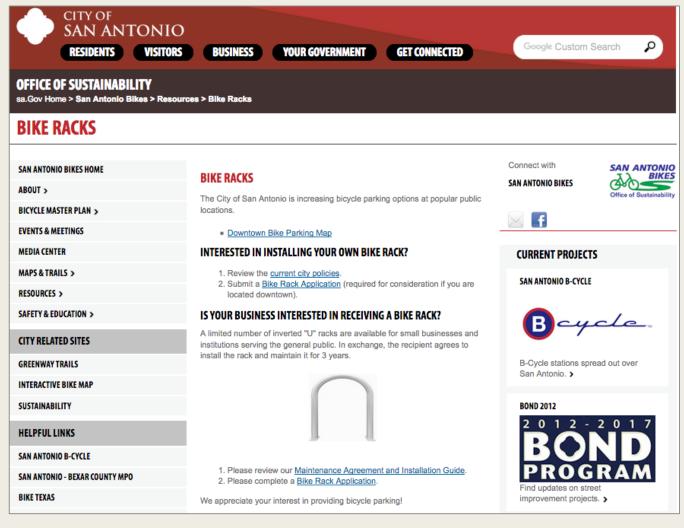
If you are interested in requesting a corral in front of a business, please send your request to bicycleprogram@austintexas.gov. Please include the following information in your email:

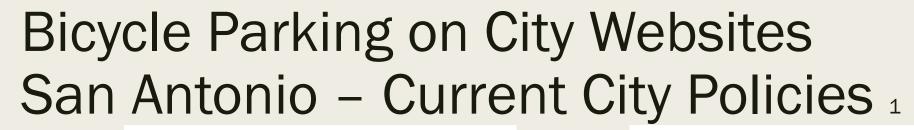
- Bicycle Corral Request [Insert Street Address]; requested location of bicycle corral;
- Business name
- Business address
- Business owner or managers' contact information (name, phone, email)
- Notes about availability and current usage of nearby bicycle parking and available on-street vehicle parking.

Requests will be evaluated based upon available right of way space, bicycle parking demand and availability of nearby bicycle parking. If you are a resident requesting bicycle parking, you must obtain support from the business owner and provide contact information. Requested locations will be evaluated by City of Austin staff. If selected, the bicycle parking would be installed in the public right of way and at no cost to the business owner.













#### City of San Antonio, Texas

Development Services Department

O: Development Services customers

SUBJECT: INFORMATION BULLETIN # 545

Bicycle Parking Requirements

DATE: July 10, 2012

As a customer service initiative, the Development Services Department (DSD) has created this Information Bulletin (IB) to assist Department customers understand the bicycle parking requirements adopted as part of the Unified Development Code (UDC). The requirements were initially adopted in January 2009 and subsequently clarified in November 2010 and are currently placed in Section 35-526 of the UDC.

#### 1. Code Requirements

The current UDC provisions include several requirements. First, there is a requirement in subsection 35-526(b) to provide bicycle parking at a ratio equal to at least 10% of the minimum number of vehicle spaces, except in the "D" and "IDZ" districts where the ratio is increased to 25% of the typical vehicle parking requirement for the land use.

(b) Table of Off-Street Parking Requirements

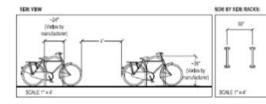
....

- (8) Bicycle parking spaces. Bicycle spaces shall, at minimum, equal ten (10) percent of the number of the minimum required vehicle spaces required for a given use. Bicycle parking may be short or long term in nature, and shall not create any obstruction to public walkways, bus stops and/or entrances and exists to buildings.
- (9) Bicycle spaces shall be provided in the "D" downtown zoning district and all "IDZ" infill development districts at a minimum rate equal to twenty-five (25) percent of the minimum required vehicle spaces for the proposed use were in a non-residential zoning district requiring minimum off-street parking. Bicycle spaces shall include bicycle racks or bicycle lockers which shall not obstruct pedestrian traffic in accordance with subsection (1) [comment: this refers to 35-526(1) which is shown on the next page].

The second requirement is found in subsection 35-526 (I) for the necessary fixtures to provide for safe and secure bicycle storage, specifically bicycle lockers or racks. Specifically the code provides a recommended design and dimensional standards to allow adequate space to secure bikes to the fixture.

(I) Bicycle Spaces. Where bicycle spaces are required by §35-526(b), bicycle racks or lockers shall be located within fifty (50) feet of a building entrance. The spaces shall not be located behind any wall, shrubbery, or other visual obstruction lying between the principal building and the bicycle spaces. The placement of bicycle racks or lockers should minimize conflicts with both pedestrians and motorized traffic. All bicycle parking provided should be set in concrete or flange mounted on concrete, and located a minimum of twenty-four inches (24") from a parallel wall, and thirty inches (30") from a perpendicular wall as measured to the closest bicycle rack.

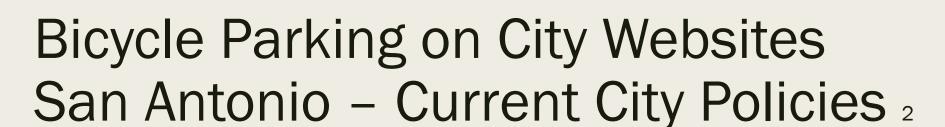
Bicycle spaces may be provided through bicycle lockers or bicycle storage racks. Bicycle spaces shall be at least two (2) feet in width and six (6) feet in length and shall be identified with MUTCD [comment see Manual on Uniform Traffic Control Devices, http://www.ndot.gov// compliant (D4-3) signs advising persons of the location. Where each parallel bicycle rack is spaced at least thirty inches (30") apart said racks shall be counted as providing two bicycle parking spaces (one on each side of the rack) provided there is at least four (4) feet between each bicycle space where arranged in linear fashion.



The recommended bicycle rack design is an inverted U however; other bicycle security devices may be approved for use as long as they provide for:

- 1. Supporting the bicycle frame at two locations (not just a wheel);
- Allowing both the frame and at least one wheel to be locked to the rack (without requiring that the lock be placed near the bicycle chain);
- 3. Allowing the use of either a cable or "U-type" lock; and
- 4. Bicycles that are equipped with water bottle cages.

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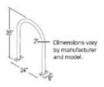












#### **ACCEPTABLE DESIGNS**









Model CPBR 2-F-P Inverted U

UNACCEPTABLE DESIGNS





This type of rack can bend the wheel.

This type of rack does not support the bicycle frame in at least 2 places.

#### 2. Downtown Area Requirements

As explained in the previous section the downtown area has specific bicycle parking requirements. To facilitate implementation of this objective, the City has established a procedure for allowing placement of bicycle racks within the public right-of-way. The application form for this downtown bicycle rack placement program is available online at http://www.sanantonio.gov/oep/sabikes/docs/Bike%20Rack%20Application%20for%20DT%20
Businesses.pdf

#### 3. Bicycle Storage Vendors

The City of San Antonio does not require the use of a particular vendor and intentionally provides latitude within subsection 35-526(t) to allow flexibility in designing an appropriate site-specific solution. For customers needing design assistance, the City recommends searching the internet for vendors that supply frame-supporting bicycle racks.

#### . Variances and Reductions

Typically a departure from the parking requirements of UDC Section 35-526 require a parking adjustment from the Zoning Board of Adjustment however staff may approve certain parking reductions as follows:

A. Tree Preservation. Pursuant to 35-526 (b) (6) the Director may waive up to 50% of the minimum parking spaces required by Table 526-3 upon a written finding that the waiver will result in the preservation of woodlands or significant stands of trees in a natural state, or that the waiver will further a public purpose established in the master plan.

B. Minor Parking Reduction. Pursuant to 35-501(c)(1), the Director may grant a reduction of up to 10% of the required parking.

The procedure to request an Administrative Exception is further explained in Information Bulletin #124 available online at:

https://webapps1.sanantonio.gov/dsddocumentcentral/upload/Variance,%20%20Administrative %20-%20%20Requests.pdf

To request a parking adjustment from the Zoning Board of Adjustment, the application form is available online at:

https://webapps1.sanantonio.gov/dsddocumentcentral/upload/ParkingAdjustment.pdf

#### 5. Additional Public Resources

Application for Downtown Bicycle Rack Placement

http://www.sanantonio.gov/oep/sabikes/does/Bike%20Rack%20Application%20for%20DT%20 Businesses.pdf

San Antonio Bikes, City of San Antonio Office of Environmental Policy http://www.sanantonio.gov/oep/sabikes/

San Antonio Bike Plan 2011

http://www.sanantonio.gov/oep/sabikes/bicycleMP.aspx

San Antonio Bicycle & Pedestrian Maps and Trails http://www.sanantonio.gov/oep/sabikes/mapsTrails.aspx

Metropolitan Planning Organization Bike and Walk Program http://www.sametroplan.org/Bike\_Walk/bike\_walk.html

Alamo Area Council of Governments – Biking page http://www.cleanairdrive.com/CommuteSolutions/Biking/default.htm

City of San Antonio Unified Development Code, Section 35-526 http://diseasy.municode.com/HTM\_14228/seet2/ARTVDEST\_DIVEPASTST.htmleARTVDEST\_DIVEPASTST\_S35-588PALOST

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## Bicycle Parking on City Websites San Antonio - Bike Rack Application





#### CITY OF SAN ANTONIO BIKE RACK APPLICATION

Business Information:		
Business Owner Contact (Applicant)		
Name of Business	Telephone # (	)
Type of Business		
Business Address	Email Address	s
Physical Address (if different from above)_		
Between	and	
# of bike racks		
Installation date		
Property Owner Information:		
Name of Property Owner Contact		
Name of Property Owner Company		
Street Address		
City	State	Zip
Business and Property Owner Affirmation:		
I, the undersigned, do affirm that I am the	,	
owning the above referenced property. I ha		's intent to install a bicycle rack
in front of the business listed on this applic	ation and have no objections.	
Business owner {Signature}		
(Print Name)	(Date)	
Property Owner (Signature)		
(Print Name)	(Date)	
	Please submit to:	







#### CITY OF SAN ANTONIO BIKE RACK APPLICATION

Indicate proposed placement of bike rack here (or provide site plan separately if not located downtown)

BUILDING	BUILDING LINE		STOW HORSTEY	BUILDING
CINGS LINE	( ) SIDEWALK WIDIN			COMB TIME
SHOW ALL STREET FURNITURE, BUILDING ENTRANCES AND PROPERD LOCATIONS OF PLANTER(5)/BIKE RACK(S)		CUMS LINE		
	STREET NAME			
COMB LINE	•	-		CURB LIKE
BUILDING	<u> </u>			TIME

The Applicant agrees to comply with all laws, rules, and regulations of the City of San Antonio. Any installed bike racks must comply with Section 35-526 of the Unified Development Code (see attached Information Bulletin #545 for code interpretation).

Applicant:	Date:
Below signatures required for approval from the following	City of San Antonio Departments
Office of Sustainability, signed by:	Date:
Downtown Operations (if applicable), signed by:	Date:
ADA Compliance, signed by:	Date:
ADA Comphanics, signed by	Date



Please submit to: Office of Sustainability c/o Timothy Mulry, 1400 S. Flores, 78204 Timothy.Mulry@sanantonio.gov





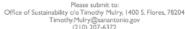
#### ADA Right-of-way Guidelines:

Protruding objects can be hazardous for pedestrians, especially pedestrians who are blind or have low vision. The requirements for protruding objects in R402 apply across the entire width of the pedestrian circulation path, not just the pedestrian access route. In addition, obects must not reduce the clear width required for pedestrian access routes. State and local governments must comply with the requirements for protruding objects and maintain the clear width of pedestrian access routes when installing or permitting the installation of street furniture on sidewalks, including street lights, utility poles and equipment cabinets, sign post and signs, parking meters, trash receptacles, public telephones, mailboxes, newspaper vending machines, benches, transit shelters, kiosks, bicycle racks, planters and planted trees, and street sculptures. The American Association of State Highway and Transportation Officials (AASHTO) recommends that local governments use an encroachment permit process to regulate the use of sidewalks by private entities for activities such as outdoor dining, vending carts and stands, and street fairs in order to control for activities such as objects and maintain the clear width of pedestrian access routes. See AASHTO, Guide for Planning, Design, and Operation of Pedestrian Facilities (2004), section 3.2.3.

Recommendations for bicycle parking as followed:

- \*Bicycles parked parallel to the pedestrian access route.
- ·Bicycle parked outside of the PAR (6 ft. minimum clear width)
- . Inverted U rack is the preferred rack design.
- . Install bike parking racks in the Furniture zone (the area between the PAR and the curb zone) a minimum 36 inches from the curb-line allowing adequate space for bicycle parking on the street side
- . Place bicycle parking in an adequate distance from intersections, bust stops, and entry doors.







## Bicycle Parking on City Websites San Antonio - Maintenance & Installation 1

HOOP RACK HEAVY DUTY Specifications and Space Use





#### MAINTENANCE AGREEMENT FOR CITY OF SAN ANTONIO SUPPLIED BIKE RACK

The City of San Antonio will provide (Business Name @ Business Address)

One (1) bike rack to be located at \_

This bike rack will be granted under the auspices of a temporary and revocable agreement. The City of San Antonio will retain ownership of the bike rack for a period of 3 years from the date of signature of this Maintenance Agreement. After this period, the property owner will retain ownership of the bike rack. The tenants at the above property and the owner of said property are entering this agreement with the City of San Antonio Office of Sustainability.

To facilitate the granting of the bike rack, it is agreed that:

- 1.) The city will provide applicants with the bike rack and installation instructions once a bike rack application is approved.
- 2.) The tenants or owner will install the bike rack within 10 business days of application approval. Installation must be compliant with bicycle parking requirements as described in the city's Unified Development Code.
- 3.) The tenants or owner will be responsible for providing proof of installation to the City of San Antonio's Office of Sustainability.
- 4.) The tenants or owner agree to maintain the functionality of the rack by removing any abandoned bicycles, bicycle locks or chains on a regular basis, and keeping said area in a neat and clean condition.

By signing this agreement I agree to release, indemnify and defend the City of San Antonio from all damages or claims for damages, which may arise by reason of the installation of the bicycle rack. I recognize that the responsibility of this rack remains with me or my firm unless expressly transferred with the property. The City of San Antonio Office of Sustainability reserves the right to confiscate any granted bike racks and revoke approval of any bike rack application should said applicant fail to meet the tenets of this agreement.

Primary responsibility for this agree	ment falls on {busines	s name}	
In the event that the tenets of this ag currently {name of property owner}	,	led, the {propety owner}	
will be responsible for fulfilling the	requirements of this aş	greement.	
Property Owner Signature	Date	Business Owner Signature	Date
Print Name:		Print Name:	
		Business Name:	



Please submit to: Office of Sustainability c/o Timothy Mulry, 1400 S. Flores, 78204 Timothy.Mulry@sanantonio.gov (210) 207-6372



#### Dero Hoop Rack Heavy Duty As manufactured by Dero Bike Racks Capacity 2" schedule 40 pipe (2.375" OD) An after fabrication hot dipped galvanized finish is our standard option. 250 TGIC powder coat colors, thermoplastic coating. PVC dip. and stainless steel finishes are also available as alternate options. Our powder coat finish assures a high level of adhesion and durability by following these steps: 1. Sandblast 2. Epoxy primer electrostatically applied 3. Final thick TGIC polyester powder coat. Stainless Steel: 304 grade stainless steel material finished in either a high polished shine or a satin finish. In ground mount is embedded into concrete base. Specify in ground mount for this option. Foot Mount has two 2.5"x6"x 25" feet with two anchors per foot. Specify foot mount for this option. Rail Mounted Hoops are bolted to two parallel rails which can be left freestanding or anchored to the ground. Rails are heavy duty 3"x1.4"x3/16" thick galvanized mounting rails. Specify rail mount for this option. Space Use and Wall Setbacks For racks set parallel to a wall: Minimum: 24" Recommended: 36" For racks set perpendicular to a wall: Minimum: 28" Recommended: 42" Distance Retween Racks: Minimum: 24" Recommended: 36" Street Setbacks: Minimum: 24" Recommended: 36" Www.dero.com 2 1.000.337.6729



Installation Instructions - Surface Mount

#### Tools Needed for Installation

Tape Measure Market or Pencil Masonry Drill Bit Drill (Hammer drill recommended) Wrench 9/16"

#### Recommended Base Materials:

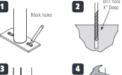
Solid concrete is the best base material for installation. To ensure the proper anchors are shipped with your rack, ask your Dero Rack representative which anchor is appropriate for your application. Be sure nothing is underneath the base material that could be damaged

#### Installation:

3/8" anchors are shipped with the rack. Place the rack in the desired location. Use a marker or pencil to outline the holes of the flange onto the base material. Drill the holes in accordance with the specifications shipped with the anchors. Make sure the holes are at least 3" away from any cracks in the base material. Use washers to level rack if necessary. Tap in anchors and follow your specific anchor instructions provided with the rack.



Standard Anchor Types







#### **Tamper Resistant Fasteners**

The concrete spike is a permanent anchor. The top of the wedge anchor can also be pounded sideways after installation so that it cannot be removed. Other tamper resistant fasteners are also available for purchase.

When using the special tamper resistant nuts, always set and first tighten the anchors. Once the rack is installed, replace two nuts from the bracket (opposite sides from each other) with the tamper resistant fastener. DO NOT OVERTIGHTEN the tamper resistant nut.



For If you have any questions about installation or other features of the Hoop Rack Heavy Duty, please call us toll free at 1-800-298-4915









## Bicycle Parking on City Websites San Antonio - Maintenance & Installation 2



#### HOOP RACK HEAVY DUTY Installation Instructions - In Ground Mount

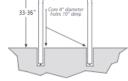
#### Tools Needed for Installation

Hole coring machine with 4" bit Access to water hose Cement mixing tub Materials to build brace (see "Install Tip" at

bottom of page)

#### Installing into Existing Sidewalk

Core holes no less than 3" diameter (4" recommended) and 10" deep into sidewalk. Fill holes with Por-Rok or epoxy grout. Place Hoop Rack Heavy Duty into holes, making sure the rack is level. 33"-36" of the Hoop Rack Heavy Duty should remain above the surface. If the Hoop Rack Heavy Duty is less than 33" high, it will not support the bike adequately. Make sure the rack is level and held in place until the grout has set.



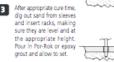
#### Installing Into a New Sidewalk:

Place corrosion resistant sleeve (min. 4" inside diameter) in sand pour where rack will be installed. Make sure top of sleeve is at same level as desired finished concrete surface. Fill sleeve with sand to keen it in place and prevent

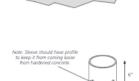
hed in exact location it from filling with concrete.



Pour concrete and allow



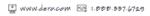












#### HOOP RACK HEAVY DUTY Rail Mounted Hoops

#### RAIL MOUNTED HOOP HDs

Rail mounted Hoop Rack Heavy Dutys are standard foot mounted Hoop Rack Heavy Dutys attached with bolts to a rail as in the diagram at left. Rail mounted racks provide more flexibility than other mounting options while providing the same degree of security

Rail mounted Hoop Rack Heavy Dutys can be left freestanding, or they can be anchored to the ground using several anchors. This option allows for easier snow removal and sweeping. Installation of Rail mounted Hoops is also much less expensive than embedding the racks into the ground.

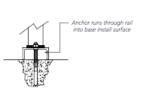
\* Note: Though racks may be painted, the rails will remain with only a galvanized finish

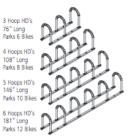
#### Advantages to rail mounted Hoop Rack HDs:

- · Fasier and inexpensive installation
- . Can be left freestanding or anchored to the ground
- . Easier to remove for sweeping and snow removal

#### Applications where Rail Mounted Hoop HDs work best:

- Installation to navers
- Asphalt Installations
- · Ground, dirt, or mulch
- · Situations where the rack needs to be moved occasionally









#### HOOP RACK HEAVY DUTY Installation Instructions - Rail Mount

#### **Tools Needed for Installation:**

9/16" Socket set

Two 4"x4"x28" (or larger) blocks

4 bolts, nuts and washers for every Hoop (included with rack). If using a tamper resistant nuts, install two tamper resistant nuts with each Hoop.

#### Installation Steps

- 1 Lay out the two channel beams where the rack will be placed. Place the two beams on top of the two blocks of wood so that the open part of the channel faces the ground.
- Place Hoop Rack Heavy Dutys on beams so holes in rack flanges line up with beam slots
- Put bolts through Hoop Rack Heavy Duty flange holes and beams so bolt head faces up. HAND tighten the nuts using new flange nuts.
- Once nuts are on, tip assembled rack over and use a 9/16" socket to tighten nuts. Before fully tightening nuts, make sure the racks are straight on beams. If using tamper resistant nuts, use access tool to tighten nuts. Do not overtighten the tamper resistant nuts. Tip rack upright.

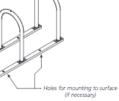
#### Anchoring the Rails

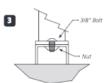
To anchor the rails to concrete, place 3.75" wedge anchor through holes in the rail into the concrete. Secure with nut.





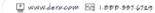






















# BICYCLE ADVISORY COUNCIL DRAFT RECOMMENDATION

### Overview



#### City regulations

- Update Title 25 Land Development Code, Chapter 6 Transportation to include bicycle provisions that are commensurate with those for automobiles
  - Use a percentage calculation based on the number of cars required to ensure consistent application
  - Enforcement should be same as for auto parking regulations
  - Include materials requirement specifications including use of non-hex bolts

#### City website

- Provide best practices including where to buy non-hex bolts
- Advise how to get assistance
- Publicize Bicycle Parking Fund and application guidelines





WHEREAS, the purpose of the Bicycle Advisory Council (BAC) is to advise the City of Austin, and other jurisdictions, on all matters relating to the use of the bicycle;

WHEREAS, missing or inadequate bicycle parking reduces the number of people riding bicycles;

WHEREAS, the Austin Transportation Department (ATD) offers compliance information documents to aid permit applicants, contractors, and engineers in complying with regulations, codes, and practices;

NOW THEREFORE, BE IT RESOLVED that the BAC recommends that the following be implanted:



### Draft Recommendation Resolutions 1

- Update the City of Austin Title 25 Land Development Code, Chapter 6 Transportation to include bicycle provisions that are commensurate with those for automobiles including but not limited to:
  - Specify a percentage calculation that directly correlates the number of bicycle parking spaces to the number of auto parking spaces; Adjust percentage ratio so that bicycle parking spaces do not decrease should auto parking requirements be lowered
    - Increase percentage distribution of bicycle parking availability at venues that serve alcohol
  - Include materials requirement specifications including use of non-hex bolts
  - Enforcement procedures same as for auto parking space regulations



### Draft Recommendation Resolutions 2

- Update City of Austin website
  - Include form to apply for assistance in obtaining bicycle parking
  - Include best practice diagrams specifying use of non-hex bolts including cost, where to buy related materials, or local contractors
  - Make Bicycle Parking Fund balances, fees, and award of funding publicly available
- Publicize the Bicycle Parking Fund



# REFERENCES AND RESOURCES





- 1. https://bikeleague.org/sites/default/files/Bicycling\_and\_the\_Economy-Econ\_Impact\_Studies\_web.pdf (Bloor, Greater Portland)
- 2. https://www.mystatesman.com/business/austin-alcohol-sales-jump-percent-december/6nXmwVRg7EBjQY6qrnzYAL/ (Austin Alcohol Sales)
- 3. http://humantransit.org/2010/04/can-we-all-cycle-the-last-mile.html (Last Mile)
- 4. https://communityimpact.com/austin/northwest-austin/top-stories/2018/05/02/capital-metro-to-extend-metrorail-hours-offer-free-rides-to-students-this-summer/
- 5. https://www.thoughtco.com/what-is-the-physics-of-a-car-collision-2698920
- 6. <a href="https://www.citylab.com/solutions/2015/03/the-complete-business-case-for-converting-street-parking-into-bike-lanes/387595/">https://www.citylab.com/solutions/2015/03/the-complete-business-case-for-converting-street-parking-into-bike-lanes/387595/</a>
- 7. https://gizmodo.com/how-more-bike-parking-could-make-cities-better-for-ever-1582198868 (Apex Portland)
- 8. https://www.triplepundit.com/2013/12/bike-lanes-increase-small-business-revenue/
- 9. http://articles.chicagotribune.com/2013-05-13/features/ct-talk-brotman-bike-0513-20130513\_1\_bike-safety-traffic-laws-bike-helmets (Bike Crash Impact)
- 10. https://www.thoughtco.com/what-is-the-physics-of-a-car-collision-2698920 (Auto Crash Impact)
- 11. <a href="https://usa.streetsblog.org/2017/03/01/austin-may-cut-parking-requirements-by-nearly-50-percent/">https://usa.streetsblog.org/2017/03/01/austin-may-cut-parking-requirements-by-nearly-50-percent/</a>
- 12. https://library.municode.com/tx/austin/codes/code\_of\_ordinances?nodeId=TIT25LADE\_CH25-6TR http://www.austintexas.gov/edims/document.cfm?id=190336
- 13. <a href="https://austintexas.gov/page/bicycle-parking">https://austintexas.gov/page/bicycle-parking</a>
- 14. <a href="http://www.sanantonio.gov/Portals/0/Files/SABikes/IB545-BicycleParkingRequirements.pdf">http://www.sanantonio.gov/Portals/0/Files/SABikes/IB545-BicycleParkingRequirements.pdf</a>
- 15. https://www.sanantonio.gov/Portals/0/Files/SABikes/BikeRackApplication.pdf
- 16. <a href="http://www.sanantonio.gov/Portals/0/Files/SABikes/BikeRackMaintenanceAgreement-InstallationGuide.pdf">http://www.sanantonio.gov/Portals/0/Files/SABikes/BikeRackMaintenanceAgreement-InstallationGuide.pdf</a>
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I will say that growing up as a kid in an urban environment and having lived in cities all my life, the one achievement that everyone can look forward to is getting the perfect parking spot. ~ Saul Perimutter, U.S. Astrophysicist



Photo by Clarence Rivera