

CAMPUS BIKE & BOARD PARKING GUIDE

GROUND CONTROL
SYSTEMS®
Innovative Bike & Board Parking

THE BENEFITS OF BICYCLES ON CAMPUS

Bicycle parking is less expensive and less invasive than car parking. 10-12 bikes, on average, can replace a single car.

Active students are happier, healthier, more focused, and spend less on health care.

As zero-emission forms of transportation, bicycles are critical in reforming colleges and universities towards a carbon neutral and sustainable environment.



THE FUTURE IS GREEN

93 higher education institutions have signed the Climate Commitment from [Second Nature](#) to strive towards carbon neutrality and climate resilience.

809 institutions have registered to the [AASHE](#) Sustainability Tracking, Assessment & Rating System™ Reporting Tool, to measure and improve their sustainability.

164 colleges and universities are recognized by the [League of American Bicyclists](#) as Bicycle Friendly UniversitiesSM, ranked from Bronze to Platinum.

201,000 individuals, from campuses to businesses to cities, have been recognized by [LEED](#) by integrating green practices and materials into buildings.

PLANNING & ENGINEERING

YOU NEED BICYCLE PARKING - BUT HOW MUCH?

[Pedestrian & Bicycle Count Programs](#), User Surveys, and other [data collecting](#) will help you determine the best location & how many bicycle parking spaces are needed.

Local ordinances must be met and will also inform you of bike parking requirements.

There are [online resources](#) to look up ordinances, but you may also [consult](#) experts to simplify the process.

TIP: Plan ahead – How many students will your campus have in 5 years? 10 years? Providing more quality bike and board parking now is a cost-effective and proactive way to meet inevitable future demands.

SUPPORT WITH INFRASTRUCTURE

Integrating bicycle and board lanes, shared use paths, limiting vehicle traffic when possible, and adding roundabouts for continuous movement are all ways to support biking and boarding.

[University of California Davis](#) and [Portland State University](#) are Platinum ranked Bicycle Friendly UniversitiesSM with excellent examples of planning & engineering.

BICYCLE PARKING 101

UNDERSTANDING PARKING CLASSES

Bicycle parking is separated into classes.

CLASS 1 BICYCLE PARKING

Class 1 is considered long-term, high security parking and usually requires shelter from most (if not all) elements. Many types of racks may be used in Class 1 parking, as long as they are sheltered and secured for over a few hours.

CLASS 2 BICYCLE PARKING

Class 2, or short-term parking, is intended for a couple of hours at most and is commonly seen on sidewalks, quads, or in converted car parking spaces.



Class 1 Bicycle Parking

Long-term, high security,
protection from weather

Bicycle
Lockers

Monitored
parking

Bicycle
Rooms

Cages or
Stations



Class 2 Bicycle Parking

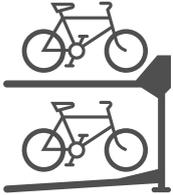
Short-term, compatible
with U-lock, easy access

Sidewalk
Racks/Docks

On-Street
Bike Corrals

Quad/Plaza
Parking

CLASS 1 PRODUCTS



VERTICAL & TWO-TIER STACKABLE

Best used for:

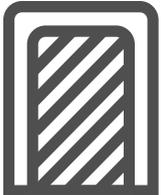
Bike rooms or cages for student housing, large quantity bike parking with high security.

Look for:

- ✓ Commercial grade, properly engineered products
- ✓ Offset bikes for higher-density vertical racks
- ✓ Long-lasting finishes
- ✓ Modular add-on units
- ✓ Two-tier racks should accommodate almost all demographics, require only 2" of lifting of the bike for top-tier use.

Avoid:

- ✗ Lower capacity parking
- ✗ Non-lift assisted two-tier racks
- ✗ Hollow tube locking bars
- ✗ Non-controlled footprint racks



LOCKERS

Best used for:

Smaller quantity bicycle parking, particularly outdoors.

Look for:

- ✓ Fiberglass
- ✓ Metal
- ✓ Stackable cages

Avoid:

- ✗ Plastic materials

CLASS 2 PRODUCTS

With so many options, strengths and weaknesses, Class 2 docks or racks can be easily compared using this chart. [Choose a bike rack](#) based on organization, security, density, bike friendliness, and overall value.

BIKE RACK COMPARISON CHART

	 ORGANIZED	 SECURE	 DENSITY	 BIKE FRIENDLY	 VALUE
 GRID	★★	★	★★	★	★★
 WAVE	★★	★★	★★	★★	★★
 ORNAMENTAL	★★	★★★★	★★	★★★★	★★
 INVERTED-U	★★	★★★★★	★★★★	★★★★	★★★★
 BIKE DOCKS	★★★★★★	★★★★★	★★★★★	★★★★★	★★★★★

CHART KEY



Inferior



Poor



Fair



Good



Great

BOARD PARKING 101

The risk associated with boarding on colleges extends to a lack of storage for boards, causing tripping hazards. Reduce liabilities and support students who skateboard, longboard, or scooter with a secure place to park their gear. Additionally, share [educational safety material](#) like UCSB to increase safe practices.

CLASS 1 BOARD PARKING

Class 1 Board Parking is either indoors or monitored, allowing boards to be secured for over a few hours with minimal possibility of theft or damage.

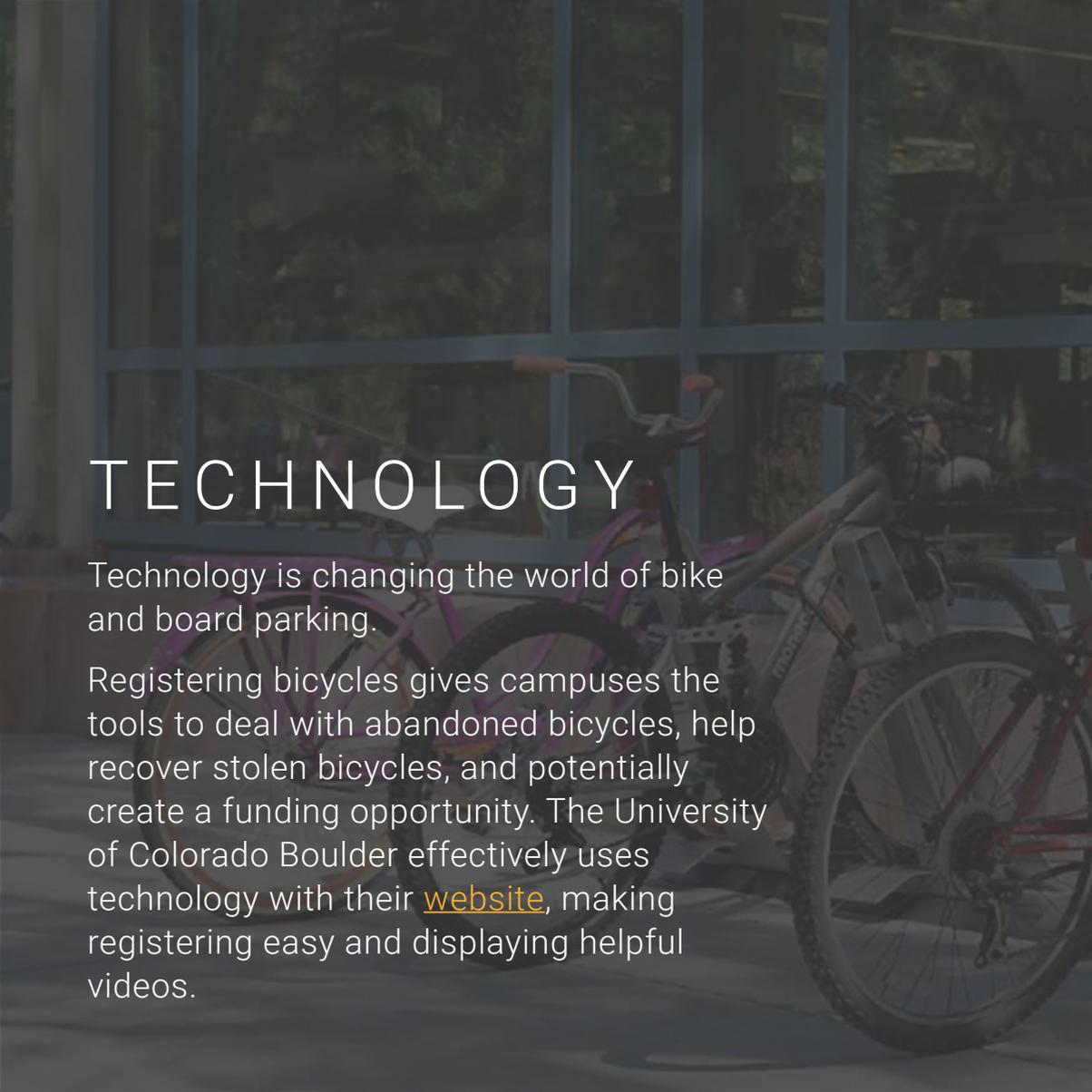
CLASS 2 BOARD PARKING

Class 2 Board Parking is outdoors, preferably next to well-lit entrances or high-traffic areas so students are comfortable leaving their property for extended periods of time.



Board racks should lock multiple longboards, skateboards, and scooters without any conflict.

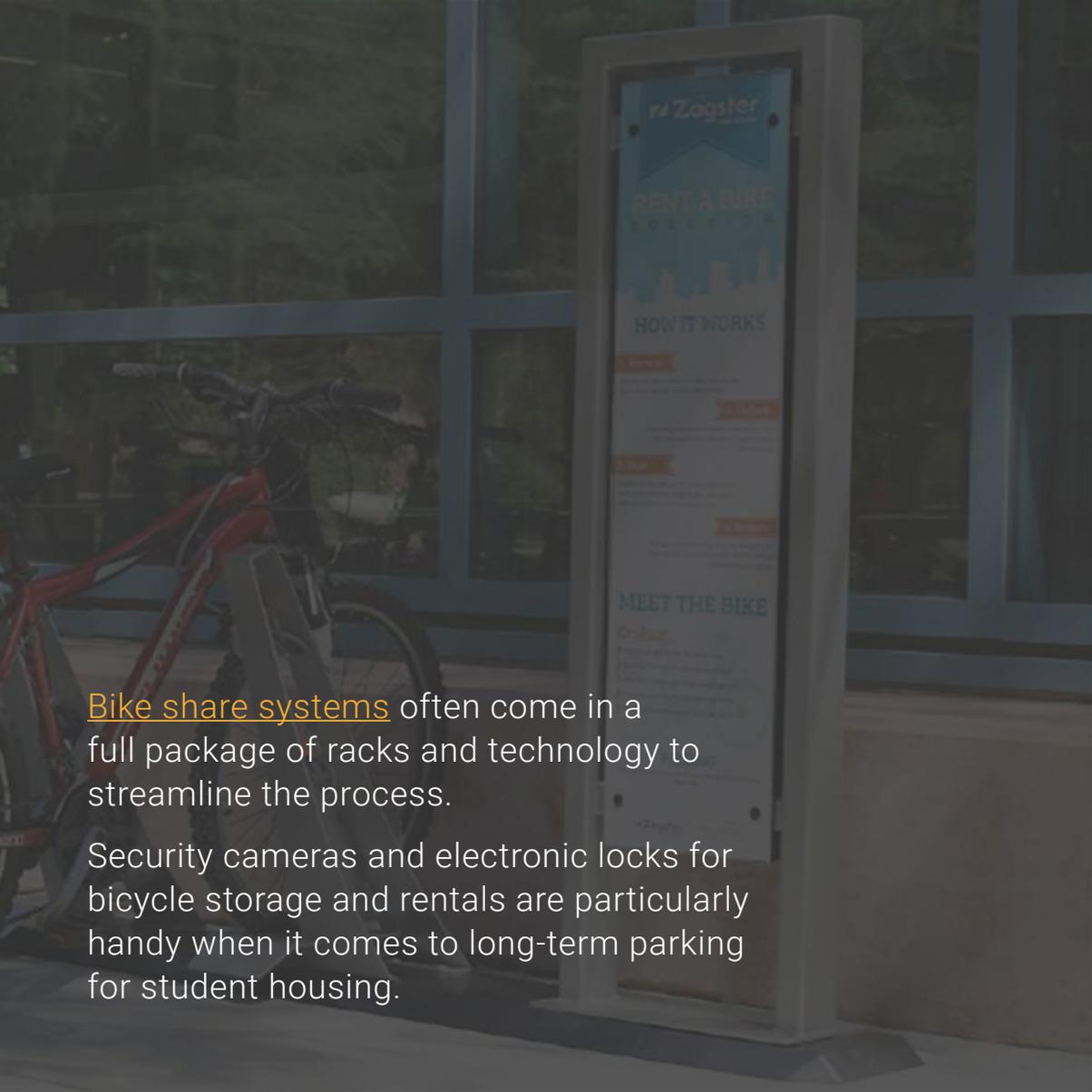
A [successful board parking campaign](#) uses signage and strategically places lockable board racks for maximum use. This keeps classrooms clear and free of tripping hazards (or campuses free from skateboard scuff marks if you want a no-riding zone) while encouraging students to use all forms of active transportation.

A bicycle with a purple frame and a rear rack is parked in front of a large window. The window has a grid pattern and shows a view of trees and a building. The bicycle is the central focus of the image, and the text is overlaid on it.

TECHNOLOGY

Technology is changing the world of bike and board parking.

Registering bicycles gives campuses the tools to deal with abandoned bicycles, help recover stolen bicycles, and potentially create a funding opportunity. The University of Colorado Boulder effectively uses technology with their [website](#), making registering easy and displaying helpful videos.



Bike share systems often come in a full package of racks and technology to streamline the process.

Security cameras and electronic locks for bicycle storage and rentals are particularly handy when it comes to long-term parking for student housing.



POLICY AWARENESS

Chances are your campus already has a bike and board policy that works for your school. Keeping students aware of these policies is another story.

Having policies on the campus website may not be enough to get the word out. Ease of access, visibility, and regular outreach is crucial for ensuring policies stick in a student's brain.

Display signage across the campus to immediately remind and inform students of policy standards. Education kiosks, safety signs, maps, or more should be located next to bike or board parking, bikeways, or no riding zones.

Regularly send emails that both encourage and educate students about [boarding](#) and cycling on campus. Use these emails to share videos, highlights of certain policies, and safety tips.

Stanford University's [Parking & Transportation Services site](#) combines encouragement with education, not only covering [bicycles](#), but all forms of commuting and active transportation.



A typical college will see hundreds of bikes stolen per year. Bicycle theft is a problem, but simple steps can significantly diminish theft liability. Empower your students to protect their bicycles with some basic information included in your Policy Awareness campaigns.

SECURITY

Sacramento State University encourages students to [register bicycles with campus police](#) to increase the likelihood of recovery.

Display basic guidelines and contact information of campus police and transportation services at every opportunity: on maps, kiosks, and emails, or in orientation packets. Teachers may even include this information in their syllabi.

One of the most important steps in bicycle and board security is proper locking techniques. Let your students know locking standards and provide high-security locks at the student store or transportation services department.

FUNDING

Educational bicycle and board parking has more funding opportunities than many realize. Here are some examples and resources to help you get started.

STUDENT GOVERNMENT

The [BIIIC at Georgia Tech received \\$26,146](#) from imt's SGA for its proposal to add bike racks and lines to several areas of campus.

STUDENT SUSTAINABILITY COMMITTEE

[University of Illinois at Urbana-Champaign was awarded \\$225k](#) from the SSC for bicycle parking. The campus is now recognized as Bronze level by The League of American Bicyclists.

ENVIRONMENTAL COALITION

[Virginia Tech installed more than 250 bike parking spaces](#), total \$42k in funding from the Green RFP program and the Bike, Bus, and Walk program.

VEHICLE PARKING FEES

The Platinum ranked [University of Minnesota Twin Cities](#) uses income from vehicle parking permits to entirely fund their alternative transportation program.

PRIVATE DONATIONS

The [Massachusetts Institute of Technology used a private donation](#) to fund bicycle upgrades and facilities on campus.

EDUCATIONAL DISCOUNTS

[Ground Control Systems offers discounts](#) on high-quantity purchases as well as University wholesale prices.



LINKS & RESOURCES

The Benefits Of Bicycles On Campus

<http://grist.org/biking/2011-04-11-the-economic-case-for-on-street-bike-parking/>

The Future is Green

<http://secondnature.org/>

<http://www.aashe.org/>

<http://www.bikeleague.org/university>

<http://leed.usgbc.org/leed.html>

Planning & Engineering

<https://www.pdx.edu/ibpi/count>

<http://www.pedbikeinfo.org/planning/tools.cfm>

<http://www.groundcontrolsystems.com/ground-control-systems/contact-us>

<http://cpcr.ucdavis.edu/docs/btns/UCDavis-BTNS-part1.pdf>

<https://www.pdx.edu/ibpi/>

Bicycle Parking 101

Class II Products

<http://www.groundcontrolsystems.com/resources/tools-assets/how-to-choose-a-bike-rack/>

Board Parking 101

<http://www.groundcontrolsystems.com/wp-content/uploads/2016/08/SkateDock-Successful-Program-Guide.pdf>

<https://www.police.ucsb.edu/files/docs/SkateboardSafety.pdf>

Technology

<http://www.colorado.edu/ecenter/transportation/cu-boulder-bicycle-program>

<http://blog.altaplanning.com/the-benefits-of-campus-bike-share/>

<http://ameribike.com/bike-lockers/accessories/electronic-locks/>

Policy Awareness

http://uplandhigh.schoolloop.com/groups/news_item?d=x&id=1472997868720&group_id=1144539229055&return_url=1480392389555

<https://transportation.stanford.edu/>

<https://transportation.stanford.edu/bicycle>

Security

<http://www.csus.edu/aba/utaps/choices/bicycling.html>

Funding

<http://www.news.gatech.edu/2011/05/25/bicycle-improvements-enhance-commuter-culture-campus>

<http://fs.illinois.edu/resources/news-announcements/2016/11/10/bicycle-parking-upgrades>

<https://vtnews.vt.edu/articles/2014/10/100614-vpa-bicycleparking.html>

<http://www.pts.umn.edu/bicycle>

<http://capitalprojects.mit.edu/capital-projects?tid=8>

<http://www.groundcontrolsystems.com/ground-control-systems/contact-us>

Additional Resources

League of American Bicyclists Bicycle Friendly UniversitiesSM FAQ & Resources

<http://bikeleague.org/content/faq-2>



GROUND CONTROL

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