

# COS Bikes!

*Unlocking the City's Potential*



Photo: Bike Colorado Springs.



## 2018 Colorado Springs Bike Master Plan

Final Draft December 2017

EXHIBIT A



*Colorado Springs will continue to promote bicycle transportation because we have a large number of residents and visitors who ride bicycles for both recreational and transportation purposes. We believe the city's attraction to cyclists will be a growing part of our tourism economy going forward and providing multi-modal transportation options will make our city more attractive to a vibrant workforce.*

*– Mayor John Suthers*

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# Chapter 1

## Introduction



Photo: Bike Colorado Springs.

Colorado Springs has an impressive number of elements of an ideal bicycling environment: year-round bicycling weather, striking mountain views, a network of urban and soft-surface trails, extensive singletrack options, a large number of bicycling-related organizations, and a supportive city government. Historically, bicycling in the city has been focused on recreation and competition. As *Olympic City USA*, Colorado Springs is home to the U.S. Olympic Committee, USA Cycling, the Colorado Springs Olympic Training Center, and the future U.S. Olympic Museum. Numerous bicycling-related businesses call Colorado Springs home. Colorado's second largest city is also a Silver-level Bicycle Friendly Community according to the League of American Bicyclists, reflecting its enthusiasm and support for bicycling.

## Why Plan for Bikes?

Though there is a favorable landscape for biking and an enthusiastic recreational focus, relatively few people bike for transportation in Colorado Springs. The bikeway network has large gaps, both in coverage and in types of facilities. An automated bike share system—self-service bicycle rentals reserved at a kiosk or through a phone app—is planned for 2018, which could be a game-changer for how bicycling is perceived and used in the city by residents and tourists alike.

Changes are needed to respond to these factors and make bicycling a safe and convenient way to access everyday destinations, and to make it easy for the City to add on-street facilities such as separated bike lanes.

A core responsibility of government is to make it easy for people to get where they need to go. For decades Colorado Springs excelled at this task, for the people who got around in a car. Not everyone gets around in a car, however; some people choose to walk, bike, or bus, and some people are too old, too young, or medically incapable to drive safely or legally. Some people lack the means to own a reliable car, or no longer have a license. There is increasing recognition that government should make it easy for all people to get around, whether they are walking, biking, taking a bus, or driving. This is reflected in investments the City of Colorado Springs is making in its missing sidewalk program, Mountain Metro Transit, and on-street bikeway improvements.

COS Bikes! lays the foundation for the city to unlock its bicycling potential by creating a more inviting environment so that biking is an enjoyable, dependable, and safe travel option for everyone. This Plan provides a roadmap for success and strategies to strengthen the city's support of bicycling, build a connected on-street bikeway network, and increase the number of people bicycling safely.

***The Bike Master Plan envisions a healthy and vibrant Colorado Springs where bicycling is one of many transportation options for a large portion of the population, and where a well-connected and well-maintained network of urban trails, singletrack, and on-street infrastructure offers a bicycling experience for present and future generations that is safe, convenient, and fun for getting around, getting in shape, or getting away.***





Photo: Bike Colorado Springs.

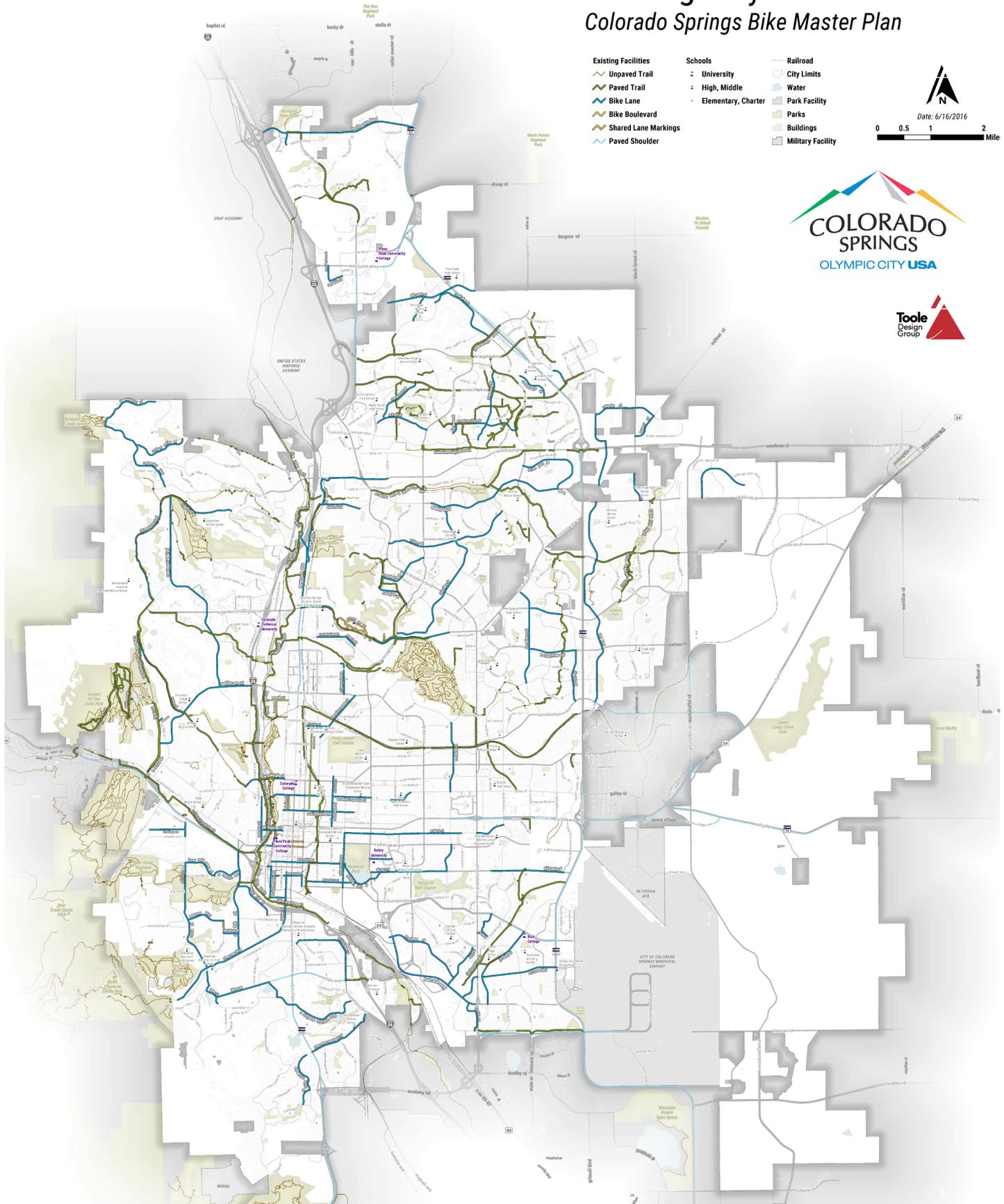
## Why Does Bicycling Matter to Colorado Springs?

- Bicycle facilities are a good investment because they fuel the economy and attract and retain a vibrant workforce.
- More people on bikes is safer for everybody and bike friendly streets can also benefit pedestrians, drivers, and transit riders.
- People want options for how to get around.
- Bicycling improves quality of life.
- Bicycling helps people become and stay healthy.
- A core function of government is to provide transportation options for all modes of travel.

The desire for a more bike friendly Colorado Springs is strong. Biking fits in to the city's outdoor and fitness orientation, and most people want to live in a place that is connected, accessible, and safe. The 2014 *Park System Master Plan* found that 90 percent of residents frequent city parks, trails or open space once a week or more, and a 2017 citywide survey conducted as part of *PlanCOS* indicates that improved bicycle infrastructure and facilities in existing neighborhoods is the fourth-most popular choice to forge strong connections across the city.

# Existing Bicycle Facilities

## Colorado Springs Bike Master Plan



- Existing Facilities**
- Unpaved Trail
  - Paved Trail
  - Bike Lane
  - Bike Boulevard
  - Shared Lane Markings
  - Paved Shoulder

- Schools**
- University
  - High, Middle
  - Elementary, Charter

- Railroad**
- City Limits
  - Water
  - Park Facility
  - Parks
  - Buildings
  - Military Facility

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## Who Are We Planning For?



### Inviting New Riders

COS Bikes! envisions a Colorado Springs where bicycling is a viable, everyday transportation option for a broad segment of the population. While robust data on existing bicycle volumes or mode share is not currently available, U.S. Census data tells us that biking accounted for 0.7 percent of how people got to work in 2014. This very low ridership is not entirely unique to Colorado Springs; it is a reality across much of the country.

While there will always be people who are not interested or physically able to bike, there are many others who do not currently ride because they feel unsafe. This category of potential riders is referred to as the *Interested but Concerned*, reflecting their interest in bicycling, as well as concerns about safety and comfort when interacting with motor vehicle traffic. Most people in the U.S. have little tolerance for bicycling with motor vehicle traffic unless volumes and speeds are very low. Research from other cities has shown that this *Interested but Concerned* group accounts for as much as 60 percent of the adult population.

Thousands of Colorado Springs residents want a more bike friendly city and would bike regularly if they felt safe. This plan was developed with these riders in mind, as planning and designing for the *Interested but Concerned* rider makes

bicycling better and safer for everyone, and is Colorado Springs' best chance at increasing bicycle ridership and improving safety for bicyclists.

### What will make more people bike in Colorado Springs?

*"A coherent system, with safe intersections, that does not randomly start and stop."*

*"Integrated routes between more locations that are bike friendly, well-marked, and safe."*

- COS Bikes! Open House Attendees

### Serving Existing Riders

There are many people in Colorado Springs who travel by bicycle – those who ride for recreation or pleasure, those who ride to work, to the store, to restaurants or cafes, to school or to visit friends. Some people choose to ride for convenience, some for pleasure or exercise, some because driving is not a choice for them. Some people ride trikes, recumbent bikes, and electric-assist bikes. COS Bikes! includes actions to make bicycling better for all, including existing riders.

Enthusiastic Colorado Springs bicyclists can help the community recognize the importance of bike programs and infrastructure.



Through outreach conducted for this COS Bikes!, we heard that providing safe biking opportunities for people who have no other choice but to ride, such as the city's homeless population, is a priority for the residents of Colorado Springs. COS Bikes! aims to provide a safe, comfortable, and enjoyable biking experience for everyone in the city—to connect people with crucial services, to help students get to class, to link people to jobs, and more.

# Why Now?

## Recent Momentum and Successes

Over time, the City has demonstrated a commitment to improve and expand its bicycling environment. Several key events or initiatives mark a particularly positive change for bicycling in the City:

- Planning for an automated bike share system that is expected to launch in 2018;
- The beginning of a major update to the City’s comprehensive plan, *PlanCOS*;
- Completion of the *Experience Downtown Master Plan*, a master plan to strengthen and improve downtown, the *Pikes Peak Area Council of Governments Regional Nonmotorized Plan*, which established regional corridors of focus, and the *Park System Master Plan*, which emphasized the closure of trail gaps.

- Confirmation of the City’s Silver Bicycle Friendly Community status by the League of American Bicyclists;
- Nearly three decades of an excise tax on every new bike sold has funded bicycle projects throughout the city;
- The voter-approved extension to the Pikes Peak Rural Transportation Authority’s capital funding through 2024; and
- Expansion of the City’s internal capacity to complete bicycle projects including a dedicated bike planner and increased bike counting.

These efforts led to on-the-ground results: over the past two years, the City added 10 miles of on-street bike facilities in Colorado Springs, closing gaps in the existing bikeway network. Important trail crossings and connections were also added. COS Bikes! builds on these important efforts and capitalizes on the positive momentum for better bicycling.

### » What do we mean by *Interested but Concerned*?

A national survey conducted in 2015 found that over half of the population is *Interested but Concerned*, meaning that they would like to bicycle more, but do not feel comfortable riding on busier streets. The same study found that around a third of the population is not interested in riding at all, while the remainder are considered *Strong and Fearless* or *Enthused and Confident*. The *Strong and Fearless* bicyclists will ride regardless of roadway conditions and possess a higher stress tolerance. *Enthused and Confident* riders are comfortable bicycling on-street with motor vehicles, but prefer to do so on bicycle-specific facilities. *Interested but Concerned* people like to ride off-street trails or on quiet neighborhood streets, but are afraid to do so on most streets and therefore do not regularly ride.

COS Bikes! considers the *Interested but Concerned* residents of Colorado Springs as this plan’s target market. These riders, many of whom are women and seniors, seek comfort and safety in choosing to ride a bicycle. By creating a low-stress bicycle network, the city will provide a positive bicycling experience for them while also improving comfort and safety for the *Enthused and Confident* and *Strong and Fearless* riders.



### Low-Stress Networks

Low-stress bicycle facilities include paved trails, sidepaths, separated bike lanes, and low-speed and low-volume streets with comfortable crossings.

A connected network of low-stress bicycle facilities has been shown to increase bicycle ridership and safety. Wayfinding is a critical part of making these connections. COS Bikes! provides recommendations to achieve a connected network in the long-term, while looking for near-term opportunities to improve bicycling.

## What Needs to be Done?

### Promote a Stronger Bicycle Identity

Today, biking in Colorado Springs is primarily regarded as a recreational activity. There are many bicycle organizations, programs, and events in the city that focus on children and people who already bike for recreation or sport. While both groups are important to reach, the greatest potential for increased ridership is amongst the broader Colorado Springs population, for whom bicycling is not a popular way to get around.

*“Understanding that bicycling benefits all of us, we need cyclists and cars to understand we are neighbors, not dangers or inconveniences.”*

- COS Bikes! Open House Attendees

Additional efforts are needed to expand the existing bicycle community and reach those who are interested in bicycling, but do not bike today. These efforts will also help normalize bicycling in Colorado Springs, building support for future bicycling projects and fostering mutual respect among all road users.

### Build a Better On-Street Bike Network

The city needs a comprehensive, connected, and high-comfort bicycle network. Over half of the currently-designated bike lane network and close to three-fourths of paved shoulders are on minor or principal arterials, streets with speeds and traffic volumes that are unlikely to appeal to a broad group of bicyclists, even with a bike lane.

The existing bicycle network is not fully connected. Beyond some of the trails, there are few long-distance facilities and few continuous routes that connect neighborhoods. This limited connectivity is a barrier to attracting more bicycle riders, especially those wanting to ride for transportation/utility. In addition, the disconnected network is partly due to land use patterns and barriers posed by railroads, arterials, and Interstate 25. Bicycling today is a challenge because of the expansive city footprint with dispersed land uses.

The greatest opportunity for developing a connected network of comfortable bicycle facilities is by supplementing the trail network—the backbone of the city’s high-comfort bicycle network—with facilities in the street right-of-way such as bike boulevards, bike lanes, separated bike lanes, and sidepaths (see **Appendix B**). This is a cost-

### » What is a Separated Bike Lane?

Separated Bike Lanes are bicycle facilities physically separated from motor vehicle traffic and pedestrians. Separated bike lanes combine the user experience of a sidepath with the on-street infrastructure of a conventional bike lane, thereby meeting the needs of a wider range of bicyclists. They reduce the risk of a bicyclist being hit by an opening car door and prevent motor vehicles from driving, stopping, or waiting in the bikeway. On busy streets with fast traffic, separated bike lanes can attract the casual and less confident riders. They are a crucial element in providing comfortable bikeways to increase bicycling in Colorado Springs.



effective approach that allows for direct connections to destinations.

Ultimately, a full network of trails and on-street facilities will ensure that Colorado Springs residents will be able to access the whole city by bike; seamlessly biking to work, stores, trails, City services, parks, community centers, and other destinations. The recommendations in COS Bikes! support the need for better access to the trail networks via on-street facilities.

*“I want to safely be able to ride out my door. No one wants to put their bike on a car to get to a safe pleasant place to ride.”*

–COS Bikes! Open House Attendee

### Design More Bicycle Friendly Streets

Street design and bicycle facility selection have a direct impact on safety and comfort. As demonstrated by public comments, crash analysis, and a comparison with national practices, the City’s existing street design standards do not result in comfortable streets for bicycling. Bicycle friendly street design standards will enable planners and engineers to more consistently provide comfortable bicycle facilities on all street types—considering which bicycle facility types are appropriate for which types of streets. In addition, the City needs other policies that support biking, such as a maintenance policy for trails and on-street facilities.

## How We Developed the Plan

COS Bikes! is the culmination of more than a year of public and stakeholder engagement focused on Colorado Springs residents, community stakeholders, and City agencies. Their input shaped the recommendations. Highlights of the outreach are discussed in this section, and a full summary is included in **Appendix C**.

### COS Bikes! Goals

The following goals were used to develop the COS Bikes! recommendations. The Plan goals were developed collaboratively by the City, stakeholders, and public over the course of several meetings, workshops, and events.

Theme	Goal
<b>Safety</b>	Create a safe bicycling environment for people of all ages and bicycling abilities by implementing appropriate, state-of-the-art infrastructure on-street and off-street, including intersections and connections, and bolstering safety-related programs. Embrace a safe systems approach and use it to approach all street projects. <b>Over the long-term, eliminate bicycle-related fatalities across the city.</b>
<b>Viability</b>	Prioritize funding for bicycle infrastructure. Strategically phase infrastructure improvements to reflect realistic constraints and build momentum for the long-term vision.
<b>Integration</b>	Create a connected and cohesive network of low-stress and comfortable bicycle facilities linking key destinations and modes of travel. Create a culture of bicycling where everyday people ride, where riding is fun, and bicycling is an accepted form of transportation.
<b>Accessibility</b>	Create a community where bicycling is possible for all types of trips and includes people of all ages, races, incomes, and bicycling ability. Create conveniently-accessed bicycle facilities that are easy and clear to use.
<b>Ridership</b>	Increase the portion of the population that regularly rides a bicycle for recreation and/or transportation. <b>Increase ridership so that by 2030, 10 percent of trips downtown are made by bike and that over time, biking for all purposes and to all destinations increases.</b>



Visioning Workshop

## Information Gathering and Visioning

### Visioning Workshop

During the data collection and information gathering phase of the project, a visioning workshop was held with a group of internal (City and partner agencies) and external stakeholders, including representatives from the U.S. Olympic Training Center, Downtown Partnership, Colorado College, Kids on Bikes, and United States Air Force Academy, among others. Participants identified common themes for biking in Colorado Springs, describing it currently as *recreational, stressful, disconnected, and unsafe*. In the future, however, people want biking to be *safe, inclusive, integrated, convenient, and fun*.

Stakeholders emphasized their desire for a Plan that is forward-thinking, to build political will and create a safe and connected network that is embraced by people of all ages and abilities. Input gathered during the visioning workshop directly informed the Plan’s vision statement and goals.

### Online Survey

An online survey open to Colorado Springs residents between July and October 2016 provided a nuanced understanding of attitudes and preferences related to bicycling. The survey results showed that more than half of the 813 total respondents ride throughout the year and almost half reported riding three or more days per week. Eleven percent of respondents ride daily.

**Respondents cited interactions with drivers, high traffic volume and speed, and a lack of safe routes as the strongest deterrents to bicycling.** Such responses informed the Plan’s program, policy, and network recommendations.



## Community Events

To gather input from a broad Colorado Springs audience, the project team engaged with residents at community events. The input from these conversations informed the vision and goals for COS Bikes! For example, at the 2016 Legacy Loop Trailhead Expo event, over 50 people shared their visions for bicycling in the city. The common theme from their feedback is that people want a city that is **connected**, **convenient**, and **accessible**. At the 2016 Deerfield Hills Neighborhood Block Party, a community event with food, music, and entertainment, dozens of children told stories about bike riding and asked for biking to be **fun**, **safe**, and **happy**.

## Initial Recommendations

### Public Open House

More than 250 people came to the May 2017 open house to learn about the project and provide ideas for improving bicycling in Colorado Springs. The team solicited input on corridors to incorporate into the Vision Network, and received feedback on potential program and policy recommendations.

Participants were given six voting dots to choose the programs and policies that would most improve the culture of biking in the city. Overwhelming support was shown for improved signage to improve orientation, bicycle route identification, and destination recognition (i.e., wayfinding), bicyclist and motorist education, creating a policy for street reconfigurations, and identifying geographic priorities across the city for Bike Master Plan implementation. Comments from the public emphasized the importance of **education**, **trail access**, **wayfinding**, and **connectivity**.

Along with the open house, the City received project feedback via email and the project website.

## How do other City and County plans relate to this Bike Plan?

While several plans were reviewed for their applicability to biking in Colorado Springs, the Vision Network developed for COS Bikes! was strongly influenced by the recommendations from the 2014 *Park System Master Plan*, the 2015 *Pikes Peak Area Council of Governments' (PPACG) Regional Nonmotorized Plan*, and the 2016 *Experience Downtown Master Plan*. The proposed bikeway network integrates and builds from the proposals in these plans.

- The 2014 *Park System Master Plan* addressed trail connectivity and trail system gaps. The plan found that implementing less than 50 miles of urban trails would complete the four key connecting routes in the city's trail network. These urban trail corridors are included in the Vision Network (presented in Chapter 3).
- The 2015 *PPACG Regional Nonmotorized Plan* revealed a fragmented regional network of bike lanes with differing design standards, no separated on-street bike lanes, few bicycle treatments at intersections, and a lack of connections between the on- and off-street networks. In alignment with other regional planning work, the Regional Nonmotorized Plan identified priority corridors to create a complete bicycle network for the region. The regional priority corridors within the City of Colorado Springs are included in the Vision Network.
- The 2016 *Experience Downtown Master Plan* established a vision for a walkable, bikeable, and connected downtown. The plan called for safe and comfortable biking downtown, coupled with street designs to slow vehicular speeds. The plan's neighborhood greenways are intended to provide bicycle access within and through downtown, and are included in the Vision Network.

COS Bikes! brings these efforts together to create a plan for the entire city. Moving forward, as the City's comprehensive plan is completed, the recommendations included in COS Bikes! should be leveraged and supported by *PlanCOS*.

## Draft Plan

In November 2017, the City made the Draft COS Bikes! Plan available online for public review and comment. Between then and December 2017, the Draft Plan was presented to the Active Transportation Advisory Committee (ATAC) and the Citizen Transport Advisory Board (CTAB). The City reviewed all comments received (which are summarized in **Appendix D**) to produce COS Bikes!

## Internal Stakeholder Coordination

The Plan process was guided by a TAC representing City departments, the Pikes Peak Area Council of Governments (PPACG), El Paso County, and the ATAC. The TAC met four times during the course of the project and provided valuable direction for the plan development process by:

- Providing a detailed understanding of bicycling in Colorado Springs;
- Aligning this Plan with other City efforts;
- Defining project goals and objectives;
- Guiding the development of the Vision Network;
- Identifying street design challenges and opportunities;
- Offering ideas for new and improved bicycle-related programs and policies; and
- Ensuring the Plan is implementable.

## We Will Get You Where You Want to Go

COS Bikes! is organized into four chapters with supporting appendices.

- 1** Chapter 1 provides a snapshot of why the City is planning for biking, who we're planning for, and what needs to be done.
- 2** If you're wondering how the City plans to create greater support for biking with programs and partnerships, see Chapter 2.
- 3** To see a map of where the City is planning for bikeways, see the Vision Network in Chapter 3.
- 4** To see how the City plans to make the Vision Network a reality, see Chapter 4. This chapter also includes a plan for supporting infrastructure and policy changes.

For more background, please refer to the appendices:

- **Appendix A** outlines existing bike conditions in the State of Bicycling in Colorado Springs report.
- **Appendix B** contains a Bicycle Facility Toolbox, offering best practice design guidance to use when implementing bikeway projects.
- **Appendix C** summarizes the public and stakeholder engagement that shaped COS Bikes!
- **Appendix D** contains a summary of public comments received about the project.

## Chapter 2

# Creating Greater Support For Biking



Photo: Bike Colorado Springs

**“Citizens of Colorado Springs - that is our enduring challenge. To create a society that matches our scenery. Let us embrace the challenge.”**

**- Mayor Suthers, June 2, 2015, Swearing-in Speech**



A great bicycling city includes many elements—residents who are supportive and positive about bicycling, on-the-ground bikeways themselves, and supporting elements such as bike parking and informational signage (or wayfinding). COS Bikes! sees non-engineering bicycle programs that teach bicycling, encourage riding, enforce traffic laws, and evaluate progress as the primary keys to a community that embraces bicycling as a normal part of everyday life. This plan aims to foster a community that supports more bicycle friendliness.

Colorado Springs has an incredible number and type of bicycling organizations, programs, and events. This energy should be used to support a city identity that includes bicycling. And because the City has committed to becoming a Gold-Level Bicycle Friendly Community, increased bicycle-related education and encouragement efforts, stronger traffic enforcement, and better planning and evaluation processes are needed.

This chapter presents recommendations for new bicycling programs, focusing on those that will be most effective at strengthening support for bicycling in Colorado Springs.

**The League of American Bicyclists categorizes non-engineering aspects of a Bicycle Friendly Community as follows:**

-  **Encouragement:** Creates a strong bike culture that welcomes and celebrates bicycling
-  **Education:** Gives people of all ages and ability levels the skills and confidence to ride
-  **Enforcement:** Ensures safe roads for all users
-  **Evaluation and Planning:** Plans for bicycling as a safe and viable transportation option

These actions are critical to achieving the goals of COS Bikes! Organizations best suited to shepherd these programs and policies through implementation are identified, recognizing that the City’s resources and reach are limited and that community partners are essential to success. Lead organizations may change over time as new partners emerge.

## Overall Recommendation

### 2.01 Begin Near-Term Program Recommendations First

The recommendations that follow include some near-term actions that could be completed relatively quickly or easily. The City should take these actions first, concurrent with implementation discussed in **Chapter 4**. By creating these programs, the City will lay a foundation for a community that recognizes the importance of bicycling to many of its residents, which in turn could support more ambitious Vision Network implementation.

## Encouragement

Encouragement programs and events help create and maintain a strong and fun bicycle community. They are focused on generating enthusiasm and excitement for bicycling and often include a social element, such as a community bike ride. The following recommendations aim to reach all types of bicyclists, but especially those who need a little encouragement to ride.

### 2.02 Increase Partnerships with Community Bicycle Organizations

The most bicycle friendly cities are ones where the City government and community partners have worked together towards common goals. COS Bikes! recommends forming a strong relationship between the City and bicycle advocates to realize the Plan vision and goals.

In 2015, the city’s first bicycle transportation advocacy organization, Bike Colorado Springs (BCS), was founded to promote bicycling. BCS has advocated for better bike infrastructure and collaborated with other advocacy groups to generate support for biking. BCS and the City regularly meet to discuss bicycle efforts; these meetings should continue to build and formalize the relationship between the organizations. Through this coordination, BCS and the City’s public works department should identify and implement a mutually-beneficial project to strengthen Colorado Springs’ bike culture.

**Lead:** Public Works, BCS | **Time:** Long-term

## 2.03 Hold Open Streets Events

By closing a corridor to motorized traffic on a pre-determined day, Open Streets events allow people to walk, bike, skateboard, run, and roll freely without motor vehicles. Events like these allow people to comfortably bike on streets that may not be bicycle friendly today. More importantly, they provide positive experiences for all types of riders, especially the *Interested but Concerned*, and demonstrate the potential benefits of reconfiguring public space.

The City and its partners should implement Open Streets events and seek ways to ensure participation from neighborhoods across the city. Open Streets locations should be chosen based on the popularity of surrounding destinations, ease of controlling access points, street surface condition, and anticipated support from implementing partners. Garden of the Gods Park, along with other locations, could be considered as a pilot location.

**Lead:** Public Works, Parks & Recreation | **Time:** Near-term

## 2.04 Promote and Enhance the City Bike Map

The City's online bike map inventories on-street bicycle facilities, off-street trails, and bike routes. The City should increase awareness of the bike map with the help of community partners. In 2018, in coordination with the launch of PikeCycle bike share, a more focused downtown paper map should be created, with an emphasis on providing for tourists and people new to bicycling. As the City implements the Vision Network (see **Chapter 3**) and major infrastructure changes occur, the map(s) should be updated. According to the public comments received on the Draft COS Bikes! Plan, this was the most desired recommendation in the Encouragement category.

**Lead:** Public Works, Parks & Recreation | **Time:** Near-term

## 2.05 Create a Bicycle Loving Business Program

Bicycle friendly business programs promote both bicycling and local business. BCS is developing a pilot "Bicycle Loving Business" program, in which businesses become "Bicycle Loving" by providing amenities and benefits like bike parking, discounts, and rewards for riding, while bicyclists support businesses with their dollars. This program will lend visibility to the importance of bicycling in Colorado Springs, while incentivizing biking and making riding more fun. Continuing with their pilot, BCS should develop a formal Bicycle Loving Business program, focusing initial efforts on Bicycle Priority Areas (see **Chapter 4**). Downtown Colorado Springs would be an ideal area to begin because the Bicycle Loving Business program can bolster bike share and downtown-focused network implementation.

**Lead:** BCS, Downtown Partnership | **Time:** Near-term



## COS Success: Bike Month

A month-long celebration of bicycling in Colorado Springs in June, Bike Month includes family bike rides, recreational rides, bike races, trail maintenance work days, and more. Bike Month kicks off with the Mayor's Ride, a four-mile community bike ride followed by refreshments and music.

Bike to Work Day (BTWD), on the last Wednesday in June, is the culminating event of Bike Month with two dozen breakfast stations located on the trail network and at YMCAs across the city to serve free food and drink to an estimated 1000 participants (2017 estimates). Stations are supported by the City, businesses, community organizations, and advocacy groups. As an indicator of the growing interest in biking in Colorado Springs, the 2017 BTWD was the largest one in years, with an estimated 1,000 riders from all over the city participating.

Because of the fun and energizing nature of Bike Month, and its reach to riders of all ages and abilities, **the City and its partners should continue Bike Month activities, while looking for opportunities to expand Bike to Work Day stations and events and follow up with activities and engagement to encourage long-term impact.**

## 2.06 Develop a Bike Ambassador Program

Bike ambassadors provide peer-to-peer education and bicycle-related outreach. Bike Ambassadors often assume several roles: teachers of bicycle skills and learn-to-ride classes, event hosts, and in-the-field bicycle infrastructure educators.

The City, in partnership with BCS and other bicycle organizations, should develop a Bike Ambassador Program to provide bicycle education and outreach. The program should explore new and innovative ways to message bicycle safety effectively to the community and, where possible, coordinate efforts with implementation of the Vision Network. Specific recommendations for the Bike Ambassador Program include:

- Conduct neighborhood-based bicycle education and outreach
- Foster partnerships with organizations like Bicycle Colorado to provide bicycle safety education to a wider, more inclusive audience
- Provide additional in-the-field, infrastructure-based education and outreach in conjunction with implementation of the Vision Network
- Work with area higher education including Colorado College and University of Colorado Colorado Springs to provide campus-focused education and outreach initiatives
- Coordinate with groups like Kids on Bikes and CS Cycling club on bicycle safety

**Lead:** Public Works | **Time:** Long-term

## Coming Soon: Bike Share in Colorado Springs

*“Bike share is an important component toward Colorado Springs becoming a bike-friendly city; one that is competitive with other cities, both in and out of Colorado. Bike share is a vital transportation mode for visitors and local residents.”*

– Council member Jill Gaebler

In 2014, Council member Gaebler experienced Salt Lake City’s successful bike share system firsthand and quickly assembled a group of bike share advocates and stakeholders to fund and oversee a feasibility study to determine whether and how bike share could work in Colorado Springs. The 2016 Colorado Springs Bike Share Business and Implementation Plan found that automated bike share would increase the accessibility of bicycling and public transit, introduce new riders to bicycling, and promote Colorado Springs to potential employers, residents, and visitors. In 2017, the City solicited proposals for a bike share provider and selected a smart bike system for its scalability and cost-savings. The system will be called PikeCycle.

The first phase of PikeCycle implementation is scheduled for 2018. The expected service area will



Photo: Jill Gaebler

focus on downtown and the greater Legacy Loop area, thereby connecting retail and restaurant districts, tourist attractions, and recreational areas such as the Pikes Peak Greenway Trail by bike. Subsequent phases will increase the reach of PikeCycle to adjacent neighborhoods and retail centers.

**COS Bikes! supports the implementation of automated bike share in Colorado Springs to help meet the Plan goals of integration, accessibility, and ridership.** Additionally, many of the recommendations in this Plan—such as the implementation of the Vision Network and wayfinding—will support PikeCycle’s success.

## Education

Education gives people of all ages the skills and confidence to ride. Several organizations in Colorado Springs provide bicycle education for people to learn how to ride a bike or improve their bicycling skills and these programs should be continued. New education program recommendations presented below fill existing bicycle education gaps.

### 2.07 Expand In-School Education for Grades 5 through 8

Bicycle education classes, whether learn-to-ride or bicycle safety classes, are often targeted toward school children because they are enthusiastic learners and early bike instruction fosters the development of lifelong habits. Kids on Bikes offers bicycle safety classes for elementary school-aged children, teaching them to safely cross busy streets and of the importance of wearing helmets, among other topics. Kids on Bikes should continue its in-school education, while expanding bike-related programming for children in grades 5-8, an age when children seek greater independence but are not able to drive. In addition, the City should continue supporting Safe Routes to School work throughout the city.

**Lead:** Kids on Bikes, Middle Schools | **Time:** Long-term

### 2.08 Enhance Bicycle and Motorist Education

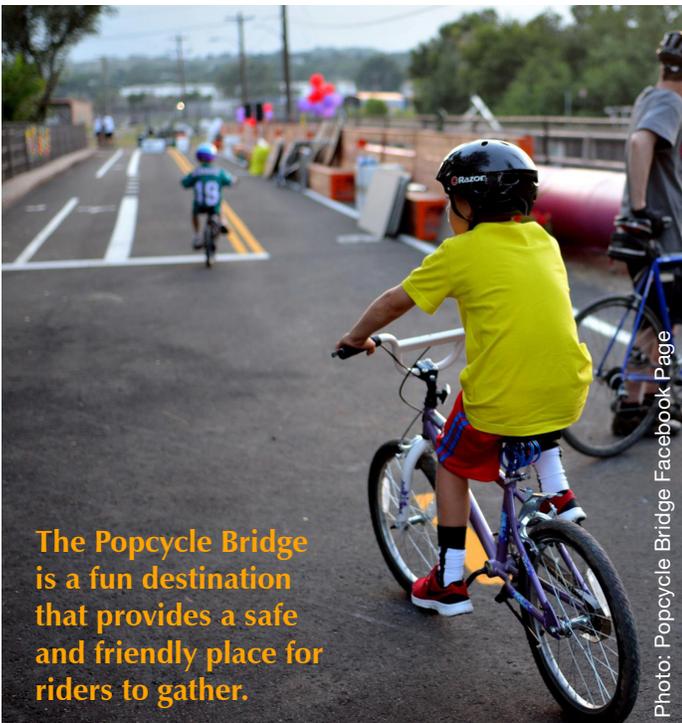
Increased bicyclist and motorist education was rated as a high priority by the public at the COS Bikes! open house, and was voted the most desired Education recommendation during the Draft Plan public comment period. Greater awareness of safety, laws, and mutually-respectful behavior is needed among both bicyclists and motorists to reduce conflicts. The City and its partners should create a program to foster better understanding of safety needs of all users. This may include bicycle-related educational materials covering the rules of the road or safe driving and biking tips; this may also include changes to driver's education courses to include bicycling. These materials should be coupled with enforcement recommendation 2.11.

**Lead:** Public Works, Colorado Springs Police Department (CSPD)  
**Time:** Near-term

### 2.09 Develop a Media Strategy for Bicycle Messaging

Broad community support is needed to realize the vision set forth in COS Bikes! To educate residents and decision-makers, a comprehensive media strategy should be developed to promote consistent and accurate messaging about bicycle projects, enforcement, safety, and funding sources, among other topics, and their overall impact on the city.

**Lead:** Communications, Public Works, Downtown Partnership  
**Time:** Near-term



The Popcycle Bridge is a fun destination that provides a safe and friendly place for riders to gather.

Photo: Popcycle Bridge Facebook Page

### COS Success: Popcycle Bridge

Monument Valley Park's Popcycle Bridge is an unlikely haven for bicycling in Colorado Springs. In 2011, the nonprofit organization Kids on Bikes began leading six-mile long family rides to the bridge where it sits at the northernmost point in the park along the Legacy Loop. Popsicles were handed out mid-ride and over time the nickname, "Popcycle Bridge" took hold.

But this wasn't always such a bike-friendly place. The bridge previously had an unsightly chain link fence and broken asphalt. In 2014, Kids on Bikes and the City raised local funding to transform the site into a bike bridge. A scaled streetscape to practice safe street biking skills was added, as well as decorative railings, bike racks, and a bike fix-it station. A large industrial pipe, painted bright pink, now provides a backdrop to a row of decorative benches.

## 2.10 Develop a Trail Etiquette Campaign

The Vision Network presented in **Chapter 3** includes comfortable and accessible on- and off-street networks, but feedback from the public during COS Bikes! suggests that speeding bicyclists, unleashed dogs, and distracted or unaware users hinder enjoyment and comfort for all users of the multiuse trail network. The City should develop a trail etiquette campaign to promote safe speeds and friendly behavior on trails. The campaign could include signs, public service announcements, speed measurement signs, or trail stewards. While COS Bikes! focuses on on-street bicycling, safe and comfortable trails are also an important piece of a complete bike network.

**Lead:** Parks & Recreation | **Time:** Long-term



Photo: Bike Colorado Springs

## Enforcement

Enforcement plays a vital role in correcting improper and unsafe behavior by bicyclists and motorists. The most common factor contributing to bicycle crashes was largely behavioral: a driver failing to yield was responsible for almost a quarter of the reported crashes in Colorado Springs from 2011 through 2015 (see **Appendix A**). Although enforcement is a critical part of a bicycle friendly community, enforcement programs require a commitment from the Colorado Springs Police Department (CSPD). Because CSPD resources are limited, COS Bikes! recommends two new enforcement programs to strategically target actions to improve traffic safety for everyone. As resources increase, consideration should be given to increasing enforcement and providing bicycle-related officer training.

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*“This is the safest time for transportation in history, except for pedestrians and bicyclists.”*

-U.S. Secretary of Transportation Anthony Foxx

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## 2.11 Explore Diversion Programs

Explore the creation of diversion programs for both bicyclists and motorists, in lieu of traffic fines. Through a diversion program, a person who breaks the law would take a bicycle safety education class instead of receiving a fine and/or appearing in court, focusing on positive reinforcement and community engagement.

**Lead:** CSPD, BCS | **Time:** Long-term

## 2.12 Consider Automated Motor Vehicle Enforcement

Explore the possibility of automated enforcement such as red light cameras or speed cameras. Automated enforcement is an effective approach to improving traffic safety with limited resources by enforcing speed limits and red light stop compliance. Safer streets, without speeding and red light running, make the frequency and severity of crashes less likely. Safe streets benefit everyone, including bicyclists.

In 2011, Colorado Springs removed its red light cameras, so public engagement about red light cameras and speed cameras, including their safety and revenue benefits, is an essential part of this recommendation.

**Lead:** CSPD | **Time:** Long-term

## Evaluation and Planning

Evaluation and planning serve to track progress in implementing a bicycle plan and to identify what's working, what's not, and where additional effort is needed. Developing this understanding will require greater attention to data collection and clear metrics for gauging success. Proper evaluation also adds power to overall messaging of the “why” of bicycle projects, which will be critical to increased understanding for and support of bike programs and infrastructure in Colorado Springs.

### 2.13 Develop and Conduct Recurring Citywide Surveys

Recurring surveys provide elected officials and decision-makers with objective data for determining the City's performance and attitudes related to a variety of topics. They are an important part of providing the highest quality of services to residents, businesses, and visitors. Along the Front Range, the cities of Arvada, Fort Collins, and Boulder conduct annual or biannual resident surveys that measure satisfaction related to quality of life and community amenities, including bicycle infrastructure.

In Colorado Springs, a citywide survey would be useful in recognizing the importance of bicycling infrastructure and programs by: providing data on how many people bicycle for different trip purposes; to track over time; and providing information on people's attitudes and satisfaction towards existing bicycling facilities. If desired, the survey could be focused downtown to help support the COS Bikes! target of a downtown bicycle mode share of 10 percent.

**Lead:** Communications, Downtown Partnership

**Time:** Long-term

### 2.14 Conduct Pre- and Post-Studies of New Bicycle Infrastructure Projects

As the proposed Vision Network is implemented, the City should evaluate the effects of major new bicycle infrastructure projects on ridership, safety, and other measures, depending on the project. The data should be publicly available and used to tell a story about the City's investments. Studies should be paired with appropriate messaging about the time it can take to realize the impacts of new projects.

**Lead:** Public Works, El Paso County Public Health

**Time:** Near-term

### 2.15 Maintain Better Crash Data to Improve Safety

Safer streets for all modes of transportation are needed in Colorado Springs. Bicyclists were involved in between 100 and 125 crashes each year from 2011 through 2015. Almost half of all bike crashes involve an injury or fatality (46 percent), compared to only 8 percent of all crashes.

Reliable, consistent, and sufficiently-detailed crash and near-miss crash data is essential to improving traffic safety. By understanding what types of problems are occurring, where, and in what contexts, the City can make data-driven decisions to achieve its long-term goal of zero bicycle-related fatalities. The City should improve its crash data to be geocoded, easily accessible, and regularly reviewed and/or analyzed. The City should also work to integrate near-miss crash reporting (e.g., via an online platform) into its safety analyses.

**Lead:** Public Works, CSPD, El Paso County Public Health

**Time:** Near-term

### 2.16 Establish a Bike Count Program

Bicycle count data provides crucial information related to bicyclist use patterns and trends that help planners, engineers, and decision-makers evaluate the performance of existing and potential new bicycle facilities. The City and CDOT have begun to conduct limited bicycle counts in Colorado Springs. This is an important first step in tracking bicycle ridership, but a more comprehensive count program would be beneficial. Building upon CDOT's program, the City should establish a bike count program to strategically implement continuous and short-duration counters and use 'big data' sources such as CDOT's statewide Strava data. Count data collected through the program would inform infrastructure, program, and policy choices.

Moving forward, the City should continue to monitor counting innovations and develop partnerships with technology companies to augment city-collected count data.

**Lead:** Public Works, Parks & Recreation | **Time:** Long-term

# Summary of Proposed Actions

The following table summarizes the key actions that Colorado Springs will need to take to create a stronger bike culture.

Category	Proposed Action
<b>Overall Recommendation</b>	
	2.01 Begin Near-Term Program Recommendations First
<b>Encouragement</b>	
	2.02 Increase Partnerships with Community Bicycle Organizations
	2.03 Hold Open Streets Events
	2.04 Promote and Enhance the City Bike Map
	2.05 Create a Bicycle Loving Business Program
	2.06 Develop a Bike Ambassador Program
<b>Education</b>	
	2.07 Expand In-School Education for Grades 5 through 8
	2.08 Enhance Bicycle and Motorist Education
	2.09 Develop a Media Strategy for Bicycle Messaging
	2.10 Develop a Trail Etiquette Campaign
<b>Enforcement</b>	
	2.11 Explore Diversion Programs
	2.12 Consider Automated Motor Vehicle Enforcement
<b>Evaluation and Planning</b>	
	2.13 Develop and Conduct Recurring Citywide Surveys
	2.14 Conduct Pre- and Post-Studies of New Bicycle Infrastructure Projects
	2.15 Maintain Better Crash Data to Improve Safety
	2.16 Establish a Bike Count Program

# Chapter 3

## Building Connections



Photo: Trails and Open Space Coalition.

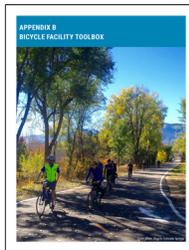
To unlock the city's potential and to become a great bicycling city, Colorado Springs needs great on-street bikeways to complement its trail network. The City's commitment to becoming a Gold-Level Bicycle Friendly Community means that a high-quality, connected network is needed.

This chapter presents the proposed bicycle Vision Network, which should be constructed over the long-term as resources and support become available. Some parts of the Vision Network are ripe for near-term construction, and those are discussed in Chapter 4. Completion of the Vision Network will create a Colorado Springs that is safe, integrated, and accessible with more bicycle riders.

## Vision Network

The bicycle Vision Network—a selection of streets in Colorado Springs on which to implement appropriate bicycle infrastructure—will improve connectivity and access to destinations across the city. While the Vision Network is shown on the following page, an online interactive version can be found on the City’s [website](#). Building upon existing trail and on-street facilities, the 379-mile Vision Network comprises 157 miles of recommended corridors identified as part of the 2015 *PPACG Regional Nonmotorized Plan*, 19 miles of recommended facilities from the 2016 *Experience Downtown Master Plan*, and 203 new miles of recommended corridors from the COS Bikes! process.

This Plan does not make specific bicycle facility recommendations, but instead allows the City implementation flexibility as it completes COS Bikes! and builds out the bikeway network. The Bicycle Facility Toolbox provided in **Appendix B** should be used to make appropriate facility selection and design decisions for individual segments within the Vision Network.



### We have a great trail network. Why do we need on-street bike facilities?

It is true that Colorado Springs already has an extensive trail system with plans for expansion. However, many neighborhoods and important destinations are not trail-accessible. The Vision Network’s on-street facilities, like bike lanes, bicycle boulevards, and separated bike lanes, will help connect more of the city to the trail network so more people can take advantage of this incredible asset.

### » Downtown’s Signature Streets

A Signature Street is a street that is pedestrian-friendly, supports bicycling, on-street parking, and is closable on weekends for special events. As envisioned in the *Experience Downtown Master Plan*, segments of Tejon Street, Pikes Peak Avenue, and Vermijo Avenue are identified as Signature Streets. To support a multimodal downtown, these street segments are included in the COS Bikes! Vision Network.

As downtown develops, Signature Streets will include bicycle route wayfinding and bike racks and are recommended to include buffered or protected bike lanes and repair stations. Regarding speed, narrowed lanes (to 9’ or 10’) and speed limits 25 mph or lower are encouraged while lanes 12’ or greater are prohibited.

## Vision Network Development

The Vision Network includes corridors along roadways of all sizes and types, from regional arterials to narrow, slow residential streets, planned streets, and off-road alignments. The goal of the Vision Network is to provide a comprehensive network of bikeways that connects Colorado Springs residents and visitors to jobs, schools, transit, shopping, open spaces, and recreational opportunities, such as the singletrack network. When the Vision Network is built out, there will be direct, convenient bicycle connections to all of these types of destinations,



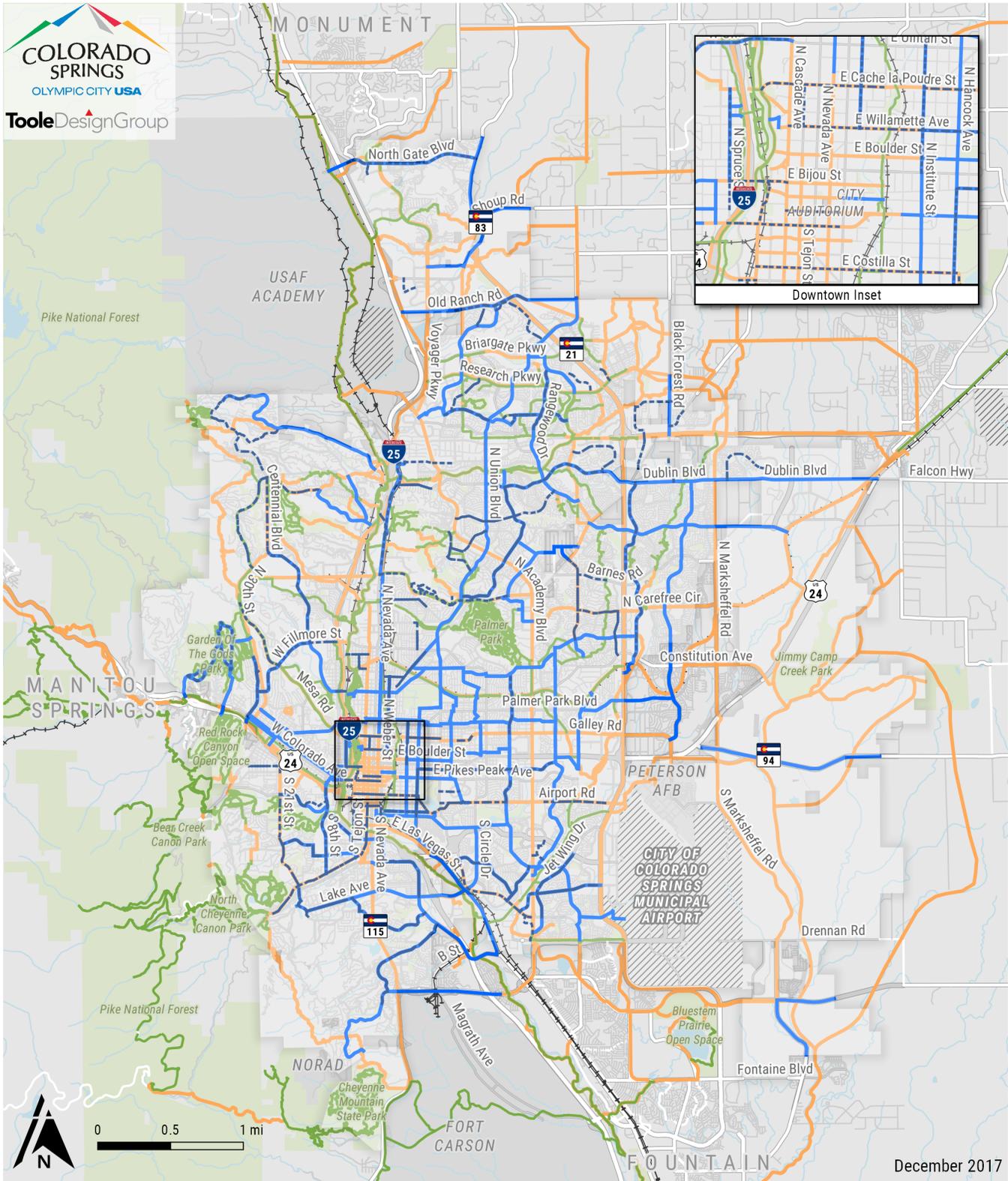
# Vision Network

## Colorado Springs Bike Master Plan

- Bike Master Plan Corridor
- Previously Planned Corridors\*
- Existing On-Street Bike Facility
- Existing Trails

- Airports
- Military Boundary
- Parks

\*Includes previously planned corridors from the PPACG Regional Nonmotorized Transportation System Plan, Experience Downtown Master Plan, and Parks, Recreation, Trails and Open Space Master Plan.



➤ An online interactive Vision Network map can be found [here](#).

complete with comprehensive wayfinding signage (see **Chapter 4**), increasing the likelihood that Colorado Springs residents and visitors will bike for transportation.

The Vision Network was developed through an iterative process of existing conditions analysis, public input, review of previous plans, and stakeholder review and discussion.

## Existing Facilities and Previous Plans

Existing bikeway facilities, proposed PPACG corridors, and *Experience Downtown* corridor recommendations were mapped, forming the basis of the Vision Network. These recent planning efforts included significant analysis and public engagement, and the corridor recommendations stemming from these plans will help achieve the goals of this plan. Gaps that remained after combining these three bike networks were identified and filled for the completion of the COS Bikes! Vision Network.

## Demand, Equity, and Connectivity Analysis

A citywide bicycle demand heatmap was developed. Bicycle demand was estimated based on several factors that affect bicycling: employment, population, commercial land use, transit hubs, colleges, K-12 schools, parks, libraries, and public comments from the PPACG Plan. Equity factors such as income and car ownership were also analyzed to ensure that the proposed bikeway network serves the most bike-dependent areas of Colorado Springs.

COS Bikes! proposes corridors in the areas of the city that have the highest potential demand and need for bicycling. The Vision Network is denser in more established, built out parts of the city because the street network in these areas allows for more frequent connections and there tends to be a higher concentration of destinations and bicycling activity. The Vision Network also includes corridors that connect to regional destinations, military facilities, universities and colleges, and major tourist destinations such as Garden of the Gods.

## Public Input

The residents of Colorado Springs helped shape the COS Bikes! Vision Network. In May 2017, more than 240 open house attendees marked up large-format maps with suggestions and reactions to the draft Vision Map, and their answers to questions posed were used to inform the Vision Network. These questions and relevant responses are included below. The full compendium of responses can be found in **Appendix D**.

**Which one recommendation will make bicycling safer in Colorado Springs?** The most common relevant response was:

- Connect all bike lanes and paths

**Which one recommendation will make bicycling more integrated in Colorado Springs?** Some responses included:

- Develop infrastructure with clear trail connections for flexibility and variation
- Cross over/under major roads such as Academy Blvd., Powers Blvd., etc.
- More connected, integrated bike lanes and trails, especially between neighborhoods, would enable bikers to use side streets more instead of major roads or sidewalks
- Don't have bike lanes that just stop; must be continuous

**Which one recommendation will make bicycling more inclusive and accessible in Colorado Springs?**

- More north/south connections throughout the city

**Which one recommendation will make more people bicycle in Colorado Springs?**

- More lanes and trails to local businesses
- Cycling infrastructure connectivity for safer rides to libraries, schools, grocery stores, and coffee shops

## Spot Improvements

When building out a bicycle network, linear improvements are often the most high-profile projects. However, spot improvements at intersections and other locations can have a much larger effect on the creation of a high-quality and low-stress bicycling environment.

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### *“Remove the barriers and make it easy”*

- COS Bikes! Open House Attendee

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In Colorado Springs, streets in many areas of the city are already comfortable for biking by people of all ages and abilities. However, where these streets intersect with arterials and other busy roadways, it can be difficult or impossible to cross safely or directly, which can prevent people from bicycling. Spot improvements can help link together these networks of slow-speed, comfortable neighborhood streets and off-street facilities, making it possible to get to destinations without bicycling along fast, high-traffic thoroughfares. Spot improvements can include treatments like intersection conflict pavement markings, two-stage turn boxes, median crossing islands, activated pedestrian/bicycle crossings, bicycle signals, and grade separations. More information about the implementation of spot improvements is included in **Appendix B**.

## Chapter 4

# Applying the Best Solutions



Photo: Bike Colorado Springs.

The bicycle culture recommendations and Vision Network outlined in Chapters 2 and 3 are essential ingredients to making Colorado Springs safer, integrated, and accessible with respect to bicycling. To make bicycle improvements viable—one of the five COS Bikes! goal themes—a strategic implementation approach is needed. How the City phases and implements programmatic and Vision Network changes is as important as the change itself.

COS Bikes! is action-oriented. This chapter includes guidance on which actions to implement first, and how, along with recommended City policy changes. As in Chapter 2, implementation recommendations are divided into Near-term and Long-term. Most recommendations will be feasible for the City to accomplish in the next few years, while some policy changes will require extensive coordination, outreach, and funding that may require several years to complete.



Photo: Bike Colorado Springs.

## Implementation Approach

This chapter of COS Bikes! gives guidance for near-term actions that the City should take to improve its bicycling environment. Three priority steps are presented: implementing bicycle support recommendations; implementing projects in high Bicycle Priority Areas; and making small improvements to the existing network.

### Priority Step: Implement Bicycle Support Recommendations

As the City implements COS Bikes!, it is important to understand that the programmatic recommendations in **Chapter 2** and recommended institutional changes in this chapter (City Policy Changes) are as vital to achieving success as installing bicycle facilities. Building stronger community support for bicycle facilities and programs and developing a planning and engineering framework that embraces bicycling will ensure that new facilities will be embraced by the community and are planned, designed, and constructed in a thoughtful, context-sensitive way.

### Priority Step: Implement Projects in High Bicycle Priority Areas

Building the Vision Network's 379 total miles may appear daunting at the outset. The network, however, is intended to be a long-term and opportunistic investment. COS Bikes! recommends beginning Vision Network buildout where the landscape for bicycling is strong and appropriate—areas of the city with strong public support for projects and high potential demand and need for bicycle facilities. This step in the implementation process can happen concurrently with the bicycle support recommendations in **Chapter 2**.

COS Bikes! recognizes that as in many other cities, past bicycle projects have not always been embraced by the public. To change the narrative about bicycling, the City should begin Vision Network implementation in priority areas where success is likely. Years later, when the City can point to well-designed bike facilities with high use, little or no safety problems, and community backing, it will have an easier time expanding the Vision Network and building similar projects in other neighborhoods.

### 4.01 Begin Implementation of the Vision Network in Bicycle Priority Areas

The City should focus in Bicycle Priority Areas (BPAs). These are the areas where the bicycling environment is strong. High BPAs are areas of the city with the most streets and street connections, the most people, the people with the lowest incomes, and/or where trails are nearby. The BPAs were informed by coordination with the *PlanCOS* process. These areas are shown on the following page; the red indicates the highest priority for implementation of the Vision Network, while yellow indicates a medium priority. Green areas are the lowest priority.

BPAs—like Downtown, Old North End, the city's west side, and Pikes Peak Park neighborhoods—should be considered as a strong starting point for Vision Network implementation. **At a minimum, the City should identify one Vision Network project each year to complete in the high BPAs.**

BPAs should be the City's focus, but network implementation can also occur opportunistically by building bicycle facilities when opportunities arise outside of BPAs. For example, neighborhoods like Stratton Meadows and Ivywild do not score as well as the high priority areas, but have demonstrated public support for bike facilities, and should be included in discussions about Vision Network rollout. Additionally, infill development presents a good opportunity to implement bicycle facilities.

If necessary, the City should coordinate closely with other jurisdictions and agencies. This will be most applicable for the high-priority area near Old Colorado City.

**Lead:** Public Works, Parks & Recreation | **Time:** Near-term

### Choosing the Best Bike Facility

While the BPAs help guide the City toward *where to begin* building the Vision Network, deciding *what to build* is the next step in the process. This Plan does not include facility recommendations for specific corridors, but contains guidance on the types of facilities that should be implemented under different conditions. The Bicycle Facility

*“If you wouldn’t want your child to ride it... it’s not safe”* - COS Bikes! Open House Attendee

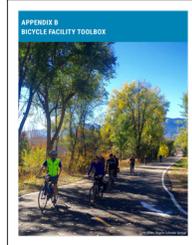
Toolbox (**Appendix B**) discussed in this section will help the City choose the appropriate facility for each corridor based on its unique context, constraints, and opportunities.

## 4.02 Plan and Construct Projects Using the Bicycle Facility Toolbox

City staff should use the Bicycle Facility Toolbox (**Appendix B**) to help decide what facilities are appropriate for specific corridors. The Toolbox begins with information about how to select the appropriate bicycle facility for both *Interested but Concerned* and *Experienced and Confident* bicyclists based on traffic volume and posted speed. Subsequent pages provide guidance and considerations for many on- and off-street bicycle facilities and their variations depending on context. In addition to linear facility types, the Toolkit includes considerations and guidance for spot and intersection treatments, including dimensions, and when their use may be appropriate.

Using the Bicycle Facility Toolbox will help ensure that bicycle facilities built throughout Colorado Springs are appropriate for the desired type of bicyclist, aligned with national best practices, and respond to the local land use and transportation context.

**Lead:** Public Works | **Time:** Near-term



## Priority Step: Make Small Improvements to the Existing Network

### 4.03 Improve Bicycle Wayfinding

At the May 2017 project open house, ‘Improve Bicycle Wayfinding’ was the number one priority recommendation, receiving over 100 votes. Wayfinding, which consists of informational signage directing riders to destinations, is a critical part of a low-stress and comfortable bike network. If wayfinding were added to today’s bicycle network, it could encourage more people to ride and make the riding experience more intuitive, less “tribal,” and more integrated and accessible. **Wayfinding is a low-cost and non-controversial way to begin to unlock the city’s bicycling potential and achieve many of the COS Bikes! goals.**

As one of the first implementation steps, the City should begin to install wayfinding along the existing network. **The City should add wayfinding to at least five miles of bicycle routes each year.** Additionally, as Vision Network projects are implemented, wayfinding should be added.

By making it easier for people to understand what they can access by bicycle, more people will choose to bicycle. In this way, a wayfinding system acts as a multiplying force, making the City’s investment in infrastructure useful to more people.

**Lead:** Public Works, Parks & Recreation | **Time:** Near-term

## » Street Trade-Offs

Street design and retrofits are influenced by a number of considerations:

- Street width
- Traffic volumes and associated number of travel lanes
- On-street parking demand or perceived demand
- Travel speeds
- Adjacent land uses
- Neighborhood interest

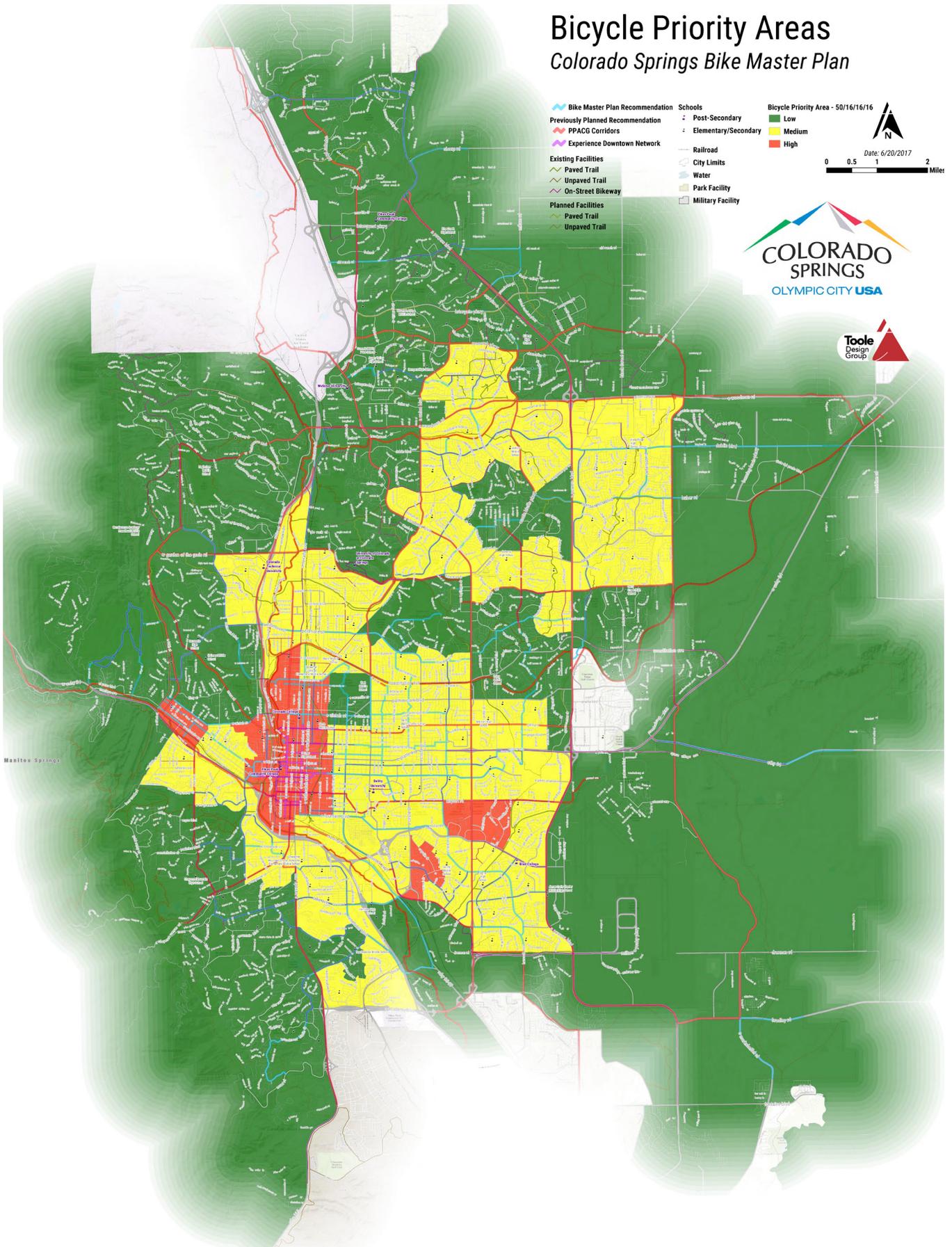
On-street bike facilities, which are typically added as part of street retrofits, are no exception. Trade-offs need to be considered in the context of the Colorado Springs’ commitment to the Vision Network. The City and its partners, such as El Paso County and CDOT, should make every effort to install comfortable bicycling facilities, consistent with Bicycle Facility Toolbox guidance.

If the City determines that a street is too constrained for an appropriate facility type, they should identify a parallel street that offers similar connectivity, access to destinations, and has space for an appropriate bicycle facility. If there is no parallel route—a likely scenario in many parts of the city without a connected street grid—the City could consider installing a less comfortable bicycle facility, one for the *Enthusied and Confident* rider (see **Appendix B**). While these facilities will not attract the same number of bicyclists, they will provide connectivity benefits for a segment of the Colorado Springs population and may help people who do not have travel choices.

Street retrofits are not permanent and therefore, as time passes and conditions change, the City should seek ways to install the most comfortable bicycle facility possible to achieve the vision and goals of COS Bikes!

# Bicycle Priority Areas

## Colorado Springs Bike Master Plan



## 4.04 Improve Bicycle Detection

A common public concern expressed during the planning process is that many intersections throughout the city lack bicycle detection. While all traffic signals in Colorado Springs are capable of detecting bicycles and granting a signal cycle, bicyclists are only recognized when positioned at the stop bar. Existing issues that prevent detection from always occurring include camera positioning and bicycle positioning.

The City should install informational signage and/or pavement markings at intersections to inform bicyclists about where to position themselves to be recognized by the bike sensors, and should make sure all sensors are working appropriately. Education about bicycle detection should also be included in educational outreach strategies organized by Bike Colorado Springs, the Communications Department, and others. In addition, when radar signal detection is piloted, bicycle detection, counting, and bicycle confirmation lights (to communicate that a bicycle has been detected at a traffic signal) should be explored.

**Lead:** Public Works | **Time:** Near-term

## City Policy Changes

The final ingredient of the COS Bikes! implementation strategy, to be conducted concurrent with the Priority Steps previously presented, is to enact internal policy and institutional changes. For the City to make progress toward achieving its vision and goals, and to ultimately become a Gold-level Bicycle Friendly Community, these changes will be needed to make it easier for City staff to design and maintain bicycle projects.

## Design for Safety

### 4.05 Update the Engineering Criteria Manual

The City's engineering standards are reviewed and revised roughly every decade. When the Engineering Criteria Manual is next updated, staff from Traffic Engineering and the bike program should be involved as to ensure best practices in bike facility and Complete Streets design are reflected, consistent with the Toolbox in **Appendix B**. A full description of the current bikeway design criteria can be found in the State of Bicycling in Colorado Springs in **Appendix A**.

Updating the Manual to better reflect Complete Streets principles will ensure that bicyclists and pedestrians are given consistent consideration in planning and designing capital projects. Ultimately, updating the Engineering Criteria Manual to include and encourage high-comfort bicycle facilities will allow City staff to plan, design, and install facilities proven to attract more bicyclists and improve the safety of all road users.

**Lead:** Public Works | **Time:** Long-term



**Complete Streets** are streets for everyone. They are shaped to be safe and accessible for all users—including pedestrians, bicyclists, transit riders, and drivers. Complete Streets create more livable cities and improve equity, safety, and public health. The City of Colorado Springs supports Complete Streets through their 2005 ordinance and continued application throughout the city.

While a bicycle facility can be part of a complete street, it is not always necessary and in fact, on-street facilities are not appropriate for every type of street. The Bicycle Facility Toolbox (Appendix B) includes guidance on which types of bicycle facilities are appropriate on which type of street.

## Find the Right Opportunities

### 4.06 Update the Street Resurfacing and Capital Projects Process

To ensure the implementation of the Vision Network, the City should adopt a policy to review all street resurfacing and engineering projects against the Vision Network map for opportunities to implement high-comfort bicycle facilities.

Road resurfacing and restriping is generally the most cost-effective opportunity to add bicycle facilities on a corridor. The 2016 Federal Highway Administration publication, *Incorporating On-Road Bicycle Networks into Resurfacing Projects* workbook, has detailed guidance that the City, County, and CDOT should consider on roads under their respective purviews.

**Lead:** Public Works, CDOT, El Paso County

**Time:** Near-term

### 4.07 Create a Policy for Street Reconfigurations

Street reconfiguration refers to changes in the way roadway space is allocated. A “road diet” is an example of a street reconfiguration where one or more travel lanes formerly used to carry vehicular traffic are repurposed for another use. Many streets in the U.S. are wider than needed, based on traffic volumes, and reallocating underused travel lanes to bicyclists is a cost-effective way to fit bicycle facilities within the existing curb-to-curb dimensions of a street. In fact, street reconfigurations are one of the most cost-effective and holistically beneficial implementation strategies for bicycle facilities. Street reconfigurations can also be used for traffic calming purposes in situations where there are safety concerns due to speeding, sight distance, frequent lane changing, and other issues.

Although street reconfigurations have many benefits and should be considered a valuable tool for Vision Network implementation, reconfiguring a corridor without an appropriate level of public process can result in confusion, frustration, and anger. Therefore, the City should develop a process for implementing street reconfigurations that addresses the development and communication of project goals, public outreach methods, and before-and-after evaluation of the projects. This process will ensure that concerns of residents and businesses are understood early in the project implementation process.

**Lead:** Public Works | **Time:** Near-term

### Bicycle Project Funding

Currently, most bicycle projects in Colorado Springs are funded by:

- Revenue from the Pikes Peak Rural Transportation Authority (PPRTA), which collects a sales tax to fund transportation projects. PPRTA funding includes approximately \$400,000 per year for on-street bikeway projects.
- The City’s bicycle excise tax, which began in Colorado Springs nearly 30 years ago. A \$4 tax is collected when a new bicycle is sold within city limits. The tax raises approximately \$80,000 per year. The City’s first priority for the tax revenue is the construction of off-street bicycle paths and the second priority is “other bikeway improvements” in the approved bicycle plan.

The City is also able to deliver bicycle projects through its annual Capital Improvements Program (the City’s infrastructure budget), routine street resurfacing and restriping, and grant programs.

### »» Bicycling and Land Use

Sustainable land use policies encourage walkable neighborhoods, mixed-use and infill development, and the provision of transportation options. The development of *PlanCOS*, a comprehensive plan for the city’s future, is underway and is addressing land use policy. One of the *PlanCOS* vision themes is Unique Urban Places, which “centers on a vibrant Downtown and is strengthened by reinvesting in walkable, healthy, and interesting urban spaces that are located in new and reinvented areas within our defined City boundary.” *COS Bikes!* and *PlanCOS* were developed in parallel and will guide the City in promoting connectivity, shorter trips, and bike friendly streets.

## Institutionalize the Change

### 4.08 Adopt a Bike Parking Ordinance

Just like a personal motor vehicle is parked most of the time, bicyclists also need parking where they begin and end their trips. Bicyclists may lock their bikes up inappropriately, travel to certain destinations instead of others, or not take trips at all if there isn't convenient, secure, and/or protected bicycle parking at their destinations.

To create a systematic process for deploying bicycle parking across the city, the City should complete adoption of a bicycle parking ordinance. Such an ordinance would require specific quantities and types of bicycle parking (short-term and long-term) to be implemented in association with new construction, renovation, and retrofit projects. This approach to bicycle parking will help provide bicyclists safe, secure parking when and where they need it. A draft bicycle parking ordinance has been created, which creates a strong foundation for the completion of this action.

**Lead:** Public Works, Planning & Development

**Time:** Near-term

### 4.09 Revise ATAC Charter and Structure

Working closely with the Active Transportation Advisory Committee (ATAC), the advisory board to the Citizen Transport Advisory Board (CTAB), the City should revise ATAC's charter to identify appropriate opportunities to advise in decision-making and implementation of bike- and pedestrian-related programming. The selection criteria for members should be revised to encourage representation from diverse groups in the city, including universities, non-profit groups, economic development entities, and the public health community. ATAC should also have consistent representation and reporting from the Streets Operations and Maintenance Division, Parks and Recreation Department, Police Department, and Mountain Metro Transit.

**Lead:** ATAC, CTAB | **Time:** Near-term

## Maintain What You Build

### 4.10 Strive to Improve Bicycle Facility Maintenance

At the May 2017 COS Bikes! open house, better bike lane and trail maintenance was identified by attendees as one of the city's greatest needs. A trail or on-street bike facility's comfort is strongly influenced by its navigability and physical condition. Existing issues include debris, weeds, snow, ice, and along some trails, tents.

Currently, the City's Public Works Department is responsible for maintaining on-street bicycle facilities and the Parks Department maintains off-street facilities. During winter storm events, snow and ice on roadways are often deposited in on-street bicycle facilities and are not cleared until other travel lanes are clear. Trail maintenance occurs as-needed, and the Parks Department currently uses a checklist to guide their weekly, monthly, or yearly maintenance duties while striving to clear priority urban (Tier 1) trails after a snow event.

The City's current sweeping and snow-clearing maintenance practices balance available resources with a consideration for emergency events, air quality, and water quality.

There is currently no official policy in place to prioritize maintenance activities on major trails or street bike routes, and no resources in the foreseeable future to do so. As more resources become available, the City should strive to improve bicycle facility maintenance as much as possible. This could include identifying priority bicycle routes to clear and/or sweep and identifying minimum maintenance standards for all facilities. The City should also continue to explore ways to maintain new facility types such as separated bike lanes.

**Lead:** Public Works, Parks & Recreation

**Time:** Near- and Long-Term

# Summary of Proposed Actions

The following table summarizes the key actions that Colorado Springs will need to take to implement the Vision Network.

Category	Proposed Action
<b>Priority Step: Implement Bicycle Culture Recommendations</b>	
<b>Priority Step: Implement Projects in High Bicycle Priority Areas</b>	
	4.01 Begin Implementation of the Vision Network in Bicycle Priority Areas
	4.02 Plan and Construct Projects Using the Bicycle Facility Toolbox
<b>Priority Step: Make Small Improvements to the Existing Network</b>	
	4.03 Improve Bicycle Wayfinding
	4.04 Improve Bicycle Detection Technologies
<b>City Policy Changes</b>	
	4.05 Update the Engineering Criteria Manual
	4.06 Update the Street Resurfacing and Capital Projects Process
	4.07 Create a Policy for Street Reconfigurations
	4.08 Adopt a Bike Parking Ordinance
	4.09 Revise ATAC Charter and Structure
	4.10 Strive to Improve Bicycle Facility Maintenance



## Unlocking the Potential

COS Bikes! outlines a strategic plan for improving the bicycling environment in Colorado Springs. By developing programs to build a stronger bike culture, beginning to implement the Vision Network in high Bicycle Priority Areas, making small changes to the existing bikeway network, and modifying some City policies, *Olympic City USA* will begin to realize its vision for bicycling.

As Colorado Springs changes, COS Bikes! will ensure that bicycling programs and infrastructure are part of that change and in some cases, leading the change. The City cannot and should not make all of the changes on its own—participation and support is needed from governmental partners such as PPACG, El Paso County, and CDOT, the advocacy community, the business community, and the residents of Colorado Springs.

*The Bike Master Plan envisions a healthy and vibrant Colorado Springs where bicycling is one of many transportation options for a large portion of the population, and where a well-connected and well-maintained network of urban trails, singletrack, and on-street infrastructure offers a bicycling experience for present and future generations that is safe, convenient, and fun for getting around, getting in shape, or getting away.*



Photo: Bike-Colorado Springs.



Photo: Toole Design Group.