

# Bicycle Share Planning Studies

Hundreds of cities around the world are choosing bike share as a way to help them make their cities more livable. Bike share has transformed. Making decisions about how bike share will look in your city is critical to its success. Consultants working too closely with bike share vendors can hamper the decision-making process. At Alta Planning + Design, we are completely independent, allowing us to help you make the best decisions for how your program will work.

Alta Planning + Design is skilled in all facets of bike share program development, including feasibility assessment, demand modeling, business plan development, and station location design, planning, and permitting. We understand the practical elements of successful bike share design – programmatically, economically, and operationally. The results are fully-informed, fact-based recommendations based on the unique characteristics of your bike share project. Alta provides a blend of key skills, including:

- **Feasibility studies.** Our experience in planning and implementing bike share systems informs our bike share feasibility studies, from program definition to system sizing and phasing, to selection of the most appropriate business model and technology.
- **Development of business plans tailored to the specific needs of your community.** Our business plans outline expected system costs and develop diversified funding strategies. We explore all avenues of potential revenue,

including user fees, sponsorship opportunities, and public and private funding. Our plans generate interest in bike share with decision makers, potential sponsors, and the general public.

- **We coordinate public-private partnerships for bike sharing operations.** We work closely with multi-agency programs and understand the nuances of creating a truly regional bike share system, identifying system responsibilities, and developing cost- and revenue-sharing agreements.
- **System design and station planning and permitting.** Our planning experience includes designing the coverage area and density of the system, siting potential station locations, and working with local agencies to obtain permits for station placements. We help agencies understand station siting requirements through design drawings and visualizations.
- **The most effective planning and modelling tools.** We conduct economic impact analyses, operational evaluation, and research based on real world experience.
- **Data analysis and reporting.** We cull from bike share data to analyze and report trends in bike share usage, create simple and effective reporting tools for the system, and provide a feedback loop to planning and operations staff.

Alta Planning + Design has completed bicycle share work for over 40 communities across North America, shown below.



**Services:**


- Feasibility analysis and demand modeling
- Business plan development
- Station location design and permitting
- Workshops
- Sponsorship and funding
- Launch oversight
- Expansion services

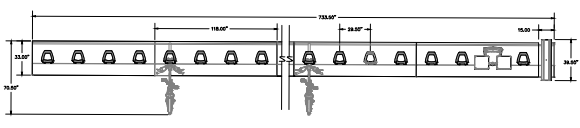

# King County (Pronto! Cycle Share) Bicycle Share Business Plan, WA

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On-Street Station Siting

Docks: 23  
Bikes: 11

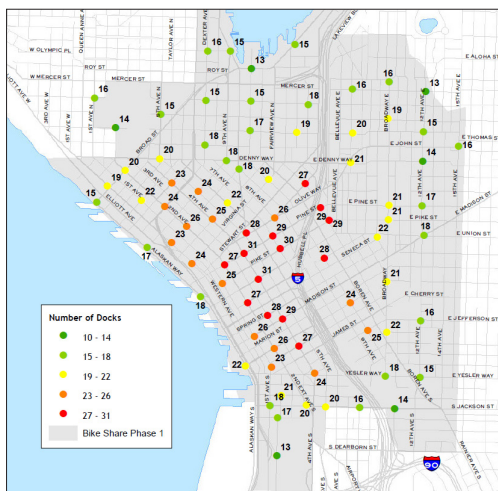


PROTOTYPE STYLE

On street, linear (Relocation of loading zone, removal of one parking space)

**Notes:** This station is located on 42nd Street and University Way, in close proximity to the University, dining establishments and residential locations. Advantages of the site include heavy foot traffic on University Way. Siting considerations include potential relocation of a loading zone. Nearby bicycle facilities include shared lane markings on University Way.



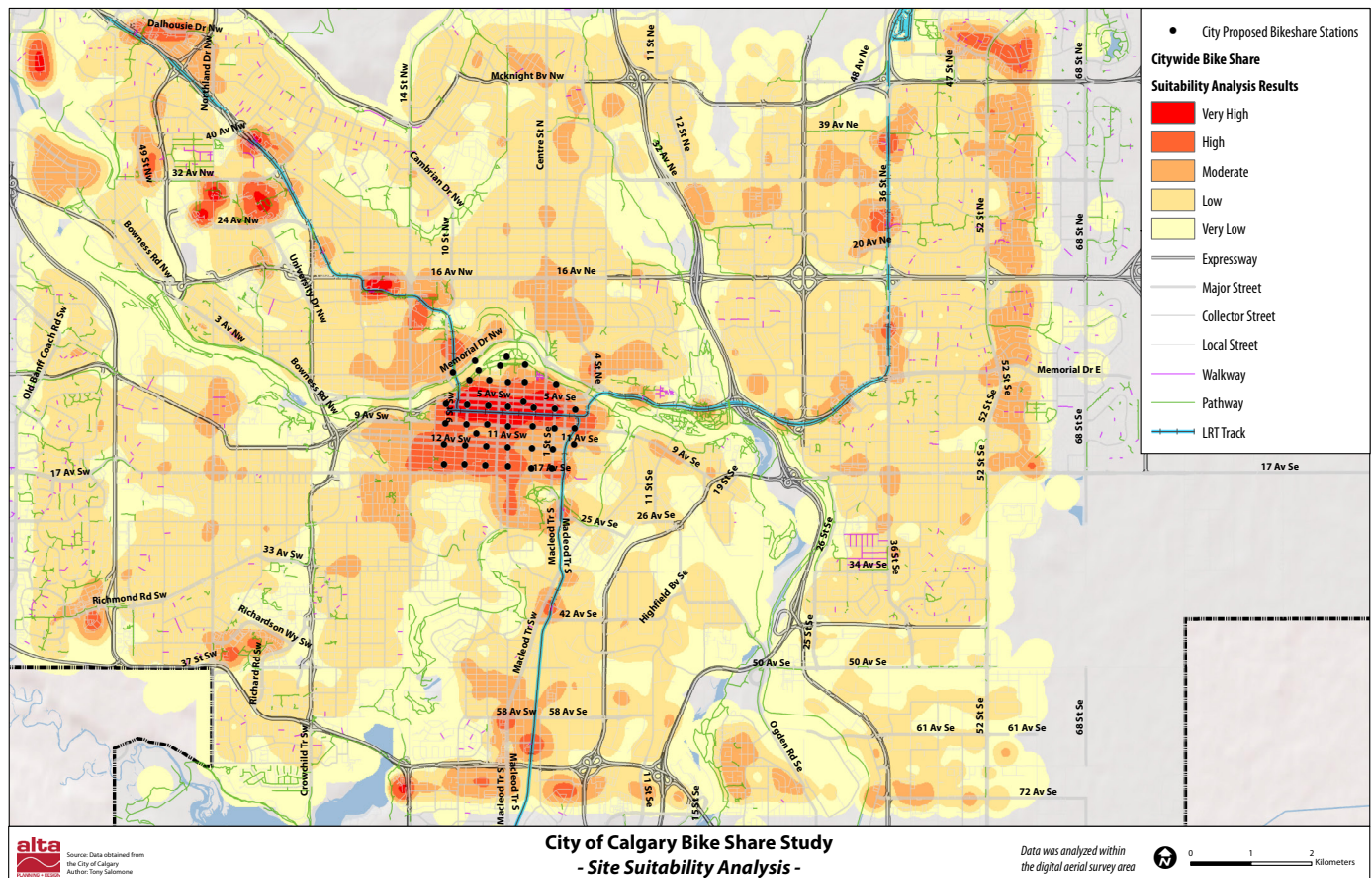
King County, Washington hired Alta to plan regional bike share system that would span more than five cities. Alta worked with a steering committee that included regional and local government agencies, local transit agencies, the University of Washington, and other interested partners to develop a plan to make bike sharing a reality in King County. Happily, the dream came true in October 2014, with the launch of Pronto! Cycle Share.

The study included defining the goals of the program, determining system size and phasing, and analyzing administrative and operational models to determine the most appropriate business model. The study also addresses a number of challenges in the area, including a mandatory helmet requirement, the effects of weather and topography, and the restrictions of various city sign codes.

Alta's business plan informed decision makers and potential sponsors of the likely costs to launch the system. It included a five-year business pro-forma based on a diversified funding strategy that included user fees, various levels of sponsorship, and public and private funding sources.

**Results:** Pronto! Cycle Share was launched in October 2014. Alta led all site planning, design, and permitting.

# Calgary Bicycle Share Feasibility Study, Alberta, Canada



The Centre City of Calgary has many of the characteristics necessary to support a successful bike sharing system, such as high employment density, well-supported visitor and recreational attractions, and an extensive transportation system. The city worked with Alta Planning + Design to identify opportunities for launching a bicycle share system with the potential of an initial launch of 40 stations and 400 bikes covering approximately 5.6 square kilometers.

The Business Plan for a potential bike share system in Calgary explored the options for who would own, administer, and operate the system. It also included a Financial Analysis that explored estimated costs, user revenues (applying Alta's bike share demand model), and other possible revenue sources. A sensitivity analysis was prepared that explored the impact of some of the potential challenges including the City's ordinance on street advertising and the lack of "comfortable" bike facilities in the core of Downtown.

# Bike Chattanooga, TN

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## Broad Street & W. 5th Street



CHATTANOOGA BIKE SHARE PROGRAM "BIKE CHATTANOOGA"



### DESCRIPTION

**Nearest Road or Intersection:**  
Broad Street & 5th Street

**Bikes Enter:**  
WEST

**Map/Terminal:**  
SOUTH



View/Location: Facing North

july 2011



Alta Planning + Design assisted with the location of 30 bike share kiosks in Chattanooga's central core. The successful Bike Chattanooga recorded its 100,000th trip in September 2014. Bike Chattanooga provides access to employment, tourism, and educational destinations for the city's upcoming bike share system launch. Alta's work included analysis and field work to determine siting and performance criteria and layout concepts for each proposed station.

## Citi Bike, New York City, NY

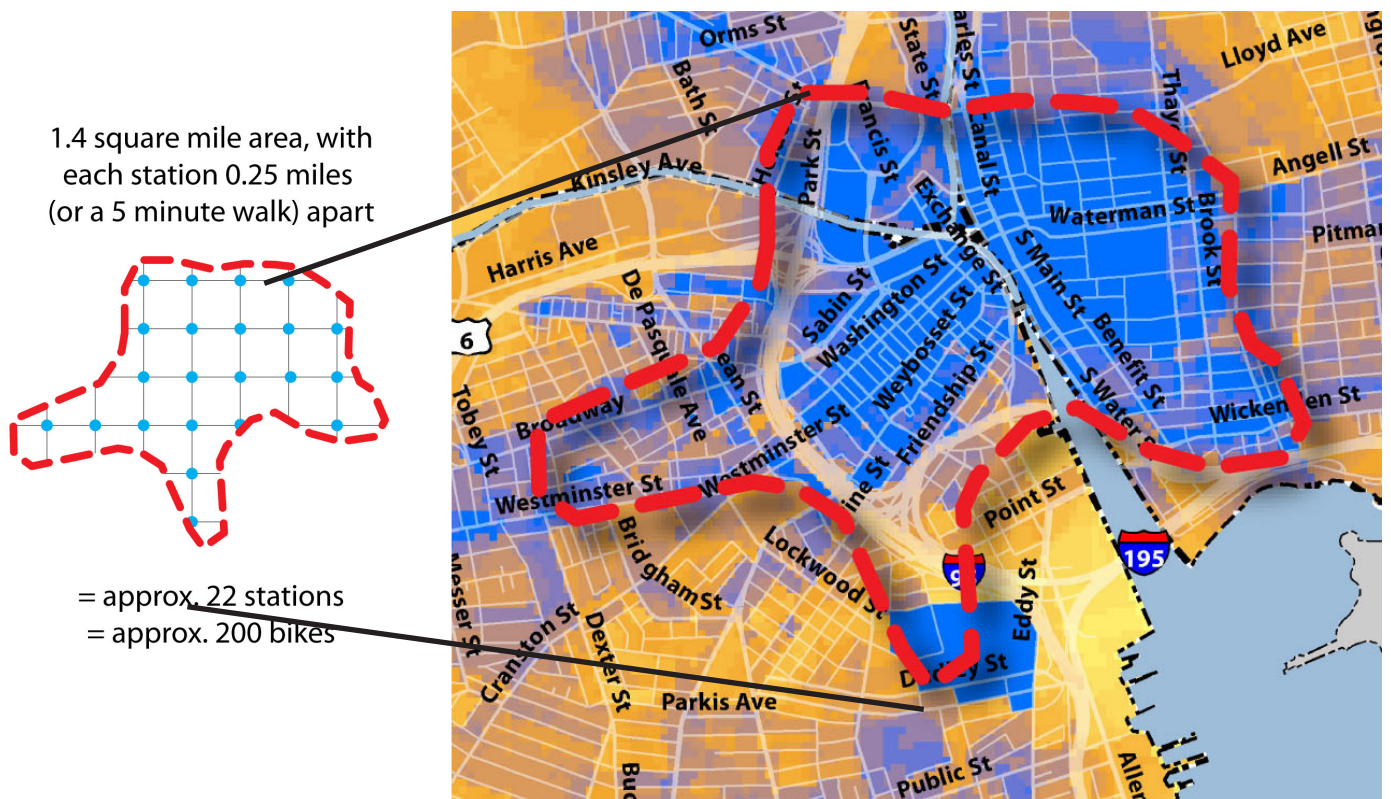


The New York City bike share system, Citi Bike, launched in 2013, and celebrated one million rides taken in the first four weeks of service. The privately-funded system includes approximately 6,000 bicycles at 420 stations in Manhattan and Brooklyn.

Alta Planning + Design was involved in developing user forecasts and revenue estimates, developing the business pro-forma, and conducting station siting and permitting. Phase I required design of 420 station site plans for permitting in just three months. Sites varied from on-street locations that required buffering from traffic to sidewalk and plaza locations that needed to be strategically located while maintaining clear pedestrian paths of travel. General station maps were prepared based on Alta's Bike Share Demand model and refined through outreach, conducted alongside DOT staff, with the affected Community Boards, Business Improvement Districts, the Planning & Design Commission, and other potential stakeholders.

The business plan included a detailed line-by-line estimate of costs, incomes, and revenues expected over the first ten-years of system operation. The pro-forma was critical to securing the \$47.5 million sponsorship contracts for the system.

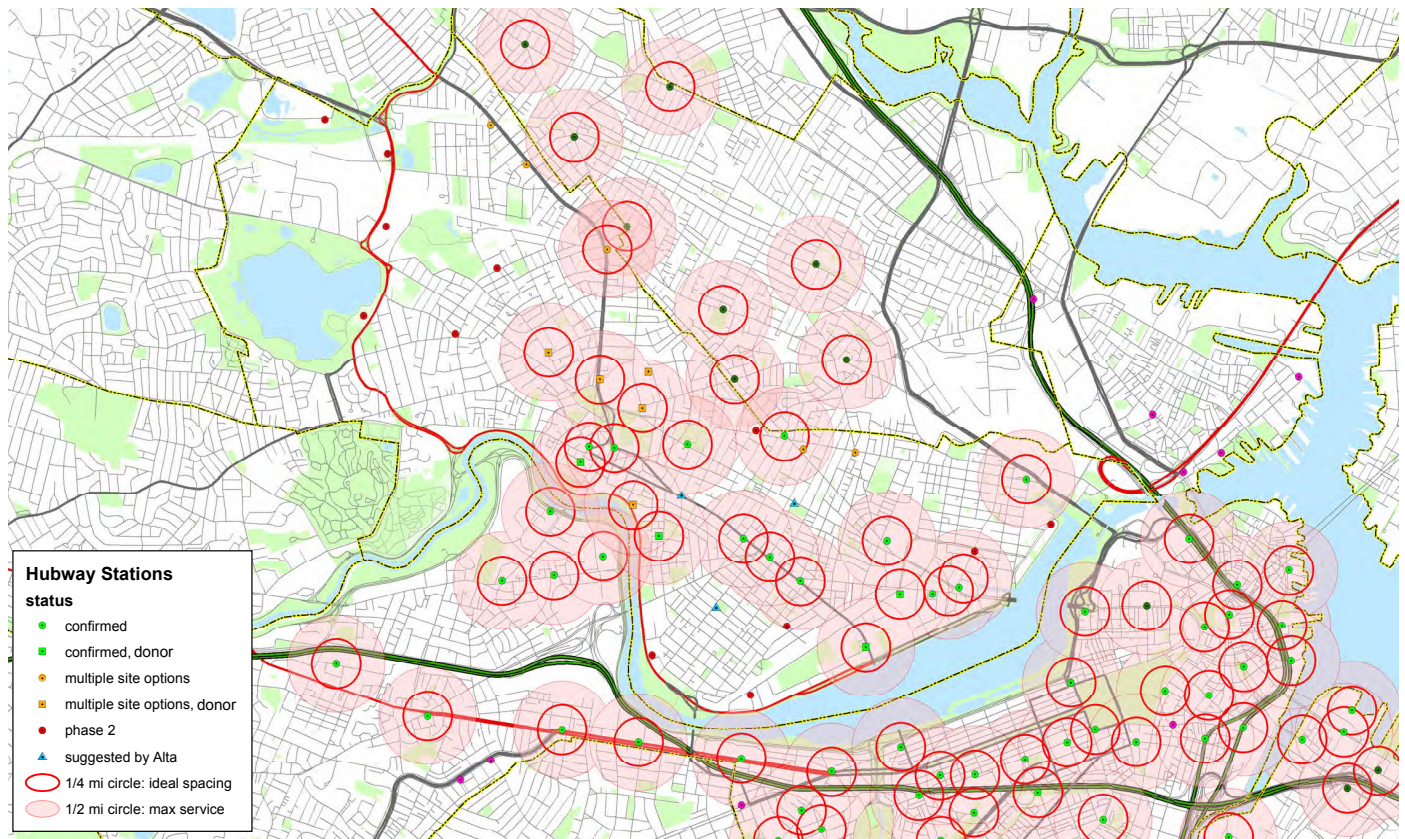
# Providence Bicycle Share Feasibility Study, RI



In 2010, Alta Planning + Design developed a feasibility study for a bike share system for Providence, Rhode Island. The study included an analysis of the characteristics of existing systems throughout the world and a preferred alternative for Providence. Alta also provided a summary of the best small-city financial models found throughout the world. A framework for determining station locations, in consultation with the City's Department of Planning and Development, yielded a final recommendation for a first-phase, city-wide system consisting of 200 bikes and 20 stations.

**Status:** Providence is planning for a future launch.

## Hubway, Boston and Cambridge, MA



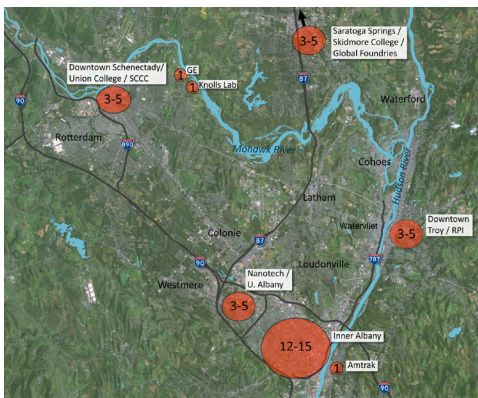
*"One of the DOT-supported projects that most impressed me in Boston is the Hubway Bike Sharing program started by Mayor Thomas Menino's Boston Bikes initiative," US DOT Secretary Ray LaHood, Oct 4, 2012.*

Alta provided station-location planning and design services for the Hubway bike share system. This included securing permits from the City of Boston, the state parks department, and MassDOT for the initial 61 station launch throughout the Financial District, Back Bay, South End, Allston, LMA and Fenway neighborhoods.

Planning challenges included finding the appropriate locations along streets with narrow sidewalks, dealing with utilities, and ensuring that the solar-powered stations received at least six hours of direct sun. In the first year of operation, the 610-bike system registered nearly 150,000 trips with no recorded crashes that involved an injury. Hubway expanded to Brookline, Cambridge, and Somerville in its second season of operation, creating, at the time, the second-largest regional bike-share system in the US.

By the end of 2014, there are 140 Hubway stations in the four cities, with over 2.5 million trips and counting.

# Albany Bicycle Master Plan Implementation & Bike Share Feasibility, NY



Alta assisted the Capital District Planning Committee and the City of Albany with the implementation of the Albany 2009 Bicycle Master Plan. The two key implementation tasks included studying the feasibility of a bike-share system for Albany, along with developing a strategy for bike network signage. Critical elements for the bike-share task included recommendations for the service area, potential station locations, the business model and options for funding such a system. For the bike network signage, Alta refined the 2009 bikeway recommendations to determine routes most in need of wayfinding and which should include new bike facilities such as bike lanes or cycle tracks.

# Minneapolis Nice Ride Bicycle Sharing Location Study, MN

## 2) Wells Fargo East

East Hennepin & 5th Street NE



Site Plan

Property Owner: City of Minneapolis

Notes:

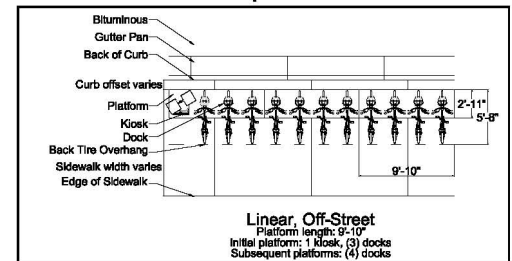
**Adjacent Property:** Wells Fargo, 422 E. Hennepin Av  
**Site Advantages:** security, lighting  
**Potential Sponsors:** Wells Fargo



Aerial View / Context



Site Photo / Kiosk Footprint



**Prototype Style:** Linear, Off-Street  
**Platforms:** 4  
**Docks:** 15


## Minneapolis Bike Share Program

Date: June 29, 2009



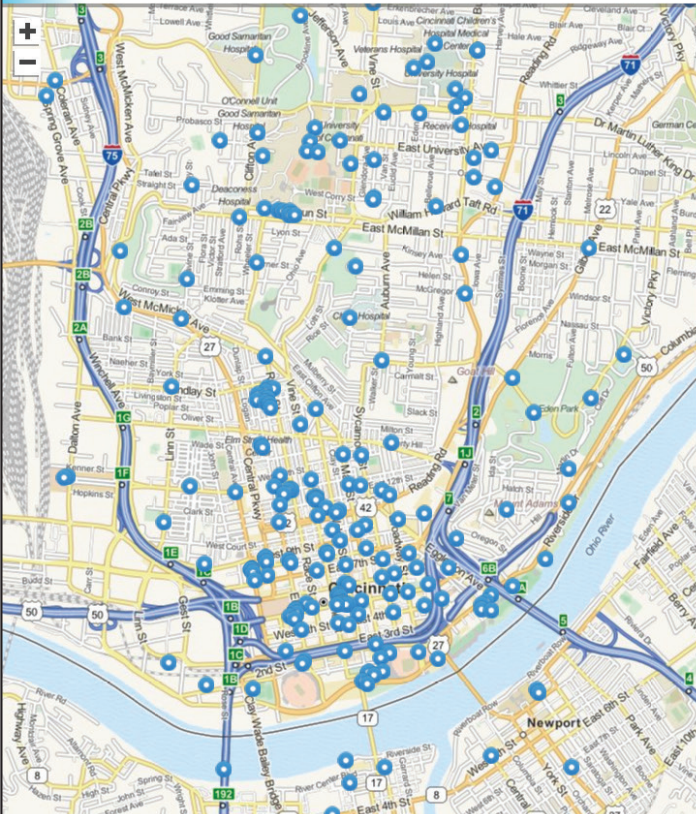
Nice Ride is a public bike program in Minneapolis, Minnesota. Alta assisted this sophisticated cycling city with the location of 75 public bicycle share kiosks in three urban districts. The team prepared site design guidelines and construction permitting. Our work included case study reviews of established public bike programs to determine siting and performance criteria, and layout concepts for each proposed station. The Nice Ride system is now in its fifth year of operations.

# Cincinnati Bike Share Feasibility Study, OH




## Cincinnati Bike Share

Welcome About



### Welcome



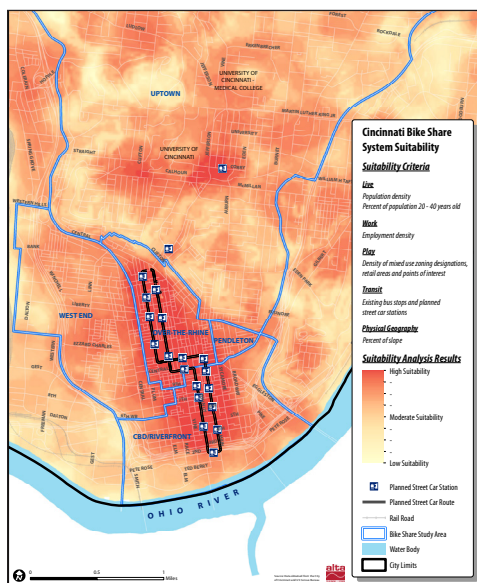
**Tell us where you'd like bike share stations and comment on others' recommendations:**

1. Click **"Suggest a location"** and move the red pin to where you want a station.
2. Click the **"Confirm Location"** button.
3. **Give us more information** by creating a station name, providing a description and your name. **You must leave a name for your point to appear on the map.**

Share your station recommendations on Facebook, Twitter, and email them to others.

**\*\*At this time we are only accepting suggestions for station locations in Downtown, Over the Rhine, and Uptown.**

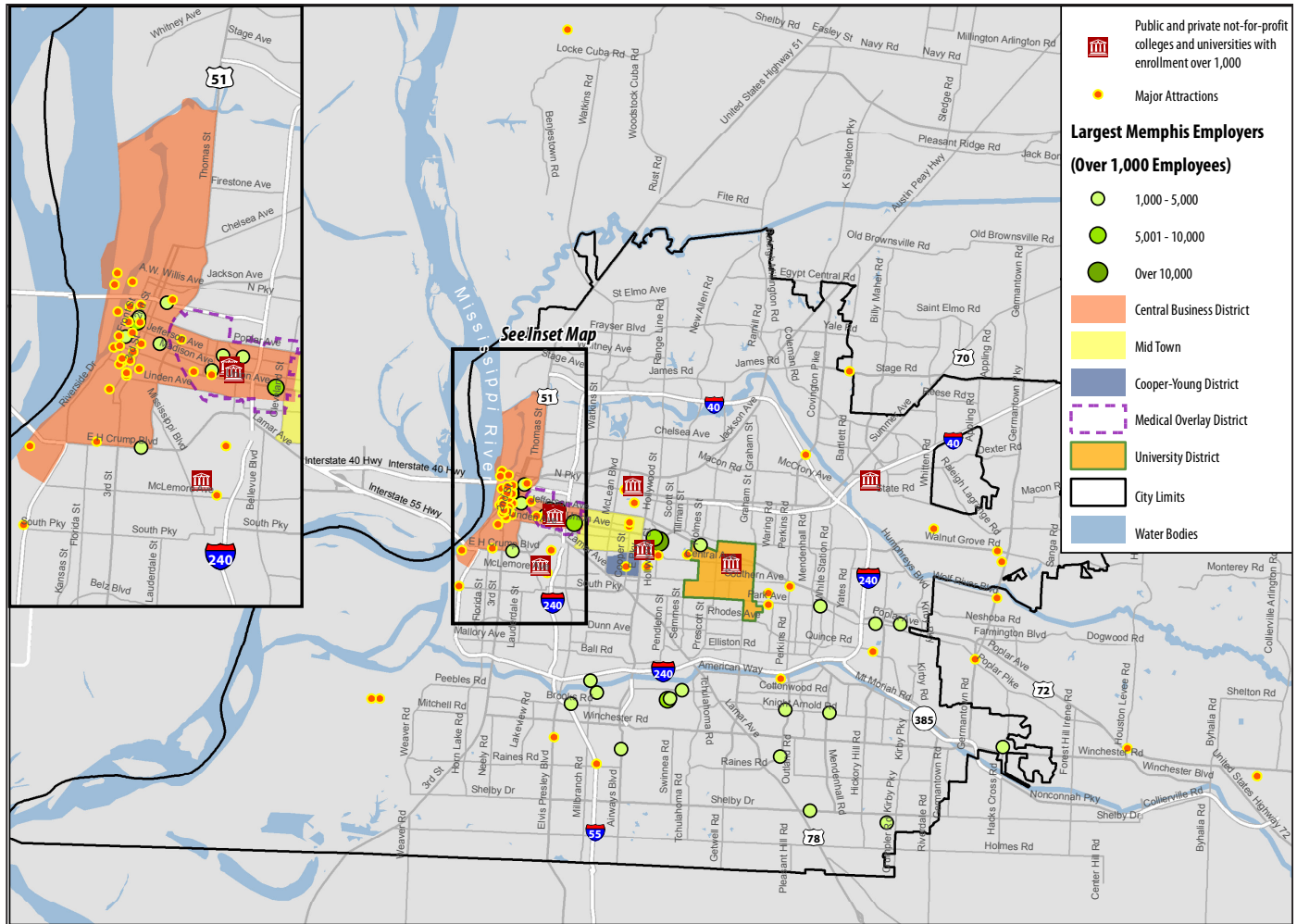
Close this window to get started!



The Cincinnati Bike Share Feasibility Study made use of stakeholder outreach, public involvement, research, and lessons learned from existing bike share systems in North America. The study included field review to evaluate the preparedness of Cincinnati for bike share, identify areas in the city most suitable for bike sharing, and highlight obstacles that could impact success. The study identifies key system parameters and an initial service area and size for a potential bike share system, as well as a forecast of expected demand, costs, and revenues. The study also provides potential funding options and operating models.

**Results:** Cincinnati set up a non-profit in 2013 and selected B-Cycle to provide equipment. The system launched in 2015.

# Memphis Bike Share Feasibility Study, TN



The City of Memphis has elevated the role of bicycle transportation in the metropolitan region and increased its investment in the bikeway network. As an opportunity to build on this momentum, the City of Memphis, Livable Memphis, Shelby County Health Department, and the Hyde Family Foundation commissioned Alta Planning + Design to explore the potential for a bike sharing system in Memphis.

Alta's report:

- Introduced bike sharing to decision makers, potential partners, and key stakeholders
- Presented experience from other US cities operating bike sharing systems to identify key system parameters and explore potential funding and ownership / operation models

- Performed a Local Context Analysis to assess the preparedness of Memphis for bike sharing and identify potential issues
- Prepared a Financial Analysis to identify an appropriate initial system that fits within available resources and inform future funding and investment in the program

**Results:** Fundraising is underway and the city is looking forward to future launch.

## Pittsburgh Citywide Bike Share System Plan, PA



Alta developed a citywide plan for a 50-station bike share system in Pittsburgh. Our work included the development of a system-wide plan that defines the overall Phase I service area, pinpoints final station locations, and incorporates demand and revenue analysis to develop a business plan for financial sustainability. This phase of the work also included a plan for Phase II expansion to a 100-station system. For both phases Alta projected demand and revenue based on our unique models developed specifically for bike share.

After the network planning phase, Alta developed more detailed site plans and permit packages for all 50 stations. In conjunction with this work, three community meetings were held to increase awareness of the project and confirm community support for the recommended station sites.

**Results:** A non-profit was formed and the city selected a vendor. They launched in 2015.

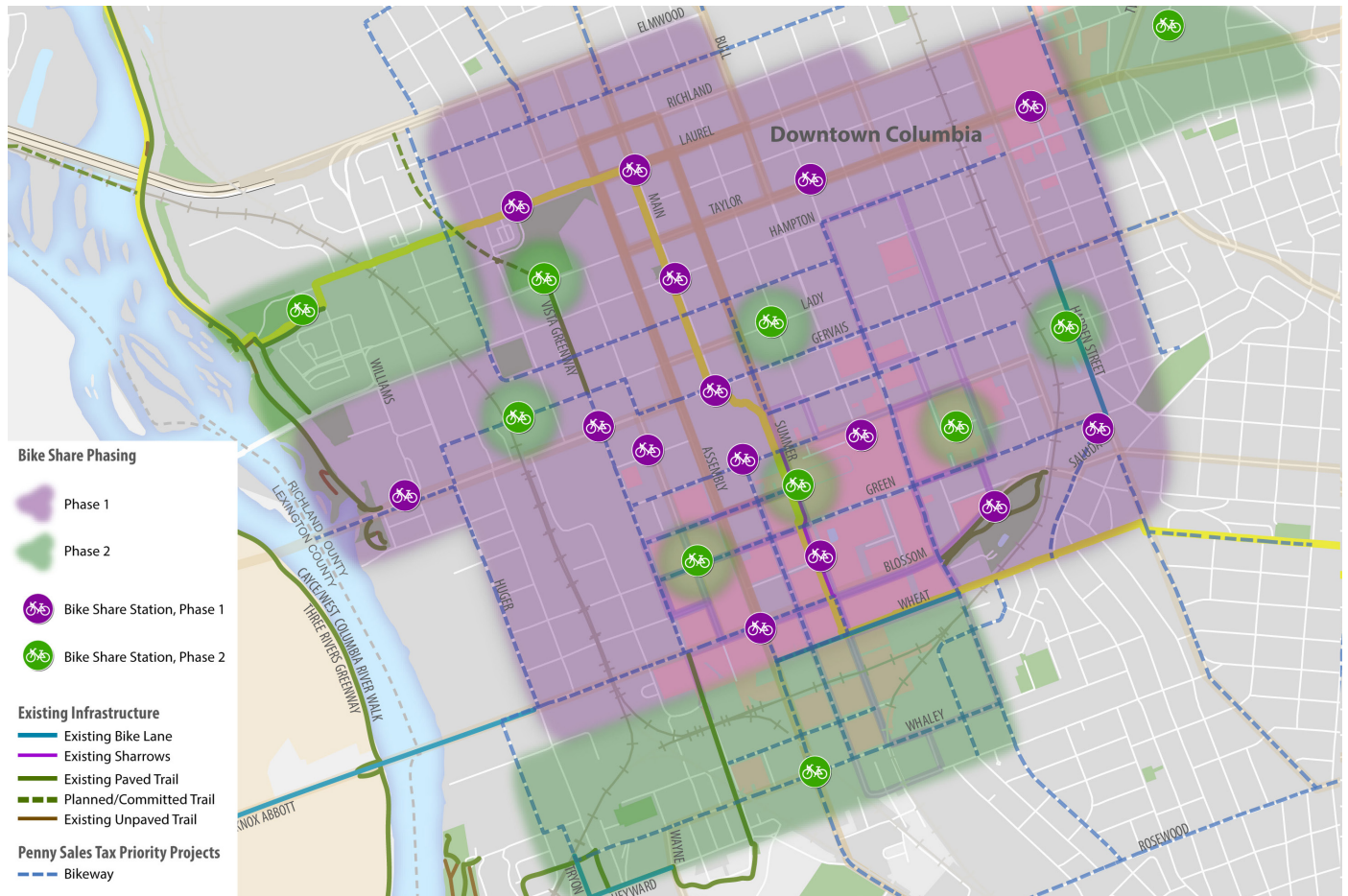
## EPA Building Blocks: Planning Bikeshare Programs



Alta led the development of a Planning for Bikeshare Tool to facilitate a community's consideration of whether and how to establish a public bikeshare system. The tool consists of a homework assignment and a series of calls to prepare for the site visit, a two day site visit which includes a day-long stakeholder workshop, and a next steps memorandum. Alta delivered this new tool to five communities in its first year - New Orleans (LA), Fort Collins (CO), Denver (CO), Portland (ME), and Bridgeport (CT).

The Planning for Bikeshare Tool is designed to help prepare the community to determine suitable scope, location, financing arrangements and general operational characteristics of a bikeshare system. This would allow the community, if it so chooses, to take the next steps of seeking financing and then soliciting proposals for the establishment and management of the system.

# Columbia Bicycle and Pedestrian Master Plan and Bike Share Plan, SC



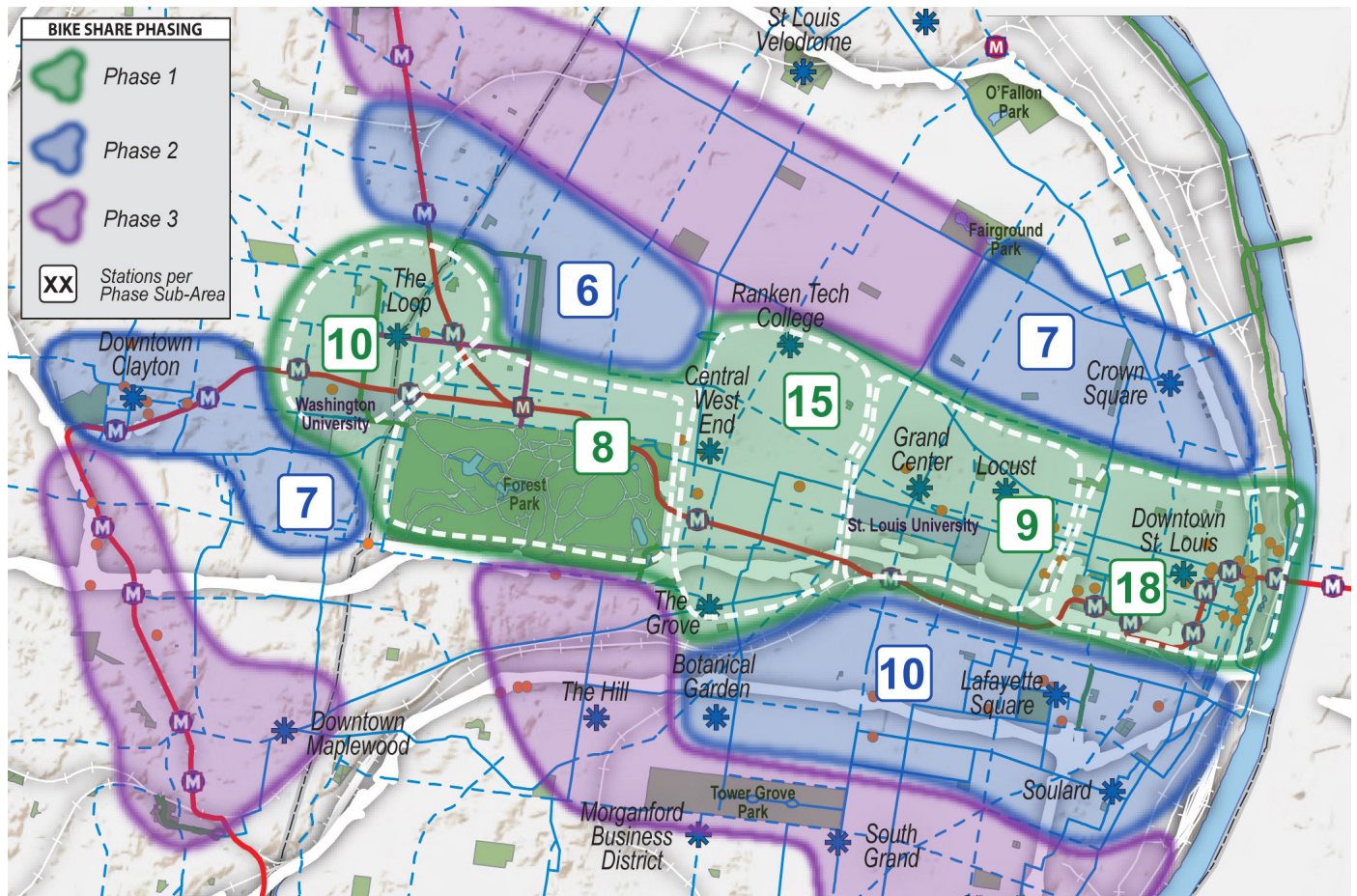
The Central Midlands Council of Governments, in partnership with the City of Columbia, SC, retained Alta Planning + Design to develop a city-wide bicycle and pedestrian master plan and bike share study. The project commenced with an analysis of existing conditions and user needs.

The bicycle and pedestrian master plan recommends a seamless network of on- and off-street bikeways and walkways connecting residents and visitors to schools, parks, employment centers, and retail and entertainment destinations.

The Bike Share Plan further advances this goal by identifying practical strategies for developing a successful bike share system that is integrated with the local bikeway network and transit system.

The implementation plan for this project includes a 10-year capital improvement plan as well as cut-sheets for six priority projects that will be implemented within three to six months of plan adoption. Alta also developed a step-by-step action plan to guide the City of Columbia as it pursues South Carolina's first Walk Friendly Community designation and a Silver Level Bicycle Friendly Community designation.

## St. Louis Bike Share Feasibility Study, MO



Alta completed a feasibility study, system plan and business plan for a bike share program in the St. Louis region. As part of the effort, Alta performed a trip-demand, membership and revenue analysis based on our unique models developed specifically for bike share. The model results were used to develop a financially sustainable business plan for the recommended non-profit. The final report included station-siting guidelines and specifications for stations throughout metro St. Louis, including Forest Park, the city of Clayton, at MetroLink stations, and at key destinations in neighborhoods within the urban core. Also featured were a number of “best practices” recommendations related to enhancing program equity, including station-siting strategies, affordability and promotion to lower income and minority communities throughout St. Louis.

Supplementing the effort is a robust public involvement process that includes a project web site, social media, multiple rounds of public workshops and bike share demonstration at various community events. Alta used surveys to solicit public feedback on goals for the program, barriers to using bike share, and the types of programs or incentives that would help encourage bike share use. Nearly 1500 people responded to the surveys, helping to inform Alta’s final planning recommendations.