

Broadening the Culture and Mindset

As important as the engineering and planning is in creating a multimodal community, so is cultivating the culture and mindset where residents want transportation options and expect the Town to provide them. Commitment to all modes and all users must also be embraced by municipal staff and officials. Chapel Hill possesses that spirit already which can be seen through vision and objectives of the Chapel Hill 2020 Plan, the Bike Plan, regional transit planning efforts, and development standards. The question now is how to further grow the commitment to walking, biking and transit.

Chapel Hill's peers are making strides to become safer and more accommodating for walking and biking. General trends and overarching themes include dedicated bicycle and pedestrian staffing and funding, bikeshare, and a signature project that generates energy within the community.

These initiatives would not only help encourage residents to try different commute and travel patterns, but also educate officials and staff and inspire community action in the Town to participate in events, and even garner support for local projects.

	Chapel Hill NC	Iowa City IA	Charlottesville VA	Corvallis OR	Bellingham WA
Population	58,000	69,000	44,000	53,000	81,000
Bike Commute Modeshare	2.3%	3.7%	3.2%	12.1%	4.3%
Walk Commute Modeshare	12.5%	15.6%	12.6%	9.6%	7.4%
Transit Commute Modeshare	12.4%	9.9%	8.6%	3.0%	5.7%
Total Modeshare	27.2%	29.2%	24.4%	24.7%	17.4%
Staffing Level (FTE)	--	0.75	1.0	1.5	1.0
Bicycle Friendly Community Rank	Bronze	Silver	Silver	Platinum	Silver
Walkscore	35	43	58	48	48
Spending Target for Bicycling and Walking Infrastructure	--	--	Proposed at 20% of CIP in 2015 Bicycle and Pedestrian Master Plan Update	20% of transportation budget	1/3 of total revenue from Transportation Benefit District (contiguous with city limits) funded from two tenths of 1% sales tax
Bikeshare	--	Joint RFP Issued, City and University, 2016	University Bikeshare Vendor: SoBi	City Bikeshare Vendor: Zagster	University Bikeshare Vendor: BIXI

Snapshot Comparison of Key Indicators for Bike & Pedestrian Modes for Chapel Hill and Peer Cities

Performance Measures

Developing metrics and tracking progress is a part of fully integrating pedestrian and bicycle planning into broader, ongoing performance management efforts. With limited resources, it is critical to identify the projects and investments, track progress, develop effective solutions, and prioritize investments. They should promote informed decision-making by relating community goals to measurable effects.

<p style="text-align: center;">Infrastructure Spending</p> <p>Amount of total infrastructure spending annually secured for bicycle, pedestrian, and greenway projects.</p> <p style="text-align: center;">Data Source: Capital Improvements Program</p>	<p style="text-align: center;">Limited Resources</p> <p>Critical to identify the projects and investments that will provide the highest level of benefit.</p>	<p style="text-align: center;">Mode Split</p> <p>Percent increase in combined bicycling, walking and transit modeshare of total commute trips.</p> <p style="text-align: center;">Data Sources: American Community Survey Journey-to-Work Data</p>
<p style="text-align: center;">Miles of Bicycle and Pedestrian Facilities</p> <p>The total distance of all pedestrian and bicycle facilities in the Town.</p> <p style="text-align: center;">Data Sources: Parks and Recreation Planning and Sustainability</p>	<p style="text-align: center;">Crossing Opportunities</p> <p>Reduce average distance between crossing locations on 4+ lane roadways. Crossings are improved to two-stage or signalized.</p> <p style="text-align: center;">Data Sources: Planning and Sustainability</p>	<p style="text-align: center;">Bicycle and Pedestrian Counts</p> <p>Increase in locational counts for bicycling and walking and increase in transit usage.</p> <p style="text-align: center;">Data Sources: Local Bike/Ped Station Counts Chapel Hill and Triangle Transit Boarding Alighting Data</p>

Recommended Performance Measures for Chapel Hill Community Mobility

The Town should begin to track performance measures to measure the outcomes of the Mobility Plan:

Infrastructure Spending - Chapel Hill should quantify and report on infrastructure spending by mode as compared to targets for bicycle, pedestrian, & transit improvements based on the Town’s Capital Improvement Plan and Bond projects for transportation infrastructure. Approximately 70% of the FY2017 infrastructure capital program is dedicated to bike/ped improvements, as is a similar percentage of bond programs for transportation. With a bicycling and walking mode share totaling around 15% and transit users who also depend on pedestrian infrastructure, the current spending is well-above **a reasonable target of 30%**



Public comments indicated that street crossings are a large issue for residents.

Miles of Bicycle and Pedestrian Facilities - Reporting miles added annually allows for tracking progress over time. In conjunction with Powell Bill inventories, the Town should continue to track miles of existing sidewalk, greenway, and bicycle infrastructure and update this information on an annual basis.

Crossing Opportunities - Public outreach for the Mobility Plan indicated that street crossings are a large issue for the Town, especially on higher volume state-maintained arterials where there are limited opportunities. Tracking this metric show annual progress on reducing the average distance between improved crossing locations of roadways of 4 or greater lanes. Improved crossings are defined as two-stage or signalized, and can include Rapid Rectangular Flashing Beacons or HAWK Signals.

It is recommended that Chapel Hill track crossing improvements and set the minimum desired distance between improved crossings on 4+ lane arterials at $\frac{1}{4}$ mile.

Mode Split - The mode split relates to the overall goal of the Mobility Plan to increase trips by walking, bicycling, and taking transit. When evaluating projects, this metric can be used to determine how a project alternative might impact mode choice to reach the goals set by the Town.

The Town should continue to monitor American Community Survey data and document percent increase in combined bicycling, walking and transit mode share of total commute trips, aiming for the plan goal of 35% commuting by bike, walk or transit in 2025.

Bicycle and Pedestrian Counts - Counting volumes of non-motorized transportation users offers useful information on an agency's performance. Chapel Hill conducts location counts for cycling and walking and has existing data on transit usage. These counts are a better gauge of walking and bicycling usage trends than journey to work data available through the American Community Survey since it includes people who are not traveling solely for work purposes on weekdays. Though counts are highly seasonal in nature, and weather dependent, continuous counts provide a good source for looking at change over time.

The Town should provide an annual report of bicycle and pedestrian counts from the stations and, if possible, allow real-time reporting of data to Town open source data locations.

Wayfinding and Signage

Within the low-stress priority network of bicycle and pedestrian infrastructure within the Town of Chapel Hill, there are connections to many destinations. Therefore it will be important to employ a unified wayfinding package at a human-scale. The concept should be implemented through on-street and sidewalk markings, signage, posts, and sidewalk/greenway kiosks to guide people to destinations and draw awareness to the Greenway Connectors.

The key types of wayfinding are:

Turn Signs - The intention of this type of signage is to ensure users stay on the designated corridor. These signs should be added before key decision points, so that there is time to make the decision of where to go next.

Confirmational Signage/Marking - Signs or markings that are actually not used to direct people, but act to verify that the user is on the right path. To create a positive experience, these signs ensure that people have comfort in the fact that they are going in the right direction. Conveying the right mood is a key part of what signage can achieve when implemented correctly. Often these are placed after key decision points to confirm a route.

Decision Signage - These mark the junction of multiple routes. They orient users within the local context and provide directions to one or more key destinations.

Awareness Signage - These signs are intended to draw awareness to a route and encourage new users. These signs build awareness of the system by creating a presence for the priority routes outside of the system.

Every place in a navigable space has a unique perceptible identity. It functions as point of reference in the larger area.



Decision Sign (top) that would be placed at key points in the network as part of an example signing package.

Confirmational Markings (bottom) can be placed at regular intervals on the pavement or sidewalk to verify that the user is on the right path after the decision is made.



Active Routes Coalition Members

School

- Principal and other administrators
- Parents and students
- Teachers
- PTA/PTO representative
- School nurse
- School district transportation director
- School improvement team or site council member
- Adult school crossing guards

Community

- Community members
- Neighborhood or community association members
- Local businesses
- Local pedestrian, bicycle and safety advocates

Town Government

- Mayor's office or council member
- Transportation or traffic engineer
- Local planner
- Public health professional.
- Public Works representative
- Law enforcement officer
- Mobility coordinator

Active Routes to School

North Carolina's support for Safe Routes to School (SRTS) education and encouragement programs is delivered through the Active Routes to School project which is supported by a partnership between the N.C. Department of Transportation and the N.C. Division of Public Health. The Town has support through the Region 5 coordinator. The project is federally funded and will span through June 2019. The project will focus on providing safe, appealing environment for walking and biking, improve the quality of our children's lives and support national health objectives by increasing physical activity, reducing traffic, fuel consumption, and air pollution in the vicinity of schools.



The Active Routes to School program is an opportunity to make walking and bicycling to Town schools safer for children and to increase the number of children who choose to walk and bicycle. The Town should continue to support and expand 'Active Schools.' It is recommended that the Town work to ensure an active and broad coalition which has representative members from schools, the community, and local government. It should to grow its representative schools, curriculum, and events to support the next generation in healthy active lifestyles.



Infrastructure Projects - In North Carolina, the Strategic Mobility Formula aligns bicycle and pedestrian projects with SRTS, Transportation Alternatives Program, or Surface Transportation Program funds. The NCDOT Transportation Planning Branch and eligible MPOs direct the use of Congestion Mitigation and Air Quality funds for bicycle and pedestrian projects. Highway Safety Improvement Program (HSIP) funds are directed by the NCDOT Transportation Safety and Mobility Unit. New requirements under HSIP require better data-gathering on bicycling and walking crashes and safety.

The NCDOT SRTS office asks that the Town and schools work with its Division office to develop a list of priorities. Proposed projects will be scored based on specific criteria for bicycle and pedestrian projects and will need to score well in order to move forward in the prioritization process. The NCDOT Division staff and/or MPO/RPO offices can assist with this process, as well as the Active Routes to School Regional Coordinator.

Bike and Pedestrian Count Program

There is a difference between counting bicycling and walking volumes for short-term, project specific purposes versus having a count program. Since a permanent count cannot be installed in all locations due to lack of funding, an effective program is composed of two elements – continuous counts and spatial coverage counts. Chapel Hill has experience carrying out a data collection plan through collecting coverage counts for the Mobility Report Cards. It is recommended that the Town of Chapel Hill formalize the continuous and coverage counts in order to implement an Non-Motorized Volume Program.

Why Count?

Nationwide communities collect data on vehicle movements, but rarely is data collected on bicycle and pedestrian use. Due to the lack of basic metrics, this means that what is not counted is not funded. Collecting more data can help to increase funding for and put in place better bicycle and pedestrian infrastructure. This is especially important in identifying areas of the highest need, which are often under-represented in public input.

Applications of count data are numerous:

- Performance Measures
- Project Prioritization
- Evaluating the effects of new infrastructure on bicycle and pedestrian activity
- Conducting risk/exposure analysis
- Estimating annual volumes
- Justifying maintenance expenditures



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What doesn't get counted, doesn't count.

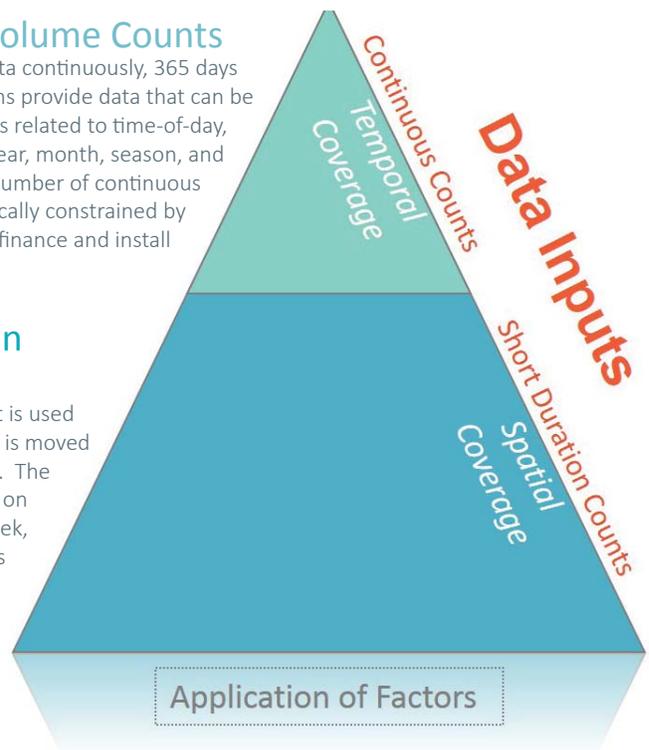
Data gives justification. It allows you to make a case.

Continuous Volume Counts

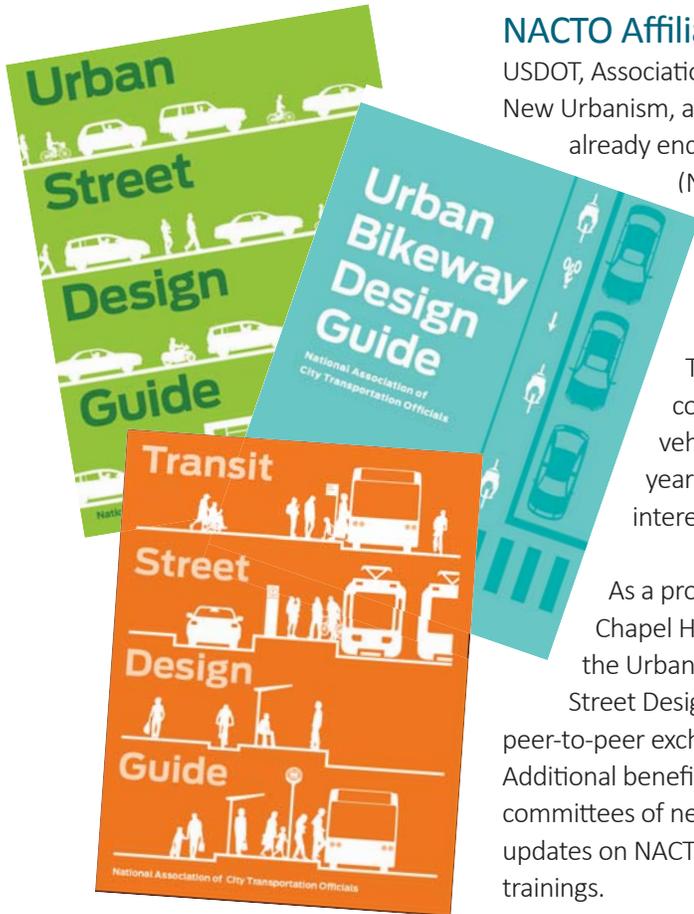
Permanent provide data continuously, 365 days per year. These stations provide data that can be used to develop factors related to time-of-day, day-of-year, week-of-year, month, season, and annual volumes. The number of continuous count stations are typically constrained by resources available to finance and install them.

Short Duration Counts

Automated equipment is used for data collection and is moved from station to station. The data is adjusted based on time-of-day, day-of-week, and/or monthly factors that are derived from the continuous count portion of the program.



Outputs Annual Average Daily Bicyclist / Pedestrian Traffic



NACTO Affiliation

USDOT, Association of Bicycling and Pedestrian Professionals, Congress for the New Urbanism, and the Urban Land Institute along with 9 States and 48 cities have already endorsed the National Association of City Transportation Officials (NACTO) Urban Street Design Guide.

Street design standards and practices have long been developed and dictated by state departments of transportation and organizations such as the American Association of State Highway Transportation Officials (AASHTO), and reflect standards more conducive to a rural context where right-of-way is cheap and average vehicular speeds are in excess of 45 mph. It is only in the past few years that we have seen cities and organizations representing their interest as they push for and gain acceptance of urban design standards.

As a progressive town that commonly supports innovative design practices, Chapel Hill could endorse NACTO and incorporate design elements from the Urban Bikeway Design Guide, the Urban Street Design Guide and Transit Street Design Guide into projects. NACTO member and affiliate cities have a peer-to-peer exchange for valuable communication between cities on best practices. Additional benefits of becoming a NACTO Affiliate City are membership on review committees of new and updated guides, travel support for NACTO events, regular updates on NACTO projects, and NACTO staff leadership at Design Guide-based trainings.

Mobility Coordinator

Employing a bicycle and pedestrian staff person as a Mobility Coordinator shows that a community is committed to a comprehensive transportation system; they are critical to integrating and coordinating the Town’s plans, projects, and development agreements. Having at least one staff-member focusing on the coordination between bicycle, pedestrian, greenway, and transit accessibility issues is an important step in carrying out the recommendations in the plan. The need for coordination is anticipated to increase over time.

Policy and Program Implementation

While infrastructure improvements take considerable time to design and construct, policy changes and new programs can often take shape shortly after the adoption of a new plan and influence the organizational culture and operations. The table below outlines the implementation schedule for these recommendations that need to be made upon adoption of the plan, with continual ongoing town operations, or within the next two fiscal years.

	Policy/Program	Responsibility
After adoption	Update Design Manual Streets and Sidewalks Standard Details	Public Works Department
	★ Amend LUMO for bike parking requirements	Planning Department
	Reprioritize sidewalk list	
Ongoing/ immediate	Continue to develop a bike/ped count program	Planning Department
	Expand 'Active Schools' Program	
Within year (by or for FY19 budget)	Create a wayfinding and signage package	Planning Department
	★ Update Complete Streets Policy	
	★ Designate an ADA Coordinator	
	Start a bike parking program	
	Track and report performance measures annually	
	Become a NACTO Affiliate	
	Add pedestrian elements to Traffic Calming Policy and Procedures	Public Works Department
	★ Establish sidewalk microgap program	
★ Initiate an ADA improvement request process		
FY19-20 Fiscal Year	Hire a Mobility Coordinator	Planning Department
	Initiate a Town bikeshare program	
	Plan upgrades for the spot improvements and projects to create accessible routes in the ADA Transition Plan	Public Works Department



5 Priority Programs/Policies + 20 Key Projects - Five priority policy/program recommendations are starred based on their effect to best incorporate and instill a ped-/bike-focused mentality into the Town's standard operating procedures for development review and capital projects, as well as setting up smaller-scale programs to address access needs across the community. When completed and paired with the [20 key capital projects](#), residents will find the Town's network and developments easier to walk and bike.

