

Section 6. Programs, Ancillary Facility, and Policy Recommendations

Section 6.0 illustrates how programs and town-wide “spot” improvements can help create a better and safer cycling environment. The “Three E’s” of bicycling program development are explained, and numerous programs and policies are suggested for implementation in Wake Forest.

6.1 Introduction

A bicycle-friendly community is not created overnight, nor is it created simply by constructing bicycle lanes and greenways. A bicycle-friendly community also has programs and policies which support and promote cycling to its residents. In addition, the community has ancillary facilities and programs, such as bicycle parking and maps, which facilitate cycling and make it more pleasant for bicycling. According to the NCDOT *Bicycle and Pedestrian Plan Outline*, programs should be created that target three areas: encouragement, education, and enforcement. These are known as the “Three E’s” of bicycling (often joined by a fourth “E”, engineering). The following is a list of recommendations for programs and ancillary facilities which could be implemented by the Town to fulfill these three objectives.

6.2 Programs

The tables on the following pages describe a number of education, encouragement and enforcement programs that can be implemented in Wake Forest. Each program idea is described briefly, including an identifier as to which of the “Three E’s” that it targets and which local entities might best facilitate and maintain the program. Many of these programs can be implemented at a relatively low cost to the Town, but may greatly enhance the cycling environment.

Program Action: Establish a Safe Routes to School Program	Target E's: Encouragement and Education
<p>Purpose: To encourage students, teachers, and staff to walk or bicycle to school while creating a safer climate in which to do so.</p> <p>Activities:</p> <ul style="list-style-type: none"> ◆ Walking or biking “school bus,” where an adult(s) lead a group of kids on a group walk or ride to school. ◆ Encouragement activities at school – education about benefits, games and promotions. ◆ Conduct a bicycling audit and identify potential improvements near the school. ◆ Distribute flyers to parents about being Safe Routes to School focused. ◆ Walk (or bicycle) to School day/week/month. 	<p>Responsible Parties: Wake County Schools – specifically those in Wake Forest in coordination with the Town’s Planning, Parks and Recreation, and Transportation Department.</p>

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Program Action: Participate in Bike-to-Work Week	Target E's: Encouragement and Education
Purpose: Encourage employees and employers to bicycle to work.	Responsible Parties: Wake Forest Planning Department with the Capital Area Metropolitan Planning Organization's Bicycle and Pedestrian Committee and SmartCommute
Activities: A Triangle-wide activity with incentives and contests for employers and employees who participate in bicycling to work in the Bicycle-to-Work week.	

Program Action: Establish Standing Bicycle and Pedestrian Advisory Committee	Target E's: Encouragement, Education, and Enforcement.
Purpose: Advocate for bicycle-friendly Town policies and actions.	Responsible Parties: Town Council's approval will be necessary to form the Committee in order for it to be official. Town staff assistance will be necessary to coordinate committee meetings - this could be undertaken by a Bicycle and Pedestrian Coordinator.
Activities: The Committee would meet regularly to discuss bicycle-related issues in Wake Forest, advise the Town staff and council on bicycle-related actions. Some of the actions that the Committee could be responsible for are: <ul style="list-style-type: none"> ◆ Coordinating a Town annual bicycle event ◆ Generating Wake Forest-specific education materials ◆ Reviewing development plans for bicycle-friendliness ◆ Lobbying Planning Commission and Planning staff to require more bicycle-friendly developments. 	

Program Action: Wake Forest Bicycle-Friendly Signs	Target E's: Encouragement and Education
Purpose: To raise awareness that Wake Forest is a bicycle-friendly community (or wants to be) and motorists should therefore drive safely and be courteous to cyclists. Intended to create an understanding that cyclists are accepted and welcome road users.	Responsible Parties: Wake Forest Planning and Public Works. A possible partner might be Wake County SAFEKIDS, whose mission is to prevent child injuries.
Actions: Install "Share the Road" signs at all major "gateways" into Wake Forest. These signs are commonly used at higher volume locations where bicycle traffic is frequent; the town should develop a coherent and structured strategy for the safe installation of these signs.	

Program Action: Create a Bike Rodeo Program	Target E's: Education and Encouragement
<p>Purpose: Educate children and parents about safe bicycling skills.</p> <p>Activities: This event could be held in conjunction with another event – either a Town event such as Downtown Arts Day or July 4th Celebration, or a Triangle-wide event such as Bike-to-Work Week. Bike Rodeos usually involve establishing an obstacle course (at a school parking lot or similar location) which mimics typical situations that a cyclist may encounter. Participants are then “coached” through the rodeo by trained rodeo “Emcees”, such as a League of American Bicyclists Instructor or a trained bicycle policeperson. These individuals help participants to understand appropriate actions that should be taken in tricky situations, as well as commonly accepted cycling behaviors (such as the use of hand signals when turning). Upon completion, the rodeo participant usually receives a prize, often a bike helmet or reflective gear to make cyclists more visible. Wake Forest could consider requesting bike helmets from NCDOT – they have a free bike helmet program for safety events.</p>	<p>Responsible Parties: Wake Forest Planning Department staff could hold the rodeo, potentially in coordination with the Parks and Recreation Department. Staff should also consider teaming with the Police Department to assist with safety educations. Could also team with local bike clubs who have certified instructors.</p>

Program Action: Create a Helmet-to-Go Program	Target E's: Enforcement (and Education)
<p>Purpose: To encourage helmet use among cyclists.</p> <p>Activities: Police officers on patrol would be armed with free helmets. Should police see child or adult cyclists riding without a helmet, police will stop cyclist, remind them about helmet laws, and provide them with a helmet (or free helmet coupon) should they not own one. Disciplinary action could be taken for repeat offenders. This activity might also be conducted for cyclists riding at night without reflectors or lights, or for cyclists riding in the wrong direction. For cyclists riding at night, police could be equipped with free “blinkies” (blinking lights that affix to the bicycle frame) and reflective material to distribute to cyclists they meet.</p>	<p>Responsible Parties: Wake Forest Planning Staff and Police Department.</p>

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Program Action: Develop Pamphlets for Police to Distribute		Target E's: Enforcement
Purpose: Educate motorists and cyclists about rights and responsibilities of the road.		Responsible Parties: Wake Forest Staff and Wake Forest Police Department.
Activities: Develop and distribute pamphlets which clearly explain motorists' and cyclists' rights and responsibilities on the road (e.g. TTA's regional "Share the Road" brochure, or the NCDOT "Bicycle Laws of NC" pamphlet available at http://www.ncdot.org/transit/bicycle/laws/resources/BikePedLawsGuidebook-Full.pdf). Provide these pamphlets to police to educate them on state bicycle law and the bicycle/vehicle relationship, as well as for distribution to traffic violators exhibiting dangerous behavior (perhaps instead of a citation for first-time offenders). Triangle SmartCommute and CAMPO also have brochures prepared which Wake Forest could use or borrow as a template to make Wake Forest-specific brochures.		

Program Action: Monthly Bike Day		Target E's: Encouragement
Purpose: Encourage cycling in Wake Forest.		Responsible Parties: Wake Forest Staff and Parks and Recreation Department.
Activities: In many cities, such as Chicago (see http://www.bikethedrive.org/), a major thoroughfare is closed down to auto-traffic one day a month and cyclists are allowed to take over the street. Wake Forest should consider doing this, perhaps with White Street or portions of Main Street, or along a route which may encompass many streets. This monthly event could be advertised to neighboring communities as a draw for visitors. May have economic benefits by encouraging participants to shop at Wake Forest stores and eat at Wake Forest restaurants. If unwilling to do the event monthly, this activity could occur annually, perhaps during Bike to Work Week. The Town might also consider conducting the ride without shutting down the streets.		



<p>Program Action: Establish a Travel Demand Management (TDM) Program</p>	<p>Target E's: Encouragement</p>	
<p>Purpose: A TDM program is intended to reduce demand for automobile travel by encouraging the use of alternative forms of transportation.</p>	<p>Responsible Parties: Town Staff to promote TDM resolution and TDM coordinator</p>	
<p>Activities: TDM programs can be either private efforts or public projects. In Research Triangle Park, TDM efforts are spearheaded by SmartCommute@RTP which works to encourage RTP employees to take alternative transportation. In Chapel Hill, the Town has a TDM policy which requires new development to include access for alternative transportation – sidewalk and crosswalks for pedestrians, bicycle lanes for cyclists, connections to greenways, and bus stops. Developers receive priority treatment should they choose to include optional amenities such as showers and bicycle parking. Employers also participate in Chapel Hill’s TDM program. They receive incentives for committing to provide employees with information about alternative transportation, allowing employees flex time for bus travel, and encouraging employees to take alternative travel through reward programs.</p>	<p>Then, TDM coordinator to follow-through and monitor the program.</p>	
<p>Wake Forest should consider a multi-pronged TDM approach. First, Wake Forest should consider making an over-arching town-wide commitment to TDM – either through a Town Council resolution, ordinance, or a staff policy. Next, Wake Forest should establish development requirements that encourage alternative transportation. At the same time, the Town should identify a TDM coordinator who would be responsible for promoting the Town’s TDM commitment both internally within Town staff and externally to employers and employees in Wake Forest. The coordinator would develop programs to reach out to employers and educate them about the importance of TDM, its benefits, and potential TDM related activities. The coordinator would encourage employers to establish their own TDM programs, and coordinate school-based efforts. Since Wake Forest currently does not have its own transit system, the TDM coordinator should also reach out to TT and CATS to encourage regional transit connections.</p>		

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6.3 Ancillary Facilities

Ancillary facilities are improvements which, while not aimed at a specific street or route, are nonetheless highly important in enhancing the safety and ease of bicycling. The following tables illustrate town-wide ancillary projects and programs that can improve bicycling conditions without significant capital expense.

Program Action: Develop a Local Bike Route System	
<p>Purpose: Formalize bicycle routes inside Wake Forest to preserve accessible routes for cyclists of all skill levels.</p>	<p>Responsible Parties: Wake Forest Planning and Town Staff.</p>
<p>Activities: The local routes program would be a system of signed routes throughout town, especially in neighborhoods. These routes are respected by Town, NCDOT, and developers. Whenever a road is upgraded, the bicycle-friendly nature of the road must be preserved. Maps could be distributed, which highlight these routes, along with destinations and locations of bicycle parking racks.</p>	

Program Action: Bicycle Parking Installation Program	
<p>Purpose: Provide bicycle parking at major public and private destinations in Wake Forest.</p>	<p>Responsible Parties: Wake Forest Planning and Town Staff.</p>
<p>Action: Install bicycle parking at major public and private destinations in Wake Forest. The Town should identify key locations for these racks. Parking racks encourage bicycle riding by providing a secure location for cyclists to leave their bikes when riding to a destination:</p> <ul style="list-style-type: none"> ◆ Parks ◆ Shopping areas (including Retail Drive Shopping Area, and near Stucchi's ice cream) ◆ Churches ◆ Downtown ◆ Schools / Seminary ◆ Libraries ◆ At trail heads ◆ In parking areas ◆ At public gathering places 	

Program Action: Bicycle Facilities Map	
<p>Purpose: Identify bike facilities throughout town (e.g. bike parking) so that cyclists know which destinations and routes are bicycle-friendly.</p>	<p>Responsible Parties: Wake Forest Planning and Town Staff.</p>
<p>Action: Prepare map of bike facilities. Distribute maps at locations such as: Town Hall, planning building, police department, real estate offices, downtown shops and restaurants.</p>	

Program Action: Downtown Green Streets Program	
Purpose: Create a series of bicycle-friendly “green streets” through downtown as a starter project for bicycle improvements in Town.	Responsible Parties: Wake Forest Planning and Town Staff.
Action: Construct a small network of striped bike lanes and intersection improvements within the downtown area as a ‘proof of concept’ project for on-street bikeways recommended in this Plan. This loop could serve as a connecting element within the proposed perimeter greenway.	

Program Action: Bicycle Facilities Maintenance Program	
Purpose: Develop a consistent maintenance program to clear debris and other obstructions from designated bicycle facilities.	Responsible Parties: Wake Forest Public Works Department.
Action: Coordinate with NCDOT to establish a regular maintenance schedule for bicycle facilities on City and State roadways. It is recommended that the Town meet with their NCDOT Division Engineers to discuss a maintenance schedule that includes resurfacing priority for major bike corridors, sweeping of future bike lanes, repainting key trail crossing facilities at intersections and other pavement marking maintenance.	

CONCEPT: CHANGING POLICES

Making **Policy Recommendations** in the Wake Forest Bicycle Plan is not a one-step process. After the Bicycle Plan is adopted (or, later, amended), the policy recommendations shown here should still undergo a detailed examination in comparison to each recommendation’s context.

For example, a change to the Wake Forest Subdivision Ordinance to require bicycle parking at all new public (town) facilities would have to (A) look at **where** in the Subdivision Ordinance the language would be most appropriate; (B) develop **specific language** that describes the requirements; (C) undergo a **public review and hearing process** to accept comments and modifications; and (D) be **reviewed by the Town Planning Board and Town Council** to ensure that the proposed changes are in keeping with the direction that the Town leaders envision. At each step of the way, specific changes may be made to keep the recommendation in step with other policy directions, goals, and strategies that the Town has adopted.

6.4 Policy Recommendations

To make Wake Forest a truly bicycle-friendly community, the following are recommendations which build upon existing policies and also additional policies which should be established through the normal policy development and hearing procedures already in place. Policies can affect the Town’s budget, the construction of public facilities, and private and public development requirements. The following policy recommendations address each one of these areas.

Development-related Policies

- 1. Establish policy to require bicycle facilities and their impacts to be included in Traffic Impact Analyses for new private development.** Currently, the Town’s Manual provides extensive guidelines for conducting Traffic Impact Analysis which address methods for assessing traffic generation, trip distribution, existing conditions, planned improvements, and even pedestrian facilities, but not bicycle facilities. The Town should establish a policy to require mapping of bicycle facilities, including bicycle lanes, paved multi-use paths, and greenways, to be included with each Traffic Impact Analysis. In addition, bicycle facilities should be considered as a mitigation approach for potential vehicle traffic generated by developments.
- 2. Establish school zones around all schools.** Currently, there are elementary, middle, and high schools in Wake Forest which

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have limited to no bicycle and pedestrian access. The Town should establish an ordinance which creates school zones around existing schools. Within these school zones, roads should be made bicycle- and pedestrian-friendly through reduced speeds, the addition of warning signs for bicyclists and pedestrians, construction of sidewalk and bicycle lanes, access to greenways, pedestrian- and bicycle-responsive signals, and bicycle parking. In addition, the Town should create a policy which requires provisions for bicycle access at all new schools. These policies, in coordination with an organized Safe Routes to School effort, should make schools in Wake Forest safer for students, parents, teachers, and staff.

3. **Strengthen Greenway Ordinance Requirements.** Currently, developers pay a Parks and Recreation Fee, which funds both parks and greenway construction. Developers are also required to reserve land for greenway construction based on the planned future greenway locations indicated in the Town's *Open Space and Greenway Plan (2002)*. These policies can be strengthened in a variety of ways, which are listed below. These recommendations are made in order of increasingly dramatic changes to the current policies:
 - a. Current Parks and Recreation fees should be divided into a specific percentage for greenway construction and a specific percentage for parks construction. The Town should maintain an accounting approach which tracks the amount of money designated for greenways and the money designated for parks.
 - b. Require developers to build greenways rather than to simply reserve land, and to make a payment-in-lieu separate from the Parks and Recreation fee when construction is not feasible on the developer's site.
 - c. Require developers to identify existing or proposed greenways and construct connections to them, just as they would identify and construct connections to existing roads. These adjacent connections should be identified clearly on mapping submitted for site, subdivision, and zoning reviews (e.g., vicinity mapping on first sheet).
4. **Develop a Greenways Maintenance and Safety Policy.** Currently, greenway facilities constructed by neighborhoods must seek permission from the Wake Forest Parks and Recreation Department in order to join with the municipal system. In addition, connecting to the municipal system does not guarantee maintenance and security responsibilities are transferred from the neighborhood to the Town. In order to encourage neighborhoods and developers to construct greenways, this policy should be changed to guarantee the transfer of maintenance and security responsibilities to the Town. At the same time, to compensate for this, the neighborhood or developer should be required to make a "connection fee". This "connection fee" could either be



Consultant Glenn Harbeck leads the Community Plan Steering Committee through an exercise.

source: Town of Wake Forest

considered as part of the Parks and Recreation Fee, or could be a separate fee.

5. **Create More Opportunities for Mixed-Use and Compatible Development Types in Town.** Wake Forest continues to grow and develop at a rapid pace, based in part on nearby employment opportunities in Raleigh and Research Triangle Park, but also based in part on its "small-town atmosphere." In North Carolina, small towns have land uses that aren't separated by great distances; are very well-connected by many local, surface streets; and are considered holistically as development occurred for schools, retail/shopping, homes, and business uses. All of this translates into a great environment for bicycling and walking. The following are specific ideas to encourage smart growth in Town policies:
 - a. Be an important participant in the Triangle J Council of Governments Smart Growth Committee (www.tjcog.dst.nc.us/regplan/smrtgrou.shtml#), Raleigh's current smart-growth symposium series, and other regional efforts at making the Region more livable through planning, design and policy changes.
 - b. Encourage fast-track reviews of mixed-use developments that adhere to high design standards. This may require a higher degree of administrative review – and trust by elected officials – in staff. In turn, this recommendation implies more frequent, non-project-specific communication with Town staff to ensure that the policy directions are calibrated with the ideas of elected officials and the public.
 - c. Ensure that community planning efforts like the Community Plan currently underway includes mixed-use and bicycling considerations.
 - d. Work with developers, not against them. Too often, private development interests end up opposed to neo-traditional, smart growth, or sustainable growth initiatives. Including commercial and residential developers can significantly improve the implementation chances later in the process.
 - e. Build from and protect the downtown. The historic downtown of Wake Forest should be protected from bicycle un-friendly recommendations designed to increase automobile traffic speeds and throughput. The downtown should be viewed not as a static place frozen in a certain period of time, but rather as a great learning laboratory for how low-speed, people- and business-friendly development can work elsewhere.

Design-related Policies

1. **Advance facility recommendations as funding becomes available.** Currently, Wake Forest relies on wide outside lanes/shared lanes in a few locations (e.g., parts of South Main Street) as its primary bicycle facility type. Interim wide outside lanes (WOL) and shared lanes should be replaced by

dedicated bicycle lanes in situations where they are safe and feasible as local funding and implementation opportunities are presented through private development actions.

2. **Require striped bicycle lanes and appropriate signage along collector and thoroughfare streets.** Encouraging more and safer bicycle use is dependent on the exposure and recognition that cycling receives. Signage and street markings can be useful in raising awareness of bicycling, if placed in moderation to avoid sign clutter and using good design practices such as avoiding thermoplastic stenciling that become slippery after a rainfall. Bicycle signs should be posted along all bicycle facilities indicated in the Bicycle Plan.
3. **Use the design section of the Bicycle Plan as the primary guidance for determining bicycle facility types along streets and upgrade roads as maintenance or construction is planned, and use the AASHTO guidance on bicycle facility development (www.sccrtc.org/bikes/AASHTO_1999_BikeBook.pdf) and North Carolina Bicycle Facilities Planning and Design Guidelines (1994), as necessary, to supplement the guidance contained in the Bicycle Plan.** Currently, Wake Forest has bicycle facilities selected for only certain roads. All roads in Wake Forest excepting interstates should accommodate cyclists and pedestrians. In keeping with this philosophy, the Town should use the guidelines set forth in this Plan to determine the appropriate bicycle facility for every road in the Town. One important aspect of this recommendation given the Town's current development status is to adopt a street design policy that requires 14' outside lanes on new collector streets (in addition to sidewalks). When work is scheduled for any road in Town – from maintenance to new construction – the guidance in the Plan should be consulted to determine the appropriate bicycle facilities which should be added with this work. Other guidance from the American Association of State Highway and Transportation Officials (AASHTO) and the North Carolina Department of Transportation (NCDOT) is acceptable for unique situations not addressed in the Plan.
4. **Require intersections to have bicycle-sensitive signals as part of development requirements and public works engineering standards.** None of the signals in the Town of Wake Forest are currently sensitive to cyclists. This results in circumstances in which cyclists who obey traffic laws must remain stopped at red lights until a vehicle large enough to trigger the signal arrives. Obviously, this sort of wait can be a hindrance to bicycle travel. Wake Forest should require all new signals, and any signal upgrades, to be set so that they are sensitive to cyclists.
5. **Require all new public facilities and private, non-residential and multi-family developments to have bike parking and bicycle access.** Wake Forest has instated requirements for new private development to have bicycle parking, and public facilities should be held to the same standard since they are

CONCEPT: TRAFFIC CALMING

Traffic Calming began in the 1960's in European communities that were fed up with cars speeding through residential areas. In response, they developed a practice called "living streets" (woonerven), and, later, "slow streets." In America, the practice of traffic calming has had to fit alongside a commitment to safe and efficient car travel, even on neighborhood streets. Typical traffic calming devices need to be installed under a consistent, thoughtful policy; accepted in advance by a clear majority of the neighbors; do no harm to adjacent, neighborhood streets; and provide safe passageway for all users of the road after the traffic calming device or program is installed.

The Institute of Transportation Engineers (ITE) has developed guidance in an attempt to standardize treatments and policies, thus gaining more acceptance with rank-and-file engineers across the country (www.ite.org/traffic/tcstate.htm). However, the practice can still be controversial, expensive, and not always as effective as your neighbors might like. Other resources include:

www.trafficcalming.org/index.html

www.pps.org/info/placemakingtools/casesforplaces/livememtraffic

www.vtpi.org/tm/tm4.htm

frequently popular leisure destinations. Public and private facilities should also be required to provide bicycle access through bicycle lanes and direct connections to greenways from parking areas.

6. **Create and Adopt a Policy on Traffic Calming.** The concept of traffic calming in neighborhoods has gained momentum in many communities in North Carolina (e.g., Raleigh and Cary both have progressive programs in place). Reducing vehicular speeds, truck traffic, and "cut-through" traffic reinforces the street hierarchy and balance between mobility (on thoroughfares) and accessibility (on local streets). The design and location of traffic calming measures is as crucial as the specific measure(s) that are selected to address problems: poorly designed or located bulb-outs, speed humps, chicanes, and diverters can force bicyclists into unsafe behaviors at a point in the street where drivers are also negotiating the traffic calming device and their attention to other users of the roadway may be diverted. A number of excellent resources exist for the development of such a policy (see text box).
7. **Require bicycle accommodations on all new bridge projects.** In order ensure safe bicycle passage on bridges and overpasses, the Town should require sufficient widths and bicycle-safe railing on all bridge replacement projects, and consider installation of bicycle-safe railing on bridges exhibiting high bike traffic.
8. **Incorporate bicycle accommodations into resurfacing and maintenance projects.** Incorporating bicycle accommodations into current construction or maintenance projects is often the most cost-effective implementation strategy. The Town may be able to coordinate resurfacings for priority bicycle routes with the NCDOT annual resurfacing program. The Town should communicate regularly with the NCDOT Division 5 Office regarding their resurfacing plans, specifically regarding opportunities for cost-sharing in order to provide additional shoulder width and/or lane restriping to provide for bike accommodations.

Budget-Related Policy

1. **Create an annual budget for bicycle-related improvements.** Currently, bicycle-related improvements are made as ancillary construction to a larger project, such as a new private development or a road widening. There are too many necessary bicycle improvements for the Town to wait for these sorts of mechanisms to construct the needed bicycle facilities. To address the lack of financing, the Town should create an annual budget item to conduct bicycle-related improvements in order to speed the process of making the Town more bicycle-friendly; raise the awareness of bicycling as an alternative to the private auto for short and casual trip-making; and to make bicycling a safe and fun way to travel.

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