

Town of Pittsboro

# Land Use Plan



Adopted October 22, 2012



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## Acknowledgements

*The Town of Pittsboro expresses its appreciation to the many people, agencies and organizations that provided information, ideas, and input for this plan.*

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## Guide to the Plan

The purpose of the land use plan is to depict the kind of place Pittsboro is expected to become, and the actions to be taken to create that place. The land use plan achieves this purpose by doing four things:

1. Setting out a vision for Pittsboro, and the broad goals that define the vision
2. Describing the key issues to achieve the vision and the actions recommended to address the issues
3. Mapping Pittsboro as it could be when the vision is achieved, to show how different types of places can be knit together to form a cohesive community
4. Identifying the specific tasks, schedule and lead actors for each recommended action

### Plan Outline

The plan begins with a description of the process used to create the plan, showing how Pittsboro's people were engaged to define the vision and goals, identify the most important issues to address and provide guidance on each key issue.

The plan then outlines the conditions and trends in Pittsboro that influence future growth.

Informed by these conditions and trends, the plan then addresses each of the key issues identified through the public workshop and focus groups, culminating in recommended actions for each issue.

Finally, the plan summarizes all of the actions, and the tasks, timeline and lead responsible parties for each action.

### How to use the Plan

Just like a plan for building a house, a land use plan only sets the framework for a lot of hard work to follow. The plan doesn't establish the standards for development, finance the infrastructure to support development or provide the detailed designs for new community facilities. But a good plan does provide the common focus for these and other place-making activities. It should clearly articulate the kinds of development standards the Town wants to pursue through changes in development ordinances. It should define the nature and scope of the infrastructure to be addressed through the Town's Capital Improvement Program. It should provide a firm foundation for more detailed functional plans for such things as parks, greenways, roads and schools. And just like in building a house, as the detailed work proceeds, changing conditions or unanticipated problems may lead the Town to want to make changes to the land use plan through a deliberate process that engages the public.

The plan should provide a common understanding for homeowners, renters, business owners and developers to know what is important to maintain, what is anticipated to change and what might be expected from them as Pittsboro seeks to meet the challenges and opportunities of the next several years.

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## Section 1 - Introduction

The past decade saw the Town of Pittsboro grow in a manner that was a departure from traditional patterns that defined the Town for over a century—a small town on a grid of neighborhood streets anchored by the county courthouse and downtown merchants.

In order to foster growth that respects the compact, walkable commercial center of Pittsboro, the Town Board authorized a planning process that would involve citizens, developers, and the business community. This process would examine the pressures involved and seek consensus on how to achieve balanced growth and a vision for the future.

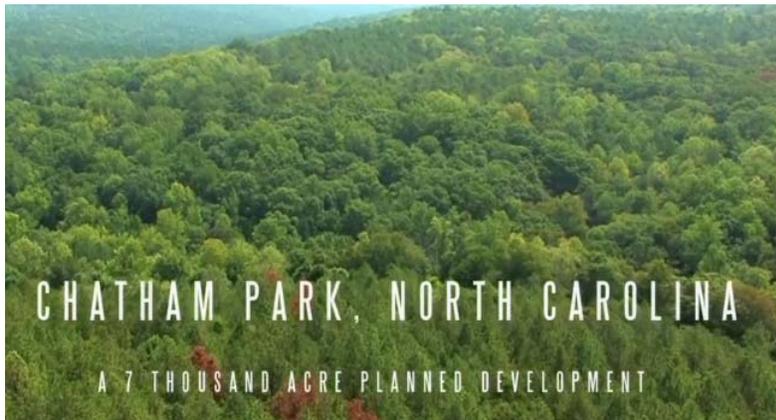
The chapters that follow are a result of this process and try to capture this consensus about how new development can shape itself to better fit the community.

Pittsboro is preparing for major change. The Town is close to large employment centers such as Research Triangle Park (RTP), UNC Hospitals, Durham, Cary, and Wake County. Because areas of open, inexpensive land in adjacent counties and towns are disappearing, Chatham County and Pittsboro have the potential to be developed on a different scale and pace than previously experienced.



Hillsboro Street in Downtown Pittsboro

Improvements to the transportation infrastructure have also played a part, the widening of US 15-501 and US 64 in particular. The completion of the Triangle Expressway will occur in 2012. This will be the area's first toll road and will enhance mobility and access to Pittsboro and eastern Chatham County. As shown in the Travel Times Map, Chapel Hill, Apex, Sanford, Siler City, and parts of Cary are currently within a 30 minute drive of Pittsboro.



Raleigh, RTP, and Durham are currently within 45 minutes of Pittsboro, but travel times to RTP and Durham should improve with the completion of the toll road.

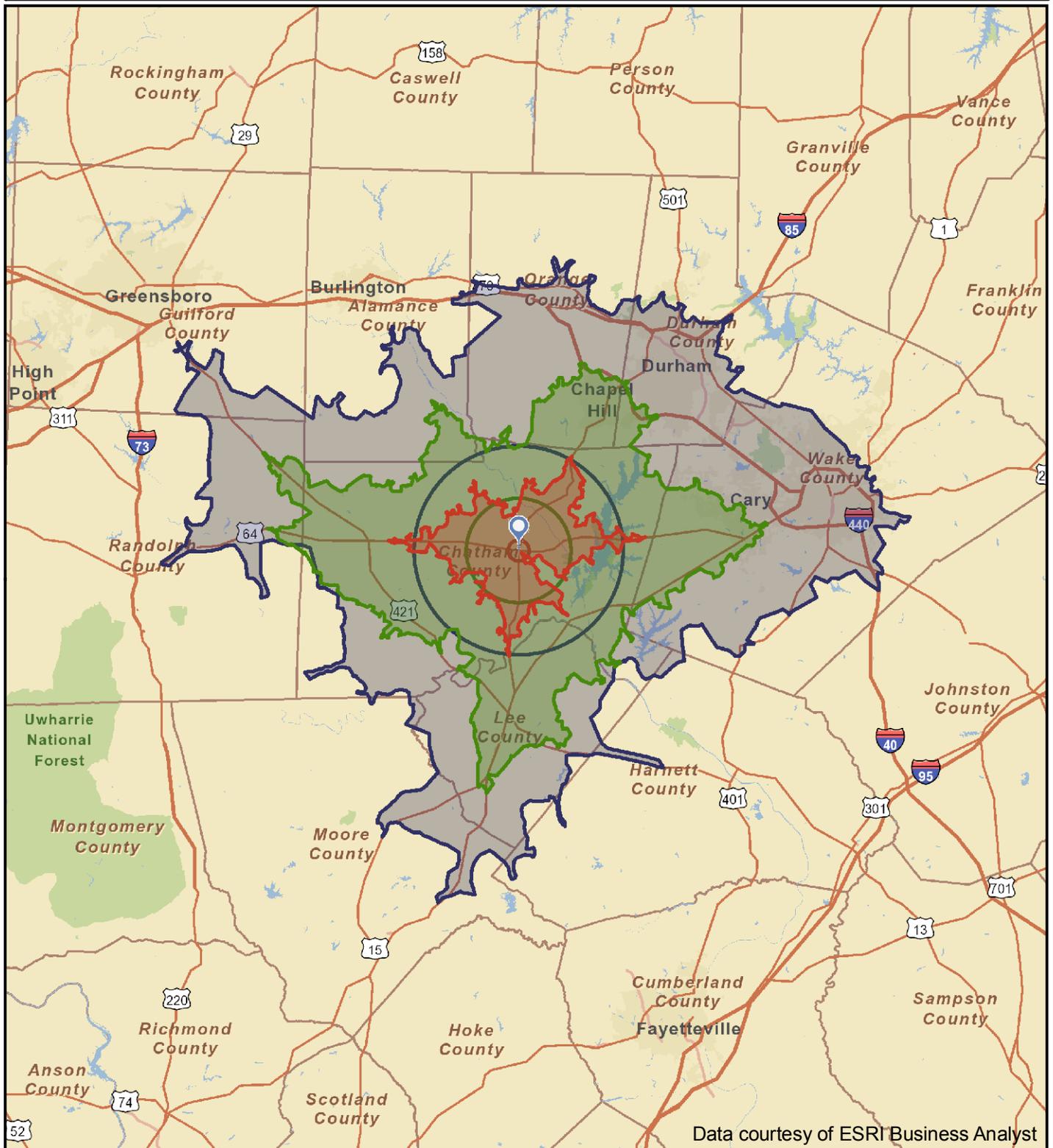
*Residential and commercial developers have taken an interest in Pittsboro, due in part to its proximity to RTP.*



- 15 Minute Drive
- 30 Minute Drive
- 45 Minute Drive

# PITTSBORO, NC Land Use Plan

## Map 1: Travel Times



Data courtesy of ESRI Business Analyst

Short commutes to both the Triangle and Triad regions help make Pittsboro an attractive place to live.

**PUT MAP 2 REGIONAL CONTEXT HERE 11X17**

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## Section 2 – Process

### 2.1 Beginnings

In January of 2007, the board-appointed Plan Advisory Committee met with Planners from the Triangle J Council of Governments to receive information about current trends and conditions about growth, the environment, and the planning process. The Committee and the Town planning staff worked with Triangle J to create a planning process that would give all facets of the community a chance to express their concerns, based on grassroots input from citizens.

### 2.2 Public Workshop

After two additional meetings to define the process, a 3 day public workshop took place on March 29-31, 2007, at the Central Carolina Community College.

The participants became citizen planners as they learned about growth pressures, evaluated examples of good and bad places around town, and surveyed the town for pedestrian friendly areas. This was reinforced by physically visiting sites the following day on foot. This generated an understanding about challenges to getting people out of their cars and how good design is important to make places where we feel safe to walk.



The workshop culminated with presentations on the results of the visual preferences survey and the walkability audits. These were followed by an exercise to decide what the spectrum of land use intensity for Pittsboro is now and might become in the future; then this spectrum of intensities was put into practice by drawing where the intensity changes should be on two maps—one at a more detailed scale around the city limits and one covering a larger area. Groups at the two maps began drawing areas that were suited for a range of land uses and densities, ranging from preservation areas to areas appropriate for a downtown level of development. The two maps were merged with some creative cartography after the meeting and posted on the internet for scrutiny.



### 2.3 Focus Groups

The map also became the center of discussion for three focus groups that met to give additional viewpoints that may not have been present at the public meeting. The Plan Advisory Committee based these groups around topics that were the result of a brainstorming process. They tended to be made up of technical or staff level stakeholders or in the case of the development group, large landholders. In addition to a "development"

focus group, there was an infrastructure focus group that looked at how growth would affect public and private utilities, roads, police and fire protection, staffing, and parks and recreation.

The third group, an environmental focus group, was made up of local conservationists and other advocacy group representatives, and a state wildlife biologist. Issues centered on stream and water quality protection, wildlife habitat, and open space preservation.

Each of these groups evaluated the prototype map generated by the public and made comments or changes based on their viewpoint of how the Town might best accommodate growth. The different scenarios were then given to the Advisory Committee for initial review and comment before reconvening the public in early summer. At this session consensus about the final configuration of the map was worked out and comments on the initial policies received. The draft map and design guidelines were brought before the public in the fall of 2008.

Though much of the early process was devoted to land use, the rest of the process looked at many other functions of the town, and these are detailed in Section 5, "Key Issues." There were two preparatory Advisory Committee meetings and a public session in February of 2009 to go over the key issues facing the Town.

### ***2.4 Parallel Efforts***

While the development of the plan was under way, there were a number of other issues being addressed that would dovetail into the land use plan. These included a joint parks and recreation study with Chatham County, a similar joint effort on affordable housing, and a pedestrian plan. The Town was also waiting to hear back from the state Department of Environmental and Natural Resources about wastewater discharge—a key component for any future growth assumptions. On June 2, 2011, the Town's NPDES Permit for a 3.2 MGD wastewater treatment plant (WWTP) was approved. The Town is now pursuing a plan that would result in putting this new WWTP on-line in 2017.

### ***2.5 Adoption***

The LUP Advisory Committee gave the final review of the draft plan on August 6, 2009 and forwarded it to the Planning Board. An extensive review period was then undertaken by the Planning Board.

### ***2.6 Future Action***

Given that the assumptions developed in this plan are based on estimated future conditions, this Plan recommends that there be a formal "plan amendment process." This will increase the longevity and usability of this document, and provide a way to react to the actual conditions as they may differ from our assumptions about growth and change.

The Actions in Section 6 detail the steps recommended to achieve goals and address issues identified in the Plan.

## Section 3 – Goals & Vision

The goals formulate the vision for the Town. This community vision, established through the public process described in the previous section and vetted throughout the plan's process, is that:

*"Pittsboro is a community striving for sustainability through a mixture of economic and commercial, industrial, civic and residential development where existing buildings are adapted for new uses, old neighborhoods remain viable with a mix of housing affordability and where natural resources, including sensitive lands and water are protected and conserved.*

*Pittsboro will have interconnected transportation systems that promote safe access for vehicles, pedestrians, and bicycle and transit mobility to reduce congestion. Open spaces for greenways, parks and beautification will make Pittsboro an attractive and healthy community. New development will be consistent with Pittsboro's rural heritage ensuring protection of environment while enhancing the quality of life for all citizens.*

Achieving this vision will require a concentrated effort to maintain those amenities and pleasures associated with a small town in a rural setting, while growth resulting from the close association with neighboring urban and exurban communities directly impacts the quality of life in the Town of Pittsboro. The Town's ability to manage these pressures will determine the future land use patterns and the physical pattern and layout of the Town.

This plan is guided by a few basic concepts that are listed below. These "goals" represent the desired result of the policies and actions presented in the plan. The goals outline a strategic design, and can be considered a basis for future decision making.

### ***Transportation Goal***

Plan ahead for growth by promoting practices that enhance economic development and advance short commute times, provide for good circulation, and provide transportation choices. The pattern of land use should support alternative modes of transportation.

### ***Water Goal***

Bridge the gap between future need and current ability to deliver clean, reliable water.

### ***Sewer Goal***

Build facilities that will meet future sewer capacity and environmental protection needs.

### ***Regionalism Goal***

Promote regional cooperation in water, sewer, transportation, and other issues.

### ***Recreation and Open Space Goal***

Create and preserve green infrastructure as the town grows to promote healthy, active lifestyles, and balance the impact of the built environment.

### ***Economic Development Goal***

Create local jobs that promote the economy in all facets, (commercial, industrial, civic and governmental development) and build on the existing competitive advantages of the community. Expand the employment base. Growth and development should also occur in a manner that is fiscally sound.

### ***Conservation Goal***

Find ways to make conservation cost effective in the short term and the long term. Existing and future negative impacts on the environment should be reduced.

### ***Housing Goal***

Create a mix of housing types and balance the mix of housing types to provide housing opportunities for all members of the community regardless of age, income, or background.

### ***Education Goal***

Advocate for cooperation between the Town, Chatham County, and Chatham County School to best accommodate growth.

### ***Character Goal***

Preserve the character of the Town as we grow. Maintain Pittsboro's community character and enhance quality of life. Protect existing neighborhoods.

### ***Downtown Goal***

Protect, preserve and enhance the character of the Downtown.

***Arts Goal*** – The Town should strive to provide a positive environment for the promotion, awareness, and an appreciation of the arts as a part of Pittsboro's cultural heritage and as a downtown and economic development strategy.



### ***Sustainability Goal***

The Town should develop in a way that meets the needs of the present population without compromising the ability of future generations to meet their own needs.

### ***Public Facilities Goal***

The Town will plan to provide adequate public facilities to support the functions of general municipal government.

## Section 4 – Physical & Social Conditions

### 4.1 Geography

The Pittsboro planning jurisdiction is comprised of two areas, the incorporated area and the extra-territorial jurisdiction (ETJ). The incorporated area is roughly 11½ square miles and includes the satellite area around Christian Village, a full service retirement community. The ETJ area is just under 32 square miles, for a total planning jurisdiction of 43.325 square miles.

*Existing conditions and the history of the Town can provide a starting point to articulate policies and guide future investments.*

Pittsboro is in the east central part of Chatham County in the Piedmont physical province in central North Carolina. It is characterized by rolling topography with occasional steep slopes cut by erosion along streams.

Both the Haw River and manmade Jordan Lake border the Town's extra-territorial jurisdiction to the northeast and east, respectively. Robeson Creek runs roughly west to east through the town before flowing into the Haw River Arm of Jordan Lake. Along with its tributary, Turkey Creek, it drains nearly all of the Pittsboro planning area except some parts in the northeast that drain directly to the Haw and an area to the west that drains to the Rocky River.

### History

Chatham County was created in 1771 under British rule<sup>1</sup>. Shortly afterward, the County courthouse was constructed about ½ mile south of the existing courthouse on the farm of Mial Scurlock. This location was selected because it was central to the County and near a high yield spring of excellent quality. On January 6, 1787, the North Carolina Legislature authorized the purchase of the Town of Pittsborough by naming Town Commissioners who purchased 100 acres north of Robeson Creek and laid out 125 half acre lots



*Chatham's second courthouse used as a garage in the 1920's*

<sup>1</sup> Chatham County 1771 – 1971 , Wade Hadley, Doris Goerch Horton, Nell Craig Strowd,

within two blocks of the Courthouse Square. The town was named for William Pitt, the son of the Earl of Chatham. Many remaining homes and other buildings including The Methodist Church (1833), St. Bartholomew's Episcopal Church, the Presbyterian Church (1851), and Columbus Lodge (1838) were constructed before 1855.

Early roads serving Pittsboro linked the Town to Hillsborough, Fayetteville, Raleigh and Salisbury. A railroad to Moncure was finished in 1886. This railroad is no longer active. In addition to the County Government, Pittsboro served the needs of the agricultural area nearby. Manufacturing operations also located in Pittsboro including a harness, tobacco and spinning factory and timber mills prior to 1900. Textiles were important in Pittsboro during the twentieth century as well as poultry processing.



## 4.2 Demographics

According to the North Carolina State Data Center, there are now 3,764 people within the Town Limits of Pittsboro (July 2010<sup>2</sup>). The 2010 Census shows there are 1,480 occupied households in Pittsboro. In 2000, there were 2,226 people and 855 households. This represents a 69% increase in population and a 73% increase in the number of households in the last ten years.

The 2010 Census found that 72% of the town's residents identified themselves as white, 20% identified themselves as black or African-American, and 8% identified themselves as some other race or a combination of races. Additionally, 9% of the town's population identified itself as Hispanic or Latino.

In 2010, there were 460 households in the Town of Pittsboro with children under the age of 18 (31% of households). There were 774 town residents under the age of 18 (21% of the population). There were 739 residents aged 65 or older (20% of the population). The percentage of the population aged 65 or older in Pittsboro is significantly higher than the statewide percentage of 13%.

The American Community Survey<sup>3</sup> shows that 18% of individuals and 20% of families in the Town of Pittsboro are below poverty level, compared to 15% of individuals and 11% of families statewide. Among children under the age of 18, 29% live in poverty, and among

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<sup>2</sup> The State Data Center provides a population estimate for July 1 of each year. The 2010 Census found the April 1, 2010 population of Pittsboro to be 3,743.

<sup>3</sup> The American Community Survey (ACS) is an ongoing survey conducted by the U.S. Census Bureau. It replaces the former "long form" census questionnaire, which is no longer used. The ACS collects sample data over a period of years. The data presented here represent average data for a five-year period from 2005-2009.

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## Section 5: Key Issues

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people age 65 and older, 18% live in poverty in the town. The town's median household income (in 2009 dollars) was \$40,056, compared to the statewide median of \$45,069. The town's per capita income was \$22,213.

According to the American Community Survey, 86% of Pittsboro residents have lived in their current house for more than one year. Of those who have moved in the last year, 23% moved from another location within the Town of Pittsboro, 28% moved to Pittsboro from somewhere else within Chatham County outside the town limits, 32% moved to Pittsboro from elsewhere in North Carolina outside Chatham County, and 17% moved to Pittsboro from another state.

The American Community Survey also shows that 5% of town residents speak a language other than English at home and speak English less than "very well."

Table 1: Figures from 2010 Census

	<b>Town of Pittsboro</b>	<b>State of North Carolina</b>
Percentage of households with children under age 18	31%	33%
Percentage of population under age 18	21%	24%
Percentage of population age 65 or older	20%	13%
Percentage of population identified as white (alone)	72%	68%
Percentage of population identified as black (alone)	20%	21%
Percentage of population identified as other race or multiple races	8%	10%
Percentage of population identified as Hispanic or Latino (of any race)	9%	8%

Table 2: Figures from 2005-2009 American Community Survey

	<b>Town of Pittsboro</b>	<b>State of North Carolina</b>
Percentage of population in poverty	18%	15%
Percentage of families in poverty	20%	11%
Percentage of children under age 18 in poverty	29%	
Percentage of people age 65 or older in poverty	18%	
Median household income (2009 dollars)	\$40,056	\$45,069
Per capita income (2009 dollars)	\$22,213	\$24,547
Percentage of population speaking English less than "very well"	5%	5%
Percentage of households living in same house one year ago	86%	83%

### **4.3 Growth and Change**

Pittsboro has been the administrative center for Chatham County and the market center for the surrounding area since 1785. Recent growth has served to change the Town's rural character as many new residents commute to jobs outside the county.

Pittsboro's market area, which includes much of eastern Chatham County, has seen significant change in the last decade, particularly along the US 15-501 corridor. Overall growth in the county has been predominantly in the east and was roughly 28 percent in 2005 to 2006 reporting period. The economic recession that began in 2007 has significantly slowed growth since then.

The Town had 3,821 new residential units permitted for current and future development as of July 30, 2007. Large scale developments have been attracted to the area around the US 64 / 15-501 interchange.

*The planning jurisdiction for Pittsboro includes the 11½ square miles in the town plus just under 32 square miles of ETJ.*

The town got its first "big box" retailer with the opening of a Lowe's home improvement store at the interchange of 15-501 and US 64 Bypass. There were several major rezonings in the past decade. These would include properties owned by Chatham Park investors, and the mostly commercial Pittsboro Place with 1.3 million square feet of office and retail space. However reduced market demand has interfered to put those development plans on hold. During the calendar year 2010, 26 residential building permits were issued and 26 commercial building permits were issued, within the planning jurisdiction of Pittsboro.

### Population Projections

A number of methodologies were used to project future population. The four scenarios detailed below were examined to produce the final population projection as summarized in the chart that follows. A similar analysis was completed for the Environmental Impact Statement prepared for the Wastewater Treatment Plant. Hobbs, Upchurch, & Associates, PA January, 2010. The results were complementary.

#### Scenario #1 – Linear Extrapolated US Census data:

From US Census data: 2000 Pittsboro population was 2226, and the 2010 population was 3743.

- If a line is calculated using these two points, the resulting 2060 population would be 11,300 people.
- Using Census data prior to 2004 to predict even 2010 population would have grossly underestimated today's population and water demand. This small prediction most likely underestimates as well.

#### Scenario #2 - Chatham County School Board Study:

In March 2007 a Land Use Study conducted by the Operations Research and Education Laboratory Institute for Transportation Research and Education at NC State reported that more than 11,944 new homes were expected to be built in Pittsboro and the ETJ by 2020. This growth study was done for the Chatham County School System to assist with the planning and construction of new schools.

- Using 11,944 homes x 2.34 people/home = 27,892 additional people.

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## Section 5: Key Issues

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- Calculating the line between 2010 and 2020 using this additional population, and then extrapolating this line out to 2060 produces an estimated population of 142,935 people.

### Scenario #3 – Known Sewer Permits:

Assume the growth rate can be estimated from known sewer permits, approved plats, and build out of the Chapel Ridge subdivision. Assume that all existing sewer permits will result in a dwelling within 10 years. Use these two points to calculate a line that is then extrapolated to 2060.

- The number of existing sewer permits issued for residential units (245) multiplied by the average household size of 2.34 = 573 people.
- The number of residential homes with sewer allotments, 430 units multiplied by 2.34 people/unit = 1006 people
- Complete build out of the Chapel Ridge community, 1975 units x 2.34 = 4621 people.
- Assuming all three of these conditions are met within 10 years, the result is an additional 6200 people by 2020.
- Linear regression of this data predicts the 2060 population to be 34,195 people.

### Scenario #4 – Exponential Extrapolated US Census data:

From US Census data: 2000 Pittsboro population was 2226, and the 2010 population was 3743.

- If an exponential growth rate is assumed, the curve that is calculated using these two points, results in a 2060 population of 50,300 people.
- Using Census data from 1990 and 2000, 1436 & 2226 people respectively, and an exponential growth rate would predict a 2010 population of 3448 people.

Table 3: Population Projections

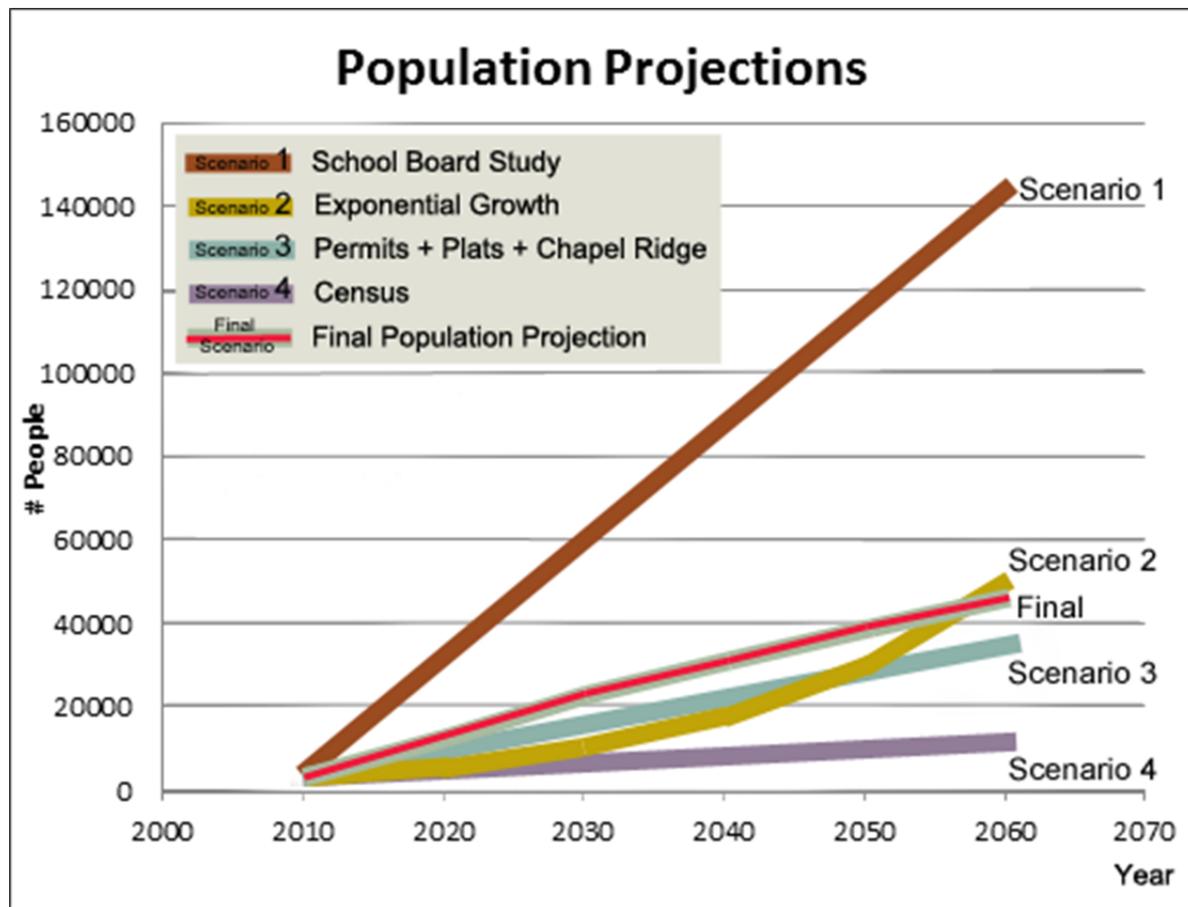
	2010	2020	2030	2040	2050	2060
Scenario#1	3,743	5,300	6,800	8,300	9,800	11,300
Scenario#2	3,743	31,600	59,400	87,200	115,000	142,800
Scenario#3	3,743	9,900	16,100	22,300	28,500	34,700
Scenario#4	3,743	6,300	10,600	17,800	29,900	50,300
Demand Projection	3,743	12,940	23,240	31,100	39,000	46,900

Using these population projections as a cross check, the estimated 2060 population that would result from the final water demand projection (calculated based on a land development analysis) would fall below the population predicted by the School Board Study, slightly above the projection based on existing permits for homes, and just about where an exponential growth rate would predict.

Figure 6: Population projections for scenarios considered<sup>4</sup>

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<sup>4</sup> Source: Population projections excerpter from 50 Year Water Demand Projections, Memo prepared by Hydrostructures, P.A. July, 2011



## 4.4 Land Use

### Existing Land Use

Pittsboro is historically a compact Town that developed primarily on the north side of Robeson Creek. Development on the south side of Robeson Creek is newer, generally dating from after World War II. Since 1980, new business and institutional (Post Office) uses have developed in a linear pattern along business US 64 east of the County Courthouse. New residential neighborhoods have been developed in recent years. Both business and residential development in Pittsboro is more intense in the vicinity of major roads: US 15-501 and US 64.

Commercial lands include the downtown, shopping centers on US 64 business east of the courthouse and scattered commercial properties along US 15-501 and US 64 business. Industry is located in the industrial park on the east side of Town. Institutional land uses include Chatham County offices, Central Carolina Community College, schools, churches, and Pittsboro Town properties. Churches in Pittsboro are located in a neighborhood context rather than on prominent downtown sites.

<b>Table 4 Existing Land Use</b>	
<b>Classification</b>	<b>Acres</b>
Dedicated Open Space	22.6
Town Park	100.8
Mobile Home Park	120.4
Commercial	421.6
Industrial	489.6
Agricultural	1,115.40
Institutional	1,983.20
Rural Residential	2,296.40
Forestry	3,995.30
Residential	5,080.70
Undeveloped	10,496.50
<b>TOTAL*</b>	<b>26,122.40</b>

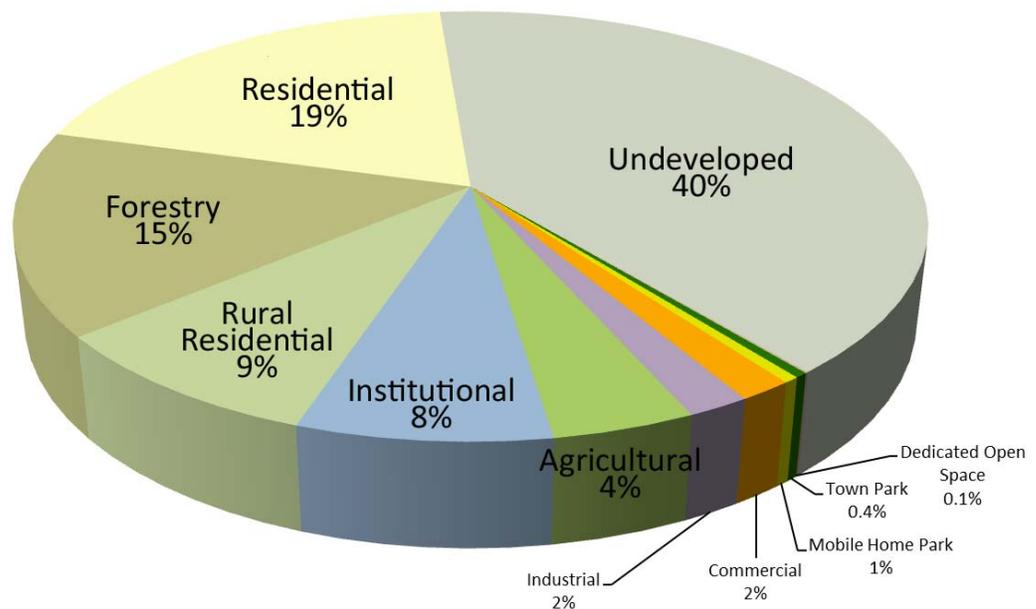
\*exclude right of ways, includes ponds

Pittsboro’s Extraterritorial Jurisdiction extends approximately three miles from the municipal limits to the Haw River on the east and the intersection of US 64 bypass with US 64 business to the west. Much of this area is rural and undeveloped. Homes are located on established State Roads, in established rural communities including Hanks Chapel and Mitchells Chapel, and in a few new scattered neighborhoods. Jordan Lake access areas and conservation (hunting) areas abut the Lake south of US 64. Some of the undeveloped lands have poor soils for agriculture and building sites and/or do not have access to a public road. A number of parcels in Pittsboro’s ETJ are large, in excess of 100 acres.

The map on the following page provides an overview of the existing land uses within the Town of Pittsboro planning jurisdiction. They were determined using Chatham County parcel data, tax, building records, and address point data, as well as Pittsboro’s current zoning files.

zoning files.

Properties over twenty acres with a residence were considered rural residential. Large rural properties without a residence or commercial use were considered undeveloped. Properties with over three mobile homes were identified as mobile home parks; large properties with only a few mobile homes were filtered out. Parcels were designated agricultural or forestry if they received tax benefits for such designations. With few exceptions, agricultural lands for tax purposes are over ten acres in size. Dedicated open space refers primarily to common areas within private developments.



Section 5.11 discusses the future land use patterns envisioned for the Town.

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## Section 5 – Key Issues

The ingredients that make a town successful are varied and complex. Some, like parks or water and wastewater systems or safe and pleasant streets, involve significant public involvement. Others, like homes for a variety of people or stores that serve people's needs, are largely provided by the private sector. Some land use plans attempt to address all the elements of a community. This one does not. It instead focuses on the most important strategic issues that were identified through the extensive public process described in Section 2. What makes an issue strategic? To be included in this land use plan, an issue had to pass four tests:

- It had to concern the *physical development* of the town: how land is developed, how resources are conserved, how infrastructure to support development is provided.
- It had to be *consequential* enough to influence how future growth in the Town might occur. That is, choosing one approach to the issue versus an alternative approach could affect the direction of the Town.
- It had to be an issue over which *the Town has decision-making authority or significant influence*. That is, action taken by the Town Board could have meaningful impact.
- It had to be an issue on which the variety of stakeholders engaged in the planning process reached general agreement on a proposed direction, and on which *the Town is willing to devote time and resources* towards pursuing that direction.

This section addresses 11 strategic issues that met all these tests:

1. Transportation
2. Water Supply and Wastewater Treatment
3. Water Quality and Stormwater Management
4. Downtown
5. Community Design: Building and Streetscape Form
6. Historic Character
7. Parks and Greenways
8. Community Facilities and Operations
9. Housing
10. Economic Development and Employment
11. The Future Development Pattern

A good plan – a plan that is used – allows for additions and modifications over time. As the Town moves forward, additional elements can be added as conditions change or new opportunities or challenges arise. One of the recommendations in this plan is that the Town establish a formal process that re-engages the stakeholders on a periodic basis to review these key issues and modify them as warranted.

## 5.1 Transportation



*Transportation is a critical element of any community. There is a strong connection between the availability and quality of transportation infrastructure and the land use/development patterns in the Town of Pittsboro. Pittsboro is blessed with high-quality highway connections with its surrounding communities, but as the Town grows it will be important to not only maintain those connections, but also continue to improve the local street network, the bicycle and pedestrian facility network, and the transit system in Pittsboro, to ensure that the gateways into Town develop in an attractive and functional way, and to maintain balance between land development and transportation infrastructure.*

### **Streets and Highways**

Streets serve as the circulatory system of a town, allowing citizens, visitors, and through-travelers to reach various destinations. When examining the role that streets and highways play within the community, it is often helpful to split them into different categories based on the primary purpose of the roadway—for example, a freeway (such as the US 64 Bypass) is primarily intended to move through-traffic at high speeds, whereas a local street (such as a neighborhood street) is primarily intended to provide low-speed access to individual homes and businesses. This section focuses on three primary issues related to streets and highways: the Comprehensive Transportation Plan, which focuses on improvements to the major streets and highways in town; the issue of connectivity, which is important on minor and neighborhood streets; and the concept of roundabouts.

### **Comprehensive Transportation Plan, Highway Element**

The Comprehensive Transportation Plan looks at arterial roadway connections around the Town and focuses on major connections. It does not show all connections that should be made as development occurs. Connectivity on a local level, within and between individual subdivisions, should be addressed through the town's development regulations.

On October 25, 2010 the Board of Commissioners adopted a resolution confirming the need for a Town of Pittsboro Comprehensive Transportation Plan (CTP) Study and formalizing the relationship between the Town and NCDOT in the preparation of the CTP. This resolution also created the Pittsboro CTP Steering Committee charged with reaching a consensus on

the final plan and recommending a final plan to the Town of Pittsboro Board of Commissioners. The CTP for the Town of Pittsboro is intended to serve as a long-range planning document that will assist the local government and the NCDOT in making transportation investment decisions for the next 25-30 years.

In addition to the six working group sessions of the CTP Steering Committee from November 4, 2010 to May 10, 2011, two public input sessions were facilitated by Wilbur Smith Associates under contract with the North Carolina Department of Transportation; one on January 6, 2011 and one on May 31, 2011. The Board of Commissioners received an initial briefing from Wilbur Smith Associates on December 13, 2010 and a follow up report on June 13, 2011. During these steering committee meetings and public input sessions, nineteen different plans, Alternatives "A" through "S", were considered. Alternative "S" was the final recommendation of the CTP Steering Committee and this is reflected in the adopted plan. The plan was adopted by the Town of Pittsboro on August 22, 2011; by Chatham County on September 19, 2011; and by the North Carolina Department of Transportation on November 3, 2011.

Some key features of the recommended CTP include:

- A proposed US 15-501 Bypass on the west side of Pittsboro – this would be classified as an expressway and would have interchanges at US 15-501 south of Pittsboro, NC 902 southwest of Pittsboro, and US 64 west of Pittsboro;
- An extensive set of east-west and north-south arterial streets on the east side of Pittsboro – these would create a grid of major streets to serve future growth on the east side of town, and would include a new interchange on the US 64 Bypass to connect with one of the north-south routes

### ***An Overview of Potential Methods for Improving Traffic Flow***

- *Increasing connectivity of neighborhood, collector, and arterial streets*
- *Mixing land uses, which allows more trips to be bicycle or pedestrian trips and promotes "trip-chaining"*
- *Improving bicycle and pedestrian infrastructure (sidewalks, bicycle lanes, greenways, etc.)*
- *Promoting transit use, both through service improvements and transit-supportive development patterns*
- *Promotion of travel demand management programs, such as teleworking, vanpooling, and ridesharing*
- *Improving operations of existing roadways, through intersection and signal improvements, roundabouts, medians, and access management*
- *Widening existing roads or building new roads*

It is important to note that the CTP recommends projects that should be built over the next 30 years as the needs for these improvements arise. Neither the US 15-501 Bypass nor the new arterials on the east side of Pittsboro are included in NCDOT's current 2012-2018 Statewide Transportation Improvement Program (STIP), meaning that funding has not yet been allocated for the construction of these projects.

The recommended roadway improvements are shown in the Transportation Facilities Map later in this section.

### Connectivity of road network

Connectivity refers to the directness of links and the density of connections in a path or road network. A well-connected road or path network has many short links, numerous intersections, and minimal dead-ends or cul-de-sacs. As connectivity increases, average travel distances decrease and route options increase, allowing more direct travel between destinations and creating a more efficient and flexible system.

During the 1960s through the 1990s, roadway design practices favored a poorly-connected hierarchal network, with numerous cul-de-sacs that connect to a few major arterials. A hierarchal system increases the average amount of travel required to reach destinations, concentrates traffic onto fewer roads, and creates disincentives and barriers to non-motorized travel.

A connected road network emphasizes accessibility by accommodating more direct travel with traffic dispersed over more roads, while a hierarchal road network emphasizes mobility by accommodating higher traffic volumes and speeds on fewer roads. For a particular development or neighborhood, connectivity applies both internally (streets within that area) and externally (connections with arterials and other neighborhoods).

Sometimes, different levels of connectivity are intentionally applied to different modes of transportation. For example, some urban road networks create more direct connections for walking, cycling and public transit than for private automobiles. A “fused grid” street design uses public squares or pathways at the end of cul-de-sac streets to provide pedestrian and cycling connections between streets while not allowing these to carry vehicle through-traffic. This helps improve community livability and encourage non-motorized transportation.

Natural barriers such as rivers, highways and major arterials sometimes create barriers to direct local travel, particularly for non-motorized travel, called the barrier effect or severance. Various design strategies can help improve connectivity across such barriers, including special bridges, decking over major roadways, and creating “pedways”, which are walking networks within major commercial centers that connect buildings and transportation terminals.

#### **Roundabouts**

*Roundabouts are a special type of intersection, in which all traffic flows around a central circular island. Roundabouts improve intersection safety by reducing the number of traffic conflicts (since all movements are right turns in and out of the circle) and reducing speed, which reduces the severity of crashes.*

*Roundabouts can also improve traffic flow in certain situations, as compared to a traditional traffic signal or 4-way stop.*

*Roundabouts are becoming increasingly common in North Carolina, and one was recently constructed near the Chatham County Library in Pittsboro.*

Street connectivity ordinances are a tool that could be used to increase the connectivity of streets both within and between neighborhoods. There is a growing trend of cities enacting connectivity requirements, which is reflective of the following recent trends in planning and land development:

- The desire to routinely accommodate the bicycle and pedestrian transportation modes in transportation plans and funding programs
- Recognition that a hierarchal street system can reinforce problems related to single-use zoning, such as neighborhood isolation and inaccessibility
- Mainstream rise in use of traditional town planning principles in development (e.g. New Urbanism)
- Recognition of the connection between neighborhood design and health/physical activity
- The desire to “tame” automobile traffic and encourage alternative modes of transportation

### Alternative Transportation Modes

#### Walking

Creating walkable places is a cornerstone of good design. Walking promotes good health, lessens our dependency on the automobile, and reduces energy consumption and air pollution.

There are a number of puzzle pieces needed to make a truly walkable community. These include mixing land uses, building placement and building forms that do not create barriers to walking, and a network of safe, comfortable, and efficient pedestrian paths and sidewalks to get people where they want to go.

In 2008, the Town received a pedestrian planning grant from NCDOT to write a pedestrian plan. The Pittsboro Pedestrian Transportation Plan was adopted on June 26, 2009. The plan made several recommendations, including:

- Starting construction of priority pedestrian projects
- Changes to the Zoning Ordinance and Subdivision Ordinance to recognize walking and bicycling as legitimate forms of transportation
- Limiting construction of cul-de-sac streets



“Desire Line” from sidewalk to Food Lion shopping center demonstrates a need for better design and accommodation of foot and bicycle traffic



Citizen volunteers rate walkability crossing East Street at Town Hall. There are sidewalks on both sides of the street and traffic signals, but no marked crosswalk or pedestrian signals.

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## Section 5: Key Issues - Transportation

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- Mandatory dedication and development of sidewalks and greenways as part of new developments (or a fee-in-lieu)
- Continuing support of the Parks and Recreation Advisory Board
- Taking advantage of strategic opportunities to develop the pedestrian network, regardless of prioritization within the plan
- Seeking multiple funding sources for development of pedestrian facilities
- Developing educational and outreach materials about the pedestrian network, such as through the Safe Routes to School program
- Ensuring regional integration of bicycle and pedestrian planning efforts



Problem corner on Hillsboro Street; steps, railing around pedestrian signal button, crosswalk lines up with rail barrier

The recommended sidewalk and greenway improvements identified in the pedestrian plan are also addressed in Section 5.7, Parks and Recreation.

### Bicycling

Studies show that bicycle use is higher in places with higher densities to begin with—compact university towns typically have a higher incidence of bicycle use than average. Building bicycle facilities may not increase bicycle ridership if complementary land uses are not in place. Key components of this mix are compact development (as mentioned above), good connections for bike travel, and the often overlooked issue of bicycle parking availability. Availability of bicycle parking at a destination will often help drive both bicycle and transit use.

It is important to balance the need for both on-road and off-road bicycle facilities. Off-road paths that are open to cyclists but not motorists can benefit cyclists where they provide links that are more convenient than the main road network, or help cyclists avoid roadway obstacles such as major intersections or narrow bridges. However, there are also locations where on-road bicycling (either in a shared lane or in a separated bike lane) is the most appropriate solution. In designing both on-road and off-road bicycle facilities it is important to remember that bicyclists still have the right to travel on-road,



even when an off-road facility is available, and to consider the safety aspects of all locations where off-road trails and streets intersect. It is also important to note that casual recreational cyclists, experienced recreational cyclists, and those using bicycles for transportation have different sets of needs that should be considered in planning and designing facilities.

The Town of Pittsboro participated in the development of the Chatham County Bicycle Plan, which includes recommendations for the Town, adopted by the Town on October 10, 2011. The bicycle plan includes both short-term and long-term recommendations for shared roads, signed routes, bicycle lanes, and shared-use paths in and around Pittsboro, including bicycle lanes on sections of US 15-501, US 64 Business, and NC 87.

### ***Additional Bicycle Considerations***

- *Secure bike parking is noted to be one of the most important factors in people's choice to cycle. To be considered secure, the parking must allow the bicycle frame to be locked to the rack, and should be located in a readily-observable location.*
- *Where bicycling is being encouraged as an attractive alternative to driving, it may be desirable to make bicycle parking more convenient or attractive than the equivalent car parking by providing an adequate supply of visible, well-signed, and ideally covered bike parking as close as possible to destination entrances.*
- *The provision of lockers, changing rooms, and shower facilities at destinations has been proven effective in encouraging bicycling as a method of commuting to work.*
- *Bike parking at transit stops and provisions to accommodate bicycles on buses are important in encouraging trips that use both transit and bicycles to complete different segments of a trip.*

### **Transit**

The Chatham Transit Network is a non-profit agency that provides transit services in Chatham County. It has a combination of regular routes and on-demand services. Regular service to Chapel Hill is also provided. Chatham Transit operates two fixed routes - the PX Route and the 64 Route - that provide regular weekday service between Siler City, Pittsboro and Chapel Hill. A passenger can go from Siler City to work at Chatham Crossing in Northeast Chatham or to a medical appointment in Chapel Hill, and know the schedule for pick up and return via the stops. Chatham Transit also operates the In-County Service, which is a reservation service that provides curb-to-curb rides from any location in Chatham County to any location in Chatham County.

On demand services for Pittsboro are available with same-day service during regular business hours (Monday-Friday from 8:00 AM to 5:00 PM). Advance reservations are needed at other times.

The Chatham Transit Network made approximately 70,000 passenger trips, logging over 400,000 miles, in 2007.

In February of 2009, the four counties in the Triangle Area RPO (including Chatham) developed a Human Service Public Transportation Coordination Plan. The regular Siler City to Pittsboro Bus Route was the number one priority, and was implemented soon after the plan was finished. Improved evening service for second shift workers was also a priority. Bus stop amenities were also added. Recognition of the land use-transportation connection also came up in the form of putting assisted living centers close to bus stops.

### **Complete Streets**

Complete Streets is a nationwide concept defined as “streets that are safe, comfortable, and convenient for travel for everyone, regardless of age or ability—motorists, pedestrians, bicyclists, and public transportation riders (National Complete Streets Coalition).” The North Carolina Department of Transportation has adopted a Complete Streets policy—this policy requires that NCDOT’s planners and designers will consider and incorporate multimodal alternatives in the design and improvement of all appropriate transportation projects within a growth area of a town or city unless exceptional circumstances exist. Routine maintenance projects may be excluded from this requirement if an appropriate source of funding is not available ([www.nccompletestreets.org](http://www.nccompletestreets.org)).

The Town of Pittsboro should consider adopting a policy similar to the NCDOT policy, for use on town-controlled streets, requiring that appropriate multimodal facilities (such as sidewalks, bicycle lanes, or transit stops) be incorporated in any projects to construct new roads or improve existing roads in the Town, including any roads constructed by developers that will be transferred to the Town’s or NCDOT’s control in the future.

### **Transportation Gateways**

Gateways are important features because they make a first impression on newcomers and visitors. They demarcate the transition from the rural fields and forests to the markets and residences of the town, giving a person the “sense of arrival.” They present special land use planning challenges for a number of reasons, both aesthetic and functional.

During public meetings in the Spring of 2006, the NCSU School of Design looked at gateways to the Town. The Advisory Committee and the public also were asked to review the list of areas, and six were identified as gateways.

### **Gateway Appearance**

Since perception is a large part of that “sense of arrival,” appearance from the street (where most people are forming their first impressions) is the key to a good plan. Creating a sense of place through architecture and design is the key.

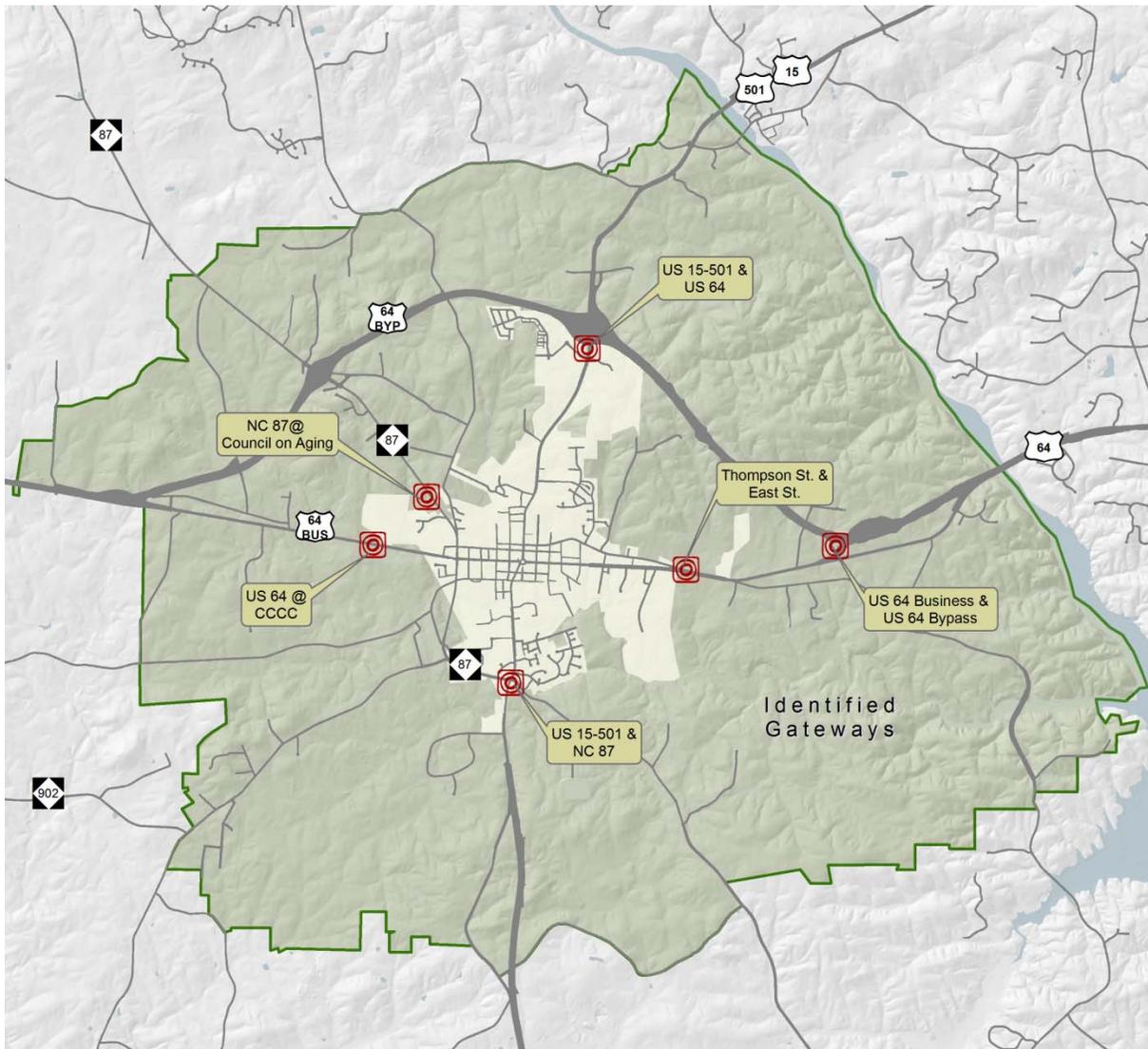
- The topography of the area should be accounted for in building design and site layout, so that travelers on the main road won’t find themselves staring down at the rooftop air conditioning units of a flat-roofed strip center.

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## Section 5: Key Issues - Transportation

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- Signs perform numerous functions, and two in particular are important in the gateway: the welcoming sign indicating the sense of place, and the numerous commercial signs that call out the goods and services available.
- The placement and design of welcome signs can be unified throughout town or unique to each gateway. Usually these are on town-owned property or right-of-way. As gateways begin to see development pressure, the town should have some sort of small area planning process to address the specific issues of each area for these signs.
- The regulation of commercial signs is done through the zoning regulations. Gateways can be given the same regulations as the rest of the town, or in some cases they can have an overlay with additional requirements. These can deal with the size, height, type, lighting, or number of signs.



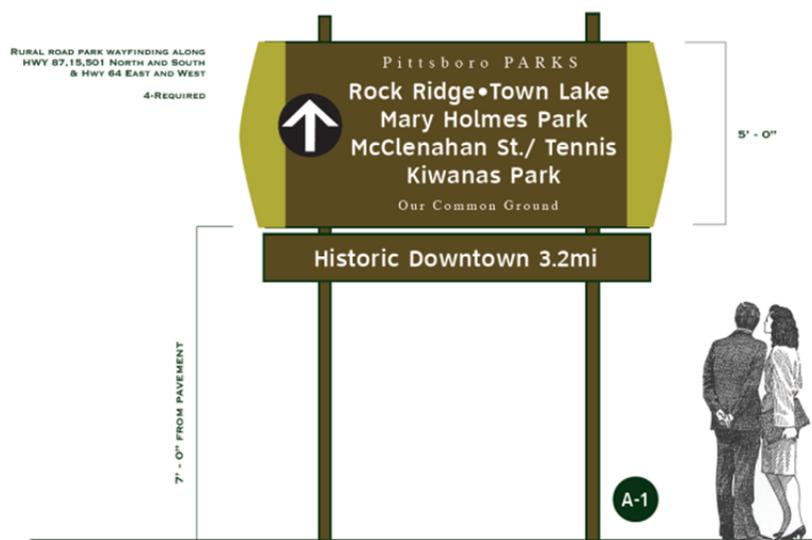
### Gateway Functionality

One issue that is especially difficult to address in gateway areas is the integration of motor vehicles and pedestrians, because the gateways represent where the pedestrian-scale fabric of the town gives way to the rural periphery. The gateways also represent the location where people arrive by car as they approach Pittsboro, making them attractive locations for retail and service businesses to



locate due to the high visibility and vehicle accessibility. In some cases, this commercial growth at gateways can be beneficial, since it reduces the burden on the transportation and parking systems in the downtown area; however, it can also lead downtown businesses to move outward, preferring the access and plentiful parking available in the gateway areas.

In gateway areas, it is important to ensure that the development process creates cohesive places that successfully accommodate vehicle movement, parking, and pedestrian access and circulation. One potential way to achieve this is to develop gateway areas with buildings that are close to the street and encourage pedestrian access to buildings. Another way to achieve this balance is to include residential uses within the development that occurs in gateway areas—by putting residents (customers) in close proximity to commercial services, it is possible to reduce traffic, encourage walking and biking, and share parking between different types of uses (such as shared parking for offices and residences, which utilize parking spaces at different times of day).



### **Connection between Transportation and Land Use**

There is a complex relationship between transportation and land use that can be generally summarized by the following principles:

- Available transportation capacity influences where development can reasonably occur;
- New transportation capacity (such as through a highway widening, construction of a new road, addition of a new bus route, or construction of a rail system) influences shifts in areas of development/growth;
- New transportation capacity also influences changes in underlying travel patterns;
- Changes in land use (new development, redevelopment, and closure/abandonment) have an impact on traffic patterns and volumes throughout the community, not just nearby;
- There is a correlation between higher-density land uses and higher transit usage (higher-density development is more likely to support transit service, and high-quality transit service is more likely to attract high-density development); and
- There are strategies for designing specific development sites in a way that is conducive to walking and bicycling.

The following development features are all ways of measuring or promoting a healthy, resilient transportation system in the development process:

- Density – number of residents or employees per unit of area;
- Regional accessibility – a site’s location relative to the region’s urban center(s) and the number of jobs and services available within a given distance or travel time;
- Centeredness – degree to which commercial and public activities are located in downtowns and other activity centers;
- Land Use Mix – degree to which residential, commercial, and institutional land uses are located close to each other;
- Connectivity – degree to which roads and paths are connected and allow direct travel between destinations;
- Roadway design – scale and design of streets, and how various purposes and users are accommodated; could include “traffic calming” features intended to reduce traffic speeds and cut-through traffic;
- Walking and Cycling conditions – quality of walking and cycling conditions
- Transit accessibility – degree to which destinations are accessible by quality public transit;
- Parking management – number of parking spaces per building or acre; management strategies include pricing and regulations;
- Transportation demand management – various strategies and programs to encourage more efficient travel patterns, such as ridesharing, vanpooling, transit promotion, and teleworking.

## **Implementation Tools**

The following are measures and tools that could aid in the implementation of the transportation system for the Town of Pittsboro.

### **Streets and Highways**

The Statewide Transportation Improvement Program (STIP) is the primary tool for programming funding for transportation projects in North Carolina. As discussed earlier, the STIP is a seven-year funding plan that outlines the projects NCDOT plans to fund using federal and state funding sources. Projects are submitted for consideration in the STIP through the Rural Planning Organization process. It is imperative that the Town work with the Triangle Area RPO to ensure that its planned roadway projects receive funding in the STIP.

Powell Bill funds are a local portion of gasoline tax receipts. These dollars can be used for maintaining, repairing, constructing, reconstructing or widening of local streets that are the responsibility of the Town or for planning, construction, and maintenance of bikeways or sidewalks along public streets and highways.

For new developments, it is important to ensure that the town's desires regarding street connectivity, bicycle and pedestrian facilities, consistency with the Comprehensive Transportation Plan, and other issues are adequately reflected in the Town's Subdivision Ordinance or Unified Development Ordinance. The Town should work with developers to ensure that these policies are reflected in built developments.

The Comprehensive Transportation Plan provides a framework for envisioning the Town's future major roadway network, preserving roadway corridors, working with developers to build portions of the roadway network as appropriate, and requesting project funding from NCDOT.

### **Alternative Transportation Modes**

Public transit plays an important role in a balanced transportation system. The Town should work with Chatham Transit Network and other regional transportation providers (such as Chapel Hill Transit and Triangle Transit) to ensure the continued availability of transit service in the Town, as well as to make improvements to service availability and frequency and the quality of transit infrastructure.

It will be important for the Town to work with NCDOT and the Triangle Area RPO to identify and pursue funding for bicycle, pedestrian, and transit projects. Potential funding sources include the NCDOT Bicycle and Pedestrian Division's construction funds, the Transportation Enhancement program, and the Congestion Mitigation and Air Quality (CMAQ) program, as well as various non-DOT grant programs.

As noted above, it is important for the Town to codify policies requiring the provision of sidewalks and adequate bicycle facilities in new developments, as part of a Complete Streets policy, within its Subdivision Ordinance or Unified Development Ordinance.

## Gateways

Gateway Plans or Corridor Plans are essentially small area plans that are focused on the land use-transportation interactions. The focus on a particular area allows the unique features of each area to be addressed and for the specific stakeholders to be more involved in the process.

Gateway Zoning is usually done as an overlay zoning district that has more restrictive standards than the underlying zoning would have by itself. These restrictions often apply to signs—type, number, size, and especially height are often regulated more heavily in the gateway zoning district to protect the viewsheds from the road and announce that you have arrived in town in an aesthetically pleasing way. Driveway cuts and left turns may also have longer separation distances than elsewhere to mitigate traffic volumes and flows with more dense development. Other requirements, like restrictions on lighting, increased landscaping or screening of equipment for viewshed protection are also common. *The Town has a Major Transportation Corridor Overlay District intended to deal with appearance and access of developments on the thoroughfares coming in to town.*

Gateways have many of the same issues a downtown has, often without the benefit of an advocacy group or other coordinating body. There are not parking or fragmented ownership issues to the same degree as a downtown, but this is often offset by issues related to higher traffic volumes and speeds. Creating a forum for discussion and ideas for each gateway, through a working group of appropriate stakeholders is one way to deal with problems.

In addition, there are viewshed and design issues that are different from a downtown. If there are regulatory restrictions on signs to protect the viewshed, the regulating body might consider holding design workshops every few years as part of the discussion. This will help merchants understand the reason for the regulation, and help the regulations mature and make sure they are doing what was intended.

Because the gateways are all on state-maintained roads, coordination with NCDOT is very important. NCDOT may help with gateway announcement signs, provide right-of-way for the signs, and work out maintenance agreements for the signs and landscaping.

Many of the gateway roads are also part of the statewide strategic highway network, and as such, NCDOT will seek to preserve traffic flow at relatively high volumes. Local governments can help by limiting access and development directly on these roads. It can be an issue for non-motorized forms of transportation, and just as local governments can contribute to the health of the road by limiting development, NCDOT can make sure they are creating “complete streets” in these gateway areas.

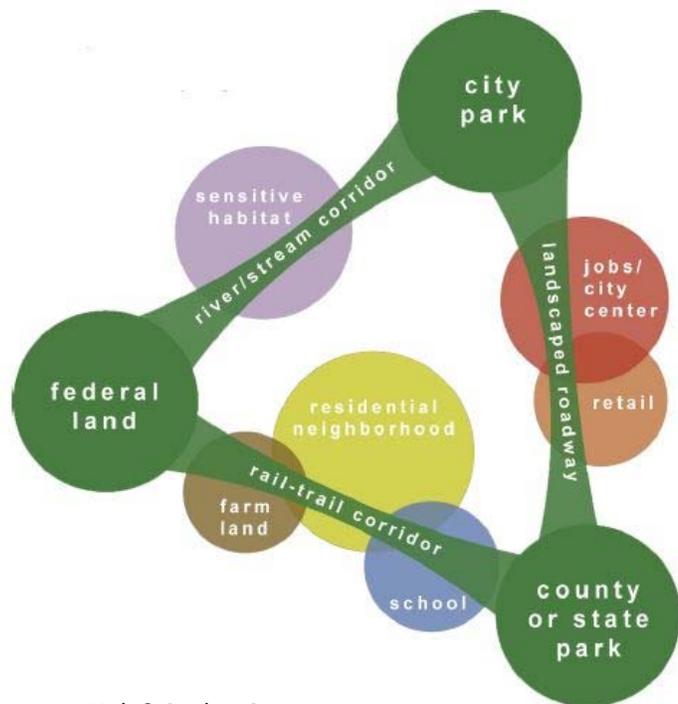


**Primary Reference Documents - Transportation**

- *Pittsboro Comprehensive Transportation Plan, Highway Element (adopted by Town 8/22/2011 and adopted by NCDOT 11/3/2011)*
- *Durham-Chapel Hill-Carrboro Metropolitan Planning Organization 2035 Long Range Transportation Plan (2040 update currently underway)*
- *Chatham County Comprehensive Transportation Plan (currently underway)*
- *NCDOT Statewide Transportation Improvement Program (STIP)*
- *NCDOT Statewide Long Range Transportation Plan (update currently underway)*
- *Town of Pittsboro Pedestrian Plan (adopted by Town 6/29/2009)*
- *Chatham County Bicycle Plan (adopted by Town 10/10/2011)*
- *NCDOT US 64/NC 49 Corridor Study "Land Use Policy Guidelines for Mobility Protection," 2005*
- *Special Transit Advisory Committee to the Capital Area MPO and Durham-Chapel Hill-Carrboro MPO "Regional Transit Vision Plan," 2008*
- *North Carolina Bicycle Facilities Planning and Design Guidelines*
- *General Statutes 159-48b23 (bond money for public transportation facilities); 159-48d5 (bond money for sidewalks, streets, lighting, etc.); and 159-48b12 (bond money for parking facilities, meters, etc.)*



*Bike lane striping*



*Hub & Spokes Greenway Model from the Pittsboro Pedestrian Plan of 2009*

Insert Map 4 Highways Here 11x17

Back of Map 4 Highways 11x17

## 5.2 Wastewater Treatment and Water Supply



*Water-related infrastructure is vital to the growth and development of any community. In Pittsboro, the most visible key issue related to water and sewer infrastructure is the insufficient capacity of the current wastewater treatment plant to accommodate future growth. Other key issues to consider include the capacity of the water treatment facility, availability of water supply sources, water conservation and efficiency, drought management, and the potential for utility partnerships.*

### Wastewater treatment capacity

The current wastewater treatment plant (WWTP) is permitted for .75 Million Gallons per Day (MGD) of treated wastewater discharge into Roberson Creek. The Town operates a conventional collection and treatment sewer system consisting of gravity collectors, sewer pump stations and force mains, and an extended aeration wastewater treatment plant under NPDES permit numbers NC0020354 (treatment) and WQCS00146 (collection). The treatment permit also anticipates construction of a 3.22 MGD WWTP, with .750 discharge into Roberson Creek and 2.47 discharge to the Haw River.



The Town of Pittsboro wastewater treatment plant is located centrally to the collection system off of Small Street Extension. Wastewater treatment infrastructure includes manual and mechanical bar screens, diffused aeration basins, clarifiers, high-rate sand filters, sludge thickeners, aerobic sludge digestion, UV disinfection, effluent flow measurement, cascade post-aeration, and a 500,000 equalization basin.

The wastewater treatment plant discharges treated effluent into Roberson Creek, which is classified as WS-IV Nutrient Sensitive (NSW) waters and which is also on the 303(d) Impaired Waters List.

The wastewater treatment plant capacity is 0.75 mgd. The average daily flow through the wastewater treatment plant is approximately 0.395 mgd. As of 2011, allocated and permitted flows account for 0.258 mgd. Three separate capital project have significantly improved the capability of the Wastewater Treatment Plant to accept additional flow since 2010. In April 2010, construction was completed on the 3M Reuse Water System. This

system allows the Town to pump reclaimed water to the 3M Plant south of Pittsboro. Since the beginning of operations, 3-M has been taking about 115,000 gallons per day of reuse water. In September 2010, construction was completed on the addition of a 500,000 gallon equalization basin that allows the plant to divert and hold peak flows during rain storm events. This capability also allows the use of more than 750,000 gallon per day of our permitted capacity without risking overwhelming the plant during sever rain storms. Finally, the Credle Street Phase III & IV Inflow and Infiltration Reduction Project was completed in July of 2011. Average daily flows through the plant have dropped by about 70,000 gallons per day since the completion of this project thereby increasing our ability to take on new wastewater customers.

The Town of Pittsboro is also permitted to discharge 2.47 mgd to the Haw River at the Highway 64 Bridge. Discharging to this location will require construction of a new wastewater treatment plant capable of treating wastewater to reclaimed water standards.

The sewer collection system consists of gravity collection mains, interceptors and trunk mains and sewer pump stations. The system contains approximately 737 manholes and approximately 29 miles of gravity sewer mains, primarily smaller-diameter sewers. A detailed inventory of pipe sizes and materials is maintained in the Town’s Geographic Information System (GIS).

The major existing outfalls are as follows:

- The Roberson Creek Outfall runs generally east-west along Roberson Creek, receiving flow from the east and west. All flow reaching the plant necessarily passes through the Roberson Creek Outfall.
- The Masonic Street Outfall runs north-south along or adjacent to Masonic Street, extending from Chatham Mill to the Roberson Creek Outfall.
- The Credle Basin Outfall runs north-south through the west side of downtown, extending from Powell Place to the Roberson Creek Outfall. This outfall has previously been demonstrated to be reaching capacity as Powell Place approaches build-out.

The collection system includes six (6) sewer pump stations, a low number relative to other collection systems of this size.

Pump Location	Capacity (gpm)	Capacity (gpd)
Northwood High School	50	28,800
Autism Center (CLLC)	200	115,200
Powell Place	695	400,320
Lowe’s	310	178,560
Pittsboro Christian Village	50	28,800
Townsend’s	80	46,080

The Town of Pittsboro has been pursuing inflow and infiltration (I/I) reduction efforts dating to 2001. The Town collection system is significantly impacted by inflow and infiltration. The Town has conducted sewer system rehabilitation on approximately 40% of the collection system, significantly reducing I/I but a great deal of rehabilitation work still remains.

### **3.22 MGD Wastewater Treatment Plant Construction**

The Town has received a permit for a new 3.22 million gallon per day (MGD) wastewater treatment plant. The environmental impact statement for the project is complete. The NPDES permit modification and renewal was approved on June 2, 2011.

Preliminary estimates suggest that the total project cost could be on the order of \$37,000,000. Funding sources are still being considered but could include a form of a revenue bond backed by letters of credit from participating developers. Debt service payments would be covered by access fees and capital recovery fees paid by development over time.

### **Water Supply**

The Town of Pittsboro operates a public water supply system under Public Water Supply ID No. 03-19-015. Pittsboro's water supply intake is currently located in the Haw River upstream of Jordan Lake. Source water for the system is withdrawn from the Haw River just to the west of the Highway 15/501 bridge. Pittsboro has a permit allowing the withdrawal of 9.8 million gallons per day. Water treatment is provided at the Town's 2.0 mgd water treatment plant located off of Hwy 15/501 between the Haw River and Russell Chapel Road.

Pittsboro estimates its available supply at 9.8 MGD. This estimation is based on 20% of the 7Q10 flow (measure of lowest seven-day average flow in a ten-year period) of the Haw River at the intake location. The 20% threshold is the level beyond which an environmental review would be required under the State Environmental Protection Act.



According to Pittsboro's 2010 Local Water Supply Plan (LWSP), Pittsboro's maximum daily withdrawal was 1.126 MGD. To increase the amount of treated water available beyond our permitted 2.0\_MGD, Pittsboro must expand the capacity of its existing facility, build a new facility, or obtain treated water from a neighboring system.

According to 2010 data, the system serves approximately 1,495 residential and 529 non-residential (commercial/institutional/industrial) accounts, a continually rising number. Billing records for 2010 show average daily water sales of 0.430 mgd which includes water sales to Townsends, Inc. (Townsends has since ceased operations.)

Water production data for 2010 indicate average daily raw water intake of 0.623 mgd. Compared to water sales data, this reflects a non-revenue component of 30%. Much of this

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## Section 5: Key Issues – Wastewater Treatment and Water Supply

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non-revenue component is attributed to system flushing to mitigate trihalomethane (THM) production in the distribution system.

The water treatment plant was built in the early 1960s and has undergone a variety of minor upgrades over the years. The most recent upgrade was a switch in disinfection method to chloramination to help mitigate THM production. The age of the water treatment facility is becoming problematic, resulting in increasingly frequent breakdowns, difficulty finding replacement parts and difficulty meeting increasingly stringent Public Water Supply treatment standards.

The water distribution system consists of approximately 45 miles of 16-inch through 2" mains with a preponderance of aging smaller-diameter mains, placing distinct limitations on system hydraulics. Three storage tanks combine to provide the system 1.7 million gallons of elevated water storage. A clear well at the Water Treatment Plant (WTP) provides another 400,000 gallons of finished water storage.

Component	Storage		Location
	Hydraulic Grade (ft)	Capacity (mg)	
Tank 1 (MG Tank)	567	1.0	Tank Rd.
Tank 2 (Horton Tank)	567	0.2	Middle School
Tank 3 (Chatham Forest)	679	0.5	Bellemont Ridge Rd.

There are two pressure zones within the system defined by the high water elevation of the tanks that supply the pressure zones. The 500,000 gallon Chatham Forest tank has an overflow elevation of 679' mean sea level (msl). Both the one million gallon storage tank and the 200,000 gallon Horton tank have a high water elevation of 567' mean sea level. The 567' pressure zone serves the largest portion of existing water *customers*. The 679' pressure zone serves the largest portion of land area. This area is where much of the Town's expected growth will occur, while it has the least available storage.

The finished water pump station located at the water treatment plant includes three pumps: a 50-hp (730 gpm), a 75-hp (1000 gpm), and a 150-hp (1500 gpm). The largest pump is oversized for the system but can be used occasionally (if only to exercise the pump). A second booster pump station, located near the intersection of Highway 15/501 and Dianne Street, contains a single 15 hp (365 gpm) pump that is used to fill the Horton Street tank.

Component	Flow (gpm)	TDH (ft)	Location
Pump 1	1500	330	WTP
Pump 2	1000	250	WTP
Pump 3	730	180	WTP
Pump 4	365	205	Horton Mid. Sch.

The Town of Pittsboro maintains two connections to other water systems. The Town connects to the Chatham County system near Bynum. An agreement for the sale of 0.50 mgd to the County exists but is rarely used except in emergencies. While this connection is intended for sale of water only, the connection can be configured to receive water from the County in emergency conditions. The connection cannot deliver the Town's daily water needs.

A second connection is maintained with the Chapel Ridge subdivision located northwest of Town on Old Hwy 87. The system run by *Aqua NC* purchases water from Pittsboro. The Town is responsible for delivering the water to a 40 horsepower, 450 gpm booster pump that pumps into a 0.5 mg elevated storage tank. This is a sale-only connection; Chapel Ridge has no production capability.

### Future Capacity

A run-of-river intake is subject to the natural variability of stream flow. Pittsboro's estimation of available water supply is based on a flow statistic that is determined by the lowest 7-day average flow that occurs one year in a 10-year period. In other words, we expect the flow of the Haw River to be lower than that for at least one 7-day period every 10 years. As Pittsboro's population grows and Pittsboro's maximum daily withdrawal increases, the variability of the Haw River flows may become a limitation.

Jordan Lake may be an alternative source of water supply for Pittsboro. An advantage of a reservoir for water supply is that the volume of storage essentially dampens the variability of precipitation and stream flows.

Jordan Lake was completed in 1982 by the U.S. Army Corps of Engineers. It is designated as a multipurpose reservoir: low-flow augmentation, flood control, recreation, fish and wildlife habitat and water supply. About 100 MGD is reserved for water supply. The State of North Carolina allocated the water supply to local governments. Refer to the North Carolina Administrative Code (15A NCAC 2G.0500) for specific information regarding the allocations.

In 2009 the Jordan Lake Regional Supply Partnership was created in the Triangle region to jointly plan for meeting the region's water resource needs which includes the expanded use of the water supply in Jordan Lake. The partners for the study include the Town of Apex, Town of Cary, Chatham County, City of Durham, Town of Hillsborough, Town of Holly Springs, Town of Morrisville, Orange County, OWASA, Town of Pittsboro, City of Raleigh, and Wake County.

The purpose of the Jordan Lake Regional Water Supply Plan is to aid in the planning for long-term, sustainable and reliable water supply. Plan highlights will include;

- System Interconnections
- Population Projections
- Demand Projections
- Water Supply Sources
- Water Supply Needs

### Water Conservation and Water Efficiency

Every-day water conservation holds great promise as a source of future water supply. By increasing the efficiency with which we use water, we reduce our average daily demands and thereby effectively increase our available supply or treatment capacity. The typical pattern of growth in the Triangle Region results in much greater quantities of water used for lawn irrigation, and greater quantities of water used indoors with larger homes and more bathrooms.

The Town should consider adopting a water conservation policy. Generally, this can reduce demands for treatment capacity by regulating lawn irrigation, encouraging the installation of efficient water fixtures, and providing reclaimed water for non-potable uses. The Town does utilize an Increasing Block Rate structure.

Triangle J COG has worked with a group of water utilities to develop regionally consistent water conservation measures. These recommended measures have been, or are being, implemented by Raleigh, Durham, Cary, Apex, and OWASA. Pittsboro may also want to consider adopting these water conservation recommendations.

Pittsboro could also encourage the use of cisterns as a source of water for non-potable uses. Cisterns would have the added benefit of reducing stormwater runoff volumes, serving a dual purpose as a part of Pittsboro's stormwater management efforts.

### Drought Management

Section .0607 of the rules for Water Use During Droughts requires Pittsboro to complete a water shortage response plan and submit that plan with its local water supply plan to the NC Division of Water Resources. New requirements include: 1) The designation of a staff position or organizational unit responsible for the implementation of their Water Shortage Response Plan; 2) Tiered levels of response actions to be taken to reduce water use based



Lakes around the region dropped to record low levels during the summer of 2007.

on the severity of water shortage conditions; and 3) Specific measurements of available water supply, water demand and system conditions that will be used to determine the severity of water shortage conditions and to initiate water use reduction measures and the movement between various levels.

Pittsboro should review its existing water shortage response plan to confirm whether the plan is in compliance with the new state requirements.

Triangle J COG has been working with a group of water utilities in the Triangle Region to develop a regionally consistent framework for water shortage response. A regionally consistent framework would provide a great deal of benefit in reducing the confusion created in mass media by the many different drought response provisions employed by the different Triangle communities.

## **Implementation Tools**

### **Public Investment**

Water and Sewer plant construction and maintenance are traditionally government responsibilities in North Carolina. There are a number of ways to fund improvements. One is a Capital Improvement Program. This is a plan that stretches a large cost over a number of regular budget cycles, so that the cost can be spread out over time.

Bonds are essentially a low-interest loan so that the improvement can be built without waiting. Investors are then paid back with interest. See the Key Related Documents for specific bond authority.

Grants are also a possible way to make these investments, but often require local money as a match. The Clean Water Management Trust Fund and the North Carolina Rural Economic Development Center have such programs.

The Town should support growth and fiscal policies that prioritize the use of existing infrastructure capacity over public construction of new infrastructure, including the requirement that new development either pay for the services it requires or be consciously subsidized.

### **Public/Private Partnerships and Private Systems**

North Carolina allows private, on-site wastewater treatment, often in the form of spray fields. There are a number of communities in Chatham County using this option.

The other two types of private entities are “regulated public utilities” and “certified wastewater system operators.” Private entities may be for profit or nonprofit. Each is established under general law in North Carolina. A major disadvantage of the for-profit corporations is that they are generally not eligible to receive state and federal grants directly. They may, of course, carry out public purposes under contracts with a public agency as mentioned above.

In the past, wastewater constraints have limited the number of developments and businesses. The town will need to address its sewer treatment issues. The capital cost of a new treatment facility could be assisted by development interests, and construction timetables accelerated as a result.

The Environmental Protection Agency also notes a potential role in other aspects, including operations: *One approach to consider is the use of public-private partnerships that utilize private sector resources to finance wastewater treatment needs. The private sector has historically been involved in providing wastewater treatment related services to local governments. Whether providing basic wastewater treatment supplies (e.g., chemicals), maintaining a portion of the collection or treatment system under a contract, or providing contract operation and maintenance for all of a municipality's facilities, the private sector has served an important role in the effort to control water pollution across the country<sup>5</sup>.*

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<sup>5</sup> <http://www.epa.gov/OWM/cwfinance/privatization.htm>

## Public Policy

Drought Regulations can take a number of forms, both from the state and from local governments. Local governments can pass local drought-related conservation measures that are triggered by the official declaration or some official measurement of drought severity. These often include restrictions on outdoor watering and car washing at the low priority levels, but can escalate to restrict commercial activity dependent on water, such as pressure washing, or even residential personal use, such as laundering and bathing in extreme drought situations.

Local governments must have a Water Shortage Response Plan, or they are subject to state rules. The State of North Carolina has a number of rules about water use and certain mechanisms to trigger additional action from local governments.

Regionalization is a way to get an “economy of scale” to reduce the overall cost of providing water and sewer. For smaller systems, it also can mean a large enough system to pay a qualified operator for a wastewater plant. One drawback is that some local control is ceded to the larger entity. In terms of deciding what option might be best, there are 10 options in North Carolina (11 if private systems are included). They differ in how bonds and financing vehicles can be used, whether there is any kind of land use control exercised, and if there are other services that must also be provided. They are<sup>6</sup>:

- City
- County
- Intergovernmental contract
- Joint management agency
- County service district
- County water and sewer district
- Specially Created Governmental Units
- Sanitary district
- Water and sewer authority
- Metropolitan water or sewer district

There are discussions going on around both the sewer system and a possible intake for western Jordan Lake that are potential partnership opportunities for the Town.

## Sustainability and Conservation

Sustainability and Conservation can be promoted both at home and in the public realm. People can install water saving devices in their homes and businesses, and the local governments can promote conservation by offering subsidies to upgrade existing appliances to those that conserve water and energy. NCDENR released the *Recommendations for Water Efficiency Standards for Water Using Fixtures in Residential and Commercial Buildings*, and this is a good guide.

The Town enacted tiered rate structures that charge more per gallon when more water is used. An additional tool the Town could use is a water shortage surcharge, which kicks in

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<sup>6</sup> [http://www.bae.ncsu.edu/programs/extension/publicat/wqwm/aq439\\_11.html](http://www.bae.ncsu.edu/programs/extension/publicat/wqwm/aq439_11.html)

when there is a drought and can help preserve revenues and increase conservation in times of water scarcity.

Investigating the feasibility of wastewater re-use is another step local governments can take to conserve drinking water. The re-use water can be used in place of potable water for many industrial process uses and most irrigation needs. There is additional benefit in that the re-use water does not directly get counted toward the town's sewer discharge allocation, effectively adding sewer capacity.

### **Outreach and Education**

The Town does not currently have any public water conservation education program. The North Carolina Division of Soil and Water Conservation, along with the local Soil and Water Conservation district, "endorses and orchestrates numerous outreach programs to educate and recognize exemplary natural resource stewardship and environmental management."<sup>7</sup>

Public conservation awards, school contests and workshops are also vehicles to train-the-trainer and teach children. The interests of the local district board and the unique talents and experience of district staff drive each event. Examples of such events include tree plantings, environmental field days, and resource conservation workshops.

### **Primary Reference Documents –Water Supply and Wastewater Treatment**

- *2007 Sewer Collection System Master Plan*
- *2011 Water and Sewer Planning Update*
- *Pittsboro 2002 Local Water Supply Plan*
- *Town of Pittsboro 2007 Hydraulic Model Update and Planning Study*
- *An ordinance establishing a moratorium on the approval of major subdivisions an non-residential development of land in the Town of Pittsboro and its extraterritorial area*
- *Cape Fear River Basin Water Supply Plan*
- *North Carolina Administrative Code Section T15A:02E.0600, Water Use During Droughts and Water Supply Emergencies*
- *North Carolina Administrative Code Section T15A:02G.0500, Allocation of Jordan Lake Water Supply Storage*
- *General State Statutes section 159-48, For what purposes bonds may be issued*
- *B. Everett Jordan Reservoir, North Carolina Phase I TMDL*
- *North Carolina Administrative Code Section T15A:02B.0270, Jordan Water Supply Nutrient Strategy: Wastewater Discharge Requirements*
- *Roberson (Robeson) Creek TMDL for Total Phosphorus*
- *Environmental Impact Statement, Proposed Wastewater Treatment Plan (2010)*

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<sup>7</sup> <http://www.enr.state.nc.us/DSWC/pages/edoutreach.html>

**NC Division of Water Quality Rules, Policies, and Regulations**

***Weekly Drought Water Use Reporting***

*Each local government and large community water system must report their water use on a weekly basis if their county is designated as Extreme (D3) or Exceptional (D4).*

***Water Conservation Reporting***

*Each local government and large community water system must report their implementation of water conservation measures within 72 hours of implementation. To assist the State in understanding the status of the State's water systems, it is important to report changes in conservation levels (both more restrictive and less restrictive).*

***SESSION LAW 2008-143***

*An act to improve Drought preparedness and response in North Carolina, as recommended by the Environmental Review Commission.*

***Water Use Act of 1967 G.S. 143-215.11 through .22***

*Designate a capacity use area where use of groundwater and/or surface water require coordination and limited regulation for protection of the interests and rights of property owners and residents or of the public interest.*

***Registration of Water Withdrawals and Transfers G.S. 143-215.22G and 22H***

*Requires anyone who withdraws one million gallons of water a day or more and non-agricultural water users that withdraw one hundred thousand gallons of water a day to register that withdrawal or transfer with the State.*

***Dam Safety Law of 1967 G.S. 143-215.25 (4)***

*Recommend conditions relating to release of flows from impoundments, location or design of the outlets and of water intakes, the amount and timing of withdrawal from a reservoir and the construction of submerged weirs or other structures designed to satisfy minimum instream flow requirements.*

***Right of Withdrawal of Impounded Water G.S. 143-215.44 through .50***

*Gives a person who lawfully impounds water for purposes of withdrawal the right of withdrawal of the excess volume that is due to the impoundment.*

***Notification of Potential Water Shortages G.S. 143-354(a) (3)***

*Notify any municipality or government of potential water shortages or emergencies and supply recommendations for decreasing water use or increasing supply.*

***Declaration of Water Emergency G.S. 143-354(b)***

*Conduct an investigation of water resources to determine if an emergency situation exists when a request for such a study is made by a local government. Hold a public hearing and notify the Governor, who may declare an emergency situation.*

***Water Emergency Powers G.S. 143-354(c)***

*Authorize a diversion and make rules governing conservation and use of the diverted waters if the Governor declares a water emergency.*

***Prerequisites to Acquisition of Water by Eminent Domain G.S. 162A-7 (a) through (f); G.S. 153A-285***

*Issue certificates to an authority to allow it to acquire water rights through eminent domain. Hold a public hearing and consider whether the project provides maximum beneficial use of the water resources of the State. Considerations include the project's necessity, promotion or increase of conservation or storage, extent of probable detriment and feasibility of alternative sources.*

### 5.3 Water Quality and Stormwater Management



*Jordan Lake is an impoundment in the central Piedmont that drains a mixture of agricultural and urbanized lands forming the upper Cape Fear River Basin, including the west side of the Triangle and much of the Triad region. The lake serves as a water supply for almost a half-million people and also has significant recreational use. Jordan Lake is affected in two ways by nutrients. The additional algae spawned by excess nutrients are measured by the abundance of chlorophyll-a in the water. The lake exceeds limits for this measurement. A by-product of the algal growth is increased alkalinity of the water. The current nutrient reduction strategy seeks to mitigate both issues by addressing the nutrients that stimulate algal growth.*

#### **Jordan Water Supply Nutrient Strategy**

The Jordan Water Supply Nutrient Strategy Rules were approved by the Rules Review Commission in November 2008. The rules include numerous provisions that would affect how Pittsboro develops. The Jordan Nutrient Strategy is generally designed to reduce excess nutrients impacts, specifically nitrogen and phosphorus, into Jordan Lake to reduce algal growth and other nutrient related water quality problems. The requirements of the strategy are similar to those already in place in the Neuse and Tar-Pamlico River Basins. The rules require major sources of nutrients to reduce loading that makes its way to Jordan Lake to meet specific model-established percent reduction goals needed to restore water quality standards and full use of the lake. The Jordan strategy goes beyond previous strategies in requiring *all* local governments in the watershed to implement new development permitting requirements, in requiring load reductions from existing developed lands, and in directly regulating state and federal entities for stormwater control from both new and existing development.

The strategy is designed around nitrogen and phosphorus percentage reduction goals for each of the three arms of Jordan Reservoir because each arm of the lake responds independently to nutrient inputs received from its watershed. Each category of sources in a given watershed faces the same percentage reduction requirements relative to its baseline inputs. Nutrient sources addressed by the rules include agriculture, fertilizer application, wastewater discharges, and stormwater runoff from both new development and existing developed lands. Local governments will implement the wastewater and development rules, including requirements to protect existing riparian buffers. The existing development

component, not included in previous strategies, is necessitated by the significant nutrient contributions from developed lands in this watershed. The strategy also recognizes the importance of adaptive management, and provides for periodic review of the lake's recovery progress to inform potential management revisions.

### **Nitrogen**

Excess nitrogen can cause over stimulation of growth of aquatic plants and algae. Excessive growth of these organisms, in turn, can clog water intakes, use up dissolved oxygen as they decompose, and block light to deeper waters. This seriously affects the respiration of fish and aquatic invertebrates, leads to a decrease in animal and plant diversity, and affects our use of the water for fishing, swimming, and boating. Excessive amounts of algae can also increase the costs of water treatment.

Although nitrogen is abundant naturally in the environment, it is also introduced through sewage and fertilizers. Chemical fertilizers and animal manure are commonly applied to crops to add nutrients. It may be difficult or expensive to retain on site all nitrogen brought on to farms for feed or fertilizer and generated by animal manure. Unless specialized structures have been built on the farms, heavy rains can generate runoff containing these materials into nearby streams and lakes. Wastewater-treatment facilities that do not specifically remove nitrogen can also lead to excess levels of nitrogen in surface water.

### **Phosphorus**

Phosphorus is a common constituent of agricultural fertilizers, manure, and organic wastes in sewage and industrial effluent. It is an essential element for plant life, but when there is too much of it in water, it can speed up eutrophication (a reduction in dissolved oxygen in water bodies caused by an increase of mineral and organic nutrients) of rivers and lakes.

Soil erosion is a major contributor of phosphorus to streams.



### **Soil Erosion, Silt and Sediment Control**

Erosion is a natural process of weathering where soil and rock are broken down into silt and sand. These smaller materials are more easily transported off the land and into lakes and streams, where they settle out and fill in lakes and stream channels.

Accelerated erosion occurs when other normal “checks” on natural erosion are not present—usually during land disturbing activity such as timbering, grading, or plowing. Slopes and certain soil types (like the Triassic Basin soils found in much of the Pittsboro area) are even more susceptible to erosion than soils in other areas.

*Insert Map 5 Watersheds 11x17 here*

*Back of Map 5 Watersheds 11x17*

Sediment is the number one stream pollutant in NC. Nitrogen and phosphorous, attached to sediment, travels in creeks, ditches, and storm drains that eventually flow to Jordan Lake. The Jordan Lake Rules were adopted in an effort to reduce sediment and nutrient related pollution in Jordan Lake.

### Rules Content

The nutrient strategy is designed around nitrogen and phosphorus reduction. The rules require:

- Reductions in nutrient loading from point source discharges. For example, limits set on the amount of nitrogen and phosphorus released from Waste Water Treatment Plants.
- Reductions of nutrient runoff from agriculture, including sound fertilizer management.
- Reductions of nutrient runoff from both existing development and new development. These reductions will also apply to state and federal government projects in the Jordan Lake Watershed.
- A 50' wide riparian buffer around all surface waters.

The Watershed Map depicts all the area included in the Jordan Lake Watershed where the Jordan Lake Rules are being implemented. This figure shows that Pittsboro lies within the Robeson Creek Watershed which is nested in the Haw River Watershed that is further nested in the Jordan Lake Watershed.

Stormwater runoff (non-point source) from Pittsboro and the Town's wastewater treatment plant (point source) drains directly into Robeson Creek and then into the Haw River. The Haw River arm of Jordan Lake has an 8% Nitrogen reduction goal and 5% Phosphorus reduction goal (relative to a modeled baseline condition representing the time period 1997 -2001).

In order to reach the goals of nitrogen and phosphorus reduction, stormwater "best management practices" (BMPs) will be implemented to treat or limit pollutants. There are two major categories of stormwater BMPs: non-structural and structural. Non-structural BMPs include practices such as proper fertilizer application, storm drain maintenance, and riparian buffers. Structural BMPs include rain gardens, wet detention ponds, and cisterns. The North Carolina Department of Environment and Natural Resources (NCDENR) has published a BMP Manual that lists the requirements of structural BMPs as well as guidance on designing and operating specific BMPs. These devices trap or filter sediment and pollutants from stormwater runoff.



## **Implementation Tools**

### **Regulation**

The Town is currently in the process of developing a Local Stormwater Program as required by the Jordan Lake rules. This program is quite extensive and the rules deal with both point and non-point sources of nutrients.

### **Public investments and policies**

The Town adopted a riparian buffer ordinance in February of 2011. This is an important step in the protection of water quality. These buffers preserve existing vegetation that helps to slow runoff and trap soil and nutrients before they reach the water. The buffers also leave the root systems of the vegetation intact, helping hold the soil in place and reduce erosion around streams and creeks.

The Town is working with Chatham County, the Robeson Creek Watershed Council, and private interests to implement better stormwater management, particularly as it pertains to Low Impact Development (LID).

Pittsboro already has in place Zoning Ordinances that address certain stormwater issues, but a more extensive Stormwater Program is being developed to implement the Jordan Lake rules. The current ordinances were developed to comply with the State's Water Supply Watershed Protection Program (15A NCAC 2B .0212-.0216). This program is designed to protect the surface water supply sources of the State. The Town of Pittsboro's water supply comes from the Haw River; the intake is located just above the Bynum dam. The intent of this program is to protect the Town's water supply from contamination. The Jordan Lake Rules go beyond contamination and also strive to improve water quality for drinking, recreational use, and wildlife habitat.

### **Public Outreach and Education**

The Clean Water Education Partnership (CWEP) is a cooperative effort between local governments, state agencies, and nonprofit organizations to protect water quality in the Tar-Pamlico, Neuse, and Cape Fear River Basins. Pittsboro is not a member of the CWEP, but it is often used to satisfy stormwater rule requirements.

The Haw River Assembly is a non-profit citizens' group founded in 1982 to restore and protect the Haw River and Jordan Lake, and to build a watershed community that shares this vision. Their goals are to promote environmental education, conservation and pollution prevention; to speak as a voice for the river in the public arena; and to put into peoples' hands the tools and the knowledge they need to be effective guardians of the river.

The Robeson Creek Watershed Council (RCWC) includes members of federal, state and local agencies as well as local businesses, landowners, and non-profit groups. The group meets quarterly to discuss issues in the watershed and proposes ways to address them.



The local Cooperative Extension Office is a way for dissemination of information related to water quality, particularly regarding lawns and farms. These university-based offices have numerous goals, some of which have water quality implications:

- North Carolinians will make decisions and adopt practices that implement effective resource protection and conservation.
- Landowners and farmers will understand and implement effective best management practices to optimize ecosystem services.
- Consumers and communities will enhance the value of plants, animals, and landscapes while conserving valuable natural resources and protecting the environment.

There are 3 entities related to soil and water conservation, one local, one state, and one federal. They are (respectively) the Chatham County Soil & Water Conservation District, the N.C. Soil & Water Conservation Service, and the Natural Resources Conservation Service. The local entity partners with the others and the U.S. Department of Agriculture. Their combined goals are to:

- Provide technical assistance on water quality issues related to soil conditions and animal waste;
- Offer cost-share assistance to the farming community, when funds are available and when the farmers meet conservation and other eligibility criteria;
- Promote “Best Management Practices” to enhance and protect water quality; and
- Offer educational programs on soil and water conservation to the schools and the community.

Finally, the Town of Pittsboro is in the process of implementing a Stormwater Program for New Development in compliance with Jordan New Stormwater Rule (15A NCAC 2B .0265). This programs will include

- A Public Education Program
- A Program to Identify and Remove Illegal Discharges
- A Best Management Practices (BMP) Maintenance Program
- A Program to Identify Opportunities for BMP Retrofits from Existing Development

### ***Primary Reference Documents – Water Quality & Stormwater Management***

- *Town of Pittsboro 2007 Hydraulic Model Update and Planning Study*
- *Cape Fear River Basin Water Supply Plan*
- *B. Everett Jordan Reservoir, North Carolina Phase I TMDL*
- *North Carolina Administrative Code Section T15A:02B.0262-0269, 0272, and 0273; Jordan Water Supply Nutrient Strategy*
- *North Carolina Division of Water Quality Stormwater Best Practices Manual, July 2007*
- *Riparian Buffer Ordinance*
- *Town of Pittsboro Zoning and Subdivision Ordinances*
- *Town of Pittsboro Local Stormwater Program (under development)*

## 5.4 Downtown



*The Town of Pittsboro is fortunate to have a strong, vibrant downtown area. Some of the key issues related to downtown include the historic nature of the area, the availability of parking, limitations on expanding roads and sidewalks in the historic area, the pattern of development in the area, the need to rehabilitate underutilized buildings and building spaces, and infrastructure limitations for new development.*

### Historic Nature and Context

The traffic created by the government activity also made downtown Pittsboro an ideal place for local farmers to gather and merchants to sell products. This kind of government/market town is common in the southern Piedmont.

As towns prospered and the merchants paid off their debts, many of them would upgrade their buildings with brick. Simple, wooden stores would give way to brick edifices, until a core “Main Street” took shape and actual “blocks” were created.



### Parking

Parking is a challenging element of a downtown that does not have enough residents within walking distance to support the local businesses. It is necessary, but often can be perceived as unattractive or unfriendly to pedestrians. Lack of it leads to a perception of inconvenience, and hiding it, often out of view from other normal road and foot traffic leads to perceived safety and security concerns. Fragmented ownership is also an issue for shared parking resources. The Town should help facilitate owners to find shared parking solutions that benefit all downtown activities.

A formula that has seen some success is to try and create a mechanism to have around 15% of parking spaces vacant at any given time. This keeps long-term parkers out of convenient spaces and gives the impression that there is available parking.

Downtown Pittsboro includes 65 public, on-street diagonal parking spaces and a number of unstriped areas for parallel parking. The new County Justice Center complex currently under construction will result in approximately 250 spaces.

### Limited ability to expand roads or sidewalks

The public right-of-way between buildings in the downtown area is finite, and this presents a limited ability to expand the roadway, expand the sidewalk or expand on-street parking. Adding medians, street furniture, open air seating for restaurants, or street trees will add to the complexity of using this constrained space. A critical question is how to best balance all the competing needs in this small but important space.

### Development pattern

As a comparison, using the C-4 zoning district as the boundary for what defines the commercial and public “downtown,” there are 83 properties on roughly 23 acres. At Belmont Station there are 12 parcels in roughly the same area. The difference is a development pattern that is designed for pedestrians (Downtown) as opposed to motor vehicles (Belmont Station). One powerful way to encourage downtown vitality is to adopt policies which encourage dense residential development within walking distance of downtown.



### Rehabilitation of Buildings

Renovation, or rehabilitation, codes are commonly developed to replace inflexible building codes with a set of coordinated standards for renovation and rehabilitation in older areas. For example, renovation of an old downtown might be prohibitively expensive, or impossible, under building codes created for new development. Renovation codes meet safety objectives while setting workable standards for renovation. Renovation codes also help towns revitalize the economies of their downtowns while relieving development pressure on greenfield sites (and thus retaining the storm water benefits of open space).

The U.S. Department of Housing and Urban Development published a report, *Smart Codes in Your Community: A Guide to Building Rehabilitation Codes*, describing various redevelopment codes and examples of rehabilitation codes from across the country. Historic preservation offices and local nonprofits that deal with historic preservation are good resources for this type of information.

***Downtown is...***

- *The visible image of a community;*
- *The center of government, arts, entertainment, and commerce;*
- *Where public transportation serves everyone in the community;*
- *The crossroads for people of all races and income groups;*
- *Where major public infrastructure already exists;*
- *Where community historic properties are located; and*
- *The epitome of “smart growth.”*

- *The North Carolina Downtown Development Association and National Main Street Center*

**Implementation Tools**

The North Carolina Downtown Development Association and National Main Street Center advocate the Main Street Four-Point Approach as a comprehensive revitalization process designed to improve all aspects of a downtown, producing both intangible and tangible benefits.

Four elements are combined to create a well-balanced program. They are shown below, and supplemented with some specific tools brought up locally. Pittsboro is a Small Town Main Street member.

**Organization**

Building partnerships to create a consistent revitalization program and develop effective management and leadership downtown. Diverse groups - merchants, bankers, public officials, the chamber of commerce and civic groups - must work together to improve downtown.



**Small Area Planning** - Because downtown has a unique set of issues, a special focus and planning process for downtown may be a way to foster a better outcome. Involvement of the various property owners, governments, agencies, and other stakeholders will be important to tackle issues like parking. The fragmented land ownership patterns require a good forum for cooperation, and a small area plan can help focus everyone’s attention in a productive way.

**Local Taxing or Revenue Districts** can be a key in funding improvements to downtown areas. Pasadena, California uses a local district to collect and re-invest parking revenues, rather than have those revenues get lost in the general fund of the City. An added benefit turned out to be that the market-based rates for parking actually promoted more efficient use of the on-street parking spaces. Even though the parking might be more expensive, customers knew there was more likely to be a space available, and the convenience factor improved.

A number of towns and cities in North Carolina also have Downtown Development Associations (DDAs) that can do a number of promotional activities. In some cases, they can award small grants or loans as part of their mission. As a local example, the Town of Clayton in Johnston County (east of Raleigh) administers a façade improvement grant program that will pay half of the cost of façade improvements up to \$5,000 from the town's General Fund. The Downtown Development Foundation, a 501-3(c), also bolsters the DDA's efforts.

The North Carolina Main Street Center has a program that links economic development with historic preservation. In addition to the four point approach outline used here, they also provide technical assistance to towns of under 7,500 that do not have downtown managers. Pittsboro began the Small Town Main Street Program in the Fall of 2011 and will utilize this approach in the Town's downtown efforts.

### Promotion

Establishing downtown as a compelling place for shoppers, investors and visitors. This means not only improving sales but also rekindling community excitement and involvement. Promotion ranges from street festivals to retail merchandising, from community education to marketing and public relations.

Pittsboro's Business Association has some successful programs, like First Sunday or Fourth Friday Films, which promote the downtown.

Some towns have part- or full-time staff devoted to their downtown. In some cases these are paid by the local government, in other cases they can be some public/private arrangement with a DDA or similar entity.

Many towns also have some kind of special internet presence for the downtown in particular. The current Business Association's web page has pertinent information. <http://shop-pittsboro.com>.

The Convention and Visitors' Bureau, Chamber of Commerce, and Economic Development Corporation also help promote downtown as part of their mission.

Provide for arts and culture, which are a \$1.24 billion dollar industry in the State of North Carolina, and one that spurs economic development through entrepreneurship, job creation, the hospitality industry, and tourism.

### Design

Enhancing the visual quality of the downtown. Attention is given to the downtown environment elements - not just buildings and storefronts but also public improvements, rear entries, signs, landscaping, window displays and graphic materials.

Context Sensitive Solutions (CSS) are a theoretical and practical approach to transportation that considers the “context” of the communities and lands which streets, roads, and highways pass through. It asserts that transportation decisions should be responsive to the context in which they occur. CSS seeks to balance the need to move vehicles efficiently and safely with other desirable outcomes, such as pedestrian environment, historic preservation, environmental sustainability, and the creation of vital public spaces.

Wayfinding is a term used to describe the overall system used to get folks around in an area. It includes maps, signs, and other elements like architectural features or other sensory “cues” to identify things, like a street crossing or a stop on a walking tour. Creating a unified system of these elements makes a place easier to navigate for visitors.

Design Workshops can be a useful way to develop ideas about what works in downtown. Ideas about building rediscovery and re-use, pedestrians, cars, and signs all are different in a downtown. Getting ideas from the public and increasing awareness about downtown issues are useful in making downtowns better.

### **Economic Restructuring**

Strengthening the existing economic assets of the business district while diversifying its economic base. Activities include conducting market analysis to understand the changing market place, adapting vacant buildings that have outlived their original purposes for use as entertainment or cultural facilities and sharpening the competitiveness of Main Street's traditional merchants.

The Small Business Administration has a special loan program for small businesses known as the SBA 7(a) program. The eligibility requirements are designed to be as broad as possible in order that this lending program can accommodate the most diverse variety of small business financing needs. All businesses that are considered for financing under SBA's 7(a) loan program must: meet SBA size standards, be for-profit, not already have the internal resources (business or personal) to provide the financing, and be able to demonstrate repayment.

All of these elements require some level of public-private partnership in a downtown. Because there are many owners, no one of them alone can deal with issues like streetscape or parking. Parking is an issue in nearly all downtowns, because they were established before the advent of widespread car use.

The North Carolina Downtown Development Association best describes the reasons for investing in a downtown:

*A healthy, growing downtown area is important not only economically, but symbolically as well. Downtown is a community's “signature”. It is everybody's “second neighborhood” where, no matter where we live, we come together for festivals, cultural events, politics, government, and business.*

### **Primary Reference Documents – Downtown**

- *National Register of Historic Places*
- *The North Carolina Main Street Center*

*Insert Map 6 Downtown ELU Here 11x17*

*Back of Map 6, Downtown ELU 11x17*

## 5.5 Community Design: Building and Streetscape Form



*Architectural elements (such as building orientation and layout, street furniture, courtyards and plazas, street trees, and lighting) all play a role in making a “good” place. One particular design element of importance in Pittsboro is the issue of off-street parking and how to accommodate cars and trucks in a way that maintains access and mobility for vehicles and the livable, walkable nature of the community. Trees are another important element of streetscape design.*

### Off-street Parking

For most of the latter Twentieth Century, planners have dealt with the separation of incompatible uses. A by-product of this separation is distance between uses, which was generally made less burdensome by the automobile. Accommodating those cars at the home, store, office, or school became a cornerstone of the planning process.

Off-street parking, e.g., parking lots in commercial areas and driveways in residential areas, is the primary factor in determining the “feel” of a village versus a suburb. Village places tend to be pedestrian places, where automobiles are part of the mix, but do not dominate it. Traditional downtowns and older pre-World War II neighborhoods are examples of this. Newer residential and commercial examples have been built recently with a “back to the future” philosophy that looks at pre-automobile neighborhoods and uses some of the older design elements to re-create compact places, but which can also accommodate vehicles without feeling “cramped.”

“Compactness” is one key to creating the village feel, creating a large residential and daytime worker customer base to support the businesses such as restaurants and dry cleaners within walking distance.

If surface parking lots are part of this mix, they directly work against this “compactness.” They mean that 1) no potential customers live on that land, and that 2) nearby customers now have to walk further to reach the businesses (across the parking lot).



Northwood High School, accessible only by vehicle

Hybrid developments that put parking on the periphery of the area or use parking decks can work to accommodate both village and suburban design elements and increase the size of the market area for the businesses in the “village.”



Contrasting parking arrangements between the downtown core and a conventional parking area.

### Trees in Business Districts

Trees in business districts are often maligned and misunderstood. The differences in perception between merchants and customers have been documented in research by urban forestry professionals.

Merchants generally want three things: access, visibility, and convenience to their customers. Trees inhibit the visibility of their establishments. The usual solution is to remove larger trees and replant with smaller trees or no trees at all.

There is a problem making the connection with actual consumer behavior and preferences, however. The Center for Urban Horticulture has done a number of studies showing that not only do customers prefer shopping environments with trees, but that merchants are able to get more markup for the same goods when trees are present.



Street trees in Downtown Pittsboro

Most studies of “retail atmospherics” are done on the indoor environment only—National chain retailers will spend money on focus groups getting at just the right “shopping

experience” for their customers. Customers respond by spending more time in their stores, and hopefully spending more money.

University of Washington studies have taken that idea outdoors, and found that the perceptions of merchants do not match those of their customers when it comes to trees, and the prices they can charge for their goods matches customer perceptions.

Quality of product perception ratings were 30 percent higher when stores were located with trees and landscaping compared to a bare sidewalk. Consumers in the nationwide study would pay an average of 11 percent more for a given product in business districts with landscaping than those without.

Customers were also willing to pay more for parking where there were shade trees present. This may indicate that enhanced meter revenue could offset any parking space losses from additional planting.

The study had five categories of streetscape, and both merchants and customers rated them on a 1 to 5 scale. All four with vegetation were rated higher by customers—the bare one was the only category rated higher by merchants.



Visual Preference Survey Examples

Little/No Vegetation Example (above)

Visitor Rating: 1.95

Merchant Rating: 2.17



Low, Dense Canopy Example (right)

Visitor Rating: 3.68

Merchant Rating: 3.42

### Green Building Principles

It is worth noting that buildings represent one of the largest sources of energy, water, and raw material use, both during construction and as an ongoing operational cost. There have been many resources and guides developed on the topic of green building, and this plan does not attempt to reproduce them, but instead simply notes that in addition to pedestrian accessibility, street-orientation, and building form, it is also important to consider the energy efficiency and environmental impacts of buildings constructed in the Town. This is particularly true for public buildings, which should serve as an example to others.

## **Implementation Tools**

### **Public investments and policies**

These generally take the form of site location decisions made by governments at all levels—federal, state, and local. Decisions about where to put a post office, courthouse, school, or library have larger implications than simply serving the public. Those institutions often are symbols of a community, and create a number of trips—potential customers to merchants or “traffic” to a residential neighborhood. A number of these institutions have slowly migrated out of the heart of downtown—Town Hall, the Post Office, the Library—and the Town should consider developing a policy about the location of future public buildings over which it has control.

Schools often locate where land is cheaper—outside of the town area served by water and sewer, and then ask to be added to the water and sewer system. Finding ways to bring schools back into Town makes for a more efficient land use pattern and use of local resources—if the land cost can be offset in other ways.

Public buildings could be constructed according to a green building standard, such as LEED or Green Globes. Additionally, existing public buildings could be retrofitted with green features as they come due for major maintenance or renovation.

The form that these facilities take is also important—is it in a suburban setting with large setbacks and abundant parking? What are the tradeoffs when a community designs this way? The Town should consider developing a policy regarding the placement and form of its public facilities. The two forms shown below illustrate the differences.



Law Enforcement Center (left) and Old Courthouse (right). Note the large setback from the street for the Law Enforcement Center, while the Old Courthouse has a small setback that is more pedestrian-scaled.

### **Public-Private Partnerships**

There are downtown development associations or other neighborhood associations with a vested interest in the street as a public space to be used by all. Downtown or other neighborhood merchant associations in many places partner with their local governments to use parking revenues to re-invest in the streetscapes where the parking takes place. Parking meter fees are sometimes used to help fund streetscape improvements.

### Market Cost Parking

At this time, on-street parking is free throughout Pittsboro. As the town grows, the demand for these spaces will increase. To keep spaces open, a time limit can be set, as the town already does in some areas. It can also look at charging for the use of the parking spaces as demand increases.

The key is pricing to produce a consistent supply of vacant spaces so that drivers can find places to park near their destinations. Having a few parking spaces vacant is like having inventory in a store; customers will avoid stores that never have what they want in stock. As a rule, one should reduce the price of curb parking if there are too many vacancies (the inventory is excessive), and increase it if there are too few (the shelves are bare).

Why is this relevant in this section? Case studies show that when meter revenues are spent where they are collected, local merchants are much more accepting of paid parking. Often the spending takes the form of streetscape improvements, and that is why this issue is mentioned here and not in the downtown section. This plan does not recommend paid parking at this time, but includes it as a tool the Town might use as conditions change.

### Public Outreach and Education

Creating streetscapes for pedestrians is something that has been forgotten over the last generations, and streets were largely ceded to the motor vehicle in the post-World War II era. Coming back around to some of these pre-war concepts requires some explanation. This plan is one tool that can be used to explain why this is happening, and how it can have positive and negative consequences.

Design workshops can help educate citizens about architecture, land use, and how they interact with roads and the environment. This way development decisions can come from a well-informed public.

Sandwich Board Signs can be used in pedestrian areas—these can also be used to boost visibility for merchants when street trees are added to the landscape. There are programs that will donate an initial sign to each business as part of a streetscape program; otherwise making sure that current ordinances allow these kinds of signs is important.

Public Directional Signs are useful tools when development is pulled off a major roadway. The land ownership pattern might not allow an on-premise sign that would be visible from the road. The Town can sponsor a directional sign in the public right of way to direct patrons to the shopping area and still preserve the corridor integrity.

Visualization techniques can be a useful way for citizens to understand planning concepts.

The before and after visualization on top of the next page was part of the public workshop conducted in the spring of 2007 (top images from NCSU School of Design)



**Primary Reference Documents – Community Design: Building & Streetscape**

- *Town of Pittsboro 2009 Pedestrian Plan*
- *General Statutes Section 159-48b23, Bond money for parking structures and public transportation*



*Visualization from the Pittsboro Pedestrian Transportation Plan of 2009*

## 5.6 Historic Character



*Pittsboro was founded in 1787, and contains a variety of historic buildings and districts dating from periods throughout its existence. There are a number of issues related to historic context and preservation that are of concern, including: the economics of maintaining buildings that do not meet present needs, the costs associated with rehabilitation of older buildings, the neighborhood context when newer buildings are built in historic areas, and the heights of new buildings.*

### Economics

Historic buildings can provide the framework for a community to define itself, so that preserving historic buildings or areas becomes an issue.

A building may be too far past repair due to the fact that it is not structurally sound, and to bring it up to code is more expensive than tearing down and starting from scratch.

User needs may be different, and changing the building to accommodate new uses (and upgrades required by building code) may be more costly than demolition followed by new construction, even when a building is solid. This is because working with the existing structure is often more labor intensive and exposes the owner to more financial risk and uncertainty.

In some cases, land becomes so valuable that the current building will not bear out the cost to purchase the property or the property taxes levied.

In recent years, two major trends have helped bolster preservation as the better choice. First, many communities are willing to recognize the value of keeping historic structures by providing financial incentives (tax credits, low interest loans, etc.) to property owners that choose this option, and second, the factoring in of external costs of discarding the materials and using landfill capacity.

"Buildings are vast repositories of energy," says Richard Moe, President of the National Trust for Historic Preservation. "It takes energy to manufacture, to extract building materials, more energy to transport them to a construction site, still more energy to assemble them into a building. All of that energy is embodied in the finished structure, and if the structure is demolished and land filled, the energy locked up in it is totally wasted."

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## Section 5: Key Issues – Historic Character

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A typical 50,000-square-foot commercial building embodies the equivalent of 640,000 gallons of gasoline, according to the Advisory Council on Historic Preservation, which advises the White House and Congress on historic preservation policy.

The very process of demolition uses more energy and creates waste. The construction of a new building expends more energy: hauling materials, lighting the structure and running tools. Building a new 50,000-square-foot office structure releases the same amount of carbon into the atmosphere as driving a car 2.8 million miles, Moe says.

### Teardowns

Teardowns are the practice of demolishing an existing house to make way for a much larger structure. Generally speaking this does not constitute a change in the use of the structure, and is driven by high land values. To date, the National Trust has documented more than 300 communities in 33 states that are experiencing significant numbers of teardowns. Locally, the City of Raleigh has a number of neighborhoods wrestling with the issue and has seen City Council propose a new zoning district that would limit teardown and infill opportunities in certain neighborhoods.



### Downtown Building Heights

The community and the Advisory Committee both felt strongly that the old courthouse was the key structure in Pittsboro's downtown. Any new buildings in downtown should respect the Town's identity by limiting their height to a height slightly less than the courthouse cupola. This could be measured in real terms against the cupola, so buildings on low ground could theoretically have more stories than those on high ground.

### Context

As mentioned in Section 3 Existing Conditions, Pittsboro has been the center of county governance since its inception. The traffic, or "gravity" created by the government activity also made it an ideal place for local farmers to gather and merchants to sell products. This kind of government/market town is common in the southern Piedmont.

As towns prospered and the merchants paid off their debts, many of them would upgrade their buildings with brick. Simple, wooden stores would give way to brick edifices, until a core "Main Street" took shape.

## **Implementation Tools**

### **Document Historic Buildings and Structures**

Pittsboro's National Register District spans 59 acres and lists 92 principal buildings, including the 1881 Classical Revival brick courthouse topped by a three-stage cupola. There are also 39 outbuildings, 3 cemeteries and a civil war monument.

Creating this listing and district shows a public awareness of the value of the historic buildings. The current district is a listing only and has no additional regulations or requirements.

The National Register of Historic Places is the largest and probably the best known certification program. Many local and state programs are modeled after the National Register. The National Register is maintained by the National Park Service of the Department of the Interior and includes districts, sites, buildings, structures and objects of local, state or national historic significance. Individuals, organizations or government agencies can nominate historic resources to the National Register. There are sixteen National Register landmarks in Pittsboro's planning jurisdiction:

- Kelvin (DESTROYED) 1838 Federal 2-story house
- London Cottage 1861 Gothic Revival house
- Lewis Freeman House 1811 one-room structure
- Reid House 1850 Federal/Greek Revival 1-1/2-story
- Moore-Manning House 1830s Greek/Egyptian/Gothic Revival
- Hall-London House 1836 Federal/Greek Revival 2-story
- Chatham County Courthouse 1881 2-story rectangular brick
- Pittsboro Masonic Lodge 1838 Greek Revival building
- Pittsboro Presbyterian Ch 1850 1-story brick gabled
- Patrick St. Lawrence House 1787 Georgian/Federal 2-story house
- McClenahan House 1830s Federal/Greek Revival house
- Luther Clegg House 1850 Greek Revival house
- Henry Adolphus London House 1892 Queen Anne
- Alston-DeGraffenried House 1820s Federal House
- Stephen W. Brewer Farmstead 1887 Queen Anne/Italian house & farm
- AP Terry House 1900 Queen Anne house

Listing in the National Register makes an owner of a building eligible for federal tax incentives for rehabilitation. In addition, review of projects with federal money or permits by the National Advisory Council on Historic Preservation fosters additional protection.

The National Register of Historic Places works through the North Carolina State Historic Preservation Offices (SHPO). SHPO provides initial evaluation of the historic resource as to eligibility for the National Register, and may provide assistance with the nomination preparation. Nominated resources should have local, state or national significance in history, architecture, archeology or culture, and possess integrity of location, design, setting, materials, workmanship and feeling.

## Public Oversight

An important method in protecting historic buildings is to achieve an official recognition or certification as historic. Depending on the program, certification as a historic building may include protections or restrictions on the use and modification of the building and incentives to preserve its historic value.

Cities, towns and Villages in North Carolina can choose to take advantage of state enabling legislation (General Statute's 160A-400.1-400.14) that allows them to create historic preservation commissions and to designate local historic districts and landmarks. Local historic preservation ordinances tied to these can be used to protect specific historic buildings from incompatible modification. An ordinance of this type might specify design guidelines and appropriate materials for rehabilitation of historic buildings, designed to protect the historic value of the resource. Review by the local Preservation Commission and issuance of a Certificate of Appropriateness would be needed before historic resources can be altered or demolished or new buildings can be constructed in a historic district.

The Chatham County Historical Association is a non-profit corporation consisting of people interested in preserving and communicating the history of Chatham. They perform research and projects around Chatham County.

## Financial Incentives

In order to promote protection of historic resources, certain government programs exist to provide economic benefits to those who try to preserve and protect historic buildings. These programs can make a rehabilitation project economically feasible.

Tax incentives are available to support rehabilitation of historic structures. A "substantial rehabilitation" of a certified historic structure (such as one listed on the National Register of Historic Places) qualifies for a federal income tax credit, if certain guidelines are met. For example, the structures must be income-producing, such as a barn or an inn. Older, non-certified structures (50 years or more), can qualify for lesser tax credits. Some states offer income tax credits or property tax freezes for rehabilitation of historic buildings. Donations of historic easements can qualify for income tax deductions. Contributions of property to non-profit charitable historic preservation organizations may also qualify for income tax benefits.

### ***Primary Reference Documents – Historic Character***

- *National Register of Historic Places, Pittsboro Historic District*
- *The Architectural History of Chatham County, North Carolina*



Department of Planning  
Proud Past  
Exciting Future

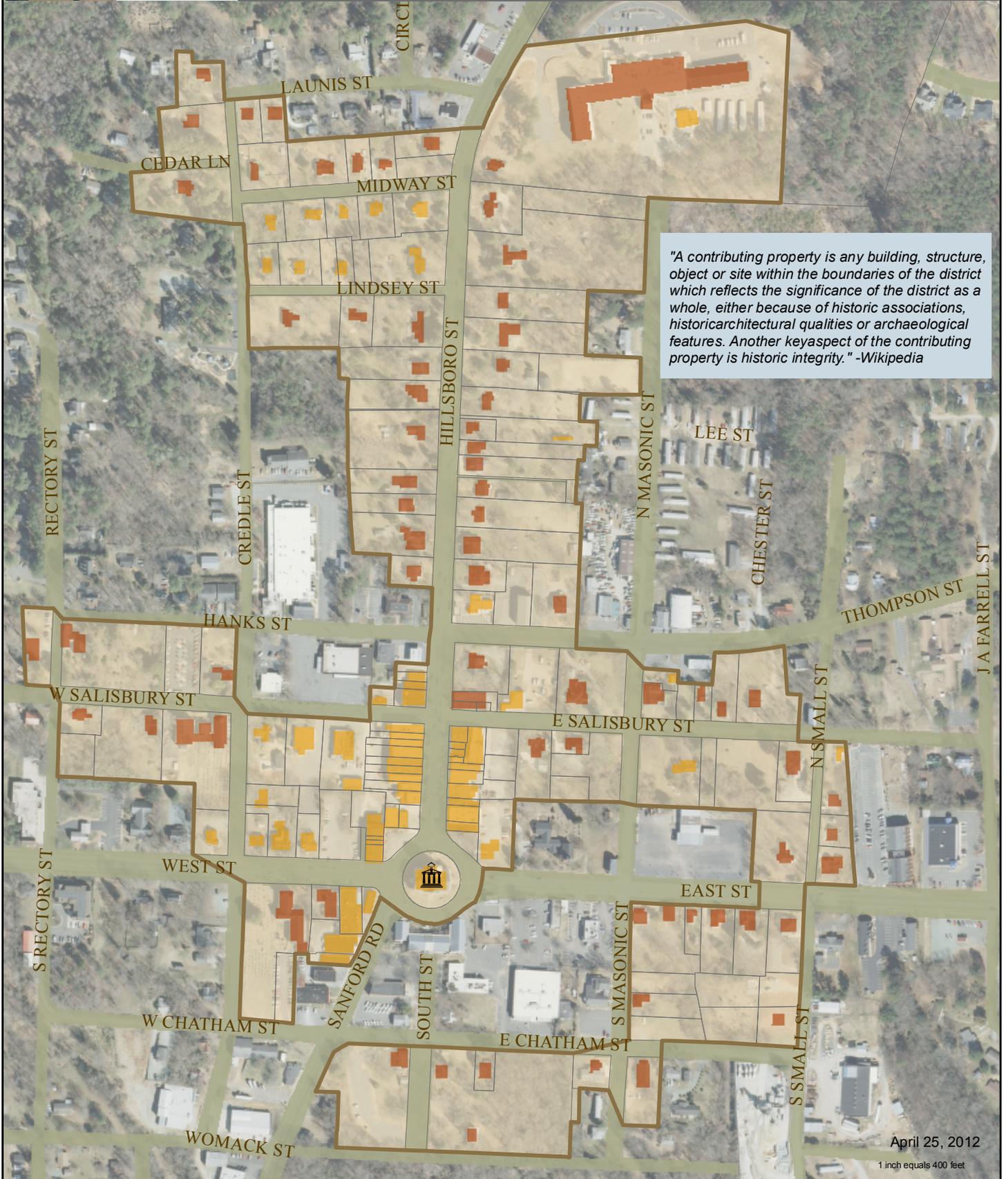


-  Historic District Boundary
-  Contributing to District
-  Contributing
-  Non-Contributing

NATIONAL REGISTER DISTRICT  
ESTABLISHED MAY 5, 2000

# PITTSBORO, NC Land Use Plan

## Map 7: Historic District



"A contributing property is any building, structure, object or site within the boundaries of the district which reflects the significance of the district as a whole, either because of historic associations, historic architectural qualities or archaeological features. Another key aspect of the contributing property is historic integrity." -Wikipedia

## 5.7 Parks and Recreation



*Parks can play a vital role in expressing and contributing to the essential character of a place. In Pittsboro, parks are seen as a strategic investment which increases the Town's quality of life, serves as an economic engine, all while promoting healthy active lifestyles for its residents. Parks and greenways also increase property values, help attract and retain businesses and help to differentiate Pittsboro in a competitive marketplace. This section looks at how parks address the overarching community goals articulated in Section 3, provides general guidance on land acquisition priorities, and lists several park priorities.*

The Town of Pittsboro proactively invested in parks infrastructure over the past few years. Leveraging significant land donations with state and federal grants, the Town has made great strides in establishing an emerging parks system.

The Town continues to look forward with a Parks and Recreation Comprehensive Master Plan underway which will supplement this document and provide a more detailed vision of how best to strategically allocate parks funding.



Mary Hayes Barber Holmes Park

### Addressing Core Community Goals through Parks

#### Downtown Goals



Having pleasant social gathering spaces is vital to vibrant downtowns. In an era where market and regulatory environments encourage nodes of commercial development well outside of the downtown core, downtowns will have to make a conscious effort to remain relevant and attractive to consumers. Parks, plazas, and courtyards foster commerce and social interaction. They facilitate outdoor dining, farmers markets and leisurely social interactions. As such, they have formed the physical and social cores of downtowns for centuries. Today successful mall and neo-traditional

developers use public squares to add life to their projects. In Pittsboro a plaza large enough to accommodate outdoor music, movies, street festivals etc., without having to shut down a state highway would be a very attractive asset to the downtown tapestry.

**Economic Development Goals**



*We know what you're looking for. This is the place.*  
Welcome to Powell Place, a community of new homes and townhomes for sale in Pittsboro, North Carolina. Powell Place is located in the heart of Chatham County. Designed by the award-winning real estate company East West Partners, Powell Place is a convenient and affordable neighborhood where you can find beautifully finished homes in a variety of styles and sizes.  
We've got that place for you. This is the place. This is Powell Place.  
Mary Hayes Barber Holmes Park Map | Watch the Powell Place video

Parks foster economic development in at least four ways.

Parks enhance quality of life, and in this capacity help attract and retain entrepreneurs, the creative class, CEO's and retirees to our town. When executives and their spouses consider a place to locate businesses, quality of life metrics factor highly in their decision making.

Facilities with regional appeal attract tourism dollars. Tournaments at the recently proposed disc golf course will infuse \$10,000 - \$15,000

per tournament into the local economy through lodging, food and beverage sales alone. This helps local merchants while increasing sales tax revenues.

Parks in neighborhoods demonstrably help sell homes and increase the property values, particularly of parcels nearest to the parks. Nationally, gains of 20% for properties near parks and 30% near greenways are well documented. *(Note: the inset photo of Pittsboro's Powell Place Development's homepage. Mary Holmes Park features prominently on the first page because the park helps sell homes.)*

Having local trails connect to regional trails facilitates recreational tourism and encourages the growth of recreation sector industries such as river and equestrian guides, sporting goods stores, elder and youth hostels, etc.

**Transportation Goals**



Parks provide greenways, trails, bike paths, boat launches and other alternative modes of transportation; these are important components of any sustainable transportation system.

Greenways are also covered in the Transportation Networks and Modes section of this document and in the Town's Pedestrian Plan. In addition to making pedestrian connections, they have passive recreational value. Of particular interest as a recreational facility, greenways should be planned so that they connect park facilities to one another and also connect parks to the neighborhoods where the park "customers" live. One greenway concept would be to provide a circumferential loop greenway around the Town, connecting all the Town's proposed greenways together and serving as the spine for a connected greenway network. The Greenways Map shows the general location of the Town's proposed greenways.

**Education Goals**



Town Lake Park is adjacent to Pittsboro Elementary School and is within short walking distance to Horton Middle School. Pittsboro Parks has worked with the elementary school's science club to develop an outdoor classroom between the park and campus and envisions installing educational signage related to stormwater, wildlife habitat, flora and fauna, etc. The goal is to have this park serve as an environmental educational center. Other

parks could fulfill this function to varying degrees as appropriate.

**Character Goals**

Numerous focus groups and studies have identified key components of the Pittsboro brand or essential character. Ideally a brand focuses on a Town's strengths and qualities that differentiate it in a competitive marketplace. Some of Pittsboro's strengths are its pleasant small town atmosphere, its vibrant arts community (boasting one of the highest artist per capita ratios in the state) and its emphasis on sustainable agriculture, green building and other green industries. Pittsboro Parks reflect these cultural influences and incorporate them into a unique brand for the park system.

Pittsboro Parks are known for their use of sculptural play features, random fine details by skilled craftsmen and their emphasis on natural playgrounds and unstructured play. Their overall emphasis on 'sense of place' has set Pittsboro Parks apart. Pittsboro's parks have been featured in European print magazines, The Raleigh News and Observer and national playground blogs. They set a high bar and promote Pittsboro as an attractive place to live while reflecting and contributing to the essential character of Pittsboro.



**Regionalism Goals**

Tangible developments of the Haw River Trail stretching from Greensboro to Jordan Lake strengthen connections to both the Triad and Triangle regions. Developing the Robeson Creek Greenway connects the regional trail to the heart of downtown Pittsboro. (See Map 8)



Land along these strategic corridors should rank highly for acquisition by the Town, conservation groups and others with a shared vision of an extensive public trails network. Non-linear parkland adjacent to these corridors, particularly if adjacent to state or federal protected lands, would be very desirable as parkland.

**Recreation & Open Space Goals**

Parks inherently promote healthy active lifestyles and can help balance the impact of the built environment. The Town doesn't currently offer recreational programming nor has it set aside land for the primary purpose of preserving open space. It is expected that open space policies will be reviewed in the future within the framework of a Unified Development Ordinance process and that recreational programming will expand to meet citizen demand as the Parks Department matures.

**Sustainability Goals**



Pittsboro Parks have been a model for sustainable practices in the public sphere. Mary Hayes Barber Holmes Park features an extensive rain garden, a living roof gazebo, parking with permeable pavers and an overall design that minimized grading. Rock Ridge Park used an innovative compost-sock erosion control silt fence and again minimized grading. Both parks used metal roofs to capitalize on long term lifecycle costs rather than just upfront construction costs.

It's important that public facilities reflect the values and priorities of the citizenry.

**Conservation Goals**

Lands under parkland stewardship can play a huge role in meeting the Town’s as well as local environmental group’s conservation goals. Many parks agencies balance the roles of managing natural areas with developing access trails and other infrastructure which allows greater numbers of people to enjoy these areas more easily. It is thought that access to nature increases appreciation of these areas and in turn to policies which favor preservation, recreation and greater environmental responsibility.



The environmental value of an area can play an important role in parkland acquisition decisions. The size of the land, the uniqueness of the property, and the proximity of the land to other areas of open space are all important factors to consider when weighing acquisition options. From a conservation standpoint, long corridors are important to the migration and general movement of animals and birds. Long corridors may have a higher value than square or rectangular parcels of a similar acreage, especially if those corridors follow rivers and streams. Small, unique areas may have a higher environmental value than a larger tract of land. Contiguous parcels of land that can add to existing open space may have higher value than a larger, more remote, piece of land. Natural wetlands have better water quality mitigation abilities than man-made wetlands.

Forest preserved as parkland provides stormwater filtering, air quality benefits, increases wildlife diversity and other benefits which are economically quantifiable.

**Adequate Public Facilities Goals**

Parks, like schools and firefighting capacity ideally develop in tandem with residential development so that residents have access to facilities which are in relatively close proximity and of high quality. Policies which encourage dedication of parkland, fees in lieu of such dedication, development of private recreation facilities and a commitment to optimize these standards ensure that as our population grows our access to a greater number and diversity of recreational opportunities grows too.

Recreational programming and maintenance requirements need to be budgeted along with the park infrastructure itself. The Community Facilities Chapter covers this topic.

**Remaining Goals**

The remaining goals of section 3, water, sewer and housing are not directly impacted by parks, recreation, open space or greenways.

**Existing Facilities**

Pittsboro has one hundred acres under park stewardship in the form of seven facilities.

- Community House
- Kiwanis Park
- Mary Holmes Park
- McClenahan Park
- Rock Ridge Park
- Robeson Creek Greenway
- Town Lake Park

### Balancing Active & Passive Recreation

Active Recreation is generally associated with fields and team sports, such as softball and soccer. It will generally have a higher maintenance budget. Passive recreation is generally without formal playing fields and is centered around individual pursuits like hiking, wildlife viewing, or horseback riding. These passive-use facilities cost less to maintain and operate, and have the added benefit of habitat preservation and water quality protection when properly sited and managed. A balance of active and passive facilities serves town citizens well.



Active Recreation – Town Tennis Courts

### Park Priorities

- Increase parkland, organizational capacity, and budgets to keep up with rises in population and demand.
- Plan and develop a local greenway network which connects non-linear parks, residences and other popular destinations.
- Develop both paddle and hiking aspects of the Haw River Trail.
- Capitalize on proximity to Jordan Lake and the Haw River by developing municipal parks adjacent to state and federal lands.
- Complete and adopt a comprehensive parks master plan.
- Maximize existing parks via the recommendations in the Comprehensive Parks Master Plan and individual park master plans.
- Partner with other parties to locate a regional aquatics center in Pittsboro.
- Renovate the Historic Community House.
- Implement parks wayfinding signage.
- Increase awareness of the parks and recreational opportunities available locally.
- Continue working with private developers to strategically reserve parkland which enhances the appeal of their developments while meshing with the strategic recreation goals of the Town.
- Ensure that sewer easements contain explicit language allowing for pedestrian access and the possible development of greenways along said corridors.
- Review policies relating to dedication of open space, reservation of land for recreation, fees in lieu of such reservation, greenway sewer easements and other parks related policies as part of an envisioned Unified Development Ordinance process.



***Insert Map 8 Parks, Greenways and Openspace 11x17***

***Back of Map 8 Parks, Greenways and Openspace 11x17***

### **Implementation Tools**

The Town has a Comprehensive Parks and Recreation Master Plan in progress which, after its completion and adoption, will be incorporated into this Land Use Plan.

### **Public Investments and Policies**

The Town can allocate adequate funds for acquisition, development and maintenance into both the annual budget and the Capital Improvement Program. These monies can take many forms, including general fund money, fees from development or from park users, grants, and bonds. Details about these options follow. Outside of direct funding, there are many ways to stretch resources, and they are also explored.

Active parks can be co-located with schools, which often will have fields already. It does require effort on the part of the school and Town administrations to work out details pertaining to maintenance, hours, and other costs and constraints.

Cooperation with Chatham County can also yield similar results for both passive and active recreation. In fact, cities are not directly authorized to issue open space bonds under NCGS §159-48.

Various state and federal agencies, such as the Fish and Wildlife Service and the Army Corps of Engineers, can also be important in the Jordan Lake areas of the Town.

In neighboring Cary, dual use easement acquisition has proven to be the most cost efficient method of acquiring greenway open space outside of dedication. These are easements that have some other primary purpose, such as for sewer lines, and are written so that greenways can be installed on them.

Dedication and fee-in-lieu policies are often used for both greenways and parks as part of the subdivision process or special/conditional use processes. These policies help balance the impact of the new residents on the parks and recreation infrastructure.

### **Public-Private Partnerships**

Public-private partnerships can take many forms, but generally follow two models. One model is where the government owns the park and a non-government entity uses the facility, but handles much of the administration—like a softball league renting the ball fields. The other model is where a private entity provides land and builds the structures, then allows the government to run it or donates the facility outright.

### **Grants**

To carry out a mandate set by state legislation, the Clean Water Management Trust Fund (CWMTF) provides grant funds for five primary activities. They are the Acquisition of Riparian Buffers (fee simple or conservation easements), Acquisition of Riparian Greenway Corridors (includes regional trails), Restoration or Stormwater Projects, Wastewater Infrastructure, and Planning (for Acquisition, Greenway, Restoration, Stormwater, or Wastewater Infrastructure projects). In the 2008 cycle, over \$31 million worth of grants were awarded.

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## Section 5: Key Issues – Parks and Greenways

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In addition, CWMTF has several "mini-grant" programs to help recipients plan and prepare for larger projects. Mini-grants do not follow the same application or review process. There is no deadline for mini-grants. NC State Agricultural Extension has applied for such a grant to accomplish a passive restoration of Town Lake and the elimination of "parrot feather" (*Myriophyllum aquaticum*) from the waters.

The Land and Water Conservation Fund (LWCF) program is a reimbursable, 50/50 matching grant program to states for conservation and outdoor recreation purposes, and through the states to local governments to address 'close to home' outdoor recreation needs. Grants for a maximum of \$250,000 in LWCF assistance are awarded yearly.

The Parks and Recreation Trust Fund (PARTF) provides dollar-for-dollar matching grants to local governments for parks and recreational projects to serve the public. Recipients use the grants to acquire land and/or to develop parks and recreational projects. It is administered by NCDENR's Division of Parks and Recreation. The Town recently received two of these grants, \$500,000 for Mary Hayes Barber Holmes Park, and an equal amount for Rock Ridge Park.

The Recreational Trails Program (RTP) is a \$1.3 million grant program funded by Congress with money from the federal gas taxes paid on fuel used by off-highway vehicles. This program's intent is to meet the trail and trail-related recreational needs identified by the Statewide Comprehensive Outdoor Recreation Plan. Grant applicants must be able contribute 20% of the project cost with cash or in-kind contributions.

### **Bond Money**

Under NCGS § 159 48, cities and towns can issue bonds for:

*"...Providing library facilities, including without limitation fixed and mobile libraries...Providing art galleries, museums, and art centers, and providing for historic properties, and...Providing parks and recreation facilities, including without limitation land, athletic fields, parks, playgrounds, recreation centers, shelters, stadiums, arenas, permanent and temporary stands, golf courses, swimming pools, wading pools, marinas, and lighting."*

Additional open space bonds can be tied to § 159-48b19 Bond Money for Storm Sewers and Flood Controls, including channels, catch basins, and other facilities for storm water drainage. Only counties have the specific authority to issue bonds for "open space."

### **Primary Reference Documents – Parks and Greenways**

- *Town of Pittsboro 2009 Pedestrian Plan*
- *Town of Pittsboro Comprehensive Parks and Recreation Master Plan – in progress*
- *Chatham County Comprehensive Parks and Recreation Master Plan 2007-2017*
- *Chatham Conservation Partnership (CCP) Comprehensive Conservation Plan*
- *Triangle GreenPrint Regional Open Space Assessment*
- *Town Lake Park Study*
- *General Statutes Section 159-48b13, Bond money for parks and recreation facilities, and Section 159-48b19, Bond money for storm sewers and flood controls*

## 5.8 Community Facilities and Operations



*Issues related to the funding of community services and facilities are very important to consider as part of any plan. This section examines the issues related to funding programs such as the police and fire departments, street maintenance, and town administration; the taxes and fees that serve as the Town's revenue base; and upcoming major capital projects.*

### **Funding for programs and maintenance**

The Town adopts a Capital Improvement Program as part of its annual budget. The Town is audited annually.

#### **Police**

##### **Law Enforcement Staff Rate**

According to an FBI report<sup>8</sup> on average, there were 3.5 full-time law enforcement employees, officers and civilians, for every 1,000 inhabitants in the Nation in 2002.

Cities in the United States averaged 3.1 law enforcement employees per 1,000 people. The highest average was in small cities and towns of under 10,000, with 4.1 law enforcement employees per 1,000 people.

By region, the cities in the Northeast and the South each posted a law enforcement employee rate of 3.5 per 1,000 in population. Cities in the Midwest recorded a rate of 2.8; in cities in the West, the rate was 2.4.

When considering only sworn officers, the Nation's cities recorded a rate of 2.3 officers per 1,000 inhabitants. By population grouping, rates ranged from 1.8 officers per 1,000 inhabitants for cities with 25,000 to 99,999 in population to 3.2 officers for cities with fewer than 10,000 inhabitants.

Suburban counties reported an average of 2.7 sworn officers per 1,000; rural counties had an average of 2.5.

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<sup>8</sup> [http://www.fbi.gov/ucr/cius\\_02/html/web/lawenforcement/06-NC.html](http://www.fbi.gov/ucr/cius_02/html/web/lawenforcement/06-NC.html)

The South had the second-highest rate (after the Northeast) with 2.6 officers for every 1,000 inhabitants, and the Midwest and West following the same pattern as the overall law enforcement rate.

Pittsboro has 12 full time and 5 reserve officers. For the Town's population of 3,764 residents, this is a rate of 3.2 officers per 1,000 inhabitants.

### **Fire**

The Town of Pittsboro contracts with the Pittsboro Volunteer Fire Rescue Department Inc for fire suppression services ([www.pittsborofire.com](http://www.pittsborofire.com)). The Fire Department is a combination department, consisting of 17 full time employees, 10 part time and 16 volunteer firefighters. It serves 103 square miles with 3 fire stations. The Main Station is in the Town of Pittsboro, Station 2 is located at 4170 Old Graham Road and Station 3 is located in the Asbury community at 60 Walter Bright Road. Their ISO rating is a 6/9E. The equipment consists of the following;

4 Class A Engines

3 Water Tankers

1 Rescue Truck

1 Brush Truck

3 First Responder vehicles

### **Public Works**

Public Works is spread across water treatment, wastewater treatment, and other equipment operators. The operating budget is split into Public Buildings & Grounds, Street Maintenance, Powell Bill Funds (State monies authorized for municipal streets), Sanitation (contracted out), Water & Wastewater, and Public Utilities Maintenance. These activities constitute nearly half the Town budget.

### **Parks and Recreation**

The Town manages over 100 acres of parkland, with one Parks Planner overseeing operations, maintenance and development of 7 facilities. The draft Parks & Recreation Master Plan uses several industry standard methods to help Pittsboro determine what constitutes adequate amounts of parkland, miles of greenway, levels of service at each facility and explores how best to allocate parks and recreation resources to meet the needs of our citizens.

### **Administration**

Administration includes management, finance, and planning. There are a total of 8 staff members. In the budget, they are broken out into Administration, which includes finance and management, Legal, which is contracted out, and Planning.

## **Revenue Base**

Pittsboro has two ways to generate tax revenue: property taxes and sales taxes. Pittsboro's current property tax rate is \$.3673 per \$100 of valuation. Chatham County has a tax rate of .6219. When combined with Chatham County taxes, the overall rate in Pittsboro is \$.9892 per \$100.

Sales taxes are collected by the state and redistributed. Chatham County's sales tax rate (when combined with the 4.5% state rate) is 6.75 percent. Sales tax receipts are distributed based on population and the tax rate (some municipalities levy additional sales taxes). In 2008, Pittsboro got 3.53342% of Chatham County's sales tax collections.

Pittsboro also has a \$165 per year solid waste fee. There are also a number of other user fees for water, sewer, permits, and the like.

Total General Fund revenue for the fiscal year 2011-2012 budget was \$3,068,121.

The Enterprise Fund for Pittsboro is centered around the water and sewer utilities—water and wastewater user charges and interest earned. The enterprise revenue estimate for 2011-12 was \$2,533,445. The remaining revenues are \$541,100 in Capital Reserve Funds, to be used for future projects.

## **Implementation Tools**

### **Public investments and policies**

The Annual Budget is required by NCGS 159-11(b) and the stated intent of the budget is that it serves as a planning tool to provide for the projected revenues and expenditures of the Town. The budget includes both forecast revenues and expenditures. It deals with the "here and now" of long term expenditures and the day-to-day operational costs of doing business.

Pittsboro is one of the seven communities in the Triangle J region in the process of creating a Capital Improvement Plan (CIP). Capital Improvement Budgets are essentially future budgets that can be used to feed into the current annual budget. Capital projects, and the planning behind them, are major components of a successful plan. The comprehensive plan spells out the 'why' and 'where' while the CIP clarifies the 'when' and 'how much.'

The Triangle J Development and Infrastructure Partnership (D & I) has identified fourteen categories of capital improvements including schools, transportation, parks/open space, water, wastewater, stormwater and public protection. All but one of the communities uses their CIP to fund public safety investments. The top three programs identified in the region's CIPs are Water, Wastewater, and Transportation.

## **Financing**

Recognizing the importance and cost of these kinds of capital improvements, there are two main ways to pay for these large ticket items: General Funds or Capital Improvement Programs. Capital Improvement Programs, in turn, can be funded through a variety of ways, spelled out below.

Grants tend to have a specific mission and are covered in this plan under the “Tools” sections of the respective areas where they are applicable, such as PARTF grants for parks, CWMTF grants for water quality, et cetera. § 159-18. Capital reserve funds

Any local government or public authority may establish and maintain a capital reserve fund for any purposes for which it may issue bonds. A capital reserve fund shall be established by resolution or ordinance of the governing board which shall state (i) the purposes for which the fund is created, (ii) the approximate periods of time during which the moneys are to be accumulated for each purpose, (iii) the approximate amounts to be accumulated for each purpose, and (iv) the sources from which moneys for each purpose will be derived. (1943, c. 593, ss. 3, 5; 1957, c. 863, s. 1; 1967, c. 1189; 1971, c. 780, s. 1.)

Enterprise Funds are funds primarily used to fund utilities - the obligations in the budget and the fees collected are to be zero-net to the budget, meaning that the utilities are self funding and do not impact the bottom line. For example, raising the water rates to fund water projects - the budget may show expenditures of 50 million and revenues of 50 million.

General Obligation Bonds

Using NCGS 159-48(b), municipalities are allowed to issue general obligation bonds for most major capital improvement types identified in the Triangle J regional study. Examples of covered projects:

- (§ 159-48b9) Bond for Police Facilities
- (§ 159-48b6) Bond for Fire Facilities
- (§ 159-48b15) Bond for Public Vehicles
- (§ 159-48b22) Bond for Streets
- (§ 159-48b21) Bond for Municipal Water
- (§ 159-48b17) Bond for Sanitary Sewer
- (§ 159-48b19) Bond for Storm Sewers

The primary benefit of funding capital improvements through bonds is that the cost of construction and the cost of stocking new facilities with vehicles or communication equipment can be spread over time. Bonds can be issued in their entirety, or as needed. Tax rates can be increased incrementally each year as the expenses increase instead of increasing all at once. The downside is that the overall cost of the project increases with the interest paid on the bonds, which is in part determined by the length of the bond period and the total amount of the bond, including the issuance costs.

Revenue Bonds are issued based upon anticipated revenue.

There are three public safety grants that should be mentioned here--the town recently added two new police positions-one from the COPS program obtaining three years of funding from the Stimulus program with the requirement that the position be funded for an additional year at town expense; another officer has been funded from the Governor's Highway Safety Program-three years funding with increasing local match. The Town also has a FVRC grant to fund a Domestic Violence officer.

Impact Fees are fees charged to developers for the impact that is anticipated from new development. These fees are regulated by the state - only seven municipalities have impact fees. The fee has to be held/spent on the service for which the impact fees are being raised - water, sewer, schools, open space, etc.

2/3 bonds are bonds that can only be issued upon voter approval. The exception is that if a municipality retires \$3 Million in bonds one year (for example), they can re-issue those 'same' bonds for \$2 Million without voter approval.

### **Public/Private Partnerships**

These take many forms, but usually involve joint financing of large capital projects.

### **Capital Improvement Program**

#### Capital Project Definition

Strategic planning and financial planning are interrelated when formulating a capital improvement plan. The Capital Improvement Program (CIP) is a multi-year plan for major capital expenditures related to the operations for the Town of Pittsboro. The CIP allows for the orderly replacement and rehabilitation of existing capital assets, in addition to the acquisition of new capital assets. The CIP also identifies proposed funding sources for each project. Items that may be included within the CIP are typically related to, but not limited to infrastructure, land purchases, construction of facilities, or other major improvements to the Town's assets. By providing a planned and prioritized schedule of public enhancements, the program outlines the present and future needs of Pittsboro as identified by the Town staff and approved by the Board of Commissioners. To qualify as a capital improvement, the project should typically have a cost greater than \$50,000 and a useful life of at least 10 years.

The CIP is a fluid document by nature, and as such should serve only as a reference document throughout the fiscal year. Funding plans for projects may change, as may the priorities of the Board of Commissioners.

#### Capital Improvement Funding

Funding for the CIP varies from one project to the next. Historically, the Town has relied heavily on the use of grant funds for capital expenditures. Additional options available to the Board of Commissioners include cash spending from budget or fund balance appropriations, installment financing, and bonding. In the case of the latter two, approval from the Local Government Commission (LGC) would be required. In the use of financing through either bonding or loans, future revenues would be examined in order to ensure the repayment.

### ***Primary Reference Documents – Community Facilities and Operations***

- *Town of Pittsboro Annual Budget*
- *Parks and Recreation Capital Improvement Plan (2007)*
- *Various Fiscal Impact Studies*
- *North Carolina General Statutes Section 159-11(b)*

## 5.9 Housing



*Housing availability and affordability are key issues to address in a growing community such as Pittsboro. Some issues considered in this section include the types of housing stock available, the concept of "inclusionary zoning," sustainable housing development, and how to define affordable housing.*

### Inclusionary Zoning

Inclusionary zoning refers to municipal and county planning ordinances that require that a given share of new construction be "affordable" to people with low to moderate incomes. The term inclusionary zoning is derived from the fact that these ordinances seek to counter exclusionary zoning practices. In practice, these policies involve placing deed restrictions on 10%-30% of new housing units in order to make the cost of the housing affordable to lower income households. The mix of "affordable" and "market-rate" housing in the same neighborhood is seen as beneficial by many.

### Affordability

According to the U.S Department of Housing and Urban Development, the generally accepted definition of affordability is for a household to pay no more than 30 percent of its annual income on housing. The Median Household Income (MHI) for Chatham County was \$62,100 per year<sup>9</sup>. Thirty percent of that is \$18,360, or \$1552.50 per month available for rent or mortgage. For a mortgage, that would equate to a house ranging between \$170,000 and \$200,000. The median price of a new house in Chatham County was \$176,000 in 2002. In 2008 it was \$285,500<sup>10</sup>. In order to be affordable for those making between 65-80% AMI, the affordable homes in Briar Chapel are aiming for a price point of \$103,000.

For many people incomes are significantly lower. The Chatham County Affordable Housing Study notes a number of professions making far less than the MHI, including trucking, food production, retail and service industries, and building contractors. Wage gains have not kept pace with the cost of housing, and many people working in jobs the community

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<sup>9</sup> <https://www.efanniemae.com/sf/refmaterials/hudmedinc/>

<sup>10</sup> Chatham County Affordable Housing Study Update 2007

depends on—schoolteachers, law enforcement, trash collection—can no longer afford to live in the community they serve. This is a national phenomenon.

Government ownership, rental of public housing, partnering with non-profit agencies by donating land or waiving permit fees are methods utilized to assist in lowering the price of a home.

There are also incentives for single-ownership homes in the form of loan subsidies or no-down payment programs such as the USDA Rural Home Loan Program or first-time homebuyers programs. Non-profits such as Habitat for Humanity also help provide low-cost housing.

### **Housing Stock**

The latest Census data indicates that there are 1,606 housing units within Pittsboro. Owner occupied units total 1,030 or approximately 70% of the total housing stock.

A variety of housing stock is needed to ensure the future vitality of the community. Often, individuals and families who start as renters, purchase small homes or duplexes, and possibly larger homes. The proximity of housing to work opportunities keeps more money within the community, and allows people to choose multiple options for the daily commute.

### **Sustainable Development**

Sustainable development has proven to have higher upfront costs, higher returns on investments, and higher resale values. Builders often only see the higher upfront costs and do not directly benefit from the energy savings or future resale, and therefore have no financial incentive to build “green.”

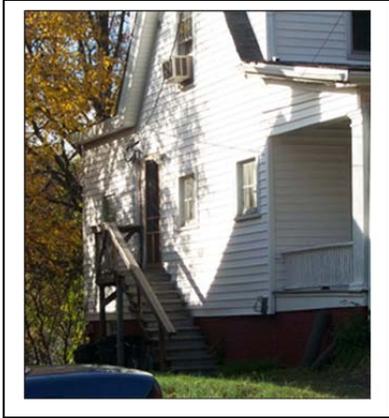
The Town currently has in place provisions for the development of pocket neighborhoods, which allow for smaller lots and provide access to shared open space in integrated settings. Ultimately, more affordable living patterns need to be about a diversity of choices within a community, rather than identically sized and styled housing products that have been typically offered.

### **Implementation Tools**

#### **Public investments and policies**

Inclusionary Zoning has been controversial in North Carolina. This tool mandates a certain number of dwelling units that meet the “affordable” definition be provided. Because this gets into issues of the building, and not of the land, typically is not done through conventional zoning, but requires an additional process such as a Conditional Use District.

Another way to achieve this is to indirectly control the cost of the underlying lots by requiring a mix of lot sizes in a subdivision ordinance. Since the land cost has a direct impact on what a builder must put on a lot to make a profit, requiring a mix of small and large lots in a subdivision will indirectly yield a mix of housing types.



Example of an Accessory Unit off of a Primary Residence

Restrictions on accessory dwelling units in current ordinances may be relaxed to allow for a mix of housing choices within a neighborhood. This ties renters with a community, rather than concentrating renters in large, multi-family complexes. These can take many forms, like the one pictured to standalone ‘mother-in-law’ flats. These accessory units have the added benefit of allowing elderly parents a way to maintain their quality of life and stay with the family longer under the right circumstances.

Land Banking is where a government purchases land in advance of development while it is still inexpensive. As development occurs and land supply diminishes, this “land savings account” can be used for affordable housing projects, or donated to non-profits for the purpose of building affordable housing.

Manufactured Housing is another way to meet housing demand. The industry has moved beyond its “trailer park” beginnings. The manufactured housing industry has worked across the country with communities and architects to develop prefabricated modules with front porches, multiple stories, and pitched roofs for a more traditional appearance. Making sure current ordinances do not overly restrict manufactured homes can be another way to keep housing affordable.

Multi-family and Mixed-Use Zoning also help ensure a certain number of rental units or help defray the land cost of ownership by spreading it among multiple owners. In the case of zero-lot-line homes (such as duplexes, triplexes, and the like) or townhouses (a specialized kind of zero lot line dwelling, usually multi-story home with a front entrance to the street), this land cost is reduced simply by having a very small lot on which the dwelling sits.

### Government Subsidized Housing

There are two major forms of government subsidized affordable housing—ownership and rental. The federal government has programs for each, often administered locally. Housing assistance from the federal government for lower income households can be divided into three parts:

- “Tenant based” subsidies given to an individual renter, often known as the Section 8 voucher program, Pittsboro currently has 120 units of Section 8 rental voucher apartments in two locations.
- “Project based” subsidies given to the owner of housing units that must be rented to lower income households at affordable rates, such as the Low Income Housing Tax Credit, and
- Public Housing, which is usually owned and operated by the government, is another form. Some public housing projects are managed by subcontracted private agencies.

## Financing

Under the USDA Direct Loan Program, individuals or families receive direct financial assistance directly from the Housing and Community Facilities Programs in the form of a home loan at an affordable interest rate. Most of the loans made under the Direct Loan Program are to families with income below 80% of the median income level in the communities where they live. Since HCFP is able to make loans to those who will not qualify for a conventional loan, the HCFP Direct Loan program enables many more people to buy homes than might otherwise be possible.

The Section 8 Rental Vouchers also have a newer mortgage voucher counterpart that helps with gap funding in mortgage or other home-related expenses. The Regulations are found in 24 CFR Part 982 (particularly see sections 625-642). The homeowner would have to pay at least the total tenant payment (approximately 30% of adjusted monthly income).

The North Carolina Housing Finance Agency helps make home ownership affordable for first-time buyers by selling tax-exempt Mortgage Revenue Bonds and issuing Mortgage Credit Certificates (MCC) under federal authority. Mortgages are available through private lenders and their branches.

Many local governments help with down payment assistance for qualified buyers. Some require eventual repayment, but most are pro-rated for some period in case the buyer sells the home. Those that stay for some specified length of time do not pay anything back.

The Chatham Chapter of Habitat for Humanity coordinates future homeowners, volunteers, and partners families with houses, which can be purchased with zero percent interest mortgages. Habitat for Humanity also trains volunteers to work at home construction sites and works with other faith-based and civic organizations to coordinate volunteers.



The Downtown Housing Improvement Corporation (DHIC) is a local umbrella organization that is involved in both homeownership and rental efforts.

The Town of Pittsboro also participates in Chatham County's Community Development Block Grant program for Scattered Site home repair and improvements.

East Cornwallis Neighborhood—nearly half of the homes have involvement from Habitat for Humanity (image courtesy of Chatham Habitat and Americorps)

### **Primary Reference Documents – Housing**

- *Chatham County Affordable Housing Study, Phases I and II*
- *General Statutes Section 159-48c6, Bonds for counties to provide housing for low or moderate income people, and Section 159-48d7, Bonds for municipalities to provide housing for low, moderate, and low-to-moderate income people.*

## 5.10 Economic Development and Employment



*As Pittsboro's population grows, it will be important for economic development and job growth to keep pace. Key issues to consider with regard to economic development and employment include the local provision of goods and services, the skills and interests of the Town's workforce, encouragement of entrepreneurship, business recruitment infrastructure, quality of life, the Town's proximity to the Research Triangle Park, and Chatham County's rural designation.*

### **Economic and Employment Issues**

#### **Provision of Goods and Services**

The basic definition of an economy is the ability of a community to provide the goods and services required for the daily life of its residents. As is true of smaller rural communities, very few of the needed goods and services are produced in the Town. Pittsboro is only self-reliant in construction, healthcare, and social assistance sectors of the economy. Goods and services from every other industry are purchased from areas outside of the community. Local wealth is being sent away as "leakage." A cursory leakage analysis shows that an additional 2,300 jobs could be created and nearly \$1.2 million in earnings generated if this spending could be captured locally. This point was also further emphasized in the Business and Development Plan for Downtown Pittsboro prepared by the N.C. Main Street Program, N.C. Department of Commerce, in the Spring of 2012.

Without being formally stated, the desire to keep wealth in and working for the community has become a key economic development strategy. The "Buy Local" efforts need a parallel "Produce Local" effort to multiply their impact.

The strength of the local economy, and indeed the image of Pittsboro outside of the county, is provision of high-quality fresh food using sustainable agricultural practices, production of artisan goods (especially wood, fiber, and ceramic) by accomplished craftsmen, and the innovation of alternative fuels, especially bio-fuels. The physical image of the Town is the historic Courthouse, symbol of Pittsboro's role as the county seat, with the economic benefit of the professional services that support that role.

#### **Workforce Skills and Interests**

College graduates comprised 33.8 percent of the population in Chatham County in 2009. This compares to 25.8 percent for the state. The number of residents in Chatham County with at least a high school education rose from 18,781 (70%) to 27,215 (77.9%) between 1990 and 2000. As of 2009, the percentage of high school graduates over the age of 25 was 82.5%.

Central Carolina Community College (CCCC) in Pittsboro offers unique programming in sustainable agriculture, biofuel production, and a natural chef program. These programs reflect the interests of the local population, but have also established a reputation out of state, attracting students from places such as New York. CCCC is the primary post-secondary training and educational facility in the County.

The Town is a member of a regional Workforce Development Board that includes Chatham, Lee, Harnett, and Sampson Counties. It is a local board required by the Federal Workforce Investment Act (WIA) of 1998. The Board is charged with planning, policy development, policy implementation, and oversight responsibilities for the workforce development services and programs under WIA. It is a majority private sector board, appointed by local elected officials. It oversees programs for adults, workers who have been laid-off from jobs, welfare recipients, youth, job seekers, and businesses. The public and non-profit sector board members represent public schools, colleges, vocational rehabilitation, organized labor, economic development, the employment services, community based organizations and the department of social services.

### **Entrepreneurial Support**

Pittsboro has a very active entrepreneurial community; including the Lorax Lane area facility, the Chatham Mills complex, and downtown. Businesses focus on fresh food (production, distribution, and value-added), fuel, woodworking, and music.

In addition to the support of the Small Business Development Office at CCCC, a less-formal system of support exists within the small business community of Pittsboro.

### **Business Recruitment Infrastructure**

The Chatham County Economic Development Commission works closely with the North Carolina Department of Commerce to facilitate business recruitment for the Town. The EDC strives to increase visibility and outreach to existing businesses; serve as a referral point for business expertise and workforce training assistance; and establishes linkages among existing businesses.

This plan calls for all land currently in an industrial zoning category to remain so, in order to support job creation and economic development. There are 760 acres of industrial zoning in the Town and ETJ, with 690 of it in the more-permissive M-2 district. This is the zoning around Piedmont Biofuels and its surrounding area.

Sewer availability has been a key impediment to economic development in Pittsboro. The town is looking at ways to increase sewer capacity (see 5.2 Public Water and Sewer, Water Supply).

The town has quite good transportation access for cars and truck freight with US 15-501 and US 64. These create a north-south and east-west backbone for major transportation routes.

Commercial air travel from the Raleigh-Durham International Airport is approximately an hour's drive from Pittsboro. Rail service on Amtrak is available in Cary or Durham at roughly the same distance. There is no freight rail service to Pittsboro.

Natural gas service is available through PSNC Energy.

### **Quality of Life**

The quality of life in Pittsboro is renowned in the Triangle area as a unique combination of small town living and accessibility infused with an active arts community and high-quality food. There are active community groups providing events that attract visitors from outside and work to also strengthen the sense of community within Pittsboro. These groups include, but are not limited to: the Abundance Foundation; Downtown Merchants Association; Shakori Hills; Chatham Arts Council; Briar Chapel Community (art classes); and Ferrington Village, which supports a four-star restaurant, bookstore, and active literary community. Pittsboro's Parks add greatly to the Town's quality of life.

### **Rural Designation**

A development issue that needs some countywide discussion is the impact of the density and pervasiveness of development, as well as the wealth of new residents in the northern part of the County, as these factors may affect the "rural" designation of the county. Loss of the rural designation with USDA and the NC Rural Center would make Pittsboro ineligible for the pots of money currently relied-on and necessary for the provision and expansion of quality sewer, water, and road systems. Without such designation, funds would need to come from within the county—funded either by developers or by taxpayers—and then shared with Pittsboro and Siler City.

### **Economic Strategies**

#### **Economic "Clusters"**

Clusters are concentrations of companies and their vendors, suppliers and organizations that support their growth and development. Together, they represent a "critical mass" of expertise and specialization that gives a competitive advantage in recruiting new business and spawning entrepreneurs. The Research Triangle Regional Partnership found ten clusters in the 12-county region they serve:

- Pharmaceuticals
- Biological Agents/Infectious Diseases
- Agricultural Biotechnology
- Pervasive Computing
- Advanced Medical Care
- Analytical Instrumentation
- Nanoscale Technologies
- Informatics
- Vehicle Parts Manufacturing
- Logistics and Distribution

The strongest clusters for Pittsboro are local sustainability concentrations:

Sustainable agriculture: including organic meat, fruit, and vegetable growers, farm supply stores, and a range of “farm to fork” businesses including wholesale organic food distribution, CSAs that serve a regional population, a cooperative grocery, and three farmers’ markets. There are numerous small, value-added food businesses operating from places such as the kitchen at the Wellness Center, and restaurants and caterers focused on the use of seasonal, local food thriving in Pittsboro.

Chatham County is a supporting partner in the development of a food incubator located in Hillsborough in Orange County. PFAP (Piedmont Food and Agriculture Processing) opened in October 2011 with a range of furnished kitchen facilities and available cold storage.



This cluster also includes a core of non-profit organizations (e.g. Carolina Farm Stewardship Association CSFA, The Center for Environmental Farming Systems CEFS, and the Rural Advancement Foundation International RAFI) involved in developing, educating, and supporting high-quality food production across the state and region.

An Energy Alternatives and Conservation cluster includes two biodiesel plants and the CCCC training facilities, several solar-powered offices and businesses, and a growing home energy conservation effort led by the North Carolina Waste Awareness and Reduction Network NC WARN, out of Durham. This cluster has spawned numerous unique businesses from by-products, including soap from glycerin.

Craftsmen and Artisans are another unique, local cluster centered on a long-standing artist community scattered in and around Pittsboro in Chatham County. This includes especially ceramics (originally from local clay), painting and fine arts, woodworking and furniture repair, production of musical equipment, and now recording facilities.

This cluster is again supported by educational opportunities at CCCC, new courses including art history and improvisational comedy at Briar Chapel as organized by the Chatham County Arts Council, and numerous festivals organized by the Abundance Foundation and Shakori Hills.

### **Creative Class**

This Artisan and Craftsman cluster is an example of what is popularly discussed as the development of a creative economy. The "Creative Class" concept was mentioned at a number of the public input sessions as being important to Pittsboro. The idea is the brainchild of Dr. Richard Florida, a Professor at the Rotman School of Management in

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## Section 5: Key Issues – Economic Development and Employment

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Toronto. The Class is divided into two broad sections, derived from Census employment data sets:

\* Creative Professionals: "Knowledge workers" and expanding to include lawyers and physicians.

\* Super-Creative Core: This comprises about twelve percent of all U.S. jobs. This group is deemed to contain a huge range of occupations (e.g. architecture, education, computer programming) with arts, design, and media workers making a small subset. "Bohemians," such as artists, writers, and the like are also included in the definition.

Generally, the idea is that this group of artists and knowledge-based workers is an ascendant economic force, representing either a major shift away from traditional agriculturally- or industrially-based economies, or an overall sea change in the global economy.

The "creative class" coincides with the rise of the computer, going back about four decades, with an economic shift towards technology, research and development, and computers.

A number of regions (California's Silicon Valley, Boston's Route 128, the Research Triangle, Austin (Texas), and Seattle) have come to be identified with these economic trends; the same areas are also heavily associated with the "creative class."

A creative economy summit was held in the spring of 2010 and an active committee is developing plans to help foster creativity in business and maintain an environment supportive of innovation. Chatham Arts coordinates these meetings.



### Retirement Community

Pittsboro and the surrounding areas have become a magnet for retirees, centered initially on Fearington Village. The wealth brought by this particular population has enabled an improved variety and quality of services now available for all residents.

The state is in the process of reauthorizing a Certified Retirement City designation program and this may be an appropriate tool for Pittsboro. This certification places some emphasis on wellness and walkability. Consideration of an ability to live without dependence on a vehicle would drive discussion on the density of housing and the clustering of services (food, basic provisions, healthcare) in a walkable core area such as the downtown of Pittsboro.

Issues to be considered for support of a retired population include affordability for those elders of lesser financial means and the ability of current residents to "age in place." There

may be opportunities to expand services from local businesses to better accommodate this population.

## **Implementation Tools**

### **Public investments and policies**

The Town participates in a number of regional economic development entities, including the Chatham County Economic Development Corporation (EDC) and the Research Triangle Regional Partnership (RTRP). They in turn work with a number of partners to recruit new businesses and encourage entrepreneurs.

Chatham County has an incentive program, passed by the County Board of Commissioners in January of 2004. It states, "New or expanding businesses or industries may qualify to receive a financial incentive grant based upon the actual value, schedule, and payment of local property taxed for a period of up to five tax years. The County will require the business or industry to "pay in full" annually the total property taxes due. If the business or industry has met specific criteria as outlined in a formal agreement, a portion of the property taxes paid by that business or industry to the County each year for five consecutive tax years would be returned to the industry in the form of a local economic development incentive grant." Siler City has a similar incentive, but Pittsboro does not.

The North Carolina Department of Commerce has a number of incentive programs. Some specific tax credit programs include:

Article 3J Tax Credits – Provides tax credits to qualifying businesses for job creation, investment in business property and in some cases investment in real property.

Renewable Energy Tax Credits – Provides a tax credit of 35% of the cost of renewable energy property.

Discretionary programs include:

Job Development Investment Grant – Provides a limited number of cash grants to new and expanding businesses that will provide economic benefits to the State, and need the grant to carry out the project in North Carolina.

One North Carolina Fund – Awards grants for job creation and/or retention in conjunction with local government matches.

SBIR/STTR Small Business Technology Funding – Awards matching funds to firms who have been awarded a SBIR/STTR Phase I award from the federal government. (SBIR is the Small Business Innovation Research and STTR is the Small Business Technology Transfer program of the Small Business Administration (SBA), see below for more)

Site and Infrastructure Grant Fund – Provides assistance for site development and infrastructure improvements for very high-impact projects.

Under Discretionary Programs some may fit under certain situations:

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## Section 5: Key Issues – Economic Development and Employment

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Industrial Revenue Bonds – Provides tax-exempt financing for eligible new or expanded manufacturing facilities, certain solid waste disposal facilities and sewage disposal facilities.

Community Development Block Grants and Industrial Development Fund – Provides grants and loans for infrastructure development to eligible local governments.

Road Access and Rail Access Programs – Provides funds for the construction of roads and rail access to new or expanded industrial facilities.

Recycling Business Assistance Center – Provides grants, tax credits and loans to businesses involved with recycling in North Carolina.

North Carolina Biotechnology Center – Provides loans and matches to help leverage larger financial awards for biotechnology companies.

The last category of State incentives includes a number of specialized exemptions for industry-specific materials and machinery which do not merit separate listing in this plan.

There are also federal programs available, including the SBIR/STTR mentions, above. According to the SBA, SBIR is “a highly competitive program that encourages small business to explore their technological potential and provides the incentive to profit from its commercialization. By including qualified small businesses in the nation's R&D arena, high-tech innovation is stimulated and the United States gains entrepreneurial spirit as it meets its specific research and development needs.”

The STTR is “a highly competitive program that reserves a specific percentage of federal R&D funding for award to small business and nonprofit research institution partners. Small business has long been where innovation and innovators thrive. But the risk and expense of conducting serious R&D efforts can be beyond the means of many small businesses.”

One key policy tool that came up repeatedly in the public sessions was to keep remaining industrially-zoned property as such. Because residential neighbors often oppose new industrial zoning nearby, it can be difficult to get new districts on the map. (Note: One probable exception to this is the Chatham Mills property, currently utilized for a wide variety of uses, far beyond its manufacturing roots. Another type of zoning district, that may not yet exist, would be more appropriate than the existing Light Industrial district).

### Public-Private Partnerships

Use of the Chatham County Economic Development Corporation and working with them to implement their plan is a good way to bolster the labor market of the region. The plan notes three major themes: attraction, retention, and entrepreneurship. Other key components are: infrastructure improvement, quality of place preservation, and some internal reorganization of the EDC.

The Workforce Development Board represents one of the best public/private partnership examples, with a clear link between worker education and job placement, often working with the private sector to determine the types of education to provide.

### Grassroots Initiatives

Pittsboro is the home of an active chapter of Slow Money, which facilitates small investors to assist in the development of food-based businesses. Local investors are currently involved with ten new and expanding local businesses. This concept is being shared and expanded across the state.

Other local organizations and programs with an impact on economic development include the Small Town Main Street Program, the Pittsboro Merchants Association, and the Chatham County Chamber of Commerce.

### Public Education and Outreach

The Mid-Carolina Workforce Development Board is part of a larger statewide network. The workforce development network partners supplying cost-saving recruiting, screening and training services includes the North Carolina Department of Commerce, local workforce development boards, the North Carolina Community College System, the North Carolina Employment Security Commission (ESC), and a variety of other related public and private organizations.

Chatham County Community College is a key partner in this by providing training for potential and existing employees, but also hosting the local JobLink Center. Some JobLink centers have on-the-job training (OTJ) programs as another public/private partnership example. Employers in this program can be reimbursed for up to half of a trainee's wages for a period of the training time.

### Primary Reference Documents – Economic Development and Employment

- *Staying on Top: Winning the Job Wars of the Future (the Research Triangle Region's strategy for economic growth and competitiveness)*
- *Chatham County Economic Development Corporation Strategic Plan*
- *Business and Development Plan for Downtown Pittsboro, NC Main Street Program*
- *All Eyes on the Horizon: A Global Competitiveness Strategy for the Research Triangle*



*Production at Pittsboro's  
Starlight Meadery*

## 5.11 Future Development Pattern



*A development pattern describes the way in which different types of places fit together to form a community, much the way a quilt is made up of different types of fabric. A development pattern is made up of land uses (e.g., homes, stores, offices, farms, etc.) and the supporting infrastructure and environmental assets that may enable or constrain the uses of land. The Pittsboro Land Use Plan includes a map illustrating the different types of places that combine to form the Town's development pattern, ranging from place types composed exclusively of one land use – such as large lot residential neighborhoods – to place types that blend together compatible residential and non-residential land uses. Once adopted, the development pattern serves as an important guide for refining the codes and ordinances that set the standards for developing each place type.*

### What a Development Pattern *Is*, and What It *Is Not*

One of the most difficult concepts in any land use plan is what a particular place type or land use means to a land owner or developer, and how it relates to the zoning or other regulatory standards applied to parcels of land. There are two fundamental differences between a place type or future land use designation for a parcel of land, and a zoning or similar designation contained in an ordinance:

1. A place type or land use designation is *aspirational*: it identifies what might ideally happen at some point in the future, based on the community's goals envisioned in the land use plan. It is a recommendation as opposed to a requirement. Sometimes those aspirations are the same as what is there today, for example in the case of existing residential neighborhoods that should be protected. Other times, the place type may be very different from what is on the ground today, for example in an area where the town envisions major new transportation or water and sewer investments. A place type sets a level of expectation so that land-owners, neighbors, service providers and infrastructure planners are on the same page in preparing the

community for a desirable and obtainable future. It does not indicate what must happen on the property today.

2. A place type or land use designation *informs*, but does not regulate. A place type or land use designation does not change what a property owner may do with his or her land. Standards affecting what can be built and such things as density, building heights, water and wastewater requirements, or set-backs from streets and property lines are controlled by zoning and other development ordinances, not by a land use plan. So, standards in place the day before a plan is adopted remain the same the day after the plan is adopted. Nevertheless, a good plan – one that is used – does inform the creation or modification of ordinances, infrastructure programs and fiscal policies that influence the types, amounts and designs of development that occur in what places within a community.

A good place to start in understanding the future development pattern for Pittsboro is to understand the different types of places that are expected to make up the community in the future.

The language of these place types is a bit different than the language of zoning that is applied to specific parcels of land, although the two are related. Place types are more general, describing the overall look and feel of a neighborhood, even though individual parcels of land within the neighborhood may vary.

Let's look at two examples, one where a place type is more narrowly focused and another where the place type defines a broader collection of land uses.

Place Type Example #1: Medium Density Residential Neighborhood. An example of a medium density residential neighborhood is the Chatham Forest subdivision in Pittsboro. This neighborhood is made up entirely of single-family homes of relatively uniform building size and lot density. The image at right shows the development pattern within this neighborhood.



Place Type Example #2: Mixed Use Neighborhood. A nearby example of a mixed use neighborhood is Farrington Village, located just north of Pittsboro. This neighborhood includes a wide variety of land uses, including single-family residential (of varying size and density), multi-family residential, retail stores, restaurants, lodging, and open space. The image at right shows how these uses are arranged. Within the Town of Pittsboro, the Powell Place neighborhood will also serve as an example of a mixed use neighborhood once it is built-out.



## Elements of the Pittsboro Future Development Pattern Map

The Pittsboro Land Use Plan maps out eleven different place types, which are listed and defined below, and shown on the map that follows. Boundaries between place types on the map are approximate and should not necessarily be interpreted at this time to follow any specific parcel lines, natural features such as streams or constructed features such as roads. As an implementation task, however, it is recommended that this map be continually refined and place types more clearly demarcated to avoid confusion and differing expectations among users of the Plan.

### *Natural Place Types*

	Open Space & Conservation	Conservation includes floodplains, a 2,000 foot-wide buffer along the Haw River, and public lands associated with Lake Jordan. The buffer along the Haw River is consistent with Chatham County's low-density stream buffers, which limit density to one unit per five acres. Development in these areas is generally discouraged.
	Park	Parks provide public uses such as playgrounds and ballfields and associated facilities such as parking lots and rest rooms.

### *Developed Place Types*

	Rural Residential/ Agricultural	This category includes areas where agriculture and large-lot residential development are encouraged, maintaining a rural character in these areas. The limited development in these areas will be supported by on-site well and septic systems. The rural residential/agricultural areas are primarily located near the outer edge of the planning area.
	Low Density Residential Neighborhood	The low-density residential neighborhood category would include residential developments at a low enough density to support on-site septic systems. Water may be supplied to these neighborhoods either through private wells or public water service, depending on the availability of nearby water lines.

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Section 5: Key Issues – The Future Development Pattern

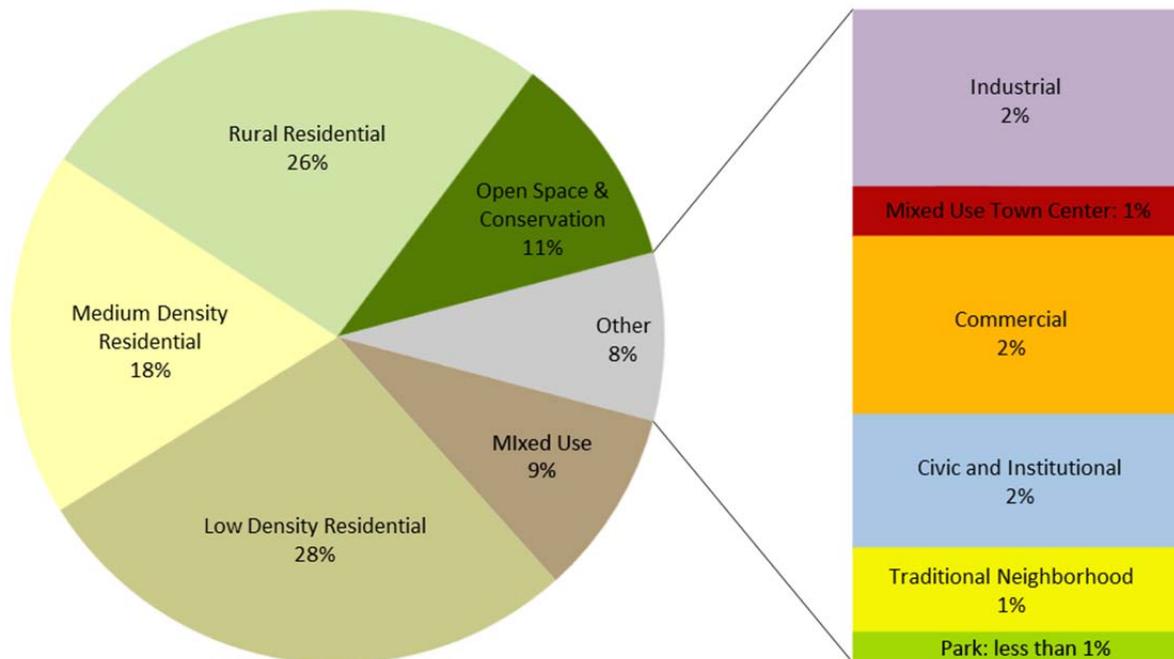
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	Medium Density Residential Neighborhood	The medium-density residential neighborhood category would include residential developments with access to both public water and sewer services. Development in this area could include single-family homes, accessory apartments, churches, parks, community buildings, schools, swim or tennis clubs, and other neighborhood facilities. Clustering of lots, particularly in water supply watersheds, is encouraged as a way to provide common open space and recreation facilities.
	Traditional Neighborhood	This category describes existing neighborhoods in Pittsboro that are primarily residential but also include a mix of other uses. The density of development in these traditional neighborhoods is typically less than that found in the Town Center, but higher than that found in the medium density residential category. Infill development—including single-family and multi-family homes, and businesses/mixed use buildings that complement the existing neighborhood—is appropriate in this area.
	Mixed Use Neighborhood	The mixed use neighborhood category includes a mixture of land uses—including residential, commercial, and civic/institutional—at a variety of densities. This category is intended to allow flexibility, while at the same time encouraging development that echoes the mixed development types found in older areas such as downtown Pittsboro. Three primary areas are indicated for this type of development: on the east side of town along US 64 Business and US 64 Bypass; on the north side of town near the US 64 and US 15-501 interchange; and on the west side of town near Central Carolina Community College.
	Mixed Use Town Center	This category includes the traditional central business district of Pittsboro and its surrounding adjacent blocks. Setback and on-site parking requirements are generally minimal in this area. A mix of uses, including both businesses and residences, is encouraged, as is infill development and the adaptive reuse of existing buildings.
	Civic & Institutional	This category includes government facilities, schools, libraries, and other major civic or institutional land uses.
	Commercial	These areas are located with convenient access to US 64 Business and US 15-501, particularly near major intersections. Encouraged uses are those that benefit from convenient highway access, including general commercial, restaurants, building supply, light manufacturing, distribution, and professional services. Development in these areas should be well-planned with street-front and interior lot landscaping, coordinated building styles, attractive signage, and shared driveways/access where appropriate.
	Industrial	This category includes indoor manufacturing, warehousing, and trades. The largest area designated for this type of use is in the southeast quadrant of the town, near Moncure-Pittsboro Road and Industrial Park Drive.

Summary Statistics

Place Type	Area in Square Miles	Area in Acres	Percentage of Planning Area in Category
Open Space and Conservation	4.59	2940	11%
Park	0.17	108	Less than 1%
Rural Residential/ Agriculture	11.21	7171	26%
Slow Density Residential Neighborhood	11.94	7640	28%
Medium Density Residential Neighborhood	7.76	4963	18%
Traditional Neighborhood	0.46	292	1%
Mixed Use Neighborhood	3.98	2548	9%
Mixed Use Town Center	0.27	172	1%
Civic and Institutional	0.72	463	2%
Commercial	0.97	623	2%
Industrial	0.96	615	2%

Proposed Future Land Use Ratios



INSERT Map 9 FUTURE LAND USE MAP HERE 11x17

Back of Map 9 FUTURE LAND USE MAP 11x17

## Section 6 – Actions

This matrix will guide the implementation of the Plan. In general, the Plan should be used as a guide by which to evaluate proposed actions and activities, referring to specific plan sections as appropriate.

### Policy Setting and Regulatory

Adopt this plan.	Town Board, Planning Board	2012	Months 1-2
Amend existing Development Ordinances pursuant to issues discussed in this plan.	Planning Staff, Planning Board, Town Board	2014	Months 12-24
Complete the Comprehensive Transportation Plan for Chatham County (incorporating the Pittsboro Comprehensive Transportation Plan, with additional bicycle, pedestrian, and transit elements).	NCDOT, Triangle Area RPO, Planning Staff, Town Board, Chatham County, Siler City, Goldston	2013	Months 1-12
Develop a “complete streets” policy for the Town, in coordination with the NCDOT policy, to ensure adequate facilities for bicyclists, pedestrians, and transit on future road projects.	Planning Staff, Public Works, Town Board	2013	Months 6-12
Develop a Unified Development Ordinance (UDO) to replace the outdated Zoning Ordinance and reflect the issues and future land use map presented in this plan. The UDO would codify regulations on the issues discussed in this plan, such as street connectivity, parking requirements, building form, street trees, sidewalks, utilities, and land use mixes.	Planning Staff, Consultant, Planning Board, Town Board	2014	Months 13-24
Use public art in the town landscape to create and enhance spaces for education, cultural, and historical references	Parks Planner/ Parks Director, Town Manager, Town Board, Private Partners	Ongoing	Ongoing
Study potential partnerships and funding to assist with a Downtown Coordinator position for the Main Street program.	Finance Director, Planning Director, Town Manager, Town Board	2014	Months 13-24
Consider development of design/appearance/landscaping guidelines and regulations for development in the Town.	Planning Staff, Planning Board, Town Board	2015	Months 25-36
Develop policies to foster “green” development and building retrofits in the Town, particularly with public buildings. Standards could address issues such as building life-cycle costs and energy efficiency. Incentives could be considered to encourage green building by private entities.	Public Works, Finance, Town Manager, Town Board	2015	Months 6-36

**Public Infrastructure**

Develop a Capital Improvement Plan for the Town, and update periodically as needed. At minimum, the Capital Improvement Plan should address the needed improvements to the water and wastewater utility systems.	Planning Staff, Public Works, Town Utilities, Finance, Town Manager, Town Board	2013	Ongoing Annually
Conduct study for a re-use water system that would be available for industrial and landscaping uses as part of the wastewater treatment plant and Capital Improvement planning process.	Utilities Director, Town Engineering Consultant, Planning Staff, NC DENR, Town Manager, Town Board	2014	Months 6-18
Select site for new Town Hall and police station.	Town Manager, Police Chief, Town Board	2015	Months 25-36
Determine sites for two new water towers—one to serve the area north of US 64 Bypass and one to serve the northeastern portion of Town.	Utilities Director, Town Engineering Consultant, Town Manager, Town Board, Private Partners	2015	Months 25-36
Build new wastewater treatment plant, pursuing regional and public/private partnerships where possible.	Utilities Director, Town Engineering Consultant, Town Manager, NC DENR, Private Partners	2017	Months 0-60
Construct distribution system (trunk lines and towers) for re-use water, pursuant to results of study (see above).	Utilities Director, Town Engineering Consultant, Town Manager, NC DENR	2017	Months 18-60
Study and design new sewer trunk line to serve the northern and northeastern areas of Town, from the vicinity of Northwood High School east, and then south down Fire Tower Road.	Utilities Director, Town Engineering Consultant, Town Manager, Town Board, Private Partners	2018	Months 49-72 (dependent on completion of wastewater treatment plant)
Expand capacity of existing water treatment plant.	Utilities Director, Town Engineering Consultant, Town Manager, NC DENR	2018	Months 37-72
Look at additional water supply and treatment options. Participate in regional effort to draw water from Jordan Lake.	Town Manager, Utilities Director, Town Engineering Consultant, Other Partners	Ongoing	Ongoing
Work with NCDOT and private developers to implement major transportation recommendations from Comprehensive Transportation Plan and the Pedestrian Transportation Plan.	Planning Staff, Public Works, Town Manager, NCDOT, Private Partners	Ongoing	Ongoing
Implement Parks Priorities (page 74)	Parks Planner/ Parks Director, Town Manager, Town Board, Parks & Recreation Advisory Board	Ongoing	Ongoing

**Private Development**

Prepare an area plan for Downtown Pittsboro with a focus on walkability, parking, marketing, and building/streetscape design. Street improvements, wayfinding signage, and adaptive re-use of buildings should be key elements of the plan. Explore public-private partnerships that help fulfill the vision of the arts in Pittsboro.	Planning Staff, Downtown Merchants, Residents, and Property Owners, Public Works, NCDOT, Town Board, Main Street Program	2014	Months 12-24
Work with the developers of Chatham Park to develop an area plan with a public process and design charrette that builds on the Southwestern Shore Assessment (October 2008). Determine specific alignment of proposed roadway improvements within Chatham Park.	Private Sector, Planning Staff, Public Works, NCDOT	2015	Months 12-36