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Comprehensive planning helps a community define its goals and future direction. In many ways, the process of planning is more important than the maps and documents that are produced. As citizens, elected officials, appointed board members and staff interact and discuss their community's future, shared values and goals become apparent.



More than 75 citizens attended the May 2008 kickoff meeting for the comprehensive plan at the Cultural Center.

In South Carolina, comprehensive planning is authorized and defined by the Local Government Comprehensive Planning Enabling Act of 1994. If local governments wish to regulate land use through zoning and subdivision ordinances, they are required to develop and adopt a comprehensive plan and to update that plan every 10 years.

The state legislation requires that the comprehensive plan must address nine elements:

- Population
- Housing
- Land Use
- Natural Resources

- Community Facilities
- Cultural Resources
- Economic Development
- Transportation
- Priority Investment

This document is the first update of Mauldin's Comprehensive Plan under the 1994 enabling act. The previous plan was adopted in 1999. The City's first comprehensive plan was prepared by Greenville County Planning Commission and was adopted by City Council in 1972.

A steering committee composed of City staff, two City Council members, citizens, and regional planners was assembled to assist in the preparation of the plan. In addition, citizens participated on three advisory committees that met periodically between July 2008 and May 2009 to provide input on the nine required elements of the plan.

An initial public meeting was held in May 2008 to outline the planning process and to invite citizen participation. Each of the nine required elements of the plan is addressed in a separate chapter of the plan. Information about the comprehensive plan has been posted on the City's website throughout the process, and the chapters of the plan have been posted on the city's website as they have been completed.

A public information meeting was held on Thursday, October 22nd to formally present the draft plan and provide opportunities for public input. The plan was presented to Mauldin Planning Commission on October 27th, with a request to adopt a resolution recommending adoption of the plan to City Council. Two additional public presentations, with questions and discussion, were held at City Hall on December 7, with 61 persons in attendance.



Citizens review the land use inventory map that was among the displays at the kickoff meeting

City Council is required by the 1994 enabling legislation to hold a public hearing after providing 30 days public notice. Two readings are required for adoption. City Council may not adopt the plan on final reading unless the Planning Commission has recommended the plan to City Council for adoption.



Advisory groups provided valuable input to the plan



Chapter 1: Introduction and Public Participation

Steering Committee Members

City Council Members

- Gabe Hunter
- Michael Reynolds

Planning Commission Members

- Randy Eskridge
- Bob Settle

City Staff

- Trey Eubanks, City Administrator
- Peter Nomikos, Building and Zoning Director
- John Gardner, Planning and Economic Development

County and Regional Staff

- Tyler Stone, Greenville County Planning Department
- Chip Bentley, Assistant Director, Appalachian Council of Governments

Mauldin Citizens

- Hank McCullough
- Judy McKinley

Advisory Group Participants

Planning Commission and Zoning Board

Bobby Harper, Planning Commission
 Rodney Neely, Planning Commission
 Gordon Love, Planning Commission
 P. L. Fortune, Planning Commission
 Elizabeth Wiygul, Planning Commission
 Jim Bagwell, Board of Zoning Appeals

Citizens and Business Community

Jay Alexander
 Joy Bailey
 Amy Campbell
 Dave Chesson
 Liz Cox
 Danny Day
 Gina Dill
 Jolee Fanton
 Dan Gerst
 Austin Guest
 Ann Henderson
 Blake Jenkins
 Robbie Kellett
 Emma King
 Joel Kleger
 Andrew Lewis
 Phemy Moore
 Taft Matney
 Mary Navarro
 Arthi Rao
 Matt Rogers
 Kyle Rogers
 Sharon Scott
 Nell Thompson
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 Betty Farley, Greenville County School District
 Ty Houck, Greenville County Recreation District
 Phillip Lemon, Appalachian Council of Governments
 Beth Lewis, Appalachian Council of Governments
 Dean Oang, Neal Prince Architects
 Rick Owens, Greenville County Historic Preservation
 Commission
 Mary Walsh, Upstate Forever

Special thanks to all of the staff at the Greenville County Planning Department for their help, insight, and support provided to the City of Mauldin during the preparation of this plan.



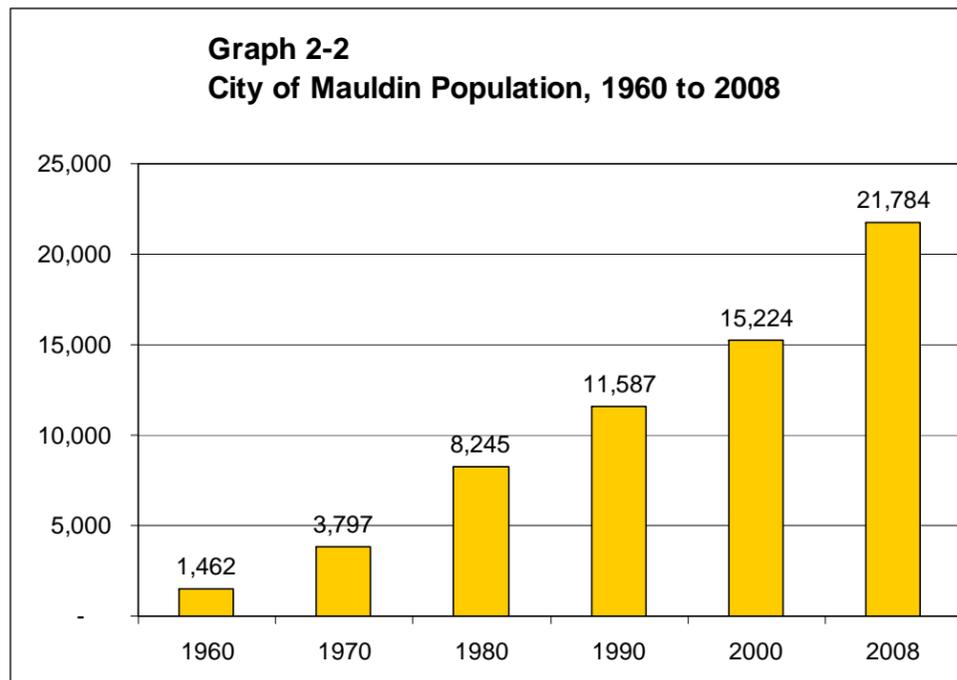
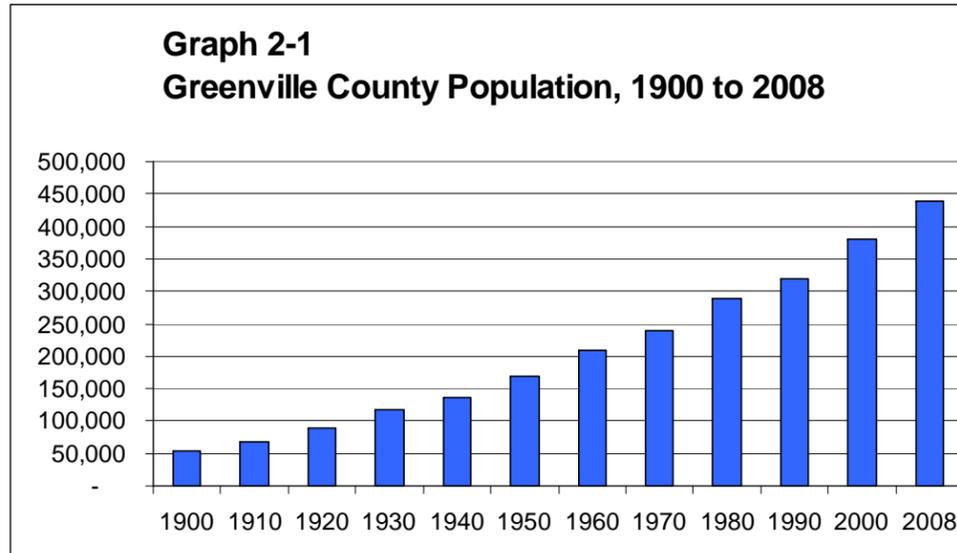
Chapter 2: Population

Greenville County has experienced over 100 years of sustained, steady population growth, as illustrated in Graph 2-1 at right. In the early 20th century, population growth was fueled by the relocation of the textile industry from New England to the South. Greenville touted itself as “The Textile Capital of the World,” and enjoyed a booming textile economy for over 60 years. Cotton for the textile mills was grown in rural areas surrounding the City of Greenville, including the farms in and around Mauldin.

In 1900, Mauldin was a rural crossroads, with a small passenger and freight depot on the Charleston and Western Carolina Railroad (C&WC), a cotton gin, and a few general stores along the road from Greenville to Laurens. Farms in and around Mauldin grew cotton as a cash crop to supply the mills in Greenville, Conestee and elsewhere.

The Great Depression decimated the rural economy across the South, and Mauldin barely survived those economic hard times. The town saw virtually no growth until after World War II, when the growth of Donaldson Air Force Base began to breathe life into Mauldin once again.

Water lines from Greenville Water System brought suburban growth to Mauldin in the 1950s in the form of new subdivisions and shopping centers, and the City of Mauldin has remained among South Carolina’s fastest growing cities ever since.



Active neighborhoods and community events are a key reason for Mauldin’s population growth.

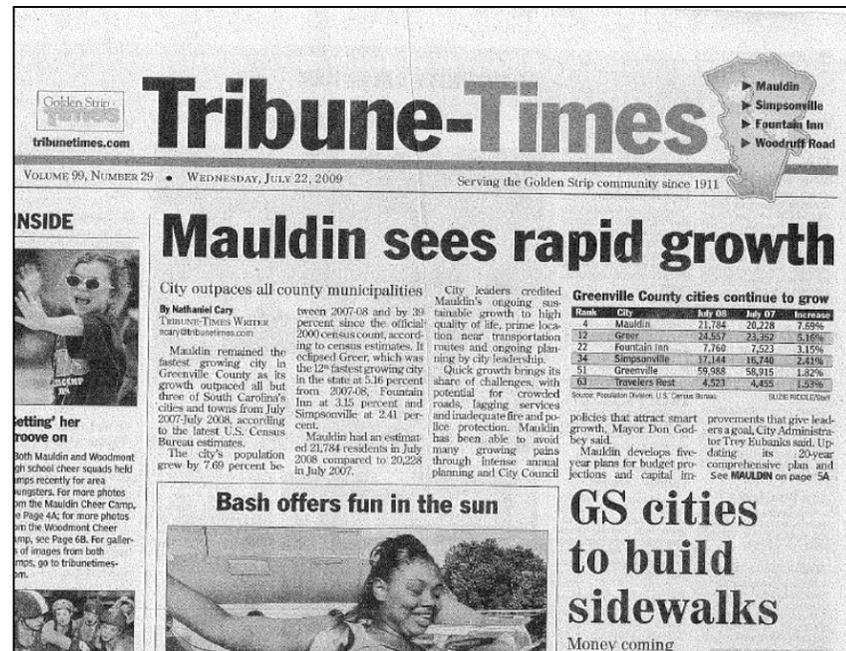


Chapter 2: Population

Existing Conditions

Population estimates in 2008 place Mauldin as the 18th largest city in South Carolina, approaching 22,000 people (see Graph 2-2). Mauldin is the 8th fastest growing city in the state in this decade, with a 39 percent increase in population from 2000 to 2008. Among the fastest growing cities in South Carolina from 2000 to 2008, only Summerville is larger than Mauldin (see Table 2-1).

Mauldin's population growth has come from new development within the city boundaries as well as from annexation of adjacent areas. The City's annexation policy calls for continued expansion of the city limits.



Mauldin's population growth makes headlines

Table 2-1

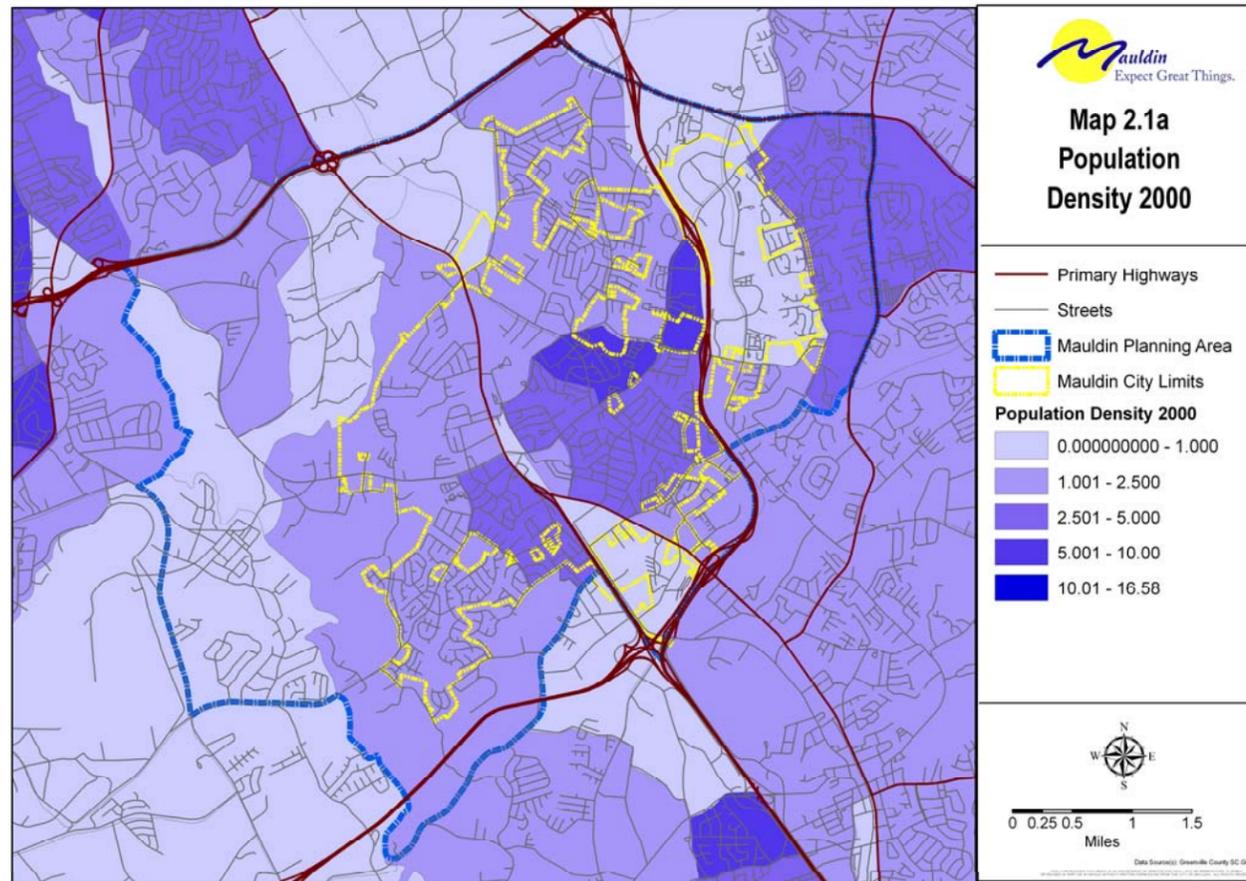
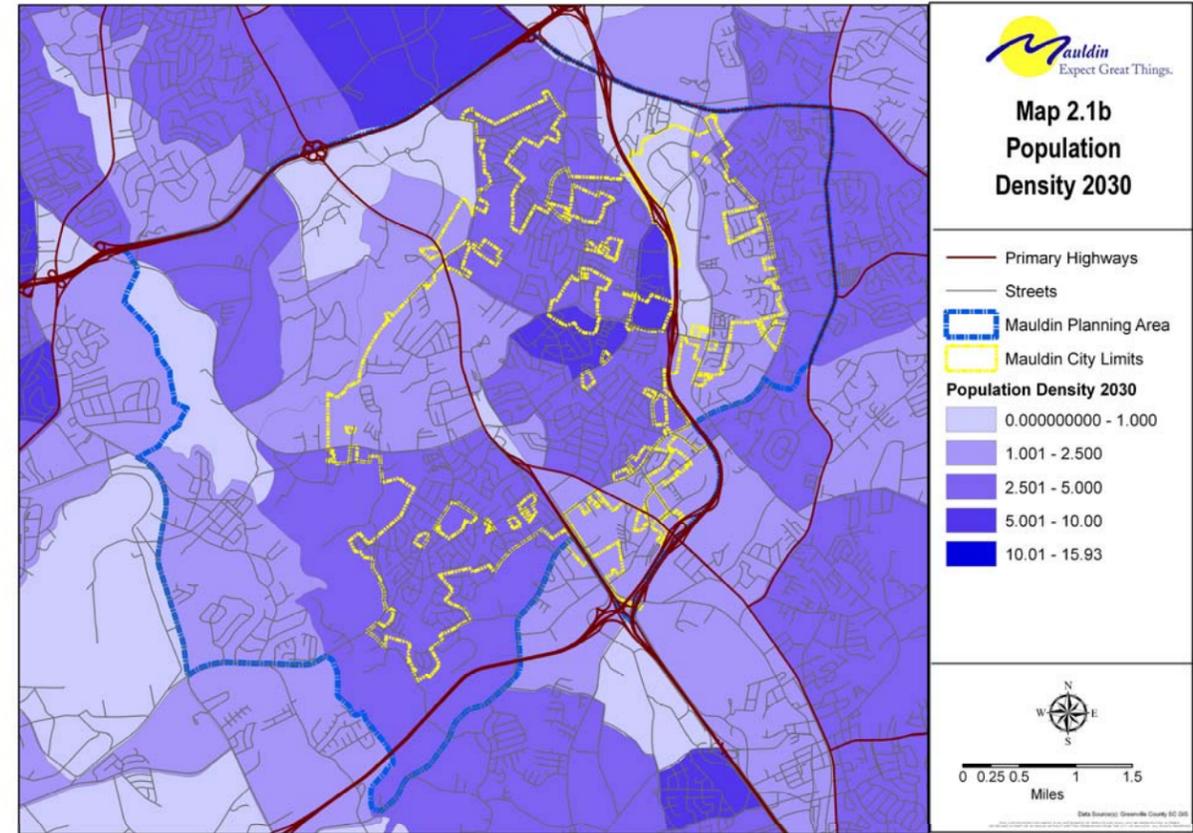
Population Trends for the 25 Largest SC Cities, 2000 to 2008

City	July 1, 2008	July 1, 2007	July 1, 2000	Change 2000 to 2008	Percent Change 2000 to 2008
Summerville town	45,193	43,839	28,948	16,455	56.8%
Lexington town	15,901	15,070	10,647	5,385	50.6%
North Myrtle Beach city	15,816	15,444	11,352	4,606	40.6%
Mauldin city	21,784	20,228	15,658	6,269	40.0%
Greer city	24,557	23,352	17,741	6,961	39.2%
Mount Pleasant town	65,472	64,710	48,900	17,374	35.5%
Rock Hill city	67,339	64,842	50,685	17,290	34.1%
Myrtle Beach city	30,596	29,886	23,820	7,075	29.7%
Conway city	15,894	15,022	12,722	3,220	25.3%
Hanahan city	16,065	15,575	12,946	3,127	24.2%
Goose Creek city	37,900	36,455	31,005	7,032	22.7%
North Augusta city	20,712	20,265	17,786	2,954	16.6%
Simpsonville city	17,144	16,740	14,765	2,423	16.4%
North Charleston city	94,407	91,322	81,400	12,972	15.9%
Charleston city	111,978	110,538	97,794	14,507	14.8%
Aiken city	29,434	29,215	26,114	3,362	12.9%
Easley city	20,325	20,018	18,100	2,296	12.7%
Columbia city	127,029	125,213	119,697	7,423	6.2%
Greenville city	59,988	58,915	56,804	3,291	5.8%
Anderson city	27,027	26,725	26,003	1,046	4.0%
Florence city	31,570	31,506	30,930	588	1.9%
Greenwood city	22,533	22,446	22,371	123	0.5%
Hilton Head Island town	33,913	33,890	33,971	66	0.2%
Spartanburg city	39,584	38,820	39,809	-295	-0.7%
Sumter city	38,625	38,835	40,722	-2,155	-5.3%

Source: Population Division, U.S. Census Bureau

Maps 2-1a and 2-1b illustrate the population density in and around Mauldin in 2000, and the forecast population density in 2030. In 2000, overall population density was quite low, with most of the area developed at less than one average household (2.5 persons) per acre. The SC 14 corridor and the East Butler Road corridor have the highest population density in the Mauldin Planning Area.

By 2030, higher population density is forecast in the Ashmore Bridge Road area, and generally surrounding the CU-ICAR campus. Much of this population growth is already in place or in the pipeline as approved development.



New apartments and townhouses along East Butler Road have contributed to Mauldin's rapid population growth.



Chapter 2: Population

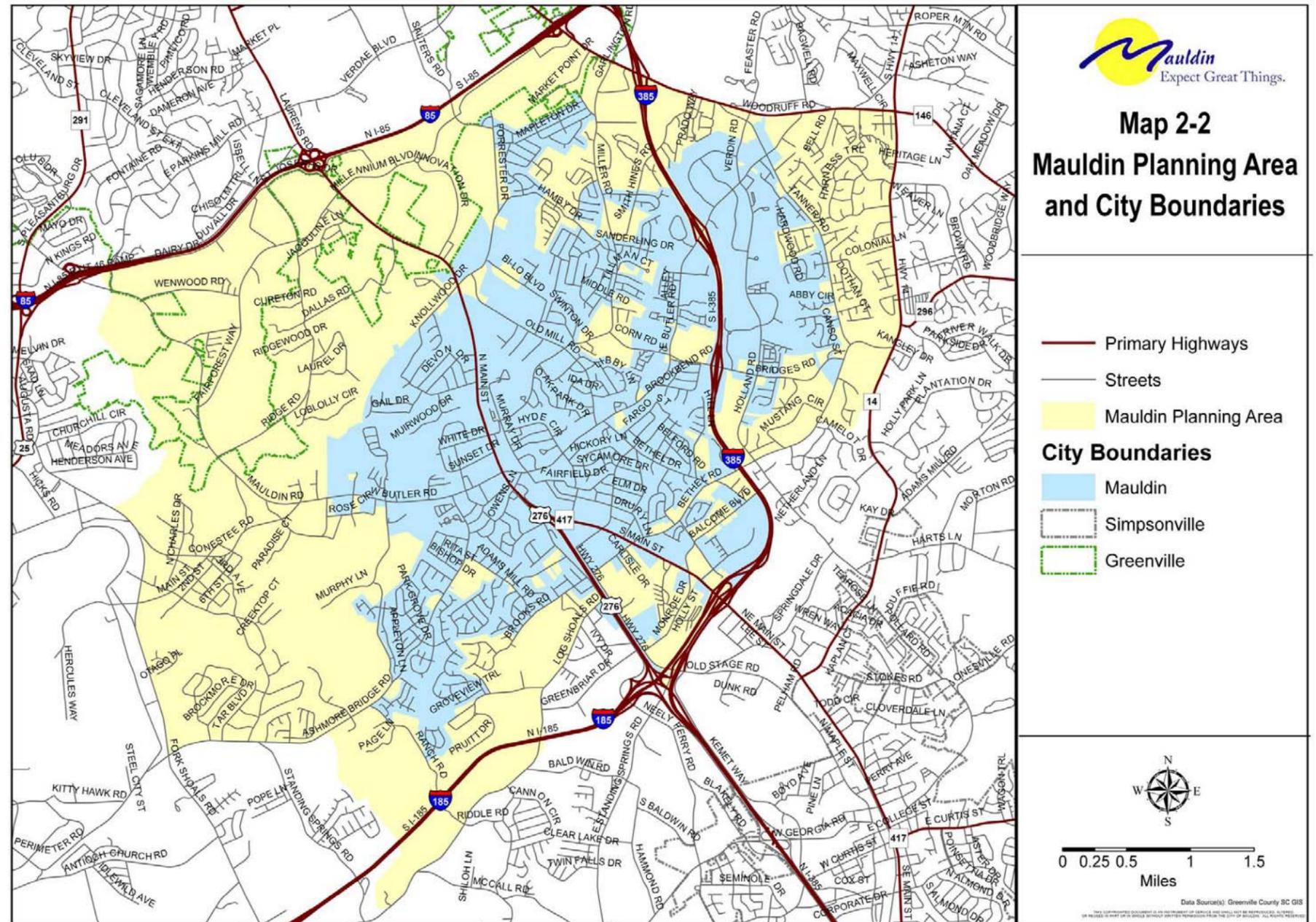
Future Population

Long-range population forecasts indicate that Mauldin's growth will continue on about the current pace through 2030. This Comprehensive Plan addresses not just the current Mauldin City Limits, but also the larger Mauldin Planning Area as defined by Greenville County Planning Commission.

As illustrated in Map 2-2, the Mauldin Planning Area extends from the west to the Reedy River, east to SC Highway 14, north to Woodruff Road and I-85, and south to I-185 and I-385. Much of this area is likely to be annexed in the coming decades.



Mauldin's city limits adjoin Greenville to the north, but can continue to expand in other directions.





Chapter 2: Population

Table 2-2 presents population data for the City of Mauldin and for the larger Mauldin Planning Area from 1980 through 2007, and forecasts growth through 2030.

Graph 2-3 illustrates the trends and the population forecasts for the City and surrounding planning area. Mauldin's share of the Planning Area population has declined since 1980, but current population estimates indicate that annexation and infill development have increased the share of the Planning Area population that is within the City Limits.

The population forecast for Mauldin Planning Area was developed by Greenville County Planning Commission based on long term trends, zoning, land use plans, available sewer and water service, and approved development. The population forecast for the City of Mauldin was developed using a linear regression analysis of population data from 1980 through 2007. If the City's population growth continues to follow current trends, the City will contain 75 percent of the population in the Mauldin Planning area in 2030.

No effort is made in these population forecasts to predict how much of the growth will occur within the current city boundaries, and how much will be captured through annexation. Population forecasts are inherently uncertain, and should be frequently updated to reflect changing trends. The forecast for City population is important, because it is the basis for assumptions in later sections of this plan regarding the need for expanded City services, including Police, Fire, and Public Works.

Table 2-2

Population Forecast for Mauldin Planning Area and the City of Mauldin

	1980	1990	2000	2007	2030
Mauldin Planning Area	12,574	19,503	25,554	31,413	38,197
City of Mauldin	8,245	11,587	15,224	20,230	29,154
Percent in the City	65.6%	59.4%	59.6%	64.4%	76.3%

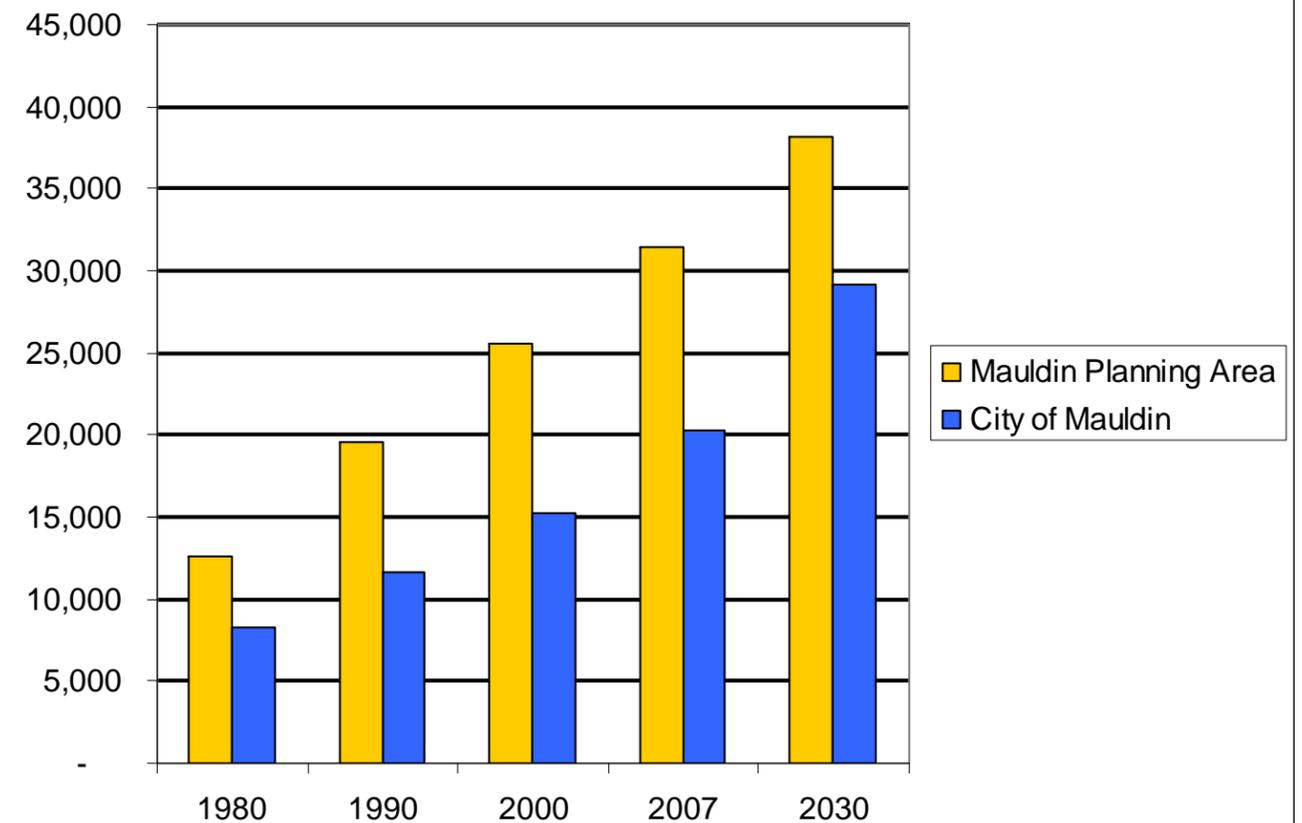
Sources: U.S. Census Bureau, 1980 - 2000 Decennial Census data and 2007 Population Estimates

Greenville County Planning Commission 2030 population forecast

ESRI 2007 Population Estimates by Block Group

City of Mauldin, regression forecast of City population for 2030

**Graph 2-3
Mauldin Population Trends and Forecasts**





Key Issues

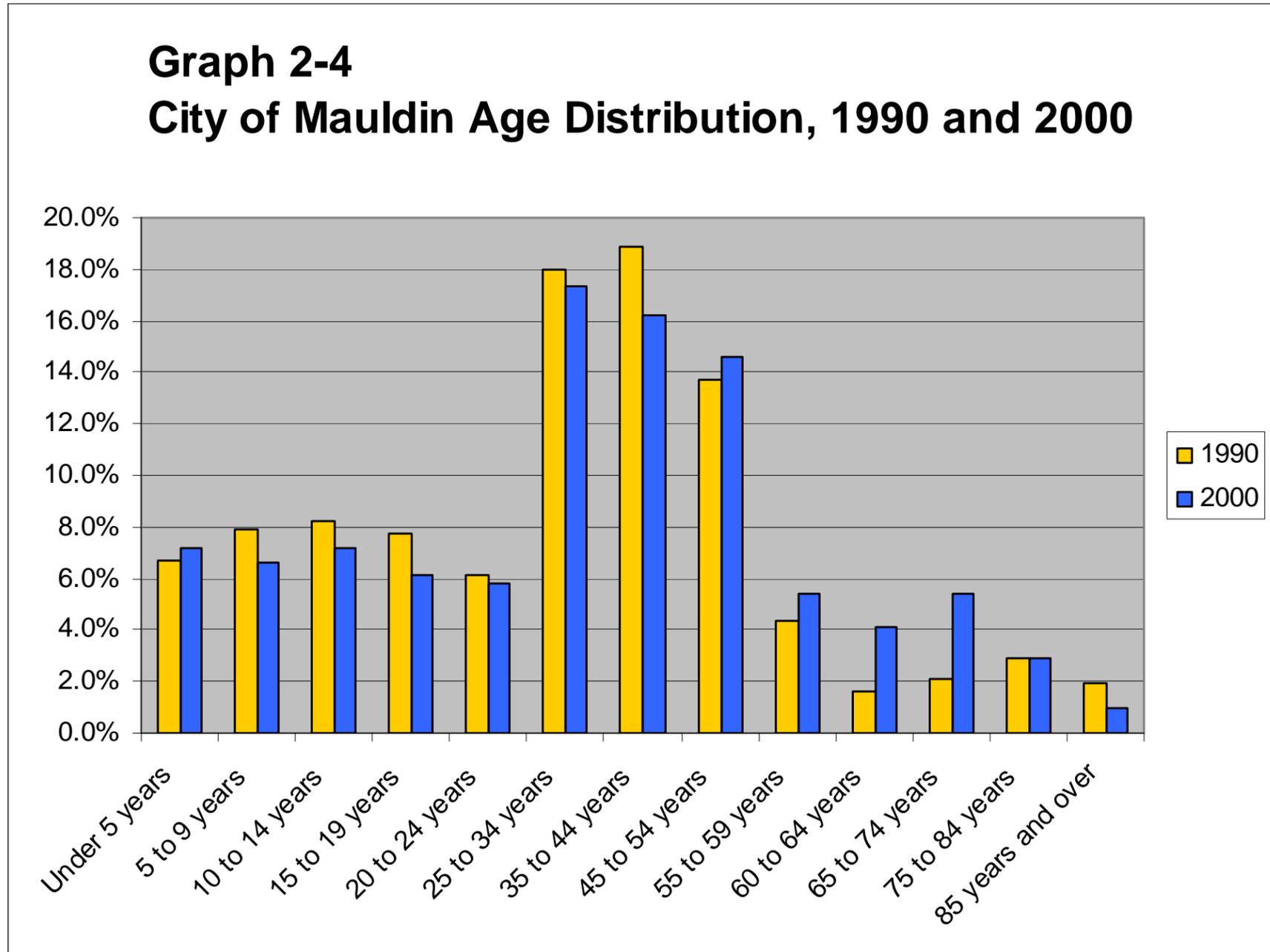
Aging Baby Boomers

The City's population is growing more diverse and older, reflecting regional and national trends. The aging of the "baby boomers" looms as a major issue. Housing needs will shift from large lot single family homes to smaller homes with lower maintenance, health care demands will increase, and demand for some services such as public transportation will be greater. Many older residents express a desire to have important services located within a short walk or a short drive, which would support development of more compact, walkable, mixed-use communities.

As illustrated in Graph 2-4, the percentage of persons age 45 to 74 increased sharply in the 1990s, while the percentage of persons age 5 to 44 decreased. This trend is expected to continue, as existing residents age and increasing numbers of retirees move to the region.

Statewide, up to half of the growth in population is expected to occur in the 55 and up age group, in part because of the state's attraction as a retirement destination for baby boomers, but also because of increased life expectancy and declining birth rates.

Graph 2-4
City of Mauldin Age Distribution, 1990 and 2000



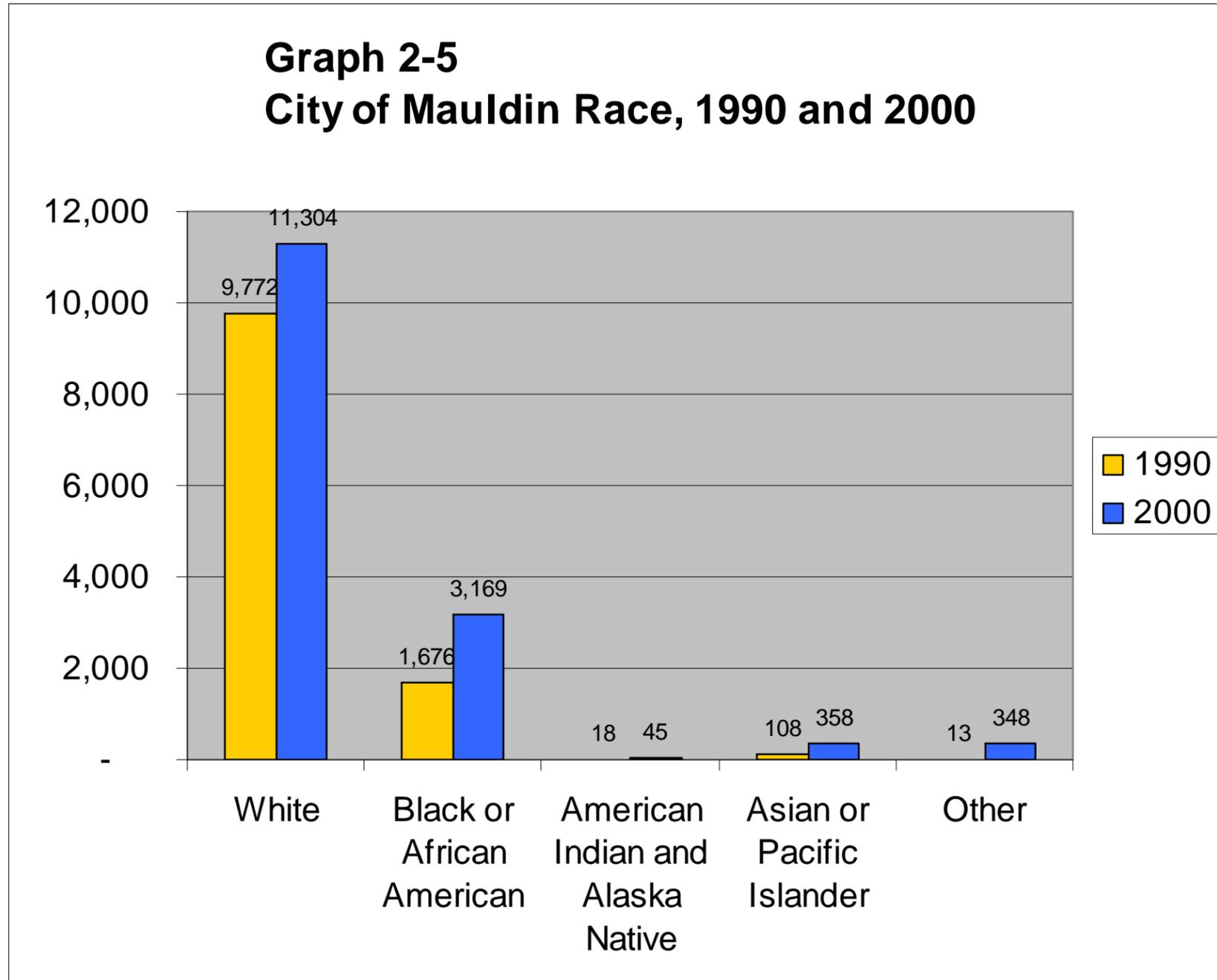
Race and Ethnicity

Mauldin continues to grow more diverse in ethnic and racial measures as well, as Graph 2-5 illustrates. The growth of international corporations in the Upstate plays a role in the City's increasing diversity, as firms such as Michelin and BMW bring employees from their home countries, and U.S. firms such as General Electric recruit engineers and managers world-wide.

A key challenge will be to accommodate the expected population growth in the Mauldin area in a pattern that preserves the high quality of life that current residents enjoy, and to maintain the levels of public services and investment in public infrastructure that is essential to maintain a desirable and attractive community as growth continues.



**Graph 2-5
City of Mauldin Race, 1990 and 2000**





Chapter 2: Population

Goals and Objectives

Goal 1: Ensure that Mauldin remains among the most desirable cities in the Upstate in which to live

Objective 1.1: Fund and construct new community amenities -- including parks, greenway trails, sidewalks, bicycle paths, and cultural facilities – that continue to improve the quality of life for Mauldin residents.

Implementation Strategies:

- a. Identify a stable and dedicated revenue stream to fund quality-of-life-related community improvements
- b. Identify and apply for state, federal, and private grants
- c. Collaborate with state and local governmental bodies and private entities in the region to develop and fund community amenities

Objective 1.2: Maintain and improve the quality, condition, and appearance of residential neighborhoods and commercial development in the City

Implementation Strategies:

- a. Enforce city codes to ensure properties are well maintained.
- b. Pursue funding for housing rehabilitation activities where available and appropriate
- c. Develop incentives to encourage commercial property owners to invest in façade and landscaping improvements

- d. Adopt overlay zoning districts in commercial corridors that ensure new development and redevelopment is attractively designed and built with quality materials

Goal 2: Guide and manage Mauldin’s continued population growth to preserve and enhance quality of life and economic vitality

Objective 2.1: Encourage voluntary annexation of residential areas adjacent to the existing city limits when consistent with the City’s annexation strategy.

Implementation Strategies:

- a: City staff will continue to meet with individual property owners and homeowners associations to explain the benefits and costs of annexation
- b: Develop improved information tools and brochures about the benefits of annexation to distribute to neighborhoods considering annexation

Objective 2.2: Encourage residential infill development within the existing city boundaries

Implementation Strategies:

- a: Adopt more flexible zoning and development regulations to allow for mixed-use development in the Main Street corridor and other appropriate neighborhood center locations; encourage live-work units, loft apartments, and accessory dwelling units in appropriate areas.
- b: Develop a medium-density residential zoning category that allows new infill developments to

include a mix of housing types – including small-lot single family houses, patio homes, and townhouses -- that are more compatible with adjacent single-family neighborhoods than are traditional multi-family developments.

Objective 2.3: Use sewer infrastructure and service as an annexation tool

Implementation Strategies:

- a: Identify areas where expansion of City sewer lines will ensure that future development will require Mauldin sewer services
- b. Continue to require new Mauldin sewer customers to annex or to sign an annexation covenant

Objective 2.4: Support legislation to allow cities to annex adjacent urbanized areas more easily.

Implementation Strategies:

- a: Coordinate legislative efforts with the Municipal Association of South Carolina and develop improved public education materials on the benefits of city services for residential and commercial properties.

Goal 3: Maintain a high quality of life for older residents.

Objective 3.1: Maintain high quality programs, activities and events at the senior center.

Objective 3.2: Support the programs of agencies serving older residents, including Appalachian Council of



Chapter 2: Population

Governments, Senior Action, and Greenville County
Redevelopment Authority.



Chapter 3: Housing

Mauldin's diverse mix of high-quality housing choices is among the City's greatest strengths. Rapid population growth in the 1960s and 1970s transformed the city from a rural crossroads into a suburban bedroom community, and about 40 percent of Mauldin's current housing supply was built in that time. Neighborhoods built in the 1960s and 1970s remain attractive, affordable and desirable.

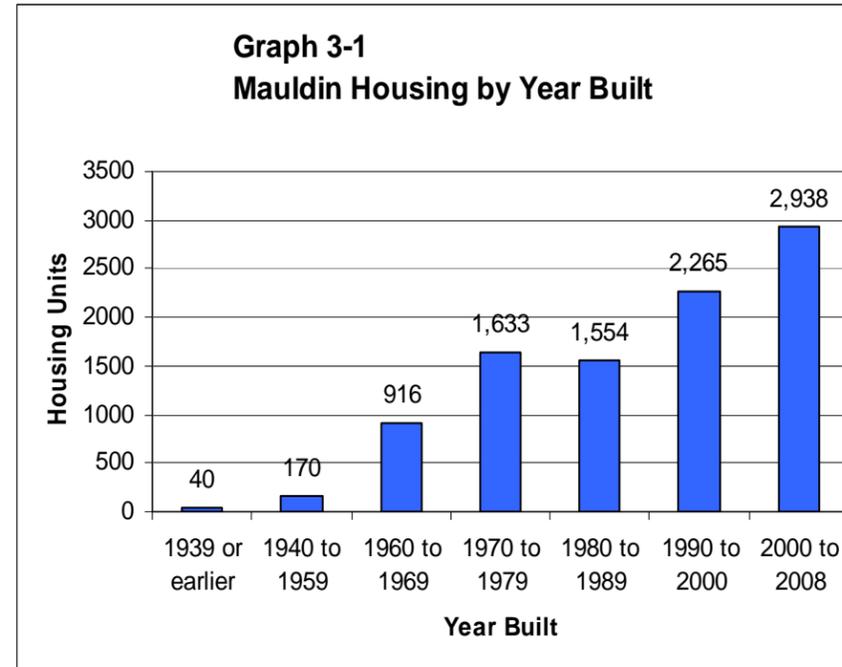
Less than 21 percent of dwellings in Mauldin were built before 1970, and less than one percent was built before 1960, so the City has relatively few issues with substandard and deteriorated housing stock. However, the earliest subdivisions in the City are at a critical point in their life cycle, as many homes may require repairs, renovations, or additions to remain attractive to new homeowners and to continue to appreciate in market value.

One key to maintaining the city's older neighborhoods is to continue to enhance city services and to improve community amenities, which will help attract new families to the city's established neighborhoods.

Housing Types and Condition

Single-family detached houses continue to be the predominant choice of the City's residents, accounting for 68 percent of all units in 1990 and 64 percent of units in 2000. Single-family attached housing (townhouses and patio homes) and duplexes saw small but significant increases in the 1990s.

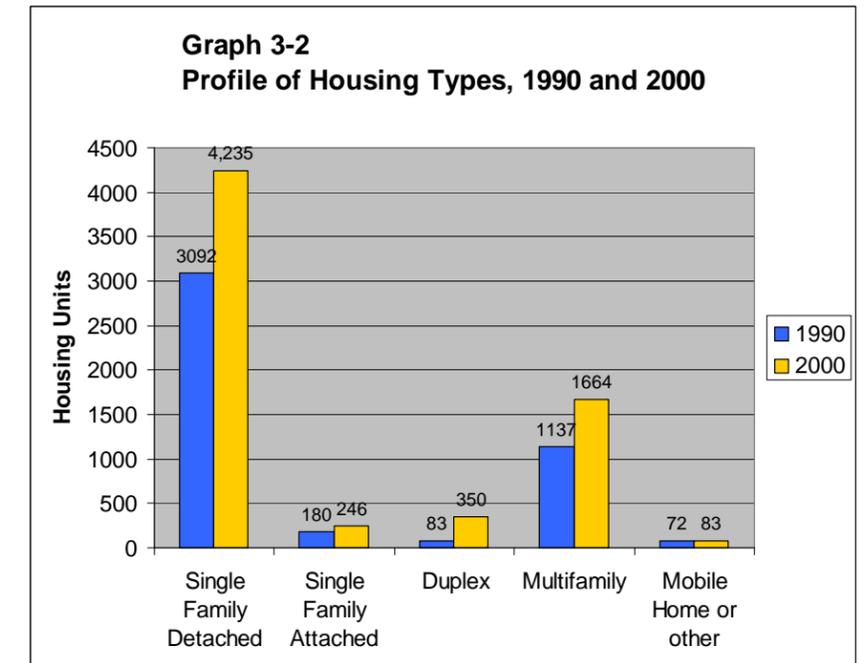
This small shift in housing preferences probably reflects an increasing share of households without school age children, and is likely to become a more pronounced trend in the future. Persons over age 65 are the fastest growing segment of the population, while younger people are generally waiting longer to marry and to have children.



**Table 3-1
City of Mauldin Housing by Year Built**

Year Built	Units
1939 or earlier	40
1940 to 1959	170
1960 to 1969	916
1970 to 1979	1,633
1980 to 1989	1,554
1990 to 2000	2,265
2000 to 2008	2,938
Total	9,516

Source: U.S. Census Bureau



**Table 3-2
Profile of Housing Types, 1990 and 2000**

Housing Type	1990	2000
Single Family Detached	67.7%	64.4%
Single Family Attached	3.9%	3.7%
Duplex	1.8%	5.3%
Multifamily	24.9%	25.3%
Mobile Home or other	1.6%	1.3%
Total	100.0%	100.0%

Source: U.S. Census Bureau

2000 Census data shows that typical housing units in Mauldin have 3 bedrooms. Less than 25 percent of homes have 4 or fewer rooms, and only 1.2 percent of homes had more than one occupant per room in 2000. None lack complete plumbing or kitchen facilities.

Since the 2000 Census, trends have shifted toward single family attached housing. Single family housing comprises 72 percent of the housing units in Mauldin. Multifamily housing has accounted for only 20 percent of new units permitted this decade, while several large townhome communities were built.

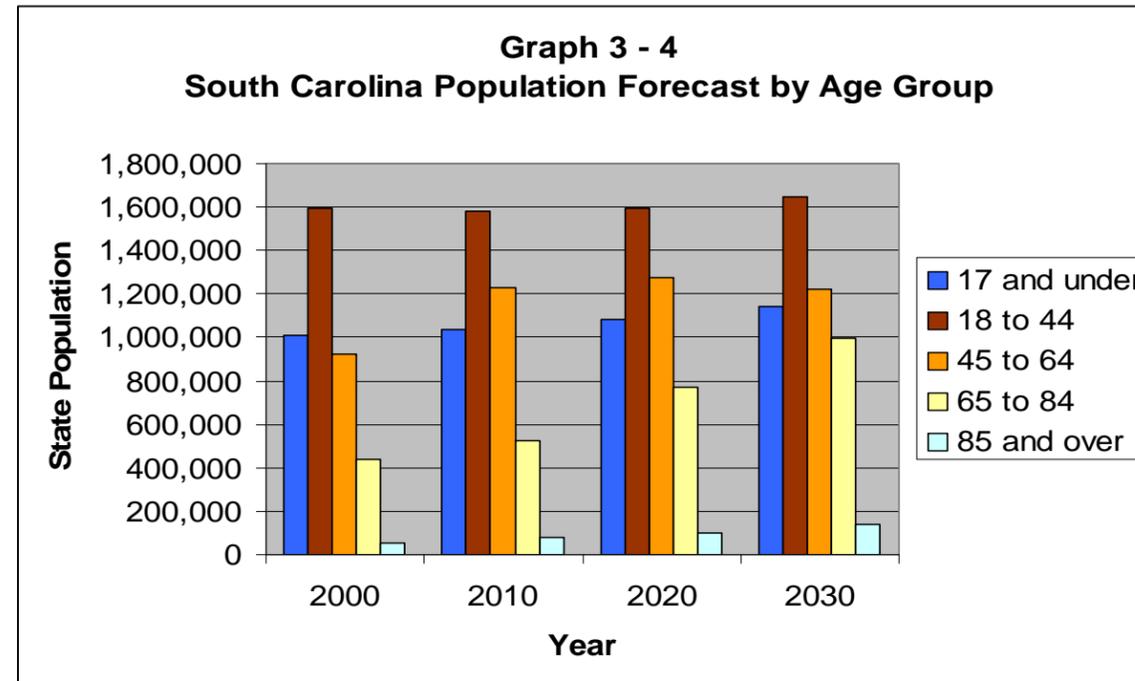
Housing Needs of an Aging Population

South Carolina population forecasts indicate that an additional 1.14 million people will live in South Carolina in 2030 compared to 2000.

As Table 3-3 and Graph 3-4 illustrate, fifty-seven percent of the state’s population growth is predicted to be in the 65 and over age group. The 65 to 84 age group is predicted to more than double from 2000 to 2030; while the over-85 age group is expected to nearly triple.

The disproportionate growth in South Carolina’s older population reflects both the aging of current residents as well as the in-migration of retirees that is anticipated as the baby boom generation reaches retirement age.

The aging of the population likely will increase demand for smaller, one-level, low-maintenance housing, a very different product from what has traditionally been built in Mauldin, where most new houses are relatively large two story structures. While the actual housing market impact of the growth in older population is difficult to predict, Table 3-4 below illustrates the potential impact, suggesting that up to half of the new housing



Smaller ranch houses, like the one pictured above, are an attractive and affordable housing option for a wide range of households

	2000	2010	2020	2030	% Change
17 and under	1,009,641	1,036,349	1,085,384	1,143,807	13%
18 to 44	1,593,806	1,578,563	1,595,653	1,649,374	3%
45 to 64	923,232	1,226,132	1,275,290	1,220,929	32%
65 to 84	435,064	527,407	767,362	993,173	128%
85 and over	50,269	78,253	98,888	141,286	181%

Source: U.S. Census Bureau, State Interim Population Projections by Age and Sex: 2004 - 2030

units will be focused on smaller, lower maintenance, attached housing types.

Table 3-4 is based on generalized assumptions about housing preferences, and is intended to show the general impact that demographic changes and an aging population has on the type of housing units that may be needed 20 years from the writing of this plan. The key assumptions are that 70 percent of persons under age 65 will continue to choose single family detached housing, while 60 percent of those over 65 will choose to “downsize” to one-level low-maintenance housing if good choices are available.

Housing as a City Center Economic Development Tool

Revitalization efforts for downtowns virtually always include new residential development in the city center area. Housing within easy walking distance of downtown businesses supports economic development in several ways:

- Reduces demand for parking, allowing better utilization of what is usually the most expensive land in the city;
- Expands the nearby customer base for city center businesses;
- Generates more activity in the area on weekends and evening hours, which makes the area appear more “alive,” more attractive and safer to passing traffic.

In many cities, historic buildings such as textile mills are adapted to residential use, and the upper floors of retail buildings are converted to apartments. New construction also occurs in the form of townhouses, condominiums, and small-lot single family houses.

While Mauldin lacks the historic buildings that have been converted to housing in many cities, several subdivisions are within easy walking distance of the city center. These include Hyde Park, Sunset Heights, Knollwood Heights, and Glendale.

**Table 3-4
Mauldin Planning Area Estimate of Housing Needs through 2030**

Age Group	Additional Housing Units By Age Group	Estimated Persons per Dwelling	Percent of Total Demand for New Housing	Additional Single Family Detached Dwellings	Additional Attached Dwellings [1]	Percent Detached Single Family
64 and under	2,213	2.45	36%	1,549	664	70%
65 and Over	4,012	1.80	64%	1,605	2,407	40%
Total	6,225	2.24	100%	3,154	3,071	51%

[1] Includes townhouses, condominiums, patio homes, independent living and assisted living communities



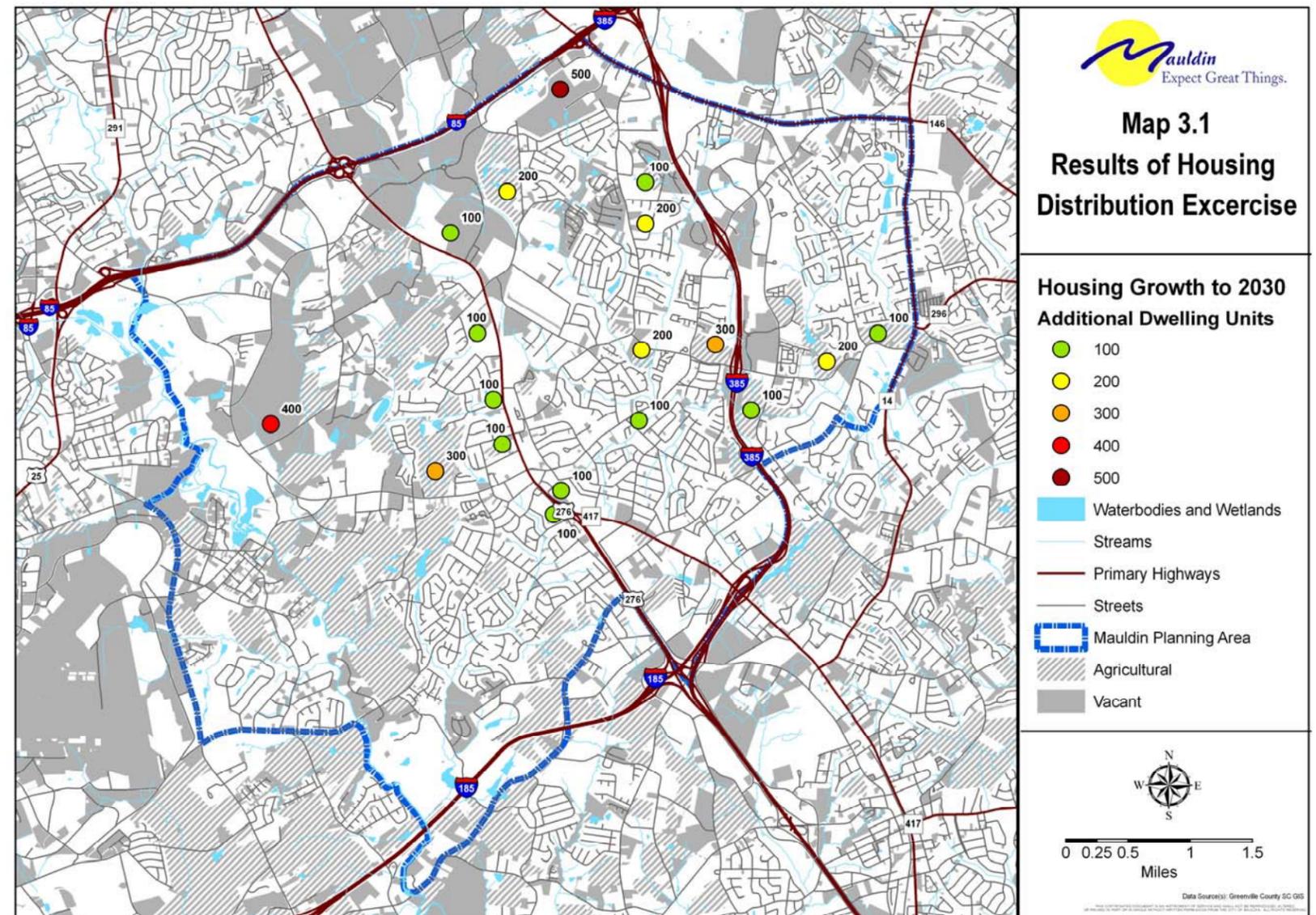
An aging population will create more demand for low-maintenance patio homes like these.

Map 3-1 shows the results of a hands-on exercise conducted with the “People and Places” citizens’ advisory group that provided input on the Population, Housing, Land Use, and Natural Resources sections of this plan. The group was given a map that identified vacant property in the Mauldin Planning Area, assigned the task of placing an additional 3100 housing units in the Mauldin Planning Area – approximately the number of dwellings needed to house the areas expected population growth through 2030.

Pennies, each representing 100 dwelling units, were used to represent groups of new houses. A single penny placed on the map covered an area roughly equal to 30 acres; pennies were stacked to illustrate higher density housing types like patio homes or townhouses. Pennies placed on small vacant parcels also suggest more compact housing types.



Above, the results of the People and Places Advisory Group’s distribution of new housing expected in the Mauldin area by 2030.



At right, citizens’ advisory group members consider locations for new housing in Mauldin



The housing distribution exercise was completed quickly, but it illustrates the potential to add significant amounts of infill housing within the existing developed area of the City. Interestingly, the group identified opportunities for 800 new housing units within a mile of City Center.

Opportunities to increase the supply of housing in Mauldin's city center include:

- Development of mixed-use neighborhoods on undeveloped or underdeveloped properties along Main Street;
- Redevelopment of properties currently used as warehouse, storage or distribution centers as mixed use neighborhoods;
- Development of vacant property on West Butler and on Neely Ferry Road.



Single-family homes in the Miller Heights subdivision are built on lots of one-sixth of an acre



Townhouse subdivisions usually have about 8 dwellings per acre

Specific housing types that should be considered in the City Center area include:

- Small-lot single family houses;
- Townhouses or rowhouses (attached single family houses);
- Patio homes on one level (for seniors and persons with disabilities);
- Apartments or condominiums above retail shops or offices, although the high cost per square foot (usually \$200 to \$300) of residential space above commercial space makes this type of housing unlikely in Mauldin unless a thriving downtown environment is created;
- Accessory units, which could include in-law suites, garage apartments, or "granny flats" where lot size and zoning is adequate to meet setback requirements.

Small lot single family houses would be similar to bungalows found in the "streetcar suburbs" of the 1920s, which generally

were built on lots of 1/6 to as little as 1/10 acre (about 40' by 100'). New subdivisions in Mauldin built at this density are The Reserve at Bridges Crossing (1/8 acre lots) and Miller Heights (1/6 acre lots). Gross density, including streets and common areas, is typically 4 to 7 houses per acre.

Townhouses are illustrated by Creekside at Bridges Crossing or by Hadley Park on Butler Road. Homes sit on deeded lots of about 1/12 of an acre, providing a small front yard and a back yard about 30 by 40 feet. Community open space surrounds the deeded lots. Gross density of 7 to 9 houses per acre is typical for townhouses.

Patio homes are illustrated by Cooper's Lake on Holland Road, which are on 1/20 acre lots that include essentially just the footprint of the house, garage and porch. The deeded lots are surrounded by community open space, and gross density is typically 8 to 10 units per acre.



Patio homes like these in Cooper's Lake are popular with seniors, single-parent families, and others who want single-family homes with less maintenance

Housing Affordability

Housing affordability is influenced by both the price or rent of housing units as well as transportation cost for residents. In recent years, the term “driving to qualify” has emerged to describe a phenomenon in which homebuyers bought houses at the extreme fringes of metropolitan areas in order to obtain larger houses at lower cost. In many cases, the additional fuel and vehicle maintenance costs exceeded the savings on rent or purchase price of the housing. Many people who “drove to qualify” became victims of \$4-a-gallon gasoline and lost homes to foreclosure in the housing market collapse of 2008 and 2009.

An October 2006 report by the National Housing Conference’s Center for Housing Policy (CHP), titled “A Heavy Load: the Combined Housing and Transportation Burden for Working Families,” found that the average household spends 48 percent of its’ income on transportation and housing, while working family households (those with annual incomes between \$20,000 and \$50,000) spend 57 percent of their income on housing and transportation. The situation is made even more difficult because transportation and housing costs are rising faster than incomes.

The Center for Housing Policy recommends several policies to improve housing affordability, including:

- Consider housing and transportation policies together: an example is to develop affordable housing within easy walking distance of transit lines and city centers;
- Encourage infill development near existing employment centers and on undeveloped parcels in existing neighborhoods.
- Encourage job development near existing moderate income neighborhoods.

While Mauldin has the highest median household income of any of the six cities in Greenville County, households with incomes below median may still have difficulty finding suitable housing. Generally, housing costs are considered burdensome when more than 30 percent of household income is required for housing costs. Among renter households, over 28 percent spend more than 30 percent of their income on housing, while only 13 percent of households that own their homes spend 30 percent or more on housing.

Housing affordability could be improved by increasing the supply of affordable rental property, or by promoting home ownership. Home ownership stabilizes a household’s monthly housing expense, while rents generally increase over time.

The Greenville County Redevelopment Authority (GCRA) has been a very good partner with the City in developing quality affordable housing using federal Community Development Block Grant (CDBG). Examples of the single family homes and two-family homes recently completed in Mauldin by GCRA are pictured at right; these houses are a positive addition to the neighborhood.

The South Carolina State Housing Finance and Development Authority offer several programs for affordable housing. Below-market financing is available for affordable housing for low- and moderate-income first-time homebuyers; the first time buyer requirement may be waived for single parents and persons with disabilities. Competitive financing programs also are available for developers of multifamily housing.

The SC Housing Finance Authority evaluates the suitability of sites for affordable housing based on proximity to the following community services within 1.5 miles:



GCRA recently completed these new affordable “over and under” duplex apartments at Rainbow Circle and Miller Road



Highest Value Services

- Full Service Grocery Store
- Public Schools (family developments only)
- Senior Activity Center (older persons developments only)
- Public Transportation
- Public Park/Playgrounds / Public Recreation Centers
- Police Station/ Fire Station

Other Services

- Convenience Store / Gas Station
- Hospital / Health Department
- Doctor's Office (General practitioners only)
- Pharmacy / Drug Store
- Restaurant
- Public Library (No School Libraries accepted)

These criteria will be useful to city staff in future efforts to identify suitable sites for affordable housing.

Inventory of Subdivisions and Apartment Communities

An apartment inventory was obtained from the Appalachian Council of Governments and is presented in Table 3-5. Mauldin currently has an appropriate balance of single family to multi-family housing, with multi-family making up about 30 percent of the housing inventory, in line with matching the county, state and national averages (see Table 3-6).

An inventory of subdivisions in the city also was compiled (Table 3-7), including information on housing size and cost, to illustrate the range of single-family housing choices available within Mauldin's city limits. Only a few single-family homes in the City are not in subdivisions.

Name		Address	City	STATUS	UNITS
Laurel Woods Apartments		350 Fairforest Way	Greenville	Existing	192
Mauldin Heights		901 N Main Street, #87	Mauldin	Existing	80
Avalon Apartments	[1]	490 Wenwood Road	Greenville	Existing	72
Hyde Park		10 Moore Street	Mauldin	Existing	50
Windmill Apartments		299 Miller Road	Mauldin	Existing	128
Mauldin Gardens	[1]	330 Miller Road	Mauldin	Existing	65
Lions Gate		288 Old Mill Road	Mauldin	Existing	144
Berkley Pointe Apartments	[1]	500 Wenwood Road	Greenville	Existing	188
Ravenwood Apartments		735 North Main Street	Mauldin	Existing	81
Miller Oaks Village	[1]	303 Miller Road, #700	Mauldin	Existing	100
The Terrace at Butler		771 E. Butler Road	Mauldin	Existing	132
The Arbors at Brookfield		782 East Butler Road	Mauldin	Existing	700
Gleneagle		1011 West Butler Road	Mauldin	Existing	192
Ashmore Bridge Estates		423 West Butler Road	Mauldin	Existing	246
Lexington Place		130 Willow Forks Dr	Mauldin	Existing	144
The Vinings at Brookfield		815 E. Butler Road	Mauldin	New	224
Millennium Apartment Homes		221 Fairforest Way	Greenville	New	305
Alta Brookwood		535 Brookwood Point Place	Mauldin	New	256
Verandas at The Point		Woodruff Rd at I-85	Greenville	Planned	692
Total					3991
[1] Rents are income-dependent (affordable housing)					
Source: 2008 Greenville County Multi-Family Housing Survey, SC Appalachian Council of Governments					

Table 3-6
Multi-Family Housing Summary

	Total Housing Units	Multi-Family Housing Units	Market Rate Multi-Family Housing Units	Income-Dependent Multi-Family	Multi-Family % Income-Dependent	% Multi-Family
City of Mauldin (2008 estimate)	8,837	2,542	2,377	165	1.9%	28.8%
Greenville County (2008 estimate)	190,020	24,663	20,335	4,328	2.3%	13.0%
South Carolina (2000 data)	1,753,670	634,807	n/a	n/a	n/a	36.2%
United States (2000 data)	115,904,641	39,591,231	n/a	n/a	n/a	34.2%

Sources: 2008 Greenville County Multi-Family Housing Survey, SC Appalachian Council of Governments
U.S. Census Bureau, Census 2000 and 2008 Housing Unit Estimates





Chapter 3: Housing

Table 3-7
City of Mauldin Single Family Housing Inventory
Includes Attached Single Family

Name	Number of Developed Lots	Average Market Value	Average Square Feet	Average Bedrooms
FAMILY CIRCLE HOMES (CONDOS)	22	36,017	702	2.0
BENT BROOK TOWNHOUSES	19	68,155	963	2.0
RAINBOW PLACE	10	69,256	920	2.0
SUMMER WOODS	54	75,359	1034	2.2
PARKSIDE VILLAS	10	76,948	981	2.0
DANIEL COURT	24	84,031	1068	2.0
WOODWIND TOWNHOUSES	114	89,686	1270	2.3
COMMONS AT BUTLER	38	90,558	1262	2.2
PARKWOOD	75	91,134	1241	3.1
BROOKFIELD TOWNES	40	97,821	1256	2.3
MONTCLAIRE	149	98,175	1386	2.9
WINDSOR PARK	95	99,211	1321	2.9
DEER RIDGE	61	99,531	1489	3.3
PINE FOREST	193	99,548	1495	3.0
LAUREL HEIGHTS	109	101,815	1290	2.4
FOREST TRAIL	16	102,246	1366	3.0
SUMMER STONE TOWNES	36	103,595	1238	2.5
OAK FOREST	101	105,743	1367	3.0
VERDIN ESTATES	118	108,226	1511	3.0

Name	Number of Developed Lots	Average Market Value	Average Square Feet	Average Bedrooms
COBBLESTONE COVE	87	108,400	1422	2.3
GOLDEN HEIGHTS	6	109,896	1512	2.8
HUNTERS POINTE	15	111,752	1542	3.1
GLENDALE	290	112,574	1633	3.1
PEACHTREE TERRACE	48	113,622	1630	3.1
ADAMS MILL ESTATES	85	114,595	1784	3.2
WOODHEDGE	48	114,738	1639	3.0
PINE VALLEY ESTATES	41	115,760	1667	3.3
BISHOP HEIGHTS	89	116,438	1778	3.2
EASTDALE	152	116,830	1642	3.1
GLEN GARRY	71	118,661	1518	3.0
MAULDIN HEIGHTS	6	118,701	1767	3.2
CARLTON PLACE	115	119,475	1415	2.5
MEADOW WOOD	49	123,334	1729	3.0
BURDETT ESTATES	100	124,613	1824	3.3
WHISPERING OAKS	18	124,861	1376	2.1
HOLLY SPRINGS	119	125,069	1695	3.3
SUNSET HEIGHTS	85	127,319	1758	3.4
CAMERON PLACE	57	127,558	1390	2.7
GREENBRIER	20	128,276	1766	3.3
CEDAR TERRACE	1	130,429	1624	3.0
HILL PLACE	84	130,532	1688	3.0
HILLSBOROUGH	161	131,596	1722	3.2



Chapter 3: Housing

Name	Number of Developed Lots	Average Market Value	Average Square Feet	Average Bedrooms
MAPLE GROVE	110	132,633	1709	3.2
HADLEY PARK	152	133,196	1628	2.9
ENCLAVE AT BRIDGES CROSSING	57	133,197	1517	3.0
PINE GATE	41	133,334	1770	3.1
VINEYARD AT PLANTERS ROW	178	134,396	1730	3.1
VINEYARD AT PLANTERS ROW	178	134,396	1730	3.1
NOT IN SUBDIVISION	424	135,994	1641	3.0
CREEKSIDE AT BRIDGES CROSSING	70	136,642	1489	2.9
COOPERS LAKE	80	138,358	1514	2.4
FORRESTER CHASE	82	139,154	1821	3.0
THE GROVE	180	140,636	1905	3.4
CRESCENTWOOD VILLAGE	43	142,041	1532	3.2
BUTLER STATION	216	145,062	1870	3.2
WOODCREEK	59	147,129	1880	3.3
RUSTIC ESTATES	29	147,856	2110	3.5
BRYSON HOLLOW	20	149,085	2014	4.0
LAUREL MEADOWS	102	150,951	1939	3.3
BROOKSIDE	139	153,280	2211	3.7
BETHEL PLACE	7	153,411	2009	3.1
BETHEL OAKS	13	154,273	1852	3.1
TILLMAN COURT	7	155,131	1808	3.0
WYNDHAM PLACE	60	155,863	1695	2.8
GARDENS AT BRIDGES CROSSING	40	157,537	1954	3.3

Name	Number of Developed Lots	Average Market Value	Average Square Feet	Average Bedrooms
TANNER'S MILL	167	159,429	2061	3.4
RICELAN SPRINGS	73	160,514	1891	3.1
EASTCREEK	29	161,979	1879	3.0
PLANTERS ROW	298	164,448	2141	3.6
LAKEWOOD	2	165,527	2108	3.5
KNOLLWOOD HEIGHTS	238	166,286	2113	3.6
BETHEL GREENE	63	168,110	2065	3.2
FORRESTER WOODS	338	172,299	2208	3.7
THE RESERVE AT BRIDGES CROSSING	15	176,341	1957	3.0
SUMMERFIELD	182	184,260	2302	3.9
BUTLER FOREST	18	185,626	2547	3.4
EMERALD OAKS	6	192,626	2043	3.3
FORRESTER CREEK	53	195,518	2411	3.5
PENNBROOKE AT ASHBY PARK	49	199,448	2413	3.9
LANSFAIR AT ASHBY PARK	50	199,994	2104	3.1
FORRESTER FARMS	24	200,433	2336	3.5
ASHFORD	66	214,045	2572	3.5
FORRESTER WOODS ESTATES	86	312,640	3374	3.8
HEARTWOOD	4	483,132	3787	3.8
Totals	7156	137,434	1,776	3.2
Source: Greenville County Tax Assessor's Database				



Goals and Objectives

Goal 1: Promote an appropriate mix of housing choices to meet existing and future housing needs

Objective 1.1: Increase the supply of single-level housing units that are attractive to and suitable for seniors and persons with disabilities

Implementation Strategies:

- a. Require a limited percentage of units in new multi-family developments and attached single-family developments to be ground-floor single-level units
- b. Reduce required parking spaces for small single-level units.

Objective 1.2: Pursue appropriate strategies for development of convenient, attractive and affordable workforce housing

Implementation Strategies:

- a. Develop an inventory of sites that offer convenient access to community facilities and essential services that are suitable for income-qualified housing.
- b. Identify successful workforce housing strategies used by other similar communities.
- c. Continue to work with Greenville County Redevelopment Authority to develop attractive affordable housing units at a small scale on scattered sites.

Goal 2: Ensure the continued attractiveness of aging single-family neighborhoods in Mauldin

Objective 2.1: Encourage the development of neighborhood associations in the City's subdivisions to proactively address neighborhood issues and concerns.

Implementation Strategies

a: Coordinate outreach efforts with all City departments and functions to build effective communications with neighborhoods

b: Create a Council of Neighborhoods to provide a forum for presidents of neighborhood associations to share ideas and communicate needs with City officials

Objective 2.2: Ensure that all neighborhoods have convenient access to parks, trails, and quality-of-life amenities

Implementation Strategies

a: Provide public park facilities and open space within one mile of all city neighborhoods

b: Improve and expand sidewalks and bicycle pathways to provide safe and convenient access to parks and recreation facilities for all residents

Objective 2.3: Ensure public facilities and private properties are well maintained.

Implementation Strategies

a. Continue proactive code enforcement activities throughout the city.

b. Develop and amend development codes to ensure adequate ability to promote quality development and to maintain high standards in existing development.

c. Develop effective capital improvement plans, with adequate funding to ensure city parks, city streets, sidewalks are well maintained

Goal 3: Encourage development of pedestrian-friendly mixed-use neighborhoods within walking distance of existing or new neighborhood commercial areas or City Center that will appeal to young professionals relocating to the Upstate.

Objective 3.1: Coordinate with Greenville County to evaluate form-based codes as a more flexible alternative to traditional zoning and subdivision regulations.

Implementation Strategy



Chapter 3: Housing

Research form-based codes and other alternatives to traditional zoning, and provide information to City Council and citizens through workshops and website postings.

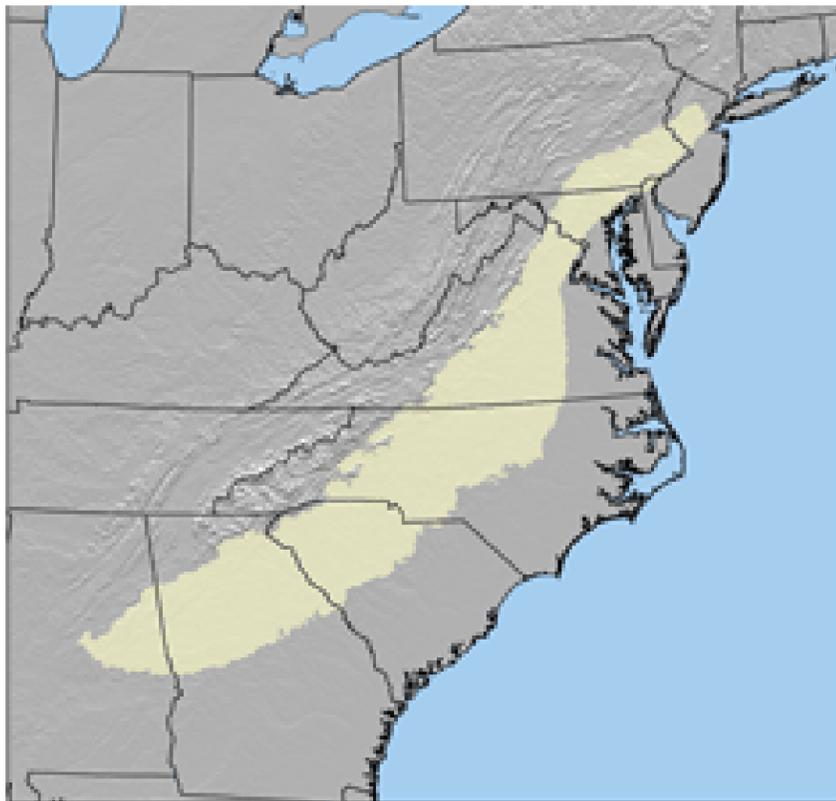
Objective 3.2: Encourage consolidation of vacant or underutilized properties into larger parcels for planned development in the City Center area and in areas where mixed use neighborhoods are desirable.

Implementation Strategy

Establish guidelines for infill development that address pedestrian facilities, road improvements, and design standards.

Mauldin’s growth has followed a relatively typical suburban pattern. Subdivisions have replaced farms and pastures in a random pattern, leaving behind scattered remnants of the area’s agricultural landscape. Cows, horses, and goats graze pastures along some of the city’s busiest streets. Weathered barns share road frontage with fast food restaurants. Century-old oaks shade historic farmhouses that adjoin convenience stores.

This mixture of agricultural lands with suburban development has produced an interesting and diverse suburban landscape. City residents enjoy an extensive and generally healthy urban forest, and a careful observer will find a wide variety of wildlife, particularly along Gilder Creek and Laurel Creek and their



Map 4-1: The Piedmont province of the Appalachian Highlands region stretches across Upstate South Carolina

tributaries, which provide quiet natural refuges and important wildlife habitat.

Existing Conditions

Topography and Soils

Mauldin is located in the upper Piedmont province of the Appalachian Highlands physiographic region. The Piedmont province is bordered by the Coastal Plain province to the southeast and the Blue Ridge province to the northwest, although only the extreme northwestern corner of the state is within the Blue Ridge province. The Piedmont meets the Coastal Plain at the “fall line”, so named because streams and rivers form rapids or waterfalls where the rocky soil of the Piedmont meets the sandy soil of the Coastal Plain. As shown in Map 4-1 (below left), the Piedmont province stretches from Delaware to Alabama.

The Piedmont area is characterized by rolling hills, with elevations typically between 200 to 1000 feet above sea level, and moderately fertile clay soils. The Mauldin area is one of many parts of the Piedmont province that has been damaged by soil erosion associated with intensive cotton farming; soil erosion continues to be a persistent problem, evidenced by the coffee-colored runoff that fills creeks and roadside ditches following heavy rains, as poorly-stabilized slopes and cleared lands readily erode.

Soils in the Mauldin Area are useful for agriculture and are generally suitable for residential, commercial and industrial development in areas outside of the floodplains of Gilder Creek and Laurel Creek. Very little prime farmlands remain within the Mauldin Planning Area, as most of the area’s prime agricultural lands have been converted to urban use.

Map 4-2 depicts general soil suitability for urban uses, and Map 4-3 depicts prime farmlands. Available data on prime farmlands is not current; most of the areas characterized as

“cultivated prime lands” – concentrated along Holland Road and Tanner Road in the northeastern part of the planning area -- have been converted to residential use.

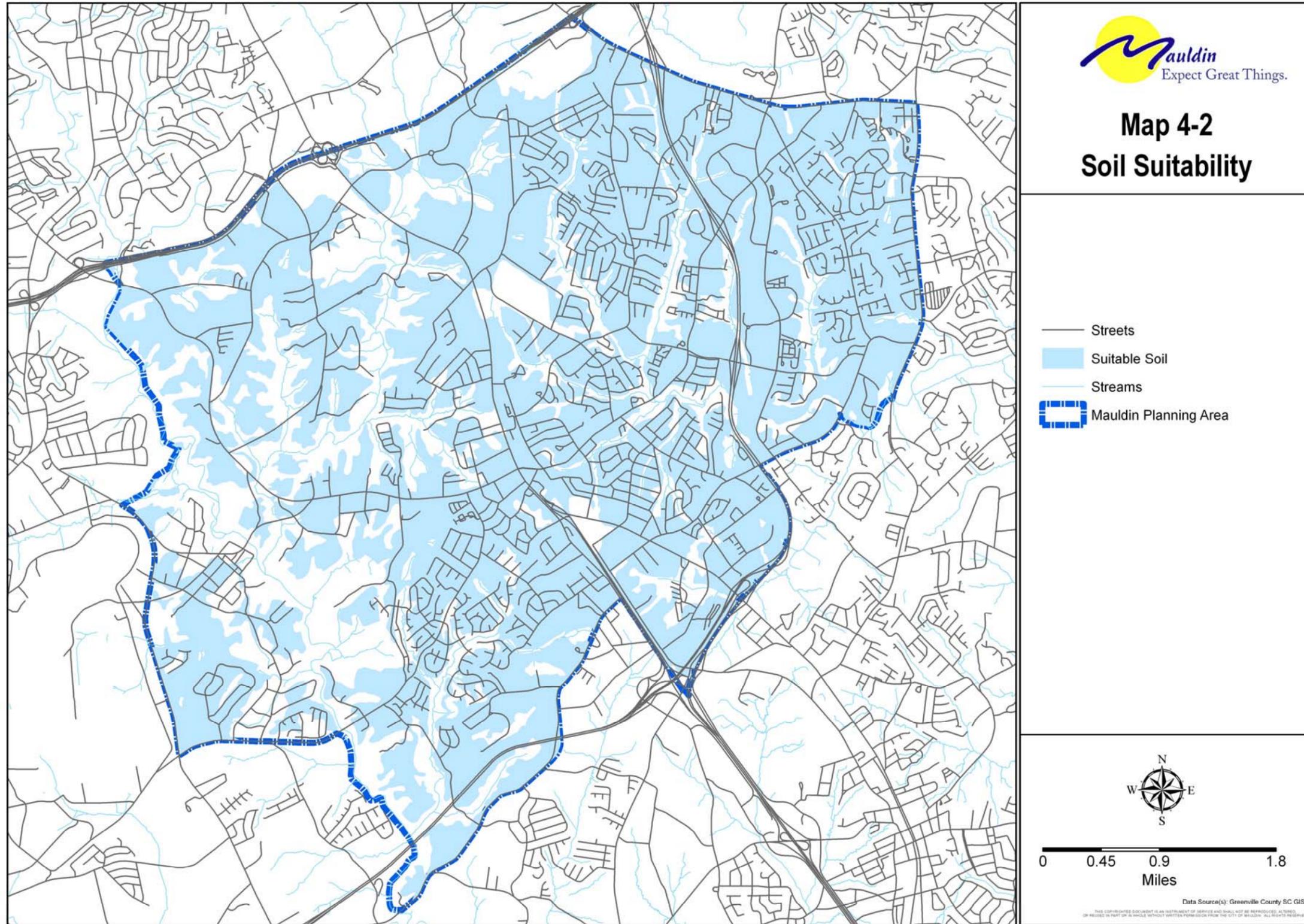
Water Resources

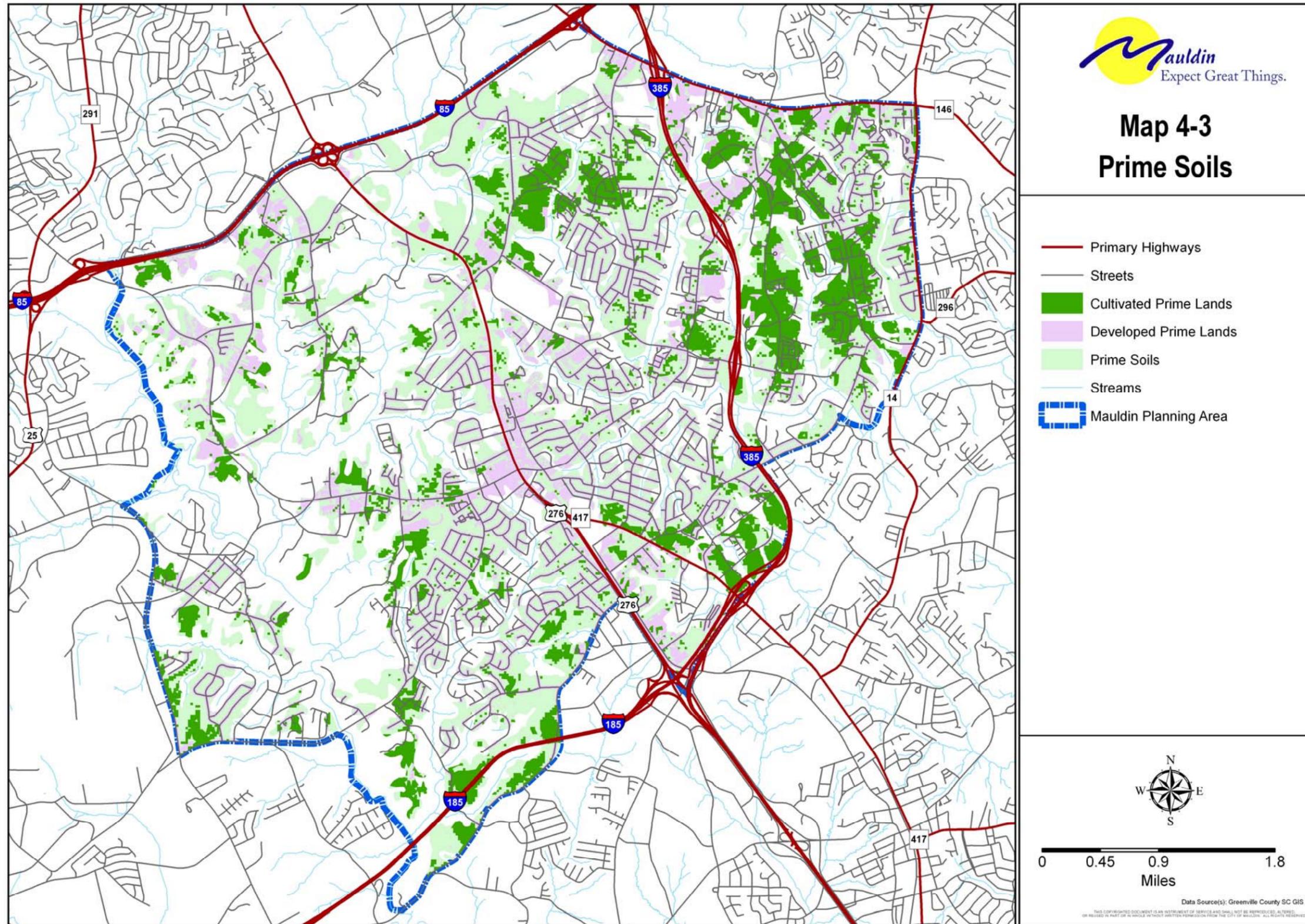
Mauldin is located along the ridge line that separates the Reedy River basin from the Enoree River basin. US Highway 276 generally follows the ridge between the Reedy and Enoree river basins through Mauldin.

In the Enoree River basin, the major creek systems within the Mauldin area are Gilder Creek and Little Gilder Creek, which drain the northeastern part of the planning area, and Bridge Fork Creek, which drains the east central part of the planning area. Significant wetland areas along Bridge Fork Creek north of SC 417 are visible from I-385. The Gilder Creek system is highly impacted by urban runoff and flooding problems are significant. The remaining wetlands provide important floodwater storage and filter sediments, improving water quality downstream. Wetland areas were much more extensive throughout the upstate before the era of large-scale farming; soil erosion has filled many of the region’s natural wetlands over the past 150 years or so.



Gilder Creek near East Butler Road and Bethel Road





Major creeks in the Reedy River basin are Laurel Creek, which drains the northwestern part of Mauldin, and Ranch Creek, which roughly parallels Ashmore Bridge Road and drains the south central portion of the planning area. Tar Creek and Marrowbone Creek drain areas west of the Reedy River. Map 4-4 illustrates the river basins that divide the Mauldin Area.

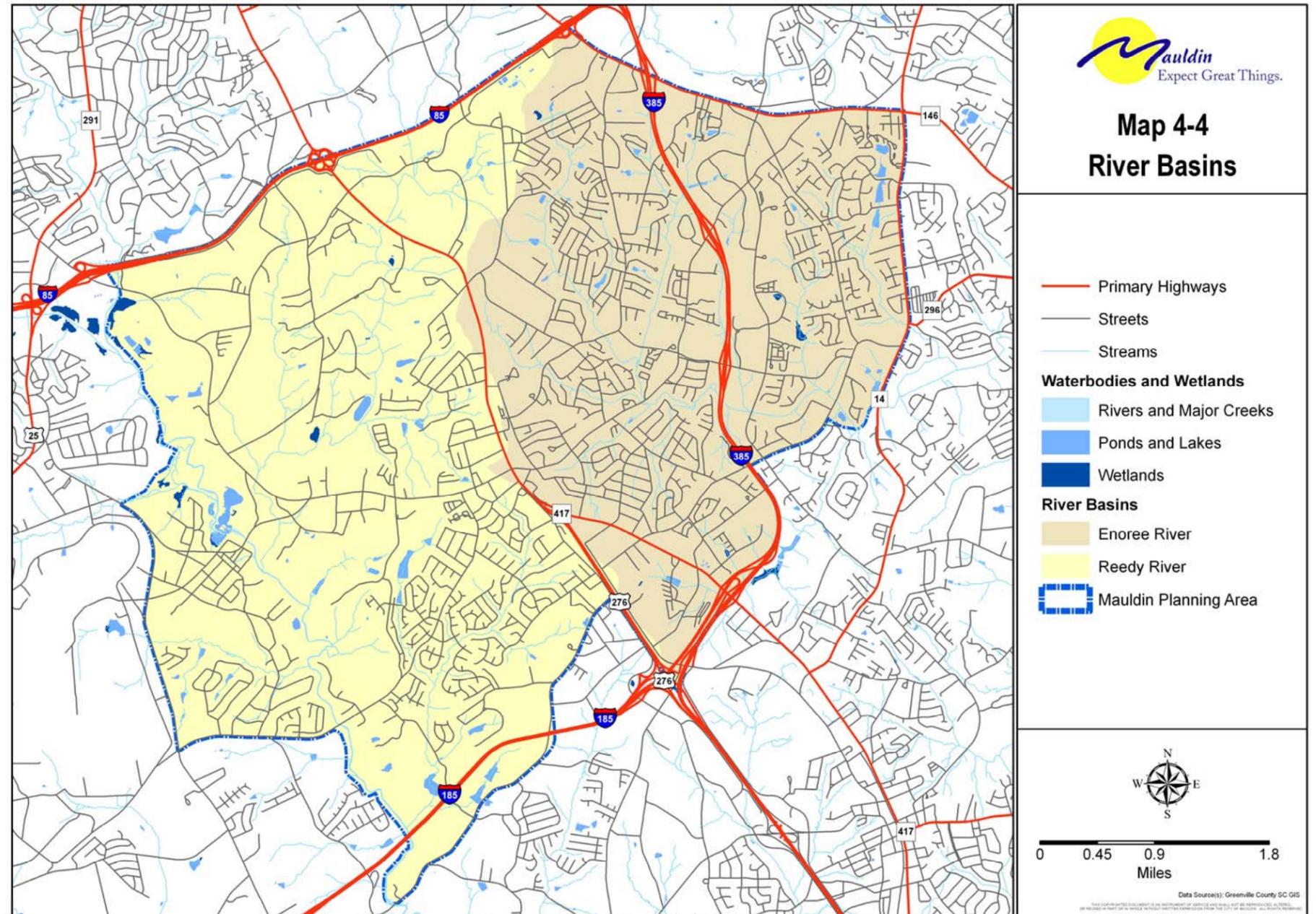
Floodplains are illustrated in Map 4-5, and extend along most of the main branches and tributaries of Laurel Creek, Ranch Creek, Gilder Creek and the Reedy River. Most of Laurel Creek within the Mauldin planning area is bordered by undeveloped or semi-rural areas, and few buildings have encroached on the floodplain. Ranch Creek is bordered by subdivisions, but floodplain protection ordinances were in place when these subdivisions were built and development generally has not encroached on the floodplain.

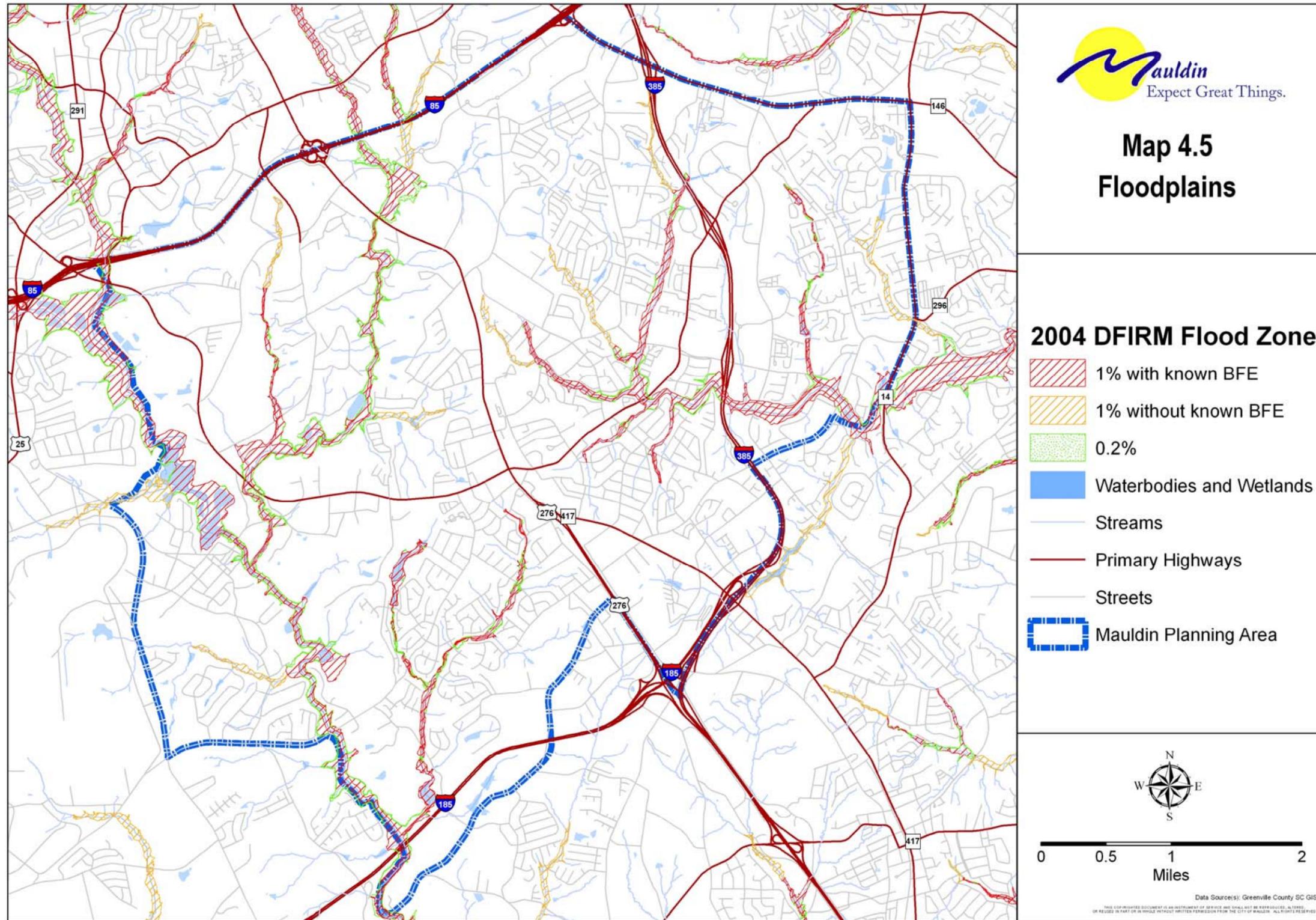
Flooding is a significant problem along Gilder Creek in several subdivisions that were built in the 1960s and early 1970s. Libby Lane, Brookbend Court, and Shadecrest Drive are examples of areas where flooding has been an issue for residents.

Stream buffers are one tool that can be used to control surface water runoff and improve water quality. Also known as riparian buffers, undisturbed natural forested areas along streams have been shown to be effective in controlling nonpoint source pollution by removing nitrogen and sediment from urban stormwater runoff.

Greenway trails can be incorporated into stream buffers, and combine active recreational benefits with water quality benefits.

Soil erosion persists as a significant water quality problem in Mauldin. Much of the current erosion problems arise from landscape maintenance practices. Attempts to establish lawns on steep slopes generally fail due to the erodibility of many of the area's soils. Weekly mowing with riding lawn mowers worsens this problem. Some of the worst soil erosion





problems exist on public rights-of-way and, where steep slopes have been graded to avoid impacts on adjacent property. Some slopes on school grounds and some other public facilities are generating significant erosion problems as well, and should be corrected as one of the priority action items for this plan.

Natural Areas and Open Space

Map 4-6 illustrates lands that are protected from development as public parks or have been protected with conservation easements.

Conservation easements are voluntary agreements between a landowner and (usually) a private land trust, which permanently limit the type and amount of development on a parcel of land. The property remains in private ownership, and a limited range of uses are permitted, typically including agriculture, forestry, recreation, or other open space uses. Industrial, commercial, and residential development is prohibited, although one or very few residences may be permitted on the property in many cases. Many properties have been preserved in the Upstate through efforts of Upstate Forever in cooperation with other conservation organizations.



Mallard ducks on the water on a summer evening at the stormwater retention pond at C&S Wholesale



This Green Heron is a regular visitor to the pond in the Forrester Woods subdivision in Mauldin

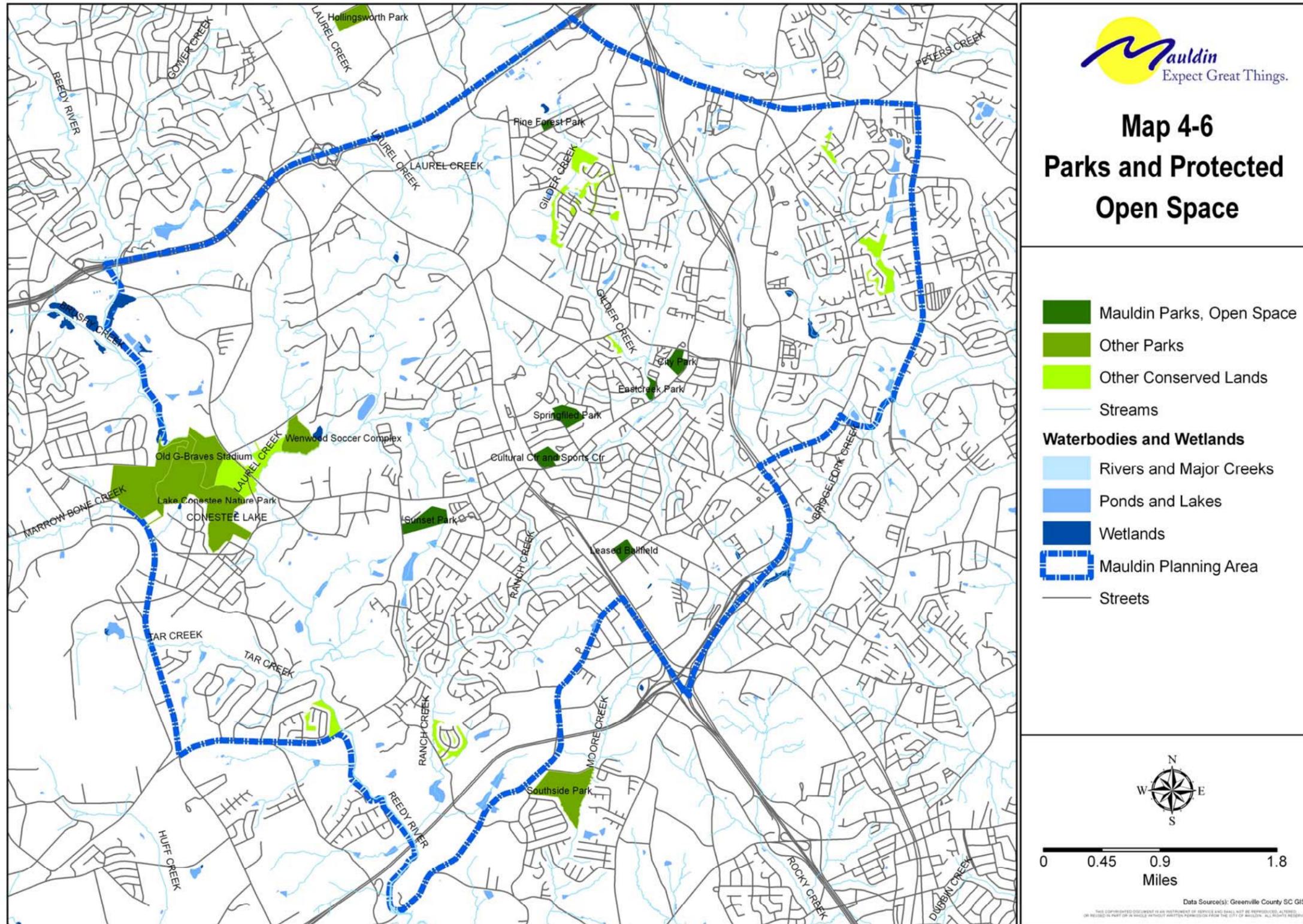
Small, informal open space areas may also be valuable. The picture (below left) of the stormwater retention pond at the C&S Wholesale facility shows how these features can provide good habitat for birds while protecting water quality. A careful approach will find a green heron waiting in the shallows in this pond for frogs and fish.

The largest and potentially most significant natural area is at Lake Conestee Nature Park. The Conestee Foundation manages the lake and has acquired nearly 600 acres centered on the lake to create a regional park and an environmental education center. The Swamp Rabbit Trail, which generally follows the Reedy River from Travelers Rest southward, will terminate at Lake Conestee Nature Park and create a bicycle and pedestrian spine through Greenville County.



Wetlands on this City-owned open space on East Butler Road at East Creek Townes (above) help store floodwaters, filter runoff, and provide habitat for birds like the Cedar Waxwings pictured below





Environmental Hazards

Map 4-7 identifies the three federal Superfund sites in the Mauldin area. None are in the city limits of Mauldin. Remediation of the Fiber Industries (later Hoescht Celanese) site near I-85 and Woodruff Road is nearly complete. Production of polyester fibers and wastewater treatment in open lagoons on the site led to solvent contamination of groundwater.

The lake bed of Lake Conestee has nearly filled with sediment which accumulated over a century. Prior to passage of the Clean Water Act in 1970, wastewater discharged from textile and metal production operations upstream carried solvents, heavy metals, polychlorinated biphenyls (PCBs), and other hazardous waste. As noted by the executive director of the Conestee Foundation, the lake bed is essentially a chemical history of the industrial revolution in Greenville. EPA has determined that the best remediation action for the lake is to maintain the contaminated sediments in place and prevent human contact with contaminated lower sediment layers.

Other common environmental issues include groundwater contamination near old gas stations, as many underground storage tanks (USTs) leaked fuel. Dry cleaners generally stored perchloroethylene in USTs as well, and this is another common source of urban groundwater contamination. Several groundwater monitoring wells are located at service stations along U.S. 276, as part of S.C. DHEC's program for monitoring and remediating groundwater contamination.

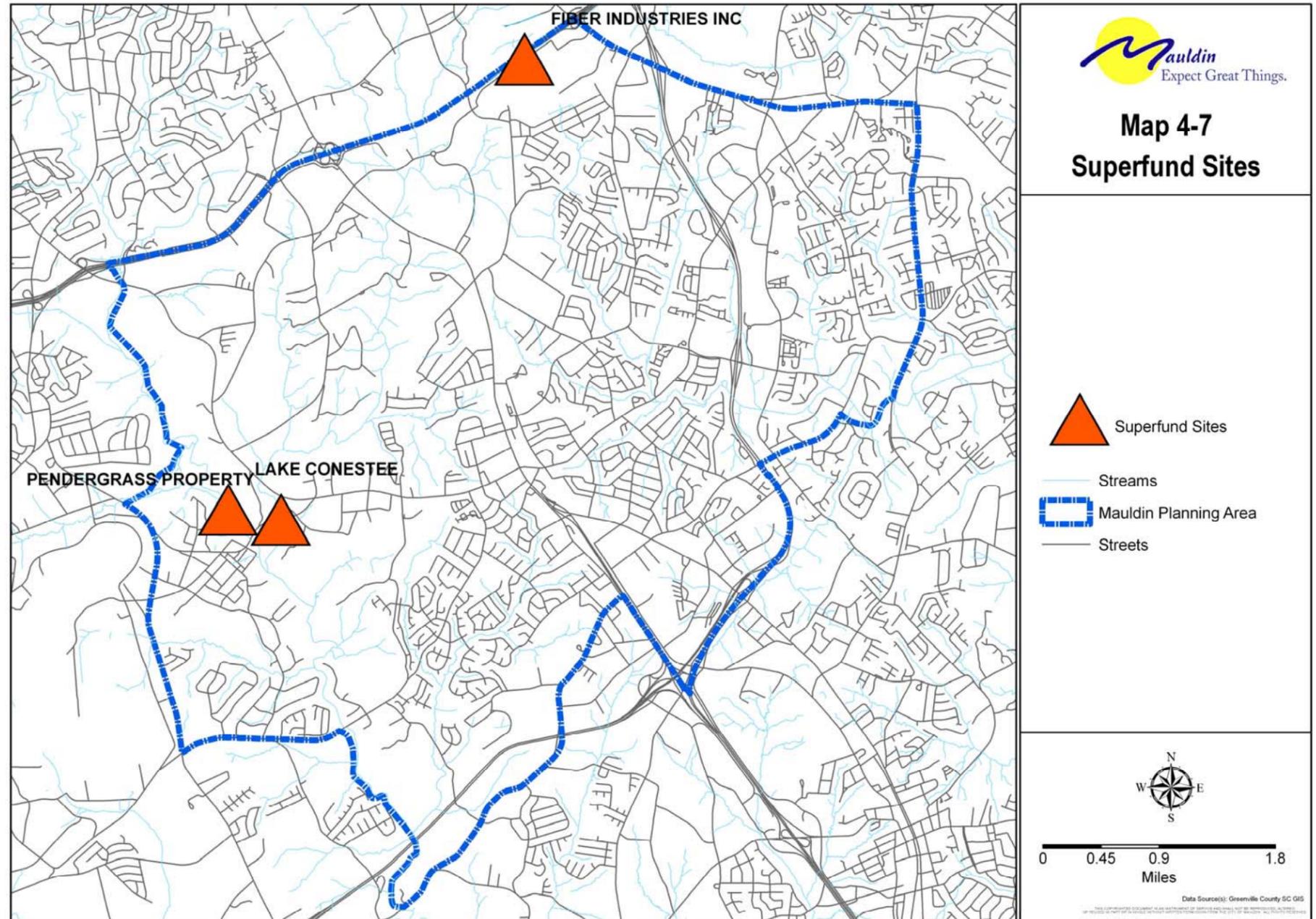
Plant and Animal Habitat

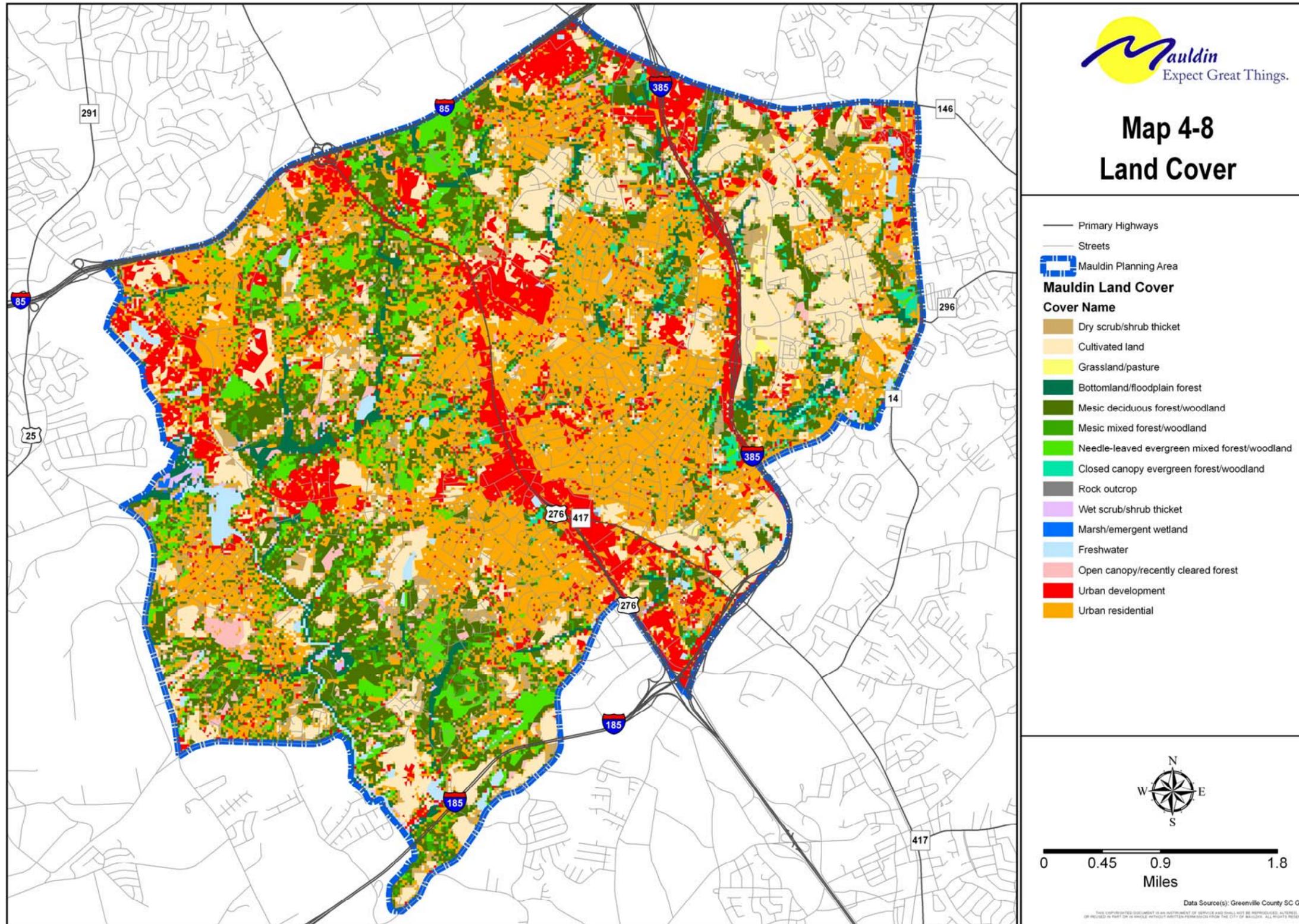
A few threatened plant and animal species occur in Greenville County; none are known in the Mauldin planning area.

Inventories of common plant and animal species that are observed in the Mauldin area are included as an appendix.

Much of the Mauldin area is urbanized, and habitat loss and fragmentation due to roads and suburban development is a difficult issue to address. Suburban sprawl, wetlands filling, forest fire suppression, forestry practices, and habitat

degradation from urban activity (water quality and sedimentation issues) are cited by S.C. Department of Natural Resources as the main threats to birds and mammals statewide.







Chapter 4: Natural Resources

Invasive non-native species such as fire ants and a number of invasive plant species are other areas of concern.

Map 4-8 illustrates land cover in the Mauldin area. The most significant plant and animal habitat areas are generally the green areas of the map, while reds depict intense urban (mostly paved) areas, and orange identifies suburban residential areas. The large areas shown as cultivated land in the northeastern part of the map have now mostly been developed as subdivisions, schools, and light industrial use.

The map of land cover clearly illustrates that most of the remaining natural, undeveloped land lies in a swath along Laurel Creek and the Reedy River in the western part of the Mauldin planning area.

Key Issues

Urban Forest Management

Trees are among the most important quality of life features in Mauldin. Subdivisions built in Mauldin in the 1960s and 1970s were generally not “mass graded,” and many trees were retained on the house lots as development progressed on a house-by-house basis. The saplings preserved in the 1960s and 1970s are now large, mature canopy trees, forming a relatively healthy and diverse urban forest.

It will continue to be difficult to protect significant trees if new residential and commercial development sites continue to be mass-graded. Policies that encourage, reward or require more careful placement of buildings and site and preserve natural contours of the land would be ideal if more mature trees are to be preserved and incorporated in new development.

Forest succession – ensuring a healthy mix of tree ages – will be important to ensure the long term health of the urban forest in Mauldin.

Urban forestry education programs would be useful to assist homeowners and business owners to understand the benefits of tree preservation and to practice effective management and replacement of urban trees. Effective management of the urban forest that grows in and around residential neighborhoods will have a significant benefit for animal habitat and water quality.

The City’s tree ordinance, which applies to trees on commercial and multi-family properties, has helped preserve a number of “specimen” trees larger than 30” caliper and the City’s landscaping requirements for new development ensures planting of significant numbers of trees.

Farmland Preservation

In discussions with the citizens committee, preserving farmlands and agricultural lands emerged as a goal. Preservation of some active farmlands would allow local production of fresh fruits, vegetables, and meats to continue, and would preserve some of the rural character that is rapidly disappearing from the area. However, few opportunities remain to preserve active farms within the Mauldin Planning Area, as illustrated in Map 4-3.

A more realistic strategy to preserve some local agricultural production may be to encourage community gardens and work with local organizations to provide outreach and education on farming and gardening skills.

Air Quality

Ground-level ozone is an air pollutant that has been an issue in the Upstate region since 1997. While ozone in the stratosphere shields the earth from ultraviolet radiation, in the biosphere it is harmful to humans, plants and animals. At high concentrations, ozone has been shown to cause respiratory

impairment, lung damage, damages rubber and other materials, harms plants and reduces crop yields.

Ozone is not emitted from automobiles or smokestacks. It is formed in the atmosphere by two “precursor” emissions, nitrogen oxides (NOx) and volatile organic compounds (VOC). In warmer weather, VOCs and NOx combine in the atmosphere to form ozone. Ideal conditions for ozone formation are high temperature, high levels of ultraviolet radiation, and stagnant air, which makes South Carolina summers nearly perfect for producing high ozone levels.

Ozone Formation

NOx emissions are produced by any and all combustion processes, such as gas-fired home water heaters, wood fires, lawn equipment, automobiles, industrial boilers, and fossil-fueled power plants. In South Carolina, coal-fired power plants and automobiles are major NOx sources.

In South Carolina, DHEC estimates that man-made sources of VOC account for about half of those emissions. Sources include vapors vented from fuel tanks, painting and finishing processes, and combustion processes; poorly-tuned cars are a significant source.

Natural sources produce the other half of VOC emissions. Oak trees emit isoprenes, pine trees emit turpenes, and other plants produce natural VOCs through transpiration.

Stricter Air Quality Standards

In July 1997, the U.S. EPA issued a stricter set of standards for ground-level ozone to protect human health. Prior to 1997, Cherokee County was the only area in South Carolina that had exceeded the standard for ground level ozone and was designated a “nonattainment area” by EPA.

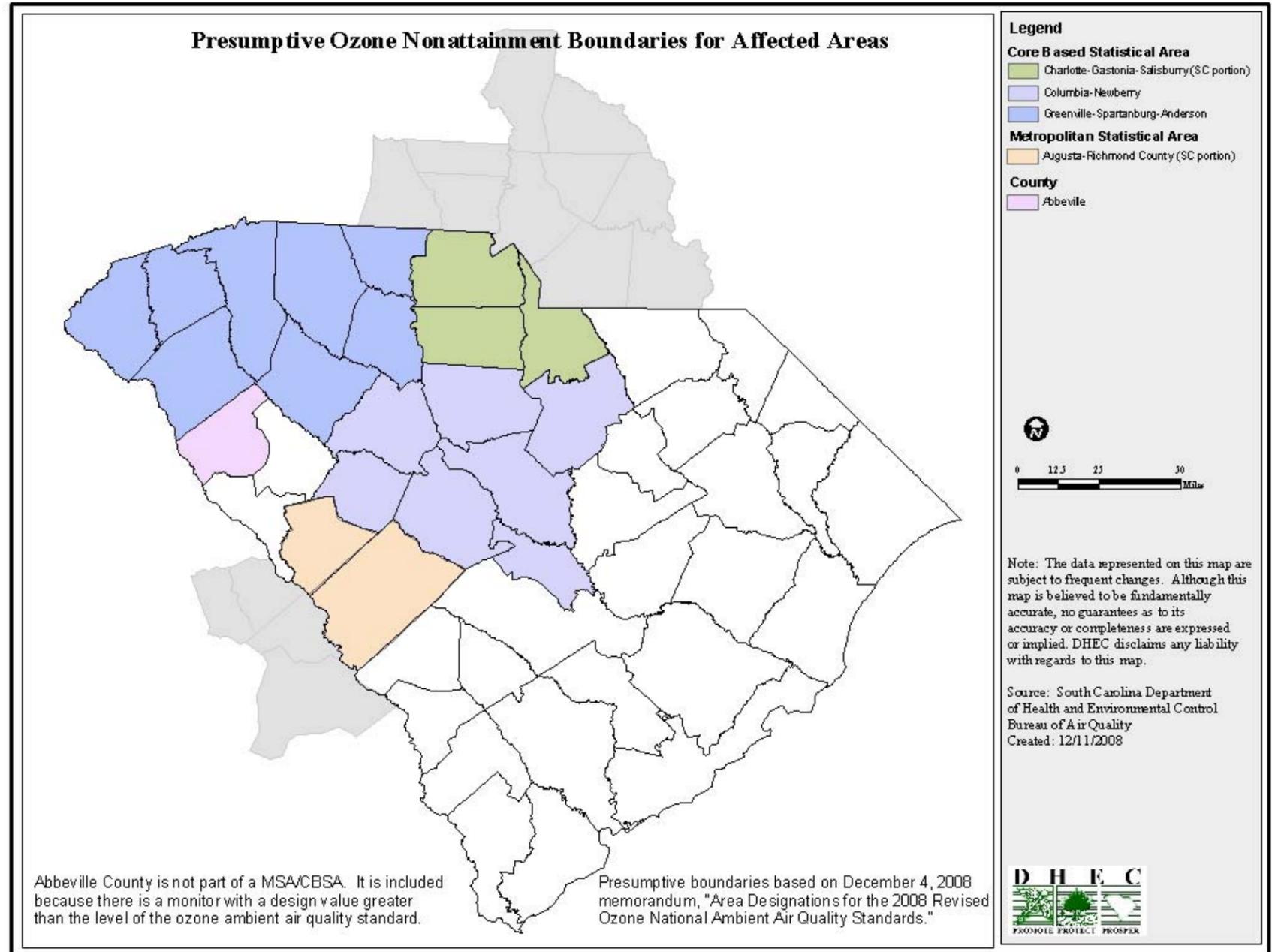
The 1997 National Ambient Air Quality Standards (NAAQS) would have resulted in designation of 10 South Carolina counties as nonattainment areas. Nonattainment designation creates many administrative costs for government agencies and for business and industry. Business and industry are required to invest in equipment and procedures to reduce emissions from production processes, more state regulatory action is required, and extensive analysis of air quality impacts of highway and transit improvements is required.

South Carolina counties entered an “Early Action Compact” with EPA, and through voluntary measures to reduce emissions, combined with national requirements for cleaner automobiles and trucks, the entire state was in compliance with the EPA standards for ground level ozone by 2007.

In 2008, EPA again made the standards stricter, and once again many counties in the state exceeded the new standards that year. Map 4-9 illustrates the potential boundaries of the ozone “Nonattainment Area” that may be designated by EPA in 2010. Colored areas on the map are presumed to become nonattainment areas; boundaries are likely to be set based on census-defined metropolitan areas. Gray areas show the likely Charlotte and Augusta nonattainment areas in adjoining states.

Table 4-1, produced recently by DHEC and available on their website, illustrates the air quality trends in upstate South Carolina. Air quality has steadily and continually improved, but not quite as fast as EPA has lowered the allowable limits.

EPA began phasing in stricter “Tier 2” tailpipe emissions standards for cars and light trucks in 2004. These standards have been fully implemented now, and according to EPA, “Vehicles meeting the Tier 2 emission standards are much cleaner – 77% to 95% cleaner, depending on the size of the vehicle – compared with model year 2003 and earlier.” Most areas that marginally exceed air quality standards are expected to meet the NAAQS as a result of cleaner vehicles.



Map 4-9: Potential Air Quality Nonattainment Areas in South Carolina.
Map courtesy of SC DHEC



Particulate Matter

Fine particulate matter, known as “PM 2.5,” is also a pollutant of concern for Greenville County. Many of the sources of PM 2.5 are the same as for ozone. Fugitive dust from dirt roads, construction sites, and rock quarries are also an important source. Some monitors in the Greenville area indicate that the PM 2.5 air quality standard is being exceeded at a monitor near downtown Greenville, and a monitor in Taylors is very close to the standard.

Local Actions and Initiative

As is true with many environmental issues, national actions likely are most effective at improving air quality. EPA regulations that reduce emissions from automobiles and power plants are in place and in most areas will result in air quality that meets the new standards. For example, regulations on automobile and truck emissions that went into effect between 2004 and 2007 are expected to reduce per-mile emissions from motor vehicles by 60 to 80 percent. While some of this improvement will be offset by continued growth in vehicle miles of travel, the net result will be significant reductions in the total emissions from vehicles.

However, local actions can have important air quality benefits. Educational campaigns that educate drivers about vehicle maintenance and unnecessary vehicle idling can be effective tools.

Energy Conservation measures by government agencies both set a good example for the public and save tax dollars.

LEED certified buildings, although generally more expensive to construct, are expected to more than offset higher construction costs through energy savings, and also generally create more pleasant living and work spaces.

Table 4-1
Air Quality Monitoring Results for Ground-Level Ozone in South Carolina

County	Monitoring Site	2006 4th 8-hr Average (ppm)	2007 4th 8-hr Average (ppm)	2008 4th 8-hr Average (ppm)	2009 4th 8-hr Average (ppm)
Abbeville	Due West	0.079	0.083	0.074	0.060
Aiken	Jackson	0.073	0.082	0.075	0.068
Anderson	Big Creek			0.068	0.061
Berkeley	Bushy Park	0.064	0.064	0.066	0.056
Charleston	Cape Romain	0.078	0.069	0.071	0.063
Cherokee	Cowpens	0.076	0.067	0.080	0.057
Chesterfield	Chesterfield	0.074	0.073	0.072	0.064
Colleton	Ashton	0.078	0.071	0.067	0.060
Darlington	Pee Dee	0.076	0.073	0.076	0.065
Edgefield	Trenton	0.068	0.073	0.071	0.063
Greenville	Hillcrest				0.067
Greenville	Famoda Farm			0.065	0.065
Oconee	Long Creek	0.065	0.074	0.072	0.066
Pickens	Clemson	0.081	0.081	0.080	0.066
Richland	Congaree Bluff	0.072	0.070	0.073	0.057
Richland	Parklane	0.082	0.077	0.077	0.064
Richland	Sandhill	0.078	0.084	0.077	0.066
Spartanburg	N. Spartanburg FD	0.085	0.083	0.085	0.066
Union	Delta	0.077	0.076		
Williamsburg	Indiantown	0.073	0.071		
York	York	0.078	0.080	0.075	0.061

Note: Red highlights indicate values that exceed the new NAAQS for ground-level ozone, yellow highlights indicate values that are approaching the NAAQS. In 2008, the standard was lowered from .084 to .076 parts per million.

Source: SC DHEC, Bureau of Air Quality.



Land use planning can also play a significant role in air quality. Vehicle emissions are highest in the first mile of travel before the engine and catalytic converter reach normal operating temperatures. Up to 70 percent of emissions in a typical car trip occur in the first mile. Where land use arrangements and urban design factors -- such as mixed use development with attractive pedestrian facilities and bike lanes -- make non-automotive travel a viable choice, significant emissions reductions can be achieved.

A good example of land use planning benefits can be observed at the Bloom grocery store at the intersection of Holland Road and Bridges Road. Many residents of the adjacent Bridges Crossing subdivision adamantly opposed development of a grocery store at that location, citing mostly traffic concerns. Now, residents may be commonly observed walking across Holland Road to the grocery store. While some people scoff at the idea that middle-class car owners will walk to work and shopping, people will choose walking and bicycling when land use planning and transportation facilities make the choice convenient.

Other Related and Useful Plans and Reports

Many other organizations in the region have produced reports and studies that are important to natural resources in Mauldin, including the following.

- Saluda-Reedy Watershed Consortium
- Lake Conestee Nature Park Master Plan
- ReWa (formerly WCRSA) 20 Year Plan
- Greenville Water System plan
- SCDNR Comprehensive Wildlife Strategy
- Governors Climate Change Task Force Report



Goals and Objectives

Goal 1: Work with regional partners to improve water quality.

Objective 1.1: Reduce sediment and pollutants in urban runoff

Implementation Strategies

- a. Provide erosion control education through city publications and distribution of brochures.
- b. Amend land development regulations to provide better natural stream buffers
- c. Evaluate public facilities in the City to identify soil erosion problems related to mowing on steep slopes or inadequate storm water management; implement solutions on City property and recommend actions for other public properties such as schools.

Objective 1.2: Work with private landowners to preserve open space along Gilder Creek and Laurel Creek and their tributaries

Implementation Strategies

- a. Apply for grant funds to purchase conservation easements
- b. Provide information to key property owners about the tax benefits of donating conservation easements

Goal 2: Preserve and manage effectively the urban forest resources in Mauldin

Objective 2.1: Preserve historic trees in Mauldin

Implementation Strategies

- a. Amend the city’s tree ordinance to provide additional incentives to protect historic trees and ensure diversity of age and species in urban forest
- b. Educate developers and homeowners about tree protection and values through brochures and information programs at city-sponsored events

Goal 3: Encourage preservation of remaining agricultural lands and support local crop production.

Objective 3.1: Work with farmland owners to identify options for preserving farmland, including agricultural easements, which provide tax advantages to landowners and allow continued use of land for agricultural production.

Implementation Strategies:

- a: Coordinate with state and local organizations to provide information to landowners.
- b: Include a community garden space in future city park development.

Objective 3.2: Encourage development of community gardens

Implementation Strategy

Work with the Mauldin Garden Club, Clemson Extension, and other local non-profit groups to

provide education and support for community gardening.

Goal 4: Improve storm water management.

Objective 4.1: Identify problem areas where storm water has caused flooding

Implementation Strategy: cooperate and consult with FEMA, SCDHEC, Greenville County and other agencies to develop and implement improvements.

Objective 4.2: Evaluate opportunities to collaborate with Greenville County to eliminate duplication of stormwater management services.

Implementation Strategy: Meet and consult with Greenville County officials to identify opportunities to improve service delivery.



Many people think of land use as the most important element of a comprehensive plan. The Future Land Use Map is usually the component of a comprehensive plan that is most extensively discussed and most often referenced when planning decisions are being made.

Land use is different from zoning. Zoning defines the uses that are allowed on a given parcel of land. A land use map defines the actual use of the land. Often, property that is zoned for commercial use remains in residential use. Property zoned for multifamily residential use may be developed with single-family dwellings.

Similarly, when a Future Land Use Map is adopted, properties identified for a different future land use may not immediately be rezoned. Rezoning typically will not occur until a property owner chooses to develop or redevelop the land.

Strategic Planning Issues

Key strategic planning issues related to the Land Use Element of the Mauldin Comprehensive Plan are listed below. These issues were generated by conducting a SWOT analysis with the Comprehensive Plan Steering Committee, the Mauldin Chamber of Commerce Board of Directors, and at a public meeting held in May 2008 to kick off the comprehensive planning process.

Strengths

Good regional highway access, good location
Small town feel

Weaknesses

Limited opportunity to expand city boundaries
Need more parks of all sizes, from one acre to large parks
Bottlenecks on major roads
No high quality hotels
Weak community identity
No regional rapid transit service

Opportunities

Define the city's identity
Capitalize on proximity of CU-ICAR, St. Francis Hospital satellite campus
Develop high-quality higher-density housing in "new urbanist" style communities
Grow the city within existing boundaries – high quality "infill" development
Redevelop Main Street corridor with quality restaurants and destination retail
High cost of fuel makes Mauldin's central location in the Upstate an advantage

Threats

Traffic congestion: Ashmore Bridge Road, Butler Road, schools, commuter routes
Repeating Woodruff Road development mistakes
Failure to apply "smart growth" planning principles
Continued construction of "megaschools" in remote areas

Land Use Planning Practices

Land use planning attempts to identify the most appropriate use of land given a variety of factors, including:

- *natural factors* such as wetlands, floodplains, drinking water supplies, agricultural lands, and topography;
- *separation of incompatible land uses*, such as heavy industry and residential areas,
- *availability of infrastructure* to support intense land uses, such as roads, railroads, water, and sewer.

Current Land Use Inventory

Using land use data from Greenville County land records, combined with field reviews and desk reviews of land use maps, an existing land use inventory has been compiled and is presented in Map 5-1. This map illustrates how land in the Mauldin Planning Area is currently used, and uses more detailed categories of land use than are normally used for Future Land Use maps.

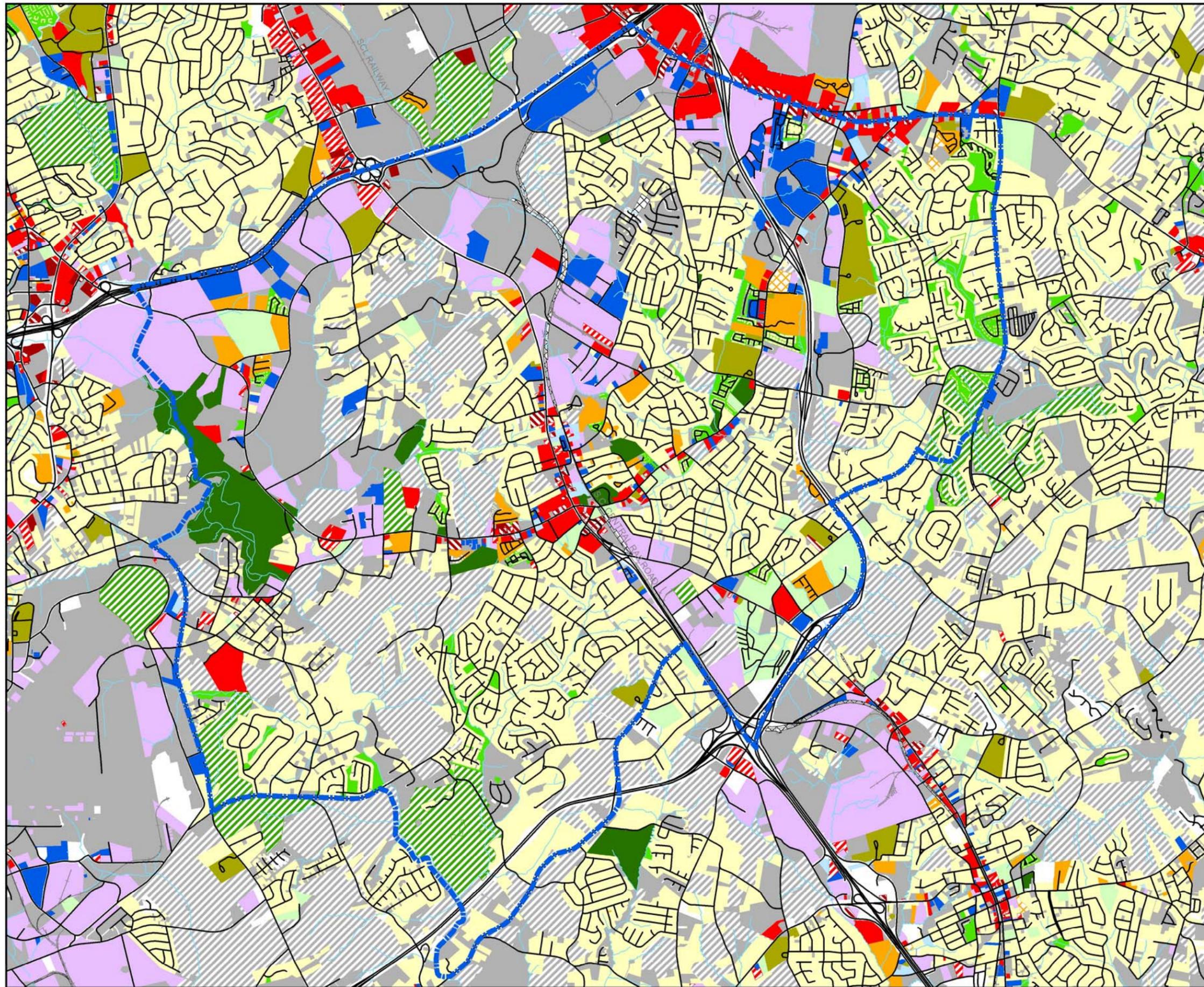
Future Land Use Maps from Previous Plans

Map 5-2a is Mauldin's first Future Land Use map, developed by Greenville County Planning Commission in the City's 1972 General Development Plan. Map 5.2b is the Future Land Use map from the 1999 City of Mauldin Comprehensive Plan. The 1999 map identifies six categories of land use:

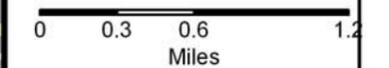
- Low Density Residential
- Medium to High Density Residential
- Office
- Commercial
- Service or Industrial
- Public or Semi-public



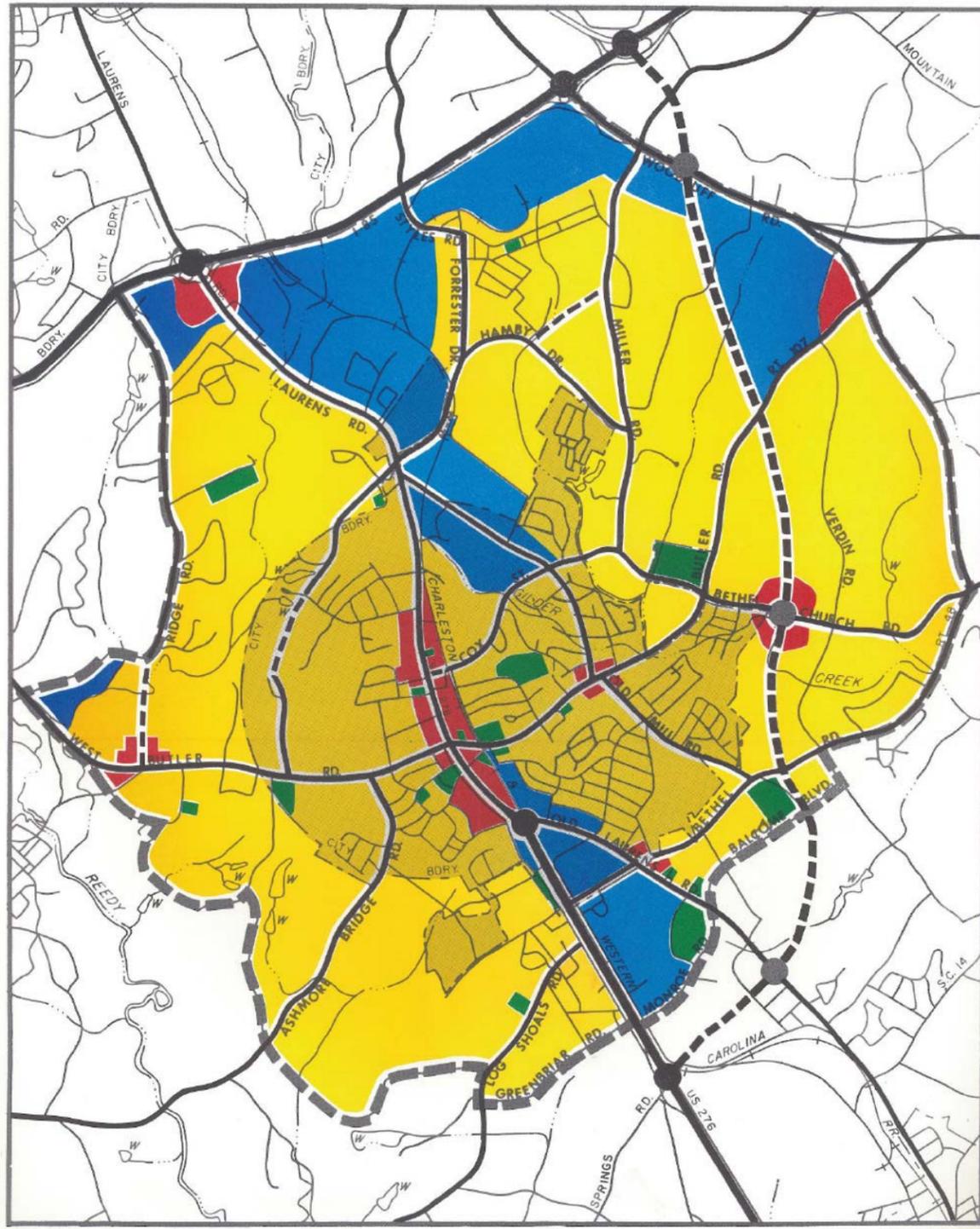
Map 5-1 Current Land Use



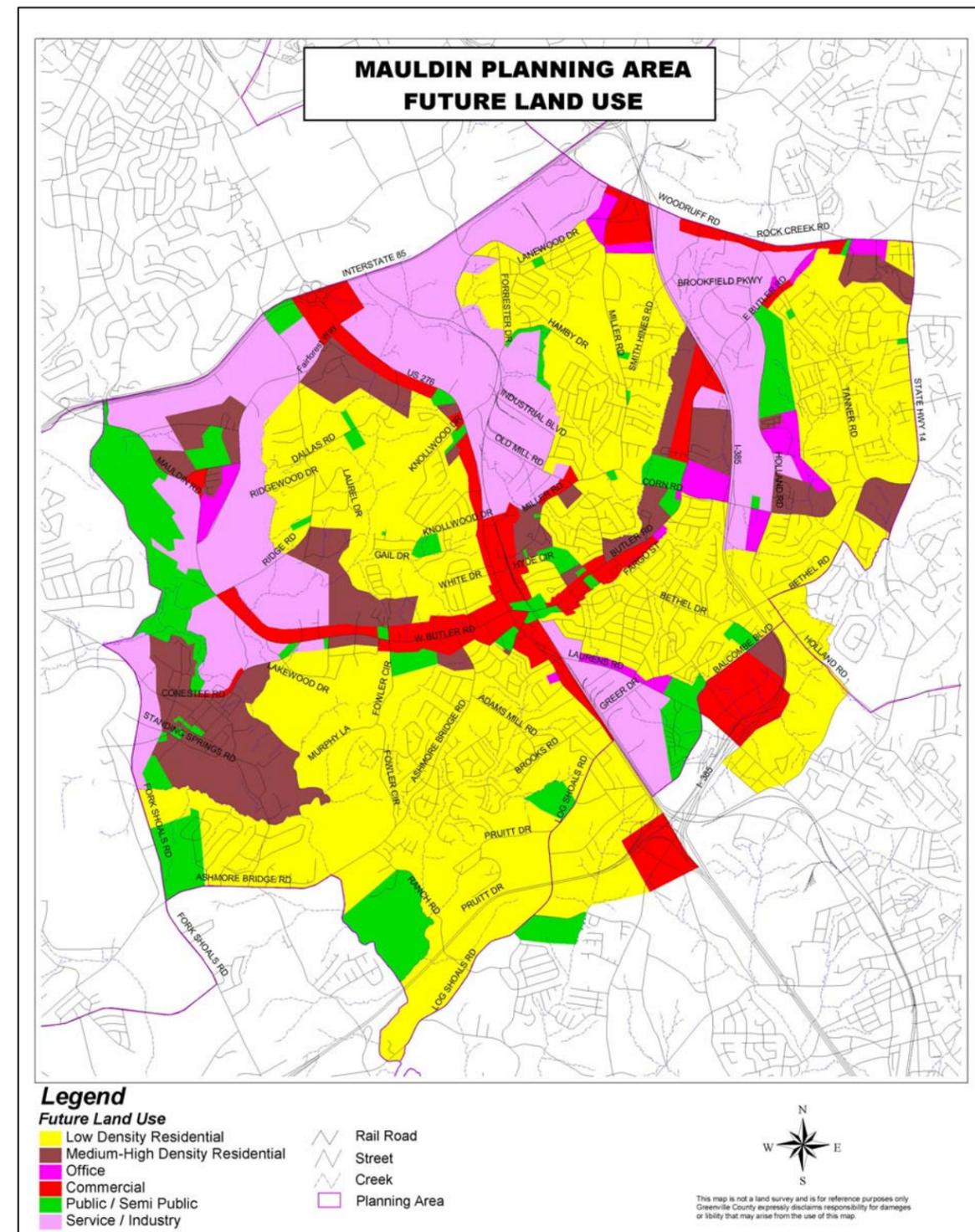
- Mauldin Planning Area
- Streets
- Streams
- Railroads
- Current Land Use**
- Single Family Res
- Multi Family Res
- Assisted Living
- Mixed Use
- Commercial
- Auto Service
- Hotels and Motels
- Restaurant
- Blank
- Office
- Services
- Industrial
- Semipublic
- HOA Common Area
- Schools
- Parks and Government
- Private Recreation
- Agricultural
- Vacant



Data Source(s): Greenville County SC GIS



Map 5.2a: Future Land Use Map from the 1972 Mauldin Comprehensive Plan.
 Legend: Blue – Industrial; Green – Public/Semipublic; Red – Commercial; Yellows – Residential. Dashed lines are proposed arterial roads.



Map 5.2b: Future Land Use Map from the 1999 Mauldin Comprehensive Plan



Chapter 5: Land Use

In previous land use plans, low density residential is typically single family houses at four units per acre or less. Medium to high density residential includes, in order of increasing density, small-lot single family detached houses, patio homes, townhouses, and multi-family apartment buildings.

Office uses include small single-tenant medical and professional offices, up to multi-story office buildings. Office uses are often a good “transitional” use between residential areas and commercial or industrial areas.

Retail stores, shopping centers, hotels, and restaurants fit in the Commercial land use category. The Service and Industrial category includes warehouses, distribution centers, manufacturing and other industrial and support uses.

Schools, churches, cemeteries, golf courses, and parks fall into the Public and Semi-public land use category.

Key Land Use Issues

Several recurring themes have emerged through the comprehensive planning process that should guide the city’s future land use plan. These are:

- appropriate infill development within the current city limits;
- encouragement of walkable, mixed-use neighborhoods;
- establishing appropriately-scaled neighborhood commercial areas;
- appropriate mix of housing types for the anticipated future population;
- adequate parks facilities; and
- planning for future regional transit in the US 276 Main Street corridor.

Most of these issues also highlight the need for a connected network of “complete streets” more important. Complete streets include landscaping, sidewalks, sometimes bicycle lanes, and other safety-oriented features that accommodate all users of streets and reinforce appropriate vehicle speeds. The future land use map includes proposed new street connections, as well as illustrative street networks in undeveloped areas.

Infill Development

As with most suburbs, Mauldin retains many scattered agricultural and rural properties. Mauldin High School students see grazing cows and goats every day; commuters pass century-old barns and farmhouses on their daily journeys. This mix of suburban and rural agricultural uses contributes to Mauldin’s sense of place and quality of life.

Some of the remaining rural and agricultural lands around Mauldin may be preserved and protected, as discussed in greater detail in the Natural Resources Element (Chapter 4) of this plan. However, market forces ultimately will result in many of these properties being developed.

Walkable, Mixed Use Neighborhoods

Where undeveloped properties have good access to thoroughfares, and are in close proximity to schools, shopping, and employment centers, these sites should be considered ideal for infill development. An appropriate mix of uses that are compatible with surrounding land uses should be required, and the design of these infill sites should create walkable communities, where residents can access schools, shopping, and employment using non-motorized transportation.

Neighborhood Scale Commercial Areas

With effective design controls, limited commercial uses can fit very well into residential neighborhoods and improve quality of life, reduce vehicle miles of travel in the area, and strengthen the sense of neighborhood. On the Future Land Use Map, these areas are identified with a small gray asterisk.

Neighborhood commercial districts should be located at or near the intersection of two thoroughfares, should include sidewalks and good crosswalks to connect to surrounding residential areas, and total square footage of non-residential uses should be limited. Some commercial uses, such as large gasoline stations, drive-through restaurants, and automobile services should be excluded.

One good example of neighborhood scale commercial areas in Mauldin is Crescentwood Village on East Butler Road. Minor adjustments in the site plan would allow a similar scale center to fit each of the targeted areas for Neighborhood Commercial land uses shown in the proposed future land use map.

The Neighborhood Commercial centers identified graphically in the future land use map should be implemented through an overlay zone or through Planned Development zoning. These areas would not receive traditional C-1 or C-2 commercial zoning, as the scale and type of use could not be adequately managed under traditional zoning.

Appropriate Housing Mix

The housing element of this plan estimated that roughly half of future housing demand will be for traditional single-family subdivisions. The remainder of the new housing that should be expected



in the Mauldin Planning Area would consist of very small lot single family houses, patio homes, townhouses, and apartments.

This shift in demand toward denser, lower maintenance housing types is driven by the aging of the population, influx of retirees, and lifestyle preferences of young professionals and senior citizens alike. In many ways, retirees and young professionals share common interests in low-maintenance housing types and convenient access to parks, dining, and convenience shopping, and often express a desire to live in walkable communities.

Denser housing types should be developed only where good access to major thoroughfares exists, and should be within reasonable walking distance of schools, parks, neighborhood shopping and employment centers.

The Bridges Crossing neighborhood at the intersection of Bridges Road and Holland Road is a good example of a neighborhood with a mix of relatively dense housing (small-lot single family and attached single family) that is within walking distance of schools (Mauldin Middle and Mauldin Elementary), shopping (Bloom grocery), and employment (Brookfield South).

Parks

Where denser housing types are built, community open space for passive and active recreation becomes more important. Where denser housing types are proposed in areas that lack convenient access to parks, potential park locations should be identified.

Regional Rapid Transit

While South Carolina and the Greenville region has yet to develop a consensus on how to organize and fund regional rapid transit, Mauldin's proximity to the Carolina Piedmont Railroad (historically the Charleston and Western Carolina Railroad) is important.

The Carolina Piedmont line terminates immediately south of the CU-ICAR campus and the railroad line from that point north to SC 291 is owned by Greenville County Economic Development Corporation (GCEDC), and is used for railcar storage currently. Carolina Piedmont uses a spur line to serve the General Electric plant on Garlington Road, and serves industrial customers in Mauldin as well.

The Greenville Pickens Area Transportation Study (GPATS) long-range plan recommended development of a Bus Rapid Transit (BRT) line using the GCEDC railroad right-of-way.

The City of Greenville has endorsed and is pursuing the BRT concept for a north-south rapid transit line, which could establish high-quality regional transit linking Greenville, CU-ICAR, and Mauldin. GCEDC is pursuing a study of regional transit and intercity rail service options for the railroad.

Barring unforeseen changes in energy supply and demand, it seems clear that rapid transit must play a larger role in urban travel in the future. To take advantage of the most likely regional north-south rapid transit corridor in the region, development along the railroad line in Mauldin should begin to transition toward mixed-use, transit-oriented urban villages that will have convenient access to regional transit for people who choose to drive less.

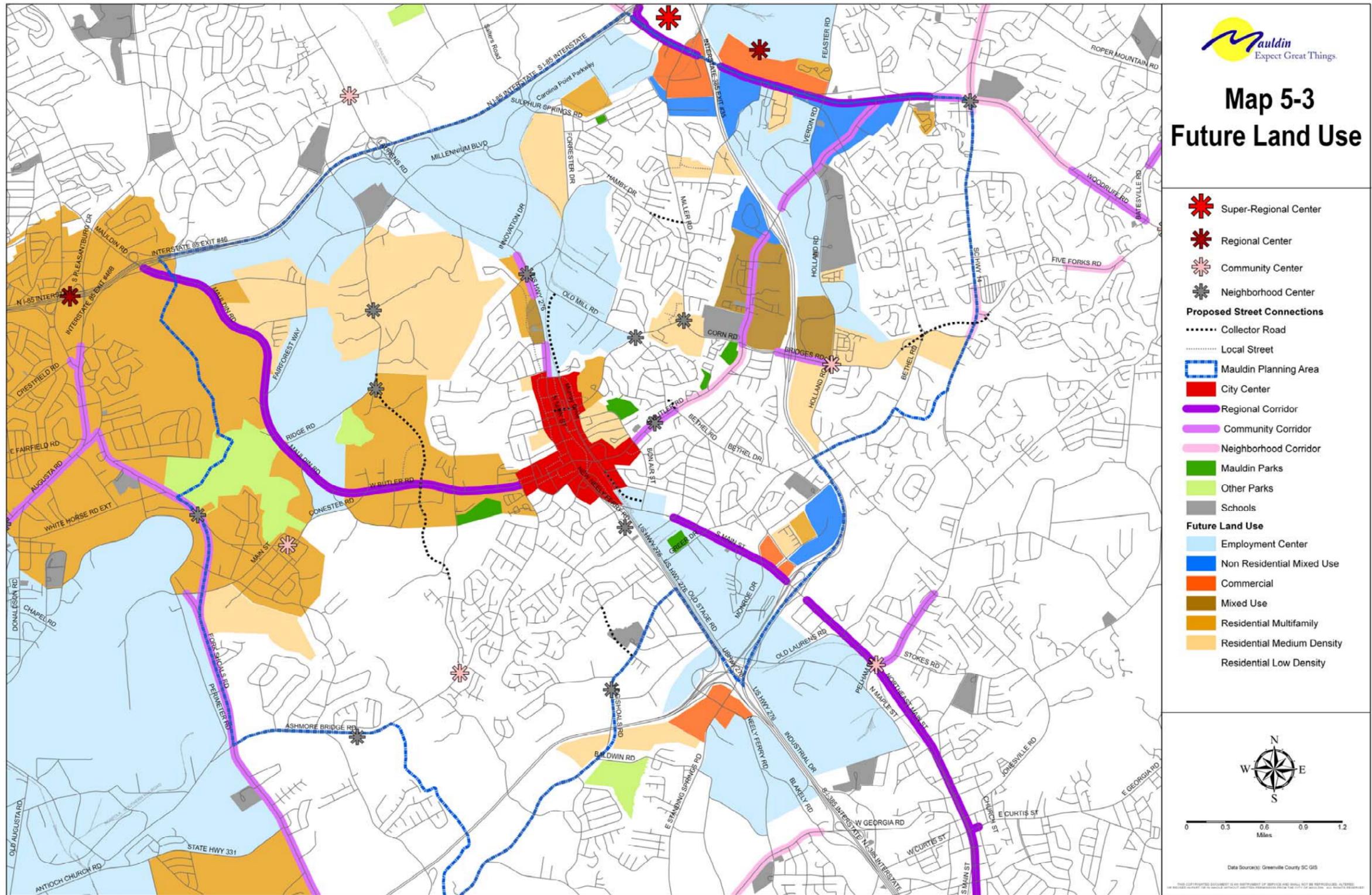
Demand for these urban villages is likely to be generated by a mix of the "creative class" employees that will be recruited by CU-ICAR, retirees, and others who simply prefer a lifestyle that is less reliant on driving and provides easier access to work, shopping and entertainment.

Updated Future Land Use Map

Mauldin's new Future Land Use Map (Map 5-3) addresses the issues identified through public input from citizens, advisory committees, and the steering committee. The map is structured in a format that is consistent and compatible with the Future Land Use Map being developed for the Greenville County Comprehensive Plan.

Key changes in the Future Land Use Map compared with the 1999 map include:

- Designation of a "City Center" district;
- Designation of "Corridors" along major roads;
- Identification of "Centers" at key locations;
- Replacing the "Service/Industry" area with an "Employment Center" area, to more accurately reflect the mix of nonresidential uses that occur in these areas, which normally include office, distribution, manufacturing, institutional, and research uses.;
- Separating "Medium-High Density Residential" into a "Residential Multifamily" and "Residential Medium Density" uses;
- Designation of a "Mixed Use" area that includes residential, office and commercial, and a "Non Residential Mixed Use" area.





Chapter 5: Land Use

Definitions of Future Land Use

Future Land Use categories used on the map are defined below.

Employment Center areas have previously been described as primarily as Service/Industry in the 1999 Future Land Use Map (FLUM). Examples include the industrial corridor between SC 417 and US 276, and the area north of Murray Drive along the east side of North Main Street (US 276). Brookfield Office Park is another area identified as an Employment Center use. These areas are the principal locations of current and potential employment in the area.

Non-Residential Mixed Use is a transitional area between Employment Centers or Commercial areas and residential areas. Examples are the Brookwood Church planned development along I-385 and the Merovan Center on Woodruff Road. These areas should consist of low-intensity commercial and office uses, small inventory and distribution functions, and may include a limited retail and restaurant component. Institutional uses such as churches and private recreational uses (tennis clubs, fitness centers) are also appropriate.

Commercial areas consist of big-box retail stores, restaurants, and shopping centers.

Mixed Use areas are planned communities, designed to include a substantial residential component within easy walking distance of retail, restaurant, office, and entertainment. Examples are the East Butler Road area north of Mauldin High School, where apartments, townhouses and condominiums are built directly behind small shopping centers, restaurants, and offices. Centerpointe Business Park at I-385 and Bridges Road, and the large pasture across Butler Road from Mauldin High School are other Mixed Use areas.

Residential Multifamily uses include apartment buildings, condominiums, and duplexes. These uses should have good access to major roads, and good access to parks and open space. The most significant area identified in the new FLUM is along West Butler Road, where several apartment complexes currently exist.

Residential Medium Density is a new classification, intended to identify areas appropriate for small lot single family houses, patio homes, and townhouses. Examples of current neighborhoods that fit category are Bridges Crossing and Coopers Lake on Holland Road. These areas should have good access to collector roads, and also should have good access to schools, convenience shopping, and community facilities. Senior citizens, single parents, and persons with disabilities are likely to prefer the housing types in these areas for lower costs and lower maintenance.

Residential Low Density consists of single family homes, typically on lots of ¼ acre or larger. Non-residential uses in these areas should be very limited, but will include churches, small professional offices, child care centers, and personal services such as hair salons.

City Center is a new land use classification for Mauldin, and defines the commercial area around Butler Road and Main Street. Retail stores, restaurants, hotels, business services (banks, print shops, etc.) and offices should be the predominant use in this area. Multi-level buildings should be encouraged as the area redevelops. Existing and future traffic problems should be addressed through improved local street connectivity, illustrated conceptually in the FLUM, and through extension of Murray Drive to provide an alternate route for short-distance and local traffic. A key component of the City Center concept is development of a traditional pedestrian-oriented “main street” between US 276 and Murray Drive, connecting Owens Lane, Jenkins Street, and Alexander Drive. A design overlay district will be considered for this area to ensure new development is well-designed and is built with high-quality materials. Building setback requirements and parking requirements may be reduced to encourage a more urban form of development.

Centers

Four types of centers are identified, but only two types of centers are located within the Mauldin Planning Area. Super-regional centers are the largest commercial areas in the Upstate; Shops at Greenridge is immediately north of the Mauldin Planning Area. Regional Centers include large retailers, multiple restaurants, and multiple small retailers and offices – the Sam’s/Walmart complex on Woodruff Road is a Regional Center. The portion of West Butler Road that is included in the City Center area would be at the smaller end of the Regional Center scale.

Community Centers typically are located at the intersection of an arterial road and a collector road, and consist of a grocery store, a few professional offices (dentist, accountant, doctor, etc.), other small retail shops, and personal services such as hair salons. Restaurants are desirable without drive through windows. A convenience store may be acceptable with not more than two fuel pumps. Total non-residential space should be limited to 60,000 to 80,000 square feet. The intersection of Holland Road and Bridges Road is an example of a Community Center that fits well with adjacent residential areas. The grocery store at that location is approximately 40,000 square feet. Community Centers also would be appropriate at Ashmore Bridge Road and Fowler Circle, and in the Conestee community, to provide convenience shopping for adjacent neighborhoods and to reduce the need for residents to travel to West Butler Road for routine shopping.

Neighborhood Centers typically are located at the intersection of two collector streets. Office and light commercial uses should be limited to 20,000 square feet. A small restaurant, a coffee shop,



a convenience store without gasoline sales, a bookstore, a bakery, and professional offices would be examples of appropriate uses in a neighborhood center.

Corridors

Three types of corridors are identified. The corridor concept recognizes that arterial roads already have developed as strip commercial areas, or are likely to develop in a strip commercial pattern.

Regional Corridors are appropriate for the most intense commercial uses, including “big-box” retail, drive-through restaurants, large shopping centers, and automotive service centers. Driveway access should be managed as effectively as possible, with interconnections among adjacent properties, and shared driveways, local street network development, and other effective traffic circulation improvements encouraged to reduce short-distance local traffic on the arterial roads.

Community Corridors are appropriate for less intense commercial uses, such as professional offices, office parks, mixed-use developments, restaurants, and small retail centers. “Big box” retail centers are inappropriate in these corridors. Schools, churches and residential areas will fit well in these areas. Good interconnections among properties should be pursued as well, to create a local circulation network and reduce local traffic use of the arterial streets. The northeastern portions of East Butler Road (north of Mauldin High School) are classified as a community corridor.

Neighborhood Corridors should have very limited non-residential uses. Small offices and low-intensity retail may be scattered within these corridors. Churches, schools, and day care centers are appropriate uses. East Butler Road between Bethel Road and Bridges Road is an example, where single family homes front on the arterial street. Zoning decisions in these corridors should give priority to maintaining the viability of adjacent residential property.

Goals and Objectives

Goal 1: Encourage development patterns that reduce the need for short-distance automobile trips

Objective 1.1: Encourage mixed-use development that provides for neighborhood-scale commercial uses and public schools within walking distance of new residences

Implementation Strategies:

- a. Develop a Neighborhood Commercial zoning classification or overlay district that encourages appropriately-scaled neighborhood commercial uses, such as small restaurants, coffee shops, retail shops and professional offices in pedestrian-accessible locations
- b. Work with Greenville County School District to promote smaller, neighborhood-scale schools
- c. Collaborate with Greenville County Planning Department to evaluate and, if appropriate, implement form-based development codes.

Objective 1.2: Encourage development of a pedestrian-oriented City Center/Central Business District area around City Hall and the Cultural Center that will help establish and define a positive image for “downtown” Mauldin

Implementation Strategies:

- a. Adopt a zoning overlay district that encourages mixed-use retail, office and residential development in a more traditional “downtown” form in the under-developed corridor north of City Hall to Miller Road.
- b. Adopt plans for a connected local urban street network to create the framework necessary for traditional urban village style development in the City Center area, and require implementation in new development and redevelopment projects.
- c. Seek funding for infrastructure improvements to support a strong, vibrant, walkable City Center



Goal 2: Ensure an adequate supply of non-residential land uses within the City limits to support future economic development

Objective 2.1: Encourage redevelopment of the Main Street (US 276) corridor in a more urban, pedestrian-friendly pattern with a mix of retail, hospitality, service, and office uses.

Implementation Strategies:

- a. Encourage rezoning to Central Retail District or apply a form-based code overlay district to parcels in the City Center area
- b. Streamline development review for projects in the City Center area that are consistent with the City’s development goals
- c. Collaborate with land owners and developers to provide necessary public infrastructure improvements in City Center

Objective 2.2: Protect and pursue opportunities for clean industrial development adjacent to railroads and freeways in or near Mauldin, through coordination with utility providers, landowners, and cooperation with Greenville Area Development Corporation.

Implementation Strategies:

- a. Identify one or more sites to pursue Certified Industrial Park designation from SC Department of Commerce.
- b. Work with ReWa to identify strategies for providing industrial capacity sewer service along I-185 southwest of Mauldin

Goal 3: Minimize land use conflicts

Objective 3.1: Require natural or man-made buffers between industrial or commercial developments and adjacent residential, office, and hospitality uses.

Implementation Strategies

- a. Amend land development regulations to provide clearly defined standards for buffers between different uses

Objective 3.2: Encourage “transitional” uses such as office or small-scale retail uses around industrial areas and large-scale commercial development.

Implementation Strategy

- a. Identify transitional use areas in the Future Land Use map.

Objective 3.3: Coordinate land use plans with Greenville County Planning Department and adjacent municipalities to avoid incompatibilities between plans.

Implementation Strategy

- a. Continue to meet with Greenville County Planning Department, other municipal planners, utility providers, and Greenville County School District to coordinate implementation of new Comprehensive Plans.

Goal 4: Promote well-planned, orderly growth.

Objective 4.1: Incorporate the Comprehensive Plan into all decisions related to land use, development, and public investment.

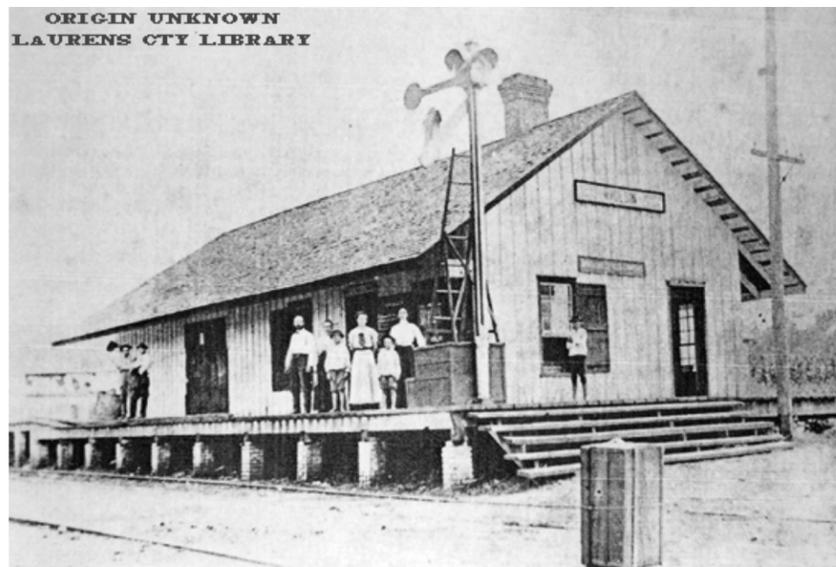
Implementation Strategies:

- a. Ensure that the Planning Commission, City Council, and Board of Zoning Appeals consult and consider the Comprehensive Plan when considering proposed development, zoning changes, and infrastructure projects.
- b. Revise and update the Comprehensive Plan as needed to address changing conditions and to ensure the continued relevance of the plan.
- c. Revise and update the city’s development ordinances to achieve the goals of the Comprehensive Plan, manage growth effectively, and promote high-quality economic development.

Mauldin's development has been closely tied to transportation from the city's founding. The town's early development was focused around the small passenger and freight depot on the Charleston and Western Carolina Railroad, located on the west side of the railroad between Jenkins Street and Miller Road. The original city boundary was a one-mile radius centered on the depot.

This transportation chapter of Mauldin's comprehensive plan will address all modes of surface transportation, and will identify needs and priorities for street and highway improvements, pedestrian and bicycle facilities, and public transportation services and facilities. The focus of this element is the city limits of Mauldin, but issues and priorities within the surrounding Mauldin Planning Area also are addressed.

Early in the comprehensive planning process, several groups participated in a strategic planning exercise to identify strengths, weaknesses, opportunities and threats, or a "SWOT analysis" for Mauldin. The sidebar at right lists strategic planning issues related to transportation.



Mauldin's railroad depot was located on Jenkins Street between Miller Road and Hyde Circle; this view is from Miller Road at Murray Drive. The depot was dismantled in 1953.

Streets and Highways

Regional highway access is one of Mauldin's key strategic advantages. US Highway 276 (Main Street) and the regional water line that was built alongside the highway created the population boom that transformed a rural crossroads into a suburban city. The city's proximity and access to I-385 and I-85 promoted industrial growth and make the area a convenient residential area, with relatively easy access to employment centers anywhere in the Upstate.

Funding Sources for Road Improvements

Most federal and state funding for road improvements flows through Greenville-Pickens Area Transportation Study (GPATS), a regional transportation planning organization made up of state and local elected officials from the region. Greenville County Planning Department provides primary staff support from federal, state, and local planners and engineers participate in technical evaluation of projects.

GPATS produces a 20-year long range plan, and from this plan selects projects for funding in a five-year Transportation Improvement Program (TIP). The long range plan and TIP must be approved by GPATS in cooperation with SCDOT; no project can be funded with federal transportation dollars unless it is included in the plan and TIP. The most recent GPATS project in the Mauldin planning area was the widening of Verdin Road between Butler Road and Woodruff Road.

Funding for minor road improvements, sidewalks, and resurfacing is available through the Greenville County Legislative Delegation Transportation Committee (commonly called "C-funds"). Applications for funding are accepted

Strategic Planning Issues Related to Transportation

Strengths

- Good regional highway access, good location

Weaknesses

- Appearance of Commercial Areas
- Fragmented, inadequate bicycle and pedestrian facilities
- Bottlenecks on major roads
- Weak community identity ("where is Mauldin?")
- No mass transit service

Opportunities

- Create a city-wide greenway trail system, connect to surrounding trail facilities
- CU-ICAR and St. Francis Hospital campus, potential customers and residents
- Create local and regional mass transit services
- Coordinate development of US 276 corridor with City of Greenville
- High gas prices make Mauldin's central location more important

Threats

- Flooding and stormwater runoff problems
- Freight train traffic detracts from city center image
- Lack of "smart growth," poor connectivity as development progresses
- Traffic congestion: Ashmore Bridge Road, Butler Road, schools, commuter routes
- Repeating planning mistakes of Woodruff Road and Fairview Road



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quarterly, and generally require 20 to 50 percent matching funds from the applicant. Recent C-funds projects in Mauldin include widening of Holland Road (in the late 1990s from Butler Road to Centerpointe Business Park, and recently from Centerpointe to Bridges Road), intersection improvements at Bridges/Holland and at Miller/Corn intersections, and several resurfacing projects.

City of Mauldin general funds support routine maintenance, repairs, and resurfacing of streets, and are used to match C-funds grants.

Inventory of Streets and Highways

Table 6-1, summarizes the inventory of streets and highways serving Mauldin, and is derived from Greenville County GIS data. The City assumes responsibility for new subdivision streets, and for County-maintained roads when those roads are annexed into the City. Where the city limits run along a public roadway, such as northern Knollwood Drive, the City and County share maintenance responsibility.

Road Type	Centerline Miles	Percent of Miles
Interstates (I-385 and I-185)	4.33	3%
US Primary Highways (US 276)	5.25	4%
Frontage Roads (US 276)	0.40	0%
State Primary Highways (SC 417)	1.39	1%
State Secondary Roads	23.89	19%
City and County Maintained Roads	83.38	66%
Private Roads and Drives	7.88	6%
Total	126.53	100%

The Interstate routes, North Main Street (US 276), South Main Street (SC 417), and Butler Road (State Secondary Road 107 or "S-107") serve the

largest share of traffic in the area. Recent traffic counts show over 30,000 vehicles per day on North Main Street, and 34,000 vehicles per day on West Butler Road. I-385 carries over 57,000 vehicles per day between Butler Road and Bridges Road, while the Southern Connector (I-185) toll road carries fewer than 8,000 vehicles per day.

Route	2008
North Main Street (US 276)	29,200
South Main Street (SC 417)	12,700
East Butler Road	20,500
West Butler Road	24,800
Ashmore Bridge Road	13,000
Miller Road	6,400
Bethel Road	3,200
Southern Connector	7,600
Golden Strip Freeway	71,500

Source: SCDOT data provided by Greenville County

Table 6-3 lists the state-maintained secondary roads within the City. Most of these roads are minor thoroughfares or collector streets. Prior to 1973, the state highway department routinely accepted maintenance responsibility for new local streets. As a result, a few residential subdivision streets (Shaver Drive, Evening Way, Moore St., and Pinecrest Drive) are state-maintained roads.

Most roads with significant traffic volumes are included in the Federal-

Road Name
ASHMORE BRIDGE RD
BALCOMBE BLVD
BETHEL DR
BETHEL RD
BETHEL SCHOOL RD
BON AIR ST
BRIDGES RD (Part)
CORN RD
E BUTLER RD
EVENING WAY
FORRESTER DR (Part)
GREER DR
HAMBY DR
HOLLAND RD (Part)
HYDE CIR
LOG SHOALS RD
MILLER RD
MOORE ST
MURRAY DR
N GOLDEN STRIP DR
NEELY FERRY RD
NEW NEELY FERRY RD
OLD MILL RD
OLD STAGE RD
OWENS LN
PINECREST DR
SHAVER DR
TANNER RD
VERDIN RD
W BUTLER RD

Source: Greenville County GIS data



Aid highway system. On these routes, SCDOT can use Federal gas tax funds for improvements and major repairs, and these routes are eligible for widening or other improvements using funds administered through GPATS. Map 6-1 illustrates the federal-aid eligible network of streets and highways serving Mauldin. An obvious missing link in the network shown in this map is Bridges Road, which recently was added to the system by SCDOT following a request submitted by City of Mauldin staff through GPATS.

Existing Traffic Congestion

Traffic congestion issues in Mauldin are focused on commuter routes, commercial areas, and schools.

- Congestion is most severe along Main Street (US 276) and Butler Road, the principal thoroughfares serving the City, but also has become a significant issue on Ashmore Bridge Road, Miller Road, and Bridges Road.
- Traffic delays up to 10 minutes are common on Butler Road in front of Mauldin High School; the Butler Road corridor is significantly congested through the entire city;
- Main Street operates reasonably well except at its' intersection with Butler Road; Ashmore Bridge Road is overwhelmed at peak periods by commuter traffic;
- Miller Road has become an alternate route for traffic bound for commercial areas on Woodruff Road;
- Bridges Road has become an alternate route for commuters accessing I-385, and also is a major route for Mauldin High, Mauldin Middle, and Mauldin Elementary school traffic.

Congestion becomes most severe when local commercial traffic, commuter traffic, and school traffic overlap on the same road. In many cases, these overlaps occur because the local street network is poorly developed and poorly connected.

Map 6-2 illustrates existing traffic congestion as of 2005 in Mauldin. The "Level of Service" ratings presented in the map indicate the degree of traffic congestion, with "A" being uncongested and "F" being extremely congested. The map is derived from the GPATS regional travel

forecasting model, which uses an inventory of existing residential, industrial, commercial, and school locations to replicate existing traffic patterns. Level of Service is based on average conditions during the day, and may not precisely capture peak hour congestion. The regional travel model uses forecasts of residential, commercial, industrial, and school growth to predict future traffic patterns.

As the Upstate continues to grow, traffic congestion is predicted to worsen dramatically. The most severe congestion in the region is predicted to focus in the area between City of Mauldin and City of Greenville, around I-85 and I-385. All of the arterial highways serving the Mauldin area – US 276, I-385, Butler Road, and Woodruff Road -- are predicted to become extremely congested even after all cost-feasible improvements are made to the highway system, according to the GPATS long range plan.

Map 6-3 illustrates the predicted traffic conditions in 2030, based on forecast population growth, employment growth, and financially feasible road improvements.

Intersections

At least ten intersections in or near the city currently experience peak hour congestion, and are listed in the sidebar at right. The overlap of school traffic with commuter traffic at these locations is the fundamental cause of most traffic congestion. In a few cases, developing alternate routes is preferable to improving existing intersections, due to the cost and impacts of adding more lanes at existing intersections. Generally, connected networks that help separate local traffic from regional traffic provide the most balanced and efficient transportation system.

Three intersections (listed at sidebar right) have alignment problems in addition to traffic congestion delays. Relocation of one approach to the intersection or the addition of a new minor street connection will improve these intersections.

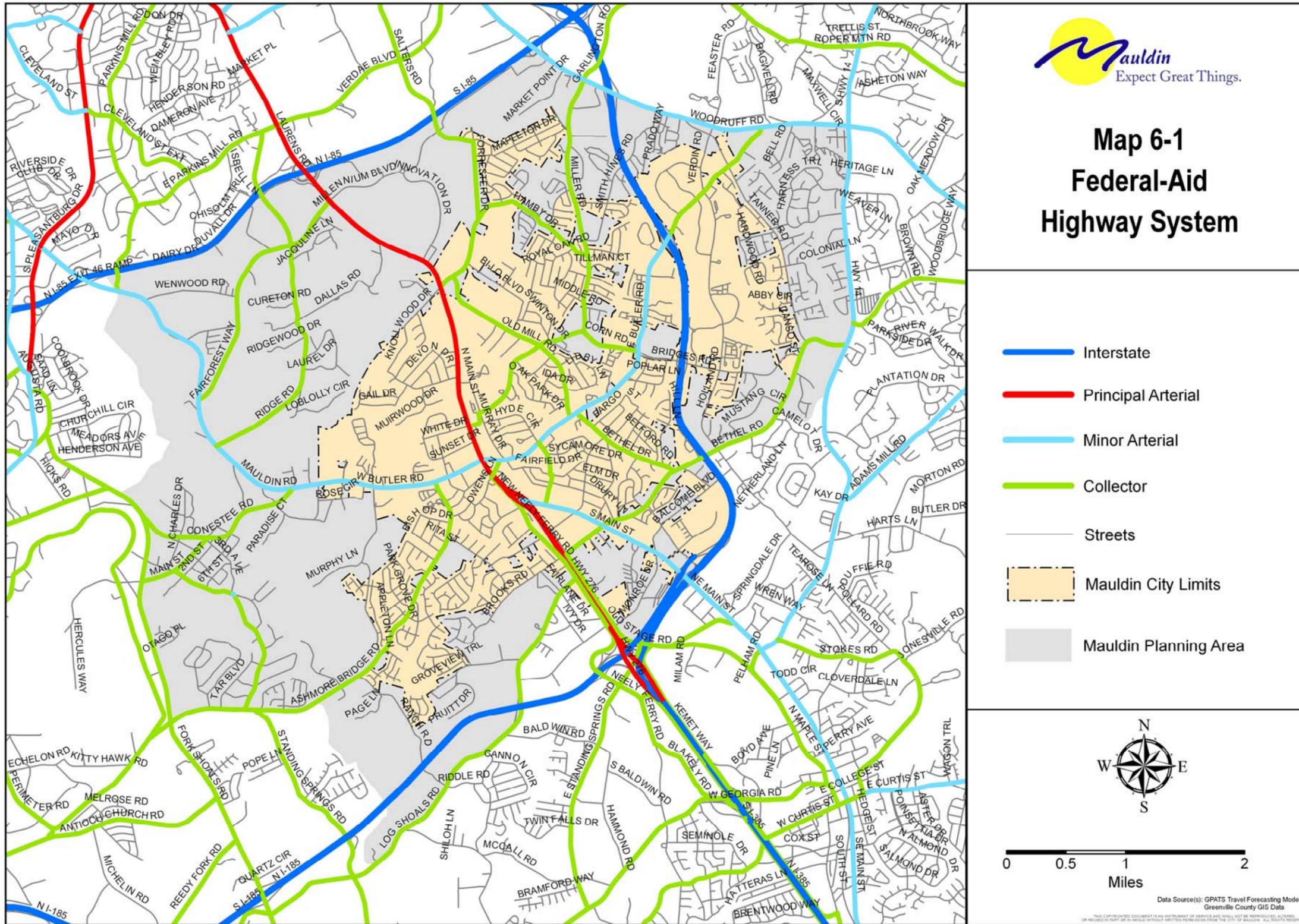
Improving these intersections is an important objective of this plan. City staff will continue working through multiple federal, state and local sources

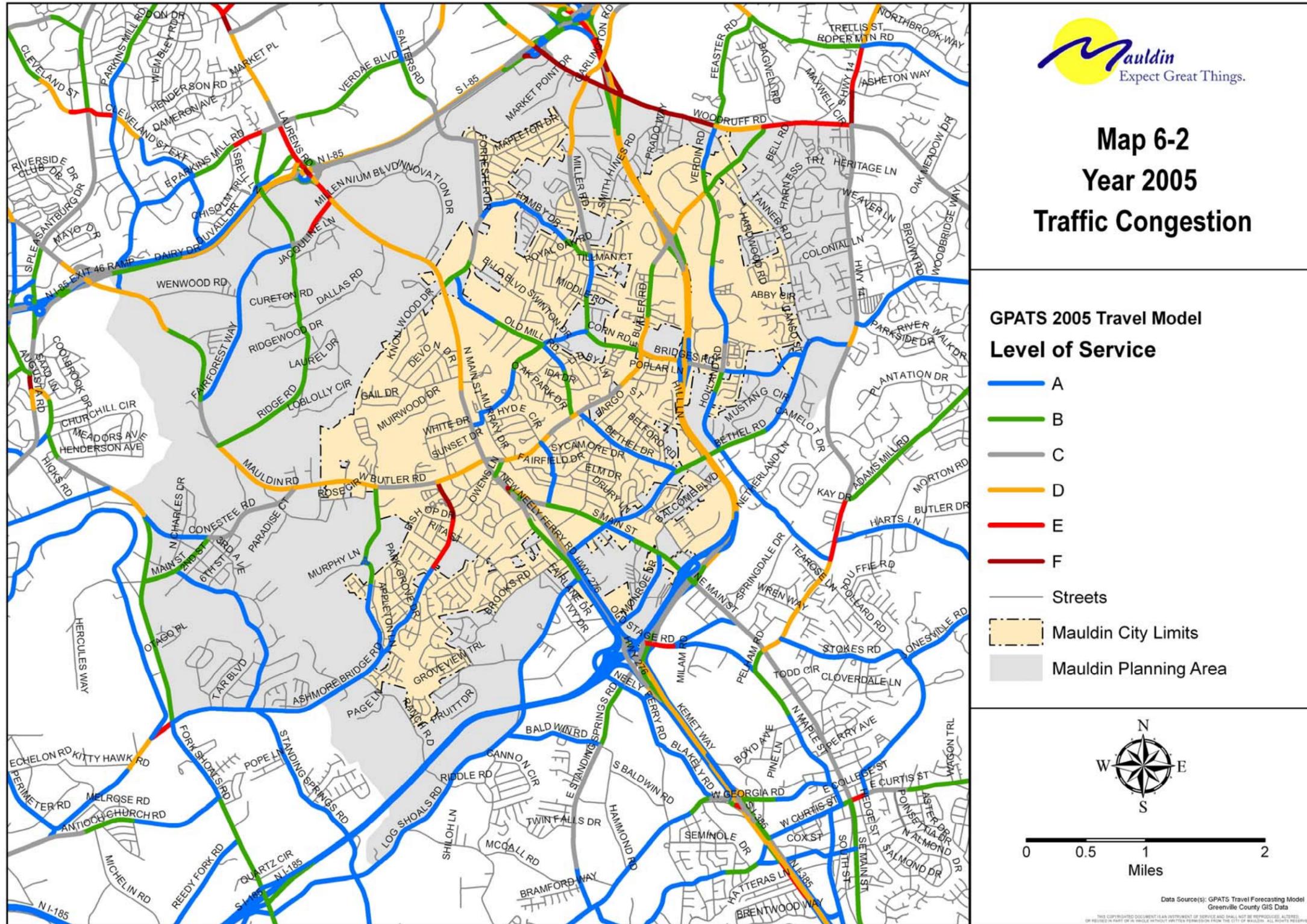
Ten Most Congested Intersections

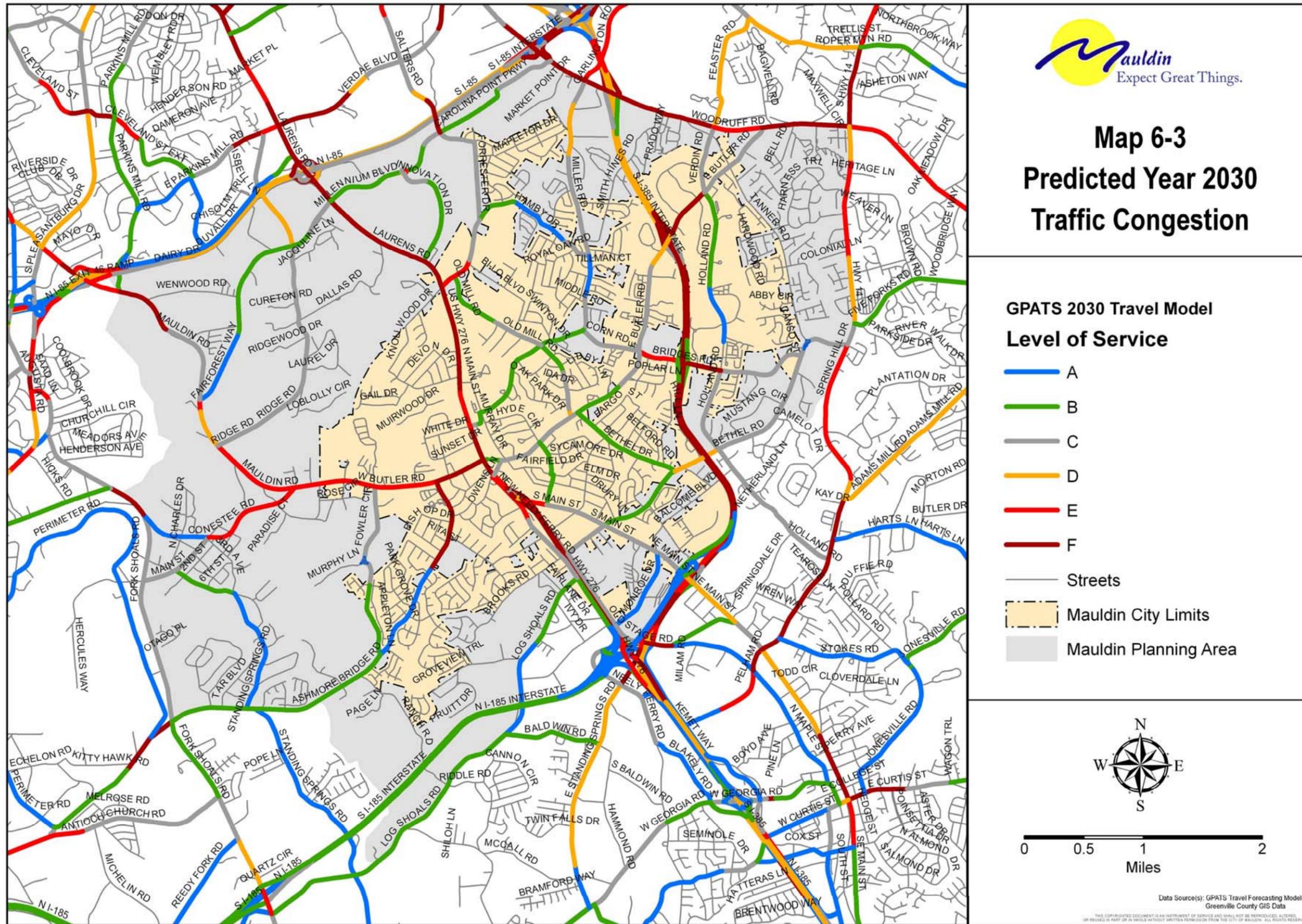
- Main Street (US 276) at Butler Rd
- West Butler Road at Ashmore Bridge Road
- East Butler Road at Bridges Road
- Holland Road at Bridges Road
- Tanner Road at Bridges Road
- Bridges Road at Bethel Road
- Miller Road at Woodruff Road
- Miller Road at Old Mill Road
- Bethel Road at Holland Road
- Butler Road at Holland Road
- Butler Road at Tanner Road

Three Intersections With Additional Problems

- Butler Road at Bethel Drive and Old Mill Road (offset intersections)
- Butler Road at Owens Lane and Murray Drive (offset intersections)
- Miller Road at Murray Drive and Jenkins Street (confusing traffic patterns and railroad crossing)







to obtain funds; City of Mauldin funding will be needed to match these sources of funding.

Sidewalks and Greenway Trails

Mauldin is served by a relatively limited sidewalk network, illustrated in Map 6-6, which also includes sidewalks and greenway trails proposed by this plan. Existing sidewalks focus on the old Mauldin Elementary School site and the current school locations. Significant gaps in the sidewalk network exist; two key gaps in the network are:

- Miller Road between Old Mill Road and Corn Road; and
- Bridges Road between Butler Road and Holland Road.

These gaps in the street network should be among the highest priority routes for sidewalk construction.

One greenway trail exists along the main branch of Gilder Creek, between the Forrester Woods subdivision and the C&S Wholesale (formerly Bi-Lo) distribution center; two city parks also have walking trails.

Bicycle Facilities

Several bicycle lanes exist or soon will be in place in the Mauldin planning area, illustrated in Map 6-7, which also includes proposed bike lanes. The streets in Clemson University's International Center for Automotive Research (CU-ICAR) are excellent examples of "Complete Streets", with bike lanes, sidewalks, and landscaping. The City's current road improvement project to widen Holland Road between Bridges Road and Centerpointe Drive will include four-foot paved shoulders to improve safety and accommodate bicyclists.

The recent SCDOT-funded widening of Verdin Road between East Butler and Woodruff Road included bike lanes and a sidewalk. Verdin Road was not built wider than normal to accommodate bike lanes; instead, the travel lanes and median lane were narrowed slightly to accommodate the bike lanes. Most "five-lane" roads are wide enough to accommodate bicycle lanes by re-striping the existing pavement with narrow traffic lanes; this is normally done only where speed limits are 40 mph or less. On 45 mph

roads, a 14' wide outside lane and "share the road" signs are typically used.

Mass Transit

No public transportation services are provided in the City of Mauldin currently. Greenville Transit Authority (GTA), funded by City of Greenville and Greenville County, provides city bus service to Woodruff Road near I-85.

The Mauldin-Simpsonville Urbanized Area is eligible for Federal Transit Administration funding and SCDOT State Mass Transit funds that could be used to purchase transit vehicles and fund part of the net operating expenses of mass transit service within the Mauldin-Simpsonville-Fountain Inn area. A feasibility study was completed in 2005, which recommended an initial service connecting Simpsonville and Mauldin to the Haywood Mall area. Local matching funds were never budgeted to begin implementation of that plan.



Mauldin High students face a dangerous walk home along Miller Road south of Corn Road; the Miller Road bridge over Gilder Creek has narrow shoulders and no sidewalk.

Guiding Principles for Transportation Improvements

Based on public input received and good planning practice, transportation improvements identified in this plan adhere to the following principles:

- Minimize impacts of transportation projects on residences and businesses
- Build complete streets, with facilities for pedestrians and cyclists
- Provide connections between and among compatible land uses
- Provide local street networks to support commercial development and to provide local street access between neighborhoods and destinations
- Avoid developing neighborhoods that have only one point of access
- Discourage through traffic on neighborhood streets by providing an efficient and connected network of collector streets.
- Develop and maintain an appropriate hierarchy of streets
- Limit the number of driveways along commercial streets and highways by requiring better connectivity among development
- Require local streets to be built into commercial development

Key Issues and Problems

Streets and Highways

Traffic congestion in the Mauldin Planning Area is predicted to be severe on Main Street (US 276), West Butler Road, Ashmore Bridge Road, Bridges Road, I-85, I-385, Woodruff Road, and SC 14 in 2030, as illustrated in Map 6-3. A critical issue for Mauldin is that Main Street and West Butler Road realistically cannot be widened further without major impacts on adjacent businesses and huge costs.

State and federal funding for road improvements is insufficient to address predicted traffic growth. As a result, only a few of the most congested roads in the GPATS region can be improved with available funds. Unmet needs in the GPATS plan include widening Ashmore Bridge Road between Butler Road and Fowler Circle, and widening East Butler Road between Holland Road and Woodruff Road. No SCDOT funding is expected on these roads before 2030.

As a cautionary note, the regional travel model that forecasts future traffic congestion is built around some assumptions that may not hold true into the future, including:

- Rising fuel costs will not significantly reduce automobile travel per person; and
- Higher travel costs will not significantly curtail “urban sprawl” into rural areas.

If these factors begin to change travel and development patterns, congestion may be more severe in already-developed areas than is predicted by the current travel models, less congestion will develop in currently-rural areas, and congestion on major regional highways may be less severe, as long commutes may become less common.

Through Traffic in Neighborhoods

Through traffic has been a problem on the following residential streets, primarily due to drivers diverting from congested major roads.

- Hyde Circle
- Sunset Drive (speed humps exist)
- Pinecrest Drive (speed humps exist)
- White Drive (speed humps exist)
- Maple Drive (speed humps exist)
- Mapleton Drive (speed humps exist)
- Lanewood Drive (speed humps exist)
- Brookbend Road and Old Bridges Road
- Fieldgate Court

Most of these roads connect busy thoroughfares, and are used by some through traffic, but the streets were built like any other subdivision street. It is important to require connecting streets to be built to an appropriate standard to avoid creating neighborhood traffic problems.

Collector Streets – low speed minor roads that tie neighborhoods to the thoroughfare network – must be designed properly and should be required in new developments. To be effective, Collector Streets should have few or no residential driveways; houses should all front on side streets, loops or culs-de-sac that are served by the collector street. Schools should have direct access to collector streets, which makes walking more feasible for students and allows many school car trips to avoid congested thoroughfares.

An effective collector street network would have prevented virtually every neighborhood through-traffic problem the City has grappled with as congestion increases on major roads. A collector street between Tanner Road and Holland Road, near or between Mauldin Elementary School and Mauldin Middle School, would relieve much of the traffic problem that has been caused by the school traffic using major commuter thoroughfares. Here, because no connections exist between the subdivisions on Tanner Road and the schools on parallel Holland Road, all school traffic must use Butler Road or Bridges Road, which already are congested with commuters. This “superblock” design produces three-mile car trips for people who live 1/4 mile from their “neighborhood” schools, and makes regional traffic congestion significantly worse. One properly-designed



If collector streets are not planned and included in new development, local car trips are often 10 times longer than necessary. The red line shows the three-mile route to Mauldin Middle School from a house in a new subdivision on Tanner Road; the house is ¼ mile from the school.



collector street in this location likely would pay for itself in fuel savings alone, but subdivision development has left no opportunity available to create the connection.

An objective of this plan will be to implement collector street design and spacing standards to be applied to new subdivisions in the city, to avoid creating additional arterial traffic congestion problems (like that surrounding the Tanner Road-Holland Road “superblock”) and to ensure that neighborhood collector streets are included in new development and properly designed so that local, short-distance through traffic is served without harming neighborhoods.

Sidewalks and Greenway Trails

Mauldin is geographically small enough that, for many residents, walking is a viable option for many trips. However, the existing network of sidewalks has many gaps and does not reach many important destinations in the City.

The City’s two highest-traffic thoroughfares, North Main Street and West Butler Road, create significant barriers for pedestrians. The Mauldin Main Street Plan proposes several improvements to safety and comfort of pedestrians walking along and crossing North Main. Similar improvements can be applied on West Butler road and elsewhere in the City.

Sidewalks are relatively inexpensive to build when roads are widened. However, adding sidewalks to existing streets generally costs about \$200,000 per mile if curbs and storm drainage lines are in place, and between 500,000 and \$800,000 per mile if storm drainage and curbs must be built in order to install the sidewalk.

Installed concrete storm water pipes cost roughly \$50 per linear foot, curb and gutter costs \$15 per linear foot, and sidewalk costs about \$35 per linear foot (\$5 per square foot) – for a total of about \$100 per linear foot. Where SCDOT construction specifications must be followed, storm drainage lines alone cost up to \$85 per foot.

Bicycle Facilities

On several roads in Mauldin, bicycle lanes can be created by simply re-striping the existing pavement with narrower traffic lanes. However, most bicycle routes will require road widening. Adding three to four feet of pavement to both shoulders of an existing roadway when that road is resurfaced can be relatively inexpensive, roughly \$100,000 per mile. Where significant grading or moving ditches is required, \$225,000 per mile is a rough cost estimate. If curb and gutter and storm drainage facilities must be added, this will roughly triple the cost of a bike lane project to about \$750,000 per mile or more.

Widening a two-lane road to a three lane road with bike lanes, curb, storm drainage pipes and sidewalks typically costs about \$3 million per mile, depending on right of way costs, creek crossings, and topography. Similar costs will be incurred for construction of a new two-lane road.

Greenway trails typically can be built for about \$350,000 per mile if easements or rights-of-way can be obtained at no cost from adjacent property owners.

The most cost-effective way to provide facilities for cyclists is to “re-stripe” existing roads to accommodate a bicycle lane or a wide outside lane. If re-striping is done when roads are repaved, bike lanes can be added at a cost of about \$5,000 per mile – the cost of two extra painted lines, bike lane symbols, and signs. Most typical “five-lane” SCDOT roadways can be painted or “striped” to include bicycle lanes with no negative affect on vehicle traffic; Verdin Road – which includes 4’ bike lanes -- is exactly the same width as the five-lane sections of Butler Road.

An important benefit of narrowing traffic lanes slightly in order to accommodate bicycle lanes: motorists generally slow down where lanes are narrower and roads clearly are designed to accommodate bicycle and pedestrian traffic. Wider outside lanes or a four-foot bicycle lane will also make right turns easier for large trucks, and may reduce damage to curbs and drainage inlets from right-turning trucks.

Mass Transit

Traffic congestion, energy costs and supplies, and shifting population and lifestyle choices all tend to support an expanded role for mass transit. The GPATS long range transportation plan identifies a bus rapid transit (BRT) corridor connecting Greenville, ICAR, Mauldin and Simpsonville. BRT is essentially a rubber-tire version of light rail transit, with only one or two stops per mile and some “exclusive guideway,” in this case two-lane streets reserved for buses only (“busways”) or exclusive bus lanes on major roads.

Given highway funding constraints and limited ability to widen US 276, a high-quality transit service should be one part of the long-range plan to manage traffic congestion through Mauldin. Good transit connections also will help make Mauldin a convenient and desirable residential and commercial destination for employees at CU-ICAR, St. Francis Hospital campus, and other new employment centers immediately north of the city.

Mass transit has historically received very little funding in the Greenville area, and Mauldin has never provided funding for mass transit. Identifying a politically-acceptable and fiscally-stable funding source for mass transit will be a significant challenge for the development of mass transit in the region.



Mauldin staff will work with Greenlink transit planners to determine the feasibility of express bus service connecting Mauldin with Simpsonville and Greenville

Proposed Transportation Improvements

The projects identified here will exceed the current financial resources available. These proposed improvements represent a “Needs Plan” rather than a “Financially Feasible” plan. This approach will do three things:

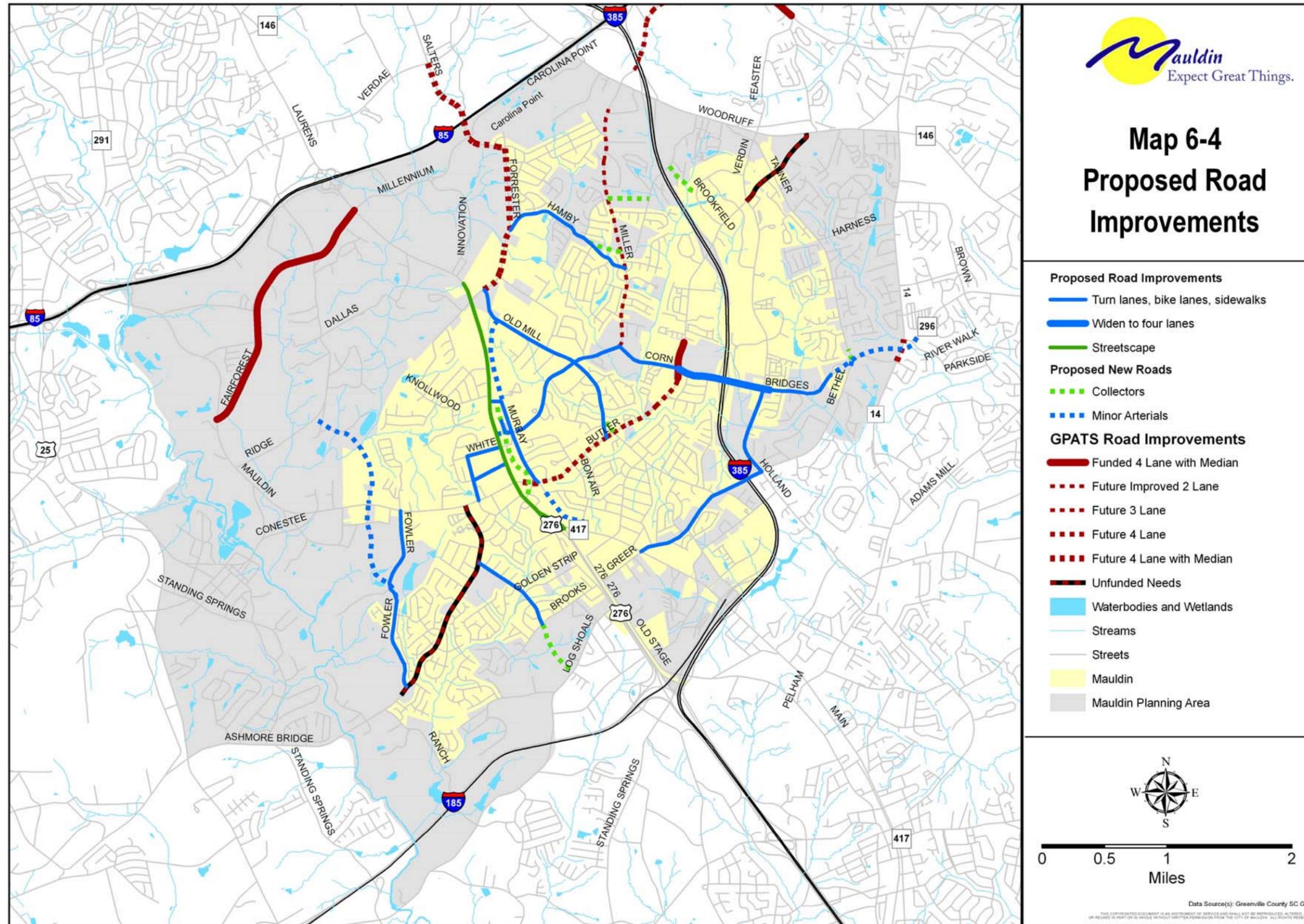
- 1) ensure the City leaders and staff are aware of desired transportation improvements as development proposals are reviewed, and work to protect or secure needed rights-of-way where possible;
- 2) engage citizens and decision makers in discussion about the desirability of finding additional funding for some of these proposed improvements; and
- 3) provide Mauldin officials with a ready list of projects to propose for funding if opportunities for grants or new revenue sources become available.

Streets and Highways

Table 6-4 provides details of the road improvements proposed for the Mauldin area, with more detailed discussion below. This is a 20-year list of projects, which will require funding from several different sources; some improvements may be required of adjacent development.

GPATS Funded Road Improvements

All federal and nearly all state transportation improvements funding flows through GPATS. Map 6-4 shows the road improvement projects in the Mauldin Planning Area funded in the GPATS TIP, and the projects that can reasonably be built with GPATS funding through 2030. Ashmore Bridge Road and the northernmost sections of East Butler Road are shown as unfunded needs; both projects were considered in the GPATS long range plan but funding was not sufficient to include them in the long range plan.





Forrester Drive is included in the GPATS 20-year plan as a four-lane road with landscaped median, Miller Road is included as an improved two-lane (with bike lanes, a sidewalk, and some left turn lanes), Butler Road is proposed as a four-lane (no median left turn lanes).

Widening East Butler Road as a standard SCDOT five-lane roadway would have unacceptable impacts on the community and adjacent residences. The proposed four-lane road will function well only if further commercial development is very limited and a 35 mph speed limit is strictly enforced. Left turn lanes will be provided at the Bridges Road intersection (which is currently being designed by SCDOT), and should be provided at Bethel Drive and at Hyde Circle intersections if feasible.

Road Improvements to be Funded by City or Other Sources

Map 6-4 shows proposed improvements to existing roads, beyond those listed in the GPATS plan, as solid blue lines. Most of these proposed improvements are designed to improve traffic safety and to provide sidewalks and bicycle lanes where needed to create complete network. Table 6-4 lists these roads with preliminary cost estimates and funding sources.

Major widening is proposed on Bridges Road from Butler Road to Holland Road, to address existing traffic congestion and to support additional development in the area. Widening of Holland Road will be completed in 2009, as a four-lane road with bike lanes. This section of Holland road is an example of the widening proposed for East Butler Road. Proposed street cross sections are illustrated in Table 6-6.

Thoroughfare Plan and Proposed New Streets

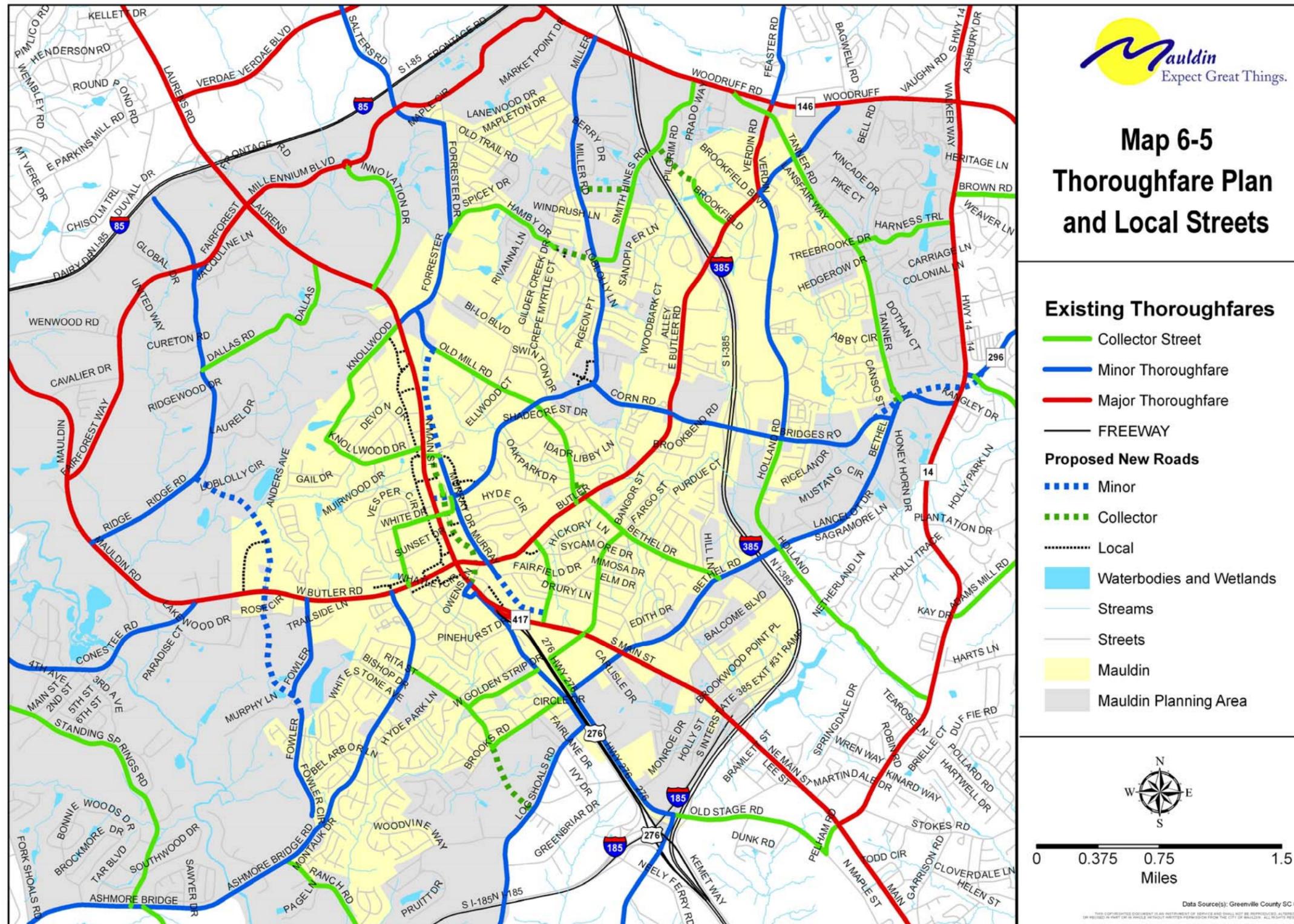
Map 6-5 classifies the thoroughfares to create a rational, connected network of major roads and collector roads. In key locations, local street connectivity is also shown in illustrative form. New streets are proposed in several locations to improve traffic circulation and connectivity for local traffic, or to provide alternate routes to relieve congestion on major

Table 6-4
Proposed Improvements to Existing Roads

Name	Cross Section	Roadway Class	Length (mi)	Preliminary Cost Estimate	Potential Funding Sources
Old Mill Road, north of Miller	Type A	Collector	1.00	1,750,000	City, SCDOT Resurfacing
Old Mill Road, south of Miller	Type A	Collector	0.64	1,120,000	City, SCDOT Resurfacing
Miller Road, west of Old Mill	Type A	Minor Thoroughfare	0.76	950,000	City, SCDOT Resurfacing
Hamby Road	Type B	Collector	1.12	1,400,000	City, SCDOT Resurfacing
Corn Road	Type B	Minor Thoroughfare	0.51	637,500	City, Developers, SCDOT Resurf.
Bridges Road, Butler to I-385	Type C	Minor Thoroughfare	0.36	1,440,000	City, CTC, Developers, GPATS
Bridges Road, I-385 to Holland	Type C	Minor Thoroughfare	0.34	1,360,000	City, CTC, Developers, GPATS
Bridges Road, east of Holland	Type B	Minor Thoroughfare	0.76	1,330,000	City, GPATS Enhancement Pgm
Bethel Road, SC 417 to Holland	Type B	Minor Thoroughfare	1.21	2,117,500	City, GPATS Enhancement Program
Fowler Circle, Butler to Murphy	Type B	Minor Thoroughfare	0.63	787,500	City, Developers
Fowler Circle, to Ashmore Bridge	Type B	Minor Thoroughfare	0.87	652,500	City, Developers
Adams Mill Road	Type A	Collector	0.72	1,260,000	City, CTC
White Drive	Type A	Collector	0.28	490,000	City
Pinecrest Drive	Type A	Collector	0.38	665,000	City
Holland Road, south of Bridges	Type B	Collector	0.74	1,295,000	City, CTC, Developers
Alexander Drive	Type A	Collector	0.19	332,500	City
Murray Drive	Type A	Minor Thoroughfare	0.21	367,500	City, CTC
Sunset Drive	Type A	Local Street	0.30	225,000	City
Total			11.02	\$18,180,000	



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thoroughfares. In most cases, new streets will not be built until property is developed or redeveloped. To that extent, the Thoroughfare Plan is a guide for land developers and citizens, to know the type and character of the roads adjacent to their property.

Collector streets are two-lane, low-speed streets designed to provide good access to the arterial road network and to allow for more direct routing of local traffic. The problems that arise when collector streets are not planned appropriately are well illustrated (as discussed above) by the traffic congestion associated with Mauldin Middle and Mauldin Elementary School. An incomplete network of collector streets will produce more “cut-through” traffic in subdivisions, or cause more congestion on arterial streets by forcing local traffic to use regional highways for short trips.

New collector street connections are proposed in the following locations, as illustrated in Maps 6-4 and 6-5, and are listed in Table 6-5:

- Realign Hamby Drive to connect with Smith Hines Road at Miller Road
 - reduces congestion and improves safety on Miller Road;
 - requires a new traffic signal;
 - alternative is to add left turn lanes on Miller;
- Connection between Miller Road and Smith Hines Road north of Pine Gate Drive;
 - reduce through traffic in Pine Gate subdivision;
 - encourage a future developer to build the street to appropriate standards ;
- Extension of Adams Mill Road to Log Shoals Road ;
 - improves access to Greenbrier Elementary;
 - reduces through traffic in Planters Row subdivision
 - encourage future developer to build the street
- Connection from Brookfield Drive to Smith Hines Road;
 - improves connectivity and access to Brookfield;
 - only if affected property owners are in favor;
- Realign and connect Owens Lane, Jenkins Court, and Alexander Drive;
 - improves local traffic access;
 - provides an opportunity to create a “downtown” street.

Table 6-5
Proposed New Roads and Extensions

Name	Cross Section	Roadway Class	Length (ft)	Length (mi)	Potential Funding Sources
Miller Road Ext	Two lane with left turn lanes	Minor Arterial	800	0.15	CTC, GPATS
N. Murray Drive Ext	Two lane	Minor Arterial	3,500	0.66	GPATS, Developers
S. Murray Drive Ext	Two lane	Minor Arterial	2,500	0.47	GPATS, Developers
Sunset Drive Ext	Two lane with left turn lanes	Local	300	0.06	City, Developers
Adams Mill Ext	Two lane	Collector	2,500	0.47	CTC, Developers
N Holly Ridge Ext	Two lane with left turn lanes	Minor Arterial	4,700	0.89	GPATS, Developers
S Holly Ridge Ext	Two lane with left turn lanes	Minor Arterial	3,800	0.72	GPATS, Developers
Bridges Road	Three lane	Minor Arterial	1,500	0.28	GPATS
Five Forks Road	Three lane	Minor Arterial	2,500	0.47	GPATS
Bethel Road	Three lane	Minor Arterial	400	0.08	GPATS
Total Miles			22,500	4.25	
Preliminary Cost Estimate (\$3 million/mile)					\$ 12,750,000

Table 6-6
Proposed Greenway Trails

Name	Type of Improvement	Length (ft)	Preliminary Cost Estimate
Old Mill Greenway	Paved 10 foot trail	4,100	271,780
David Bates Extension	Natural surface trail	900	1,800
Gilder Creek Greenway	Paved 10 foot trail	8,400	556,818
Tanner's Greenway North	Paved 10 foot trail	3,700	245,265
Tanner's Greenway South	Paved 10 foot trail	3,500	232,008
Bethel Springs Greenway	Paved 10 foot trail	4,800	318,182
Poplar Springs Greenway	Paved 10 foot trail	1,250	82,860
Springfield Park Connectors	Paved 10 foot trail	1,300	86,174
Laurel Creek Nature Trail North	Natural surface/Mtn Bike Trail	9,800	119,600
Laurel Creek Nature Trail Middle	Natural surface/Mtn Bike Trail	900	1,800
Lake Conestee Connector	Paved 10 foot trail	3,800	251,894
Total		42,450	\$2,168,181

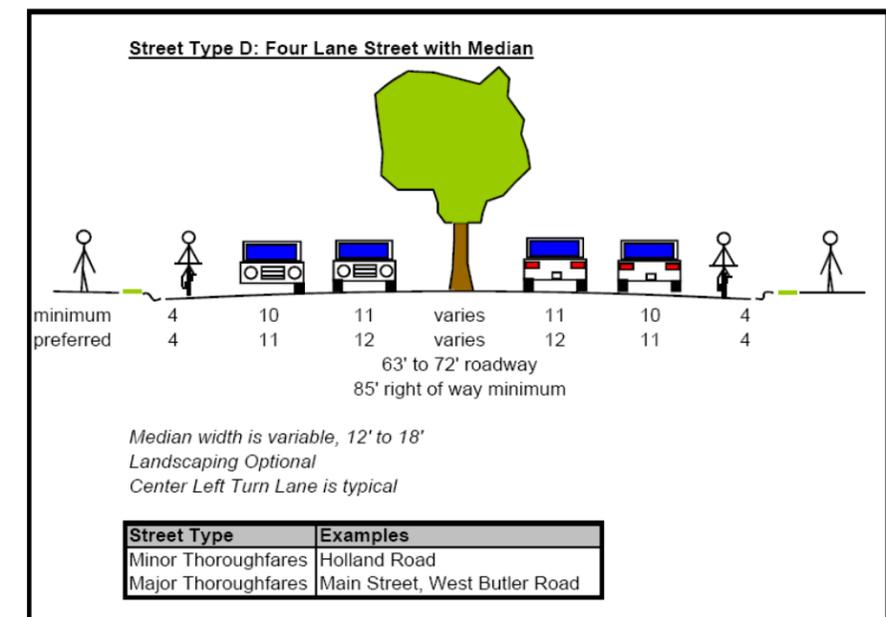
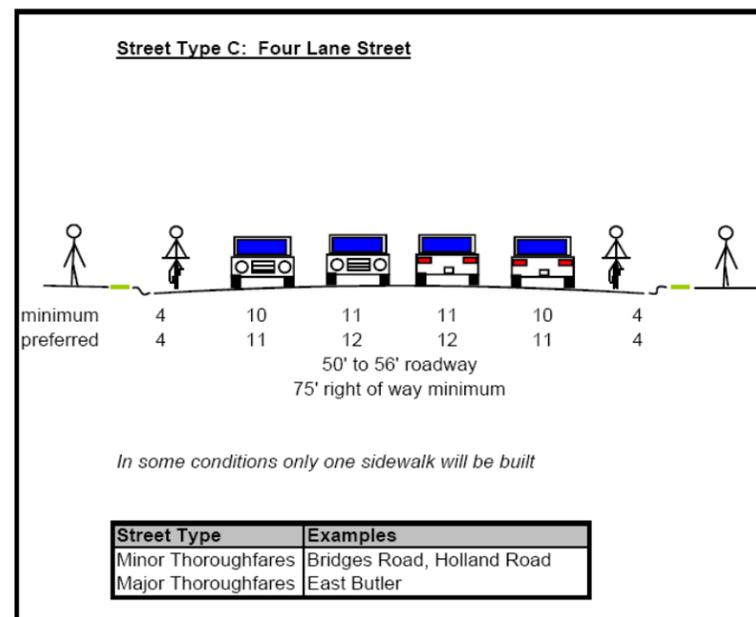
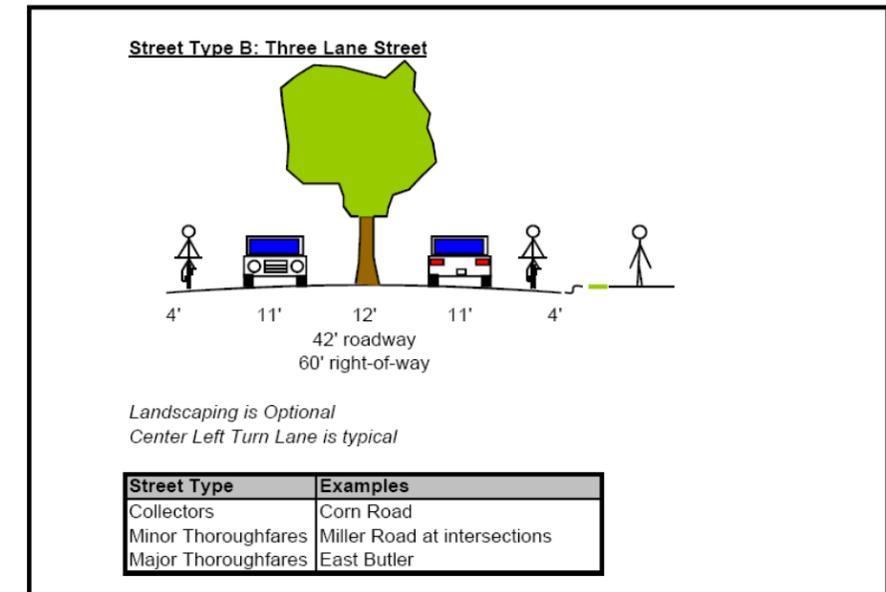
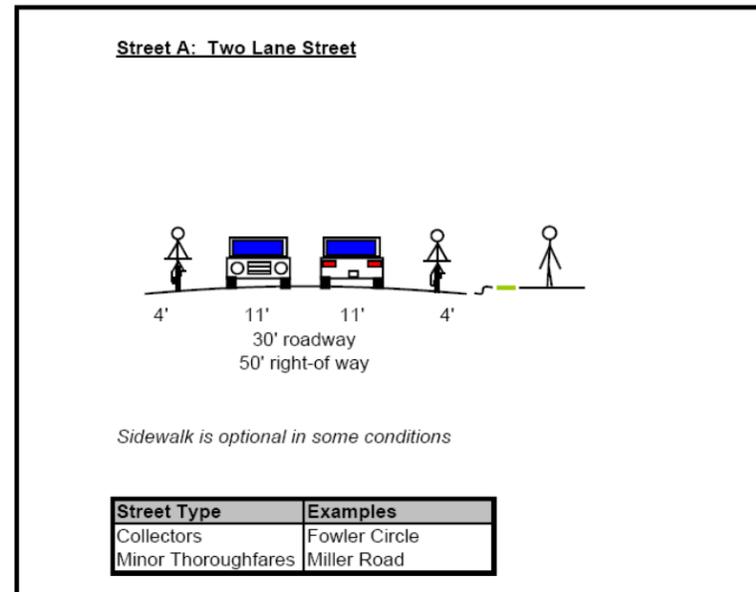
Where possible, collector streets should be required when properties are developed.

Minor arterials serve sub-regional traffic, with trips between one and five miles in length. Three new minor arterial routes should be considered:

- Connect Ridge Road to Fowler Circle;
 - Alternate route to US 276;
 - Alternate route to Ashmore Bridge Road;
 - Improves development potential of large tracts of land on the north side of West Butler Road;
 - Should be a two lane “parkway”, with planned access points, landscaping, sensitive to the terrain and environment of the Laurel Creek valley, comparable to Innovation Drive at CU-ICAR;
 - Section south of Butler Road is not essential;
 - Developers should be required to construct the road as part of future development;
- Extend Murray Drive north to Old Mill Road, south to Bon Air Street;
 - Alternate route to US 276;
 - Reduce through traffic in Glendale subdivision;
 - Facilitate redevelopment of adjacent industrial sites as mixed office/retail.
- Extend Miller Road from Murray Drive to US 276;
 - Cleans up a confusing traffic pattern at Miller Road/Murray Drive/Alexander Drive/Railroad;
 - Correct drainage problems at this location.

Funding for each of these improvements should be proposed for consideration by GPATS in the 2012 update of the long range transportation plan. Other funding sources should be pursued as well. The Miller Road extension is an appropriate size project for funding through Greenville County’s “C-Funds”.

**Table 6-7
Typical Improved Street Cross Sections**



Local Street Connectivity

Local streets shown by dark gray dashed lines on Map 6-5 should be built by developers as public streets, when development or redevelopment occurs. In some cases connections may be suitable as private streets. In the City Center area, local street functions often are provided within shopping center parking lots.

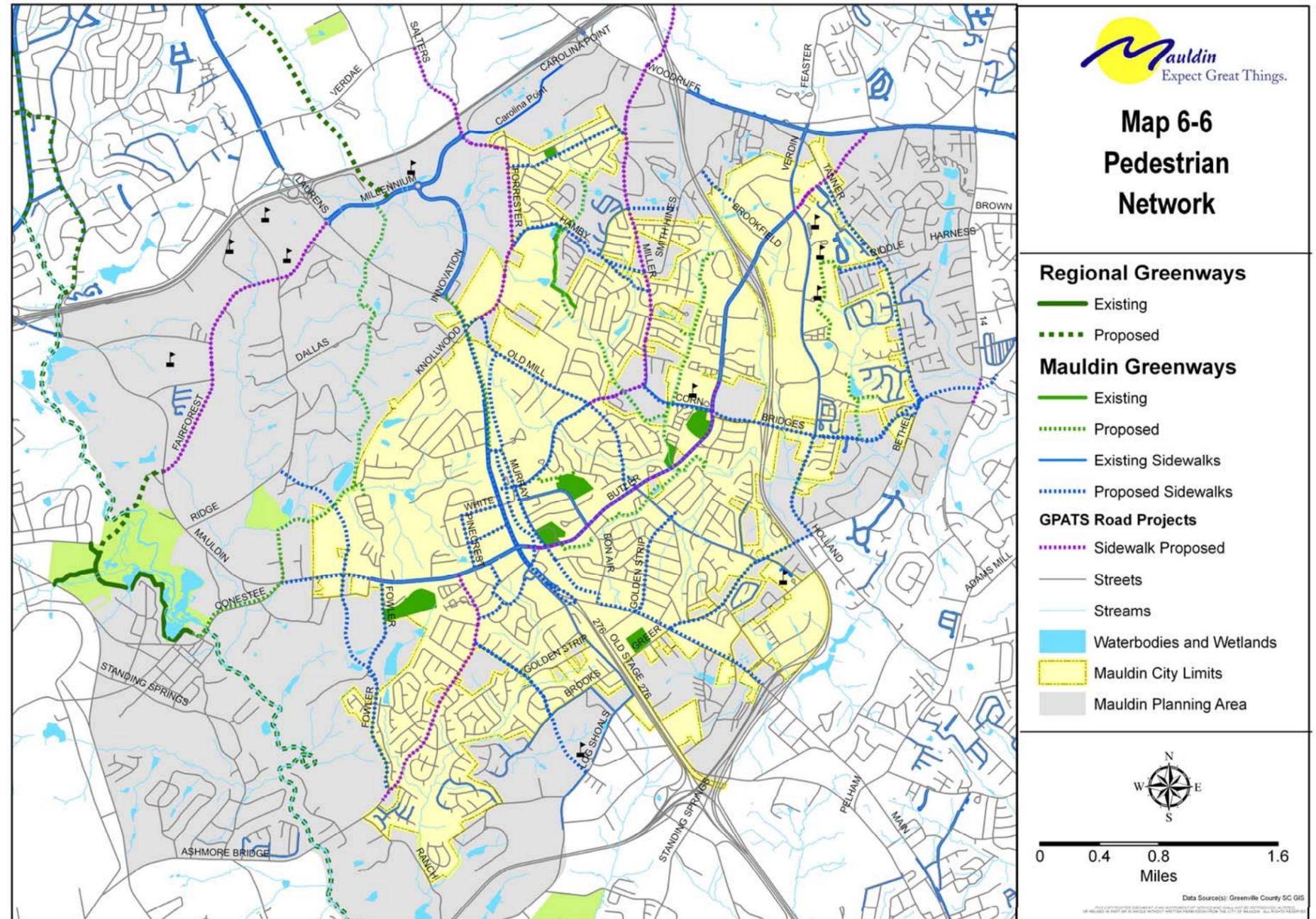
Public street construction standards should be applied to these “local streets” regardless of ownership. The deteriorated condition of private drives in the Ingles shopping center, adjacent to McDonalds and Wendy’s restaurants, illustrates the need to enforce good construction standards on private drives. Deteriorated conditions in commercial areas create a negative image and can make business recruitment more difficult.

Sidewalks and Greenway Trails

Sidewalks proposed in Map 6-6 would be built, where possible, as part of other road improvements by SCDOT, by developers, and by the City with grant funds and other local funds. Unless developers are required to build sidewalks identified in this plan along their property frontage, it is unlikely that the City will be able fully to implement the sidewalk network proposed.

Several sections of sidewalk will require new or widened bridges over creeks. Two of the highest-priority projects are on Miller Road between Corn Road and Old Mill Road, and on Bridges Road between Butler Road and Holland Road. Both projects require expensive creek crossings.

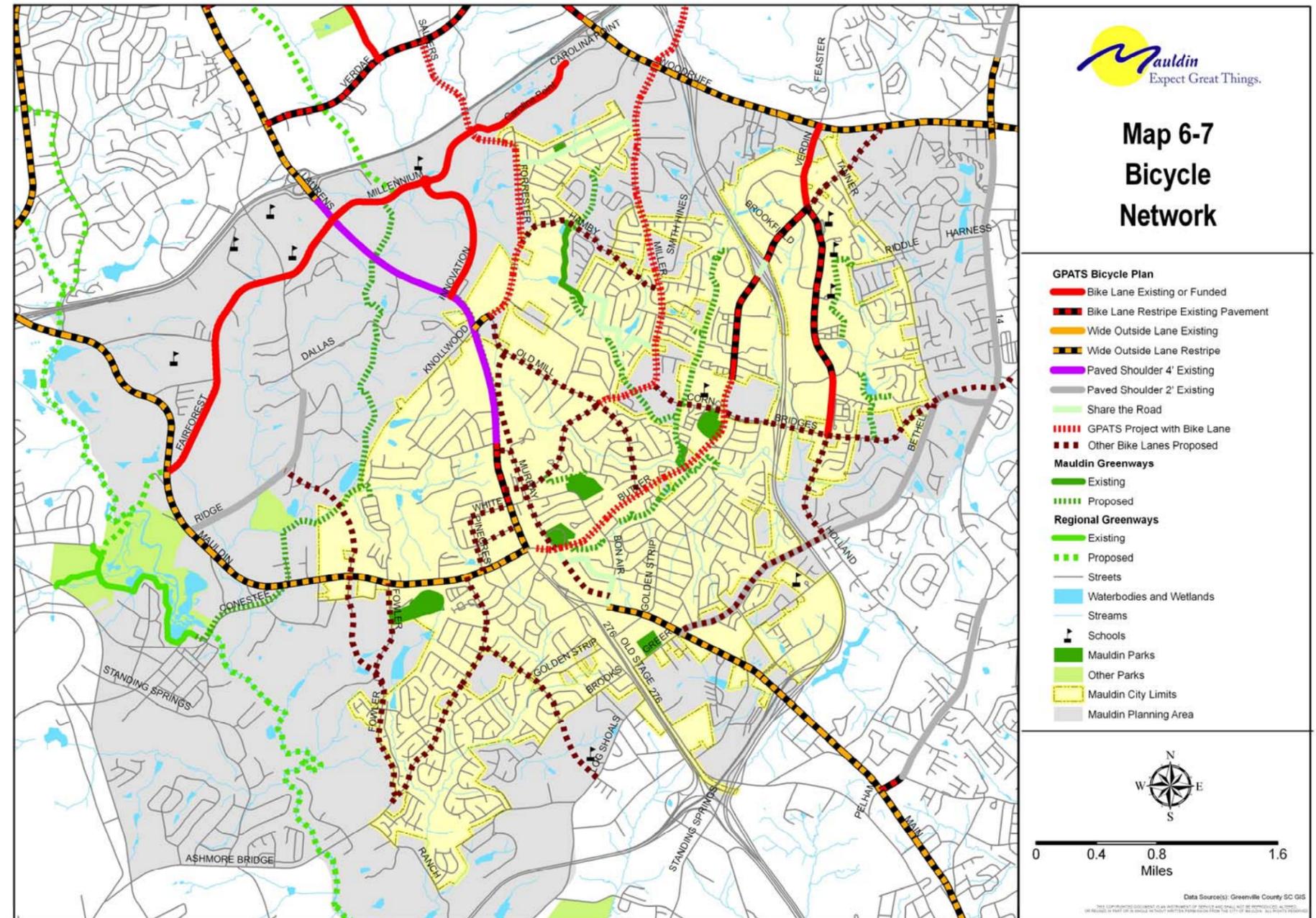
Greenway trails are an important component of the proposed network of pedestrian and bicycle paths. Table 6-6 lists eight miles of proposed greenway trails, with cost estimates. Total cost of the greenway trails is estimated at \$2.17 million.



Bicycle Facilities

Map 6-7 presents the bicycle network that should be developed as street improvements and greenway trails are built. Many of these facilities, as the map illustrates, can be provided by re-striping the roadway with slightly narrower traffic lanes. On-street bicycle facilities can be provided very cost-effectively when roads are resurfaced or widened.

Bicycle lanes produce a significant safety benefit for motorists as well, by reducing run-off-the-road crashes. Highway safety research shows that run-off-the-road crashes, which are especially dangerous for inexperienced drivers, are reduced by up to 40 percent when a four-foot paved shoulder or bike lane is present. Pedestrians and joggers also benefit from bicycle lanes where other paths are not available, but should face traffic when walking or jogging along roadways.



Mass Transit

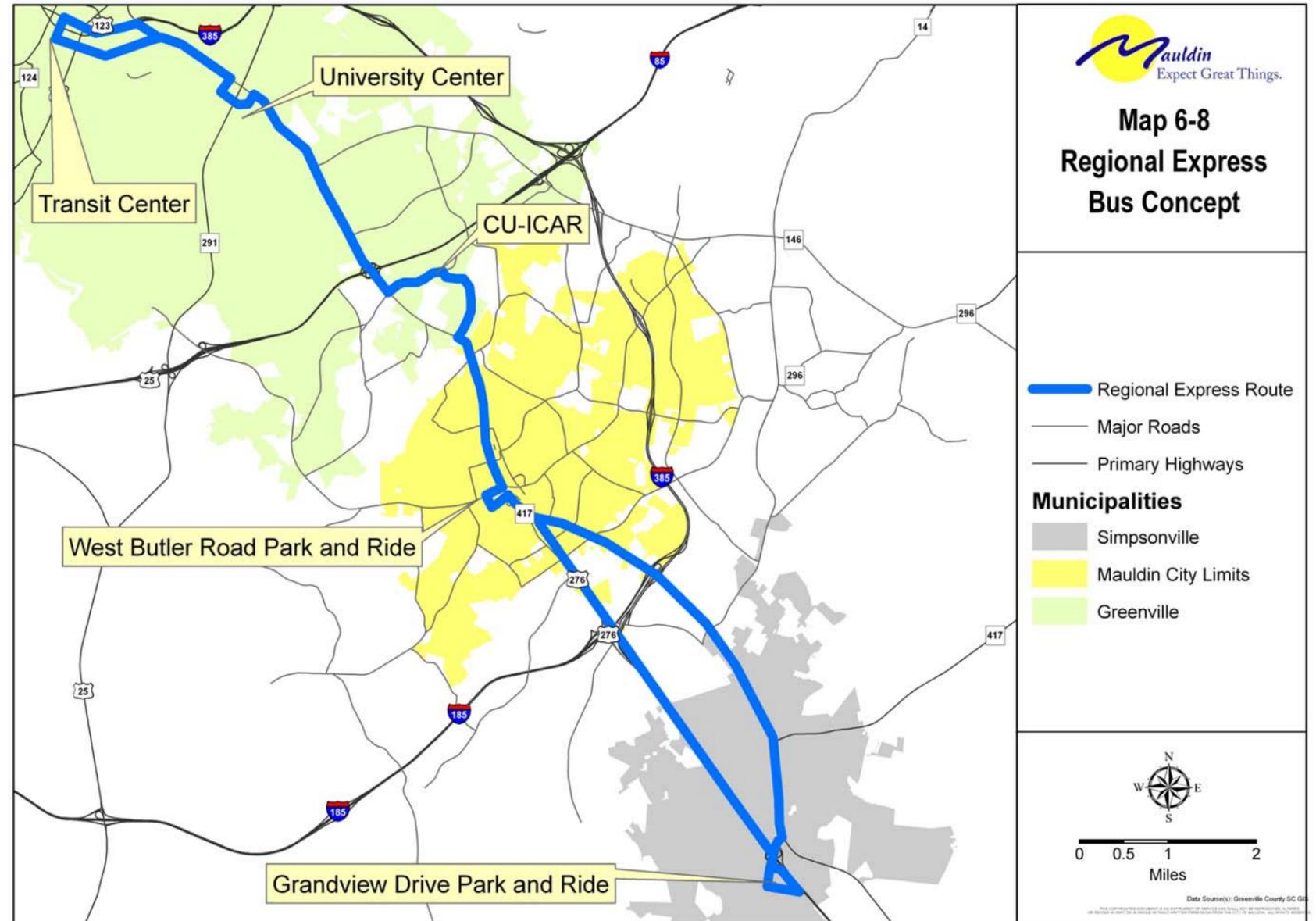
Funding made available through the American Recovery and Reinvestment Act of 2009 (ARRA) may create the opportunity to begin a limited-stop commuter transit route connecting Mauldin with Greenville and Simpsonville. Over \$1.3 million has been reserved for purchase of three transit buses and associated equipment. Combined with Mauldin's allocation of State Mass Transit funds from SCDOT, available federal funds may be sufficient to provide all of the capital and operating expenses associated with a limited mass transit operation, with no local funding necessary.

Map 6-8 is a concept map for a regional transit route in the Golden Strip area. Table 6-8 presents the funding sources that could be used to operate a limited-stop commuter bus route.

The City has agreed to participate with Greenville County, City of Simpsonville and City of Greenville in a regional transit study to evaluate feasible, cost-effective transit services that can be implemented. If service cannot be demonstrated to be feasible with minimal on-going City funds, Mauldin may choose to let available federal funds be redistributed to other cities and counties in the state.

Table 6-8
Regional Express Route Operating Cost

	High Ridership Estimate	Low Ridership Estimate
Operating cost per year	\$312,320	\$312,320
Farebox recovery ratio	19%	9%
Net Operating Cost	\$253,906	\$283,113
Federal Share of Operating Cost	\$126,953	\$141,557
State Share of Operating Cost	\$126,953	\$138,690
Local Share of Operating Cost	\$0	\$2,867





Goals and Objectives

Goal 1: Manage traffic congestion and support economic development

Objective 1.1: Preserve rights of way for future road widening and new road connections to improve traffic flow and capacity.

Implementation Strategy:

Adopt a right-of-way preservation ordinance based on the street cross sections and road network improvement identified in this plan.

Objective 1.2: Improve local street network connectivity in the City Center Area where traffic congestion is most severe and widening arterial roads is expensive and destructive.

Implementation Strategies:

a: Construct a new two-lane, pedestrian-friendly “main street” one block east of US 276 between City Hall and Miller Road, through public-private partnerships with adjacent land owners and by leveraging other public funding sources with city matching funds.

b: Require new development and redevelopment plans to include the local street connectivity identified in this plan in their development plans.

Objective 1.3: Adopt design standards and spacing requirements for Collector Streets in subdivisions to avoid future through-traffic issues.

Implementation Strategy:

Amend the city’s land development regulations.

Objective 1.4: Pursue all sources of funding available to improve the congested roads and intersections identified in this plan.

Implementation Strategies:

a: Request funding through the County Transportation Committee and through GPATS for intersection improvements.

b: Continue to work with GPATS to fund improvements to roads on the federal-aid eligible highway network.

c: Monitor other opportunities to request federal and state funding for road improvements.

Objective 1.5: Require adjacent developers to implement road improvements identified in this plan along the frontage of their developments, where the road improvement need is reasonably related to the proposed development.

Implementation Strategy:

Amend the city’s land development regulations.

Objective 1.6: Adopt land use policies (zoning classifications and/or overlay districts) that encourage walkable communities.

Implementation Strategy:

Amend the city’s zoning ordinance and land development regulations.

Goal 2: Develop a multimodal transportation system that provides viable alternatives to automobile travel.

Objective 2.1: Develop a safe and effective network of bicycle and pedestrian facilities.

Implementation Strategies

a. Work with SCDOT to ensure pedestrian and bicycle accommodations are included in SCDOT road improvement projects within the City.

b: Amend the city’s land development regulations to require all new developments to construct sidewalks on adjacent public streets where identified in this Comprehensive Plan.

c: Develop good bicycle and pedestrian connections within Mauldin and between Mauldin and CU-ICAR; the bicycle-pedestrian path in the Main Street Plan should be a priority.

d: Develop greenway trails as transportation and recreation facilities; these quality of life improvements support economic development.

Objective 2.2: Develop efficient, effective public transportation services to provide regional connections to adjacent cities and to provide a local mobility option for Mauldin residents.

Implementation Strategies

a. Work with GPATS, Green Link, and SCDOT Division of Mass Transit to implement a new commuter transit route connecting Mauldin with Simpsonville and Greenville.

b. Evaluate options for providing local transit routes within Mauldin to provide service for seniors, persons with disabilities and the general public.



Chapter 7: Community Facilities

Concerns about suburban growth often arise because the public infrastructure needed to support growth has not kept pace with residential and commercial development. Low water pressure, leaking or overflowing sewer lines, congested roadways, and overcrowded schools and parks are too often symptoms of rapid growth.

Schools, wastewater treatment, and water service improvements in Mauldin are governed by regional agencies, and are not addressed in this plan. An overview of schools is included. Mauldin officials have coordinated and consulted with Greenville County School District planners, and have participated in the regional sewer authority (previously Western Carolina Regional Sewer Authority, now re-branded as ReWa for “Reusable Water Resources”) planning process which has occurred concurrently with this plan.

Local wastewater collection, solid waste and recycling services, street maintenance, public safety, parks and recreation facilities are the community services and facilities that the City of Mauldin directly controls, and those functions are the focus of this section of Mauldin’s Comprehensive Plan.

The purpose of this Community Facilities chapter is to help predict the needs for expanded City facilities and services impacts that growth will create.

Table 7-1 calculates current level of service for each city department, based on employees per square mile and on employees per 1000 population. By applying the personnel per 1000 population to the projected population for the City in 2030, an estimated need for additional personnel is calculated.

These estimates in Table 7-1 are not precise calculations of need for additional personnel, but should be considered a general guide for predicting the impact of population growth on community services.

Wastewater Collection Facilities

Wastewater collection in Greenville County is managed in a two-tier process. ReWa is the regional sewer authority, and builds and operates wastewater treatment plants and the large trunk sewer lines that serve those plants. The smaller collection lines are maintained by cities or a patchwork of special purpose districts.

Table 7-1
Estimate of Additional Personnel Need based on Population Growth by 2030

Department	FY 2009 Employees	2009 Employees Per 1000 Population	2009 Employees Per Square Mile	2030 Employees Needed	Increase in Employees by 2030
Administration	3	0.14	0.33	4.0	1.0
Finance	4	0.18	0.43	5.4	1.4
Judicial Services	4	0.18	0.43	5.4	1.4
Police	53	2.43	5.76	71.0	18.0
Police Officers	42	1.93	4.57	56.3	14.3
Fire	43	1.97	1.95	57.6	14.6
Building & Zoning Administration	6	0.28	0.65	8.0	2.0
Street	8	0.37	0.87	10.7	2.7
Sanitation	18	0.83	1.96	24.1	6.1
Sewer	6	0.28	0.65	8.0	2.0
Buildings Maintenance	2	0.09	0.22	2.7	0.7
Parks & Grounds Management	8	0.38	0.90	11.1	2.8
Recreation	8	0.37	0.87	10.7	2.7
Sports Center	16	0.73	1.74	21.4	5.4
Grand Total	179	8.2	19.5	240.3	61.0



Chapter 7: Community Facilities

ReWa has completed a long-range plan for their system, and that plan is incorporated by reference and available on the ReWa website at <http://www.rewaonline.org>.

In July 2009, Mauldin City Council approved the City's participation in a Collection System Association sponsored by ReWa, as part of an effort to improve coordination among the parties involved in wastewater collection and treatment.

City of Mauldin Collection System

City of Mauldin has a wastewater system maintenance and improvement plan in place and is continuing to implement that plan. Like many cities and special purpose districts in the area, Mauldin's local sewer collection lines were inconsistently maintained in the past. Sewer easements were not routinely mowed and maintained to ensure repair vehicle access and prevent tree root intrusions, and the condition of the lines was not routinely inspected and monitored.

Inadequate collection line maintenance increases the capital and operating costs of wastewater treatment plants, by allowing rainwater and floodwaters to pour into sewer lines. This "Inflow and Infiltration" or "I & I" problem is corrected by repairing or replacing cracked pipes and by raising manholes above the 100 year flood level. In poorly maintained systems, I & I often causes wastewater flows to double during heavy rainfalls, which requires large storage ponds and pumps at wastewater plants, and increases treatment costs.

Leaking sewer lines also cause significant bacterial pollution of creeks by leaking sewer lines, and resulted U.S. Environmental Protection Agency action against the City. Similar EPA actions were taken against many small sewer collection operators in Greenville County.

Through implementation of the City's wastewater maintenance plan, Mauldin is now in full compliance with the EPA Clean Water Act requirements related to wastewater system management.

In general terms, the wastewater maintenance plan calls for complete mapping of the system, periodic inspection of all lines using a robotic camera, and repair or replacement of leaking lines. In some cases, repairs require lines to be excavated and replaced, which is the most expensive solution. A less disruptive and less expensive solution involves installation of a resin-impregnated liner in old and leaking lines; the city has used this method on several sewer lines as the maintenance plan has been implemented.

Future Development

Expansion of the City's wastewater collection system may be the most effective strategy for ensuring the continued growth and economic development of the City of Mauldin. Suburban growth cannot occur without a wastewater infrastructure. Strategic expansion of the City's sewer lines will allow the City to simultaneously manage growth and capture additional tax base through annexation.

Solid Waste and Recycling

Greenville County opened the new Twin Chimneys Landfill in 2008. The County began charging "tipping fees" to cities for the first time when the new landfill opened. Currently \$4 per ton, tipping fees will incrementally increase to \$16 per ton in the next three years.

For Mauldin, the landfill's location in the extreme southern part of the county has increased the cost of transporting trash to the landfill. City trucks now transport trash to a privately-operated transfer station on Mauldin Road near the western city limits, where it is collected and hauled to the landfill.

City of Mauldin Services

Mauldin collects 8,373 tons of solid waste annually. Mauldin residents participate in recycling at a very high rate, with over 3,500 households using curbside recycling. The city's recycling program handles 709 tons of materials each year.

Currently, the city utilizes a work release labor program through South Carolina Department of Corrections, which helps reduce operating costs and plays a positive role in the SCDC's mission to rehabilitate prisoners.

Solid waste services to single family residences (including attached single family homes) are provided at no charge, funded by property tax. Generally, the City is able to provide service more cost-effectively than private services because every residence is served on a City route. Outside of the City limits, private haulers compete for customers and as a result operate more vehicle-miles per residence served. For most homeowners, the combined property tax bill and garbage service bill is generally the same or less inside the City of Mauldin than outside of the City.

The City no longer provides commercial dumpster collection service. Few commercial customers were served by the City in the past, and the cost of replacing trucks made the service not cost-effective.

Yard debris is collected and recycled to the greatest extent possible. Leaves are shredded and offered free to the public for mulch, and are used where possible for mulch at parks and city facilities. Limbs and branches are shredded and used for mulch as well.

Future Development

As growth requires expansion of the City's solid waste and recycling systems, the costs of expanding the labor force compared with the cost to purchase and maintain more



Chapter 7: Community Facilities

sophisticated trucks, which could increase labor productivity, should be evaluated.

Replacement facilities for the current public works vehicle maintenance, material storage facilities, and yard debris processing area on Jenkins Court will be needed if redevelopment plans for the City Center area are pursued. These facilities are located in the heart of the city center area, and present a tremendous opportunity for redevelopment.

Street Maintenance

The City of Mauldin currently maintains 83.4 miles of local streets in the city limits; in a few cases maintenance is shared with Greenville County, if the City boundary is the centerline of the street. Continued annexation will cause additional local street mileage to transfer from County to City maintenance over time.

Future Development

Generally, local streets should be resurfaced on a schedule of every 15 to 20 years. Using that number as a guide, four to six miles of city streets should be resurfaced annually.

If the current ratio of city street mileage to population remains constant, the anticipated population growth in Mauldin will increase the city's street mileage to 112 miles by 2030, or about 29 additional miles to maintain.

On low volume streets in subdivisions, pavement life may be expanded through a preventive maintenance program of crack pouring and slurry sealing to minimize weather damage to pavements.

Fire Services

Regional Context

Mauldin Fire Department provides service to a fire service area that extends far beyond the city limits. The fire service area includes a total of approximately 33,000 persons and covers more than 22 square miles. Approximately 13.4 miles and 11,000 persons served by Mauldin Fire Department are outside of the city limits. Non-city residents pay 26.1 mills in their County tax bill for Mauldin fire service.

Current Services

Three fire stations are operated currently. The headquarters station is on East Butler Road next to City Hall. Station 2 is on Miller Road near the intersection with Hamby Road. Station 3 is on Rocky Creek Road at Feaster Road, currently outside of the city limits. Average response times are 2.5 minutes.

Map 7-1 identifies the city limits, fire service area, and existing and proposed fire stations.

Future Development

In cooperation and consultation with Greenville County, Mauldin has adopted a ten-year fire service plan geared toward reducing fire response times and improving the City's ISO rating.

Generally, the Fire Service Plan calls for renovation or relocation of the existing fire headquarters next to City Hall, which cannot be readily expanded to meet the department's future needs. The plan also calls for three new stations: in the Ashmore Bridge Road and West Butler Road area, in the eastern part of the service area generally in the Bridges Road and SC 14 area, and in the southern part of the service area generally near I-185 and Log Shoals Road.

Reduced response times and improved ISO ratings that the fire service plan will provide will result in reduced insurance premiums for businesses and homeowners and will save lives.

Police Services

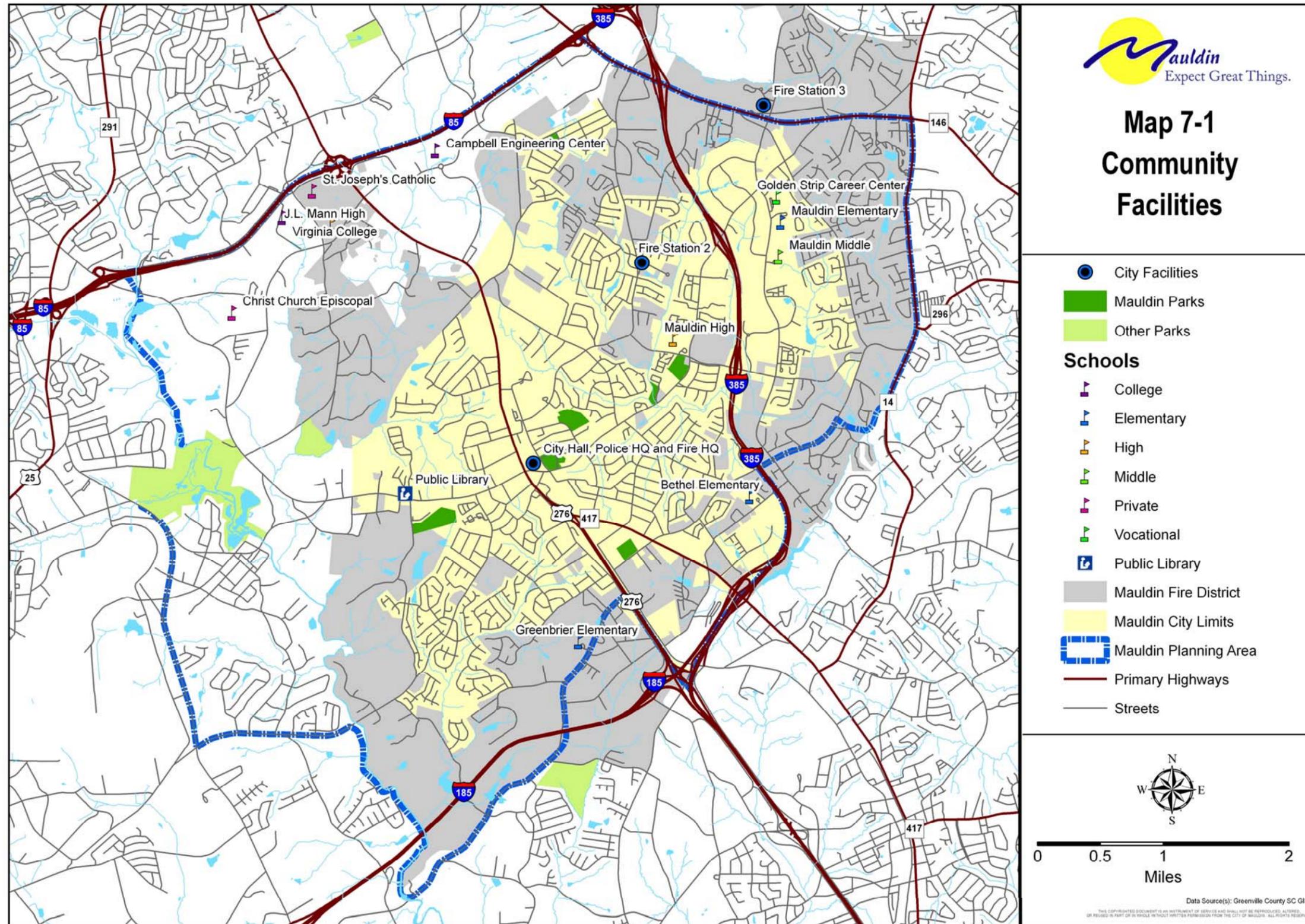
Current Services

Mauldin has among the highest levels of police coverage in the state, with 5.8 police employees per square mile and 2.4 employees per 1,000 residents. Police headquarters is located in City Hall, and a substation is maintained at the Woodruff Road fire station.

Community policing has been an important outreach effort of the department, through support of neighborhood crime watch programs. Mauldin also provides School Resource Officers at Mauldin High School and Mauldin Middle School.

Future Development

Forecast city growth through 2030 will create a need for up to 14 additional police officers and four administrative employees, to maintain the current level of police services. Additional substations will be considered as well, and may be housed in fire department locations or other city facilities.





Chapter 7: Community Facilities

Parks and Recreation

Mauldin has a strong active recreation program, with extensive participation in league sports including baseball, basketball, football, and soccer. The City's state-of-the-art Sports Center is a strong addition to the recreation program and has over 4,000 members.

Table 7-2 provides an overview of the Parks and Recreation Department's personnel and facilities.

Priorities for future development of the City's parks and recreation programs include

- Additional football/soccer/multipurpose fields
- Expansion of the Sports Center, which may include an indoor pool and racquetball courts
- Development of one or more "passive parks".
- Continued improvements to the grounds of the Mauldin Cultural Center and Sports Center complex, in consultation and cooperation with the Mauldin Cultural Center Foundation Board.
- Development of a greenway trail system, as proposed in Chapter 6 of this plan.

National standards for park lands for urban areas generally range from 5 to 8 acres per 1000 residents. Counting the Cultural Center grounds and the undeveloped tracts on East Butler Road at Gilder Creek, Mauldin has 3.5 acres of parks per 1000 residents. As Table 7-3 shows, Mauldin has the lowest ratio of park acreage per capita among the cities in Greenville County.

Many subdivisions and most apartment communities provide private recreation areas, which generally include swimming pools, playgrounds, tennis courts, and other park amenities, which reduces the need for these facilities in public parks.

	2009 Facilities	Facilities Per 1000 population	NRPA [1] Standard	Percent of NRPA Standard met 2009	Facility Deficit in 2009	Needed by 2030	Add by 2030 to Meet NPRA Standard	Add by 2030 to Maintain Current Program
Acres	75	3.5	5.0	69%	33.3	146.0	70.8	26.0
Building Sq Ft	78,000	3,594	n/a	n/a	n/a	n/a	n/a	26,959
Baseball Fields	9	0.41	0.20	207%	exceeds	5.84	exceeds	3.11
Softball Fields	3	0.14	0.20	69%	1.3	5.84	2.84	1.04
Football Fields	3	0.14	0.05	276%	exceeds	1.46	exceeds	1.04
Playgrounds	4	0.18	n/a	n/a	n/a	n/a	n/a	1.38
Basketball Courts	5	0.23	0.20	115%	(0.7)	5.84	0.84	1.73
Walking Trails (feet)	9,450	435	n/a	n/a	n/a	n/a	n/a	3,266
Picnic Shelters	5	0.23	n/a	n/a	n/a	n/a	n/a	1.73
Running Track [2]	1	0.05	0.05	92%	0.1	1.46	0.46	-
Tennis Courts	-	-	0.50	0%	10.9	14.6	14.60	-
Racquetball Courts	-	-	0.10	0%	2.2	2.92	2.92	-
Swimming Pools	-	-	0.05	0%	1.1	1.46	1.46	-

[1] National Recreation and Park Association recommends standards as a guide for local park needs assessments.
 [2] Mauldin Middle School track is open for public use before and after school hours.



Chapter 7: Community Facilities

While private recreation facilities serve some, the fact remains that Mauldin provides less public park space than neighboring cities, and the most notable park element missing from the city's inventory of facilities is a passive recreation park.

The City's best opportunity for expanding park space and creating passive park areas is in developing small open space areas along creeks, connecting these where possible with greenway trails.

Two nearby regional facilities should be considered in future park needs assessment and planning:

- Conestee Foundation has developed a large regional nature park which provides hiking, bicycling, bird watching, and passive recreation opportunities in close proximity to Mauldin;
- Greenville County Recreation District has plans to develop a large regional park at the former Greenville Braves Stadium. This facility will include several youth league baseball fields.

Several important policy questions also should be addressed regarding parks:

- Passive parks or "pleasure grounds" -- designed for informal recreation, picnics, strolling, and family activities -- are an important part of a city's image and are also an important element of most economic development strategies; the City of Greenville's Reedy Falls Park has played a key role in that city's downtown development.
 - Mauldin has begun to address this issue with development of the Mauldin Cultural Center grounds.
 - Signature natural features are important components of quality passive parks.
 - The City most likely will need to look for one or more properties along Gilder Creek or Laurel Creek for a desirable location that has significant natural features to develop passive park areas.

- A passive park may be developed in a single large site, or could be developed with a "beads-on-a-string" approach, where several small passive parks are connected with greenway trails.

- Mauldin has not provided facilities for racket sports or swimming in its recreation program.
 - National standards suggest that 11 tennis courts and 2 racquetball courts should be provided based on the city's population
 - National standards suggest that the City's population would support one swimming pool
 - The construction and ongoing maintenance expenses for swimming and tennis are significant.
 - One option for addressing these recreation activities is to work with the Greenville County schools and/or the Greenville County Recreation District (GCRD) on joint development of swimming and tennis facilities.
- The City exceeds national standards for active recreation fields for baseball and football, but the high levels of participation in these sports still pose some scheduling problems and the fields are intensively used.
 - To maintain the current program and/or meet national standards as the city continues to grow in the next 20 years, four to six additional baseball/softball fields and at least one rectangular field should be planned.
 - Cooperation with GCRD and possibly Greenville County Schools may be one strategy to meet the growing need for playing fields.

	Park Acreage per 1,000 Persons
Greer	12.4
Simpsonville	9.5
Fountain Inn	7.8
Greenville	6.2
Travelers Rest	4.0
Mauldin	3.5
Greenville County Recreation District	3.4
Countywide Average	6.7

Source: Greenville County Planning Department



Chapter 7: Community Facilities

Educational Facilities

Public Schools

The School District of Greenville County operates the public schools in Mauldin. Elementary Schools serving Mauldin residents are: Mauldin, Greenbrier, Bethel, and Blythe Elementary. Middle Schools serving Mauldin residents are Hillcrest, Hughes, Beck, and Mauldin.

Mauldin residents are served by three High Schools: Mauldin, J.L. Mann, and Southside. All three schools were ranked among the top six percent of high schools nationwide in June 2009 by Newsweek Magazine.

Map 7-1 shows the locations of all schools and the public library in Mauldin.

Private Schools

Several private schools are conveniently located to Mauldin: Southside Christian School (K-12) on Woodruff Road at SC 14; Christ Church Episcopal School (K-12) on Fairforest Way; and St. Joseph's Catholic School (6-12) near Laurens Road at I-85; and Montessori School of Mauldin (K-4) on Hyde Circle.

Colleges

Greenville Technical College has two campuses near Mauldin, on West Georgia Road in Simpsonville and on Pleasantburg Drive in Greenville. Virginia College, a for-profit institution which offers career training in medical and administrative fields, opened a Greenville campus on Fairforest Way just north of Mauldin in 2009.

Public Library

The Greenville Library System's branch in Mauldin, the W. Jack Greer Library, opened in 1999 on West Butler Road, replacing the former library adjacent to the old City Hall. The library is located at

the far western edge of the City, which makes the facility less accessible to some residents. Future consideration should be given to development of a bookmobile program or a small satellite location with limited hours to better serve the east side of the City.



Chapter 7: Community Facilities

Goals and Objectives

Goal 1: Expand public safety services, community facilities and infrastructure to keep pace with growth and development and ensure continued high-quality service delivery.

Objective 1.1: Continue to maintain and improve the city's wastewater collection infrastructure

Implementation Strategies:

- a. Continue to implement the city's sewer maintenance plan.
- b. Continue to maintain membership on regional wastewater planning committees.

Objective 1.2: Continue to improve delivery of public safety services, maintain rapid response times for police and fire, and pursue higher ISO ratings for the Mauldin Fire Department.

Implementation Strategies:

- a. Implement the fire service plan developed in cooperation with Greenville County, including additional stations and upgrades to existing facilities.
- b. Plan and prepare for expansion of fire and police forces as population growth continues.

Objective 1.3: Continue to manage solid waste effectively and minimize the volume of waste that must be hauled to the landfill.

Implementation Strategies:

- a: Maintain and expand recycling programs.

b: Continue to convert yard debris (leaves, limbs, etc.) into usable mulch and compost products.

c. Explore options to encourage households and business to reduce the waste stream to the landfill.

c. Evaluate potential partnerships with Greenville County Recreation District.

Goal 2: Provide an excellent system of active and passive park facilities for Mauldin residents.

Objective 2.1: Develop existing city property to provide additional passive recreational opportunities.

Implementation Strategies:

- a. Collaborate with the Mauldin Cultural Center Foundation Board to implement the updated Cultural Center Master Plan, which provides for extensive passive park space and landscaping.
- b. Develop city-owned property along Gilder Creek at East Butler Road with a recreational trail and other passive park amenities, and identify the property as a city park.

Objective 2.2: Acquire additional park land to provide additional space for recreation programs and for passive recreation, to bring Mauldin's park acreage per capita in line with national benchmarks and with neighboring cities.

Implementation Strategies:

- a. Identify funding sources for park land acquisition.
- b. Seek opportunities to partner with private land owners to develop passive parks on undevelopable lands in the flood plains of Gilder Creek and Laurel Creek.

The purpose of this section of Mauldin’s Comprehensive Plan is to focus the City’s capital investment on the priorities identified elsewhere in the plan, to relate the City’s priority areas to those of adjacent jurisdictions, and to identify sources of funding.

Mauldin’s plans take into account the priorities identified by Greenville County, discussed below.

Greenville County Priority Investment Areas

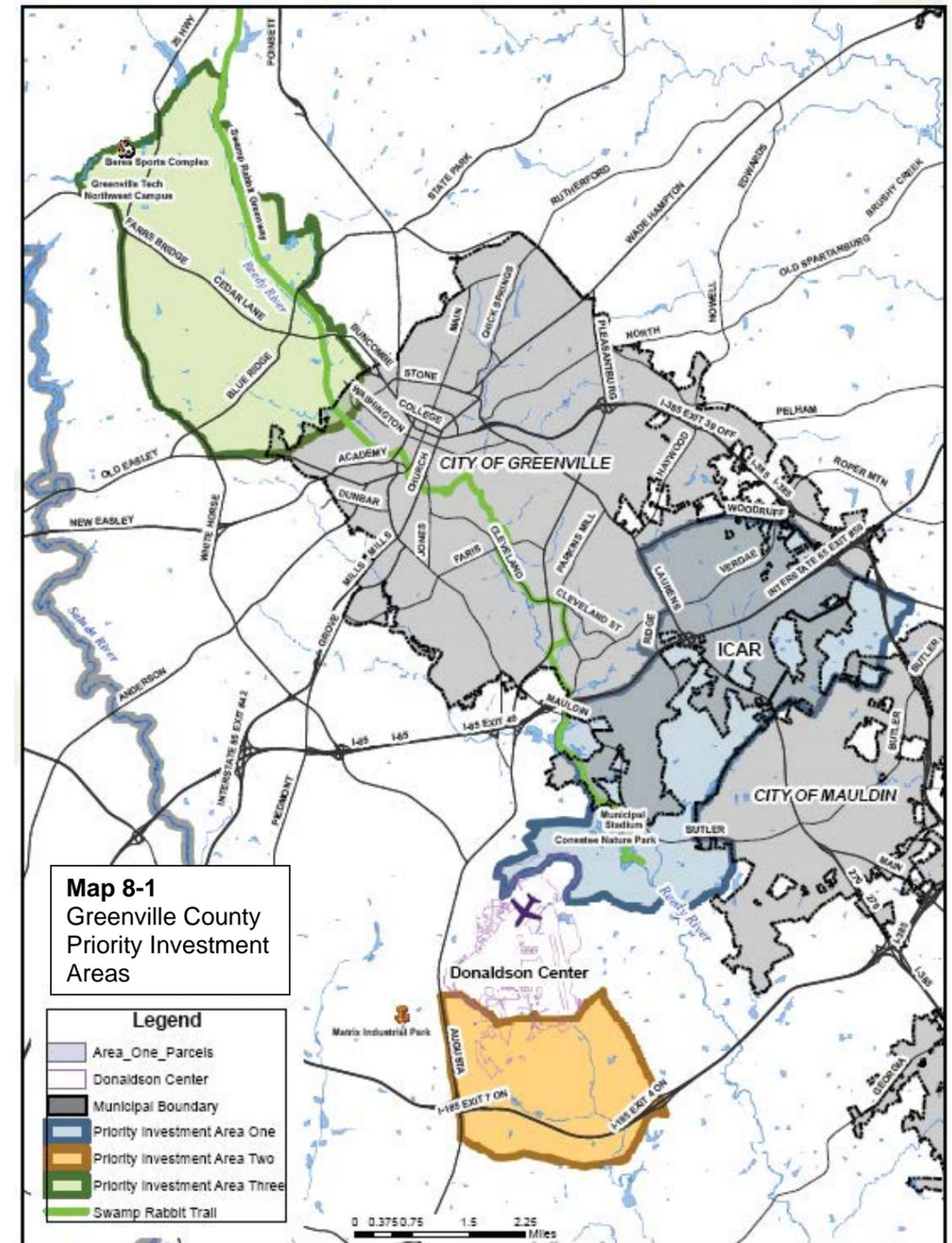
Greenville County has identified three priority investment areas in the county’s comprehensive plan, as shown in Map 8-1, two of which are near Mauldin.

The county planning staff met several times with public service organizations representing water, sewer, schools, and economic development. Mauldin officials participated in several of these meetings. The focus of the meetings was to map likely growth areas, identify potential deficiencies in the infrastructure need to support future growth, and develop strategies to provide infrastructure for growth in the most cost effective ways.

The Laurel Creek area is identified as a priority investment area by Greenville County for several reasons: proximity to CU-ICAR, Verdae Boulevard, and Fairforest Way, where significant employment growth is anticipated in the next 20 years. Good arterial road infrastructure is in place in the northern part of the area, with available capacity for traffic growth. A key issue in the corridor is trunk sewer capacity, which is not adequate for the population and employment growth projected in the area. When trunk sewer capacity is increased, it should be sized to support infill development in the Laurel Creek area, and also creates an opportunity to develop another link in the regional greenway trail network when an additional trunk sewer line is added along the creek. This trail could link CU-ICAR with Lake Conestee Nature Park and Donaldson Center to the south and possibly with the Haywood Road area in the City of Greenville to the north, creating an important quality of life amenity and supporting economic development in the Laurel Creek corridor.

The county plan also identifies the area south of the South Carolina Technology and Aviation Center (SCTAC), the new name for the former Donaldson Center. This area has excellent regional highway access to I-185 (Southern Connector toll road) and US Highway 25, large parcels of land available for industrial development, but inadequate sewer capacity.

The third priority investment area identified by Greenville County is northwest of the City of Greenville in the Cedar Lane Road corridor, and does not directly affect Mauldin.





Chapter 8: Priority Investment Areas

City of Mauldin Priority Investment Areas

Mauldin's plan identifies investment priorities in two ways: first, by geographic areas of the city and surroundings, and by specific functional areas where continued investment is needed to implant this comprehensive plan.

Geographic Priority Investment Areas

Four geographic areas of the city where public investment will be critical to support growth and to leverage private investment are identified in Map 8-2.

The West Butler Road area offers the potential to develop new road infrastructure to help relieve existing and predicted future traffic congestion, while enabling high quality development of large undeveloped tracts of land. The terrain and natural features of the Laurel Creek basin demand low-impact development practices to preserve the natural beauty of this area and to protect water quality in this largely undeveloped creek system. This availability of land in the area and the scenic beauty of Laurel Creek also offers the best opportunity for the City to acquire and develop a high-quality passive park, to provide a quality-of-life amenity in the area to spur quality, planned development. With improved road access, the Shanks driving range property and surrounding large tracts of land become an ideal location for a mixed-use village, with retail, office and residential components.

The City Center area offers an opportunity to revitalize the commercial core of the city. A critical need in this area is improved traffic circulation and connectivity. Investment in streetscape improvements and traffic flow improvement along Main Street is critical to attracting new business and supporting existing business in the corridor. The City also has an opportunity to create a more traditional "downtown" area by upgrading and connecting the fragments of local streets a block east of Main Street, forming a pedestrian-friendly, tree shaded avenue to anchor restaurants, offices, and retail shops built in a traditional urban village style. Improvements to East Butler Road are included in the GPATS long-range plan, and an opportunity exists to help revitalize retail on East Butler Road by investing in a linear park and greenway trail along the branch of Gilder Creek south of East Butler Road, connecting this area to the Cultural Center and Sports Center complex.

The Bridges Road area has been the focus of recent development, with the Samsung Networks America headquarters facility. Holland Road is being widened north of Bridges Road to the Samsung location; improvements to Bridges Road in the I-385 area are needed to support expected further development at Centerpointe Business Park. A new fire station is being planned for this area. Commuter traffic overlaps with school traffic in the area, creating significant

congestion for morning commuters. SCDOT's proposed widening of I-385 from Woodruff Road south to US 276 will provide a 50 percent jump in Interstate traffic capacity, but will not correct the inadequate traffic capacity and poor maintenance conditions on Bridges Road.

The Main Street corridor offers development and redevelopment opportunities to the north and to the south. The Main Street Plan adopted by City Council in February 2009 will continue to be the guide for investment in this corridor. Opportunities to consolidate several parcels on North Main Street for mixed use office and retail redevelopment were outlined in the Main Street Plan. Older industrial buildings in the South Main Street corridor are beginning to be reused, with advanced materials manufacturing, distribution, and other manufacturing businesses taking advantage of the available inventory of industrial space.

Functional Facility Priority Areas

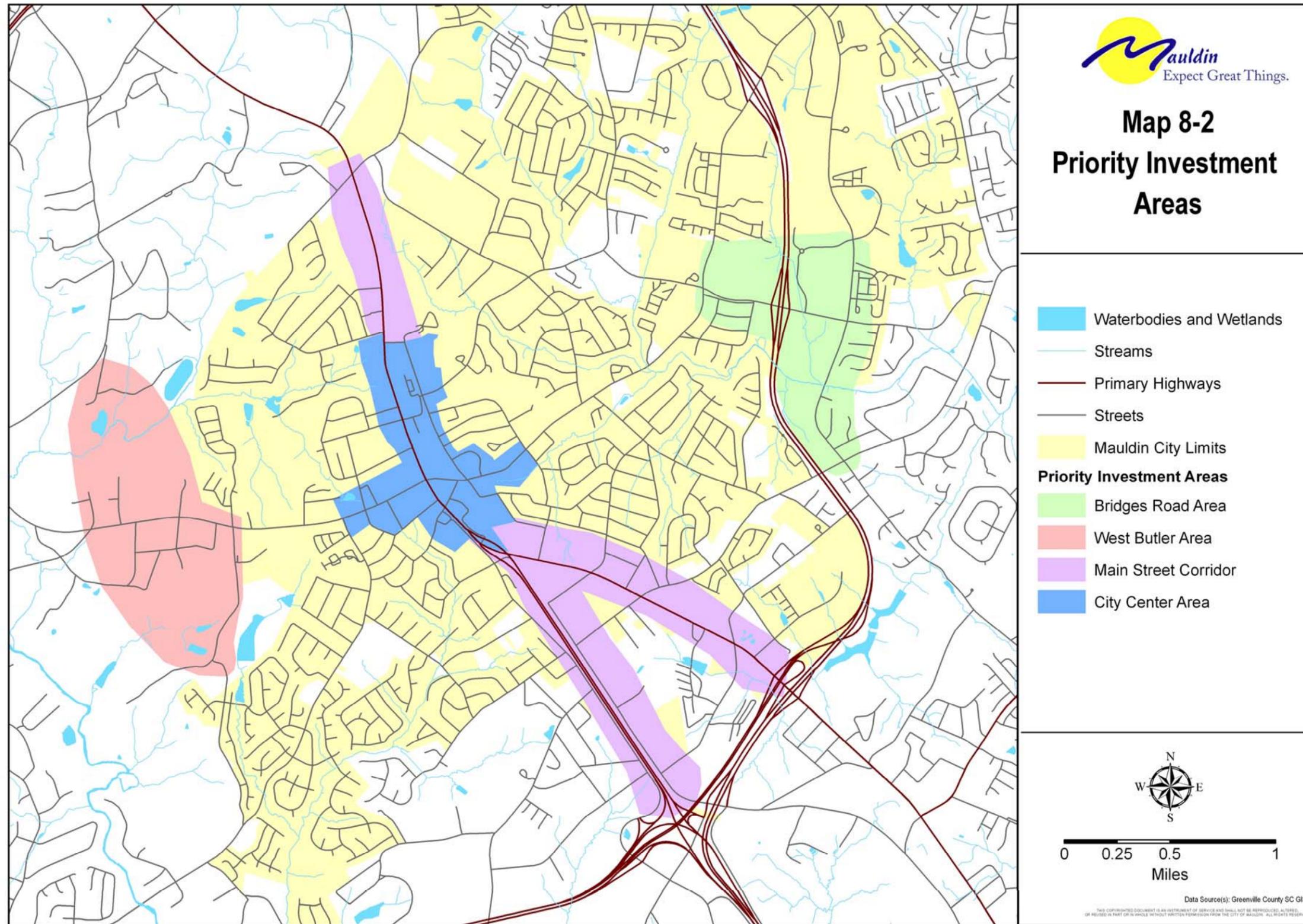
Four functional areas are key to the successful implementation of the City's comprehensive plan.

Inadequate state funding for the street network has resulted in crumbling roads, inadequate sidewalk and bicycle facilities, traffic congestion, and safety issues for all street users. Streets typically represent the largest infrastructure investment in a community; proper, timely, and cost-effective maintenance of City-maintained streets must continue to be a priority. Additional sidewalk and bicycle facilities will be an important quality of life improvement and will support the City's economic development strategy. An extensive list of street improvements is identified in the transportation section of this plan.

The continued rapid growth of the Mauldin area has generated a need for additional fire stations; new or improved stations are planned or are being considered for each of the geographic priority investment areas. Improved fire service coverage translates to lower insurance costs for residents and business.

Expanded parks and greenway trails have been among City Council's goals for several years. The opening of the Swamp Rabbit Trail through Travelers Rest has demonstrated the broad range of people who are attracted to greenway trails, and illustrates the economic benefits and quality of life benefits of parks and greenway trails. Some state and federal grants are available for parks and greenways; additional local funding options will be needed. Parks and greenways provide quality of life benefits that play an important role in economic development.

Wastewater system maintenance and expansion will continue to be critical, to meet environmental protection requirements, protect the city's investment in this infrastructure, and support continued economic development. Expansion of the system will also support the city's annexation strategy.





Chapter 8: Priority Investment Areas

Goals and Objectives

Goal 1: Focus public investment in and near Mauldin to maximize economic development opportunities and quality of life benefits

Objective 1.1: Implement the Main Street (US 276) Plan

Implementation Strategies

- a. Apply for additional grant funding for construction of the landscaping, congestion management, street connectivity improvements, and sidewalks and bike lanes identified in the plan
- b. Identify additional city funding sources for implementation and for matching grants.

Objective 1.2: Focus infrastructure improvements near other large undeveloped areas with good transportation access in the West Butler Road/Fowler Circle area and the Bridges Road/Holland Road area.

Implementation Strategies

- a. Work with GPATS to pursue Federal Highway Administration funds for improvements to Bridges Road and to develop a new minor arterial road between Ridge Road and West Butler Road.
- b. Seek opportunities to develop passive parks along the major creeks as a strategy to encourage high quality development in these areas.



Chapter 9: Cultural Resources

Mauldin has a short history compared with most cities. The city's physical and cultural development has occurred mostly since the mid-1940s and only a handful of buildings within the city limit pre-date World War II and the "automobile age."

This section of the Comprehensive Plan focuses on the historic resources and cultural life of the Mauldin community. While few in number, significant historic buildings and sites do exist in Mauldin. One, the historic Mauldin High School building, is being transformed into the Mauldin Cultural Center and will be the centerpiece of the City's efforts to build a stronger arts and cultural community, with leadership from the Mauldin Cultural Center Foundation.

Spiritual life in Mauldin is a strong and important part of the community. The city is home to a large and active group of churches, with most Christian denominations represented as well as several non-denominational worship centers. The Vedic Center on Bethel Road is an active Hindu worship center, playing an important role in the region's international culture, and hosts and promotes several Indian cultural events annually.



Old Mauldin High School, built by the WPA in the 1930s, is home to the city's Cultural Center.

Historic Resources

Map 9-1 identifies the historic resources, churches and cemeteries within the Mauldin planning area. Table 9-1 lists the historic sites and provides additional information. Several sites may be threatened by development, notably the Burdette Farmhouse on East Butler Road, which soon will be surrounded by commercial development.

Perhaps the most significant historic building in Mauldin is the old high school, built by the Works Progress Administration between 1935 and 1937. The high school operated until 1957, when Mauldin, Simpsonville, and Fountain Inn high schools were consolidated as Hillcrest High School. Mauldin Elementary School occupied the building from 1957 until 2002, when the new elementary school opened on Holland Road.

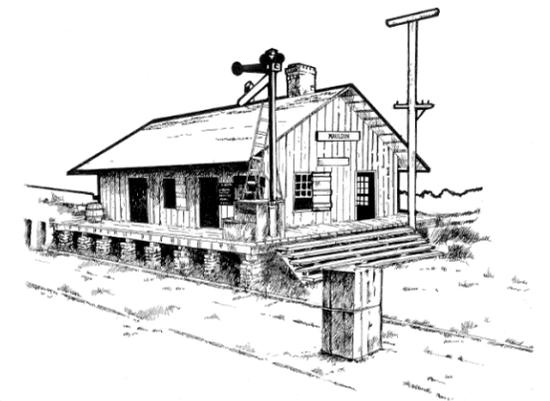
Acquired by the City of Mauldin from the School District of Greenville County in 2005, the front portion of the historic school building has been restored and is in active use for civic and cultural activities as the Mauldin Cultural Center. Plans for continued development of the Mauldin Cultural Center are discussed below.

Several historic houses and buildings have been demolished over the years. The Whatley House, which stood at the intersection of Main Street and Butler Road, was a community landmark and served as the site of a community Christmas gathering and tree lighting for a number of years. The Mauldin railroad depot, built in 1886 in the southwest quadrant of the intersection of Miller Road and the railroad, was demolished in 1953 by the Atlantic Coast Line Railroad, which had acquired the Charleston and Western Carolina Railroad that built the branch line between Laurens and Greenville.

Mauldin United Methodist Church may have the only historical marker in the city limits. Originally Poplar Springs Methodist Episcopal Church South, this was the first church in the community and operated the first school. A beautiful description of the natural springs originally located on the site is found in the locally-published book "Mauldin's Legacy." The spring was filled in at some point during the



Mauldin United Methodist Church is the city's oldest church



Mauldin's 1886 railroad depot was torn down in the 1950s.

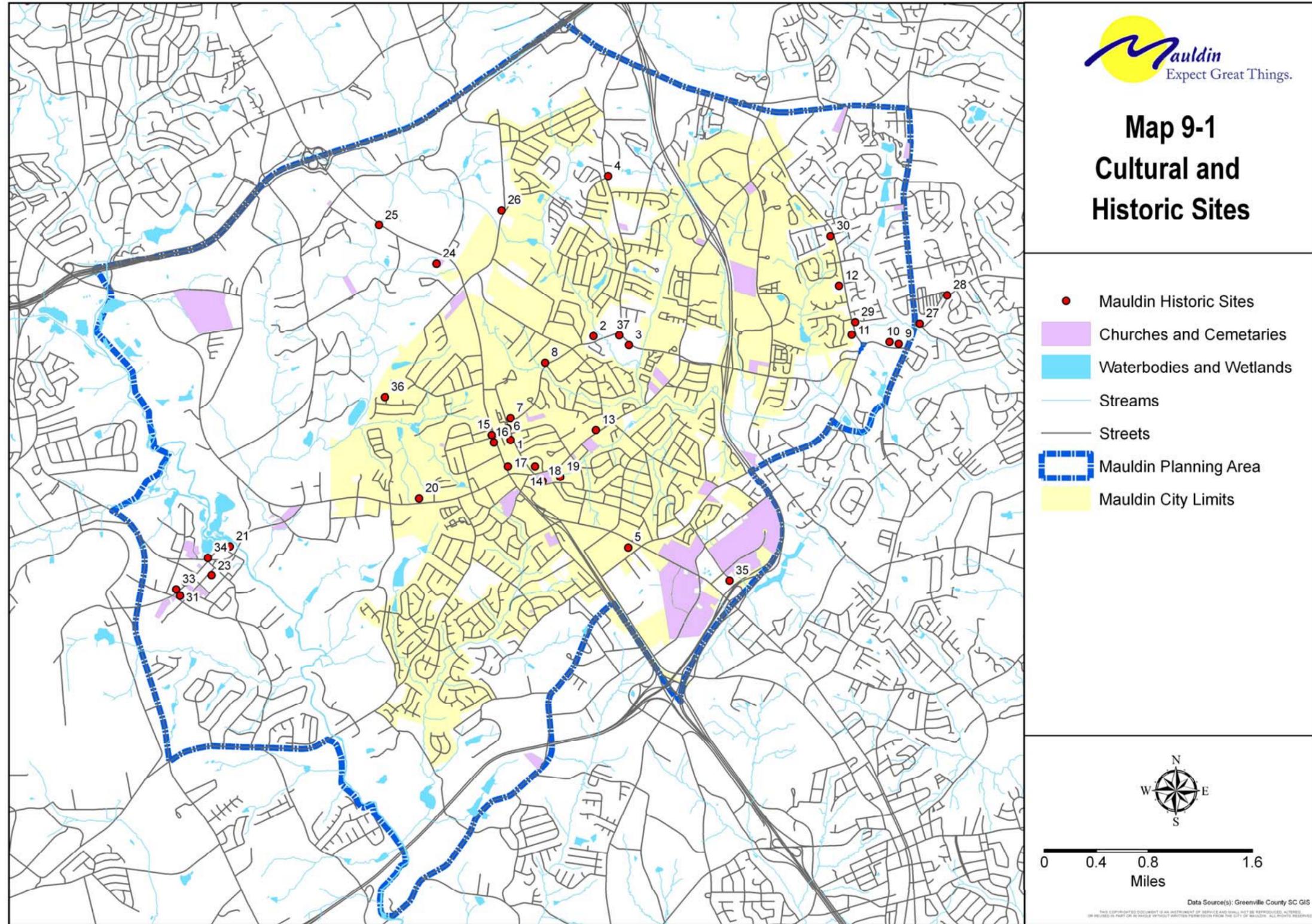


Table 9-1
Historic Sites in Mauldin Area

Map #	Name	Type
1	Cotton Gin Site	Historic Site
2	Smith Farmhouse and Grist Mill Site	Residence
3	Corn Farm and House	Residence
4	Leslie House	Vacant Residence
5	Greer House and Farm	Residence
6	C&WC Railroad Depot Site	Historic Site
7	Unknown House	Business
8	Fowler House	Vacant Residence
9	Gilder House	Residence
10	Unknown House (relocated from Hwy 14)	Vacant Residence
11	Tanner Road House	Residence
12	Tanner Road House	Residence
13	Burdette House	Vacant Residence
14	Mauldin High School	Public Facility
15	Massey's Store	Business
16	Old Post Office	Business
17	Hill's Store	Business
18	Mauldin Methodist Church	Church
19	Poplar Springs School Site	Historic Site
20	Schwiers Property and Barns	Residence
21	Conestee Mill	Business
22	McBee Chapel Methodist Church	Church
23	Conestee Mill Village	District
24	Laurel Creek United Methodist	Church
25	Laurens Road Highway Bridge	Bridge
26	Forrester House	Residence
27	Historic Farmhouse at SC 14 and SC 296	Residence
28	Old schoolhouse	School
29	Colonial Revival House, 1930s era	Residence
30	Tanner Road Historic Farmhouse	Residence
31	Reedy River Presbyterian Church	Church
32	Conestee Presbyterian Church	Church
33	Rector's House	Vacant Residence
34	Conestee Mill Boarding House	Residence
35	Old Schoolhouse (Richardson Real Estate)	Office
36	McDaniel Cemetery	Cemetery
37	Yeargin Cemetery	Cemetery

development of the area, but was located immediately east of the current church sanctuary according to several older local residents.

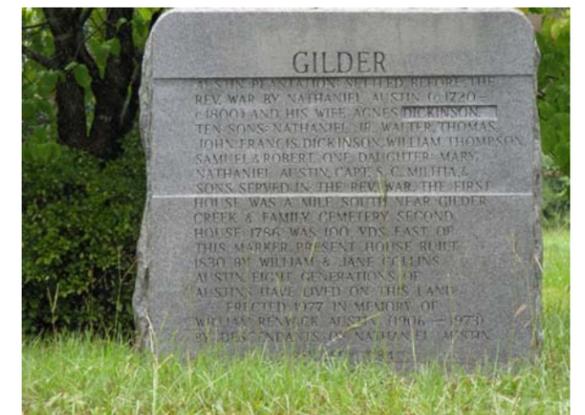
Other historical markers exist at Laurel Creek Church (granite marker), Gilder (granite marker), and McBee Chapel (official state historical marker).



McBee Chapel, an unusual octagonal chapel, was built in 1842 by Vardry McBee in the mill village near his Conestee Mill. The building is among Greenville County's oldest.



The Massey's General Store building on North Main Street has been adapted and reused as a specialty retail shop.



A private marker at Gilder Plantation notes that this site, at Bethel Road and SC 14, is among the earliest settlements in Greenville County.

Cultural Resources

The Mauldin Cultural Center Foundation Board was created in 2005 to direct the development of the Mauldin Cultural Center and the rehabilitation of the historic Mauldin High School.

A Concept Master Plan for the Cultural Center was created in 2005, and included gardens, an amphitheater, veterans memorial, and space for future expansion. In 2008, the flat-roofed wing of the building that was constructed in 1967 was demolished due to problems related to years of water damage. Figure 9-1 is the 2005 concept master plan for the Cultural Center.



Figure 9-1: The 2005 Concept Master Plan for Mauldin Cultural Center

An updated Master Plan was begun in January 2009 by a Clemson University undergraduate landscape architecture class, to reflect changes to the site. The Clemson class produced four different concept master plans, all of which emphasized preservation of existing trees on the site and proposed to introduce new landscape elements. The four plans were synthesized into a final recommended master plan by a Clemson graduate studio class with input from the Mauldin Cultural Center Foundation Board, city officials, and citizens.

Figure 9-2 includes several of the design concepts developed by the Clemson landscape architecture students for the site. Figure 9-3 is the final recommended master plan.

Proposed future additions to the site are an amphitheater, botanical gardens, and veteran's memorial. Each of the Clemson student plans addressed the veterans memorial in different ways and on different sites, and community input is essential to select a memorial site. All four plans proposed a similar site for the amphitheater, but used different design approaches. Botanical garden development will be dependent upon the Mauldin Garden Club, which has been active in several beautification projects on the grounds.

The Mauldin Cultural Center Foundation Board is in the early phases of developing the cultural arts programs for the center. An early and extremely successful arts program project was a Mauldin High School art show hosted at the Mauldin Cultural Center in May 2009.

A key element of the Mauldin Cultural Center will be a renovated auditorium, which will open up the opportunity for community theater, live music performances, and other community events. The plan for the first two phases of the auditorium renovation project is shown in Exhibit 6 below.

Figure 9-4 presents the design proposed for the renovation of the auditorium and development of a new entrance and lobby area.

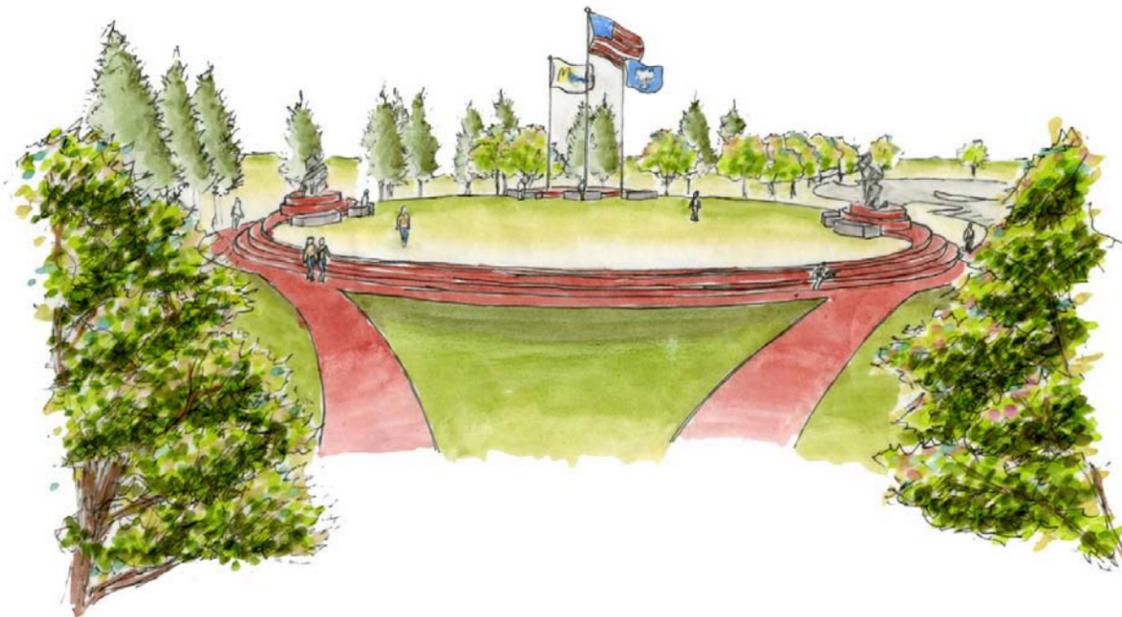
Development of the outdoor amphitheater and veteran's memorial will also spur community involvement in the cultural center, help establish a stronger sense of place for Mauldin, and help bring visitors from around the region to the city.

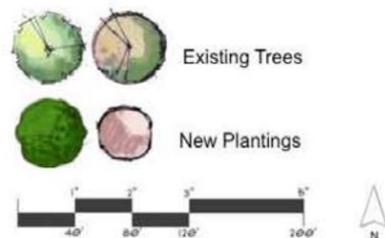


The plaza will be a large open space that will have benches and tables that will provide seating for visitors. It will contrast to the intimate feeling of the adjacent memorial.



Figure 9-2: Cultural Center Site Concepts
 Clockwise from above left: plaza near auditorium entry; plaza at main entrance; a natural-setting amphitheater; another concept design for an amphitheater; and a raised lawn and veteran's memorial.





Mauldin Cultural Center Masterplan

Mauldin, South Carolina
 Second Year Site Design Studio Spring 2009
 Professor Arthi Rao



Director: Mary Beth McCubbin
 Student team: Kevin Shealey, Felix Figuerora





Chapter 9: Cultural Resources

Goals and Objectives

Goal 1: Develop and Improve Cultural Programs that help Define the City of Mauldin

Objective 1.1: Develop a “signature” festival for Mauldin City Center.

Implementation Strategy:

Collaborate with the Mauldin Cultural Center, Mauldin Chamber of Commerce, and Mauldin Garden Club.

Objective 1.2: Develop a recurring outdoor music series at the Cultural Center

Implementation Strategy:

Develop the outdoor amphitheater called for in the Cultural Center Master Plan and collaborate with Mauldin Cultural Center Foundation Board (MCCFB) to develop and schedule events.

Objective 1.3: Complete the development and renovation of the Mauldin Cultural Center, giving top priority to renovation and improvement of the auditorium.

Implementation Strategies:

- a. Adopt the updated Mauldin Cultural Center Master Plan.
- b. Collaborate with MCCFB on fundraising and implementation of the master plan.

Objective 1.4: Support the creation of a Mauldin Community Theater group.

Implementation Strategies:

- a. Encourage use of the renovated auditorium for “satellite” productions by area theater groups, such as Greenville Children’s Theater and Warehouse Theater.
- b. Offer auditorium space to summer theater camps and other theater classes.
- c. Offer auditorium space to churches and schools for musical and theatrical events.

Goal 2: Develop an historic preservation strategy for the city.

Objective 2.1: Support preservation and restoration of historic sites and buildings in and around Mauldin.

Implementation Strategies:

- a. Pursue eligibility for historic preservation tax credits for historic houses in Mauldin, to encourage preservation and reuse of these historic resources.
- b. Provide zoning and/or city property tax incentives to preserve the remaining historic homes and buildings (mostly circa-1900 farmhouses) in Mauldin
- c. Seek funding to construct a replica of the C&WC Railroad depot at or near the site of the original depot; Federal Transit Administration funds may be available if public transportation service is operated in Mauldin.

Objective 2.2: Increase Community Awareness of Mauldin’s History

Implementation Strategies:

- a. Pursue National Register of Historic Places designation for Mauldin High School (1937 building)
- b. Erect historical markers at historic sites in Mauldin
- c. Develop a Mauldin Historical Collection room at the Cultural Center or in another preserved historic building
- d. Document Mauldin’s past through an oral history project involving the City’s older residents
- e. Encourage formation of a Mauldin Historical Society or similar community group to provide education, advocacy and fund raising for historic preservation
- f. Complete the update of the City’s history in a new “Mauldin’s Legacy” publication.



Chapter 10: Economic Development

Mauldin has developed a strong and reasonably diversified economy, with services, manufacturing, and wholesale and retail trade providing the greatest number of jobs. The city's ten largest employers are listed in Table 10-1. Table 10-2 presents an economic base analysis for the three-mile trade area centered at the Butler Road/US 276 intersection; nearly 19,000 jobs are located within the trade area.

An area's economic base is defined by comparing employment in the area to national norms. Where the ratio of local employees to local population exceeds national averages for an industry, the portion above the national average is considered basic employment. These industry sectors produce more goods or services locally than are consumed locally. For the Mauldin trade area, services, manufacturing, and wholesale trade account for more than 98 percent of basic employment, as Table 10-2 illustrates.

Mauldin's economic vitality is reflected in recent new business recruitment and expansion successes:

- **Innegrity**, an advanced textile fiber manufacturer, selected Mauldin in August 2008 as the location to invest more than \$15 million to begin manufacturing an extruded fiber that combines high strength, light weight and low cost, and competes with Kevlar and carbon fiber. The fiber has applications in automotive parts, recreation equipment, and armor protection for vehicles and personnel.
- **Samsung Networks America** opened a technical support center in the Centerpointe Business Park in May 2009 on Holland Road; the initial 300 employees may ultimately expand to 1,000 or more with average wages exceeding the Greenville County average.
- **General Electric** recently located over 200 employees in engineering and support services at Brookfield Corporate Center.
- **BP Barber**, a civil engineering firm, opened an Upstate branch office at Millport Center in June 2008, with expectations to create up to 35 jobs.

These new businesses expand the city's economic base by producing goods and services primarily for export beyond the Mauldin trade area. Combined, they will create nearly 1,400 direct jobs, with up to 2,200 additional indirect jobs in related industries and services.

Table 10-1
Major Employers in the City of Mauldin

Employer	Industry Sector	Employees
Verizon	Communications Services	1,250
C&S Wholesale	Distribution	1,125
Bi-Lo [1]	Retail	850
Charter Communications	Communications Services	613
Jacobs Engineering	Engineering Services	596
Met Life	Finance, Insurance, Real Estate	530
Ford Motor Credit	Finance, Insurance, Real Estate	468
CompX	Manufacturing	293
Morgan AMT	Manufacturing	277
Lockheed Martin	Aerospace Services	185
C.F. Sauer	Manufacturing	152
Total		6,339

[1] Includes only employees working within the City of Mauldin

Business Climate

Businesses choose locations that allow them to produce quality goods and services at relatively low cost. Important factors in location choice are cost and quality of labor, transportation access, taxes and regulations, and quality of life. Mauldin scores well on all of these factors, but should continue to work to improve in each area.

A well-educated workforce resides in Mauldin, which allows firms to recruit highly trainable, productive workers. Over 90 percent of residents age 25 or over have at least a high school diploma, well above the Greenville County, state, and national averages. More than one-third of Mauldin residents hold a bachelor's degree, and another 10 percent hold two-year college degrees.

Mauldin's regional transportation access is excellent, with I-85, I-185 (toll) and I-385 each within easy reach of most locations in the city. Butler Road and Main Street (US 276) provide good arterial highway connections to the Interstates, although traffic congestion is becoming a concern. Mauldin's easy access to the entire Upstate is further enhanced by the City's location at the



Table 10-2
Economic Base Analysis, 3-Mile Trade Area, Mauldin City Center

Economic Sector	Local Employment	National Employment	Basic Employment	Non-Basic Employment
Agriculture, Mining	19	736,000	-	19
Construction	1,290	11,856,000	-	1,290
Manufacturing	3,640	16,302,000	1,383	2,257
Wholesale and Retail Trade	3,414	20,937,000	515	2,899
Retail Trade	2,599		-	2,599
Transportation/Utilities	873	7,650,000	-	873
Information Services	645	3,566,000	151	494
Finance, Insurance Real Estate	1,271	10,488,800	-	1,271
Services	8,531	15,621,000	6,367	2,164
Education and Health Svcs	3,244	30,662,000	-	-
Leisure and Hospitality	1,233	12,415,000	-	-
Public Administration/Gov't	436	6,746,000	-	436
Total Employment	18,969	136,979,000	8,416	11,703
Total Population	35,925			

Source: Research by Allison Development Group

geographic center of employment and population growth in the Upstate. Rail access is available on the Carolina Piedmont Railroad along US 276, allowing industries to receive and ship raw materials and heavy finished goods at low rates. Rail was an essential factor in the recruitment of Innegrity.

Mauldin’s property tax millage rate (51.7 mills) is now the lowest of any municipality in Greenville County, and is among the lowest in the Upstate region. The average property tax rate for South Carolina cities is 84.6 mills, according to the Municipal Association of South Carolina (MASC). Business license fees are based on a model ordinance developed by MASC. Recent efforts to annex businesses adjacent to Mauldin show that business license fees generally have a greater financial impact on retail and service businesses than do property taxes.

Quality of life factors are strong for Mauldin. Public schools rank very well in state and national comparisons; Mauldin High School frequently ranks among the top 200 nationwide in Newsweek and other publications’ rankings. The city offers excellent recreation programs, and has relatively low housing costs. Cultural and entertainment options are a weak spot in the quality of life picture, although downtown Greenville offers many cultural and entertainment choices within a 10 mile drive. Development of the Mauldin Cultural Center should continue to be a priority to address the relative lack of “things to do” in Mauldin.

Economic Development Tools

Mauldin has collaborated with Greenville Area Development Corporation (GADC) to offer incentives to new businesses. Mauldin was the first in South Carolina to take advantage of investment tax credits available through the South Carolina Textiles Communities Revitalization Act, which provides a property tax or income tax credit equal to 25 percent of investments in former textile manufacturing facilities.

Fee in lieu of taxes (FILOT) also has been used to attract both Samsung and Innegrity. A FILOT provides a reduced assessment ratio of six percent, and locks in the millage rate for 20 years, after which time the business would resume a normal tax status. While the equity of FILOTs can be debated, they have become almost a standard incentive for large industrial prospects in South Carolina, due in part to the structure of the state’s property tax system.

Utility tax credits are available for infrastructure improvements related to economic development projects. Utility tax credits from the Samsung project are being used to fund approximately one-third of the cost of improvements to Holland Road south of the Samsung site; road improvement funds from the S.C. Department of Commerce and the Greenville County Transportation



Chapter 10: Economic Development

Committee are funding nearly all of the balance of the nearly half-million dollar road improvement project.

Regional Economic Development Strategies

The ten-county Upstate region has cooperated through the Upstate Alliance to begin forming a collaborative regional economic development partnership. Upstate Alliance focuses on recruitment of new business to the region and marketing the Upstate region.

Each of the 10 Upstate counties has an economic development organization that collaborates with Upstate Alliance on industry recruitment efforts. Greenville Area Development Corporation (GADC) supports economic development efforts county-wide.

GADC has identified four industry clusters to target, building on existing industries and market advantages. The four targeted clusters are

- automotive,
- advanced materials,
- aviation,
- life sciences, with a focus on
 - medical devices,
 - agricultural biotechnology
 - research and testing labs
 - pharmaceuticals.

Clemson University's International Center for Automotive Research (CU-ICAR) campus provides a solid future for automotive industry development at Mauldin's northern city limits. The city has begun to develop a relationship with CU-ICAR to determine how best to support and to benefit from CU-ICAR. While the current economic climate has paused auto industry investments, demands for more fuel efficient, safer and environmentally sustainable automobiles will continue and will generate additional investment at CU-ICAR in the future. Greenville Tech's McKinney Regional Automotive Technology Center is an important component of the automotive sector strategy as well.

Innegrity is an example of the potential for advanced materials in the Upstate. Clemson's Advanced Materials Center provides the research power needed to support the advanced materials sector in the region. In many cases, advanced materials research and manufacturing can re-use existing vacant textile manufacturing spaces. As with Innegrity, synergies exist between the automotive and advanced materials sectors.

With Mauldin's proximity to Donaldson Center and the aviation industry there is an advantage for recruiting aviation support and engineering businesses. Aviation component manufacturers may be able to use some vacant textile manufacturing space in the City, and could benefit from the Textile Communities Revitalization Act tax credits as Innegrity did.

The new satellite campus for Bon Secours St. Francis Hospital will have a tremendous impact on Mauldin and will create opportunities in the life sciences cluster for the Main Street corridor. Some connections between St. Francis and Clemson University engineering programs in the medical devices area already have been discussed.

Key Opportunities

Greenville County has relatively few large sites available for "wet" industry – those that have large water needs. By working to develop and incorporate future industrial sites along the Southern Connector, Mauldin can expand its tax base and city boundaries. Development of sewer infrastructure will be a key factor. One possibility that should be explored is to work with ReWa (formerly Western Carolina Regional Sewer Authority) to develop a regional pump station to gain access to excess capacity at the Mauldin Road WWTP.

Within Mauldin, a few sites remain in Class A business parks. Two sites remain available in Brookfield Corporate Center. Several sites remain available at Centerpointe Business Park at I-385 and Bridges Road: sites for large office tenants are available adjacent to Charter Communications.

Infill sites are important for office development for two reasons. First, the limited availability of large sites leaves limited options except to develop or redevelop smaller sites within the existing developed corridors. Second, bringing a larger daytime population to key areas -- especially the city center area – will create a stronger market for restaurant and retail development. Potential sites for office development exist in the underutilized parking lots of old shopping centers in the Main Street corridor, where office employees would help revitalize the retail and restaurant market.

Finally, it will be essential to improve the "sense of place" and the image of the City of Mauldin. Quality of life factors are often a "tie breaker" in business location decisions. As the City of Greenville has demonstrated, the intangible value of an active downtown with diverse dining and entertainment options plays an important role in creating a positive community image. Creating a stronger community identity and sense of place, through implementation of Main Street/US 276



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Plan, will improve quality of life in Mauldin and play an important role in larger economic development efforts.

Mauldin's Economic Development Strategy

Based on Mauldin's location, existing business, and established goals, the City's economic development efforts should focus on four areas, outlined below.

Retail and Hospitality Industry Development

Mauldin has a multitude of fast-food restaurants, but few quality sit-down restaurants. Several quality hotels have located near the Woodruff Road/I-85 interchange in the City of Greenville; Mauldin currently has one operating budget-rate motel, the Super 8 on West Butler Road.

Fast food restaurants generally need only a high traffic count on an adjacent highway. Discussions with site selection consultants for quality sit-down restaurants reveal that these businesses tend to cluster in groups of several restaurants, need to be near large retail or employment centers, and also benefit if cultural and entertainment amenities are nearby. Pawley's Steakhouse, a quality restaurant that was located in the Millport Center business park at I-385 and East Butler Road, did not survive in part because few of these conditions existed.

Implementation of the Main Street Plan will begin to create a stronger environment for retail and restaurant business, by simply making the US 276 corridor more attractive. Public investment also signals developers that local officials are committed to improvement and reinvestment to create a stronger business climate. A component of the Main Street Plan implantation efforts should be to recruit several mid-sized office buildings to the City Center area to generate enough daytime population in the City Center to support retail and quality restaurants.

Part of the strategy for attracting higher-quality retail and hospitality development is to emphasize the city's strong demographic profile and high traffic volumes on US 276 and on Butler Road. With nearly 36,000 people with an average household income of more than \$75,000 within 3 miles of the city center, Mauldin is a solid retail market. Over 34,000 vehicles per day travel on West Butler Road and more than 30,000 vehicles per day travel on North Main Street.

Another key strategy for recruitment of high-quality retail and hospitality is to create the kind of urban, pedestrian-friendly environment where these businesses can thrive. As presented in the City Center section of this document, constructing a new local "main street" one block off of and parallel to US 276 could transform Mauldin's City Center and begin to create the "downtown" that has never been developed in the city.

Consulting Engineers, Architects, and Business Consultants

Mauldin's locational advantage creates opportunities to recruit local and regional engineering offices and other business consultants. Proximity to I-CAR is an advantage for automotive engineering consulting firms, as well as information technology and other business services. These businesses increasingly rely on their ability to recruit "creative class" employees, whose decisions about where to work are tremendously influenced by quality of life factors.

Advanced Materials Research, Development and Manufacturing

Innegrity is the region's newest advanced materials manufacturer, producing a fiber that has broad applications in automotive, sporting goods, and military applications. Morgan AMT, one of Mauldin's largest employers, can also be classed in this sector. Alternative energy research and development is a subset of this cluster that has strong potential for future development, and is associated with existing automotive research in the region.

General Office and Medical Office Development

The Bon Secours - Saint Francis Hospital satellite campus planned on Mauldin's northern boundary at Millennium Campus will create demands for additional medical office, lab and research space. Very little quality office space is available in the City Center area in particular, and recently-developed office space in the City Center area such as Renaissance Park on Alexander Drive has been very successful.

Corporate Headquarters and Regional Offices

Mauldin is home to headquarters and regional offices for Bi-Lo, Jacobs Engineering, Met Life, Samsung Networks America, Verizon, Ford Motor Credit, and others. While market dynamics will cause some changes to these offices over time, the City's location and quality of like should continue to support corporate offices.

Implementation Strategies

The City's economic development efforts in the next several years should focus on the following implementation strategies:

- Coordinate with GADC to develop and maintain an up-to-date inventory of existing sites and buildings available



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- Seek opportunities to improve road access to large sites (such as C.F. Sauer property north of Murray Drive)
- Continue to use Textile Communities Revitalization Act tax credits as a tool to recruit manufacturers, with emphasis on aviation and advanced materials sectors
- Explore options for creating a “certified industrial site” in an appropriate location in or near Mauldin along the Southern Connector.
- Pursue opportunities to develop Class A business park space and/or wet industry sites near southern connector.
- Work to provide adequate infrastructure for development between Mauldin and the Southern Connector
- Work with schools to strengthen manufacturing workforce skills and availability
- Create a Plant Managers roundtable to improve collaboration with exiting manufacturing employers and capture expansion opportunities
- Work with Chamber of Commerce to create a City Center Alliance of business owners and land owners to focus on redevelopment
- Create a Mauldin Development Corporation to generate funding for economic development activities and focus on major development facilitation.
- Plan for and promote “urban village” redevelopment of city center
- Explore public-private partnerships to develop the infrastructure necessary to support new development in the city center
- Continue to develop the Mauldin Cultural Center as a focus of leisure and recreation activities, to provide important amenities to attract new development to the surrounding area.
- Explore development of a small, linear urban park along the branch of Gilder Creek south of East Butler Road as a strategy to revitalize retail on East Butler Road.

- Promote orderly growth
- Support economic development
- Control the type, quality, and location of development
- Establish and maintain positive community identity
- Ward off encroachment from other cities
- Ensure future growth

With continued direction from City Council, annexation efforts will continue to focus on presenting businesses and homeowners with the lower taxes and more responsive city services compared to other jurisdictions. The competitive advantage of Sunday alcohol sales is one tool that will help induce some businesses to agree to annex into the city. City Police response times compared with Greenville County Sherriff response times can play an important role with many businesses as well.

Annexation Strategy

Mauldin has two options for expansion of the city’s population and tax base: infill development within the existing city boundaries, or expand the city limits through annexation. Both options should be pursued.

Infill development opportunities are addressed in the Land Use and City Center elements of this plan.

The City’s Annexation strategy has evolved over the past few years and will continue to evolve and adapt as the environment changes. The key factors in the annexation strategy adopted by Mauldin City Council are:



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Goals and Objectives

Goal 1: Promote Mauldin's excellent business climate to industry and retail businesses.

Objective 1.1: Develop and disseminate information to prospective businesses about Mauldin's strong market data, quality work force, low cost of living and high quality of life.

Implementation Strategies:

- a. Develop and distribute marketing brochures through Greenville Area Development Corporation (GADC), Upstate Alliance, Greater Mauldin Area Chamber of Commerce, and other organizations.
- b. Proactively contact businesses in targeted market segments to provide information about Mauldin as a good location for business.

Goal 2: Collaborate with GADC and Upstate Alliance to recruit new businesses to Mauldin.

Objective 1/Implementation Strategy: Work with GADC to maintain an up-to-date inventory of available commercial and industrial buildings and sites within the City

Objective 2/Implementation Strategy: Work with GADC and Upstate Alliance to recruit high quality firms that fit Mauldin's specific economic development strategy

Objective 3/Implementation Strategy: Work with GADC to provide appropriate incentives to prospective industries, evaluating incentives on a case-by-case basis.

Goal 3: Assist existing businesses to expand and grow in Mauldin

Objective 1/Implementation Strategy: Create an industrial Plant Managers Council to assist with recruitment and expansion of existing industries

Objective 2/Implementation Strategy: Develop a City Center Business Association to build consensus and support for development and redevelopment of the city center area and to assist with retail business recruitment.