

5 — Development and Growth

WHAT DOES IT MEAN TO BE “SUSTAINABLE”?

Many communities throughout the U.S. are taking on the challenge of becoming more “sustainable.” But what exactly does this mean?

For the Village of Clemmons, this means that as we grow and make changes in the community, we will address the long-term impacts of these changes as well as the immediate and short-term gains. It means that we will try to develop our land in a manner such that development will endure over time and will have a more limited impact on our natural resources – our water, air, and land.

MANAGED GROWTH FRAMEWORK

The Village of Clemmons has experienced significant growth over the last decade. The economic downturn that impacted the nation, state, and the Village, is an opportunity to reflect upon the progress made in the community and to evaluate the Village’s future. Evaluating the trends and opportunities for future growth and development in Clemmons links together many aspects of community – transportation, economic development, community character, and fiscal responsibility – and requires comprehensive and interconnected solutions to achieve a more sustainable (see sidebar) and livable Clemmons.

New developments, such as Village Point, are examples of good design in our community. The community will take advantage of existing and emerging activity centers and mixed-use development activity and create a framework for linking the components of our community – community commercial centers, employment areas, neighborhoods, and recreation. Key elements of the managed growth framework are outlined in this section: new activity centers, a new Village Center, infill and redevelopment, and an enhanced transportation system. Managing future growth also includes designating areas that are not currently suitable for development and should be managed to maintain future growth opportunities. The northern and southern future growth areas are outlined in this section.

ACTIVITY CENTERS

Activity centers are focal points for community activities like working, shopping, recreating, receiving professional services, and cultural / civic activities. This plan sets out four activity centers to be designed to provide our community with new opportunities to meet our daily needs in mixed-use, walkable, easily accessible, and visually appealing environments. The goal is to have activity centers that are compatible with surrounding neighborhoods, road networks, and natural features. The centers will be formed as “nodes” and will not contribute to strip development.

Research has shown that successful centers can be developed on undeveloped land and by redevelopment of existing shopping centers. These centers provide focus for commercial and retail development and can create more sustainable land use patterns if implemented appropriately. The four activity center sites



identified in the future land use plan will provide Clemmons with four focused development centers that serve different purposes for the community. These four sites are identified on the Future Land Use Map on page 12.

- **Village Point / Novant site** at Lewisville-Clemmons Road north of I-40 is a focus for new commercial and institutional development. This is the selected site for a new Village Center that will be the focus of civic activity in the Village.
- **Lewisville-Clemmons Road at US-158** is the historic intersection of Clemmons and an important crossroads within the Village. Uses within this area should include office and some retail development designed to reflect the Village’s historic character.
- **Lewisville-Clemmons Road at the future east-west connector** (Springfield Farms Road) is a new opportunity for focused development to serve area neighborhoods as development pressure moves north of I-40. Development in this area should include commercial uses that are intended to serve proximate neighborhoods. The target market for these commercial uses should not be the larger community or the region, thus limiting transportation and other impacts created by this development.
- **Highway commercial activity center at Lewisville-Clemmons Road and US-421** is an established activity center that provides travelers with needed services.



Activity centers are locations for focused development that provide mixed-use opportunities.

These activity centers are located approximately one mile from each other on a north-south access of Lewisville-Clemmons Road. The spacing of these activity centers provide opportunities for adjacent neighborhoods to access services and shopping centers without traveling through town, more efficiently using the transportation system. These centers also differ in character and provide opportunities for the development of a diversity of enterprises.

Eleven good activity center development principles are provided and summarized to the right. The Urban Land Institute (ULI)⁵ developed these principles through a ULI research project and published the principles in *Creating Great Town Centers and Urban Villages* (2008).

ACTIVITY CENTER DESIGN PRINCIPLES

1. Create an enduring and memorable public realm
2. Define the public realm with streets, open space, and places for people
3. Respect market realities
4. Shared risk and reward (private and public)
5. Plan for development and financial complexity
6. Integrate multiple uses
7. Balance flexibility with long-term vision
8. Capture the benefits that density offers
9. Connect to the community
10. Invest for sustainability
11. Commit to on-site management and programming

For more details on Activity Center Design Principles, see the Activity Center Design Principles and Models Report on the Village’s website.

⁵ ULI is a nonprofit research and education organization representing land use and real estate development disciplines. www.uli.org

Objective #65: Work with Developers to Employ Activity Center Principles

Through the development review and approval process and other public means, work with developers of activity centers to employ activity center design principles and use them to guide development.

VILLAGE CENTER

Throughout the planning process, our citizens have remarked on the need for a place that expresses the identity of Clemmons. Community activity centers, possibly including major civic components, can provide such a focus and a sense of place for our community.

At a community meeting in the winter of 2008, participants were asked to identify locations that are appropriate for a new “Village Center” where civic and community uses would be integrated into a mixed-use environment to provide an active focal point for the Village. This public input and input from the Steering Committee was used to generate several potential locations for Village Centers:

- Village Point
- The former Bi-Lo site on US-158 east of Lewisville-Clemmons Road
- The intersection of Springfield Farm and Lewisville-Clemmons Roads
- A future transit station on Idols Road



Matthews Station located in Matthews, North Carolina, is a good example of a multi-use civic activity center designed for a smaller community.

All of these locations, except the future transit site, currently provide good access to major thoroughfares and residential areas and are identified as activity centers on the future land use plan. A design charrette, held in the spring of 2009, used the former Bi-Lo site to create a general concept plan for a new Village Center in Clemmons (see Chapter 6: Community Character).

During the process, community consensus arose around the idea of considering development of a Village Center as part of the Village Point activity center. Reasons for selecting this site include:

- There are ample development opportunities in this location with the new Novant project and the Village Point mixed-use project.
- There are opportunities to do joint ventures with private developers and save tax dollars for new civic amenities.
- There is more opportunity here to develop what the community wants. Redevelopment of another location would likely be highly expensive to undertake.
- This location is closer to the geographic center of town and many uses and activities are planned for this area.

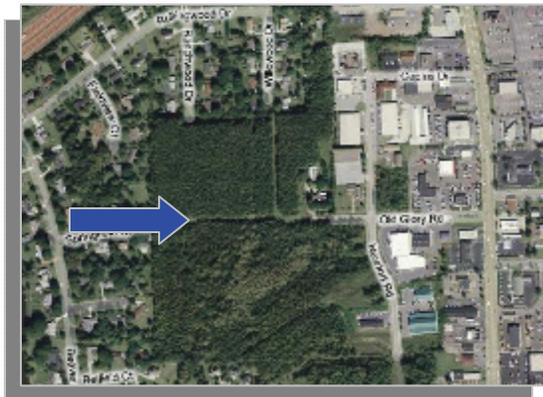
As development occurs in the Village Point, the Village should evaluate opportunities for developing civic uses as a component of master planning efforts. This recommendation does not preclude the Village from assessing alternative sites for a Village Center, but does give priority to the Village Point site.

Objective #66: Evaluate Village Center Opportunities

Evaluate opportunities to develop a Village Center site as part of the Village Point and Novant development projects.

INFILL AND REDEVELOPMENT OPPORTUNITIES

Infill development and redevelopment opportunities in Clemmons are prevalent along its main corridors. Infill development refers to undeveloped parcels within a developed context. Redevelopment refers to opportunities for reuse on developed lands that are underused.



This is an example of an infill site in Clemmons near Old Glory Road. Undeveloped land between residential and commercial uses is an opportunity for new development within the Village.

Clemmons future land use plan focuses much of the development that will occur in the next 20 years to infill and redevelopment areas, the most prominent of which are opportunities along the Lewisville-Clemmons Road and US-158 corridors. Planning for infill and redevelopment along these corridors is critical for determining the future character of the community.

Design standards are needed to guide future infill and redevelopment, particularly considering the Village’s goal of changing the manner in which development has occurred in the last two decades. Continuing status quo design will not lead to implementation of community goals for sustainability, livability, and pedestrian-friendly access to developments. Overlay zoning districts are proposed for the two primary opportunities for redevelopment along Lewisville-Clemmons Road south of I-40 and US-158. Design standards included within these overlay districts should address infill and redevelopment and provide guidance for the following parameters:

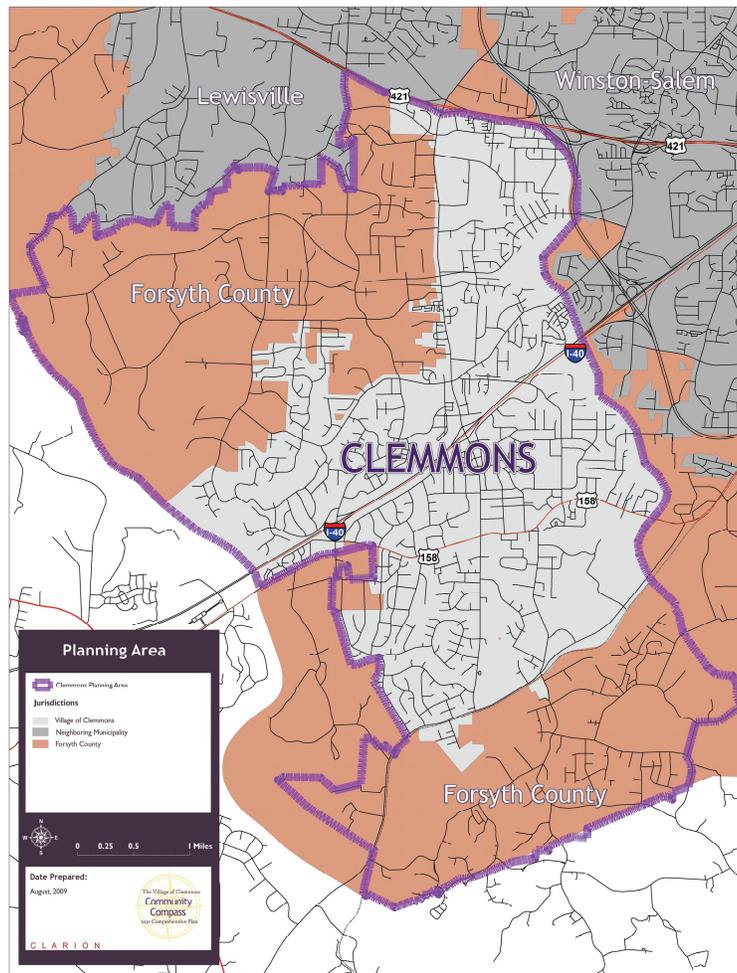
- Access and circulation
- Streetscape design
- Site layout and building orientation
- Building design and character
- Open space and trees/resource protection

Objective #67: Infill and Redevelopment Standards

Develop infill and redevelopment design standards to guide this type of development within major commercial corridors in Clemmons. These standards should be applied as part of the overlay zoning districts for the Lewisville-Clemmons Road south of I-40 and US-158.

FUTURE GROWTH AREAS

Clemmons planning area includes land in Village limits as well as areas of interest that are within the annexation agreement boundaries for Clemmons – only Clemmons can annex within these areas. The majority of undeveloped land (i.e., greenfields) in the planning area is located in the northwest and southern parts of the planning area. Land in these two areas is primarily under the County’s planning and zoning jurisdiction.



Greenfield development opportunities in the Clemmons Planning Area are in the northwest and southern portion of the planning area within the County’s planning and zoning jurisdiction.

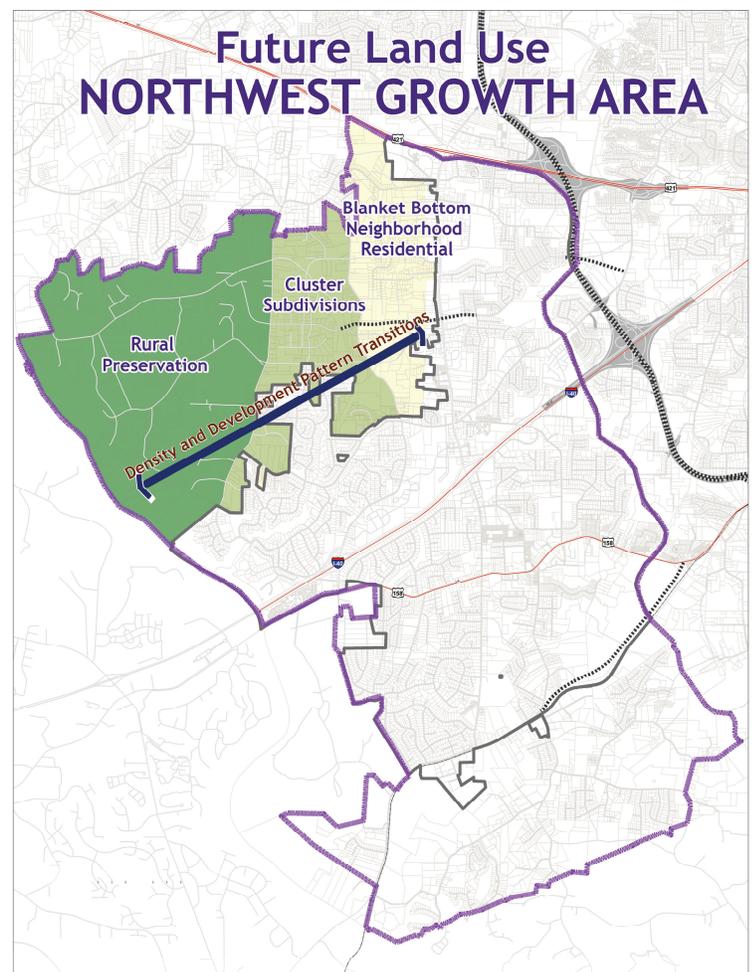
Northwest Growth Area

The northwest growth area is primarily rural in character with some very low-density development and agricultural uses. Public water and sewer is not provided within this area. As development pressure and activity is continuing to work northward from I-40, growth and development within these areas should be managed to ensure that land use patterns achieve the following:

- Efficiently use existing and planned infrastructure
- Protect rural lands that are not expected to be developed within the timeframe of this plan
- Provide transitions between village-core, suburban, and rural land uses
- Reinforce the compact development form land use pattern of locating new commercial development in activity centers proximate to residential areas

The future land use map guides development within the northwest growth area to provide a transition -- moving east to west -- from neighborhood residential (Blanket Bottom Strategic Planning area), to cluster subdivision residential (suburban residential pattern that protects open space), to rural preservation (areas that should be maintained as rural to provide local agricultural opportunities). The future east-west connector will provide new opportunities for development in the Blanket Bottom and cluster subdivision areas.

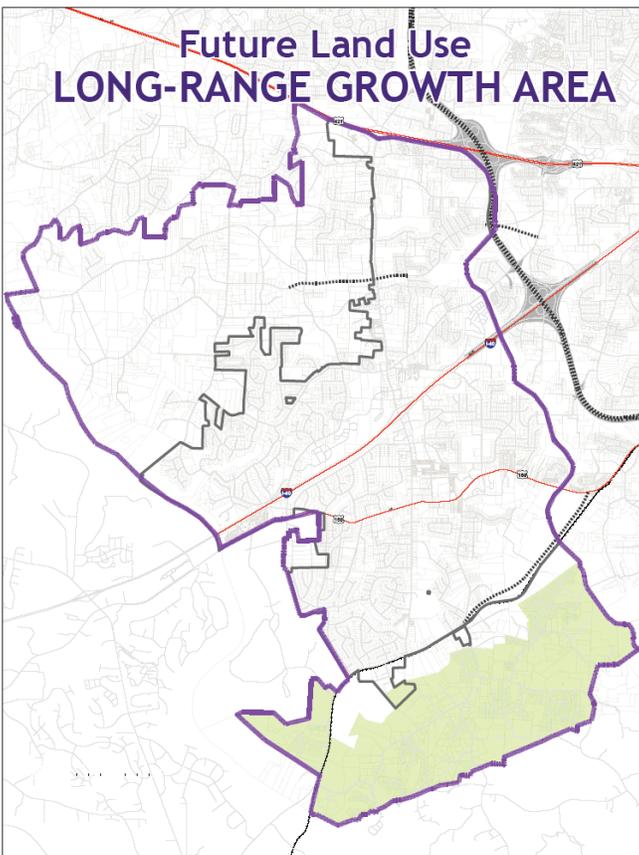
Clemmons has evaluated the potential for providing public water and sewer service for the northwest growth area to test the feasibility of annexation and utility extension. The results of the study show that these actions would result in approximately \$20,000 in annual net revenue for the Village, not taking into account County or school district taxes. Extending water and sewer into the Blanket Bottom and cluster subdivision planning areas is appropriate given the scale of development expected to occur in these areas. Utilities should not be extended to the rural preservation area.



Southern Long-Range Growth Area

The southern growth area is primarily rural in character with some very low-density development and industrial uses. Public water and sewer is provided in a few locations within this area. The Idols Road Extension to US-158 will open up opportunities for development in this area in the future and lessen pressure on neighboring local roads. Long-range plans for the light rail station on Idols Road are another important consideration for this area. Given the long-range planning for expansion of utilities and road infrastructure improvements in this part of the planning area, growth and development within the southern growth area should be managed to ensure that land use patterns achieve the following:

- Ensure very low-density development patterns in the short-term as a trade for more intense development potential in the future when utilities and transportation infrastructure are in place
- Intense employment uses should not be permitted until such time that utilities and transportation infrastructure are in place
- Future plans for the southern growth area should address the light rail station, development of a southern growth area activity center, and infrastructure improvements



The future land use map identifies that the southern growth area is divided into two land use classifications: a future employment corridor dependent upon the development of the Idols Road extension and a long-range growth area which is likely to not have significant pressure for development within the timeframe of this plan.

Clemmons has evaluated the potential for providing public water and sewer service to the southern growth area to test the feasibility of annexation and utility extension. The results of the study show that these actions would result in approximately \$60,000 in annual net revenue for the Village, not taking into account County or school district taxes. Extending water and sewer into the Idols Road employment corridor is appropriate if plans for development of the road extension are underway. Utilities should not be extended to the long-range growth area until such time that this improvement is warranted by consistent development pressure and a plan is made for this strategic planning area.

Objective #68: Coordination with County to Plan for Future Growth Areas

Work with Forsyth County to ensure County zoning and plans for infrastructure expansion reflect Clemmons'

future land use plan objectives for growth areas.

TRANSPORTATION

Providing adequate transportation infrastructure will be important for accommodating growth in Clemmons and ensuring that existing roads are safe and accessible. Street connectivity and effective land use planning can improve efficiency, minimize the need for private automobile transportation, and create opportunities for alternative modes of transportation. This section recommends that Clemmons plan for long-term Village and regional needs to reduce traffic congestion, enhance safety for users of all modes, and lay the foundation for a more diverse transportation system that reduces the demand for automobile travel and provides opportunities for more energy efficient modes.

Policies for providing efficient and accessible transportation include:

- Supporting and expanding focus of plans for major thoroughfares and regional roadways
- Connecting local streets
- Enhancing safety
- Expanding transit options
- Improving pedestrian and bicycle facilities

Clemmons' primary transportation system includes a coordinated hierarchy of roadways comprised of interstate highways, regional roadways, connector roads, and local streets that serve the Village's neighborhoods. Just as important as the roadway networks are the secondary systems that provide walking, bicycling and transit opportunities and generally enhance mobility throughout the Village.

The most sustainable transportation systems are those that are multi-modal. Multi-modal systems are integrated and balanced systems that promote safety and efficiency without relying on a single mode of transportation. Advancing Clemmons' transportation system to one that offers multi-modal choices will move the Village in the direction of being more sustainable, will allow the Village to more efficiently use energy resources, and will provide more opportunities for walking and bicycling that can increase the health of the community.

Village Transportation Plan

Clemmons adopted the Village Transportation Plan (VTP) in 2008. The VTP was developed in response to rapid regional growth and the community's desire "to support sustainable growth through proactive transportation and land use integration." The VTP is a multi-modal plan that develops projects and policy recommendations for the Village's roadways, bicycle and pedestrian systems, and transit. It includes a detailed action plan (VTP, Table 5.1) that lays out how to implement the various recommendations in an efficient and effective way.

The Village Transportation Plan is incorporated into the Clemmons Community Compass by reference. It is the intent of the transportation element to support VTP implementation and continue to build on the momentum from the plan's development. The following sections summarize important elements of the VTP



and tie them into development of the Future Land Use map and other plan goals and objectives.

Regional Transportation Context

Clemmons is located just southwest of Winston-Salem in Forsyth County, on the outer edge of the Triad metro area. Travel patterns in Clemmons are heavily influenced by access to and from I-40, which carries Clemmons residents and workers to points in the Triad for employment and access to other destinations and services. US-158 and US-421 are other major highways used to access regional destinations. Because alternative transportation options, such as mass transit, are limited, the majority (86 percent) of Clemmons residents continue to drive alone to work.

Major Transportation Issues

Clemmons is faced with a number of transportation challenges. While the focus of many efforts is on improving the area's roadway system, efforts should be made to improve the other elements of the Village's transportation system, such as bicycling, walking, and transit. The major transportation issues for Clemmons, addressed in the Village Transportation Plan, as well as the Clemmons Community Compass, are:

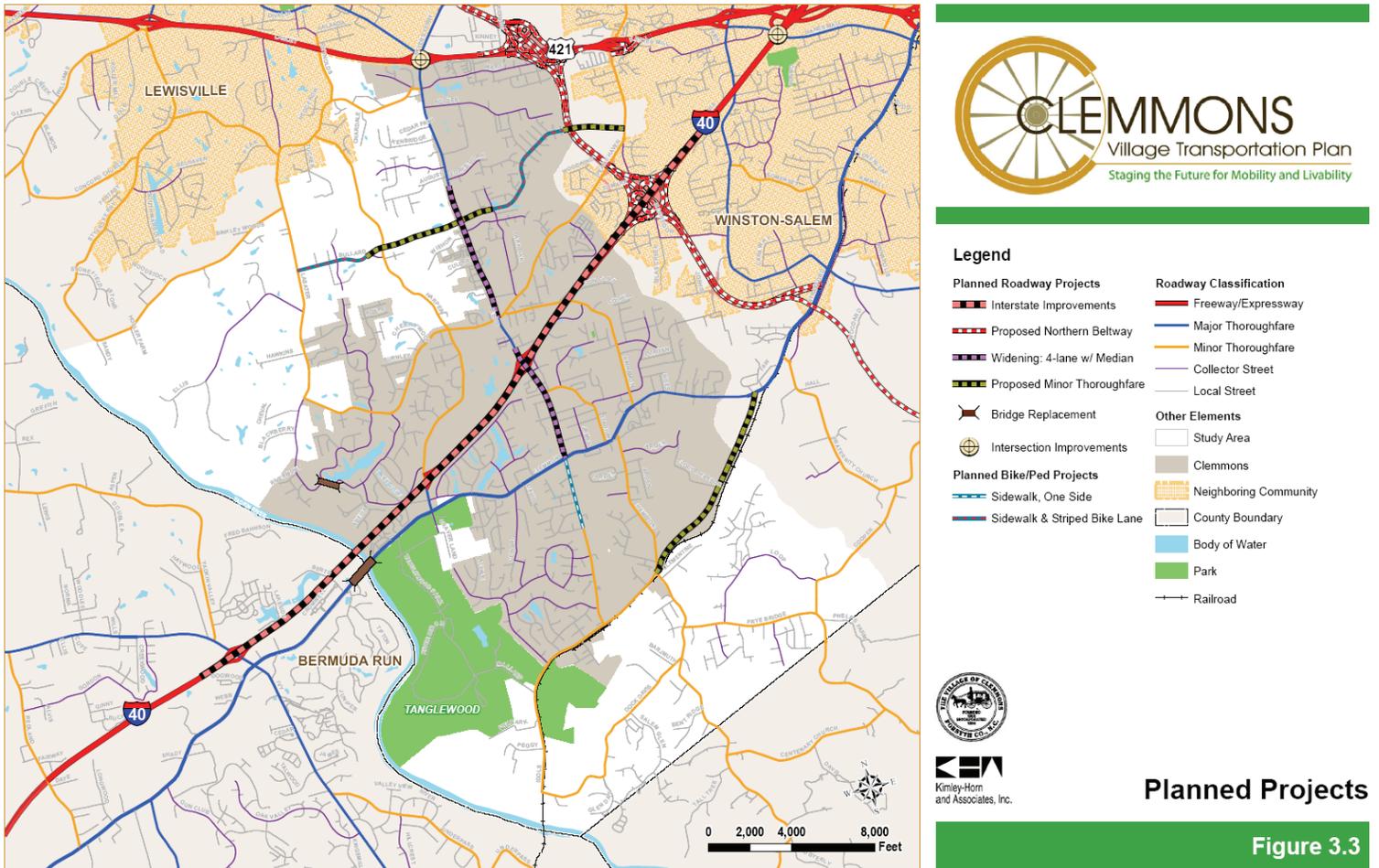
- Congestion along major transportation corridors, especially during the morning and afternoon peak hours as workers access I-40 and other major thoroughfares.
- Safety (vehicular, bicyclist, and pedestrian) at major intersections.
- Lack of connectivity between major thoroughfares and minor and local roadways, creating few alternatives to driving along the major thoroughfares.
- Poor access management along major corridors, adding to congestion and safety problems.
- Lack of on-road and off-road bicycle facilities.
- Lack of pedestrian facilities, such as sidewalks, multi-use paths, and intersection crossings and treatments.
- Lack of mass transit options.

Roads

I-40 bisects the community from east to west, and the Lewisville-Clemmons Road corridor bisects it from north to south, creating four quadrants in the community. Non-residential development in Clemmons is very linear, clustered primarily along the Lewisville-Clemmons Road corridor north and south of I-40, with a heavy concentration of commercial uses near the I-40 interchange, and to a lesser extent along the US-158 corridor. Low density residential development dominates the areas of the Village off the main travel corridors. These residential areas are serviced by local, neighborhood roads and are connected to the main corridors by collector and minor arterial roadways. In certain key locations, these connectors are missing or lacking. The result is heavy congestion along major corridors, especially during peak hours, and safety concerns at major intersections.



Chapter 2 of the Village Transportation Plan identified and ranked roadway segments and intersections according to existing traffic volumes, congestion, and safety, as well as future deficiencies. These problem areas are analyzed in more detail in eight Community Strategic Corridors, and specific recommendations and improvements are developed for each of these corridors. The map below identifies the planned roadway projects in the Village Transportation Plan.



New road improvements should include “complete streets” improvements that improve traffic flow, enable cyclists to travel, and provide sidewalks for pedestrians.



Bicycling

Clemmons lacks an extensive network of bicycle facilities, such as bike lanes, wide outside lanes, multi-use paths, and greenways. While bicycle trips are possible on low-volume neighborhood streets, bicycle trips to other parts of town are difficult. The Village Transportation Plan identifies a variety of opportunities for enhanced bicycle travel and improved and new bicycle facilities and amenities, as shown on the VTP map below. These include:

- On-street striped bike lanes, wide outside lanes, and paved shoulders
- Off-street multi-use paths
- Greenways
- Signed bike routes



Over time, as these improvements are implemented, Clemmons residents will benefit from improved health, reduced vehicle miles traveled, improved access and mobility for those without automobiles, and an improved natural environment.



Dedicated bike lanes are one way that cyclists can “share the road” with drivers. The Village Transportation Plan calls for dedicated bike lanes on several roads in Clemmons.

Walking

Like many towns, Clemmons’ pedestrian system has evolved over time. The pedestrian system is often defined by the extent and connectivity of sidewalks. Some residential neighborhoods have sidewalks, as do some commercial areas, but like many other communities, missing links in the system make anything but short walking trips or walking in a single neighborhood difficult. The Village of Clemmons requires sidewalks as part of its Unified Development Ordinance, and the Village is working with the Winston-Salem Urban Area Metropolitan Planning Organization and the NCDOT to identify and prioritize sidewalk and pedestrian improvements throughout the Village. The Village Transportation Plan also identifies specific pedestrian improvement projects. As these missing links are filled in, new sidewalk projects are built, and safety and intersection improvements are implemented, Clemmons will become a more walkable community. These improvements will have a lasting impact on the community by providing safer opportunities for pedestrians and new opportunities for children to walk to school in conjunction with the Safe Routes to School program.

Intersections can be designed to provide pedestrian-friendly treatments that make road crossing safer by alerting drivers of the presence of pedestrians.



Transit

Transit services are an important piece of a complete, multi-modal transportation system. Transit services offer an alternative choice to those who typically drive alone and offer viable mobility for those who may be transit-dependent or otherwise unable to drive. The Village is not currently served by bus service. The Piedmont Authority for Regional Transportation (PART) operates a series of express routes connecting Triad destinations, but none of those routes serve Clemmons. PART also operates a regional vanpool service which Clemmons residents are eligible to participate in.

The Winston-Salem Transit Authority (WSTA) operates the county-wide paratransit service, a human transportation service targeting the disabled, the elderly, and other qualifying recipients. It is a demand-response system with users calling the service to arrange trips. WSTA also operates the fixed-route county-wide bus service for Forsyth County, but none of those routes extend into Clemmons.

As Clemmons continues to develop, transit will become a more important part of its transportation system. The new land use patterns defined on the Future Land Use map will encourage transit-oriented development, allowing for future transit routes and services to feed into Clemmons. There are also ongoing discussions and planning efforts at the regional level to potentially extend a future light rail line from Winston-Salem into Clemmons, terminating at a station on Idols Road in the southern part of the Village (identified on the future land use map). As this station site is developed in the future, careful consideration should be given to both land use planning and development around the station, as well as roadway access to the station from other parts of the Village.

Village Transportation Plan Goals and Objectives

The Village Transportation Plan includes a variety of goals and objectives that were developed to guide development of the Village Transportation Plan. These goals and objectives continue to be relevant and are applicable to the Comprehensive Plan. They are:

Objective #69: Create a Multi-modal Transportation System

Create an accessible, convenient, and efficient multi-modal transportation system through:

- (1) A thoroughfare system that comprehensively incorporates a variety of transportation modes for adequate access, flow, connectivity, safety, and mobility.
- (2) Public transportation planning efforts, in conjunction with other agencies, for travel both within Clemmons and the Triad region.
- (3) Provision and promotion of opportunities for travel by transit, cycling, and walking.
- (4) Strategic routes for the movements of goods by truck from freeway corridors to local commercial and industrial businesses. This includes the new northern beltway improvement.



Objective #70: Safe Operation of Existing Facilities

Provide serviceable and safe operation of existing facilities through:

- (1) Traffic operation improvements to reduce congestion.
- (2) Safety improvements to reduce crash likelihood.
- (3) Access management improvements to improve safety and network efficiency.

Objective #71: Promote a Bicycle and Pedestrian-Friendly Environment

Promote a bicycle- and pedestrian-friendly environment, including:

- (1) A pedestrian system that fills in gaps and connects neighborhood and recreational facilities Village-wide.
- (2) A trail and greenway system within and connecting local and regional parks.
- (3) Safe roadway crossings and sidewalk placement within the Village core and activity centers.
- (4) Creation of a bicycle strategy that provides opportunities and safety education for riders of various skill levels.
- (5) Support Winston-Salem in the development of a Safe Routes to School program that will encourage students in Clemmons to walk to school and will educate them about safety.

Objective #72: Design Facilities to Support Activity Center Development

Plan, design, and construct transportation facilities, as identified in the Village Transportation Plan, and to be consistent with Clemmons' vision for aesthetically pleasing (existing and emerging) activity centers.

Objective #73: Enhance Economic Vitality Through Transportation System

Enhance the transportation system's contribution to desired economic vitality by making necessary adjustments to priority road corridors, such as Lewisville-Clemmons Road. These strategies support Village land use objectives and encourage sustainable development and redevelopment that can improve the local economy.

Objective #74: Identify Financing Mechanisms for Improvements

Working with regional transportation partners, identify sufficient, timely, and equitable financing mechanisms and partnership opportunities to implement transportation improvements identified in the Village Transportation Plan.

Objective #75: Facilities Should Uphold Community Character

Plan, design, and construct transportation facilities that are consistent with existing community identity. Evaluate specific transportation improvements to ensure they promote Clemmons' vision for community appearance.

Objective #76: Build Community Consensus Through Planning

As new projects are being designed and developed, build community consensus through stakeholder interviews, public workshops, and committee participation.



Objective #77: Transportation Choices Improve Environmental Quality

Improve environmental quality by implementing transportation choices that minimize impacts to physical, natural, and social environments and integrate with Village land use policies. Work with regional transportation partners to evaluate specific transportation improvements to ensure they promote Clemmons' objective to protect its natural environment.

