

North US 321/Chester Street Corridor Plan

Adopted
February 15, 2000

City of Gastonia Planning Department

Table of Contents

Introduction	1
General Description	2
Transportation	3
Existing Land Use	4
Strengths and Weaknesses	4
Redevelopment Potential	6
Corridor Urban Design Goals, Objectives, and Strategies	7
Overlay Zones	10
US 321/Chester Street Overlay Zone Guiding Principles	10
Implementation Guide (<i>Description</i>)	11
Project Cost Figures	13
Implementation Guide	16

Appendix

Underground Utility Conversion – Cost Estimate	<i>i</i>
Tree and Shrub Choices	<i>iv</i>
Canopy Trees	<i>v</i>
Understory Trees	<i>vi</i>
Shrubs	<i>vii</i>
Computer Enhanced Photos of Proposed Corridor Improvements	<i>viii</i>

North US 321/Chester Street Corridor Plan

Adopted February 15, 2000

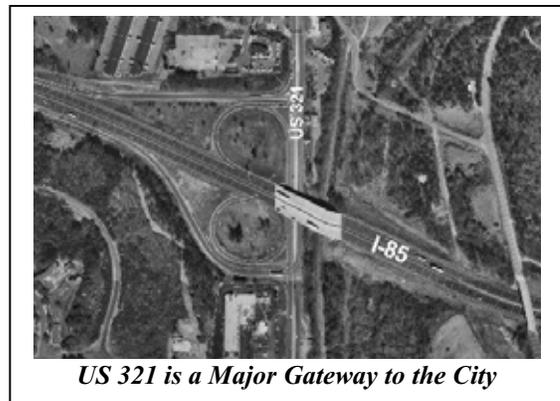
Introduction

This corridor study is in part due to a neighborhood initiative that began nearly two years ago profiling physical and economic revitalization opportunities in the Highland area, a historically African-American community situated immediately north of downtown Gastonia. In 1996, community leaders with assistance from the City of Gastonia Planning Department sponsored a neighborhood planning charrette, which led to the development of the Highland Neighborhood Urban Design Masterplan. This masterplan addresses many of the key issues facing the community, such as the lack of safe pedestrian facilities, poorly maintained residential properties, and a negative community image.

The consultants that authored the masterplan stress that north Chester Street, commonly known as US Highway 321, must be a central element in the community's revitalization efforts. Its location as a prominent north-south route is not only a major entranceway into the neighborhood but into the City as well. The major gateways to the City should be protected from a jumble of signs, parking lots, overhead wires, and unsightly land uses. The five major goals of this corridor plan are to:

- improve the aesthetics of the corridor,
- enhance pedestrian circulation,
- identify and preserve open space,
- promote safe and efficient traffic flow,
- and plan for community land use needs.

Uncontrolled development along urban corridors can lead to traffic congestion, higher accident rates, and a diminished natural and aesthetic environment. Corridor planning goes well beyond the design of a narrow right-of-way. Instead, it encompasses a larger physical area that is functionally and aesthetically related to the roadway. Effective land use standards can enhance the visual quality of the corridor, and well planned corridors combine to create a distinct and aesthetically pleasing image of the City. Beautification and functional improvements, such as landscaping and median construction, are believed to be some of the necessary changes that would stimulate economic revitalization along north Chester Street. Therefore, in keeping with the vision of the Highland Neighborhood Urban Design Masterplan, this corridor plan is intended to address the five goals listed above as related to the US Highway 321 corridor and adjacent property.

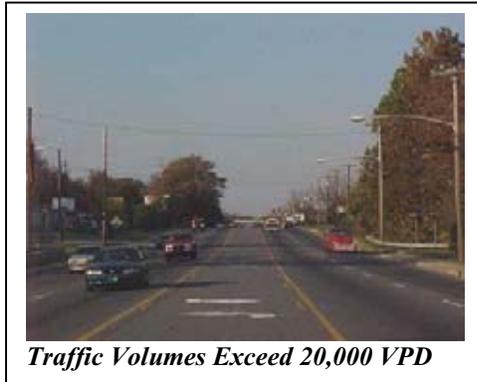


US 321 is a Major Gateway to the City

This report begins with a brief overview and general description of the corridor followed by a brief summary of existing transportation and land uses along the corridor. The next section addresses the strengths and weaknesses of the corridor, which leads to a discussion on redevelopment potential. The final section outlines design goals, objectives, and strategies, and a suggested planning tool for implementing the elements of the plan.

General Description

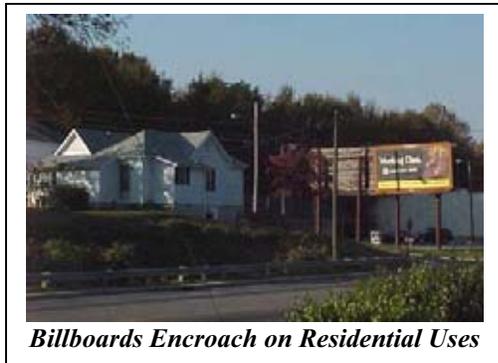
The study area includes all properties adjacent to north US 321/Chester Street between Long/Airline Avenue and Rankin Lake Road. The north Chester Street corridor has always been considered Gastonia’s main entranceway from the north with at least 20,000 vehicles traveling the 2.5 mile stretch each day¹. Currently, the US Highway 321/Chester Street study area consists of over 77 structures and roughly 160 acres of land, much of which has already been developed.



Land uses along the corridor have remained fairly stable over the past few years. However, some recent *community* activities include the construction of homes in the Windy Circle vicinity, a new fire station along New Way Drive, the widening of north Chester Street from four to five lanes, the construction of the Highland School of Technology, and tree plantings along Chester Street from Davidson Street to Rankin Avenue. At present, zoning for the corridor varies between commercial and residential with much of the commercial

zoning clustered at two of the corridor’s three main intersections, US 321/Long Avenue and US 321/Interstate 85. The third prominent intersection, US 321/Davidson Avenue, has been and will continue to be zoned and developed as residential, primarily due to the topography and lack of developable space.

The area’s major weakness is the absence of available, developable land. The locations of the Norfolk-Southern Railroad and Highland Branch along with the steep, and often rocky soil on the east side of Chester Street present obstacles for development and redevelopment. These challenges can be overcome, however, with community leadership and dedication to the community’s vision and plans.



Currently, twelve (12) billboards dot the landscape between Long Avenue and Interstate-85 and six (6) additional billboards are located just north of Interstate-85. The cumulative affect of these signs creates visual distractions to drivers (causing safety hazards) and degrades the appearance of the corridor. In addition, many of these signs are very close to residential land

¹ According to 1995 Average Daily Traffic Counts.

uses. While on-site signs are accessories to the establishments they identify, off-site signs use the roads to advertise, and without roads, there would be no audience for billboards. Because roads are built and maintained with public funds, billboard regulation should be a high priority in traffic safety, urban design, and corridor beautification. Appearance concerns are important for the corridor as an economic objective to increase property values and attract new businesses to the area. This plan recommends that a program be established to remove existing billboards. US 321 is a Federal-aid Primary Highway, which prohibits the City from amortizing these signs prior to removal. There are, however, other methods for removing billboards, such as purchasing signs at fair market value.



Overhead wiring and numerous utility poles can make any corridor look cluttered. Utilities were placed underground and shoebox lighting was erected along Long Avenue as part of the Gaston County Government Complex project. Underground utilities and decorative lighting work together to create an attractive presentation to the public. This plan recommends that utilities be placed underground along north US 321/Chester Street from Long Avenue to just north of the proposed grocery store site (adjacent to Lincoln Avenue). Within this area, new shoebox lampposts would be installed to continue the pattern that exists along Long Avenue.

Options for removing overhead utilities from site include burying cables and relocating lines to the rear of buildings, both of which are expensive. Ideally, utilities would be disguised within the entire study area. However, before such a large project is begun, a citywide plan for gateway streetscape improvements must be completed. Only then can the City prioritize these corridors and place resources where most needed.

Sidewalks and crosswalks are very important additions that will drastically improve the walkability of the corridor. Landscaped planting strips will be added along the outside of new sidewalks and a six foot grassed buffer will help to protect pedestrians from traffic. In addition to improving pedestrian traffic, the recommendations in this plan seek to improve the flow of vehicle traffic by installing additional medians along US 321/Chester Street. It is recommended that these new medians and the existing medians around the Interstate-85 intersection be landscaped to break up the wide expanse of pavement and to beautify the corridor.



Transportation

North Chester Street is a heavily traveled road because it links major traffic generators such as Interstate-85 and the Gastonia central business district and provides a direct link to Dallas, NC,

which is home to Gaston Community College. Already, the corridor has average daily traffic levels of over 20,000 vehicles, with most of the vehicle trips occurring during the week as commuters travel back and forth to Gastonia from the western and northern sectors of the County.

North Chester Street's traffic levels are similar in scale to other key corridors in the City, such as Union Road and Cox Road (25,500 vehicles per day and 23,500 vehicles per day respectively), however, US 321 is unique in that it divides a community. Citizens of the community routinely cross Chester Street for neighborhood services without the aid of crosswalks. The high volume of daily commuting traffic suggests that City leaders should examine ways to make sure the neighborhood scale is preserved and kept intact. The addition of street trees, landscaped medians, and crosswalks are recommended strategies for enhancing neighborhood scale.

Existing Land Use

The major land uses along north Chester Street vary between commercial and residential, and these uses have remained fairly stable over the years. With the exception of a small segment devoted to single-family housing (near the Davidson Street and Norment Avenue intersections), the corridor is filled with commercial uses such as convenience stores and auto oriented services. Most of the properties along the corridor have zoning that is suited to the actual use of the land (see Map #1 - Area Zoning Map). The C-3 and C-4 General Business zones allow a variety of retail services and the R-4 Multi-family Residential zone is able to accommodate most two-family and multi-family housing in addition to single family housing, which is the dominant housing type along the corridor.

Roughly 63% of the buildings and structures situated along the corridor are currently commercial uses. Some of the nonresidential land uses within the study area include:

- motel with restaurant
- convenient stores/mini-marts
- seafood produce market
- auto repair services
- home part supply store
- City fire station
- gas & electric company
- adult establishment
- antiques
- auto dealer

Strengths and Weaknesses

The table below summarizes some of the most notable strengths and weaknesses of the US 321/Chester Street Corridor. The strengths represent the basis for redevelopment potential and the weaknesses outline the challenges that must be overcome in order to do so.

Strengths	Weaknesses
<ul style="list-style-type: none"> • An efficient corridor that moves vehicles into and through Gastonia. • Most direct transportation link from Gastonia to Interstate-40 via Hickory and Lincolnton. • A prominent north-south route through the City and Gaston County. • Five-lane arterial road with significant traffic volume (carries 20,00 vpd). • Strong community leadership with vision for the neighborhood. • Positive momentum due to improvements made in crime, prostitution, and other negative influences. • Commitment from City officials for landscaping improvements along corridor. • Link between the central business district and Interstate-85. 	<ul style="list-style-type: none"> • Poor reputation and image of area, although this has improved. • Five-lane arterial road with significant traffic volume makes pedestrian travel difficult. • Numerous vacant buildings and visual blight along corridor. • Some lingering crime problems. • Lack of basic retail (grocery stores, drug stores, banks) and commercial services. • Intrusive and/or unsightly land uses (adult establishment, used tire sales lot) • Extensive and intrusive billboards.

The corridor’s greatest strength is its location between Interstate-85 and downtown Gastonia. At present, there are number of people who use north US 321 to commute from the northern and western edges of the County to work in downtown Gastonia. This distinct locational advantage explains why there are a number of business establishments with duration periods of more than 10 years at their same locations. This statistic is encouraging because it suggests that these establishments have maintained service levels to residents of the adjoining Highland neighborhood (and nonresidents) for a notable amount of time.

Another advantage is the road’s ability to handle significant traffic levels. The capacity to do so is attributed to the road’s design, which at most points, exists as a five-lane road with four travel lanes and a continuous center turning lane. Furthermore, the road does not use all of its allotted right-of-way which leaves room for additional sidewalks, tree plantings, and/or new median construction. In addition, the strong community leadership, positive momentum, and commitment from City officials to improve the corridor combine to create one of the corridor’s most important strengths.

There are some areas of concern regarding the corridor’s long-term vitality. The lack of basic services such as a grocery store and a drug store requires that citizens drive to outlying areas or cross the highway and shop for groceries at convenience stores. In addition, although the width and carrying capacity of US 321/Chester Street can be seen as positives, these same characteristics negatively impact pedestrian travel. Additional sidewalks, crosswalks, and the installation of landscaped medians are recommended strategies for enhancing pedestrian travel along the corridor.

Redevelopment Potential

Recently, the central core area of Gastonia has experienced a redistribution of physical activities with the construction of the new Gaston County Government Complex² along Long Avenue. This relocation of government services to Long Avenue, less than 1/10th mile from Chester Street, has already enhanced the potential for the economic revitalization the community has long envisioned. Presently, the central city does not have a major retail facility that specializes in groceries or pharmaceuticals. Therefore, the intersection of Long Avenue and Chester Street, with both streets serving as major corridors into downtown, presents a number of suitable options for this kind of development (see Map #2 - Grocery Store Map and Map #3 Drug Store Map).

In order for quality redevelopment to occur along the corridor, adequate aesthetic and infrastructure improvements must be the first priority. Development based on good urban design principles will enhance the City's northern gateway and provide visitors traveling to downtown Gastonia with a positive impression of the City. The Highland Community has developed a vision³ for quality redevelopment along the corridor and the implementation of this vision will foster community pride. The key to guiding quality redevelopment for this corridor will be maximizing its strengths and positive physical features and in some cases changing or eliminating the negatives. Quality development and redevelopment is attainable, particularly with the help of basic planning tools such as increased development standards and a corridor overlay district. Listed below are some recommended goals, objectives, and strategies for making the corridor a more viable, accessible, and pedestrian-friendly entranceway into the City.

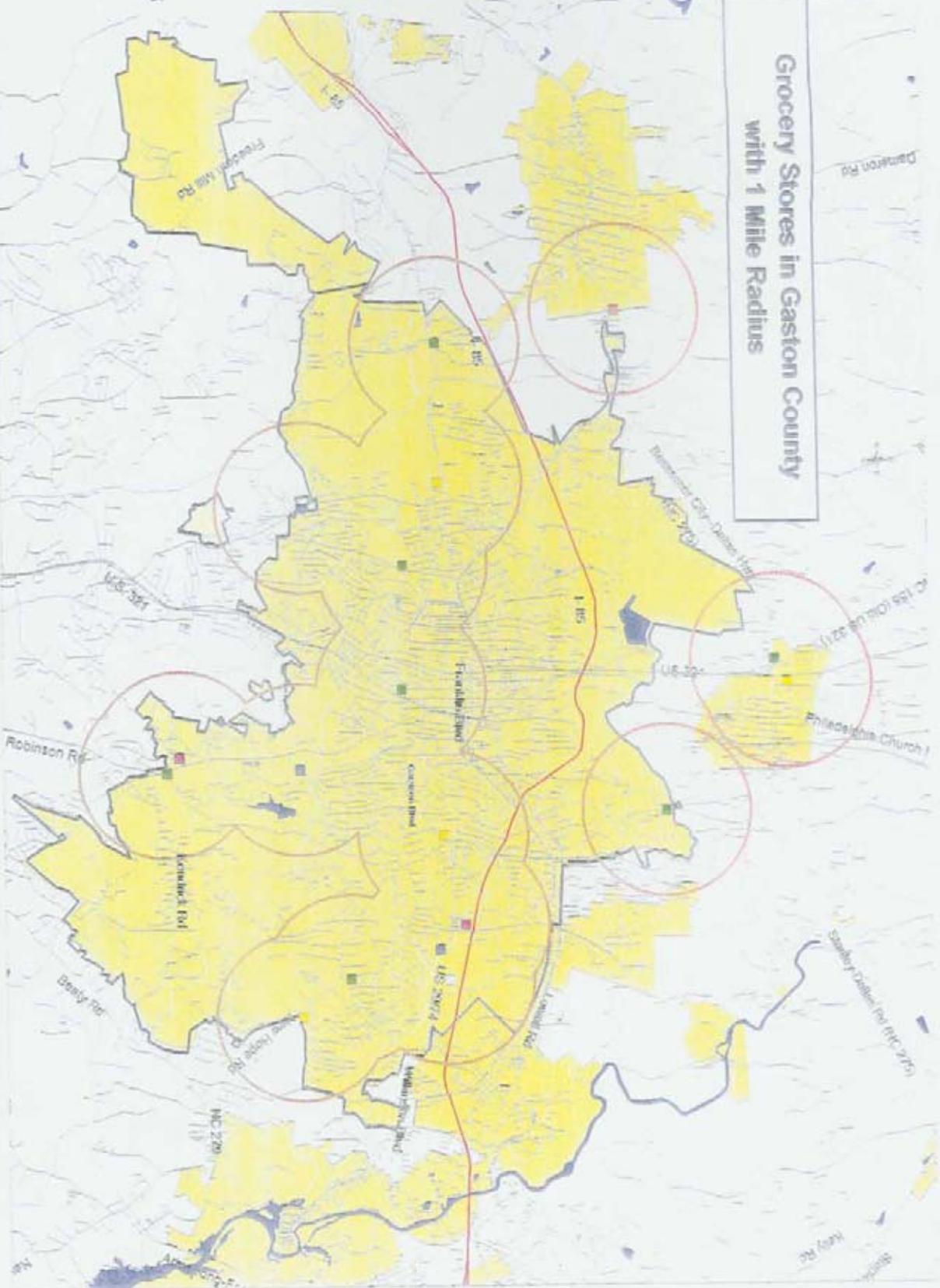
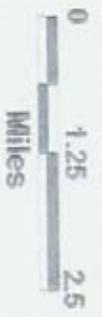
Intentionally Left Blank

²The Gaston County Government Complex, which employs roughly 612 people, includes the new County Courthouse and Jail and the Department of Social Services. Construction of this \$80 million project has been underway since 1996 and will be completed in late-1999.

³ Refer to the Highland Neighborhood Urban Design Masterplan (1996).

Grocery Stores in Gaston County with 1 Mile Radius

- Super Market
- WAL-Lo
- Food Lion
- Harris Teeter
- hicks
- Winn-Dixie
- Thriftland
- City Limit



Corridor Urban Design Goals, Objectives, and Strategies

1. GOAL: Create a visually pleasing corridor to promote quality redevelopment.

- **Objective:** Reduce visual noise along the corridor (electric lines and/or utility poles, overly large signage) to improve the visual image of the corridor.

Strategy 1-1 Place all overhead utility wiring underground between Long Avenue and the proposed grocery store site (adjacent to Lincoln Avenue).

Strategy 1-2 Recommend that new multi-tenant developments and new public developments place utility lines underground and continue the established pattern of street trees and street lighting.

Strategy 1-3 Prohibit radio and television towers within the corridor. Cellular telephone towers may be permitted through the conditional use permitting process.

Strategy 1-4 Prohibit new billboards along the corridor (including billboard replacement or change out). Develop a program to remove existing billboards within a reasonable time frame.

Strategy 1-5 New business identification signs that are not attached to a building (freestanding) shall be constructed as ground signs. Existing pole signs that suffer damage more than 50% of the cost of the sign should be replaced with a ground (monument) sign. All existing pole signs should be amortized within a reasonable time period and replaced with ground (monument) signs.

Additional monument sign standards:

- Maximum height for a monument sign is 7 feet
- Maximum area for a monument sign is 64 square feet

- **Objective:** Buffer residential properties from the highway and screen unkept properties.

Strategy 1-6 Plant a landscaped screen on the west side of Chester Street from Davidson Avenue to Radio Street to provide a “green strip” between the highway and properties along the corridor. Potential trees include evergreen trees and/or crape myrtles.

- **Objective:** Encourage building design that incorporates articulated building facades.

Strategy 1-7 Metal building facades and roofs without an articulated design should not be permitted along the corridor. Adopt standards similar to those in the Long Avenue Corridor Overlay zone.

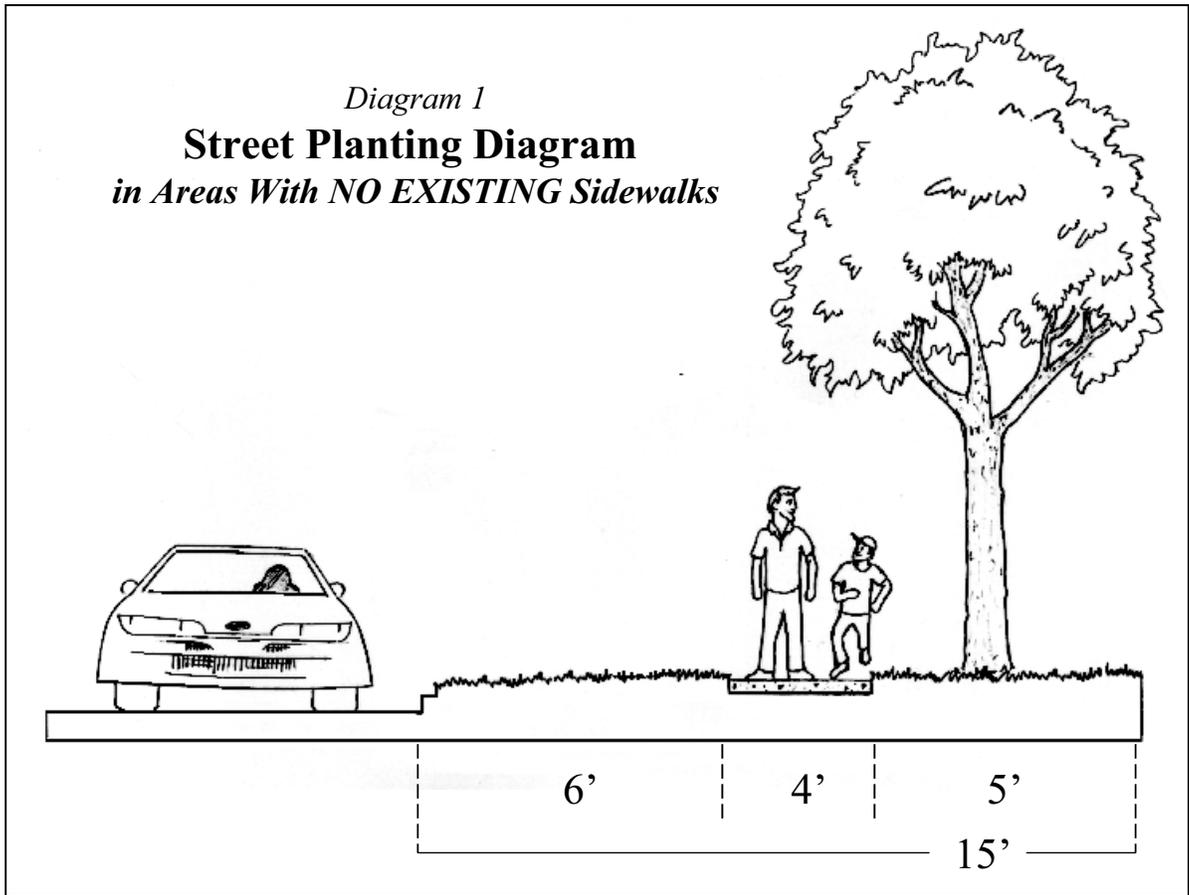
-- In addition, a City-wide streetscape plan should be conducted for gateway thoroughfares. This plan would address gateway issues and provide a timeline and/or prioritization scheme for streetscape improvements. --

2. GOAL: Create a pedestrian circulation plan to safely link residents to public facilities, commercial services, and open space areas.

- **Objective:** Create safe pedestrian movement along both sides of north Chester Street.

Strategy 2-1 Install sidewalks where absent on the east side of Chester Street between Norment

Avenue and Interstate-85. Sidewalks should be at least 4 feet in width and be co-located with a 5 foot wide planted strip and a 6 foot wide grassed buffer between the sidewalk and the street. See Diagram #1.



Strategy 2-2 Install crosswalks at busy intersections – Davidson Avenue, Norment Avenue, Caldwell Street, Radio Street, and Rankin Lake Road.

Strategy 2-3 Link natural areas with Citywide proposals for greenways and walking trail systems.

- **Objective:** Provide adequate lighting for both sides of north Chester Street.

Strategy 2-4 Locate new lighting in a staggered pattern to ensure that pedestrian ways are adequately illuminated.

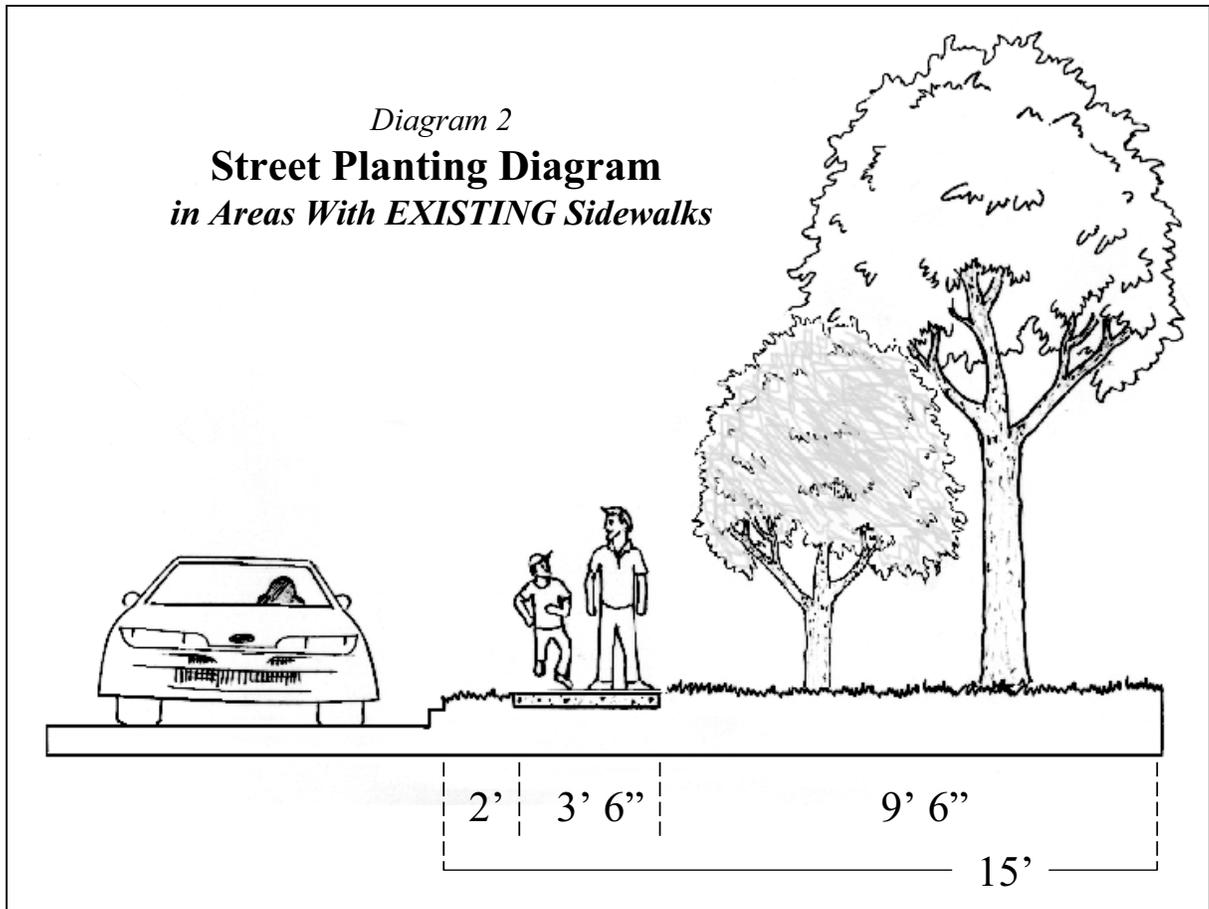
3. GOAL: Eliminate massive expanses of asphalt.

- **Objective:** Landscape various public areas along the corridor.

Strategy 3-1 Install planted medians in sections where low cross-traffic exists and add landscaping to existing center turn lanes. New and existing medians should be planted with street trees to match trees in the proposed street side planting strips.

Strategy 3-2 In areas where there are existing sidewalks, install a planted strip. See Diagram #2.

Diagram 2
Street Planting Diagram
in Areas With EXISTING Sidewalks



Strategy 3-3 Identify some open spaces along the corridor to be left free of development and landscaped.

Strategy 3-4 Require additional landscaping within and around parking lots.

Strategy 3-5 Where feasible, parking should be placed to the rear and/or the side of buildings.

4. GOAL: Provide for the safe flow of traffic along the US 321/Chester Street corridor.

- **Objective:** Reduce the friction between moving cars and cars slowing to turn.

Strategy 4-1 Apply the ingress and egress standards currently found in the Corridor Highway Overlay District (CH) to the US 321/ Chester Street corridor. Such action would reduce the potential for congestion, facilitate traffic flow, and reduce other possible hazardous conditions associated with high volume traffic.

Strategy 4-2 Require turn lanes and tapers for major developments where it is anticipated that the volume of traffic using the proposed driveway(s) may significantly interfere with the flow of traffic. The property owner would provide dedication and construction.

Strategy 4-3 Encourage shared driveway cuts.

Strategy 4-4 When redevelopment occurs along the corridor, request that a frontage road be constructed near Caldwell Street (refer to Highland Masterplan) to relieve traffic pressure.

- **Objective:** Provide appropriate traffic signalization

Strategy 4-5 Add a traffic signal at the intersection of Radio Street and US Highway 321.

5. GOAL: Develop ordinance provisions to encourage land use practices that reflect the needs in the community.

- **Objective:** Provide a planning tool that establishes additional development standards along the corridor and incorporates the issues suggested in the recommendations.

Strategy 5-1 Develop a new overlay zone (US 321/Chester Street Overlay District) designed to address neighborhood issues and city gateway issues. Potential issues to address include: ingress/egress, signage, building materials, and prohibition of onerous uses.

- **Objective:** Tailor permitted land uses to fit the community.

Strategy 5-2 The following new uses should be prohibited as stated within the US 321/Chester Street Overlay District:

- Convenience stores south of the intersection with Caldwell Street
- Used tire sales
- Tractor sales
- New or used car sales lots
- Adult establishments or adult book stores

Overlay Zones

One of the primary tools used to implement many of the above mentioned goals is the creation of an overlay zone. An overlay zone is a special zone in which requirements are imposed in addition to the basic or underlying zoning district requirements. The new district does not replace whatever zoning district was already in place; rather, it acts in addition to - or overlays - the basic use districts, whether they are residential, business, or industrial. Development in the overlay district must comply with requirements of both the overlay district and basic district. The overlay district statements found below outline the guiding principles for an overlay district that would affect development along US 321/Chester Street.

US 321/Chester Street Overlay Zone Guiding Principles

The City of Gastonia currently has several corridor designations, some general and some quite specific. Staff realizes that if specialized zones are created for each corridor in the City, the zoning ordinance and map could become quite complex and difficult to administer. On the other hand, one, general overlay zone may not address the concerns of a unique corridor or the neighborhoods it transverses. Therefore, a balance must be met that provides for efficient zoning administration with effective results.

The City currently has a Corridor Highway (CH) overlay zone that is very general in nature and only addresses building setbacks and ingress/egress issues. This Plan recommends that the City develop a new overlay zone (US 321/Chester Street Overlay District) designed to address neighborhood issues and City gateway issues. This new district should not only contain standards on setbacks and ingress/egress, but also include localized issues such as signage and convenience stores. This new overlay district should not overlap with the Long Avenue Corridor

Overlay zone. In order to meet the needs of the Highland neighborhood and the City's north US 321 gateway, the following issues should be addressed in the US 321/Chester Street Overlay District:

- Metal building facades and roofs without an articulated design should not be permitted along the corridor.
- New billboard signs and radio and television towers should not be located along the corridor. Cellular telephone towers may be permitted subject to a conditional use permit. Existing billboard signs should be amortized within a given, reasonable time period.
- New business identification signs that are not attached to a building (freestanding) shall be constructed as ground signs. Existing pylon signs that suffer damage more than 50% of the cost of the sign should be replaced with a ground (monument) sign. All existing pylon signs should be amortized within a given, reasonable time period and replaced with ground (monument) signs.
- New, public or private development is encouraged to place utility wiring underground.
- The number of driveway access points should be limited and their location on the site should be planned to allow maximum spacing.
- The location of convenience stores should be limited.
- Parking lots should be located in side and rear yards (where feasible) and contain appropriate landscape buffers (landscaping within parking lots and along edges of lots).
- Develop landscaped planting strips along each side of the corridor (within the street right-of-way) that contain sidewalks and large canopy trees. Work with NCDOT to develop central landscaped medians in appropriate areas.
- Require additional turning lane requirements for developments meeting certain performance criteria.

Implementation Guide

The implementation guide provides a convenient way to look at all proposed strategies for the US 321/Chester Street corridor. The implementation guide identifies the strategy, states any action that is required to implement the strategy, and lists responsible parties. Many strategies refer to zoning ordinance amendments, which do not have a specified cost. Costs for streetscape improvements, such as the addition of sidewalks and landscaping are provided in this plan (see "Project Costs Figures"). One of the major projects recommended in this plan is the placement of overhead utilities underground between Long Avenue and the proposed grocery store site. A detailed cost estimate, including materials and labor, can be found in the appendix of the plan. Every effort was made to produce accurate project cost estimates based on information from the

City's Traffic Engineering Division, Landscaping Division, and Electric Utilities Department. All cost estimates are time sensitive and subject to change.

In order to visualize the placement of streetscape projects, two project maps are included in the appendix. Map #4 illustrates the existing and new medians to be landscaped, the trees to be planted along existing and new sidewalks, new crosswalks, and new traffic signals. Map #5 depicts existing overhead utilities, street lights, and billboard signage.

In addition, photographs of "before and after" corridor street views are included. These computer enhanced photographs make it easier to visualize how the streetscape improvements would enhance the US 321/Chester Street corridor.

Intentionally Left Blank

North US 321/Chester Street Corridor Plan

Project Cost Figures

- Strategy 1-1 Underground Wiring
This project involves removing overhead utilities and placing them underground along North US 321 between Long Avenue and the grocery store site (for a total of 1,712 linear feet). Shoebox lighting and signal arm traffic signals would accompany the underground wiring. The cost for this project, including materials and labor, is roughly **\$726,420** (detailed estimates included in the appendix).
- Strategy 1-6 Planted Screen
Thirty-five trees will be required to buffer the west side of US 321 between Davidson Avenue and Radio Street. Crepe myrtles and cedar pines cost approximately \$100 a piece. The materials needed for buffering will cost **\$3,500**.
- Strategy 2-1 Sidewalks
Four foot wide sidewalks are proposed between Norment Avenue and Interstate-85. New sidewalk construction requires clearing and grading in addition to concrete costs. Construction of these sidewalks (4' wide x 4" thick) will cost \$35 per linear foot for a total of **\$116,550**.
- Sidewalks will more than likely be disturbed during underground utility work and will need to be replaced from Long Avenue to just north of the proposed grocery store site. Replacement costs will run \$12 per linear foot for a total of **\$20,544**.
- Planting Strips (Areas with NO EXISTING Sidewalks) – See diagram 1
Planted strips along new sidewalks will require both canopy trees and understory trees. A planting strip will accompany the 3,330 feet of new sidewalks between Norment Avenue and Interstate-85. One canopy tree will be placed every 60 feet, for a total of 55 canopy trees (55 canopy trees at \$130 a piece = **\$7,150**). One understory tree will be placed every 50 feet, for a total of 66 understory trees (66 understory trees at \$100 a piece = **\$6,600**). In addition, reseeding will be needed to cover the 11 foot wide swath that extends from Norment Avenue to Interstate-85 (6 feet on the road side of the new sidewalk and 5 feet on the outside of the sidewalk). Reseeding will cost \$1.21 per linear foot, for a total of **\$4,029**. In total, 3,330 linear feet of landscaped area will cost roughly **\$17,779**.
- Strategy 2-4 Lighting
A total of 25 HPS Shoebox Luminaries will be needed between Long Avenue and the northern end of the grocery store site. Lights cost **\$979.39** a piece with labor estimates totaling just over **\$4,274**. The total cost to provide shoebox lighting for phase one of the corridor is **\$28,758**. See detailed material and labor estimates by the Gastonia Electric Utilities Department.

Planted Medians

There are eight landscaped medians planned for the corridor. Based on current contract prices, building the eight medians will cost roughly **\$391,957**. Installing a 9" X 12" concrete curb cost \$15.00 per linear foot (for a total of **\$100,710**) and the removal of existing pavement costs \$20.00 per square yard (for a total of **\$291,247**). Historically, US highways were built with a 1-1 ½ foot concrete base, however upon testing, this does not seem to be the case for US 321. On October 25, 1999, the Field Operations Division of the Gastonia Public Works/Utilities Department tested three sites along US 321/Chester Street by boring holes through the surface material. Site one, between Sullivan Avenue and Norment Avenue, and site two, just south of Caldwell Street, were sampled in the center turning lane and each uncovered eight inches of asphalt before hitting dirt. No concrete was found. Site three, just north of Radio Street, was tested within an existing median and revealed only 2 ½ inches of concrete before hitting dirt.

Shrubs cost roughly \$1.40 per square foot. This plan estimates that roughly 2/3 of the median will be covered in shrubs. Understory trees should be used in the medians every 50 feet. Understory trees cost roughly \$100 a piece. Reseeding will cost \$1.21 per linear foot, assuming at 10 foot wide swath.

Based on these findings, it is estimated that median construction and landscaping (which includes removing existing asphalt/concrete, pouring new concrete curbing, adding soil, and installing trees and shrubs) would cost roughly **\$433,109**.

The following table illustrates the cost to landscape each median. Median 1 is the southern most median and median 8 is on the northern end of the corridor.

Median	Area (sq. ft.)	Median Length	Curb Cost	Shrub Cost**	Tree Cost***	Reseeding Cost
1	4,152	300	\$9,240	\$2,906	\$600	\$363
2	4,756	311	\$9,570	\$3,329	\$622	\$376
3	16,733	1241	\$37,470	\$11,713	\$2,482	\$1,502
4	3,198	265	\$8,190	\$2,239	\$530	\$321
5	5,277	368	\$11,280	\$3,694	\$736	\$445
6	2,375	180	\$5,640	\$1,663	\$360	\$218
7	3,176	295	\$9,090	\$2,223	\$590	\$357
8	4,020	333	\$10,230	\$2,814	\$666	\$403
TOTAL	COST		\$100,710	\$30,581	\$6,586	\$3,985

Strategy 3-2

Planting Strips (Areas with EXISTING Sidewalks) – See diagram 2

Planted strips along existing sidewalks will require both canopy trees and understory trees. A planting strip will accompany the 3,424 feet of existing sidewalks that will be replaced between Long Avenue and Norment Avenue. One canopy tree will be placed every 60 feet, for a total of 57 canopy trees (57 canopy trees at \$130 a piece = **\$7,410**). One understory tree will be placed every 50 feet, for a total of 68 understory trees (68 understory trees at \$100 a piece = **\$6,800**). Reseeding will cost \$1.21 per linear foot (assuming at 10 foot wide swath), for a total of **\$4,143**. In total, 3,424 linear feet of landscaped area will cost roughly **\$18,353**.

** *Shrub estimates based on shrubs every 3 feet at \$1.40 per square foot. This estimate includes topsoil and mulching materials. Roughly 1/2 of each median would be covered with shrubs, therefore the total shrub calculation was based on \$.70 per square foot of median space.*

*** *Tree estimates are based on the length of each median. One understory tree would be placed every 50 linear feet of median space at \$100 a tree.*

Source: Gastonia Traffic Engineering Division, Landscaping Division, and Electrical Utility Department

Implementation Guide

** The timing of each project will depend on City Council policy priorities and the availability of appropriated funds.

Strategy	Action	Responsible Party
Strategy 1-1	Place all overhead utility wiring underground between Long Avenue and the proposed grocery store site (adjacent to Lincoln Avenue).	As stated Planning Department, Public Works/Utilities Department, Electric Utilities Department
Strategy 1-2	Recommend that new multi-tenant developments and new public developments place utility lines underground and continue the established pattern of street trees and street lighting.	Amend zoning ordinance – add “location of utility lines” to the list of information that can be requested on an application for a CU or a parallel CUD Planning Department, Planning Commission, City Council
Strategy 1-3	Prohibit radio and television towers within the corridor. Cellular telephone towers may be permitted through the conditional use permitting process.	Amend zoning ordinance – add to CH overlay zone Planning Department, Planning Commission, City Council
Strategy 1-4	Prohibit new billboards along the corridor (including billboard replacement or change out). Develop a program to remove existing billboards within a reasonable time frame.	Amend zoning ordinance – add to CH overlay zone Planning Department, Planning Commission, City Council
Strategy 1-5	New business identification signs that are not attached to a building (freestanding) shall be constructed as ground signs. Existing pole signs that suffer damage more than 50% of the cost of the sign should be replaced with a ground (monument) sign. All existing pole signs should be amortized within a reasonable time period and replaced with ground (monument) signs. Additional monument sign standards: <ul style="list-style-type: none"> • Maximum height for a monument sign is 7 feet • Maximum area for a monument sign is 64 square feet 	Amend zoning ordinance – add to CH overlay zone Planning Department, Planning Commission, City Council
Strategy 1-6	Plant a landscaped screen on the west side of Chester Street from Davidson Avenue to Radio Street to provide a “green strip” between the highway and properties along the corridor. Potential trees include evergreen trees and/or crape myrtles.	Develop a design plan, secure funding, install landscaping Planning Department, Public Works/Utilities Department, City Council
Strategy 1-7	Metal building facades and roofs without an articulated design should not be permitted along the corridor. Adopt standards described in the Long Avenue Corridor Overlay zone.	Amend zoning ordinance – add to CH overlay zone Planning Department, Planning Commission, City Council
Strategy 2-1	Install sidewalks where absent on the east side of Chester Street between Norment Avenue and Interstate-85. Sidewalks should be at least 4 feet in width and be co-located with a 5 foot wide planted strip and a 6 foot wide grassed buffer between the sidewalk and the street. See Diagram #1.	Develop a design plan, secure funding, construct sidewalks Planning Department, Public Works/Utilities Department, City Council
Strategy 2-2	Install crosswalks at busy intersections – Davidson Avenue, Norment Avenue, Caldwell Street, Radio Street, and Rankin Lake Road.	Develop a design plan, secure funding, construct crosswalks Planning Department, Public Works/Utilities Department, City Council

Strategy 2-3	Link natural areas with Citywide proposals for greenways and walking trail systems.	Obtain dedications on key properties	Department, City Council Planning Department, Real Estate Division
Strategy 2-4	Locate new lighting in a staggered pattern to ensure that pedestrian ways are adequately illuminated.	Develop a design plan, secure funding, purchase and install lighting	Public Works/Utilities Department, City Council
Strategy 3-1	Install planted medians in sections where low cross-traffic exists and add landscaping to existing center turn lanes. New and existing medians should be planted with street trees to match trees in the proposed street side planting strips.	Develop a design plan, secure funding, install landscaping	Public Works/Utilities Department, City Council
Strategy 3-2	In areas where there are existing sidewalks, install a planted strip. See Diagram #2.	Develop a design plan, secure funding, install landscaping	Public Works/Utilities Department, City Council
Strategy 3-3	Identify some open spaces along the corridor to be left free of development and landscaped.	As stated	Planning Department, Real Estate Division
Strategy 3-4	Require additional landscaping within and around parking lots.	Amend zoning ordinance – add to CH overlay zone	Planning Department, Planning Commission, City Council
Strategy 3-5	Where feasible, parking should be placed to the rear and/or the side of buildings.	Amend zoning ordinance – add to CH overlay zone	Planning Department, Public works/Utilities Department, Planning Commission, City Council
Strategy 4-1	Apply the ingress and egress standards currently found in the Corridor Highway Overlay District (CH) to the US 321/ Chester Street corridor. Such action would reduce the potential for congestion, facilitate traffic flow, and reduce other possible hazardous conditions associated with high volume traffic.	Amend zoning ordinance – reference the existing CH standards in the US 321/Chester Street overlay zone	Planning Department, Public works/Utilities Department, Planning Commission, City Council
Strategy 4-2	Require turn lanes and tapers for major developments where it is anticipated that the volume of traffic using the proposed driveway(s) may significantly interfere with the flow of traffic. The property owner would provide dedication and construction.	Amend zoning ordinance – add to the US 321/Chester Street overlay zone	Planning Department, Planning Commission, City Council
Strategy 4-3	Encourage shared driveway cuts.	Allow businesses to include adjacent lots in their parking calculations under certain conditions.	Planning Department, Planning Commission, City Council
Strategy 4-4	When redevelopment occurs along the corridor, request that a frontage road be constructed near Caldwell Street (refer to Highland Masterplan) to relieve traffic pressure.	Require as a condition to any PUD in the area	Planning Department, Public Works/Utilities Department, Planning Commission, City Council
Strategy 4-5	Add a traffic signal at the intersection of Radio Street and US Highway 321.	Get approval from NCDOT	NCDOT, Public Works/Utilities Department
Strategy 5-1	Develop a new overlay zone (US 321/Chester Street Overlay District) designed to address neighborhood issues and city gateway issues. Potential issues to address include: ingress/egress, signage, building materials, and prohibition of onerous uses.	Amend zoning ordinance	Planning Department, Planning Commission, City Council

Strategy 5-2	<p>The following new uses should be prohibited as stated within the US 321/Chester Street Overlay District:</p> <ul style="list-style-type: none"> • Convenience stores south of the intersection with Caldwell Street • Used tire sales • Tractor sales • New or used car sales lots • Adult establishments or adult book stores 	Amend zoning ordinance – add to the US 321/Chester Street overlay zone	Planning Department, Planning Commission, City Council
--------------	--	--	---

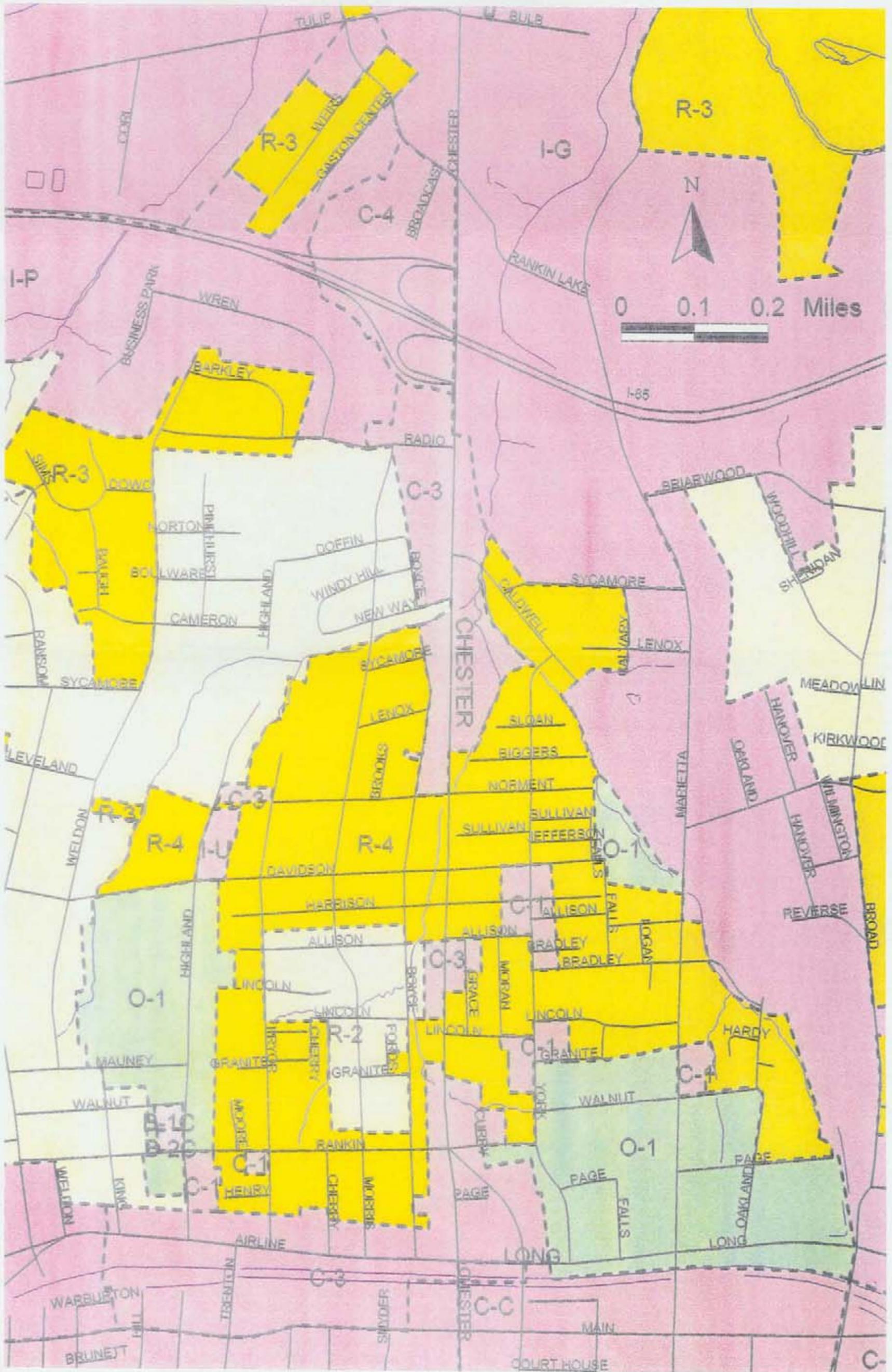
Map #1
 US 321/Chester Street Urban Design Plan
 Area Zoning Map

LEGEND



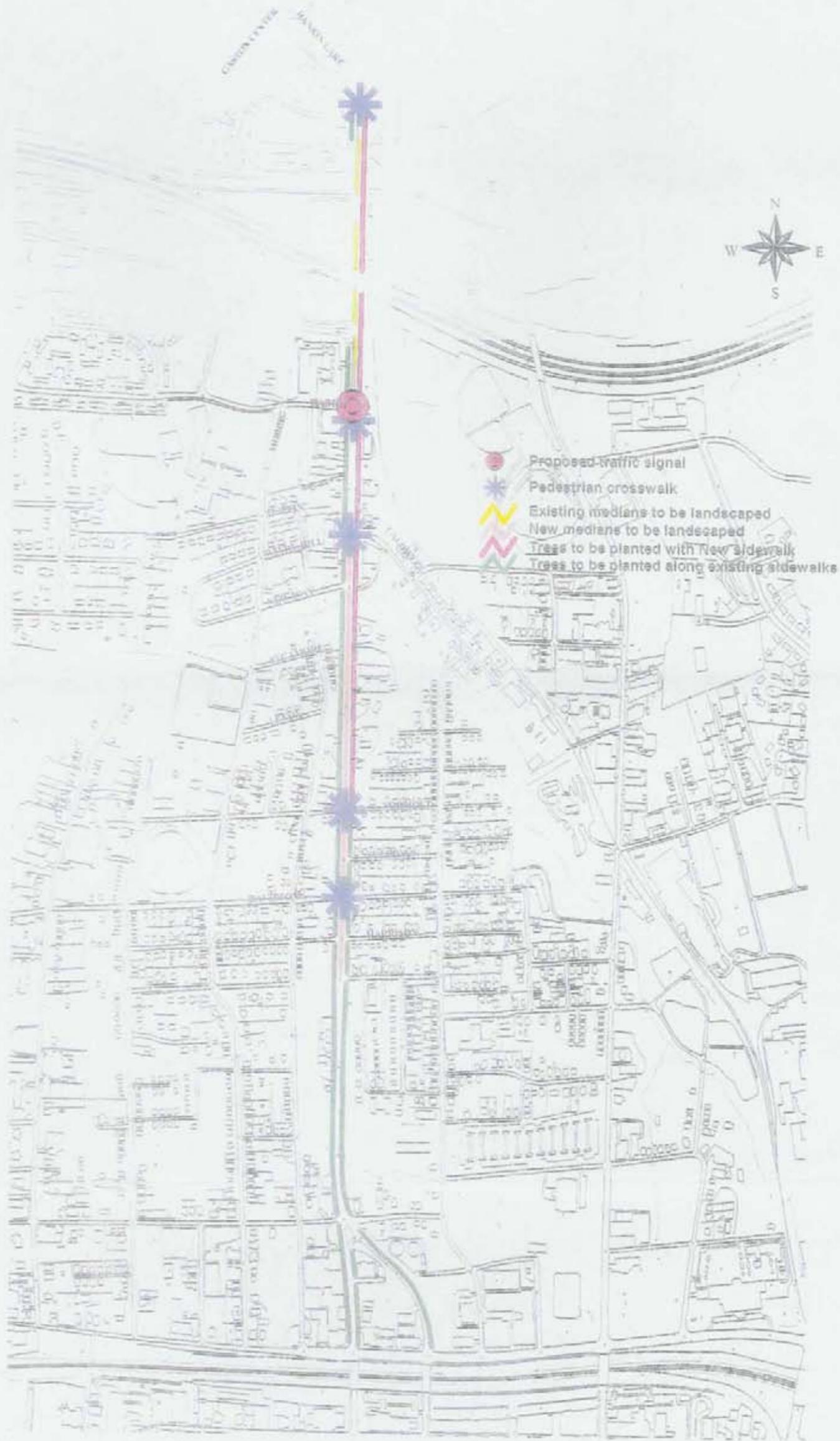
	AP	Airport District
	SP	State Park District
	R-A	Rural Agricultural
	B-1C	Neighborhood Business Conditional Use District
	B-2C	Highway Business Conditional Use District
	B-3PC	Central Business Conditional Use District
	B-4C	General Business Conditional Use District
	C-1	Neighborhood Business District
	C-1 CUD	Neighborhood Business Conditional Use District
	C-1A	Community Business District
	C-2	Highway Business District
	C-2 CUD	Highway Business Conditional Use District
	C-3	General Business District
	C-3 CUP	General Business Conditional Use Permit
	C-4	Highway Interchange Business District
	C-B	Central Business District
	C-C	Corridor Business District
	C-P	Planned Commercial District
	C-P CUD	Planned Commercial Conditional Use District
	EI-1C	Exclusive Industrial Conditional Use District
	I-1C	Light Industrial Conditional Use District
	I-2C	General Industrial Conditional Use District
	I-2LC	General Industrial Ltd. Conditional Use District
	I-G	General Industrial District
	I-G CUP	General Industrial District Conditional Use Permit
	I-P	Planned Industrial District
	I-U	Urban Industrial District
	MO&IC	Medical Office & Institutional Conditional Use District
	O&I-1C	Office & Institutional Conditional Use District
	O&I-2C	Office & Institutional Conditional Use District
	O-1	Office District
	O-1 CUD	Office District Conditional Use District
	O-2	Office District
	O-2 CUP	Office District Conditional Use Permit
	O-2 CUD	Office District Conditional Use District
	O-M	Medical Office District
	O-M CUD	Medical Office Conditional Use District
	R-1	Residential District
	R-1S	Residential District Reduced Setbacks
	R-1 PRD	Planned Residential District
	R-1 CUP	Residential District Conditional Use Permit
	R-2	Residential District
	R-2 CUD-PRD	Residential Conditional Use District
	R-3	Residential District
	R-3 CUD	Residential Conditional Use District
	R-4	Residential District
	R-4C	Residential Conditional Use District
	R-6C	Multi-Family Residential District
	R-6S(C)	Single Family Conditional Use District
	R-8C	Multi-Family Residential Conditional Use District
	R-8SC	Single Family Residential Conditional Use District
	RMF	Residential Multi-Family District
	RMF-HC	Residential Multi-Family High Density Conditional Use District
	CONDO	

Map #1
 US 321/Chester Street Urban Design Plan
 Area Zoning Map

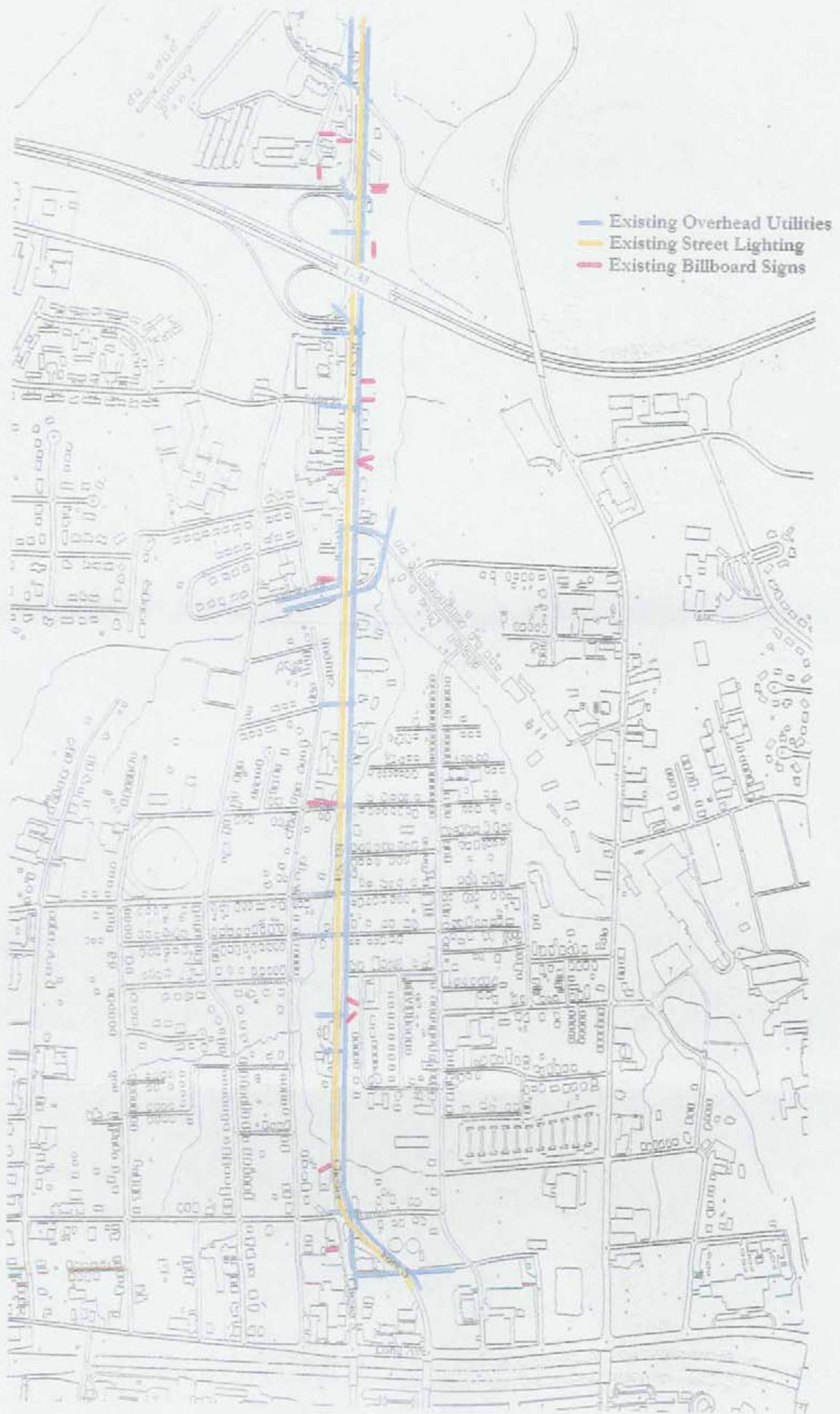


Note: See next page for a detailed map legend.

US 321/Chester Street Urban Design Plan Medians, Trees, Sidewalks, Crosswalks, and Traffic Signals



Map #5
US 321/Chester Street Urban Design Plan
Utilities, Street Lights, and Billboards



Appendix

Underground Utility Conversion
US 321/Chester Street
(Long Avenue to Lincoln Avenue)

Cost estimates provided by the City of Gastonia Electric Utilities Department. Estimates are time sensitive and subject to change.

The following cost estimates reflect the approximate costs for burying utilities on North Chester Street from Long Avenue to just north of the proposed grocery store site (1,712 linear feet north of Long Avenue). This estimate includes distribution power lines, electric services, traffic signals, and street lights. Project costs will increase if any of the following situations occur:

- ** Rock is encountered when digging (Rock is very common in the north Chester area.)
- ** There is not adequate space for electric utilities near existing buried utilities (e.g. water, sanitary sewer, natural gas, and storm drains).
- ** There are City of Gastonia communication cables located on north Chester Street that need to be relocated.
- ** Additional right-of-way is needed for underground installation.
- ** Any **new** electric services are needed for new businesses or homes.

Materials			
Primary Feeders	Cost per Unit	Units	Cost
750MCM U/G Cable	\$4.36	13560	\$59,121.60
1/0AWG U/G Cable	\$0.98	6362.5	\$6,235.25
6-inch PVC Conduit	\$1.49	13200	\$19,668.00
4-inch PVC Conduit	\$0.80	8000	\$6,400.00
Manholes 8'x12'x7' with cover	\$3,715.00	6	\$22,290.00
750MCM Elbow Connectors	\$169.96	161	\$27,363.56
750MCM Terminators with Lug	\$114.23	9.75	\$1,113.74
25KVA Pad-Mount Transformer	\$796.64	2	\$1,593.28
50KVA Pad-Mount Transformer	\$915.00	0.25	\$228.75
75KVA 3P Pad-mount Transformer	\$3,150.00	2.25	\$7,087.50
112.5KVA 3P Pad-mount Transformer	\$4,675.00	0.25	\$1,168.75
150KVA 3P Pad-mount Transformer	\$3,956.00	0.75	\$2,967.00
600A Pad-Mount Switchgear	\$24,511.00	2.5	\$61,277.50
350MCM Alum Neutral	\$0.68	4200	\$2,856.00
1/0 Alum Elbow Connectors	\$35.86	14.25	\$511.01
Subtotal #M1			\$219,881.94
Services	Cost per Unit	Units	Cost
4/0 TPX U/G Cable	\$0.85	675	\$573.75
350 QPX U/G Cable	\$2.35	550	\$1,292.50
4-inch PVC Conduit	\$0.80	1225	\$980.00
4-inch PVC Ells 90	\$22.99	17	\$390.83
4-inch PVC Coupling	\$1.35	10	\$13.50
2.5-inch Conduit Locknut	\$0.65	8.5	\$5.53
2.5-inch Conduit Adapter	\$0.75	8.5	\$6.38
Subtotal #M2			\$3,262.48
Street Lights	Cost per Unit	Units	Cost
250W HPS Shoebox Lum. & Pole	\$709.00	25.5	\$18,079.50
Concrete Base	\$69.00	25.5	\$1,759.50
Sonnet Tube	\$8.50	25.5	\$216.75
#6 DPX U/G Cable	\$0.20	4600	\$920.00

Underground Utility Conversion
US 321/Chester Street
(Long Avenue to Lincoln Avenue)

2.5-inch PVC Conduit	\$0.45	8600	\$3,870.00
2.5-inch PVC Ells 90	\$2.19	56.25	\$123.19
2.5-inch PVC Coupling	\$0.55	10	\$5.50
Subtotal #M3			\$24,974.44

Traffic Signals	Cost per Unit	Units	Cost
Traffic Standard Poles	\$4,000.00	5	20,000.00
Concrete 5000psi 5yds per hole	\$95.00	25	2,375.00
Traffic Communication Cable (25pair)	\$1.50	2300	3,450.00
2.5-inch PVC Conduit	\$0.45	4600	2,070.00
2.5-inch PVC Ells 90	\$2.19	3.5	7.67
2.5-inch PVC Coupling	\$0.55	2.5	1.38
Signals, Control Box, Loops, Etc.	\$15,000.00	1.5	22,500.00
Subtotal #M4			\$50,404.04

Sidewalk Replacement-Construction	Cost per Unit	Units	Cost
Concrete 3000psi	\$69.00	236	\$16,284.00
Subtotal #M5			\$16,284.00

Fiber Optic Communications Cable	Cost per Unit	Units	Cost
2.5-inch PVC Conduit	\$0.45	125	56.25
2.5-inch PVC Coupling	\$0.55	1	0.55
Subtotal #6M			\$56.80
Subtotal of	Materials		\$314,863.70

LABOR

Primary Conduit Installation	Cost per Hour	Hours	Cost
4-man U/G Contract Crew	\$97.16	190	\$18,460.40
U/G Contract Trucks 2/ea.	\$23.04	190	\$4,377.60
Backhoes 2/ea.	\$21.48	190	\$4,081.20
Subtotal #L1			\$26,919.20

Cable Installation	Cost per Hour	Hours	Cost
4-man U/G Contract Crew	\$97.16	60	\$5,829.60
U/G Contract Trucks 2/ea.	\$23.04	60	\$1,382.40
Backhoes 2/ea.	\$21.48	60	\$1,288.80
Subtotal #L2			\$8,500.80

Service Installations	Cost per Hour	Hours	Cost
2-man U/G Contract Crew	\$48.58	58	\$2,817.64
U/G Contract Truck	\$14.76	58	\$856.08
Backhoe	\$10.74	58	\$622.92
Subtotal #L3			\$4,296.64

Boring under N. Chester St.	Cost per Hour	Hours	Cost
3-man Boring Crew	\$54.75	34	\$1,861.50
Boring Machine	\$15.75	34	\$535.50
U/G Truck	\$15.75	34	\$535.50
Subtotal #L4			\$2,932.50

Underground Utility Conversion
US 321/Chester Street
(Long Avenue to Lincoln Avenue)

Overhead Power Line Removal	Cost per Hour	Hours	Cost
6-man O/H Crew	\$154.68	90	\$13,921.20
Contract Bucket Truck 2/ea.	\$30.86	90	\$2,777.40
Contract Line Truck	\$22.13	90	\$1,991.70
Subtotal #L5			\$18,690.30

Traffic Signal Installation	Cost per Hour	Hours	Cost
4-man U/G Contract Crew	\$97.16	20	\$1,943.20
U/G Contract Trucks 2/ea.	\$23.04	20	\$460.80
Backhoes 2/ea.	\$21.48	20	\$429.60
Subtotal #L6			\$2,833.60

Street Light Installation	Cost per Hour	Hours	Cost
3-man Line Crew	\$51.56	63.5	\$3,274.06
Line Truck	\$15.75	63.5	\$1,000.13
Subtotal #L7			\$4,274.19

Traffic Signal Standard Installation	Cost per Hour	Hours	Cost
3-man Line Crew	\$51.56	24	\$1,237.44
Line Truck	\$15.75	24	\$378.00
2-man Bucket Crew	\$33.20	12	\$398.40
Bucket Truck	\$15.75	12	\$189.00
Subtotal #L8			\$2,202.84

Sidewalk Replacement-Construction	Cost per Hour	Hours	Cost
3-man crew	\$36.00	110	\$3,960.00
Subtotal #L9			\$3,960.00

Fiber Optic Installation	Cost per Hour	Hours	Cost
3-man Boring Crew	\$54.75	12	\$657.00
Boring Machine	\$15.75	12	\$189.00
U/G Truck	\$15.75	12	\$189.00
Subtotal #L10			\$1,035.00

Subtotal of Labor \$75,645.07

Materials	\$314,863.70
Labor	\$75,645.07
12% Overhead	\$46,861.05
10% Supervision and Engineering	\$39,050.88
Total of All Electric Utility Work	\$476,420.69
BellSouth Relocation Work	\$125,000.00
Timewarner Cable Relocation Work	\$125,000.00
Total Utility Work	\$726,420.69

Tree and Shrub Choices

Plant Characteristics

The tables in this section list various plant types that are suitable for the piedmont section of North Carolina. The tables contain plant characteristics for canopy trees, understory trees, and shrubs. The plant characteristics are listed below.

Plant Type

Plant type refers to whether the plant material is native (N) to North Carolina and if it is deciduous (D), meaning the plant drops its leaves in the fall, or whether it is evergreen (E), meaning the leaves on the plant are retained throughout the year.

Height

Height refers to the average height of plants at maturity under optimal growing conditions. Variations in climate, temperatures, soils and urban conditions can greatly affect the growth of all plant materials.

Spread

Spread refers to the expanse of the horizontal branching pattern at maturity under optimal growing conditions. Plants with wide-spreading forms require a large area to develop. Upright forms are used effectively where space is limited. Spread is listed as a range because of its variability.

Environmental Tolerance

Environmental tolerance refers to whether the plant material is urban tolerant (U), which implies the plant requires minimal maintenance, or whether it is drought tolerant (D), meaning the plant can withstand an extended period without rain or watering. Urban conditions consist of airborne pollutants, fluctuating moisture and temperature levels, salt, and other similar environmental factors.

Disease and Insect Tolerance

Plant materials can be adversely affected by the invasion of insects and disease. Tolerance to insects and diseases indicates that, while plants may be affected by a pest or pathogen, they may not become stressed or unsightly, and may recover during the next growing season.

Intentionally left blank

Canopy Trees

Several types of canopy trees grow well in the piedmont of North Carolina. The following table provides examples of canopy trees that can easily be used along the US 321/Chester Street corridor.

 Canopy Trees	Plant Characteristics					Comments
	Plant Type	Height	Spread	Envir. Tolerance	Disease and Insect Tolerance	
Scientific Name Common Name						
Acer rubrum Red Maple	N,D	40'-60'	30'-45'	U,D	Yes	Excellent native specimen tree for lawn, park or street; does not tolerate heavily polluted areas; dazzling fall color in some varieties.
Carya tomentosa White Hickory	N,D	50'-60'	35'-40'	U,D	Yes	Native hickory; grows best in moist, well-drained soils.
x Cupressocyparis leylandii Leyland Cypress	E	60'-70'	12'-18'	U	Yes	A magnificent evergreen that makes an excellent screen; withstands heavy pruning.
Gleditsia triacanthos Thornless Honeylocust	N,D	30'-50'	30'-50'	U,D	No	Native to NC; most cultivars have fewer disease and insect problems than straight species; provides excellent shade; widely used.
Ilex Opaca American Holly	N,E	40'-70'	20'-40'	D	No	A native specimen tree; normally 20' to 30' in height; can be used as a street tree or a large screen.
Pinus nigra Austrian Pine	E	50'-60'	20'-40'	U	No	Withstands city conditions better than other pines; very hardy and adaptable; acceptable use depends on maintained branching height.
Pinus thunbergiana Japanese Black Pine	E	20'-50'	Var.	U	No	Variable in size and spread; tolerates salt spray and poor soils.
Prunus sargentii Sargent Cherry	D	40'-60'	30'-40'	U	Yes	Excellent flowering for sunny spaces; casts dense shade; has small fruit, shiny bark and vivid fall color.
Quercus falcata Southern Red Oak	N,D	60'-70'	40'-50'	U,D	Yes	A native oak; does well in drier, poorer soils of the Piedmont.
Quercus laurifolia Laurel Oak	N,E	40'-60'	30'-40'	U,D	Yes	No special soil requirements; good street tree; leaves persist into winter.
Tilia tomentosa Silver Linden	N,D	50'-70'	30'-50'	U,D	No	Native to NC; tolerates heat and drought better than other lindens; a beautiful ornamental tree.

Understory Trees

Several types of understory trees grow well in the piedmont of North Carolina. The following table provides examples of understory trees that can easily be used along the US 321/Chester Street corridor.

 Understory Trees		Plant Characteristics					Comments
		Plant Type	Height	Spread	Envir. Tolerance	Disease and Insect Tolerance	
Scientific Name	Common Name						
<i>Acer ginnala</i> Amur Maple		D	20'	15'	U	YES	Extremely hardy small tree with small leaves, bright red fruit and fall color.
<i>Ailanthus altissima</i> Tree of Heaven		D	40'-60'	35'-50'	U	YES	Good for use along heavily traveled highways; difficult to find commercially and prone to creating large number of seedlings.
<i>Amelanchier arborea</i> Downy Serviceberry		N,D	15'-25'	Varies	NO	YES	Native species; multi-stemmed or small tree with beautiful berries; good fall color; prefers partial shade.
<i>Cercis canadensis</i> Eastern Redbud		N,D	20'-25'	20'-30'	U,D	YES	Excellent native tree; graceful ascending branches; showy pink-purple flowers.
<i>Cornus florida</i> Flowering Dogwood		N,D	Varies	Varies	NO	YES	Native to NC; excellent low-branched ornamental tree, does best in partial shade; spectacular throughout the growing season.
<i>Crataegus phaenopyrum</i> Washington Hawthorn		N,D	20'-30'	20'-25'	U,D	NO	Native to NC; a dense, thorny tree; excellent large hedge when pruned.
<i>Elaeagnus angustifolia</i> Russian Olive		D	12'-20'	12'-2'	U,D	NO	Very durable attractive tree; silver-gray, willow-like leaves; small flowers in late spring.
<i>Eriobotrya japonica</i> Loquat		D	10'-20'	8'-10'	U	NO	Excellent accent plant; adaptable.
<i>Ilex x attenuata foster</i> Foster Holly		E	10'-20'	5'-10'	U,D	YES	Dense, handsome evergreen; excellent year-round screen.
<i>Lagerstroemia indica</i> Crepe Myrtle		D	20'-25'	10'-15'	U,D	NO	Handsome and very beautiful specimen shrub or tree, often used in groups with a ground cover.
<i>Pistacia chinensis</i> Chinese Pistache		D	30'	25'	U,D	YES	Very drought tolerant; insect and disease resistant; tolerates poor soils; brilliant orange-red fall leaf color.
<i>Prunus caroliniana</i> Carolina Cherry Laurel		N,E	20'-30'	15'-20'	U,D	YES	Can be used as a large shrub or small tree.
<i>Quercus lyrata</i> Overcup Oak		N,D	30'-40'	30'-45'	U	YES	Native to NC; withstands moisture and does well on difficult sites; minimal pruning is needed.
<i>Styrax japonicus</i> Japanese Snowbell		D	20'-30'	20'-30'	NO	YES	Fine, graceful tree; needs rich soil; beautiful flowers; can be planted on slopes.

Shrubs

Several types of shrubs grow well in the piedmont of North Carolina. The following table provides examples of shrubs that can easily be used along the US 321/Chester Street corridor.

 Shrubs	Plant Characteristics					Comments
	Scientific Name Common Name	Plant Type	Height	Spread	Envir. Tolerance	
Aronia arbutifolia Red Chokeberry	N,D	6'-10'	3'-5'	U	Yes	Native plant with outstanding fall color and red berries; combine with smaller shrubs; best in masses; extremely adaptable.
Buxus sempervirens American Boxwood	E	5'-8'	6'-8'	U	No	Some species can achieve a height of 30', but cultivars are normally much smaller in size; excellent medium-sized evergreen hedge.
Cotoneaster lucidus Hedge Cotoneaster	D	15'-20'	15'-20'	U,D	Yes	Frequently used as hedge; handsome, dark green foliage; vigorous, durable shrub.
Hibiscus syriacus Rose of Sharon	D	6'-8'	7'-8'	U,D	No	Valuable for the late season flowers; use in groupings, masses, or shrub borders.
Ilex glabra Inkberry	N,E	6'-8'	6'-8'	U,D	Yes	Becomes somewhat open with age, but responds well to heavy pruning; slow growth rate; many uses. Has a compact variety.
Juniperus communis Common Juniper	E	5'-10'	8'-12'	U,D	Yes	Adaptable to heat, heavy clay and poorly-drained soils; transplants readily; can be used as a small tree; many varieties and cultivars are available.
Nandina domestica Nandina	E	6'-6'	2'-3'	U,D	Yes	Nice in groups; softens the effect of coarse-textured shrubs; tremendous environmental hardiness.
Spirea cantoniensis Reeves Spirea	D	4'-6'	3'-5'	U	No	Displays excellent heat tolerance; requires full sun and well-drained soils; grows extremely fast and is a good filler for a shrub border.

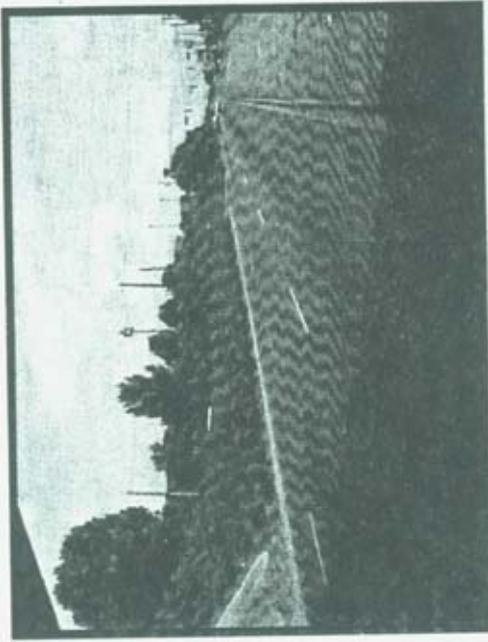
Gaston County Government Complex Employees

Human Services	350
Court House	175
Jail, Sheriff, and Magistrate	75
Jail Annex	12
Gastonia Police	130
<hr/> TOTAL	<hr/> 742

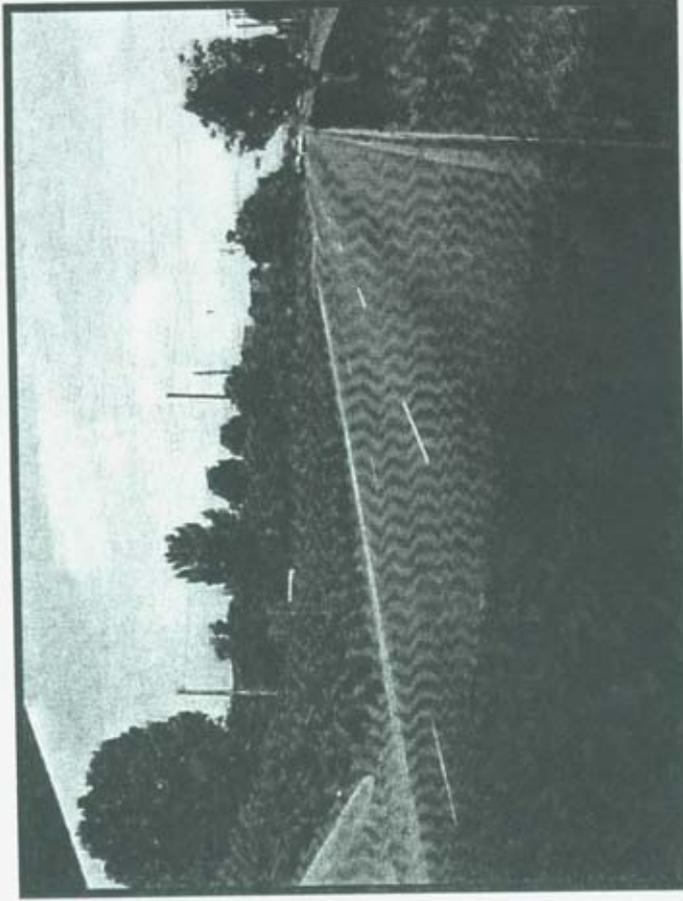
Source: Bill Beasley, Gaston County Public Works Department

Median and Existing Landscaping at I-85 Interchange

(Looking North On US 321, Just North of the I85 Bridge)



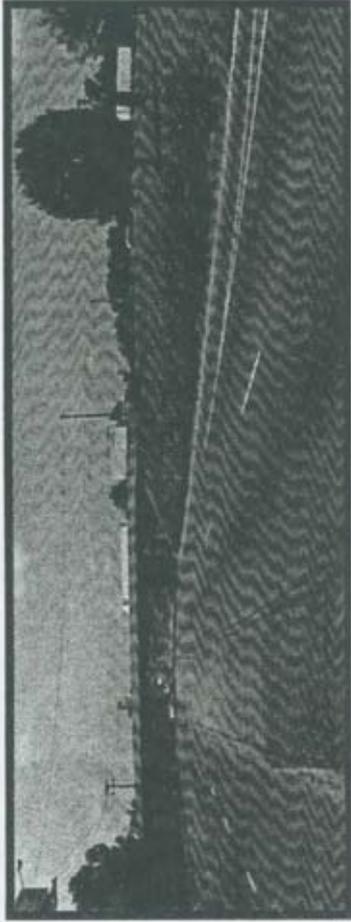
Current View



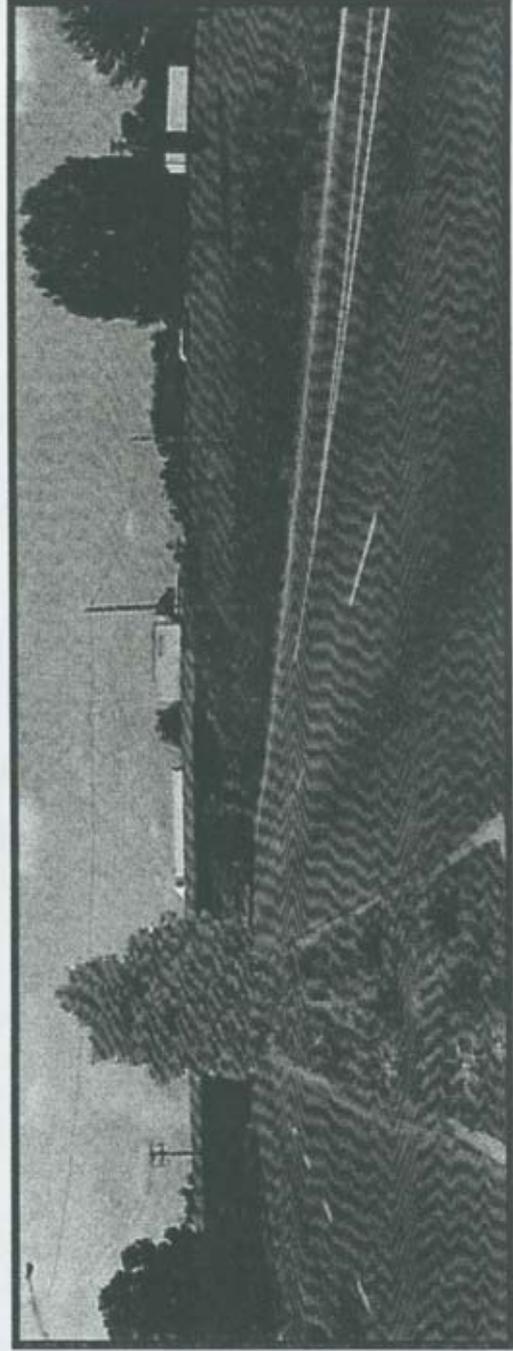
Removed towering signs and added shrubs and trees to the median.

US 321 Streetscape

(Looking South On US 321, Just North of the I-85 Interchange)



Current View



**Added shrubs
and trees to
median and
removed
billboard.**