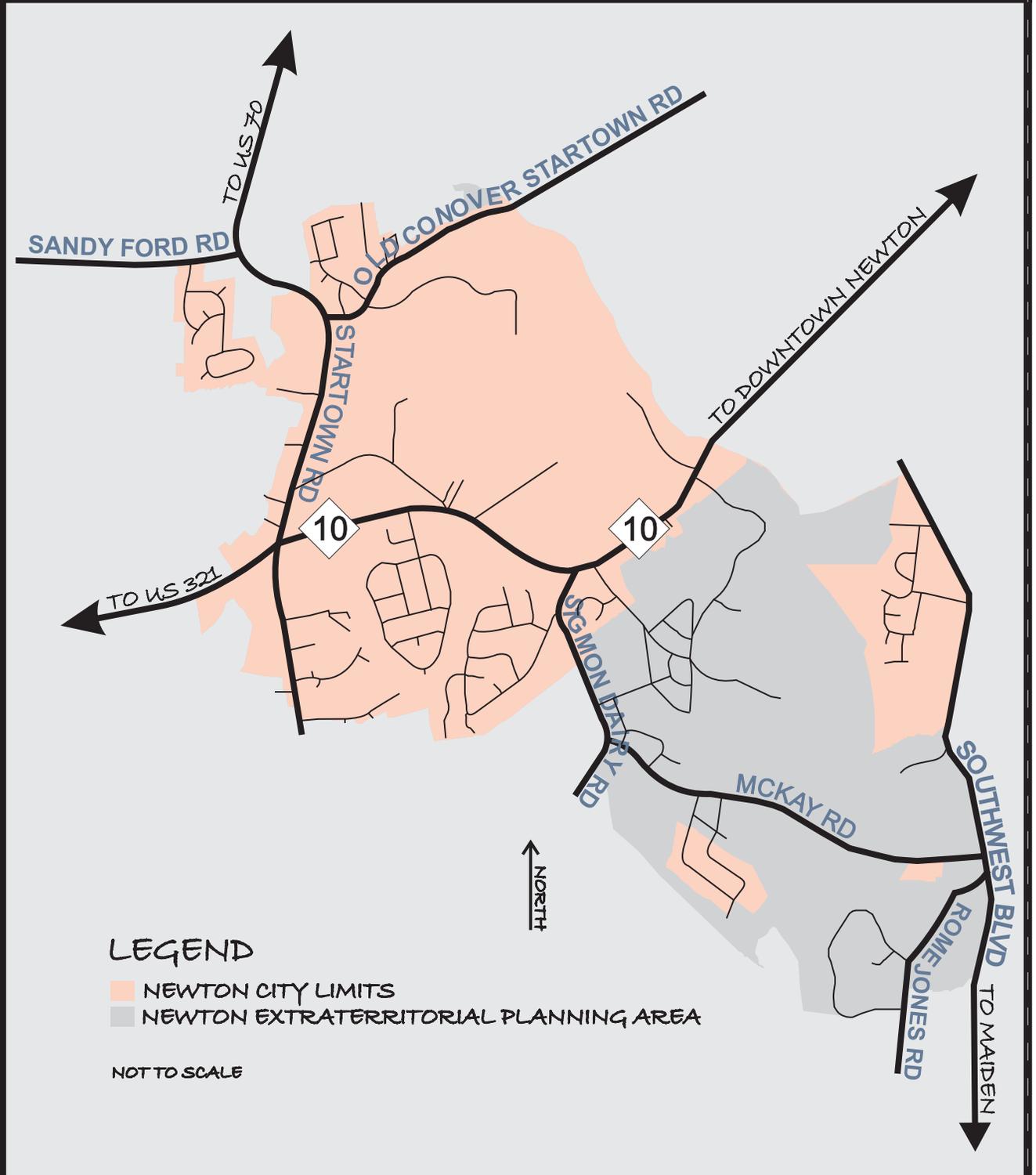


SOUTHWEST AREA PLAN



Chapter 1 Introduction	3
Chapter 2 Transportation.....	4
Existing Conditions	4
Streets Network.....	4
Pedestrian and Bicycling Facilities	7
Public Transportation	7
Development Guidance	7
Policy Statements	8
Chapter 3 Utilities	10
Existing Conditions	10
Development Guidance	11
Policy Statements	11
Chapter 4 Economic Development	13
Existing Conditions	13
Development Guidance	13
Policy Statements	13
Chapter 5 Environment.....	14
Existing Conditions	14
Tree Cover	14
Topography	14
Flood Plain:	14
Wetlands:	14
Air Quality:.....	14
Water Quality:.....	15
Agriculture	16
Development Guidance	16
Policy Statements	18
Chapter 6 Community Character	19
Existing Conditions	19
Development Guidance	19
Policy Statements	20

Chapter 7 Government	22
Existing Conditions	22
Development Guidance	23
Policy Statements	23
Chapter 8 Land Use.....	25
Existing Conditions	25
Development Guidance	26
Policy Statements	27

Chapter 1 Introduction

In 2002, the City Planning Commission determined to segment the City and its extraterritorial planning jurisdiction into six study areas. This was an outgrowth of the completed and adopted St. Paul's Area Plan.

The Planning Commission determined early on that the biggest planning challenge in the Southwest Area will be balancing the relationship new and existing residential developments. Characteristics of this study area are a mixture of rural and vacant areas and some urbanized areas in terms of suburban subdivisions.

The Planning Commission with the City staff evaluated statistical information, demographic information, consulted with the Western Piedmont Council of Government on transportation issues, and held a drop-in workshop for all property owners within the study area. Issues were identified and narrowed into focus points. The Plan itself consists of sections on transportation, utilities, environment, community character, land use and governmental issues.

The Plan deals with existing conditions, provides development guidance, and then offers policy statements. The document and the associated maps and tables are to be used as guidance for the Planning Commission and the City Council in developing regulations and also in making decisions for how the area should develop in the future.

Chapter 2 Transportation

Existing Conditions

Streets Network

The Southwest Planning Area contains an existing street network of 31.6 miles of street. The State, City, and private property owners are responsible for the maintenance of the network. The State maintains 11.7 miles, the City 13.4 miles and private property owners 6.5 miles as shown on **Map T-1 Southwest Area Street Maintenance**.

There are 4.2 miles of un-open street within the Southwest Area Plan. These unopened streets that are shown on **Map T-1 Southwest Area Street Maintenance** are right of ways and access easements that have been mapped by Tax Mappers at the Catawba County Tax Department as deeds and plats are recorded. Right-of-ways are a specific form of an access easement. Right of ways are typically results of a recorded plat and are usually accompanied by an offer of dedication. An access easement is usually given across land for a singular purpose such as for a driveway to a specific person, such as an adjoining property owner. An easement for ingress and egress may be permanent. An easement may be removed by the property owner if the user otherwise has no legal claim. Right-of-way removal is somewhat more difficult requiring action by the entity that accepted the offer of dedication, typically the entity providing maintenance and/or subdivision approval.

The area's street network consists of three arterials, NC Hwy 10, US 321 Business, and Startown Road and five collector streets, McKay Road, Rome Jones Road, Sigmon Dairy, Sandy Ford Road, and Old Conover-Startown Road with the remainder of the streets in the area classified as local streets as shown on **Map T-2 Southwest Area Street Classifications**. The existing street network has good north-south movement at the Eastern and Western extents of the Southwest Area but limited north-south access within the central part of the Southwest Area which will be enhanced when the Newton Conover Southern and Western Loops are built between Southwest Blvd. (US 321 Business) and US 70 Highway. The east-west access is adequate with NC Hwy 10 being the primary east west route, and also the only direct access to the Downtown Area of Newton.

Most of the residential areas within the Southwest Area was developed off of existing streets; however where new streets were built to access subdivisions some of them only have one external connection to the existing street network, which are Nottingham, Spring Echo/Starmount Village, New Star, Betts Brook, and Walnut Creek. These single access subdivisions are a concern of the City's Fire Department, as limited access can delay or hamper the accessibility of the subdivision during an emergency situation. These subdivisions are shown on **Map T-3 Southwest Area One Entrance**

Subdivisions. Limited access and connectivity is not just limited to the subdivisions mentioned above but also an issue throughout the Southwest Area.

The volume of traffic on the network varies from a few vehicles a day on one of the privately maintained streets to 10,000 vehicles per day on NC Hwy 10.

The planning area is located within the planning jurisdiction of the Greater Hickory Metro Planning Organization (MPO). In an effort to meet future traffic demands and to reduce congestion, the MPO adopted the 2035 Long Range Transportation Plan in 2010, which replaced the previous plan adopted in 1986 and was updated in 2001 and 2005.

The following projects which are shown on **Map T-4 Southwest Area Transportation Improvements**, are recommended as a result of the 2035 plan within the Southwest Planning Area:

NC 10

NC 10 is a major east/west arterial serving the Newton area as well as Southern Catawba County. The majority of traffic on this facility is external-internal trip type with 5 percent of the total traffic volume being through trips. The ADT on the section of NC 10, within the planning area, is almost 10,000 trips per day. Eight Percent of the total volume within the Planning Area is truck traffic. The traffic volume on NC 10 within the Southwest Area is expected to range between 12,000 to 32,000 trips per day by 2035. The current MPO recommendation for improvement on NC 10 between US 321 and US 321 Business is that it be widened to widen to 4-lane divided boulevard with grass median.

Startown Rd

Startown Road is a major north-south radial serving the Newton-Conover area as well as Catawba County. It also serves as a link to the Southeast Hickory Regional Commercial Area and Northern Catawba County. The ADT within the Southwest Area is 10,000 trips per day. The external-internal trips on Startown Road is expected to more than double by the design year of 2025 to 24,000 vehicles per day. The MPO recommends that Startown Road within the Southwest Area be widened to 4-lane divided boulevard with grass median.

Newton-Conover Loop System

This recommended loop system encircles the entire Newton and Conover urban area. It facilitates travel between suburban areas by connecting the radials before they converge on to the city's central business district. Through and regional travel will be the major beneficiaries by being able to circumvent the busy downtown areas, hence reducing travel time for these types of trips. Most of the proposed construction of the Newton-Conover Loop System will be on new location; however, some existing local

streets will also be incorporated. The recommended cross-section for the Loop is a 4-lane divided boulevard with grass median and two lanes with turn lanes. For the benefit of discussion, the loop has been divided into 4 parts: North, East, South and West. The east segment has been completed and the southern and western section will directly impact the Southwest Area and is described below.

Newton-Conover South Loop

This part of the Loop is included in TIP Project U-3450 and extends from NC 16 South to NC 10 in southern Newton. It comprises two new location sections and two existing sections of East “P” Street and East “P” Street Extension between NC 16 and Saint James Church Road. The Newton-Conover South Loop serves traffic that enters the Newton-Conover area from the south, connecting them to the East and West Loop. This facility also provides access service for the projected developments in southern Newton especially the industrial area between US 321 and Saint James Church Road. The 2025 projected traffic on the facility ranges from a low of 4,000 trips per day to a high of 10,000 trips per day. The total cost of the South Loop is \$4.6 million (1999 dollars). It is listed in the current STIP as an unfunded project.

Newton-Conover West Loop

This part of the Loop extends from NC 10 West in the Southwest Area to Fairgrove Church Road. The Newton-Conover West Loop will serve motorist that enters the Newton-Conover area from the west, and connecting them to the North, South, and East. This facility will provide access service for projected development in western Newton especially the industrial area between Saint Pauls Church Road and Highway 70. The 2025 projected traffic on the facility is estimated to be 21,000 trips per day. The total cost of the South Loop is \$32 million (1999 dollars) for the entire West Loop which extends from NC 10 West to Section House Road; this includes the widening of the existing Fairgrove Church Road. It is listed in the current STIP as an unfunded project. The project number is U-2529.

McKay Road (SR 2014) and Extension (Newton)

This minor thoroughfare extends from Sigmon Dairy Road to NC Highway 16, as a result of realigning McKay Road and Smyre Farm Road. This realignment will create a major east-west facility serving the residential communities in the planning area as well as southern Newton. The 2025 traffic projection on this facility is about 2,000 vehicles per day. A cross-section of 2 lanes is recommended for the extension. This alignment would reduce some trips on US 321-Business due to the existing spacing between Smyres Farm Road and McKay Road intersection.

Pedestrian and Bicycling Facilities

Sidewalks within the planning area are non-existent. There currently are no bicycle facilities or greenways in the planning area.

The Catawba Valley Heritage Alliance has proposed a greenway loop around Newton. The trail which is called the Heritage Trail will allow the opportunity for cyclists and pedestrians to travel on a system of trails and greenways that would be off limits to motorized vehicles. The portion of the Heritage Trail through the Southwest Area has been adopted as the Catawba County Section of Carolina Thread Trail. This section proposed to go along Clark Creek from the southern boundary of the Planning Area passing Southside Park and extending northward to Radio Station Road, as shown on **Map T-5 Southwest Area Proposed Greenways**. This will give individuals an additional choice on what mode of transportation to use for employment, shopping, and recreation. In addition, the NC Hwy 10 Land Development Plan indicates that new greenways be proposed as well, these greenways are also shown on **Map T-5 Southwest Area Proposed Greenways**.

Public Transportation

Public transportation in Newton is provided by Western Piedmont Regional Transit Authority operating as Greenway Transit, which services the Unifour area. The system has no routes that provide service to the Planning area. Greenway Transit operates four routes with service to points of interest in the Hickory-Newton-Conover area. Service is provided Monday through Saturday 6:45 a.m. to 7:30 p.m. No buses operate on Sunday.

Development Guidance

The City should be a good steward of its transportation resources by making every effort to conserve capacity on the existing and future transportation network, thus maintaining the quality and function of the network. This can be done by providing access management on both existing and future streets, encouraging connectivity, limiting truck traffic and building and expanding transportation facilities when existing facilities are found to be less than sufficient.

The City should be aggressive in its pursuit of connectivity between developments giving due consideration to land use and potential development patterns. Connectivity is desirable because it decreases vehicle miles traveled, reduces air pollution, contributes to social aspects of neighborhoods and also decreases vehicle friction and promotes pedestrian activity.

The planning area contains 6.5 miles of private streets and 4.2 miles of unopened streets. The City has concerns about providing services on these private streets and

unopened streets in terms of public safety and general city services. Both private streets and unopened streets have the potential to provide access to underdeveloped and undeveloped properties, as well as providing connectivity that is presently non-existent.

Evaluation of the existing street network for need and purposes should be conducted as well as all projects in the planning area on the Hickory-Newton-Conover Thoroughfare Plan. New projects that will in enhance the overall transportation network as well as travel within the planning area should be recommended to the MPO for inclusion of future Thoroughfare Plans.

The City should make efforts to reduce vehicular congestion by providing alternatives to the automobile. The city should look at its pedestrian and bicycle facilities in the planning area and evaluate existing policy on expansion of those facilities. Plans for future thoroughfares should be included in developer's plans for new development and redevelopment of properties in the area. The City should make efforts to see that bicycle lanes and sidewalks are a part of future thoroughfares and are constructed where appropriate along existing roads. The need for public transit service should be monitored and changes to existing routes and new routes should be recommended as the demand and density warrants such changes to provide service within the Southwest Area.

Policy Statements

- T-1.** In an effort to reduce congestion and maximize capacity of the transportation network, the City should develop an access management ordinance. The ordinance should address driveway spacing and widths; connectivity among adjacent development; and accessibility to these streets. The City has similar standards in place for sections of Roads that are covered by the Highway Corridor Protection Overlays, which include NC 10 and 321 Business within the Southwest Area.
- T-2.** As future transportation improvements are made, the City should study the existing truck routes to see if there is a need for additions, modification, or deletions.
- T-3.** The City should create a detailed collector street plan for the study area that would identify locations of needed connections while taking into account land use, topography, and other constraints. The detailed collector street plan would serve as guidance to all involved when determining the appropriate location for connections to adjoining property. This plan could also address one entrance subdivisions within the Southwest Area which would also improve connectivity within the Southwest Area.
- T-4.** The City should facilitate action with existing property owners along private streets at their request to have them accepted for maintenance either by the City

or NCDOT. This will ensure that the residents are able to receive both public safety and general public services, as well as provide them the opportunity to maximize the development potential and uses of their properties.

- T-5.** The City should facilitate actions with existing property owners along unopened streets at the request determine what would needed to open their unopened street. This will enable the city and property owners to make decisions related to properties along unopened streets.
- T-6.** The City should require that new development incorporate sidewalks along new streets and existing streets. This should be done to reduce vehicle miles traveled by allowing pedestrian travel between adjoining developments as well as providing recreation opportunities to residents, commuters, shoppers, and employees in the area.
- T-7.** The City should provide for future greenways as property is developed and redeveloped along any proposed greenway route as shown on **Map T-5 Southwest Area Proposed Greenways**, land should be dedicated to the city for this purpose. Also if a multifamily, industrial, commercial project occurs along any proposed Greenway route, the developer should be responsible for construction of that affected portion of the greenway and shall dedicate said land to the City for maintenance.
- T-8.** The City should review the lack of services within the Southwest Area that Western Piedmont Regional Transit Authority provides and recommend changes to routes and services as density and demand within the Southwest Area are warranted.
- T-9.** The City should work toward the implementation of the Carolina Thread Trail through the Southwest Area, which within the Southwest Area mirrors the Catawba Valley Heritage Alliance's (CVHA) Heritage Trail Plan. This plan will provide an opportunity to improve the pedestrian and bicycle system in the planning area.

Chapter 3 Utilities

Existing Conditions

The Southwest Area of the City is an important geographic location for the City's water supply and wastewater collection utilities. This area contains the major infrastructure facilities that operate the system, including the water supply reservoir (City Lake), water treatment plant, and wastewater treatment plant.

The **water intake** facility, located at Jacob's Fork Park, draws water from the Jacob's Fork River. It is then piped to the **City Lake** located behind the water treatment plant off of Boston Rd. The capacity of the reservoir is 122 acre-feet or 45 million gallons. It is important to note that the **source-water watershed (SWW)** is completely outside the City of Newton's jurisdiction. The SWW originates in the South Mountains, to the west, and terminates at the Jacob Fork Intake Facility. A large portion of land in this watershed is made up of low-density development, agriculture, and other vacant/natural open space. It is thought that the high quality of drinking water provided by the City is partially a result of the low-density development throughout the watershed. However, factors like grazing livestock and agricultural sedimentation lead to the degradation of water quality in the stream channel, that ultimately impact the pre-treatment water quality.

The City's **reservoir watershed** is made up of about 475 acres (0.74 square miles or approximately 15% of the total Southwest area). Much of that area is currently undeveloped or currently contains very low residential density development.

The **water treatment plant**, located on NC Hwy 10 West, near intersection with Jarrett Farm Road, treats an average of 4.5 million gallons per day (mgd). The overall treatment capacity is 8 mgd. The Water Treatment Plant Operator has indicated that the City should begin looking into expanding the facility to a treatment capacity of 12 mgd to accommodate expansion of the system. Additionally, he has indicated that a 500,000 gallon raised water tank may be necessary to regulate water pressure within the Southwest Area of the city as water consumption in the area increases; especially if new industry-demand increases usage significantly.

The **wastewater treatment plant** is located off McKay Road, just east of South Lakes Subdivision. It is permitted to treat 7.5 mgd, but averages between 2.5-3 mgd. When heavy rain occurs, the plant has had to accommodate upwards of 12.5 mgd for short periods of time. Much of the excess volume is attributed to inflow and infiltration (I&I). I&I occurs when rainwater and groundwater enters the sanitary sewer system via improper plumbing connections and cracks in underground sewer lines.

There are 24 miles of **distribution** lines (water) as shown on **Map U-1 Southwest Area Water Lines** and 17.8 miles of gravity **collection** lines (sewer) as shown on **Map U-2 Southwest Area Sewer Lines** located in the Southwest area. As it relates to the city as a whole, this represents 14% and 13% of the total network (respectively). There is an additional 1.25 miles of force sewer mains in the area, serving three (3) pump stations. As of September 2010, there were 545 water customers in the area and 240 sewer customers. This disparity is mainly due to the lack of sewer available to older subdivisions like the first phase of Nottingham.

Residents not connected to City water and/or sewer service are served by wells and septic tanks. Since the County first started mapping well and septic tank permits in 2001; it is known that 29 well permits and 106 septic permits have been issued in the Southwest Area in the past decade. A good number of residents who use septic tanks are those who are also City water customers.

While the existing utility network in the Southwest Area equates to approximately 14% of the system as a whole, growth in the area over the last five (5) years is significantly higher. Since 2006, 34% of all development-related permits (130 of 388) have occurred in the Southwest area. Development-related permits are those that impact water consumption and increase wastewater (new construction, additions, new subdivisions, etc.).

Development Guidance

Utility accessibility can be a factor in dictating where new development occurs, specifically commercial, industrial, and higher density residential. Utilities can be used as a tool to guide growth to areas where higher intensity development is desired as well as a tool to pace development so that it occurs at the appropriate time. In addition, utilities need to be sized appropriately for current demand as well as anticipated future development. The accessibility of sewer is important to the water quality of streams in the area.

Policy Statements

U-1. The City should develop a strategic source-water watershed protection plan for the South Fork watershed. Working with landowners and other jurisdictions will decrease potential point and non-point pollution sources from entering the water treatment process; ultimately protecting the public from potential contamination and decreasing operational costs to treat the water.

U-2. The City should develop a reservoir watershed protection plan for the drainage area immediately surrounding the City Lake. Doing so will protect the reservoir from potential pollutants and preserve the capacity of the lake from losses due to erosion or other factors. One potential strategy could be to construct regional stormwater facilities to offset future development impacts in the area.

U-3. The City should conduct an Asset Management Study to determine future infrastructure needs, including expanding capacity of the water treatment plant and regulating water pressure in the Southwest Area. The land uses and intensities indicated on **Map LU-3 Southwest Area Future Land Use** should be used to calculate future needs, as the growth that the area experienced over the past five years is anticipated to continue once the market absorbs the glut of housing that is currently available.

U-4. As part of the Asset Management Study, the City should assess the risks caused throughout the system, including inflow and infiltration and sewer overflows, and create a strategic plan to reduce those incidents.

U-5. The City should create a strategy (either through the Asset Management Study or a Capital Improvement Plan) to increase the number of water and sewer customers in the Southwest area. Special attention should be given to provide sewer to areas where water service currently exists.

U-6. The City should promote new development along existing utility lines to maximize the efficiency of those service connections by making the developer absorb more of the cost associated with extensions of new utility lines.

U-7. The City should promote higher densities and higher land-use intensities as shown on **Map LU-3 Southwest Area Future Land Use**, and in coordination with the findings of the Asset Management Study to maximize efficiency of new capital improvement projects and protect existing environmental and natural resources.

Chapter 4 Economic Development

Existing Conditions

Commercial uses within the Southwest Area are limited to the intersection of NC Hwy 10 at Startown Road. The commercial offerings include gas stations, restaurants, general merchandise, tire store, car wash, dry cleaners, and a full service grocery store.

Residential dwelling units within the Southwest Area consist primarily of single-family detached homes. Out of the 1,064 housing units within the Southwest Area, 995 are single-family detached homes, 38 are manufactured housing on individual lots, 19 are in established mobile home parks, and there are 6 duplexes with 12 units.

Development Guidance

New commercial land use should be directed to areas that minimize their impact on existing commercial uses both within the planning area and those beyond the planning area. Care should be given to limit the amount of commercially zoned land so as to keep the supply proportional to the demand which will lead to higher quality development. Also large areas of commercial zoning are not in the best interest of the planning area because it could lead to the demise of existing commercial areas both within and outside of the planning area, nor would it be complimentary to the existing land uses.

A range of housing types and densities should be encouraged. Diversified housing is needed to meet the needs of different incomes and household types, as currently the housing stock is limited to primarily single family dwelling units.

Policy Statements

ED-1. Regulations should be developed which will encourage high quality development by prohibiting the types of uses that could be a detriment to the area and providing for attractive, well designed structures that contribute to community character and incorporates strong architectural contribution to the community's character.

ED-2. A market study of the existing commercial area within the Southwest Planning Area as well as the entire should be conducted. The commercial areas should be evaluated on existing use and need as well as their vulnerability to new commercial development.

ED-3. The City should evaluate the existing Zoning Ordinance and Zoning of the Southwest Area to evaluate what changes are needed to allow the creation of diversified housing for residents and potential residents of the area.

Chapter 5 Environment

Existing Conditions

Tree Cover

The Southwest Planning Area is scattered with stands of hardwood and evergreens among the existing development. These stands represent both undeveloped unmanaged tracts and stands of timber that are in the United States Forestry Service Program.

Topography

There are significant grade changes and steep slopes within the Southwest Area. The elevation in the planning area ranges from 808 feet above sea level, located where Clarks Creek leaves the Southwest Planning Area to 1,002 feet above sea level, located just east of the intersection of Startown Road with Norcott Street. This is a difference in elevation of 194 feet which is reflective of the areas rolling topography. See **Map EN-1 Southwest Area Topography**. The slopes reflect the rolling terrain, ranging from flat to exceeding 15%, see **Map EN-2 Southwest Area Slopes**.

Flood Plain:

During the most recent flood study done by the Federal Emergency Management Agency in 2006, a 100 year flood plain was established along Clark Creek. A total of 309 acres, 9.6% of the planning area is located in the flood plain, as shown on **Map EN-3 Southwest Area Flood Plain**.

Wetlands:

Forty-eight (48) acres has been identified as wetlands according to the U.S. Fish and Wildlife Service National Wetlands Inventory. There is a significant 17 acre wetland located on the Westside of Clarks Creek just upstream from the City Lake as shown on **Map EN-4 Southwest Area Wetlands**.

Air Quality:

The U.S. Environmental Protection Agency (EPA) has set national air quality standards for six common pollutants, also referred to as "criteria" pollutants. These criteria pollutants are ozone, fine particle matter, lead, sulfur dioxide, carbon dioxide, and carbon monoxide. The Unifour area exceeded the standards for fine particle matter at the 2.5 micron level and the 8-hour ozone standard, and was designated as non-attainment. A nonattainment designation does not mean that the area must curb its growth nor does it mean the loss of highway funds - two common myths associated with ozone and fine particle matter designation. The Unifour has been pro-active regarding air quality improvement efforts since 2000 when the area first learned that ozone levels may violate new standards. The Unifour Air Quality Committee (UAQC) meets bi-monthly to address air quality issues. In December, 2002, the UAQC developed an Early

Action Compact (EAC) agreement that was signed by all four counties, six municipalities, the NC Dept. of Environment and Natural Resources (NCDENR) and the US EPA. The intent of the EAC is for the State Implementation Plan (SIP) for the Unifour Area to be developed sooner, the control measures implemented sooner and the 8-hour standard achieved in a more expeditious manner than under the normal SIP development timeline. The EAC implemented by the UAQC was successful in achieving the 8-hour ozone standard and has improved its PM 2.5 levels to compliance levels. EPA action is needed to recognize the lower levels and to designate the region as being in compliance.

Water Quality:

The Southwest Planning Area contains portions of five major drainage features. These are Clark Creek, Bills Branch, Betts Branch, Henry Fork, and the South Fork of the Catawba River..

Drainage Basins by Streams		
Name	Area in Acreage	Percentage of Area
South Fork	56.3	1.75%
Bills Branch	78.7	2.45%
Henry Fork	175.7	5.46%
Betts Branch	561.6	17.45%
Clark Creek	2,346.4	72.90%

Clark Creek which is listed as an impaired stream on the Federal Environmental Protection Agency’s 2010 Impaired Stream List also known as the 303d list. Threats to water quality include but are not limited to storm water run-off from existing and new construction; failing septic tanks; unregulated point source discharge; and reduction of existing vegetation which stabilizes stream banks and filters out some pollutants. The impact of these threats should be minimized if not eliminated as they influence the amount of total suspended solids. The City’s post-construction stormwater ordinance and erosion control ordinance regulates new development and redevelopment within the Southwest Area, and should addresses most of the stormwater issues that would be

generated by new development and redevelopment; however they do not address existing development.

The City Lake is used for storage of water for the City of Newton water system. Water is pumped into the lake from the Jacob's Fork River. In 2003, the lake was dredged and improvements were made to divert some of the drainage that went in to the lake around the lake to Clarks Creek. The lake has a storage capacity of approximately 40 million gallons as shown on **Map EN-5 Southwest Area City Lake Watershed**. The City Lake Watershed is comprised of 191 acres, 49.7% or 91 acres is owned by the City.

The City of Newton is a NPDES Phase II Community and was required by the North Carolina Department of Environment and Natural Resources to submit a Stormwater Management Plan. The plan as submitted lays out Newton's actions to manage stormwater and addresses six minimum measures. Those are public education and outreach on stormwater impacts; public involvement and participation; illicit discharge detection and elimination; construction site storm water runoff control; post construction management; and Pollution Prevention/Good Housekeeping. The City has received a permit for Phase II and is the process of implementing its plan. The Plan applies to the Southwest Planning Area, as well as the rest of the City's jurisdiction. As a part of the permit, the City has adopted a post construction stormwater ordinance which requires that sites that disturb more than one (1) acre have to implement a stormwater management plan to treat the first inch of stormwater run-off from the site.

Agriculture

Agricultural uses are prevalent in the Southwest Area as there are number of barns, pastures, and fields contain hay and row crops. The exact amount of land used for agriculture use is not known; however 270 acres are enrolled in the agriculture present-use taxation program allows property owners the opportunity to reduce the amount of taxes that they pay if the property meets certain criteria. **Map EN-6 Southwest Area Agriculture** shows property in the present-use taxation program for Agriculture.

Development Guidance

Efforts should be made to protect and preserve the water quality of Clark Creek, Bills Branch, Betts Branch, Henry Fork, and the South Fork of the Catawba River and their respective tributaries. While there are no reported problems with Bills Branch, Betts Branch, Henry Fork, and the South Fork of the Catawba River, Clarks Creek is listed as an impaired stream. Threats to water quality include but are not limited to storm water run-off from existing and new construction; failing septic tanks; unregulated point source discharge; and reduction of existing vegetation which stabilizes stream banks and filters out some pollutants. The impact of these threats should be minimized if not

eliminated as they influence the amount of total suspended solids. The goal is to have a minimum of 85% average annual removal for total suspended solids. The post-construction stormwater ordinance will address new development and redevelopment. The City needs to gather samples in a effort to establish baseline data of streams within the study area so that problem areas can be identified and solutions developed.

Care should be given to minimize flood hazards by respecting established 100 yr. flood plains through adherence to the FEMA Guidelines as well as the City of Newton Zoning Ordinance. In following and abiding by those regulations, flood hazard impacts can be minimized. In addition, wetlands should be protected because they are an important part of the local ecosystem in that they provide food and shelter to local wildlife; cleanse and recharge the local water table; and control flood waters.

Thought should be given to developing a subdivision process that will allow developers the opportunity realize the maximum yield in density while at the same time preserving the flood plains and wetlands. This can be done by allowing cluster subdivisions which are currently allowed by the existing ordinance; however the process is more involved than the traditional subdivision process and approval ultimately involves City Council. The approval of cluster subdivisions can take months as opposed to the traditional subdivision process which is approved by the Subdivision Review Board based on standards established in the Subdivision Ordinance and can be granted in as little as a few weeks.

Dense and diverse development patterns should be encouraged where appropriate in an effort to reduce the amount of time that residents of the planning area as well as those who work, play, and do business in the planning area spend on the road, thus reducing the amount of particulate matter, ozone and other mobile source pollutants emitted into the environment. Although it is not practical to eliminate the automobile as a mobility option, efforts should be made to develop alternative modes of transportation, whether it is to recreate or to replace a trip that would be made ordinarily by automobile. Efforts should be made to reduce emissions of not only the automobile but other sources that deteriorate the quality of the air. Consideration should be given to the types of uses that will locate in the planning area. Efforts should be made to insure that new uses as well as existing uses are considerate of their surroundings and to the extent feasible, minimize their impact on neighboring uses by reducing or mitigating sources of light, noise, air, water, and other types of pollution.

Policy Statements

- EV-1.** Higher density residential development should be located where water and sewer utilities are present to minimize adverse issues associated with private wastewater treatment facilities.
- EV-2.** Pedestrian and bicycle amenities, such as sidewalks, greenways, and bike lanes should be constructed to connect residential areas with commercial, recreational and industrial areas. This will allow for multimodal opportunities with in the Southwest Area.
- EV-3.** Existing trees and vegetation should be retained to the fullest extent possible with weight being placed on areas around streams and drainage features as well as areas between different levels of use and intensity. These natural buffers serve as important wildlife areas and filters fertilizers, oil from automobiles, and other pollutions before they can reach a water body.
- EV-4.** The flood plain should be used as opportunities for passive recreation and active recreation as needed. Uses other than open space, recreation, greenways, or agriculture should be discouraged from being located within flood plains, so that flood plains can function as a natural filter.
- EV-5.** The City should develop a subdivision process that will allow developers the opportunity to preserve flood plain, wetlands, and other environmentally sensitive areas and at the same time realize the maximum yield in density. This process should have specific standards that address the potential impact of the concentrated density on the adjoining property owner. This process should mirror the traditional subdivision approval process and ultimately should become the way development occurs so that protection of these sensitive areas is the first thought when development occurs as opposed to an afterthought.
- EV-6.** The City should review its list of permitted uses and impose limits on those that adversely impact air quality in terms of ozone and particulate matter.
- EV-7.** The City should consider an incentive policy that recognizes the importance of air quality and impacts on the built environment.
- EV-8.** The City should work with jurisdictions responsible for land in the Clark's Creek Basin to improve its water quality by planning for and making recommendations that would improve the water quality of Clark's Creek.
- EV-9.** The City should protect the watershed for the City Lake by adopting watershed protection standards for City Lake.

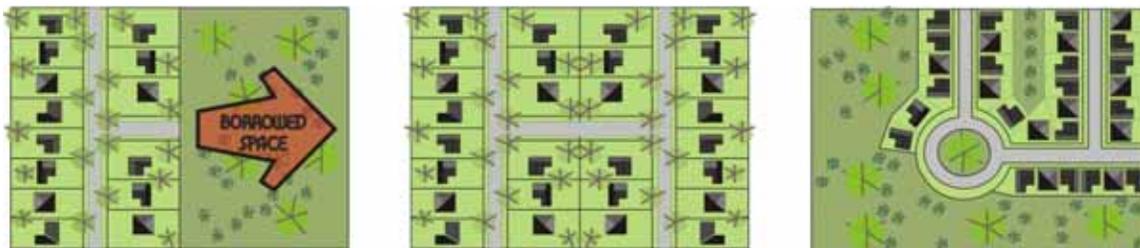
Chapter 6 Community Character

Existing Conditions

Within the Southwest Area the built environment is sparse surrounded by expanses of forest and fields. The planning area is dotted with the evidence of agricultural activity both past and present. The area has changed considerably in the last 40 years. The housing stock ranges from pre-1900 farm houses to new homes being built, the majority being single family detached. Mobile homes placed prior to the inclusion in the City's jurisdiction in the area are scattered which is typical considering the rural nature of the area.

The Southwest Area is automobile-oriented in its development pattern, which is typical of most of post-WWII Newton. The area lacks pedestrian facilities and public transportation service. The existing commercial areas isolate themselves from the surrounding development by design and/or appearance.

The area is fortunate to have a large amount of open space in the form of forest and fields. This open space gives the area some attractive views such as those shown in the pictures above. This space that the residents enjoy is privately owned and can be developed; this open space is called "Borrowed Space." It is open space but only while it is not developed. When development occurs this open space is lost.



An illustrated example of "Borrowed Space" and what happens when the "Borrowed Space" is developed. Also an alternate way of developing so that a development does not have to depend on "Borrowed Space" for open space.

The current zoning ordinance requires open space to be provided for only when a multifamily or planned development is built, all other development is exempt. The subdivision ordinance does have an open space requirement but allows the developer to pay fees in lieu of dedication of open space, thus bypassing the dedication of open space.

Development Guidance

When development, both residential and non-residential occur; respect should be given to the rural character of the area. Residential development should incorporate open space and pedestrian amenities in an effort to add value to the development in the area.

Although the automobile is the dominate form of transportation in the area and will be for the foreseeable future, effort should be made to reduce trips and provide alternatives. Connectivity of streets and adjacent development should be required and is required along NC Highway 10 and Southwest Boulevard (US 321 Business) under the Highway Corridor Protection Overlay for both arterials. Sidewalks and greenways should be planned for and built as development occurs. In addition, new developments should be made to provide connection to the sidewalks and greenways in order to provide safe pedestrian access to and from buildings on site, the adjacent street, parking facilities, and adjacent development.

The built environment should be seen as a lasting legacy not just as a place to live or do business. New development should be attractive and developers should be considerate of what is around them as well as the potential of what could be built nearby. Development should be affordable but not at the cost of the quality of life for residents in the area. Focus should be placed on type of materials, building placement, signage, landscaping and the character of the surrounding area.

NC Highway 10 and Southwest Boulevard (US 321 Business) should be recognized as not only being invaluable for transportation with in the Study Area and City; but as gateways into the City from areas to the south and Southwest. While the appearance of the entire study area is important, extra care should be given to ensure that the motorist traveling into Newton through the Study Area see Newton in its most appealing light.

Policy Statements

- CC-1.** The City should develop regulations that require connectivity in subdivisions and developments and interconnectivity within. This will reduce the impact on the existing transportation system in terms of safety and traffic friction.

- CC-2.** The City should require sidewalks to be constructed along both sides of all new streets and along existing streets for abutting new development.

- CC-3.** The City should lobby the North Carolina Department of Transportation to include sidewalks, bike lanes, and landscaping on all projects within the planning area when these new or upgraded transportation facilities are recommended by this or other Planning documents.

- CC-4.** The City should develop a design manual to serve as a guide for developers to build projects that are pedestrian friendly.

- CC-5.** The City should revise the open space requirements in the subdivision ordinance to include standards as to location and use so open space is more prominent and accessible to residents.
- CC-6.** The City should require that open space be dedicated and developed in commercial and industrial developments at appropriate locations.
- CC-7.** The City should adopt specific regulations which will provide for uniform directional signs to direct individuals to various sites within the planning area.
- CC-8.** The City should develop regulations to reduce or minimize the use of Cul de Sacs in developments as to promote connectivity and reduce automotive reliance and encourage more pedestrian activity.
- CC-9.** The City should encourage the protection of existing elements that are synonymous with rural character when appropriate and feasible. These elements are windrows, fence lines, old farm structures, and pastures.
- CC-10.** The City should recognize Highway 10 and Southwest Boulevard as being gateways into the City and evaluate the existing Highway Corridor Protection Ordinance to ensure that those regulations promote and ensure that the appearance of these corridors is aesthetically pleasing.

Chapter 7 Government

Existing Conditions

The Southwest Study Area is comprised of 3,219 acres. 1,984 acres or 61.6% of which are located within the corporate limits and the remaining 1,235 acres or 38.4% within the extraterritorial jurisdiction see **MAP GOV-1 Southwest Area City Limits and ETJ Boundary**.

Extraterritorial Jurisdiction (ETJ) is an area outside of a city's corporate limits that is part of the city's planning area and likely to urbanize and eventually become part of the city's corporate limits. The area within an ETJ is subject to the city's zoning, subdivision, storm water, soil erosion, and building ordinances. According to General Statutes of the State of North Carolina, the City of Newton can extend its ETJ up to Two (2) miles beyond its contiguous corporate limits, subject to approval by the Catawba County Board of Commissioners. **Map GOV-2 Southwest Area Potential ETJ** shows the 2 mile buffer of the Contiguous Corporate Limits, which is reflective of the area that be potential ETJ. The last time that an extension of the ETJ was granted was November 1980. The majority of the ETJ in the Southwest Area was annexed as result of the Westside Annexation in which was effective in 1992.

The City entered into a Boundary and Annexation Agreement with the City of Hickory, which was effective June 1, 1996, see **MAP GOV-3 Southwest Area Hickory-Newton Boundary Agreement**. The agreement is for 20 years and will expire June 1, 2016. The City has discussed a Boundary and Annexation Agreement with the Town of Maiden in the past; however no final agreement has been reached.

Catawba County completed the Startown Small Area Plan in 2005, which adjoin the study area to the south and west. The City participated in the planning process. Also the City participated in development of the Highway 321 Corridor Plan. The US 321 Corridor Plan was adopted by the Catawba County Board of Commissioners on July 22, 1996. This Plan represents formal policy statements by Catawba County concerning land use and land development within the Corridor. The 321-Economic Development District section of the City's Zoning Ordinance is designed to implement these policy statements and achieve the desired goals for the 321 Corridor.

The City of Newton's Fire Station 3 is located on Startown Road just south of Startown Elementary School, which is one of three stations that serve the 25.3 square mile Newton Fire district. Station 3 was acquired in 2001 through the merger of the Newton Fire Department and the Startown Volunteer Fire Department. **Map GOV-4 Southwest Area Newton Fire District and Stations** shows the location of the City's three fire stations and the extent of the City's Fire District.

Development Guidance

The City should pursue additional Extraterritorial Jurisdiction (ETJ) to the area that is adjacent to the Southwest Area. Additional ETJ would allow the City the opportunity to control development in the areas adjacent to the Southwest Area. This is an important to control growth adjacent to the Southwest Area so that the City can specify the densities that would be needed to support the City's investment of utilities to the Southwest Area and beyond, certain densities will be needed to support the existing and proposed commercial areas in the Southwest Area.

The City should pursue voluntary annexation as a condition of utility expansion. This would give the City the ability to add to its tax base and to provide urban services to developed areas. The City should pursue a statutorily compliant boundary/annexation agreement with Maiden and when the current boundary agreement with the City of Hickory expires, a new agreement should be pursued.

The City should be aware of the annexation, utilities, and land use plans of other jurisdictions in the adjacent areas. This will assist the City in providing the most efficient services possible.

Policy Statements

- GOV-1.** The City should pursue voluntary annexation where State statutes permit to provide urbanizing areas with urban services.

- GOV-2.** The City should work with the Town of Maiden to adopt a legally binding Boundary and Annexation Agreement in order to reduce redundant services and provide efficient government.

- GOV-3.** The City should work with the City of Hickory in adopting a new mutual agreed upon Boundary and Annexation Agreement prior to expiration of the current in 2016.

- GOV-4.** The City should continue to participate with the County on future plans for the area that is adjacent to the study area.

- GOV-5.** The City should request additional Extraterritorial Jurisdiction from Catawba County, so that City can plan for areas surrounding the Southwest Area as needed.

GOV-6. The City should evaluate the current location of Fire Station 3 to determine if its location adequately meets the needs of the Southwest Area, the City, and Rural Fire District.

Chapter 8 Land Use

Existing Conditions

Table 1 outlines the distribution of land in the Southwest Area designated under each available zoning district. Table 2 breaks down the actual existing land uses within the Southwest area. The spatial distribution is also shown on **Map LU-1 Southwest Area Zoning District Distribution** and **Map LU-2 Existing Land Use**.

Table 1: Zoning District Distribution

Zoning District	Acres	As % of Total SW Area
R-20 (SF Res)	2,744	85%
R-20A (SF & Manuf Res)	418	13%
R-11 (SF & 2F Res)	41	1.3%
P-1 (O&I)	3	0.09%
B-2 (Hwy Bus)	10	0.3%
PDSC (Shop Cntr)	12	0.38%
Right-of-Way	0.7	0.02%
Total	3,219	100%

Table 2: Existing Land Use

Existing Land Use	Acres	As % of Total SW Area
Open Space/Vacant	1,867	58%
Residential	1,288	40%
Commercial	19	0.6%
Manufacturing	13	0.4%
Office	29	0.9%
Right-of-Way	0.7	0.02%
Total	3,219	100%

Existing, low-density residential uses cover approximately 40% of the Southwest area. When vacant land is accounted for, 99% of the Southwest Area is zoned to accommodate

either single-family or two-family residential uses. There are not, however, any areas zoned to accommodate moderate or high density residential development.

There is currently an average of one housing unit per 2.96 acres of residentially zoned property, which indicates a tremendous potential for greenfield development in the Southwest area. Under the current Zoning Ordinance when utilities are available, a low-density residential subdivision can create up to 3 lots per acre. This growth potential represents a 9-fold increase in residential development.

Commercial development in the area is limited to the Startown Road intersection with NC Highway 10 West. This commercial area is a community node which serves the residential population of the Southwest area, as well as neighboring County residential developments.

Industrial uses are the most limited, representing just 0.4% of the study area.

Factors influencing future land use include transportation connections, environmental constraints and existing utility lines. Transportation and utility infrastructure is limited to the major corridors along NC 10 Highway West, Startown Road, Old Conover Startown Road, and portions of McKay Road. Significant investment would be necessary to extend infrastructure to tracts with large acreage, in order to accommodate the future development of these areas.

The presence of the City Lake watershed and the Wastewater Treatment Plant along Clarks Creek is also a limiting factor in future land use. Protection of these areas is critical to the operation of these utilities and will also assist in meeting environmental regulations placed on these public facilities.

Development Guidance

Residential development and its related densities should be based on several factors; the availability of water and sewer utilities, existing/surrounding land use characteristics, proximity to transportation infrastructure, and the influence of environmental factors, such as topography, on the practicality of a property's development potential. Taking these elements into consideration when considering future land use will enable the City to maximize the efficiency of existing infrastructure, allow for more effective planning of future community needs, and provide a broad range of housing types for residents in the planning area.

Care should be given to providing for commercial development nodes. Because the existing commercial center at Startown Road intersection with NC Highway 10 West

serves such a large market area, additional commercial development should be scaled and located appropriately, so that it will not negatively impact the viability of existing commercial development. Consideration must also be given to the availability and capacity of transportation and utility infrastructure. Commercial Development should be provided in such a manner that will blend with existing community character and soften the transition between the intensity of adjacent land uses.

Policy Statements

- LU-1.** Land use within the Planning Area should reflect the land uses and densities as shown on **Map LU-3 Southwest Area Future Land Use** and **Map LU-4 Southwest Area Commercial Node Subareas**. These maps should serve as guidance when land use decisions are considered. Consideration of individual uses are as follows:
- a.** Residential densities should be based upon the impact on existing land use patterns, availability of adequate utilities and proximity to major roads. A mixture of housing types should be encouraged to be placed in close proximity to mix-use and commercial areas. The variety of housing types along with higher density provisions should support opportunities for affordable housing.
 - b.** Office uses should be included in areas designated commercial. The location of such uses provides opportunities for support services to be located within close proximity of customers and their employees.
 - c.** Development in subareas as shown on **Map LU-4 Southwest Area Commercial Node Subareas** should be encouraged to develop as Planned Development either as mixed use, shopping center, office, institution, or housing. To create the most favorable development climate possible, the City should require private sector land assemblage in the subareas prior to consideration of a rezoning to commercial or planned development designation. Attention should be given to the visioning statements developed during NC Highway 10 West Land Development Plan Observations and Visioning Exercise for the West Development Area when considering land use decisions for the subareas. The statements are attached in Appendix A.

Appendix A

N C HIGHWAY 10 WEST LAND DEVELOPMENT PLAN
OBSERVATIONS AND VISIONING EXERCISE
WEST DEVELOPMENT AREA

SUBAREA 1:

- Possible development scenarios would be: Planned Development for Mixed Use/Commercial, Neighborhood or Community Shopping Center. The existing Tire Manufacturing property has been excluded from the subarea. However, it is assumed that this could be combined at some point when parcels are assembled for development.
- Parcel assemblage would be necessary for the sub area and should be encouraged because its long frontage with Startown Road and Highway 10, provides good visibility and flows from Poovey Street over to Radar Street providing two side streets for access and would provide a good circulation pattern.
- Two parcels along Radar Street are undeveloped and lend themselves nicely to parcel assemblage for a Planned Development in this area. It is unknown if there are deed restrictions that could preclude non-residential development.
- Lots are large enough that when assembled would have a good shape and slope that would make the development attractive.

N C HWY 10 WEST LAND DEVELOPMENT PLAN
OBSERVATIONS AND VISIONING EXERCISE
WEST DEVELOPMENT AREA

SUBAREA 2:

- Sub area contains a significant amount of vacant land as well as various residences and a Day Care Center. The sub area could be split into two sub areas; one being at the intersection with Highway 10 and Startown Road and the other further west along Highway 10.
- Existing zoning is a mix of residential and highway business at the intersection.
- This area is envisioned as being a mixed-use type development, potentially with hotels and office buildings as well as commercial, and entertainment oriented uses.

N C HWY 10 WEST LAND DEVELOPMENT PLAN
OBSERVATIONS AND VISIONING EXERCISE
WEST DEVELOPMENT AREA

SUBAREA 3:

- Parcel assemblage should be encouraged for development. Possible PD-SC/MU/O and I development potential is seen for development.
- Corner parcel where convenience store is located has been excluded. It would be preferable that this property be included as well to provide the best visibility to the site. The area has reasonably close access to city sewer just to the east and probably will develop the earliest of any other areas.
- Driveway access should be limited to one off of Highway 10 and one off of Startown Road.

N C HWY 10 WEST LAND DEVELOPMENT PLAN
OBSERVATIONS AND VISIONING EXERCISE
WEST DEVELOPMENT AREA

SUBAREA 4:

- It would be preferable if the existing bar and roadside stand could be combined and all of the other parcels assembled for one development site. Envisioned would be a neighborhood shopping center, potential mixed-use development.

- It is preferable that driveway access be to the extreme limits of the properties away from the intersection and limited to one on Highway 10 and one on Startown Road. Buildings would be set back from the intersection to provide an uncluttered corner, which currently is not the case.

- It would be desirable that the drainage area to the east of these properties be developed as a Greenway access or an extension to the Greenway through a wide pedestrian access.

N C HWY 10 WEST LAND DEVELOPMENT PLAN
OBSERVATIONS AND VISIONING EXERCISE
WEST DEVELOPMENT AREA

SUBAREA 5:

- Envisioned is a mixed-use development, possibly of a commercial and/or residential nature.
- Driveway spacing should adhere to the SPI Overlay District.