

General Development



The Charlotte Region grew tremendously over the last decade, influenced by strong job growth, vast amounts of developable land, and the influx of new residents from outside the region. Lancaster County's location inside the region significantly influenced its recent development boom, especially in the panhandle of the County. Close proximity to quickly developing areas in Mecklenburg and Union Counties in North Carolina and York County in South Carolina should return the panhandle to a desirable place for development as the region emerges from the current economic recession.

Each new wave of development brings opportunities for economic prosperity and community building. And while some developers may be focused on short-term gains, those with a commitment to long-term, sustainable growth will contribute positively to a more livable community. The *US 521 / SC 9 Corridor Study* advocates for a long-term view on development — defined by efficient land use patterns, distinctive architecture, and high quality of life —for attracting new residents, businesses, and visitors to the County.

The focus of the chapter on general development is sustainable development — measured by environmental stewardship, economic prosperity, and equitable distribution of community resources. It reinforces community-based initiatives to link development and quality-of-life and improve community cohesiveness and economic vitality. Recommendations in the chapter represent the community's vision for build out in the study area, which officials for Lancaster County would need to implement through revisions to the local comprehensive plan and other policies and ordinances. Patience will be needed for some recommendations in the general development chapter, as it may be 15 or 20 years before they are fully realized.

The discussion on development in the study area follows six general headings: guiding principles, growth areas, community inventory and assessment, future development scenarios, general development map, and general recommendations.

### **Guiding Principles**

The consultant team worked with the Project Advisory Committee (PAC), key stakeholders, and members of the general public in attendance at several community events held throughout the planning process to prepare guiding principles for influencing the general development chapter. These principles support and encourage the community's vision for sustainable development in the study area.

Guiding principles for development in the study area include:

- Use the *US 521 / SC 9 Corridor Study* as a blueprint for preferred land use patterns, development intensities, and design qualities encouraged in the community through the twenty-five year planning horizon (2035).
- Explore ways to integrate building architecture and overall site design with anticipated market forces and the needs of the surrounding environment.

- Provide housing solutions that ensure future needs and preferences for various housing types are addressed in the community.
- Maintain or enhance the quantity and quality of parks, recreation facilities, schools, and cultural facilities in the study area.
- Promote development patterns and intensities in the study area that balance tax base and facilitate fiscal sustainability.
- Update the City and County of Lancaster County Comprehensive Plan and other policies and ordinances with recommendations from the US 521 / SC 9 Corridor Study.

### **Growth Areas**

Serious and irreversible consequences face the study area if low-density, single-use development is allowed to sprawl throughout the 169,000-acre study area. Vast supplies of undeveloped land and moderate demand forecasted for the twenty-five year planning horizon (2035) significantly increase the threat of sprawl and its common impacts: consumption of sensitive land for development, costly expansion of public infrastructure, and increasing traffic congestion. Many cities and counties in similar situations are designating growth areas to better phase or manage their future development and public investments. Growth areas in the panhandle were used to influence the timing, location, amount, density, and intensity of development for the study area. However, they do not strictly prohibit development in any portion of the study area; especially for economic development opportunities that might bring new major employers to Lancaster County.

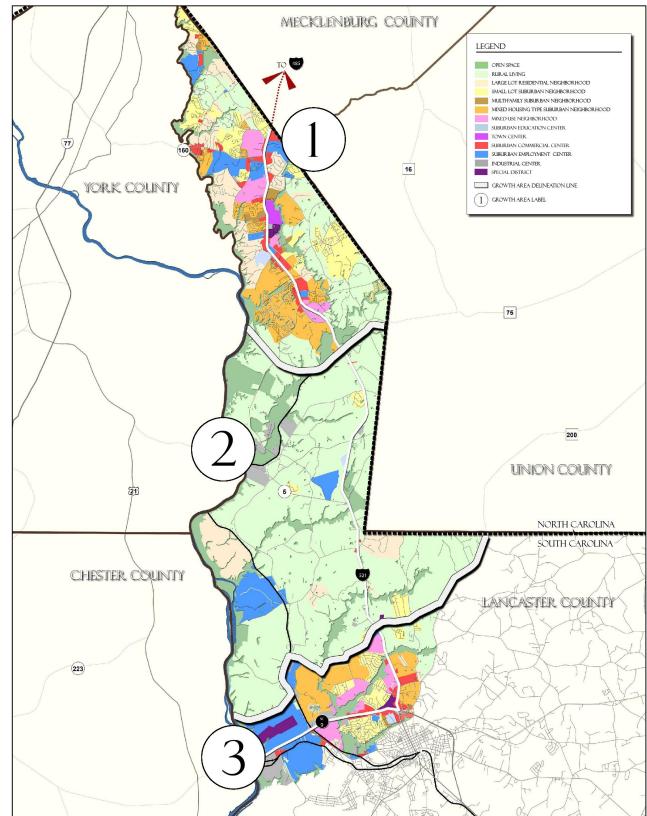
The US 521 / SC 9 Corridor Study designates three growth areas for the study area, as follows:

#### Growth Area One

Growth Area One represents the quickly developing area of Indian Land and surrounding environs. Twelve Mile Creek represents the southern extent of the growth area. Adequate public facilities, proximity to existing services, and available land for future development make Area One a primary growth target area through the long-term planning horizon (2035). Close proximity to Mecklenburg and Union Counties in North Carolina and York County in South Carolina reinforce emerging residential, commercial, and employment centers in the area as the Charlotte region.

#### Growth Area Two

Growth Area Two represents the most rural portions of the study area. Growth Area Two includes the portion of the study area south of Twelve Mile Creek and north of Shiloh Unity Road. The area generally lacks adequate public facilities and services to support wide-spread development through the mid-term planning horizon (2020).



General Development Map

Large-scale development planned for the growth area should follow the rational extension of water, sewer, and transportation infrastructure. More detailed recommendations for the growth area (i.e., land uses, development patterns, and building intensities) should follow completion of a small area plan recommended independent of this study. Growth Area Two should be considered a reserved growth area through the mid-term planning horizon (2020).

### Growth Area Three

Growth Area Three represents areas influenced by the City of Lancaster, University of South Carolina — Lancaster Campus, and emerging employment centers along SC 9. Shiloh Unity Road generally represents the northern extent of the growth area. Adequate public facilities, proximity to existing services, and available land for future development make Area Three a secondary growth target area through the long-term planning horizon (2035).

Growth areas identified in the study were used to influence the development types, patterns, and intensities recommended in the General Development Map to the left. Growth area boundaries presented in the chapter should be reviewed and adjusted from time to time (perhaps every five years) to reflect emerging development patterns and/or public investments in the study area.

### **Community Inventory & Assessment**

The pages that follow represent a comprehensive inventory and assessment of conditions and community features noted in the study area. It communicates how land is organized, used, and supported by public facilities and services. The market analysis for the study area detailed in Chapter 2 supplements the community inventory and assessment.

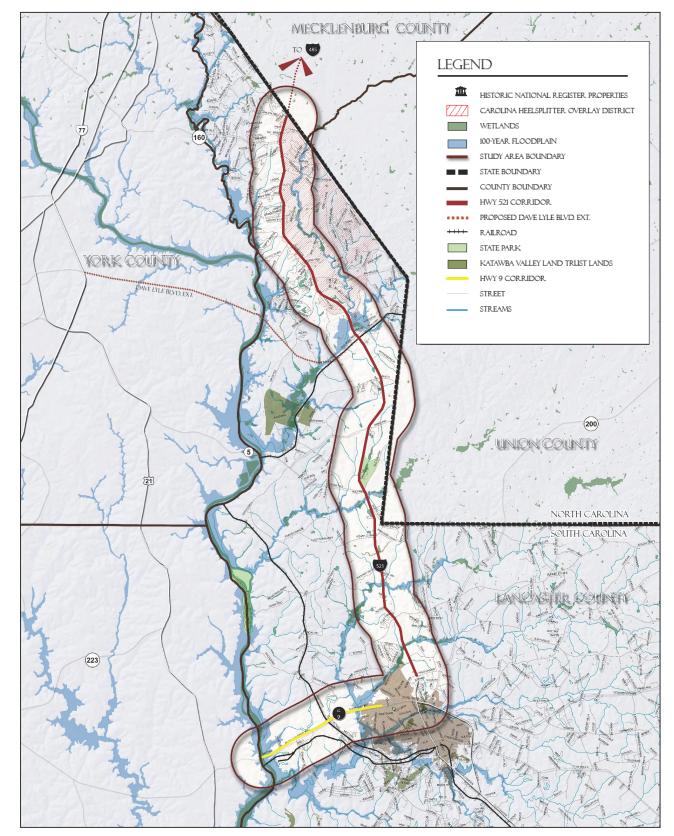
### **Green Infrastructure**

Green infrastructure is represented by the interconnected network of open space, natural features, and parks that help define the environmental cohesiveness of a community. Permanent conservation of green infrastructure serves to naturally manage storm water, improve water quality, balance the physical and visual impacts of development, and increase opportunities for recreation in the study area.

The following elements were identified as green infrastructure for the study area: floodplains, wetlands, permanent conservation areas, and park and recreation areas.

### **Floodplains**

Floodplains represent the low-lying area adjacent to a river or stream that flood regularly with a significant rain event. FEMA designated 100-year floodplains in the study area were identified along the Catawba River and



Environmental Features Map

major streams and creeks feeding into the River. Land development controls in Lancaster County allow development in a designated floodplain subject to specific drainage and storm water management requirements.

An inventory of FEMA designated 100-year floodplains in the study area is provided on the Environmental Features Map found to the left.

#### **Wetlands**

Wetlands represent low-lying areas saturated with water for an extended period of time (sometimes permanently). Small wetland areas near the Catawba River and major streams and creeks in the study area were identified using National Wetlands Inventory data published by the U.S. Fish and Wildlife Service (see the Environmental Features Map to the left).

Any development impacting a wetland area requires a permit from the U.S. Army Corps of Engineers prior to construction.

#### **Permanent Conservation Areas**

Oftentimes, government agencies or qualified conservation groups purchase sensitive lands as part of a local land conservation strategy. Land may be designated for permanent conservation through a variety of mechanisms, including purchase of development rights, fee-simple purchase of the property, conservation easements, or transfer of development rights.

The Katawba Valley Land Trust (KVLT) is a nonprofit, private conservation organization that operates in the study area. Since 1995, the KVLT has protected for permanent conservation nearly 8,000 acres in Lancaster and Chester Counties. Several of these parcels are within the study area for the US 521 / SC 9 Corridor Study, including land near Van Wyck, Andrew Jackson State Park, and major streams and creeks. An inventory of permanent conservation areas held by the KVLT is included on the Environmental Features Map.

#### **Parks and Recreation Areas**

Parks offer a range of facilities and activities (both active and passive) to surrounding residents. Examples may include neighborhood parks, regional parks, natural areas, or athletic fields. Some parks include recreation centers that offer a variety of athletic, social, and cultural programs. Five parks operated by the Lancaster County Parks and Recreation Department or the State of South Carolina were identified in the study area (approximately 660 acres). A brief description of these park facilities follows.

#### State Park System

Two state parks are located in the study area: Andrew Jackson State Park and Landsford Canal State Park. Andrew Jackson State Park was established in 1952 to honor President Andrew Jackson who was born in South Carolina. The park is approximately 360 acres in size and includes a museum, amphitheater, campgrounds,

fishing lake, picnic areas, and walking trails. Landsford Canal State Park, along the Catawba River, is approximately 448 acres in size and includes picnic areas, canoe access, walking trails, a river viewing deck and several historic structures. This park is split between Chester and Lancaster Counties. Approximately 210 acres of the park are located in Lancaster County.

Both state parks are represented in the statewide parks master plan. Limited funding in the state budget for park expansion and new facilities precludes general expansion at the parks. Current funding is used primarily for facility maintenance and program funding. Duke Energy does have recreational plans for the Catawba River that include some improvements (i.e., boat launches) near Landsford Canal State Park.





#### County Park System

Three County parks are located in the study area: Roy Hardin Park, Indian Land Recreation Center and Ball Field, and Van Wyck Community Park. All three parks are operated and maintained by the Lancaster County Parks and Recreation Department. Roy Hardin Park is a nine acre park located on Collins Road in Indian Land. It includes a picnic shelter, playground, walking track, ornamental pond, and natural areas. The park was recently sold for a new development. Terms of the sale will replace Roy Hardin Park with a new 19.5-acre park near Shelley Mullis Road. The Indian Land Recreation Center and Ball Field is a seven acre park located on US 521. It includes a community center with meeting rooms and a lighted youth baseball field. Van Wyck Community Park is a 4.5-acre park located on West Rebound Road. It includes a picnic shelter, playground, and multi-purpose ball field.

A new 60-acre County has been developed near the intersection of US 521 and SC 75 (i.e. the Edenmoor Development). The park includes a playground, picnic areas, skate park, baseball and soccer fields, and tennis courts. The park is complete and ready to open; however, a mechanics lien on the property prevents transfer of the park to the County. There is no timetable for addressing the lien.

The physical inventory of parks and recreation areas summarized above reaffirms residents' expressed desire for more parks, open space, and recreation activities throughout the study area. The County has limited acreage and facilities outside of the state parks. As a result, residents have looked to neighboring communities—Marvin, Waxhaw, Fort Mill, and the Morrison YMCA in Ballantyne—to meet a growing demand. A comprehensive parks master plan for the County has been postponed for years because of funding shortfalls.

### **Blue Infrastructure**

Blue infrastructure represents the interconnected network of rivers, streams, and creeks that help define the environmental cohesiveness of a community. Safeguarding blue infrastructure leads to reduced flooding in low-lying areas, improved water quality, and more diverse aquatic and plant life.

The following elements were identified as blue infrastructure for the study area: Catawba River, major streams and creeks, and natural habitat for the Carolina Heelsplitter.

#### **Catawba River**

The Catawba River runs nearly 225 miles from the North Carolina Mountains to Lake Wateree in South Carolina. Most of the river is dammed; however, the largest free-flowing section (nearly 30 miles) south of Lake Wylie in York County is designated as a South Carolina Scenic River. Limited access to the river is provided from the shores of Lancaster County. Duke Energy is beginning to undertake projects in the area which will improve access to the river in Lancaster County and adjacent communities.



In 2009, the Lancaster County Council considered amending their Unified Development Ordinance (UDO) to implement riparian buffers along the Catawba River. The ordinance requires 100-foot vegetative buffers adjacent to the river. Fifty-foot vegetative buffers are required for the last 50 feet of any perennial stream that flows directly into the Catawba River.

#### **Streams and Creeks**

Several major streams and creeks flow through the study area and ultimately into the Catawba River: Six Mile Creek, Twelve Mile Creek, Waxhaw Creek, Cane Creek, Sugar Creek, Camp Creek, and McAlpine Creek. An inventory of major streams and creeks in the study area is provided on the Environmental Features Map on page 3-3.

Lancaster County's Unified Development Ordinance (UDO) does not require riparian buffers along major streams and creeks in the study area, except for those immediately adjacent (i.e., within 50 feet) to the Catawba River. However, the South Carolina Department of Health and Environmental Control (SC DHEC) recommends riparian buffers varying in width of 25 to 100 feet for all perennial and intermittent streams in the state (see *Vegetative Riparian Buffers and Buffer Ordinances*, www.scdhec.gov/environment/ocrm/pubs/general.htm).

### **Carolina Heelsplitter**

The Carolina Heelsplitter is a species of freshwater mussel found only in North Carolina and South Carolina. It is currently listed as an endangered species by the U.S. Fish and Wildlife Service. Studies attribute the decline in numbers of the Carolina Heelsplitter to changes in their environment caused, in part, by run-off (especially sediment) from nearby development.

Six Mile Creek in the northern extreme of the study area is identified as a natural habitat for the Carolina Heelsplitter. In 2008, the Lancaster County Council designated the Carolina Heelsplitter Overlay District (CHOD) for the Six Mile Creek Drainage Basin. The overlay ordinance imposes certain restrictions and limitations on new development in the drainage basin. The extents of the overlay district are shown on the Environmental Features Map (see page 3-3).



**Carolina Heelsplitter** 

### **Grey Infrastructure**

Grey infrastructure represents the built environment and its supporting infrastructure. The following elements were identified as components of grey infrastructure for the study area: existing development patterns, committed development, land ownership, supporting infrastructure and transportation.

### **Existing Development Patterns**

Existing development patterns in the study area were documented in the *Comprehensive Plan for Lancaster County and Its Municipalities* prepared in 2005. Information presented in the document was validated for the *US 521 / SC 9 Corridor Study* using aerial photography, windshield surveys, and staff/local knowledge.

Generally speaking, development in the study area is influenced by several factors including close proximity to Mecklenburg and Union Counties in North Carolina and York County in South Carolina, accessibility to US 521 and SC 9, relatively affordable land prices, and access to water service. Limited access to sewer service in some portions of the study area limits development potential in these areas.

#### Growth Area One

The most concentrated area of development in the study area is located north of Twelve Mile Creek (i.e., Indian Land). Residential neighborhoods exist both east and west of US 521; offering a variety of small and large lot single-family homes, apartments, townhomes, and manufactured homes to area residents. Sun City Carolina Lakes, generally north of Van Wyck Road, represents the largest single residential development in the study area (3,646 dwelling units at build out). Commercial development exists in various locations along US 521 and SC 160; however, the largest concentrations are found



north of Indian Land Schools. Typical businesses along the corridor include gas stations, grocery stores, home improvement stores, mini-warehouses, and general strip centers. A large commercial center is also located near the Sun City Carolina Lakes development. McMillan Industrial Park, Edgewater Office Park, 521 Corporate Center, and Bailes Ridge Business Park represent large employment centers in the urbanized area.

#### Growth Area Two

The area south of Twelve Mile Creek and north of Shiloh Unity Road is generally rural in nature. Working farms, rolling terrain, and large wooded lots reinforce the rural character. Andrew Jackson State Park and Landsford Canal State Park are in this area. Both residential neighborhoods and single-family homes on individual lots provide housing options to area residents. Small commercial developments (i.e., a small convenience store, gas station, and automobile-related uses) are oriented toward US 521. Large industrial sites are clustered around Van Wyck Road and Steel Hill Road.



#### Growth Area Three

The area south of Shiloh Unity is highly-developed with residential, commercial, and employment uses. The Lancaster County Airport (McWhirter Field) and USC – Lancaster are in this area. Residential development is provided in established neighborhoods. Commercial development exists along US 521 and SC 9. Typical

businesses along the two corridors include restaurants, gasoline stations, convenience stores, hotels, and a large commercial supercenter. The large Springs Grace Industrial Complex is located south of SC 9.

### **Committed Development**

New residential neighborhoods, businesses, and employment centers approved by the Lancaster County Council but not yet built are considered committed development. Tightening credit markets in the region have almost completely stopped construction of remaining approved but not yet built development in the study area.

Active development projects were identified using four indicators: currently under construction, building permits issued, infrastructure in place, or active site marketing. These projects are assumed to continue in the future. Remaining committed development (i.e., proposed development) was assumed to be at risk for completion. Indicators used to identify proposed development include: no site plan available, no on-site infrastructure, or no active site marketing.

Active development in the study area was reflected "as-is" in the General Development Map and supporting recommendations. Proposed development sites were reopened for discussion with the PAC and some changes were made to reflect the community's vision for more sustainable development patterns set forth in this study.

A detailed summary of committed development for the study area (including development status) is provided in Chapter 2 of this document.

### **Land Ownership**

Many tracts of land in the study area are owned by families that have lived in Lancaster County for generations. Several were for-sale as land speculation activities increased during recent development booms. The current economic recession has slowed large-scale land transactions in the area; however, for-sale signs are still apparent throughout the US 521 and SC 9 corridors. Future development on large tracts of land in the study area has the potential to quickly shape the look, feel, and identity of Lancaster County.

Several large tracts of land were the subject of focus area studies discussed in Chapter 7 of this document.



### **Supporting Infrastructure**

Growth patterns and intensities in the study area are influenced by available water and sewer service and the regional transportation system. Information below summarizes how supporting infrastructure impacts development in the study area.

#### Public Water Service

The Lancaster County Water and Sewer District (LCWSD) and the City of Lancaster jointly provide water service in the study area. LCWSD generally serves all areas of the panhandle, with the exception of some areas near SC 9 that are served by the City of Lancaster. The LCWSD's water treatment plant is located immediately south of SC 5 near Union County, North Carolina. It is owned and operated jointly with the Union County Water Department. Hydraulic capacity at the treatment plant is 36.0 million gallons per day (MGD). Half of this capacity is allocated to the Lancaster County Water and Sewer District. Average demand reported for the study area during peak periods of the year is between 7.0 - 10.0 MGD based drought restrictions.



The LCWSD has bulk water agreements in place with Chester County, Mecklenburg County, and all cities in Lancaster County. An agreement with the City of Lancaster provides water to the city utility at actual cost. In exchange, the city utility treats LCWSD effluent at actual cost. This arrangement reserves money for both utilities to undertake more capital projects in their services areas.

A water master plan for the LCWSD identifies needed improvements for the water system and schedules horizon years for their implementation. Water will be available throughout the study area before the planning horizon for this study (2035) with completion of a 16-inch water main running north of the Indian Land Schools to the North Carolina / South Carolina State Line.

#### Public Sewer Service

The Lancaster County Water and Sewer District (LCWSD) and the City of Lancaster jointly provide sewer service in the study area. LCWSD treats effluent for areas north of SC 5 while the City of Lancaster treats areas south of SC 5. LCWSD is responsible for collection in all areas of the panhandle. The LCWSD's sewer



treatment plant is located behind Indian Land Middle School. Treatment capacity at the plant is 1.2 MGD, with improvements now underway to increase capacity to 2.0 MGD by the end of 2010.

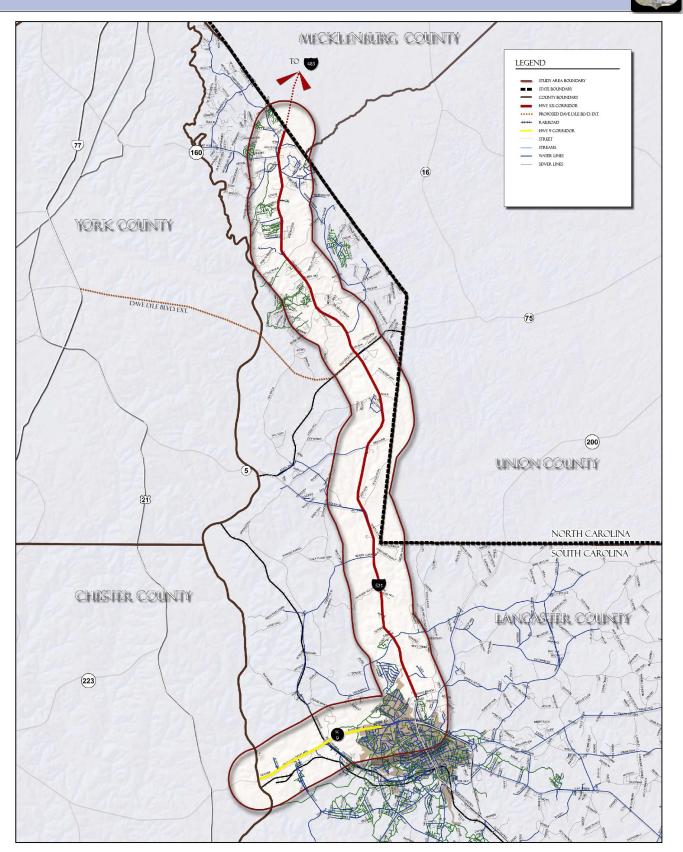
Officials for the LCWSD report sewer service is widely available for areas north of Twelve Mile Creek. New service in areas south of Twelve Mile Creek is currently cost-prohibitive because so few potential customers live in the area. Future expansion of the LCWSD sewer system into underserved areas would occur as development demands it. Private development would be responsible for building collection infrastructure consistent with the LCWSD's sewer master plan.

The City's sewer treatment plant is located on Lockwood Lane inside city limits. Treatment capacity at the plant is 7.5MGD. Average demand during reported peak periods of the year is 2.5 MGD. Officials for the City's Public Utilities Department report sufficient treatment capacity exists for future development anticipated in their service area.

### **Transportation System**

Transportation access and mobility in the study area is accommodated primarily by a system of arterial, collector, and local streets. US 521 is the major highway providing north-south mobility to I-485 and the City of Charlotte. SC 5, SC 9, and SC 160 provide east-west mobility to Union County in North Carolina and York and Chester Counties in South Carolina. Transit, bicycle, and pedestrian infrastructure are generally non-existent in the study area.

A thorough assessment of the transportation system in the study area is provided in Chapter 4 of this document.



Existing Utility Service Map

### **Future Development Scenarios**

How should we grow? Where should we grow? When should we grow? These were questions answered by stakeholders in the scenario planning process used to develop the *US 521 / SC 9 Corridor Study*. Scenario planning tools available during the study afforded stakeholders the opportunity to ask "what if?" while contemplating future alternative development scenarios or measuring the trade-offs between them. Results from the scenario planning process greatly influenced preparation of the General Development Map for the study area.

### What is Scenario Planning?

Scenario planning is a process that puts forth possible future development scenarios for evaluation and study. Scenarios contemplated for the study area are fictional stories about the future. They are not forecasts or predictions. They are possible futures that might be based on what already exists, on trends that are evident, and on community values and guiding principles supportive of the study. The essential requirement of any development scenario is that it be plausible, within the realm of what exists and what could be.

The scenario planning process helps the public visualize the interaction between new development, economic vitality, and the impacts to supporting infrastructure. Considering tradeoffs and opportunities among competing development scenarios informs stakeholders and leads to mutually beneficial outcomes for general development issues in study area.

### **Creating Development Scenarios**

The consultant team chose to marry advanced scenario planning tools with a public participation strategy focused on engaging the PAC in a development chip game. The game is a hands-on, interactive opportunity to increase participants' understanding of land consumption patterns associated with various development scenarios. It lets participants manipulate key policy components, deal with trade-offs as they would in the real world, and achieve results that are the beginnings of a more sustainable General Development Map for the study area.

The event started with a brief presentation by the consultant highlighting current conditions in the study area, anticipated growth (2035), and detailed workshop instructions. Following the presentation, members of the PAC formed small groups to formulate their vision and supporting goals for the study area. Each table was provided resource maps, a development chipset, markers, and a work map. Game pieces in the development chipset represented rural areas, residential neighborhoods, retail centers, employment centers, or mixed-use developments desirable in the study area.

PAC members arranged game pieces on the work map to represent their version of the most livable study area. Participants tested several different scenarios as the chips moved around. At the event's conclusion, each group

peeled off the backing from game pieces (stickers) and permanently affixed them to the work map. Markers were provided at each table to identify new roads, transit routes, or greenways supportive of the group's vision. Groups also developed brief policy statements about implementation that addressed specific issues important to the study area (e.g., economic vitality, walkable neighborhoods, or housing choice). At the end of the event, participants presented their scenarios to each other and received comments.





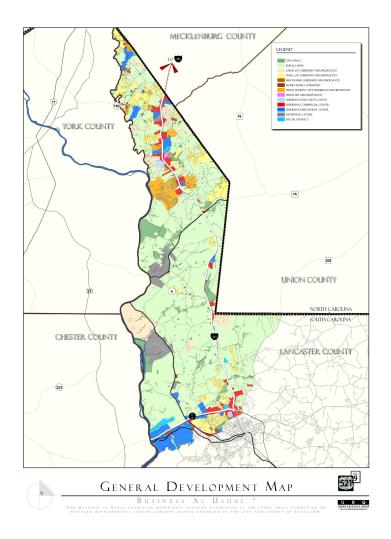
Following the event, development chip game maps were digitized using CommunityViz® scenario planning software to measure trade-offs amongst the development scenarios. Results were shared with the PAC at their next scheduled meeting, and then used by the consultant team to develop the recommended general development map for the study area.

# **Development Scenario Summaries**

The consultant team prepared four future year development scenarios for the study area. They were created from the work maps presented at the development chip game workshop and a study of conditions expected for the study area assuming application of existing plans, policies, and ordinances enforced by the City and County of Lancaster (i.e., business-as-usual). All four development scenarios represent the same study area and growth pressures (i.e., new population and employees) anticipated by the consultant team through 2035. A brief summary of the four development scenarios follows.

### Business-As-Usual (BAU)

The business-as-usual scenario represents continuation of adopted plans, programs, and policies administered in the study area. Development potential was assigned to parcels using information for existing conditions, committed or entitled development (both active and proposed), and current zoning enforced by the City or County of Lancaster in undeveloped areas.



Low-density development and the physical distance between complementary uses tend to promote automobile travel, particularly since safe, convenient facilities are generally not available for pedestrians and bicyclists. Increased traffic congestion along US 521 and SC 9 means less mobility for citizens in the study area and those traveling through the region.

The business-as-usual scenario was created by the consultant team prior to the chip game event. This scenario was provided to the PAC members as a resource when creating their future development scenarios. The BAU scenario was not considered when evaluating trade-offs because this scenario was for full build-out of the study area. The scenarios created by PAC members were limited to the growth anticipated in the study area through the 2035 planning horizon.

### Compact Development (C)

The compact development scenario represents the biggest departure from business-as-usual conditions. It directs new growth to walkable, mixed-use centers located throughout the study area. These areas are well-served by public facilities and services — water, sewer, roads, schools, fire and police — while preserving farmland and other open space outside the development centers. The diversity of close-by, complementary land uses and local travel options within the mixed-use centers encourage better distribution of trips and shorter trip lengths in the study area. The scenario also assumes safe and convenient travel between new mixed-use centers via regional bus transit.

### Decentralized Growth, Alt. 1 Hybrid (D1)

The first decentralized growth scenario represents a hybrid between business-as-usual and compact development conditions. New suburban retail centers are added throughout the study area to serve existing residential neighborhoods and to take advantage of proximity to large-scale, luxury homes in Mecklenburg and Union Counties in North Carolina. Two new town centers along US 521 support economic, entertainment, and community activities. Large areas for new parks and preserved open space raise quality-of-life for local residents. New greenways and other bicycle and pedestrian infrastructure support travel options in the study area and a more efficient regional transportation system.

### Decentralized Growth, Alt 2 Hybrid (D2)

The second decentralized growth scenario presents another hybrid between business-as-usual and compact development conditions. New employment centers of varying size and design (supporting both industrial and office uses) promote economic vitality and continued residential growth in the study area. Infill development and redevelopment is targeted for the Indian Land area. Rural and natural areas south of SC 75 are preserved in the scenario. New arterial and collector streets in the study area increase mobility and improve accessibility for local residents and business owners.





PAC participants presenting various development strategies

### **Development Scenario Trade-Offs**

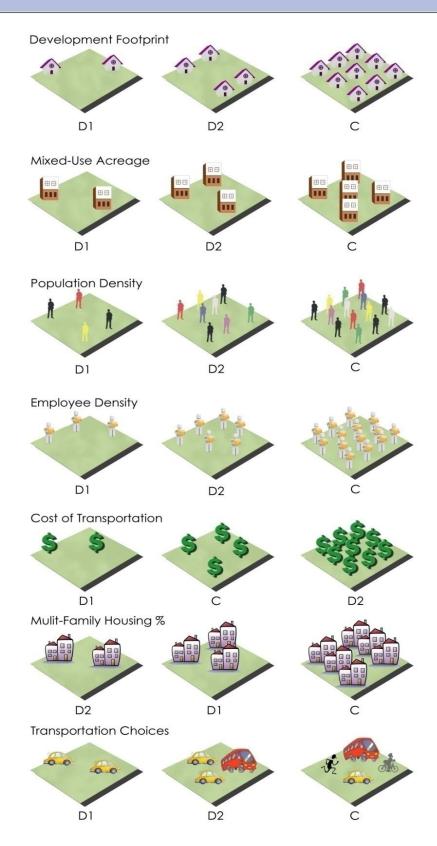
Summary statistics for comparing impacts between the three development scenarios (excludes BAU scenario) were created using CommunityViz® software. Measures-of-effectiveness used to evaluate the development scenarios included: development footprint, mixed-use acreage, population density, employment density, cost of transportation, percentage of multifamily housing, and available transportation choices. Qualitative results generated by CommunityViz® are shown to the right.

As illustrated to the right, the compact development scenario (Scenario C) created by one group of PAC members includes more mixed-use and multi-family housing developments, higher population and employment densities per acre, and greater transportation choices than either of the decentralized growth scenarios.

Comparison of the four development scenarios confirms that land use patterns and development intensities have a significant impact on quality-of-life, community cohesiveness, economic vitality, and efficient use of public facilities and services. Results from the development scenario comparison matrix were used by the PAC to discuss the difficult trade-offs associated with forging a common vision and supporting recommendations for more sustainable development patterns in the study area.

### **Building Consensus**

The scenario planning process was important because it highlighted the trade-offs associated with competing development scenarios. The consultant team used information generated from the scenario planning process to develop the General Development Map for the study area. The PAC endorsed the types, patterns, and intensities of development reflected in the map at their last regular meeting.





### **General Development Map**

The general development map represents preferred development types, patterns, and intensities favored in the study area. Input used to develop the map was sought throughout the planning process including stakeholder interviews, public meetings and workshops, scenario planning exercises (i.e., development chip game) and interaction with the PAC. Information depicted on the general development map should be a guide for amendments to the local comprehensive plan or other policies and ordinances. Patience may be needed for some recommendations made in the General Development Map as it may be 15 or 20 years before they are fully realized.

The General Development Map prepared for the study area is presented on the following page.

### **Development Considerations Map**

The Development Considerations Map supplements the General Development Map. It identifies prime locations for future activity centers, a new town center in Indian Land, future regional parks and greenways, and important scenic view sheds. Officials for Lancaster County should refer to both the General Development Map and the Development Consideration Map when contemplating development applications in the study area.

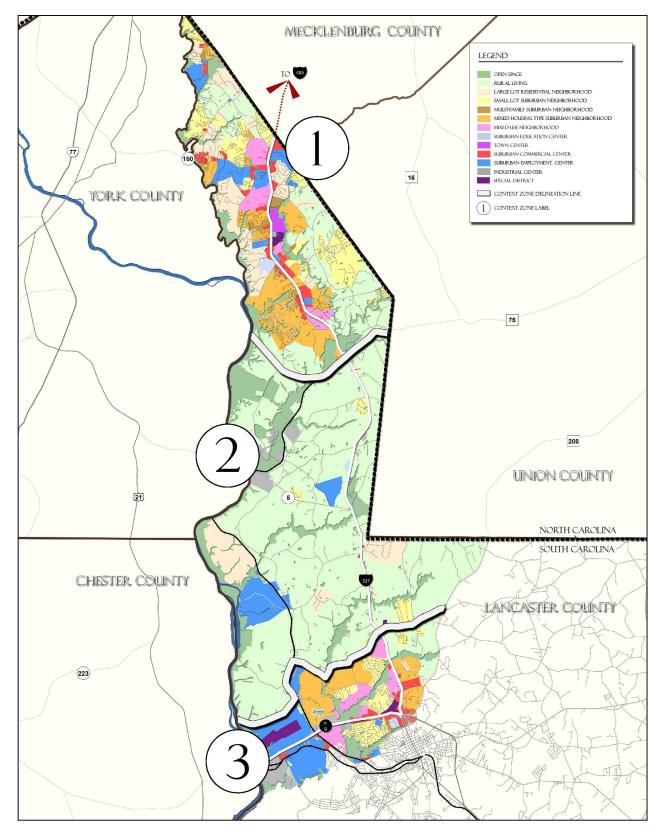
The Development Considerations Map prepared for the study area is presented on the following page.

### **Place Types**

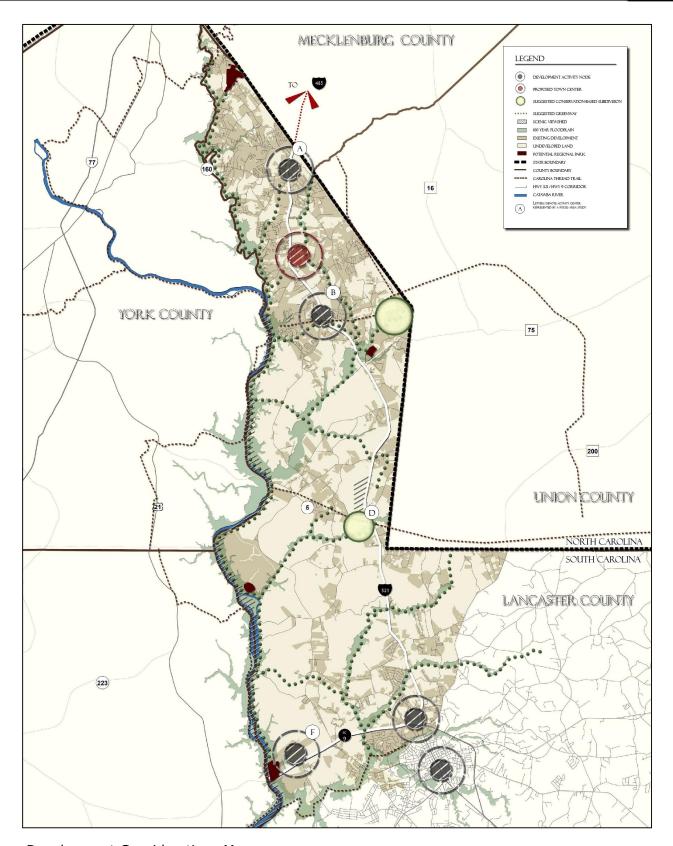
Many cities and counties around the country are switching from conventional land use designations to place types when developing growth plans. This is driven by a renewed interest in the interrelationship between land use and urban design for creating unique places. Generalized development characteristics used to describe different place types include: generalized land use pattern (e.g., mixed or stand-alone), residential density, non-residential intensity, prevailing building height, open space elements, block size, or street pattern. Equal emphasis on land use and urban design in the place type description guides decisions about growth and development, land preservation, resource protection, and the provision of community facilities and services during the scenario planning process. Place types are not meant to be synonymous with zoning districts, nor should they be thought to replace rules or requirements set forth in current City or County of Lancaster Zoning and Subdivision Ordinances. Amendments to policy documents or ordinances may be necessary to implement the character and intent recommendations presented for the various place types used in the study area.

The following place types are represented on the General Development Map for the US 521 / SC 9 Corridor Study: open space, rural living, large-lot residential neighborhood, small-lot suburban neighborhood, multifamily suburban neighborhood, mixed-housing type suburban neighborhood, mixed-use neighborhood, suburban commercial center, suburban employment center, suburban education center, industrial center, town center, and

special district. Detailed descriptions for all thirteen place types are provided on pages 3-13 through 3-17 in this chapter.



General Development Map



**Development Considerations Map** 



# **OPEN SPACE**

Open space is characterized by areas of significant natural or cultural value. These areas are generally undisturbed and have been protected from development by local, state, and federal agencies or by public, private, and nonprofit organizations. In the study area, these areas include water bodies, lands protected by the Katawba Valley Land Trust, riparian buffers along the Catawba River, large floodplain areas, parkland, cemeteries, and dedicated open space inside residential subdivisions.

General Development Pattern	Isolated Uses	Street Pattern	N/A
Residential Density	N/A	Typical Street Spacing	N/A
Non-Residential Intensity	N/A	Street Connectivity	Low
Prevailing Building Height	N/A	Typical Street Cross Section	Rural Condition
Open Space Elements	Protected Natural Areas /		
Open space Elements	Greenways / Stream Corridors		





# **RURAL**

Rural living areas are characterized by large lots, abundant open space, pastoral views, and a high degree of separation between buildings. Residential homes are located randomly throughout the countryside, integrated into the natural landscape. Commercial and office uses are generally limited to the junction of two rural highways.

The lot sizes and separation between buildings decrease as you approach the edges of rural living areas. Buildings at edges of the character area are oriented toward highways or major arterials, with driveways directly onto the highway or major arterial. New and existing development in this character area is encouraged to develop holistically, with an organized internal street network and appropriate buffering from surrounding development.

General Development Pattern	Isolated Uses	Stre
Residential Density	I d.u./5 acres	Турі
Non-Residential Intensity	0.15 - 0.25 FAR	Stre
Prevailing Building Height	2 stories	Турі
Open Space Elements	Protected Natural Areas /	
	Greenways / Stream Corridors	

Street Pattern	Curvilinear
Typical Street Spacing	2,500 - 5,000 ft.
Street Connectivity	Low
Typical Street Cross Section	Rural Condition







### LARGE-LOT RESIDENTIAL NEIGHBORHOOD

Large-lot residential neighborhoods are generally located on the fringes of rural living areas and consist almost exclusively of single family detached homes. Buildings are oriented interior to the site and are typically buffered from surrounding development by transitional uses or landscaped areas. Many neighborhoods "borrow" open space from adjacent rural or natural areas. Blocks are typically large and streets are typically rural in character. In some cases, an estate density residential neighborhood is served by only one long dead end street.

General Development Pattern	Isolated Uses
Residential Density	I d.u./5 acres to Id.u./ acre
Non-Residential Intensity	N/A
Prevailing Building Height	2 stories
Open Space Elements	Protected Natural Areas /
Open Space Liements	Greenways / Stream Corridors

Street Pattern	Curvilinear
Typical Street Spacing	1,500 - 3,000 ft.
Street Connectivity	Low
Typical Street Cross Section	Rural Condition





## SMALL-LOT RESIDENTIAL NEIGHBORHOOD

Single family residential suburban neighborhoods are generally formed as subdivisions or complexes, with a relatively uniform housing type and density throughout. These neighborhoods consist entirely of single family detached homes. They are found in close proximity to highway commercial uses, which provides the rooftops necessary to support commercial and professional office uses within the study area. Buildings are oriented interior to the site and are typically buffered from surrounding development by transitional uses or landscaped areas.

General Development Pattern	Isolated Uses
Residential Density	I.0 -4.0 d.u./acre
Non-Residential Intensity	N/A
Prevailing Building Height	2 - 4 stories
O C FI .	Neighborhood Parks /
Open Space Elements	Greenways / Stream Corridors

Street Pattern	Modified Grid
Typical Street Spacing	1,500 - 3,000 ft.
Street Connectivity	Medium
Typical Street Cross Section	Urban Condition





# MULTI-FAMILY SUBURBAN NEIGHBORHOOD

Multi-family suburban neighborhoods are generally formed as complexes or communities, with a relatively uniform housing type and density throughout. They support the highest residential density in the suburban landscape, and may contain one of the following housing types: townhomes, duplexes, apartments, or condominiums. Multi-family suburban neighborhoods are found in close proximity to Suburban Commercial and Employment Centers, which provide rooftops necessary to support the commercial and office uses within the centers. Buildings are oriented interior to the site and are typically buffered from surrounding development by traditional uses or landscaped areas. Large parking lots and low street connectivity are common in multifamily residential neighborhoods.

General Development Pattern	Isolated Uses
Residential Density	8.0-12.0 d.u./acre
Non-Residential Intensity	N/A
Prevailing Building Height	2 - 4 stories
Open Space Elements	Neighborhood Parks /
	Greenways / Stream Corridors

Street Pattern	Modified Grid
Typical Street Spacing	1,500 - 3,000 ft.
Street Connectivity	Medium
Typical Street Cross Section	Urban Condition







# MIXED HOUSING TYPE SUBURBAN NEIGHBORHOOD

Mixed housing type, suburban neighborhoods are characterized by a mix of housing types and residential densities organized into a cohesive, well-connected community. These character areas are designed to promote a wide range of housing choices in the study area. They are found in close proximity to strip commercial areas, which provides the rooftops necessary to support commercial and professional office uses within the corridors. Buildings are oriented interior to the site and typically buffered from surrounding development by transitional uses or landscaped areas.

General Development Pattern	Isolated Uses
Pasidential Density	I.0 -4.0 d.u./acre (SF)
Residential Density	8.0-12.0 d.u./acre (MF)
Non-Residential Intensity	N/A
Prevailing Building Height	2 - 4 stories
On an Seaso Flaments	Neighborhood Parks /
Open Space Elements	Greenways / Stream Corridors

1.500 - 3.000 ft.
1,300 - 3,000 1t.
Medium
Irban Condition





# MIXED-USE SUBURBAN NEIGHBORHOOD

A mixed-use neighborhood offers residents the ability to live, shop, work, and play in one community. They include a mixture of housing types and residential densities integrated with goods and services residents need on a daily basis. The design and scale of the development encourages active living, with a comprehensive and interconnected network of walkable streets.

General Development Pattern	Mixed Uses
Residential Density	3.0 - 6.0 d.u./acre (SF)
	8.0 - 15.0 d.u./acre (MF)
Non-Residential Intensity	0.35 - 2.0 FAR
Prevailing Building Height	2 - 4 stories
Open Space Elements	Community Parks / Public Spaces
	/ Stream Corridors

C D	M PC LC : I
Street Pattern	Modified Grid
Typical Street Spacing	600 -1500 ft.
Street Connectivity	High
Typical Street Cross Section	Urban Condition





# SUBURBAN EDUCATION CENTER

A suburban education center includes all of the academic buildings, administrative offices, athletic fields, and other supporting infrastructure typically associated with an elementary school, middle school, high school, vocational school, or community college. A center in the study area generally reflects a traditional suburban prototype: one to two story buildings oriented interior to the site, large parking lot(s), internal circulation pattern conducive to parent drop-off/pick-up, athletic fields reserved for school use only, and wide buffers from surrounding uses. Access to a campus is typically limited to driveways located near the front of the main building for security reasons.

General Development Pattern	Isolated Uses
Residential Density	N/A
Non-Residential Intensity	0.20 - 0.35 FAR
Prevailing Building Height	I-2 stories
Ones Sance Flaments	Stream Corridors / Athletic Fields
Open Space Elements	/ Playground

Street Pattern	N/A
Typical Street Spacing	1,200 - 1,500 ft.
Street Connectivity	N/A
Typical Street Cross Section	Urban Condition
Typical Street Cross Section	Urban Condition







# TOWN CENTER

Town centers are locally-serving areas of economic, entertainment, and community activity. Buildings in the core of the town center typically stand two or more stories with residential units above storefronts. They are typically surrounded by mixed-use neighborhoods that encourage active living, with a comprehensive and interconnected network of walkable streets.

General Development Pattern	Mixed Uses	Street Pattern	Grid
Residential Density	3.0 - 6.0 d.u./acre (SF)	1 Typical Street Spacing 300 - 12	
	8.0 - 15.0 d.u./acre (MF)		
Non-Residential Intensity	0.35 - 2.0 FAR	Street Connectivity	High
Prevailing Building Height	2 - 4 stories	Typical Street Cross Section	Urban Condition
Open Space Elements	Community Parks / Public Spaces		
	/ Stream Corridors		





# SUBURBAN COMMERCIAL CENTER

Suburban commercial centers serve the daily needs of surrounding suburban residential neighborhoods. They typically locate near high-volume roads and key intersections, and design themselves to be accessible primarily by automobile. Buildings are typically set back from the road behind large surface parking lots, with little or no connectivity between adjacent businesses. Common types of suburban centers in the study area include multi-tenant strip centers and big box stores. New and aging suburban centers in the study area are encouraged to develop or redevelop as cohesive centers. Joint access, shared use parking, and improved connectivity within and adjacent to the site promote walking between complementary uses in the development.

General Development Pattern	Isolated Uses
Residential Density	N/A
Non-Residential Intensity	0.20 - 0.50 FAR
Prevailing Building Height	I-2 stories
Open Space Elements	Stream Corridors

Street Pattern	N/A
Typical Street Spacing	1,200 - 1,500 ft.
Street Connectivity	N/A
Typical Street Cross Section	Urban Condition





# SUBURBAN EMPLOYMENT CENTER

Employment centers provide basic jobs and keep people in the study area during normal work hours. They typically locate near major transportation corridors (e.g., highways and railways) and may include office parks, medical parks, light industrial centers, and flex space buildings. Clusters of uses that support or serve one another should be encouraged to locate in the same business park.

General Development Pattern	Isolated Uses
Residential Density	N/A
Non-Residential Intensity	0.20 - 0.35 FAR
Prevailing Building Height	I-4 stories
Open Space Elements	Pocket Parks / Stream Corridors

Street Pattern	Modified Grid
Typical Street Spacing	1,200 - 1,800 ft.
Street Connectivity	Medium
Typical Street Cross Section	Urban Condition







# INDUSTRIAL CENTER

Industrial centers generally support manufacturing and production uses, including warehouse, manufacturing centers, and industrial parks. They typically locate near major transportation corridors (e.g., highways and railways). Clusters of uses that support or serve one another should be encouraged to locate in the same industrial center. They are typically buffered from surrounding development by transitional uses or landscaped areas, with increased buffering and separation requirements implemented as intensity increases.

General Development Pattern	Isolated Uses
Residential Density	N/A
Non-Residential Intensity	0.10 - 0.25 FAR
Prevailing Building Height	I-2 stories
Open Space Elements	Pocket Parks / Stream Corridors

s	Street Pattern	Modified Grid
4	Typical Street Spacing	1,000 - 1,500 ft.
R	Street Connectivity	Medium
es.	Typical Street Cross Section	Urban Condition
·s		





# SPECIAL DISTRICT

Special districts represent unique development types or intensities not likely to be repeated elsewhere in the study area. These include the City of Light, USC-Lancaster, McWhirter Field Airport, and Lancaster Speedway.

- The City of Light is a global mission outreach and media training center of ministry leaders of media arts.
- USC-Lancaster is a university located within the city limits of Lancaster off of SC 9. The campus for the university includes lecture halls, student housing, maintenance and security building, a health and wellness center, and a tennis complex.
- McWhirter Field Airport is a general aviation airport located in Lancaster County off of SC 9. The airport is primarily used by pilots in the local area and includes a 6,000 foot runway, small airplane hangars, and a pilot's lounge.
- Lancaster Speedway is located on Shiloh Unity Road off of US 521. It is one of the oldest surviving dirt race tracks in the Southeastern United States.





### **Development Principles**

The following development principles support implementation of the General Development Map prepared for the study area. New development or redevelopment should incorporate these principles to better link growth and quality-of-life and improve community cohesiveness and economic vitality. Officials for Lancaster County may need to implement one more of these development principles through revisions to the local comprehensive plan or other policies and ordinances.

### 1. Increase Opportunities for Open Space

Preservation of open space supports smart growth in the study area by directing development to areas where it can be served while preserving environmentally-sensitive areas. In developing areas, open space may include lakes, buffers, parks, and greenways for the enjoyment of area residents. Scenic views and natural areas contribute significantly to the desirability of the study area.

The General Development Map reflects a dramatic increase in dedicated open space (almost 20%) compared to the business-as-usual scenario. The map identifies future regional park locations and advocates for full conservation in floodplains and/or riparian buffers along perennial streams.



#### 2. Meet Future Housing Needs and Preferences for Various Housing Types

Housing markets in the Charlotte region are expected to shift in response to changing demographic and socioeconomic characteristics, lifestyle choices, and market conditions. The General Development Map deemphasizes small-lot, suburban neighborhoods (i.e., single housing type) in favor of compact, multi-housing type or mixed-use neighborhoods. Greater housing choice will attract diversity in the community.

### 3. Move From Strip Development to Activity Centers

The General Development Map consolidates strip commercial development and stand-alone office or industrial buildings into cohesive, well-designed activity centers. Use and design guidelines prepared for new activity centers should favor height, bulk, buffer, and building architecture requirements that promote development compatibility within and immediately surrounding the activity center.

#### 4. Designate Primary Future Growth Areas

The General Development Map directs growth to the most desirable locations for development based on site location, economies of scale, and access to supporting infrastructure. Directing new growth to these areas lessens the demand for new development in the residual area, promoting environmental stewardship, rural

preservation, and efficient use of community resources. Growth centers reflected in the General Development Map include the Indian Land area (north of Twelve Mile Creek) and areas in and around the City of Lancaster (generally south of Shiloh Unity Road).

#### 5. Promote Mixed-Use Development



One type of development gaining popularity in the Charlotte Region is mixed-use development. Integrating a mix of uses in a central location creates places where people live, work, and play as a cohesive community. Mixed-use developments further the vitality and sustainability of an area, the efficiency of utilities and transportation serving the area, and the sense of community experienced by residents, business owners, and visitors to the area. Mixed-use developments often become activity centers in the suburban landscape.

#### 6. Build Walkable Neighborhoods

Walkable neighborhoods locate places to live, work, learn, and play in an environment that promotes pedestrian activity. A comprehensive network of streets, mix of complementary land uses, and compact urban form serve a wide range of users — pedestrians, bicyclists, transit riders, and automobiles — and support "active living by design" initiatives.

The US 521 / SC 9 Corridor Study advocates for new walkable neighborhoods in all mixed-use neighborhood and town center place types designated on the General Development Map.



#### 7. Promote Conservation Subdivision Design in Rural Areas

Conservation subdivision design is an alternative to more traditional suburban development patterns. Proponents of conservation subdivision design refer to these developments as "twice green," because they reduce the environmental footprint of new development while improving the overall financial success of the project (by reducing infrastructure costs and increasing sales prices). Benefits from conservation subdivision design include: reduced storm water run-off, decreased flood potential, lower infrastructure costs, and more land in permanent open space.

### Conventional Conservation-Subdivision Based Subdivision





FELDS ST RESDENTIN.
WOODS VILLAGE CENTER
WATER BODY/ STREAM HARWAY RETAL

The Development Considerations Map highlights opportunities for conservation subdivisions in the study area.

### 8. Designate a Traditional Town Center in Indian Land

The General Development Map recommends a traditional town center in the heart of Indian Land. Iconic architecture, walkable streets, and a mix of uses distinguish the town center from surrounding development. Buildings in the town center include space for civic, cultural, and social uses. Parks, plazas, and wide sidewalks encourage community interaction and support public events (i.e., movies in the park, festivals, and parades) held to celebrate Indian Land and Lancaster County.



9. Foster Distinctive and Attractive Communities with Strong Sense of Place

The study area leaves an impression on those who live in it and those who simply visit. This impression is referred to as a "sense of place," which implies the distinct image unique to the community. Whether built around a tangible element — such as a park or a group of buildings — or the feeling of a community's theme — such as streetscape elements, signs, or general architecture — a sense of place is important to any sustainable growth strategy. See Chapter 5 for a more detailed discussion on place-making in the study area.

#### 10. Provide a Variety of Transportation Choices

The General Development Map advocates for a reorganization of land use and urban design throughout the study area to support a more efficient transportation system. Linking land use, urban design, and transportation decision-making processes promotes the livability of local communities, measured for transportation by shortening commuting distance between destinations and providing more travel mode choices.

### **Summary of Recommendations**

Recommendations in the General Development Chapter for implementing the community's vision for sustainable development include:

1. Update the Joint City/County Comprehensive Plan with recommendations from the US 521 & SC 9 Corridor Study.

The Planning Department should consider incorporating the General Development Map into their future land use map and including other recommendations from the general development chapter as goals, objectives, and policies in the land use element of the update to the Comprehensive Plan.

2. Protect valuable open space areas indicated on both the General Development Map and Development Considerations Map.

The Planning Department should consider reviewing existing rules and requirements related to the provision and protection of open space. Specific emphasis should be placed on protecting scenic view sheds, reserving greenway corridors, requiring neighborhoods parks, public plazas, etc. in new developments, and moving development out of floodplains. Areas designated for passive and active open space in the General Development Map or the Development Considerations Map should be the highest priority for preserving green infrastructure in the study area.

### 3. Strengthen floodplain regulations to prohibit structural development within the 100-year floodplain.

County Council should consider amending existing development regulations to prohibit most development within the 100-year floodplain. Those uses permitted in the floodplain may include agricultural uses, private and public recreational uses, and utilities. This will minimize the loss of life, property, and health and safety hazards and protect significant wildlife habitat in the study area.

# 4. Promote a mix of housing types in appropriate locations of the study area that respond to shifting housing markets emerging in the region.

The Planning Department and County Council should work together to provide solutions that ensure the study area meets future housing needs and preferences for various housing types in the community. The focus should be on shifting housing markets in response to changing demographics and socioeconomic characteristics, lifestyle choices, and market conditions, and the opportunities that will result from providing a more stratified housing market in the study area.

# 5. Revise local land development regulations to allow conservation-based subdivisions without the need for a planned development district designation.

Consideration should be given to reviewing and revising local land development regulations to allow for conservation-based subdivisions through a shortened development review process. The Planning Department should consider introducing incentives (i.e. density bonuses) to encourage developers to design outside of the traditional subdivision model.

### 6. Promote the principles of smart growth in new neighborhoods and centers.

Consider reviewing and revising local land development regulations to encourage the principles of smart growth, which recognize connections between development and quality-of-life for improving community cohesiveness and vitality.

### 7. Move from strip development patterns toward commercial activity centers.

Transforming development from linear strips along major thoroughfares to commercial activity centers promotes more human scale development and improves transportation efficiency. Commercial centers are more pedestrian friendly and allow visitors to access multiple businesses in one trip. Additionally, shared parking, improved connectivity within and adjacent to the site, and fewer curb cuts helps the function of the overall transportation system.

8. Revise local land development regulations to allow town centers or mixed-use neighborhoods without the need for a planned development district designation.

The County should consider creating one or more new zoning district(s) that encourage compact, mixed-use development comprised of residential homes and two or more of the following uses: business, professional office, civic and institutional, or hotel. The design and scale of mixed-use developments should support active living, human scale, and the principles of smart growth described in the General Development chapter and detailed on the place type summary sheets.

9. Provide a wide variety of leisure activities and facilities that improve quality of life and meet the recreational needs of County residents.

The Parks and Recreation Commission, with support of County Council, should consider developing a Comprehensive Parks and Recreation Master Plan. The Parks and Recreation Commission has tried to develop a master plan in the past but was unable to secure funding. Identifying funding sources for such a plan should be a high priority as land costs continue to increase and available land supply continues to decrease. The master plan should determine locations for new regional parks as shown on the Development Considerations Map, maximize access to the Catawba River, and provide needed amenities identified by the Parks and Recreation Commission and County residents.

The County should also include the Parks and Recreation Commission in the development review process and seek adoption of policies that addresses the timing, phasing, construction, dedication, and operation of future park facilities.

10. Implement "best development practices" represented in the focus area studies throughout the study area.

Developers should be encouraged to incorporate the principles demonstrated in the focus area studies (see Chapter 7) to other areas of the study area, as appropriate. Landowners with similar vision, development patterns, and supporting infrastructure should consider the "best development practices" generated from the focus studies when implementing their own development plans.

11. Protect key sites identified for economic development throughout the study area.

The Planning Department, County Council, Planning Commission, LCWSD, and LCEDC should protect key economic development sites in the study area by extending water and sewer service, improving other supporting infrastructure (rail and highway), and not rezoning or downzoning properties zoned for employment and industrial uses. All properties identified on the Economic Development Priority Locations Map should be reserved for future economic development opportunities.

12. Encourage development in more urbanized areas of the study area (Growth Areas One & Three) through the mid-term planning horizon, 2020.

Although largely developed, Growth Areas One and Three contain several opportunities for future residential, commercial, and employment uses. These context zones are served by water and sewer and afford the most efficient opportunities for development and redevelopment within the mid-term planning horizon (2020).

13. Undertake more detailed planning studies for the central portion of the study area (Growth Area Two) to prepare for long-term growth pressures and development opportunities beyond the midterm planning horizon, 2020.

As Growth Areas One and Three approach build out and water and sewer are extended into Growth Area Two, the County should consider the creation of a more detailed master plan for Growth Area Two. This study will ensure that this area develops in a manner that enhances the area and its opportunities to attract quality businesses and residential opportunities.

14. Ensure adequate potable water and sanitary sewer service is available to support the development patterns and intensities depicted on the General Development Map.

In Lancaster County, water and sewer service is provided by Lancaster County Water and Sewer District (LCWSD). The County should actively coordinate with LCWSD to ensure compatibility between their master plans and the County's Comprehensive Plan. This ensures growth will occur more efficiently in desirable locations.

15. Coordinate with the Lancaster County School District to implement necessary improvements that ensure adequate capacity is reserved to serve the magnitude and timing of anticipated development.

Rapid population growth, especially in Indian Land, has resulted in overcrowded schools. As large developments are approved in the future, the Planning Department should coordinate with the School District to ensure an appropriate number of school sites have been selected and acquired.

16. Officials for Lancaster County should continually monitor new development and public investments in the area to ensure fulfillment of the community's vision for high quality-of-life, improved community cohesiveness, and increased economic vitality in the study area.

Stakeholders should continually monitor and evaluate implementation of recommendations presented in the US 521 & SC 9 Corridor Study. The Planning Department should summarize progress in the study area in a formal two-year implementation status report (the "report card") for presentation to the Lancaster County Council. Scenario planning tools, such as CommunityViz® software, will be available to County officials for regular monitoring.

17. Lancaster County should consider development of an Impact Fee Ordinance and/or Adequate Public Facilities Ordinance (APFO) to tie development approvals to the availability of infrastructure capacity at adopted level of service standards.

A development impact fee ordinance may be enacted by the County to fund certain off-site capital improvements needed to accommodate future growth. An adequate public facilities ordinance (APFO) may be used to deny development applications or to time and sequence development approvals based on the availability of infrastructure in an adopted, funded, and prioritized capital improvements program. The County should refer the feasibility for an Impact Fee(s) and/or APFO in Lancaster County to an ordinance review committee (see discussion of ordinance review committees in Chapter 5).