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Executive Summary

The purpose of any small area plan is to provide further criteria for evaluating development requests default to the comprehensive plan / land use plan and current adopted zoning and subdivision ordinances in place within a given jurisdiction. The former is long-range and provides general policy guidance. The latter provides regulation that is somewhat site-specific in nature and most relevant to the development review and approval process.

The Brawley School Road Small Area Plan is intended for use as a policy tool for additional guidance to supplement the Mooresville Comprehensive Land Use Plan when the Town receives future requests for development approval within the designated area. Plans and recommendations are tailored to this area and more specifically anticipate development likely to occur within the designated area. Past successes with prior Town efforts including the Cascade Neighborhood Master Plan (2003), the Mount Mourne and South Iredell Master Plan (2006) and the ongoing Downtown Mooresville Master Plan (2008) set the foundation for preparing the Brawley School Road Small Area Plan.

The process to develop the Brawley School Road Small Area Plan took approximately seven months. The steps involved included the inventory, analysis and synthesis of information pertaining to a variety of planning elements; meeting with Town of Mooresville representatives and others involved in the planning process; the facilitation of a series of public meetings; and, based on this collective information and input, preparing and finalizing the Brawley School Road Small Area Plan. Research and public participation were the keys to the success of the planning process. During this process, the Town simultaneously undertook a small area plan effort for the Cornelius Road corridor.

Altogether, the vision for the Brawley School Road Small Area Plan is a strategic one. It provides a physical plan with recommended improvements with a ten year timeframe (2018).

The consultant team recommends the Town of Mooresville adopt this plan and related recommendations herein (see Chapter 2: Recommendations and Implementation Strategies).
Organization of this Report

The following report for the Brawley School Road Small Area Plan is presented with two main chapters.

Chapter 1: Introduction provides a background of this effort along with guiding principles, set early in the plan process with input from the community. The guiding principles were established to serve as a roadmap to follow throughout the plan process.

Chapter 2: Recommendations and Implementation Strategies describes in detail the results of the plan process in the form of specific recommendations and implementation strategies for the Brawley School Road Small Area Plan formulated by the consultant team at the conclusion of the plan process. An Index of Base Zoning Districts provides further description of the zoning categories found in Chapter 2. Information on timing and individuals responsible for implementation is found in the Appendices.

Terminology and List of Acronyms is intended to be a helpful reference for the reader of the report and appendices found at the end of this report.

Maps are provided as a reference and accompany recommendations and implementation strategies in Chapter 2 and in the appendices.

Appendices found at the end of the report include supporting documentation prepared during the process. This additional documentation includes materials used to develop the plan and formulate recommendations such as the Market Report. Also included is a matrix with information on timing and individuals responsible for implementation.
Chapter 1: Introduction

1.1 Introduction

The Brawley School Road study area covers 961 acres immediate to the planned interchange with Brawley School Road and I-77. A majority of the site is within the Town of Mooresville jurisdiction or Extra Territorial Jurisdiction (ETJ).

The combination of widening and related improvements to the Brawley School Road corridor and future improvements at the new interchange with Interstate 77 will present significant impacts to land uses in adjacent areas along this corridor. The Mooresville Comprehensive Land Use Plan and Comprehensive Transportation Plan anticipate this growth and provide general guidance. In 2008, the Town of Mooresville undertook the Brawley School Road Small Area Plan in order to have a plan in advance of future anticipated growth in the corridor.

1.2 Brief History

The Town of Mooresville, with a 2008 estimated population of 26,854 is a Lake Norman community, located approximately 30 miles north of Charlotte in south Iredell County, in the southwestern piedmont of North Carolina (shown on Figure 1, Page 16).

The Town of Mooresville is located near rapidly growing areas of northern Mecklenburg County and southern Iredell County. Much of this growth is due to high accessibility to Interstate I-77, an expanding employment base, area schools and the region’s high quality of life. By 2013, overall population is expected to increase to 32,285.

Due to its location and geography, Brawley School Road is the sole route home for thousands of Mooresville and Mooresville-area residents, as well as one of the busiest east-west corridors connecting downtown Mooresville and Lake Norman. Over time, especially the recent decade, this major thoroughfare has been the most rapidly urbanizing area of Mooresville.

In a citizen survey conducted in 2006, Mooresville residents listed traffic as their top rated concern. As such, the Town voted to spend $500,000 in FY 2008 for construction and implementation of improvements. The Town hired a traffic engineer, upgraded rail crossings, purchased new traffic counters, applied for state grants for new patrol officers and vehicles and will install new signage.

The North Carolina Department of Transportation (NCDOT) has now begun the process of widening and improving the Brawley School Road corridor that accommodates in excess of 20,000 vehicles per day, while only being built to handle 10,500 vehicles per day. By 2025, the number of cars traveling the corridor is expected to exceed 37,000 per day. According to the Traffic Task Force, to supplement the NCDOT Brawley School Road widening project, the Town and NCDOT are undertaking a spot safety project at US 21 and Brawley School Road.
Importantly, in conjunction with the widening and improving the corridor, the NCDOT has plans to construct a new interchange with I-77 at Brawley School Road.

1.3 Guiding Principles

Below are guiding principles, set early in the planning process with input from the community, which describe in more detail the purpose of the Brawley School Road Small Area Plan.

General Guiding Principles
- Provide a workable, creative and dynamic plan for future growth and development.
- Provide specific guidance in a manner that is consistent with adopted plans and ensure coordination with concurrent planning activities.
- Involve affected stakeholders and include Iredell County staff in the planning process.
- Provide a tool to implement the Mooresville Comprehensive Land Use Plan, including general principles and policy framework found therein.
- Continue to build upon guiding principals and recommendations of the Comprehensive Transportation Plan (CTP) and Comprehensive Land Use Plan.
- Incorporate transit-supportive design and development form.
- The dominant nonresidential uses within the study area should be office and employment uses with associated supporting services or retail uses that provide services to surrounding communities and neighborhoods.
- Development should be urban and pedestrian oriented in both form and scale and supportive of future multimodal transit and transportation services.

Specific Guiding Principles
- Identify a market supported mix of land uses that are consistent with an identified community vision.
- Emphasis on design and urban form of future development.
- Consider strategies for potential redevelopment opportunities.
- Promote an interconnected transportation system, which builds upon the Brawley School Road widening project and the planned interchange with I-77 (R-3833), and promote improved safety at identified areas of concern.
- Identify enhanced accommodations for bicycle/pedestrian users in the near term, especially safe routes to schools and at major intersections.
- Create land development strategies that promote the use of alternate travel modes including pedestrian, bicycles and public transportation via development design standards and public infrastructure.
- Identify a system of shared open spaces and recreation opportunities including connections to regional greenway/trail initiatives to include the Carolina Thread Trail and the Lake Norman Regional Bike Trail.
- Buildings should be oriented directly to streets and should be multi-story to integrate uses vertically. Although such building relationships are critical to the
built development form of the corridor, buildings within designated neighborhood centers as identified in the Comprehensive Land Use Plan such as at the US 21 intersection and Talbert Road intersections of Brawley School Road, should be close to the street edge while buildings along the corridor should have a more relaxed setback condition. Such setback treatments will create strong visual cues for these neighborhood centers as focal point destinations.

- Surface parking should be to the side or rear of buildings or structures.
Chapter 2: Recommendations and Implementation Strategies

2.1 General

BSR GEN-1. The Town of Mooresville shall adopt and incorporate by reference the Brawley School Road Small Area Plan into the currently adopted Comprehensive Land Use Plan as referenced in Chapter 1, Sect. 1.2 of the Comprehensive Land Use Plan.

2.2 Land Use & Urban Design

“Large box” highway-oriented retail uses generally associated with the NC 150 corridor Activity Center as identified in the Town of Mooresville Comprehensive Land Use Plan should be prohibited within the study area or limited to Exit-35. In general, retail mixed-uses should provide retail services to surrounding communities and neighborhoods or support professional office or employment uses. Such uses should be concentrated within the Village Center node at the Williamson Road/Brawley School Road intersection and at the future quadrants of Exit 35. A small node of nonresidential, neighborhood-oriented uses serving the local vicinity should continue to develop at the intersection of Brawley School Road/West Wilson and US 21 as well. Professional office and supporting service use should be encouraged as the dominate nonresidential uses within the study area.

Community/neighborhood-oriented service uses–Such uses include but are not limited to pharmacy, grocery, restaurant, day care, hardware, banking services, medical office, dry-cleaner, etc.

Uses that should be limited or prohibited – Single use buildings exceeding 60,000 square feet with the exception of office or employment uses should be prohibited. Other uses that should be prohibited along the corridor include but are not limited to destination-oriented retail uses; free standing fast food restaurants with drive-through uses, automotive sales and services.

BSR LU-1. Based on this table, support rezoning requests for some or all of the parcels within the study area to base zoning districts shown. In order to understand how to best achieve each land use type shown on the small area plan, a detailed assessment of the land use designations on the adopted Comprehensive Land Use Map and base zoning districts was conducted including market supportability. Consideration should be given to the location, scale, and mix of uses associated with the Study Area, particularly with regard to recommended land use categories.

The results are shown in the table in the next column. Refer to Mooresville Zoning Ordinance Chapter 3.2 (Base Zoning Districts).
Table 2.2.1 Land Use Designations

<table>
<thead>
<tr>
<th>SAP Land Use Categories</th>
<th>Land Use Plan General Planning Areas</th>
<th>Base Zoning Districts*</th>
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<td>SF Residential - Detached</td>
<td>NR</td>
<td>R-2, R-3</td>
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<tr>
<td>SF Residential - Attached</td>
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<td>R-5, RMX</td>
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<td>Any</td>
</tr>
<tr>
<td>Open Space &amp; Parks</td>
<td>Any</td>
<td>Any</td>
</tr>
</tbody>
</table>

Notes: *The study area is within a designated Water Protection Overlay. Lots fronting Williamson Road are located within a designated Corridor Overlay.

Refer to index found at the end of this section. This terminology is further defined in the Comprehensive Land Use Plan and Mooresville Zoning Ordinance.

BSR LU-2. Consider a new overlay district for the study area: The Brawley School Road Small Area Plan Corridor Overlay.

**Strategy:** Draft an overlay district or amend the Corridor Overlay to supplement the standards of the underlying zoning to achieve the development pattern intended by the plan. For example, street cross sections as recommended in the small area plan should adhere to the Town Engineering Standards for these cross sections. As another example, stormwater management standards that exceed or offer alternatives to current standards may be incorporated.

BSR LU-3. Utilize the small area plan for the Brawley School Road study area to encourage a higher density pattern of development than currently exists. This is particularly appropriate for any undeveloped or underutilized parcels anywhere in the study area where infrastructure and services exist, or can easily be provided. This includes sites having high potential for redevelopment or adaptive reuse, such as the Brawley Commons Shopping Center at the intersection of BSR and Williamson Rd. This does not include those areas designated on the plan for single-family detached residential.
Strategy 1: Encourage small lot residential development and attached (ex: townhome) residential in appropriate locations such as areas designated on the plan for single-family attached residential.

Strategy 2: Support rezoning requests for higher density development consistent with the plan.

Strategy 3: A minimum non-residential building height of 2 stories should be required. A functional 2 stories is encouraged.

Strategy 4: Support buildings that exceed 2 stories in height where appropriate.
   - Adjacent to established neighborhoods, the scale of future office buildings will generally be no more than 2 stories in height, however, building heights of 2 stories or greater are encouraged in other areas on the small area plan to support transit use.

Strategy 5: Increase densities of land uses in activity centers:
   - "Vertically mixing" retail below office or other uses is permissible.

Strategy 6: Review the zoning ordinance and consider adopting enhanced standards to support transit use. Encourage more robust street cross sections as indicated in the small area plan. Allow on-street parking on collector and local streets. Amend zoning ordinance to allow on-street parking spaces provided to meet the minimum off-street parking requirement (Mooresville Zoning Ordinance Chapter 9 Development Standards). Introduce a Floor Area Ratio (FAR) approach to zoning ordinance to achieve minimum intensities to support transit.

BSR LU-4. Strengthen designated activity centers, including the Village Center at Brawley School Road and Williamson Road, and the planned Neighborhood Center at Brawley School Road and Talbert Road.

Strategy: Direct commercial and employment uses toward activity centers by supporting zoning requests that place these uses within designated activity centers.

BSR LU-5. Require development to respect the character of existing areas.

Strategy: Require future development to support and enhance established neighborhoods within and adjacent to the Brawley School Road study area.
   - Establish transitions such as landscape buffers where appropriate to minimize the impact of noise, light and traffic.
   - Limit scale of buildings adjacent to existing neighborhoods to be consistent with established building heights and setbacks.

BSR LU-6. Ensure a land use pattern and form of development that avoids the appearance of "strip commercial" such as the existing pattern found along Hwy 150 corridor in proximity to the interchange with I-77 (exit 36).
**Strategy 1:** Evaluate existing zoning standards and revise zoning standards to put adequate controls in place. In addition to traditional bulk standards, adequate building placement/orientation, streetscape and signage controls must be in place. For signage controls, introduce a context-sensitive sign ordinance approach.

**Strategy 2:** Disallow land uses that are inconsistent with the small area plan, with or without the presence or absence of adequate controls. Prohibit drive through uses in the small area plan with the exception of bank or pharmacy uses.

**Strategy 3:** Encourage a development form on larger parcels that orients uses/buildings, toward streets, internal driveways designed to include elements of and resemble streets, pedestrian routes and parks internal to the site. Establish more restrictive standards for shopping centers and "big box" retail that de-emphasize the parking areas and other auto-oriented components of the development and give priority to pedestrian connectivity and transit accessibility to buildings. Discourage single site, freestanding uses that are oriented to automobile users (some examples of desired pattern are 73 corridor, Rosedale in Huntersville NC).

**BSR LU-7. Ensure an adequate buffer exists along the existing I-77 corridor to mitigate impacts to future development.**

**Strategy:** Enforce landscape standards that provide an adequate buffer along the existing I-77 corridor (Mooresville Zoning Ordinance Chapter 7 Landscaping and Open Space). Review and consider updating the landscape standards to encourage the 50-foot perimeter buffer as measured from the edge of right-of-way remains undisturbed (i.e., limit clearing) or preserved to an adequate standard.

### 2.2.1 Descriptions of SAP Land Use Categories

- **SF Residential Detached**-Although not generally contemplated as a potential for future land use within the study area, this classification supports existing land uses located along the perimeter of the study area.

- **SF Residential attached**-This land use category generally contains owner-occupied attached residential types such as townhomes or condominiums. This category is generally multi-story in form and should be pedestrian-oriented with buildings located in close proximity to streets.

- **SF Residential Transitional**-This use category provides for the reasonable transition of a property or structure originally constructed to support single family residential uses. This category anticipates that the property and residential structure will be modified to support a non residential use such as office or retail while maintaining the residential character of the structure as well as the residential building to street relationship.
- **Multi-Family Residential**- This is a broader attached residential category that may include apartments. This category is generally multi-story in form and should be pedestrian-oriented with buildings located in close proximity to streets.

- **Mixed Use-Office** or employment uses should be encouraged along the corridor. Other uses may include restaurants, cafes, print/copy shops, dry cleaners, and other services targeted to support local employers and employees, surrounding neighborhoods, or communities. Other interstate-oriented uses such as hospitality, fast food or automotive sales and services uses should be prohibited on the corridor or limited to the interchange.

- **Retail & Office**- The principle commercial establishments may be office or employment uses. Other supporting uses may include restaurants, cafes, print/copy shops, dry cleaners, and other services targeted to support local employers and employees, surrounding neighborhoods, or communities.

- **Office Campus**- The Office Campus land use category is intended to support multi-story buildings primarily supporting office uses. The principal use supported by this category is office, office campus, employment center, research and development, and medical office uses. Such uses may be integrated vertically with supporting retail service uses such as restaurants, cafes, print/copy shops, dry cleaners, and other services targeted to support local employers and employees located on the first floor.

- **Flex Office**- The Flex Office land use category is intended to support employment uses. The principal use supported by this category is office, employment center, research and development with indoor storage of products and materials. Limited on-site retail and wholesale uses are permitted.

- **Light Industrial/Flex**- This land use category is intended to support employment uses engaged with light manufacturing and/or assembly. The principal use supported by this category is employment center, assembly, light manufacturing, research and development with indoor storage of products and materials. Onsite wholesale or retail distribution or sales is not permitted.

- **Civic/Institutional**- This land use classification supports municipal, educational, religious, and banking uses. Development supporting this category should be pedestrian-oriented with buildings located in close proximity to streets.
• Open Space & Parks - This land use category supports both active and passive recreational uses including athletic fields, playgrounds, pools, courts, tracks, and similar uses that are well served by streets, parking facilities, spectator areas, restroom facilities, and exterior lighting where appropriate. This classification may also include passive recreation uses such as gazebos, picnic areas, fountains and pools, plazas, and similar areas.

2.3 Transportation

BSR TRAN-1. Construct Rolling Hills Parkway, south of Brawley School Road, as 4-lane divided roadway with a landscaped median, sidewalks, and bike lanes. Coordinate with NCDOT staff to ensure the street cross section in the small area plan (Figure 18, Page 33) is constructed.

BSR TRAN-2. Improve Brawley School Road as depicted in NCDOT TIP plans R-3833 as a 4-lane divided roadway with a landscaped median, sidewalks, and bike lanes. Coordinate with NCDOT staff on the future location and configuration of intersections shown on the small area plan.

BSR TRAN-3. Improve Talbert Road to a 2-lane roadway section, with adequate turn lanes provided at critical intersections, sidewalks, street trees and bike lanes.

BSR TRAN-4 - A park and ride lot should be considered along the Brawley School Road corridor in the vicinity of the I-77 Interchange as recommended in the adopted Comprehensive Transportation Plan. Park and ride services were addressed in relation to fixed-route transit, and should be studied further to determine if additional stations would benefit the commuters in the Town of Mooresville. In addition, with the construction of the commuter rail, it will be important to make sure that adequate park and ride facilities are available to those citizens that wish to use this service. It is recommended that a number of potential park and ride locations are studied to accommodate future transit riders relative to current and future ridership data.

BSR TRAN-5. Develop a fixed route circulator bus route utilizing Brawley School Road, Williamson Road, Rolling Hills Parkway, NC 150, and Talbert Road.

2.4 Cultural and Historic Resources

BSR HIST-1. Preserve institutional uses such as churches along the Brawley School Road corridor given their cultural importance and contribution to overall community character.

2.5 Natural Resources, Open Spaces and Parks & Recreation

BSR REC-1. Adopt increased Sediment and Erosion Control requirements in order to protect Lake Norman and associated waterways.
Currently, grading and erosion control plans for projects within the Town of Mooresville are submitted to NCDENR for review and approval. Enforcement of the erosion control plan is also the responsibility of NCDENR. Under current conditions, erosion control plans are designed to standard design requirements [North Carolina Administrative Code 15A NCAC 04B] due to the classification of Lake Norman as a Class IV watershed and not a sensitive watershed. It is assumed that in order to enforce more stringent erosion control requirements as well as implement better oversight and enforcement, the Town of Mooresville must either become a delegated review authority recognized by the state, or contract review and enforcement through Iredell County. Further discussions with NCDENR can be conducted to confirm this. Once review and enforcement no longer rests with NCDENR, it will be possible to increase the minimum requirements from the state standards to those set by the town. Recommendations for these increases above the state regulations are as follows:

**Strategy 1:** Adopt and enforce more stringent requirements of the NCDENR Sediment and Erosion Control Ordinance – Design Standards in Sensitive Watersheds [North Carolina Administrative Code 15A NCAC 04B.0124] for all areas within the small area plan.

**Strategy 2:** Revise 20-acre disturbance limit language within requirements [North Carolina Administrative Code 15A NCAC 04B.0124] to facilitate construction of larger projects. Recommended revised language is as follows:

- Effort should be made not to uncover more than 20 acres at any one time. If more than 20 acres are to be uncovered at any one time, the plan shall contain the following:
  - The method of limiting time of exposure and amount of exposed area to achieve the objectives of this Ordinance.
  - A cut/fill analysis that shows where soil will be moved from one area of the Tract to another as ground elevation is changed.
  - Construction sequence and construction phasing to justify the time and amount of exposure.
  - Techniques to be used to prevent sedimentation associated with larger disturbed areas.
  - Additional erosion control measures, structures, and devices to prevent sedimentation.

**Strategy 3:** Consider introducing top down dewatering (i.e. skimmers) for all sediment basins to ensure maximum efficiency from required basins.

**BSR REC-2.** Revise existing storm water regulations / zoning overlay districts to increase pollutant removal through buffers.
**Strategy:** Increase existing riparian buffer requirements for both high and low density development options within the study areas. All parcels within the study area would be subject to the buffer requirements. Suggested increases would be:

- **Low Density Development:**
  - 50’ undisturbed buffer landward from 760 contour of Lake Norman / Catawba River and top of bank for perennial and intermittent streams.

- **High Density Development:**
  - 100’ undisturbed buffer landward from 760 contour of Lake Norman / Catawba River and top of bank for perennial and intermittent streams.

- **All Development:**
  - Consider strengthening minimum vegetation requirement for buffers in the zoning ordinance. If the existing buffer area does not meet the requirements, the developer would have to plant the buffer to meet the standards.

**BSR REC-3. Revise existing storm water regulations to promote development and redevelopment in the study areas.**

**Strategy:** Through the development of the Small Area Plan ordinance revisions and future Post Construction Controls Ordinance, pursue the option of providing mitigation options to encourage density in designated areas. Consider implementing this at the same time as Phase II NPDES requirements are implemented.

**BSR REC-4. In order to encourage unified development that sets aside contiguous areas of open space, the Town will work with the State to allow contiguous parcels in the small area plan to submit as a single project site for satisfying WS-IV Watershed impervious area requirements. Unified development is important because the clustering of buildings allows a strong relationship between built space and provides an interconnected open space system between multiple development sites in an area and allows for the potential for a regional / shared BMP approach. This relationship can be difficult to achieve when a series of different projects are each meeting individual, site specific environmental requirements on what are contiguous parcels of land.**

**Strategy:** Requests for projects in the small area plan will be reviewed on a case-by-case basis and be subject to the following:

- The adjoining land designated as open space should be protected by deed restrictions and protective covenants (in accordance with Title 15 NCAC 2H.1000), as verified by State and town staff.

- Compliance with ownership and dedication requirements for open space set aside in the zoning ordinance should be verified by town staff (Mooresville Zoning Ordinance Chapter 7 Landscaping and Open Space).
BSR REC-5. Provide interconnected pedestrian and bicycle facilities throughout the corridor.

**Strategy 1:** Require commercial centers to develop trails and greenway connections as an integral part of the development. Review of consistency with adopted plans is required. Commercial developments shall incorporate bicycle friendly elements (adequate bicycle racks, lockers in convenient location).

**Strategy 2:** Seek easements across existing developed parcels within which the town can construct trail, parks and open spaces.

**Strategy 3:** Provide bicycle and pedestrian connections to adjacent uses from all retail centers.

**Strategy 4:** Provide for safe pedestrian facilities along Brawley School Road, including but not limited to 5’ wide sidewalks, a multi-purpose path, crosswalks, pedestrian signals and appropriate MUTCD signage.

BSR REC-6. Provide access to Lake Norman via small pocket parks along the waters edge. These can provide a visual public connection to the waters edge and various passive recreation opportunities.

BSR REC-7. Develop parks and open space within proposed office, commercial and residential developments.

**Strategy 1:** Require park land in all new development that is easily accessible to the public.

**Strategy 2:** Develop linear passive recreation parks that include or link to greenway trails to connect both existing and proposed developments.

**Strategy 3:** Develop proposed linear parks to connect directly to Brawley School Road frontage to give park land a prominent identity along the corridor.

**Strategy 4:** Provide small public urban plazas in all mixed use commercial centers.

BSR REC-8. Protect existing natural features through the establishment of additional parks and open space.

**Strategy 1:** Identify the natural features worthy of protection, such as stream buffers, mature tree stands, wetlands and other environmental features.

**Strategy 2:** Update the Mooresville Parks and Greenways Comprehensive Master Plan (2003) and provide parks and open space land that protect pockets of such features.

**Strategy 3:** Develop park land that follows the stream buffers and provides adequate width to accommodate trails.
2.6 Community Facilities

BSR CF-1. Use civic architecture and publicly accessible open space to enhance the public realm. Important sites for community facilities are designated on the small area plan and should be reserved for these purposes.

BSR CF-2. Obtain direction from Iredell County as to appropriate land use / utilities service for all areas adjacent to the small area plan study boundaries.

BSR CF-3. Integrate the land use / concept plan recommendations into the Water/Sewer Master Plan update process through input to the projections of water / sewer demands for the respective study areas.

BSR CF-4. To complement adopted subdivision standards set forth in the Mooresville Zoning Ordinance, Chapter 2.3 (Standards and Requirements for Development Applications) regarding consistency with Mooresville and Iredell-Statesville Schools (ISS) System Plans, conduct a study regarding how impacts of new development within the Cornelius Road Small Area Plan to area schools could be mitigated and the timing of needed improvements could be better coordinated with new development.

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<td>Single Family Residential -2</td>
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<tr>
<td>MXO</td>
<td>Mixed-Use Overlay</td>
</tr>
<tr>
<td>COO</td>
<td>Corridor Overlay</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
</tr>
<tr>
<td>------</td>
<td>------------------------------</td>
</tr>
<tr>
<td>NR</td>
<td>Neighborhood Residential</td>
</tr>
<tr>
<td>PC</td>
<td>Peninsula Conservation</td>
</tr>
<tr>
<td>RC</td>
<td>Regional Activity Center</td>
</tr>
<tr>
<td>CMU</td>
<td>Corridor Mixed Use</td>
</tr>
<tr>
<td>EC-O</td>
<td>Employment Center Office</td>
</tr>
<tr>
<td>EC-F</td>
<td>Employment Center Flex/Light Industrial</td>
</tr>
<tr>
<td>VC</td>
<td>Village Center</td>
</tr>
<tr>
<td>NC</td>
<td>Neighborhood Center</td>
</tr>
<tr>
<td>BC</td>
<td>Business Center</td>
</tr>
</tbody>
</table>
Terminology and List of Acronyms

**Terminology**
To better understand this report, it is necessary to understand the terminology by which it is written. Although the following terms have been expanded upon further in the entirety of this report, each has been briefly summarized for the reader’s comprehension:

**Charrette:** A multi-day collaborative design and planning workshop held on site and inclusive of all affected stakeholders.

**Community Facilities:** Any services or systems that are available for public use on a daily basis in order for citizens to meet their daily needs.

**General Guiding Principles:** Value-based statements that are not necessarily measurable. For the purposes of this plan, they express an ideal future outcome or condition.

**Specific Guiding Principles:** Statements that accompany general principles that are more specific and achievable compared to general principles.

**“Green” Infrastructure:** Features comprised of natural areas, hydrology and other environmentally sensitive areas, including riparian buffers and floodplains.

**Implementation Matrix:** the Implementation Matrix summarizes the policies set forth in the plan and the related action items. It reflects priorities determined during the process. More importantly, it serves as a worksheet for those involved in initializing, monitoring and measuring progress on implementation activities. It indicates items that should be the focus of first-year activities, and facilitates the prioritization of future implementation activities.

**Level of Service (LOS):** According to the Highway Capacity Manual, level of service (LOS) is a measure used to describe the operation conditions that drivers experience in a traffic stream. Level of service is designated by letter, similar to grades in school, with A representing the best conditions and F the worst. LOS A is generally free-flow with few delays, while LOS F constitutes highly congested, stop-and-go conditions. LOS D or better is generally considered acceptable. At LOS D, the roadway is busy, but traffic is still flowing at a reasonable speed.

**Public Realm:** Areas that are not privatized but accessible to all, including public right-of-way parks, civic sites and open spaces.

**Recommendations:** Very specific, measurable statements that are intended to achieve goals and objectives of the plan.

**Strategies:** Rules or courses of action that indicate how the guiding principles and objectives of the plan should be realized.
**Stakeholders:** A variety of land owners, developers, agency representatives, and others from the community who were able to enhance the research by providing an additional layer of information regarding local issues and opportunities.

**MUTCD:** The Manual on Uniform Traffic Control Devices, or MUTCD defines the standards used by road managers nationwide to install and maintain traffic control devices on all streets and highways. The MUTCD is published by the Federal Highway Administration (FHWA) under 23 Code of Federal Regulations (CFR), Part 655, Subpart F.

**Trade Area:** An area, larger than the Study Area, that provides contextual demographic and employment data for residential, retail, and office analyses.

**Cohort:** A group of individuals with a statistical factor in common in a demographic study.

**F.I.R.E:** Finance, Insurance, Real Estate.

**Industrial/Flex:** Buildings that are comprised of a mix of office and industrial, but are at least 50% industrial.

**Office/Flex:** Buildings that are comprised of a mix of office and industrial, but are at least 50% office.

**Professional Office:** For-lease office space that contains multiple tenants within one building (also known as multi-tenant office space).

**Corporate Office:** Single-tenant office space that is typically owned by the user.

**Neighborhood Retail:** Retail centers that cater to the convenience needs of nearby neighborhoods.

**Regional Retail:** Retail centers that have the widest geographic appeal, and range in size from 300,000 to over 1,000,000 million square feet.

**Floor Area Ratio (FAR):** Comparison of the total square feet of a building to the square footage of the land area.
List of Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETJ</td>
<td>Extra Territorial Jurisdiction</td>
</tr>
<tr>
<td>NCDOT</td>
<td>North Carolina Department of Transportation</td>
</tr>
<tr>
<td>CLUP</td>
<td>Comprehensive Land Use Plan</td>
</tr>
<tr>
<td>CTP</td>
<td>Comprehensive Transportation Plan</td>
</tr>
<tr>
<td>TIP</td>
<td>Transportation Improvement Plan</td>
</tr>
<tr>
<td>NCDENR</td>
<td>North Carolina Department of Environment and Natural Resources</td>
</tr>
<tr>
<td>BMP</td>
<td>Best Management Practices</td>
</tr>
<tr>
<td>MNTCD</td>
<td>Manual on Uniform Traffic Control Devices</td>
</tr>
<tr>
<td>HOA</td>
<td>Home Owners Association</td>
</tr>
<tr>
<td>SCS</td>
<td>Soil Conservation Service</td>
</tr>
<tr>
<td>FIRE</td>
<td>Finance, Insurance, Real Estate</td>
</tr>
<tr>
<td>AADT</td>
<td>Average Annual Daily Traffic</td>
</tr>
<tr>
<td>VPD</td>
<td>Vehicles Per Day</td>
</tr>
<tr>
<td>LOS</td>
<td>Levels of Services</td>
</tr>
<tr>
<td>NASCAR</td>
<td>National Association for Stock Car Auto Racing</td>
</tr>
</tbody>
</table>
FIGURE 10: FUTURE ROADWAY CAPACITY DEFICIENCIES MAP
Brawley School Road Small Area Plan
Town of Mooresville, North Carolina
FIGURE 17: BRAWLEY SCHOOL ROAD - PERSPECTIVE SKETCH
Town of Mooresville, North Carolina
The Brawley School Road Small Area Plan

The Brawley School Road Small Area Plan was prepared with an understanding of issues, opportunities and constraints identified during the plan process over a seven-month period. The vision for the plan was specifically developed during the charrette on September 9-11, 2008. The plan was further refined in subsequent months based on input received from the community at large.

In addition to issues, opportunities and constraints, a set of general and specific guiding principles set were set early in the planning process with input from the community. These guiding principles set the direction for the plan process to proceed and helped provide a guiding framework for plan preparation and recommendations (See Chapter 2: Recommendations and Implementation Strategies). On October 22, the community was given an opportunity to prioritize draft recommendations prior to preparing a final plan and recommendations. This allowed the plan process to better reflect the importance the citizens’ place on achieving.

Altogether, the vision for the Brawley School Road Small Area Plan is a strategic one. It provides a physical plan with recommended improvements. A complementary mix of land uses is shown on the plan consistent with the community vision for this area. Urban design principles played a significant role in the development of the physical plan and are important in achieving this vision. An emphasis on an efficient and multi-modal transportation system supports existing and future land uses. Land uses take advantage of existing infrastructure in the study area. Lastly, the plan offers potential areas for redevelopment in the future.

A-1.1 Demographics, Housing and Economic Projections
Additional information is found in Appendix B. Market Report, prepared by Warren and Associates.

A-1.2 Land Use
The small area plan approached land use with knowledge of existing uses, vacant land, and market potential. A number of existing uses were found in the study area at the time of plan preparation. The plan recognizes these areas and provides for new uses that are complementary. The plan is shown on Figures 15-18 (Pages 30-33).

With regard to residential development, existing uses include a heterogeneous mix of residential units, ranging from low- to medium-density single-family detached, single-family attached (i.e., townhouses), and apartments. The even mixture of residential units is due to the availability of utilities throughout most of the study area, as well as the proximity to employment and services along NC-150.

The plan encourages development of higher-density communities such as single-family attached and apartments. These communities take advantage of existing infrastructure and services in the study area. Also, single-family attached and apartments generate less
impacts to the transportation network and generate fewer students when compared to the same amount of conventional single-family detached.

It is likely the existing residential areas at the southwest quadrant of the planned interchange with I-77 will transition in the future due to the widening and improvements to Brawley School Road and the impact of the interchange and related improvements. The area at the southwest quadrant has potential to transition into higher-density communities such as apartments. Existing residences located in the southeast quadrant of the Brawley School Road interchange have potential to transition into professional office in the future if HOA restrictions allow a change of use from residential to office and subject to the Town rezoning process. Areas along Talbert Road south of Hwy 150 are likely to be developed with higher-density communities.

New single-family detached developments are likely to occur east of I-77, near existing communities. The plan recognizes that a number of existing single-family dwellings are currently found within the study area with frontage along Talbert Road and US 21.

With regard to non-residential development, it was determined that many areas are likely to accommodate a mix of land uses. Neighborhood retail space is likely to occur in the future in areas including the northeast quadrant of I-77 and Brawley School Road, serving office and hotel uses in this designated mixed-use area. Sites adjacent to Mooresville Town Square and at intersections west of I-77 also have potential for retail uses. A mix of retail and professional office is expected for areas located in the northeast portion of the study area and the Brawley Commons site in the southwestern portion of the study area. Also, professional office is likely to occur in the northeast quadrant of the Brawley School Road interchange and south of Brawley School Road, west of I-77.

Civic and institutional areas identified on the plan recognize established areas for religious institutions along the Brawley School Road corridor. However, it is important to note that civic and institutional uses can occur within any designation shown the small area plan. Open space and parks are provided through a system of open spaces and recreation opportunities (see Appendix A-3, Section A-3.6).

A-1.3 Urban Design

In keeping with the Mooresville Comprehensive Land Use Plan and updated Mooresville Zoning Ordinance, the small area plan placed emphasis on design including urban form. This can be understood through built form and the public realm.

With regard to built form, the plan and supplemental street cross sections support future development and redevelopment that better orients to the public street network, which includes additional street network linkages. Schematic plans and perspective sketches (see Figures 16-18, Pages 31-33) help explain the intent for the scale, placement and building architecture that represents the character of the built form in key areas.
Also with regard to character, the plan recognizes that a number of existing single-family dwellings are currently found within the study area with frontage along Talbert Road and US 21. It was recognized certain structures are likely to transition over time into non-residential uses such as professional office. As a result, a special designation of Single Family Transitional is provided in the small area plan to recognize the locations of these structures. Also, this could allow for the character of these structures and surrounding areas to be addressed through specific regulatory controls in the future.

The public realm consists of areas that are not privatized but accessible to all. This includes the streetscape in the study area, parks and open space. The quality of this environment is important because it represents the fabric of the overall community. Enhancing this environment through streetscape improvements is intended as a key achievement of the plan.

A-1.4 Transportation

Overview
The plan expands upon the recommendations of the Mooresville Comprehensive Transportation Plan. The plan approached transportation with more detailed information specifically related to the study area. For example, detailed development program information was available to determine traffic generation for the study area. This allowed for a better understanding of transportation impacts specific to the study area and the formulation of recommendations.

Interconnected Street System and Collector Streets
In order to be sure the recommended collector street network “made sense,” a simple methodology was applied using land use intensity (rather than use) and street spacing as a means to communicate the preferred block structure for each respective character area within the study area. Simply stated, as land use intensity increases, street spacing between intersections should decrease. The various categories of proposed future land use intensities expressed in the plan resulted in a refined collector street block structure for the following residential land use categories: very low density, low density, and medium density. Collector street planning was not applied in the rural areas given their extremely low densities. The following spacing standards where applied to the study area, and provide guidance for street networks found in the plan.
Table A-1.4.1 Proposed Street Spacing by Land Use Intensity

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Intensity</th>
<th>Street Spacing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Low Density</td>
<td>&lt; 2 du/acre</td>
<td>3,000-6,000</td>
</tr>
<tr>
<td>Low Density</td>
<td>2 to 4 du/acre</td>
<td>1,500-3,000</td>
</tr>
<tr>
<td>Medium Density</td>
<td>&gt;4 du/acre</td>
<td>750-1,500</td>
</tr>
</tbody>
</table>

**Street Cross Sections**
In addition to street network layout, alternative street cross sections were prepared as part of the plan to provide clear direction of future design intent of roadways. This included the intent for streetscape enhancements in the study area. The use of these alternative street cross sections is required and should be adhered to in the plan. These cross sections can supplement the standards of the underlying zoning to achieve the development pattern intended by the plan. Refer to Figure 18 (Page 33).

**Greenways and Enhanced Mobility for Bicycles and Pedestrians**
By overlapping the pedestrian attractors, existing routes, and green infrastructure, an alternative system of greenways, trails, and on-street bicycle routes were identified. Taken as a group, these non-motorized elements represent a strategy to connect people with places in a safe and inviting environment. The simultaneous consideration of existing routes and attractors revealed locations with little to no alternative access which quickly became priorities to seek connections. Off-street greenway connections were sought where feasible. In locations where this option wasn’t feasible or didn’t make sense, on-street routes were chosen. Greenway connections are shown on Figure 15 (Page 30).

**Transit-Supportive Design**
Elements of transportation including roads and pedestrian, bicycle, and transit facilities impact how land is developed in terms of density and even types of land use. Further, where land uses fall and how they are distributed inevitably impacts decisions regarding where people travel and how transportation facilities are prioritized. If a sprawling development pattern exists, the residents of such areas must rely almost entirely on automobiles to get from one location or land use to another. On the other hand, denser urban centers that combine complementary land uses near each other enable greater choice in transportation.

According to the Comprehensive Land Use Plan, higher residential and employment densities are necessary to support transit. Studies recommend a density of 7 to 20 dwellings per acre to sustain significant transit use. Employment densities of 25 to 50 jobs per acre clustered close to the transit stop are recommended to support frequent, high capacity transit. Minimum density and related zoning standards to achieve these recommended densities do not presently exist in the updated Mooresville Zoning Ordinance. The plan encourages a range of densities, including higher densities, a mix of
uses and urban form to support transit use, but further evaluation of zoning standards is needed.

A park-and-ride lot in the northeast and southwest quadrants of the interchange of Brawley School Road and I-77 should be constructed. Park-and-ride services were addressed in relation to fixed-route transit, and should be studied further to determine if additional stations would benefit the commuters in the Town of Mooresville. In addition, with the construction of commuter rail, it will be important to make sure that adequate park-and-ride facilities are available to those citizens who wish to use the service. It is recommended that a number of potential park and-ride locations be studied to accommodate future transit riders.

Also, it is necessary to develop a fixed route circulator bus route utilizing Brawley School Road, Williamson Road, Rolling Hills Parkway, NC 150, and Talbert Road.

**Trip Generation**
The amount of traffic generated by a new development is a function of the size, type, and mix of development. The traffic generation potential for the study area was determined using the trip generation rates published in *Trip Generation* (Institute of Transportation Engineers, Seventh Edition, 2003) for all land uses.

The Brawley School Road plan, as depicted, is proposed to include the following program of land uses and intensities at buildout:

- 150 Single Family Homes
- 200 Residential Condominiums
- 700,000 SF of Professional Office
- 200,000 SF of Office Flex
- 125,000 SF of Neighborhood Retail

The trip generation potential for the proposed study area is shown on Table A-1.4.2. The trip generation associated with the study area land uses and intensities is projected as 23,140 daily trips, 1,853 AM peak hour trips, and 2,482 PM peak hour trips.
### Appendix A-1

#### Table A-1.4.2 Brawley School Road Trip Generation

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Intensity</th>
<th>Daily</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Total</td>
<td>In</td>
</tr>
<tr>
<td>Residential</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single-Family Detached</td>
<td>150 DU</td>
<td>1,510</td>
<td>114</td>
<td>29</td>
</tr>
<tr>
<td>Single-Family Attached</td>
<td>200 DU</td>
<td>1,157</td>
<td>90</td>
<td>15</td>
</tr>
<tr>
<td>Apartments</td>
<td>600 DU</td>
<td>3,756</td>
<td>286</td>
<td>60</td>
</tr>
<tr>
<td>Residential Subtotal</td>
<td></td>
<td></td>
<td>6,423</td>
<td>502</td>
</tr>
<tr>
<td>Retail</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neighborhood</td>
<td>125,000 SF</td>
<td>7,851</td>
<td>179</td>
<td>109</td>
</tr>
<tr>
<td>Retail Subtotal</td>
<td></td>
<td></td>
<td>7,851</td>
<td>179</td>
</tr>
<tr>
<td>Office/Flex</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional</td>
<td>700,000 SF</td>
<td>5,969</td>
<td>890</td>
<td>783</td>
</tr>
<tr>
<td>Office/Flex</td>
<td>200,000 SF</td>
<td>2,897</td>
<td>282</td>
<td>237</td>
</tr>
<tr>
<td>Office/Flex Subtotal</td>
<td></td>
<td></td>
<td>8,866</td>
<td>1,172</td>
</tr>
</tbody>
</table>

### A-1.5 Cultural and Historic Resources

No historic districts or structures were found in the study area. Civic and institutional areas identified on the plan recognize established areas for religious institutions along the Brawley School Road corridor. However, it is important to note that civic and institutional uses can occur within any designation shown the small area plan. Potential sites for new civic uses were evaluated in the plan process. Potential locations for a new fire station include sites along US 21, south of Brawley School Road, in the eastern portion of the study area designated on the small area plan as single-family detached residential.

Potential locations for a library were discussed. According to Mooresville Public Library staff, the preferred location for a potential site is within a quarter mile of Morrison Plantation Parkway and Brawley School Road. The library branch would be an estimated 15,000 sf with approximately 50-100 spaces for parking. This could allow a library to be included as part of the redeveloped Brawley Commons site. Using this criterion, other potential sites are located on the north side of Brawley School Road, west of Williamson Road.

Other potential sites for a library or recreation facility include sites along the south side of Brawley School Road, designated for park, or along the east side of Talbert Road south of Hwy 150 now designated as multi-family residential. Should new civic and
in institutional areas be developed in the future, attention to civic architecture can enhance the public realm along this corridor.

A-1.6 Natural Resources, Open Space and Parks & Recreation

Open space and parks are provided through a system of open spaces and recreation opportunities. Many of these areas are shown in a linear fashion that include or link to greenway trails to connect both existing and proposed developments. Through linkages to Brawley School Road, park land is given a prominent identity along the corridor. Park land can provide other benefits, such as protecting stream buffers, mature tree stands, wetlands and other environmental features.

Current erosion and sediment control requirements for the Town of Mooresville are governed by the NCDENR regulation and design manual. While these regulations do provide additional protection for areas classified as High Quality Waters, the Brawley School Road study area does not qualify as it is classified as WS-IV Watershed. To increase the level of protection of Lake Norman, these stricter standards should be considered for the study areas with minor modifications. These modifications should be to relax the 20 acre limit to allow for larger areas to be denuded so long as several additional mitigation requirements are met. Also, top down dewatering (i.e. skimmers) should be introduced to increase the effectiveness of required sediment basins.

Current storm water regulations of Mooresville provide adequate protection for post construction storm water quality and quantity. One option to further protect Lake Norman and waterways would be to consider revising the existing vegetated buffers to increase the existing undisturbed zone. Also, in order to increase development and redevelopment in designated areas, providing mitigation options to encourage density in designated areas should be considered.

Coordination with the small area plan ordinance revisions and the upcoming NPDES Phase II Permit/Post Construction Controls Ordinance should be considered to ensure that specific goals can be met and further revisions are not needed.

A-1.7 Community Facilities

See Chapter 2: Recommendations and Implementation Strategies.
Process to Develop the Plan

A-2.1 Research

The process to develop the Brawley School Road Small Area Plan took approximately seven months. The steps involved included the inventory, analysis and synthesis of information pertaining to a variety of planning elements; meeting with Town of Mooresville representatives and others involved in the planning process; the facilitation of a series of public meetings; and, based on this collective information and input, preparing and finalizing the Brawley School Road Small Area Plan. Research and public participation were the keys to the success of the planning process. During this process, the Town simultaneously undertook a small area plan effort for the Cornelius Road corridor.

In the preparation of this report and others, information was gathered from a variety of sources. The following reports and maps were vital during the process to understand and document the existing conditions in Mooresville:

- Mooresville Comprehensive Land Use Plan (2007)
- Mooresville Zoning Ordinance (2008)
- Mooresville Comprehensive Transportation Plan (2007)
- Mooresville Comprehensive Bicycle Plan (2008)
- Capital Improvement Program (07-2008)
- Iredell County 2008 Parks and Recreation Survey
- Iredell County Parks and Recreation Master Plan
- Water and Wastewater Planning Study (2005)
- Perth Road Study
- Mount Mourne & South Iredell Master Plan (2006)
- Cascade Neighborhood Plan (2003)
- 1996 Inventory of Natural Heritage of Iredell County, North Carolina
- Soil Survey of Iredell County - SCS

At the time of this report, the Town of Mooresville and Iredell County were involved in the following plan processes or studies:
A-2.2 Stakeholder & Public Participation

A collaborative, open planning process was a hallmark of the study’s seven-month development period; the successful result of this effort could not have been possible without the work and dedication of the Town Board of Commissioners and Mayor, its Planning Board and professional Town staff, business owners and members of the community.

Early in the plan process, Town staff and the consultant team visited and toured the study area. From photos taken during this tour and input received, an inventory of existing development was prepared. Additional information was gathered on approved and proposed development within the study area and this information was included in the inventory and subsequent base maps.

Public participation is crucial to the successful implementation of any plan. In the case of this plan process, the public contributed through stakeholder interviews, a three-day charrette and community meetings attended by the public.

<table>
<thead>
<tr>
<th>Table A-2.2.1 Schedule of Key Public Outreach Milestones</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Kick-off Meeting</td>
</tr>
<tr>
<td>Utilities Meeting</td>
</tr>
<tr>
<td>Stakeholder Interviews</td>
</tr>
<tr>
<td>Community Open House #1</td>
</tr>
<tr>
<td>Large Property Owner Interviews</td>
</tr>
<tr>
<td>Planning Charrette</td>
</tr>
<tr>
<td>Community Open House #2</td>
</tr>
<tr>
<td>Community Open House #3</td>
</tr>
</tbody>
</table>

Approximately one month after the project kick-off meeting, the consultant team interviewed a total of 35 stakeholders over a period of three days. The consultant team completed an additional round of stakeholder interviews with owners of large tracts of property in the study area and vicinity. Their insight into each study area’s strengths and weaknesses, both perceived and evident, was instrumental to the consultant team. The stakeholders are identified in Appendix C.

Citizen input also aided in the creation of priority lists of issues and opportunities, with more than 100 residents attending the first community open house on August 13, 2008 at the Charles Mack Citizens Center. These interactions with the community were also
opportunities to gather additional input from the public, and for the consultant team to confirm the direction of the plan and that it is a reflection of the community’s vision.

For three days, September 9-11, 2008, members of the consultant team, Town staff and the public gathered for a charrette, or design workshop, was held so that Town staff, key stakeholders and the public could participate in exercises to draw and design the future of the study area, reflecting potential change and improvement. The plans were later refined and presented to the community at large at a second community open house on September 17, 2008 also at the Charles Mack Citizens Center.

Another community meeting was held on October 22, 2008, to present a draft of the final plan document to the public prior to recommending the plan’s adoption.
Existing Conditions, Opportunities and Constraints

Through a detailed assessment of various factors influencing the study area, a report of existing conditions, study area opportunities and constraints was developed. This report became the basis for the creation of the Brawley School Road Small Area Plan. The following represents a summary of this report.

A-3.1 Demographics, Housing and Economic Conditions

Additional information is found in Appendix B, Market Report, prepared by Warren and Associates.

A-3.2 Land Use

Overview
The Brawley School Road study area is comprised of a mix of land uses as shown on Figure 2 (Page 17). Residential uses are located throughout the central portion of the study area. Commercial uses are found along the northern and eastern boundaries of the study area and there are religious institutions throughout.

As shown on Figure 5 (Page 20), the Comprehensive Land Use Plan designates a majority of the study area Neighborhood Residential and Corridor Mixed Use. According to the CLUP, Neighborhood Residential areas are intended to be developed as a series of interconnected neighborhoods with concentrated areas of more dense urban development or urban villages located along major corridors, supporting the potential for local transit linking villages, downtown and employment centers. Corridor Mixed Use areas are commercial in character, with small shopping centers, automobile services, offices, retail stores, restaurants and commercial uses that may not be appropriate for an activity center due to levels of noise and requirements for outdoor space. These corridors create a transition buffer between land uses.

As shown on Figure 6 (Page 21), the adopted zoning for a majority of the study area is Single-Family Residential-2 (R-2). Limited areas of Single-Family Residential-5 (R-5), Single-Family Residential-3 (R-3) and Residential Mixed-Use (RMX) exist. Commercial districts include Highway Business (H-B) and Neighborhood Mixed-Use (NMX). General Industrial (G-1) zoned areas are found in the area north of Brawley School Road and west of I-77, contiguous with the Lakeside Business Park. While most of the site is within the Town of Mooresville jurisdiction or Extra Territorial Jurisdiction (ETJ), certain areas are located within Iredell County, such as small areas zoned Residential Agriculture (RA) and Community Business (CB) in the westernmost portion of the study area.
Inventory of Existing Conditions

In order to assess the amount of each land use found in the study area, 2006 aerial photo/tax parcel map interpretation and site visits were performed to field verify in mid-2008. Table A-3.2.1 shows the percentage of various land uses that exist in the study area. Note that no agricultural uses are found in the study area. However, the 85-acre Cashion site, located west of I-77, south of Brawley School Road, was formerly an active farm. The total parcel acres shown in Table A-3.2.1 differ from the study area acreage. This is primarily because the study area includes features such as right-of-ways and water bodies not present in parcel data.

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Percentage (of total)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial</td>
<td>21.87%</td>
</tr>
<tr>
<td>Residential</td>
<td>74.85%</td>
</tr>
<tr>
<td>Office</td>
<td>1.31%</td>
</tr>
<tr>
<td>Public Space</td>
<td>0.1%</td>
</tr>
<tr>
<td>Ponds</td>
<td>1.87%</td>
</tr>
<tr>
<td>Total Parcel Acres = 863.38</td>
<td></td>
</tr>
</tbody>
</table>

Note: 2008 tax parcel data

Vacant and Undeveloped Space

An analysis of developed versus undeveloped areas was performed. Approximately 40 percent of the study area consists of developed areas. Another inventory gathered information on existing and proposed developed areas within the Critical versus Protected area. Refer to Figure 7 (Page 22).

Ownership

The ownership of vacant parcels along the corridor was examined and an inventory of these parcels was prepared as shown on Figure 8 (Page 23). Existing approved or pending site plans were requested from town staff for properties along with corridor which included these vacant parcels. Collectively, this provided information on commitments previously made that could influence the land use pattern in the future. The names of large landowners with significant holdings were revealed. Some of these individuals became stakeholders in the plan process.

Summary of Land Use Opportunities and Constraints

- Coordination with Iredell County
- The land use pattern is committed for Brawley School Road, although some large vacant and underutilized parcels exist
- Existing infrastructure can support a variety of land uses
- Potential exists for redevelopment within the corridor
A-3.3 Urban Design

Overview
Historic precedent urban design patterns are found in the downtown core area of Mooresville along Main Street. These patterns are also evident in the established neighborhoods near the core.

The Town of Mooresville Comprehensive Land Use Plan places emphasis on defining the form, function, scale of development in addition to the mix of land uses and the location of these uses. In addition, this emphasis is found in the updated Mooresville Zoning Ordinance. Strong urban design principles, including those that have proved successful in the historic downtown core, are now incorporated in the Zoning Ordinance.

In keeping with these efforts, the small area plan placed emphasis on design including urban form. Significant opportunities to provide new development in this manner were evaluated as part of the small area plan process.

Interconnectivity and Streetscapes
In contrast with the downtown core of Mooresville along Main Street, Brawley School Road and the adjacent area were not constructed with a grid pattern of streets in a regular block pattern. Typical of many communities that developed in a suburban fashion, individual neighborhoods with few collector streets and single-use parcels were developed with connection along a single major thoroughfare or arterial. In addition to these factors, other factors such as the existing I-77 corridor and the fingers of Lake Norman and its geography now create significant barriers toward providing an interconnected street network (see Section 4.4 Transportation).

Built Environment and Scale
The presence of existing development in the study area, including residential uses throughout the central portion of the study area, underscores the need to gain an understanding of the scale of the built environment. Based upon site visits performed, existing structures within the study area have building heights ranging from one to two stories.

With the exception of recent development outside of the study area within Morrison Plantation (and to a certain extent Mooresville Town Square), existing buildings have a large setback from the Brawley School Road corridor. Sidewalks are limited to residential streets and disjointed segments of select major roads and no bicycle facilities exist, although plans exist to construct in the future. In contrast with the downtown core of Mooresville, buildings along this corridor do not address the street and sidewalk.

Unique Commercial and Residential Areas
A number of existing single-family dwellings are currently found within the study area along Talbert Road and US 21, south of Brawley School Road. These structures contribute to the overall character that presently exists in the Town of Mooresville. It was recognized certain structures are likely to transition over time into non-residential uses such as professional office.
Summary and Urban Design Opportunities and Constraints

- Coordinate with future widening and enhancement improvements to the corridor.
- Provide choices with a supportive, interconnected street network with blocks as an integrating element where possible.
- Provide new communities with neighborhoods designed with the pedestrian in mind, having focal points within a quarter-mile distance (5 min. walk).
- Allow a mix land uses to occur in non-residential areas, with this mix occurring both vertically and horizontally.
- Address scale and enhance existing communities with building architecture that reflects vernacular unique to the region.
- Develop parks and open space.
- Corridor setback treatment.
- Protect existing natural features.
- Enhance the public realm.
- Permit future development and redevelopment that better orients to the public street with an appropriately sized sidewalk.
- Avoid the appearance of “strip commercial” such as the existing pattern found along Hwy 150.
- Preserve community character and recognize the locations of existing structures in transition, allowing for the character of these structures and surrounding areas to be addressed in the future.

A-3.4 Transportation

Overview
A review of existing conditions was performed for the study area related to transportation. The recent completion of the Mooresville Comprehensive Transportation Plan (2007) provided a key reference for current existing conditions information as well as future conditions.

Existing Levels of Service (LOS)
2004 average annual daily traffic (AADT) volumes on study roadways in the Mooresville area were reviewed. Corridors that displayed noticeably high traffic volumes included sections of the following (vpd = vehicles per day):

- I-77 south of Williamson Road – 76,000 vpd
- I-77 south of River Highway – 57,000 vpd
- I-77 north of River Highway – 50,000 vpd
- River Highway 150 near I-77 – 35,000 vpd
- Brawley School Road west of Williamson Road – 20,000 vpd
- Williamson Road south of River Highway – 13,000 vpd
The rapid growth of Mooresville has resulted in peak hour traffic congestion along many roadway corridors. During morning and afternoon peak travel periods, sections of commuter corridors are frequently congested. In some cases, travel speed is even reduced to a crawl. Several roadways in the study area that are heavily congested include sections of River Highway (NC 150), Brawley School Road, I-77 and US 21. These roadways experience heavy traffic and long delays during peak hours. Figure 9 (Page 24) illustrates existing unacceptable levels of service also known as existing deficiencies.

Existing levels of service (LOS) for roadways within the study area and nearby include:

- Brawley School Road - LOS E-F (west of I-77), LOS C-D (east of I-77)
- Williamson Road - LOS C-D
- Talbert Road - LOS A-B
- River Road NC 150 – LOS E-F (west of I-77), LOS C-D (east of I-77)
- US 21 – LOS A-B (South of Cornelius Road)

Figure 10 (Page 25) depicts the future deficiencies for the study area.

The widening and related improvements to Brawley School Road are intended to add some capacity to this congested roadway segment. Also, the NCDOT is planning to widen Interstate 77. However, I-77 is expected to remain congested in 2030 after widening to 8 lanes.

**Interconnected Street System and Collector Streets**

A rapid rate of residential and commercial growth is occurring within the study area coupled with limited mobility alternatives and reliance on the existing arterial roadway system. The benefits of an interconnected street system include:

- Reduced travel on major arterials
- Reduced travel times without travel speed increases
- Increased access opportunities for emergency response vehicles
- Keep local trips on local streets
- More opportunities for non-vehicular connections

A more robust collector street network, in addition to the street system presently found within the study area represents an opportunity and was considered in the plan. The primary purpose of the collector street system is to collect traffic from neighborhoods and distribute it to the system of major and minor thoroughfares. Generally, collector streets have two travel lanes often with dedicated left turn lanes at major intersections. Collector streets are rarely constructed by local governments or NCDOT. Instead they are built by the private sector incrementally as development occurs. A properly implemented collector street system improves accessibility to higher intensity residential areas and activity centers while minimizing impacts to natural areas. They also serve as a transportation conduit allowing the free movement of not only automobiles but also bicyclists and pedestrians.
Safety

According to the Mooresville Comprehensive Transportation Plan, of the three most dangerous intersections in Mooresville, two border the Brawley School Road study area, on its western-most and eastern-most sides. Brawley School Road at Williamson Road ranked as the highest priority intersection for safety improvements. The intersection had 34 crashes during the two-year study period, from Jan. 1, 2003 to Dec. 31, 2005, carrying 36,000 vehicles per day. Brawley School Road at US 21 (Charlotte Highway) at the opposite end of the study area saw an equal number (34) of crashes during the same period while carrying 25,000 vehicles per day. To supplement the NCDOT Brawley School Road widening project, the town and NCDOT are undertaking a spot safety project at US 21 and Brawley School Road.

Multi-modal Needs

Creating great places and maintaining quality of life requires a diverse approach to transportation planning. This includes a more robust transportation system that provides opportunities for functional and recreational non-motorized trips. Existing large scale transportation facilities currently act as barriers to this type of mobility, providing few accommodations for any other modes except automobiles. In portions of the study area specified for low density residential development, it is also advisable to look beyond a singular approach to pedestrian accommodations (i.e. sidewalks). When considering all of these factors, in addition to the study area’s environmental features, it is clear that opportunities exist to enhance transportation connectivity through means beyond typical streets.

The first step in this process was to identify existing and likely future pedestrian generators (attractors). Uses such as schools and parks, as well as activity centers anchored by retail uses are places that could be considered attractors to non motorized trips. Next, existing and planned bicycle routes already adopted by the Town of Mooresville were mapped. Finally, the “green” infrastructure, represented by the study area’s streams, riparian buffers and floodplains, was mapped. In essence, these features represent conduits for the area’s natural systems that are often considered appropriate venues for future trails and greenways. In addition, existing and future utility corridors represent similar opportunities where mapped in conjunction with the green infrastructure features.

According to the Mooresville Comprehensive Transportation Plan, future growth will require the need for a town-wide bus system. This and other recommendations from the CTP were considered along with additional opportunities for mass transit in the plan.

Summary of Transportation Opportunities and Constraints

- Congestion:
  - Highly congested roadways including:
    - River Highway (NC 150)
    - Brawley School Road
    - I-77
    - US 21
I-77 expected to remain congested in 2030 after widening to 8 lanes
Existing deficiencies exist
  • An Interconnected Street System and Collector Streets can provide many benefits.
  • Safety:
    o Brawley School Road at Williamson Road is ranked as the highest priority intersection for safety improvements in CTP.
  • Multi-modal Needs:
    o Sidewalks limited to residential streets and disjointed segments of select major roads; No bicycle facilities
    o Bicycle and pedestrian plans recognize expected demand for bicycle and pedestrian activity
    o Transit needed to serve future growth.

A-3.5 Cultural and Historic Resources

Overview
Elements important toward defining community character include significant cultural and historic resources. These important resources allow individual citizens to reflect on their community history and gain a better understanding of past achievements and values as the community-at-large moves into the future. Also, these resources help define a place with elements unique to a specific area’s heritage, thus providing inherent stability in that place.

Inventory of Existing Conditions
The inventory of cultural resources within the Brawley School Road study area includes religious institutions. Educational facilities are located nearby.

History of the Planning Area
An overview of the history of the planning area is found in Appendix 4, Section A-4.1.

Historic Buildings
No historic districts or structures were found in the study area based on a search of the National Register of Historic Places.

Educational, Religious and Cultural Facilities
A number of religious institutions are found in the study area. These religious institutions include Peninsula Baptist Church, which fronts Brawley School Road at the western edge of the study area boundary. Near the intersection of Brawley School Road and Williamson Road are Williamson Chapel United Methodist Church, Lakeside Presbyterian Church and Harbor Church. St Therese Catholic Church is located on the south side of Brawley School Road, east of Talbert Road.

No educational facilities are currently found within the study area. However, Brawley Middle School is immediately adjacent to the study area boundary on the north side of Brawley School Road, west of Williamson Road.
Summary of Cultural & Historic Opportunities and Constraints

- Institutional uses such as churches along the Brawley School Road corridor have cultural importance.

A-3.6 Natural Resources, Open Space and Parks & Recreation

Overview

A range of open space areas are presently found in the study area or nearby, including parks, a golf course, creeks and streams. Future greenways are planned but presently do not extend through or traverse the study area. Significant opportunities to enhance the open space system were evaluated as part of the small area plan process.

Inventory of Existing Conditions

The following section provides an overview of the existing conditions regarding topography, soils, agricultural and forest land, hydrology, habitat, recreational facilities and greenways in the Brawley School Road study area.

Topography

Topography was mapped along with other environmental features (refer to Figure 11, Page 26) and was used during planning exercises on base maps.

Iredell County and the Town of Mooresville are located on the western edge of the Piedmont Physiographic Province of North Carolina. The topography of the Brawley School Road study area is typical of the Piedmont, characterized by flat uplands that are deeply dissected by creeks and streams. The southwestern border of the county is formed by the Catawba River, which also drains a portion of the county, including the entire Brawley School Road study area. Much of the Catawba River’s watershed is small, with short, small tributaries and much of the original river streambed having been inundated by the impoundment of Lake Norman. Note a majority of Iredell County drains to the Yadkin River.

The general topography does not present a major issue for development in the Brawley School Road study area. As development continues, utilities will be impacted by the gently sloping elevation change.

Soils

Soils maps found on the SCS Soil Survey for Iredell County were reviewed. The soils do not present a major issue for land development in the Brawley School Road study area.

Prime Agricultural and Forest Land

Although Mooresville and its Brawley School Road study area was historically home to many family-run agricultural operations, the pace of development and increasing value of land able to be developed has been a factor resulting in no active farming. Today, there are no commercially viable tracts of land suitable for farming or forestry operations in the study area.
Hydrology
The Brawley School Road study area lies within the Catawba River basin and the Catawba – Lake Norman watershed. The waters within the watershed are classified as WS-IV Critical or WS-IV Protected. The North Carolina Administrative Code describes the WS-IV classification as “water supplies which are generally in moderately to highly developed watersheds.” Point source discharges of treated wastewater are permitted and local programs to control nonpoint source and stormwater discharge of pollution are required.

Development is allowed in both the WS-IV Critical and WS-IV Protected areas. Under the high density option in WS-IV Critical, the built-upon area may not exceed 50% of the total acreage. Under the high density option in WS-IV Protected, the built-upon area may not exceed 70%. The low-density option requires 2 DU/AC or a 24% limit for the built-upon area for WS-IV Critical and WS-IV Protected areas.

Reed Creek drains through the study area. Floodplains are found as well, notably between the Reed Creek and Windsor Woods subdivisions and near US 21 on the eastern edge of the study area.

Plant and Wildlife Habitat
Forests of hardwoods and pine can be found in undeveloped parcels within the study area. There are no rare, threatened or endangered species known to exist in the study area, although further studies may be needed for verification. A review of the Significant Natural Heritage Areas inventory found that many natural communities exist in the northern portion of Iredell County. The closest area is Lake Norman State Park, which has one of the few Piedmont Monadnock Forest communities in the region. This area also has examples of Dry-mesic Oak-Hickory Forest and Piedmont Low Mountain Alluvial Forest. The site is owned by the NC Division of Parks and Recreation.

Park and Recreation Areas
There are no existing park facilities within the Brawley School Road study area, but the Mooresville Municipal Golf Course is located on the eastern edge of the study area at US 21. The course’s front nine was designed by famed golf course architect Donald Ross in 1948, the final year of his life. Mooresville Municipal is one of 43 courses Ross designed in North Carolina and one of 16 that still offers public access. It was originally constructed for the recreational use of the Mooresville-based employees of Burlington Mills, now Burlington Industries (closed in 1999). Thirty years later, J. Porter Gibson added the back nine. The par-72 course also has a driving range, pro shop, snack bar and conference room.

Greenways
Existing and planned greenways were mapped along with other parks and publicly-owned lands (refer to Figure 12, Page 27).
Summary of Natural Resources and Open Space, Parks & Recreational Opportunities and Constraints

- Lake Norman presents a limiting environmental factor for intensive development:
  - WS-IV
  - Critical = 50% built-upon (w/ high density opt)
  - Protected = 70% built-upon (w/ high density opt)
- Topography.
- Opportunities for parks, greenways and preserved open space.
- Parks and Recreation Master Plan:
  - Currently being updated by Mooresville & Iredell County
  - Desire for greenways, open space, indoor recreation facilities in Mooresville
- Need for connections to the future Carolina Thread Trail and other regional greenway / trail initiatives:
  - Enhance other connections locally

A-3.7 Community Facilities

Overview
Community facilities are those services and systems that are available for public use on a daily basis in order for citizens to meet their daily needs. Land use decisions can have measurable impacts on these services. Many of these services are demanded with new development and significant capital costs can be associated with service expansion.

Inventory of Existing Conditions
The following section includes an overview of Mooresville’s services and infrastructure systems that the public uses on a daily basis (other than the road network which is described in Section A-3.4), the water supply, treatment and distribution system; the sewage system and wastewater treatment; solid waste collection and disposal system; fire protection and emergency medical services; public safety and emergency preparedness; any expansion of town government facilities; school facilities, libraries and other cultural facilities.

Water Supply, Treatment and Distribution
With respect to the long range implementation of the small area plan for Brawley School Road, an initial understanding of the existing capacity of the water supply and wastewater treatment facilities is essential. The town is just completing a major expansion to the water treatment capacity in the form of new treatment facilities which will ultimately increase water supply capacity from the old plant at 6.0 mgd to a combined capacity in both the old and new plants to a total of 18 mgd. These improvements will supply the town’s needs well into the next decade and will accommodate the anticipated demands from the development envisioned in the small area plans. With respect to the wastewater treatment capacity, the town is currently implementing a series of improvements to increase capacity at the existing Rocky River Plant from 5.0 mgd to 7.2 mgd. Additional studies have been in progress and are continuing for the purposes of evaluating several
different options for the development of additional wastewater treatment capacity including potential further expansion of the existing plant. It is clear that creation of additional wastewater treatment capacity will be necessary to accommodate anticipated growth of the town including the eventual buildup of the anticipated development in the study area and the process of planning for this growth is already underway in the form of an update of the Water and Sewer Master Plan. The location of the town’s Water Plant and Wastewater Treatment Plant are shown on Figures 13 and 14 (Pages 28-29).

**Sewage System and Wastewater Treatment**

Generally at present, the existing water distribution and sewer collection facilities in the study area (see Figures 13 and 14, Pages 28-29) are capable of supplying adequate water and receiving and conveying the wastewater flows anticipated from development of the area delineated for the small area plan, although some specific land parcels will need minor extensions to actually serve these parcels. However, as the surrounding and other contributory areas to the small area plan also develop demands on these water and sewer facilities will exceed their capacity and expansions will be necessary. These improvements will be defined as a component of the update of the Water Sewer Master Plan currently in progress by the town by utilization of the land uses envisioned by the small area plan in the demand projections.

**Solid Waste Collection and Disposal**

The Town of Mooresville Sanitation Department provides solid waste collection services. As of 2008, the Sanitation Department collects household and commercial waste from residences and businesses. Trash is collected weekly on regular routes. As of 2008, the Sanitation picks up approximately 11,500 trash cans, 200 business cans and dumps 260 dumpsters weekly. 17,441 tons of material was managed in 2007-08. Also, the town has started a pilot recycling program.

Iredell County Solid Waste operates a Municipal Solid Waste landfill at Twin Oaks, and a Transfer Station. A Transfer Station is located in Mooresville at 151 West Plaza Drive off Hwy 150 East. Iredell County Solid Waste also maintains three sites around the county for disposal and recycling by citizens. Iredell County Solid Waste managed 228,085 tons of material in 2007-08.

The Twin Oaks landfill, which receives solid waste from Mooresville and Iredell County, has remaining capacity until 2018-2020. This is based on an assumed 5 percent increase per year. Iredell County Solid Waste is presently looking at site suitability on adjacent property already purchased. This potentially could allow future expansion in order to accommodate capacity for the next 40-50 years.

Currently, no deficiencies in solid waste services exist that relate to the small area plan.

**Fire Protection and Emergency Medical Services**

The Mooresville Fire Department services provided include fire protection, medical services and light rescue. The Town of Mooresville currently operates 4 fire stations. Fire
Station #2 is located north of the study area boundary within the Lakeside Business Park, west of I-77. The study area is also served by Mt. Mourne, Shephards and Lake Norman.

Table A-3.7.1 Mooresville Fire Stations

<table>
<thead>
<tr>
<th>No.</th>
<th>Station Name</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Station #1</td>
<td>457 North Main Street</td>
</tr>
<tr>
<td>2</td>
<td>Fire Station #2</td>
<td>186 Knob Hill Road</td>
</tr>
<tr>
<td>3</td>
<td>Fire Station #3</td>
<td>1023 Shearers Road</td>
</tr>
<tr>
<td>4</td>
<td>Fire Station #4</td>
<td>2014 Charlotte Highway</td>
</tr>
</tbody>
</table>

According to input from Mooresville Fire Department staff, deficiencies exist related to these services. In order to better serve the community in the future, a new fire station site is needed along US 21, south of Brawley School Road, in the eastern portion of the study area.

Public Safety and Emergency Preparedness
The Mooresville Police Department and Iredell County Sheriff’s Department provide public safety services for the study area.

Mooresville Police Department is located in a central facility at 750 W. Iredell Avenue. According to Mooresville Police staff, a traffic unit has been created. There is a movement in North Mecklenburg County and Mooresville to start working accidents on I-77 as a service to town residents. Mooresville Police investigated 3,200 accidents last year.

Currently, no deficiencies in public safety services exist that relate to the small area plan, according to the Mooresville Police staff.

Government Facilities
No government facilities are presently located within the study area. The Town of Mooresville presently has government facilities concentrated around Main Street and along East and West Iredell Avenue. These include Town Hall, Station #1, Mooresville Recreation, Public Works and Utilities Departments. Station #2 is located just off Williamson Road.

Opportunities for potential new government facilities were not specifically identified within the study area. This does not include education, libraries or cultural facilities (see below).

Education Facilities
No educational facilities are currently found within the study area; however, Brawley Middle School is immediately adjacent to the study area boundary on the north side of Brawley School Road, west of Williamson Road. Also, students generated within the study area would attend schools located nearby based on attendance zones.

A majority of the study area west of I-77 is located in the Lake Norman High School attendance zone. Also included are some areas east of I-77. Also, this area is served by
Lake Norman Elementary School. Portions of the study area east of I-77 are within the West Iredell High School attendance zone. These portions of the study area east of I-77 are also within the Mooresville Graded School District. The Mooresville Graded School District does not directly following the current town limits. Therefore, some residents within the Town of Mooresville may have children who attend Iredell-Statesville Schools.

Brawley Middle School is landlocked with no room for expansion, so a new middle school is needed in the Coddle Creek area according to input from Iredell-Statesville Schools staff. Brawley Middle School has a median capacity 970. Beginning enrollment in 2008 was 1,034.

A Facilities Task Force is evaluating a possible new middle school in the Coddle Creek area among other options to relieve pressure at Brawley Middle School. These possible options include redistricting, with Mt. Mourne Elementary becoming a magnet program. Also, Coddle Creek could become a K-6 school instead of K-5, allowing time to build a new middle school.

Lake Norman High School has a median capacity of 1,821. Beginning enrollment in 2008 was 1,932. Possible options to relieve pressure include redistricting. South Iredell could become a magnet program or remaining capacity could serve the area. South Iredell has a median capacity of 1,386 and a 2008 beginning enrollment of 1,000.

Lake Norman Elementary School has a median capacity of 678. Beginning enrollment in 2008 was 684. Options to relieve pressure include redistricting, with Coddle Creek opening with a capacity to accommodate 950. This may also relieve pressure on nearby Woodland Heights Elementary, which has a median capacity of 756 and 2008 enrollment of 959.

Education facilities are presently over capacity. Iredell-Statesville Schools and the Facilities Task Force are reviewing options to relieve pressure on these facilities including redistricting, expansion and the construction of new facilities. However, examining student generation from future residential development, based on available capacity at the time of development, is an important consideration. Iredell-Statesville Schools presently uses a multiplier of 0.34 students per residential unit.

Opportunities for potential new school sites were not identified within the study area.

Libraries and other Cultural Facilities
The Mooresville Public Library is located in a central facility at 304 S. Main Street. The need for an additional library to serve the study area was discussed with town staff. Strong interest exists to provide a West Mooresville Branch according to Mooresville Public Library staff. According to Mooresville Public Library staff, the preferred location for a potential site is within a quarter mile of Morrison Plantation Parkway and Brawley School Road. The library branch would be an estimated 15,000 sf with approximately 50-100 spaces for parking. Funding is not presently available for construction. However,
funding has been requested from Iredell County, which provides 75% of Mooresville Public Library funding. A determination of available funding will likely occur in Spring 2009, during the FY09-10 budget process.

Potential sites for these purposes, should they be desired in the future, were evaluated within the study area. See Appendix A-1, Cultural and Historic Resources.

Summary of Community Facilities Opportunities and Constraints
- Mooresville Water & Sewer Master Plan being updated.
- Concerns relative to future septic system failures, particularly near the lake.
- Water and sewer services are critical for development to occur; BSR is well-served.
- Provide for emergency services.
- Provide adequate facilities for fire protection.
A-4.1 History

Early European settlers began to occupy the area currently known as Mooresville in the late 1700s. Prior to that time, this area was known to be used by the Catawba Indians as hunting grounds. A few large plantations were established in the area, including Mount Mourne (est. 1836) and Belmont (est. prior to the Revolutionary War). Smaller plantations and farms were also located in the area.

The Town of Mooresville was first incorporated in 1873. Prior to this date, in 1856, and in advance of a railroad extending through the area, land was donated by the family of John Franklin Moore for a cotton weigh station and depot. Additional land for several families was also donated. Until its incorporation date, when the town was named Mooresville in honor of John Franklin Moore, the town was known as Moore's Siding.

Little growth occurred during the Civil War era. Only 25 families lived within its bounds at the time the town was incorporated as Mooresville in 1873. By early 1900, more than a thousand persons resided in the town. The town grew steadily during the twentieth century. An economy emerged for milling and manufacturing businesses, including a few large textile and furniture factories. Burlington Industries mill, which closed only recently in 1999, was a major employer in the area beginning in 1895. In the early 1960s, more than five textile businesses were operating in the area.

In 1963, the Cowans Ford Dam was constructed, creating the largest manmade body of fresh water in North Carolina from its source, the Catawba River. Lake Norman has an overall area of more than 32,475 acres. The lake was named after former Duke Energy president Norman Cocks. In addition to providing a water supply for Mooresville, Lake Norman is a resource that provides electricity to the Piedmont of the Carolinas.

By the mid 1970s, the construction of Interstate Highway 77 had been completed, creating an important north-south link between nearby City of Charlotte and Mooresville. Significant growth began in Mooresville during the 1980s, in part due to rapid growth occurring in the Charlotte area. The town was discovered as an attractive and accessible community for those residing near the Charlotte area. Since that time, new business and industry in the area has also flourished. While the mill and textile manufacturing economies have experienced decline, other manufacturing industries have emerged. The auto racing business is a major industry, and Mooresville is now known as Race City, USA. The town is home to more than 60 NASCAR teams and racing related businesses and the site of the North Carolina Auto Racing Hall of Fame museum. Also, the headquarters of many national companies, including Lowes, now call Mooresville home.

Despite the rapid changes, Mooresville maintains its quaint, southern charm. The railroad line and buildings in downtown along Main Street help communicate the history of the town. Main Street is still home to businesses such as D.E. Turner Hardware store, which is more than 100 years old. The historic depot building is now occupied by the Mooresville Artists Guild and serves as an arts gallery.
A-4.2 Study Area

The Brawley School Road study area covers 961 acres immediate to the planned interchange with Brawley School Road and I-77.

As shown on Figure 2 (Page 17), the western boundary of the Brawley School Road study area is Peninsula Baptist Church, which fronts Brawley School Road. Extending eastward, the study area includes the Brawley Commons Shopping Center and the parcels immediately south of it fronting Williamson Road. The key intersection of Brawley School Road and Williamson Road is included in the study area as is Williamson Chapel United Methodist Church, Harbor Church, parcels north of the Harbor Cove subdivision, the Sunridge Townhomes and the varied properties south of Brawley School Road to the 760-foot contour line of Lake Norman and east to US 21. Along US 21 north of Brawley School Road / Wilson Avenue, the project’s study area includes properties west of the Glynwater subdivision. On the project’s northern boundary, the study area encompasses the Windsor Woods neighborhood but not Reed Creek. A portion of the Talbert Road corridor south of NC 150 is included in the study area, as are properties fronting Brawley School Road in proximity to Lakeside Business Park and the Mooresville Town Square shopping center.
Brawley School Road
Small Area Plan

Mooresville, NC

November 2008

Prepared for
Town of Mooresville
413 North Main Street
Mooresville, NC 28115

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and shall notify the local government and the person appealing the local government's decision that the plan should be approved, approved with modifications, approved with performance reservations, or disapproved.

(3) If either the local government or the person submitting the plan disagrees with the decision reached by an employee of the Department then he may appeal the decision to the Commission by filing notice within 15 days with the Director of the Division of Land Resources. The director shall make the proposed erosion control plan and the records relating to the local government's and departmental employees' review, available to an appeals review committee consisting of three members of the Commission appointed by the chairman. Within 10 days following receipt of the notification of appeal, the appeals review committee shall notify the local government and the person submitting the plan of a place and time for consideration of the appeal, and shall afford both parties an opportunity to present written or oral arguments. The appeals review committee shall notify both parties of its decision concerning the approval, disapproval, or modification of the proposed plan within 30 days following such hearing.

(e) The applicant's right under G.S. 113A-54.1(d) to appeal the Director's disapproval of an erosion control plan under G.S. 113A-54.1(c) gives rise to a right to a contested case under G.S. 150B, Article 3. An applicant desiring to appeal the Director's disapproval of an erosion control plan shall file with the Office of Administrative Hearings a contested case petition under G.S. 150B, Article 3. The general time limitation for filing a petition, and the commencement of the time limitation, shall be as set out in G.S. 150B-23(f). Contested cases shall be conducted under the procedures of G.S. 150B, Article 3 and applicable rules of the Office of Administrative Hearings. The Commission shall make the final decision on any contested case under G.S. 150B-36.

History Note: Filed as a Temporary Amendment Eff. January 14, 1992 for a period of 180 days to expire on July 11, 1992;
Statutory Authority G.S. 113A-2; 113A-54; 113A-54.1; 113A-60(a); 113A-61(b); 113A-61(c);
150B, Article 3: 150B-23;
Eff. February 1, 1976;
Amended Eff. June 1, 1995; February 1, 1992; May 1, 1990; August 1, 1988.

15A NCAC 04B .0119 COMPLIANCE WITH PLAN REQUIREMENT

History Note: Authority G.S. 113A-54(b);
Eff. February 1, 1976;
Amended Eff. November 1, 1984;

15A NCAC 04B .0120 INSPECTIONS AND INVESTIGATIONS

(a) The Commission, Department of Environment, Health, and Natural Resources or local government may require written statements, or the filing of reports under oath, concerning land disturbing activity.
(b) Inspection of sites shall be carried out by the staff of Department of Environment, Health, and Natural Resources or other qualified persons authorized by the Commission or Department of Environment, Health, and Natural Resources as necessary to carry out its duties under the Act.
(c) No person shall refuse entry or access to any representative of the Commission or any representative of a local government who requests entry for purposes of inspection.

History Note: Authority G.S. 113A-54(b); 113A-58; 113A-61.1;
Eff. February 1, 1976;
Amended Eff. October 1, 1995; May 1, 1990; November 1, 1984.
15A NCAC 04B .0121 PENALTIES

History Note: Authority G.S. 113A-54; 113A-64;
Eff. February 1, 1976;

15A NCAC 04B .0122 SEVERABILITY CLAUSE
If any of these provisions are held invalid or unenforceable, all of the other provisions shall nevertheless continue in full force and effect.

History Note: Authority G.S. 113A-54;
Eff. February 1, 1976;

15A NCAC 04B .0123 EFFECTIVE DATE

History Note: Authority G.S. 113A-54(b);
Eff. February 1, 1976;
Amended Eff. November 1, 1984; November 15, 1976;

15A NCAC 04B .0124 DESIGN STANDARDS IN SENSITIVE WATERSHEDS
(a) Uncovered areas in HQW zones shall be limited at any time to a maximum total area within the boundaries of the tract of 20 acres. Only the portion of the land-disturbing activity within a HQW zone shall be governed by this Rule. Larger areas may be uncovered within the boundaries of the tract with the written approval of the Director.
(b) Erosion and sedimentation control measures, structures, and devices within HQW zones shall be so planned, designed and constructed to provide protection from the runoff of the 25 year storm which produces the maximum peak rate of runoff as calculated according to procedures in the United States Department of Agricultural Soil Conservation Service's "National Engineering Field Manual for Conservation Practices" or according to procedures adopted by any other agency of this state or the United States or any generally recognized organization or association.
(c) Sediment basins within HQW zones shall be designed and constructed such that the basin will have a settling efficiency of at least 70 percent for the 40 micron (0.04mm) size soil particle transported into the basin by the runoff of that two-year storm which produces the maximum peak rate of runoff as calculated according to procedures in the United States Department of Agricultural Soil Conservation Services "National Engineering Field Manual for Conservation Practices" or according to procedures adopted by any other agency of this state or the United States or any generally recognized organization or association.
(d) Newly constructed open channels in HQW zones shall be designed and constructed with side slopes no steeper than two horizontal to one vertical if a vegetative cover is used for stabilization unless soil conditions permit a steeper slope or where the slopes are stabilized by using mechanical devices, structural devices or other acceptable ditch liners. In any event, the angle for side slopes shall be sufficient to restrain accelerated erosion.
(e) Pursuant to G.S. 113A-57(3) provisions for a ground cover sufficient to restrain erosion must be provided for any portion of a land-disturbing activity in a HQW zone within 15 working days or 60 calendar days following completion of construction or development, whichever period is shorter.

History Note: Authority G.S. 113A-54(b); 113A-54(c)(1);
15A NCAC 04B.0125  BUFFER ZONE REQUIREMENTS
(a) Unless otherwise provided, the width of a buffer zone is measured from the edge of the water to the nearest edge of the disturbed area, with the 25 percent of the strip nearer the land-disturbing activity containing natural or artificial means of confining visible siltation.
(b) The 25 foot minimum width for an undisturbed buffer zone adjacent to designated trout waters shall be measured horizontally from the top of the bank.
(c) Where a temporary and minimal disturbance is permitted as an exception by G.S. 113A-57(1), land-disturbing activities in the buffer zone adjacent to designated trout waters shall be limited to a maximum of ten percent of the total length of the buffer zone within the tract to be distributed such that there is not more than 100 linear feet of disturbance in each 1000 linear feet of buffer zone. Larger areas may be disturbed with the written approval of the Director.
(d) No land-disturbing activity shall be undertaken within a buffer zone adjacent to designated trout waters that will cause adverse temperature fluctuations, as set forth in 15A NCAC 2B.0211 "Fresh Surface Water Classification and Standards", in these waters.

History Note:  Authority G.S. 113A-54(b); 113A-54(c)(1); 113A-57(1); Eff. May 1, 1990; Amended Eff. February 1, 1992.

15A NCAC 04B.0126  PLAN REVIEW FEE
(a) A nonrefundable plan review processing fee, in the amount stated in Paragraph (e) of this Rule, shall be paid when an erosion and sedimentation control plan is filed in accordance with 15A NCAC 04B.0118.
(b) Each plan shall be deemed incomplete until the plan review processing fee is paid.
(c) The plan review processing fee shall be based on the number of acres, or any part of an acre, of disturbed land shown on the plan.
(d) No plan review processing fee shall be charged for review of a revised plan unless the revised plan contains an increase in the number of acres to be disturbed. If the revised plan contains an increase in the number of acres to be disturbed, the plan review processing fee to be charged shall be the amount stated in Paragraph (e) of the Rule for each additional acre (or any part thereof) disturbed.
(e) The nonrefundable plan review processing fee shall be fifty dollars ($50.00) for each acre or part of any acre of disturbed land.
(f) Payment of the plan review processing fee may be by check or money order made payable to the "N.C. Department of Environment and Natural Resources". The payment shall refer to the erosion and sedimentation control plan.


15A NCAC 04B.0127  PLAN APPROVAL CERTIFICATE
(a) Approval of a sedimentation and erosion control plan will be contained in a document called "Certificate of Plan Approval" to be issued by the Commission.
(b) The Certificate of Plan Approval must be posted at the primary entrance of the job site before construction begins.
(c) No person may initiate a land-disturbing activity until notifying the agency that issued the Plan Approval of the date that the land-disturbing activity will begin.

History Note:  Filed as a Temporary Rule Eff. November 1, 1990, for a period of 180 days to expire on April 29, 1991; Authority G.S. 113A-54(b); AARC Objection Lodged November 14, 1990; AARC Objection Removed December 20, 1990;
15A NCAC 04B .0128  RAILROAD COMPANIES
(a) The Commission recognizes that under the Federal Railroad Safety Act of 1970 (FRSA), 45 U.S.C. 421 et seq., as interpreted by federal administrative rules and court decisions, existing railroad roadbeds comprise a zone of federal preeminence within which federal law takes precedence over the Act [the SPCA].
(b) While the specific definition of this zone of federal preeminence is a question of federal law and regulation, in general the zone of federal preeminence extends outward from the center of the railroad roadbed to and including drainage ditches and spoil banks on either side of the roadbed.
(c) In the event of a derailment, washout, or other emergency condition which requires immediate action to protect public safety, the zone of federal preeminence temporarily expands, for the duration of the emergency condition, to encompass areas adjacent to the roadbed within which emergency repairs are undertaken pursuant to the FRSA and Federal Railroad Administration rules.
(d) The Act and rules do not apply to activities conducted within the zone of federal preeminence. The Act and rules apply to all other activities conducted by railroad companies. Railroad companies shall take all reasonable measures that are consistent with the requirements of federal law to control sedimentation originating in the zone of federal preeminence.
(e) A railroad company's failure to comply with a requirement of the Act or rules in order to avoid creating a safety hazard or to avoid noncompliance with a federal safety requirement is not a knowing or willful violation of the Act or rules.
(f) The Commission will provide advice and technical assistance to railroad companies in the development and implementation of voluntary best management practices to reduce environmental impacts that may otherwise result from activities conducted within the zone of federal preeminence.

History Note: Authority G.S. 113A-52(6); 113A-54(b); 113A-54(c); 113A-54(d)(4); 113A-57(1);

15A NCAC 04B .0129  EROSION CONTROL PLAN EXPIRATION DATE
An erosion control plan shall expire three years following the date of approval, if no land-disturbing activity has been undertaken.

History Note: Authority G.S. 113A-54.1(a);

15A NCAC 04B .0130  EMERGENCIES
Any person who conducts an emergency repair essential to protect human life, that constitutes a land-disturbing activity within the meaning of G.S. 113A-52(6) and these Rules:
(1) shall notify the Commission of such repair as soon as reasonably possible, but in no event later than five working days after the emergency ends; and
(2) shall take all reasonable measures to protect all public and private property from damage caused by such repair as soon as reasonably possible, but in no event later than 15 working days after the emergency ends.

History Note: Authority G.S. 113A-52.01(4); 113A-54(b);
Brawley School Road
Implementation Matrix

IMPLEMENTATION MATRIX

The Implementation Matrix is composed of a series of “action” items, or strategies, which are tied to the guiding principles and recommendations contained in the Small Area Plan for Brawley School Road. This matrix was created to be used during the upcoming implementation phase, following the adoption of the plan. Those participating in the monitoring of implementation activities and measuring progress will have this available as a type of worksheet, a starting point in an exercise of prioritizing activities.

The recommended timing for each proposed strategy is categorized as "short-term," "mid-term," or "long-term," as determined by those individuals responsible for implementing the Small Area Plan for Brawley School Road. Short-term implementation strategies are meant to be completed within the first year of the new plan. Mid-term implementation strategies are meant to be completed within two to five years. Long-term implementation strategies are to be completed in five-plus years. Those responsible for creating a strategic implementation plan are encouraged to do a thorough evaluation of the priorities indicated based on budget constraints and other relevant circumstances.
## General Recommendations

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Implementation Strategies</th>
<th>Short-Term</th>
<th>Mid-Term</th>
<th>Long-Term</th>
<th>Responsible Party</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSR GEN-1. The Town of Mooresville shall adopt and incorporate by reference the Brawley School Road Small Area Plan into the currently adopted Comprehensive Land Use Plan as referenced in Chapter 1, Sect. 1.2 of the Comprehensive Land Use Plan.</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>TOM</td>
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</tbody>
</table>

A-E-2
LAND USE STRATEGIES FOR IMPLEMENTATION

Land Use and Urban Design

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Implementation Strategies</th>
<th>Short-Term</th>
<th>Mid-Term</th>
<th>Long-Term</th>
<th>Responsible Party</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BSR LU-1.</strong> Based on this table, support rezoning requests for some or all of the parcels within the study area to base zoning districts shown. In order to understand how to best achieve each land use type shown on the small area plan, a detailed assessment of the land use designations on the adopted Comprehensive Land Use Map and base zoning districts was conducted including market supportability. The results are shown in the table in the next column. Refer to Mooresville Zoning Ordinance Chapter 3.2 (Base Zoning Districts).</td>
<td>Brawley School Road</td>
<td>Land Use Plan General Planning Areas</td>
<td>Base Zoning Districts*</td>
<td>X</td>
<td>X</td>
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<tr>
<td>SAP Land Use Categories</td>
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<tr>
<td>SF Residential - Detached</td>
<td>NR</td>
<td>R-2, R-3</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>SF Residential - Attached</td>
<td>NR</td>
<td>R-5, RMX</td>
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<tr>
<td>SF Residential - Transitional</td>
<td>CMU</td>
<td>MXO</td>
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<tr>
<td>Multifamily Residential</td>
<td>NR</td>
<td>R-5, RMX</td>
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<tr>
<td>Mixed Use</td>
<td>CMU</td>
<td>CMX, NMX</td>
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<tr>
<td>Retail/Service/Hospitality</td>
<td>CMU, VC</td>
<td>CMX</td>
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<tr>
<td>Retail &amp; Office</td>
<td>CMU</td>
<td>CMX</td>
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<tr>
<td>Office Campus</td>
<td>EC-O</td>
<td>PC-C</td>
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<tr>
<td>Office Flex</td>
<td>EC-F</td>
<td>GI, PC-C</td>
<td></td>
<td></td>
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<tr>
<td>Light Industrial/Flex</td>
<td>EC-F</td>
<td>GI, PC-C</td>
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<tr>
<td>Civic/Institutional</td>
<td>Any</td>
<td>Any</td>
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<tr>
<td>Open Space &amp; Parks</td>
<td>Any</td>
<td>Any</td>
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</tbody>
</table>

Notes: *The study area is designated Water Protection Overlay. Lots fronting Williamson Road are designated Corridor Overlay. Refer to index found at the end of this section. This terminology is further defined in the Comprehensive Land Use Plan and Mooresville Zoning Ordinance.
**BSR LU-2.** Consider a new overlay district for the study area: The Brawley School Road Small Area Plan Corridor Overlay.

| Strategy 1: Draft an overlay district or amend the Corridor Overlay to supplement the standards of the underlying zoning to achieve the development pattern intended by the plan. For example, street cross sections as indicated in the small area plan should be adhered to. As another example, stormwater management standards that exceed or offer alternatives to current standards may be incorporated. |
|---|---|---|
| X | X | TOM |

**BSR LU-3.** Utilize the small area plan for the Brawley School Road study area to encourage a higher density pattern of development than currently exists. This is particularly appropriate for any undeveloped or underutilized parcels anywhere in the study area where infrastructure and services exist, or can easily be provided. This includes sites having high potential for redevelopment or adaptive reuse, such as the Brawley Commons Shopping Center at the intersection of BSR and Williamson Rd. This does not include those

| Strategy 1: Encourage small lot residential development and attached (ex: townhome) residential in appropriate locations such as areas designated on the plan for single-family attached residential. |
|---|---|---|
| X | X | TOM |

| Strategy 2: Support rezoning requests for higher density development consistent with the plan. |
|---|---|

| Strategy 3: A minimum non-residential building height of 2 stories should be required. A functional 2 stories is encouraged. |
|---|---|

| Strategy 4: Support buildings that exceed 2 stories in height where appropriate. |
|---|---|
| o Adjacent to established neighborhoods, the scale of future office buildings will generally be no more than 2 stories in height, however, building heights of 2 stories or greater are encouraged in other areas on the small area plan to support transit use. |

| Strategy 5: Increase densities of land uses in activity centers: |
|---|---|
| o “Vertically mixing” retail below office or other uses is permissible. |

| Strategy 6: Review the zoning ordinance and consider adopting enhanced standards to support transit use. Encourage more robust street cross sections as indicated in the small area plan. Allow on-street parking on collector and |
|---|---|---|

A-E-4
<table>
<thead>
<tr>
<th>BSR LU-4. Strengthen designated activity centers, including the Village Center at Brawley School Road and Williamson Road, and the planned Neighborhood Center at Brawley School Road and Talbert Road.</th>
<th><strong>Strategy:</strong> Direct commercial and employment uses toward activity centers by supporting zoning requests that place these uses within designated activity centers.</th>
</tr>
</thead>
</table>
| **BSR LU-5. Require development to respect the character of existing areas.** | **Strategy:** Require future development to support and enhance established neighborhoods within and adjacent to the Brawley School Road study area.  

  - Establish transitions such as landscape buffers where appropriate to minimize the impact of noise, light and traffic.  
  - Limit scale of buildings adjacent to existing neighborhoods to be consistent with established building heights and setbacks. |
| **BSR LU-6. Ensure a land use pattern and form of development that avoids the appearance of “strip commercial” such as the existing pattern found along Hwy 150.** | **Strategy 1:** Evaluate existing zoning standards and revise zoning standards to put adequate controls in place. In addition to traditional bulk standards, adequate building placement/orientation, streetscape and signage controls must be in place. For signage controls, introduce a context-sensitive sign ordinance approach.  

  **Strategy 2:** Disallow land uses that are inconsistent with the small area plan. |
<table>
<thead>
<tr>
<th>Strategy 3: Encourage a development form on larger parcels that orients uses/buildings, toward streets, internal driveways designed to include elements of and resemble streets, pedestrian routes and parks internal to the site. Establish more restrictive standards for shopping centers and “big box” retail that de-emphasize the parking areas and other auto-oriented components of the development and give priority to pedestrian connectivity and transit accessibility to buildings. Discourage single site, freestanding uses that are oriented to automobile users (some examples of desired pattern are 73 corridor, Rosedale in Huntersville NC).</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSR LU-7. Ensure an adequate buffer exists along the existing I-77 corridor to mitigate impacts to future development.</td>
</tr>
</tbody>
</table>
## Transportation Recommendations

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Implementation Strategies</th>
<th>Short-Term</th>
<th>Mid-Term</th>
<th>Long-Term</th>
<th>Responsible Party</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BSR TRAN-1.</strong> Construct Rolling Hills Parkway, south of Brawley School Road, as 4-lane divided roadway with a landscaped median, sidewalks, and bike lanes. Coordinate with NCDOT staff to ensure the street cross section in the small area plan (Figure 18, Page 33) is constructed.</td>
<td>X</td>
<td>X</td>
<td></td>
<td>TOM NCDOT</td>
<td></td>
</tr>
<tr>
<td><strong>BSR TRAN-2.</strong> Improve Brawley School Road as depicted in NCDOT TIP plans R-3833 as a 4-lane divided roadway with a landscaped median, sidewalks, and bike lanes. Coordinate with NCDOT staff on the future location and configuration of intersections shown on the small area plan.</td>
<td>X</td>
<td>X</td>
<td></td>
<td>TOM NCDOT</td>
<td></td>
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<tr>
<td>BSR TRAN-3. Improve Talbert Road to a 2-lane roadway lane section, with adequate turn lanes provided at critical intersections, sidewalks and bike lanes.</td>
<td>X</td>
<td>TOM NCDOT</td>
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<tr>
<td>BSR TRAN-4. Construct a park-and-ride lot in the northeast and southwest quadrants of the interchange of Brawley School Road and I-77. Park-and-ride services were addressed in relation to fixed-route transit, and should be studied further to determine if additional stations would benefit the commuters in the Town of Mooresville. In addition, with the construction of commuter rail, it will be important to make sure that adequate park-and-ride facilities are available to those citizens who wish to use the service. It is recommended that a</td>
<td>X</td>
<td>X</td>
<td>TOM CATS</td>
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</table>
number of potential park and ride locations be studied to accommodate future transit riders.

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Implementation Strategies</th>
<th>Short-Term</th>
<th>Mid-Term</th>
<th>Long-Term</th>
<th>Responsible Party</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BSR TRAN-5.</strong> Develop a fixed route circulator bus route utilizing Brawley School Road, Williamson Road, Rolling Hills Parkway, NC 150, and Talbert Road.</td>
<td></td>
<td>X</td>
<td>TOM CATS</td>
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</table>

**Cultural and Historic Resources Recommendations**

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Implementation Strategies</th>
<th>Short-Term</th>
<th>Mid-Term</th>
<th>Long-Term</th>
<th>Responsible Party</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BSR HIST-1.</strong> Preserve institutional uses such as churches along the Brawley School Road corridor given their cultural importance and contribution to overall community character.</td>
<td></td>
<td>X</td>
<td>TOM</td>
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</tbody>
</table>
Natural Resources, Open Spaces and Parks & Recreation Recommendations

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Implementation Strategies</th>
<th>Short-Term</th>
<th>Mid-Term</th>
<th>Long-Term</th>
<th>Responsible Party</th>
</tr>
</thead>
</table>
| **BSR REC-1.** Adopt increased Sediment and Erosion Control requirements in order to protect Lake Norman and associated waterways.  
Currently, grading and erosion control plans for projects within the Town of Mooresville are submitted to NCDENR for review and approval. Enforcement of the erosion control plan is also the responsibility of NCDENR. Under current conditions, erosion control plans are designed to standard design requirements [North Carolina Administrative Code 15A NCAC 04B] due to the classification of Lake Norman as a Class IV watershed and not a |
| **Strategy 1:** Adopt and enforce more stringent requirements of the NCDENR Sediment and Erosion Control Ordinance – Design Standards in Sensitive Watersheds [North Carolina Administrative Code 15A NCAC 04B.0124] for all areas within the small area plan. |
| **Strategy 2:** Revise 20-acre disturbance limit language within requirements [North Carolina Administrative Code 15A NCAC 04B.0124] to facilitate construction of larger projects. Recommended revised language is as follows:  
  - Effort should be made not to uncover more than 20 acres at any one time. If more than 20 acres are to be uncovered at any one time, the plan shall contain the following:  
    - The method of limiting time of exposure and amount of exposed area to achieve the objectives of this Ordinance.  
    - A cut/fill analysis that shows where soil will be moved from one area of the Tract to another as ground elevation is changed.  
    - Construction sequence and construction phasing to justify the time and amount of exposure.  
    - Techniques to be used to prevent sedimentation associated with larger disturbed areas.  
    - Additional erosion control measures, structures, and devices to prevent sedimentation. |
<p>| X                       | X                                                                                                                                          | X          |          |           | TOM              |
| IREDELL COUNTY NCDENR    |                                                                                                                                                   |            |          |           |                  |</p>
<table>
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</table>
| sensitive watershed. It is assumed that in order to enforce more stringent erosion control requirements as well as implement better oversight and enforcement, the Town of Mooresville must either become a delegated review authority recognized by the state, or contract review and enforcement through Iredell County. Further discussions with NCDENR can be conducted to confirm this. Once review and enforcement no longer rests with NCDENR, it will be possible to increase the minimum requirements from the state standards to those set by the town. Recommendations for these increases above the state regulations are as follows:

**Strategy 3:** Consider introducing top down dewatering (i.e. skimmers) for all sediment basins to ensure maximum efficiency from required basins.
| BSR REC-2. Revise existing storm water regulations to increase pollutant removal through buffers. | **Strategy:** Increase existing riparian buffer requirements for both high and low density development options within the study areas. All parcels within the study area would be subject to the buffer requirements. Suggested increases would be:
  - **Low Density Development:**
    - 50’ undisturbed buffer landward from 760 contour of Lake Norman / Catawba River and top of bank for perennial and intermittent streams.
  - **High Density Development:**
    - 100’ undisturbed buffer landward from 760 contour of Lake Norman / Catawba River and top of bank for perennial and intermittent streams.
  - **All Development:**
    - Consider strengthening minimum vegetation requirement for buffers in the zoning ordinance. If the existing buffer area does not meet the requirements, the developer would have to plant the buffer to meet the standards. | X | TOM |
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<tbody>
<tr>
<td>BSR REC-3. Revise existing storm water regulations to promote development and redevelopment in the study areas.</td>
<td><strong>Strategy:</strong> Through the development of the Small Area Plan ordinance revisions and future Post Construction Controls Ordinance, pursue the option of providing mitigation options to encourage density in designated areas. Consider implementing this at the same time as Phase II NPDES requirements are implemented.</td>
<td>X</td>
<td>TOM NCDENR</td>
</tr>
</tbody>
</table>
| BSR REC-4. In order to encourage unified development that sets | **Strategy:** Requests for projects in the small area plan will be reviewed on a case-by-case basis and be subject to the following:
  - The adjoining land designated as open space should be protected by | X | TOM |
| Aside contiguous areas of open space, the Town will work with the State to allow contiguous parcels in the small area plan to submit as a single project site for satisfying WS-IV Watershed impervious area requirements. Unified development is important because the clustering of buildings allows a strong relationship between built space and provides an interconnected open space system between multiple development sites in an area and allows for the potential for a regional / shared BMP approach. This relationship can be difficult to achieve when a series of different projects are each meeting individual, site specific environmental requirements on what are contiguous parcels of land. | deed restrictions and protective covenants (in accordance with Title 15 NCAC 2H.1000), as verified by State and town staff. | Compliance with ownership and dedication requirements for open space set asides in the zoning ordinance should be verified by town staff (Mooresville Zoning Ordinance Chapter 7 Landscaping and Open Space). | NCDENR |
| **BSR REC-5.** Provide interconnected pedestrian and bicycle facilities throughout the corridor. | **Strategy 1:** Require commercial centers to develop trails and greenway connections as an integral part of the development. Review of consistency with adopted plans is required. Commercial developments shall incorporate bicycle friendly elements (adequate bicycle racks, lockers in convenient location).  
**Strategy 2:** Seek easements across existing developed parcels within which the town can construct trail, parks and open spaces.  
**Strategy 3:** Provide bicycle and pedestrian connections to adjacent uses from all retail centers.  
**Strategy 4:** Provide for safe pedestrian facilities along Brawley School Road, including but not limited to 5' wide sidewalks, a multi-purpose path, crosswalks, pedestrian signals and appropriate MUTCD signage. | X | TOM |
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</thead>
<tbody>
<tr>
<td><strong>BSR REC-6.</strong> Provide access to Lake Norman via small pocket parks along the waters edge. These can provide a visual public connection to the waters edge and various passive recreation opportunities.</td>
<td></td>
<td>X</td>
<td>TOM</td>
</tr>
</tbody>
</table>
| **BSR REC-7.** Develop parks and open space within proposed office, commercial and residential developments. | **Strategy 1:** Require park land in all new development that is easily accessible to the public.  
**Strategy 2:** Develop linear passive recreation parks that include or link to greenway trails to connect both existing and proposed developments. | X | TOM |
| BSR REC-8: Protect existing natural features through the establishment of additional parks and open space. | Strategy 1: Identify the natural features worthy of protection, such as stream buffers, mature tree stands, wetlands and other environmental features. |
| Strategy 2: Update the Mooresville Parks and Greenways Comprehensive Master Plan (2003) and provide parks and open space land that protect pockets of such features. |
| Strategy 3: Develop park land that follows the stream buffers and provides adequate width to accommodate trails. | X | TOM |

| Strategy 3: Develop proposed linear parks to connect directly to Brawley School Road frontage to give park land a prominent identity along the corridor. |
| Strategy 4: Provide small public urban plazas in all mixed use commercial centers. |
### Community Facilities Recommendations

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Implementation Strategies</th>
<th>Short-Term</th>
<th>Mid-Term</th>
<th>Long-Term</th>
<th>Responsible Party</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BSR CF-1. Use civic architecture and publicly accessible open space to enhance the public realm. Important sites for community facilities are designated on the small area plan and should be reserved for these purposes.</strong></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>TOM</td>
</tr>
<tr>
<td><strong>BSR CF-2. Obtain direction from Iredell County as to appropriate land use/ utilities service for all areas adjacent to the small area plan study boundaries.</strong></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td>TOM</td>
</tr>
<tr>
<td><strong>BSR CF-3. Integrate the land use/concept plan recommendations into the Water/Sewer Master Plan update process through input to the projections of water/ sewer demands for the respective study areas.</strong></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td>TOM</td>
</tr>
</tbody>
</table>

A-E-16
**BSR CF-4.** To complement adopted subdivision standards set forth in the Mooresville Zoning Ordinance, Chapter 2.3 (Standards and Requirements for Development Applications) regarding consistency with Mooresville and Iredell-Statesville Schools (ISS) System Plans, conduct a study regarding how impacts of new development within the Cornelius Road Small Area Plan to area schools could be mitigated and the timing of needed improvements could be better coordinated with new development.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th>TOM</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>X</td>
<td>X</td>
<td>IREDELL COUNTY</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>IREDELL STATESVILLE SCHOOLS</td>
</tr>
</tbody>
</table>

**Strategy 1:** Assemble a working group including Iredell County and ISS to determine an appropriate process that allows the interests of all parties to be considered. Examples of a potential process might include joint plan review.

**Strategy 2:** Consider specific mechanisms or approaches employed in other NC jurisdictions that address the impacts and timing of new development in relation to school capacity. Some examples of approaches include a School Impact Fee, Adequate Public Facilities Ordinance or ETJ Extension criteria (currently being studied by County staff). Coordinate with Iredell County and ISS to determine the best approach.

**Strategy 3:** Review adopted subdivision standards set forth in the Mooresville Zoning Ordinance, Chapter 2.3 (Standards and Requirements for Development Applications), and assess effectiveness of standards since adoption. This might include the adopted threshold for subdivision size/number of units, potential land needed for various school sites according to ISS or related aspects not presently addressed in the standards based on input from Iredell County and ISS.
## List of Maps

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<th>Title</th>
<th>Page</th>
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<td>Area Investments, 2008</td>
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<td>Comparable Apartment Communities, Mooresville, 2008</td>
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<td>Map 10</td>
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<td>33</td>
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<td>Map 11</td>
<td>Comparable Flex Business Parks, 2008</td>
<td>37</td>
</tr>
</tbody>
</table>
1. Introduction and Study Area Description

Warren & Associates was retained by LandDesign Inc. to conduct a market analysis for the Brawley School Road Small Area Plan. This assignment included stakeholder interviews, research on regional investments impacting the Study Area, an inventory of existing conditions, market trends, demand forecasts by land use type, and identification of competitive areas for development.

The Brawley School Road Study Area is located approximately two miles west of downtown Mooresville. Most of the land north of Brawley School Road is located within Mooresville town limits; to the south is unincorporated Iredell County land (Map 1). The area is delineated by parcel boundary lines, but is generally bounded by the Mooresville Municipal Golf Course to the east, Lake Norman, the Cashion property, and Farmstead Road to the south, Charleston Drive to the west, and Lakeside Business Park and Dry Dock Loop to the north.

The primary arterial in the Study Area is two-lane Brawley School Road, which runs east to west. Talbert Road and Rolling Hills Road provide direct access north to NC-150, while US-21 and Williamson Road run north and south, paralleling I-77.

There is currently no direct access to I-77 from Brawley School Road, but an interchange is funded and construction is scheduled to begin in 2009.

The Study Area contains a mix of residential, retail, and office uses. Since only 20% of the Study Area remains vacant, future land use changes will include redevelopment of existing properties. The proposed interchange is the catalyst for this Small Area Plan.
2. Area Investments

This section describes public and private investments impacting the Study Area. Investments are highlighted along I-77 from Exit 42, north of the Brawley School Road Study Area, to proposed Exit 27, to the south. Investments are shown on Map 2.

2.1 Public Investments

2.1.1 Brawley School Expansion/I-77 Interchange

The State of North Carolina Department of Transportation (NCDOT) is in the process of planning a three-phase Transportation Improvement Program (TIP) to widen Brawley School Road from Chuckwood Road to US-21 and construct an interchange at I-77 (Exit 34). NCDOT projects that Brawley School Road will have a 50% increase in capacity through the expansion process. The 2030 Average Annual Daily Traffic (AADT) counts for Brawley School Road are expected to be 40,000.

Phase A, scheduled to begin construction in February 2009, will widen 3.9 miles of Brawley School Road from Chuckwood Road to Centre Church Road. Construction on Phase A is expected to be complete by third quarter 2011. Phase B will widen the road 1.1 miles from Centre Church Road to I-77 and construct an interchange (Exit 34). This phase is scheduled to begin sometime before July 2009. Phase C will complete the widening from I-77 to US-21. The last phase remains unfunded and has not been scheduled for construction.

2.1.2 North Commuter Rail Line

The Charlotte Area Transit System (CATS) is proposing the 30-mile North commuter rail line from downtown Charlotte to Mount Mourne in Mooresville. If funding to Mount Mourne is not available, the route would terminate in Davidson. The North line would have 16 trains stopping at up to 17 stations. The route would use the existing Norfolk Southern railroad which parallels Graham Street in the south and NC-115 in the north. The North line would take three years to build and is estimated to cost $300 million.
2.1.3 I-485

Charlotte’s Outerbelt (I-485) is currently under construction through northwest Mecklenburg County between NC-16 and NC-115, scheduled to open in late 2008. Construction on the final section of I-485 between NC-115 and I-85 in northeastern Mecklenburg County has been delayed, and is scheduled to begin in 2015. This road has accelerated suburban development outside of its path in all directions.

2.1.4 I-77/ Langtree Road Interchange (Exit 32)

NCDOT is in the process of constructing a new interchange at Langtree Road and I-77 which will become Exit 32. The current traffic count on I-77 at Langtree Road is in excess of 73,000 cars per day. Construction began in 2007 and is scheduled to be complete in July 2009. NCDOT accelerated the construction in response to the Lowe’s Home Improvement headquarters relocation.

2.1.5 Exit 32 East-West Connector

The Mooresville Comprehensive Transportation Plan includes the construction of a new arterial roadway connecting NC-115 to the new Langtree Road interchange near the Lowe’s Corporate Campus’ future south entrance. The connector is estimated to cost approximately $6.5 million (exclusive of right-of-way acquisition), to be paid by NCDOT and local developers. Construction of the East-West connector is anticipated to be complete within three to five years.

2.2 Private Investments

2.2.1 Larkin

Larkin, by GS Carolina, is a proposed mixed-use development at I-77 Exit 45 in Statesville. The approximately 900-acre development extends north along I-77 towards Exit 49. The project recently received preliminary approval from the City, and is expected to begin construction in early 2009. A 15-year build out is anticipated.

Nearly half of the 2,100 residential units planned for Larkin will be reserved for active adults. There are 800,000 square feet of retail and 400,000 square feet of office space programmed for the site. The development will also include a 120,000-square-foot wellness center and a 500-room hotel.

Over 180 acres of open space will be preserved for active and passive recreation activities, including parks, walking trails, and natural greenspace.
### Table 1: Larkin Development at Build-Out, 2008

<table>
<thead>
<tr>
<th>Concept</th>
<th>Cong. Care</th>
<th>Multi-Family</th>
<th>Town House</th>
<th>Single Family</th>
<th>Total</th>
<th>Retail</th>
<th>Office</th>
<th>Civic</th>
<th>Hotel</th>
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<tbody>
<tr>
<td>Active Adult</td>
<td>225</td>
<td>200</td>
<td>175</td>
<td>1,100</td>
<td>1,700</td>
<td></td>
<td>60,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary</td>
<td>325</td>
<td>725</td>
<td>1,000</td>
<td>2,050</td>
<td>3,750</td>
<td>800,000</td>
<td>400,000</td>
<td>60,000</td>
<td>500</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>225</strong></td>
<td><strong>525</strong></td>
<td><strong>900</strong></td>
<td><strong>2,100</strong></td>
<td><strong>3,750</strong></td>
<td><strong>800,000</strong></td>
<td><strong>400,000</strong></td>
<td><strong>60,000</strong></td>
<td><strong>500</strong></td>
</tr>
</tbody>
</table>

Source: GS Carolina

#### 2.2.2 Lowe’s Home Improvement Headquarters

Lowe’s Home Improvement’s corporate headquarters is located on 135 acres between Fairview and Langtree roads, in the northeast quadrant of I-77 Exit 32, currently under construction. Lowe’s currently employs 4,000 people at the campus. A third phase, under construction, will add 2,000 jobs by the end of 2008. A total of 12,000 employees are possible at build-out over the next five to seven years.

#### 2.2.3 Lake Davidson Village

Lake Davidson Village is K Hovnanian’s mixed-use development proposed in the southeast quadrant of the I-77 Exit 32 interchange in Mooresville. The currently entitled plan for the 206-acre site includes 650 residential units, 400,000 square feet of professional office space, a 130-room hotel, an 8,000-square-foot restaurant, and a 5,000-square-foot commercial building.

There will be three entrances to the property from Langtree Road and the future East-West Connector. Lake Davidson Village has extensive frontage on Lake Davidson and visibility from I-77. The Transco Gas Plant borders the site to the west, and a Duke Energy transmission line easement runs southwest to northeast through the site.
2.2.4 Langtree at the Lake

Atrium Development and Rick Howard are developing a mixed-use project at the future I-77 Exit 32 in Mooresville. The site includes the northwest, northeast, and southwest quadrants of the interchange. As currently entitled, the project includes two hotels, professional and corporate offices, anchor retail and small shops, and condominiums. In total, there will be 840,200 square feet of commercial space, 735 residential units, and 375 hotel rooms.

2.2.5 Legacy Village

Legacy Village, currently under construction, is Pinnacle Properties’ mixed-use project in the southeast quadrant of Fairview Road and Lowes Boulevard. Situated on 28 acres between Lowe’s Home Improvement’s corporate headquarters and NC-115, Legacy Village will contain 105 townhouses, 120 to 125 apartments and 382,804 square feet of office, retail and civic uses.

Civic uses include the proposed 18,644-square-foot Mount Mourne commuter rail station, which could be the terminus of the North Commuter Rail Line extending to downtown Charlotte. A one-acre park would be located across from the rail station. Two above-ground parking decks are also planned, which would be wrapped in part by the apartments.

2.2.6 Crosland Langtree Commercial Site

Crosland is planning a 125-acre commercial site in the southeast quadrant of I-77 Exit 32. The site will have frontage along the proposed East-West Connector, and is bisected by the Norfolk Southern rail line. The project is still in the early stages of planning; however, it is anticipated that office, retail, and multi-family uses will be included in the final plan.
2.2.7 Village at Lake Norman

Village at Lake Norman is located in the southeast quadrant of I-77 and Westmoreland Road in Cornelius. The Cornelius Bromont LLC project was recently rezoned to include 1.55 million square feet of office, along with 655,000 square feet of retail, 400 residential units, and two hotels totaling 350 rooms.

Numerous transportation improvements will be completed in order to accommodate this development, including widening I-77 from Huntersville to Cornelius, a new interchange at Westmoreland Road, a new fly-over bridge extending Bailey Road over I-77 to Village at Lake Norman, and widening US-21. Village at Lake Norman is anticipated to begin construction in 2010. Build out could take as long as 20 years.

2.2.8 Harbour Place

Harbour Place is located at I-77 Exit 30 in Davidson. It is a 35-acre mixed-use project by Childress Klein Properties that will contain 400,000 square feet of Class A office space with views of Lake Norman and Lake Davidson. The development will also include a 115-room Homewood Suites hotel, retail, townhouses, and Davidson Day School. The first office building totaling 60,000 square feet, hotel, and townhouses have been completed.
3. Demographic and Employment Trends

This section analyzes demographic trends from 2000 to 2008 for the Brawley School Road Study Area and a larger trade area. The trade area, shown in Map 3, is generally bounded by the Iredell County line to the east, south, and west and Pineville and Oswalt Amity roads to the north.

3.1 Population

These trends reflect unprecedented population growth over the last eight years. There are 692 residents in the Study Area in 2008, 57.3% more than in 2000 (Table 2). The trade area grew 45.6%, from 46,739 people in 2000 to 68,059 people in 2008.

<table>
<thead>
<tr>
<th>Area</th>
<th>2000</th>
<th>2008</th>
<th>2000-2008 Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study Area</td>
<td>440</td>
<td>692</td>
<td>252</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trade Area</td>
<td>46,739</td>
<td>68,059</td>
<td>21,320</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>45.6%</td>
</tr>
<tr>
<td>Iredell County</td>
<td>122,660</td>
<td>156,294</td>
<td>33,634</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>27.4%</td>
</tr>
<tr>
<td>Charlotte MSA</td>
<td>1,330,448</td>
<td>1,687,342</td>
<td>356,894</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>26.8%</td>
</tr>
<tr>
<td>Source: ESRI</td>
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</table>

(See Map 3 for Trade Area)

The Study Area and trade area have experienced population increases almost double those of Iredell County and the Charlotte MSA. There are 156,294 residents in Iredell County, 27.4% more than in 2000. While Iredell County is not contained in the six-county Charlotte MSA, the population growth southern Iredell is experiencing is directly related to the Charlotte region. Population in the Charlotte MSA increased 26.8% between 2000 and 2008.

Table 3 demonstrates the population change between 2000 and 2008 by age cohort in the trade area. The largest age cohort in 2008, at 11,298 people, was between 20 and 34. However, this cohort grew by 22.2%, the second smallest percent change in the trade area. Only the 35 to 44 cohort grew slower at 19.8%. The largest percent increases occurred in the 45 to 54 and 55 to 64 cohorts, at 41.0% and 44.9%, respectively.

<table>
<thead>
<tr>
<th>Age Cohort</th>
<th>Householder 2000</th>
<th>Householder 2008</th>
<th>Change #</th>
<th>Change %</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-9</td>
<td>7,611</td>
<td>9,596</td>
<td>2,586</td>
<td>26.9%</td>
</tr>
<tr>
<td>10-19</td>
<td>6,123</td>
<td>9,460</td>
<td>3,338</td>
<td>53.3%</td>
</tr>
<tr>
<td>20-34</td>
<td>8,787</td>
<td>11,298</td>
<td>2,511</td>
<td>22.2%</td>
</tr>
<tr>
<td>35-44</td>
<td>8,787</td>
<td>10,957</td>
<td>2,171</td>
<td>19.8%</td>
</tr>
<tr>
<td>45-54</td>
<td>6,590</td>
<td>11,162</td>
<td>4,572</td>
<td>41.0%</td>
</tr>
<tr>
<td>55-64</td>
<td>4,347</td>
<td>7,895</td>
<td>3,548</td>
<td>44.9%</td>
</tr>
<tr>
<td>65-74</td>
<td>2,944</td>
<td>4,356</td>
<td>1,411</td>
<td>32.4%</td>
</tr>
<tr>
<td>75-84</td>
<td>1,636</td>
<td>2,518</td>
<td>882</td>
<td>50.0%</td>
</tr>
<tr>
<td>85+</td>
<td>514</td>
<td>817</td>
<td>303</td>
<td>37.1%</td>
</tr>
<tr>
<td>Total</td>
<td>46,737</td>
<td>68,058</td>
<td>21,321</td>
<td>45.6%</td>
</tr>
</tbody>
</table>

Source: ESRI

November 2008
3.2 Households

There are an estimated 274 households in the Study Area, 64.1% more than 167 households in 2000 (Table 4). The Study Area’s growth can be attributed to the development of one single-family detached subdivision and two townhouse communities during this time. The larger trade area experienced 46.1% growth, from 17,929 households in 2000 to 60,817 households in 2008.

<table>
<thead>
<tr>
<th>Area</th>
<th>2000</th>
<th>2008</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study Area</td>
<td>167</td>
<td>274</td>
<td>107</td>
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<tr>
<td>Trade Area</td>
<td>17929</td>
<td>26203</td>
<td>8274</td>
</tr>
<tr>
<td>Iredell County</td>
<td>47360</td>
<td>60817</td>
<td>13457</td>
</tr>
<tr>
<td>Charlotte MSA</td>
<td>510516</td>
<td>656253</td>
<td>145737</td>
</tr>
</tbody>
</table>

Table 4: Household Trends, Study Area, Trade Area, Iredell County, and Charlotte MSA, 2000-2008

Source: ESRI

Iredell County households grew at a slower 28.4% rate. Most of this growth occurred in the southern portion of the County, which includes the Study Area. The Charlotte MSA experienced similar growth in households, increasing 28.5% from 510,516 in 2000 to 656,253 in 2008.

3.3 Median Household Income

In 2000, the Study Area median household income was $51,315, 1.5% greater than the trade area, 22.3% greater than Iredell County, and 20.4% less than the Charlotte MSA (Graph 1). The 2008 median household income in the Study Area is $75,414, which makes it comparatively more affluent than in 2000. The Study Area median income is now 16.2% higher than the trade area and 39.2% higher than Iredell County.
Within the larger trade area, households earning between $75,000 and $99,999 annually comprised the fastest growing cohort between 2000 and 2008 (Table 5). There were 6,079 households in 2008 earning between $75,000 and $99,999, a 154.7% increase from 2,387 households in 2000. Households earning more than $100,000 annually increased at the second highest rate of 104.6%, adding 2,759 households. The only cohort to experience a loss was less than $35,000, reflecting normal wage escalation.

Table 5: Household Trends by Income Cohort, Trade Area, 2000-2008

<table>
<thead>
<tr>
<th>Income</th>
<th>Households 2000</th>
<th>Households 2008</th>
<th>Change</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0-$34,999</td>
<td>5,815</td>
<td>5,686</td>
<td>(129)</td>
<td>-2.2%</td>
</tr>
<tr>
<td>$35,000-$49,999</td>
<td>3,033</td>
<td>3,537</td>
<td>504</td>
<td>16.6%</td>
</tr>
<tr>
<td>$50,000-$74,999</td>
<td>4,074</td>
<td>5,502</td>
<td>1,428</td>
<td>35.1%</td>
</tr>
<tr>
<td>$75,000-$99,999</td>
<td>2,387</td>
<td>6,079</td>
<td>3,692</td>
<td>154.7%</td>
</tr>
<tr>
<td>$100,000+</td>
<td>2,638</td>
<td>5,398</td>
<td>2,759</td>
<td>104.6%</td>
</tr>
<tr>
<td>Total</td>
<td>17,948</td>
<td>26,202</td>
<td>8,254</td>
<td>46.0%</td>
</tr>
</tbody>
</table>

Source: ESRI

3.4 Employment

3.4.1 Trade Area

As shown in Table 6, there were 33,774 jobs in the trade area in 2008, a 42.1% increase from 23,789 jobs in 2000. The largest employment categories in 2008 were Services, Manufacturing, and Retail Trade. The Services sector had the largest absolute change, at 5,215 jobs, and percent increase of 62.9%, between 2000 and 2008. No losses were experienced by any employment sector.

Table 6: Employment Trends by Industry, Trade Area, 2000-2008

<table>
<thead>
<tr>
<th>Industry</th>
<th>2000</th>
<th>2008</th>
<th>#</th>
<th>%</th>
<th>2000-2008 Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture/Mining</td>
<td>235</td>
<td>236</td>
<td>1</td>
<td>0.6%</td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td>2,189</td>
<td>3,512</td>
<td>1,323</td>
<td>60.5%</td>
<td></td>
</tr>
<tr>
<td>Manufacturing</td>
<td>5,056</td>
<td>5,269</td>
<td>213</td>
<td>4.2%</td>
<td></td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>975</td>
<td>1,385</td>
<td>410</td>
<td>42.0%</td>
<td></td>
</tr>
<tr>
<td>Retail Trade</td>
<td>2,737</td>
<td>3,850</td>
<td>1,113</td>
<td>40.7%</td>
<td></td>
</tr>
<tr>
<td>Transportation/Utilities</td>
<td>1,549</td>
<td>2,094</td>
<td>545</td>
<td>35.2%</td>
<td></td>
</tr>
<tr>
<td>Information</td>
<td>499</td>
<td>642</td>
<td>143</td>
<td>28.6%</td>
<td></td>
</tr>
<tr>
<td>F.I.R.E.</td>
<td>1,630</td>
<td>2,398</td>
<td>768</td>
<td>47.1%</td>
<td></td>
</tr>
<tr>
<td>Services</td>
<td>8,295</td>
<td>13,510</td>
<td>5,215</td>
<td>62.9%</td>
<td></td>
</tr>
<tr>
<td>Public Administration</td>
<td>624</td>
<td>912</td>
<td>288</td>
<td>46.1%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>23,789</td>
<td>33,774</td>
<td>10,019</td>
<td>42.1%</td>
<td></td>
</tr>
</tbody>
</table>

Source: ESRI

3.4.2 Mooresville Major Private Employers

Table 7 and Map 4 show the largest private employers in the Town of Mooresville. The ten largest employers account for 8,707 jobs, or 47.6% of the 18,56 jobs in the Town in 2008, according to ESRI. They also represent 25.8% of the Trade Area jobs.
Table 7: Major Private Employers, Trade Area of Mooresville, 2008

<table>
<thead>
<tr>
<th>Key</th>
<th>Company</th>
<th>Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lowe's Companies, Inc.</td>
<td>4,000</td>
</tr>
<tr>
<td>2</td>
<td>Ingersoll-Rand Company</td>
<td>1,200</td>
</tr>
<tr>
<td>3</td>
<td>Lake Norman Regional Medical Center</td>
<td>930</td>
</tr>
<tr>
<td>4</td>
<td>Wal-Mart Super Center</td>
<td>500</td>
</tr>
<tr>
<td>5</td>
<td>NGK Ceramics USA Inc.</td>
<td>450</td>
</tr>
<tr>
<td>6</td>
<td>Dale Earnhardt Inc.</td>
<td>370</td>
</tr>
<tr>
<td>7</td>
<td>Super Target</td>
<td>350</td>
</tr>
<tr>
<td>8</td>
<td>Penske Racing</td>
<td>350</td>
</tr>
<tr>
<td>9</td>
<td>BestSweet, Inc.</td>
<td>300</td>
</tr>
<tr>
<td>10</td>
<td>WinCup</td>
<td>257</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>8,707</strong></td>
</tr>
</tbody>
</table>

Source: Mooresville-South Iredell Chamber of Commerce

Lowe’s is the largest employer with 4,000 jobs, followed by Ingersoll-Rand (1,200 jobs) and Lake Normal Regional Medical Center (930 jobs). The relocation of Lowe’s corporate headquarters to Mooresville in 2003 rapidly expanded the area’s employment base. None of the major private employers are located within the Study Area.
Map 4: Major Private Employers, Trade Area of Mooresville, 2008

- Major Private Employers
- Brawley School Road Study Area
- Trade Area
4. For-Sale Residential Market

This section identifies detached and attached for-sale residential trends for Davidson and Coddle Creek Townships and Iredell County. Davidson and Coddle Creek Townships were selected because they closely follow the boundaries of the trade area defined on Map 3. Map 5 shows the location of Davidson and Coddle Creek Townships in relation to the Study Area.

4.1 Single-Family Detached

Davidson Township has had 2,020 new single-family closings since 2003, ranging from 254 in 2003 to 515 in 2004 (Table 8). Only 72 single-family detached closings have been recorded in 2008 through June. Coddle Creek Township, east of I-77, grew at a comparable pace with 2,110 closings. Single-family sales peaked at 449 in 2005, before tapering off to 327 in 2007. The trade area posted 4,130 total closings in both Townships. Omitting partial year data for 2008, the trade area averaged 794 new single-family closings.

<table>
<thead>
<tr>
<th>Year</th>
<th>Trade Area Closings</th>
<th>Trade Area Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Davidson</td>
<td>Coddle Creek</td>
</tr>
<tr>
<td>2003</td>
<td>254</td>
<td>415</td>
</tr>
<tr>
<td>2004</td>
<td>515</td>
<td>354</td>
</tr>
<tr>
<td>2005</td>
<td>476</td>
<td>449</td>
</tr>
<tr>
<td>2006</td>
<td>435</td>
<td>476</td>
</tr>
<tr>
<td>2007</td>
<td>268</td>
<td>327</td>
</tr>
<tr>
<td>2008</td>
<td>72</td>
<td>89</td>
</tr>
<tr>
<td>Total</td>
<td>2,020</td>
<td>2,110</td>
</tr>
<tr>
<td>Ann. Avg.</td>
<td>390</td>
<td>404</td>
</tr>
</tbody>
</table>

Source: M.O.R.E. Report, Land Matters
1 January through June data.
2 Excludes 2006 partial year data.

Iredell County has had 5,923 new single-family closings since 2003 (Table 9). Closings in the County increased between 2003 and 2006, before slowing in 2007 as a result of the national housing market decline. The two Townships in the trade area had a combined total of 4,130 new-construction closings since 2003, 69.7% of the total closings in Iredell County.

<table>
<thead>
<tr>
<th>Year</th>
<th>Trade Area Total</th>
<th>Iredell County</th>
<th>Trade Area % of County</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>669</td>
<td>960</td>
<td>69.7%</td>
</tr>
<tr>
<td>2004</td>
<td>869</td>
<td>1,183</td>
<td>73.5%</td>
</tr>
<tr>
<td>2005</td>
<td>925</td>
<td>1,260</td>
<td>73.4%</td>
</tr>
<tr>
<td>2006</td>
<td>911</td>
<td>1,263</td>
<td>72.1%</td>
</tr>
<tr>
<td>2007</td>
<td>595</td>
<td>937</td>
<td>63.5%</td>
</tr>
<tr>
<td>2008</td>
<td>161</td>
<td>320</td>
<td>50.3%</td>
</tr>
<tr>
<td>Total</td>
<td>4,130</td>
<td>5,923</td>
<td>69.7%</td>
</tr>
<tr>
<td>Ann. Avg.</td>
<td>794</td>
<td>1,121</td>
<td></td>
</tr>
</tbody>
</table>

Source: M.O.R.E. Report, Land Matters
1 January through June data.
2 Excludes 2006 partial year data.
Map 5: Davidson and Coddle Creek Townships with the Study Area, 2008

- Brawley School Road Study Area
- Coddle Creek Township
- Davidson Township

November 2008
Graph 2 shows closings for new detached, single-family homes between 2003 and June of 2008. Closings in Davidson Township spiked between 2003 and 2004, before decreasing over the next five years. Coddle Creek Township experienced a 45.9% decrease between a peak of 476 closings in 2006 to 327 units in 2007.

Graph 2: New Detached, Single-Family Home Closings, 2003-2008YTD

*January through June.

The average closing price for new construction, single-family homes in Iredell County has increased 46.3%, from $219,442 in 2003 to $321,100 through June 2008 (Graph 3). Iredell County's average closing prices increased steadily from 2003 to 2006, before showing a slight decline through June 2008.

Graph 3: Single-Family, Detached Average Closing Prices, Davidson and Coddle Creek Townships, Iredell County, 2003-2008YTD
Driven by Lake Norman property premiums, closing prices in Davidson Township have been, on average, 58.3% higher than Iredell County and 104.8% higher than Coddle Creek Township. Coddle Creek Township has experienced consistently lower closing prices than Iredell County. All three geographies had pricing peaks between 2006 and 2007.

Of the 5,139 new single-family permits issued between 2003 and June 2008, 4,278 or 120.1%, have resulted in closings (Table 10). It is important to note the decline in speculative construction over the last two years, with the permit/closing ratio approaching 100%.

| Table 10: Davidson and Coddle Creek Townships Closing and Permit Trends, 2003-2008YTD |
|---------------------------------|--------|--------|--------|--------|--------|--------|--------|
|                                 | 2003   | 2004   | 2005   | 2006   | 2007   | 2008   | Total  |
| Building Permits                | 1,026  | 1,017  | 1,228  | 1,048  | 634    | 186    | 5,139  |
| Closings                        | 817    | 869    | 925    | 911    | 595    | 161    | 4,278  |
| Permit/Closing Ratio            | 125.6% | 117.0% | 132.8% | 115.0% | 106.6% | 115.5% | 120.1% |
| Source: M.O.R.E. Data, Land Matters |

4.2 Townhouses/Condominiums (Single-Family Attached)

There were 248 new single-family attached (townhouse and condominium) closings in Davidson Township between 2003 and June 2008 (Table 11). Only one closing has occurred in the first-half of 2008. Coddle Creek Township had 521 closings of new single-family attached units, ranging from 32 in 2003 to 131 in 2007. Approximately 68% of the trade area total was concentrated in Coddle Creek Township.

| Table 11: New Townhouse/Condominium Closings Trends, Davidson and Coddle Creek Townships, 2003-2008YTD |
|-----------------------------------------------------|--------|--------|--------|
| Year                                                | Trade Area Closings | Trade Area Total |
|                                                     | Davidson | Coddle Creek | Total  |
| 2003                                                | 44       | 32           | 76     |
| 2004                                                | 44       | 67           | 111    |
| 2005                                                | 76       | 128          | 204    |
| 2006                                                | 74       | 98           | 172    |
| 2007                                                | 9        | 131          | 140    |
| 2008<sup>1</sup>                                    | 1        | 65           | 66     |
| Total                                               | 248      | 521          | 769    |
| Ann. Avg. <sup>2</sup>                              | 49       | 91           | 141    |

Source: M.O.R.E. Report, Land Matters

<sup>1</sup> January through June data.
<sup>2</sup> Excludes 2008 partial year data.

There were a total of 939 single-family attached closings in Iredell County between 2003 and June 2008 (Table 12). Townhouse construction increased from 120 units in 2003 to a peak of 216 units in 2006, before declining to 177 units in 2007. The trade area accounted for 81.9% of the total closings in Iredell County between 2003 and June 2008.
Table 12: New Townhouse/Condominium Closing Trends, Davidson and Coddle Creek Townships, Iredell County, 2003-2008YTD

<table>
<thead>
<tr>
<th>Year</th>
<th>Trade Area Total</th>
<th>Iredell County</th>
<th>Trade Area % of County</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>76</td>
<td>120</td>
<td>63.3%</td>
</tr>
<tr>
<td>2004</td>
<td>111</td>
<td>157</td>
<td>70.7%</td>
</tr>
<tr>
<td>2005</td>
<td>204</td>
<td>216</td>
<td>94.4%</td>
</tr>
<tr>
<td>2006</td>
<td>172</td>
<td>183</td>
<td>94.0%</td>
</tr>
<tr>
<td>2007</td>
<td>140</td>
<td>177</td>
<td>79.1%</td>
</tr>
<tr>
<td>2008*</td>
<td>66</td>
<td>86</td>
<td>76.7%</td>
</tr>
<tr>
<td>Total</td>
<td>769</td>
<td>939</td>
<td>81.9%</td>
</tr>
</tbody>
</table>

Ann. Avg. 2: 141 171

Source: M.O.R.E. Report, Land Matters

1 January through June data.
2 Excludes 2008 partial year data.

Graph 4 shows closings for new, attached single-family homes since 2003. Closings in Coddle Creek outnumbered closings in Davidson Township in every year except 2003. Attached single-family closings decreased significantly between 2006 and 2007 in Davidson Township. Demand has remained steadier in the comparatively more affordable Coddle Creek Township.

Graph 4: Townhouse/Condominium Closings, 2003-2008YTD

The average closing price for single-family attached homes in Iredell County peaked in 2006 at $206,623 (Graph 5). Since then, the average closing price has decreased 28.8% to $147,163 in the first half of 2008. Davidson Township’s average closing prices were higher than Iredell County and Coddle Creek Township in every year except 2007. Average closing prices in Davidson Township increased 105.8% from 2003 through June 2008. Coddle Creek’s average closing prices increased 50.7% in the same time period.
The ratio of building permits to closings for single-family attached units has varied considerably since 2003. As shown in Table 13, closings outnumbered building permits from 2004 to 2007, indicating a high demand for attached units with limited supply. Closings decreased in 2007 and the first half of 2008, created an oversupply of units in the two townships. Over the entire period, closings represented 84.4% of permits.

Table 13: Davidson and Coddle Creek Township Closing and Permit Trends, 2003-2008YTD

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008*</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Permits</td>
<td>93</td>
<td>38</td>
<td>90</td>
<td>112</td>
<td>188</td>
<td>128</td>
<td>649</td>
</tr>
<tr>
<td>Closings</td>
<td>76</td>
<td>111</td>
<td>204</td>
<td>172</td>
<td>140</td>
<td>66</td>
<td>769</td>
</tr>
<tr>
<td>Permit/Closing Ratio</td>
<td>122.4%</td>
<td>34.2%</td>
<td>44.1%</td>
<td>65.1%</td>
<td>134.3%</td>
<td>193.9%</td>
<td>84.4%</td>
</tr>
</tbody>
</table>

Source: M.O.R.E. Data, Land Matters

4.3 Major Active Subdivisions

Map 6 shows the locations of major active subdivisions in the trade area as of December 2007. There were 15,721 planned lots in the trade area, making up 59.3% of the County’s 26,493 entitled lots (Table 14). Of the total planned trade area lots, 8,980, or 57.1%, remain available. This represents an eight- to ten-year supply based on recent closing trends.

Table 14: Proposed and Available Lots, Davidson and Coddle Creek Townships, 2007

<table>
<thead>
<tr>
<th></th>
<th>Number Subdivisions</th>
<th>Planned Lots</th>
<th>Available Lots</th>
<th>Available % of Planned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Davidson Township</td>
<td>92</td>
<td>8,368</td>
<td>4,890</td>
<td>58.4%</td>
</tr>
<tr>
<td>Coddle Creek Township</td>
<td>72</td>
<td>7,353</td>
<td>4,090</td>
<td>55.6%</td>
</tr>
<tr>
<td>Total</td>
<td>164</td>
<td>15,721</td>
<td>8,980</td>
<td>57.1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Iredell County</th>
</tr>
</thead>
<tbody>
<tr>
<td>297</td>
<td>63.5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Trade Area % of County</th>
</tr>
</thead>
<tbody>
<tr>
<td>55.2%</td>
<td>59.3% 53.4%</td>
</tr>
</tbody>
</table>

Source: Iredell County Demographic Forecast

November 2008 20
5. Apartment Market

5.1 Completions and Absorption

There were 574 apartment units completed in the Mooresville area between 2004 and 2008, averaging 115 units annually (Table 15). Net absorption has varied, ranging from 21 units in 2005 to 113 units in 2004. Total absorption from 2004 to 2008 was 346 units. The resulting oversupply was 228 units over the five-year period.

### Table 15: Apartment Completions and Absorption, Town of Mooresville, 2004-2008

<table>
<thead>
<tr>
<th>Year</th>
<th>Net Comp.</th>
<th>Net Absorp.</th>
<th>(Over)/Under Supply</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>118</td>
<td>113</td>
<td>(5)</td>
</tr>
<tr>
<td>2005</td>
<td>0</td>
<td>21</td>
<td>21</td>
</tr>
<tr>
<td>2006</td>
<td>124</td>
<td>92</td>
<td>(32)</td>
</tr>
<tr>
<td>2007</td>
<td>0</td>
<td>46</td>
<td>46</td>
</tr>
<tr>
<td>2008</td>
<td>332</td>
<td>74</td>
<td>(258)</td>
</tr>
<tr>
<td>Total</td>
<td>574</td>
<td>346</td>
<td>(228)</td>
</tr>
</tbody>
</table>

Ann. Avg. | 115 | 69 | (46) |

Note: August to August data.

Source: Real Data, Warren & Associates

Net absorption outpaced completions in two of the five years during the analysis period (Graph 6). Net absorption peaked in 2004 and 2006, with 113 and 92 units, respectively. Completions increased in 2008 with 320 units at Abberly Green, located two miles southeast of the Brawley School Road Study Area. Apartment vacancies increased 11.5% between 2004 and 2008. The 18.0% vacancy rate in 2008 can be attributed to initial leasing activities in two separate Mooresville area communities. Vacancies were at their lowest in early 2005 at 5.0%.
5.2 Apartment Rent Trends

Average per square foot rent in Mooresville increased from $0.76 in 2004 to $0.87 in 2008, a 14.5% increase over five years (Graph 7). Average rents per square foot increased every year between 2004 and 2008.

![Graph 7: Apartment Rent per Square Foot Trends, Mooresville, 2004-2008](image)

5.3 Competitive Area Apartment Communities

Five apartment communities were selected as comparables based on age, size, and location (Table 16 and Map 7). None of the communities are located within the Brawley School Road Study Area. The five communities contain a total of 1,296 units, completed between 1997 and 2006. Individual communities range from 201 to 320 units. The aggregate mix is 27.6% one-bedrooms, 59.3% two-bedroom, and 13.7% three-bedrooms.

<table>
<thead>
<tr>
<th>Map Key</th>
<th>Community</th>
<th>Location</th>
<th>Year Built</th>
<th>Total Units</th>
<th>Unit Mix</th>
<th>Vac. Rate</th>
<th>Vac. SF</th>
<th>Avg. Rent</th>
<th>Avg. Rent/SF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Abberly Green</td>
<td>117 Abberly Green Blvd.</td>
<td>2006</td>
<td>320</td>
<td>112</td>
<td>186</td>
<td>22</td>
<td>9.2%</td>
<td>$785</td>
</tr>
<tr>
<td>2</td>
<td>Carriage Club</td>
<td>175 Carriage Club Dr.</td>
<td>2000</td>
<td>268</td>
<td>110</td>
<td>136</td>
<td>22</td>
<td>7.8%</td>
<td>$901</td>
</tr>
<tr>
<td>3</td>
<td>River Park</td>
<td>130 Nile Cir</td>
<td>2000</td>
<td>201</td>
<td>67</td>
<td>108</td>
<td>36</td>
<td>9.2%</td>
<td>$815</td>
</tr>
<tr>
<td>4</td>
<td>Talbert Woods</td>
<td>123 Talbert Wood Dr.</td>
<td>2001</td>
<td>300</td>
<td>40</td>
<td>206</td>
<td>62</td>
<td>13.7%</td>
<td>$875</td>
</tr>
<tr>
<td>5</td>
<td>Willow Creek</td>
<td>161 Lansing Cir.</td>
<td>1997</td>
<td>207</td>
<td>39</td>
<td>132</td>
<td>36</td>
<td>25.6%</td>
<td>$766</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>1,296</td>
<td>358</td>
<td>768</td>
<td>178</td>
<td>13.5%</td>
<td>$875</td>
</tr>
</tbody>
</table>

Source: Real Data, Warren & Associates

The overall vacancy rate for the comparable communities is 13.5%, ranging from 2.8% at Abberly Green to 27.7% at Talbert Woods. The apartment equilibrium vacancy rate in a growing market is typically 7% to 8%. Recent completions have created vacancies at some older communities, creating a market considerably higher than typical market equilibrium.
Map 7: Comparable Apartment Communities, Mooresville, 2008

- Comparable Communities
- Brawley School Road Study Area

Lake Norman

November 2008
6. Retail Market

Retail trends, including net completions and absorption, vacancy, and rent, were analyzed for Iredell County for the years 2003 through 2007. Existing shopping centers that serve the Brawley School Road Study Area were identified, and new development activity has been listed.

6.1 Completion and Absorption Trends

Since 2003, retail net completions in Iredell County have closely mirrored absorption, creating a small oversupply of 3,335 square feet (Table 17). There was an average annual oversupply of only 667 square feet. Net completions totaled 425,438 square feet between 2003 and 2007, averaging 85,088 annually. Net completions and absorptions both peaked in 2007, with 290,999 and 201,928 square feet, respectively. It is important to note that completions have outpaced absorption for the last two years, indicating a slowdown in demand.

<table>
<thead>
<tr>
<th>Year</th>
<th>Net Completions</th>
<th>Net Absorption</th>
<th>(Over)/Under</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>0</td>
<td>83,808</td>
<td>83,808</td>
</tr>
<tr>
<td>2004</td>
<td>24,000</td>
<td>20,149</td>
<td>(3,851)</td>
</tr>
<tr>
<td>2005</td>
<td>0</td>
<td>31,279</td>
<td>31,279</td>
</tr>
<tr>
<td>2006</td>
<td>110,439</td>
<td>84,939</td>
<td>(25,500)</td>
</tr>
<tr>
<td>2007</td>
<td>290,999</td>
<td>201,928</td>
<td>(89,071)</td>
</tr>
<tr>
<td>Total</td>
<td>425,438</td>
<td>422,103</td>
<td>(3,335)</td>
</tr>
<tr>
<td>Ann. Avg.</td>
<td>85,088</td>
<td>84,421</td>
<td>(667)</td>
</tr>
</tbody>
</table>

Note: Year-end data.
Source: The Karnes Report

As shown in Graph 8, Iredell County’s oversupply in 2007 caused the vacancy rate to peak at 8.8%. The lack of completions in 2005, coupled with absorption of 31,279 square feet, created a period low vacancy rate of 3.8%.
6.2 Vacancy Trends

Graph 9 demonstrates the 2007-end-of-year vacancy by shopping center type in Iredell County. The overall vacancy rate for retail centers was 8.8%. Vacancies were broken down into five different center types: specialty, community, neighborhood, power, and regional. Unanchored specialty centers had the highest vacancy of any center type at 30.1%. Specialty centers are typically the first to experience vacancies when the market weakens. Neighborhood centers had the second highest vacancy rate at 15.9%. Power centers had the lowest vacancy at 3.8%.

6.3 Rent Trends

Average quoted rents for retail space in Iredell County increased 17.5% from $16.99 in 2003 to $19.96 in 2007 (Graph 10). Rents increased dramatically between 2006 and 2007.
6.4 Shopping Centers Serving the Study Area

Nine shopping centers that serve the Study Area were selected based on proximity and accessibility (Table 18 and Map 8). While only Brawley Commons is located in the Study Area, eight others are located no more than two miles from the future I-77/Brawley School Road interchange. The nine centers contain a total of 1.9 million square feet, completed between 1988 and 2007. The shopping centers range from 634,000 square feet at Mooresville Consumer Square to 22,000 square feet at the first phase of Mooresville Town Square.

### Table 18: Shopping Centers Serving the Study Area, Iredell County, 2008

<table>
<thead>
<tr>
<th>Map Key</th>
<th>Center</th>
<th>Location</th>
<th>Year Built</th>
<th>Total GLA</th>
<th>Vac. SF</th>
<th>Vac. Rate</th>
<th>Quoted Rent</th>
<th>Anchor Tenants</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mooresville Consumer Square</td>
<td>SEC of I-77 &amp; NC-151</td>
<td>2000</td>
<td>634,000</td>
<td>55,500</td>
<td>8.8%</td>
<td>$16-$23</td>
<td>Wal-Mart Supercenter, Staples, Gander Mtn.</td>
</tr>
<tr>
<td>2</td>
<td>Winslow Bay Commons</td>
<td>NC-150 &amp; Williamson Rd.</td>
<td>2003</td>
<td>454,000</td>
<td>6,150</td>
<td>1.3%</td>
<td>$21-$23</td>
<td>Super Target, PetSmart, Linens-n-Things</td>
</tr>
<tr>
<td>3</td>
<td>Mooresville Festival</td>
<td>NEC of I-77 &amp; NC-150</td>
<td>1991</td>
<td>203,527</td>
<td>5,000</td>
<td>2.5%</td>
<td>$20-$22</td>
<td>Kohl's</td>
</tr>
<tr>
<td>4</td>
<td>Mooresville Crossing</td>
<td>NC-150 &amp; Williamson Rd.</td>
<td>2007</td>
<td>165,000</td>
<td>17,200</td>
<td>10.4%</td>
<td>$28-$31</td>
<td>Best Buy, Bed Bath &amp; Beyond, Staples</td>
</tr>
<tr>
<td>5</td>
<td>Mooresville Marketplace</td>
<td>NC-150 &amp; NC-150 Bypass</td>
<td>1995</td>
<td>146,990</td>
<td>4,500</td>
<td>3.1%</td>
<td>n/a</td>
<td>Big Lots, Bottom Dollar</td>
</tr>
<tr>
<td>6</td>
<td>Brawley Commons</td>
<td>SWC ESR &amp; Williamson Rd.</td>
<td>1997</td>
<td>121,172</td>
<td>10,000</td>
<td>8.3%</td>
<td>$10-$12</td>
<td>Lowe's Foods, Eckerd</td>
</tr>
<tr>
<td>7</td>
<td>Port Village</td>
<td>NC-150 East of Williamson Rd.</td>
<td>1988</td>
<td>77,417</td>
<td>1,500</td>
<td>1.9%</td>
<td>$19-$21</td>
<td>Blooming</td>
</tr>
<tr>
<td>8</td>
<td>Shoppes at Morrison</td>
<td>NWC ESR &amp; Williamson Rd.</td>
<td>2001</td>
<td>72,088</td>
<td>6,600</td>
<td>0.0%</td>
<td>$20-$23</td>
<td>Harris Teeter, Blockbuster</td>
</tr>
<tr>
<td>9</td>
<td>Mooresville Town Square Ph. 1</td>
<td>ESR &amp; Williamson Rd.</td>
<td>2007</td>
<td>22,000</td>
<td>0</td>
<td>0.0%</td>
<td>$25-$26</td>
<td>n/a</td>
</tr>
<tr>
<td>Totals/Average</td>
<td></td>
<td></td>
<td></td>
<td>1,896,994</td>
<td>106,400</td>
<td>5.6%</td>
<td>$20.84</td>
<td></td>
</tr>
</tbody>
</table>


The shopping centers serving the Study Area have a vacancy of 5.6%, ranging from 10.4% at Mooresville Crossing to no vacancies at Mooresville Town Square. The centers have an average quoted rent of $20.84 per square foot, which is $0.88 more than the average for Iredell County.
Map 8: Shopping Centers Serving the Study Area, Iredell County, 2008

- ShoppingCenters
- Brawley School Road Study Area

Lake Norman
Mooresville
Davidson

November 2008
6.5 Retail Development Activity

There are five retail centers under construction either in or near the Brawley School Road Study Area. The five centers contain 283,567 square feet, ranging from 140,000 square feet at Plantation Pointe to 10,852 square feet in a new phase at Mooresville Town Square (Table 19).

<table>
<thead>
<tr>
<th>Map Key</th>
<th>Center</th>
<th>Location</th>
<th>Planned Sq. Ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Plantation Pointe</td>
<td>NC-150 &amp; Ervin Rd.</td>
<td>140,000</td>
</tr>
<tr>
<td>2</td>
<td>Mooresville Crossing</td>
<td>NC-150 &amp; Williamson Rd.</td>
<td>95,815</td>
</tr>
<tr>
<td>3</td>
<td>Shops at Lakefield</td>
<td>NC-150 East of I-77</td>
<td>20,000</td>
</tr>
<tr>
<td>4</td>
<td>Mooresville Commons</td>
<td>SWC NC-150 &amp; US-21</td>
<td>16,900</td>
</tr>
<tr>
<td>5</td>
<td>Mooresville Town Square</td>
<td>BSR &amp; Williamson Rd.</td>
<td>10,852</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>283,567</strong></td>
</tr>
</tbody>
</table>


Table 20 shows that an additional 102,151 square feet of retail space is proposed within two miles of the Study Area. The 61,171 square feet of proposed retail at Mooresville Town Square includes the construction of a new Lowes Foods, relocating from Mooresville Commons at the same intersection. This move will create a large anchor vacancy.

<table>
<thead>
<tr>
<th>Map Key</th>
<th>Center</th>
<th>Location</th>
<th>Planned Sq. Ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mooresville Town Square</td>
<td>BSR &amp; Williamson Rd.</td>
<td>61,171</td>
</tr>
<tr>
<td>2</td>
<td>The Village Development</td>
<td>120 Regency Rd.</td>
<td>40,980</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>102,151</strong></td>
</tr>
</tbody>
</table>

Map 9: Retail Center Development Activity, Study Area, 2008

Retail Development Activity
- Under Construction
- Proposed
- Brawley School Road Study Area

Lake Norman

November 2008
7. Multi-Tenant Office Market

Multi-tenant office trends, including completions, net absorption, vacancy, and rents, have been analyzed for Charlotte’s North submarket between 2004 and 2008. Southern Iredell County’s multi-tenant office market has many similarities with Charlotte’s North submarket, which is generally bounded by the Mecklenburg County line to the north and west, Wilkinson Boulevard to the south, and the Mecklenburg County line and Old Statesville Road to the east.

7.1 Completion and Net Absorption Trends

Since 2004, multi-tenant office net absorption has outpaced completions every year, creating an undersupply of 150,641 square feet (Table 21). Net completions totaled 379,282 square feet between 2004 and 2008, averaging 31,607 square feet annually. Net absorption ranged from 19,415 square feet through the first half 2008 to 159,003 square feet in 2006.

<table>
<thead>
<tr>
<th>Year</th>
<th>Completions</th>
<th>Net Absorption</th>
<th>(Over)/Under Supply</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>104,616</td>
<td>130,336</td>
<td>25,721</td>
</tr>
<tr>
<td>2005</td>
<td>96,667</td>
<td>109,014</td>
<td>12,347</td>
</tr>
<tr>
<td>2006</td>
<td>130,000</td>
<td>159,003</td>
<td>29,003</td>
</tr>
<tr>
<td>2007</td>
<td>48,000</td>
<td>112,155</td>
<td>64,155</td>
</tr>
<tr>
<td>2008</td>
<td>0</td>
<td>19,415</td>
<td>19,415</td>
</tr>
<tr>
<td>Total</td>
<td>379,282</td>
<td>528,923</td>
<td>150,641</td>
</tr>
<tr>
<td>Ann. Avg.</td>
<td>31,607</td>
<td>44,160</td>
<td>12,553</td>
</tr>
</tbody>
</table>

Note: June data.
Source: The Karnes Report

As shown in Graph 11, net absorption has outpaced completions every year. Charlotte’s North Submarket has experienced a decline in vacancy from 20.5% in 2004 to 10.9% in 2008.
7.2 Rent Trends

Average quoted rents for multi-tenant office space in the North submarket increased 4.9% from $18.90 in 2004 to $19.82 in 2008 (Graph 12). The rents increased most dramatically between 2004 and 2005.

Graph 12: Average Office Rent per Square Foot, Charlotte North Submarket, 2004-2008

7.3 Comparable Office Developments

According to Iredell County tax records, there is currently 37,000 square feet of multi-tenant office space in the Brawley School Road Study Area. Office space in the Study Area is primarily located in small office developments on Kilson Drive off US-21 and in medical office space along Williamson Road. Table 22 and Map 10 show five completed comparable multi-tenant office developments in Charlotte’s North submarket or the Brawley School Road trade area totaling 506,172 square feet. The largest development, Northpointe Executive Park, is located in the Town of Huntersville, 15 miles south of Mooresville. Morrison Landing is located in the 500-acre master planned Morrison Plantation development, just west of the Brawley School Road Study Area.

Table 22: Comparable Multi-Tenant Office Space, North Submarket & Trade Area, 2008

<table>
<thead>
<tr>
<th>Map Key</th>
<th>Center</th>
<th>Location</th>
<th>Year</th>
<th>Total GLA</th>
<th>Vac. SF</th>
<th>Vac. Rate</th>
<th>Quoted Rent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Northpointe Executive Park</td>
<td>Northpointe Executive Dr.</td>
<td>2003</td>
<td>155,000</td>
<td>0</td>
<td>0.0%</td>
<td>$19.25</td>
</tr>
<tr>
<td>2</td>
<td>Kenton Circle</td>
<td>Sam Furr and Catawba Ave.</td>
<td>2005</td>
<td>140,000</td>
<td>15,000</td>
<td>10.7%</td>
<td>$19.50</td>
</tr>
<tr>
<td>3</td>
<td>Fairview Center</td>
<td>Fairview Rd.</td>
<td>2006</td>
<td>95,922</td>
<td>5,500</td>
<td>5.7%</td>
<td>$19.00</td>
</tr>
<tr>
<td>4</td>
<td>Morrison Landing</td>
<td>Morrison Plantation</td>
<td>2006</td>
<td>72,000</td>
<td>22,678</td>
<td>31.5%</td>
<td>$21.00</td>
</tr>
<tr>
<td>5</td>
<td>Colony at Peninsula</td>
<td>Old Jetton and Catawba Ave.</td>
<td>2001</td>
<td>43,250</td>
<td>7,328</td>
<td>16.9%</td>
<td>$19.10</td>
</tr>
<tr>
<td>Totals/Average</td>
<td></td>
<td></td>
<td></td>
<td>506,172</td>
<td>50,506</td>
<td>10.0%</td>
<td>$19.51</td>
</tr>
</tbody>
</table>

Source: Real Index, Warren & Associates

The comparable office developments have an aggregate vacancy rate of 10.0%, which is considered competitive in a growing market. The average quoted full-service rent is $19.51 per square foot, ranging from $19.00 at Fairview Center to $21.00 at Morrison Landing.
Map 10: Comparable Multi-Tenant Office Developments, 2008
7.4 I-77 Interchange Office Development Activity

As described in Section 2, and shown on Map 2, there are six I-77 interchange developments with multi-tenant office square footage under construction or proposed. The total approved space is approximately 3.7 million square feet (Table 23).

<table>
<thead>
<tr>
<th>Development</th>
<th>Exit</th>
<th>Office Sq.Ft.</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harbour Place</td>
<td>30</td>
<td>400,000</td>
<td>Under Construction</td>
</tr>
<tr>
<td>Legacy Village</td>
<td>33</td>
<td>382,804</td>
<td>Under Construction</td>
</tr>
<tr>
<td><strong>Under Construction Subtotal</strong></td>
<td></td>
<td><strong>782,804</strong></td>
<td></td>
</tr>
<tr>
<td>Village at Lake Norman</td>
<td>27</td>
<td>1,500,000</td>
<td>Proposed</td>
</tr>
<tr>
<td>Langtree at the Lake</td>
<td>32</td>
<td>581,000</td>
<td>Proposed</td>
</tr>
<tr>
<td>Larkin</td>
<td>45</td>
<td>400,000</td>
<td>Proposed</td>
</tr>
<tr>
<td>Lake Davidson Village</td>
<td>32</td>
<td>400,000</td>
<td>Proposed</td>
</tr>
<tr>
<td><strong>Proposed Subtotal</strong></td>
<td></td>
<td><strong>2,881,000</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Total Office Development Activity</strong></td>
<td></td>
<td><strong>3,663,804</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: Warren & Associates

The 400,000 square feet of office space at Harbour Place is located five miles south of the future Brawley School Road interchange. The first 60,000-square-foot building was recently completed and is leasing at a rate of $22.50 per square foot. Lake Davidson Village has 400,000 square feet of Class A office space entitled at the future Langtree Road interchange, three miles south of the Study Area. Langtree at the Lake could add 581,000 square feet of office space at the same interchange.

The Village at Lake Norman development, located eight miles south of the Study Area in Cornelius, is proposed to have 1.5 million square feet of Class A office space. The 900-acre Larkin development, located ten miles north, has been programmed for 400,000 square feet of office space.
8. Flex Market

Flex space contains a mix of warehouse and office, targeting small manufacturing, distribution, and service firms. Flex trends, including completions, absorption, vacancy, and rents, have been analyzed for Charlotte’s North submarket between 2004 and 2008. Southern Iredell County’s flex market has many similarities with Charlotte’s North submarket.

8.1 Completion and Absorption Trends

Since 2004, flex net absorption in the North Submarket has outpaced completions every year except 2006, creating an under supply of 100,811 square feet (Table 24). There was an average annual under supply of 20,162 square feet. Net completions totaled 318,143 square feet between 2004 and 2008, averaging 63,629 annually. Net completions and absorptions both peaked in 2007, with 182,174 and 195,000 square feet, respectively.

<table>
<thead>
<tr>
<th>Year</th>
<th>Net Completions</th>
<th>Net Absorption</th>
<th>(Over)/Under Supply</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>0</td>
<td>63,908</td>
<td>63,908</td>
</tr>
<tr>
<td>2005</td>
<td>0</td>
<td>44,662</td>
<td>44,662</td>
</tr>
<tr>
<td>2006</td>
<td>135,969</td>
<td>83,836</td>
<td>(52,133)</td>
</tr>
<tr>
<td>2007</td>
<td>182,174</td>
<td>195,000</td>
<td>12,826</td>
</tr>
<tr>
<td>2008</td>
<td>0</td>
<td>31,548</td>
<td>31,548</td>
</tr>
<tr>
<td>Total</td>
<td>318,143</td>
<td>418,954</td>
<td>100,811</td>
</tr>
<tr>
<td>Ann. Avg.</td>
<td>63,629</td>
<td>83,791</td>
<td>20,162</td>
</tr>
</tbody>
</table>

Note: 2008 YTD.
Source: The Karnes Report

As shown in Graph 13, net absorption has outpaced completions every year except 2006. Charlotte’s North Submarket has experienced a decline in vacancy from 15.5% in 2004 to 11.0% in 2008.
8.2 Rent Trends

Average quoted rents for industrial flex space in the North submarket increased 17.3% from $8.68 in 2004 to $10.18 in 2008 (Graph 14). The rents increased most dramatically between 2006 and 2007.

Graph 14: Flex Rent per Square Foot Trends, Charlotte North Submarket, 2004-2008

8.3 Comparable Business Parks

Two business parks have been selected as comparables based on their proximity to the Study Area and overall size (Table 25 and Map 11). Lakeside and Deerfield Business Parks are a combined 425 acres in size, with 126 acres remaining.

<table>
<thead>
<tr>
<th>Map Key</th>
<th>Development</th>
<th>Year Started</th>
<th>Total Acres</th>
<th>Remaining Acres</th>
<th>Price/Acre</th>
<th>Major Tenants</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lakeside Business Park</td>
<td>1975</td>
<td>245</td>
<td>16</td>
<td>$150,000</td>
<td>Dale Earnhardt, Inc., NC Auto Racing Hall of Fame</td>
</tr>
<tr>
<td>2</td>
<td>Deerfield Business Park</td>
<td>2004</td>
<td>200</td>
<td>110</td>
<td>$175,000</td>
<td>Junior Motor Sports, Kasey Kahne Racing, Resource Plus</td>
</tr>
<tr>
<td>Totals</td>
<td></td>
<td></td>
<td>445</td>
<td>126</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Warren & Associates

Lakeside Business Park is located between NC-150 and Brawley School Road with I-77 forming the eastern boundary. There are 16 remaining acres, most of which are located in the Brawley School Road Study Area. This park commands $150,000 per acre.

Deerfield Business Park is located off Cornelius Road, three miles northeast of downtown Mooresville. The site currently does not have direct access to I-77. There are 110 acres still available. Site work is now complete for Phase II, while Phases III and IV will be constructed on an as-needed basis. The average price per acre is $175,000.
9. Development Forecasts and Recommendations

This section provides forecasts and recommendations through 2018 for residential, retail, and office uses. Residential forecasts are provided by unit type for single-family detached, townhouse (single-family attached), and apartments. Retail and office (including flex) forecasts provide supportable square footages for the Brawley School Road Study Area.

9.1 Residential

9.1.1 Forecasted Housing Units by Type

Housing units were forecasted for the Study Area using data from Iredell County and population estimates from ESRI. It is estimated that 637 housing units, including single-family detached, townhouses, and apartments, are currently located within the Study Area (Table 26). This equates to a unit mix of 35.6% single-family detached, 34.5% townhouses, and 29.8% apartments.

<table>
<thead>
<tr>
<th>Units</th>
<th>#</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single-Family Detached</td>
<td>227</td>
<td>35.6%</td>
</tr>
<tr>
<td>Single-Family Attached</td>
<td>220</td>
<td>34.5%</td>
</tr>
<tr>
<td>Apartments</td>
<td>190</td>
<td>29.8%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>637</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Source: ESRI, Warren & Associates

Since the majority of the Brawley School Road Study Area is developed, an analysis of the available and developable acreage that is most appropriate for residential uses was performed. Watershed restrictions, which limit the amount of impervious surface, were calculated to determine developable acres. There are 96 developable residential acres in the Study Area (Table 27). Average densities were used to calculate the number of units per residential type.

<table>
<thead>
<tr>
<th>Units</th>
<th>Avail.</th>
<th>Developable</th>
<th>Density/ Acre</th>
<th>Forecasted Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Acres</td>
<td>Acres</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single-Family Detached</td>
<td>80</td>
<td>45</td>
<td>3.0-3.5</td>
<td>135 - 160</td>
</tr>
<tr>
<td>Single-Family Attached</td>
<td>29</td>
<td>19</td>
<td>8.0-10.0</td>
<td>150 - 190</td>
</tr>
<tr>
<td>Apartments</td>
<td>61</td>
<td>32</td>
<td>16.0-18.0</td>
<td>510 - 575</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>170</td>
<td>96</td>
<td>795</td>
<td>925</td>
</tr>
</tbody>
</table>

Source: ESRI, Warren & Associates, Iredell County

Table 28 shows the aggregate housing unit mix at build-out, by 2018, including units that currently exist. Based on closing trends, market activity, and the availability of land suitable for residential development, it is anticipated that between 1,437 and 1,587 housing units could exist in the Study Area. This is an increase of 149.1% from the current 637 units.

November 2008
Table 28: Forecasted Housing Units by Type, Study Area, 2008-2018

<table>
<thead>
<tr>
<th>Units</th>
<th>Forecasted Completions 2008</th>
<th>2008-2018 Completion</th>
<th>Total Housing Units 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single-Family Detached</td>
<td>227</td>
<td>135 - 160</td>
<td>362 - 387</td>
</tr>
<tr>
<td>Single-Family Attached</td>
<td>220</td>
<td>150 - 190</td>
<td>370 - 410</td>
</tr>
<tr>
<td>Apartments</td>
<td>190</td>
<td>510 - 575</td>
<td>700 - 765</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>637</strong></td>
<td><strong>795 - 925</strong></td>
<td><strong>1,432 - 1,562</strong></td>
</tr>
</tbody>
</table>

Source: ESRI, Warren & Associates, Iredell County

The Brawley School Road Study Area has limited land available for development and redevelopment. Therefore, demand for new residential uses near the interchange will be reduced. Single-detached units will only add between 125 and 150 units in the next decade.

Higher-density residential developments, such as townhouses and apartments, are expected to make up 84.2% of new housing units. A total of 175 to 200 new townhouse units could be developed in the Study Area by 2018, focused in the southwest quadrant of the interchange.

Apartment communities are assumed to contain between 250 and 300 units. Two new apartment communities are forecasted for the Study Area by 2018, totaling 510 to 575 units. These apartments would emerge later in the period, after completion of the Brawley School Road interchange.

Single-family detached housing units will be the least prevalent housing type in 2018, making up 24.8% of the units in the Study Area, a decrease of 10.9% (Table 29). Apartments will constitute 49.0% of the housing units, while townhouses make up 26.2%.

Table 29: Housing Unit Types by Share, Study Area, 2008-2018

<table>
<thead>
<tr>
<th>Units</th>
<th>2008 Shares</th>
<th>2018 Shares</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single-Family Detached</td>
<td>35.6%</td>
<td>24.8%</td>
<td>-10.9%</td>
</tr>
<tr>
<td>Single-Family Attached</td>
<td>34.5%</td>
<td>26.2%</td>
<td>-8.3%</td>
</tr>
<tr>
<td>Apartments</td>
<td>29.8%</td>
<td>49.0%</td>
<td>19.1%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100.0%</strong></td>
<td><strong>100.0%</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

Source: ESRI, Warren & Associates

9.1.2 Residential Recommendations

The Brawley School Road Study Area currently has a diverse mix of residential units, ranging from low- to medium-density single-family detached houses to townhouses and apartments. The even mixture of residential units is due to the availability of public utilities throughout most of the Study Area, as well as proximity to employment and services. The following recommendations are offered for new residential development in the Study Area.

- Limited availability of land appropriate for residential uses will encourage development of higher-density communities such as townhouses and apartments over
lower-density single-family detached homes, concentrated to the interstate.
- New single-family detached developments should be concentrated east of I-77, near existing neighborhoods.
- New townhouse communities should be constructed on property located southwest of the new interchange. Frontage along open space would increase safety and encourage public use in the evening and on weekends.
- Apartment communities should be constructed primarily along Talbert Road, which provides easy access to the future I-77 interchange and NC-150.

### 9.2 Retail

#### 9.2.1 Forecasted Retail Square Footage by Type

Retail demand for the Study Area is currently accommodated in existing retail developments. In the future, demand for some additional neighborhood retail will be generated by household growth and new employment uses. Approximately 15 acres have been designated by this study for retail uses, mostly shown in mixed-use office and retail developments (Table 30). Due to critical watershed restrictions covering much of the Study Area, only ten acres will remain to be developed. An average floor area ratio (FAR) of 0.25 was assumed to determine supportable square footage (surfacing parking).

<table>
<thead>
<tr>
<th>Units</th>
<th>Avail. Acres</th>
<th>Developable Acres</th>
<th>FAR</th>
<th>Forecasted S.F. 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neighborhood</td>
<td>15</td>
<td>10</td>
<td>0.25</td>
<td>100,000 - 125,000</td>
</tr>
<tr>
<td>Regional</td>
<td>0</td>
<td>0</td>
<td>0.25</td>
<td>0 - 0</td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
<td>10</td>
<td>0.25</td>
<td>100,000 - 125,000</td>
</tr>
</tbody>
</table>

Source: ESRI, Warren & Associates, Iredell County

There is approximately 1.9 million square feet of retail space in nine comparable centers within close proximity to the Study Area. Due to the large supply of retail along NC-150, it is estimated that the Study Area could absorb 100,000 to 125,000 square feet of new neighborhood retail space by 2018 (Table 31).

<table>
<thead>
<tr>
<th>Land Use</th>
<th>2008</th>
<th>Forecasted Completions 2008-2018</th>
<th>Total Retail Square Footage 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neighborhood</td>
<td>243,000</td>
<td>100,000 - 125,000</td>
<td>343,000 - 368,000</td>
</tr>
<tr>
<td>Regional</td>
<td>0</td>
<td>0 - 0</td>
<td>0 - 0</td>
</tr>
<tr>
<td>Total</td>
<td>243,000</td>
<td>100,000 - 125,000</td>
<td>343,000 - 368,000</td>
</tr>
</tbody>
</table>

Source: Warren & Associates, ESRI, Iredell County

#### 9.2.2 Retail Recommendations

Retail square footage was forecasted for neighborhood centers in the Study Area. No regional retail is forecasted through 2018. Placement of the forecasted retail space should be based on access and visibility, utility availability, and demand from households and employment uses.
The following recommendations are offered for retail growth by type and location.

- The strong presence of regional retail along NC-150 severely limits its demand in the Brawley School Road Study Area.
- A 150 to 200 room hotel could be supported in the northeast quadrant of I-77 and Brawley School Road, with convenient access and visibility from I-77. Multiple hotel sites at the interchange are not appropriate.
- Approximately 30,000 to 35,000 square feet of neighborhood retail space could be supported in the northeast quadrant of I-77 and Brawley School Road, serving office and hotel uses.
- Sites adjacent to Mooresville Town Square could support 50,000 to 55,000 square feet of retail uses. Access to the Mooresville Town Square development is encouraged so the retail sites can be accessed from both Brawley School and Williamson roads.
- The remaining neighborhood retail is best suited on property west of I-77 near an intersection with or fronting along Brawley School Road. This retail should be intended to serve the new employment uses and surrounding neighborhoods.

9.3 Office/Flex

9.3.1 Forecasted Office/Flex Square Footage by Type

There is currently 37,000 square feet of professional office and 28,000 square feet of flex office located in the Study Area. Most of the professional office space is located along Williamson Road. All of the flex space is located within the Lakeside Business Park, between Brawley School Road and NC-150.

Office uses are designated on 137 acres of the Study Area. However, only 66 acres are developable after watershed regulations are taken into consideration (Table 32). Calculations on supportable square footage used a FAR of 0.3 for professional office space and 0.25 for flex space. A total of 800,000 to 900,000 square feet could be constructed at build-out.

<table>
<thead>
<tr>
<th>Units</th>
<th>Avail. Acres</th>
<th>Dev. Acres</th>
<th>FAR</th>
<th>Build-Out S.F.</th>
<th>Forecast</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Professional</td>
<td>95</td>
<td>51</td>
<td>0.3</td>
<td>650,000</td>
<td>700,000</td>
</tr>
<tr>
<td>Office/Flex</td>
<td>42</td>
<td>15</td>
<td>0.25</td>
<td>150,000</td>
<td>200,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>137</strong></td>
<td><strong>66</strong></td>
<td><strong>0.3</strong></td>
<td><strong>800,000 - 900,000</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: ESRI, Warren & Associates, Iredell County

Table 33 demonstrates the delivery forecast for professional and flex space in the Study Area through 2018. Approximately 300,000 to 400,000 square feet of new office/flex space could be supported in the Study Area by 2018.

November 2008
Table 33: Forecasted Aggregate Office/Flex Square Footage, Study Area, 2008-2018

<table>
<thead>
<tr>
<th>Land Use</th>
<th>2008</th>
<th>Forecasted Completions 2008-2018</th>
<th>Total Office Square Footage 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate</td>
<td>0</td>
<td>0 - 0</td>
<td>0 - 0</td>
</tr>
<tr>
<td>Professional</td>
<td>37,000</td>
<td>200,000 - 250,000</td>
<td>237,000 - 287,000</td>
</tr>
<tr>
<td>Office/Flex</td>
<td>28,000</td>
<td>100,000 - 150,000</td>
<td>128,000 - 178,000</td>
</tr>
<tr>
<td>Total</td>
<td>65,000</td>
<td>300,000 - 400,000</td>
<td>365,000 - 465,000</td>
</tr>
</tbody>
</table>

Source: Warren & Associates, ESRI, Iredell County

Professional office space, such as medical, insurance, attorney, and real estate offices, are typically driven by household growth. Due to rapid household growth in southern Iredell County, approximately 200,000 to 250,000 square feet of professional office space can be supported by 2018.

Approximately 100,000 to 150,000 square feet of flex space could be absorbed in the Study Area by 2018. This flex space would likely be an extension of the Lakeside Business Park, on the north side of Brawley School Road.

9.3.2 Office/Flex Recommendations

The following recommendations are offered for accommodating professional and flex office space in the Study Area.

- Professional office should be located in the northeast and southeast quadrants of the Brawley School Road interchange and on the property south of Brawley School Road west of I-77. Professional office could be supported in the future in the southeast quadrant of the Brawley School Road/I-77 interchange if HOA restrictions allow a change of use from residential to office and subject to the Town rezoning process.
- Two key catalyst sites for professional office space are the northeast quadrant of the future Brawley School Road/I-77 interchange and the Cashion property, to the south of the corridor.
- Residential structures fronting Talbert Road should convert to small, professional offices. As parking will be limited due to watershed regulations, uses should have low trip generation rates.
- Flex space should be positioned on the north side of Brawley School Road, as an extension of the Lakeside Business Park.
Appendix C

Brawley School Road Small Area Plan Stakeholders

The consultant team of LandDesign, Kimley-Horn and Warren & Associates interviewed individuals during the last two weeks of July 2008 for their knowledge of the issues relating to the small area plan for Brawley School Road. The consultant team completed an additional round of stakeholder interviews in September 2008 with the owners of large tracts of property in both study areas. Below is a list of stakeholders who participated in the meetings held.

Tim Brown, John Vest, Ryan Rase, Allison Kraft, Jim King, all of the town of Mooresville
Chris Bauer, Transportation Planner, Town of Mooresville
Tony Tagliaferri, Traffic Engineer, Town of Mooresville
Wanda McKenzie, Director, Town of Mooresville Park and Recreation
Capt. Phil Blocker, Mooresville Police Department
Kent Lackey, Black & Veatch
Russell Rogerson, Executive Director, Mooresville – South Iredell Economic Development Corporation
Robert Carney Jr., Existing Industry and Marketing Manager, Mooresville – South Iredell Economic Development Corporation
Jackie Grigg, Co-chairperson, Iredell County Planning Commission
Rob Jackson, Director of Construction, Iredell – Statesville Schools
Kenny Miller, Executive Director of Facilities and Planning, Iredell – Statesville Schools
Susan Irvin, area land use attorney in private practice
Mike Holder, NCDOT
Steve Doolittle, Cool Breeze Cyclery
Michael Cashion, resident and large property owner
Chris Dawes, Iredell County Growth Commission (ICGC) member
Alan Boyce, ICGC member
Skip Weber, ICGC member
Pattie Marshall, ICGC member
Patrick Norman, NCDOT
Steve Bridges, NCDOT
Dee Browder, NCDENR, member of the town of Mooresville Environmental Committee
Don Bartell, ICGC member
Ron Smith, Planner, Iredell County
Robert Woody, Director, Iredell County Park and Recreation
Rich Huffman, Princeton Properties
Preston Cornelius and Marsha Cornelius, residents and large property owners
Tom Strader, ACTS Retirement and large property owner
Donald Reed and Mike Burnett, Crescent Resources
Shaun Ferguson, Scott Hinkle and Will Belcher of LandDesign
Stephen Stansbery of Kimley-Horn and Associates
Jessica Rossi of Warren & Associates
SUBCHAPTER 4B - EROSION AND SEDIMENT CONTROL

15A NCAC 04B.0101 AUTHORITY

History Note: Authority G.S. 113A-54; 113A-64;
Eff. February 1, 1976;

15A NCAC 04B.0102 PURPOSE

15A NCAC 04B.0103 SCOPE

History Note: Authority G.S. 113A-54(a)(b);
Eff. February 1, 1976;
Amended Eff. November 1, 1984;

15A NCAC 04B.0104 DEFINITIONS

History Note: Authority G.S. 113A-52; 113A-54;
Eff. February 1, 1976;
Amended Eff. March 14, 1980; January 31, 1979; July 1, 1978;

15A NCAC 04B.0105 PROTECTION OF PROPERTY

Persons conducting land-disturbing activity shall take all reasonable measures to protect all public and private property from damage caused by such activities.

History Note: Authority G.S. 113A-54(b); 113A-54(d)(2);
Eff. February 1, 1976;

15A NCAC 04B.0106 BASIC CONTROL OBJECTIVES

(a) An erosion and sedimentation control plan may be disapproved pursuant to 15A NCAC 4B .0118 if the plan fails to address the following control objectives:

(1) Identify Critical Areas. Identify site areas subject to severe erosion, and off-site areas especially vulnerable to damage from erosion and sedimentation.

(2) Limit Exposed Areas. Limit the size of the area exposed at any one time.

(3) Limit Time of Exposure. Limit exposure to the shortest feasible time.

(4) Control Surface Water. Control surface water run-off originating upgrade of exposed areas in order to reduce erosion and sediment loss during exposure.

(5) Control Sedimentation. All land-disturbing activity is to be planned and conducted so as to prevent off-site sedimentation damage.

(6) Manage Storm Water Runoff. When the increased velocity of storm water runoff resulting from a land-disturbing activity causes accelerated erosion of the receiving watercourse, plans shall include measures to control the velocity to the point of discharge.
(b) When deemed necessary by the approving authority a preconstruction conference may be required.

History Note:  
Authority G.S. 113A-54(d)(4); 113A-54.1;  
Eff. February 1, 1976;  
Amended Eff. July 1, 2000; February 1, 1992; May 1, 1990; November 1, 1984; March 14, 1980.

15A NCAC 04B .0107 MANDATORY STANDARDS FOR LAND-DISTURBING ACTIVITY  
(a) No land-disturbing activity subject to these Rules shall be undertaken except in accordance with the G.S. 113A-57.  
(b) Pursuant to G.S. 113A-57(3), provisions for a ground cover sufficient to restrain erosion must be accomplished within 15 working days or 90 calendar days following completion of construction or development, whichever period is shorter, except as provided in 15A NCAC 4B .0124(e).  
(c) Pursuant to G.S. 113A-57(4) and 113A-54(d)(4), an erosion and sedimentation control plan must be both filed and approved by the agency having jurisdiction.

History Note:  
Authority G.S. 113A-54(d)(4); 113A-57; 113A-57(3)(4);  
Eff. February 1, 1976;  
Amended Eff. July 1, 2000; May 1, 1990; August 1, 1988; November 1, 1984; March 14, 1980.

15A NCAC 04B .0108 DESIGN AND PERFORMANCE STANDARD  
Erosion and sedimentation control measures, structures, and devices shall be so planned, designed, and constructed to provide protection from the run off of that 10 year storm which produces the maximum peak rate of run off as calculated according to procedures in the United States Department of Agriculture Soil Conservation Service's "National Engineering Field Manual for Conservation Practices" or according to procedures adopted by any other agency of this state or any generally recognized organization or association.

History Note:  
Authority G.S. 113A-54;  
Eff. February 1, 1976;  

15A NCAC 04B .0109 STORM WATER Outlet PROTECTION  
(a) Persons shall conduct land disturbing activity so that the post construction velocity of the ten year storm run off in the receiving watercourse to the discharge point does not exceed the greater of:  
   (1) the velocity established by the table in Paragraph (d) of this Rule; or  
   (2) the velocity of the ten year storm run off in the receiving watercourse prior to development.  
If conditions (1) or (2) of this Paragraph cannot be met, then the receiving watercourse to and including the discharge point shall be designed and constructed to withstand the expected velocity anywhere the velocity exceeds the "prior to development" velocity by ten percent.  
(b) Acceptable Management Measures. The commission recognizes that management of storm water run off to control downstream erosion constitutes a developing technology and consequently invites the use of innovative techniques shown to produce successful results. Alternatives include:  
   (1) Compensate for increased run off from areas rendered impervious by designing measures to promote infiltration.  
   (2) Avoid increases in storm water discharge velocities by using vegetated or roughened swales and waterways in place of closed drains and paved sections.  
   (3) Provide energy dissipators at storm drainage outlets to reduce flow velocities to the discharge points.  
   (4) Protect watercourses subject to accelerated erosion by improving cross sections and/or providing erosion-resistant lining.  
(c) Exceptions. This Rule shall not apply when storm water discharge velocities will not create an erosion problem in the receiving watercourse.  
(d) The following table sets maximum permissible velocity for storm water discharges:

<table>
<thead>
<tr>
<th>Material</th>
<th>Maximum Permissible Velocities For</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Material</td>
<td>F.P.S</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Fine Sand (noncolloidal)</td>
<td>2.5</td>
</tr>
<tr>
<td>Sandy Loam (noncolloidal)</td>
<td>2.5</td>
</tr>
<tr>
<td>Silt Loam (noncolloidal)</td>
<td>3.0</td>
</tr>
<tr>
<td>Ordinary Firm Loam</td>
<td>3.5</td>
</tr>
<tr>
<td>Fine Gravel</td>
<td>5.0</td>
</tr>
<tr>
<td>Stiff Clay (very colloidal)</td>
<td>5.0</td>
</tr>
<tr>
<td>Graded, Loam to Cobbles</td>
<td>5.0</td>
</tr>
<tr>
<td>Graded, Silt to Cobbles</td>
<td>5.5</td>
</tr>
<tr>
<td>Alluvial Silts (noncolloidal)</td>
<td>5.5</td>
</tr>
<tr>
<td>Alluvial Silts (colloidal)</td>
<td>6.0</td>
</tr>
<tr>
<td>Coarse Gravel (noncolloidal)</td>
<td>6.0</td>
</tr>
<tr>
<td>Cobbles and Shingles</td>
<td>5.5</td>
</tr>
<tr>
<td>Shales and Hard Pans</td>
<td>6.0</td>
</tr>
</tbody>
</table>

Source: Adapted from recommendations by Special Committee on Irrigation Research, American Society of Civil Engineers, 1926, for channels with straight alignment. For sinuous channels multiply allowable velocity by 0.95 for slightly sinuous, by 0.9 for moderately sinuous channels, and by 0.8 for highly sinuous channels.

**History Note:** Authority G.S. 113A-54(b)(c); Eff. February 1, 1976; Amended Eff. February 1, 1992; May 1, 1990; November 1, 1984; July 1, 1978.

**15A NCAC 04B.0110 BORROW AND WASTE AREAS**
If the same person conducts the land disturbing activity and any related borrow or waste activity, the related borrow or waste activity shall constitute part of the land disturbing activity unless the borrow or waste activity is regulated under the Mining Act of 1971, or is a landfill regulated by the Division of Solid Waste Management. If the land disturbing activity and any related borrow or waste activity are not conducted by the same person, they shall be considered separate land-disturbing activities.

**History Note:** Authority G.S. 74-67; 113A-54(b); 130A-166.21; Eff. February 1, 1976; Amended Eff. May 1, 1990; November 1, 1984.

**15A NCAC 04B.0111 ACCESS AND HAUL ROADS**
Temporary access and haul roads, other than public roads, constructed or used in connection with any land-disturbing activity shall be considered a part of such activity.

**History Note:** Authority G.S. 113A-54; Eff. February 1, 1976.

**15A NCAC 04B.0112 OPERATIONS IN LAKES OR NATURAL WATERCOURSES**
Land disturbing activity in connection with construction in, on, over, or under a lake or natural watercourse shall minimize the extent and duration of disruption of the stream channel. Where relocation of a stream forms an essential part of the proposed activity, the relocation shall minimize unnecessary changes in the stream flow characteristics.

**History Note:** Authority G.S. 113A-54; Eff. February 1, 1976; Amended Eff. November 1, 1984.
15A NCAC 04B.0113  RESPONSIBILITY FOR MAINTENANCE
During the development of a site, the person conducting the land-disturbing activity shall install and maintain all temporary and permanent erosion and sedimentation control measures as required by the approved plan or any provision of the Act, these Rules, or any order or local ordinance adopted pursuant to the Act. After site development, the land owner or person in possession or control of the land shall install and/or maintain all necessary permanent erosion and sediment control measures, except those measures installed within a road or street right of way or easement accepted for maintenance by a governmental agency.

History Note:  Authority G.S. 113A-54;
Eff. February 1, 1976;

15A NCAC 04B.0114  GUIDELINES FOR EROSION AND SEDIMENT CONTROL PRACTICES

History Note:  Authority G.S. 113A-54; 113A-64;
Eff. February 1, 1976;

15A NCAC 04B.0115  ADDITIONAL MEASURES
Whenever the commission or a local government determines that significant erosion and sedimentation continues despite the installation of protective practices, the person conducting the land disturbing activity will be required to and shall take additional protective action.

History Note:  Authority G.S. 113A-54(b);
Eff. February 1, 1976;

15A NCAC 04B.0116  EXISTING UNCOVERED AREAS
(a) All uncovered areas which:
   (1) existed on the effective date of these Rules;
   (2) resulted from land disturbing activity;
   (3) exceed one acre,
   (4) are experiencing continued accelerated erosion; and
   (5) are causing off-site damage from sedimentation,
shall be provided with ground cover or other protective measures, structures, or devices sufficient to restrain accelerated erosion and control off-site sedimentation.
(b) The commission or local government shall serve a notice to comply with the provisions of G.S. 113A-50 et. seq. or any ordinance, rule or order adopted or issued pursuant to G.S. 113A-50 et. seq. by the Commission or by a local government upon the landowner or other person in possession or control of the land by any means authorized under G.S. 1A-1, Rule 4. The notice shall state the measures needed and the time allowed for compliance. The commission or local government issuing the notice shall consider the economic feasibility, technological expertise and quantity of work required, and shall establish reasonable time limits for compliance.
(c) State agency erosion and sedimentation control programs submitted to the commission for delegation of authority to administer such programs shall contain provisions for the treatment of existing exposed areas. Such provisions shall consider the economic feasibility, existing technology, and quantity of work required.
(d) This Rule shall not require ground cover on cleared land forming the future basin of a planned reservoir.
15A NCAC 04B .0117 STATEMENT OF FINANCIAL RESPONSIBILITY AND OWNERSHIP

15A NCAC 04B .0118 APPROVAL OF PLANS

(a) Persons conducting land-disturbing activity on a tract which covers one or more acres shall file three copies of the erosion and sedimentation control plan with the local government having jurisdiction or with the Commission if no local government has jurisdiction, at least 30 days prior to beginning such activity and shall keep another copy of the plan on file at the job site. After approving a plan, if the Commission or local government determines, either upon review of such plan or on inspection of the job site, that a significant risk of accelerated erosion or off-site sedimentation exists, the Commission or local government shall require a revised plan. Pending the preparation of the revised plan, work shall cease or shall continue under conditions outlined by the appropriate authority.

(b) Commission Approval:

(1) The Commission shall review plans for all land-disturbing activity over which the Commission has exclusive jurisdiction by statute and all other land-disturbing activity if no local government has jurisdiction.

(2) The Commission shall complete its review of any completed plan within 30 days of receipt and shall notify the person submitting the plan in writing that it has been:

(A) approved,

(B) approved with modification,

(C) approved with performance reservations, or

(D) disapproved.

(3) The Commission's disapproval, modification, or performance reservations of any proposed plan, shall entitle the person submitting the plan to an administrative hearing in accordance with the provisions of G.S. 150B-23. (This Section does not modify any other rights to a contested case hearing which may arise under G.S. 150B-23).

(4) Subparagraph (b)(3) of this Rule shall not apply to the approval or modification of plans reviewed by the Commission pursuant to G.S. 113A-61(c).

(5) Any plan submitted for a land-disturbing activity for which an environmental document is required by the North Carolina Environmental Policy Act shall be deemed incomplete until a complete environmental document is available for review. The Commission shall promptly notify the person submitting the plan that the 30 day time limit for review of the plan pursuant to Subparagraph (b)(2) of this Rule shall not begin until a complete environmental document is available for review.

(c) Erosion and sedimentation control plans may also be disapproved unless they include an authorized statement of financial responsibility and ownership. This statement shall be signed by the person financially responsible for the land-disturbing activity or his attorney in fact. The statement shall include the mailing and street addresses of the principal place of business of the person financially responsible and of the owner of the land or their registered agents.

(d) Local Government Approval:

(1) Local Governments administering erosion and sedimentation control programs shall develop and publish procedures for approval of plans. Such procedures shall respect applicable laws, ordinances, and rules, and shall contain procedures for appeal consistent with the local government's organization and operations.

(2) The secretary shall appoint such employee(s) of the Department as he deems necessary to consider appeals from the local government's final disapproval or modification of a plan. Within 30 days following receipt of notification of the appeal, such departmental employee shall complete the review