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CHAPTER ONE: INTRODUCTION
CHAPTER 1: INTRODUCTION

BACKGROUND

Cabarrus County, the City of Kannapolis, Iredell County and the Town of Mooresville, initially came together in early 2007 to discuss the need for a study of the NC 3 Corridor between Mooresville and Kannapolis. Mooresville and Iredell had additional interest in the Study as they wanted to address growth and development issues along the East-West Connector, a road proposed to link NC 3 with Langtree Road in the Mount Mourne area of southern Iredell County. The four communities executed agreements with Centralina Council of Governments (COG) in mid-2007 for COG to prepare the NC 3 Corridor Study.

PROJECT NEED

The communities felt that a study was needed for a variety of reasons:

- The communities felt that a unified understanding and approach for the NC 3 Corridor was needed. Although the NC 3 study area is only twelve miles in length, there are a number of transportation planning agencies which have jurisdiction in the area. At the regional level, Cabarrus County is part of the Cabarrus-Rowan Metropolitan Planning Organization, while Iredell County is part of the Lake Norman Rural Planning Organization. The two counties are also in two NCDOT Divisions, Cabarrus County being part of NCDOT Division 10 and Iredell County a part of Division 12. Each Division plans, designs, builds and maintains State-owned roads and bridges within their jurisdictions. Funding levels for road maintenance and construction differ by NCDOT Division.

- The four communities each enact land use regulations and make land use decisions within their respective jurisdictions. Although the communities all have their own individual long range land use plans, there has never been an attempt made before to collectively plan for the future of the Corridor by these jurisdictions.

- Growth has been explosive in both Iredell and Cabarrus Counties. Fueling the growth are a number of factors including: (1) Proximity to Charlotte; (2) A proposed commuter rail transit line from Charlotte to Mooresville; and (3) Job growth in Kannapolis, Concord and Mooresville.

PROJECT GOAL

The goal of the Study was to develop a unified plan that addresses existing and proposed land use patterns and necessary roadway improvements on both NC 3 and the East-West Connector to safely and adequate serve the area’s transportation needs.

PROJECT STUDY AREA

There were two separate Study Area geographies, one each for the NC 3 Corridor and the East-West Connector. The NC 3 study area extended from Center Avenue near downtown Mooresville to the Kannapolis Parkway. The East-West Connector study area extended from Langtree Road to the Kannapolis Parkway. The study area extended one-half mile out on either side of these roadways.
## NC 3 Corridor Study Chronology

<table>
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<th>DATE</th>
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<td>Fall 2007</td>
<td>Study organizational meetings held between Centralina and participating communities</td>
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<td>February 2008</td>
<td>Steering Committee meeting held</td>
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<tr>
<td>March 2008</td>
<td>Public input meetings held in Mooresville and Kannapolis</td>
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<td>May 2008</td>
<td>Steering Committee meeting held to assess results of public input meetings</td>
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<td>June-December 2008</td>
<td>Study recommendations drafted</td>
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<td>January-February 2009</td>
<td>Public forums on study recommendations held in Mooresville and Kannapolis</td>
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<td>March 2009</td>
<td>Steering Committee endorses recommendations</td>
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<td>March 2009</td>
<td>Cabarrus County withdraws from the Study</td>
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<tr>
<td>April-June 2009</td>
<td>Study report written and submitted to local governments for review</td>
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## Public Involvement

Participating communities initially appointed a Steering Committee comprised of elected officials, planning board members, area residents and municipal and County planning staffs. The Committee met periodically during the development of the Study to provide input and guidance. More frequent meetings took place between Centralina and the local staffs. A series of public forums were held in Mooresville and Kannapolis in early 2008 to get initial input on transportation and land use issues relative to NC 3 and the East-West Connector, and then again in early 2009 to get feedback on the proposed Study recommendations. Results from these meetings are found in Appendix C.
PROJECT OUTCOME

The outcome of this project was the development of a Plan that includes the following elements:

• Recommended future land use patterns along the NC 3 Corridor and the East-West Connector;
• A variety of recommended roadway improvements along NC 3 and a recommendation on the future design of the East-West Connector; and,
• An analysis of current land use and transportation plans and land use regulations that are in place within the Study Area along with a list of recommendations for each participating local government to enact in order to come into compliance with the Plan.

Cabarrus County withdrew from the Study in early 2009. The County felt that a more comprehensive look at the transportation and land use issues and concerns for all of Northwest Cabarrus County, as opposed to just the NC 3 Corridor, was needed.
CHAPTER TWO: EXISTING CONDITIONS
CHAPTER 2: EXISTING CONDITIONS

CURRENT LAND USE/EXISTING ZONING

Mooresville

The NC 3 Corridor varies widely in land use patterns and zoning throughout the 12-mile Study area. The most intense and urban forms of development are at the northern reaches of the Study Area in Mooresville, north of Center Avenue. Development here generally occurred 30+ years ago. Unlike in later years when more suburban-style (i.e., with few if any linkages to adjacent development) residential development was common, the Center Avenue area has good connections with other Mooresville neighborhoods and provides pedestrians, bicyclists, and motorists with a variety of options. While a modified grid system of development is found along both Center and Carpenter Avenues, there are some deficiencies which preclude optimum movement of motorized and non-motorized traffic:

1. There are a number of homes on the west side of NC 3 (known as Iredell Avenue in Mooresville) that have direct frontage on the road. This is especially true for lots on the west side of Iredell Avenue between Center and Carpenter Avenues. This situation does not necessarily impede the flow of traffic except when motorists are making left turns.

2. There are no sidewalks or accommodations for bicyclists on either NC 3 or on nearby adjoining portions of Center and Carpenter Avenues.

Recently built neighborhoods in Mooresville (i.e., Harris Crossing) have lots with internal sidewalks and reverse frontage along NC 3 (refer to Appendix B, Map 1). These developments, however, were not required to install sidewalks along NC 3.

The zoning throughout this area is diverse. As the composite zoning map (Appendix B, Map 2) shows, the older portions of Mooresville along Center and Carpenter Avenues are zoned R-3, as is the Harris Village Subdivision. The Linwood Farms and Harris Crossing Subdivisions to its immediate north each have a “Mixed Use” zoning classification that allows a variety of residential and non-residential uses. (Although allowed densities in each of these areas range from 8-14 units per acre, the actual densities of these subdivisions are in the 2-3 units per acre range.) In addition, the Town has approved conditional zoning for the placement of a small neighborhood shopping center on the east side of NC 3 north of Center Avenue. Site plan approval has not been given by the Town and there are no definitive plans at present for its construction.

Further south along the NC 3 Corridor, Mooresville has R-5 (i.e., with densities of up to five units per acre allowed) zoning in place to Kistler Farm Road. Currently, there are no developments with this density which have been constructed or otherwise approved by the Town. Commercial Mixed Use (CMX) zoning exists adjacent to the intersection of NC 3 and Kistler Farm Road although no developments have been approved or constructed based on this zoning. The Mooresville Middle and Intermediate Schools are located a short distance south on Kistler Farm Road. While the Middle School has access off of Kistler Farm Road, the Intermediate School has access off of NC 3. Plans are to construct a new elementary
school in this area. This school will have access off Rocky River Road. This portion of the Corridor has clearly witnessed suburban type growth within the last ten years, but not nearly as intense as in other portions of Mooresville closer to I-77 and Lake Norman.

Mooresville’s planning jurisdiction includes both its corporate limits and areas outside its limits that are in a defined “extra-territorial jurisdiction” or ETJ. Although Mooresville has annexed significant amounts of property in recent years, its ETJ boundary has remained the same. North Carolina law permits the ETJ boundary to be extended only with approval by the Iredell County Board of Commissioners. Mooresville’s land use jurisdiction extends approximately 0.40 miles south of Kistler Farm Road. From this point south to the Iredell-Cabarrus County line, the entire Corridor lies within Iredell County’s planning jurisdiction except for the Meadows at Coddle Creek Subdivision near Rocky River Road which has been annexed into Mooresville.

Mooresville’s public water and sewer utilities serve the two schools as well as each of the residential subdivisions mentioned above. Mooresville has the capability of providing public water and sewer services to the entire NC 3 Corridor, subject to capacity being available, in accordance with its water and sewer extension policies. The Town’s short term goal is to have utilities extended from the west along Rocky River Road to NC 3 and then continue north along NC 3 back into the Town. Utility lines are normally financed and constructed by private developers and then transferred to the Town for ownership and maintenance.

Iredell County

With the exception of the DEI facility located a short distance south of Rocky River Road, the entire NC 3 Corridor is zoned Residential Agricultural RA by Iredell County. This zoning district allows for single-family uses with allowed densities of up to two units per acre. Much of this area lies within a WS-II Water Supply Watershed which mandates larger minimum lot sizes). RA zoning also allows small (i.e., upwards of 5,000 square feet gross floor area) retail uses in specified locations.

NC 3 in southern Iredell County continues to have a distinctly rural or semi-rural character. Much of the area is in farmland or contains scatted low-density residential development. Although no properties along the Corridor are part of Iredell County’s Voluntary Farmland Preservation District Program, there are two properties in the program located within one mile of NC 3. One of these properties is in the County’s “Enhanced Voluntary Farmland District”, which requires a ten-year conservation easement. This is only the second farm in the County to enter into this program and is a testament to the continued farming culture that prevails in the area.

There is limited amount of development on the east side of NC 3 south of Williford Road due in part to the area being in a WS-II Protected Area water supply watershed. A second factor that has influenced development in this area is its distance from Mooresville and accessibility to I-77 and I-85. This latter factor will change, however, upon completion of the East-West Connector which will link NC 3 with Exit 32 of I-77 at Langtree Road. It is also envisioned that the East-West Connector will eventually extend to the east to NC 152, thereby providing much easier access to I-85. There is no funding in place, either from the Town or from NCDOT, however, for the construction of the Connector. Thus, the southern portions of NC 3 in Iredell County are likely to stay rural for the foreseeable future.
Cabarrus County/Kannapolis

With a few exceptions, nearly all properties along the NC 3 Corridor between the County line and the Kannapolis Parkway lie within Cabarrus County’s planning jurisdiction. Aside from a few churches, a plant nursery located immediately south of the County line, and a convenience store located at Davidson Road, development is limited to a scattering of single-family residences. An arm of the Coddle Creek Reservoir crosses NC 3 between Shimpock and Tuckaseegee Roads. Cabarrus County has Agricultural Open Space AO zoning in place which allows residential development at densities of no greater than one unit per three acres.

Kannapolis has annexed the convenience store along with adjacent property (known as the “Wayne Brothers Site”) on the south side of NC 3 between Davidson and Odell School Roads. The area is proposed for a mixed-use retail/employment center with 175,000 square feet of retail and 650,000 square feet of office space. Once completed, this will be the most substantial development along the Corridor between Mooresville and Kannapolis.

The Corridor east of Odell School Road has witnessed very little development. This is in large part due to the Coddle Creek Reservoir. The Reservoir, a major drinking supply source for Cabarrus County, plays a significant role on the type and intensity of development that will occur in the future along the Corridor. All portions of the NC 3 Corridor between Stirewalt Avenue (just west of the Kannapolis Parkway) and Odell School Road lie within a designated Water Supply Watershed.

The City of Kannapolis is a utility provider and has agreed to extend its water and sewer utilities to serve the Wayne Brothers Site. The south (or west) side of NC 3 west of Odell School Road is notably NOT in a Water Supply Watershed and therefore is not subject to any related density or impervious surface requirements. Kannapolis has indicated that once utilities are extended from the south to NC 3 at this location, it will be in a position to extend utilities north along NC 3 to the Cabarrus/Iredell County line and annex this area into the City. The City had legislation approved by the North Carolina General Assembly giving it the ability to extend its primary or satellite corporate limits to the Iredell, Rowan or Mecklenburg County lines.

Kannapolis’ planning jurisdiction is also in place along the eastern portions of the Corridor near the Kannapolis Parkway. Unlike Mooresville, Kannapolis does not have an ETJ. The City of Kannapolis anticipates major development along and near the Parkway in the future, although none has occurred to date. The zoning in this area reflects that with most parcels being zoned Agricultural AG.

WATER SUPPLY WATERSHED REGULATIONS

In 1994 the State of North Carolina established water supply watershed standards for local governments to adopt to help maintain the quality of public drinking water supplies. The Coddle Creek Reservoir serves as a drinking water source for Concord and Kannapolis. Coddle Creek was dammed north of Concord in 1993 to form the Coddle Creek Reservoir. The State classified the Watershed as a WS-II Watershed and all of the local governments who had land use jurisdiction within the designated watershed boundaries were required to adopt regulations similar to (or more stringent than) the State’s WS-II regulations.
The Water Supply Watershed Map (Appendix B, Map 3) indicates the boundaries of the Coddle Creek watershed. Lake Norman, which serves as the drinking water source for Mooresville, Charlotte and other communities, has a WS-IV Water Supply Watershed designation.

The ability to develop along the NC 3 Corridor has been significantly affected by the WS-II classification. Only small portions of the NC 3 Corridor in Cabarrus County (i.e., the west side of NC 3 north of Davidson Road and areas east of Stirewalt Avenue) lie outside the watershed boundaries. Areas closest to the Reservoir have a WS-II Critical Area designation, with the remaining areas having a WS-II Protected Area designation. Allowed densities (per State regulations) are no greater than one unit per acre in “protected areas” and one unit per two acres in “critical areas.” All designated watershed areas in Cabarrus County are located in Cabarrus County’s planning jurisdiction and have AO zoning.

The Coddle Creek watershed regulations cover a portion of the NC 3 Corridor in Iredell County. Areas along the east side of NC 3 generally south of Williford Road are in the WS-II protected area category. Iredell County’s regulations are in keeping with those of the State and allow for densities of no greater than one unit/acre.

**FUTURE LAND USE PLANS**

Mooresville’s 2030 Comprehensive Land Use Plan (CLUP), adopted by the Town in 2007, calls for the NC 3 Corridor to primarily be developed as a “Neighborhood Residential Area.” According to the CLUP, Neighborhood Residential areas are “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.” The CLUP also calls for two “neighborhood centers” that are “compact mixed-use, pedestrian scale nodes that include retail, professional and office facilities that serve the immediate neighborhood.” The two nodes are planned near the intersections of NC 3 and Center Avenue and also at NC 3 and Johnson Dairy Road. NC 3, according to the Plan, is also envisioned to be a four-lane, median separated boulevard south of Rocky River Road. Between Rocky River Road and Center Avenue, the road is projected to be a two-lane boulevard with a median.
Iredell County is in the process of adopting its 2030 Horizon comprehensive land use plan. The Plan will likely contain the major recommendations emanating from this study for that portion of NC 3 in Iredell County.

Kannapolis’ 2015 Land Use Plan calls for non-residential development at certain areas along the Corridor. These include:

1. A concentrated area of commercial development at the intersection of the Kannapolis Parkway and NC 3 with mixed-use development called for on either side of the commercial node on NC 3 as well as along the Parkway itself.
2. A mixed-use node is forecast to develop on the south side of NC 3 between Davidson and Odell School Roads (in the area previously annexed by Kannapolis).

**EXISTING ROAD/TRAFFIC CONDITIONS**

NC 3 is currently a two-lane road throughout the study area. NCDOT is in the beginning stages of widening NC 3 to a four-lane section east of the Kannapolis Parkway towards Kannapolis. Within the study area, traffic volumes were estimated by NCDOT to range in 2006 from 8,600-10,600 vehicles daily. This figure is estimated to increase to approximately 30,000 vehicles daily by 2030 due in large part to development pressures in Kannapolis and Mooresville. There are no signalized intersections anywhere along the Corridor within the Study Area except at the intersection of NC 3 and the Kannapolis Parkway.

**CURRENT LAND USE/EXISTING ZONING**

**Mooresville**

Mooresville’s jurisdiction is found in two areas along the proposed East-West Connector alignment: (1) Between Shearers and Kistler Farm Roads; and, (2) Between NC 115 (Mecklenburg Highway) and I-77. Some of the most significant residential development along the alignment is the Curtis Pond Subdivision located south of Rocky River Road near Kistler Farm Road. This single-family development is one of the largest residential developments in Mooresville east of I-77 and is zoned R-5 by the Town of Mooresville. The Town has annexed a large tract of land immediately south of this subdivision that has access off of Johnson Dairy Road. This tract is owned by the Town and is used for its wastewater treatment plant.

The only significant non-residential development along the Connector alignment between NC 115 and NC 3 is a small neighborhood shopping center, Rocky River Promenade, located at the intersection of Shearers Road and Rocky River Road. Both the Curtis Pond subdivision and the shopping center have been annexed into the Town of Mooresville.

Going westward along the Connector, no significant development is found until NC 115. Areas between NC 115 and Langtree Road have all been annexed into Mooresville. Most areas, especially those between Langtree Road and NC 115, are zoned R-3 by the Town. Much more significant development is found nearby, however, with the Lowe’s Inc. headquarters lying on the north side of Langtree Road and the Lake Norman Medical Center immediately north of that. Charlotte Area Transit System (CATS) commuter rail
from Charlotte is anticipated along the Norfolk Southern rail line that parallels NC 115. The Mount Mourne station, which will serve as the line’s northern terminus, is to be located near these two developments. More intense, pedestrian-oriented developments (and zoning) are anticipated in the future in this area.

**Iredell County**

Most of the area along the East-West Connector between NC 115 and Rocky River Road that has not been developed is in Iredell County’s planning jurisdiction. These areas are all zoned Residential Agricultural (RA) by the County.

**WATER SUPPLY WATERSHED REGULATIONS**

Only the western portion of the East-West Connector (i.e., the Mount Mourne area) is affected by Watershed regulations. The Lake Norman Watershed covers areas along the Connector west of NC 115. Most of this area (including all of the projected Connector alignment) is in a WS-IV Critical Area designation. WS-IV regulations are much less stringent than WS-II regulations. Maximum residential densities vary, depending on whether the Town uses the “high density option” that calls for the placement of structured stormwater controls. If those controls are used, maximum residential densities are commensurate with those allowed in the underlying zoning district; otherwise, the maximum allowed residential density is two units per acre. Maximum allowed impervious surface coverage for non-residential developments are 50% and 24%, respectively.

While it can be argued that Water Supply Watershed regulations have had an impact on development along the NC 3 Corridor, a similar statement cannot be made for areas in the Lake Norman Watershed near the East-West Connector. Both the Lowe’s Inc. headquarters and the Lake Norman Regional Medical Center were built after Mooresville adopted its water supply watershed regulations. The Town is encouraging transit oriented development in the Mount Mourne area, especially given the possibility of commuter rail service in South Iredell County.
Chapter 2: Existing Conditions

FUTURE LAND USE PLANS

Mooresville’s CLUP and the Mount Mourne & South Iredell Master Plan (Mount Mourne Plan), adopted in 2006, are the two land use documents that provide guidance to future growth and development along that portion of the East-West Connector that lies in Mooresville’s planning jurisdiction.

The Mount Mourne Plan contains the following guiding principles:

1. Define a land use strategy that balances economic development with conservation and growth management;
2. Improve transportation access throughout Mount Mourne by expanding the local street network to increase connections and guide appropriate development patterns;
3. Develop conceptual designs for key areas of development;
4. Locate sites for parks, greenways and conservation of open space to protect the environment and enhance quality of life; and,
5. Identify and preserve historic sites and buildings.

The recommendations that are contained in this Study were used by Iredell County in putting together their 2030 Horizon Plan. Most of the area along the projected East-West Connector that lies in Iredell County’s planning jurisdiction is recommended to be low-to-medium residential development with densities of 2-3 dwelling units per acre. There is a mixed neighborhood commercial/residential node called for at the intersection of Rocky River and Shearers Roads that is projected to be a “transitional commercial area” or one that “is intended for future commercial use [and is] adjacent to neighborhoods. .. The intent of these areas is that they will continue to serve as a buffer to residential areas and provide local opportunities for low intensity shopping and office uses.”

EXISTING ROAD/TRAFFIC CONDITIONS

The East-West Connector has not been built yet and a determination as to its actual alignment will be forthcoming in 2009. The only likely existing road sections that could be used for its placement are Rocky River Road between Shearers Road and NC 3 and a portion of Faith Road between Midway Lake Road and Shearers Road. Both Rocky River Road and Faith Road are two lane roads with relatively light traffic volumes.
CHAPTER THREE: NC3 RECOMMENDATIONS
CHAPTER 3: NC 3 CORRIDOR RECOMMENDATIONS

RECOMMENDED ROAD IMPROVEMENTS

To accommodate the increase in traffic volumes anticipated by 2030, two road alignments along the NC 3 Corridor are recommended:

- A two-lane boulevard with median* from Rocky River Road (and the East-West Connector) north into Mooresville; and,
- A four lane rural parkway from Rocky River Road south past the Iredell-Cabarrus County line to the Kannapolis Parkway.

* That portion of NC 3 in the vicinity of Center Avenue is not being recommended for median separation due to right-of-way limitations. As this is the oldest and currently most developed portion of the Study Area, costs for right-of-way acquisition would be high. Thus, it is recommended that the current two-lane section WITHOUT median be maintained in this area.

Cross-sections of each roadway are also shown in Appendix C. Elements of each cross-section are as follows:

1. TWO-LANE BOULEVARD
   - Right-of-Way: 100 feet
   - Travel Lanes: 2
   - Lane Widths: Eleven (11) feet
   - Intended Speed Limit: 35 MPH
   - Traffic Volume Capacity: 15,000-20,000 ADT
   - Median: Twenty-four (24) feet in width, landscaped, with curbs
   - Curb and gutter: Standard section, provided on both sides
   - Bicycle lanes: Five (5) feet, on both sides
   - Landscaped Planting Strip: 8-10 feet in width, provided on both sides of street between curb and sidewalk
   - Sidewalks: On both sides, six-feet in width; sidewalk landscape

NOTE: The specifications shown above may be subject to change based on input from NCDOT and the Town of Mooresville.
2. **FOUR-LANE RURAL PARKWAY**

- **Right-of-Way:** 150 feet
- **Travel Lanes:** 4
- **Lane Widths:** Twelve (12) feet
- **Intended Speed Limit:** 45-55 MPH
- **Traffic Volume Capacity:** 40,000 ADT
- **Median:** Thirty-six (36) feet in width, landscaped, with curbs
- **Edge Curb and gutter:** None; drainage swale and shoulder on each side
- **Bicycle lanes:** None
- **Landscaped Planting Strip:** Median only
- **Sidewalks:** None
- **Multi-purpose Path:** 10-16 feet in width, paved, on one side of the parkway

**NOTE:** The specifications shown above may be subject to change based on input from NCDOT and the Town of Mooresville.
GUIDING PRINCIPLES

1. Maintain Functionality of NC 3

**Acquisition of Right-of-Way:** As there is no funding in place at present for improvements on NC 3, all participating communities can start working now towards acquiring necessary right-of-way (upwards of 150 feet for the rural parkway section.) Mooresville’s CTP requires that right-of-way shall be acquired by the Town for projects identified on the CTP. Iredell County has adopted the CTP by reference. Kannapolis will need to amend its transportation plan to show the four-lane median section. Once that is done, Kannapolis will have the ability to begin acquiring right-of-way for new subdivision development that occurs along NC 3 (per Section 10.1.2.2 of the Kannapolis UDO). Thus, irrespective of the jurisdiction under which development occurs, the communities have the ability to have right-of-way preserved for road improvements as herein called for. Pro-active acquisition of road right-of-way will significantly reduce actual road improvement costs.

**Develop a Long-term Median Crossover Strategy:** Median separation will allow motorists to make left hand turns only at designated crossover locations. Full crossovers (i.e., places where motorists can access the other side of the road) are recommended at designated intersections to allow traffic to make both right- and left-hand turns from all directions. These identified locations are at (1) Center Avenue; (2) Kistler Farm Road; (3) Rocky River Road (i.e., East-West Connector); (4) Johnson Dairy Road; (5) Patterson Farm Road; and (6) Williford Road. Additional crossovers will be necessary to allow local traffic to make left-hand turns. These crossovers are suggested for placement at approximately 1,000-1,200 foot intervals along the Corridor. Driveways for new development should be coordinated with placement of these intermediate crossovers.

**Access Management:** Access management tools are roadway control guidelines that local governments can use to reduce development costs and improve safety while maintaining road
capacity. It is recommended that new driveway access points along NC 3 should be coordinated with the placement of intermediate crossovers. There are not many lots along the Corridor whose only means of access is along NC 3. If requested, and if no other means of access is available, these lots will need to have a driveway access point on NC 3. New development, however, should have a limited number of driveway access points on NC 3. This is implied by policy in Mooresville’s CTP and can be enforced by both local governments (i.e., Mooresville and Iredell County) by regulating the number of new access points on lots which abut NC 3.

2. Maintain Rural Atmosphere of NC 3 south of Rocky River Road

**Viewshed Buffers:** While NC 3 is expected to witness a significant increase in traffic, maintaining the Corridor’s rural atmosphere is a high priority, especially for areas south of Rocky River Road. One of the most effective means of accommodating development, conserving scenic views, minimizing visual density, and maintaining an area’s rural character is through the employment of viewshed buffers. Viewshed buffers are areas that lie adjacent and parallel to a proposed road right-of-way that are maintained free of most types of development. If viewshed buffers are used for all new development along NC 3 (south of the East-West Connector) and NC 3 is widened, there will still be an area adjacent to the road right-of-way that will be unobstructed and kept in a natural state. Maintaining the rural character of NC 3 was a sentiment that was echoed by many who attended the Study’s public forums in 2008.

The depth of the viewshed buffer should vary in accordance with the natural features found on the tract. For instance, if a tract was wooded and an opaque buffer already in place, the viewshed buffer area should be narrower in width than if the tract were farmland or pastureland. Initially, viewshed buffers of between 55-105 feet on either side of NC 3 are envisioned to provide unobstructed areas of between 100-150 feet from the edge of the current road right-of-way. This is computed in the following manner:

- NCDOT currently maintains 60 foot of right-of-way, with 30 feet on either side of the centerline;
- The rural parkway needs a 150 foot road cross-section, or an additional 45 feet of right of way on either side of the road;
- If a viewshed buffers of between 55-105 feet is required, the amount of land on either side of the road used for additional right-of-way (45’) and viewshed buffer (55-105’) would total 100-150 feet.

With viewshed buffers in place, setbacks are then measured from the outer edge of the viewshed buffer. The setback area would also provide an additional amount of “protected” or undeveloped land. Additional details on viewshed buffers are found in Chapter 5. See Appendix A for a diagram.

**Multi-Purpose Path:** Sidewalks along NC 3 are not encouraged south of the Connector, except in association with development located at designated growth nodes. Instead, a multi-purpose path along one side of the road is recommended. The path would be paved and be between 10-16 feet in width. This would be wide enough to accommodate both pedestrians and bicyclists. The path, which should be available for public use, could either be within the viewshed buffer and be privately
3. Promote Development at Targeted Locations along NC 3; Avoid Strip Development

NC 3 is not slated to become a “magnet” for non-residential development. Rather, concentrated areas of non-residential development are forecast in a few targeted areas. The large majority of the Corridor, if and when developed, will be for low-density residential purposes (i.e., with densities generally in the 2-4 dwelling unit per acre range outside of water supply watershed areas, with much lower densities within watershed areas). Three areas of concentrated development are envisioned in Iredell County. They are located at: (1) Center Avenue; (2) East-West Connector; and, (3) Johnson Dairy Road. Each is anticipated to differ in their character and components. In Cabarrus County, two development areas are called for at (1) Davidson/Odell School Road; and, (2) near the Kannapolis Parkway.

Center Avenue: The Center Avenue development is anticipated to be the most concentrated and diverse as (1) It is presently served by both public water and sewer utilities by the Town of Mooresville; (2) It is zoned NMX (Neighborhood Mixed Use) and CMX (Corridor Mixed Use) by the Town of Mooresville; and (3) Unlike most other areas along the Corridor, it is served by two streets, both NC 3 and Center Avenue, either of which can effectively channel vehicular traffic into nearby areas. The area lies adjacent to older parts of Mooresville that contain a modified grid street network with sidewalks on most streets.

As their names imply, the NMX and CMX zoning districts encourage well-designed and well-integrated mixed commercial and residential uses. According to the Mooresville Zoning Ordinance, within the NMX zoning district “nonresidential uses may include small-scale retail, service, and professional offices that provide goods and services to the residents of the surrounding neighborhood... Residential uses are encouraged on the upper floors of nonresidential establishments.” Both single-family and multi-family type residential uses are allowed with densities as high as 12-14 units per acre. The CMX district is a more retail oriented district that caters to both pedestrian and automobile oriented traffic. The CMX district also allows an array of residential uses, though they are normally located away from the major transportation corridors such as NC 3.

East-West Connector: The creation of an employment center to the south of the existing intersection of NC 3 and Rocky River Road is envisioned. This development node is unique from the others for a number of reasons. First, the emphasis at this location is to attract offices, distribution facilities, light industrial uses, and similar job-creating uses. Retail type uses, with the exception of support facilities such as banks, restaurants, etc. are not encouraged at this location. The DEI facility just south of Rocky River Road is relatively new and serves as a tourist attraction to Iredell County and the region. Any new development that locates in this area should be in context with and not detract from the DEI facility. The region has a substantial motor sports industry and adding additional indoor motor sports support facilities at this location would be welcomed. Compatible employment uses, be they motor sports related or not, are also encouraged at this location. The employment center is being promoted only in areas to the south of Rocky River Road. Areas to the north of Rocky River Road such as the Meadows at Coddle Creek Subdivision are being developed for residential purposes. Thus, any new non-residential development that does occur at this location should occur in a manner so as to not have any negative impacts on pre-existing residential uses and development. The development
at this location must also be well-designed and aesthetically appealing as this location will serve as a gateway into the Town of Mooresville.

**Johnson Dairy Road:** A small neighborhood retail center is proposed for the area near Johnson Dairy Road. According to the Mooresville Land Use Plan, neighborhood centers are intended to “contain retail, services, recreation and institutional facilities located in close proximity to one another.” This center will be designed to serve everyday retail needs for a significant portion of southeastern Iredell County. The size of this node is much smaller than any of the other designated areas and none of the retail establishments are anticipated to be large in size. Design of the buildings comprising this node will be a key element here.

**Davidson/Odell School Road:** The Davidson/Odell School Road area is forecast to become a major employment/retail center for Kannapolis and the northwestern portion of Cabarrus County. The City of Kannapolis has annexed this area and has given approval (subject to site design review and permit issuance) for over 800,000 square feet of office and retail uses. The Study calls for an expansion of this area to cover both sides of NC 3 between Davidson and Odell School Roads.

In addition to the office/retail center, some additional low-to-medium density development is forecast to occur on the west side of NC 3 from Davidson Road north to the Iredell-Cabarrus County line.

A number of factors need to be addressed or considered as development is approved for this area. They include:

- **Access Management:** Despite the amount of development forecast to occur, new access points on NC 3 should be limited in number. Traffic accessing NC 3, to the greatest degree feasible, should be accommodated on the roads that presently serve this area such as Davidson, Odell School and Sudbury Roads. New residential development north of Davidson Road should have an extremely limited number of new driveway access points. As referenced in Chapter 5, Kannapolis’ current access management regulations allow for a far greater number of access points per tract than either Iredell County or Mooresville.

- **Design:** Just as the area around Rocky River Road will serve as a gateway into Mooresville, the Davidson/Odell School Road development will serve as a gateway into both Cabarrus County and Kannapolis. The Wayne Brothers site is zoned Campus Development- Conditional Zoning (CD-CZ) and is subject to certain design and architectural standards of the Campus Development District. Any additional development constructed in this area should be aesthetically pleasing to motorists, workers, and store patrons alike. Building and parking lot layouts should be designed to provide both the driver and pedestrian easy, convenient and safe access to all portions of the development.

- **Water Supply Watershed:** The north side of this development area is located in a water supply watershed with a maximum impervious area limitation of twelve (12) percent. Clustering of building should be emphasized to maximize land utilization. A traditional neighborhood development (TND) layout could maximize land utilization and provide an attractive streetscape.

- **Traffic:** New development in this area should address problems associated with the manner
in which both Odell School and Sudbury Roads intersect with NC 3. Each road intersects NC 3 at a fairly substantial angle, hampering turning movements onto NC 3 causing safety issues for motorists on both roads. New development in the area will only exacerbate the situation. Both roads should be straightened out to provide a more perpendicular intersection with NC 3.

- **Kannapolis Parkway:** A second major development node is forecast for the eastern end of the study area around the Kannapolis Parkway. A major regional shopping complex is proposed for the south side of NC 3 on both sides of the Parkway. Mixed residential/commercial areas are proposed on the south side of NC 3 and extend down along both sides of the Parkway. In adjacent areas east of Stirewalt Avenue on both sides of NC 3, medium-to-high density residential development is forecast. All of this area is outside of a water supply watershed and exempt from any watershed related density or impervious surface regulations. No substantive development has occurred in this area to date and much of this area is currently zoned Agricultural (AG) by Kannapolis.

4. **Promote Coordinated Development Along the Corridor**

   **NC 3 Overlay District:** Creating a new overlay district for the NC 3 Corridor, similar in nature to that called for the East-West Connector in Chapter 4 is recommended. Mooresville currently has its Corridor Overlay (COO) district in place along NC 3. This district addresses a few items including:

   - Prohibition of manufactured homes;
   - Prescribing a certain amount of landscaping in the front yard; and
   - Requiring off-street parking to be placed in the rear and side of all non-residential structures.

Iredell County has two Roadway Protection Overlay (RPO) Districts established, but none are located along NC 3. The districts address a variety of issues including access management, outdoor storage, outdoor lighting, minimum lot width, etc. Kannapolis has its Coddle Creek Thoroughfare Protection (CCTP) Overlay District on the eastern end of NC 3, but not in the western segment of NC 3 in Cabarrus County where significant development is forecast. The CCTP district addresses uses that are prohibited (irrespective of whether they are allowed in the underlying zoning district), building design, signage, location of mechanical equipment, etc.

For the motorist travelling on NC 3, there is really no appreciable difference as to what one sees on the road except when approaching Mooresville and Kannapolis. With a few exceptions, notably the Davidson/Odell School Road area, low density residential development is forecast to occur along the entire corridor between Rocky River Road and the Kannapolis Parkway. It would be beneficial to all communities, including Cabarrus County, if one overlay district were in place along that entire NC 3 Corridor. The overlay district could address many of the issues already covered by the current districts. Having one uniform overlay district would be beneficial to help ensure that desired end results are put in place uniformly along the Corridor.
CHAPTER 4: EAST-WEST CONNECTOR RECOMMENDATIONS

RECOMMENDED ROAD IMPROVEMENTS

The East-West Connector is proposed to be a four-lane suburban boulevard that includes a landscaped median. A cross-section of the proposed roadway is also shown in Appendix A.

Elements of the boulevard are as follows:

- **Right-of-Way**: 120 feet
- **Travel Lanes**: 4
- **Lane Widths**: Twelve (12) feet
- **Intended Speed Limit**: 45-55 MPH
- **Traffic Volume Capacity**: 40,000 ADT
- **Median**: Sixteen (16) feet in width, landscaped, with curbs
- **Curb and gutter**: Standard section, provided on both sides
- **Bicycle lanes**: No
- **Landscaped Planting Strip**: Ten (10) feet in width, provided on both sides of street between curb and sidewalk
- **Sidewalks**: On both sides, six-feet in width; sidewalk planting strip.

**NOTE**: These specifications may be subject to change based on input from NCDOT and the Town of Mooresville.
GUIDING PRINCIPLES

1. The East-West Connector shall be a suburban boulevard that can safely and efficiently accommodate both pedestrians and motorists. This will be accomplished through the following:

   **Sidewalks:** Sidewalks with planting strips shall be constructed on both sides of the Connector. The placement of planting strips is important to ensure that pedestrians are given an opportunity to walk in a comfortable and safe environment.

   **Median:** A continuous landscaped median shall be placed along the length of the Connector. As the exact location of the Connector is not currently known, no specific locations are shown for median crossovers. Crossover locations will be determined by both the Town of Mooresville and NCDOT based on the alignment chosen. Full access will likely be provided at major intersections such as Shearers Road, Kistler Farm Road, and NC 3. Since much of the area where the Connector is likely to be located west of Shearers Road is undeveloped, and there is significant opportunity for further development, additional crossover locations may be required.

   **Access Management:** One of the major purposes of the Connector is to provide an effective east-west connection from southern Iredell County and Cabarrus County to both I-77 and I-85. Maintaining mobility along the Connector is therefore essential. The most efficient means of doing this is to manage access and limit the number of access points placed along the Connector. Lots currently fronting the roads that will become a part of the Connector must be provided road access. They cannot become landlocked as a result of the Connector being built. Unless a secondary access point is provided, these lots will therefore be allowed to have an access point on the Connector. New driveway access points, however, should be strictly regulated on the Connector and, to the greatest degree feasible, should be minimized.

   **Begin acquiring right-of-way for the Connector:** Once an alignment has been chosen and incorporated into Mooresville’s CTP, both Iredell County and Mooresville should begin acquiring the necessary right-of-way as development occurs. There currently is no local or State funding in place for the construction of the Connector, nor is the Connector project listed on the Transportation Improvement Plan (TIP). Until funding is in place, all efforts to secure right-of-way will have to be locally driven. The easiest, most efficient and most cost-effective means of acquiring the right-of-way is in association with development projects as they occur along the Connector.

   Mooresville’s CTP identifies the East-West Connector as a future thoroughfare project and also specifies that right-of-way be dedicated where needed to implement projects. Iredell County has adopted the CTP by reference. Thus, if subdivision activity occurs in either jurisdiction, the policy to acquire right-of-way for the Connector is in place.

2. Avoid Strip Development along the Corridor by concentrating non-residential and other higher-density uses at specified nodal locations.

   The Future Land Use Plan for the Connector shows development **concentrated** at three nodes:

   - An employment center at NC 3;
• A mixed residential-commercial neighborhood center at Shearers Road; and,
• Mixed residential/commercial use development in the vicinity at NC 115 and employment center (i.e., office) uses extending to Langtree Road.

Elsewhere along the Connector, well-planned, well-designed, and interconnected suburban type residential developments are recommended. Virtually all of the undeveloped land along the path of the Connector is zoned Residential Agricultural R-A by Iredell County. As previously mentioned, any significant and concentrated development will likely require a rezoning and will most likely be annexed by the Town of Mooresville. Mooresville’s CLUP designates most undeveloped areas in the vicinity of the Connector as a “Neighborhood Residential” area. The CLUP defines such areas as:

“[Areas] developed as a series of interconnected neighborhoods with the highest density housing located in close proximity to services or in village or neighborhood centers. Concentrated areas of more dense urban development or urban villages, a half mile in diameter, should [be] located along major corridors...Residential development should include a range of housing choices...”

The CLUP goes on to say that “neighborhood centers” should have residential densities of up to 4.0 dwelling units per acre. Such densities can be accommodated through a mixture of Mooresville’s R-3, R-5 and RMX zoning districts.

Unless annexation by Mooresville takes place, the area will continue to be zoned by Iredell County. The County’s R-A zoning, while mostly residential in nature, does allow non-residential uses on a “by-right” basis, so long as certain spacing and location requirements are met. A wide variety of retail uses having no greater than 5,000 square feet gfa are permitted.

3. Develop the Shearers Road/Rocky River Road intersection into a neighborhood mixed residential/commercial node.

Mooresville’s CLUP specifically calls for mixed residential/commercial development centered at this intersection. A small shopping center, anchored by a grocery store, already exists at the southeast quadrant of this intersection. This Study calls for and anticipates supportive neighborhood-oriented uses within immediate proximity of the shopping center, and/or vertically integrated with the shopping center. Mooresville strongly embraces the concept of mixed residential and commercial uses and such mixed use developments should take place at this location.

The CLUP states: “The central node [shall contain] retail, services, recreation and institutional facilities located in close proximity to each other...Surrounding neighborhoods should be able to access the center by a short walk.” Residential densities, outside of areas closest to NC 115 and Langtree Road, should be highest in this neighborhood center area with a variety of residential types provided. Other essential elements of a neighborhood center include:

• Buildings should be compatible with the character of adjacent neighborhoods;
• Two to three story vertically integrated neighborhoods are encouraged;
• Buildings should abut the sidewalk with parking at the side or rear of the lot;
Chapter 4: East-West Connector Recommendations

- Sidewalks should be wider [than elsewhere along the Connector] to accommodate benches [and other street furniture]; and,

- Single-family residential neighborhoods are discouraged in the neighborhood center.

4. **Promote well-connected, visually attractive and pedestrian friendly residential neighborhoods along the Connector.**

The majority of the land along the Connector will likely be developed to accommodate a mixture of residential uses and it is envisioned that the Corridor have a suburban feel to it. Non-residential development, integrated with residential uses where appropriate, will be concentrated at a number of designated nodes along the Connector. Elsewhere along the Connector single-family residential development will likely predominate. New driveway access points along the Connector should be limited in number to promote traffic flow and safety. To the greatest degree practical, residential structures along the Corridor should be oriented towards the Corridor, with access provided through rear alleys or service roads parallel to the Connector. The tendency in the past in Mooresville, Iredell County and elsewhere on thoroughfares such as the Connector has been to have the rear of homes facing the thoroughfare with a berm or wall erected to provide separation and privacy.

Mooresville has a Corridor Overlay District (COO) in place on most major thoroughfares in its planning jurisdiction including NC 3, NC 115 and Langtree Road. The COO district addresses a few design issues including:

- Mandating a 25 foot landscaped area with trees measured inward from the edge of the right-of-way;

- Requiring off-street parking in the side and rear yards only with no parking allowed in the front yard;

- Prohibiting most industrial uses as well as manufactured homes; and,

- Requiring that any storage facilities be enclosed with decorative brick, stone or masonry materials.

While these types of restrictions will likely also be suitable for placement on the Connector, a new overlay may be necessary to ensure that the design issues called for in this Study are systemically implemented along the Connector, both by Mooresville and by Iredell County.

Multimodal connectivity between residential areas should be emphasized. Pedestrian connections via sidewalks, trails and multi-purpose paths between subdivisions should be required so as to limit the need to use the Connector as a means of travelling between adjacent and nearby neighborhoods and developments.

Mooresville’s Zoning Ordinance addresses neighborhood connectivity through strict limitations on the number of cul-de-sacs (no greater than 10 percent of the total road frontage in any residential development) and a requirement that all new developments meet a “connectivity index” requirement. The index requires all new developments to have more than one outside linkage. When development on an adjacent tract occurs, linkages with existing developments are expected. Iredell County has much less stringent language in place.
Chapter 4: East-West Connector Recommendations

5. **Implementation of principles from the Mount Mourne Plan for areas between NC 115, Langtree Road and the Exit 32 Interchange.**

The Mount Mourne Plan sets out the major land use strategy for development in the Mount Mourne area. This Study incorporates the following major tenets of the Mount Mourne Plan:

**East-West Connector east of NC 115:** This is to be an area of mixed uses with higher density residential uses located on the east side of NC 115, transitioning to lower density residential uses further east.

**East-West Connector between NC 115 and Langtree Road:** Higher-density mixed use development that consists primarily of office uses is envisioned. Multi-story buildings of up to four stories are recommended.

**Langtree Road Corridor:** Higher-density mixed use developments consisting primarily of office uses are recommended. When the build out of the Lowe’s corporate campus occurs, traffic volumes along Langtree Road will have increased significantly. The Mount Mourne Plan therefore calls for no greater than 50% of the undeveloped land along Langtree Road east of I-77 for non-residential uses that compete directly with the Lowe’s facility for traffic capacity during the morning and evening peak hours. Direct access to new developments along this stretch of Langtree Road is strongly discouraged.

**Along NC 115:** NC 115 is proposed to remain a two-lane road. Except for designated areas near the Connector, significant development along NC 115 is discouraged. Development between NC 115 and Langtree Road should be linked to the Connector to the greatest degree feasible.

6. **Actively preserve open space.**

Both the CLUP and the Mount Mourne Plan strongly encourage the preservation of open space. Areas to the west of NC 115 lie within a WS-IV Critical Area Watershed, with maximum impervious surface coverage limited to no greater than 24-50 percent. Elsewhere, the Mount Mourne Plan strongly endorses the preservation of open space in the “rural” areas that lie east of NC 115. The CLUP states “The presence of open space is an essential element determining the character and quality of the community.”

Mooresville has embraced this concept. A minimum twenty (20) percent open-space set aside has been established for residential developments in most residential developments. For mixed-use districts there is a ten (10) percent minimum. Such standards should be considered by Iredell County for placement on new developments that take place under their regulations. A more significant analysis of open space regulations is contained in Chapter 5.
CHAPTER FIVE: LAND USE REGULATIONS COMPARISON
CHAPTER 5: LAND USE REGULATIONS COMPARISON

There is a general consensus that the scenery and aesthetics along NC 3 are valued and, in spite of anticipated growth and development, should be kept as visually attractive as possible. There have been strong calls to retain the highway’s rural characteristics, especially in areas south of Rocky River Road in Iredell County. The East-West Connector has not been built. Ensuring that development along this highway be aesthetically attractive is also a major goal of this Study. Proper signage is an important component of this goal. What follows are summaries of land use regulations that are currently in place in all three communities and how they address some of the major objectives contained in this Study. Six different types of regulations are analyzed. They include:

1. Signage
2. Access Management
3. Open Space/Viewshed Buffers
4. Design Standards
5. Off-street parking
6. Sidewalks

Implementation recommendations regarding these regulations and other relevant matters that affect the NC 3 Corridor and East-West Connector are contained in Chapter 6.

ISSUE 1: SIGNAGE

OVERVIEW

Residential development is recommended for a large portion of the NC 3 Corridor and the East-West Connector. Most areas are zoned for residential purposes and the type and amount of signage is restricted in these zoning districts. This analysis will therefore concentrate on non-residential signage, with three different sign categories analyzed:

- On-premise free-standing signage
- Off-premise signage (billboards)
- Temporary real estate signage

1. ON-PREMISE FREESTANDING SIGNAGE ANALYSIS AND RECOMMENDATIONS

There will be commercial signs placed along both the East-West Connector and NC 3 in the future as both highways are envisioned to have significant amounts of retail development concentrated at certain
nodes. If on-premise freestanding signage is properly addressed, it can be both visually interesting and appealing. Regulations for the three communities are summarized as follows:

<table>
<thead>
<tr>
<th>COMMUNITY</th>
<th>ZONING DISTRICT(S)</th>
<th>SIGNAGE STANDARDS (individual uses)</th>
<th>SIGNAGE STANDARDS (Shared signs...i.e., shopping center ID signs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mooresville</td>
<td>NMX, CMX, PD</td>
<td>Allowed Sign Types: Pole (CMX only) and Monument Max Height: 6’ (NMX); 15’ (CMX) Max Number: 1/street front Max Area: 50 sf (NMX); 75 sf (CMX)</td>
<td>Allowed Sign Types: Pole (CMX only) and Monument Max Height: 15-25’ (CMX) Max Number: 1/street entrance (CMX) Max Area: 100-200 sf (CMX)</td>
</tr>
<tr>
<td>Iredell County</td>
<td>G-B, RA(1)</td>
<td>Max Height: 30’ Max Number: 2 Max Area: 120 sf</td>
<td>Max Height: 30’ Max Number: 2 Max Area: 120-300’</td>
</tr>
<tr>
<td>Kannapolis</td>
<td>CD, C-2, TND</td>
<td>Max Height: 4-6’ (CD); 15’ (C-2) Max Number: 1/street front Max Area: 32-64 sf</td>
<td>Max Height: 6’ (CD); 20’ (C-2) Max Number: 1/street front Max Area: 64-100 sf</td>
</tr>
</tbody>
</table>

(1) A limited number of non-residential uses are allowed in Iredell County’s RA zoning district. On-premise free-standing signs, for the most part are small with maximum areas of no greater than 27 sf, and maximum heights of 15 feet. Small off-premise signs are also allowed in association with such uses.

Kannapolis and Mooresville have signage regulations substantially similar in nature although Mooresville’s regulations do allow for substantially larger and taller signs for multi-tenant developments. Iredell County’s sign regulations are significantly different with provisions for signs as high as 30 feet and up to 300 square feet in area. The County’s regulations allow for greater square footage based on the number of tenants in the multi-tenant development with the maximum allowed square footage (300 sf) allowed only in association with a development with 51+ establishments. Developments with less than ten occupants have maximum allowed area of no greater 150 square feet. Individual uses are allowed pole signs with heights of up to 30 feet and areas of up to 120 feet.

2. **OFF-PREMISE ADVERTISING SIGNAGE (BILLBOARDS)**

There has been an increasing trend for communities to greatly restrict the placement of billboards along highways. Many communities have an outright ban on billboards and those that do allow them...
typically restrict them to non-residentially zoned areas. In keeping with the major goals of this Study, the placement of billboards along both the East-West Connector and NC 3 is strongly discouraged. Kannapolis and Mooresville each ban the placement of NEW billboards throughout their jurisdiction. Iredell County allows billboards “by right” in the G-B district with a maximum area of 300 sf (or 400 sf if located within 660 feet of NC 3). Any billboard in Iredell County must be located no less than 100 linear feet from a residential use or zoning district. With an employment center being recommended on NC 3 near Rocky River Road and a possible expansion of Iredell County’s G-B district, the possibility of billboards being placed in this area exists.

Off-premise advertising signs are permitted in Iredell County’s RA district in association with non-residential uses that are allowed in that zone. Such signs may be no greater than nine square feet in area.

3. OFF-PREMISE REAL ESTATE SIGNS

A growing trend in recent years has been the proliferation of “weekend” real estate signs. There are numerous major roadways throughout Iredell and Cabarrus Counties that become saturated on weekends with these small signs that inform drivers about residential subdivisions where homes are for sale. Many communities object to them, while others tolerate them. This holds true along the NC 3 Corridor. Kannapolis’ UDO regulations (Section 12.4.13) specifically allows such signs but limits them to weekend hours (between 5:00 PM on Fridays and 7:00 AM on Mondays); Mooresville prohibits these signs (UDO Section 8.4.6); while Iredell County allows them with no limitations [ZO Section 11.16(L)], except that all such signs must be located outside of the road right-of-way. Real estate signs are banned in both of Iredell County RPO Districts.

ISSUE 2- ACCESS MANAGEMENT

OVERVIEW:

One measure for ensuring acceptable traffic flow and minimizing the number of traffic accidents along a roadway is by having strong access management regulations in place. Proper access management can ensure that these highways do not get overloaded with driveway access points. The three jurisdictions should be actively engaged in minimizing the number of additional access points along the NC 3 Corridor and the East-West Connector (once an alignment has been chosen).

NC 3 and the East-West Connector are each recommended to become four-lane median divided highways. The rights-of-way for the expanded thoroughfares have not been acquired by the communities or by NCDOT. Any property owner who currently has an access point on NC 3 or on an existing road section that is used for the Connector will need to be given access onto the road. Limiting the number of future driveway access points along either road will help lower construction and right-of-way acquisition costs. Reducing the number of access points along either road will also help promote safety and maintain designed speed limits. These roadways will also be safer for pedestrians by limiting exposure to vehicles.
Chapter 5: Land Use Regulations Comparison

**ANALYSIS:**

A summary of the regulations and guidelines in place in all three communities is shown in the following table:

<table>
<thead>
<tr>
<th>COMMUNITY</th>
<th>ORDNANCE SECTION(s)</th>
<th>STANDARDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mooresville</td>
<td>Zoning Ordinance Section 9.2.6</td>
<td>Prohibition on new access points onto arterial streets unless no alternative means of access exist; specific standards on location and maximum number of driveway access points allowed not provided.</td>
</tr>
<tr>
<td>Iredell County</td>
<td>Subdivision Ordinance Section 405.4</td>
<td>New subdivision lots not provided to have direct access onto roads such as NC 3 and E-W Connector; no regulations in place on location or maximum number of driveway access points on existing lots</td>
</tr>
<tr>
<td>Kannapolis</td>
<td>UDO Section 10.1.8</td>
<td>1. Maximum of three (3) driveway access points per lot; 2. Minimum separation distance between access points of 400 feet; and, 3. Minimum distance between access point and street intersection of 250 feet.</td>
</tr>
<tr>
<td>Kannapolis</td>
<td>UDO Section 6.6.5.2</td>
<td>Up to five new driveway access points per subdivision allowed on roads such as NC 3</td>
</tr>
</tbody>
</table>

Mooresville’s CTP, while not actually providing definitive standards for access management (i.e., the number and/or suggested placement of driveways), makes it quite clear that the Town takes congestion and traffic mobility quite seriously and will review future projects to ensure that mobility is preserved to the greatest degree feasible. One of the recommendations contained in that Plan is “that the Town of Mooresville develop a specific access management policy to appropriately accommodate the vision and goals of the community.”
Mooresville’s Zoning Ordinance has strong and specific guidelines for driveway access points. Section 9.2.6 states that “individual access points onto arterial streets shall be prohibited unless no alternative means of access exists and (it would be) unreasonable or unpractical to require an alternative means of access.” Iredell County (Section 405.4 of the Subdivision Ordinance) does not allow new subdivision lots to have direct access onto NC 3 or the East-West Connector.

Kannapolis does not have similar regulations in place to prevent property owners from carving out individual lots on NC 3. Section 6.6.5.2 of the UDO allows up to five driveway access points per subdivision on any “thoroughfare” street (i.e., NC 3). Section 10.1.8 of Kannapolis’ UDO, however, contains specific access management text which addresses:

- The maximum number of driveway access points allowed per lot (3);
- The minimum separation distance between driveway access points on a lot (400 feet); and,
- The minimum separation distance between a driveway access points and a street intersection (250 feet).

Kannapolis’ Long Range Transportation Plan (LRTP), originally adopted in 2001, is currently in the process of being updated. The Plan does not address specific access management strategies or policies.

**ISSUE 3: OPEN SPACE/VIEWSHED BUFFERS**

**OVERVIEW**

One of the key implementation elements of this Study is the use of viewshed buffers along NC 3 south of Rocky River Road. Although development is anticipated to occur along much of the Corridor, there was strong sentiment from all participants that to the greatest degree feasible, the area generally between Rocky River Road in Iredell County and Davidson Road in Cabarrus County retain its rural character. The Study recognizes this not only through its recommendation of employing viewshed buffers in this area, but also by limiting the location of non-residential uses to strategically located nodes. Should this development scenario be realized, strip commercial development will not be a major problem along NC 3.

This will not, however, prevent NC 3 from looking like any other developing corridor unless a strategic approach as to how residential development is to occur is put in place. Most of the NC 3 Corridor is proposed for very low density, low density, or low-to-medium density along its entire length. Desired densities range from one unit per 2-3 acres in the very lowest density areas (i.e., water supply watershed critical areas in Cabarrus County), to upwards of three to four units per acre in non-watershed areas. While much of the east side of NC 3 lies within a designated water supply watershed area, the west side of NC 3 south of Mooresville largely lies outside a watershed. This is the area where the likelihood of development is the greatest and where the greatest opportunity exists for NC 3 to transition into a typical suburban corridor.

To prevent this from occurring, the idea of establishing viewshed buffers along NC 3 south of Rocky River Road has been embraced. The East-West Connector is proposed to be more suburban in character, while
NC 3 north of Rocky River Road is envisioned to be an urban arterial in the future. The establishment of viewshed buffers in both of these areas is not encouraged by this Study. It is envisioned that NC 3 become a four-lane median divided highway with a right-of-way of upwards of 150 feet. NCDOT currently maintains a right-of-way of approximately 60 feet along NC 3. The viewshed buffer would be measured 45 feet inward from either outer edge of the current maintained right-of-way (i.e., 45 feet + 45 feet + 60 feet = 150 feet).

Discussions among the participating local governments have been towards establishing a 100-150 foot viewshed buffer along both sides of NC 3 for a distance of 4.2 miles between Rocky River Road and Davidson Road. This area would include both the additional land within the right-of-way needed for widening (i.e., 45’ on either side), plus an additional 55 to 105 feet of land on private property. While this may at first imply that a significant amount of land would be removed from future development, a closer inspection suggests otherwise. First, Mooresville’s CTP specifically calls for the widening of NC 3 to a four-lane median divided section. The City of Kannapolis adopted a resolution in October 2008 calling for a four-lane divided section along NC 3 in Cabarrus County. If it has not been done already, Kannapolis’ Transportation Plan should be amended by adoption of this Study recognizing the additional right-of-way and prohibiting future development in it. All three communities currently have front yard setbacks that typically are 30-50 feet in width. A relatively small amount of additional land would be therefore needed for development to take place outside a viewshed buffer. (See Appendix A for diagram.)

Any viewshed buffer regulations that are adopted will need to be tailored for placement along NC 3. Issues that will need to be addressed include:

a. **Location of Viewshed Buffers** - Viewshed buffers should be discouraged in areas where concentrated areas of non-residential development are encouraged (i.e., at Johnson Dairy Road, Davidson Road, Odell School Road).

b. **Depth of Viewshed Buffer** - The depth of the viewshed buffer is anticipated to range from 55-105 feet as measured from the edge of the future road right-of-way line. The actual depth of the buffer, however, should be a function of the amount of existing opaque tree cover that is contained on the tract at the time development occurs. If a tract is heavily forested, the buffer will not need to be as deep as compared with a tract that has no tree cover.

c. **Lots Exempt from Viewshed Buffers** - Existing smaller sized and/or shallower lots should be exempted from having to provide viewshed buffers if their placement would severely limit development potential of the property.

d. **Land Uses Within the Viewshed Buffers** - Not all land uses should be precluded within a viewshed buffer. If viewshed buffers are to be used to maintain an area’s rural character, agricultural related uses should be allowed within the buffers. Other low-impact uses such as parks, common open space, trails, paths, etc. should also be allowed for placement within the viewshed buffer.

e. **Installation and Maintenance of Viewshed Buffer** - A portion of the viewshed buffer will be on private property. If located within a subdivision, that property should be under common ownership or maintenance. If the viewshed buffer is located on an individual property, there
should be a legal instrument executed between the property owner and the jurisdiction limiting the type of development allowed within the buffer.

**ANALYSIS**

None of the three local governments specifically have viewshed buffer provisions in place. Regulations that are in place address the provision of common open space.

**Mooresville:** The amount of common open space within a residential subdivision varies from 10-20% of the tract size based on the underlying zoning district. Section 7.3.3 of the Zoning Ordinance goes on to say that “Where relevant and appropriate, open space shall be located so as to be readily accessible and useable by residents and uses of the development;” “where possible, a portion of the open space should provide focal points for the development;” and, “the lands shall be compact and contiguous unless the land is used as a continuation of an existing trail, or specific natural or topographic features require a different configuration.” The Town also allows conservation subdivisions (Section 10.2 UDO) where a minimum of 35% of the tract area must be maintained in common open space. Conservation subdivisions must take place on tracts that are at least ten (10) acres in size and be located in either the R-2 or R-3 zoning districts. Mooresville’s regulations do not require that any of the mandated open space be placed near or parallel to an adjoining road right-of-way.

**Iredell County:** For conventional subdivisions, Iredell County is unique among all three jurisdictions in that common open space is not required. The County’s Zoning Ordinance (Article IX, SR2) allows for “cluster subdivisions” on tracts with areas of five acres or greater. At least thirty percent of the overall site must be set aside and dedicated as permanent open space in cluster subdivisions. Densities can exceed that normally allowed in the underlying zoning district, by providing additional open space. There is no language in place stating where the preserved open space is to be located.

**Kannapolis:** Section 6.5 of Kannapolis’ UDO states that between 8-12% of tract area must be reserved for open space and shall be provided in most subdivisions. Exemptions are provided for subdivisions with less than 200 dwelling units and which are located within 0.5 mile walking distance of an existing or planned public park or school. Kannapolis also has a “cluster development” option in Section 4.8 of the UDO. If at least 20% common open space is provided, minimum lot size, width, and setbacks can each be reduced by 30%. Reductions of up to 50% are possible if additional common open space is provided. Similar to other communities, there are no regulations mandating the placement of some or all of the required open space near the road right-of-way.

**ISSUE 4: DESIGN STANDARDS**

**ANALYSIS**

The three communities vary markedly on how they address design issues. Mooresville has taken the lead in this effort as its Zoning Ordinance is a form based code and emphasizes not only what can be built where but also the aesthetic characteristics of buildings. The Zoning Ordinance addresses a number of building design elements, irrespective of where the building is located. Design elements that are
addressed include:

- Building orientation, unity and materials
- Architectural fronts
- Roof Equipment
- Rear and Side Loading Service Areas
- Compatibility with Single-family Developments
- Window glazing
- Pedestrian Circulation
- Location of Drive-thru facilities

These design standards, as well numerous illustration in the Ordinance that visually depict appropriate design guidelines, will ensure quality designed buildings throughout Mooresville.

Neither Iredell County nor Kannapolis have regulations in place that match or come close to matching those in Mooresville. Iredell County has a number of architectural standards in its two RPO districts, but RPO zoning is not in place along NC 3. Kannapolis has its CCTP Overlay district in place along that portion of the NC 3 Corridor that extends from its satellite annexation area as far east as Stirewalt Avenue. Kannapolis’ regulations are not nearly as extensive as Mooresville’s but do address a number of the same design elements including building design and location of mechanical equipment. Certain types of commercial uses such as automobile sales, truck stops, and building material supply sales are banned from the CCTP district.

While Kannapolis’ regulations address several common issues, they clearly are not as comprehensive as Mooresville’s, nor are they in place in those portions of the study area where additional non-residential development is forecast.

**ISSUE 5- OFF-STREET PARKING**

**OVERVIEW:**

There are numerous examples in Mooresville, Kannapolis, and in most other communities of thoroughfares where off-street parking predominates. While local governments historically have had regulations that address minimum parking requirements, up until recently many did not have regulations that address where on the lot the parking had to be located. The trend that accordingly played out was that buildings were set back deep on the lot with the parking lots located between the street and the building. Not only
are such arrangements detrimental for pedestrians, but many would argue these deep parking lots are visually unappealing, especially when viewed from the thoroughfare itself.

A number of non-residential nodes are called for in this Study. If development occurs in accordance with these recommendations, neither the East-West Connector nor NC 3 will contain long strips of commercial development. But what does take place at these designated nodes should be visually appealing. Thus, an important aspect of this Study is to look at how the communities address the location of off-street parking relative to the building footprint on a parcel.

**ANALYSIS**

Standards in all three communities differ a lot and are summarized in the following table:

<table>
<thead>
<tr>
<th>COMMUNITY</th>
<th>ZONING DISTRICT</th>
<th>STANDARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mooresville</td>
<td>Corridor Overlay District (COO) (i.e., NC 3)</td>
<td>None allowed in the front yard</td>
</tr>
<tr>
<td>Mooresville</td>
<td>NMX, CMX, PD (outside the COO District)</td>
<td>Varies widely by zoning district and by type of building (generally from 15-60% of the required amount of off-street parking shall be allowed in the front yard if the lot abuts an arterial street.)</td>
</tr>
<tr>
<td>Iredell County</td>
<td>All</td>
<td>Not addressed</td>
</tr>
<tr>
<td>Kannapolis</td>
<td>All</td>
<td>If 0-200’ in depth, not more than 50% of off-street parking in front yard; if lot is &gt;200’ in depth, no off-street parking in the front yard.</td>
</tr>
</tbody>
</table>

Mooresville’s language is strongest with no off-street parking allowed in the front yard of any lot along the NC 3 Corridor in the COO District. The COO Overlay District is not in place along the East-West Connector. In such areas, Mooresville allows upwards of 60% of the required amount of off-street parking in the front yard. Iredell County does not have any stipulations in place either along NC 3 or on the projected alignment of the East-West Connector regarding the placement of off-street parking. In the County’s two RPO districts, however, off-street parking must either be significantly screened or is outright banned in the front yard. Kannapolis’ regulations vary depending on the depth of the lot with allowances for off-street parking for lots that are less than 200 feet in depth.
ISSUE 6: SIDEWALKS

OVERVIEW

Providing pedestrians accessibility to all uses along these roadways is an essential element of this Study. Sidewalks are therefore recommended for placement along both sides of the East-West Connector as well as along NC 3 north of Rocky River Road. On the southern portion of NC 3 from Rocky River Road to Odell School Road, a multi-purpose path on one side of the road is called for. A more rural atmosphere is envisioned for areas south of the Connector. Having a multi-purpose path, suitable for both pedestrians and bicyclists, is called for along this portion of NC 3.

ANALYSIS:

A summary of the regulations and guidelines in place in all three communities is shown in the following table:

<table>
<thead>
<tr>
<th>COMMUNITY</th>
<th>ORDINANCE SECTION(s)</th>
<th>STANDARDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mooresville</td>
<td>Chapter 5, Mooresville Comprehensive Transportation Plan</td>
<td>“Sidewalks are preferred for both sides of the street in more urban areas, however, a 10-foot, multi-use path on one side of the street is acceptable in less dense areas.” (NOTE: Mooresville’s Zoning Ordinance states that sidewalks shall be built in accordance with the Town’s CTP.)</td>
</tr>
<tr>
<td>Community</td>
<td>Ordinance/Appendix</td>
<td>Regulation</td>
</tr>
<tr>
<td>---------------</td>
<td>--------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Iredell County</td>
<td>Subdivision Ordinance Section 405.7(B)</td>
<td>“When a proposed subdivision lies within 1,500 feet of an existing public school, library, or park, as measured from property line to property line, or where an adjoining subdivision already has sidewalks in place, the Committee shall recommend to the Subdivision Administrator whether sidewalks shall be required.”</td>
</tr>
<tr>
<td>Kannapolis</td>
<td>UDO Appendix C.4.2.9</td>
<td>“Except in the I-1 and I-2 zoning districts, sidewalks shall be constructed along both sides of all new streets in a subdivision and along any street that provides access to the subdivision or non-subdivision development site, provided the street providing access has existing curb and gutter or curb and gutter is required to also be installed.”</td>
</tr>
</tbody>
</table>

The regulations for sidewalks differ from community to community. Mooresville’s regulations imply that sidewalks will be required on both sides of all streets. Iredell County’s requirements, give the Subdivision Administrator discretion in requiring sidewalks, and the only place where it is recommended that sidewalks be placed is within 1,500 feet of certain public facilities. Kannapolis’ requirements are the most straightforward, as its UDO specifically states that sidewalks shall be placed along both sides of a street, except in I-1 and I-2 districts (none of which are located nor are recommended within the Study Area.)
CHAPTER SIX: ACTION PLAN
CHAPTER 6: ACTION PLAN

This chapter is a summary of changes the three participating local governments should address in order to implement the major findings and recommendations contained in this Study. The areas that are addressed include: (1) Land Use and Comprehensive Plans; (2) Thoroughfare/Transportation Plans; (3) Land Use Ordinance (zoning/subdivision/unified development ordinance) regulations; and, (4) Urban Service Area boundaries.

RECOMMENDED LAND USE/COMPREHENSIVE PLAN AMENDMENTS

Existing land use maps can be found in Appendix D.

Mooresville

The growth and development principles and recommended transportation improvements contained in this Study largely conform to those identified in Mooresville’s CLUP. There are a few exceptions, however, that Mooresville should address to have both documents in harmony with each other. They include:

1. The CLUP Land Development Plan Map identifies a General Commercial center at the intersection of NC 3 and Kistler Farm Road. This is not included in the text of the 2007 Plan, nor is it included in this Study.
2. Section 3.8.4 of the CLUP (as well as the Town’s CTP) states that “To protect the rural and scenic qualities of Coddle Creek Road (NC 3), the Comprehensive Transportation Plan recommends a strategy that would permit development of a four-lane boulevard from the Iredell/Cabarrus/Mecklenburg County line to Rocky River Road. As the road approaches downtown, it should be limited to a two-lane road with a boulevard.” This concept was initially included in this Study. But upon further investigation it was noted that as NC 3 approaches downtown (i.e., north of Harris Farm Road) from the south, there is a significant amount of older, existing development located relatively close to the road. The two-lane boulevard calls for a right-of-way of approximately 100 feet. Establishing that road section in this area could have a substantially negative effect on existing residents and property owners. Thus, it is recommended that the existing two-lane section remain in this area.
3. Section 10.10 of the CLUP states “The Plan proposes two scenic corridors: (1) The east side of Coddle Creek/NC Highway 3 from the Iredell/Cabarrus/Mecklenburg County line to Johnson Dairy Road...” Significant attention has been given in this Study to the rural nature of southern Iredell County. It is generally agreed that both Mooresville and Iredell County should proactively take steps to retain the rural character of the area south of Rocky River Road (i.e., the East-West Connector) outside of the employment center identified on the Future Land Use Map (Appendix
Chapter 6: Action Plan

B, Map 4). Among other things, this will be accomplished through the implementation of viewshed buffers. The 2007 Plan should be amended to note this change in geography.

The Mount Mourne Plan was adopted by the Town of Mooresville in 2006 and is incorporated into this Study by reference. Recommended transportation, development and land use patterns contained in this Study are substantially similar to those contained in the Mount Mourne Plan.

**Iredell County**

No changes to Iredell County’s 2030 Horizon Plan are needed as Iredell County incorporated the major recommendations from this Study into that Plan.

**Kannapolis**

One major change to Kannapolis’ 2015 Land Use Plan is needed to bring it into compliance with this Study. The 2015 Plan does not address all of the areas on the north side of the Kannapolis Parkway north of NC 3, as they were not then within Kannapolis’ planning jurisdiction. These areas are slated for both non-residential and residential development in this Study. The City’s 2015 Land Use Plan should reflect these areas as well.

**RECOMMENDED THOROUGHFARE/ TRANSPORTATION PLAN AMENDMENTS**

**Mooresville**

Some minor changes to the Mooresville CTP are needed to be in compliance with this Study. These changes include:

- Retaining NC 3 as a two-lane section in areas near Center Avenue at the northern edge of the Study Area;
- Amending the CTP to specifically call for the East-West Connector to be a four-lane median divided suburban boulevard; and,
- Placing sidewalks on both sides of NC 3 north of Rocky River Road while maintaining a multi-purpose path on one side of the road south of Rocky River Road. (The CTP states that a “multi-purpose path be constructed [along] the entire length of the NC 3 corridor.”

Given that there is no NCDOT funding for improvements for NC 3 nor for the East-West Connector, Mooresville and Iredell County should each be championing for the inclusion of these projects on the RPOs TIP as a first step in securing State funding for their construction.

**Iredell County**

See Mooresville recommendations above.
Kannapolis

The MPOs Transportation Improvement Program (TIP) 2009-15 priority list of projects does not call for the widening of NC 3. In order to help secure NCDOT funding for the widening of NC 3, the MPO should consider placement of this project on its TIP.

RECOMMENDED ZONING/ SUBDIVISION/UNIFIED DEVELOPMENT ORDINANCE (UDO) AMENDMENTS

1. FREESTANDING SIGNAGE

Overview: A number of mixed-use and non-residential nodes are recommended at specified locations along the NC 3 Corridor and the East-West Connector. All such areas should be aesthetically appealing. Commercial areas should not look like “strip shopping centers” that contain large visually-dominating freestanding signs.

Mooresville

- Relevant Zoning Ordinance Provisions: Zoning Ordinance Section 8.5.1, which allows maximum freestanding sign areas of 50-75 square feet and maximum sign heights of 6-15 feet for individual uses; maximum areas of 100-200 square feet and maximum heights of 15-25 feet for multi-tenant signs.

- Issues/Recommended Action Items: None. Mooresville’s zoning regulations put an emphasis on building design, irrespective of the type of use or development. Mooresville’s sign allowances are generous. Yet with the restrictions that are in place on building design, context, and integration with adjoining uses, the sign regulations should not detract from aesthetics nor produce unwanted consequences.

Iredell County

- Relevant Zoning Ordinance Provisions: Zoning Ordinance Section 11.19, which allows maximum freestanding sign areas of up to 300 square feet and maximum sign heights of 30 feet, depending on the underlying zoning district.

- Issues/Recommended Action Items: The County should consider either (1) amending its sign regulations to be more in concert with Mooresville’s regulations (as well as requiring that certain building design standards be met); or (2) consider placing one of the County’s two RPO zoning districts along NC 3 and the East-West Connector. County RPO zoning regulations limit sign area to no greater than 36-72 square feet and sign height to 6-15 feet.

2. OFF-PREMISE ADVERTISING SIGNS (Billboards)

Overview: Billboards are often viewed as being aesthetically unappealing and can detract from an area’s rural character. There currently are no billboards in place along NC 3 within the Study Area.
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Mooresville

- **Relevant Zoning Ordinance Provisions:** Zoning Ordinance Section 8.4.11 strictly prohibits billboards throughout Mooresville’s planning jurisdiction.
- **Issues/Recommended Action Items:** None

Iredell County

- **Relevant Zoning Ordinance Provisions:** Zoning Ordinance Section 11.19(D) allows billboards in a variety of non-residential zoning districts including G-B (i.e., the zoning in place on the DEI facility); Section 11.18 allows off-premise signs for allowed “rural commercial” and other non-residential uses permitted in a Residential (R) zoning district.
- **Issues/Recommended Action Items:** Billboards, though not currently found along NC 3 within Iredell County planning jurisdiction, are allowed by County zoning regulations. Larger-sized signs of up to 400 square feet in area are allowed in the G-B district; much smaller sized signs (maximum area of 9 feet; maximum height of 6 feet) are allowed for a variety of non-residential uses in the R-A zoning district. Billboards are NOT a major issue along the Corridor at present. But this Study specifically calls for an expansion of an employment center on NC 3 near Rocky River Road. This area could be rezoned to a variety of non-residential zoning districts, any one of which allows for larger-sized billboards to be placed “by right.” Both of Iredell County’s RPO zoning districts specifically prohibit the placement of all billboards. The County should consider enacting such regulations along NC 3.

Billboards are allowed in the County’s G-B (General Business) and H-B (Highway Business) zoning districts. The Study does not call for uses normally associated with such type zoning to take place along the East-West Connector. Thus, problems associated with large billboards likely will not be experienced along the East-West Connector.

Kannapolis

- **Relevant UDO Provisions:** UDO Section 12.7 strictly prohibits billboards throughout Kannapolis.
- **Issues/Recommended Action Items:** None
3. OFF-PREMISE REAL ESTATE SIGNS

Overview: NC 3 should not be overburdened with weekend off-premise real estate signs.

Mooresville

- **Relevant Zoning Ordinance Provisions:** UDO Section 8.4.6 strictly prohibits such signs from being placed in Mooresville’s planning jurisdiction.

- **Issues/Recommended Action Items:** None

Iredell County

- **Relevant Zoning Ordinance Provisions:** Iredell County prohibits signs being placed in the street right-of-way, but does not otherwise have any limitation on temporary real estate signs

- **Issues/Recommended Action Items:** This is a potentially significant issue for Iredell County both on NC 3 and the East-West Connector. Once the Connector is built, additional lands will be accessible for development and the number of subdivisions in Southern Iredell County could increase significantly. These subdivisions could generate numerous real estate signs. Fortunately, this does not seem to be a major problem now for the County now along NC 3. The County should address this, however, before it becomes an issue along NC 3 or the East-West Connector.

Kannapolis

- **Relevant UDO Provisions:** UDO Section 12.4.13 prescribes a maximum size of six square feet and these signs may only be put up on weekends (i.e., between 5:00 PM Friday and 7:00 AM Monday). There are no limitations on the number of signs that can be erected.

- **Issues/Recommended Action Items:** Kannapolis should consider amending their regulations to place limitations on the number of such signs that are allowed.

4. ACCESS MANAGEMENT

Overview: The number of additional driveway access points should be minimized on NC 3, and their location relative to other driveway access points and street intersections should be carefully regulated by the three communities. As the number of access points increases along a roadway, so does the likelihood of vehicular accidents occurring.

Mooresville

- **Relevant Zoning Ordinance Provisions:** Section 9.2.6 strictly regulates the number of new access points on arterial streets.

- **Issues/Recommended Action Items:** While Mooresville’s regulations do not totally
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prohibit new driveway access points from being placed on NC 3 or the East-West Connector, the regulations clearly place the burden of proof for establishing new access points on the applicant. The Town may want to adopt language that addresses the maximum number of driveway access points that are allowed per lot and/or development. This is important as not all developments will have access onto two roads. If a development only has access onto NC 3, one or more driveway access points will need to be constructed. Having guidance as to the number and location of access points that are allowed while maintaining minimum driveway spacing standards could further protect the Town and help traffic flow. Guidance as to the maximum number of access points and distance separation can be taken from Kannapolis’ regulations (UDO Section 10.1.8).

**Iredell County**

- **Relevant Zoning Ordinance/Subdivision Ordinance Provisions**: Section 405.4, Iredell County Subdivision Ordinance.

- **Issues/Recommended Action Items**: While Iredell County’s regulations adequately address the placement of driveway access points onto heavily travelled roadways such as NC 3, the County does not have similar regulations in place to address the number and/or location of access points in non-subdivision developments. This issue needs to be addressed. Guidance as to the maximum number of access points and distance separation can be taken from Kannapolis’ regulations (UDO Section 10.1.8). The County’s two RPO Overlay districts contain regulations somewhat similar in nature and scope to those in place in Kannapolis. Establishment of an RPO or similar overlay district that contains access management regulations should be considered.

**Kannapolis**

- **Relevant UDO Provisions**: UDO Section 10.1.8 contains standards for the number and location of driveway access points on individual lots. UDO Section 6.6.5.2 addresses the maximum number of driveway access points per subdivision that are allowed on a thoroughfare street.

- **Issues/Recommended Action Items**: Kannapolis’ UDO gives specific guidance regarding the number of access points allowed per lot and the minimum distance they can be from a street intersection. Similar language should be considered for adoption by the other two communities. Kannapolis’ regulations, specifically Section 6.6.5.2, do fall short in that they allow new subdivisions to have driveway access points directly accessing NC 3. This needs to be amended. This is especially important because the majority of NC 3 is slated for low-medium density residential development. Under current regulations, small subdivisions (i.e., with five or fewer lots) could develop without having to have internal road access. This is a potentially significant loophole that could have long term negative impacts on traffic mobility along NC 3. The City
should consider addressing this by keeping current standards contained in Section 10.1.8 and by also adopting language similar to that in place in Mooresville and Iredell County that clearly prohibit new driveway access points along NC 3, unless no other alternatives are available.

5. OPEN SPACE/VIEWSHED BUFFERS

Overview: Viewshed buffers are being proposed along the NC 3 Corridor in areas between Rocky River Road and Davidson Road. None of the communities along the NC 3 Corridor specifically have viewshed buffer provisions in place.

Mooresville, Iredell County and Kannapolis

- Relevant Zoning Ordinance/UDO Provisions: None. Each community has some regulations in place that address the provision of open space, with Iredell County only requiring open space in “cluster subdivisions”. None, however, mandate that open space be provided to serve as a viewshed buffer.

- Issues/Recommended Action Items: Given the importance that viewshed buffers play in implementing the goals of this Study, all three communities share a common interest in ensuring that a common set of fair, reasonable and practical viewshed buffer standards are put in place. Issues that the communities will need to address include:

1. Regulations should address how and where viewshed buffers will be applied and enforced, and how and where exemptions will be allowed. To the greatest extent possible, all three communities should have regulations which promote and, under certain circumstances, mandate the creation of viewshed buffers. As indicated in Chapter 5, not all lots should be subject to viewshed buffer regulations and, depending on the location, topography, and land cover on the lot, the width of the required viewshed buffer should vary.

2. Since viewshed buffers are recommended only along portions of the NC 3 Corridor, it might be most practical to include them in an overlay district specifically for those areas. [As stated later in Item 6 (“Design Standards”), it is recommended that Kannapolis’ CCTP Overlay District be extended to include all areas along and near NC 3 that have been/will be annexed into the City. Since the City has indicated that certain areas, namely around Odell School/Davidson Road, be exempt from the viewshed buffer standards, this should be clearly spelled clearly out in the CCTP district.]

3. Each community will need to create and define the term “conservation subdivision” or “open space subdivisions,” and allow them along the NC 3 Corridor, if not elsewhere in their jurisdiction. Consideration should be given to mandating them for the subdivision of all applicable properties along the NC 3 Corridor.

4. Where a subdivision is not taking place, the retention of open space to form the viewshed buffer along NC 3 should be required. The regulations should also state that the first priority for the location of required open space should be along and parallel to the NC 3 Corridor. (NOTE: Just by providing a significant amount of open space, as all three communities do
now, is not enough. If viewshed buffers are to be established along the NC 3 Corridor, the regulations must state that mandated open space that is required MUST be placed along the Corridor.)

6. DESIGN STANDARDS

Overview: Communities vary widely regarding required design standards of new and/or expanded structures along the Corridor. Mooresville’s standards were put in place with an urban design element in mind. These standards will help insure that new developments that take place either on the East-West Connector or on the portion of the NC 3 Corridor north of Rocky River Road have an “urban” character. The NC 3 Corridor south of Rocky River Road is anticipated to remain rural in nature. Yet it is in this area especially where design of future development is critical. The DEI facility along with new employment center buildings recommended for the area will serve as the gateway into Mooresville for motorists driving from Kannapolis and Cabarrus County. The type and nature of uses here will be just as important as the design of buildings themselves. Under Mooresville’s Zoning Ordinance, nearly all types of industrial uses are uses by right, as are many types of other commercial and office employment uses. Any rezoning of properties by Mooresville in this area should therefore be under the “conditional rezoning” process to ensure that uses locating here are appropriate for the area and will fit in with nearby residential areas.

The proposed Johnson Dairy Road node will be the smallest commercial/mixed-use cluster along the Corridor. A major commercial/retail cluster here is not being recommended. With many working farms nearby, southeast Iredell County is one of the most rural areas along the Corridor. Small-scale development could feasibly occur here without the extension of public utilities (i.e., it could occur under Iredell County’s land use regulations.) Adoption by Iredell County of an overlay district that addresses the design features contained in Mooresville’s Zoning Ordinance is encouraged. As with Mooresville, rezoning of any property by Iredell County to a non-residential district should be through a conditional process to assure conformity with this Study and compatibility with adjoining land uses.

A significant amount of additional non-residential development is forecast in areas around Davidson/Odell School Roads in Kannapolis. There currently are no significant design standards in place in this area. Although Kannapolis does envision some development to occur here in a Traditional Neighborhood Development (TND) format, a TND design is by no means guaranteed.

Mooresville

- Relevant Zoning Ordinance Provisions: Section 6.7 of the Mooresville Zoning Ordinance outlines design standards, with a few exceptions, for all new and/or expanded buildings.

- Issues/Recommended Action Items: None, except this Study specifically calls for houses located on lots that directly abut the East-West Connector to have their architectural fronts facing the Connector. Mooresville’s Zoning Ordinance would have to be amended or a new overlay district put in place to accomplish this. Section 6.7.1(1) of the Zoning Ordinance exempts detached residences from being oriented towards a street if that street is an arterial street.
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Iredell County

- **Relevant Zoning Ordinance Provisions:** This issue is not addressed in either Iredell County’s general zoning or overlay district regulations.

- **Issues/Recommended Action Items:** The County should initially look at the list of design criteria which are in place in Mooresville. Mooresville’s regulations are more urban in nature and not all of these may be relevant in a rural or semi-rural setting that is called for along the southern end of NC 3 in Iredell County. The appropriate design criteria could be incorporated into an overlay district put in place specifically for Iredell County’s portion of the Corridor.

Kannapolis

- **Relevant UDO Provisions:** A number of building design criteria are addressed in the CCTP Overlay District.

- **Issues/Recommended Action Items:** The CCTP Overlay district should be extended to include all areas along NC 3 (and adjoining roads) that are annexed into Kannapolis. Design elements that are addressed by the CCTP are not nearly as extensive as those currently in place in Mooresville. Examples of issues that aren’t addressed by the CCTP district that are in place in Mooresville include: building orientation and location and placement of drive-through facilities. Given the likelihood of additional non-residential development occurring on NC 3, these issues should be addressed by Kannapolis either through modification and expansion of its CCTP district, or through conditions placed on property through a conditional rezoning process.

7. OFF-STREET PARKING

**Overview:** Standards vary considerably as to the amount of off-street parking allowed in the front yard. While a total elimination of off-street parking in the front yard is not needed, especially if viewshed buffers are put into place, large parking fields with no limitations on the amount of off-street parking placed in the front yard should be avoided. If parking is to be provided in the front yard, provisions should be in place to provide parking lot landscaping or similar mechanisms to shield the view of the parking lot from the roadway.

Mooresville

- **Relevant Zoning Ordinance Provisions:** The Town’s COO Corridor Overlay District which the Town has in place along NC 3 prohibits the placement of off-street parking in the front yard. The COO district has not been put in place along lots that lie along the projected alignment of the East-West Connector.

- **Issues/Recommended Action Items:** None, except Town may want to consider modifying these standards if viewshed buffers are in place and, as a result of the buffer, a year-round opaque buffer is maintained along NC 3. If this occurs, the need
to prohibit off-street parking in the front yard may be lessened. The Town should also consider placing the COO District on properties along the East-West Connector as it is being built.

**Iredell County**

- **Relevant Zoning Ordinance Provisions:** There are no provisions in place regarding the location of off-street parking in the R-A zoning district. Parking lot landscaping provisions are contained in the County’s RPO zoning districts but RPO zoning is not in place along NC 3.

- **Issues/Recommended Action Items:** 1. Create an RPO or similar overlay zoning district specifically for NC 3. Among items to be addressed is the amount of off-street parking, if any, to be provided in the required front yard as well as the amount of landscaping provided.

**Kannapolis**

- **Relevant UDO Provisions:** UDO Section 8.1.2.1.1 places limitations on the amount of off-street parking allowed in the front yard. For lots that are less than 200 feet in depth, up to 50% of off-street parking can be located in the front yard. UDO Section 7.6 mandates that at least ten percent of the net area of the parking lot be landscaped. UDO Section 7.7 also requires street yards, which vary in width and intensity by zoning district.

- **Issues/Recommended Action Items:** This problem will not be of significant concern to Kannapolis as the implementation of viewshed buffers will likely cause most newly created lots to be at least 200 feet in depth. There are some areas along NC 3, however, where Kannapolis does not intend to employ viewshed buffers (i.e., the major development node near Odell School and Davidson Roads). Attention is needed here to ensure that any newly created smaller-sized lots that are located in areas where viewsheds buffers are not in place do not have an excess of off-street parking in the front yard. Although Kannapolis does have street yard and off-street parking lot landscaping provisions in place, substantial amounts of parking placed in the front yard could still be visible from the adjoining roadway. One means of addressing this issue is to limit the number of parking rows allowed in the front yard, while still keeping the 50% maximum as provided in Section 8.1.2.1.1. Many communities that allow off-street parking in the front yard limit it to two rows.

8. **SIDEWALKS**

**Overview:** Sidewalk location and implementation strategies vary considerably. Mooresville and Kannapolis have regulations that are considerably more stringent than those in place in Iredell County.
Mooresville

- **Relevant Zoning Ordinance Provisions:** The Zoning Ordinance states that sidewalks are to be provided in accordance with the CTP. The CTP states that sidewalks are to be provided on both sides of the street in urban areas; in more rural areas, a multi-purpose path is to be provided.

- **Issues/Recommended Action Items:** None, except that the CTP should be updated to specifically call for sidewalks and the multi-purpose path in accordance with this Study.

Iredell County

- **Relevant Subdivision Ordinance Provisions:** There are no provisions in place to mandate sidewalks. Sidewalks are only recommended in areas within 1,500 feet of public parks, schools, or libraries.

- **Issues/Recommended Action Items:** Iredell County’s regulations will need to be changed for developments to be in compliance with this Study. The easiest way of accomplishing this is incorporate sidewalk/path provisions in overlay districts for both NC 3 and the East-West Connector.

Kannapolis

- **Relevant UDO Provisions:** UDO Appendix C.2.4.9 calls for sidewalks to be placed on both sides of NC 3 within Kannapolis’ jurisdiction. Appendix C.1.8 does allow the City Manager to grant exceptions to the sidewalks provisions under a variety of scenarios.

- **Issues/Recommended Action Items:** Appendix C.1.8 should be amended to allow the Manager to grant exemptions to the sidewalk requirements where locally adopted plans call for deviations from the sidewalk requirements of Appendix C.2.4.9.

**URBAN SERVICE AREA BOUNDARIES**

**Overview/Recommendation:** Iredell County and the Town of Mooresville should actively pursue the Urban Services Area (USA) concept for the NC 3 Corridor. The specified area would be mutually agreed upon between the Town and the County, and be largely based on the town’s ability to provide utility services over the next 15-20 years. This is especially appropriate for areas along the East-West Connector where the Town has identified in their 2030 Comprehensive Land Use Plan as areas where the City has the ability and desire to extend utilities. As utilities are installed within the USA, the County would consider granting ETJ extensions to put the Town’s land use regulations into place. The County would likely adopt some “core” standards in outlying area of the USA where utilities would not be available for some time. This seems especially appropriate along the Connector given that it may be a long time before the Connector is built, utilities extended, and annexation into Mooresville take place. The County and the Town may also want to consider this concept along the NC 3 Corridor as well. Although
the southern portion of the Iredell County Corridor is anticipated and encouraged to remain “rural”, Mooresville’s Zoning Ordinance provides more safeguards to promote development in accordance with the recommendations of this Study than does Iredell County’s land use regulations. The effects of land use regulations should be seamless along the Corridor. As an alternative to having both Mooresville and Iredell County having separate overlay districts and separate standards along both the Connector and NC 3, having a USA agreement executed may serve to accomplish many of the recommendations contained in this Study with the fewest number of regulatory changes.
Appendix A: Cross Sections and Buffers

East-West Connector

Four Lane Suburban Boulevard
Appendix A: Cross Sections and Buffers

Example of buffer lines using Coddle Creek Church Property

Future RAW 130' from street centerline

180' from street centerline

Future RAW 75' from street centerline
APPENDIX B: MAPS
Map 1
NC 3 Points of Interest
Map 3
NC 3 Water Supply Watershed
Map 4
NC 3 Proposed Future Land Use

Proposed Future Land Use

- Very Low Density Residential - 1 DU/2 Acres
- Low Density Residential - Up to 1 DU/Acre
- Low-Medium Density Residential - 2-3 DU/Acre
- Medium-High Density Residential - More than 3 DU/Acre
- Mixed Neighborhood Commercial/Residential
- Regional Commercial
- Employment Center
- Employment Center 2
- Moovesville ETJ Boundary
- NC Hwy 3
- Proposed Connectors
- Study Area

April 2009
APPENDIX C: PUBLIC COMMENTS AND EXISTING CONDITIONS
APPENDIX C: PUBLIC FORUM COMMENTS

Two sets of public forums were held in Mooresville and Kannapolis to get input from citizens on land use and transportation issues related to NC 3 and the East-West Connector. Planning staffs from all four communities sent mail notices to all persons who owned properties along the NC 3 Corridor and the projected East-West Connector alignment. The first set of forums was held in March 2008. Persons were given an opportunity to comment either orally or in writing at the forums, or via email for specified period of time after each forum. Summary results from these forums are summarized below.

TOP FIVE COMMENTS, MOORESVILLE CITIZEN CENTER PUBLIC FORUM
MARCH 11, 2008

<table>
<thead>
<tr>
<th>Comment</th>
<th>Number of mentions on cards (and emails)</th>
<th>Number of mentions orally made at meeting</th>
<th>Total Number of Mentions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 All neighborhoods/businesses should be buffered by green areas</td>
<td>24</td>
<td>2</td>
<td>26</td>
</tr>
<tr>
<td>2 Keep larger lot sizes (1/3 acre - 3 acre lots); a few participants mentioned conservation design</td>
<td>18</td>
<td>1</td>
<td>19</td>
</tr>
<tr>
<td>3 Leave area rural</td>
<td>13</td>
<td>0</td>
<td>13</td>
</tr>
<tr>
<td>4 No commercial or business uses along the NC 3 Corridor</td>
<td>13</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>5 No further development until NC3 is widened to four lanes</td>
<td>10</td>
<td>2</td>
<td>12</td>
</tr>
</tbody>
</table>
**TOP FIVE COMMENTS, BETHPAGE PRESBYTERIAN CHURCH (KANNAPOLIS) PUBLIC FORUM**  
**MARCH 28, 2008**

<table>
<thead>
<tr>
<th>Comment</th>
<th>Number of mentions on meeting cards (and emails)</th>
<th>Number of mentions orally made at meeting</th>
<th>Total Number of Mentions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Leave area rural</td>
<td>22</td>
<td>2</td>
<td>24</td>
</tr>
<tr>
<td>2 Keep NC 3 a two-lane highway</td>
<td>13</td>
<td>4</td>
<td>17</td>
</tr>
<tr>
<td>3 NC 3 needs to be widened to four lanes with a median</td>
<td>13</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>4 Add stop signs and lights to NC 3 (suggested locations include Tuckasegee Road, Odell School Road, Charlie Walker Road, etc.)</td>
<td>9</td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>5 Public transportation needed</td>
<td>9</td>
<td>2</td>
<td>11</td>
</tr>
</tbody>
</table>

For the second set of forums held in January and February 2009, attendees were given the opportunity to comment on two alignment options for the Cabarrus County portion of NC 3. Forum attendees were also briefed on “viewshed buffers” and were asked whether viewshed buffers were seen as a viable option for preserving NC 3’s rural character. Synopses of the forum results follow.
## RESPONSE SUMMARY
MOORESVILLE CITIZEN CENTER PUBLIC FORUM
FEBRUARY 5, 2009

<table>
<thead>
<tr>
<th>Question</th>
<th>Responded “Yes”</th>
<th>Responded “No”</th>
</tr>
</thead>
<tbody>
<tr>
<td>In the Iredell County segment only, do you prefer NC 3 to be widened to four lanes and the East-West Connector to be a four lane highway?</td>
<td>12 (66.6%)</td>
<td>6 (33.3%)</td>
</tr>
<tr>
<td>Do you prefer keeping NC 3 in Cabarrus County a two lane road (Option A) or widening it to four lanes from the Iredell County line to the Kannapolis Parkway (Option B)?</td>
<td>8 (33.3%)</td>
<td>16 (66.6%)</td>
</tr>
<tr>
<td>Do you prefer having viewshed buffers along NC 3 south of Rocky River Road (Option A) or not having viewshed buffers south of Rocky River Road (Option B)?</td>
<td>15 (62.5%)</td>
<td>9 (37.5%)</td>
</tr>
</tbody>
</table>
## RESPONSE SUMMARY
**BETHPAGE PRESBYTERIAN CHURCH (KANNAPOLIS) PUBLIC FORUM**
**JANUARY 22, 2009**

<table>
<thead>
<tr>
<th>Question</th>
<th>Preferred Option A</th>
<th>Preferred Option B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you prefer keeping NC 3 in Cabarrus County a two lane road west of the Kannapolis Parkway (Option A) or widening it to four lanes from the Iredell County line to the Kannapolis Parkway (Option B)?</td>
<td>55 (64*)</td>
<td>24 (28*)</td>
</tr>
<tr>
<td>Do you prefer having viewshed buffers along NC 3 west of the Kannapolis Parkway (Option A) or not having viewshed buffers along NC 3 west of the Kannapolis Parkway (Option B)?</td>
<td>36 (48%)</td>
<td>39 (52%)</td>
</tr>
</tbody>
</table>

* Seven (7) persons chose the “Other” option in lieu of Options A or B. Percentages shown are based on the entire (55 + 24 + 7) 86 persons who submitted responses.
## NC3 EXISTING CONDITIONS

<table>
<thead>
<tr>
<th>ROAD LENGTH:</th>
<th>12.4 miles</th>
</tr>
</thead>
</table>

| JURISDICTION(S): | Mooresville: Along the northern portions of the Corridor south to the Mooresville Intermediate and Middle Schools; In addition, the Meadows at Coddle Creek Subdivision near Rocky River Road. **Iredell County:** Remaining portions of the Connector to the Cabarrus County line not within Mooresville’s jurisdiction. **Kannapolis:** 1. On the south side of NC 3 between Davidson and Odell School Roads; 2. Areas generally east of Trinity Church Road and the existing (and proposed) Westside Connector (i.e., Kannapolis Parkway). |

| EXISTING PRIMARY ZONING: | Mooresville: Single-family Residential R-3 and R-5; Neighborhood Mixed Use (NMX); Corridor Mixed Use (CMX). **Iredell County:** Residential-Agricultural RA; General Business GB (DEI) **Kannapolis:** C-2 and Campus Development-Conditional Zoning (CD-CZ) near Odell School/Davidson Roads; Agricultural AG near the Kannapolis Parkway. **NOTE:** Intervening areas on either side of Davidson and Odell School Roads are zoned Agricultural Open Space AO by Cabarrus County. |

| EXISTING OVERLAY ZONING: | Mooresville: Corridor Overlay (COO) District; **Iredell County:** WS-II Protected Area on east side of NC 3 south of Williford Road. **Kannapolis:** CCTP Overlay District (only in areas near the Kannapolis Parkway) |
### Existing Land Use Conditions:

**Mooresville/Iredell County:** Traditional single-family residential near Center Avenue in Mooresville; suburban residential with a number of subdivisions on NC 3 as far south as Kistler Farm Road; major subdivision (Meadows at Coddle Creek) planned near Rocky River Road; DEI located on east side of NC 3 south of Rocky River Road; rural with scattered development south of DEI.

**Kannapolis/Cabarrus County:** Primarily forest and agricultural lands with scattered residential and institutional uses. One convenience store located at Davidson Road. Mixed office/retail center proposed for area between Davidson and Odell School Roads. Limited residential development between Earnhardt Lake and Pleasant Grove Roads. A portion of the Coddle Creek Reservoir crosses NC 3 near Shimpock and Rankin Roads.

### Existing Road Segment:

Two-lane undivided roadway without curb, gutter, or sidewalk

### Current/Future ADT:

<table>
<thead>
<tr>
<th>Year</th>
<th>ADT</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>8,600-10,600</td>
</tr>
<tr>
<td>2030</td>
<td>30,000 (estimated)</td>
</tr>
</tbody>
</table>

### Utility Service/Availability:

**Mooresville:** Public water/sewer currently available on NC 3 as far south as Harris Village subdivision. Water provided to DEI. Sewer and water to be extended (along Rocky River Road) from the west to serve Meadows at Coddle Creek Subdivision. Utilities to link back to Mooresville running north parallel to NC 3.

**Iredell County:** Does not provide public water or sewer.

**Kannapolis:** Public water/sewer will be available within the next two years on NC 3 coming up from the south to serve the Odell School/Davidson Road area; Public water and sewer service available to serve areas along the Kannapolis Parkway and properties further east along NC 3.

**Cabarrus County:** Does not provide public water or sewer.
## EAST-WEST CONNECTOR EXISTING CONDITIONS

<table>
<thead>
<tr>
<th>ROAD LENGTH:</th>
<th>5.2 miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>JURISDICTION(S):</td>
<td>Mooresville: Areas on both the western (i.e., on both sides of NC 115) and eastern portions (near NC 3) of the proposed Connector alignment.  &lt;br&gt; Iredell County: Remaining portions of the Connector.</td>
</tr>
<tr>
<td>EXISTING PRIMARY ZONING:</td>
<td>Mooresville: Single-family R-3 and R-5  &lt;br&gt; Iredell County: R-A Residential Agricultural</td>
</tr>
<tr>
<td>EXISTING OVERLAY ZONING:</td>
<td>Mooresville: The area west of NC 115 is in the WS IV Critical Area Water Supply Watershed District; NC 3, NC 115 and Langtree Road are in Mooresville’s Corridor Overlay (COO) District.  &lt;br&gt; Iredell County: None</td>
</tr>
<tr>
<td>EXISTING LAND USE CONDITIONS:</td>
<td>Primarily forest cover with some open farmland; major residential development is found near Kistler Farm Road and Rocky River Roads (Kistler Mills and Curtis Pond subdivisions) and near NC 3 (Meadows at Coddle Creek subdivision). Public schools located between Kistler Mills and Meadows at Coddle Creek subdivisions. The Lowe’s Home Improvement, Inc. corporate campus is located on the north (west) side of Langtree Road. Norfolk-Southern Railroad runs parallel to NC 115. Older, established mixed retail/institutional (VFD) and residential uses located on NC 115 between Fairview and Langtree Roads. Proposed commuter rail station to be located a short distance north of Study Area.</td>
</tr>
<tr>
<td>EXISTING ROAD SEGMENT:</td>
<td>None, except portions of the thoroughfare are currently projected to be built along existing segments of Faith and Rocky River Roads. Aside from these existing road segments, no right-of-way has been purchased or dedicated for the construction of the East-West Connector.</td>
</tr>
<tr>
<td>CURRENT/FUTURE ADT:</td>
<td>2007: 2400 (Rocky River Road and NC 3); 6500 (Rocky River Road and Shearers Road); 1100 (Faith Road between NC 115 and Shearers Road).</td>
</tr>
<tr>
<td>UTILITY SERVICE/AVAILABILITY:</td>
<td>Mooresville: Public water/sewer currently available on NC 3 as far south as Harris Village subdivision. Sewer to be available (along Rocky River Road) to serve Meadows at Coddle Creek Subdivision. On NC 115, water available as far south as Pine Lake Preparatory School. Town plans to extend water to Langtree Road/I-77 Interchange and has long-term plans to extend sewer to the interchange as well.  &lt;br&gt; Iredell County: Does not provide water or sewer.</td>
</tr>
</tbody>
</table>
APPENDIX D: EXISTING PLANS
**Mooreville Comprehensive Land Use Plan**

**2030 Land Use**

Town Center - Town Center is included in the traditional neighborhood district located to the north of Downtown. This district is intended to preserve the traditional building pattern of mixed residential development. Design guidelines permit small scale, detached residential buildings, small-scale apartment buildings, and the preservation of the traditional, pedestrian-friendly streetscape.

Neighborhood Residential - The neighborhood residential area will be developed as a zone of interconnected neighborhoods with concentrations of new development in urban villages located along major corridors, supporting the potential for traditional walking villages, downtowns and employment centers.

Rural Residential - The rural residential area is within the Yadkin, Creek, Black Creek and Yadkin Center Corridor. This area will accommodate the rural residential development needs, as well as activities and supporting services in compact, pedestrian-friendly development patterns to protect environmentally sensitive lands and natural areas.

Regional Conservation - The regional Conservation area is intended to continue the low density residential land use pattern of the same type communities. The geography of the area is consistent for the low density residential development needs.

Downtown Town Center - Downtown Town Center is the traditional town center. The center serves as the civic, cultural and governmental hubs for Mooreville. Downtown Town Center location and core infrastructure make this prime location for new development. Vertically integrated mixed-use buildings provide appropriate infill for Church and Broad Streets.

Regional Activity Center - The Regional Activity Center is the location for large-scale retail centers, services, recreation, employment, and institutional facilities. This area is located along a designated commercial corridor with direct access to major roads and highways. The Regional Activity Center is an integrated mixed-use area with its diverse and mixed-use complexes at the perimeter of the Planning Area.

Center Mixed Use - The Center Mixed Use Planning area was commercial in character with small shopping centers, automobile service, office, retail stores, restaurants, and commercial uses that are not appropriate for an activity center due to levels of noise and expanse of floor space. These usages were categorized to be offered in retail centers.

Employment Center Office - The Employment Center Office (EC Office) is a regional employment center primarily for office uses. The Employment Center Office is a mixed-use center that can be combined with commercial uses. Office complexes can be connected to the center office building, supporting the commercial-service activities. Multi-family residential complexes and commercial service activities are located on the edges of the planning area. Multi-family residential areas may be located at the perimeter.

Employment Center Flex (Industrial) - The Employment Center Flex (Industrial) is designed for light manufacturing and small-to-medium development, warehousing, and supporting the new commercial services and supporting retail and commercial uses. Multi-family residential areas may be located at the perimeter.

Industrial - The Industrial Planning area supports concentrations of industrial uses located at industrial and commercial parks. These areas support uses that are typified by large, long-term industrial centers or other large-scale manufacturing activities. Supporting retail and commercial services may be located adjacent to the industrial planning area. These areas will be buffered from surrounding residential neighborhoods.

**VC Village Center**

A Village Center is characterized as a dense, vertically mixed-use development with a central node that includes the shopping, services, recreation, office, civic, and institutional uses that support the surrounding neighborhoods.

**NC Neighborhood Center**

A Neighborhood Center is a compact mixed-use, pedestrian-oriented node that includes residential, professional and office facilities that serve the immediate neighborhood.

**BC Business Center**

A Business Center is a multi-center located at highway intersections or arterial interchanges. A Business Center is a compact mixed-use node that includes commercial, office, professional, and institutional facilities to support the adjacent employment centers.