

SIX FORKS ROAD CORRIDOR STUDY



Briefing Book Draft
September 18, 2012



Objective:

The overall objective of the Six Forks Road Kick-off Workshop is to develop a clear vision for the character of the roadway and adjacent land uses into the future. The information gathered in preparation for and during the workshop will provide a framework of data, observations and community input that will be used to generate momentum toward a fully funded corridor study to occur in 2013.

Outcome:

The outcome of the workshop is intended to provide a clearly documented vision for the corridor and summary report that will be used to generate donations and potential grants to fund a more detailed study.

Draft Vision, Preliminary Themes and Issues

Draft Vision Statement:

Six Forks Road is the Main Street of Midtown Raleigh – an urban destination where smart city living meets traditional community with its walkable 24/7 center at North Hills and the surrounding area of long established neighborhoods, thriving businesses, schools, churches, parks and gathering places.

Our vision is to create a corridor that defines a sense of place unique to Midtown with enhanced fluidity of movement for residents, workers, and visitors among transportation modes of all types, including cars, bikes, pedestrians, and future transit options. Safety and accessibility are paramount in designing a distinctive streetscape with unifying features and green space that make it both an attractive urban thoroughfare and an irresistible gathering place.

Themes:

- Neighborhood Character
- Public Realm /Streetscape
- Building Form and Height
- Multimodal Transit Infrastructure
- Roadway Capacity and Sections
- Land Use/Future Land Use and Zoning

Preliminary list of issues:

- Vegetation (lack of street trees in some locations and overgrown vegetation that inhibits movement and sightlines)
- Road sections (variation in existing street section exacerbates vehicular movement)
- Sidewalks and multiuse paths (Existing sidewalks are too narrow and close to the road, is there a potential for multi-use paths?)
- Lighting (vehicular and pedestrian is inconsistent along the corridor)
- Additional modes of transit (potential for demo project)
- Traffic lights and timing
- Crosswalk locations and timing (timing of existing crosswalks is not sufficient for pedestrians)
- Wayfinding for vehicular travelers (need for vehicular wayfinding to help congestions and indecision)
- Lack of sidewalk connectivity from adjacent neighborhoods
- Lack of pedestrian and bike facilities on I-440 Bridge and through interchange

Scope of Work:

1. Baseline Data Report (Briefing Handbook)

Staff will prepare a report that contains background information on the study area. This book will not include a detailed inventory and analysis, which will be completed in later phases of work, but will include base maps and general information about the corridor and the overall project area.

Contents:

- a. Study Area
- b. Maps (zoning, land use, aerials, thoroughfare, etc.)
- c. Existing Conditions Photo Inventory
- d. Draft Vision Statement
- e. Preliminary summary of themes and issues

2. Visioning Workshop

A public workshop will be scheduled, preferably for a venue in or near the proposed study area, to brainstorm ideas and develop a guiding vision for the corridor study. Participants will have been invited to review the scope and baseline data report in advance, and copies will be available at the meeting. A brief presentation of the scope and existing conditions will be followed by a facilitated discussion to address the issues, opportunities and vision for the study area.

Typical Workshop Agenda:

- a. Opening remarks and agenda
- b. Manage expectations: Public and Private Sector responsibilities
- c. Presentation highlighting issues
- d. Goal of design workshop
- e. Virtual walking tour
- f. Break groups (with facilitators)
 - Develop summary of issues, opportunities and ideas
 - Communicate issues, opportunities and ideas on maps
 - Identify quick fixes, if any
 - Revise draft vision statement
- g. Team report out
- h. Wrap-up
- i. Discuss next steps

3. Vision Document

The outcome of the workshop will be compiled into a summary report that will contain: a list of study priorities, a refined study area limits and a vision statement that will describe the future opportunity of the area and guide the project through future phases of work.

Six Forks Road Corridor Study

2011 Aerial Photo

The proposed Six Forks Road Study Area is defined by a specific boundary outlined in red. The study area runs from the intersection of Six Forks Road and Ramblewood Drive north to the intersection of Six Forks Road and Sandy Forks Road and is one property to a block deep to the east and west. A wider area around at the intersection of Millbrook Road encompasses additional commercial and multi-family uses along Millbrook Road.

Legend


 Proposed Study Area

09/12/12

Scale - 1" = 1000'

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Feet

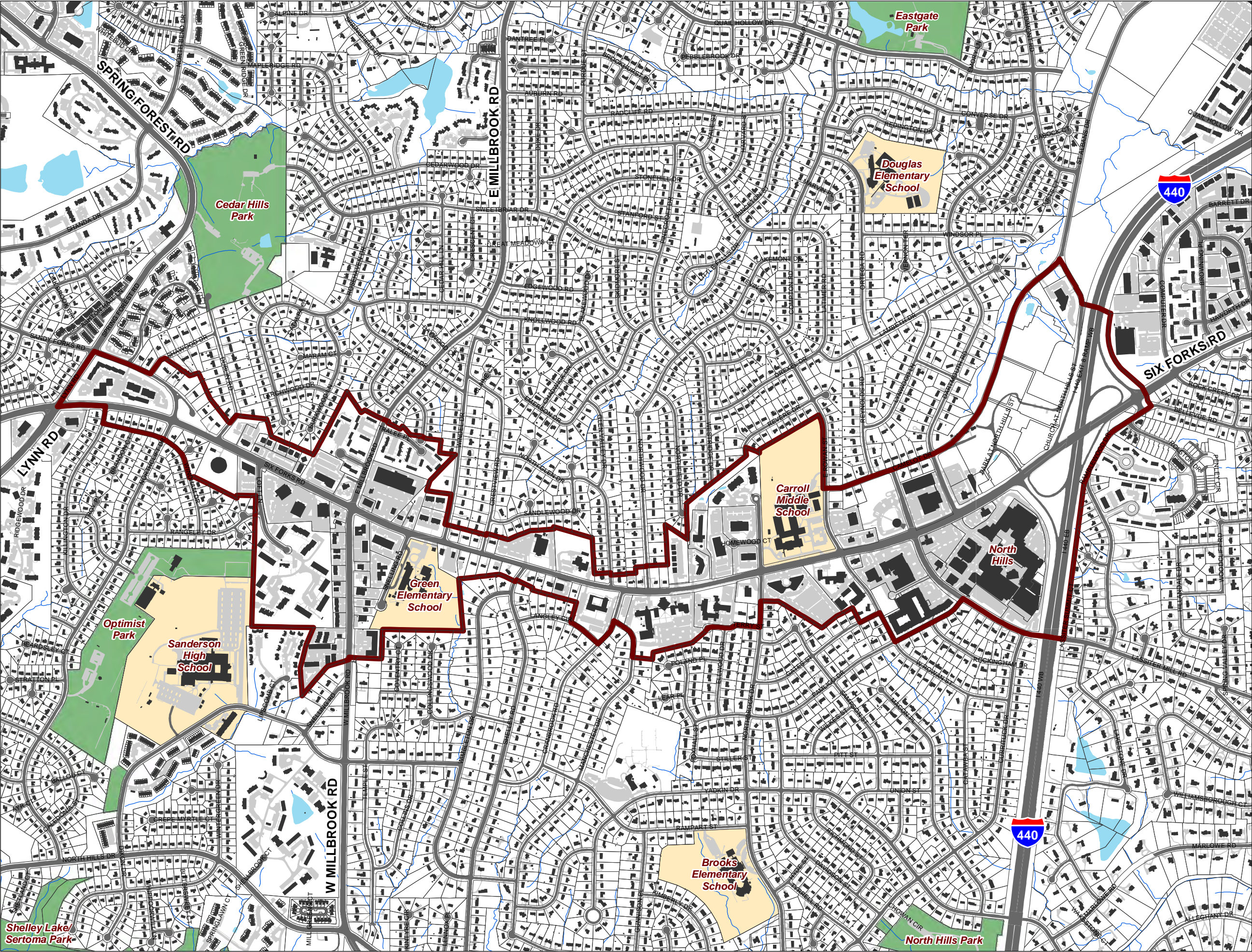




Six Forks Road Corridor Study

Planimetric

The study area is largely comprised of buildings and surface parking, leading to a high percentage of surface land coverage. Please note, updated information for the North Hills East development at the northeast corner of the I-440 and Six Forks Road intersection is not reflected on this map.



Legend

Proposed Study Area

Parcels

Buildings

Streets

Sidewalks/Driveways/Parking

Schools

Parks

Bodies of Water

Streams/Rivers

09/12/12

Scale - 1" = 1000'

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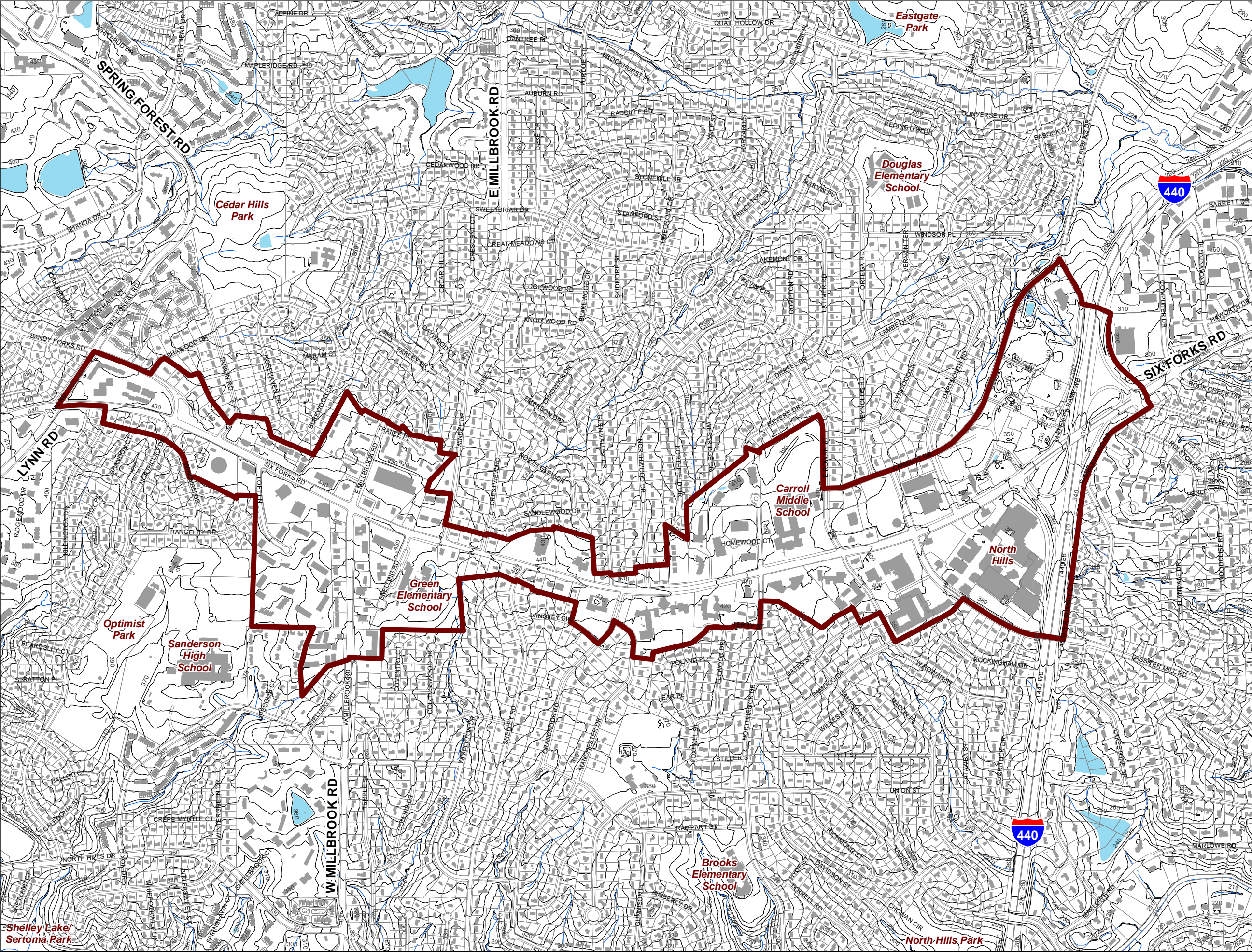
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Six Forks Road Corridor Study

Topography

The topography in the study area is defined by a high point of 450 feet, associated with the Six Forks Road and Sandy Forks Road intersection, and falls approximately 170 feet to the southern edge of the study area boundary near the I-440 interchange. Six Forks Road is generally located along a ridge-line with topography sloping down to the creek beds to the east and west.



Legend

- Proposed Study Area
- Parcels
- Buildings
- Streets
- Bodies of Water
- Streams/Rivers
- 10' Topography Lines

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Scale - 1" = 1000'

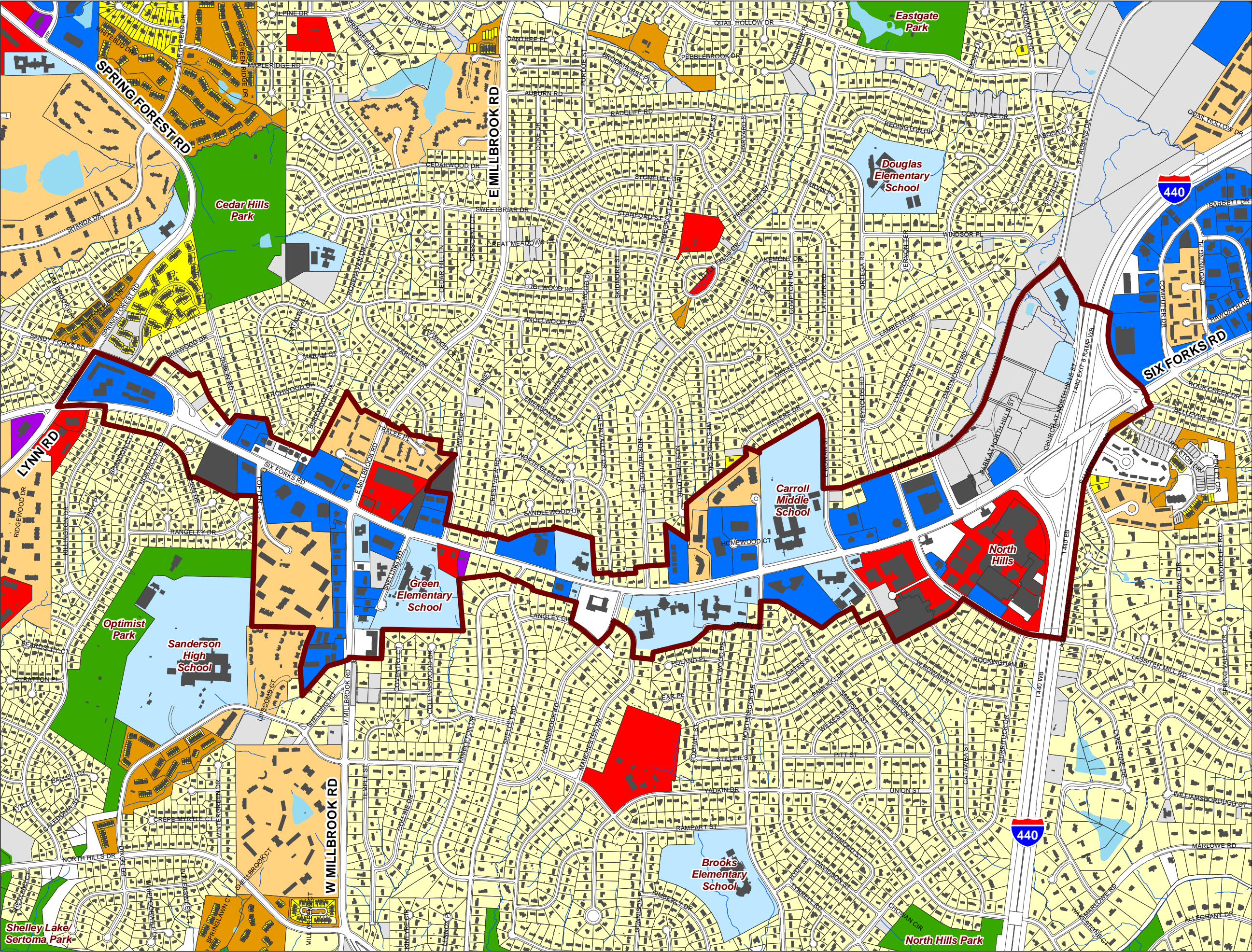
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Six Forks Road Corridor Study

Existing Land Use

The existing land use is predominantly a mix of office and institutional uses along the corridor, with some retail uses near the Millbrook Road intersection and the North Hills and North Hills East developments at I-440. Single-family residential dominates the surrounding adjacent areas.



Legend

Proposed Study Area

Parcels

Buildings

Streets

Bodies of Water

Streams/Rivers

Existing Land Use

SINGLE FAMILY

TOWNHOUSE, MULTIPLEX RESIDENTIAL

APARTMENT, CONDOMINIUM RESIDENTIAL

OTHER RESIDENTIAL

RETAIL

OFFICE

INSTITUTIONAL

INDUSTRIAL

MIXED USE

INFRASTRUCTURE AND TRANSPORTATION

PARKS, GREENWAYS, OPEN SPACE, GOLF

AGRICULTURAL

VACANT

NO INFORMATION

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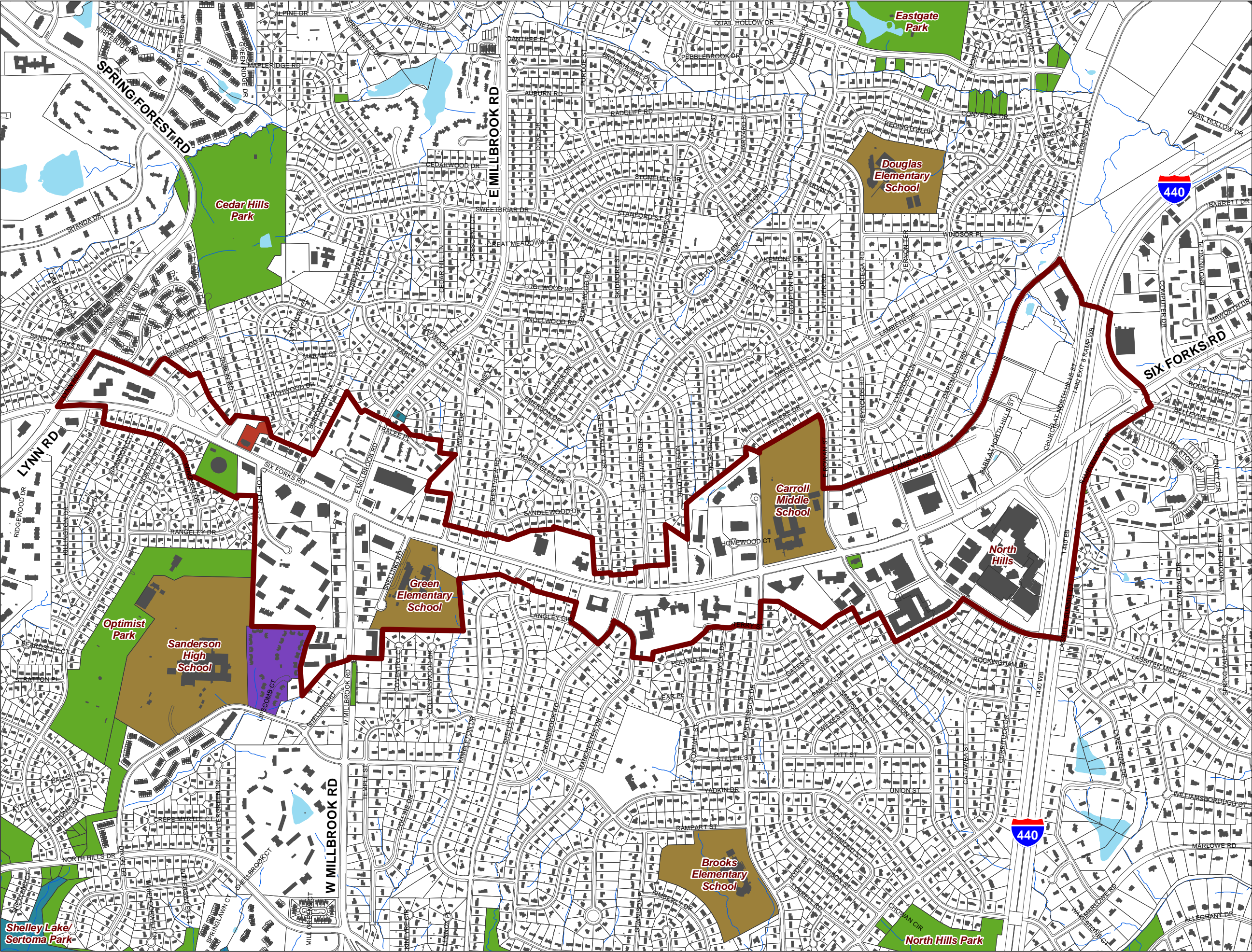
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Six Forks Road Corridor Study

Public Parcels

Three public entities control property within the study area. The City of Raleigh operates a fire station located at the intersection of Six Forks Road and Rowan Street. It also operates a water tower property north of Loft Lane. Wake County Public Schools operates Carroll Middle School and Green Elementary School. The State of North Carolina has an office property on the east side of the corridor, across Six Forks Road from the water tower.



Legend

Proposed Study Area

Parcels

Buildings

Streets

Bodies of Water

Streams/Rivers

Public Parcels

CITY OF RALEIGH

RALEIGH HOUSING AUTHORITY

STATE OF NORTH CAROLINA

WAKE COUNTY

WAKE COUNTY BOARD OF EDUCATION

09/12/12

Scale - 1" = 1000'

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Feet

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RALEIGH
URBAN
DESIGN
CENTER
An Office of Planning
and Development

Shelley Lake/
Sertoma Park

Optimist Park

Sanderson
High School

Green
Elementary
School

Carroll
Middle
School

Brooks
Elementary
School

North Hills Park

Douglas
Elementary
School

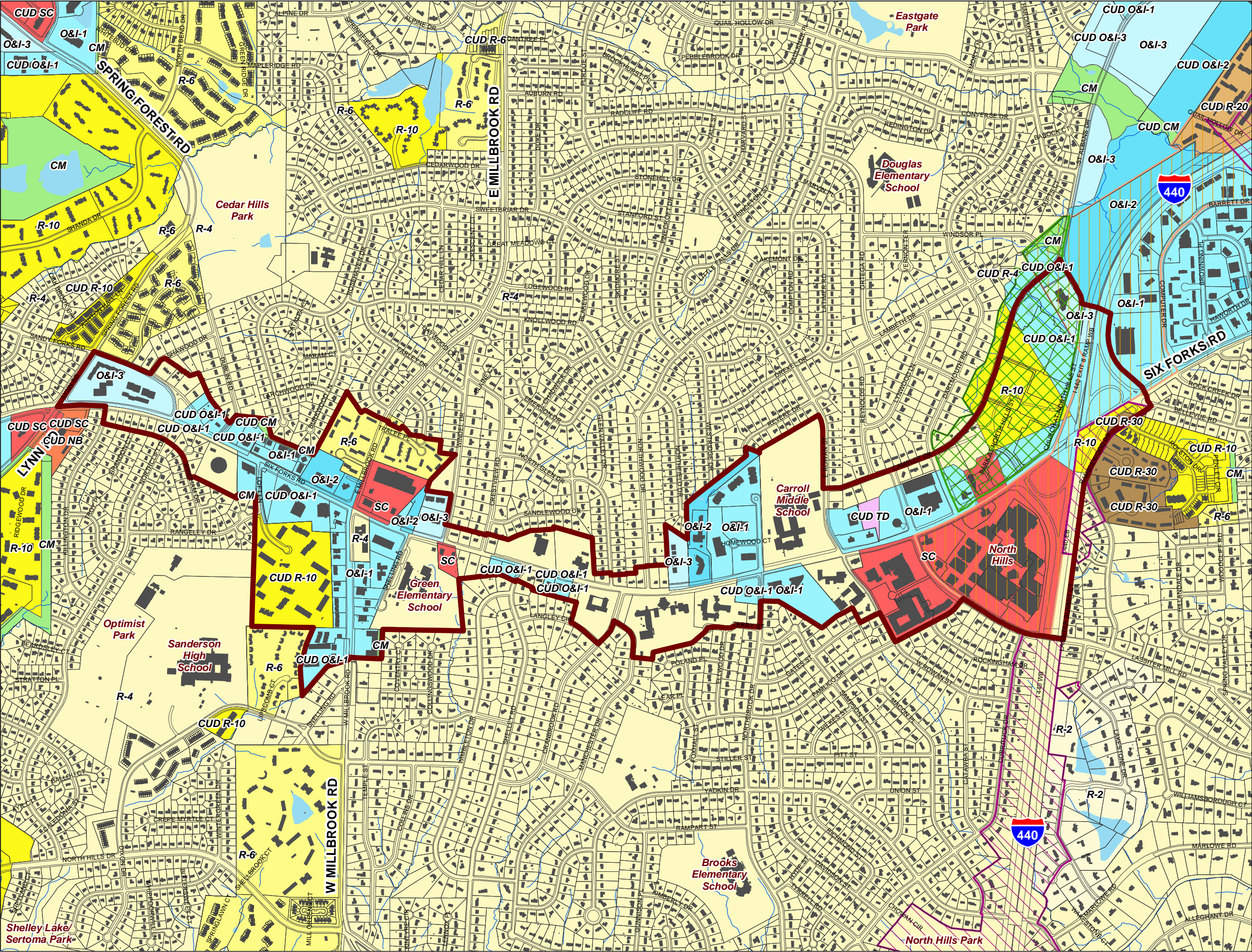
Cedar Hills
Park

Eastgate
Park

Six Forks Road Corridor Study

Zoning

The study area is characterized by a number of different base zoning districts, as is reflected in the corresponding variety of land uses. There is a significant amount of land zoned as Office and Institutional districts. Shopping Center zoning covers the North Hills development as well as retail uses in the vicinity of the Millbrook Road intersection. Zoning Overlays consist of Special Highway Overlay Districts adjacent to I-440 and a Planned Development District for the North Hills East development. Residential-4 zoning makes up single-family residential and church uses along the corridor, as well serving as the dominant zoning for adjacent single-family neighborhoods.



- Legend**
- Proposed Study Area
 - Parcels
 - Buildings
 - Streets
 - Bodies of Water
 - Streams/Rivers
 - Planned Development District
 - Special Highway Overlay District-1
 - Special Highway Overlay District-2

09/12/12

Scale - 1" = 1000'

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Zoning District	Density (units per acre)	Setbacks (feet)	Height (feet)	Free Standing Sign	F.A.R. (Floor Area Ratio)	Residential	Retail
Residential-4	4 (Multi-family allowed w/ a Cluster Unit Development, min. 20 acres)	Front Yard- 30, Side Yard- 10, Corner Lot- 20, Rear Yard- 30	40 (increase of 1 foot per 1 foot added in setback width)	Tract ID Sign	N/A	Y	N
Residential-6	6 (s/f and m/f)	Front Yard- 20, Side Yard- 5 (aggregate 15), Corner Lot- 20, Rear Yard- 20	40 (increase of 1 foot per 1 foot added in setback width)	Tract ID Sign	N/A	Y	N
Residential-10	10 (s/f and m/f)	Front Yard- 20, Side Yard- 5 (aggregate 15), Corner Lot- 20, Rear Yard- 20	40 (increase of 1 foot per 1 foot added in setback width)	Tract ID Sign	N/A	Y	N
Residential-20	20 (s/f and m/f)	Front Yard- 20, Side Yard- 5 (aggregate 15), Corner Lot- 20, Rear Yard- 20	40 (increase of 1 foot per 1 foot added in setback width)	Tract ID Sign	N/A	Y	N
Residential-30	30 (s/f and m/f)	Front Yard- 20, Side Yard- 5, Corner Lot- 20, Rear Yard- 20	40 (increase of 1 foot per 1 foot added in setback width)	Tract ID Sign	N/A	Y	N
Conservation Management	No density allowed, (can be transferred to adjacent property under same ownership)	Front Yard- 50 p.y., Side Yard- 100 p.y., Corner Lot- 50 p.y., Rear Yard- 50 p.y.	40 (increase of 1 foot per 1 foot added in setback width)	No Ground Signs	N/A	N	N
Office and Institution-3	0	Front Yard- 30/50, Side Yard- 10/50, Corner Lot- 30/50, Rear Yard- 30/50	25	Low Profile Sign	0.33, building lot coverage of 20%-1 story, 15%-2 story	N	Limited(maximum of 10%) permitted in association with an office building exceeding 30,000 square feet
Office and Institution-1	15 (25 w/PC Approval) (s/f and m/f)	Front Yard- 30, Side Yard- 5, Corner Lot- 5, Rear Yard- 20	40 (increase of 1 foot per 1 foot added in setback width)	Low Profile Sign	0.75, building lot coverage of 25%	Y	Limited(maximum of 10%) permitted in association with an office building exceeding 30,000 square feet
Office and Institution-2	15 (40 w/PC Approval) (s/f and m/f)	Front Yard- 30, Side Yard- 5, Corner Lot- 5, Rear Yard- 20 (Can be decreased with PC & CC Approval)	50 (Unlimited with PC&CC Approval)	Low Profile Sign	1.0, building lot coverage of 30%	Y	Limited(maximum of 10%) permitted in association with an office building exceeding 30,000 square feet
Shopping Center	15 (30 w/PC Approval) (s/f and m/f)	Front Yard- 15, Side Yard- 0, Corner Lot- 15, Rear Yard- 0	50 (increase of 1 foot per 1 foot added in setback width)	High Profile Sign	No maximum specified	Y	Y
Thoroughfare	20 (40 w/PC Approval) (s/f and m/f)	Front Yard- 50/90, Side Yard- 0 if an interior lot, 20 feet if peripheral lot, Corner Lot- Same formula as front yard setback., Rear Yard- 0 feet if interior lot, 20 if a peripheral lot, 50 foot protective yard if abutting a thoroughfare when treescape is doubled.	50 (increase of 1 foot per 2 feet added in setback width)	High Profile Sign	No maximum specified	Y	Y

***Uses shown per zoning district are typical but not limited to, please look at use chart in code for exact use break down and applicable approving body

p.y.= Protective Yard

s/f = single family detached dwellings

m/f = multifamily and group housing

Low Profile Sign: max height = 3.5 feet, max size = 70 sq. ft.

Medium Profile Sign: max height = 10 feet, max size = 100 sq. ft OR max height = 15 feet, max size = 75 sq. ft.

High Profile Sign: max height = 15 sq. ft., max size = 100 sq. ft.

Summary of Zoning Districts in Study Area

This chart summarizes the allowable uses and characteristics of zoning districts in the study area. Because most of the land in the study area is not covered by a zoning overlay district, the setbacks, density, and parking requirements are generally suburban in nature.

Six Forks Road Corridor Study

Thoroughfare Plan and Average Daily Traffic Volume

South of I-440 Six Forks Road is classified as a major thoroughfare on the City's Thoroughfare Plan. To the north it is a secondary arterial. Average annual daily traffic numbers fall between 29,000 and 40,000 along the corridor. More information on thoroughfare classifications can be found on the following page.

Legend

Proposed Study Area

Parcels

Buildings

Streets

Bodies of Water

Streams/Rivers

Principal Arterials

Secondary Arterials

Major Thoroughfares

Minor Thoroughfares

Collectors

Collectors Proposed

40,000 2011 AADT Counts

09/12/12

Scale - 1" = 1000'

0

500

1,000

Feet

N

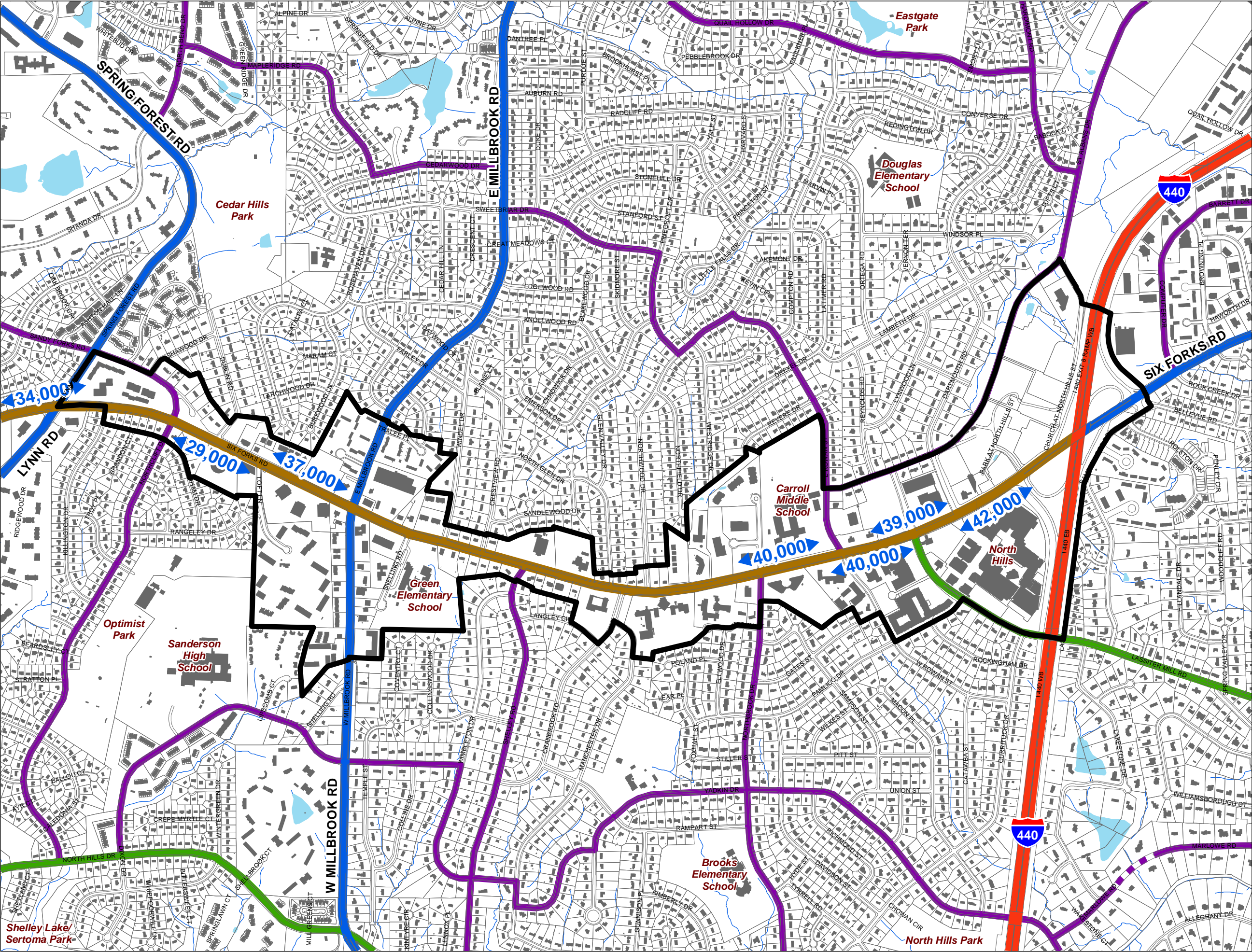


Table T-1 Summary of Thoroughfare System Classification

Classification	Typical Two-Way Volumes	Typical Section	Examples
Principal Arterial	40,000 Vehicles per Day (VPD) and above	At least three lanes in each direction, with medians and limitations or restrictions on driveway access	I-40, I-440, US 1 (Capital Blvd.), US 70 (Glenwood Ave.), US 401 (Louisburg Rd.)
Secondary Arterial	25,000 – 45,000 VPD	Three lanes in each direction, with medians or a center turn lane and limitations on driveway access	NC 50 (Creedmoor Rd.), Wake Forest Rd., Falls of Neuse Rd., Hammond Rd., Brier Creek Pkwy.
Major Thoroughfare	15,000 – 35,000 VPD	Two lanes in each direction, with medians or a center turn lane and limitations on driveway access	Millbrook Rd., Lynn Rd., Hillsborough St., Blue Ridge Rd., Leesville Rd., Martin Luther King Jr. Blvd.
Minor Thoroughfare	8,000 – 20,000 VPD	At least one lane in each direction, with medians or a center turn lane	Clark Avenue, Ray Rd., Newton Rd., Lassiter Mill Rd., St. Marys St., Tarboro Rd.
Collector Street	2,000 – 8,000 VPD	One lane in each direction	Method Rd., Athens Dr., Marvino Ln., Harps Mill Rd., Falls River Ave., Old Poole Rd.

Six Forks Road Corridor Study

Crash History 2009 - 2012

Vehicular crashes along Six Forks Road for the past three years are depicted on this map, both in terms of number of crashes and severity. The most crashes (165) occurred at I-440 while the highest severity index (3.47) was recorded at the intersection of Northbrook Road.

Accident Map

Legend

- Proposed Study Area
- Parcels
- Buildings
- Streets
- Bodies of Water
- Streams/Rivers

Crash Severity Index

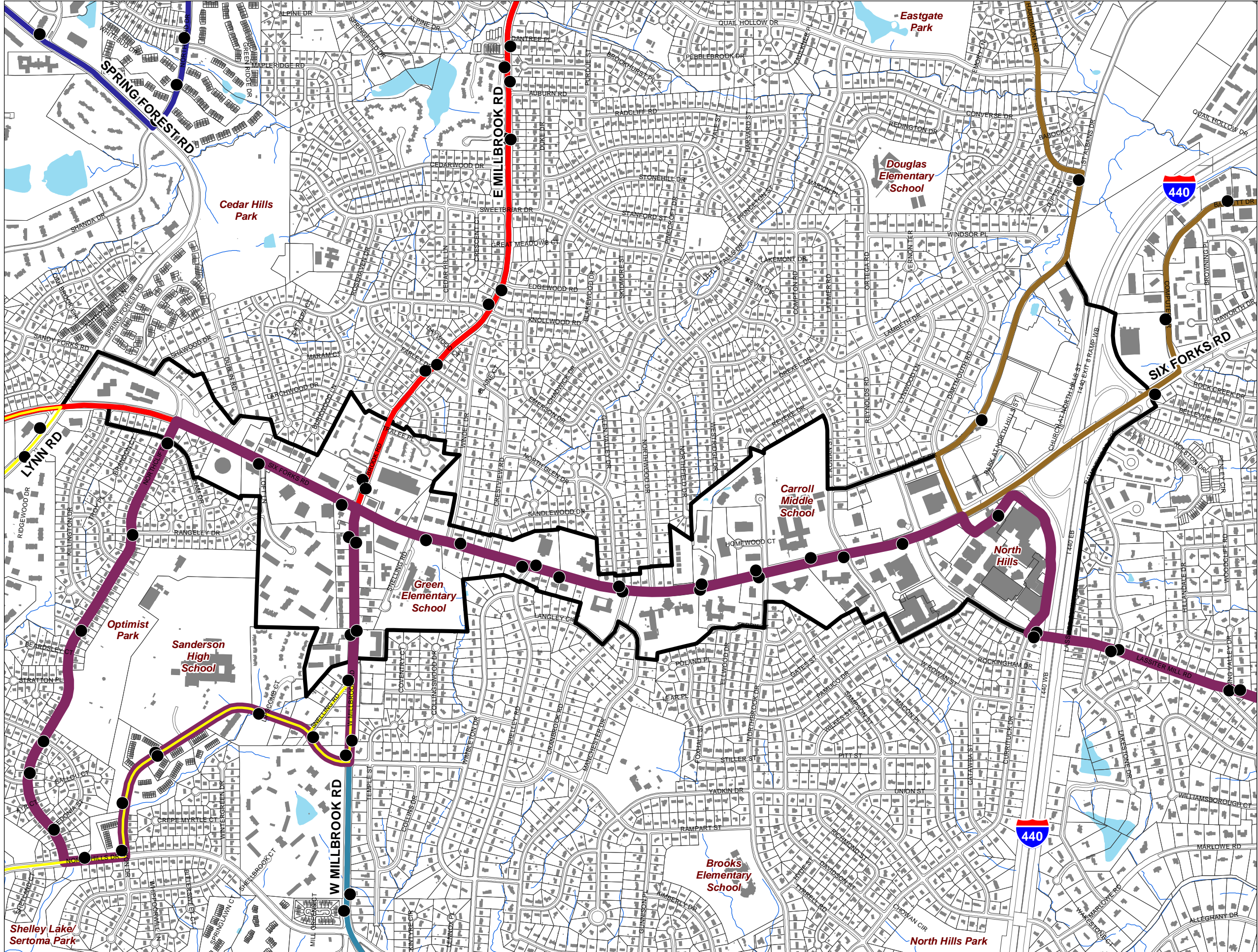
- 1.000000
- 1.000001 - 1.940000
- 1.940001 - 2.230000
- 2.230001 - 2.780000
- 2.780001 - 3.470000

09/12/12

Scale - 1" = 1000'

0 500 1,000 Feet





Six Forks Road Corridor Study

Capital Area Transit

The proposed study area is well served by bus, as Six Forks Road is a prominent north-south route for Capital Area Transit (CAT). The study area is served by Routes 8, 8C, 23C, 24C, 25C, and 29C. Six Forks Road has been designated as a Premium Transit Corridor in the CAT 2040 Transit Development Plan, with proposed headways of 30 minutes or less.

Legend

- Proposed Study Area
- Parcels
- Buildings
- Streets
- Bodies of Water
- Streams/Rivers
- CAT Bus Stops

CAT Bus Routes

- 8 - Northclift
- 8C - Sawmill Connector
- 23C - Millbrook Crosstown Connector
- 24C - North Crosstown Connector
- 25C - Triangle Town Center Connector
- 29C - North Night Connector

09/12/12

Scale - 1" = 1000'

0 500 1,000 Feet

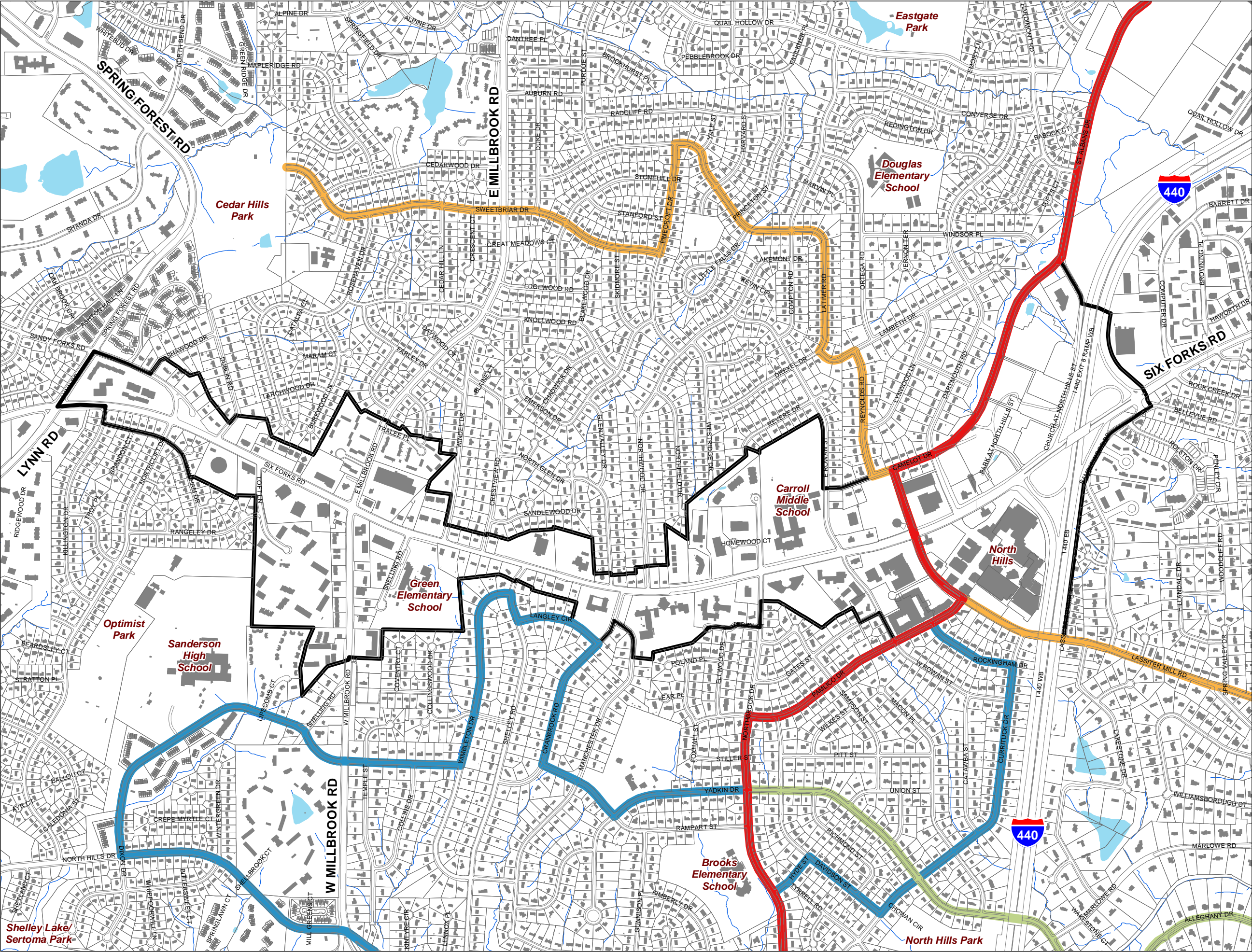
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Six Forks Road Corridor Study

Signed Bicycle Routes

There are several signed bicycle routes either intersecting the study area or located in close proximity. These include Recreation Loop Route #2 and Cross Town Routes #7, #9, and #12.



Legend

- Proposed Study Area
- Parcels
- Buildings
- Streets
- Bodies of Water
- Streams/Rivers

Bicycle Routes

- 2
- 7
- 9
- 12

09/12/12

Scale - 1" = 1000'

0 500 1,000 Feet




Six Forks Road Corridor Study

Proposed Bicycle Network

The proposed bicycle network represented on this map reflects the bicycle facilities recommended in the City's Bicycle Transportation Plan, which envisions various treatments for several area streets. Bicycle facility types are described on the following page.

Legend


 Proposed Study Area

 Parcels


 Buildings

 Streets

 Bodies of Water


 Streams/Rivers


Proposed Bicycle Network

 Sharrow, Stripe


 Wide Lane, Restripe


 Bicycle Lane, Road Diet

 Bicycle Lane, Stripe

 Bicycle Lane, Restripe

 Bicycle Lane, New Construction

 Paved Shoulder, New Construction


 Bicycle Lane, Existing

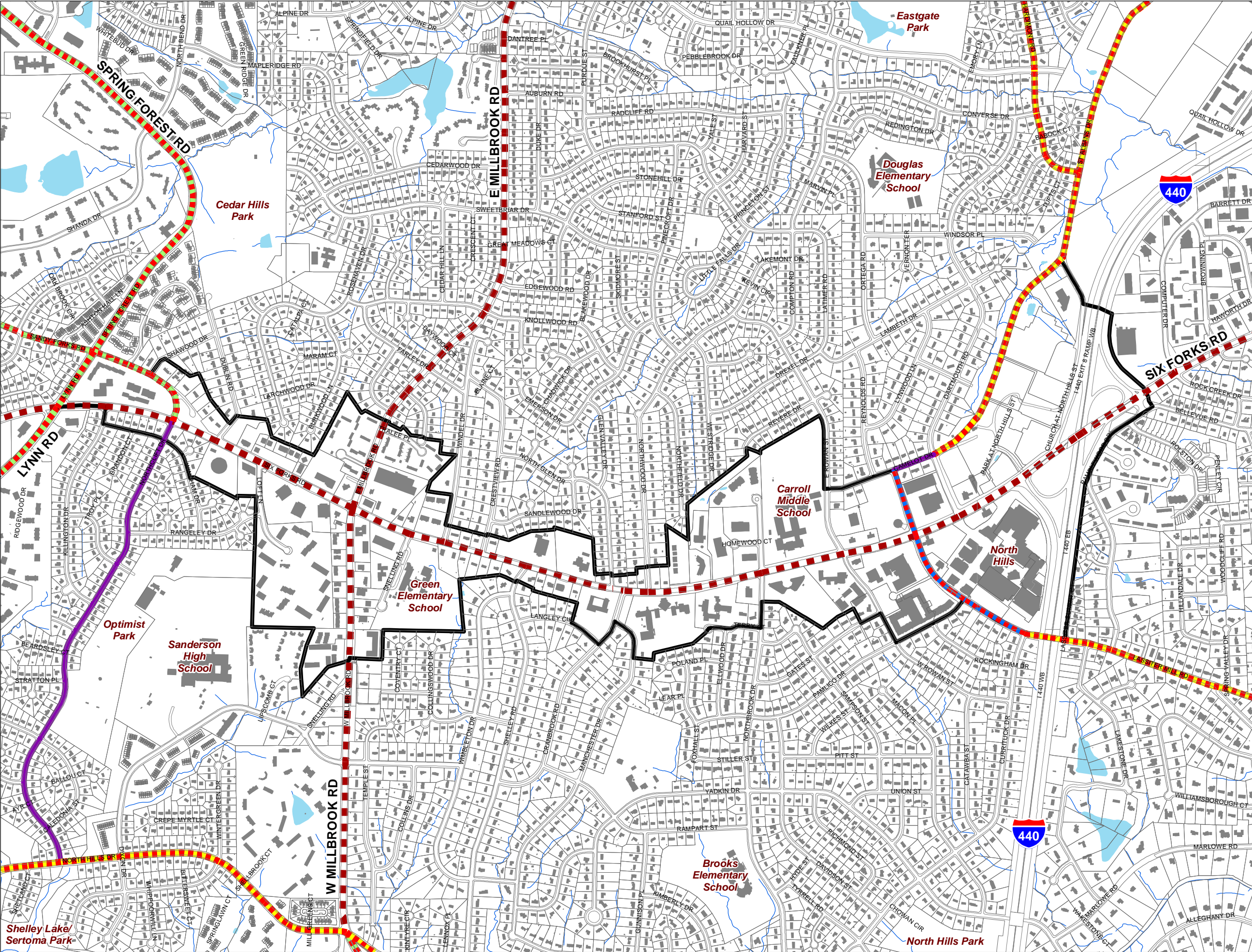
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RECOMMENDED FACILITY TYPES

A variety of bicycle facilities are recommended due to 1) the range of skill and comfort levels involved in bicycling, and 2) the range of conditions for bicycling on different roadway environments. These recommendations are at a planning level only and will require further analysis before implementation.

Raleigh’s bicycle route network is made up seven core types of bicycle facilities. Descriptions and standards for each type are described in Chapter 4: Bicycle Facility Standards. The images and descriptions below are provided for a quick reference when viewing the Bicycle Facility Network Maps (pages 4-15 through 4-19).

Note: Bicycle lanes are the preferred type of on-road bicycle facility as determined by the Bicycle Plan Steering Committee and supported by the public input into this process. It was judged that bicycle lanes create clearly designated separated spaces that would encourage more bicycling among all user groups.

Bicycle Lane

See pages 7-12 to 7-16 for details.



A bicycle lane is a portion of the roadway that has been designated by striping, signing, and pavement markings for the preferential and exclusive use of bicyclists. Bicycle lanes are always located on both sides of the road (except one way streets), and carry bicyclists in the same direction as adjacent motor vehicle traffic. The minimum width for a bicycle lane is four feet; five- and six-foot bike lanes are typical for collector and arterial roads.

Shared Lane Marking (“Sharrow”)

See page 7-11 for details.



It is recommended that bicycle shared lane markings (or ‘sharrows’) be approached incrementally as a new facility treatment. Shared lane markings are used on roadways where dedicated bicycle lanes are desirable but are not possible due to physical or other constraints. Placed in a linear pattern along a corridor (typically every 100-250 feet), shared lane markings make motorists more aware of the potential presence of cyclists; direct cyclists to ride in the proper direction; and remind cyclists to ride further from parked cars to avoid ‘dooring’ collisions.

Wide Outside Lanes

See page 7-8 and 7-10 for details.



A wide outside lane refers to the through lane closest to the curb and gutter of a roadway. The American Association of State Highway and Transportation Officials (AASHTO) standard lane width to accommodate both motorists and bicyclists is 14’. This facility type allows motorists to more safely pass slower moving bicyclists without changing lanes. Wide outside lanes are intended for bicyclists with traffic-handling skills.

Paved Shoulders

See page 7-17 for details.



Paved shoulders are the part of a roadway which is contiguous and on the same level as the regularly traveled portion of the roadway. There is no minimum width for paved shoulders, however a width of at least four feet is preferred. Ideally, paved shoulders should be include in the construction of new roadways and/or the upgrade of existing roadways, especially where there is a need to more safely accommodate bicycles.

Signed Bicycle Routes

See pages 4-11 and 7-10 for details.



This designation refers to the City of Raleigh’s original signed bicycle routes. Rather than a specific a bicycle facility type, these routes contain combinations of facilities, if any. This Plan recommends discarding the current system (the reasoning behind this recommendation is outlined on page 4-11). In the future, signed bicycle routes may emerge from the newly developed bicycle facility network for the City that have greater function, utility, and safety.

Multi-Use Paths/Greenways

See pages 7-32 to 7-34 for details.



Multi-use paths are completely separated from motorized vehicular traffic and are constructed in their own corridor, often within an open-space area. Multi-use paths include bicycle paths, rail-trails or other facilities built for bicycle and pedestrian traffic. The term ‘greenway’ is used only for those multi-use paths and sidepaths that are indicated on the Capital Area Greenway map and included in the City’s Comprehensive Plan.

Sidepaths

See page 7-18 for details.



Multi-use paths located within the roadway corridor right-of-way, or adjacent to roads, are called ‘Sidepaths’. Sidepaths are most appropriate in corridors with few driveways and intersections. Bicycle routes where side paths are recommended should also have adequate on-road bicycle facilities (such as paved shoulders or bicycle lanes) wherever possible.

Network Map Sub-Category Definitions

As indicated in the legend of the Bicycle Facility Network Map, some facilities are broken down into sub-categories for method of development. Those for bicycle lanes are explained below:

Bicycle Lane - Road Diet: Road diets typically involve reducing the number of travel lanes (from a four-lane road to a two-lane road with center turn lane, for example) allowing adequate space for bicycle lanes. Road diets also have traffic calming benefits.

Bicycle Lane - Stripe: Refers to projects that require only the striping of a bicycle lane, with no other changes needed to the roadway or existing roadway striping.

Bicycle Lane - Restripe: Refers to projects that require restriping travel lanes (often to a more narrow width) allowing adequate space for bicycle lanes. Narrowing the widths of travel lanes has been demonstrated to have no affect on overall roadway capacity (for more on this topic, refer to the following page, 4-6).

Bicycle Lane - New Construction: Refers to projects that require adding additional pavement width to the roadway to allow adequate space for bicycle lanes. These were determined based on future roadway reconstruction schedules and/or lack of opportunity with the current roadway environment.

Other facilities also have sub categories shown on the maps, indicating whether they are existing, planned, or proposed. These are defined as follows:

Proposed: Bicycle facilities labeled as ‘proposed’ are recommendations that came out of the Bicycle Plan planning process.

Planned: Bicycle facilities labeled as ‘planned’ already appear in previously adopted City of Raleigh plans.


Existing: Bicycle facilities labeled as ‘existing’ are already constructed and in use.

Six Forks Road Corridor Study

Pedestrian Circulation

This map shows the various infrastructure for pedestrian circulation, including sidewalks, crosswalks, and greenways. Within the study area Six Forks Road is bounded on both sides by sidewalk and several intersections contain designated crosswalks. Sidewalk access to adjacent residential areas remains problematic though, especially for neighborhoods to the east, south of Millbrook Road.


Legend




Proposed Study Area




Existing Sidewalk




Proposed Sidewalk




Greenway Trails




Crosswalks




Parcels




Buildings



Streets



Bodies of Water



Streams/Rivers

09/12/12

Scale - 1" = 1000'


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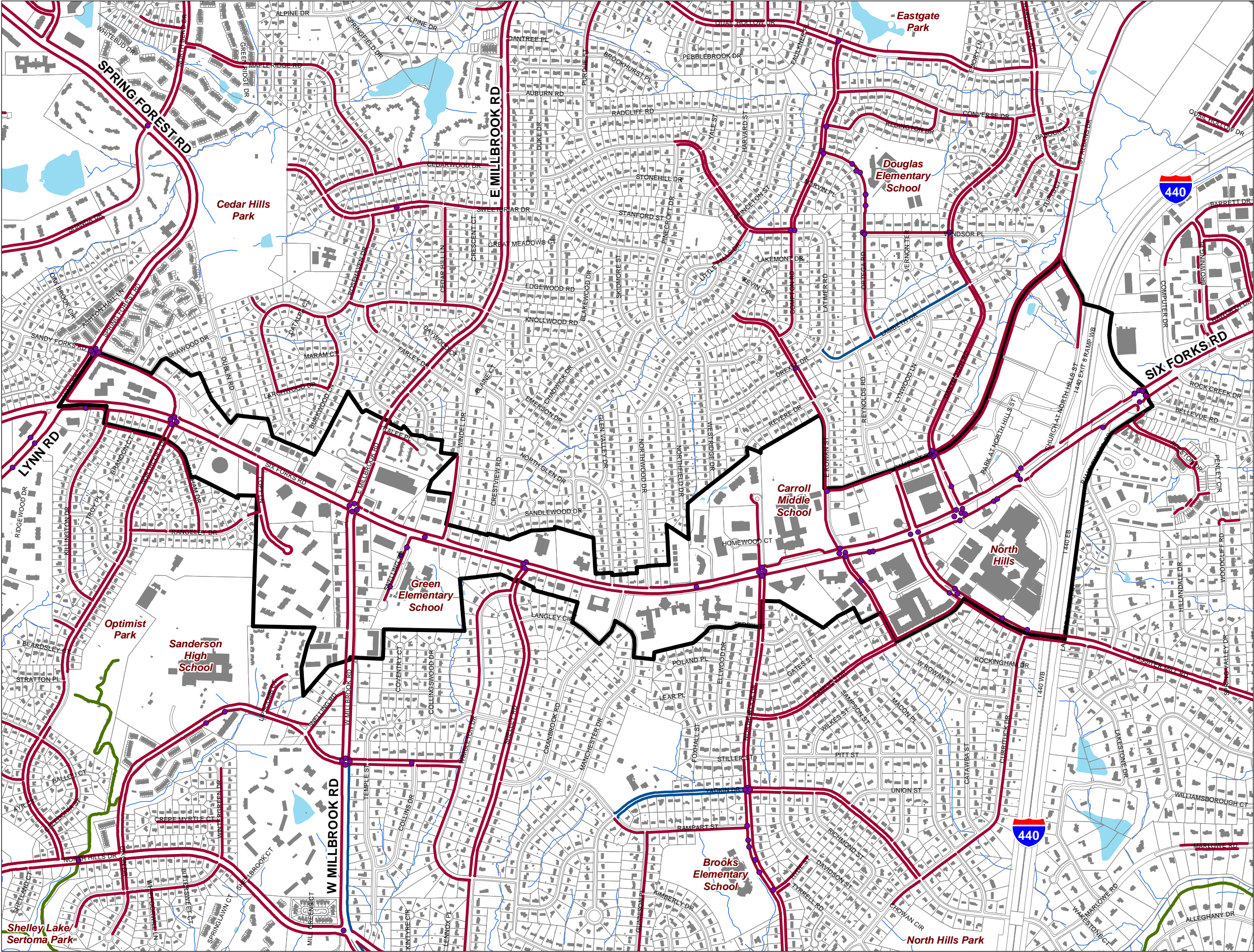
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Feet

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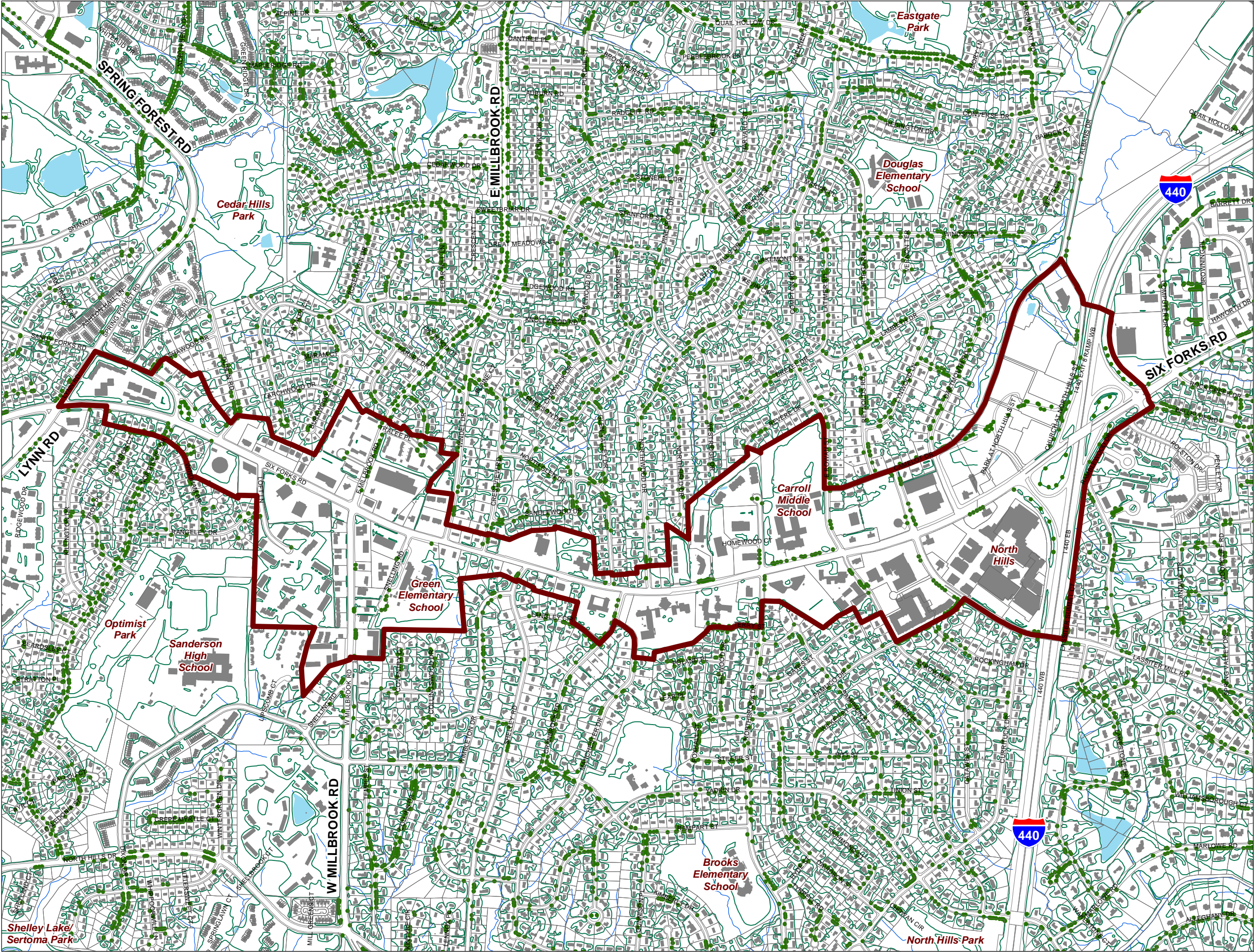




Six Forks Road Corridor Study

Vegetation

This map indicates both the location of street trees in public rights-of-way and the limits of tree cover on parcels in the area. As shown on the map, Six Forks Road lacks a consistent tree planting pattern.



- Legend**
- Street Trees
 - Vegetation
 - Proposed Study Area
 - Parcels
 - Buildings
 - Streets
 - Bodies of Water
 - Streams/Rivers

09/12/12

Scale - 1" = 1000'

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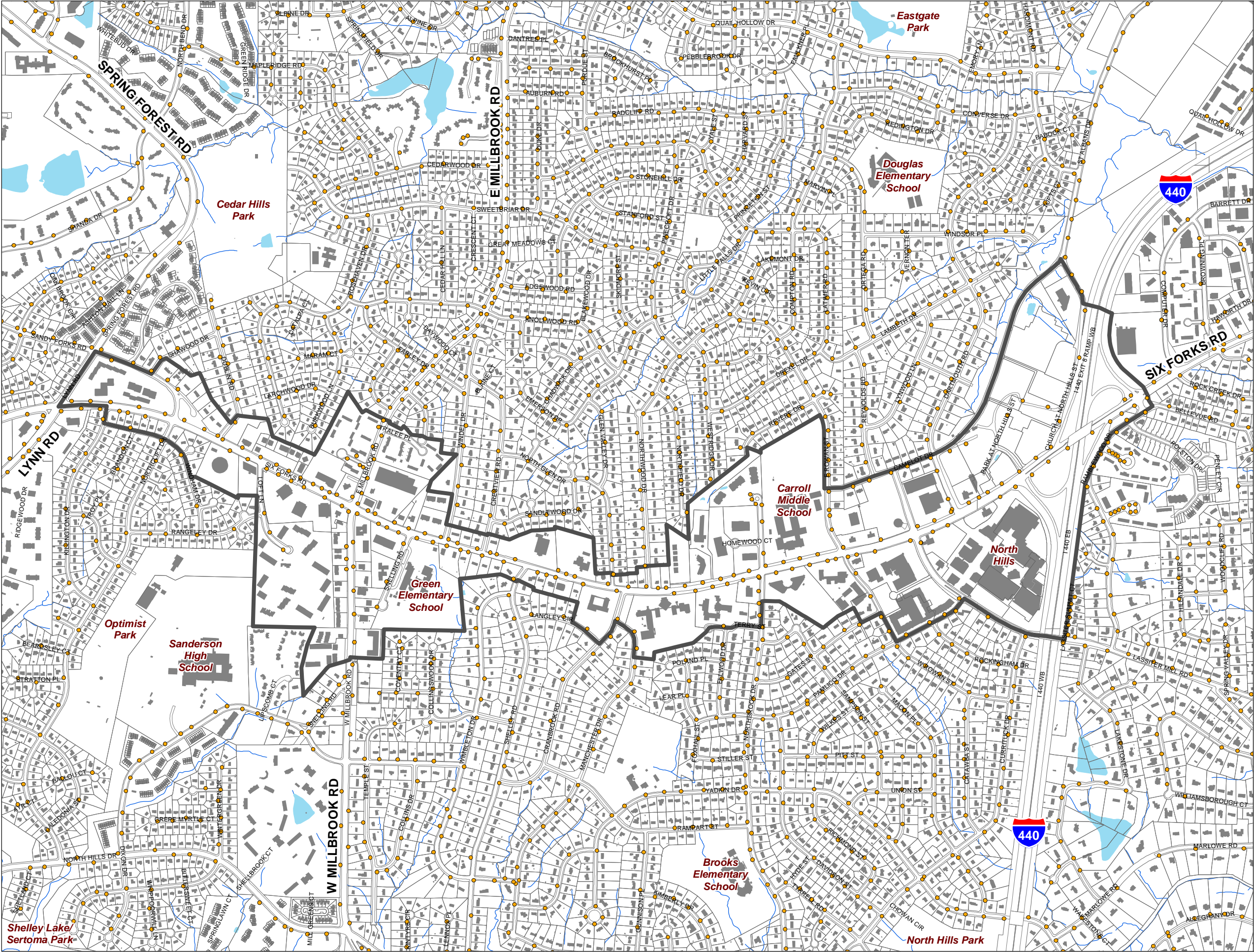
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Six Forks Road Corridor Study

Street Lighting

Location of street lights in public rights-of-way are shown on this map, which was developed from a right-of-way inventory completed in 2006. A handful of gaps can be seen along Six Forks and Millbrook Roads.



- Legend**
- Proposed Study Area
 - Street Lights
 - Parcels
 - Buildings
 - Streets
 - Bodies of Water
 - Streams/Rivers

09/12/12

Scale - 1" = 1000'

0 500 1,000 Feet

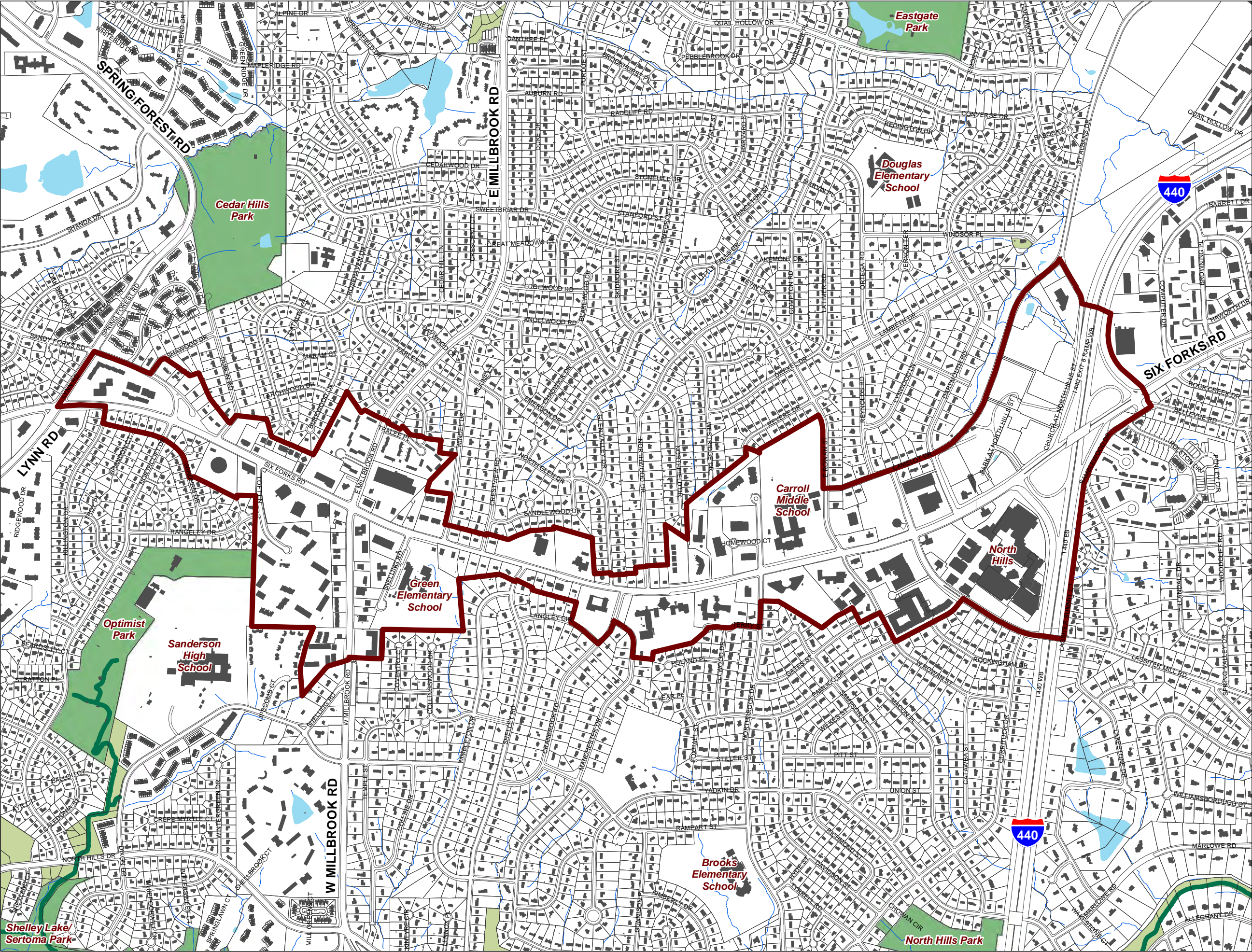
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Six Forks Road Corridor Study

Parks and Greenways

No City parkland is located within the proposed study area, though four parks are located in close proximity. An existing greenway, Snelling Branch Trail terminates in Optimist Park to the north. Land is being dedicated for a future greenway north of St. Albans Drive and the North Hills East development.



Legend

- Parks
- Greenway Property
- Greenway Trails
- Proposed Study Area
- Parcels
- Buildings
- Streets
- Bodies of Water
- Streams/Rivers

09/12/12

Scale - 1" = 1000'

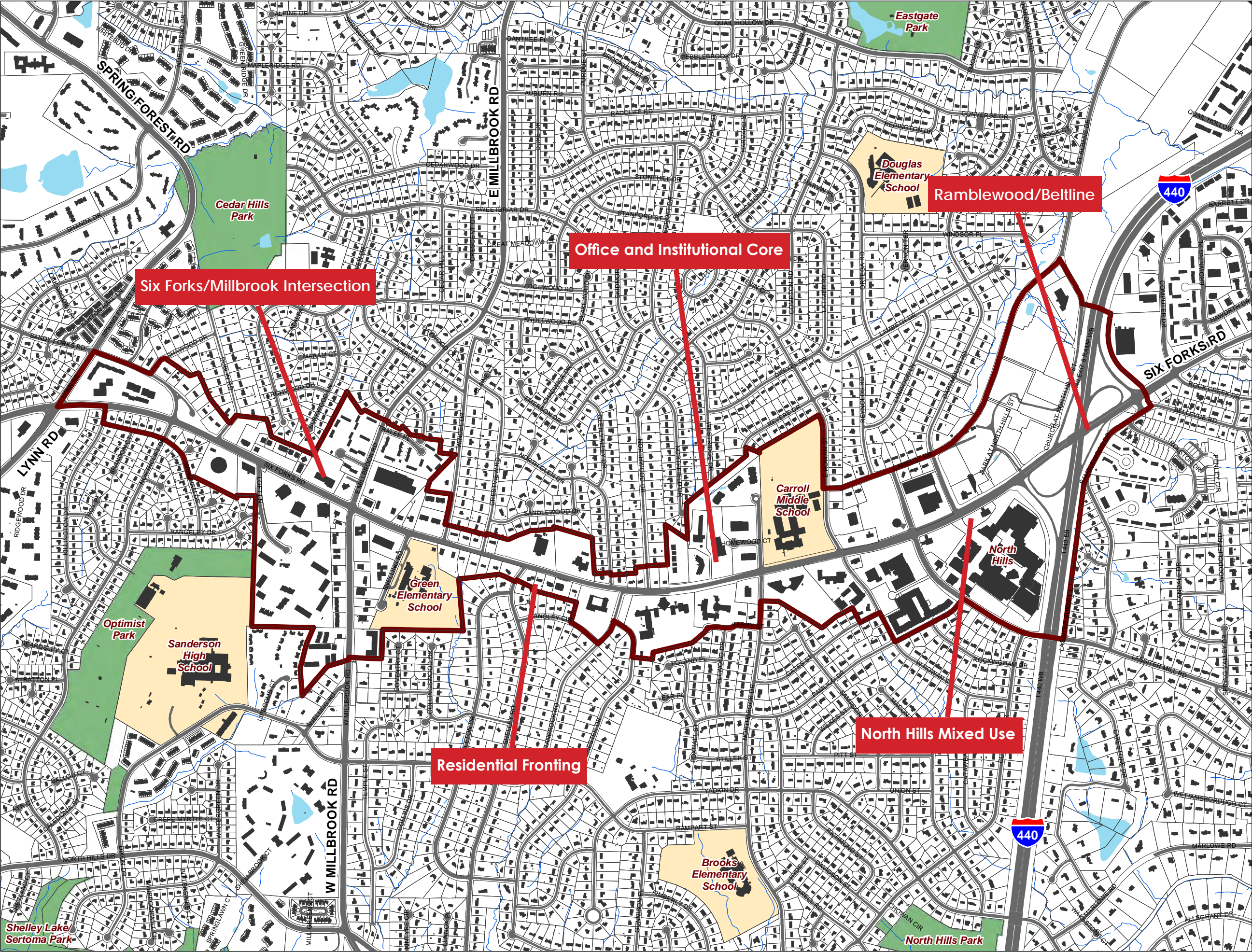
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Six Forks Road Corridor Study

Surrounding Area Character

The proposed study area can be identified by five different character areas. The following pages provide a brief description accompanied by a photo inventory of each area.



- Legend**
- Proposed Study Area
 - Parcels
 - Buildings
 - Streets
 - Schools
 - Parks
 - Bodies of Water
 - Streams/Rivers

09/12/12

Scale - 1" = 1000'

0 500 1,000 Feet

N



Area:
Ramblewood/Beltline

This area contains a mix of residential densities with established single-family neighborhoods and higher-density condominiums and apartments under construction.



BACKGROUND ANALYSIS

SURROUNDING AREA CHARACTER



Area:

North Hills Mixed Use

The area directly north of the beltline on both sides of the street is characterized by the mixed-use North Hills and North Hills East developments.



BACKGROUND ANALYSIS

SURROUNDING AREA CHARACTER

Area:

Office and Institutional Core

This section of the corridor contains a mix of suburban style office complexes, large-scale churches, Carroll Middle School, and a high-rise senior apartment. There is also a mix of orientation of buildings to the street, with some buildings close to the street with parking behind and vice-versa.



BACKGROUND ANALYSIS

SURROUNDING AREA CHARACTER



Area:

Residential Fronting

Several single-family neighborhoods are accessed from this section of Six Forks Road. There are also numerous residential lots with direct frontage on the corridor. Some of these lots are zoned for future office uses, while most still function as residences.



BACKGROUND ANALYSIS

SURROUNDING AREA CHARACTER

Area:
Six Forks/Millbrook Intersection
The intersection of a secondary arterial (Six Forks Road) and a major thoroughfare (Millbrook Road) contains the next retail uses north of North Hills, including fast food retail on the west side of Six Forks across from Windell Drive, the Colony Shopping Center, and a gas station/convenience store at the southeast quadrant of the intersection. Office uses and multi-family residential development lay behind the properties at the intersection. A predominant pattern of office uses picks back up north of the Six Forks/Millbrook intersection.

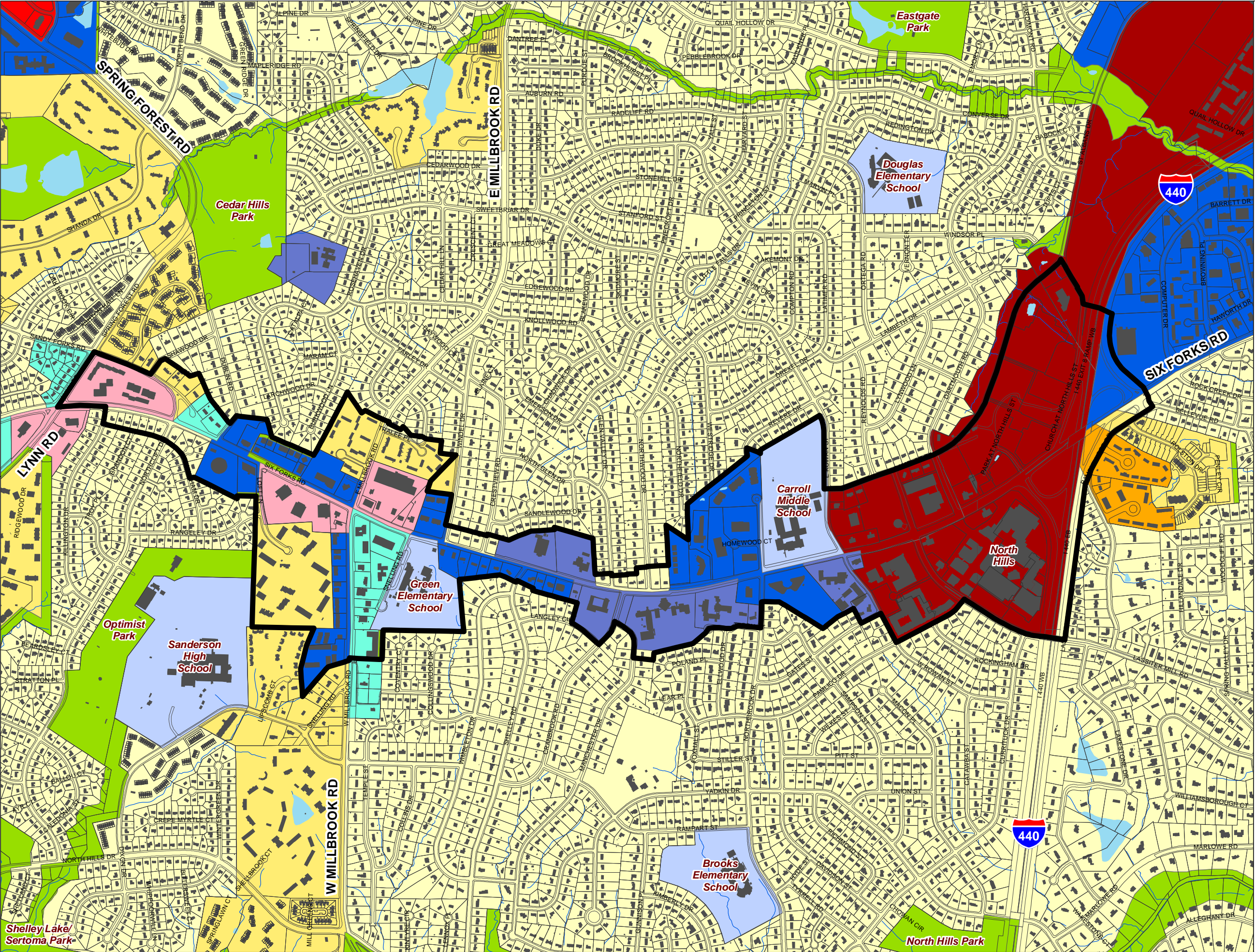


BACKGROUND ANALYSIS

SURROUNDING AREA CHARACTER

Six Forks Road Corridor Study

Future Land Use Map (From 2030 Comp Plan)




- Legend**
- Proposed Study Area
 - Parcels
 - Buildings
 - Streets
 - Bodies of Water
 - Streams/Rivers
- Future Land Use Map (FLUM)**
- Public Parks & Open Space
 - Private Open Space
 - Rural Residential
 - Low Density Residential
 - Moderate Density Residential
 - Medium Density Residential
 - High Density Residential
 - Office & Residential Mixed Use
 - Office/Research & Development
 - Institutional
 - Public Facilities
 - Neighborhood Retail Mixed Use
 - Business & Commercial Services
 - Community Retail Mixed Use
 - Regional Retail Mixed Use
 - Central Business District
 - General Industrial

09/12/12


Scale - 1" = 1000'

0 500 1,000 Feet




Low Density Residential (1-6 units per acre) 

This category encompasses most of Raleigh's single family detached residential neighborhoods, corresponding roughly to the R-2, R-4, and R-6 zoning districts (but excluding parks within these districts). It also identifies vacant or agricultural lands—in the city and in the county—where single family residential use is planned over the next 20 years. Clustered housing, duplexes, and other housing types would be consistent with this designation as long as an overall gross density not exceeding 6 units per acre was maintained. As defined in the zoning regulations, manufactured home parks could also be appropriate in this land use category.


Moderate Density Residential (6-14 units per acre) 

This category applies to some of the city's older single family residential neighborhoods, along with newer small lot single family subdivisions and patio home developments. Other housing types would be consistent with this designation as long as an overall gross density not exceeding 14 units per acre was maintained. Gross density in these areas would be 6 to 14 units per acre. The SPR-30 (Special Residential -30) zoning district could also be appropriate in this land use category. Other corresponding zoning districts are R-6 and R-10.

Office Residential-Mixed Use 

This category is applied primarily to frontage lots along thoroughfares where low density residential uses are no longer appropriate, as well as office parks and developments suitable for a more mixed-use development pattern. This category encourages a mix of moderate to medium density residential and office use. Retail not ancillary to employment and/or residential uses is discouraged so that retail

can be more appropriately clustered and concentrated in retail and mixed-use centers at major intersections and planned transit stations. The Office and Institution zones provide the closest match with the proposed use pattern, although higher-impact uses such as hotels and hospitals are not contemplated or recommended in this land use category.


Neighborhood Mixed Use 

This category applies to neighborhood shopping centers and pedestrian-oriented retail districts. The service area of these districts is generally about a one mile radius or less. Typical uses would include corner stores or convenience stores, restaurants, bakeries, supermarkets (other than super-stores/centers), drug stores, dry cleaners, video stores, small professional offices, retail banking, and similar uses that serve the immediately surrounding neighborhood. While this is primarily a commercial category, mixed-use projects with upper story housing are also supported by this designation. Most of the areas mapped with this designation are currently zoned NB (Neighborhood Business) or SC (Shopping Center). Where residential development complements commercial uses, it would generally be in the Moderate to Medium density range (less than 28 units per acre).


Multiple zoning districts could be developed for this category in the future, recognizing that some of the designated areas are established neighborhood "main streets" and others are suburban auto-oriented shopping plazas or strip centers. Although housing would be allowed in all cases, there could be greater incentives for "vertical mixed use" or higher density housing (up to about 40 units per acre) where these zones adjoin future transit stations, or are on traditional "walking" streets.

Regional Mixed Use 


This category applies to the Triangle Town Center area, the Brier Creek area, and the North Hills/Midtown and Crabtree Centers. The intent is to identify the major retail and service hubs that draw customers from across the city. These areas may include high-density housing, office development, hotels, and region-serving retail uses such as department stores and specialty stores. The areas with this designation are currently zoned O&I-2, SC, and TD.

Office/Research and Development 


This category identifies major employment centers where housing is not considered an appropriate future land use. Principal uses are office parks, free-standing office buildings or corporate headquarters, banks, research and development uses, hotels, and ancillary service businesses and retail uses that support the office economy. This category can also apply in appropriate locations to office-industrial hybrids such as light fabrication and assembly ancillary to an R&D use, flex parks, and office-distribution combinations. Most of these areas are currently zoned O&I-1, O&I-2, O&I-3, or Thoroughfare District (TD).

Public Facilities 

This category identifies large publicly owned non-park properties, including public schools, city facilities (such as libraries, fire stations, public works yards, etc.), stadiums, state government facilities, the fairgrounds, and federal government facilities (postal distribution centers, etc.). Such sites are identified on the Future Land Use Map if they cover more than about two acres.

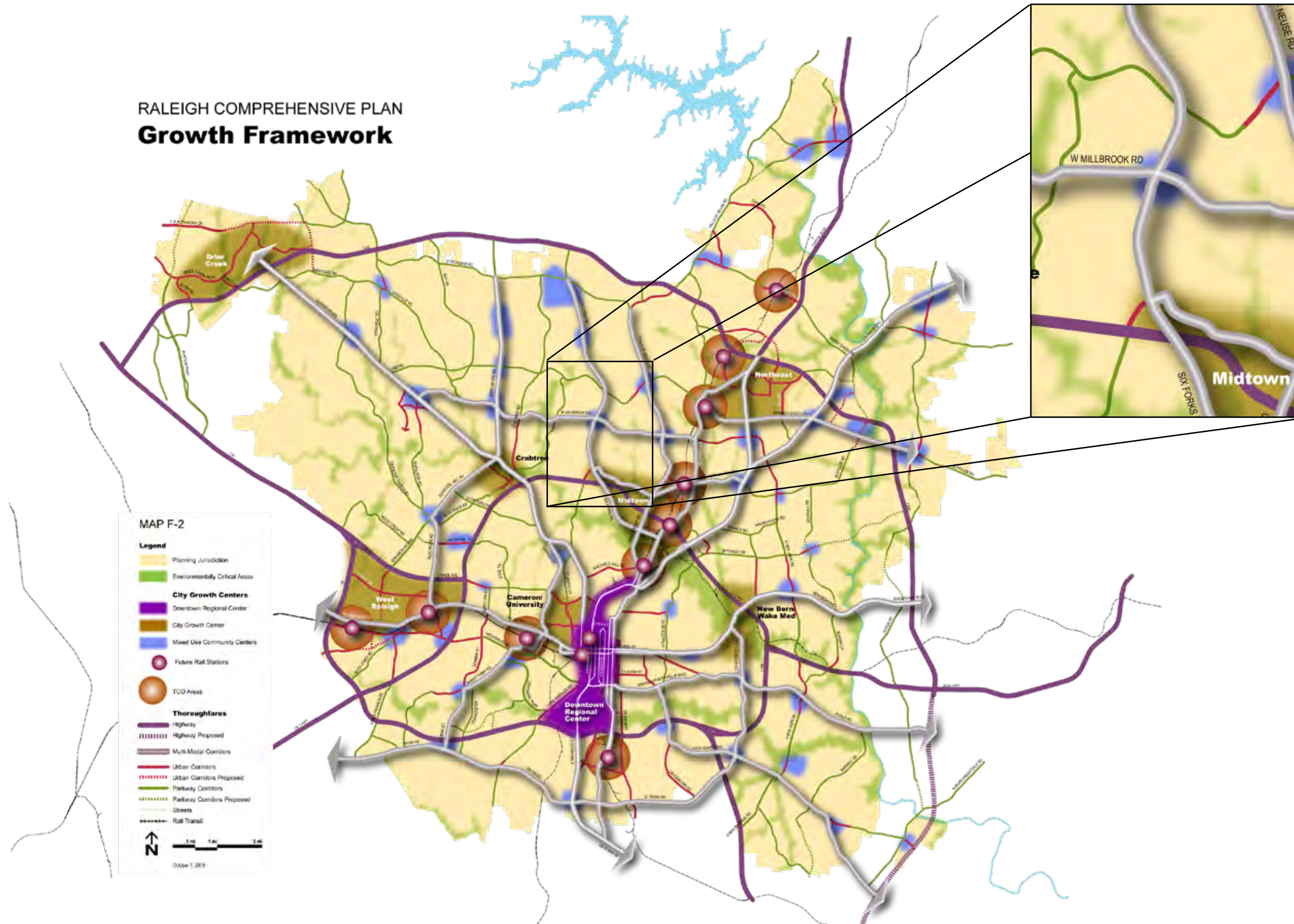
Institutional 

This category identifies land and facilities occupied by colleges and universities, large private schools, hospitals and medical complexes, religious organizations, and similar institutions. Smaller institutional uses such as churches are generally not mapped unless they are sites that are more than two acres in size. Institutional properties may be public or private.

Public Parks and Open Space 

This category applies to permanent open space intended for recreational or resource conservation uses. Included are neighborhood, community, and regional parks and greenways. Greenways include both existing greenway property as well as potential greenway corridors designated in the Comprehensive Plan and subject to regulation under the City code. Also included are publicly owned lands that are managed for watershed protection, resource conservation, hazard prevention, and the protection of important visual resources. Land with this designation is intended to remain in open space in perpetuity. Where potential greenway corridors are mapped (typically as buffers to streams identified in the City's Greenway Master Plan), greenway dedication will be subject to the City's code requirements during the subdivision and site planning process, but shall not be a part of the rezoning process unless voluntarily offered.

RALEIGH COMPREHENSIVE PLAN **Growth Framework**



The 2030 Comprehensive Plan's Growth Framework Map designates Six Forks Road, as well as Millbrook Road and St. Albans Drive as Multi-Modal Corridors while Lynn Road/Spring Forest Road is a Parkway Corridor and Lassiter Mill Road north of I-440 is an Urban Corridor. There are two City Growth Centers identified along the corridor, the Midtown Growth Center at Six Forks Road and I-440 and the Mixed Use Community Center at the intersection of Six Forks and Millbrook Roads.

Article 3.1. General Provisions

Sec. 3.1.1. District Intent Statements

A. Residential Mixed Use (RX-)

- 1. RX- is a mixed residential district intended to provide for a variety of residential building types and housing options at density in excess of 10 dwelling units per acre.
- 2. RX- can serve as a land use transition between other mixed use districts and residential neighborhoods.
- 3. RX- allows limited retail and services subject to use standards that limit the size and scale to the ground floor corner unit of an apartment building.

B. Office Park (OP-)

- 1. OP- is intended to preserve and provide land for office and employment uses.
- 2. OP- can also serve as a land use transition between other mixed use districts and residential neighborhoods.

C. Office Mixed Use (OX-)

- 1. OX- is intended to provide for a variety of office and employment uses while allowing for housing and limited retail and service-related options. Limited retail and services-related options are allowed subject to use standards that restrict the size and scale of each use.
- 2. OX- is not intended to provide for areas exclusively dominated by office or employment uses but provide for developments that balance employment and housing options with access to convenience retail services and goods.
- 3. OX- can serve as a land use transition between other mixed use districts and residential neighborhoods.

D. Neighborhood Mixed Use (NX-)

- 1. NX- is intended to provide for a variety of residential, retail, service and commercial uses all within walking distance of residential neighborhoods.
- 2. To limit the overall scale, NX- has a maximum lot size of 10 acres. Maximum height limits should be compatible with adjacent residential development.

E. Commercial Mixed Use (CX-)

- 1. CX- is intended to provide for a variety of residential, retail, service and commercial uses.
- 2. While CX- accommodates commercial uses, the inclusion of residential and employment uses are strongly encouraged in order to promote live-work and mixed use opportunities.

F. Downtown Mixed Use (DX-)

DX- is intended to provide for intense mixed use development of the City's urban core.

G. Industrial Mixed Use (IX-)

- 1. IX- is intended to provide for a variety of light industrial and manufacturing uses while allowing for retail, service and commercial activity and limited housing opportunities. To help ensure that land is reserved for manufacturing and employment, residential uses are limited to the upper stories of mixed use buildings.
- 2. IX- is not intended to provide for areas exclusively dominated by light industrial or manufacturing but provide for developments that incorporate commercial uses with housing, retail and service-related activity.
- 3. IX- can serve as a land use transition between heavy industrial areas and mixed use districts.

The City of Raleigh is currently undergoing a revision to its development code. The Unified Development Ordinance (UDO), currently under review by City Council, will result in an ordinance that specifies a zoning district, height, and frontage for properties. Excerpts from the current UDO draft are included on this and the following page. Districts, heights, and frontages will need to be determined for properties within the study area, to guide the City-wide re-mapping process associated with the UDO.

Sec. 3.1.2. District Components

- A. Each mixed use district is comprised of one or more of the following components:
 - 1. Use and Base Dimensions (RX-, OP-, OX-, NX-, CX-, DX-, IX-)
 - 2. Height (-3, -4, -5, -7, -12, -20, -40); and
 - 3. Frontage (-PK, -DE, -PL, -GR, -UL, -UG, -SH).
- B. A variety of mixed use districts can be constructed by applying different height and frontage configurations as shown in the table below.
- C. Each mixed use district must include a height designation. A frontage is optional unless it has already been applied to property and designated on the Official Zoning Map.
- D. Neighborhood transitions apply when adjacent to a residential district (see Article 3.5).

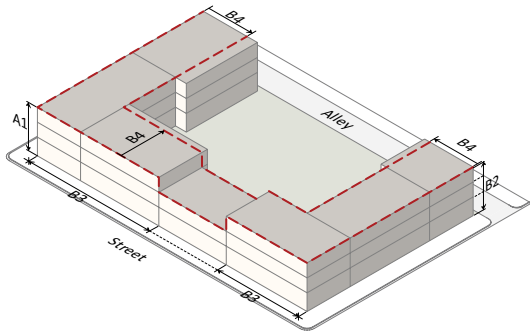
Use & Base Dimensions	Height	Frontage	Examples
<i>Specifies the range of uses allowed (Chapter 6) and base dimensional standards for allowed building types (Article 3.2).</i>	<i>Sets the maximum allowed height for the district (Article 3.3)</i>	<i>Frontages place additional limitations beyond the base dimensional standards (Article 3.4)</i>	
RX- = Residential Mixed Use OP- = Office Park OX- = Office Mixed Use NX- = Neighborhood Mixed Use CX- = Commercial Mixed Use DX- = Downtown Mixed Use IX- = Industrial Mixed Use	3 = 3 stories max 4 = 4 stories max 5 = 5 stories max 7 = 7 stories max 12 = 12 stories max 20 = 20 stories max 40 = 40 stories max	PK = Parkway DE = Detached PL = Parking Limited GR = Green UL = Urban Limited UG = Urban General SH = Shopfront	RX-3: Residential Mixed Use, up to 3 stories, no frontage required OX-5-SH: Office mixed use, up to 5 stories, shopfront frontage required CX-7-PK: Commercial mixed use, up to 7 stories, parkway frontage required

Article 3.3. Height Requirements

Sec. 3.3.1. Applicability

- A. Each mixed use district must include one of the following height designations. The designation establishes the maximum height in stories and feet for each mixed use district. For example, CX-7 has a maximum height limit of seven stories or 90 feet.
- 3 3 stories / 50 feet max
 - 4 4 stories / 62 feet max
 - 5 5 stories / 75 feet max
 - 7 7 stories / 90 feet max
 - 12 12 stories / 150 feet max
 - 20 20 stories / 250 feet max
 - 40 40 stories / 500 feet max
- B. The height requirements apply to apartments, general buildings, mixed use buildings and civic buildings. Maximum heights for detached house, attached house and townhouse are set forth in [Article 3.2](#).
- C. The minimum height requirements apply only to the urban frontages. The urban frontages include the following: Green, Urban Limited, Urban General and Shopfront. Civic buildings are exempt from the minimum height requirements.

Sec. 3.3.2. Building Height Standards

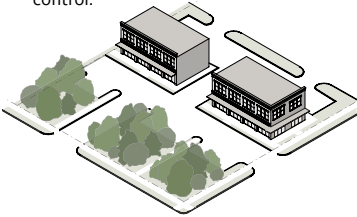


District		-3	-4	-5	-7	-12	-20	-40
A. Max Height								
A1	Building height (max stories)	3	4	5	7	12	20	40
A1	Building height (max feet)	50'	62'	75'	90'	150'	250'	500'
B. Min Height (Urban Frontages Only)								
B2	Building height (min stories)	n/a	n/a	n/a	2	2	3	3
B3	Street facing facade at min height (min % of lot width)	n/a	n/a	75%	75%	75%	75%	75%
B4	Depth of min height from front building facade into lot (min)	n/a	n/a	30'	30'	45'	60'	60'

Article 3.4. Frontage Requirements

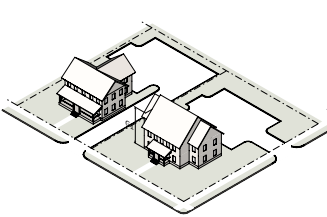
Sec. 3.4.1. Purpose and Intent

Frontages link a desired development pattern with specific form requirements that mandate the type of development desired along the street edge. Frontages place additional limitations beyond the base dimensional standards. Where there is a conflict between the base dimensional standards and the frontage requirements, the frontage requirements control.



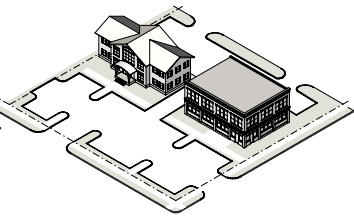
A. Parkway (-PK)

The -PK Frontage is intended to provide a heavily landscaped buffer between the roadway and adjacent development to ensure a continuous green corridor along the street edge.



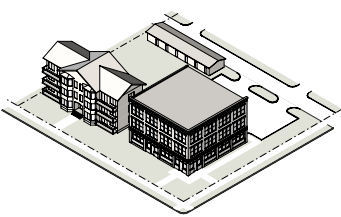
B. Detached (-DE)

The -DE Frontage is intended for areas adjacent to roadways transitioning from residential to commercial. Accommodates neighborhood-scaled, low intensity commercial uses while maintaining the residential character of the street.



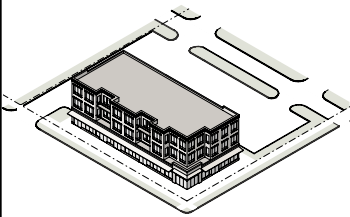
C. Parking Limited (-PL)

The -PL Frontage is intended for areas where access to buildings by automobile is desired but where some level of walkability is maintained. Permits a maximum of two bays of on-site parking with a single drive aisle between the building and the street.



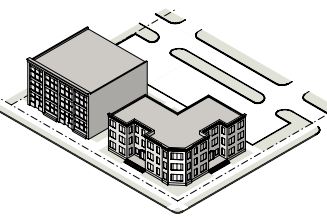
D. Green (-GR)

The -GR Frontage is intended for areas where it is desirable to locate buildings close to the street, but where parking between the building and street is not permitted. Requires a landscaped area between the building and the street.



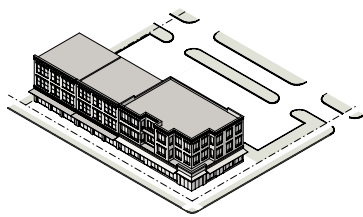
E. Urban Limited (-UL)

The -UL Frontage is intended for areas where parking between the building and street is not allowed. Buildings abut the street and sidewalk but to balance the needs of both the pedestrian and automobile greater spacing is allowed along the street wall.



F. Urban General (-UG)

The -UG Frontage is also intended for areas where parking between the building and street is not allowed. Buildings abut the street and sidewalk but the -UG frontage has a higher street wall requirement than the -UL frontage.



G. Shopfront (-SH)

The -SH Frontage is for intended for areas where the highest level of walkability is desired. The -SH Frontage is intended to create a "main street" type of environment, therefore, mixed use buildings are the primary building type allowed.