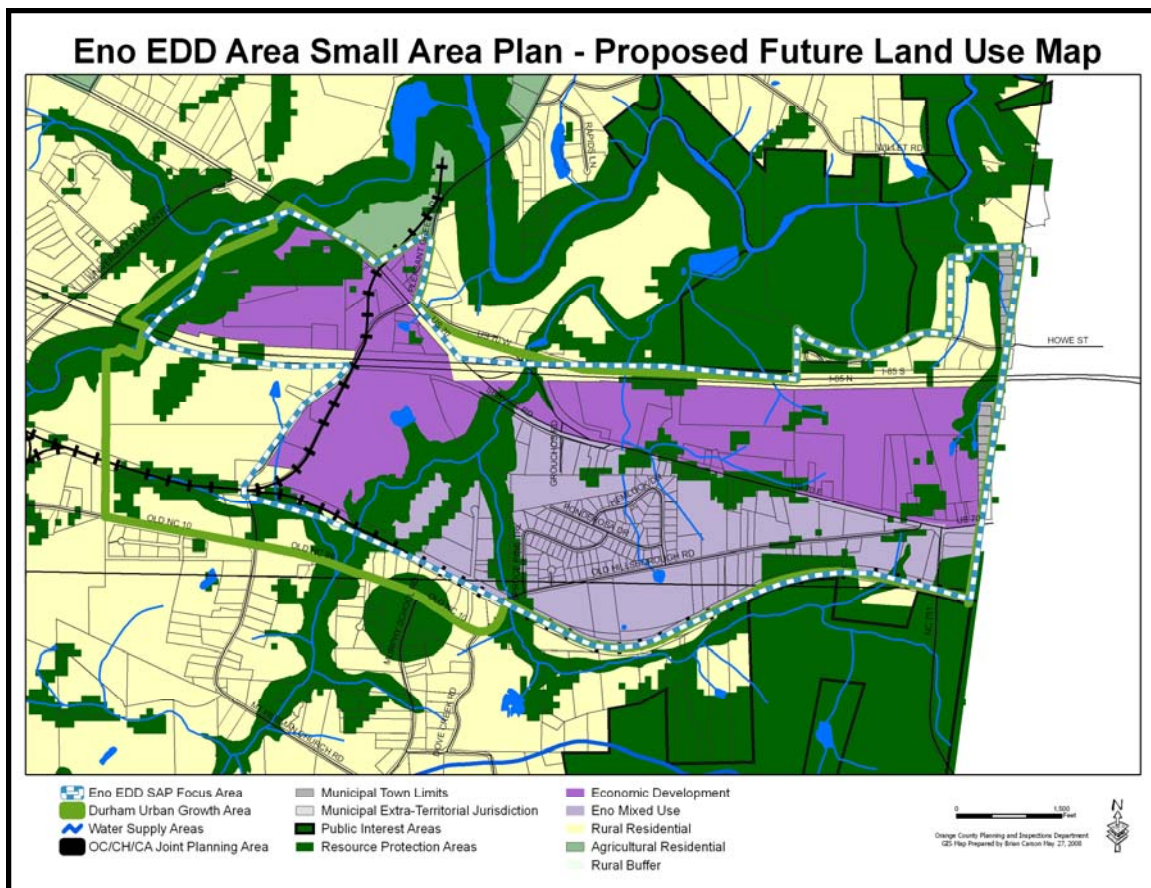


Eno Economic Development District (EDD) Area Small Area Plan

A Collaborative Plan by Community Representatives, Elected Officials, and Staff of the Orange County Planning Department, Orange County Economic Development Department, and Durham City/County Planning Department



Adopted June 24, 2008

Amended February 3, 2009

Adoption Notes

At the June 24, 2008 Orange County Board of County Commissioners meeting, the Board voted to adopt the Eno EDD Area Small Area Plan with the following notes/comments:

1. The Permitted Use Table in Appendix A is referred to but not adopted.
2. Regarding the proposed new Future Land Use category definition in section IV.B (page 49), the proposed percentage or acreage limit on residential uses should be determined and brought back to the November 2008 Quarterly Public Hearing.
3. Orange County recommendations in the TIP (Transportation Improvement Plan) related to wildlife corridors under Interstate 85 should be included in the Plan. (Note: language has been added to Section IV.C, #2 [page 52] to address this comment).

Amendment Notes

1. At the February 3, 2009 Orange County Board of County Commissioners meeting, the Board voted to amend the definition of the proposed Eno Mixed Use Future Land Use category, establishing an acreage limit on residential uses within the proposed district. (per Adoption Note 2)

Eno Economic Development District (EDD) Area Small Area Plan

Task Force Members:

William DuBose, Property Owner
Donna Easterlin, Property Owner
Donald Easterlin, Property Owner
Mark Micol, Property Owner
Mark O'Neal, Business Owner
Valerie Foushee, Board of County Commissioners
Brian L. Crawford, Planning Board
Bob Ward, Economic Development Commission
Robin Jacobs, Eno River Association/State Park

Recurring Task Force Meeting Guests: (attended 2 or more Task Force meetings)

Dorothy Bane	Charles Micol
Tim Barber	Giovanni Micol
James Batson	DeeAnn Nichols
Don Buedil	Dwight Nichols
Alois Callemyn	Peggy Parker
Rachael Clayton	Frank Ray
Frank DePasque	Karen Ray
William Hiltbold	Allen Rosen
Waylon McFarland	Don Sykes
David McLeod	Gerald Micol Womble
Judy McLeod	Steve Yushasz

Orange County Board of Commissioners Representatives:

Valerie Foushee
Barry Jacobs

City of Durham Staff:

Aaron Cain, Planner

Orange County Staff:

Willie Best, Assistant County Manager
Craig Benedict, Planning Director
Paul Thames, County Engineer
Yvonne Scarlett, Economic Development Commission Administrative Assistant

Table of Contents

	Executive Summary	iii
I.	Introduction	1
II.	Previous Plans	6
	1981 Orange County Land Use Plan	6
	Stoney Creek Basin Small Area Plan	7
	Town of Hillsborough/Orange County Strategic Growth Plan	10
III.	Area Description	11
	A. Environmental	11
	Soils, Slope and Topography	11
	Hydrology	17
	Vegetation	21
	B. Cultural	23
	C. Demographics	25
	D. Infrastructure	28
	Transportation	28
	Roads	29
	Rail	33
	Pedestrian/Bicycle Facilities	34
	Bus, Car/Van Pool, and Park 'n Ride Lots	34
	Utilities	35
	Communications	35
	Telephone	35
	Internet Service	35
	Natural Gas and Electric Power	35
	Water Service	35
	Sanitary Sewer Service	37
	Water and Sewer Management, Planning and Boundary Agreement	37
	E. Recreation, Parks and Open Space	39
	Recreation and Parks	39
	Open Space	39
	F. Land Use and Zoning	40
	Existing Land Use	40
	Future Land Use (adopted map)	40
	Existing Zoning	42
	G. Intergovernmental Context	42
	City of Durham Existing Water and Sewer and Annexation Policies	42
	H. Housing	45
	I. Economic Development	46
IV.	Current Major Issues and Solution Recommendations	47
	A. Water and Sewer	47
	B. Land Use and Zoning	48
	C. Transportation	52
	D. Housing	54
	E. Parks, Recreation and Open Space	55

F.	Communications	55
G.	Intergovernmental Issues	56
H.	Other Recommendations	56
	Potential Strategic Growth and Rural Conservation (SGRC) Program	56
	Plan Updates	57
	Implementation	57
Appendix A – Proposed EDD Zoning Permitted Use Tables pertaining to the Eno EDD		58
Appendix B – Access Management		67

List of Maps

Map 1:	Eno EDD Area Small Area Plan Boundary	4
Map 2:	Area Perspective	5
Map 3:	Stoney Creek Basin Planning Area	9
Map 4:	Soil Limitations – Dwellings	12
Map 5:	Soil Limitations – Septic Systems	13
Map 6:	Whispering Pines Subdivision	14
Map 7:	Topography	16
Map 8:	Watersheds	18
Map 9:	Wetlands, Floodplains, and Alluvial Soils	20
Map 10:	Vegetation Types	22
Map 11:	Historic Sites	24
Map 12:	Census 2000 Census Blocks	25
Map 13:	Road Classifications	29
Map 14:	DOT Traffic Count Locations	30
Map 15:	Water Lines	36
Map 16:	Water and Sewer Management Planning and Boundary Agreement Map	38
Map 17:	Currently Adopted Future Land Use Map	41
Map 18:	Existing Zoning Map	43
Map 19:	City of Durham’s Urban Growth Area and Future Land Use within Orange County	44
Map 20:	Mobile Home Parks	45
Map 21:	Proposed Future Land Use Map	50
Map 22:	Proposed Zoning Map	51
Map 23:	Transportation Access Management Concept Plan	53

Executive Summary

The “Current Major Issues and Solution Recommendations” section of the Eno Economic Development District (EDD) Area Small Area Plan includes a Goal for the planning area and an Objective for each topic area. This section of the plan begins on page 47 and concludes on page 57. Recommendations have been made in the following topic areas:

- Water and Sewer
- Land Use and Zoning
- Transportation
- Housing
- Parks, Recreation and Open Space
- Communications
- Intergovernmental Issues
- Other Recommendations:
 - Potential Strategic Growth and Rural Conservation (SGRC) Program
 - Plan Updates
 - Implementation

Following is a brief synopsis of the most significant recommendations made in this plan. All topic areas for which recommendations have been made are not included in this synopsis.

Water and Sewer

- Complete a preliminary engineering study of a master plan for public water and sewer master plan.
- Coordinate the engineering study with the City of Durham who would serve this area through an Interlocal Utility Service Agreement.

Land Use and Zoning

- Change the Land Use classification of the existing Economic Development District and Commercial Node to Economic Development or Mixed Use (see Maps 17 and 21).
- Revise the zoning map and text for the Economic Development District by amending the EDD zoning permitted use tables pertaining to the Eno EDD to reflect the structure shown in Appendix A and amending the Zoning Atlas to ensure zoning is consistent with the new zoning construct and the Proposed Future Land Use Map shown on Map 21 (see Map 22 for proposed zoning).

Transportation

- Support the proposed future improvements by NCDOT that will redesign the I-85/US 70 interchange. Develop a US 70 and secondary roads Access Management Plan to manage traffic.

Housing

- Ensure that zoning text and map changes are completed in such a way that residential uses that were constructed as conforming uses in the current Secondary EDD area are not made nonconforming uses under any new zoning designation.
- Ensure that if existing mobile home parks are redeveloped into other uses that the property owner and County work together to help displaced residents find suitable, decent, alternative housing.

Intergovernmental/Community Issues

- Orange County and the City of Durham should pursue an Interlocal agreement for the efficient provision of sanitary sewer services into the Focus Area and the expansion of water service in the area.

I. Introduction

In June of 2004, Orange County Planning staff presented a proposal to establish a courtesy review process and agreement with the City of Durham and Durham County. The board voted to bring the resolution back on the consent agenda with changes to include a minimal 45-day review time frame.

In subsequent meetings with staff from the Durham Joint City-County Planning Department, staff has discussed revising the draft agreement to incorporate a minimum 45-day time frame for reviewing applications. Durham was not amenable to that revision.

The Durham City Council, on November 16, 2004, and the Board of Durham County Commissioners, on November 22, 2004, endorsed A Resolution Establishing The Intent Of Durham County, Durham City, And Orange County To Cooperate With Regard To Planning Issues In Certain Defined Areas that contains language to “coordinate with each other on a timely basis within the current framework and schedule of the local development review process”.

Courtesy Review is a process where the respective Planning Staffs share development proposals within certain designated areas of their jurisdictions and provide written comments. Additionally, Orange County coordinated with Durham City/County during Durham’s Comprehensive Plan Update in 2003-04 to ensure matching urban growth boundaries.

As a result of the various ongoing discussions, the Orange County Board of County Commissioners (BOCC) approved the formation of a citizen Task Force in June 2006 to work with Economic Development and Planning Staff in developing a plan for the Eno Economic Development District (formerly known as the I-85/US-70 EDD). Prior to Task Force formation, the general scope of Task Force responsibilities was defined as follows:

Meetings with residents and property owners in the Eno Economic Development District (EDD) area on December 29, 2005 and May 23, 2006 have highlighted the need to address land use, infrastructure, and local government jurisdictional issues. Planning and Economic Development staff propose the development of a small area plan for the Eno EDD by a task force composed of residents and property owners, at-large representatives, volunteers from advisory boards, and elected representatives. Local government staff (representing planning, economic development, and engineering) will assist in the process.

The Task Force is proposed to consist of:

- 3-5 property owners
- 2-4 business owners
- 3 at-large representatives
- Orange County BOCC liaison
- Durham City Council liaison

- Orange County Planning Board member
- Orange County EDC member
- Eno River Association/Eno State Park representative

Eight area property and business owners have volunteered to participate in the small area planning process. During the summer, staff will work with the County Clerk's office to recruit the remaining members of the task force, with formal appointments to be made by the Board of County Commissioners on August 22, 2006.

The small area plan for the Eno EDD was originally being completed in accordance with the planned update of the Orange County Land Use Element. As the Land Use Element's timeline for completion has been extended, staff believes that this project should be completed independently of the update. At the May 22, 2006 Quarterly Public Hearing between the County Commissioners and Planning Board, staff was asked to prepare an abstract outlining the recommended process of developing a Small Area Plan for the area.

The general mission of the Task Force is to evaluate the existing Land Use Element of the County's Comprehensive Plan, as it pertains to the Eno EDD area, and offer local perspective on whether the existing Land Use Element Map categories of: Economic Development District; Commercial Node; Resource Protection Areas; Rural Residential; and roadways are adequate in size, density, intensity, scale, or location to address changes that are occurring in the area.

A Task Force of 9 citizens was appointed by the BOCC. Additionally, the City of Durham was invited to appoint representatives to the Task Force since Intergovernmental coordination would be essential given that the planning area is within Durham's Urban Growth Area, as identified in Durham's Comprehensive Plan. One City of Durham staff member served on the Task Force and other Durham staff from the Manager's office and Water Management Department attended meetings as needed. A member of Orange County's BOCC also served on the Task Force (originally Commissioner Barry Jacobs and later Commissioner Valerie Foushee).

The following issues and questions were to be examined as part of the Small Area Plan process and were included in the task force formation approval process. It was acknowledged that additional issues and questions may arise following community meetings:

1. What are the implications of extending water and sewer for current development?
2. What are the implications of extending water and sewer for future development?
3. What are the implications of not extending water and sewer?

4. What are the costs of extending water and sewer and who pays?
5. What changes in local government jurisdiction might occur as a result of extending water and sewer?
6. What is an appropriate level of nonresidential development in the area?
7. How will buffering and transitioning of existing, and possible future, nonresidential development be accomplished to avoid impacts on existing residential development?
8. What are the implications for residential rebuilding for an area designated as EDD?
9. What types of additional nonresidential land uses are to be considered for the area and how will their impact be mitigated?
10. What additional traffic related issues will be generated by potentially allowing for additional nonresidential development?
11. What will be done to protect the environmental integrity of Duke Forest and Eno River State Park?
12. What ancillary impacts will be generated in Orange and Durham Counties as a result of potentially allowing for additional nonresidential development?

Recommendations made by the Task Force will be incorporated into a final report to be prepared by the Orange County Planning Staff and Economic Development Department, reviewed by the Task Force, referred to the Economic Development Commission, and forwarded to the Board of County Commissioners.

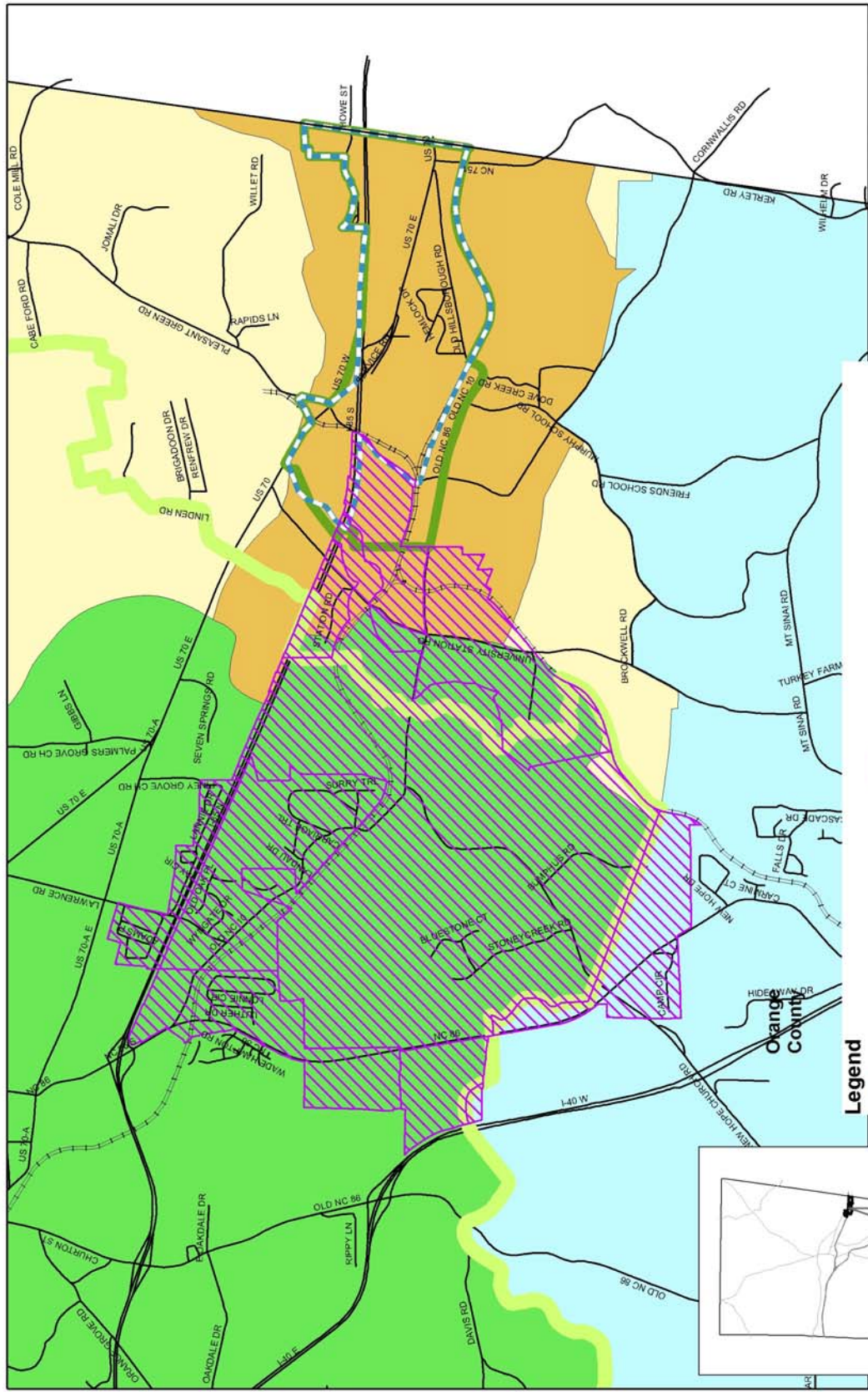
Recommendations, where appropriate, will be incorporated into the Draft Orange County Comprehensive Plan Land Use Element, Orange County Zoning Atlas and/or text, Economic Development District Design Manual zoning addendum, and Orange County Subdivision Regulations.

The area within the “Eno EDD SAP Focus Area” depicted on Map 1 is referred to as the “planning area” or the “Focus Area” throughout this document. The Focus Area is comprised of approximately 942 acres.

Map 2 provides an Area Perspective that depicts the central portion of Orange County and shows the boundaries of the Focus Area relative to other planning efforts in the area such as the Hillsborough/Orange County Coordinated Planning Area and the currently planned boundaries for public water and sewer services (see later section on the Water and Sewer Management Planning and Boundary Agreement for more information).

This Plan is the result of a series of fourteen (14) Task Force meetings that occurred from early 2006 to Spring 2008.

Eno EDD Area Small Area Plan - Boundary

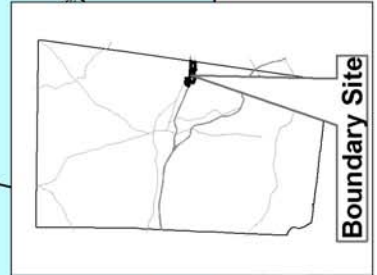


0 2,000 4,000 Feet

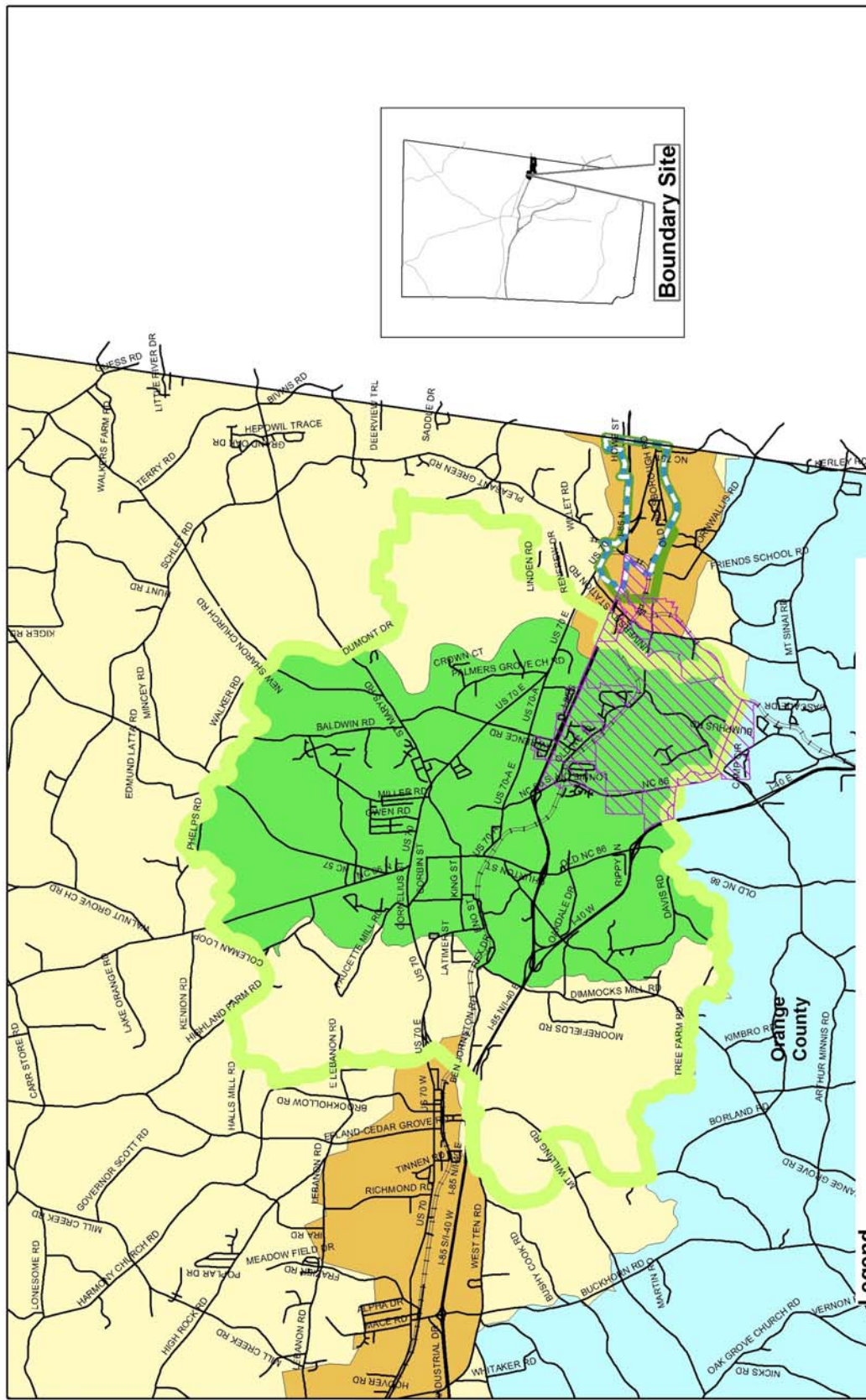
Orange County Planning and Inspections Department
 GIS Map Prepared by Miriam Coleman May 27, 2006

Projection: North Carolina State Plane (feet)
 Datum: North American 1983

- Legend**
- Hillsborough Primary Service Area (WASMPBA)
 - OWASA Long-Term Interest Area (WASMPBA)
 - Orange County Primary Service Area (WASMPBA)
 - Orange County Long-Term Interest Area (WASMPBA)
 - Eno EDD SAP Focus Area Boundary
 - Durham Urban Growth Area
 - Stoney Creek Basin SAP Boundary
 - Town of Hillsborough / Orange County Coordinated Planning Area



Eno EDD Area Small Area Plan - Area Perspective



Orange County Planning and Inspections Department
 GIS Map Prepared by Miriam Coleman May 27, 2008
 Projection: North Carolina State Plane (feet)
 Datum: North American 1983

- Legend**
- Hillsborough Primary Service Area (WASMPBA)
 - OWAASA Long-Term Interest Area (WASMPBA)
 - Orange County Primary Service Area (WASMPBA)
 - Orange County Long-Term Interest Area (WASMPBA)
 - Eno EDD SAP Focus Area Boundary
 - Durham Urban Growth Area v4
 - Stoney Creek Basin SAP Boundary
 - Town of Hillsborough / Orange County Coordinated Planning Area



II. Previous Plans

1981 Orange County Land Use Plan (Renamed Land Use Element in 1988)

The Board of County Commissioners officially adopted the Land Use Plan in September 1981. Although the Plan is almost 25-years old, the basic themes and concepts of the plan are retained and adhered to by the County. These precepts include watershed protection, focusing commercial/industrial development to nodes (and eventually economic development areas in 1994) at strategic transportation intersections, and requiring zoning to be consistent with the Plan.

Since 1981, minor amendments to the Land Use Plan occurred. One of the more significant changes was approved in April 1988. The County moved towards a Comprehensive Plan model that breaks major topic areas out into various “Elements.” As a result, the Land Use Plan was renamed the Land Use Element of the Comprehensive Plan. When this change was made in 1988, the following Elements were to comprise the Comprehensive Plan:

- Land Use
- Transportation
- Housing
- Open Space
- Recreation
- Economic Development
- Services and Facilities
- and additional Elements as Required

The Land Use Element contains typical planning analysis of existing conditions related to demographics, building activity and trends, development constraints, land use and infrastructure, and goals, objectives, and policies. A county-wide Future Land Use Map is the result of the analyses. In addition, each of the seven Townships located in the county is covered in a Township Plan.

The I-85/US 70 Economic Development District (now known as the Eno EDD) area is situated in Eno Township, which is located in the east-central portion of Orange County. The Comprehensive Plan (land use) and subsequent zoning EDD Manual advocated the following proposals for the planning area:

- Primary EDD - Medium and higher intensity office, commercial, and light industrial development that would be most appropriately served by a centralized water and sewer system should be located within the I-85/US 70 corridor within the City of Durham’s Urban Growth Boundary.
- Secondary EDD - Low and medium intensity office development and moderate density residential development which would create minimal negative impacts on the Lower Eno water supply watershed.

The Comprehensive Plan also designated one activity node in the vicinity of the planning area:

- US 70/NC 751/Old NC10 area (Commercial Transition). An area south of US 70 adjacent to Old NC 10 and north of the railroad track. This Commercial Transition area is included in the Focus Area of this Eno EDD Area Small Area Plan (see Map 17).

In 1999, the Board of County Commissioners adopted a goal to prepare a new Comprehensive Plan beginning with the update of the Land Use Element. Extensive data collection, research, trends analysis, and community outreach for the Land Use Element was initiated in 2000 based on new Census information and is continuing.

Beginning in 2004, a combination of ‘small area plans’ such as this was initiated to examine the potential and constraints of urban growth on a smaller scale and with community input. These more in-depth studies in turn are woven into the overall Comprehensive Plan update which now entails all of the Comprehensive Plan elements: Land Use, Economic Development, Housing, Transportation, Cultural and Natural Systems, Recreation and Parks, and Services and Facilities.

Stoney Creek Basin Small Area Plan

The 1996 Stoney Creek Basin Small Area Plan (SGBSAP) applies to approximately 4,696 acres southeast of Hillsborough (see Map 1). The SAP contains five (5) main guideline topics:

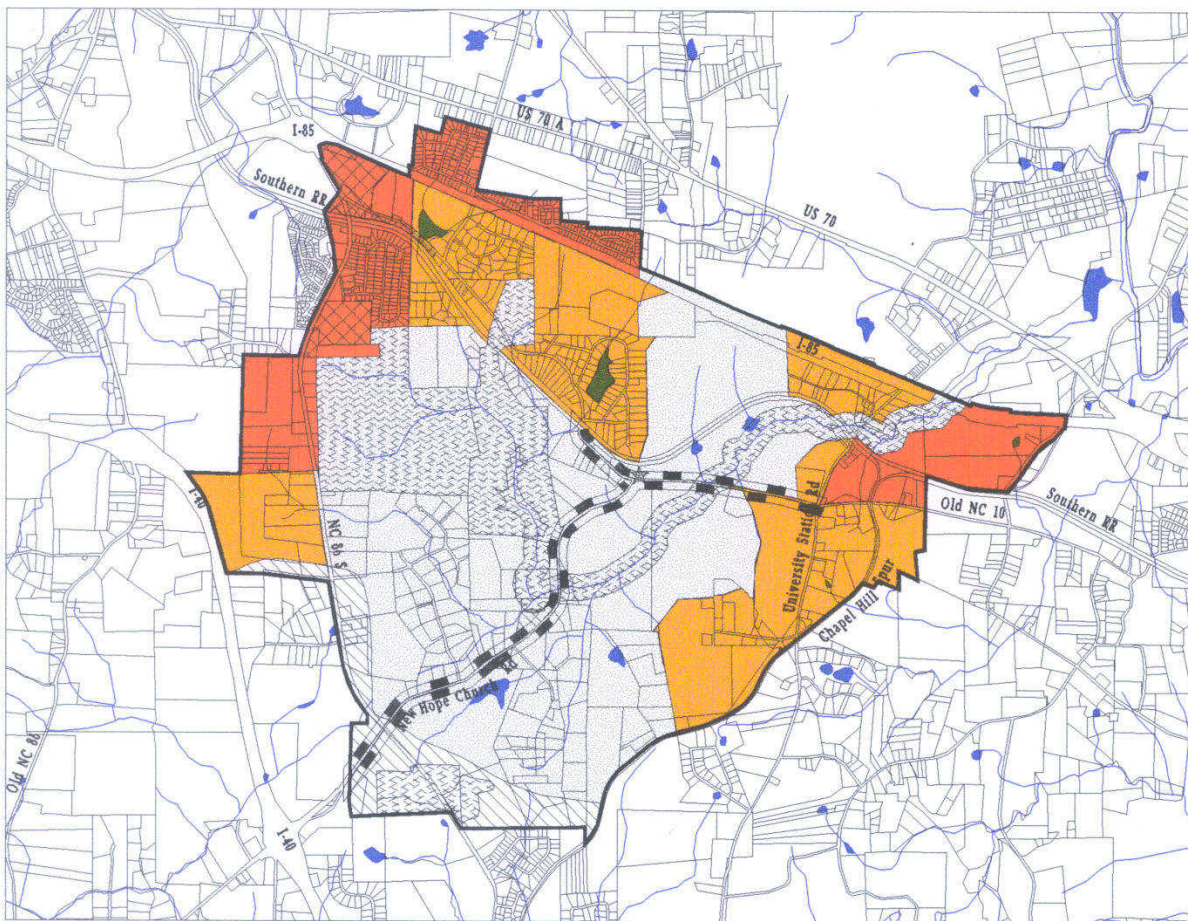
- Encourage preservation of rural landscapes including as much forested and agricultural land – and active farming – as economically feasible for the landowner.
- Encourage preservation of significant cultural and historical features.
- Protection of natural terrain features and sensitive ecological areas.
- Protection of area’s visual resources (vistas).
- Protection of character of existing neighborhoods from incompatible land uses/densities and direction of growth not rural in character toward municipal/transition areas.

The SCBSAP also designated areas for Lower Intensity Land Uses, Intermediate Intensity Land Uses, and Higher Intensity Land Uses (see Map 3). The description for each of these intensity areas is below. Additionally, the SAP contains a chapter on Implementation Strategies. Some of the strategies, such as the Flexible Development Option, have subsequently been adopted into Orange County regulations.

**Stoney Creek Basin Small Area Plan
Land Use Intensity Categories**

Higher Intensity Areas	These areas are generally synonymous with the ten and twenty year transition areas in the existing Land Use Plan (adopted 1981, amended 1988) or they are adjacent to areas proposed for future development on an urban scale. At some future date, they will most likely be incorporated into the municipalities of Hillsborough and Durham through the annexation process. A mix of land uses is possible in these areas and they will be served by water and sewer. They could be viewed as “receiving areas” for lower density areas to the south.
Intermediate Intensity Areas	These areas are intended to provide a transition between Higher and Lower Intensity Areas. They are envisioned as being predominantly residential with density being determined in large part by the character of existing development; water and sewer extension is <u>unlikely</u> .
Lower Intensity Areas	These areas comprise a substantial part of the planning area and contain most of the “Resource Areas” delineated on the draft plan. The current character of these areas is residential development on relatively large lots, a considerable number of large undeveloped tracts (both open and forested), and the only active farm in the area. Lower Intensity Areas typify the area’s remaining rural character. These are the areas where many of the plan’s protection goals (natural resource, visual, and neighborhood) will be achieved. Lower Intensity Areas are proposed to have the lowest average development densities in the future, to be determined in part by the character of existing development. Implementation tools that may be applied will probably go beyond limitations on density and could include features such as buffers and easements. Extension of water and sewer service to these areas is <u>not</u> envisioned.

Stoney Creek Basin Planning Area



Land Use Plan

Adopted by Orange
County Commissioners 8-5-96

Planning & Inspections
Department
Information Services Division
1-31-97 BRMc



•Plan recommendations not applicable
in Rural Buffer. Rural Buffer boundaries
based on Joint Planning Area Land Use Plan
adopted October 13, 1986

Legend

- Lower Intensity Land Uses
- Intermediate Intensity Land Uses
- Higher Intensity Land Uses
- Rural Buffer
- Resource Areas
- Commercial/Industrial (Current Plan)
- Scenic Road
- Possible Park Site

Presented at 5-28-96 Quarterly Public Hearing, Planning Board recommendation 7-9-96

[Table of Contents](#)

Town of Hillsborough/Orange County Strategic Growth Plan

Beginning in 2005, the Town of Hillsborough and Orange County embarked upon developing a Strategic Growth Plan for Hillsborough and the surrounding area. Phase I of the effort has been completed and consisted of discussing boundaries (annexation boundary, Rural Buffer, areas of joint concern), with general land use principles and the construction of a framework for Interlocal Agreements. The Coordinated Planning Area boundary is shown on Map 2 and is located approximately 1 mile west of the Eno EDD Area SAP Focus Area.

Phase II of this planning effort has commenced and is expected to move to implementation of the Plan and preparation of parcel-specific Land Use designations. Phase II will likely include negotiation and execution of an Interlocal Agreement as suggested in the Plan, and specifying jurisdiction and procedures for land use planning, zoning, and development review. Phase II will also include examination of priorities for transportation improvements within the Plan area.

III. Area Description

This section is a description of conditions/factors in the Focus area.

A. Environmental

Soils, Slope and Topography

Several different soil types are found within the Focus area but the predominant types are Georgeville Silt Loam and Appling Sandy Loam. Georgeville and Appling soils are considered to be suitable soils for urban uses but may need septic field modifications due to their “moderate” permeability characteristics. Other soil types also found in the Focus area include Wilkes Gravelly Loam, Enon Loam, Herndon Silt Loam, Chewacla Loam, Tatum Silt Loam, Helena Sandy Loam, and Lignum Silt Loam. The following table depicts each soil type’s suitability for urban uses:

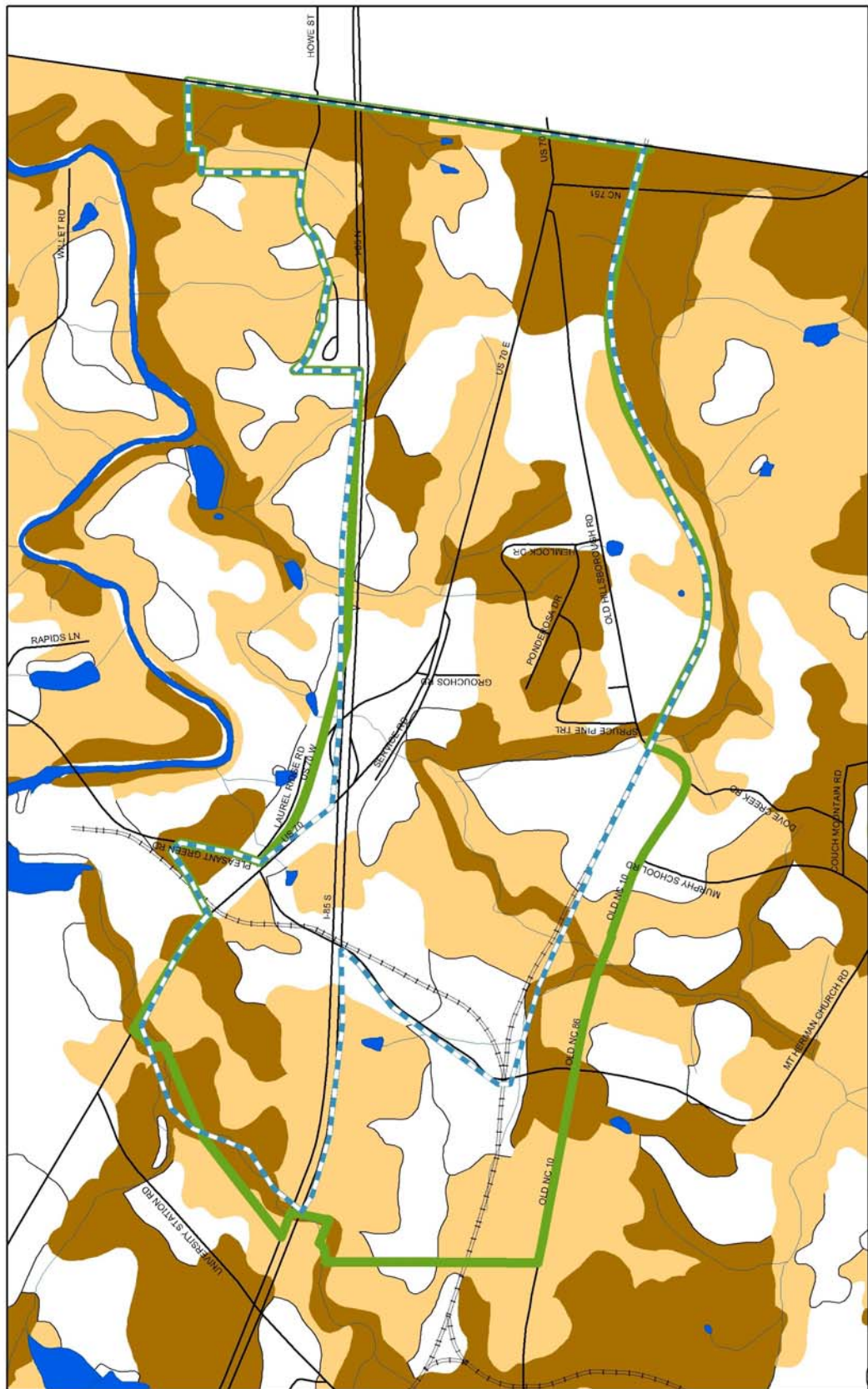
Soil Type	Suitability for Urban Uses
Appling Sandy Loam	High
Chewacla Loam	Low (found adjacent to streams and wetlands)
Enon Loam	Low (high shrink-swell potential)
Georgeville Silt Loam	High
Helena Sandy Loam	Low (high shrink-swell potential)
Herndon Silt Loam	High
Lignum Silt Loam	Low (slow permeability and wetness)
Tatum Silt Loam	Medium
Wilkes Gravelly Loam	Low (found on steep slopes)

Note: Soil types in bold print are the predominant soils in the Focus Area.

Maps 4 and 5 depict the Soil Limitations for Dwellings and Septic Systems, respectively, in the Focus area. (Note: The data used to produce the maps is from a USDA Soil Survey. Site-specific soil testing is necessary to confirm limitations). As Map 4 shows, severe soil limitations for dwellings (structures) are found in portions of the Focus area. Moderate soil limitations for dwellings (structures) are found in additional portions of the Focus area. In the Focus area, soil types can pose a challenge for locating structures and may increase construction costs since foundations that will support a structure on poor soils are generally more costly to design and construct.

Soil types that pose a challenge for buildings also tend to have poor characteristics for locating functional septic systems. As Map 5 shows, portions of the Focus area contain soil types that pose severe limitations for septic systems. Indeed, in Whispering Pines Subdivision approximately 40% of the lots remain undeveloped because of the inability to locate septic systems on the lots due to soil limitations (see Map 6). This limitation is not a factor in areas served by public sewer systems but it is a principal development consideration in areas where public sewer is not available.

Eno EDD Area Small Area Plan - Soil Limitations for Dwellings



Orange County Planning and Inspections Department
 GIS Map Prepared by Miriam Coleman May 27, 2008
 Projection: North Carolina State Plane (feet)
 Datum: North American 1983

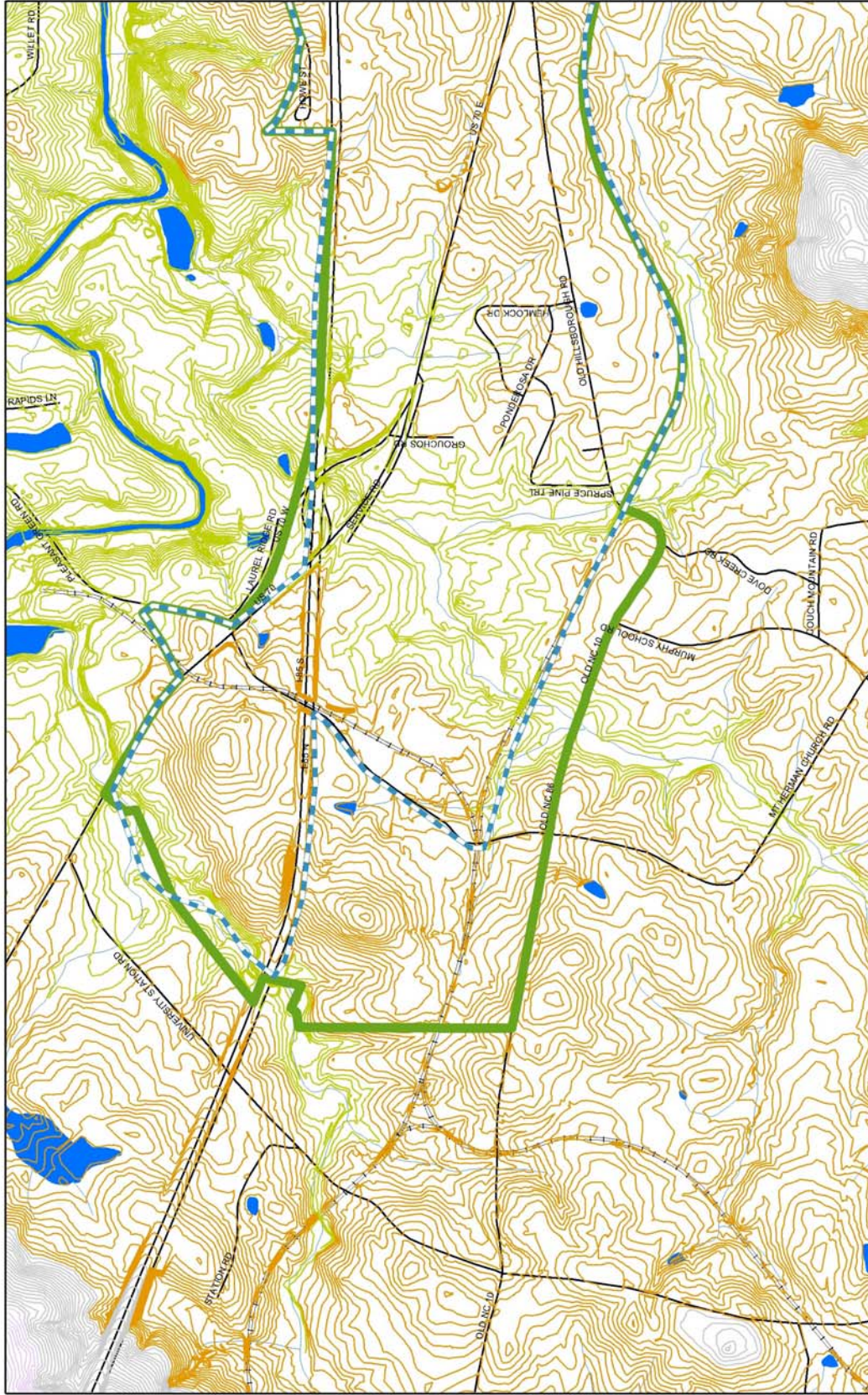
- Legend**
- Eno EDD SAP Focus Area Boundary
 - Durham Urban Growth Area v4
 - Severe Soil Limitations
 - Moderate Soil Limitations
 - Slight Soil Limitations



The Focus Area tends to have gradual changes in topography except in the northwest and northeast portions. Elevation within the Focus and Area ranges from 340 feet above sea level to 550 feet above sea level. Slopes are not particularly steep even in the vicinity of drainageways except in the previously noted portions.

Topography is an important factor in the location of gravity sewer lines where a goal is to minimize or even eliminate the number of necessary lift stations. Lift stations add substantially to the construction and on-going maintenance costs of the system. Map 7 depicts the Topography of the Focus area.

Eno EDD Area Small Area Plan - Topography



0 1,500 Feet

Orange County Planning and Inspections Department
GIS Map Prepared by Miriam Coleman May 27, 2008
Projection: North Carolina State Plane (feet)
Datum: North American 1983

- Legend**
- Eno EDD SAP Focus Area Boundary
 - Durham Urban Growth Area v4
 - Elevation (in feet)
 - 551 - 650
 - 651 - 750
 - 751 - 850

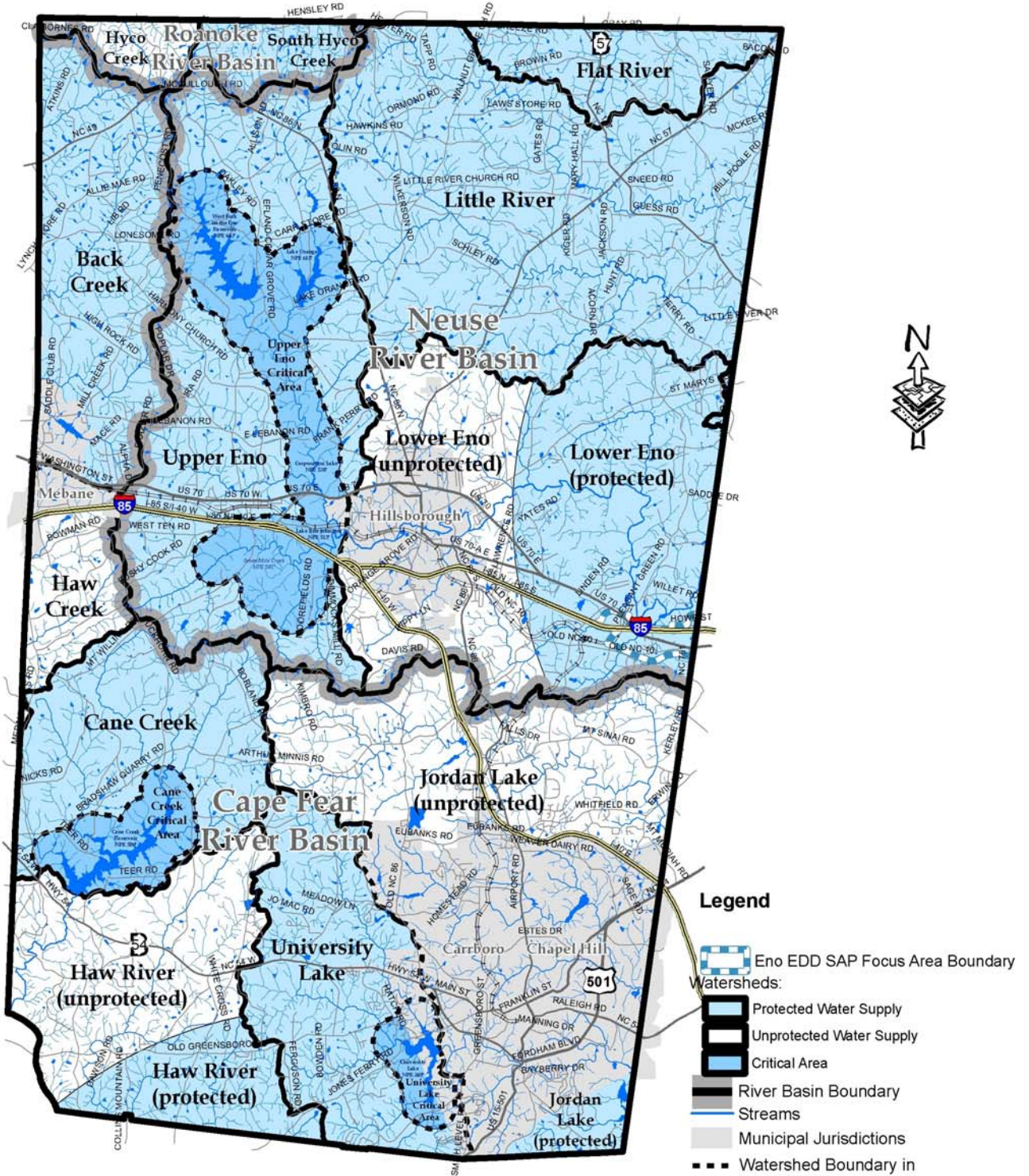
Hydrology

The Focus area is located entirely within the Lower Eno (protected) watershed (see Map 8).

The designation of protected vs. unprotected is related to State regulations associated with water-supply watersheds and measures implemented locally to protect water supply. Development within protected watersheds is subject to different restrictions than development in unprotected watersheds. The primary differences are in impervious surface limits, density restrictions, and septic system requirements.

The Lower Eno River is protected because the City of Durham has a water intake approximately 6 miles to the east. While the impoundment is not located within the planning area, this intake is a source of public drinking water for part of Durham.

Eno EDD Area Small Area Plan - Watersheds



Orange County Planning & Inspections Department
GIS map prepared by Miriam Coleman



Projection: State Plane
Datum: North American 1983
Watersheds/Critical Areas/Basins Data: November, 2005 Revision
Streams Data: October, 2003 Revision

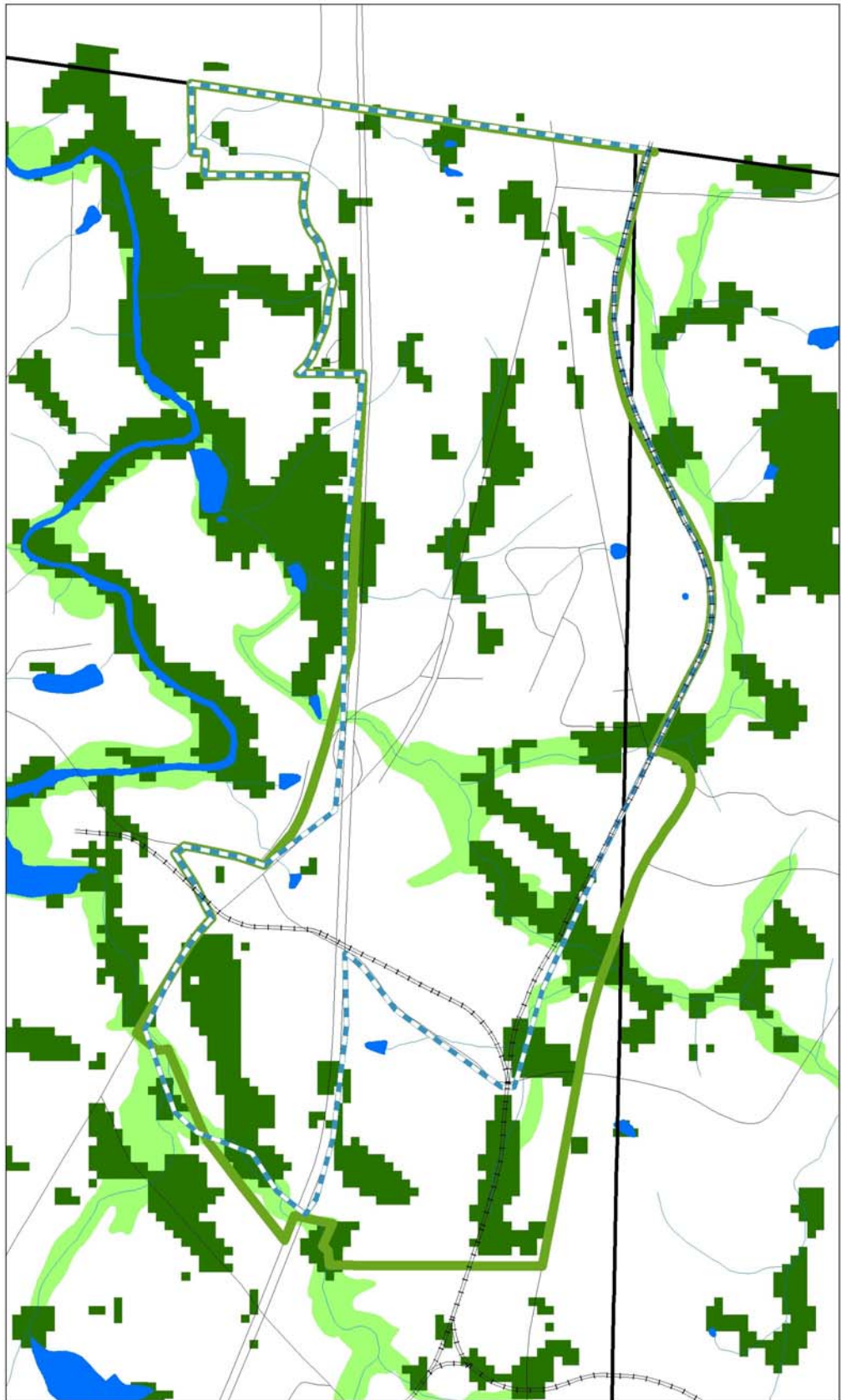
Note: This watershed map replaces previous versions.
Reference: Orange County Zoning Ordinance

[Table of Contents](#)

Floodplains and alluvial soils are located within the Focus Area predominantly along Rhodes Creek. There are more significant expanses of potential wetlands immediately north of the Focus Area closer to the Eno River. Alluvial soils are soil types located along stream corridors which have resulted from repeated deposition by flood waters over many years. They indicate areas of past and potential future flooding and therefore are areas that should remain in their natural state. Development regulations in Orange County prohibit development within floodplains.

Potential Wetlands have also been identified throughout the Focus area by using the presence of Bottomland Hardwood Forest vegetation as an indicator for the presence of wetlands. Wetlands are generally unsuitable for development and normally require additional regulatory oversight and permitting by the U.S. Army Corps of Engineers. Map 9 depicts the location of Wetlands and Floodplains and Alluvial Soils within the Focus area.

Eno EDD Area Small Area Plan - Wetlands, Floodplains, and Alluvial Soils



Legend

- Eno EDD SAP Focus Area Boundary
- Durham Urban Growth Area v4
- Bottomland Hardwood Forest
- Floodplains (100 - year) and Alluvial Soils

NOTE: The presence of Bottomland Hardwood Forest vegetation was used as an indicator for the presence of wetlands. A site specific wetlands delineation would need to be completed to determine the actual presence of wetlands on a particular site.

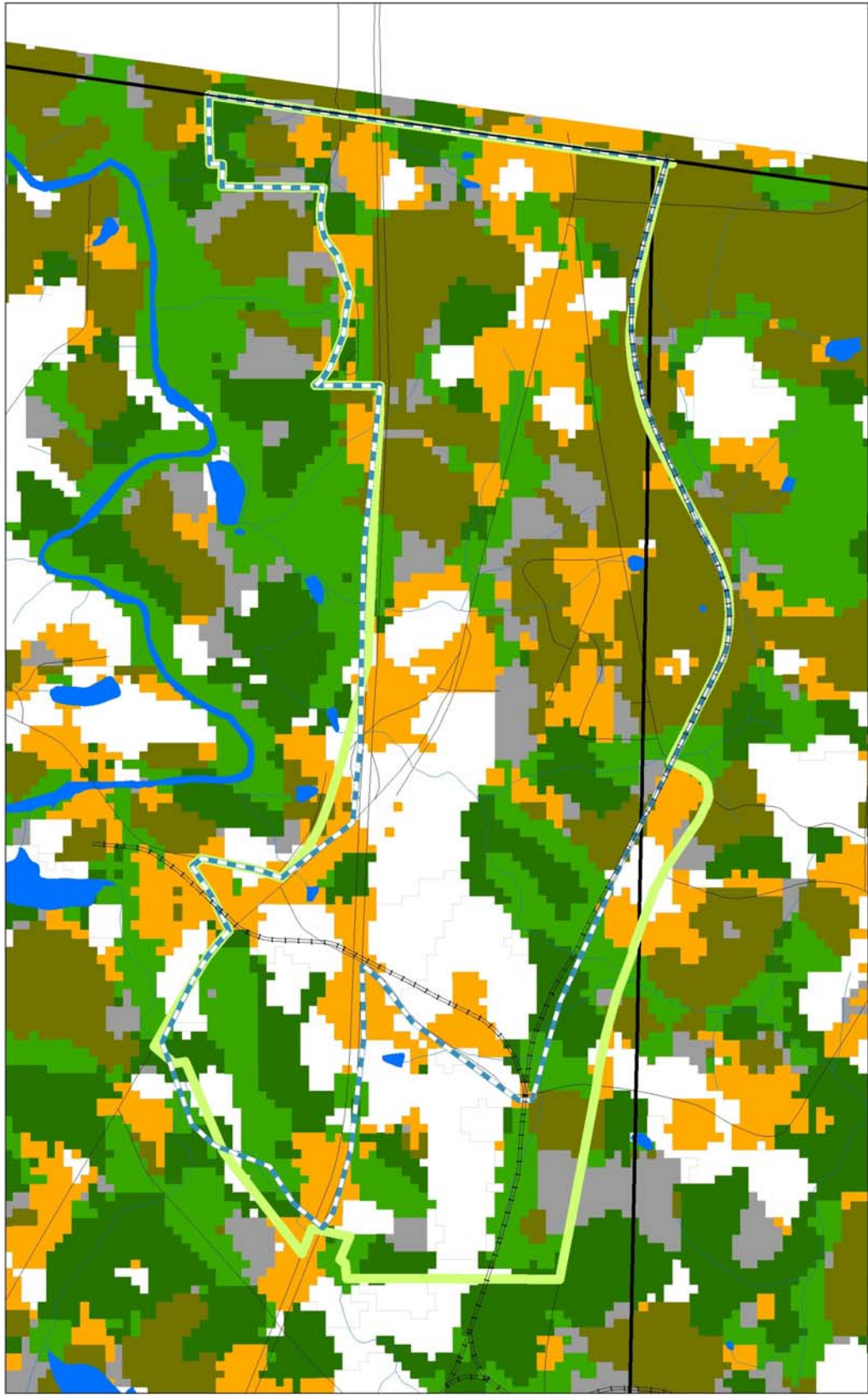
Orange County Planning and Inspections Department
GIS Map Prepared by Miriam Coleman May 27, 2008
Projection: North Carolina State Plane (feet)
Datum: North American 1983



Vegetation

Natural vegetation cover in the Focus area has been subject to urban disturbance and agricultural uses but remaining undeveloped areas consist mostly of hardwood and pine forests. Bottomland Hardwood is also found adjacent to drainageways. Map 10 depicts the Vegetation types in the Focus area using generalized data. The Land Use Element of the Comprehensive Plan includes a significance rating for Natural Areas/Wildlife Habitats. No significant sites are located within the Focus area; however, one prime regionally significant site comprising 128.9 acres is located immediately north of the Focus Area, just north of Howe Street, within the Eno River corridor. Additionally, the Eno River, just north of the Focus area, is a significant wildlife corridor and significant aquatic habitat and contains many rare aquatic animal species, according to the North Carolina Wildlife Resources Commission, Wildlife Management Division.

Eno EDD Area Small Area Plan - Vegetation Types



0 1,500 Feet

Orange County Planning and Inspections Department
GIS Map Prepared by Miriam Coleman, May 27, 2008
Projection: North Carolina State Plane (feet)
Datum: North American 1983

Legend

- Eno EDD SAP Focus Area Boundary
- Durham Urban Growth Area v4
- Mixed Pine/Hardwood
- Pine
- Bottomland Hardwood
- Hardwood
- Agriculture and Open Fields
- Developed areas

B. Cultural

The Focus Area does not contain any sites listed on the National Register or the National Register Study List. However, a 1991 survey of historic properties identified four sites immediately adjacent to the Focus Area as potentially having historic significance. These four sites are:

- Mt. Herman Church Cemetery (in Reserve Area)
- A house near the intersection of Pleasant Green Road and Interstate
- The Duke Power Work House near the intersection of Pleasant Green Road and Laurel Ridge Road (north of SAP boundary)
- The William Green Scarlett Farm (north of SAP boundary)

Map 11 shows the general location of historic sites in the Focus area.

According to existing available studies, the northern portion of the Focus Area has medium potential for containing archaeological remains. This is primarily due to the fact that all areas within one kilometer (0.62 miles) of the Eno River are considered to potentially contain archaeological resources.

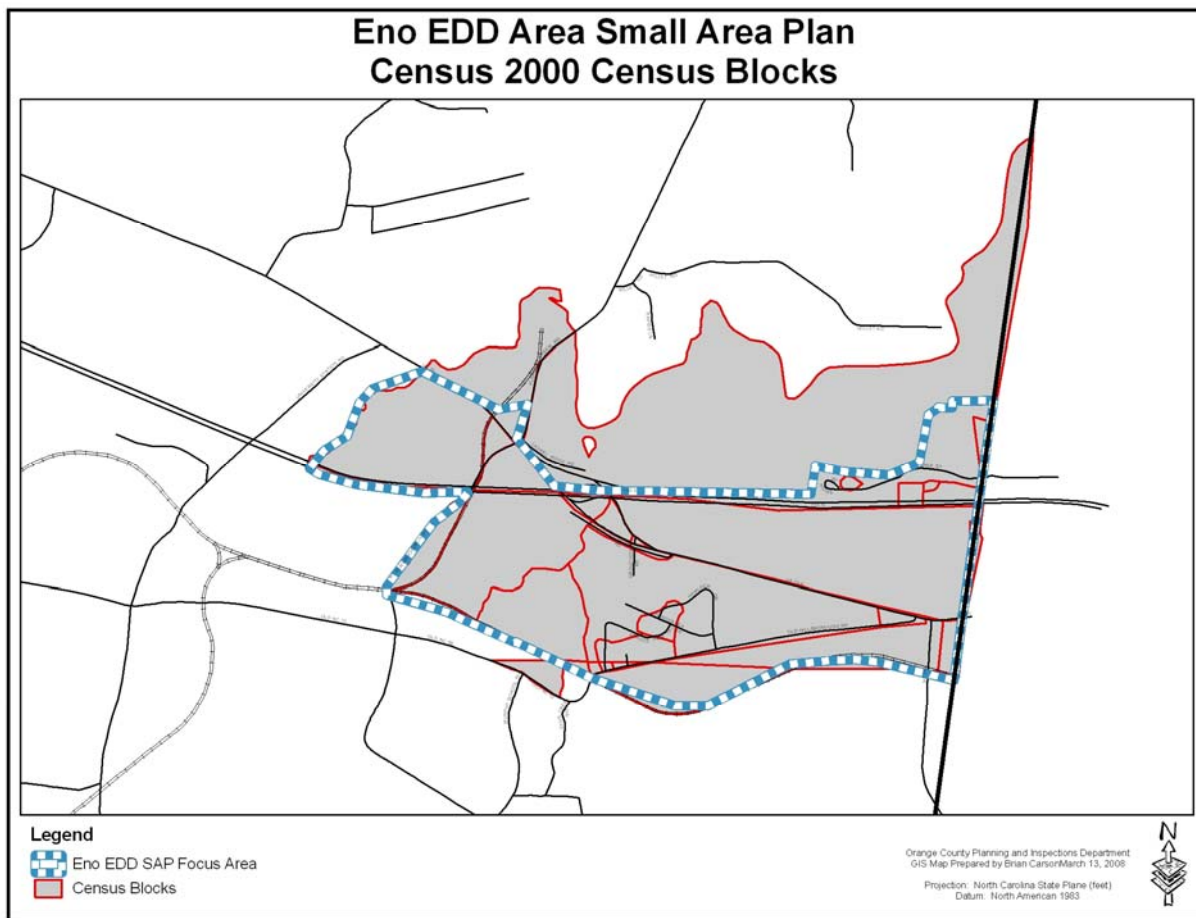
C. Demographics

The Year 2000 U.S. Census figures show that approximately 678 people live in the Focus area. (Please note that this number may actually be slightly lower since the Census Blocks that pertain to the Focus Area contain some lands outside of the focus area – see Map 12 below).

	Eno Township	Eno EDD Area
Total Population	6,092	678
<i>Urban</i>	1,808	545
<i>Rural</i>	4,284	113

Source of data: U.S. Census Bureau, Census 2000

Map 12



Racial Demographics

	Eno Township	Eno EDD Area
Not Hispanic or Latino Total	5953	662
White	5275	553
Black (African American)	544	93
American Indian or Alaskan Native	19	2
Asian	50	2
Some other Race	2	4
Two or more Races	63	8
Hispanic or Latino Total	139	16
White	69	11
Black (African American)	5	1
American Indian or Alaskan Native	3	0
Some other Race	49	4
Two or more Races	13	0

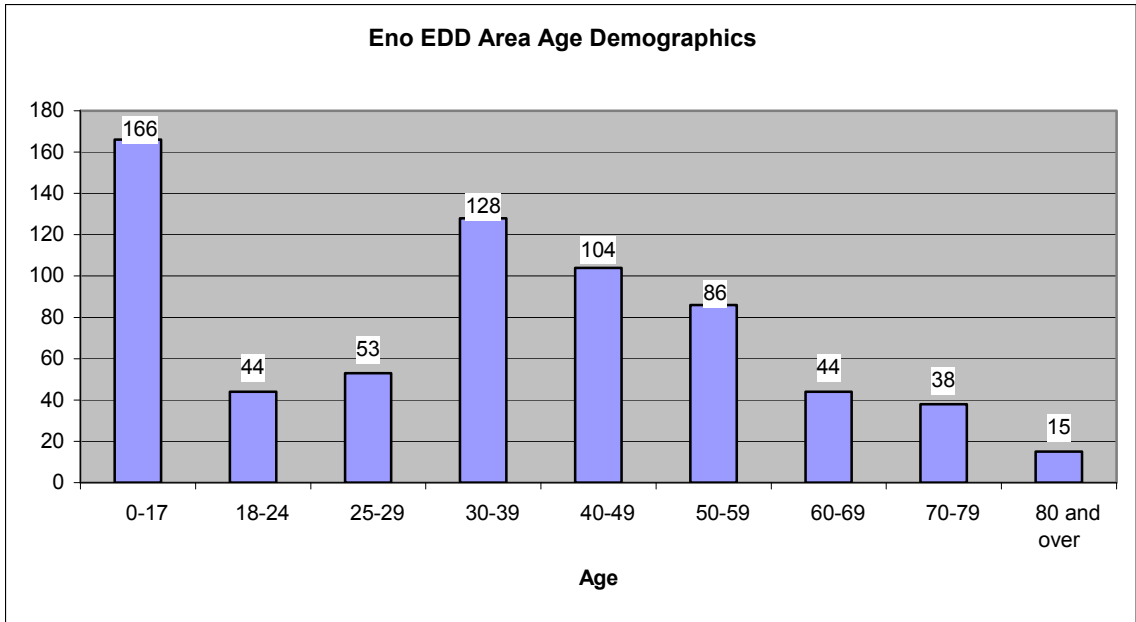
Source of data: U.S. Census Bureau, Census 2000

Approximately 81.6% of the population in the Focus Area is White and 13.7% of the population in Black (African American). Persons of Hispanic or Latino origin comprise approximately 2.4% of the Focus Area population. Other racial groups account for approximately 2.3% of the Focus Area's racial demographics.

Age Demographics

	Eno Township	Eno EDD Area
Total	6092	678
<i>0-17</i>	1479	166
<i>18-24</i>	364	44
<i>25-29</i>	350	53
<i>30-39</i>	981	128
<i>40-49</i>	1181	104
<i>50-59</i>	901	86
<i>60-69</i>	468	44
<i>70-79</i>	257	38
<i>80 and over</i>	111	15

Source of data: U.S. Census Bureau, Census 2000



Source of data: U.S. Census Bureau, Census 2000

	Number of Households	
	Eno Township	Eno EDD Area
Households	2449	301

Source: U.S. Census Bureau, Census 2000

The average household size in Eno Township is 2.49 persons per household while the average household size in the Eno EDD Area is 2.25 persons per household.

Eno Township Population and Population Projections (Simple Linear Model)

Year	1980	1990	2000	2010	2020	2030	2040
Population	4,450	5,262	6,092	6,913	7,734	8,555	9,376
Increase	N/A	+812	+830	+821	+821	+821	+821
% Increase	N/A	18.25%	15.77%	13.48%	11.88%	10.62%	9.60%

Eno Township Population and Population Projections (10 Year Average Growth Rate Model)

Year	1980	1990	2000	2010	2020	2030	2040
Population	4,450	5,262	6,092	7,128	8,340	9,758	11,417
Increase	N/A	+812	+830	+1036	+1212	+1418	+1659
% Increase	N/A	18.25%	15.77%	17.01%	17.00%	17.00%	17.00%

Data Source: U.S. Census Bureau and Orange County Planning Department

D. Infrastructure

Transportation

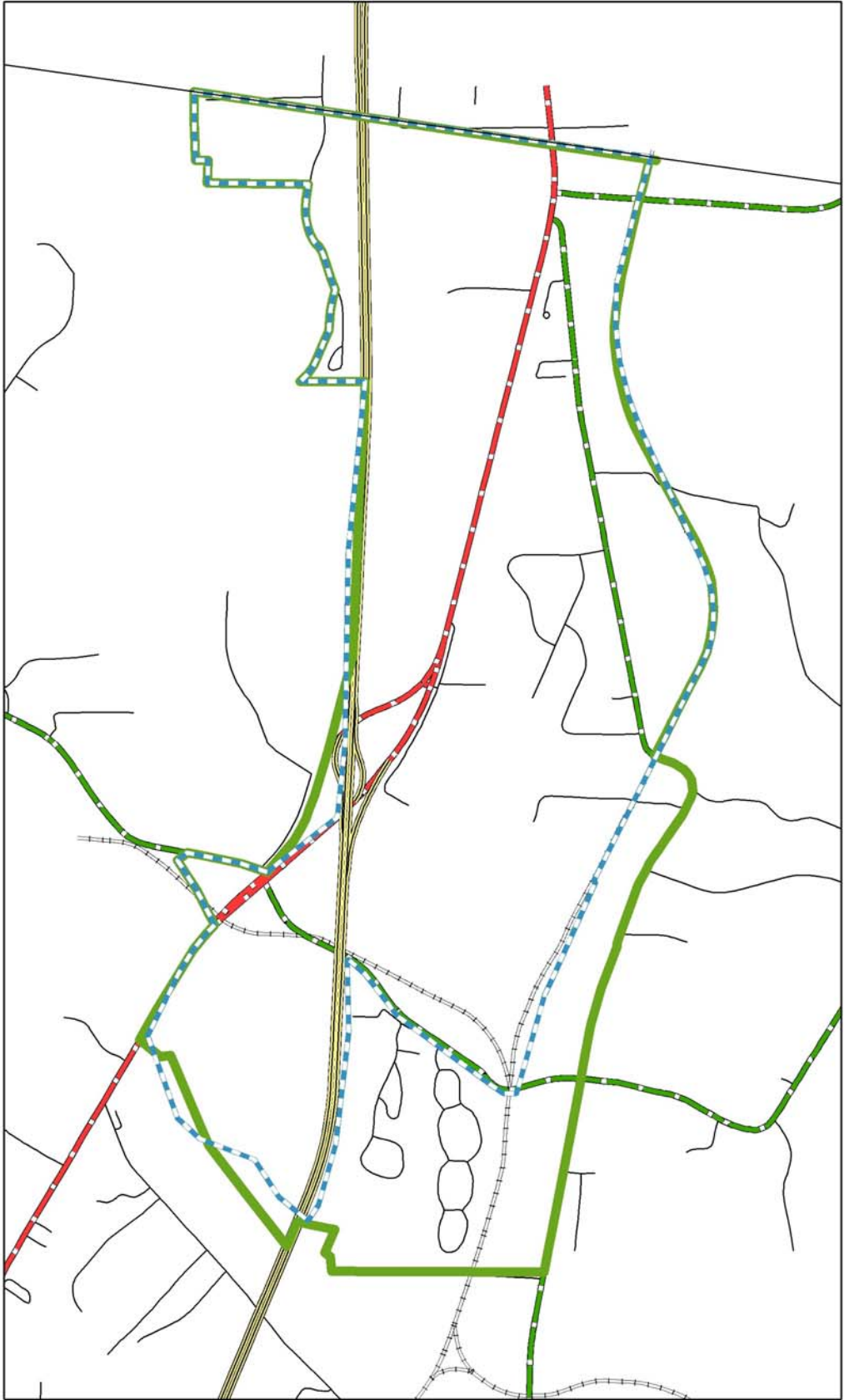
Roads

As part of county-wide transportation planning, roads in the Focus area have been classified using a road classification system refined from the NC Department of Transportation's classification system. Classification categories and general descriptions are as follows:

Category	General Description
Interstate	Major traffic-carrying facilities that are part of the Federal Interstate Highway system; trip length characteristics are predominantly long-distance intra- and inter-state. Right-of-way width is a minimum of 230-feet and can increase to over 300-feet, depending on the number of lanes.
Arterial	The primary traffic-carrying facilities in the county; trip length and travel density characteristics of substantial inter-county travel or of serving urban-type development; typically would include rural freeways. Right-of-way width is typically 70- to 110-feet, depending on the number of lanes and whether bicycle lanes are provided.
Collector	Facilities that generally service intra-county travel. Provides the network connection between local roads and the arterial system. Shorter lengths, lower volumes, and more land access than the arterial system. Right-of-way width is typically 60- to 100-feet, depending on the number of lanes and whether bicycle lanes are provided.
Local	Primarily serves as access to adjacent land use. Any traffic is local in nature, therefore volumes and length are relatively low. Local roads comprise all remaining public roads not classified as a higher function. Right-of-way width is typically 60- to 80-feet.

Map 13 depicts the road classifications in the Focus area.

Eno EDD Area Small Area Plan - Road Classifications

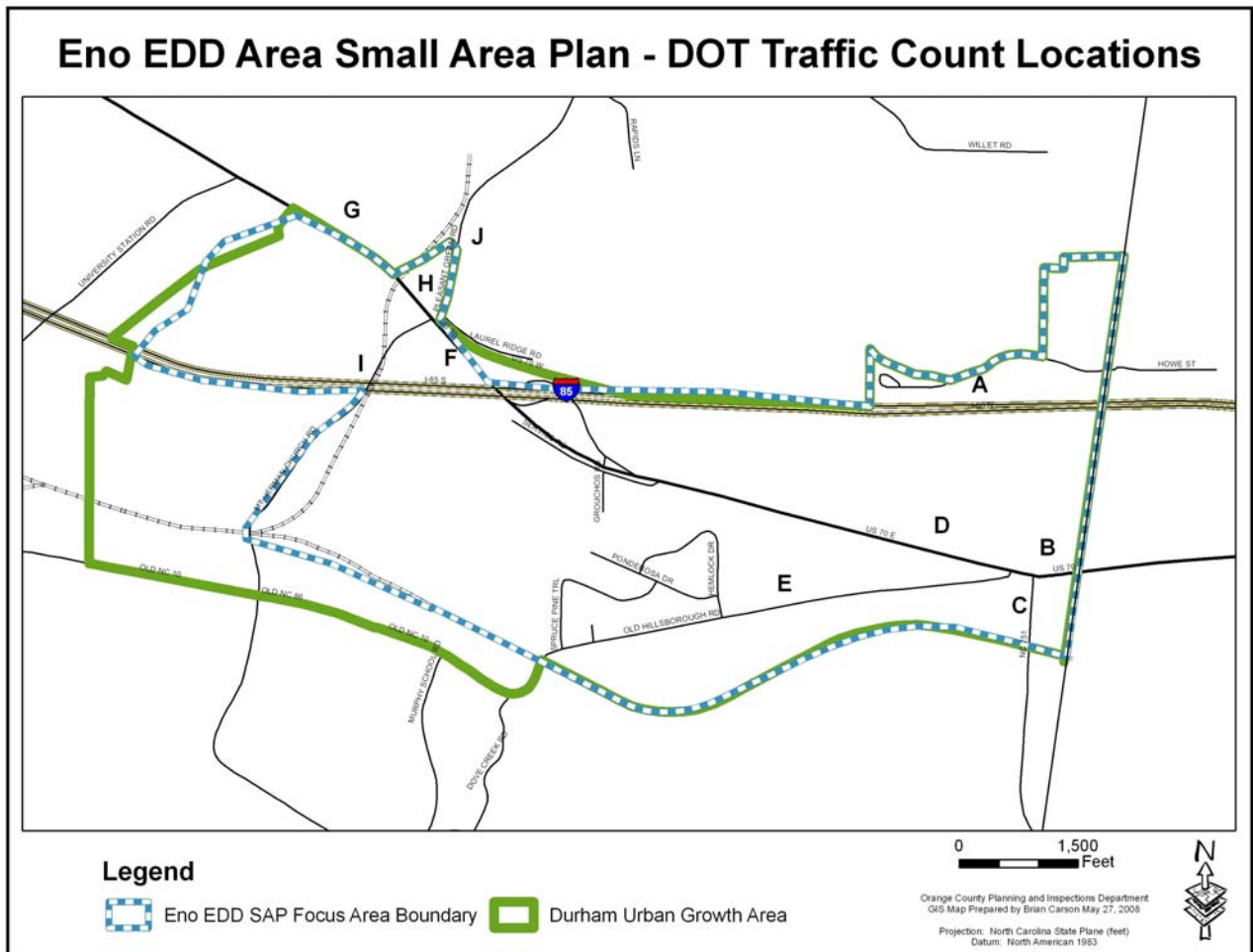


Legend

- Eno EDD SAP Focus Area Boundary
- Durham Urban Growth Area v4
- Collector
- Local
- Interstate
- Arterial

Map 14 depicts the points at which the North Carolina Department of Transportation (DOT) collects traffic count data. The Table on the next page shows the Average Daily Traffic counts collected by the (DOT) from 1999 to 2006. DOT does not collect traffic count data at every collection site every year. Years for which no data was collected at a specific point do not have a value in the chart showing the count.

Map 14



Average Daily Traffic Counts, by Year
1999-2006

(See map for ID locations)

ID	Location	1999	2000	2001	2002	2003	2004	2005	2006
A	I-85 Just west of Durham County line near I 85/US 70 intersection		46,000	47,000	50,000	42,000	53,000	51,000	49,000
B	US-70 Near Durham County Line	8,600		8,900		8,400		9,600	
C	NC-751 Near US 70	5,400		5,400		5,000		5,700	
D	US-70 West Of Durham County line Just West of Old No. 10	7,500		7,300		6,500		7,400	
E	Dove Creek Rd (Old No. 10) Near Hemlock Road	2,400		2,100		2,300		2,100	
F	I-85 between Pleasant Green Rd and US 70					37,000			41,000
G	US-70 Northwest Of Southern RR	12,000		13,000					
H	US-70 Between Southern RR And Pleasant Green Rd (Power Plant Rd)		12,000			12,000	11,000	12,000	12,000
I	Pleasant Green Rd (Power Plant Rd) Near Intersection with I-85	2,900		2,700		2,700		2,600	
J	Pleasant Green Rd (Power Plant Rd) Just North of US 70	3,400		3,400		3,600		3,900	

Average Daily Traffic relates directly to a concept called “Level of Service” (LOS). LOS calculations attempt to describe the traffic conditions of a given roadway as it relates to the carrying capacity of the road. The following are descriptions of LOS:

Level of Service	Description of Operating Condition
A	Free flow. Individual users are virtually unaffected by the presence of others in the traffic stream. Freedom to select desired speeds and maneuver within the traffic stream is extremely high.
B	Stable flow but the presence of other users in the traffic stream begins to be noticed. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver within the traffic stream.
C	Stable flow but marks the beginning of the range in flow in which the operation of individual users becomes significantly affected by interactions with others in the traffic stream. Selection of speed affected and maneuvering within the traffic stream requires substantial vigilance on the part of the user.
D	High-density but stable flow. Speed and freedom to maneuver are severely restricted. Small increases in traffic flow will generally cause operational problems at this level.
E	Operating conditions at or near the capacity level. Speeds are reduced to a low, but relatively uniform level. Freedom to maneuver within the traffic stream is extremely difficult.
F	Forced or breakdown flow. In the extreme, speed can be reduced to zero.

Source: Highway Capacity Manual, Transportation Research Board, 1985.

For reference, many local governments adopt policies requiring that new development not decrease LOS below level C or D. Whether Level C or D is chosen depends upon the individual policy decision of the local government and/or the jurisdiction having maintenance control.

Determining the LOS for a given roadway involves complex calculations taking into account factors such as roadway grades and lane width. However, generalized tables have been developed to serve as a guide in determining LOS using Average Daily Traffic (ADT) counts. The following table depicts the information relevant to the planning area:

Average Daily Traffic and Generalized Level of Service					
Total Number of Lanes	A	B	C	D	E
Freeways in Urbanizing Areas					
4	23,500	38,700	52,500	62,200	69,100
6	36,400	59,800	81,100	96,000	106,700
8	49,100	80,900	109,600	129,800	144,400
State Two-Way Arterials (Less than 2 signalized intersections per mile)					
2, Undivided	*	4,000	13,100	15,500	16,300
State Two-Way Arterials (2 to 4.5 signalized intersections per mile)					
2, Undivided	*	*	10,500	14,500	15,300
Major County Roadways					
2, Undivided	*	*	7,000	13,600	14,600
Signalized Intersections on Major County Roadways					
2, Undivided	*	*	4,400	9,400	12,000

* - Not Determined

Source: Florida Department of Transportation, Systems Planning Office

The Orange County/North Carolina DOT road classifications that correspond to the categories shown above are as follows:

Interstate: Freeways in Urbanizing Areas
 Arterial: State Two-Way Arterials
 Collector: Major County Roadways
 Local: (not addressed)

Comparison of Average Daily Traffic (ADT) Counts and Generalized Level of Service shows that all roadways within the Focus Area are operating at Level of Service (LOS) C or better. ID Points A, G, and H are the areas with LOS at or just slightly better than "C."

Rail

Although rail traffic has decreased considerably in North Carolina, the Southern Railway right-of-way, which is the southerly boundary of the Focus Area, is still used for general rail transport and intrastate commuter service provided by Amtrak. Additionally, the spur line to Chapel Hill, west of the Focus area, is still used at least twice a week for deliveries to the UNC campus.

The Triangle Transit Authority (TTA) completed final plans for Phase I of its regional commuter rail service in the Triangle and attempted to procure Federal funding to implement Phase I service that would link Raleigh, Cary and Durham. However, due to changes in federal cost-effectiveness guidelines, the project has been shelved for the near future. At this time, the future of Triangle commuter rail service is in limbo due to funding considerations.

Historically, University Station was located near the spur rail line that reaches to Chapel Hill. UNC students, faculty, and visitors would have used University Station in their travels to and from campus and other areas. If the Region pursues commuter rail in the future, the spur line to Chapel Hill would likely become an important connector within the rail network.

Pedestrian/Bicycle Facilities

The Focus Area does not contain pedestrian facilities (sidewalks) adjacent to any of the major thoroughfares. US 70 has paved shoulders that vary between 1 and 2 feet wide on both sides of the highway. The extra width, while not providing a full bicycle lane, provides extra road width and enhances safety for bicycling. Other roads in the Focus Area, such as Old NC 10, would require additional pavement and possibly right-of-way to be widened enough to include bicycle lanes.

Bus, Car/Van Pool, and Park 'n Ride Lots

General bus services do not serve the Eno EDD area at this time. However, Orange Public Transit (OPT) provides social service transit service for area senior citizens and low income residents who can arrange for transportation to and from medical appointments through OPT.

Triangle Transit Authority (TTA) operates a ridesharing matching service for commuters who are interested in carpooling. In addition, TTA operates vanpools that are made up of at least seven commuters who live and work near each other and who share approximately the same work hours. One leg of the vanpool's trip must begin or end in Wake, Durham, or Orange County. TTA provides the van, pays for gas and insurance; and arranges, oversees, and pays for all maintenance. Riders pay a monthly fare based on the average daily round-trip mileage. Commuters who are interested in joining a vanpool may contact TTA to inquire about joining an existing vanpool or starting a new vanpool.

At the present time, there are no official park 'n ride lots located in the Eno EDD area.

Utilities

Communications

Telephone

Land-line telephone service in the Focus Area is provided by Verizon.

Cellular phone service in Orange County is provided by nine (9) providers. The Focus Area has good wireless phone coverage, given its proximity to the Interstate and providers' desires to provide the highest quality of cell phone coverage along the Interstates.

Internet Service

Time Warner Cable offers Road Runner broadband service in the Focus Area. Additionally, Verizon provides DSL service in the Focus Area.

Natural Gas and Electric Power

The Focus Area is not currently served with natural gas. Natural gas service lines are located just to the east of the Focus area within Durham County and could likely be extended into the Focus Area. Property owners within the Focus Area who desire gas service rely on individual propane tanks for any natural gas needs.

Electric service in the Focus area is provided either by Duke Power or Piedmont Electrical Membership Cooperative.

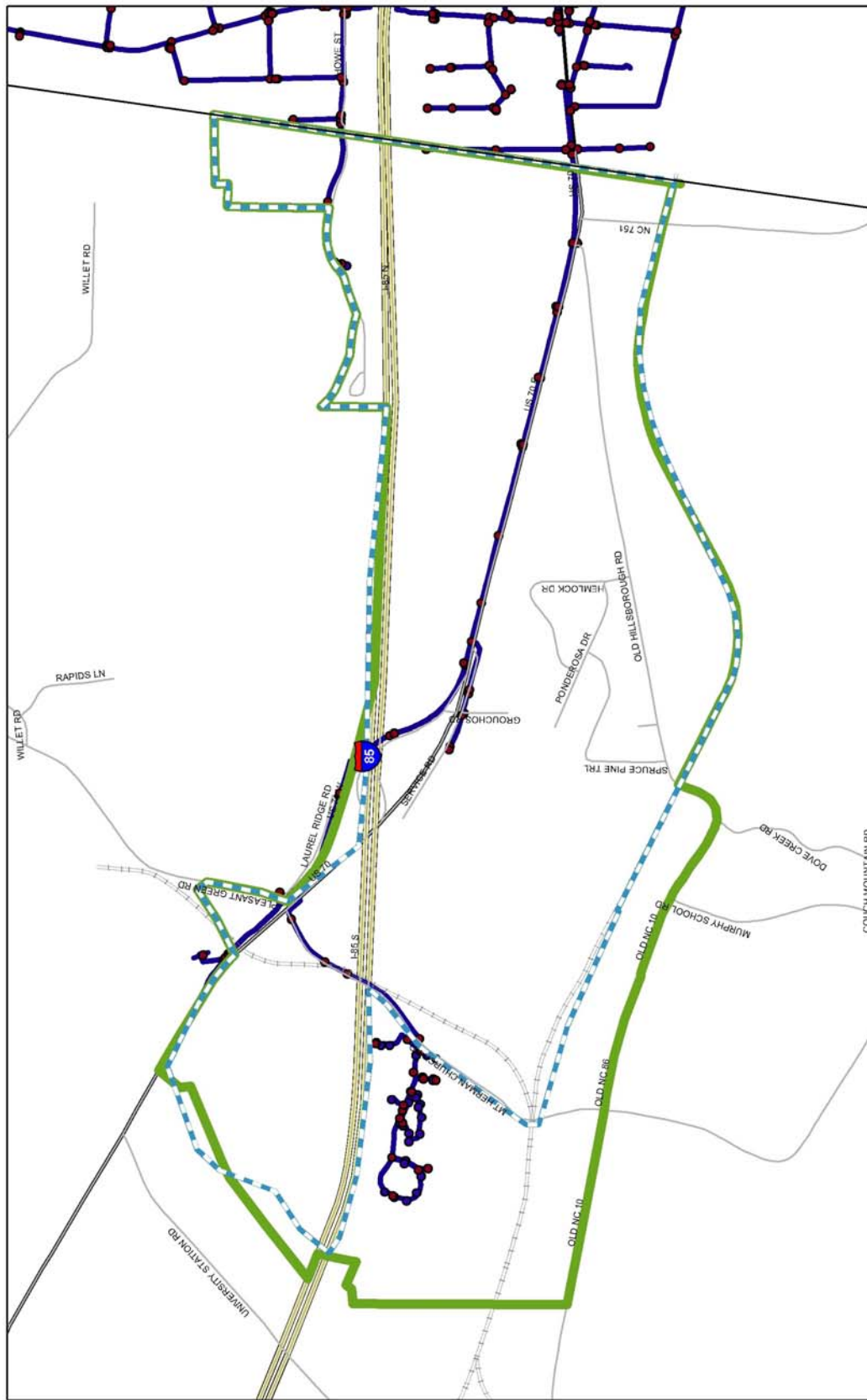
Water Service

The City of Durham provides water service to small portions of its Urban Growth Area in Orange County. As Map 15 shows, a water distribution main (16") is located along Highway 70. The line serves as emergency transfer interconnect with the Town of Hillsborough and also serves a mobile home park west of Mt. Herman Church Road. The water line also provides fire hydrants along U.S. 70.

Whispering Pines subdivision is served by a community water system.

Interlocal agreements would be necessary between the City of Durham and Orange County for further connections or service area.

Eno EDD Area Small Area Plan - Water Lines



- Legend**
- Eno EDD SAP Focus Area Boundary
 - Durham Urban Growth Area v4
 - Water Source Points
 - Water Net Junctions
 - Water Distribution Main

Orange County Planning and Inspections Department
 GIS Map Prepared by Miriam Coleman May 27, 2008
 Projection: North Carolina State Plane (feet)
 Datum: North American 1983

Sanitary Sewer Service

There is no public sanitary sewer system in the area except for one mobile home park (L&W) that has a private sewer force main that pumps back along US 70 to terminal gravity sewer line along the Orange County/Durham County border. This line was installed a number of years ago as an emergency measure when the park's septic system failed.

Interlocal agreements would be necessary between the City of Durham and Orange County to extend sewer service to the area.

Water and Sewer Management Planning and Boundary Agreement

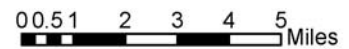
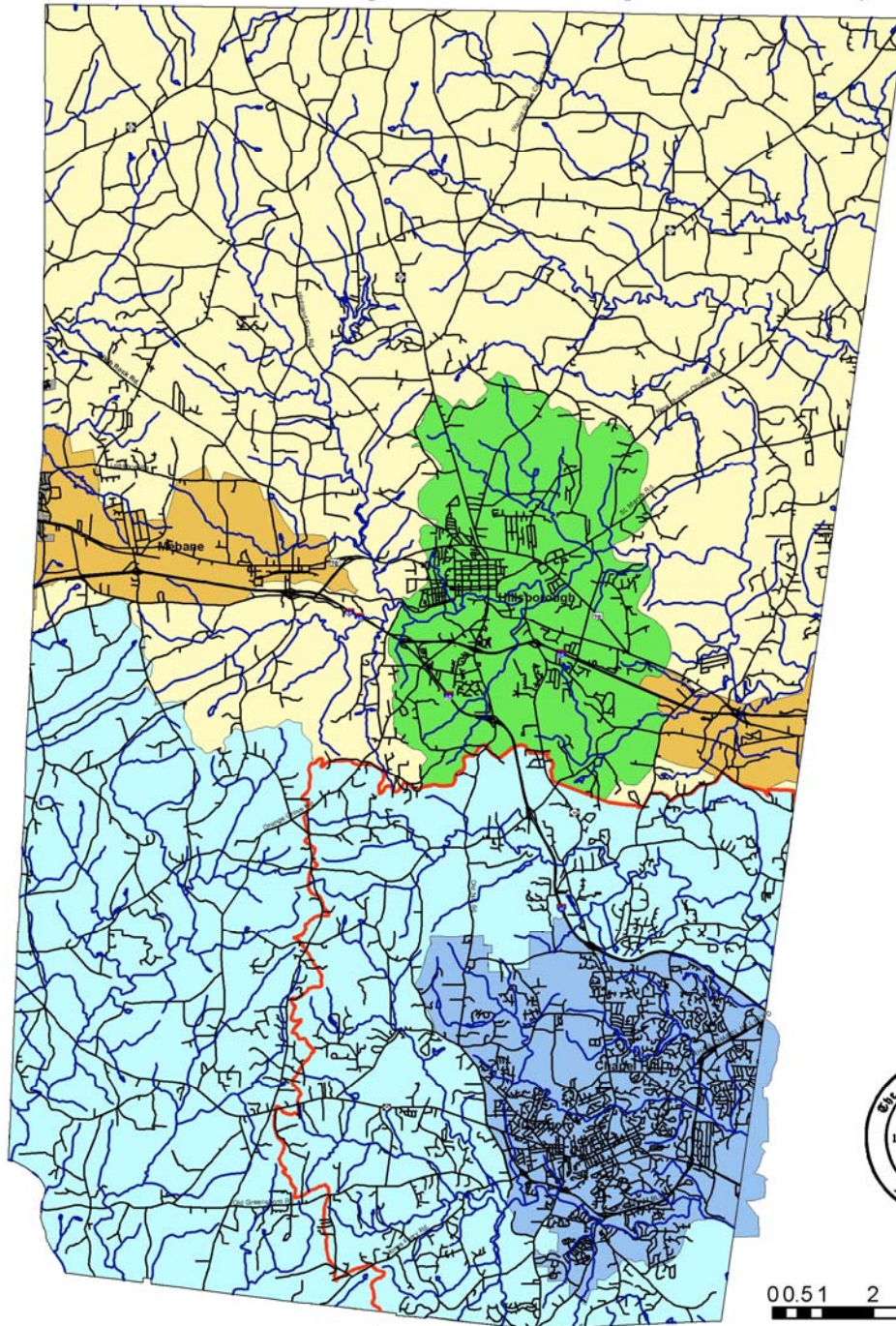
As a result of many years of discussion among the local governments located in Orange County and the Orange Water and Sewer Authority (OWASA), in 2001 Orange County, OWASA, and the Towns of Chapel Hill, Carrboro, and Hillsborough entered into a Water and Sewer Management Planning and Boundary Agreement (WSMPBA). The agreement provided a comprehensive county-wide system of utility service areas upon which the signatory entities could rely when making decisions related to issues such as planning, land use, annexation, zoning, and growth management.

The agreement is in effect for 10 years and will renew automatically unless a signatory party provides a notice of intent to withdraw by following the process outlined in the agreement. All parties to the agreement must approve any changes to the service boundaries shown on the WSMPBA map.

Map 16 is the WSMPBA map approved by the signatory parties. Primary Service Areas shown on the map are those areas where water and/or sewer service is now provided, or might reasonably be provided in the future. Long-Term Interest Areas are those areas within which public water and/or sewer service is not anticipated to be provided but if such services were to be provided for "emergency" purposes due to private system failures, the designated party would be the service provider.

Appendix A

Water and Sewer Management Planning and Boundary Agreement



Legend

Water and Sewer Boundaries

	Hillsborough Primary Service Area		Rural Buffer Boundary
	OWASA Long-Term Interest Area		
	Orange County Primary Service Area		
	OWASA Primary Service Area		
	Orange County Long-Term Interest Area		

Orange County Planning and Inspections Department
Updated Streets, Miriam Coleman, 2002
Revised Map to show retracted Chapel Hill Urban Service Boundary
Prepared by Carrie Whitehill
11/14/01
Original Map Prepared by Beth McFarland
04/17/97

E. Recreation, Parks and Open Space

Recreation and Parks

The Orange County Recreation and Parks Master Plan (also known as the Recreation Element of the Orange County Comprehensive Plan) was adopted in July 1988. The Plan does not call for recreational facilities to be located within the Focus Area. However, a community park in the vicinity of University Station (west of the Focus area) is proposed in the Plan. A community park provides recreational opportunities for the entire family and contains areas suited for intense recreational purposes such as athletic fields, tennis courts, and paths for walking/jogging. In addition, community parks usually contain outdoor areas for passive recreation such as picnicking, nature viewing, and sitting.

The Focus Area is located immediately south of a portion of Eno River State Park. The park currently contains over 3900 acres of land adjacent to the Eno River within Orange and Durham Counties and efforts continue to acquire more lands and trail easements to connect discontinuous parklands. A looped hiking trail with a parking area is located immediately north of Howe Street within the park.

The Focus Area also lies immediately north of a large section of Duke Forest. Duke Forest is private land owned and managed by Duke University as an outdoor laboratory. Limited public recreation is permitted in the Duke Forest as long as it does not conflict with teaching and research projects. Permissible activities include hiking, biking, and horseback riding on the established roads, as well as fishing and picnicking (source: Duke Forest website).

Open Space

Private Open Space has been required as part of the development approval process of subdivisions platted in recent years. As is shown on the Future Land Use Map (Map 42), the planning area contains Resource Protection Areas which are located predominantly adjacent to streams. As the planning area develops, maintaining sensitive areas in open space will be an issue to be addressed during the development approval process.

F. Land Use and Zoning

Existing Land Use

Orange County does not have current Existing Land Use Maps for the Focus area. However, a “windshield survey” shows that the area contains a variety of residential uses ranging from mobile home parks to modest single family homes on smaller lots to large single family homes located on several acres of land. Additionally, the Focus Area contains numerous commercial and industrial uses along Highway 70 and Mt. Herman Church Road.

Five (5) parcels of land within the Focus Area are in the Agricultural Use Value program.

Future Land Use (adopted map)

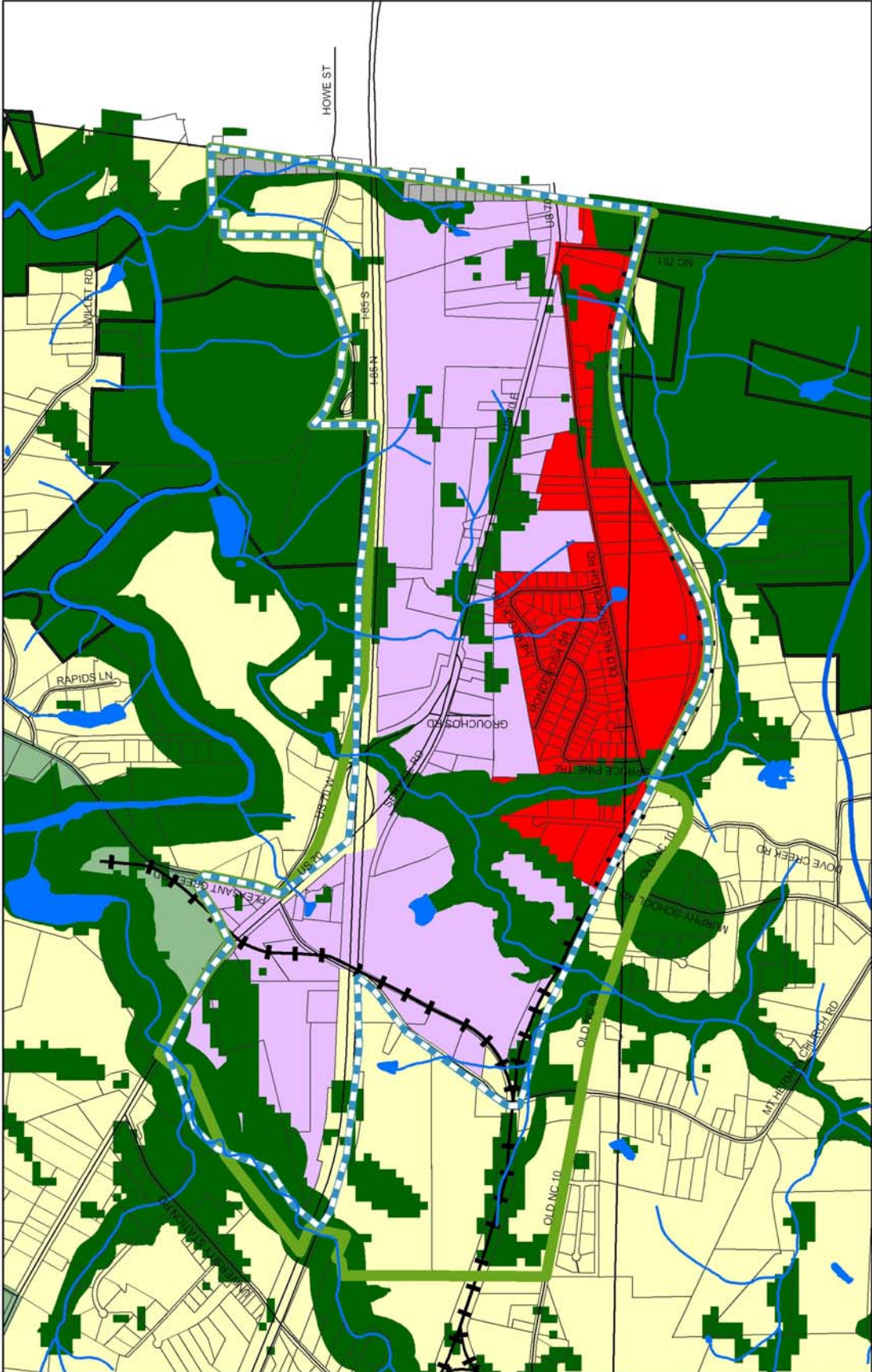
The Adopted Land Use Element of the Orange County Comprehensive Plan contains a Future Land Use Map. Map 17 is the Adopted Future Land Use Map for the Eno EDD Area.

The table that follows shows the adopted Future Land Use categories found in the Focus area.

Future Land Use Categories

Category	Description (adapted from Land Use Element of Comprehensive Plan)
Rural Residential	Rural areas of the County which are appropriate for low intensity and low-density residential development and which would not be dependent on urban services during the plan period.
Commercial Node	Designated areas in transition that are appropriate for retail and other commercial uses.
Economic Development Activity Node	Transition areas that have been specifically targeted for economic development activity consisting of light industrial, distribution, office, service/retail uses, and flex space. Located adjacent to interstate and major arterial highways and subject to special design criteria and performance standards.
Resource Protection Area	Designated Primary Conservation Areas which contain sensitive environmental resources, historically significant sites, and features considered unbuildable because of their limitations or unsuitability for development. Includes wetlands and floodplains along drainage tributaries, steep slope areas (15% or greater), natural areas, wildlife habitats and corridors, and significant historic and archaeological sites.

Eno EDD Area Small Area Plan - Currently Adopted Future Land Use Map



- Eno EDD SAP Focus Area
- Durham Urban Growth Area
- Water Supply Areas
- OC/CH/CA Joint Planning Area
- Commercial Node
- Municipal Town Limits
- Municipal Extra-Territorial Jurisdiction
- Public Interest Areas
- Resource Protection Areas
- Economic Development
- Rural Residential
- Agricultural Residential
- Rural Buffer



Orange County Planning and Inspections Department
GIS Map Prepared by Brian Cannon May 27, 2008

Existing Zoning

As Map 18 shows, most of the Focus Area is currently zoned EDD (Economic Development District) which is divided into Primary and Secondary categories. Whispering Pines subdivision is currently zoned R2 (Low and Medium Intensity Residential). Remaining areas of the Focus Area are currently zoned R1 (Rural Residential).

Additionally, much of the Focus Area is within the Major Transportation Corridor (MTC) zoning overlay district. The MTC requires buffering and setbacks within the overlay area. However, the EDD Design Manual permits limited breaks within the required buffer.

G. Intergovernmental Context

The Focus Area is within the City of Durham's Urban Growth Area, as designated in the City's Comprehensive Plan. The small lots that extend along the Orange/Durham border are located within Durham's city limits. Durham's Future Land Use Map designates much of the Focus Area as Industrial and the remainder of the Urban Growth Area within Orange County as Very Low or Low Density Residential (see Map 19). Under State annexation statutes, the City of Durham may annex lands into its City Limits.

Durham and Orange Counties have worked cooperatively in recent years in regard to planning issues. In early 2005, the three affected governments (Durham City and County [which operate a consolidated Planning Department] and Orange County) adopted resolutions establishing the intent to cooperate with regard to planning issues in certain defined areas. The Focus Area is included in the cooperative planning area.

As was stated in Section D, Water Service and Sanitary Sewer Service, Orange County and the City of Durham would pursue Interlocal Agreements for Utility Services the purpose of providing these services to the Focus Area.

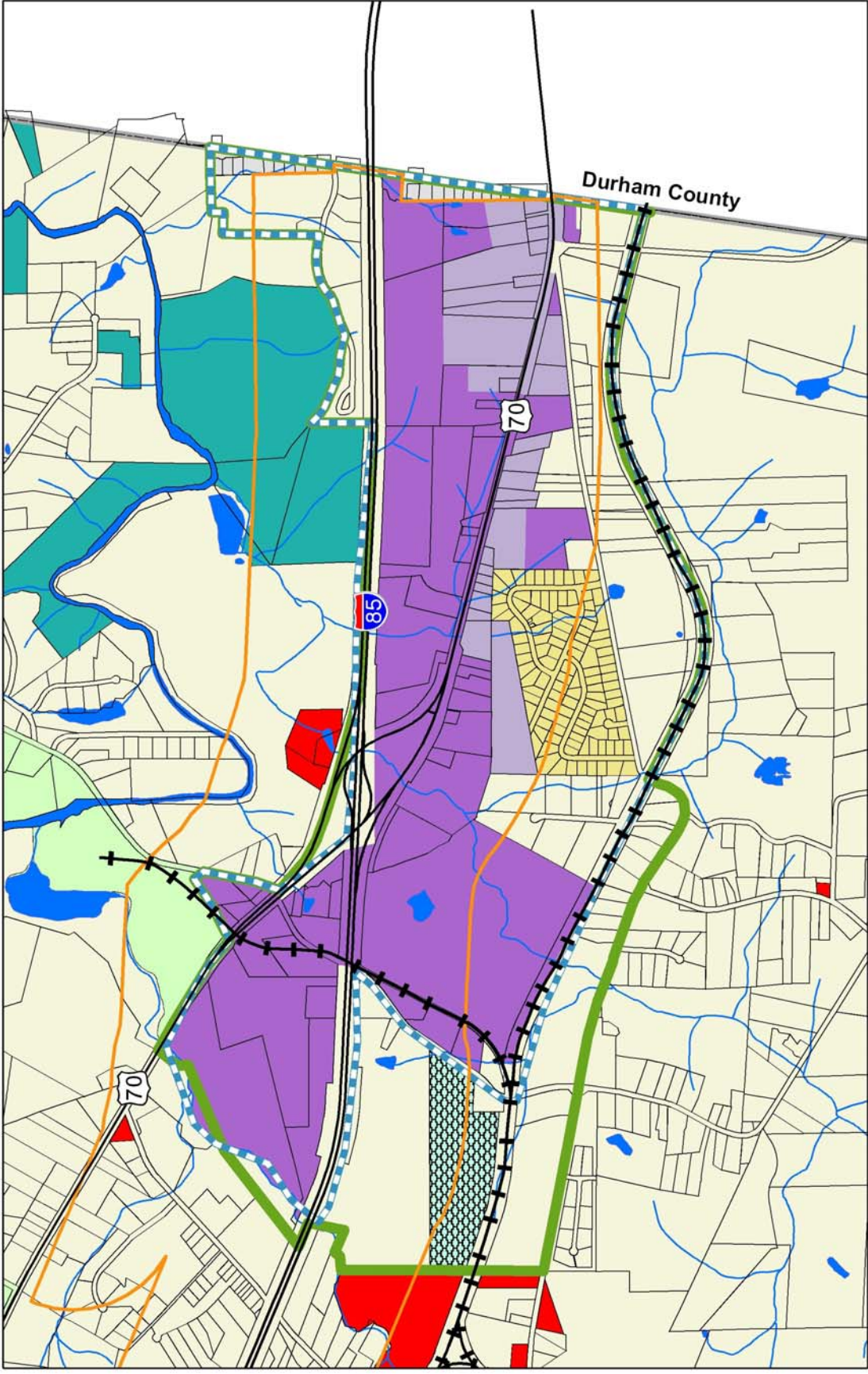
City of Durham Existing Water and Sewer and Annexation Policies

The City of Durham currently follows two policies regarding water and sewer extensions to its system that would apply should the City look to extend utilities into the Eno EDD:

- The City of Durham requires that water and sewer utility extension is contingent upon a request for voluntary annexation.
- The City of Durham currently does not pursue involuntary annexation.

Based on these policies, it is expected that any future development within the Eno EDD that requests water and sewer service from the City of Durham would at some point be annexed by the City of Durham.

Eno EDD Area Small Area Plan - Existing Zoning Map



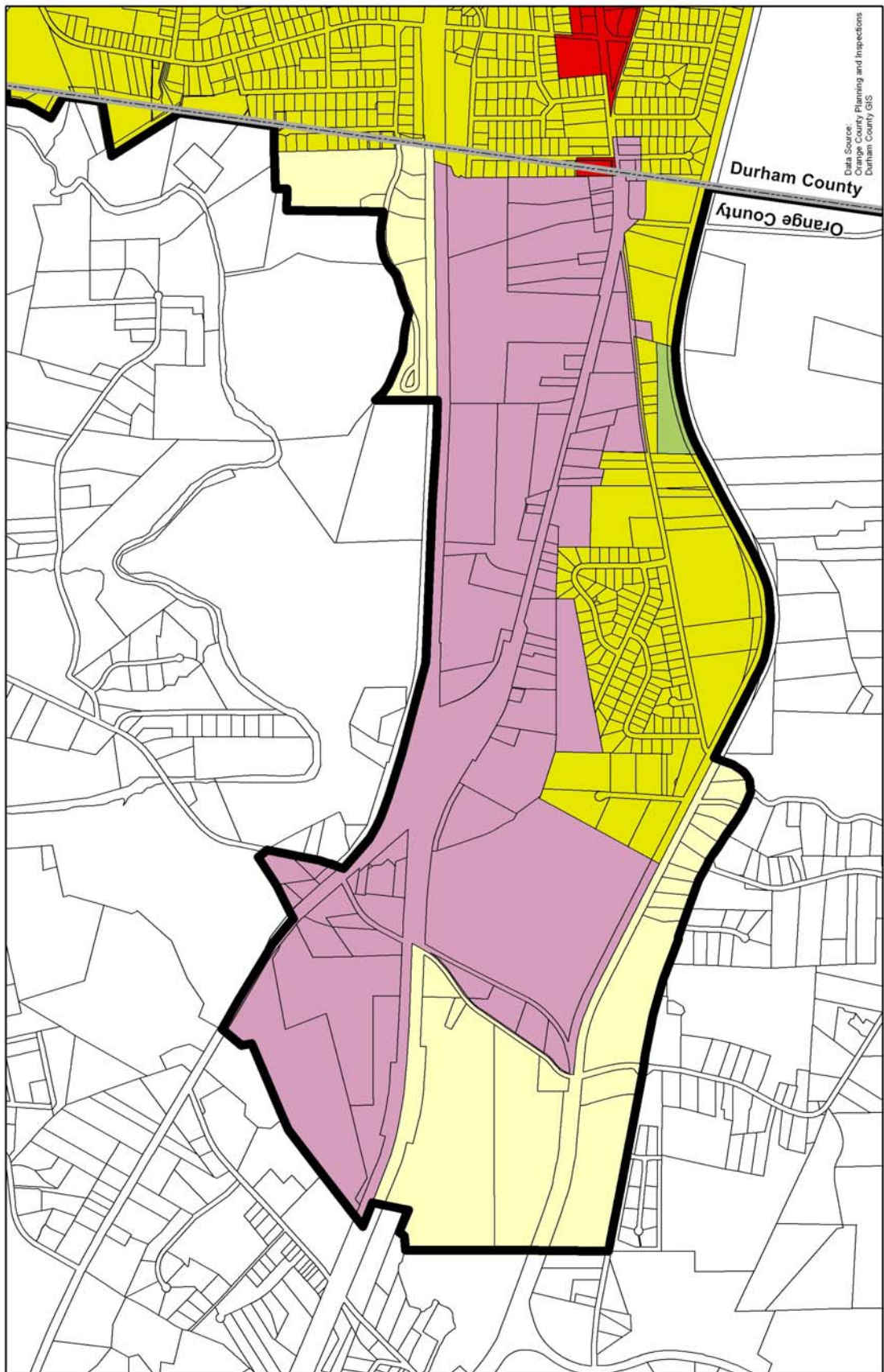
North Arrow

Scale: 0 to 1,500 Feet

Orange County Planning and Inspections Department
GIS Map Prepared by Brian Carson May 27, 2008

- Eno EDD SAP Focus Area
- Durham Urban Growth Area
- Railroad
- Parcels
- Streams
- County Boundary
- Water Bodies
- AR
- EC5
- NC2
- PDHR4
- PID
- R1
- R2
- RB
- Durham
- Major Transportation Corridor Overlay
- Eno EDD
 - Primary
 - Secondary

City of Durham's Urban Growth Area and Future Land Use Within Orange County



Data Source:
Orange County Planning and Inspections
Durham County GIS

Orange County Planning and Inspections Department
GIS Map Prepared by Brian Carson March 13, 2008

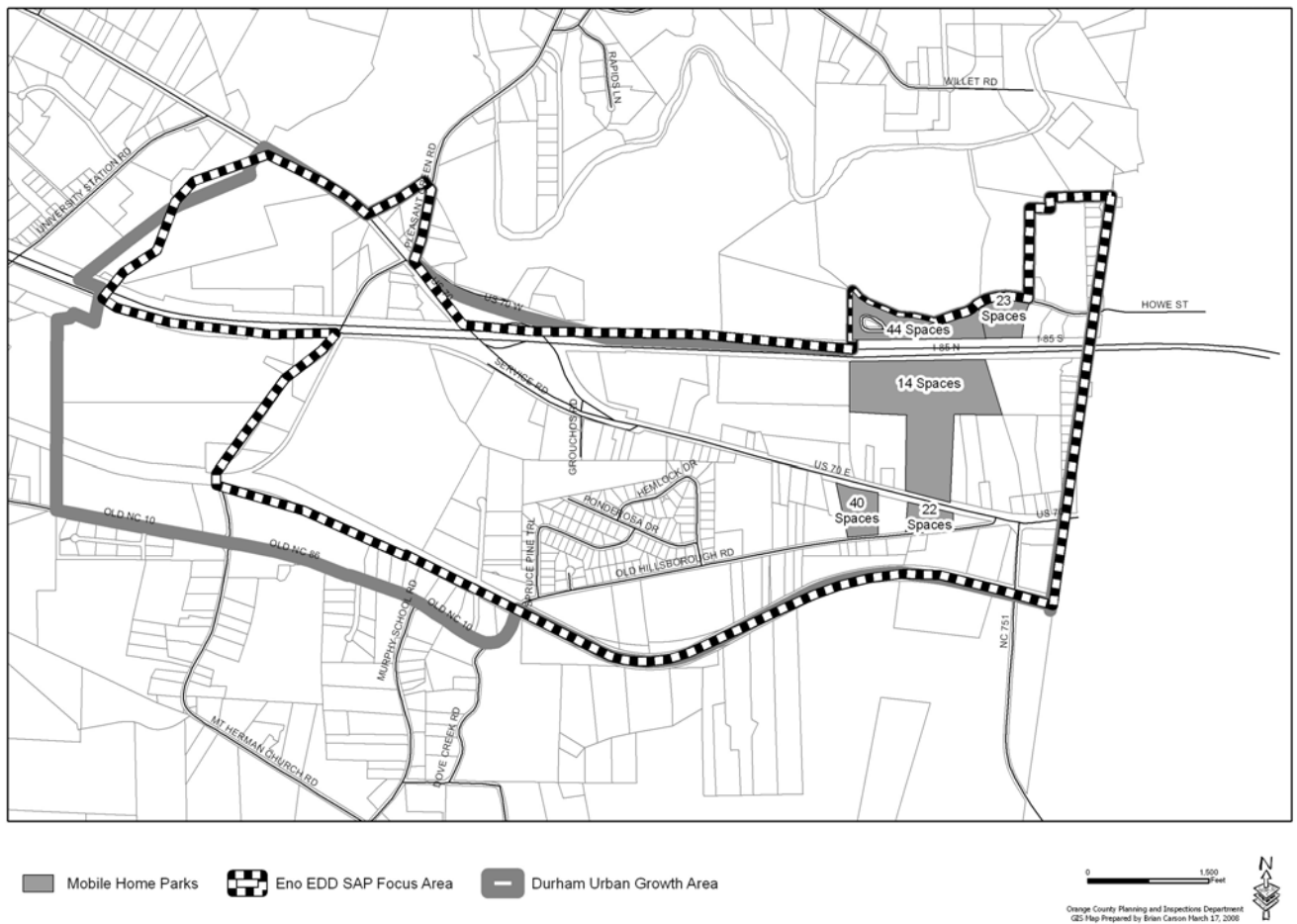
- County Boundary
- Durham Urban Growth Area
- Commercial
- Industrial
- Low Density Residential (4 DU/Acre or less)
- Very Low Density Residential (2 DU/Acre or less)
- Recreation / Open Space

H. Housing

The Focus Area contains a variety of housing types ranging from five mobile home parks containing a total of 143 spaces (see Map 20) to manufactured homes on individual lots to modest single family homes on smaller lots to large single family homes located on several acres of land. Some of the mobile home parks and residential uses are nonconforming uses under existing zoning regulations.

Map 20

Eno EDD Area Small Area Plan - Mobile Home Parks



I. Economic Development

In 1994, Orange County designated three (3) Economic Development Districts (EDDs) within the county, the Eno EDD being one of them. The other two EDDs are located south of Hillsborough on Old NC 86 and in the west-central portion of the county south of Interstate 85 in the Buckhorn Road area. The EDDs are subject to special development regulations, as is detailed in the Economic Development Districts Design Manual administered by Orange County's Planning Department.

The Eno EDD, which comprises much of the Focus Area, was formerly referred to as the I-85/US 70 EDD. It is comprised of approximately 562 acres of land. Additionally, approximately 227 acres are located in the adjacent Commercial Node to the south. One of the primary obstacles in developing the EDD has been the lack of public water and sewer. It was the intent of the Design Manual that sites in the EDDs be served with public water and sewer. As was stated in Section D, Water Service and Sanitary Sewer Service, Orange County and the City of Durham would have to enter into a Utility Service Agreement for the purpose of providing these services to the EDD. Land development in the EDD is intended to occur under Orange County development regulations with coordination with the City of Durham.

The Focus Area contains numerous commercial and industrial uses, located primarily along the Highway 70 corridor.

IV. Current Major Issues and Solution Recommendations

This section contains discussion of major issues identified by the Task Force during the planning process and possible solution recommendations.

Goal: In the future, the Focus Area should be well served by reliable infrastructure to accommodate orderly, planned growth. An efficient multi-modal transportation system will operate in the area and commercial and light industrial uses will provide job opportunities to area and County residents.

A. Water and Sewer

Objective: Orderly and planned expansion of a public water and sewer system.

The availability of water and sewer systems is one of the primary factors influencing the characteristics of development. Areas that are not served by water and sewer systems generally develop at very low densities because water must be obtained from individual wells and sewage must be disposed of on-site via, predominantly, an on-site septic system. Additionally, non-residential development tends to be very limited in areas served by on-site well and septic systems and often non-residential development is dependent upon the availabilities of fire service levels.

This area is under Orange County's jurisdiction and has additional potential only with an expanded water system and installation of a sewer system. Given that the Focus Area is within the City of Durham's Urban Growth Area and Durham already has water lines in the Focus Area and sewer lines nearby in Durham County, the Focus Area represents one of the areas of Orange County where higher density and intensity development is a viable option within the County's planning jurisdiction.

As was stated in Section III.G, The City of Durham currently follows two policies regarding water and sewer extensions to its system that would apply should the City look to extend utilities into the Eno EDD:

- The City of Durham requires that water and sewer utility extension is contingent upon a request for voluntary annexation.
- The City of Durham currently does not pursue involuntary annexation.

Based on these policies, it is expected that any future development within the Eno EDD that requests water and sewer service from the City of Durham would at some point be annexed by the City of Durham.

The need for a long range Master Plan and associated funding sources for water and sewer has been discussed. In early 2008, Orange County released an RFP (Request for Proposals) to develop a Master Plan for sewer services in the area. The RFP closing date has passed but a consultant selection has not yet occurred because the bids submitted were much higher than the anticipated cost. At this time, the Master Plan RFP process is on hold until a new strategy is developed or additional funding is allocated.

Following are recommendations regarding water and sewer issues:

1. Complete a preliminary engineering study of a master plan for public water and sewer within the City of Durham's designated Urban Growth Area.
2. Coordinate the study reference in 1 (above) with the City of Durham who would serve this area through an Interlocal Utility Service Agreement. The study should recognize Durham's service restrictions that relate to the City's policies regarding provision of services only within City limits and constraints regarding annexations, specifically the fact that Durham does not have the capacity to satellite annex any additional lands; any future annexations would need to be contiguous to lands already within the City's municipal limits. The agreement should be structured to ensure development and/or redevelopment occurs under Orange County Regulations (see related recommendation in B.3 below).

B. Land Use and Zoning

Objective: Protection of existing, conforming residential uses while allowing for planned non-residential growth.

Note: Implementation of most of the Land Use and Zoning recommendations that follow will require amendments to existing development regulations such as the Land Use Element Text and Map, Zoning Ordinance Text, and Zoning Map.

How land is used is a major factor in many aspects of people's lives. Land Use directly affects people's quality of life in a variety of ways. Community character, traffic generation and flow, availability of services, and the quality of the natural environment are all affected by Land Use decisions. Indeed, one of local government's principal powers is the authority to control land development so that growth is managed in such a way that negative impacts are minimized and/or mitigated.

The Focus Area has been targeted for growth of non-residential development for well over a decade. The Task Force is supportive of planned growth, provided that growth occurs in a managed and sustainable fashion and impacts to existing, conforming residential uses are appropriately mitigated. The following are recommendations pertaining to Land Use and Zoning:

1. Change the Land Use classification of the existing Economic Development District and Commercial Node to Economic Development or Eno Mixed Use, as is shown on Map 21.
2. Revise the zoning text for the Economic Development District. Permitted uses and locations are noted within the zoning EDD Design Manual (also known as Zoning Ordinance Article 6.29.3). Presently, zoning categories (unique to the Eno EDD) are classified as 'primary' or 'secondary' and have a specific permitted

use listing and a specific location. With these uses, the specific application process and which agencies review proposed projects are also outlined.

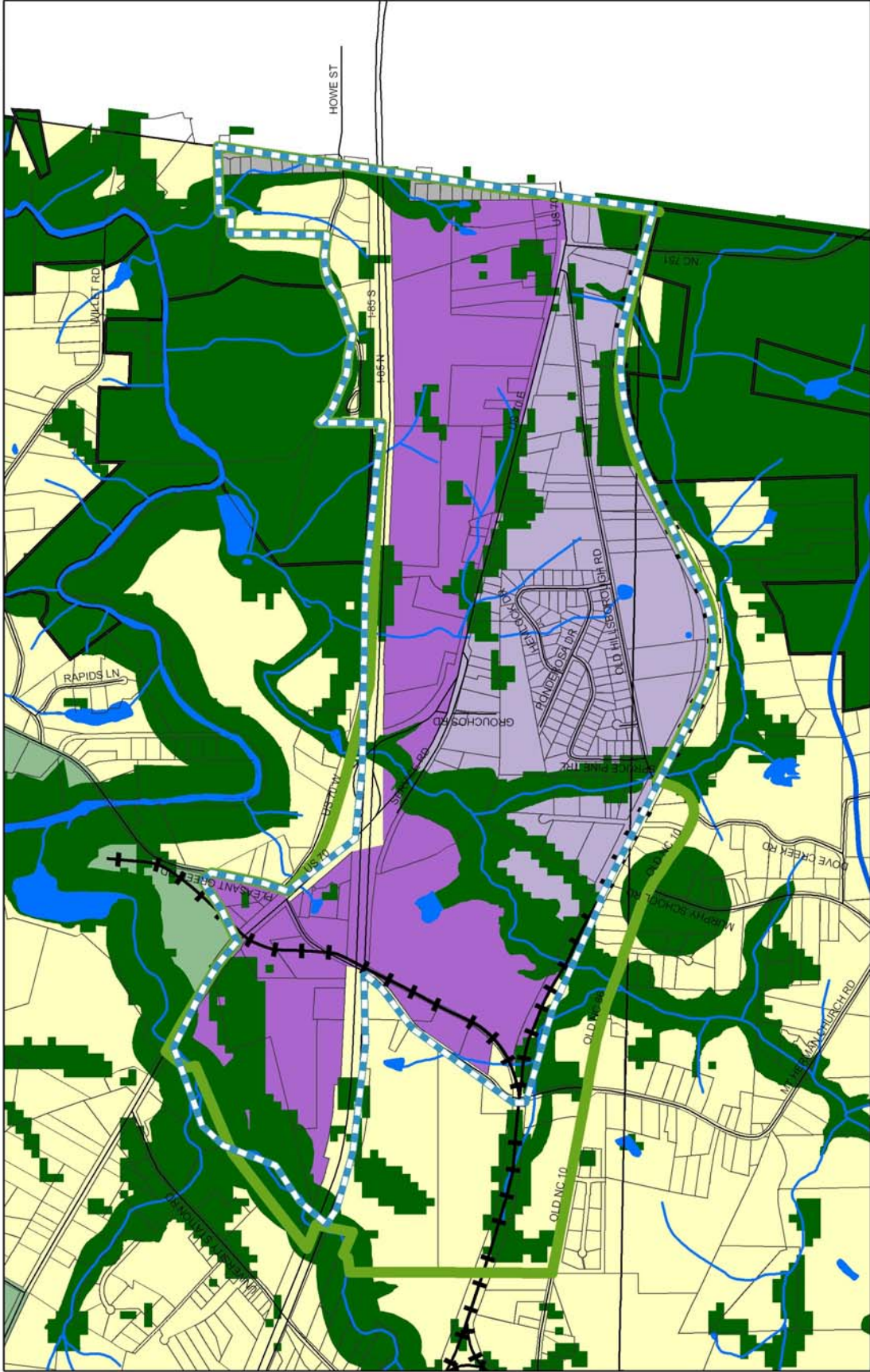
The Task Force has reanalyzed the 1994 I-85/US 70 Eno EDD area and recommends that the EDD zoning permitted use tables pertaining to the Eno EDD be amended to reflect the structure shown in Appendix A. This proposed zoning construct eliminates the EDD designations of ‘primary’ and ‘secondary’ and instead applies the zoning category of “Economic Development” to properties located north of Highway 70 and west of Rhodes Creek (see Map 21). Additionally, those properties in the proposed “Mixed Use” area that are currently zoned either Primary or Secondary EDD would be changed to “Economic Development.” Properties currently zoned R1 or R2 in the Mixed Use Area would remain zoned as they are currently zoned and property owners who desire to use their properties in conformance with the Mixed Use land use designation would apply for a rezoning to “Economic Development.”

3. Coordinate zoning text changes with the City of Durham to ensure that properties developed under Orange County regulations will conform to an appropriate zoning district in Durham’s Unified Development Ordinance to ensure properties do not become non-conforming when annexed by the City of Durham. Examples of aspects to be coordinated include setbacks, building heights, parking requirements, landscaping, impervious surface, etc.

Map 21 is the Proposed Future Land Use Map for the Focus Area. A new Future Land Use category is proposed and the proposed description is found below. The descriptions of adopted Future Land Use categories are found in the chart on page 41.

Eno Mixed Use. Land located in areas served or to be served by public water and sewer where a mix of residential, commercial, office, services, and light industrial uses are appropriate on a district-wide basis. Individual parcels may contain a single use or more than one use. New residential uses within the Mixed Use area shall have a minimum density of six (6) units per acre. Examples of housing at this density include attached homes, patio homes, and apartments. In order to encourage non-residential uses, no more than 25% of the acreage within the district shall be comprised of residential uses on single-use parcels. However, residential units constructed above non-residential uses (i.e., in a multi-story building) shall not count toward the residential acreage limit.

Eno EDD Small Area Plan - Proposed Future Land Use Map

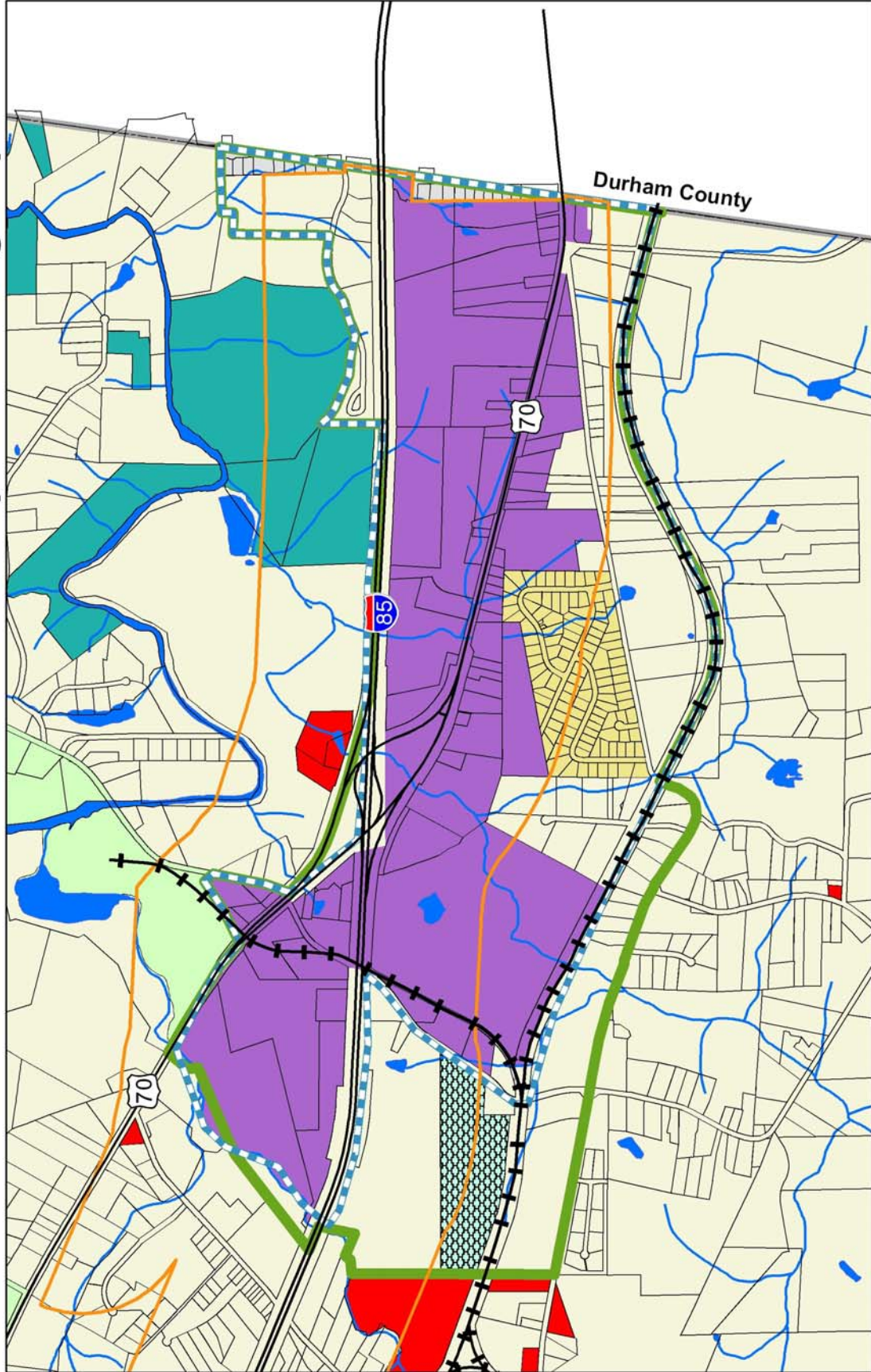


Eno EDD SAP Focus Area
 Durham Urban Growth Area
 Water Supply Areas
 OC/CH/CA Joint Planning Area
 Municipal Town Limits
 Municipal Extra-Territorial Jurisdiction
 Public Interest Areas
 Resource Protection Areas
 Economic Development
 Rural Residential
 Agricultural Residential
 Rural Buffer



0 1,500 Feet
 Orange County Planning and Inspections Department
 GIS Map Prepared by Brian Cannon May 27, 2008

Eno EDD Area Small Area Plan - Proposed Zoning Map



0 1,500 Feet
 Orange County Planning and Inspections Department
 GIS Map Prepared by Brian Carson May 27, 2008

- Eno EDD SAP Focus Area
- Durham Urban Growth Area
- Railroad
- Parcels
- Streams
- County Boundary
- Water Bodies
- AR
- EC5
- R2
- Economic Development
- Major Transportation Corridor Overlay
- PDHR4
- NC2
- R1
- RB
- Durham
- PID

C. Transportation

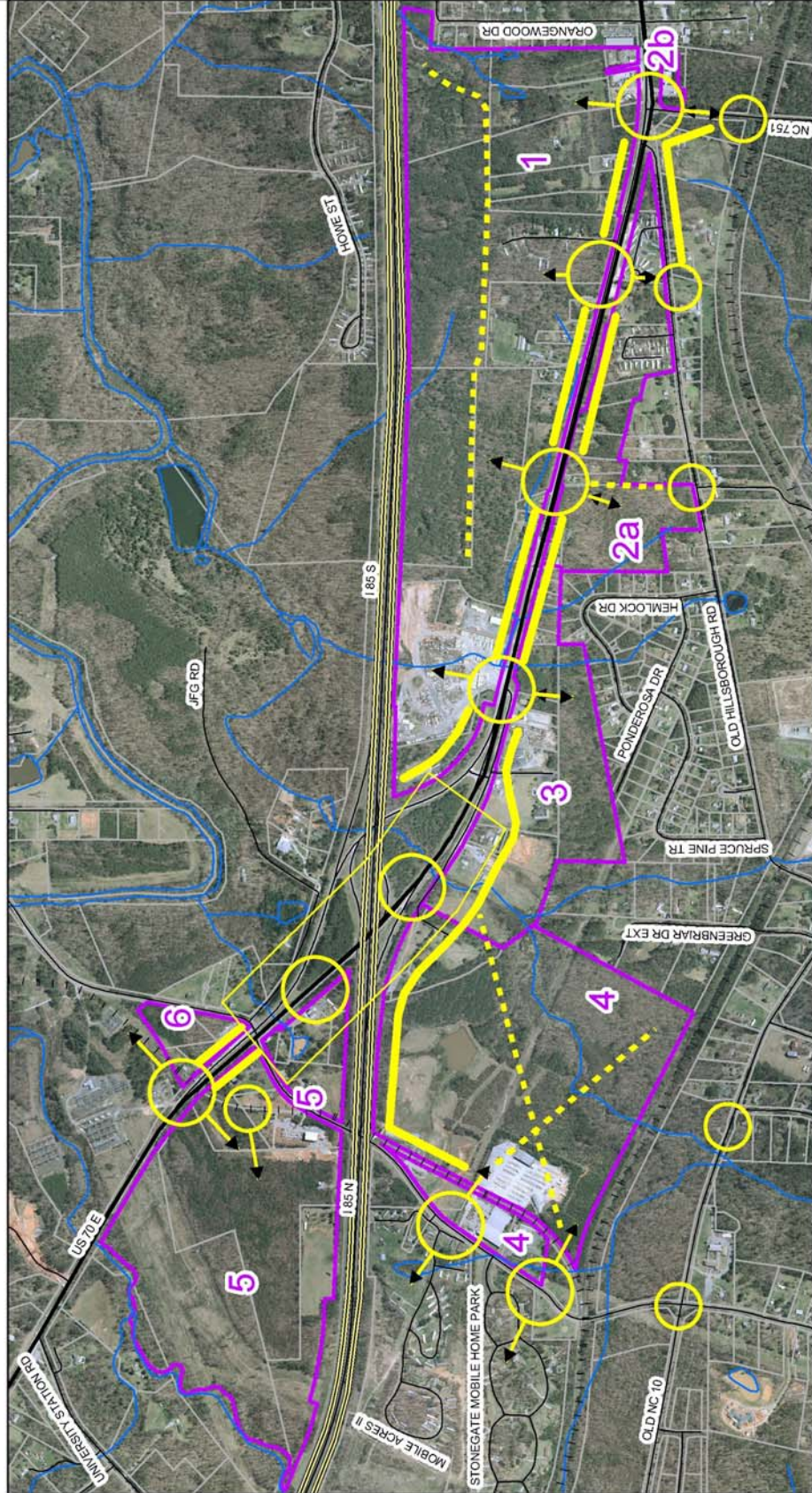
Objective: Provision of an efficient, multi-modal transportation system.

The vehicular transportation system in the planning area generally functions well, but there are some concerns, especially regarding motorized vehicle flows during peak traffic hours. However, some peak hour congestion is also to be expected in an urban or suburban area. The key is managing the transportation system such that it can function as safely and efficiently as possible.

Sidewalks and bicycles lanes do not exist anywhere in the Focus area. The shoulders along Highway 70 are paved 1 to 2 feet beyond the automobile travel lane and people use these paved shoulders as informal bicycle lanes. Broadening transportation alternatives beyond the passenger car is important. “Alternative” transportation modes such as pedestrian, bicycle, and mass transit are part of an intermodal transportation system. The following are recommendations pertaining to transportation:

1. Approve an access management program for US 70 and Old Highway 10 as shown on Map 23. This will provide better transportation systems and capacities as development proceeds in the area. (See Appendix B for an explanation of access management techniques).
2. Support the proposed future improvements by NCDOT that will redesign the I-85/US 70 interchange. Limited access near the interchange will prompt an enhanced service road and access system to ensure equitable access to defined full access intersections. NCDOT should be strongly encouraged to incorporate bridge designs that allow wildlife to cross safely under the bridge and that allow pedestrian passage along any existing or planned trail-system connectors.
3. Evaluate the feasibility of providing bicycle lanes along Old NC 10.
4. Evaluate the feasibility and need to provide sidewalks along Highway 70 as the area develops.
5. The ability to have a commuter train station in the future should be explored. A station could serve the existing Amtrak service or a station could be incorporated into the future Triangle commuter rail system.
6. The county should work cooperatively with Triangle Transit Authority (TTA) to provide bus service in the area.

Eno EDD Transportation Access Management Concept Plan



0 500 1,000 2,000 Feet

North Arrow

Eno, County Planning and Inspections Department
 GIS Map Prepared by Miriam Coleman, April 09, 2008
 Projection: North Carolina State Plane (feet)
 Datum: North American 1983

- Area 1 - 186 acres
- Area 2a - 40 acres
- Area 2b - 2 acres
- Area 3 - 52 acres
- Area 4 - 115 acres
- Area 5 - 102 acres
- Area 6 - 7 acres

- Legend**
- Eno EDD Areas
 - I-85/US70 Intersection Limited Access Zone
 - Frontage
 - Internal Connectivity
 - Primary Intersections



D. Housing

Objective: Provision of a mix of housing choices that includes decent, affordable housing for “the workforce” and protection of existing, conforming residential uses from new non-residential uses.

As was noted in Section B, the Focus Area has been targeted for growth of non-residential development for well over a decade. Some of the existing residential uses and mobile home parks are nonconforming uses under existing regulations. The following are recommendations pertaining to housing issues:

1. The EDD designated area originally permitted some residential uses of undesignated density in areas zoned Secondary EDD. Residential uses that were constructed as conforming uses in the Secondary EDD area should not be made nonconforming under any new zoning designation. Additional residential uses in the area shown as Economic Development on Map 21 should not be permitted.
2. New residential uses in the Mixed Use Area, as shown on Map 21, should be encouraged to step up in density as the distance from existing single family uses increases (i.e single family [1-4 DU/AC], townhomes [4-8 DU/AC], multifamily [8-12 DU/AC]). (Note: prior to future adoption of implementation measures, a percentage or acreage limit on residential uses within the Mixed Use area should be determined. It is the intent to limit the amount of residential uses in the Mixed Use area to encourage the development of non-residential uses).
3. Require that an appropriate buffer be provided between new non-residential uses and existing, conforming residential uses.
4. New residential development that is compatible with the character, size, scale, and price range of existing surrounding homes should be encouraged in the Mixed Use area. Since home prices are directly tied to the square footage of the home, Orange County should consider offering incentives such as expedited review or density bonuses for developments that offer smaller sized homes.
5. Orange County should consider adopting a policy requiring that a certain percentage of new homes within a subdivision be affordable and under the control of an organization such as the Orange Community Housing and Land Trust (OCHLT) or Habitat for Humanity to ensure affordability in perpetuity.
6. If existing mobile home parks are redeveloped into other uses, the property owner and County should work together to help displaced residents find suitable, decent, alternative housing.

E. Parks, Recreation, and Open Space

Objective: Provision of adequate parks and recreation opportunities and open space preservation.

One of the jewels of the State Park System – Eno River State Park – is located immediately adjacent to the Focus Area. Additionally, Duke Forest is located immediately south of the Focus Area. These two recreational opportunities are available to residents in the Focus Area interested in engaging in the types of activities offered. Recommendations regarding parks, recreation, and open space are as follows:

1. Preserve stream corridors and create a network of publicly-accessible trails between developed areas and the Eno River State Park to the north of the Focus Area and Duke Forest to the south of the Focus Area. The following recommendations are made to encourage trail development:
 - Indemnification of the landowner from lawsuits
 - Provision of a tax incentive for the landowner
 - Prohibition of motorized vehicles on the trail
 - Assurances that local government or other well-established group will maintain the trail
2. Open space should continue to be required as part of the land development approval process. Note: Open Space is not necessarily publicly accessible.

F. Communications

Objective: Provision of a high-quality communications system that will meet the needs of business, industry, and residents.

Communication systems are an important aspect of attracting commercial uses to appropriate sections of the planning area. Factors such as wireless communication, high-speed internet access, and state-of-the-art communication infrastructure are analyzed by businesses and residents considering locating in a given area.

Technology is changing at an ever-increasing rate and keeping abreast of changes can be essential to staying competitive. In emergency situations, functioning communication systems can literally be the difference between life and death. Within the Focus Area, cellular phone coverage is currently sufficient and the area is served by cable which includes broadband Internet service. Given the nature of communication systems, some of the following recommendations extend outside of the Focus Area and are recommendations regarding a countywide policy to improve access to communication technology.

1. Achieving full cellular wireless coverage countywide should be a priority. A Telecommunications Plan that will achieve this objective should be developed and implemented. In order to minimize the number of free-standing towers

[Table of Contents](#)

2. DSL and/or cable Internet service is needed, at a minimum, in areas targeted for growth. These services are particularly vital for commercial or industrial uses although providing these services to residential uses should also be considered. The county should work with the providers of these services to ensure that necessary infrastructure is extended to growth areas.
3. The county should consider asking providers of wireless communication services to install generator backup instead of battery backup at cellular switch sites. During prolonged power outages, the battery backups are depleted and the wireless communication system stops functioning.

G. Intergovernmental Issues

Objective: Continued intergovernmental coordination between Orange County and the City of Durham.

Intergovernmental coordination with the City of Durham will be an important aspect of desired development within the Focus Area since the City will be the service provider of water and sanitary sewer. Orange County's desire for the area is for parcels to be developed under Orange County regulations prior to potential annexation by the City of Durham. Recommendations regarding intergovernmental coordination are as follows:

1. Orange County and the City of Durham should pursue an Interlocal Agreement for the efficient provision of sanitary sewer services into the Focus Area and the expansion of water service in the area.
 - a. An orderly method regarding future annexation should be part of the Interlocal Agreement.

H. Other Recommendations

Potential Strategic Growth and Rural Conservation (SGRC) Program

The County is currently working with a consultant on developing a framework for a Transfer of Development Rights (TDR) – type program in Orange County. The proposed name of the program is “Strategic Growth and Rural Conservation.” If the program is adopted, it is likely that the Focus Area would be targeted as a receiving area for growth because of the anticipated availability of water and sewer.

Plan Updates

This plan should be re-evaluated and updated as necessary in ten (10) years to ensure continued planning in the area.

Implementation

Implementation of many of the recommendations contained in this plan will require revisions to adopted County policies and regulations. Examples of these policies and regulations include, but are not limited to:

- Land Use Element of the Comprehensive Plan
 - Text
 - Map
- Subdivision Regulations
- Zoning Ordinance
 - Text
 - Map
 - Permitted Use Tables
 - Overlay/Design Guidelines
- Water and Sewer Policy
- Water and Sewer Management, Planning, and Boundary Agreement

County Departments and Advisory Boards other than the Planning Department and Planning Board have interests in or jurisdiction over some of the recommendation topics. These other departments and advisory boards will need to be part of the implementation process.

APPENDIX A – Proposed EDD zoning permitted use tables pertaining to the Eno EDD

PERMITTED USE TABLE - ECONOMIC DEVELOPMENT DISTRICTS

- X - Permitted by Right
- X-MU - Administrative Review Permitted by Right
- X-IMWR - Administrative Review Permitted by Right
- B - SUP
- A - SUP
- A-PD - Rezoning
- - Not Permitted

IMWR = Industrial/Manufacturing/Wholesale/Retail (* = with limitations)
 MU = Mixed Use (includes Residential and Retail/Office/Service)

DUS/AC = Dwelling Units/Acre
 L = Limited (additional standards to be developed prior to zoning ordinance change)

Land Use Category	Development Area – Eno EDD			
	Mixed Use		Economic Development	
	(Residential/Retail/Office/Service)	(Industrial/ Manufacturing/ Wholesale/Retail)		
<u>Category and Review Process (based on project size)</u>				
	Category 1	Category 2	Category 1	Category 2
RESIDENTIAL				
Dwelling, single-family	Minimum 4 DUS/AC	Minimum 4 DUS/AC	-----	-----
Dwelling, multi-family	Minimum 6 DUS/AC	Minimum 10 DUS/AC	-----	-----
Dwelling, single- or multi-family existing upon date of adoption of Ordinance revisions (Note: number of dwellings per lot cannot be increased)	X	X	X	X
CONSTRUCTION	-----	-----	<100,000 SF	100,000+ SF
			X-IMWR*	A
MANUFACTURING, ASSEMBLY, AND PROCESSING	<5,000 SF	5,000+ SF	<100,000 SF	100,000+ SF
	X-MU (with performance criteria to be developed)	A (with performance criteria to be developed)	X-IMWR*	A

PERMITTED USE TABLE - ECONOMIC DEVELOPMENT DISTRICTS

- X-MU - Administrative Review Permitted by Right
- X-IMWR - Administrative Review Permitted by Right
- B SUP
- A SUP
- A-PD Rezoning
- Not Permitted

IMWR = Industrial/Manufacturing/Wholesale/Retail (* = with limitations)
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Land Use Category	Development Area – Eno EDD			
	Mixed Use	Economic Development		
	(Residential/Retail/Office/Service)	(Industrial/ Manufacturing/ Wholesale/Retail)		
	<u>Category and Review Process</u> (based on project size)			
	Category 1	Category 2	Category 1	Category 2
TRANSPORTATION, COMMUNICATIONS, AND UTILITIES	-----	-----	<100,000 SF	100,000+ SF
			X-IMWR*	A
WHOLESALE TRADE (DISTRIBUTION)	-----	-----	<100,000 SF	100,000+ SF
			X-IMWR	A
RETAIL TRADE	<15,000 SF	15,000+ SF	<100,000 SF	100,000+ SF
	X-MU	A	A-PD	A-PD
FINANCE, INSURANCE, AND REAL ESTATE	<15,000 SF	15,000+ SF	L	L
	X-MU	A		
SERVICES (includes Animal Hospitals and Kennels)	<15,000 SF	15,000+ SF	L	L
	X-MU	A		
GOVERNMENT	<15,000 SF	15,000+ SF	<100,000 SF	100,000+ SF
	X-MU	A	X-IMWR	A

APPENDIX A – Proposed EDD zoning permitted use tables pertaining to the Eno EDD

The following multi-page Table is a product of the Task Force that indicates specific land uses that would fall within the general categories in the table above and whether a particular use should be permitted in the future zoning construct. This Table should be taken into account when future zoning ordinance amendments are brought forward.

<u>Permitted Use Table</u>	Mixed Use Area (ROS)	Economic Development Area (IMWR)
<u>Utilities</u>		
▪ Electric Power Generation, Transmission and Distribution		X
▪ Natural Gas Distribution		A
▪ Water, Sewage and Other Systems		A
▪ Nuclear Electric Power Generation		-
<u>Construction</u>		
▪ Building Contractors		X
▪ Plumbing, Heating, and Air-Conditioning Contractors		X
▪ Painting and Wall Covering Contractors		X
▪ Electrical Contractors		X
▪ Masonry and Stone Contractors		X
▪ Carpentry and Floor Contractors		X
▪ Roofing, Siding, and Sheet Metal Contractors		X
▪ Concrete Contractors		X
▪ Grading and Paving Contractors		X
▪ Water Well Drilling Contractors		X
▪ Other Special Trade Contractors (HVAC/WALL)		X
<u>Manufacturing</u>		
▪ Animal Food Manufacturing		X
▪ Grain and Oilseed Milling		X
▪ Sugar and Confectionary Product Manufacturing		X
▪ Fruit and Vegetable Preserving and Specialty Food Manufacturing		X
▪ Dairy Product Manufacturing		X
▪ Animal Slaughtering and Processing		-
▪ Seafood Product Preparation and Packaging		-
▪ Bakeries and Tortilla Manufacturing		X
▪ Other Food Manufacturing		X
▪ Beverage and Tobacco Product Manufacturing		X
▪ Textile Mills		X
▪ Fabric Mills		X
▪ Textile Product Mills		X
▪ Other Textile Product Mills		X
▪ Apparel Manufacturing		X
▪ Cut and Sew Apparel Manufacturing		X
▪ Apparel Accessories and Other Apparel Manufacturing		X
▪ Leather and Hide Tanning and Finishing		L
▪ Footwear Manufacturing (assembly)		B
▪ Other Leather and Allied Product Manufacturing		B
▪ Sawmills and Wood Preservation		X
▪ Veneer, Plywood, and Engineered Wood Product Manufacturing (?)		X

APPENDIX A – Proposed EDD zoning permitted use tables pertaining to the Eno EDD

Permitted Use Table	Mixed Use Area (ROS)	Economic Development Area (IMWR)
▪ Other Wood Product Manufacturing		X
▪ Pulp, Paper and Paperboard Mills		-
▪ Converted Paper Products Manufacturing		X
▪ Printing and Related Support Activities		X
▪ Petroleum and Coal Products Manufacturing		-
▪ Basic Chemical Manufacturing		-
▪ Resin, Synthetic Rubber, and Artificial and Synthetic Fibers and Filaments Manufacturing		-
▪ Pesticide, Composting Fertilizer, and Other Agricultural Chemical Manufacturing		-
▪ Pharmaceutical and Medicine Manufacturing		X
▪ Paint, Coating, and Adhesive Manufacturing		-
▪ Soap, Cleaning Compound, and Toilet Preparation Manufacturing		-
▪ Other Chemical Product and Preparation Manufacturing		-
▪ Plastics Product Manufacturing		-
▪ Rubber Product Manufacturing		-
▪ Clay Product and Refractory Manufacturing		X
▪ Glass and Glass Product Manufacturing		X
▪ Cement and Concrete Product Manufacturing		X
▪ Lime and Gypsum Product Manufacturing		X
▪ Other Nonmetallic Mineral Product Manufacturing		X
▪ Iron and Steel Mills and Ferroalloy Manufacturing (?)		A
▪ Steel Product Manufacturing From Purchased Steel (?)		A
▪ Alumina and Aluminum Production and Processing		-
▪ Nonferrous Metal (except Aluminum) Smelting and Refining		-
▪ Foundries		-
▪ Forging and Stamping		L
▪ Cutlery and Handtool Manufacturing		X
▪ Architectural and Structural Metals Manufacturing		X
▪ Boiler, Tanks, and Shipping Container Manufacturing		X
▪ Hardware Manufacturing		X
▪ Spring and Wire Product Manufacturing		X
▪ Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing		X
▪ Coating, Engraving, Heat Treating, and allied Activities		X
▪ Other Fabricated Metal Product Manufacturing		X
▪ Agriculture, Construction and Mining Equipment Manufacturing		L
▪ Industrial Machinery Manufacturing		X
▪ Commercial and Service Industry Machinery Manufacturing		X
▪ Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing		X
▪ Metalworking Machinery Manufacturing		X
▪ Engine, Turbine, and Power Transmission Equipment Manufacturing		X
▪ Other General Purpose Machinery Manufacturing		X
▪ Computer and Peripheral Equipment Manufacturing		X
▪ Communications Equipment Manufacturing		X
▪ Audio and Video Equipment Manufacturing		X

APPENDIX A – Proposed EDD zoning permitted use tables pertaining to the Eno EDD

<u>Permitted Use Table</u>	Mixed Use Area (ROS)	Economic Development Area (IMWR)
▪ Semiconductor and Other Electronic Component Manufacturing		X
▪ Navigational, Measuring, Electromedical, and Control Instruments Manufacturing		X
▪ Manufacturing and Reproducing Magnetic and Optical Media		X
▪ Electric Lighting Equipment Manufacturing		X
▪ Household Appliance Manufacturing		X
▪ Electrical Equipment Manufacturing		X
▪ Other Electrical Equipment and Component Manufacturing		X
▪ Motor Vehicle Manufacturing		X
▪ Motor Vehicle Body and Trailer Manufacturing		X
▪ Motor Vehicle Parts Manufacturing		X
▪ Aerospace Product and Parts Manufacturing		X
▪ Railroad Rolling Stock Manufacturing		X
▪ Ship and Boat Building		X
▪ Other Transportation Equipment Manufacturing		X
▪ Household and Institutional Furniture and Kitchen Cabinet Manufacturing		X
▪ Office Furniture (including Fixtures) Manufacturing		X
▪ Other Furniture Related Product Manufacturing		X
▪ Medical Equipment and Supplies Manufacturing		X
▪ Other Miscellaneous Manufacturing		X
<u>Wholesale Trade</u>		
▪ Motor Vehicle and Motor Vehicle Parts and Supplies Wholesalers		X
▪ Furniture and Home Furnishing Wholesalers		X
▪ Lumber and Other Construction Materials Wholesalers		X
▪ Professional and Commercial Equipment and Supplies Wholesalers		X
▪ Metal and Mineral (except Petroleum) Wholesalers		X
▪ Electrical Goods Wholesalers		X
▪ Hardware, and Plumbing and Heating Equipment and Supplies Wholesalers		X
▪ Machinery, Equipment, and Supplies Wholesalers		X
▪ Miscellaneous Durable Goods Wholesalers		X
▪ Drugs and Druggists' Sundries Wholesalers		X
▪ Apparel, Piece Goods, and Notions Wholesalers		X
▪ Grocery and Related Product Wholesalers		X
▪ Farm Product Raw Material Wholesalers		X
▪ Chemical and Allied Products Wholesalers		L
▪ Petroleum and Petroleum Products Wholesalers		L
▪ Beer, Wine, and Distilled Alcoholic Beverage Wholesalers (except Bulk Stations and Terminals)		X
▪ Miscellaneous Nondurable Goods Wholesalers		X
<u>Retail Trade</u>		
▪ Automobile Dealers	X	X
▪ Other Motor Vehicle Dealers	X	X
▪ Automotive Parts, Accessories, and Tire Stores	X	X
▪ Furniture Stores	X	X
▪ Home Furnishings Stores	X	X

APPENDIX A – Proposed EDD zoning permitted use tables pertaining to the Eno EDD

Permitted Use Table	Mixed Use Area (ROS)	Economic Development Area (IMWR)
▪ Electronics and Appliance Stores	X	X
▪ Building Material and Supplies Dealers	X	X
▪ Lawn and Garden Equipment and Supplies Stores	X	X
▪ Grocery Stores	X	X
▪ Specialty Food Stores	X	X
▪ Beer, Wine, and Liquor Stores	X	X
▪ Health and Personal Care Stores	X	X
▪ Gasoline Stations	X	X
▪ Clothing Stores	X	X
▪ Shoe Stores	X	X
▪ Jewelry, Luggage and Leather Goods Stores	X	X
▪ Sporting Goods, Hobby, and Musical Instrument Stores	X	X
▪ Book, Periodical, and Music Stores	X	X
▪ Department Stores	X	X
▪ Other General Merchandise Stores	X	X
▪ Florists	X	X
▪ Office Supplies, Stationery, and Gift Stores	X	X
▪ Used Merchandise Stores	X	X
▪ Other Miscellaneous Store Retailers	X	X
▪ Electronic Shopping and Mail-Order Houses	X	X
▪ Vending Machine Operations	X	X
▪ Direct Selling Establishments	X	X
▪ General Freight Trucking	-	X
▪ Specialized Freight Trucking	-	X
Transit and Ground Passenger Transportation		
▪ Urban Transit Systems	X	X
▪ Interurban and Rural Bus Transportation	X	X
▪ Taxi and Limousine Service	X	X
▪ School and Employee Bus Transportation	-	X
▪ Charter Bus Industry	-	X
▪ Other Transit and Ground Passenger Transportation	X	X
▪ Scenic and Sightseeing Transportation, Land	-	X
▪ Scenic and Sightseeing Transportation, Other	-	X
▪ Support Activities for Road Transportation	-	X
▪ Freight Transportation Arrangement	-	X
▪ Other Support Activities for Transportation (Towing)	X	X
▪ Postal Service	X	X
▪ Couriers and Messengers	X	X
▪ Local Messengers and Local Delivery	X	X
▪ Warehousing and Storage	?-	X
Information		
▪ Newspaper, Periodical, Book, and Database Publishers	X	X
▪ Software Publishers	X	X
▪ Motion Picture and Video Industries	X	X
▪ Sound Recording Industries	X	X
▪ Radio and Television Broadcasting	X	X
▪ Cable Networks and Program Distribution	X	X
▪ Telecommunications	X	X
▪ Information Services	X	X
▪ Data Processing Services	X	X

APPENDIX A – Proposed EDD zoning permitted use tables pertaining to the Eno EDD

Permitted Use Table	Mixed Use Area (ROS)	Economic Development Area (IMWR)
Finance and Insurance		
▪ Monetary Authorities – Central Bank	X	X
▪ Depository Credit Intermediation	X	X
▪ Nondepository Credit Intermediation	X	X
▪ Activities Related to Credit Intermediation	X	X
▪ Securities and Commodity Contracts Intermediation and Brokerage	X	X
▪ Securities and Commodity Exchanges	X	X
▪ Other Financial Investment Activities	X	X
▪ Insurance Carriers	X	X
▪ Agencies, Brokerages, and Other Insurance Related Activities	X	X
▪ Insurance and Employee Benefit Funds	X	X
▪ Other Investment Pools and Funds	X	X
Real Estate and Rental and Leasing		
▪ Lessors of Real Estate	X	X
▪ Offices of Real Estate Agents and Brokers	X	X
▪ Activities Related to Real Estate	X	X
▪ Automotive Equipment Rental and Leasing	X	X
▪ Consumer Goods Rental	X	X
▪ General Rental Centers	X	X
▪ Commercial and Industrial Machinery and Equipment Rental and Leasing	?-	X
▪ Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)	X	X
Professional, Scientific, and Technical Services		
▪ Legal Services	X	X
▪ Accounting, Tax Preparation, Bookkeeping, and Payroll Services	X	X
▪ Architectural, Engineering, and Related Services	X	X
▪ Specialized Design Services	X	X
▪ Computer Systems Design and Related Services	X	X
▪ Management, Scientific, and Technical Consulting Services	X	X
▪ Scientific Research and Development Services	X	X
▪ Advertising and Related Services	X	X
▪ Other Professional, Scientific, and Technical Services	X	X
Administration and Support and Waste Management and Remediation Services		
▪ Office Administration Services	X	X
▪ Facilities Support Services	X	X
▪ Employment Services	X	X
▪ Business Support Services	X	X
▪ Travel Arrangement and Reservation Services	X	X
▪ Investigation and Security Services	X	X
▪ Services to Buildings and Dwellings	X	X
▪ Other Support Services	X	X
▪ Waste Collection	-	-
▪ Waste Treatment and Disposal	-	-
▪ Remediation and Other Waste Management Services	-	-

APPENDIX A – Proposed EDD zoning permitted use tables pertaining to the Eno EDD

Permitted Use Table	Mixed Use Area (ROS)	Economic Development Area (IMWR)
Educational Services		
▪ Elementary and Secondary Schools	X	X
▪ Junior Colleges	X	X
▪ Colleges, Universities, and Professional Schools	X	X
▪ Business Schools and Computer and Management Training	X	X
▪ Technical and Trade Schools	X	X
▪ Other Schools and Instruction	X	X
▪ Educational Support Services	X	X
Health Care and Social Assistance		
▪ Offices of Physicians	X	X
▪ Offices of Dentists	X	X
▪ Offices of Other Health Practitioners	X	X
▪ Outpatient Care Centers	X	X
▪ Medical and Diagnostic Laboratories	X	X
▪ Home Health Care Services	X	X
▪ Other Ambulatory Health Care Services	X	X
▪ All Other Ambulatory Health Care Services	X	X
▪ General Medical and Surgical Hospitals	X	X
▪ Psychiatric and Substance Abuse Hospitals		X
▪ Specialty (except Psychiatric and Substance Abuse) Hospitals	X	X
▪ Nursing Care Facilities	X	X
▪ Residential Mental Retardation, Mental health and Substance Abuse Facilities	X	X
▪ Community Care Facilities	X	X
▪ Other Residential Care Facilities	X	X
▪ Individual and Family Services	X	X
▪ Community Food and Housing, and Emergency and Other Relief Services	X	X
▪ Vocational Rehabilitation Services	X	X
▪ Child Day Care Services	X	X
Arts, Entertainment, and Recreation		
▪ Performing Arts Companies	X	X
▪ Spectator Sports	X	X
▪ Promoters of Performing Arts, Sports, and Similar Events	X	X
▪ Agents and Managers for Artists, Athletes, Entertainers, and Other Public Figures	X	X
▪ Independent Artists, Writers, and Performers	X	X
▪ Museums, Historical Sites, and Similar Institutions	X	X
▪ Amusement Parks and Arcades	-	-
▪ Gambling Industries	-	-
▪ Other Amusement and Recreation Industries	X	-
Accommodation and Food Services		
▪ Traveler Accommodation (Hotel)	X	X
▪ Full-Service Restaurants	X	X
▪ Limited-Service Eating Places	X	X
▪ Special Food Services	X	X
▪ Drinking Places (Alcoholic Beverages) (Stand Alone)	-	B or A
Other Services (except Public Administration)		
▪ Animal Hospital	X	X

APPENDIX A – Proposed EDD zoning permitted use tables pertaining to the Eno EDD

<u>Permitted Use Table</u>	Mixed Use Area (ROS)	Economic Development Area (IMWR)
▪ Kennel, Class I or II	X	X
▪ Automotive Repair and Maintenance	X	X
▪ Electronic and Precision Equipment Repair and Maintenance	X	X
▪ Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and maintenance		X
▪ Personal and Household Goods Repair and Maintenance	X	X
▪ Personal Care Service	X	X
▪ Death Care Services	X	X
▪ Dry-cleaning and Laundry Services	X	X
▪ Other Personal Services	X	X
▪ Religious Organizations	X	X
▪ Grantmaking and Giving Services	X	X
▪ Social Advocacy Organizations	X	X
▪ Civic and Social Organizations	-	-
▪ Business, Professional, Labor, Political, and Similar Organizations	X	X
▪ Private Households (Existing)	?X	?E
<u>Public Administration</u>		
▪ Executive, Legislative, and Other General Government Support	X	X
▪ Justice, Public Order, and Safety Activities	X	X
▪ Administration of Human Resources	X	X
▪ Administration of Environmental Quality Programs	X	X
▪ Administration of Housing Programs, Urban Planning, and Community Development	X	X
▪ Administration of Economic Programs	X	X
▪ Space Research and Technology	X	X
▪ National Security and International Affairs	X	X

Key

- A – Special Use
- B – Special Use
- E -
- L – Limited with conditions
- X - Permitted

APPENDIX B – Access Management

Following is information regarding an “Access Management Toolkit” that was part of previous planning efforts in Orange County. (Source: Iowa State University, Center for Transportation Research and Education website:

<http://www.ctre.iastate.edu/Research/access/toolkit/index.htm>)

ACCESS MANAGEMENT TOOLKIT: ANSWERS TO FREQUENTLY ASKED QUESTIONS

ACCESS MANAGEMENT CONCEPTS

- 1. DRIVEWAY-RELATED CRASHES**
- 2. DRIVEWAY SPACING**
- 3. DRIVEWAY DENSITY AND DRIVEWAY CONSOLIDATION**
- 4. INTERSECTION SPACING AND TRAFFIC SIGNAL SPACING**
- 5. FUNCTIONAL AREAS OF INTERSECTIONS**
- 6. CONFLICT POINTS**
- 7. SPEED DIFFERENTIAL BETWEEN TURNING VEHICLES AND THROUGH TRAFFIC**
- 8. BENEFITS OF ACCESS MANAGEMENT**
- 9. ECONOMIC IMPACTS OF ACCESS MANAGEMENT**
- 10. ACCESS MANAGEMENT AND PEDESTRIAN SAFETY**

COMMON ACCESS MANAGEMENT TREATMENTS

- 11. DRIVEWAY GRADE**
- 12. DRIVEWAY WIDTH**
- 13. CLEARING DRIVEWAYS AWAY FROM CORNERS**
- 14. SHARED/JOINT DRIVEWAYS AND/OR CROSS ACCESS**
- 15. CONTINUOUS TWO-WAY LEFT-TURN LANES**
- 16. THREE-LANE ROADWAYS WITH TWO-WAY LEFT-TURN LANES**

APPENDIX B – Access Management

17. RAISED MEDIANS AT INTERSECTIONS

18. CONTINUOUS RAISED MEDIAN

19. COMPARISON OF RAISED MEDIAN AND TWO-WAY LEFT-TURN LANES

20. FRONTAGE AND BACKAGE ROADS

21. DEDICATED LEFT AND RIGHT TURNING LANES

22. DRIVEWAY TURN RADIUS

23. INTERNAL CIRCULATION IN LAND DEVELOPMENTS

OTHER CORRIDOR DESIGN CONSIDERATIONS

24. SIGHT DISTANCE

25. INCORPORATING AESTHETICS INTO ACCESS MANAGEMENT

26. CLEAR ZONES, UTILITY PLACEMENT AND LIGHTING