TOWN OF Summerfield
Town Hall: POB 970, 4117 Oak Ridge Road, Summerfield, NC 27358
ph: 336-643-8655 / fax: 336-643-8654 / www.summerfieldgov.com

Public hearing/action regarding rezoning case RZ-01-15 (requested change: AG to CU-RS-40; location: 6900 Belford Rd.; parcel: 0149799)

Attachment(s): yes

MEETING DATE: FEBRUARY 10, 2015

STAFF COMMENTS / RECOMMENDATION:

The staff report and needed review files are attached and staff will present the case. The ZB's recommendation follows:

"A motion was made 'that a recommendation for approval of the request for rezoning from AG (Agricultural) (120,000 square foot lots) to CU-RS-40 (Conditional Use Residential), located in a Watershed General Area (60,000 square foot lots) be forwarded to the Town Council. The uses listed in this request include only one permitted use, single family detached housing. The request is consistent with the town's adopted Comprehensive Plan because it complies with Policies 6.0 and 6.1 relating to low-density, single-family homes and is in the public interest because the proposed development is consistent with surrounding zoning and residential development.' M/S Davis/Feulner, passed (5-0-0). Ms. Rooney asked that a copy of the timber management plan be made available to the Town Council."

As a reminder, rezoning decisions must be made based on:

- our current development ordinance;
- our comprehensive plan (per NCGS 160A-383 below); and,
- "any other officially adopted plan that is applicable."

Council must "approve a statement describing whether its action is consistent with an adopted comprehensive plan and any other officially adopted plan that is applicable, and briefly explain why the board considers the action taken to be reasonable and in the public interest." The statement will be provided to the applicant as formal notification of the rezoning decision.

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§ 160A-383. Purposes in view. *Zoning regulations shall be made in accordance with a comprehensive plan. When adopting or rejecting any zoning amendment, the governing board shall also approve a statement describing whether its action is consistent with an adopted comprehensive plan and any other officially adopted plan that is applicable, and briefly explaining why the board considers the action taken to be reasonable and in the public interest. That statement is not subject to judicial review.*

The planning board shall advise and comment on whether the proposed amendment is consistent with any comprehensive plan that has been adopted and any other officially adopted plan that is applicable. The planning board shall provide a written recommendation to the governing board that addresses plan consistency and other matters as deemed appropriate by the planning board, but a comment by the planning board that a proposed amendment is inconsistent with the comprehensive plan shall not preclude consideration or approval of the proposed amendment by the governing board.

Zoning regulations shall be designed to promote the public health, safety, and general welfare. To that end, the regulations may address, among other things, the following public purposes: to provide adequate light and air; to prevent the overcrowding of land; to avoid undue concentration of population; to lessen congestion in the streets; to secure safety from fire, panic, and dangers; and to facilitate the efficient and adequate provision of transportation, water, sewerage, schools, parks, and other public requirements. The regulations shall be made with reasonable consideration, among other things, as to the character of the district and its peculiar suitability for particular uses, and with a view to conserving the value of buildings and encouraging the most appropriate use of land throughout such city. (1923, c. 250, s. 3; C.S., s. 2776(t); 1971, c. 698, s. 1; 2005-426, s. 7(a); 2006-259, s. 28.)

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NOTES:

TOWN COUNCIL COMMENTS / ACTION:

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PLANNING DEPARTMENT REPORT *FEBRUARY 2, 2015*

Memorandum to: The Mayor and Town Council members

From: Julie A. Reid, Town Planner

Regarding: Case RZ-01-15

LOCATION: The subject site is an 8.313 - acre portion of a 131- acre tract of land located at 6900 Belford Road, Bruce Township, being Guilford County Parcel 0149799. The requested 8.313 acres would be located east of the terminus of Shadow Creek Drive (Birkhaven Subdivision).

OWNER(S)/APPLICANT: Renee Brown Weidel, 7000 Belford Road, Summerfield, NC 27358.

PROPOSED DEVELOPER: Unknown.

TOTAL ACREAGE: The subject site is an 8.313 - acre portion of a 131- acre tract of land.

REQUEST: The proposed rezoning is from AG (Agricultural) (120,000 square foot lots) to CU-RS-40 (Conditional Use Residential), located in a Watershed General Area (60,000 square foot lots).

Only proposed permitted use—Single Family Detached Residence

The addition of the Conditional Use District designation provides the opportunity for conditions that are mutually agreed upon. The one condition requested would limit the development to one use, detached single family residential homes.

A preliminary sketch plan is attached for review. This plan may change significantly through the review and approval process.

CHARACTERISTICS OF THE PROPOSED DISTRICT: The RS-40, Residential Single-Family District is primarily intended to accommodate single-family detached dwellings on large lots in areas without access to public water and wastewater services. The district is established to promote single-family detached residences where environmental features, public service capacities, or soil characteristics necessitate very low-density single-family development. Development within this district requires Open Space dedication of ten (10) percent.

OBSERVATIONS: *The proposed subdivision is located along an alignment identified on the Town of Summerfield Collector Street Plan. This east-west connector would serve to connect the extension of Eversfield Road, Braelands Drive (Birkhaven Subdivision), Belford Road and Mahlon Lawrence Drive (Armsfield Subdivision). The location of designated flood plains to the south make north –south connections to Brookbank Road unlikely.*

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During the subdivision review and approval process for Birkhaven 1-5, it was agreed that no more than 60 homes would be constructed as there would be only one access road. Birkhaven 6 was approved with another 16 lots having this same single access. There was discussion of the provision for a second access and providing for the connectivity of subdivision roads to major thoroughfare roads. This project proposes only five lots, but with access by extension to the same access road.

Process Requirements and Notes: *All required submittal requirements and fees have been received.*

COMPATIBILITY WITH COMPREHENSIVE PLAN:

1. Appropriate, Limited Commercial Development— *Not applicable*

2. Sidewalk, Bikeway and Trail System— *There is a ten foot easement for foot traffic to the proposed open space.*

3. Community Character Preservation— *There is 0.861-acre open space proposed north of the proposed lots. There is a ten foot easement for foot traffic to the proposed open space. The stated purpose of this open space is preservation of open space including farm and forest land. There are existing mature trees within proposed open space. Some of these mature trees will be preserved and incorporated into the open space portion of the development. The trees and their root structure will have to be protected during construction.* The *following policies should be considered.*

> Policy 3.1: EXISTING, DESIRABLE LANDSCAPE ELEMENTS, whether natural or man-made, should continue to be incorporated into the thematic design of new developments.
>
> *There is a row of Arizona Cypress along the southern border of the proposed subdivision and protected by a twenty-five foot landscape easement. Additional plant materials both north and south of this easement remain from a previous commercial tree nursery on the site.*
>
> Policy 3.5: CLEARCUTTING OF TREES AND WOODLAND AREAS FOR DEVELOPMENT shall be avoided. Rather, new development should incorporate significant clusters of trees into the functional layout of new residential and commercial areas.
>
> *This policy was not just intended for open space areas, but also for the residential lots themselves. It is a common practice for builders to completely clear the lot. The areas within the setbacks are areas where trees may be preserved. Driveways and septic systems may require the removal of some trees.*
>
> Policy 3.9: GREEN SPACE BUFFER STRIPS, preserved along of edges of primary and secondary roadways in Summerfield, shall be a distinguishing feature and hallmark of the community. Clusters of trees shall be preserved or planted in informal, randomly spaced intervals as opposed to the uniformly spaced patterns often found in a more urban area. Walled off communities are not desired.

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4. Transportation Improvements –

Policy 4.5:

So as to (1) minimize the use of major roadways for purely local trips, (2) allow for public road access, and (3) facilitate the development of Summerfield as a walkable and bikeable community, the Town shall encourage STREET CONNECTIONS BETWEEN ADJOINING RESIDENTIAL AREAS, - provided that the street layout discourages cut-through traffic through established neighborhoods.

Policy 4.7

As new neighborhoods are developed, AT LEAST TWO POINTS OF ACCESS/EGRESS to through streets should be planned for or provided for larger developments. The secondary access/egress may be gated with a breakaway wall for emergency services, but should allow for passage of pedestrians and bicyclists.

5. Water Supply and Sewage Treatment Options – Individual wells are proposed. The approval of wastewater facilities for each lot will be necessary for a final approval of this request.

> Policy 5.5:The Town shall encourage site designs that FACILITATE RECHARGE TO THE GROUNDWATER SYSTEM, including but not limited to: (1) the conservation and addition of tree cover and associated forest floor debris, (2) the avoidance of curb and gutter in favor of roadside swales and retention areas (3) the preservation of open space (3) and the design of parking areas and other paved surfaces to encourage stormwater infiltration.

6. Appropriate Housing and Residential Development – Summerfield's appealing residential areas, exemplified by neighborhoods set among expanses of open space, woodlands, and pastures, shall continue to be a defining attribute of the community. To accommodate housing for younger families and senior citizens while promoting and protecting rural character, the inclusion in residential development of smaller single family detached homes shall be encouraged over twin and other multi-unit residential buildings.

> Policy 6.1: Residential development in Summerfield should remain mostly LOW DENSITY, SINGLE-FAMILY DETACHED HOUSING.

7. Parks and Recreation Improvements – *Not applicable.*

8. Attractive Community Appearance - *This development will not be visible from any major roads.*

9. Quality School Facilities – *This is a small subdivision and little impact is anticipated.*

10. Summerfield Road Focus Area – *Not applicable.*

11. Historic Preservation – *There are no historical structures on the site.*

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12. Summerfield as a Limited Services Local Government – *The Town of Summerfield should continue to focus on the highest priorities of area residents – managing growth and preserving and enhancing the area's quality of life.*

PLANNING BOARD RECOMMENDATION

A motion was made "that a recommendation for **approval** of the request for rezoning from AG (Agricultural) (120,000 square foot lots) to CU-RS-40 (Conditional Use Residential), located in a Watershed General Area (60,000 square foot lots) be forwarded to the Town Council. The uses listed in this request include only one permitted use, single family detached housing. The request is consistent with the town's adopted comprehensive plan because it complies with policy 6.0 and 6.1 relating to low density single family homes and **is** in the public interest because the proposed development is consistent with surrounding zoning and residential development. "M/S Davis/Feulner , passed (5-0-0). Ms Rooney asked that a copy of the timber management plan be made available to the Town Council.

SUGGESTED MOTION FORMAT FOR CONSIDERATION

Note: North Carolina General Statute 160A-383 requires that "prior to adopting or rejecting any zoning amendment" each local governing board "shall adopt a statement describing whether its action is consistent with an adopted comprehensive plan and explaining why the board considers the action taken to be reasonable and in the public interest." For the purposes of this statute, this document is "The Town of Summerfield Comprehensive Plan."

RECOMMENDED MOTION:

"I move that the request from Renee Weidel for rezoning the 8.313- acre portion of her 131- acre farm from AG (Agricultural) (120,000 square foot lots) to CU-RS-40 (Conditional Use Residential), located in a Watershed General Area (60,000 square foot lots) be ***(approved) (conditionally approved) (denied).***

The only condition requested and hereby agreed to is to limit the use to single family detached housing only.

The request ***(is)(is not)*** *consistent with the town's adopted comprehensive plan because*

*(List):*_____

_____

and ***(is) (is not)*** *in the public interest because* _____.

Town of Summerfield
Development Bulletin
Effective January 7, 2005
www.summerfieldgov.com

Summerfield Application for Conditional Use Rezoning

Date Submitted: _____ **Fee/Receipt #:** _____ **Case Number:** _____

Provide the required information as indicated below. *Pursuant to the Town of Summerfield Development Ordinance, this application will not be processed until application fees are paid; the form below is completed and signed; and all required maps, plans and documents have been submitted to the satisfaction of the Enforcement Officer. Additional sheets for tax references, signature blocks and conditions are available upon request.*

Pursuant to Section 3-12 of the Town of Summerfield Development Ordinance, the undersigned hereby request Town of Summerfield to rezone the property described below from the AG zoning district to the CU-RS-40 zoning district. Said property is located EAST OF THE TERMENUS OF SHADOW CREEK DRIVE IN THE BIRKHAUEN SUBDIVISION in BRUCE Township; Being a total of: 8.313 acres.

Further referenced on the Guilford County Tax Maps as (additional tax reference sheets available upon request):

Parcel Number 0 1 4 9 7 9 9
Parcel Number ___ ___ ___ ___ ___ ___ ___
Parcel Number ___ ___ ___ ___ ___ ___ ___
Parcel Number ___ ___ ___ ___ ___ ___ ___

Check One:

- ☐ The property requested for rezoning is an entire parcel or parcels as shown on the Guilford County Tax Map.
- ☑ The property requested for rezoning is a portion of a parcel or parcels as shown on the Guilford County Tax Map; a written legal description of the property and a map are attached.

Check One:

- ☑ The applicant is the property owner(s)
- ☐ The applicant is an agent representing the property owner(s); the letter of property owner permission is attached.
- ☐ The applicant has an option to purchase or lease the property; a copy of the offer to purchase or lease is attached (financial figures may be deleted).
- ☐ The applicant has no connection to the property owner and is requesting a third party rezoning.

Conditional Use Rezoning Requirements:

- ☐ Zoning Development Plan. A development plan illustrating proposed conditions and other pertinent information is required for all residential conditional use rezoning requests. Development Plan elements not illustrating proposed conditions are subject to subdivision and site plan review. Refer to Appendix 2, Map Standards of the Town of Summerfield Development Ordinance.
- ☐ Zoning Conditions. Use and/or development conditions must be provided. Complete Part Two of this application. Refer to uses as listed in Table 4-3-1 of the Town of Summerfield Development Ordinance.

Application materials checklist:

Filing for a rezoning or conditional use rezoning requires:

- A completed and signed Application Form;
- Application fee;
- A Development Plan for residential rezonings;
- legal description of the property;
- Environmental Inventory for residential rezoning and non-residential rezoning over 5 acres (check with Planning Staff for specific requirements)

Conditional Use Rezoning Application, Part II

Use Conditions

Uses of the property shall be limited to the following uses as listed in Article IV, Table 4-3-1 of the Town of Summerfield Development Ordinance:

1) SINGLE FAMILY DETACHED HOUSES ONLY

2)

3)

4)

Development Conditions

Development of the property shall occur in accordance with the following standards and requirements in addition to those specified in the Town of Summerfield Development Ordinance:

1)

2)

3)

4)

A Conditional Use Rezoning Application must be signed by current property owner(s).

I hereby agree to conform to all applicable laws of Summerfield and the State of North Carolina and certify that the information provided is complete and accurate to the best of my knowledge. I acknowledge that by filing this application, representatives from Town of Summerfield Planning Department may enter the subject property for the purpose of investigation and analysis of this request. Additional signature pages are available upon request.

Respectfully Submitted,

Renée B. Weidel
Applicant Signature

RENÉE B. WEIDEL
Name

7000 BELFORD ROAD
Mailing Address

SUMMERFIELD, NC 27358
City, State and Zip Code

336-210-9555
Phone Number

Email

Representative/Agent Signature

Name

Mailing Address

City, State and Zip Code

Phone Number

Email

Additional Tax Map References

Further referenced on the Guilford County Tax Maps as:

Parcel Number ___ ___ ___ ___ ___ ___ ___

Parcel Number ___ ___ ___ ___ ___ ___ ___

Parcel Number ___ ___ ___ ___ ___ ___ ___

Parcel Number ___ ___ ___ ___ ___ ___ ___

Parcel Number ___ ___ ___ ___ ___ ___ ___

Parcel Number ___ ___ ___ ___ ___ ___ ___

Parcel Number ___ ___ ___ ___ ___ ___ ___

Parcel Number ___ ___ ___ ___ ___ ___ ___

Additional rezoning questions:

1. Type of use and improvement proposed:

   SINGLE FAMILY DETACHED HOUSES

2. Do substantial reasons exist which prevent the subject property from being used in accord with the current Zoning classification?

   NO

3. State the way in which the proposed change will be appropriate and desirable to the Town of Summerfield and what effect the proposed change will have upon the immediate neighborhood.

   THE PROPOSED CHANGE WOULD PROVIDE ADDITIONAL LOW DENSITY DEVELOPMENT WITH MINIMAL IMPACT TO SURROUNDING NEIGHBORHOOD

4. What changing conditions make the passage of this proposed amendment necessary?

   THE INCREASING COST OF OPERATING A WORKING FARM PROFITABLY

5. Are there circumstances that justify the proposed change? If so, state them.

   - TO ELIMINATE TIMBER HARVESTING ON THIS TRACT, WHICH IS REQUIRED IN THE TEN YEAR TIMBER MANAGEMENT PLAN.
   - DEVELOPMENT HAS OCCURRED TO THE WEST

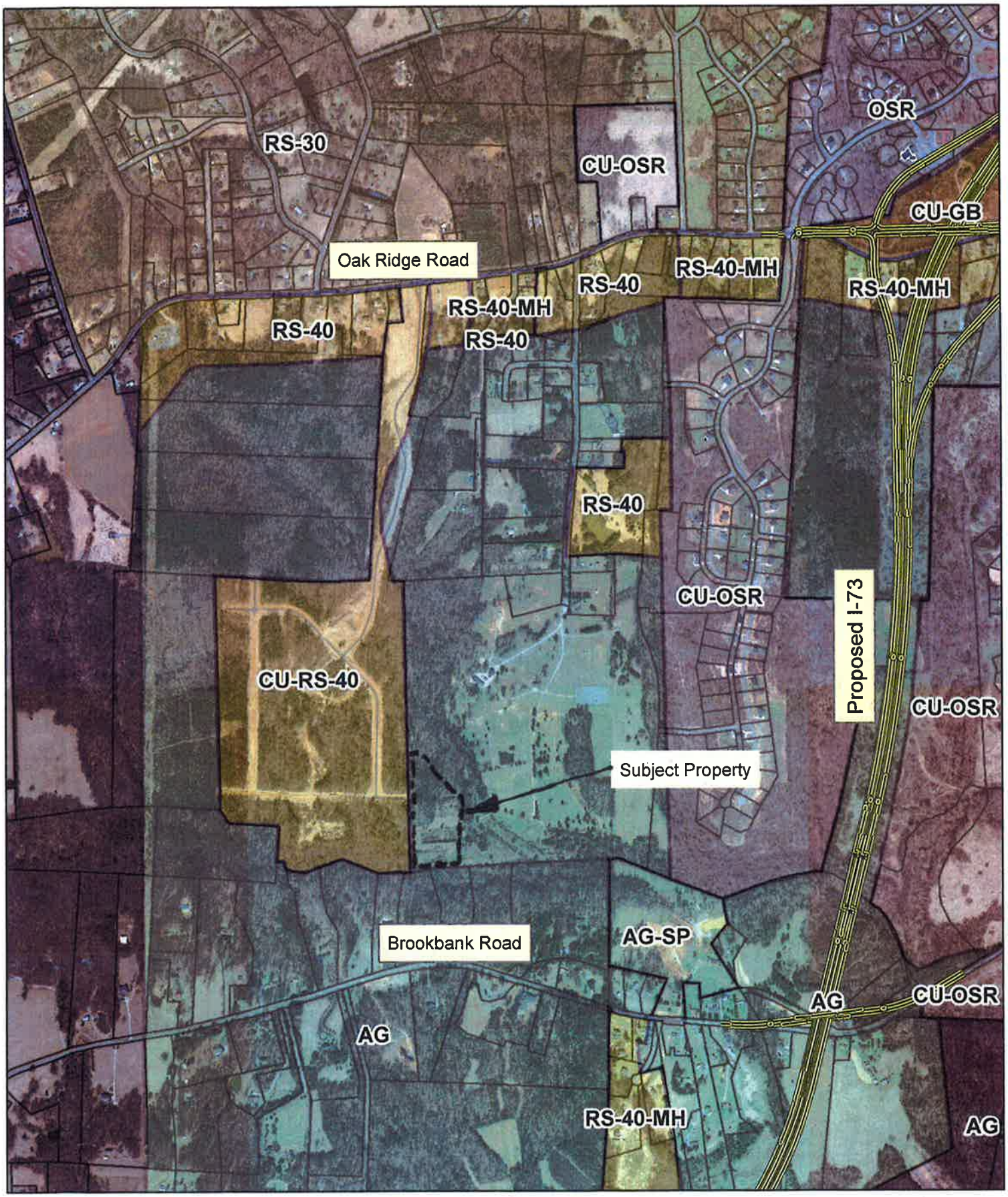
6. How does the proposed zoning change affirm the policy(ies) of the Town of Summerfield Comprehensive Plan?

   PROVIDE LOW DENSITY SINGLE FAMILY DWELLINGS.

Legal Description for Proposed Tract One
Being a Portion of Guilford County Parcel No. 149799

Beginning at a ½" existing iron rod, said beginning point being the southeastern corner Lot No. 7, Birkhaven, Phase Two as recorded in Plat Book 183, Page 149 in the Guilford County Register of Deeds; thence from said beginning point South 84°39'16" East 72.91' to a point; thence South 51°11'20" East 118.90' to a point; thence South 17°37'04" East 129.27' to a point; thence South 41°13'47" East 255.03' to a point; thence South 15°34'30" East 221.39 to a point; thence South 07°00'43" West 72.62' to a point; thence South 20°34'51" West 23.55' to a point; thence South 05°37'47" West 43.20' to a point; thence South 03°31'54" East 18.13' to a point; thence South 88°35'51" East 19.77' to a point; thence South 01°24'09" West 211.08' to a point; thence South 31°15'03" West 51.91' to a point; thence South 88°37'39" West 424.66' to a point; thence North 01°24'09" East 381.16' to a ½" existing iron on the southern margin of Shadow Creek Drive; thence with the terminus of said road North 01°24'09" East 50.00' to a ½" existing iron rod on the northern margin of said road; thence North 01°24'09" East 600.00' to the point and place of beginning, containing 8.313 acres, more or less. The above description taken from a survey prepared by Land Solutions of North Carolina, PLLC, having a project number of 14800024, dated October 3, 2014.

RZ-01-15 Renee Weidel
Rezoning from Agricultural (AG) to CU-RS-40 Single family Residential (CU-RS-40) within the Watershed General Area



1,250 625 0 1,250 Feet

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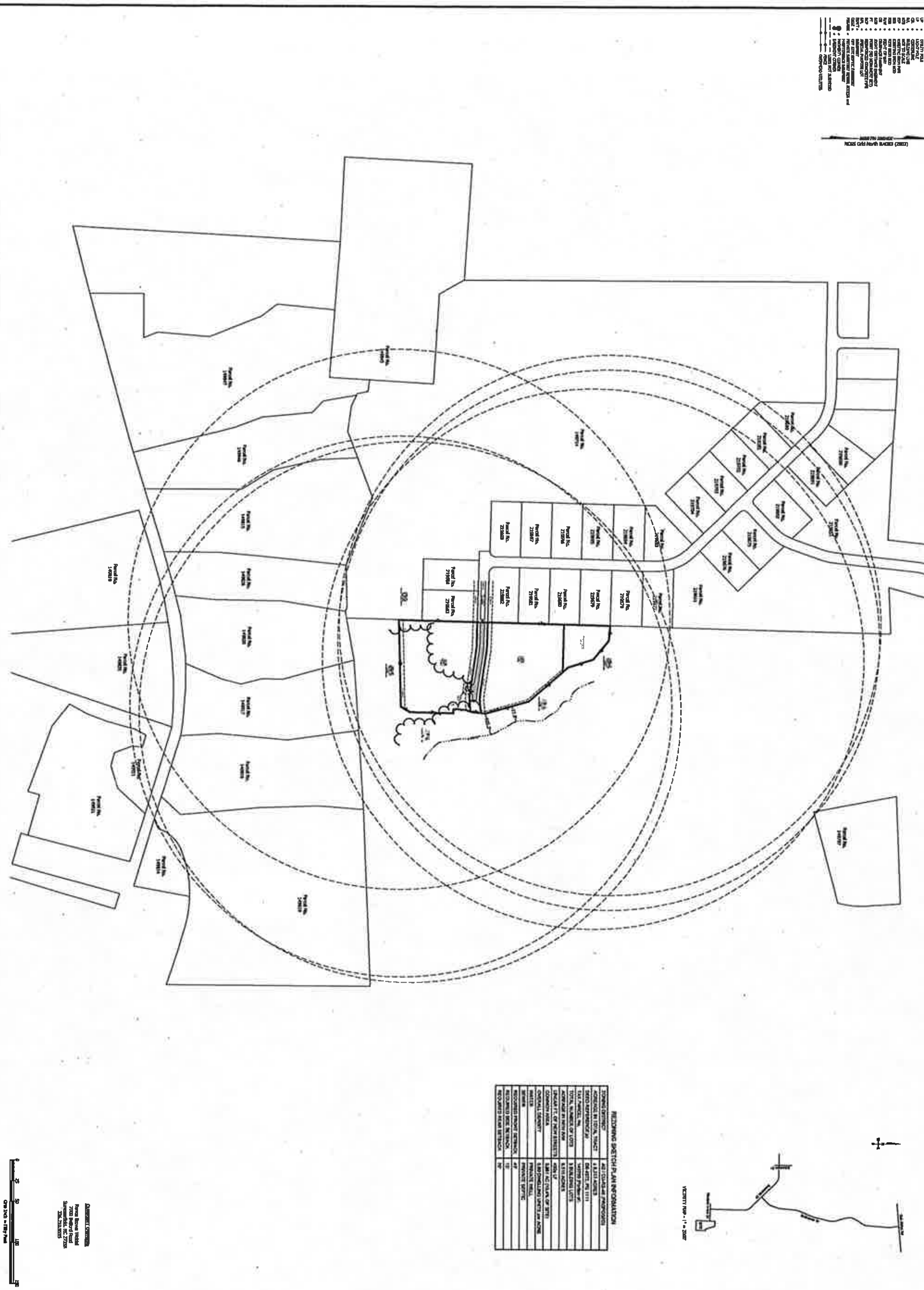
Prepared by the Town of Summerfield



PARCEL No. 149799

BRUCE TOWNSHIP - GUILFORD COUNTY
TOWN of SUMMERFIELD - NORTH CAROLINA

MAP SHOWING PARCELS WITHIN 1320' of PROPOSED REZONING

PRELIMINARY;
NOT FOR RECORDATION,
CONVEYANCE or SALES
PRELIMINARY;
NOT FOR CONSTRUCTION

LAND SOLUTIONS

Telephone: 336.605.0328

Fax: 336.605.0329

www.landsolutionsofnc.com

NC Firm No. P-1190

200 South Regional Road, Suite 104, Greensboro, NC 27409
Post Office Box 347, Oak Ridge, NC 27310-0347

LAND
SOLUTIONS
LAND SURVEYING, DESIGN AND PLANNING

October 10, 2014

RE: Site Analysis / Environmental Inventory – Portion of Parcel No. 149799

In accordance with the Town of Summerfield Development Ordinance, Land Solutions has prepared this site analysis in conjunction with a request to rezone approximately 8.313 acres from AG to CU-RS-40.

Site Details

This tract is located East of the terminus of Shadow Creek Drive within the Birkhaven Subdivision. The entire tract is located within the Greensboro General Water Supply Watershed, Reedy Fork, WS III. This site consists of mostly wooded steady sloping topography. There are no areas on this portion of the property that are located within a designated flood zone but there are areas located within a designated flood zone on the remaining portion of this parcel. There are agricultural and/or forestry uses or programs located on this tract. There are no existing improvements on this tract except for some woven wire fencing. Soil types are primarily Cecil and Pacolet, which support the type of development proposed. In determining the priorities for Primary and Secondary Conservation Areas, the following documents (Attached) were reviewed by Land Solutions staff:

- National Wetlands Inventory Maps
- Independent Soil Survey
- Natural Heritage Inventory of Guilford County
- Flood Insurance Rate Maps (FEMA)
- NCDOT Topographic Map
- Northwest Area Plan
- Town of Summerfield Development Ordinance

There are no documented wetlands, historic sites, archaeological sites or critical habitat areas located in the requested area as identified on any of the reference documents. Site features defined by the Town of Summerfield Development Ordinance as Primary Conservation areas are identified on the Rezoning Sketch Map.

The proposed Open Space areas as shown on the Rezoning Sketch map were determined from site visits by Land Solutions staff, the applicant and consultation with the Town of Summerfield Planning Department.

Primary and Secondary Conservation Areas

This site is being proposed as a CU-RS-40 District. The Open Space requirements in the RS-40 District for subdivisions that have between 5 and 24 building lots are 10% or 0.831 Acres. The Primary Conservation Areas on this site consist of old growth trees as shown on the Rezoning Sketch Plan. The total Open Space proposed totals 0.861 Acres or 10.4% of the site. Due to the

200 South Regional Road Suite 104 Greensboro, NC 27409
Post Office Box 347 Oak Ridge, NC 27310-0347
Telephone: 336.605.0328
Fax: 336.605.0329

available Primary Conservation Areas exceeding the Open Space requirements, Secondary Conservation Areas were not identified on the Rezoning Sketch Plan.

Conclusions and Development Strategy

As shown on the Rezoning Sketch Plan, the designated Open Space and Common Areas will provide for the protection and preservation of the existing tree stand(s) in accordance with the Town of Summerfield Development Ordinance.

This plan meets or exceeds the goals and specifications of the Town of Summerfield Development Ordinance, the Town of Summerfield Long Term Plan and the RS-40 Residential District.

Should anyone wish to visit the property, please contact Land Solutions or applicant to arrange access to the property.

If you have any questions or require further information, please feel free to contact us.

Sincerely,

Christopher M. Rohrer, PLS

U.S. Fish and Wildlife Service

National Wetlands Inventory

Parcel No. 149799

Wetlands

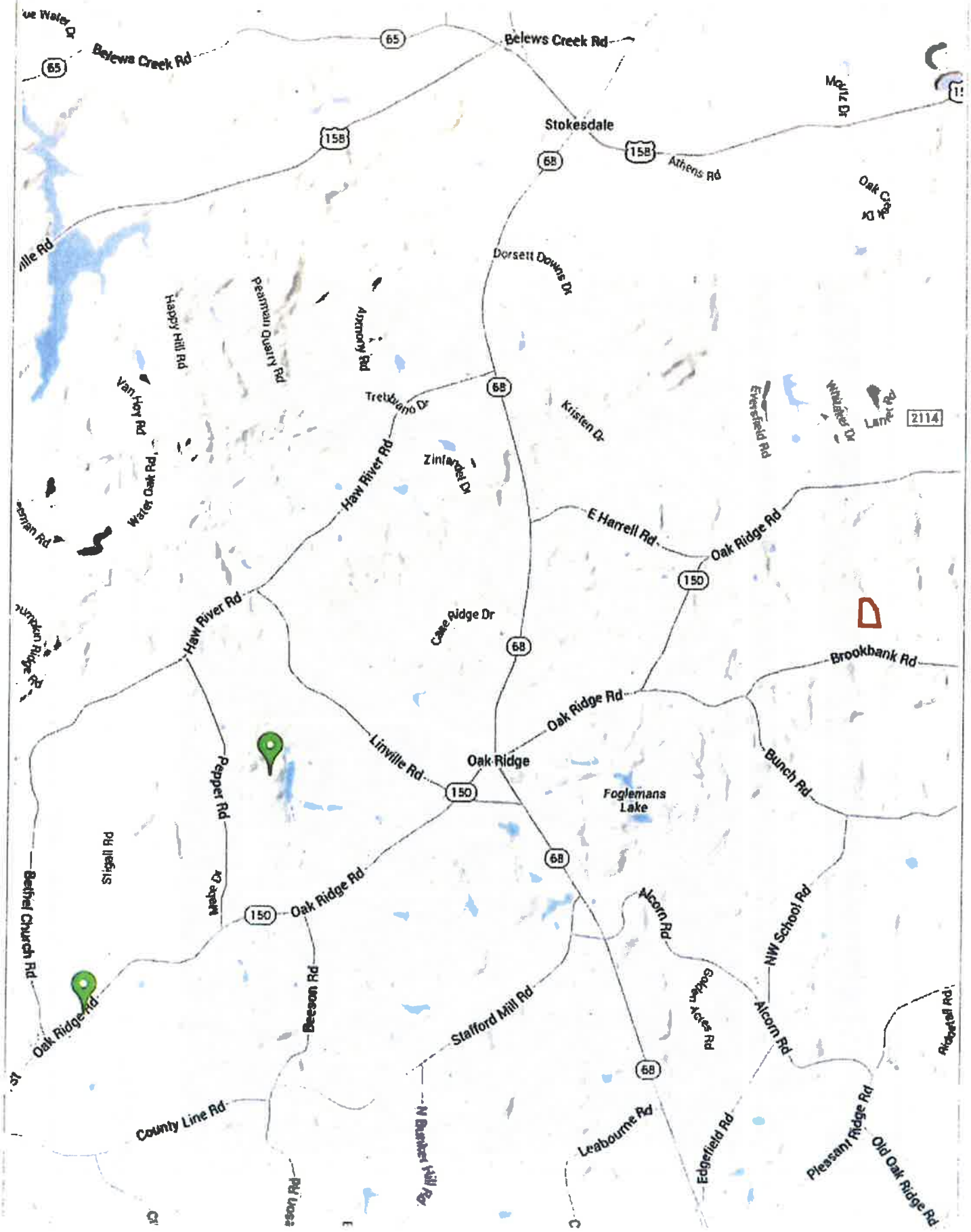
- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

User Remarks:

Piedmont Land Conservancy - Protected Areas

Close Window Reset Map



Greywater
Environmental Services

Greywater Environmental Services
Edwin Stott, RS, LSS
PO Box 114
Stoneville, NC 27048
336-344-4008
1greywater@gmail.com

September 14, 2014

Mr. Chris Rohrer, PLS
Land Solutions, PC
200 S Regional Rd.
Greensboro, NC 27409

RE: +/- 8 acres Belford Road, PIN 0149799

Dear Mr. Rohrer:

On September 11, 2014, Greywater Environmental Services conducted a soil and site evaluation on the tract referenced above. This service was performed at your request and in accordance with the signed proposal/agreement. Soil borings were made using current soil science practices and were analyzed to determine soil suitability for on-site sewage disposal systems in accordance with 15A NCAC 18A .1900 "Laws and Rules for Sewage Treatment and Disposal Systems". The evaluation included the following criteria: landscape position and topography, soil morphology (structure, texture, and mineralogy), soil depth, soil wetness conditions, restrictive horizons, and available space. This evaluation was for residential strength wastewater applications. Any other type of use may require additional testing and/or stricter setbacks.

FINDINGS

This tract is located in Guilford County in the Felsic Crystalline geologic region of the state. The upland soils on this tract in the conventional areas are most similar to the Cecil and Pacolet soil series. The Cecil and Pacolet soil series are generally usable for subsurface wastewater treatment and disposal systems with limitations being depth to saprolite. Saprolite was encountered in some areas as is common in the piedmont of North Carolina. Saprolite will be required to be evaluated using a backhoe with the county health department. The accompanying sketch shows 2 distinct areas. The red hatched area contains potentially usable soils with some minor topographical irregularities. Every effort was made to delineate those topographical features. The area to the south is in an abandoned tree nursery. Grass and underbrush have grown to the point it is nearly impossible to evaluate near the southern boundary of the nursery. Borings were made in this area, however without lot lines in the field, I did not know if I was on a proposed lot, or if I had moved out of the evaluation area. GPS signal was very weak in that canopy. This usable depth along with the slope percentage is used to determine the type of system that can be placed in the given area. Generally, soils with 30 inches or more of usable soils are considered to be usable for conventional, shallow placed conventional and accepted systems. Slope percentage will also be used in each area to determine the "slope correction" that may also affect this usable soil depth. Once slopes start to go over 10-15%, soils generally need to be deeper in order to maintain the usable depth on the downhill side of the trenches. Based on the soil borings conducted in the areas shown, these soils fall into Soil Group IV in accordance with 15A NCAC 18A .1900 "Laws and Rules for Sewage Treatment and Disposal Systems". These soils have an LTAR range of .1-.4gpd/ft^2. Saprolite textures are different and a different LTAR table is used in accordance with rule .1956.

Conventional Area 1 this area is shown with a side hatch on the accompanying map and is red. Soils in this area were generally greater than 30 inches of usable material. Slopes in these areas were 4-8% on average. A septic system layout(s) will be needed in these areas to work around the small irregularities. These areas are shown on the enclosed sketch. These soils are most similar to Cecil

and Pacolet soil series. Saprolite was encountered in this area and a backhoe will be needed to evaluate by the county health department.

Cross hatched area, green as discussed before was very thick and not evaluated completely.

Neighboring wells and septic systems may impact this project; however, Greywater Environmental Services did not traverse any neighboring properties. The site plan for each individual building lot must ensure that adequate space is allotted for the septic system and a repair septic system. Generally, 4000 square feet per bedroom or 30 square feet per gallon will provide the adequate space needed on the ground for the installation of the primary septic system and preserve the repair area. This space is after all setbacks have been met and no obstructions are present. The county health department in the county in which this lot lies will ultimately establish the area for the septic system, the LTAR and the system type. Once they have conducted their evaluation after you have applied for the permits, the area that they designate must remain undisturbed unless authorized by the county health department. Excavation and mechanical type of clearing can render an otherwise usable area unusable if best management practices and careful site preparation and planning are not observed.

If this is to be a subdivision, each individual lot will have to be applied for at the local health department and evaluated. Final site approval for the issuance of improvement will be based on state and local regulations which are in force at the time of application for those permits. Upon application of permits, a specific use for the property will be required by the governing agency.

CONCLUSION:

The usage of a soil area for a subsurface wastewater treatment and disposal system is most accurately determined by performing a septic system layout for the specific use of the area. For example, a three bedroom house with an LTAR of .3 gpd/ft^2 using a 3 foot trench would require 400 feet of conventional or 300 feet of accepted nitrification trenches. Also, the repair area would need to be included as well. This would yield the need of 600 to 800 linear feet of nitrification line. Using a laser level, this can be placed on the ground to fully determine exactly how much space will be used. If individual layouts are not performed or desired, the land development plan should include for planning in the Piedmont of NC, 4000 square feet per bedroom or 30 square feet per gallon on the ground set aside for the septic systems for each lot.

If off-site septic systems, large community septic systems or other alternatives are desired, Greywater Environmental Services can assist you with planning.

This report discusses the general location of potentially usable soils for on-site wastewater disposal and the soil site limitations on the property that exists at the time of the evaluation. Greywater Environmental Services provides professional consulting specializing in the practice of soil science and wastewater management. Greywater Environmental Services is therefore hired for its professional opinion regarding these matters. Laws and rules governing wastewater treatment and disposal are forever evolving and subject to the interpretation and opinion of individuals which are employed by local and state agencies that govern these laws and rules. Due to this fact, Greywater Environmental Services can not guarantee in any way that any area located in the field, shown on a sketch, or discussed with the client will be permitted by any of these agencies. It is for this reason that Greywater Environmental Services strongly recommends to anyone considering a financial commitment on any piece of property be completely aware of any and all permit requirements on that property before purchase and obtain those permits prior to a final financial commitment.

Thank you for the opportunity to serve you with your site evaluation needs. Should you have any questions or concerns, or wish to discuss this report in further detail, do not hesitate to call me.

Sincerely,

Edwin Stott
North Carolina Licensed Soil Scientist
1229

Encl: Soil Evaluation Sketch

Disclaimer: This is not a survey. Information used was taken from Guilford county GIS website. There is no testament to accuracy of the data utilized to produce this sketch. Information obtained in the field was located using GPS technology. This sketch does not in any way guarantee any approval from any governing body. This sketch is not complete without the written report.

Conventional SEE REPORT

Thick vegetation SEE REPORT

COMPLEX TOPOGRAPHY SEE REPORT

Belford Road
PIN 0149799
Preliminary Soil Evaluation
September 14, 2014

Greywater Environmental Services

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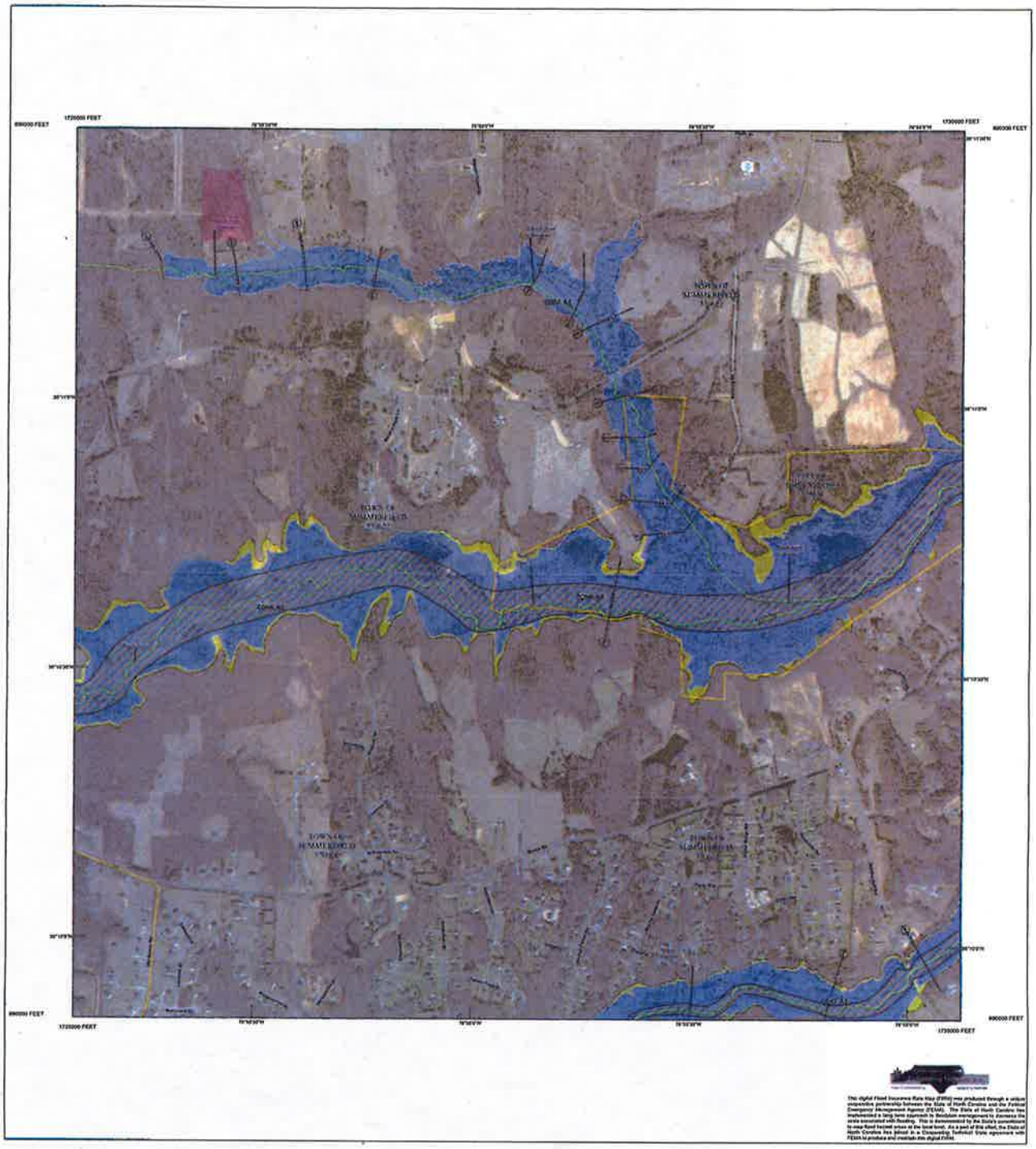


FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR ZONE DESCRIPTIONS AND INDEX MAP
THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT
HTTP://FRIS.NC.GOV/FRIS

SPECIAL FLOOD HAZARD AREAS	Without Base Flood Elevation (BFE) *Zone A, A, A99*
	With BFE or Depth *Zone AE, AO, AH, VE, AR*
	Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD	0.2% Annual Chance Flood Hazard, Areas of 1% Annual Chance Flood with Average Depth Less Than One Foot or With Drainage Areas of Less Than One Square Mile *Zone X*
	Future Conditions 1% Annual Chance Flood Hazard *Zone X*
	Area with Reduced Flood Risk due to Levee See Notes *Zone X*
OTHER AREAS	Areas Determined to be Outside the 0.2% Annual Chance Floodplain *Zone X*
GENERAL STRUCTURES	Channel, Culvert, or Storm Sewer
	Accredited or Provisionally Accredited Levee, Dike, or Floodwall
	Non-accredited Levee, Dike, or Floodwall
	BM5510 × North Carolina Geodetic Survey bench mark
	BM5510 ⊗ National Geodetic Survey bench mark
	BM5510 ⊗ Contractor Est. NCFMP Survey bench mark
	512 — 512 Cross Sections with 1% Annual Chance Water Surface Elevation (BFE)
	8 Coastal Transect
	Coastal Transect Baseline
	Profile Baseline
	Hydrographic Feature
OTHER FEATURES	Limit of Study
	Jurisdiction Boundary

NOTES TO USERS

For information and questions about this map, available products associated with this FIRM including historic versions of this FIRM, how to order products in the National Flood Insurance Program in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Map Service Center website at http://msc.fema.gov. An accompanying Flood Insurance Study report, Letter of Map Revision (LOMR) or Letter of Map Amendment (LOMA) including portions of this panel, and digital versions of this FIRM may be available. Visit the North Carolina Floodplain Mapping Program website at http://www.ncfloodmaps.com or contact the FEMA Map Service Center.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be ordered directly from the Map Service Center at the number listed above.

For community and suspension may dates refer to the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in the community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

Base map information shown on this FIRM was provided in digital format by the North Carolina Floodplain Mapping Program (NCFMP). The source of this information can be determined from the metadata available in the digital FLOOD database and in the Technical Support Data Notebook (TSDN).

ACCREDITED LEVEE NOTES TO USERS: If an accredited levee note appears on this panel check with your local community to obtain more information, such as the estimated level of protection provided (which may exceed the 1-percent annual chance level) and Emergency Action Plan, on the levee system(s) shown as providing protection. To mitigate flood risk in residual risk areas, property owners and residents are encouraged to consider flood insurance and floodproofing or other protective measures. For more information on flood insurance, interested parties should visit the FEMA Website at http://www.fema.gov/business/nfip/index.shtm.

PROVISIONALLY ACCREDITED LEVEE NOTES TO USERS: If a Provisionally Accredited Levee (PAL) note appears on this panel, check with your local community to obtain more information, such as the estimated level of protection provided (which may exceed the 1-percent annual chance level) and Emergency Action Plan, on the levee system(s) shown as providing protection. To maintain accreditation, the levee owner or community is required to submit the data and documentation necessary to comply with Section 65.10 of the NFIP regulations. If the community or owner does not provide the necessary data and documentation or if the data and documentation provided indicates the levee system does not comply with Section 65.10 requirements, FEMA will revise the flood hazard and risk information for this area to reflect the accreditation of the levee system. To mitigate flood risk in residual risk areas, property owners and residents are encouraged to consider flood insurance and floodproofing or other protective measures. For more information on flood insurance, interested parties should visit the FEMA Website at http://www.fema.gov/business/nfip/index.shtm.

LIMIT OF MODERATE WAVE ACTION NOTES TO USERS: For some coastal flooding zones the AE Zone category has been divided by a Limit of Moderate Wave Action (LiMWA). The LiMWA represents the approximate landward limit of the 1.5-foot breaking wave. The effects of wave hazards between the VE Zone and the LiMWA (or between the shoreline and the LiMWA for areas where VE Zones are not identified) will be similar to, but less severe than those in the VE Zone.

Limit of Moderate Wave Action (LiMWA)

COASTAL BARRIER RESOURCES SYSTEM (CBRS) NOTE

This map may include approximate boundaries of the CBRS for informational purposes only. Flood insurance is not available within CBRS areas for structures that are newly built or substantially improved on or after the date(s) indicated on the map. For more information see http://www.fema.gov/fhm/ancillary/cbrs/cbrs.html, the FIS Report, or call the U.S. Fish and Wildlife Service Customer Service Center at 1-800-344-9620.

CBRS Area

Otherwise Protected Area

SCALE

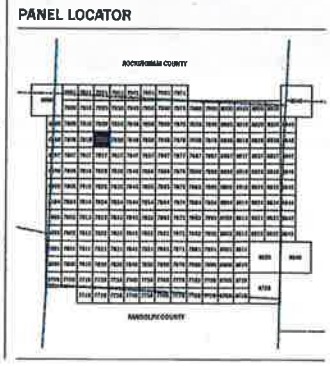
Map Projection:
North Carolina State Plane Projection Feet (Zone 3200)
Datum: NAD 1983 (Horizontal), NAVD 1988 (Vertical)

1 inch = 500 feet 1:6,000

0 250 500 1,000 Feet

0 75 150 300 Meters

PANEL LOCATOR



FEMA

National Flood Insurance Program

NORTH CAROLINA FLOODPLAIN MAPPING PROGRAM
NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

NORTH CAROLINA

PANEL 7828

Panel Contains:

COMMUNITY	CID	PANEL	SUFFIX
GREENSBORO, CITY OF	375351	7828	J
GUILFORD COUNTY	375351	7828	J
SUMMERFIELD, TOWN OF	375352	7828	J

MAP NUMBER
37107828001

MAP REVISED
06/18/07

Woodland Management Plan
Steeple Hill Farm, (Renee Weidel)
Guilford County, NC

Prepared By: Wilson Faquin, NCRF#1427
Seedlings To Saw Timber, Inc.
Prepared: March 3, 2007

General Description

This management plan is for Parcel Number 13-10-0654-0-0984-00-006, containing 131 +/- acres located off of Belford Road in Guilford Road in Guilford County, NC. The tract consists of open and forested land and is well suited for timber management, recreation, soil and water protection. There are four primary timber stand types on the property which are described below. A map of the tract is attached and identified as "Steeple Hill Farm" Tract.

Owner's Objectives:

The primary objective for this tract is to manage for timber, wildlife habitat, and water quality in the forested areas and agricultural production within the open fields. The current timbered areas will be managed for sawtimber products, providing income opportunities in the future. Wildlife habitat for game species such as deer, turkey, game birds, and small game animals will be provided through maintaining diverse stand types of varying ages within hard mast producing stands. Water quality will be maintained by keeping the existing banks and streams stabilized, minimizing soil erosion.

Timber Description:

The property consists of 4 different timber types. Each type is discussed separately below and management recommendations are given.

Area 1 (29.1+/- acres)

Area 1 contains a natural mixed bottomland hardwood stand with two distinct age classes. The older age class ranges from 48 – 55+ years, while the younger age class ranges from 30 – 40+ years. Species include in order of abundance, Yellow Poplar, Gum, Red Maple, White Oak, Red Oak, Ash, with isolated pockets of Virginia Pine and Shortleaf Pine. Understory species include Red Maple, Yellow Poplar, Hickory, White Oak, Red Oak, Gum, and Dogwood. Tree heights range from 50 to 90+ feet for both age classes. Diameters for the older age class range from 14 to 20+ inches, while the diameters for the younger age class range from 8 to 16+ inches. Several trees were cored withn each age class to determine the growth rate. The growth rate for the older age class ranged from 7 to 9 annual rings to the outside inch. This equates to roughly a 3 to 4% annual growth rate per year. The growth rate for the younger age class also ranged from 8 to 9 annual rings per year, equating to 3 to 4% growth per year.

Area 1 is composed of a several soil types including Chewacla sandy loam, Madison sandy and clay loam, Appling sandy loam, Cecil sandy loam, and Wehadkee silt loam. Slopes are moderate with varying aspects. Several streams occur on the property. Two flow in a southerly direction, while the third flows in an easterly direction.

Recommendations: Although Area 1 consists of a bottomland hardwood forest that is reaching maturity, the growth rates and stocking levels for this stand is still very good. Area 1 should be allowed to continue to grow for the next 8 to 10 years. However, at the end of this time frame, the stand's growth rate is expected to begin to decline. The area should be reexamined in 2015 to determine the growth rate of the stand. At the time of reexamination, if growth rates have declined above 10 annual rings to the outside inch, a select cut or clear-cut harvest should be implemented.

When a timber harvest is implemented, care should be taken to stabilize the stream banks. Streamside Management Zones should be placed along all intermittent and perennial streams. Streamside management zones are buffers placed around the border of streams, usually 30 to 50 feet in width. This buffer provides protection to the soil and water by not allowing logging equipment to damage the soils structural integrity, decreasing erosion. Streamside management zones also provide corridors for wildlife to travel as well as increasing diversification of the stands age classes resulting in varying habitats.

If a **select cut** is implemented, the stand is expected to naturally regenerate, predominantly with Yellow Poplar, Red Maple, and Sweetgum. The stand may need to be mechanically released two to three years following the harvest in this scenario. If a clear-cut harvest is utilized, the area should be reexamined following the harvest operation to determine the need for site preparation and reforestation with Loblolly Pine seedlings.

Area 2 (21.1+/- acres)

Area 2 consists of a mixed upland hardwood stand ranging in age from 40 to 60+ years. The stand is natural in origin. Species include in order of abundance, White Oak, Red Oak, Sweetgum, Hickory, Red Maple, Yellow Poplar, Beech, and isolated Virginia Pine. Heights range from 60 to 80 feet. Diameters range from 8 to 20 + inches. The growth rate ranges from 8 to 9 annual rings to the outside inch. Understory species include various oaks, hickory, gum, Dogwood, Yellow Poplar, and Red Maple. On average, this stand is growing at an approximate 3 to 3.5 percent annually. The stand is adequately stocked at 60 to 90 trees per acre. Several soil types occur, including Cecil sandy clay loam, Madison clay loam, and Cecil sandy loam. Topography ranges from 2 to 10% grade with variable aspects. No signs of insects or disease were found.

Recommendations: Area 2 should be managed along with Area 1 due to the adequate growth rate and stocking levels.

Area 3 (1.54 +/- acres)

Area 3 contains a Virginia Pine stand ranging in age from 50 to 60+ years. The stand is natural in origin. Species include in order of abundance, Virginia Pine with isolated White Oak, Hickory, and Yellow Poplar. Diameters range from 6 to 16+ inches, while heights range from 70 to 85+ feet. Understory species include Dogwood and Red Maple. The growth rate for this stand ranges from 15 to 18 annual rings to the outside inch, equating to an approximate 1 to 2% growth rate. The stand is adequately stocked at 150 to 170 trees per acre. The predominant soil types include Cecil sandy clay loam and Madison clay loam. Topography is less than 2% with an easterly aspect. No signs of insects or disease were found.

Recommendation: Area 3 should be clear cut harvested due to, age, growth rate, and species composition of this stand. However, due to the small acreage, total timber volume, and location, harvesting this area by itself is logistically impossible. Area 3 should be managed with Areas 1 and 2. When a harvest is employed with Areas 1 and 2, Area 3 should be clear cut harvested and reforested with genetically improved Loblolly Pine.

Area 4 (2.2 +/- acres)

Area 4 consists of a Virginia Pine stand ranging in age from 10 to 20 years old. The stand is natural in origin, with tree heights ranging from 20 to 35+ feet tall. Diameters range from 4 to 10 inches, with stocking levels ranging from 70 to 110 trees per acre. The growth rate of this stand is 5 to 6 annual rings per inch. The predominant soil types are Cecil sandy loam and Madison clay loam. No signs of insects or disease were noted.

Recommendations: Area 4 should be managed with Area 1 and 2 due to the small acreage involved. When a timber harvest is employed, Area 4 should be clear cut harvested and reforested with Loblolly Pine seedlings.

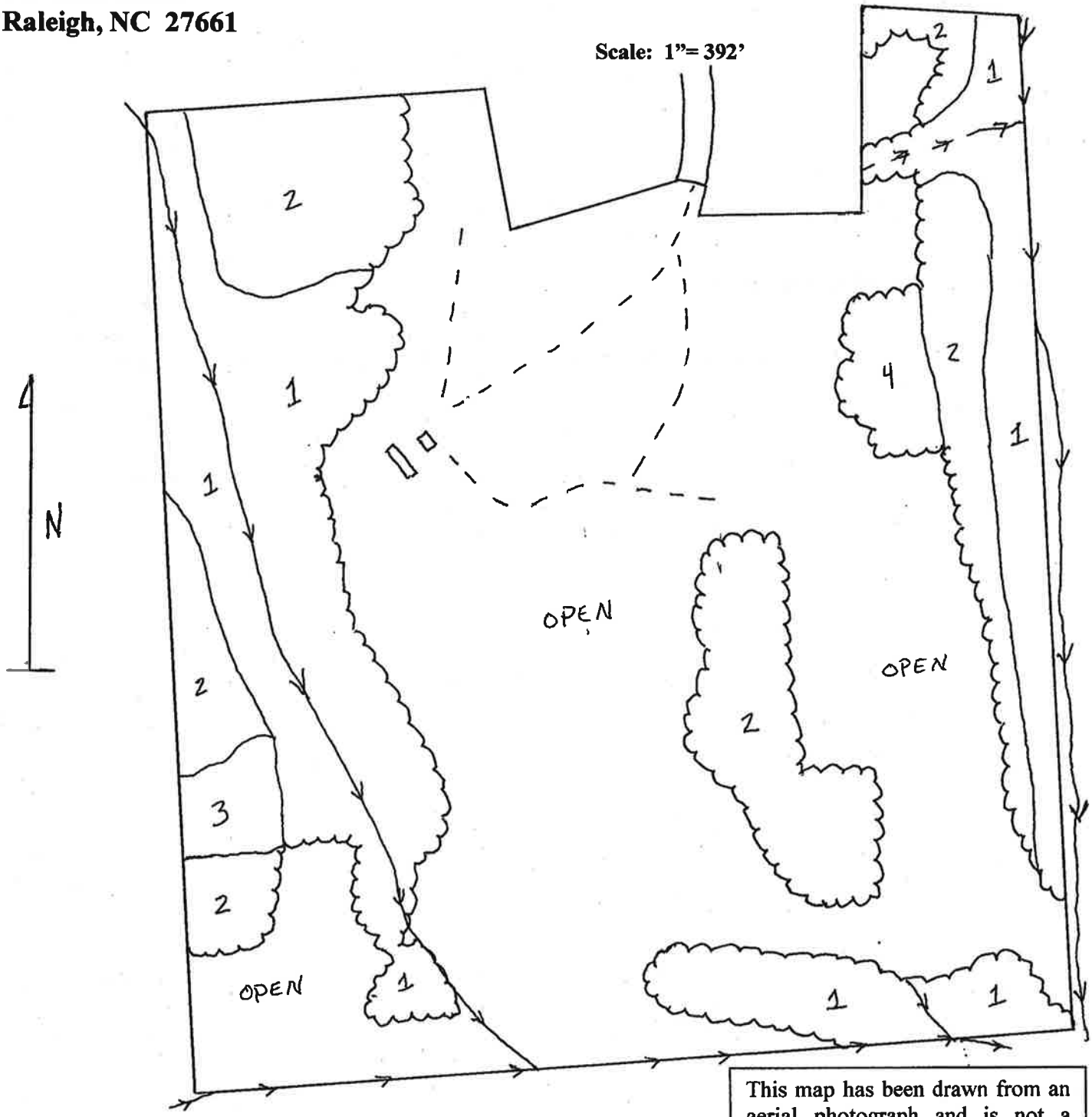
Additional Management Activities

The property should be inspected every 2 to 5 years by a forester to assess the conditions of the timber and plan any management activities as needed. Property lines have been adequately posted and flagged.

Seedlings To Saw Timber, Inc.
Professional Forestry Consultants
PO BOX 61436
Raleigh, NC 27661

Tract: Steeple Hill Farm, Rennee Weidel
County: Guilford

Scale: 1"= 392'



This map has been drawn from an aerial photograph and is not a certified survey. It's accuracy and acreages are not guaranteed.