

Booth Mountain Community

A Master Planned Residential Community By MacGregor Development Company

August 23, 2004

Major Subdivision Application
Application for Conditional Use Permit
For Planned Residential Development
Chatham County, North Carolina

DEVELOPMENT TEAM

Developer:	MacGregor Development Company Contact Person: Bruce Herbert 201 Shannon Oaks Circle, Suite 201 Cary, NC 27511
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Wastewater Treatment Design	W. Lee Fleming, Jr. Engineering Contact Person: Lee Fleming, P.E. 503 Oberlin Road, Suite 204 Raleigh, NC 27605 (919) 833-1234
Hydrologist	Edwin Andrews & Associates, P.C. Contact Person: Ed Andrews Post Office Box 30653 Raleigh, NC 27622 (919) 783-8395
Ecologist / Soils Evaluation	Soil & Environmental Consultants, P.A. Contact Person: Todd Preuninger / Jim Beeson 11010 Raven Ridge Road Raleigh, NC 27614 (919) 846-5900
Surveyor	Smith and Smith Surveyors Contact Person: Staley Smith, PLS 1511 N. Salem Street Apex, NC 27312 (919) 542-0074
Transportation Engineer	Ramey Kemp & Associates Contract Person: Rynal G. Stephenson, PE 4928-A Windy Hill Drive Raleigh, NC 27609 (919) 872-5115

STATEMENT OF PURPOSE

MacGregor Development is applying to Chatham County for approval of Planned Residential Development within an existing RA-40 zoned district. The 294 acre project is situated between Lystra Church Road (SR 1721) and Jack Bennett Road (SR 1717). The property has been actively managed in the past for timber production. The project is located convenient to existing and future services (recreation, retail/shopping and schools).

Herndon Creek flowing from west to east bisects the project. Given the topography adjacent to the creek, a road crossing is not planned. The property to the north of Herndon Creek encompassing (88) Estate Lots will access Lystra Church Road. This entrance is located approximately 2.2 miles east of 15-501. Due to the steeper nature of the project area north of Herndon Creek, lot sizes range from one to two acres in size. The Estate lot section will have private roads and gate access at the entrance. Within the Estate Lot section of the project is a community amenity area with pool and recreational features, A pedestrian trail will cross Herndon Creek at the Amenity Area to allow access from the Neighborhood and Village communities. All significant streams and channels are buffered within the planned open space areas.

Two neighborhood communities are planned on the south side of Herndon Creek. The respective access to each neighborhood is 1.5 and 1.8 miles east of 15-501 on Jack Bennett Road (SR 1717). Roads within each of these neighborhoods are proposed as public and will be conveyed to the NCDOT upon completion and acceptance. The two neighborhoods are bisected by the proposed entrance road to the future North Chatham High School. Thirty nine (39) Neighborhood Lots are planned to the west of the future High School entrance. The average lot size within this neighborhood is just under (1) acre in size. The (53) Village lots to the east of the High School access will have an open commons area with residential lots fronting on the park space. This neighborhood is designed to promote traditional homes placed close to the street with extensive walking paths. The average lot size within the Village Lots is 0.4 acres.

The proposed home buildout timeframe (for the 180 lots) will be over six years providing an orderly schedule of development. Development of the 180 lots on the 294 acre property provides for an equivalent density of less than 1 lot for every 1.5 acres of land area. By placing the environmentally sensitive areas within open space, and developing smaller lots on the gentle slopes allows for development of larger lots on the northern portion of the project.

The planned residential development promotes the intent of the Chatham County subdivision regulations by ensuring orderly growth and responsive development upon the property footprint. MacGregor Development Company has a tremendous track record of providing high quality master planned residential projects throughout the Triangle region for over 25 years

COMMUNITY SUMMARY

SITE LOCATION

The development site is located between Lystra Church Road on the northside and Jack Bennett Road on the southside. An existing low density residential project adjoins to the north, and west. A small subdivision is currently being developed to the northeast. A future high school site and ACOE lands to the southeast. The Project comprises portions of three parcels. A +/- 252 acre parcel owned by Booth Mountain Inc (Parcel #1). A +/- 35 acre parcel owned by Wayne Witt, Carl Banks, etal (Parcel #2). The third parcel (Parcel # 3) +/- 7 acres is owned by MacGregor Development Profit Sharing and Retirement Fund.

The project is situated in Williams Township in Chatham County. The site is convenient to Chapel Hill, Pittsboro, Jordan Lake and the Research Triangle area.

(Location Sketch follows.)

(Aerial Plan follows.)

(Survey and Project Description follows.)

EXISTING FEATURES

This project area has previously been managed for timber production. The pine stands range from young to mature depending upon the location within the project. Mature hardwoods can typically be found within the buffered areas and scattered in the northern portion of the site. The property to the north of Herndon Creek has a significant elevation change El. 245 to El. 600. Elevation change along the southside of Herndon Creek is less severe with a range from El. 245 to El. 400. Approximately 2200 feet of road frontage on Jack Bennett Road exists. The natural slope and elevation variation within the project is well suited for clustering of lots and placement of higher density residential to the south side of Herndon Creek as proposed within the planned residential development. Slopes within the project fall into the following category:

<u>SLOPE</u>	<u>ACREAGE</u>	<u>PERCENTAGE</u>
0 – 5 %	43.7 AC	14.8%
5 – 10 %	54.1 AC	18.3%
10 – 15 %	59.4 AC	20.1%
15 – 20 %	55.6 AC	18.8%
More than 20 %	81.2 AC	28.1%

As mentioned previously, Herndon Creek divides the northern project area from the southern end of the project. No vehicular crossings are planned across this creek. An unnamed tributary that flows directly into Herndon Creek crosses the property at the northern entrance on Lystra Church Road. An existing road crossing of this unnamed tributary is already present at this location. All of the intermittent and perennial blue-line streams extending into the project have a minimum of 100 foot natural buffer along each side of the channel (200 foot minimum total). The entire project is located within the Jordan Lake WS IV Protected Area. A portion of 100 year floodplain (Zone “A”) is adjacent to proposed lots in the Village Lot neighborhood. All of the floodplain falls within the proposed open space.

No historical features were located on the portion of the property designated for development. The proposed project is located within the Herndon Creek Ravine per “The Inventory of Natural Features and Wildlife Habitat for Chatham County”. The study notes this location possesses one of the most extensive north facing slopes in the County and serves as an important wildlife corridor. The study notes that timbering has occurred in this specific area and that the main value of this location is its function as a wildlife corridor. The undisturbed buffer in this location will range from 220 ‘ in total width to as much as 300’ in total width in some locations. This buffer and restriction on future timbering within the buffer will further enhance Herndon Creek as a wildlife corridor. Informational maps reflecting the existing site features are attached.

- (USGS Overlay Map follows.)
- (Soils Map follows.)
- (Slope Analysis Plan follows.)
- (Elevation Banding Plan follows.)
- (Existing Vegetation Plan follows.)

MASTER PLAN

Booth Mountain Community is planned to take advantage of the natural features of the property. The project will include three distinctive communities that share a central amenity. With smaller Village and Neighborhood lots on the gentler slopes to the south of Herndon Creek along with larger Estate lots as the project rises in elevation to the north of Herndon Creek. An amenity area is centrally located within the project. Walking trails linking the Village and Neighborhood lots to the Amenity Area are planned. The Estate lots will have a gated access from Lystra Church Road. Given the slopes adjacent to Herndon Creek and designation as a primary protection area in the County Environmental Inventory, no vehicular crossing is planned. A pedestrian crossing noted above will link the neighborhoods. Beyond the trail system, no additional areas of disturbance within the buffer is planned. The project will consist of up to 180 single-family homesites. Approximately 88 Estate lots (averaging over 1 acre in size) and the recreational amenity will be located within the northern portion of the project. The Estate lots will be served by private roads and a gated access from Lystra Church Road. The 39 Neighborhood lots to the south of the Estate lots will average approximately 40,000 sf. in size. Neighborhood lots backing up to Herndon Creek will have a reduced front yard setback to promote lot development adjacent to the roadway and away from the stream. The Village lots (averaging approximately 10,000 sf. In size) provide a smaller lot footprint by promoting construction of homesites closer to street frontage. Both the Neighborhood and Village lots will be served by Public Roads. The plan includes areas both active and passive open space along with wastewater treatment facilities.

LAND ALLOCATION

The following is a detailed summary of each land use, the associated approximate acreage as well as the percentage each use comprises of total acreage:

Open Space, Club House, and Amenities	41.5 acres (14%)
Club House, Amenity, Pool and Tennis (2.5 acres)	
Meadows, Cleared and Part Wooded (39 acres)	
Single Family Homesites	156.7 acres (53%)
Min/Max homesite size	0.25 to 3 acres
Average homesite size	0.9 acres
Road Rights of Way	35.7 acres (12%)
Private roads	11,775 linear feet
Public roads	7,208 linear feet
Utility / Maintenance Acreage	2 acres (1%)
Conservation/common area, Water Quality Ponds	58.4 acres (20%)

COMMUNITY SPECIFICATIONS

Booth Mountain Community will have rigorous architectural controls and restrictive covenants. Finished home sizes ranging from a minimum of **1,800** square feet of heated space up to over **7,000** square feet),

For the entire project, the minimum lot width has been reduced to 70' with a minimum side yard of 15'. Within the Neighborhood and Village lot communities, the minimum front setback (front yard) has been reduced to 15'. The minimum side yard setback is 5' and rear yard setback of 10' within these two communities solely.

Significant investment in community appearance and architectural guidelines will be regulated through an architectural review board. Restrictive covenants for the project are currently being prepared and will be forwarded to the County for review prior to preliminary plat consideration. It is anticipated that the homes will be of similar or greater quality, size and value to those being built in nearby neighborhoods including Governors Village, The Preserve, and Governors Club. Restrictions on architectural style, exterior lighting, tree clearing, lot disturbance, and turf area will be prescribed within the restrictive covenants.

All street lighting will comply with the proposed Chatham County Draft Lighting Ordinance to minimize impact to the night skies for the residents and adjoining neighborhoods.

(Sketch Master Plan follows)

(Net Land Area Computation follows.)

(Sketch Plan for Clubhouse and Amenity Area follows.)

(Phasing Plan follows.)

ROADWAY DESIGN

The Estate lot community will access Lystra church Road (SR 1721). All roads within the Estate lot community will be constructed to the pavement and base thickness requirements of the North Carolina Department of Transportation ("NCDOT"). All roads will be constructed to NCDOT standards and maintained by the Estate Lot property owners subassociation. Geotechnical inspection and testing of all road construction will be accomplished by an independent contractor. The vertical curvature and horizontal alignment of private roads will meet or exceed the NCDOT standards for local residential roads utilizing the "hilly" standard. Utilizing the hilly standard rather than rolling standard reduces the amount of clearing and grading required to construct the roads.

The Neighborhood and Village lot communities will each access Jack Bennett Road (SR 1737). All roads within these communities will be constructed to the pavement and base thickness requirements of the North Carolina Department of Transportation ("NCDOT"). All roads will be constructed to NCDOT standards and conveyed to NCDOT upon completion and acceptance.

Ramey Kemp & Associates, Inc. ("RKA"), transportation engineers, has performed a traffic assessment (attached) summarizing the estimated traffic impact of the project at full build out. The study concludes that all proposed entrances will be able to accommodate all expected site traffic and "operate at an acceptable level of service in both the a.m. and the p.m. peak hour" (LOS "C"). The study finds that no turn lanes are required to access any of the proposed entrances. Full development buildout conditions have been modeled with both the existing school and proposed future High School in use. Specific care was taken to site the proposed entrance locations along Jack Bennett Road far enough away from the future High School entrance not to impede the construction of future turn lanes associated with this facility.

A field meeting with NCDOT was held to determine if acceptable sight distances are available for the project entrances. All entrances were found to be acceptable from a safety and sight distance perspective.

(Roadway Plan with typical cross sections follows.)
(Letter from NCDOT regarding entrance location follows.)
(Ramey Kemp & Associates, Inc. Report follows.)

STORMWATER MANAGEMENT

All stormwater runoff from the project drains into Herndon Creek or tributaries that flow into the Herndon Creek. Herndon Creek ultimately discharges into Jordan Lake. The project is located within the Water Supply Watershed Protected Area (WSIV) for Jordan Lake.

The project will comply with the current water supply watershed buffers required by the County. Either wet ponds, extended dry detention basins, or shallow created wetlands will be sited at the head of many of the buffered channels as well as adjacent (off-line) to the buffered channels where smaller wet weather draws meet. All water quality features will meet the minimum County and State requirements.

Based upon an estimated maximum impervious footprint of 8,000 square feet per lot (walks, drive, home, etc.) for the majority of lots and 6,000 square feet for the Village Lots, the total impervious area for the project at final build out will be less than 19 % of the entire site. The current County and State standards allow for up to 24% impervious coverage for low density projects within the watershed. Booth Mountain Community will qualify as a **low density project** per the adopted Chatham County Water Supply Watershed Protection Ordinance .

(Stormwater Master Plan.)
(Impervious Calculations.)

MAXIMUM POTENTIAL IMPERVIOUS CALCULATION

Lots	Impervious Area	Total
127	8,000	1,016,000 s.f.
<u>53 (Village)</u>	6,000	318,000 s.f.
180		

Item	Impervious Area
1 Homesites	1,334,000 s.f.
2 Roadways	783,225 s.f.
3 WWTP and Maintenace	88,000 s.f.
4 Amenity	52,000 s.f.
5 Sidewalks & Trails	115,000 s.f.
TOTAL IMPERVIOUS	2,372,225 s.f.

TOTAL TRACT AREA **294.32 acres**
12,820,579 s.f.

IMPERVIOUS PERCENTAGE	18.5 %
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UTILITIES

Potable water supply will be provided by the County of Chatham. A regulated private utility will operate both the wastewater collection / treatment system for the project. Booth Mountain Community will restrict use of groundwater wells within the project boundary.

All wastewater will be treated on site to a tertiary level with both nitrogen and phosphorous reduction. The reuse water will be discharged by a spray irrigation system similar to those currently in use at Governors Club and The Preserve at Jordan Lake. A preliminary report evaluating the adequacy of the on-site soils (hydrogeology) and summary of the treatment process is attached.

Electrical Service will be provided by CP&L.

Telephone Service will be provided by Bell South.

Natural Gas will be provided by PSNC Energy

It is anticipated that cable television service will be supplied by Time-Warner Cable.

Solid waste and recycling collection will be accomplished by curbside service utilizing a licensed hauler

(Wastewater and Potable Water Projections follows.)

(On-site Utilities Plan, Water follows.)

(On-site Utilities Plan, Wastewater follows.)

(W. Lee Fleming, Jr. Engineering Report follows.)

(Ed Andrews Report with Soils Map follow.)

WASTEWATER PROJECTION

<u>USE</u>	<u>TYPE</u>	<u>FLOW RATE</u>	<u>DAILY RATE (GPD)</u>
AMENITY			
SWIM / TENNIS	120 Participants	10 Gal/Person	<u>1,200</u>
SUB-TOTAL			1,200
RESIDENTIAL	180 Lots	360 Gal/Residence	<u>64,800</u>
PERMITTED FLOW			66,000
PROPOSED PLANT CAPACITY			70,000

POTABLE WATER DEMAND

<u>USE</u>	<u>TYPE</u>	<u>FLOW RATE</u>	<u>DAILY RATE (GPD)</u>
RESIDENTIAL	180 Lots	400 Gal/Residence	72,000
RECREATION			<u>1,500</u>
TOTAL PERMITTED DEMAND			73,500

ENVIRONMENTAL INVENTORY AND MONITORING PLAN

Soil and Environmental Consultants (S&EC) has completed detailed wetland delineation and site inventory. A Historical Records and Natural Heritage Program file search was also completed. No federally protected plant or animal species were found within the project boundaries. There are no structures on the property that appear on the National Registry or various Study lists.

“The Inventory of Natural Features and Wildlife Habitat for Chatham County” identifies the Herndon Creek Ravine as having County significance. The inventory recognizes that the portion of Herndon Creek within this project has been logged and the potential for protected species status is low. The greatest benefit given the current site condition is protection of the Herndon Creek area as a wildlife corridor. This objective will be accomplished by retaining buffered areas along the creek as reflected within the master plan.

A groundwater monitoring plan will be furnished with the Reuse submission to the NCDENR Division of Water Quality, Non-discharge Unit. Specific sampling parameters and frequency will be agreed upon with the NC Division of Water Quality Section.

(Soil & Environmental, P.A. Report follows.)

(Subsurface Monitoring Map follows.)

FILE

**S&
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August 11, 2004

S&EC Project No.: 8126.W1

MacGregor Development
Attn: Jerry Radman
201 Shannon Oaks Circle
Suite 201
Cary, N.C. 27511

Re: Detailed Wetlands Delineation and Chatham County/ Proposed Cape
Fear River Buffer Evaluation
Boothe Mountain Site (±314 acres)
Pittsboro, Chatham County N.C.

Dear Mr. Radman

On July 28, 2004, S&EC personnel conducted a detailed wetland delineation and Chatham County/ Proposed Cape Fear River Buffer evaluation on the Boothe Mountain Site. The site is located on the northern side of Jack Bennet Road (S.R. 1717) approximately 2000 feet from its intersection with Big Woods Road (S.R. 1716). The Site is approximately 314 acres in size. Figure 1 shows the location of the site on a USGS topographic quadrangle.

EXECUTIVE SUMMARY

We have determined that wetlands and jurisdictional waters (i.e., streams) exist on the site. The attached wetland sketch map depicts the approximate location of wetlands and jurisdictional waters identified on the site. Please refer to the sketch map and the results and recommendations section below for more detailed information.

SCOPE OF WORK

The detailed wetland delineation consisted of pedestrian reconnaissance of the property to examine the soils, vegetation, and hydrology for the presence of areas that meet the criteria for jurisdictional wetlands by the procedures described in the Corps of Engineers Wetlands Delineation Manual (January 1987 – Final Report). Areas on the site with positive indicators of

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hydric soils and evidence of wetland hydrology and hydrophytic vegetation were flagged with sequentially numbered, pink S&EC logo flagging. Proof of wetland hydrology would be the existence of hydric soils with oxidized root channels in the upper 12 inches of the "A" horizon, water borne deposits, drift lines, scour marks, drainage patterns, regional indicators of soil saturation, etc. Surface waters such as intermittent and perennial stream channels, ponds, and lakes, which are also subject to regulation by the US Army Corps of Engineers (USACE) as waters of the US, were also identified. These surface waters may also be referred to as jurisdictional waters to indicate that they are within the jurisdiction of the USACE. It is important to note that wetlands are also classified as waters of the US and regulated by the USACE.

The Proposed Cape Fear River Basin: Nutrient Sensitive Waters Management Strategy: Protection and Maintenance of Riparian Areas with Existing Forest Vegetation (15A NCAC 2B.) rules would likely apply to a 50-foot wide riparian buffers directly adjacent to surface waters in the Proposed Cape Fear River Basin (intermittent streams, perennial streams, lakes, ponds, and estuaries), excluding wetlands. The rule defines surface waters as features approximately shown on either the most recent version of the soil survey map prepared by the Natural Resource Conservation Service (NRCS) of the US Department of Agriculture (USDA) or the 7.5-minute quadrangle topographic maps prepared by the US Geologic Survey (USGS). Surface waters that appear on these maps are not subject only if an on-site determination by the NC Division of Water Quality (NC-DWQ) shows that they fall into one of the following categories:

- 1) Ditches and manmade conveyances other than modified natural streams;
- 2) Manmade ponds and lakes that are located outside natural drainage ways; or
- 3) Ephemeral (stormwater) streams.

S&EC's Chatham County/ Proposed Cape Fear River buffer evaluation consisted of examining each feature on the site that is shown on the most recent version of the pertinent topographic map or soil survey for applicability to the Chatham County/ Proposed Cape Fear River Basin riparian buffers rule using NC-DWQ stream evaluation techniques. Figure 2 shows the location of the site on the relevant Chatham County Soil Survey map.

RESULTS & RECOMMENDATIONS

The results of the detailed delineation of jurisdictional wetlands and other waters of the US and the evaluation of surface waters on the site subject or potentially subject to the Chatham County/ Proposed Cape Fear River Basin riparian buffer rules are discussed below.

Jurisdictional Waters:

We have determined that wetlands and jurisdictional waters (i.e., streams) exist on the site. The wetland sketch map depicts the approximate location of wetlands and jurisdictional waters

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identified within the evaluated area. Jurisdictional waters on-site include Feature A (throughout property), Feature B (throughout property), Feature C, Feature D (throughout property), Feature E, Feature F (below flag S03) and Feature G (below flag S04). We believe that features A, B and D will be considered important/ perennial by the USACE and the NC-DWQ respectively, and that remaining features will be considered unimportant/ intermittent. Surface water features have been classified in NC-DWQ's "Classification and Water Quality Standards Applicable to Surface Waters and Wetlands of North Carolina" as NSW CA, WS-IV. (See Water Supply Watershed Rules Below).

Wetlands:

Wetlands on site consist of Emergent Wetlands (flags 700-719, 38-42, 611A-618A, 619-636, 112A&B-120A&B and 100-105), Hillside Seep Wetlands (flags 200 A&B-203A&B, 600-603A & 602B and 204-208), Linear Wetlands (flags 106-110 and 604-610) and a Beaver Impoundment (flags 500-542, 1-37 and 300-354).

Two marginal features exist on the property that are not believed to be jurisdictional wetlands or waters by S&EC due to weak evidence of hydrology. However due to the marginal nature of these areas, confirmation of our determination should be obtained from the USACE. No other wetlands or jurisdictional waters were found within the project boundaries.

All S&EC flags comprising the wetland and jurisdictional waters delineation should be surveyed and a Wetland Delineation Map generated for use in USACE approval and permitting. **Stream channels are not flagged in the field and should be located. All bends should be surveyed and channel widths should be noted at each survey point.** The Wetland Delineation Map should include all of the information listed on the attached 'Requirements for Wetland Delineation Maps'. S&EC delineation flag numbers should be shown on the wetland survey. Please have the property owner complete the attached agent authorization form if you would like S&EC to act on their behalf for requesting approval of the wetland delineation. This form will also be used in preparing a permit application for impacts to wetlands or surface waters when we are provided with a plan showing the proposed impacts. **S&EC cannot conduct correspondence with the USACE unless we have agent authorization (see attached Agent Authorization). This authorization form must be filled out in its entirety by the current landowner and sent to S&EC (a faxed copy is acceptable).**

Chatham County/ Proposed Cape Fear River Buffers:

The surface waters (i.e., intermittent streams and perennial streams) potentially subject to the Chatham County/ Proposed Cape Fear Riparian Buffers include features A, B, C and D. No other surface waters are indicated on either the USGS topographic or Chatham County Soil Survey maps. We believe that features A, B and D would be subject to the Proposed Cape Fear/

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Chatham County Buffer Rules and that feature C is subject below the start channel flag. Please note that this site is located within a Watersupply Watershed and that a perennial stream (Herndon Creek) is depicted on the USGS Quadrangle within the project boundaries. If impervious surface exceeds 24%, a 100 foot buffer will be required by the NC-DWQ.

REGULATIONS

Regulations that apply to jurisdictional wetlands and waters present on the site are discussed below.

Chatham County Buffer Rules

As part of the Chatham County Watershed Protection Ordinance, Chatham County has adopted riparian buffer requirements (Article 100, Section 304). These regulations include the establishment of a minimum of 50 foot wide vegetative buffer for development activities directly adjacent to surface waters within Chatham County's Planning Jurisdiction, excluding wetlands. Surface waters shall be considered to be present if the feature is shown on the most recent version of the USDA Soil Survey of Chatham County, North Carolina or the most recent version of the 7.5-minute USGS topographic quadrangle. Rivers, perennial and intermittent waters within 2,500 feet of rivers, shall have a minimum of 100-foot vegetative buffer. The above shall be required unless the applicant demonstrates that a lesser distance (but not less than 30 feet) is adequate to guard against stream pollution. Where conflicts between field conditions and Chatham County Soil Survey and USGS maps exist, appeals may be made to the North Carolina Division of Water Quality (NC-DWQ) if the site is in the Neuse River Basin, or directly to the Chatham County Department of Environmental Services – Erosion, Flood & Stormwater Division for sites in the Cape Fear River Basin.

Proposed Cape Fear River Buffer Rules

It was decided by the Environmental Management Commission that temporary Cape Fear River Basin Rules would not be enacted prior to adopting permanent rules. A specific date has not been set as to when the permanent Cape Fear Buffer Rules will be enacted. **It is important to note that the decision to not adopt temporary rules can be changed at any time.** The buffer rules will protect up to 50 feet from the edge of existing "surface waters" (i.e., intermittent streams, perennial streams, ponds, lakes and estuaries) found within the Cape Fear River Basin. The 50-foot buffer consists of two zones. The first zone is measured 30 feet landward from the top bank of streams and is intended to contain an undisturbed forested area. The second zone extends 20 feet landward from the edge of the first zone and is intended to contain a vegetated buffer. Grading with re-vegetating is permissible in Zone 2 (the outer 20 feet of the 50 foot buffer). Mitigation for road crossings is mandatory for impacts greater than 150 feet in width and utility lines running parallel and within Zone 1. Please call if you would like to discuss the uses/allowances within buffered areas. **In order for a project not to be subject to these buffer rules, an approved site specific plan for proposed impacts to wetlands and other waters of the US would have to be obtained from the USACE and the DWQ prior to enactment of the rules.**

Water Supply Waters Rules

A perennial stream is depicted on the USGS Quadrangle within the project boundaries.

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Perennial streams within a classified water supply watershed require a 100-foot buffer for new development activities with greater than 24 percent "built upon" area (i.e., percent covered by impervious or partially impervious cover) and a 30-foot buffer for activities with less than 24 percent built upon area by the NC-DWQ. (These buffers are in addition to the 50-foot Neuse River Buffers. The stricter of the two buffers applies to these stream channels.) Other regulations may also apply.

Wetland Permitting

Wetland impact permits are issued on a per-project basis as determined by the USACE. The USACE has determined that impacts on parcels sub-divided from larger tracts are sometimes considered to be cumulative to existing impacts for the large tract. If this is the case, then thresholds as discussed below may not apply and impacts to wetlands must be considered in light of existing permits.

Preconstruction notification to the USACE and the NC-DWQ is not required for wetland impacts that meet the general conditions of Nationwide Permit 39 and that impact less than 1/10 acre per project. Preconstruction notification and approval by the USACE is required for wetland impacts that exceed 1/10 of an acre and /or any stream channel impacts. **Preconstruction notification and approval by the NC-DWQ is required for wetland impacts that exceed 1/10 of an acre if the property is west of I-95 or 1/3 of an acre if the project is east of I-95. Preconstruction notification and approval by the NC-DWQ is required for any stream channel impacts within buffered basins (i.e. the Neuse, Tar-Pamlico, Randleman, and portions of the Catawba Basins) or for cumulative stream impacts that exceed 150 linear feet in non-buffered basins.** If development impacts exceed the thresholds for notification and proposed impervious area for the project exceeds 30%, then stormwater treatment to meet the pollutant removal design standard of 85% removal of total suspended solids (i.e., wet detention basins, stormwater wetlands, bioretention areas, etc.) will likely be required by the NC-DWQ. The maximum permanent impact allowed per project under the nationwide permits is 1/2 acre of wetland and/or 300 linear feet of USACE important stream channel. Nationwide Permit 39 limits above-grade fills within 100-year floodplains specifically prohibiting above-grade fill within the floodway. Additionally, Nationwide Permit 39 limits stream channelization and relocation to streams with an average annual flow of less than 1cfs.

Per project impacts to vegetated wetlands in excess of 1 acre or impacts to streams that contain "significant aquatic function" in excess of 150 linear feet will most likely require mitigation by the NC-DWQ. The USACE may require mitigation for any wetland/jurisdictional waters impacts. Actual mitigation requirements are typically determined on a case-by-case basis. Wetland mitigation is a complex process that requires planning and monitoring. S&EC will discuss mitigation issues with you if we believe your project may require mitigation.

Impacts to channels containing "significant aquatic function" in excess of the notification thresholds may require mitigation. Channel mitigation is typically intended to replace lost significant aquatic functions and values. Relocating channels is considered to be an adverse impact and typically results in mitigation within the new channel. Therefore, this type of mitigation usually requires that meanders be created within constructed channels. Side-slopes and beds be vegetated; riprap is discouraged.

A complete NC-DWQ 401 Water Quality Certification application for a Nationwide Permit has a maximum 60-day processing period. A complete USACE Nationwide Permit application has a 45-day processing period, while Individual Permit applications submitted to the USACE have no maximum processing periods. **The USACE requires that all impacts to wetlands or Waters of the US, less than 1/10 acre, be reported to the USACE within 30 days of the completion of construction.**

Nationwide Permits can potentially be utilized if the project is designed to impact up to 1/2 acre of jurisdictional wetlands or waters of the US including a maximum of 300 linear feet of important stream channel impact under

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NWP 39. Cumulative impacts per project over these nationwide thresholds will require an individual permit. Individual Permits require an analysis to determine that the proposed impact is the least environmentally damaging practical alternative, typically require compensatory mitigation, notification to adjacent property owners, a public notice, and may require a public hearing. All impacts greater than 1/10 acre require written justification.

ADDITIONAL SERVICES

If you choose to have us perform additional work, the following is a listing of additional services: (1) Request that the USACE verify our delineation, and (2) Notification to the USACE and NC-DWQ regarding impacts to jurisdictional areas and riparian buffers and permitting issues, if required. This additional work can be completed at our hourly rates or a proposal can be generated. Please advise.

Please call Todd Preuninger if you need further explanation of the information provided.

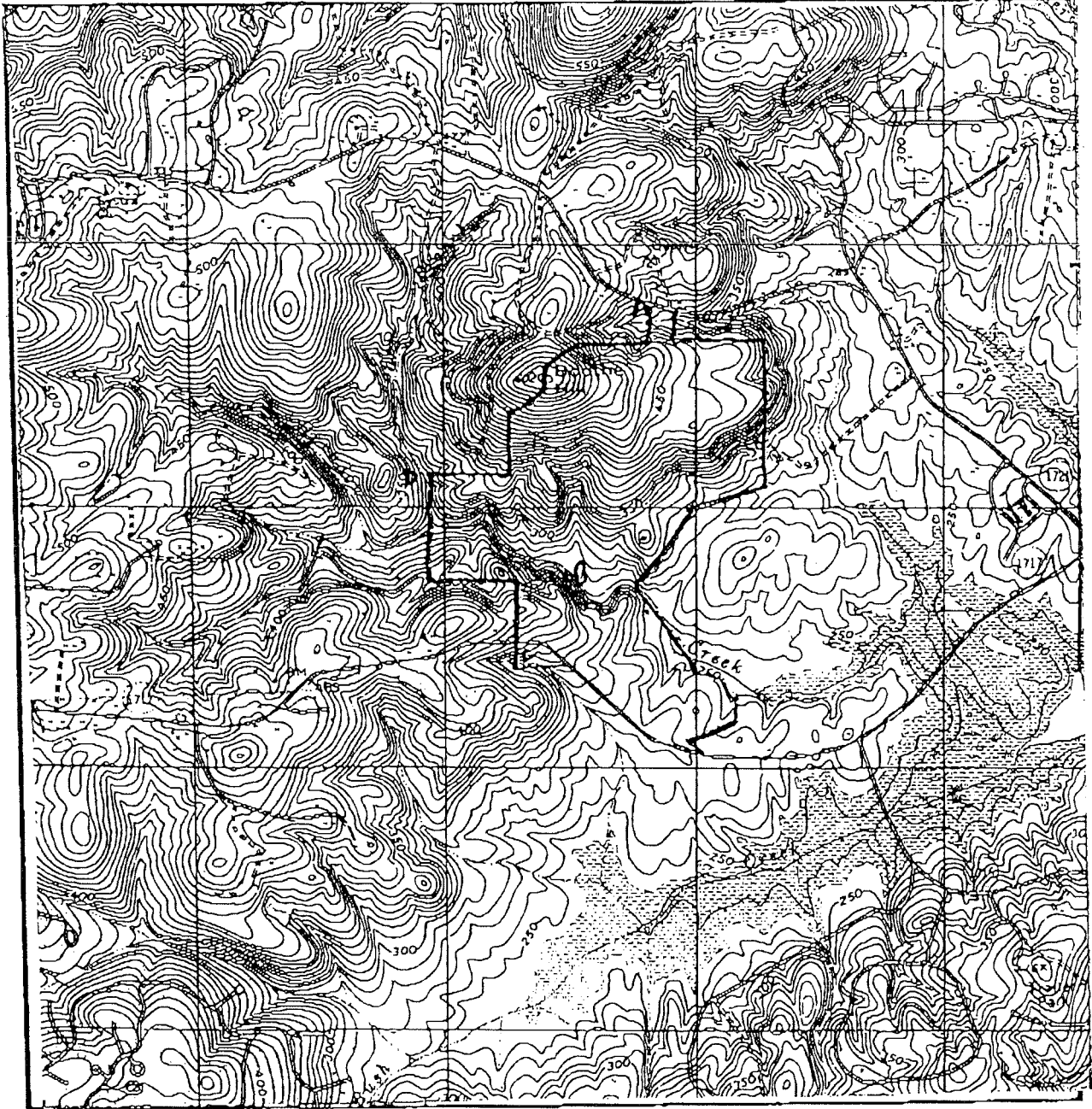
Sincerely,


David Gainey
Environmental Technician


Todd Preuninger
Biologist/ Project Manager

Attachments:

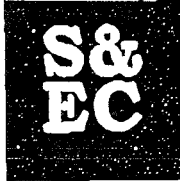
USGS Topographic Quadrangle
Chatham County Soil Survey
Wetland Sketch Map
Agent Authorization Form
Requirements for Wetland Delineation Maps



Project #: 8126.W1	Scale: 1"=2000'
Project Mgr.: SC	Date: 7/5/2004

Figure 1 – USGS Map

Boothe Mountain
MacGregor Development
Chatham County, NC
Farrington Quadrangle
1993



Soil & Environmental Consultants, PA
11010 Raven Ridge Rd. - Raleigh, NC 27614
(919) 846-5900 • (919) 846-9467
Web Page: www.SandEC.com



Project #: B126.W1	Scale: 1"=2000'
Project Mgr.: SC	Date: 7/5/2004

Figure 2 – Soil Survey
 Boothe Mountain
 MacGregor Development
 Chatham County, NC
 Chatham County Soil Survey
 Sheets H1, H2, I1, I2



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DEVELOPMENT SCHEDULE

ESTIMATED DEVELOPMENT SCHEDULE

YEAR

2004 Sketch Plan Approval
2005 Plat Approval, Horizontal Construction

	HOMES COMPLETED (per year)	TOTAL	STUDENTS PUBLIC SCHOOL
2006	30	30	12
2007	38	68	28
2008	37	105	42
2009	29	134	54
2010	14	148	60
2011	12	160	64
2012	10	170	68
2013	10	180	72

A Fiscal Impact Analysis of The Booth Mountain Development

Prepared By
MacGregor Development Company

August 14, 2004

Fiscal Impact Summary

Introduction

The assumptions and methodology used to evaluate the fiscal impacts of the Booth Mountain development are consistent with those provided in *A Fiscal Impact Analysis of The Briar Chapel Development – June 8 2004* by Harry W. Miley, Jr. Ph.D. and Lucy L. Gallo, CPA, as published on the Chatham County website.

Project Description

Booth Mountain is a single-family community proposed for development by MacGregor Development Company on acres of land in northeastern Chatham County. The community will include 180 single-family homes in three distinct neighborhood settings. Table 1 provides an overview of the various lot and house sizes as well as the estimated unit sales price. The weighted average sales price is estimated to be \$488,000 per unit, resulting in an increase in the Chatham County residential tax base of \$87.9 million at the project's buildout.

Fiscal Impacts on the General Fund

The absorption pace, by product type, is illustrated in Table 1. Based on these buildout assumptions, an analysis of the net benefit of the Booth Mountain project is reflected in Table 2. The net present value of the cumulative net benefit to Chatham County during the eight-year buildout period is \$946,000.

Revenue Impacts

The revenues that Booth Mountain will generate for the County can be grouped into three major categories: property taxes, sales taxes and impact fees.

The estimated revenues from all sources generated in the first eight years of the project's development are provided in Table 2. Annual County revenues grow from \$109,000 in Year 1 to \$653,000 in Year 8. Table 3 provides a detailed analysis of all County revenues from Booth Mountain at the development's buildout. The residential property values in Booth Mountain will increase by a total of \$87.9 million, producing annual residential property taxes of \$557,000. Property taxes for motor vehicles owned by Booth Mountain residents are estimated to be \$26,000 per year resulting in total property tax revenue of \$583,000 at buildout.

In addition to property taxes, Booth Mountain will create consumer spending that will increase sales tax collections for the Chatham County government. It is estimated that sales taxes will increase by approximately \$70,000 at the development's buildout.

The County's existing school impact fee is \$1,500 per dwelling unit; therefore, Booth Mountain will generate \$270,000 for Chatham County school construction.

Expenditure Impact

Table 4 summarizes the net benefit to Chatham County assuming (1) the services provided to Booth Mountain residents are at the same level of service as currently provided to Chatham County residents and (2) the level of service for Emergency Medical Services is expanded County-wide, and the County implements the proposed Capital Improvement Program.

Existing Service Levels

As mentioned above, this analysis assumes the same per capita-average cost approach utilized in *A Fiscal Impact Analysis of The Briar Chapel Development – June 8 2004*. The following rates were applied to the Booth Mountain population of 445 [180 units x 2.47 which is the average household size in Chatham County according to the 2000 U. S. Census] to arrive at the expected departmental expenditures shown on Table 4:

Administration	\$ 51.53
Education, Culture & Recreation, Excluding Schools	\$ 27.20
General Government	\$ 19.52
Human Services	\$ 87.48
Natural Resource Management	\$ 8.66
Public Safety	\$124.90

Chatham County Schools

Table 5 calculates the impact of Booth Mountain on the operating budget of the Chatham County Schools. Using a student generation rate of .40 (*A Fiscal Impact Analysis of The Briar Chapel Development – June 8 2004*), approximately 72 new students are expected when the project is completed. The current County per student spending level of \$2,142, as applied to 72 new students, will increase the County budget by \$154,000 per year for School operations.

Likewise, per student capital costs are estimated in Table 6. The combined capital cost for all grade levels of Booth Mountain students is estimated to be \$1.5 million. Debt service is calculated on the net capital cost of \$1.2 million [\$1.5 million less the \$270,000 impact fee payments]. Assuming an interest rate of 5.25% and a term of 25 years, the resulting annual debt service is approximately \$90,500.

At existing levels of service, Booth Mountain will contribute a net surplus to Chatham County of over \$266,000 per year at buildout.

Expanded Service Levels

The expanded service level analysis provided in Table 4 shows the impact of increasing the level of service in Emergency Medical Services to the same level as that proposed for Briar Chapel. The result is additional annual costs of \$8,600 allocable to Booth Mountain residents.

Although *A Fiscal Impact Analysis of The Briar Chapel Development – June 8 2004* estimated increased service levels for the Sheriff's Department, this analysis does not provide for a similar increase due to the project's relative size and the fact that the Estate Lots portion of the project will be a gated community with contracted private security.

The implementation of the County's Capital Improvement Program and the corresponding annual debt service and operating costs attributable to Booth Mountain are reflected as expanded service costs in Table 4.

As seen in Table 4, the net surplus to Chatham County, assuming increased service levels, is expected to be \$232,000.

Impacts on Chatham County Special Revenue and Enterprise Funds

Tables 7 –9 reflect the impact of Booth Mountain on the North Chatham Fire District, the Utility Fund and the Waste Management Fund.

North Chatham Fire District – Table 7

Based on a 0.06% tax rate, annual revenues at buildout are expected to be \$52,000. Estimated expenses allocable to Booth Mountain residents are \$25,000 thereby producing a net annual surplus of \$27,000.

Utility Fund – Table 8

Again, the same assumptions used in *A Fiscal Impact Analysis of The Briar Chapel Development – June 8 2004* are applied to the Booth Mountain project. Table 8 estimates Booth Mountain will have a self-supporting impact on this fund.

Waste Management Fund – Table 9

The residents of Booth Mountain are assumed to have trash and recycling services provided through private contractors. A net annual surplus of \$9,000 is expected for this fund.

Table 1

**Booth Mountain Fiscal Impact Study
Summary of Housing Types, Price Ranges and Housing Values
Based on the Master Land Plan**

Lot Type	Lot Size	House Size	House Price Range		Average House Price or Value	# of Units	Total Value All Houses
Estate Lots	150' Width	3000 - 7000	\$ 450,000	\$ 750,000	\$ 600,000	88	\$ 52,800,000
Village Lots	80' Width	2000 - 3400	\$ 280,000	\$ 390,000	\$ 335,000	53	\$ 17,755,000
Neighborhood Lots	125' Width	2600 - 4200	\$ 370,000	\$ 520,000	\$ 445,000	39	\$ 17,355,000
						180	\$ 87,910,000
Housing Starts							
	Estate Lots	Village Lots	Neighborhood Lots	Total	Total Annual Value		\$ 488,000
Year 1	10	10	10	30	\$ 13,800,000		
Year 2	10	15	13	38	16,810,000		
Year 3	12	13	12	37	16,895,000		
Year 4	12	13	4	29	13,335,000		
Year 5	12	2		14	7,870,000		
Year 6	12			12	7,200,000		
Year 7	10			10	6,000,000		
Year 8	10			10	6,000,000		
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>		
	88	53	39	180	\$ 87,910,000		

Table 2

Booth Mountain Fiscal Impact Study
Buildout Analysis

	Total	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
Annual Residential Sales	\$ 87,910,000	\$ 13,800,000	\$ 16,810,000	\$ 16,895,000	\$ 13,335,000	\$ 7,870,000	\$ 7,200,000	\$ 6,000,000	\$ 6,000,000
Annual Unit Sales	180	30	38	37	29	14	12	10	10
Cumulative Residential Sales	\$ 87,910,000	\$ 13,800,000	\$ 30,610,000	\$ 47,505,000	\$ 60,840,000	\$ 68,710,000	\$ 75,910,000	\$ 81,910,000	\$ 87,910,000
Cumulative # of Units	180	30	68	105	134	148	160	170	180
Revenues:									
Per Capita Revenues - Excluding Commercial	\$ 1,467.75	\$ 1,467.75	\$ 1,467.75	\$ 1,467.75	\$ 1,467.75	\$ 1,467.75	\$ 1,467.75	\$ 1,467.75	\$ 1,467.75
Expenditures:									
Direct Expenditures Per Capita at Existing Service Levels, including Public School Operating Costs	\$ 666.20	\$ 666.20	\$ 666.20	\$ 666.20	\$ 666.20	\$ 666.20	\$ 666.20	\$ 666.20	\$ 666.20
School Capital Debt Service - Per Capita	203.48	203.48	203.48	203.48	203.48	203.48	203.48	203.48	203.48
Expanded Service Levels Per Capita	75.40	75.40	75.40	75.40	75.40	75.40	75.40	75.40	75.40
Total Expenditures - Per Capita	945.09	945.09	945.09	945.09	945.09	945.09	945.09	945.09	945.09
Per Capita Surplus	\$ 522.66	\$ 522.66	\$ 522.66	\$ 522.66	\$ 522.66	\$ 522.66	\$ 522.66	\$ 522.66	\$ 522.66
Buildout Analysis:									
Revenues:									
Revenues, Excluding Commercial	\$ 108,760	\$ 246,523	\$ 380,660	\$ 485,795	\$ 536,550	\$ 580,054	\$ 616,307	\$ 652,561	\$ 652,561
Commercial Revenue	-	-	-	-	-	-	-	-	-
Total Revenues	108,760	246,523	380,660	485,795	536,550	580,054	616,307	652,561	652,561
Expenditures:									
Expenditures at Existing Service Levels	\$ 49,366	\$ 111,895	\$ 172,780	\$ 220,500	\$ 243,537	\$ 263,283	\$ 279,739	\$ 296,194	\$ 296,194
School Capital Debt Service	15,078	34,177	52,774	67,349	74,386	80,417	85,443	90,469	90,469
Total Expenditures	\$ 64,444	\$ 146,073	\$ 225,553	\$ 287,849	\$ 317,923	\$ 343,700	\$ 365,182	\$ 386,663	\$ 386,663
Net Surplus at Existing Service Levels	\$ 44,316	\$ 100,450	\$ 155,107	\$ 197,946	\$ 218,627	\$ 236,354	\$ 251,126	\$ 265,898	\$ 265,898
Expenditures at Expanded Service Levels	5,587	12,665	19,556	24,957	27,564	29,799	31,662	33,524	33,524
Net Surplus with Expanded Service Levels	\$ 38,729	\$ 87,786	\$ 135,551	\$ 172,989	\$ 191,063	\$ 206,554	\$ 219,464	\$ 232,373	\$ 232,373
Net Surplus at Net Present Value (NPV) Discount Rate = 6%	\$ 945,636								
Expected New Residents	445	74	168	259	331	366	395	420	445
Public School Students	72	12	15	15	12	6	5	4	4
Cumulative Public School Students	72	12	27	42	54	59	64	68	72

Table 3

**Booth Mountain Fiscal Impact Study
Tax Revenue Analysis**

Residential Property Taxes:

Residential tax base	\$ 87,910,000
Tax rate	0.6464%
Collection %	98.00%
	<hr/>
Total estimated residential property taxes	<u>\$ 556,885</u>

Motor Vehicle Property Taxes:

Average motor vehicle value per household, based on Federal Reserve Bulletin survey	\$ 26,350
# of Households	180
	<hr/>
Motor vehicle tax base	4,743,000
Tax rate	0.6464%
Collection %	85.00%
	<hr/>
Total estimated motor vehicle property taxes	<u>\$ 26,060</u>

Article 39 Sales Tax:

Residential tax base	\$ 87,910,000	
# of households	180	
	<hr/>	
Average value	488,389	
Earnings multiple	2.90	
Estimated household earnings	\$ 168,410	
Estimated % of earnings for Chatham County purchases	9.46%	Note: Qualifying sales tax purchases
Estimated Booth Mountain/Chatham County purchases	\$ 2,868,289	limited to food, gas and oil, household
Article 39 Sales Tax Rate	1.00%	supplies and incidentals.
	<hr/>	
Article 39 Sales Tax	<u>\$ 28,683</u>	

Articles 40 and 42 Sales Taxes:

Estimated Booth Mountain Population	445
FY04 Per Capita Rate	\$ 63.69
	<hr/>
	<u>\$ 28,316</u>

Article 44 Sales Tax:

Estimated Booth Mountain Population	445
FY04 Per Capita Rate	\$ 28.38
	<hr/>
	<u>\$ 12,616</u>

Total Property Tax Revenues \$ 582,945

Total Sales Tax Revenues \$ 69,615

Table 4

**Booth Mountain Fiscal Impact Study
Annual Fiscal Impact - At Buildout
At Existing and Expanded Service Levels**

Incremental Tax Revenues:

Property Taxes

Residential	\$ 556,885	
Motor Vehicle	26,060	
Total Property Taxes	<u>582,945</u>	\$ 582,945

Sales Taxes

Article 39	\$ 28,683	
Articles 40 and 42	28,316	
Article 44	12,616	
Total Sales Tax Revenues	<u>69,615</u>	

Total Incremental Tax Revenues **\$ 652,561**

Incremental Expenditures at Existing Service Levels:

Chatham County Government

Administration	\$ 22,908	
Education, Culture, and Recreation (excluding schools)	12,094	
General Government	8,681	
Human Services	38,896	
Natural Resource Management	3,853	
Public Safety	55,532	
Total Chatham County Government Incremental Expenditures	<u>141,963</u>	\$ 141,963

Chatham County Schools Operating Costs 154,231

Total Incremental Expenditures at Existing Service Levels **296,194**

Incremental Capital Costs:

Chatham County Schools - Annual Debt Service 90,469

Incremental Surplus at Existing Service Levels **\$ 265,898**

Expanded Service Level Expenditures:

Public Safety:

Emergency Medical Services	<u>8,581</u>	\$ 8,581
----------------------------	--------------	----------

Contribution to Countywide CIP Program:

Debt Service - all projects, excluding Library	12,108	
Operating Costs - all projects, excluding Library	3,766	
Debt Service - Northeast Library	5,953	
Operating Costs - Northeast Library, net	3,116	
Total contribution to Countywide CIP Program	<u>24,943</u>	

Total Expanded Service Level Expenditures 33,524

Annual Incremental Surplus at Expanded Service Levels \$ 232,373

Table 5

**Booth Mountain Fiscal Impact Study
Analysis of Chatham County FY04 Budget (As Amended January 15, 2004)
Chatham County Schools Operating Costs**

Expenditures:		
Salaries	\$	-
Other personnel costs		-
Operating		16,708,432
Public assistance		-
Debt		2,826,418
Transfers		-
Capital outlay		-
Less Debt - New School Debt Service Evaluated Separately		<u>(2,826,418)</u>
Total expenditures	\$	<u>16,708,432</u>
Revenues:		
Fees and permits	\$	-
Grants		252,127
Interest		-
Intergovernmental		-
Miscellaneous		-
Other taxes		-
Sales & service		-
Transfers		140,000
Fund balance		<u>-</u>
Total revenues	\$	<u>392,127</u>
Net cost - excluding sales and property taxes	\$	<u><u>16,316,305</u></u>
Chatham County Public School Enrollment		7,617
Chatham County Per Student Net Cost	\$	2,142.09
Estimated Marginal County Costs for Booth Mountain:		
Estimated Booth Mountain Public School Students		72
Marginal Operating Costs	\$	154,231

FTE = Full-time equivalent personnel

Table 6

**Booth Mountain Fiscal Impact Study
Chatham County Schools - Capital Costs**

Based on Current Estimates	Elementary	Middle	High School	
Land	\$ 780,000	\$ 900,000	\$ 1,183,000	
Building & Equipment	12,400,000	22,000,000	31,000,000	
Total Cost	13,180,000	22,900,000	32,183,000	
Student Capacity	800	1,000	1,200	
Capital Cost per Student	\$ 16,475	\$ 22,900	\$ 26,819	
Booth Mountain Students	34	16	22	Total 72
Capital Costs Allocable to Booth Mountain	\$ 563,445	\$ 370,980	\$ 579,294	\$ 1,513,719
Less:				
Donated Land and Related Improvements	-	-	-	-
Impact Fees	128,250	60,750	81,000	270,000
Voluntary Impact Fees	-	-	-	-
	<u>128,250</u>	<u>60,750</u>	<u>81,000</u>	<u>270,000</u>
Net Chatham County School Capital Cost Attributable to Booth Mountain	\$ 435,195	\$ 310,230	\$ 498,294	\$ 1,243,719
Annual Debt Service	\$ 31,656	\$ 22,566	\$ 36,246	\$ 90,469

Capital Costs Estimates Above Compared to 1996 Public School Impact Fee Report by Tischler and Associates, Inc.

Level of Service	K - 8	High School	Total
Building Sq. Ft. Per Student	113	163	
Net Local Capital Cost Per Sq. Ft.	<u>\$ 102.19</u>	<u>\$ 107.19</u>	
Capital Cost Per Student	\$ 11,547	\$ 17,472	
Estimated Booth Mountain Students	<u>50</u>	<u>22</u>	72
Estimated Capital Costs	\$ 581,992	\$ 377,395	\$ 959,387

Conclusion: To more realistically project capital costs for Chatham County Schools, the approach above, which utilizes more current construction cost information, will be used in lieu of the capital cost estimates included in the 1996 Tischler report.

Table 7

**Booth Mountain Fiscal Impact Study
Analysis of Chatham County FY04 Budget (As Amended January 15, 2004)
North Chatham Fire District - Special Revenue Fund**

Incremental Revenue:

Property Tax Base:

Residential	\$ 87,910,000
Commercial	-
	<u>\$ 87,910,000</u>
North Chatham Fire Tax Rate	0.0600%
Collection %	<u>98.00%</u>

Incremental Fire Department Revenue **\$ 51,691**

Incremental Expenditures:

Estimated Operating Costs:

Annual operating budget of a station with three full-time personnel per Deputy Fire Chief \$ 360,000

Estimated Capital Costs:

	Cost
New station	\$ 325,000
New fire engine	329,000
New aerial truck with 75' ladder	500,000
Total Capital Costs	<u>\$ 1,154,000</u>

Annual debt service - 5% for five years 261,329

Total Annual Cost \$ 621,329

Estimated population served - per Deputy Fire Chief 11,250

Estimated Booth Mountain Population 445

Estimated Annual Cost Allocated to Booth Mountain \$ 24,555

Incremental Fire Department Expenditures 24,555

Annual Net Surplus \$ 27,136

Table 8

**Booth Mountain Fiscal Impact Study
Analysis of Chatham County FY04 Budget (As Amended January 15, 2004)
Utility Fund - Enterprise Fund**

Summary of Operating Activity:

Incremental Revenue:

Average North Chatham Water Bill	\$	47.76	
Annual North Chatham Water Bill	\$	573.12	
# of Booth Mountain Households		180	
Annual Utility Fund Revenue			\$ 103,162

Incremental Expenditures:

Annual Budget:			
Salaries	\$	563,876	
Other Personnel		267,138	
Operating		1,608,049	
Debt Service		711,486	
Transfers		114,893	
Capital Outlay		36,859	
Interest		(12,000)	
	\$	3,290,301	
# of Chatham County Households		4,802	
Average Cost Per Household	\$	685	
# of Booth Mountain Households		180	
Annual Utility Fund Expenditures			123,335

**Plus Allocated Debt Service on Loan Maturing June 2004,
Financing of New Capital Investment Reflected Below
and Southwest Chatham Water Line
(See Note 1):**

FY04 Water Plant Debt Service	\$	497,167	
FY04 Southwest Chatham Water Line Debt Service		25,491	
Total Allocated Debt Service	\$	522,658	
# of Chatham County Households		4,802	
Average Cost Per Household	\$	109	
# of Booth Mountain Households		180	
Plus Allocated Debt Service Adjustment			<u>19,592</u>

Net - Fully offset by Capital Surplus Calculated Below \$ (582)

of Years offset by Capital Surplus Calculated Below 111

Summary of Capital Activity:

Revenues:

Per Unit Availability Fee	\$	2,040	
# of Booth Mountain Units		180	
Total Unit Fees			\$ 367,200

**Construction Cost of Water Tower -
Paid By Booth Mountain**

Total Revenues			<u><u>\$ 367,200</u></u>
-----------------------	--	--	--------------------------

Expenditures:

Tap Setting	\$	425	
# of Booth Mountain Units		180	
Total Tap Setting			76,500

Total Cost of Required Plant Expansion	\$	6,000,000	
Allocation to Booth Mountain		3.77%	226,036
Cost of Water Tower			<u><u>-</u></u>
Total Expenditures			<u><u>302,536</u></u>

Net Surplus \$ 64,664

Note 1 - The operating portion of the Utility Fund impact has been adjusted to reflect the June 2004 maturity of outstanding water plant debt and the related debt service. Capital needs associated with the Booth Mountain project are included above in the Summary of Capital Activity along with the source of funding. Debt service for water lines in Southwest Chatham County are also reflected as an adjustment since Booth Mountain will not affect these loans.

Table 9

**Booth Mountain Fiscal Impact Study
Analysis of Chatham County FY04 Budget (As Amended January 15, 2004)
Waste Management - Enterprise Fund**

Incremental Availability Fee Revenue:

Annual Availability Fee	\$	81.00	
# of Booth Mountain Households		<u>180</u>	
Annual Availability Fee Revenue			\$ 14,580

Incremental Expenditures:

Per Household Cost Estimates Provided by Chatham County Staff

Garbage	\$	10.97	
Recyclables		7.25	
White goods		2.10	
Scrap tires		0.84	
Administration		7.50	
HHW		<u>2.89</u>	
Costs Per Household	\$	31.55	
# of Booth Mountain Households		<u>180</u>	
Annual Expenditures			<u>5,679</u>
Annual Net Surplus			<u><u>\$ 8,901</u></u>

FIVE AFFIRMATIVE FINDINGS

The Booth Mountain project (the “Project”) meets all of the five affirmative findings set forth relating to this request for establishment of a conditional use district and issuance of a conditional use permit.

FINDING #1: The use requested is among those listed as an eligible conditional use in the district in which the subject property is located or to be located.

(1) Validation of Use in Zoning Ordinance. All of the property subject to this application is zoned RA-40. Under the Chatham County Zoning Ordinance, a planned residential development is an allowed conditional use in an RA-40 zoning district.

(2) Land Development Plan Reference

The Project is consistent with the provisions of the Chatham County Land Conservation and Development Plan. Below is a list of ways in which the Project meets the stated goals and objectives of the Chatham County Land Conservation and Development Plan:

(i) The Project meets the goal of increasing the proportion of land that is preserved as open space by dedicating approximately twenty percent of the parcel (59.1 acres) to open space/common areas. *Land Conservation and Development Plan, page 10*. The Project meets the goal of providing a wide variety of housing options (categories, densities, locations and prices). *Land Conservation and Development Plan, page 10, 13*. The Project provides a unique blend of three different price points for housing within the Project thereby making it accessible to a wider economic range of purchasers.

(ii) The Project helps meet the goal of protecting Chatham County surface and underwater resources by creating a 100 foot wide buffer zone along each side of Hernden Creek that transects the property and by implementing an effective storm water retention and detention plan. *Land Conservation and Development Plan, page 10*. The Project also meets the goal of preserving natural scenic areas by preserving the creek area in its natural condition and by creating and preserving a 50 foot wide natural buffer area around the entire perimeter of the Project. *Land Conservation and Development Plan, page 10*.

(iii) The Project directly meets the stated goal of the plan to “cluster new development near school sites.” *Land Conservation and Development Plan, page 13*. In fact, the Project is directly adjacent to the Jack Bennett Road property currently owned by the Chatham County school system and tentatively reserved for a Chatham County public high school. The Project meets the goal of “creating a greenway (and open space) network that links neighborhoods. *Land Conservation and Development Plan, page 13, 14, 16*. The Project also meets the goal of “promoting community based schools; keeping transportation time/distances to schools small.” *Land Conservation and Development Plan, page 14, 16*. The Project fits squarely into the plan goal of encouraging rurally compatible residential development in rural areas because it is in an area that is already zoned for a higher density under the county zoning

ordinance. *Land Conservation and Development Plan, page 21.*

(iv) The Project folds in well to the stated goal of encouraging crossroads commercial centers to serve rural areas. The Chatham Commons Shopping Center is located one mile from the intersection of Lystra Road and 15-501 and, hence, within just a few miles of the Project. *Land Conservation and Development Plan, page 36.*

(v) The Project comports with the Chatham County Land Conservation and Development Plan by increasing reuse of reclaimed water, as set forth as an objective on page 44 of the plan. The Project will treat wastewater generated by the Project and reuse it for spray irrigation purposes. It further meets the objective of the plan set forth on page 46 stating that “in areas where central sewer service is not available, wastewater should be disposed of by land application (surface or subsurface disposal), using governmentally approved, effectively regulated wastewater management systems.” *Land Conservation and Development Plan, page 46.* The wastewater treatment plan and spray irrigation system will be regulated by the qualified department of the State of North Carolina.

(vi) The Project also complies with the express terms of the Land Conservation and Development Plan section relating to infrastructure which suggests that the county “locate schools as an integral part of neighborhoods and encourage new residential development near schools.” This Project is adjacent to the Jack Bennett Road school site. *Land Conservation and Development plan, page 57.*

The Land Conservation and Development, although it has never been mapped, conforms in letter and spirit to this Project in this location.

FINDING #2: The requested conditional use permit is either essential or desirable for the public convenience or welfare.

(1) Need and desirability.

With continuing growth in the triangle area, including economic opportunities in Chapel Hill, Pittsboro, Apex, Cary, Durham and Raleigh, a documented market and need for additional residential housing in the northeast quadrant of Chatham County has been seen. For example, at The Preserve at Jordan Lake, a residential community located west of Jordan Lake in Chatham County, the 516 residential lots were sold within two years from December 2001. The same developer is in the initial stages of sales at another development called “Chapel Ridge” which is located to the west of Pittsboro on Old Graham Road. Initial sales indications at Chapel Ridge are strong as well. The Fearrington subdivision, located on 15-501, not far from this proposed Project has shown continuing strong growth over the years. Virtually all of the lots at the Governors Club subdivision have been sold as well. Market research indicates that the demand for residential housing in and around the Project area continues to be strong and will likely be so for the foreseeable future. Thus, a need for additional residential housing in the northeast section of Chatham County exists.

In addition, the proposed use is desirable for the public convenience or welfare.

The property of the Project is approximately 294 acres that is zoned RA-40. Without a planned residential development, and the applicable conditional use permit and district, the property could be developed for well in excess of 250 one acre lots. The Project proposes, instead, a much more modest development of only 180 lots with a significant amount of open space as detailed on the attached plans. Careful attention has been given in this Project to elements that make the Project orderly, efficient and desirable. The roads, water, wastewater, erosion control, storm water management and schedule of development have all been carefully planned precisely in order to make the development orderly, efficient and desirable. The proposed density on this Project is approximately one residential unit for every 1.5 acres of land, a density that is less than what current zoning of the property allows.

(2) Survey of similar uses.

The Project in this case provides a unique blend of residential uses not found in northeast Chatham County. The Project provides for 53 village lots which range in size from approximately .25 acres to .50 acres for a high density, lower cost housing alternative. In addition, the Project calls for 39 neighborhood lots which are comprised of lots ranging from approximately .33 acres to 1.0 acres for a more moderate residential dwelling price point. Finally, the Project will also include 88 estate lots for larger lots ranging in size from .75 acres to 3 acres. This unique, blended variety of residential uses allows for the important balance between providing ranges of affordability on the one hand and increased tax revenue and other revenue to the County on the other hand. In essence, the higher value lots and residences in this subdivision will be generating tax revenue that makes the more affordable lots and residences in the same project not only possible but beneficial to the community.

(3) Public provided improvements.

The County would be required to provide no public improvements as a result of approval of the Project. As is set forth in the fiscal impact analysis submitted contemporaneously herewith, the additional revenue to the County will exceed the costs of services that will arise as a result of the build out of the Project.

(4) Tax considerations.

With respect to the increase in taxation revenue to the County, please see the Fiscal Impact Analysis submitted contemporaneously herewith.

(5) Employment.

In addition to the economic benefits detailed in the Fiscal Impact Analysis, the Project will create jobs and significant expenditures for material and labor in the County.

Finding #3: The requested permit will not impair the integrity or character of the surrounding or adjoining districts and will not be detrimental to the health, safety or welfare of the community.

(1) Traffic.

This Project will create no undue burden on the existing public road infrastructure adjacent to the Project. The Applicant commissioned a traffic study by Ramey Kemp & Associates, Inc., traffic engineers. A copy of the conclusions of Ramey Kemp are submitted contemporaneously herewith. The traffic engineers reached the conclusion that the Project will impose no undue burden on the existing infrastructure. The driveway locations are far enough from the high school property entrance to accommodate turn lanes if they become necessary.

(2) Visual impact and screening.

The Project will be surrounded by a 50 foot wide natural buffer area. Attached hereto is a graphic depiction of the buffer and naturalized areas that will remain at build out. The boundary along Jack Bennett Road will be bermed and landscaped.

(3) Lighting.

The Project will comply with the proposed Chatham County Draft Lighting Ordinance currently under consideration. Full cut-off light fixtures will be employed.

(4) Noise.

This residential Project will not create any noise levels that are atypical of residential subdivisions already approved and located in Chatham County. Certainly, the noise levels are not anticipated to exceed the levels allowed by the County noise ordinance. The Project will not include any sources or uses of noise beyond that typically associated with a residential subdivision.

(5) Chemicals, biological and radioactive agents.

Permitted chemicals within an approved containment building will be stored at the proposed pool shelter and wastewater treatment plant. Clear signage and placards will be placed at each of these locations. Quantities will be limited to amounts consistent with existing pools and treatment facilities found in adjacent projects.

The Project includes a spray irrigation system for treated wastewater. The combination of the spray irrigation system and the storm water runoff plan will work to protect surface and ground water sources nearby. For further information, please see the information supplied by Ed Andrews and submitted contemporaneously herewith.

(6) Signs.

The Project will have three identification signs, all of which will comply with the Chatham County sign ordinance and are intended to be inviting and attractive. All signs will comply with Section 3.0 of the Chatham County design guidelines.

Finding #4: The requested permit will be consistent with the objectives of the land conservation and development plan.

(1) Land conservation and development plan. See discussion above under Finding #1, subpoint 2.

(2) Watershed and flood considerations. The Project will comply with the applicable watershed ordinance. No lots will be located in the flood plain.

Finding #5: Adequate utilities, access roads, drainage, sanitation and/or other necessary facilities have been or are being provided.

(1) Water source and requirements.

The information regarding the estimated quantity of water to be used, is supplied contemporaneously herewith. The water source will be the Chatham County public water system. The water connections will be provided as follows: Water services will be installed by the developer. The developer will interconnect existing water lines on Jack Bennett Road and Lystra Road.

(2) Wastewater management.

The wastewater treatment facility capacity and spray irrigation system are more thoroughly described in the documents filed contemporaneously herewith.

(3) Access roads.

As previously described, access to the Project will be from Lystra Road (one entrance) and from Jack Bennett Road (two entrances). All proposed driveway locations have been field reviewed by the North Carolina Department of Transportation and have been found acceptable.

(4) Storm water runoff.

The methods of storm water detention and control and the detailed stormwater management plan are set forth in the material supplied herewith. The stormwater plan meets all County requirements and the plan contains buffers that exceed County regulations along all blue line streams.

Conclusion. The Project is a great opportunity for Chatham County to enhance its tax base, create sustainable tax revenue, create employment opportunities and still conform to the zoning and other plans and regulations in place. MacGregor Development Company is an accomplished developer with a track record of success. The five findings are met and we respectfully request that the Planning Department and the Planning Board recommend approval and that the Board of Commissioners grant its approval. MacGregor Development Company also respectfully requests that its Application for Subdivision Sketch Design, filed contemporaneously herewith be approved.