



ENGINEERS

SURVEYORS

PLANNERS

January 7, 2011

M&C 02735-0065 (40)

**Lynn Richardson**  
**Chatham County Planning**  
80-A East Street  
Pittsboro, NC 27312-0130

**RE: Briar Chapel – Granite Mill Blvd.**  
**Final Plat Submittal**

Ms. Richardson:

Enclosed please find our Briar Chapel Granite Mill Blvd final plat submittal.

Enclosed in this submittal are the following:

- (25) 24" x 36" paper copies of the plat plans
- Completed major subdivision application
- Completed major subdivision checklist
- (1) 8 ½" x 11" overall site plan
- Supporting permit approval documentation
- Financial Guarantee of Completion letter
- CD with digital copies of the above information in PDF format

If you have any questions during your review, please do not hesitate to give me a call at 919.233.8091.

Sincerely,  
**McKIM & CREED, P.A.**

Venture IV Building

Suite 500

1730 Varsity Drive

Raleigh, NC 27606

919.233.8091

Fax 919.233.8031

www.mckimcreed.com

*Curtis M. Blazier*

Curt Blazier, PE, LEED AP  
Project Engineer

cc: Mr. Lee Bowman  
Mr. Bill Mumford, PE

Enclosure

# **FINAL PLAT SUBMITTAL SUPPORTING DOCUMENTATION**

## **Briar Chapel Development Granite Mill Boulevard**

Chatham County, North Carolina

January 7, 2011

**Prepared for:**



NNP Briar Chapel, LLC  
16 Windy Knoll Circle  
Chapel Hill, North Carolina 27516

**Prepared By:**



**McKIM & CREED**

1730 Varsity Drive, Suite 500  
Raleigh, North Carolina 27606  
Phone: (919) 233.8091  
Fax: (919) 233.8031

M&C Project No. 02735-0065

**MAJOR SUBDIVISION APPLICATION  
AND CHECKLIST**

**Chatham County Planning Department**

P.O. Box 54  
Pittsboro, NC 27312  
Tel: (919) 542-8204  
Fax: (919) 542-2698

**Type of Review**

☐ Sketch  
☒ Preliminary  
☒ Final

**MAJOR SUBDIVISION APPLICATION****Name of Subdivision:** Briar Chapel – Granite Mill Boulevard**Subdivision Applicant:****Subdivision Owner:**Name: Bill Mumford, Assistant Vice PresidentName: NNP Briar Chapel, LLCAddress: 16 Windy Knoll Circle  
Chapel Hill, NC 27516Phone:(W) (919) 951-0713Phone:(H) \_\_\_\_\_ Fax: (919) 951-0711E-Mail: bmumford@newlandco.comTownship: BaldwinZoning: CUD-CCFlood Map # 3710976500JZone: XWatershed: WS-IV PAAddress: 16 Windy Knoll Circle  
Chapel Hill, NC 27516Phone:(W) (919) 951-0713Phone:(H) \_\_\_\_\_ Fax: (919) 951-0711E-Mail: bmumford@newlandco.comP. I. N. # 9765-45-8095, 9765-62-1645, 9765-72-8431

Parcel # \_\_\_\_\_

Existing Access Road: S.R. #1528/1526S.R. road name Andrews Store / Parker HerndonTotal Acreage: N/ATotal # of Lots: N/A

Min. Lot Size: \_\_\_\_\_

Ph. I Acreage \_\_\_\_\_

Ph. I # of lots \_\_\_\_\_

Max. Lot Size: \_\_\_\_\_

Ph. II Acreage \_\_\_\_\_

Ph. II # of lots \_\_\_\_\_

Avg. Lot Size: \_\_\_\_\_

Ph. III Acreage \_\_\_\_\_

Ph. III # of lots \_\_\_\_\_

**Name and date of contact with Chatham County Historical Association:** Jane Pyle – 4/9/03**Type of new road:** ☐ Private/ Length \_\_\_\_\_ ☒ Public/ Length 2,487 LF**Road Surface:**☒ paved  
☐ gravel**Water System:**☐ individual wells  
☐ community wells  
☒ public systemname Chatham County**Sewer System:**☐ septic systems  
☐ community system  
☒ public systemname Provided by on-site facility**List other facilities:** commercial, recreation, etc., and the approximate acreage or square footage:Bill Mumford

Signature of Applicant

Date 1-5-11Bill Mumford

Signature of Owner

Date 1-5-11**For Office Use Only:**

Notes: \_\_\_\_\_

Approved by County Commissioners:

Sketch

Preliminary

Final

Payment: Date \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ Amount: \$ \_\_\_\_\_

# CHATHAM COUNTY MAJOR SUBDIVISION REVIEW CHECKLIST

Subdivision Name Briar Chapel – Granite Mill Boulevard

Review For: ☐ Sketch

☒ Prelim

☒ Final

Attach all supporting documentation regarding these approvals. If approvals are still pending, attach applications for approval.

SKETCH DESIGN REVIEW	APPROVAL DATE
<input type="checkbox"/> 25 Copies of Plat with topo along with one (1) 8-1/2 x 11 copy	_____
<input type="checkbox"/> Application w/Complete Adjacent Owner Addresses	_____
<input type="checkbox"/> Soil Scientist Report and soil map	_____
<input type="checkbox"/> Confirmation from Chatham County Historical Association/Jane Pyle/542-3603	
<input type="checkbox"/> <b>1 electronic copy of all items above (see Digital Document Requirements)</b>	
PRELIMINARY PLAT REVIEW	
<input checked="" type="checkbox"/> 25 Copies of Plat along with one (1) 8-1/2 x 11 copy	_____
<input checked="" type="checkbox"/> Application w/ Complete Adjacent Owner Addresses	_____
<input type="checkbox"/> Detailed Soils Map and Letter of explanation or D.E.M. approval	____/____/____
{see Requirements for soil scientist report}	
<input checked="" type="checkbox"/> NCDOT Approval (if public roads)	<u>5/12/2010</u>
<input checked="" type="checkbox"/> DOT Comm. Driveway Permit	<u>5/12/2010</u>
<input checked="" type="checkbox"/> Erosion Control Plan Approval (if new roads or one acre disturbed)	<u>4/6/2010</u>
<input checked="" type="checkbox"/> U.S. Army Corps of Engineers Permit (if appl)	<u>8/21/2009</u>
<input checked="" type="checkbox"/> Road Name Request Form	<u>12/30/2010</u>
<input type="checkbox"/> County Public Water Approval (if applicable)	____/____/____
<input checked="" type="checkbox"/> State Public Water Approval (if applicable) (design by J.R. McAdams)	<u>11/21/2005</u>
<input type="checkbox"/> Chatham Co. Schools' Road Comments (if new roads)	____/____/____
<input checked="" type="checkbox"/> Stormwater Management Plan Approval (if appl)	<u>3/24/2010</u>
<input type="checkbox"/> Economic & Environmental Impact Study (if appl)	____/____/____
<input type="checkbox"/> Water / Sewer Impact Statement (if appl)	____/____/____
<input type="checkbox"/> <b>1 electronic copy of all items above (see Digital Document Requirements)</b>	
FINAL PLAT REVIEW	
<input checked="" type="checkbox"/> 25 Copies of Plat	_____
<input checked="" type="checkbox"/> Application	_____
<input checked="" type="checkbox"/> <b>1 electronic copy of all items above (see Digital Document Requirements)</b>	<u>1/7/2011</u>
<input type="checkbox"/> <b>Chatham County Environmental Health Division</b> septic improvement permits or NCDWQ septic permits for each lot.	____/____/____
<input checked="" type="checkbox"/> Road Completion Certificate or Financial Guarantee	<u>1/6/2011</u>
<input type="checkbox"/> Utilities Completion Cert. or Financial Guarantee	____/____/____

Comment \_\_\_\_\_

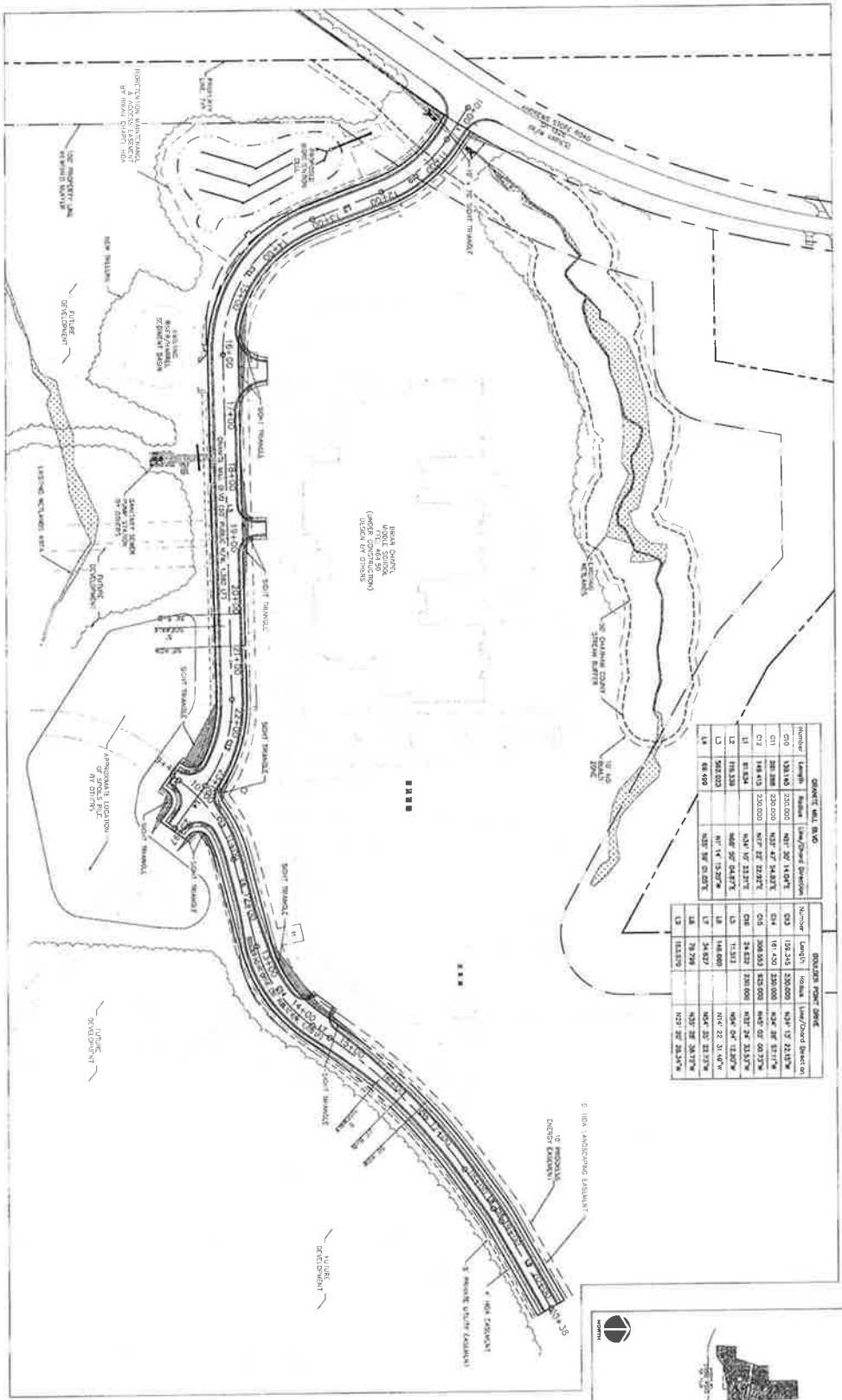
Date Complete Application Rec'd: \_\_\_\_/\_\_\_\_/\_\_\_\_ By: \_\_\_\_\_

ADJACENT LAND OWNERS (Property owners across a road, easement, or waterway are considered adjacent land owners):

Legal notices are mailed to these owners, please **type or write neatly**, and include zip codes.

1. Cameron Properties LTD & Five Star Group LLC	11.
P.O. Box 3649	
Wilmington, NC 28406	
2. County of Chatham	12.
P.O. Box 1809	
Pittsboro, NC 27312	
3. Sandra Tripp	13.
1180 Andrews Store Road	
Pittsboro, NC 27312	
4.	14.
5.	15.
6.	16.
7.	17.
8.	18.
9.	19.
10.	20.

GRANITE MILL BOULEVARD  
SITE PLAN



GRANITE MILL ROAD				BRIAR CHAPEL ROAD			
Station	Length	Area	Volume	Station	Length	Area	Volume
0+00	100.00	100.00	100.00	0+00	100.00	100.00	100.00
1+00	100.00	100.00	100.00	1+00	100.00	100.00	100.00
2+00	100.00	100.00	100.00	2+00	100.00	100.00	100.00
3+00	100.00	100.00	100.00	3+00	100.00	100.00	100.00
4+00	100.00	100.00	100.00	4+00	100.00	100.00	100.00
5+00	100.00	100.00	100.00	5+00	100.00	100.00	100.00
6+00	100.00	100.00	100.00	6+00	100.00	100.00	100.00
7+00	100.00	100.00	100.00	7+00	100.00	100.00	100.00
8+00	100.00	100.00	100.00	8+00	100.00	100.00	100.00
9+00	100.00	100.00	100.00	9+00	100.00	100.00	100.00
10+00	100.00	100.00	100.00	10+00	100.00	100.00	100.00
11+00	100.00	100.00	100.00	11+00	100.00	100.00	100.00
12+00	100.00	100.00	100.00	12+00	100.00	100.00	100.00
13+00	100.00	100.00	100.00	13+00	100.00	100.00	100.00
14+00	100.00	100.00	100.00	14+00	100.00	100.00	100.00
15+00	100.00	100.00	100.00	15+00	100.00	100.00	100.00
16+00	100.00	100.00	100.00	16+00	100.00	100.00	100.00
17+00	100.00	100.00	100.00	17+00	100.00	100.00	100.00
18+00	100.00	100.00	100.00	18+00	100.00	100.00	100.00
19+00	100.00	100.00	100.00	19+00	100.00	100.00	100.00
20+00	100.00	100.00	100.00	20+00	100.00	100.00	100.00
21+00	100.00	100.00	100.00	21+00	100.00	100.00	100.00
22+00	100.00	100.00	100.00	22+00	100.00	100.00	100.00
23+00	100.00	100.00	100.00	23+00	100.00	100.00	100.00
24+00	100.00	100.00	100.00	24+00	100.00	100.00	100.00
25+00	100.00	100.00	100.00	25+00	100.00	100.00	100.00
26+00	100.00	100.00	100.00	26+00	100.00	100.00	100.00
27+00	100.00	100.00	100.00	27+00	100.00	100.00	100.00
28+00	100.00	100.00	100.00	28+00	100.00	100.00	100.00
29+00	100.00	100.00	100.00	29+00	100.00	100.00	100.00
30+00	100.00	100.00	100.00	30+00	100.00	100.00	100.00
31+00	100.00	100.00	100.00	31+00	100.00	100.00	100.00
32+00	100.00	100.00	100.00	32+00	100.00	100.00	100.00
33+00	100.00	100.00	100.00	33+00	100.00	100.00	100.00
34+00	100.00	100.00	100.00	34+00	100.00	100.00	100.00
35+00	100.00	100.00	100.00	35+00	100.00	100.00	100.00
36+00	100.00	100.00	100.00	36+00	100.00	100.00	100.00
37+00	100.00	100.00	100.00	37+00	100.00	100.00	100.00
38+00	100.00	100.00	100.00	38+00	100.00	100.00	100.00
39+00	100.00	100.00	100.00	39+00	100.00	100.00	100.00
40+00	100.00	100.00	100.00	40+00	100.00	100.00	100.00
41+00	100.00	100.00	100.00	41+00	100.00	100.00	100.00
42+00	100.00	100.00	100.00	42+00	100.00	100.00	100.00
43+00	100.00	100.00	100.00	43+00	100.00	100.00	100.00
44+00	100.00	100.00	100.00	44+00	100.00	100.00	100.00
45+00	100.00	100.00	100.00	45+00	100.00	100.00	100.00
46+00	100.00	100.00	100.00	46+00	100.00	100.00	100.00
47+00	100.00	100.00	100.00	47+00	100.00	100.00	100.00
48+00	100.00	100.00	100.00	48+00	100.00	100.00	100.00
49+00	100.00	100.00	100.00	49+00	100.00	100.00	100.00
50+00	100.00	100.00	100.00	50+00	100.00	100.00	100.00
51+00	100.00	100.00	100.00	51+00	100.00	100.00	100.00
52+00	100.00	100.00	100.00	52+00	100.00	100.00	100.00
53+00	100.00	100.00	100.00	53+00	100.00	100.00	100.00
54+00	100.00	100.00	100.00	54+00	100.00	100.00	100.00
55+00	100.00	100.00	100.00	55+00	100.00	100.00	100.00
56+00	100.00	100.00	100.00	56+00	100.00	100.00	100.00
57+00	100.00	100.00	100.00	57+00	100.00	100.00	100.00
58+00	100.00	100.00	100.00	58+00	100.00	100.00	100.00
59+00	100.00	100.00	100.00	59+00	100.00	100.00	100.00
60+00	100.00	100.00	100.00	60+00	100.00	100.00	100.00
61+00	100.00	100.00	100.00	61+00	100.00	100.00	100.00
62+00	100.00	100.00	100.00	62+00	100.00	100.00	100.00
63+00	100.00	100.00	100.00	63+00	100.00	100.00	100.00
64+00	100.00	100.00	100.00	64+00	100.00	100.00	100.00
65+00	100.00	100.00	100.00	65+00	100.00	100.00	100.00
66+00	100.00	100.00	100.00	66+00	100.00	100.00	100.00
67+00	100.00	100.00	100.00	67+00	100.00	100.00	100.00
68+00	100.00	100.00	100.00	68+00	100.00	100.00	100.00
69+00	100.00	100.00	100.00	69+00	100.00	100.00	100.00
70+00	100.00	100.00	100.00	70+00	100.00	100.00	100.00
71+00	100.00	100.00	100.00	71+00	100.00	100.00	100.00
72+00	100.00	100.00	100.00	72+00	100.00	100.00	100.00
73+00	100.00	100.00	100.00	73+00	100.00	100.00	100.00
74+00	100.00	100.00	100.00	74+00	100.00	100.00	100.00
75+00	100.00	100.00	100.00	75+00	100.00	100.00	100.00
76+00	100.00	100.00	100.00	76+00	100.00	100.00	100.00
77+00	100.00	100.00	100.00	77+00	100.00	100.00	100.00
78+00	100.00	100.00	100.00	78+00	100.00	100.00	100.00
79+00	100.00	100.00	100.00	79+00	100.00	100.00	100.00
80+00	100.00	100.00	100.00	80+00	100.00	100.00	100.00
81+00	100.00	100.00	100.00	81+00	100.00	100.00	100.00
82+00	100.00	100.00	100.00	82+00	100.00	100.00	100.00
83+00	100.00	100.00	100.00	83+00	100.00	100.00	100.00
84+00	100.00	100.00	100.00	84+00	100.00	100.00	100.00
85+00	100.00	100.00	100.00	85+00	100.00	100.00	100.00
86+00	100.00	100.00	100.00	86+00	100.00	100.00	100.00
87+00	100.00	100.00	100.00	87+00	100.00	100.00	100.00
88+00	100.00	100.00	100.00	88+00	100.00	100.00	100.00
89+00	100.00	100.00	100.00	89+00	100.00	100.00	100.00
90+00	100.00	100.00	100.00	90+00	100.00	100.00	100.00
91+00	100.00	100.00	100.00	91+00	100.00	100.00	100.00
92+00	100.00	100.00	100.00	92+00	100.00	100.00	100.00
93+00	100.00	100.00	100.00	93+00	100.00	100.00	100.00
94+00	100.00	100.00	100.00	94+00	100.00	100.00	100.00
95+00	100.00	100.00	100.00	95+00	100.00	100.00	100.00
96+00	100.00	100.00	100.00	96+00	100.00	100.00	100.00
97+00	100.00	100.00	100.00	97+00	100.00	100.00	100.00
98+00	100.00	100.00	100.00	98+00	100.00	100.00	100.00
99+00	100.00	100.00	100.00	99+00	100.00	100.00	100.00
100+00	100.00	100.00	100.00	100+00	100.00	100.00	100.00



**MEKIM & CREED**

1720 Varsity Drive, Suite 500  
Raleigh, NC 27605  
C-3387 (813) 233-8881 Fax (813) 233-8881

**BRIAR CHAPEL**

Granite Mill Boulevard  
Chatham County, North Carolina

**OVERALL SITE PLAN**

**CS101**

1" = 80'

C-3

ISSUED FOR CONSTRUCTION 9



**NCDENR DWQ**  
**STORMWATER MANAGEMENT PLAN**



North Carolina Department of Environment and Natural Resources

Division of Water Quality  
Coleen H. Sullins  
Director

Beverly Eaves Perdue  
Governor

Dee Freeman  
Secretary

March 24, 2010

Chatham County  
DWQ Project No. 05-0732v15

Mr. Mitch Barron  
Newland Communities  
5850 Fayetteville Road, Suite 201  
Durham, NC 27713

Subject Property: **Briar Chapel – Granite Mill Boulevard**

**STORMWATER MANAGEMENT PLAN APPROVAL**

Dear Mr. Barron:

On January 11, 2008, the Division of Water Quality (DWQ) issued a revised 401 Water Quality Certification to temporarily impact 339 linear feet of stream and 0.157 acre of 404 wetlands and to permanently impact 1,666 linear feet of stream and 0.1590 acre of 404 wetlands in order to construct the Briar Chapel Subdivision in Chatham County.

In order to meet Condition 10 of the 401 Certification for this project, a stormwater management plan for Briar Chapel – Granite Mill Boulevard, dated February 17, 2010, was received by the DWQ on February 18, 2010. This stormwater management plan for the Granite Mill Boulevard section of the Briar Chapel development has been reviewed and satisfies the stormwater management condition of the 401 Water Quality Certification as a low density project. You are required to meet the following conditions:

1. The stormwater management system (consisting of a bioretention area and all associated appurtenances), all stormwater conveyances and the grading and drainage patterns depicted on the plans, as approved by this office must be maintained *in perpetuity*. No changes to the structural stormwater practices shall be made without written authorization from the DWQ. The stormwater management structures shall have maintenance access to allow for the ability to maintain the structures, and to perform corrective actions. The stormwater easements shall be recorded to provide protection of the structures from potential alterations by future property owners.
2. All operation and maintenance activities shall be followed as stipulated in the Operation and Maintenance Agreement signed and notarized on February 17, 2010, and received in our office on February 19, 2010.
3. The applicant and/or authorized agent shall provide a completed Certification of Completion Form to the DWQ 401 Program within ten (10) days of the project completion (available at: <http://portal.ncdenr.org/web/wq/swp/ws/401/certsandpermits/apply/forms>).

This letter completes the review of the DWQ under Section 401 of the Clean Water Act. If you have any questions, please contact me at 919-715-3425.

Sincerely,

A handwritten signature in black ink, appearing to read "Annette Lucas".

Annette Lucas, PE  
401 Oversight/Express Review Permitting Unit

AML/aml

cc: Becky Fox, EPA  
Monte Matthews, USACE, Raleigh  
Lauren Witherspoon, DWQ Raleigh Regional Office  
Fred Royal, Director, Chatham County Environmental Resources, Public Works Department,  
P.O. Box 1550, Pittsboro, NC 27312  
Allison Weakly, Chair, Chatham County Environmental Review Board, 311 Boothe Road,  
Chapel Hill, NC 27517  
File Copy

050732v15BriarChapel(Chatham)\_SW\_Approve.doc

CHATHAM COUNTY  
STORMWATER REVIEW

**Briar Chapel Impervious Calculations Total Date:****January 5, 2011**

<b>Total Site Area</b>	<b>1,627.30 ac</b>		
	Acres	Platted	Estimated
Town Center (Commercial/Office)	39.00		x
Phase 1 (WWTP)	1.97		x
Phase 2	6.18	x	
Phases 3 & 4 (Sect. 1-3)	54.06	x	
Heather Glen Circle	1.24	x	
Phase 4 (Future)	6.65		x
Phase 5 South	7.06	x	
Phase 5 North	17.65		x
Phase 6 North	15.23		x
Phase 6 South	16.50		x
Phase 7	10.25		x
Phase 8	15.13		x
Phase 9	13.64		x
Phase 10	24.79		x
Phase 11	27.90		x
Phase 12	4.49		x
Phase 13	22.99		x
Phase 14	8.72		x
Phase 15	18.65		x
Phase 16	12.34		x
Phase 17	13.24		x
Remaining Civic Areas from different phases-to be assigned to the proper phase as it occurs	19.30		x
<b>Total Impervious</b>	<b>356.98</b>		
<b>Total Impervious Percent</b>	<b>21.94%</b>		

Sustainable Communities Development Department  
Environmental Resources Division  
Post Office Box 54  
80-A East Street - Dunlap Building  
Pittsboro, NC 27312-0054



Phone: 919-542-8268  
Cell: 919-548-5988  
Fax: 919-542-2698  
[fred.royal@chathamnc.org](mailto:fred.royal@chathamnc.org)

May 3, 2010

Mr. Grant Livengood, PE  
McKim & Creed  
1730 Varsity Drive, Suite 500  
Raleigh, NC 27606

Dear Mr. Livengood,

I have performed a courtesy review of the Stormwater Plans and 401 Narrative and Supporting Calculations for Briar Chapel Development, Granite Mill Blvd., Chatham County, NC and have the following brief comments:

1. Provide a note in the construction sequence generally stating that "the bioretention area shall not be constructed (engineered soils, drains, etc.) until the watershed draining to it is significantly stabilized. " See Sheet C5.
2. The bioretention area details indicate a typical cross-section. Please revise the cross-section as follows: 2' Sandy Loam, 4" clean sand, 2" choking stone #8, 8" washed stone #57. Delete the filter fabric at the bottom (except for around the 6" HDPE drains.)
3. Place a private stormwater drainage easement around all stormwater structures and include language indicating easement conditions, such as access, uses and responsible party. The easement size should be sufficient for access for emergencies, maintenance and inspections.

Thank you for the opportunity to review and comment on these plans and calculations.

Sincerely,

Fred Royal, PE, CFM  
Director  
Environmental Resources Division  
Chatham County, NC  
(919) 542-8268

Cc: Jim Willis  
Soil, Erosion & Sedimentation Control Supervisor

**NCDENR DWQ AND USACOE  
STREAM AND WETLAND IMPACTS**



North Carolina Department of Environment and Natural Resources

Division of Water Quality  
Coleen H. Sullins  
Director

Beverly Eaves Perdue  
Governor

Dee Freeman  
Secretary

August 31, 2009

Mr. William S. Mumford  
NNP – Briar Chapel, LLC  
16 Windy Knoll Circle  
Chapel Hill, NC 27516

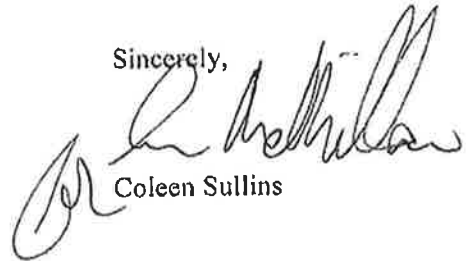
Re: Briar Chapel, Chatham County  
DWQ Project # 20050732, Ver. 13; USACE Action ID. No. 200121252  
**APPROVAL of 401 Water Quality Certification with Additional Conditions - MODIFICATION**

Dear Mr. Mumford:

Attached hereto is a copy of Certification No. 3567 issued to Mr. William S. Mumford of NNP- Briar Chapel, LLC, Inc., dated August 31, 2009. **This Certification replaces the Certification issued to you on January 11, 2008, July 21, 2009, and July 24, 2009.** In addition, you should get any other federal, state or local permits before you go ahead with your project including (but not limited to) Solid Waste, Sediment and Erosion Control, Stormwater, Dam Safety, Non-discharge and Water Supply Watershed regulations.

If we can be of further assistance, do not hesitate to contact us.

Sincerely,



Coleen Sullins

CHS/cbk/ijm

Attachments: Certificate of Completion

cc: Becky Fox, EPA, 1307 Firefly Road, Whittier, NC 28789  
U.S. Army Corps of Engineers, Raleigh Regulatory Field Office, Wilmington District  
Lauren Witherspoon, DWQ Raleigh Regional Office  
DLR, Raleigh Regional Office  
File Copy  
Nicole Thomson, S&EC, P.A., 11010 Raven Ridge Road, Raleigh, NC 27614

Filename: 050732Ver13BriarChapel(Chatham)401\_IC\_MOD2\_Revised



## NORTH CAROLINA 401 WATER QUALITY CERTIFICATION

**THIS CERTIFICATION** is issued in conformity with the requirements of Section 401 Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Division of Water Quality (DWQ) Regulations in 15 NCAC 2H, Section .0500 to Mr. William S. Mumford of NNP- Briar Chapel, LLC to fill 0.4374 acres of 404/wetland (permanent impact), 0.197 acres 404/wetland (temporary impact), 2,154 linear feet of perennial stream (permanent impact), 612 linear feet of perennial stream (temporary impact), 83 linear feet of intermittent stream (permanent impact), and 22 linear feet of intermittent stream (temporary impact), in the Cape Fear River Basin, to construct the Briar Chapel residential and mixed use development at the site. The site is located west of U.S. Highway 15-501, and north of Andrew's Store Road (SR 1528), and south of Mann's Chapel Road (SR 1532), approximately 5 miles south of Chapel Hill, in Chatham County, North Carolina, pursuant to a permit application dated May 8, 2009, and received by the DWQ on May 8, 2009, by Public Notice issued by the USACE on May 22, 2009, and received by the DWQ on May 22, 2009, and by all additional correspondences received by the DWQ on May 20, 2009 and June 25, 2009.

The application and supporting documentation provides adequate assurance that the proposed work will not result in a violation of applicable Water Quality Standards and discharge guidelines. Therefore, the State of North Carolina certifies that this activity will not violate the applicable portions of Sections 301, 302, 303, 306, 307 of PL 92-500 and PL 95-217 if conducted in accordance with the application, the supporting documentation, and conditions hereinafter set forth.

This approval is only valid for the purpose and design submitted in the application materials and as described in the Public Notice. If the project is changed, prior to notification a new application for a new Certification is required. If the property is sold, the new owner must be given a copy of the Certification and approval letter and is thereby responsible for complying with all conditions of this Certification. Any new owner must notify the Division and request the Certification be issued in their name. Should wetland or stream fill be requested in the future, additional compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7). If any plan revisions from the approved site plan result in a change in stream or wetland impact or an increase in impervious surfaces, the DWQ shall be notified in writing and a new application for 401 Certification may be required. For this approval to be valid, compliance with the conditions listed below is required.

### Conditions of Certification:

#### 1. Impacts Approved

The following impacts are hereby approved as long as all of the other specific and general conditions of this Certification (or Isolated Wetland Permit) are met. No other impacts are approved including incidental impacts:

Type of Impact	Amount Approved (Units)	Plan Location or Reference
404/401 Wetlands	0.4374 (acres) -- permanent impact	Table 2, Application, and Public Notice
404/401 Wetlands	0.197 (acres) -- temporary impact	Table 2, Application, and Public Notice
Stream (perennial)	2,154 (linear feet) -- permanent impact	Table 2, Application, and Public Notice
Stream (perennial)	612 (linear feet) -- temporary impact	Table 2, Application, and Public Notice
Stream (intermittent)	83 (linear feet) -- permanent impact	Table 2, Application, and Public Notice
Stream (intermittent)	22 (linear feet) -- temporary impact	Table 2, Application, and Public Notice

Sediment and Erosion Control:

2. Erosion and sediment control practices must be in full compliance with all specifications governing the proper design, installation and operation and maintenance of such Best Management Practices in order to protect surface waters standards:
  - a. The erosion and sediment control measures for the project must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Sediment and Erosion Control Planning and Design Manual*.
  - b. The design, installation, operation, and maintenance of the sediment and erosion control measures must be such that they equal, or exceed, the requirements specified in the most recent version of the *North Carolina Sediment and Erosion Control Manual*. The devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) projects, including contractor-owned or leased borrow pits associated with the project.
3. No waste, spoil, solids, or fill of any kind shall occur in wetlands, waters, or riparian areas beyond the footprint of the impacts depicted in the 404/401 Permit Application. All construction activities, including the design, installation, operation, and maintenance of sediment and erosion control Best Management Practices, shall be performed so that no violations of state water quality standards, statutes, or rules occur;
4. Sediment and erosion control measures shall not be placed in wetlands or waters without prior approval from the Division. If placement of sediment and erosion control devices in wetlands and waters is unavoidable, design and placement of temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands or stream beds or banks, adjacent to or upstream and down stream of the above structures. All sediment and erosion control devices shall be removed and the natural grade restored within two (2) months of the date that the Division of Land Resources or locally delegated program has released the project.
5. Protective Fencing - The outside buffer, wetland or water boundary and along the construction corridor within these boundaries approved under this authorization shall be clearly marked with orange warning fencing (or similar high visibility material) for the areas that have been approved to infringe within the buffer, wetland or water prior to any land disturbing activities.

Continuing Compliance:

6. Mr. William S. Mumford and NNP- Briar Chapel, LLC shall conduct construction activities in a manner consistent with State water quality standards (including any requirements resulting from compliance with section 303(d) of the Clean Water Act) and any other appropriate requirements of State law and federal law. If the Division determines that such standards or laws are not being met (including the failure to sustain a designated or achieved use) or that State or federal law is being violated, or that further conditions are necessary to assure compliance, the Division may reevaluate and modify this Certification to include conditions appropriate to assure compliance with such standards and requirements in accordance with 15A NCAC 2H.0507(d). Before modifying the Certification, the Division shall notify Mr. William S. Mumford and NNP- Briar Chapel, LLC and the US Army Corps of Engineers, provide public notice in accordance with 15A NCAC 2H.0503 and provide opportunity for public hearing in accordance with 15A NCAC 2H.0504. Any new or revised conditions shall be provided to Mr. William S. Mumford and NNP- Briar Chapel, LLC in writing, shall be provided to the United States Army Corps of Engineers for reference in any Permit issued

pursuant to Section 404 of the Clean Water Act, and shall also become conditions of the 404 Permit for the project;

7. Construction Stormwater Permit NCG010000

Upon the approval of an Erosion and Sedimentation Control Plan issued by the Division of Land Resources (DLR) or a DLR delegated local erosion and sedimentation control program, an NPDES General stormwater permit (NCG010000) administered by DWQ is automatically issued to the project. This General Permit allows stormwater to be discharged during land disturbing construction activities as stipulated by conditions in the permit. If your project is covered by this permit [applicable to construction projects that disturb one (1) or more acres], full compliance with permit conditions including the sedimentation control plan, self-monitoring, record keeping and reporting requirements are required. A copy of this permit and monitoring report forms may be found at [http://h2o.enr.state.nc.us/su/Forms\\_Documents.htm](http://h2o.enr.state.nc.us/su/Forms_Documents.htm).

Mitigation:

8. Compensatory Mitigation

Compensatory stream mitigation shall be accomplished by using 2,127 linear feet of stream mitigation credit at the Harpers Crossroads stream mitigation site and the remaining 27 linear feet of required stream credit (10:1 ratio = 270 linear feet) from the 63,412 linear feet of available onsite stream preservation. These mitigation efforts shall be protected through use of conservation easement written to satisfy the US Army Corps of Engineers. Uses which may be allowable in the protected stream buffers include water dependent activities and greenway trails upon additional written approval of the Division of Water quality and the US Army Corps of Engineers. These provisions should be explicitly reflected in the conservation easements, or similar mechanisms, written to satisfy the USACE.

The Permittee shall provide stream restoration in accordance with the plan entitled 'Harpers Crossroads Stream Restoration Plan,' dated September 2005. The restoration site, which was authorized with a separate DA nationwide permit (USACE Action Id No. 200420489) has already been constructed. The as-built report dated June 12, 2006 states the total stream restoration generated by the project as 2,127 linear feet. Within 90 days of the USACE's determination that the Harpers Crossroads Stream Restoration Project has met the success criteria outlined in the 'Harpers Crossroads Stream Restoration Plan,' the permittee shall arrange for the transfer of the existing conservation easements to a third-party grantee, subject to approval by the USACE.

Type of Impact	Compensatory Mitigation Required	River and Sub-basin Number
Stream (perennial)	2,154 (linear feet)	Cape Fear/03030002

9. Stormwater Management Plan Implementation Procedures (No Further Approval Needed)

- The approved SMP must be constructed and operational before any permanent building or other structure is occupied at the site. If a development is phased, then the approved SMP for each future phase must be constructed and operational before any permanent building or other structure associated with that phase is occupied.
- The approved SMP as well as drainage patterns must be maintained in perpetuity.
- The SMP may not be modified without prior written authorization from the SMP approval authority. If the SMP falls under another state stormwater program, then a copy of the approval letter and the modified SMP must be submitted to the 401 Oversight/Express Unit prior to the commencement of the modifications.

## 10. Culvert Installation

All work in or adjacent to stream waters shall be conducted in a dry work area. Approved BMP measures from the most current version of NCDOT Construction and Maintenance Activities manual ([http://www.ncdot.org/doh/operations/BMP\\_manual/download/BMP\\_Manual.pdf](http://www.ncdot.org/doh/operations/BMP_manual/download/BMP_Manual.pdf)) such as sandbags, rock berms, cofferdams and other diversion structures shall be used to prevent excavation in flowing water.

Culverts required for this project shall be installed in such a manner that the original stream profiles are not altered. Existing stream dimensions (including the cross section dimensions, pattern, and longitudinal profile) must be maintained above and below locations of each culvert. Culverts shall be designed and installed to allow for aquatic life movement as well as to prevent head cutting of the streams. If any of the existing pipes are or become perched, the appropriate stream grade shall be re-established or, if the pipes installed in a perched manner, the pipes shall be removed and re-installed correctly.

Culvert(s) shall not be installed in such a manner that will cause aggradation or erosion of the stream up or down stream of the culvert(s). Existing stream dimensions (including the cross section dimensions, pattern and longitudinal profile) shall be maintained above and below locations of each culvert.

~~Placement of culverts and other structures in waters, streams, and wetlands must be placed below the elevation of the streambed by one foot for all culverts with a diameter greater than 48 inches, and 20 percent of the culvert diameter for culverts having a diameter less than 48 inches, to allow low flow passage of water and aquatic life. Design and placement of culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in disequilibrium of wetlands or streambeds or banks, adjacent to or upstream and down stream of the above structures. The applicant is required to provide evidence that the equilibrium shall be maintained if requested in writing by DWQ.~~

The establishment of native, woody vegetation and other soft stream bank stabilization techniques must be used where practicable instead of rip rap or other bank hardening methods. If rip-rap is necessary, it shall not be placed in the stream bed, unless specifically approved by the Division of Water Quality.

Installation of culverts in wetlands must ensure continuity of water movement and be designed to adequately accommodate high water or flood conditions.

Upon completion of the project, the Applicant shall complete and return the enclosed "Certificate of Completion" form to notify NCDWQ when all work included in the §401 Certification has been completed. The responsible party shall complete the attached form and return it to the 401/Wetlands Unit of the NC Division of Water Quality upon completion of the project. *Please send photographs upstream and downstream of each culvert site to document correct installation along with the Certificate of Completion form.*

## 11. Certificate of Completion

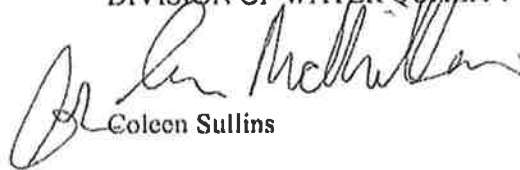
Upon completion of all work approved within the 401 Water Quality Certification or applicable Buffer Rules, and any subsequent modifications, the applicant is required to return the attached certificate of completion to the 401/Wetlands Unit, North Carolina Division of Water Quality, 1650 Mail Service Center, Raleigh, NC, 27699-1650.

**Also, this approval to proceed with your proposed impacts or to conduct impacts to waters as depicted in your application shall expire upon expiration of the 404 or CAMA Permit.**

August 31, 2009

If this Certification is unacceptable to you, you have the right to an adjudicatory hearing upon written request within sixty (60) days following receipt of this Certification. This request must be in the form of a written petition conforming to Chapter 150B of the North Carolina General Statutes and filed with the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, N.C. 27699-6714. If modifications are made to an original Certification, you have the right to an adjudicatory hearing on the modifications upon written request within sixty (60) days following receipt of the Certification. Unless such demands are made, this Certification shall be final and binding.

This the 31<sup>st</sup> day of August 2009  
DIVISION OF WATER QUALITY



Coleen Sullins

CHS/cbk/ijm

3567



North Carolina Department of Environment and Natural Resources

Division of Water Quality

Beverly Eaves Perdue  
Governor

Coleen H. Sullins  
Director

Dee Freeman  
Secretary

DWQ Project No.: 05-0732 U13 County: Chatham

Applicant: \_\_\_\_\_

Project Name: \_\_\_\_\_

Date of Issuance of 401 Water Quality Certification: aug 31, 2009

**Certificate of Completion**

Upon completion of all work approved within the 401 Water Quality Certification or applicable Buffer Rules, and any subsequent modifications, the applicant is required to return this certificate to the 401/Wetlands Unit, North Carolina Division of Water Quality, 1650 Mail Service Center, Raleigh, NC, 27699-1650. This form may be returned to DWQ by the applicant, the applicant's authorized agent, or the project engineer. It is not necessary to send certificates from all of these.

***Applicant's Certification***

I, \_\_\_\_\_, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

***Agent's Certification***

I, \_\_\_\_\_, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

***If this project was designed by a Certified Professional***

I, \_\_\_\_\_, as a duly registered Professional \_\_\_\_\_ (i.e., Engineer, Landscape Architect, Surveyor, etc.) in the State of North Carolina, having been authorized to observe (periodically, weekly, full time) the construction of the project, for the Permittee hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: \_\_\_\_\_ Registration No. \_\_\_\_\_

Date: \_\_\_\_\_



REPLY TO  
ATTENTION OF

**DEPARTMENT OF THE ARMY**  
WILMINGTON DISTRICT, CORPS OF ENGINEERS  
69 DARLINGTON AVENUE  
WILMINGTON, NORTH CAROLINA 28403-1343

August 21, 2009

Regulatory Division

Action ID. 200121252

Mr. William S. Mumford  
NNP – Briar Chapel, LLC  
16 Windy Knoll Circle  
Chapel Hill, North Carolina 27516

Dear Mr. Mumford:

Reference the Department of the Army (DA) permit issued on October 2, 2006, to Mitch Barron of Newland Communities for impacts associated with the Briar Chapel Development. Also reference the modification to this permit approved in December, 2007. This development is approximately 1,589 acres in size and is located west of US Highway 15-501, north of Andrew's Store Road (SR 1528), and south of Mann's Chapel Road (SR 1532), approximately 5 miles south of Chapel Hill, in Chatham County, North Carolina. Coordinates (in decimal degrees) for the site are 35.8251 ° North, 79.1059 ° West. The site contains several unnamed tributaries and adjacent wetlands of Pokeberry Creek and Wilkinson Creek, in the Cape Fear River Basin (8-Digit Cataloging Unit 03030002).

Permanent impacts authorized by this permit and the subsequent 2007 modification totaled 1,666 linear feet of stream channel and 0.4422 acre of wetland, and temporary impacts totaled 359 linear feet of stream channel and 0.156 acre of wetlands. Mitigation was implemented for the unavoidable impacts by: a) Payment into the North Carolina Ecosystem Enhancement Program for the restoration of 0.6655 acre of riparian wetlands; b) Restoration of 2,127 linear feet of stream channel at the Harpers Crossroads Mitigation Site; and c) On-site preservation of 59.3 acres of wetlands and 63,412 linear feet of stream channel.

Also reference your permit modification request received by the Corps on May 8, 2009. This modification was to address impact amounts and location changes associated with roadway crossings in and near the development. Also included within the requested modification were impacts associated with restoration to streams and wetlands as required to satisfy an existing on-site Clean Water Act violation. On May 22, 2009, a Public Notice was issued detailing this modification request which would bring total impacts associated with Briar Chapel to: 2,237 linear feet of permanent stream channel, 634 linear feet of temporary stream channel, 0.4374 acre of permanent wetland impact,

and 0.197 acres of temporary wetland impact. Please note the attached Tables 1, 2, and 3; originally created by your consultant S&EC, which describe the impact history by site number and amount. No additional mitigation was proposed due to the relatively large amount of preservation mitigation required within the original permit.

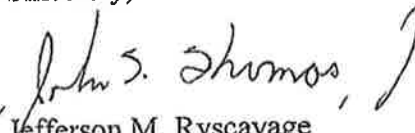
The Corps has completed the evaluation of your request and concurs with your request for a change in impacts associated with your referenced DA permit including the change to plans as requested. No additional mitigation is required for this modification.

Special condition 1 of your permit is hereby modified to read:

"All work authorized by this permit must be performed in strict compliance with the attached plans, Exhibit A, Exhibit E, and/or Exhibit F which are a part of this permit. These plans reflect the original proposal, Exhibit A; and the modifications as depicted within the January 26, and the revised June 7, 2007, proposals as shown in Exhibit E, and the modification request of May 8, 2009, as shown in Exhibit F. Only the attached modification plans reflect approved changes to the original plans, therefore any additional ~~deviations from the original plans are not approved per this modification and any further~~ modification to the plans must be approved by the US Army Corps of Engineers (USACE) prior to implementation. The temporary impacts as identified on Exhibit E shall be removed by May 1, 2008, or the project shall be considered non-compliant with this condition. In addition, the following time deadlines are hereby established for work considered authorized under this 2009 permit modification: all impacts, both temporary and permanent, as shown in the stream repair and stabilization document received with the modification application on May 8, 2009, must be completed prior to April 15, 2010; and all additional temporary impacts, not requested within the stream repair and stabilization document but requested and authorized under this 2009 modification, shall be removed within 30 days of the completion of each respective crossing. Proper documentation of permit compliance for this 2009 modification shall be submitted to the Corps of Engineers Regulatory Representative via email on or before April 15, 2010, or at the time of each temporary impact removal, respectively. "

Please note that all other permit conditions and exhibits remain in effect as written. Should you have questions, contact Mr. Monte Matthews, Raleigh Regulatory Field Office at telephone (919) 554-4884, Extension 30.

Sincerely,

  
for/ Jefferson M. Ryscavage  
Colonel, U.S. Army  
District Commander

Attachments



**Copy Furnished (w/o attachment)**

**Ms. Cyndi Karoly  
Division of Water Quality  
North Carolina Department of Environment  
and Natural Resources  
2321 Crabtree Boulevard, Suite 250  
Raleigh, NC 27604**

**Copy Furnished (w/attachment)**

**Ms. Nicole Thomson  
Soil & Environmental Consultants  
11010 Raven Ridge Road  
Raleigh, NC 27614**

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MAY 08 2009

TABLE 1

PREVIOUSLY PERMITTED IMPACTS

S&EC Project # 5815

Regulatory Branch

Impact	Classification	Impact Type	Original permitted Stream impacts (5/9/06 & 10/2/2006)	Original permitted Wetland impacts (5/9/06 & 10/2/2006)	Approved Modification Stream impacts (12/05/07 & 1/11/08)	Approved Modification Wetland impacts (12/05/07 & 1/11/08)
A	Wetland	Road Crossing	0	0.0341 ac. perm. wetland impact	N/A	N/A
B	Perennial Stream/Wetland	Road Crossing	141 LF perm. stream impact	0.0018 ac. perm. wetland impact	N/A	N/A
C	Perennial Stream	Bridge	0	0	N/A	0
D	Perennial Stream/Wetland	Road Crossing	140 LF perm. stream impact	0.0320 ac. perm. wetland impact	N/A	N/A
E	Perennial Stream	Road Crossing	129 LF perm. stream impact	0.0064 ac. perm. wetland impact	N/A	N/A
F	Perennial Stream	Road Crossing	155 LF perm. stream impact	0	197 LF perm. stream impact & 41 LF temp. stream impact	0
G	Perennial Stream/Wetland	Road Crossing	238 LF perm. stream impact	0.0030 ac. perm. wetland impact	271 LF perm. stream impact & 26 LF temp. stream impact	0.010 ac. perm. wetland impact
H	Perennial Stream	Road Crossing	166 LF perm. stream impact	0	262 LF perm. stream impact & 50 LF temp. stream impact	0
I	Perennial Stream/Wetland	Road Crossing	91 LF perm. stream impact	0.0003 ac. perm. wetland impact	83 LF perm. stream impact & 31 LF temp. stream impact	0.002 ac. perm. wetland impact & 0.019 ac. temp. wetland impact
J	Perennial Stream	Road Crossing	150 LF perm. stream impact	0	N/A	N/A
K	Intermittent Stream/Wetland	Road Crossing	150 LF perm. stream impact	0.2320 ac. perm. wetland impact	ELIMINATED	ELIMINATED
L	Perennial Stream	Road Crossing	114 LF perm. stream impact	0	N/A	N/A
M	Perennial Stream	Road Crossing	220 LF perm. stream impact	0	N/A	N/A
N	Wetland	Fill	0	0.3559 ac. perm. wetland impact	N/A	N/A
O	Perennial Stream	Road Crossing	109 LF perm. stream impact	0	N/A	N/A
P	Wetland	Road Crossing	0	0.062 ac. perm. wetland impact	N/A	N/A
Q	Perennial Stream/Wetland	Pedestrian Bridge	not part of orig. submittal	N/A	N/A	added to mod./no impact
R	Wetland/Beaver Impoundment	Pedestrian Bridge	not part of orig. submittal	N/A	N/A	added to mod./no impact

TABLE 1  
PREVIOUSLY PERMITTED IMPACTS

Impact	Classification	Impact Type	Original permitted Stream impacts (5/9/06 & 10/2/2006)	Original permitted Wetland impacts (5/9/06 & 10/2/2006)	Approved Modification Stream impacts (12/05/07 & 1/11/08)	Approved Modification Wetland impacts (12/05/07 & 1/11/08)
1	Perennial Stream	Utility	20 LF temp. stream impact	0	N/A	N/A
2	Perennial Stream	Utility	20 LF temp. stream impact	0	N/A	N/A
3	Perennial Stream	Utility	21 LF temp. stream impact	0	N/A	N/A
4	Perennial Stream	Utility	35 LF temp. stream impact	0	N/A	N/A
5	Perennial Stream	Utility	36 LF temp. stream impact	0	N/A	N/A
6	Perennial Stream	Utility	35 LF temp. stream impact	0	N/A	N/A
7	Perennial Stream	Utility	20 LF temp. stream impact	0.123 ac. temp. wetland impact	N/A	N/A
8	Perennial Stream	Utility	24 LF temp. stream impact	0	N/A	N/A
9	Wetland	Utility	0	0.0140 temp. wetland impact	N/A	N/A
Original Permitted Totals:			1,653 LF perm. Stream impact & 211 LF temp. Stream impact	0.6655 ac. perm. Wetland impact & 0.137 ac. temp. Wetland impact		
New Permitted Totals 2007/2008					1,666 LF perm. Stream impact & 359 LF temp. Stream Impact	0.4422 ac. perm. Wetland impact & 0.156 ac. temp. Wetland impact

\* Crossings J and P were eliminated prior to 404 and 401 Approvals in 2006

TABLE 2  
2009 REVISED IMPACTS

Impact	Classification	Impact Type	Revised Stream Impacts	Revised Wetland Impacts
A	Wetland	Road Crossing	4 LF perm. stream impact	0.0372 ac. perm. wetland impact & 0.0264 ac. temp. wetland impact
B	Perennial Stream/Wetland	Road Crossing	166 LF perm. stream impact & 14 LF temp. stream impact	0.0018 ac. perm. wetland (NO CHANGE TO PERM) & 0.0063 ac. temp. wetland impact
C	Perennial Stream	Bridge	0	0
D	Perennial Stream/Wetland	Road Crossing	181 LF perm. stream impact & 39 LF temp. stream impact	0.0282 ac. perm. wetland impact & 0.0077 ac. temp. wetland impact
E	Perennial Stream	Road Crossing	129 LF perm. stream impact & 40 LF of temp. stream impact	0.0065 ac. perm. wetland impact
F	Perennial Stream	Road Crossing	213 LF perm. stream impact & 56 LF temp. stream impact	0
G	Perennial Stream/Wetland	Road Crossing	296 LF perm. stream impact & 26 LF temp. stream impact (NO CHANGE TO TEMP.)	0.0095 ac. perm. wetland impact
H	Perennial Stream	Road Crossing	257 LF perm. stream impact & 55 LF temp. stream impact	0
I	Perennial Stream/Wetland	Road Crossing	83 LF perm. stream impact & 22 LF perm. stream impact (NO CHANGE TO PERM.)	0.0003 ac. perm. wetland impact & 0.0196 ac. temp. wetland impact
L	Perennial Stream	Road Crossing	123 LF perm. stream impact & 20 LF of temp. stream impact	0
M	Perennial Stream	Road Crossing	310 LF perm. stream impact & 50 LF temp. stream impact	0
N	Wetland	Road Crossing/Lot Fill	0	0.3449 ac. perm. wetland impact
O	Perennial	Road Crossing	148 LF perm. stream impact & 8 LF temp. stream impact	0
S	Perennial Stream	Road Widening (NEW)	58 LF perm. stream impact & 24 LF temp. stream impact	0
T	Perennial Stream	Road Widening (NEW)	36 LF perm. stream impact & 20 LF temp. stream impact	0
U	Perennial Stream	Road Widening (NEW)	233 LF perm. stream impact & 21 LF temp. stream impact	0.009 ac. perm. wetland impact
1	Perennial Stream	Utility	20 LF temp. stream impact (NO CHANGE)	0
2	Perennial Stream	Utility	20 LF temp. stream impact (NO CHANGE)	0
3	Perennial Stream	Utility	21 LF temp. stream impact (NO CHANGE)	0
4	Perennial Stream	Utility	41 LF temp. stream impact	0
5	Perennial Stream	Utility	50 LF temp. stream impact	0
6	Perennial Stream	Utility	43 LF temp. stream impact	0
7	Perennial Stream	Utility	20 LF temp. stream impact (NO CHANGE)	0.123 ac. temp. wetland impact (NO CHANGE)
8	Perennial Stream	Utility	24 LF temp. stream impact (NO CHANGE)	0 (NO CHANGE)
9	Wetland	Utility	0 (NO CHANGE)	0.0140 temp. wetland impact (NO CHANGE)
<b>TOTALS</b>			<b>2,237 LF perm. stream impact &amp; 634 LF temp. stream impact</b>	<b>0.4374 ac. perm. wetland impact &amp; 0.197 ac. temp. wetland impact</b>

MODIFICATION REQUEST  
BRIAR CHAPEL, CHATHAM CO., NC

May 8, 2009  
S&EC PROJECT # 5815

TABLE 3  
NET DIFFERENCES IN IMPACTS

Impact	Classification	Impact Type	Net difference Stream Impact	Net difference Wetland Impact
A	Wetland	Road Crossing	+ 4 LF perm. stream impact	+0.0031 ac. perm. wetland impact & +0.0264 ac. temp wetland impact
B	Perennial Stream/Wetland	Road Crossing	+25 LF perm. stream impact & + 14LF temp. stream impact	+0.0063 ac. temp. wetland impact
C	Perennial Stream	Bridge	0	0
D	Perennial Stream/Wetland	Road Crossing	+41 LF perm. stream impact & +39 LF temp. stream impact	-0.0038 ac. perm. wetland impact & +0.0077 ac. temp. wetland impact
E	Perennial Stream	Road Crossing	0 LF perm. stream impact & + 40 LF temp. stream impact	+0.0001 ac. perm. wetland impact
F	Perennial Stream	Road Crossing	+16 LF perm. stream impact & +15 LF temp. stream impact	0
G	Perennial Stream/Wetland	Road Crossing	+25 LF perm. stream impact	-0.0005 ac. perm. wetland impact
H	Perennial Stream	Road Crossing	-5 LF perm. stream impact & +5 LF temp. stream impact	0
I	Perennial Stream/Wetland	Road Crossing	0 LF perm. stream impact & - 9 LF temp. stream impact	-0.0017 ac. perm. wetland impact & +0.0006 ac. temp. wetland impact
L	Perennial Stream	Road Crossing	+9 LF perm. stream impact & +20 LF temp. stream impact	0
M	Perennial Stream	Road Crossing	+90 LF perm. stream impact & +50 LF temp. stream impact	0
N	Wetland	Fill	0	-0.011 ac. perm. wetland impact
O	Perennial Stream	Road Crossing	+39 LF perm. stream impact & +8 LF temp. stream impact	0
S	Perennial Stream	Road Widening (NEW)	+58 LF perm. stream impact & +24 LF temp. stream impact	0
T	Perennial Stream	Road Widening (NEW)	+36 LF perm. stream impact & +20 LF temp. stream impact	0
U	Perennial Stream	Road Widening (NEW)	+233 LF perm. stream impact & +21 LF temp. stream impact	+0.009 ac. perm. wetland impact
1	Perennial Stream	Utility	0	0
2	Perennial Stream	Utility	0	0
3	Perennial Stream	Utility	0	0
4	Perennial Stream	Utility	+6 LF temp. stream impact	0
5	Perennial Stream	Utility	+14 LF temp. stream impact	0
6	Perennial Stream	Utility	+8 LF temp. stream impact	0
7	Perennial Stream	Utility	0	0
8	Perennial Stream	Utility	0	0
9	Wetland	Utility	0	-0.0048 ac. perm./+0.041 ac. temp.
TOTALS NET FOR PROJECT			+571 LF perm./+275 LF temp.	

**NCDENR DEH PUBLIC WATER SUPPLY  
WATER LINE EXTENSIONS**

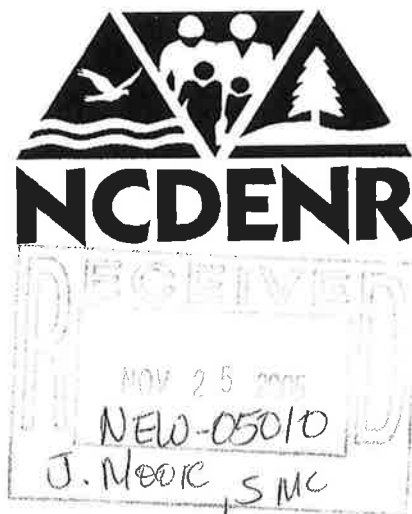
STATE OF NORTH CAROLINA  
DEPARTMENT OF ENVIRONMENT  
AND NATURAL RESOURCES

Division of Environmental Health  
Public Water Supply Section

Michael F. Easley, Governor  
William G. Ross Jr., Secretary  
Terry L. Pierce, Director  
Jessica G. Miles, Section Chief

November 22, 2005

CHARLIE R HORN  
Nnp-Briar Chapel  
5850 Fayetteville Road Ste 201  
Durham, NC 27713



Re: **Authorization to Construct**  
**BRIAR CHAPEL S/D, PH 1**  
**CHATHAM CO WATER SYSTEM**  
**CHATHAM County 0319126**

Dear Applicant:

This letter is to confirm that a complete Engineer's Report and a Water System Management Plan have been received, and that engineering plans and specifications have been approved by the Department for **BRIAR CHAPEL S/D, PH 1, DEH Serial No. 0501591**.

The Authorization to Construct is valid for 24 months from the date of this letter. Authorization to Construct may be extended if the Rules Governing Public Water Supplies and site conditions have not changed. The Authorization to Construct and the engineering plans and specifications approval letter, shall be posted at the primary entrance of the job site before and during construction.

Approval must be secured from the Department before any construction or installation if:

- Deviation from the approved engineering plans and specifications is necessary; or
- There are changes in site conditions affecting capacity, hydraulic conditions, operating units, the function of water treatment processes, the quality of water to be delivered, or conditions imposed by the Department in any approval letters.

Upon completion of the construction or modification and in accordance with Rule .0303, the applicant shall submit a certification statement directly to Heinrich Ou of this office. This statement must be signed and sealed by a registered professional engineer stating that construction was completed in accordance with approved engineering plans and specifications, including any provisions stipulated in the Department's engineering plan and specification approval letter. Prior to Final Approval, the applicant shall submit a signed certification stating that the requirements in 15A NCAC 18C .0307 (d) and (e) have been satisfied and if applicable, a completed application for an Operating Permit and fee. Once the certification statements and operating permit application and fee, if applicable, are received and determined adequate, the Department will grant Final Approval in accordance with Rule .0309 (a). Therefore, no construction, alteration, or expansion of a water system shall be placed into service until Final Approval has been issued by the Department.

If we can be of further assistance, please call (919) 733-2321.

Sincerely,

Tony C. Chen, P.E.  
Technical Services Branch  
Public Water Supply Section

TCC:OU

cc: MICHAEL L. DOUGLAS Regional Engineer  
The John R Mcadams Company



**State of North Carolina**  
**Department of Environment and Natural Resources**  
**Public Water System Authorization to Construct**

**Public Water System Name  
and PWSID No. (if available):**

CHATHAM CO WATER SYSTEM  
0319126

**Project Name:**

BRIAR CHAPEL S/D, PH 1

**Serial No.**

0501591

**Issue Date:**

11/21/2005

**Expiration Date:**

24 months after Issue Date

In accordance with NCAC 18C .0305, this Authorization to Construct must be posted for inspection at the primary entrance to the job site during construction.



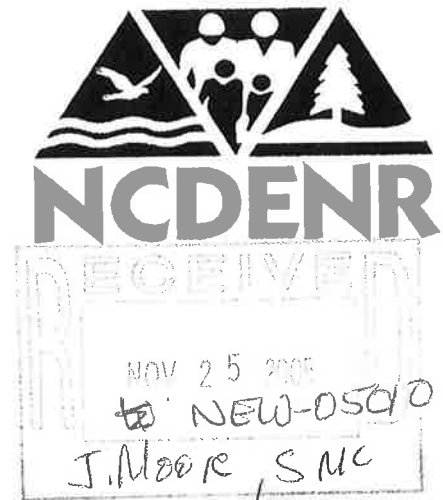
STATE OF NORTH CAROLINA  
DEPARTMENT OF ENVIRONMENT  
AND NATURAL RESOURCES

Division of Environmental Health  
Public Water Supply Section

Michael F. Easley, Governor  
William G. Ross Jr., Secretary  
Terry L. Pierce, Director  
Jessica G. Miles, Section Chief

November 22, 2005

Mr. Charlie R. Horn, Director  
Chatham County Public Works Utilities  
Post Office Box 910  
Pittsboro, North Carolina 27312-0910



Re: Engineering Plans and Specifications Approval  
Water Main Extension  
Chatham County Water Utility  
to serve Briar Chapel, Phase I  
Chatham County  
ID #03-19-126

**This is not an Authorization to Construct**

Dear Mr. Horn:

Enclosed please find one copy of the "Application for Approval..." together with one copy of the referenced engineering plans and specifications bearing the Division of Environmental Health stamp of approval for the referenced project. These engineering plans and specifications are approved under Division of Environmental Health serial number 05-01591, dated November 21, 2005.

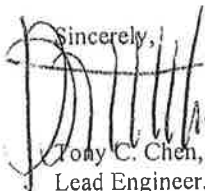
Engineering plans and specifications prepared by Richard Dickie, P.E., call for the installation of approximately 10,070 feet of 12-inch water main, valves, hydrants, a USC approved reduced pressure (RPZ) backflow preventer with hot box on the 2-inch Reclamation Facility Water service line and other related appurtenances along Plant Service Road, Road "B", Road "C" and Andrew's Store Road to serve Briar Chapel, Phase I project.

Please note that an "Authorization to Construct" requires both this approval of Engineering Plans and Specifications and submittal of a complete Water System Management Plan. No construction shall be undertaken, and no contract for construction, alteration, or installation shall be entered into until the Department issues an Authorization to Construct letter in accordance with 15A NCAC 18C.0305(a).

These plans and specifications cited in the foregoing application are approved insofar as the protection of public health is concerned as provided in the rules, standards and criteria adopted under the authority of Chapter 130A-317 of the General Statutes. This approval does not constitute a warranty of the design, construction or future operation of the water system.

One copy of each enclosed document is being forwarded to our Raleigh Regional Office. The third copy is being retained in our permanent files.

If we can be of further service, please call on us at (919) 733-2460.

Sincerely,  
  
Tony C. Chen, P.E.  
Lead Engineer, Plan Review  
Technical Services Branch

TCC:HSO:sep  
Enclosures: Approval Documents  
cc: Michael L. Douglas, P.E., Regional Engineer  
Chatham County Health Department  
The John R. McAdams Company, Inc.

# CHATHAM COUNTY EROSION AND SEDIMENTATION CONTROL



**Sustainable Communities Development Department  
Soil Erosion & Sedimentation Control Division**

**LETTER OF APPROVAL**

April 6, 2010

NNP Briar Chapel, LLC  
Attn: Bill Mumford  
16 Windy Knoll Circle  
Chapel Hill, NC 27516

RE: Project Name: Briar Chapel – Granite Mill Blvd  
Project Number: 2010-002  
Acres approved: 7.48  
Total Acres: 2.73  
Submitted By: McKim & Creed  
Date Received: 3-5-10

Dear Sir or Madam:

This office has reviewed the subject erosion and sedimentation control plan. We find the plan to be acceptable and hereby issue this Letter of Approval. The enclosed Certificate of Approval must be posted at the job site. This plan approval shall expire two (2) years following the date of approval, if no land-disturbing activity has been undertaken.

Section 10 (l) of the Chatham County Sedimentation and Erosion Control Ordinance requires that a copy of the approved erosion control plan be on file at the job site. Also, this letter gives the notice required by G.S. 113A-61.1(a) of our right of periodic inspection to insure compliance with the approved plan.

North Carolina's Sedimentation Pollution Control Act is performance-oriented, requiring protection of existing natural resources and adjoining properties. If, following the commencement of this project, the erosion and sedimentation control plan is inadequate to meet the requirements of the Chatham County Sedimentation and Erosion Control

Ordinance, this office may require revisions to the plan and implementation of the revisions to insure compliance with the Act.

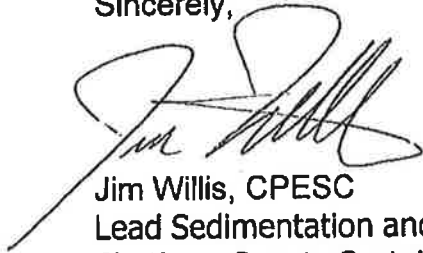
Acceptance and approval of this plan is conditioned upon your compliance with Federal and State water quality laws, regulations, and rules. In addition, local city or county ordinances or rules may also apply to this land-disturbing activity. This approval does not supersede any other permit or approval.

Please be aware that your project will be covered by the enclosed NPDES General Stormwater Permit NCGO1000 (Construction Activities). You should first become familiar with all of the requirements for compliance with the enclosed general permit.

Please note that this approval is based in part on the accuracy of the information provided in the Financial Responsibility Form, which you provided. You are requested to file an amended form if there is any change in the information included on the form. Please notify us when you would like to schedule a preconstruction conference. Notification shall be given at least 7 days prior to initiation of activity.

Your cooperation is appreciated.

Sincerely,

A handwritten signature in black ink, appearing to read "Jim Willis", with a large, stylized flourish extending from the bottom left.

Jim Willis, CPESC  
Lead Sedimentation and Erosion Control Officer  
Chatham County Sustainable Communities Development Department

Enclosures: Certificate of Approval  
NPDES Permit



Certificate of Sedimentation and Erosion Control Plan Approval and  
Land-Disturbing Permit  
For

BRIAR CHAPEL - GRANITE Mill BLVD

Project Name and Location

2010-002

Permit Number

The posting of this certificate certifies that an erosion and sedimentation control plan has been approved for this project by Chatham County, North Carolina in accordance with North Carolina General Statute 113A-57 (4) and 113A-54 (d)(4), the North Carolina Administrative Code, Title 15A, Chapter 4B.0007 (c) and as per applicable sections of the Chatham County Soil Erosion and Sedimentation Control Ordinance. This certificate must be posted at the primary entrance of the job site before construction begins and until establishment of permanent ground cover as required by North Carolina Administrative Code, Title 15A, Chapter 4B.0027 (b) and as per Chatham County's Erosion and Sediment Control Ordinance, Section 5 (d).

Responsible Person: Bill Mumford Phone: 951-0700  
NNP BRIAR CHAPEL, LLC

This plan was approved with "modifications" ☐ Yes ☒ No and / or  
"performance reservations" ☐ Yes ☒ No.

Reviewer: [Signature]

Date: 4-6-10

THE ORDINANCE REQUIRES THAT A COPY OF  
THE EROSION CONTROL PLAN  
MUST BE KEPT AVAILABLE AT THE JOB SITE  
AT ALL TIMES FOR INSPECTION

NCDOT APPROVAL  
ROADWAY PLANS



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE  
GOVERNOR

DIVISION OF HIGHWAYS

EUGENE A. CONTI, JR.  
SECRETARY

May 12, 2010

Chatham County

Subject: Subdivision - Final Plan Review - Granite Mill Boulevard and Boulder Point Drive  
Within the Briar Chapel Subdivision, off of SR 1528

McKim & Creed  
c/o Mr. Curt Blazier, PE  
1730 Varsity Drive, Suite 500  
Raleigh, NC 27606

Dear Mr. Blazier:

The N. C. Department of Transportation, Division of Highways has reviewed the construction plans signed and sealed by Mr. Grant Livengood, PE on April 30, 2010 as submitted to this office and approval is granted subject to the following stipulations and recommendations:

1. All Construction is to be in accordance with the details as shown on the plans, as well as conform to the most recent edition of the *Standard Specifications for Roads and Structures*.
2. A Driveway Permit # 19-846 has been previously issued with this package.
3. The entire 50' right of way is to be cleared and grubbed throughout the whole phase of the project. Please be aware that the areas within the sight distance quadrants are to be treated as right of way.
4. All soil areas within the proposed right of way and any other soil areas disturbed during construction shall be seeded and mulched immediately upon completion of roadway construction. The seeding shall be done as outlined in the seeding specification attachment.
5. The crossline drainage is approved as proposed on the construction plans. If, however field conditions dictate any changes, these shall be made upon approval by NCDOT. If any of the property owners desire to pipe their ditches within the proposed NCDOT right of way, please advise them that this work should conform to NCDOT specifications for this type of work (see attached). If any ditches are piped and not satisfactorily completed to NCDOT specifications, this could result in the road not being accepted for addition to the state maintained system of roads. Any ditches piped or other encroachment prior to addition to the state maintained system are subject to an encroachment agreement, as are utility companies, when the road is added.

P.O. BOX 1164, ASHEBORO, NORTH CAROLINA 27204  
PHONE (336) 629-1423 FAX (336) 629-7228



6. The typicals as shown in the plans, are approved.
7. The Division of Highways will only allow mailboxes, with non-rigid type post, such as 4" x 4" wooden or small diameter metal type on new additions. Brick columns or mailboxes on rigid stands such as block, stone or any other type deemed to be a traffic hazard will not be allowed within the right of way. This policy applies to all roads being considered for addition to the State Maintained System.
8. An erosion control plan shall require approval from Chatham County. The developer should forward this plan to the Chatham County Erosion and Sediment Control Officer, 80 East St., P.O. Box 130, Pittsboro, N.C. 27312, phone (919) 545-8343 for his review and approval.
9. As this subdivision is proposed to be public and is likely to be requested to be added to the state maintained system of roads, the developer will be responsible for providing a PE Certification, (See Attached) and testing results for base and asphalt density stating that the streets have been built in accordance with the most current "Subdivision Roads: Minimum Construction Standards" manual and with the attached approved plans. Please be advised that this PE Certification does not approve the road for addition to the State Highway System for maintenance. When the proper home density is achieved and roads have been satisfactorily maintained, the developer or property owners must submit Form SR-1, Petition for Road Addition (copy attached to this correspondence), and four (4) copies of the recorded plat to request that the road or roads be added to the State Highway system. Any maintenance problems found when the road is requested to be added must be repaired by the developer prior to the road becoming state maintained. As stated in GS 136-102.6, final acceptance by the Division of Highways of the public streets and placing them on the State highway system for maintenance shall be conclusive proof that the streets have been constructed according to the minimum standards of the Board of Transportation.
10. The developer shall comply with all applicable local, state, and federal environmental regulations, and shall obtain all necessary local, state, and federal environmental permits, including, but not limited to, those related to sediment control, stormwater, wetlands, streams, endangered species, and historical sites.
11. A properly completed Verification of Compliance with the Department of Environment and Natural Resources (DENR)(page 35, attached) must be submitted prior to the road(s) being considered for addition to the NCDOT System.
12. In preparing the final plat for certification by this office and subsequent recording, the following information will be incorporated:
  - A. The sight distance quadrants at the intersections shall be shown either as a public easement or as the property line.
  - B. Public easements for drainage throughout the development.
  - C. All roads shall be shown as public and the right of way width shown



13. If the plans of this subdivision change in a way that would cause a change in the classification of these roads from Local Residential to Residential Collector the developer will be responsible for upgrading roads to meet Residential Collector standards prior to addition the state maintenance system.
14. This approval does not approve the utilities within this subdivision. Any utilities shall be submitted for approval to this office via a properly executed Encroachment Agreement to be approved at the time the roads within the subdivision are petitioned to be added to the state system for maintenance. Please note that water valves should be located a minimum of 6' from edge of pavement, fire hydrants should be behind the right of way line and all service taps should be installed prior to paving.

If you have any further questions regarding this matter, please do not hesitate to call this office at (336) 629-1423.

Yours truly,



Reuben Blakley, PE  
District Engineer

#### Attachments

cc: Tim Johnson, P.E., Division Engineer  
B.F. Sloan, County Maintenance Engineer  
Lynn Richardson, Chatham County Planning  
Bill Mumford, PE, Newland Company  
File

# NCDOT DRIVEWAY PERMIT

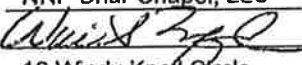
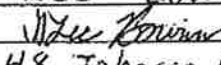
APPLICATION IDENTIFICATION		N.C. DEPARTMENT OF TRANSPORTATION STREET AND DRIVEWAY ACCESS PERMIT APPLICATION	
Driveway Permit No. <b>19-846</b>	Date of Application <b>March 25, 2010</b>		
County: <b>Chatham</b>			
Development Name: <b>Briar Chapel</b>			
LOCATION OF PROPERTY:			
Route/Road: <b>1528</b>			
Exact Distance <b>760</b>	<input type="checkbox"/> Miles <input checked="" type="checkbox"/> Feet	N <input type="checkbox"/> S <input type="checkbox"/> E <input type="checkbox"/> W <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	
From the Intersection of Route No. <b>1528</b>		and Route No. <b>1526</b>	Toward <b>Route 1532</b>
Property Will Be Used For: <input checked="" type="checkbox"/> Residential /Subdivision <input type="checkbox"/> Commercial <input type="checkbox"/> Educational Facilities <input type="checkbox"/> TND <input type="checkbox"/> Emergency Services <input type="checkbox"/> Other			
Property: <input type="checkbox"/> is <input checked="" type="checkbox"/> is not    within <b>Chapel Hill</b> City Zoning Area.			
AGREEMENT			
<ul style="list-style-type: none"> <li>• I, the undersigned property owner, request access and permission to construct driveway(s) or street(s) on public right-of-way at the above location.</li> <li>• I agree to construct and maintain driveway(s) or street entrance(s) in absolute conformance with the current "Policy on Street and Driveway Access to North Carolina Highways" as adopted by the North Carolina Department of Transportation.</li> <li>• I agree that no signs or objects will be placed on or over the public right-of-way other than those approved by NCDOT.</li> <li>• I agree that the driveway(s) or street(s) will be constructed as shown on the attached plans.</li> <li>• I agree that that driveway(s) or street(s) as used in this agreement include any approach tapers, storage lanes or speed change lanes as deemed necessary.</li> <li>• I agree that if any future improvements to the roadway become necessary, the portion of driveway(s) or street(s) located on public right-of-way will be considered the property of the North Carolina Department of Transportation, and I will not be entitled to reimbursement or have any claim for present expenditures for driveway or street construction.</li> <li>• I agree that this permit becomes void if construction of driveway(s) or street(s) is not completed within the time specified by the "Policy on Street and Driveway Access to North Carolina Highways".</li> <li>• I agree to pay a \$50 construction inspection fee. Make checks payable to NCDOT. This fee will be reimbursed if application is denied.</li> <li>• I agree to construct and maintain the driveway(s) or street(s) in a safe manner so as not to interfere with or endanger the public travel.</li> <li>• I agree to provide during construction proper signs, signal lights, flaggers and other warning devices for the protection of traffic in conformance with the current "Manual on Uniform Traffic Control Devices for Streets and Highways" and Amendments or Supplements thereto. Information as to the above rules and regulations may be obtained from the District Engineer.</li> <li>• I agree to indemnify and save harmless the North Carolina Department of Transportation from all damages and claims for damage that may arise by reason of this construction.</li> <li>• I agree that the North Carolina Department of Transportation will assume no responsibility for any damages that may be caused to such facilities, within the highway right-of-way limits, in carrying out its construction.</li> <li>• I agree to provide a Performance and Indemnity Bond in the amount specified by the Division of Highways for any construction proposed on the State Highway system.</li> <li>• The granting of this permit is subject to the regulatory powers of the NC Department of Transportation as provided by law and as set forth in the N.C. Policy on Driveways and shall not be construed as a contract access point.</li> <li>• <b>I AGREE TO NOTIFY THE DISTRICT ENGINEER WHEN THE PROPOSED WORK BEGINS AND WHEN IT IS COMPLETED.</b></li> </ul>			

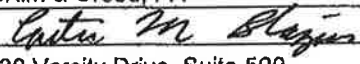

2004-01

NOTE: Submit Four Copies of Application to Local District Engineer, N.C. Department of Transportation  
61-03419

TEB 65-04rev.

## SIGNATURES OF APPLICANT

PROPERTY OWNER (APPLICANT)		WITNESS	
COMPANY	NNP Briar Chapel, LLC	NAME	Lee Bowman
SIGNATURE		SIGNATURE	
ADDRESS	16 Windy Knoll Circle Chapel Hill, NC 27516 Phone No. (919) 951-0710	ADDRESS	48 Tobacco Farm Way Chapel Hill, NC 27516

AUTHORIZED AGENT		WITNESS	
COMPANY	McKim & Creed, PA	NAME	Chris Seamster
SIGNATURE		SIGNATURE	
ADDRESS	1730 Varsity Drive, Suite 500 Raleigh, NC 27606 Phone No. (919) 233-8091	ADDRESS	1730 Varsity Drive, Suite 500 Raleigh, NC 27606

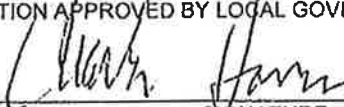
## APPROVALS

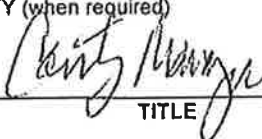
APPLICATION RECEIVED BY DISTRICT ENGINEER

  
SIGNATURE

4/30/2010  
DATE

APPLICATION APPROVED BY LOCAL GOVERNMENTAL AUTHORITY (when required)

  
SIGNATURE

  
TITLE

4/28/10  
DATE

APPLICATION APPROVED BY DISTRICT ENGINEER

  
SIGNATURE

5/12/2010  
DATE

INSPECTION BY NCDOT

SIGNATURE	TITLE	DATE
-----------	-------	------

**CHATHAM COUNTY SCHOOLS**  
**ROAD REVIEW REQUEST LETTER**



ENGINEERS

SURVEYORS

PLANNERS

M&C 02735-0065 (40)

January 7, 2011

**Mr. Robert Logan, Superintendent**  
Chatham County Schools  
P. O. Box 128  
Pittsboro, North Carolina 27312

**RE: Briar Chapel – Granite Mill Blvd.  
Final Plat Submittal**

Dear Mr. Logan:

McKim & Creed, PA represents the applicant in connection with an application for final plat approval for a subdivision referred to as "Briar Chapel – Granite Mill Boulevard." The developer is now requesting final plat review for the right-of-way and easement dedication for Granite Mill Boulevard and Boulder Point Drive. The Chatham County Major Subdivision Review Checklist for preliminary/final plat applications makes reference to comments, if any, from Chatham County school system regarding the proposed roads.

Enclosed is a copy of the proposed final plat showing the two above mentioned roadways and their connection to Andrews Store Road. Please let us know if the school system has any comments regarding the roadways. If you need any further information, please let me know.

If you have any questions during your review, please do not hesitate to give me a call at 919.233.8091.

Sincerely,  
**McKIM & CREED, P.A.**

Curt Blazier, PE, LEED AP  
Project Engineer

cc: Mr. Lee Bowman  
Mr. Bill Mumford, PE

Enclosure

Venture IV Building

Suite 500

1730 Varsity Drive

Raleigh, NC 27606

919.233.8091

Fax 919.233.8031

[www.mckimcreed.com](http://www.mckimcreed.com)

**EMERGENCY OPERATIONS  
ROAD NAME REQUEST FORM**

SUBDIVISION: BRIAR CHAPEL

DIRECTIONS: 15-501 NORTH FROM PITTSBURG, LEFT AT  
ANDREWS STORE ROAD APPROX. 6.5 MILES NORTH OF US-64, RIGHT ON  
GRANITE MILL BLVD AFTER 1.3 MILES

DEVELOPER: NEWLAND COMMUNITIES PHONE NUMBER: (914) 951-0700  
NNP-BRIAR CHAPEL, LLC

Major Development: ✓ Minor Development: \_\_\_\_\_

Development with acreage of 10 acreage of 10 acres or more: \_\_\_\_\_

Proposed road names	OK to submit	DUPLICATED Do not Submit
<u>GRANITE MILL BLVD</u>	_____	_____
<u>BOULDER POINT DRIVE</u>	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

DATE SUBMITTED TO EOC: 1/3/11  
SUBMITTED BY: CURT BLAZIER, M<sup>o</sup>Kim & CREED, PA  
EOC OFFICER: \_\_\_\_\_  
DATE ROADS APPROVED: \_\_\_\_\_  
DATE FINAL PLAT RECEIVED: \_\_\_\_\_  
DATE GIVEN TO 911: \_\_\_\_\_  
DATE CONTACT MADE WITH NUMBERS: \_\_\_\_\_  
SURROUNDING COUNTY CONTACTED: \_\_\_\_\_  
PERSON SPOKEN WITH: \_\_\_\_\_  
COMMENTS: \_\_\_\_\_

revised 4/19/02





## Curtis M Blazier

---

**From:** Curtis M Blazier  
**Sent:** Monday, January 03, 2011 11:37 AM  
**To:** 'denise.suits@chathamnc.org'  
**Subject:** Briar Chapel - Granite Mill Blvd  
**Attachments:** Road Name Request form.pdf

Denise -

Attached is the road name request form for Granite Mill Blvd and Boulder Point Drive that we discussed on Thursday of last week. This is for the plat submittal which we are submitting on Friday to the County.

Please let me know if you have any questions. Thanks.

Curtis M Blazier, PE, LEED AP  
Civil Engineer

---

**MCKIM&CREED**

ENGINEERS SURVEYORS PLANNERS

1730 Varsity Drive, Suite 500  
Raleigh, NC 27606

919.233.5261 x182  
919.233.8031 fax

<http://www.mckimcreed.com>

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*Please consider the environment before printing this e-mail.*

# ROADWAY COMPLETION FINANCIAL GUARANTEE

January 6, 2011

M&C 02735-0065 (40)

**Lynn Richardson**  
**Chatham County Planning**  
80-A East Street  
Pittsboro, NC 27312-0130

**RE: Briar Chapel – Granite Mill Blvd.**  
**Subdivision Plat Submittal**  
**Financial Guarantee of Completion**

Ms. Richardson:

This letter is to provide information regarding the total cost of improvements for submission of Financial Guarantee of Completion for the work related to the above-referenced project.

Opinion of Probable Cost (Attachment A) covers roadway improvements for the following: staking, clearing and grubbing, erosion control, grading, seeding, storm drainage, curb and gutter, paving, sidewalk, traffic control, striping, and signage. Total Opinion of Probable Cost for the improvements is \$931,750. As of January 6, 2011, these improvements are approximately 95.4% complete.

The above improvements will be installed in accordance with the standard specifications and design guidelines of NCDOT and Chatham County.

The Opinion of Probable Cost is valid until all the improvements are completed.

The amount of incomplete work is \$42,500 and the amount of the bond required will be \$59,500. This bond amount includes the 40% increase as required by Chatham County.

The undersigned certifies that the information provided herein is true and accurate to the best of his knowledge.

If you have any question, please do not hesitate to give me a call at 919.233.8091.

Sincerely,

**McKIM & CREED, P.A.**

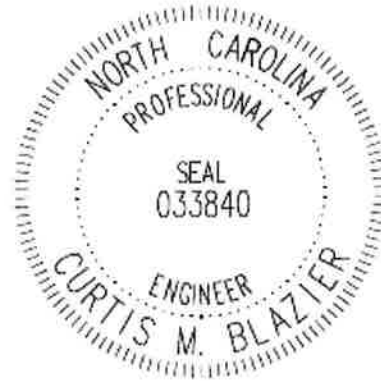
*Curtis M. Blazier*

Curt Blazier, PE, LEED AP  
Project Engineer

cc: Mr. Lee Bowman  
Mr. Bill Mumford, PE

CMB

Attachment



# ATTACHMENT A

Description	Job #	Cost Code	Description	Scheduled Value	% This Period	Amount This Period	Previous Amount	Total To Date	% Complete
Granite Mill Blvd	118905010000	2310120	Mobilization	\$ -	0.00	\$0.00	\$0.00	\$0.00	
		2220310	Construction Staking	\$ 10,020.00	0.00	\$0.00	\$0.00	\$10,020.00	100
		2310100	Site Clearing & Grubbing	\$ 5,397.45	0.00	\$0.00	\$0.00	\$5,397.45	100
		2341110	Signage	\$ 2,235.00	0.00	\$0.00	\$2,235.00	\$2,235.00	100
		2310510	Grading (Un-Classified)	\$ 169,424.30	0.00	\$0.00	\$0.00	\$169,424.30	100
		2340210	Paving-Stone Base	\$ 236,788.00	0.00	\$0.00	\$153,912.20	\$236,788.00	100
		2361110	Storm Water System	\$ 253,358.50	0.00	\$0.00	\$0.00	\$253,358.50	100
		2340810	Curb & Gutter	\$ 47,995.60	0.00	\$0.00	\$19,169.24	\$47,995.60	100
		2310810	Erosion Control	\$ 77,542.60	0.00	\$0.00	\$14,389.60	\$77,542.60	100
		2340610	Traffic Control	\$ 2,070.00	0.00	\$0.00	\$1,035.00	\$2,070.00	100
		2340410	Sidewalk	\$ 59,900.00	0.00	\$0.00	\$35,341.00	\$59,900.00	100
		2341010	Striping	\$ 2,210.00	0.00	\$0.00	\$2,210.00	\$2,210.00	100
Subtotal				\$ 866,941.45		\$0.00		\$866,941.45	
JOB TOTAL				\$ 866,941.45		\$0.00		\$866,941.45	
CHANGE ORDER #1									
Description	Job #	Cost Code	Description	Scheduled Value	% This Period	Amount This Period	Previous Amount	Total To Date	% Complete
Granite Mill Blvd	118905010000	2360210	Water Trunk System	\$ 13,800.00	0.00	\$0.00	\$0.00	\$13,800.00	100
		2361250	Conduit	\$ 4,368.00	0.00	\$0.00	\$0.00	\$4,368.00	100
Subtotal				\$ 18,168.00		\$0.00		\$18,168.00	
CHANGE ORDER #2									
Description	Job #	Cost Code	Description	Scheduled Value	% This Period	Amount This Period	Previous Amount	Total To Date	% Complete
Granite Mill Blvd	118905010000	2360210	Water Trunk System	\$ 4,140.00	0.00	\$0.00	\$4,140.00	\$4,140.00	100
Subtotal				\$ 4,140.00		\$0.00		\$4,140.00	
CHANGE ORDER TOTAL				\$ 22,308.00		\$0.00		\$22,308.00	
REVISED CONTRACT TOTAL				\$ 889,249.45		\$0.00		\$889,249.45	
							ROUNDED	\$889,249.45	

Description	Scheduled Value	Total to Date	% Complete
Asphalt – 1" surface course	\$ 37,500	\$ 0	0
Erosion Control	\$ 5,000	\$ 0	0
Subtotal	\$ 931,750	\$ 889,250	% 95.4