



North Carolina Department of Environment and Natural Resources  
Division of Water Resources

Pat McCrory  
Governor

Thomas A. Reeder  
Director

John E. Skvarla III  
Secretary

November 21, 2013

CHARLIE HORNE, COUNTY MANAGER  
THATHAM COUNTY BOARD OF COMMISSIONERS  
P O BOX 1550  
PITTSBORO, NC 27312

Re: **Authorization to Construct**  
WESTFALL SUBDIVISION PHASE 2C  
CHATHAM CO WATER SYSTEM  
CHATHAM COUNTY, NC0319126

**Authorization to Construct (This is not a Final Approval)**

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 **WESTFALL SUBDIVISION PHASE 2C, Serial No. 13-00947**.

The Authorization to Construct is valid for 24 months from the **Issue Date** (refer to next page). Authorization to Construct may be extended if the Rules Governing Public Water Supplies and site conditions have not changed (see Rule .0305). 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.

Upon completion of the construction or modification, and prior to **placing the new construction or modification into service**, the applicant must submit an Engineer's Certification and Applicant Certification directly to RICHARD DICKIE, P.E. of this office.

- **Engineer Certification:** in accordance with Rule .0303 (a), the applicant shall submit a certification statement 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.
- **Applicant Certification:** in accordance with Rule .0303 (c), the applicant shall submit a signed certification statement indicating that the requirements for an Operation and Maintenance Plan and Emergency Management Plan have been satisfied in accordance with Rule .0307 (d) and (e) and that the system has a certified operator in accordance with Rule .1300. The "Applicant Certification" form is available at <http://www.deh.enr.state.nc.us/pws/> (click on Plan Review Forms, under Plan Review heading).

If this Authorization to Construct is for a new public water system, the owner must submit a completed **application for an Operating Permit** and the appropriate fee. For a copy of the application for an Operating Permit please call (919) 707-9085.

Once the certifications and permit application and fee, (if applicable), are received and determined adequate, the Department will issue a Final Approval letter to the applicant. In accordance with Rule .0309 (a), **no portion of this project shall be placed into service until the Department has issued Final Approval.**

Sincerely,

Siraj Chohan, P.E.  
Plan Review Team Leader

cc: Michael Douglas, P.E., REGIONAL ENGINEER  
C E GROUP INC



North Carolina Department of Environment and Natural Resources  
Division of Water Resources

Public Water System Authorization to Construct

|   |                                      |
|---|--------------------------------------|
| Public Water System Name<br>and Water System No.: | CHATHAM CO WATER SYSTEM<br>NC0319126 |
| Project Name:                                     | WESTFALL SUBDIVISION PHASE 2C        |
| Serial No.:                                       | 13-00947                             |
| Issue Date:                                       | 11/20/2013                           |
| Expiration Date:                                  | 24 Months after Issue Date           |

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



North Carolina Department of Environment and Natural Resources

Division of Water Resources

Pat McCrory  
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Director

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Secretary

November 20, 2013

Mr. Charlie Horne, County Manager  
Chatham County  
Post Office Box 1550  
Pittsboro, North Carolina 27312

Re: Engineering Plans and Specifications Approval  
Water Main Extension  
Westfall Subdivision, Phase 2C  
Chatham County Water System  
Water System No.: NC0319126, Chatham Co.  
Serial No. 13-00947

Dear Mr. Horne:

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 Water Resources stamp of approval for the referenced project. These engineering plans and specifications are approved under Division of Water Resources Serial Number 13-00947, dated November 20, 2013.

Engineering plans and specifications prepared by Mark P. Ashness, P.E, call for the installation of approximately 335 feet of 8-inch ductile iron pipe water main, 536 feet of 6-inch ductile iron pipe water main, 428 feet of 2-inch PVC pipe water main, 2 fire hydrants, valves and other appurtenances to serve Phase 2C of the Westfall Subdivision, located off of Wood Laurel Lane, north of Jack Bennett Road.

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 installations shall be entered into until the Department issues an Authorization to Construct letter in accordance with 15A NCAC 18C .0305(a).

Please also note that in accordance with 15A NCAC 18C .0309(a), no construction, alteration, or expansion of a water system shall be placed into service or made available for human consumption until the Public Water Supply Section has issued Final Approval. Final Approval will be issued and mailed to the applicant upon receipt of both an Engineer's Certification and an Applicant's Certification submitted in accordance 15 A NCAC 18C .0303 (a) and (c).

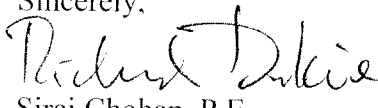
These plans and specifications in the foregoing application are approved insofar as the protection of public health is concerned as provided in the rules, standards and criteria adopted under the authority of Chapter 130A-317 of the General Statutes. This approval does not constitute a warranty of the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

Mr. Charlie Horne  
Page 2 of 2  
November 20, 2013

One copy of the "Application for Approval..." and a copy of the plans and specifications with a seal of approval from the department are enclosed. One copy of the approved documents in a digital format (CD) is being forwarded to our Raleigh Regional Office. The second copy of the CD is being retained in our office for permanent records.

If the Public Water Supply Section can be of further service, please call (919) 707-9100.

Sincerely,

  
Siraj Chohan, P.E.  
Plan Review Team Leader

SMC/RJD

Enclosures: Approval Document

cc: Michael Douglas, P.E., Raleigh Regional Office  
Chatham County Health Department  
Mark P. Ashness, P.E., CE Group, Inc.  
Leonard McBryde, III, P.E., Chatham County Public Utilities Director



MAJOR SUBDIVISION - CONSTRUCTION PLAN

Subdivision Name: Westfall Subdivision Phase 2C

Property Owner/Applicant:

Surveyor / Engineer:

Name: Westfall Associates, LLC

Name: Joe Faulkner, RLA

Address: 140 Towerview Ct.
Cary, NC 27513

Company Name: CE Group, Inc.

Address: 301 Glenwood Avenue Suite 220

Phone: (W) 919-463-9940 ext. 104

Raleigh, NC 27603

(H)

Phone: (W) 919-367-8790 ext 102

919-417-449

919-606-7703

(C)

(C)

Fax: 919-463-9983

Fax: 919-322-0032

Email: cdavidso@nvrinc.com

Email: joe@cegroupinc.com

Parcel # (AKIPAR): 18931 P.I.N. # 9785-41-6531 Zoning District: R-1 (w/CUP for PRD)

Flood Map # 3710978400J Zone: X Watershed District: Jordan Lake

Existing Access Road (S. R. # and name): Jack Bennett Road (SR 1717)

Phased Development/Development Schedule? YES [ ] NO [X] Phases #

Total Acreage 15.6 acres Total # of Lots 25 Min. Lot Size (Acres) 0.28 acres

Max. Lot Size 0.52 acres Avg. Lot Size 0.37 acres # Exempt Lots (over 10 ac.) 0

Please attached a DETAILED Phasing Schedule or Development Schedule (for subdivisions consisting of 50 Lots or More).

Mixed-Use YES [ ] NO [X] Multi-Family (Townhomes, Apts., etc.) YES [ ] NO [X]

Proposed Number of Lots: Residential 25 Commercial Other

If Other, Specify (i.e. recreation)

Are there historical structures located on the property that may be 50 years or older, i.e. cemetery, fences, chimneys, structures. Yes [ ] No [X] If yes, type of structure(s) and date and type of contact, i.e. on-site visit, telephone, letter, with Chatham County Historical Association:

Type of Wastewater Disposal: Individual Septic [ ] Community Septic [ ] Public System [X]

Type of Water System: Individual Well [ ] Community Well(s) [ ] Public System [X]

Public Water System Name: Chatham County

Public Wastewater System Name (ex. Aqua NC): Aqua, NC

Type of Road: Private  Length (mi.): 0.23 Public  Length (mi.): \_\_\_\_\_

Road Surface: Paved  Gravel  Width of Road Surface (feet) 27-feet B-B

Type and Acreage of Other Facilities (ex. Recreation, Mixed-Use, Commercial, etc.):  
 \_\_\_\_\_  
 \_\_\_\_\_

**PERMITS/APPROVALS REQUIRED: (copies of all required permits shall be included with Construction Plan submittal)**

- |  |   |            |   |
|--|---|------------|---|
| NCDOT ROAD PLAN APPROVAL                         | YES <input type="checkbox"/>            | DATE _____ | N/A <input checked="" type="checkbox"/> |
| NCDOT COMMERCIAL DRIVEWAY PERMIT                 | YES <input type="checkbox"/>            | DATE _____ | N/A <input checked="" type="checkbox"/> |
| EROSION CONTROL PLAN APPROVAL                    | YES <input checked="" type="checkbox"/> | DATE _____ | N/A <input type="checkbox"/>            |
| STORMWATER PLAN APPROVAL                         | YES <input checked="" type="checkbox"/> | DATE _____ | N/A <input type="checkbox"/>            |
| NCDENR (401 WATER QUALITY CERT)                  | YES <input type="checkbox"/>            | DATE _____ | N/A <input checked="" type="checkbox"/> |
| U.S. ARMY CORPS OF ENGINEERS (404 STREAM IMPACT) | YES <input type="checkbox"/>            | DATE _____ | N/A <input checked="" type="checkbox"/> |
| ROAD NAME REQUEST FORM                           | YES <input checked="" type="checkbox"/> | DATE _____ | N/A <input type="checkbox"/>            |
| COUNTY PUBLIC WATER APPROVAL                     | YES <input checked="" type="checkbox"/> | DATE _____ | N/A <input type="checkbox"/>            |
| STATE PUBLIC WATER APPROVAL (NCDENR)             | YES <input checked="" type="checkbox"/> | DATE _____ | N/A <input type="checkbox"/>            |
| NCDENR DWQ (WASTE WATER TREATMENT PLANT)         | YES <input checked="" type="checkbox"/> | DATE _____ | N/A <input type="checkbox"/>            |
| SOIL SCIENTIST REPORT                            | YES <input type="checkbox"/>            | DATE _____ | N/A <input checked="" type="checkbox"/> |
| OTHER:   |   |            |   |

**Include one (1) paper copy and (1) electronic copy of all items above (see Digital Document Requirements) and 10 paper copies of Construction Plan (scale not to be more than 200 feet to 1 inch)**

\_\_\_\_\_  
**Signature of Property Owner/Applicant** **Date**

*For Staff Use Only*

Date Received \_\_\_\_\_ By \_\_\_\_\_

Date Review Completed \_\_\_\_\_ Date Applicant Contacted \_\_\_\_\_

TRC Meeting Date: \_\_\_\_\_ Construction Plan Approval Date: \_\_\_\_\_



Chatham County Planning Department  
 80-A East Street  
 P.O. Box 54, Pittsboro, NC 27312-0054  
 Phone: 919-542-8204

**MAJOR SUBDIVISION – CONSTRUCTION PLAN**

**Subdivision Name:** Westfall Subdivision Phase 2C

**Property Owner/Applicant:**

Name: Westfall Associates, LLC  
 Address: 140 Towerview Ct.  
Cary, NC 27513  
 Phone: (W) 919-463-9940 ext. 104  
 (H) \_\_\_\_\_  
919-417-449  
 (C) \_\_\_\_\_  
 Fax: 919-463-9983  
 Email: cdavidso@nvrinc.com

**Surveyor / Engineer:**

Name: Joe Faulkner, RLA  
 Company Name: CE Group, Inc.  
 Address: 301 Glenwood Avenue Suite 220  
Raleigh, NC 27603  
 Phone: (W) 919-367-8790 ext 102  
 (C) 919-606-7703  
 Fax: 919-322-0032  
 Email: joe@cegrouppinc.com

**Parcel # (AKPAR):** 18931 **P.I.N. #** 9785-41-6531 **Zoning District:** R-1 (w/CUP for PRD)

**Flood Map #** 3710978400J **Zone:** X **Watershed District:** Jordan Lake

**Existing Access Road (S. R. # and name):** Jack Bennett Road (SR 1717)

**Phased Development/Development Schedule?** YES  **NO**  **Phases #** \_\_\_\_\_

**Total Acreage** 15.6 acres **Total # of Lots** 25 **Min. Lot Size (Acres)** 0.28 acres

**Max. Lot Size** 0.52 acres **Avg. Lot Size** 0.37 acres **# Exempt Lots (over 10 ac.)** 0

*Please attached a **DETAILED** Phasing Schedule or Development Schedule (for subdivisions consisting of 50 Lots or More).*

**Mixed-Use** YES  **NO**  **Multi-Family (Townhomes, Apts., etc.)** YES  **NO**

**Proposed Number of Lots: Residential** 25 **Commercial** \_\_\_\_\_ **Other** \_\_\_\_\_

**If Other, Specify (i.e. recreation)** \_\_\_\_\_

**Are there historical structures located on the property that may be 50 years or older, i.e. cemetery, fences, chimneys, structures.** Yes  **No**  **If yes, type of structure(s)** \_\_\_\_\_  
**and date and type of contact, i.e. on-site visit, telephone, letter, with Chatham County Historical Association:** \_\_\_\_\_

**Type of Wastewater Disposal:** Individual Septic  Community Septic  **Public System**

**Type of Water System:** Individual Well  Community Well(s)  **Public System**

Public Water System Name: Chatham County

Public Wastewater System Name (ex. Aqua NC): Aqua, NC

Type of Road: Private  Length (mi.): 0.23 Public  Length (mi.): \_\_\_\_\_

Road Surface: Paved  Gravel  Width of Road Surface (feet) 27-feet B-B

Type and Acreage of Other Facilities (ex. Recreation, Mixed-Use, Commercial, etc.):  
\_\_\_\_\_  
\_\_\_\_\_

**PERMITS/APPROVALS REQUIRED: (copies of all required permits shall be included with Construction Plan submittal)**

- NCDOT ROAD PLAN APPROVAL YES  DATE \_\_\_\_\_ N/A
- NCDOT COMMERCIAL DRIVEWAY PERMIT YES  DATE \_\_\_\_\_ N/A
- EROSION CONTROL PLAN APPROVAL YES  DATE \_\_\_\_\_ N/A
- STORMWATER PLAN APPROVAL YES  DATE \_\_\_\_\_ N/A
- NCDENR (401 WATER QUALITY CERT) YES  DATE \_\_\_\_\_ N/A
- U.S. ARMY CORPS OF ENGINEERS (404 STREAM IMPACT) YES  DATE \_\_\_\_\_ N/A
- ROAD NAME REQUEST FORM YES  DATE \_\_\_\_\_ N/A
- COUNTY PUBLIC WATER APPROVAL YES  DATE \_\_\_\_\_ N/A
- STATE PUBLIC WATER APPROVAL (NCDENR) YES  DATE \_\_\_\_\_ N/A
- NCDENR DWQ (WASTE WATER TREATMENT PLANT) YES  DATE \_\_\_\_\_ N/A
- SOIL SCIENTIST REPORT YES  DATE \_\_\_\_\_ N/A

OTHER:

Include one (1) paper copy and (1) electronic copy of all items above (see Digital Document Requirements) and 10 paper copies of Construction Plan (scale not to be more than 200 feet to 1 inch)

*Jean R. Tubell*

Signature of Property Owner/Applicant

11-26-13  
Date

|                             |  |
|-----------------------------|--|
| <b>For Staff Use Only</b>   |  |
| Date Received _____         | By _____                               |
| Date Review Completed _____ | Date Applicant Contacted _____         |
| TRC Meeting Date: _____     | Construction Plan Approval Date: _____ |



**SUBDIVISION:** Westfall Subdivision

**DIRECTIONS:** Phase C Section entrance off of Jack Bennett Road onto Wood Laurel Lane

**DEVELOPER:** Westfall Associates, LLC **PHONE NUMBER:** 919-417-4429

**Major Development:** X **Minor Development:** \_\_\_\_\_  
**Development with acreage of 10 acreage of 10 acres or more:** Yes

| Proposed road names        | OK to submit | DUPLICATED<br>Do not Submit |
|----------------------------|--------------|-----------------------------|
| <u>Dover Ridge Court</u>   | <u>✓</u>     |                             |
| <u>Dover Grant Court</u>   | <u>✓</u>     |                             |
| <u>Dover Hill Court</u>    | <u>✓</u>     |                             |
| <u>Sweetbriar Court</u>    |              | <u>X</u>                    |
| <u>Renwood Court</u>       | <u>✓</u>     |                             |
| <u>Renwood Grant Court</u> | <u>✓</u>     |                             |
|                            |              |                             |
|                            |              |                             |

**DATE SUBMITTED TO EOC:** 11-26-13

**SUBMITTED BY:** Joe Faulkner

**EOC OFFICER:** Denise Suits

**DATE ROADS APPROVED:** 11-26-13

**DATE FINAL PLAT RECEIVED:** \_\_\_\_\_

**DATE GIVEN TO 911:** \_\_\_\_\_

**DATE CONTACT MADE WITH NUMBERS:** \_\_\_\_\_

**SURROUNDING COUNTY CONTACTED:** \_\_\_\_\_

**PERSON SPOKEN WITH:** \_\_\_\_\_

**COMMENTS:** \_\_\_\_\_

revised 4/19/02





# Chatham County Stormwater Permit Application

**FOR OFFICE USE ONLY**

|              |       |
|--------------|-------|
| Review Fee:  | _____ |
| Permit No.:  | _____ |
| Date Issued: | _____ |
| Date Paid:   | _____ |
| Check No.:   | _____ |
| Rec'd By:    | _____ |

**Section A. SUMMARY INFORMATION**

DEVELOPMENT NAME: Westfall Subdivision Phase 2C

LOCATION: within existing Westfall Subdivision

PARCEL ID NUMBER: 9785-41-6531

TOTAL ACRES: 15.60 - 11.7 Drainage Area TOTAL DWELLING UNITS (if applicable): 25 Lots

TOTAL Disturbed Area: 4.20 acres % Built Upon Area: 17.8% (overall) TOTAL Built Upon Area: 3.95 ac.

**Section B. APPLICANT INFORMATION****OWNER (Owner or Developer)**

Owner: Jan R. Futrell, member-manager Phone: 919-815-0202

Company: Westfall Associates, LLC Fax: \_\_\_\_\_

Address: 128 Yorkchester Way

City, State: Raleigh, NC Zip: 27615

Email Address: janfutrell@hotmail.com

**CONSULTANT (Person to contact regarding questions or revisions to the plan)**

Contact Name: Joe Faulkner Phone: 919-367-8790 ext. 102

Company: CE Group, Inc. Fax: 919-322-0032

Address: 301 Glenwood Avenue Suite 220

City, State: Raleigh, NC Zip: 27603

Email Address: joe@cegroupinc.com

**ALL ITEMS ON THIS APPLICATION MUST BE ADDRESSED PRIOR TO SUBMITTAL.  
ALL INCOMPLETE SUBMITTALS WILL BE RETURNED.**

**Section C. REQUIRED ITEMS CHECKLIST**

The following checklists outline submittal requirements. Initial in the space provided to indicate the following submittal requirements have been met and supporting documentation is attached.

| <b>General Requirements:</b><br><i>(Applicant's Initials)</i> |     |   |
|---|-----|---|
|   | 1.  | Sheets shall be no larger than 36" x 24" plan and profile paper.  |
|   | 2.  | Minimum text size shall be 1/8".  |
|   | 3.  | Scale on plan view shall be no smaller than 1" = 50'; scale on profile view shall be no smaller than 1" = 50' horizontally and 1" = 5' vertically using a grid showing 1' intervals.  |
|   | 4.  | All drawings to be in North Carolina State Plane coordinate system.   |
|   | 5.  | Cover sheet shall have a vicinity map at a scale no smaller than 1" = 200'.   |
|   | 6.  | Provide a legend indicating existing and proposed lines, features and symbols.  |
|   | 7.  | Cover sheet shall include all general notes, owner's name, telephone number, and mailing address.   |
|   | 8.  | All elevations shall be given in relation to mean sea level; elevations in profile view shall be labeled in 10' intervals on the heavy lines (Ex. 350, 360).  |
|   | 9.  | Benchmark elevations and locations shall be shown on plan view.   |
|   | 10. | Plan views shall have a north arrow on each drawing.  |
|   | 11. | Each drawing shall have the following information in the title block: Street or project title, limits, horizontal and vertical scales, original date, revisions date, drawing number, checked by and drawn by. Recommended placement is lower right-hand corner.  |
|   | 12. | All drawings sealed, signed and dated by a NC Professional Engineer or Landscape Architect.   |
|   | 13. | A signed and sealed statement on the plans certifying that the design of all stormwater management facilities and practices will control and treat the runoff from the from the 1 year-1hour storm over the total drainage area, that the designs and plans are sufficient to comply with applicable standards and policies found in the <i>NC DENR Stormwater BMP Design Manual</i> , and that the designs and plans ensure compliance with the County's Stormwater Ordinance. |
|   | 14. | Plan view shall show all actual street names. State road numbers shall be shown if applicable. Plan view should also indicate whether street is asphalt, concrete, gravel or dirt. Proposed street & Right-of-way widths will be dimensioned back-to-back and labeled in plan view.   |
|   | 15. | Plan view shall show proposed and existing curb and gutter, pavement, storm sewers, drainage structures, driveway pipes, water mains, sanitary sewer mains, etc. All available elevations shall be shown on the profile view. Direction of flow shall be shown on plan view for all sanitary sewers and storm drains. Materials and pipe sizes shall be labeled.  |
|   | 16. | Existing utility lines shall be shown and labeled on plan view and indicated in the legend.   |
|   | 17. | Plans shall show final proposed locations and dimensions of all water, storm drain, and sanitary sewer lines, devices to be installed on the system, catch basins, culverts, ditches, including grades, pipes sizes, elevations, assumptions, calculations, invert elevations for all inlets and manholes and profiles of sanitary sewer lines.   |

|   |     |  |
|---|-----|--|
|   | 18. | All existing and proposed water, storm drainage and sanitary sewer easements shall be shown on all applicable sheets.  |
|   | 19. | Number of dwelling units.  |
|   | 20. | Existing and proposed topographic lines (minimum 2-foot intervals).  |
|   | 21. | Streams, ponds, wetlands, etc. on the project site and within 50 feet of the property lines.   |
|   | 22. | Location of floodplain and floodway (if applicable).   |
|   | 23. | Location of drainage ways and easements.   |
| <b>Site Drainage Features:</b>                |     |  |
|   | 24. | Existing and planned drainage patterns (include off-site areas that drain through project).  |
|   | 25. | Any existing stormwater control systems.   |
|   | 26. | Sub-watershed delineation showing drainage areas.  |
|   | 27. | Show extent and number of disturbed acres.   |
|   | 28. | Proposed built-upon areas.   |
|   | 29. | Soil information: type, special characteristics.   |
|   | 30. | Name and classification of receiving water course.   |
| <b>Permanent Stormwater Control Measures:</b> |     |  |
|   | 31. | Type of BMP (wet pond, rain-garden, etc).  |
|   | 32. | Designer's certification.  |
|   | 33. | Narrative description of proposed stormwater system (where runoff originates (e.g. roofs, roads, parking lots etc.), its conveyance within the project, its treatment, and its conveyance from the project to the receiving water body). |
|   | 34. | Profile along the centerline of the principal spillway/outfall pipe extending below the protected outfall or to the downstream structure.  |
|   | 35. | Elevations of the "water quality" surface, temporary storage water surface, and the 10 and 100 year storms.  |
|   | 36. | Stage-storage table for each BMP.  |
|   | 37. | If BMP is to be used to treat construction site runoff, provide steps necessary to restore BMP to original design condition.   |
|   | 38. | All necessary construction specifications.   |
|   | 39. | Sequence of construction.  |
|   | 40. | Individual drainage areas for each stormwater BMP.   |
|   | 41. | Construction drawings and details for permanent measures.  |

|   |     |   |
|---|-----|---|
|   | 42. | Size and location of culverts.  |
|   | 43. | Size and location of subsurface drainage conveyances.   |
|   | 44. | Disclosure of party ultimately responsible for operation and maintenance of the stormwater system.  |
| <b>Stormwater Calculations:</b>                         |     |   |
|   | 45. | Narrative description of calculations (methods, variables, assumptions, etc.) and results. Include the BMP Supplement Forms from the North Carolina Department of the Environment and Natural Resources-Division of Water Quality's <i>Manual of Stormwater Best Management Practices</i> (NCDENR BMP Manual) for each BMP. |
|   | 46. | Stormwater BMPs designed in accordance with the NCDENR BMP Manual.  |
|   | 47. | Time of concentration for pre/post development conditions.  |
|   | 48. | Pre-construction and post-construction runoff calculations for each outlet from the site (at peak discharge points).  |
|   | 49. | Pre-construction and post-construction design calculations and hydrographs.   |
|   | 50. | Design calculations of culverts and storm sewers.   |
|   | 51. | Discharge and velocity calculations for open channel and ditch flows (easement & right-of-ways).  |
|   | 52. | Design calcs of cross sections and method of stabilization of existing and planned channels (include temporary linings).  |
|   | 53. | Design calcs and construction details of energy dissipaters below culvert and storm sewer outlets (diameters & apron dimensions).   |
|   | 54. | Amount and type of existing and proposed land use.  |
| <b>Operation and Maintenance Manual (for each BMP):</b> |     |   |
|   | 55. | Narrative description of the purpose and operation of the BMP.  |
|   | 56. | Detailed list, description, and procedure of routine maintenance items.   |
|   | 57. | Detailed list, description, and procedure of non-routine maintenance items.   |
|   | 58. | Maintenance schedule.   |
|   | 59. | Steps needed to restore BMP in the event of a failure.  |
|   | 60. | Maintenance checklist and inspection form.  |
|   | 61. | BMP construction drawings. Replace with record drawings when BMP is complete.   |
|   | 62. | Latitude and longitude of each stormwater BMP.  |

## Section D. ATTACHMENTS

- 2 sets of plans
- 1 set of electronic plans in .pdf format
- 1 set of calculations
- Operation and Maintenance Manual
- Application Fee

Environmental Quality Department – P.O. Box 1550, Pittsboro, NC 27312 – Phone: 919-542-0945 – Fax: 919-542-0058

**Section E. APPLICANT'S CERTIFICATION**

**Designer Certification:**

I hereby certify that the design-related information submitted with this application for permit coverage was prepared under my direction or supervision and that the information is, in the exercise of my reasonable professional judgment, true, accurate and complete. I also hereby certify that the stormwater collection, treatment and control system design submitted with this application complies with all requirements of the County's Stormwater Ordinance.

\_\_\_\_\_  
Original Signature of Stormwater Designer

\_\_\_\_\_  
Title

\_\_\_\_\_  
Type or Print Name

**Owner Certification:**

I hereby certify that I have read this application and agree to abide by the terms of any Stormwater Permit issued by Chatham County

\_\_\_\_\_  
Original Signature of Owner or Authorized Agent

\_\_\_\_\_  
Title Member-manager

\_\_\_\_\_  
Jan R. Futrell - Westfall Associates, LLC  
Type or Print Name

10-11  
12  
13  
14-15

OWN ARE  
DRAWINGS.  
ENDING THE  
ROR TO  
ANY  
CALL AT  
HOURS  
HE  
AS  
RE  
FORM TO  
NS.  
AREA PER  
EBRUARY 2,  
OR BEFORE  
FROM NCDOT  
GRAPHIC  
GROUP,

**UTILITIES PLAN REVIEW**  
Review is for general conformance with Chatham County Specifications, NCDOT, NCDENR and Material standards. This review does not exempt plans from other review requirements.  
 Approved  
 Approved with Modifications  
 Revise and Resubmit  
 Disapproved  
CHATHAM COUNTY PUBLIC UTILITIES & WATER DIVISION  
P.O. Box 910, Pittsboro, NC 27312  
Date: 11/13/13 By: *James McGowan*



**STOP!**  
BEFORE YOU DIG CALL  
THE NC ONE CALL CENTER  
1-800-632-4949  
IT'S THE LAW!

**WESTFALL SUBDIVISION**

**CONSTRUCTION PLANS  
PHASE 2C - COVER**

**WILLIAMS TOWNSHIP  
CHATHAM COUNTY, NORTH CAROLINA**

|                    |                           |
|--------------------|---------------------------|
| Date:              | SEPTEMBER, 2013           |
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| Project No.        | 800-12                    |
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North Carolina Department of Environment and Natural Resources

Division of Water Resources

Water Quality Programs

Thomas A. Reeder

Director

Pat McCrory  
Governor

John E. Skvarla, III  
Secretary

October 21, 2013

Thomas J. Roberts, President  
Aqua North Carolina, Inc.  
202 Mackenan Court  
Cary, NC 27511

Subject: Permit No. WQ0036789  
Aqua North Carolina, Inc.  
Westfall Phase 2C (Previously Booth Mountain)  
Wastewater Collection System Extension  
Chatham County

Dear Mr. Roberts:

In accordance with your application received October 14, 2013 we are forwarding herewith Permit No. WQ0036789, dated October 21, 2013, to Aqua North Carolina, Inc. for the construction and operation of the subject wastewater collection system extension. This permit shall be effective from the date of issuance until rescinded and shall be subject to the conditions and limitations as specified therein. This cover letter and supplement shall be considered a part of this permit and are therefore incorporated therein by reference.

Please pay particular attention to the following conditions contained within this permit:

Condition II.4: Requires that the wastewater collection facilities be properly operated and maintained in accordance with 15A NCAC 2T .0403 or any individual system-wide collection system permit issued to the Permittee.

It shall be the responsibility of Aqua North Carolina, Inc. to ensure that the as-constructed project meets the appropriate design criteria and rules. Failure to comply may result in penalties in accordance with North Carolina General Statute §143-215.6A through §143-215.6C, construction of additional or replacement wastewater collection facilities, and/or referral of the North Carolina-licensed Professional Engineer to the licensing board.

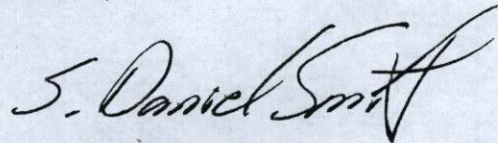
If any parts, requirements, or limitations contained in this permit are unacceptable, you have the right to request an adjudicatory hearing upon written request within 30 days following receipt of this permit. This request must be in the form of a written petition, conforming to Chapter 150B of North Carolina General Statutes, and filed with the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, NC 27699-6714. Unless such demands are made, this permit shall be final and binding.



Aqua North Carolina, Inc.  
WQ0036789

If you need additional information concerning this matter, please contact Ted Cashion at (919) 791-4254  
or via e-mail at [ted.cashion@ncdenr.gov](mailto:ted.cashion@ncdenr.gov).

Sincerely,

A handwritten signature in black ink that reads "S. Daniel Smith". The signature is written in a cursive style with a large, sweeping "S" at the beginning.

for Thomas A. Reeder  
Division of Water Resources

by S. Daniel Smith, Supervisor  
Water Quality Regional Operations

cc: Mark Ashness, P.E., C.E. Group, Inc., 301 Glenwood Avenue, Suite 220, Raleigh, NC 27603  
Chatham County Health Department  
Raleigh Regional Office, Water Quality Regional Operations  
Water Quality Central Files  
PERCS (electronic copy)



STATE OF NORTH CAROLINA  
ENVIRONMENTAL MANAGEMENT COMMISSION  
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

WASTEWATER COLLECTION SYSTEM EXTENSION PERMIT

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In accordance with the provisions of Article 21 of Chapter 143, General Statutes of North Carolina as amended, and other applicable Laws, Rules, and Regulations, permission is hereby granted to the

Aqua North Carolina, Inc.  
Chatham County

for the construction and operation of approximately 1,130 linear feet of 8-inch gravity sewer to serve 25 – four and five bedroom residential homes @ 50 gpd/bedroom as part of the Westfall Phase 2C (previously Booth Mountain) project, and the discharge of 5,350 gallons per day of collected domestic wastewater into the Aqua North Carolina, Inc. Booth Mountain Development's existing sewerage system, pursuant to the application received October 14, 2013 and in conformity with 15A NCAC 2T; the Division's Gravity Sewer Minimum Design Criteria adopted February 12, 1996 as applicable; the Division's Minimum Design Criteria for the Fast-Track Permitting of Pump Stations and Force Mains adopted June 1, 2000 as applicable; and other supporting data subsequently filed and approved by the Department of Environment and Natural Resources and considered a part of this permit.

This permit shall be effective from the date of issuance until rescinded and shall be subject to the specified conditions and limitations contained therein.

Permit issued this the 21<sup>st</sup> day of October, 2013.

for Thomas A. Reeder

Division of Water Resources

By Authority of The Environmental Management Commission

**Permit Number:** WQ0036789

# SUPPLEMENT TO PERMIT COVER SHEET

**Aqua North Carolina Inc. is hereby authorized to:**

Construct, and then operate upon certification the aforementioned wastewater collection extension. The sewage and wastewater collected by this system shall be treated in the Booth Mountain Development Wastewater Treatment Facility (Permit No. WQ0028798) prior to being land applied by spray irrigation.

Permitting of this project does not constitute an acceptance of any part of the project that does not meet 15A NCAC 2T; the Division's Gravity Sewer Minimum Design Criteria adopted February 12, 1996 as applicable; and the Division's Minimum Design Criteria for the Fast-Track Permitting of Pump Stations and Force Mains adopted June 1, 2000 as applicable, unless specifically mentioned herein. Division approval is based on acceptance of the certification provided by a North Carolina-licensed Professional Engineer in the application. It shall be the Permittee's responsibility to ensure that the as-constructed project meets the appropriate design criteria and rules.

Construction and operation is contingent upon compliance with the Standard Conditions and any Special Conditions identified below.

## **I. SPECIAL CONDITIONS**

NONE

## **II. STANDARD CONDITIONS**

1. **This permit shall not be transferable.** In the event there is a desire for the wastewater collection facilities to change ownership, or there is a name change of the Permittee, a formal permit request shall be submitted to the Division accompanied by documentation from the parties involved, and other supporting materials as may be appropriate. The approval of this request shall be considered on its merits and may or may not be approved.
2. This permit shall become voidable unless the wastewater collection facilities are constructed in accordance with the conditions of this permit; 15A NCAC 2T; the Division's Gravity Sewer Minimum Design Criteria adopted February 12, 1996 as applicable; the Division's Minimum Design Criteria for the Fast-Track Permitting of Pump Stations and Force Mains adopted June 1, 2000 as applicable; and other supporting materials unless specifically mentioned herein.
3. This permit shall be effective only with respect to the nature and volume of wastes described in the application and other supporting data.
4. The wastewater collection facilities shall be properly maintained and operated at all times. The Permittee shall maintain compliance with an individual system-wide collection system permit for the operation and maintenance of these facilities as required by 15A NCAC 2T .0403. If an individual permit is not required, the following performance criteria shall be met as provided in 15A NCAC 2T .0403:
  - a. The sewer system shall be effectively maintained and operated at all times to prevent discharge to land or surface waters, and to prevent any contravention of groundwater standards or surface water standards.
  - b. A map of the sewer system shall be developed and shall be actively maintained.

- c. An operation and maintenance plan including pump station inspection frequency, preventative maintenance schedule, spare parts inventory and overflow response has been developed and implemented.
- d. Pump stations that are not connected to a telemetry system shall be inspected every day (i.e. 365 days per year). Pump stations that are connected to a telemetry system shall be inspected at least once per week.
- e. High-priority sewer lines shall be inspected at least once per every six-months and inspections are documented.
- f. A general observation of the entire sewer system shall be conducted at least once per year.
- g. Overflows and bypasses shall be reported to the appropriate Division regional office in accordance with 15A NCAC 2B .0506(a), and public notice shall be provided as required by North Carolina General Statute §143-215.1C.
- h. A Grease Control Program is in place as follows:
  - 1. For public owned collection systems, the Grease Control Program shall include at least biannual distribution of educational materials for both commercial and residential users and the legal means to require grease interceptors at existing establishments. The plan shall also include legal means for inspections of the grease interceptors, enforcement for violators and the legal means to control grease entering the system from other public and private satellite sewer systems.
  - 2. For privately owned collection systems, the Grease Control Program shall include at least bi-annual distribution of grease education materials to users of the collection system by the permittee or its representative.
  - 3. Grease education materials shall be distributed more often than required in Parts (1) and (2) of this Subparagraph if necessary to prevent grease-related sanitary sewer overflows.
- i. Right-of-ways and easements shall be maintained in the full easement width for personnel and equipment accessibility.
- j. Documentation shall be kept for Subparagraphs (a) through (i) of this Rule for a minimum of three years with exception of the map, which shall be maintained for the life of the system.

5. **Noncompliance Notification:**

The Permittee shall report by telephone to a water resources staff member at the Raleigh Regional Office, telephone number 919-791-4200, as soon as possible, but in no case more than 24 hours or on the next working day, following the occurrence or first knowledge of the occurrence of either of the following:

- a. Any process unit failure, due to known or unknown reasons, that renders the facility incapable of adequate wastewater transport, such as mechanical or electrical failures of pumps, line blockage or breakage, etc.; or
- b. Any SSO and/or spill over 1,000 gallons; or
- c. Any SSO and/or spill, regardless of volume, that reaches surface water

Voice mail messages or faxed information is permissible, but this shall not be considered as the initial verbal report. Overflows and spills occurring outside normal business hours may also be reported to the Division of Emergency Management at telephone number (800) 858-0368 or (919) 733-3300. Persons reporting any of the above occurrences shall file a spill report by completing and submitting Part I of Form CS-SSO (or the most current Division approved form) within five days following first knowledge of the occurrence. This report must

outline the actions taken or proposed to be taken to ensure that the problem does not recur. Part II of Form CS-SSO (or the most current Division approved form) can also be completed to show that the SSO was beyond control.

6. Construction of the gravity sewers, pump stations, and force mains shall be scheduled so as not to interrupt service by the existing utilities nor result in an overflow or bypass discharge of wastewater to the surface waters of the State.
7. Per 15A NCAC 2T.0116, upon completion of construction and prior to operation of these permitted facilities, the completed Engineering Certification form attached to this permit shall be submitted with the required supporting documents to the address provided on the form. A complete certification is one where the form is fully executed and the supporting documents are provided as applicable. Any wastewater flow made tributary to the wastewater collection system extension prior to completion of this Engineer's Certification shall be considered a violation of the permit and shall subject the Permittee to appropriate enforcement actions.

**If the permit is issued to a private entity with an Operational Agreement, then a copy of the Articles of Incorporation, Declarations/Covenants/Restrictions, and Bylaws that have been appropriately filed with the applicable County's Register of Deeds office shall be submitted with the certification.**

A complete certification is one where the form is fully executed and the supporting documents are provided as applicable. Supporting documentation shall include the following:

- a. One copy of the project construction record drawings (plan & profile views of sewer lines & force mains) of the wastewater collection system extension. Final record drawings should be clear on the plans or on digital media (CD or DVD disk) and are defined as the design drawings that are marked up or annotated with after construction information and show required buffers, separation distances, material changes, etc.
- b. One copy of the supporting pump station design calculations (selected pumps, system curve, operating point, buoyancy calculations, available storage if portable generator(s) or storage greater than longest past three year outage reliability option selected) for any pump stations permitted as part of this project.
- c. Changes to the project that do not result in non-compliance with this permit, regulations, or the Minimum Design Criteria should be clearly identified on the record drawings, on the certification in the space provided, or in written summary form.

**Prior to Certification (Final or Partial):** Permit modifications are required for any changes resulting in non-compliance with this permit (including pipe length increases of 10% or greater, increased flow, pump station design capacity design increases of 5% or greater, and increases in the number/type of connections), regulations, or the Minimum Design Criteria. Requested modifications or variances to the Minimum Design Criteria will be reviewed on a case-by-case basis and each on its own merit. Please note that variances to the Minimum Design Criteria should be requested and approved during the permitting process prior to construction. After-construction requests are discouraged by the Division and may not be approved, thus requiring replacement or repair prior to certification & activation.

8. A copy of the construction record drawings shall be maintained on file by the Permittee for the life of the wastewater collection facilities.
9. Failure to abide by the conditions and limitations contained in this permit; 15A NCAC 2T; the Division's Gravity Sewer Design Criteria adopted February 12, 1996 as applicable; the Division's Minimum Design Criteria for the Fast-Track Permitting of Pump Station and Force Mains adopted June 1, 2000 as applicable; and other supporting materials may subject the Permittee to an enforcement action by the Division, in accordance with North Carolina General Statutes §143-215.6A through §143-215.6C, construction of additional or replacement

wastewater collection facilities, and/or referral of the North Carolina-licensed Professional Engineer to the licensing board.

10. In the event that the wastewater collection facilities fail to perform satisfactorily, including the creation of nuisance conditions, the Permittee shall take immediate corrective action, including those as may be required by this Division, such as the construction of additional or replacement facilities.
11. The issuance of this permit shall not exempt the Permittee from complying with any and all statutes, rules, regulations, or ordinances that may be imposed by other government agencies (local, state and federal) which have jurisdiction, including but not limited to applicable river buffer rules in 15A NCAC 2B .0200, erosion and sedimentation control requirements in 15A NCAC Ch. 4 and under the Division's General Permit NCG010000, and any requirements pertaining to wetlands under 15A NCAC 2B .0200 and 15A NCAC 2H .0500.