



April 4, 2023

Warren D. Mitchell
Griffith Capital, LLC
104 Amber Wood Run
Chapel Hill, NC 27516

AUTHORIZATION of Chatham County Watershed Protection and Jordan Lake Water Supply Watershed Riparian Buffer Protection Rules (Watershed Protection Ordinance Section 304(J) 4 and 15A NCAC 2B .0267) Authorization Certificate

Project Name: Pyewacket Subdivision (WP-23-82)

Dear Mr. Mitchell,

You have our authorization, in accordance with the Chatham County Watershed Protection Ordinance and any conditions listed below, to permanently impact approximately 13,673 ft² of the protected riparian buffers associated with the installation of two (2) roadway crossings. The impacts will occur within zones 1 and 2 of one (1) perennial stream (Meadow Branch) buffer and one (1) wetland buffers within the Pyewacket subdivision as described within your application submitted February 16, 2023 and revised on March 28, 2023, in the U.S. Army Corps of Engineers Nationwide Permit (SAW-2021-00165) dated January 10, 2023, and on the Buffer Impact Maps, completed by Shipman Engineering. Per your application this review and authorization is only valid for those impacts stated above. In addition, you should obtain or otherwise comply with any other required federal, state or local permits before you proceed with your project including (but not limited to) Erosion and Sediment Control and Non-discharge regulations.

Per your application this review and authorization is only valid for those impacts stated above. In addition, you should obtain or otherwise comply with any other required federal, state or local permits before you proceed with your project including (but not limited to) Erosion and Sediment Control and Non-discharge regulations.

This authorization certification is for the purpose and design that you described in your application. If you change your project, you must notify us, and you may be required to send us a new application. **If the property is sold, the new owner must be given a copy of this authorization letter and is thereby responsible for complying with all conditions.** This authorization requires you to follow the conditions listed below.

The Additional Conditions of the Certification are:

1. Impacts Approved

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



Permanent Impacts		
<u>(Road Crossing 1)</u>		
	Amount Approved (Units)	Plan Location or Reference
Perennial Stream Buffers (Zone 1)	5,875 (square ft.)	Buffer Impact Map Sheet WI-06, Projects Impact Summary Table
Perennial Stream Buffers (Zone 2 Inner)	2,982 (square ft.)	Buffer Impact Map Sheet WI-06, Projects Impact Summary Table
Perennial Stream Buffers (Zone 2 Outer)	237 (square ft.)	Buffer Impact Map Sheet WI-06, Projects Impact Summary Table
Wetland Buffer (W10)	3,362 (square ft.)	Buffer Impact Map Sheet X.1
<u>(Road Crossing 2)</u>		
Wetland Buffers	704 (square ft.)	Buffer Impact Map Sheet WI-09

2. Temporary Impacts

Such impacts are typically associated with construction corridors, temporary access roads, and the installation and operation of temporary sediment and erosion control measures and devices. Approved temporary impacts must remain temporary in nature, minimize impacts to the riparian buffer, meet or exceed required Best Management Practices (BMP), perform and be maintained so that no violations of county riparian buffer or state water quality standards, statutes, or rules occur, and must be returned to the uses that were existing at the time of authorization. **No temporary impacts are proposed with this project.**

3. No Waste, Spoil, Solids, or Fill of Any Kind

No waste, spoil, solids, or fill of any kind shall occur in riparian areas beyond the footprint of the impacts depicted in the Pre-Construction Notification. 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 county riparian buffer or state water quality standards, statutes, or rules occur.

4. Diffuse Flow

An additional condition is that all stormwater shall be directed as diffuse flow at non-erosive velocities through the protected stream buffers and will not re-concentrate before discharging into the stream as identified within Section 304(J)2 of the Watershed Protection Ordinance.

5. Protective Fencing

The outside buffer 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, stream channel or water prior to any land disturbing activities to ensure compliance with the Watershed Protection Ordinance.

6. Certificate of Completion

All activities as proposed, and any subsequent modifications, approved within this authorization must be completed within one year of the issuance of the authorization. The applicant is required to certify that the completed project is in accordance with this authorization and shall submit actual 'as-built' plans. If proof of completion is not presented within this timeframe, then the person shall be in violation of both the State's and Chatham County's riparian buffer protection program.

Any disputes over determinations regarding this Authorization of Approvable Impacts (associated with the approved buffer impacts) shall be referred in writing to the Director of the Division of Water Resources, c/o the 401 & Buffer Permitting Unit. The Director's decision is subject to review as provided in G.S. 150B Articles 3 and 4.

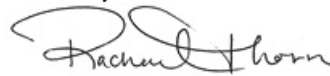
The mailing address for the 401 & Buffer Permitting Unit is:

Ms. Stephanie Goss, Supervisor
NC NDEQ – DWR 401 & Buffer Permitting Branch
1650 Mail Service Center
Raleigh, NC 27699-1650
Telephone: 919-807-6300, Facsimile: 919-807-6494

This Authorization shall expire five (5) years from the date of this letter.

This letter completes the review of the "No Practical Alternatives" determination under Section 304(I) and 15A NCAC 2B .0267. If you have any questions or would like a copy of the buffer rules, please call Drew Blake at (919) 545-8394. This letter does not authorize any impacts to either Waters of the United States or Waters of the State. Please contact the US Army Corps of Engineers (USACE) or NC Division of Water Quality (DWQ) if any impacts are proposed to either of these waters.

Sincerely,

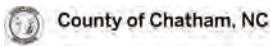


Rachael Thorn
Chatham County Watershed Administrator

cc: April Norton, USACE Raleigh Regulatory Field Office
Zachary Thomas, Environmental Program Consultant NCDEQ – DWR Raleigh Regional Office
Drew Blake, Assistant Director – Chatham County Watershed Protection Department
Justin Hasenfus, Sr. Watershed Specialist – Chatham County Watershed Protection Dept.
Jason Sullivan, Director - Chatham County Planning Department
Kimberly Tyson, Subdivision Administrator – Chatham County

File Copy

Enclosures: Riparian Buffer Authorization Application
Riparian Buffer Authorization Review Letter - Response to Comments, provide Sage
Ecological Services
USACE General Permit Verification (SAW-2021-00165)
NCDWR 401 Water Quality Certification (DWR# 20210230)
Orange County Authorization Certificate (BAC23-0001)



02/20/2023

WP-23-82

Riparian Buffer (Authorization) No Practical Alternatives

Status: Active**Date Created:** Feb 16, 2023**Applicant**

Kim Hamlin
 khamlin@sageecological.com
 3707 Swift Drive
 Raleigh, North Carolina 27606-2543
 9196227888

Primary Location

0 VACANT
 North Carolina 00000

Owner:

GRIFFITH CAPITAL LLC
 104 AMBER WOOD RUN CHAPEL HILL , NC 27516-4494

Project Information**Are you the Property Owner or their Agent?**

Agent

Is the project within the Jordan Lake Watershed

Yes

Is a change in lot configuration proposed?

Yes

Is payment into a mitigation bank or in-lieu fee program proposed for mitigation of impacts? If yes, attach the acceptance letter from mitigation bank or in-lieu fee program.

No

Does the project require Corps of Engineers (USACE) approval?

Yes

Does the project require NC Division of Water Quality (NC DWQ) approval?

Yes

Name of Project

Pyewacket Subdivision

Nearest Road Insection

Jones Ferry Rd & Morgan Ridge Way

Subdivision Name

Pyewacket Subdivision

Owner Information**Name**

Griffith Capital LLC

Deed Book & Page Number

2256 / 0509

Responsible Party (if different from names on deed)

Warren Mitchell

Mailing Address

104 Amber Wood Run

City, State, Zip Code

Chapel Hill, NC 27516

Phone Number

919-593-1916

Email

warrendmitchellpe@gmail.com

Are you an Agent or Consultant applying on behalf of the landowner?

Yes

Applicants Information**Primary Phone**

919-622-7888

Name

Kim Hamlin

Company Name

Sage Ecological Services, Inc.

Email

khamlin@sageecological.com

Mailing Address

3707 Swift Drive

City, State, Zip Code

Raleigh, NC 27606

Project Information and Prior Project History**Parcel Number (s)**

90267

Property Size (acres)

+/- 139.98

Coordinates (Lat/Long)

35.8585, -79.1498

Nearest Surface Waters

Wilkinson Creek & Meadow Branch

Project Description**Describe the existing conditions on the site and the general land uses in the vicinity of the project at the time of application**

The majority of the Site is forested and undeveloped. A natural gas easement runs northwest-southeast through the property. The topography of the Site ranges from a low point of +/- 520 feet above mean sea level (msl) in the northern portion of the Site, to a high point of +/- 620 feet msl in the center of the Site. Surrounding land use within the vicinity of the Site consists of rural residential, undeveloped and forested land, land managed for timber production, agricultural land, and some commercial businesses.

There are 12 streams and 11 wetlands on the Site. The Table below provides additional details for the streams and wetlands on the Site.

Feature Name	Cowardin_Code	Amount	Units	Latitude	Longitude
A	R3		920FOOT	35.8586	-79.1498
B	R3		810FOOT	35.8598	-79.1458
C	R2	1,620FOOT		35.8677	-79.1527
D (Int)	R4		135FOOT	35.8669	-79.1493
D (Per)	R2		458FOOT	35.8671	-79.1522
G	R4		591FOOT	35.8701	-79.1535
I	R4		20FOOT	35.8690	-79.1518
J	R4		273FOOT	35.8686	-79.1523
L	R4		172FOOT	35.8661	-79.1490
M	R4		732FOOT	35.8610	-79.1493
N (Int)	R4		233FOOT	35.8595	-79.1502
N (Per)	R2		265FOOT	35.8590	-79.1498
O	R2		129FOOT	35.8583	-79.1508
P (Int)	R4		30FOOT	35.8603	-79.1457
P (Per)	R2		80FOOT	35.8601	-79.1458
W1	PEM		0.01ACRE	35.8596	-79.1503
W2	PEM		0.01ACRE	35.8579	-79.1509
W3	PFO		0.07ACRE	35.8588	-79.1490
W4	PFO		0.04ACRE	35.8601	-79.1459
W8	PFO		0.68ACRE	35.8667	-79.1490
W9	PFO		2.5ACRE	35.8697	-79.1519
W10	PFO		0.27ACRE	35.8674	-79.1528
W11	PFO		0.04ACRE	35.8666	-79.1545
W12	PFO		0.02ACRE	35.8664	-79.1548
LW1	PEM		20FOOT	35.8671	-79.1518
LW2	PEM		105FOOT	35.8676	-79.1533

Explain the purpose of the proposed project

The purpose of the project is to construct an access road for a residential development.

Describe the overall project in detail, including the type of equipment to be used

The project proposes to construct an entrance road from Jones Ferry Road to access the upland portions of the site for a residential subdivision. The northern boundary of the Site abuts Jones Ferry Road and provides the only viable access. The eastern boundary of the Site abuts parcels owned by others, the southern boundary is adjacent to a stream and wetland system and other parcels owned by others, and the western boundary contains a protected NC Natural Heritage Program (NCNHP) natural community. Wetland, stream, and riparian buffers impacts will result from construction of the entrance road. Electric and non-electric utilities will be constructed within the footprint of the road crossing.

The proposed main road through the center of the Project is constrained in placement due to the following factors:

1. The gas easement to the east – roads may cross the easement perpendicularly, but roads cannot be constructed within and parallel to the easement.
2. Wetland W6 and the Morgan Ridge Natural Community to the west – adjusted the road alignment to the west would impact Wetland W6 and more of the Morgan Ridge Natural Area.

Riparian buffer impacts to Wetland W6 are unavoidable. Impacts have been minimized by shifting the road alignment as far east as possible and designing steeper slopes. No mitigation is required for this buffer impact since the wetland is not associated with a stream that is subject to Jordan Lake Buffer Rules (Per Section 305 - D. 2. c).

Community well and individual septic will be provided. Typical equipment utilized in residential construction will be used (i.e., tractors, backhoes, bulldozers, etc.).

Total estimated acreage of all wetlands on the property

3.65

Total estimated acreage of all FEMA floodplains on the property (SFHA)

0.6

Total linear feet of perennial streams on the property

4282

Total linear feet of intermittent streams on the property

2186

Total linear feet of ephemeral streams on the property

0

Jurisdictional Determinations

Has the USACE completed a jurisdictional determination for the property

Yes

Date USACE Determination was completed

04/14/2021

USACE Action ID#

SAW-2021-00165

Has the NC DEQ-DWR completed a jurisdictional determination for the property

No

Who delineated the jurisdictional areas (name)

S&EC staff

Agency/Consulting Company/Other

Consultant

Company Name

S&EC

Staff Name

Unknown

Project History

Have permits or certifications been requested or obtained for this projects (including all prior phases) in the past

No

Is this a phased project?

Yes

Future Project Plans

Please explain phases in detail


Phase I includes construction of the entrance road, lots located in the northern section of the site, community well, residential amenity areas, and internal roads. Phase II will complete the remaining lots and internal roads.

Project Impacts Inventory

Please upload a copy of the Project Impacts Inventory found here:

<https://www.chathamcountync.gov/home/showpublished>

Projects Inventory Map Upload

 Project Impact Inventory Table.pdf

Uploaded by Kim Hamlin on Feb 16, 2023 at 2:31 pm

Avoidance and Minimization

Specifically describe measures taken to avoid or minimize the proposed impacts in designing the project

A wetland, stream, and riparian buffer delineation was performed to identify potentially jurisdictional areas prior to developing the site plan. Proposed road crossings are aligned to cross the channels as perpendicularly as possible. Streams are not crossed multiple times by roads. Lots were positioned to avoid fill in wetlands, streams, and buffers. Construction fencing will be used to define the construction corridor and prevent any accidental additional impacts. Silt fencing will be installed to provide additional protection from stormwater runoff.

Specifically describe measures taken to avoid or minimize the proposed impacts through construction techniques.

General techniques include the use of construction fencing to define the construction corridor and prevent any accidental additional impacts. A copy of the approved impacts and sediment and erosion control sheets will be on site while the project is being constructed. All contractors and subcontractors will have access to these documents to ensure all protocols are being followed. Additionally, pre-construction meetings will be held to discuss protocols for addressing accidental impacts, equipment maintenance and washing, and establishing sensitive/protected areas on the site. A list of County, state, and federal contacts will be available in the case of an emergency which would require notification.

Construction sequencing of the road crossing is included in the impact map set. This includes appropriate sediment and erosion control measures

along with details on performing work in the dry when no expected rain events are forecasted. Other site work and grading will be conducted in stages so as not to have large, unprotected areas of bare soil. Areas of bare soil will be seeded as soon as practicable with an approved mix of native grasses. Equipment will be parked and cleaned in uplands away from jurisdictional areas. Hand clearing is proposed in wetlands and streams where applicable. Silt fencing and sediment basins will also be used to prevent sediment runoff into the stream and wetland areas.

Please upload last sheet of paper application found here:

Include Buffer Mitigation, Diffuse Flow Plan, Violations, and Cumulative Impacts Section

<https://www.chathamcountync.gov/home/showpublisheddocument/61490>

- Final Sheet of Paper Application
- pdf Riparian Buffer Authorization Page 4.pdf
Uploaded by Kim Hamlin on Feb 16, 2023 at 10:53 am

Statement of Understanding

I have read and understand the regulations of the Watershed Protection Ordinance, Section 304, and I agree to adhere to these associated policies and guidelines.

Name
Kimberly Hamlin
New Field
01/19/2023

Signature of Applicant

Kimberly Hamlin
01/19/2023

Attachments

- pdf SEC_Jones Ferry Road Wetland Report_KMSB.pdf
Uploaded by Kim Hamlin on Jan 19, 2023 at 5:13 pm
- pdf 11-BufferDeterminationLetter_Pyewacket 6-21-21 DREW BLAKE.pdf
Uploaded by Kim Hamlin on Jan 19, 2023 at 5:11 pm
- pdf NCDWQ Forms.pdf
Uploaded by Kim Hamlin on Jan 19, 2023 at 5:14 pm
- pdf Construction Sequencing.pdf
Uploaded by Kim Hamlin on Feb 16, 2023 at 2:32 pm
- pdf Wetland Impact Maps-Combined.pdf
Uploaded by Kim Hamlin on Feb 16, 2023 at 2:31 pm
- pdf Chatham Co AA Form - Pyewacket - signed.pdf
Uploaded by Kim Hamlin on Jan 19, 2023 at 5:11 pm
- pdf SAW-2021-00165 (Pyewacket Subdivision) NWP 29 Verification.pdf
Uploaded by Kim Hamlin on Jan 19, 2023 at 5:12 pm
- pdf 20210230 Ver 1_Approval Letter_20230106.pdf
Uploaded by Kim Hamlin on Jan 19, 2023 at 5:12 pm
- pdf Project Impact Inventory Table.pdf
Uploaded by Kim Hamlin on Feb 16, 2023 at 2:33 pm

History

Date	Activity
Jan 19, 2023 at 4:28 pm	Kim Hamlin started a draft of Record WP-23-82
Feb 16, 2023 at 3:05 pm	Kim Hamlin submitted Record WP-23-82
Feb 16, 2023 at 3:05 pm	approval step Intake Approval was assigned to Taylor Burton on Record WP-23-82
Feb 17, 2023 at 11:03 am	Drew Blake unassigned approval step Intake Approval from Taylor Burton on Record WP-23-82
Feb 17, 2023 at 11:03 am	Drew Blake assigned approval step Intake Approval to Drew Blake on Record WP-23-82
Feb 20, 2023 at 12:20 pm	Drew Blake approved approval step Intake Approval on Record WP-23-82
Feb 20, 2023 at 12:20 pm	approval step Application Review was assigned to Taylor Burton on Record WP-23-82
Feb 20, 2023 at 12:20 pm	Drew Blake unassigned approval step Application Review from Taylor Burton on Record WP-23-82
Feb 20, 2023 at 12:20 pm	Drew Blake assigned approval step Application Review to Drew Blake on Record WP-23-82

Timeline

Label	Status	Activated	Completed	Assignee	Due Date
✓ Intake Approval	Complete	Feb 16, 2023 at 3:05 pm	Feb 20, 2023 at 12:20 pm	Drew Blake	-

Label	Status	Activated	Completed	Assignee	Due Date
✓ Application Review	Active	Feb 20, 2023 at 12:20 pm	-	Drew Blake	-
✓ Comments Issued (Waiting on Response)	Inactive	-	-	-	-
✓ Comment Response Review	Inactive	-	-	-	-
✓ No Practical Alternatives Statement Issued	Inactive	-	-	-	-



March 28, 2023

Chatham County Watershed Protection Department
Mr. Drew Blake
12 East Street
P.O. Box 1809
Pittsboro, NC 27312

Re: **Pyewacket Subdivision**
Riparian Buffer Authorization Review Letter - Response to Comments
SAW-2021-00165
Sage Project #2020.108

On behalf of Mr. Warren Mitchell of Griffith Capital, LLC (owner and applicant), please accept this response to comments received from your office on February 23, 2023, for the Riparian Buffer Authorization request submitted February 16, 2023. The revised impacts maps and other accompanying attachments are also included.

Riparian Buffer Authorization Application

1. Explain the purpose of the proposed project.
 - a. Please explain the need to impact a protected riparian buffer.
 - i. **RESPONSE:** *The project proposes to construct an entrance road from Jones Ferry Road to access the upland portions of the site for a residential subdivision.*
 - b. Please explain why impacts are unavoidable or why the current proposed locations were chosen.
 - i. **RESPONSE:** *The northern boundary of the Site abuts Jones Ferry Road and provides the only viable access. The eastern boundary of the Site abuts parcels owned by others, the southern boundary is adjacent to a stream and wetland system and other parcels owned by others, and the western boundary contains a protected NC Natural Heritage Program (NCNHP) natural community.*

The proposed main road through the center of the Project is constrained in placement due to the following factors:

1. *The gas easement to the east – roads may cross the easement perpendicularly, but roads cannot be constructed within and parallel to the easement.*
2. *Wetland W6 and the Morgan Ridge Natural Community to the west - adjusting the road alignment to the west would impact Wetland W6 and more of the Morgan Ridge Natural Area.*

Riparian buffer impacts to Wetland W6 are unavoidable. Impacts have been minimized by shifting the road alignment as far east as possible and designing steeper slopes. No mitigation is required for this buffer impact since the wetland is not associated with a stream that is subject to Jordan Lake Buffer Rules (Per Section 305 - D. 2. c).

- c. Please include statement regarding the Orange County review.
 - i. **RESPONSE:** Orange County Planning and Inspections reviewed and approved the riparian buffer impacts to Impact Site B and the northern portion of Impact Site C.
2. Project Impact Summary Table
 - a. Please indicate which streams/buffers are related to which impact.
 - i. **RESPONSE:** The Project Impact Summary has been revised.

Buffer Impact Map

3. Please clearly identify which sheets include impact within Chatham County.
 - i. **RESPONSE:** The sheets have been identified on the Revised Impact Maps.
4. Please provide tables of riparian buffer impacts and facewidths. Current maps show stream and wetland impact values and not riparian buffer. Please provide page specific tables depicting the amount of buffer impacts per sheet. Please include a spreadsheet of total impacts on the cover sheet. Tables, hatching and colors should match the identification breakdown in Inventory Table.
 - i. **RESPONSE:** The revised Project Impact Summary has been added to each sheet.
5. Please provide utility impact amounts as well as installation routes and corridors.
 - i. **RESPONSE:** The utilities have been added to the Revised Impact Maps.
6. Include utility crossings with defined limits and maintenance corridor dimensions. Utilities include water, sewer, storm sewer, electric, fiber, etc. that are anticipated with the development.
 - i. **RESPONSE:** The utilities have been added to the Revised Impact Maps. Utilities are proposed within the footprint of the road crossings; therefore, no additional maintenance corridors are proposed.
7. Include total facewidth of impacts in dimension lines and in table on each sheet.
 - i. **RESPONSE:** The revised Project Impact Summary has been added to each sheet. Facewidths have been added to the revised impact maps.
8. Stream and Buffer Impacts Table should be broken down like Inventory Table, referencing hatching and colors on plans with totals for each zone and a combined total for all impacts.
 - i. **RESPONSE:** The revised Project Impact Summary has been added to each sheet.

Respectfully submitted:



Kim Hamlin

Sage Ecological Services, Inc.

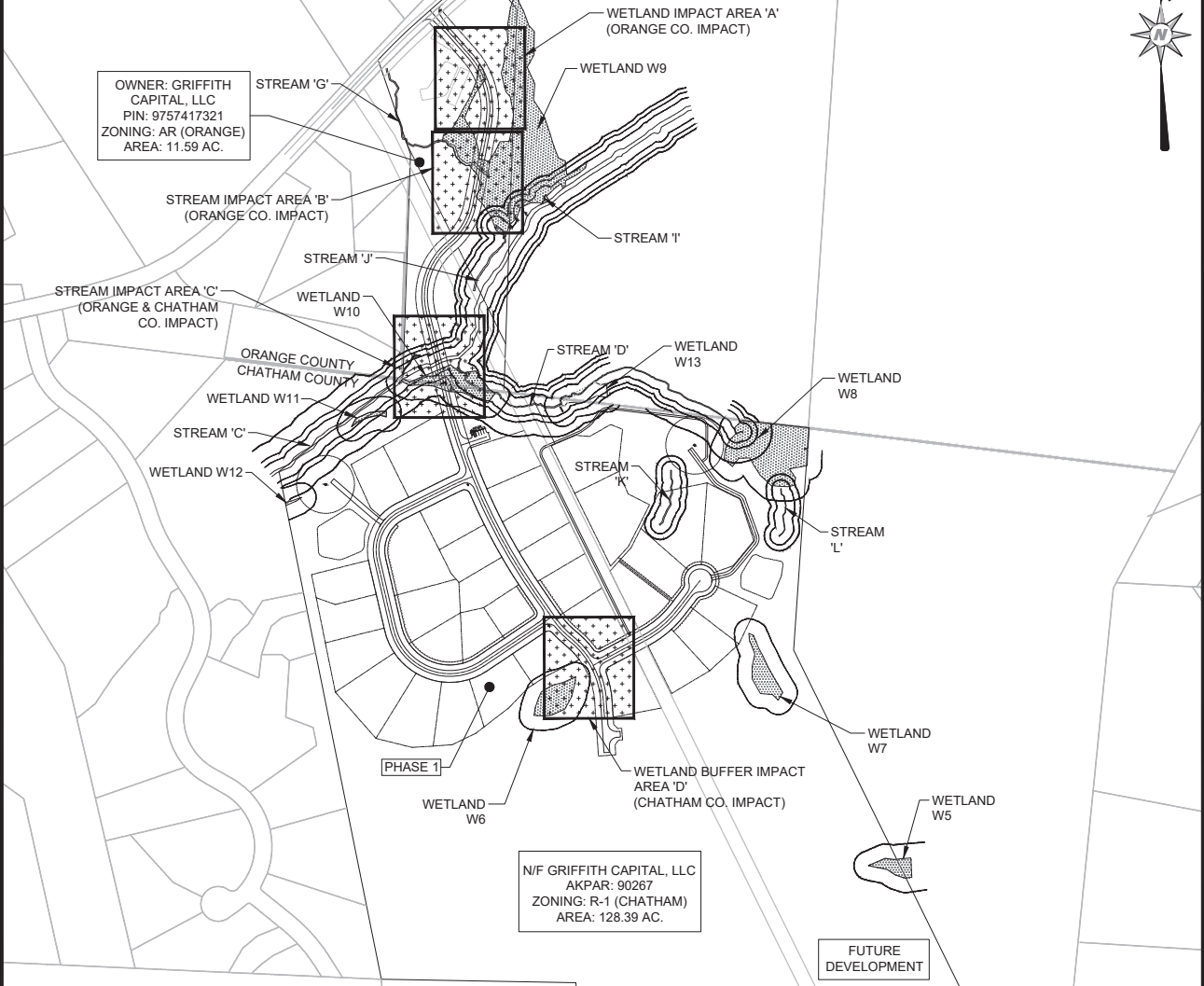
Attachments:

Revised Impact Map Plan Sheets
Revised Project Impact Inventory Table

JONES FERRY RD.

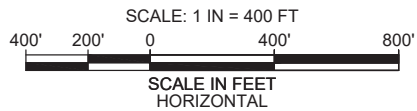
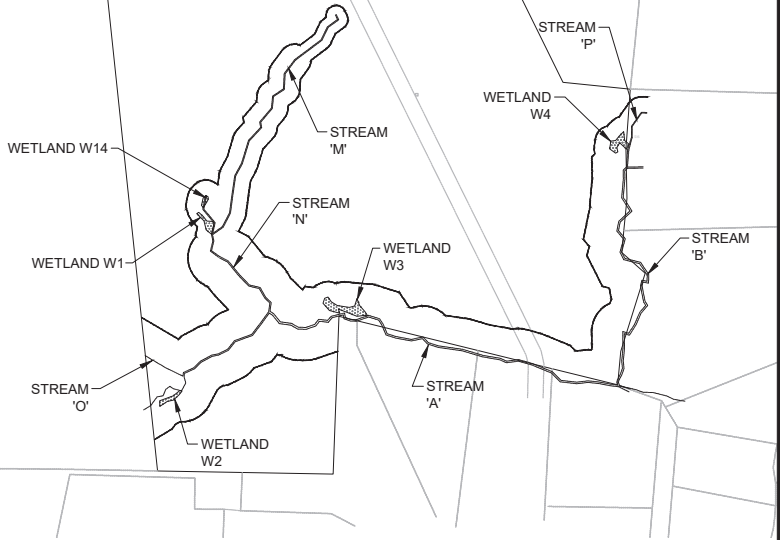


OWNER: GRIFFITH CAPITAL, LLC
 PIN: 9757417321
 ZONING: AR (ORANGE)
 AREA: 11.59 AC.

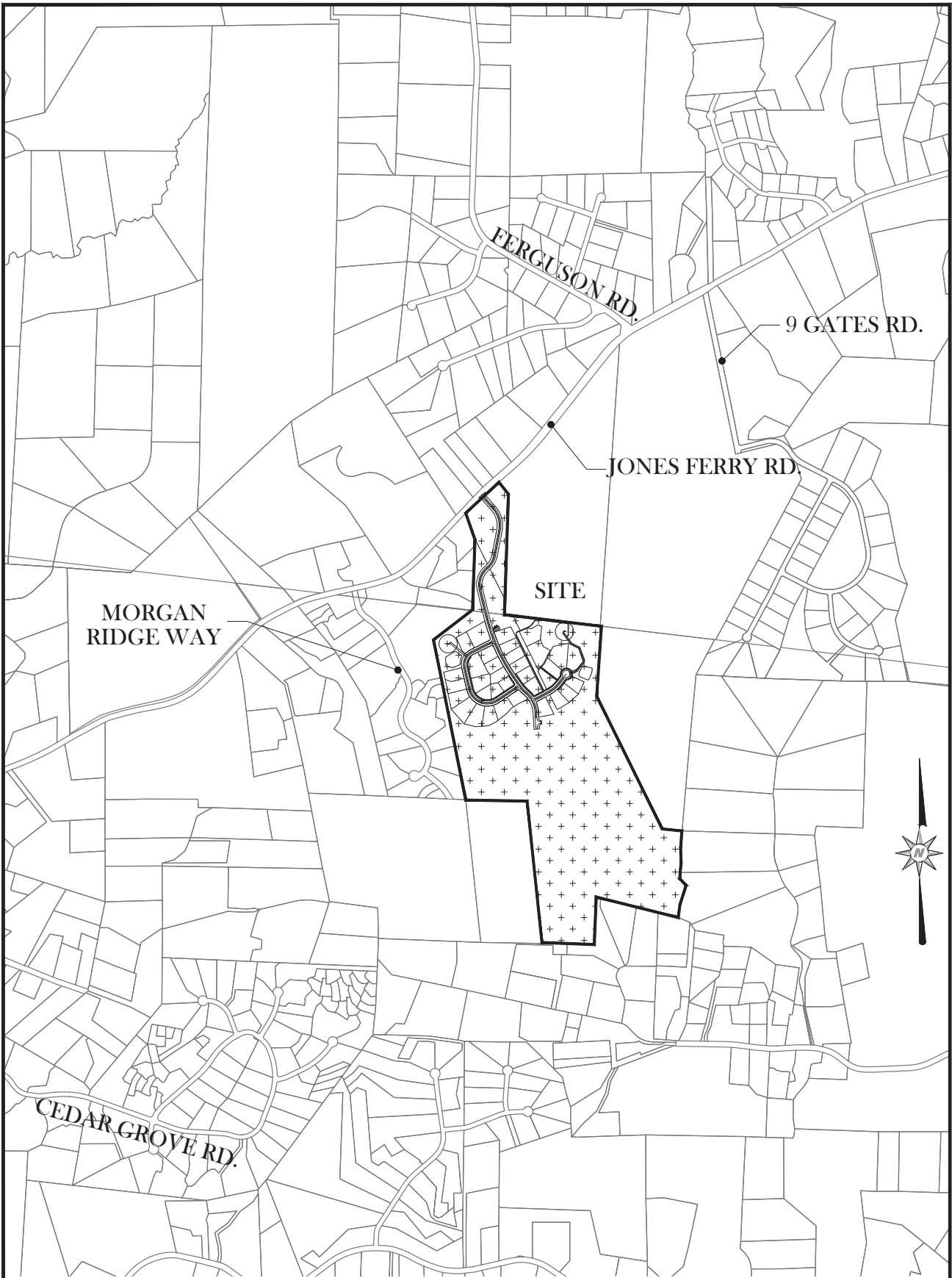


N/F GRIFFITH CAPITAL, LLC
 AKPAR: 90267
 ZONING: R-1 (CHATHAM)
 AREA: 128.39 AC.

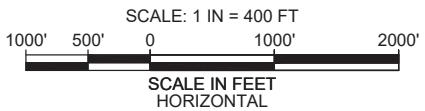
Overall Buffer Impacts							
Buffer Impact Number	Permittee/Temporary	Project/Type of Impact	Stream Name (from USGS Map, UT)	Buffer Type	Square Feet	Buffer Feet Width	Impact Marking Color
Impact Area C - Total	P	Road Crossing - Total	UT to Meadow Branch (D & C), Wetland W10		12969		
Impact Area C (W1-06)	P	Road Crossing - Zone 1 - Allowable	UT to Meadow Branch (D & C)	(P-100)	5873	60	pink throughout
Impact Area C (W1-06)	P	Road Crossing - Zone 2 (Inter) - Allowable	UT to Meadow Branch (D & C)	(P-100)	2582	60	red cross hatch
Impact Area C (W1-06)	P	Road Crossing - Zone 2 (Over) - Allowable	UT to Meadow Branch (D & C)	(P-100)	237	60	red hatch
Impact Area C (W1-06)	P	Road Crossing - Wetland Buffer - Allowable	Wetland W10	(W-10)	3362	60	red cross hatch
Impact Area C (W1-06)	P	Utility Crossing - Electric - Zone 2 (Over) - Exempt	UT to Meadow Branch (D & C)	(P-100)	219	3	1' GFP / 1' GC line
Impact Area C (W1-06)	P	Utility Crossing - Electric - Wetland Buffer - Exempt	Wetland W10	(W-10)	39	3	1' GFP / 1' GC line
Impact Area C (W1-06)	P	Utility Crossing - Non-Electric - Zone 2 (Over) - Exempt	UT to Meadow Branch (D & C)	(P-100)	216	3	1' GFP / 1' GC line
Impact Area C (W1-06)	P	Utility Crossing - Non-Electric - Wetland Buffer - Exempt	Wetland W10	(W-10)	39	3	1' GFP / 1' GC line
Impact Area D (W1-09)	P	Road Crossing - Wetland Buffer - Allowable	Wetland W6	(W-10)	704	75	red cross hatch



SHEET WI-00



SHEET WI-01



SHIPMAN
ENGINEERING

137 MIDDLEGREEN PLACE SHIPMAN ENGINEERING, PLLC
HOLLY SPRINGS, NC 27540 NCBELS LICENSE P-1963

PYEWACKET SUBDIVISION-PHASE 1

VICINITY MAP

CHATHAM & ORANGE COUNTIES, NORTH CAROLINA

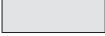


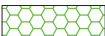







PLAN INFORMATION

PROJECT #: 2022-014

DRAWN BY: WZS

SCALE: AS NOTED

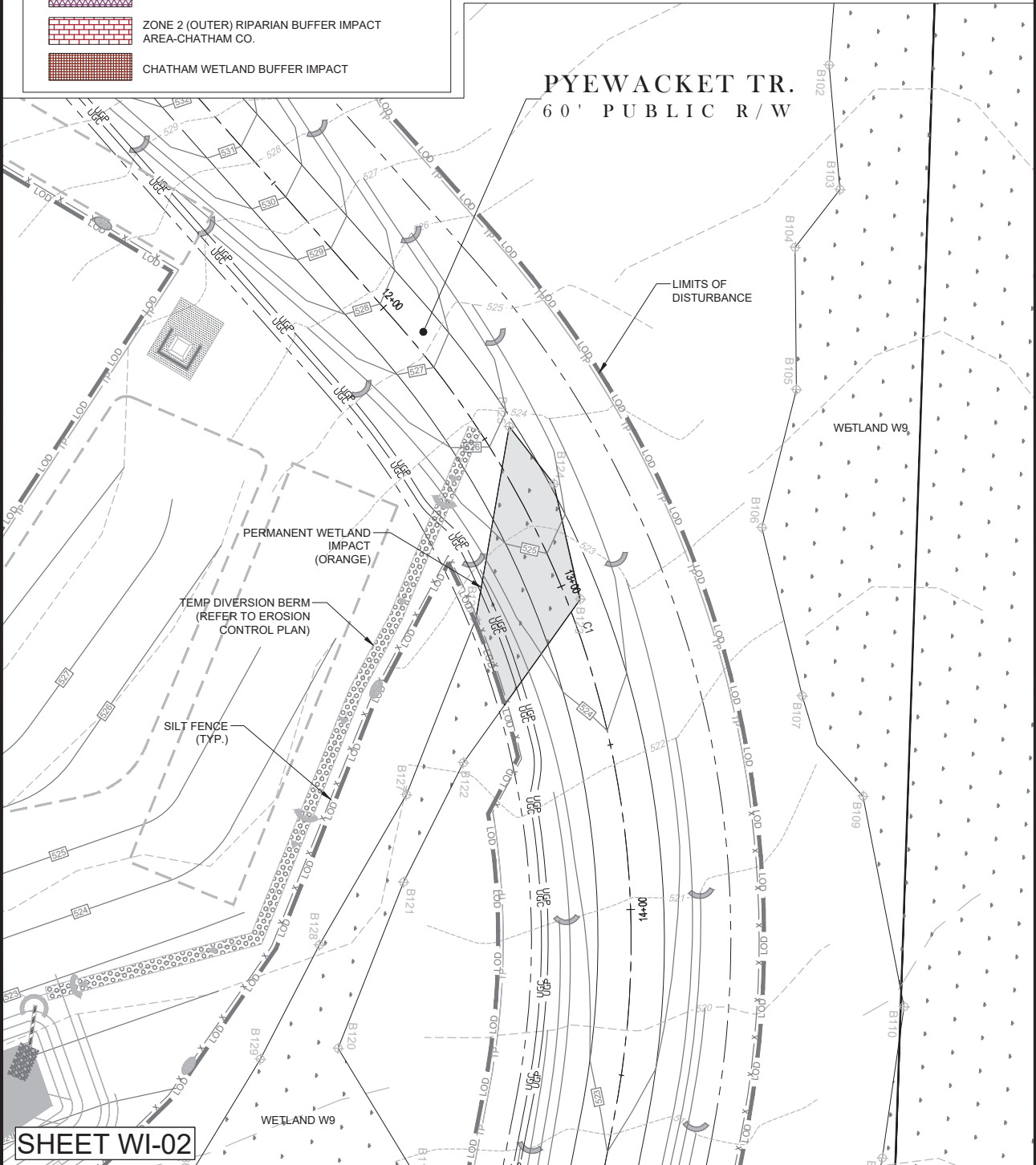
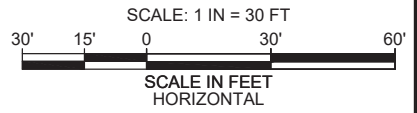
DATE: 09/16/2022

-  PERMANENT WETLAND IMPACT AREA-ORANGE CO.
-  PERMANENT WETLAND IMPACT AREA-CHATHAM CO.
-  PERMANENT LINEAR WETLAND IMPACT
-  PERMANENT STREAM IMPACT AREA-ORANGE CO.
-  PERMANENT STREAM IMPACT AREA-NO PERMANENT LOSS (DISSIPATOR PAD)- ORANGE CO.
-  TEMPORARY STREAM IMPACT AREA-ORANGE CO.
-  ZONE 1 RIPARIAN BUFFER IMPACT AREA-STATE
-  ZONE 2 (INNER) RIPARIAN BUFFER IMPACT AREA-STATE
-  ZONE 3 RIPARIAN BUFFER IMPACT AREA-ORANGE CO.
-  ZONE 2 (OUTER) RIPARIAN BUFFER IMPACT AREA-CHATHAM CO.
-  CHATHAM WETLAND BUFFER IMPACT








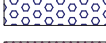


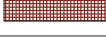
IMPACT AREA 'A' TOTALS:

PERMANENT WETLAND IMPACT (ORANGE CO.): 1,475 SF (0.034 AC.)
 PERMANENT WETLAND IMPACT (CHATHAM CO.): NONE
 PERMANENT LINEAR WETLAND IMPACT: NONE
 PERMANENT STREAM IMPACT-ORANGE CO.: NONE
 PERMANENT STREAM IMPACT (NO PERM. LOSS-DISSIPATOR)-ORANGE CO.: NONE
 TEMPORARY STREAM IMPACT: ORANGE CO.: NONE
 ZONE 1 RIPARIAN BUFFER IMPACT (STATE): NONE
 ZONE 2 (INNER) RIPARIAN BUFFER IMPACT (STATE): NONE
 ZONE 2 (OUTER) RIPARIAN BUFFER IMPACT (ORANGE CO.): NONE
 ZONE 2 (OUTER) RIPARIAN BUFFER IMPACT (CHATHAM CO.): NONE
 CHATHAM CO. WETLAND BUFFER-ZONE 1: NONE

****NO CHATHAM COUNTY BUFFER IMPACTS ON THIS SHEET****



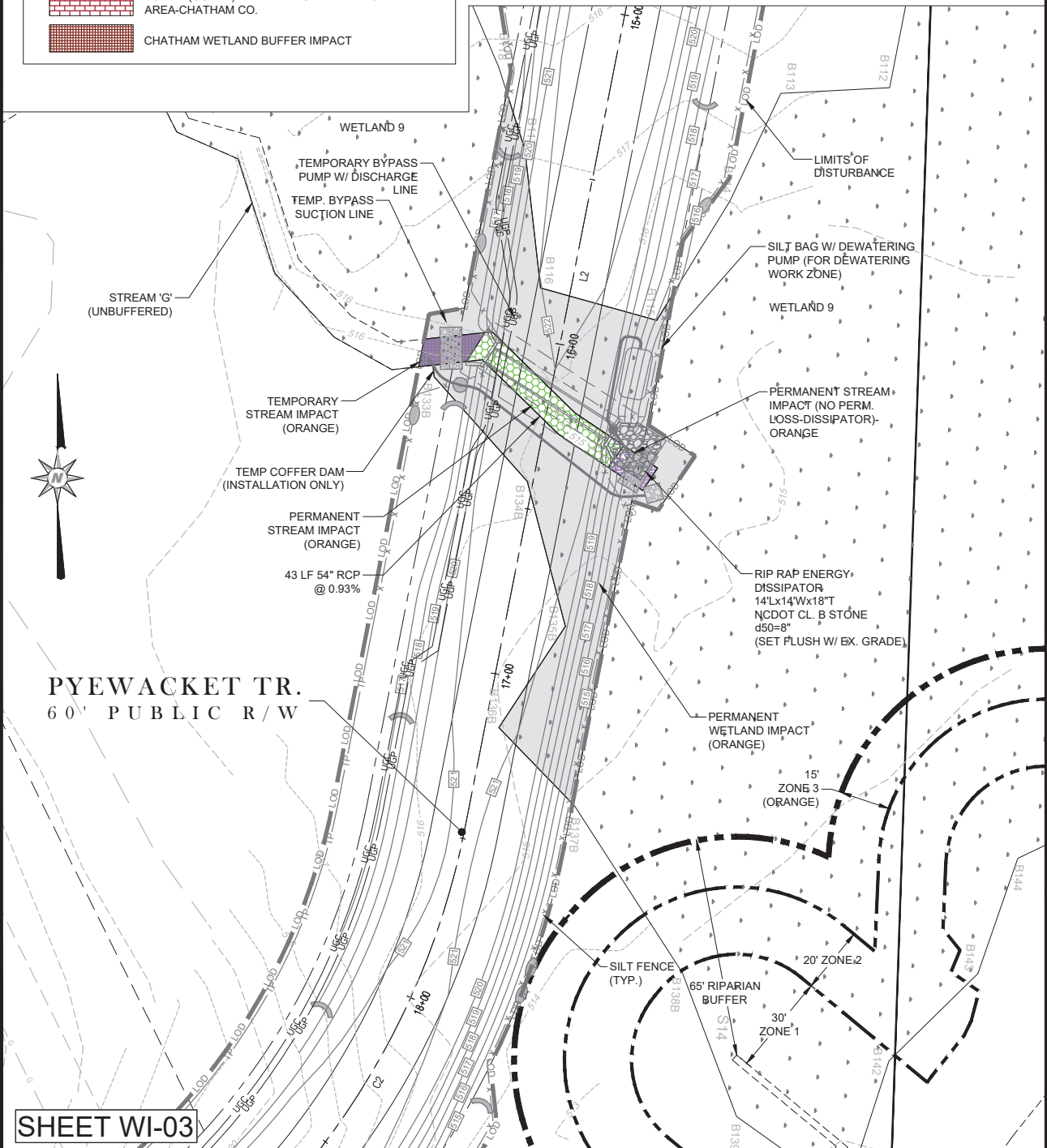
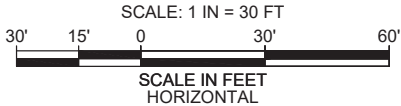
SHEET WI-02

-  PERMANENT WETLAND IMPACT AREA-ORANGE CO.
-  PERMANENT WETLAND IMPACT AREA-CHATHAM CO.
-  PERMANENT LINEAR WETLAND IMPACT
-  PERMANENT STREAM IMPACT AREA-ORANGE CO.
-  PERMANENT STREAM IMPACT AREA-NO PERMANENT LOSS (DISSIPATOR PAD)- ORANGE CO.
-  TEMPORARY STREAM IMPACT AREA-ORANGE CO.
-  ZONE 1 RIPARIAN BUFFER IMPACT AREA-STATE
-  ZONE 2 (INNER) RIPARIAN BUFFER IMPACT AREA-STATE
-  ZONE 3 RIPARIAN BUFFER IMPACT AREA-ORANGE CO.
-  ZONE 2 (OUTER) RIPARIAN BUFFER IMPACT AREA-CHATHAM CO.
-  CHATHAM WETLAND BUFFER IMPACT

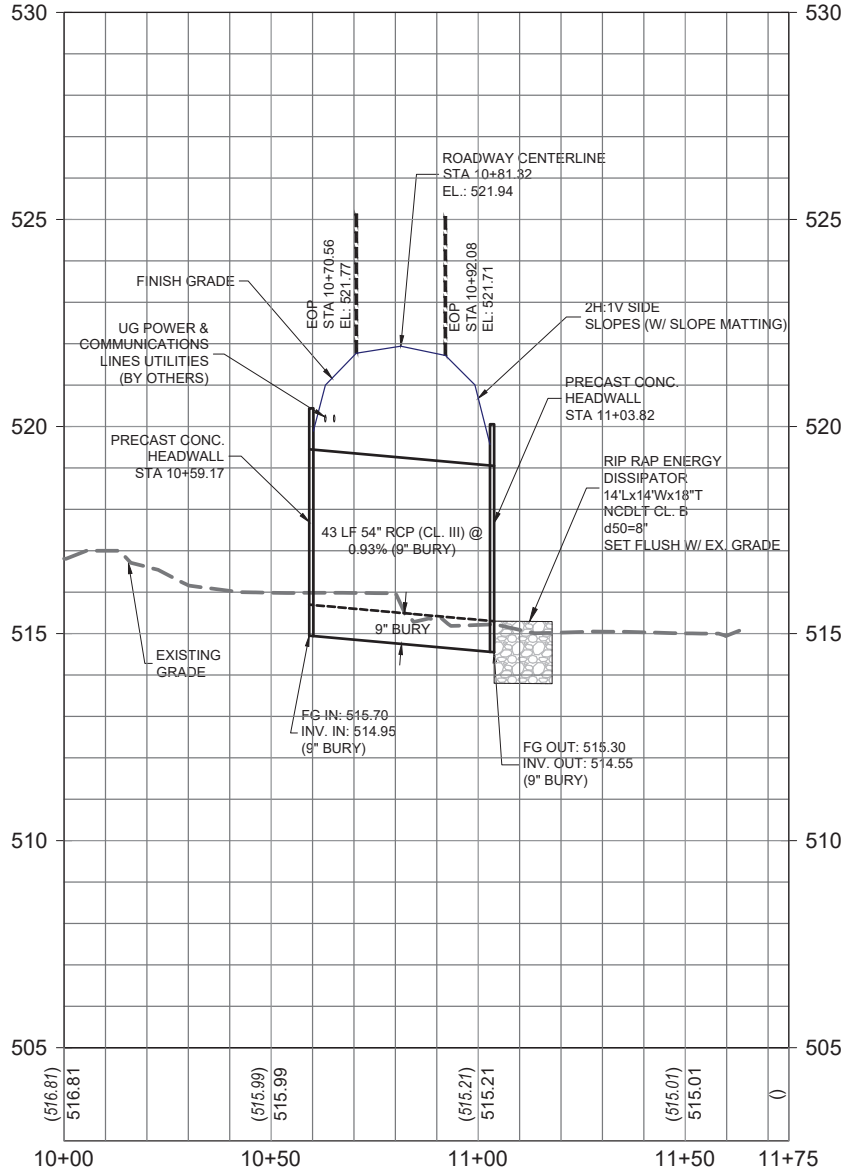
IMPACT AREA 'B' TOTALS:

PERMANENT WETLAND IMPACT (ORANGE CO.): 5,304 SF (0.122 AC.)
 PERMANENT WETLAND IMPACT (CHATHAM CO.): NONE
 PERMANENT LINEAR WETLAND IMPACT: NONE
 PERMANENT STREAM IMPACT-ORANGE CO.: AREA : 435 SF (0.010AC.)
 LENGTH: 54 LF
 PERM. STREAM IMPACT (NO PERM. LOSS-DISSIPATOR)-ORANGE CO.: AREA: 59 SF (0.001 AC.)
 LENGTH: 10 LF
 TEMPORARY STREAM IMPACT: ORANGE CO.: AREA: 169 SF (0.004 AC.)
 LENGTH: 29 LF
 ZONE 1 RIPARIAN BUFFER IMPACT (STATE): NONE
 ZONE 2 (INNER) RIPARIAN BUFFER IMPACT (STATE): NONE
 ZONE 3 RIPARIAN BUFFER IMPACT (ORANGE CO.): NONE
 ZONE 2 (OUTER) RIPARIAN BUFFER IMPACT (CHATHAM CO.): NONE
 CHATHAM CO. WETLAND BUFFER IMPACTS: NONE

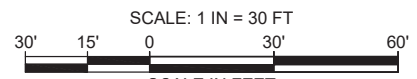
****NO CHATHAM COUNTY BUFFER IMPACTS ON THIS SHEET****



****NO CHATHAM COUNTY BUFFER IMPACTS ON THIS SHEET****



SCALE IN FEET VERTICAL



SCALE IN FEET HORIZONTAL

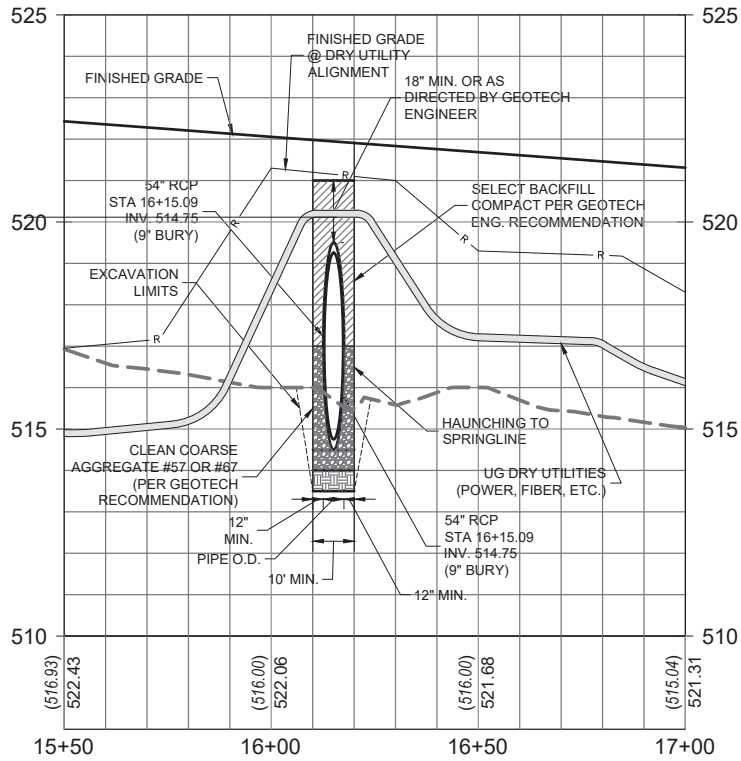
SHEET WI-04

SHIPMAN ENGINEERING
 137 MIDDLEGREEN PLACE SHIPMAN ENGINEERING, PLLC
 HOLLY SPRINGS, NC 27540 NCBELS LICENSE P-1963

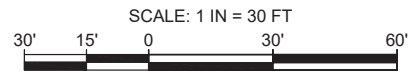
PYEWACKET SUBDIVISION-PHASE 1
STREAM CROSSING B CULVERT PROFILE VIEW
 CHATHAM & ORANGE COUNTIES, NORTH CAROLINA

PLAN INFORMATION
 PROJECT #: 2022-014
 DRAWN BY: WZS
 SCALE: AS NOTED
 DATE: 09/16/2022

****NO CHATHAM COUNTY BUFFER IMPACTS ON THIS SHEET****



SCALE IN FEET VERTICAL



SCALE IN FEET HORIZONTAL

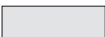






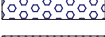



SHEET WI-05

SHIPMAN ENGINEERING

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 HOLLY SPRINGS, NC 27540 NCBELS LICENSE P-1963

**PYEWACKET SUBDIVISION-PHASE 1
 STREAM CROSSING B CULVERT SECTION VIEW
 CHATHAM & ORANGE COUNTIES, NORTH CAROLINA**

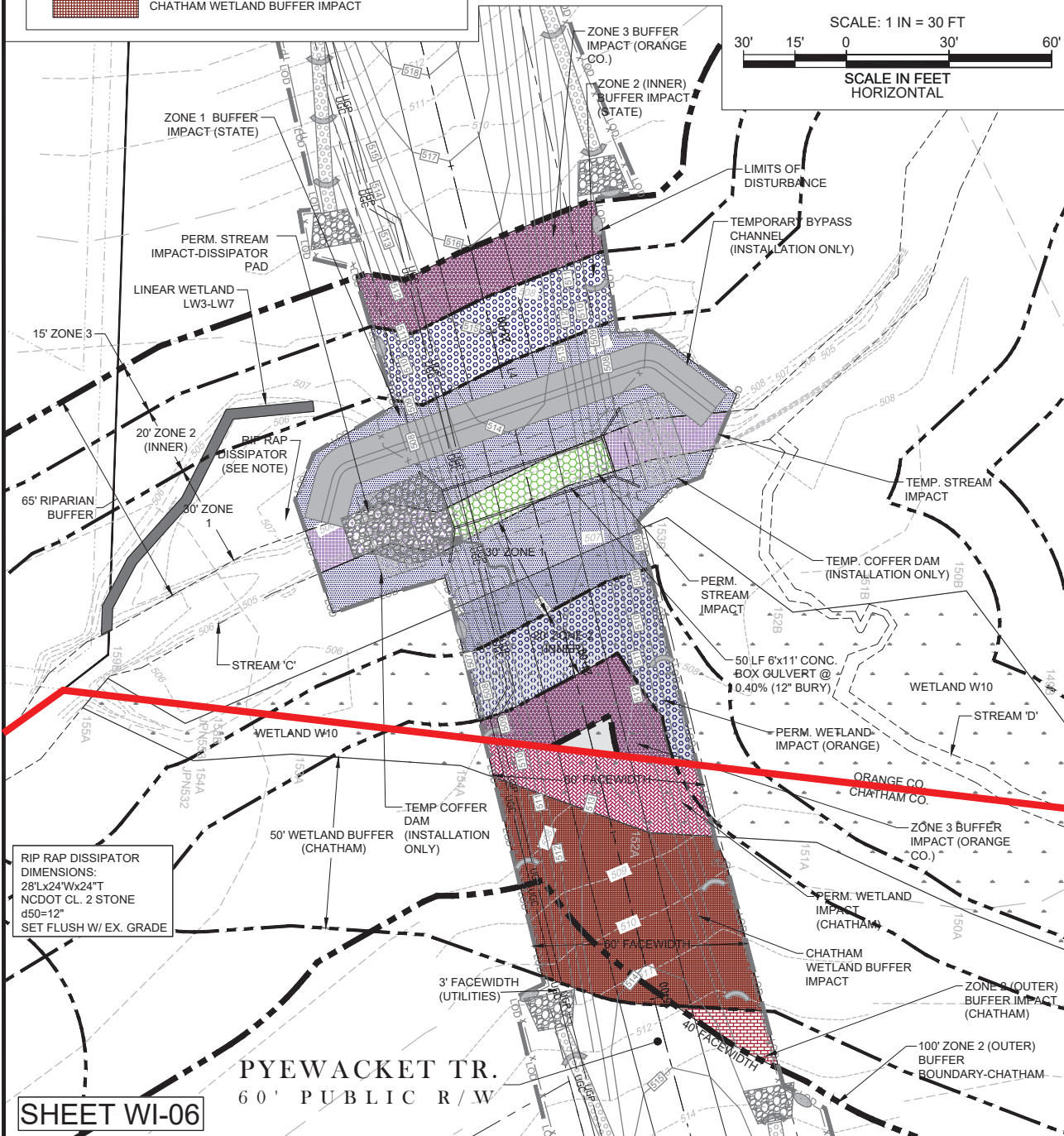
PLAN INFORMATION
 PROJECT #: 2022-014
 DRAWN BY: WZS
 SCALE: AS NOTED
 DATE: 09/16/2022

-  PERMANENT WETLAND IMPACT AREA-ORANGE CO.
-  PERMANENT WETLAND IMPACT AREA-CHATHAM CO.
-  PERMANENT LINEAR WETLAND IMPACT
-  PERMANENT STREAM IMPACT AREA-ORANGE CO.
-  PERMANENT STREAM IMPACT AREA-NO PERMANENT LOSS (DISSIPATOR PAD)- ORANGE CO.
-  TEMPORARY STREAM IMPACT AREA-ORANGE CO.
-  ZONE 1 RIPARIAN BUFFER IMPACT AREA-STATE
-  ZONE 2 (INNER) RIPARIAN BUFFER IMPACT AREA-STATE
-  ZONE 3 RIPARIAN BUFFER IMPACT AREA-ORANGE CO.
-  ZONE 2 (OUTER) RIPARIAN BUFFER IMPACT AREA-CHATHAM CO.
-  CHATHAM WETLAND BUFFER IMPACT

IMPACT AREA 'C' TOTALS:

Sheet WI-06 Buffer Impacts							
Buffer Impact Number	Permanent/Temporary	Purpose/Type of Impact	Stream Name (from USGS Map, UT)	Buffer Type	Square Feet	Buffer Feet Width	Impact Hatching Color
Impact Area C - Total	P	Road Crossing Total	UT to Meadow Branch (D & C), Wetland W10	-	12969	-	-
Impact Area C	P	Road Crossing - Zone 2 (Inner) - Allowable	UT to Meadow Branch (D & C)	(P-100)	2982	60	red cross hatch
Impact Area C	P	Road Crossing - Zone 2 (Outer) - Allowable	UT to Meadow Branch (D & C)	(P-100)	237	40	red back
Impact Area C	P	Road Crossing - Wetland Buffer - Allowable	Wetland W10	(W-50)	3362	60	red cross hatch
Impact Area C	P	Utility Crossing - Electric - Zone 2 (Outer) - Easement	Branch (D & C)	(P-100)	219	3	UGP/UGC line
Impact Area C	P	Utility Crossing - Electric - Wetland Buffer - Easement	Wetland W10	(W-50)	39	3	UGP/UGC line
Impact Area C	P	Utility Crossing - Non-Electric - Zone 2 (Outer) - Easement	UT to Meadow Branch (D & C)	(P-100)	216	3	UGP/UGC line
Impact Area C	P	Utility Crossing - Non-Electric - Wetland Buffer - Easement	Wetland W10	(W-50)	39	3	UGP/UGC line

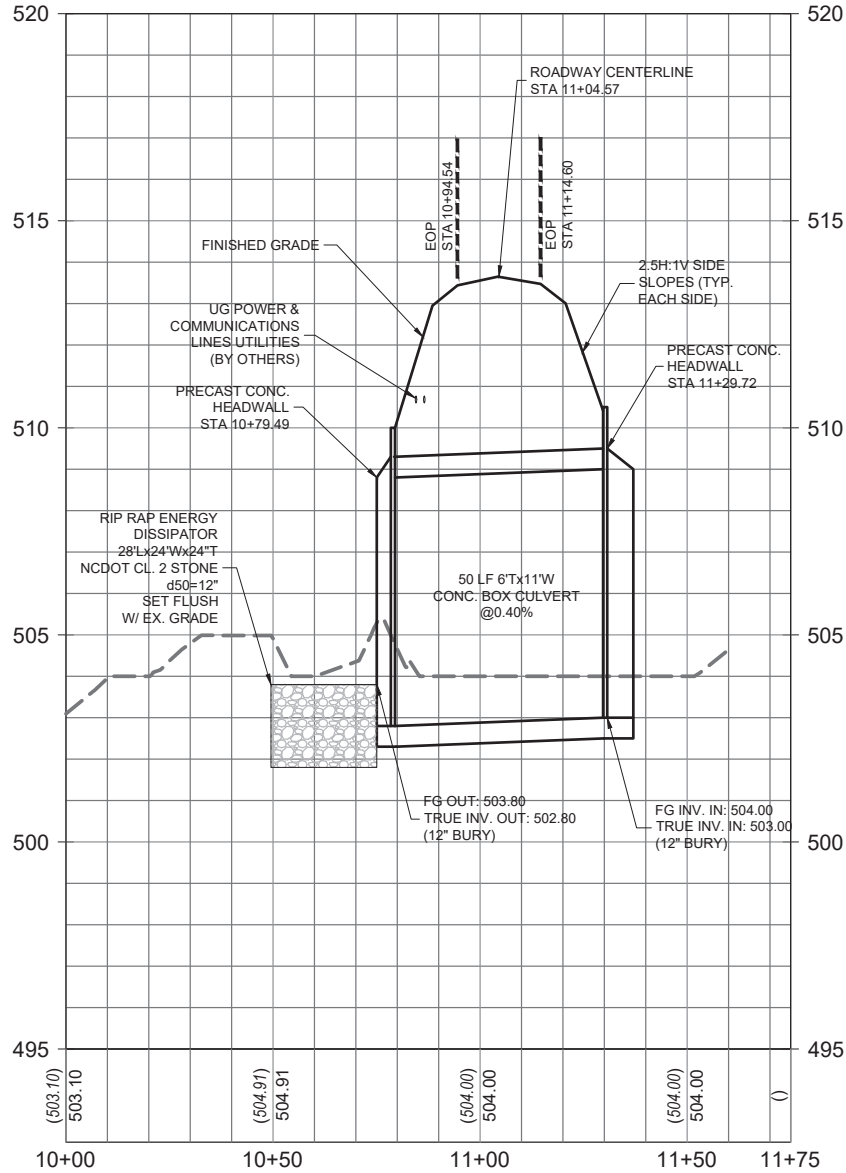
TOTALS ABOVE ONLY REFLECT RIPARIAN BUFFER IMPACTS WITHIN CHATHAM COUNTY



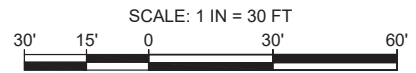
RIP RAP DISSIPATOR DIMENSIONS:
28'Lx24"Wx24"H
NCDOT CL. 2 STONE
d50=12"
SET FLUSH W/ EX. GRADE

SHEET WI-06

PYEWACKET TR.
60' PUBLIC R/W



SCALE IN FEET VERTICAL



SCALE: 1 IN = 30 FT

SCALE IN FEET HORIZONTAL

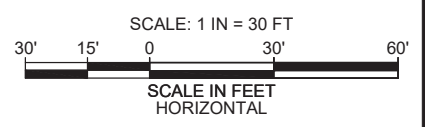
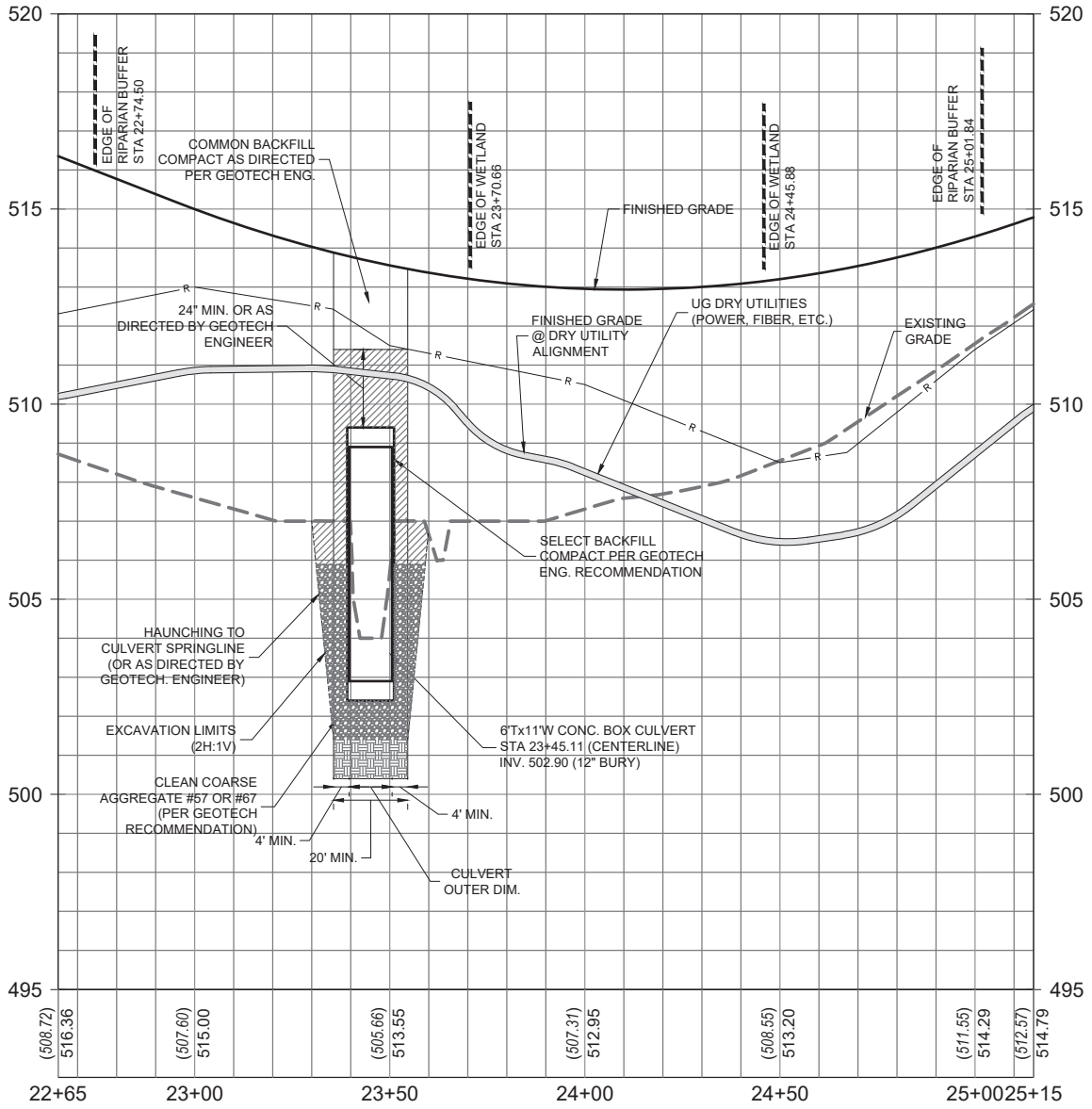
SHEET WI-07

SHIPMAN ENGINEERING

137 MIDDLEGREEN PLACE SHIPMAN ENGINEERING, PLLC
HOLLY SPRINGS, NC 27540 NCBELS LICENSE P-1963

**PYEWACKET SUBDIVISION-PHASE 1
STREAM CROSSING C CULVERT PROFILE VIEW
CHATHAM & ORANGE COUNTIES, NORTH CAROLINA**

PLAN INFORMATION
PROJECT #: 2022-014
DRAWN BY: WZS
SCALE: AS NOTED
DATE: 09/16/2022

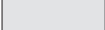












SHEET WI-08

SHIPMAN ENGINEERING
 137 MIDDLEGREEN PLACE SHIPMAN ENGINEERING, PLLC
 HOLLY SPRINGS, NC 27540 NCBELS LICENSE P-1963

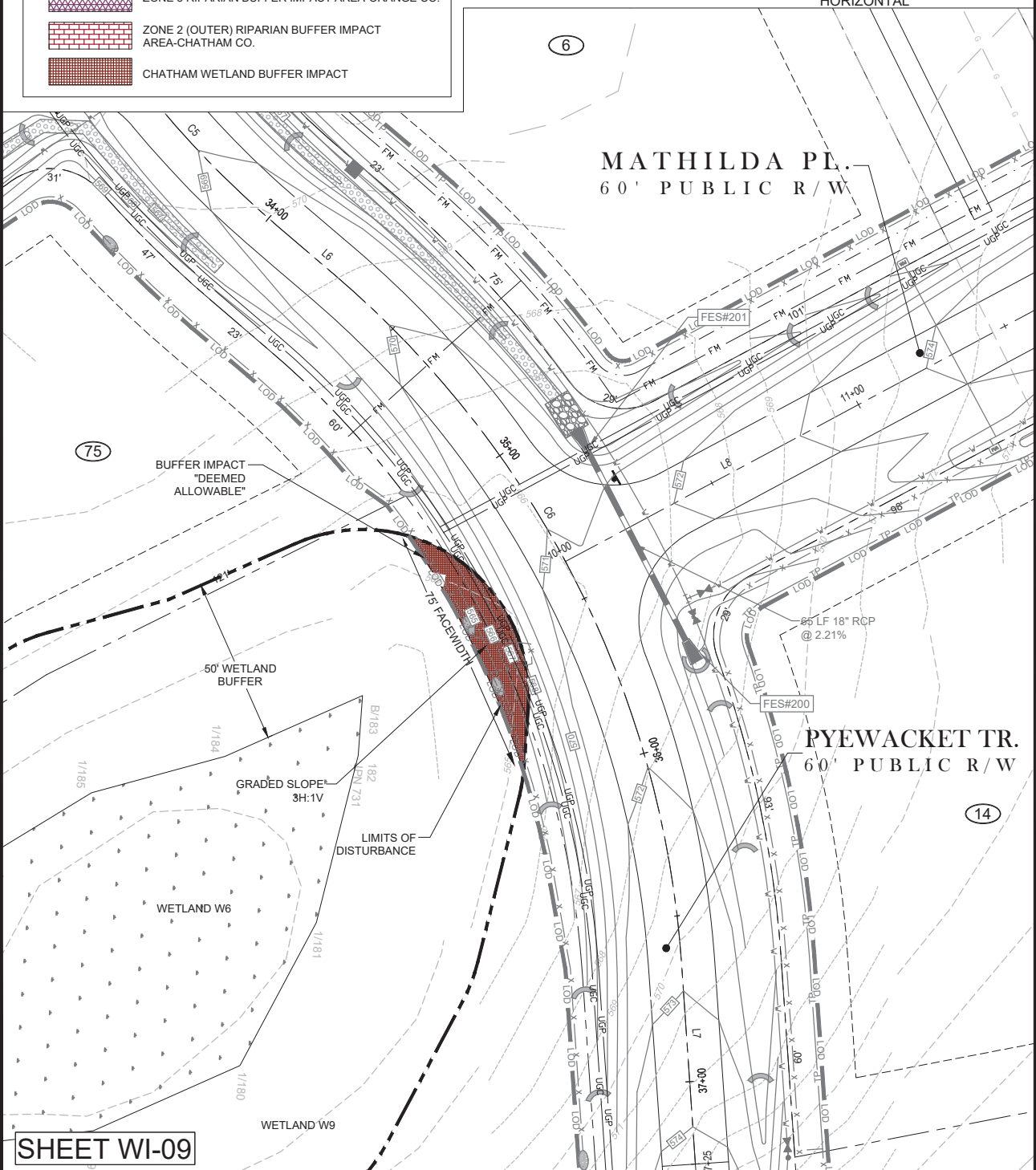
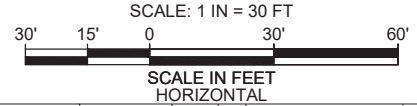
PYEWACKET SUBDIVISION-PHASE 1
STREAM CROSSING C CULVERT SECTION VIEW
 CHATHAM & ORANGE COUNTIES, NORTH CAROLINA

PLAN INFORMATION
 PROJECT #: 2022-014
 DRAWN BY: WZS
 SCALE: AS NOTED
 DATE: 09/16/2022

-  PERMANENT WETLAND IMPACT AREA-ORANGE CO.
-  PERMANENT WETLAND IMPACT AREA-CHATHAM CO.
-  PERMANENT LINEAR WETLAND IMPACT
-  PERMANENT STREAM IMPACT AREA-ORANGE CO.
-  PERMANENT STREAM IMPACT AREA-NO PERMANENT LOSS (DISSIPATOR PAD)- ORANGE CO.
-  TEMPORARY STREAM IMPACT AREA-ORANGE CO.
-  ZONE 1 RIPARIAN BUFFER IMPACT AREA-STATE
-  ZONE 2 (INNER) RIPARIAN BUFFER IMPACT AREA-STATE
-  ZONE 3 RIPARIAN BUFFER IMPACT AREA-ORANGE CO.
-  ZONE 2 (OUTER) RIPARIAN BUFFER IMPACT AREA-CHATHAM CO.
-  CHATHAM WETLAND BUFFER IMPACT

IMPACT AREA 'D' TOTALS:

Sheet WI-09 Buffer Impacts							
Buffer Impact Number	Permanent/Temporary	Purpose/Type of Impact	Stream Name (from USGS Map, UT)	Buffer Type	Square Feet	Buffer Face Width	Impact Hatching Color
Impact Area D	P	Road Corridor - Wetland Buffer - Allowable	Wetland W6	(W - 50')	704	75	red cross hatch



SHEET WI-09

SHIPMAN ENGINEERING
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 HOLLY SPRINGS, NC 27540 NCBELS LICENSE P-1963

PYEWACKET SUBDIVISION-PHASE 1
 WETLAND BUFFER IMPACT AREA 'D'
 CHATHAM & ORANGE COUNTIES, NORTH CAROLINA

PLAN INFORMATION
 PROJECT #: 2022-014
 DRAWN BY: WZS
 SCALE: AS NOTED
 DATE: 09/16/2022

Project Impacts Inventory

Impact Summary

Jordan Only Buffers	Intermittent (I-50)	No	Which types of buffers will be impacted by the project?	
			Perennial (P - 50)	No
County + Jordan Buffers	Ephemeral (E-30)	No	Intermittent (I - 50)	Yes
	Perennial (P - 100)	Yes	Perennial Water Body (WPB-50)	No
	Wetland (W - 50)	Yes	FEMA Floodplain (FP - Extents)	No

Buffer Impacts

Buffer Impact Number	Permanent/Temporary	Purpose/Type of Impact	Stream Name (from USGS Map, UT (unnamed tributary of stream name on USGS))	Buffer Type	Square Feet	Buffer Face Width (Linear Impact)	Impact Hatching Color
Impact Area C - Total	P	Road Crossing Total	UT to Meadow Branch (D & C), Wetland W10		12969		
Impact Area C	IP	Road Crossing - Zone 1 - Allowable	UT to Meadow Branch (D & C)	(P-100)	5875	60	pink herringbone
Impact Area C	P	Road Crossing - Zone 2 (Inner) - Allowable	UT to Meadow Branch (D & C)	(P-100)	2982	60	red cross hatch
Impact Area C	P	Road Crossing - Zone 2 (Outer) - Allowable	UT to Meadow Branch (D & C)	(P-100)	237	40	red brick
Impact Area C	P	Road Crossing - Wetland Buffer - Allowable	Wetland W10	(W - 50)	3362	60	red cross hatch
Impact Area C	P	Utility Crossing - Electric - Zone 2 (Outer) - Exempt	UT to Meadow Branch (D & C)	(W - 50)	219	3	UGP/UGC line
Impact Area C	P	Utility Crossing - Electric - Wetland Buffer - Exempt	Wetland W10	(W - 50)	39	3	UGP/UGC line
Impact Area C	P	Utility Crossing - Non-Electric - Zone 2 (Outer) - Exempt	UT to Meadow Branch (D & C)	(P-100)	216	3	UGP/UGC line
Impact Area C	IP	Utility Crossing - Non-Electric - Wetland Buffer - Exempt	Wetland W10	(W - 50)	39	3	UGP/UGC line
Impact Area D	P	Road Crossing - Wetland Buffer - Allowable	Wetland W6	(W - 50)	704	75	red cross hatch

Add rows as needed to list all buffer impacts separately. For buffers in the Jordan Lake Watershed, report I, P, and WB impacts as (Zone 1) first 30-feet, and (Zone 2) 30-50 feet landward. List any buffer impacts beyond Zone 2 normally.

**U.S. ARMY CORPS OF ENGINEERS
WILMINGTON DISTRICT**

Action Id. SAW-2021-00165 County: Orange U.S.G.S. Quad: NC-Bynum

GENERAL PERMIT (REGIONAL AND NATIONWIDE) VERIFICATION

Permittee: Griffith Capital, LLC.
Attn: Warren Mitchell
Address: 104 Amber Wood Run
Chapel Hill, North Carolina 27516
Telephone Number: 919.593.1916
E-mail: warrendmitchellpe@gmail.com

Size (acres)	<u>~140</u>	Nearest Town	<u>Chapel Hill</u>
Nearest Waterway	<u>Wilkinson Creek</u>	River Basin	<u>Cape Fear</u>
USGS HUC	<u>03030002</u>	Coordinates	Latitude: <u>35.8585</u> Longitude: <u>-79.1498</u>

Location description: The project area is located at 0 Jones Ferry Road in Chapel Hill, Orange and Chatham Counties, North Carolina.

Description of projects area and activity: This verification authorizes the permanent discharge of fill material into 0.254 acre of riparian non-riverine wetlands and 176 linear feet (0.04 acre) of stream channel with 111 linear feet (0.02 acre) resulting in a loss of waters of the US. This verification also authorizes the temporary discharge of fill material into 48 linear feet (0.01 acre) of stream channel for dewatering activities. These impacts are necessary for the Pyewacket Subdivision development and associated infrastructure.

Applicable Law(s): Section 404 (Clean Water Act, 33 USC 1344)
 Section 10 (Rivers and Harbors Act, 33 USC 403)

Authorization: **Nationwide Permit 29 – Residential Development**

SEE ATTACHED NWP GENERAL, REGIONAL, AND/OR SPECIAL CONDITIONS

Your work is authorized by the above referenced permit provided it is accomplished in strict accordance with the attached Conditions, your application signed and dated 11/4/2022, and the enclosed plans “Pyewacket Subdivision – Phase 1” dated 9/16/2022. Any violation of the attached conditions or deviation from your submitted plans may subject the permittee to a stop work order, a restoration order, a Class I administrative penalty, and/or appropriate legal action.

This verification will remain valid until the expiration date identified below unless the nationwide and/or regional general permit authorization is modified, suspended or revoked. If, prior to the expiration date identified below, the nationwide and/or regional general permit authorization is reissued and/or modified, this verification will remain valid until the expiration date identified below, provided it complies with all requirements of the modified nationwide permit. If the nationwide and/or regional general permit authorization expires or is suspended, revoked, or is modified, such that the activity would no longer comply with the terms and conditions of the nationwide permit, activities which have commenced (i.e., are under construction) or are under contract to commence in reliance upon the nationwide and/or regional general permit, will remain authorized provided the activity is completed within twelve months of the date of the nationwide and/or regional general permit’s expiration, modification or revocation, unless discretionary authority has been exercised on a case-by-case basis to modify, suspend or revoke the authorization.

Activities subject to Section 404 (as indicated above) may also require an individual Section 401 Water Quality Certification. You should contact the NC Division of Water Resources (telephone 919-807-6300) to determine Section 401 requirements.

For activities occurring within the twenty coastal counties subject to regulation under the Coastal Area Management Act (CAMA), prior to beginning work you must contact the N.C. Division of Coastal Management **Morehead City, NC, at (252) 808-2808.**

This Department of the Army verification does not relieve the permittee of the responsibility to obtain any other required Federal, State or local approvals/permits. If there are any questions regarding this verification, any of the conditions of the Permit, or the Corps of Engineers regulatory program, please contact **April Norton** at **919-441-3637** or **April.R.Norton@usace.army.mil**.

Corps Regulatory Official: April R. Norton Date: **01/10/2023**
Expiration Date of Verification: **3/14/2026**

The Wilmington District is committed to providing the highest level of support to the public. To help us ensure we continue to do so, please complete the Customer Satisfaction Survey located at http://corpsmapu.usace.army.mil/cm_apex/f?p=136:4:0

Copy furnished:

Agent: **Sage Ecological Services, Inc.**
Attn: Kim Hamlin
Address: **3707 Swift Drive**
Raleigh, North Carolina 27606
Telephone Number: **919.622.7888**
E-mail: **khamlin@sageecological.com**

SPECIAL CONDITIONS

a. To compensate for impacts associated with this permit, mitigation shall be provided in accordance with the provisions outlined on the most recent version of the attached Compensatory Mitigation Responsibility Transfer Form. The requirements of this form, including any special conditions listed on this form, are hereby incorporated as special conditions of this permit authorization.

Action ID Number: SAW-2021-00165

County: Orange

Permittee: Griffith Capital, LLC., Attn: Warren Mitchell

Project Name: Pyewacket Subdivision

Date Verification Issued: 01/10/2023

Project Manager: April Norton

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the following address:

US ARMY CORPS OF ENGINEERS
WILMINGTON DISTRICT
Attn: April Norton
Raleigh Regulatory Office
U.S Army Corps of Engineers
3331 Heritage Trade Drive, Suite 105
Wake Forest, North Carolina 27587
or
April.R.Norton@usace.army.mil

Please note that your permitted activity is subject to a compliance inspection by a U. S. Army Corps of Engineers representative. Failure to comply with any terms or conditions of this authorization may result in the Corps suspending, modifying or revoking the authorization and/or issuing a Class I administrative penalty, or initiating other appropriate legal action.

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and condition of the said permit, and required mitigation was completed in accordance with the permit conditions.

Signature of Permittee

Date

U.S. ARMY CORPS OF ENGINEERS
Wilmington District
Compensatory Mitigation Responsibility Transfer Form

Permittee: Griffith Capital, LLC., Attn: Warren Mitchell
Project Name: Pyewacket Subdivision

Action ID: SAW-2021-00165
County: Orange

Instructions to Permittee: The Permittee must provide a copy of this form to the Mitigation Sponsor, either an approved Mitigation Bank or the North Carolina Division of Mitigation Services (NCDMS), who will then sign the form to verify the transfer of the mitigation responsibility. Once the Sponsor has signed this form, it is the Permittee’s responsibility to ensure that Wilmington District Project Manager identified on page two is in receipt of a signed copy of this form before conducting authorized impacts, unless otherwise specified below. If more than one Mitigation Sponsor will be used to provide the mitigation associated with the permit, or if the impacts and/or the mitigation will occur in more than one 8-digit Hydrologic Unit Code (HUC), multiple forms will be attached to the permit, and the separate forms for each Sponsor and/or HUC must be provided to the appropriate Mitigation Sponsors.

Instructions to Sponsor: The Sponsor verifies that the mitigation requirements (credits) shown below have been released and are available at the identified site. By signing below, the Sponsor is accepting full responsibility for the identified mitigation, regardless of whether they have received payment from the Permittee. Once the form is signed, the Sponsor must update the bank ledger and provide a copy of the signed form and the updated ledger to the Permittee, the Project Manager who issued the permit, the Bank Project Manager, and the District Mitigation Office (see contact information on page 2). The Sponsor must also comply with all reporting requirements established in their authorizing instrument.

Permitted Impacts and Compensatory Mitigation Requirements:

Permitted Impacts Requiring Mitigation*			8-digit HUC and Basin: 03030002, Cape Fear River Basin			
Stream Impacts (linear feet)			Wetland Impacts (acres)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
				0.254		

*If more than one mitigation sponsor will be used for the permit, only include impacts to be mitigated by this sponsor.

Compensatory Mitigation Requirements:			8-digit HUC and Basin: 03030002, Cape Fear River Basin			
Stream Mitigation (credits)			Wetland Mitigation (credits)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
				0.510		

Mitigation Site Debited: RES CF 02 UMB – Cloud & Banner Site
 (List the name of the bank to be debited. For umbrella banks, also list the specific site. For NCDMS, list NCDMS. If the NCDMS acceptance letter identifies a specific site, also list the specific site to be debited).

Section to be completed by the Mitigation Sponsor

Statement of Mitigation Liability Acceptance: I, the undersigned, verify that I am authorized to approve mitigation transactions for the Mitigation Sponsor shown below, and I certify that the Sponsor agrees to accept full responsibility for providing the mitigation identified in this document (see the table above), associated with the USACE Permittee and Action ID number shown. I also verify that released credits (and/or advance credits for NCDMS), as approved by the Wilmington District, are currently available at the mitigation site identified above. Further, I understand that if the Sponsor fails to provide the required compensatory mitigation, the USACE Wilmington District Engineer may pursue measures against the Sponsor to ensure compliance associated with the mitigation requirements.

Mitigation Sponsor Name: _____

Name of Sponsor’s Authorized Representative: _____

Signature of Sponsor’s Authorized Representative **Date of Signature**

Conditions for Transfer of Compensatory Mitigation Credit:

- Once this document has been signed by the Mitigation Sponsor and the District is in receipt of the signed form, the Permittee is no longer responsible for providing the mitigation identified in this form, though the Permittee remains responsible for any other mitigation requirements stated in the permit conditions.
- Construction within jurisdictional areas authorized by the permit identified on page one of this form can begin only after the District is in receipt of a copy of this document signed by the Sponsor, confirming that the Sponsor has accepted responsibility for providing the mitigation requirements listed herein. When NCDMS provides mitigation for authorized impacts conducted by the North Carolina Department of Transportation (NCDOT), construction within jurisdictional areas may proceed upon permit issuance; however, a copy of this form signed by NCDMS must be provided to the District within 30 days of permit issuance. NCDOT remains fully responsible for the mitigation until the District has received this form, confirming that the Sponsor has accepted responsibility for providing the mitigation requirements listed herein.
- Signed copies of this document must be retained by the Permittee, Mitigation Sponsor, and in the USACE administrative records for both the permit and the Bank/ILF Instrument. It is the Permittee's responsibility to ensure that the District Project Manager (address below) is provided with a signed copy of this form.
- If changes are proposed to the type, amount, or location of mitigation after this form has been signed and returned to the District, the Sponsor must obtain case-by-case approval from the District Project Manager and/or North Carolina Interagency Review Team (NCIRT). If approved, higher mitigation ratios may be applied, as per current District guidance and a new version of this form must be completed and included in the District administrative records for both the permit and the Bank/ILF Instrument.

Comments/Additional Conditions: A letter from RES, confirming they are willing and able to accept the applicant's compensatory mitigation responsibility, dated 10/25/2022 was included with the preconstruction notification.

This form is not valid unless signed below by the District Project Manager and by the Mitigation Sponsor on Page 1. ***Once signed, the Sponsor should provide copies of this form along with an updated bank ledger to: 1) the Permittee, 2) the District Project Manager at the address below, 3) the Bank Manager listed in RIBITS, and 4) the Wilmington District Mitigation Office, 3331 Heritage Trade Drive, Suite 105, Wake Forest, NC 27587 (or by email to SAWMIT@usace.army.mil).***

Questions regarding this form or any of the permit conditions may be directed to the District Mitigation Office.

USACE Project Manager: April Norton
USACE Field Office: Raleigh Regulatory Office
US Army Corps of Engineers
3331 Heritage Trade Drive, Suite 105
Wake Forest, North Carolina 27587
Email: April.R.Norton@usace.army.mil

April R. Norton

USACE Project Manager Signature

01/10/2023

Date of Signature

Current Wilmington District mitigation guidance, including information on mitigation ratios, functional assessments, and mitigation bank location and availability, and credit classifications (including stream temperature and wetland groupings) is available at <http://ribits.usace.army.mil>.

ROY COOPER

Governor

ELIZABETH S. BISER

Secretary

RICHARD E. ROGERS, JR.

Director



NORTH CAROLINA
Environmental Quality

January 6, 2023

DWR# 20210230
Chatham & Orange Counties

Griffith Capital, LLC
Attn: Warren Mitchell
104 Amber Wood Run
Chapel Hill, NC 27516
(via email: warrendmitchellpe@gmail.com)

Subject: Approval of Individual 401 Water Quality Certification
Pyewacket Subdivision
USACE Action ID. No. SAW-2021-00165

Dear Mr. Mitchell:

Attached hereto is a copy of Certification No. 5507 issued to Warren Mitchell and Griffith Capital, LLC, dated January 6, 2023. This approval is for the purpose and design described in your application. The plans and specifications for this project are incorporated by reference as part of this Water Quality Certification. If you change your project, you must notify the Division and you may be required to submit a new application package with the appropriate fee. If the property is sold, the new owner must be given a copy of this Certification and is responsible for complying with all conditions. [15A NCAC 02H .0507(d)(2)].

This Water Quality Certification does not relieve the permittee of the responsibility to obtain all other required Federal, State, or Local approvals before proceeding with the project, including those required by, but not limited to, Sediment and Erosion Control, Non-Discharge, Water Supply Watershed, and Trout Buffer regulations.

This Water Quality Certification neither grants nor affirms any property right, license, or privilege in any lands or waters, or any right of use in any waters. This Water Quality Certification does not authorize any person to interfere with the riparian rights, littoral rights, or water use rights of any other person and does not create any prescriptive right or any right of priority regarding any usage of water. This Water Quality Certification shall not be interposed as a defense in any action respecting the determination of riparian or littoral rights or other rights to water use. No consumptive user is deemed by virtue of this Water Quality Certification to possess any prescriptive or other right of priority with respect to any other consumptive user.

Upon the presentation of proper credentials, the Division may inspect the property.

This Water Quality Certification shall expire on the same day as the expiration date of the corresponding Section 404 Permit. The conditions shall remain in effect for the life of the project, regardless of the expiration date of this Water Quality Certification.



North Carolina Department of Environmental Quality | Division of Water Resources

Raleigh Regional Office | 3800 Barrett Drive | Raleigh, North Carolina 27609

919.791.4200

Non-compliance with or violation of the conditions herein set forth may result in revocation of this Water Quality Certification for the project and may also result in criminal and/or civil penalties.

If you are unable to comply with any of the conditions of this Water Quality Certification you must notify the Raleigh Regional Office within 24 hours (or the next business day if a weekend or holiday) from the time the permittee becomes aware of the circumstances.

The permittee shall report to the Raleigh Regional Office any noncompliance with, and/or any violation of, stream or wetland standards [15A NCAC 02B .0200] including but not limited to sediment impacts to streams or wetlands. Information shall be provided orally within 24 hours (or the next business day if a weekend or holiday) from the time the permittee became aware of the non-compliance circumstances.

This approval and its conditions are final and binding unless contested [G.S. 143-215.5].

This Certification can be contested as provided in Chapter 150B of the North Carolina General Statutes by filing a Petition for a Contested Case Hearing (Petition) with the North Carolina Office of Administrative Hearings (OAH) **within sixty (60) calendar days**. Requirements for filing a Petition are set forth in Chapter 150B of the North Carolina General Statutes and Title 26 of the North Carolina Administrative Code. Additional information regarding requirements for filing a Petition and Petition forms may be accessed at <http://www.ncogh.com/> or by calling the OAH Clerk's Office at (919) 431-3000.

One (1) copy of the Petition must also be served to the North Carolina Department of Environmental Quality:

William F. Lane, General Counsel
Department of Environmental Quality
1601 Mail Service Center
Raleigh, NC 27699-1601

If the party filing the Petition is not the permittee, then the party must also serve the recipient of the Authorization Certificate in accordance with N.C.G.S 150B-23(a).

This letter completes the Division's review under section 401 of the Clean Water Act and 15A NCAC 02H .0500. Please contact Zach Thomas at 919-791-4255 or zachary.thomas@ncdenr.gov if you have any questions or concerns.

Sincerely,

DocuSigned by:
Vanessa E. Manuel, for
B2916E6AB32144F...

Scott Vinson, Regional Supervisor
Water Quality Regional Operations Section
Raleigh Regional Office
Division of Water Resources, NCDEQ

cc: Kim Hamlin, Sage Ecological Services, Inc. (via email: khamlin@sageecological.com)
Sean Clark, Sage Ecological Services, Inc. (via email: sclark@sageecological.com)
April Norton, USACE Raleigh Regulatory Field Office (via email)
Gabriela Garrison, NC Wildlife Resources Commission (via email)
DWR 401 & Buffer Permitting Branch Electronic file



NORTH CAROLINA 401 WATER QUALITY CERTIFICATION

CERTIFICATION #5507 is issued in conformity with the requirements of Section 401, Public Laws 92-500 and 95-217 of the United States and subject to North Carolina's Regulations in 15 NCAC 02H .0500 and 15A NCAC 02B .0200, to Warren Mitchell and Griffith Capital, LLC, who have authorization for the impacts listed below, as described within your application received by the N.C. Division of Water Resources (Division) on November 4, 2022, and payment received November 9, 2022, with additional information received December 22, 2022.

The State of North Carolina certifies that this activity will comply with water quality requirements and the applicable portions of Sections 301, 302, 303, 306, 307 of the Public Laws 92-500 and PL 95-217 if conducted in accordance with the application, the supporting documentation, and conditions hereinafter set forth.

The following impacts are hereby approved. No other impacts are approved, including incidental impacts. [15A NCAC 02H .0506(b)]

Type of Impact	Amount Approved (units) Permanent	Amount Approved (units) Temporary
404/401 Wetlands:		
WA: Road Crossing	0.034 (acres)	0 (acres)
WB: Road Crossing	0.121 (acres)	0 (acres)
WC: Road Crossing	0.099 (acres)	0 (acres)
404/401 Streams:		
S1: Road Crossing – Culvert	60 (linear feet)	0 (linear feet)
S2: Road Crossing – RipRap	8 (linear feet)	0 (linear feet)
S3: Road Crossing – Dewatering	0 (linear feet)	14 (linear feet)
S4: Road Crossing – Culvert	51 (linear feet)	0 (linear feet)
S5: Road Crossing – RipRap	57 (linear feet)	0 (linear feet)
S6: Road Crossing – Dewatering	0 (linear feet)	34 (linear feet)

This approval requires you to follow the conditions listed in the certification below:

CONDITIONS OF CERTIFICATION [15A NCAC 02H .0507(c)]:1) Compensatory Mitigation Using a Mitigation Bank

Mitigation must be provided for the proposed impacts as specified in the table below. The Division has received a Statement of Availability letter from EBX, LLC and the RES Cape Fear 02 Umbrella Mitigation Bank to meet this mitigation requirement. The specific site to be debited is the Cloud & Banner Site located in HUC 03030002. Until EBX, LLC, receives and clears your payment, and proof of payment has been provided to this Office, no impacts specified in this Certification shall occur. For accounting purposes, this Certification authorizes payment to EBX, LLC, to meet the following compensatory mitigation requirement [15A NCAC 02H .0506(c)]

Compensatory Mitigation	Compensatory Mitigation Required	Bank Sponsor	River & Sub-Basin Number
Wetlands	0.254 (acres)	EBX, LLC	Cape Fear: 03030002



Justification: A project that affects waters shall not be permitted unless the existing uses, and the water quality to protect such uses, are protected. In determining that the proposed activity will comply with state water quality standards (including designated uses, numeric criteria, narrative criteria and the state's antidegradation policy), the project must provide for replacement of existing uses through compensatory mitigation.

2) Erosion and Sediment Control:

Appropriate measures should be installed prior to any land clearing activities to protect wetlands, streams, and/or buffers from turbidity and/ or sedimentation. These measures should be routinely inspected and properly maintained, and excavated materials should be contained outside wetland, stream, and/or buffer boundaries. Excessive silt and sediment loads can have numerous detrimental effects on aquatic resources including destruction of spawning habitat, suffocation of eggs, and clogging of gills of aquatic species.

Citation: 15A NCAC 02H .0506 (b)(1) and (2)

Justification: Surface water quality standards require that conditions of waters be suitable for all best uses provided for in state rule (including, at minimum: aquatic life propagation, survival, and maintenance of biological integrity, wildlife, secondary contact recreation, agriculture); and that activities must not cause water pollution that precludes any best use on a short-term or long-term basis.

3) Stormwater Management Plan:

The Permittee shall secure an *approved* stormwater management plan (SMP) from the locally delegated government stormwater program before *any* impacts authorized in this certification occur.

Citation: 15A NCAC 02H .0506; 15A NCAC 02H .0507(c)

Justification: Surface water quality standards require that conditions of waters be suitable for all best uses provided for in state rule (including, at minimum: aquatic life propagation, survival, and maintenance of biological integrity; wildlife; secondary contact recreation; agriculture); and that activities must not cause water pollution that precludes any best use on a short-term or long-term basis.

4) Buffer Authorization:

The Permittee shall secure an *approved* Buffer Authorization from the delegated local governments before *any* impacts authorized in this certification occur.

Citation: 15A NCAC 02H .0506; 15A NCAC 02H .0507(c)

Justification: Surface water quality standards require that conditions of waters be suitable for all best uses provided for in state rule (including, at minimum: aquatic life propagation, survival, and maintenance of biological integrity; wildlife; secondary contact recreation; agriculture); and that activities must not cause water pollution that precludes any best use on a short-term or long-term basis.

5) If this Water Quality Certification is used to access residential, commercial or industrial building sites, then all parcels owned by the permittee that are part of the single and complete project authorized by this Certification must be buildable without additional impacts to streams or wetlands.

Citation: 15A NCAC 02H .0502(a); 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)

Justification: A project that affects waters shall not be permitted unless the existing uses, and the water quality to protect such uses, are protected. In determining that the proposed activity will comply with state water quality standards (including designated uses, numeric criteria, narrative criteria and the state's antidegradation policy), the Division must evaluate if the activity has avoided and minimized



impacts to waters, would cause or contribute to a violation of standards or would result in secondary or cumulative impacts

- 6) For road construction purposes, this Certification shall only be utilized from natural high ground to natural high ground.

Citation: 15A NCAC 02H .0502(a); 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)

Justification: A project that affects waters shall not be permitted unless the existing uses, and the water quality to protect such uses, are protected. In determining that the proposed activity will comply with state water quality standards (including designated uses, numeric criteria, narrative criteria and the state's antidegradation policy), the Division must evaluate if the activity has avoided and minimized impacts to waters, would cause or contribute to a violation of standards or would result in secondary or cumulative impacts.

- 7) Deed notifications or similar mechanisms shall be placed on all lots/parcels with retained jurisdictional wetlands, waters, and state regulated riparian buffers within the project boundaries in order to assure compliance with NC Water Quality Certification Rules (15A NCAC 02H .0500), NC Isolated Wetland Rules (15A NCAC 02H .1300), and/or State Regulated Riparian Buffer Rules (15A NCAC 02B .0200). These mechanisms shall be put in place at the time of recording of the property or individual parcels, whichever is appropriate.

Citation: 15A NCAC 02H .0502(a); 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)

Justification: A project that affects waters shall not be permitted unless the existing uses, and the water quality to protect such uses, are protected. In determining that the proposed activity will comply with state water quality standards (including designated uses, numeric criteria, narrative criteria and the state's antidegradation policy), the Division must evaluate if the activity has avoided and minimized impacts to waters, would cause or contribute to a violation of standards or would result in secondary or cumulative impacts.

- 8) For all dam removal projects meeting the definition under G.S. 143-215.25 and requirements under G.S. 143-215.27 of a professionally supervised dam removal, the applicant shall provide documentation that any sediment that may be released has similar or lower level of contamination than sediment sampled from downstream of the dam in accordance with Session Law 2017-145.

Citation: 15A NCAC 02H .0502; 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 02B .0200; S.L. 2017-145

Justification: A project that affects waters shall not be permitted unless the existing uses, and the water quality to protect such uses, are protected. In determining that the proposed activity will comply with state water quality standards (including designated uses, numeric criteria, narrative criteria and the state's antidegradation policy), the Division must evaluate if the activity has avoided and minimized impacts to waters, would cause or contribute to a violation of standards or would result in secondary or cumulative impacts.

- 9) If this Water Quality Certification is used for utility related impacts, then the following Activity Specific Conditions shall apply to those impacts.

- a) All sewer lines shall be designed, constructed and maintained in accordance with Title 15A NCAC Chapter 02T, applicable Minimum Design Criteria (MDC), and/or Alternative Design Criteria.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)



Justification: The referenced Minimum Design criteria and 02T rules were adopted to ensure that conditions of waters be suitable for all best uses provided for in state rule (including, at minimum: aquatic life propagation, survival, and maintenance of biological integrity; wildlife: secondary contact recreation: agriculture); and that activities must not cause water pollution that precludes any best use on a short-term or long-term basis.

- b) Any utility construction corridor that is parallel to a stream or open water shall not be closer than 10 feet to the top of bank or ordinary high-water mark.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)

Justification: A project that affects waters shall not be permitted unless the existing uses, and the water quality to protect such uses, are protected. In determining that the proposed activity will comply with state water quality standards (including designated uses, numeric criteria, narrative criteria and the state's antidegradation policy), the Division must evaluate if the activity has avoided and minimized impacts to waters, would cause or contribute to a violation of standards or would result in secondary or cumulative impacts.

- c) Where there are temporary or permanent impacts from stream crossings, utility lines shall cross the stream channel at a near-perpendicular direction (i.e., between 75 degrees and 105 degrees to the stream bank).

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)

Justification: A project that affects waters shall not be permitted unless the existing uses, and the water quality to protect such uses, are protected. In determining that the proposed activity will comply with state water quality standards (including designated uses, numeric criteria, narrative criteria and the state's antidegradation policy), the Division must evaluate if the activity has avoided and minimized impacts to waters, would cause or contribute to a violation of standards or would result in secondary or cumulative impacts.

- d) Construction corridors in wetlands and/or across stream channels shall be minimized to the maximum extent practicable and shall not exceed 40 feet wide for utility lines.

For construction corridors in wetlands and across stream channels, stumps shall be grubbed only as needed to install the utility and remaining stumps shall be cut off at grade level. The general stripping of topsoil within wetlands along the construction corridor is prohibited.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)

Justification: A project that affects waters shall not be permitted unless the existing uses, and the water quality to protect such uses, are protected. In determining that the proposed activity will comply with state water quality standards (including designated uses, numeric criteria, narrative criteria and the state's antidegradation policy), the Division must evaluate if the activity has avoided and minimized impacts to waters, would cause or contribute to a violation of standards or would result in secondary or cumulative impacts.

- e) Permanent maintained access corridors in wetlands and across stream channels shall be restricted to the minimum width practicable and shall not exceed 30 feet wide except at manhole locations.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)

Justification: A project that affects waters shall not be permitted unless the existing uses, and the water quality to protect such uses, are protected. In determining that the proposed activity will



comply with state water quality standards (including designated uses, numeric criteria, narrative criteria and the state's antidegradation policy), the Division must evaluate if the activity has avoided and minimized impacts to waters, would cause or contribute to a violation of standards or would result in secondary or cumulative impacts.

- f) For all utility lines constructed within wetlands, an anti-seep collar shall be placed at the downstream (utility line gradient) wetland boundary and every 150 feet up the gradient until the utility exits the wetland. Anti-seep collars may be constructed with class B concrete, compacted clay, PVC pipe, or metal collars. Wetland crossings that are directionally drilled, and perpendicular wetland crossings that are open cut and less than 150 feet long do not require anti-seep collars. The compacted clay shall have a specific infiltration of 1×10^{-5} cm/sec or less. See Water Quality General Certification No. 4256 for a section and plan view diagram for the anti-seep collars.

The following specifications shall apply to class B concrete:

- i) Minimum cement content, sacks per cubic yard with rounded coarse aggregate 5.0
- ii) Minimum cement content, sacks per cubic yard with angular coarse aggregate 5.5
- iii) Maximum water-cement ratio gallons per sack 6.8
- iv) Slump range 2" to 4"
- v) Minimum strength - 28-day psi 2,500

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)

Justification: A project that affects waters shall not be permitted unless the existing uses, and the water quality to protect such uses, are protected. In determining that the proposed activity will comply with state water quality standards (including designated uses, numeric criteria, narrative criteria and the state's antidegradation policy), the Division must evaluate if the activity has avoided and minimized impacts to waters, would cause or contribute to a violation of standards or would result in secondary or cumulative impacts.

- g) The permittee shall have a specific plan for restoring wetland contours to pre-construction conditions. Any excess material will be removed to a high ground disposal area.

The mixing of topsoil and subsoils within the wetlands along utility corridors shall be minimized to the greatest extent practical. During excavation, the soils shall be placed on fabric to minimize impacts whenever possible. Topsoil excavated from utility trenches will be piled separately from subsoils and will be backfilled into the trench only after the subsoils have been placed and compacted.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)

Justification: A project that affects waters shall not be permitted unless the existing uses, and the water quality to protect such uses, are protected. In determining that the proposed activity will comply with state water quality standards (including designated uses, numeric criteria, narrative criteria and the state's antidegradation policy), the Division must evaluate if the activity has avoided and minimized impacts to waters, would cause or contribute to a violation of standards or would result in secondary or cumulative impacts.

- 10) The permittee shall report to the DWR Raleigh Regional Office any noncompliance with, and/or any violation of, stream or wetland standards [15A NCAC 02B .0200], including but not limited to sediment impacts to streams or wetlands. Information shall be provided orally within 24 hours (or the next business day if a weekend or holiday) from the time the permittee became aware of the non-compliance circumstances.



Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)

Justification: Timely reporting of non-compliance is important in identifying and minimizing detrimental impacts to water quality and avoiding impacts due to water pollution that precludes any best use on a short-term or long-term basis.

- 11) No waste, spoil, solids, or fill of any kind shall occur in wetlands or waters beyond the footprint of the approved impacts (including temporary impacts).

Citation: 15A NCAC 02H .0506; 15A NCAC 02H .0507(c)

Justification: Surface water quality standards require that conditions of waters be suitable for all best uses provided for in state rule (including, at minimum: aquatic life propagation, survival, and maintenance of biological integrity; wildlife; secondary contact recreation; agriculture); and that activities must not cause water pollution that precludes any best use on a short-term or long-term basis.

- 12) All activities shall be in compliance with any applicable State Regulated Riparian Buffer Rules in Chapter 2B of Title 15A in the North Carolina Administrative Code.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)

Justification: The referenced Riparian Buffer rules were adopted to address water quality impairments and further protect existing uses.

- 13) When applicable, all construction activities shall be performed and maintained in full compliance with G.S. Chapter 113A Article 4 (Sediment and Pollution Control Act of 1973). Regardless of applicability of the Sediment and Pollution Control Act, all projects shall incorporate appropriate Best Management Practices for the control of sediment and erosion so that no violations of state water quality standards, statutes, or rules occur.

Design, installation, operation, and maintenance of all sediment and erosion control measures shall be equal to or exceed the requirements specified in the most recent version of the *North Carolina Sediment and Erosion Control Manual*, or for linear transportation projects, the *North Carolina Department of Transportation Sediment and Erosion Control Manual*.

All devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) sites, including contractor-owned or leased borrow pits associated with the project. Sufficient materials required for stabilization and/or repair of erosion control measures and stormwater routing and treatment shall be on site at all times.

For borrow pit sites, the erosion and sediment control measures shall be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Surface Mining Manual*. Reclamation measures and implementation shall comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act and the Mining Act of 1971.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC02B .0200; 15A NCAC 02B .0231

Justification: A project that affects waters shall not be permitted unless the existing uses, and the water quality to protect such uses, are protected. Activities must not cause water pollution that precludes any best use on a short-term or long-term basis. As cited in Stream Standards: (12) Oils, deleterious substances, or colored or other wastes: only such amounts as shall not render the waters injurious to public health, secondary recreation, or to aquatic life and wildlife, or adversely affect the palatability of fish, aesthetic quality, or impair the waters for any designated uses; and (21) turbidity in the receiving water shall not exceed 50 Nephelometric Turbidity Units (NTU) in streams not designated as trout waters



and 10 NTU in streams, lakes, or reservoirs designated as trout waters; for lakes and reservoirs not designated as trout waters, the turbidity shall not exceed 25 NTU; if turbidity exceeds these levels due to natural background conditions, the existing turbidity level shall not be increased. As cited in Wetland Standards: (c)(1) Liquids, fill or other solids, or dissolved gases shall not be present in amounts that may cause adverse impacts on existing wetland uses; and (3) Materials producing color or odor shall not be present in amounts that may cause adverse impacts on existing wetland uses.

- 14) Sediment and erosion control measures shall not be installed in wetland or waters except within the footprint of temporary or permanent impacts otherwise authorized by this Certification. If placed within authorized impact areas, then placement of such measures shall not be conducted in a manner that results in dis-equilibrium of any wetlands, streambeds, or streambanks. Any silt fence installed within wetlands shall be removed from wetlands and the natural grade restored within two (2) months of the date that DEMLR or locally delegated program has released the specific area within the project to ensure wetland standards are maintained upon completion of the project.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 02B .0200; 15A NCAC 02B .0231

Justification: A project that affects waters shall not be permitted unless the existing uses, and the water quality to protect such uses, are protected. Activities must not cause water pollution that precludes any best use on a short-term or long-term basis. As cited in Stream Standards: (12) Oils, deleterious substances, or colored or other wastes: only such amounts as shall not render the waters injurious to public health, secondary recreation, or to aquatic life and wildlife, or adversely affect the palatability of fish, aesthetic quality, or impair the waters for any designated uses; and (21) turbidity in the receiving water shall not exceed 50 Nephelometric Turbidity Units (NTU) in streams not designated as trout waters and 10 NTU in streams, lakes, or reservoirs designated as trout waters; for lakes and reservoirs not designated as trout waters, the turbidity shall not exceed 25 NTU; if turbidity exceeds these levels due to natural background conditions, the existing turbidity level shall not be increased. As cited in Wetland Standards: (c)(1) Liquids, fill or other solids, or dissolved gases shall not be present in amounts that may cause adverse impacts on existing wetland uses; and (3) Materials producing color or odor shall not be present in amounts that may cause adverse impacts on existing wetland uses.

- 15) Erosion control matting that incorporates plastic mesh and/or plastic twine shall not be used along streambanks or within wetlands.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)

Justification: A project that affects waters shall not be permitted unless the existing uses (including aquatic life propagation and biological integrity), and the water quality to protect such uses, are protected. Protections are necessary to ensure any remaining surface waters or wetlands, and any surface waters or wetlands downstream, continue to support existing uses during and after project completion. The Division must evaluate if the activity has avoided and minimized impacts to waters, would cause or contribute to a violation of standards, or would result in secondary or cumulative impacts.

- 16) If the project is covered by NPDES Construction Stormwater Permit Number NCG010000 or NPDES Construction Stormwater Permit Number NCG250000, full compliance with permit conditions including the erosion & sedimentation control plan, inspections and maintenance, self-monitoring, record keeping and reporting requirements is required.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 02B .0200; 15A NCAC 02B .0231



Justification: A project that affects waters shall not be permitted unless the existing uses, and the water quality to protect such uses, are protected. Activities must not cause water pollution that precludes any best use on a short-term or long-term basis. As cited in Stream Standards: (12) Oils, deleterious substances, or colored or other wastes: only such amounts as shall not render the waters injurious to public health, secondary recreation, or to aquatic life and wildlife, or adversely affect the palatability of fish, aesthetic quality, or impair the waters for any designated uses; and (21) turbidity in the receiving water shall not exceed 50 Nephelometric Turbidity Units (NTU) in streams not designated as trout waters and 10 NTU in streams, lakes, or reservoirs designated as trout waters; for lakes and reservoirs not designated as trout waters, the turbidity shall not exceed 25 NTU; if turbidity exceeds these levels due to natural background conditions, the existing turbidity level shall not be increased. As cited in Wetland Standards: (c)(1) Liquids, fill or other solids, or dissolved gases shall not be present in amounts that may cause adverse impacts on existing wetland uses; and (3) Materials producing color or odor shall not be present in amounts that may cause adverse impacts on existing wetland uses.

- 17) All work in or adjacent to streams shall be conducted so that the flowing stream does not come in contact with the disturbed area. Approved best management practices from the most current version of the *NC Sediment and Erosion Control Manual*, or the *NC Department of Transportation Construction and Maintenance Activities Manual*, such as sandbags, rock berms, cofferdams, and other diversion structures shall be used to minimize excavation in flowing water.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 02B .0200

Justification: Surface water quality standards require that conditions of waters be suitable for all best uses provided for in state rule, and that activities must not cause water pollution that precludes any best use on a short-term or long-term basis. As cited in Stream Standards: (12) Oils, deleterious substances, or colored or other wastes: only such amounts as shall not render the waters injurious to public health, secondary recreation, or to aquatic life and wildlife, or adversely affect the palatability of fish, aesthetic quality, or impair the waters for any designated uses; and (21) turbidity in the receiving water shall not exceed 50 Nephelometric Turbidity Units (NTU) in streams not designated as trout waters and 10 NTU in streams, lakes, or reservoirs designated as trout waters; for lakes and reservoirs not designated as trout waters, the turbidity shall not exceed 25 NTU; if turbidity exceeds these levels due to natural background conditions, the existing turbidity level shall not be increased.

- 18) In-stream structures installed to mimic natural channel geomorphology such as cross-vanes, sills, step-pool structures, etc. shall be designed and installed in such a manner that allow for continued aquatic life movement.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)

Justification: Surface water quality standards require that conditions of waters be suitable for all best uses provided for in state rule, and that activities must not cause water pollution that precludes any best use on a short-term or long-term basis. Ensuring that in-stream structures are installed properly will ensure that surface water quality standards are met and conditions of waters are suitable for all best uses.

- 19) Culverts shall be designed and installed in such a manner that the original stream profiles are not altered and allow for aquatic life movement during low flows. The dimension, pattern, and profile of the stream above and below a pipe or culvert shall not be modified by widening the stream channel or by reducing the depth of the stream in connection with the construction activity. The width, height, and gradient of a proposed culvert shall be such as to pass the average historical low flow and spring flow without adversely altering flow velocity. If the width of the culvert is wider than the stream channel, the culvert shall include multiple boxes/pipes, baffles, benches and/or sills to maintain the natural width of the stream



channel. If multiple culverts/pipes/barrels are used, low flows shall be accommodated in one culvert/pipe and additional culverts/pipes shall be installed such that they receive only flows above bankfull.

Placement of culverts and other structures in streams shall be below the elevation of the streambed by one foot for all culverts with a diameter greater than 48 inches, and 20% of the culvert diameter for culverts having a diameter less than or equal to 48 inches, to allow low flow passage of water and aquatic life. If the culvert outlet is submerged within a pool or scour hole and designed to provide for aquatic passage, then culvert burial into the streambed is not required.

For structures less than 72" in diameter/width, and topographic constraints indicate culvert slopes of greater than 2.5% culvert burial is not required, provided that all alternative options for flattening the slope have been investigated and aquatic life movement/connectivity has been provided when possible (e.g. rock ladders, cross-vanes, sills, baffles etc.). Notification, including supporting documentation to include a location map of the culvert, culvert profile drawings, and slope calculations, shall be provided to DWR 30 calendar days prior to the installation of the culvert.

When bedrock is present in culvert locations, culvert burial is not required, provided that there is sufficient documentation of the presence of bedrock. Notification, including supporting documentation such as a location map of the culvert, geotechnical reports, photographs, etc. shall be provided to DWR a minimum of 30 calendar days prior to the installation of the culvert. If bedrock is discovered during construction, then DWR shall be notified by phone or email within 24 hours of discovery.

Installation of culverts in wetlands shall ensure continuity of water movement and be designed to adequately accommodate high water or flood conditions. When roadways, causeways, or other fill projects are constructed across FEMA-designated floodways or wetlands, openings such as culverts or bridges shall be provided to maintain the natural hydrology of the system as well as prevent constriction of the floodway that may result in destabilization of streams or wetlands.

The establishment of native woody vegetation and other soft stream bank stabilization techniques shall be used where practicable instead of rip-rap or other bank hardening methods.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)

Justification: Surface water quality standards require that conditions of waters be suitable for all best uses provided for in state rule, and that activities must not cause water pollution that precludes any best use on a short-term or long-term basis. Ensuring that structures are installed properly in waters will ensure that surface water quality standards are met and conditions of waters are suitable for all best uses.

- 20) Application of fertilizer to establish planted/seeded vegetation within disturbed riparian areas and/or wetlands shall be conducted at agronomic rates and shall comply with all other Federal, State and Local regulations. Fertilizer application shall be accomplished in a manner that minimizes the risk of contact between the fertilizer and surface waters.

Citation: 15A 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 02B .0200; 15A NCAC 02B .0231

Justification: A project that affects waters shall not be permitted unless the existing uses, and the water quality to protect such uses, are protected. Activities must not cause water pollution that precludes any best use on a short-term or long-term basis. As cited in Stream Standards: (12) Oils, deleterious substances, or colored or other wastes: only such amounts as shall not render the waters injurious to public health, secondary recreation, or to aquatic life and wildlife, or adversely affect the palatability of fish, aesthetic quality, or impair the waters for any designated uses. As cited in Wetland Standards: (c)(1) Liquids, fill or other solids, or dissolved gases shall not be present in amounts that may cause adverse impacts on existing wetland uses; and (3) Materials producing color or odor shall not be present



in amounts that may cause adverse impacts on existing wetland uses.

- 21) If concrete is used during construction, then all necessary measures shall be taken to prevent direct contact between uncured or curing concrete and waters of the state. Water that inadvertently contacts uncured concrete shall not be discharged to waters of the state.

Citation: 15A 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 02B .0200; 15A NCAC 02B .0231

Justification: A project that affects waters shall not be permitted unless the existing uses, and the water quality to protect such uses, are protected. Activities must not cause water pollution that precludes any best use on a short-term or long-term basis. As cited in Stream Standards: (12) Oils, deleterious substances, or colored or other wastes: only such amounts as shall not render the waters injurious to public health, secondary recreation, or to aquatic life and wildlife, or adversely affect the palatability of fish, aesthetic quality, or impair the waters for any designated uses. As cited in Wetland Standards: (c)(1) Liquids, fill or other solids, or dissolved gases shall not be present in amounts that may cause adverse impacts on existing wetland uses; and (3) Materials producing color or odor shall not be present in amounts that may cause adverse impacts on existing wetland uses.

- 22) All proposed and approved temporary fill and culverts shall be removed and the impacted area shall be returned to natural conditions within 60 calendar days after the temporary impact is no longer necessary. The impacted areas shall be restored to original grade, including each stream's original cross-sectional dimensions, planform pattern, and longitudinal bed profile. All temporarily impacted sites shall be restored and stabilized with native vegetation.

Citation: 15A NCAC 02H.0506(b); 15A NCAC 02H .0507(c)

Justification: A project that affects waters shall not be permitted unless the existing uses, and the water quality to protect such uses, are protected. Protections are necessary to ensure any remaining surface waters or wetlands, and any surface waters or wetlands downstream, continue to support existing uses after project completion.

- 23) All proposed and approved temporary pipes/culverts/rip-rap pads etc. in streams or wetlands shall be installed as outlined in the most recent edition of the *North Carolina Sediment and Erosion Control Planning and Design Manual* or the *North Carolina Surface Mining Manual* or the *North Carolina Department of Transportation Best Management Practices for Construction and Maintenance Activities* so as not to restrict stream flow or cause dis-equilibrium during use of this Certification.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)

Justification: Surface water quality standards require that conditions of waters be suitable for all best uses provided for in state rule, and that activities must not cause water pollution that precludes any best use on a short-term or long-term basis. Ensuring that structures are installed properly in waters will ensure that surface water quality standards are met and conditions of waters are suitable for all best uses.

- 24) Any rip-rap required for proper culvert placement, stream stabilization, or restoration of temporarily disturbed areas shall be restricted to the area directly impacted by the approved construction activity. All rip-rap shall be placed such that the original streambed elevation and streambank contours are restored and maintained and shall consist of clean rock or masonry material free of debris or toxic pollutants. Placement of rip-rap or other approved materials shall not result in de-stabilization of the stream bed or banks upstream or downstream of the area or be installed in a manner that precludes aquatic life passage.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)



Justification: Surface water quality standards require that conditions of waters be suitable for all best uses provided for in state rule, and that activities must not cause water pollution that precludes any best use on a short-term or long-term basis. The Division must evaluate if the activity has avoided and minimized impacts to waters, would cause or contribute to a violation of standards, or would result in secondary or cumulative impacts.

- 25) Any rip-rap used for stream or shoreline stabilization shall be of a size and density to prevent movement by wave, current action, or stream flows, and shall consist of clean rock or masonry material free of debris or toxic pollutants. Rip-rap shall not be installed in the streambed except in specific areas required for velocity control and to ensure structural integrity of bank stabilization measures.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 02B .0201

Justification: Surface water quality standards require that conditions of waters be suitable for all best uses provided for in state rule, and that activities must not cause water pollution that precludes any best use on a short-term or long-term basis. The Division must evaluate if the activity has avoided and minimized impacts to waters, would cause or contribute to a violation of standards, or would result in secondary or cumulative impacts.

- 26) All mechanized equipment operated near surface waters shall be inspected and maintained regularly to prevent contamination of surface waters from fuels, lubricants, hydraulic fluids, or other toxic materials. Construction shall be staged in order to minimize the exposure of equipment to surface waters to the maximum extent practicable. Fueling, lubrication, and general equipment maintenance shall be performed in a manner to prevent, to the maximum extent practicable, contamination of surface waters by fuels and oils.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 02B .0200; 15A NCAC 02B .0231

Justification: A project that affects waters shall not be permitted unless the existing uses, and the water quality to protect such uses, are protected. Activities must not cause water pollution that precludes any best use on a short-term or long-term basis. As cited in Stream Standards: (12) Oils, deleterious substances, or colored or other wastes: only such amounts as shall not render the waters injurious to public health, secondary recreation, or to aquatic life and wildlife, or adversely affect the palatability of fish, aesthetic quality, or impair the waters for any designated uses. As cited in Wetland Standards: (c)(1) Liquids, fill or other solids, or dissolved gases shall not be present in amounts that may cause adverse impacts on existing wetland uses; and (3) Materials producing color or odor shall not be present in amounts that may cause adverse impacts on existing wetland uses.

- 27) Heavy equipment working in wetlands shall be placed on mats or other measures shall be taken to minimize soil disturbance and compaction.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 02B .0231

Justification: Wetland standards require maintenance or enhancement of existing uses of wetlands such that hydrologic conditions necessary to support natural biological and physical characteristics are protected; populations of wetland flora and fauna are maintained to protect biological integrity of the wetland; and materials or substances are not present in amounts that may cause adverse impact on existing wetland uses.

- 28) In accordance with 143-215.85(b), the permittee shall report any petroleum spill of 25 gallons or more; any spill regardless of amount that causes a sheen on surface waters; any petroleum spill regardless of amount occurring within 100 feet of surface waters; and any petroleum spill less than 25 gallons that cannot be cleaned up within 24 hours.

Citation: 15A NCAC 02H .0507(c); N.C.G.S 143-215.85(b)



Justification: Person(s) owning or having control over oil or other substances upon notice of discharge must immediately notify the Department, or any of its agents or employees, of the nature, location, and time of the discharge and of the measures which are being taken or are proposed to be taken to contain and remove the discharge. This action is required in order to contain or divert the substances to prevent entry into the surface waters. Surface water quality standards require that conditions of waters be suitable for all best uses provided for in state rule (including, at minimum: aquatic life propagation, survival, and maintenance of biological integrity; wildlife; secondary contact recreation; agriculture); and that activities must not cause water pollution that precludes any best use on a short-term or long-term basis.

- 29) The permittee and their authorized agents shall conduct all activities in a manner consistent with State water quality standards (including any requirements resulting from compliance with §303(d) of the Clean Water Act), and any other appropriate requirements of State and Federal Law.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)

Justification: Surface water quality standards require that conditions of waters be suitable for all best uses provided for in state rule, and that activities must not cause water pollution that precludes any best use on a short-term or long-term basis. The Division must evaluate if the activity has avoided and minimized impacts to waters, would cause or contribute to a violation of standards, or would result in secondary or cumulative impacts.


- 30) The permittee shall require its contractors and/or agents to comply with the terms and conditions of this permit in the construction and maintenance of this project, and shall provide each of its contractors and/or agents associated with the construction or maintenance of this project with a copy of this Water Quality Certification. A copy of this Water Quality Certification shall be available at the project site during the construction and maintenance of this project.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)

Justification: Those actually performing the work should be aware of the requirements of this 401 Water Quality Certification to minimize water quality impacts.

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. The conditions in effect on the date of issuance shall remain in effect for the life of the project, regardless of the expiration date of this Certification. [15A NCAC 02H .0507(c)]

This, the 6th day of January 2023

DocuSigned by:

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Scott Vinson, Regional Supervisor
Water Quality Regional Operations Section
Raleigh Regional Office
Division of Water Resources, NCDEQ

ZT
WQC005507





PLANNING *and* INSPECTIONS

Cy Stober, AICP, Director | cstober@orangecountync.gov | 131 W. Margaret Lane, Hillsborough, NC 27278 | 919.245.2575

February 24, 2023

Griffith Capital LLC
104 Amber Wood Run
Chapel Hill, NC 27514

Re: Pyewacket Subdivision
SAW-2021-00165
Impact to Unnamed Tributary Haw River Protected – Jordan Lake
Jordan Buffer Rules AUTHORIZATION CERTIFICATE, PIN 9757417321

Upon review of the proposed impacts to the protected riparian buffers on the referenced site, Orange County has determined that the requirements for a “*No Practical Alternative*” have been met. Thus, the County as local delegated authority grants this **Authorization Certificate BAC23-0001** approving the allowable uses described in your plan. Specifically, you have been granted approval, in accordance with the conditions listed below, to impact portions of protected riparian buffers for the purpose of installing a driveway crossing with a concrete box culvert crossing.

According to your submittal, the project will impact riparian buffer of an unnamed tributary to Cane Creek. Impacts to both Zone 1 and Zone 2 and Zone 3 are proposed. Total Jordan Riparian Buffer Impacts for this project sum to approximately 10,827 linear feet of disturbance, consisting of approximately 5,875 square feet in Zone 1, approximately 2,982 square feet in Zone 2 and 1,970 feet in Zone 3. Based on the information provided, we concur that impacts to all zones have been minimized to the extent practicable and that the impacts are allowable.

This approval is only valid for the purpose and design described in your submittal dated February 16, 2023. Any change to the project requires notification to our Office and may require submittal of a new application. If ownership of the property is transferred to another person(s) or entity, the new owner(s) will be responsible for complying with all conditions of approval. You are required to supply a copy of this Authorization Certificate and approval letter to the new owner as well. For this approval to be valid, you must follow the conditions listed below as well as any other conditions identified within 15A NCAC 02B .0267.

Conditions:

1. Notify our office two weeks prior to the commencement of the proposed work so that we may verify compliance with conditions of approval before work begins.
2. Provide adequate erosion control measures to keep sediment from entering Unnamed Tributary during construction.
3. Dispersed flow of all stormwater at non-erosive velocities shall be obtained prior to entering the protected stream buffers as identified within 15A NCAC 02B .0267.

If you do not accept any of the conditions of this certification, you may ask for an adjudicatory hearing. You must act within 60 days of the date that you receive this letter. To ask for a hearing, send a written petition, which conforms to Chapter 150B of the North Carolina General Statutes to the Office of Administrative Hearings, P.O. Box 27447, Raleigh, N.C. 27611-7447. This certification and its conditions are **final** and binding unless you ask for a hearing.

This letter completes Orange County's review of the "*No Practical Alternatives*" determination under 15A NCAC 02B .0267. If you have any questions or would like a copy of the Jordan Buffer Rules or Orange County's Unified Development Ordinance, please feel free to contact me at (919) 245-2588.

Sincerely,



Steve Kaltenbach
Erosion Control & Stormwater Supervisor

Approved by
cc: File