**Town of Clayton**
**Regular Town Council Meeting Agenda**
**Monday, May 16, 2022 @ 6:00 PM**
**Council Chambers**

THE PUBLIC MAY VIEW THE LIVE COUNCIL MEETING ON THE TOWN'S YOU TUBE CHANNEL:
https://www.youtube.com/TownofClaytonNC

- Hand sanitizer will be available, both in the lobby and council chambers.
- Podium/microphone will be sanitized after each speaker.

## 1. CALL TO ORDER

**Pledge of Allegiance and Invocation**

## 2. ADJUSTMENT OF THE AGENDA

## 3. CONSENT AGENDA

***(Items on the consent agenda are considered routine in nature or have been thoroughly discussed at previous meetings. Any member of the Council may request to have an item removed from the consent agenda for further discussion.)***

a. **Resolution to Accept Streets into the Town of Clayton Street System for Maintenance – Riverwood Athletic Club, Phase 4A – 4F**
*Presenter:* **Jonathan Jacobs, Assistant Town Engineer**
Cover
Resolution

b. **Audit Contract for fiscal year 2022**
*Presenter:* **Robert McKie, Finance Director**
Audit Contract FY 2022

c. **Resolution to Use the Competitive Bidding Exception, also known as Sole Source Exemption (Standardization)**
*Presenter:* **Shaun Mizell – Procurement, Contracts and MWBE Manager**
Cover
Resolution
Bidding Requirements (Sole Source)

d. **May 2, 2022, Work Session DRAFT Minutes**
**May 2, 2022, Closed Session DRAFT Minutes**
**May 2, 2022, Regular Meeting DRAFT Minutes**
*Presenter:* **Sherry Scoggins, Interim Town Clerk**
DRAFT Town Council Work Session - 02 May 2022 - Minutes
DRAFT Regular Town Council Meeting - 02 May 2022 - Minutes

**POTENTIAL ACTION:** **Approval of the Consent Agenda**

## 4. ADMINISTRATIVE ITEMS

## 5. INTRODUCTIONS AND SPECIAL PRESENTATIONS

a. National Police Week Proclamation
*Presenter*: Mayor Jody McLeod
National Police Week 2022

## 6. PUBLIC HEARINGS

## 7. OLD BUSINESS

a. Resolution Authorizing the Town Manager to Execute a Utility Construction Agreement with NCDOT for the Ranch Road Extension Project (TIP-U-6223)
*Presenter:* Joshua Baird, Engineering Director
Cover
Exhibit A - Utility Construction Agreement
Exhibit B - Preliminary Construction Estimate
Exhibit C - Utility Construction Plans
Resolution

**POTENTIAL ACTION:** Approval

b. Country Lane Conditional Zoning District
*Presenter*: Ben Howell, Planning Director
Cover Sheet 2021-20-CZM Country Lane Conditional Zoning District
2021-20-CZM Country Lane March 21 Town Council Packet
UPDATED 2021-20-CZM Country Lane Staff Report
REVISED 2021-20-CZM Country Lane Master Plan Narrative
REVISED 2021-20-CZM Country Lane Master Plan
REVISED 2021-20-CZM Country Lane Architectural Elevations
NEW 2021-20-CZM Country Lane 3D Rendering Exhibit
NEW 2021-20-CZM Country Lane Cultural Resources Review
NEW 2021-20-CZM Country Lane Catawba Nation THPO Letter
NEW 2021-20-CZM Country Lane NC SHPO Letter
NEW 2021-20-CZM Country Lane Specimen Tree Report
REVISED 2021-20-CZM Country Lane Recommended Conditions of Approval - Signed by Applicant
Ordinance
REVISED 2021-20-CZM Country Lane Wastewater Allocation Application
Wastewater Resolution

**POTENTIAL ACTION:** Approve, Approve with Conditions, or Disapprove

**POTENTIAL ACTION:** Approve, Approve with Conditions, or Disapprove (Wastewater Resolution)

## 8. NEW BUSINESS

a. Resolution to Award Construction Contract for the City Road Improvement (Utilities) Project
*Presenter:* Patrick Paine, PE; Project Manager
Cover
Bid Evaluation

Resolution

**POTENTIAL ACTION:** Approval

b. **Resolution to Award Construction Contract for the Potable Ground Storage Tank at Fire Station 2 Project**
**Presenter: Patrick Paine, PE - Project Manager**
Cover
48554 Clayton Potable Water Tank 5_9_2022 Certified Bid Tab
48554 Recommendation Memorandum to Pat Paine 5_10_2022
Resolution

**POTENTIAL ACTION:** Approval

c. **Selection of a Consultant Firm for the Town Manager Recruitment**
***Presenter:*** **Jody McLeod, Mayor**
Cover

**POTENTIAL ACTION:** Selection of a Consultant Firm

## 9. STAFF REPORTS

a. Town Manager

b. Town Attorney

c. Town Clerk

d. Other Staff

## 10. OTHER BUSINESS

a. Informal Discussion & Public Comment
- Individuals have 3 minutes to address the Town Council.
- Groups will designate a spokesperson. Spokesperson will have 5 minutes to address the Town Council.

b. Council Comments

## 11. CLOSED SESSION

a. **Closed Session to discuss Economic Development Opportunity Pursuant to NCGS 143-318.11(a)(4) and Consult with the Town Attorney Pursuant to NCGS 143-318.11(a)(3)**
***Presenters:*** **Rich Cappola, Interim Town Manager and Jim Cauley, Town Attorney**

**POTENTIAL ACTION:** Motion to Go Into Closed Session

## 12. ADJOURNMENT

Quasi-Judicial (evidentiary) – These hearings are different from other public hearings in that they resemble a court hearing where testimony is presented and the Town Council acts like a court of law. During evidentiary hearings, the Town Council receives only sworn testimony and other credible evidence. In addition, the Town Council must make findings of fact based upon the evidence presented. Citizens may give testimony in an evidentiary hearing after they have taken an oath.

# Town Council Agenda Cover Sheet

**Meeting Date**
May 16, 2022

**Agenda Location**
Consent Agenda

**Item Title**
Resolution to Accept Streets into the Town of Clayton Street System for Maintenance – Riverwood Athletic Club, Phase 4A – 4F

**Presenter:**
Jonathan K. Jacobs, PE - Assistant Town Engineer

**Summary/Description**
Streets and rights-of-way are required to be designed and built according to the Town of Clayton Manual of Standards, Specifications, and Design. The subject streets have been verified through inspections to have been installed per the Town's Manual of Standards, Specifications, and Design. A one-year warranty period for the subject streets expired on May 1, 2021 and additional repairs were made prior to a final inspection by Engineering staff. Engineering staff recommends final acceptance of the subject streets. Upon final acceptance, the subject streets are eligible for funding through NCDOT's Powell Bill Program.

**Requested Action**
Approval

**Funding Source (If Applicable):**
**N/A**

**Cost:** **N/A** **Yes** ☐ **No** ☒

**Additional Documents to be Included in Agenda Packet**
Resolution

**Meeting Timeline**
Click or tap here to enter text.

Resolution # 2022-24

**RESOLUTION TO ACCEPT STREETS INTO THE TOWN OF CLAYTON STREET SYSTEM FOR MAINTENANCE – RIVERWOOD ATHLETIC CLUB, PHASES 4A-4F**

**WHEREAS,** streets and right-of-way are required to be designed and built according to the Town of Clayton Manual of Standards, Specifications and Design; and

**WHEREAS,** approval by the Town of Clayton Town Council is necessary for eligibility for receiving funding from the NCDOT's Powell Bill Program.

**WHEREAS,** the street segments listed below were placed under a warranty period for one-year to monitor for construction deficiencies, which expired May 01, 2021; and

**WHEREAS,** Town of Clayton Engineering staff has inspected the street segments referenced below on March 11, 2022, and recommends final acceptance by Town Council for maintenance by the Town; and

**NOW, THEREFORE, BE IT RESOLVED** that the Town Council of the Town of Clayton, North Carolina accept this list of streets and right-of-way into the Town of Clayton Street System.

| SUBDIVISION | STREET NAME | BEGINNING DESCRIPTION | END DESCRIPTION | LENGTH |
|---|---|---|---|---|
| RWAC, Phase 4A | Charleston Drive | Phase Line 4A | Phase Line 4B | 0.14 |
| RWAC, Phase 4A | Mantle Drive | Charleston Drive | Phase Line 4C | 0.08 |
| RWAC, Phase 4A | Gehrig Lane | Charleston Drive | Phase Line 4B | 0.02 |
| RWAC, Phase 4B | Charleston Drive | Phase Line 4A | Phase Line 4E | 0.18 |
| RWAC, Phase 4B | Gehrig Lane | Phase Line 4A | Charleston Drive | 0.05 |
| RWAC, Phase 4B | Mattingly Lane | Phase Line 4D | Charleston Drive | 0.03 |
| RWAC, Phase 4C | Mantle Drive | Phase Line 4A | Mattingly Lane | 0.14 |
| RWAC, Phase 4D | Mattingly Lane | Phase Line 3D | Phase Line 4B | 0.08 |
| RWAC, Phase 4D | Mantle Drive | Mattingly Lane | Phase Line 4E | 0.17 |
| RWAC, Phase 4E | Charleston Drive | Phase Line 4B | Phase Line 4F | 0.21 |
| RWAC, Phase 4E | Mantle Drive | Phase Line 4D | Charleston Drive | 0.14 |
| RWAC, Phase 4E | Gibson Lane | Charleston Drive | Mantle Drive | 0.10 |
| RWAC, Phase 4E | York Lane | Gibson Lane | Mantle Drive | 0.07 |
| RWAC, Phase 4F | Charleston Drive | Phase Line 4E | Charleston Drive | 0.08 |
| | | | **TOTAL** | **1.49mi** |

Duly adopted this the 16th Day of May 2022.

_____
Jody McLeod
Mayor

ATTEST:

_____
Sherry L. Scoggins, MMC
Interim Town Clerk

LGC-205 **CONTRACT TO AUDIT ACCOUNTS** Rev. 11/2021

The | Governing Board: COUNCIL

of | Primary Government Unit: TOWN OF CLAYTON

and | Discretely Presented Component Unit (DPCU) (if applicable): NA

*Primary Government Unit, together with DPCU (if applicable), hereinafter referred to as Governmental Unit(s)*

and | Auditor Name: ANDERSON SMITH & WIKE PLLC

Auditor Address: P.O. BOX 697, ROCKINGHAM, NC 28380

*Hereinafter referred to as Auditor*

for

| Fiscal Year Ending | Audit Report Due Date |
|---|---|
| 06/30/22 | 10/31/22 |

*Must be within four months of FYE*

hereby agree as follows:

1. The Auditor shall audit all statements and disclosures required by U.S. generally accepted auditing standards (GAAS) and additional required legal statements and disclosures of all funds and/or divisions of the Governmental Unit(s). The non-major combining, and individual fund statements and schedules shall be subjected to the auditing procedures applied in the audit of the basic financial statements and an opinion shall be rendered in relation to (as applicable) the governmental activities, the business- type activities, the aggregate DPCUs, each major governmental and enterprise fund, and the aggregate remaining fund information (non-major government and enterprise funds, the internal service fund type, and the fiduciary fund types). The basic financial statements shall include budgetary comparison information in a budgetary comparison statement, rather than as RSI, for the General Fund and any annually budgeted Special Revenue funds.

2. At a minimum, the Auditor shall conduct the audit and render the report in accordance with GAAS. The Auditor shall perform the audit in accordance with *Government Auditing Standards* if the Governmental Unit expended $100,000 or more in combined Federal and State financial assistance during the reporting period. The auditor shall perform a Single Audit if required by Title 2 US Code of Federal Regulations Part 200 *Uniform Administration Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance) or the State Single Audit Implementation Act. This audit and all associated audit documentation may be subject to review by Federal and State agencies in accordance with Federal and State laws, including the staffs of the Office of State Auditor (OSA) and the Local Government Commission (LGC). If the audit requires a federal single audit in accordance with the Uniform Guidance (§200.501), it is recommended that the Auditor and Governmental Unit(s) jointly agree, in advance of the execution of this contract, which party is responsible for submission of the audit and the accompanying data collection form to the Federal Audit Clearinghouse as required under the Uniform Guidance (§200.512).

If the audit and Auditor communication are found in this review to be substandard, the results of the review may be forwarded to the North Carolina State Board of CPA Examiners (NC State Board).

3. If an entity is determined to be a component of another government as defined by the group audit standards, the entity's auditor shall make a good faith effort to comply in a timely manner with the requests of the group auditor in accordance with AU-6 §600.41 - §600.42.

4. This contract contemplates an unmodified opinion being rendered. If during the process of conducting the audit, the Auditor determines that it will not be possible to render an unmodified opinion on the financial statements of the unit, the Auditor shall contact the LGC Staff to discuss the circumstances leading to that conclusion as soon as is practical and before the final report is issued. The audit shall include such tests of the accounting records and such other auditing procedures as are considered by the Auditor to be necessary in the circumstances. Any limitations or restrictions in scope which would lead to a qualification should be fully explained in an attachment to this contract.

5. If this audit engagement is subject to the standards for audit as defined in *Government Auditing Standards*, 2018 revision, issued by the Comptroller General of the United States, then by accepting this engagement, the Auditor warrants that he/she has met the requirements for a peer review and continuing education as specified in *Government Auditing Standards*. The Auditor agrees to provide a copy of the most recent peer review report to the Governmental Unit(s) and the Secretary of the LGC prior to the execution of an audit contract. Subsequent submissions of the report are required only upon report expiration or upon auditor's receipt of an updated peer review report. If the audit firm received a peer review rating other than pass, the Auditor shall not contract with the Governmental Unit(s) without first contacting the Secretary of the LGC for a peer review analysis that may result in additional contractual requirements.

If the audit engagement is not subject to *Government Accounting Standards* or if financial statements are not prepared in accordance with U.S. generally accepted accounting principles (GAAP) and fail to include all disclosures required by GAAP, the Auditor shall provide an explanation as to why in an attachment to this contract or in an amendment.

6. It is agreed that time is of the essence in this contract. All audits are to be performed and the report of audit submitted to LGC Staff within four months of fiscal year end. If it becomes necessary to amend the audit fee or the date that the audit report will be submitted to the LGC, an amended contract along with a written explanation of the change shall be submitted to the Secretary of the LGC for approval.

7. It is agreed that GAAS include a review of the Governmental Unit's (Units') systems of internal control and accounting as same relate to accountability of funds and adherence to budget and law requirements applicable thereto; that the Auditor shall make a written report, which may or may not be a part of the written report of audit, to the Governing Board setting forth his/her findings, together with his recommendations for improvement. That written report shall include all matters defined as "significant deficiencies and material weaknesses" in AU-C 265 of the *AICPA Professional Standards (Clarified)*. The Auditor shall file a copy of that report with the Secretary of the LGC.

8. All local government and public authority contracts for audit or audit-related work require the approval of the Secretary of the LGC. This includes annual or special audits, agreed upon procedures related to internal controls, bookkeeping or other assistance necessary to prepare the Governmental Unit's (Units') records for audit, financial statement preparation, any finance-related investigations, or any other audit- related work in the State of North Carolina. Approval is not required on contracts and invoices for system improvements and similar services of a non-auditing nature.

9. Invoices for services rendered under these contracts shall not be paid by the Governmental Unit(s) until the invoice has been approved by the Secretary of the LGC. (This also includes any progress billings.)[G.S. 159-34 and 115C-447] All invoices for Audit work shall be submitted in PDF format to the Secretary of the LGC for approval. The invoice marked 'approved 'with approval date shall be returned to

the Auditor to present to the Governmental Unit(s) for payment. This paragraph is not applicable to contracts for audits of hospitals.

10. In consideration of the satisfactory performance of the provisions of this contract, the Governmental Unit(s) shall pay to the Auditor, upon approval by the Secretary of the LGC if required, the fee, which includes any costs the Auditor may incur from work paper or peer reviews or any other quality assurance program required by third parties (federal and state grantor and oversight agencies or other organizations) as required under the Federal and State Single Audit Acts. This does not include fees for any pre-issuance reviews that may be required by the NC Association of CPAs (NCACPA) Peer Review Committee or NC State Board of CPA Examiners (see Item 13).

11. If the Governmental Unit(s) has/have outstanding revenue bonds, the Auditor shall submit to LGC Staff, either in the notes to the audited financial statements or as a separate report, a calculation demonstrating compliance with the revenue bond rate covenant. Additionally, the Auditor shall submit to LGC Staff simultaneously with the Governmental Unit's (Units') audited financial statements any other bond compliance statements or additional reports required by the authorizing bond documents, unless otherwise specified in the bond documents.

12. After completing the audit, the Auditor shall submit to the Governing Board a written report of audit. This report shall include, but not be limited to, the following information: (a) Management's Discussion and Analysis, (b) the financial statements and notes of the Governmental Unit(s) and all of its component units prepared in accordance with GAAP, (c) supplementary information requested by the Governmental Unit(s) or required for full disclosure under the law, and (d) the Auditor's opinion on the material presented. The Auditor shall furnish the required number of copies of the report of audit to the Governing Board upon completion.

13. If the audit firm is required by the NC State Board, the NCACPA Peer Review Committee, or the Secretary of the LGC to have a pre-issuance review of its audit work, there shall be a statement in the engagement letter indicating the pre-issuance review requirement. There also shall be a statement that the Governmental Unit(s) shall not be billed for the pre-issuance review. The pre-issuance review shall be performed prior to the completed audit being submitted to LGC Staff. The pre-issuance review report shall accompany the audit report upon submission to LGC Staff.

14. The Auditor shall submit the report of audit in PDF format to LGC Staff. For audits of units other than hospitals, the audit report should be submitted when (or prior to) submitting the final invoice for services rendered. The report of audit, as filed with the Secretary of the LGC, becomes a matter of public record for inspection, review and copy in the offices of the LGC by any interested parties. Any subsequent revisions to these reports shall be sent to the Secretary of the LGC. These audited financial statements, excluding the Auditors' opinion, may be used in the preparation of official statements for debt offerings by municipal bond rating services to fulfill secondary market disclosure requirements of the Securities and Exchange Commission and for other lawful purposes of the Governmental Unit(s) without requiring consent of the Auditor. If the LGC Staff determines that corrections need to be made to the Governmental Unit's (Units') financial statements, those corrections shall be provided within three business days of notification unless another deadline is agreed to by LGC Staff.

15. Should circumstances disclosed by the audit call for a more detailed investigation by the Auditor than necessary under ordinary circumstances, the Auditor shall inform the Governing Board in writing of the need for such additional investigation and the additional compensation required therefore. Upon approval by the

Secretary of the LGC, this contract may be modified or amended to include the increased time, compensation, or both as may be agreed upon by the Governing Board and the Auditor.

16. If an approved contract needs to be modified or amended for any reason, the change shall be made in writing and pre-audited if the change includes a change in audit fee (pre-audit requirement does not apply to hospitals). This amended contract shall be completed in full, including a written explanation of the change, signed and dated by all original parties to the contract. It shall then be submitted to the Secretary of the LGC for approval. No change to the audit contract shall be effective unless approved by the Secretary of the LGC, the Governing Board, and the Auditor.

17. A copy of the engagement letter, issued by the Auditor and signed by both the Auditor and the Governmental Unit(s), shall be attached to this contract, and except for fees, work, and terms not related to audit services, shall be incorporated by reference as if fully set forth herein as part of this contract. In case of conflict between the terms of the engagement letter and the terms of this contract, the terms of this contract shall take precedence. Engagement letter terms that conflict with the contract are deemed to be void unless the conflicting terms of this contract are specifically deleted in Item 30 of this contract. Engagement letters containing indemnification clauses shall not be accepted by LGC Staff.

18. Special provisions should be limited. Please list any special provisions in an attachment.

19. A separate contract should not be made for each division to be audited or report to be submitted. If a DPCU is subject to the audit requirements detailed in the Local Government Budget and Fiscal Control Act and a separate audit report is issued, a separate audit contract is required. If a separate report is not to be issued and the DPCU is included in the primary government audit, the DPCU shall be named along with the primary government on this audit contract. DPCU Board approval date, signatures from the DPCU Board chairman and finance officer also shall be included on this contract.

20. The contract shall be executed, pre-audited (pre-audit requirement does not apply to hospitals), and physically signed by all parties including Governmental Unit(s) and the Auditor, then submitted in PDF format to the Secretary of the LGC.

21. The contract is not valid until it is approved by the Secretary of the LGC. The staff of the LGC shall notify the Governmental Unit and Auditor of contract approval by email. The audit should not be started before the contract is approved.

22. Retention of Client Records: Auditors are subject to the NC State Board of CPA Examiners' Retention of Client Records Rule 21 NCAC 08N .0305 as it relates to the provision of audit and other attest services, as well as non-attest services. Clients and former clients should be familiar with the requirements of this rule prior to requesting the return of records.

23. This contract may be terminated at any time by mutual consent and agreement of the Governmental Unit(s) and the Auditor, provided that (a) the consent to terminate is in writing and signed by both parties, (b) the parties have agreed on the fee amount which shall be paid to the Auditor (if applicable), and (c) no termination shall be effective until approved in writing by the Secretary of the LGC.

24. The Governmental Unit's (Units') failure or forbearance to enforce, or waiver of, any right or an event of breach or default on one occasion or instance shall not constitute the waiver of such right, breach or default on any subsequent occasion or instance.

25. There are no other agreements between the parties hereto and no other agreements relative hereto that shall be enforceable unless entered into in accordance with the procedure set out herein and approved by the Secretary of the LGC.

26. E-Verify. Auditor shall comply with the requirements of NCGS Chapter 64 Article 2. Further, if Auditor utilizes any subcontractor(s), Auditor shall require such subcontractor(s) to comply with the requirements of NCGS Chapter 64, Article 2.

27. **Applicable to audits with fiscal year ends of June 30, 2020 and later.** For all non-attest services, the Auditor shall adhere to the independence rules of the AICPA Professional Code of Conduct and Governmental Auditing Standards, 2018 Revision (as applicable). Financial statement preparation assistance shall be deemed a "significant threat" requiring the Auditor to apply safeguards sufficient to reduce the threat to an acceptable level. If the Auditor cannot reduce the threats to an acceptable level, the Auditor cannot complete the audit. If the Auditor is able to reduce the threats to an acceptable level, the documentation of this determination, including the safeguards applied, must be included in the audit workpapers.

All non-attest service(s) being performed by the Auditor that are necessary to perform the audit must be identified and included in this contract. The Governmental Unit shall designate an individual with the suitable skills, knowledge, and/or experience (SKE) necessary to oversee the services and accept responsibility for the results of the services performed. If the Auditor is able to identify an individual with the appropriate SKE, s/he must document and include in the audit workpapers how he/she reached that conclusion. If the Auditor determines that an individual with the appropriate SKE cannot be identified, the Auditor cannot perform both the non-attest service(s) and the audit. See "Fees for Audit Services" page of this contract to disclose the person identified as having the appropriate SKE for the Governmental Unit.

28. **Applicable to audits with fiscal year ends of June 30, 2021 and later.** The auditor shall present the audited financial statements including any compliance reports to the government unit's governing body or audit committee in an official meeting in open session as soon as the audited financial statements are available but not later than 45 days after the submission of the audit report to the Secretary. The auditor's presentation to the government unit's governing body or audit committee shall include:

a) the description of each finding, including all material weaknesses and significant deficiencies, as found by the auditor, and any other issues related to the internal controls or fiscal health of the government unit as disclosed in the management letter, the Single Audit or Yellow Book reports, or any other communications from the auditor regarding internal controls as required by current auditing standards set by the Accounting Standards Board or its successor;

b) the status of the prior year audit findings;

c) the values of Financial Performance Indicators based on information presented in the audited financial statements; and

d) notification to the governing body that the governing body shall develop a "Response to the Auditor's Findings, Recommendations, and Fiscal Matters," if required under 20 NCAC 03 .0508.

29. Information based on the audited financial statements shall be submitted to the Secretary for the purpose of identifying Financial Performance Indicators and Financial Performance Indicators of Concern. See 20 NCAC 03 .0502(c)(6).

30. All of the above paragraphs are understood and shall apply to this contract, except the following numbered paragraphs shall be deleted (See Item 17 for clarification).

31. The process for submitting contracts, audit reports and invoices is subject to change. Auditors and units should use the submission process and instructions in effect at the time of submission. Refer to the N.C. Department of State Treasurer website at https://www.nctreasurer.com/state-and-local-government-finance-division/local-government-commission/submitting-your-audit

32. All communications regarding audit contract requests for modification or official approvals will be sent to the email addresses provided on the signature pages that follow.

33. Modifications to the language and terms contained in this contract form (LGC-205) are not allowed.

LGC-205 **CONTRACT TO AUDIT ACCOUNTS** Rev. 11/2021

## FEES FOR AUDIT SERVICES

1. For all non-attest services, the Auditor shall adhere to the independence rules of the AICPA Professional Code of Conduct (as applicable) and *Governmental Auditing Standards,2018 Revision*. Refer to Item 27 of this contract for specific requirements. The following information must be provided by the Auditor; contracts presented to the LGC without this information will be not be approved.

Financial statements were prepared by: ☑Auditor ☐Governmental Unit ☐Third Party

If applicable: Individual at Governmental Unit designated to have the suitable skills, knowledge, and/or experience (SKE) necessary to oversee the non-attest services and accept responsibility for the results of these services:

| ***Name:*** | ***Title and Unit / Company:*** | ***Email Address:*** |
|---|---|---|
| ROBERT MCKIE | FINANCE DIRECTOR, CLAYTO | mckie@townofclaytonnc.org |

**OR Not Applicable** ☐ *(Identification of SKE Individual not applicable for GAAS-only audit or audits with FYEs prior to June 30, 2020.)*

2. Fees may not be included in this contract for work performed on Annual Financial Information Reports (AFIRs), Form 990s, or other services not associated with audit fees and costs. Such fees may be included in the engagement letter but may not be included in this contract or in any invoices requiring approval of the LGC. See Items 8 and 13 for details on other allowable and excluded fees.

3. Prior to the submission of the completed audited financial report and applicable compliance reports subject to this contract, or to an amendment to this contract (if required) the Auditor may submit interim invoices for approval for services rendered under this contract to the Secretary of the LGC, not to exceed 75% of the billings for the unit's last annual audit that was submitted to the Secretary of the LGC. Should the 75% cap provided below conflict with the cap calculated by LGC Staff based on the billings on file with the LGC, the LGC calculation prevails. All invoices for services rendered in an audit engagement as defined in 20 NCAC .0503 shall be submitted to the Commission for approval before any payment is made. Payment before approval is a violation of law. (This paragraph not applicable to contracts and invoices associated with audits of hospitals).

**PRIMARY GOVERNMENT FEES**

| | |
|---|---|
| Primary Government Unit | TOWN OF CLAYTON |
| Audit Fee | $ 27000-29000 |
| ***Additional Fees Not Included in Audit Fee:*** | |
| Fee per Major Program | $ |
| Writing Financial Statements | $ |
| All Other Non-Attest Services | $ |
| **75% Cap for Interim Invoice Approval** ***(not applicable to hospital contracts)*** | $ 22,250.00 |

**DPCU FEES (if applicable)**

| | |
|---|---|
| Discretely Presented Component Unit | NA |
| Audit Fee | $ |
| ***Additional Fees Not Included in Audit Fee:*** | |
| Fee per Major Program | $ |
| Writing Financial Statements | $ |
| All Other Non-Attest Services | $ |
| **75% Cap for Interim Invoice Approval** ***(not applicable to hospital contracts)*** | $ |

LGC-205 **CONTRACT TO AUDIT ACCOUNTS** Rev. 11/2021

## SIGNATURE PAGE

### AUDIT FIRM

| | |
|---|---|
| Audit Firm*<br>ANDERSON SMITH & WIKE PLLC | |
| Authorized Firm Representative (typed or printed)*<br>KENNETH ANDERSON | Signature* |
| Date*<br>4/19/2022 | Email Address*<br>krandersoncpa@bellsouth.net |

### GOVERNMENTAL UNIT

| | |
|---|---|
| Governmental Unit*<br>TOWN OF CLAYTON | |
| Date Primary Government Unit Governing Board Approved Audit Contract*<br>(G.S.159-34(a) or G.S.115C-447(a)) | X |
| Mayor/Chairperson (typed or printed)*<br>JODYMCLEOD, MAYOR | Signature*<br>X |
| Date<br>X | Email Address<br>mayor@townofclaytonnc.org |

| | |
|---|---|
| Chair of Audit Committee (typed or printed, or "NA")<br>NA | Signature |
| Date | Email Address |

### GOVERNMENTAL UNIT – PRE-AUDIT CERTIFICATE

Required by G.S. 159-28(a1) or G.S. 115C-441(a1).
Not applicable to hospital contracts.

*This instrument has been pre-audited in the manner required by The Local Government Budget and Fiscal Control Act or by the School Budget and Fiscal Control Act.*

| | |
|---|---|
| Primary Governmental Unit Finance Officer* (typed or printed)<br>ROBERT MCKIE | Signature*<br>X |
| Date of Pre-Audit Certificate*<br>X | Email Address*<br>mckie@townofclaytonnc.org |

**SIGNATURE PAGE – DPCU**
**(complete only if applicable)**

**DISCRETELY PRESENTED COMPONENT UNIT**

| | |
|---|---|
| DPCU*<br>NA | |
| Date DPCU Governing Board Approved Audit Contract* (Ref: G.S. 159-34(a) or G.S. 115C-447(a)) | |
| DPCU Chairperson (typed or printed)* | Signature* |
| Date* | Email Address* |

| | |
|---|---|
| Chair of Audit Committee (typed or printed, or "NA")<br>NA | Signature |
| Date | Email Address |

**DPCU – PRE-AUDIT CERTIFICATE**

Required by G.S. 159-28(a1) or G.S. 115C-441(a1).
Not applicable to hospital contracts.

*This instrument has been pre-audited in the manner required by The Local Government Budget and Fiscal Control Act or by the School Budget and Fiscal Control Act.*

| | |
|---|---|
| DPCU Finance Officer (typed or printed)*<br>NA | Signature* |
| Date of Pre-Audit Certificate* | Email Address* |

Remember to print this form, and obtain all required signatures prior to submission.

PRINT

ASW ANDERSON SMITH & WIKE PLLC
*Certified Public Accountants*

220 East Washington Street
Post Office Box 697
Rockingham, North Carolina 28380
(910) 557-1176

Other Office Locations:
West End, North Carolina
Gastonia, North Carolina
Huntersville, North Carolina

April 19, 2022

To the Town of Clayton
P.O. Box 879
Clayton, NC 27528

We are pleased to confirm our understanding of the services we are to provide to the Town of Clayton for the year ended June 30, 2022. We will audit the financial statements of the governmental activities, the business-type activities, the fiduciary fund, each major fund, and the aggregate remaining fund information, including the related notes to the financial statements, which collectively comprise the basic financial statements, of the Town of Clayton as of and for the year ended June 30, 2022. Accounting standards generally accepted in the United States of America provide for certain required supplementary information (RSI), such as management's discussion and analysis (MD&A), to supplement the Town of Clayton's basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. As part of our engagement, we will apply certain limited procedures to the Town of Clayton's RSI in accordance with auditing standards generally accepted in the United States of America. These limited procedures will consist of inquiries of management regarding the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We will not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance. The following RSI is required by generally accepted accounting principles and will be subjected to certain limited procedures, but will not be audited:

1. Management's Discussion and Analysis
2. Other Postemployment Benefits
3. GASB Required Supplementary Pension Schedules
4. Law Enforcement Officers' Special Separation Allowance

We have also been engaged to report on supplementary information other than RSI that accompanies the Town of Clayton's financial statements. We will subject the following supplementary information to the auditing procedures applied in our audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America, and we will provide an opinion on it in relation to the financial statements as a whole, in a report combined with our auditor's report on the financial statements.

1. Individual fund budgetary schedules and other schedules.
2. Schedule of expenditures of federal and state awards.

**Audit Objectives**

The objective of our audit is the expression of opinions as to whether your financial statements are fairly presented, in all material respects, in conformity with U.S. generally accepted accounting principles and to report on the fairness of the supplementary information referred to in the second paragraph when considered in relation to the financial statements as a whole. The objective also includes reporting on—

- Internal control over financial reporting and compliance with provisions of laws, regulations, contracts, and award agreements, noncompliance with which could have a material effect on the financial statements in accordance with *Government Auditing Standards*.

- Internal control over compliance related to major programs and an opinion (or disclaimer of opinion) on compliance with federal statutes, regulations, and the terms and conditions of federal awards that could have a direct and material effect on each major program in accordance with the Single Audit Act Amendments of 1996 and Title 2 U.S. *Code of Federal Regulations* (CFR) Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance).

The *Government Auditing Standards* report on internal control over financial reporting and on compliance and other matters will include a paragraph that states that (1) the purpose of the report is solely to describe the scope of testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance, and (2) the report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. The Uniform Guidance report on internal control over compliance will include a paragraph that states that the purpose of the report on internal control over compliance is solely to describe the scope of testing of internal control over compliance and the results of that testing based on the requirements of the Uniform Guidance. Both reports will state that the report is not suitable for any other purpose.

Our audit will be conducted in accordance with auditing standards generally accepted in the United States of America; the standards for financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; the Single Audit Act Amendments of 1996; and the provisions of the Uniform Guidance, and will include tests of accounting records, a determination of major program(s) in accordance with the Uniform Guidance, and other procedures we consider necessary to enable us to express such opinions. We will issue written reports upon completion of our Single Audit. Our reports will be addressed to the governing board of the Town of Clayton. We cannot provide assurance that unmodified opinions will be expressed. Circumstances may arise in which it is necessary for us to modify our opinions or add emphasis-of-matter or other-matter paragraphs. If our opinions are other than unmodified, we will discuss the reasons with you in advance. If, for any reason, we are unable to complete the audit or are unable to form or have not formed opinions, we may decline to express opinions or issue reports, or we may withdraw from this engagement.

**Audit Procedures—General**

An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements; therefore, our audit will involve judgment about the number of transactions to be examined and the areas to be tested. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements. We will plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether from (1) errors, (2) fraudulent financial reporting, (3) misappropriation of assets, or (4) violations of laws or governmental regulations that are attributable to the government or to acts by management or employees acting on behalf of the government.

Because the determination of waste and abuse is subjective, *Government Auditing Standards* do not expect auditors to provide reasonable assurance of detecting waste or abuse.

Because of the inherent limitations of an audit, combined with the inherent limitations of internal control, and because we will not perform a detailed examination of all transactions, an unavoidable risk that some material misstatements or noncompliance may exist and not be detected by us, even though the audit is properly planned and performed in accordance with U.S. generally accepted auditing standards and *Government Auditing Standards*. In addition, an audit is not designed to detect immaterial misstatements or violations of laws or governmental regulations that do not have a direct and material effect on the financial statements or on major programs. However, we will inform the appropriate level of management of any material errors, any fraudulent financial reporting, or misappropriation of assets that come to our attention. We will also inform the appropriate level of management of any violations of laws or governmental regulations that come to our attention, unless clearly inconsequential. We will include such matters in the reports required for a Single Audit. Our responsibility as auditors is limited to the period covered by our audit and does not extend to any later periods for which we are not engaged as auditors.

Our procedures will include tests of documentary evidence supporting the transactions recorded in the accounts, and may include tests of the physical existence of inventories, and direct confirmation of receivables and certain other assets and liabilities by correspondence with selected individuals, funding sources, creditors, and financial institutions. We will request written representations from your attorneys as part of the engagement, and they may bill you for responding to this inquiry. At the conclusion of our audit, we will require certain written representations from you about your responsibilities for the financial statements; schedule of expenditures of federal awards; federal award programs; compliance with laws, regulations, contracts, and grant agreements; and other responsibilities required by generally accepted auditing standards.

**Audit Procedures—Internal Control**

Our audit will include obtaining an understanding of the government and its environment, including internal control, sufficient to assess the risks of material misstatement of the financial statements and to design the nature, timing, and extent of further audit procedures. Tests of controls may be performed to test the effectiveness of certain controls that we consider relevant to preventing and detecting errors and fraud that are material to the financial statements and to preventing and detecting misstatements resulting from illegal acts and other noncompliance matters that have a direct and material effect on the financial statements. Our tests, if performed, will be less in scope than would be necessary to render an opinion on internal control and, accordingly, no opinion will be expressed in our report on internal control issued pursuant to *Government Auditing Standards*.

As required by the Uniform Guidance, we will perform tests of controls over compliance to evaluate the effectiveness of the design and operation of controls that we consider relevant to preventing or detecting material noncompliance with compliance requirements applicable to each major federal award program. However, our tests will be less in scope than would be necessary to render an opinion on those controls and, accordingly, no opinion will be expressed in our report on internal control issued pursuant to the Uniform Guidance.

An audit is not designed to provide assurance on internal control or to identify significant deficiencies or material weaknesses. Accordingly, we will express no such opinion. However, during the audit, we will communicate to management and those charged with governance internal control related matters that are required to be communicated under AICPA professional standards, *Government Auditing Standards*, and the Uniform Guidance.

**Audit Procedures—Compliance**

As part of obtaining reasonable assurance about whether the financial statements are free of material misstatement, we will perform tests of the Town of Clayton's compliance with provisions of applicable laws, regulations, contracts, and agreements, including grant agreements. However, the objective of those procedures will not be to provide an opinion on overall compliance and we will not express such an opinion in our report on compliance issued pursuant to *Government Auditing Standards*.

The Uniform Guidance requires that we also plan and perform the audit to obtain reasonable assurance about whether the auditee has complied with federal statutes, regulations, and the terms and conditions of federal awards applicable to major programs. Our procedures will consist of tests of transactions and other applicable procedures described in the *OMB Compliance Supplement* for the types of compliance requirements that could have a direct and material effect on each of the Town of Clayton's major programs. For federal programs that are included in the Compliance Supplement, our compliance and internal control procedures will relate to the compliance requirements that the Compliance Supplement identifies as being subject to audit. The purpose of these procedures will be to express an opinion on the Town of Clayton's compliance with requirements applicable to each of its major programs in our report on compliance issued pursuant to the Uniform Guidance.

**Other Services**

We will also assist in preparing the financial statements, schedule of expenditures of federal awards, and related notes of Town of Clayton in conformity with U.S. generally accepted accounting principles and the Uniform Guidance based on information provided by you. These nonaudit services do not constitute an audit under *Government Auditing Standards* and such services will not be conducted in accordance with *Government Auditing Standards*. We will perform the services in accordance with applicable professional standards. The other services are limited to the financial statements, schedule of expenditures of federal awards, and related notes services previously defined. We, in our sole professional judgment, reserve the right to refuse to perform any procedure or take any action that could be construed as assuming management responsibilities.

**Management Responsibilities**

Management is responsible for (1) designing, implementing, and maintaining effective internal controls relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error, including internal controls over federal awards, and for evaluating and monitoring ongoing activities to help ensure that appropriate goals and objectives are met; (2) following laws and regulations; (3) ensuring that there is reasonable assurance that government programs are administered in compliance with compliance requirements; and (4) ensuring that management and financial information is reliable and properly reported. Management is also responsible for implementing systems designed to achieve compliance with applicable laws, regulations, contracts, and grant agreements. You are also responsible for the selection and application of accounting principles; for the preparation and fair presentation of the financial statements, schedule of expenditures of federal awards, and all accompanying information in conformity with U.S. generally accepted accounting principles; and for compliance with applicable laws and regulations (including federal statutes) and the provisions of contracts and grant agreements (including award agreements). Your responsibilities also include identifying significant contractor relationships in which the contractor has responsibility for program compliance and for the accuracy and completeness of that information.

Management is also responsible for making all financial records and related information available to us and for the accuracy and completeness of that information. You are also responsible for providing us with (1) access to all information of which you are aware that is relevant to the preparation and fair presentation of the financial statements, including identification of all related parties and all related-party relationships and transactions, (2) access to personnel, accounts, books, records, supporting documentation, and other information as needed to perform an audit under the Uniform Guidance, (3) additional information that we

may request for the purpose of the audit, and (4) unrestricted access to persons within the government from whom we determine it necessary to obtain audit evidence.

Your responsibilities include adjusting the financial statements to correct material misstatements and confirming to us in the management representation letter that the effects of any uncorrected misstatements aggregated by us during the current engagement and pertaining to the latest period presented are immaterial, both individually and in the aggregate, to the financial statements of each opinion unit as a whole.

You are responsible for the design and implementation of programs and controls to prevent and detect fraud, and for informing us about all known or suspected fraud affecting the government involving (1) management, (2) employees who have significant roles in internal control, and (3) others where the fraud could have a material effect on the financial statements. Your responsibilities include informing us of your knowledge of any allegations of fraud or suspected fraud affecting the government received in communications from employees, former employees, grantors, regulators, or others. In addition, you are responsible for identifying and ensuring that the government complies with applicable laws, regulations, contracts, agreements, and grants. Management is also responsible for taking timely and appropriate steps to remedy fraud and noncompliance with provisions of laws, regulations, contracts, and grant agreements that we report. Additionally, as required by the Uniform Guidance, it is management's responsibility to evaluate and monitor noncompliance with federal statutes, regulations, and the terms and conditions of federal awards; take prompt action when instances of noncompliance are identified including noncompliance identified in audit findings; promptly follow up and take corrective action on reported audit findings; and prepare a summary schedule of prior audit findings and a separate corrective action plan. The summary schedule of prior audit findings should be available for our review on December 1, 2022.

You are responsible for identifying all federal awards received and understanding and complying with the compliance requirements and for the preparation of the schedule of expenditures of federal awards (including notes and noncash assistance received) in conformity with the Uniform Guidance. You agree to include our report on the schedule of expenditures of federal awards in any document that contains and indicates that we have reported on the schedule of expenditures of federal awards. You also agree to [include the audited financial statements with any presentation of the schedule of expenditures of federal awards that includes our report thereon OR make the audited financial statements readily available to intended users of the schedule of expenditures of federal awards no later than the date the schedule of expenditures of federal awards is issued with our report thereon]. Your responsibilities include acknowledging to us in the written representation letter that (1) you are responsible for presentation of the schedule of expenditures of federal awards in accordance with the Uniform Guidance; (2) you believe the schedule of expenditures of federal awards, including its form and content, is stated fairly in accordance with the Uniform Guidance; (3) the methods of measurement or presentation have not changed from those used in the prior period (or, if they have changed, the reasons for such changes); and (4) you have disclosed to us any significant assumptions or interpretations underlying the measurement or presentation of the schedule of expenditures of federal awards.

You are also responsible for the preparation of the other supplementary information, which we have been engaged to report on, in conformity with U.S. generally accepted accounting principles. You agree to include our report on the supplementary information in any document that contains, and indicates that we have reported on, the supplementary information. You also agree to [include the audited financial statements with any presentation of the supplementary information that includes our report thereon OR make the audited financial statements readily available to users of the supplementary information no later than the date the supplementary information is issued with our report thereon]. Your responsibilities include acknowledging to us in the written representation letter that (1) you are responsible for presentation of the supplementary information in accordance with GAAP; (2) you believe the supplementary information, including its form and content, is fairly presented in accordance with GAAP; (3) the methods of measurement or presentation have not changed from those used in the prior period (or, if they have changed, the reasons for such

changes); and (4) you have disclosed to us any significant assumptions or interpretations underlying the measurement or presentation of the supplementary information.

Management is responsible for establishing and maintaining a process for tracking the status of audit findings and recommendations. Management is also responsible for identifying and providing report copies of previous financial audits, attestation engagements, performance audits, or other studies related to the objectives discussed in the Audit Objectives section of this letter. This responsibility includes relaying to us corrective actions taken to address significant findings and recommendations resulting from those audits, attestation engagements, performance audits, or studies. You are also responsible for providing management's views on our current findings, conclusions, and recommendations, as well as your planned corrective actions, for the report, and for the timing and format for providing that information.

You agree to assume all management responsibilities relating to the financial statements, schedule of expenditures of federal awards, and related notes, and any other nonaudit services we provide. You will be required to acknowledge in the management representation letter our assistance with preparation of the financial statements, schedule of expenditures of federal awards, and related notes and that you have reviewed and approved the financial statements, schedule of expenditures of federal awards, and related notes prior to their issuance and have accepted responsibility for them. Further, you agree to oversee the nonaudit services by designating an individual, preferably from senior management, with suitable skill, knowledge, or experience; evaluate the adequacy and results of those services; and accept responsibility for them.

**Engagement Administration, Fees, and Other**

We may from time to time and depending on the circumstances, use third-party service providers in serving your account. We may share confidential information about you with these service providers, but remain committed to maintaining the confidentiality and security of your information. Accordingly, we maintain internal policies, procedures, and safeguards to protect the confidentiality of your personal information. In addition, we will secure confidentiality agreements with all service providers to maintain the confidentiality of your information and we will take reasonable precautions to determine that they have appropriate procedures in place to prevent the unauthorized release of your confidential information to others. In the event that we are unable to secure an appropriate confidentiality agreement, you will be asked to provide your consent prior to the sharing of your confidential information with the third-party service provider. Furthermore, we will remain responsible for the work provided by any such third-party service providers.

We understand that your employees will prepare all cash, accounts receivable, or other confirmations we request and will locate any documents selected by us for testing.

At the conclusion of the engagement, we will complete the appropriate sections of the Data Collection Form that summarizes our audit findings. It is management's responsibility to electronically submit the reporting package (including financial statements, schedule of expenditures of federal awards, summary schedule of prior audit findings, auditors' reports, and corrective action plan) along with the Data Collection Form to the federal audit clearinghouse. We will coordinate with you the electronic submission and certification. The Data Collection Form and the reporting package must be submitted within the earlier of 30 calendar days after receipt of the auditors' reports or nine months after the end of the audit period.

We will provide copies of our reports to the Town of Clayton, North Carolina; however, management is responsible for distribution of the reports and the financial statements. Unless restricted by law or regulation, or containing privileged and confidential information, copies of our reports are to be made available for public inspection.

The audit documentation for this engagement is the property of Anderson Smith & Wike PLLC and constitutes confidential information. However, subject to applicable laws and regulations, audit documentation and appropriate individuals will be made available upon request and in a timely

manner to the Local Government Commission or its designee, a federal agency providing direct or indirect funding, or the U.S. Government Accountability Office for purposes of a quality review of the audit, to resolve audit findings, or to carry out oversight responsibilities. We will notify you of any such request. If requested, access to such audit documentation will be provided under the supervision of Anderson Smith & Wike PLLC personnel. Furthermore, upon request, we may provide copies of selected audit documentation to the aforementioned parties. These parties may intend, or decide, to distribute the copies or information contained therein to others, including other governmental agencies.

The audit documentation for this engagement will be retained for a minimum of five years after the report release date or for any additional period requested by the Local Government Commission. If we are aware that a federal awarding agency, pass-through entity, or auditee is contesting an audit finding, we will contact the party(ies) contesting the audit finding for guidance prior to destroying the audit documentation.

We expect to begin our audit on approximately August 1, 2022 and to issue our reports no later than October 31, 2022. Kenneth Anderson is the engagement partner and is responsible for supervising the engagement and signing the reports or authorizing another individual to sign them.

We appreciate the opportunity to be of service to the Town of Clayton and believe this letter accurately summarizes the significant terms of our engagement. If you have any questions, please let us know. If you agree with the terms of our engagement as described in this letter, please sign the enclosed copy and return it to us.

Very truly yours,

Anderson Smith + Wike PLLC

This letter correctly sets forth the understanding of the Town of Clayton, NC.

Management signature: _____

Title: _____

Date: _____

Governance signature: _____

Title: _____

Date: _____

**Koonce, Wooten & Haywood, LLP**
CERTIFIED PUBLIC ACCOUNTANTS

## Report on the Firm's System of Quality Control

To the Partners of Anderson Smith & Wike, PLLC and the
Peer Review Committee, North Carolina Association
of Certified Public Accountants

We have reviewed the system of quality control for the accounting and auditing practice of Anderson Smith & Wike, PLLC (the firm) in effect for the year ended March 31, 2019. Our peer review was conducted in accordance with the Standards for Performing and Reporting on Peer Reviews established by the Peer Review Board of the American Institute of Certified Public Accountants (Standards).

A summary of the nature, objectives, scope, limitations of, and the procedures performed in a System Review as described in the Standards may be found at www.aicpa.org/prsummary. The summary also includes an explanation of how engagements identified as not performed or reported in conformity with applicable professional standards, if any, are evaluated by a peer reviewer to determine a peer review rating.

### Firm's Responsibility

The firm is responsible for designing a system of quality control and complying with it to provide the firm with reasonable assurance of performing and reporting in conformity with applicable professional standards in all material respects. The firm is also responsible for evaluating actions to promptly remediate engagements deemed as not performed or reported in conformity with professional standards, when appropriate, and for remediating weaknesses in its system of quality control, if any.

### Peer Reviewer's Responsibility

Our responsibility is to express an opinion on the design of the system of quality control and the firm's compliance therewith based on our review.

### Required Selections and Considerations

Engagements selected for review included engagements performed under *Government Auditing Standards*, including compliance audits under the Single Audit Act, and an audit of an employee benefit plan.

As part of our peer review, we considered reviews by regulatory entities as communicated by the firm, if applicable, in determining the nature and extent of our procedures.

### Opinion

In our opinion, the system of quality control for the accounting and auditing practice of Anderson Smith & Wike, PLLC in effect for the year ended March 31, 2019, has been suitably designed and complied with to provide the firm with reasonable assurance of performing and reporting in conformity with applicable professional standards in all material respects. Firms can receive a rating of *pass*, *pass with deficiency(ies)* or *fail*. Anderson Smith & Wike, PLLC has received a peer review rating of pass.

Koonce, Wooten & Haywood, LLP

Koonce, Wooten & Haywood, LLP

July 17, 2019


**Raleigh**
4060 Barrett Drive
Post Office Box 17806
Raleigh, North Carolina 27619

919 782 9265
919 783 8937 FAX

**Durham**
3500 Westgate Drive
Suite 203
Durham, North Carolina 27707

919 354 2584
919 489 8183 FAX

**Pittsboro**
579 West Street
Post Office Box 1399
Pittsboro, North Carolina 27312

919 542 6000
919 542 5764 FAX

# Town Council Agenda Cover Sheet

**Meeting Date**
May 16, 2022

**Agenda Location**
Consent Agenda

**Item Title**
Sole Source Exemption (Standardization)

**Presenter:**
Shaun Mizell, Procurement, Contracts and MWBE Manager

**Summary/Description**

The Towns Procurement Division and Utilities Department are proposing to procure water and electric meters under the Competitive Bidding Exception outlined in General Statute 143-129 € (6), which is labeled as "Sole Source" in the chart located in the agenda packet. In 2018, the Council approved the Town replacing all electric and water meters with Automated Metering Infrastructure or AMI meters. The Ferguson (water) and Sensus (electric) meters work with the equipment installed on our water towers to collect consumption data which is used for billing and reporting. Standardization of the meters will greatly benefit the Town to be able to utilize this technology.

**Requested Action**
Place on Consent Agenda

**Funding Source (If Applicable):**
**N/A**

**Cost:** **N/A** **Yes** ☐ **No** ☒

**Additional Documents to be Included in Agenda Packet**
Exceptions to State Competitive Bidding Requirements for North Carolina Local Governments

**Meeting Timeline**
Click or tap here to enter text.

# RESOLUTION TO USE THE BID EXCEPTION STANDARDIZATION FOR PROCUREMENT OF WATER AND ELECTRIC METERS

**WHEREAS,** the Town of Clayton wishes to use the Competitive Bidding Exception which is labeled as "Sole Source" (Standardization) outlined in North Carolina General Statute 143-129(e)(6), and

**WHEREAS,** the Competitive Bidding Exception "Sole Source" will allow the Town to procure meters at any amount and remain in compliance with Statutes, and

**WHEREAS,** the Town of Clayton intends to procure such meters using the exception as long as the Automated Metering Infrastructure remains in place,

**NOW, THEREFORE, BE IT RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF CLAYTON:**

That the Town be allowed to procure Ferguson (water) and Sensus (electric) meters using the Competitive Bidding Exception "Sole Source".

Duly adopted this 16th day of May 2022, while in regular session.

_____
Jody L. McLeod
Mayor

Attest:

_____
Sherry L. Scoggins, MMC
Interim Town Clerk

UNC SCHOOL OF GOVERNMENT

# Exceptions to State Competitive Bidding Requirements For North Carolina Local Governments

| Exception | Applies To: | Description | Board Approval Required? | Other Requirements |
|---|---|---|---|---|
| ***Purchases*** | | | | |
| **Purchase from other units of Government**<br>G.S. 143-129(e)(1) | Informal and formal purchases and leases | Purchase directly from another unit of federal, state, or local government anywhere in the U.S. | No | None |
| **Emergency**<br>G.S. 143-129(e)(2) | Informal and formal purchases and construction/repair | Present, immediate, and existing special emergency involving public health and safety of people or property | No | None |
| **Fuel Purchase**<br>G.S. 143-129(e)(5) | Informal and formal purchases | Purchase of gasoline, diesel fuel, alcohol fuel, motor oil, fuel oil, or natural gas | No | Informal bidding requirements apply to purchases costing $30,000 or more (including purchases over $90,000) |
| **Sole Source**<br>G.S. 143-129(e)(6) | Informal and formal purchases | Available when (1) performance or price competition is not available; (2) product is available from only one source; or (3) standardization or compatibility is the overriding consideration | Yes | None |
| **Group Purchasing Program**<br>G.S. 143-129(e)(3) | Informal and formal purchases | Competitive bidding process by a formally organized program offering discount prices to at least 2 public agencies | No | None |



*Note: Local Governments **should always** consult their local policies for additional procedural requirements.*

**Town of Clayton**
**Town Council Work Session Minutes**
**Monday, May 2, 2022 @ 12:00 PM**
**Rotary Room**

**COUNCIL PRESENT:**
Mayor Jody McLeod
Mayor Pro Tem Jason Thompson
Council Member Andria Archer
Council Member Porter Casey
Council Member Avery Everett
Council Member Michael Sims

**STAFF PRESENT:**
Interim Town Manager Rich Cappola
Town Attorney Jim Cauley
Interim Deputy Town Manager Lee Barbee
Deputy Town Manager Dolores Gill
Police Chief Greg Tart
Finance Director Robert McKie
Interim Town Clerk Sherry Scoggins
Deputy Town Clerk Heidi Holland
Library Director Joy Garretson
Executive Director Clayton Center Scotty Henley
Engineering Director Joshua Baird
Economic Development Director Patrick Pierce

## 1 CALL TO ORDER

a) Mayor McLeod called the meeting to order at 12:07 p.m.

## 2 BUDGET WORK SESSION

a) Library (12:00 noon to 12:45 p.m.)
*Presenter*: Joy Garretson, Library Director

Library Director Joy Garretson introduced the Margaret Sullivan Studio consultants who participated via Zoom:

- Margaret Sullivan, principal architect / owner of firm
- Lyna Vuong
- Anabelle Malamug

Library Director Garretson provided an overview of library services offered to patrons. She added that in December the library will transition to NC Cardinal to provide additional book service. Patrons will have a larger selection and may request titles offered by NC Cardinal that can be delivered to the library within a couple of days.

Consultant Margaret Sullivan provided library option scenarios:

- New 30,000 square foot building: $14,147,000
- Renovation options for the existing site

    - Renovate with removal of non-load bearing walls: $2,277,730
    - Re-arrange room to improve flow; furniture only: $837,880
- Co-locations
- Public - Private Partnerships

b) Cultural Arts (12:45 p.m. to 1:15 p.m.)
*Presenter:* Scotty Henley, Executive Director of the Clayton Center

Executive Director of the Clayton Center Scotty Henley stated season ticket holders are declining. Looking at new options to attract patrons for shows at the Clayton Center. He added the first half of the year is slow whereas the second half of the year (spring) is busy.

Council expressed an interest in demographics and analytic information.

Options to explore:

- Diversity of genres - in and out of community
- Working with other departments for arts collaboration / promotion
- Thinking beyond the stage
- Season ticket holder declined - try something new
    - How much do tickets sell for?
- Engaging the Clayton community and seeking sponsorships
- Balancing act with the community
- Looking at the number of persons being served

Council requested quarterly reports that includes financial information.

c) Budget / Capital Improvements Plan (CIP) (1:30 p.m. to 4:30 p.m.)
*Presenter:* Rich Cappola, Interim Town Manager

Interim Town Manager Rich Cappola stated the need for a capital improvement plan that goes several years out.

This year's budget includes a request for one Level III Plans Reviewer and four police officers. The Town submitted a request with the UNC-SOG for an MPA intern to assist with projects for Economic Development; the Town is on the waiting list for a response. Fleet requests are a work in progress as all vehicles and equipment are being inventoried toward the goal of a motor pool. The proposal is to maintain the current tax rate of .58 cents. Johnston County will perform the next property re-evaluation in 2025. The sales tax revenue stream is being watched.

Employee Benefits Assumptions:

- Pay classification study results are expected this month.
- State Health Plan - anticipated employer contribution increase of 12%
- NC Retirement Fund employer contribution increase - .75% general and 1% for LEO

Recommend reviewing how reserve funds are grown and spent.

d) Selection of a search consultant (for Town Manager)
*Presenter:* Jim Cauley, Town Attorney

At the request of Council for proposals for consultants for the Town Manager process:

- Robertson Miller Management, $20,000
- Slavin Management Consultants, $24,000
- Baker Tilly Public Sector Executive Recruitment, $26,500

The process takes on average four months and the time line is driven by the Council.

e) Closed Sessions for the following:

- Discuss land acquisition, NC GS 143-318.11 (a) (5)
- Discuss economic development, NC GS 143-318.11 (a) (4)

**ACTION:** Move to go into closed session to discuss land acquisition and discuss economic development.

Motion: Mayor Pro Tem Thompson moved to go into closed session to discuss land acquisition at 4:55 p.m.
Second: Council Member Archer
Vote: Unanimous

**ACTION:** Move to return to open session.

Motion: Mayor Pro Tem Thompson moved to return to open session at 5:22 p.m.
Second: Council Member Everett
Vote: Unanimous

## 3 ADJOURNMENT

a) Adjournment

Mayor McLeod adjourned the work session at 5:22 p.m.

_____
Jody L. McLeod
Mayor

ATTEST:

_____
Sherry L. Scoggins, MMC
Interim Town Clerk

**Town of Clayton**
**Regular Town Council Meeting Minutes**
**Monday, May 2, 2022 @ 6:00 PM**
**Council Chambers**

**COUNCIL PRESENT:**
Mayor Jody L. McLeod
Mayor Pro Tem Jason Thompson
Council Member Andria Archer
Council Member Porter Casey
Council Member Michael Sims

**STAFF PRESENT:**
Interim Town Manager Rich Cappola
Town Attorney Jim Cauley
Interim Town Clerk Sherry Scoggins
Deputy Town Clerk Heidi Holland
Deputy Town Manager Dolores Gill
Interim Town Manager Lee Barbee
Finance Director Robert McKie
Police Chief Greg Tart
Town Engineer Joshua Baird
Assistant Town Engineer Jonathan Jacobs
Communication Director Nathanael Shelton
Parks & Recreation Director Scott Bernard

**COUNCIL ABSENT: Council Member Avery Everett**

**1 CALL TO ORDER**
Pledge of Allegiance and Invocation

a) Pledge of Allegiance and Invocation

Mayor McLeod led the Pledge of Allegiance.
Mayor McLeod provided the invocation.

**2 ADJUSTMENT OF THE AGENDA**

a) Approval of the agenda.

**ACTION:** Approval of the agenda as presented or as adjusted.

Motion: Mayor Pro Tem Thompson moved to approve the agenda as presented
Second: Council Member Archer
Vote: Motion carried 4-0

**3 CONSENT AGENDA**
*(Items on the consent agenda are considered routine in nature or have been thoroughly discussed at previous meetings. Any member of the Council may request to have an item removed from the consent agenda for further discussion.)*

a) April 4, 2022, Work Session DRAFT Minutes

April 4, 2022, Closed Session DRAFT Minutes
April 4, 2022, Regular Meeting DRAFT Minutes
April 18, 2022, Regular Meeting DRAFT Minutes
*Presenter:* Sherry Scoggins, Interim Town Clerk

b) Contract: Interim Town Clerk
*Presenter*: Mayor Jody McLeod

c) Resolution to Accept Public Utilities into the Town of Clayton Public Utility System - Academy Point, Phase 5-7
*Presenter*: Jonathan Jacobs, Assistant Town Engineer

d) Resolution to Accept Public Utilities into the Town of Clayton Public Utility System – Meadowview, Phase 1
*Presenter*: Jonathan Jacobs, Assistant Town Engineer

e) Resolution to Accept Public Utilities into the Tow of Clayton Public Utility System - The Shoppes at Glen Laurel, Lots 8-10
Presenter: Jonathan Jacobs, Assistant Town Engineer

**ACTION:** Approval of the Consent Agenda as Presented

Motion: Mayor Pro Tem Thompson moved to approve the consent agenda as presented
Second: Council Member Sims
Vote: Motion carried 4-0

## 4 ADMINISTRATIVE ITEMS

a) No Administrative Items were presented.

## 5 INTRODUCTIONS AND SPECIAL PRESENTATIONS

a) Recognition of Johnston County Industries (JCI) Volunteers
Presenters: Scott Barnard, Parks & Recreation Director and Greg Nelson, Property Maintenance Superintendent

Mayor McLeod stated local high school student participants in the Johnston County Industries, JCI, program will have performed 1000+ volunteer hours for Clayton Parks & Recreation by the end of this school year. This work, if conservatively valued at $10 an hour, saved the citizens of the Town of Clayton $10,000. The timing was perfect as these students performed much of this years work while the custodial and park operations teams were short-staffed.

Mayor McLeod recognized the students in attendance: Jason Hold, Amari Welch, Owen Phillips, Amber McKinney, Tywon Whitaker, Thomas Sullivan, Tristan Byrd, Dillion Jones-Wood, and Tamir Terry.

Mayor McLeod recognized the staff in attendance: Sarah Bain, Amanda Reader, Dion Robinson, and Margarita Ramos.

b) Proclaiming May 15-21, 2022, as National Public Works Week
*Presenter*: Mayor Jody McLeod

Mayor McLeod read the proclamation into the record and presented same to the Public Works team.

c) Proclaiming May 1-7, 2022, as Municipal Clerks Week.
*Presenter:* Mayor Jody McLeod

Mayor McLeod read the proclamation into the record and presented same to Deputy Town Clerk Heidi Holland and Interim Town Clerk Sherry Scoggins.

## 6 PUBLIC HEARINGS

a) Intent to Permanently Close Mill Street
*Presenter:* Jonathan Jacobs, Assistant Town Engineer

Assistant Town Engineer Jonathan Jacobs provided an overview of the request to permanently close Mill Street.

Mayor McLeod opened the public hearing at 6:19 p.m.

Ms. Hazel Hall of 204 East Ridge was not opposed to the request to close Mill Street; her concern is the fence of the construction site beside her driveway.

Mayor McLeod closed the public hearing at 6:20 p.m.

**ACTION:** Approval

Motion: Council Member Archer moved to approve the request to permanently close Mill Street
Second: Council Member Sims
Vote: Motion carried 4-0

## 7 OLD BUSINESS

a) No Old Business was presented to Council.

## 8 NEW BUSINESS

a) Amend Animal Control Fees to coincide with the Johnston County Animal Control Fee Schedule
*Presenter*: Greg Tart, Police Chief

Police Chief Greg Tart provided an overview of the request to amend animal control fees to coincide with the Johnston County Animal Control Fee Schedule.

**ACTION:** Approval

Motion: Mayor Pro Tem Thompson moved to approve the ordinance amendment and the animal control fees
Second: Council Member Archer

Vote: Motion carried 4-0

## 9 STAFF REPORTS

a) Town Manager

Interim Town Manager Rich Cappola provided an update on:

- Take a Child to Work Day hosted at last Thursday
- Attended the North Carolina League of Municipalities Conference last week
- Meeting scheduled for the day after the Council meeting to discuss the water reclamation facility

b) Town Attorney

No report.

c) Town Clerk

No report.

d) Other Staff

No report.

## 10 OTHER BUSINESS

a) Informal Discussion & Public Comment

- Individuals have 3 minutes to address the Town Council.
- Groups will designate a spokesperson. Spokesperson will have 5 minutes to address the Town Council.

The following citizens addressed the Town Council:

- David Cawthorn, 3109 Horseshoe Lane, spoke about the Country Lane property. He provided handouts; herewith included in the minutes.
- Michael Plumlee, 105 Stonehenge Drive, spoke about the Country Lane property.
- Joanne McKinnon, 225 Oakdale Avenue in Rollingwood Subdivision, spoke about the following items:
    - Construction noise Monday through Saturday outside her home
    - A three-day musical event with different genres for diversity
    - Traffic stop involving her granddaughter and granddaughter's boyfriend being pulled by police.

b) Council Comments

No Council comments were presented.

## 11 ADJOURNMENT

a) Adjournment

Motion: Mayor Pro Tem Thompson moved to adjourn at 6:50 p.m.

**Second:** **Council Member Sims**
**Vote:** **Motion carried 4-0**

**Jody L. McLeod**
**Mayor**

**ATTEST:**

**Sherry L. Scoggins, MMC**
**Interim Town Clerk**

# TOWN OF CLAYTON
# PROCLAIMING THE WEEK OF MAY 15 – MAY 21, 2022, AS NATIONAL POLICE WEEK

**Whereas**, there are more than 800,000 law enforcement officers serving in communities across the United States, including the dedicated members of the Clayton Police Department; and

**Whereas**, since the first recorded death in 1786, more than 23,000 law enforcement officers in the United States have made the ultimate sacrifice and have been killed in the line of duty, including Patrol Officer Charles Lee, Patrol Officer Ray Gilmore and Lieutenant Monica Carey, who honorably served as members of the Clayton Police Department; and

**Whereas**, the names of these dedicated public servants are engraved on the walls of the National Law Enforcement Officers Memorial in Washington, DC; and

**Whereas**, 619 new names of fallen heroes are being added to the National Law Enforcement Officers Memorial this spring, including 472 officers killed in 2021 and 147 officers killed in previous years; and

**Whereas**, the service and sacrifice of all officers killed in the line of duty will be honored during the National Law Enforcement Officers Memorial Fund's 34th Candlelight Vigil, on the evening of May 13, 2022; and

**Whereas**,, the Annual Candlelight Vigil is part of National Police Week, which will be observed this year May 15-21, 2022; and

**Whereas**, May 15 is designated as Peace Officers Memorial Day, in honor of all fallen officers and their families and U.S. flags should be flown at half-staff.

**Now, Therefore,** on behalf of the Clayton Town Council, I, Jody McLeod, Mayor of the Town of Clayton, observe May 15-21, 2022, as National Police Week and publicly salute the service of law enforcement officers in our community and in communities across the nation.

Duly proclaimed this the 16th day of May 2022.

_____
Jody L. McLeod,
Mayor

# Town Council Agenda Cover Sheet

**Meeting Date**
May 16, 2022

**Agenda Location**
New Business

**Item Title**
Resolution Authorizing the Town Manager to Execute a Utility Construction Agreement Between the Town of Clayton and North Carolina Department of Transportation for the Ranch Road Extension Project (TIP #U-6223)

**Presenter:**
Joshua Baird, PE – Engineering Director

**Summary/Description**
The North Carolina Department of Transportation (NCDOT) is proposing to extend Ranch Road on a new location between Little Creek Church Road and US 70 Business in Clayton. The Ranch Road Extension Project, also known as U-6223, will address the lack of a direct connection between NC 42 East and US 70 Bypass (Future I-42). NCDOT has coordinated closely with Town staff to determine what impacts the project will have on existing public utility infrastructure. As part of the proposed project, NCDOT will relocate a portion of existing Town water and sewer infrastructure along Rose Street. Town staff has coordinated with NCDOT to install some betterments as part of the project to minimize future impacts to the area and minimize overall project costs. In addition to the required relocation, NCDOT will be increasing the size of the existing waterline on Rose Street from 6" to 12" and extending it to the existing waterline on Little Creek Church Road as a betterment to the project.

Per NCGS 136-27.1, the Town of Clayton is responsible for 25% of all required non-betterment utility relocation costs required as part of an NCDOT improvement project based on our current population. The Town is responsible for 25% of the water and sewer infrastructure relocation along Rose Street. In addition to those costs, the Town is responsible for 100% of all betterment costs associated with the project which includes the waterline size increase and extension to Little Creek Church Road.

NCDOT has prepared a Utility Construction Agreement for execution by the Town for the required costs. Town staff have reviewed the plans, reimbursement agreement, and preliminary cost estimates and recommends approval by Council. All payment will be due upon invoice, which is estimated to immediately follow the completion of construction. Construction is estimated to begin in Fall 2022.

**Requested Action**
Approval

**Funding Source (If Applicable):**
**Water and Sewer Fund**

**Cost:** **$452,181,95 with 10% Contingency** **Yes** ☒ **No** ☐

**Additional Documents to be Included in Agenda Packet**
Resolution
Exhibit A - Utility Construction Agreement (UCA)
Exhibit B – Preliminary Construction Estimate
Exhibit C – Utility Construction Plans

Click or tap here to enter text.

NORTH CAROLINA

JOHNSTON COUNTY

**UTILITY CONSTRUCTION AGREEMENT (UCA)**

DATE: 4/26/2022

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

Project: U-6223

AND

WBS Elements: 48811.3.1

TOWN OF CLAYTON

THIS AGREEMENT is made and entered into on the last date executed below, by and between the North Carolina Department of Transportation, an agency of the State of North Carolina, hereinafter referred to as the “Department” and the Town of Clayton, hereinafter referred to as the “Municipality.”

W I T N E S S E T H:

WHEREAS, the Department has prepared and adopted plans to make certain street and highway improvements under Project U-6223, in Johnston County, said plans consists of relocation and betterment of 6" water line, extension of a new 12" water line and 8" gravity sewer; Johnston County; said project having a right-of-way width as shown on the project plans on file with the Department’s office in Raleigh, North Carolina; and,

WHEREAS, the parties hereto wish to enter into an agreement for certain utility work to be performed by the Department’s construction contractor with full reimbursement by the Municipality for the costs thereof as hereinafter set out.

NOW, THEREFORE, it is agreed as follows:

**CONSTRUCTION**

1. The Department shall place provisions in the construction contract for Project U-6223 Johnston County, for the contractor to adjust and relocate water and sewer lines. Said work shall be accomplished in accordance with plan sheets, attached hereto as Exhibit “A”, cost estimate attached hereto as Exhibit “B”, and project specific provisions, if applicable, attached hereto as Exhibit “C”.

2. The Municipality shall be responsible for water and sewer lines cost as shown on the attached Exhibit “A”. The estimated cost to the Municipality is $452,181.95 as shown on the attached Exhibit “B”. It is understood by both parties that this is an estimated cost and is subject to change. The Municipality shall reimburse the Department for said costs as follows:

**REIMBURSEMENT TO THE DEPARTMENT – FINAL BILLING**

3. The Municipality shall reimburse the Department for said costs as follows:

   A. Upon completion of the highway work, the Department shall submit an itemized invoice to the Municipality for costs incurred. Billing will be based upon the actual bid prices and actual quantities used.

   B. Reimbursement shall be made by the Municipality in one final payment within sixty (60) days of said invoice.

   C. If the Municipality does not pay said invoice within sixty (60) days of the date of the invoice, the Department shall charge interest on any unpaid balance at a variable rate of the prime plus (1%) in accordance with G.S. 136-27.3.

   D. Said interest rate shall be set upon final execution of the Agreement by the Department. The Municipality will be notified of the set interest rate by the Department’s approval letter upon receipt of the fully executed agreement.

   E. Any cost incurred due to additional utility work requested by the Municipality after award of the construction contract, shall be solely the responsibility of the Municipality. The Municipality shall reimburse the Department 100% of the additional utility cost.

   F. In the event the Municipality fails for any reason to pay the Department in accordance with the provisions for payment hereinabove provided, North Carolina General Statute 136-41.3 authorizes the Department to withhold so much of the Municipality’s share of funds allocated to said Municipality by North Carolina General Statute, Section 136-41.1, until such time as the Department has received payment in full.

G. At any time prior to final billing by the Department, the Municipality may prepay any portion of the estimated cost by sending a check with the WBS Element noted to the below address. The Department will provide a final billing based on actual costs, less any previous payments that have been made.

REMITTANCE ADDRESS:
NC Department of Transportation
ATTN: Accounts Receivable
1514 Mail Service Center
Raleigh, NC 27699-1514

4. Upon the satisfactory completion of the relocations and adjustments of the utility lines covered under this Agreement, the Municipality shall assume normal maintenance operations to the said utility lines. Upon completion of the construction of the highway project, the Municipality shall release the Department from any and all claims for damages in connection with adjustments made to its utility lines; and, further, the Municipality shall release the Department of any future responsibility for the cost of maintenance to said utility lines. Said releases shall be deemed to be given by the Municipality upon completion of construction of the project and its acceptance by the Department from its contractor unless the Municipality notifies the Department, in writing, to the contrary prior to the Department's acceptance of the project.

5. It is further agreed that the following provisions shall apply regarding the utilities covered in this Agreement.

H. The Municipality obligates itself to service and to maintain its facilities to be retained and installed over and along the highway within the Department's right-of-way limits in accordance with the mandate of the North Carolina General Statutes and such other laws, rules, and regulations as have been or may be validly enacted or adopted, now or hereafter.

I. If at any time the Department shall require the removal of or changes in the location of the encroaching facilities which are being relocated at the Municipality's expense, the Municipality binds itself, its successors and assigns, to promptly remove or alter said facilities, in order to conform to the said requirement (if applicable per G.S. 136-27.1), without any cost to the Department.

6. The other party to this Agreement shall comply with Title VI of the Civil Rights Act of 1964 (Title 49 CFR, Subtitle A, Part 21) and related nondiscrimination authorities. Title VI and related authorities prohibit discrimination on the basis of race, color, national origin, disability, gender, and age in all programs or activities of any recipient of Federal assistance.

7. A copy or facsimile copy of the signature of any party shall be deemed an original with each fully executed copy of the Agreement as binding as an original, and the parties agree that this Agreement can be executed in counterparts, as duplicate originals, with facsimile signatures sufficient to evidence an agreement to be bound by the terms of the Agreement.

8. By Executive Order 24, issued by Governor Perdue, and N.C. G.S.§ 133-32, it is unlawful for any vendor or contractor ( i.e. architect, bidder, contractor, construction manager, design professional, engineer, landlord, offeror, seller, subcontractor, supplier, or vendor), to make gifts or to give favors to any State employee of the Governor's Cabinet Agencies (i.e., Administration, Commerce, Environmental Quality, Health and Human Services, Information Technology, Military and Veterans Affairs, Natural and Cultural Resources, Public Safety, Revenue, Transportation, and the Office of the Governor).

IN WITNESS WHEREOF, this Agreement has been executed, in duplicate, the day and year heretofore set out, on the part of the Department and the Municipality by authority duly given.

L.S. ATTEST:

BY: _____

TITLE: _____

TOWN OF CLAYTON

BY: _____

TITLE: _____

DATE: _____

N.C.G.S. § 133-32 and Executive Order 24 prohibit the offer to, or acceptance by, any State Employee of any gift from anyone with a contract with the State, or from any person seeking to do business with the State. By execution of any response in this procurement, you attest, for your entire organization and its employees or agents, that you are not aware that any such gift has been offered, accepted, or promised by any employees of your organization.

This instrument has been pre-audited in the manner required by the Local Government Budget and Fiscal Control Act.

(SEAL)

_____
(FINANCE OFFICER)

Federal Tax Identification Number

_____

Remittance Address:

Town of Clayton

_____

_____

DEPARTMENT OF TRANSPORTATION

BY: _____
(CHIEF ENGINEER)

DATE: _____

APPROVED BY BOARD OF TRANSPORTATION ITEM O: _____ (Date)

EXHIBIT B

# NCDOT Project: U-6223

100% Utility Construction Opinion of Probable Construction Cost

PREPARED BY: THE WOOTEN COMPANY

| OPINION OF PROBABLE CONSTRUCTION COST | | |
|---|---|---|
| TOC | $ | 411,074.50 |
| NCDOT | $ | 490,476.50 |
| SUBTOTAL | $ | 901,551.00 |
| TOTAL W/ CONTINGENCY | $ | 991,706.10 |

→ + contingency= $452,181.95

UTILITY OWNER:
Town of Clayton

ROAD NAME: Little Creek Church Rd
LOCATION: Johnston County
CITY/TOWN: Clayton
DESCRIPTION: WL Extension
DATE: 4/8/2022

| Line Item | Pay Item No. | NCDOT Section | Item Description | Quantity | Units | Unit Price[3] | Amount |
|---|---|---|---|---|---|---|---|
| | | | **WATER** | | | | |
| 1 | 5325200000-E | 1510 | 2" Water Line[12] | 30 | LF | $ 50.00 | $ 1,500.00 |
| 2 | 5325600000-E | 1510 | 6" Water Line[12] | 308 | LF | $ 60.00 | $ 18,480.00 |
| 2a | 5325600000-E | 1510 | 6" Water Line[12] | 136 | LF | $ 60.00 | $ 8,145.00 |
| 2b | 5325600000-E | 1510 | 6" Water Line[12] | 172 | LF | $ 60.00 | $ 10,335.00 |
| 3 | 5325800000-E | 1510 | 8" Water Line[12] | 1,477 | LF | $ 60.00 | $ 88,620.00 |
| 4 | 5326200000-E | 1510 | 12" Water Line[12] | 1,783 | LF | $ 120.00 | $ 213,960.00 |
| 4a | 5326200000-E | 1510 | 12" Water Line[12] | 161 | LF | $ 120.00 | $ 19,350.00 |
| 4b | 5326200000-E | 1510 | 12" Water Line[12] | 1,622 | LF | $ 120.00 | $ 194,610.00 |
| 5 | 5329000000-E | 1510 | Ductile Iron Water Pipe Fittings | 6,635 | LB | $ 20.00 | $ 132,700.00 |
| 5a | 5329000000-E | 1510 | Ductile Iron Water Pipe Fittings | 1,703 | LB | $ 20.00 | $ 34,050.00 |
| 5b | 5329000000-E | 1510 | Ductile Iron Water Pipe Fittings | 4,933 | LB | $ 20.00 | $ 98,650.00 |
| 6 | 5536000000-E | 1515 | 2" Valve | 1 | EA | $ 1,500.00 | $ 1,500.00 |
| 7 | 5540000000-E | 1515 | 6" Valve | 7 | EA | $ 2,000.00 | $ 14,000.00 |
| 7a | 5540000000-E | 1515 | 6" Valve | 2.50 | EA | $ 2,000.00 | $ 5,000.00 |
| 7b | 5540000000-E | 1515 | 6" Valve | 4.50 | EA | $ 2,000.00 | $ 9,000.00 |
| 8 | 5546000000-E | 1515 | 8" Valve | 9 | EA | $ 2,800.00 | $ 25,200.00 |
| 9 | 5558000000-E | 1515 | 12" Valve | 5 | EA | $ 4,700.00 | $ 23,500.00 |
| 9a | 5558000000-E | 1515 | 12" Valve | 0.43 | EA | $ 4,700.00 | $ 2,000.00 |
| 9b | 5558000000-E | 1515 | 12" Valve | 4.57 | EA | $ 4,700.00 | $ 21,500.00 |
| 10 | 5571800000-E | 1515 | 8" Tapping Sleeve & Valve | 1 | EA | $ 7,000.00 | $ 7,000.00 |
| 11 | 5606000000-E | 1515 | 2" Blowoff | 1 | EA | $ 9,700.00 | $ 9,700.00 |
| 12 | 5648000000-E | 1515 | Relocate Water Meter | 5 | EA | $ 1,800.00 | $ 9,000.00 |
| 12a | 5648000000-E | 1515 | Relocate Water Meter | 4 | EA | $ 1,800.00 | $ 7,200.00 |
| 12b | 5648000000-E | 1515 | Relocate Water Meter | 1 | EA | $ 1,800.00 | $ 1,800.00 |
| 13 | 5666000000-N | 1515 | Fire Hydrant | 1 | EA | $ 6,100.00 | $ 6,100.00 |
| 14 | 5672000000-N | 1515 | Relocate Fire Hydrant | 2 | EA | $ 3,500.00 | $ 7,000.00 |
| 14a | 5672000000-N | 1515 | Relocate Fire Hydrant | 1 | EA | $ 3,500.00 | $ 3,500.00 |
| 14b | 5672000000-N | 1515 | Relocate Fire Hydrant | 1 | EA | $ 3,500.00 | $ 3,500.00 |
| 15 | 5673000000-E | 1515 | Fire Hydrant Leg | 20 | LF | $ 90.00 | $ 1,800.00 |
| 16 | 5686500000-E | 1515 | Water Service Line | 20 | LF | $ 30.00 | $ 600.00 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 17 | 5798000000-E | 1530 | Abandon 2" Utility Pipe | 175 | LF | $ 10.00 | $ 1,750.00 |
| 18 | 5800000000-E | 1530 | Abandon 6" Utility Pipe | 523 | LF | $ 9.00 | $ 4,707.00 |
| 18a | 5800000000-E | 1530 | Abandon 6" Utility Pipe | 30 | LF | $ 9.00 | $ 270.00 |
| 18b | 5800000000-E | 1530 | Abandon 6" Utility Pipe | 493 | LF | $ 9.00 | $ 4,437.00 |
| 19 | 5801000000-E | 1530 | Abandon 8" Utility Pipe | 1,590 | LF | $ 16.00 | $ 25,440.00 |
| 20 | 5815000000-N | 1530 | Remove Water Meter | 1 | EA | $ 230.00 | $ 230.00 |
| 21 | 5835600000-E | 1540 | 12" Encasement (Open Cut) | 105 | LF | $ 130.00 | $ 13,650.00 |
| 21a | 5835600000-E | 1540 | 12" Encasement (Open Cut) | 79 | LF | $ 130.00 | $ 10,237.50 |
| 21b | 5835600000-E | 1540 | 12" Encasement (Open Cut) | 26 | LF | $ 130.00 | $ 3,412.50 |
| 22 | 5835900000-E | 1540 | 20" Encasement | 40 | LF | $ 200.00 | $ 8,000.00 |
| 23 | 5836000000-E | 1540 | 24" Encasement (Open Cut) | 91 | LF | $ 220.00 | $ 20,020.00 |
| 24 | 5872500000-E | 1550 | 20" Bore and Jack | 84 | LF | $ 280.00 | $ 23,520.00 |
| | | | | | | WATER TOTAL | $ 657,977.00 |
| | | | | | | | |
| | | | **SEWER** | | | | |
| 1 | 5691300000-E | 1520 | 8" Sanitary Gravity Sewer (Replace in place) | 435 | LF | $ 180.00 | $ 78,300.00 |
| 1a | 5691300000-E | 1520 | 8" Sanitary Gravity Sewer (Replace in place) | 326 | LF | $ 180.00 | $ 58,725.00 |
| 1b | 5691300000-E | 1520 | 8" Sanitary Gravity Sewer (Replace in place) | 109 | LF | $ 180.00 | $ 19,575.00 |
| 2 | 5691500000-E | 1520 | 12" Sanitary Gravity Sewer | 368 | LF | $ 160.00 | $ 58,880.00 |
| 3 | 5709200000-E | 1520 | 4" Force Main | 230 | LF | $ 220.00 | $ 50,600.00 |
| 4 | 5776000000-E | 1525 | 5' Dia Utility Manhole | 3 | EA | $ 8,100.00 | $ 24,300.00 |
| 4a | 5776000000-E | 1525 | 5' Dia Utility Manhole | 2.75 | EA | $ 8,100.00 | $ 22,275.00 |
| 4b | 5776000000-E | 1525 | 5' Dia Utility Manhole | 0.25 | EA | $ 8,100.00 | $ 2,025.00 |
| 5 | 5782000000-E | 1525 | Utility Manhole Wall, 5' Dia | 28 | LF | $ 640.00 | $ 17,920.00 |
| 5a | 5782000000-E | 1525 | Utility Manhole Wall, 5' Dia | 26 | LF | $ 640.00 | $ 16,640.00 |
| 5b | 5782000000-E | 1525 | Utility Manhole Wall, 5' Dia | 2 | LF | $ 640.00 | $ 1,280.00 |
| 6 | 5798000000-E | 1530 | Abandon 4" Utility Pipe | 219 | LF | $ 11.00 | $ 2,409.00 |
| 7 | 5804000000-E | 1530 | Abandon 12" Utility Pipe | 345 | LF | $ 17.00 | $ 5,865.00 |
| 8 | 5816000000-N | 1530 | Abandon Utility Manhole | 1 | EA | $ 1,100.00 | $ 1,100.00 |
| 9 | 5828000000-N | 1530 | Remove Utility Manhole | 1 | EA | $ 4,200.00 | $ 4,200.00 |
| 9a | 5828000000-N | 1530 | Remove Utility Manhole | 0.75 | EA | $ 4,200.00 | $ 3,150.00 |
| 9b | 5828000000-N | 1530 | Remove Utility Manhole | 0.25 | EA | $ 4,200.00 | $ 1,050.00 |
| | | | | | | SEWER TOTAL | $ 243,574.00 |
| | | | | | | **SUBTOTAL** | **$ 901,551.00** |
| | | | | | | CONTINGENCY (10%) | $ 90,155.10 |
| | | | | | | **TOTAL WATER & SEWER COST** | **$ 991,706.10** |

NOTES:

[1] Water line bid items include appurtenances such as, but not limited to, fittings, restrained joints, concrete thrust blocking, tapping sleeves, etc.

[2] Existing utilities shall be removed as necessary when in conflict with proposed infrastructure.

[3] Average unit bid pricing was obtained from the 2021 NCDOT Statewide bid pricing, and using professional judgement based upon current bidding conditions.

09/08/99

TIP PROJECT: U-6223

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

# JOHNSTON COUNTY

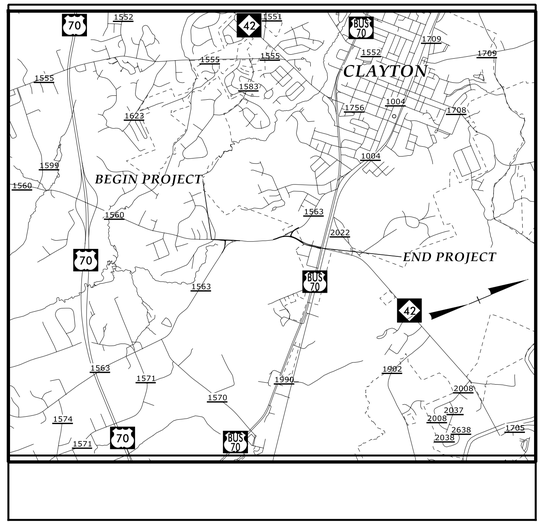
| T.I.P. NO. | SHEET NO. |
|---|---|
| U-6223 | UC-1 |

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

| COST BREAKDOWN LEGEND | |
|---|---|
| STATE COST SEWER | |
| STATE COST WATER | |
| BET1 COST | |

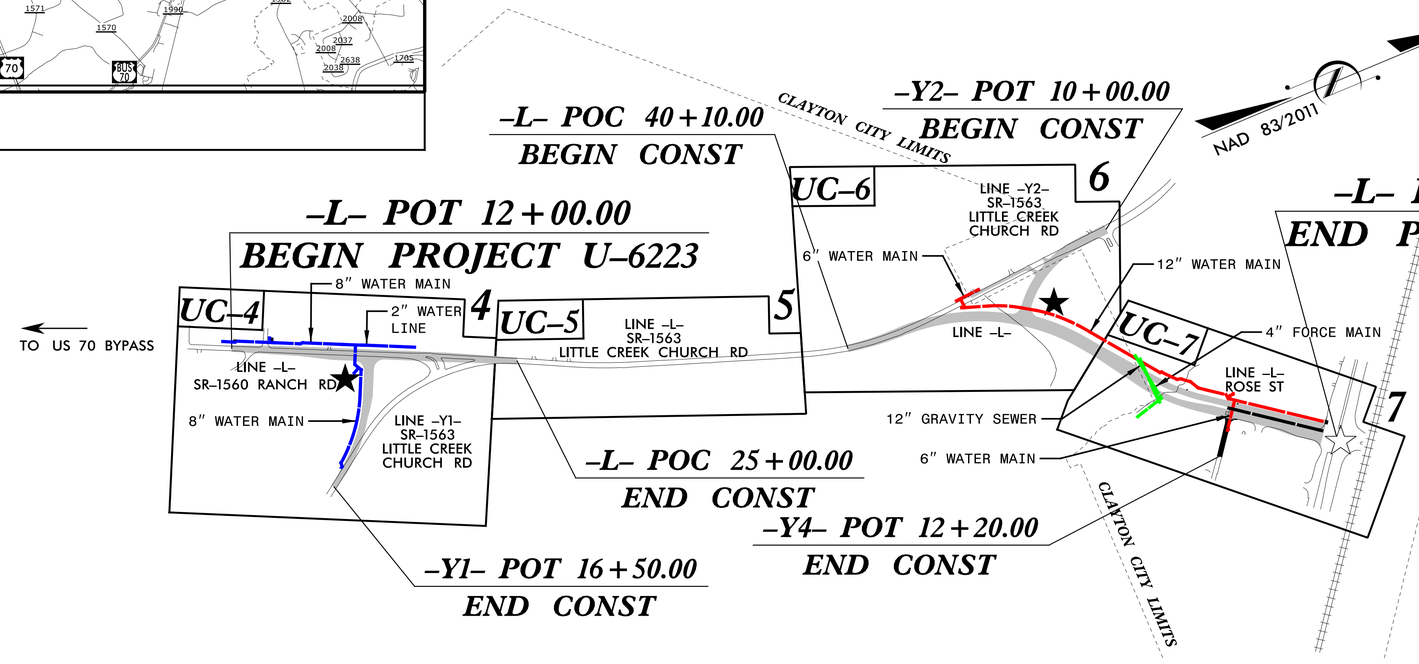
EXHIBIT A

AGREEMENT PLANS




*LOCATION: NEW LOCATION FROM SR–1560 (RANCH ROAD) TO THE US–70 BUS & NC–42 INTERSECTION.*

*TYPE OF WORK: GRADING, DRAINAGE AND PAVING*




*DOCUMENT NOT CONSIDERED FINAL UNTIL ALL SIGNATURES ARE COMPLETED*

**GRAPHIC SCALES**

PLANS: 50 25 0 50 100
PROFILE (HORIZONTAL): 50 25 0 50 100
PROFILE (VERTICAL): 10 5 0 10 20

**INDEX OF SHEETS**


| SHEET NO.: | DESCRIPTION: |
|---|---|
| UC–1 | TITLE SHEET |
| UC–2 | UTILITY SYMBOLOGY |
| UC–3 | NOTES |
| UC–3A | NCDOT DETAILS |
| UC–3B & UC–3C | JOHNSTON COUNTY DETAILS |
| UC–3D THRU UC–3G | TOWN OF CLAYTON DETAILS |
| UC–4 THRU UC–7 | UTILITY CONSTRUCTION SHEETS |
| UC–8 THRU UC–10 | UTILITY PROFILE SHEETS |


**WATER AND SEWER OWNERS ON PROJECT**

(A) WATER – JOHNSTON COUNTY
(B) WATER & SEWER – TOWN OF CLAYTON


PREPARED IN THE OFFICE OF
Wooten
120 North Boylan Avenue Raleigh NC 27603-1423
919.828.0531 Fax 919.834.3559
License Number: F-0115

DAVE MALINAUSKAS, P.E. — PROJECT ENGINEER
CONSULTANT CONTACT #2
CONSULTANT CONTACT #3


SEAL
NORTH CAROLINA PROFESSIONAL SEAL 29997 ENGINEER DAVID G. MALINAUSKAS


DIVISION OF HIGHWAYS
UTILITIES UNIT
1555 MAIL SERVICES CENTER
RALEIGH NC 27699-1555
PHONE (919) 707-6690
FAX (919) 250-4151

UTILITIES REGIONAL ENGINEER
UTILITIES PROJECT ENGINEER
UTILITIES AREA COORDINATOR
UTILITIES COORDINATOR


$$$$$$$SYSTIME$$$$$$$
$$$$$$$

5/14/93

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| U-6223 | UC-2 |

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

# UTILITIES PLAN SHEET SYMBOLS

## PROPOSED WATER SYMBOLS

- Water Line (Sized as Shown) — 12" WL
- 11¼ Degree Bend
- 22½ Degree Bend
- 45 Degree Bend
- 90 Degree Bend
- Plug
- Tee
- Cross
- Reducer
- Gate Valve — GV
- Butterfly Valve — BV
- Tapping Valve — TGV
- Line Stop — LS
- Line Stop with Bypass — LS/BP
- Blow Off — BO
- Fire Hydrant — PFH
- Relocate Fire Hydrant — RFH
- Remove Fire Hydrant — REM FH
- Water Meter — PWM
- Relocate Water Meter — RWM
- Remove Water Meter — REM WM
- Water Pump Station — PS(W)
- RPZ Backflow Preventer — PRPZ
- DCV Backflow Preventer — PBFP
- Relocate RPZ Backflow Preventer — RRPZ
- Relocate DCV Backflow Preventer — RBFP

## PROPOSED SEWER SYMBOLS

- Gravity Sewer Line (Sized as Shown) — 12" SS
- Force Main Sewer Line (Sized as Shown) — 12" FSS
- Manhole (Sized per Note)
- Sewer Pump Station — PS(SS)

## PROPOSED MISCELLANOUS UTILITIES SYMBOLS

- Power Pole
- Telephone Pole
- Joint Use Pole
- Telephone Pedestal — TP
- Utility Line by Others (Type as Shown)
- Trenchless Installation — 12" TL INSTALL
- Encasement by Open Cut — 24" ENCASE BY OC
- Encasement — 24" ENCASEMENT
- Thrust Block
- Air Release Valve — AR
- Utility Vault — UV
- Concrete Pier — CP
- Steel Pier — SP
- Plan Note — NOTE
- Pay Item Note — PAY ITEM

## EXISTING UTILITIES SYMBOLS

- Power Pole
- Telephone Pole
- Joint Use Pole
- Utility Pole
- Utility Pole with Base
- H-Frame Pole
- Power Transmission Line Tower
- Water Manhole
- Power Manhole — P
- Telephone Manhole — T
- Sanitary Sewer Manhole
- Hand Hole for Cable — HH
- Power Transformer
- Telephone Pedestal — T
- CATV Pedestal — C
- Gas Valve
- Gas Meter
- Located Miscellaneous Utility Object
- Abandoned According to Utility Records — AATUR
- End of Information — E.O.I.
- *Underground Power Line — P
- *Underground Telephone Cable — T
- *Underground Telephone Conduit — TC
- *Underground Fiber Optics Telephone Cable — T FO
- *Underground TV Cable — TV
- *Underground Fiber Optics TV Cable — TV FO
- *Underground Gas Pipeline — G
- Aboveground Gas Pipeline — A/G Gas
- *Underground Water Line — W
- Aboveground Water Line — A/G Water
- *Underground Gravity Sanitary Sewer Line — SS
- Aboveground Gravity Sanitary Sewer Line — A/G Sanitary Sewer
- *Underground SS Forced Main Line — FSS
- Underground Unknown Utility Line — ?UTL
- SUE Test Hole
- Water Meter
- Water Valve
- Fire Hydrant
- Sanitary Sewer Cleanout

*For Existing Utilities

- Utility Line Drawn from Record (Type as Shown) — W
- Designated Utility Line (Type as Shown) — W

REV: 2/1/2012

5/14/99

# UTILITY CONSTRUCTION

## GENERAL NOTES:

1. THE PROPOSED UTILITY CONSTRUCTION SHALL MEET THE APPLICABLE REQUIREMENTS OF THE NC DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" DATED JANUARY 2018 AND JOHNSTON COUNTY AND TOWN OF CLAYTON STANDARD SPECIFICATIONS AND DETAILS.

2. THE EXISTING UTILITIES ARE OWNED BY AND OPERATED BY JOHNSTON COUNTY AND TOWN OF CLAYTON.

3. ALL WATER LINES ARE TO BE INSTALLED WITHIN COMPLIANCE OF THE RULES AND REGULATIONS OF THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY, DIVISION OF WATER RESOURCES, PUBLIC WATER SUPPLY SECTION. ALL SEWER LINES ARE TO BE INSTALLED WITHIN COMPLIANCE OF THE RULES AND REGULATIONS OF THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT QUALITY, DIVISION OF WATER RESOURCES, WATER QUALITY SECTION. PERFORM ALL WORK IN ACCORDANCE WITH THE APPLICABLE PLUMBING CODES.

4. THE UTILITY OWNERS OWN THE EXISTING UTILITY FACILITIES AND WILL OWN THE NEW UTILITY FACILITIES AFTER ACCEPTANCE BY THE DEPARTMENT. THE DEPARTMENT OWNS THE CONSTRUCTION CONTRACT AND HAS ADMINISTRATIVE AUTHORITY. COMMUNICATIONS AND DECISIONS BETWEEN THE CONTRACTOR AND UTILITY OWNER ARE NOT BINDING UPON THE DEPARTMENT OR THIS CONTRACT UNLESS AUTHORIZED BY THE ENGINEER. AGREEMENTS BETWEEN THE UTILITY OWNER AND CONTRACTOR FOR THE WORK THAT IS NOT PART OF THIS CONTRACT OR IS SECONDARY TO THIS CONTRACT ARE ALLOWED, BUT ARE NOT BINDING UPON THE DEPARTMENT.

5. PROVIDE ACCESS FOR THE DEPARTMENT PERSONNEL AND THE OWNER'S REPRESENTATIVES TO ALL PHASES OF CONSTRUCTION. NOTIFY DEPARTMENT PERSONNEL AND THE UTILITY OWNER TWO WEEKS PRIOR TO COMMENCEMENT OF ANY WORK AND ONE WEEK PRIOR TO SERVICE INTERRUPTION. KEEP UTILITY OWNERS' REPRESENTATIVES INFORMED OF WORK PROGRESS AND PROVIDE OPPORTUNITY FOR INSPECTION OF CONSTRUCTION AND TESTING.

6. THE PLANS DEPICT THE BEST AVAILABLE INFORMATION FOR THE LOCATION, SIZE, AND TYPE OF MATERIAL FOR ALL EXISTING UTILITIES. MAKE INVESTIGATIONS FOR DETERMINING THE EXACT LOCATION, SIZE, AND TYPE MATERIAL OF THE EXISTING FACILITIES AS NECESSARY FOR THE CONSTRUCTION OF THE PROPOSED UTILITIES AND FOR AVOIDING DAMAGE TO EXISTING FACILITIES. REPAIR ANY DAMAGE INCURRED TO EXISTING FACILITIES TO THE ORIGINAL OR BETTER CONDITION AT NO ADDITIONAL COST TO THE DEPARTMENT.

7. MAKE FINAL CONNECTIONS OF THE NEW WORK TO THE EXISTING SYSTEM WHERE INDICATED ON THE PLANS, AS REQUIRED TO FIT THE ACTUAL CONDITIONS, OR AS DIRECTED.

8. UTILITY SERVICE SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION. SERVICE INTERRUPTIONS SHALL ONLY BE ALLOWED WITH ADVANCES (72 HOUR) WRITTEN NOTICE FOR BOTH JOHNSTON COUNTY AND TOWN OF CLAYTON, FOR PURPOSES OF TIE-INS OR SERVICE SWITCH-OVERS. MAKE CONNECTIONS BETWEEN EXISTING AND PROPOSED UTILITIES AT TIMES MOST CONVENIENT TO THE PUBLIC, WITHOUT ENDANGERING THE UTILITY SERVICE, AND IN ACCORDANCE WITH THE UTILITY OWNER'S REQUIREMENTS. MAKE CONNECTIONS ON WEEKENDS, AT NIGHT, AND ON HOLIDAYS IF NECESSARY.

9. ALL UTILITY MATERIALS SHALL BE APPROVED PRIOR TO DELIVERY TO THE PROJECT. SEE 1500-7, " SUBMITTALS AND RECORDS" IN SECTION 1500 OF THE STANDARD SPECIFICATIONS.

## PROJECT SPECIFIC NOTES:

1. PROPOSED WATER LINES 4" AND GREATER DIAMETER SHALL BE PRESSURE CLASS 350 DUCTILE IRON (RESTRAINED JOINT WHERE SHOWN). PROPOSED WATER LINES LESS THAN 4" DIAMETER SHALL BE SDR-21PVC. PROPOSED FORCE MAINS SHALL BE PRESSURE CLASS 350 DUCTILE IRON WITH CERAMIC EPOXY LINER (RESTRAINED JOINT WHERE SHOWN). PROPOSED SANITARY GRAVITY SEWER SHALL BE THICKNESS CLASS 50 DUCTILE IRON WITH CERAMIC EPOXY LINER.

2. TRACER WIRE, WARNING TAPES, AND UTILITY MARKERS SHALL BE INSTALLED WITH ALL PLASTIC PIPE UTILITIES. WIRE, TAPE AND PIPE SHALL BE COLOR CODED ACCORDING TO UTILITY (BLUE FOR WATER, GREEN FOR SEWER).

3. EXISTING CONDITIONS SURVEY AND PROPOSED HIGHWAY PLANS PROVIDED TO THE WOOTEN COMPANY BY NCDOT.

4. THRUST COLLARS ON EXISTING UTILITIES ARE TO BE INSTALLED AND CURED PRIOR TO CONNECTION OF NEW UTILITIES TO EXISTING UTILITIES.

5. CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE TEMPORARY SHUTDOWNS WITH JOHNSTON COUNTY AND TOWN OF CLAYTON. CONTRACTOR IS RESPOSIBLE FOR HAVING ADEQUATE STAFF AND MATERIALS TO COMPLETE THE CUT-IN CONNECTION DURING THE SPECIFIED SHUTDOWN.

PREPARED IN THE OFFICE OF:

Wooten
120 North Boylan Avenue Raleigh NC 27603-1423
919.828.0531 Fax 919.834.3559
License Number: F-0115

VERTICAL SCALE 0 5' 10'

HORIZONTAL SCALE 25' 0 25' 50'

WATER LINE CONSTRUCTION SHOWN ON THIS SHEET

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| U-6223 | UC-3 |

DESIGNED BY: CMG
DRAWN BY: TK
CHECKED BY: DGM
APPROVED BY: CMG
REVISED:

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

UTILITIES ENGINEERING SEC.
PHONE: (919) 707-6690
FAX: (919) 250-4151

NORTH CAROLINA PROFESSIONAL SEAL 29997 ENGINEER DAVID G. MALTBARGER

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UTILITY CONSTRUCTION PLANS ONLY

UTILITY CONSTRUCTION

## JOHNSTON COUNTY SEQUENCING NOTES:

1. LAY NEW LINE TO TIE-IN POINTS AND POUR THRUST COLLARS ON EXISTING LINES.
2. INSTALL JUMPER AT ONE END OF TIE-IN POINT TO FILL/TEST/FLUSH LINE.
3. PRESSURE TEST AND CHLORINE NEW LINE.
4. SUBMIT PASSING BAC-T SAMPLE AND ENGINEER'S CERTIFICATION.
5. MAKE TIE-IN AT GRANT STREET.
6. SWITCH WATER SERVICES OVER TO THE NEW LINE.
7. MAKE 8" TIE-INS.
8. ABANDON OLD LINE.

$$$

5/14/99

# NCDOT PROJECT DETAILS

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION


PREPARED IN THE OFFICE OF:
Wooten
120 North Boylan Avenue Raleigh NC 27603-1423
919.828.0531 Fax 919.834.3559
License Number: F-0115


VERTICAL SCALE 5' 0 5' 10'
HORIZONTAL SCALE 25' 0 25' 50'

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| U-6223 | UC-3A |

DESIGNED BY: CMG
DRAWN BY: TK
CHECKED BY: DGM
APPROVED BY: CMG
REVISED:

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

UTILITIES ENGINEERING SEC.
PHONE: (919) 707-6690
FAX: (919) 250-4151

NORTH CAROLINA PROFESSIONAL SEAL 29997 ENGINEER DAVID G. MALTBARGER

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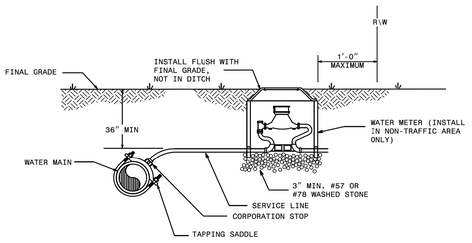
UTILITY CONSTRUCTION PLANS ONLY

## UTILITY CONSTRUCTION

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.
1-18

ROADWAY STANDARD DRAWING FOR
**WATER METER**




NOTES:

1. THIS DETAIL SHOWS THE TYPICAL FINAL WATER METER CONFIGURATION AFTER INSTALLATION OF A PROPOSED WATER METER, RECONNECTION OF AN EXISTING WATER METER, OR RELOCATION OF A WATER METER.

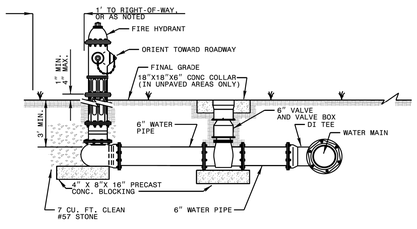
SHEET 1 OF 1
1515.01

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.
1-18

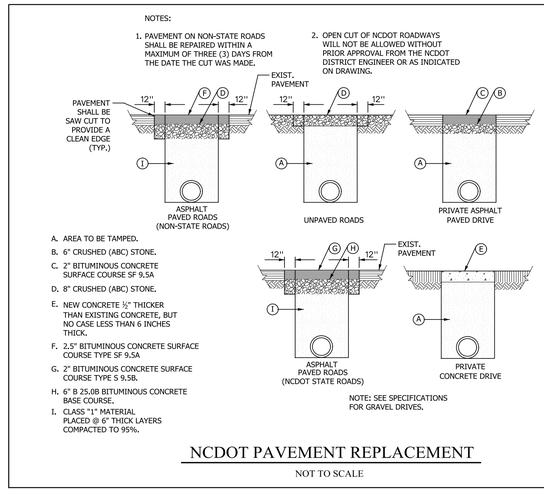
ROADWAY STANDARD DRAWING FOR
**FIRE HYDRANT**

NOTES:

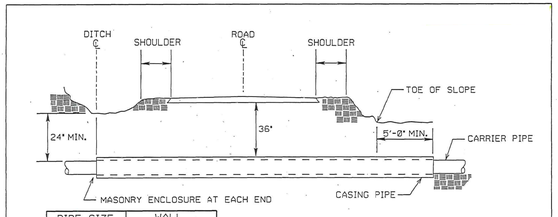
1. THIS DETAIL SHOWS THE TYPICAL FINAL FIRE HYDRANT CONFIGURATION AFTER INSTALLATION OF A PROPOSED FIRE HYDRANT, RECONNECTION OF AN EXISTING FIRE HYDRANT, OR RELOCATION OF A FIRE HYDRANT.
2. KEEP DRAIN PORTS FREE FROM OBSTRUCTION.
3. RESTRAIN ALL PIPE JOINTS AND FITTINGS. ACCEPTABLE TYPES OF RESTRAINT INCLUDE RESTRAINING GLANDS; RESTRAINED, PUSH-ON JOINTS; AND 3/4" BITUMINOUS COATED, ALL-THREAD RESTRAINING RODS. THRUST BLOCKS ARE NOT AN ACCEPTABLE TYPE OF RESTRAINT.
4. FOR RELOCATED OR RECONNECTED FIRE HYDRANTS,VERIFY THE VALVE IS RESTRAINED TO THE MAIN. PROVIDE APPROPRIATE RESTRAINT.
5. HYDRANT LOCATION APPLIES TO PROPOSED AND RELOCATED FIRE HYDRANTS.
6. LOCATE FIRE HYDRANT WITH 3' HORIZONTAL CLEARANCE FROM ABOVE GROUND OBJECTS.
7. PROVIDE A MINIMUM OF 3' COVER OVER ALL SECTIONS OF HORIZONTAL PIPE. USE FITTINGS AS NECESSARY.
8. TAPPING SLEEVES MAY BE USED ON EXISTING MAINS IN LIEU OF DI TEES.
9. LOCATE FIRE HYDRANT OUTSIDE OF THE VEHICLE RECOVERY AREA, ADJACENT TO THE R/W LINE, OR IN A PROTECTED AREA.




SHEET 1 OF 1
1515.02




NCDOT PAVEMENT REPLACEMENT
NOT TO SCALE




| PIPE SIZE (O.D.) | WALL THICKNESS |
|---|---|
| 4" - 12¾" | 0.188" |
| 16" | 0.250" |
| 18" | 0.250" |
| 20" | 0.250" |
| 24" | 0.250" |
| 30" | 0.312" |
| 36" | 0.375" |
| 48" | 0.500" |

ENCASEMENTS SHALL EXTEND FROM DITCH LINE TO DITCH LINE IN CUT SECTIONS, FIVE (5) FEET BEYOND THE TOE OF SLOPES IN FILL SECTIONS, AND TEN (10) FEET BEYOND EDGE OF PAVEMENT IN SECTIONS WITH NO DITCH OR FILL AREA.

*WELDING 1072-18 Qualifications of Personnel:

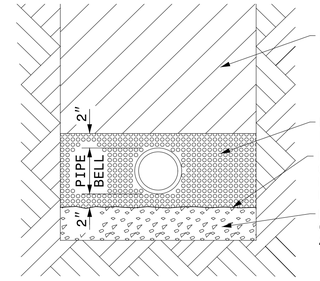
Welders must be certified to meet state requirements as noted within the NCDOT Standards Specifications for Roads and Structures 2012. Upon request, evidence of such qualifications shall be furnished to the NCDOT Department Engineer or his representative.

DETAIL FOR BORE UNDER STATE ROAD
NCDOT APPROVED NOV.2000 Not To Scale

MAXIMUM TRENCH WIDTH
AT TOP OF PIPE

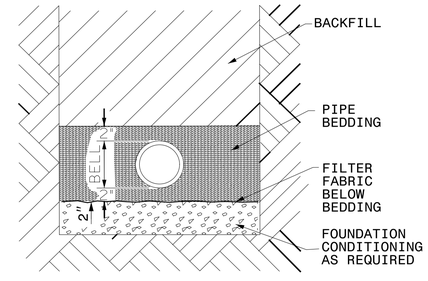
| NOMINAL PIPE SIZE (INCHES) | TRENCH WIDTH (INCHES) | NOMINAL PIPE SIZE (INCHES) | TRENCH WIDTH (INCHES) |
|---|---|---|---|
| 4 | 28 | 20 | 44 |
| 6 | 30 | 24 | 48 |
| 8 | 32 | 30 | 54 |
| 10 | 34 | 36 | 60 |
| 12 | 36 | 42 | 66 |
| 14 | 38 | 48 | 72 |
| 16 | 40 | 54 | 78 |
| 18 | 42 | | |

## TRENCH DETAIL




PLACE FOUNDATION CONDITIONING MATERIAL BELOW BEDDING IF REQUIRED, AS DIRECTED BY ENGINEER. PIPE BEDDED IN SELECT MATERIAL, CLASS II (TYPE 1) OR CLASS III. TRENCH BACKFILLED IN LOOSE 6" LAYERS COMPACTED TO TOP OF TRENCH USING LOCAL EXCAVATED MATERIAL IF APPROVED BY THE ENGINEER, OR SELECT MATERIAL. ALL MATERIAL SHALL BE FREE OF ROCKS, FOREIGN MATERIAL, AND FROZEN EARTH. COMPACTION SHALL BE TO APPROXIMATELY 95% DENSITY IN ACCORDANCE WITH AASHTO T-99 AS MODIFIED BY THE DEPARTMENT OF TRANSPORTATION.

## TRENCH DETAIL




PLACE FOUNDATION CONDITIONING MATERIAL BELOW BEDDING IF REQUIRED, AS DIRECTED BY ENGINEER. PIPE BEDDED IN SELECT MATERIAL, CLASS IV. TRENCH BACKFILLED IN LOOSE 6" LAYERS COMPACTED TO TOP OF TRENCH USING LOCAL EXCAVATED MATERIAL IF APPROVED BY THE ENGINEER, OR SELECT MATERIAL. ALL MATERIAL SHALL BE FREE OF ROCKS, FOREIGN MATERIAL, AND FROZEN EARTH. COMPACTION SHALL BE TO APPROX. 95% DENSITY IN ACCORDANCE WITH AASHTO T-99 AS MODIFIED BY THE DEPARTMENT OF TRANSPORTATION.


C:\STATE\$$$

5/14/99

# JOHNSTON COUNTY DETAILS

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION


PREPARED IN THE OFFICE OF:
Wooten
120 North Boylan Avenue Raleigh NC 27603-1423
919.828.0531 Fax 919.834.3559
License Number: F-0115


VERTICAL SCALE 5' 0 5' 10'
HORIZONTAL SCALE 25' 0 25' 50'

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| U-6223 | UC-3B |

DESIGNED BY: CMG
DRAWN BY: TK
CHECKED BY: DGM
APPROVED BY: CMG
REVISED:

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

UTILITIES ENGINEERING SEC.
PHONE: (919) 707-6690
FAX: (919) 250-4151

NORTH CAROLINA PROFESSIONAL SEAL 29997 ENGINEER DAVID G. MALTHANER

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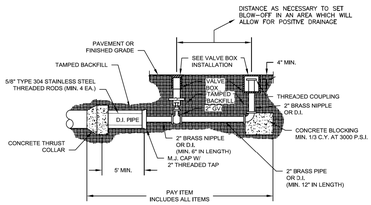
UTILITY CONSTRUCTION PLANS ONLY

## UTILITY CONSTRUCTION




### PERMANENT BLOW-OFF ASSEMBLY

NOT TO SCALE

NOTES:
1) THE TOP OF THE BLOW-OFF STANDPIPE SHALL BE NO MORE THAN 4'-6" BELOW GRADE.
2) BLOW-OFFS SHALL BE LOCATED IN AREAS WHICH WILL ALLOW FOR POSITIVE DRAINAGE WHEN UTILIZED.
3) ALL MATERIALS USED IN THE POTABLE WATER SYSTEM MUST BE NSF61 AND NSF372 CERTIFIED AND MEET THE LATEST FEDERAL SAFE DRINKING WATER ACT REQUIREMENTS.

| Drawn By: | Name | Date |
|---|---|---|
| Checked By: | | |
| Approved By: | | |
| Scale: | | |

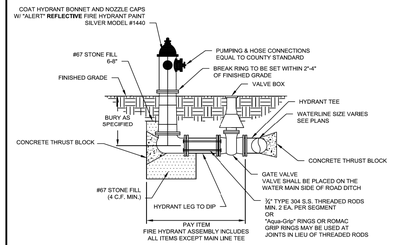
Rev. | Description | Date | Init.

JOHNSTON COUNTY
Department of Public Utilities
P.O. Box 2263
Smithfield, NC 27577

**WATER STANDARD DETAIL** Permanent Blow Off Assembly

PAGE 2

NOTE:
1. THRU OF 4 CU. FT. STONE (MORE IF REQD).
2. CONC. THRUST BLOCK TO HAVE MIN. OF 6 SQ. FT. BEARING ON SOLID BANK (MORE IF REQ'D).
3. DRAIN HOLES AND FLANGES SHALL BE CLEAR OF CONC.
4. FIRE HYDRANT BARREL SHALL BE PLUMB.
5. ALL MATERIALS USED IN THE POTABLE WATER SYSTEM MUST BE NSF61 AND NSF372 CERTIFIED AND MEET THE LATEST FEDERAL SAFE DRINKING WATER ACT REQUIREMENTS.




### FIRE HYDRANT ASSEMBLY

NOT TO SCALE

**"FIRE HYDRANTS INSTALLED ON EXISTING 6" WATER MAINS, MUST BE INSTALLED USING A 6"x6" TEE CUT INTO THE EXISTING WATER MAIN. FIRE HYDRANTS INSTALLED ON EXISTING WATER MAINS LARGER THAN 6", CAN BE INSTALLED USING A TAPPING SLEEVE AND VALVE ON THE EXISTING WATER MAIN.**

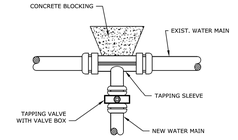
| Drawn By: | Name | Date |
|---|---|---|
| Checked By: | | |
| Approved By: | | |
| Scale: | | |

Rev. | Description | Date | Init.

JOHNSTON COUNTY
Department of Public Utilities
P.O. Box 2263
Smithfield, NC 27577

**WATER STANDARD DETAIL** Fire Hydrant Assembly

PAGE 4




### TAPPING SLEEVE & VALVE ASSEMBLY

NOT TO SCALE

NOTES:
1. TAPPING SLEEVE SHALL BE FABRICATED OF TYPE 304 OR 316 S.S. AND PROVIDE A 360º SEAL AROUND EXISTING PIPE WITH FULL CIRCUMFERENTIAL GASKET.
2. TAPPING SLEEVE SHALL BE JCM 432, MUELLER H-304, FORD FTSS, ROMAC ST III OR APPROVED EQUAL.
3. ALL MATERIALS USED IN THE POTABLE WATER SYSTEM MUST BE NSF61 AND NSF372 CERTIFIED AND MEET THE LATEST FEDERAL SAFE DRINKING WATER ACT REQUIREMENTS.

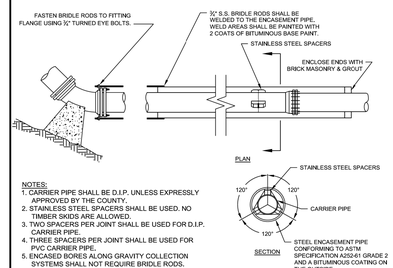
| Drawn By: | Name | Date |
|---|---|---|
| Checked By: | | |
| Approved By: | | |
| Scale: | | |

Rev. | Description | Date | Init.

JOHNSTON COUNTY
Department of Public Utilities
P.O. Box 2263
Smithfield, NC 27577

**WATER STANDARD DETAIL** Tapping Sleeve and Valve Assembly

PAGE 5




NOTES:
1. CARRIER PIPE SHALL BE D.I.P. UNLESS EXPRESSLY APPROVED BY THE COUNTY.
2. STAINLESS STEEL SPACERS SHALL BE USED. NO TIMBER SKIDS ARE ALLOWED.
3. TWO SPACERS PER JOINT SHALL BE USED FOR D.I.P. CARRIER PIPE.
4. THREE SPACERS PER JOINT SHALL BE USED FOR PVC CARRIER PIPE.
5. ENCASED BORES ALONG GRAVITY COLLECTION SYSTEMS SHALL NOT REQUIRE BRIDLE RODS.
6. 2 EA. ½" S.S. BRIDLE RODS SHALL BE REQUIRED ON ALL LINES 8"Ø AND SMALLER. 4 EA. ½" S.S. BRIDLE RODS SHALL BE REQUIRED ON ALL LINES 10"Ø AND LARGER.
7. CARRIER PIPE SHALL BE INSTALLED USING 'FIELD LOK' GASKETS OR APPROVED EQUAL.

### STANDARD BORE ENCASEMENT

NOT TO SCALE

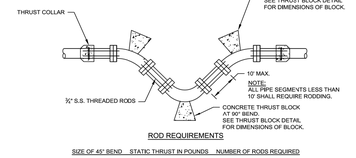
| Drawn By: | Name | Date |
|---|---|---|
| Checked By: | | |
| Approved By: | | |
| Scale: | | |

Rev. | Description | Date | Init.

JOHNSTON COUNTY
Department of Public Utilities
P.O. Box 2263
Smithfield, NC 27577

**WATER STANDARD DETAIL** Standard Bore Encasement

PAGE 6




ROD REQUIREMENTS

| SIZE OF 45° BEND | STATIC THRUST IN POUNDS | NUMBER OF RODS REQUIRED |
|---|---|---|
| 6" | 4,328 | 2 |
| 8" | 7,694 | 2 |
| 12" | 17,312 | 4 |
| 16" | 30,779 | 6 |
| 20" | 48,091 | 8 |
| 24" | 69,252 | 10 |

GENERAL NOTES
1. RODS AND NUTS SHALL BE OF TYPE 304 OR TYPE 316 STAINLESS STEEL.
2. CONCRETE SHALL NOT CONTACT BOLTS OR ENDS OF MECHANICAL JOINT BENDS.

### VERTICAL BEND RODDING AND BLOCKING DETAIL

NOT TO SCALE

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| Checked By: | | |
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Department of Public Utilities
P.O. Box 2263
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**WATER STANDARD DETAIL** Critical Bend Rodding and Blocking Details

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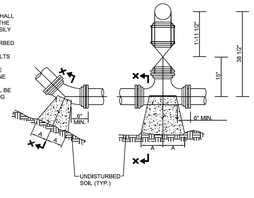
NOTES:
1. CONCRETE SHALL BE 3,000 PSI MIN.
2. CONCRETE FOR THRUST BLOCKING SHALL BE KEPT FAIRLY DRY, THUS MAKING THE CONCRETE WEDGE SHAPE MORE EASILY FORMED WITH THE WIDEST PART (BLOCKING AREA) AGAINST UNDISTURBED SOIL.
3. NO CONCRETE SHALL COVER ANY BOLTS OR GLANDS.
4. ALL FITTINGS AND ACCESSORIES TO BE WRAPPED WITH 10 MIL POLYETHYLENE PRIOR TO POURING BLOCKING.
5. VOLUME OF THRUST BLOCKING SHALL BE AS SHOWN ON THE THRUST BLOCKING SCHEDULE.




| PIPE SIZE | 90° BEND | | 45° BEND | | 22 ½° BEND | | 11 ¼° BEND | | TEE | | | PLUG | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | B | A | B | A | B | A | B | A | B | C | D | |
| 4" | 9" | 12" | 9" | 9" | 9" | 6" | 9" | 6" | 9" | 9" | 18" | 18" | |
| 6" | 12" | 12" | 9" | 12" | 9" | 9" | 9" | 9" | 9" | 12" | 12" | 18" | |
| 8" | 15" | 15" | 12" | 12" | 9" | 9" | 9" | 9" | 9" | 12" | 12" | 24" | |
| 10" | 18" | 18" | 12" | 12" | 9" | 9" | 9" | 9" | 11" | 14" | 14" | 24" | |
| 12" | 20" | 18" | 12" | 14" | 9" | 9" | 9" | 12" | 14" | 18" | 18" | 30" | |
| 14" | 22" | 18" | 14" | 16" | 10" | 14" | 10" | 14" | 16" | 18" | 18" | 34" | |
| 16" | 24" | 21" | 14" | 18" | 12" | 16" | 12" | 16" | 16" | 21" | 21" | 36" | |
| 20" | 30" | 24" | 16" | 18" | 12" | 18" | 12" | 16" | 18" | 24" | 24" | 48" | |
| 24" | 48" | 33" | 20" | 21" | 16" | 18" | 15" | 17" | 21" | 27" | 27" | 56" | |

### THRUST BLOCK DETAIL

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**WATER STANDARD DETAIL** Thrust Block

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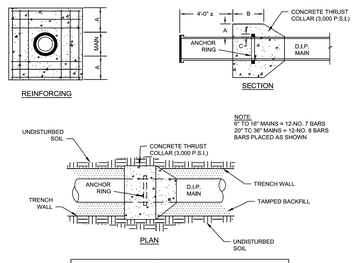


| SCHEDULE | | | | |
|---|---|---|---|---|
| PIPE DIAMETER | CONCRETE THRUST COLLAR | | ANCHOR COLLAR | RINGS REQUIRED |
| | A | B | C | |
| 3"-8",12" | 1'-0" | 1'-0" | 2" | ONE |
| 10" | 1'-4" | 1'-0" | 2" | ONE |
| 20" | 1'-4" | 1'-0" | 3" | ONE |
| 24" | 1'-4" | 1'-0" | 3" | TWO |
| 30" | 1'-4" | 1'-3" | 4" | TWO |
| 36" | 1'-4" | 1'-6" | 4" | TWO |

### THRUST COLLAR INSTALLATION

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**WATER STANDARD DETAIL** Thrust Collar Installation

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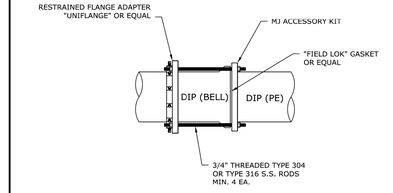


### HARNESS RESTRAINT DETAIL

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**WATER STANDARD DETAIL** Restraint Harness

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# JOHNSTON COUNTY DETAILS

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION


PREPARED IN THE OFFICE OF:
Wooten
120 North Boylan Avenue Raleigh NC 27603-1423
919.828.0531 Fax 919.834.3559
License Number: F-0115


VERTICAL SCALE 5' 0 5' 10'
HORIZONTAL SCALE 25' 0 25' 50'

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| U-6223 | UC-3C |

DESIGNED BY: CMG
DRAWN BY: TK
CHECKED BY: DGM
APPROVED BY: CMG
REVISED:

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

UTILITIES ENGINEERING SEC.
PHONE: (919) 707-6690
FAX: (919) 250-4151

NORTH CAROLINA PROFESSIONAL SEAL 29997 ENGINEER DAVID G. MALTHANER

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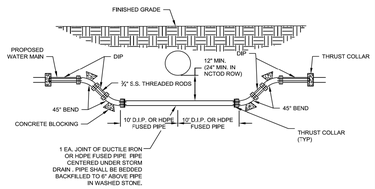
UTILITY CONSTRUCTION PLANS ONLY

## UTILITY CONSTRUCTION




### STORM DRAIN PIPE CROSSING DETAIL

NOT TO SCALE

NOTES:
1. CULVERT CROSSINGS IN EXISTING NCDOT RIGHT-OF-WAY REQUIRE 24" MIN. SEPARATION FROM BOTTOM OF CULVERT TO TOP OF WATER MAIN.
2. IN LIEU OF RESTRAINT (TIE) RODS, APPROVED RESTAINT JOINT PIPE MAY BE USED.

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WATER
STANDARD DETAIL
Storm Pipe Crossing

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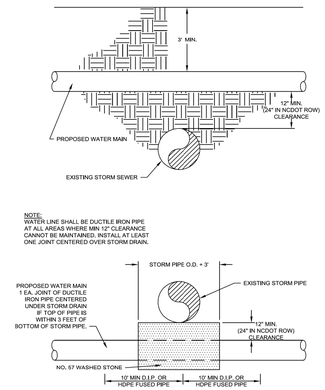


NOTE:
WATER LINE SHALL BE DUCTILE IRON PIPE AT ALL AREAS WHERE MIN 12" CLEARANCE CANNOT BE MAINTAINED. INSTALL AT LEAST ONE JOINT CENTERED OVER STORM DRAIN.

### STORM SEWER CROSSING DETAILS

NOT TO SCALE

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STANDARD
WATER DETAIL
Storm Sewer Crossing

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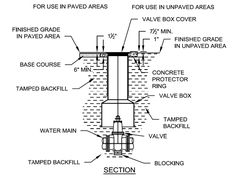


SECTION

NOTES:
1. D.I.P. MAY BE USED FOR VALVE BOX EXTENSIONS.
2. VALVE BOX SHOULD NOT CONTACT WATER MAIN OR VALVE.
3. CONCRETE PROTECTOR RING SHALL BE USED IN ALL UNPAVED AREAS.
4. ALL MATERIALS USED IN THE POTABLE WATER SYSTEM MUST BE NSF61 AND NSF372 CERTIFIED AND MEET THE LATEST FEDERAL SAFE DRINKING WATER ACT REQUIREMENTS.

### VALVE AND VALVE BOX INSTALLATION

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WATER
STANDARD DETAIL
Valve and Valve Box Installation

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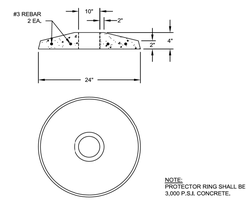


NOTE:
PROTECTOR RING SHALL BE 3,000 P.S.I. CONCRETE.

### CONCRETE PROTECTOR RING

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| | Name | Date |
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WATER
STANDARD DETAIL
Concrete Protector Ring

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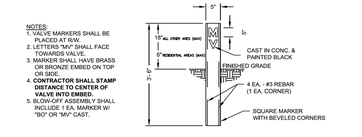


NOTES:
1. VALVE MARKERS SHALL BE PLACED AT R/W.
2. LETTERS "MV" SHALL FACE TOWARDS VALVE.
3. MARKER SHALL HAVE BRASS OR BRONZE EMBED ON TOP OR SIDE.
4. **CONTRACTOR SHALL STAMP DISTANCE TO CENTER OF VALVE INTO EMBED.**
5. BLOW-OFF ASSEMBLY SHALL INCLUDE 1 EA. MARKER W/ "BO" OR "MV" CAST.

### VALVE MARKER DETAIL

NOT TO SCALE

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WATER
STANDARD DETAIL
Valve Marker

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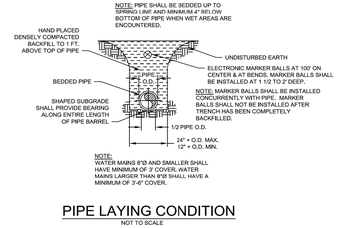


### PIPE LAYING CONDITION

NOT TO SCALE

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JOHNSTON COUNTY
Department of Public Utilities
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Smithfield, NC 27577

WATER
STANDARD DETAIL
Pipe Laying Condition

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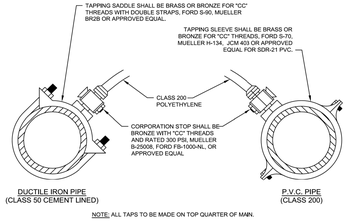
NOTE:
1. ALL TAPS 2" AND SMALLER SHALL BE MADE WITH TAPPING SADDLE. ALL TAPS LARGER THAN 2" SHALL BE MADE WITH TAPPING SLEEVE AND VALVE. NO DIRECT TAPS SHALL BE MADE.
2. ALL MATERIALS USED IN THE POTABLE WATER SYSTEM MUST BE NSF61 AND NSF372 CERTIFIED AND MEET THE LATEST FEDERAL SAFE DRINKING WATER ACT REQUIREMENTS.




NOTE: ALL TAPS TO BE MADE ON TOP QUARTER OF MAIN.

### STANDARD WATER TAP DETAIL

NOT TO SCALE

| | Name | Date |
|---|---|---|
| Drawn By: | | |
| Checked By: | | |
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WATER
STANDARD DETAIL
Standard Water Tap

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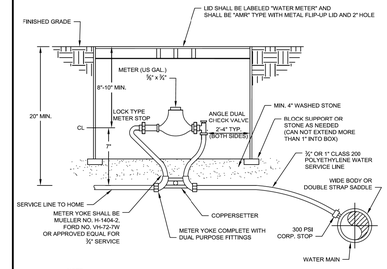


NOTE:
1. CONTRACTOR SHALL PLACE METER BOX IN NON TRAFFIC AREA ONLY, OUTSIDE FENCED AREAS, AND 4 FEET AWAY FROM BUSHES AND TREES THAT COULD COVER THE BOX.
2. PLASTIC METER BOX SHALL BE CENTURY #1015, NDS D1200, OR APPROVED EQUAL
3. CONTRACTOR SHALL CENTER METER YOKE IN METER BOX.
4. METER YOKE TO MUELLER No. H-1404-2A, FORD No. VH-72-7W-11 OR APPROVED EQUAL.
5. METER TO MEET AWWA C-700 STDS. AND SPECS.
6. METER TO BE PROVIDED AND SET BY JOHNSTON COUNTY. METER WILL NOT BE INSTALLED IF: THE THE SETTER IS NOT CENTERED IN THE BOX, THE SETTER HAS BEEN PULLED UP ON ONE END, THE SETTER IS LAYING ON IT'S SIDE, THE SETTER IS TO CLOSE TO THE BOX LID, THE BOX IS BELOW GRADE OR BROKEN, THE CUSTOMERS SERVICE LINE IS NOT HOOKED TO THE UNION NUT, THE 3/4 GATE VALVE HAS NOT BEEN INSTALLED WITHIN 12 INCHES OF THE METER BOX.
7. ALL MATERIALS USED IN THE POTABLE WATER SYSTEM MUST BE NSF61 AND NSF372 CERTIFIED AND MEET THE LATEST FEDERAL SAFE DRINKING WATER ACT REQUIREMENTS.
8. SERVICE LINE TO HOME MUST PASS PLUMBING INSPECTION PRIOR TO SETTING METER.

### 3/4" & 1" WATER METER SERVICE DETAIL

NOT TO SCALE

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WATER
STANDARD DETAIL
¾" and 1"
Water Meter Service

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# TOWN OF CLAYTON DETAILS

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION


PREPARED IN THE OFFICE OF:
Wooten
120 North Boylan Avenue Raleigh NC 27603-1423
919.828.0531 Fax 919.834.3559
License Number: F-0115


VERTICAL SCALE 5' 0 5' 10'
HORIZONTAL SCALE 25' 0 25' 50'

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| U-6223 | UC-3D |

DESIGNED BY: CMG
DRAWN BY: TK
CHECKED BY: DGM
APPROVED BY: CMG
REVISED:

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

UTILITIES ENGINEERING SEC.
PHONE: (919) 707-6690
FAX: (919) 250-4151

NORTH CAROLINA PROFESSIONAL SEAL 29997 ENGINEER CHRISTOPHER G. MALLINGER

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UTILITY CONSTRUCTION PLANS ONLY

## UTILITY CONSTRUCTION


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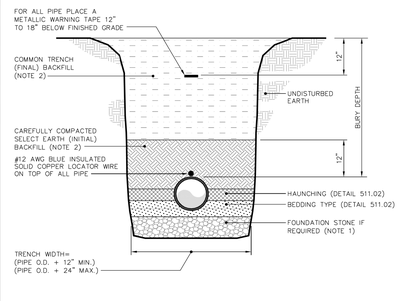


NOTES:
1. 8" deep No. 57 stone or equal wrapped in non-woven geotextile filter fabric lightly compacted. Overlap fabric by minimum one pipe O.D.
2. See specifications Section 02275, Part 2 – PRODUCTS for composition of Select Earth Backfill and Common Trench Backfill.

TOWN of CLAYTON
USE WITH THE TOWN of CLAYTON STANDARD SPECIFICATIONS ONLY

WATER MAIN PIPE LAYING CONDITIONS

| SCALE: Not To Scale | DETAIL # 511.01 |
|---|---|
| REVISION DATE: July, 2010 | SHEET # 1 of 4 |


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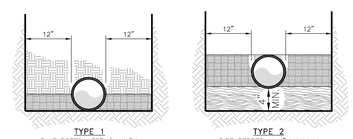


NOTES:
1. For normal pipe sizes 14 inch and larger, consideration should be given to the use of laying conditions other than Type 1.
2. Consideration of the pipe-zone embedment conditions included in this figure may be influenced by factors other than pipe strength. For additional information on pipe bedding and backfill, see ANSI/AWWA C600.
3. See detail 511.01 for unsuitable trench subgrade requirements.
4. See Specifications Section 02275, Section 2.1.2 for pipe bedding definitions.
5. Loose soil shall be either native soil excavated from trench or borrow, both conforming in composition to "Select Earth Backfill" as defined in Specifications Section 02275, Part 2 – PRODUCTS.

TOWN of CLAYTON
USE WITH THE TOWN of CLAYTON STANDARD SPECIFICATIONS ONLY

WATER MAIN EMBEDMENT DETAILS

| SCALE: Not To Scale | DETAIL # 511.02 |
|---|---|
| REVISION DATE: July, 2010 | SHEET # 1 of 4 |


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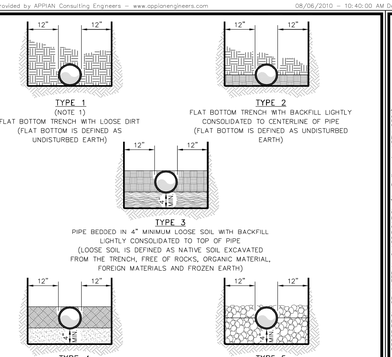


NOTES:
1. For normal water pipe sizes 14 inch and larger, consideration should be given to the use of laying conditions other than Type 1.
2. Consideration of the pipe-zone embedment conditions included in this figure may be influenced by factors other than pipe strength. For additional information on pipe bedding and backfill, see ANSI/AWWA C600.

TOWN of CLAYTON
USE WITH THE TOWN of CLAYTON STANDARD SPECIFICATIONS ONLY

PIPE EMBEDMENT DETAILS

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| REVISION DATE: July, 2010 | SHEET # 2 of 4 |

TABLE 10.1 DESCRIPTION OF MATERIAL CLASSIFICATION (As Defined in ASTM D 2321)

| Class | Type | Description ASTM D 2487 | Soil Symbol | Percentage Passing Sieve Sizes 3" (75 mm) | No. 4 (4.75 mm) | No. 200 (0.075 mm) | Atterberg Limits LL | Atterberg Limits PL | Uniformity Coefficients |
|---|---|---|---|---|---|---|---|---|---|
| I | Manufactured Aggregates | Angular, crushed stone or rock, crushed gravel, open-graded clean screenings with little or no fines | None | | | | | | |
| IA | Manufactured Aggregates | Angular, crushed stone (or other Class I materials) with a limited amount of well-graded sand or soil fines | None | | | | | | |
| II | Clean Gravels, Sands and Combinations | Well-graded gravel and gravel-sand mixtures, little or no fines | GW | 100 | ≤50% | ≤5% | Non Plastic | | ≥4 | ≤3 or >6 | ≤1 or >3 |
| | | Poorly-graded gravel and gravel-sand mixtures, little or no fines | GP | 100 | ≤50% | ≤5% | Non Plastic | | ≤4 | >6 | 1 to 3 |
| | | Well-graded sands and gravelly sands, little or no fines | SW | 100 | SAME as Coarse Fraction | ≤5% | Non Plastic | | ≥6 | 1 to 3 | ≤1 or >3 |
| | | Poorly-graded sands and gravelly sands, little or no fines | SP | 100 | Varies | ≤5% to 10% | Non Plastic | | ≤6 | >6 | Same as for GW if 6 or more gravel |
| III | Coarse-Grained Soils, Borderline Clean to Dirty, Sands with Fines | Sands and gravels which are borderline between clean and dirty | | 100 | SAME as Coarse Fraction | 5% to 12% | | | | | |
| | | Silty gravels, gravel-sand-silt mixtures | GM | 100 | SAME as Coarse Fraction | >12% to <50% | ≤20 or PI <4 | ≥7" Line | | | |
| | | Clayey gravels, gravel-clay mixtures | GC | | | | ≥20 or PI ≥7 | ≥7" Line | | | |
| | | Silty sands, sand-silt mixtures | SM | | SAME as Coarse Fraction | >12% to <50% | ≤20 or PI <4 | ≥7" Line | | | |
| | | Clayey sands, sand-silt mixtures | SC | | | | ≥20 or PI ≥7 | ≥7" Line | | | |
| IV | Fine-Grained Soils (Inorganic) | Inorganic silts and very fine sands, rock flour, silty or clayey fine sands, with slight plasticity | ML | 100 | 100 | ≥50 | <50 or PI <4 | <7" Line | | | |
| | | Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays | CL | | | | >50 or PI >4 | <7" Line | | | |
| IVB | Fine-Grained Soils (Inorganic) | Inorganic silts, micaceous or diatomaceous fine sands or silts, elastic silts | MH | 100 | 100 | ≥50 | >50 | ≥7" Line | | | |
| | | Inorganic clays of high plasticity, fat clays | CH | | | | | | | | |
| V | Organic Soils | Organic silts and organic silty clays of low plasticity | OL | 100 | 100 | ≥50 | <50 | <7" Line | | | |
| | | Organic clays of medium to high plasticity, organic silts | OH | | | | >50 | ≥7" Line | | | |
| VI | Highly Organic | Peat and other highly organic soils | PT | | | | | | | | |

TOWN of CLAYTON
USE WITH THE TOWN of CLAYTON STANDARD SPECIFICATIONS ONLY

PIPE EMBEDMENT DETAILS

| SCALE: Not To Scale | DETAIL # 511.02 |
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| REVISION DATE: July, 2010 | SHEET # 3 of 4 |


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TABLE 10.8
RECOMMENDATIONS FOR INSTALLATION AND USE OF SOILS AND AGGREGATES FOR PIPE BEDDING AND BACKFILL
Soil Zone (see Note 10.7.F)

| | CLASS I A | CLASS I B | CLASS II | CLASS III | CLASS IV |
|---|---|---|---|---|---|
| | Do not use where conditions may cause migration of fine materials into aggregate from adjacent soil. Consult engineer for use in or adjacent to flowing water. Do not use where adjacent material is highly plastic. | | | | |
| General Recommendations | | | Where hydraulic gradient exists, provide underdrain envelope adjacent to trench bottom and backfill with granular material. | | |
| Foundation | Suitable as foundation and bedding material for all classes of pipe in all soils. Provides excellent support for rigid pipe. Suitable for use as blanket under manholes where ultimate settlement is a factor. Suitable for use as cradle for pipe in poor soils. | | Suitable as foundation and bedding material for all classes of pipe in all soils except unstable soils. Provides good support for rigid pipe. Suitable for use as cradle for pipe in poor soils. | Suitable as foundation and bedding material for all classes of pipe in all soils except unstable soils. Provides good support for rigid pipe. Suitable for use as cradle for pipe in poor soils. | Suitable as foundation and bedding material for all classes of pipe in all soils except unstable soils. Provides good support for rigid pipe. Suitable for use as cradle for pipe in poor soils. |
| Bedding | Suitable as restricted above. Install and compact to 95% min. Provides good support for rigid pipe. (6" in rock cuts). | | Suitable as restricted above. Install and compact to 95% min. Provides good support for rigid pipe. (6" in rock cuts). | Suitable as restricted above. Install and compact to 95% min. Provides good support for rigid pipe. (6" in rock cuts). | Suitable as restricted above. Install and compact to 95% min. Provides good support for rigid pipe. (6" in rock cuts). |
| Haunching | Suitable as restricted above. Install and compact to 95% min. By hand. Provides excellent support. | | Suitable as restricted above. Install and compact to 95% min. By hand. Provides excellent support. | Suitable as restricted above. Install and compact to 95% min. By hand. Provides excellent support. | Suitable as restricted above. Install and compact to 95% min. By hand. Provides excellent support. |
| Initial Backfill | Suitable as minimum protection for all classes of pipe in all soils. Provides good support. | | Suitable as minimum protection for all classes of pipe in all soils. Provides good support. | Suitable as minimum protection for all classes of pipe in all soils. Provides good support. | Suitable as minimum protection for all classes of pipe in all soils. Provides good support. |
| Final Backfill | Compact as required by the Compact as required by the Compact as required by the Compact as required by the Compact as required by the | | | | |

TOWN of CLAYTON
USE WITH THE TOWN of CLAYTON STANDARD SPECIFICATIONS ONLY

PIPE EMBEDMENT DETAILS

| SCALE: Not To Scale | DETAIL # 511.02 |
|---|---|
| REVISION DATE: July, 2010 | SHEET # 4 of 4 |


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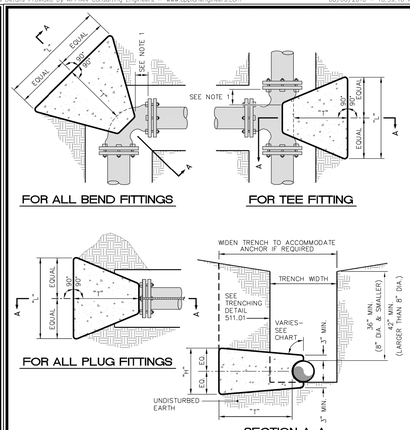


NOTES:
1. Concrete blocking is to be formed to ensure accessibility to fittings and poured against undisturbed earth.
2. Fittings are to be completely wrapped with plastic, prior to pouring concrete.
3. Concrete to be minimum 3,000 psi. @ 28 days.

TOWN of CLAYTON
USE WITH THE TOWN of CLAYTON STANDARD SPECIFICATIONS ONLY

HORIZONTAL BLOCKING DETAIL for BENDS, TEE, & PLUG

| SCALE: Not To Scale | DETAIL # 512-01 |
|---|---|
| REVISION DATE: July, 2010 | SHEET # 1 of 2 |

**TEST PRESSURE = 150 P.S.I.**

| PIPE SIZE | TYPE FITTING | DIMENSIONS (Ft.) "L" | "M" | "T" | VOLUME CONCRETE CU. YD. |
|---|---|---|---|---|---|
| <4 INCHES | 11 1/4° | --- | --- | --- | --- |
| | 22 1/2° | 1.00 | 1.00 | 1.50 | 0.06 |
| | 45° | 1.00 | 1.00 | 1.50 | 0.06 |
| | 90° | 1.00 | 1.00 | 2.50 | 0.09 |
| | TEE / PLUG | 1.00 | 1.00 | 2.00 | 0.07 |
| 4 INCHES | 11 1/4° | 1.00 | 1.00 | 2.50 | 0.09 |
| | 22 1/2° | 1.00 | 1.00 | 2.50 | 0.09 |
| | 45° | 1.00 | 1.00 | 2.50 | 0.09 |
| | 90° | 1.50 | 1.50 | 2.50 | 0.15 |
| | TEE / PLUG | 1.50 | 1.50 | 2.00 | 0.12 |
| 6 INCHES | 11 1/4° | 1.50 | 1.50 | 2.50 | 0.15 |
| | 22 1/2° | 1.50 | 1.50 | 2.50 | 0.15 |
| | 45° | 1.50 | 1.50 | 2.50 | 0.15 |
| | 90° | 2.00 | 2.00 | 3.00 | 0.28 |
| | TEE / PLUG | 2.00 | 2.00 | 2.50 | 0.23 |
| 8 INCHES | 11 1/4° | 2.00 | 2.00 | 2.50 | 0.23 |
| | 22 1/2° | 2.00 | 2.00 | 2.50 | 0.23 |
| | 45° | 2.00 | 2.00 | 2.75 | 0.25 |
| | 90° | 3.00 | 2.00 | 3.00 | 0.39 |
| | TEE / PLUG | 3.00 | 2.00 | 2.50 | 0.32 |
| 12 INCHES | 11 1/4° | 2.00 | 2.00 | 3.00 | 0.28 |
| | 22 1/2° | 2.00 | 2.00 | 3.00 | 0.28 |
| | 45° | 3.00 | 2.50 | 3.00 | 0.47 |
| | 90° | 4.50 | 3.00 | 3.50 | 0.94 |
| | TEE / PLUG | 4.50 | 3.00 | 3.00 | 0.81 |
| 16 INCHES | 11 1/4° | 2.00 | 2.00 | 3.00 | 0.28 |
| | 22 1/2° | 3.00 | 2.00 | 3.00 | 0.39 |
| | 45° | 4.00 | 3.00 | 3.50 | 0.84 |
| | 90° | 6.50 | 3.50 | 3.50 | 1.54 |
| | TEE / PLUG | 6.50 | 3.50 | 3.00 | 1.32 |

**TEST PRESSURE = 200 P.S.I.**

| PIPE SIZE | TYPE FITTING | DIMENSIONS (Ft.) "L" | "M" | "T" | VOLUME CONCRETE CU. YD. |
|---|---|---|---|---|---|
| <4 INCHES | 11 1/4° | 1.00 | 1.00 | 1.00 | 0.04 |
| | 22 1/2° | 1.00 | 1.00 | 1.50 | 0.06 |
| | 45° | 1.00 | 1.00 | 1.50 | 0.06 |
| | 90° | 1.50 | 1.50 | 2.50 | 0.15 |
| | TEE | 1.50 | 1.50 | 2.00 | 0.12 |
| 4 INCHES | 11 1/4° | 1.00 | 1.00 | 2.50 | 0.09 |
| | 22 1/2° | 1.00 | 1.00 | 2.50 | 0.09 |
| | 45° | 1.50 | 1.50 | 2.50 | 0.15 |
| | 90° | 1.50 | 1.50 | 2.50 | 0.15 |
| | TEE | 1.50 | 1.50 | 2.00 | 0.12 |
| 6 INCHES | 11 1/4° | 1.50 | 1.50 | 2.50 | 0.15 |
| | 22 1/2° | 1.50 | 1.50 | 2.50 | 0.15 |
| | 45° | 1.50 | 1.50 | 2.50 | 0.15 |
| | 90° | 2.50 | 2.00 | 3.00 | 0.33 |
| | TEE | 2.50 | 2.00 | 2.50 | 0.28 |
| 8 INCHES | 11 1/4° | 2.00 | 2.00 | 2.50 | 0.23 |
| | 22 1/2° | 2.00 | 2.00 | 2.50 | 0.23 |
| | 45° | 2.00 | 2.00 | 2.50 | 0.23 |
| | 90° | 4.00 | 2.00 | 3.00 | 0.50 |
| | TEE | 4.00 | 2.00 | 2.50 | 0.42 |
| 12 INCHES | 11 1/4° | 2.00 | 2.00 | 3.00 | 0.28 |
| | 22 1/2° | 3.00 | 2.00 | 3.00 | 0.39 |
| | 45° | 4.00 | 2.50 | 3.00 | 0.61 |
| | 90° | 5.50 | 3.00 | 3.50 | 1.13 |
| | TEE | 5.50 | 3.00 | 3.00 | 0.97 |
| 16 INCHES | 11 1/4° | 2.00 | 2.00 | 3.00 | 0.28 |
| | 22 1/2° | 4.00 | 2.00 | 3.00 | 0.50 |
| | 45° | 5.50 | 3.00 | 3.50 | 1.13 |
| | 90° | 7.50 | 4.00 | 3.50 | 2.01 |
| | TEE | 7.50 | 4.00 | 3.00 | 1.72 |

CHART NOTES:
1. If blocking excavation is in lightly compacted fill areas, or in areas where boulders or stumps have been removed, blocking size must be re-sized for the specific location/circumstance by a NC licensed Professional Engineer.
2. Blocking sizes shown in these tables assume the following:
   A. Blocking is constructed in residual soils as shown in detail.
   B. Soil bearing pressure = 2000 psf
   C. Velocity of flow = 15 fps.
3. This detail not applicable to reducing bends.
4. Neither the weight of the concrete blocking nor friction between concrete blocking and soil was added into blocking sizes computation. Therefore, blocking size is conservative.

TOWN of CLAYTON
USE WITH THE TOWN of CLAYTON STANDARD SPECIFICATIONS ONLY

HORIZONTAL BLOCKING DETAIL for BENDS, TEE, & PLUG

| SCALE: Not To Scale | DETAIL # 512-01 |
|---|---|
| REVISION DATE: July, 2010 | SHEET # 2 of 2 |


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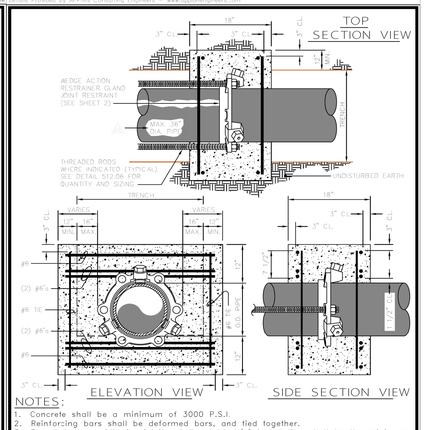


NOTES:
1. Concrete shall be a minimum of 3000 P.S.I.
2. Reinforcing bars shall be deformed bars, and tied together.
3. Trench bottom width in vicinity of thrust block(s) installation shall be the minimum width for placement of pipe (Max trench width = pipe O.D.+2 Ft.)
4. Backfill and compact in 6" layers.
5. Place thrust collar on one full joint of pipe.
6. Last joint of pipe with thrust collar to be mechanical joint pipe.
7. Place wedge action restrainer gland joint restraint 4 feet from plug end of pipe.

TOWN of CLAYTON
USE WITH THE TOWN of CLAYTON STANDARD SPECIFICATIONS ONLY

THRUST COLLAR & BLOCKING with WEDGE ACTION RESTRAINER GLAND

| SCALE: Not To Scale | DETAIL # 511.03 |
|---|---|
| REVISION DATE: April, 2010 | SHEET # 1 of 1 |

5/14/99

# TOWN OF CLAYTON DETAILS

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION


PREPARED IN THE OFFICE OF:
Wooten
120 North Boylan Avenue Raleigh NC 27603-1423
919.828.0531 Fax 919.834.3559
License Number: F-0115


VERTICAL SCALE 5' 0 5' 10'
HORIZONTAL SCALE 25' 0 25' 50'

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| U-6223 | UC-3E |

DESIGNED BY: CMG
DRAWN BY: TK
CHECKED BY: DGM
APPROVED BY: CMG
REVISED:

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

UTILITIES ENGINEERING SEC.
PHONE: (919) 707-6690
FAX: (919) 250-4151

NORTH CAROLINA PROFESSIONAL SEAL 29997 ENGINEER DAVID G. MALTHANER

Document Not Considered Final Unless All Signatures Completed
UTILITY CONSTRUCTION PLANS ONLY

## UTILITY CONSTRUCTION


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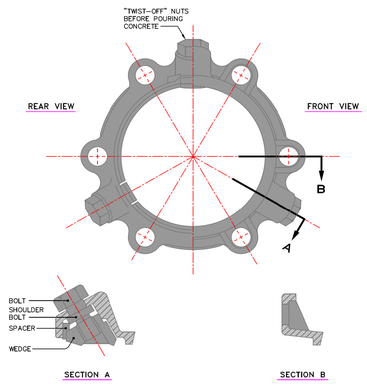
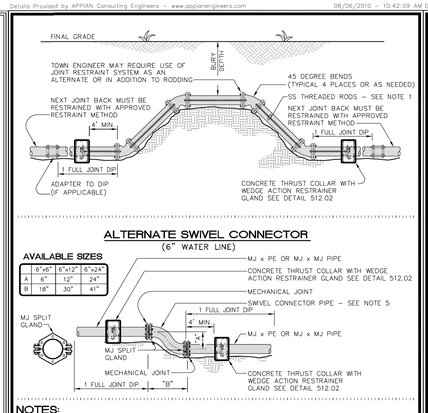



A MEG-A-LUG SERIES 1100, STAR PIPE PRODUCTS STAR GRIP or FORD WEDGE ACTION RESTRAINER GLAND UFR SERIES 1400 MECHANICAL JOINT RESTRAINT SHALL BE PLACED ON DIP.

TOWN of CLAYTON
USE WITH THE TOWN of CLAYTON STANDARD SPECIFICATIONS ONLY

WEDGE ACTION RESTRAINER JOINT / GLAND DETAIL

| SCALE: | DETAIL # |
|---|---|
| Not To Scale | ⚓512.02 |
| REVISION DATE: | SHEET # |
| July, 2010 | 2 of 2 |




## ALTERNATE SWIVEL CONNECTOR
(6" WATER LINE)

AVAILABLE SIZES

| | 6"x6" | 6"x12" | 6"x24" |
|---|---|---|---|
| A | 6" | 12" | 24" |
| B | 18" | 30" | 41" |




NOTES:
1. See Tie Rod Anchors Datum Chart, detail 512.06 for quantity & sizing of rodding.
2. The bypass is to be assembled above ground first.
3. Record all as-built lengths using the center lines of the pipes or bends as reference points.
4. Adapters vary in type according to the material of the existing water main.
5. Compact ductile iron (350 p.s.i.) fire hydrant offset connector pipe (AWWA C-110-ANSI A21.4) equal to or exceeding "GRADE LOK" as manufactured by: Assured Flow Sales, Inc., 1-(800)-388-0678

TOWN of CLAYTON
USE WITH THE TOWN of CLAYTON STANDARD SPECIFICATIONS ONLY

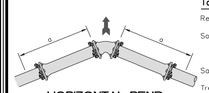
VERTICAL BEND, RODDING, and BLOCKING DETAIL

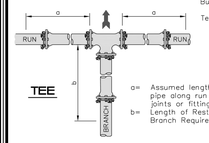
| SCALE: | DETAIL # |
|---|---|
| Not To Scale | ⚓512.04 |
| REVISION DATE: | SHEET # |
| July, 2010 | 1 of 1 |

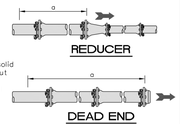

08/06/2010 – 10:41:56 AM Details Provided by APPIAN Consulting Engineers – www.appianengineers.com


## Restraint Length Chart (for Fittings)

| | Tee | | | | | Horizontal Bend | | | | Reducer | | Dead End |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a | b (branch) | | | | a | | | | a | | a |
| Nominal Size | 4" | 6" | 8" | 12" | 16" | 24" | 11 1/4° | 22 1/2° | 45° | 90° | Smaller Line Size | Restraint Length | Restraint Length |
| 6" | 9' | 1' | 14' | - | - | - | - | 2' | 4' | 7' | 13' | 4" | 19' | 36' |
| 8" | 9' | 1' | 7' | 9' | - | - | - | 3' | 5' | 9' | 22' | 6" | 20' | 47' |
| 12" | 9' | 1' | 1' | 12' | 43' | - | - | 3' | 6' | 13' | 30' | 8" | 35' | 65' |
| 16" | 9' | 1' | 1' | 1' | 33' | 61' | - | 4' | 8' | 16' | 39' | 12" | 36' | 84' |
| 24" | 9' | 1' | 1' | 1' | 13' | 41' | 94' | 6' | 11' | 23' | 55' | 16" | 64' | 118' |
| | See Note 1 | | | | | | | | | | | See Note 2 | | |




### Table Design Assumptions

| | |
|---|---|
| Restrained pipe: | DIP |
| Soil Type: | SM, CL (restraint lengths would be less if CL were to be computed) |
| Safety Factor: | 1.5:1 (covers most installations) |
| Trench Bury: | Pipe bedding in 4" of loose soil with backfill lightly consolidated to top of pipe. |
| Bury Depth: | 3 ft. |
| Test Pressure: | 150 psi |

NOTES:
1. If the length of the solid pipe on either side of the tee or the diameters on any leg of the tee varies, this table does not apply and the restraint length must be calculated.
2. If the diameter of the smaller pipe is anything other than what is shown, restraint length must be calculated.
3. If any of the assumptions vary from what is shown in the table, the restraint length must be calculated.

TOWN of CLAYTON
USE WITH THE TOWN of CLAYTON STANDARD SPECIFICATIONS ONLY

RESTRAINT LENGTH CHART (FOR FITTINGS)

| SCALE: | DETAIL # |
|---|---|
| Not To Scale | ⚓512.45 |
| REVISION DATE: | SHEET # |
| July, 2010 | 1 of 1 |

### TIE ROD ANCHORS DATUM

| PIPE SIZE (INCHES) | ROD DIAMETER | NUMBER OF SS RODS REQUIRED |
|---|---|---|
| TEST PRESSURE = 150 PSI | | |
| 6 | 3/4" | 2 |
| 8 | 3/4" | 2 |
| 10 | 3/4" | 2 |
| 12 | 3/4" | 4 |
| 16 | 3/4" | 6 |
| 20 | 3/4" | 8 |
| 24 | 3/4" | 8 |
| 30 | 1" | 10 |
| 36" | 1" | 12 |
| TEST PRESSURE = 200 PSI | | |
| 6 | 3/4" | 2 |
| 8 | 3/4" | 2 |
| 10 | 3/4" | 4 |
| 12 | 3/4" | 6 |
| 16 | 3/4" | 8 |
| 20 | 3/4" | 12 |
| 24 | 3/4" | 10 |
| 30 | 1" | 14 |
| 36" | 1" | 16 |

316 GRADE STAINLESS STEEL (ALL THREAD) RODS

TOWN of CLAYTON
USE WITH THE TOWN of CLAYTON STANDARD SPECIFICATIONS ONLY

TIE ROD ANCHORS DATUM CHART

| SCALE: | DETAIL # |
|---|---|
| Not To Scale | ⚓512.06 |
| REVISION DATE: | SHEET # |
| July, 2010 | 1 of 1 |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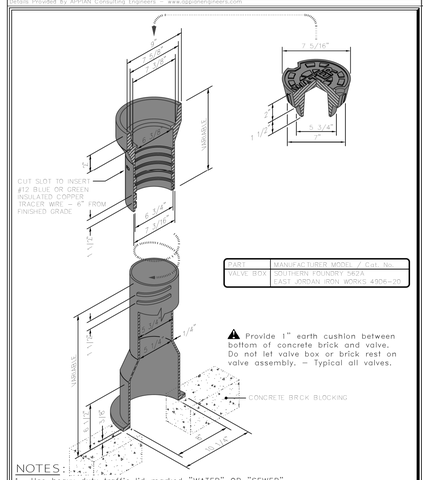



| PART | MANUFACTURER MODEL / Cat. No. |
|---|---|
| VALVE BOX | SOUTHERN FOUNDRY 562A<br>EAST JORDAN IRON WORKS 4906-29" |

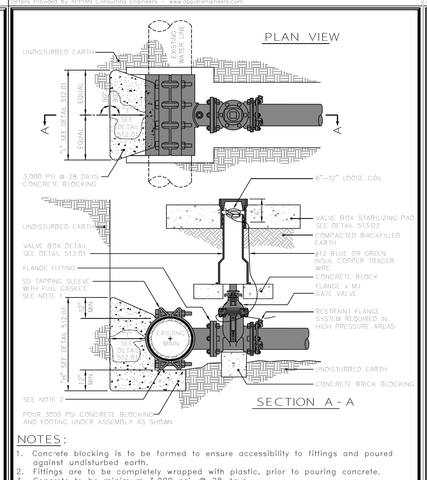
⚠ Provide 1" earth cushion between bottom of concrete brick and valve. Do not let valve box or brick rest on valve assembly. – Typical all valves.

NOTES:
1. Use heavy duty traffic lid marked "WATER" OR "SEWER".

TOWN of CLAYTON
USE WITH THE TOWN of CLAYTON STANDARD SPECIFICATIONS ONLY

STANDARD SCREW VALVE BOX DETAIL

| SCALE: | DETAIL # |
|---|---|
| Not To Scale | ⚓513.01 |
| REVISION DATE: | SHEET # |
| APRIL, 2014 | 1 of 1 |

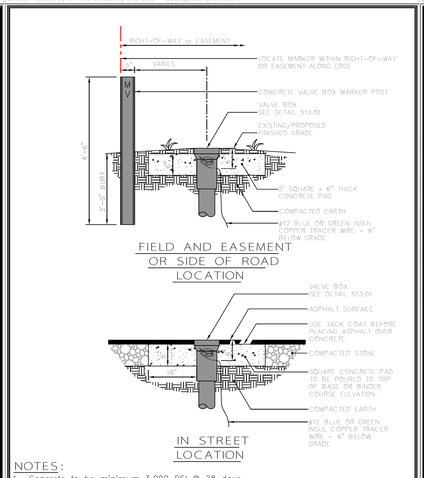



NOTES:
1. Concrete blocking is to be formed to ensure accessibility to fittings and poured against undisturbed earth.
2. Fittings are to be completely wrapped with plastic, prior to pouring concrete.
3. Concrete to be minimum 3,000 psi. @ 28 days.

TOWN of CLAYTON
USE WITH THE TOWN of CLAYTON STANDARD SPECIFICATIONS ONLY

4" to 12" STANDARD TAPPING SLEEVE and VALVE ASSEMBLY

| SCALE: | DETAIL # |
|---|---|
| Not To Scale | ⚓513.02 |
| REVISION DATE: | SHEET # |
| APRIL, 2014 | 1 of 1 |



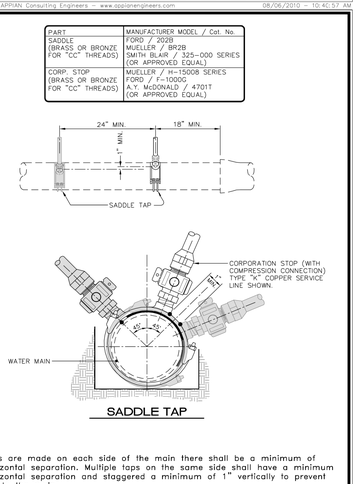

NOTES:
1. Concrete to be minimum 3,000 PSI @ 28 days.

TOWN of CLAYTON
USE WITH THE TOWN of CLAYTON STANDARD SPECIFICATIONS ONLY

VALVE, VALVE BOX, AND MARKER INSTALLATION DETAIL

| SCALE: | DETAIL # |
|---|---|
| Not To Scale | ⚓513.03 |
| REVISION DATE: | SHEET # |
| APRIL, 2014 | 1 of 1 |

| PART | MANUFACTURER MODEL / Cat. No. |
|---|---|
| SADDLE (BRASS OR BRONZE FOR "CC" THREADS) | FORD / 202B<br>MUELLER / BR2B<br>SMITH BLAIR / 325-000 SERIES (OR APPROVED EQUAL) |
| CORP. STOP (BRASS OR BRONZE FOR "CC" THREADS) | MUELLER / H-15008 SERIES<br>FORD / F-1000G<br>A.Y. McDONALD / 4701T (OR APPROVED EQUAL) |




NOTES:
1. If 2 taps are made on each side of the main there shall be a minimum of 24" horizontal separation. Multiple taps on the same side shall have a minimum 24" horizontal separation and staggered a minimum of 1" vertically to prevent damage to the main.

TOWN of CLAYTON
USE WITH THE TOWN of CLAYTON STANDARD SPECIFICATIONS ONLY

STANDARD WATER TAP DETAIL (3/4" AND 1" TAPS)

| SCALE: | DETAIL # |
|---|---|
| Not To Scale | ⚓513.04 |
| REVISION DATE: | SHEET # |
| July, 2010 | 1 of 1 |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STANDARD SPECIFICATIONS

5/14/99

# TOWN OF CLAYTON DETAILS

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION


PREPARED IN THE OFFICE OF:
Wooten
120 North Boylan Avenue Raleigh NC 27603-1423
919.828.0531 Fax 919.834.3559
License Number: F-0115


VERTICAL SCALE 5' 0 5' 10'
HORIZONTAL SCALE 25' 0 25' 50'

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| U-6223 | UC-3F |

DESIGNED BY: CMG
DRAWN BY: TK
CHECKED BY: DGM
APPROVED BY: CMG
REVISED:

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION


UTILITIES ENGINEERING SEC.
PHONE: (919) 707-6690
FAX: (919) 250-4151


NORTH CAROLINA PROFESSIONAL SEAL 29997 ENGINEER DAVID G. MALTHANER

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UTILITY CONSTRUCTION PLANS ONLY

## UTILITY CONSTRUCTION


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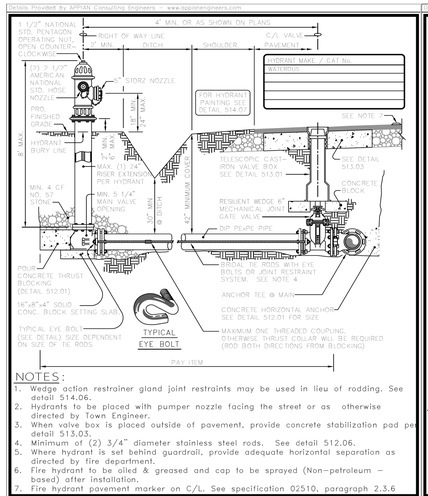


NOTES:
1. Wedge action restrainer gland joint restraints may be used in lieu of rodding. See detail 514.06.
2. Hydrants to be placed with pumper nozzle facing the street or as otherwise directed by Town Engineer.
3. When valve box is placed outside of pavement, provide concrete stabilization pad per detail 513.03.
4. Minimum of (2) 3/4" diameter stainless steel rods. See detail 512.06.
5. Where hydrant is set behind guardrail, provide adequate horizontal separation as directed by fire department.
6. Fire hydrant to be oiled & greased and cap to be sprayed (Non-petroleum – based) after installation.
7. Fire hydrant pavement marker on C/L. See specification 02510, paragraph 2.3.6

TOWN of CLAYTON
USE WITH THE TOWN of CLAYTON STANDARD SPECIFICATIONS ONLY

TYPICAL FIRE HYDRANT STREETS with SIDE DITCH

| SCALE: Not To Scale | DETAIL # 514.04 |
|---|---|
| REVISION DATE: APRIL, 2013 | SHEET # 1 of 1 |


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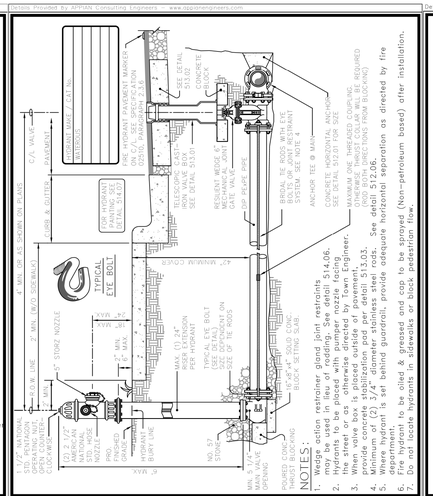


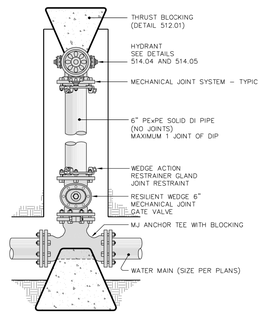

NOTES:
1. Wedge action restrainer gland joint restraints may be used in lieu of rodding. See detail 514.06.
2. Hydrants to be placed with pumper nozzle facing the street or as otherwise directed by Town Engineer.
3. When valve box is placed outside of pavement, provide concrete stabilization pad per detail 513.03.
4. Minimum of (2) 3/4" diameter stainless steel rods. See detail 512.06.
5. Where hydrant is set behind guardrail, provide adequate horizontal separation as directed by fire department.
6. Fire hydrant to be oiled & greased and cap to be sprayed (Non-petroleum – based) after installation.
7. Do not locate hydrants in sidewalks or block pedestrian flow.

TOWN of CLAYTON
USE WITH THE TOWN of CLAYTON STANDARD SPECIFICATIONS ONLY

TYPICAL FIRE HYDRANT STREETS with CURB & GUTTER

| SCALE: Not To Scale | DETAIL # 514.05 |
|---|---|
| REVISION DATE: APRIL, 2014 | SHEET # 1 of 1 |


Details Provided by APPIAN Consulting Engineers – www.appianengineers.com 08/06/2010 – 10:53:28 AM

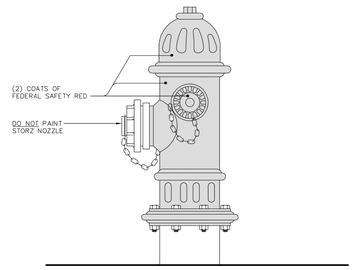




TOWN of CLAYTON
USE WITH THE TOWN of CLAYTON STANDARD SPECIFICATIONS ONLY

ALTERNATE HYDRANT SETTINGS JOINT RESTRAINT & R.S. GATE VALVE

| SCALE: Not To Scale | DETAIL # 514.06 |
|---|---|
| REVISION DATE: July, 2010 | SHEET # 1 of 1 |


08/06/2010 – 10:53:20 AM Details Provided by APPIAN Consulting Engineers – www.appianengineers.com


NOTES:
1. Use Sherwin-Williams industrial enamel or equal.

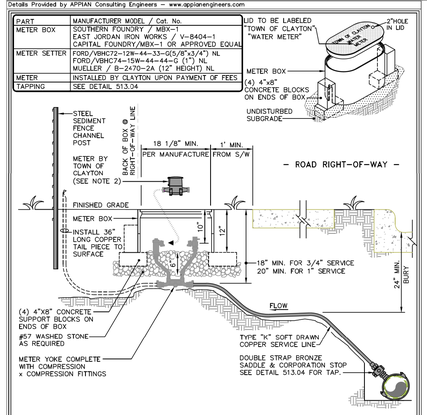
TOWN of CLAYTON
USE WITH THE TOWN of CLAYTON STANDARD SPECIFICATIONS ONLY

FIRE HYDRANT PAINTING SPECIFICATIONS

| SCALE: Not To Scale | DETAIL # 514.07 |
|---|---|
| REVISION DATE: July, 2010 | SHEET # 1 of 1 |


Details Provided by APPIAN Consulting Engineers – www.appianengineers.com


| PART | MANUFACTURER MODEL / Cat. No. |
|---|---|
| METER BOX | SOUTHERN FOUNDRY / MBX-1<br>EAST JORDAN IRON WORKS / V-8404-1<br>CAPITAL FOUNDRY/MBX-1 OR APPROVED EQUAL |
| METER SETTER | FORD/VBHC72-12W-44-33-Q(5/8"x3/4") NL<br>FORD/VBHC74-15W-44-44-Q (1") NL<br>MUELLER / B-2470-2A (12" HEIGHT) NL |
| METER | INSTALLED BY CLAYTON UPON PAYMENT OF FEES |
| TAPPING | SEE DETAIL 513.04 |




NOTES:
1. Contractor to place meter box in non-traffic area only.
2. Meter must be level across meter connections.
3. Lock setter with highfield security prod. part#93210142 & 93280148 after waterline testing is completed.

TOWN of CLAYTON
USE WITH THE TOWN of CLAYTON STANDARD SPECIFICATIONS ONLY

3/4" & 1" WATER METER SERVICE DETAIL

| SCALE: Not To Scale | DETAIL # 519.01 |
|---|---|
| REVISION DATE: JAN., 2015 | SHEET # 1 of 2 |


$$$$CKYLINES$$$$ $$$$LOGINS$$$$ $$$$USERNAME$$$$

5/14/99

# TOWN OF CLAYTON DETAILS

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION


PREPARED IN THE OFFICE OF:
Wooten
120 North Boylan Avenue Raleigh NC 27603-1423
919.828.0531 Fax 919.834.3559
License Number: F-0115


VERTICAL SCALE 5' 0 5' 10'
HORIZONTAL SCALE 25' 0 25' 50'

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| U-6223 | UC-3G |

DESIGNED BY: CMG
DRAWN BY: TK
CHECKED BY: DGM
APPROVED BY: CMG
REVISED:

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
UTILITIES ENGINEERING SEC.
PHONE: (919) 707-6690
FAX: (919) 250-4151

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 29997 DAVID G. MALTHANER

Document Not Considered Final Unless All Signatures Completed
UTILITY CONSTRUCTION PLANS ONLY

## UTILITY CONSTRUCTION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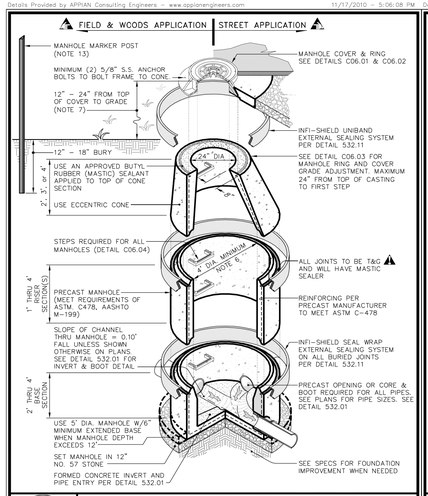
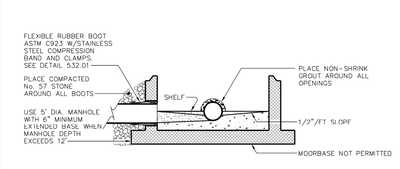



| TOWN of CLAYTON | | |
|---|---|---|
| USE WITH THE TOWN of CLAYTON STANDARD SPECIFICATIONS ONLY | | |
| STANDARD ECCENTRIC PRECAST MANHOLE DETAIL | SCALE: Not To Scale | DETAIL # ↓532.01 |
| | REVISION DATE: July, 2010 | SHEET # 1 of 2 |

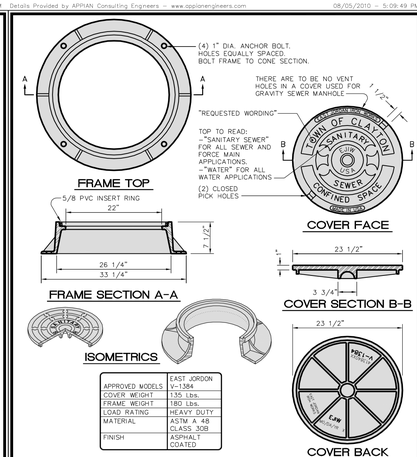

Details Provided by APPIAN Consulting Engineers – www.appianengineers.com 11/17/2010 – 5:05:59 PM


NOTES:
1. Concrete strength to be 3,000 PSI minimum.
2. Pipes will be grouted inside.
3. Flexible sleeve boots cast in place or installed with stainless steel expander rings. Boots to meet ASTM C-923 standards.
4. See detail 532.01 for typical invert shaping.
5. Service laterals into existing manholes to be core drilled and booted.
6. Maximum depth 4' diameter manhole = 12' (see sewer design section for other requirements / limitations).
7. If height above grade exceeds 24", use eccentric flat top.
8. For watertight applications, place butyl rubber between frame and cone with water tight ring & cover.
9. For pipe connections 12" and larger, 2 sets of bands shall be required.
10. Lubricate the following: Pipe exterior, boot interior, boot exterior, S.S. bands (Top & bottom)
11. Place manhole opening over the effluent line.
12. Manholes subject to flooding shall have the top of the manhole rim a minimum of 12" above the 100 Yr. BFE or vented every 3rd manhole, but not exceeding 1,000 LF between vents. Vents shall be placed a minimum of 12" above the 100 Yr. BFE. See detail 532.10.
13. Manhole marker post to be installed by contractor over line. (Marker furnished by Town.)

| TOWN of CLAYTON | | |
|---|---|---|
| USE WITH THE TOWN of CLAYTON STANDARD SPECIFICATIONS ONLY | | |
| STANDARD ECCENTRIC PRECAST MANHOLE DETAIL | SCALE: Not To Scale | DETAIL # ↓532.03 |
| | REVISION DATE: July, 2010 | SHEET # 2 of 2 |


Details Provided by APPIAN Consulting Engineers – www.appianengineers.com 08/05/2010 – 5:09:49 PM


| | |
|---|---|
| APPROVED MODELS | EAST JORDON V-1364 |
| COVER WEIGHT | 135 Lbs. |
| FRAME WEIGHT | 180 Lbs. |
| LOAD RATING | HEAVY DUTY |
| MATERIAL | ASTM A 48 CLASS 30B |
| FINISH | ASPHALT COATED |

NOTES:
1. Frame & Cover weight may not deviate by more than −5.0%.

| TOWN of CLAYTON | | |
|---|---|---|
| USE WITH THE TOWN of CLAYTON STANDARD SPECIFICATIONS ONLY | | |
| STANDARD MANHOLE FRAME and COVER | SCALE: Not To Scale | DETAIL # ↓C06.01 |
| | REVISION DATE: July, 2010 | SHEET # 1 of 2 |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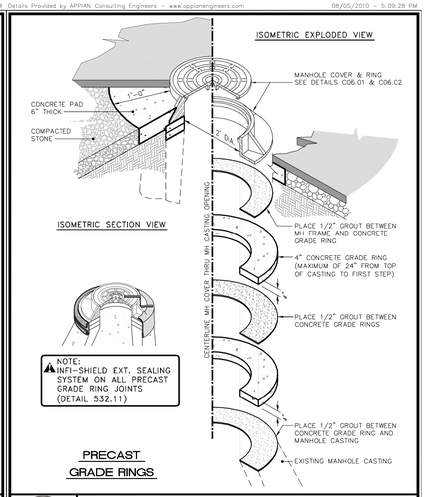


| TOWN of CLAYTON | | |
|---|---|---|
| USE WITH THE TOWN of CLAYTON STANDARD SPECIFICATIONS ONLY | | |
| MANHOLE RING AND COVER GRADE ADJUSTMENT | SCALE: Not To Scale | DETAIL # ↓C06.03 |
| | REVISION DATE: July, 2010 | SHEET # 1 of 1 |


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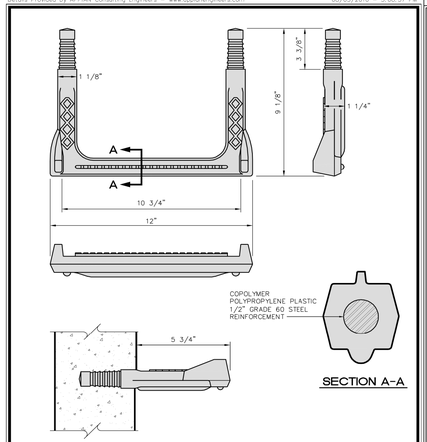


NOTES:
1. Step shown is PS1-PF by M.A. Industries Inc. Peachtree City, GA. alternate may be used provided they are approved by Town of Clayton.

| TOWN of CLAYTON | | |
|---|---|---|
| USE WITH THE TOWN of CLAYTON STANDARD SPECIFICATIONS ONLY | | |
| POLYPROPYLENE PLASTIC STEP | SCALE: Not To Scale | DETAIL # ↓C06.04 |
| | REVISION DATE: July, 2010 | SHEET # 1 of 1 |


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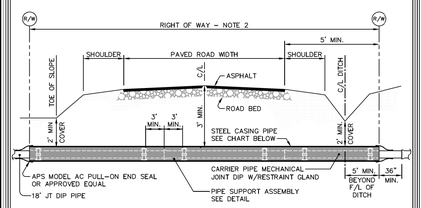


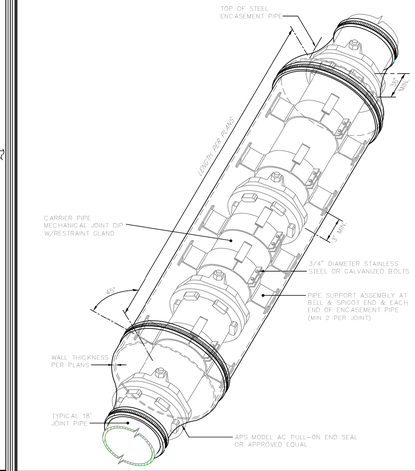

| CARRIER PIPE | CASING PIPE | | | | |
|---|---|---|---|---|---|
| | RAILROAD | | | HIGHWAY | |
| NOMINAL DIAMETER | OUTSIDE DIAMETER | OUTSIDE DIAMETER | WALL THICKNESS | OUTSIDE DIAMETER | WALL THICKNESS |
| 6" & UNDER | 6.90" | 12 3/4" | 0.188" | 12 3/4" | 0.250" |
| 8" | 9.05" | 16" | 0.250" | 16" | 0.250" |
| 10" | 11.10" | 20" | 0.281" | 20" | 0.250" |
| 12" | 13.20" | 24" | 0.344" | 24" | 0.250" |
| 14" | 15.30" | 28" | 0.406" | 28" | 0.312" |
| 16" | 17.40" | 30" | 0.406" | 30" | 0.312" |
| 20" | 21.60" | 42" | 0.563" | 42" | 0.312" |
| 24" | 25.80" | 42" | 0.563" | 42" | 0.312" |

*DIMENSIONS ARE WITHOUT COATINGS

NOTES:
1. Installation by dry bore & jacking.
2. Bore to run from Right-of-Way to Right-of-Way unless approved otherwise by Town of Clayton.
3. Grease encasement pipe as required for ease of installation.
4. Steel pipe to be 35,000 psi min. yield strength, grade B.
5. All exposed metal to be coated with epoxy or asphaltic material.
6. Skids to be installed, manufactured by ITT Grinnell, Charlotte, N.C. / Spider Manufacturing, Durham, N.C. / APS casing spacers by Advanced Products Systems Inc, Lafayette, LA. / or approved equal.

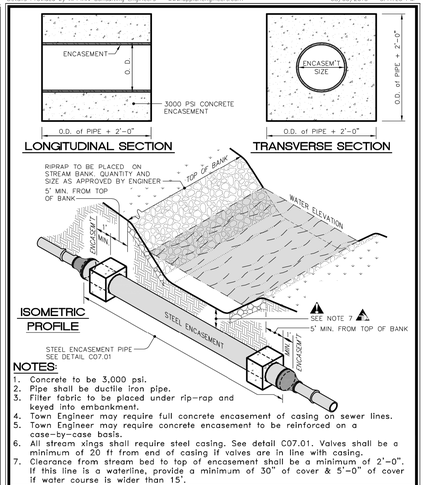
| TOWN of CLAYTON | | |
|---|---|---|
| USE WITH THE TOWN of CLAYTON STANDARD SPECIFICATIONS ONLY | | |
| TYPICAL DETAIL for BORE UNDER PAVED ROADS / HIGHWAYS | SCALE: Not To Scale | DETAIL # C07.01 |
| | REVISION DATE: July, 2010 | SHEET # 1 of 2 |


Details Provided by APPIAN Consulting Engineers – www.appianengineers.com 08/05/2010 – 5:10:13 PM


| TOWN of CLAYTON | | |
|---|---|---|
| USE WITH THE TOWN of CLAYTON STANDARD SPECIFICATIONS ONLY | | |
| TYPICAL DETAIL for BORE UNDER PAVED ROADS / HIGHWAYS | SCALE: Not To Scale | DETAIL # C07.01 |
| | REVISION DATE: April, 2014 | SHEET # 2 of 2 |


Details Provided by APPIAN Consulting Engineers – www.appianengineers.com 08/05/2010 – 5:10:19 PM


NOTES:
1. Concrete to be 3,000 psi.
2. Pipe shall be ductile iron pipe.
3. Filter fabric to be placed under rip-rap and keyed into embankment.
4. Town Engineer may require full concrete encasement of casing on sewer lines.
5. Town Engineer may require concrete encasement to be reinforced on a case-by-case basis.
6. All stream xings shall require steel casing. See detail C07.01. Valves shall be a minimum of 20 ft from end of casing if valves are in line with casing.
7. Clearance from stream bed to top of encasement shall be a minimum of 2'-0". If this line is a waterline, provide a minimum of 30" of cover & 5'-0" of cover if water course is wider than 15'.

| TOWN of CLAYTON | | |
|---|---|---|
| USE WITH THE TOWN of CLAYTON STANDARD SPECIFICATIONS ONLY | | |
| STANDARD STREAM/CREEK CROSSING | SCALE: Not To Scale | DETAIL # ↓C07.02 |
| | REVISION DATE: July, 2010 | SHEET # 1 of 1 |


$$$

5/14/99

PREPARED IN THE OFFICE OF:

Wooten

120 North Boylan Avenue Raleigh NC 27603-1423
919.828.0531 Fax 919.834.3559
License Number: F-0115

VERTICAL SCALE 5' 0 5' 10'

HORIZONTAL SCALE 25' 0 25' 50'

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| U-6223 | UC-4 |

DESIGNED BY: CMG
DRAWN BY: TK
CHECKED BY: DGM
APPROVED BY: CMG
REVISED:

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

UTILITIES ENGINEERING SEC.
PHONE: (919) 707-6690
FAX: (919) 250-4151

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 29997 DAVID G. MALTBARGER

Document Not Considered Final Unless All Signatures Completed

UTILITY CONSTRUCTION PLANS ONLY

# UTILITY CONSTRUCTION

-L- POT 10+00.00
BEGIN PROJECT U-6223

BETTY M. LASSITER, ET UX
DB 708 PG 94
PB 15 PG 103

EDDIE LEE PHARR, ET UX
DB 745 PG 554
PB 15 PG 103

DEVRA S. MASSEY, TRUSTEE OF THE DEVRA S. MASSEY TRUST
DB 2745 PG 733
PB 60 PG 404

LARRY MILTON WATSON, ET UX
DB 4942 PG 173

LARRY WATSON, ET UX
DB 3250 PG 462

JOYCE WATS
DB 2744 PG
PB 60 PG 4C

RELOCATE WATER METER 3/4" WATER SERVICE

+63.69 (-L-)
30.69' LT
8" VALVE

PROVIDE THRUST COLLAR PER DETAIL #9, SHEET UC-3B, AND ALLOW CONCRETE TO OBTAIN 3,000 PSI STRENGTH BEFORE CONNECTION OF NEW WATER LINE TO EXISTING WATER LINE.
BEGIN WATER LINE INSTALLATION
STA. 0+00 (WL1)
= STA. 11+58, 30.77' LT (-L-)

CONTRACTOR SHALL LOCATE EX. 8" PVC WATER LINE; CUT-IN NEW AND CONNECT NEW WATER LINE STA. 0+00 (WL1), REMOVE EXISTING PIPE AS NEEDED FOR CONNECTION

+12.69 (-L-)
35' LT
8" 90 DEGREE BEND

PROP. 877' OF 8" WATER LINE (WL1)
(SEE PROFILE SHEET UC-8)

1,535 POUNDS OF DUCTILE IRON WATER PIPE FITTINGS

PROP. 40' OF 20" ENCASEMENT (OPEN CUT)

SEE INSET "A" (THIS SHEET)

ABANDON 915' OF 8" UTILITY PIPE

PROP. 8" PLUG

+12.69 (-L-)
30' LT
8" 90 DEGREE BEND

+9.97 (-L-)
35' LT
8" 22.5 DEGREE BEND

+22.04 (-L-)
40' LT
8" 22.5 DEGREE BEND

PROP. 84' OF 20" ENCASEMENT

PROP. 84' BORE AND JACK OF 20" ENCASEMENT

+51.27 (-Y1-)
59.92' RT
8" 45 DEGREE BEND

TEMPORARY CONSTRUCTION EASEMENT

RELOCATE FIRE HYDRANT

+74.58 (-Y1-)
30' RT
8" 45 DEGREE BEND

RELOCATE WATER METER 3/4" WATER SERVICE

+62.47 (-L-)
40' LT
8" x 8" TEE

RELOCATE WATER METER 3/4" WATER SERVICE

+35 (-L)
40' LT
8" VALVE

RECEIVING PIT

BORE PIT

ABANDON 8" UTILITY PIPE

+85 (-L-)
40' LT
8" VALVE

-L- POT 18+22.63
-Y1- POT 10+00.00
-L- PC 20+15.10
WATER LINE STATION, TYP.

+21.13 (-L-)
41' LT
8" VALVE

+31 (-L-)
41' LT
2" BLOW OFF

END WATER LINE INSTALLATION
STA. 8+77 (WL1) =
STA. 20+31, 40.94' LT (-L-)

MATCHLINE SEE SHEET UC-5
-L- 24+00.00

-Y1- PC 11+95.75

RETAIN EXISITING DITCH

ABANDON 675' OF 8" UTILITY PIPE

WATER LINE STATION, TYP.

PROP. 567' OF 8" WATER LINE (WL2)
(SEE PROFILE SHEET UC-8)

705 POUNDS OF DUCTILE IRON WATER PIPE FITTINGS

RILLA BANKS
DB 674 PG 157

5'-0" MIN. INSIDE R/W (TYP.)

+18.28 (-Y1-)
29.96' RT
8" VALVE

+36.04 (-Y1-)
30' RT
8" 45 DEGREE BEND

HORACE CRAIG TOMLINSON
DB 5317 PG 525

GERTRUDE BANKS BROWN
DB 721 PG 351

PROP. 8" PLUG
+49.55 (-Y1-)
18.13' RT
8" 45 DEGREE BEND
(CUT-IN)

-Y1- PT 15+73.70

CONTRACTOR SHALL LOCATE EXISTING 8" PVC WATER LINE; CUT-IN NEW AND CONNECT NEW WATER LINE. PROVIDE THRUST COLLAR PER DETAIL #9, SHEET UC-3B, AND ALLOW CONCRETE TO OBTAIN 3,000 PSI STRENGTH BEFORE CONNECTION OF NEW WATER LINE TO EXISTING WATER LINE.

-Y1- POT 16+90.00

END WATER LINE INSTALLATION
STA. 6+00 = STA. 15+54.72, 18.31' RT (-Y1-)

THE TOWN OF CLAYTON
DB 4490 PG 198
PB 80 PG 89

CONTRACTOR SHALL LOCATE EXISTING 6" PVC WATER LINE; CUT-IN NEW AND CONNECT NEW WATER LINE. PROVIDE THRUST COLLAR PER DETAIL #9, SHEET UC-3B, AND ALLOW CONCRETE TO OBTAIN 3,000 PSI STRENGTH BEFORE CONNECTION OF NEW WATER LINE TO EXISTING WATER LINE.

+69.78 (-L-)
51' LT
6" 90 DEGREE BEND
(CUT-IN)

+80.33(-L-)
50.74' LT
6" 90 DEGREE BEND

PROP. 30' OF 6" WATER LINE

195 POUNDS OF DUCTILE IRON WATER PIPE FITTINGS

PROP. THRUST COLLAR

PROP. 6" PLUG

+80.33 (-L-)
41' LT
6" VALVE

+74.71 (-L-)
35' LT
8" VALVE

+80.33 (-L-)
35' LT
8" x 6" TEE

+91.37 (-L-)
35' LT
8" VALVE

6" PVC

GV GV

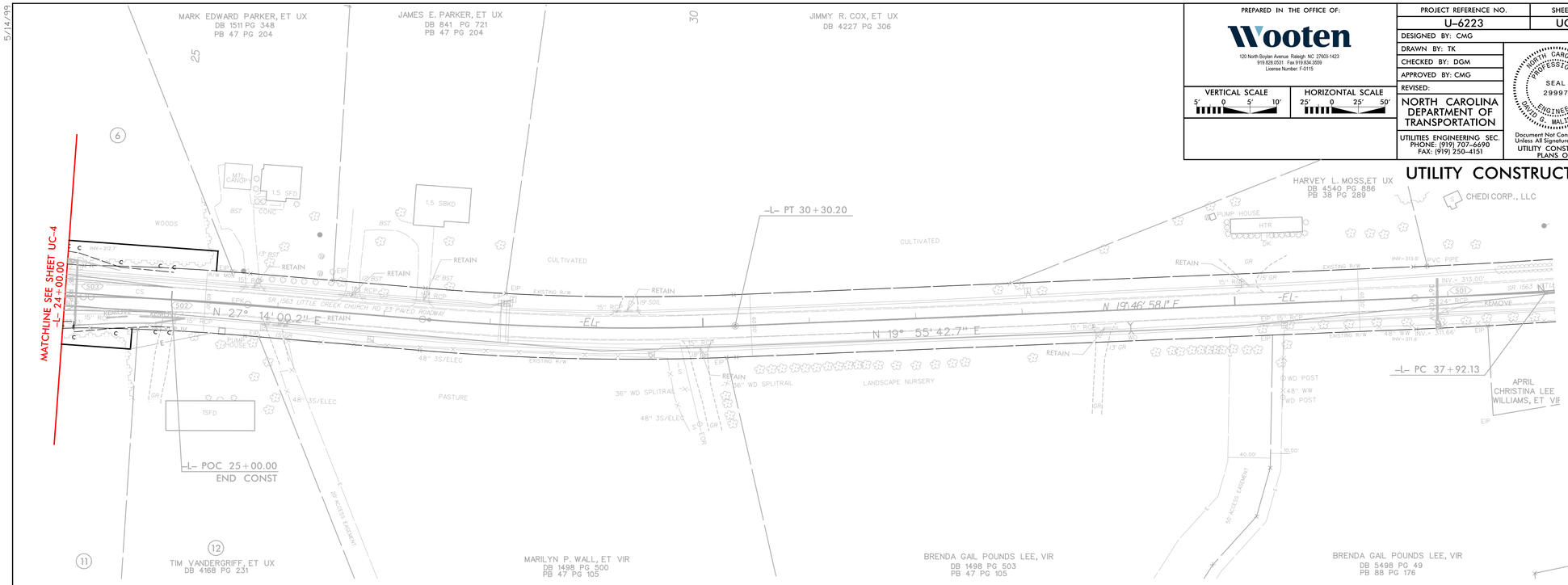
INSET "A"
(3X SCALE)

NOTE:
CONTRACTOR RESPONSIBLE TO CONNECT ALL RELOCATED WATER METERS / SERVICES TO RESIDENTIAL PLUMBING

ALL PROPOSED UTILITIES FOR JOHNSTON COUNTY THIS SHEET

$$$$ SYSTEMS $$$$ SIGNS $$$$ SIGNALS $$$$ LIGHTING $$$$ DESIGN $$$$ USE ENHANCE $$$$

5/14/99




PREPARED IN THE OFFICE OF:

Wooten

120 North Boylan Avenue Raleigh NC 27603-1423
919.828.0531 Fax 919.834.3599
License Number: F-0115

VERTICAL SCALE 5' 0 5' 10'

HORIZONTAL SCALE 25' 0 25' 50'

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| U-6223 | UC-5 |
| DESIGNED BY: CMG | |
| DRAWN BY: TK | |
| CHECKED BY: DGM | |
| APPROVED BY: CMG | |
| REVISED: | |

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

UTILITIES ENGINEERING SEC.
PHONE: (919) 707-6690
FAX: (919) 250-4151

NORTH CAROLINA PROFESSIONAL SEAL 29997 ENGINEER DAVID G. MALTHADDIS

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UTILITY CONSTRUCTION PLANS ONLY

# UTILITY CONSTRUCTION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

$$$$USERNAME$$$$ $$$$FILENAME$$$$ $$$$SYSTEM$$$$ $$$$DGN$$$$

5/14/99

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

PREPARED IN THE OFFICE OF:
Wooten
120 North Boylan Avenue Raleigh NC 27603-1423
919.828.0531 Fax 919.834.3559
License Number: F-0115

VERTICAL SCALE 5' 0 5' 10'
HORIZONTAL SCALE 25' 0 25' 50'

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| U-6223 | UC-6 |

DESIGNED BY: CMG
DRAWN BY: TK
CHECKED BY: DGM
APPROVED BY: CMG
REVISED:

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

UTILITIES ENGINEERING SEC.
PHONE: (919) 707-6690
FAX: (919) 250-4151

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 29997 DAVID G. MALTHANER

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UTILITY CONSTRUCTION PLANS ONLY

ALL PROPOSED UTILITIES FOR TOWN OF CLAYTON THIS SHEET

# UTILITY CONSTRUCTION

CONTRACTOR SHALL LOCATE EX. 6" PVC WATER LINE; REMOVE EX. BLOW-OFF AND CONNECT NEW WATER LINE
STA. 0+00 (WL) =
STA. 11+24.25, 18.97' LT (-DRIVE-)

PROP. 137' OF 6" WATER LINE (WL3)
(SEE PROFILE SHEET UC-9)

575 POUNDS OF DUCTILE IRON WATER PIPE FITTINGS

+35(-DRIVE-)
18.87' LT
6" VALVE

+28.52 (-DRIVE-)
18.87' LT
6" x 6" TEE

+21.70 (-DRIVE-)
18.87' LT
6" VALVE

PROP. 20' OF 6" FIRE HYDRANT LEG

PROP. FIRE HYDRANT

+26.68 (-DRIVE-)
16.42' RT
6" 22.5 DEGREE BEND

+27 (-DRIVE-)
18.92' RT
6" VALVE

-DRIVE- POT 10+00.00

-Y2- PC 11+36.42

-Y2- POT 10+00.00
BEGIN CONST

-DRIVE- PC 13+40.75

+28.68 (-DRIVE-)
12.14' LT
6" VALVE

8'-0" MIN. INSIDE R/W

20' OFF EOP

PROP. 12" PLUG

+69.35 (-L-)
42.75' LT
12" VALVE

+58 (-L-)
42.78' LT
12" VALVE

+63.77 (-L-)
42.78' LT
12" x 6" TEE

PROP. 91' OF 24" ENCASEMENT
(OPEN CUT)

PROP. 683' OF 12" WATER LINE (WL3)
(SEE PROFILE SHEET UC-9)

410 POUNDS OF DUCTILE IRON WATER PIPE FITTINGS

-Y2- PT 15+60.50

4'-0" MIN. INSIDE R/W @ 24" RCP

5'-0" MIN. INSIDE R/W (TYP.)

WATER LINE STATION, TYP.

-L- 50+95.00
BEGIN NOISE WALL
SINGLE FACE CONC B

-L- PT 51+24.90

-L- POC 40+10.00
BEGIN CONST

-L- PRC 42+56.61

-L- POC 48+30.00 =
-Y2- POC 16+00.00

MATCHLINE SEE SHEET UC-5
-L- 38+00.00

MATCHLINE SEE SHEET UC-7
-L- 52+00.00

NAD 83/2011

JOHN ELLIOT PARRISH, ET UX
DB 1502 PG 387

JEAN LOUIS GAUCHAT
DB 5808 PG 98

JASON RALPH COX
DB 3251 PG 608

CHEDI CORP, LLC
DB 2894 PG 936

KAY E. LANCASTER, ET AL
DB 5134 PG 931
PB 76 PG 78

KAY LANCASTER, ET AL
DB 5082 PG 281
PB 76 PG 78

TEREZ M. LITTLE
DB 3626 PG 209
PB 72 PG 173

REVIS BRIAN POUNDS
DB 4525 PG 624
PB 60 PG 407

CHEDI CORP., LLC
DB 5622 PG 127
PB 38 PG 289

DAISY S. POUNDS
(CEMETERY)
PB 38 PG 289

DANA WILLIAMS POUNDS, ET AL
DB 2976 PG 946
DB 4700 PG 31

APRIL CHRISTINA LEE WILLIAMS, ET VIR
DB 5308 PG 111
PB 88 PG 176

REVIS BRIAN POUNDS
DB 5212 PG 772
PB 60 PG 407

CF PROPERTY MANAGEMENT, LLC
DB 5385 PG 934

MARILYN P. WALL, ET VIR
DB 2260 PG 803
PB 60 PG 407

7/2/99

PREPARED IN THE OFFICE OF:

Wooten

120 North Boylan Avenue Raleigh NC 27603-1423
919.828.0531 Fax 919.834.3559
License Number: F-0115

VERTICAL SCALE 5' 0 5' 10'

HORIZONTAL SCALE 25' 0 25' 50'

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| U-6223 | UC-7 |
| DESIGNED BY: CMG | 07 |
| DRAWN BY: TK | |
| CHECKED BY: DGM | |
| APPROVED BY: CMG | |
| REVISED: | |

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

UTILITIES ENGINEERING SEC.
PHONE: (919) 707-6690
FAX: (919) 250-4151

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 29997 DAVID G. MALTHANER

Document Not Considered Final Unless All Signatures Completed

UTILITY CONSTRUCTION PLANS ONLY

# UTILITY CONSTRUCTION

MATCHLINE SEE SHEET UC-6
-L- 52+00.00

PROP. 670' OF 12" WATER LINE (WL3)
(SEE PROFILE SHEET UC-9)
(FROM MATCH LINE - STA. 52+00
TO STA. 14+80 - 12" x 6" TEE)
3,140 POUNDS OF DUCTILE IRON
WATER PIPE FITTINGS

PROP. 230' OF 4"FORCE
MAIN SEWER (FM1)
(SEE PROFILE SHEET UC-10)

CONTRACTOR SHALL LOCATE
AND CONNECT TO EXIST.
4" FORCE MAIN

+00 (-L-)
70' LT
8" 45 DEGREE BEND

+93.97 (-L-)
64.57' LT
8" 45 DEGREE
BEND

5'-0" MIN.
INSIDE R/W

ABANDON 10' UTILITY EASEMENT

PROP. 5' DIA UTILITY MANHOLE
PROP. 7.10' OF UTILITY MANHOLE
WALL 5' DIA

PROP. 230' OF 12" SANITARY
GRAVITY SEWER (GS1)
(SEE PROFILE SHEET UC-10)

ABANDON 219' OF 4" UTILITY PIPE

ABANDON 230' OF 12" UTILITY PIPE

ABANDON UTILITY MANHOLE

ABANDON 115' OF 12" UTILITY PIPE

EX. SSMH # 5129
RIM EL=302.12
INV=294.16 (12")

MANHOLE TO REMAIN,
CONNECT NEW SANITARY
GRAVITY SEWER TO EX.
MANHOLE WITH NEW BOOT

PROP. 230' OF 12" SANITARY
GRAVITY SEWER (GS1)
(SEE PROFILE SHEET UC-10)

+86.73 (-L-)
70' LT
8" 22.5 DEGREE BEND

+03 (-L-)
78.40' LT
8" 22.5 DEGREE BEND

+53.19 (-L-)
81.53' LT
8" 22.5 DEGREE BEND

+99 (-L-)
65' LT
8" 22.5 DEGREE BEND

5'-0" MIN.
INSIDE R/W

15' MIN. OUTSIDE
HEADWALL

REMOVE WATER METER

PROP. 5' DIA UTILITY MANHOLE
PROP. 7.95' OF UTILITY MANHOLE
WALL 5' DIA

REMOVE UTILITY MANHOLE

ABANDON 175' OF 2" UTILITY PIPE

+82 (-Y4-)
6' LT
6" VALVE

+88.06 (-Y4-)
6' LT
6" 45 DEGREE BEND

+90.32 (-Y4-)
8.26' LT
6" 45 DEGREE BEND

TIE PROPOSED DITCH TO EXISITING DI

PROP. 5' DIA UTILITY MANHOLE
PROP. 13' OF UTILITY MANHOLE
WALL 5' DIA

CONTRACTOR SHALL LOCATE AND
CONNECT TO EXIST. 4" FORCE MAIN

CONTRACTOR SHALL LOCATE EXIST. 2"
PVC WATER LINE; CUT-IN NEW AND CONNECT
NEW WATER LINE

PERMANENT FILL IN WETLANDS = 0.491 AC (to slope stake line)
MECHANIZED CLEARING IN WETLANDS = 0.096 AC (to easement)
EXISTING CHANNEL IMPACTS PERMANENT 195'

PROP. 430' OF 12" WATER LINE (WL3)
(SEE PROFILE SHEET UC-9)
(STA. 14+80 - 12" x 6" TO
STA. 19+09 - 8" x 8" TAPPING
SLEEVE & VALVE)
COST: NCDOT 75% & CLAYTON 25%
920 POUNDS OF DUCTILE IRON
WATER PIPE FITTINGS

SEE INSET "A"
(THIS SHEET)

WATER LINE
STATION, TYP.

+79.24 (-L-)
50' LT
12" x 6" TEE

+81.90 (-L-)
50' LT
12" VALVE

5'-0" MIN.
INSIDE R/W

+77.26 (-L-)
45.14' LT
6" VALVE

EX. SSMH # 5136
RIM EL=321.75
INV IN=310.59 (8")(NW)
TOP OF PIPE=313.90 (N)
ELBOWS DOWN TO INV=310.70
INV OUT=310.45 (SE)

PROP. 435' OF 8" SANITARY
GRAVITY SEWER
REPLACE IN PLACE W/ 8" DIP

PROP. 105' OF 12" ENCASEMENT
(OPEN CUT & COST: 25% CLAYTON &
NCDOT 75%)

PROP. 141' OF 6" WATER LINE (WL4)
(COST: 25% CLAYTON & NCDOT 75%)
215 POUNDS OF DUCTILE IRON
WATER PIPE FITTINGS

CONTRACTOR SHALL LOCATE EXIST.
6" WATER LINE; CUT-IN NEW AND
CONNECT NEW WATER LINE.
PROVIDE THRUST COLLAR PER DETAIL,
512.02, SHEET UC-3D, AND ALLOW
CONCRETE TO OBTAIN 3,000 PSI
STRENGTH BEFORE CONNECTION
OF NEW WATER LINE TO EXISTING
WATER LINE.

RELOCATE WATER METER

RELOCATE FIRE HYDRANT

PROP. 8" x 8" TAPPING
SLEEVE & VALVE
+7.28 (-L-)
50' LT

PROP. 12" x 8" INCREASER
+95.36 (-L-)
50' LT

PROP. (2) 6" PLUGS

ABANDON 493' OF 6" UTILITY PIPE

-L- POT 58+71.26

-Y4- POT 10+00.00

-L- POT 63+65.41
END PROJECT U-6223

NAD 83/2011

REVISED SIGNA

PROP. 30' OF 2" WATER
SERVICE LINE

+51.94 (-L-)
64.68' LT
2" 45 DEGREE BEND

+32.38 (-L-)
65' LT
12" 45 DEGREE BEND

+43.86 (-L-)
53.52' LT
12" VALVE

+51.94 (-L-)
57' LT
2" VALVE

+47.38 (-L-)
50' LT
12" 45 DEGREE BEND

+62.37 (-L-)
75.10' LT
2" 45 DEGREE BEND
(CUT-IN)

PROP. 2" PLUG

+57.48 (-L-)
50' LT
12" VALVE

+51.94 (-L-)
50' LT
12" x 6" TEE &
HARCO 2" KNUCKLE RESTRAINT
AT 6" CAP WITH 2" TAP

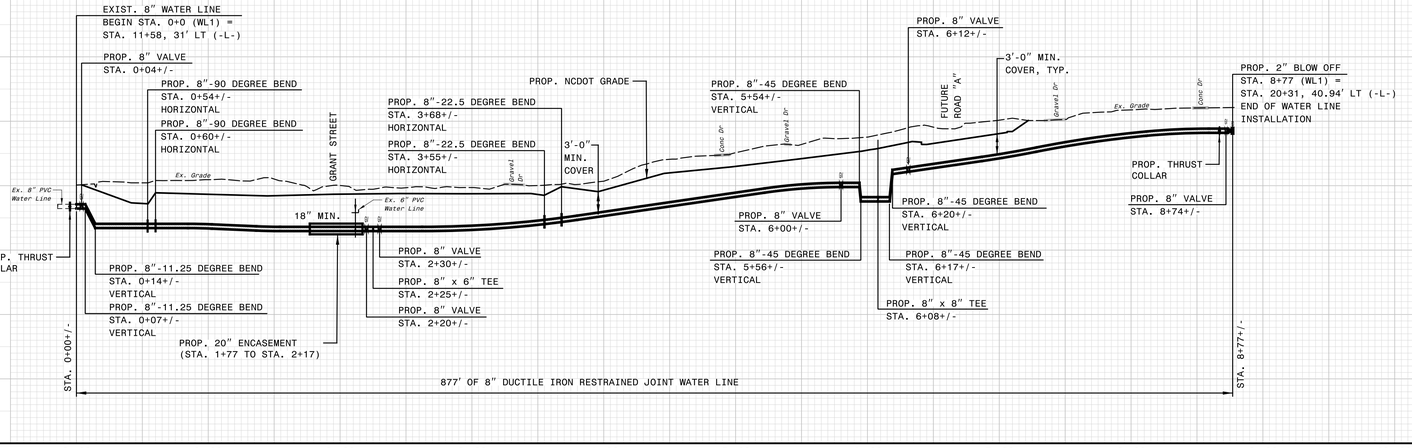
INSET "A"
(3X SCALE)

ALL PROPOSED UTILITIES FOR TOWN OF CLAYTON THIS SHEET

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

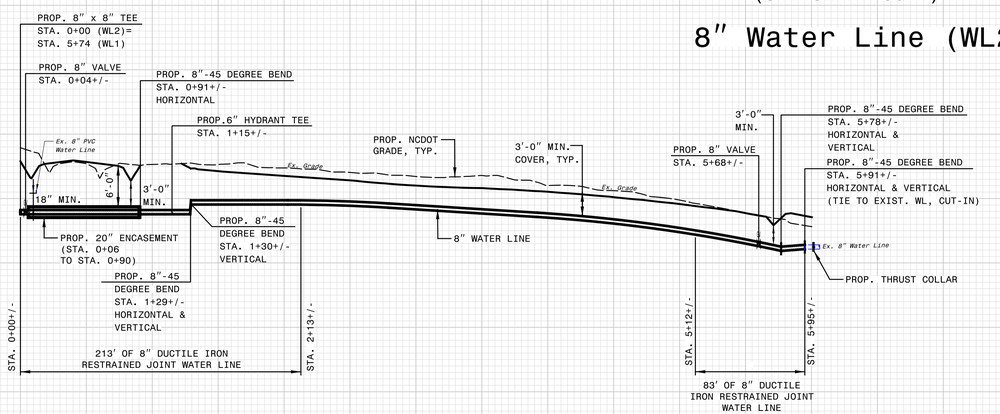
PROFILE SHOWN IS BASED ON STATIONING ALONG
PROPOSED WATER LINE ALIGNMENT ALONG
ROADWAY ALIGNMENT -L-
(SEE SHEET UC-4)

# 8″ Water Line (WL1)




PROFILE SHOWN IS BASED ON STATIONING ALONG
PROPOSED WATER LINE ALIGNMENT ALONG
ROADWAY ALIGNMENT -L-
(SEE SHEET UC-4)

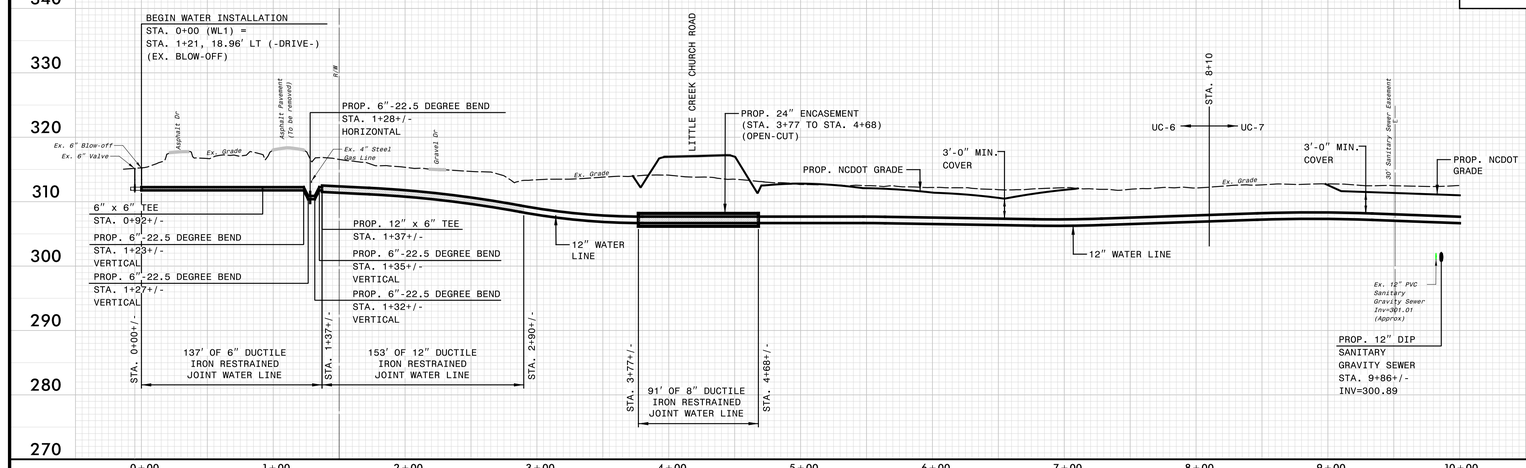
# 8″ Water Line (WL2)

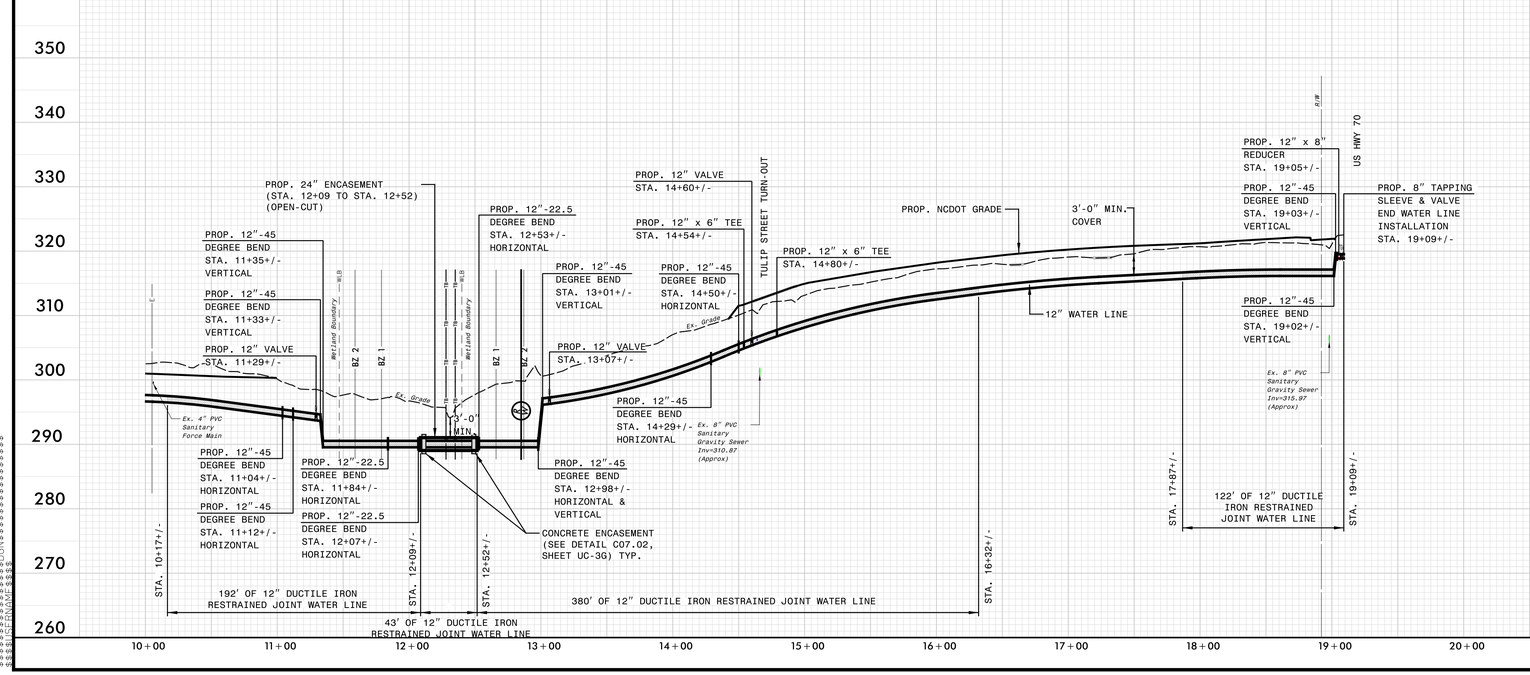



SYSTEM ON $$$$

PROFILE SHOWN IS BASED ON STATIONING ALONG
PROPOSED WATER LINE ALIGNMENT ALONG
ROADWAY ALIGNMENT -L-
(SEE SHEET UC-6 AND UC-7)

# 12" Water Line (WL3)





PREPARED IN THE OFFICE OF:
Wooten
120 North Boylan Avenue Raleigh NC 27603-1423
919.828.0531 Fax 919.834.3559
License Number: F-0115


VERTICAL SCALE 5' 0 5' 10'
HORIZONTAL SCALE 25' 0 25' 50'

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| U-6223 | UC-9 |

DESIGNED BY: CMG
DRAWN BY: TK
CHECKED BY: DGM
APPROVED BY: CMG
REVISED:

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

UTILITIES ENGINEERING SEC.
PHONE: (919) 707-6690
FAX: (919) 250-4151

NORTH CAROLINA PROFESSIONAL SEAL 29997 ENGINEER DAVID G. MALTBARGER

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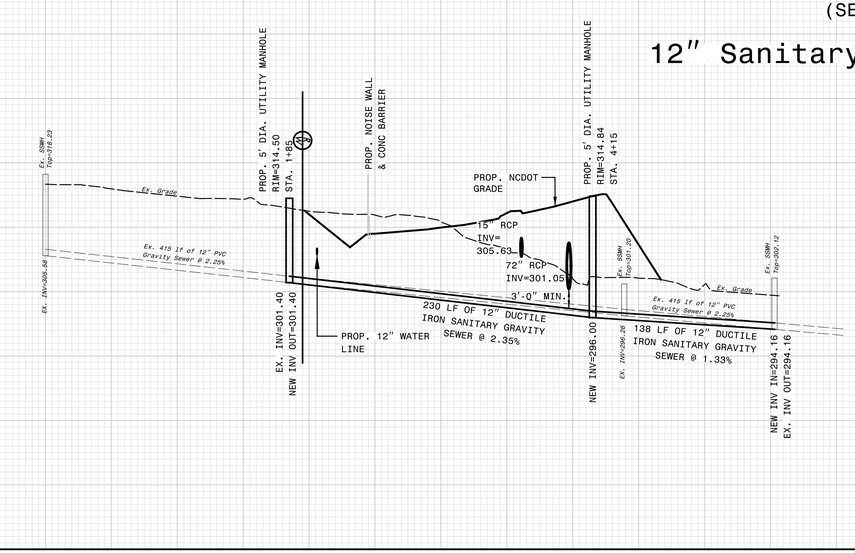
UTILITY CONSTRUCTION PLANS ONLY

UTILITY CONSTRUCTION


$$$

PROFILE SHOWN IS BASED ON STATIONING ALONG
PROPOSED GRAVITY SEWER ALIGNMENT ALONG
ROADWAY ALIGNMENT -L-
(SEE SHEET UC-7)

## 12″ Sanitary Gravity Sewer (GS1)




PREPARED IN THE OFFICE OF:

Wooten

120 North Boylan Avenue Raleigh NC 27603-1423
919.828.0531 Fax 919.834.3559
License Number: F-0115

VERTICAL SCALE 5' 0 5' 10'

HORIZONTAL SCALE 25' 0 25' 50'

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| U-6223 | UC-10 |
| DESIGNED BY: CMG | |
| DRAWN BY: TK | |
| CHECKED BY: DGM | |
| APPROVED BY: CMG | |
| REVISED: | |

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

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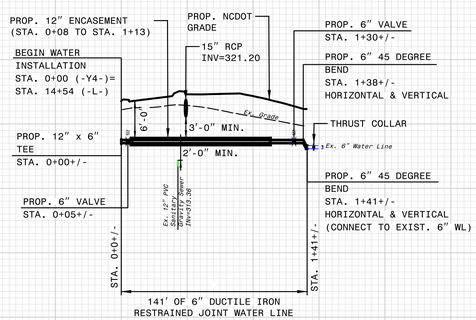
UTILITY CONSTRUCTION

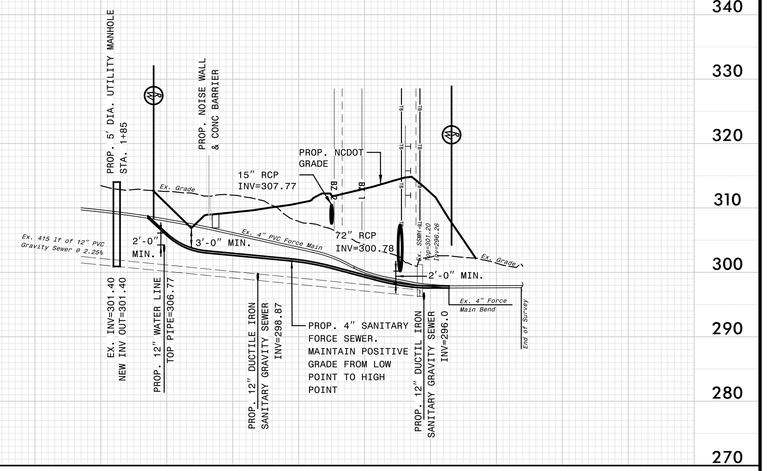
PROFILE SHOWN IS BASED ON STATIONING ALONG
PROPOSED WATER LINE ALIGNMENT ALONG
ROADWAY ALIGNMENT -Y4-
(SEE SHEET UC-7)

## 6″ Water Line w/ 12″ Steel Encasement (WL4)




PROFILE SHOWN IS BASED ON STATIONING ALONG
PROPOSED WATER LINE ALIGNMENT ALONG
ROADWAY ALIGNMENT -L-
(SEE SHEET UC-7)

## 4″ Sanitary Force Sewer (FM1)




$$$$SYSTEM$$$$ $$$$DIVISION$$$$ $$$$UNIT$$$$ $$$$DEPARTMENT$$$$

**TOWN OF CLAYTON**
**RESOLUTION AUTHORIZING THE TOWN MANAGER TO EXECUTE A UTILITY CONSTRUCTION AGREEMENT BETWEEN THE TOWN OF CLAYTON AND NORTH CAROLINA DEPARTMENT OF TRANSPORTATION FOR THE RANCH ROAD EXTENSION PROJECT (TIP # U-6223)**

**WHEREAS,** North Carolina Department of Transportation (NCDOT) proposes to extend Ranch Road between Little Creek Church Road and US 70 Business as part of the TIP #6223 project; and

**WHEREAS,** Town of Clayton public utility (water and sewer) infrastructure relocations along Rose Street are required due to construction of the project; and

**WHEREAS,** Per NCGS 136-27.1, the Town of Clayton is responsible for 25% of all required non-betterment utility relocation costs required as part of an NCDOT improvement project; and

**WHEREAS,** NCDOT has agreed to construct certain betterments as part of the U-6223 project outlined in *Exhibit C: Utility Construction Plans*

***WHEREAS,*** the Town of Clayton is responsible for 100% of the total betterment costs; and

**NOW, THEREFORE, BE IT RESOLVED,** The Town Manager of the Town of Clayton is hereby authorized to execute on behalf of the Town of Clayton the attached Utility Construction Agreement and attached exhibits with NCDOT as attached *Exhibit A: Utility Construction Agreement.*

Duly adopted by the Clayton Town Council this 16th day of May 2022.

_____
Jody McLeod
Mayor

ATTEST:

_____
Sherry L. Scoggins, MMC
Interim Town Clerk

# Town Council Agenda Cover Sheet

**Meeting Date**
May 16, 2022

**Agenda Location**
Old Business

**Item Title**
Country Lane Conditional Zoning District

**Presenter:**
Benjamin Howell – Planning Director

**Summary/Description**
Further discussion of the Country Lane Conditional Zoning District request was tabled following the closing of the Public Hearing on March 21, 2022. The applicant has brought forward revised conditions and additional information based on the public input and comments received from Town Council at the March 21, 2022 meeting. The updated staff report outlines the revised conditions and additional information beginning on page 5.

The request is to rezone the property located on Country Lane, northeast of its intersection with Jasper Drive, from the Planned Development – Residential Zoning District to a Conditional Zoning – Residential District (CZ-R). With the revised conditions, the Conditional Zoning District would allow for up to 270 units, or a density of up to 2.347units per acre. The Conditional Zoning District is accompanied by a Master Plan and Master Plan Narrative.

**Requested Action**
Approval with Conditions

**Funding Source (If Applicable):**
N/A

**Cost:** N/A **Yes** ☐ **No** ☒

**Additional Documents to be Included in Agenda Packet**
March 21, 2022 Town Council Meeting Packet Materials
UPDATED Staff Report
REVISED Master Plan Narrative
REVISED Master Plan
REVISED Architectural Elevations
NEW 3D Rendering Exhibit
NEW Cultural Resources Review
NEW Catawba Nation Tribal Historic Preservation Office Letter
NEW NC State Historic Preservation Office Letter
NEW Specimen Tree Report
REVISED Recommended Conditions of Approval – Signed by Applicant
Wastewater Allocation Scoring

**Meeting Timeline**
Planning Board Meeting – February 28, 2022
Town Council Public Hearing – March 21, 2022
Town Council Deliberation – May 16, 2022

Town of Clayton
Planning Department
111 E. Second Street, Clayton, NC 27520
P.O. Box 879, Clayton, NC 27528
Phone: 919-553-5002
Fax: 919-553-1720

*Planning Board February 28, 2022*
*Town Council March 21, 2022*

# STAFF REPORT

## Application Number: 2021-20-CZM

## Project Name: Country Lane Conditional Zoning District

**Tag #:** 05G03026S
**Location:** Northeast of intersection of Jasper Drive and Country Lane
**Existing Zoning District:** PD-R
**Proposed Zoning District:** CZ-R
**Applicant:** WithersRavenel, Inc.
**Owner(s):** Country Lane Investors, LLC

**Public Noticing:**

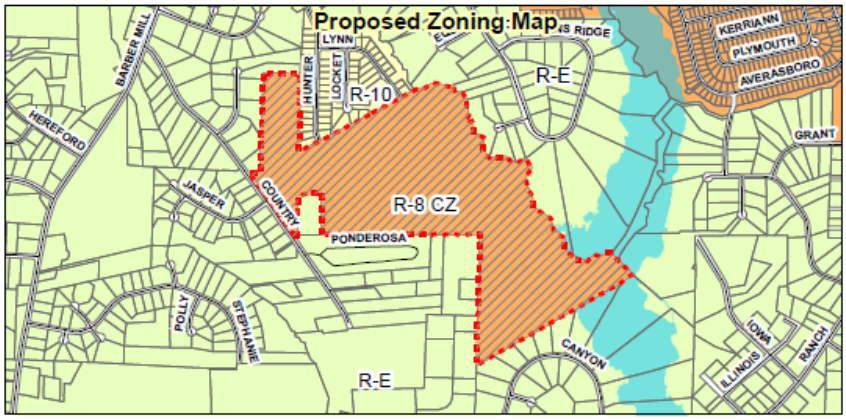
- Neighborhood meeting: March 30, 2021
- Sign posted: February 16, 2022
- PB Letters mailed: February 16, 2022
- Public Hearing Legal Ad Published: March 9, 2022 and March 16, 2022
- TC Letters mailed: March 2, 2022

**REQUEST:** Rezone the property referenced above, located on Country Lane northeast of its intersection with Jasper Drive, from the Planned Development – Residential Zoning District to a Conditional Zoning – Residential District (CZ-R). The Conditional Zoning District would allow for up to 299 units, or a density of up to 2.6 units per acre. The Conditional Zoning District is accompanied by a Master Plan and Master Plan Narrative.

**SITE DATA:**
**Acreage:** 114.81 acres
**Existing Use:** Vacant

**ADJACENT ZONING AND LAND USES:**

| Direction | Zoning | Existing Use(s) |
|---|---|---|
| North | Residential-10 (R-10) and Residential-Estate (R-E) | Existing single-family residential |
| South | Residential-Estate (R-E) | Existing single-family residential |
| East | Residential-Estate (R-E) | Existing single-family residential |
| West | Residential- Estate (R-E) | Existing single-family residential |




**DEVELOPMENT DATA:**

| | |
|---|---|
| Proposed Uses: | Residential (single-family homes) |
| Proposed Density: | Overall up to 299 units are proposed at an overall proposed residential density of 2.6 units/acre for the development |
| Fire Protection: | Town of Clayton |
| Access/Streets: | Access will be provided from Country Lane, with additional access from Hunter Drive and Lynn Way |
| Water/Sewer Provider: | Town of Clayton |
| Electric Provider: | Duke Energy |

**OVERVIEW:**

The applicant is requesting a Conditional Zoning District with an associated Master Plan to allow for 299 residential dwellings on 114.81 acres. The development will consist of single-family residential homes and is proposed to be developed in 3 phases as shown on the Master Plan. The development has requested the following minimum lot dimensional standards:

| Unit Type | Minimum Lot Area (SF) | Minimum Lot Width (ft)* | Maximum Lot Coverage (%)** | Maximum Impervious Surface (%) |
|---|---|---|---|---|
| **Single-family** | 6,000 min. average internal; 8,000 min. average adjacent to parcel boundary | 45 ft* | 50% | 60% |

**As measured at the front setback line*

***The maximum area of the lot that is permitted to be covered by buildings, including both principal structures and accessory buildings. Building coverage does not include paved areas such as driveways, uncovered porches or patios, decks, swimming pools or pool cages, or roof overhangs of less than three feet.*

| Unit Type | Front | Side Interior | Side Street | Rear | Maximum Height |
|---|---|---|---|---|---|
| **Single-family** | 25' | 6' | 10' | 15' | 35' |

*Encroachments into the setbacks shall be permitted as listed in UDC dated 11-15-2021.*

**Transportation Improvements:**

The development will be accessed from Country Lane, Hunter Lane and Lynn Way, and will consist of internal streets built to Town standards with sidewalks, curb and gutter.

A TIA for the development was performed by Exult Engineering, and reviewed by NCDOT Congestion Management. Based on the review by NCDOT, the development will be responsible for constructing the following improvements:

- Barber Mill Road at Amelia Church Road: Construct an exclusive southbound right-turn lane on Barber Mill Road with 100' of full-width storage with appropriate deceleration and taper.
- Amelia Church Road at Barber Mill Road: Construct an exclusive eastbound left-turn lane on Amelia Church Road with 200' of full-width storage with appropriate deceleration and taper.
- Barber Mill Road at Country Lane
    - Construct an exclusive northbound right-turn lane on Barber Mill Road with 100' of full-width storage with appropriate deceleration and taper.
    - Construct an exclusive southbound left-turn lane on Barber Mill Road with 100' of full-width storage with appropriate deceleration and taper.

**Stormwater, Water, Sewer and Electricity**

The development will comply with the Town of Clayton Stormwater Ordinance. Public water will be provided by the Town of Clayton from a public water main located along Country Lane, and the development will be responsible for installing a Town of Clayton master meter in order to meter flow from the property. The development will also connect to existing public water infrastructure on Hunter Lane and Lynn Way. Public sewer is proposed to be provided to the site by installation of sewer infrastructure throughout the site and construction of a new pump station to serve the development. Electric power for the development will be provided by Duke Energy, and the development will install streetlights meeting the Town of Clayton standards.

**Open Space/Amenities**

The development will preserve approximately 45 acres of open space, including areas of riparian buffers, floodplains, streams and wetlands. The development will also provide a minimum one acre amenity site designated for a fitness/recreation center for the neighborhood. The developer has agreed to a condition specifying specific additional amenities that will be provided for the development. The development will dedicate a greenway and public utility easement along the eastern property boundary for future installation of a greenway as shown in the 2045 Growth Plan. The development will also be responsible for meeting Section 155.203(I)(2) of the Unified Development Ordinance, requiring dedication or payment-in-lieu for recreation or open space to the Town.

**Landscaping/Buffers**

The development will provide a 15-foot-wide Type C landscape buffer along the perimeter of the development. The buffer will include opaque screening consisting of a wall, fence, berm, evergreen hedge or combination thereof. The

development will also include street trees meeting the requirements in the UDC.

**Architectural Standards**
The applicant has submitted several example architectural elevations, and states in the narrative that the development will folow the 2006 Design Guidelines.

## CONDITIONAL ZONING AND MASTER PLAN APPROVAL CRITERIA

**Conditional Zoning District Approval Criteria**
*See Master Plan Narrative for Applicant Responses*
In connection with its legislative decision on a conditional zoning district request, the Town Council may consider factors including, but not limited to, the following:

1. Consistency with the adopted plans and policies of the Town
   *Staff Commentary:* The development application was submitted prior to approval of the 2045 Growth Plan. The 2040 Growth Plan identifies the development area as "Low Density Residential," which recommends residential development at a density of up to 3 dwelling units/acre. The 2045 Growth Plan was adopted in November 2021 identifies the development area as "Medium Density Residential," which calls for "housing units that are more urban in character and in closer proximity to commercial centers and services." The Medium Density Residential land use category in the 2045 Growth Plan calls for a density of 3-5 units per acre, primarily consisting of single-family homes with less than 50% attached units. The development proposal is consistent with the 2040 Growth Plan, and can be considered consistent (although a lower overall density) with the 2045 Growth Plan.

2. Suitability of the subject property for uses permitted by the current versus the proposed conditional district
   *Staff Commentary:* The current zoning district for the property is Planned Development – Residential (PD-R), which is no longer in use. The property is surrounded by residential neighborhoods at varying densities, and is suitable for residential development.

3. Whether the proposed change tends to improve the balance of uses, or meets a specific demand in the Town
   *Staff Commentary:* The surrounding area is residential, and the proposed use is residential. The proposed conditional zoning district will allow for additional suburban-style residential development.

4. The capacity of adequate public facilities and services including schools, roads, recreation facilities, wastewater treatment and water supply facilities and stormwater drainage facilities for the proposed conditional district
   *Staff Commentary:* The proposed development would be served by Johnston County schools, and none of the area schools are on the County's "capped" list for 2021-2022. Access to the development will be provided by Country Lane, with an internal network of streets providing access to the homes. The road accessing the lots south of the creek crossings has been modified to a median-divided cross-section (See Master Plan) with two separated travel lanes in order to provide adequate access to this area for emergency access. The development will be required to meet the Town's Recreation and Open Space requirements in Section 155.203(I), and in addition, will provide an amenity center for the residents of the development. The development will also be providing approximately 45 acres of open space that will allow for passive and/or active recreation, as well as dedication of a greenway easement along the eastern property boundary. The development will be required to meet the requirements in the Town's Stormwater Ordinance. The property has access to public water along Country Lane, Hunter Way and Lynn Drive, and will install sanitary sewer throughout the development, which will connect to a new pump station and sewer force main constructed for the development.

5. It has been determined that the legal purposes for which zoning exists are not contravened
   *Staff Commentary:* Staff does not believe that legal purposes for which zoning exists will be contravened by the approval of the conditional zoning district.

6. It has been determined that there will be no adverse effect upon adjoining property owners unless such effect can be justified by the overwhelming public good or welfare
   *Staff Commentary:* The proposed development will consist of suburban-style, low-density residential development. While the development may consist of smaller lots than adjacent properties, with the open space and natural areas that will be preserved, the overall density of the development is comparable to the surrounding developments and area.

7. It has been determined that no one property owner or small group of property owners will benefit materially from the change to the detriment of the general public
   *Staff Commentary:* While the owners/developers may benefit from the development, staff believes that with the proposed conditions there will be no detriment to the general public.

**Master Plan Approval Criteria**

The master plan shall include and the applicant shall be responsible for successfully addressing the following:

- Compliance with § 155.203(L) and all other applicable requirements of this chapter, or analysis and justification if it deviates from the requirements of this chapter;
- Consistency with the Clayton General Design Guidelines;
- Conformance of the proposal with the stated purpose of the requested conditional zoning district;
- Compatibility of the proposed development with the adjacent community;
- The quality of design intended for each component of the project and the ability of the overall development plan to ensure a unified, cohesive environment at full build-out;
- Compatible relationships between each component of the overall project;
- Self-sufficiency of each phase of the overall project;
- The fiscal impact of the proposal and the proposed financing of required improvements;
- The success of the proposal in providing adequate pedestrian and bicycle links within the development and with the adjacent community; and
- The effectiveness with which the proposal protects and preserves the ecologically sensitive areas within the development.

*Staff Commentary:* The applicant has provided a Master Plan Narrative providing details of the proposal. Through the Master Plan, Narrative and proposed conditions, staff believes that the applicant has successfully met the criteria.

**CONSIDERATIONS:**

- The Town Council shall consider the recommendation of the Planning Board and the Planning Director.
- The Town Council shall approve, approve with conditions, or disapprove the conditional zoning district. Any additional, revised or deleted conditions from those below must be signed or declined by the applicant prior to the Council rendering a decision.
- Concurrently with adopting, denying or remanding any conditional zoning district, the Town Council shall adopt a statement describing whether its action is consistent with the adopted plans and policies of the Town and explaining why the Town Council considers the action taken to be reasonable and in the public interest.
- If the conditional zoning district is not consistent with the 2045 Growth Plan and is approved, the 2045 Growth Plan Future Land Use Map will be considered amended to match the proposed conditional zoning district.
- If approved, the conditional zoning district, master plan and narrative will be recorded with Johnston County and shall guide future development for this land. The conditional zoning district, master plan, and narrative shall not expire, and will run with the land.

**STAFF RECOMMENDATION:**

Planning staff recommends approval of the Conditional Zoning District, based on the proposed application meeting the criteria above and the recommended conditions of approval agreed-to by the applicant.

**PLANNING BOARD RECOMMENDATION:**

The Planning Board unanimously recommended approval of the Conditional Zoning District, based on the proposed application meeting the criteria for approval and with the inclusion of the recommended conditions of approval agreed-to by the applicant.

The Planning Board found the proposed Conditional Zoning District request to be consistent with the adopted Town of Clayton 2040 Comprehensive Growth Plan.

**RECOMMENDED PLAN CONSISITENCY STATEMENT FOR TOWN COUNCIL:**

If the Town Council approves the Conditional Zoning District, staff recommends the following Plan Consistency Statement be adopted by Council:

*The proposed Conditional Zoning District is consistent with the Future Land Use Map in the Town's adopted 2040 Comprehensive Growth Plan. The proposed Conditional Zoning District, with the recommended conditions agreed-to by the applicant, is also consistent with the following Goals and Strategies of the 2040 Comprehensive Growth Plan:*

***Goal LU1:*** *Preserve Clayton's small-town character while allowing for growth and development in appropriate areas.*

***Strategy LU1.1.2:*** *Support residential development at varying densities based on the Future Land Use Map.*

***Goal LU2:*** *Encourage quality development which maximizes existing infrastructure, promotes walking and biking, and enhances travel safety.*

***Strategy LU2.1.2:*** *Require vehicular connectivity between existing and future adjacent developments.*

**RECOMMENDED CONDITIONS OF APPROVAL:**

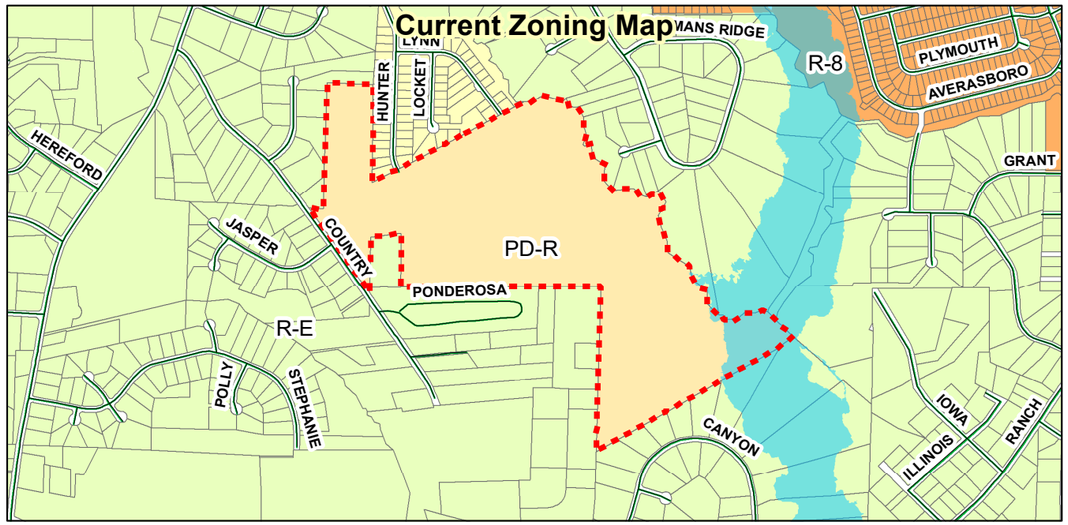
If approved, staff is recommending the following conditions of approval be placed upon the application. The applicant has reviewed the proposed conditions and is in agreement with the conditions proposed by staff.

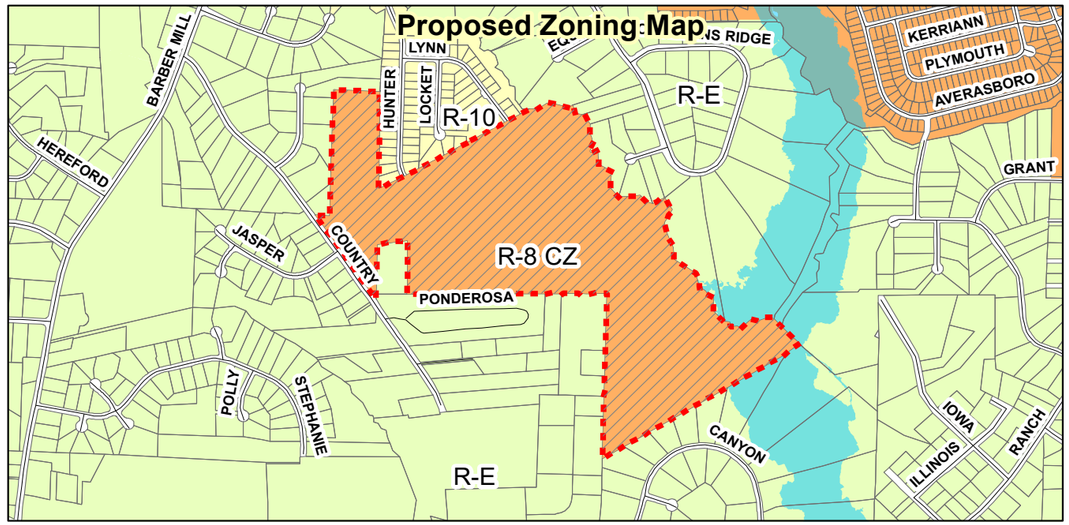
1. Following Town Council approval, an electronic copy of the Master Plan and Narrative including the Conditions of Approval shall be submitted to the Planning Department for final approval.
2. The Development shall meet all adopted Town of Clayton Unified Development Code (UDC) requirements, Town of Clayton Engineering and Stormwater design standards, and the North Carolina Fire Code and NFPA Fire standards, except where specifically modified by the approved master plan.
3. The Development shall be constructed in substantial conformance with the Master Plan and Master Plan Narrative as approved by the Clayton Town Council.
4. Permitted uses in the Development shall be limited to the following uses:
    - Single-family House
    - Park
    - Fitness/Recreation Center
    - Utility, Minor
5. The following standards will apply to the Development:
    - Maximum Number of Single-Family Houses: 299
    - Maximum Density: 2.6 dwelling units per acre
    - Minimum Lot Size, Interior Lots: 6,000 Square Foot Average
    - Minimum Lot Size, Adjacent to Project Boundary: 8,000 Square Feet
6. Other dimensional standards and setbacks shall meet the requirements in the approved Master Plan Narrative.
7. A minimum of 45 acres of the site will be comprised of open space, and at least 50% of the required recreation and open space will be part of a contiguous parcel.
8. A 1-acre site will be designated for a Fitness/Recreation Center for the Development.
9. At least one of the following additional amenities will be included in the Development:
    - Pool
    - Splashpad
    - Playground
    - Clubhouse
10. At least two of the following amenities will be included in the Development:
    - Great lawn
    - Picnic shelter
    - Pavilion
    - Firepit
    - Dog Park

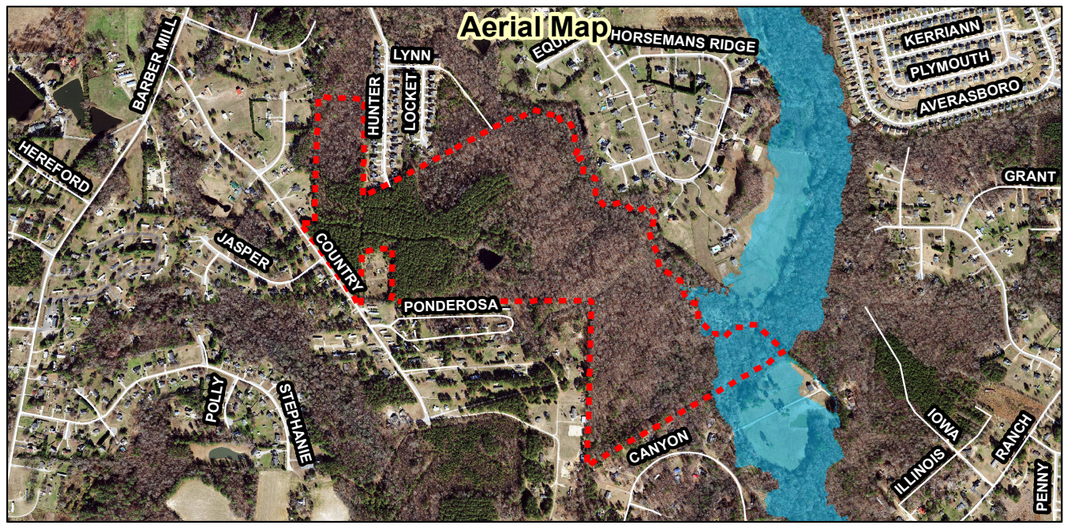
11. A two-lane median divided residential collector street will provide access from the northern phases to the southern phase of the Development, acting as two means of access in the event of emergencies, while also minimizing environmental impacts.
12. The following transportation improvements will be approved and bonded by NCDOT prior to approval of the Final Plat:
    a. Barber Mill Road at Amelia Church Road
        - Construct an exclusive southbound right-turn lane on Barber Mill Road with 100' of full-width storage with appropriate deceleration and taper.
        - Construct an exclusive eastbound left-turn lane on Amelia Church Road with 200' of full-width storage with appropriate deceleration and taper.
    b. Barber Mill Road at Country Lane Road
        - Construct an exclusive northbound right-turn lane on Barber Mill Road with 100' of full-width storage with appropriate deceleration and taper.
        - Construct an exclusive southbound left-turn lane on Barber Mill Road with 100' of full-width storage with appropriate deceleration and taper.
13. No more than 30 Certificates of Occupancy will be issued within the Development before the second required access point is constructed.
14. The Development will be responsible for the installation of a public sanitary sewer system that will serve up to 299 residential units in Country Lane, including the installation of a Pump Station and approximately 8,000 linear feet of Force Main Sewer. Easements will be provided for the public utilities that are installed outside of public right of way per Town of Clayton Requirements.
15. The Development shall dedicate a Greenway and Public Utility Easement along the entire eastern property boundary for the future construction of a greenway and sewer utilities. The final location of the easement shall be based on coordination with Town staff. The Greenway and Public Utility easement shall be at least 20 feet wide, and a minimum 20-foot-wide access to the easement shall be provided from the pump station area.
16. The Development shall provide a Payment-in-Lieu for Construction of a future 10-foot-wide asphalt greenway in the dedicated easement or shall construct a 10-foot-wide asphalt greenway in the dedicated easement. If the Development constructs the greenway, an additional 20-foot-wide Public Utility Easement shall be provided adjacent to the greenway easement for future installation of sewer utilities. Payment-in-Lieu shall be calculated at 125% of the estimated construction cost (based on a sealed Engineer's Estimate) and shall be provided prior to approval of the Final Plat for Phase 3.
17. The Development shall construct at least two connections to the greenway easement. One connection shall be in Phase 2 and one connection shall be in Phase 3. These connections shall be a minimum of 5 feet wide and may be constructed of asphalt or concrete.
18. A minimum of four different home plans, each with a minimum of two different elevations, will be provided to add variety to the neighborhood. No home can be constructed with an exterior elevation (front façade) or color palette that is identical to the home on either side or directly across the street from it.
19. Elevations provided are representative of the product that may be built while still meeting the architectural design commitments. Elevations may change due to revisions in base models, finishes preferred by home buyers, home plans more suitable for individual lot layout and driveway placement, or other factors. Alternative elevations proposed will be reviewed and approved by the Planning Director for consistency with the architectural design commitments at time of rezoning.
20. All homes will have 2-car garages.
21. Energy efficient features will include a minimum of three of the following: 14- SEER Energy- efficient HVAC System, Air Barrier & Sealing, Carbon Monoxide Detectors, Decorative Fiberglass Front Door, Gas Heat (2nd Floor Electric Heat Pump if Separate System), LED Lighting throughout Home, Low VOC Carpet, Low VOC Paint, Low-E Insulated Single-hung Vinyl Widows w/ Tilt Out Feature, MERV 8 HVAC Filters, Programmable Thermostat, R-38 Attic Insulation, Separate HVAC System or Zone for Each Floor (per plan), Smoke Alarms in Each Bedroom, Water-saving Faucets & Shower Heads.
22. A 15-foot-wide Type C Landscape Buffer will be provided along the Development boundary as shown on the Master Plan. The Type C Landscape Buffer shall include a minimum 6-foot-high opaque screening (at installation) consisting of a wall, fence, berm, evergreen hedge, or combination thereof.
23. A minimum of 30 overflow parking spaces shall be provided, spaced throughout the development. Overflow parking spaces shall meet the standard dimensions for parking spaces in the UDC.
24. To the extent of any conflict between the Master Plan, Master Plan Narrative and these conditions, these conditions shall control.

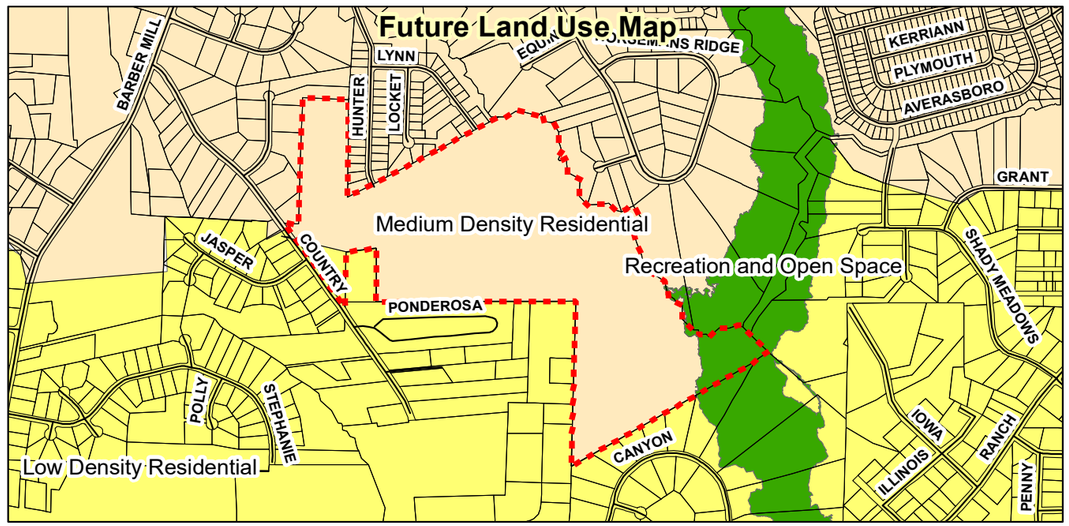
**ATTACHMENTS:**

1) Staff Report Map
2) Application
3) Master Plan Narrative
4) Master Plan
5) Architectural Elevations
6) Neighborhood Meeting Materials
7) Transportation Impact Analysis (TIA)
8) NCDOT Congestion Management Comments
9) Wastewater Allocation Application
10) Recommended Conditions of Approval – Signed




**Request:**
**2021-20-CZM, to Rezone a parcel from Planned Development-Residential (PD-R) to Conditional Single-Family Residential-8 (R-8 CZ).**

Applicant: WithersRavenel, Inc.
Property Owners: Country Lane Investors, LLC
Tag #: 05G03026S

Site
100-yr Flood Zone

N

**Staff Report Map**
**Prepared by: TOC Planning Department**
**February 15, 2022**

**Disclaimer: Town of Clayton assumes no legal responsibility for the quality fo the data represented here.**

Document Path: O:\PLANNING\CONDITIONAL ZONING w_MASTER\2021\2021-20-CZM Country Lane\Staff Report Maps\Staff Report Map - 2021-20-CZM Country Lane.mxd

TOWN OF CLAYTON
Planning Department
111 E. Second St., P.O. Box 879
Clayton, NC 27528
Phone: 919-553-5002
Fax: 919-553-1720

# Conditional Zoning w/Master Plan Coversheet

**Name of Project:** Country Lane **Date:** 10/22/21

**Applicant Name:** WithersRavenel, Inc.

***The following checklist to be completed by applicant:***

[☑] Pre-Application Meeting on: 05/13/20
[☑] Review Fee
[☑] Completed Application
[☑] Owner's Consent Form
[☑] Adjacent Property Owner's List
[☐] Neighborhood Meeting Letter (one copy)
[☐] 2 sets of stamped, addressed, empty envelopes for adjacent property owner notification
[☑] Signed & sealed boundary survey
[☑] Copy of signed & sealed boundary survey in PDF on USB

[☑] Master Plan Set to include the following:
- Cover Sheet
- Survey
- Bubble Plan Outlining:
  a. Where and which uses or groups of uses will occur
  b. The proposed intensity/density of those uses
  c. General location of internal and external network of public right-of-way and public infrastructure
  d. All required elements for establishment of a zoning district including but not limited to dimensional standards, open space network, natural resource preservation, and landscaping or buffering

**Reviewed by:**_____

TOWN OF CLAYTON
Planning Department
111 E. Second St., P.O. Box 879
Clayton, NC 27528
Phone: 919-553-5002
Fax: 919-553-1720

# Conditional Zoning w/Master Plan Application

**Conditional Rezoning w/Associated Site Plan Fee: $1000 + $5.00 per acre**
**Advertising Fee: $200.00**

## SITE INFORMATION

**Name of Project:** Country Lane

**Acreage of Property:** 115.03 Ac. **Zoning District:** PD-R

**County Tag #:** 05G03026S **NC Pin #:** 165804-82-1701

**Address/Location:** (Northeast of the intersection of Jasper Drive with Country Lane)

**Existing Zoning District:** PD-R **Proposed Zoning District:** R-8 CZ

## APPLICANT INFORMATION

**Applicant:** WithersRavenel, Inc.

**Mailing Address:** 115 MacKenan Drive, Cary, NC 27511

**Phone Number:** 919-535-5212 **Fax:** 919-467-6008

**Contact Person:** Brendie Vega

**Email Address:** bvega@withersravenel.com

## PROPERTY OWNER INFORAMTION

**Name:** Country Lane Investors LLC

**Mailing Address:** 5121 Kingdom Way, Suite 200, Raleigh, NC 27607

**Phone Number:** 919-832-0594 **Fax:** _____

**Email Address:** sstroud@naicarolantic.com

***OFFICE USE ONLY***

Date Received: _____ Amount Paid: _____ File Number: _____

*January 2021*

## EXPLANATION OF PROJECT

***Please provide detailed information concerning all requests. Attach additional sheets if necessary.***

The proposed conditional rezoning will allow for the site to be developed as a single-family, detached subdivision for up to 274 lots. It is intended that the development function as a seamless continuation of the homes to the northwest, and is designed to tie-in to these existing streets to provide for connectivity. The site will include amenities for future residents within the subdivision and the design will maximize the preservation of sensitive environmental features located on the property.

Proposed Zoning Conditions: 1. Permitted uses shall be limited to single-family, detached residential dwellings, amenities, and preserved open space. 2. The gross density shall not exceed 2.4 du/ac. 3. Lot adjacent to perimeter boundary shall have a minimum average lot size of 8,000 sf. 4. At least 50% of the required recreation and open space is part of a contiguous parcel. 5. The project shall have a minimum of 30% open space, RCA, and other natural features based on gross acreage. 6. At least 50% of the required recreation and open space is part of a contiguous parcel. (155.203-Part1-I.4.B)

## APPROVAL CRITERIA – REZONING

***All applications for a Conditional Rezoning must address the following Approval Criteria:***

1. Consistency with the adopted plans of the Town.

   The Town's Future Land Use Map designates the majority of the property as "Low-Density Residential" which is intended to support the suburban character with single-family dwellings at up to 3 dwelling units per acre. The proposed plan provides single-family dwellings in a suburban character at a gross density of less than 3 units per acre thereby meeting the Future Land Use Map.

2. Suitability of the subject property for uses permitted by the current vs. the proposed conditional district.

   The existing zoning is accompanied by an existing Master Plan that has expired, making rezoning a necessity. Rezoning to R-8 CZ allows for a more traditional approach to the suburban development of residential units without the context and variation proposed by the previous planned development district.

3. Whether the proposed change tends to improve the balance of uses, or meets specific demand in the Town.

   The proposed change is from one residential district to another one that can be compatible with the Future Land Use Map. It will encourage development of suburban character at a density that is appropriate with the surrounding features. The Town is seeking more single-family residential to balance out requests that have been made to the Town in more recent submittals.

4. The capacity of adequate public facilities and services including schools, roads, recreation facilities, wastewater treatment, water supply facilities and stormwater drainage facilities is available for the proposed conditional district.

   Based on recent discussions with the Town of Clayton Engineering Department in regard to this proposed rezoning request, it is our understanding that adequate public facilities are available for this project, or that they will be available as improvements provided by this project.

5. It has been determined that the legal purposes for which zoning exists are not violated.

   The legal purposes for which zoning exists have not been violated. Further, the Town of Clayton in adopting Conditional Zoning through amendments to the UDO provide for the possibility of mutually agreeable zoning conditions through the rezoning process for this request.

6. It has been determined that there will be no adverse effect upon adjoining property owners unless such effect can be justified by the overwhelming public good or welfare.

   The development of the property as a suburban single-family subdivision is compatible with the adjoining land uses

which contain similar developments and thus will not adversely affect adjoining properties.

7. It has been determined that no one property owner or small group of property owners will benefit materially from the change to the detriment of the general public.

No group will benefit materially to the detriment of the general public from the rezoning nor development of the property.

## APPROVAL CRITERIA- MASTER PLAN

***All associated Master Plans must address the following Approval Criteria:***

1. Compliance with code section 155.203(L) and all other applicable requirements of this chapter, or analysis and justification if it deviates from the requirements of this chapter.

The proposed project is in compliance with the requirements, uses, and buffers of 155.203(L)(2) Planned Development-Residential (PD-R) District. The project made up of over 10 contiguous acres of land, proposes residential use, and provides a perimeter buffer along the project boundaries. This project is intended to provide a variety of housing options for the Town.

2. Consistency with the Clayton General Design guidelines.

The proposed project is consistent with the access, parking, loading, landscaping, screening, buffering, signage, and lighting guidelines outlined in Sections 155.400 through 155.404.

3. Conformance of the proposal with the stated purpose of the requested conditional zoning district.

The district's intent is to provide a mix of housing types, including amenities, buffering, and open space. It is intended for large-scale residential projects. The proposed project is a large-scale residential project on approximately 114.6 acres that contains a community amenity site, perimeter buffering and a minimum of 30% open space and RCA.

4. Compatibility of the proposed development with the adjacent community.

The proposed development consists of single-family detached homes. This is consistent with the surrounding uses of single-family detached homes and manufactured homes. Furthermore, the proposed development is at a density consistent with the closest homes located along Hunter Way, Locket Drive, and Lynn Drive as well as the proximate development of Bristol at Cobblestone.

5. The quality of design intended for each component of the project and the ability of the overall development plan to ensure a unified, cohesive environment at full build-out.

One iconic element of this project is the minimum dedication of 30% open space and RCA of the gross acreage for the site. It was determined that the quality of this project would rely on its preserved and protected lands. With this design principal, quality homes, roads, and amenities were developed that flow around these features to create a quality community. Its emphasis on protection guides design cohesion.

6. Compatible relationships between each component of the overall project.

Country Lane has been intentionally designed to emphasize harmony between access, dwellings, amenities, and the environment. Homes and roads are strategically located to flow around sensitive natural features, leaving much of the project undeveloped. This in turn aesthetically improves the homes located on the project, that will front passive green spaces and ponds.

7. Self-sufficiency of each phase of the overall project.

Each phase of the project will be designed so as to conform to applicable requirements for connectivity, open space, water and sewer service, and stormwater management such that the overall project will be compliant with such standards at each phased condition.

8. Documentation that the proposed infrastructure improvements accommodate the additional impacts caused by the development, or documentation to assure that the development, as proposed, will not overtax the existing public infrastructure systems.

All new infrastructure will be built to Town standards, and it is our understanding based on recent discussions with Engineering staff that adequate public water and sewer capacity are available for this project. This project is also committed to parterning with the Town for the installation of the Town's proposed regional lift station to be located on this site. A TIA will be required in conjunction with the Preliminary Subdivision Plan, which will address any needed transportation-related mitigation requirements.

9. The fiscal impact of the proposal and the proposed financing of required improvements.

Development of this site in any form or fashion requires rezoning of the property. By allowing this rezoning, the Town will be benefit from additional tax base and development of this property in a manner consistent with the Comprehensive Plan. Financing for the development will be provided by the developer, including the development's proportional share of the Town's proposed regional sewer lift station project.

10. The success of the proposal in providing adequate pedestrian and bicycle links within the development and with the adjacent community.

This project will include direct connections to the existing roadway and sidewalk stubs at Hunter Way and Lynn Drive. All new proposed streets will have pedestrian sidewalk connectivity in accordance with Town standards and design guidelines.

11. The effectiveness with which the proposal protects and preserves the ecologically sensitive areas within the development.

Areas of riparian buffers, streams, wetlands and steep slopes will be protected as part of this development plan. There are two proposed stream crossings, both of which are necessary for access and connectivity, and both of which are designed to minimize impact. The plan has been designed so as to identify steep slope areas, which are restricted from residential construction. Although the required riparian buffer along Little Creek is 50' wide, development will not be allowed within 150' of Little Creek.

## APPLICANT AFFIDAVIT

***I/We, the undersigned, do hereby make application and petition to the Town Council of the Town of Clayton to amend the Zoning Ordinance and change the Official Zoning Map of the Town of Clayton as requested.. I hereby certify that I have full legal right to request such action and that the statements or information made in any paper or plans submitted herewith are true and correct to the best of my knowledge. I understand this application, related material and all attachments become official records of the Planning Department of the Town of Clayton, North Carolina, and will not be returned.***

| Brendie Vega | Brendie Vega | 10.22.2021 |
|---|---|---|
| ***Print Name*** | ***Signature of Applicant*** | ***Date*** |

# NEIGHBORHOOD MEETING INFORMATION

**Purpose:**

The purpose of the Neighborhood Meeting is to inform the surrounding property owners of the nature of the proposed land use and/or development features, answer questions, respond to concerns, and solicit comments.

**Meeting Date:**

The neighborhood meeting must be held at least 10 days prior to the 1st scheduled public meeting date.

**Meeting Time & Location:**

The meeting must be held no earlier than 6:00 pm Monday through Friday, and must be held in a location generally accessible to residents within close proximity of the request. The meeting space must be able to comfortably accommodate everyone that receives an invitation.

**Meeting Notice Mailing requirements:**

a. The applicant must contact all adjacent property owners via first class mailing (see sample letter).

b. The mailing must include all the persons, firms, or corporations owning property within 100 feet and immediately adjacent to the subject property. Where the subject property immediately adjoins a public or private right-of-way, landscape or riparian buffer, commonly-owned private area, public property, or homeowners' association property, then letters of notification shall be sent to adjoining property owners as if they directly abut the subject property.

c. The notice must be mailed at least ten (10) calendar days but not more than twenty-five (25) days prior to the date of the Neighborhood Meeting.

**Information required to be provided at the Neighborhood Meeting:**

At a minimum, the following materials must be present and discussed at a Neighborhood Meeting:

i. A copy of the project application.
ii. A schedule of all upcoming public meetings for the application.
iii. A map at a scale that is appropriate to the project and shows neighboring properties and roads.
iv. A map, drawing, or other depiction of the proposed land use change or development proposal.

**Information provided to Planning Department:**

Alert the Planning Department once the date, location, and time of the Neighborhood Meeting are determined.

Deliver the following items to the Planning Department at least ten (10) calendar days prior to the 1st scheduled public meeting in electronic or hard copy format:

- ☐ Adjacent Property Owner's List (aka "mailing list") *Should be submitted with original application packet*
- ☐ Copy of the letter mailed *Should be submitted with original application packet*
- ☐ Attendance Roster (aka "sign-in sheet") *Submit no later than 10 days prior to 1st public meeting date*
- ☐ Neighborhood Meeting Summary Form with minutes (see below) *Submit 10 days prior to 1st public hearing*

*January 2021*

# ADJACENT PROPERTY OWNERS LIST

**Project Name:** _____

***The following are all the persons, firms, or corporations owning property within 100 feet and immediately adjacent to the property (including across street rights of way) subject to this request. Where the subject property immediately adjoins a public or private right-of-way, landscape or riparian buffer, commonly-owned private area, public property, or homeowners' association property, then letters of notification shall be sent to adjoining property owners as if they directly abut the subject property. Please use a separate sheet if necessary***

***It is the responsibility of the applicant to correctly identify the current owner, based upon records in the Johnston County GIS Office, for all property owners of land within the required public notice radius.***

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# SAMPLE NEIGHBORHOOD MEETING LETTER
## (PLACE ON AGENT'S OR OWNER'S LETTERHEAD)

<Date>

Dear Clayton Area Property Owner:

The purpose of this letter is to notify you of an application filed with the Town of Clayton for a land use change or development proposal involving property adjacent to, or in close proximity to, property shown in your ownership by Johnston County tax records. Per Town of Clayton regulations, a Neighborhood Meeting will be held to provide information to area residents about the proposal. A representative of the applicant will be present to explain their application, answer questions, and solicit comments.

Meeting Date: _____ Meeting Time: _____

Meeting Location: _____

Type of Application: _____

Project/proposal property address: _____

Description of project/proposal: _____

_____

Upcoming public meetings for this application (Planning Board and/or Town Council): _____

At a minimum, the following will be available for your inspection at the Neighborhood Meeting:

1. A copy of the project application.
2. A schedule of all upcoming public meetings for the application.
3. A map at a scale that is appropriate to the project and shows neighboring properties and roads.
4. A map, drawing, or other depiction of the proposed land use change or development proposal.

A map is enclosed with this letter showing the location of the property that is subject to this application for land use change and/or development proposal.

If you have any questions prior to or after this meeting, you may contact us at ***<Insert phone number of applicant>***. You may also contact the Town of Clayton Planning Department at 919-553-5002.

Sincerely,

<Applicant>

Cc: Town of Clayton Planning Department

*January 2021*

# NEIGHBORHOOD MEETING ATTENDANCE ROSTER

**Project:** _____

**Application:** _____

**Location/Date:** _____

| NAME | ADDRESS |
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| **18** | |
| **19** | |
| **20** | |

*January 2021*

# NEIGHBORHOOD MEETING SUMMARY FORM

**FILL OUT THE FOLLOWING:**

Application:

Date of Mailing:

Date of Meeting: Time of Meeting:

Location of Meeting:

I hereby attest that letters were mailed to the addresses listed on the Adjacent Property Owners List (attached) ten days prior to the Neighborhood Meeting, and that all required information was presented at the Meeting:

Printed Name: Signature:

**Meeting Summary/Minutes**: *provide a summary of the discussion held at the meeting, including issues raised and any resolution discussed, and any changes made to the application as a result of the meeting.*

***Please write clearly (or submit a typed summary). Use additional sheets if necessary.***

TOWN OF CLAYTON
Planning Department
111 E. Second St., P.O. Box 879
Clayton, NC 27528
Phone: 919-553-5002
Fax: 919-553-1720

# OWNER'S CONSENT FORM

***Consent is required from the property owner(s) if an agent will act on their behalf. A separate form is required from each owner. Consent is valid for one year from date of notary, unless otherwise specified. All fields must be completed.***

**Project Name:** Country Lane **Address or PIN #:** PIN: 165804-82-1701

**AGENT/APPLICANT INFORMATION:**

WithersRavenel, Inc.
(Name - type, print clearly)

115 MacKenan Drive
(Address)
Cary, NC 27511
(City, State, Zip)

I hereby give **CONSENT** to the above referenced agent/applicant to act on my behalf, to submit applications and all required materials and documents, and to attend and represent me at all meetings and public hearings pertaining to the following processes (*list applicable requests*):

Rezoning
Subdivision Plan
Special Use Permit

Furthermore, I hereby give consent to the party designated above to agree to all terms and conditions which may arise as part of the approval of this application.

I hereby certify that I have authority to execute this consent form as/on behalf of the property owner. I understand that any false, inaccurate or incomplete information provided by me or my agent will result in the denial, revocation or administrative withdrawal of this application, request, approval or permits. I further agree to all terms and conditions which may be imposed as part of the approval of this application.

**OWNER AUTHORIZATION:**

Country Lane Investors, LLC
(Name - type, print clearly)

5121 Kingdom Way
(Address)

(Owner's Signature)

Raleigh, NC 27607
(City, State, Zip)

**STATE OF** North Carolina
**COUNTY OF** Wake

Sworn and subscribed before me Kristina Leaphart, a Notary Public for the above State and County, this the 17th day of July, 2020.

**SEAL**

KRISTINA LEAPHART NOTARY PUBLIC WAYNE COUNTY, NC MY COMMISSION EXPIRES 7/6/2022

Kristina Leaphart
**Notary Public**

**My Commission Expires:** 7/6/2022

*July 2018*

Country Lane Legal Description

Beginning at an existing axle, said axle having NC grid coordinates of (NAD 83 – 2011) of N=683,679.0082, E=2,156,182.8168, thence from said beginning point South 88°41'59" East 406.86 feet to an existing axle, thence South 00°08'09" East 367.24 feet to an existing iron pipe, thence South 00°46’27" West 498.56 feet to an existing iron pipe, thence North 61°23'06" East 1,443.22 feet to a point, thence North 85°50'54" East 384.56 feet to an existing iron pipe, thence South 18°16'19" East 28.79 feet to an existing iron pipe, thence South 25°15'22" East 50.73 feet to an existing iron pipe, thence South 83°17'57" East 54.30 feet to an existing iron pipe, thence South 82°48'44" East 21.24 feet to an existing iron pipe, thence South 31°17'37" East 82.44 feet to an existing iron pipe, thence South 21°13'42" East 689.36 feet to an existing iron pipe, thence South 79°37'03" East 236.21 feet to an existing iron pipe, thence South 68°04'16" East 58.31 feet to an existing iron pipe, thence South 29°03'04" East 762.46 feet to an existing iron pipe, thence South 63°32'58" East 705.65 feet to a calculated point, thence South 47°45'45" East 84.95 feet to a new iron pipe, thence South 47°45'45" East 273.27 feet to an existing iron pipe, thence South 60°04'17" West 1,978.56 feet to an existing rebar, thence North 02°08'58" East 1,443.32 feet to an existing flat metal bar, thence South 89°21'48" West 391.23 feet to an existing iron pipe, thence South 89°37'49" West 137.76 feet to an existing iron pipe, thence South 89°16'05" West 1,171.48 feet to an existing rebar, thence North 00°53'12" East 480.16 feet to an existing rebar, thence South 81°56'47" West 257.52 feet to an existing iron pipe, thence South 00°43'06" West 447.48 feet to an existing iron pipe, thence South 00°52'33" West 44.44 feet to an existing iron pipe on the eastern right of way of Country Lane (SR 1626) (60’ Public R/W), thence with said right of way North 35°01'06" West 917.41 feet to an existing iron pipe, thence leaving said right of way South 86°19'11" East 145.41 feet to an existing iron pipe, thence North 00°19'43" West 865.51 feet to an existing axle, thence North 00°29'28" West 242.61 feet to the point and place of beginning, containing an area of 117.633 acres (5,124,113 sq ft) more or less.

WithersRavenel
Our People. Your Success.

# Country Lane Conditional Zoning Master Plan Narrative

Town of Clayton, North Carolina

February 7, 2022

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# I. Purpose and Intent

The proposed rezoning is being submitted as a conditional zoning request. The addition of conditions to the request is intended to provide a limit to the uses, a minimum lot size along the adjacent properties, and a maximum density and number of dwelling units. The current zoning has an expired site plan; therefore, a rezoning is needed to amend the current zoning map and district.

## A. Compatibility

The proposal is compatible with the adjacent community. It is designed to create a harmonious relationship with all surrounding uses. There are no foreseeable adverse impacts to property owners.

## B. Phasing

As shown on the master plan, the project is to be completed in three phases. Each phase will be self-sufficient with regards to infrastructure and amenities.

# II. Conditional Zoning District Approval Criteria

The Town Council may consider the following factors in its legislative decision.

## A. Consistency

Consistency with adopted plans and policies of the Town.

The proposal is consistent with the adopted plans and policies of the Town of Clayton. The Town's Future Land Use Map designates the majority of the property as "Low-Density Residential" which is intended to support the suburban character with single-family dwellings at up to three dwelling units per acre. The proposed plan provides single-family dwellings in a suburban character at a gross density of less than three units per acre, thereby meeting the Future Land Use Map.

## B. Suitability

Suitability of the subject property for uses permitted by the current versus the proposed district.

The existing zoning is accompanied by an existing Master Plan that has expired, making rezoning a necessity. Rezoning to CZ-R allows for a more traditional approach to the suburban development of residential units without the context and variation proposed by the previous planned development district.

## C. Balance of Uses and Specific Demand

Whether the proposed change tends to improve the balance of uses or meets a specific demand in the Town.

The proposed change is from one residential district to another one that can be compatible with the Future Land Use Map. It will encourage development of suburban character at a density that is appropriate with the surrounding features.

The Town is seeking more single-family residential to balance out requests that have been made to the Town in more recent submittals.

## D. Public Facilities

The capacity of adequate public facilities and services including schools, roads, recreation facilities, wastewater treatment and water supply facilities, and stormwater drainage facilities for the proposed conditional district.

Based on recent discussions with the Town of Clayton Engineering Department in regard to this proposed rezoning request, it is our understanding that adequate public facilities are available for this project, or that they will be available as improvements provided by this project.

1. Schools

   The subdivision is expected to be served by the Johnston County Public School System. Based on the JCPS School Finder, for the 2021-22 calendar year the assigned schools are West Clayton Elementary, Clayton Middle School, and Clayton High School. None of the schools are listed in the "2021-2022 Capped Schools" list.

2. Roads

   The street network will consist of public streets in accordance with the Town of Clayton typical street cross section. The road accessing the southern lots will have a modified road section as shown on Sheet C2.0 – Master Plan. This modified road section will be median divided and provide two separate travel lanes allowing emergency vehicle access in the even one lane is obstructed.

3. Recreation

   In addition to participation in the Town's Recreation and Open Space Fees, the site will have its own recreation with the construction of an amenity center and the addition of recreational opportunities throughout the neighborhood.

4. Stormwater

   In accordance with the Town's requirements, the SCMs will be designed to treat and control one inch of rainfall. Peak discharge will be controlled at or below pre-development levels for the 1-year, 2-year, 10-year, and 25-year storm events.

## E. Legal Purposes

It has been determined that the legal purposes for which zoning exists are not contravened.

The legal purposes for which zoning exists have not been violated. Further, the Town of Clayton in adopting Conditional Zoning through amendments to the UDC provide

for the possibility of mutually agreeable zoning conditions through the rezoning process for this request.

### F. Adverse Effects

It has been determined that there will be no adverse effect upon adjoining property owners unless such effect can be justified by the overwhelming public good or welfare.

The development of the property as a suburban single-family subdivision is compatible with the adjoining land uses which contain similar developments and thus will not adversely affect adjoining properties.

### G. Material Benefit

It has been determined that no one property owner or small group of property owners will benefit materially from the change to the detriment of the general public.

No group will benefit materially to the detriment of the general public from the rezoning nor development of the property.

## III. Master Plan Approval Criteria

### A. Compliance with § 155.203(L)

Compliance with § 155.203(L) and all other applicable requirements of Chapter 155, or analysis and justification if it deviates from the requirement of Chapter 155.

The proposed project complies with the requirements, uses, and buffers of the CZ-R district. The project made up of over 10 contiguous acres of land, proposes residential use, and provides a perimeter buffer along the project boundaries. This project is intended to provide a variety of housing options for the Town.

### B. Clayton General Design Guidelines

Consistency with the Clayton General Design Guidelines.

The proposed project is consistent with the access, parking, loading, landscaping, screening, buffering, signage, and lighting guidelines outlined in Sections 155.400 through 155.404.

### C. Conformance with Purpose

Conformance of the proposal with the stated purpose of the requested conditional zoning district.

The district's intent is to provide a mix of housing types, including amenities, buffering, and open space. It is intended for large-scale residential projects. The proposed project is a large-scale residential project on approximately 114.6 acres that contains a community amenity site, perimeter buffering and a minimum of 30% combined RCA and open space.

## D. Compatibility with Community

Compatibility of the proposed development with the adjacent community.

The proposed single-family residential development is at a density consistent with the closest homes located along Hunter Way, Locket Drive, and Lynn Drive as well as the proximate development of Bristol at Cobblestone. These homes are in the Residential 10 (R-10) zoning district. The PD-R will be compatible with the surrounding Residential Estate (RE) zoning district because the gross density will remain under 2.6 units per acre. The maximum density permitted in RE is 2.1 units per acre. In addition, RE, as defined in the UDC, permits cluster subdivisions with reduced lot sizes and more open space, similar to this proposal.

## E. Quality

The quality of design intended for each component of the project and the ability of the overall development plan to ensure a unified, cohesive environment at full build-out.

One iconic element of this project is the minimum dedication of 30% combined RCA and open space for the site. It was determined that the quality of this project would rely on its preserved and protected lands. With this design principal, quality homes, roads, and amenities were developed that flow around these features to create a quality community. Its emphasis on protection guides design cohesion.

## F. Compatible Relationships

Compatible relationships between each component of the overall project.

Country Lane has been intentionally designed to emphasize harmony between access, dwellings, amenities, and the environment. Homes and roads are strategically located to flow around sensitive natural features, leaving much of the project undeveloped. This in turn aesthetically improves the homes located on the project, that will front passive green spaces and ponds.

## G. Self-sufficiency

Self-sufficiency of each phase of the overall project.

Each phase of the project will be designed so as to conform to applicable requirements for connectivity, open space, water and sewer service, and stormwater management such that the overall project will be compliant with such standards at each phased condition.

## H. Fiscal Impact

The fiscal impact of the proposal and the proposed financing of required improvements.

Development of this site in any form or fashion requires rezoning of the property. By allowing this rezoning, the Town will be benefit from additional tax base and development of this property in a manner consistent with the Comprehensive Plan.

Financing for the development will be provided by the developer, including the development's proportional share of the Town's proposed regional sewer lift station project.

### I. Pedestrian and Bicycle Links

The success of the proposal in providing adequate pedestrian and bicycle links within the development and with the adjacent community.

This project will include direct connections to the existing roadway and sidewalk stubs at Hunter Way and Lynn Drive. All new proposed streets will have pedestrian sidewalk connectivity in accordance with Town standards and design guidelines.

### J. Ecological Sensitivity

The effectiveness with which the proposal protects and preserves the ecologically sensitive areas within the development.

Areas of riparian buffers, streams, and wetlands will be protected as part of this development plan. There are two proposed stream crossings, both of which are necessary for access and connectivity, and both of which are designed to minimize impact. Although the required riparian buffer along Little Creek is 50' wide, development will not be allowed within 150' of Little Creek.

## IV. General Information

### A. Project Data

| | |
|---|---|
| Project Name | Country Lane |
| Applicant | WithersRavenel |
| Existing Zoning | PD-R |
| Proposed Zoning | CZ-R |
| NC PIN | 165804821701 |
| County Tag | 05G03026S |
| Developer | Clayton Properties Group, Inc. dba Mungo Homes of North Carolina, Inc. |
| **Authorized Agent** | WithersRavenel, Inc. |

### B. Vicinity Map

## V. Master Plan Summary

The project is located on Country Lane Road with additional access points connecting to Hunter Way and Lynn Drive, which are currently stubbed to the project site. The master plan for this single-family subdivision will not exceed 2.6 dwelling units per acre or 299 lots.

## VI. Fiscal Impacts

The proposed product and pricing will be commensurate with the existing homes on adjacent properties; therefore, it is reasonable to assert that the development will have little to no impact on the value of neighboring properties.

The compact lot layout creates less infrastructure demand on the part of the Town than a conventional large-lot subdivision. It reduces the Town's maintenance costs. In addition, the design provides an efficient road network for Town services.

The additional rooftops will increase the possibilities for nonresidential development and investment.

## VII. Consistency with Plans and Codes

The Town of Clayton's comprehensive plan designates the majority of the property as "Low-Density Residential." The plan describes this land use as suburban in nature with single-family dwellings at up to three dwelling units per acre. The proposed development has a density of less than three units per acre and meets the criteria described.

### A. Zoning

The existing PD zoning district eliminates the possibility of development without a rezoning. The proposed rezoning district is Conditional Zoning (CZ-R). The Unified Development Code § 155.200(c) states, "The R-8 district is established to provide for

orderly suburban residential development and redevelopment and is intended to maintain residential areas at suburban densities characterized predominantly by single-family detached units."

CZ-R allows for a traditional approach to residential suburban development without the variation proposed by the previous planning district. The proposed development is consistent with the stated purpose of the conventional R-8 district.

## B. Conditions

1. Permitted uses shall be limited to single-family, detached residential dwellings, amenities, and preserved open space.
2. The gross density shall not exceed 2.6 du/ac, and the maximum number of dwelling units shall not exceed 299.
3. Lots adjacent to perimeter boundary shall have a minimum lot size of 8,000 sf.
4. At least 50% of the required recreation and open space will be part of a contiguous parcel.
5. A minimum of 45 acres of the site will be comprised of open space. An additional 1-acre site will be designated for a Fitness/Recreation Center for the neighborhood.

   At least one of the following amenities will be included in the development:

   - Pool and cabana
   - Splashpad
   - Playground
   - Clubhouse

   At least two of the following amenities will be included in the development

   - Great lawn
   - Soccer lawn
   - Picnic shelter
   - Pavilion
   - Firepit
   - Dog park
6. The project shall have a minimum of 30% open space, based on gross acreage.
7. A two-lane median divided residential collector street will provide access from the northern phases to the southern phase of the development, acting as two means

of access in the event of emergencies, while also minimizing environmental impacts.

8. All TIA requirements in will be installed prior to the issuance of the first Certificate of Occupancy.
    a. Barber Mill Road at Amelia Church Road
        - Construct an exclusive southbound right-turn lane on Barber Mill Road with 100' of full-width storage with appropriate decel and taper.
        - Construct an exclusive eastbound left-turn lane on Amelia Church Road with 200' of full-width storage with appropriate decel and taper.
    b. Barber Mill Road at Country Lane Road
        - Construct an exclusive northbound right-turn lane on Barber Mill Road with 100' of full-width storage with appropriate decel and taper.
        - Construct an exclusive southbound left-turn lane on Barber Mill Road with 100' of full-width storage with appropriate decel and taper.
9. No more than 30 Certificates of Occupancy will be issued within the subdivision before the second required access point is constructed.
10. A minimum of four different home plans, each with two different elevations, will be provided to add variety to the neighborhood.
11. Elevations provided are representative of the product that may be built while still meeting the architectural design commitments. Elevations may change due to revisions in base models, finishes preferred by home buyers, home plans more suitable for individual lot layout and driveway placement, or other factors. Alternative elevations proposed will be reviewed and approved by the Planning Director for consistency with the architectural design commitments at time of rezoning.
12. All homes will have 2-car garages.
13. Energy efficient features will include a minimum of three of the following: 14-SEER Energy-efficient HVAC System, Air Barrier & Sealing, Carbon Monoxide Detectors, Decorative Fiberglass Front Door, Gas Heat (2nd Floor Electric Heat Pump if Separate System), LED Lighting Throughout Home, Low VOC Carpet, Low VOC Paint, Low-E Insulated Single-hung Vinyl Widows w/ Tilt Out Feature, MERV 8 HVAC Filters, Programmable Thermostat, R-38 Attic Insulation, Separate

HVAC System or Zone for Each Floor (per plan), Smoke Alarms in Each Bedroom, Water-saving Faucets & Shower Heads.

### C. Permitted Uses

1. Single Family House
2. Park
3. Fitness/Recreation Center
4. Utility, Minor

## VIII. Land Intensity and Design Controls

The proposed development is single-family residential, and the maximum density is less than three dwelling units per acre. Lots will be a minimum of 8,000 square feet where they are adjacent to the project boundary. Internal lots will be a minimum average of 6,000 square feet.

## IX. Dimensional Standards Table

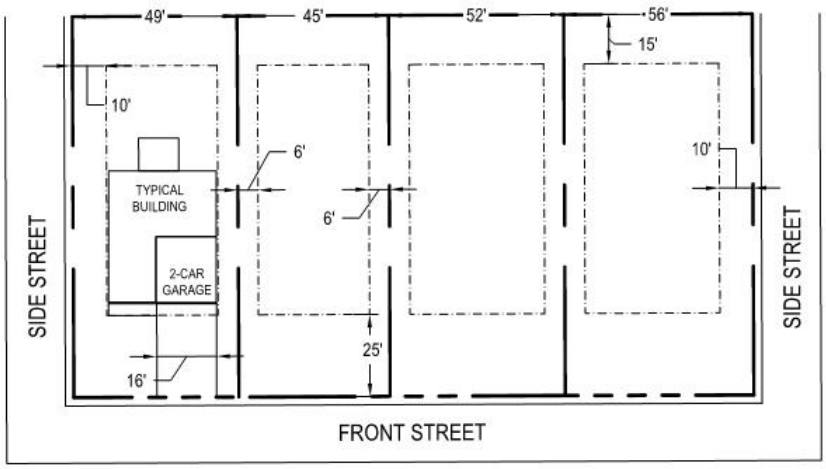
| Unit Type | Minimum Lot Area (SF) | Minimum Lot Width (ft)* | Maximum Lot Coverage (%)** | Maximum Impervious Surface (%) |
|---|---|---|---|---|
| **Single-family** | 6,000 min. average internal; 8,000 min. average adjacent to parcel boundary | 45 ft* | 50% | 60% |

**As measured at the front setback line*

***The maximum area of the lot that is permitted to be covered by buildings, including both principal structures and accessory buildings. Building coverage does not include paved areas such as driveways, uncovered porches or patios, decks, swimming pools or pool cages, or roof overhangs of less than three feet.*

| Unit Type | Front | Side Interior | Side Street | Rear | Maximum Height |
|---|---|---|---|---|---|
| **Single-family** | 25’ | 6’ | 10’ | 15’ | 35’ |

*Encroachments into the setbacks shall be permitted as listed in UDC dated 11-15-2021.*




FRONT LOAD

## X. Landscaping and Lighting

Landscaping and lighting elements will meet Town standards unless otherwise noted and approved by the Town Council.

A 15'-foot-wide Type C Landscape Buffer will be provided along the Development boundary as shown on the Master Plan. The Type C Landscape Buffer shall include a minimum 6-foot-high opaque screening (at installation) consisting of a wall, fence, berm, evergreen hedge, or combination thereof.

Street yard trees will be provided as required by the UDC.

The development will be served by Duke Energy. Street lighting in the subdivision will meet the Town standards.

## XI. Parking and Loading Requirements

Parking and loading will meet Town standards unless otherwise noted and approved by the Town Council.

A mailbox kiosk and dedicated parking will be provided as approved by the USPS and the Town of Clayton.

## XII. Design Commitments

The development will meet the standards outlined in the Design Guidelines dated February 20, 2006, unless otherwise noted and approved by the Town Council.

Energy efficient features will include the following: 14-SEER Energy-efficient HVAC System, Air Barrier & Sealing, Carbon Monoxide Detectors, Decorative Fiberglass Front Door, Gas Heat (2nd Floor Electric Heat Pump if Separate System), LED Lighting Throughout Home, Low VOC Carpet, Low VOC Paint, Low-E Insulated Single-hung Vinyl Widows w/ Tilt Out Feature, MERV 8 HVAC Filters, Programmable Thermostat, R-38 Attic Insulation, Separate HVAC System or Zone for Each Floor (per plan), Smoke Alarms in Each Bedroom, Water-saving Faucets & Shower Heads.

## XIII. Open Space and Amenities

A minimum of 45 acres of the site will be comprised of open space. An additional 1-acre site will be designated for a Fitness/Recreation Center for the neighborhood.

At least one of the following amenities will be included in the development:

- Pool and cabana
- Splashpad
- Playground
- Clubhouse

At least two of the following amenities will be included in the development

- Great lawn
- Soccer lawn
- Picnic shelter
- Pavilion
- Firepit
- Dog park

## XIV. Natural Resources and Environmental Preservation

Areas of floodplain, riparian buffers, streams, wetlands will be protected as resource conservation areas (RCA) as part of this development. There are two proposed stream crossings, both of which are necessary for access and connectivity, and both of which are designed to minimize impacts.

## XV. Stormwater Management

The proposed development lies within the Neuse River Basin. The site is subject to Neuse River Basin nutrient requirements and is subject to meet local requirements in the Town of Clayton stormwater ordinance in place at the time of preliminary plat submittal. The following requirements apply to the subject site:

- Stormwater systems shall be designed in accordance with the NCDEQ Design Manual.
- Stormwater systems shall be designed to control and treat the runoff generated from 1-inch of precipitation. The measure shall discharge the storage volume at a rate equal or less than the pre-development discharge rate for the 1-year, 24-hour storm. Stormwater flows from the development shall not be erosive nor contribute to the degradation of waterways of the State.

- System will control post-development stormwater runoff rates so that there is no increase in peak flow rates from the pre-development condition for the 1-year, 2-year, 10-year, and 25-year 24-hour duration storm events at the watershed level at each point of discharge.
- Nitrogen loads from the proposed development shall not exceed 3.6 lbs/ac/year as part of the Neuse River Basin rules or "runoff volume match" (runoff volume post-development shall not be more than 10% higher than the annual runoff volume pre-development)
- All stormwater control measures (SCMs) used to meet these requirements shall be designed to have a minimum of 85% average annual removal for Total Suspended Solids (TSS).
- All proposed SCMs shall be designed per NCDEQ minimum design criteria in order to achieve at least 85% reduction of total suspended solid export. The proposed impervious area will be captured to the maximum extent practicable and shall be diverted to the proposed SCMs for treatment.

# XVI. Public Facilities

Having discussed the proposal with the Town's Engineering Department, we understand that adequate public facilities and infrastructure are available or will become available as improvements for the project.

## A. Water and Sewer Infrastructure

The development will be served by public water and sanitary sewer utility systems. The utilities shall be designed to conform with the Town of Clayton standards and specifications. Potable water from Johnston County's water system exists along Country Lane and will be extended through the development. A master meter will be installed on the water connection at Country Lane. Connections to the Town of Clayton water system on Hunter Way and Lynn Drive will also provide water service to the development. The proposed development will be responsible for the installation of a sanitary sewer system that will serve up to 299 residential units in Country Lane including the installation of a Pump Station and approximately 8,000 linear feet of Force Main Sewer. Easements will be provided for the public utilities that are installed outside of public right of way per Town of Clayton Requirements.

## B. Multimodal Connections

1. Pedestrian Sidewalks

   This project will include direct connections to the existing roadway and sidewalk stubs at Hunter Way and Lynn Drive. All new proposed streets will have pedestrian sidewalk connectivity in accordance with Town standards and design guidelines. A required 5' sidewalk will be installed along Country Lane's frontage.

2. Greenway

   A public greenway easement shall be dedicated along the eastern property boundary or a location approved by the Town of Clayton Planning Director or

their designee. The developer may choose to build parts of the greenway and provide trail connections from the public right-of-way.

## XVII. Transportation Impact Analysis

Based on the TIA prepared by Exult Engineering, the following improvements will be required of the development:

### A. Barber Mill Road at Amelia Church Road

- Construct an exclusive southbound right-turn lane on Barber Mill Road with 100' of full-width storage with appropriate decel and taper.
- Construct an exclusive eastbound left-turn lane on Amelia Church Road with 200' of full-width storage with appropriate decel and taper.

### B. Barber Mill Road at Country Lane Road

- Construct an exclusive northbound right-turn lane on Barber Mill Road with 100' of full-width storage with appropriate decel and taper.
- Construct an exclusive southbound left-turn lane on Barber Mill Road with 100' of full-width storage with appropriate decel and taper.

# REZONING DRAWINGS FOR

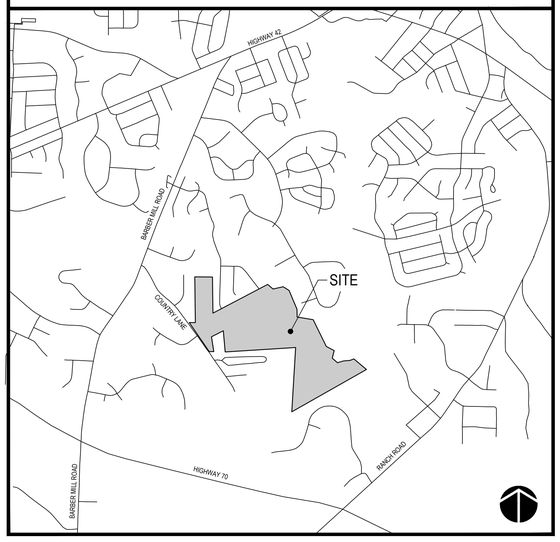
# COUNTRY LANE

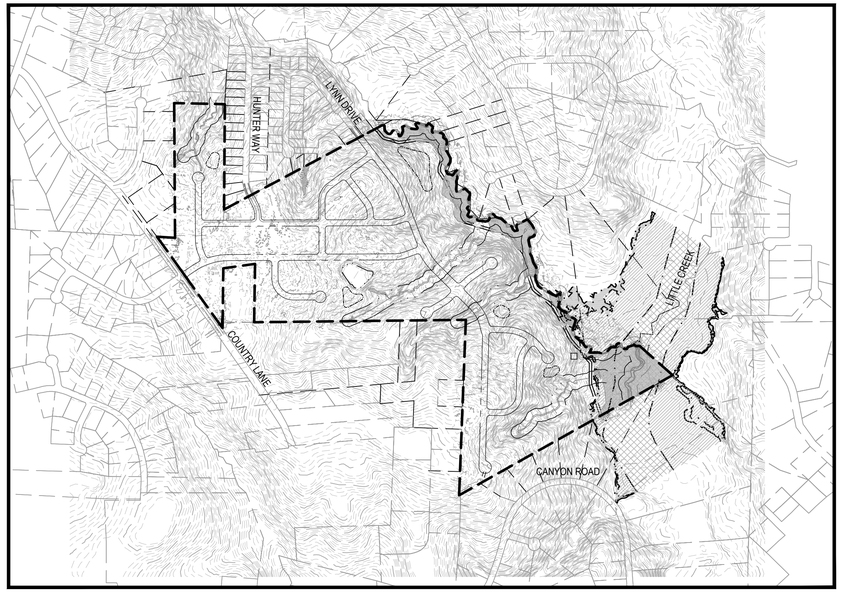
## CLAYTON, NORTH CAROLINA

1st SUBMITTAL - AUGUST 3, 2020
2nd SUBMITTAL - JANUARY 8, 2021
3rd SUBMITTAL - MARCH 1, 2021
4th SUBMITTAL - JUNE 25, 2021
5th SUBMITTAL - OCTOBER 22, 2021
6th SUBMITTAL - DECEMBER 8, 2021
7th SUBMITTAL - JANUARY 10, 2022
8th SUBMITTAL - FEBRUARY 7, 2022

REZONING DRAWINGS
FOR: COUNTRY LANE
WR PROJECT NO.022004020

VICINITY MAP
1"=1,500'




| INDEX OF SHEETS | |
|---|---|
| Sheet Number | Sheet Title |
| C0.0 | Cover |
| C1.0 | Existing Conditions |
| C2.0 | Master Plan |

| SITE DATA TABLE | |
|---|---|
| OWNER NAME | COUNTRY LANE INVESTORS LLC |
| OWNER ADDRESS | 5121 KINGDOM WAY SUITE 200 |
| | RALEIGH, NORTH CAROLINA 27607 |
| PARCEL PIN | 165804-82-1701 |
| DEED BOOK AND PAGE | DB 04496 PG 0661 |
| TOWNSHIP | CLAYTON |
| ETJ | CLAYTON |
| WATER DISTRICT | CLAYTON |
| CITY LIMITS | CLAYTON |
| EXISTING ZONING | PD-R |
| PROPOSED ZONING | CZ-R |
| WITHIN FEMA FLOOD HAZARD AREA | YES (NO FLOODPLAIN IMPACT) |
| SITE ACREAGE | 115.03 ACRES |
| TOTAL PROPOSED LOTS | 299 MAXIMUM |
| LOT DENSITY | 2.60 DU/AC MAXIMUM |
| MINIMUM LOT SIZE | 6,000 SF |
| MINIMUM LOT SIZE (ADJACENT TO PROJECT BOUNDARY) | 8,000SF |

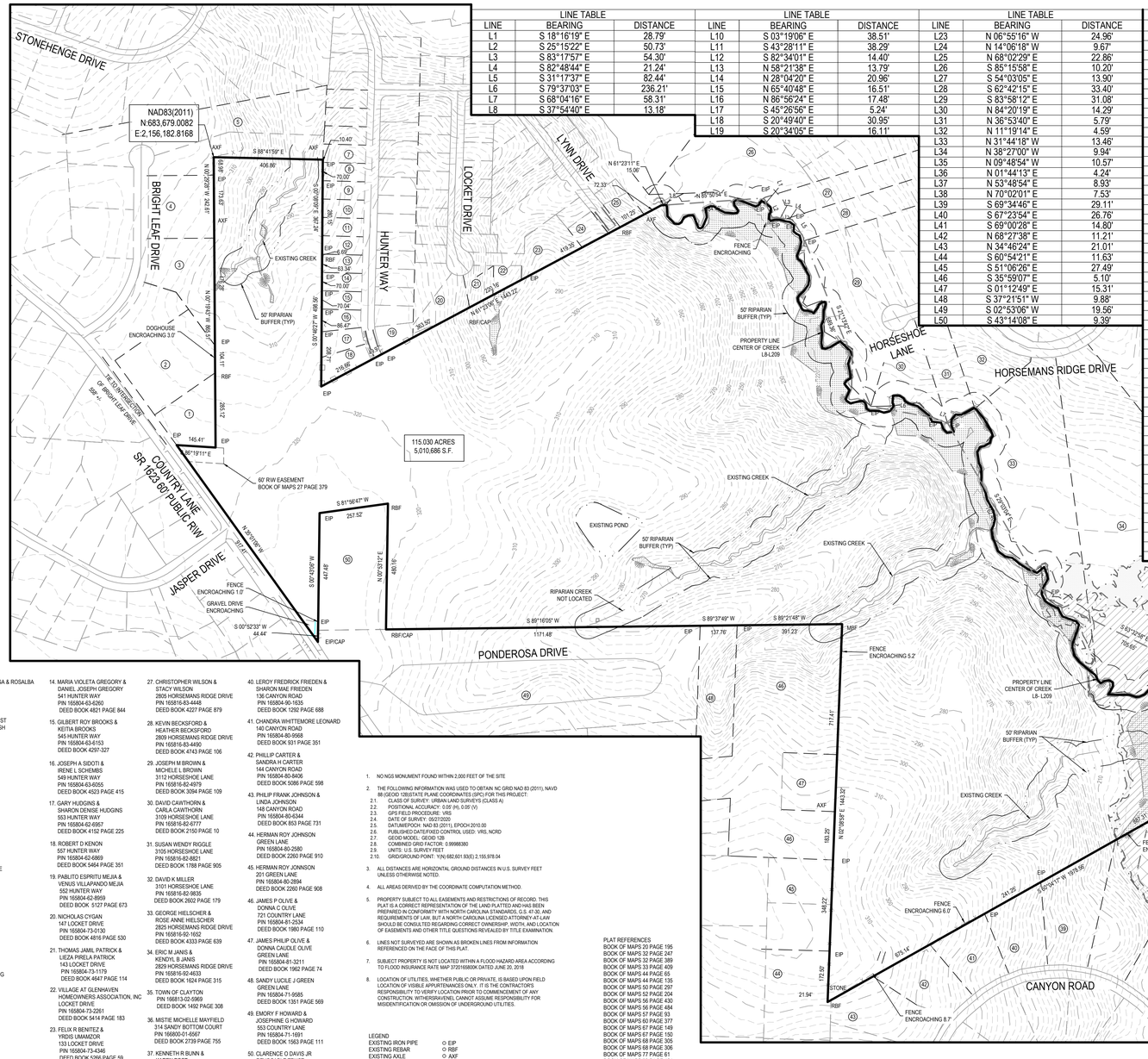
PREPARED BY:

WithersRavenel
Engineers | Planners | Surveyors
115 MacKenan Drive | Cary, NC 27511 | t: 919.469.3340 | license #: F-1479 | www.withersravenel.com

DEVELOPER

CLAYTON PROPERTIES GROUP, INC. DBA
MUNGO HOMES OF NORTH CAROLINA, INC.
2521 SCHIEFFELIN ROAD SUITE 116
APEX, NC 27502
(919)-303-8525

K:\DV\DS-SHOP\004020--Country Lane\CAD\Drawing Sets\Master Plan\C0.0 Cover.dwg, Monday, February 7, 2022 3:42:55 PM, HUSTON, CALEB




| LINE TABLE | | |
|---|---|---|
| LINE | BEARING | DISTANCE |
| L1 | S 18°16'19" E | 28.79' |
| L2 | S 25°15'22" E | 50.73' |
| L3 | S 83°17'57" E | 54.30' |
| L4 | S 82°48'44" E | 21.24' |
| L5 | S 31°17'37" E | 82.44' |
| L6 | S 79°37'03" E | 236.21' |
| L7 | S 68°04'16" E | 58.31' |
| L8 | S 37°54'40" E | 13.18' |

| LINE TABLE | | |
|---|---|---|
| LINE | BEARING | DISTANCE |
| L10 | S 03°19'06" E | 38.51' |
| L11 | S 43°28'11" E | 38.29' |
| L12 | S 82°34'01" E | 14.40' |
| L13 | N 58°21'38" E | 13.79' |
| L14 | N 28°04'20" E | 20.96' |
| L15 | N 65°40'48" E | 16.51' |
| L16 | N 86°56'24" E | 17.48' |
| L17 | S 45°26'56" E | 5.24' |
| L18 | S 20°49'40" E | 30.95' |
| L19 | S 20°34'05" E | 16.11' |

| LINE TABLE | | |
|---|---|---|
| LINE | BEARING | DISTANCE |
| L23 | N 06°55'16" W | 24.96' |
| L24 | N 14°06'18" W | 9.67' |
| L25 | N 68°02'29" E | 22.86' |
| L26 | S 85°15'58" E | 10.20' |
| L27 | S 54°03'05" E | 13.90' |
| L28 | S 62°42'15" E | 33.40' |
| L29 | S 83°58'12" E | 31.08' |
| L30 | N 84°20'19" E | 14.29' |
| L31 | N 36°53'40" E | 5.79' |
| L32 | N 11°19'14" E | 4.59' |
| L33 | N 31°44'18" W | 13.46' |
| L34 | N 38°27'00" W | 9.94' |
| L35 | N 09°48'54" W | 10.57' |
| L36 | N 01°44'13" E | 4.24' |
| L37 | N 53°48'54" E | 8.93' |
| L38 | N 70°02'01" E | 7.53' |
| L39 | S 69°34'46" E | 29.11' |
| L40 | S 67°23'54" E | 26.76' |
| L41 | S 69°00'28" E | 14.80' |
| L42 | N 68°27'38" E | 11.21' |
| L43 | N 34°46'24" E | 21.01' |
| L44 | S 60°54'21" E | 11.63' |
| L45 | S 51°06'26" E | 27.49' |
| L46 | S 35°59'07" E | 5.10' |
| L47 | S 01°12'49" E | 15.31' |
| L48 | S 37°21'51" W | 9.88' |
| L49 | S 02°53'06" W | 19.56' |
| L50 | S 43°14'08" E | 9.39' |

| LINE TABLE | | |
|---|---|---|
| LINE | BEARING | DISTANCE |
| L51 | N 73°06'57" E | 17.12' |
| L52 | S 89°15'58" E | 16.18' |
| L53 | S 74°29'21" E | 27.12' |
| L54 | S 81°52'38" E | 13.20' |
| L55 | S 52°18'32" E | 19.66' |
| L56 | S 06°25'41" W | 23.47' |
| L57 | S 47°49'06" E | 12.04' |
| L58 | S 60°16'39" E | 16.72' |
| L59 | S 13°28'13" E | 24.93' |
| L60 | S 11°15'57" W | 25.47' |
| L61 | S 21°27'08" W | 30.06' |
| L62 | S 15°41'35" E | 12.27' |
| L63 | S 50°47'17" E | 16.06' |
| L64 | S 27°52'27" E | 60.84' |
| L65 | S 02°25'53" E | 16.55' |
| L66 | S 09°38'04" W | 19.52' |
| L67 | S 35°41'22" W | 27.31' |
| L68 | S 45°52'28" W | 24.93' |
| L69 | S 29°56'10" W | 10.99' |
| L70 | S 07°41'13" E | 12.60' |
| L71 | S 29°02'28" E | 20.45' |
| L72 | S 20°02'51" E | 13.33' |
| L73 | S 55°51'51" E | 8.84' |
| L74 | S 86°21'44" E | 14.40' |
| L75 | S 72°16'13" E | 13.71' |
| L76 | S 60°05'27" E | 9.94' |
| L77 | N 36°18'36" E | 25.59' |
| L78 | N 20°12'40" E | 12.10' |
| L79 | N 53°46'15" E | 14.57' |
| L80 | N 82°09'13" E | 11.47' |
| L81 | S 20°04'22" E | 8.75' |
| L82 | S 15°30'30" W | 13.68' |
| L83 | S 18°58'12" W | 13.66' |
| L84 | S 00°11'38" W | 31.89' |
| L85 | S 19°51'35" W | 24.61' |
| L86 | S 00°52'56" E | 8.48' |
| L87 | S 08°07'37" E | 19.44' |
| L88 | S 04°47'59" W | 39.02' |
| L89 | S 10°32'02" E | 20.75' |
| L90 | S 81°21'19" E | 12.15' |
| L91 | N 72°37'56" E | 15.74' |
| L92 | N 59°01'52" E | 46.15' |
| L93 | S 45°01'33" E | 56.13' |
| L94 | S 01°49'26" E | 13.63' |
| L95 | S 17°58'23" W | 34.71' |
| L96 | S 12°36'13" E | 38.04' |
| L97 | S 00°40'28" E | 17.75' |
| L98 | S 55°57'47" W | 17.90' |
| L99 | S 31°17'12" W | 13.68' |
| L100 | S 38°41'06" E | 30.75' |
| L101 | S 22°47'14" W | 20.52' |
| L102 | S 25°34'48" W | 15.97' |
| L103 | S 30°59'10" E | 9.74' |
| L104 | S 57°11'42" E | 15.41' |
| L105 | N 76°40'44" E | 37.15' |

| LINE TABLE | | |
|---|---|---|
| LINE | BEARING | DISTANCE |
| L106 | S 87°47'57" E | 10.87' |
| L107 | S 46°27'29" E | 11.82' |
| L108 | S 15°20'47" E | 13.42' |
| L109 | S 07°42'11" E | 7.79' |
| L110 | S 56°34'14" E | 14.02' |
| L111 | S 88°13'22" E | 33.66' |
| L112 | S 72°21'07" E | 19.41' |
| L113 | N 77°10'56" E | 21.64' |
| L114 | N 42°48'22" E | 19.06' |
| L115 | N 22°38'18" E | 8.14' |
| L116 | N 22°33'41" W | 11.98' |
| L117 | N 04°28'16" E | 26.80' |
| L118 | N 88°28'50" E | 23.62' |
| L119 | S 56°51'56" E | 18.71' |
| L120 | S 28°37'56" E | 13.08' |
| L121 | S 57°55'50" E | 14.55' |
| L122 | S 72°12'27" E | 36.21' |
| L123 | S 49°54'24" E | 53.81' |
| L124 | S 26°26'46" E | 26.91' |
| L125 | S 82°55'30" E | 33.90' |
| L126 | S 19°28'55" E | 25.69' |
| L127 | S 43°18'58" E | 19.80' |
| L128 | N 80°00'03" E | 25.25' |
| L129 | N 19°09'29" W | 26.74' |
| L130 | N 00°36'13" E | 19.83' |
| L131 | N 37°27'07" E | 25.77' |
| L132 | S 82°46'41" E | 21.54' |
| L133 | N 60°28'59" E | 53.41' |
| L134 | S 57°28'24" E | 11.65' |
| L135 | S 38°00'40" E | 47.16' |
| L136 | S 29°46'02" E | 50.50' |
| L137 | S 20°31'24" E | 17.96' |
| L138 | S 10°01'01" E | 3.60' |
| L139 | S 36°29'38" W | 11.94' |
| L140 | S 11°27'34" W | 16.83' |
| L141 | S 60°23'54" W | 24.51' |
| L142 | S 75°37'51" W | 16.82' |
| L143 | S 28°54'31" W | 20.75' |
| L144 | S 08°09'41" E | 42.72' |
| L145 | S 24°14'50" E | 22.90' |
| L146 | S 01°21'46" W | 17.37' |
| L147 | S 02°45'42" E | 17.35' |
| L148 | S 05°25'00" W | 19.92' |
| L149 | S 28°15'46" E | 24.29' |
| L150 | S 16°49'23" E | 20.94' |
| L151 | S 12°22'28" E | 24.40' |
| L152 | S 29°02'43" E | 37.01' |
| L153 | S 32°00'08" E | 10.67' |
| L154 | S 09°53'24" E | 32.84' |
| L155 | S 12°21'27" W | 23.39' |
| L156 | S 23°03'29" W | 19.74' |
| L157 | S 07°30'09" E | 32.00' |
| L158 | S 27°09'26" E | 14.64' |
| L159 | S 19°08'37" E | 38.23' |
| L160 | S 52°19'11" E | 34.60' |
| L161 | S 80°06'16" E | 26.72' |
| L162 | S 50°25'23" E | 37.68' |
| L163 | S 56°55'25" E | 36.47' |
| L164 | S 67°58'01" E | 35.61' |
| L165 | N 49°54'38" E | 34.69' |
| L166 | S 20°07'55" E | 29.18' |
| L167 | S 11°41'59" E | 18.55' |
| L168 | S 28°05'38" W | 28.40' |
| L169 | S 27°00'37" W | 16.52' |
| L170 | S 07°07'53" W | 18.51' |
| L171 | S 26°01'58" E | 29.04' |
| L172 | S 53°44'40" E | 24.36' |
| L173 | S 64°36'32" E | 32.87' |
| L174 | S 24°07'17" E | 17.38' |
| L175 | S 30°24'14" E | 17.70' |
| L176 | S 70°12'01" E | 54.06' |
| L177 | S 37°23'16" E | 16.07' |
| L178 | S 16°17'29" W | 26.55' |
| L179 | S 17°03'08" W | 21.71' |
| L180 | S 21°25'03" W | 26.61' |
| L181 | S 03°32'54" W | 16.36' |
| L182 | S 14°02'55" E | 19.70' |
| L183 | S 10°11'59" E | 12.09' |
| L184 | S 38°47'05" E | 28.58' |
| L185 | S 48°54'15" E | 43.42' |
| L186 | S 50°53'57" E | 36.44' |
| L187 | S 24°02'22" E | 21.24' |
| L188 | S 43°55'27" E | 15.51' |
| L189 | N 61°59'15" E | 18.40' |
| L190 | N 82°30'39" E | 16.17' |
| L191 | S 57°14'04" E | 15.31' |
| L192 | S 03°04'09" E | 14.86' |
| L193 | S 28°39'30" W | 35.38' |
| L194 | S 87°08'24" E | 27.17' |
| L195 | N 89°42'38" E | 51.04' |
| L196 | S 71°04'36" E | 26.32' |
| L197 | N 85°08'52" E | 12.82' |
| L198 | N 65°32'20" E | 21.55' |
| L199 | N 42°00'16" E | 57.49' |
| L200 | N 89°01'45" E | 36.44' |
| L201 | N 17°29'42" E | 25.70' |
| L202 | N 62°54'30" E | 19.05' |
| L203 | S 63°50'43" E | 17.82' |
| L204 | S 34°26'24" E | 47.45' |
| L205 | N 90°00'00" E | 22.90' |
| L206 | N 31°40'47" E | 18.44' |
| L207 | N 71°12'25" E | 52.54' |
| L208 | S 53°05'02" E | 18.36' |
| L209 | N 84°28'21" E | 28.26' |
| L210 | S 47°45'45" E | 84.95' |

1. VILLAFRANCO ROGELIO ZUNIGA & ROSALBA RODRIGUEZ
329 COUNTRY LANE
PIN 155804-62-0600
DEED BOOK 3199 PAGE 361

2. SAM CLARENCE PARRISH TRUST FOB MCKENNA CLAIRE PARRISH
293 COUNTRY LANE
PIN 155804-52-9739
DEED BOOK 4520 PAGE 622

3. FRANCES B PARRISH
105 BRIGHT LEAF DRIVE
PIN 155804-53-9198
DEED BOOK 2998 PAGE 924

4. FRANCES B PARRISH
107 BRIGHT LEAF DRIVE
PIN 155804-53-9481
DEED BOOK 2998 PAGE 921

5. JAMES R MCCARTHY &
AMY LYNN COOK-MCCARTHY
109 BRIGHT LEAFE DRIVE
PIN 155804-63-0519
DEED BOOK 3210 PAGE 934

6. VILLAGE AT GLENHAVEN HOME OWNERS ASSOCIATION, INC

PIN 15816-74-4006
DEED BOOK 5414 PAGE 183

7. JERRY D WALL
513 HUNTER WAY
PIN 155804-63-6679
DEED BOOK 4144 PAGE 269

8. AMY L FERGUSON
517 HUNTER WAY
PIN 155804-63-6662
DEED BOOK 5243 PAGE 189

9. JIAN HAI LIN & SONG MEI ZHENG
521 HUNTER WAY
PIN 155804-63-6566
DEED BOOK 3217 PAGE 365

10. TAJUANA R EVERETT &
PATRICK EVERETT
525 HUNTER WAY
PIN 155804-63-6468
DEED BOOK 3152 PAGE 334

11. PAUL R SILVERBERG &
CAREN J SILVERBERG
529 HUNTER WAY
PIN 155804-63-6461
DEED BOOK 2983 PAGE 93

12. DAVID A EDWARDS
533 HUNTER WAY
PIN 155804-63-6364
DEED BOOK 3821 PAGE 338

13. JOHN JOSEPH SCOTT &
JOAN FRANCES SCOTT
537 HUNTER WAY
PIN 155804-63-6267
DEED BOOK 4894 PAGE 502

14. MARIA VIOLETA GREGORY &
DANIEL JOSEPH GREGORY
541 HUNTER WAY
PIN 155804-63-6260
DEED BOOK 4821 PAGE 844

15. GILBERT ROY BROOKS &
KEITIA BROOKS
545 HUNTER WAY
PIN 155804-63-6153
DEED BOOK 4297-327

16. JOSEPH A SIDOTI &
IRENE L SCHEMBS
549 HUNTER WAY
PIN 155804-63-6056
DEED BOOK 4523 PAGE 415

17. GARY HUDGINS &
SHARON DENISE HUDGINS
553 HUNTER WAY
PIN 155804-62-6957
DEED BOOK 4152 PAGE 225

18. ROBERT D KENON
557 HUNTER WAY
PIN 155804-62-6869
DEED BOOK 5464 PAGE 351

19. PABLITO ESPIRITU MEJIA &
VENUS VILLAPANDO MEJIA
552 HUNTER WAY
PIN 155804-62-8959
DEED BOOK 5127 PAGE 673

20. NICHOLAS CYGAN
147 LOCKET DRIVE
PIN 155804-73-0130
DEED BOOK 4816 PAGE 530

21. THOMAS JAMIL PATRICK &
LIEZA PRELA PATRICK
143 LOCKET DRIVE
PIN 155804-73-1179
DEED BOOK 4647 PAGE 114

22. VILLAGE AT GLENHAVEN HOMEOWNERS ASSOCIATION, INC
LOCKET DRIVE
PIN 155804-73-2261
DEED BOOK 5414 PAGE 183

23. FELIX R BENITEZ &
YRDIS LIMMAZOR
133 LOCKET DRIVE
PIN 155804-73-4346
DEED BOOK 5266 PAGE 59

24. MAYURSINH JADEJA &
DIPAK DOBARIA
128 LYNN DRIVE
PIN 155816-73-5379
DEED BOOK 5266 PAGE 500

25. SFR JV-1 PROPERTIES LLC
127 LYNN DRIVE
PIN 155816-73-7417
DEED BOOK 5362 PAGE 401

26. SAMEH F SELIM
3015 EQUINE LANE
PIN 155816-83-0643
DEED BOOK 3754 PAGE 495

27. CHRISTOPHER WILSON &
STACY WILSON
2805 HORSEMANS RIDGE DRIVE
PIN 155816-83-4448
DEED BOOK 4227 PAGE 879

28. KEVIN BECKSFORD &
HEATHER BECKSFORD
2809 HORSEMANS RIDGE DRIVE
PIN 155816-83-4480
DEED BOOK 4743 PAGE 106

29. JOSEPH M BROWN &
MICHELE L BROWN
3112 HORSESHOE LANE
PIN 155816-82-4979
DEED BOOK 3094 PAGE 109

30. DAVID CAWTHORN &
CARLA CAWTHORN
3109 HORSESHOE LANE
PIN 155816-82-6777
DEED BOOK 2150 PAGE 10

31. SUSAN WENDY RIGGLE
3105 HORSESHOE LANE
PIN 155816-82-8821
DEED BOOK 1788 PAGE 905

32. DAVID K MILLER
3101 HORSESHOE LANE
PIN 155816-82-9835
DEED BOOK 2602 PAGE 179

33. GEORGE HIELSCHER &
ROSE ANNE HIELSCHER
2825 HORSEMANS RIDGE DRIVE
PIN 155816-92-1652
DEED BOOK 4333 PAGE 639

34. ERIC M JANIS &
KENDYL B JANIS
2829 HORSEMANS RIDGE DRIVE
PIN 155816-92-4453
DEED BOOK 1624 PAGE 315

35. TOWN OF CLAYTON
PIN 156813-02-5969
DEED BOOK 1492 PAGE 308

36. MISTIE MICHELLE MAYFIELD
314 SANDY BOTTOM COURT
PIN 156800-01-6567
DEED BOOK 2739 PAGE 755

37. KENNETH R BUNN &
KAREN POST
124 CANYON ROAD
PIN 156800-01-2100
DEED BOOK 4091 PAGE 149

38. ELIZABETH T CLARK
128 CANYON ROAD
PIN 155804-90-5875
DEED BOOK 4928 PAGE 411

39. LEROY F FRIEDEN &
SHARON M FRIEDEN
132 CANYON ROAD
PIN 155804-90-3703
DEED BOOK 1452 PAGE 103

40. LEROY FREDRICK FRIEDEN &
SHARON MAE FRIEDEN
136 CANYON ROAD
PIN 155804-90-1635
DEED BOOK 1292 PAGE 688

41. CHANDRA WHITTEMORE LEONARD
140 CANYON ROAD
PIN 155804-80-9568
DEED BOOK 931 PAGE 351

42. PHILLIP CARTER &
SANDRA H CARTER
144 CANYON ROAD
PIN 155804-80-8405
DEED BOOK 5086 PAGE 598

43. PHILIP FRANK JOHNSON &
LINDA JOHNSON
148 CANYON ROAD
PIN 155804-80-4344
DEED BOOK 853 PAGE 731

44. HERMAN ROY JOHNSON
GREEN LANE
PIN 155804-80-2580
DEED BOOK 2260 PAGE 910

45. HERMAN ROY JOHNSON
201 GREEN LANE
PIN 155804-80-2894
DEED BOOK 2260 PAGE 908

46. JAMES P OLIVE &
DONNA C OLIVE
721 COUNTRY LANE
PIN 155804-81-2534
DEED BOOK 1980 PAGE 110

47. JAMES PHILIP OLIVE &
DONNA CAUDLE OLIVE
GREEN LANE
PIN 155804-81-3211
DEED BOOK 1962 PAGE 74

48. SANDY LUCILE J GREEN
GREEN LANE
PIN 155804-71-9585
DEED BOOK 1351 PAGE 569

49. EMORY F HOWARD &
JOSEPHINE G HOWARD
553 COUNTRY LANE
PIN 155804-71-1691
DEED BOOK 1563 PAGE 111

50. CLARENCE O DAVIS JR
REVOCABLE TRUST
439 COUNTRY LANE
PIN 155804-62-6034
DEED BOOK 5461 PAGE 622

1. NO NGS MONUMENT FOUND WITHIN 2,000 FEET OF THE SITE

2. THE FOLLOWING INFORMATION WAS USED TO OBTAIN NC GRID NAD 83 (2011), NAVD 88 (GEOID 12B)STATE PLANE COORDINATES (SPC) FOR THIS PROJECT:
2.1. CLASS OF SURVEY: URBAN LAND SURVEYS (CLASS A)
2.2. POSITIONAL ACCURACY: 0.05' (HI), 0.09' (V)
2.3. GPS FIELD PROCEDURE: VRS
2.4. DATE OF SURVEY: 05/27/2020
2.5. DATUM/EPOCH: NAD 83 (2011), EPOCH 2010.00
2.6. PUBLISHED DATE/FIXED CONTROL USED: VRS, NCRD
2.7. GEOID MODEL: GEOID 12B
2.8. COMBINED GRID FACTOR: 0.99988380
2.9. UNITS: U.S. SURVEY FEET
2.10. GRID/GROUND POINT: Y,(N) 682,601.93(E) 2,155,978.04

3. ALL DISTANCES ARE HORIZONTAL GROUND DISTANCES IN U.S. SURVEY FEET UNLESS OTHERWISE NOTED.

4. ALL AREAS DERIVED BY THE COORDINATE COMPUTATION METHOD.

5. PROPERTY SUBJECT TO ALL EASEMENTS AND RESTRICTIONS OF RECORD. THIS PLAT IS A CORRECT REPRESENTATION OF THE LAND PLATTED AND HAS BEEN PREPARED IN CONFORMITY WITH NORTH CAROLINA STANDARDS, G.S. 47-30, AND REQUIREMENTS OF LAW. BUT A NORTH CAROLINA LICENSED ATTORNEY-AT-LAW SHOULD BE CONSULTED REGARDING CORRECT OWNERSHIP, WIDTH, AND LOCATION OF EASEMENTS AND OTHER TITLE QUESTIONS REVEALED BY TITLE EXAMINATION.

6. LINES NOT SURVEYED ARE SHOWN AS BROKEN LINES FROM INFORMATION REFERENCED ON THE FACE OF THIS PLAT.

7. SUBJECT PROPERTY IS NOT LOCATED WITHIN A FLOOD HAZARD AREA ACCORDING TO FLOOD INSURANCE RATE MAP 3720165800K DATED JUNE 20, 2018

8. LOCATION OF UTILITIES, WHETHER PUBLIC OR PRIVATE, IS BASED UPON FIELD LOCATION OF VISIBLE APPURTENANCES ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATION PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. WITHERSRAVENEL CANNOT ASSUME RESPONSIBILITY FOR MISIDENTIFICATION OR OMISSION OF UNDERGROUND UTILITIES.

LEGEND

| | |
|---|---|
| EXISTING IRON PIPE | ○ EIP |
| EXISTING REBAR | ○ RBF |
| EXISTING AXLE | ○ AXF |
| IRON PIPE SET | ○ IPS |
| CALCULATED POINT | ○ CP |
| STONE "MARKED" | ○ STONE |
| FLAT METAL BAR | ○ MBF |

LINETYPE LEGEND

| | |
|---|---|
| PROPERTY LINE | |
| BOUNDARY TIE LINE | |
| ADJOINING (NOT SURVEYED) | |
| WOVEN WIRE FENCE LINE | X X X X X X X X X |
| WOOD FENCE LINE | |
| CREEK | |
| 50' BUFFER | |
| FLOODWAY | |
| 0.2% FLOODWAY | |

PLAT REFERENCES

BOOK OF MAPS 20 PAGE 195
BOOK OF MAPS 32 PAGE 247
BOOK OF MAPS 32 PAGE 389
BOOK OF MAPS 33 PAGE 409
BOOK OF MAPS 44 PAGE 65
BOOK OF MAPS 44 PAGE 135
BOOK OF MAPS 50 PAGE 297
BOOK OF MAPS 52 PAGE 204
BOOK OF MAPS 56 PAGE 430
BOOK OF MAPS 56 PAGE 484
BOOK OF MAPS 57 PAGE 93
BOOK OF MAPS 60 PAGE 377
BOOK OF MAPS 67 PAGE 149
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BOOK OF MAPS 68 PAGE 306
BOOK OF MAPS 77 PAGE 61
BOOK OF MAPS 79 PAGE 161
BOOK OF MAPS 87 PAGE 42

NOTES:

1. EXISTING BOUNDARY INFORMATION SHOWN IS FROM BOUNDARY SURVEY BY WITHERSRAVENEL, INC. DATE 05/21/21.

2. EXISTING TOPOGRAPHY SHOWN IS FROM GIS LIDAR INFORMATION.

3. LIMITS OF NEUSE RIPARIAN BUFFERS SHOWN ON THIS LAYOUT ARE APPROXIMATE IN NATURE. A PRIOR BUFFER DETERMINATION LETTER FOR THIS SITE WAS ISSUED BY NCDEQ ON 07/16/18 (RRO#18-204). THE SPECIFIC START POINT LOCATIONS FOR NEUSE RIPARIAN BUFFERS FOR FEATURES THAT BEGIN WITHIN THE SITE ARE NOT KNOWN. THE START POINTS SHOWN ON THIS PLAN ARE ARE ESTIMATED AND ASSUMED, AND WILL REQUIRE FIELD VERIFICATION.

4. FEMA FLOODPLAIN INFORMATION SHOWN IS FROM FIRM COMMUNITY PANEL #3701391659K, DATED 06/26/18.

GRAPHIC SCALE
200 0 100 200 400
1 inch = 200 ft.


WithersRavenel
Engineers | Planners | Surveyors
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# COUNTRY LANE

CLAYTON, NORTH CAROLINA

## EXISTING CONDITIONS

| | |
|---|---|
| Job No. 02200402.0 | Drawn By WR |
| Date 10/22/21 | Designer WR |

**PRELIMINARY**
NOT APPROVED FOR CONSTRUCTION

| Revisions | | |
|---|---|---|
| 1 | TOWN COMMENTS | 2/7/22 |

Sheet No.
C1.0

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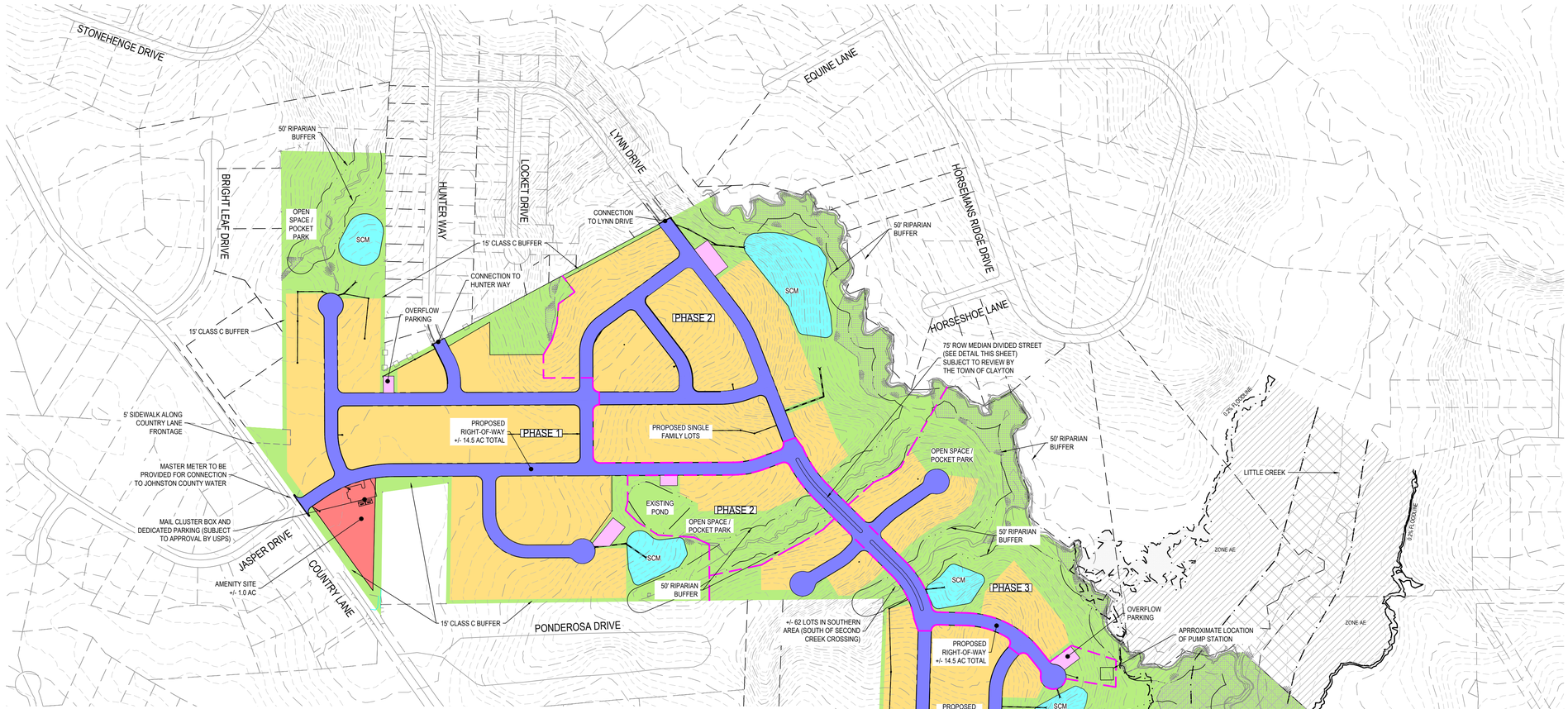
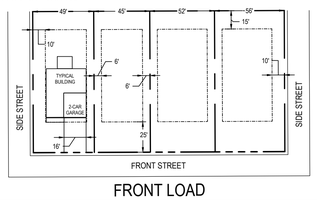



NOTES:

1. THIS LAYOUT IS PROVIDED FOR CONCEPTUAL ILLUSTRATION ONLY. THE DETAILED ROADWAY AND INFRASTRUCTURE LAYOUTS AND ALIGNMENTS ARE SUBJECT TO REVISION AND REFINEMENT DURING THE SUBDIVISION PLAN REVIEW STAGE.
2. WATER SERVICE FOR THIS PROJECT WILL BE PROVIDED VIA CONNECTIONS TO THE EXISTING TOWN OF CLAYTON PUBLIC WATER MAIN STUBS AT HUNTER WAY AND LYNN DRIVE, WITH A POTENTIAL CROSS-CONNECTION WITH MASTER METER AT THE EXISTING JOHNSTON COUNTY WATER MAIN ALONG COUNTRY LANE.
3. SEWER SERVICE FOR THIS PROJECT WILL BE PROVIDED VIA AN ON-SITE LIFT STATION AND OFFSITE FORCE MAIN. PUMP STATION CAPACITY AND FORCEMAIN DISCHARGE LOCATION TO BE DETERMINED IN CONJUNCTION WITH THE TOWN OF CLAYTON.
4. LIMITS OF NEUSE RIPARIAN BUFFERS SHOWN ON THIS LAYOUT ARE APPROXIMATE IN NATURE. A PRIOR BUFFER DETERMINATION LETTER FOR THIS SITE WAS ISSUED BY NCDEQ ON 07/16/18 (RRO#18-204). THE SPECIFIC START POINT LOCATIONS FOR NEUSE RIPARIAN BUFFERS FOR FEATURES THAT BEGIN WITHIN THE SITE ARE NOT KNOWN. THE START POINTS SHOWN ON THIS PLAN ARE ESTIMATED AND ASSUMED AND WILL REQUIRE FIELD VERIFICATION.
5. OVERFLOW PARKING WILL BE PROVIDED AT A RATIO OF 1 SPACE PER 10 LOTS. LOCATIONS SHOWN ARE SUBJECT TO CHANGE.
6. A 15'-FOOT-WIDE TYPE C LANDSCAPE BUFFER WILL BE PROVIDED ALONG THE DEVELOPMENT BOUNDARY AS SHOWN ON THE MASTER PLAN. THE TYPE C LANDSCAPE BUFFER SHALL INCLUDE A MINIMUM 6-FOOT-HIGH OPAQUE SCREENING (AT INSTALLATION) CONSISTING OF A WALL, FENCE, BERM, EVERGREEN HEDGE, OR COMBINATION THEREOF.

| UNIT TYPE | FRONT | SIDE INTERIOR | SIDE STREET | REAR | MAX HEIGHT | DRIVEWAY LENGTH | DRIVEWAY WIDTH |
|---|---|---|---|---|---|---|---|
| SINGLE-FAMILY | 25' | 6' | 10' | 15' | 35' | MIN 25' | MIN 16' |

NOTES:
1. MIN LOT AREA: 6,000 SF FOR INTERNAL LOTS & 8,000 SF FOR LOTS ADJACENT TO BOUNDARY.
2. EACH LOT WILL HAVE A TWO CAR GARAGE.



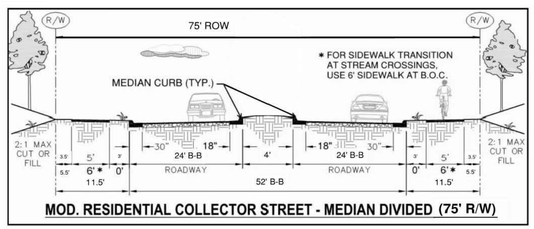

FRONT LOAD

LEGEND

- PROPOSED SINGLE-FAMILY LOTS
- PROPOSED AMENITY SITE
- PROPOSED RIGHT-OF-WAY
- PROPOSED STORMWATER CONTROL MEASURE
- PROPOSED RCA AND OPEN SPACE
- PROPOSED OVERFLOW PARKING
- FEMA FLOODPLAIN ZONE X
- FEMA FLOODPLAIN ZONE AE
- FEMA FLOODPLAIN FLOODWAY

AREA CALCULATIONS

| | |
|---|---|
| 115.03 AC | TOTAL SITE |
| +/- 47.2 AC | PROPOSED SINGLE-FAMILY LOTS |
| +/- 1.0 AC | PROPOSED AMENITY SITE |
| +/- 14.5 AC | PROPOSED RIGHT-OF-WAY |
| +/- 45.0 AC | PROPOSED OPEN SPACE AND RCA |




MOD. RESIDENTIAL COLLECTOR STREET - MEDIAN DIVIDED (75' R/W)

GRAPHIC SCALE
200 0 100 200 400
1 inch = 200 ft.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COUNTRY LANE
CLAYTON, NORTH CAROLINA

MASTER PLAN

| Job No. | 02200402.0 | Drawn By | WR |
|---|---|---|---|
| Date | 10/22/21 | Designer | WR |

PRELIMINARY
NOT APPROVED FOR CONSTRUCTION

| Revisions | | |
|---|---|---|
| 1 | TOWN COMMENTS | 2/7/22 |

Sheet No.
C2.0

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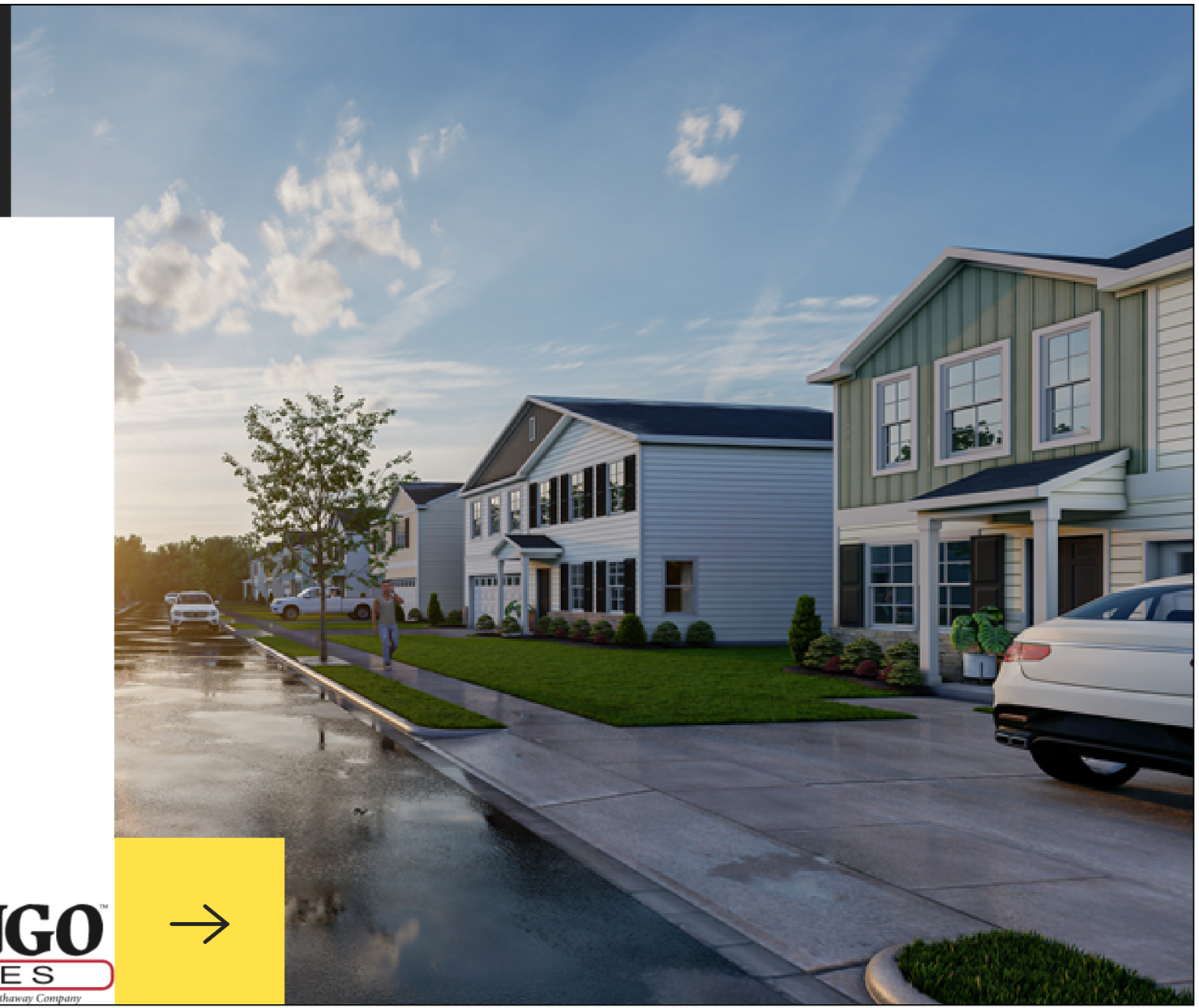
# Country Lane by Mungo Homes



MUNGO HOMES
A Berkshire Hathaway Company

02

**Architectural details vary per plan and elevation. Stone/brick accents shown are OPTIONAL features, and are not included as part of base elevations.**

Renders are artists' conceptions of the Genesis series by Mungo Homes and are not intended to be an actual depiction of the home or its surroundings.

04

Architectural details vary per plan and elevation. Stone/brick accents shown are OPTIONAL features, and are not included as part of base elevations.

Renders are artists' conceptions of the Genesis series by Mungo Homes and are not intended to be an actual depiction of the home or its surroundings.

06

Architectural details vary per plan and elevation. Stone/brick accents shown are OPTIONAL features, and are not included as part of base elevations.

07
Renders are artists' conceptions of the Genesis series by Mungo Homes and are not intended to be an actual depiction of the home or its surroundings.

08

*Architectural details vary per plan and elevation. Stone/brick accents shown are OPTIONAL features, and are not included as part of base elevations.*

*Renders are artists' conceptions of the Genesis series by Mungo Homes and are not intended to be an actual depiction of the home or its surroundings.*

10

*Architectural details vary per plan and elevation. Stone/brick accents shown are OPTIONAL features, and are not included as part of base elevations.*

*Renders are artists' conceptions of the Genesis series by Mungo Homes and are not intended to be an actual depiction of the home or its surroundings.*

12

*Disclaimer: photos are representative photos of past builds and*

*model homes. Exact colors/details vary per plan & home.*

# Healthy Home Features

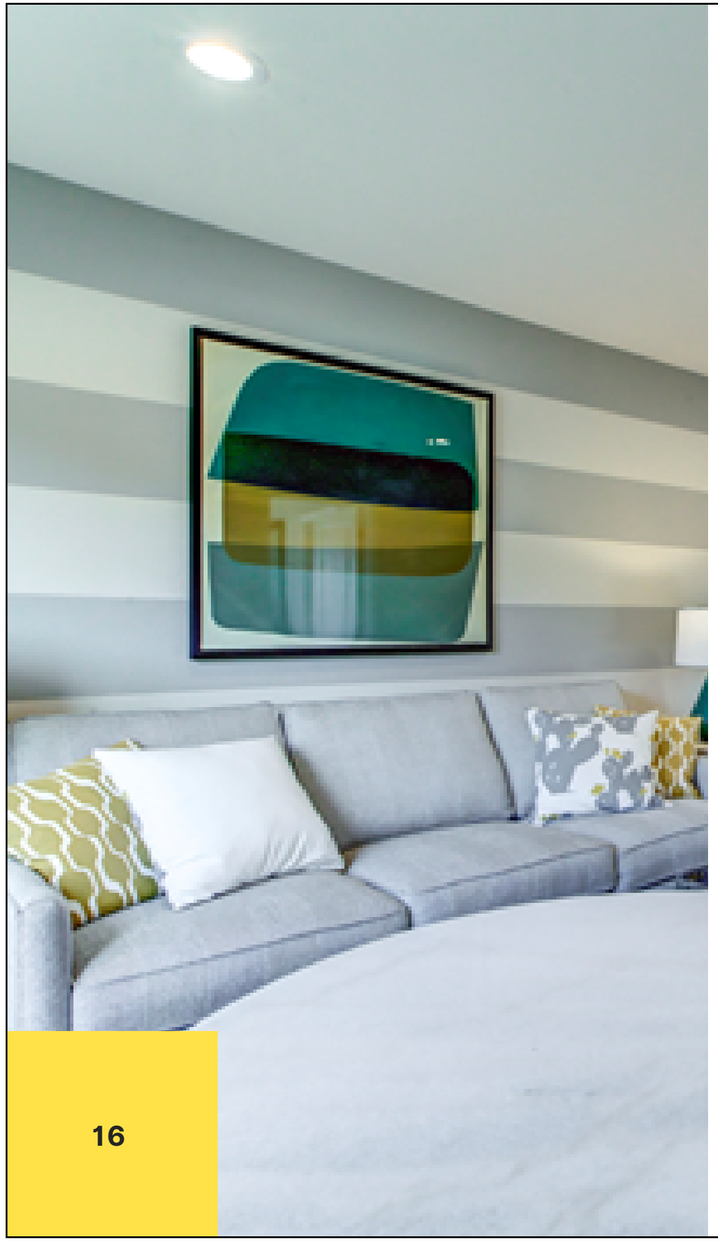
14

*Features Disclaimer – Mungo Homes intends to offer the aforementioned list of Energy Efficient Features in our new homes at Country Lane.*

- 14-SEER Energy-efficient HVAC System
- MERV 8 HVAC Filters
- Separate HVAC System or Zone for Each Floor (per plan)
- Programable Thermostat
- Gas Heat – (2nd Floor Electric Heat Pump if Separate System)
- R-38 Attic Insulation
- Air Barrier & Sealing
- Carbon Monoxide Detectors
- Smoke Alarms in Each Bedroom
- Water-saving Faucets & Shower Heads
- LED Lighting Throughout Home
- Decorative Fiberglass Front Door
- Low-E Insulated Single-hung Vinyl Windows w/ Tilt Out Feature
- Low VOC Paint
- Low VOC Carpet



***Should the need arise (to combat supply issues or otherwise), Mungo Homes reserves the right to change our features in the future.***



# Country Lane Floorplans

- Lancaster
- Meriwether
- McDowell
- Russell
- Telfair

Each Plan offers 3 Unique Elevations. Floorplan lineup subject to change. Mungo Homes reserves the right to add or remove plans from aforementioned list of plan offerings at Country Lane.

*Representative photos. Architectural details vary per plan/elevation. See next page for more details. Stone/brick accents shown in representative photos above are OPTIONAL features, and are not included as part of base elevations.*

# THE GENESIS SERIES BY MUNGO HOMES INCLUDES THE FOLLOWING ARCHITECTUAL DETAILS:

## ARCHITECTURAL DETAILS

Architectural details vary per plan/elevation. Not all plans feature all of the architectural features listed below.

- Shutters
- Covered Front Entry
- Dormer

## SIDING ACCENTS

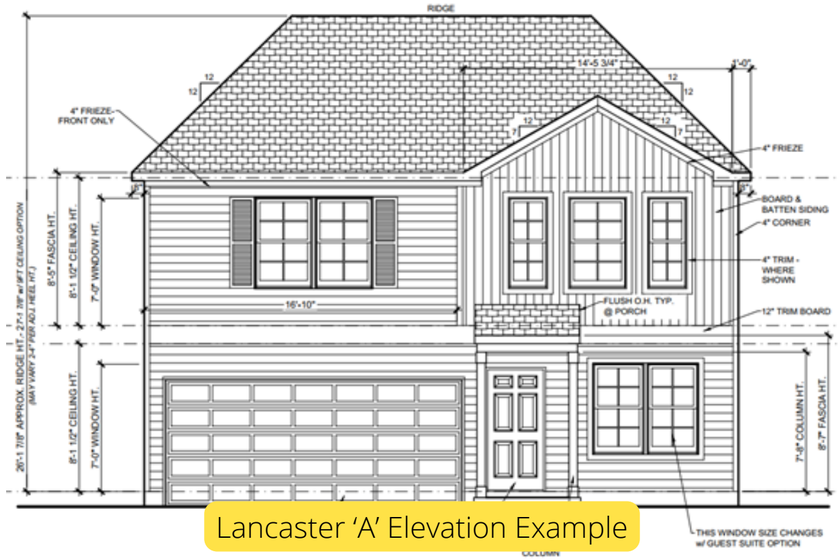
ASiding details vary per plan/elevation. Not all plans feature all of the siding features listed below.

- Horizontal Siding
- Board & Batten Siding
- Shake Siding

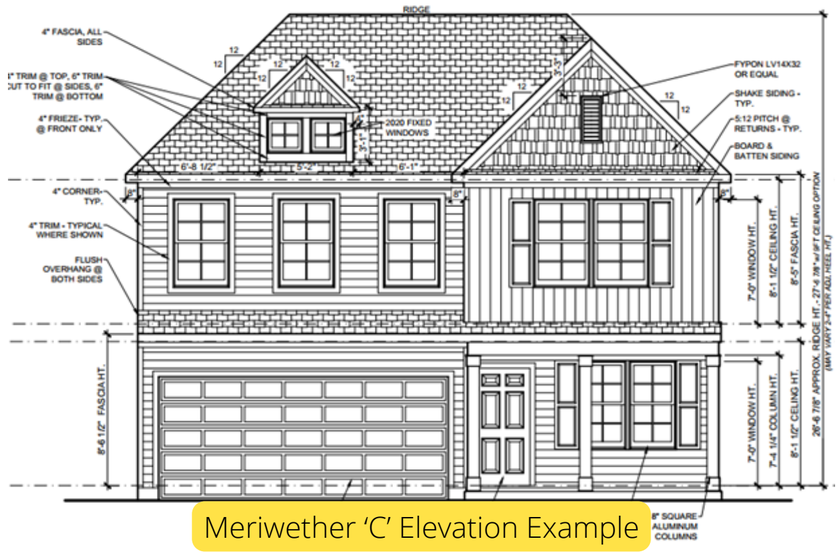
## OPTIONAL FEATURES

Available upgrade options to select from (the items listed below are not included as part of the ‘base’ elevations). Entirety of options listed below may not be available on each and every plan (details & offerings vary per plan/elevation).

- Brick or Stone Water Table Options
- Brick or Stone Accent Options
- Brick or Stone Around Garage Options




Lancaster 'A' Elevation Example




Meriwether 'C' Elevation Example

Meriwether 'B' Elevation Example – With Optional Brick Accent

Telfair 'B' Elevation Example – With Optional Stone Water Table

WithersRavenel
Our People. Your Success.

03/19/2021

To: Neighboring Property Owners of Subject Property; PIN
RE: Rezoning Request – Virtual Neighborhood Meeting
FR: Brendie Vega, WithersRavenel

Neighboring Property Owners:

The Purpose of this letter is to notify you of an application filed with the Town of Clayton for a land use change or development proposal involving property adjacent to, or in close proximity to, property shown in your ownership by Johnston County tax records. Per Town of Clayton regulations, a Neighborhood Meeting will be held to provide information to area residents about the proposal. A representative of the applicant will be present to explain their application, answer questions, and solicit comments. Due to the COVID-19 Pandemic, this meeting will be a virtual format where you can join the meeting by telephone, computer or smartphone. The Neighborhood Meeting will be held as follows:

Meeting Date: 03/30/2021
Meeting Time: 6:00 PM – 7:30 PM
Meeting Name: Country Lane
WebEx Phone Number: 1-415-655-0001
WebEx Access Code: 185 261 7939

WebEx allows you to join via a computer or smart phone, and there is a dial-in option for telephone access. We have created an information page on our website for this meeting, to access information on the project, the Neighborhood Meeting, and how to connect to WEBEX on the internet, please visit our website here:

https://withersravenel.com/publicmeetings

Type of Application: Rezoning
Project/proposal property address: (Northeast of the intersection of Jasper Dr. with Country Ln)
Description of project/proposal: The proposed rezoning is from the existing Planned Development – Residential (PD-R) to Conditional-Residential (R-8). The project is planned to be the development of residential single-family units.

Upcoming public meetings for this application:
Planning Board –04/26/2021 Town Council – 05/03/2021

At a minimum, the following will be available for your inspection during the virtual Neighborhood Meeting:

1. A copy of the project application.
2. A schedule of all upcoming public meetings for the application.
3. A map at a scale that is appropriate to the project and shows neighboring properties and roads.
4. A map, drawing, or other depiction of the proposed land use change or development proposal.

A map is enclosed with this letter showing the location of the property that is subject to this application for land use change and/or development proposal.

If you have any questions prior to or after this meeting, please email us: countrylane@withersravenel.com

You may also contact the Town of Clayton Planning Department at 919-553-5002

Sincerely,

Brendie Vega
Cc: Town of Clayton Planning Department

137 South Wilmington Street, Suite 200 | Raleigh, NC 27601 t: 919.469.3340 | f: 919.467.6008 | www.withersravenel.com | License No. C-0832 Asheville | Cary | Greensboro | Pittsboro | Raleigh | Southern Pines | Wilmington

JOHNSTON COUNTY
NORTH CAROLINA
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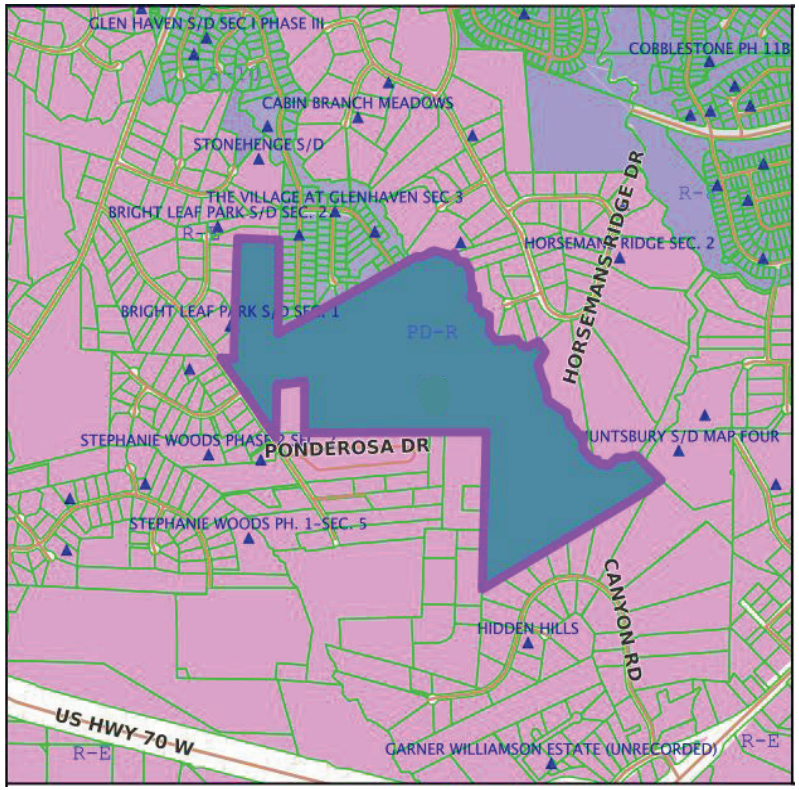
STONEHENGE DR
BARBER MILL RD
BRIGHT LEAF DR
COUNTRY LN
HUNTER WAY
LOCKET DR
LYNN DR
HORSEMANS RIDGE DR
NORWICH DR
KERRIANN LN
PLYMOUTH DR
AVERASBORO DR
GRANT LN
SHADY MEADOWS LN
IOWA DR
JASPER DR
PONDEROSA DR
STEPHANIE LN
Scale: 1:6000 - 1 in. = 500 feet
(The scale is only accurate when printed landscape on a 11 x 17 size sheet with no page scaling.)
Johnston County GIS
July 14, 2020




Current Zoning Exhibit

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# MEMORANDUM

| | |
|---|---|
| **To:** | Town of Clayton Planning Department |
| **From:** | Brendie Vega, AICP |
| **Date:** | Friday, March 19, 2021 |
| **Project:** | Country Lane Rezoning 2021-20-CZM |
| **Subject:** | Neighborhood Meeting Notice |

I, Brendie Vega, hereby attest that we have mailed neighborhood meeting notices for the above referenced Zoning Case in accordance with the Town of Clayton's guidance for noticing a Virtual Neighborhood Meeting prior to advancing to the Planning Board.

Brendie Vega

137 South Wilmington Street, Suite 200 | Raleigh, NC 27601
t: 919.469.3340 | f: 919.467.6008 | www.withersravenel.com | License No. C-0832
Asheville | Cary | Greensboro | Pittsboro | Raleigh | Southern Pines | Wilmington

| Neighborhood Meeting Attendance List | | | | | | | |
|---|---|---|---|---|---|---|---|
| **User Type** | **FirstName** | **LastName** | **Email** | **Address 1** | **City** | **State** | **Zip Code** |
| Panelist | Brendie | Vega | bvega@withersravenel.com | | | | |
| Panelist | Daniel | Rauh | drauh@withersravenel.com | | | | |
| Panelist | Brad | Hart | bhart@withersravenel.com | | | | |
| Panelist | Chris | Simmering | csimmering@mungo.com | 2224 OLD SORRELL RD | APEX | NC | 27539 |
| Attendee | Mary | Hansen | mcjech@aol.com | 509 Hunter Way | Clayton | NC | 27520 |
| Attendee | AMY | FERGUSON | 1alfergus@gmail.com | 517 HUNTER WAY | CLAYTON | NC | 27520 |
| Attendee | Michelle | Mayfield | saturdaycanoeing@yahoo.com | | Clayton | NC | 27520 |
| Attendee | Robert | Carbo | captbob@onager.net | 314 SANDY BOTTOM CT | CLAYTON | NC | 27520 |

## County Lane

Neighborhood Meeting

Date: March 30, 2021

Time: 6pm – 7:30pm

Location: Webex- https://withersravenel.com/meeting/country-lane-rezoning-public-meeting/

Representatives in Attendance:

- Chris Simmering, Mungo Homes
- Brad Hart, WithersRavenel
- Brendie Vega, WithersRavenel
- Daniel Rauh, WithersRavenel

Brendie Vega welcomed everyone to the neighborhood meeting and invited participants to ask Questions in the Q&A option and we would get to them.

1. Seems like a lot of houses with the existing houses. There is not another exit leading to Cobblestone. Are there more exit points?
   *The number of access points meets Clayton's requirements. Town of Clayton asked us to be open if additional land becomes acquired.*
2. What is the pool like by Hunter Lane? How big are they and will they be open?
   *Those represents preliminary schematics design locations for stormwater management ponds. They will range in size.*
3. How many houses are going into this lot?

   *Current plan has more details, it shows 266 lots.*

4. Is the green area in the middle a park?
   *The green area is open space. There will be no construction.*
5. The proposed single family lots will be split in half?

   *That is correct. Two rows of lots will back up to each other.*

6. On the long strip, how many housing?
   *Both sides of the cul-de-sac there will be about 8 or 9 lots.*
7. Will the conditions be required on the property even if the project isn't completed by this developer?
   *The conditions will run with the rezoning.*
8. The green area in southeast will be open area. Will you leave all areas that are not developed including with steep slopes with their natural vegetation.
   *Yes it will be left in their natural state. 90+% will stay the same.*
9. What is the plan for the amenity site?
   *A pool with a cabana and cookout amenities.*
10. Will you be adding a turning lane on Barber Mill?

*That will be determined. That type of off-site improvement will need approval. Traffic Impact Analysis determines which areas need to be studied.*

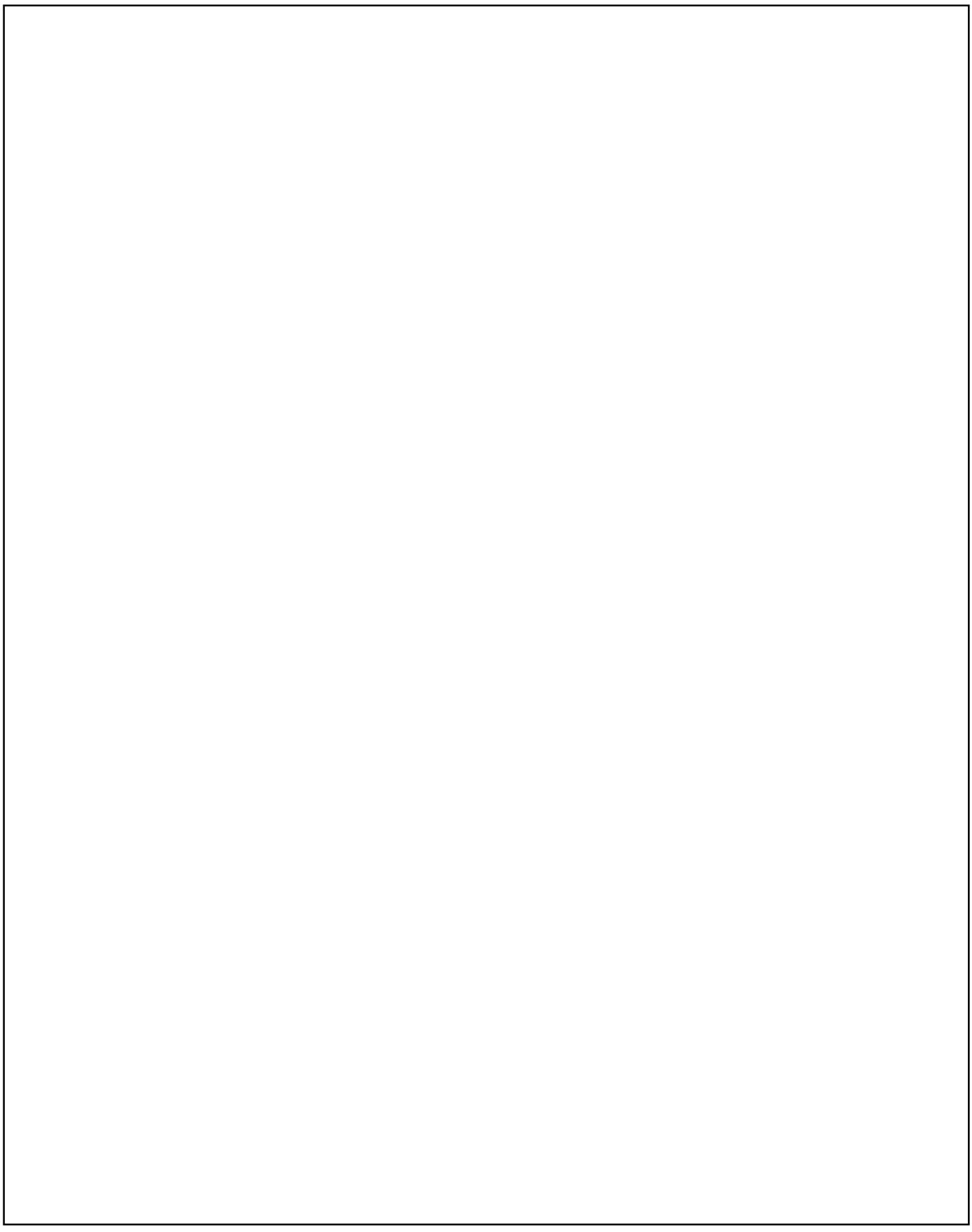
11. Concern is storm drainage. Caller is overwhelmed by water. Water drain and storm drain.

    *Most of site does not drain towards caller's location. Redirect runoff to stormwater ponds. Town will require to show runoff is collected and abides by requirements.*

12. The traffic through Hunter Lane. Problem with people driving over speed limit. Is there anything going to be done to control traffic and speed? Speedbump?
    *We're all sensitive about the speeding. At this stage for rezoning, there are not specific plans.*
13. Will you add turning lane on Country Lane?
    *We anticipate it will require turning lane.*
14. Bivalves are sensitive species in nearby creeks. More erosion on property due to construction. What size does stormwater need to be designed for?
    *Clayton's requirements are usually for two or three storm events that need to be matched.*
15. *Will you be doing a watershed study?*
    Yes, we will be required to do detailed study.
16. Will housing be multiple income levels?
    *Generally it is similar product. There is no full market analysis that will be targeting income levels. It will start in upper 200s and run upper 300s.*
17. Will developer encourage lifestyle for rain gardens, etc. Bring Clayton and local development into the future for climate change, increased rainfall.
    *This project might include those, sometimes it is suited for better areas. We don't have plans to incorporate such, but that doesn't mean we won't.*
18. When is the next public hearing?
    *We will probably get pushed to May.*
19. When will construction begin?
    *A year from now.*
20. Is there a phasing plan?

    *Generally will be from Country Lane and move towards the back.*

21. Model homes be built first?
    *Model homes will be first and double as sales center.*
22. Are Riparian buffers left natural?
    *Yes, they will be for the most part.*
23. What is a concerned that is often voiced in public hearings?
    *Stormwater and traffic are the two biggest. Questions about Town's capacity.*



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June 2021

# COUNTRY LANE RESIDENTIAL

## DRAFT Traffic Impact Analysis

LOCATED IN CLAYTON, NC

### Prepared for:

Mungo Homes of North Carolina, Inc.
2521 Schieffelin Road, Suite #116
Apex, NC 27502

### Prepared by:

Exult Engineering, PC
P.O. Box 99277
Raleigh, NC 27624

EXULT ENGINEERING

This document entitled Country Lane Residential Traffic Impact Analysis was prepared by Exult Engineering, PC for the account of Mungo Homes of North Carolina, Inc.. The material in it reflects Exult Engineering's best judgement in light of the information available to them at the time of preparation. Any use which a third party makes of this report, or any reliance on or decisions made based on it, are the responsibilities of such third parties. Exult Engineering, PC accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

## Country Lane Residential DRAFT Traffic Impact Analysis

Prepared by: _____ (sign)

Date: _____

**Brittany Chase, PE**

Reviewed by: _____ (sign)

Date: _____

**Lisa Lundeen, PE**

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## EXECUTIVE SUMMARY

The proposed 117.6-acre site is situated along the east side of Country Lane south of the existing Glenhaven Subdivision in Clayton, North Carolina. The property is currently zoned as Planned Development – Residential (PD-R). The proposed development consists of 282 single family dwelling units and does require rezoning to Residential – Conditional Zoning (R8-CZ). The proposed site is to be developed within four years by the year 2025. The proposed development will be accessed by one full movement driveway on Country Lane to align with Jasper Drive and access to Barber Mill Road via interconnectivity to Hunter Way and Lynn Drive. The purpose of this Traffic Impact Analysis (TIA) is to analyze the potential traffic impacts of the proposed development on the surrounding roadway network and to identify any roadway improvements necessary to mitigate the impact of the project traffic.

As requested by the North Carolina Department of Transportation (NCDOT) District Office, scoping for the TIA was done through email correspondence. The NCDOT TIA Scoping Checklist was prepared and submitted to NCDOT and the Town of Clayton for review and comment. The TIA Scoping Checklist and subsequent correspondence regarding the scope of the TIA is included in the Appendix of this report. The *NCDOT Congestion Management Capacity Analysis Guidelines* were referenced to perform this traffic study.

As determined by NCDOT and the Town, the study area includes:

1. Barber Mill Road at Hunter Way/Will Court
2. Barber Mill Road at Country Lane
3. Barber Mill Road at Amelia Church Road
4. Country Lane at Jasper Drive/Proposed Site Driveway

The proposed development is expected to generate 2,700 daily trips, 206 AM peak hour trips (52 entering, 154 exiting), and 275 PM peak hour trips (173 entering, 102 exiting).

Based on coordination with NCDOT and available historical Annual Average Daily Traffic (AADT) information, a 1% annual growth rate was applied to the existing traffic volumes to determine 2025 no-build traffic volumes. Approved developments are developments in the area of the proposed site that have been approved but not yet constructed. The traffic from these approved developments is expected to contribute to the no-build traffic volumes projected for the study intersections. According to NCDOT and the Town, there are no approved developments in the project vicinity to include in the future year analysis.

To determine the traffic impacts of the proposed development, capacity analyses were performed at the study intersections under the following scenarios:

- Existing (2021) Traffic Conditions
- No-Build (2025) Traffic Conditions
- No-Build (2025) Traffic Conditions with Recommended Improvements
- Buildout (2025) Traffic Conditions
- Buildout (2025) Traffic Conditions with Recommended Improvements

Based on the capacity analysis presented herein, the following roadway improvements are recommended to be completed **by others** to accommodate existing and no-build site traffic volumes:

*Barber Mill Road at Amelia Church Road:*

- Install a traffic signal (if warranted)

Based on the capacity analysis presented herein, the following roadway improvements are recommended to be completed **by the developer** to accommodate buildout site traffic volumes:

*Barber Mill Road at Country Lane Road:*

- Construct an exclusive northbound right-turn lane on Barber Mill Road with 50' of full-width storage and appropriate taper.
- Construct an exclusive southbound left-turn lane on Barber Mill Road with 75' of full-width storage and appropriate taper.

*Country Lane Road at Jasper Drive/Proposed Site Driveway:*

- Provide one ingress and one egress lane on the Proposed Site Driveway.

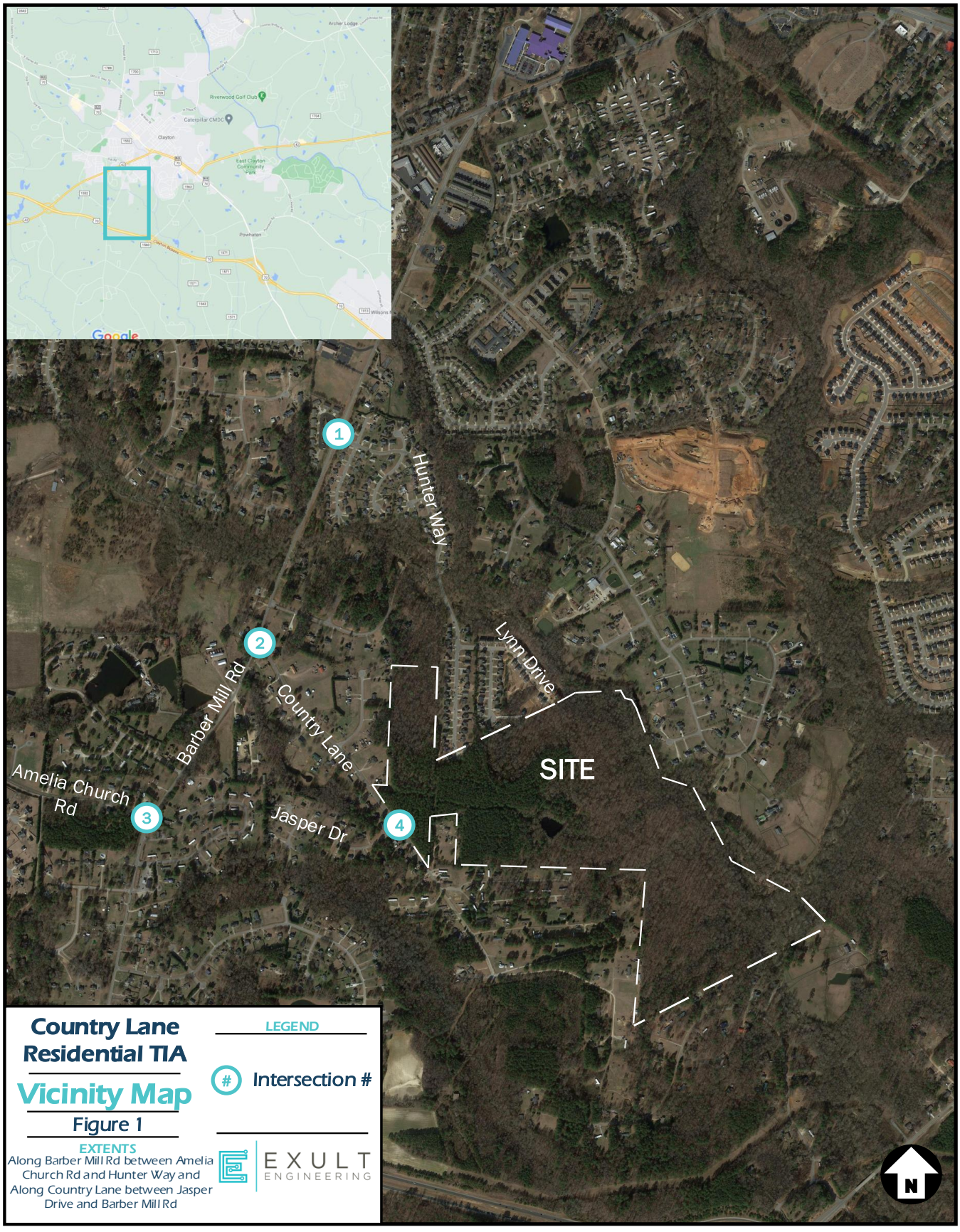
## INTRODUCTION

The proposed 117.6-acre site is situated along the east side of Country Lane south of the existing Glenhaven Subdivision in Clayton, North Carolina as shown on Figure 1. The property is currently zoned as Planned Development – Residential (PD-R). The proposed development consists of 282 single family dwelling units and does require rezoning to Residential – Conditional Zoning (R8-CZ). As shown on Figure 2, the proposed development will be accessed by one full movement driveway on Country Lane to align with Jasper Drive and access to Barber Mill Road via interconnectivity to Hunter Way and Lynn Drive. The proposed site is to be developed within four years by the year 2025.

The purpose of this TIA is to analyze the potential traffic impacts of the proposed development on the surrounding roadway network and to identify any roadway improvements necessary to mitigate the impact of the project traffic. This study includes the analysis of the following traffic scenarios:

- Existing (2021) Traffic Conditions
- No-Build (2025) Traffic Conditions
- No-Build (2025) Traffic Conditions with Recommended Improvements
- Buildout (2025) Traffic Conditions
- Buildout (2025) Traffic Conditions with Recommended Improvements

Based on coordination with NCDOT and available historical Annual Average Daily Traffic (AADT) information, a 1% annual growth rate was applied to the existing traffic volumes to determine 2025 no-build traffic volumes. Approved developments are developments in the area of the proposed site that have been approved but not yet constructed. The traffic from these approved developments is expected to contribute to the no-build traffic volumes projected for the study intersections. According to NCDOT and the Town, there are no approved developments in the project vicinity to include in the future year analysis.


Hunter Way
Lynn Drive
Barber Mill Rd
Country Lane
Amelia Church Rd
Jasper Dr
SITE
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2
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Country Lane Residential TIA
Vicinity Map
Figure 1
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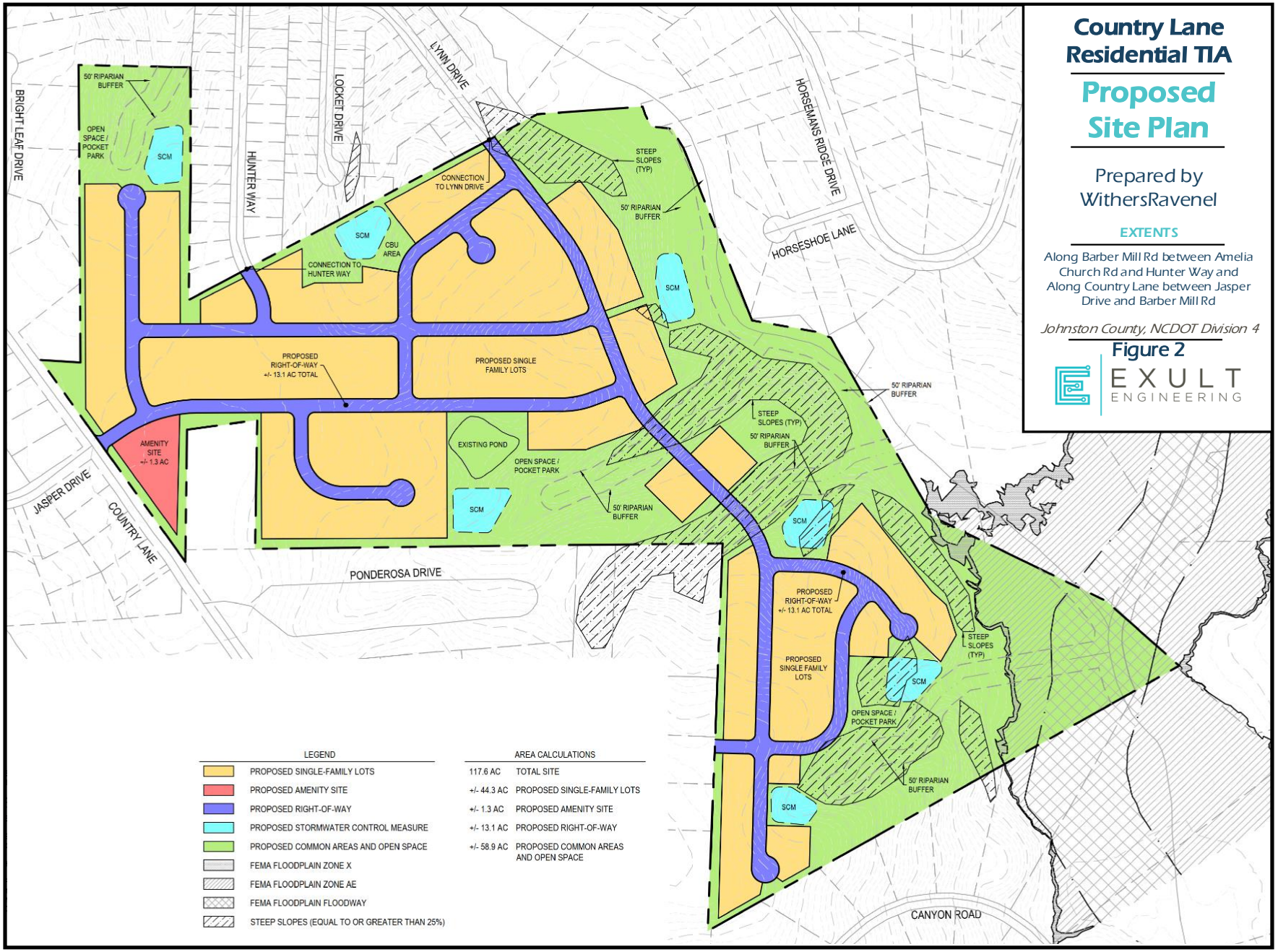
LEGEND
# Intersection #
EXULT ENGINEERING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Proposed Site Plan
Prepared by WithersRavenel
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BRIGHT LEAF DRIVE
HUNTER WAY
LOCKET DRIVE
LYNN DRIVE
HORSEMANS RIDGE DRIVE
HORSESHOE LANE
JASPER DRIVE
COUNTRY LANE
PONDEROSA DRIVE
CANYON ROAD
50' RIPARIAN BUFFER
OPEN SPACE / POCKET PARK
SCM
CONNECTION TO LYNN DRIVE
CONNECTION TO HUNTER WAY
CBU AREA
STEEP SLOPES (TYP)
PROPOSED RIGHT-OF-WAY +/- 13.1 AC TOTAL
PROPOSED SINGLE FAMILY LOTS
AMENITY SITE +/- 1.3 AC
EXISTING POND
LEGEND
PROPOSED SINGLE-FAMILY LOTS
PROPOSED AMENITY SITE
PROPOSED RIGHT-OF-WAY
PROPOSED STORMWATER CONTROL MEASURE
PROPOSED COMMON AREAS AND OPEN SPACE
FEMA FLOODPLAIN ZONE X
FEMA FLOODPLAIN ZONE AE
FEMA FLOODPLAIN FLOODWAY
STEEP SLOPES (EQUAL TO OR GREATER THAN 25%)
AREA CALCULATIONS
117.6 AC TOTAL SITE
+/- 44.3 AC PROPOSED SINGLE-FAMILY LOTS
+/- 1.3 AC PROPOSED AMENITY SITE
+/- 13.1 AC PROPOSED RIGHT-OF-WAY
+/- 58.9 AC PROPOSED COMMON AREAS AND OPEN SPACE

## EXISTING CONDITIONS

The proposed 117.6-acre site is situated along the east side of Country Lane south of the existing Glenhaven Subdivision in Clayton, North Carolina. The property is currently zoned as Planned Development – Residential (PD-R). Per NCDOT and the Town, the study area for the proposed development includes the following unsignalized intersections:

1. Barber Mill Road at Hunter Way/Will Court
2. Barber Mill Road at Country Lane
3. Barber Mill Road at Amelia Church Road
4. Country Lane at Jasper Drive/Proposed Site Driveway

A site visit was performed on Wednesday, May 19, 2021 to observe existing field conditions, such as lane geometry, posted speed limits, and traffic operations. Figure 3 shows the Existing Lane Geometry at the above existing study intersections.

Peak-hour turning movement traffic counts were performed at the following existing study intersections during the AM (7:00 – 9:00) and PM (4:00 – 6:00) peak periods on Thursday, May 13, 2021:

- Barber Mill Road at Hunter Way/Will Court
- Barber Mill Road at Country Lane
- Barber Mill Road at Amelia Church Road

The May 2021 peak hour traffic volumes present at the intersections were used to determine estimated 2021 Average Daily Traffic volumes within the study area by assuming the PM peak hour accounts for approximately 10% of the daily traffic volumes. These estimated ADTs were compared to the reported NCDOT AADTs during non-COVID conditions on the respective roadway segments to determine a "COVID factor." This factor was applied to the May 2021 peak hour traffic volumes to determine non-COVID traffic conditions at the study intersections.

Due to the limited land uses along Jasper Drive (24 single family homes), traffic volumes were estimated at the intersection of Country Lane and Jasper Drive utilizing a combination of the equations published in the Institute of Transportation Engineers (ITE) *Trip Generation Manual,* 10th Edition and the approach/departure volumes from the peak hour traffic count collected at the intersection of Country Lane and Barber Mill Road.

Traffic count data is included in the Appendix of this report. Any traffic count imbalances between study intersections were justified due to the number of access points and land uses located between study intersections. Figure 4 depicts the 2021 AM and PM Adjusted Peak Hour Existing Traffic Volumes.

Barber Mill Road (S.R. 1555) is currently a 2-lane roadway with a posted speed limit of 45 miles per hour (mph) in the project vicinity. Barber Mill Road is classified as Major Collector on the *NCDOT Functional Class* Map. Barber Mill Road has a 2019 annual average daily traffic (AADT) volume of 7,500 vehicles per day on the *NCDOT Interactive Traffic Volume Map*.

Amelia Church Road (S.R. 1552) is currently a 2-lane roadway with a posted speed limit of 45 miles per hour (mph) in the project vicinity. Amelia Church Road is classified as local roadway on the *NCDOT Functional Class* Map. Amelia Church Road has a 2019 annual average daily traffic (AADT) volume of 7,000 vehicles per day on the *NCDOT Interactive Traffic Volume Map*.

Country Lane (S.R. 1623) is currently a 2-lane roadway in the project vicinity with a posted speed limit of 35 mph. Country Lane is classified as a local roadway on the *NCDOT Functional Class* Map. Assuming the collected PM peak hour traffic volume accounts for approximately 10% of the daily traffic, Country Lane has an estimated 2021 AADT of 640 vehicles per day.

Hunter Way is currently a 2-lane roadway in the project vicinity with a posted speed limit of 25 mph within the Glenhaven Subdivision. Hunter Way is classified as a local roadway on the *NCDOT Functional Class* Map. Assuming the collected PM peak hour traffic volume accounts for approximately 10% of the daily traffic, Hunter Way has an estimated 2021 AADT of 930 vehicles per day.

Jasper Drive (S.R. 2256) is currently a 2-lane roadway in the project vicinity with an unposted speed limit of 25 mph. Jasper Drive is classified as a local roadway on the *NCDOT Functional Class* Map. Assuming trip generation equations for the land uses along Jasper Drive and the generated PM peak hour traffic volume accounts for approximately 10% of the daily traffic, Jasper Drive has an estimated 2021 AADT of 260 vehicles per day.

# Country Lane Residential TIA

## Existing Lane Geometry

**LEGEND**

Stop Control — Approach Lane

Speed Limit — Departure Lane

Signal Control — XX' — Intersection Spacing

XX' - FULL STORAGE LENGTH

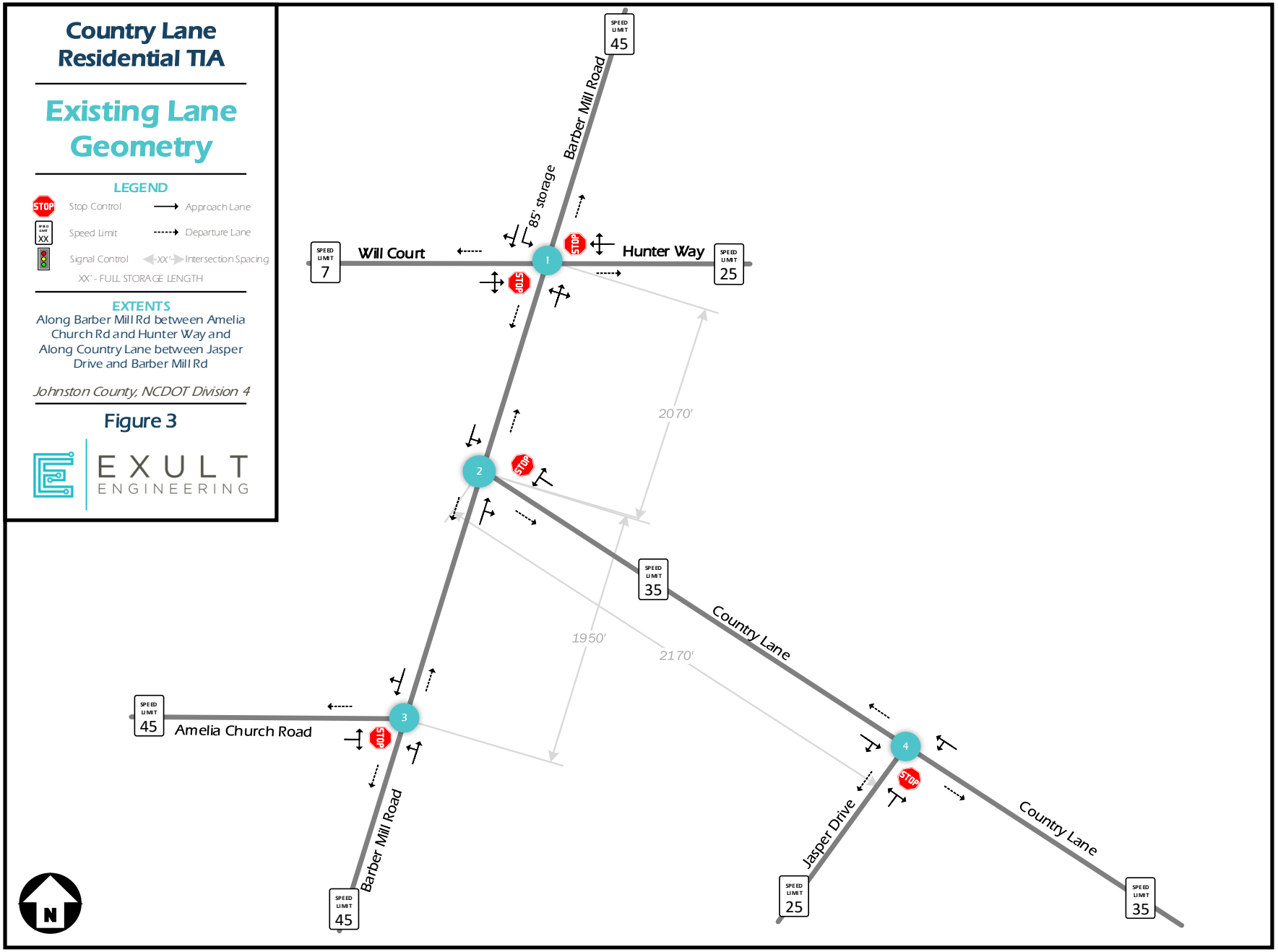
**EXTENTS**

Along Barber Mill Rd between Amelia Church Rd and Hunter Way and Along Country Lane between Jasper Drive and Barber Mill Rd

*Johnston County, NCDOT Division 4*

Figure 3

EXULT ENGINEERING



# Country Lane Residential TIA

## Existing (Adjusted) 2021 AM and PM Traffic Volumes

**LEGEND**

(XX) XX – (PM) AM Traffic Volumes

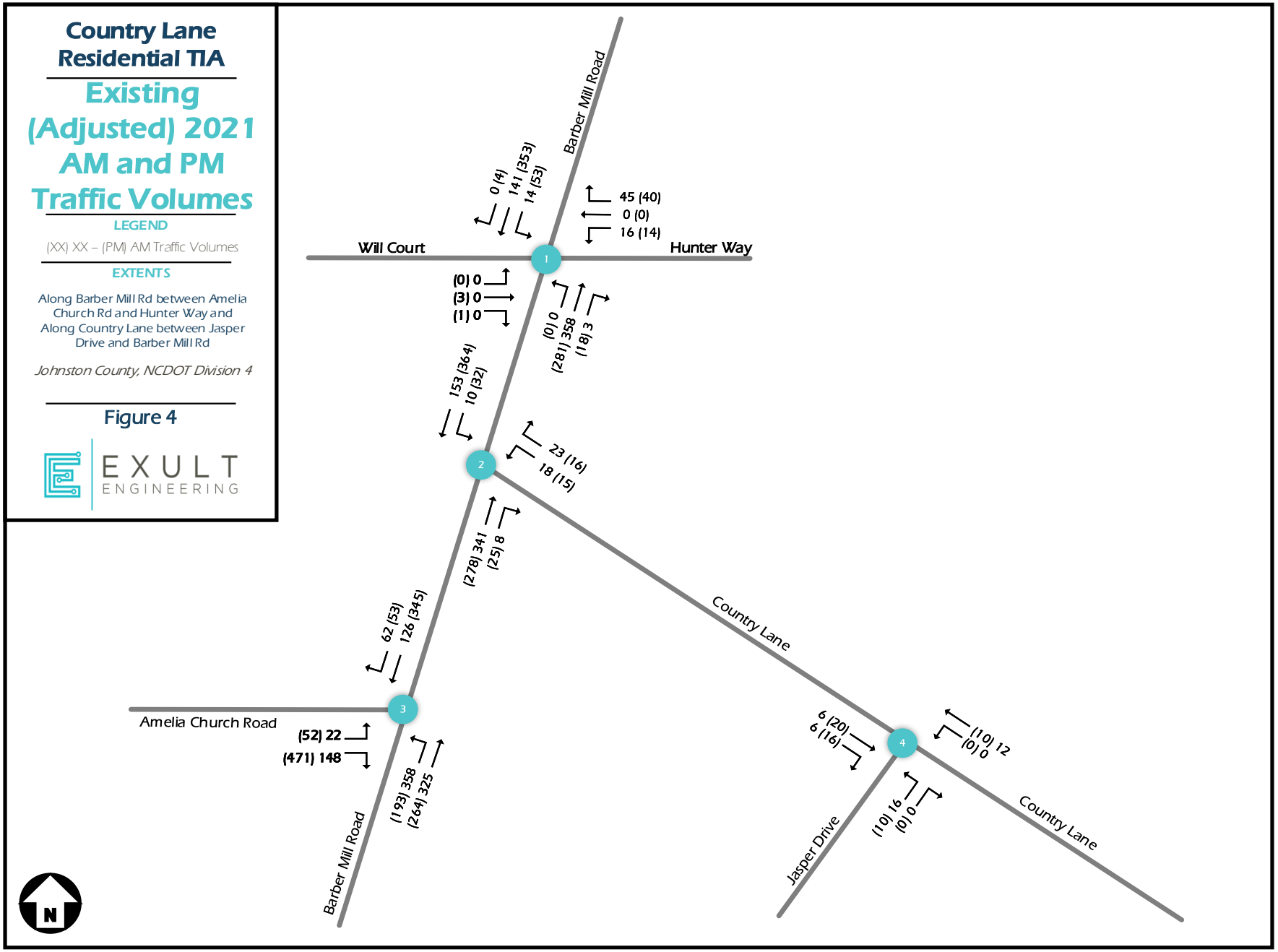
**EXTENTS**

Along Barber Mill Rd between Amelia Church Rd and Hunter Way and Along Country Lane between Jasper Drive and Barber Mill Rd

*Johnston County, NCDOT Division 4*

**Figure 4**

EXULT ENGINEERING



## FUTURE CONDITIONS

The projected 2025 no-build traffic volumes consist of existing 2021 traffic volumes plus background growth. As required by NCDOT and the Town and supported by historical annual average daily traffic volume data, an annual 1% growth rate was applied to determine 2025 no-build traffic volumes. Approved developments are developments in the area of the proposed site that have been approved but not yet constructed. The traffic from these approved developments is expected to contribute to the no-build traffic volumes projected for the study intersections. According to NCDOT and the Town, there are no approved developments in the project vicinity to include in the future year analysis.

To remain conservative, the annual 1% growth rate was applied to turning movements at Hunter Way and Will Court because these volumes were obtained from traffic counts performed during "COVID" conditions. The annual growth rate was not applied to the turning movement volumes at Jasper Drive because those volumes are based on trip generation rates and are not expected to grow over time.

Figures 5 and 6 show the 2025 AM Peak Hour No-Build Traffic Volumes and the 2025 PM Peak Hour No-Build Traffic Volumes, respectively. Traffic volume calculations are also included in the Appendix of this report.

According to NCDOT and the Town, there are no committed roadway improvements to include in the 2025 future scenarios. Therefore, the existing lane geometry was assumed to be in place at the project build-out year.

# Country Lane Residential TIA

## 2025
## AM Peak Hour
## No-Build Traffic

**LEGEND**

XX – Existing Traffic
(XX) – No-Build Traffic due to Growth Rate
[XX] – Total No-Build Traffic

XX + (XX) = [XX]

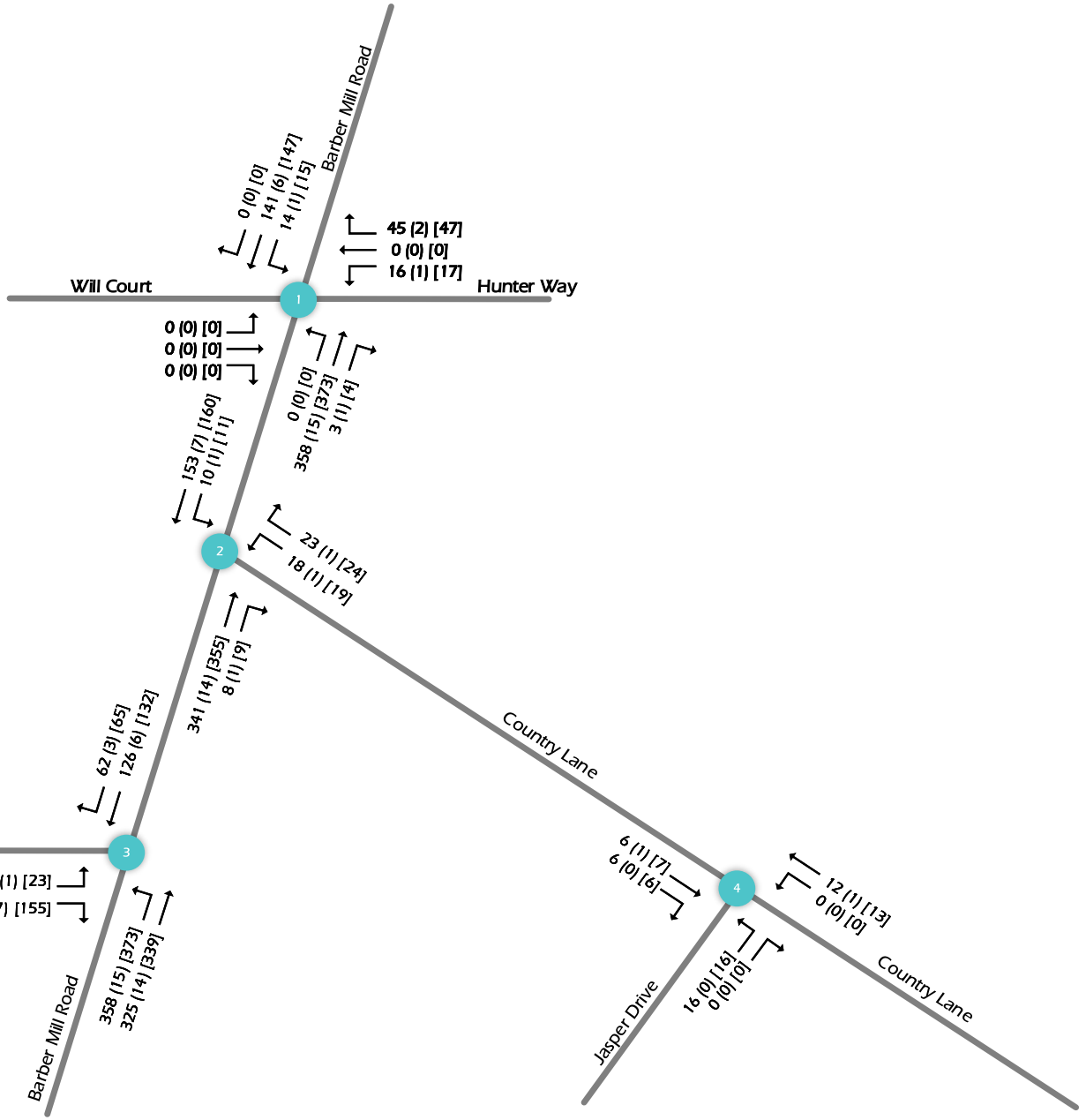
**EXTENTS**

Along Barber Mill Rd between Amelia Church Rd and Hunter Way and Along Country Lane between Jasper Drive and Barber Mill Rd

*Johnston County, NCDOT Division 4*

**Figure 5**

EXULT ENGINEERING



# Country Lane Residential TIA

## 2025
### PM Peak Hour No-Build Traffic

**LEGEND**

XX – Existing Traffic
(XX) – No-Build Traffic due to Growth Rate
[XX] – Total No-Build Traffic

XX + (XX) = [XX]

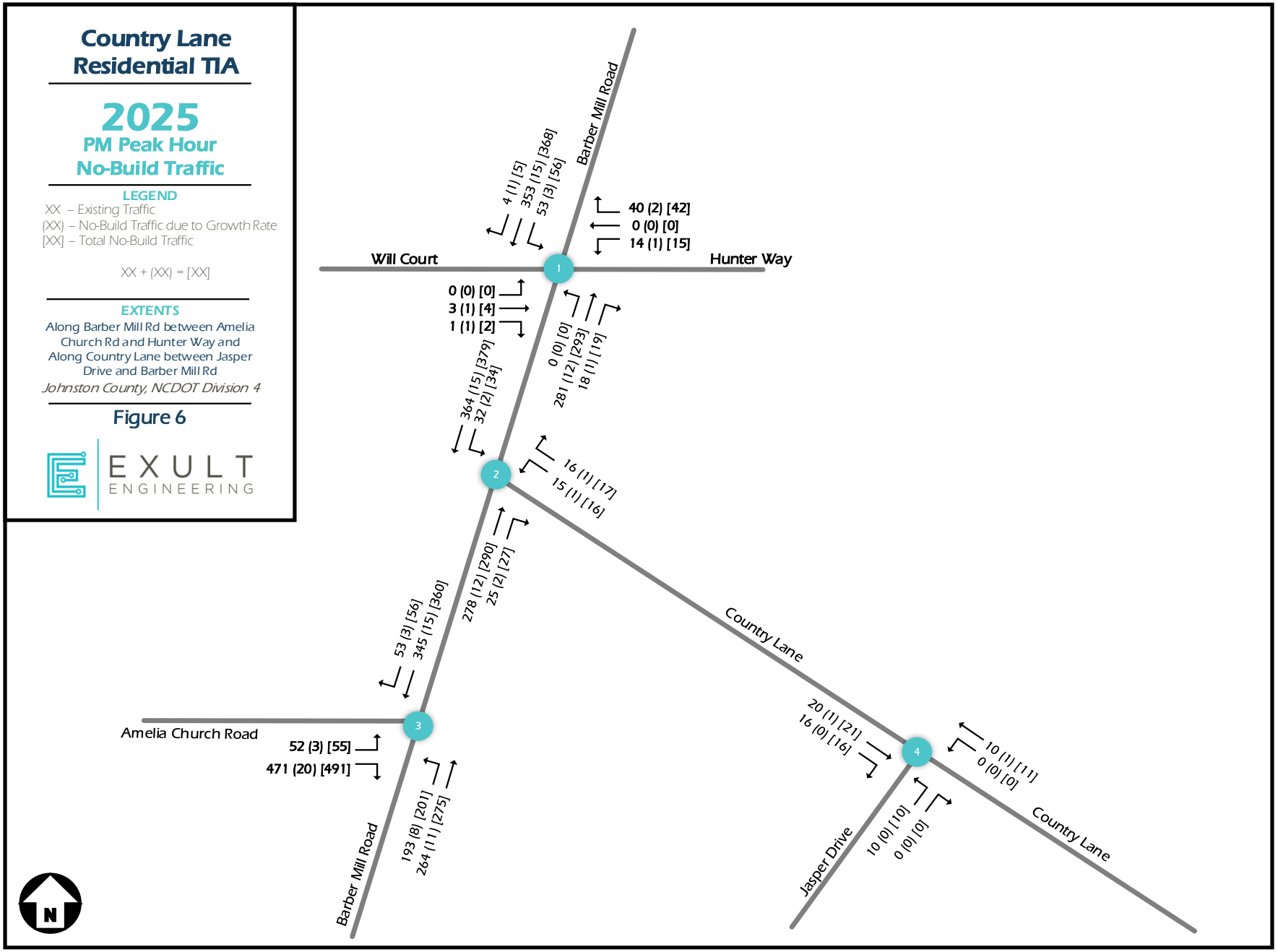
**EXTENTS**

Along Barber Mill Rd between Amelia Church Rd and Hunter Way and Along Country Lane between Jasper Drive and Barber Mill Rd

*Johnston County, NCDOT Division 4*

Figure 6

EXULT ENGINEERING



## PROPOSED SITE

The proposed 117.6-acre site is situated along the east side of Country Lane south of the existing Glenhaven Subdivision in Clayton, North Carolina. The property is currently zoned as Planned Development – Residential (PD-R). The proposed development consists of 282 single family dwelling units and does require rezoning to Residential – Conditional Zoning (R8-CZ). The proposed development will be accessed by one full movement driveway on Country Lane to align with Jasper Drive and access to Barber Mill Road via interconnectivity to Hunter Way and Lynn Drive. The proposed site is to be developed within four years by the year 2025.

Table 1 shows the projected trip generation for the proposed development. The trip generation was based on rates and equations published in the Institute of Transportation Engineers (ITE) *Trip Generation Manual,* 10th Edition. The NCDOT Congestion Management Rates vs. Equations spreadsheet was used for guidance. The proposed development is expected to generate 2,700 daily trips, 206 AM peak hour trips (52 entering, 154 exiting), and 275 PM peak hour trips (173 entering, 102 exiting).

**Table 1: Trip Generation**

| Land Use | | | Daily | AM Peak Hour | | | PM Peak Hour | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Total | Enter | Exit | Total | Enter | Exit |
| 210: Single Family | 282 | d.u. | 2,700 | 206 | 52 | 154 | 275 | 173 | 102 |
| **Total** | | | 2,700 | 206 | 52 | 154 | 275 | 173 | 102 |

References: *Trip Generation Manual*, 10th Edition, Institute of Transportation Engineers, September 2017

Based on the existing traffic patterns and surrounding opportunities to access retail and office developments, the proposed trip distribution for the site is as follows:

- 40% to/from the North on Barber Mill Road
- 40% to/from the West on Amelia Church Road
- 20% to/from the South on Barber Mill Road

The trip generation and site distribution were previously approved by NCDOT. Figure 7 shows the Site Traffic Distribution and Assignment at each of the study intersections. The trip assignment was applied to the trips generated for the proposed development to determine the projected AM and PM peak hour site traffic. The projected AM and PM peak hour site traffic volumes were added to the 2025 no-build traffic volumes to determine the buildout traffic volumes at the study intersections.

The projected buildout traffic volumes at the study intersections are shown in Figure 8 (2025 AM Peak Hour Buildout Traffic Volumes) and Figure 9 (2025 PM Peak Hour Buildout Traffic Volumes).

# Country Lane Residential TIA

## Site Traffic

### Distribution & Assignment

**LEGEND**

(XX%) – Outbound Site Traffic
XX% – Inbound Site Traffic

XX% – Overall Distribution

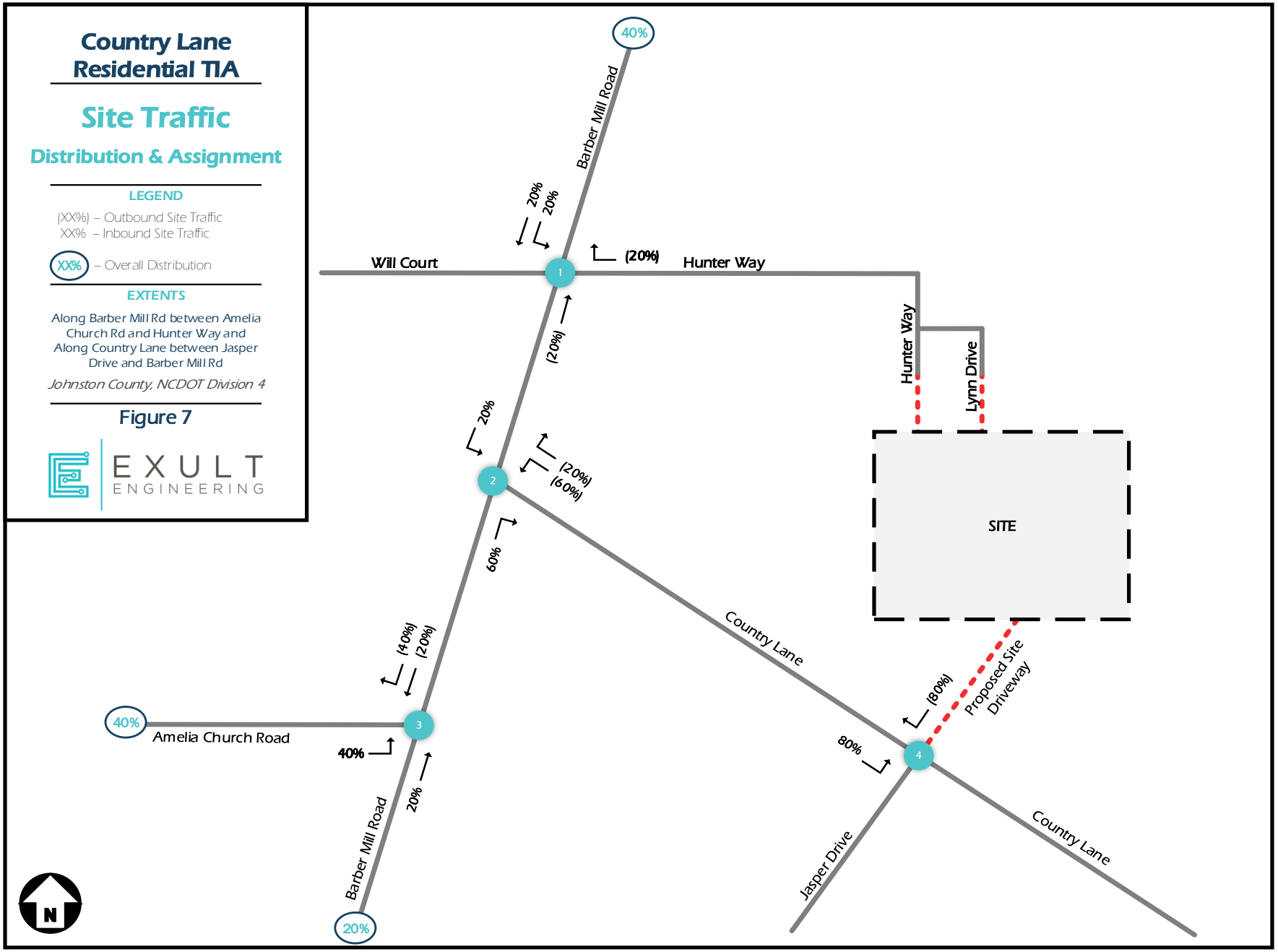
**EXTENTS**

Along Barber Mill Rd between Amelia Church Rd and Hunter Way and Along Country Lane between Jasper Drive and Barber Mill Rd

*Johnston County, NCDOT Division 4*

**Figure 7**

EXULT ENGINEERING



# Country Lane Residential TIA

## 2025 AM Peak Hour Buildout Traffic

**LEGEND**

XX – No-Build Traffic
(XX) – Site Traffic
[XX] – Total Buildout Traffic

XX + (XX) = [XX]

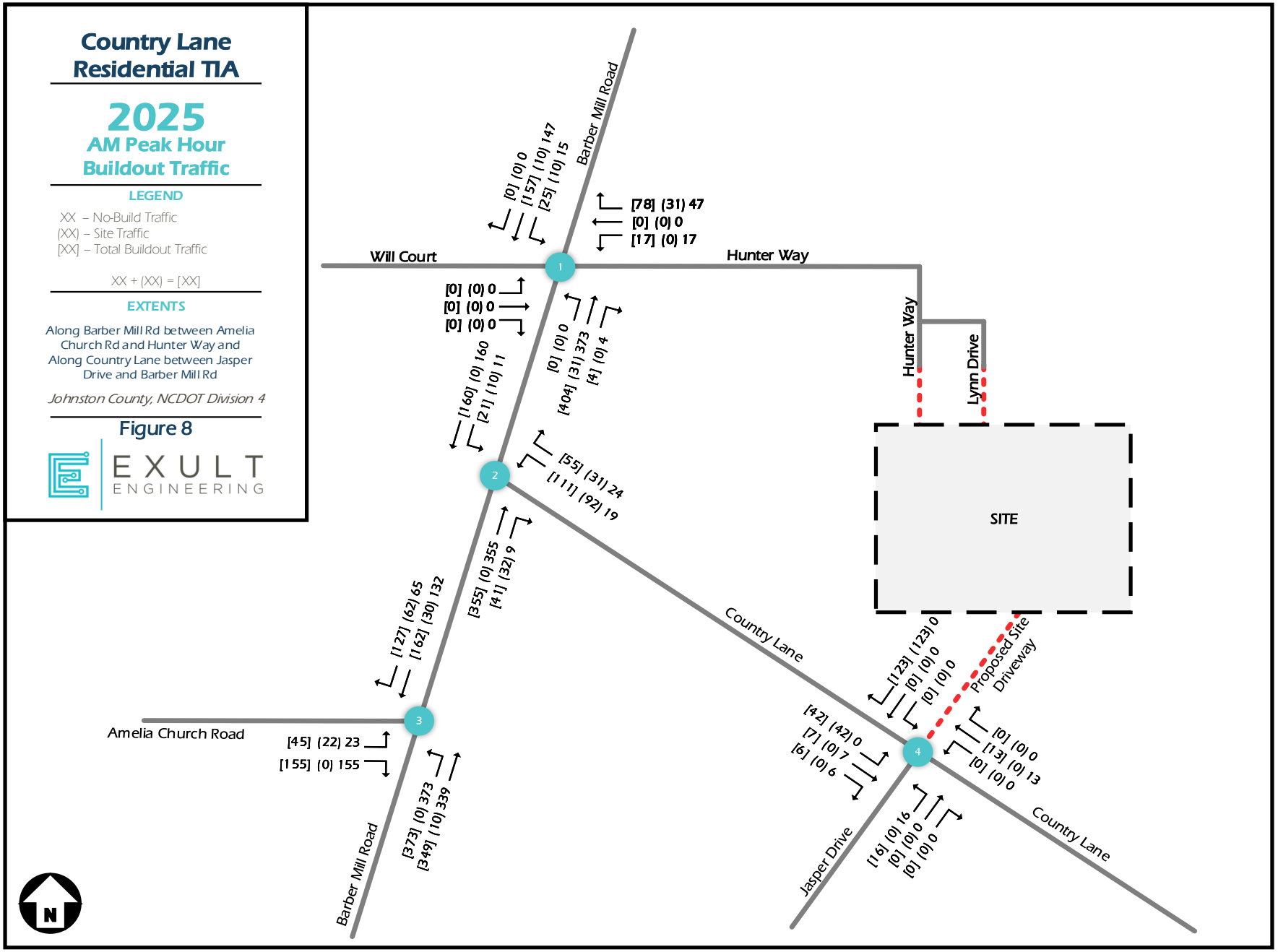
**EXTENTS**

Along Barber Mill Rd between Amelia Church Rd and Hunter Way and Along Country Lane between Jasper Drive and Barber Mill Rd

*Johnston County, NCDOT Division 4*

**Figure 8**

EXULT ENGINEERING



# Country Lane Residential TIA

## 2025
### PM Peak Hour Buildout Traffic

**LEGEND**

XX – No-Build Traffic
(XX) – Site Traffic
[XX] – Total Buildout Traffic

XX + (XX) = [XX]

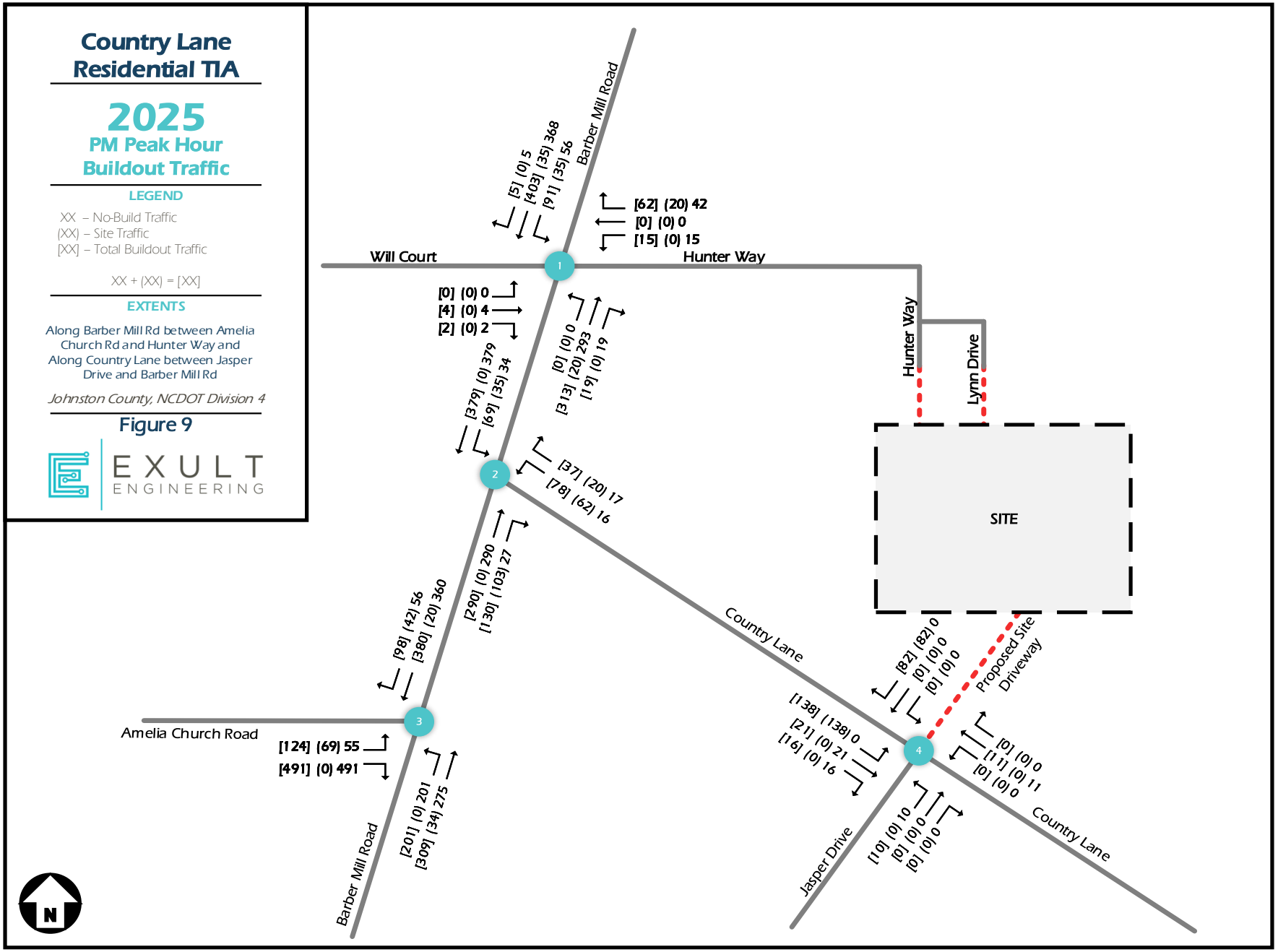
**EXTENTS**

Along Barber Mill Rd between Amelia Church Rd and Hunter Way and Along Country Lane between Jasper Drive and Barber Mill Rd

*Johnston County, NCDOT Division 4*

**Figure 9**

EXULT ENGINEERING



## CAPACITY ANALYSIS

The intersections identified within the study area were analyzed under 2021 existing, 2025 no-build, and 2025 buildout conditions to identify the potential traffic impact of the proposed development on the roadway network. Necessary roadway improvements to mitigate the anticipated impact of the proposed site traffic were recommended based on the level-of-service (LOS) analysis results.

The proposed site is to be developed within four years by the year 2025. This study includes the analysis of the following traffic scenarios:

- Existing (2021) Traffic Conditions
- No-Build (2025) Traffic Conditions
- No-Build (2025) Traffic Conditions with Recommended Improvements
- Buildout (2025) Traffic Conditions
- Buildout (2025) Traffic Conditions with Recommended Improvements

LOS is a qualitative measurement of traffic operations that is a measure of delay time. The Transportation Research Board's *Highway Capacity Manual* (HCM) defines six levels of service for intersections with LOS "A" representing the best operating condition and LOS "F" representing the worst. The following table summarizes the criteria for signalized intersections and stop-controlled intersections.

**Table 2: Highway Capacity Manual (LOS and Delay)**

| Signalized Intersection | | Stop-Controlled Intersection | |
|---|---|---|---|
| Level-of-Service (LOS) | Average Control Delay (Seconds per Vehicles) | Level-of-Service (LOS) | Average Control Delay (Seconds per Vehicle) |
| A | ≤ 10.0 | A | ≤ 10.0 |
| B | > 10.0 and ≤ 20.0 | B | > 10.0 and ≤ 15.0 |
| C | > 20.0 and ≤ 35.0 | C | > 15.0 and ≤ 25.0 |
| D | > 35.0 and ≤ 55.0 | D | > 25.0 and ≤ 35.0 |
| E | > 55.0 and ≤ 80.0 | E | > 35.0 and ≤ 50.0 |
| F | > 80.0 | F | > 50.0 |

The current update (version 10.3) of Synchro Professional software was used to determine the LOS, delay, and expected queue length at the signalized and unsignalized intersections. SimTraffic was also used to determine the maximum queue length experienced at the study intersections. This software is based on the analysis procedures defined in the HCM. For unsignalized intersections, Synchro reports were created using the HCM 6$^{th}$ Edition option for unsignalized intersections. Queue lengths for the turn lanes are shown in the summary tables. Detailed Synchro and SimTraffic reports are included in the Appendix of this report.

LOS for a two-way stop-controlled (TWSC) intersection is determined by the control delay and is defined for the minor approaches. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. With respect to field measurements, this summation of control delay is defined as the total time elapsed from the time a vehicle stops at the end of the queue to the time the vehicle departs from the stop line. Capacity analysis results between LOS A and LOS C for the minor street stop-controlled approaches are assumed to represent short delays. Results between LOS D and LOS E for the minor street stop-controlled approaches are assumed to represent moderate delays, and LOS F for the minor street stop-controlled approaches is assumed to represent long delays. It is typical for minor street stop-controlled approaches and driveways intersecting major streets to experience long delays during peak hours, particularly for left-turn movements. However, the majority of the traffic moving through the intersection experiences little or no delay on the major street approaches.

Capacity Analysis Inputs

The *NCDOT Congestion Management Capacity Analysis Guidelines* were referenced to perform this traffic study. The following inputs were used for all intersections:

- Peak Hour Factor (PHF) was based on existing count data for existing scenarios for the intersection. For no-build and buildout scenarios, a PHF of 0.90 was used.
- Percent of heavy vehicles for existing and future scenarios was based on existing traffic count data for each intersection. The percent of heavy vehicles was less than 2% at each intersection according to existing traffic count data. Therefore, the percentage was set to 2% in existing and future year scenarios to remain conservative.
- A traffic volume of four (4) vehicles was used as a value in Synchro where there was an allowable movement with no assigned traffic volume.

For unsignalized intersections, queue length for HCM from Synchro is given in terms of number of vehicles. To convert to queue length in feet, an estimated 25'/vehicle was applied.

The following subsections summarize the LOS and queue length results for the capacity analysis under 2021 existing, 2025 no-build, and 2025 buildout traffic scenarios as well as recommended improvements for each study intersection.

Barber Mill Road at Hunter Way/Will Court

Barber Mill Road at Hunter Way/Will Court is currently an unsignalized intersection. The minor street approaches (Hunter Way/Will Court) operate under stop control while the major street approaches (Barber Mill Road) are free-flow.

**Southbound Approach of Barber Mill Road at Hunter Way/Will Court**

Table 3 summarizes the capacity analysis results for the unsignalized intersection of Barber Mill Road at Hunter Way/Will Court under 2021 existing, 2025 no-build, and 2025 buildout scenarios. As shown in Table 3 below, the intersection of Barber Mill Road at Hunter Way/Will Court currently operates with short delays for the minor street approaches (Hunter Way/Will Court) under existing conditions during both the AM and PM peak hours. The intersection is expected to continue to operate with short delays during the AM and PM peak hours under no-build conditions and buildout conditions.

**Table 3: Level-of-Service: Barber Mill Road at Hunter Way/Will Court (Unsignalized)**

| Condition | AM Peak | | PM Peak | |
|---|---|---|---|---|
| | LOS and Delay (sec/veh) | Turn Lane Synchro 95% Queue Length/SimTraffic Max Queue Length (feet) | LOS and Delay (sec/veh) | Turn Lane Synchro 95% Queue Length/SimTraffic Max Queue Length (feet) |
| 2021 Existing | EB – B (12.5)<br>WB – B (12.2)<br>NBL – A (7.5)<br>SBL – A (8.1) | EB – 3'/38'<br>WB – 10'/53'<br>SBL – 0'/26' | EB – C (17.4)<br>WB – B (13.2)<br>NBL – A (8.1)<br>SBL – A (8.0) | EB – 3'/29'<br>WB – 10'/54'<br>SBL – 3'/34' |
| 2025 No-Build | EB – B (13.2)<br>WB – B (12.9)<br>NBL – A (7.6)<br>SBL – A (8.2) | EB – 3'/38'<br>WB – 13'/57'<br>SBL – 0'/32' | EB – C (18.4)<br>WB – B (14.3)<br>NBL – A (8.2)<br>SBL – A (8.1) | EB – 3'/38'<br>WB – 13'/58'<br>SBL – 5'/40' |
| 2025 Buildout | EB – B (14.4)<br>WB – B (13.7)<br>NBL – A (7.6)<br>SBL – A (8.3) | EB – 3'/33'<br>WB – 20'/80'<br>SBL – 3'/34' | EB – C (22.5)<br>WB – C (15.4)<br>NBL – A (8.3)<br>SBL – A (8.3) | EB – 5'/38'<br>WB – 20'/57'<br>SBL – 8'/42' |

As shown in the above table, the projected site traffic has minimal impact on the study intersection. There are no roadway improvements recommended for the intersection of Barber Mill Road at Hunter Way/Will Court to accommodate the proposed site traffic.

Barber Mill Road at Country Lane

Barber Mill Road at Country Lane is currently an unsignalized intersection. The minor street westbound approach (Country Lane) operates under stop control while the major street approaches (Barber Mill Road) are free-flow.

**Northbound Approach of Barber Mill Road at Country Lane**

Table 4 summarizes the capacity analysis results for the unsignalized intersection of Barber Mill Road at Country Lane under 2021 existing, 2025 no-build, and 2025 buildout scenarios. As shown in Table 4 below, the intersection of Barber Mill Road currently operates with short delays for the minor street approach (Country Lane) under existing conditions during both the AM and PM peak hours. The intersection is expected to continue to operate with short delays during the AM and PM peak hours under no-build and buildout traffic conditions.

Based on NCDOT's *Warrant for Left and Right-Turn Lanes* and the projected delay and queue length at project buildout, the following improvements are recommended to be constructed by the developer to accommodate the proposed site traffic:

- Construct an exclusive northbound right-turn lane on Barber Mill Road with 50' of full-width storage and appropriate taper.
- Construct an exclusive southbound left-turn lane on Barber Mill Road with 75' of full-width storage and appropriate taper.

**Table 4: Level-of-Service: Barber Mill Road at Country Lane (Unsignalized)**

| Condition | AM Peak | | PM Peak | |
|---|---|---|---|---|
| | LOS and Delay (sec/veh) | Turn Lane Synchro 95% Queue Length/SimTraffic Max Queue Length (feet) | LOS and Delay (sec/veh) | Turn Lane Synchro 95% Queue Length/SimTraffic Max Queue Length (feet) |
| 2021 Existing | WB – B (11.7)<br>SBL – A (8.1) | WB -5'/43' | WB – B (13.2)<br>SBL – A (8.0) | WB - 5'/39' |
| 2025 No-Build | WB – B (12.2)<br>SBL – A (8.2) | WB – 8'/40' | WB – B (13.7)<br>SBL – A (8.1) | WB – 8'/40' |
| 2025 Buildout | WB – C (17.1)<br>SBL – A (8.3) | WB – 45'/87' | WB – C (23.8)<br>SBL – A (8.5) | WB – 48'/88' |
| 2025 Buildout with Recommended Improvements | WB – C (16.5)<br>SBL – A (8.3) | WB – 43'/87'<br>SBL – 3'/33' | WB – C (20.6)<br>SBL – A (8.5) | WB – 40'/82'<br>SBL – 5'/49' |

Barber Mill Road at Amelia Church Road

Barber Mill Road at Amelia Church Road is currently an unsignalized intersection. The minor street eastbound approach (Amelia Church Road) operates under stop control while the major street approaches (Barber Mill Road) are free-flow.

Table 5 summarizes the capacity analysis results for the intersection of Barber Mill Road at Amelia Church Road under 2021 existing, 2025 no-build, and 2025 buildout scenarios. As shown in Table 5 below, the intersection of Barber Mill Road at Amelia Church Road currently operates with short delays for the minor street approach (Amelia Church Road) under existing conditions during the AM peak hour and long delays during the PM peak hour. The intersection is expected to operate with short delays for the minor street approach during the AM peak hour and long delays during the PM peak hour under no-build traffic conditions. The intersection is expected to operate with long delays for the minor street approach during the AM and PM peak hours at project buildout. It is typical for the minor street approach to experience moderate and long delays during the peak hours.

**Eastbound Approach of Amelia Church Road at Barber Mill Road**

Based on the Federal Highway Administration *Manual on Uniform Traffic Control Devices* (2009), the existing traffic volume at this intersection meets both the Peak Hour and Four-Hour Signal Warrants. Therefore, additional capacity analysis was performed at the intersection with a traffic signal in place. Peak Hour and Four-Hour Signal Warrant information is included in the Appendix of this report. It is important to note that this signal is warranted under existing conditions, without the development of the proposed site. Therefore, the responsibility to construct this improvement should not fall on the developer.

The following roadway improvement is recommended to be completed **by others** to accommodate existing and no-build site traffic volumes at the intersection of Barber Mill Road and Amelia Church Road:

- Install a traffic signal (if warranted)

For the future year analysis scenarios that include a signal at the intersection, the following input values were used in accordance with NCDOT Congestion Management guidelines:

- A minimum cycle length of 60 seconds was analyzed for the 2-phase signal.
- The minimum initial for the major street was set to 12 seconds. The minimum initial for the major street protected left-turn movements and the minor street was set to 7 seconds.
- Lost time set to 5 seconds, yellow time set to 5 seconds, and red time set to 2 seconds.
- Right-turns on red were not permitted.

The cycle length was optimized as 60 seconds during the AM peak hour and 100 seconds during the PM peak hour and splits were optimized for scenarios with the signal in place.

**Table 5: Level-of-Service: Barber Mill Road at Amelia Church Road**

| Condition | AM Peak | | PM Peak | |
|---|---|---|---|---|
| | LOS and Delay (sec/veh) | Turn Lane Synchro 95% Queue Length/SimTraffic Max Queue Length (feet) | LOS and Delay (sec/veh) | Turn Lane Synchro 95% Queue Length/SimTraffic Max Queue Length (feet) |
| 2021 Existing | EB – C (16.2)<br>NBL – A (8.6) | EB – 40'/105' | EB – F (126.7)<br>NBL – A (9.0) | EB -538'/481' |
| 2021 Existing (Signalized) | Overall – B (17.0)<br>EB – D (37.5)<br>NB – B (15.5)<br>SB – A (4.0) | No Turn Lanes | Overall – D (48.4)<br>EB – E (63.8)<br>NB – E (58.6)<br>SB – B (16.6) | No Turn Lanes |
| 2025 No-Build | EB – C (20.7)<br>NBL – A (8.8) | EB – 60'/121' | EB – F (159.0)<br>NBL – A (9.1) | EB – 623'/525' |
| 2025 No-Build (Signalized) | Overall – C (22.6)<br>EB – D (50.6)<br>NB – C (20.8)<br>SB – A (3.9) | No Turn Lanes | Overall – E (55.8)<br>EB – E (79.7)<br>NB – E (63.1)<br>SB – B (16.1) | No Turn Lanes |
| 2025 Buildout | EB – F (61.9)<br>NBL – A (9.4) | EB – 170'/192' | EB – F (456.4)<br>NBL – A (9.4) | EB – 1170'/521' |
| 2025 Buildout (Signalized) | Overall – C (29.5)<br>EB – E (69.7)<br>NB – C (28.4)<br>SB – A (4.3) | No Turn Lanes | Overall – F (90.7)<br>EB – F (133.1)<br>NB – F (109.0)<br>SB – B (16.8) | No Turn Lanes |

Due to the existing high volume of eastbound right-turn vehicles, following NCDOT's Congestion Management *Capacity Analysis Guidelines* to prohibit right-turns on red has a significant impact to the operation and reported results for the signalized intersection. There is no foreseeable reason that right-turns on red would not be allowed in the future operation of a signal at this location. Therefore, additional scenarios were analyzed that includes permitting right-turns on red at this intersection. The cycle length was optimized as 60 seconds during the AM and PM peak hours and splits were optimized when allowing right-turns on red. The following Table 6 includes the results of the additional capacity analysis performed to compare allowing right-turns on red in the no-build and buildout scenarios. With the signal in place allowing right turns on red, the intersection is expected to operate at an acceptable level-of-service under no-build and buildout traffic conditions.

**Table 6: Level-of-Service: Barber Mill Road at Amelia Church Road (Signalized with Right-Turns on Red)**

| Condition | AM Peak | | PM Peak | |
|---|---|---|---|---|
| | LOS and Delay (sec/veh) | Turn Lane Synchro 95% Queue Length/SimTraffic Max Queue Length (feet) | LOS and Delay (sec/veh) | Turn Lane Synchro 95% Queue Length/SimTraffic Max Queue Length (feet) |
| 2025 No-Build (Signalized with RTOR) | Overall – B (15.9)<br>EB – B (11.1)<br>NB – C (20.8)<br>SB – A (2.6) | No Turn Lanes | Overall – B (16.1)<br>EB – B (17.3)<br>NB – C (22.6)<br>SB – A (7.3) | No Turn Lanes |
| 2025 Buildout (Signalized with RTOR) | Overall – B (19.8)<br>EB – B (13.7)<br>NB – C (28.4)<br>SB – A (2.5) | No Turn Lanes | Overall – D (41.7)<br>EB – E (64.8)<br>NB – D (44.7)<br>SB – A (8.8) | No Turn Lanes |

As shown in Table 6, the intersection is projected to operate at an acceptable level-of service with the development of the proposed site and the recommended improvement by others (traffic signal) in place. In addition, the projected delay for the eastbound approach at project buildout is less than what is reported under existing conditions without a signal in place. There are no additional roadway improvements recommended at this intersection to be constructed by the developer.

Country Lane at Jasper Drive/Proposed Site Driveway

Country Lane at Jasper Drive is currently an unsignalized intersection. The minor street approach (Jasper Drive) operates under stop control while the major street approaches (Country Lane) are free-flow. With the development of the proposed site, the Proposed Site Driveway will align with the existing intersection and provide the east leg (westbound approach) to the intersection.

**Southbound Approach of Country Lane at Jasper Drive**

Table 7 summarizes the capacity analysis results for the unsignalized intersection of Country Lane at Jasper Drive under 2021 existing and 2025 no-build scenarios. Table 7 also summarizes the capacity analysis results for the 2025 buildout scenarios with the Proposed Site Driveway in place. As shown in Table 7 below, the intersection of Country Lane at Jasper Drive currently operates with short delays for the minor street approach (Jasper Drive) under existing conditions during both the AM and PM peak hours. The intersection is expected to continue to operate with short delays during the AM and PM peak hours under no-build conditions. At project buildout, the eastbound and westbound minor street approaches are expected to continue to operate with short delays.

**Table 7: Level-of-Service: Country Lane at Jasper Drive/Proposed Site Driveway (Unsignalized)**

| Condition | AM Peak | | PM Peak | |
|---|---|---|---|---|
| | LOS and Delay (sec/veh) | Turn Lane Synchro 95% Queue Length/SimTraffic Max Queue Length (feet) | LOS and Delay (sec/veh) | Turn Lane Synchro 95% Queue Length/SimTraffic Max Queue Length (feet) |
| 2021 Existing | EB – A (8.7)<br>NBL – A (7.3) | EB – 3'/31' | EB – A (8.7)<br>NBL – A (7.3) | EB – 0'/31' |
| 2025 No-Build | EB – A (8.7)<br>NBL – A (7.3) | EB – 3'/31' | EB – A (8.7)<br>NBL -A (7.3) | EB – 0'/36' |
| 2025 Buildout | EB – B (10.3)<br>WB – A (9.0)<br>NBL – A (7.3)<br>SBL – A (7.3) | EB – 3'/36'<br>WB – 13'/69' | EB – B (11.9)<br>WB – A (9.1)<br>NBL – A (7.3)<br>SBL – A (7.5) | EB – 3'/31'<br>WB – 8'/65' |

Based on NCDOT's *Warrant for Left and Right-Turn Lanes* as well as the projected delay and queue length at project buildout, the following roadway improvement is recommended for the intersection of Country Lane at Proposed Site Driveway to accommodate the proposed site traffic:

- Provide one ingress and one egress lane on the Proposed Site Driveway.

## RECOMMENDATIONS

The recommended lane geometry is shown on Figure 10.

Based on the capacity analysis presented herein, the following roadway improvements are recommended to be completed **by others** to accommodate existing and no-build site traffic volumes:

*Barber Mill Road at Amelia Church Road:*

- Install a traffic signal (if warranted)

Based on the capacity analysis presented herein, the following roadway improvements are recommended to be completed **by the developer** to accommodate buildout site traffic volumes:

*Barber Mill Road at Country Lane Road:*

- Construct an exclusive northbound right-turn lane on Barber Mill Road with 50' of full-width storage and appropriate taper.
- Construct an exclusive southbound left-turn lane on Barber Mill Road with 75' of full-width storage and appropriate taper.

*Country Lane Road at Jasper Drive/Proposed Site Driveway:*

- Provide one ingress and one egress lane on the Proposed Site Driveway.

# Country Lane Residential TIA

## Recommended Lane Geometry

**LEGEND**

- Stop Control
- Speed Limit (XX)
- Recommended Signal Control (by others)
- Existing Approach Lane
- Recommended Approach Lane (By Developer)
- Departure Lane
- -XX'- Intersection Spacing
- XX' - FULL STORAGE LENGTH

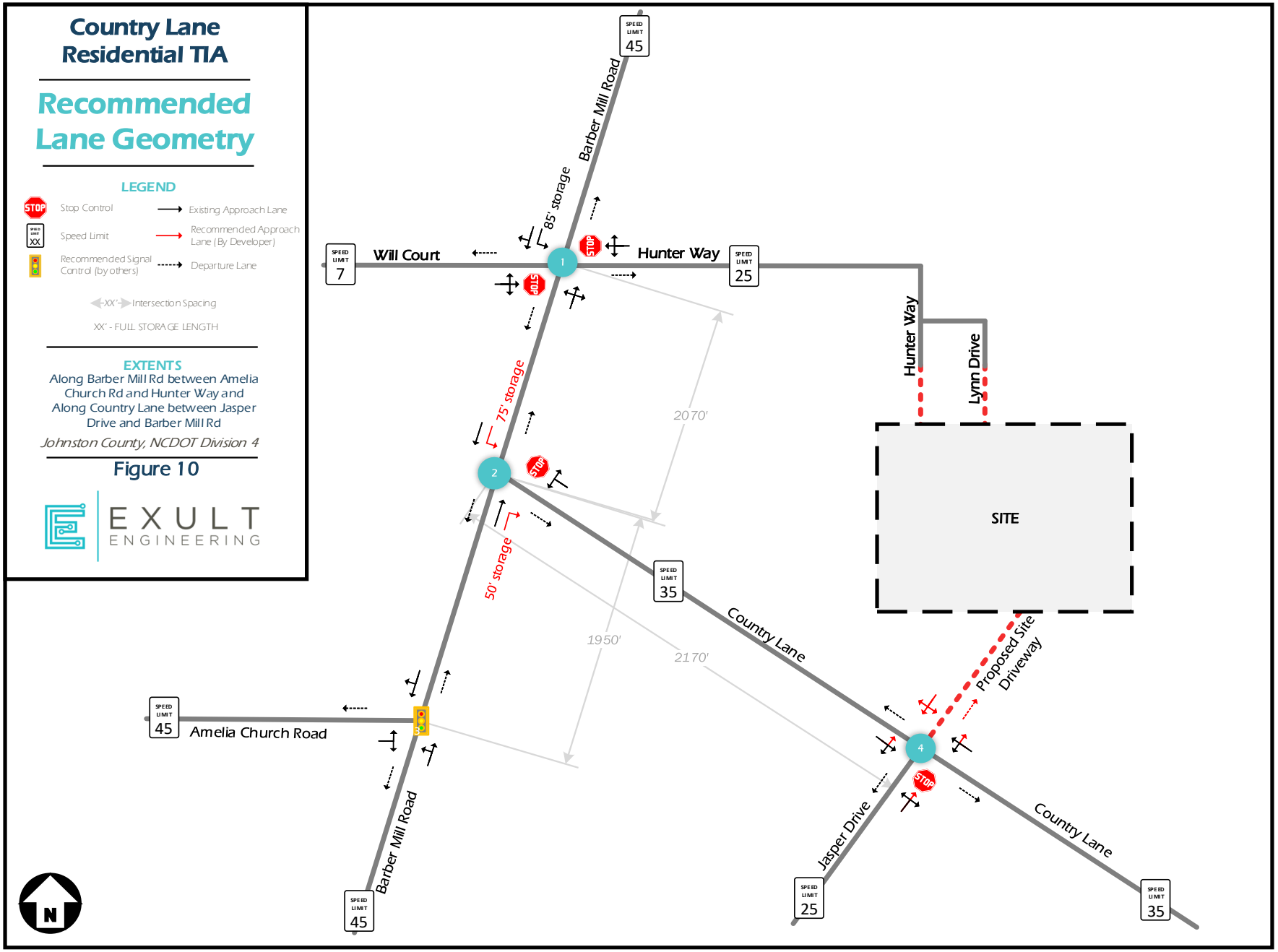
**EXTENTS**

Along Barber Mill Rd between Amelia Church Rd and Hunter Way and Along Country Lane between Jasper Drive and Barber Mill Rd

*Johnston County, NCDOT Division 4*

**Figure 10**

EXULT ENGINEERING



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J. ERIC BOYETTE
SECRETARY

**DELIVERY VIA EMAIL**

August 4, 2021

Joshua Baird, PE
Town Engineer - Town of Clayton
PO Box 879
Clayton, NC 27528

COUNTY: Johnston

SUBJECT: **TIA Review of Proposed County Lane Residential TIA**

Dear Mr. Baird,

Highway Division Four (Division) has reviewed the Traffic Impact Analysis (TIA) for the subject development. Please accept this letter as concurrence with the TIA and the attached TIA Review Report performed by the Congestion Management Section of the Transportation Mobility and Safety Division of NCDOT. Any comments below are in addition to the requirements that are included in the actual TIA or Traffic Impact Analysis Review. All requirements or recommendations included herein are based off current Department and Division policies. This review should not be mistaken for approval of the driveway permit, design/construction plans, final plat, site plans, or access locations. A driveway permit must be obtained prior to construction and NCDOT will approve site plan and access locations during this review. All design aspects of any submitted plans shall comply with current NCDOT Standard Specifications for Roads and Structures and Policy on Street and Driveway Access to North Carolina Highways.

***GENERAL COMMENTS***

- Any roadway improvements and right-of-way dedication necessary to accommodate the road construction shall be the responsibility of the owner/developers. All required ROW shall be dedicated as public ROW in the final plat. Installation of right turn lanes will typically require at least 15' of dedication.
- Lane Closures for required improvement construction will only be permitted under restricted hours due to heavy traffic volumes in the vicinity of the proposed development. These restrictions will be determined during the driveway permitting application and approval.
- These conditions are based on current traffic volumes and projected growth for the study area. If the proposed build out year for this development, as stated in the TIA, varies more than one year an addendum or revised TIA may be required.

*Mailing Address:*
NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS | DIV. 4 DIST. 3
2671 US 70 WEST
GOLDSBORO, NC 27530

*Telephone:* (919) 739-5300
*Fax:* (919) 731-2017
*Customer Service:* 1-877-368-4968
*Website:* www.ncdot.gov

*Location:*
2671 US 70 WEST
GOLDSBORO, NC 26730

- The installation of any improvements being identified by a TIA for an adjacent development does not dismiss or release this development from installation and/or participation of these improvements provided the other development does not move forward as intended. It is recommended that the Developers coordinate this installation with other committed developments. The Department will not participate in determining the value of each individual contribution to this roadway improvement.

**Additional Requirements**

- All driveways for this site on NCDOT ROW must be spaced 600'on secondary and 1,000' on primary routes. This is measured along the ROW line between the tangent projection of the inside edges of adjacent driveways apart measuring the distance between the radiuses of both driveways.
- Any additional improvements that are constructed by others and not shown on this TIA or review must be maintained while constructing the improvements required by this letter.
- If any left turn lane taper overlaps with any existing or proposed middle turn lane or taper, the entire section will need to be widened to three lanes.

Feel free to contact me if you have any additional questions or concerns.

Sincerely,

Sam Lawhorn, PE
District Engineer

cc: Kevin Bowen, PE - Division Engineer
Andy Brown, PE - Division Traffic Engineer
Jim Dunlop, PE – Congestion Management Engineer
Brittany Chase, PE – Exult Engineering
Driveway Permit File

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J. ERIC BOYETTE
SECRETARY

# DEPARTMENT OF TRANSPORTATION

## TRANSPORTATION MOBILITY AND SAFETY DIVISION
## TRAFFIC MANAGEMENT UNIT
## CONGESTION MANAGEMENT SECTION

**August 3, 2021**

# Traffic Impact Analysis Review Report

# Country Lane Residential

**TIA Project:** SC-2021-185
**Division:** 4
**County:** Johnston
**Description:** Country Lane Residential

NORTH CAROLINA PROFESSIONAL SEAL 018080 ENGINEER JAMES H. DUNLOP

James H Dunlop 3 August 2021

**James H. Dunlop, P. E.**
**Congestion Management Engineer**

**Charles Sorrell**
**Congestion Management Project Design Engineer**

**MAILING ADDRESS:**
1561 Mail Service Center
Raleigh, North Carolina 27699-1561

Telephone: 919-814-5000

**LOCATION:**
750 North Greenfield Parkway
Garner, North Carolina 27529

Website: WWW.NCDOT.ORG/DOH/Preconstruct/Traffic/Congestion/CM/

# Country Lane Residential TIA

**SC-2021-185** **Johnston County**

Per your request, the Congestion Management Section (CMS) of the Transportation Mobility and Safety Division has completed a review of the subject site. The comments and recommendations contained in this review are based on data for background conditions presented in the sealed Traffic Impact Analysis (TIA) and are subject to the approval of the local District Engineer's Office and appropriate local authorities.

| **Key Dates** | |
|---|---|
| Initially Received by CMS | 7/28/21 |
| Complete Information Received by CMS | 8/3/21 |
| Date of Preliminary Review Accepting TIA for Review | 8/3/21 |
| Sealed TIA Prepared by EXULT Engineering | 7/28/21 |
| Site Plan Prepared by EXULT Engineering | 1/29/21 |

## Proposed Development

According to the TIA, the proposed Country Lane Residential Development is to be located on Country in Access County. The TIA states the development is to be constructed by 2025 and is to consist of the following:

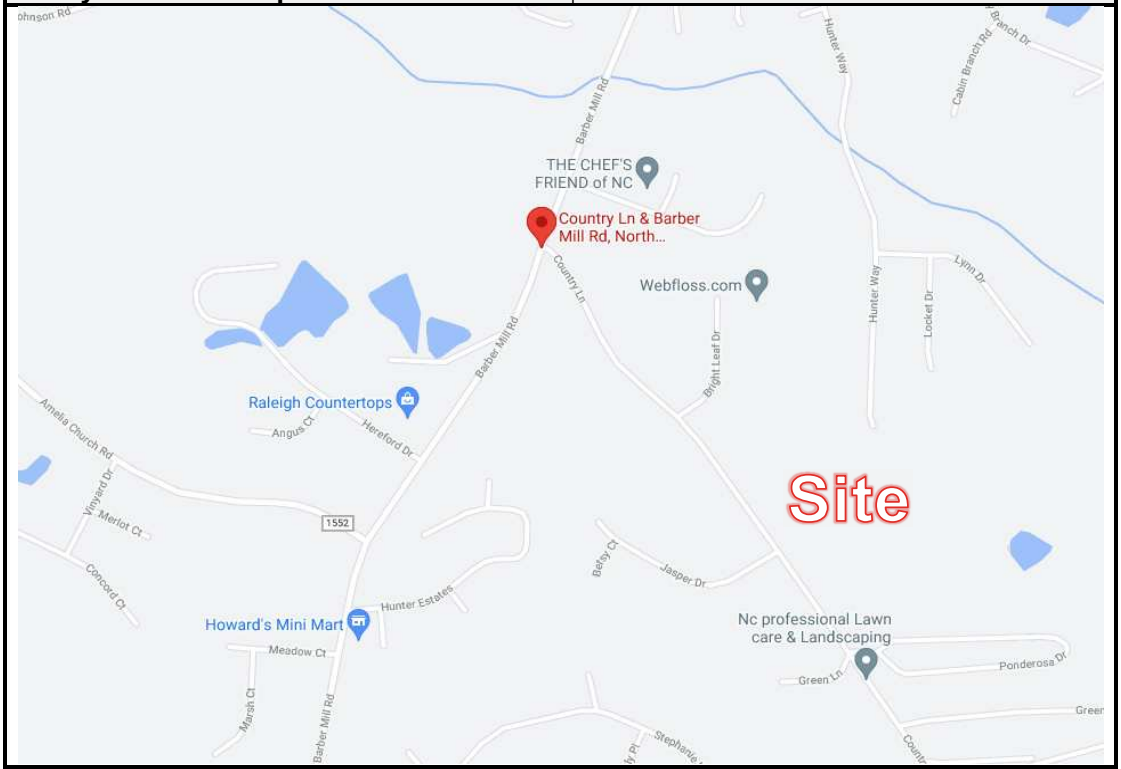
| Land Use | Land Use Code | Size |
|---|---|---|
| Single-Family Detached Housing | 210 | 282 units |

**Trip Generation -** Unadjusted Volumes During a Typical Weekday
Based on appropriate methodology outlined in the *ITE Trip Generation Manual, 10th Ed.*

| | IN | OUT | TOTAL |
|---|---|---|---|
| AM Peak Hour | 52 | 154 | 206 |
| PM Peak Hour | 173 | 102 | 275 |
| Daily Trips | | | 2,700 |

## Study Area

**Study Area and Proposed Site Location - ↑ N**




| TIP Projects in Study Area |
|---|
| None in Area |

## TIA Comments

| The following items vary from our recommended practices: |
|---|
| • TIA had an unfunded improvement that was placed in the background. |

## General Reference

For reference to various documents applicable to this review please reference the following links: https://connect.ncdot.gov/resources/safety/Pages/Congestion-Management.aspx and https://connect.ncdot.gov/resources/safety/Teppl/Pages/Teppl-Topic.aspx?Topic_List=C37.

Once the driveway permit has been approved and issued, a copy of the final driveway permit requirements should be forwarded to this office. If we can provide further assistance, please contact the Congestion Management Section at (919) 814-5000.

# Recommendations

| Legend | |
|---|---|
| ❶ | Improvement by Developer. Congestion Management concurs with recommendation. |
| ❷ | Improvement by Developer. Additional or modified recommendation. |

## Barber Mill Road and Will Court/Hunter Way

No improvements are recommended for site traffic.

## Barber Mill Road and Country Lane

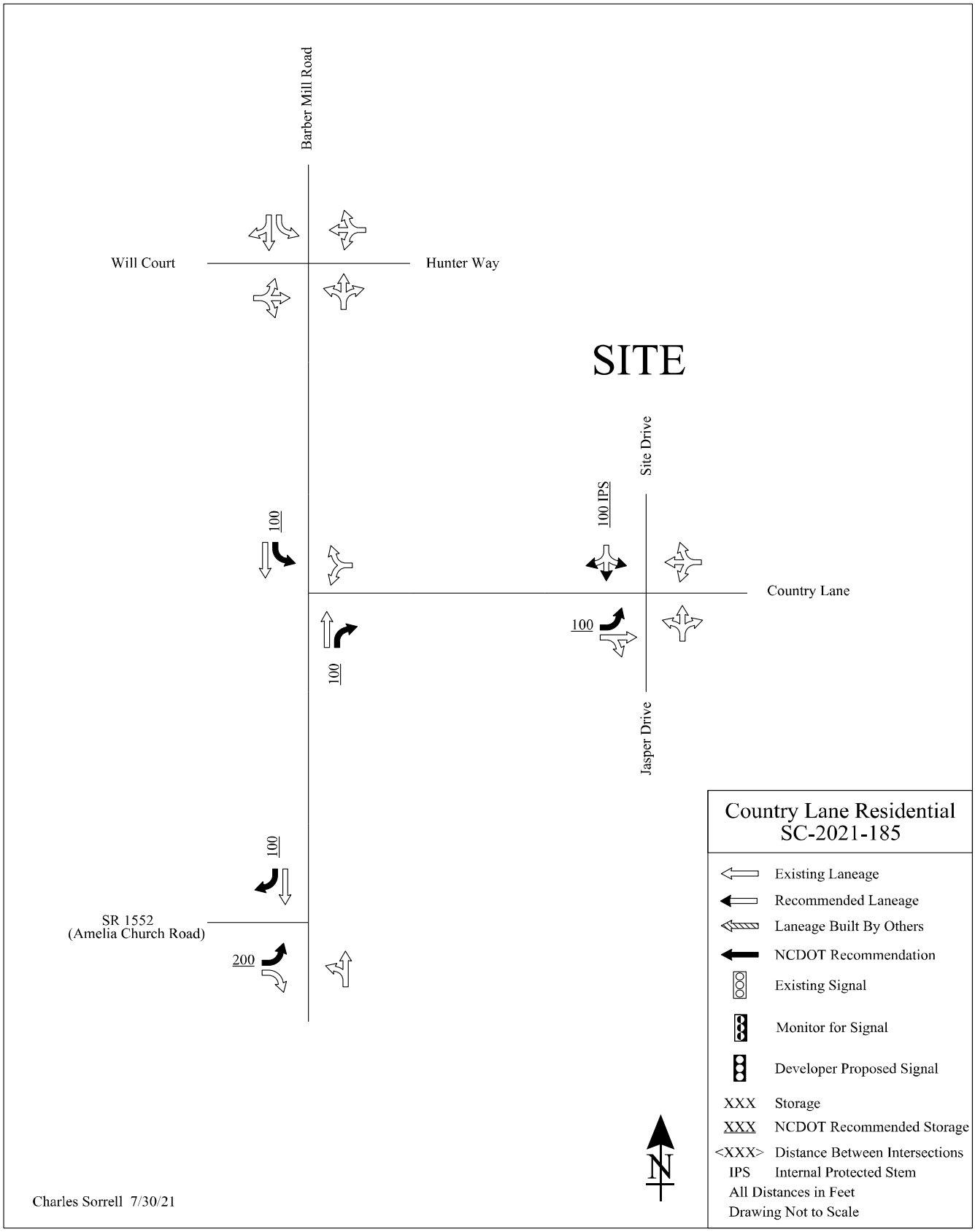
- **SB Barber Mill Road**
  - 100' Left-Turn Lane ❷
- **NB Barber Mill Road**
  - 100' Right-Turn Lane ❷

## Barber Mill Road and Amelia Church Road

- **SB Barber Mill Road**
  - 100' Right-Turn Lane ❷
- **EB Amelia Church Road**
  - 200' Left-Turn Lane ❷

## Country Lane and Jasper Drive/Site Drive

- **EB Country Lane**
  - 100’ Left-Turn Lane ❷
- **SB Site Drive**
  - Two-lane cross-section: one ingress, one egress ❶
  - Egress: Left/Thru/Right-Turn Lane ❶
  - 100’ Internal Protected Stem ❷


Barber Mill Road
Will Court
Hunter Way
SITE
Site Drive
100 IPS
100
Country Lane
100
100
Jasper Drive
100
SR 1552
(Amelia Church Road)
200
Country Lane Residential
SC-2021-185
Existing Laneage
Recommended Laneage
Laneage Built By Others
NCDOT Recommendation
Existing Signal
Monitor for Signal
Developer Proposed Signal
XXX Storage
XXX NCDOT Recommended Storage
<XXX> Distance Between Intersections
IPS Internal Protected Stem
All Distances in Feet
Drawing Not to Scale
N
Charles Sorrell 7/30/21

Town of Clayton
Planning Department
111 E. Second Street, Clayton, NC 27520
P.O. Box 879, Clayton, NC 27528
Phone: 919-553-5002
Fax: 919-553-1720

*Planning Board February 28, 2022*
*Town Council March 21, 2022*
*Town Council May 16, 2022*

# STAFF REPORT

## Application Number: 2021-20-CZM

## Project Name: Country Lane Conditional Zoning District

**Tag #:** 05G03026S
**Location:** Northeast of intersection of Jasper Drive and Country Lane
**Existing Zoning District:** PD-R
**Proposed Zoning District:** CZ-R
**Applicant:** WithersRavenel, Inc.
**Owner(s):** Country Lane Investors, LLC

**Public Noticing:**

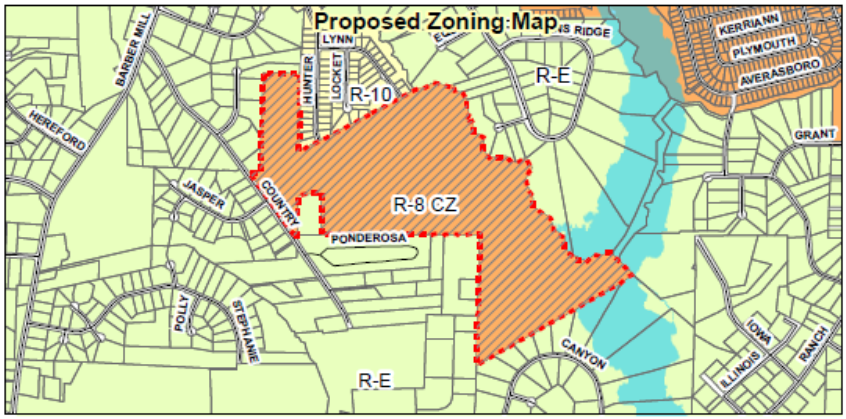
- Neighborhood meeting: March 30, 2021
- Sign posted: February 16, 2022
- PB Letters mailed: February 16, 2022
- Public Hearing Legal Ad Published: March 9, 2022 and March 16, 2022
- TC Letters mailed: March 2, 2022

**REVISED REQUEST:** Rezone the property referenced above, located on Country Lane northeast of its intersection with Jasper Drive, from the Planned Development – Residential Zoning District to a Conditional Zoning – Residential District (CZ-R). The Conditional Zoning District would allow for up to 270 units, or a density of up to 2.347 units per acre. The Conditional Zoning District is accompanied by a Master Plan and Master Plan Narrative.

**SITE DATA:**
**Acreage:** 114.81 acres
**Existing Use:** Vacant

**ADJACENT ZONING AND LAND USES:**

| Direction | Zoning | Existing Use(s) |
|---|---|---|
| North | Residential-10 (R-10) and Residential-Estate (R-E) | Existing single-family residential |
| South | Residential-Estate (R-E) | Existing single-family residential |
| East | Residential-Estate (R-E) | Existing single-family residential |
| West | Residential- Estate (R-E) | Existing single-family residential |




**DEVELOPMENT DATA:**

| | |
|---|---|
| Proposed Uses: | Residential (single-family homes) |
| Proposed Density: | Overall up to 270 units are proposed at an overall proposed residential density of 2.347 units/acre for the development |
| Fire Protection: | Town of Clayton |
| Access/Streets: | Access will be provided from Country Lane, with additional access from Hunter Drive and Lynn Way |
| Water/Sewer Provider: | Town of Clayton |
| Electric Provider: | Duke Energy |

**OVERVIEW:**

The applicant is requesting a Conditional Zoning District with an associated Master Plan to allow for 270 residential dwellings on 114.81 acres. The development will consist of single-family residential homes and is proposed to be developed in 3 phases as shown on the Master Plan.

**Proposed Dimensional Standards and Example Lot Layout:**

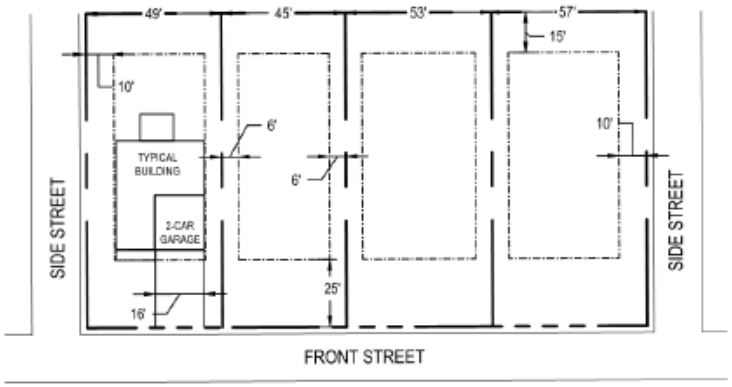
| Unit Type | Minimum Lot Area (SF) | Minimum Lot Width (ft)* | Maximum Lot Coverage (%)** | Maximum Impervious Surface (%) |
|---|---|---|---|---|
| Single-family | 6,000 min. internal; 8,000 min. adjacent to parcel boundary | 45 ft* | 50% | 60% |

**As measured at the front setback line*

***The maximum area of the lot that is permitted to be covered by buildings, including both principal structures and accessory buildings. Building coverage does not include paved areas such as driveways, uncovered porches or patios, decks, swimming pools or pool cages, or roof overhangs of less than three feet.*

| Unit Type | Front | Side Interior | Side Street | Rear | Maximum Height |
|---|---|---|---|---|---|
| Single-family | 25' | 6' | 10' | 15' | 35' |

*Encroachments into the setbacks shall be permitted as listed in UDC dated 11-15-2021.*




**Transportation Improvements:**

The development will be accessed from Country Lane, Hunter Lane, and Lynn Way, and will consist of internal streets built to Town standards with sidewalks, curb and gutter.

A TIA for the development was performed by Exult Engineering and reviewed by NCDOT Congestion Management. Based on the review by NCDOT, the development will be responsible for constructing the following improvements:

- Barber Mill Road at Amelia Church Road: Construct an exclusive southbound right-turn lane on Barber Mill Road with 100' of full-width storage with appropriate deceleration and taper.
- Amelia Church Road at Barber Mill Road: Construct an exclusive eastbound left-turn lane on Amelia Church Road with 200' of full-width storage with appropriate deceleration and taper.
- Barber Mill Road at Country Lane
    - Construct an exclusive northbound right-turn lane on Barber Mill Road with 100' of full-width storage with appropriate deceleration and taper.
    - Construct an exclusive southbound left-turn lane on Barber Mill Road with 100' of full-width storage with appropriate deceleration and taper.

**Stormwater, Water, Sewer and Electricity**

The development will comply with the Town of Clayton Stormwater Ordinance. Public water will be provided by the Town of Clayton from a public water main located along Country Lane, and the development will be responsible for installing a Town of Clayton master meter in order to meter flow from the property. The development will also connect to

existing public water infrastructure on Hunter Lane and Lynn Way. Public sewer is proposed to be provided to the site by installation of sewer infrastructure throughout the site and construction of a new pump station to serve the development. Electric power for the development will be provided by Duke Energy, and the development will install streetlights meeting the Town of Clayton standards.

### Open Space/Amenities

The development will preserve approximately 45 acres of open space, including areas of riparian buffers, floodplains, streams, and wetlands. The development will also provide a minimum one-acre amenity site designated for a fitness/recreation center for the neighborhood. The developer has agreed to conditions specifying specific additional amenities that will be provided for the development. The development will dedicate a greenway and public utility easement along the eastern property boundary for future installation of a greenway as shown in the 2045 Growth Plan. The development will also be responsible for meeting Section 155.203(I)(2) of the Unified Development Ordinance, requiring dedication or payment-in-lieu for recreation or open space to the Town.

### Landscaping/Buffers

The development will provide a 15-foot-wide Type C landscape buffer along the perimeter of the development. The buffer will include opaque screening consisting of a wall, fence, berm, evergreen hedge, or combination thereof. The development will also include street trees meeting the requirements in the UDC.

### Architectural Standards

The applicant has provided several conditions (Conditions 14-19) addressing architectural standards for the proposed devleopment. The applicant also states that the development will meet the standards in the Town's 2006 Design Guidelines.

## CONDITIONAL ZONING AND MASTER PLAN APPROVAL CRITERIA

### Conditional Zoning District Approval Criteria

*See Master Plan Narrative for Applicant Responses*

In connection with its legislative decision on a conditional zoning district request, the Town Council may consider factors including, but not limited to, the following:

1. Consistency with the adopted plans and policies of the Town
   *Staff Commentary:* The development application was submitted prior to approval of the 2045 Growth Plan. The 2040 Growth Plan identifies the development area as "Low Density Residential," which recommends residential development at a density of up to 3 dwelling units/acre. The 2045 Growth Plan was adopted in November 2021 identifies the development area as "Medium Density Residential," which calls for "housing units that are more urban in character and in closer proximity to commercial centers and services." The Medium Density Residential land use category in the 2045 Growth Plan calls for a density of 3-5 units per acre, primarily consisting of single-family homes with less than 50% attached units. The development proposal is consistent with the 2040 Growth Plan and can be considered consistent (although a lower overall density) with the 2045 Growth Plan.

2. Suitability of the subject property for uses permitted by the current versus the proposed conditional district
   *Staff Commentary:* The current zoning district for the property is Planned Development – Residential (PD-R), which is no longer in use. The property is surrounded by residential neighborhoods at varying densities and is suitable for residential development.

3. Whether the proposed change tends to improve the balance of uses, or meets a specific demand in the Town
   *Staff Commentary:* The surrounding area is residential, and the proposed use is residential. The proposed conditional zoning district will allow for additional suburban-style residential development.

4. The capacity of adequate public facilities and services including schools, roads, recreation facilities, wastewater treatment and water supply facilities and stormwater drainage facilities for the proposed conditional district
   *Staff Commentary:* The proposed development would be served by Johnston County schools, and none of the area schools are on the County's "capped" list for 2021-2022. Access to the development will be provided by Country Lane, with an internal network of streets providing access to the homes. The road accessing the lots south of the creek crossings has been modified to a median-divided cross-section (See Master Plan) with two separated travel lanes in order to provide adequate access to this area for emergency access. The development will be required to meet the Town's

Recreation and Open Space requirements in Section 155.203(I), and in addition, will provide an amenity center for the residents of the development. The development will also be providing approximately 45 acres of open space that will allow for passive and/or active recreation, as well as dedication of a greenway easement along the eastern property boundary. The development will be required to meet the requirements in the Town's Stormwater Ordinance. The property has access to public water along Country Lane, Hunter Way and Lynn Drive, and will install sanitary sewer throughout the development, which will connect to a new pump station and sewer force main constructed for the development.

5. It has been determined that the legal purposes for which zoning exists are not contravened
   *Staff Commentary:* Staff does not believe that legal purposes for which zoning exists will be contravened by the approval of the conditional zoning district.

6. It has been determined that there will be no adverse effect upon adjoining property owners unless such effect can be justified by the overwhelming public good or welfare
   *Staff Commentary:* The proposed development will consist of suburban-style, low-density residential development. While the development may consist of smaller lots than adjacent properties, with the open space and natural areas that will be preserved, the overall density of the development is comparable to the surrounding developments and area.

7. It has been determined that no one property owner or small group of property owners will benefit materially from the change to the detriment of the general public
   *Staff Commentary:* While the owners/developers may benefit from the development, staff believes that with the proposed conditions there will be no detriment to the general public.

**Master Plan Approval Criteria**

The master plan shall include and the applicant shall be responsible for successfully addressing the following:

- Compliance with § 155.203(L) and all other applicable requirements of this chapter, or analysis and justification if it deviates from the requirements of this chapter;
- Consistency with the Clayton General Design Guidelines;
- Conformance of the proposal with the stated purpose of the requested conditional zoning district;
- Compatibility of the proposed development with the adjacent community;
- The quality of design intended for each component of the project and the ability of the overall development plan to ensure a unified, cohesive environment at full build-out;
- Compatible relationships between each component of the overall project;
- Self-sufficiency of each phase of the overall project;
- The fiscal impact of the proposal and the proposed financing of required improvements;
- The success of the proposal in providing adequate pedestrian and bicycle links within the development and with the adjacent community; and
- The effectiveness with which the proposal protects and preserves the ecologically sensitive areas within the development.

*Staff Commentary:* The applicant has provided a Master Plan Narrative providing details of the proposal. Through the Master Plan, Narrative and proposed conditions, staff believes that the applicant has successfully met the criteria.

**NEW OR UPDATED INFORMATION SINCE MARCH 21, 2022 TOWN COUNCIL MEETING**

Following the close of the Public Hearing at the March 21, 2022 Town Council meeting, the applicant has made several changes, proposed new conditions, and provided additional information at the request of Council and based on public comments received during the Public Hearing.

**Changes to Request**

- Reduce the maximum number of units from 299 to 270.
- Reduce the maximum gross density from 2.6 units/acre to 2.347 units/acre.
- Increase the interior minimum lot size from an average of 6,000 square feet to a minimum of 6,000 square feet.
- Increase the minimum lot size of lots adjacent to the parcel boundary from an average of 8,000 square feet to a

minimum of 8,000 square feet.

New Proposed Conditions:

- Add a condition that a minimum of 90 lots will be a minimum of 53 feet wide, as measured at the front setback line.
- Add a condition requiring enhanced erosion control measures for disturbances immediately along Little Creek or its tributaries.
- Add several conditions regarding architectural elevations, variability and materials, including a requirement that 15% (or 41) of the homes include a masonry element on one or more facades.
- Add a condition that no private residential lot(s) will be located in Resource Conservation Areas, and that all Resource Conservation Areas will be owned and maintained by the Homeowners Association.
- Add a condition requiring installation of a traffic calming device, with approval of the Town Engineering and Public Works Departments, at the connection to the existing stub at Lynn Drive.
- Add a condition regarding maximum grade/slopes on proposed lots.
- Add a condition requiring the developer to resurface Country Lane from the development entrance to Barber Mill Road.
- Add a condition requiring the developer to enter into an Operations and Maintenance Agreement for the proposed stormwater controls.

Additional Information

The applicant has provided new/additional information in response to Council questions and public comments, including a Cultural Resources Review, letters from the Catawba Nation Tribal Historic Preservation Office and the North Carolina State Historic Preservation Office, a Specimen Tree Report, and a 3D Rendering exhibit to show how the neighborhood may be viewed from adjoining properties. Staff does not have the expertise to independently verify any of the information provided in the Cultural Resources Report or Specimen Tree Report, however both Reports appear to have been prepared and signed by appropriate experts.

## CONSIDERATIONS:

- The Town Council shall consider the recommendation of the Planning Board and the Planning Director.
- The Town Council shall approve, approve with conditions, or disapprove the conditional zoning district. Any additional, revised or deleted conditions from those below must be signed or declined by the applicant prior to the Council rendering a decision.
- Concurrently with adopting, denying or remanding any conditional zoning district, the Town Council shall adopt a statement describing whether its action is consistent with the adopted plans and policies of the Town and explaining why the Town Council considers the action taken to be reasonable and in the public interest.
- If the conditional zoning district is not consistent with the 2045 Growth Plan and is approved, the 2045 Growth Plan Future Land Use Map will be considered amended to match the proposed conditional zoning district.
- If approved, the conditional zoning district, master plan and narrative will be recorded with Johnston County and shall guide future development for this land. The conditional zoning district, master plan, and narrative shall not expire, and will run with the land.

## STAFF RECOMMENDATION:

Planning staff recommends approval of the Conditional Zoning District, based on the proposed application meeting the criteria above and the recommended conditions of approval agreed-to by the applicant.

## PLANNING BOARD RECOMMENDATION:

The Planning Board unanimously recommended approval of the Conditional Zoning District, based on the proposed application meeting the criteria for approval and with the inclusion of the recommended conditions of approval agreed-to by the applicant.

The Planning Board found the proposed Conditional Zoning District request to be consistent with the adopted Town of Clayton 2040 Comprehensive Growth Plan.

**RECOMMENDED PLAN CONSISITENCY STATEMENT FOR TOWN COUNCIL:**

If the Town Council approves the Conditional Zoning District, staff recommends the following Plan Consistency Statement be adopted by Council:

*The proposed Conditional Zoning District is consistent with the Future Land Use Map in the Town's adopted 2040 Comprehensive Growth Plan. The proposed Conditional Zoning District, with the recommended conditions agreed-to by the applicant, is also consistent with the following Goals and Strategies of the 2040 Comprehensive Growth Plan:*

***Goal LU1:*** *Preserve Clayton's small-town character while allowing for growth and development in appropriate areas.*

***Strategy LU1.1.2:*** *Support residential development at varying densities based on the Future Land Use Map.*

***Goal LU2:*** *Encourage quality development which maximizes existing infrastructure, promotes walking and biking, and enhances travel safety.*

***Strategy LU2.1.2:*** *Require vehicular connectivity between existing and future adjacent developments.*

**RECOMMENDED CONDITIONS OF APPROVAL:**

If approved, staff is recommending the following conditions of approval be placed upon the application. The applicant has reviewed the proposed conditions and is in agreement with the conditions proposed by staff.

1. Following Town Council approval, an electronic copy of the Master Plan and Narrative including the Conditions of Approval shall be submitted to the Planning Department for final approval.
2. The Development shall meet all adopted Town of Clayton Unified Development Code (UDC) requirements, Town of Clayton Engineering and Stormwater design standards, and the North Carolina Fire Code and NFPA Fire standards, except where specifically modified by the approved master plan.
3. The Development shall be constructed in substantial conformance with the Master Plan and Master Plan Narrative as approved by the Clayton Town Council.
4. Permitted uses in the Development shall be limited to the following uses:
    - Single-family House
    - Park
    - Fitness/Recreation Center
    - Utility, Minor
5. The following standards will apply to the Development:
    - Maximum Number of Single-Family Houses: 270
    - Maximum Density: 2.347 dwelling units per acre
    - Minimum Lot Size, Interior Lots: 6,000 Square Feet
    - Minimum Lot Size, Adjacent to Project Boundary: 8,000 Square Feet
6. A minimum of 90 residential lots shall have a minimum lot width of 53', as measured at the front setback line; all other residential lots shall have a minimum lot width of 45', as measured at the front setback line.
7. Other dimensional standards and setbacks shall meet the requirements in the approved Master Plan Narrative.
8. A minimum of 45 acres of the site will be comprised of open space, and at least 50% of the required recreation and open space will be part of a contiguous parcel.
9. Enhanced erosion control measures shall be provided along the limits of disturbance immediately along the Little Creek and its tributaries, where areas identified as steep slopes are to be graded.

10. A 1-acre site will be designated for a Fitness/Recreation Center for the Development, with at least one of the following amenities to be included:
    - Pool
    - Splashpad
    - Playground
    - Clubhouse
11. At least two of the following amenities will also be included in the Development:
    - Great lawn
    - Picnic shelter
    - Pavilion
    - Firepit
    - Dog Park
12. A two-lane median divided residential collector street will provide access from the northern phases to the southern phase of the Development, acting as two means of access in the event of emergencies, while also minimizing environmental impacts.
13. The following transportation improvements will be approved and bonded by NCDOT prior to approval of the Final Plat:
    a. Barber Mill Road at Amelia Church Road
        - Construct an exclusive southbound right-turn lane on Barber Mill Road with 100' of full-width storage with appropriate deceleration and taper.
        - Construct an exclusive eastbound left-turn lane on Amelia Church Road with 200' of full-width storage with appropriate deceleration and taper.
    b. Barber Mill Road at Country Lane Road
        - Construct an exclusive northbound right-turn lane on Barber Mill Road with 100' of full-width storage with appropriate deceleration and taper.
        - Construct an exclusive southbound left-turn lane on Barber Mill Road with 100' of full-width storage with appropriate deceleration and taper.
14. No more than 30 Certificates of Occupancy will be issued within the Development before the second required access point is constructed.
15. The Development will be responsible for the installation of a public sanitary sewer system that will serve up to 270 residential units in Country Lane, including the installation of a Pump Station and approximately 8,000 linear feet of Force Main Sewer. Easements will be provided for the public utilities that are installed outside of public right of way per Town of Clayton Requirements.
16. The Development shall dedicate a Greenway and Public Utility Easement along the entire eastern property boundary for the future construction of a greenway and sewer utilities. The final location of the easement shall be based on coordination with Town staff. The Greenway and Public Utility easement shall be at least 20 feet wide, and a minimum 20-foot-wide access to the easement shall be provided from the pump station area.
17. The Development shall provide a Payment-in-Lieu for Construction of a future 10-foot-wide asphalt greenway in the dedicated easement or shall construct a 10-foot-wide asphalt greenway in the dedicated easement. If the Development constructs the greenway, an additional 20-foot-wide Public Utility Easement shall be provided adjacent to the greenway easement for future installation of sewer utilities. Payment-in-Lieu shall be calculated at 125% of the estimated construction cost (based on a sealed Engineer's Estimate) and shall be provided prior to approval of the Final Plat for Phase 3.

18. The Development shall construct at least two connections to the greenway easement. One connection shall be in Phase 2 and one connection shall be in Phase 3. These connections shall be a minimum of 5 feet wide and may be constructed of asphalt or concrete.
19. A minimum of six (6) different home plans, each with a minimum of three (3) different elevations and six (6) different color palettes, will be provided to add variety to the neighborhood. No home can be constructed with an exterior elevation (front façade) or color palette that is identical to the home on either side or directly across the street from it.
20. A minimum of 15% of the homes (at least 41 homes) shall include masonry on one or more of the façades.
21. All homes shall have at least two (2) of the following architectural elements:
    - Decorative window trim;
    - Shutters;
    - Board and batten;
    - Shakes;
    - Decorative gable vents, decorative gable window or gable trim detail;
    - Hip rooflines;
    - Bay window;
    - Water table over garage door;
    - Decorative horizontal trim boards;
    - Dormer(s);
    - Brick or stone accent;
    - Front porch columns.
22. Elevations provided are representative of the product that may be built while still meeting the architectural design commitments. Elevations may change due to revisions in base models, finishes preferred by home buyers, home plans more suitable for individual lot layout and driveway placement, or other factors. Alternative elevations proposed will be reviewed and approved by the Planning Director for consistency with the architectural design commitments at time of building permit review.
23. All homes will have a minimum of 2-car garages.
24. Energy efficient features will include a minimum of three of the following: 14- SEER Energy- efficient HVAC System, Air Barrier & Sealing, Carbon Monoxide Detectors, Decorative Fiberglass Front Door, Gas Heat (2nd Floor Electric Heat Pump if Separate System), LED Lighting throughout Home, Low VOC Carpet, Low VOC Paint, Low-E Insulated Single-hung Vinyl Widows w/ Tilt Out Feature, MERV 8 HVAC Filters, Programmable Thermostat, R-38 Attic Insulation, Separate HVAC System or Zone for Each Floor (per plan), Smoke Alarms in Each Bedroom, Water-saving Faucets & Shower Heads.
25. A 15-foot-wide Type C Landscape Buffer will be provided along the Development boundary as shown on the Master Plan. The Type C Landscape Buffer shall include a minimum 6-foot-high opaque screening (at installation) consisting of a wall, fence, berm, evergreen hedge, or combination thereof.
26. A minimum of 30 overflow parking spaces shall be provided, spaced throughout the development. Overflow parking spaces shall meet the standard dimensions for parking spaces in the UDC.
27. No private residential lots shall be located on areas that would otherwise be designated as Resource Conservation Area (RCA). These areas shall be owned and maintained by the Homeowners Association.
28. The development shall provide a traffic calming device at the connection to the existing stub at Lynn Drive, subject to approval by the Town Engineering and Public Works Departments.

29. Lot grades shall not exceed slopes of 3:1 on residential lots. Retaining walls shall be allowed to make up grade on steep areas of the site. Retaining wall easements shall be provided if a wall or part of the wall structure is located within lots other than HOA maintained.
30. This development shall provide resurfacing of Country Lane from the south end of the site frontage on Country Lane to Barber Mill road, outside of the limits already covered by the TIA-recommended intersection improvement. Resurfacing shall consist of a 1.5 inch layer of overlay asphalt over the existing street section (~20 feet wide), subject to approval by NCDOT as part of a 2-Party Encroachment Agreement.
31. The development shall enter in an Operation and Maintenance Agreement for the proposed Stormwater Control Measures, as outlined by the Town of Clayton UDC Section 158.061.
32. To the extent of any conflict between the Master Plan, Master Plan Narrative and these conditions, these conditions shall control.

**ATTACHMENTS:**

1) March 21, 2022 Town Council Meeting Packet Materials
2) Revised Staff Report
3) Revised Master Plan Narrative
4) Revised Master Plan
5) Revised Architectural Elevations
6) New 3D Rendering Exhibit
7) New Cultural Resources Review
8) New Catawba Nation Tribal Historic Preservation Office Letter
9) New NC State Historic Preservation Office Letter
10) New Specimen Tree Report
11) Revised Recommended Conditions of Approval – Signed by Applicant
12) Wastewater Allocation Scoring

WithersRavenel
Our People. Your Success.

# Country Lane Conditional Zoning Master Plan Narrative

Town of Clayton, North Carolina

May 4th, 2022

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Asheville | Cary | Charlotte | Greensboro | Lumberton | Pittsboro | Raleigh | Southern Pines | Wilmington

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# I. Purpose and Intent

The proposed rezoning is being submitted as a conditional zoning request. The addition of conditions to the request is intended to provide a limit to the uses, a minimum lot size along the adjacent properties, and a maximum density and number of dwelling units. The current zoning has an expired site plan; therefore, a rezoning is needed to amend the current zoning map and district.

## A. Compatibility

The proposal is compatible with the adjacent community. It is designed to create a harmonious relationship with all surrounding uses. There are no foreseeable adverse impacts to property owners.

## B. Phasing

As shown on the master plan, the project is to be completed in three phases. Each phase will be self-sufficient with regards to infrastructure and amenities.

# II. Conditional Zoning District Approval Criteria

The Town Council may consider the following factors in its legislative decision.

## A. Consistency

Consistency with adopted plans and policies of the Town.

The proposal is consistent with the adopted plans and policies of the Town of Clayton. The Town's Future Land Use Map designates the majority of the property as "Low-Density Residential" which is intended to support the suburban character with single-family dwellings at up to three dwelling units per acre. The proposed plan provides single-family dwellings in a suburban character at a gross density of less than three units per acre, thereby meeting the Future Land Use Map.

## B. Suitability

Suitability of the subject property for uses permitted by the current versus the proposed district.

The existing zoning is accompanied by an existing Master Plan that has expired, making rezoning a necessity. Rezoning to CZ-R allows for a more traditional approach to the suburban development of residential units without the context and variation proposed by the previous planned development district.

## C. Balance of Uses and Specific Demand

Whether the proposed change tends to improve the balance of uses or meets a specific demand in the Town.

The proposed change is from one residential district to another one that can be compatible with the Future Land Use Map. It will encourage development of suburban character at a density that is appropriate with the surrounding features.

The Town is seeking more single-family residential to balance out requests that have been made to the Town in more recent submittals.

## D. Public Facilities

The capacity of adequate public facilities and services including schools, roads, recreation facilities, wastewater treatment and water supply facilities, and stormwater drainage facilities for the proposed conditional district.

Based on recent discussions with the Town of Clayton Engineering Department in regard to this proposed rezoning request, it is our understanding that adequate public facilities are available for this project, or that they will be available as improvements provided by this project.

1. Schools

   The subdivision is expected to be served by the Johnston County Public School System. Based on the JCPS School Finder, for the 2021-22 calendar year the assigned schools are West Clayton Elementary, Clayton Middle School, and Clayton High School. None of the schools are listed in the "2021-2022 Capped Schools" list.

2. Roads

   The street network will consist of public streets in accordance with the Town of Clayton typical street cross section. The road accessing the southern lots will have a modified road section as shown on Sheet C2.0 – Master Plan. This modified road section will be median divided and provide two separate travel lanes allowing emergency vehicle access in the even one lane is obstructed.

3. Recreation

   In addition to participation in the Town's Recreation and Open Space Fees, the site will have its own recreation with the construction of an amenity center and the addition of recreational opportunities throughout the neighborhood.

4. Stormwater

   In accordance with the Town's requirements, the SCMs will be designed to treat and control one inch of rainfall. Peak discharge will be controlled at or below pre-development levels for the 1-year, 2-year, 10-year, and 25-year storm events.

## E. Legal Purposes

It has been determined that the legal purposes for which zoning exists are not contravened.

The legal purposes for which zoning exists have not been violated. Further, the Town of Clayton in adopting Conditional Zoning through amendments to the UDC provide

for the possibility of mutually agreeable zoning conditions through the rezoning process for this request.

### F. Adverse Effects

It has been determined that there will be no adverse effect upon adjoining property owners unless such effect can be justified by the overwhelming public good or welfare.

The development of the property as a suburban single-family subdivision is compatible with the adjoining land uses which contain similar developments and thus will not adversely affect adjoining properties.

### G. Material Benefit

It has been determined that no one property owner or small group of property owners will benefit materially from the change to the detriment of the general public.

No group will benefit materially to the detriment of the general public from the rezoning nor development of the property.

## III. Master Plan Approval Criteria

### A. Compliance with § 155.203(L)

Compliance with § 155.203(L) and all other applicable requirements of Chapter 155, or analysis and justification if it deviates from the requirement of Chapter 155.

The proposed project complies with the requirements, uses, and buffers of the CZ-R district. The project made up of over 10 contiguous acres of land, proposes residential use, and provides a perimeter buffer along the project boundaries. This project is intended to provide a variety of housing options for the Town.

### B. Clayton General Design Guidelines

Consistency with the Clayton General Design Guidelines.

The proposed project is consistent with the access, parking, loading, landscaping, screening, buffering, signage, and lighting guidelines outlined in Sections 155.400 through 155.404.

### C. Conformance with Purpose

Conformance of the proposal with the stated purpose of the requested conditional zoning district.

The district's intent is to provide a mix of housing types, including amenities, buffering, and open space. It is intended for large-scale residential projects. The proposed project is a large-scale residential project on approximately 115 acres that contains a community amenity site, perimeter buffering and a minimum of 30% combined RCA and open space.

## D. Compatibility with Community

Compatibility of the proposed development with the adjacent community.

The proposed single-family residential development is at a density consistent with the closest homes located along Hunter Way, Locket Drive, and Lynn Drive as well as the proximate development of Bristol at Cobblestone. These homes are in the Residential 10 (R-10) zoning district. The PD-R will be compatible with the surrounding Residential Estate (RE) zoning district because the gross density will remain under 2.44 units per acre. The maximum density permitted in RE is 2.1 units per acre. In addition, RE, as defined in the UDC, permits cluster subdivisions with reduced lot sizes and more open space, similar to this proposal.

## E. Quality

The quality of design intended for each component of the project and the ability of the overall development plan to ensure a unified, cohesive environment at full build-out.

One iconic element of this project is the minimum dedication of 30% combined RCA and open space for the site. It was determined that the quality of this project would rely on its preserved and protected lands. With this design principal, quality homes, roads, and amenities were developed that flow around these features to create a quality community. Its emphasis on protection guides design cohesion.

## F. Compatible Relationships

Compatible relationships between each component of the overall project.

Country Lane has been intentionally designed to emphasize harmony between access, dwellings, amenities, and the environment. Homes and roads are strategically located to flow around sensitive natural features, leaving much of the project undeveloped. This in turn aesthetically improves the homes located on the project, that will front passive green spaces and ponds.

## G. Self-sufficiency

Self-sufficiency of each phase of the overall project.

Each phase of the project will be designed so as to conform to applicable requirements for connectivity, open space, water and sewer service, and stormwater management such that the overall project will be compliant with such standards at each phased condition.

## H. Fiscal Impact

The fiscal impact of the proposal and the proposed financing of required improvements.

Development of this site in any form or fashion requires rezoning of the property. By allowing this rezoning, the Town will be benefit from additional tax base and development of this property in a manner consistent with the Comprehensive Plan.

Financing for the development will be provided by the developer, including the development's proportional share of the Town's proposed regional sewer lift station project.

### I. Pedestrian and Bicycle Links

The success of the proposal in providing adequate pedestrian and bicycle links within the development and with the adjacent community.

This project will include direct connections to the existing roadway and sidewalk stubs at Hunter Way and Lynn Drive. All new proposed streets will have pedestrian sidewalk connectivity in accordance with Town standards and design guidelines.

### J. Ecological Sensitivity

The effectiveness with which the proposal protects and preserves the ecologically sensitive areas within the development.

Areas of riparian buffers, streams, and wetlands will be protected as part of this development plan. There are two proposed stream crossings, both of which are necessary for access and connectivity, and both of which are designed to minimize impact. Although the required riparian buffer along Little Creek is 50' wide, development will not be allowed within 150' of Little Creek.

## IV. General Information

### A. Project Data

| | |
|---|---|
| Project Name | Country Lane |
| Applicant | WithersRavenel |
| Existing Zoning | PD-R |
| Proposed Zoning | CZ-R |
| NC PIN | 165804821701 |
| County Tag | 05G03026S |
| Developer | Clayton Properties Group, Inc. dba Mungo Homes of North Carolina, Inc. |
| **Authorized Agent** | WithersRavenel, Inc. |

### B. Vicinity Map

## V. Master Plan Summary

The project is located on Country Lane Road with additional access points connecting to Hunter Way and Lynn Drive, which are currently stubbed to the project site. The master plan for this single-family subdivision will not exceed 2.347 dwelling units per acre or 270 lots.

## VI. Fiscal Impacts

The proposed product and pricing will be commensurate with the existing homes on adjacent properties; therefore, it is reasonable to assert that the development will have little to no impact on the value of neighboring properties.

The compact lot layout creates less infrastructure demand on the part of the Town than a conventional large-lot subdivision. It reduces the Town's maintenance costs. In addition, the design provides an efficient road network for Town services.

The additional rooftops will increase the possibilities for nonresidential development and investment.

## VII. Consistency with Plans and Codes

The Town of Clayton's comprehensive plan designates the majority of the property as "Low-Density Residential." The plan describes this land use as suburban in nature with single-family dwellings at up to three dwelling units per acre. The proposed development has a density of less than three units per acre and meets the criteria described.

### A. Zoning

The existing PD zoning district eliminates the possibility of development without a rezoning. The proposed rezoning district is Conditional Zoning (CZ-R). The Unified Development Code § 155.200(c) states, "The R-8 district is established to provide for

orderly suburban residential development and redevelopment and is intended to maintain residential areas at suburban densities characterized predominantly by single-family detached units."

CZ-R allows for a traditional approach to residential suburban development without the variation proposed by the previous planning district. The proposed development is consistent with the stated purpose of the conventional R-8 district.

## B. Conditions

1. Permitted uses shall be limited to single-family, detached residential dwellings, fitness / recreation center, minor utility, and preserved open space.
2. The gross density shall not exceed 2.347du/ac, and the maximum number of dwelling units shall not exceed 270.
3. Lots adjacent to perimeter boundary shall have a minimum lot size of 8,000 sf. All other lots shall have a minimum size of 6,000 sf.
4. Residential Lots shall have a minimum width of 45 feet, and a minimum of 90 lots shall have a minimum width of 53 feet.
5. The project shall have a minimum of 30% open space, based on gross acreage.
6. A minimum of 45 acres of the site will be comprised of open space.
7. At least 50% of the required recreation and open space will be part of a contiguous parcel.
8. Enhanced erosion control measures shall be provided along the limits of disturbance immediately along the Little Creek and its tributaries, where areas identified as steep slopes are to be graded.
9. A 1-acre site will be designated for a Fitness/Recreation Center for the development with at least one of the following amenities:
    - Pool and cabana
    - Splashpad
    - Playground
    - Clubhouse
10. At least two of the following amenities will be included in the development:
    - Great lawn
    - Picnic shelter
    - Pavilion
    - Firepit
    - Dog park
11. A two-lane median divided residential collector street will provide access from the northern phases to the southern phase of the development, acting as two means

of access in the event of emergencies, while also minimizing environmental impacts.

12. All TIA requirements in will be installed prior to the issuance of the first Certificate of Occupancy.

    a. Barber Mill Road at Amelia Church Road

        - Construct an exclusive southbound right-turn lane on Barber Mill Road with 100' of full-width storage with appropriate decel and taper.
        - Construct an exclusive eastbound left-turn lane on Amelia Church Road with 200' of full-width storage with appropriate decel and taper.

    b. Barber Mill Road at Country Lane Road

        - Construct an exclusive northbound right-turn lane on Barber Mill Road with 100' of full-width storage with appropriate decel and taper.
        - Construct an exclusive southbound left-turn lane on Barber Mill Road with 100' of full-width storage with appropriate decel and taper.

13. No more than 30 Certificates of Occupancy will be issued within the subdivision before the second required access point is constructed.

14. A minimum of six (6) different home plans, each with a minimum of three (3) different elevations and six (6) different color palettes, will be provided to add variety to the neighborhood.

15. A minimum of 15% of the homes shall include masonry on the façade.

16. All homes shall have at least 2 of the following architectural elements:

        - Decorative window trim;
        - Shutters;
        - Board and batten;
        - Shakes;
        - Decorative gable vents, decorative gable window or gable trim detail;
        - Hip rooflines;
        - Bay window;
        - Water table over garage door;
        - Decorative horizontal trim boards;
        - Dormer;
        - Brick or stone accent;
        - Front porch column.

17. Elevations provided are representative of the product that may be built while still meeting the architectural design commitments. Elevations may change due to revisions in base models, finishes preferred by home buyers, home plans more suitable for individual lot layout and driveway placement, or other factors. Alternative elevations proposed will be reviewed and approved by the Planning

Director for consistency with the architectural design commitments at time of building permit.

18. All homes will have a minimum of 2-car garages.
19. Energy efficient features will include a minimum of three of the following: 14-SEER Energy-efficient HVAC System, Air Barrier & Sealing, Carbon Monoxide Detectors, Decorative Fiberglass Front Door, Gas Heat (2nd Floor Electric Heat Pump if Separate System), LED Lighting Throughout Home, Low VOC Carpet, Low VOC Paint, Low-E Insulated Single-hung Vinyl Widows w/ Tilt Out Feature, MERV 8 HVAC Filters, Programmable Thermostat, R-38 Attic Insulation, Separate HVAC System or Zone for Each Floor (per plan), Smoke Alarms in Each Bedroom, Water-saving Faucets & Shower Heads.
20. No private residential lots shall be located on areas that would otherwise be designated at Resource Conservation Area (RCA). These areas shall be owned and maintained by the Homeowners Association.
21. The development shall provide a traffic calming device at the connection to the existing stub at Lynn Drive, subject to approval by the Town Engineer.
22. Lot grades shall not exceed slopes of 3:1 on residential lots. Retaining walls shall be allowed to make up grade on steep areas of the site. Retaining wall easements shall be provided if a wall or part of the wall structure is located within lots other than HOA maintained.
23. This development shall provide resurfacing of Country Lane from the south end of the site frontage to Barber Mill Road, outside of the limits already covered by the TIA recommended intersection improvement. Resurfacing shall consist of 1.5 inch layer of overlay asphalt over the existing street section (~20 feet wide), subject to approval by NCDOT as part of a 2-Party Encroachment Agreement
24. The development shall enter into an Operation and Maintenance Agreement for the proposed Stormwater Control Measures, as outlined by the Town of Clayton UDC Section 158.061.

## C. Permitted Uses

1. Single Family House
2. Park
3. Fitness/Recreation Center
4. Utility, Minor

## VIII. Land Intensity and Design Controls

The proposed development is single-family residential, and the maximum density is less than three dwelling units per acre. Lots will be a minimum of 8,000 square feet where they are adjacent to the project boundary. Internal lots will be a minimum of 6,000 square feet.

## IX. Dimensional Standards Table

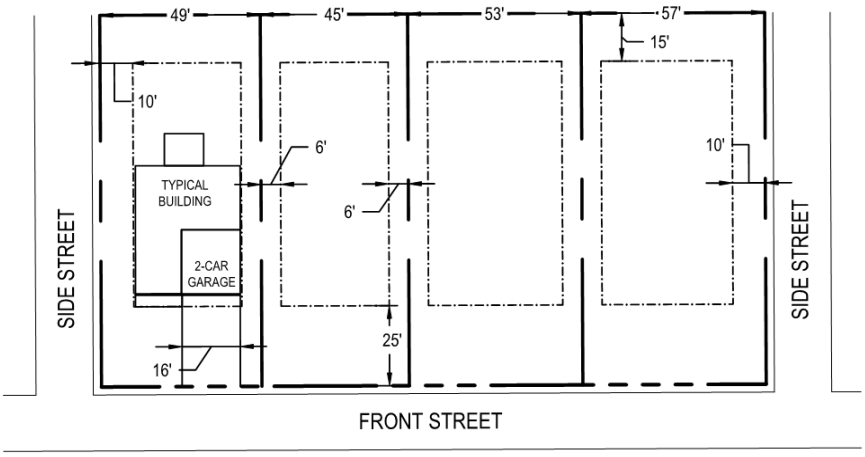
| Unit Type | Minimum Lot Area (SF) | Minimum Lot Width (ft)* | Maximum Lot Coverage (%)** | Maximum Impervious Surface (%) |
|---|---|---|---|---|
| **Single-family** | 6,000 min. internal; 8,000 min. adjacent to parcel boundary | 45 ft* | 50% | 60% |

**As measured at the front setback line*

***The maximum area of the lot that is permitted to be covered by buildings, including both principal structures and accessory buildings. Building coverage does not include paved areas such as driveways, uncovered porches or patios, decks, swimming pools or pool cages, or roof overhangs of less than three feet.*

| Unit Type | Front | Side Interior | Side Street | Rear | Maximum Height |
|---|---|---|---|---|---|
| **Single-family** | 25’ | 6’ | 10’ | 15’ | 35’ |

*Encroachments into the setbacks shall be permitted as listed in UDC dated 11-15-2021.*



## X. Landscaping and Lighting

Landscaping and lighting elements will meet Town standards unless otherwise noted and approved by the Town Council.

A 15'-foot-wide Type C Landscape Buffer will be provided along the Development boundary as shown on the Master Plan. The Type C Landscape Buffer shall include a minimum 6-foot-high opaque screening (at installation) consisting of a wall, fence, berm, evergreen hedge, or combination thereof.

Street yard trees will be provided as required by the UDC.

The development will be served by Duke Energy. Street lighting in the subdivision will meet the Town standards.

## XI. Parking and Loading Requirements

Parking and loading will meet Town standards unless otherwise noted and approved by the Town Council.

A mailbox kiosk and dedicated parking will be provided as approved by the USPS and the Town of Clayton.

## XII. Design Commitments

The development will meet the standards outlined in the Design Guidelines dated February 20, 2006, unless otherwise noted and approved by the Town Council.

Energy efficient features will include the following: 14-SEER Energy-efficient HVAC System, Air Barrier & Sealing, Carbon Monoxide Detectors, Decorative Fiberglass Front Door, Gas Heat (2nd Floor Electric Heat Pump if Separate System), LED Lighting Throughout Home, Low VOC Carpet, Low VOC Paint, Low-E Insulated Single-hung Vinyl Widows w/ Tilt Out Feature, MERV 8 HVAC Filters, Programmable Thermostat, R-38 Attic Insulation, Separate HVAC System or Zone for Each Floor (per plan), Smoke Alarms in Each Bedroom, Water-saving Faucets & Shower Heads.

## XIII. Open Space and Amenities

A minimum of 45 acres of the site will be comprised of open space. An additional 1-acre site will be designated for a Fitness/Recreation Center for the neighborhood.

At least one of the following amenities will be included in the development:

- Pool
- Splashpad
- Playground
- Clubhouse

At least two of the following amenities will be included in the development

- Great lawn
- Picnic shelter

- Pavilion
- Firepit
- Dog park

## XIV. Natural Resources and Environmental Preservation

Areas of floodplain, riparian buffers, streams, wetlands will be protected as resource conservation areas (RCA) as part of this development. There are two proposed stream crossings, both of which are necessary for access and connectivity, and both of which are designed to minimize impacts.

## XV. Stormwater Management

The proposed development lies within the Neuse River Basin. The site is subject to Neuse River Basin nutrient requirements and is subject to meet local requirements in the Town of Clayton stormwater ordinance in place at the time of preliminary plat submittal. The following requirements apply to the subject site:

- Stormwater systems shall be designed in accordance with the NCDEQ Design Manual.
- Stormwater systems shall be designed to control and treat the runoff generated from 1-inch of precipitation. The measure shall discharge the storage volume at a rate equal or less than the pre-development discharge rate for the 1-year, 24-hour storm. Stormwater flows from the development shall not be erosive nor contribute to the degradation of waterways of the State.
- System will control post-development stormwater runoff rates so that there is no increase in peak flow rates from the pre-development condition for the 1-year, 2-year, 10-year, and 25-year 24-hour duration storm events at the watershed level at each point of discharge.
- Nitrogen loads from the proposed development shall not exceed 3.6 lbs/ac/year as part of the Neuse River Basin rules or “runoff volume match” (runoff volume post-development shall not be more than 10% higher than the annual runoff volume pre-development)
- All stormwater control measures (SCMs) used to meet these requirements shall be designed to have a minimum of 85% average annual removal for Total Suspended Solids (TSS).
- All proposed SCMs shall be designed per NCDEQ minimum design criteria in order to achieve at least 85% reduction of total suspended solid export. The proposed impervious area will be captured to the maximum extent practicable and shall be diverted to the proposed SCMs for treatment.

## XVI. Public Facilities

Having discussed the proposal with the Town’s Engineering Department, we understand that adequate public facilities and infrastructure are available or will become available as improvements for the project.

### A. Water and Sewer Infrastructure

The development will be served by public water and sanitary sewer utility systems. The utilities shall be designed to conform with the Town of Clayton standards and

specifications. Potable water from Johnston County's water system exists along Country Lane and will be extended through the development. A master meter will be installed on the water connection at Country Lane. Connections to the Town of Clayton water system on Hunter Way and Lynn Drive will also provide water service to the development. The proposed development will be responsible for the installation of a sanitary sewer system that will serve up to 270 residential units in Country Lane including the installation of a Pump Station and approximately 8,000 linear feet of Force Main Sewer. Easements will be provided for the public utilities that are installed outside of public right of way per Town of Clayton Requirements.

### B. Multimodal Connections

1. Pedestrian Sidewalks

   This project will include direct connections to the existing roadway and sidewalk stubs at Hunter Way and Lynn Drive. All new proposed streets will have pedestrian sidewalk connectivity in accordance with Town standards and design guidelines. A required 5' sidewalk will be installed along Country Lane's frontage.

2. Greenway

   A public greenway easement shall be dedicated along the eastern property boundary or a location approved by the Town of Clayton Planning Director or their designee. The developer may choose to build parts of the greenway and provide trail connections from the public right-of-way.

## XVII. Transportation Impact Analysis

Based on the TIA prepared by Exult Engineering, the following improvements will be required of the development:

### A. Barber Mill Road at Amelia Church Road

- Construct an exclusive southbound right-turn lane on Barber Mill Road with 100' of full-width storage with appropriate decel and taper.
- Construct an exclusive eastbound left-turn lane on Amelia Church Road with 200' of full-width storage with appropriate decel and taper.

### B. Barber Mill Road at Country Lane Road

- Construct an exclusive northbound right-turn lane on Barber Mill Road with 100' of full-width storage with appropriate decel and taper.
- Construct an exclusive southbound left-turn lane on Barber Mill Road with 100' of full-width storage with appropriate decel and taper.

# REZONING DRAWINGS FOR

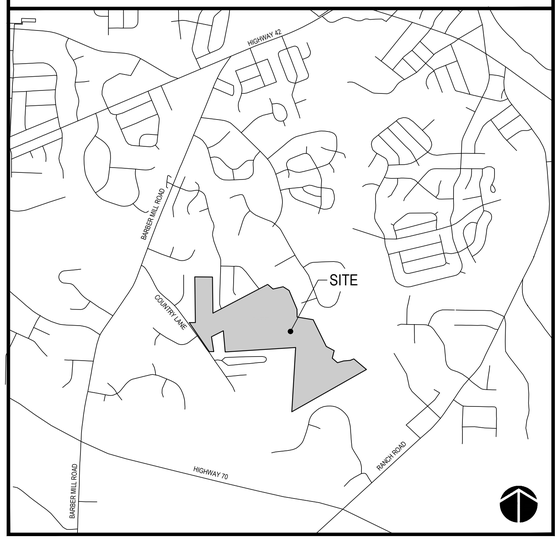
# COUNTRY LANE

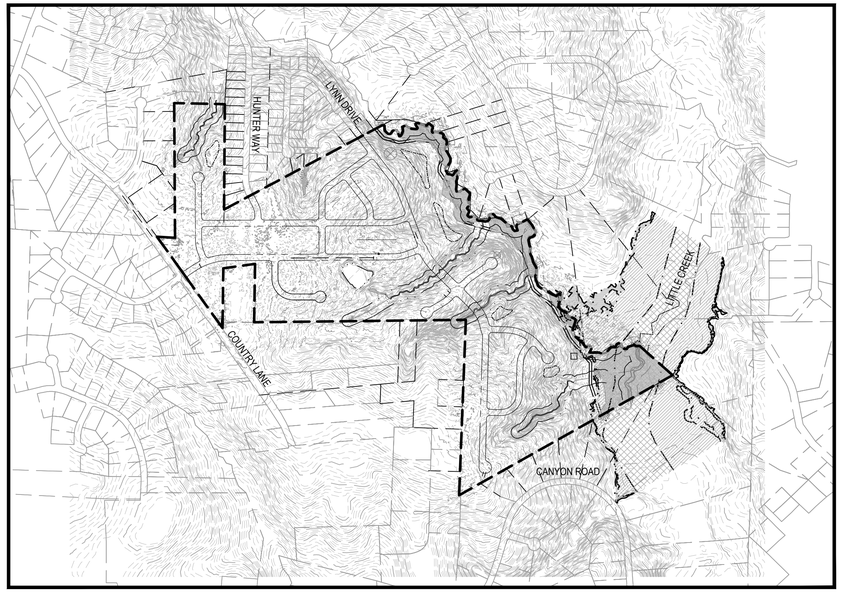
## CLAYTON, NORTH CAROLINA

1st SUBMITTAL - AUGUST 3, 2020
2nd SUBMITTAL - JANUARY 8, 2021
3rd SUBMITTAL - MARCH 1, 2021
4th SUBMITTAL - JUNE 25, 2021
5th SUBMITTAL - OCTOBER 22, 2021
6th SUBMITTAL - DECEMBER 8, 2021
7th SUBMITTAL - JANUARY 10, 2022
8th SUBMITTAL - FEBRUARY 7, 2022
9th SUBMITTAL - MAY 4, 2022

REZONING DRAWINGS
FOR: COUNTRY LANE
WR PROJECT NO.022004020

VICINITY MAP
1"=1,500'




| INDEX OF SHEETS | |
|---|---|
| Sheet Number | Sheet Title |
| C0.0 | Cover |
| C1.0 | Existing Conditions |
| C2.0 | Master Plan |

| SITE DATA TABLE | |
|---|---|
| OWNER NAME | COUNTRY LANE INVESTORS LLC |
| OWNER ADDRESS | 5121 KINGDOM WAY SUITE 200 |
| | RALEIGH, NORTH CAROLINA 27607 |
| PARCEL PIN | 165804-82-1701 |
| DEED BOOK AND PAGE | DB 04496 PG 0661 |
| TOWNSHIP | CLAYTON |
| ETJ | CLAYTON |
| WATER DISTRICT | CLAYTON |
| CITY LIMITS | CLAYTON |
| EXISTING ZONING | PD-R |
| PROPOSED ZONING | CZ-R |
| WITHIN FEMA FLOOD HAZARD AREA | YES (NO FLOODPLAIN IMPACT) |
| SITE ACREAGE | 115.03 ACRES |
| TOTAL PROPOSED LOTS | 270 MAXIMUM |
| LOT DENSITY | 2.347 DU/AC MAXIMUM |
| MINIMUM LOT SIZE | 6,000 SF |
| MINIMUM LOT SIZE (ADJACENT TO PROJECT BOUNDARY) | 8,000SF |


PREPARED BY:

WithersRavenel
Engineers | Planners | Surveyors

115 MacKenan Drive | Cary, NC 27511 | t: 919.469.3340 | license #: F-1479 | www.withersravenel.com

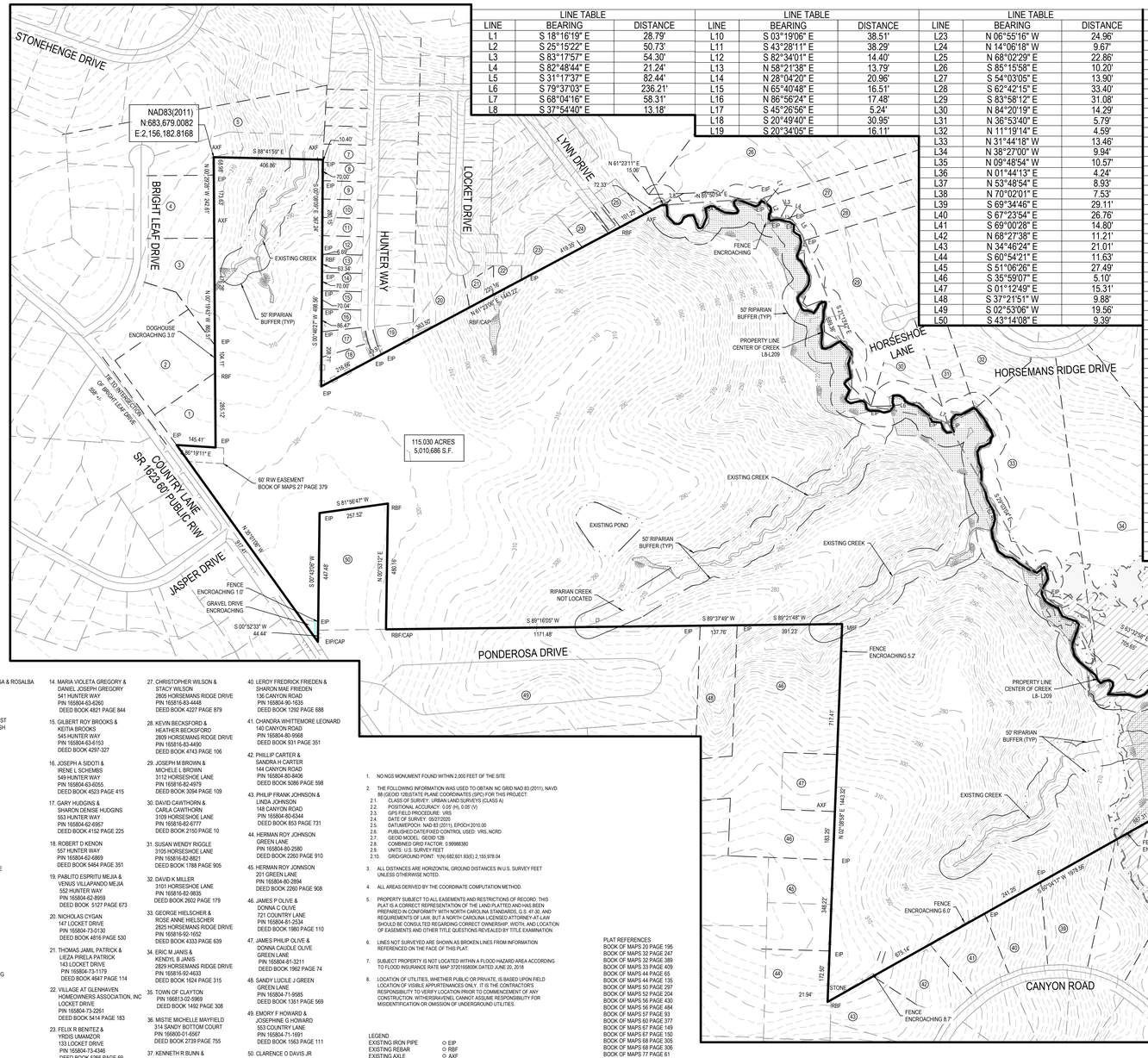


DEVELOPER

CLAYTON PROPERTIES GROUP, INC. DBA
MUNGO HOMES OF NORTH CAROLINA, INC.
2521 SCHIEFFELIN ROAD SUITE 116
APEX, NC 27502
(919)-303-8525



K:\CIV\05-0400\050402--Country Lane\CAD\Drawing Sets\Master Plan\C0.0 Cover.dwg - Wednesday, May 4, 2022 3:11:19 PM - HUSTON, CALEB




| LINE TABLE | | |
|---|---|---|
| LINE | BEARING | DISTANCE |
| L1 | S 18°16'19" E | 28.79' |
| L2 | S 25°15'22" E | 50.73' |
| L3 | S 83°17'57" E | 54.30' |
| L4 | S 82°48'44" E | 21.24' |
| L5 | S 31°17'37" E | 82.44' |
| L6 | S 79°37'03" E | 236.21' |
| L7 | S 68°04'16" E | 58.31' |
| L8 | S 37°54'40" E | 13.18' |

| LINE TABLE | | |
|---|---|---|
| LINE | BEARING | DISTANCE |
| L10 | S 03°19'06" E | 38.51' |
| L11 | S 43°28'11" E | 38.29' |
| L12 | S 82°34'01" E | 14.40' |
| L13 | N 58°21'38" E | 13.79' |
| L14 | N 28°04'20" E | 20.96' |
| L15 | N 65°40'48" E | 16.51' |
| L16 | N 86°56'24" E | 17.48' |
| L17 | S 45°26'56" E | 5.24' |
| L18 | S 20°49'40" E | 30.95' |
| L19 | S 20°34'05" E | 16.11' |

| LINE TABLE | | |
|---|---|---|
| LINE | BEARING | DISTANCE |
| L23 | N 06°55'16" W | 24.96' |
| L24 | N 14°06'18" W | 9.67' |
| L25 | N 68°02'29" E | 22.86' |
| L26 | S 85°15'58" E | 10.20' |
| L27 | S 54°03'05" E | 13.90' |
| L28 | S 62°42'15" E | 33.40' |
| L29 | S 83°58'12" E | 31.08' |
| L30 | N 84°20'19" E | 14.29' |
| L31 | N 36°53'40" E | 5.79' |
| L32 | N 11°19'14" E | 4.59' |
| L33 | N 31°44'18" W | 13.46' |
| L34 | N 38°27'00" W | 9.94' |
| L35 | N 09°48'54" W | 10.57' |
| L36 | N 01°44'13" E | 4.24' |
| L37 | N 53°48'54" E | 8.93' |
| L38 | N 70°02'01" E | 7.53' |
| L39 | S 69°34'46" E | 29.11' |
| L40 | S 67°23'54" E | 26.76' |
| L41 | S 69°00'28" E | 14.80' |
| L42 | N 68°27'38" E | 11.21' |
| L43 | N 34°46'24" E | 21.01' |
| L44 | S 60°54'21" E | 11.63' |
| L45 | S 51°06'26" E | 27.49' |
| L46 | S 35°59'07" E | 5.10' |
| L47 | S 01°12'49" E | 15.31' |
| L48 | S 37°21'51" W | 9.88' |
| L49 | S 02°53'06" W | 19.56' |
| L50 | S 43°14'08" E | 9.39' |

| LINE TABLE | | |
|---|---|---|
| LINE | BEARING | DISTANCE |
| L51 | N 73°06'57" E | 17.12' |
| L52 | S 89°15'58" E | 16.18' |
| L53 | S 74°29'21" E | 27.12' |
| L54 | S 81°52'38" E | 13.20' |
| L55 | S 52°18'32" E | 19.66' |
| L56 | S 06°25'41" W | 23.47' |
| L57 | S 47°49'06" E | 12.04' |
| L58 | S 60°16'39" E | 16.72' |
| L59 | S 13°28'13" E | 24.93' |
| L60 | S 11°15'57" W | 25.47' |
| L61 | S 21°27'08" W | 30.06' |
| L62 | S 15°41'35" E | 12.27' |
| L63 | S 50°47'17" E | 16.06' |
| L64 | S 27°52'27" E | 60.84' |
| L65 | S 02°25'53" E | 16.55' |
| L66 | S 09°38'04" W | 19.52' |
| L67 | S 35°41'22" W | 27.31' |
| L68 | S 45°52'28" W | 24.93' |
| L69 | S 29°56'10" W | 10.99' |
| L70 | S 07°41'13" E | 12.60' |
| L71 | S 29°02'28" E | 20.45' |
| L72 | S 20°02'51" E | 13.33' |
| L73 | S 55°51'51" E | 8.84' |
| L74 | S 86°21'44" E | 14.40' |
| L75 | S 72°16'13" E | 13.71' |
| L76 | S 60°05'27" E | 9.94' |
| L77 | N 36°18'36" E | 25.59' |
| L78 | N 20°12'40" E | 12.10' |
| L79 | N 53°46'15" E | 14.57' |
| L80 | N 82°09'13" E | 11.47' |
| L81 | S 20°04'22" E | 8.75' |
| L82 | S 15°30'30" W | 13.68' |
| L83 | S 18°58'12" W | 13.66' |
| L84 | S 00°11'38" W | 31.89' |
| L85 | S 19°51'35" W | 24.61' |
| L86 | S 00°52'56" E | 8.48' |
| L87 | S 08°07'37" E | 19.44' |
| L88 | S 04°47'59" W | 39.02' |
| L89 | S 10°32'02" E | 20.75' |
| L90 | S 81°21'19" E | 12.15' |
| L91 | N 72°37'56" E | 15.74' |
| L92 | N 59°01'52" E | 46.15' |
| L93 | S 45°01'33" E | 56.13' |
| L94 | S 01°49'26" E | 13.63' |
| L95 | S 17°58'23" W | 34.71' |
| L96 | S 12°36'13" E | 38.04' |
| L97 | S 00°40'28" E | 17.75' |
| L98 | S 55°57'47" W | 17.90' |
| L99 | S 31°17'12" W | 13.68' |
| L100 | S 38°41'06" E | 30.75' |
| L101 | S 22°47'14" W | 20.52' |
| L102 | S 25°34'48" W | 15.97' |
| L103 | S 30°59'10" E | 9.74' |
| L104 | S 57°11'42" E | 15.41' |
| L105 | N 76°40'44" E | 37.15' |

| LINE TABLE | | |
|---|---|---|
| LINE | BEARING | DISTANCE |
| L106 | S 87°47'57" E | 10.87' |
| L107 | S 46°27'29" E | 11.82' |
| L108 | S 15°20'47" E | 13.42' |
| L109 | S 07°42'11" E | 7.79' |
| L110 | S 56°34'14" E | 14.02' |
| L111 | S 88°13'22" E | 33.66' |
| L112 | S 72°21'07" E | 19.41' |
| L113 | N 77°10'56" E | 21.64' |
| L114 | N 42°48'22" E | 19.06' |
| L115 | N 22°38'18" E | 8.14' |
| L116 | N 22°33'41" W | 11.98' |
| L117 | N 04°28'16" E | 26.80' |
| L118 | N 88°28'50" E | 23.62' |
| L119 | S 56°51'56" E | 18.71' |
| L120 | S 28°37'56" E | 13.08' |
| L121 | S 57°55'50" E | 14.55' |
| L122 | S 72°12'27" E | 36.21' |
| L123 | S 49°54'24" E | 53.81' |
| L124 | S 26°26'46" E | 26.91' |
| L125 | S 82°55'30" E | 33.90' |
| L126 | S 19°28'55" E | 25.69' |
| L127 | S 43°18'58" E | 19.80' |
| L128 | N 80°00'03" E | 25.25' |
| L129 | N 19°09'29" W | 26.74' |
| L130 | N 00°36'13" E | 19.83' |
| L131 | N 37°27'07" E | 25.77' |
| L132 | S 82°46'41" E | 21.54' |
| L133 | N 60°28'59" E | 53.41' |
| L134 | S 57°28'24" E | 11.65' |
| L135 | S 38°00'40" E | 47.16' |
| L136 | S 29°46'02" E | 50.50' |
| L137 | S 20°31'24" E | 17.96' |
| L138 | S 10°01'01" E | 3.60' |
| L139 | S 36°29'38" W | 11.94' |
| L140 | S 11°27'34" W | 16.83' |
| L141 | S 60°23'54" W | 24.51' |
| L142 | S 75°37'51" W | 16.82' |
| L143 | S 28°54'31" W | 20.75' |
| L144 | S 08°09'41" E | 42.72' |
| L145 | S 24°14'50" E | 22.90' |
| L146 | S 01°21'46" W | 17.37' |
| L147 | S 02°45'42" E | 17.35' |
| L148 | S 05°25'00" W | 19.92' |
| L149 | S 28°15'46" E | 24.29' |
| L150 | S 16°49'23" E | 20.94' |
| L151 | S 12°22'28" E | 24.40' |
| L152 | S 29°02'43" E | 37.01' |
| L153 | S 32°00'08" E | 10.67' |
| L154 | S 09°53'24" E | 32.84' |
| L155 | S 12°21'27" W | 23.39' |
| L156 | S 23°03'29" W | 19.74' |
| L157 | S 07°30'09" E | 32.00' |
| L158 | S 27°09'26" E | 14.64' |
| L159 | S 19°08'37" E | 38.23' |
| L160 | S 52°19'11" E | 34.60' |
| L161 | S 80°06'16" E | 26.72' |
| L162 | S 50°25'23" E | 37.68' |
| L163 | S 56°55'25" E | 36.47' |
| L164 | S 67°58'01" E | 35.61' |
| L165 | N 49°54'38" E | 34.69' |
| L166 | S 20°07'55" E | 29.18' |
| L167 | S 11°41'59" E | 18.55' |
| L168 | S 28°05'38" W | 28.40' |
| L169 | S 27°00'37" W | 16.52' |
| L170 | S 07°07'53" W | 18.51' |
| L171 | S 26°01'58" E | 29.04' |
| L172 | S 53°44'40" E | 24.36' |
| L173 | S 64°36'32" E | 32.87' |
| L174 | S 24°07'17" E | 17.38' |
| L175 | S 30°24'14" E | 17.70' |
| L176 | S 70°12'01" E | 54.06' |
| L177 | S 37°23'16" E | 16.07' |
| L178 | S 16°17'29" W | 26.55' |
| L179 | S 17°03'08" W | 21.71' |
| L180 | S 21°25'03" W | 26.61' |
| L181 | S 03°32'54" W | 16.36' |
| L182 | S 14°02'55" E | 19.70' |
| L183 | S 10°11'59" E | 12.09' |
| L184 | S 38°47'05" E | 28.58' |
| L185 | S 48°54'15" E | 43.42' |
| L186 | S 50°53'57" E | 36.44' |
| L187 | S 24°02'22" E | 21.24' |
| L188 | S 43°55'27" E | 15.51' |
| L189 | N 61°59'15" E | 18.40' |
| L190 | N 82°30'39" E | 16.17' |
| L191 | S 57°14'04" E | 15.31' |
| L192 | S 03°04'09" E | 14.86' |
| L193 | S 28°39'30" W | 35.38' |
| L194 | S 87°08'24" E | 27.17' |
| L195 | N 89°42'38" E | 51.04' |
| L196 | S 71°04'36" E | 26.32' |
| L197 | N 85°08'52" E | 12.82' |
| L198 | N 65°32'20" E | 21.55' |
| L199 | N 42°00'16" E | 57.49' |
| L200 | N 89°01'45" E | 36.44' |
| L201 | N 17°29'42" E | 25.70' |
| L202 | N 62°54'30" E | 19.03' |
| L203 | S 63°50'43" E | 17.82' |
| L204 | S 34°26'24" E | 47.45' |
| L205 | N 90°00'00" E | 22.90' |
| L206 | N 31°40'47" E | 18.44' |
| L207 | N 71°12'25" E | 52.54' |
| L208 | S 53°05'02" E | 18.36' |
| L209 | N 84°28'21" E | 28.26' |
| L210 | S 47°45'45" E | 84.95' |

1. VILLAFRANCO ROGELIO ZUNIGA & ROSALBA RODRIGUEZ
329 COUNTRY LANE
PIN 155804-62-0600
DEED BOOK 3199 PAGE 361

2. SAM CLARENCE PARRISH TRUST FOB MCKENNA CLAIRE PARRISH
293 COUNTRY LANE
PIN 155804-52-9739
DEED BOOK 4520 PAGE 622

3. FRANCES B PARRISH
105 BRIGHT LEAF DRIVE
PIN 155804-53-9198
DEED BOOK 2998 PAGE 924

4. FRANCES B PARRISH
107 BRIGHT LEAF DRIVE
PIN 155804-53-9481
DEED BOOK 2998 PAGE 921

5. JAMES R MCCARTHY &
AMY LYNN COOK-MCCARTHY
109 BRIGHT LEAFE DRIVE
PIN 155804-63-0519
DEED BOOK 3210 PAGE 934

6. VILLAGE AT GLENHAVEN HOME OWNERS ASSOCIATION, INC

PIN 15816-74-4006
DEED BOOK 5414 PAGE 183

7. JERRY D WALL
513 HUNTER WAY
PIN 155804-63-6679
DEED BOOK 4144 PAGE 269

8. AMY L FERGUSON
517 HUNTER WAY
PIN 155804-63-6662
DEED BOOK 5243 PAGE 189

9. JIAN HAI LIN & SONG MEI ZHENG
521 HUNTER WAY
PIN 155804-63-6566
DEED BOOK 3217 PAGE 365

10. TAJUANA R EVERETT &
PATRICK EVERETT
525 HUNTER WAY
PIN 155804-63-6468
DEED BOOK 3152 PAGE 334

11. PAUL R SILVERBERG &
CAREN J SILVERBERG
529 HUNTER WAY
PIN 155804-63-6461
DEED BOOK 2983 PAGE 93

12. DAVID A EDWARDS
533 HUNTER WAY
PIN 155804-63-6364
DEED BOOK 3821 PAGE 338

13. JOHN JOSEPH SCOTT &
JOAN FRANCES SCOTT
537 HUNTER WAY
PIN 155804-63-6267
DEED BOOK 4894 PAGE 502

14. MARIA VIOLETA GREGORY &
DANIEL JOSEPH GREGORY
541 HUNTER WAY
PIN 155804-63-6260
DEED BOOK 4821 PAGE 844

15. GILBERT ROY BROOKS &
KEITIA BROOKS
545 HUNTER WAY
PIN 155804-63-6153
DEED BOOK 4297-327

16. JOSEPH A SIDOTI &
IRENE L SCHEMBS
549 HUNTER WAY
PIN 155804-63-6056
DEED BOOK 4523 PAGE 415

17. GARY HUDGINS &
SHARON DENISE HUDGINS
553 HUNTER WAY
PIN 155804-62-6957
DEED BOOK 4152 PAGE 225

18. ROBERT D KENON
557 HUNTER WAY
PIN 155804-62-6869
DEED BOOK 5464 PAGE 351

19. PABLITO ESPIRITU MEJIA &
VENUS VILLAPANDO MEJIA
552 HUNTER WAY
PIN 155804-62-8959
DEED BOOK 5127 PAGE 673

20. NICHOLAS CYGAN
147 LOCKET DRIVE
PIN 155804-73-0130
DEED BOOK 4816 PAGE 530

21. THOMAS JAMIL PATRICK &
LIEZA PRELA PATRICK
143 LOCKET DRIVE
PIN 155804-73-1179
DEED BOOK 4647 PAGE 114

22. VILLAGE AT GLENHAVEN HOMEOWNERS ASSOCIATION, INC
LOCKET DRIVE
PIN 155804-73-2261
DEED BOOK 5414 PAGE 183

23. FELIX R BENITEZ &
YRDIS LIMMAZOR
133 LOCKET DRIVE
PIN 155804-73-4346
DEED BOOK 5266 PAGE 59

24. MAYURSINH JADEJA &
DIPAK DOBARIA
128 LYNN DRIVE
PIN 155816-73-5379
DEED BOOK 5266 PAGE 500

25. SFR JV-1 PROPERTIES LLC
127 LYNN DRIVE
PIN 155816-73-7417
DEED BOOK 5362 PAGE 401

26. SAMEH F SELIM
3015 EQUINE LANE
PIN 155816-83-0643
DEED BOOK 3754 PAGE 495

27. CHRISTOPHER WILSON &
STACY WILSON
2805 HORSEMANS RIDGE DRIVE
PIN 155816-83-4448
DEED BOOK 4227 PAGE 879

28. KEVIN BECKSFORD &
HEATHER BECKSFORD
2809 HORSEMANS RIDGE DRIVE
PIN 155816-83-4480
DEED BOOK 4743 PAGE 106

29. JOSEPH M BROWN &
MICHELE L BROWN
3112 HORSESHOE LANE
PIN 155816-82-4979
DEED BOOK 3094 PAGE 109

30. DAVID CAWTHORN &
CARLA CAWTHORN
3109 HORSESHOE LANE
PIN 155816-82-6777
DEED BOOK 2150 PAGE 10

31. SUSAN WENDY RIGGLE
3105 HORSESHOE LANE
PIN 155816-82-8821
DEED BOOK 1788 PAGE 905

32. DAVID K MILLER
3101 HORSESHOE LANE
PIN 155816-82-9836
DEED BOOK 2602 PAGE 179

33. GEORGE HIELSCHER &
ROSE ANNE HIELSCHER
2825 HORSEMANS RIDGE DRIVE
PIN 155816-92-1652
DEED BOOK 4333 PAGE 639

34. ERIC M JANIS &
KENDYL B JANIS
2829 HORSEMANS RIDGE DRIVE
PIN 155816-92-4453
DEED BOOK 1624 PAGE 315

35. TOWN OF CLAYTON
PIN 15816-92-5969
DEED BOOK 1492 PAGE 308

36. MISTIE MICHELLE MAYFIELD
314 SANDY BOTTOM COURT
PIN 156800-01-6567
DEED BOOK 2739 PAGE 755

37. KENNETH R BUNN &
KAREN POST
124 CANYON ROAD
PIN 156800-01-2100
DEED BOOK 4091 PAGE 149

38. ELIZABETH T CLARK
128 CANYON ROAD
PIN 155804-90-5875
DEED BOOK 4928 PAGE 411

39. LEROY F FRIEDEN &
SHARON M FRIEDEN
132 CANYON ROAD
PIN 155804-90-3703
DEED BOOK 1452 PAGE 103

40. LEROY FREDRICK FRIEDEN &
SHARON MAE FRIEDEN
136 CANYON ROAD
PIN 155804-90-1635
DEED BOOK 1292 PAGE 688

41. CHANDRA WHITTEMORE LEONARD
140 CANYON ROAD
PIN 155804-80-9568
DEED BOOK 931 PAGE 351

42. PHILLIP CARTER &
SANDRA H CARTER
144 CANYON ROAD
PIN 155804-80-8405
DEED BOOK 5086 PAGE 598

43. PHILIP FRANK JOHNSON &
LINDA JOHNSON
148 CANYON ROAD
PIN 155804-80-6344
DEED BOOK 853 PAGE 731

44. HERMAN ROY JOHNSON
GREEN LANE
PIN 155804-80-2580
DEED BOOK 2260 PAGE 910

45. HERMAN ROY JOHNSON
201 GREEN LANE
PIN 155804-80-2894
DEED BOOK 2260 PAGE 908

46. JAMES P OLIVE &
DONNA C OLIVE
721 COUNTRY LANE
PIN 155804-81-2534
DEED BOOK 1980 PAGE 110

47. JAMES PHILIP OLIVE &
DONNA CAUDLE OLIVE
GREEN LANE
PIN 155804-81-3211
DEED BOOK 1962 PAGE 74

48. SANDY LUCILE J GREEN
GREEN LANE
PIN 155804-71-9585
DEED BOOK 1351 PAGE 569

49. EMORY F HOWARD &
JOSEPHINE G HOWARD
553 COUNTRY LANE
PIN 155804-71-1691
DEED BOOK 1563 PAGE 111

50. CLARENCE O DAVIS JR
REVOCABLE TRUST
439 COUNTRY LANE
PIN 155804-62-6034
DEED BOOK 5461 PAGE 622

1. NO NGS MONUMENT FOUND WITHIN 2,000 FEET OF THE SITE

2. THE FOLLOWING INFORMATION WAS USED TO OBTAIN NC GRID NAD 83 (2011), NAVD 88 (GEOID 12B)STATE PLANE COORDINATES (SPC) FOR THIS PROJECT:
2.1. CLASS OF SURVEY: URBAN LAND SURVEYS (CLASS A)
2.2. POSITIONAL ACCURACY: 0.05' (HL 0.05' (V)
2.3. GPS FIELD PROCEDURE: VRS
2.4. DATE OF SURVEY: 05/27/2020
2.5. DATUM/EPOCH: NAD 83 (2011), EPOCH 2010.00
2.6. PUBLISHED DATE/FIXED CONTROL USED: VRS, NCRD
2.7. GEOID MODEL: GEOID 12B
2.8. COMBINED GRID FACTOR: 0.99988380
2.9. UNITS: U.S. SURVEY FEET
2.10. GRID/GROUND POINT: Y,(N) 682,601.93(E) 2,155,978.04

3. ALL DISTANCES ARE HORIZONTAL GROUND DISTANCES IN U.S. SURVEY FEET UNLESS OTHERWISE NOTED.

4. ALL AREAS DERIVED BY THE COORDINATE COMPUTATION METHOD.

5. PROPERTY SUBJECT TO ALL EASEMENTS AND RESTRICTIONS OF RECORD. THIS PLAT IS A CORRECT REPRESENTATION OF THE LAND PLATTED AND HAS BEEN PREPARED IN CONFORMITY WITH NORTH CAROLINA STANDARDS, G.S. 47-30, AND REQUIREMENTS OF LAW. BUT A NORTH CAROLINA LICENSED ATTORNEY-AT-LAW SHOULD BE CONSULTED REGARDING CORRECT OWNERSHIP, WIDTH, AND LOCATION OF EASEMENTS AND OTHER TITLE QUESTIONS REVEALED BY TITLE EXAMINATION.

6. LINES NOT SURVEYED ARE SHOWN AS BROKEN LINES FROM INFORMATION REFERENCED ON THE FACE OF THIS PLAT.

7. SUBJECT PROPERTY IS NOT LOCATED WITHIN A FLOOD HAZARD AREA ACCORDING TO FLOOD INSURANCE RATE MAP 3720156800K DATED JUNE 20, 2018

8. LOCATION OF UTILITIES, WHETHER PUBLIC OR PRIVATE, IS BASED UPON FIELD LOCATION OF VISIBLE APPURTENANCES ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATION PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. WITHERSRAVENEL CANNOT ASSUME RESPONSIBILITY FOR MISIDENTIFICATION OR OMISSION OF UNDERGROUND UTILITIES.

LEGEND

| | |
|---|---|
| EXISTING IRON PIPE | ○ EIP |
| EXISTING REBAR | ○ RBF |
| EXISTING AXLE | ○ AXF |
| IRON PIPE SET | ○ IPS |
| CALCULATED POINT | ○ CP |
| STONE "MARKED" | ○ STONE |
| FLAT METAL BAR | ○ MBF |

LINETYPE LEGEND

PROPERTY LINE
BOUNDARY TIE LINE
ADJOINING (NOT SURVEYED)
WOVEN WIRE FENCE LINE
WOOD FENCE LINE
CREEK
50' BUFFER
FLOODWAY
0.2% FLOODWAY

PLAT REFERENCES

BOOK OF MAPS 20 PAGE 195
BOOK OF MAPS 32 PAGE 247
BOOK OF MAPS 32 PAGE 389
BOOK OF MAPS 33 PAGE 409
BOOK OF MAPS 44 PAGE 65
BOOK OF MAPS 44 PAGE 135
BOOK OF MAPS 50 PAGE 297
BOOK OF MAPS 52 PAGE 204
BOOK OF MAPS 56 PAGE 430
BOOK OF MAPS 56 PAGE 484
BOOK OF MAPS 57 PAGE 93
BOOK OF MAPS 60 PAGE 377
BOOK OF MAPS 67 PAGE 149
BOOK OF MAPS 67 PAGE 150
BOOK OF MAPS 68 PAGE 306
BOOK OF MAPS 68 PAGE 306
BOOK OF MAPS 77 PAGE 61
BOOK OF MAPS 79 PAGE 161
BOOK OF MAPS 87 PAGE 42

NOTES:

1. EXISTING BOUNDARY INFORMATION SHOWN IS FROM BOUNDARY SURVEY BY WITHERSRAVENEL, INC. DATE 05/21/21.

2. EXISTING TOPOGRAPHY SHOWN IS FROM GIS LIDAR INFORMATION.

3. LIMITS OF NEUSE RIPARIAN BUFFERS SHOWN ON THIS LAYOUT ARE APPROXIMATE IN NATURE. A PRIOR BUFFER DETERMINATION LETTER FOR THIS SITE WAS ISSUED BY NCDEQ ON 07/16/18 (RRO#18-004). THE SPECIFIC START POINT LOCATIONS FOR NEUSE RIPARIAN BUFFERS FOR FEATURES THAT BEGIN WITHIN THE SITE ARE NOT KNOWN. THE START POINTS SHOWN ON THIS PLAN ARE ARE ESTIMATED AND ASSUMED, AND WILL REQUIRE FIELD VERIFICATION.

4. FEMA FLOODPLAIN INFORMATION SHOWN IS FROM FIRM COMMUNITY PANEL #3701391659K, DATED 06/26/18.

GRAPHIC SCALE
200 0 100 200 400
1 inch = 200 ft.


WithersRavenel
Engineers | Planners | Surveyors
115 MacKenan Drive | Cary, NC 27511 | t: 919.469.3340 | license #: F-1479 | www.withersravenel.com


COUNTRY LANE
CLAYTON, NORTH CAROLINA

EXISTING CONDITIONS

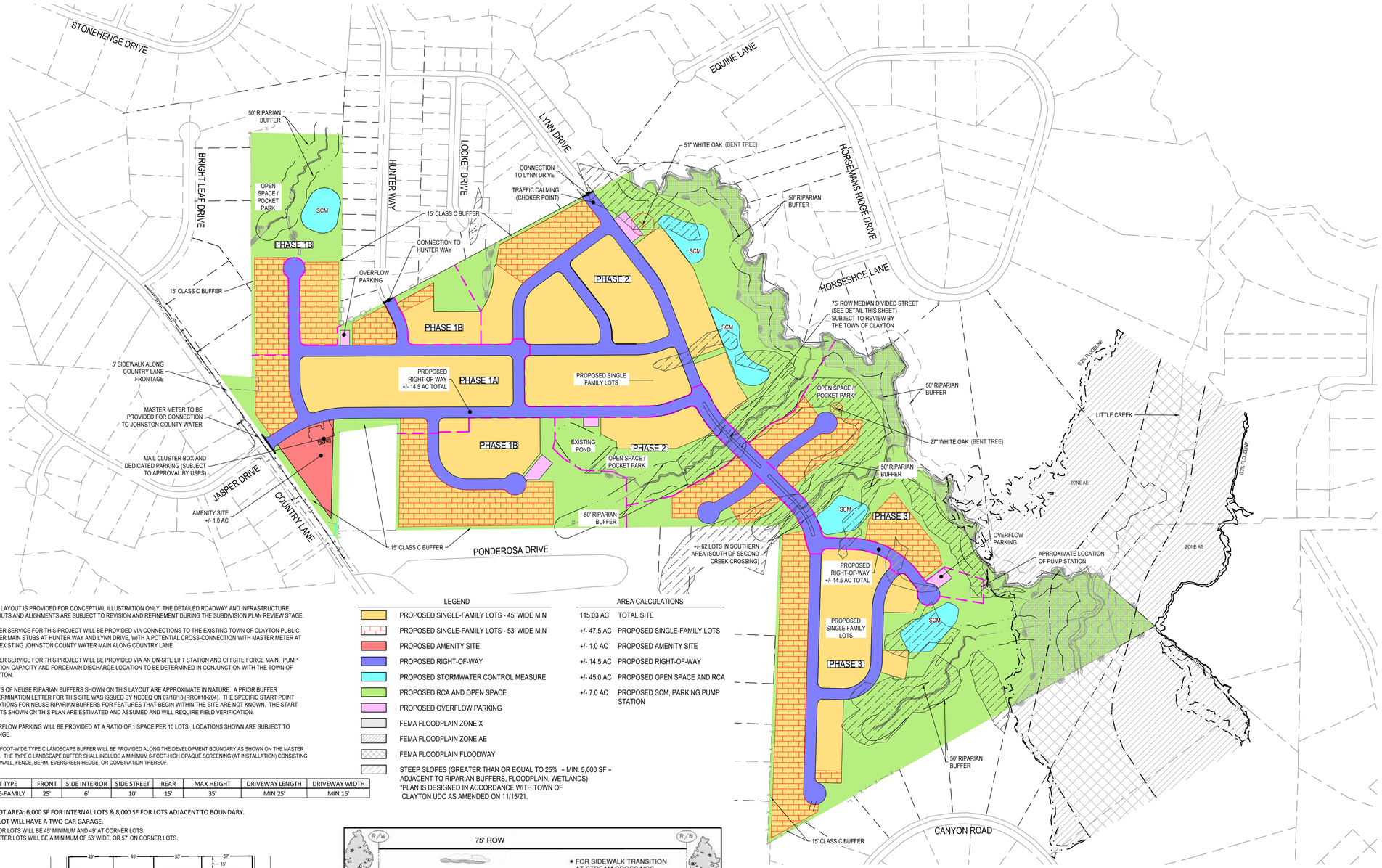
| | | | |
|---|---|---|---|
| Job No. | 022004402.0 | Drawn By | WR |
| Date | 10/22/21 | Designer | WR |

PRELIMINARY
NOT APPROVED FOR CONSTRUCTION

| Revisions | | |
|---|---|---|
| 1 | TOWN COMMENTS | 2/7/22 |

Sheet No.
C1.0

K:\2020\022004402\022004402 Country Lane\CAD\Drawing Set\Master Plan\C1.0 Existing Conditions.dwg Monday, February 7, 2022 3:48:22 PM - HUSTON, CALEB




NOTES:

1. THIS LAYOUT IS PROVIDED FOR CONCEPTUAL ILLUSTRATION ONLY. THE DETAILED ROADWAY AND INFRASTRUCTURE LAYOUTS AND ALIGNMENTS ARE SUBJECT TO REVISION AND REFINEMENT DURING THE SUBDIVISION PLAN REVIEW STAGE.
2. WATER SERVICE FOR THIS PROJECT WILL BE PROVIDED VIA CONNECTIONS TO THE EXISTING TOWN OF CLAYTON PUBLIC WATER MAIN STUBS AT HUNTER WAY AND LYNN DRIVE, WITH A POTENTIAL CROSS-CONNECTION WITH MASTER METER AT THE EXISTING JOHNSTON COUNTY WATER MAIN ALONG COUNTRY LANE.
3. SEWER SERVICE FOR THIS PROJECT WILL BE PROVIDED VIA AN ON-SITE LIFT STATION AND OFFSITE FORCE MAIN. PUMP STATION CAPACITY AND FORCEMAIN DISCHARGE LOCATION TO BE DETERMINED IN CONJUNCTION WITH THE TOWN OF CLAYTON.
4. LIMITS OF NEUSE RIPARIAN BUFFERS SHOWN ON THIS LAYOUT ARE APPROXIMATE IN NATURE. A PRIOR BUFFER DETERMINATION LETTER FOR THIS SITE WAS ISSUED BY NCDEQ ON 07/16/18 (RRO#18-204). THE SPECIFIC START POINT LOCATIONS FOR NEUSE RIPARIAN BUFFERS FOR FEATURES THAT BEGIN WITHIN THE SITE ARE NOT KNOWN. THE START POINTS SHOWN ON THIS PLAN ARE ESTIMATED AND ASSUMED AND WILL REQUIRE FIELD VERIFICATION.
5. OVERFLOW PARKING WILL BE PROVIDED AT A RATIO OF 1 SPACE PER 10 LOTS. LOCATIONS SHOWN ARE SUBJECT TO CHANGE.
6. A 15'-FOOT-WIDE TYPE C LANDSCAPE BUFFER WILL BE PROVIDED ALONG THE DEVELOPMENT BOUNDARY AS SHOWN ON THE MASTER PLAN. THE TYPE C LANDSCAPE BUFFER SHALL INCLUDE A MINIMUM 6-FOOT-HIGH OPAQUE SCREENING (AT INSTALLATION) CONSISTING OF A WALL, FENCE, BERM, EVERGREEN HEDGE, OR COMBINATION THEREOF.

LEGEND

- PROPOSED SINGLE-FAMILY LOTS - 45' WIDE MIN
- PROPOSED SINGLE-FAMILY LOTS - 53' WIDE MIN
- PROPOSED AMENITY SITE
- PROPOSED RIGHT-OF-WAY
- PROPOSED STORMWATER CONTROL MEASURE
- PROPOSED RCA AND OPEN SPACE
- PROPOSED OVERFLOW PARKING
- FEMA FLOODPLAIN ZONE X
- FEMA FLOODPLAIN ZONE AE
- FEMA FLOODPLAIN FLOODWAY
- STEEP SLOPES (GREATER THAN OR EQUAL TO 25% + MIN. 5,000 SF + ADJACENT TO RIPARIAN BUFFERS, FLOODPLAIN, WETLANDS)

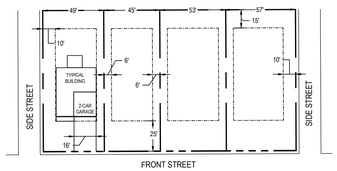
*PLAN IS DESIGNED IN ACCORDANCE WITH TOWN OF CLAYTON UDC AS AMENDED ON 11/15/21.

AREA CALCULATIONS

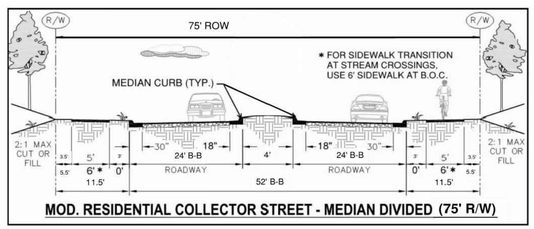
| | |
|---|---|
| 115.03 AC | TOTAL SITE |
| +/- 47.5 AC | PROPOSED SINGLE-FAMILY LOTS |
| +/- 1.0 AC | PROPOSED AMENITY SITE |
| +/- 14.5 AC | PROPOSED RIGHT-OF-WAY |
| +/- 45.0 AC | PROPOSED OPEN SPACE AND RCA |
| +/- 7.0 AC | PROPOSED SCM, PARKING PUMP STATION |

| UNIT TYPE | FRONT | SIDE INTERIOR | SIDE STREET | REAR | MAX HEIGHT | DRIVEWAY LENGTH | DRIVEWAY WIDTH |
|---|---|---|---|---|---|---|---|
| SINGLE-FAMILY | 25' | 6' | 10' | 15' | 35' | MIN 25' | MIN 16' |

NOTES:
1. MIN LOT AREA: 6,000 SF FOR INTERNAL LOTS & 8,000 SF FOR LOTS ADJACENT TO BOUNDARY.
2. EACH LOT WILL HAVE A TWO CAR GARAGE.
3. INTERIOR LOTS WILL BE 45' MINIMUM AND 49' AT CORNER LOTS.
4. PERIMETER LOTS WILL BE A MINIMUM OF 53' WIDE, OR 57' ON CORNER LOTS.




FRONT LOAD




MOD. RESIDENTIAL COLLECTOR STREET - MEDIAN DIVIDED (75' R/W)

GRAPHIC SCALE
200 0 100 200 400
1 inch = 200 ft.


WithersRavenel
Engineers | Planners | Surveyors
115 MacKenan Drive | Cary, NC 27511 | t: 919.469.3340 | license #: F-1479 | www.withersravenel.com


COUNTRY LANE
CLAYTON, NORTH CAROLINA

MASTER PLAN

| Job No. | 02200402.0 | Drawn By | WR |
|---|---|---|---|
| Date | 10/22/21 | Designer | WR |

PRELIMINARY
NOT APPROVED FOR CONSTRUCTION

| Revisions | | |
|---|---|---|
| 1 | TOWN COMMENTS | 2/7/22 |
| 2 | ADD STEEP SLOPES | 4/18/22 |
| 3 | REVISED ZONING CONDITIONS | 5/4/22 |

Sheet No.
C2.0

K:\2020\02200\02200402\Country Lane\CAD\Drawing Sets\Master Plan\C2.0 Master Plan Concept.dwg Wednesday, May 4, 2022 5:45:47 PM - HUSTON, CALEB

# Elevations of the

# Magnolia Series

# JULIAN - 2 STORY PORCH
## ELEVATIONS

A

B

C

D

Photos used are conceptions of the Magnolia series by Mungo Homes and are not intended to be an actual depiction of the home or its surroundings. Colors and materials may vary from what is depicted.

# JULIAN

A

B

C

D

Photos used are conceptions of the Magnolia series by Mungo Homes and are not intended to be an actual depiction of the home or its surroundings. Colors and materials may vary from what is depicted.

# HENDERSON

A

B

C

D

HENDERSON D
EXAMPLE

Photos used are conceptions of the Magnolia series by Mungo Homes and are not intended to be an actual depiction of the home or its surroundings. Colors and materials may vary from what is depicted.

# HENDERSON- BONUS

A

B

C

D

HENDERSON D WITH BONUS ROOM EXAMPLE

Photos used are conceptions of the Magnolia series by Mungo Homes and are not intended to be an actual depiction of the home or its surroundings. Colors and materials may vary from what is depicted.

# Elevations of the
# Vanguard Series

# PALMER

A

B

C

Photos used are conceptions of the Vanguard series by Mungo Homes and are not intended to be an actual depiction of the home or its surroundings. Colors and materials may vary from what is depicted.

# VICTOR

A

B

C

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# WARWICK

A

B

C

Warwick A Example

Warwick B Example

Warwick C Example

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# WEBSTER

A

B

C

Photos used are conceptions of the Vanguard series by Mungo Homes and are not intended to be an actual depiction of the home or its surroundings. Colors and materials may vary from what is depicted.

# YATES

A

B

C

YATES A EXAMPLE

YATES C EXAMPLE

Photos used are conceptions of the Vanguard series by Mungo Homes and are not intended to be an actual depiction of the home or its surroundings. Colors and materials may vary from what is depicted.

# RICHARDSON

A

B

C

RICHARDSON A
EXAMPLE

RICHARDSON B
EXAMPLE

Photos used are conceptions of the Vanguard series by Mungo Homes and are not intended to be an actual depiction of the home or its surroundings. Colors and materials may vary from what is depicted.

# NANTAHALA

A

B

# SALUDA

A

B

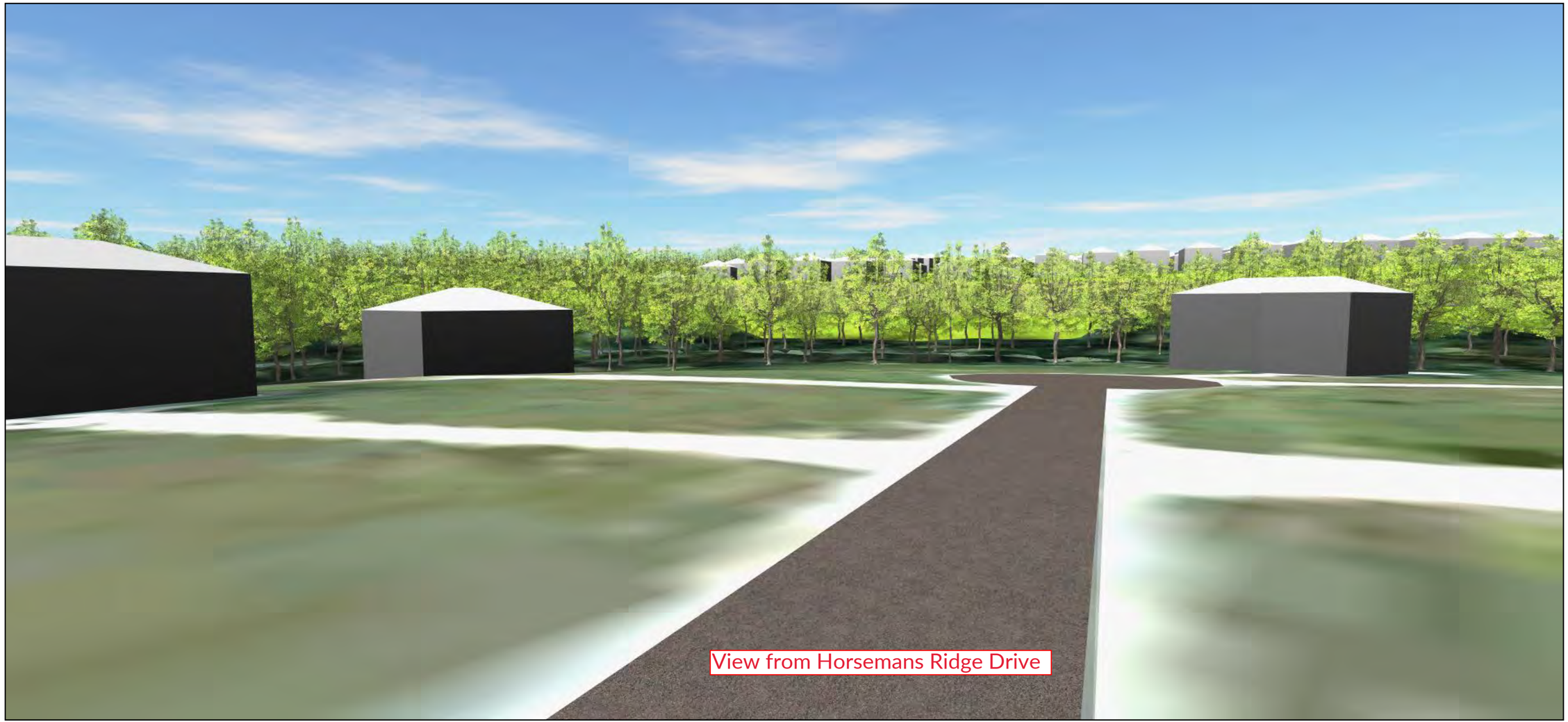
C

Photos used are conceptions of the Vanguard series by Mungo Homes and are not intended to be an actual depiction of the home or its surroundings. Colors and materials may vary from what is depicted.

STOP

View from Equine Lane Cul-de-sac

Birdseye View from Equine Lane


View from Horsemans Ridge Drive

Birdseye View from Horsemans Ridge Drive

April 14, 2022

Brett Clark
Land Development Manager
**Mungo Homes**
2521 Schieffelin Rd, Suite #116
Apex, North Carolina 27502

Subject: Country Lane Development Tract for Withers & Ravenel, Inc.

Dear Mr. Clark:

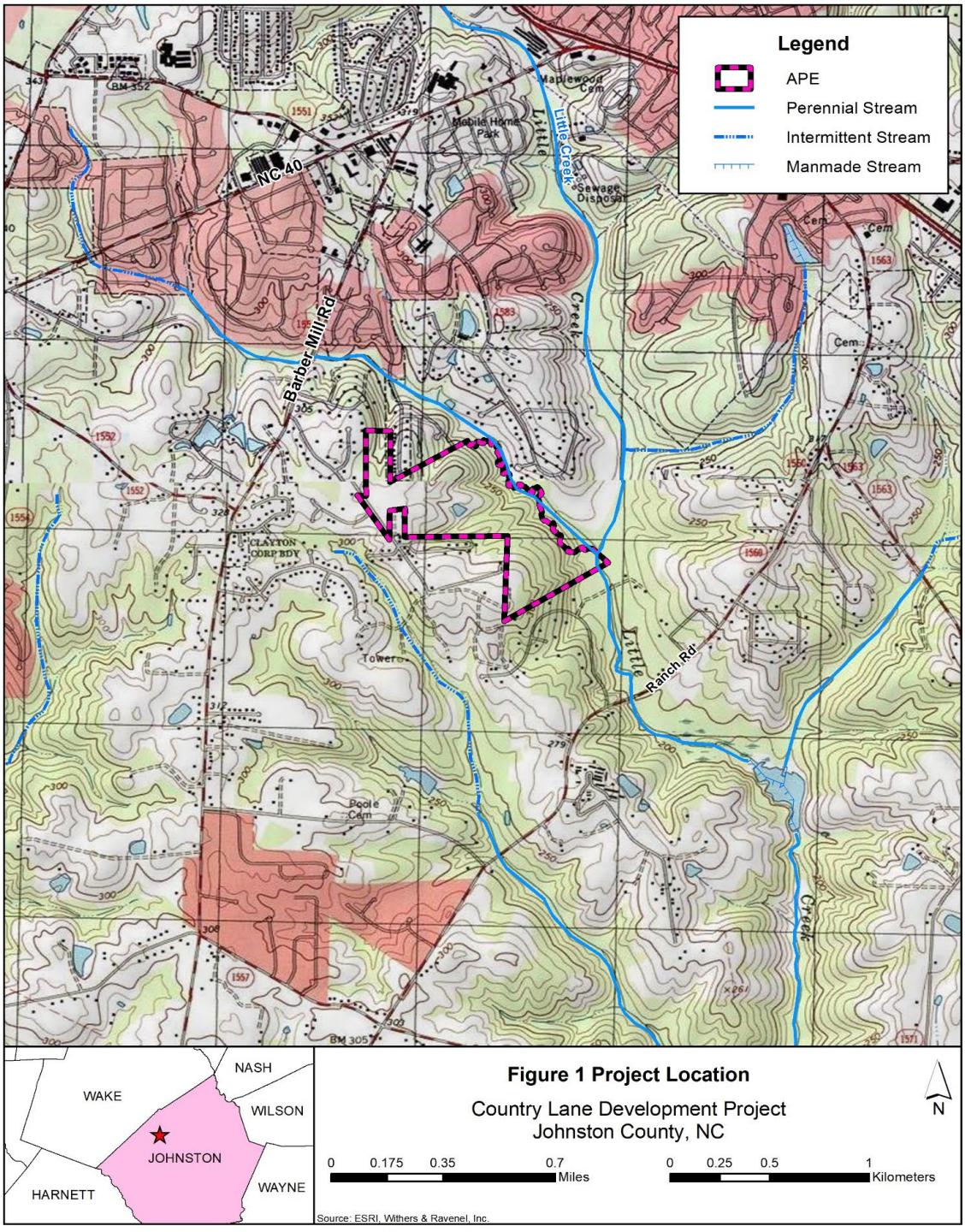
NV5 completed an Archaeological Resources Assessment for the Country Lane Development Tract for Withers & Ravenel, Inc., located in Johnston County, North Carolina (Figures 1 and 2). It is our understanding that the proposed development project does not fall under the purview of Section 106 of the National Historic Preservation Act (NHPA), such as via application for a United States Army Corps of Engineers (USACE)-issued wetlands permit (Section 404 of the Clean Water Act) or other regulatory statute. However, due to concerns raised at recent public meetings, the project proponents have asked NV5 to conduct this background archival review and site reconnaissance visit to gather more information about the subject tract. This review is for due diligence informational purposes only and does not constitute a full Phase I cultural resources survey of the property. Withers & Ravenel, Inc. has separately (March 18, 2022) asked the North Carolina State Historic Preservation Office (SHPO) to review the subject tract, but at the time of writing, has not yet received a response.

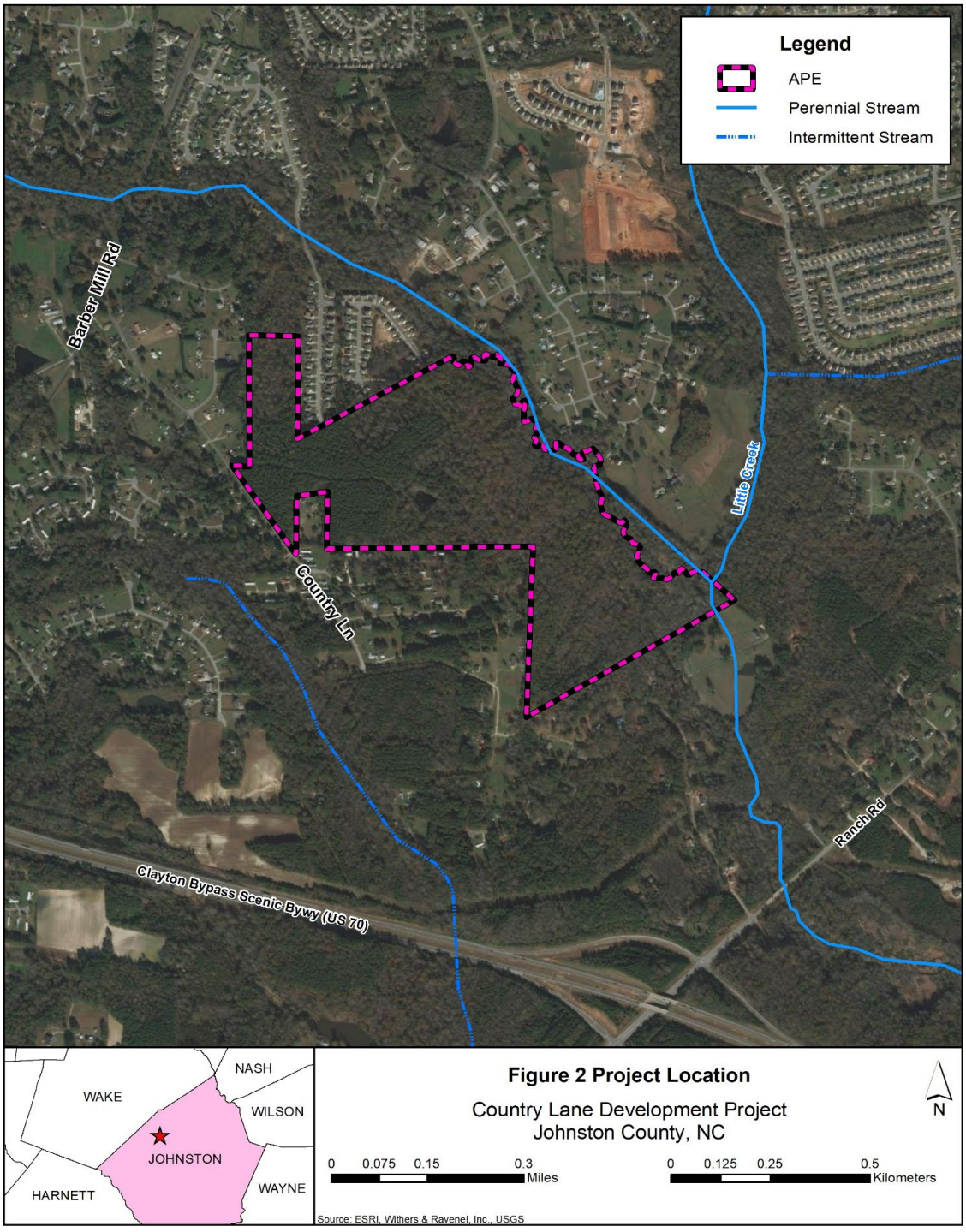
The approximately 115.1-acre tract is located east of Country Lane, approximately 0.4 miles (mi) (0.6 kilometers [km]) south of the city limits of Clayton. For the purposes of this assessment, the footprint of this tract is considered the Area of Potential Effects (APE) for the project. During a full cultural resources survey of the project, the potential project effects on the surrounding historic viewshed would also likely be included in the APE. An unnamed branch of Little Creek is the eastern boundary of the tract, and the property lies along a ridge between this branch and another unnamed, intermittent tributary approximately 0.1 mi (0.2 km) to the west. Country Lane follows the ridge spine, and the development tract largely falls upon the east-facing slope above Little Creek. Another intermittent drainage on the property has been impounded. Other than a mobile home or farm equipment shelter seen near this pond on 1983 United States Department of Agriculture National High Altitude Photography (USDA NHAP) aerial imagery of the area, no structures are known to have been on the property.

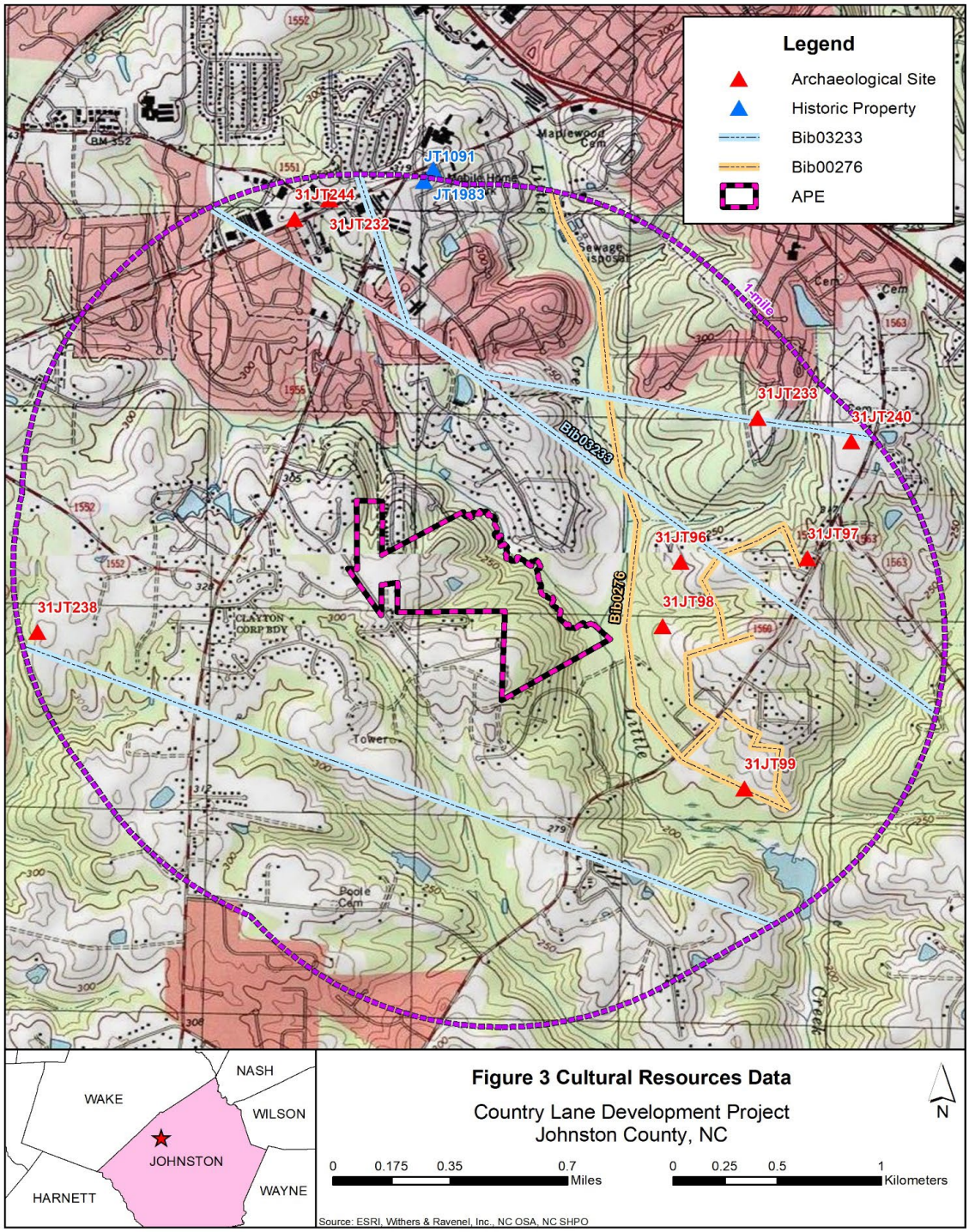
## Records Review

NV5's records review consisted of an examination of archaeological site forms from previous surveys and other undertakings within one mi (1.3 km) of the project tract via records that are currently maintained by the SHPO and Office of State Archaeology (OSA) in Raleigh. The records search was made for documents pertaining to previously known, reported, and/or National Register of Historic Places (NRHP) nominated resources within the search radius of the project tract. The National Park Service's American Battlefield Protection Program and NRHP databases were also checked. Based on the records search and site observations, an assessment was also made based on previous regional surveys and nearby resources as to the potential for the project tract to produce as yet unidentified archaeological or historic architectural resources.

There are no cultural resources recorded within the Country Lane site; however, 2 historic properties and 9 archaeological sites and have been recorded within the search radius of the APE (Figure 3; Table 1).


Legend
APE
Perennial Stream
Intermittent Stream
Manmade Stream
NC 40
Barber Mill Rd
Little Creek
Sewage Disposal
Mobile Home Park
Maplewood Cem
CLAYTON CORP BDY
Tower
Poole Cem
Little Ranch Rd
BM 352
BM 305
NASH
WAKE
WILSON
JOHNSTON
HARNETT
WAYNE
Figure 1 Project Location
Country Lane Development Project
Johnston County, NC
N
0 0.175 0.35 0.7 Miles
0 0.25 0.5 1 Kilometers
Source: ESRI, Withers & Ravenel, Inc.


Legend
APE
Perennial Stream
Intermittent Stream
Barber Mill Rd
Country Ln
Little Creek
Ranch Rd
Clayton Bypass Scenic Bywy (US 70)
NASH
WAKE
WILSON
JOHNSTON
HARNETT
WAYNE
Figure 2 Project Location
Country Lane Development Project
Johnston County, NC
N
0 0.075 0.15 0.3 Miles
0 0.125 0.25 0.5 Kilometers
Source: ESRI, Withers & Ravenel, Inc., USGS


Legend
Archaeological Site
Historic Property
Bib03233
Bib00276
APE
JT1091
JT1983
31JT244
31JT232
31JT233
31JT240
31JT96
31JT97
31JT98
31JT99
31JT238
Bib03233
Bib00276
1mile
CLAYTON CORP BDY
Towers
Poole Cem
Maplewood Cem
Sewage Disposal
NASH
WAKE
WILSON
JOHNSTON
HARNETT
WAYNE
Figure 3 Cultural Resources Data
Country Lane Development Project
Johnston County, NC
N
0 0.175 0.35 0.7 Miles
0 0.25 0.5 1 Kilometers
Source: ESRI, Withers & Ravenel, Inc., NC OSA, NC SHPO

The only previously documented historic properties in the vicinity are related to a former Knights of Pythias orphanage along South Lombard Street (NC-42). The Home of the Keeper of Records and Seals (JT1983) is a Tudor Revival brick house built in 1930, recorded during a North Carolina Department of Transportation study for the proposed widening of NC 42; it was determined to be eligible for the NRHP by Cardno, Inc. who conducted the study (Jones 2018). However, only a portion of the proposed NRHP boundary, the driveway, is within the one-mile search radius. The associated Pythian Children's Home (JT1091) would have been within the search radius but was razed sometime before 1993.

The archaeological sites in the area were recorded in the course of two archaeological surveys.

Sites 31JT96 through 31JT99 were recorded along Little Creek by the University of Tennessee (UT) Department of Anthropology in 1976 during a survey of proposed wastewater facilities for the Clayton area (Kimball 1977). Site 31JT99 is described as having both Archaic-age projectile points and potsherds, whereas the other recorded sites are all non-diagnostic scatters of prehistoric tools and debitage. None of these sites were formally assessed for the NRHP.

*Table 1 Cultural resources and investigations within one mile of the APE.*

| Survey Reference | | Site No. | Cultural Affiliation | Site Type | NRHP-eligibility Recommendation |
|---|---|---|---|---|---|
| Bib00276 | Clayton Wastewater Facilities (UT 1977) | 31JT96 | General Prehistoric | Lithic scatter | Unknown/ Unassessed |
| | | 31JT97 | General Prehistoric | Lithic scatter | Unknown/ Unassessed |
| | | 31JT98 | General Prehistoric | Lithic scatter | Unknown/ Unassessed |
| | | 31JT99 | Archaic/ Woodland | Artifact scatter | Unknown/ Unassessed |
| ER91-7304 (Bib03233) | US-70 Clayton Bypass (Brockington 1993) | 31JT232 | Late 18th – 20th c. | Farmstead | Ineligible |
| | | 31JT233 | Early-Middle Archaic; Late 19th c. | Temporary camp | Potentially Eligible |
| | | 31JT238 | General Prehistoric | Lithic reduction camp | Potentially Eligible |
| | | 31JT240 | General Prehistoric; Late 19th-early 20th c. | Artifact scatter | Ineligible |
| | | 31JT244 | General Prehistoric | Isolated find | Unknown/ Unassessed |
| ER 18-0561 | NC 42 Widening (Cardno 2018) | JT1091 | 20th c. | Pythian Children's Home | Unknown (Razed) |
| | | JT1983 | 1930 | Knights of Pythias Home of the Keeper of Records and Seals | Determined Eligible |

Sites 31JT232, 31JT233, 31JT238, 31JT240, and 31JT244 were recorded by Brockington and Associates, Inc. (Roberts and Butler 1993) during a study of several alternate corridors for the then-proposed US-70 Clayton Bypass. Two of these, 31JT233 and 31JT238, are prehistoric campsites which were recommended as potentially eligible for the NRHP pending additional study. A historic farmstead and a multicomponent artifact scatter, sites 31JT232 and 31JT240, respectively, were recommended ineligible for the NRHP. An isolated piece of prehistoric debitage, 31JT244, does not appear to have been assessed, although can be assumed to be ineligible.

## Site Assessment and Reconnaissance

The Country Lane Development Tract was visited by NV5 archaeologists on April 12, 2022. An on-site assessment was made, based on topography, setting, previous regional surveys, and nearby resources, as to the potential for the APE to produce as yet unidentified cultural resources.

As mentioned, the APE lies along a ridge above an unnamed tributary of Little Creek, which it joins in the easternmost corner of the APE. Little Creek meanders approximate 5 mi (8 km) south to merge with Swift Creek, approximately 9 mi (14 km) above its confluence with the Neuse River near its fall line in Smithfield. Natural vegetation within the tract is mixed hardwoods and pine, seen largely on the ridge slopes and lowland, but with the ridgetop comprised mostly of planted pine.

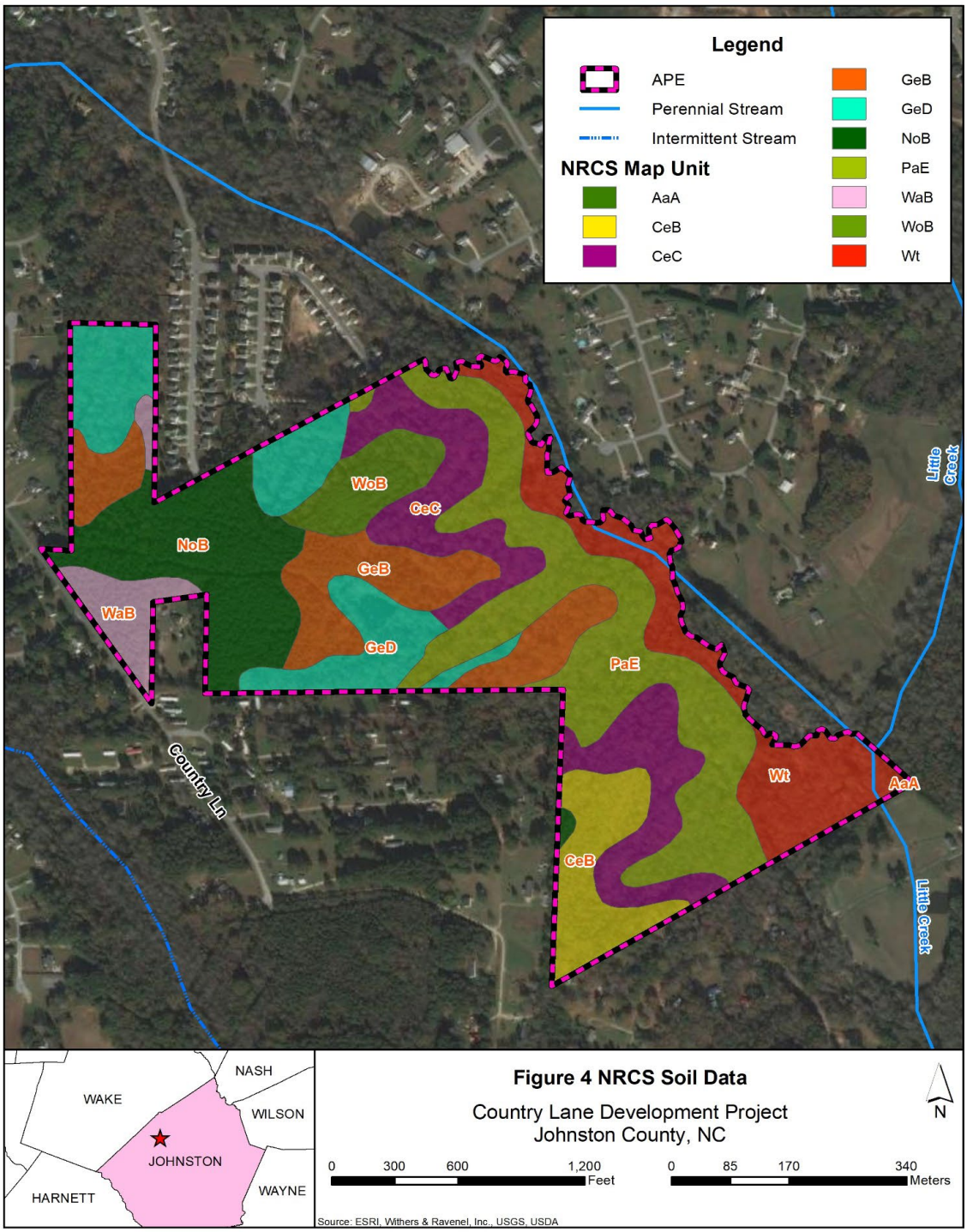
The USDA Natural Resources Conservation Service (USDA NRCS 2022a; 2022b) recognizes 10 different soil classifications within the project area (Table 2; Figure 4), suggesting a large range of environmental zones. The majority of the soils in the APE are a mix of loamy marine deposits or alluvium, and residuum of igneous and metamorphic rocks. Generally, the former appear to have been largely farmed, whereas the latter are mostly preserved as woodland. The largest single map unit (24.7 acres; 21.5%) within the APE is Pacolet loam, 15 to 25 percent slopes (PAE), covering the well-drained ridge slope above Little Creek. However, a plurality of map units comprise the relatively flat (<15% slope) upland ridgetop (47.6 acres; 41%) formed of Norfolk loamy sand, 2 to 6 percent slopes (NoB), Gilead sandy loam, 2 to 15 percent slopes (GeB, GeD), and Wagram loamy sand, 0 to 6 percent slopes (WaB). Between these areas, the ridge slope is classified as well drained Saprolite derived interfluvial deposits (28.6 acres; 25%), mapped as Cecil loam, 2 to 10 percent slopes (CeB, CeC) and Wedowee sandy loam, 2 to 8 percent slopes (WoB). The remainder of the tract (14.1 acres; 12%) consists of the creek floodplain, primarily Wehadkee loam, 0 to 2 percent slopes, frequently flooded (Wt) with a small terrace mapped as Altavista fine sandy loam, 0 to 2 percent slopes, occasionally flooded (AaA).

Soil characteristics can also reflect optimal locations for past human settlement, given factors such as drainage and slope, as well as provide some indication as to the possibility that archaeological sites, had they existed, might be preserved or disturbed. That is, areas that are level and dry, for example, are much more likely to have been utilized in either the prehistoric or historic eras as a camp, farmstead, or other long-term settlement. And if soils horizons are deep and uneroded, it is more likely evidence of these habitation sites have been protected.

Overall, given the relatively well-drained, level topography and fertile soils along a water source, the APE would have been amenable to settlement throughout both the historic and prehistoric periods. Slopes throughout most of the APE are moderate, with only Pacolet-defined slopes (15 to 25%) being beyond a threshold that would preclude most human activity; the remainder of the tract is within a range of possible human habitation. With the exception of the floodplain, soils across the APE are considered moderately well to well drained, including the marine deposits along the ridge slopes and interfluves. Based on the NRCS series descriptions, soils in the APE have relatively shallow (≤ 0.8 feet [0.25 meter]) average topsoil (Ap, E horizons) thickness.

*Table 2 NRCS soils within the APE.*

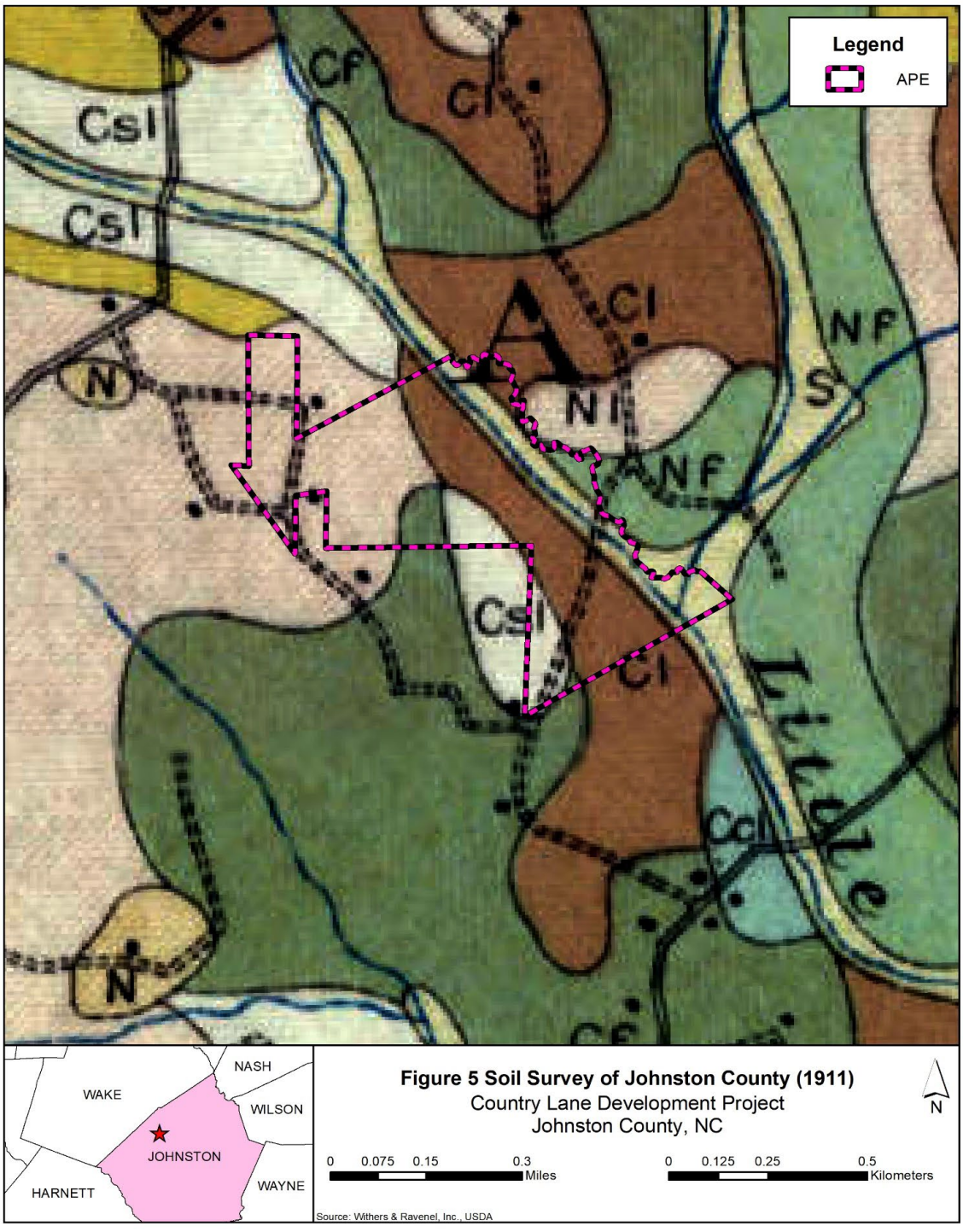
| Map Unit | | Area (ac) | Percentage (%) | Landform | Parent Material | Drainage Class |
|---|---|---|---|---|---|---|
| AaA | Altavista fine sandy loam, 0 to 2 percent slopes, occasionally flooded | 0.0 | 0.0% | Stream terraces | Old loamy alluvium derived from igneous and metamorphic rock | Moderately well drained |
| CeB | Cecil loam, 2 to 6 percent slopes | 7.4 | 6.5% | Interfluves | Saprolite derived from granite and gneiss and/or schist | Well drained |
| CeC | Cecil loam, 6 to 10 percent slopes | 16.5 | 14.4% | Interfluves | Saprolite derived from granite and gneiss and/or schist | Well drained |
| GeB | Gilead sandy loam, 2 to 8 percent slopes | 13.5 | 11.7% | Ridges on marine terraces | Clayey marine deposits | Moderately well drained |
| GeD | Gilead sandy loam, 8 to 15 percent slopes | 14.6 | 12.7% | Ridges on marine terraces | Clayey marine deposits | Moderately well drained |
| NoB | Norfolk loamy sand, 2 to 6 percent slopes | 15.2 | 13.2% | Broad interstream divides on marine terraces, flats on marine terraces | Loamy marine deposits | Well drained |
| PaE | Pacolet loam, 15 to 25 percent slopes | 24.7 | 21.5% | Hillslopes on ridges | Saprolite derived from granite and gneiss and/or schist | Well drained |
| WaB | Wagram loamy sand, 0 to 6 percent slopes | 4.3 | 3.7% | Broad interstream divides on marine terraces, ridges on marine terraces | Loamy marine deposits | Well drained |
| WoB | Wedowee sandy loam, 2 to 8 percent slopes | 4.7 | 4.1% | Interfluves | Saprolite derived from granite and gneiss and/or schist | Well drained |
| Wt | Wehadkee loam, 0 to 2 percent slopes, frequently flooded | 14.1 | 12.2% | Depressions on flood plains | Loamy marine deposits | Poorly drained |
| **Total** | | **115.1** | **100** | | | |


Legend
APE
Perennial Stream
Intermittent Stream
NRCS Map Unit
AaA
CeB
CeC
GeB
GeD
NoB
PaE
WaB
WoB
Wt
WoB
CeC
NoB
GeB
WaB
GeD
PaE
Wt
AaA
CeB
Little Creek
Little Creek
Country Ln
NASH
WAKE
WILSON
JOHNSTON
HARNETT
WAYNE
Figure 4 NRCS Soil Data
Country Lane Development Project
Johnston County, NC
N
0 300 600 1,200 Feet
0 85 170 340 Meters
Source: ESRI, Withers & Ravenel, Inc., USGS, USDA

Notably, ridgetop soils range from the relatively shallow (5 inch [0.13 meter]) expected Gilead series plow zone (Ap horizon) to the 24-inch ( 0.61 meter) deep Wagram topsoil ( Ap, E) horizons overlying clay subsoil (Bt horizon); though the thickness is in part largely attributed to the thick eluvial horizon on the ridgetop along Country Lane. Other soils have much thinner plow zone (Ap) or eluvial (E) horizons. Although no maps units are specifically classified as eroded, these topsoil horizons suggest that archaeological deposits or features within the subsoil are more likely to have been preserved in the deeper ridge top deposits than along the slopes and interfluves. Notably within the floodplain, only an average of 8 inches ( 0.2 meters) of deposition (A horizon) is expected overlying gleyed clay subsoil (Bg horizon).

A review of historic maps and aerial imagery shows this tract to be mostly undeveloped since at least the early 20th century; however, there are relatively few sources of maps and imagery with structure-level detail available from the historic period. The first soil survey of Johnston County (Hearn and Brinkley 1911) appears to contain the earliest such map (Figure 5). Several farmsteads are shown on and near an unimproved precursor to Country Lane; however, similar to the current configuration, the dwellings appear to be on adjacent parcels outside of the APE, through associated fields would have been inside the project area. More interestingly are the two unimproved roads seen crossing the APE in 1911; one of these originates in the southern corner of the APE and extends north over the creek, suggesting a bridge or ford was located just along the property line. The earliest United States Geological Survey (USGS) topographic 7.5-minute quadrangles for the area (*Clayton and Powhatan, North Carolina* 1964a and 1964b) show fewer farms in the vicinity (Figure 6). The southern road over the creek is missing, but the northern one, which was shown as access to farms in 1911, remains, although the dwellings do not. Further, map shading shows the top of the ridge to be cleared fields with the lower slopes remaining woodland, similar to the distribution of planted pine and natural forest today. The pond currently on the property, with a dwelling next to it, is first seen on a 1973 photo-revision of the *Powhatan, North Carolina* map. The structure is removed on the 1993(a) edition of this map. The aforementioned 1983 USDA NHAP imagery (Figure 7) is the earliest known aerial imagery of the parcel, showing the structure on the pond to be about 70 feet (21 meters) long and 20 feet (6 meters) wide, and likely with a metal roof. Although this could be a shed or long outbuilding such as a chicken house, the accompanying USGS maps shade it black, indicating it to be a dwelling not an outbuilding; it was likely a mobile home. Similar to the topographic imagery, this possible manufactured house is missing on the next available 1993(b) USGS aerial imagery of the area. By the end of the century (USGS 1999), the farm fields in and around the APE appear to become unmaintained and overgrown (Figure 8). It is notable, however, that the aerial imagery, unlike the topographic maps, shows a farmhouse and barnyard along the northern driveway to persist in this area until about 2010 (Google Earth 2010; 2011), albeit surrounded by planted pine forest and not agricultural fields. New construction on this lot began about five years ago (Google Earth 2017; 2018). The original drive is also gone, replaced by a straight path leading to the pond.

During the field visit, modern dumping was found to be common around the periphery of the tract, particularly nearest houses and the area of the former trailer, southwest of the pond. A child's fort is now in this area. Most of the APE was found to be crossed by numerous, well-worn logging roads, often with extant woodchips. Several features indicating possible archaeological sites were also noted. These features are depicted on Figure 8 over the 1999 USGS aerial imagery, which offers more detail than current color imagery, and with two-foot (0.6-meter) contour lines. Historic features include a small dump area (approximately 50 x 15 feet [15 x 5meters]) located north of the pond; materials appeared to be a mix of historic (<1972) and modern (>1972) trash, including concrete slabs and metal drums (Figure 9). Given the lack of known structures on the parcel, the origin of these slabs is unknown; the material is approximately 450 feet (137 meters) north of the trailer location. Metal debris, including a large, perforated boiler with internal tubing and twisted metal


Legend
APE
CsI
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Ci
NP
S
N
NF
CsI
Ci
Little
N
WAKE
NASH
WILSON
JOHNSTON
HARNETT
WAYNE
Figure 5 Soil Survey of Johnston County (1911)
Country Lane Development Project
Johnston County, NC
N
0 0.075 0.15 0.3 Miles
0 0.125 0.25 0.5 Kilometers
Source: Withers & Ravenel, Inc., USDA

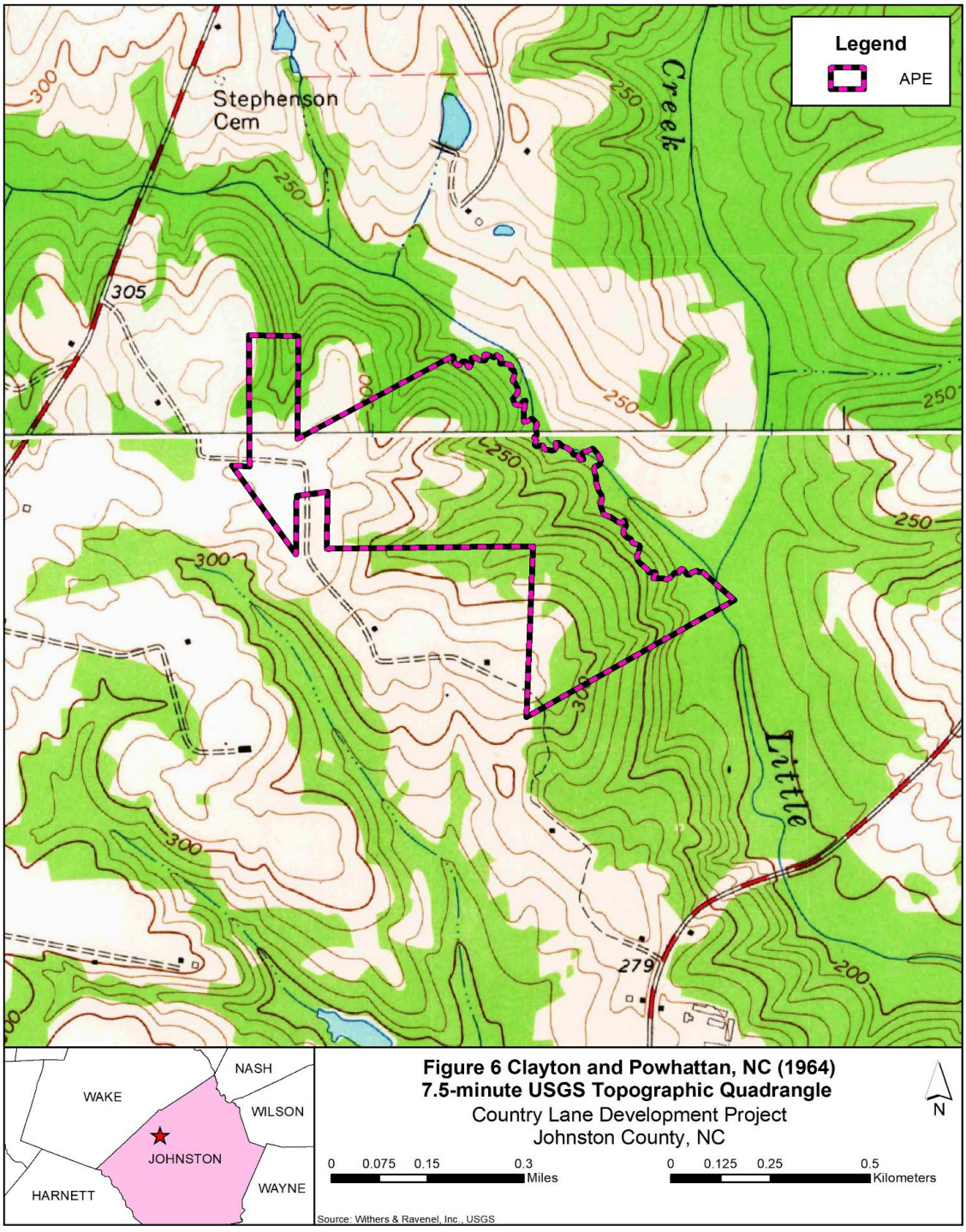


**Figure 6 Clayton and Powhattan, NC (1964)**
**7.5-minute USGS Topographic Quadrangle**
Country Lane Development Project
Johnston County, NC

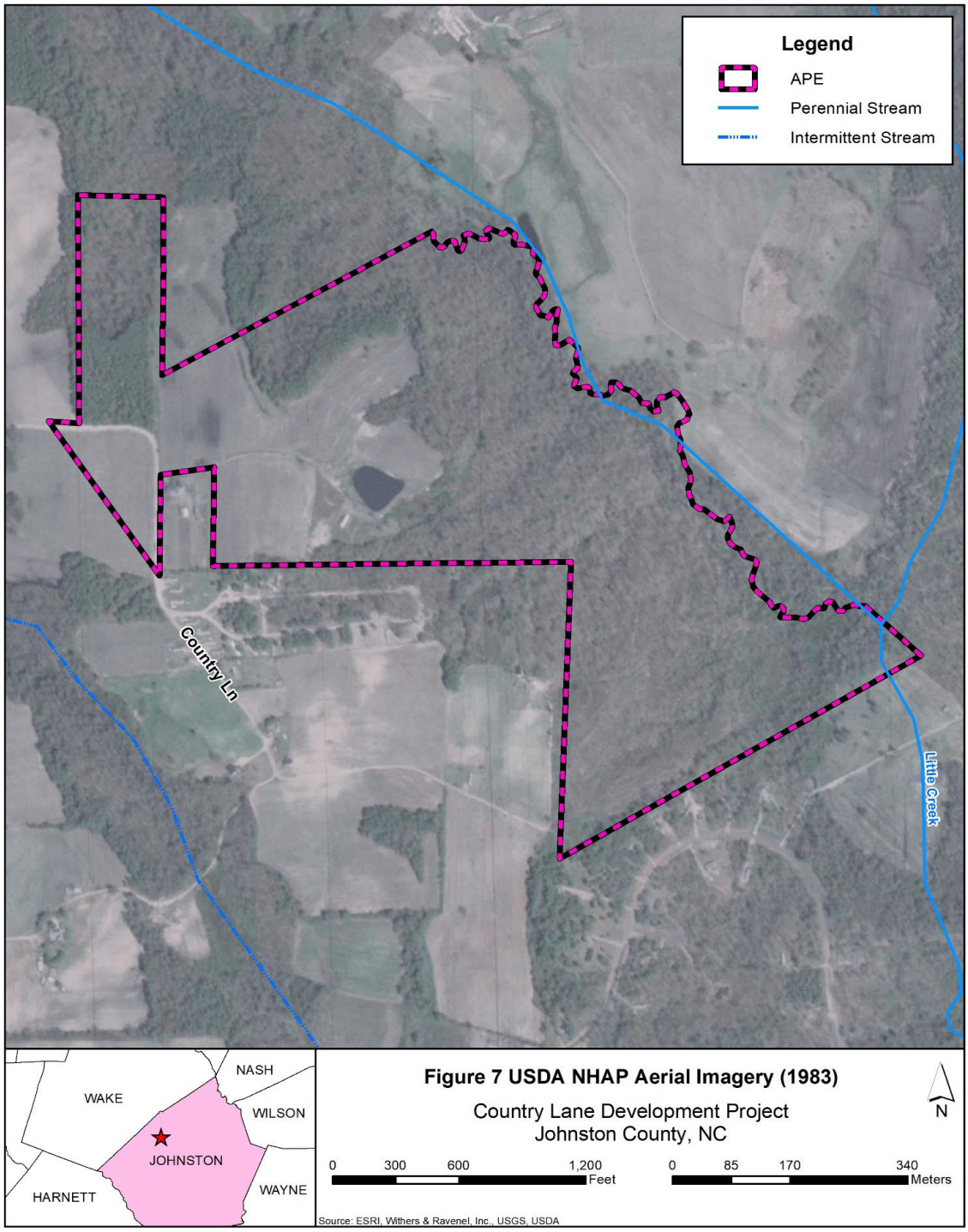


**Figure 7 USDA NHAP Aerial Imagery (1983)**

Country Lane Development Project
Johnston County, NC

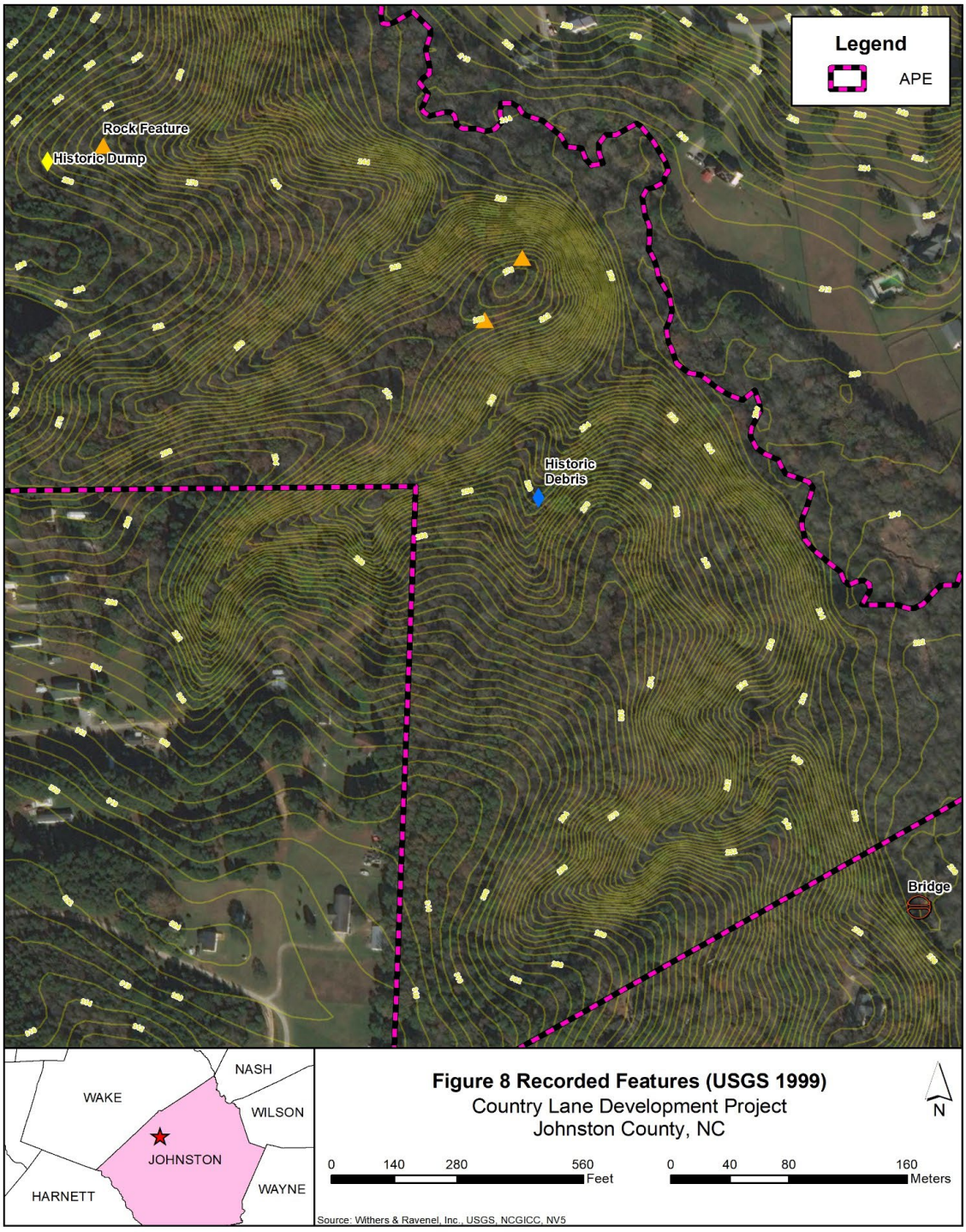
Legend
APE
Rock Feature
Historic Dump
Historic Debris
Bridge
NASH
WAKE
WILSON
JOHNSTON
HARNETT
WAYNE
Figure 8 Recorded Features (USGS 1999)
Country Lane Development Project
Johnston County, NC
N
0 140 280 560 Feet
0 40 80 160 Meters
Source: Withers & Ravenel, Inc., USGS, NCGICC, NV5

*Figure 9 General view of historic trash and debris pile in northern part of Country Lane tract.*

housing, was also noted near a road trace on the tract's eastern slopes above the creek; this appears to be the remains of some steam powered equipment, most likely a portable sawmill related to earlier timbering of the property (Figure 10). The remains of the rails and deck of a bridge was also found crossing the Little Creek (Figure 11). It was located, however, just south of the APE. This appears to be at least 1200 feet (366 meters) downstream from the position shown in the 1911 soil survey (see Figure 5).

In addition to these clear historic materials, several possible rock features were noted, including a small possible rock pile just beyond the historic dump at the head of a gully leading down to the creek (Figure 12). The pile has a variety of rock sizes and types, loosely packed in a subcircular shape (approximately 8-feet [2.5-meters] in diameter). A rock outcrop was also found in the eastern property edge above the creek (Figures 13 and 14). Although boulders are eroding from the bluff line, some of the down slope materials appear to be piled more so than mere erosional forces might create. Most of the apparent piling appears to be an artifact of land clearing, with rocks pushed and compressed off the edge of the ridge spur (see Figure 14). Tree growth around rock impacts (see Figure 13, middle ground) is not more than a few decades old. A line of larger, stacked granite boulders below the impacted trees appears to be more deliberate; however, the lack of accumulated soil upslope of this stack suggests the feature to be relatively recent, although the observation is inconclusive without closer investigation. Just beyond this feature, a triangular feature of three low stone walls, surrounding a flat boulder, was discovered (Figure 15). The walls form a right triangle between tree trunks, with the wall comprising the hypotenuse largely scattered. The walls are not more than one full tier and are haphazardly stacked, with branches wedged along the sides for additional support. This suggests the wall was either recently constructed or at least recently mended, as these walls would likely be susceptible to rapid deterioration. The rocks stacked against tree trunks, for example, will topple with any significant growth of the trees (Figure 16). Small piles of nuts and bones are in several places within the walls. The collected flora and fauna indicate the

*Figure 10 General view of possible saw mill remains.*

*Figure 11 View of bridge ruins near APE, looking south across creek.*

*Figure 12 View of small rock pile along bluff edge above creek, looking south*

*Figure 13 View of rock outcrop, looking south along bluff.*

*Figure 14 View of rock outcrop, looking west at bluff face.*

*Figure 15 View of rock wall and "table," near ridge saddle.*

*Figure 16 Detail of rock wall. These stones post-date the sapling, and will be displaced by its growth.*

feature has been at least used recently, perhaps as a table, or something of an altar. No prehistoric or historic materials were identified within or near any of these potential features, although it should be noted that leaf litter precluded a thorough inspection of the ground surface. Therefore, a clear historic (or prehistoric) provenance for this feature is unknown. Of course, the same can be said of the other possible rock features as well. However, given the limitation of the reconnaissance level assessment, as well as sensitivity to the potential for piles to be significant precontact features, the features were not thoroughly cleared or raked to better judge their dimensions and contents, and no piles were deliberately dismantled for further exploration.

Rock features may include, in part: rock piles, rock mounds, stacked piles, pitted rock piles, rock terraces, rock effigies, boulder caches, building foundation stones, and/or historic quarries (Ledbetter 2006; Gresham 1990; Schnell 1984; Jefferies and Fish 1978; Jefferies 1976; Smith 1962; Range 1954). Sites can range from a small, single rock pile to substantial rock mound clusters, to the effigy mounds in Putnam County, Georgia. “The rock pile problem,” as it has been called by some, has created substantial debate among archaeologists, ever since such piles were first documented. However, there is a slowly growing body of previous archaeological work that assists researchers in their attempts to classify the age of stone structures. The central management dilemma is the difficulty in determining whether a rock feature is of aboriginal or historic origin Jefferies 1976; Jefferies and Fish 1978; Fish et al. 1978). Some archaeologists suggest archaeological testing is usually necessary to make temporal determinations of rock structures (Gresham 1990; Ledbetter 2005, 2006). Archaeological testing, however, may negatively impact the feature, and researchers typically do not either disturb rock features at the survey-level nor draw any conclusions to culture or function (Gresham 1990; Ledbetter 2006; Ledbetter et al. 2006).

While there have been some attempts to make inferences as to temporality from the application of a classification scheme, these attempts to make inferences are not foolproof (Gresham 1990; 1994).

Fish et al. (1978) in particular, stress that appearance and location are not adequate to make distinctions. Gresham's (1990) discussion of rock piles was a rejection of a study by Garrow and Chase (1988), who he believed to be over-interpreting rock piles as precontact features during their study of the Strickland Mound Complex in Gwinnett County, Georgia. Garrow and Chase argued that many of the piles were of precontact origin, because they were often located on level ground, which would have been suitable for farming, or they straddled and/or were sited perpendicular to property lines, and on never-cultivated land. They also found the mounds to be more planned in both construction and equidistant placement than would have been required for simple field clearing. Ultimately, Gresham (1994) conducted his own investigations, including excavations of five piles, two of which contained 19th century artifacts; the other two contained no conclusive results. This interpretive rivalry can be seen as a division between two approaches, one of logic and observation, vs. one focused on physical archaeological excavations (Muller 2009).

Regardless, Ledbetter and others have suggested some basic guidelines for at least cursory assessment of rock features at the survey level. Ledbetter (2005; et al 2006), working at the Reynolds Plantation in Greene County, Georgia, documented that rock piles placed on the sides of the landform generally are historic in nature (used for erosion control or dumped from the clearing of agricultural fields). Often, circular or cone shaped rock piles located on or near the apex of landforms should thus be given more careful scrutiny, especially if they show selectivity and uniformity in stone type/size, as these are typical traits associated with precontact burials, whereas scattered rock piles located on steep side and/or in gullies are likely historic clearing piles. A relatively small and elongated pile, for example, may represent a dumped wagon load. Historic piles are also more consistently made of larger rocks, and may contain plowed soil beneath them, as precontact mounds would be obstacles predating mechanized plowing. Loubser et al. (2008), who conducted a data recovery at Reynold Plantation, stresses stratigraphic context, in particular the relationship of the stones to the plow zone or subsoil. Mueller (2009) would note that these often appear atop bedrock or rock outcrops, which may never be satisfactorily dated. Ledbetter et al. (2006) also suggest that historic piles are often higher, more loosely packed with little or no soil accumulation between rocks, and with little evidence of weathering, or discoloration from moss or lichen cover. Overall, Loubser et al. (2008) suggest that these investigations only demonstrate the need for excavations, (in conjunction with ethnographic studies), as this is the only way to find data concerning stratigraphic association, age, physical and chemical makeup, and cultural affiliation. New dating methods, such as the Oxidizable Carbon Ratio (OCR) procedure, can also be used in some cases.

The rock features noted at the Country Lane site need further investigation to determine significance. However, on cursory analysis, the features are more evocative of historic farming and modern land use, rather than prehistoric monuments. The piles range in size of material and overall dimensions, and they are generally haphazardly stacked and amorphous. None of the features are circular or cone shaped, none are located on or near the apex of landforms, and none showed any indication of selectivity and uniformity in stone type/size. Furthermore, there is little to no evidence of soil accumulation, patina, or moss and lichens. The initially identified rock pile is located near the edge of the planted pine, at the top of the gully, suggesting it to be an artifact of timbering: clear rocks piled as erosion control. The low walls surrounding the boulder "table" are along the edge of a steep drop, nearest a small saddle, and not more centrally located on the ridge spur they are located on. Moreover, they are insubstantial, and do not appear to be analogous to any property lines or other feature other than the central boulder. It is possible these are recent constructions, contemporaneous with the collected bones. The rock outcrop is located along the other side of the landform; although the rocks appear piled in places, there is no clear evidence that this arrangement is in anyway systematic or deliberate. These may be an artifact of clearing the landform above of loose material. Although research has not shown this area to have been cleared or timbered, the

remains of a sawmill suggests that historic timbering was much more extensive than the recently planted pines.

Regardless of the provenance of these possible features, given the known prehistoric sites in the Little Creek drainage in this area and the overall Swift Creek/Neuse River basin, regional prehistory suggests that prehistoric sites were typically clustered along sources of freshwater. Camps or long-term habitation sites would be in the well-drained, upland areas, and within a fairly close proximity to water. Base camps were often situated on terraces of major rivers in order to exploit the resources found there. Such sites may have been reused over long periods and could thus contain cultural deposits from multiple periods. Wetlands would be a source of a variety of floral, faunal, and lithic resources. Base camps produce a generalized pattern of artifacts, few and unvaried associated features, and little inter-site variability of materials; however, a diversity of faunal materials may be present. Frequency and diversity of materials and features associated with locations is very low. Smaller, isolated activity areas, and zones of resource procurement may be located closer to the river, but these would not likely contain extensive habitation remains. Any such former resource procurement areas near rivers may have since been since inundated and/or buried by alluvium, and they are seldom well represented archaeologically. Very few preserved artifacts (especially in a lithic-poor region) may be left behind in the locations typically used as procurement areas, which are not typically occupied for extended lengths of time. Activity areas such as these are notoriously difficult to identify. Simply put, proximity to wetlands often corresponds to size, with smaller, possible resource procurement sites nearest wetlands and larger habitation sites on more upland or riverine settings.

In the case of the current survey area, one might expect small resource location camps to be located along the terraces above the Little Creek tributary similar to the results found by Kimball (1977) along the creek's main branch, while longer term base camps might be located on the ridgetop closer to Country Lane, as suggested by the potentially eligible sites recorded by Roberts and Butler (1993).

While level, well-drained areas are also the most likely location of historic habitation sites, another factor in predicting historic site locations is the proximity to historic transportation routes. A precursor to Country Lane is evident at least dating back to the 1911 Hearn and Brinkley soil survey. Although farms are present in this area throughout the early 20th century, they appear to match property lines comparable to today. Given much of the farm nuclei are outside of the APE, it is considered much more likely that historic sites representing smaller ancillary outbuildings or activities areas would be found in the survey area. The pond remains an exception, as a dwelling here on the 1973 USGS topographic map suggests any evidence of a homesite in this area would minimally meet the historic (≥ 50 years) threshold, although none was obvious during the reconnaissance. In addition, although map evidence suggested a possible creek crossing could be located above the convergence of the Little Creek tributary with its main stem along the tract boundary in the southeastern part of the APE; this appears to be outside of the APE, below this confluence. The site visit did find evidence of also of earlier timbering of the property, and additional evidence such as the boiler may be found elsewhere in the APE.

The APE has potential archaeological features and historic sites, as well as a relatively high potential to contain at least short-term prehistoric camps and additional historic materials or cultural features. The APE is considered to have a moderate potential, however, to contain undisturbed archaeological evidence of such sites. At least some damage to archaeological sites, should they have existed, would have been incurred along the ridgetop due to agricultural plowing followed by damage through silviculture. Plowing and grading are relatively shallow impacts to the soil column and deeper archaeological sites may be largely intact. Silviculture practices, on the other hand, can have severe

effects on archaeological deposits, as has been extensively documented. Stephenson and Snow (1993:60), for example, posit that plowing up to 18 inches (0.45 meters) deep may occur in the preparation of bedding rows for pine seedlings. Silvicultural tracts are re-bedded every 20 to 30 years, causing repeated disturbance to the natural stratigraphy. Therefore, disturbances to most of the APE have impacted the soils to a depth below which cultural materials would be expected to exist. However, given the Wagram series topsoil along the ridgetop can be expected to be approximately 24-inches ( 0.61 meters) deep based on the soil pedon, it is possible the subsoil-topsoil interface, where prehistoric materials and features are likely to be found in situ, may have been preserved regardless of plowing and timbering. Further, sites along the ridge slopes and small stream terraces may have been well-washed by erosional and alluvial processes, and thus sites may be expected to have been possibly deflated and dispersed.

## Recommendations and Conclusions

In summary, NV5 believes there are minimally historic sites and potential cultural rock features within the APE, as well as moderate to high potential for additional undocumented prehistoric or historic archaeological sites to be present, particularly along the ridgetop along Country Lane or along the Little Creek tributary forming the eastern boundary of the tract. These sites are expected to be minimally impacted by clearing and agricultural and silvicultural use of the land since at least the early 20th century; in some areas these may be eroded and/or not in situ scatters of materials. If present, prehistoric or early historic sites with deeper cultural deposits and cultural features may be relatively undisturbed beneath the plow zone.

While some evidence of logging and dumping is clear, as discussed above, it is impossible to determine with finality the temporal affiliation (precontact vs, historic) or function of the rock features without substantial excavation efforts, including sampling the soil horizon underneath for radiometric or relative stratigraphic dating of the soil horizon underneath, typically done during a testing and assessment phase of work. However, the rock features generally do not fit the criteria considered prehistoric in origin. Such scattered, heterogenous rock piles are almost certain to represent land clearing and/or byproducts of historic agriculture, and they are not likely to yield information about the historic or prehistoric period. Nonetheless, the rush to judgement of such features without excavations has been proven to be imprudent and inconclusive in some past circumstances, and our perfunctory observations should be taken with some reservation.

If the proposed project should require oversight under Section 106 of the NHPA, or similar regulatory environment, full Phase I archaeological survey and/or an inventory of historic structures in the viewshed of the Country Lane tract may be required. A Phase I archaeological survey, if required should be conducted by a Secretary of the Interior (SOI)–qualified archaeologist to inventory potential archaeological sites on the property and assess them for NRHP eligibility. Similarly, an SOI-qualified architectural historian may be required to inventory and evaluate any standing structures in the APE as historic resources. The results of such an investigation would warrant review by both the regulating federal agency and SHPO.

Typically, archaeological survey would utilize systematic surface and subsurface inspection to determine the presence (or absence) of archaeological resources. Given the relatively narrow floodplain and expected shallow alluvium, deep testing methods (coring, mechanical excavations) should not be necessary. The entire project area would be shovel tested per OSA (2017) guidelines. In addition, all areas of exposed ground within the project area would be examined for artifacts and other evidence of past human activities. Shovel Tests (STs) are typically 0.3 meter (m) (1 foot [ft]) diameter excavations spaced at ≤ 30 m (100 ft). These tests are taken to a minimum depth of either 1.0 m or 0.1 m (0.7 foot) into either culturally sterile subsoil, whichever is reached first, or until an impenetrable substrate (e.g., dense fill), or the water table is reached. Where archaeological

materials are encountered, site boundaries would be determined by additional shovel tests excavated at a reduced interval. Boundaries of all culturally sensitive areas would be marked as deemed appropriate by the client; GPS readings of these boundaries would be taken and marked if required.

Shovel testing typically takes place in areas that are relatively undisturbed, not saturated or inundated, relatively flat (< 20% grade), and with poor surface visibility (< 50%). Areas which are either disturbed, saturated or inundated, sloping (> 20% grade), or with good surface visibility (> 50%) may be subject to surface inspection only and at a reduced (≤10 m) interval to the degree possible. The entire APE, with the exception of several field ponds, can be shovel tested. Based on OSA guidelines, shovel tests (STs) would be anticipated to be excavated at no greater than 30-m (100-ft) intervals. Based on this interval, we estimate shovel testing efforts for the project area not to exceed 550 STs for the initial survey.

If intact archaeological sites are documented, they may be eligible for the NRHP under Criterion D (Information Potential), typically associated with properties that yield, or are likely to yield, information important in prehistory or history. NRHP-eligible or potentially eligible resources may require further assessment and testing and ultimately management and/or mitigation to address project effects.

Cultural resource management regulations are also likely to require consultation with federally recognized Native American tribes with an interest in Johnston County. According to the federal Tribal Directory Assessment Tool (TDAT) maintained by the United States Office of Environment and Energy (US OEE), two tribes would be expected to require contact, the Catawba Indian Nation (Rock Hill, South Carolina) and the Tuscarora Nation (Lewiston, New York). Tribal consultation is typically established by the federal regulatory agency. Contacting the only federally recognized tribe in North Carolina, the Eastern Band of Cherokee Indians, is not required for a federal undertaking, nor are the eight state recognized tribes, which also include the Coharie, the Haliwa-Saponi, the Lumbee Tribe of North Carolina, the Meherrin, the Sappony, the Occaneechi Band of the Saponi Nation, and the Waccamaw Siouan. However, additional consultation with the SHPO is recommended for state-regulated undertakings.

If at any point Section 106 compliance is required by SHPO, or if additional comments on the observed features is warranted, NV5 is happy to notify OSA of project plans for the Country Lane Development Tract, on behalf of Withers & Ravenel. OSA review requires the proponent to provide (1) the type and location of the project proposed, (2) the presence or absence of known sites in the project area, and (3) the potential for significant sites in the area; all of these elements are contained and addressed in this memorandum. Further, it is our understanding that a separate assessment by an arborist has concurrently been conducted for the project. Following review of this study NV5 could offer comment on any potential historical tree features identified.

Please review this information and if you have any questions, or need additional information, please feel free to contact me at (678) 816-0824, or at David.Franz@NV5.com.

Sincerely,

David M. Franz, RPA
Senior Archaeologist

## References Cited

Fish, Suzanne K, Paul R. Fish and Richard W. Jeffries
1978 *An Examination of Interfluvial Settlement in the Georgia Southern Piedmont: The Georgia Power Company Plant Scherer Archaeological Survey.* University of Georgia Laboratory of Archaeology Series Report No. 15.

Garrow, Patrick H. and David W. Chase
1988 *Archaeological Investigations of Two Stone Mound Complexes in Gwinnett County, Georgia.* Garrow & Associates, Inc., Atlanta.

Google Earth
2010 *Aerial Imagery of Johnston County*. Available online, https://earth.google.com/web/, accessed April 7, 2022.

2011 *Aerial Imagery of Johnston County*. Available online, https://earth.google.com/web/, accessed April 7, 2022.

2017 *Aerial Imagery of Johnston County*. Available online, https://earth.google.com/web/, accessed April 7, 2022.

2018 *Aerial Imagery of Johnston County*. Available online, https://earth.google.com/web/, accessed April 7, 2022.

Gresham, Thomas H
1990 Historic Patterns of Rock Piling and the Rock Pile Problem. *Early Georgia* 18 (1989), 1-40.

1994 *Archaeological Investigations of the Strickland Tract, Gwinnett County, Georgia.* Report prepared by Southeastern Archaeological Services, Inc., Athens, Georgia for Braden & Associates, Norcross, Georgia.

Hearn, W. Edward, and L. L. Brinkley
1911 *Soil Survey of Johnston County, North Carolina*. United states Department of Agriculture Bureau of Soils. United States Government Printing Office, Washington, DC.

Jefferies, Richard
1976 *The Tunacunnhee Site: Evidence of Hopewell Interaction in Northwest Georgia*. Anthropological Papers of the University of Georgia No. 1. Athens.

Jefferies, Richard and Paul R. Fish
1978 *Investigation of Two Stone Mount Localities, Monroe County, Georgia.* Laboratory of Archaeology Series. Report No. 17. University of Georgia, Athens.

Jones, Lucy D.
2018 *Historic Structures Survey Report Widening of NC 42 from Hamby Street in Clayton to West of NC 50 Johnston County, North Carolina.* Prepared by Cardno, Inc., Raleigh, North Carolina for North Carolina Department of Transportation, Raleigh.

Ledbetter, Jerald
2005 *Archaeological and Historical Investigations of the Georgia Pacific & Hardin Tracts, Greene County, Georgia.* Report prepared by Southeastern Archaeological Services, Inc., Athens, Georgia for Reynolds Plantation, Greensboro, Georgia.

2006 *Archaeological and Historical Investigations for the Proposed Rock Hawk Trail Corridor Adjoining Lawrence Shoals Park and Little Rock Eagle Mound in Putnam County, Georgia.* Report prepared by Southeastern Archaeological Services, Inc., Athens, Georgia for Georgia Department of Natural Resources Historic Preservation District, Atlanta.

Ledbetter, Jerald, K.T. Burns, T.G. Gresham, Scott Jones, D.S. Leigh, W.G. Moffat and L.D. O'Steen
2006 *Archaeological and Historical Investigations of the Georgia Pacific & Hardin Tracts, Greene County, Georgia (with Addendum).* Report prepared by Southeastern Archaeological Services, Inc., Athens, Georgia for Reynolds Plantation, Greensboro, Georgia.

Loubser, Johannes H.N., S. Butler and J. Page
2008 *Data Recovery at Site 9GE2084: The 19 Rock Pile Site. Greene County, Georgia.* Report prepared by Brockington and Associates, Inc., Atlanta, Georgia for Reynolds Plantation, Greensboro, Georgia.

Muller, Norman E.
2009 Stone Mound Investigations as of 2009. *NEARA Journal* 43(1), p.17.

North Carolina Office of State Archaeology (NC OSA)
2017 Archaeological Investigation Standards and Guidelines for Background Research, Field Methodologies, Technical Reports, and Curation. North Carolina State Historic Preservation Office, Office of Archives and History, Raleigh.

Range, Willard
1954 *A Century of Georgia Agriculture 1850-1950.* University of Georgia Press, Athens.

Roberts, Marian D. and C. S. Butler
1993 *Cultural Resources Reconnaissance Survey of Three Alternate Corridors for the US 70 Clayton Bypass, TIP R-2552, Wake and Johnston Counties, North Carolina.* Prepared by Brockington and Associates, Inc., Atlanta Georgia, for North Carolina Department of Transportation, Raliegh.

Schnell, Frank T., Jr.
1984 Stones and Mounds. *The Profile* 43:6.

Smith, Phillip E.
1962 *Aboriginal Stone Constructions in the Southern Piedmont.* University of Georgia Laboratory of Archaeology Series, Report No. 4, Part II, Athens, Georgia, 1962, 10.

Stephenson, Keith, and Frankie Snow
1993 Site Destruction and Disturbance in the Ocmulgee Big Bend Region of southern Georgia: One Approach to Salvage Archaeology. In *Site Destruction in Georgia and the Carolinas*. Anderson, David G. and Virginia Horak, eds. Readings in Archaeological Resource protection No. 3. Interagency Archaeological Services Division, Atlanta, Georgia. P 59-66.

United States Department of Agriculture National High Altitude Photography (USDA NHAP)
1983 *Aerial Imagery of Johnston County.* Available online, https://www.historicaerials.com/, accessed April 7, 2022.

United States Department of Agriculture Natural Resources Conservation Service (USDA NRCS)

2022a Web Soil Survey. Available online, https://websoilsurvey.nrcs.usda.gov/app/ HomePage.htm, accessed April 7, 2022.

2022b Official Soil Series Descriptions. Available online, https://soilseries.sc.egov.usda.gov/ scname.aspx, accessed April 7, 2022.

United States Geological Survey (USGS)
1964a *Clayton, North Carolina.* 7.5-minute topographic quadrangle. U.S. Department of the Interior. Available online, https://store.usgs.gov/map-locator, accessed April 7, 2022.

1964b *Powhatan, North Carolina.* 7.5-minute topographic quadrangle. U.S. Department of the Interior. Available online, https://store.usgs.gov/map-locator, accessed April 7, 2022.

1973 *Powhatan, North Carolina.* 7.5-minute topographic quadrangle. U.S. Department of the Interior. Available online, https://store.usgs.gov/map-locator, accessed April 7, 2022.

1993a *Powhatan, North Carolina.* 7.5-minute topographic quadrangle. U.S. Department of the Interior. Available online, https://store.usgs.gov/map-locator, accessed April 7, 2022.

1993b *Aerial Imagery of Johnston County.* Available online, https://www.historicaerials.com/, accessed April 7, 2022.

1999 *Aerial Imagery of Johnston County.* Available online, https://www.historicaerials.com/, accessed April 7, 2022.

United States Office of Environment and Energy (US OEE)
2022 Tribal Directory Assessment Tool (TDAT). Available online, https://egis.hud.gov/tdat/ Tribal.aspx, accessed April 10, 2022.

**Catawba Indian Nation**
**Tribal Historic Preservation Office**
**1536 Tom Steven Road**
**Rock Hill, South Carolina 29730**

**Office 803-328-2427**

May 4, 2022

Attention: Alyssa Ricci
WithersRavenel
115 MacKenan Drive
Cary, NC 27511

| Re. THPO # | TCNS # | Project Description |
|---|---|---|
| 2022-1035-5 | | Country Lane – Clayton, Johnston Co., NC WR Project # 02200402.00 |

Dear Ms. Ricci,

The Catawba have no immediate concerns with regard to traditional cultural properties, sacred sites or Native American archaeological sites within the boundaries of the proposed project areas. **However, the Catawba are to be notified if Native American artifacts and / or human remains are located during the ground disturbance phase of this project.**

If you have questions please contact Caitlin Rogers at 803-328-2427 ext. 226, or e-mail Caitlin.Rogers@catawba.com.

Sincerely,

Caitlin Rogers for

Wenonah G. Haire
Tribal Historic Preservation Officer

**North Carolina Department of Natural and Cultural Resources**
**State Historic Preservation Office**
Ramona M. Bartos, Administrator

Governor Roy Cooper
Secretary D. Reid Wilson

Office of Archives and History
Deputy Secretary, Darin J. Waters, Ph.D.

May 5, 2022

Alyssa Ricci aricci@withersravenel.com
WithersRavenel
115 MacKenan Drive
Cary, NC 27511

Re: Construct Country Lane residential subdivision, 439 Country Lane, Clayton, Johnson County, ER 22-1008

Dear Ms. Ricci:

Thank you for your email of March 18, 2022, regarding the above-referenced undertaking. We have reviewed the submittal and offer the following comments.

We have conducted a review of the project and are aware of no historic resources which would be affected by the project. Therefore, we have no comment on the project as proposed.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919-814-6579 or environmental.review@ncdcr.gov. In all future communication concerning this project, please cite the above referenced tracking number.

Sincerely,

Renee Gledhill-Earley

for Ramona Bartos, Deputy
State Historic Preservation Officer

**Location**: 109 East Jones Street, Raleigh NC 27601 **Mailing Address**: 4617 Mail Service Center, Raleigh NC 27699-4617 **Telephone/Fax**: (919) 814-6570/814-6898

WithersRavenel
Our People. Your Success.

April 5th, 2022

**TO: Clayton Properties Group, Inc.**

**RE: Specimen Tree Survey**

At the Clients request we have inspected and assessed the specimen trees on the Country Lane Job WR #200402, in Wake County, North Carolina. All trees identified in this summary report were measured with a Spencer Pro diameter tape at approximately 4.5ft DBH (diameter at breast height). The spatial locations provided were gathered with a GPS/GNSS solution with expected accuracies of 1m horizontal or better.

A Champion Tree is defined as any single tree that has been determined to be of exceptionally high value because of its species, size, age, or other professional criteria. The minimum size specifications are as follows: Hardwood tree which is 32 inches or greater, and a Pine tree that is 40 inches or larger shall be considered a champion tree. A tree that meets the indicated size but is dead or diseased or has an abnormal form that is not characteristic of its species shall not be considered a Champion Tree. Additionally, any Dogwood, Horticultural Cherry, Redbud, Silverbell, or Serviceberry 12 inches or greater shall be considered as a Champion tree.

Sincerely,
WithersRavenel

Travis Howell
North Carolina Registered Forester #1806
Mobile: 919.614.2146
thowell@withersravenel.com
Remote Sensing Project Manager

Specimen Tree #1:

51” DBH White Oak (Quercus alba)

Approximate Cored Age: We were able to extract a partial core that showed ~85 years of growth. The center of the tree was rotten and therefore an exact age will not be able to be calculated. We can estimate that approximately 40 years of heartwood growth was not able to be cored for an estimated maximum age of ~125 years old. This dates the birth of tree to around the 1900’s.

137 South Wilmington Street, Suite 200 | Raleigh, NC 27601
t: 919.469.3340 | f: 919.467.6008 | www.withersravenel.com | License No. C-0832
Asheville | Cary | Greensboro | Pittsboro | Raleigh | Wilmington

Specimen Tree #2:

27” DBH White Oak (Quercus alba)

Approximate Cored Age: We were able to extract a great core (no heart rot) with an estimated age being around 60 years old.

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Asheville | Cary | Greensboro | Pittsboro | Raleigh | Wilmington

Town of Clayton
Planning Department
111 E. Second Street, Clayton, NC 27520
P.O. Box 879, Clayton, NC 27528
Phone: 919-553-5002
Fax: 919-553-1720

May 6, 2022

WithersRavenel, Inc.
114 MacKenan Drive
Cary, NC 27511
bvega@withersravenel.com

**Re:** 2021-20-CZM Country Lane Conditional Zoning District and Master Plan

To Whom It May Concern,

The Town of Clayton Planning staff is recommending to the Town Council that the following revised conditions of approval be placed upon the above referenced application, which proceeds to Town Council on Monday, May 16, 2022. These revised recommended conditions of approval are outlined on the back of this letter.

Please read through these potential conditions of approval, and sign below if you are in agreement with the conditions as proposed. If you are not in agreement please respond accordingly in writing. This will be included within the agenda packet for Planning Board and Town Council review.

Thank you.

Sincerely,

Benjamin H. Howell

Ben Howell, AICP, CZO
Planning Director

**Recommend Conditions of Approval (2021-20-CZM, Country Lane Conditional Zoning District and Master Plan):**

1. Following Town Council approval, an electronic copy of the Master Plan and Narrative including the Conditions of Approval shall be submitted to the Planning Department for final approval.
2. The Development shall meet all adopted Town of Clayton Unified Development Code (UDC) requirements, Town of Clayton Engineering and Stormwater design standards, and the North Carolina Fire Code and NFPA Fire standards, except where specifically modified by the approved master plan.
3. The Development shall be constructed in substantial conformance with the Master Plan and Master Plan Narrative as approved by the Clayton Town Council.
4. Permitted uses in the Development shall be limited to the following uses:
    - Single-family House
    - Park
    - Fitness/Recreation Center
    - Utility, Minor
5. The following standards will apply to the Development:
    - Maximum Number of Single-Family Houses: 270
    - Maximum Density: 2.347 dwelling units per acre
    - Minimum Lot Size, Interior Lots: 6,000 Square Feet
    - Minimum Lot Size, Adjacent to Project Boundary: 8,000 Square Feet
6. A minimum of 90 residential lots shall have a minimum lot width of 53', as measured at the front setback line; all other residential lots shall have a minimum lot width of 45', as measured at the front setback line.
7. Other dimensional standards and setbacks shall meet the requirements in the approved Master Plan Narrative.
8. A minimum of 45 acres of the site will be comprised of open space, and at least 50% of the required recreation and open space will be part of a contiguous parcel.
9. Enhanced erosion control measures shall be provided along the limits of disturbance immediately along the Little Creek and its tributaries, where areas identified as steep slopes are to be graded.
10. A 1-acre site will be designated for a Fitness/Recreation Center for the Development, with at least one of the following amenities to be included:
    - Pool
    - Splashpad
    - Playground
    - Clubhouse
11. At least two of the following amenities will also be included in the Development:
    - Great lawn

- Picnic shelter
- Pavilion
- Firepit
- Dog Park

12. A two-lane median divided residential collector street will provide access from the northern phases to the southern phase of the Development, acting as two means of access in the event of emergencies, while also minimizing environmental impacts.
13. The following transportation improvements will be approved and bonded by NCDOT prior to approval of the Final Plat:
    a. Barber Mill Road at Amelia Church Road
        - Construct an exclusive southbound right-turn lane on Barber Mill Road with 100' of full-width storage with appropriate deceleration and taper.
        - Construct an exclusive eastbound left-turn lane on Amelia Church Road with 200' of full-width storage with appropriate deceleration and taper.
    b. Barber Mill Road at Country Lane Road
        - Construct an exclusive northbound right-turn lane on Barber Mill Road with 100' of full-width storage with appropriate deceleration and taper.
        - Construct an exclusive southbound left-turn lane on Barber Mill Road with 100' of full-width storage with appropriate deceleration and taper.
14. No more than 30 Certificates of Occupancy will be issued within the Development before the second required access point is constructed.
15. The Development will be responsible for the installation of a public sanitary sewer system that will serve up to 270 residential units in Country Lane, including the installation of a Pump Station and approximately 8,000 linear feet of Force Main Sewer. Easements will be provided for the public utilities that are installed outside of public right of way per Town of Clayton Requirements.
16. The Development shall dedicate a Greenway and Public Utility Easement along the entire eastern property boundary for the future construction of a greenway and sewer utilities. The final location of the easement shall be based on coordination with Town staff. The Greenway and Public Utility easement shall be at least 20 feet wide, and a minimum 20-foot-wide access to the easement shall be provided from the pump station area.
17. The Development shall provide a Payment-in-Lieu for Construction of a future 10-foot-wide asphalt greenway in the dedicated easement or shall construct a 10-foot-wide asphalt greenway in the dedicated easement. If the Development constructs the greenway, an additional 20-foot-wide Public Utility Easement shall be provided adjacent to the greenway easement for future installation of sewer utilities. Payment-in-Lieu shall be calculated at 125% of the estimated construction cost (based on a sealed Engineer's Estimate) and shall be provided prior to approval of the Final Plat for Phase 3.
18. The Development shall construct at least two connections to the greenway easement. One connection shall be in Phase 2 and one connection shall be in Phase 3. These connections shall be a minimum of 5 feet wide and may be constructed of asphalt or concrete.
19. A minimum of six (6) different home plans, each with a minimum of three (3) different elevations and six (6) different color palettes, will be provided to add variety to the neighborhood. No home

can be constructed with an exterior elevation (front façade) or color palette that is identical to the home on either side or directly across the street from it.

20. A minimum of 15% of the homes (at least 41 homes) shall include masonry on one or more of the façades.
21. All homes hall have at least two (2) of the following architectural elements:
    - Decorative window trim;
    - Shutters;
    - Board and batten;
    - Shakes;
    - Decorative gable vents, decorative gable window or gable trim detail;
    - Hip rooflines;
    - Bay window;
    - Water table over garage door;
    - Decorative horizontal trim boards;
    - Dormer(s);
    - Brick or stone accent;
    - Front porch columns.
22. Elevations provided are representative of the product that may be built while still meeting the architectural design commitments. Elevations may change due to revisions in base models, finishes preferred by home buyers, home plans more suitable for individual lot layout and driveway placement, or other factors. Alternative elevations proposed will be reviewed and approved by the Planning Director for consistency with the architectural design commitments at time of building permit review.
23. All homes will have a minimum of 2-car garages.
24. Energy efficient features will include a minimum of three of the following: 14- SEER Energy-efficient HVAC System, Air Barrier & Sealing, Carbon Monoxide Detectors, Decorative Fiberglass Front Door, Gas Heat (2nd Floor Electric Heat Pump if Separate System), LED Lighting throughout Home, Low VOC Carpet, Low VOC Paint, Low-E Insulated Single-hung Vinyl Widows w/ Tilt Out Feature, MERV 8 HVAC Filters, Programmable Thermostat, R-38 Attic Insulation, Separate HVAC System or Zone for Each Floor (per plan), Smoke Alarms in Each Bedroom, Water-saving Faucets & Shower Heads.
25. A 15-foot-wide Type C Landscape Buffer will be provided along the Development boundary as shown on the Master Plan. The Type C Landscape Buffer shall include a minimum 6-foot-high opaque screening (at installation) consisting of a wall, fence, berm, evergreen hedge, or combination thereof.
26. A minimum of 30 overflow parking spaces shall be provided, spaced throughout the development. Overflow parking spaces shall meet the standard dimensions for parking spaces in the UDC.
27. No private residential lots shall be located on areas that would otherwise be designated as Resource Conservation Area (RCA). These areas shall be owned and maintained by the Homeowners Association.

28. The development shall provide a traffic calming device at the connection to the existing stub at Lynn Drive, subject to approval by the Town Engineering and Public Works Departments.
29. Lot grades shall not exceed slopes of 3:1 on residential lots. Retaining walls shall be allowed to make up grade on steep areas of the site. Retaining wall easements shall be provided if a wall or part of the wall structure is located within lots other than HOA maintained.
30. This development shall provide resurfacing of Country Lane from the south end of the site frontage on Country Lane to Barber Mill road, outside of the limits already covered by the TIA-recommended intersection improvement. Resurfacing shall consist of a 1.5 inch layer of overlay asphalt over the existing street section (~20 feet wide), subject to approval by NCDOT as part of a 2-Party Encroachment Agreement.
31. The development shall enter in an Operation and Maintenance Agreement for the proposed Stormwater Control Measures, as outlined by the Town of Clayton UDC Section 158.061.
32. To the extent of any conflict between the Master Plan, Master Plan Narrative and these conditions, these conditions shall control.

**APPLICANT AFFIDAVIT**

***I/We, the undersigned, do herby certify that I have reviewed the recommended conditions of approval and am in agreement with the conditions as they are outlined within this letter.***

| Brendie Vega, AICP | Vega, Brendie 2022.05.06 14:10:28-04'00' Brendie Vega | 05/06/2022 |
|---|---|---|
| *Print Name* | *Signature of Applicant* | *Date* |

Ordinance #2022-03-05

**AN ORDINANCE AMENDING THE ZONING ORDINANCE AND ZONING MAP OF THE TOWN OF CLAYTON, NORTH CAROLINA**

**WHEREAS** a petition has been filed with the Town Council of the Town of Clayton requesting an amendment to the Zoning Ordinance and Zoning Map of the Town of Clayton to include in the Conditional Zoning – Residential (CZ-R) zone the property described below, said property formerly being zoned Planned Development – Residential (PD-R); and

**WHEREAS** said property is owned by Country Lane Investors, LLC; and

**WHEREAS** the Planning Board of the Town of Clayton has reviewed the proposed change(s) and made a recommendation thereupon; and

**WHEREAS** the requested Zoning Map Amendment was advertised in accordance with all requirements of the law; and

**WHEREAS** a notice of the proposed zoning classification action was mailed to the owner(s) of the parcel(s) of land involved, as shown on the County Tax Listings, and to the owners of all parcels of land abutting that (those) parcel(s) of land and within 100 feet of the subject parcel(s) of land, as shown on the County Tax Listings, by depositing a copy of the same in the United States Mail, first class postage paid, as required by Section 155.702(D) of the Zoning Ordinance of the Town of Clayton and by Section 160D-602 of the General Statutes; and

**WHEREAS** the said public hearing was actually conducted at 6:00 p.m. on March 21, 2022, wherein a reasonable opportunity was given to all those in attendance to speak either in favor or against the said change or to make relevant comments; and

**THEREFORE,** after duly considering the matter, THE TOWN COUNCIL OF THE TOWN OF CLAYTON DOES HEREBY ORDAIN:

**SECTION 1**. That the Unified Development Code of the Town of Clayton is hereby amended to include in the Conditional Zoning – Residential (CZ-R) zone the following described property:

General Description:
Northeast of intersection of Jasper Drive and Country Lane

Specific Description:
NC Parcel TAG Number: 05G03026S

**SECTION 2**. That the official Town of Clayton Zoning Map is hereby amended to include in the Conditional Zoning – Residential (CZ-R) zone the above-described property and will be so marked.

**SECTION 3**. That if any section, sentence, clause, or phrase of this Ordinance is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Ordinance.

**SECTION 4.** The applicant is requesting these recommended conditions of approval (2021-20-CZM, Country Lane Conditional Zoning District and Master Plan):

1. Following Town Council approval, an electronic copy of the Master Plan and Narrative including the Conditions of Approval shall be submitted to the Planning Department for final approval.
2. The Development shall meet all adopted Town of Clayton Unified Development Code (UDC) requirements, Town of Clayton Engineering and Stormwater design standards, and the North Carolina Fire Code and NFPA Fire standards, except where specifically modified by the approved master plan.
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    - Maximum Number of Single-Family Houses: 270
    - Maximum Density: 2.347 dwelling units per acre
    - Minimum Lot Size, Interior Lots: 6,000 Square Feet
    - Minimum Lot Size, Adjacent to Project Boundary: 8,000 Square Feet
6. A minimum of 90 residential lots shall have a minimum lot width of 53', as measured at the front setback line; all other residential lots shall have a minimum lot width of 45', as measured at the front setback line.
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30. This development shall provide resurfacing of Country Lane from the south end of the site frontage on Country Lane to Barber Mill road, outside of the limits already covered by the TIA-recommended intersection improvement. Resurfacing shall consist of a 1.5 inch layer of overlay asphalt over the

existing street section (~20 feet wide), subject to approval by NCDOT as part of a 2-Party Encroachment Agreement.

31. The development shall enter in an Operation and Maintenance Agreement for the proposed Stormwater Control Measures, as outlined by the Town of Clayton UDC Section 158.061.
32. To the extent of any conflict between the Master Plan, Master Plan Narrative and these conditions, these conditions shall control.

**SECTION 5.** That this ordinance shall become effective immediately upon its adoption.

Duly adopted this 16th day of May 2022, while in regular session.

_____
Jody L. McLeod
Mayor

ATTEST:

_____
Sherry L. Scoggins, MMC
Interim Town Clerk

APPROVED AS TO FORM:

_____
Jim Cauley
Town Attorney

TOWN OF CLAYTON
Engineering & Inspections Department
111 E. Second Street, Clayton, NC 27520
P.O. Box 879, Clayton, NC 27528
Phone: 919-553-5002
Fax: 919-553-1720

# WASTEWATER ALLOCATION REQUEST

The Town of Clayton, in an effort to manage and maintain the sewer and water capacity for the Town, requires that this application be completed and submitted to the Town for consideration of a utility allocation. Review fee is due upon submittal of request.

**Wastewater Allocation Request Review Fee: $50**

**Application MUST be completed and sealed by a registered engineer unless otherwise approved by staff.**

## SITE INFORMATION

**Name of Project:** Country Lane **Acreage of Property:** 115.03 ac

**County Tag Number:** 05G03026S **NC PIN:** 165804-82-1701

**Address/Location:** Northeast of the intersection of Jasper Drive and Country Lane.

**Zoning District:** PD-R (existing), R-8 CZ (proposed)

**Town Limits / ETJ:** ■ Town Limits ☐ ETJ (Extra-Territorial Jurisdiction)

## APPLICANT INFORMATION – Applicant must be a registered engineer unless otherwise approved by Town Engineer

**Applicant:** WithersRavenel, Inc. - Zachary L. Fuller, PE

**Mailing Address:** 115 MacKenan Drive, Cary, NC 27511

**Phone Number:** 919-469-3340 **Fax:** 919-467-6008

**Contact Person:** Zachary L. Fuller, PE

**Email Address:** zfuller@withersravenel.com

## PROPERTY OWNER INFORMATION

**Name:** Country Lane Investors LLC

**Mailing Address:** 5121 Kingdom Way, Suite 200, Raleigh, NC 27607

**Phone Number:** 919-832-0594 **Fax:** N/A

**Email Address:** sstroud@naicarolantic.com

## *FOR OFFICE USE ONLY*

Date Received: _____ File Number: _____ Associated Project Number: _____

## PROJECT INFORMATION

**Use:** ☒ **New** ☐ **Expanded** ☐ **Change** **Use Type:** ☒ **Residential** ☐ **Non-Residential**

**Proposed Use(s):** Single Family Residential **Existing Use(s):** Wooded

*Invoice shall be mailed to the following:*

**Developer Name:** Clayton Properties Group, Inc. dba Mungo Homes of North Carolina, Inc.

**Mailing Address:** 2521 Schieffelin Road, Suite 116

**Phone Number:** 919-901-2595 **Fax Number:** N/A

**Email Address:** bclark@mungo.com

## ALLOCATION REQUEST

**The following is required:**

- **For non-residential construction, submit a floor plan of proposed building.**
- **Use additional sheets if necessary.**
- **Provide any documentation supporting/justifying the request as an attachment (using a comparable use is recommended).**
- **If a phasing / take-down schedule is proposed, include as an attachment.**

**Residential:**

**Gross Acreage:** 115.03 ac

| Single Family | # of Units | GPD per Unit | Total Requested GPD |
|---|---|---|---|
| 1-2 Bedroom Units | | | |
| 3 Bedroom Units | | | |
| >3 Bedroom Units | 270 | 250 | 67,500 |
| **Total** | 270 | ------ | 67,500 |

| Multi-Family | # of Units | GPD per Unit | Total Requested GPD |
|---|---|---|---|
| 1-2 Bedroom Units | | | |
| 3 Bedroom Units | | | |
| >3 Bedroom Units | | | |
| **Total** | | ------ | |

**Non-Residential:** ***(Design Flow Guideline provided as Appendix A)****

**If design flow deviates from the flow rates presented in Appendix A, provide supporting documentation/justification as an attachment in the form of 12 months of water bills demonstrating gallons per day utilized.*

**Gross Acreage:** +/- 1 Acre

| Use | Measurement Unit | # of Units | GPD per Unit | Total Requested GPD |
|---|---|---|---|---|
| Amenity Center | gal/fixture | 8 | 250 | 2,000 |
| | | | | |
| | | | | |
| **Total** | | | ------ | 2,000 |

**TOTAL REQUESTED GALLONS PER DAY:** 69,500

***NOTE TO APPLICANT:***

**Invoicing:**
Invoices are generated on the following schedule:

Non-Residential:
Generated with the application for a Zoning Compliance Permit.

Residential:
Multi-Family / Apartments:
Generated with the application for a Zoning Compliance Permit.

Subdivision / Subdivided Lots:
Generated at Final Plat submittal.

**Fee Development:**
Development Fees are calculated and invoiced based on the Town of Clayton adopted Comprehensive List of Fees and Charges. Invoiced fees include acreage fees, capacity fees, nutrient offset fees, recreation fees, fees-in-lieu, and electric department lot deposit. Please speak with Town staff with questions.

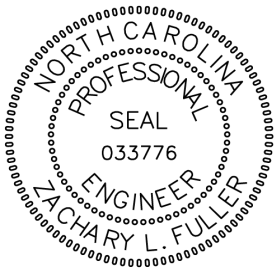
**Approval:**
Requests over 10,000 GPD are approved by the Town Council, by resolution. All other requests are approved by the Town Manager.

## APPLICANT AFFIDAVIT

***I/We, the undersigned, do hereby make application and petition to the Town of Clayton to approve the subject Wastewater Allocation. I hereby certify that I have full legal right to request such action and that the statements or information made in any paper or plans submitted herewith are true and correct to the best of my knowledge. I understand this application, related material and all attachments become official records of the Planning Department of the Town of Clayton, North Carolina, and will not be returned.***

| Zachary L. Fuller | DocuSigned by: Zachary Fuller F590CB5C3A2E414... | 05/09/2022 |
|---|---|---|
| ***Print Name*** | ***Signature of Applicant*** | ***Date*** |

**Engineer Seal:**



## TOWN OF CLAYTON OFFICE USE ONLY:

Approved by: ☐ Town Manager

☐ Town Council (*requests of 10,000 GPD or more require Council approval by resolution)*

The **Town Manager / Town Council (circle one)** has authorized the allocation of _____

gallons per day for project # _____.

Date of Approval: _____

Signed:

_____
Town Manager

*If approved by Town Council:*
Attach a copy of the resolution and any associated documentation.

**TOWN OF CLAYTON**
**RESOLUTION GRANTING WASTEWATER TREATMENT CAPACITY**
**2021-20-CZM – COUNTRY LANE**

**WHEREAS**, the Town of Clayton operates a wastewater treatment plant known and permitted as the "Little Creek Water Reclamation Facility"; and,

**WHEREAS,** said facility is permitted to treat a maximum average of 2.5 million gallons daily; and,

**WHEREAS**, the Town of Clayton holds several interlocal agreements which secure additional wastewater treatment capacity from other available sources; and,

**WHEREAS**, the North Carolina Department of Environment Quality (NCDEQ) regulates, reviews, and permits flow tributary to newly extended or installed wastewater treatment collection facilities tributary to the Town of Clayton system; and,

**WHEREAS**, flow from sanitary sewer customers tributary to existing lines owned and operated as part of the Town of Clayton is bound to abide by the permitted average daily flow at the Little Creek Water Reclamation Facility in conjunction with other available sources and consistent with interlocal agreements regarding wastewater treatment.

**NOW, THEREFORE, BE IT HEREBY RESOLVED BY THE TOWN COUNCIL FOR THE TOWN OF CLAYTON** that the following is found:

1. The Town of Clayton has, according to the most recent accounting, sufficient excess and unallocated treatment capacity to approve additional allocation.

2. Such available capacity may be made available to users in accordance with regulatory and legal parameters established to ensure satisfactory treatment plant operation.

3. A total allocation for wastewater treatment capacity is granted in the amount of 69,500 gallons per day (GPD) to Country Lane. The total allocation is subject the following phasing schedule and will be allotted accordingly.

| Phase/Section | # of Units | GPD/Unit | Total GPD | Date Wastewater Available* |
|---|---|---|---|---|
| Phase 1A | 45 Units | 250 | 11,250 | July 1, 2023 |
| Amenity Center | 8 fixtures | 250 gal/fixture | 2,000 | July 1, 2023 |
| Phase 1B | 61 Units | 250 | 15,250 | July 1, 2024 |
| Phase 2 | 91 Units | 250 | 22,750 | Jan 1, 2025 |
| Phase 3 | 73 Units | 250 | 18,250 | July 1, 2025 |
| Total | 270 | | 69,500 | |

**** Sewer Extension Permits and/ or FTSE forms shall not be executed prior to the date wastewater is available for the applicable phase.***

4. Said allocation is approved subject to and conditioned upon review and approval of all required regulatory processes.

5. Said allocation is non-transferable, non-assignable, and made for the projects as described and for the noted location unless explicitly approved by the Town of Clayton.

6. Said allocation may be revoked or reclaimed in accordance with the policies of the Town of Clayton as adopted or amended now or in the future. No property right is conferred with the granting of an allocation except as otherwise explicitly allowed by policy, ordinance, or action of the Town of Clayton.

7. Said allocation is subject to payment of applicable fees in accordance with adopted ordinances, policies, and fee schedules of the Town of Clayton.

Duly adopted this 16th day of May, 2022, while in regular session.

_____
Jody L. McLeod
Mayor

ATTEST:

_____
Heidi L. Holland, NCCMC
Deputy Town Clerk

# Town Council Agenda Cover Sheet

**Meeting Date**
May 16, 2022

**Agenda Location**
New Business

**Item Title**
Resolution to Award Construction Contract for the City Road Improvements (Utilities) Project

**Presenter:**
Patrick Paine, PE – Project Manager

**Summary/Description**
The Town's Project Team and Design Engineer (Adams & Hodge) received bids from three (3) different contractors on April 28, 2022, and we have an apparent low bidder. Mohammad Construction was the apparent low bidder at bid opening, after further research Mohammad was found to be nonresponsive as well as having several errors in the bid. T.A. Loving Company was the next lowest bidder at $1,005,500.50. The City Road Improvements Project will abandon the City Rd wastewater pump station and convey sewage to the Parkview subdivision sewer line and eventually to the Sam's Branch Outfall and also install a 10" water main up City Rd from Stallings Rd to Humboldt Rd. Projects funds are within this fiscal year operating budget. Staff request authorization for Town manager or designee to sign the construction contract and any change orders required to deliver the project.

**Requested Action**
Approval

**Funding Source (If Applicable):**
**N/A**

**Cost:** **$1,005,500.50** **Yes** ☒ **No** ☐

**Additional Documents to be Included in Agenda Packet**
Resolution of Award
Bid Tab

**Meeting Timeline**
Click or tap here to enter text.

| Item | Description | QTY | Units | T. A. LOVING | MOFFAT PIPE | Mohammad Const. |
|---|---|---|---|---|---|---|
| 101 | MOBILIZATION | 1 | LS | $ 50,000.00 | $ 67,000.00 | $ 60,056.00 |
| 102 | TRAFFIC CONTROL | 1 | LS | $ 110,020.00 | $ 140,000.00 | $ 30,080.00 |
| 201 | WATTLES | 27 | EA | $ 3,375.00 | $ 3,375.00 | $ 2,692.00 |
| 202 | SILT FENCE | 5014 | LF | $ 27,577.00 | $ 15,042.00 | $ 22,217.00 |
| 203 | SILT FENCE OUTLETS | 4 | EA | $ 1,300.00 | $ 1,200.00 | $ 1,070.00 |
| 204 | DROP INLET PROTECTION | 2 | EA | $ 900.00 | $ 350.00 | $ 539.00 |
| 205 | ARC INLET PROTECTION | 3 | EA | $ 1,950.00 | $ 525.00 | $ 809.00 |
| 206 | SEEDING AND MULCHING | 2404 | SF | $ 2,404.00 | $ 7,212.00 | $ 443.00 |
| 207 | MATTING | 281 | SY | $ 1,686.00 | $ 702.50 | $ 877.00 |
| 301 | 15 INCH RCP STORM PIPE REMOVE AND REPLACE | 95 | LF | $ 20,900.00 | $ 10,450.00 | $ 9,025.00 |
| 302 | NCDOT STANDARD DROP INLET WITH GRATE 0-6' | 1 | EA | $ 4,750.00 | $ 6,000.00 | $ 891.00 |
| 401 | 8" SDR-35 SEWER | 90 | LF | $ 10,800.00 | $ 22,500.00 | $ 4,120.00 |
| 402 | 8" C-900 SEWER | 693 | LF | $ 110,880.00 | $ 207,900.00 | $ 28,940.00 |
| 403 | 8" DIP SEWER | 412 | LF | $ 84,460.00 | $ 181,280.00 | $ 55,401.00 |
| 404 | 16" STEEL CASING BORE AND JACK (COMPLETE) | 35 | LF | $ 57,750.00 | $ 52,500.00 | $ 23,797.00 |
| 405 | 4' SEWER MANHOLE (0-6') | 1 | EA | $ 5,650.00 | $ 7,500.00 | $ 2,352.00 |
| 406 | 4' SEWER MANHOLE (10-12') | 1 | EA | $ 10,500.00 | $ 11,500.00 | $ 4,082.00 |
| 407 | SEWER DOGHOUSE MANHOLE (0-6')(COMPLETE) | 1 | EA | $ 8,500.00 | $ 12,500.00 | $ 2,352.00 |
| 408 | 5' DIA SEWER MANHOLE (12-15') | 1 | EA | $ 13,500.00 | $ 17,000.00 | $ 11,804.00 |
| 409 | TIE TO EXISTING MANHOLE | 2 | EA | $ 14,000.00 | $ 10,000.00 | $ 1,112.00 |
| 410 | CORE AND BOOT MANHOLE | 5 | EA | $ 7,500.00 | $ 15,000.00 | $ 1,807.00 |
| 411 | GRAVITY SEWER FLOW FILL | 579 | LF | $ 7,237.50 | $ 11,580.00 | $ 1,895.00 |
| 412 | GRAVITY SEWER MANHOLE FLOW FILL | 2 | EA | $ 5,500.00 | $ 4,000.00 | $ 2,926.00 |
| 413 | SEWER CLEANOUT REINSTALL | 3 | EA | $ 8,475.00 | $ 10,500.00 | $ 209.00 |
| 414 | 4" FM FLUSH AND FLOW FILL | 1652 | LF | $ 15,281.00 | $ 20,650.00 | $ 1,542.00 |
| 415 | PUMP STATION ABANDONMENT | 1 | EA | $ 30,000.00 | $ 30,500.00 | $ 1,390.00 |
| 416 | TEMPORARY PUMP AROUND APPARATUS | 2 | EA | $ 30,000.00 | $ 20,000.00 | $ 5,561.00 |
| 417 | ASPHALT DRIVEWAY REPAIR | 10 | SY | $ 4,750.00 | $ 1,250.00 | $ 466.00 |
| 418 | 6" CONCRETE DRIVEWAY REPAIR | 5 | SY | $ 1,675.00 | $ 1,000.00 | $ 189.00 |
| 501 | 6" C900 WATERMAIN | 211 | LF | $ 16,880.00 | $ 23,210.00 | $ 7,675.00 |
| 502 | 10" C900 WATERMAIN | 1469 | LF | $ 176,280.00 | $ 220,350.00 | $ 80,765.00 |
| 503 | 6" DIP WATERMAIN | 70 | LF | $ 10,500.00 | $ 11,900.00 | $ 6,996.00 |
| 504 | 10" DIP WATERMAIN | 24 | LF | $ 10,800.00 | $ 5,760.00 | $ 4,179.00 |
| 505 | 12" STEEL CASING CORE AND JACK COMPLETE | 50 | LF | $ 50,000.00 | $ 55,000.00 | $ 18,822.00 |
| 506 | EXISTING BLOW OFF REMOVAL | 1 | EA | $ 2,750.00 | $ 1,000.00 | $ 228.00 |
| 507 | 6" WATER GATE VALVE | 4 | EA | $ 10,200.00 | $ 20,000.00 | $ 1,032.00 |
| 508 | 10" WATER GATE VALVE | 2 | EA | $ 10,400.00 | $ 12,960.00 | $ 606.00 |
| 509 | 6X6 CUT IN TEE | 2 | EA | $ 15,000.00 | $ 12,100.00 | $ 353.00 |
| 510 | 10X6 TEE | 1 | EA | $ 1,250.00 | $ 5,200.00 | $ 259.00 |
| 511 | 10X6 REDUCER | 1 | EA | $ 870.00 | $ 1,500.00 | $ 155.00 |
| 512 | FH ASSY WITH VALVE COMPLETE | 2 | EA | $ 21,000.00 | $ 24,000.00 | $ 7,672.00 |
| 513 | 6" 45 DEG. BEND | 1 | EA | $ 700.00 | $ 1,500.00 | $ 111.00 |
| 514 | 10" 45 DEG BEND | 2 | EA | $ 1,050.00 | $ 5,000.00 | $ 525.00 |
| 515 | 3/4" WATER SERVICE NEAR SIDE | | EA | $ - | $ - | $ 244.00 |
| 516 | 3/4" WATER SERVICE FAR SIDE | | EA | $ - | $ - | $ 280.00 |
| 517 | HUMBOLDT ASPHALT, CURB, & SIDEWALK REMOVAL & REPAIR | 1 | LS | $ 15,000.00 | $ 28,000.00 | $ 12,444.00 |
| 518 | STALLING/CITY RD ASPHALT & CURB REMOVAL & RTEPAIR | 1 | LS | $ 10,000.00 | $ 27,000.00 | $ 222,865.00 |
| 519 | ABANDON 1" WATER LINE COMPLETE | 1 | LS | $ 1,500.00 | $ 4,500.00 | $ 500.00 |
| | TOTAL | | | $ 1,005,500.50 | $ 1,347,996.50 | $ 644,355.00 |

The apparent low bidder is TA Loving Company based on the bid evaluation. The Mohammad Construction Company was disqualified due to not having the proper Contractor License to complete the work.

Resolution #2022-28

# TOWN OF CLAYTON
# RESOLUTION OF AWARD OF BID
# FOR CITY ROAD IMPROVEMENTS (UTILITIES) PROJECT

**WHEREAS,** the Town of Clayton publicly advertised for bids to be received for Little Creek Outfall Project on April 28, 2022; and

**WHEREAS,** the Town of Clayton exhibited good faith efforts to notify minority and women owned businesses of said project and encouraged bidding; and

**WHEREAS,** the BIDS were publicly opened on April 28, 2022; and

**WHEREAS,** a total of three bids were received with the lowest qualifying bidder being T.A. Loving Company with a total inclusive bid of $1,005,500.50; and

**WHEREAS,** T.A. Loving Company is properly licensed and experienced in the type of construction involved in this project; and

**WHEREAS,** based on review of the bids received it is the recommendation that award of the construction contract be granted to T.A. Loving Company; and

**WHEREAS,** the Town of Clayton intends to construct said project in accordance with the approved plans and specifications,

**NOW THEREFORE BE IT RESOLVED, BY THE CLAYTON TOWN COUNCIL THAT:**

The Town of Clayton award the construction of City Road Improvements (Utilities) Project to T.A. Loving Company in the amount of $1,005,500.50.

Duly adopted this the 16th day of May 2022, while in regular session.

_____
Jody McLeod
Mayor

ATTEST:

_____
Shery L. Scoggins, MMC
Interim Town Clerk

# Town Council Agenda Cover Sheet

**Meeting Date**
May 16, 2022

**Agenda Location**
New Business

**Item Title**
Resolution to Award Construction Contract for the Potable Ground Water Tank at Fire Station 2 Project

**Presenter:**
Patrick Paine, PE – Project Manager

**Summary/Description**
The Town's Project Team and Design Engineer (Timmons Group) received bids from five (5) different contractors on May 5, 2022, and we have an apparent low bidder, Eberhart Construction Inc. The bid came in at $707,051.00. The Potable Ground Water Tank at Fire Station 2 Project will Install the piping and plumbing along with the pumps for the ground water tank already installed, this will give the Town more water capacity for future growth. Project funds are within this year fiscal budget. Staff request Town authorization for Town Manager or designee to sign the construction contract and any change orders required to deliver the project.

**Requested Action**
Approval

**Funding Source (If Applicable):**
**N/A**

**Cost:** **$707,051.00** **Yes** ☒ **No** ☐

**Additional Documents to be Included in Agenda Packet**
Resolution of Award
Certified Bid Tab
Recommendation Memorandum

**Meeting Timeline**
Click or tap here to enter text.

| JN 48554 | Town of Clayton Ground Water Storage Tank Bid Proposal | | | Sanford Contractors | | Laughlin-Sutton Contruction | | TA Loving Consructiom Services | | Eberhart Constrcution, Inc. | | A.C. Schultes | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date: | 5/5/2022 | | | | | | | | | | | | |
| Item No. | Description | Unit | Estimated Quantity | Bid Unit Price | Bid Price | Bid Unit Price | Bid Price | Bid Unit Price | Bid Price | Bid Unit Price | Bid Price | Bid Unit Price | Bid Price |
| 1 | Earthwork | LS | 1 | $18,000.00 | $18,000.00 | $9,000.00 | $9,000.00 | $3,200.00 | $3,200.00 | $20,000.00 | $20,000.00 | $45,905.00 | $45,905.00 |
| 2 | Gravel Paving | SF | 495 | $12.00 | $5,940.00 | $4.00 | $1,980.00 | $10.00 | $4,950.00 | $10.00 | $4,950.00 | $10.00 | $4,950.00 |
| 3 | Asphalt Paving | SF | 170 | $30.00 | $5,100.00 | $35.00 | $5,950.00 | $2.00 | $340.00 | $50.00 | $8,500.00 | $45.00 | $7,650.00 |
| 4 | Copper Pipe, 3/8", Type K | LS | 1 | $3,630.00 | $3,630.00 | $500.00 | $500.00 | $350.00 | $350.00 | $2,000.00 | $2,000.00 | $2,500.00 | $2,500.00 |
| 5 | Drain Line, 3" DIP | LS | 1 | $0.00 | $0.00 | $6,500.00 | $6,500.00 | $4,900.00 | $4,900.00 | $0.00 | $0.00 | $3,250.00 | $3,250.00 |
| 6 | Water Main, 6", RJ DIP | LF | 80 | $100.00 | $8,000.00 | $95.00 | $7,600.00 | $110.00 | $8,800.00 | $300.00 | $24,000.00 | $100.00 | $8,000.00 |
| 7 | Water Main, 10", RJ DIP | LF | 10 | $630.00 | $6,300.00 | $250.00 | $2,500.00 | $410.00 | $4,100.00 | $400.00 | $4,000.00 | $250.00 | $2,500.00 |
| 8 | Water Main, 12", RJ DIP | LF | 290 | $150.00 | $43,500.00 | $158.00 | $45,820.00 | $260.00 | $75,400.00 | $400.00 | $116,000.00 | $150.00 | $43,500.00 |
| 9 | Fittings | LS | 1 | $69,600.00 | $69,600.00 | $18,000.00 | $18,000.00 | $28,900.00 | $28,900.00 | $1.00 | $1.00 | $75,000.00 | $75,000.00 |
| 10 | Tapping Sleeve and Valve | EA | 1 | $16,800.00 | $16,800.00 | $19,200.00 | $19,200.00 | $12,900.00 | $12,900.00 | $40,000.00 | $40,000.00 | $15,000.00 | $15,000.00 |
| 11 | Gate Valve, 4", FLG | EA | 1 | $1,570.00 | $1,570.00 | $1,900.00 | $1,900.00 | $1,800.00 | $1,800.00 | $1,000.00 | $1,000.00 | $2,500.00 | $2,500.00 |
| 12 | Gate Valve, 6", RJ | EA | 1 | $2,040.00 | $2,040.00 | $2,300.00 | $2,300.00 | $1,500.00 | $1,500.00 | $1,500.00 | $1,500.00 | $3,500.00 | $3,500.00 |
| 13 | Gate Valve, 6", FLG | EA | 2 | $1,700.00 | $3,400.00 | $5,200.00 | $10,400.00 | $2,500.00 | $5,000.00 | $1,500.00 | $3,000.00 | $3,000.00 | $6,000.00 |
| 14 | Altitude Valve, 6", FLG | EA | 1 | $20,000.00 | $20,000.00 | $18,700.00 | $18,700.00 | $15,500.00 | $15,500.00 | $15,000.00 | $15,000.00 | $20,000.00 | $20,000.00 |
| 15 | Swing Check Valve, 6", FLG | EA | 1 | $4,200.00 | $4,200.00 | $9,800.00 | $9,800.00 | $5,100.00 | $5,100.00 | $5,000.00 | $5,000.00 | $2,500.00 | $2,500.00 |
| 16 | Mechanical Flange Adapter | EA | 1 | $1,280.00 | $1,280.00 | $500.00 | $500.00 | $1,900.00 | $1,900.00 | $5,000.00 | $5,000.00 | $2,500.00 | $2,500.00 |
| 17 | Pre-Engineered Precast Building | EA | 1 | $94,900.00 | $94,900.00 | $33,000.00 | $33,000.00 | $141,000.00 | $141,000.00 | $60,000.00 | $60,000.00 | $75,000.00 | $75,000.00 |
| 18 | Pump-Skid | EA | 1 | $240,000.00 | $240,000.00 | $429,450.00 | $429,450.00 | $291,800.00 | $291,800.00 | $200,000.00 | $200,000.00 | $249,250.00 | $249,250.00 |
| 19 | Flow Meter | EA | 1 | $6,100.00 | $6,100.00 | $4,000.00 | $4,000.00 | $9,500.00 | $9,500.00 | $10,000.00 | $10,000.00 | $7,500.00 | $7,500.00 |
| 20 | Chain Link Fence, 8' High | LF | 300 | $131.00 | $39,300.00 | $80.00 | $24,000.00 | $110.00 | $33,000.00 | $87.00 | $26,100.00 | $77.00 | $23,100.00 |
| 21 | Sliding Fence Gates | EA | 2 | $8,000.00 | $16,000.00 | $5,500.00 | $11,000.00 | $8,000.00 | $16,000.00 | $7,000.00 | $14,000.00 | $8,000.00 | $16,000.00 |
| 22 | Submersible Tank Mixer | EA | 1 | $40,000.00 | $40,000.00 | $20,000.00 | $20,000.00 | $87,000.00 | $87,000.00 | $50,000.00 | $50,000.00 | $25,900.00 | $25,900.00 |
| 23 | SCADA | LS | 1 | $23,000.00 | $23,000.00 | $15,500.00 | $15,500.00 | $22,700.00 | $22,700.00 | $20,000.00 | $20,000.00 | $17,500.00 | $17,500.00 |
| 24 | Electrical | 495 | 1 | $130,000.00 | $130,000.00 | $132,900.00 | $132,900.00 | $104,500.00 | $104,500.00 | $72,000.00 | $72,000.00 | $135,000.00 | $135,000.00 |
| 25 | Water Main Disinfection and Testing | LS | 1 | $4,500.00 | $4,500.00 | $1,500.00 | $1,500.00 | $7,300.00 | $7,300.00 | $5,000.00 | $5,000.00 | $5,000.00 | $5,000.00 |
| | | | | | | | | | | | | | |
| **Unit Price Bid Items** | | | | | **$803,160.00** | | **$832,000.00** | | **$887,440.00** | | **$707,051.00** | | **$799,505.00** |

Certified by: William B. Keaton, PE

TIMMONS GROUP
YOUR VISION ACHIEVED THROUGH OURS.

5410 Trinity Road
Suite 102
Raleigh, NC 27607

NORTH CAROLINA PROFESSIONAL SEAL 045626 ENGINEER WILLIAM B. KEATON
11/7/2022

TIMMONS GROUP
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# Notice of Recommendation

**TO:** Patrick Paine, PE, Project Manager Engineering, Town of Clayton

**FROM:** Bill Keaton, PE

**DATE:** May 10, 2022

**RE:** **Potable Water Ground Storage Tank Project- PN 48554**

Dear Pat,

Timmons Group assisted the Town in opening bids on the above named project on May, 5, 2022. There were five qualified responsive bidders. We have forwarded to you in an email on May 10, 2022 an email with attached bid proposals from each of the responsive bidders and a certified bid tab. There were no errors found on any of the bid proposals submitted.

Based on the bids received Timmons Group is recommending that the Town of Clayton award the bid contract for the Ground Water Storage Tank Project to Eberhart Construction, Inc., Contractor License #37847. Their bid was for $707,051.00.

Should you have any questions relating to the information forwarded please call me at 704-790-2914 or my cell phone at 707-280-9140.

Sincerely,

Bill Keaton

William B. Keaton, PE, MA

Resolution #2022-29

# TOWN OF CLAYTON
# RESOLUTION OF AWARD OF BID
# FOR POTABLE GROUND WATER TANK PROJECT

**WHEREAS,** the Town of Clayton publicly advertised for bids to be received for Potable Ground Water Tank Project on May 5, 2022; and

**WHEREAS,** the Town of Clayton exhibited good faith efforts to notify minority and women owned businesses of said project and encouraged bidding; and

**WHEREAS,** the BIDS were publicly opened on May 5, 2022; and

**WHEREAS,** a total of five bids were received with the lowest qualifying bidder being Eberhart Construction Inc. with a total inclusive bid of $707,051.00; and

**WHEREAS,** Eberhart Construction Inc. is properly licensed and experienced in the type of construction involved in this project; and

**WHEREAS,** based on review of the bids received it is the recommendation that award of the construction contract be granted to Eberhart Construction Inc.; and

**WHEREAS,** the Town of Clayton intends to construct said project in accordance with the approved plans and specifications,

**NOW THEREFORE BE IT RESOLVED, BY THE CLAYTON TOWN COUNCIL THAT:**

The Town of Clayton award the construction of Potable Ground Water Tank Project to Eberhart Construction Inc. in the amount of $707,051.00.

Duly adopted this the 16th day of May 2022, while in regular session.

_____
Jody McLeod
Mayor

ATTEST:

_____
Sherry L. Scoggins, MMC
Interim Town Clerk

# Town Council Agenda Cover Sheet

**Meeting Date**
May 16, 2022

**Agenda Location**
New Business

**Item Title**
Selection of Consultant Firm for Town Manager Recruitment

**Presenter:**
Jody McLeod, Mayor

**Summary/Description**
At its May 2, 2022, work session, the Town Council was presented with the following consultant firms for the Town Manager recruitment:

- Robertson Miller Management, $20,000
- Slavin Management Consultants, $24,000
- Baker Tilly Public Sector Executive Recruitment, $26,500

**Requested Action**
Approval

**Funding Source (If Applicable):**
**N/A**

**Cost:** **Between $20,000 and $26,500** **Yes** ☒ **No** ☐

**Additional Documents to be Included in Agenda Packet**
N/A

**Meeting Timeline**
Click or tap here to enter text.