



**Wake Forest Board of Commissioners
Meeting Agenda
January 20, 2026 – at 6:00 PM
All items listed are for discussion and possible action.**

Notice

In accordance with the requirements of Title II of the Americans with Disabilities Act of 1990 (ADA), the Town of Wake Forest will not discriminate against qualified individuals with disabilities on the basis of disability in its services, programs, or activities. For individuals with impaired hearing, special equipment is available for use during meetings in the Town Hall board chambers. Anyone who requires an auxiliary aid or service for effective communication, or a modification of policies or procedures to participate in a program, service, or activity of Town of Wake Forest should contact the office of ADA Coordinator [Mickey Rochelle](#) at 919-435-9455 or Town Clerk [Evelyn Wright](#) at 919-435-9432 as soon as possible, but no later than 48 hours before the scheduled event.

Cable & Online Broadcast of Board of Commissioners Meetings

All Board of Commissioners meetings are broadcast live on [WFTV 10](#) beginning at 6 p.m. Meetings are also aired online on the [Public Meetings Portal](#) on the [Town of Wake Forest website](#). Archived meeting videos are also provided and available for one year after the original air date.

Meeting Agendas

The [Board of Commissioners](#) meeting agenda is available to be viewed and downloaded by noon on the Friday prior to the third Tuesday of each month. Citizens may request copies of the agenda or submit questions concerning agenda items by calling the Deputy Town Clerk's office at 919-435-9432. Citizens may also receive a copy of each month's agenda via email by enrolling in the free [E-Notifier](#) subscription service.

Public Hearings

When an agenda item is denoted as a [Public Hearing](#), persons attending shall be permitted to address the Board of Commissioners regarding the item under consideration with those speaking in favor first and those against speaking second. Proponents and opponents shall each be given three minutes of time to speak and may choose to allow one speaker to utilize the time. In the event either proponent(s) or opponent(s) have not designated a speaker to represent the view, each speaker will be allowed three minutes each to express his/her comments, ideas, concerns, expressions, and desires. Only comments on a Public Hearing will be allowed during this time.

Public Comment

During the Public Comment period, anyone wishing to address the Board of Commissioners concerning an issue or topic that is not a public hearing item or an agenda item should complete and submit the Board of Commissioner Public Comment Form on the [Town website](#). Then, during the Public Comment portion of the meeting, Mayor Jones will recognize you and invite you to the podium at which time you will have three minutes to speak. Thank you for your cooperation.

Call to Order

Pledge of Allegiance

1. Approval of Agenda

2. Approval of Minutes

- 2.A Draft BOC Work Session Minutes December 2, 2025 and Draft BOC Regular Meeting Minutes December 16, 2025
[DRAFT BOCWSMinutes_December20252.pdf](#)
[DraftBOCMinutes_December202516.pdf](#)

3. Presentations

- 3.A JustServe Town Award Presentation
- 3.B Introduction of Candidates for the Board of Adjustment
[Summary Sheet_Candidates Jan202620.doc.pdf](#)

4. Public hearings / Public Comment

- 4.A Public Comment: If anyone would like to address the Board of Commissioners on an item other than a public hearing item during the time of public comment, please sign up with the Town Clerk prior to the meeting. Each speaker is asked to limit comments to 3 minutes. Please provide the clerk with copies of any handouts you have for the Board. Although the Board is interested in hearing your concerns, speakers should not expect Board action or deliberation on subject matter brought up during the Public Comment segment. Topics requiring further investigation will be referred to the appropriate Town Staff and may be scheduled for a future agenda. Thank you for your consideration of the Board of Commissioners, staff and other speakers.

5. Consent Agenda

(A Consent Agenda is a group of items passed with a single motion and vote. These matters are of a generally routine nature. No debate is allowable on any item included on the Consent Agenda. If a Commissioner or any citizen of Wake Forest or its ETJ wants separate consideration of any item, it may be removed from the Consent Agenda by request.)

- 5.A Approval of a resolution to schedule the public hearing and certify the sufficiency for a petition requesting contiguous annexation submitted by property owners, The Villas at Wake Forest Crossing LLC, located at 12731 Wake Union Church Road and 12739 Wake Union Church Road being Wake County PINs 1831869237 and 1831868329 being approximately 2.36 acres.
[01202026 Agenda Summary.pdf](#)
[Attachment A Legal Description AN-25-05.pdf](#)
[Attachment B Annexation Map AN-25-05.pdf](#)
[Attachment C Annexation Petition AN-25-05.pdf](#)
[CERTIFICATE OF SUFFICIENCY .docx](#)

[DRAFT PUBLIC HEARING RESOLUTION.docx](#)

- 5.B Approval of the Forestville Road/Coach Lantern Traffic Signal Contract
[Summary_Forestville_Coach_Lantern_Contract.docx](#)
[Attachment_A_Resolution_Forestville_Coach_Lantern_Contract.docx](#)
[Attachment_B_Forestville_Coach_Lantern_Bid_0002-2025.pdf](#)
[Attachment_C_Bid_Tab.pdf](#)

- 5.C Ordinance amending Chapter 30, Article III Section 30-1, and 30-90 thru 30-92 focused on motorized scooter, electric bicycles and electric assisted bicycles, pedestrian right-of-way and requirements for helmets.
[Attachment_A_Summary_Chapter_30_Article_III_Section_30-1_30-90_thru_30-92.pdf](#)
[Sec._30_90.___Motorized_scooters_prohibited._revised_Final_DRAFT.docx](#)
[Attachment_B_Ordinance_2026_XX_Chapter_30_Article_III_Section_30-90_thru_30-92.docx](#)

- 5.D Ordinance Amending the Code of Ordinances Chapter 30, Article I, Section 30-16 “ Restrictions On The Operation Of All-Terrain Vehicles; Exemption For Governmental Agencies.
[Attachment_A_Summary_Chapter_30_Article_I_Section_30-16.pdf](#)
[Sec._30_16.___Restrictions_on_the_operation_of_all-terrain_vehicles;_exemption_for_governmental_agencies._revised_Final_DRAFT.docx](#)
[Attachment_B_Ordinance_2026_XX_Chapter_30_Article_I_Section_30-16.docx](#)

- 5.E Amended Approval of Appointment to Citizen Advisory Board - Human Relations Council (HRC)
[RESOLUTION to correct HRC appointee_2026.docx](#)

- 5.F Ordinance amending Chapter 30, Article IV Section 30-131 focused on handicapped parking spaces.
[Sec._30_131.___Handicapped_parking_spaces_revised_Final_DRAFT.docx](#)
[Attachment_B_Ordinance_2026_XX_Chapter_30_Article_IV_Section_30-131.docx](#)
[Attachment_A_Summary_Chapter_30_Article_IV_Section_30-131.pdf](#)

6. Legislative Items

- 6.A Consideration of Appointment of Candidates for the Board of Adjustment
[Board_ofAdjustment_Candidates_Cover_letter_2026.doc.pdf](#)
[BOA Candidates 1-2026.pdf](#)

7. Planning Items

8. Administration and Financial Items

- 8.A Consideration of Approval of 2026-2031 Capital Improvement Plan (CIP) Update
[CIP Approval Agenda Item Summary.pdf](#)
[CIP RESOLUTION 2026-2031.pdf](#)

9. Public Services Items

10.Parks and Recreation Items

11.Public Safety Items

12.Other Business

12.A Department Monthly Reports

[December 2025 Monthly Report.pdf](#)

12.B January Tax Report

[WAKE FOREST-TXREP-JAN-2026-BOC-MTG.pdf](#)

12.C Election of a Mayor Pro-tem

12.DBOC Appointments 2026-2027

[Resolution2026-XX_2026-2027_BOCA_Appointments_Jan202620 \(3\).doc](#)

12.E Commissioners Report

13.Adjournment



BOARD OF COMMISSIONERS AGENDA ITEM REPORT

Agenda Item No.: 2025-765-
Submitted by: Evelyn Wright
Submitting Department:
Meeting Date: January 20, 2026

Subject

Draft BOC Work Session Minutes December 2, 2025 and Draft BOC Regular Meeting Minutes December 16, 2025

Recommendation:

item Summary:

ATTACHMENTS:

- [DRAFT BOCWSMinutes_December20252.pdf](#)
- [DraftBOCMinutes_December202516.pdf](#)



**DRAFT Wake Forest Board of Commissioners
Work Session Meeting Minutes**

The Wake Forest Board of Commissioners met on **Thursday, December 2, 2025, at 6:00 p.m.** in the Board Room at Wake Forest Town Hall, 301 S Brooks Street.

Mayor Jones called the meeting to order at 6:00 p.m.

Commissioners Present: Mayor Vivian A. Jones, Commissioner Keith Shackelford, Commissioner Faith Cross, Commissioner Adam Wright, Commissioner Ben Clapsaddle, and Commissioner Nick Sliwinski.

Commissioners Absent: None

Staff Members Present:

Assistant Town Manager Allison Snyder
Assistant Town Manager Candace Davis
Assistant Town Manager Aileen Staples
Town Attorney Nathan McKinney
Police Chief Julius Jefferson
Police Captain Brandon High
Police Captain Matt Perkinson

Finance Director Samantha Sanchez
Financial Analyst Katie Riedl
Planning Director Jennifer Currin
Budget and Performance Director
Michelle Daniels
Senior Planner Michelle Michael
Battalion Chief Jeremey Blake

Presentations

- 1.1 Presentation of Fiscal Year ended June 30, 2025, Annual Comprehensive Financial Report.

Finance Director Samantha Sanchez introduced Scott Anderson, of Cherry Bekaert LLP, to present on the financial report for the year end June 30, 2025. Ms. Sanchez extended appreciation to Katie Riedl, Financial Analyst, for her hard work during the audit and advised that the Town had an excellent financial year. Mr. Anderson gave an overview of the external auditor’s role and results, required communications, and summarized the financial performance of the Town for fiscal year 2024-2025. Mr. Anderson advised

the Town received an unmodified clean opinion, which is the highest opinion that can be obtained, the internal controls had no findings, and one uncorrected misstatement on a note receivable related to fund statements. Mr. Anderson advised the Single Audit Opinion is incomplete due to the delay of OMB issuing the Compliance Supplement, which came in on November 26, 2025. The Single Audit is anticipated to be issued before the end of the calendar year. Mr. Anderson gave an overview of Governmental Accounting Standards Board (GASB) Statement 101 and 102, highlighting changes and requirements and, also, reviewed the 2025 financial highlights for the Town. Ms. Sanchez wrapped up by advising there is anticipation of one Financial Performance Indicator of Concern (FPIC) and the next steps, to include completing the Single Audit to OMB. Ms. Sanchez advised Finance will be issuing a condensed version of the financial report known as the "Form 10-Q" for the citizens that will be accessible on the Town's website.

1.2 Municipal Fee Comparison

Planning Director Jennifer Currin presented to the Board the findings of the research on various municipal impact fees throughout the county, which includes Apex, Holly Springs, Knightdale, and Raleigh. Ms. Currin reviewed the residential fee comparison and the nonresidential fee comparison.

Commissioner Cross inquired about why the fire facility fee exists. Ms. Currin advised that legislation allows the fee and gave the example of the fee being used to cover fire station construction. Mayor Jones chimed in to advise the legislature has to grant permission to have such a fee and that the Town was fortunate to have leaders that requested it in the 1980's.

2. Discussion of Monthly Financial Report

2.1 Discussion of October Financial Summaries

Monthly Financial Report Received.

Mayor Jones asked if there were any questions or comments. None were heard.

3. Review of Draft Agenda for Upcoming Regular Meeting

3.1 Draft Agenda for BOC Regular Meeting December 16, 2025

Mayor Jones asked if there were any questions or comments.

Commissioner Cross requested clarity on the EMPA Interlocal Agreement. Assistant Town Manager Allison Snyder explained the Town has been working with Wake County to send Town employees to get an Executive MPA degree in a partnership with Eastern Carolina University (ECU). The EMPA Interlocal Agreement is how the Town would repay for those degrees, which Wake County will pay upfront, and the Town employees would commit to remain with the Town for a set number of years after obtaining the EMPA.

4. Other Business

None.

5. Commissioner Reports

5.1 Commissioner Wright advised no report.

Commissioner Shackelford advised there are great community events held throughout the year, highlighting this year's "Goblet 5K Run," which benefits the Boys and Girls Club. Also, Commissioner Shackelford advised the Community Christmas Party was a wonderful event.

Commissioner Cross advised she also attended the "Goblet 5K Run" with her family, which was fantastic, and there were over 2900 registered runners and an unknown number of dogs that participated. Commissioner Cross attended the Community Christmas Party, which was wonderful. Commissioner Cross attended "Tea for the Soul" at WakeMed, which is an event where the chaplains invite elected officials into the hospital and allow you to tour the hospital with a cart that contains treats in ICU.

Commissioner Clapsaddle congratulated the Finance Department on a job well done. Commissioner advised there are many upcoming events including the tree lighting on Friday and the Celtic Angels will be in town. Commissioner Clapsaddle asked everyone to be safe during the holidays and remember to check on those that may be having a dark time during the holidays.

Commissioner Sliwinski advised no report.

Mayor Jones advised she attended the Friendship Chapel service and Memorial Unveiling last Sunday and it is important to the community. Mayor Jones extended appreciation to the Historic District and to Michelle Michael, Senior Planner- Historic Preservation, for all their hard work. Mayor Jones advised that she attended her final GoTriangle meeting last week, she has enjoyed working with them, and she extended appreciation to GoTriangle for taking over the WRX bus.

Assistant Town Manager Allison Snyder advised the Budget and Performance Department has provided printed version of the CIP Update, which will be made available to the public by close of business tomorrow for review prior to the Public Hearing at the next meeting.

6. Adjournment

The Board of Commissioners adjourned the meeting at 6:35 p.m.

Duly approved in open session this 20th day of January 2026.

(ATTEST)

Ben C. Clapsaddle, Mayor

Evelyn Wright, Town Clerk



DRAFT Wake Forest Board of Commissioners Meeting Minutes

The Wake Forest Board of Commissioners met on **Tuesday, December 16, 2025**, at **6:00 p.m.** in the Board Room at Wake Forest Town Hall, 301 S Brooks Street.

Mayor Jones called the meeting to order at 6:00 p.m.

Mayor Jones led everyone in the Pledge of Allegiance.

Commissioner Members Present: Mayor Vivian A. Jones, Commissioner Ben Clapsaddle, Commissioner Faith Cross, Commissioner Keith Shackelford, Commissioner Nick Sliwinski, Commissioner Adam Wright, and Commissioner-elect Haseeb Fatmi.

Commissioner Members Absent: None.

Staff Members Present

Town Manager Kip Padgett
Assistant Town Manager Candace Davis
Assistant Town Manager Allison Snyder
Assistant Town Manager Aileen Staples
Town Attorney Nathan McKinney
Town Clerk Evelyn Wright
Engineering Director Tim Watson
Deputy Town Clerk Ella Downtin
Police Captain David Zick
Planning Director Jennifer Currin
Fire Chief Ron Early
Police Chief Julius Jefferson
Chief Information Officer Adam Oates
Economic Development Director Jason Cannon
Budget and Performance Director Michelle Daniels

Budget and Performance Analyst Davianna Humble
Grant Program Manager Jack Cassidy
Recreation Program Manager Interim WFCOA Director Monica Lileton
Electric Utility Director Chris Terrell
Renaissance Centre Director Any Pridgen
Communication and Public Affairs Director Bill Cabtree
Human Resources Director Angela McCray
Police Captain Brandon High
Director of Organizational Performance Lisa Hayes
Downtown Development Director Jennifer Herbert
Facilities Director-ADA Coordinator Mickey Rochelle

1. Approval of Agenda

ACTION:

Mover: Commissioner Shackelford moved to approve the agenda.

Second: Commissioner Cross

Vote: Motion carried 5-0

Mayor Jones added an item to the Administration section.

2. Approval of Minutes

2.A. Draft BOC Minutes

- November 6, 2025, Work Session
- November 18, 2025, Regular Meeting

ACTION:

Mover: Commissioner Wright moved to approve the minutes as presented.

Second: Commissioner Cross

Vote: Motion carried 5-0

3. Presentations

3.A. "World Meditation Day" Proclamation

**PROCLAMATION
RECOGNIZING "WORLD MEDITATION" DAY
IN THE TOWN OF WAKE FOREST**

WHEREAS, mental health and inner peace are essential foundations for a thriving, resilient, and compassionate community; and

*WHEREAS, the United Nations General Assembly has officially designated December 21st as **World Meditation Day**, recognizing the transformative power of meditation to reduce stress, improve health, and foster global harmony; and*

*WHEREAS, for over four decades, **Gurudev Sri Sri Ravi Shankar and the Art of Living Foundation** have served millions across 180 countries through humanitarian initiatives promoting stress-free living; and*

*WHEREAS, on Sunday, December 21, 2025, Wake Forest will join 10 million participants in a "Global Moment" of stillness, synchronized with a live meditation led by Gurudev Sri Sri Ravi Shankar at **9:30 AM ET**; and*

WHEREAS, this initiative invites all residents of Wake Forest, regardless of background or belief, to pause, breathe, and connect, creating harmony between communities, thereby strengthening the bonds of our local community and creating a ripple effect of peace across the globe; and

WHEREAS, the Town of Wake Forest is committed to the holistic well-being of its residents and supports inclusive events that bring neighbors together in a spirit of unity and mindfulness.

NOW, THEREFORE, I, Vivian A. Jones, Mayor of the Town of Wake Forest on behalf of the Board of Commissioners, do hereby proclaim December 21, 2025, "WORLD MEDITATION DAY" in the Town of Wake Forest and I invite all residents to join in this global observance of peace and connection.

This the 16th day of December 2025

ATTEST:

Vivian A. Jones, Mayor

Evelyn Wright, Town Clerk



4. Public hearings / Public Comment

4.A. Public Hearing to receive public comment on the five (5) year Capital Improvements Plan (CIP) for FY 2026-2031

Mayor Jones opened the floor for public comments.

Public Hearing:

Jennifer Amyx - 9908 Calvados Drive – Wake Forest, NC 27587

Margaret Watkins– 407 Belmellen Court – Wake Forest, NC 27587

David McCracken – 1133 Canta Cruz St – Wake Forest, NC 27587

Mayor Jones declared the public hearing closed.

4.B. Public Hearing to receive public input for the FY 2026-2027 Annual Operating Budget

Mayor Jones opened the floor for public comment. None were heard.

Mayor Jones declared the public hearing closed.

4.C. Public Comment: If anyone would like to address the Board of Commissioners on an item other than a public hearing item during the time of public comment, please sign up with the Town Clerk prior to the meeting. Each speaker is asked to limit comments to 3 minutes. Please provide the clerk with copies of any handouts you have for the Board. Although the Board is interested in hearing

your concerns, speakers should not expect Board action or deliberation on subject matter brought up during the Public Comment segment. Topics requiring further investigation will be referred to the appropriate Town Staff and may be scheduled for a future agenda. Thank you for your consideration of the Board of Commissioners, staff, and other speakers.

Mayor Jones opened the floor for general comments.

Public Comment:

John Finch – 4030 Wake Forest Rd, Suite 300 – Raleigh, NC 27609

Jeffery Newbrough – 925 Siena Drive – Wake Forest, NC 27587

Maurine McBride – 3409 Greenville Loop Rd – Wake Forest, NC 27587

Marian Kirchhoff – 1413 Carrie May Lane – Wake Forest, NC 27587

Whitney Thomas – 1233 Keith Rd – Wake Forest, NC 27587

Jennifer Amyx – 9908 Calvados Drive – Wake Forest, NC 27587

Allan Stewart – 1417 Marshall Farm St – Wake Forest, NC 27587

Margaret Watkins – 407 Belmellen Court – Wake Forest, NC 27587

Mayor Jones declared the public comments closed.

5. Consent Agenda

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5.A Approval of Appointment to Citizen Advisory Boards

5.B. RESOLUTION TO ACCEPT STREETS INTO THE TOWN OF WAKE FOREST STREET SYSTEM FOR MAINTENANCE

5.C. Approval of the 2026 Street Resurfacing Contract

5.D. Approval of Budget Ordinance Amendment # 3 - FY 2025-2026

5.E. Consideration of an Interlocal Agreement with Wake County for an EMPA Program

ACTION:

Mover: Commissioner Wright moved to approve the Consent Agenda.

Second: Commissioner Sliwinski

Vote: Motion carried 5-0

6. Legislative Items

No Legislative Items presented.

7. Planning Items

No Planning Items presented.

8. Administration and Financial Items

Mayor Jones discussed the creation of the Mayor's Roundtable, to address feedback received from participants and volunteers at the Wake Forest Center for Active Aging (WFCAA). Mayor Jones advised that she and Commissioner Cross met with individuals from the WFCAA to discuss surveys and questions received from the seniors. All comments and questions were discussed. Mayor Jones advised the forum was well received. After the meeting with WFCAA, the Roundtable met and determined that, based on feedback from participants, there was improvement. The determination was made to allow the WFCAA to settle into the transition and continue to get staffing needs met. With Roundtable's approval, Mayor Jones appointed Commissioner Cross as the liaison to the WFCAA. Commissioner Cross has agreed to spend time at the WFCAA, answer seniors' questions and concerns, and to bring any concerns before the Board.

9. Public Services Items

No Public Service Items presented.

10. Parks and Recreation Items

No Parks and Recreation Items presented.

11. Public Safety Items

No Public Safety Items presented.

12. Other Business

12.A. Department Monthly Reports
Received.

12.B. December Tax Report
Received.

12.C. Resolution of Appreciation for Outgoing Commissioner

12.D. Oath of Office for Commissioner-elect

12.E. Resolution of Appreciation for Outgoing Mayor

Mayor Pro Tem Shackleford requested a motion to add the Resolution Naming Town Hall Campus including Town Hall, the Annex, public facilities, and the Taylor Street Sub Police Station to the Vivian A. Jones Municipal Campus to the agenda.

ACTION:

Mover: Commissioner Cross moved to add the Resolution to the agenda.

Second: Commissioner Wright

Vote: Motion carried 4-0

ACTION:

Mover: Commissioner Cross moved to approve the Resolution.

Second: Commissioner Wright

Vote: Motion carried 4-0

Mayor Jones reflected over her time as Mayor of Wake Forest and extended appreciation to the Town staff and citizens for all the great work done over the years. Mayor Jones encouraged everyone to continue being involved and doing the great work. Mayor thanked the citizens for allowing her to be the Mayor of Wake Forest.

12.F. Oath of Office for Mayor-elect

12.G. Commissioner Reports

Commissioner Fatmi requested to make a motion before continuing with Commissioner Reports. Commissioner Fatmi's proposed motion is to fill the vacant seat on the Board with a process to include opening the application on December 19, 2025, and closing the application period at 5 p.m. on January 14, 2026; interviewees, which would be applicants that received the most votes, would be selected on January 16, 2026, interviews of applicant to occur on January 20, 2026 at the Board of Commissioners Regular Meeting, and the appointment to the vacant seat to occur on the same date. Commissioner Fatmi contends this process is similar to the process followed to fill seats on the Planning Board and recommended the resolution for approval.

Commissioner Cross requested clarity on the expectations on January 16, 2026.

Commissioner Fatmi advised the applicants receiving the majority of votes will be selected as interviewees at the Board Retreat on January 16, 2026; the interviews will be conducted at the following Board of Commissioner meeting on January 20, 2026.

Commissioner Cross confirmed with Town Manager Kip Padgett that the selection process could occur at the retreat. Town Manager Padgett confirmed that the process can

be added to the agenda for the retreat. Commissioner Fatmi confirmed that the retreat is open to the public. Town Manager Padgett confirmed. Commissioner Shackelford requested that the motion be amended to include the flexibility to account for timing to propose the interviews be held at the January 20, 2026 regular meeting or at a special-called meeting. Commissioner Fatmi agreed. Town Attorney Nathan McKinney interjected that, provided the special-called meeting is properly noticed, it can be done. Commissioner Cross confirmed the motion is to open the application and lock down a timeline for the process. Commissioner Fatmi confirmed.

ACTION:

Mover: Commissioner Wright moved to approve the motion.

Seconder: Commissioner Shackelford

Vote: Motion carried 4-0

Commissioner Wright advised he attended the Employee Appreciation Lunch, the Volunteer Appreciation Lunch, and wished everyone Happy Holidays.

Commissioner Shackelford thanked former Commissioner Sliwinski and former Mayor Vivian Jones for their service. Commissioner Shackelford also extended appreciation to citizens for re-electing him as Commissioner and the privilege to continue serving on the Board. Commissioner Shackelford expressed disappointment with some of the comments that are indicative of the distrust of the elected officials. Commissioner Shackelford insisted that the Board does and will continue to work with transparency and in the best interest of the citizens.

Commissioner Cross expressed appreciation for Vivian Jones for her years of service, leadership, commitment, and wished her well.

Commissioner Fatmi expressed excitement to serve as the next Commissioner. Commissioner Fatmi promised to do his best and looks forward to working with all of the Commissioners on the Board.

Mayor Clapsaddle thanked friends, family, and citizens for support during his tenure serving Wake Forest. Mayor Clapsaddle advised of his request of the Town to re-establish the Senior Citizen Advisory Board. Also, Mayor Clapsaddle has had discussions regarding the proposition of introducing the Children's Holiday Walk to begin in December 2026 as part of the Annual Tree Lighting Ceremony to celebrate the children and bring families together. Mayor Clapsaddle wished everyone Happy Holidays.

Town Clerk Evelyn Wright advised of no updates.

Town Manager Kip Padgett advised of no updates.

13. Adjournment

Mayor Clapsaddle adjourned the meeting at 7:34 pm.

Duly approved in open session this 20th day of January 2026.

(ATTEST)

Ben C. Clapsaddle, Mayor

Evelyn Wright, Town Clerk



BOARD OF COMMISSIONERS AGENDA ITEM REPORT

Agenda Item No.: 2025-688-
Submitted by: Evelyn Wright
Submitting Department:
Meeting Date: January 20, 2026

Subject

JustServe Town Award Presentation

Recommendation:

item Summary:

ATTACHMENTS:



BOARD OF COMMISSIONERS AGENDA ITEM REPORT

Agenda Item No.: 2025-715-
Submitted by: Ella Dowtin, Planning
Submitting Department: Planning
Meeting Date: January 20, 2026

Subject

Introduction of Candidates for the Board of Adjustment

Recommendation:

item Summary:

ATTACHMENTS:

- [Summary Sheet_Candidates Jan202620.doc.pdf](#)

Agenda Item: Introduction of candidates for the Board of Adjustments.

Summary: Candidates have been invited to the January 20, 2026, meeting to be introduced and share why they are interested in being appointed to the advisory board of their choice.

Attachment: None.



BOARD OF COMMISSIONERS AGENDA ITEM REPORT

Agenda Item No.: 2025-685-
Submitted by: Evelyn Wright
Submitting Department:
Meeting Date: January 20, 2026

Subject

Public Comment: If anyone would like to address the Board of Commissioners on an item other than a public hearing item during the time of public comment, please sign up with the Town Clerk prior to the meeting. Each speaker is asked to limit comments to 3 minutes. Please provide the clerk with copies of any handouts you have for the Board. Although the Board is interested in hearing your concerns, speakers should not expect Board action or deliberation on subject matter brought up during the Public Comment segment. Topics requiring further investigation will be referred to the appropriate Town Staff and may be scheduled for a future agenda. Thank you for your consideration of the Board of Commissioners, staff and other speakers.

Recommendation:

item Summary:

ATTACHMENTS:



BOARD OF COMMISSIONERS AGENDA ITEM REPORT

Agenda Item No.: 2025-699-
Submitted by: Ari Schwartz, Planning
Submitting Department: Planning
Meeting Date: January 20, 2026

Subject

Approval of a resolution to schedule the public hearing and certify the sufficiency for a petition requesting contiguous annexation submitted by property owners, The Villas at Wake Forest Crossing LLC, located at 12731 Wake Union Church Road and 12739 Wake Union Church Road being Wake County PINs 1831869237 and 1831868329 being approximately 2.36 acres.

Recommendation:

item Summary:

ATTACHMENTS:

- [01202026 Agenda Summary.pdf](#)
- [Attachment A Legal Description AN-25-05.pdf](#)
- [Attachment B Annexation Map AN-25-05.pdf](#)
- [Attachment C Annexation Petition AN-25-05.pdf](#)
- [CERTIFICATE OF SUFFICIENCY .docx](#)
- [DRAFT PUBLIC HEARING RESOLUTION.docx](#)

Agenda Item: Approval of a resolution to schedule the public hearing and certify the sufficiency for a petition requesting contiguous annexation submitted by property owners, The Villas at Wake Forest Crossing LLC, located at 12751 Wake Union Church Road and 12739 Wake Union Church Road being Wake County PINs 1831869237 and 1831868329 being approximately 2.36 acres.

Summary: The property proposed for annexation is contiguous to the corporate limits of the Town of Wake Forest and is located in the Town of Wake Forest extra-territorial jurisdiction. The proposed annexation is associated with SP-25-05, Wake Union Villas.

Staff is requesting that the Board accept the petition, adopt the resolution to investigate the annexation petition, certify the sufficiency of the annexation petition, and adopt the resolution setting the public hearing date for the annexation petition.

Attachments: Attachment A Legal Description AN-25-05
Attachment B Annexation Map AN-25-05
Attachment C Contiguous Annexation Petition AN-25-05
Certificate of Sufficiency
Draft Public Hearing Resolution

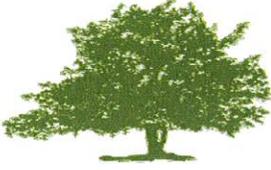
PARCEL 1 (PIN 1831869237)

BEGINNING AT A ¾" IRON PIPE FOUND ON THE NORTHERLY RIGHT-OF-WAY OF CAPITAL BLVD - US-1 (VARIABLE WIDTH R/W), BEING THE EASTERLY CORNER OF N/F STATE EMPLOYEES CREDIT UNION (DEED BOOK 9850, PAGE 2268), AND HAVING NORTH CAROLINA STATE PLANE COORDINATES OF N: 816,073.51 ; E: 2,139,067.62; THENCE WITH THE LINE OF N/F STATE EMPLOYEES CREDIT UNION (DEED BOOK 9850 PAGE 2268) A BEARING OF NORTH 52 DEG. 47 MIN. 23 SEC. WEST FOR 313.80 FEET TO A ¾" IRON PIPE, SAID IRON PIPE BEING THE SOUTHERLY CORNER OF N/F THE VILLAS AT WAKE FOREST CROSSING LLC (DEED BOOK 20043 PAGE 2755); THENCE WITH THE LINE OF N/F THE VILLAS AT WAKE FOREST CROSSING LLC (DEED BOOK 20043 PAGE 2755) A BEARING OF SOUTH 43 DEG. 51 MIN. 15 SEC. WEST FOR 230.03 FEET TO A ¾" IRON PIPE, BEING A COMMON CORNER WITH N/F THE VILLAS AT WAKE FOREST CROSSING LLC (DEED BOOK 20043 PAGE 2765). THENCE WITH THE LINE OF N/F THE VILLAS AT WAKE FOREST CROSSING LLC (DEED BOOK 20043 PAGE 2765) A BEARING OF SOUTH 51 DEG. 45 MIN. 28 SEC. EAST FOR 290.63 FEET TO A ¾" IRON PIPE FOUND, SAID POINT BEING ON THE NORTHERLY RIGHT-OF-WAY OF US-1 (VARIABLE WIDTH); THENCE WITH THE RIGHT-OF-WAY LINE A BEARING OF SOUTH 38 DEG. 04 MIN. 58 SEC. WEST FOR 223.28 FEET TO THE POINT AND PLACE OF BEGINNING. CONTAINING 68,294 SQUARE FEET OR 1.57 ACRES OF LAND, MORE OR LESS.

PARCEL 2 (PIN 1831868329)

COMMENCING AT A ¾" IRON PIPE FOUND ON THE NORTHERLY RIGHT-OF-WAY OF CAPITAL BLVD (US-1) (VARIABLE WIDTH R/W), BEING THE SOUTHEASTERLY CORNER OF N/F THE VILLAS AT WAKE FOREST CROSSING LLC (DEED BOOK 20043 PAGE 2755) & THE EASTERLY CORNER OF N/F STATE EMPLOYEES CREDIT UNION (DEED BOOK 9850, PAGE 2268), AND HAVING NORTH CAROLINA STATE PLANE COORDINATES OF N: 816,073.51; E: 2,139,067.62; THENCE WITH THE LINE OF N/F THE VILLAS AT WAKE FOREST CROSSING LLC (DEED BOOK 20043 PAGE 2755) & N/F STATE EMPLOYEES CREDIT UNION (DEED BOOK 9850 PAGE 2268) A BEARING OF NORTH 52 DEG. 47 MIN. 23 SEC. WEST FOR 313.80 FEET TO A ¾" IRON PIPE, BEING THE POINT OF BEGINNING; THENCE CONTINUING WITH THE LINE OF N/F STATE EMPLOYEES CREDIT UNION (DEED BOOK 9850 PAGE 2268) A BEARING OF NORTH 52 DEG. 46 MIN. 47 SEC. WEST FOR 150.11 FEET TO A ½" IRON ROD FOUND, SAID POINT BEING A COMMON CORNER WITH N/F ERIC T. WARD & JONI RAE PORTER (DEED BOOK 18776 PAGE 2304); THENCE WITH THE LINE OF N/F ERIC T. WARD &

JONI RAE PORTER (DEED BOOK 18776 PAGE 2304) FOR A BEARING OF NORTH 43 DEG. 48 MIN. 39 SEC. EAST FOR 232.51 FEET TO A 1/2" IRON PIPE, SAID POINT BEING A COMMON CORNER OF N/F THE VILLAS AT WAKE FOREST CROSSING LLC (DEED BOOK 20043 PAGE 2765) & N/F ASHLEY T. PHAM-NGUYEN & TUAN NGUYEN (DEED BOOK 19195 PAGE 3); THENCE WITH THE LINE OF N/F THE VILLAS AT WAKE FOREST CROSSING LLC (DEED BOOK 20043 PAGE 2765) FOR A BEARING OF SOUTH 51 DEG. 49 MIN. 54 SEC. EAST FOR 150.02 FEET TO A 3/4" IRON PIPE FOUND, SAID POINT BEING A COMMON CORNER OF N/F THE VILLAS AT WAKE FOREST CROSSING LLC (DEED BOOK 20043 PAGE 2765) & N/F THE VILLAS AT WAKE FOREST CROSSING LLC (DEED BOOK 20043 PAGE 2755); THENCE WITH THE LINE OF N/F THE VILLAS AT WAKE FOREST CROSSING LLC (DEED BOOK 20043 PAGE 2755) A BEARING OF SOUTH 43 DEG. 51 MIN. 15 SEC. WEST FOR 230.03' TO THE POINT AND PLACE OF BEGINNING. CONTAINING 34,506 SQUARE FEET OR 0.79 ACRES OF LAND, MORE OR LESS.



TOWN of WAKE FOREST

Planning Department
Wake Forest Town Hall – 3rd Floor
301 S. Brooks Street
Wake Forest, NC 27587
t 919.435.9510
f 919.435.9539
www.wakeforestnc.gov

CONTIGUOUS ANNEXATION PETITION APPLICATION

(Last updated: July 2013)

Submittal Date: 12/11/2025

To the Board of Commissioners of the Town of Wake Forest:

I/we the undersigned owner(s) of real property respectfully request that the area described in the paragraph below and as shown in the attached survey map of the property be annexed into the Town of Wake Forest.

The area to be annexed is contiguous to the Town of Wake Forest corporate limits and the boundaries of such territory are as follows *(attach or insert below a metes & bounds description with a matching survey map)*:

See Legal Description.

Note: If ownership is a corporation or partnership, please provide such name and the name and signature of the person authorized to sign on behalf of the corporation or partnership. If in joint ownership, please provide names and signatures of ALL owners.

The Villas at Wake Forest Crossing, LLC 2615 Anderson HWY, Suite B
Traci Tate Powhatan, VA 23139 Traci Tate 12-10-25
Name Address Signature Date

Name Address Signature Date

Name Address Signature Date

Name Address Signature Date

For additional information or assistance, please call the Planning Department at (919) 435-9510.

CERTIFICATE OF SUFFICIENCY

To the Board of Commissioners of the Town of Wake Forest, North Carolina:

I, Evelyn Wright, Town Clerk, do hereby certify that I have investigated the petition attached hereto and have found as a fact that said petition is signed by all owners of real property lying the area described therein, in accordance with N.C.G.S 160A-31.

In witness whereof, I have hereto set my hand and affixed the seal of the Town of Wake Forest, this the 20th day of January, 2026.

Evelyn Wright

Town Clerk

(SEAL)

RESOLUTION 2026-

**RESOLUTION FIXING DATE OF PUBLIC HEARING ON QUESTION OF
ANNEXATION PURSUANT TO N.C.G.S. 160A-31, AS AMENDED**

(by property owner The Villas at Wake Forest Crossing LLC, located at 12751 Wake Union Church Road and 12739 Wake Union Church Road being Wake County PINs 1831869237 and 1831868329 being approximately 2.36 acres.)

WHEREAS, a petition requesting the annexation of the area described herein has been received; and

WHEREAS, the Board of Commissioners has by said resolution directed the Town Clerk to investigate the sufficiency of said petition; and

WHEREAS, certification by the Town Clerk as to the sufficiency of said petition has been made;

NOW, THEREFORE, BE IT RESOLVED by the Board of Commissioners of the Town of Wake Forest:

Section 1. That a public hearing on the question of annexation of the contiguous area described herein will be held at the Wake Forest Town Hall at 6:00 p.m. on the 17th day of February, 2026.

Section 2. The area proposed for annexation is described as follows:

(See Attachment A - Legal Description and Attachment B - Annexation Map)

Section 3. Notice of said public hearing shall be published once in the News and Observer having general circulation in the Town of Wake Forest, at least ten (10) days prior to the day of said public hearing.

Adopted and effective this the 20th day of January, 2026.

Ben Clapsaddle

Mayor

ATTEST:

APPROVED AS TO FORM:

Evelyn Wright

Town Clerk

Nathan McKinney

Town Attorney



BOARD OF COMMISSIONERS AGENDA ITEM REPORT

Agenda Item No.: 2025-704-

Submitted by: Timothy Watson, Engineering

Submitting Department: Engineering

Meeting Date: January 20, 2026

Subject

Approval of the Forestville Road/Coach Lantern Traffic Signal Contract

Recommendation:

Request Approval from the Board

item Summary:

ATTACHMENTS:

- [Summary_Forestville_Coach_Lantern_Contract.docx](#)
- [Attachment_A_Resolution_Forestville_Coach_Lantern_Contract.docx](#)
- [Attachment_B_Forestville_Coach_Lantern_Bid_0002-2025.pdf](#)
- [Attachment_C_Bid_Tab.pdf](#)

ITEM TITLE: Approval for the Forestville Road/Coach Lantern Traffic Signal Contract.

ITEM SUMMARY: The Engineering Department put together a scope of work for the Forestville Road and Coach Lantern Avenue Traffic Signal Project. The scope was advertised on November 3, 2025, and the bid opening was on December 17, 2025. The January 20th Board Meeting will include the resolution to authorize the Town Manager to award the bid.

ATTACHMENTS:

Attachment_A_Resolution_Forestville_Coach_Lantern_Contract

Attachment_B_Forestville_Coach_Lantern_Bid_0002-2025

Attachment_C_Bid Tab

SPECIFIC ACTION REQUESTED: Recommend approval.

RESOLUTION 2026-XX

RESOLUTION AUTHORIZING THE TOWN MANAGER TO EXECUTE ON BEHALF OF THE TOWN OF WAKE FOREST, THE CONTRACT FOR THE FORESTVILLE ROAD AND COACH LANTERN AVENUE INTERSECTION IMPROVEMENTS, BID #0002-2025

WHEREAS, the Engineering Department posted a call for bids for the Forestville Road and Coach Lantern Avenue Intersection Improvements project as an opportunity to collect competitive bids for construction services as specified in the bid documents; and

WHEREAS, consistent with the Town’s purchasing policy, on November 3rd, the Town published a Notice to Bidders inviting interested and qualified contractors to submit; and

WHEREAS, on December 17th at 2:00pm the bid opening was closed, and the Town received a total of 4 submissions; and

WHEREAS, a bid tabulation was completed, and all bids were reviewed to confirm receipt of required bid documentation; and

WHEREAS, the lowest bidder was selected as the contractor to perform the advertised improvements for a total of \$ 648,448.00; and

NOW, THEREFORE, BE IT RESOLVED by the governing body of the Town of Wake Forest hereby authorizes the Town Manager to execute a contract with Cardinal Civil Contracting, LLC for Bid #0002-2025 Forestville Road and Coach Lantern Avenue Intersection Improvements.

This the 20th day of January 2026.

Ben Clapsaddle
Mayor

ATTEST:

Evelyn Wright
Town Clerk



TOWN of
WAKE FOREST

Engineering Department

301 S. Brooks Street | Wake Forest, NC 27587

NAME OF BIDDER: _____

Address _____

N.C. License No. _____

BID DOCUMENT AND SPECIFICATION FOR

FORESTVILLE ROAD AND COACH LANTERN AVENUE

INTERSECTION IMPROVEMENTS

BID # 0002-2025



10-31-2025

DATE OF ADVERTISING

November 3, 2025

DATE OF BID OPENING

December 17, 2025

at 2:00pm

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TOWN of
WAKE FOREST

REQUEST FOR BIDS

Forestville Road & Coach Lantern Avenue Intersection Improvements

BID # 0002-2025

Sealed Bids to be received until

Wednesday, December 17, 2025, at 2:00 p.m.

NOTICE TO BIDDERS

Sealed bids will be received by the Town of Wake Forest, North Carolina, until 2:00 p.m. on Wednesday, December 17, 2025. Early bids may be submitted at the Town of Wake Forest Purchasing Department, 234 Friendship Chapel Road, Wake Forest, NC 27587 until 1:00 p.m. on Wednesday, December 17, 2025. Afterward, they will be received at the Wake Forest Town Hall Meeting Rooms A & B, Wake Forest, NC 27587 from 1:00 p.m. until 2:00 p.m. on Wednesday, December 17, 2025, where the bids will be publicly opened and read aloud for the following:

Bid # 0002-2025

FORESTVILLE ROAD INTERSECTION IMPROVEMENTS

Bidding Documents may be viewed and ordered online by registering with Duncan Parnell via their bid room <https://bidroom.duncan-parnell.com/>. Registration with Duncan Parnell is required to obtain the bid documents and be added to the official Plan Holder's List. Addenda will be notified to those buying full sets from Duncan Parnell via their bid room. The cost of bid documents and shipping is non-refundable. Neither OWNER nor ENGINEER will be responsible for copies of the bid documents obtained from sources other than from Duncan Parnell. If you need any assistance ordering or getting registered on <https://bidroom.duncan-parnell.com/> please contact: Michaela Bruinius at constech@duncan-parnell.com or 704-526-1856.

The bidder must be an official planholder for their bid to be considered.

The Town of Wake Forest reserves the right to reject any or all bids and to make the award as deemed in the best interest of the Town of Wake Forest.

Instruction to Bidders

1. SUBMITTAL

All bids must be submitted by **Wednesday, December 17, 2025 @ 2:00 p.m.** Bids may be submitted until 1:00 p.m. to Town of Wake Forest Purchasing Department, 234 Friendship Chapel Road Wake Forest, NC 27587 Attn: Randy Driver, Purchasing Manager or submitted at the bid opening location at Wake Forest Town Hall, Meeting Rooms A-B, 301 S. Brooks Street from 1:00 p.m. until bid closing at 2:00 p.m. All bids must be submitted in a sealed envelope marked: **Bid # 0002-2025 – FORESTVILLE ROAD & COACH LANTERN AVENUE INTERSECTION IMPROVEMENTS.**

2. USE OF CONTRACT DOCUMENTS

These Bidding Documents are to be used only for the purpose of understanding this bid and consideration toward submitting a proposal. They may not be used for any other purpose. Letting date published on the roadway plan cover is to be disregarded. Letting shall occur following the bid opening.

3. SPECIFICATIONS

The Specifications are intended to describe the complete project including all materials, processes, equipment, etc. Bidders are expected to carefully examine the Contract Documents, visit the site of the proposed construction, and determine the availability of materials and method required, in order to become thoroughly familiar with the project, the requirements, and to include the cost thereof in the proposal. Bidders shall contact the Project Coordinator at least five (5) days prior to the bid date for clarification of any item not fully understood.

4. BIDDER'S QUALIFICATIONS

For projects exceeding \$40,000, consideration will be given only to Contractors who submit evidence that they are properly licensed as required by Chapter 87 of the North Carolina Licensed General Statutes to bid and perform the work described herein as the general contractor. In addition, the Owner may make such other investigations as he deems necessary to determine the ability of the Bidder to perform the work, and the Bidder shall furnish the Owner all such information and data for this purpose as the Owner may request.

The Owner reserves the right to consider as unqualified to do the work of general construction any Bidder who does not habitually perform with his own forces a minimum of ten percent (10%) of the work involved in construction of the improvements embraced in this contract.

Awarded contractor shall be authorized to conduct business in the state of North Carolina as found by checking the Secretary of State records and/or Register of Deeds office, indicating proper registration and active status. This is a condition of executing the contract.

5. FAMILIARITY WITH LAWS

It is assumed that the Bidders are familiar with local, state, and federal laws, rules, ordinances, and regulations that may in any manner affect those engaged or employed in the work, or the materials or equipment used in or upon the work, or in any way affects the conduct of the work. No plea for misunderstanding or ignorance on the part of the Contractor will in any way serve to modify the

provisions of this contract. The Contractor agrees that in carrying out this contract he will comply with all applicable Federal, state, and local laws, specifically including, without limitation, the Occupational Safety and Health Act of 1970 and Section 1324A, the Immigration Reform and Control Act.

6. AMERICAN WITH DISABILITIES ACT (ADA)

The Contractor shall comply with the provisions of the Americans with Disabilities Act (ADA) (www.ADA.gov) as amended from time to time and all rules and regulations promulgated thereunder. The contractor hereby agrees to indemnify the Owner from and against all claims, suits, damages, costs, losses and expenses in any manner arising out of or connected with the failure of the contractor, its subcontractors, agents, successors, assigns, officers or employees to comply with the provisions of the ADA or rules and regulations promulgated thereunder.

7. MINORITY PARTICIPATION

The Town of Wake Forest's minority participation goal is **10%** of the bid amount.

8. ADDENDA

No oral interpretation will be made to any Bidder as to the meaning of the Bidding Documents. Questions and requests for such interpretation should be made in writing to the Project Coordinator Listed. Any Addenda will be provided to known interested parties, but it shall be the Bidder's responsibility to make inquiry as to any Addenda issued. All such Addenda shall become part of the Contract and all Bidders shall be bound by such Addenda whether or not received or acknowledged. **All addendums will be posted by C.O.B. on Wednesday, December 10, 2025.**

9. UNBALANCED BIDS

The Contractor shall not submit a bid containing any unbalanced bid prices. Any unit or lump sum bid price that does not reflect reasonable actual costs that the Contractor anticipates for the performance of the item(s) in question along with a reasonable proportional share of the Contractor's anticipated profit, overhead cost, and other indirect costs is an unbalanced bid price. Any bid containing unbalanced bid prices may be deemed non-responsive and rejected.

10. COLLUSIVE AGREEMENTS

Each bidder submitting a bid shall execute and attach the Non-Collusion Affidavit of Prime Bidder affidavit attesting that he has not entered into a collusive agreement with any other person, firm or corporation in regard to any bid submitted.

11. BID Bond

5% of bid amount. Bid Bond must be included with bid submittal. The cost of the bond shall be included in the total cost of the bid.

12. PERFORMANCE AND PAYMENT BOND

100% of bid amount. The cost of the bonds shall be included in the total cost of the bid.

13. PREPARATION OF BID

The Town's bid forms must be used when provided – submit one original. Bidders shall label their bid proposal with business name, bid name and bid date, then seal their bid proposal inside an envelope. If mailing a bid proposal, provide a sealed envelope within the postal envelope.

14. ITEMS REQUIRED TO BE SUBMITTED WITH THE BID

Failure to submit the following with the bid is considered a non-responsive bid and the bid will not be considered:

- Bid Form with bid price(s) written or typed
- Signatures on Forms and notarized where noted
- Non-Collusion Affidavit of Prime Bidder
- Addendums (if issued)
- Minority Participation forms
- E-589 CI Form
- 5% Bid Bond

15. RECEIPT AND OPENING OF BIDS

Each Bid is to be submitted in a sealed envelope and plainly marked with the project name, bid number, and bid opening time. If mailed, the sealed envelope containing the Bid is to be enclosed in another envelope to avoid it being opened before the advertised time. Bids received prior to the advertised bid opening will be securely kept as sealed. Bids received after the advertised bid opening time will be returned to the Bidder unopened.

16. WITHDRAWAL OF BIDS

Bids may be withdrawn by written request prior to or within seventy-two hours (72) after the opening of bids by contacting the bidding officer. To withdraw an opened bid, proof must be given of a mathematical error or omission as opposed to judgment or interpretation error.

17. MINIMUM NUMBER OF BIDS (FORMAL CONTRACTS ONLY)

North Carolina General Statute 143-129 and 143-132 prohibits the awarding of a formal contract unless at least three (3) competitive bids are received from reputable and qualified contractors. Therefore, if fewer than three (3) such bids are received, they will not be opened but returned to the contractors; and the project may be re-advertised. The Town's formal contract limit is \$500,000.

18. ALTERNATIVE BIDS

No alternative bids will be considered unless alternative bids are specifically requested.

19. AWARD OF CONTRACT; REJECTION OF BIDS

The Town reserves the right to hold bids for a period of sixty (60) days for the purpose of reviewing the bids and investigating the qualifications of the Bidders. The Town reserves the right to reject any

BD - 5

or all bids, for any reason. The Town intends to award a contract to the lowest responsive, responsible bidder, complying with the conditions of the bidding documents. The Town reserves the right to award a contract that is deemed in its best interest.

20. BID PROTEST PROCEDURE

Prospective bidders or suppliers who feel disadvantaged by the solicitation must submit a written protest within five (5) calendar days prior to the opening of proposals. Actual bidders or subcontractors who are aggrieved by the award of a contract must submit a written protest within five (5) days of the Town announcing its intent to award. The protest must be addressed to the Purchasing Manager, Town of Wake Forest, who will make the final determination after consulting with counsel.

21. EXECUTION OF AGREEMENT

The successful Bidder is required to execute a Contract within ten days (10) days after notice of award. Failure to do so constitutes a default and the Owner may elect to award to the next lowest bidder or re-advertise the bid.

22. LIQUIDATED DAMAGES

\$1500 per day after scheduled completion date of project as well as **\$1000 per day** for work outside of approved hours. Any exceptions must be issued in writing by the Town of Wake Forest.

23. INSURANCE REQUIREMENTS

- A. Workers' Compensation: Insurance covering all employees meeting Statutory limits in compliance with the applicable state and federal laws. The coverage must include employer's liability with a minimum limit of \$1,000,000 for each accident.
- B. Commercial General Liability: Coverage shall have minimum limits of \$1,000,000 per occurrence, general aggregate, products/completed operations aggregate, personal and advertising injury. This shall include premises and operations, independent contractors, products and completed operations, broad form property damage, XCU coverage and contractual liability. The coverage shall be written on an occurrence basis. This limit should apply on a per project or per location aggregate basis. **The Town of Wake Forest shall be listed as an additional insured, under this coverage.**
- C. Business Auto Liability: Coverage shall have a minimum limit of \$500,000 per occurrence, combined single limit for bodily injury liability and property damage liability. This shall include owned vehicles, hired vehicles and non-owned vehicles.
- D. Umbrella/Excess Liability: At the option of the contractor, the limits of the primary general liability, auto liability and employers' liability may be less than stipulated herein, with an excess policy providing the additional limits needed. This form of coverage must be approved by the municipality and will only be acceptable when both the primary and excess policies include the coverage and endorsements required herein.
- E. Professional Liability: Coverage shall have a minimum limit of \$1,000,000 per occurrence, unless a higher limit is required by the Town. This coverage is only required for contracts that include professional services.
- F. Special Requirements

1. Current, valid insurance policies meeting the requirements herein identified shall be maintained to be considered an "eligible contractor". Renewal certificates shall be sent to the Town 30 days prior to any expiration date. There shall also be a 30-day notification to the Town in the event of cancellation or modification of any stipulated insurance coverage. Certificates of insurance meeting the required insurance provisions shall be forwarded to the Town of Wake Forest. Wording on the certificate, which states that no liability shall be imposed upon the company for failure to provide such notice, is not acceptable.
2. It shall be the responsibility of the contractor to ensure that all subcontractors comply with the same insurance requirements that he is required to meet.
3. The Town of Wake Forest shall be listed as certificate holder on the certificate of insurance.

24. INDEMNIFICATION

To the extent permitted by law, the Contractor agrees to defend, pay on behalf of, indemnify, and hold harmless the Town of Wake Forest, its elected and appointed officials, employees, agents, and volunteers against any and all claims, demands, suits or losses, including all costs connected therewith, for any damages which may be asserted, claimed or recovered against or from the Town of Wake Forest, its elected or appointed officials, employees, agents, and volunteers by reason of personal injury, including bodily injury or death and/or property damage, including loss of use thereof resulting from the negligence of the Contractor.

25. MATERIALS

The name of a certain brand, make, manufacturer or definite specification is to denote the quality standard of the article desired and not to restrict competitive bidding. It is set forth and conveyed to prospective bidders the general style, type, character and quality of the article desired. Bidders, however, may submit to the Project Coordinator evidence that proposed substitutions are fully up to standards specified and obtain his approval before placing orders.

26. ERRORS, OMISSIONS, AND DEVIATIONS

The Contractor is responsible for all errors, omissions, and deviations from the Contract requirements.

27. OSHA COMPLIANCE PLAN/POLICY

Contractor hereby acknowledges that it has reviewed and agrees to abide by all OSHA safety regulations and Town of Wake Forest safety regulations. Contractor may be required to submit a copy of the company's current written OSHA Compliance Plan/Policy within 48 hours of request. If requested, no field work shall take place until the plan has been submitted and reviewed by the Town's Safety Officer.

28. NON-COLLUSION and ANTI-DISCRIMINATION

Bidder certifies that this proposal is made in good faith and without collusion or in connection with any other person bidding on the same work, nor will any official or employee of the Town of Wake Forest be admitted to share any part of this contract should an award be made to the undersigned. Bidder further certifies that in connection with the performance of this contract not to discriminate against any employee or applicant for employment because of race, creed, color, religion, national

origin, gender, age, political affiliation or handicap.

29. TAXES

FEDERAL: The Town of Wake Forest is exempt from and will not pay Federal Excise or Transportation taxes.
STATE: Applicable North Carolina Sales and Use Taxes shall not be shown on bids but shall be added to invoices as a separate item. The Town is not tax exempt.

NORTH CAROLINA SALES TAX

The Owner may apply for a refund of all sales and/or use taxes paid in North Carolina by the Contractor on purchases of items which are annexed to, affixed to, or in some manner become a part of any building or structure being erected, altered or repaired under Contract with the Owner; and these taxes shall not be included in the bid amounts or the Contract sum. The Contractor shall include and pay all other taxes imposed by governmental authorities, which are applicable to the work.

The Contractor will be reimbursed for applicable sales and/or use taxes he has paid in North Carolina based on the following. **The Contractor should apply for reimbursement by itemizing and completing a notarized sales and use tax report form and submitting it with each pay request. Failure to submit this form will result in the invoice not being paid.** The contractor will be required to complete a sales and use tax report affidavit in order to receive the last payment of the project.

A Sales Tax Affidavit must be completed and submitted for this project before final payment will be released.

30. PAYMENT

N.C.G.S. 143-134.1 prohibits retainage on public projects that cost less than \$100,000.00 in total. Prior to final payment, the Contractor will be required to submit any forms, warranties, etc. that the Owner requires. The payment of the final amount due the Contractor shall release the Owner from any and all claims or liabilities on account of the work performed and the materials furnished upon the work. The payment terms shall be Net 30 days.

31. ETHICS POLICY / CODE OF CONDUCT

The Town of Wake Forest has established guidelines for ethical standards of conduct in that Town *representatives should maintain high standards of personal integrity, truthfulness, honesty, and fairness* in carrying out public duties; avoid any improprieties in their roles as public servants including the appearance of impropriety; and never use their position or power for improper gain. In establishing an ethics policy, the Town of Wake Forest desires to protect the public against decisions that are affected by undue influence, conflicts of interest, or any other violation of these policies as well as promote and strengthen the confidence of the public in their governing body.

32. E-VERIFY

Contractor shall comply with the requirements of Article 2 of Chapter 64 of the NC General Statutes. Further, if Contractor utilizes a subcontractor, Contractor shall require the subcontractor to comply with the requirements of Article 2 of Chapter 64 of the NC General Statutes.

33. HUBSCO REPORTING

All **building** construction and repair projects (\$30,000 & Over) require a E-Verify. Contractor shall

comply with the requirements of Article 2 of Chapter 64 of the NC General Statutes. Further, if Contractor utilizes a subcontractor, Contractor shall require the subcontractor to comply with the requirements of Article 2 of Chapter 64 of the NC General Statutes. If a minority participation report is required to be submitted to the State of NC Department of Administration HUB Office, any information that is requested from the contractor must be provided before the last invoice will be paid.

34. IRAN DIVESTMENT ACT.

Contractor certifies that; (i) it is not identified on the Final Divestment List or any other list of prohibited investments created by the NC State Treasurer pursuant to N.C.G.S. 143-6A-4; (ii) it will not take any action causing it to appear on any such list during the term of this Purchase Order, and (iii) it will not utilize any subcontractor to provide goods or services hereunder that is identified on any list.

35. DIVESTMENT FROM COMPANIES THAT BOYCOTT ISRAEL.

Contractor represents, covenants, and certifies that it is not listed on the list of restricted companies developed and published by the North Carolina State Treasurer as required by N.C.G.S. 147-86.81.

36. DISPUTE RESOLUTION

Any construction related disputes resulting from this bid shall be resolved using the procedures set for by the State Building Commission pursuant to NCGS 143-128(g) 143-135.26(11). These procedures may be viewed at: <https://www.nccourts.gov/assets/inline-files/Rules-of-the-Dispute-Resolution-Commission-Codified-1-May-2023.pdf?VersionId=YmqtK7BJomYKhbLUzNR.fyHAMv7Sev4X>

37. STANDARD TERMS AND CONDITIONS

The Town of Wake Forest's Standard Terms and Conditions listed at: https://www.wakeforestnc.gov/sites/default/files/uploads/purchasing/2023/9-27-23_towf_standard_terms_and_conditions.pdf will govern all matters related to the goods and/or services provided by you or your company (the "Vendor") to the Town of Wake Forest (the "Town") under a Town purchase order. Additional Terms and Conditions stated on the face of a Town purchase order shall take precedence over any conflicting Standard Terms and Conditions stated. Any Terms and Conditions not stated, but incorporated by reference therein, shall be binding only if provided or signed by the Town and attached hereto. In the event that a binding written contract signed by both the Vendor and the Town exists, the Terms and Conditions of that contract shall supersede any conflicting Standard Terms and Conditions.

38. PROJECT COORDINATOR / CONTACT

Emily Hennessy, PE – ehennessy@wakeforestnc.gov

39. QUESTIONS AND CLARIFICATIONS

Any questions regarding this bid must be submitted ***by email*** to the Project Coordinator. All questions may be submitted ***starting on Monday November 10, 2025, and ending Friday November 14, 2025, at C.O.B. Responses will be provided on Wednesday November 19, 2025, by C.O.B.***

All questions will be answered individually and then combined and posted in an addendum.

A second question and answer session will ***begin Monday December 1, 2025, and end Friday December 5, 2025, at C.O.B. Response will be provided on Wednesday December 10, 2025, by C.O.B.***

40. REFERENCES

All bidders must submit a minimum of three references for similar public projects. Please submit the name of the project, the city/town the project was for and contact information for the person that was responsible for the project for the client.

PROPOSAL FORM
FORESTVILLE ROAD
INTERSECTION IMPROVEMENTS
BID # 0002-2025

The undersigned bidder affirms and declares that he has carefully examined all bidding documents and Instructions to Bidders which are acknowledged to be a part of this proposal, and agrees to provide all labor, materials, equipment, supervision, permits; abide by all local, state and federal laws, rules, regulations, and ordinances applicable to perform the work listed in the specifications and scope of work for the following sum to wit:

TOTAL BASE BID – Lump Sum

_____ Dollars \$ _____

Construction Duration from NTP _____

Address technical questions about the project to the Project Engineers: Tim Watson / Emily Hennessy.

Tim Watson, PE
Engineering Director
twatson@wakeforestnc.gov

Emily Hennessy, PE
Senior Civil Engineer
ehennessy@wakeforestnc.gov

ITEM 1- Scope of Project

Forestville Road and Coach Lantern Avenue Intersection Improvements

ITEM 2- Addendums

All addendums must be acknowledged in order for the proposal to be considered.

Addendum #1 _____ **Addendum #4** _____

Addendum #2 _____ **Addendum #5** _____

Addendum#3 _____ **Addendum #6** _____

The Town of Wake Forest intends to award a contract to the overall lowest responsible, responsive bidder taking into consideration quality, performance, and the time specified in this bid. The Town of Wake Forest reserves the right to reject or all proposals and to make the award as deemed in the best interest of the Town of Wake Forest.

All bidders MUST complete and submit with their bid the enclosed Non-Collusion Affidavit of Prime Bidder.

SIGNATURE PAGE

The undersigned certifies that they have read and understood all the provided bidding documents, the project specifications, and agree to the terms and conditions stated herein.

This bid must be signed by a responsible official of the bidding organization and notarized.

Date _____ (SEAL)

Company _____

Authorized Signature _____ Federal Identification # _____

Printed Name and Title _____ Email Address _____

Street Mailing Address _____ City, State, Zip Code _____

Contactor's NC License No. _____ Telephone Number _____

On this day of _____, 2025, before me _____ (name) appeared and, being duly sworn, did execute the foregoing proposal, and did so state that he/she was properly authorized by _____ (name of company) to execute the proposal and did so on his/her free act and deed.

Notary Public _____

My Commission Expires _____ (SEAL)

NON-COLLUSION AFFIDAVIT OF PRIME BIDDER

****attach to bid (required)****

State of _____)

County of _____)

Project: Bid # 0002-2025-Forestville Road & Coach Lantern Avenue Intersection Improvements

_____, being first duly sworn, deposes and says that:

1. He is (owner, partner, officer, representative or agent) of _____, the Bidder that has submitted the attached Bid;

2. He is fully informed respecting the preparation and contents of the attached bid and of all pertinent circumstances respecting such Bid;

3. Such Bid is genuine and is not a collusive or sham Bid;

4. Neither the said Bidder nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this Affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly, with any other Bidder, firm or person to submit a collusive or sham Bid in connection with the Contract for which the attached Bid has been submitted or to refrain from bidding in connection with such contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Bidder, firm or person to fix the price or prices in the attached Bids of any other Bidder, or to fix any overhead, profit or cost element of the Bid price or the Bid price of any other Bidder, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the Town of Wake Forest or any person interested in the proposed Contract;

5. The price or prices quoted in the attached Bid are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees or parties in interest, including this Affiant.

Name _____

Title _____

Subscribed and Sworn to before me this ____ Day of _____, 2025 ____

Notary Public: _____ (Seal)

My Commission Expires: _____

Identification of Minority Business Participation

Commented [RD1]: Replaced two old forms with the new minority participation form

I, _____

(Name of Bidder)

do hereby certify that on this project, we will use the following HUB Certified/ minority business as construction subcontractors, vendors, suppliers or providers of professional services. The Town of Wake Forest will accept both NC HUB and NC DOT certified minority vendors, unless otherwise stated in the bid documents.

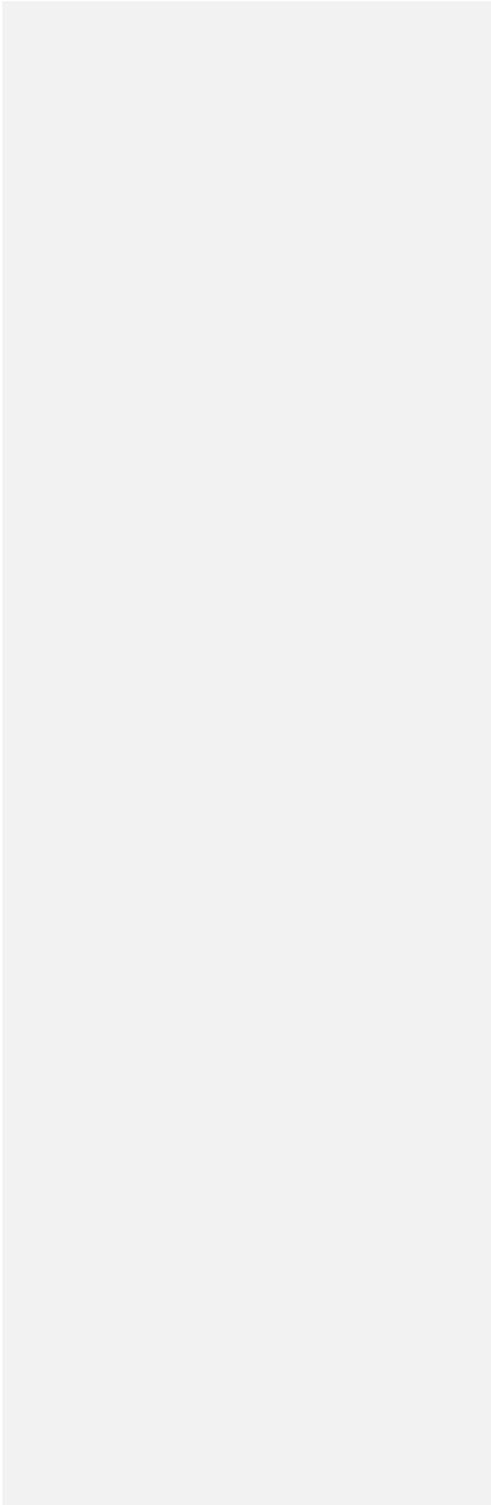
Firm Name, Address and Phone #	Work Type	Minority Category	NC HUB NC DOT Certified (Y/N)	\$ Amount
--------------------------------	-----------	----------------------	--	-----------

*Minority categories: Black, African American (B), Hispanic (H), Asian American (A) American Indian (I),
 Female (F) Socially and Economically Disadvantaged (D)

** HUB Certification with the state HUB Office required to be counted toward state participation goals.

The total value of minority business contracting will be (\$) _____

The total percentage of minority business contracting will be (%) _____



Town of Wake Forest -AFFIDAVIT A – Listing of Good Faith Efforts

County of _____

(Name of Bidder)

Affidavit of _____

I have made a good faith effort to comply under the following areas checked:

Bidders must earn at least 50 points from the good faith efforts listed for their bid to be considered responsive. (1 NC Administrative Code 30 I.0101)

- 1 – (10 pts)** Contacted minority businesses that reasonably could have been expected to submit a quote and that were known to the contractor, or available on State or local government maintained lists, at least 10 days before the bid date and notified them of the nature and scope of the work to be performed.
- 2 – (10 pts)** Made the construction plans, specifications and requirements available for review by prospective minority businesses or providing these documents to them at least 10 days before the bids are due.
- 3 – (15 pts)** Broken down or combined elements of work into economically feasible units to facilitate minority participation.
- 4 – (10 pts)** Worked with minority trade, community, or contractor organizations identified by the Office of Historically Underutilized Businesses and included in the bid documents that provide assistance in recruitment of minority businesses.
- 5 – (10 pts)** Attended Prebid meetings scheduled by the public owner.
- 6 – (20 pts)** Provided assistance in getting required bonding or insurance or provided alternatives to bonding or insurance for subcontractors.
- 7 – (15 pts)** Negotiated in good faith with interested minority businesses and did not reject them as unqualified without sound reasons based on their capabilities. Any rejection of a minority business based on lack of qualification should have the reasons documented in writing.
- 8 – (25 pts)** Provided assistance to an otherwise qualified minority business in need of equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letters of credit, including waiving credit that is ordinarily required. Assisted minority businesses in obtaining the same unit pricing with the bidder's suppliers in order to help minority businesses in establishing credit.
- 9 – (20 pts)** Negotiated joint venture and partnership arrangements with minority businesses in order to increase opportunities for minority business participation on a public construction or repair project when possible.
- 10 – (20 pts)** Provided quick pay agreements and policies to enable minority contractors and suppliers to meet cash-flow demands.

The undersigned, if apparent low bidder, will enter into a formal agreement with the firms listed in the Identification of Minority Business Participation schedule conditional upon scope of contract to be executed with the Owner. Substitution of contractors must be in accordance with GS143-128.2(d) Failure to abide by this statutory provision will constitute a breach of the contract.

The undersigned hereby certifies that he or she has read the terms of the minority business commitment and is authorized to bind the bidder to the commitment herein set forth.

Date: _____ Name of Authorized Officer: _____



Signature: _____

Title: _____

State of _____, County of _____

Subscribed and sworn to before me this _____ day of _____ 2025 _____

Notary Public _____

My commission expires: _____

Seal:

Town of Wake Forest --AFFIDAVIT B-- Intent to Perform Contract With Own Workforce

County of _____

Affidavit of _____
(Name of Bidder)

I hereby certify that it is our intent to perform 100% of the work required for the contract.

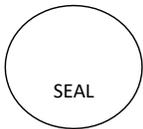
(Name of Project)

In making this certification, the Bidder states that the Bidder does not customarily subcontract elements of this type project, and normally performs and has the capability to perform and will perform all elements of the work on this project with his/her own current work forces; and

The Bidder agrees to provide any additional information or documentation requested by the owner in support of the above statement. The Bidder agrees to make a Good Faith Effort to utilize minority suppliers where possible.

The undersigned hereby certifies that he or she has read this certification and is authorized to bind the Bidder to the commitments herein contained.

Date: _____ Name of Authorized Officer: _____



Signature: _____

Title: _____

State of _____, County of _____
Subscribed and sworn to before me

This _____ day of _____ 2025 Notary Public _____

My commission expires: _____

Notary Public: _____

Seal _____

STATE OF NORTH CAROLINA

TOWN OF WAKE FOREST

AFFIDAVIT

I, _____ (the individual attesting below), being duly authorized by and on behalf of _____ (the entity bidding on project hereinafter "Employer") after first being duly sworn hereby swears or affirms as follows:

1. Employer understands that E-Verify is the federal E-Verify program operated by the United States Department of Homeland Security and other federal agencies, or any successor or equivalent program used to verify the work authorization of newly hired employees pursuant to federal law in accordance with NCGS §64-25(5).

2. Employer understands that Employers Must Use E-Verify. Each employer, after hiring an employee to work in the United States, shall verify the work authorization of the employee through E-Verify in accordance with NCGS§64-26(a).

3. Employer is a person, business entity, or other organization that transacts business in this State and that employs 25 or more employees in this State. (Mark Yes or No)

- a) YES _____ or
b) NO _____

4. Employer's subcontractors comply with E-Verify, and if Employer is the winning bidder on this project Employer will ensure compliance with E-Verify by any subcontractors subsequently hired by Employer.

This _____ day of _____, 2025 _____

Signature of Affiant: _____

Print or Type Name: _____

State of _____ County of _____ (Affix Seal)

Signed and sworn to (or affirmed) before me, this the _____ day of _____, 2025 _____

My Commission Expires: _____

Notary Public: _____



TOWN of
WAKE FOREST

301 S. Brooks Street
Wake Forest, NC 27587
t 919.435.9400
www.wakeforestnc.gov

[Organization Name]

[Address]

[City, State Zip]

[Date]

Dear [Vendor Name],

We would like to thank you for your work on the [project name]. Below you will find the sales tax verification to be completed for the project. Prior to the official closeout and the issuance of the final payment, the Town of Wake Forest must receive a copy of this document with a notarized signature of an authorized official of your organization.

Sales Tax Affidavit

The Town of Wake Forest will not accept any transfer of liability for taxes due on admissions that the lessee has failed to charge and remit to the State of North Carolina or other taxing jurisdictions.

All users of facilities are solely responsible for collecting and remitting any and all applicable sales and use taxes to the North Carolina Department of Revenue and that the Town of Wake Forest assumes no obligation or responsibility for said taxes.

Authorized Official Name: _____

Authorized Official Signature: _____

Date: _____

Subscribed and sworn before me this _____ day of _____, 2025 _____

Seal

Notary Public: _____

My Commission Expires: _____

**TOWN OF WAKE FOREST
2025 FORESTVILLE ROAD
INTERSECTION IMPROVEMENTS
SCHEDULE OF PRICES**

ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT BID PRICE	BID AMOUNT
1	Mobilization	1	LS	\$	\$
2	Construction Surveying	1	LS	\$	\$
3	Clearing and Grubbing	0.1	Acre	\$	\$
4	Comprehensive Grading	1	LS	\$	\$
5	Shallow Undercut	0	CY	\$	\$
6	Fabric for Soil Stabilization	0	SY	\$	\$
7	Geogrid for Soil Stabilization	0	SY	\$	\$
8	Class IV Stone for Soil Stabilization	0	Tons	\$	\$
	Drainage				
9	15" RC Pipe Culverts, Class IV	36	LF	\$	\$
10	Frame with Two Grates, STD 840.16	1	EA	\$	\$
11	Frame with Cover, STD 840.54	1	EA	\$	\$
12	Masonry Drainage Structures	2	EA	\$	\$
13	Pipe Removal	23	LF	\$	\$
	Pavement				
14	Milling Asphalt Pavement, 1.5" Depth	1650	SY	\$	\$
15	Asphalt Type B25.0C	20	Tons	\$	\$
16	Asphalt Type I19.0C	20	Tons	\$	\$
17	Asphalt Type S9.5B	150	Tons	\$	\$
18	Asphalt Binder for Plant Mix	15	Tons	\$	\$
19	2'-6" Concrete Curb and Gutter	370	LF	\$	\$
20	4" Concrete Sidewalk	310	SY	\$	\$
21	Concrete Curb Ramps	6	EA	\$	\$
22	Adjustment of Meter Boxes and Valve Boxes	4	EA	\$	\$
23	Erosion Control	1	LS	\$	\$
24	Contractor Furnish, Type E Sign	36	SF	\$	\$
25	Supports, 3 LB. Steel U-Channel	60	LF	\$	\$
26	Disposal of Sign System, U-Channel	1	EA	\$	\$
27	Disposal of Sign, Type E	2	EA	\$	\$
28	Thermoplastic Pavement Marking Lines (4", 90 MILS)	990	LF	\$	\$
29	Thermoplastic Pavement Marking Lines (24" 120 MILS)	610.0	LF	\$	\$
30	Thermoplastic Pavement Marking Lines (8" 90 MILS)	190	LF	\$	\$
31	Heated-in-Place Thermoplastic Pavement Marking Symbols (90 MILS)	7	EA	\$	\$
32	Permanent Raised Pavement Markers	10.0	EA	\$	\$
33	Temporary Traffic Control	1	LS	\$	\$
34	Flagger	8	DAY	\$	\$

GENERAL CONDITIONS

1. Definitions:

- a) The Contract documents shall consist of the Contract, the accepted Proposal, the General Conditions of the Contract, and the Drawings and Specifications, including all modifications thereof incorporated in the documents before their execution.
- b) Whenever the term "Contractor" is used, it shall be understood as referring to the General Contractor, subcontractor, and all other contractors or their duly authorized agent to whom the work here described is awarded by Contract.
- c) Whenever the term "Resurface" or "Resurfacing" is used, it shall be understood to mean all work associated with the Contract, including but not limited to utility adjustments, milling, patching, and asphalt overlay.
- d) Whenever the term "Director of Engineering" is mentioned, it is understood to mean the Director of Engineering, Town of Wake Forest, North Carolina, his assistant or duly authorized agent. The Director of Engineering or his authorized agent shall make all necessary explanations as to the meaning and intent of the Specifications, Plans, Special Provisions, or Contract and may correct any errors or omissions in same which is necessary for the proper fulfillment of its intentions. The term "Director of Engineering" or his authorized agent shall be synonymous or equivalent with the term "Engineer" and shall have full authority over the work as specified in Section 105-1 of the "North Carolina Department of Transportation Standard Specifications for Roads and Structures" latest edition.
- e) Whenever the term "Town" is used, it is to mean the Town of Wake Forest, North Carolina.
- f) The term "Work" of the Contractor or subcontractor includes labor or materials, or both, equipment, transportation, or other facilities necessary to complete the Contract.
- g) The "North Carolina Department of Transportation Standard Specifications for Roads and Structures", latest edition shall be considered a part of these specifications in to.
- h) The "North Carolina Department of Transportation Policies Procedures", for 2002 accommodating utilities on highway right of way shall be considered a part of these specifications in instances to which they are referred.
- i) The terms "Supplemental Agreement" and "Town Change Order" shall be understood to be synonymous.

2. Intent of Documents:

The intention of the documents is to include all labor and materials, equipment, and transportation necessary for the proper execution of the work. It is not intended, however, that materials or work not covered by or properly inferable from any heading, branch, class, or trade of the Specifications shall be supplied unless distinctly so noted on the drawings. Materials or work described in words which so applied have a well-known technical or trade meaning shall be held to refer to such recognized standards.

3. Detail Drawings and Instructions:

The Director of Engineering shall furnish with reasonable promptness, additional instructions, by means of drawings or otherwise, necessary for the proper execution of the work. All such drawings and instructions shall be consistent with the Contract documents, true developments thereof, and reasonably inferable therefrom.

4. Progress Schedule:

The Contractor shall prepare and submit for review and approval a schedule of proposed working progress. This schedule shall be submitted on forms supplied by the Engineer or in a format that is approved by the Engineer. A detailed Critical Path Method (CPM) schedule shall not be submitted to replace the progress schedule details required below.

The proposed progress schedule shall be submitted no later than 7 calendar days before the date of the project preconstruction conference and shall be approved before any payments will be processed for the project. In addition to the progress schedule, the contractor shall submit a two-week lookahead during construction if activities scheduled deviate from the most recently submitted progress schedule.

When the Engineer has extended the completion date or if the project overrun is anticipated to exceed 5%, the Contractor may submit a revised progress schedule to the Engineer for review and approval. If plan revisions are anticipated to change the sequence of operations in such a manner as will affect the progress but not the completion date, then the Contractor may submit a revised progress schedule for review and approval, but the completion date shall remain unchanged.

The proposed progress schedule shall contain the following items:

1. A time scale diagram with major work activities and milestones clearly labeled.
 - a. For purposes of composing the progress schedule, major work activities are defined as components comprising more than 5% of the total project cost or occupying more than 10% of total contract time and shall include, if applicable, the following
 - i. Storm Drainage
 - ii. Traffic Signal
 - iii. Concrete Work
 - iv. Milling Asphalt Pavement
 - v. Asphalt Resurfacing
 - vi. Pavement Markings and Signage
 - b. For purposes of composing the progress schedule, major milestones are derived from the project construction phasing and shall include, if applicable, the following:
 - i. Start of Work (May change based on NTP)
 - ii. Project ICTs
 - iii. Map Completion Dates
 - iv. Project Completion Date

2. A cash curve corresponding to the milestones of work and activities established in Part 1 above.

A written narrative that explains the sequence of work, the controlling operations, ICT completion dates, milestones, project phasing, anticipated work schedule and estimated resources. In addition, explain how any permit requirements, submittal tracking, and coordination with subcontractors, utility companies and other entities will be performed.

Failure to Maintain Satisfactory Progress

The Director of Engineer will check the Contractor's progress at the time each partial pay estimate is prepared.

The Town shall follow guidelines set forth in the NCDOT Standard Specifications, Latest Edition using the Article(s) referenced below.

The Contractor's progress may be considered as unsatisfactory as follows:

(A) The Contractor's progress is found to be less than that described in either count below:

(1) The dollar value of the work completed, excluding material payments allowed by Article 109-5, is less than the dollar value of the work that should have been completed, on the basis of the Contractor's approved progress schedule, by more than 10% of the current contract amount. The dollar value of the work completed will be the total estimate to date shown in the latest partial pay estimate, excluding material payments allowed by Article 109-5. The current contract amount will be the total amount bid plus accumulated overruns less accumulated underruns shown in the latest partial pay estimate.

(2) The percentage of the work completed is less than the percentage of contract time elapsed on the work by more than 10%. The percentage of work completed will be the dollar value of the work completed as defined above, divided by the current contract amount as defined above. The percentage of contract time elapsed will be the number of calendar days elapsed as shown in the latest partial pay estimate divided by the total contract time in calendar days.

(B) The Contractor fails to begin and pursue the work in accordance with Article 108-1 before the expiration of 5% of the original contract time after the date work was scheduled to begin based upon the approved progress schedule.

(C) The Director of Engineer anticipates the Contractor will not complete the work described in the contract by the intermediate contract time or the contract completion date. When the Contractor's progress is found to be unsatisfactory as described in Sub-articles 108-8(A), 108-8(B) and 108-8(C) above, the Director of Engineer may make written demand of the Contractor to state in writing the reason for the unsatisfactory progress and produce such supporting data as the Town may require or the Contractor may desire to submit. The Director of Engineer will consider the justifications submitted by the Contractor and extensions of the completion date have or may be allowed in accordance with Subarticle 108-10(B).

6. Contractor's Understanding:

It is understood and agreed that the Contractor has, by careful examination, satisfied himself as to the nature and location of the work, the conformation of the ground, the character, quality, and

quantity of materials to be encountered, the character of equipment and facilities needed preliminary to and during the prosecution of the work, the general and local conditions, and all other matters which can in any way affect the work under this Contract. No verbal agreement or conversation with any officer, agent, or employee of the Town, either before or after the execution of the Contract shall affect or modify any terms or obligations herein contained.

7. Superintendence by Contractor:

Except where the Contractor is an individual and gives his personal superintendence to the work, the Contractor shall provide a competent superintendent, satisfactory to the Town of Wake Forest on the work at all times during working hours with full authority to act for him. The Contractor shall also provide an adequate staff for the proper coordination and prosecution of the work.

8. Materials, Appliances, Employees:

Unless otherwise specified, the Contractor shall provide and pay for all materials, labor, water, tools, equipment, light, power, transportation, and other facilities necessary for the execution and completion of the work.

Unless otherwise specified, all materials shall be new and both workmanship and materials shall be of good quality. The Contractor shall, if required, furnish satisfactory evidence as to the kind and quality of materials.

The Contractor shall at all times enforce strict discipline and good order among his employees and shall not employ on the work any unfit person or anyone not skilled in the work assigned to him.

9. Technical Specifications and Drawings:

Anything mentioned in the Technical Specifications and not shown on the Drawings or shown on the Drawings and not mentioned in the Technical Specifications shall be of like effect as if shown on or mentioned in both. In case of difference between Drawings and Technical Specifications, the Technical Specifications shall govern. In case of any discrepancy in Drawings, or Technical Specifications, the matter shall be immediately submitted to the Town of Wake Forest without whose decision, said discrepancy shall not be adjusted by the Contractor, save only at his own risk and expense.

10. Royalties and Patents:

The Contractor shall pay all royalties and patent fees. He shall defend all suits or claims for infringement of any patent rights and shall save the Town harmless from loss on account thereof, except that the town shall be responsible for such loss when a particular process or the product of a particular manufacturer or manufacturers is specified, but if the Contractor has information that the process or article specified is an infringement of a patent, he shall be responsible for such loss unless he promptly gives such information to the Director of Engineering.

11. Permits:

Permits and licenses of a temporary nature necessary for the prosecution of the work shall be secured and paid for by the Contractor unless otherwise stipulated.

Permits, licenses and easements for permanent structures or permanent changes in existing facilities shall be secured and paid for by the Town unless otherwise stipulated.

Contractor shall notify the HOA, the Towns of Wake Forest and Rolesville, NCDOT and any other

agencies to obtain all necessary permits and provide project notifications prior to construction start date.

12. Protection of Work and Property:

The Contractor shall continuously maintain adequate protection of all his work from damage and shall protect the Town's and private property from injury or loss arising in connection with this Contract. He shall make good any such damages, injury, or loss, except such as may directly be due to errors in the Contract documents or caused by agents or employees of the Town.

13. Cooperation with Utility Owners:

Prior to the beginning of construction, the Town will notify all utility owners known to have facilities affected by the construction of the project. The Contractor shall coordinate the schedule with the utility owners for the necessary adjustments of all affected public or private utility facilities. The utility adjustments may be made either before or after the beginning of construction of the project. The adjustments will be made by the utility owner or his representative or by the Contractor when such adjustments are part of the work covered by his Contract.

The Contractor shall use special care in working around and near all existing utilities that are encountered during construction, protecting them where necessary so that they will give uninterrupted service. The Contractor shall call the agency concerned for location of all utilities and shall be responsible for any damage to existing utilities and structures resulting from his work around these utilities or structures.

The Contractor shall cooperate with the utility owner, and/or the owner's representative in the adjustment or placement of utility facilities when such adjustment or placement is made necessary by the construction of the project or has been authorized by the Town.

In the event that utility services are interrupted by the Contractor, the Contractor shall promptly notify the owners and shall cooperate with the owners and/or the owner's representative in the restoration of service in the shortest time possible.

Existing fire hydrants shall be kept accessible to fire department personnel at all times.

Prior to submitting his bid, the Contractor shall make his own determination as to the nature and extent of the utility facilities, including proposed adjustments, new facilities, or temporary work to be performed by the utility owner or his representative; and as to whether or not any utility work is planned by the owner in conjunction with the project construction. The Contractor shall consider in his bid all of the permanent and temporary utility facilities in their present or relocated positions, whether or not specifically shown on the plans or covered in the project special provisions. It will be the Contractor's responsibility to anticipate any additional costs to him resulting from such utility work and to reflect these costs in his bid for the various items in the Contract.

Where changes to utility facilities are to be made solely for the convenience of the Contractor, it shall be the Contractor's responsibility to arrange for such changes and the Contractor shall bear all costs of such changes.

14. Inspection of Work:

The Director of Engineering and his representatives shall at all times have access to the work wherever it is in preparation or progress and the Contractor shall provide facilities for such access and for inspection.

If the specifications, the Director of Engineering's instructions, laws, or ordinances or any public authority require any work to be specially tested or approved, the Contractor shall give the Director of Engineering timely notice of its readiness for inspection. Inspections by the Director of Engineering shall be promptly made, and where practicable at the source of supply. If any work should be covered up without approval or consent of the Director of Engineering, it must, if required by the Director of Engineering, be uncovered for examination at the Contractor's expense.

The presence of the Engineer, Director of Engineering or Inspector at the work site shall in no way lessen the Contractor's responsibility for conformity with the contract. Should the Engineer, Director of Engineering, or Inspector, at any time before final acceptance or during the contractual warranty period, fail to point out or reject materials or work that does not conform to the contract, whether from lack of discovery or for any other reason, it shall in no way prevent later rejection or corrections to the unsatisfactory materials or work when discovered. The contractor shall have no claim for losses suffered due to any necessary removals or repairs resulting from the unsatisfactory work.

15. Changes in Work:

The Town of Wake Forest, the Engineering Department, without invalidating the Contract, may direct additional work, extra work or make changes by altering, adding or deducting from the work, the Contract sum being adjusted accordingly. In case the method of construction or character of any part of the work is not covered by the plans, specifications, or contract documents, these provisions shall apply. The Town reserves the right to add or delete resurfacing maps to or from the contract.

The Contractor shall perform all work in accordance with the plans, specifications, standard drawings, and contract documents or that may be modified by written orders and shall do such additional, extra, and incidental work as may be considered necessary to complete the work to the full intent of the plans, specifications and contract provisions. Unless otherwise provided in the contract, the Contractor shall furnish all implements, machinery, tools, materials, supplies, transportation and labor necessary for the prosecution and completion of the work.

When it is necessary to make amendments to the contract to satisfactorily complete the proposed construction or to provide authorized time extensions, the Director of Engineering or his agent shall have the authority to enter into a Town Change Order (TCO) covering such amendments.

Town Change Orders (TCO's) shall become a part of the contract when executed by the Director of Engineering or his agent and an authorized representative of the Contractor.

Additional Work

Additional Work or alterations of the plans or details of construction shall be governed by NCDOT Specifications for Roads and Structures (Latest Edition) – Section 104-3

Overruns and Underruns in Contract Quantities

Overruns and Underruns in contract quantities shall be governed by NCDOT Specifications for Roads and Structures (Latest Edition) – Section 104-5

Eliminated Contract Items

Eliminated Contract Items shall be governed by NCDOT Specifications for Roads and Structures (Latest Edition)– Section 104-6

Extra Work

Extra Work Items shall be governed by NCDOT Specifications for Roads and Structures (Latest Edition) – Section 104-7

Compensation and Record Keeping

Compensation and Record Keeping for items of work in this section shall be governed by the NCDOT Specifications for Roads and Structures (Latest Edition) – Section 104-8.

The following items shall be governed by section 104-8:

1. Compensation for Additional Work or Extra work.
2. Claims for additional compensation.
3. Claims for additional compensation for suspension of work or alleged suspension of work.

Final Determination will be made by the Director of Engineering on all claims for additional compensation before payment of the final project invoice.

Claims for Time Extension

All claims for time extension shall be governed by the NCDOT Specifications for Roads and Structures (Latest Edition) – 108-10

16. Conformity with Plans and Specifications:

All work performed, and all materials furnished shall be in reasonably close conformity with the lines, grades, cross sections, dimensions, and material requirements, including tolerances, shown on the plans, or indicated in the specifications.

In the event the Director of Engineering finds the materials or the finished product in which the materials are used not within reasonably close conformity with the plans and specifications, but that reasonably acceptable work has been produced, he will then make a determination if the work is to be accepted and remain in place. If the Director of Engineering agrees that the work is to be accepted, he will have the authority to make such adjustment in Contract price as he deems warranted based upon sound engineering judgment and the final estimate will be paid accordingly.

In the event the Director of Engineering finds the materials or the finished product in which the materials are used, or the work performed are not in reasonably close conformity with the plans and specifications and have resulted in an inferior or unsatisfactory product, the work or materials shall be removed and replaced or otherwise corrected by the Contractor at no cost to the Town.

17. Liquidated Damages and Delays:

- a) Liquidated Damages. If the work cannot be completed within the time stipulated in the Contract, including any extensions of time for excusable delays as herein provided, the Contractor shall pay to the Town of Wake Forest, a fixed and agreed amount, as liquidated damages for each calendar day of delay, until the work is completed, the amount as set forth in the Contract and the Contractor and his sureties shall be liable to the Town of Wake Forest for the amount thereof.

Liquidated Damages will not be waived during completion of the final project punchlist, unless the contract time has been extended as allowed by the contract provisions.

b) Excusable Delays. The right of the Contractor to proceed shall not be terminated nor shall the Contractor be charged with liquidated damages for any delays in the completion of the work due to:

- i. Any act or omission of the Town outside the scope of the Contract, including extra work; acts of God; unusually severe and abnormal weather conditions; acts of any other contractor in the performance of work for the Town; or other conditions, events, or circumstances beyond the control and without the fault or negligence of the Contractor, which the Contractor could not have reasonably anticipated; or
- ii. Any delay of any Subcontractor occasioned by any of the causes specified in subparagraph (1) above. Provided, however, the Contractor shall provide written notice to the Director of Engineering within ten (10) days from the occurrence, condition, event, or other cause which is claimed to have delayed the completion of the work. Such notice shall state what effect, if any, such occurrence, condition, event, or other cause is claimed to have upon the time for completing the Contract work, and shall state in what respects, if any, the Contract completion deadline should be revised, and the reasons, therefore. No claim by the Contractor for an extension of time for completion shall be considered unless notice of such delay claim is given the Town in accordance with the provisions of this subparagraph.

c) No Damages for Delays. The Town shall not be obligated or liable to the Contractor for, and the Contractor hereby expressly waives any claims against the Town for, any damages, costs, or expenses of any nature occasioned by delays, work disruptions or interference, changes in work sequence, work suspension or rescheduling arising from any act or omission of the Town outside the scope of the Contract, acts of God, unusually severe and abnormal weather conditions, or other causes beyond the Contractor's control, it being understood and agreed that the Contractor's sole and exclusive remedy in the event of his inability to achieve completion by the Contract deadline due to claimed delays shall be an extension of the Contract schedule, but only if a claim for such extension is properly made in accordance with the provisions of subparagraph (b) above.

18. Opening Sections of Project to Traffic:

The Town of Wake Forest, at its election, may give notice to the Contractor and place in use those sections of the improvements which have been completed, inspected, and can be accepted as complying with the technical specifications; and if, in its opinion, each such section is reasonably safe, fit, and convenient for the use and accommodations for which it was intended. On such sections which are open, the Contractor shall conduct the remainder of his operations to cause the least obstruction to traffic. The Contractor shall not be relieved of his liability or responsibility, shall not receive any additional compensation due to the added cost of the work, nor shall he receive any extension of the completion date, by reason of such openings.

The Contractor shall not be responsible for any maintenance cost due directly to the use of such sections. The period of guarantee stipulated in Section 51 – Guarantee of Work, shall not begin to

run until the date "of release of final inspection punch list items" for all work which the Contractor is required to construct under this Contract.

19. Town's Right to Do Work:

If the Contractor should neglect to prosecute the work promptly or fail to perform any provisions of the Contract, the Town, after 24 hours written notice to the Contractor, may without prejudice to any other remedy he may have, make good such deficiencies, and may deduct the cost thereof from the payment then or thereafter due the Contractor.

20. Correction of Work Before Final Payment:

Before issuing final payment, the Contractor shall promptly remove from the premises all materials condemned by the Director of Engineering as failing to conform with the Contract, whether incorporated in the work or not, and the Contractor shall promptly replace and re execute his own work in accordance with the Contract and without expense to the Town and shall bear the expense of making good all work of other Contractors destroyed or damaged by such removal or replacement.

21. Final Inspection, Clean Up and Project Final Acceptance:

a) Final Inspection

- i. When the improvements contained in this Contract are fully completed, the Contractor shall notify the Director of Engineering in writing that the work will be ready for final inspection on a definite date which shall be stated in the notice. The notice shall be given at least ten (10) days prior to the date stated for final inspection and bear the signed concurrence of the representative of the Director of Engineering having charge of the inspection. If the Director of Engineering determines that the status of the improvements is accurately represented, the Director of Engineering will make the arrangements necessary to have the final inspection on the date stated in the notice, or soon thereafter as is practicable. The Final Inspection Team will include the Director of Engineering's representatives and the Contractor. The Final Inspection Team may also include representatives of each department of the Town of Wake Forest as well as a representative of the North Carolina Department of Transportation.
- ii. The Final Inspection Team, on the date agreed upon in 21.01(a), shall make a thorough visual inspection to ensure that the project is fully completed according to the plans and specifications of the Contract and that all clean-up work is complete.
- iii. The Final Inspection Team, following the final inspection, shall prepare a written list of the deficient items and clean-up work that needs to be corrected before the issuance of the Final Acceptance Document.

b) Clean Up Work

Clean up work shall include removal of resurfacing materials and debris, and trash in the medians, rights of way, and driveways of the project and intersecting streets.

c) Project Final Acceptance

The Contractor, after finishing all clean-up work and correction of all deficient items, shall notify the appropriate party on the Inspection Team to make a final inspection of the project. If the Final Inspection Team, during its inspection finds that the deficient items and clean-up work have been fully completed according to the terms of this Article and the contract specifications, then the Final Inspection Team recommends to the Director of Engineering's Representative to issue the Final Acceptance Document.

22. Payments to Contractor and Retainage:

a) Partial Payments

- i. Partial payment will be based upon progress estimates prepared by the Director of Engineering once each month on the date established by the Director of Engineering.
- ii. Monthly or partial payments made by the Town of Wake Forest to the Contractor are monies advanced for the purpose of assisting the Contractor to expedite the work of construction. The Contractor shall be responsible for the care and protection of all materials and work upon which payments have been made until final acceptance of such work and materials by the Town of Wake Forest. Such payments shall not constitute a waiver of the right of the Town of Wake Forest to require the fulfillment of all terms of the contract and the delivery of all improvements embraced in this contract complete and satisfactory to the Town of Wake Forest in all details.

b) Pay Application

The Pay Application must be submitted promptly and accurately reflecting both the work completed during the billing period and the line items completed per street. Additionally, the contractor must keep accurate records of line items completed for each street and pay period. These records shall be provided upon request by the Director of Engineering or their representative during the review of the submitted Pay Application for the relevant period.

c) Retainage

Retainage will be deducted in accordance with Section 30 of the Contract documents.

d) Final Payment

- i. After final inspection and acceptance by the Town of Wake Forest and Director of Engineering all work under the contract, the Contractor shall prepare his requisition for final payment which shall be the sum of the Bid Unit Prices multiplied by the quantities actually issued or this sum adjusted by approved change orders less prior payments. Final payment request must be accompanied by the Final Payment Affidavit.
- ii. The Town of Wake Forest, before paying the final estimate, may require the Contractor to furnish releases or receipts from all subcontractors having performed any work and all persons having supplied materials, equipment, and services to the Contractor, if the Town of Wake Forest deems the same necessary in order to protect its interest. The Town of Wake Forest, however, may, if it deems such action

advisable, make payment in part or in full to the Contractor without requiring the furnishing of such releases or receipts and any payments so made shall in no way impair the obligations of any surety or sureties furnished under the contract.

- iii. Withholding of any amount due the Town of Wake Forest as "Liquidated Damages", shall be deducted from payments due to the Contractor. The Town may withhold on account of subsequently discovered evidence, nullify whole or part of any certificate to such extent as may be necessary to project itself from loss on account of:
- Defective work not remedied.
 - Claims filed or reasonable evidence indicating probable filing of claims.
 - Failure of the Contractor to make payments properly to Subcontractor or for materials or labor.
 - A reasonable doubt that the Contract can be completed for the balance unpaid.
 - Damage to another Contractor.

When the above items have been cleared to the satisfaction of the Director of Engineering, payment shall be made for amounts withheld because of them.

23. Town's Right to Terminate Contract:

If the Contractor should be adjudged as bankrupt, or if he should make a general assignment for the benefit of his creditors, or if a receiver should be appointed on account of insolvency, or if he should persistently or repeatedly refuse or should fail, except in cases for which extension of time is provided, to supply enough properly skilled workmen or proper materials, or if he should fail to make prompt payment to Subcontractors or for material or labor, or persistently discharged laws, ordinances or the instructions of the Director of Engineering, or otherwise be guilty of a substantial violation of any provision of the contract, then the Town, upon the certificate of the Director of Engineering that sufficient cause exists to justify such action, may without prejudice to any other right or remedy and after giving the Contractor seven days written notice, terminate the employment of the Contractor and take possession of the premises and of all materials, tools, appliances, there and finish the work by whatever method it may deem expedient. In such case, the Contractor shall not be entitled to receive any further payment until the work is finished. If the unpaid balance of the contract price shall exceed the expense of finishing the work, including compensation for additional managerial and administrative services, such excess shall be paid to the Contractor. If such expense shall exceed the unpaid balance, the Contractor shall pay the difference to the Town. The expense incurred by the owner as herein provided, and the damage incurred through the Contractor's default, shall be certified by the Director of Engineering.

24. Contractor's Right to Stop Work or Terminate Contract:

If the work should be stopped under an order of any Court, or other public authority, for a period of three months, through no act or fault of the Contractor or of anyone employed by him, then the Contractor may, upon seven days written notice to the Director of Engineering, stop work or terminate this contract and recover from the Town payment for all work executed and loss sustained upon any plant or materials and reasonable profit and damages.

25. Liability Insurance:

The Contractor shall maintain such insurance as will protect him from claims under workman's compensation acts and such other insurance as will protect him and the Town from any other claims for damages for property damage and personal injury, including death, which may arise from operations under this contract whether such operations be by himself, or by any subcontractor or anyone directly or indirectly employed by either of them. Certificates of insurance shall be filed with the Director of Engineering, if he so requires, and shall be subject to his approval for adequacy of protection. Policies of insurance coverage for personal liability and property damage shall be submitted.

26. Care of Work:

a) The Contractor shall be responsible for all damages to person or property that occur as a result of his fault or negligence in connection with the prosecution of the work and shall be responsible for protection of all materials delivered and work performed until completion and final acceptance, whether or not the same has been covered in whole or in part by payments made by the Town of Wake Forest.

b) In an emergency affecting the safety of life or property, including adjoining property, the Contractor, without special instructions or authorization, is authorized to act at his discretion to prevent such threatened loss or injury and he shall so act. He shall likewise act if instructed to do so by the Town of Wake Forest. Any compensation claimed by the Contractor on account of such emergency work will be determined by the Town of Wake Forest as provided in Section 15 "CHANGES IN WORK" under GENERAL CONDITIONS.

c) The Contractor shall avoid damage as a result of his operations to existing sidewalks, streets, curbs, pavements, utilities (except those which are to be replaced or removed), adjoining property, etc., and he shall at his own expense completely repair any damage thereto caused by his operations.

d) The Contractor shall shore up, brace, underpin, secure, and protect as may be necessary, all foundations and other parts of existing structures adjacent to, adjoining, and in the vicinity of the site, which may be in any way affected by the excavations or other operations connected with the construction of the improvements embraced in this contract. The Contractor shall be responsible for the giving of any and all required notices to any adjoining or adjacent property owner or other party before the commencement of any work. The Contractor shall indemnify and save harmless the Town of Wake Forest from any damages on account of settlements or the loss of lateral support of adjoining property and from all loss or expense and all damages for which the Town of Wake Forest may become liable in consequence of such injury or damage to adjoining and adjacent structures and their premises. Any claim for damage arising under this contract shall be made in writing to the party liable within reasonable time of the first observance of such damage.

27. Safety and Accident Prevention:

a) General

The Contractor shall exercise proper precautions at all times for the protection of persons and property and shall be responsible for all damages to persons or property, either on or off the site, which occur as a result of his prosecution of the work. The Contractor shall abide by all applicable

safety standards and regulations contained in the Occupational Safety and Health Act, for the construction industry and any other applicable Laws.

- i. All excavation and trenching work shall conform to OSHA requirements under 29 CFR Part 1926 Subpart P and any other applicable requirements.
- ii. The Contractor shall have an employee who is a designated competent person as described under OSHA regulations, 29 CFR Part 1926 Subpart P. The person shall be capable of identifying existing or predictable hazards in the surroundings, or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.
- iii. The Contractor shall provide and maintain safety equipment as outlined under OSHA 29 CFR Part 1926 Subpart P and other applicable safety provisions, which include trench boxes, ladders, shoring, barricades, warning vests, gas monitors, meter for hazardous atmospheres and other necessary safety equipment to protect the employees and the job site.

b) Records

The Contractor shall maintain an accurate record of all cases of death, occupational diseases, and injury requiring medical attention or causing loss of time from work, arising out of and in the course of employment on work under the contract. The Contractor shall promptly furnish the Town of Wake Forest with reports concerning these matters.

c) Indemnity

The Contractor shall indemnify and save harmless the Town of Wake Forest from any claims for damages resulting from personal injury and/or death suffered or alleged to have been suffered by any person as a result of any work conducted under this contract.

29. Sanitary Facilities:

The Contractor shall furnish, install, and maintain ample sanitary facilities for the workers. As the needs arise, a sufficient number of enclosed temporary toilets shall be conveniently placed as required by the sanitary codes of the State and Town of Wake Forest. Drinking water shall be provided from an approved source, so piped or transported as to keep it safe and fresh and served from single service containers or satisfactory types of sanitary drinking stands or fountains. All such facilities and services shall be furnished in strict accordance with existing and governing health regulations.

30. Use of Premises:

a) The Contractor shall confine his equipment, storage of materials, and construction operations to the contract limits as shown on the Drawings or if no contract limits are shown, to the right of way shown and as prescribed by ordinances or permits or as may be directed by the Town of Wake Forest and shall not unreasonably encumber the site or public rights of way with his materials and construction equipment.

b) The Contractor shall comply with all reasonable instructions of the Town of Wake Forest and the ordinances and codes of the Town of Wake Forest, regarding signs, advertising, traffic, fires, explosives, danger signals, and barricades.

31. Liens:

Neither the final payment nor any part of the retained percentage shall become due until the Contractor, shall deliver to the Town a complete release of all liens arising out of the contract, or receipts in full in lieu thereof and, if required in either case, an affidavit that so far as he has knowledge or information the releases and receipts include all labor and materials for which a lien could be filed but the Contractor may, if any subcontractor refuses to furnish a release or receipt in full, furnish a bond satisfactory to the Director of Engineering, to indemnify the Town against any lien. If any lien remains unsatisfied after all payments are made, the Contractor, shall refund to the Town all monies that the latter may be compelled to pay in discharging such a lien, including all costs and a reasonable attorney's fee.

A copy of the Affidavit is included with the Payment Bond Contract and shall be submitted with the Contractor's request for final payment.

32. Working Time Restrictions:

Intermediate Contract Time No. 1

No work on or street obstruction shall occur during the peak traffic hours of 6:30 a.m.-8:30 a.m. or 5:00 p.m.- 7:00 p.m., Monday through Friday, on the following streets.

- a) Forestville Road, Coach Lantern Ave., and Green Drake Dr.

Work adjacent to traffic lanes may occur during these hours if proper signage and safety precautions are in effect as described in latest edition of the Manual on Uniform Traffic Control Devices.

The Contractor shall have monies withheld due to public inconvenience, obstruction and delay to traffic, safety, and other considerations, for any work performed on time restricted streets during 6:30 a.m. to 8:30 a.m. or 5:00 p.m. to 7:00 p.m., Monday-Friday at the rate of \$500.00 for every 15 minutes of violation or fraction thereof.

All town noise ordinances shall be observed, and Contractors are required to satisfy Town's ordinances Article III, Section 14-70.

No traffic lane closure (through or turn lane) shall occur on Red Alert Days. Red Alert Days are determined by North Carolina Ozone Forecast Center, Division of Air Quality.

The Contractor shall notify the Director of Engineering 72 hours in advance of any work scheduled on weekends.

No work on or street obstruction shall occur near heavy traffic generating venues during events such as, but not limited to amphitheaters, churches (Sunday), stadiums, etc. as directed by the Town. Such events shall include, but are not limited to, concerts, road races, parades, festivals, etc.

Intermediate Contract Time No.2

When approved by the Town, night work shall be performed between the hours of 7:00 p.m. to 6:00 a.m. unless otherwise specified. Night shift work pay quantities shall be recorded on the day the shift begins. Patching, milling, and resurfacing operations may be performed at night on the following streets: Forestville Rd, Coach Lantern Ave, and Green Drake Dr.

Message Boards will be required three (3) days in advance of work beginning for traffic notification.

The Contractor shall have monies withheld due to public inconvenience, obstruction and delay to

traffic, safety, and other considerations, for any work performed on night work restricted streets during 6:00 a.m. until 7:00p.m. Monday-Friday at the rate of \$500.00 for every 15 minutes of violation or fraction thereof.

Intermediate Contract Time No. 3

For all streets that have milling recommendations as Full Mill (0"-2") or Mill & Fill (0"-3") at any depth, shall be paved back within 72 hours of initial milling activities for the street.

The Contractor shall have monies withheld due to public inconvenience, obstruction and delay to traffic, safety, and other considerations, for any work performed on these streets during at a rate of \$500.00 for every calendar day past either the 72-hour requirement or same working day requirement, whichever one applies for the individual street.

34. Holiday Time Restrictions

The Contractor shall not narrow or close a lane of traffic on any road, detain and /or alter the traffic flow, and/or perform any work on or during holiday weekends, special events, or any other time when traffic is unusually heavy, including the following schedules without first obtaining approval from the Town of Wake Forest project representative:

- a) For unexpected occurrence that creates unusually high traffic volumes, as directed by the Engineer.
- b) For New Year's Day, between the hours of 6:00 P.M. December 31st and 7:00 A.M. January 2nd. If New Year's Day is on a Friday, Saturday, Sunday, or Monday, then until 7:00 A.M. the following Tuesday.
- c) For Easter, between the hours of 6:00 P.M. Thursday and 7:00 A.M. Monday.
- d) For Memorial Day, between the hours of 6:00 P.M. Friday and 7:00 A.M. Tuesday.
- e) For Independence Day, between the hours of 6:00 P.M. the day before Independence Day and 7:00 A.M. the day after Independence Day. If Independence Day is on a Friday, Saturday, Sunday, or Monday, then between the hours of 6:00 P.M. the Thursday before Independence Day and 7:00 A.M. the Tuesday after Independence Day.
- f) For Labor Day, between the hours of 6:00 P.M. Friday and 7:00 A.M. Tuesday.
- g) For Veteran's Day, between the hours of 6:00 PM November 10th and 7:00 AM November 12th.
- h) For Thanksgiving Day, between the hours of 6:00 P.M. Tuesday and 7:00 A.M. Monday.
- i) For Christmas, between the hours of 6:00 P.M. the Friday before the week of Christmas Day and 7:00 A.M. the following Tuesday after the week of Christmas Day.

Holidays and holiday weekends shall include New Year's, Easter, Memorial Day, Independence Day, Labor Day, Thanksgiving, and Christmas. The Contractor shall schedule his work so that lane closures are not required during these periods, unless otherwise directed by the Engineer.

The time of availability for this intermediate contract work shall be the time the Contractor begins to install all traffic control devices for lane closures according to the time restrictions listed herein.

The completion time for this intermediate contract work shall be the time the Contractor is required to complete the removal of all traffic control devices for lane closures according to the time restrictions stated herein and place traffic in the existing traffic pattern.

The Contractor shall have monies withheld due to public inconvenience, obstruction and delay to traffic, safety, and other considerations, for any work performed during Holiday Time Restrictions at the rate of \$500.00 for every 15 minutes of violation or fraction thereof.

35. Assignment:

Neither party to the contract shall assign the contract or sublet it as a whole without the written consent of the other, nor shall the Contractor assign any monies due or to become due to him hereunder, without previous written consent of the Board of Commissioners of the Town of Wake Forest.

36. Citizen Notification:

The contractor shall be responsible for notifying, in writing, all property owners/residents directly affected by this project, as well as the HOA, just prior to beginning construction. A copy of this notification shall be submitted and approved by the Director of Engineering or his duly appointed representative prior to its issuance to the residents. This also includes all businesses whether owned, leased or rented by the property owner of record.

Notices are to be mailed and delivered. Hand delivered notices shall be door-hanger type printed on card stock.

The contractor shall distribute Notice of Schedule to resurface Notice of Work a minimum of 1-MONTH in advance of when resurfacing is planned. Notice of Schedule sent to residents should consist of no more streets than the streets proposed for resurfacing for a 1-week period.

The contractor shall distribute Notice of Work and signs to be performed a minimum of 72-HOURS but no more than 2-WEEKS prior to performing such work. In the event resurfacing is scheduled for a weekend or holiday, the Notice of Work and signs shall be distributed a minimum of 72-HOURS but no more than 120-HOURS prior to the resurfacing.

The contractor shall post "Temporary No Parking" signs at least 3 feet above ground in conspicuous places facing traffic a minimum of 72-HOURS prior to actual resurfacing with a maximum spacing of 100 ft. required. A closer spacing may be required as directed by the Town of Wake Forest. Parking shall not be restricted for more than 7 days unless approved by the Town. The expected date and duration of resurfacing shall be posted on the "Temporary No Parking" sign. The duration for temporarily prohibiting parking shall not exceed 7 days. It shall be the contractor's responsibility to update the "Temporary No Parking" signs and work dates with any changes to the project schedule. Updates to the signs must be documented. Pictures with time stamps are the preferred documentation. Other forms of documentation need approval from the Town's engineer. It is the contractor's responsibility to keep this record and provide it if requested. The cost of towing and vehicle storage will be the responsibility of the contractor if proof of posted signs and notices cannot be provided.

The time of day that "Temporary No Parking" signs and Notices of Work are posted should be recorded along with the license numbers of cars parked on the street at that time and a copy made available for the Director of Engineering and the POLICE DEPARTMENT if towing is necessary. The document is to be electronic and searchable.

If towing is necessary, the Director of Engineering or his designee will make the final decision if the vehicles are to be towed. The time and location in which the "Temporary No Parking" signs were posted, and the Notices of Work were distributed will be a considering factor for the towing of vehicles.

On the day of actual work, any towing necessary shall be the responsibility of the Contractor, in accordance with Town of Wake Forest Codes, Section 30-3 and Section 30-53, and Section 30-164. Police contact number is 919-554-6150.

Special permission may be required by agencies performing work within the street right-of-way under the following conditions. This permit may be required when:

- (a) When the traveled portion of the roadway is obstructed between the hours of 7 a.m. to 9 a.m. and 4 p.m. to 6 p.m. if the street involved is marked with either painted center lines or lane lines.
- (b) Any street which is totally closed to through traffic.
- (c) Any streets within the business area.

Contractor shall notify the Town during distribution of citizen notifications if the street meets the above criteria. Any needed permits shall be coordinated through the Engineering Department in advance. The Director of Engineering has the authority to approve or deny issuance of any permit.

37. Separate Contracts:

The Town reserves the right to let other contracts in connection with this work. The Contractor shall afford other Contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work and shall properly connect and coordinate his work with others.

38. Subcontracted Work and Subcontractors:

- a) The Contractor shall, as soon as practicable after the signing of the contract, notify the Director of Engineering in writing of the names of subcontractors proposed for the work and shall not employ any subcontractors that the Director of Engineering may within a reasonable time object to as incompetent or unfit. The Contractor agrees that he is as fully responsible to the Town for the acts and omissions of his subcontractor and of persons either directly or indirectly employed by them, as he is for the acts and omissions of persons directly employed by him. Nothing in the Contract Documents shall create any contractual relation between any subcontractor and the Town.
- b) The Contractor shall obtain approval of subcontractors as well as any change in subcontractors during the work on the contract from the Director of Engineering. A period of seven (7) days minimum is required for the approval of a subcontractor.

39. Points and Instructions:

The Contractor shall provide reasonable and necessary opportunities and facilities for setting points and making measurements. He shall not proceed until he has made timely demand upon the Director of Engineering for, and has received from him, such points and instructions as may be necessary as the work progresses. The work shall be done in strict conformity with such points and instructions.

The Contractor shall carefully preserve benchmarks, reference points, markings and stakes, and in case of willful or careless destruction, he shall be charged with the resulting expense and shall be

responsible for any mistakes that may be caused by their unnecessary loss or disturbance.

40. Status of Director of Engineering:

The Director of Engineering shall have general supervision and direction of the work. He has authority to stop the work wherever such stoppage may be necessary to insure proper execution of the contract. He shall also have authority to reject all work and materials which do not conform to the contract, to direct the application of force to any portion of the work, as in his judgment is required, and to order the force increased or diminished, and to decide questions which arise in the execution of the work.

41. Director of Engineering's Decision:

The Director of Engineering shall, within a reasonable time after their presentation to him, make decisions in writing on all claims of the Town or the Contractor and on all other matters relating to the execution and progress of the work or the interpretation of the contract documents. All such decisions of the Director of Engineering shall be final.

42. Lands for Work:

The Town shall provide the lands upon which the work under this contract is to be done, except that the Contractor shall provide land required for staging, the erection of temporary construction facilities and storage of his materials, together with right of access to same.

43. Cleaning Up:

The Contractor shall, as directed by the Director of Engineering, remove from the Town's property and from all other public and private property, at his own expense, all temporary structures, rubbish, and waste materials resulting from his own operations.

44. Access to Property:

The Contractor shall, where necessary, provide and maintain access to and from all properties along the line of his work.

45. Safeguards:

The Contractor shall provide, erect, and maintain adequate barricades, warning signs, and lights at all excavations, closures, detours, and points of danger.

46. Survey Construction Stakes:

- a) The Contractor shall furnish all surveys, unless otherwise specified.
- b) The Contractor shall be responsible for preserving all stakes and marks.

47. Materials Sampling and Testing:

All tests of material shall be made by a recognized and approved testing laboratory designated by the Director of Engineering. The expense of such tests shall be borne by the Town unless otherwise specified.

The Engineer shall have the option to reject request for testing due to the Contractor's inadequate preparation of material or other reasonable causes determined by the Engineer as necessary for the delay of testing. The Contractor shall notify the Director of Engineering 48 hours ahead of time for the needed test.

48. Tools, Plant and Equipment:

If at any time before the commencement or during the work, tools, plant, or equipment appear to the Director of Engineering to be insufficient, inefficient, or inappropriate to secure the quality of the work required or the proper rate of progress, the Director of Engineering may order the Contractor to increase their efficiency, to improve their character, to augment their number, or to substitute new tools, plant or equipment as the case may be, and the Contractor must conform to such order; but the failure of the Director of Engineering to give such an order shall not relieve the Contractor to secure the quality of work and the rate of progress necessary to complete the work within the time required.

49. Measurement of Quantities:

The quantities of work performed will be computed by the Director of Engineering on the basis of measurements taken by him or his assistants, and these measurements shall be final and binding. The specifications shall designate the manner in which the measurements of the various types of work shall be measured.

50. Working Day Defined:

A day shall be counted as a working day in the opinion of the Director of Engineering, whether conditions would permit the Contractor to do six (6) hours of work within daylight hours. Days of delay due to acts of GOD, strikes, court orders, and things of like nature causing delay of the work shall not be counted a working day. The Director of Engineering shall keep a daily record of working conditions and when requested to do so, he/she shall furnish the Contractor within a reasonable time the number of working days that have elapsed.

Unless crews are on site prior to 1:00 p.m. of any workday, the Director of Engineering has the right to refuse any work that the Contractor may do. To start work after 1:00 p.m. on a workday, the Contractor must have prior permission from the Director of Engineering. Should this occur, it will be counted as a working day that the Contractor should have worked. It will not be counted as a day of delay. When work is to resume, one (1) day prior notice must be given to the Director of Engineering. That work will begin the next day. There are specific streets that need to be paved on weekends (Saturday and Sunday). Where possible, streets that can be identified, will be marked, streets not marked on Contract, as weekend work, may be added by the Transportation Director. Advance notice must be given to Contractor, and a date mutually set to pave on that weekend.

51. Project Time Defined:

Project time shall consist of all calendar days, including weekends and holidays, from the contract notice to proceed date through the specified number of days allowed for the completion of the project in the contract document. The Contractor has been given a project time inclusive of an anticipated amount of bad weather, be it due to the winter months or abnormal rainfall during the remainder of the calendar year.

52. Guarantee of Work:

The Contractor shall guarantee his work performed under his contract against failures or trouble due to faulty workmanship or materials for a period of twelve (12) months from the date of acceptance of the work.

53. Force Account Work:

Force account work shall be performed when pricing associated with changes in work in Item 15

cannot be agreed upon by the Town and Contractor.

No work shall begin without the express approval of the Director of Engineering or his authorized agent.

All information shall be submitted and approved along with recordkeeping performed in accordance with the North Carolina Department of Transportation Standard Specifications Article 109-3.

54. Disposal of Waste Materials from Street and any Other Types of Construction:

Disposal of all waste material from construction sites shall be made in strict accordance with all Town ordinances pertaining to disposal of construction waste. It shall be the responsibility of the Contractor to secure the necessary permits and provide all information required to secure said permits. The Contractor shall designate the disposal site prior to beginning construction and in the event waste material is to be disposed of on private property a letter from the property owner shall be furnished the Director of Engineering granting the Contractor or his agent such permission and listing the requirements made by the property owner or the Contractor, if any.

55. Contractor License:

All invited bidders and contractors shall be advised that those who submit formal bids on this project must be licensed in the State of North Carolina whether he (they) is/are a resident or nonresident of this State, in accordance with GS 87 10 and shall be advised that they must show evidence of a license issued by the North Carolina Licensing Board for General Contractors before the bid is considered. The bidders are advised that Article 37 Subcontractors, of the General Conditions shall be strictly adhered to during the term of this contract.

56. Emergency Work Crew:

The Contractor and/or the Contractor's subcontractors shall provide an emergency repair crew with adequate trucks and other equipment available when needed to make repairs, clean up, signing and other work required in connection with this contract. This repair crew shall be on call during non-working hours and during weekends and holidays. The name, address, and phone number of at least two responsible members of this crew shall be provided the Director of Engineering or his representatives prior to beginning any work. The members of this crew shall be based, reside, live, or stay in Wake County during the periods that they are on call. Should this "emergency" crew be unavailable for any reason when needed, the Town shall have the right have the required work performed by the quickest means available and the Contractor shall be back charged at a rate of two (2) times the total cost to the Town.

57. Construction Water:

- a) Contractors are responsible for securing adequate construction water for their job sites.
- b) All construction water usage must be metered and will be billed to the Contractor. The Contractor must contact the Public Utilities Department, Meter Services Division (919-250-2737) to make the applicable arrangements for billing the water usage. The Contractor may provide his own meter or if available upon advance notice to the Public Utilities Department, a number changed to meter will be provided. If the Contractor provides his own meter it must meet City of Raleigh standards for the meter and include a backflow device.
- c) Construction water for all Town contract projects shall be billed by the City of Raleigh,

Public Utilities Department.

- d) Contractors must furnish the following information for water usage.
 - i. Meter location and project name.
 - ii. Address where applicable and responsible party name.
 - iii. Duration of use and frequency of meter reading.
- e) Contractors observed using unmetered water will be fined by the City of Raleigh, Public Utilities Department in accordance with City of Raleigh Code provisions.
- f) Contractors are to reference the Public Utilities Handbook, Part 10, entitled Construction Specifications for Water and Sewer Mains, for additional regulations applicable to construction water usage.

58. Dust Control:

The Contractor shall, as directed by the Director of Engineering provide adequate equipment and use other available means to control the dust during the term of this contract. Failure on the part of the Contractor to correct dust control problems as directed will result in the Director of Engineering notifying the Contractor to comply with the contract provisions. In the event that the Contractor fails to begin such remedial action within 24 hours after receipt of such notice, the Director of Engineering may proceed to have the work performed with other forces. The actual cost of the work so performed along with a 20% administrative fee will be deducted from monies due to the Contractor on his contract. Under adverse conditions, the Director of Engineering may choose to suspend the Contractor's operations on the project until all dust control problems have been completed to his satisfaction. Such suspension will not justify an extension of contract time.

59. Traffic Control:

All traffic control shall be performed in accordance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD) and NCDOT Standard Drawings.

The contractor shall provide all traffic control devices and signs including Portable Changeable Message Signs (PCMS) in accordance with MUTCD to warn the traveling public. PCMS are required on all streets with four (4) or more marked lanes. PCMS shall be installed at least three (3) days in advance of work and maintained throughout the duration of the work.

Two-way traffic shall be maintained at all times unless otherwise approved by the traffic control plan. Total road closures shall not be allowed.

Any work performed without traffic control per MUTCD, will not be paid for by the Owner.

Contractor to submit any lane closures and detour plans to the Town's Cognito Forms at least one week in advance (each occurrence).

60. Clearing Tree Limbs and Vegetation:

It shall be the responsibility of the Contractor to remove vegetation and tree limbs less than 6" diameter from the street right-of-way that present an obstruction to performing street maintenance on the streets listed in the Contract. No separate payment will be made for clearing tree limbs and vegetation as such work will be incidental to resurfacing.

The Contractor shall notify the Town at least 30 days in advance of the scheduled work of any tree

limbs 6" diameter or greater for the Town to have removed.

The Contractor shall notify the Town at least 30 days in advance of the scheduled work of any shrubs or ornamental trees on private property that overhang into the right-of-way and present an obstruction. The Town will arrange for the obstruction to be removed.

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STANDARD GENERAL PROVISIONS

All construction shall conform to pertinent OSHA requirements, City of Raleigh Standards and Specifications, Town of Wake Forest Standards and Specifications, and NCDOT Standard Specifications for Roads and Structures. Editions in effect at the time of the bid date shall govern.

1. Construction Progress Schedule and Bi-Weekly Meetings

The Contractor shall provide, at the pre-construction conference, a completed Town of Wake Forest progress schedule. The schedule shall be kept up to date and presented with each month's billing information and shall be made available at the bi-weekly progress meetings and at other times as may be deemed necessary by the Director of Engineering or his representative. The Contractor will be represented at bi-weekly progress meetings during the construction of this project. The meetings will be held at the project site or in the Town offices as determined by the Town.

2. Contract Completion and Progress Schedule Liquidated Damages

- 1) If this Contract is awarded, the bidder must, upon completion of this Contract, or at any other time requested, furnish to the Town of Wake Forest an accurate itemized statement of North Carolina Sales Tax paid on materials, supplies, equipment, and any other items charged to this Contract, and otherwise fully comply with the "Procedure for Reporting North Carolina Sales Tax Expenditures", attached.
- 2) The bidder further agrees to begin work within 10 calendar days from date of Contract Notice to Proceed.
- 3) The bidder represents and agrees to complete Forestville Road and Coach Lantern Avenue Intersection Improvements work by October 30, 2026.

Failure to complete the work within the contract time will result in damages due to public inconvenience, obstruction and delay to traffic, safety, and other considerations. For each consecutive calendar day in excess of the contract time specified, the Contractor shall pay, or have withheld monies due, a sum of ONE THOUSAND FIVE HUNDRED DOLLARS (\$1,500.00) per day.

3. Unit Bid Price

The unit bid price on the items in this contract shall include all materials, labor, equipment, and incidentals necessary to satisfactorily install said items completely in place and accepted unless otherwise mentioned in this contract document.

4. Point of Contact

The Contractor upon start of construction shall provide the Engineer with names, addresses, and telephone numbers of two people to be contacted after office hours in case of emergency.

5. Material Tickets

The Contractor shall turn in all material tickets for the purpose of payment to the Project Inspector on a daily basis.

6. Trenches

All trenches shall be backfilled and made safe at the end of each workday. Payment for installation of utility and drainage lines that requires open cut to existing pavement shall include the cost of pavement for repairs (including pavement saw cut and removal) as incidental to the installation of the utility. No separate payment will be made for this work unless otherwise specifically mentioned in this contract.

7. Subsurface Investigation

The Contractor shall make his/her own subsurface investigations. Any information obtained by the Town as a result of its own subsurface investigations will be made available upon request. This information is provided for informational purposes only and shall not relieve the Contractor of responsibility for making his own investigations.

8. Grading, Shoulders and Slopes

Shoulders and slopes shall be free of all stone and clods that exceed one inch in diameter. Fine grading (raking) shall take place just before seeding and mulching. No separate payment will be made for shoulder construction or material for shoulder construction as all work necessary to complete the work will be considered incidental to other items in the contract unless otherwise provided in the contract.

9. Traffic Control

The Contractor shall provide all traffic control devices and signs to warn the traveling public in accordance with the latest Manual on Uniform Traffic Control Devices (MUTCD) and NCDOT Standard Drawings. Two-way traffic shall be maintained at all times, unless otherwise required by the traffic control plan.

10. Materials and Equipment Storage and Parking

When vehicles, equipment, and materials are not being actively used they shall be moved at least 30 feet away from the edge of any travel way open to traffic (or as directed by the Engineer). All debris shall be immediately moved to a location at least 30 feet from the edge of any travel way open to traffic. If vehicles, equipment, materials, and debris are protected by guardrail or barrier, a 5-foot minimum offset from the rail shall be used.

11. Personnel Parking

All personnel involved with construction operations shall not park their personal vehicles within the right of way of the project limits for the duration of the construction project. The Contractor shall furnish a parking area that is located off the project limits. The Contractor shall be responsible for daily transportation of all employees to and from the provided parking area and the project site.

There will be no direct payment for the work cover by this provision. Payment at the contract unit prices for the various items in the contract will be full compensation for all work covered by this provision.

12. Sidewalk, Driveway, Curb & Gutter Removal and Replacement

Care should be taken during construction to avoid damaging the existing sidewalk, curb & gutter, and pavement outside the immediate construction area. If damaged, it shall be replaced in accordance with the NCDOT Standard Specifications for Roads and Structures, Town of Wake Forest Standards, as determined by the Engineer, without extra cost to the Town. Prior to construction, the Contractor shall inspect the site and report to the Engineer any damages existing before construction.

The Contractor shall be advised that when a portion of any area of concrete driveways, curb and gutter and pavement must be removed, all areas to be removed shall be defined by a machine-sawed joint, prior to

removal. Saw cut of concrete driveway, curb & gutter and pavement are considered incidental to removal unless otherwise provided in the contract.

13. Maintenance of Mailboxes, Signs, Miscellaneous Appurtenances

The Contractor shall be required to maintain mailboxes, signs and all miscellaneous appurtenances impacted by construction activities in working order for the duration of construction as directed by the Engineer. Work on the same items shall be done in a timely manner. No separate payment for work on these items will be made as the work will be considered incidental to other items in the contract unless otherwise mentioned in the contract document.

14. Project Completion

When the project is nearing completion, the Town will obtain comments from the impacted property owners concerning items that are outstanding, yet to be completed. The Engineer will determine which items have sufficient justification to be included in the final punch-list, and the Contractor will be required to complete these items with no additional payment and in a timely fashion.

15. Videotape of Project Site

The Contractor will videotape the project site in its entirety before construction begins, with emphasis on properties adjoining the project, drives, trees, appurtenances, and other distinguishing features. Appropriate narration will include location and description of property and physical features. The Contractor will provide two copies of the project tape in USB or Electronic format to the Town. No separate payment will be made for this work, and all associated costs will be considered incidental to other items in the contract.

16. Coordination with Utility Companies

(See Article 13 of General Conditions)

Utilities as shown on the plans are intended to represent general locations only. It shall be the responsibility of the Contractor, prior to construction, to contact appropriate utility owners and precisely locate utilities that could be affected by the proposed construction. If the utility belongs to the Town of Wake Forest or the City of Raleigh, the Contractor shall dig sample holes to uncover the utility. The digging of sample holes shall be coordinated with the Engineer who will determine the number of such holes and will schedule the Town of Wake Forest or the City of Raleigh to locate utility vertical and horizontal locations. There is no line item to pay for digging work. Work is considered incidental to other pay items.

The Contractor shall be responsible for repair of any damage to the utility as well as any other damage may be caused due to the disturbance of the utility. The Contractor will not be permitted to submit any claims for delays caused by utility relocation and proposed utility construction.

The Town has coordinated designs of utility relocation with private utility owner representatives. Existing utility, design and conflict resolution plans are included as a part of the contract.

The Contractor shall be responsible for coordinating concurrent construction directly with utility owner representatives. Coordination efforts and concurrent construction conflicts will be addressed and discussed during the pre-construction meeting. The Town, at the time of pre-construction conference, will provide names, addresses and telephone numbers of private utility owner representatives.

All underground utilities may not have been identified. The Contractor shall call North Carolina One Call to identify underground utilities before starting any digging and/or excavation operation.

The Contractor shall be responsible for field verifying heights and locations of power lines and will be required to maintain the distance from the power lines in accordance with local, State and Federal Safety regulations.

17. Protection of Existing Plants

The work under this item shall consist of the protection of selected trees, shrubs, or other woody plants.

The plants protective fencing shall meet the requirements of Town of Wake Forest. Fencing shall encompass the plants to the dripline. Deviations from this must be approved by the Engineer.

Plant protective fencing shall be installed prior to beginning any construction on this project. Plant protective fencing shall be constructed at the locations as directed by the Engineer and in accordance with Town specification. The fencing shall be maintained in place until all construction operations in that particular area are complete. At completion, only light grading equipment such as small agricultural tractors shall be allowed on the plants' roots. Fill dirt no deeper than two inches shall be allowed under the limb spread of any plant.

No building materials, dirt, or equipment shall be stored inside the protective fencing. Plants that die as a result of the Contractor's negligence shall be removed and replaced as directed by the Engineer at the Contractor's expenses. The new plant shall be guaranteed for a year, planted in the proper season, and planted with approved arboricultural specifications.

The Contractor will be required to cooperate with other contractors, utility companies and others needing access to the project site as (approved by the engineer) to complete the work.

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PROJECT SPECIAL PROVISIONS

SECTION 1: MOBILIZATION

Description

This work consists of preparatory work and operations to mobilize personnel, materials, and equipment to the project site.

Measurement and Payment

Mobilization will be paid as the contract lump sum price when the Contractor initially mobilizes. Contractor may elect to either draw fractions of the lump sum throughout project or the whole lump sum once.

SECTION 2: RESURFACING

Trackless Tack

Description

Trackless tack shall be used as the tack coat material. In the event that trackless tack is unavailable, standard tack coat material that meets NCDOT Standard Specifications shall be used. Standard tack material shall be incidental to the asphalt surface course. Asphalt tack coat shall be in accordance with the latest version of NCDOT Standard Specifications for Roads and Structures section 605. There will be no direct payment for work covered by this section. Payment at the contract unit prices for the various mix items covered by section 610, 650 and 654 will be full compensation for all work covered by this section.

Weather Limitations

Apply tack coat material to existing asphalt or concrete surfaces in accordance with NCDOT Specifications. Apply tack coat only when the surface to be treated is sufficiently dry and when the atmospheric temperature in the shade away from artificial heat is 35 degrees F or above. Do not apply tack coat when the weather is foggy or rainy.

Surface Preparation

Ensure that the existing asphalt or concrete surface is free of all dust and foreign material before applying the tack coat. Remove grass, dirt, and other materials from the edge of the existing pavement before the placement of tack coat.

Application Rates and Temperatures

Apply tack coat uniformly across existing surface at target application rates shown in Table 605-1.

TABLE 605-1 APPLICATION RATES FOR TACK COAT	
Existing Surface	Target Rate (gal/sy)
	Emulsified Asphalt
New Asphalt	0.04 ± 0.01
Oxidized or Milled Asphalt	0.06 ± 0.01
Concrete	0.08 ± 0.01

Apply tack coat at a temperature within the ranges shown in Table 605-2. Tack coat shall not be overheated during storage, transport, or at application.

TABLE 605-2 APPLICATION TEMPERATURE FOR TACK COAT	
Asphalt Material	Temperature Range
Asphalt Binder, Grade PG 58-28 or PG 64-22	350 - 400°F
Emulsified Asphalt, Grade RS-1H	130 - 160°F
Emulsified Asphalt, Grade CRS-1	130 - 160°F
Emulsified Asphalt, Grade CRS-1H	130 - 160°F
Emulsified Asphalt, Grade HFMS-1	130 - 160°F
Emulsified Asphalt, Grade CRS-2	130 - 160°F

Application of Tack Coat

If public traffic is being maintained, cover the tack coat in the same day's operation. Provide safe traffic conditions. If needed, apply suitable granular material so it bonds to the tack coat. In addition, the Engineer may limit the application of tack coat in advance of the paving operation depending on traffic conditions, project location, proximity to business or residential areas or other reasons.

Take necessary precautions to limit the tracking or accumulation of tack coat on either existing or newly constructed pavements. Excessive accumulation of tack coat requires corrective measures.

Apply tack coat with a distributor spray bar that can be adjusted to uniformly coat the entire surface at the directed rate. Use a hand hose attachment only on irregular areas and areas inaccessible to the spray bar. Cover these areas uniformly and completely.

Apply tack coat as directed by and in the presence of the Engineer. Do not place any asphalt mixture until the tack coat has sufficiently cured.

Apply tack coat to all exposed transverse and longitudinal edges of each course before mixture is placed adjacent to such surfaces. Apply tack coat to contact surfaces of headers, curbs, gutters, manholes and vertical faces of old pavements.

Sand, screenings, or other environmentally safe products may be required to prevent tracking the tack coat onto adjacent streets, when directed by the Director of Engineering. The sand screenings shall be minimum

length in order for a haul truck tire to make one full rotation and remain in contact with the screenings. The width shall be the same as the existing roadway. The Contractor shall remove screening materials placed to eliminate tracking upon completion of paving operations each day.

Tack coat material will not be tolerated on the exposed face of curb and gutters. If this occurs, the tack shall be removed as soon as practicable. Special attention shall be utilized while paving in areas with existing granite curb and gutter.

Asphalt Concrete Plant Mix Pavements

Description

Perform the work covered by this section including, but not limited to, the construction of one or more courses of asphalt mixture placed on a prepared surface in accordance with these Specifications and in reasonably close conformity with the lines, grades, thickness and typical sections shown on the plans. This work includes producing, weighing, transporting, placing and compacting the plant mix; furnishing aggregate, asphalt binder, anti-strip additive and all other materials for the plant mix; furnishing scales; maintaining the course until final acceptance of the project; making any repairs or corrections to the course that may become necessary; providing and conducting QC as specified in Section 609 of the NCDOT; and surface testing of the completed pavement.

Perform all activities in accordance with the NCDOT Asphalt Quality Management System (QMS) Manual in effect on the date of contract advertisement.

Asphalt Concrete Surface Course Type S9.5C, Asphalt Concrete Intermediate Course Type I19.0C, and Asphalt Concrete Base Course Type B25.0C as directed by the Engineer, shall be used. It shall be in accordance with Section 610 of the NCDOT Standard Specifications for Roads and Structures.

Asphalt Leveling Course

Asphalt paving consisting of a leveling course may be required on specific streets. This shall be performed as determined by the Director of Engineering and at the same unit price as noted in the Contract. In the event a leveling course is required, this shall be performed prior to the installation of any surface treatment applications if applicable.

Mill & Fill Operations

Streets designated as Mill & Fill shall have their lanes milled, cleaned, and paved. Utility adjustments and patching, as necessary, shall be performed prior to the Mill & Fill process. Mill & Fill operations shall be performed within 1 week after patching on such streets is completed.

Cleaning Streets

It shall be the responsibility of the Contractor to thoroughly clean the street before resurfacing. Any leaves, vegetative material, and debris shall be removed from the Public Right of Way. Depositing any debris or other material behind the curb will not be permitted. If large piles of leaves or other debris exist that in the opinion of the Director of Engineering are in excess of that which is required for the Contractor to remove, they shall be removed by the Director of Engineering provided adequate notice is given for this purpose.

The Contractor shall clean each street of waste materials resulting from his own operations no more than 2 days after the final overlay is complete. Should this period of time be exceeded, all resurfacing operations shall be suspended until streets are clean.

Infrastructure Damage

The Contractor shall be responsible for repairing any damage to the Town of Wake Forest's infrastructure. This includes damage to curb & gutter and pavement. Tack will not be tolerated on the exposed face of curbs and/or gutters. If this occurs, the tack shall be removed immediately. Special attention shall be utilized while paving in areas with existing granite curbs and gutter.

Resident Notification

The Contractor's attention is directed to Article 45, SAFEGUARDS of the General Conditions. In addition to the above, it shall be the responsibility of the Contractor for notification of residents before commencement of work in accordance with the Town Code. A copy of the notification will be provided to the Contractor by the Director of Engineering.

Paving Lift Requirements and Time Limitations

For milling and paving lifts of 3.0 inches or less, bring all newly resurfaced lanes to the same station and elevation within 72 hours. If not brought up to the same station and elevation within 72 hours, the Contractor shall place portable "Uneven Pavement" signs in advance of the uneven pavement and spaced every ½ mile along the section of uneven pavement. Once mitigated, all portable "Uneven Pavement" signs shall be removed. No additional compensation will be made for these signs or any other type of portable warning signs as these are included in the Temporary Traffic Control pay item.

For milling and paving lifts greater than 3 inches, bring all newly resurfaced lanes to the same station and elevation by the end of each workday unless the Contractor utilizes the notched wedge paving methods. Longitudinal joints 2" or greater in difference of elevation shall not be permitted within a travel lane.

ICT No.1- No.3 shall still apply during pave back period after milling activities end.

AC Adjustment

When it is determined that the monthly selling price of asphalt binder on the first business day of the calendar month during which the last day of the partial payment period occurs varies either upward or downward from the base price index, the contract unit price for asphalt binder for plant mix will be adjusted. The adjusted contract unit price will be determined by adding the difference between the selling price and the base price index to the contract unit bid price for asphalt binder.

The adjusted contract unit price will then be applied to the theoretical quantity of asphalt binder authorized for use in the plant mix placed during the partial payment period involved, except that where recycled plant mix is used, the adjusted unit price will be applied only to the theoretical number of tons of additional asphalt binder materials required by the Job Mixed Formula (JMF).

Adjusted contract unit prices for all grades of asphalt binder, including additional asphalt binder materials in recycled mixtures, will be based on the average selling price and base price index for asphalt binder, grade PG 64- 22, regardless of the actual grade required by the JMF.

In determining the adjusted contract unit price for any material specified in this section the following formula will be used:

$$A = B + (D - C)$$

Where:

- A = Adjusted Contract Unit Price
- B = Contract Unit Price
- C = Base Price Index
- D = Monthly Average Terminal F.O.B. Selling Price

In the event the Department is unable to secure and F.O.B. selling price from at least 4 terminals in a given month, payment will be at the contract unit price for each ton of asphalt binder used in the work during that month.

Measurement and Payment

Asphalt Concrete Surface Course, Type S9.5C, Asphalt Concrete Intermediate Course, Type I19.0C, and Asphalt Concrete Base Course, Type B25.0C will be measured and paid as the actual number of tons of each type of hot mix asphalt pavement incorporated into the completed and accepted work in accordance with NCDOT Standard Specifications for Roads and Structures, Article 106-7.

Trackless Tack to be paid by the ton of Asphalt Concrete Surface Course, Type S9.5C placed. If standard tack is used, it shall be incidental to the placement of Asphalt Concrete Surface Course, Type S9.5C.

Asphalt Binder, Type PG 64-22 will be measured and paid as the theoretical number of tons required by the applicable JMF based on the actual number of tons of plant mix completed and accepted on the job.

There will be no direct payment for anti-strip additive. Payment at the contract unit prices for the various asphalt plant mix items will be full compensation for the work.

SECTION 3: UTILITY ADJUSTMENTS

Description

The work covered in this section consists of the adjustment of manholes, water valve boxes, and other utilities in the roadway. The Contractor shall complete the work in strict accordance with Town of Wake Forest Standards and Specifications, City of Raleigh Standards and Specifications, NCDOT Standard Specifications for Roads and Structures, and ACI Specifications.

Standards for Manhole and Valve Box Adjustments

Manholes in Streets

All manhole covers installed within streets, parking lots, and other paved areas shall have only one (1) one-inch hole, which shall be off center, unless seal-down manholes are required. All covers must be domestically cast and so indicated by manufacturer name and "USA" in castings. Covers shall have

“DANGER PERMIT REQUIRED – CONFINED SPACE DO NOT ENTER” cast onto the face as shown in Details W-20 and S-29.

Manhole rings and covers shall be manufactured to the dimensions shown on City of Raleigh Details S-25, W-20 and shall be made from Class 30 gray iron, meeting the requirements of ASTM A48-94ae1. Covers shall have the appropriate facility name cast onto the face as shown in Details S-25, W-20, WATER and Town of Wake Forest Stormwater Manhole Standard Details 2.60 and 2.61.

All existing manholes on full-mill streets shall be removed and replaced with new manhole rings and covers. Existing manholes on all other streets that have been determined by the Director of Engineering to be damaged shall be replaced by the Contractor.

Water Valve Boxes

Adjustable water valve boxes shall be Class 35 gray cast iron and manufactured in accordance with ASTM A48 and be of the dimensions specified in Detail W-17 of these specifications. Lids shall have the word “WATER” cast into the lid. See Detail W-18. All castings must be domestically cast and so indicated by the manufacturers name and “USA” cast into all sections of the valve box. All castings must meet or exceed AASHTO H-20 load rating.

The Contractor shall provide new valve boxes and lids that are approved by the City of Raleigh Public Utilities Department. The unit rate shall include the cost of purchase and installation.

Sewer Test Station Boxes

Adjustable water valve boxes shall be Class 35 gray cast iron and manufactured in accordance with ASTM A48 and be of the dimensions specified in Detail S-20A of these specifications. Lids shall have the word “TS” cast into the lid. All castings must be domestically cast and so indicated by the manufacturers name and “USA” cast into all sections of the valve box. All castings must meet or exceed AASHTO H-20 load rating.

Adjustment of Sewer Test Stations shall be compensated as a Water Valve Box Adjustment.

Construction Methods

Adjustments on all manhole and valve boxes will not exceed a tolerance of more than ¼ inch from finished grade as measured with an 8-foot straightedge.

Manholes and valve boxes will be centered and aligned for proper access to manhole or operating nut on valves. Necessary precautions will be taken to prevent debris from falling into these structures and interfering with proper operation of said utility.

For valve boxes make a circular cut 1’ from the outside edge of the valve box. Top section of each valve box shall be completely removed to allow proper tamping of materials before final adjustment is made. All material around manholes and valve boxes shall be tamped to a minimum of 95 percent compaction before the applying tack coat and placing of minimum 4-inch of new asphalt surface course. The final compaction on asphalt shall be mechanical tamping. The asphalt shall be left low enough to accommodate the final resurfacing lift.

Floor the inside of the manhole with some material to catch any debris that may fall inside the manholes during construction.

For manholes, make a circular cut 2' from the outside edge of the manhole. With pick and shovel remove the broken debris down to a depth in accordance with City of Raleigh Standard Manhole Frame and Cover Detail Within Paved Surfaces.

Remove the ring and cover and set it off to one side. Do not try to raise or adjust the manhole with the ring in place.

Mix the mortar. Mortar shall be composed of one (1) part Portland Cement (and may contain no more than 10 percent lime, based on the volume of cement) and two (2) parts clean sand. Mortar will be mixed in a clean, tight mortar box or mechanical mixer and will be used within 45 minutes after mixing. It will be a fairly stiff mixture so it can be shaped.

Starting on a solid foundation, raise the top of the manhole with a level, solid layer of mortar or mortar and bricks. If bricks are used, they must be laid solid leaving no voids or empty spaces. The final product must be a smooth, level area so that the entire width of the flange on the bottom of the manhole ring will be sitting on a solid, uniform bearing surface.

After the manhole has been properly brought up to the desired level, set the ring back in place and fill the hole around the outside of the casting for a minimum depth of 8" with 3000 PSI ready-mix concrete having no more than a 4-inch slump.

Set the concrete before applying the tack coat and placing a minimum 2-inch layer of new asphalt surface course. The final compaction on asphalt shall be mechanical tamping. Install a reflectorized barricade equipped with a functioning flashing warning light over the utility until such time required for the concrete and asphalt to set/harden to a point where traffic will not damage the utility.

Raised utility castings shall be painted with reflectorized fluorescent paint to warn the traveling public of this condition.

Any utility raised more than one (1) inch above the existing grade shall have asphalt or NCDOT approved manhole safety ramp placed as a wedge around such utility.

All utilities that are removed for milling shall have a steel plate of sufficient thickness to support vehicle traffic placed in the bottom of the excavation. The excavation shall be backfilled with compacted hot mix asphalt. Any debris that falls into the utility shall be removed immediately.

All utility work areas shall be maintained in satisfactory condition until the final pavement layer is placed. Final paving layer shall be placed at least 72 hours after the placement of concrete around utilities.

Utility Risers

If the decision is made by the Engineer to selectively utilize NCDOT approved risers, the Contractor shall provide and install manhole and water valve box risers immediately prior to resurfacing. No cast iron risers will be allowed for the adjustment of manholes.

Raised Utilities

No manholes or valve boxes shall be raised and left for a period of time greater than 14 days before the street is resurfaced. Should this period of time be exceeded, utility adjustments shall be suspended until the resurfacing of such streets has been completed.

Utility Adjustments for Milling

The Contractor shall be required to adjust the manhole and water valve boxes prior to milling in accordance with Construction Methods.

If the decision is made by the Engineer not to adjust (lower and raise) utilities on selected streets, asphalt shall be milled and/or chipped from around existing utilities to a depth equal to the new asphalt depth.

Chipping around utilities shall only be performed by hand operated pneumatic tools or by pick and shovel. At no time shall heavy or mini track/wheel equipment be used to chip around utilities. As an alternative, small milling heads on backhoes, track loaders, or mini excavators may be used to chip the bulk of the material, with final cleanup around the utility done by hand tools.

Utilities removed for milling shall not be removed for more than 14 days. Should this period of time be exceeded, utility adjustments and milling on all other streets shall be suspended until utilities are raised on such streets.

Manhole frames and lids removed for milling and designated for reuse shall be paired together. This may be done by labeling, numbering or other means that clearly identifies the frame and lid go together. Any manhole frames and lids returned for reuse that are not labeled will be replaced with new frames and lids at the Contractor's expense.

Measurement and Payment

Manhole Adjustment (Raise Only) shall be paid by the number of manholes raised by adjustment.

Water Valve Box Adjustment (Raise Only) shall be paid by the number of water valves or test stations raised by adjustment. Payment shall include new water valve boxes and lids.

Manhole Adjustment (Lower/Raise), Manhole Adjustment Oversize (Lower/Raise) shall be paid by the number of utilities when the final raise adjustment has been completed.

Water Valve Box Adjustment (Lower/Raise) shall be paid by the number of water valves and test stations when the final raise adjustment has been completed. Payment shall include new water valve boxes and lids.

Milling / Chipping Around Utility Not Adjusted shall be paid by the number of utilities that have been left in place and milled/chipped around. Utilities on mill and fill streets shall be considered under this pay item except in cases where the utility is adjusted prior to mill and fill operations.

Provide and Install Manhole Risers and Provide and Install Water Valve Risers shall be paid by the number of utilities that have been left at existing grade and the Engineer has approved the use of NCDOT approved risers.

Provide New Manhole Frame and Cover shall be paid by the number of new manhole frames and covers typically on full mill streets and as directed by the Engineer.

SECTION 4: CONCRETE CURB RAMPS, CURB AND GUTTER, AND DRIVEWAY APRON CONSTRUCTION

Description

The Contractor shall complete the work in this section in strict accordance with Town of Wake Forest Standard Details Curb Ramps and ACI Specifications. The project consists of constructing or reconstructing identified intersections with concrete curb ramps. The location of each facility may vary due to existing

catch basins, fire hydrants, poles, or other constraints. Prior to beginning any construction, each work site shall be examined by the Contractor and the Director of Engineering, at which time the Director of Engineering will give specific direction as to the concrete removal limits and location of the new facility.

Concrete Curb Ramps Construction

North Carolina General Statute 136-44.14 requires that all street curbs being constructed or reconstructed for maintenance procedures, traffic operations, repairs, corrections of utilities, or altered for any reason after September 1, 1973, shall provide concrete curb ramps for the physically handicapped at all intersections where both curb and gutter and sidewalks are provided and at the other points of pedestrian flow. In accordance with the MUTCD, an accessible detour shall be provided for pedestrian traffic during construction of sidewalk and/or sidewalk access ramps.

In addition, Section 228 of the 1973 Federal Aid Highway Safety Act requires provision of curb ramps on any curb construction after July 1, 1976, whether a sidewalk is proposed initially or is planned for a future date.

The Americans with Disabilities Act (ADA) of 1990 extends to individuals with disabilities comprehensive civil rights protections similar to those provided to persons on the basis of race, sex, national origin, and religion under the civil rights act of 1964. The adopted curb ramps have been designed to comply with Title III of the ADA that became effective on January 26, 1992.

Town of Wake Forest standard curb ramps shall comply with the Americans with Disabilities Act (ADA) and Public Right of Way Access Guidelines.

Concrete curb ramps shall be provided at locations as shown on the plans or as directed by the Director of Engineering. Concrete curb ramps shall be located as indicated in these details; however, the location may be adjusted as directed by the Director of Engineering where existing light poles, fire hydrants, drop inlets, or other constraints affect placement.

Concrete curb ramps shall be constructed in accordance with NCDOT Curb Ramp Details which are incorporated into the contract documents. Some locations may require a shared ramp as shown in Town of Wake Forest's Standard Detail 9.13. A shared ramp shall serve both street crossings. Pay limits are identified on the details the shaded curb and gutter shall be incidental to the ramp. The detectable warning surface width may vary and is included as part of ramp pay limits. The detectable warning surface shall be yellow in color, cast-in-place and approved by the North Carolina Department of Transportation. Sidewalk removal and replacement within the pay limits shall be included in the concrete curb ramp unit rate. Sidewalk removal and replacement outside the pay limits will be paid at the appropriate contract unit rate for concrete sidewalk.

The Contractor shall at no time remove any street sign without prior approval from the Director of Engineering.

Subgrade Preparation: The subgrade for sidewalks and access ramps shall be formed by excavating to the required depth, shaped to the proper cross-section, and shall be thoroughly compacted by rolling or tamping before placing any concrete.

Forms: Forms used in constructing sidewalks shall be of wood or metal, of the full depth of the concrete, straight, free from warp, and of sufficient strength, and/or of a flexible material pre-approved before construction by the Director of Engineering as to allow for narrowing, mounding, and curving of walks.

They shall be staked securely enough to resist the pressure of the concrete without springing. If of wood, they shall be of two (2) inch surfaced plank. All forms shall be subject to the approval of the Director of Engineering. All wood forms shall be thoroughly wetted, and metal forms oiled before placing concrete. All forms shall be thoroughly cleaned before re-use.

Placing Concrete: Concrete shall be NCDOT approved Class “A” concrete. No concrete shall be placed until the forms and subgrades have been approved by the Director of Engineering. The subgrade shall be thoroughly wetted, and the concrete shall be placed thereon in one course to the required depth. The concrete shall be consolidated and struck off with a template to the required grade and cross section.

Joints: Contraction joints shall be provided uniformly to separate the slab and shall be cut in a straight line to a depth equal to at least one-third (1/3) of the total slab thickness. The joint shall be not less than one-eighth (1/8) inch no more than one-fourth (1/4) inch in width. Joints shall be sealed in accordance with NCDOT specifications.

Finishing: After the freshly poured concrete has been brought to at the established grade, it shall be floated to produce a surface free from irregularities. The final surface shall be obtained by troweling with a steel trowel or hand float and brushing lightly with a lightweight brush in a transverse direction so as to produce a uniform gritty surface of the proper texture. All edges and joints shall be rounded to one-fourth (1/4) of an inch.

Cold Weather Pouring: Concreting operations shall not be undertaken or continued when the surrounding air temperature is below 40°F or the local weather reports indicate the possibility of temperatures of 32°F or lower within the ensuing 24 hours unless provisions are made to insulate or heat the concrete in a manner satisfactory to the Transportation Director. In any event, the Contractor shall plan and protect his/her work in a manner which will ensure satisfactory results. Any concrete damaged by freezing shall be removed and replaced by the Contractor at his/her own expense.

Concrete, when deposited in the forms, shall have a temperature of not less than 50°F or more than 90°F. The concrete shall be maintained at a temperature of not less than 50°F for a period of at least 72 hours in the case of normal concrete or 24 hours when high early cement is used. Concrete shall not be deposited on a frozen subgrade. The North Carolina Department of Transportation Standard Specifications for Roads and Structures, Latest Edition Section 420-7 “Placing Concrete in Cold Weather” (A), (B), and (C) will be strictly adhered to for this alternate, unless directed by the Transportation Director.

Hot Weather Concreting: The maximum allowable concrete temperature shall be limited to 95°F. Deliver and discharge concrete within 1-1/2 hours or before the truck-mixer has revolved 300 revolutions, whichever comes first.

Removal of Forms and Backfilling: After the concrete has set sufficiently the forms shall be removed and the spaces on both sides shall be immediately backfilled with suitable earth uniformly spread and compacted. The areas between the curb and sidewalk and immediately back of the sidewalk shall be left in a smooth, neat, and workmanlike condition. When necessary, the backfill material will be sloped further to account for change in slope or grade as directed by the Director of Engineering.

Special attention shall be given in the seeding and mulching in the established areas. Lawn quality care shall be taken, and appropriate seed used to match existing lawn types on a lot per lot basis. Seeding, mulching, and seedbed preparation shall be approved by the Director of Engineering prior to acceptance and payment. Backfilling, seeding, and mulching is considered incidental to the completion of the sidewalk access ramp and as such no separate pay item is included.

Concrete curb ramps shall be backfilled, landscaped, and completed no more than 3 days after construction. Should this period of time be exceeded, all sidewalk ramp construction shall be suspended until such ramps are completed.

Removal of Defective/Damaged Work: The Director of Engineering shall have the authority to and shall require the removal of any sidewalk laid under these specifications which does not conform to the requirements as set forth herein or existing sidewalk damaged by the Contractor. Upon notification by the Director of Engineering, the Contractor shall take immediate action to correct the faulty work, or damaged work, at the Contractor's own expense.

Construction Water:

- 1) Contractors are responsible for securing adequate construction water for their job sites.
- 2) All construction water usage must be metered and will be billed to the Contractor. The Contractor must contact the Public Utilities Department of City of Raleigh, Meter Services Division (919-996-2742) to make the applicable arrangements for billing the water usage. The Contractor may not provide his/her own meter. Upon advance notice to the Public Utilities Department, a meter equipped with a backflow device can be rented at the expense of the Contractor.
- 3) Construction water for all Town contract projects shall be billed by the City of Raleigh, Public Utilities Department.
- 4) Contractors must furnish the following information for water usage.
 - i. Meter location and project name.
 - ii. Address where applicable and responsible party name.
 - iii. Duration of use and frequency of meter reading.

Sidewalk and Access Ramp Removal

The Contractor shall be advised that when a portion of any area of concrete sidewalk or access ramp must be removed, all areas to be removed shall be defined by a machine sawed joint before removal. Any sidewalk or access ramp that is removed and not replaced shall be backfilled using suitable material free of large lumps, wood, or other undesirable material. Brick pavers within existing sidewalk ramp locations being reconstructed shall be retained and neatly stacked for pickup by Town of Wake Forest staff.

Disposal of all waste material from construction sites shall be made in strict accordance with all Town ordinances pertaining to disposal of construction waste. It shall be the responsibility of the Contractor to secure the necessary permits and provide all information required to secure said permits. The Contractor shall designate the disposal site prior to beginning construction, and in the event waste material is to be disposed of on private property, a letter from the property owner shall be furnished to the Director of Engineering granting the Contractor or their agent such permission and listing the requirements made by the property owner or the Contractor, if any.

The Contractor shall not use the right-of-way for storage of equipment or materials, etc.

Curb and Gutter Construction

Curb and gutter shall be constructed in accordance with Town of Wake Forest Standard Details for Curb Ramps and Curb and Gutter Standard Detail 9.13. Curb and gutter removal and replacement in areas other than access ramps shall be of the same type as adjacent curb and gutter.

Payment for this item shall include removal, disposal and replacement of new curb and gutter in accordance with the specified slopes, dimensions, etc.

Curb depressions for concrete curb ramps may be accomplished, when applicable, by the use of a machine sawed cut, utilizing equipment which has been specifically designed for this purpose and approved by the Director of Engineering. A smooth transition shall be provided between the gutter section and the curb section. All sharp edges, which were created by the cutting operations, shall be beveled. Grinding if required shall be utilized to accomplish these items. Concrete debris shall be immediately removed from the job site. If any asphalt patching is needed due to damage during construction, the Contractor shall be responsible for repair of these items using hot plant mixed asphalt. If pavement patching is necessary, it shall be incidental to the work and not a pay item.

Subcontractors

The Contractors (bidders) are advised that Subcontractors will be limited to a maximum of 50 percent (50%) of this contract. The successful bidder shall abide by the requirements set forth in Article 37 Subcontractors of the General Conditions.

Traffic Control

In addition to items set forth in the General Conditions, Articles 44 and 59, the Contractor shall provide adequate reflectorized barrels, barricades and traffic cones as directed by the Director of Engineering, to protect the traveling public as well as pedestrian traffic. In addition, the Contractor shall utilize Sidewalk Closed signs at every location in which the construction activity may interfere with pedestrian traffic. Sidewalk detour signs shall be placed at designated crosswalk locations.

Contractor to submit any lane closures and detour plans to the Town of Wake Forest's Cognito Forms at least one week in advance (each occurrence).

Measurement and Payment

Concrete Curb Ramps shall be measured and paid by the number of concrete curb ramps installed and accepted by the Engineer.

Concrete Curb and Gutter shall be measured and paid by the linear feet of concrete curb and gutter installed and accepted by the Engineer.

Sidewalk Removal, Curb and Gutter Removal, Concrete Curb Ramp Removal, and 6" Concrete Driveway Removal (if applicable) are all considered incidental to Comprehensive Grading. No additional payment will be made for removal of these items.

SECTION 5: MILLING / PAVEMENT REHABILITATION

Description

Perform the work covered by this section including, but not limited to, milling and re-milling the pavement at locations, depths, widths and typical sections indicated in the contract; cleaning the milled surface; loading, hauling and stockpiling the milled material for use in recycled asphalt mixtures; and disposal of

any excess milled material in areas provided by the Contractor in accordance with Town Ordinances pertaining to disposal of construction waste.

Construction Methods

Prior to construction, the Contractor shall carefully examine the intersection for vehicle sensors. When encountered, the Contractor shall contact the Town of Wake Forest's Director of Engineering, and NCDOT's Transportation Operations Division, Traffic Signal Shop for coordination of construction and sensors relocation.

The Contractor shall work with the Town Inspections staff to identify drainage issues and assist in determining a course of action to resolve.

If milled areas are not paved back within 72 hours, the Contractor is to furnish and install portable signs to warn drivers of the conditions. These are to include but not limited to "Rough Road" (W8-8), "Uneven Lanes" (W8-11) with Motorcycle Plaque mounted below. These are to be dual indicated on Multi-Lane Roadways with speed limits 45 mph and greater. These portable signs are incidental to the other items of work included in the temporary traffic control pay item. In addition, ICTs No.1-No.3 shall continue to apply.

The existing pavement shall be milled in a manner which will restore the pavement surface to a uniform longitudinal profile and cross section at the locations as indicated in the schedule of provisions or at locations as directed by the Engineer where indicated the asphalt removal shall be to a specified depth and shall produce a specific cross slope. The Contractor shall mill intersections and other irregular areas as indicated in the schedule of provisions or as directed by the Engineer. The milling shall extend from curb to curb, with excess asphalt material being removed to expose the existing face of curb and gutter.

The milling equipment shall be operated in such a manner as to prevent damages to the underlying pavement structure, utilities, drainage facilities, curb and gutter, paved surfaces outside the milled area, and any other appurtenances. Any damages to the above stated areas shall be replaced or repaired at no cost to the Town. The milled pavement surface shall be reasonably smooth and free of excessive scarification marks, gouges, ridges, continuous grooves, or the damage as determined by the Director of Engineering. All butt joints shall be straight and true. Any leveling or patching required as a result of negligence by the Contractor shall be repaired with hot bituminous plant mix at no cost to the Town of Wake Forest and in a manner acceptable to the Engineer. The Contractor shall coordinate the adjustment of manholes, meter boxes, and valve boxes and resurfacing with the milling operation.

Catch basins and drop inlets shall be protected from milling debris by use of filter materials or other means that will prevent debris from entering the Town stormwater system. Any debris that enters catch basins and drop inlets shall be removed by the Contractor.

Wash water from milling machines shall be filtered by use of stormwater filter devices for catch basins and drop inlets. Stormwater filter devices shall be submitted for approval prior to work starting. Failure to use stormwater filter devices shall be considered an "illicit discharge" as defined in Code of Ordinances and State law references: G.S. Chapter 113A Article 4 (Pollution Control Act); G.S. Chapter 143 Article 21 (Water and Air Resources); Emission of pollutants and contaminants, G.S. 160A-185; Town of Wake Forest's Code of Ordinances, Article VI – ILLICIT STORMWATER DISCHARGE.

All milled pavement surfaces shall be thoroughly cleaned of all loose aggregate particles, dust, and other objectionable material within 24 hours, by the use of an approved street sweeper. Street sweepers to be utilized shall be of the Vacuum or Regenerative Air Sweeper type with a minimum six (6) cubic yard capacity. No mechanical sweepers will be allowed, except to assist the above noted approved sweeper types.

The Contractor can also utilize additional equipment as necessary for this removal. This debris shall not be allowed to accumulate on the Right-of-Way, private property, sidewalks, or driveways. If this occurs, it shall be cleaned off immediately.

Edge & Double Edge Milling

Edge milling shall be at least 4' in width. Butt joints may be required at intersecting streets. Butt joints will be paid at the Edge Milling rate. Double edge mill shall overlap 1-2' but shall not exceed 7' in width. Resurfacing shall be performed within 7 days after patching is completed on such streets.

Full Mill Operations

Streets designated as Full Mill shall have lanes milled to a depth of 0" – 4" depending on existing road cross section milling recommendations. Utilities shall be lowered prior to milling operations and final adjustments performed after milling is complete. Milling and replacement shall be performed within 1 week after the patching is completed on such streets.

Mill & Fill Operations

Streets designated as Mill & Fill shall have lanes milled, cleaned, and paved back by within 72 hours or at the end of the workday, whichever one applies to the specific street to satisfy ICT No.1-No.3. Traffic is to be kept at a minimum to ride on the milled surface. Utility adjustments and patching, as needed, shall be performed prior to the Mill & Fill operation. Mill & Fill operations shall be performed within 7 days after patching is completed on such streets. Any utilities damaged during milling shall be repaired or replaced as soon as possible at no cost to the Town. The Mill & Fill unit rate will be used for streets designated as such. This rate is not in addition to any other milling rate.

Temporary pavement markings shall be installed as directed in the Pavement Markings portion of this contract. The pavement markings shall be installed as soon as the milling operations will allow. The milled pavement surface shall be thoroughly cleaned of all loose aggregate particles, dust, and other objectionable material before temporary pavement markings are installed.

Equipment

Equipment shall include a self-propelled unit capable of removing the existing bituminous pavement to the depths, widths, and typical sections as indicated in the schedule or provisions or as directed by the Engineer. The equipment shall have been designed and built exclusively for pavement milling operations and shall have sufficient power, traction, and stability to accurately maintain depth of cut and slope. The milling machine shall be equipped with a grade control system, which will automatically control the longitudinal profile and cross slope of the pavement surface. The machine shall be capable of leaving a uniform surface suitable for handling traffic without excessive damage to the underlying pavement structure.

Additional equipment necessary to satisfactorily remove the pavement in the area of curb and gutter, and other obstructions shall be provided. The milling equipment shall be equipped with a means of effectively limiting the amount of dust escaping from the removal operations in accordance with local, state, and federal air pollution control laws and regulations.

Patching

The Contractor shall be responsible for pavement patching on all streets which have been milled. Milled pavement areas, in which exposed subgrade materials are present after the milling has been completed, shall be patched no later than the end of the workday.

Measurement and Payment

Milling (0-2") Edge, Milling (0-2") Double Edge, Milling (0-2") Full Width, and Milling (0-3") Mill and Fill to be paid for will be the actual number of square yards of pavement surface which has been milled in accordance with the requirements of this section. In measuring this quantity, the length will be the actual length milled, measured along the pavement surface. The width will be the actual width milled measured along the pavement surface, including any incidental areas which require removing, i.e., small areas adjacent to curb and gutter, etc.

Incidental milling to be paid will be the actual number of square yards of surface milled where the Contractor is required to mill butt joints, irregular areas and intersections milled as a separate operation from mainline milling and re-mill areas that are not due to the Contractor's negligence whose length is less than 100 feet. In measuring this quantity, the length will be the actual length milled, measured along the pavement surface. The width will be the width required by the plans or directed, measured along the pavement surface. Areas to be paid under these items include radius areas, butt joints and irregular areas as desired to complete the work or correct a pavement running/cross slope issue. Where the Contractor elects to make multiple cuts to achieve the final depth, no additional measurement will be made. Compensation will be made at the contract unit price per square yard for Incidental Milling Pavement Patching will be paid as the actual number of tons of asphalt plant mix, complete in place, used to make completed and accepted repairs, including skim patching on exposed subgrade, except for those repairs made necessary by the Contractor's negligence. The asphalt plant mix material will be measured by weighed in trucks on platform scales or other certified weighing devices.

SECTION 6: SHALLOW UNDERCUT

The published volume entitled "North Carolina Department of Transportation, Standard Specifications for Roads and Structures", Latest Edition, with all amendments and supplements thereto, is by reference incorporated into and made part of this contract; that, except as herein modified, all the construction and work included in this contract is to be performed in accordance with the specifications contained in said volume, and amendments and supplements thereto, under the direction of the Director of Engineering.

Description

All work in this section shall consist of elements to complete shallow undercut on specified sections of Town streets which exhibit unsuitable soils.

Construction Methods

When shallow undercut is required to construct aggregate subgrades, undercut 12" to 24" as shown on the plans or as directed. Perform undercut excavation in accordance with Section 225. Install geotextile for soil stabilization in accordance with NCDOT Standard Specifications for Roads and Structures Article 270-3. Place Class IV subgrade stabilization (standard size no. ABC) by end dumping ABC on geotextiles. Do not operate heavy equipment on geotextiles until geotextiles are covered with Class IV subgrade stabilization. Compact ABC to 92% of AASHTO T 180 as modified by the Department or to the highest density that can be reasonably obtained. Maintain Class IV subgrade stabilization in an acceptable condition and minimize the use of heavy equipment on ABC in order to avoid damaging aggregate subgrades. Provide and maintain drainage ditches and drains as required to prevent entrapping water in aggregate subgrades.

Placement of Geotextile and Geogrid

Geotextile and Geogrid materials shall conform to Section 1056 of NCDOT Standard Specifications. Following the shallow undercut operation, geotextile material shall be placed in the work area covering the full width and length of the excavation. Geotextile shall be overlapped a minimum of 12 inches in cases where multiple pieces or rolls are used. Geotextile shall be pinned to the subgrade.

One layer of geogrid shall be placed on top of the geotextile material prior to back filling with Class IV stone. In cases where geogrid is overlapped, follow manufacturer's recommendations.

Backfill and compact the excavation with Class IV Stone for Stabilization to within 6" of the finish pavement elevation grade. Complete the patch using the prescribed pavement detail of I19.0C and S9.5C placed in 2 lifts.

Payment for Shallow Undercut, Geotextile / Geogrid and Class IV Stone shall be considered full payment for, but not limited to, all labor, materials, equipment, incidentals, overhead and profit associated with the work.

Measurement and Payment

Shallow Undercut will be measured and paid in cubic yards. The contract unit price for Shallow Undercut will be full compensation for excavating, hauling, and disposing of materials to construct aggregate subgrades.

Fabric for Soil Stabilization will be measured and paid in square yards. The contract unit price for Fabric for Soil Stabilization will be full compensation for providing and installing the fabric.

Geogrid for Soil Stabilization will be measured and paid in square yards. The contract unit price for Geogrid for Soil Stabilization will be full compensation for furnishing and installing the geogrid.

Class IV Stone for Soil Stabilization will be measured and paid in tons. Class IV soil stabilization will be measured by weighing material in trucks in accordance with NCDOT Standard Specifications for Roads and Structures article 106-7. The contract unit price for Class IV Stone for Soil Stabilization will be full compensation for furnishing, hauling, handling, placing, compacting, and maintaining ABC.

SECTION 7: THERMOPLASTIC PAVEMENT MARKINGS

The project will include the furnishing and placement of Thermoplastic Alkyd/Maleic Retroreflective Pavement Markings in the form of lines and symbols of the type specified herein. The work shall be performed in strict accordance with NCDOT Standard Specifications for Roads and Structures (Latest Edition) Section 1205.

Revise the 2018 Standard Specifications as follows: Page 12-6, Sub article 1205-4(A)(1) General, lines 5-8, delete the second sentence and replace with the following:

Use application equipment that provides multiple width settings ranging from 4 inches to 12 inches and multiple thickness settings to achieve a minimum pavement marking thickness of 0.090 inch above the surface of the pavement.

Page 12-7, Table 1205-3, THICKNESS REQUIREMENTS FOR THERMOPLASTIC, replace with the following:

Table 1205-3 Minimum Thickness Requirements for Thermoplastic	
Thickness	Location
240 mils	In-lane and shoulder-transverse pavement markings (rumble strips). May be placed in 2 passes
90 mils	Center lines, skip lines, transverse bands, mini-skip lines, characters, bike lane symbols, crosswalk lines, edge lines, gore lines, diagonals, and arrow symbols

Pavement markings shall be applied within **24 hours** of resurfacing. If pavement markings are not installed within the 24-hour period, additional resurfacing shall not be permitted.

Temporary pavement markings on milled surfaces shall be installed as soon as milling operations allow. The milled pavement surface shall be thoroughly cleaned of all loose aggregate particles, dust, and other objectionable material before temporary markings are installed.

Interim marking paint shall be covered with thermoplastic pavement marking within 30 calendar days of placement. Should this period of time be exceeded, all resurfacing operations shall be suspended until thermoplastic pavement marking material is applied and completed on such streets.

If the pavement marking plans and NCDOT standards conflict, the Transportation Director shall be notified prior to the installation of such work.

No payment will be made for final thermoplastic pavement markings until all markings have been completed on the entire street.

The Contractor shall submit Thermoplastic Pavement Marking quantities for verification in spreadsheet format identifying pavement markings on a street-by-street basis.

Removal of Pavement Markings

This work includes the removal of all types of pavement marking lines, symbols and characters including removal for long life marking preparation. This work does not include removal of removable tape pavement markings.

Remove pavement marking lines, characters and symbols by acceptable methods to the Engineer that will not materially or structurally damage the surface or the texture of the pavement. Leave the pavement surface in a condition that will not mislead or misdirect the motorist.

Where existing pavement markings are to be removed and replaced by other pavement markings, do not begin removal until adequate provisions have been made to complete the installation of the replacement markings. Remove pavement markings such that the surface is in proper condition for adequate bonding of

the new markings. Promptly remove any material deposited on the pavement as a result of removing pavement markings as the work progresses by acceptable methods. Provide the equipment necessary to control dust and the accumulation of debris resulting from the removal process. The removal equipment shall provide dust control and the capture of the removed material shall be done using a separate vacuum equipped vehicle or other approved system. Perform the recovery process within the same operation as the removal. Do not let traffic use the lane where the removal is taking place until the recovery system is finished. Should the recovery system fail, cease removal operations until the recovery system is properly operating. The Contractor is responsible for all cleanup and proper disposal of all removed debris from the project site. When using a grinding method for pavement marking removal, the equipment shall have multiple heads working in tandem or have a removal head with operator dialed controls to result in a planed surface and provide adequate preparation of the surface to accept the new marking material.

Application of polyurea over existing pavement marking materials will require at least 95% of the existing pavement marking material to be removed; however, if one 15 mil application of paint was placed on asphalt pavement less than 6 months old, do not remove the existing paint pavement markings.

Thermoplastic may be installed over existing thermoplastic on asphalt. Application over existing pavement marking materials other than thermoplastic will require the existing pavement marking material to be removed so that at least 85% of the existing pavement marking surface is removed. Before applying thermoplastic pavement markings over the existing thermoplastic pavement markings, remove at least 25% of the oxidized existing thermoplastic. On newly installed failed thermoplastic that is to be removed and replaced, remove a minimum of 85% of the existing thermoplastic. However, if one 15 mil application of paint was placed on asphalt pavement less than 6 months old, do not remove the existing paint pavement markings.

Use black color #37038 in paint or tape, as determined by Contractor, to cover any remaining conflicting pavement marking after removal from asphalt pavement surfaces. Do not use black paint or tape on concrete pavement surfaces. The black paint will not have a defined shape or edges with a width not exceeding double of the existing lines.

Measurement and Payment

Thermoplastic Pavement Markings 4", Thermoplastic Pavement Markings – 8", Thermoplastic Pavement Markings – 24", will be measured and paid as the actual number of linear feet of placement marking lines satisfactorily placed and accepted by the Engineer. The quantity of solid lines will be the summation of the linear feet of solid line measured end-to-end of the line. The quantity of skip or broken lines will be the summation of the linear feet derived by multiplying the nominal length of a line by the number of marking lines satisfactorily placed.

Thermoplastic Symbol and Thermoplastic Character, will be measured and paid as the actual number of pavement marking symbols and characters satisfactorily placed and accepted by the engineer. A character is considered to be one letter or one number of a word message.

Temporary Paint, 4", Temporary Paint, 8", and Temporary Paint, 24" will be measured and paid as the actual number of linear feet of placement marking lines satisfactorily placed and accepted by the Engineer.

Temporary Paint Symbols and Temporary Paint Characters will be measured and paid as the actual number of pavement marking symbols and characters satisfactorily placed and accepted by the engineer.

SECTION 8: SIGNALS AND INTELLIGENT TRANSPORTATION SYSTEMS

All work associated with signals and intelligent transportation systems shall be installed in strict accordance with NCDOT Standard Specifications for Roads and Structures (Latest Edition) Division 17.

Street locations for inductive detection loops and associated work are indicated on the Pavement Markings List.

The Contractor shall notify the Town of Wake Forest, Engineering Department at least 48 hours before milling an intersection with signal detection loops. After signal detection loops are installed, the Contractor shall notify the Engineering Department for inspection at least 48 hours before resurfacing occurs. Notify Engineer one week before installing inductive detection loops.

Coordinate saw-cutting and loop placement with pavement markings. For new construction or resurfacing, install inductive detection loops before placing final lay of surface course. On unmarked pavement, pre-mark locations of stop lines and lane lines before locating inductive detection loops.

Contractor to coordinate with electric provider (Wake Electric – 800-474-6330) to arrange for power to be supplied to the traffic controller. The contractor shall request a service address for electric installation through Wake County and/or Wake Electric.

Measurement and Payment

Inductive Loop Sawcut and Bike Count Loop Sawcut will be measured and paid as the actual linear feet of inductive loop sawcut installed and accepted.

Detector Cards and Junction Boxes will be measured and paid as the actual number of detector cards and junction boxes installed and accepted.

SECTION 9: EROSION CONTROL

All temporary erosion and sediment control measures including silt fence, inlet protection, silt removal, maintenance of measures, temporary stabilization, and other incidental work will not be measured but will be included under the Lump Sum Item for Erosion Control.

Measurement and Payment

Erosion Control will be paid as the contract lump sum price when the Contractor performs the erosion control work and as the Engineer confirms.

SECTION 10: WORK ZONE TRAFFIC CONTROL

Description

Maintain traffic through work zones in accordance with these Specification, the MUTCD, NCDOT Roadway Standard Drawings, 23 CFR 630 Subparts J and K and any additional Transportation Management Plans.

Temporary Lane Closures

Operate all equipment and personnel within the designated work area during lane closures. Do not impede or stop traffic for the purpose of performing construction related work on the traffic side of the lane closure.

Install lane closures with traffic flow, beginning with devices on the upstream side of traffic. Remove lane closures against the traffic flow, beginning with devices on the downstream side of traffic.

When construction proceeds through an intersection, provide flaggers and all other necessary traffic control as required to direct the traffic through the intersection. When an intersection is signalized, place the signal in flash mode and provide law enforcement or other adequate traffic control measures to direct traffic through the intersection before beginning work in the intersection.

Contractor to submit any lane closures and detour plans to the Town of Wake Forest's Cognito Forms at least one week in advance (each occurrence).

Traffic Control Supervision

Provide the service of at least one qualified work zone supervisor. The work zone supervisor shall have the overall responsibility for the proper implementation of the TMP and ensure all employees working inside the NCDOT right of way have received the proper training appropriate to the job decisions each individual is required to make.

The work zone supervisor is not required to be on site at all times but shall be available to address concerns of the Engineer. The name and contact information of the work zone supervisor shall be provided to the Engineer prior to or at the preconstruction conference.

Qualification of work zone supervisors shall be done by an NCDOT approved training agency or other approved training provider. For a complete listing of these, see the Work Zone Traffic Control's webpage. Coordinate with and cooperate with work zone supervisors of adjacent or overlapping construction projects to ensure safe and adequate traffic control is maintained throughout the projects at all times including periods of construction inactivity in accordance with Article 105-7.

Vehicular Access

Maintain Continuous and safe vehicular access, including but not limited to, all residences businesses, schools, police and fire stations, hydrants, other emergency services, hospitals and mailboxes. Conduction operations so as to limit the inconvenience to property owners.

Pedestrian Access

Maintain pedestrian access at all times. When existing pedestrian facilities are disrupted, closed or relocated, provide temporary facilities that are detectable and include accessibility features consistent with the features present in the existing pedestrian facility. The work zone supervisor is responsible for the implementation of all traffic control plans, and installation and maintenance of the pedestrian devices. The work zone shall be inspected weekly or as directed by the Engineer. When pedestrian movement through

or around a work zone is necessary, provide a separate usable footpath. If the previous pedestrian facility was accessible to pedestrians with disabilities, provide a footpath during temporary traffic control that is comparable. Do not have any abrupt changes in grade or terrain that could cause a tripping hazard or could be a barrier to wheelchair use. Provide channelizing devices that are detectable to pedestrians who have visual disabilities. Provide temporary pedestrian facilities that are made of concrete, asphalt or other suitable material as approved by the Engineer, at all locations where the existing sidewalks have been removed for construction operations.

Do not sever or move pedestrian facilities for non-construction activities such as parking for vehicles and equipment. Separate pedestrian movements from both work zone activity and vehicular traffic.

Temporary Traffic Control Devices

Furnish, install, maintain, relocate, and remove temporary traffic control devices. All temporary traffic control devices furnished by the Contractor shall remain the property of the Contractor, unless otherwise specified in the contract.

Ensure all temporary traffic control devices are inspected and approved before using them on the project. Install temporary traffic control devices before construction operations begin and during the proper phase of construction. Maintain and relocate temporary traffic control devices during the time they are in use. Keep these devices in place as long as they are needed and immediately remove thereafter. When operations are performed in stages, install only those devices that apply to the present conditions.

Perform continuous maintenance and daily scheduled inspections of temporary traffic control devices. Review and maintain all traffic handling measures to ensure that adequate provisions are in place for public and workers' safety. Maintenance activities include cleaning, repair, or replacement, and prompt disposal of temporary traffic control devices that are damaged, torn, crushed, discolored, displaced or deteriorated beyond effectiveness. Replace work zone traffic control devices deemed unacceptable according to the guidelines set forth in the American Traffic Safety Service Association's (ATSSA) Quality Guidelines for Work Zone Traffic Control Devices.

Failure to maintain acceptable traffic control measures or temporary traffic control devices may result in formal notification of noncompliance. Implement remedial action immediately for imminent danger situations as directed by the Engineer. Implement remedial action within 48 hours after notification of a safety issue that is not an imminent danger.

Failure to comply may result in having the work performed with available forces and equipment. In cases of willful disregard for the safety of the public, the Engineer may proceed immediately to implement the measures necessary to provide the appropriate level of traffic control to ensure that the safety of all concerned parties is maintained.

Measurement and Payment

Temporary Traffic Control will be paid as a lump sum unit cost. The contract unit price for Temporary Traffic Control will be full compensation for all traffic control materials and labor required by these Specifications.

SECTION 11: TRAFFIC ISLANDS AND MEDIANS

Description

Construct traffic islands and medians of the type required by the plans. Perform the work in accordance with the contract.

Construction Methods

Construct curb and gutter in accordance with Section 4.

Uniformly grade and compact the earth or base course under any island or median to the same requirements as the surrounding material. Concrete islands shall be constructed after milling has occurred and before final resurfacing.

Construct concrete in accordance with Section 4 and give a sidewalk finish, except as otherwise provided herein. Broom concrete surfaces in medians transverse to the direction of traffic unless otherwise directed. Locate joints in island and median covers to line up with the joints in the curb and curb and gutter wherever possible. Locate joints in monolithic concrete islands and medians constructed adjacent to concrete pavement to line up with the joints in the concrete pavement wherever possible. Seal all joints. Form openings in the island or island cover to accommodate signposts.

Measurement and Payment

5" Monolithic Concrete Islands/Medians will be measured and paid in square yards of concrete island that has been placed and accepted. Measurement will be made parallel to the bottom surface of the island or median. This work includes, but is not limited to, excavation and backfilling, constructing base, furnishing and placing concrete, forming holes for signposts and constructing and sealing joints.

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WBS # 36249.4839

TS-1

Wake County

Signals and Intelligent Transportation Systems
Project Special Provisions
(Version 24.1)

Prepared By: SNM
10-Dec-24



Document not considered final unless all signatures completed.

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1. 2024 STANDARD SPECIFICATIONS FOR ROADS & STRUCTURES

The 2024 Standard Specifications are revised as follows:

1.1. ELECTRICAL JUNCTION BOXES (1091-5)

Page 10-209, revise paragraphs beginning on line 26 to read "Provide electrical junction boxes with covers of the type and size indicated by the contract or plans for the termination of conduits. Boxes and covers shall meet all requirements and specifications of ANSI/SCTE 77 2017. Structural load tests shall meet the Tier 15 application type."

Page 10-209, line 28, revise title of section 1091-5(B) from "Polymer Concrete (PC) Junction Boxes" to "Polymer Concrete (PC), Composite, and Thermoplastic Junction Boxes".

Page 10-209, revise paragraphs beginning on line 29 through line 41 to read "For PC junction boxes, use polymer concrete material made of an aggregate consisting of sand and gravel bound together with a polymer and reinforced with glass strands to fabricate box and cover components. Provide junction boxes which have bolted covers and open bottoms. Provide vertical extensions of 6 inches to 12 inches as required by project provisions.

Provide the required logo on the cover. Provide at least two size 3/8 inch diameter hex head stainless steel cover bolts to match inserts in the box. Provide pull slot(s) with stainless steel pin(s). Bodies of junction boxes shall be a single piece.

Polymer concrete, composite, and thermoplastic junction boxes are not required to be listed electrical devices."

1.2. TRAFFIC SIGNAL ACTIVATION (1700-4)

Page 17-4, revise paragraph beginning on line 42 through line 46 to read "Prior to placing signal in the steady (stop-and-go) mode, the signal should be placed in yellow-red flashing mode for up to 7 days or as directed by the Engineer. Yellow-red flashing mode differs from the red-red flashing mode shown in the signal plan. Yellow-red flash mode includes flashing the yellow signal indications on all main street through movements while flashing the red signal indications on all side street signal heads and any left turn heads on the main street. The signal should not be placed in the steady (stop-and-go) mode on a Saturday or Sunday without prior approval from the Engineer. Do not place the signal in steady (stop-and-go) mode until inspected and without prior approval of the Engineer."

2. SIGNAL HEADS

2.1. MATERIALS

A. General:

Fabricate vehicle signal head housings and end caps from die-cast aluminum. Fabricate 12-inch and 16-inch pedestrian signal head housings and end caps from die-cast aluminum. Fabricate 9-inch pedestrian signal head housings, end caps, and visors from virgin polycarbonate material. Provide visor mounting screws, door latches, and hinge pins fabricated from stainless steel. Provide interior screws, fasteners, and metal parts fabricated from stainless steel.

Fabricate tunnel and traditional visors from sheet aluminum.

Paint all surfaces inside and outside of signal housings and doors. Paint outside surfaces of tunnel and traditional visors, wire outlet bodies, wire entrance fitting brackets and end caps when supplied as components of messenger cable mounting assemblies, pole and pedestal mounting assemblies, and pedestrian pushbutton housings. Have electrostatically-applied, fused-polyester paint in highway yellow (Federal Standard 595C, Color Chip Number 13538) a minimum of 2.5 to 3.5 mils thick. Do not apply paint to the latching hardware, rigid vehicle signal head mounting brackets for mast-arm attachments, messenger cable hanger components or balance adjuster components.

Have the interior surfaces of tunnel and traditional visors painted an alkyd urea black synthetic baking enamel with a minimum gloss reflectance and meeting the requirements of MIL-E-10169, “Enamel Heat Resisting, Instrument Black.”

Where required, provide polycarbonate signal heads and visors that comply with the provisions pertaining to the aluminum signal heads listed on the QPL with the following exceptions:

Fabricate signal head housings, end caps, and visors from virgin polycarbonate material. Provide UV stabilized polycarbonate plastic with a minimum thickness of 0.1 ± 0.01 inches that is highway yellow (Federal Standard 595C, Color Chip 13538). Ensure the color is incorporated into the plastic material before molding the signal head housings and end caps. Ensure the plastic formulation provides the following physical properties in the assembly (tests may be performed on separately molded specimens):

Test	Required	Method
Specific Gravity	1.17 minimum	ASTM D 792
Flammability	Self-extinguishing	ASTM D 635
Tensile Strength, yield, PSI	8500 minimum	ASTM D 638
Izod impact strength, ft-lb/in [notched, 1/8 inch]	12 minimum	ASTM D 256

For pole mounting, provide side of pole mounting assemblies with framework and all other hardware necessary to make complete, watertight connections of the signal heads to the poles and pedestals. Fabricate the mounting assemblies and frames from aluminum with all necessary hardware, screws, washers, etc. to be stainless steel. Provide mounting fittings that match the positive locking device on the signal head with the serrations integrally cast into the brackets. Provide upper and lower pole plates that have a 1 ¼-inch vertical conduit entrance hubs with the hubs capped on the lower plate and 1 ½-inch horizontal hubs. Ensure that the assemblies provide rigid attachments to poles and pedestals so as to allow no twisting or swaying of the signal heads. Ensure that all raceways are free of sharp edges and protrusions, and can accommodate a minimum of ten Number 14 AWG conductors.

For pedestal mounting, provide a post-top slipfitter mounting assembly that matches the positive locking device on the signal head with serrations integrally cast into the slipfitter. Provide stainless steel hardware, screws, washers, etc. Provide a minimum of six 3/8 X 3/4-inch long square head bolts for attachment to pedestal. Provide a center post for multi-way slipfitters.

For light emitting diode (LED) traffic signal modules, provide the following requirements for inclusion on the Department’s Qualified Products List for traffic signal equipment.

1. Sample submittal,

2. Third-party independent laboratory testing results for each submitted module with evidence of testing and conformance with all of the Design Qualification Testing specified in section 6.4 of each of the following Institute of Transportation Engineers (ITE) specifications:

- Vehicle Traffic Control Signal Heads – Light Emitting Diode (LED) Circular Signal Supplement
- Vehicle Traffic Control Signal Heads – Light Emitting Diode (LED) Vehicle Arrow Traffic Signal Supplement
- Pedestrian Traffic Control Signal Indications –Light Emitting Diode (LED) Signal Modules.

(Note: The Department currently recognizes two approved independent testing laboratories. They are Intertek ETL Semko and Light Metrics, Incorporated with Garwood Laboratories. Independent laboratory tests from other laboratories may be considered as part of the QPL submittal at the discretion of the Department,

3. Evidence of conformance with the requirements of these specifications,
4. A manufacturer’s warranty statement in accordance with the required warranty, and
5. Submittal of manufacturer’s design and production documentation for the model, including but not limited to, electrical schematics, electronic component values, proprietary part numbers, bill of materials, and production electrical and photometric test parameters.
6. Evidence of approval of the product to bear the Intertek ETL Verified product label for LED traffic signal modules.

Ensure LED traffic signal modules meet the performance requirements for the minimum period of 15 years, provide a written warranty against defects in materials and workmanship for the modules for a period of 15 years after installation of the modules. During the warranty period, the manufacturer must provide new replacement modules within 45 days of receipt of modules that have failed at no cost to the State. Repaired or refurbished modules may not be used to fulfill the manufacturer’s warranty obligations. Provide manufacturer’s warranty documentation to the Department during evaluation of product for inclusion on Qualified Products List (QPL).

B. Vehicle Signal Heads:

Comply with the ITE standard “Vehicle Traffic Control Signal Heads”. Provide housings with provisions for attaching backplates.

Provide visors that are 8 inches in length for 8-inch vehicle signal head sections. Provide visors that are 10 inches in length for 12-inch vehicle signal heads.

Provide a termination block with one empty terminal for field wiring for each indication plus one empty terminal for the neutral conductor. Have all signal sections wired to the termination block. Provide barriers between the terminals that have terminal screws with a minimum Number 8 thread size and that will accommodate and secure spade lugs sized for a Number 10 terminal screw.

Mount termination blocks in the yellow signal head sections on all in-line vehicle signal heads. Mount the termination block in the red section on five-section vehicle signal heads.

Furnish vehicle signal head interconnecting brackets. Provide one-piece aluminum brackets less than 4.5 inches in height and with no threaded pipe connections. Provide hand holes on the bottom of the brackets to aid in installing wires to the signal heads. Lower brackets that carry no wires and are used only for connecting the bottom signal sections together may be flat in construction.

For messenger cable mounting, provide messenger cable hangers, wire outlet bodies, balance adjusters, bottom caps, wire entrance fitting brackets, and all other hardware necessary to make complete, watertight connections of the vehicle signal heads to the messenger cable. Fabricate messenger cable hanger components, wire outlet bodies and balance adjuster components from stainless steel or malleable iron galvanized in accordance with ASTM A153 (Class A) or ASTM A123. Provide serrated rings made of aluminum. Provide messenger cable hangers with U-bolt clamps. Fabricate washers, screws, hex-head bolts and associated nuts, clevis pins, cotter pins, U-bolt clamps and nuts from stainless steel.

For mast-arm mounting, provide rigid vehicle signal head mounting brackets and all other hardware necessary to make complete, watertight connections of the vehicle signal heads to the mast arms and to provide a means for vertically adjusting the vehicle signal heads to proper alignment. Fabricate the mounting assemblies from aluminum, and provide serrated rings made of aluminum. Provide stainless steel cable attachment assemblies to secure the brackets to the mast arms. Ensure all fastening hardware and fasteners are fabricated from stainless steel.

Provide LED vehicular traffic signal modules (hereafter referred to as modules) that consist of an assembly that uses LEDs as the light source in lieu of an incandescent lamp for use in traffic signal sections. Use LEDs that are aluminum indium gallium phosphorus (AlInGaP) technology for red and yellow indications and indium gallium nitride (InGaN) for green indications. Install the ultra bright type LEDs that are rated for 100,000 hours of continuous operation from -40°F to +165°F. Design modules to have a minimum useful life of 15 years and to meet all parameters of this specification during this period of useful life.

For the modules, provide spade terminals crimped to the lead wires and sized for a #10 screw connection to the existing terminal block in a standard signal head. Do not provide other types of crimped terminals with a spade adapter.

Ensure the power supply is integral to the module assembly. On the back of the module, permanently mark the date of manufacture (month & year) or some other method of identifying date of manufacture.

Tint the red, yellow and green lenses to correspond with the wavelength (chromaticity) of the LED. Transparent tinting films are unacceptable. Provide a lens that is integral to the unit with a smooth outer surface.

1. LED Circular Signal Modules:

Provide modules in the following configurations: 12-inch circular sections, and 8-inch circular sections. All makes and models of LED modules purchased for use on the State Highway System shall appear on the current NCDOT Traffic Signal Qualified Products List (QPL).

Provide the manufacturer’s model number and the product number (assigned by the Department) for each module that appears on the 2024 or most recent Qualified Products List. In addition, provide manufacturer’s certification in accordance with Article 106-3 of the *Standard Specifications*, that each module meets or exceeds the ITE “Vehicle Traffic Control Signal Heads – Light Emitting Diode (LED) Circular Signal Supplement” dated June 27, 2005 (hereafter referred to as VTCSH Circular Supplement) and other requirements stated in this specification.

Provide modules that meet the following requirements when tested under the procedures outlined in the VTCSH Circular Supplement:

Module Type	Max. Wattage at 165° F	Nominal Wattage at 77° F
12-inch red circular	17	11

8-inch red circular	13	8
12-inch green circular	15	15
8-inch green circular	12	12

For yellow circular signal modules, provide modules tested under the procedures outlined in the VTCSH Circular Supplement to insure power required at 77° F is 22 Watts or less for the 12-inch circular module and 13 Watts or less for the 8-inch circular module.

Note: Use a wattmeter having an accuracy of ±1% to measure the nominal wattage and maximum wattage of a circular traffic signal module. Power may also be derived from voltage, current and power factor measurements.

2. LED Arrow Signal Modules

Provide 12-inch omnidirectional arrow signal modules. All makes and models of LED modules purchased for use on the State Highway System shall appear on the current NCDOT Traffic Signal Qualified Products List (QPL).

Provide the manufacturer’s model number and the product number (assigned by the Department) for each module that appears on the 2024 or most recent Qualified Products List. In addition, provide manufacturer’s certification in accordance with Article 106-3 of the *Standard Specifications*, that each module meets or exceeds the requirements for 12-inch omnidirectional modules specified in the ITE “Vehicle Traffic Control Signal Heads – Light Emitting Diode (LED) Vehicle Arrow Traffic Signal Supplement” dated July 1, 2007 (hereafter referred to as VTCSH Arrow Supplement) and other requirements stated in this specification.

Provide modules that meet the following requirements when tested under the procedures outlined in the VTCSH Arrow Supplement:

Module Type	Max. Wattage at 165° F	Nominal Wattage at 77° F
12-inch red arrow	12	9
12-inch green arrow	11	11

For yellow arrow signal modules, provide modules tested under the procedures outlined in the VTCSH Arrow Supplement to insure power required at 77° F is 12 Watts or less.

Note: Use a wattmeter having an accuracy of ±1% to measure the nominal wattage and maximum wattage of an arrow traffic signal module. Power may also be derived from voltage, current and power factor measurements.

3. LED U-Turn Arrow Signal Modules:

Provide modules in the following configurations: 12-inch left u-turn arrow signal modules and 12-inch right u-turn arrow signal modules.

Modules are not required to be listed on the ITS and Signals Qualified Products List. Provide manufacturer’s certification in accordance with Article 106-3 of the *Standard Specifications*, that each module meets or exceeds the ITE “Vehicle Traffic Control Signal Heads – Light Emitting Diode (LED) Circular Signal Supplement” dated June 27, 2005 (hereafter referred to as VTCSH Circular Supplement) and other requirements stated in this specification.

Provide modules that have minimum maintained luminous intensity values that are not less than 16% of the values calculated using the method described in section 4.1 of the VTCSH Circular Supplement.

Provide modules that meet the following requirements when tested under the procedures outlined in the VTCSH Circular Supplement:

Module Type	Max. Wattage at 165° F	Nominal Wattage at 77° F
12-inch red u-turn arrow	17	11
12-inch green u-turn arrow	15	15

For yellow u-turn arrow signal modules, provide modules tested under the procedures outlined in the VTCSH Circular Supplement to ensure power required at 77° F is 22 Watts or less.

Note: Use a wattmeter having an accuracy of ±1% to measure the nominal wattage and maximum wattage of a circular traffic signal module. Power may also be derived from voltage, current and power factor measurements.

4. LED Bi-Modal Green-Yellow Arrow Signal Modules

Provide 12-inch omnidirectional bi-modal arrow signal modules. Ensure both green and yellow arrow indications are in each module with a clear lens that is integral to the unit. Ensure both indications display an incandescent style look.

Modules are not required to be listed on the ITS and Signals Qualified Products List. Ensure that both indications along with the module meet or exceed the requirements in sections 1, 2, 3, 4 and 5 of the VTCSH Arrow Supplement and other requirements stated in this specification.

Provide modules that meet the following requirements when tested under the procedures outlined in the VTCSH Arrow Supplement:

Arrow Type	Nominal Wattage at 77° F
12-inch yellow arrow	12
12-inch green arrow	11

Note: Use a wattmeter having an accuracy of ±1% to measure the nominal wattage and maximum wattage of a circular traffic signal module. Power may also be derived from voltage, current and power factor measurements.

C. Pedestrian Signal Heads:

Provide pedestrian signal heads with international symbols that meet the MUTCD. Do not provide letter indications.

Comply with the ITE standard for “Pedestrian Traffic Control Signal Indications” and the following sections of the ITE standard for “Vehicle Traffic Control Signal Heads” in effect on the date of advertisement:

- Section 3.00 - “Physical and Mechanical Requirements”
- Section 4.01 - “Housing, Door, and Visor: General”
- Section 4.04 - “Housing, Door, and Visor: Materials and Fabrication”
- Section 7.00 - “Exterior Finish”

Provide a double-row termination block with three empty terminals and number 10 screws for field wiring. Provide barriers between the terminals that accommodate a spade lug sized for number 10 terminal screws. Mount the termination block in the hand section. Wire all signal sections to the terminal block.

Where required by the plans, provide 16-inch pedestrian signal heads with traditional three-sided, rectangular visors, 6 inches long. Where required by the plans, provide 12-inch pedestrian signal heads with traditional three-sided, rectangular visors, 8 inches long.

Provide 2-inch diameter pedestrian push-buttons with weather-tight housings fabricated from die-cast aluminum and threading in compliance with the NEC for rigid metal conduit. Provide a weep hole in the housing bottom and ensure that the unit is vandal resistant.

Provide push-button housings that are suitable for mounting on flat or curved surfaces and that will accept 1/2-inch conduit installed in the top. Provide units that have a heavy duty push-button assembly with a sturdy, momentary, normally-open switch. Have contacts that are electrically insulated from the housing and push-button. Ensure that the push-buttons are rated for a minimum of 5 mA at 24 volts DC and 250 mA at 12 volts AC.

Provide standard R10-3 signs with mounting hardware that comply with the MUTCD in effect on the date of advertisement. Provide R10-3E signs for countdown pedestrian heads and R10-3B for non-countdown pedestrian heads.

Design the LED pedestrian traffic signal modules (hereafter referred to as modules) for installation into standard pedestrian traffic signal sections that do not contain the incandescent signal section reflector, lens, eggcrate visor, gasket, or socket. Provide modules that consist of an assembly that uses LEDs as the light source in lieu of an incandescent lamp. Use LEDs that are of the latest aluminum indium gallium phosphorus (AlInGaP) technology for the Portland Orange hand and countdown displays. Use LEDs that are of the latest indium gallium nitride (InGaN) technology for the Lunar White walking man displays. Install the ultra-bright type LEDs that are rated for 100,000 hours of continuous operation from -40°F to +165°F. Design modules to have a minimum useful life of 60 months and to meet all parameters of this specification during this period of useful life.

Design all modules to operate using a standard 3 - wire field installation. Provide spade terminals crimped to the lead wires and sized for a #10 screw connection to the existing terminal block in a standard pedestrian signal housing. Do not provide other types of crimped terminals with a spade adapter.

Ensure the power supply is integral to the module assembly. On the back of the module, permanently mark the date of manufacture (month & year) or some other method of identifying date of manufacture.

Provide modules in the following configuration: 16-inch displays which have the solid hand/walking man overlay on the left and the countdown on the right, and 12-inch displays which have the solid hand/walking man module as an overlay. All makes and models of LED modules purchased for use on the State Highway System shall appear on the current NCDOT Traffic Signal Qualified Products List (QPL).

Provide the manufacturer’s model number and the product number (assigned by the Department) for each module that appears on the 2024 or most recent Qualified Products List. In addition, provide manufacturer’s certification in accordance with Article 106-3 of the *Standard Specifications*, that each module meets or exceeds the ITE “Pedestrian Traffic Control Signal Indicators - Light Emitting Diode (LED) Signal Modules” dated August 04, 2010 (hereafter referred to as PTCSI Pedestrian Standard) and other requirements stated in this specification.

Provide modules that meet the following requirements when tested under the procedures outlined in the PTCSI Pedestrian Standard:

Module Type	Max. Wattage at 165° F	Nominal Wattage at 77° F
Hand Indication	16	13
Walking Man Indication	12	9
Countdown Indication	16	13

Note: Use a wattmeter having an accuracy of ±1% to measure the nominal wattage and maximum wattage of a circular traffic signal module. Power may also be derived from voltage, current and power factor measurements.

Provide module lens that is hard coated or otherwise made to comply with the material exposure and weathering effects requirements of the Society of Automotive Engineers (SAE) J576. Ensure all exposed components of the module are suitable for prolonged exposure to the environment, without appreciable degradation that would interfere with function or appearance.

Ensure the countdown display continuously monitors the traffic controller to automatically learn the pedestrian phase time and update for subsequent changes to the pedestrian phase time.

Ensure the countdown display begins normal operation upon the completion of the preemption sequence and no more than one pedestrian clearance cycle.

3. CONTROLLERS WITH CABINETS

3.1. MATERIALS – TYPE 2070LX CONTROLLERS

Furnish model 2070LX controller units that conform to CALTRANS *Transportation Electrical Equipment Specifications* (TEES) (dated March 12, 2009, plus Errata 1 dated January 21, 2010 and Errata 2 dated December 5, 2014) except as required herein.

The Department will provide software at the beginning of the burning-in period. Contractor shall give 5 working days notice before needing software. Program software provided by the Department.

Provide model 2070LX controllers with Linux kernel 2.6.18 or higher and device drivers, composed of the unit chassis and at a minimum the following modules and assemblies:

- MODEL 2070-1C, CPU Module, Single Board, with 8Mb Datakey (blue in color)
- MODEL 2070-2E+, Field I/O Module (FI/O)
 - Note: Configure the Field I/O Module to disable both the External WDT Shunt/Toggle Switch and SP3 (SP3 active indicator is “off”)
- MODEL 2070-3B, Front Panel Module (FP), Display B (8x40)
- MODEL 2070-4A, Power Supply Module, 10 AMP

Provide a Board Support Package (BSP) to the state and to any specified applications software manufacturer when requested by the state to facilitate the porting of application software.

3.2. MATERIALS – TYPE 170 DETECTOR SENSOR UNITS

Furnish detector sensor units that comply with Chapter 5 Section 1, “General Requirements,” and Chapter 5 Section 2, “Model 222 & 224 Loop Detector Sensor Unit Requirements,” of the CALTRANS “Transportation Electrical Equipment Specifications” dated March 12, 2009 with Erratum 1.

3.3. MEASUREMENT AND PAYMENT

Actual number of Department Supplied 2070 Controllers installed and accepted.

Actual number of each type of Cabinets without Controllers (_____) furnished, installed, and accepted.

Payment will be made under:

Install Department Supplied 2070 Controller	Each
Cabinet without Controller (_____)	Each

4. METAL POLE SUPPORTS

4.1. METAL POLES

A. General:

Furnish and install metal poles, grounding systems, and all necessary hardware. Work covered under this special provision includes requirements for design, fabrication, and installation of standard and custom/site-specific designed metal pole supports and associated foundations.

Comply with applicable sections of the 2024 STANDARD SPECIFICATIONS FOR ROADS & STRUCTURES, hereinafter referred to as the *Standard Specifications*. Provide designs of completed assemblies with hardware equaling or exceeding AASHTO LRFD Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals 1st Edition, 2015 (hereinafter called 1st Edition AASHTO), including the latest interim specifications. Provide assemblies with a round or near-round (18 sides or more) cross-section, or a multi-sided cross section with no less than six sides. The sides may be straight, convex, or concave.

For bid purposes, pole heights shown on plans are estimated from available data. Prior to furnishing metal poles, use field measurements and adjusted cross-sections to determine whether pole heights will meet required clearances. If pole heights do not meet required clearances, the Contractor should immediately notify the Engineer of the required revised pole heights.

Standard Drawings for Metal Poles are available that supplement these project special provisions. The drawings are located on the Department’s website:

<https://connect.ncdot.gov/resources/safety/pages/ITS-Design-Resources.aspx>

Comply with article 1098-1(B) of the *Standard Specifications* for submittal requirements. Furnish shop drawings for approval. Provide copies of detailed shop drawings for each type of structure as summarized below. Ensure shop drawings include material specifications for each component. Ensure shop drawings identify welds by type and size on the detail drawing only, not in table format. **Do not release structures for fabrication until shop drawings have been approved by NCDOT.** Ensure shop drawings contain an itemized bill of materials for all structural components and associated connecting hardware.

Comply with article 1098-1(A) of the *Standard Specifications* for Qualified Products List (QPL) submittals. All shop drawings must include project location description, signal or asset inventory number(s) and project number or work order number.

Summary of information required for metal pole review submittal:

Item	Electronic Submittal	Comments / Special Instructions
Sealed, Approved Signal or ITS Plan/Loading Diagram	1 set	All structure design information needs to reflect the latest approved Signal or ITS plans
Custom Pole Shop Drawings	1 set	Submit drawings on 11” x 17” format media. Show NCDOT signal or asset inventory number(s), Contractor’s name and relevant revision number in the title block. All drawings must have a <u>unique drawing number</u> for each project.
Standard Strain Pole Shop Drawings (from the QPL)	1 set	Submit drawings on 11” x 17” format media. Show NCDOT signal inventory number(s),

		Contractor’s name and relevant revision number in the title block. All drawings must have a <u>unique drawing number</u> for each project.
Structure Calculations	1 set	Not required for Standard QPL Poles
Standard Strain Pole Foundation Drawings	1 set	Submit drawings on 11” x 17” format media. Submit a completed Standard Foundation Selection form for each pole using foundation table on Metal Pole Drawing M8.
Custom Foundation Drawings	1 set	Submit drawings on 11” x 17” format media. Show NCDOT signal or asset inventory number(s), Contractor’s name and relevant revision number in the title block. All drawings must have a <u>unique drawing number</u> for each project. If QPL Poles are used, include the corresponding QPL pole shop drawings with this submittal.
Foundation Calculations	1 set	Submit copies of LPILE input, output, and pile tip deflection graph per Section titled Drilled Pier Foundations for Metal Poles of this specification for each foundation. Not required for Standard Strain Poles (from the QPL)
Soil Boring Logs and Report	1 set	Report shall include a location plan and a soil classification report including soil capacity, water level, hammer efficiency, soil bearing pressure, soil density, etc. for each pole.

NOTE – All shop drawings and custom foundation design drawings must be sealed by a Professional Engineer licensed in the state of North Carolina. All geotechnical information must be sealed by either a Professional Engineer or Geologist licensed in the state of North Carolina. Include a title block and revision block on the shop drawings and foundation drawings showing the NCDOT signal or asset inventory number(s).

Shop drawings and foundation drawings may be submitted together or separately for approval. However, shop drawings must be approved before foundations can be reviewed. Foundation designs will be returned without review if the associated shop drawing has not been approved. Boring reports shall include the following: Engineer’s summary, boring location maps, soil classification per AASHTO Classification System, hammer efficiency, and Metal Pole Standard Foundation Selection Form. Incomplete submittals will be returned without review. The Reviewer has the right to request additional analysis and copies of the calculations to expedite the approval process.

B. Materials:

Fabricate metal pole from coil or plate steel that meet the requirements of ASTM A 572 Gr 55 or ASTM A 595 Grade A tubes. For structural steel shapes, plates, and bars use, as a minimum, ASTM A572 Gr 50, AASHTO M270 Gr 50, ASTM A709 Gr 50, or an approved equivalent. Provide pole shafts of round or near round (18 sides or more) cross-section, or multi-sided tubular cross-section with no less than six sides, having a uniform linear taper of 0.14 in/ft. Construct shafts from one

piece of single-ply plate or coil. For anchor base fabrication, conform to the applicable bolt pattern and orientation as shown on Metal Pole Standard Drawing Sheet M2.

Use the submerged arc process, or other NCDOT previously approved process suitable for shafts, to continuously weld pole shafts along their entire length. Finish the longitudinal seam weld flush with the outside contour of the base metal. Ensure shaft has no circumferential welds except at the lower end joining the shaft to the pole base. Use full penetration groove welds with backing ring for all tube-to-transverse-plate connections in accordance with 1st Edition AASHTO. Provide welding that conforms to Article 1072-18 of the *Standard Specifications*. No field welding on any part of the pole will be permitted unless approved by a qualified Engineer.

After fabrication, hot-dip galvanize steel poles and all assembly components in accordance with section 1076-3 of the *Standard Specifications*. Design structural assemblies with weep holes large enough and properly located to drain molten zinc during the galvanization process. Galvanize hardware in accordance with section 1076-4 of the *Standard Specifications*. Ensure threaded material is brushed and retapped as necessary after galvanizing. Perform repair of damaged galvanizing in accordance with section 1076-7 of the *Standard Specifications*. Ensure all hardware is galvanized steel or stainless steel. The Contractor is responsible for ensuring the Designer/Fabricator specifies connecting hardware and/or materials that prevent a dissimilar metal corrosive reaction.

Ensure each anchor rod is 2-inch minimum diameter and 60-inch length. Provide 10-inch minimum thread projection at the top of the rod, and 8-inch minimum at the bottom of the rod. Use anchor rod assembly and drilled pier foundation materials complying with SP09_R005, hereinafter referred to as *Foundations and Anchor Rod Assemblies for Metal Poles*.

Ensure anchor bolt hole diameters are ¼-inch larger than the anchor bolt diameters in the base plate.

Provide a circular anchor bolt lock plate securing the anchor bolts at the embedded end with two (2) washers and two (2) nuts. Provide a base plate template matching the bolt circle diameter of the anchor bolt lock plate. Construct plates and templates from ¼-inch minimum thick steel with a minimum width of 4 inches. Hot-dip galvanizing is not required for both plates.

Provide four (4) heavy hex nuts and four (4) flat washers for each anchor bolt. For nuts, use AASHTO M291 grade 2H, DH, or DH3 or equivalent material. For flat washers, use AASHTO M293 or equivalent material. Ensure anchor bolts have required diameters, lengths, and positions, and will develop strengths comparable to their respective poles.

For each pole, provide a grounding lug with a ½-inch minimum thread diameter, coarse thread stud and nut that will accommodate #4 AWG ground wire. Ensure the lug is electrically bonded to the pole and is conveniently located inside the pole at the hand hole.

Provide a removable pole cap with stainless steel attachment screws for the top of each pole. Ensure cap is cast aluminum conforming to Aluminum Association Alloy 356.0F. Furnish cap attached to the pole with a sturdy stainless-steel chain that is long enough to permit cap to hang clear of the pole-top opening when cap is removed.

Where required by the plans, furnish couplings 42 inches above bottom of the pole base for mounting of pedestrian pushbuttons. Provide mounting points consisting of 1½-inch internally threaded half-couplings complying with the NEC, mounted within the poles. Ensure that couplings are essentially flush with the outside surfaces of the poles and are installed before any required hot-dip galvanizing. Provide a threaded plug in each mounting point. Ensure the surface of the plug is

essentially flush with the outer end of the mounting point when installed and has a recessed slot that will accommodate a ½ “drive standard socket wrench.

Metal poles may be erected and fully loaded after concrete has attained a minimum allowable compressive strength of 3,000 psi.

Connect poles to grounding electrodes and bond them to the electrical service grounding electrodes.

When field drilling is necessary for wire or cable entrances into the pole, comply with the following requirements:

- Do not drill holes within 2 inches of any welds.
- Do not drill any holes larger than 3 inches in diameter without checking with the ITS & Signals Structure Engineers.
- Avoid drilling multiple holes along the same cross section of tube shafts.
- Install rubber grommets in all field drilled holes that wire, or cable will directly enter unless holes are drilled for installation of weather heads or couplings.
- Treat the inside of the drilled holes and repair all galvanized surfaces in accordance with Section 1076-7 of the latest edition of the *Standard Specification prior to installing grommets, caps, or plugs*.
- Cap or plug any existing field drilled holes that are no longer used with rubber, aluminum, or stainless-steel hole plugs.

When street lighting is installed on metal signal structures, isolate the conductors feeding the luminaires inside the pole shaft using liquid tight flexible metal conduit (Type LFMC), liquid tight flexible nonmetallic conduit (Type LFNC), high density polyethylene conduit (Type HDPE), or approved equivalent. All conductors supplying power for luminaires must run through an external disconnect prior to entrance into the structure. In accordance with the National Electrical Code (NEC) Article 230.2(E), provide identification of the electrical source provider for the luminaire feeder circuit with contact information on a permanent label located in the pole hand hole near the feeder circuit raceway.

Install a ¼-inch thick plate for a concrete foundation tag to include the following information: concrete grade, depth, diameter, and reinforcement sizes of the installed foundation. Install galvanized wire mesh to cover gap between the base plate and top of foundation for debris and pest control. Refer to standard drawing M7 for further details.

Immediately notify the Engineer of any structural deficiency that becomes apparent in any assembly, or member of any assembly, because of the design requirements imposed by these specifications, the plans, or the typical drawings.

C. Design:

Unless otherwise specified, design all metal pole support structures using the following 1st Edition AASHTO specifications:

- Use 700-Year MRI and 10-Year MRI wind pressure maps developed from 3-second gust speeds, as provided in Section 3.8.
- Ensure metal pole support structures include natural wind gust loading and truck-induced gust loading for fatigue design, as provided in Sections 11.7.1.2 and 11.7.1.3, respectively. Designs need not consider periodic galloping forces.

- Assume 11.2 mph natural wind gust speed in North Carolina. For natural wind fatigue stress calculations, utilize a drag coefficient (C_d) based on the yearly mean wind velocity of 11.2 mph.
- When selecting Fatigue Importance Factors, utilize Fatigue Importance Category II, as provided for in Table 11.6-1, unless otherwise specified.
- Calculate all forces using applicable equations from Section 5. The Maximum allowable force ratio for all metal pole support designs is 0.9.
- Conform to Sections 10.4.2 and 11.8 for deflection requirements. For CCTV and MVD support structures, ensure maximum deflection at top of pole does not exceed 2.0 percent of pole height.
- Assume the combined minimum weight of a messenger cable bundle (including messenger cable, signal cable and detector lead-in cables) is 1.3 lbs/ft. Assume the combined minimum diameter of the cable bundle is 1.3 inches.
- All CCTV and MVD poles shall meet the compact section limits per section 5.7.2 along with Table 5.7.2-1. Minimum thickness of CCTV and MVD pole shafts shall be ¼-inch.
- All CCTV and MVD poles shall use full-penetration groove weld tube-to-transverse plate connection with backing ring. Refer to Metal Pole Standard Drawing Sheet M9 for details. Fillet-welded tube-to-transverse-plate connections are not permitted.

Unless otherwise specified by special loading criteria, the following computed surface area for ice load on signal heads shall be used:

- 3-section, 12-inch, Surface area: 26.0 ft²
- 4-section, 12-inch, Surface area: 32.0 ft²
- 5-section, 12-inch, Surface area: 42.0 ft²

Design a base plate for each pole. The minimum base plate thickness for all poles is determined by the following criteria:

Case 1 Circular or rectangular solid base plate with the upright pole welded to the top surface of base plate with full penetration butt weld, where no stiffeners are provided. A base plate with a small center hole, which is less than 1/3 of the upright diameter, and located concentrically with the upright pole, may be considered as a solid base plate.

The magnitude of bending moment in the base plate, induced by the anchoring force of each anchor bolt is $M = (P \times D_1) / 2$, where

M = bending moment at the critical section of the base plate induced by one (1) anchor bolt

P = anchoring force of each anchor bolt

D_1 = horizontal distance between the anchor bolt center and the outer face of the upright, or the difference between the bolt circle radius and the outside radius of the upright

Locate the critical section at the face of the anchor bolt and perpendicular to the bolt circle radius. The overlapped part of two (2) adjacent critical sections is considered ineffective.

Case 2 Circular or rectangular base plate with the upright pole socketed into and attached to the base plate with two (2) lines of fillet weld, and where no stiffeners are provided, or any base plate with a center hole that is larger in diameter than 1/3 of the upright diameter.

The magnitude of bending moment induced by the anchoring force of each anchor bolt is $M = P \times D_2$,

where P = anchoring force of each anchor bolt

D_2 = horizontal distance between the face of the upright and the face of the anchor bolt nut

Locate the critical section at the face of the anchor bolt top nut and perpendicular to the radius of the bolt circle. The overlapped part of two (2) adjacent critical sections is considered ineffective. If the base plate thickness calculated for Case 2 is less than Case 1, use the thickness calculated for Case 1.

The following additional requirements apply concerning pole base plates.

- Ensure that whichever case governs as defined above, the anchor bolt diameter is set to match the base plate thickness. If the minimum diameter required for the anchor bolt exceeds the thickness required for the base plate, set the base plate thickness equal to the required bolt diameter.
- For all metal poles, use a full penetration groove weld with a backing ring to connect the pole upright component to the base. Refer to Metal Pole Standard Drawing Sheet M3 or M4.

The Professional Engineer is wholly responsible for the design of all poles. Review and acceptance of these designs by the Department does not relieve the said Professional Engineer of his or her responsibility.

D. Strain Poles:

Refer to Metal Pole Standard Drawing Sheets M2 and M3 for fabrication details.

Provide two (2) messenger cable (span wire) clamps and associated hardware for attachment of messenger cable. Ensure diameter of the clamp is appropriate to its location on the pole and is appropriately designed for adjustment from 1'-6" below the top, down to 6'-6" below the top of the pole. Do not attach more than one (1) support cable to a messenger cable clamp.

Provide a minimum of three (3) 2-inch holes equipped with an associated coupling and weatherhead on the messenger cable load side of the pole to accommodate passage of signal cables from inside the pole. Provide galvanized threaded plugs for all unused couplings at pole entrance points. Refer to Metal Pole Standard Drawing Sheet M3 for fabrication details.

Provide designs with a 6" x 12" hand hole with reinforcing frame for each pole.

Provide a terminal compartment with cover and screws in each pole encompassing the hand hole and containing a 12-terminal barrier type terminal block. Provide two (2) terminal screws with a removable shorting bar between them for each termination. Furnish terminal compartment covers attached to the pole by a sturdy chain or cable approved by the Engineer. Ensure chain or cable is long enough to permit cover to hang clear of the compartment opening when cover is removed and is strong enough to prevent vandalism. Ensure chain or cable will not interfere with service to cables in the pole base.

Have poles permanently stamped above the hand holes with the identification tag details as shown on Metal Pole Standard Drawing Sheets M2 and M3.

Provide grounding lug(s) in the approximate vicinity of the messenger cable clamp for bonding and grounding messenger cable. Lugs must accept #4 AWG wire to bond messenger cables to the pole in order to provide an effective ground fault circuit path. Refer to Metal Pole Standard Drawing Sheet M6 for construction details.

Install metal poles, hardware, and fittings as shown on the manufacturer's installation drawings. Ensure the installed pole, when fully loaded, is within 1 degree 40 minutes (1°40') of vertical. Install poles with the manufacturer's recommended "rake." Where required, use threaded leveling nuts to establish rake.

4.2. DRILLED PIER FOUNDATIONS FOR METAL POLES

Analysis procedures and formulas shall be based on AASHTO 1st Edition, latest ACI-318 code and the *Drilled Shafts: Construction Procedures and Design Methods* FHWA-NHI-10-016 manual. Design methods based on engineering publications or research papers must have prior approval from NCDOT. The Department reserves the right to accept or reject any method used for the analysis.

Ensure deflection at top of foundation does not exceed 1 inch for worst-case (Service Limit State) lateral load.

Use LPILE Plus V6.0 or later for lateral analysis. Submit inputs, results and corresponding graphs with the design calculations.

Calculate skin friction using the α -method for cohesive soils and the β -method for cohesion-less soils (**Broms method will not be accepted**). Detailed descriptions of the " α " and " β " methods can be found in *FHWA-NHI-10-016*.

Omit first 2.5 feet for cohesive soils when calculating skin friction.

Assume a hammer efficiency of 0.70 unless value is provided.

All CCTV and MVD pole drilled shafts shall be a minimum of 4'-0" diameter. Refer to Standard Drawing Nos. M7 and M8.

Design custom foundations to carry maximum capacity of each metal pole. For standard case strain poles with custom design, use actual shear, axial and moment reactions from the Standard Strain Pole Foundation Selection Table shown on Standard Drawing No. M8.

When poor soil conditions are encountered, which could create an excessively large foundation design, consideration may be given to allow an exemption to the maximum capacity design. The Contractor must gain approval from the Engineer before reducing a foundation's capacity. On projects where poor soil is known to be present, the Contractor should have foundation designs approved before releasing poles for fabrication.

Have the Contractor notify the Engineer if the proposed foundation is to be installed on a slope other than 8H: 1V or flatter.

A. Description:

Furnish and install foundations for NCDOT metal poles with all necessary hardware in accordance with the plans and specifications.

Metal Pole Standards have been developed and implemented by NCDOT for use at signalized intersections in North Carolina. If the plans call for a standard strain pole, then a standard foundation may be selected from the plans. However, the Contractor is not required to use a standard foundation. If the Contractor chooses to design a non-standard site-specific foundation for a standard strain pole or if the plans call for a non-standard site-specific pole, design the foundation to conform to the applicable provisions in the NCDOT Metal Pole Standard Drawings and Section B4 (Non-Standard Foundation Design) below. If non-standard site-specific foundations are designed for standard QPL approved strain poles, the foundation designer must use the design moment specified by load case on Metal Pole Standard Drawing Sheet M8. Failure to conform to this requirement will be grounds for rejection of the design.

If the Contractor chooses to design a non-standard foundation for a standard strain pole and the soil test results indicate a standard foundation is feasible for the site, the Contractor will be paid the cost of the standard foundation. Any additional cost associated with a non-standard site-specific foundation including additional materials, labor and equipment will be considered incidental to the cost of the standard foundation. All costs for the non-standard foundation design will be considered incidental to the cost of the standard foundation.

B. Soil Test and Foundation Determination:

1. General:

Drilled piers are reinforced concrete sections, cast-in-place against in situ, undisturbed material. Drilled piers are of straight shaft type and vertical.

2. Soil Test:

Perform a soil test at each proposed metal pole location. Complete all required fill placement and excavation at each pole location to finished grade before drilling each boring. Soil tests performed that are not in compliance with this requirement may be rejected and will not be paid. Drill one boring to a depth of 26 feet within a 25-foot radius of each proposed foundation.

Perform standard penetration tests (SPT) in accordance with ASTM D 1586 at depths of 1, 2.5, 5, 7.5, 10, 15, 20 and 26 feet. Discontinue the boring if one of the following occurs:

- A total of 100 blows have been applied in any two consecutive 6-inch intervals.
- A total of 50 blows have been applied with < 3-inch penetration.

Describe each pole location along the project corridor in a manner that is easily discernible to both the Contractor’s Designer and NCDOT Reviewers. If the pole is at an intersection, label the boring the “Intersection of (Route or SR #), (Street Name) and (Route or SR #), (Street Name), _____ County, Signal or Asset Inventory No. _____”. Label borings with “B- N, S, E, W, NE, NW, SE or SW” corresponding to the quadrant location within the intersection.

If the pole location is located between intersections, provide a coordinate location and offset, or milepost number and offset. Pole numbers should be made available to the Drill Contractor. Include pole numbers in the boring label if they are available. If they are not available, ensure the boring labels can be cross-referenced to corresponding pole numbers. For each boring, submit a legible (hand-written or typed) boring log signed and sealed by a licensed Geologist or Professional Engineer registered in North Carolina. Include on each boring the SPT blow counts and N-values at each depth, depth of the boring, hammer efficiency, depth of water table and a general description of the soil types encountered using the AASHTO Classification System.

Borings that cannot be easily correlated to their specific pole location will be returned to the Contractor for clarification; or if approved by the Engineer, the foundation may be designed using the worst-case soil condition obtained as part of this project.

3. Standard Foundation Determination:

Use the following method for determining the Design N-value:

$$N_{AVG} = \frac{N_{@1'} + N_{@2.5'} + \dots + N_{@Deepest\ Boring\ Depth}}{Total\ Number\ of\ N\ values}$$

$$Y = (N_{@1'})^2 + (N_{@2.5'})^2 + \dots + (N_{@Deepest\ Boring\ Depth})^2$$

$$Z = N_{@1'} + N_{@2.5'} + \dots + N_{@Deepest\ Boring\ Depth}$$

$$N_{STD\ DEV} = \sqrt{\left(\frac{(Total\ Number\ of\ N\ values \times Y) - Z^2}{(Total\ Number\ of\ N\ values) \times (Total\ Number\ of\ N\ values - 1)} \right)}$$

Design N-value equals lesser of the following two conditions:

$$N_{AVG} - (N_{STD\ DEV} \times 0.45)$$

OR

$$Average\ of\ First\ Four\ (4)\ N\ values = \frac{N_{@1'} + N_{@2.5'} + N_{@5'} + N_{@7.5'}}{4}$$

Note: If less than four (4) N-values are obtained because of criteria listed in Section 2 above, use average of N-values collected for second condition. Do not include the N-value at the deepest boring depth for above calculations if the boring is discontinued at or before the required boring depth because of criteria listed in Section 2 above. Use N-value of zero (0) for weight of hammer or weight of rod. If N-value is greater than fifty (50), reduce N-value to fifty (50) for calculations.

If standard NCDOT strain poles are shown on the plans and the Contractor chooses to use standard foundations, determine a drilled pier length, “L,” for each signal pole from the Standard Strain Pole Foundations Chart (sheet M8) based on the Design N-value and the predominant soil type. For each standard pole location, submit a completed “Metal Pole Standard Foundation Selection Form” signed by the Contractor’s representative. Signature on form is for verification purposes only. Include the Design N-value calculation and resulting drilled pier length, “L,” on each form.

If non-standard site-specific poles are shown on the plans, submit completed boring logs collected in accordance with Section 2 (Soil Test) along with pole loading diagrams from the plans to the Contractor-selected pole Fabricator to assist in the pole and foundation design.

If one of the following occurs, the Standard Foundations Chart shown on the plans may not be used and a non-standard foundation may be required. In such case, contact the Engineer.

- The Design N-value is less than four (4).
- The drilled pier length, “L”, determined from the Standard Foundations Chart, is greater than the depth of the corresponding boring.

In the case where a standard foundation cannot be used, the Department will be responsible for the additional cost of the non-standard foundation.

Foundation designs are based on level ground around the traffic signal pole. If the slope around the edge of the drilled pier is steeper than 8:1 (H:V) or the proposed foundation will be less than 10 feet from the top of an embankment slope, the Contractor is responsible for providing slope information to the foundation Designer and to the Engineer so it can be considered in the design.

The “Metal Pole Standard Foundation Selection Form” may be found at:

<https://connect.ncdot.gov/resources/safety/Pages/ITS-Design-Resources.aspx>

If assistance is needed, contact the Engineer.

4. Non-Standard Foundation Design:

Design non-standard foundations based upon site-specific soil test information collected in accordance with Section 2 (Soil Test). Design drilled piers for side resistance in accordance with Section 10.8 of the *2014 AASHTO LRFD Bridge Design Specifications, 7th Edition*. Use computer software LPILE version-6.0 or later manufactured by Ensoft, Inc. to analyze drilled piers. Use computer software gINT V8i or later manufactured by Bentley Systems, Inc. with the current NCDOT gINT library and data template to produce SPT boring logs. Provide a drilled pier foundation for each pole with a length and diameter resulting in horizontal lateral movement less than 1 inch at top of the pier, and horizontal rotational movement less than 1 inch at the edge of pier. Contact the Engineer for pole loading diagrams of standard poles used for non-standard foundation designs. Submit non-standard foundation designs including drawings, calculations, and soil boring logs to the Engineer for review and approval before construction.

C. Drilled Pier Construction:

Construct drilled pier foundation and Install anchor rod assemblies in accordance with the *Foundations and Anchor Rod Assemblies for Metal Poles* Standard Special Provision SP09-R005 located at:

<https://connect.ncdot.gov/resources/Specifications/Pages/2024-Specifications-and-Special-Provisions.aspx>

4.3. POLE NUMBERING SYSTEM

A. New Poles

Attach an identification tag to each pole shaft section as shown on Metal Pole Standard Sheet M2 “Typical Fabrication Details for All Metal Poles.”

4.4. MEASUREMENT AND PAYMENT

Actual number of metal strain signal poles (without regard to height or load capacity) furnished, installed and accepted.

Actual number of reused metal strain signal poles (without regard to height or load capacity) installed and accepted.

Actual number of designs for metal strain poles furnished and accepted.

Actual number of metal poles with single mast arms furnished, installed, and accepted.

Actual number of metal poles with dual mast arms furnished, installed, and accepted.

Actual number of reused metal poles with single mast arms installed and accepted.

Actual number of reused metal poles with dual mast arms installed and accepted.

Actual number of designs for mast arms with metal poles furnished and accepted.

Actual number of metal signal pole foundations removed and disposed.

Actual number of metal signal poles removed and disposed.

Actual number of CCTV or MVD Metal Poles furnished, installed and accepted.

Actual number of soil tests with SPT borings drilled furnished and accepted.

Actual volume of concrete poured in cubic yards of drilled pier foundation furnished, installed and accepted.

No measurement will be made for foundation designs prepared with metal pole designs, as these will be considered incidental to designing Traffic Signal , CCTV or MVD support structures.

WBS # 36249.4839

TS-20

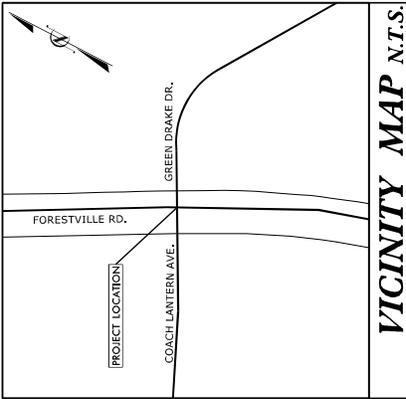
Wake County

Payment will be made under:

Metal Strain Signal Pole	Each
Install Reused Metal Strain Signal Pole.....	Each
Metal Strain Pole Design	Each
Metal Pole with Single Mast Arm	Each
Metal Pole with Dual Mast Arm.....	Each
Install Reused Metal Pole with Single Mast Arm.....	Each
Install Reused Metal Pole with Dual Mast Arm	Each
Mast Arm with Metal Pole Design	Each
Metal Pole Foundation Removal	Each
Metal Pole Removal.....	Each
CCTV or MVD Metal Pole.....	Each
Soil Test	Each
Drilled Pier Foundation.....	Cubic Yard

CONTRACT: TIP PROJECT: WBS #36249.4839

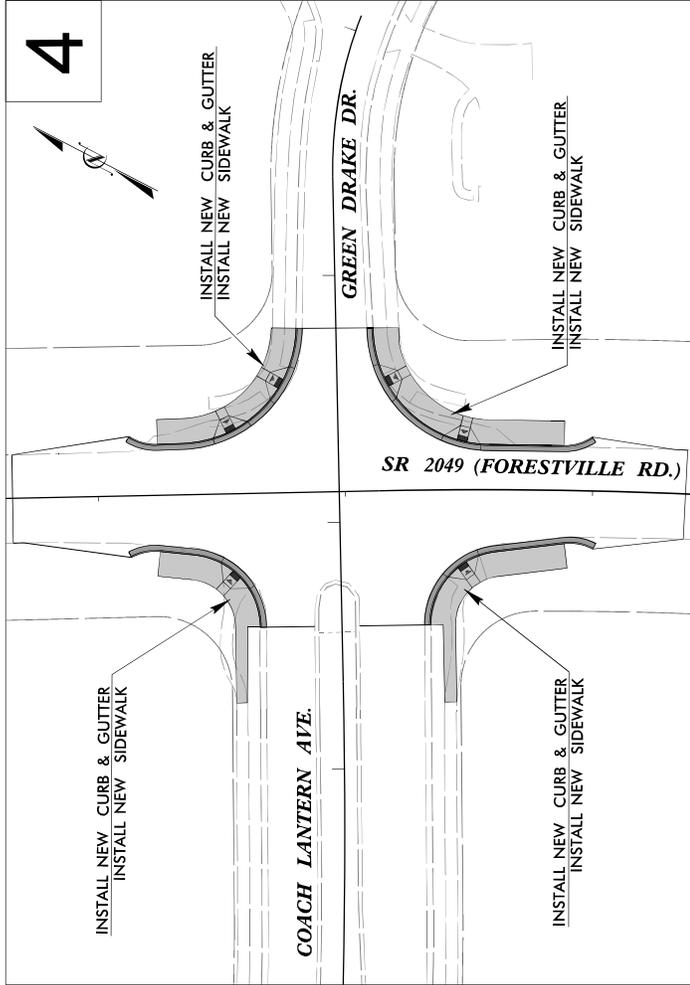
See Sheet 1A For Index of Streets
See Sheet 1B For Conventional Symbols



**TOWN OF WAKE FOREST
ENGINEERING**

FORESTVILLE ROAD SIGNAL

LOCATION: SR 2049 (FORESTVILLE ROAD) AT COACH LANTERN AVENUE/GREEN DRAKE DRIVE IN WAKE FOREST
TYPE OF WORK: CURB AND GUTTER, CURB RAMPS, SIDEWALK, AND DRAINAGE



STATE PROJECT NUMBER NO.	DATE
N.C.WBS #36249.4839	1
PROJECT NO.	DESCRIPTION
	PE
	ROW Acquisition
	Utility Relocation
	Construction

**FINAL PLANS
10-13-2025**

**DOCUMENT NOT COMPLETED FINAL
UNLESS ALL SIGNATURES COMPLETED**

This plan set incorporates all revisions to Report 8501-092-2-01619 dated September 15, 2025

These plans have been electronically approved for construction by the Town of Wake Forest Planning Department. The approval may be withdrawn at any time.

Public Works/Engineering

These plans have been electronically approved for construction by the Town of Wake Forest Planning Department. The approval may be withdrawn at any time.

Planning

CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

Electronic Approval: This approval is being based electronically. The approval is not valid until the City of Raleigh Planning Department has received a copy of the approved plans. The City of Raleigh Planning Department will not be held responsible for any construction that occurs in accordance with the plans prior to the date of this approval. The modification of the approval once issued will invalidate the approval.

City of Raleigh, Development Approval
Raleigh Water Sector - Office

HYDRAULICS ENGINEER

ROADWAY DESIGN ENGINEER

AMT
A. MORTON THOMAS AND ASSOCIATES, INC.
WWW.AMTENGINEERING.COM

PLANS PREPARED BY:

SAM MACDONALD, PE
PROJECT ENGINEER

AUSTIN CARPENTER, EIT
PROJECT DESIGN ENGINEER

2021 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
N/A

LETTING DATE:
JULY 31, 2025

PROJECT DATA

TOTAL PROJECT CURB RAMPS = 6

DESIGN DATA

ADT = N/A
ADT = N/A
K = N/A %
D = N/A %
T = N/A % *
V = 40 MPH

* TTST = N/A DUAL
FUNC CLASS = MINOR ARTERIAL STATEWIDE

GRAPHIC SCALES

PLANS: 1" = 20'

PROFILE (HORIZONTAL): 1" = 20'

PROFILE (VERTICAL): 1" = 10'

CONTRACT: TIP PROJECT: WBS #36249.4839

INDEX OF SHEETS, LIST OF STANDARD DRAWINGS, & GENERAL NOTES

INDEX OF SHEETS

SHEET NUMBER	SHEET
1	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES AND STANDARD DRAWINGS
1B	CONVENTIONAL SYMBOLS
2A-1	PAVEMENT SCHEDULE AND TYPICAL SECTIONS
2B-1	ROADWAY DETAILS
2C-1	DRAINAGE DETAIL SHEET
3D-1	DRAINAGE SUMMARY SHEET
4	PLAN SHEET
5	PROFILE SHEET
TMP-1 THRU TMP-3	TRAFFIC MANAGEMENT PLANS
PWP-1 THRU PWP-2	PAVEMENT MARKING PLANS
EC-1 THRU EC-5	EROSION CONTROL PLANS
S10H-1 THRU S10H-2	SIGNING PLANS

LIST OF STANDARD DRAWINGS

2024 ROADWAY ENGLISH STANDARD DRAWINGS
 EFF. 01-02-2024
 REV.

The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch - N. C. Department of Transportation - Raleigh, N. C., dated January, 2024 are applicable to this project and by reference hereby are considered a part of these plans:

STD. NO.	TITLE
DIVISION 2 - EARTHWORK	
200-02	Method of Clearing - Method 11
225-02	Guide for Grading Subgrade - Secondary and Local
DIVISION 3 - PIPE CULVERTS	
300-01	Method of Pipe Installation
310-10	Driveway Pipe Construction
DIVISION 6 - ASPHALT BASES AND PAVEMENTS	
654-01	Pavement Repairs
DIVISION 8 - INCIDENTALS	
840-14	Concrete Drop Inlet - 12" thru 30" Pipe
840-16	Drop Inlet Frame and Grates - for use with Std. Dwg 840-14 and 840-15
840-31	Concrete Junction Box - 12" thru 66" Pipe
840-34	Metallic Frame and Cover
840-66	Drainage Structure Stairs
848-01	Concrete Stormwater and Curb & Gutter
848-01	Concrete Sidewalk
848-06	Curb Ramps
DIVISION 12 - PAVEMENT MARKINGS	
1205-01	Pavement Markings - Line Types and Offsets
1205-02	Pavement Markings - Two Lane and Multi-Lane Roadways
1205-04	Pavement Markings - Intersections
1205-07	Pavement Markings - Pedestrian Crosswalks
1205-08	Pavement Markings - Symbols and Word Messages
1205-09	Pavement Markings - Painted Islands

GENERAL NOTES

2024 SPECIFICATIONS
 EFFECTIVE: 01-02-2024
 REVISED:

GRADING AND SURFACING OR RESURFACING AND WIDENING:

THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. WHERE NO GRADE LINES ARE SHOWN, THE PROFILES SHOWN DENOTE THE TOP ELEVATION OF THE EXISTING PAVEMENT ALONG THE CENTER LINE OF SURVEY ON WHICH THE PROPOSED RESURFACING WILL BE PLACED. GRADE LINES MAY BE ADJUSTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE-IN.

CLEARING:

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD 11.

SUBSURFACE PLANS:

NO SUBSURFACE PLANS ARE AVAILABLE ON THIS PROJECT. THE CONTRACTOR SHOULD MAKE HIS OWN INVESTIGATION AS TO THE SUBSURFACE CONDITIONS.

UTILITIES:

UTILITIES PRESENT ON THIS PROJECT ARE:
 OVERHEAD & UNDERGROUND POWER, WATER, SANITARY SEWER, TELECOMMUNICATIONS, FIBER OPTIC COMMUNICATIONS, CABLE TV, & GAS.

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS.

NO SUBSURFACE UTILITY INFORMATION AVAILABLE ON THIS PROJECT. CONTRACTOR TO PERFORM UTILITY INVESTIGATION AND ALERT TOWN ENGINEER OF CONFLICTS.

RIGHT-OF-WAY MARKERS:

ALL RIGHT-OF-WAY MARKERS ON THIS PROJECT SHALL BE PLACED BY CONTRACT.

CURB RAMPS:

CURB RAMPS ARE SHOWN ON THE PLANS AT APPROXIMATE LOCATIONS. CONSTRUCT ALL CURB RAMPS ACCORDANCE WITH DETAILS IN THE PLANS.

DRAINAGE PIPES:

ANY ALTERNATIVE PIPE MATERIAL ALLOWED BY SHEET 2D-1, MUST BE COORDINATED AND APPROVED BY THE ENGINEER PRIOR TO USE.

PROJECT REFERENCE NO. WBS 362494839	SHEET NO. 1A
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



These Plans have been electronically approved for construction by the State of North Carolina. This approval is not a guarantee of the accuracy of the information contained herein and may not be relied upon for any purpose other than that intended.

PAUL W. WOZNIAK
 Professional Engineer
 License No. 35174
 State of North Carolina
 Exp. 12/31/2025

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AMT
 A. MORTON AND ASSOCIATES, INC.
 1000 W. HARRIS STREET, SUITE 100
 RALEIGH, NC 27603
 WWW.AMTENGINEERING.COM

TOWN OF WAKE FOREST - ENGINEERING CONVENTIONAL PLAN SHEET SYMBOLS

PROJECT REFERENCE NO. **WFS_362494839**
SHEET NO. **13**

Note: Not to Scale

BOUNDARIES AND PROPERTY:

- State Line
- County Line
- Township Line
- City Line
- Reservation Line
- Property Line
- Existing Iron Pin (EIP)
- Computed Property Corner
- Existing Concrete Monument (ECM)
- Parcel/Sequence Number
- Existing Fence Line
- Proposed Woven Wire Fence
- Proposed Chain Link Fence
- Proposed Barbed Wire Fence
- Existing Wetland Boundary
- Proposed Wetland Boundary
- Existing Endangered Animal Boundary
- Existing Endangered Plant Boundary
- Existing Historic Property Boundary
- Known Contamination Area: Soil
- Potential Contamination Area: Soil
- Known Contamination Area: Water
- Potential Contamination Area: Water
- Contaminated Site: Known or Potential

BUILDINGS AND OTHER CULTURE:

- Gas Pump Vent or UG Tank Cap
- Sign
- Well
- Small Mine
- Foundation
- Area Outline
- Cemetery
- Building
- School
- Church
- Dam

HYDROLOGY:

- Stream or Body of Water
- Hydro, Pool or Reservoir
- Jurisdictional Stream
- Buffer Zone 1
- Buffer Zone 2
- Flow Arrow
- Disappearing Stream
- Spring
- Welland
- Proposed Lateral, Tail, Head Ditch
- False Sump

RAILROADS:

- Standard Gauge
- RR Signal Milepost
- Switch
- RR Abandoned
- RR Dismantled

RIGHT OF WAY & PROJECT CONTROL:

- Primary Horiz Control Point
- Primary Horiz and Vert Control Point
- Secondary Horiz and Vert Control Point
- Vertical Benchmark
- Existing Right of Way Monument (Rebar and Cap)
- Proposed Right of Way Monument (Concrete)
- Existing Permanent Easement Monument (Rebar and Cap)
- Proposed CA Monument (Rebar and Cap)
- Proposed CA Monument (Concrete)
- Existing Right of Way Line
- Proposed Right of Way Line
- Existing Control of Access Line
- Proposed Control of Access Line
- Proposed ROW and CA Line
- Existing Easement Line
- Proposed Temporary Construction Easement
- Proposed Temporary Drainage Easement
- Proposed Permanent Drainage Easement
- Proposed Permanent Drainage/Utility Easement
- Proposed Permanent Utility Easement
- Proposed Temporary Utility Easement
- Proposed Aerial Utility Easement

ROADS AND RELATED FEATURES:

- Existing Edge of Pavement
- Existing Curb
- Proposed Slope Stakes Cut
- Proposed Slope Stakes Fill
- Proposed Curb Ramp
- Existing Metal Guardrail
- Proposed Guardrail
- Existing Cable Guardrail
- Proposed Cable Guardrail
- Pavement Removal
- Equality Symbol
- Pavement Removal
- VEGETATION:
 - Single Tree
 - Single Shrub
 - Hedge

EXISTING STRUCTURES:

- MAJOR:
 - Bridge, Tunnel or Box Culvert
 - Bridge Wing Wall, Head Wall and End Wall
- MINOR:
 - Head and End Wall
 - Pipe Culvert
 - Footbridge
 - Drainage Box: Catch Basin, DI or JB
 - Paved Ditch Gutter
 - Storm Sewer Manhole
 - Storm Sewer
- UTILITIES:
 - * SUE - Subsurface Utility Engineering
 - LOS - Level of Service - A, B, C or D (Accuracy)
- POWER:
 - Existing Power Pole
 - Proposed Power Pole
 - Existing Joint Use Pole
 - Proposed Joint Use Pole
 - Power Manhole
 - Power Line Tower
 - Power Transformer
 - UG Power Cable Hand Hole
 - H-Frame Pole
 - UG Power Line Test Hole (SUE - LOS A)*
 - UG Power Line (SUE - LOS B)*
 - UG Power Line (SUE - LOS C)*
 - UG Power Line (SUE - LOS D)*
- TELEPHONE:
 - Existing Telephone Pole
 - Proposed Telephone Pole
 - Telephone Manhole
 - Telephone Pedestal
 - Telephone Cell Tower
 - UG Telephone Cable Hand Hole
 - UG Telephone Test Hole (SUE - LOS A)*
 - UG Telephone Cable (SUE - LOS B)*
 - UG Telephone Cable (SUE - LOS C)*
 - UG Telephone Cable (SUE - LOS D)*
 - UG Telephone Conduit (SUE - LOS B)*
 - UG Telephone Conduit (SUE - LOS C)*
 - UG Telephone Conduit (SUE - LOS D)*
 - UG Fiber Optics Cable (SUE - LOS B)*
 - UG Fiber Optics Cable (SUE - LOS C)*
 - UG Fiber Optics Cable (SUE - LOS D)*

WATER:

- Water Manhole
- Water Meter
- Water Valve
- Water Hydrant
- UG Water Line Test Hole (SUE - LOS A)*
- UG Water Line (SUE - LOS B)*
- UG Water Line (SUE - LOS C)*
- UG Water Line (SUE - LOS D)*
- Above Ground Water Line

TV:

- TV Pedestal
- TV Tower
- UG TV Cable Hand Hole
- UG TV Test Hole (SUE - LOS A)*
- UG TV Cable (SUE - LOS B)*
- UG TV Cable (SUE - LOS C)*
- UG TV Cable (SUE - LOS D)*
- UG Fiber Optic Cable (SUE - LOS B)*
- UG Fiber Optic Cable (SUE - LOS C)*
- UG Fiber Optic Cable (SUE - LOS D)*

GAS:

- Gas Valve
- Gas Meter
- UG Gas Line Test Hole (SUE - LOS A)*
- UG Gas Line (SUE - LOS B)*
- UG Gas Line (SUE - LOS C)*
- UG Gas Line (SUE - LOS D)*
- Above Ground Gas Line

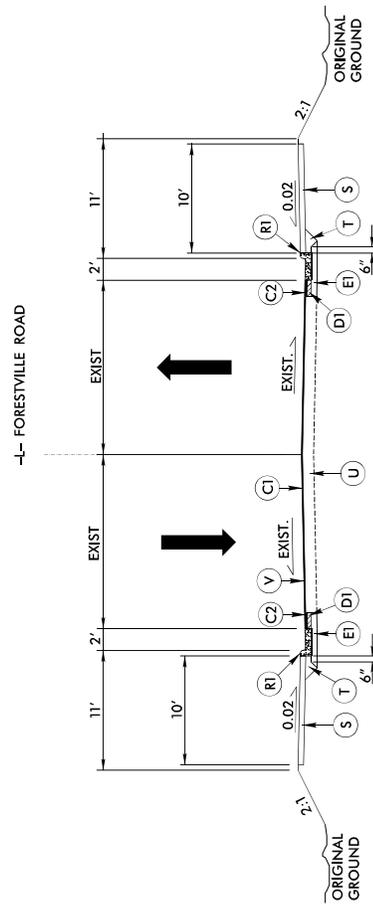
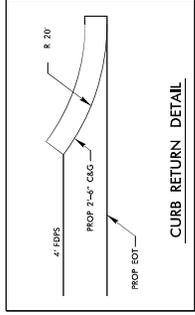
SANITARY SEWER:

- Sanitary Sewer Manhole
- Sanitary Sewer Cleanout
- UG Sanitary Sewer Line
- Above Ground Sanitary Sewer
- SS Force Main Line Test Hole (SUE - LOS A)*
- SS Force Main Line (SUE - LOS B)*
- SS Force Main Line (SUE - LOS C)*
- SS Force Main Line (SUE - LOS D)*

MISCELLANEOUS:

- Utility Pole
- Utility Pole with Base
- Utility Located Object
- Utility Traffic Signal Box
- Utility Unknown UG Line (SUE - LOS B)*
- UG Tank: Water, Gas, Oil
- Underground Storage Tank, Approx. Loc.
- AG Tank: Water, Gas, Oil
- Geoenvironmental Boring
- Abandoned According to Utility Records
- End of Information

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
D1	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
E1	PROP. APPROX. 5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.
R1	2'-6" CONCRETE CURB AND GUTTER
S	4" CONCRETE SIDEWALK
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
V	1.5" MILLING BITUMINOUS PAVEMENT.



TYPICAL SECTION NO. 1
 -- STA. 11+62.38 TO -- STA. 14+34.67

PROJECT REFERENCE NO. **WBS 36294839** SHEET NO. **2A-1**
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED
 ROADWAY DESIGN

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Public Works/Engineering
 Planning

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AMT
 A. MCCOY THOMAS AND ASSOCIATES, INC.
 340 HIGHLAND DRIVE, SUITE 100, WAKE FOREST, NC 27158
 WWW.AMTENGINEERING.COM

NOTE: ANY ALTERNATIVE PIPE MATERIAL ALLOWED BY THIS SHEET MUST BE COORDINATED AND APPROVED BY THE ENGINEER PRIOR TO USE.

TOWN OF WAKE FOREST ENGINEERING

PROJECT REFERENCE NO. WES 36249-2829
 SHEET NO. 20-7
 DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NCDOT PIPE MATERIAL SELECTION GUIDE

CLASS II	CLASS III		CLASS IV		CLASS V		CSP (CORRUGATED STEEL) AASHTO M294 2 1/2 x 1/2 CORRUGATION ³				CAAP (CORRUGATED ALUMINUM) AASHTO M196 2 1/2 x 1/2 CORRUGATION ³				HDPE AASHTO M294		PP ASTM F2881, ASTM F2764, AASHTO M330 OR AASHTO M330A		PVC-ASTM A550 M304	NOTES	
	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.			
2.0' 1.0' 2.0'	2.0' 1.0' 2.0'	2.0' 1.0' 2.0'	2.0' 1.0' 2.0'	2.0' 1.0' 2.0'	2.0' 1.0' 2.0'	2.0' 1.0' 2.0'	12" 1.0'	15" 1.0'	18" 1.0'	24" 1.0'	30" 1.0'	36" 1.0'	42" 1.0'	48" 1.0'	54" 1.0'	60" 1.0'	66" 1.0'	72" 1.0'	78" 1.0'	84" 1.0'	1- RCP IS NOT ALLOWED FOR GRADES > 0% 2- SPECIFICATIONS CSP IS NOT ALLOWED IN OTHER CIRCUMSTANCES 3- FOR DIFFERENT CORRUGATIONS AND ARCH PIPES REFER TO ROADWAY DESIGN MANUAL FOR CONSTRUCTION MANUFACTURERS SPECIFICATION. 4- TO SURGRADE, MINIMUM COVER IS 1FT WHEN PIPE IS USED AS A SIDE DRAIN. 5- WHERE SITE CONDITIONS ALLOW: 6- CROSS PIPES AND SECTIONS OF STORM SEWER SYSTEMS ACTING AS ORAN END CROSS PIPES, A MINIMUM OF ONE SIZE FOR FUTURE REHABILITATION, THIS IS IN ADDITION TO UPZIZING TO ORIGINAL SIZE. 7- FOR PIPE RUNS WITH GREATER THAN 12' VERTICAL DROP TO DOWNSTREAM STRUCTURE, PROVIDE A MEANS TO REDUCE RISK OF UNINTENDED ENTRY INTO UPSTREAM END OF PIPE. 8- ALL DEPTH SPECIFICATIONS MUST BE BASED ON DESIGN DEVIATIONS WITH STRUCTURAL DESIGN BASED ON AASHTO LRFD BRIDGE DESIGN OR ASTM STANDARDS. SUBMIT DESIGN SEALED BY AN NC PE FOR REVIEW & APPROVAL BY NCDOT. INSTALLATION OF ALL PIPE TYPES IS SUBJECT TO THE INSTALLATION METHODS FOUND IN THE STANDARD DRAWINGS, STANDARD SPECIFICATIONS, HYDRAULICS GUIDELINES, AND CONTRACT DOCUMENTS; ACCOUNTING FOR SITE CONDITIONS SUCH AS SOIL PROPERTIES. ALL PIPE TYPES ARE SUBJECT TO THE MAXIMUM AND MINIMUM FILL HEIGHT REQUIREMENTS AS FOUND IN THE CLASS OF PIPE FOR RCP ONLY DESIGN MANUALS. THE CLASS OF PIPE FOR RCP SHOULD BE SELECTED BASED ON FILL HEIGHT. SITE SPECIFIC CONDITIONS MAY LIMIT A PARTICULAR PIPE TYPE. THE CONDITIONS INCLUDE BUT ARE NOT LIMITED TO: ABRASION, ENVIRONMENTAL SOIL RESISTIVITY AND PH, HIGH GROUND WATER AND SPECIAL LOADINGS. UNDER THESE CONDITIONS THE HYDRAULIC SPECIAL ENGINEER SHALL ADVISE IF ADDITIONAL RESTRICTIONS ARE NECESSARY. SIDE DRAINS- STORM DRAIN PIPES RUNNING IN THE MEDIANS OUTSIDE DITCHES DRIVEWAYS AND UNDER SHOULDER BERM GUTTER ALONG OUTSIDE SHOULDERS GREATER THAN 4' WIDE COVER FOR ALL SIDE DRAIN PIPES IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 310. STORM DRAIN SYSTEMS- LATERAL DRAIN PIPE GUTTER AND SHOULDER BERM GUTTER (WITH DRAINAGE STRUCTURES AND IS NOT OPEN CONNECTING TWO OR MORE SYSTEMS OR SYSTEM OUTLETS. ONLY PIPE WITH SMOOTH WALL INSIDE WALLS WILL BE ALLOWED FOR STORM DRAIN SYSTEMS. TRANSVERSE MEDIAN PIPES- SHALLOW CROSS DRAIN PIPE THAT COLLECTS DRAINAGE IN A MEDIAN DITCH OR CURB SECTION AND IS NOT OPEN. DRAINAGE CHANNELS MAY OR MAY NOT BE OPEN ENDED. ALTERNATE PIPE IN WHICH MATERIAL IS UNSPECIFIED ON THE DRAINAGE SUMMARY SHEET AND DRAINAGE PLANS. HDDE- HIGH DENSITY POLYETHYLENE PP- POLYPROPYLENE
INTERSTATE ⁵	CAN BE USED	USE ONLY IF PIPE SLOPE IS GREATER THAN 10%				USE ONLY IF PIPE SLOPE IS GREATER THAN 10%				DO NOT USE		USE ONLY IF TRAFFIC < 10000 ADT & < 200 DUALS & < 100 TIST									
PRIMARY ⁵	CAN BE USED	USE ONLY IF PIPE SLOPE IS GREATER THAN 10%				USE ONLY IF PIPE SLOPE IS GREATER THAN 10%				CAN BE USED		CAN BE USED									
SECONDARY	CAN BE USED	USE ONLY AT SYSTEM INLETS & SYSTEM OUTLET IF PIPE SLOPE IS GREATER THAN 10%				USE ONLY AT SYSTEM INLETS & SYSTEM OUTLET IF PIPE SLOPE IS GREATER THAN 10%				CAN BE USED		CAN BE USED									
INTERSTATE	CAN BE USED	USE ONLY AT SYSTEM INLETS & SYSTEM OUTLET IF PIPE SLOPE IS GREATER THAN 10%				USE ONLY AT SYSTEM INLETS & SYSTEM OUTLET IF PIPE SLOPE IS GREATER THAN 10%				DO NOT USE		USE ONLY IF TRAFFIC < 10000 ADT & < 200 DUALS & < 100 TIST									
PRIMARY	CAN BE USED	USE ONLY AT SYSTEM INLETS & SYSTEM OUTLET IF PIPE SLOPE IS GREATER THAN 10%				USE ONLY AT SYSTEM INLETS & SYSTEM OUTLET IF PIPE SLOPE IS GREATER THAN 10%				CAN BE USED		CAN BE USED									
SECONDARY	CAN BE USED	USE ONLY AT SYSTEM INLETS & SYSTEM OUTLET IF PIPE SLOPE IS GREATER THAN 10%				USE ONLY AT SYSTEM INLETS & SYSTEM OUTLET IF PIPE SLOPE IS GREATER THAN 10%				CAN BE USED		CAN BE USED									
INTERSTATE	CAN BE USED	USE ONLY IF PIPE SLOPE IS GREATER THAN 10%				USE ONLY IF PIPE SLOPE IS GREATER THAN 10%				DO NOT USE		USE ONLY IF TRAFFIC < 10000 ADT & < 200 DUALS & < 100 TIST									
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SECONDARY	CAN BE USED	USE ONLY IF PIPE SLOPE IS GREATER THAN 10%				USE ONLY IF PIPE SLOPE IS GREATER THAN 10%				CAN BE USED		CAN BE USED									
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PRIMARY	CAN BE USED	USE ONLY IF PIPE SLOPE IS GREATER THAN 10%				USE ONLY IF PIPE SLOPE IS GREATER THAN 10%				CAN BE USED		CAN BE USED									
SECONDARY	CAN BE USED	USE ONLY IF PIPE SLOPE IS GREATER THAN 10%				USE ONLY IF PIPE SLOPE IS GREATER THAN 10%				CAN BE USED		CAN BE USED									

PRINTED: 2022-08-25
 REVISION: 2022-08-25

PROJECT REFERENCE NO. **WBS 3622494839**
 SHEET NO. **4**

RAW SHEET NO. **10/14/2025**

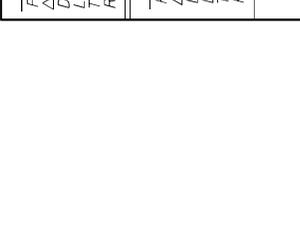
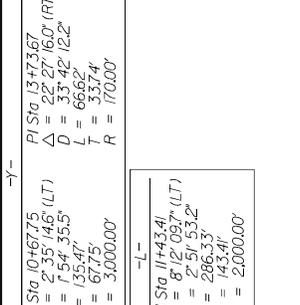
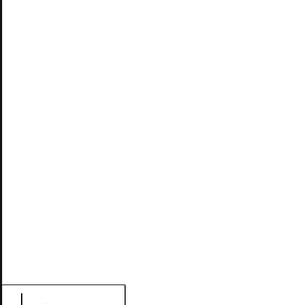
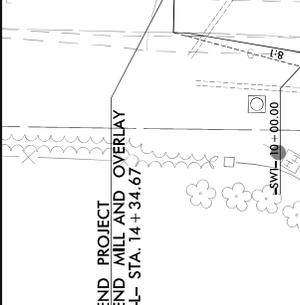
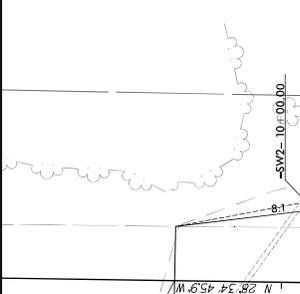
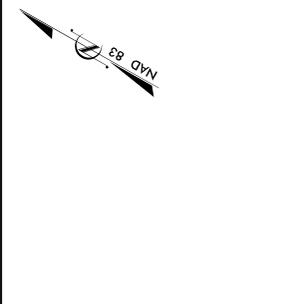
HYDRAULICS
 ROADWAY DESIGN
 CIVIL ENGINEER
 H. CARROLL
 PROFESSIONAL SEAL
 37371

HYDRAULICS
 ROADWAY DESIGN
 CIVIL ENGINEER
 H. CARROLL
 PROFESSIONAL SEAL
 37371

DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALE

20 10 0 20 40
 PLANS



PC Sta. 10+00.00
 PT Sta. 11+57.92
 END PROJECT
 END MILL AND OVERLAY
 -L- STA. 14+34.67

PC Sta. 11+00.00
 PT Sta. 12+66.33
 END PROJECT
 END MILL AND OVERLAY
 -Y- STA. 12+79.24

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 -Y- STA. 12+78.56

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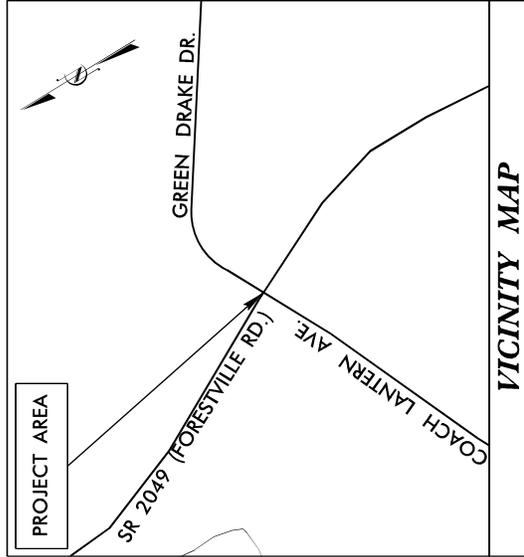
TOWN OF WAKE FOREST ENGINEERING

TRANSPORTATION MANAGEMENT PLAN

WAKE COUNTY



**LOCATION: FORESTVILLE ROAD, GREEN DRAKE DRIVE,
AND COACH LANTERN AVENUE**



INDEX OF SHEETS

SHEET NO.	TITLE
TMP-1	TITLE SHEET, VICINITY MAP, AND INDEX OF SHEETS
TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS AND LEGEND
TMP-1B	TRANSPORTATION OPERATIONS PLAN: (MANAGEMENT STRATEGIES, GENERAL NOTES AND PHASING NOTES)

**FINAL PLANS
10-13-2025**

03/20/25	DATE SUBMITTED
<input type="checkbox"/>	SUBMITTAL:
<input type="checkbox"/>	STAGING CONCEPT
<input type="checkbox"/>	MIDPOINT
<input type="checkbox"/>	PRE-FINAL
<input checked="" type="checkbox"/>	FINAL
DO NOT USE FOR CONSTRUCTION	

These plans have been electronically approved by the contractor. The contractor is responsible for ensuring that the approved drawings are used for construction. The contractor may not be allowed to use these plans for any other purpose.

Public Information Meeting

The State of North Carolina Department of Transportation (NCDOT) has approved these plans for use on its projects.

Approved by: **Paula B. Smith**, Director

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

APPROVED: 10/13/2025

DATE: 10/13/2025

SEAL



PLANS PREPARED BY:

SAM MACDONALD, P.E.
PROJECT ENGINEER

AUSTIN CARPENTER, E.I.
PROJECT DESIGN ENGINEER



NCDOT CONTACTS:

PROJECT ENGINEER

PROJECT DESIGN ENGINEER

TIP PROJECT:

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2024 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.05	WORK ZONE VEHICLE ACCESSES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1130.01	DRUMS
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGERS
1160.01	TEMPORARY CRASH CUSHION
1170.01	PORTABLE CONCRETE BARRIER
1180.01	SKINNY - DRUMS
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO LANE AND MULTILANE ROADWAYS
1205.12	PAVEMENT MARKINGS - BRIDGES
1261.01	GUARDRAIL AND BARRIER DELINEATORS - INSTALLATION SPACING
1261.02	GUARDRAIL AND BARRIER DELINEATORS - TYPES AND MOUNTING
1262.01	GUARDRAIL END DELINEATION

SUMMARY OF QUANTITIES

ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT
DESC. NO. 4455000000	1150 FLAGGER	8	DAY

LEGEND

GENERAL

- DIRECTION OF TRAFFIC FLOW
- DIRECTION OF PEDESTRIAN TRAFFIC FLOW
- EXIST. PAVT.
- PROPOSED PAVT.
- TEMP. SHORING (LOCATION PURPOSES ONLY)
- WORK AREA
- REMOVAL
- WEDGE AND/OR WIDEN (USING FLAGGERS)

TRAFFIC CONTROL DEVICES

- BARRICADE (TYPE III)
- CONE
- DRUM
- SKINNY DRUM
- TUBULAR MARKER
- TEMPORARY CRASH CUSHION
- FLASHING ARROW BOARD
- FLAGGER
- LAW ENFORCEMENT
- TRUCK MOUNTED ATTENUATOR (TMA)
- CHANGEABLE MESSAGE SIGN
- PORTABLE CONCRETE BARRIER

TEMPORARY SIGNING

- PORTABLE SIGN
- STATIONARY SIGN
- STATIONARY OR PORTABLE SIGN

PAVEMENT MARKERS

- CRYSTAL/CRYSTAL
- CRYSTAL/RED
- YELLOW/YELLOW

PAVEMENT MARKING SYMBOLS

- PAVEMENT MARKING SYMBOLS

SIGNALS

- EXISTING
- PROPOSED
- TEMPORARY

PAVEMENT MARKINGS

- EXISTING LINES
- TEMPORARY LINES

TEMPORARY PAVEMENT MARKING

PAVEMENT MARKING - PAINT (4")

P1	WHITE EDGE LINE
P13	YELLOW DOUBLE CENTER
P42	YELLOW DIAGONAL
P61	WHITE STOPBAR
P70	LEFT TURN ARROW
P71	RIGHT TURN ARROW
P72	STRAIGHT ARROW
P74	COMBO. RIGHT/STRAIGHT ARROW

These plans have been electronically approved for construction by the Town of Wake Forest. The approval may not be altered once issued.

Public Works Engineering

These plans have been electronically approved for construction by the Town of Wake Forest. The approval may not be altered once issued.



APPROVED: [Signature]

DATE: 10/14/2025

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A. MORTON THOMAS AND ASSOCIATES, INC.
 1001 EAST WILSON STREET, SUITE 2000
 WAKE FOREST, NC 27158
 WWW.AMTENGINEERING.COM

ROADWAY STANDARD DRAWINGS & LEGEND

TOWN OF WAKE FOREST ENGINEERING

PAVEMENT MARKING PLAN

PROJECT REFERENCE NO. WES-3622494839	SHEET NO. PMP-1	RAW SHEET NO. FMP-1
ROADWAY DESIGN ENGINEER		
		
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		

SHEET NO.	DESCRIPTION
PMP-1	PAVEMENT MARKING PLAN TITLE AND SCHEDULE SHEET
PMP-2	PAVEMENT MARKING PLANS

ROADWAY STANDARD DRAWING

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2024 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1205-01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205-02	PAVEMENT MARKINGS - MULTILANE ROADWAYS
1205-03	PAVEMENT MARKINGS - INTERSECTIONS
1205-04	PAVEMENT MARKINGS - TURN LANES
1205-05	PAVEMENT MARKINGS - TURN LINES
1205-07	PAVEMENT MARKINGS - PEDESTRIAN CROSSWALKS
1205-08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205-09	PAVEMENT MARKINGS - PAINTED ISLANDS
1250-01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1250-01	RAISED PAVEMENT MARKERS - SNOWPLOWABLE

GENERAL NOTES

- THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT EXCEPT WHEN OTHERWISE NOTED IN THE PLAN, OR DIRECTED BY THE ENGINEER.
- A) INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS FOLLOWS:

ROAD NAME	MARKING	MARKER
FORESTVILLE ROAD	THERMOPLASTIC	PERMANENT RAISED
GREEN DRAKE DRIVE	THERMOPLASTIC	NONE
COACH LANTERN AVENUE	THERMOPLASTIC	NONE
 - B) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
 - C) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS.
 - D) UNLESS OTHERWISE SPECIFIED, HEATED-IN-PLACE THERMOPLASTIC MAY BE USED IN LIEU OF EXTRUDED THERMOPLASTIC FOR STOP BARS, SYMBOLS, CHARACTERS AND WORD MESSAGES. HEATED-IN-PLACE THERMOPLASTIC IS USED, IT SHALL BE PAID FOR USING THE EXTRUDED THERMOPLASTIC PAY ITEM.

SUMMARY OF QUANTITIES

ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT
4685000000	THERMOPLASTIC PAVEMENT MARKING LINES (4", 90 MILS)	990	L, F
4695000000	THERMOPLASTIC PAVEMENT MARKING LINES (8", 90 MILS)	190	L, F
4709000000	THERMOPLASTIC PAVEMENT MARKING LINES (24", 90 MILS)	610	L, F
4726110000	HEATED-IN-PLACE THERMOPLASTIC PAVEMENT MARKING SYMBOLS (90 MILS)	7	EA
4800000000	PERMANENT RAISED PAVEMENT MARKERS	10	EA

<p>PLAN PREPARED BY: AMT</p> <p>SAM MACDONALD, PE PROJECT MANAGER</p> <p>AUSTIN CARPENTER, EIT PROJECT DESIGN ENGINEER</p>	 <p style="font-size: small;">A. MORTON THOMAS AND ASSOCIATES, INC. 9000 WOODBURN ROAD, SUITE 1000 WAKE FOREST, NC 27158 WWW.AMTENGINEERING.COM</p>
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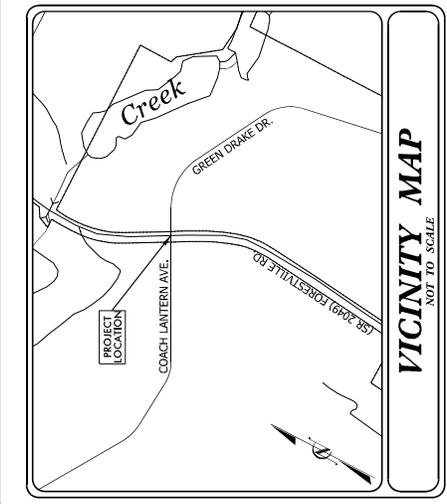
FINAL PLANS
10-13-2025

These plans have been electronically approved for construction by the Town of Wake Forest for public works and engineering projects. This approval is not a guarantee of the accuracy of the information contained herein. The user of these plans shall be responsible for verifying the accuracy of the information contained herein. The user of these plans shall be responsible for obtaining all necessary permits and approvals from the appropriate regulatory agencies. This approval is not for use on any other project without the express written consent of AMT Engineering.

Public Works Engineering
A. Morton Thomas, Inc.
9000 Woodburn Road, Suite 1000
Wake Forest, NC 27158
www.amt-engineering.com



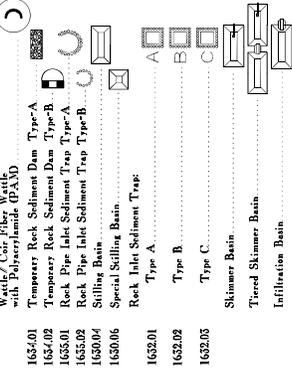
TIP PROJECT: HL-0141



TOWN OF WAKE FOREST ENGINEERING
TOWN OF WAKE FOREST IMPROVEMENTS
PLAN FOR PROPOSED ROADWAY EROSION CONTROL

STATE	PROJECT NUMBER ON	DATE	TOTAL SHEETS
N.C.	WBS 5629-469	EC-1	
DATE REVISION	DATE REVISION	DESCRIPTION	
4/9/06:1.1	05/20/26	PE	
4/9/06:2.1		ROW ACQUISITION	
4/9/06:2.2		UTILITY RELOCATION	
4/9/06:3.1		CONSTRUCTION	

- EROSION AND SEDIMENT CONTROL MEASURES**
- 165003 Denaziation
 - 165005 Temporary Silt Ditch
 - 165006 Temporary Diversion
 - 165007 Special Silt Fence
 - 165008 Temporary Berms and Slope Drains
 - 165009 Silt Basin Type B
 - 165010 Temporary Rock Silt Check Type-A
 - 165011 Temporary Rock Silt Check Type-A with Matting and Polyethylene (PAM)
 - 165012 Temporary Rock Silt Check Type-B
 - 165013 Watch/Cair Fiber Walk with Polyethylene (PAM)
 - 165014 Temporary Rock Sediment Dam Type-A
 - 165015 Temporary Rock Sediment Dam Type-B
 - 165016 Rock Pipe Inlet Sediment Trap Type-A
 - 165017 Rock Pipe Inlet Sediment Trap Type-B
 - 165018 Stilling Basin
 - 165019 Special Stilling Basin
 - 165020 Rock Inlet Sediment Trap Type A
 - 165021 Type B
 - 165022 Type C
 - 165023 Skimmer Basin
 - 165024 Tiered Skimmer Basin
 - 165025 Infiltration Basin

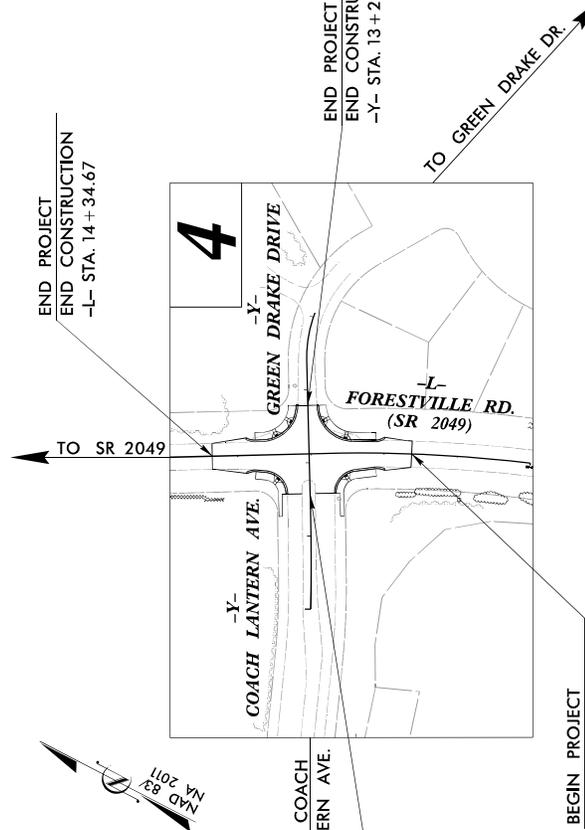


THIS PROJECT CONTAINS EROSION CONTROL PLANS FOR CLEARING AND GRUBBING PHASE OF CONSTRUCTION.

These plans have been electronically approved for construction by the Town of Wake Forest Public Works and Engineering Department. This approval is not a guarantee of performance and is not to be relied upon for any other purpose.

Public Works/Engineering
 Planning

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



ROADWAY STANDARD DRAININGS

The following roadway standard drawings remain as appear in the "Roadway Standard Drawings" - Roadway Design Manual, 2014 Edition, and are hereby incorporated by reference into these plans.

- 1604.01 Railroad Erosion Control Detail
- 1605.01 Temporary Silt Fence
- 1606.01 Temporary Silt Fence
- 1607.01 Gravel Construction Entrance
- 1622.01 Temporary Berms and Slope Drains
- 1630.01 Silt Basin Type B
- 1630.02 Silt Basin Type B
- 1630.03 Temporary Silt Ditch
- 1630.04 Stilling Basin
- 1630.05 Special Stilling Basin
- 1631.01 Mattress Installation
- 1632.01 Rock Inlet Sediment Trap Type A
- 1632.02 Rock Inlet Sediment Trap Type B
- 1633.01 Temporary Rock Silt Check Type A
- 1633.02 Temporary Rock Silt Check Type B
- 1634.01 Temporary Rock Sediment Dam Type A
- 1634.02 Temporary Rock Sediment Dam Type B
- 1635.01 Rock Pipe Inlet Sediment Trap Type A
- 1635.02 Rock Pipe Inlet Sediment Trap Type B
- 1645.01 Temporary Stream Crossing

Prepared in the Office of:

AMT
 A. MORTON THOMAS AND ASSOCIATES, INC.
 1000 W. WILSON ROAD, SUITE 100
 WAKE FOREST, NC 27158
 WWW.AMTENGINEERING.COM

Designed by:
Samuel MacDonald, P.E. 4131
 NAME LEVEL III CERTIFICATION NO.

EROSION CONTROL ENGINEER

Professional Seal: STATE OF NORTH CAROLINA, EXPIRES 10/14/2025, No. 31330

Signature: **SAMUEL MACDONALD**

GRAPHIC SCALE

20 10 0 20 40
 PLANS

THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE APPLICABLE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE APRIL 1, 2019 AND ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF WATER RESOURCES.

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

1-24

ROADWAY STANDARD DRAWING FOR
TEMPORARY SILT FENCE

1605-01

8" MAX. WITH WIRE
 (6" MAX. WITHOUT WIRE)

MIDDLE AND VERTICAL WIRES
 SHALL BE 12 GAUGE MIN.

24" MAX.
 (18" MIN.)

GEOTEXTILE

WIRE

GEOTEXTILE

EXTENSION OF GEOTEXTILE AND
 WIRE INTO TRENCH

STEEL POST - 2'-0" DEPTH

8"

4"

GEOTEXTILE
 COMPACTED FILL

NOTES

USE GEOTEXTILE A MINIMUM OF 36" IN WIDTH AND PASTERE ADEQUATELY TO THESE WIRE AS DIRECTED.

USE WIRE A MINIMUM OF 32" IN WIDTH AND WITH A MINIMUM OF 5 LINE WIRES WITH 12" VERTICAL SPACINGS.

PROVIDE 5'-0" STEEL POST OF THE SELF-FASTENER ANGLE STEEL TYPE.

FOR MECHANICAL SLICING METHOD INSTALLATION, GEOTEXTILE SHALL BE A MAXIMUM OF 18" ABOVE GROUND SURFACE.

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

1-24

ROADWAY STANDARD DRAWING FOR
SPECIAL SEDIMENT CONTROL FENCE

1606-01

VARIABLE DIMENSION

3 FT

1/4 WIRE MESH

2 FT

1 FT MIN

SEDIMENT CONTROL STONE

1/4 WIRE MESH

1 FT MIN

STEEL POST - 2 FT DEPTH

WATER FLOW

NOTES

USE NO. 5 OR NO. 57 STONE FOR SEDIMENT CONTROL STONE.

USE HARDWARE CLOTH 24 GAUGE WIRE MESH WITH 1/4" TIGHT MESH OPENINGS.

INSTALL 5 FT. SELF-FASTENER ANGLE STEEL POST 2 FT. DEEP MINIMUM.

ATTACH HARDWARE CLOTH TO POSTS WITH WIRE STAPLE ON OTHER ACCEPTABLE METHODS.

SPACE POSTS A MAXIMUM OF 3 FT.

FOR INSTALLATION BETWEEN SECTIONS OF SILT FENCE, EXTEND SEDIMENT CONTROL STONE TO THE END OF EACH SECTION OF SPECIAL SEDIMENT CONTROL FENCE SECTION.

MAINTENANCE NOTES:

1. INSPECT FENCE WEEKLY AND AFTER EACH RAINFALL AND MAKE REPAIRS PROMPTLY.
2. REPLACE FENCE IF IT COLLAPSES, TEARS, DECOMPOSES, OR BECOMES INEFFECTIVE.
3. REMOVE SEDIMENT DEPOSITED AS NEEDED TO PROVIDE STORAGE VOLUME FOR THE NEXT RAINFALL.
4. MAINTAIN FENCE DURING CLEANOUT.

These plans have been electronically approved for construction by the Town of Wake Forest Public Works and Engineering Departments. This approval may not be altered once issued.

Public Works Engineering
 Date: 10/3/2025

These plans have been electronically approved for construction by the Town of Wake Forest Planning Department. This approval may not be altered once issued.

Planning
 Date: 10/3/2025

Special Sediment Control Fence:

Description:
 The work covered by this section consists of the construction, maintenance, and removal of special sediment control fence. Place special sediment control fence as shown on the plans or as directed by the Engineer.

Materials:

(A) Posts:
 Steel posts shall be at least 5 feet in length, approximately 1.38 inches wide measured parallel to the fence, and have a minimum weight of 1.25 lb/ft of length. The post shall be equipped with an anchor plate having a minimum area of 14.0 square inches and a means of retaining wire in the desired position without displacement.

(B) 1/4 inch Hardware Cloth:
 Hardware cloth shall have 1/4 inch openings constructed from #24 gauge wire. Install hardware cloth according to the detail shown on the plans.

(C) Sediment Control Stone:
 Sediment control stone shall meet the requirements of Section 1005. Install stone according to the detail shown on the plans.

Maintenance and Removal:
 The Contractor shall maintain the special sediment control fence until this project is accepted, or until the fence is removed, and shall be responsible for the cost of removal and disposal, when so directed by the Engineer in accordance with Section 1630.

The quantity of posts, sediment control stone and hardware cloth as shown on the plans shall be sufficient to construct the special sediment control fence for Erosion Control. Such price and payment will be full compensation for all work covered by this provision, including but not limited to, furnishing all materials, installation, and removal and disposal of all accumulations and material.

Maintenance: CLEAN OUT AT 50% CAPACITY
 LIFE OF FENCING: 6-9 MONTHS
 DO NOT DETURB TREE CONSERVATION AREAS
 SILT FENCE SHOULD NOT BE USED ALONE BELOW GRADED SLOPES GREATER THAN 10 IN HEIGHT.

MAINTENANCE NOTES:

1. INSPECT FENCE WEEKLY AND AFTER EACH RAINFALL AND MAKE REPAIRS PROMPTLY.
2. REPLACE STONE AS NEEDED TO ENSURE DEWATERING.
3. REMOVE SEDIMENT DEPOSITED AS NEEDED TO PROVIDE STORAGE VOLUME FOR THE NEXT RAINFALL.
4. MAINTAIN FENCE DURING CLEANOUT.

These plans have been electronically approved for construction by the Town of Wake Forest Public Works and Engineering Departments. This approval may not be altered once issued.

Public Works Engineering
 Date: 10/3/2025

These plans have been electronically approved for construction by the Town of Wake Forest Planning Department. This approval may not be altered once issued.

Planning
 Date: 10/3/2025

PROJECT REFERENCE NO. **WBS 362494639**
 SHEET NO. **EC-2B**
 R/W SHEET NO.

This plan shows the location of the rock inlets for sedimentation by the Town of Wake Forest Public Works and Engineering Department. The approval may not be altered once issued.

Public Works/Engineering
 Planning

These plans have been electronically approved for construction by the Town of Wake Forest Planning Department. Her approval is not intended to constitute a warranty or a representation of any kind. The approval may not be altered once issued.

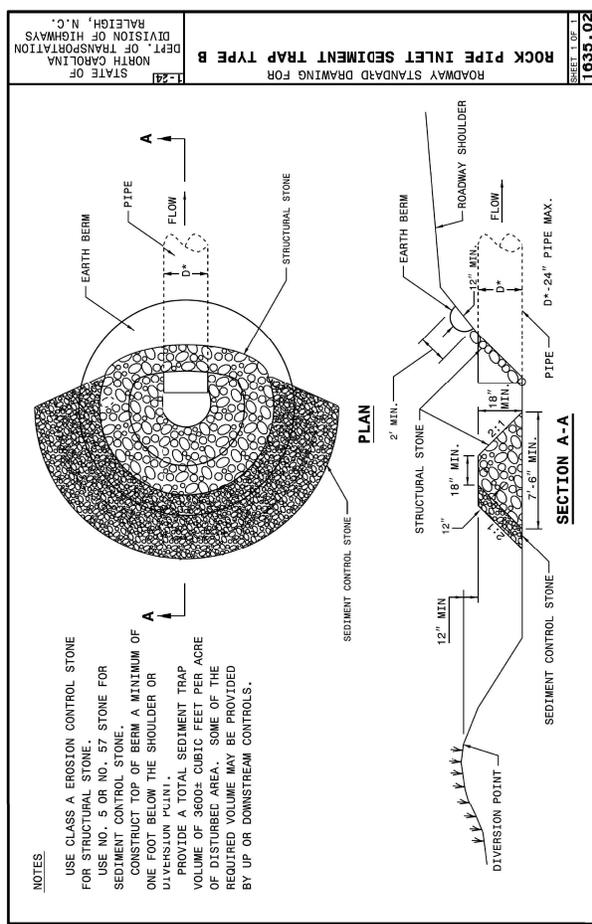
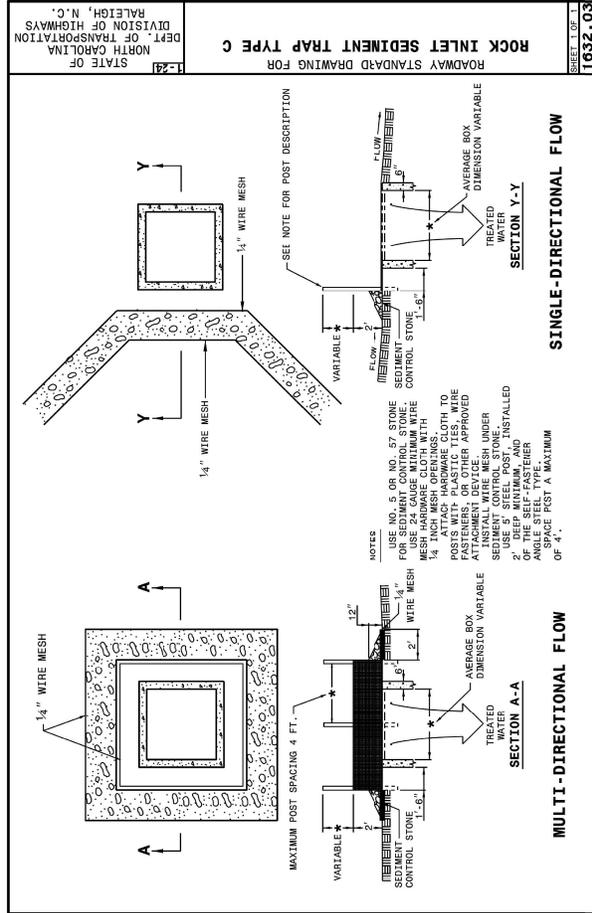
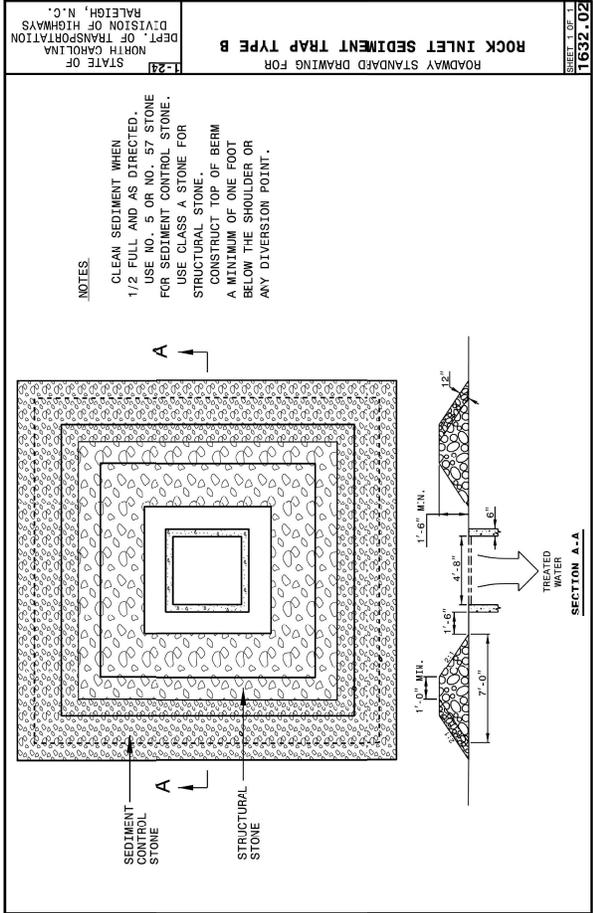
Patrick Ray
 2020

ANY RIP-RAP DISPLACED FROM THE ROCK INLET TRAP MUST BE REPLACED IMMEDIATELY.

MAINTENANCE:
 1. INSPECT INLET PROTECTION WEEKLY AND AFTER EACH RAIN EVENT.
 2. REMOVE SEDIMENT AFTER EACH RAIN EVENT.
 3. GRAVEL SHOULD BE REPLACED AND REPAIRS MADE AS NEEDED.

ANY RIP-RAP DISPLACED FROM THE STONE HORSESHOE MUST BE REPLACED IMMEDIATELY.

MAINTENANCE:
 1. INSPECT ROCK INLET PIPE PROTECTION WEEKLY AND AFTER EACH RAINFALL EVENT OF 1/2" OR GREATER.
 2. REMOVE SEDIMENT FROM THE SEDIMENT STORAGE AREA AFTER EACH RAINFALL EVENT. SEDIMENT HAS ACCUMULATED TO 1/2 DESIGN DEPTH OF THE TRAP.
 3. REMOVE AND PLACE CONTAMINATED PART OF GRAVEL FACING.
 4. REPLACE ANY DISPLACED RIP-RAP.



A. MORTON THOMAS AND ASSOCIATES, INC.
 3400 HILLSBORO DRIVE, SUITE 100, RALEIGH, NC 27609
 WWW.AMTENGINEERING.COM

AMT

WATTLE DETAIL

PROJECT REFERENCE NO.	SHEET NO.
WBS_562294639	LC-2C
R/W SHEET NO.	

- MAINTENANCE NOTES:**
1. INSPECT WATTLE WEEKLY AND AFTER EACH RAINFALL EVENT OF 1/2" OR GREATER.
 2. REMOVE ACCUMULATED SEDIMENT AND DEBRIS.
 3. REINSTALL WATTLE IF UNDERMINED OR DISLODGED AND REPLACE IF CLOGGED OR TORN OR DAMAGED.

NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

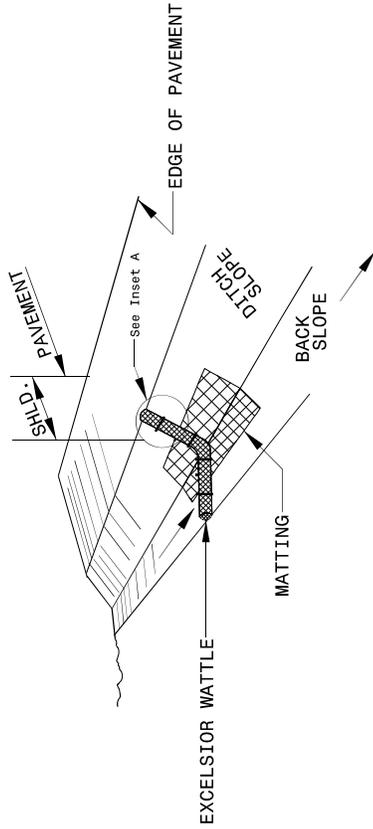
ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

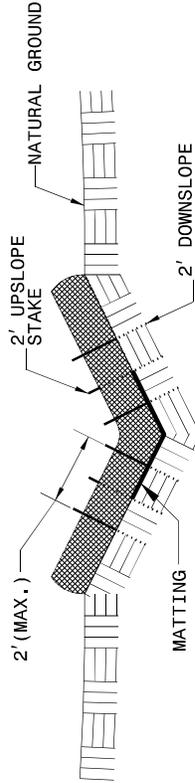
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12 IN LENGTH.

INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

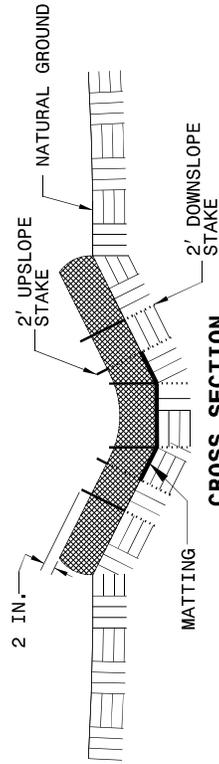
INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.



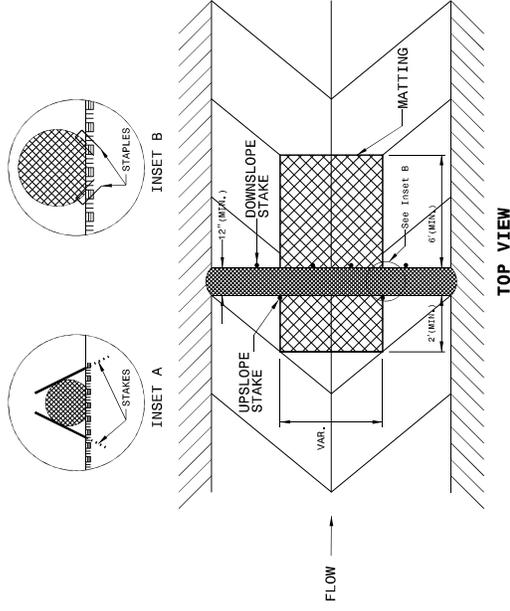
ISOMETRIC VIEW



CROSS SECTION VEE DITCH



CROSS SECTION TRAPEZOIDAL DITCH



TOP VIEW

This plan has been prepared for construction by the Town of Wake Forest Public Works and Engineering Departments. This approval may not be altered once issued.

Public Works Engineering
 Planning

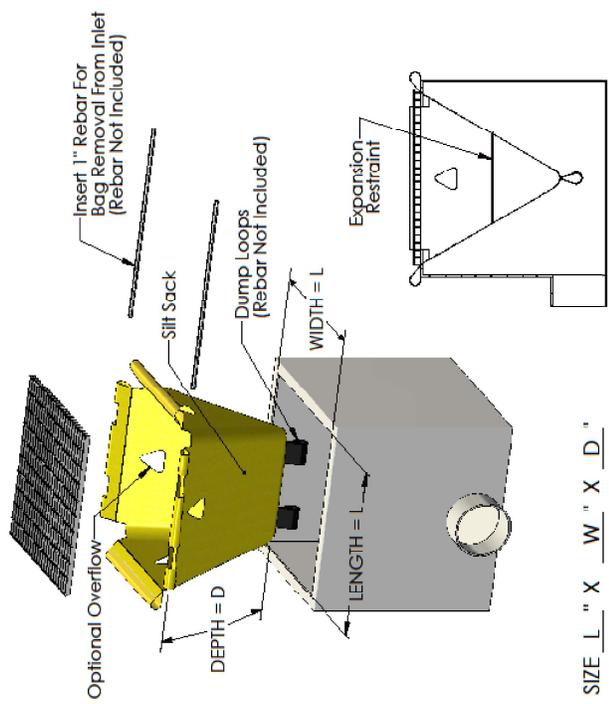
This plan has been electronically approved for construction by the Town of Wake Forest Planning Department. This approval may not be altered once issued.

David R. Smith, 2025
 Planning

NOT TO SCALE

AMT
 CIVIL ENGINEERING AND SURVEYING
 2000 W. HARRISVILLE RD., SUITE 100
 WAKE FOREST, NC 27158
 WWW.AMTENGINEERING.COM

Silt Sack - Type A



SIZE L " X W " X D "



MAINTENANCE:
 1. INSPECT INLET PIPE PROTECTION WEEKLY AND AFTER EACH RAINFALL EVENT OF 1/2" OR GREATER.
 2. REMOVE SEDIMENT WHEN SEDIMENT HAS ACCUMULATED TO 1/2" DEPTH.
 3. IF THE SILT SACK CONTAINS ANY HOLES, TEARS, OR RIPS, REMOVE AND REPLACE DAMAGED SILT SACK IMMEDIATELY.

These plans have been electronically approved for construction by the Town of Wake Forest Public Works and Engineering Department. This approval may be altered once issued.
 Public Works Engineering
 These plans have been electronically approved for construction by the Town of Wake Forest Planning Department. This approval may be altered once issued.
 Planning

NOT TO SCALE
 A. MORTON THOMAS AND ASSOCIATES, INC.
 3400 HUNTERS LANE, SUITE 100, RICHMOND, VA 23226
 WWW.AMTENGINEERING.COM

TOWN OF WAKE FOREST
ENGINEERING

SOIL STABILIZATION TIMEFRAMES

PROJECT REFERENCE NO.	SHEET NO.
WBS-3622924639	EC-3A
R/W SHEET NO.	

SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HOW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.

These plans have been electronically approved for construction by the Wake County Planning Department. The responsibility for obtaining all necessary permits and for obtaining all necessary approvals from the appropriate agencies remains with the applicant. The applicant is responsible for obtaining all necessary permits and for obtaining all necessary approvals from the appropriate agencies.

Public Works Engineering
Wake County
Planning

These plans have been electronically approved for construction by the Wake County Planning Department. This approval may not be altered once issued.

Wake County
Planning



SEQUENCE OF CONSTRUCTION

1. SUBMIT DOCUMENTATION REQUIRED UNDER THE NPDES PERMIT FOR CONSTRUCTION ACTIVITIES.
2. CONTACT NEDCO LOS AT THE BARRIO REGIONAL RECONSTRUCTION MEETING AT LEAST FOUR WEEKS PRIOR TO THE START OF THE PRE-CONSTRUCTION MEETING CAN BE SCHEDULED.
3. INITIAL TEMPORARY EROSION CONTROL MEASURES AS SHOWN ON THE CLEARING AND GRUBBING PLAN SHEETS. CLEAR ONLY THE AREAS NECESSARY FOR THE CONSTRUCTION OF THE PERMANENT EROSION CONTROL NEDCO LOS AT THE BARRIO REGIONAL OFFICE AT 919-791-4200 ONCE MEASURES ARE IN PLACE.
4. LAND DETURBANCE AND CONSTRUCTION MAY BE INITIATED ON THE AREAS WHERE EROSION CONTROL MEASURES ARE IN PLACE.
5. PER NPDES REQUIREMENTS A RAIN GAUGE SELF RECORDING RECORDS CERTIFICATE OF COVERAGE, AND ACCESSIBLE DURING INSPECTION IS RECOMMENDED THAT THESE ITEMS BE PLACED IN A PERMITS BOX AT THE BEGINNING OF ENTRANCE OF PROJECT.
6. SELF-INSPECTIONS FOR EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CONDUCTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF EVERY RAIN EVENT OF GREATER THAN 1 INCH.
7. MAINTAIN MEASURES AS DESIGNED ALL ESC MEASURES SHALL BE MAINTAINED AS DESIGNED. ALL ESC MEASURES SHALL BE INSTALLED AT THE PROJECT SITE FOR MONITORING. COPIES OF THE INSPECTION REPORTS MUST BE KEPT ON SITE.
8. PERFORM GRADING OPERATIONS, SIDEWALK CONSTRUCTION, DRAINAGE NETWORKS, AND EROSION CONTROL MEASURES. DRAINAGE NETWORKS ENSURE THAT EXISTING DRAINAGE SYSTEMS CONTINUE TO FUNCTION UNTIL THE PROPOSED DRAINAGE NETWORKS ARE IN PLACE. ALL ESC MEASURES FOR THE FINAL EROSION CONTROL PLANS AS THE AREA IS CONSTRUCTED AND FINAL DRAINAGE AND GRADING IS IN PLACE.
9. ALL DRAINAGE MEASURES SHALL BE MAINTAINED TO TOP OF BANK. SITE STABILIZATION IS REQUIRED WHICH TEMPORARIES INCLUDED IN THE ESC PLANS.
10. FINAL EROSION CONTROL MEASURES MAY NOT BE REMOVED UNTIL PERMANENT GROUND COVER HAS BEEN ESTABLISHED THROUGHOUT THE SITE.
11. WHEN THE PROJECT IS COMPLETE AND PERMANENT GROUND COVER IS ESTABLISHED, CONTACT NEDCO LOS TO REMOVE THE PERMITS OF THE PROJECT CLOSE OUT.
12. THE CONTRACTOR SHALL SUBMIT AN ELECTRONIC NOTICE OF TERMINATION (N-NOT).

CONSTRUCTION NARRATIVE:

THE PURPOSE OF THE PROJECT IS TO INSTALL THE INTERSECTION OF COACH LANTERN AVENUE/GREEN AVENUE. THE PROJECT IS PROPOSED TO MAINTAIN THE EXISTING FLOW PATTERN AND OUTLET LOCATIONS.

EROSION AND SEDIMENT CONTROL NARRATIVE:

EROSION AND SEDIMENT CONTROL CONCEPTS OF BUT FENCE WITH SPECIAL SEDIMENT CONTROL FENCE AT DEFINED INTERVALS ON THE PLAN FOR FILTERING, PROPOSED TO FILTER SEDIMENT LATER WATER CARRIED BY EXISTING AND PROPOSED DITCHES WITHIN ROCK INLET PROTECTION TYPES B AND C ARE AREAS AND THE INLET.

GENERAL EROSION CONTROL NOTES

1. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED THROUGHOUT THE PROJECT AND SPILL OR WASTE AREAS.
2. ALL SEDIMENT CONTAMINANT DEVICES MUST BE MAINTAINED UNTIL ALL UPGRADE DRAINAGE AREAS ARE COMPLETELY ESTABLISHED AND THE ESTABLISHMENT OF PERMANENT VEGETATION.
3. ANY DRAINAGE OF SEDIMENT CONTAMINANT DEVICES FOR MAINTENANCE REMOVAL OR CONVERSION DIRECTLY TO THE STORM DRAIN SYSTEM BUT MUST BE FILTERED THROUGH A 3/16" B.S. SCREEN.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES AND STRUCTURES ON THE PROJECT UNTIL THE NOTICE OF TERMINATION IS FILED.
5. ANY ACCIDENTAL RELEASE OF SEDIMENT FROM THE SITE SHALL BE CLEANED BY THE CONTRACTOR.
6. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO KEEP CLEAN ALL STREETS DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING USING A DRY METHOD (E.G. NO WALKER TRACKS OR HOSES).
7. THE CONTRACTOR MUST INSPECT THE PROJECT AND DOCUMENT THE INSPECTION AFTER INSTALLATION OF PERMITS EROSION AND SEDIMENT CONTROL MEASURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR GROUND COVER COMPLETION OF ANY PHASE OF GRADING OF SLOPES OR HILLS. INSTALLATION OF STORM DRAINAGE AND EROSION CONTROL MEASURES SHALL BE SUFFICIENT TO RESTRAIN EROSION.
8. ANY LAND CLEARING, CONSTRUCTION, OR DEVELOPMENT ACCORDANCE WITH THE APPROVED ESC PLAN AND THAT THE SUPERINTENDENT IN-CHARGE OR CONTRACTOR SHALL GRADING ACTIVITY TAKES PLACE.
9. ROLLED EROSION CONTROL PRODUCTS INETS, BLANKETS OR MATS MUST BE FREE OF PLASTIC OR SYNTHETIC MATERIALS, EVEN IF LABELED "BIODEGRADABLE" OR "NATURAL". ALL PRODUCTS MUST BE MADE WITH NATURAL FIBERS SUCH AS JUTE (NOT POLY JUTE) STRAW, SEAL OR COIR.
10. GARBAGE IS TO BE DEPOSED OF PROPERLY. ALL EQUIPMENT AND TOOLS SHALL BE CLEANED UP IMMEDIATELY. EQUIPMENT ARE TO BE PLACED ON HIGH SIDE OF TRENCH ANY EXCESS EXCAVATION MATERIAL WILL BE HAULED IMMEDIATELY OFF SITE. MATERIAL WILL BE STOCKPILED ON-SITE.
11. THE CONTRACTOR SHALL ONLY EXCAVATE THAT AMOUNT OF UTILITY AS CAN BE REMOVED AND REPLACED. SINGLE STEEL MAN HOLES SHALL BE EXCAVATED TO THE END OF EACH WORKING DAY. NO OTHER UNCOVERED EXCAVATION WILL BE ALLOWED AFTER WORKING HOURS.
12. LOCATION OF CONCRETE WASHOUT TO BE SUBMITTED TO THE SUPERINTENDENT FOR APPROVAL BY ENGINEER AND INSPECTOR. CONSTRUCTION FOR APPROVAL BY ENGINEER AND INSPECTOR.
13. EQUIPMENT AND THE WASHING IS PROHIBITED ON THE CONSTRUCTION SITE.
14. ANY EQUIPMENT OR MATERIALS BEING BROUGHT TO THE CONSTRUCTION SITE MUST BE KEPT WITHIN THE PROJECT LIMITS.
15. ALL MILLINGS SHALL BE REMOVED FROM THE CONSTRUCTION AREA AND STOCKPILED AT APPROVED LOCATION. TOTAL OBLIGED AREA FOR THIS PROJECT IS 0.29 ACRES.
16. "TOCCRE" LAWN ON WASTE AREAS, CONCRETE WASHOUTS, PORTABLE TOILETS AND FUELS MUST BE LOCATED AT LEAST 50 FEET AWAY FROM ANY OTHER WATER CONVEYANCES. THE LOCATION OF THESE ACTIVITIES MAY BE FIELD ADJUSTED IF THE DISTANCE REQUIREMENTS ARE MET.
17. CONTRACTOR TO DETERMINE LOCATION OF RAIN GAUGE AND PERMITS RECORDS BOX ON-SITE PRIOR TO START OF CONSTRUCTION.
18. ANY SOIL STOCKPILES TEMPORARILY LEFT ON-SITE MUST BE TEMPORARILY PLACED ON PAVEMENT MUST HAVE SAND FINES PLACED UNDERNEATH THEM.

SEEDING SCHEDULE

Method	Rate (lb/acre)	Time (over in dry soil)	For Shrubs, Site, etc. (Spec. Area 2.1)	Planting Area	Planting Rate
Hand	1000	1000	1000	1000	1000
Machine	500	500	500	500	500
Machine	2	2	2	2	2
Machine	1000	1000	1000	1000	1000
Machine	500	500	500	500	500
Machine	2	2	2	2	2
Machine	1000	1000	1000	1000	1000
Machine	500	500	500	500	500
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Machine	1000	1000	1000	1000	1000
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Machine					

SECTION A: SELF-INSPECTION
 Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the inspection record.

Inspect	Frequency (times per business hours)	Inspection records must include:
(1) Rain gauge maintained in good working order	Daily	Daily rainfall amounts If no daily rain gauge observations are made during weekend or holiday periods, no individual day rainfall information is recorded. Days on which no rainfall occurred shall be recorded as needed. Days on which no rainfall occurred shall be recorded as needed. The permittee may use another rain-measuring device approved by the permittee.
(2) E&SC Measures	At least once per 7 calendar days and within 24 hours	1. Identification of the measures inspected. 2. Date and time of the inspection. 3. Name of the person performing the inspection. 4. Description of whether the measures were operating properly. 5. Description of maintenance needs for the measure. 6. Description, evidence, and date of corrective actions taken.
(3) Stormwater discharge	At least once per 7 calendar days and within 24 hours of a rain event > 1.0 inch in 24 hours	1. Date and time of the inspection. 2. Name of the person performing the inspection. 3. Evidence of indicators of stormwater pollution such as oil or debris. 4. Indication of visible sediment leaving the site. 5. Description, evidence, and date of corrective actions taken.
(4) Perimeter of site	At least once per 7 calendar days and within 24 hours of a rain event > 1.0 inch in 24 hours	1. Actions taken to clean up or stabilize the sediment that has left the site limits. 2. Description, evidence, and date of corrective actions taken, and any notification as to the actions taken to control future releases. 3. If the stream or wetland has increased visible sedimentation or a stream has visible increased turbidity from the construction activity, then a record of the following shall be made: a. Date and time of the inspection. b. Name of the person performing the inspection. c. Description, evidence, and date of corrective actions taken.
(5) Streams or wetlands on site (if applicable)	At least once per 7 calendar days and within 24 hours of a rain event > 1.0 inch in 24 hours	1. Regional Office per Part III, Section C, Item (2)(b) of this permit. 2. The phase of grading (installation of perimeter E&SC drainage facilities, completion of all land disturbing activity, construction or redevelopment, permanent ground cover). 3. Records of the required ground stabilization measures have been provided within the required timeframe of an assurance that they will be provided as soon as possible.

SECTION B: RECORDKEEPING
1. E&SC Plan Documentation
 The approved E&SC plan as well as any approved deviation shall be kept on the site. The approved E&SC plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&SC plan shall be kept on site and available for inspection at all times during normal business hours.

Item to Document	Documentation Requirements
(a) Each E&SC measure has been installed and does not significantly deviate from the location, dimensions or the elevations shown on the approved E&SC plan.	Initial and date each E&SC measure on a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(b) A phase of grading has been completed.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved E&SC plan.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(d) The maintenance and repair requirements for all E&SC measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to E&SC measures.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate the completion of the corrective actions.

SECTION C: REPORTING
 Permittees shall report the following occurrences:
 (a) Visible sediment deposition in a stream or wetland.
 (b) Oil spills if:
 • They are 25 gallons or more,
 • They are less than 25 gallons but cannot be cleaned up within 24 hours,
 • They cause sheen on surface waters (regardless of volume), or
 • They are within 100 feet of surface waters (regardless of volume).
 (c) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.
 (d) Anticipated bypasses and unanticipated bypasses.
 (e) Noncompliance with the conditions of this permit that may endanger health or the environment.

2. Reporting Timeframes and Other Requirements
 After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Department's Environmental Emergency Center personnel at (800) 858-0368.

Occurrence	Reporting Timeframes (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	• Within 24 hours , an oral or electronic notification. • Within 7 calendar days , a report containing a description of the sediment, the location, the address, the date of the deposition, and the name of the person reporting the occurrence. Division staff may waive the requirement for a written report on a case-by-case basis. • If the stream is named on the NC 303(a) list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired waters conditions.
(b) Oil spills and hazardous substances per Item 1(b)-(c) above	• Within 24 hours , an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release. • A report or at least ten days before the date of the bypass, if possible. The report shall include an evaluation of the anticipated quality and quantity of the bypass, and an electronic notification. • Within 7 calendar days , a report that includes an evaluation of the quality and effect of the bypass.
(c) Anticipated bypasses (40 CFR 122.41(m)(3))	• Within 24 hours , an oral or electronic notification. • Within 7 calendar days , a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact date and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent the noncompliance. • Division staff may waive the requirement for a written report on a case-by-case basis.

3. Documentation to be Retained for Three Years
 All data used to complete the e-NOI and all inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41.]

PART IV. SECTION G, ITEM (4)
DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT

Sediment basins and traps that receive runoff from drainage areas of one acre or more shall use outlet structures that withdraw water from the surface when these devices need to be drawn down for maintenance or close out unless this is infeasible. The circumstances in which it is not feasible to withdraw water from the surface shall be rare (for example, times with extended cold weather). Non-surface withdrawals from sediment basins shall be allowed only when all of the following criteria have been met:

- The E&SC plan authority has been provided with documentation of the non-surface withdrawal and the specific time periods or conditions in which it will occur. The non-surface withdrawal shall not commence until the E&SC plan authority has approved these items.
- The non-surface withdrawal has been reported as an anticipated bypass in accordance with Part III, Section C, Item (2)(c) and (d) of this permit.
- Dewatering discharges are treated with controls to minimize discharges of pollutants from stormwater that is removed from the sediment basin. Examples of appropriate controls include properly sized, designed and maintained dewatering tanks, weir tanks, and filtration systems.
- Vegetated, upland areas of the sites or a properly designed stone pad is used to the extent feasible at the outlet of the dewatering treatment devices described in item (c) above.
- Velocity dissipation devices such as check dams, sediment traps, and riprap are provided at the discharge points of all dewatering devices, and
- Sediment removed from the dewatering treatment devices described in item (c) above is disposed of in a manner that does not cause deposition of sediment into waters of the United States.

2. Additional Documentation to be Kept on Site
 In addition to the E&SC plan documents above, the following items shall be kept on the site and available for inspection at all times during normal business hours. The Division provides a site-specific exemption based on unique site conditions that make this requirement not practical.

- This General Permit as well as the Certificate of Coverage, after it is received.
- Records of inspections made during the previous twelve months. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-stored records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.

2. Reporting Timeframes and Other Requirements
 After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Department's Environmental Emergency Center personnel at (800) 858-0368.

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(b) A phase of grading has been completed.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved E&SC plan.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(d) The maintenance and repair requirements for all E&SC measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to E&SC measures.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate the completion of the corrective actions.

3. Documentation to be Retained for Three Years
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- The E&SC plan authority has been provided with documentation of the non-surface withdrawal and the specific time periods or conditions in which it will occur. The non-surface withdrawal shall not commence until the E&SC plan authority has approved these items.
- The non-surface withdrawal has been reported as an anticipated bypass in accordance with Part III, Section C, Item (2)(c) and (d) of this permit.
- Dewatering discharges are treated with controls to minimize discharges of pollutants from stormwater that is removed from the sediment basin. Examples of appropriate controls include properly sized, designed and maintained dewatering tanks, weir tanks, and filtration systems.
- Vegetated, upland areas of the sites or a properly designed stone pad is used to the extent feasible at the outlet of the dewatering treatment devices described in item (c) above.
- Velocity dissipation devices such as check dams, sediment traps, and riprap are provided at the discharge points of all dewatering devices, and
- Sediment removed from the dewatering treatment devices described in item (c) above is disposed of in a manner that does not cause deposition of sediment into waters of the United States.

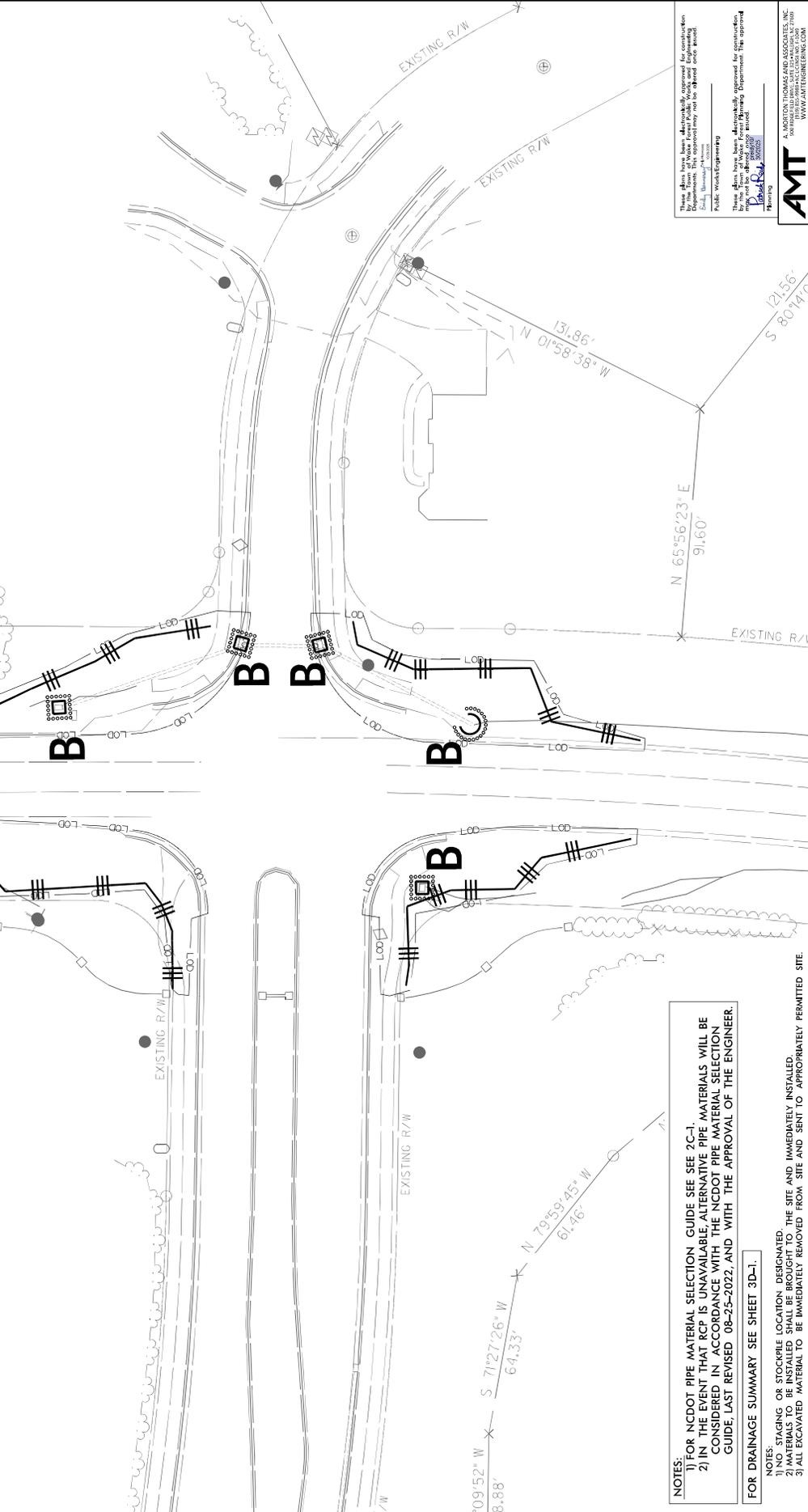
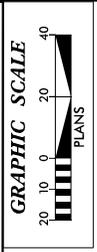
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 After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Department's Environmental Emergency Center personnel at (800) 858-0368.

PROJECT REFERENCE NO.	WBS_3622494839
CONSTR. SHEET 04	EC-4

CLEARING & GRUBBING PHASE



This plan has been prepared for construction by the State of North Carolina and is not to be used for any other purpose without the written consent of the Engineer. The Engineer is not responsible for any errors or omissions in this plan.

This plan has been prepared for construction by the State of North Carolina and is not to be used for any other purpose without the written consent of the Engineer. The Engineer is not responsible for any errors or omissions in this plan.

AMT
A. MORTON THOMAS AND ASSOCIATES, INC.
10101 LANTANA DRIVE, SUITE 200, RALEIGH, NC 27615
WWW.AMTENGINEERING.COM

NOTES:

- 1) FOR NCDOT PIPE MATERIAL SELECTION GUIDE SEE 2C-1.
- 2) IN THE EVENT THAT RCP IS UNAVAILABLE, ALTERNATIVE PIPE MATERIALS WILL BE CONSIDERED IN ACCORDANCE WITH THE NCDOT PIPE MATERIAL SELECTION GUIDE, LAST REVISED 08-25-2022, AND WITH THE APPROVAL OF THE ENGINEER.

FOR DRAINAGE SUMMARY SEE SHEET 3D-1.

NOTES:

- 1) NO STAGING OR STOCKPILE LOCATION DESIGNATED.
- 2) MATERIALS TO BE INSTALLED SHALL BE BROUGHT TO THE SITE AND IMMEDIATELY INSTALLED.
- 3) ALL EXCAVATED MATERIAL TO BE IMMEDIATELY REMOVED FROM SITE AND SENT TO APPROPRIATELY PERMITTED SITE.

**TOWN OF WAKE FOREST
ENGINEERING**

**SIGNING PLAN
FORESTVILLE ROAD & COACH LANTERN AVENUE**

**LOCATION: FORESTVILLE ROAD, GREEN DRAKE DRIVE,
AND COACH LANTERN AVENUE**

TIP NO. _____ SHEET NO. _____
WBS: 362497839 SIGN-1
APPROVED: DATE: 10/14/2023
SEAL



**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**



**FINAL PLANS
10-13-2025**

ROADWAY STANDARD DRAWING

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N. C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N. C., DATED JANUARY 2024 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

- STD. NO. _____ TITLE _____
- 903.10 GROUND MOUNTED SIGN SUPPORTS
 - 904.10 ORIENTATION OF GROUND MOUNTED SIGNS
 - 904.50 SIGNING - MOUNTING OF TYPE 'D', 'E', AND 'F' SIGNS ON 'U' CHANNEL POSTS

INDEX

SHEET NO. _____ DESCRIPTION _____
SIGN-1 SIGNING PLAN, TITLE AND SCHEDULE SHEET
SIGN-2 PROPOSED SIGNS

GENERAL NOTES

- THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT, EXCEPT WHEN OTHERWISE NOTED IN THE PLAN, OR DIRECTED BY THE ENGINEER.
- A) SIGNS FURNISHED BY CONTRACTOR
 - B) CONFIRM IN WRITING AT LEAST 4 MONTHS IN ADVANCE, THE ACTUAL DATE THE CONTRACTOR FURNISHED SIGNS WILL BE REQUIRED.
 - C) IF REMOVAL OR RELOCATION OF SIGNS ON PRIVATE STREET (NON-STATE MAINTAINED) IS REQUIRED PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL INFORM THE ENGINEER. THE WORK WILL BE COMPLETED BY OTHERS.
 - D) SIGNING PLANS DO NOT INCLUDE TEMPORARY CONSTRUCTION SIGNING OR PAVEMENT MARKINGS. SEE TRAFFIC CONTROL PLANS.
 - E) WHEN NOT STATIONED OR DIMENSIONED ON PLANS, ALL 'E' SIGNS SHALL BE FIELD LOCATED BY THE ENGINEER
 - F) THE BACKGROUND FOR TYPE 'E' SIGNS SHALL BE TYPE C REFLECTIVE SHEETING.
 - G) SEE ROADWAY PLANS FOR GUARDRAIL DETAILS.

SIGNING SUMMARY OF QUANTITIES

ITEM NO.	DESC. NO.	SECT. NO.	ITEM DESCRIPTION	QUANTITY	UNIT
4025000000	901		CONTRACTOR FURNISH, TYPE E SIGN	36	S.F.
4072000000	903		SUPPORTS, 3 LB STEEL U-CHANNEL	60	L.F.
4155000000	907		DISPOSAL OF SIGN SYSTEM, U-CHANNEL	1	EA
4238000000	907		DISPOSAL OF SIGN, TYPE E	2	EA

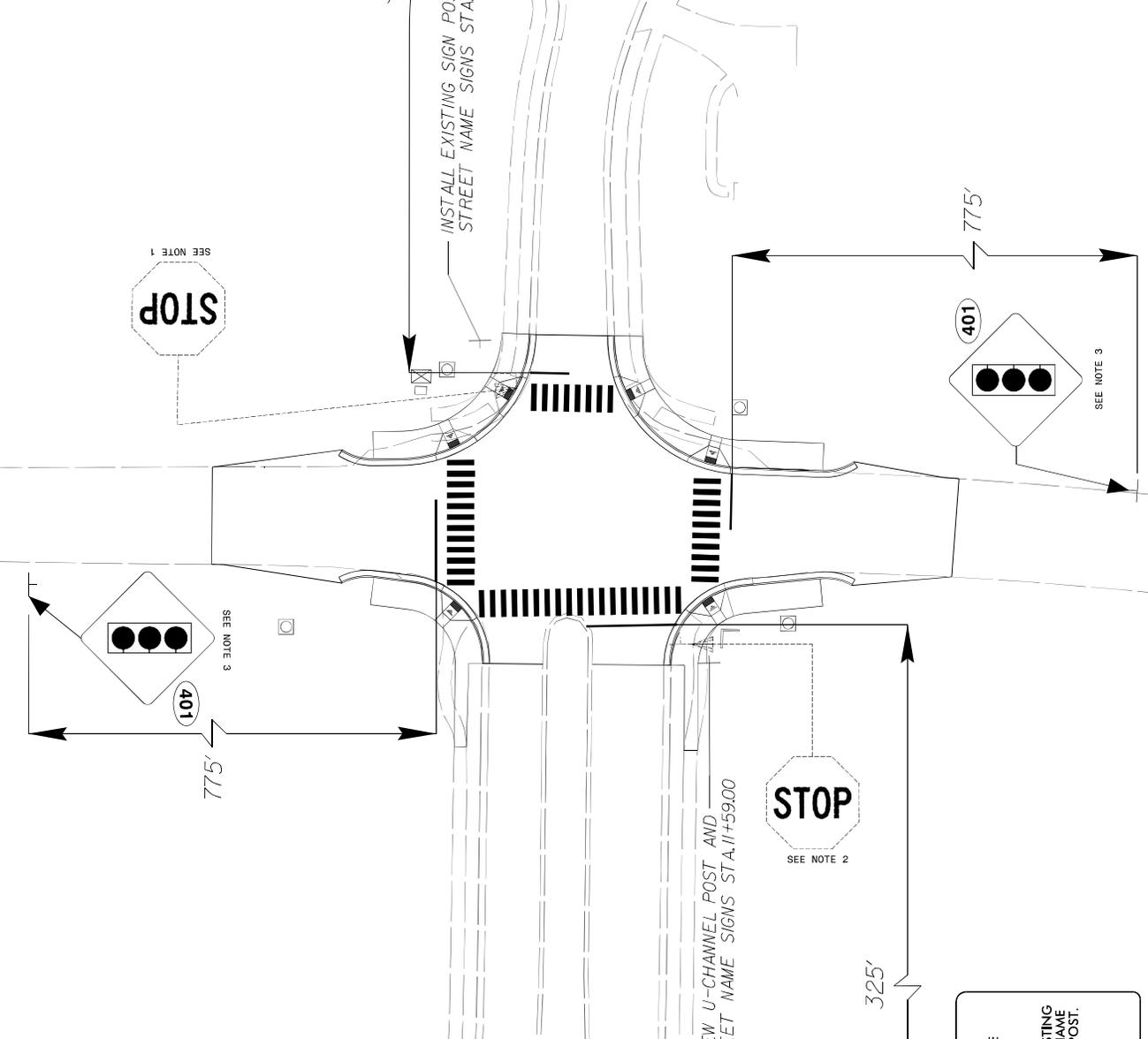
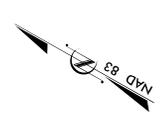
These plans have been electronically approved for construction by the State of North Carolina. The contractor shall be responsible for obtaining all necessary permits. The contractor shall be responsible for obtaining all necessary permits. The contractor shall be responsible for obtaining all necessary permits.

PROJECT REFERENCE NO.	WFS 362424639	SHEET NO.	SIGN-2
ROADWAY DESIGN	HYDRAULICS	ENGINEER	

ROADWAY DESIGN SEAL
 PROFESSIONAL ENGINEER
 STATE OF NORTH CAROLINA
 10/17/2025

DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL OBSERVATIONS COMPLETED

GRAPHIC SCALE
 20 10 0 20 40
 PLANS



401 QUANTITY REQ'D 4

ONE "U" POST PER SIGN

36" x 36" SIG-3

- PROJECT NOTES**
- DISPOSAL OF SIGN, E. RELOCATE EXISTING SIGN, POST AND STREET NAME SIGNS.
 - DISPOSAL OF SIGN, E AND EXISTING SIGN, POST, RELOCATE STREET NAME SIGNS ON NEW U-CHANNEL POST.
 - CONTRACTOR TO COORDINATE WITH ENGINEER FOR SIGN PLACEMENT IN THE FIELD

These plans have been prepared by the engineer for construction by the Town of Wake Forest Public Works and Engineering Department. The engineer is not responsible for the accuracy of the information provided by the contractor. The contractor is responsible for the accuracy of the information provided by the contractor.

These plans have been prepared by the engineer for construction by the Town of Wake Forest Public Works and Engineering Department. The engineer is not responsible for the accuracy of the information provided by the contractor. The contractor is responsible for the accuracy of the information provided by the contractor.

AMT
 A. NOTION THOMAS AND ASSOCIATES, INC.
 1000 W. HARRIS STREET, SUITE 200, WAKE FOREST, NC 27158
 WWW.AMTENGINEERING.COM

MAXTIME OVERLAP PROGRAMMING DETAIL FOR DEFAULT PHASING

Front Panel
Main Menu > Controller > Overlap Parameters > Overlap Timings

Web Interface
Home > Controller > Overlap Configuration > Overlaps

Overlap	1	3	4
Type	FVA4-Section	FVA4-Section	FVA4-Section
Included Phases	2	6	8
Modifier Phases	1	5	-
Modifier Overlaps	-	-	-
Trail Green	0	0	0
Trail Yellow	0.0	0.0	0.0
Trail Red	0.0	0.0	0.0

MAXTIME DETECTOR PROGRAMMING DETAIL FOR ALTERNATE PHASING LOOPS 1A, & 5A

Front Panel
Main Menu > Controller > Detector > Veh Det Plans

Web Interface
Home > Controller > Detector Configuration > Vehicle Detectors

In the table view of web interface right click on "Detector" in the top left corner of the table. Copy the entire contents of Detector Plan 1. Paste Detector Plan 1 into Detector Plan 2. Modify Detector Plan 2 as shown below and save changes.

Plan 2	Call Phase	Delay
Detector	1	3
	29	0
	1	0
	3	0

Detector	Call Phase	Delay
	15	5
	31	0
	0	0
	3	0

MAXTIME ALTERNATE PHASING PATTERN PROGRAMMING DETAIL

Front Panel
Main Menu > Controller > Coordination > Patterns

Web Interface
Home > Controller > Coordination > Patterns

Pattern Parameters

Pattern *	Z
Veh Det Plan	Z
Overlap Plan	Z

* The Pattern number(s) are to be determined by the Division Traffic Engineer.

MAXTIME OVERLAP PROGRAMMING DETAIL FOR ALTERNATE PHASING

Front Panel
Main Menu > Controller > Overlap Parameters > Overlap Timings

Web Interface
Home > Controller > Overlap Configuration > Overlaps

In the table view of the web interface, right click on "Overlap" in the top left corner of the table. Copy the entire contents of Overlap Plan 1. Paste Overlap Plan 1 into Overlap Plan 2. Modify Overlap Plan 2 as shown below and save changes.

Overlap	1	3	4
Type	FVA4-Section	FVA4-Section	FVA4-Section
Included Phases	-	5	8
Modifier Phases	1	-	-
Modifier Overlaps	-	-	-
Trail Green	0	0	0
Trail Yellow	0.0	0.0	0.0
Trail Red	0.0	0.0	0.0

MAXTIME STARTUP AND SOFTWARE FLASH PROGRAMMING DETAIL

Front Panel
Main Menu > Controller > Unit

Web Interface
Home > Controller > Unit

Modify parameters as shown below and save changes.

Start Up Parameters	StartUp Clearance Hold	6
Unit Flash Parameters	All Red Flash Exit Time	6



NC Dept of Transportation
Division of Highways
Final Drawing Sheet: 01/24/2025
IHS # 36249-4493

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 05-1670
DESIGNED: January 2025
SEALED: January 23, 2025
REVISED:

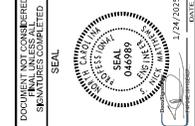
AMT
A. MASON, T. THOMAS AND ASSOCIATES, INC.
300 HICKORY DRIVE, SUITE 234-ROSELAND, NC 27069
(704) 366-1100
WWW.AMTENGINEERING.COM

Electrical Detail - Sheet 2 of 3
SR 2049 (Forestville Road) at
Coach Lantern Avenue and
Green Drake Drive

Division 5 Wake County
Plan Date: January 2025
Prepared By: C.ULLIB
Reviewed By: S.M. McILWAIN

Wake Forest
11/24/2025
05-1670

750 N. Greenleaf Pkwy., Garner, NC 27520



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SPANS ARE COMPLETED
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OUTPUT CHANNEL CONFIGURATION

Front Panel
 Main Menu > Controller > More > Channels > Channels Config
 Web Interface
 Home > Controller > Advanced ID > Channels > Channel Configuration

Channel Configuration

Channel	Control Type	Control Source	Flash Yellow	Flash Red	Flash All	MMU Channel
1	Phase Vehicle	1		X	X	1
2	Phase Vehicle	2		X		2
3	Phase Vehicle	3		X	X	3
4	Phase Vehicle	4		X		4
5	Phase Vehicle	5		X	X	5
6	Phase Vehicle	6		X		6
7	Phase Vehicle	7		X	X	7
8	Phase Vehicle	8		X		8
9	Overlap	9		X	X	9
10	Overlap	2		X	X	10
11	Overlap	3		X	X	11
12	Overlap	4		X		12
13	Phase Ped	2		X		13
14	Phase Ped	4				14
15	Phase Ped	6				15
16	Phase Ped	8		X	X	16
17	Overlap	5		X		17
18	Overlap	6		X	X	18

MAXTIME ALTERNATE PHASING ACTIVATION DETAIL

To run alternate phasing, select a Pattern that is programmed to run Overlap Plan 2 and Detector Plan 2. A Pattern can be selected through the scheduler or manually by changing the Operational Mode.

PHASING	OVERLAP PLAN	VEH DET PLAN
ACTIVE PLAN REQUIRED TO RUN DEFAULT PHASING	1	1
ACTIVE PLAN REQUIRED TO RUN ALTERNATE PHASING	2	2

ALTERNATE PHASING CHANGE SUMMARY

THE FOLLOWING IS A SUMMARY OF WHAT TAKES PLACE WHEN OVERLAP PLAN 2 AND VEHICLE DETECTOR PLAN 2 ACTIVATE TO CALL THE ALTERNATE PHASING:

OVERLAP PLAN 2: Modifies overlap included phases for heads 11 and 51 to run protected turns only.

VEH DET PLAN 2: Disables phase 6 call on loop 1A and reduces delay time for phase 1 call on loop 1A to 3 seconds.

Disables phase 2 call on loop 5A and reduces delay time for phase 5 call on loop 5A to 3 seconds.

THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 05-1670
 DESIGNED: January 2025
 SEALED: January 23, 2025
 REVISED:



Electrical Detail - Sheet 3 of 3
 Electrical and Programming Details For: SR 2049 (Forestville Road) at Coach Lantern Avenue and Green Drake Drive
 DESIGNER: MARK COCHRAN
 DATE: JANUARY 2025
 CHECKED BY: S. J. MATHIAS
 DATE: 1/24/2025
 PROJECT NO.: 05-1670



US Dept. of Transportation
 Office of Highway Safety
 Final Review Date: 01/23/2025
 Approved by: [Signature]
 FTS & TRAFFIC SIGNALS



TOWN OF WAKE FOREST

CERTIFIED BID TABULATION

ITEM NO.	ITEM DESCRIPTION	QUANTIT Y	UNIT	Engineer's Estimate		BROWE		CARDINAL		FRED SMITH		LANIER	
				UNIT BID PRICE	BID AMOUNT	UNIT BID PRICE	BID AMOUNT	UNIT BID PRICE	BID AMOUNT	UNIT BID PRICE	BID AMOUNT	UNIT BID PRICE	BID AMOUNT
1	Mobilization	1	LS	\$ -	\$ -	\$ 73,700.00	\$ 73,700.00	\$ 26,000.00	\$ 26,000.00	\$ 41,500.00	\$ 41,500.00	\$ 43,000.00	\$ 43,000.00
2	Construction Surveying	1	LS	\$ 5,000.00	\$ 5,000.00	\$ 40,000.00	\$ 40,000.00	\$ 10,500.00	\$ 10,500.00	\$ 24,000.00	\$ 24,000.00	\$ 35,000.00	\$ 35,000.00
3	Clearing and Grubbing	0.1	Acre	\$ 20,000.00	\$ 2,000.00	\$ 35,000.00	\$ 3,500.00	\$ 10.00	\$ 1.00	\$ 10,000.00	\$ 1,000.00	\$ 110,000.00	\$ 11,000.00
4	Comprehensive Grading	1	LS	\$ 60,265.32	\$ 60,265.32	\$ 100,000.00	\$ 100,000.00	\$ 98,000.00	\$ 98,000.00	\$ 201,100.00	\$ 201,100.00	\$ 85,000.00	\$ 85,000.00
5	Shallow Undercut	0	CY	\$ 20.00		\$ 100.00	\$ -	\$ 70.00	\$ -	\$ 55.00	\$ -	\$ 75.00	\$ -
6	Fabric for Soil Stabilization	0	SY	\$ -		\$ 30.00	\$ -	\$ 10.00	\$ -	\$ 10.00	\$ -	\$ 8.00	\$ -
7	Geogrid for Soil Stabilization	0	SY	\$ 8.00		\$ 50.00	\$ -	\$ 20.00	\$ -	\$ 12.00	\$ -	\$ 15.00	\$ -
8	Class IV Stone for Soil Stabilization	0	Tons	\$ 32.50		\$ 120.00	\$ -	\$ 60.00	\$ -	\$ 60.00	\$ -	\$ 70.00	\$ -
	Drainage												
9	15" RC Pipe Culverts, Class IV	36	LF	\$ 150.00	\$ 5,400.00	\$ 450.00	\$ 16,200.00	\$ 241.00	\$ 8,676.00	\$ 124.00	\$ 4,464.00	\$ 185.00	\$ 6,660.00
10	Frame with Two Grates, STD 840.16	1	EA	\$ 1,315.00	\$ 1,315.00	\$ 2,200.00	\$ 2,200.00	\$ 1,950.00	\$ 1,950.00	\$ 1,300.00	\$ 1,300.00	\$ 1,015.00	\$ 1,015.00
11	Frame with Cover, STD 840.54	1	EA	\$ 1,315.00	\$ 1,315.00	\$ 1,800.00	\$ 1,800.00	\$ 1,920.00	\$ 1,920.00	\$ 1,050.00	\$ 1,050.00	\$ 1,235.00	\$ 1,235.00
12	Masonry Drainage Structures	2	EA	\$ 5,000.00	\$ 10,000.00	\$ 8,500.00	\$ 17,000.00	\$ 5,100.00	\$ 10,200.00	\$ 6,500.00	\$ 13,000.00	\$ 6,000.00	\$ 12,000.00
13	Pipe Removal	23	LF	\$ 45.00	\$ 1,035.00	\$ 100.00	\$ 2,300.00	\$ 105.00	\$ 2,415.00	\$ 60.00	\$ 1,380.00	\$ 45.00	\$ 1,035.00
	Pavement												
14	Milling Asphalt Pavement, 1.5" Depth	1,650	SY	\$ 8.40	\$ 13,860.00	\$ 5.94	\$ 9,801.00	\$ 8.50	\$ 14,025.00	\$ 11.00	\$ 18,150.00	\$ 35.00	\$ 57,750.00
15	Asphalt Type B25.0C	20	Tons	\$ 180.00	\$ 3,600.00	\$ 375.00	\$ 7,500.00	\$ 250.00	\$ 5,000.00	\$ 300.00	\$ 6,000.00	\$ 350.00	\$ 7,000.00
16	Asphalt Type I19.0C	20	Tons	\$ 180.00	\$ 3,600.00	\$ 375.00	\$ 7,500.00	\$ 250.00	\$ 5,000.00	\$ 225.00	\$ 4,500.00	\$ 350.00	\$ 7,000.00
17	Asphalt Type S9.5B	150	Tons	\$ 180.00	\$ 27,000.00	\$ 300.00	\$ 45,000.00	\$ 200.00	\$ 30,000.00	\$ 240.00	\$ 36,000.00	\$ 300.00	\$ 45,000.00
18	Asphalt Binder for Plant Mix	15	Tons	\$ 650.00	\$ 9,750.00	\$ 800.00	\$ 12,000.00	\$ 560.00	\$ 8,400.00	\$ 675.00	\$ 10,125.00	\$ 700.00	\$ 10,500.00
19	2'-6" Concrete Curb and Gutter	370	LF	\$ 41.50	\$ 15,355.00	\$ 60.00	\$ 22,200.00	\$ 37.50	\$ 13,875.00	\$ 40.00	\$ 14,800.00	\$ 50.00	\$ 18,500.00
20	4" Concrete Sidewalk	310	SY	\$ 80.00	\$ 24,800.00	\$ 100.00	\$ 31,000.00	\$ 137.00	\$ 42,470.00	\$ 55.00	\$ 17,050.00	\$ 65.00	\$ 20,150.00
21	Concrete Curb Ramps	6	EA	\$ 2,500.00	\$ 15,000.00	\$ 4,500.00	\$ 27,000.00	\$ 2,625.00	\$ 15,750.00	\$ 2,800.00	\$ 16,800.00	\$ 5,000.00	\$ 30,000.00
22	Adjustment of Meter Boxes and Valve Boxes	4	EA	\$ 1,050.00	\$ 4,200.00	\$ 1,000.00	\$ 4,000.00	\$ 1,100.00	\$ 4,400.00	\$ 950.00	\$ 3,800.00	\$ 900.00	\$ 3,600.00
23	Erosion Control	1.0	LS	\$ 20,000.00	\$ 20,000.00	\$ 15,000.00	\$ 15,000.00	\$ 12,000.00	\$ 12,000.00	\$ 30,000.00	\$ 30,000.00	\$ 13,000.00	\$ 13,000.00
24	Contractor Furnish, Type E Sign	36.0	SF	\$ 30.00	\$ 1,080.00	\$ 43.75	\$ 1,575.00	\$ 48.00	\$ 1,728.00	\$ 35.00	\$ 1,260.00	\$ 80.50	\$ 2,898.00
25	Supports, 3 LB. Steel U-Channel	60.0	LF	\$ 15.00	\$ 900.00	\$ 12.50	\$ 750.00	\$ 9.00	\$ 540.00	\$ 25.00	\$ 1,500.00	\$ 25.00	\$ 1,500.00
26	Disposal of Sign System, U-Channel	1.0	EA	\$ 30.00	\$ 30.00	\$ 25.00	\$ 25.00	\$ 10.00	\$ 10.00	\$ 55.00	\$ 55.00	\$ 90.00	\$ 90.00
27	Disposal of Sign , Type E	2.0	EA	\$ 400.00	\$ 800.00	\$ 40.00	\$ 80.00	\$ 10.00	\$ 20.00	\$ 55.00	\$ 110.00	\$ 210.00	\$ 420.00
28	Thermoplastic Pavement Marking Lines (4", 90 MILS)	990.0	LF	\$ 2.50	\$ 2,475.00	\$ 5.00	\$ 4,950.00	\$ 4.50	\$ 4,455.00	\$ 1.50	\$ 1,485.00	\$ 5.15	\$ 5,098.50
29	Thermoplastic Pavement Marking Lines (24" 120 MILS)	610.0	LF	\$ 17.50	\$ 10,675.00	\$ 22.50	\$ 13,725.00	\$ 19.00	\$ 11,590.00	\$ 9.00	\$ 5,490.00	\$ 25.00	\$ 15,250.00
30	Thermoplastic Pavement Marking Lines (8" 90 MILS)	190.0	LF	\$ 5.00	\$ 950.00	\$ 7.50	\$ 1,425.00	\$ 6.50	\$ 1,235.00	\$ 3.00	\$ 570.00	\$ 8.00	\$ 1,520.00
31	Heated-in-Place Thermoplastic Pavement Marking Symbols (90 MILS)	7.0	EA	\$ 260.00	\$ 1,820.00	\$ 1,000.00	\$ 7,000.00	\$ 835.00	\$ 5,845.00	\$ 373.00	\$ 2,611.00	\$ 1,020.00	\$ 7,140.00
32	Permanent Raised Pavement Markers	10.0	EA	\$ 5.00	\$ 50.00	\$ 30.00	\$ 300.00	\$ 16.00	\$ 160.00	\$ 25.00	\$ 250.00	\$ 20.00	\$ 200.00
33	Temporary Traffic Control	1	LS	\$ 10,000.00	\$ 10,000.00	\$ 125,000.00	\$ 125,000.00	\$ 23,000.00	\$ 23,000.00	\$ 65,000.00	\$ 65,000.00	\$ 105,000.00	\$ 105,000.00
34	Flagger	8	Day	\$ 345.00	\$ 2,760.00	\$ 2,200.00	\$ 17,600.00	\$ 800.00	\$ 6,400.00	\$ 985.00	\$ 7,880.00	\$ 350.00	\$ 2,800.00
	Traffic Signals (New)												
35	Pedestrian Signal Head (16", 1 Section with Countdown	8.0	EA	\$ 1,500.00	\$ 12,000.00	\$ 1,562.50	\$ 12,500.00	\$ 1,200.00	\$ 9,600.00	\$ 1,250.00	\$ 10,000.00	\$ 1,600.00	\$ 12,800.00
36	Signal Cable	3,160.0	LF	\$ 5.00	\$ 15,800.00	\$ 6.25	\$ 19,750.00	\$ 4.00	\$ 12,640.00	\$ 3.90	\$ 12,324.00	\$ 6.40	\$ 20,224.00
37	Vehicle Signal Head (12", 3 Section)	10.0	EA	\$ 1,400.00	\$ 14,000.00	\$ 1,562.50	\$ 15,625.00	\$ 1,285.00	\$ 12,850.00	\$ 1,350.00	\$ 13,500.00	\$ 1,600.00	\$ 16,000.00
38	Vehicle Signal Head (12", 4 Section)	2.0	EA	\$ 1,800.00	\$ 3,600.00	\$ 2,187.50	\$ 4,375.00	\$ 1,550.00	\$ 3,100.00	\$ 1,650.00	\$ 3,300.00	\$ 2,225.00	\$ 4,450.00
39	Messenger Cable (3/8")	484.0	LF	\$ 9.50	\$ 4,598.00	\$ 10.00	\$ 4,840.00	\$ 3.25	\$ 1,573.00	\$ 3.50	\$ 1,694.00	\$ 10.25	\$ 4,961.00

CERTIFIED BID TABULATION

40	Unpaved Trenching (1) (2")	844.0	LF	\$ 22.00	\$ 18,568.00	\$ 25.00	\$ 21,100.00	\$ 12.00	\$ 10,128.00	\$ 12.50	\$ 10,550.00	\$ 25.50	\$ 21,522.00
41	Unpaved Trenching (4) (2")	7.0	LF	\$ 25.00	\$ 175.00	\$ 31.25	\$ 218.75	\$ 35.00	\$ 245.00	\$ 35.00	\$ 245.00	\$ 35.00	\$ 245.00
42	Unpaved Trenching (5) (2")	4.0	LF	\$ 31.00	\$ 124.00	\$ 37.50	\$ 150.00	\$ 67.00	\$ 268.00	\$ 70.00	\$ 280.00	\$ 40.00	\$ 160.00
43	Junction Box (Standard Size)	10.0	EA	\$ 770.00	\$ 7,700.00	\$ 1,062.50	\$ 10,625.00	\$ 465.00	\$ 4,650.00	\$ 500.00	\$ 5,000.00	\$ 1,085.00	\$ 10,850.00
44	Junction Box (Over-Sized, Heavy Duty)	1.0	EA	\$ 1,500.00	\$ 1,500.00	\$ 1,562.50	\$ 1,562.50	\$ 865.00	\$ 865.00	\$ 900.00	\$ 900.00	\$ 1,600.00	\$ 1,600.00
45	Inductive Loop Sawcut	890.0	LF	\$ 17.00	\$ 15,130.00	\$ 15.00	\$ 13,350.00	\$ 9.00	\$ 8,010.00	\$ 9.50	\$ 8,455.00	\$ 15.25	\$ 13,572.50
46	Lead-In Cable (14-2)	4,020.0	LF	\$ 4.00	\$ 16,080.00	\$ 3.44	\$ 13,828.80	\$ 2.70	\$ 10,854.00	\$ 2.75	\$ 11,055.00	\$ 3.50	\$ 14,070.00
47	Metal Strain Signal Pole	4.0	EA	\$ 15,000.00	\$ 60,000.00	\$ 23,975.00	\$ 95,900.00	\$ 14,000.00	\$ 56,000.00	\$ 15,000.00	\$ 60,000.00	\$ 25,000.00	\$ 100,000.00
48	Soil Test	4.0	EA	\$ 2,650.00	\$ 10,600.00	\$ 3,125.00	\$ 12,500.00	\$ 2,900.00	\$ 11,600.00	\$ 3,250.00	\$ 13,000.00	\$ 3,200.00	\$ 12,800.00
49	Drilled Pier Foundation	40.0	CY	\$ 1,850.00	\$ 74,000.00	\$ 2,500.00	\$ 100,000.00	\$ 1,425.00	\$ 57,000.00	\$ 1,600.00	\$ 64,000.00	\$ 2,550.00	\$ 102,000.00
50	900 MHZ Serial/Ethernet Spread Spectrum Radio	2.0	EA	\$ 8,025.00	\$ 16,050.00	\$ 5,625.00	\$ 11,250.00	\$ 12,500.00	\$ 25,000.00	\$ 13,000.00	\$ 26,000.00	\$ 5,800.00	\$ 11,600.00
51	Type II Pedestal with Foundation	8.0	EA	\$ 4,380.00	\$ 35,040.00	\$ 5,625.00	\$ 45,000.00	\$ 3,200.00	\$ 25,600.00	\$ 3,450.00	\$ 27,600.00	\$ 5,800.00	\$ 46,400.00
52	Signal Cabinet Foundation	1.0	EA	\$ 3,500.00	\$ 3,500.00	\$ 3,125.00	\$ 3,125.00	\$ 800.00	\$ 800.00	\$ 850.00	\$ 850.00	\$ 3,200.00	\$ 3,200.00
53	Controllers with Cabinet (Type 2070LX with Maxtime, Base Mounted)	1.0	EA	\$ 31,000.00	\$ 31,000.00	\$ 31,250.00	\$ 31,250.00	\$ 30,000.00	\$ 30,000.00	\$ 32,500.00	\$ 32,500.00	\$ 32,000.00	\$ 32,000.00
54	Detector Card (Type 170)	6.0	EA	\$ 380.00	\$ 2,280.00	\$ 562.50	\$ 3,375.00	\$ 250.00	\$ 1,500.00	\$ 240.00	\$ 1,440.00	\$ 575.00	\$ 3,450.00
55	Cabinet Base Extender	1.0	EA	\$ 750.00	\$ 750.00	\$ 937.50	\$ 937.50	\$ 600.00	\$ 600.00	\$ 615.00	\$ 615.00	\$ 1,000.00	\$ 1,000.00
					\$ 59,753.03								
					\$ 105,165.34								
				Total Bid Amount	\$ 762,448.69		\$ 1,031,393.55		\$ 648,448.00		\$ 835,538.00		\$ 983,266.00

Apparent Low Bidder: Cardinal Civil Contracting, LLC

It is our opinion that four (4) bidders presented fully responsive and acceptable bids.
I certify that the above is a true and accurate tabulation of the bids received on 12/17/2025

Certified by: Samuel A. MacDonald, PE



1/5/2026



BOARD OF COMMISSIONERS AGENDA ITEM REPORT

Agenda Item No.: 2025-711-
Submitted by: David Zick, Public Safety
Submitting Department: Public Safety
Meeting Date: January 20, 2026

Subject

Ordinance amending Chapter 30, Article III Section 30-1, and 30-90 thru 30-92 focused on motorized scooter, electric bicycles and electric assisted bicycles, pedestrian right-of-way and requirements for helmets.

Recommendation:

Vote on proposed ordinance amending Chapter 30, Article III Section 30-1, and 30-90 thru 30-92 on the 1/20/26 meeting.

item Summary:

ATTACHMENTS:

- [Attachment_A_Summary_Chapter_30_Article_III_Section_30-1_30-90_thru_30-92.pdf](#)
- [Sec._30_90.____Motorized_scooters_prohibited._revised_Final_DRAFT.docx](#)
- [Attachment_B_Ordinance_2026_XX_Chapter_30_Article_III_Section_30-90_thru_30-92.docx](#)

Consideration of an Ordinance Amending the Code of Ordinances Chapter 30, Article III, Section 30-1, and 30-90 thru 30-92 – Motorized Scooters, Electric Bicycles, Electric Assisted Bicycles, and Pedestrian Right-of-way on Bicycles, Electric Bicycle, Electric Assisted Bicycles, and Scooter Facilities

Item Summary:

The current Motorized Scooter Ordinance was adopted January 19, 2019. Updates will be presented to Chapter 30, Article III, Section 30-1, and 30-90 thru 30-92 – Motorized Scooters, Electric Bicycles, Electric Assisted Bicycles, and Pedestrian Right-of-way on Bicycles, Electric Bicycle, Electric Assisted Bicycles, and Scooter Facilities, of the Code of Ordinances for the Town of Wake Forest, North Carolina provide clarity, create regulations for riders, create an ordinance for electric bicycle riders, update enforcement and penalties. Additional modifications to this proposed ordinance were made after the board meeting on 1/6/2026 with their approval. See the attachments for further information.

Attachment A: Summary_Chapter_30_Article_III_Section_30-1_30-90_thru_30-92

Attachment B: Ordinance_2026_XX_Chapter_30_Article_III_Section_30-90_thru_30-92 – Motorized Scooters, Electric Bicycles, Electric Assisted Bicycles, and Pedestrian Right-of-way on Bicycles, Electric Bicycle, Electric Assisted Bicycles, and Scooter Facilities

Sec. 30-90. Motorized Scooters, Electric Bicycles and Electric Assisted Bicycles.

- (a) Definitions. The following words, terms and phrases, when used in this section, shall have the meanings ascribed to them in this subsection, except where the context clearly indicates a different meaning:

Shared streets:

All existing public or private street rights-of-way where bicycles share the roadway with motor vehicles unless otherwise prohibited by law. Shared streets may utilize signs placed on vertical posts or markings stenciled on the pavement.

Motorized scooter:

A device with no more than three 12-inch or smaller diameter wheels that has handlebars, is designed to be stood upon or that is equipped with a seat or saddle for use by the rider, and is powered by an electric or gasoline motor that is capable of propelling the device with or without human propulsion at a speed no greater than 15 miles per hour on a paved level surface.

Electric bicycle:

A bicycle with two or three wheels that is equipped with a seat or saddle for use by the rider, no pedals for human propulsion, and an electric motor of no more than 750 watts, whose maximum speed on a level surface when powered solely by such motor is no greater than 20 miles per hour. Any electric bicycle that travels at a speed of over 20 miles per hour on level ground is defined as either a motorcycle or a moped according to N.C. General Statutes and the driver is responsible for adhering to all N.C. laws regarding the operation of same.

Electric assisted bicycle:

A bicycle with two or three wheels that is equipped with a seat or saddle for use by the rider, fully operable pedals for human propulsion, and an electric motor of no more than 750 watts, whose maximum speed on a level surface when powered solely by such motor is no greater than 20 miles per hour.

- (b) Operation of motorized scooters, electric bicycles, and electric assisted bicycles.
1. All motorized scooters, electric bicycles, and electric assisted bicycles used and operated upon and across shared streets and other designated bicycle facilities within the Town of Wake Forest's jurisdiction shall be considered vehicles and the riders of such motorized scooters shall be subject to all provisions of the Town of Wake Forest Code and Chapter 20 of the North Carolina General Statutes applicable to the driver of vehicles except those which by their nature can have no application.
 2. Motorized scooters, electric bicycles, and electric assisted bicycles are not permitted to operate on sidewalks. Motorized scooters, electric bicycles, and electric assisted bicycles may operate on shared streets, greenways, parks, multi-use paths, and bicycle lanes. The operator of a motorized scooter, electric bicycle, and electric assisted bicycle using parks, greenways, or multi-use paths shall comply with all traffic regulations posted along the facility shall stop or otherwise yield the right-of-way before entering or crossing a public street.
 3. Motorized scooters, electric bicycles, and electric assisted bicycles use or operation in Town parks that does not comply with this ordinance or is otherwise detrimental to the health, welfare, or

safety of the general public in the opinion of the Town Manager or Designee may result in a suspension from Town parks pursuant to Town Ordinance Section 22-20.

4. A motorized scooter or an electric bicycle may not operate on any road with a speed limit over 25 miles per hour.
5. No motorized scooter electric bicycle or electric assisted bicycle shall exceed a speed of 10 miles per hour while being operated on a greenway, in a park, or on a multi-use path.

Sec. 30-91. Pedestrian Right-of-Way On Bicycle, Electric Bicycle, Electric Assisted Bicycle, And Scooter Facilities.

The operator of a bicycle, electric bicycle, electric assisted bicycle, and motorized scooter shall at all times yield the right-of-way to pedestrians on and across sidewalks, parks, shared streets, greenways, bicycle lanes, and multi-use paths.

Sec. 30-92. Requirements For Helmets.

With regard to any motorized scooter, electric bicycle, or electric assisted bicycle used on a public roadway, shared street, greenway, in a park, on a multi-use path, or other public right-of-way: It shall be unlawful for any parent or legal guardian of a person below the age of 16 to knowingly permit that person to operate or be a passenger on motorized scooter, electric bicycle, or electric assisted bicycle unless at all times when the person is so engaged he or she wears a protective bicycle helmet of good fit fastened securely upon the head with the straps of the helmet.

ORDINANCE 2026-XX

**ORDINANCE AMENDING CHAPTER 30,
ARTICLE III, SECTION 30-90 THRU 30-92 – Motorized Scooters, Electric Bicycles
and Electric Assisted Bicycles, Pedestrian Right-of-Way On Bicycle, Electric Bicycle,
Electric Assisted Bicycle, and Scooter Facilities, and Requirements for Helmets.
OF THE CODE OF ORDINANCES FOR THE TOWN OF WAKE FOREST, NORTH
CAROLINA**

WHEREAS, the current Chapter 30 Article III was last updated in 2019 through Ordinance No. 2019-09, adopted January 19, 2019; and

WHEREAS, previous adoption occurred in 2005 through Ordinance No. 2005-53 adopted November 15, 2005; and

WHEREAS, Updates to Chapter 30, Article III Section 30-90 thru 30-92- Motorized Scooters, Electric Bicycles and Electric Assisted Bicycles, Pedestrian Right-of-Way On Bicycle, Electric Bicycle, Electric Assisted Bicycle, and Scooter Facilities, and Requirements for Helmets, of the Code of Ordinances for the Town of Wake Forest, North Carolina provide clarity, provide a new ordinance for electric bicycles and electric assisted bicycles, provide clear legal language, make enforcement for law enforcement easier and terminate Resolution 2019-09 and outline where specific motorized units can be utilized.

NOW, THEREFORE, BE IT ORDAINED by the Board of Commissioners of the Town of Wake Forest, to amend the Code of Ordinances as follows:

Sec. 30-90. Motorized Scooters, Electric Bicycles and Electric Assisted Bicycles.

- (a) Definitions. The following words, terms and phrases, when used in this section, shall have the meanings ascribed to them in this subsection, except where the context clearly indicates a different meaning:

Shared streets:

All existing public or private street rights-of-way where bicycles share the roadway with motor vehicles unless otherwise prohibited by law. Shared streets may utilize signs placed on vertical posts or markings stenciled on the pavement.

Motorized scooter:

A device with no more than three 12-inch or smaller diameter wheels that has handlebars, is designed to be stood upon or that is equipped with a seat or saddle for use by the rider, and is powered by an electric or gasoline motor that is capable of propelling the device with or without human propulsion at a speed no greater than 15 miles per hour on a paved level surface.

Electric bicycle:

A bicycle with two or three wheels that is equipped with a seat or saddle for use by the rider, no pedals for human propulsion, and an electric motor of no more than 750 watts, whose maximum speed on a level surface when powered solely by such motor is no greater than 20 miles per hour. Any electric bicycle that travels at a speed of over 20 miles per hour on level ground is defined as either a motorcycle or a moped according to N.C. General Statutes and the driver is responsible for adhering to all N.C. laws regarding the operation of same.

Electric assisted bicycle:

A bicycle with two or three wheels that is equipped with a seat or saddle for use by the rider, fully operable pedals for human propulsion, and an electric motor of no more than 750 watts, whose maximum speed on a level surface when powered solely by such motor is no greater than 20 miles per hour.

(b) Operation of motorized scooters, electric bicycles, and electric assisted bicycles.

1. All motorized scooters, electric bicycles, and electric assisted bicycles used and operated upon and across shared streets and other designated bicycle facilities within the Town of Wake Forest's jurisdiction shall be considered vehicles and the riders of such motorized scooters shall be subject to all provisions of the Town of Wake Forest Code and Chapter 20 of the North Carolina General Statutes applicable to the driver of vehicles except those which by their nature can have no application.
2. Motorized scooters, electric bicycles, and electric assisted bicycles are not permitted to operate on sidewalks. Motorized scooters, electric bicycles, and electric assisted bicycles may operate on shared streets, greenways, parks, multi-use paths, and bicycle lanes. The operator of a motorized scooter, electric bicycle, and electric assisted bicycle using parks, greenways, or multi-use paths shall comply with all traffic regulations posted along the facility shall stop or otherwise yield the right-of-way before entering or crossing a public street.
3. Motorized scooters, electric bicycles, and electric assisted bicycles use or operation in Town parks that does not comply with this ordinance or is otherwise detrimental to the health, welfare, or safety of the general public in the opinion of the Town Manager or Designee may result in a suspension from Town parks pursuant to Town Ordinance Section 22-20.
4. A motorized scooter or an electric bicycle may not operate on any road with a speed limit over 25 miles per hour.
5. No motorized scooter electric bicycle or electric assisted bicycle shall exceed a speed of 10 miles per hour while being operated on a greenway, in a park, or on a multi-use path.

Sec. 30-91. Pedestrian Right-of-Way On Bicycle, Electric Bicycle, Electric Assisted Bicycle, And Scooter Facilities.

The operator of a bicycle, electric bicycle, electric assisted bicycle, and motorized scooter shall at all times yield the right-of-way to pedestrians on and across sidewalks, parks, shared streets, greenways, bicycle lanes, and multi-use paths.

Sec. 30-92. Requirements For Helmets.

With regard to any motorized scooter, electric bicycle, or electric assisted bicycle used on a public roadway, shared street, greenway, in a park, on a multi-use path, or other public right-of-way: It shall be unlawful for any parent or legal guardian of a person below the age of 16 to knowingly permit that person to operate or be a passenger on motorized scooter, electric bicycle, or electric assisted bicycle unless at all times when the person is so engaged he or she wears a protective bicycle helmet of good fit fastened securely upon the head with the straps of the helmet.

Adopted and effective this day of 2026.

Ben Clapsaddle
Mayor

ATTEST:

APPROVED AS TO FORM:

Evelyn Wright

Nathan McKinney

Town Clerk

Town Attorney



BOARD OF COMMISSIONERS AGENDA ITEM REPORT

Agenda Item No.: 2025-712-
Submitted by: David Zick, Public Safety
Submitting Department: Public Safety
Meeting Date: January 20, 2026

Subject

Ordinance Amending the Code of Ordinances Chapter 30, Article I, Section 30-16 “Restrictions On The Operation Of All-Terrain Vehicles; Exemption For Governmental Agencies.

Recommendation:

Vote on proposed ordinance amending Chapter 30, Article I Section 30-16 on the 1/20/26 meeting.

item Summary:

ATTACHMENTS:

- [Attachment_A_Summary_Chapter_30_Article_I_Section_30-16.pdf](#)
- [Sec_30_16. ___Restrictions_on_the_operation_of_all-terrain_vehicles;_exemption_for_governmental_agencies._revised_Final_DRAFT.docx](#)
- [Attachment_B_Ordinance_2026_XX_Chapter_30_Article_I_Section_30-16.docx](#)

Consideration of an Ordinance Amending the Code of Ordinances Chapter 30, Article I, Section 30-16 – Restrictions On The Operation Of All-Terrain Vehicles; Exemption For Governmental Agencies.

Item Summary:

The current Restrictions On The Operation Of All-Terrain Vehicles; Ordinance was adopted June 6, 2015. Updates will be presented to Chapter 30, Article I, Section 30-16 – Restrictions On The Operation Of All-Terrain Vehicles; Exemption For Governmental Agencies of the Code of Ordinances for the Town of Wake Forest, North Carolina provide clarity, and eliminate conflicting wording from this proposed ordinance to align with the wording of other ordinances. Additional modifications to this proposed ordinance were made after the board meeting on 1/6/2026 with their approval. See the attachments for further information.

Attachment A: Summary_Chapter_30_Article_I_Section_30-16

Attachment_B_Ordinance_2026_XX_Chapter_30_Article_I_Section_30-16 – Restrictions On The Operation Of All-Terrain Vehicles; Exemption For Governmental Agencies.

Sec. 30-16. Restrictions on the operation of all-terrain vehicles; exemption for governmental agencies.

(a) *Definitions.* The following words, terms and phrases, when used in this section, shall have the meanings ascribed to them in this subsection, except where the context clearly indicates a different meaning:

All-terrain vehicles (ATVs) includes four-wheelers, gators, mowers, tractors, golf carts, etc.

(b) *Restriction for private motorized vehicles.* Private motorized vehicles, ATVs, dirt bikes, etc., are not allowed on public property or greenway trails. This restriction does not apply to devices permitted by Sections 30-90 through 30-92.

(c) *Exemption for governmental agencies.* Any motorized ATV-type vehicles owned and operated by the town may be utilized on public streets and greenways for patrol and maintenance operations in addition to emergency access (police, fire, EMS, first responders), town parks, public works, recreation and cultural resources, City of Raleigh and all other entities used for public utility maintenance. Each entity will be responsible for repair of the greenway trail, bridge or boardwalk to its original condition prior to use if any damage were to occur. Each bridge is clearly marked with load ratings and it is the responsibility of the party to determine safe passage and access.

(Code 2000, § 30-19; Ord. No. 2015-11, 6-6-2015)

ORDINANCE 2026-XX

ORDINANCE AMENDING CHAPTER 30, ARTICLE I, SECTION 30-16 – Restrictions On The Operation Of All-Terrain Vehicles; Exemption For Governmental Agencies. OF THE CODE OF ORDINANCES FOR THE TOWN OF WAKE FOREST, NORTH CAROLINA

WHEREAS, the current Chapter 30 Article I was last updated in 2015 through Ordinance No. 2015-11, adopted June 6, 2015; and

WHEREAS, Updates to Chapter 30, Article I Section 30-16 – Restrictions on the operation of all-terrain vehicle; exemption for governmental agencies, of the Code of Ordinances for the Town of Wake Forest, North Carolina provide clarity, amend this ordinance so as to not conflict with other ordinances and terminate Resolution 2015-11 and outline where specific motorized units can be utilized.

NOW, THEREFORE, BE IT ORDAINED by the Board of Commissioners of the Town of Wake Forest, to amend the Code of Ordinances as follows:

Sec. 30-16. Restrictions on the operation of all-terrain vehicles; exemption for governmental agencies.

(a) *Definitions.* The following words, terms and phrases, when used in this section, shall have the meanings ascribed to them in this subsection, except where the context clearly indicates a different meaning:

All-terrain vehicles (ATVs) includes four-wheelers, gators, mowers, tractors, golf carts, etc.

(b) *Restriction for private motorized vehicles.* Private motorized vehicles, ATVs, dirt bikes, etc., are not allowed on public property or greenway trails. This restriction does not apply to devices permitted by Sections 30-90 through 30-92.

(c) *Exemption for governmental agencies.* Any motorized ATV-type vehicles owned and operated by the town may be utilized on public streets and greenways for patrol and maintenance operations in addition to emergency access (police, fire, EMS, first responders), town parks, public works, recreation and cultural resources, City of Raleigh and all other entities used for public utility maintenance. Each entity will be responsible for repair of the greenway trail, bridge or boardwalk to its original condition prior to use if any

damage were to occur. Each bridge is clearly marked with load ratings and it is the responsibility of the party to determine safe passage and access.

Adopted and effective this day of 2026.

Ben Clapsaddle
Mayor

ATTEST:

APPROVED AS TO FORM:

Evelyn Wright
Town Clerk

Nathan McKinney
Town Attorney



BOARD OF COMMISSIONERS AGENDA ITEM REPORT

Agenda Item No.: 2025-713-

Submitted by: Angela McCray, Human Resources

Submitting Department: Human Resources

Meeting Date: January 20, 2026

Subject

Amended Approval of Appointment to Citizen Advisory Board - Human Relations Council (HRC)

Recommendation:

item Summary:

ATTACHMENTS:

- [RESOLUTION to correct HRC appointee_2026.docx](#)

RESOLUTION 2026 -

CORRECTION TO THE APPOINTMENTS FOR THE HUMAN RELATIONS COUNCIL

TOWN OF WAKE FOREST, NORTH CAROLINA

WHEREAS, the Human Relations Council submitted recommendations to the Board of Commissioners for new council members and Resolution 2025 – 66 was passed on December 16, 2025 to appoint the new council members, and

WHEREAS, applicant Valeria Santolo had withdrawn but Valeria Santolo’s name was mistakenly left in the resolution, and

WHEREAS, Alysha Cieiniewicz should instead be appointed to the Human Relations Council, and

WHEREAS, the Human Relations Council wishes to recommend and the Board wishes to appoint to the Human Relations Council the persons named in this Resolution.

NOW, THEREFORE, BE IT RESOLVED by the Board of Commissioners of the Town of Wake Forest, North Carolina, that Resolution 2025-66 is hereby replaced by this Resolution, and that the following persons are appointed to the following citizen advisory boards effective December 16, 2025:

Human Relations Council

Angela Milton

(January 1, 2026 – December 31, 2028)

James Cowie

(January 1, 2026 – December 31, 2028)

Alysha Cieiniewicz

(January 1, 2026 – December 31, 2028)

Naomi Berhanu (Youth Member)

(January 1, 2026 – December 31, 2028)

Matteo Botti (Youth Member)

(January 1, 2026 – December 31, 2028)

Duly resolved this the 6th day of January, 2026.

Ben Clapsaddle, Mayor

ATTEST: _____, Evelyn Wright Town Clerk



BOARD OF COMMISSIONERS AGENDA ITEM REPORT

Agenda Item No.: 2025-764-
Submitted by: David Zick, Public Safety
Submitting Department: Public Safety
Meeting Date: January 20, 2026

Subject

Ordinance amending Chapter 30, Article IV Section 30-131 focused on handicapped parking spaces.

Recommendation:

Vote on amended ordinance at the 1/20/26 meeting.

item Summary:

ATTACHMENTS:

- [Sec._30_131.____Handicapped_parking_spaces_revised_Final_DRAFT.docx](#)
- [Attachment_B_Ordinance_2026_XX_Chapter_30_Article_IV_Section_30-131.docx](#)
- [Attachment_A_Summary_Chapter_30_Article_IV_Section_30-131.pdf](#)

Sec. 30-131. - Handicapped parking spaces.

(a) Handicapped parking spaces shall be established in the town by the use of a sign as designated by D9-6 in the Manual on Uniform Traffic Control Devices.

(b) It shall be unlawful to park or leave standing any vehicle in a space in a designated for physically handicapped persons when such vehicle does not display the distinguishing license plate or placard as provided in G.S. 20-37.6 where appropriate aboveground signs or symbol and words giving notice thereof are erected marking the designated handicapped parking space.

(c) It shall be unlawful for any person not qualifying for the rights and privileges extended to handicapped persons under G.S. 20-37.6 to exercise or attempt to exercise such rights or privileges by the unauthorized use of a distinguishing license plate or placard issued pursuant to the provisions of G.S. 20-37.6.

(d) A violation of this section shall result in a fine of \$250.00. Said fine does not preclude the imposition of any other punishment permitted by law.

(e) Violators of this section shall be guilty of a misdemeanor. The prima facie rule of evidence set forth in G.S. 20-162.1 shall apply.

(Code 1985, § 18-121; Ord. No. 2012-33, 11-20-2012)

ORDINANCE 2026-XX

ORDINANCE AMENDING CHAPTER 30, ARTICLE IV, SECTION 30-131 – Handicapped parking spaces. OF THE CODE OF ORDINANCES FOR THE TOWN OF WAKE FOREST, NORTH CAROLINA

WHEREAS, Updates to Chapter 30, Article IV Section 30-131- Handicapped parking spaces, of the Code of Ordinances for the Town of Wake Forest, North Carolina provide clarity, reinstate the old ordinance wording so that civil penalties can be imposed on violators, update enforcement and penalties.

NOW, THEREFORE, BE IT ORDAINED by the Board of Commissioners of the Town of Wake Forest, to amend the Code of Ordinances as follows:

Sec. 30-131. - Handicapped parking spaces.

- (a) Handicapped parking spaces shall be established in the town by the use of a sign as designated by D9-6 in the Manual on Uniform Traffic Control Devices.
- (b) It shall be unlawful to park or leave standing any vehicle in a space in a designated for physically handicapped persons when such vehicle does not display the distinguishing license plate or placard as provided in G.S. 20-37.6 where appropriate aboveground signs or symbol and words giving notice thereof are erected marking the designated handicapped parking space.
- (c) It shall be unlawful for any person not qualifying for the rights and privileges extended to handicapped persons under G.S. 20-37.6 to exercise or attempt to exercise such rights or privileges by the unauthorized use of a distinguishing license plate or placard issued pursuant to the provisions of G.S. 20-37.6.
- (d) A violation of this section shall result in a fine of \$250.00. Said fine does not preclude the imposition of any other punishment permitted by law.
- (e) Violators of this section shall be guilty of a misdemeanor. The prima facie rule of evidence set forth in G.S. 20-162.1 shall apply.

Adopted and effective this day of 2026.

Ben Clapsaddle
Mayor

ATTEST:

APPROVED AS TO FORM:

Evelyn Wright
Town Clerk

Nathan McKinney
Town Attorney

Consideration of an Ordinance Amending the Code of Ordinances Chapter 30, Article IV, Section 30-131– Handicapped parking spaces.

Item Summary:

The current ordinance does not allow civil parking tickets to be issued for handicapped parking violations. Updates will be presented to Chapter 30, Article IV, Section 30-131– Handicapped parking spaces, of the Code of Ordinances for the Town of Wake Forest, North Carolina provide clarity, reinstate the old ordinance wording so that civil penalties can imposed on violators, update enforcement and penalties.

Attachments:

Attachment A: Summary_Chapter_30_Article_IV_Section_30-131

Attachment_B_Ordinance_2026_XX_Chapter_30_Article_IV_Section_30-131



BOARD OF COMMISSIONERS AGENDA ITEM REPORT

Agenda Item No.: 2025-716-
Submitted by: Ella Dowtin, Planning
Submitting Department: Planning
Meeting Date: January 20, 2026

Subject

Consideration of Appointment of Candidates for the Board of Adjustment

Recommendation:

item Summary:

ATTACHMENTS:

- [Board_ofAdjustment_Candidates_Cover_letter_2026.doc.pdf](#)
- [BOA Candidates 1-2026.pdf](#)

Wake Forest Board of Adjustment Applicants

Board of Adjustment - 1 Regular Seat and 1 Alternate Seat

All Candidates:

Candidates	Town Limits
Board of Adjustments	
Howard Katowitz	Yes
Brad Walker	Yes

Entry #: 92 - Brad Walker

Status: Submitted

Submitted: 11/24/2025 4:11 PM

Name

Brad Walker

Address

721 Old Dairy Drive, Wake Forest, North Carolina 27587

Email

brad.walker@infiniedge.com

Phone

(919) 745-0377

Which board or commission would you like to apply for? (You can only apply for one board)

Board of Adjustment

Why do you wish to serve on this board/commission?

I wish to serve on the Town of Wake Forest Board of Adjustment because I believe strongly in fair, consistent application of our ordinances and in protecting the rights of property owners. For 10 years, I served on the Ascension Parish Board of Adjustments in Louisiana, including six years as Chairman, where I gained extensive experience listening to residents, evaluating variance requests, and making balanced, well-reasoned decisions.

That work taught me how important a thoughtful Board of Adjustment is to both the character of a community and the confidence citizens have in local government. I enjoy engaging with the real-world issues that affect neighbors, businesses, and neighborhoods, and I take seriously the responsibility to weigh individual property rights alongside the public interest. Serving on this board would allow me to contribute my experience and judgment to Wake Forest, the town my family and I now call home, and to help ensure that every applicant is heard respectfully and treated fairly.

Occupation

Commercial Real Estate Broker

Please upload a current resume



[Resume of Brad Walker \(3\).pdf](#)
0.4 MB



Do you live within the town's limits or ETJ?

Yes

Length of residency in Wake County?

9 Years

Length of residency in Wake Forest?

9 Years

Please provide proof of residency

Interests & Experiences

Community service and Rotary projects; mentoring entrepreneurs and building small business programs; real estate and short-term rental development; event hosting and hospitality; local governance and property-rights advocacy; applied technology and AI tools; travel planning, creative design, and visual branding.

Ethics Guidelines for Town Advisory Boards & Commissions

Please agree with the following statement:

If appointed, I pledge to comply with the following ethics guidelines for advisory boards and commissions as adopted by the Wake Forest Board of Commissioners

Do you agree?

Yes

Members of advisory boards and commissions shall not discuss, advocate or vote on any matter in which they have a conflict of interest or an interest which reasonably might appear to be in conflict with the concept of fairness in dealing with public business. A conflict of interest or a potential conflict occurs if a member has a separate, private or monetary interest, either direct or indirect, in any issue or transaction under consideration. Any member who violates this provision may be subject to removal from the board or council.

If the advisory board or commission member believes he/she has a conflict of interest then that member should ask the advisory board or commission to be recused from voting. The advisory board or commission should then vote on the question on whether or not to excuse the member making the request. In cases where the individual member or the advisory board or commission establishes a conflict of interest, then the advisory board or commission member shall remove themselves from the voting area.

Any advisory board or commission member may seek counsel of the Town Attorney on questions regarding the interpretation of these ethics guidelines or other conflict of interest matters. The interpretation may include a recommendation on whether or not the advisory board or commission member should excuse himself/herself from voting. The advisory board or commission member may request that the Town Attorney respond in writing.

Prior to being appointed to an advisory board/commission, it is recommended that you attend a meeting of the advisory board/commission in which you have an interest. This helps each applicant to be more aware of the work of the advisory board/commission.

Have you attended a meeting for the board in which you are applying?

No

If yes, what was the date of the meeting?

Please agree with the following statement:

I understand this application, including any information provided therein, may be considered a public record and as such portions may be subject to release under North Carolina General Statute Chapter 132, Public Records.

Do you agree?

Yes

Please agree with the following statement:

Per NCGS 160C-109, members of appointed boards shall not vote on any advisory or legislative decision regarding a development regulation adopted where the outcome of the matter being considered is reasonably likely to have a direct, substantial, and readily identifiable financial impact on the member. An appointed board member shall not vote on any zoning amendment if the landowner of the property subject to a rezoning petition or the applicant for a text amendment is a person with whom the member has a close familial, business, or other associational relationship. A member of any board exercising quasi-judicial functions shall not participate in or vote on any quasi-judicial matter in a manner that would violate affected persons' constitutional rights to an impartial decision maker. Impermissible violations of due process include, but are not limited to, a member having a fixed opinion prior to hearing the matter that is not susceptible to change, undisclosed ex parte communications, a close familial, business, or other associational relationship with an affected person, or a financial interest in the outcome of the matter. A "close familial relationship" means a spouse, parent, child, brother, sister, grandparent, or grandchild. The term includes the step, half, and in-law relationships.

Do you agree?

Yes

Please agree with the following statement:

Code of Conduct: When participating in a meeting or conducting Town business (whether in person, via email, or other communication method), board and commission members shall conduct themselves in an ethical and professional manner. Any board or commission member who engages in inflammatory, hostile or threatening language or behavior toward others, including but not limited to elected officials, staff or another board or commission member, will be removed from the meeting. Any member who engages in the aforementioned behavior is also subject to dismissal from the Board. I understand that that board and commission appointments serve at the pleasure of Board of Commissioners and may be removed from an appointed board or commission at the discretion of Board of Commissioners. Meeting Preparedness to successfully prepare for a meeting, then you will be provided agenda materials in advance. An unprepared board or commission member reflects poorly on the Town of Wake Forest as well as fellow board or commission members since questions asked are often found in the staff report. Any member who continually comes unprepared to meetings is subject to dismissal from the Board. Dress Code Board members are expected to be well groomed, cleaned, and dressed in business casual attire. Shorts, t-shirts, and jeans are not permitted. If a Planning Board member is dressed or groomed inappropriately for a meeting, work session, or a Comprehensive Plan workshop, they will be prevented from participating and counted as absent.

Do you agree?

Yes

How did you learn about the advisory board opening(s)? (Check all that apply)

Town website



Brad J. Walker

Product and Technology Innovator, and Software Executive

Experienced multi-company founder and growth-oriented serial entrepreneur with a dynamic 20-year journey spanning diverse industries. Adept at forging paths in uncharted territories, excelling in creating innovative ventures without predefined roadmaps. Proven track record of success in various sectors, showcasing a commitment to applying forward-thinking strategies in business, driving change, and overseeing large-scale program management initiatives.

Professional Experience

02/2016 - Present **InfiniEDGE Real Estate Group, NC Vacation Property Investor**

- Providing investment in Adventure Vacation Rental properties in the North Carolina area.

10/2017 - 2021 **North Wake Commercial Realty, LLC, Commercial Broker**

- Specialized in Small Business placement into Offices, Industrial, and New Construction in the Wake Forest, Rolesville, and Youngsville area.

2/2021 - Nov 2022 **Perkins Counseling & Psychological Services, PLLC, Director of Operations**

- Provide strong leadership for the company by working with the Chief Executive Officer to establish short and long-term goals, plans, and strategies. Responsible for presiding over the entire workforce and manage budgets to allocate resources appropriately.

09/1999 - 12/2016 **InfiniEDGE Software, Inc., President** - Sold in 2016

A cutting-edge company that created custom software, websites and web applications designed specifically to revolutionize business. With software solutions that are simple to use and produce sensational results to create a more productive and profitable business.

- Directed research and development including evaluation of new technologies and economic feasibility both internally and for all customers.
- Identified and evaluated acquisitions, alliances, and business development licensing opportunities and negotiated terms of agreements.
- Continuous assessment of business performance and opportunities.

01/2013 - 2015 **CampaignLogix.com, Co-Founder**

A grassroots campaign software specifically developed to level the playing field for aspiring political candidates. The cross-platform solution simplifies the campaign process giving unlimited access to tried-and-true strategies and a blueprint to save first-time candidates time and money.

01/2013 - 12/2015 **TheCreole.com, Founder**

Ascension Parish's first online only newspaper. The mission was to keep Ascension Parish residents informed and up-to-date on local news and events while focusing on the area's growth, positivity, and civic-minded community spirit.

2010 - 2015 **Apparitio, Founder**

Allowed Rotary Club Secretaries to take meeting attendance on any computer or smartphone. Additionally, the Secretary was able to keep a log of the guests that attended as well as any important notes that needed to be taken in reference to the meeting.

2010 - 2015 **Judjix.com, Founder**

Judjix was founded to be the solution to On-Site Event & Competition Judging! We aimed to streamline competition judging and make tallying scores a breeze.

2008 - 2013 **nStrumental.com, Founder**

A one stop shop from branding and event work to expertly-composed writing and only the most refined design with the resources to be an in-house design department. We made it a mission to be a full-service design company.

Achievements and Awards



Volunteer of the Year

Rolesville Chamber, 2018
Volunteer Ascension, 2014



Company of the Year

InfiniEDGE Software, 2015
Baton Rouge Business Report



Small Business of the Year

The Creole, 2013
Ascension Chamber of Commerce



Inc 5000

InfiniEDGE Software, 2010, 2014
Inc Magazine



Large Company of the Year

InfiniEDGE Software, 2011
Ascension Chamber of Commerce



Rotarian of the Year

Wake Forest Rotary Club, 2017
Gonzales Rotary Club, 2010, 2011



LSU 100 Business

EJ Ourso College of Business,
2014

Certifications

Licensed Real Estate Broker-In-Charge

North Carolina Real Estate Commission
Issue Date Feb 2017
Lic #: 294856

Member

National Assoc of REALTORS
Issue Date Feb 2017

Commissioned eNotary Public,

North Carolina Dept of Sec of State
Issue Date Aug 2016
#201623200142



Brad J. Walker

Product and Technology Innovator, and Software Executive

 **website** www.linkedin.com/in/bradwalkerentrepreneur
 **mobile** (919) 745-0377
  **e-mail** brad.walker@infiniedge.com
 **location** Wake Forest, NC

Volunteer Experience

2019 - 2020 **Town of Wake Forest, CTP Steering Committee Member**
Working with the Town of Wake Forest Planning Department to consolidate and update four major planning documents that cover transportation, greenways, walking, and biking.

2018 - Present **LaunchWakeForest, Founder/Program Administrator**
Created this program to provide hands-on education, business mentorship, planning, and financial support to Entrepreneurs in the Wake Forest area.

2018 - Present **LaunchROLESVILLE, Founder/Program Administrator**
Created this program to provide hands-on education, business mentorship, planning, and financial support to Entrepreneurs in the Rolesville area.

2017 - 2019 **LaunchRALEIGH, Mentor**

2016 - Present **Wake Forest Rotary, Member & President 2018-19**
Serving as the current President of the Wake Forest Rotary Club, I have created two LaunchPrograms, created a more social atmosphere, and established a satellite club in Rolesville.

2016 - Present **Wake Forest Chamber of Commerce, Gov. Committee Member**
As a member of the Chamber and a Government Committee member, we try to influence our elected officials to establish regulations and policies that will improve the ability of a business to compete in the worldwide economy and continue to generate income and jobs that will help to enhance the Wake Forest area.

2014 - 2019 **FIRST, Volunteer & Mentor**
FIRST Mentor and volunteer for First Lego League and FIRST Tech Challenge.

2014 - 2016 **East Ascension Rotary Club, Member**

2013 - 2016 **LSU EJ Ourso College of Business, Volunteer**
Guest Lecturer for Business & Decision Sciences; Mock Interviews, and Student and Baton Rouge Entrepreneurship Pitch Night Judge

2012 - 2015 **Ascension Parish Government, La. State Hot Air Balloon Competition**
Organizer of successful public private first two years hot air balloon festival and competition with 60+ pilots.

2011 - 2016 **Ascension Chamber of Commerce, Board of Directors**
Served as a Board member and the Government Committee Chairman.

2006 - 2016 **Ascension Parish Government, Chairman, P&Z Board of Adjustments**
Handled planning and zoning adjustments before the board in a professional and confidential manner.

2001 - Present **Ascension Fund, Board Member / Treasurer**
As a Board Member and elected Treasurer of the Ascension Fund, my primary responsibility is to provide oversight of the Executive Director and the financial transactions of the fund.

2000 - 2014 **Gonzales Rotary Club, Member / Secretary**

Areas of Expertise

- Organizing Teams
- Building Strong Effective Teams
- Negotiation
- Marketing Strategy
- Marketing Implementation
- Operational and Process Excellence
- Technology Evaluation
- Productization
- Strong Presentation Skills
- Analytical Skills

Professional Education

Construction Management Technology Degree (Pursuing)
Wake Tech Comm College,
Aug 2020 - Present

Dean's List
Wake Tech Comm College
Fall Semester 2020 - Present

Growing your Business with LinkedIn
Wake Tech Comm College, Mar 2019

Post-Licensing (Selected Topics)
GO School, Aug 2017

Post-Licensing (Broker Relationships & Responsibilities)
GO School, May 2017

Commercial & Investment in Real Estate
Go School, May 2017

Post-Licensing (Contracts & Closings)
GO School, Mar 2017

Real Estate Broker Pre-Licensing
HPW Real Estate School, Dec 2016

Dale Carnegie Training
Course - #BRD-199, Feb 1997

Entry #: 93 - Howard Katowitz

Status: Submitted

Submitted: 12/9/2025 11:06 PM

Name

Howard Katowitz

Address

234 Stone Park Drive, WAKE FOREST 27587-3629

Email

hkatowitz1@gmail.com

Phone

(919) 673-7895

Which board or commission would you like to apply for? (You can only apply for one board)

Board of Adjustment

Why do you wish to serve on this board/commission?

I am retired and am looking for ways to serve

Occupation

Retired supply chain executive

Please upload a current resume

Do you live within the town's limits or ETJ?

Yes

Length of residency in Wake County?

NC

Length of residency in Wake Forest?

10 years

Please provide proof of residency

Interests & Experiences

Ethics Guidelines for Town Advisory Boards & Commissions

Please agree with the following statement:

If appointed, I pledge to comply with the following ethics guidelines for advisory boards and commissions as adopted by the Wake Forest Board of Commissioners

Do you agree?

Yes

Members of advisory boards and commissions shall not discuss, advocate or vote on any matter in which they have a conflict of interest or an interest which reasonably might appear to be in conflict with the concept of fairness in dealing with public business. A conflict of interest or a potential conflict occurs if a member has a separate, private or monetary interest, either direct or indirect, in any issue or transaction under consideration. Any member who violates this provision may be subject to removal from the board or council.

If the advisory board or commission member believes he/she has a conflict of interest then that member should ask the advisory board or commission to be recused from voting. The advisory board or commission should then vote on the question on whether or not to excuse the member making the request. In cases where the individual member or the advisory board or commission establishes a conflict of interest, then the advisory board or commission member shall remove themselves from the voting area.

Any advisory board or commission member may seek counsel of the Town Attorney on questions regarding the interpretation of these ethics guidelines or other conflict of interest matters. The interpretation may include a recommendation on whether or not the advisory board or commission member should excuse himself/herself from voting. The advisory board or commission member may request that the Town Attorney respond in writing.

Prior to being appointed to an advisory board/commission, it is recommended that you attend a meeting of the advisory board/commission in which you have an interest. This helps each applicant to be more aware of the work of the advisory board/commission.

Have you attended a meeting for the board in which you are applying?

No

If yes, what was the date of the meeting?

Please agree with the following statement:

I understand this application, including any information provided therein, may be considered a public record and as such portions may be subject to release under North Carolina General Statute Chapter 132, Public Records.

Do you agree?

Yes

Please agree with the following statement:

Per NCGS 160C-109, members of appointed boards shall not vote on any advisory or legislative decision regarding a development regulation adopted where the outcome of the matter being considered is reasonably likely to have a direct, substantial, and readily identifiable financial impact on the member. An appointed board member shall not vote on any zoning amendment if the landowner of the property subject to a rezoning petition or the applicant for a text amendment is a person with whom the member has a close familial, business, or other associational relationship. A member of any board exercising quasi-judicial functions shall not participate in or vote on any quasi-judicial matter in a manner that would violate affected persons' constitutional rights to an impartial decision maker. Impermissible violations of due process include, but are not limited to, a member having a fixed opinion prior to hearing the matter that is not susceptible to change, undisclosed ex parte communications, a close familial, business, or other associational relationship with an affected person, or a financial interest in the outcome of the matter. A "close familial relationship" means a spouse, parent, child, brother, sister, grandparent, or grandchild. The term includes the step, half, and in-law relationships.

Do you agree?

Yes

Please agree with the following statement:

Code of Conduct: When participating in a meeting or conducting Town business (whether in person, via email, or other communication method), board and commission members shall conduct themselves in an ethical and professional manner. Any board or commission member who engages in inflammatory, hostile or threatening language or behavior toward others, including but not limited to elected officials, staff or another board or commission member, will be removed from the meeting. Any member who engages in the aforementioned behavior is also subject to dismissal from the Board. I understand that that board and commission appointments serve at the pleasure of Board of Commissioners and may be removed from an appointed board or commission at the discretion of Board of Commissioners. Meeting Preparedness to successfully prepare for a meeting, then you will be provided agenda materials in advance. An unprepared board or commission member reflects poorly on the Town of Wake Forest as well as fellow board or commission members since questions asked are often found in the staff report. Any member who continually comes unprepared to meetings is subject to dismissal from the Board. Dress Code Board members are expected to be well groomed, cleaned, and dressed in business casual attire. Shorts, t-shirts, and jeans are not permitted. If a Planning Board member is dressed or groomed inappropriately for a meeting, work session, or a Comprehensive Plan workshop, they will be prevented from participating and counted as absent.

Do you agree?

Yes

How did you learn about the advisory board opening(s)? (Check all that apply)

Facebook



BOARD OF COMMISSIONERS AGENDA ITEM REPORT

Agenda Item No.: 2025-710-

Submitted by: Michelle Daniels, Administration

Submitting Department: Administration

Meeting Date: January 20, 2026

Subject

Consideration of Approval of 2026-2031 Capital Improvement Plan (CIP) Update

Recommendation:

Vote to approve

item Summary:

ATTACHMENTS:

- [CIP Approval Agenda Item Summary.pdf](#)
- [CIP RESOLUTION 2026-2031.pdf](#)
- [CIP Approval - Agenda Item Funding Level Summary by Priority.pdf](#)

Agenda Item: Consideration of Approval of 2026-2031 Capital Improvement Plan (CIP) Update

Summary: Approving the updated document provides staff with direction to put a "financing plan" in place during the preparation of the FY 2026-2027 Annual Operating Budget. A work session was held on January 6 to review the updated CIP document.

Attachment(s): Resolution; Funding Level Summary for FY 2026-2027

RESOLUTION 2026 - xx

**RESOLUTION APPROVING FY 2026 - 2031 CAPITAL
IMPROVEMENT PLAN (CIP) UPDATE FOR THE TOWN OF
WAKE FOREST, NORTH CAROLINA**

WHEREAS the Town of Wake Forest prepares a five-year plan identifying the capital improvement and cash expenditures more than \$25,000, and;

WHEREAS the CIP is a long-range plan that reflects the Town’s policy regarding physical and economic development. This plan contributes to the overall fiscal sustainability and financial health of the Town. Through annual planning retreat(s) and work session(s), the Board of Commissioners focuses on prioritizing the first year’s expenditures thereby outlining the Town’s official commitment to these expenditures in the upcoming annual budget for FY 2026 - 2027.

NOW, THEREFORE BE IT RESOLVED, by the Board of Commissioners of the Town of Wake Forest, that the Capital Improvements Plan Update for fiscal years 2026 – 2031 is hereby approved.

This the 20th day of January 2026.

Ben Clapsaddle
Mayor

ATTEST:

Evelyn Wright
Town Clerk

2026-2027
Capital Improvement Plan - Year 1 Funding Level by Priority
Wake Forest, NC

Project Name	Department	Project #	Priority	Project Cost
Priority - High				
American Rescue Plan Act (ARPA)	ARPA	ARPA-1	1	3,247,000
ADA Improvements	Public Facilities	PF-1	1	50,000
Fire Station #6	Public Facilities	PF-16	1	17,379,000
General Transportation Improvements	Engineering	GTP-20	1	3,250,000
HL Miller Park	Engineering	AM-11	1	445,000
NCDOT S-Line Project	Planning	GTP-11	1	2,625,000
Smith Creek Greenway - Phase 2 & Trailhead	Planning	GTP-14	1	6,341,000
Smith Creek Greenway - Phase 3	Planning	GTP-15	1	2,721,000
Spectator Accessibility, ADA Bleachers, Dugouts	Parks, Recreation & Cultural Resources	PRCR-4	1	171,500
Street Resurfacing & Pavement Condition Survey	Engineering	AM-3	1	100,000
Townwide Wayfinding Designs/Signage	Public Works - Streets	PWS-3	1	450,000
Transportation New Sidewalk Projects	Public Works - Streets	PWS-2	1	100,000
Total for: Priority 1				36,879,500
Priority - Medium				
Aerification Equipment	Parks, Recreation & Cultural Resources	PRCR-3	2	95,000
Ailey Young House Heritage Site	Planning	P-3	2	800,000
Ailey Young Park Improvements	Parks, Recreation & Cultural Resources	PRCR-10	2	5,550,000
Athletic Courts Construction	Parks, Recreation & Cultural Resources	AM-9	2	2,100,000
Athletic Fields Fence Replacement	Parks, Recreation & Cultural Resources	AM-10	2	230,000
Back Property Digger - Addition	Wake Forest Power	WFP-4	2	260,000
Crack Sealing Equipment - Addition	Public Works - Streets	PWS-5	2	115,000
Downtown Overhead to Underground Conversion	Wake Forest Power	WFP-2	2	300,000
Downtown Trash/Recycling Receptacle	Public Works - Solid Waste	PWSW-5	2	50,000
Equipment Trailer - Addition	Stormwater Management	SM-9	2	30,000
Facility Space Planning	Public Facilities	PF-2	2	80,000
Fire Station #5 Water and Sewer Connections	Stormwater Management	SM-18	2	369,000
Fire Station #6 Furniture	Public Facilities	PF-15	2	200,000
Flaherty Community Center Office	Public Facilities	PF-8	2	49,000
Flaherty Park Field #2 Improvements/(Final Phase)	Parks, Recreation & Cultural Resources	PRCR-2	2	3,442,000
Friendship Chapel Extension	Engineering	GTP-3	2	1,550,000
General Facility Maintenance	Public Facilities	AM-5	2	211,000
Greenway Infrastructure Improvements	Engineering	AM-7	2	330,000
Greenway & Park Signage (Phase 2)	Parks, Recreation & Cultural Resources	PRCR-6	2	305,500
Holding Park Community House Maintenance	Public Facilities	AM-12	2	110,000
Horse Creek Watershed Water Quality Improvements	Stormwater Management	SM-2	2	345,000
Joyner Park Farm Buildings Rehab	Parks, Recreation & Cultural Resources	AM-8	2	233,000
Line Construction/System Improvements	Wake Forest Power	WFP-1	2	1,200,000
Mobile & Portable Radios Replacement	Fire	F-1	2	142,000
Park Sidewalk & Greenway Connections	Parks, Recreation & Cultural Resources	PRCR-11	2	67,000
Patrol Vehicles - Additional	Police	PD-10	2	165,000
Physical Security Refresh	Information Technology	IT-1	2	250,000

Project Name	Department	Project #	Priority	Project Cost
Renaissance Centre Expansion	<i>Renaissance Centre</i>	RC-1	2	25,000
Replace Playground Equipment & Surface	<i>Parks, Recreation & Cultural Resources</i>	AM-15	2	795,000
Replace Smith Creek Soccer Center Irrigation	<i>Parks, Recreation & Cultural Resources</i>	PRCR-9	2	155,000
Reservoir Improvements	<i>Engineering</i>	AM-6	2	1,225,000
Restroom Installation	<i>Parks, Recreation & Cultural Resources</i>	PRCR-7	2	8,130,000
Rogers Road Grade Separation	<i>Engineering</i>	GTP-8	2	470,000
Skate Park/Pump Park	<i>Parks, Recreation & Cultural Resources</i>	PRCR-12	2	7,895,000
Stormwater Analysis - Neighborhood Drainage Improvements	<i>Stormwater Management</i>	SM-1	2	345,000
Street Preservation and Maintenance	<i>Public Works - Streets</i>	AM-2	2	381,000
Tandem Axle Dump Truck - Addition	<i>Stormwater Management</i>	SM-8	2	300,000
Toms Creek Watershed Improvements	<i>Stormwater Management</i>	SM-15	2	300,000
Town Hall Maintenance	<i>Public Facilities</i>	AM-4	2	5,850,000
Town Roadway Lighting	<i>Public Works - Streets</i>	PWS-1	2	50,000
Traffic/Pedestrian Signals	<i>Engineering</i>	GTP-19	2	320,000
Traffic/Pedestrian Signals	<i>Engineering</i>	GTP-19b	2	320,000
Underwater ROV	<i>Fire</i>	F-4	2	100,000
Vehicle Additions	<i>Public Facilities</i>	PF-4	2	210,000
Vehicle Additions	<i>Parks, Recreation & Cultural Resources</i>	PRCR-1	2	55,000
Total for: Priority 2				45,504,500
Priority - Low				
Multipurpose Outdoor Sports Complex	<i>Parks, Recreation & Cultural Resources</i>	PRCR-13	3	4,540,000
Pipe Rehabilitation/Replacement Project	<i>Stormwater Management</i>	SM-16	3	345,000
Police Motorcycle Replacement	<i>Police</i>	PD-9	3	33,000
Richland Creek Watershed Improvements	<i>Stormwater Management</i>	SM-17	3	250,000
S. Franklin St. Expansion	<i>Engineering</i>	GTP-9	3	1,175,000
Short-Throw Projector for Grand Hall	<i>Renaissance Centre</i>	RC-4	3	33,000
Site Acquisition and Development	<i>Economic Development</i>	ED-2	3	3,000,000
Total for: Priority 3				9,376,000
Total for 26-27				91,760,000
GRAND TOTAL				91,760,000



BOARD OF COMMISSIONERS AGENDA ITEM REPORT

Agenda Item No.: 2025-695-

Submitted by: Ella Dowtin, Administration

Submitting Department: Administration

Meeting Date: January 20, 2026

Subject

Department Monthly Reports

Recommendation:

item Summary:

ATTACHMENTS:

- [December 2025 Monthly Report.pdf](#)

December 2025 | Department Monthly Report



Center for Active Aging

ACTIVITY		REVENUE COLLECTED	
Total Active Members	4,667	December Collections	Amount
New members this month	10	Classes	\$41,383
Number of Events Hosted	4	Donations	\$146
Number of Programs Hosted	147	Miscellaneous	\$500
Total Events Attendance	41		
Total Programs Attendance	4,393		

Updates: Total volunteer hours: 79
Total volunteers: 25

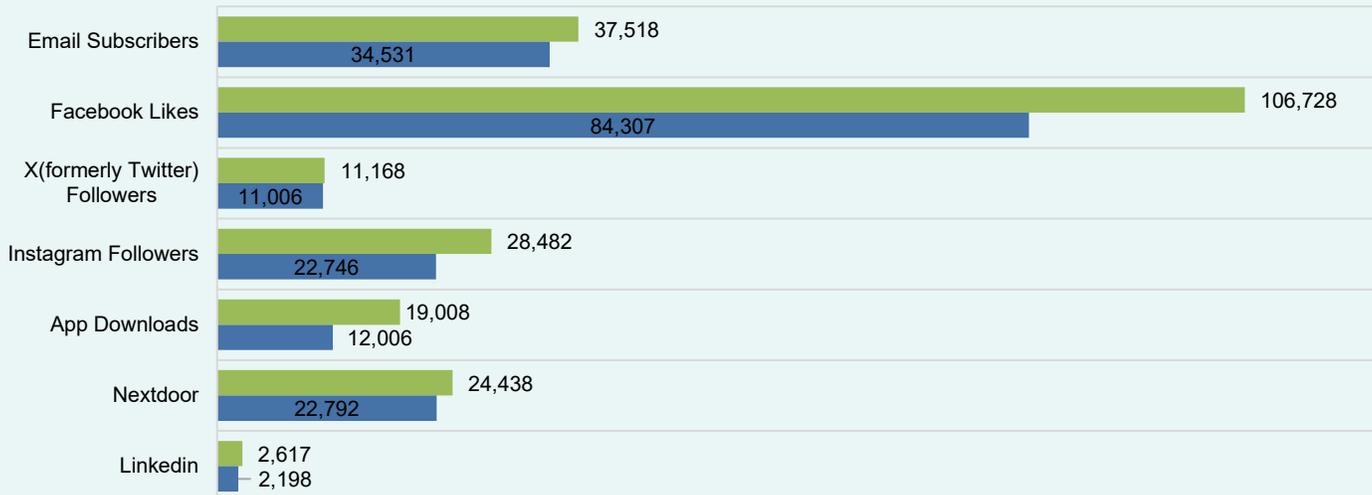
Communications

ANNOUNCEMENTS	
Media Releases	34
Email Announcements	22
Town-to-Resident Phone Calls	27

TOP 5 VIEWED PAGES ON WEBSITE		
RANK	PAGE	VIEWS
1	Forms & Applications	8,237
2	Home	5,082
3	Evening Holiday Walk at Joyner Park	1,366
4	WF Center for Active Aging	1,355
5	Jobs	1,621

SUBSCRIBERS

■ DEC-25 ■ DEC-24



Downtown Development

OCCUPANCY

	OCT - DEC 2025	OCT - DEC 2024
Occupancy Rate in Percentage	92%	90%

NEW BUSINESSES

	DECEMBER 2025	FISCAL YEAR-TO-DATE
Number of New Businesses	0	4
Number of Businesses Closed	0	0

UPDATES PROVIDED QUARTERLY

EVENTS

THIRD QUARTER EVENTS (OCT - DEC)	ATTENDANCE IN 2025	ATTENDANCE IN 2024
Lighting of Wake Forest	2,000	3,500
Holiday Open House	1,500	1,500

Wake Forest Downtown, Inc. (WFD) held a team-building event at an escape room. This was a fun-filled event that focused on the importance of communication and working together to complete assigned tasks. Both teams successfully escaped.

Lighting of Wake Forest was presented by WFD on 12.5.25. It was cold and damp due to rain earlier in the day, but there was still a good crowd in attendance to participate in this annual event. The musical performance groups were a hit, along with the roaming performers and Santa Claus. \$350 in Downtown Dollars was given away at the event on behalf of WFD sponsors.

WFD had a marketing and giveaway table at the Holiday Open House. Staff also coordinated a Small Business Stocking search throughout the day, and stockings were filled with WFD swag and Downtown Dollars to spend at local businesses. \$300 in Downtown Dollars were given away on behalf of WFD sponsors throughout the day.

The Santa mailbox continues to be a hit during the holiday season, with over 1,500 letters received.

Economic Development

WFBIP MONTHLY NEWSLETTER [VIEW](#)

WFBIP FOUNDERS NEWSLETTER [VIEW](#)

The Wake Forest Business & Industry Partnership Quarterly Report is updated at the end of each quarter.

Use Chrome, Firefox, Safari, or Edge to view the newsletter and/or the report.

BUSINESS RETENTION & EXPANSION

NAMES OF BUSINESSES VISITED THIS MONTH

Black & White Coffee Roasters

REQUESTS FOR INFORMATION (RFIs)

	DECEMBER 2025	DECEMBER 2024
Number of Responses to RFIs	1	2

Engineering

PROJECT UPDATES

Street Resurfacing	The 2025 contract is complete, with 13.1 miles of streets resurfaced. Contract for 2026 has been awarded to Sunrock Industries. The project is anticipated to start in early spring.
S. Franklin Street	Substantial completion is anticipated in late winter with final completion in early spring. Lane closures are expected to continue throughout the project's duration.
HL Miller Park Stream Restoration & Greenway Improvements	The work on the boardwalk is nearing completion. Paving trails is complete. Substantial completion is anticipated in late winter.
Dunn Creek Culvert Replacement – Juniper Avenue	The project is complete and awaiting final payment.
Dunn Creek Greenway Phase III	The work along Wait Avenue with lane closures is anticipated through December. The project remains on schedule for completion in the Spring.
Dunn Creek Greenway Phase IV	Paving of trails is complete. The project remains on schedule for completion in the Spring.
Crenshaw Stream Restoration Site 5	The project is ongoing. Substantial completion is anticipated in late winter.
Crenshaw Stream Restoration Site 6	The project is ongoing. Substantial completion is anticipated in late winter.
Traffic Signal- Forestville Rd at Coach Lantern	The project bid opening was held in December, with 4 bids received. The bids are being certified, and a notice to proceed is expected to be issued in January, with an estimated Fall completion.

Finance

FINANCIAL TASKS COMPLETED

TAX RETURNS & REPORTS	COMPLETION DATE
NC Sales and Use Tax Form E500 and Payment	12-19-2025
ORBIT/LGERS Report – NC State Treasurer	12-01-2025
Utility Sales Tax Return – E500 E	12-17-2025
Food & Beverage Tax Report	12-17-2025
NCESC Report	12-5-2025
ACCOUNTING/FINANCE	AMOUNT
Number of Invoices Paid by Check	252
Number of Invoices Paid Electronically	83
Number of Invoices Paid with P-Card	976
Number of Active Grants	9

PURCHASING / WAREHOUSE

Purchase Orders Processed	37
New Vendors Set Up	11
Informal Quotes	12
\$ Received Surplus Items Sold	\$0
Number of Bids Placed	0
HUBSCO Reports	0

Fire

KEY STATS

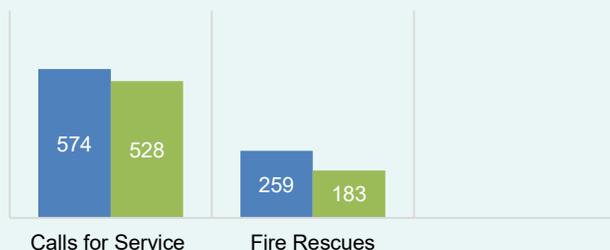
	DECEMBER 2025	DECEMBER 2024
Calls for Service	574	528
Average Response Time	3:10	4:30

TYPES OF CALLS

	DECEMBER 2025	DECEMBER 2024
Fire	259	183
Medical	279	312
Motor Vehicle Accidents (MV24A)	36	33

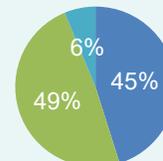
FIRE-KEY STATS

■ DEC-25 ■ DEC-24



TYPES OF CALLS

■ Fire ■ Medical ■ MVAs



Human Resources

EMPLOYMENT

	DECEMBER 2025	DECEMBER 2024
Positions filled	446	423
Vacancies	27	31
Total Authorized Positions FY 2024–2025	472	454

PROMOTIONS/TRANSFERS

NAME	DEPARTMENT	POSITION	DATE
N/A			

Information Technology

SERVICE STATS

	DECEMBER 2025	DECEMBER 2024
Service Requests Completed	797	501
Network Uptime Percentage	100%	100%

Inspections & Public Facilities

RESIDENTIAL PERMITS

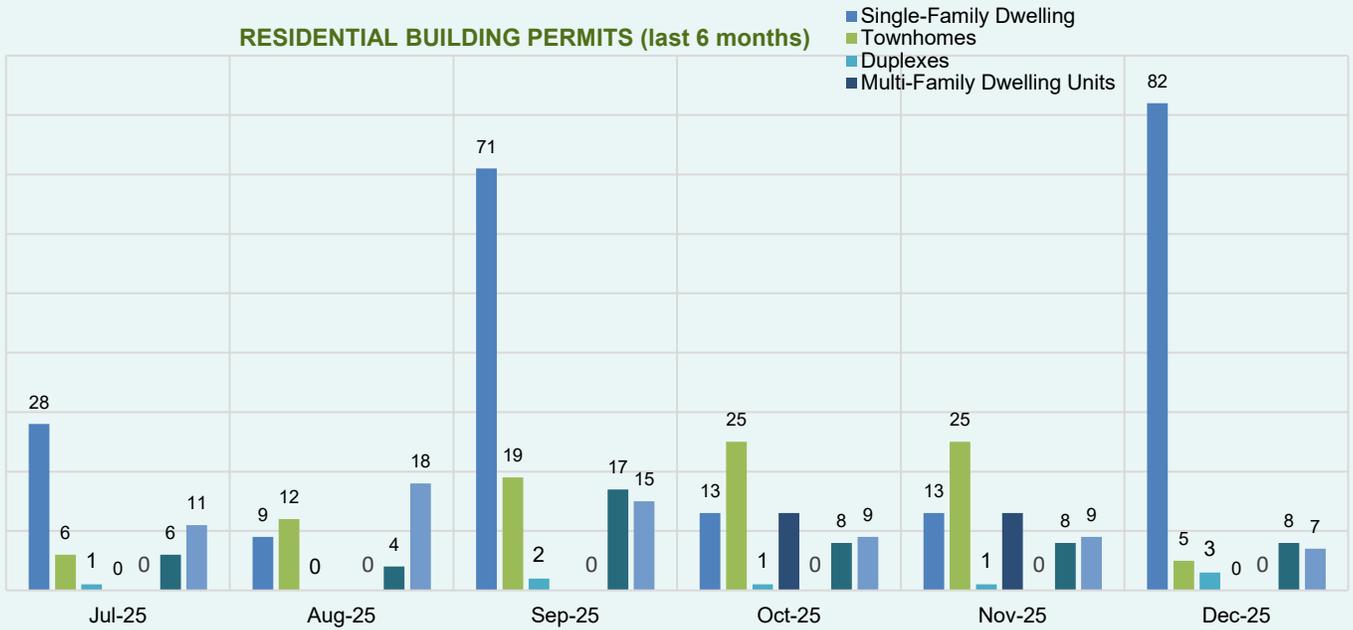
	DECEMBER 2025	DECEMBER 2024
Single-Family Dwelling	82	15
Townhomes	5	7
Duplexes	3	0
Multi-Family Dwelling Units	0	0
Other	86	122
Total	191	144

NON-RESIDENTIAL PERMITS

	DECEMBER 2025	DECEMBER 2024
New Commercial	5	0
Fit-Ups	1	0
Other	23	30
Total	29	30

Inspections & Public Facilities

RESIDENTIAL BUILDING PERMITS (last 6 months)



PUBLIC FACILITIES

	DECEMBER 2025	DECEMBER 2024
Preventative Maintenance Completed	638	610
Reactive Work Orders	135	113

DEPARTMENTAL PRODUCTIVITY



BUSINESSES

NEW COMMERCIAL BUSINESSES

JOHNSON HYUNDAI	10030 CAPITAL BLVD
FIREBIRDS WOOD FIRED GRILL	1311 GROVE VILLAGE RD
WHEATFIELD II (BUILDING A1)	3601 ROGERS BRANCH RD
WHEATFIELD II (BUILDING 1)	3605 ROGERS BRANCH RD
WHEATFIELD II (BUILDING 3)	3615 ROGERS BRANCH RD

FIT-UPS

HAPPY FEET #2	920 TIMBERLINE VIEW DR 138
---------------	----------------------------

PRE-OCCUPANCIES

DIAMOND CONTRACTING	1760 HERITAGE CENTER DR 103
PROPERTY SPECIFIC REALTY	3325 ROGERS RD 105
MICHELLE DATTA (Owner power change only)	1776 HERITAGE CENTER DR 104

Organizational Performance

NORTHERN COMMUNITY FOOD SECURITY TEAM (NCFST)	
Staff Hours	24 hrs./week
Updates	Holiday Drive Rolesville Christmas Giveaway WFCT Mobile Markets x2 Stock MP x 8 WFCT x 4
Lunch & Learn	Christmas Lunch with Luke Devores

GUEST SERVICES VOLUNTEER (GSV) PROGRAM	
Active	20
Inactive	3 (Health Issues)
Onboarding	N/A
Hours (December)	139

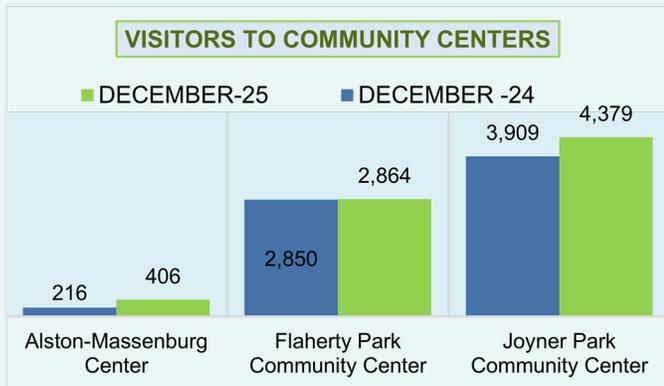
Parks, Recreation & Cultural Resources

ATHLETICS		
	DECEMBER 2025	DECEMBER 2024
Registrations Received – Youth	0	0
Registrations Received – Adult	0	0
Games Held	76	157
Revenue	\$0	\$0

[VIEW](#)

RECONNECT PROGRAM GUIDE

The program guide is updated twice per year in January and AUGUST.



PROGRAMS		
	DECEMBER 2025	DECEMBER 2024
Registrations Received – Youth	89	95
Registrations Received – Adult	48	19
Classes/Programs Held	14	16
Revenue	\$1,189	\$1,961

PARK MAINTENANCE	
TYPE OF MAINTENANCE	QUANTITY
Vandalism	2
Reactive Maintenance	4
PM Inspections & Services	75
Evening & Weekend Park Services	4

FACILITY RENTALS		
	DECEMBER 2025	DECEMBER 2024
Athletic Fields	3	0
Joyner Park Outdoor / Open Space	0	0
General Outdoor / Open Space	0	0
Picnic Shelters	0	0
Wake Forest Community House	3	7
Joyner Park Community Center	1	1
Flaherty Park Community Center	1	1
Alston-Massenburg Center	5	3

VISITORS TO AQUATIC CENTER & SPRAYGROUND		
	DECEMBER 2025	DECEMBER 2024
Aquatic Center	0	0
Taylor Street Sprayground	0	0

Planning

DEVELOPMENT SERVICES MONTHLY REPORT [VIEW](#)

ZONING VIOLATIONS DASHBOARD [VIEW](#)

Use Chrome, Firefox, Safari, or Edge to view the newsletter and/or the report.

CERTIFICATES OF APPROPRIATENESS		
	DECEMBER 2025	DECEMBER 2024
COAs Received	0	1
COAs Approved	0	1

Police

KEY STATS

	DECEMBER 2025	DECEMBER 2024
Calls for Service	4,160	5,296
Vehicle Crashes	230	208

Public Works

Streets: Replaced 85 feet of sidewalk, 6.5 Yards • Swept 169 Miles of streets, collected 41 loads of debris • Moved radar signs for WFPD • Replaced 16 signs • Marked 2 graves • Cemetery Bench Replacement • Assisted Solid Waste 21 days with leaf collection

Fleet: Fleet successfully completed 190 work orders, achieving a combined shop productivity average of 78% of billable hours for the month of December. Fleet staff had two hours of total training for December.

Solid Waste: Leaves – though we got a little behind our two-week window, we are back on schedule running trucks on weekends and into the evenings. New employee – we interviewed and made an offer to a new SW Collector. He is scheduled to start work January 5, 2026. Commercial MSW/Recycle A new vendor, Republic Services, has been selected to service the dumpsters within the management of the TOWF. Litter kits continue to go out to volunteers

Urban Forestry: 24 Trees planted, 12 trees removed, helped other divisions and department with holiday staffing shortages.

Admin: December was a high call volume month.

RECYCLING

	DECEMBER 2025	DECEMBER 2024
Volunteer Collected Litter	150	0
Volunteer Collected Recycling	50	0
Volunteer Hours	33	0
Volunteer Miles of Streets	2	0
Sections of Roads Cleaned (not miles)	0	0
Number of Creeks Cleaned	0	0
Number of Litter Kits Issued / Returned	18	0

SOLID WASTE

	DECEMBER 2025	DECEMBER 2024
New Construction Homes Added	23	46
New Cart Sets	23	46

CEMETERY

	DECEMBER 2025	DECEMBER 2024
Number of Plots Sold	0	0
Number of Niches Sold	0	0
Total Plots Available	0	0

Renaissance Centre for the Arts

RENAISSANCE CENTRE BROCHURE

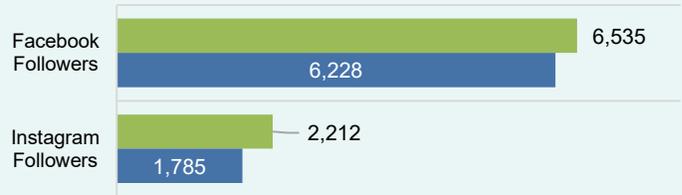
[VIEW](#)

EVENT & PROGRAM ATTENDANCE

	DECEMBER 2025	DECEMBER 2024
Monthly In-Person Attendance	3,735	1,977
Virtual Views	9,504	965
Ticketed Events Held	9	4
Free Events Held	1	1

SOCIAL ENGAGEMENT

■ DECEMBER-25 ■ DECEMBER-24



Highlights for December 2025 for the Renaissance Centre

In December, the Wake Forest Renaissance Centre presented a dynamic lineup of performances and exhibitions that celebrated storytelling, music, dance, and visual art. The Centre presented five sold-out performances of *The Lion, the Witch, and the Wardrobe* from December 19–21 in partnership with Firebox Theatre Company, enchanting audiences of all ages with a timeless tale of courage, love, and redemption. Earlier in the month, the Renaissance Centre welcomed the Celtic Angels on December 12 and 13 with matinee and evening performances, featuring fully live Irish traditional and contemporary music accompanied by the powerful Celtic Knight Dancers and the masterful Trinity Ensemble. In addition to its performance offerings, the Centre hosted a special exhibit in the RC Arts Annex through January 2 showcasing works by Arts Access NC, a non-profit dedicated to creating a positive impact at the intersection of arts, education and disability. Showcased artists, Sarah Ann Austin, Wiley Johnson, and Natacha Sochat, were honored in a free, community reception held on December 3.

Wake Forest Power

CUSTOMER SUMMARY

	DECEMBER 2025	DECEMBER 2024
Electric Meters/Customers	8,144	7,880
Pre-Pay Power Customers	369	436
H.O.P.E. Participants	42	42
N.C. GreenPower Participants	16	16

POWER OUTAGES

	DECEMBER 2025	DECEMBER 2024
Total Number of Customers Affected by Outages this Month	1,197	50
Average Number of Customers Affected per Outage	171	50

PAYMENTS RECEIVED

	DECEMBER 2025	DECEMBER 2024
eSuite Credit Card Payments	\$274,139	\$166,123
Authorize.net (Pre-Pay)	\$45,202	\$0
Paymentus CC Payments	\$1,130,827	\$1,077,249
Paymentus CC Payments (Pre-Pay)	\$14,659	\$72,979

NUMBER OF TRANSACTIONS

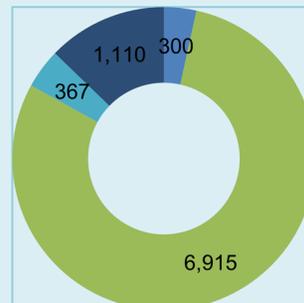
	DECEMBER 2025	DECEMBER 2024
eSuite Credit Card Payments	300	273
Paymentus CC Payments	6,915	6,735
Paymentus CC Payments (Pre-pay)	367	1,884
Authorized.net (Pre-Pay)	1,110	0

PAYMENTS RECEIVED DECEMBER 2025



- eSuite Credit Card Payment
- Authorize.net (PrePay)
- Paymentus Credit Card Payment
- Paymentus Credit Card Payment (PrePay)

PAYMENTS RECEIVED DECEMBER 2025



- eSuite Credit Card Payment
- Paymentus Credit Card Payment
- Paymentus Credit Card Payment (PrePay)
- Authorized.net

Advisory Boards

Historic Preservation Commission

MEETINGS	
Most recent meeting held	12/17/2025
Number of members in attendance: 0 out of 9	

December meeting cancelled.

Human Relations Council

MEETINGS	
Most recent meeting held	12/18/2025
Number of members in attendance: 7 out of 10	

Final meeting of the year, and final meeting for current Chairperson Robin Smith. The Council voted to appoint Steve Schlossberg as the new Chairperson and Megan Kelly Deyncourt as the new Vice Chair. Operationally, the Board continues to plan for their upcoming Expo event. Admin will move forward with cutting the check for MLK scholarship.

Public Art Commission

MEETINGS	
Most recent meeting held	12/25/2025
Number of members in attendance: 0 out of 11	

The meeting has been cancelled due to Christmas Day on this date.

Parks, Recreation & Cultural Resources Advisory Board

MEETINGS	
Most recent meeting held	12/22/2025
Number of members in attendance: 0 out of 12	

December meeting canceled.

Technology Advisory

MEETINGS	
Most recent meeting held	12/22/2025
Number of members in attendance: 0 out of 13	

December meeting canceled.



BOARD OF COMMISSIONERS AGENDA ITEM REPORT

Agenda Item No.: 2025-709-
Submitted by: Evelyn Wright
Submitting Department:
Meeting Date: January 20, 2026

Subject

January Tax Report

Recommendation:

item Summary:

ATTACHMENTS:

- [WAKE FOREST-TXREP-JAN-2026-BOC-MTG.pdf](#)



Board of Commissioners
P.O. Box 550 • Raleigh, NC 27602

TEL 919 856 6180
FAX 919 856 5699

DON MIAL, CHAIR
SAFIYAH JACKSON, VICE-CHAIR
VICKIE ADAMSON
SUSAN P. EVANS
CHERYL STALLINGS
SHINICA THOMAS
TARA WATERS

January 6, 2026

Mr. Kip Padgett
Town Manager
Town of Wake Forest
301 S. Brooks Street
Wake Forest, North Carolina 27587

Dear Mr. Padgett:

The Wake County Board of Commissioners, in regular session on January 5, 2026, approved and accepted the enclosed tax report for the Town of Wake Forest.

The attached adopted actions are submitted for your review; no local board action is required.

Sincerely,

A handwritten signature in black ink that reads "Yvonne Gilyard".

Yvonne Gilyard
Clerk to the Board
Wake County Board of Commissioners

WAKE COUNTY TAX ADMINISTRATION

11/01/2025 - 11/30/2025

Rebate Detail Report

WAKE FOREST

DATE 12/01/2025
TIME 3:56:18 PM

REBATE NUM	PROPERTY	SPEC DIST	CITY TAG	LATE LIST	BILLED INTEREST	TOTAL REBATED	PROCESS DATE	ACCOUNT NUMBER	TAX YEAR	YEAR FOR	BILLING TYPE	OWNER	
BUSINESS ACCOUNTS													
942013	131.25	48.13	0.00	13.13	0.00	192.51	11/5/2025	0007048428	2025	2025	000000	PBWF LLC	
942228	131.25	48.13	0.00	13.13	0.00	192.51	11/5/2025	0007016916	2025	2025	000000	BROADSIDES & BREWS LLC	
SUBTOTALS FOR BUSINESS ACCOUNTS		262.50	96.26	0.00	26.26	385.02		385.02	2 Properties Rebated				
TOTAL FOR WAKE FOREST SPEC DIST		262.50	96.26	0.00	26.26	385.02		385.02	2 Properties Rebated for the District City				

BUSINESS ACCOUNTS

941976	131.25	0	0.00	13.13	0.00	144.38	11/5/2025	0007048135	2025	2025	000000	AYE TORO INC 6
941993	131.25	0	0.00	13.13	0.00	144.38	11/5/2025	0007048072	2025	2025	000000	WAKE SPINE & PAIN SPECIALISTS PC
942015	131.25	0	0.00	13.13	0.00	144.38	11/5/2025	0007027417	2025	2025	000000	KINZAAP KITCHEN LLC
942075	131.25	0	0.00	13.13	0.00	144.38	11/5/2025	0007029955	2025	2025	000000	ST VICENT RESTAURANT LLC
942079	131.25	0	0.00	13.13	0.00	144.38	11/5/2025	0007052168	2025	2025	000000	MR CANNOLINO LLC
942095	131.25	0	0.00	13.13	0.00	144.38	11/5/2025	0007061934	2025	2025	000000	CAE WELLNESS, LLC
942108	131.25	0	0.00	13.13	0.00	144.38	11/5/2025	0007059393	2025	2025	000000	MARTIN SCOTT SALONS LLC
942147	131.25	0	0.00	13.13	0.00	144.38	11/5/2025	0007036238	2025	2025	000000	CHA HOUSE WAKE FOREST LLC
942172	131.25	0	0.00	13.13	0.00	144.38	11/5/2025	0007042002	2025	2025	000000	BATTLE HOUSE LASER TAG W F LLC
942178	131.25	0	0.00	13.13	0.00	144.38	11/5/2025	0007042098	2025	2025	000000	TRAVIS LEE GEORGE INC
942215	131.25	0	0.00	13.13	0.00	144.38	11/5/2025	0007005923	2025	2025	000000	SUCCESS FOODS
942218	131.25	0	0.00	13.13	0.00	144.38	11/5/2025	0007012166	2025	2025	000000	MANAGEMENT GROUP LLC
942234	131.25	0	0.00	13.13	0.00	144.38	11/5/2025	0007018579	2025	2025	000000	THE HERITAGE GRILLE & WINE BAR LLC
942244	131.25	0	0.00	13.13	0.00	144.38	11/5/2025	0007020979	2025	2025	000000	EL PATRON BARBERSHOP LOUNGE INC
942251	131.25	0	0.00	13.13	0.00	144.38	11/5/2025	0007020975	2025	2025	000000	FRERE INC
942271	131.25	0	0.00	13.13	0.00	144.38	11/5/2025	0007018971	2025	2025	000000	INTERNATIONAL CAR WASH GROUP
942279	131.25	0	0.00	13.13	0.00	144.38	11/5/2025	0007016956	2025	2025	000000	TIKALA TACOS AND MEZCAL INC
944072	85.33	0	0.00	0.00	0.00	85.33	11/20/2025	0006442896	2025	2025	007000	WINSTON AND HOLL ENTERPRISES INC
941934	131.25	0	0.00	13.13	0.00	144.38	11/5/2025	0007044783	2025	2025	000000	PHILIPS MEDICAL CAPITAL LLC
941940	131.25	0	0.00	13.13	0.00	144.38	11/5/2025	0007046625	2025	2025	000000	QUINTET ACQUISITIONS LLC
944002	540.52	0	0.00	54.05	0.00	594.57	11/19/2025	0006965005	2024	2024	000000	CAROLINA CONCUSSION & PHYSICAL MEDICINE
944001	496.66	0	0.00	49.67	0.00	546.33	11/19/2025	0006965005	2025	2025	000000	ENERGY DISTRIBUTORS
943799	51.64	0	0.00	5.16	0.00	56.80	11/18/2025	0006960820	2025	2025	000000	ENERGY DISTRIBUTORS
												GOOD THOUGHTS SERVICES PLLC
SUBTOTALS FOR BUSINESS ACCOUNTS	3,667.90	0.00	0.00	358.35	0.00	4,026.25	4,026.25		23 Properties Rebated			

INDIVIDUAL PROPERTY ACCOUNTS

943798	3,992.27	0	300.00	399.22	0.00	4,691.49	11/19/2025	0007016801	2025	2025	000000	FORWARD MOVING LLC
942286	8.40	0	0.00	0.84	0.00	9.24	11/6/2025	0006984775	2025	2025	000000	EDWARDS, JENNIFER CILLE
942285	8.40	0	0.00	0.84	0.00	9.24	11/6/2025	0006984775	2024	2024	000000	EDWARDS, JENNIFER CILLE

SUBTOTALS FOR INDIVIDUAL PROPERTY ACCOUNTS WILDLIFE BOAT ACCOUNTS	4,009.07	0.00	300.00	400.90	0.00	4,709.97	4,709.97	3 Properties Rebated
943821	188.19	0	0.00	18.82	0.00	207.01	11/19/2025 0004223661	2025 2025 000000 BROCK, AMMON RAY
SUBTOTALS FOR WILDLIFE BOAT ACCOUNTS	188.19	0.00	0.00	18.82	0.00	207.01	207.01	1 Properties Rebated
	7,865.16	0.00	300.00	778.07	0.00	8,943.23	8,943.23	27 Properties Rebated for the District City
TOTAL FOR WAKE FOREST	8,127.66	96.26	300.00	804.33	0.00	9,328.25	9,328.25	29 Properties Rebated for all Cities
GRAND TOTAL	555,712.84	19,370.39	750.00	5,096.35	0.00	580,929.58	580,929.58	381 Properties Rebated for all Cities



BOARD OF COMMISSIONERS AGENDA ITEM REPORT

Agenda Item No.: 2025-686-
Submitted by: Evelyn Wright
Submitting Department:
Meeting Date: January 20, 2026

Subject

Election of a Mayor Pro-tem

Recommendation:

item Summary:

ATTACHMENTS:



BOARD OF COMMISSIONERS AGENDA ITEM REPORT

Agenda Item No.: 2025-682-
Submitted by: Evelyn Wright
Submitting Department:
Meeting Date: January 20, 2026

Subject

BOC Appointments 2026-2027

Recommendation:

item Summary:

ATTACHMENTS:

- [Resolution2026-XX_2026-2027_BOC_Appointments_Jan202620 \(3\).doc](#)

RESOLUTION 2026-XX

**TOWN OF WAKE FOREST
2026-2027 Board of Commissioner's Appointments**

NOW, THEREFORE, BE IT RESOLVED by the Board of Commissioners of the Town of Wake Forest that the following persons be appointed on the following Committees, Boards and/or Councils:

Advisory Boards (Commissioners appointed to each Board as ex-officio)

- Human Relations Commission – TBD
- Public Art Commission – Faith Cross
- Parks, Recreation & Cultural Resources Advisory Board – Haseeb Fatmi
- Technology Advisory Board – Adam Wright

Miscellaneous Boards

- Wake Forest Downtown – Keith Shackelford
- Wake Forest Business & Industry Partnership – Keith Shackelford
- Central Pines Regional Council:
 - Voting Member – Ben Clapsaddle
 - Alternate Member – Haseeb Fatmi
- N.C. Eastern Municipal Power Agency:
 - Voting Member – Kip Padgett
 - Alternate Member – Aileen Staples
 - Second Alternate Member – Chris Terrell
- Wake Forest Museum – Keith Shackelford
- Urban Forestry Volunteer Committee – Haseeb Fatmi

Duly adopted this 20th Day of January 2026.

(ATTEST)

Ben C. Clapsaddle, Mayor

Evelyn Wright, Town Clerk



BOARD OF COMMISSIONERS AGENDA ITEM REPORT

Agenda Item No.: 2025-684-
Submitted by: Evelyn Wright
Submitting Department:
Meeting Date: January 20, 2026

Subject

Commissioners Report

Recommendation:

item Summary:

ATTACHMENTS:

CERTIFIED BID TABULATION

ITEM NO.	ITEM DESCRIPTION	QUANTIT Y	UNIT	Engineer's Estimate		BROWE		CARDINAL		FRED SMITH		LANIER	
				UNIT BID PRICE	BID AMOUNT	UNIT BID PRICE	BID AMOUNT	UNIT BID PRICE	BID AMOUNT	UNIT BID PRICE	BID AMOUNT	UNIT BID PRICE	BID AMOUNT
1	Mobilization	1	LS	\$ -	\$ -	\$ 73,700.00	\$ 73,700.00	\$ 26,000.00	\$ 26,000.00	\$ 41,500.00	\$ 41,500.00	\$ 43,000.00	\$ 43,000.00
2	Construction Surveying	1	LS	\$ 5,000.00	\$ 5,000.00	\$ 40,000.00	\$ 40,000.00	\$ 10,500.00	\$ 10,500.00	\$ 24,000.00	\$ 24,000.00	\$ 35,000.00	\$ 35,000.00
3	Clearing and Grubbing	0.1	Acre	\$ 20,000.00	\$ 2,000.00	\$ 35,000.00	\$ 3,500.00	\$ 10.00	\$ 1.00	\$ 10,000.00	\$ 1,000.00	\$ 110,000.00	\$ 11,000.00
4	Comprehensive Grading	1	LS	\$ 60,265.32	\$ 60,265.32	\$ 100,000.00	\$ 100,000.00	\$ 98,000.00	\$ 98,000.00	\$ 201,100.00	\$ 201,100.00	\$ 85,000.00	\$ 85,000.00
5	Shallow Undercut	0	CY	\$ 20.00		\$ 100.00	\$ -	\$ 70.00	\$ -	\$ 55.00	\$ -	\$ 75.00	\$ -
6	Fabric for Soil Stabilization	0	SY	\$ -		\$ 30.00	\$ -	\$ 10.00	\$ -	\$ 10.00	\$ -	\$ 8.00	\$ -
7	Geogrid for Soil Stabilization	0	SY	\$ 8.00		\$ 50.00	\$ -	\$ 20.00	\$ -	\$ 12.00	\$ -	\$ 15.00	\$ -
8	Class IV Stone for Soil Stabilization	0	Tons	\$ 32.50		\$ 120.00	\$ -	\$ 60.00	\$ -	\$ 60.00	\$ -	\$ 70.00	\$ -
	Drainage												
9	15" RC Pipe Culverts, Class IV	36	LF	\$ 150.00	\$ 5,400.00	\$ 450.00	\$ 16,200.00	\$ 241.00	\$ 8,676.00	\$ 124.00	\$ 4,464.00	\$ 185.00	\$ 6,660.00
10	Frame with Two Grates, STD 840.16	1	EA	\$ 1,315.00	\$ 1,315.00	\$ 2,200.00	\$ 2,200.00	\$ 1,950.00	\$ 1,950.00	\$ 1,300.00	\$ 1,300.00	\$ 1,015.00	\$ 1,015.00
11	Frame with Cover, STD 840.54	1	EA	\$ 1,315.00	\$ 1,315.00	\$ 1,800.00	\$ 1,800.00	\$ 1,920.00	\$ 1,920.00	\$ 1,050.00	\$ 1,050.00	\$ 1,235.00	\$ 1,235.00
12	Masonry Drainage Structures	2	EA	\$ 5,000.00	\$ 10,000.00	\$ 8,500.00	\$ 17,000.00	\$ 5,100.00	\$ 10,200.00	\$ 6,500.00	\$ 13,000.00	\$ 6,000.00	\$ 12,000.00
13	Pipe Removal	23	LF	\$ 45.00	\$ 1,035.00	\$ 100.00	\$ 2,300.00	\$ 105.00	\$ 2,415.00	\$ 60.00	\$ 1,380.00	\$ 45.00	\$ 1,035.00
	Pavement												
14	Milling Asphalt Pavement, 1.5" Depth	1,650	SY	\$ 8.40	\$ 13,860.00	\$ 5.94	\$ 9,801.00	\$ 8.50	\$ 14,025.00	\$ 11.00	\$ 18,150.00	\$ 35.00	\$ 57,750.00
15	Asphalt Type B25.0C	20	Tons	\$ 180.00	\$ 3,600.00	\$ 375.00	\$ 7,500.00	\$ 250.00	\$ 5,000.00	\$ 300.00	\$ 6,000.00	\$ 350.00	\$ 7,000.00
16	Asphalt Type I19.0C	20	Tons	\$ 180.00	\$ 3,600.00	\$ 375.00	\$ 7,500.00	\$ 250.00	\$ 5,000.00	\$ 225.00	\$ 4,500.00	\$ 350.00	\$ 7,000.00
17	Asphalt Type S9.5B	150	Tons	\$ 180.00	\$ 27,000.00	\$ 300.00	\$ 45,000.00	\$ 200.00	\$ 30,000.00	\$ 240.00	\$ 36,000.00	\$ 300.00	\$ 45,000.00
18	Asphalt Binder for Plant Mix	15	Tons	\$ 650.00	\$ 9,750.00	\$ 800.00	\$ 12,000.00	\$ 560.00	\$ 8,400.00	\$ 675.00	\$ 10,125.00	\$ 700.00	\$ 10,500.00
19	2'-6" Concrete Curb and Gutter	370	LF	\$ 41.50	\$ 15,355.00	\$ 60.00	\$ 22,200.00	\$ 37.50	\$ 13,875.00	\$ 40.00	\$ 14,800.00	\$ 50.00	\$ 18,500.00
20	4" Concrete Sidewalk	310	SY	\$ 80.00	\$ 24,800.00	\$ 100.00	\$ 31,000.00	\$ 137.00	\$ 42,470.00	\$ 55.00	\$ 17,050.00	\$ 65.00	\$ 20,150.00
21	Concrete Curb Ramps	6	EA	\$ 2,500.00	\$ 15,000.00	\$ 4,500.00	\$ 27,000.00	\$ 2,625.00	\$ 15,750.00	\$ 2,800.00	\$ 16,800.00	\$ 5,000.00	\$ 30,000.00
22	Adjustment of Meter Boxes and Valve Boxes	4	EA	\$ 1,050.00	\$ 4,200.00	\$ 1,000.00	\$ 4,000.00	\$ 1,100.00	\$ 4,400.00	\$ 950.00	\$ 3,800.00	\$ 900.00	\$ 3,600.00
23	Erosion Control	1.0	LS	\$ 20,000.00	\$ 20,000.00	\$ 15,000.00	\$ 15,000.00	\$ 12,000.00	\$ 12,000.00	\$ 30,000.00	\$ 30,000.00	\$ 13,000.00	\$ 13,000.00
24	Contractor Furnish, Type E Sign	36.0	SF	\$ 30.00	\$ 1,080.00	\$ 43.75	\$ 1,575.00	\$ 48.00	\$ 1,728.00	\$ 35.00	\$ 1,260.00	\$ 80.50	\$ 2,898.00
25	Supports, 3 LB. Steel U-Channel	60.0	LF	\$ 15.00	\$ 900.00	\$ 12.50	\$ 750.00	\$ 9.00	\$ 540.00	\$ 25.00	\$ 1,500.00	\$ 25.00	\$ 1,500.00
26	Disposal of Sign System, U-Channel	1.0	EA	\$ 30.00	\$ 30.00	\$ 25.00	\$ 25.00	\$ 10.00	\$ 10.00	\$ 55.00	\$ 55.00	\$ 90.00	\$ 90.00
27	Disposal of Sign , Type E	2.0	EA	\$ 400.00	\$ 800.00	\$ 40.00	\$ 80.00	\$ 10.00	\$ 20.00	\$ 55.00	\$ 110.00	\$ 210.00	\$ 420.00
28	Thermoplastic Pavement Marking Lines (4", 90 MILS)	990.0	LF	\$ 2.50	\$ 2,475.00	\$ 5.00	\$ 4,950.00	\$ 4.50	\$ 4,455.00	\$ 1.50	\$ 1,485.00	\$ 5.15	\$ 5,098.50
29	Thermoplastic Pavement Marking Lines (24" 120 MILS)	610.0	LF	\$ 17.50	\$ 10,675.00	\$ 22.50	\$ 13,725.00	\$ 19.00	\$ 11,590.00	\$ 9.00	\$ 5,490.00	\$ 25.00	\$ 15,250.00
30	Thermoplastic Pavement Marking Lines (8" 90 MILS)	190.0	LF	\$ 5.00	\$ 950.00	\$ 7.50	\$ 1,425.00	\$ 6.50	\$ 1,235.00	\$ 3.00	\$ 570.00	\$ 8.00	\$ 1,520.00
31	Heated-in-Place Thermoplastic Pavement Marking Symbols (90 MILS)	7.0	EA	\$ 260.00	\$ 1,820.00	\$ 1,000.00	\$ 7,000.00	\$ 835.00	\$ 5,845.00	\$ 373.00	\$ 2,611.00	\$ 1,020.00	\$ 7,140.00
32	Permanent Raised Pavement Markers	10.0	EA	\$ 5.00	\$ 50.00	\$ 30.00	\$ 300.00	\$ 16.00	\$ 160.00	\$ 25.00	\$ 250.00	\$ 20.00	\$ 200.00
33	Temporary Traffic Control	1	LS	\$ 10,000.00	\$ 10,000.00	\$ 125,000.00	\$ 125,000.00	\$ 23,000.00	\$ 23,000.00	\$ 65,000.00	\$ 65,000.00	\$ 105,000.00	\$ 105,000.00
34	Flagger	8	Day	\$ 345.00	\$ 2,760.00	\$ 2,200.00	\$ 17,600.00	\$ 800.00	\$ 6,400.00	\$ 985.00	\$ 7,880.00	\$ 350.00	\$ 2,800.00
	Traffic Signals (New)												
35	Pedestrian Signal Head (16", 1 Section with Countdown	8.0	EA	\$ 1,500.00	\$ 12,000.00	\$ 1,562.50	\$ 12,500.00	\$ 1,200.00	\$ 9,600.00	\$ 1,250.00	\$ 10,000.00	\$ 1,600.00	\$ 12,800.00
36	Signal Cable	3,160.0	LF	\$ 5.00	\$ 15,800.00	\$ 6.25	\$ 19,750.00	\$ 4.00	\$ 12,640.00	\$ 3.90	\$ 12,324.00	\$ 6.40	\$ 20,224.00
37	Vehicle Signal Head (12", 3 Section)	10.0	EA	\$ 1,400.00	\$ 14,000.00	\$ 1,562.50	\$ 15,625.00	\$ 1,285.00	\$ 12,850.00	\$ 1,350.00	\$ 13,500.00	\$ 1,600.00	\$ 16,000.00
38	Vehicle Signal Head (12", 4 Section)	2.0	EA	\$ 1,800.00	\$ 3,600.00	\$ 2,187.50	\$ 4,375.00	\$ 1,550.00	\$ 3,100.00	\$ 1,650.00	\$ 3,300.00	\$ 2,225.00	\$ 4,450.00
39	Messenger Cable (3/8")	484.0	LF	\$ 9.50	\$ 4,598.00	\$ 10.00	\$ 4,840.00	\$ 3.25	\$ 1,573.00	\$ 3.50	\$ 1,694.00	\$ 10.25	\$ 4,961.00

CERTIFIED BID TABULATION

40	Unpaved Trenching (1) (2")	844.0	LF	\$ 22.00	\$ 18,568.00	\$ 25.00	\$ 21,100.00	\$ 12.00	\$ 10,128.00	\$ 12.50	\$ 10,550.00	\$ 25.50	\$ 21,522.00
41	Unpaved Trenching (4) (2")	7.0	LF	\$ 25.00	\$ 175.00	\$ 31.25	\$ 218.75	\$ 35.00	\$ 245.00	\$ 35.00	\$ 245.00	\$ 35.00	\$ 245.00
42	Unpaved Trenching (5) (2")	4.0	LF	\$ 31.00	\$ 124.00	\$ 37.50	\$ 150.00	\$ 67.00	\$ 268.00	\$ 70.00	\$ 280.00	\$ 40.00	\$ 160.00
43	Junction Box (Standard Size)	10.0	EA	\$ 770.00	\$ 7,700.00	\$ 1,062.50	\$ 10,625.00	\$ 465.00	\$ 4,650.00	\$ 500.00	\$ 5,000.00	\$ 1,085.00	\$ 10,850.00
44	Junction Box (Over-Sized, Heavy Duty)	1.0	EA	\$ 1,500.00	\$ 1,500.00	\$ 1,562.50	\$ 1,562.50	\$ 865.00	\$ 865.00	\$ 900.00	\$ 900.00	\$ 1,600.00	\$ 1,600.00
45	Inductive Loop Sawcut	890.0	LF	\$ 17.00	\$ 15,130.00	\$ 15.00	\$ 13,350.00	\$ 9.00	\$ 8,010.00	\$ 9.50	\$ 8,455.00	\$ 15.25	\$ 13,572.50
46	Lead-In Cable (14-2)	4,020.0	LF	\$ 4.00	\$ 16,080.00	\$ 3.44	\$ 13,828.80	\$ 2.70	\$ 10,854.00	\$ 2.75	\$ 11,055.00	\$ 3.50	\$ 14,070.00
47	Metal Strain Signal Pole	4.0	EA	\$ 15,000.00	\$ 60,000.00	\$ 23,975.00	\$ 95,900.00	\$ 14,000.00	\$ 56,000.00	\$ 15,000.00	\$ 60,000.00	\$ 25,000.00	\$ 100,000.00
48	Soil Test	4.0	EA	\$ 2,650.00	\$ 10,600.00	\$ 3,125.00	\$ 12,500.00	\$ 2,900.00	\$ 11,600.00	\$ 3,250.00	\$ 13,000.00	\$ 3,200.00	\$ 12,800.00
49	Drilled Pier Foundation	40.0	CY	\$ 1,850.00	\$ 74,000.00	\$ 2,500.00	\$ 100,000.00	\$ 1,425.00	\$ 57,000.00	\$ 1,600.00	\$ 64,000.00	\$ 2,550.00	\$ 102,000.00
50	900 MHZ Serial/Ethernet Spread Spectrum Radio	2.0	EA	\$ 8,025.00	\$ 16,050.00	\$ 5,625.00	\$ 11,250.00	\$ 12,500.00	\$ 25,000.00	\$ 13,000.00	\$ 26,000.00	\$ 5,800.00	\$ 11,600.00
51	Type II Pedestal with Foundation	8.0	EA	\$ 4,380.00	\$ 35,040.00	\$ 5,625.00	\$ 45,000.00	\$ 3,200.00	\$ 25,600.00	\$ 3,450.00	\$ 27,600.00	\$ 5,800.00	\$ 46,400.00
52	Signal Cabinet Foundation	1.0	EA	\$ 3,500.00	\$ 3,500.00	\$ 3,125.00	\$ 3,125.00	\$ 800.00	\$ 800.00	\$ 850.00	\$ 850.00	\$ 3,200.00	\$ 3,200.00
53	Controllers with Cabinet (Type 2070LX with Maxtime, Base Mounted)	1.0	EA	\$ 31,000.00	\$ 31,000.00	\$ 31,250.00	\$ 31,250.00	\$ 30,000.00	\$ 30,000.00	\$ 32,500.00	\$ 32,500.00	\$ 32,000.00	\$ 32,000.00
54	Detector Card (Type 170)	6.0	EA	\$ 380.00	\$ 2,280.00	\$ 562.50	\$ 3,375.00	\$ 250.00	\$ 1,500.00	\$ 240.00	\$ 1,440.00	\$ 575.00	\$ 3,450.00
55	Cabinet Base Extender	1.0	EA	\$ 750.00	\$ 750.00	\$ 937.50	\$ 937.50	\$ 600.00	\$ 600.00	\$ 615.00	\$ 615.00	\$ 1,000.00	\$ 1,000.00
					\$ 59,753.03								
					\$ 105,165.34								
				Total Bid Amount	\$ 762,448.69		\$ 1,031,393.55		\$ 648,448.00		\$ 835,538.00		\$ 983,266.00

Apparent Low Bidder: Cardinal Civil Contracting, LLC

It is our opinion that four (4) bidders presented fully responsive and acceptable bids.
I certify that the above is a true and accurate tabulation of the bids received on 12/17/2025

Certified by: Samuel A. MacDonald, PE



1/5/2026

