

Lake Crabtree Park Improvements Bid Addendum #1

Date: 08/19/2026
Wake County RFB #: 26-078
WR Project #: 22-0024-007

Project Contact:

Michael Alderman
Project Manager II
WithersRavenel
malderman@withersravenel.com

Notice to All Bidders:

Bidders on this Lake Crabtree Park Improvements are hereby notified that this Addendum shall be attached to and made part of the above-named Project Manual dated August 5, 2026.

The following items add to, modify, and clarify the Bidding and Contract Documents and shall have the full force and effect of the original Documents. Bids shall conform to those items and the cost change, if any, of these items shall be included in this Bid Price.

Questions and Clarifications

1. Q. Do you have a valuation for the project?
A. We will not be sharing this information.
2. Q. Confirm with you that this project is NOT a Davis-Bacon project with certified payroll or federally funded. If it is, we have to advertise it with this wording since trades always want to know this up front. Davis-Bacon is mentioned at least 4 times in the Bid Manual.
A. Confirmed. This project does not require the Davis-Bacon process.
3. Q. Is it okay to provide the "Information Available to Bidders" form at the Bid Opening (9/15)...or do you need it beforehand?
A. Release form removed from Information Available to Bidders. Information has been added to appendix.
4. Q. Is a single knox box containing keys for all buildings at the park entrance acceptable?
A. Likely yes, to be confirmed by Wake County Fire Marshall.
5. Q. Is there a sign in sheet from the site walk held on 8/12 available?
A. Yes, sign in sheet is attached to this Addendum.
6. Q. Do you have an anticipated start date or completion date at this time?
A. Yes, the project schedule is noted within the Pre-Bid Conference Minutes. Anticipated start date is Mid-November 2026. Anticipated completion date is Mid-November 2027.
7. Q. Will division 12 specifications for the curtains and drapes be a part of this project?
A. Refer to A4.14 keynote 65 and A1/A4.54. Drapes to be included at S04 in Education Center.
8. Added an Allowance for Permit fees.

9. Relocation of the sail boats by the Boat Launch parking lot will be by owner.
10. The lowest acceptable bidder calculations will include any alternates the Owner considers and accepts. There is no specific priority for the alternates.
11. Owner provided items include:
 - a. Construction Material Testing (CMT) services and Special Inspections services
 - b. FFE for the buildings
 - c. Room Signage
 - d. Directional Signage
 - e. Moving materials from Admin and Maintenance into storage containers

Plan Revisions

1. Cover sheet
 - a. Added the following permit numbers to the plans:
Water Permit: WP26023
Sewer Permit: NP26022
Reclaimed Water: N/A
 - b. Added the following note to the plans:
4. The documents listed in the Demolition and General Construction sections of the 'Construction Notice to Proceed Submittal List' must be submitted for the RDU Airport Authority to issue approval for construction to commence. Please note that no construction may begin until a Notice to Proceed is issued by the Authority.
 - c. Alternate Schedule updated
 - i. G-03B: ADD ALTERNATE #05
 1. Standing Seam Metal switched to be the base bid with asphalt shingle roof as the alternate.
 2. Switched to DEDUCT alternate.
 - ii. G-04: ADD ALTERNATE #06
 1. Changed the Alternate Description to read "composite decking, wood Stair, railing, wood batten screen, steel concrete and masonry structure, and light duty concrete paving"
 - iii. G-05: ADD ALTERNATE #07
 1. Changed "wood decking" to "composite decking"
 - iv. G-07: ADD ALTERNATE #09
 1. Switched to DEDUCT alternate.
 - v. F-01E: ADD ALTERNATE #14
 1. Omitted from the list. There is no planned fire alarm system for the comfort station.
2. C0.01 – Index of Sheets
 - a. Added CR2.11 - Conduit Raceway Plan Education Center to the sheet list.
3. C0.03 – General Notes
 - a. Added note: The installation of the new meters will need to be coordinated with Cary staff during construction.
 - b. Added note: Pre-construction meeting to be scheduled with Cary Field Services staff.



4. C2.30, C2.31 Comfort Station – Demolition Plans
 - a. Revised extent of demolition to asphalt driveway.
5. C3.11, C3.20, C3.21, C3.30, C3.31 - Site Plans
 - a. Fire lane markings and signage have been noted on site plans.
6. C3.11 – Admin and Maintenance Site Plan
 - a. Section of Lake Crabtree Park Drive has been widened to 26' adjacent to fire hydrant.
7. C3.20, C3.21 – Education Center Site Plan
 - a. Section of light duty concrete paving switched to heavy duty concrete paving adjacent to the existing fire hydrant south of the new Education Center.
8. C4.11, C4.21, C4.31 Utility Plans
 - a. Notes added per Town of Cary permit.
9. C7.11, C7.21, C7.31 – Fire Apparatus Plans
 - a. Fire lane markings and signage have been added to site plans.
10. C9.00 – Site Details
 - a. Weight capacity (75,000 lbs.) has been added to heavy duty pavements in details 02, 04, and 08.
11. C9.02 – Site Details
 - a. Detail 08 added for Fire Lane sign and other Traffic Signage.
12. B3/A2.21 – ADMIN BUILDING – EXTERIOR ELEVATIONS
 - a. Existing building address and keynote added
13. A1/A3.21 – MAINTENANCE BUILDING – EXTERIOR ELEVATIONS – BASE BID
 - a. Existing building address and keynote added
14. A4.15 – EDUCATION CENTER ROOF PLAN
 - a. Acoustic Panel mounting updated on roof assemblies
15. B1/A4.21 – EDUCATION CENTER – EXTERIOR ELEVATIONS
 - a. Building address and keynote added
16. A3/A5.21.A – COMFORT STATION – ELEVATIONS
 - a. Building address and keynote added.

Specification Revisions

1. Table of Contents
 - a. Added:
 - i. Appendix E: RDUAA Site Plan Permit Approval
 - ii. Appendix F: Wake County WMCPA – Watershed Management Construction Plan Approval
 - iii. Appendix G: Town of Cary Utilities Sewer and Water Permit Approval
 - iv. Appendix H: NCDEQ Erosion and Sedimentation Control Plan Approval



2. Section 00 03 00 - Information Available to Bidders
 - a. Removed release form.
3. Section 00 04 00 - Bid Proposal Form
 - a. Allowances
 - i. Added Allowance #7 for Permitting, to the sum of \$10,000.
 - b. Alternates
 - i. G-03B: ADD ALTERNATE #05
 1. Switched to DEDUCT alternate.
 - ii. G-07: ADD ALTERNATE #09
 1. Switched to DEDUCT alternate.
 - iii. F-01E: ADD ALTERNATE #14
 1. Omitted from the list. There is no planned fire alarm system for the comfort station.
4. Appendix
 - a. Added:
 - i. Appendix E: RDUAA Site Plan Permit Approval
 - ii. Appendix F: Wake County WMCPA – Watershed Management Construction Plan Approval
 - iii. Appendix G: Town of Cary Utilities Sewer and Water Permit Approval
 - iv. Appendix H: NCDEQ Erosion and Sedimentation Control Plan Approval
5. Section 01 20 00 - Price and Payment Procedures
 - a. Allowances
 - i. Added Allowance #7 for Permitting, to the sum of \$10,000.
 - b. Alternates:
 - i. G3B: ADD ALTERNATE #05
 1. Standing Seam Metal switched be the base bid with asphalt shingle roof as the alternate.
 2. Added "Details for the asphalt shingle roof alternate are to be worked out via shop drawings if accepted."
 3. Switched to DEDUCT alternate.
 - ii. G4: ADD ALTERNATE #06
 1. Changed the Alternate Description to read "composite decking, wood Stair, railing, wood batten screen, steel concrete and masonry structure, and light duty concrete paving"
 - iii. G5: ADD ALTERNATE #07
 1. Changed "wood decking" to "composite decking"
 - iv. G-07: ADD ALTERNATE #09
 1. Switched to DEDUCT alternate.
 - v. F1E: ADD ALTERNATE #14
 1. Omitted from the list. There is no planned fire alarm system for the comfort station.
6. Section 01 91 13 - General Commissioning
 - a. Removed from the Contract Documents
7. Section 04 22 00 – Replace in kind
8. Section 10 51 26 – Replace in kind



9. ADD in the sections listed below the following as acceptable manufacturers, provided that the products that they are providing meet the requirements of the specification section, which qualifies their products.
 - a. Section 10 51 26 – HDPE Lockers
 - i. Summit Lockers
 - b. Section 10 28 00 – Toilet, Bath, and Laundry Accessories
 - i. Saniflow Corp.
10. Section 32 92 00 - Turf and Grasses
 - a. Removed “enclosed in a photodegradable plastic mesh” from the following paragraph:
 - 2.8 EROSION-CONTROL MATERIALS
 - A. Erosion-Control Blankets: Biodegradable wood excelsior, straw, or coconut-fiber mat ~~enclosed in a photodegradable plastic mesh~~. Include manufacturer's recommended steel wire staples.

Attachments:

1. Sign-in Sheets
2. Pre-Bid Conference Minutes
3. Updated sheets and specifications

Lake Crabtree Park Improvements
Pre-Bid Meeting Minutes
WR Project Number: 22-0024-007
Wake County RFB#: 26-078

Date / Time: 08/12/2026, 10:00am
Location: Lake Crabtree County Park, Beech Shelter

The purpose of this meeting is to field questions regarding the **Lake Crabtree Park Improvements** project. These questions will be discussed and/or clarified via Addendum to all plan holders. All discussions at the meeting are non-binding to the contract. The only changes that will occur will be issued via Addendum to all plan holders.

1. Introductions: Project Team and Overview of Scope

- Owner:
 - a. Eric Staehle, Wake County, Facilities Design & Construction (present)
 - b. Chris Snow, Wake County Parks (present)
 - c. Sam Trogdon, Wake County Parks
- Landscape Architect (Project Lead) – WithersRavenel
 - a. Michael Alderman, Jen Dolan, John Courtney (all present)
 - b. Brent Carrington (Construction Administration Team)
- Civil Engineering – WithersRavenel
 - a. Shannon Healy, Allison Brown
- Architect – ClarkNexsen (JMT)
 - a. Thomas Foederer (present), Jennifer Heintz, Robert Thomas, Trevor Healy
- MEP Engineering – JMT
 - a. David Hartman, Hunter Branson, Byron Wender, William Meyring
- Structural Engineering – JMT
 - a. Matthew Hickey
- Interiors – ClarkNexsen (JMT)
 - a. Susan Drew, Anna Claire Beethoven
- Please sign the Pre-Bid meeting attendance form

2. Bidding Schedule

- | | | |
|---------------------------------|-------------------|--------------------|
| • Contract Documents available: | | August 6, 2026 |
| • Pre-Bid Meeting: | | August 12, 2026 |
| • Last Date for Questions | 5:00 pm Wednesday | September 2, 2026 |
| • Last Addendum Issued | 5:00 pm Tuesday | September 8, 2026 |
| • Bid Opening: | 2:00 pm Tuesday | September 15, 2026 |

All communication is to go through the Landscape Architect and must be in writing. No questions will be answered over the phone or in person. Send questions in emails to: malderman@withersravenel.com

Bids are due at the Wake County Procurement Services, Suite 2900, Wake County Justice Center, 301 McDowell Street, Raleigh, NC 27601 up to 2:00 pm. All bids will be opened and read aloud.

- Addenda will be posted at the plan rooms and will be sent via email to those who signed in today



- Anticipated Notice to Proceed: Mid-November
 - a. Board of Commissions meeting : Mid-October
 - b. Subject to change based on contracting timelines and board meetings
- **Bids must be submitted by or before exactly 2:00pm on Tuesday, 15th of September 2026 or they will be rejected.**
- All contractors must allow adequate time for parking and to get through the building security. Building security includes X-ray machines and metal detectors. Do not have any weapon, knife, or tool of any size with you as you go through security. It will be confiscated. A government issued photo ID is required to sign in to Wake County buildings.
- The McDowell Street entry is usually less crowded and is located closer to the Purchasing Department.

3. General Notes

- This project is being bid as a Single Price Contract. All contractors must have a valid NC license.
- Bids shall be provided as a lump sum to include all labor, equipment, materials and services required to complete the project. Provide unit prices as indicated for the addition or subtraction of work.
- It is the contractor's responsibility to verify quantities to ensure an accurate bid price.
- All work, including deliveries, shall take place during normal business hours 7:00am – 5:00pm, Monday through Friday. Wake County staff will not accept deliveries.
- The Contract time for construction is **365 consecutive calendar days** from the Notice to Proceed until Substantial Completion
- The rate for liquidated damages is Five Hundred Dollars (\$500) per consecutive calendar day.
- This project is being permitted through RDUAA, Wake County & NC DEQ.
 - a. Site Plans have been approved by RDUAA.
 - b. Wake County Stormwater permits have been approved
 - c. NCDEQ Erosion Control permits have been approved
 - d. Wake County building permits are in review (awaiting contractor information).
 1. Commercial Plan Review - Started
 2. Commercial License & Valuation Review
 3. PLG - Commercial Use Review
 4. Issue Permit
- Geotechnical Report is provided within the project manual
- Bonding and Insurance requirements are noted in the contract template and in the front-end specifications within the project manual

4. Project Scope

Project includes new structures, including renovations to the existing park office and maintenance buildings, a pre-engineered pole barn (alternate), a new Education Center building, and a new comfort station (alternate). Site improvements consist of new concrete sidewalks, additional asphalt and gravel parking, new asphalt driveways, water and sewer infrastructure, constructed wetland, and all infrastructure to support the new structures.

Base bid for project will include the following:

- Admin and Maintenance Building Renovation and Improvements
- New Education Center
- Boat Launch Parking lot renovation
- Site and Infrastructure improvements & Landscaping

5. Plans, Specifications and Contract Documents:

- An electronic copy of the contract documents (PDF) may be obtained from Accent Imaging beginning August 5, 2026.
- Printed copies of the plans and specifications may be purchased from Accent Imaging online or at (919)782-3332. Plans may be accessed for viewing and download at <http://www.planscope.com/>.
- Digital .dwg files of site plan sheets may be requested via e-mail from WithersRavenel after signing a CAD release form during Construction only (not available during bidding).

6. Bid Proposal

The project is being bid as a single prime contract. All contractors must have proper license under the state laws governing their trades.

A bid bond is required for the bid. **The Bid Bond form included in the project manual must be used or the bid may be rejected.** 100% performance bond, and 100% payment bond are all required for the construction agreement.

Contractors must sign and seal bids. Any bids not signed and sealed will be rejected.

It is recommended contractors sign up to be a vendor with Wake County. This is not required but is encouraged as it will help speed along the contract process.

- Required forms
- Bid bonds
- Insurance Requirements
- Sub contractors and qualifications
- Additional Instructions

7. Unit Prices

There are Unit Prices included in the project. These are defined in the project manual and must be listed on the Bid Form

8. Alternates

There are fourteen Alternates included in the project which must be listed on the Bid Form. Refer to 012000 - Price and Payment Procedures for more specific information:

- Alternate No. 1: C-1 ADDITIONAL PARKING BAY AT EDUCATION CENTER
- Alternate No. 2: G-1 POLE BARN AT MAINTENANCE YARD
- Alternate No. 3: G-2 MAINTENANCE STORAGE ADDITION
- Alternate No. 4: G-3A COMFORT STATION AT BOAT LAUNCH AREA AND DEMO OF EXISTING COMFORT STATION
- Alternate No. 5: G-3B COMFORT STATION ROOF
- Alternate No. 6: G-4 REAR STAIR ACCESS AT EDUCATION BUILDING
- Alternate No. 7: G-5 OUTDOOR CLASSROOM DECKING AT EDUCATION CENTER
- Alternate No. 8: G-6 EDUCATION CENTER WOOD SIDING
- Alternate No. 9: G-7 EDUCATION CENTER WOOD FLOOR
- Alternate No. 10: F-1A FIRE ALARM SYSTEM FOR ALL BUILDINGS
- Alternate No. 11: F-1B - FIRE ALARM SYSTEM FOR ADMIN BUILDING ONLY
- Alternate No. 12: F-1C - FIRE ALARM SYSTEM FOR MAINTENANCE BUILDING ONLY
- Alternate No. 13: F-1D - FIRE ALARM SYSTEM FOR EDUCATION CENTER ONLY
- ~~Alternate No. 14: F-1E - FIRE ALARM SYSTEM FOR COMFORT STATION ONLY~~

9. Allowances

- Allowance #1: Security equipment & installation by Owner-approved sub-contractor
 - a. GC will bid and contract with owner preferred list
 - b. Amount: \$ 190,000
- Allowance #2: Security fiber optic Installation and Telecommunications cabling
 - a. GC will bid and contract with owner preferred list
 - b. Amount: \$ 95,000
- Allowance #3: Removal of unsatisfactory soil and replacement with suitable material
 - a. Amount: per unit price
- Allowance #4: Rock excavation in open
 - a. Amount: per unit price
- Allowance #5: Rock excavation in trenches
 - a. Amount: per unit price
- Allowance #6: General Construction Contingency
 - a. Amount: \$ 50,000
- Refer to Project Manual for specifics

10. Project Schedule

- The project shall be completed (~~Final~~ **Substantial** Completion) in no longer than 365 calendar days from the Notice To Proceed.
- Park is heavily used on weekends –weekend and night work will require prior approval by the Owner.

11. Expectations

- Keep a clean and safe site
- Meet regulatory agencies requirements
- Quality workmanship
- Tree protection / Silt Fence
- Coordinate all trades on site
- Contractor operations shall not impede upon park patron safety & access
- Park amenity closures to be minimized, as feasible
- Contractor to provide and coordinate Traffic and Pedestrian control plans for the entire project
- Contractor to provide and coordinate logistics plan with design team and park staff
- Contractor is responsible for stockpiling and hauling materials off site as needed
- Contractor to repair damage to existing infrastructure. Will walk site with contractor at Pre-construction meeting to review existing conditions.
- Owner will provide third party testing
- Provide temporary office for park staff, as needed (refer to Project Manual). Note that temporary office trailer permit allows only 6 month duration. See 015000.01 - Temporary Facilities for Owners Use
- Existing Admin Building (Park Office) could potentially be used for Contractors' temporary use
- Temporary offices for park staff shall have all utilities independent from existing facilities
- Erosion control around the Lake – debris and erosion control will be required
- The Contractor shall keep one record copy marked "As-Built" of all Specifications, Drawings, Addenda, Modifications, and Submittals at the Project in good order and annotated at least monthly to show all changes made during the construction process.

12. Project Management:

Contractor requirements described in 013000 - Administrative Requirements

- Construction office
- Project software (Web-Based Project Management Software Package)
- Regular meetings
 - The contractor will be required to attend biweekly construction meetings in order to coordinate the work schedule. A detailed schedule will be discussed at each meeting.
- There are no tobacco products, including vaping, allowed on County Property.
- Weapons of any kind, illegal drugs and explosives are always prohibited.
- Harassment is prohibited.

13. Additional Comments

- Note that the bid bond is to be included in a separate sealed envelope with contractor's information and the words "Bid Bond" written on the envelope
- Budget / Cost estimate will not be released prior to contracting
- Permitting fees **will be included with a new Allowance in Addendum 1.**
- Design team to submit NCG01 for Erosion Control prior to construction. No land disturbance until approval.
- Coordinate any long lead items
- Existing restrooms will not be made available for contractors use during construction.

14. Site Tour

- We will walk the site following this meeting
- Site Access: Contractors will be allowed to visit the site. Park in designated parking areas only
- No questions will be answered in fairness to all bidders. Please submit questions in writing afterwards for inclusion in addenda.

15. Follow up

- Addendum #1 will be issued following Pre-Bid Meeting and will include minutes and answers to all questions asked at the meeting

16. Additional Questions:

The above is the author's understanding of the topics discussed and decisions made during the meeting. Any inaccuracies should be submitted to the landscape architect's attention within 3 days of receipt, or this summary will be considered accurate.

Prepared by: Michael Alderman, PLA



WithersRavenel

Our People. Your Success.

ATTENDANCE

Project: Lake Crabtree Park Improvements

Date: 08/12/2026

Subject: Pre-Bid Meeting

Time: 10am

Location: Lake Crabtree County Park, Beech Shelter

<u>Name</u>	<u>Organization</u>	<u>Email</u>	<u>Phone</u>
Eric Staehle	Wake County FD&C	eric.staehle@wake.gov	919-856-6369
Michael Alderman	WithersRavenel	malderman@withersravenel.com	919-265-8949
Jen Dolan	WithersRavenel	jdolan@withersravenel.com	919-678-3776
John Courtney	WithersRavenel	jcourtney@withersravenel.com	919-535-5200
Thomas Foederer	ClarkNexsen	thomas.foederer@clarknexsen.com	919-828-1876
Robert Pope	Incline Construction	Rpope@Inclineconstruction.com	919.201.7896
Emily Paige Duffley	Southern Garden Inc	emilypaige@southerngardeninc.com	919 362 1050
Ryan Shultz	HG Reynolds	blong@hgreynolds.net	252 432 5232
Barry Couling	Browe Const Co	barry.couling@browe.com	

137 South Wilmington Street, Suite 200 | Raleigh, NC 27601
t: 919.469.3340 | f: 919.467.6008 | www.withersravenel.com | License No. F-1479
Asheville | Cary | Charlotte | Greensboro | Pittsboro | Raleigh | Southern Pines | Wilmington



Name

Organization

Email

Phone

Row Lohn

CLANEY & THEYS

Port Clinton @ Clancy Theys, Iowa

919-602-1883

DYLAN SEAMSTER

CLANCY → THEYS

DYLAN SEAMSTER @CLANCTHICK.COM

252-485-3297

Damon Jones

TCE ENTERPRISES

damona@tceenterprises.org 979-922-7568

Zach Jett

Sanford Contractors

2jet4@snfordcontractors.com

910-699-1034

Drake Howard

Sunder Contractors

dhoward@centrod.com

910-824-6050

Colin Chandler

Resolute

CChandler @ resoluteinc.com

336-583-0550

MARK ANNA

Resubscribe

Manner @ Resolute inc com

919-933.1000

ATTENDANCE

Project: Lake Crabtree Park Improvements

Subject: Pre-Bid Meeting

Location: Lake Crabtree County Park, Beech Shelter

Date: 08/12/2026

Time: 10am

<u>Name</u>	<u>Organization</u>	<u>Email</u>	<u>Phone</u>
Eric Staehle	Wake County FD&C	eric.staehle@wake.gov	919-856-6369
Michael Alderman	WithersRavenel	malderman@withersravenel.com	919-265-8949
Jen Dolan	WithersRavenel	jdolan@withersravenel.com	919-678-3776
John Courtney	WithersRavenel	jcourtney@withersravenel.com	919-535-5200
Thomas Foederer	ClarkNexsen	thomas.foederer@clarknexsen.com	919-828-1876
Brian Tessier	BAR CONSTRUCTION	BIOS@BARCONSTRUCTION.COM	336-274-2477
Kellen Blair	CLASSIC ELECTRIC	KellenBlair@outlook.com	919-946-2160
Ammar Altuwarki	Urban Solution (LLC)	ammar@urbanma.com	919-961-5324
Paula Gardner	Cardinal Landscaping	tracy@cardinallandscaping.com	919 319-8790
KEYVIN HARTZOG	CT WILSON	kevin@ctwilson.com	919-808-1925



Our People. Your Success.

Name

Organization

Email

Phone

Lindsay Blackburn

Mutler Construction

building bids@muter
construction.com

919-404-8330

Christian Martinez

WC. Construction

bids@wccconstructionco.com

919-448-8342

Garrett Hodges

Scotia Construction

estimating@scottrconstructioninc.com 252-341-5454

KEITH HARRON

HARRON / ASSOC CONSTR

Estimating Charrod and Assoc. com (919) 828-7782

TABLE OF CONTENTS	
SECTION	SUBJECT
SECTION 00 01 11	Notice To Bidders
SECTION 00 02 00	Instructions to Bidders - Formal
	Notice of Wake County Electronic Contracting
SECTION 00 03 00	Information Available to Bidders
SECTION 00 04 00	Bid Proposal Form
SECTION 00 05 00	Bid Bond Form
SECTION 00 07 00	General Conditions
SECTION 00 08 00	Supplemental General Conditions
	Construction Agreement Template
	Attachment A: Minority and Historically Underutilized Business Participation Requirements Removed
	Attachment B: Non-Discrimination
	Payment & Performance Bond Templates
Appendix A	Dispute Resolution & Mediator List
Appendix B	Sales Tax Report for Pay Apps
Appendix C	Geotechnical Report
Appendix D	Park Center - Classroom Statement of Special Inspections
Appendix E	RDUAA Site Plan Permit Approval
Appendix F	Wake County WMCPA – Watershed Management Construction Plan Approval
Appendix G	Town of Cary Utilities Sewer and Water Permit Approval added.
Appendix H	NCDEQ Erosion and Sedimentation Control Plan Approval
SECTION 00 01 07	Certifications

TABLE OF CONTENTS	
SECTION	SUBJECT
SECTION 01 00 00	Mobilization and Demobilization
SECTION 01 01 00	Summary of Work
SECTION 01 04 00	Construction Surveying
SECTION 01 20 00	Price and Payment Procedures
SECTION 01 25 00	Substitution Procedures
SECTION 01 30 00	Administrative Requirements
SECTION 01 33 00	Submittal Procedures
SECTION 01 40 00	Quality Requirements
SECTION 01 50 00	Temporary Facilities and Controls
SECTION 01 50 00.01	Temporary Facilities for Owner's Use
SECTION 01 60 00	Product Requirements
SECTION 01 70 00	Execution and Closeout Requirements
SECTION 01 70 00.01	Close Out Checklist
SECTION 01 74 19	Construction Waste Management and Disposal
SECTION 02 41 00	Demolition
SECTION 02 41 01	Asphalt Milling
SECTION 02 41 19	Selective Demolition
SECTION 03 10 00	Concrete Forming and Accessories – Arch
SECTION 03 10 00.01	Concrete Forming and Accessories – Site
SECTION 03 20 00	Concrete Reinforcing – Arch
SECTION 03 20 00.01	Concrete Reinforcing – Site
SECTION 03 30 00	Cast-in-Place Concrete
SECTION 04 22 00	Concrete Unit Masonry

TABLE OF CONTENTS	
SECTION	SUBJECT
SECTION 04 72 00	Cast Stone Masonry
SECTION 05 12 00	Structural Steel Framing
SECTION 05 50 00	Metal Fabrications
SECTION 06 10 00	Rough Carpentry
SECTION 06 15 33	Wood Patio Decking
SECTION 06 16 00	Sheathing
SECTION 06 17 15	Engineered Structural Wood
SECTION 06 18 00	Glued-Laminated Construction
SECTION 06 20 13	Exterior Finish Carpentry
SECTION 06 41 00	Architectural Wood Casework
SECTION 07 11 13	Bituminous Damp Proofing
SECTION 07 21 00	Thermal Insulation
SECTION 07 25 00	Weather Barriers
SECTION 07 31 13	Asphalt Shingles
SECTION 07 41 13.16	Standing-Seam Metal Roof Panel
SECTION 07 46 46	Fiber-Cement Siding
SECTION 07 62 00	Sheet Metal Flashing and Trim
SECTION 07 90 00	Joint Protection
SECTION 07 92 00	Joint Sealants
SECTION 07 92 19	Acoustical Joint Sealants
SECTION 08 11 13	Hollow Metal Doors and Frames
SECTION 08 14 16	Flush Wood Doors
SECTION 08 31 13	Access Doors and Frames
SECTION 08 36 13	Sectional Doors

TABLE OF CONTENTS	
SECTION	SUBJECT
SECTION 08 41 13	Aluminum-Framed Entrances and Storefronts
SECTION 08 71 00	Door Hardware
SECTION 08 80 00	Glazing
SECTION 08 91 19	Fixed Louvers
SECTION 09 29 00	Gypsum Board
SECTION 09 30 13	Ceramic Tiling
SECTION 09 51 13	Acoustical Panel Ceilings
SECTION 09 64 00	Wood Flooring
SECTION 09 65 13	Resilient Base and Accessories
SECTION 09 65 19	Resilient Tile Flooring
SECTION 09 67 23	Resinous Flooring
SECTION 09 84 33	Sound-Absorbing Wall and Ceiling Units
SECTION 09 91 13	Exterior Painting
SECTION 09 91 24	Interior Painting (MPI Standards)
SECTION 09 96 00	High-Performance Coatings
SECTION 10 26 00	Wall Protection
SECTION 10 28 00	Toilet, Bath, and Laundry Accessories
SECTION 10 44 13	Fire Protection Cabinets
SECTION 10 44 16	Fire Extinguishers
SECTION 10 51 26	HDPE Lockers
SECTION 12 22 00	Curtains and Drapes
SECTION 12 36 61	Simulated Stone Countertops
SECTION 13 34 00	Pre-Engineered Post Frame Structures
SECTION 22 05 00	Common Work Results for Plumbing

TABLE OF CONTENTS	
SECTION	SUBJECT
SECTION 22 05 13	Common Motor Requirements for Plumbing Equipment
SECTION 22 05 17	Sleeves and Sleeve Seals for Plumbing Piping
SECTION 22 05 18	Escutcheons for Plumbing Piping
SECTION 22 05 23	General-Duty Valves for Plumbing Piping
SECTION 22 05 29	Hangers and Supports for Plumbing, Piping, and Equipment
SECTION 22 05 53	Identification for Plumbing, Piping, and Equipment
SECTION 22 05 93	Testing, Adjustments, and Balancing for Plumbing
SECTION 22 07 19	Plumbing Piping Insulation
SECTION 22 08 00	Commissioning of Plumbing
SECTION 22 11 16	Domestic Water Piping
SECTION 22 11 19	Domestic Water Piping Specialties
SECTION 22 13 16	Sanitary Waste and Vent Piping
SECTION 22 13 19	Sanitary Waste Piping Specialties
SECTION 22 13 19 .13	Sanitary Drains
SECTION 22 33 00	Electric, Domestic Water Heaters
SECTION 22 42 00	Commercial Plumbing Fixtures
SECTION 22 45 00	Emergency Plumbing Fixtures
SECTION 22 47 00	Drinking Fountains and Water Coolers
SECTION 23 05 00	Common Work Result for HVAC
SECTION 23 05 29	Hangers and Supports for HVAC Piping and Equipment
SECTION 23 05 48.13	Vibration Controls for HVAC
SECTION 23 05 53	Identification for HVAC Piping and Equipment
SECTION 23 05 93	Testing, Adjusting, and Balancing for HVAC
SECTION 23 07 13	Duct Insulation

TABLE OF CONTENTS	
SECTION	SUBJECT
SECTION 23 08 00	Commissioning of HVAC
SECTION 23 31 13	Metal Ducts
SECTION 23 33 00	Air Duct Accessories
SECTION 23 34 00	HVAC Fans
SECTION 23 37 13.13	Air Diffusers
SECTION 23 37 13.23	Registers and Grilles
SECTION 23 74 33	Dedicated Outdoor-Air Units
SECTION 23 81 26	Split-System Air Conditioners
SECTION 23 82 39.19	Wall Unit Heaters
SECTION 26 00 10	Supplemental Requirements for Electrical
SECTION 26 05 19	Low-Voltage Electrical Power Conductors and Cables
SECTION 26 05 26	Grounding and Bonding for Electrical Systems
SECTION 26 05 29	Hangers and Supports for Electrical Systems
SECTION 26 05 33.13	Conduits for Electrical Systems
SECTION 26 05 33.16	Boxes and Covers for Electrical Systems
SECTION 26 05 53	Identification for Electrical Systems
SECTION 26 09 23	Lighting Control Device
SECTION 26 27 26.11	General-Use Switches, Dimmer Switches, and Fan-Speed Controller Switches
SECTION 26 27 26.33	General-Grade Duplex Straight-Blade Receptacles
SECTION 26 27 26.37	Receptacles with Arc-Fault and Ground-Fault Protective Devices
SECTION 26 28 16	Enclosed Switches and Circuit Breakers
SECTION 26 50 00	Lighting
SECTION 28 46 00	Fire Detection and Alarm

TABLE OF CONTENTS	
SECTION	SUBJECT
SECTION 31 10 00	Site Clearing
SECTION 31 22 13	Rough Grading
SECTION 31 23 16	Excavation
SECTION 31 23 16.13	Trenching
SECTION 31 23 23	Fill
SECTION 31 25 00	Erosion and Sedimentation Controls
SECTION 31 31 16	Termite Control
SECTION 32 11 23	Aggregate Base Course
SECTION 32 12 16	Asphalt Paving
SECTION 32 13 13	Concrete Paving
SECTION 32 17 23	Pavement Markings
SECTION 32 31 23	Chainlink Fences and Gates
SECTION 32 33 00	Site Furnishings
SECTION 32 92 00	Turf & Grasses
SECTION 32 93 00	Exterior Plants
SECTION 33 14 17	Site Water Service Utility Laterals
SECTION 33 31 11	Public Sanitary Sewerage Gravity Piping
SECTION 33 42 00	Stormwater Conveyance

SECTION 00 03 00
INFORMATION AVAILABLE TO BIDDERS

The following information is available:

- Geotechnical Report prepared by Froehling & Robertson, Inc., dated December 23, 2025
- RDUAA Site Plan Permit Approval
- NCDEQ Erosion Control Permit Approval
- Town of Cary Utilities Permit Approval
- Wake County Stormwater Permit Approval

The information is for general information purposes only; no warranties or guarantees are implied. A copy of the report and permit approvals are attached to the end of this section or included as an appendix.

END OF SECTION

Lake Crabtree County Park Improvements

Wake County RFB# 26-078
WR Project Number.: 22-0024-007

BID PROPOSAL FORM

(USE THIS FORM ONLY. Bids submitted on anything other than the form(s) provided may be considered non-responsive and subject to rejection)

SINGLE PRIME GENERAL CONSTRUCTION WORK
FORMAL CONTRACT

BIDDERS NAME

_____ License Number: _____

BASE BID PROPOSAL

The undersigned, as Bidder, hereby declares that the only person or persons interested in this Proposal as principal or principals is or are named herein and that no other person than herein mentioned has any interest in this Proposal or in the Contract to be entered into; that this Proposal is made without connection with any other person, company or parties making a Bid or Proposal; and that it is in all respects fair and in good faith without collusion or fraud.

The Bidder further declares that he has examined the site of the work and informed himself fully in regard to all conditions pertaining to the place where the work is to be done; that he has examined the specifications for the work and the Contract Documents relative thereto, including addenda, if any, and has read all special provisions furnished prior to the opening of bids; that he has satisfied himself relative to the work to be performed.

The Bidder proposes and agrees if this Proposal is accepted to contract with the County of Wake with a definite understanding that no money will be allowed for extra work except as set forth in the General Conditions and Contract Documents, for the sum of:

Base Bid _____

_____ Dollars (\$_____).

SUBCONTRACTOR LISTING

PLUMBING CONTRACTOR

Name: _____ License Number: _____

\$ _____

HVAC CONTRACTOR

Name: _____ License Number: _____

\$ _____

ELECTRICAL CONTRACTOR

Name: _____ License Number: _____

\$ _____

SITE CONTRACTOR (if different from GC)

Name: _____ License Number: _____

\$ _____

(OTHER CONTRACTOR)

Name: _____ License Number: _____

\$ _____

(OTHER CONTRACTOR)

Name: _____ License Number: _____

\$ _____

(OTHER CONTRACTOR)

Name: _____ License Number: _____

\$ _____

ALLOWANCES

Include in the base bid proposal the following allowances as specified in Division 01, Section 012000 “Price and Payment Procedures” for further clarification.

No.	Description	Units / Qty	Sum
1.	Security equipment & installation by Owner-approved sub-contractor	Allowance	\$190,000
2.	Security fiber optic Installation and Telecommunications cabling	Allowance	\$95,000
3.	Removal of unsatisfactory soil and replacement with suitable material	3,250 CuYd	\$
4.	Rock excavation in open	200 CuYd	\$
5.	Rock excavation in trenches	250 CuYd	\$
6.	General Construction Contingency	Allowance	\$50,000
7.	Permitting	Allowance	\$10,000

ALTERNATES

Should any of the alternates as described in the specifications be accepted, the amount written below shall be the amount to "add to" of "deduct from" the Base Bid. If to be "deducted from" Base Bid, put minus sign (-) in parentheses at head of alternate and plus sign (+) in parentheses if to be added. Refer to Section 012000 – Price & Payment Procedures for description of alternates.

No.	Description	Add/Deduct	Cost
1.	C-01 ADDITIONAL PARKING BAY AT EDUCATION CENTER	ADD	\$
2.	G-01 POLE BARN AT MAINTENANCE YARD	ADD	\$
3.	G-02 MAINTENANCE STORAGE ADDITION	ADD	\$
4.	G-03A COMFORT STATION AT BOAT LAUNCH AREA	ADD	\$
5.	G-03B COMFORT STATION ROOF	DEDUCT	\$
6.	G-04 REAR STAIR ACCESS AT EDUCATION BUILDING	ADD	\$
7.	G-05 OUTDOOR CLASSROOM DECKING AT EDUCATION CENTER	ADD	\$

8.	G-06 EDUCATION CENTER WOOD SIDING	ADD	\$
9.	G-07 EDUCATION CENTER WOOD FLOOR	DEDUCT	\$
10.	F-01A FIRE ALARM SYSTEM FOR ALL BUILDINGS.	ADD	\$
11.	F-01B - FIRE ALARM SYSTEM FOR ADMIN BUILDING ONLY	ADD	\$
12.	F-01C - FIRE ALARM SYSTEM FOR MAINTENANCE BUILDING ONLY	ADD	\$
13.	F-01D - FIRE ALARM SYSTEM FOR EDUCATION CENTER ONLY	ADD	\$

UNIT PRICES

Unit prices are complete for labor, equipment, material, overhead and profit. Base bid includes the stipulated allowance quantity of each item. Unit Prices listed on bid form govern changes in scope of Work during the construction period and are exclusive of the base bid.

No.	Description	Unit Measure	Unit Price
1	Rock excavation in open	Per CuYd	\$
2	Rock excavation in trenches	Per CuYd	\$
3	Authorized removal of unsatisfactory soil and disposal off-site	Per CuYd	\$
4	Authorized placement of soil from off site	Per CuYd	\$
5	Authorized placement of crushed stone from off site	Per CuYd	\$
6.	Authorized placement of ABC from off site	Per CuYd	\$
7.	Standard Concrete Paving	Per Sq Ft	\$
8.	Standard Asphalt Paving	Per Sq Ft	\$
9.	Removal of existing tree (3"-10" DBH)	Each	\$
10.	Removal of existing tree (10"-20" DBH)	Each	\$
11.	Removal of existing tree (> 20" DBH)	Each	\$

CERTIFICATION OF PROPOSER:

The Bidder further proposes and agrees hereby to commence work under his Contract on a date to be specified in a written order of Wake County and shall fully complete all work thereunder within the number of consecutive calendar days stipulated in the Supplementary General Conditions. Applicable liquidated damages shall be as stated in Supplementary General Conditions.

The undersigned acknowledges receipt of the following addenda issued during the time of bidding and includes the changes therein in this Proposal:

Addendum Number _____, Dated _____

Addendum Number _____, Dated _____

Addendum Number _____, Dated _____

The undersigned agrees that this Proposal will not be withdrawn for a period of sixty (60) days.

The undersigned agrees to comply with the E-Verify requirements of the General Statutes of North Carolina, all contractors, including any subcontractors employed by the contractor(s), by submitting a bid, proposal or any other response, or by providing any material, equipment, supplies, services, etc., attest and affirm that they are aware and in full compliance with Article 2 of Chapter 64, (NCGS64-26(a)) relating to the E-Verify requirements.

The undersigned agrees not to discriminate in any manner on the basis of race, natural hair or hairstyles, ethnicity, creed, color, sex, pregnancy, marital or familial status, sexual orientation, gender identity or expression, national origin or ancestry, marital or familial status, pregnancy, National Guard or veteran status, religious belief or non-belief, age, or disability with reference to the subject matter of this Contract. The Parties agree to comply with the provisions and intent of Wake County Ordinance SL 2017-4. This anti-discrimination provision shall be binding on the successors and assigns of the Parties with reference to the subject matter of this Contract.

The undersigned further agrees that in the case of failure on his part to execute the said Contract and the Bond within ten (10) consecutive calendar days after written notice being given of the award of the Contract, the check, cash or Bid Bond accompanying this Bid shall be paid into the funds of Owner's Account set aside for this Project, as liquidated damages for such failure; otherwise the check, cash or Bid Bond accompanying this Proposal shall be returned to the undersigned.

Respectfully submitted this __ day of _____, 20__

PROPOSER SIGNATURE PAGE

(Name of Firm or Corporation making Bid)

By: _____

WITNESS:

(Proprietorship or Partnership)

Title: _____
(Owner, Partner, or Corporation President
or Vice President only)

Address: _____

License Number: _____



Affix Corporate Seal Above

ATTEST:

By: _____

Title: _____
(Corporation Secretary or Assistant Secretary only)

SECTION 012000 - PRICE AND PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. SECTION INCLUDES

1. Cash allowances.
2. Contingency allowances.
3. Unit prices.
4. Testing and inspection allowances.
5. Schedule of Values.
6. Application for Payment.
7. Change procedures.
8. Defect assessment.
9. Alternates.

1.2 CASH ALLOWANCES

- A. Costs Included in Cash Allowances: Cost of product to Contractor or Subcontractor, less applicable trade discounts; delivery to Site and applicable taxes unless stated otherwise in Allowance Schedule.
- B. Costs Not Included in Cash Allowances but Included in Contract Sum/Price: Product handling at Site including unloading, uncrating, and storage; protection of products from elements and from damage; and labor for installation and finishing unless stated otherwise in Allowance Schedule.
- C. Contractor's costs for products, delivery, installation, labor, insurance, payroll, taxes, bonding, equipment rental, overhead, and profit will be included in Owner's Allowance Authorization Requests authorizing expenditure of funds from this contingency allowance.
- D. Architect/Engineer Responsibilities:
1. Consult with Contractor for consideration and selection of products, suppliers, and installers.
 2. Select products in consultation with Owner and transmit decision to Contractor.
 3. Prepare Change Order.
- E. Contractor Responsibilities:
1. Assist Architect/Engineer in selection of products, suppliers, and installers.
 2. Obtain proposals from suppliers and installers and offer recommendations.
 3. Upon notification of selection by Owner, execute purchase agreement with designated supplier and installer.
 4. Arrange for and process Shop Drawings, Product Data, and Samples. Arrange for delivery.

5. Promptly inspect products upon delivery for completeness, damage, and defects. Submit claims for transportation damage.
- F. Expenditures from Allowances will be authorized with Owner's Authorization Form or Change Order. Remaining funds at end of project will be credited back to Owner through a Change Order.
- G. Once all Allowances are expended any differences in costs will be adjusted by a Change Order with Owner's approval.
- H. Allowance Schedule:
 1. **Allowance #1: Security equipment installation**
Lump Sum Allowance: Includes installation of security equipment to be installed by subcontractor on Wake County approved vendor list and from Wake County provided documents. General Contractor shall be responsible for bidding the allowance with County-approved vendor list.
 - a. Amount: **\$190,000**
 2. **Allowance #2: Security Fiber Optic Installation and Telecommunications Cabling**
Lump Sum Allowance: Includes installation of fiber optic cabling as shown on electrical site plans to be installed by subcontractor on Wake County approved vendor list and from Wake County provided documents. General Contractor shall be responsible for bidding the allowance bid with County approved vendor list.
 - a. Amount: **\$95,000**
 3. **Allowance #3: Removal of unsatisfactory soil and replacement with suitable material**
Quantity Allowance: Include **3,250 cubic yards** of unsatisfactory soil material removal and the replacement with suitable material as determined by Geotechnical Engineer recommendations, as specified in Section 312000 "Earth Moving."
Disposal of unsatisfactory soil material shall be off-site and in a legal and responsible manner. All materials shall be calculated based on in-place soil quantities.
 - a. Coordinate quantity allowance adjustment with unit-price requirements in section 1.3 Unit Prices.
 - b. Allowance shall only include additional soils beyond the proposed subgrade elevations required by Geotechnical Engineer to be excavated and replaced as a result of unsatisfactory soils found on site during construction. Excavation of all soils to reach the proposed subgrades shall be included in the Base Bid cost.
 - c. Unsatisfactory soils could include any of the following: Low bearing capacity, excessive compressibility, high plasticity, high organic content, erodibility, and/or permeability issues. Final determination to be made by Geotechnical Engineer.
 - d. Coordinate placement of suitable material with Unit Prices, to include:
 - 1) Placement and Compaction of Suitable Soil Materials from on site
 - 2) Placement and Compaction of Suitable Soil Materials from off site
 - 3) Placement and Compaction of crushed stone from off site
 - 4) Placement and Compaction of ABC from off site
 - e. The items listed above shall be calculated based on in-place soil quantities.
 4. **Allowance #4: Rock Excavation in open**
Quantity Allowance: Include **100 cubic yards** of removal and disposal off-site of rippable rock in the open, calculated based on in-place quantities, as specified in Section 312000 "Earth Moving."

- a. Coordinate quantity allowance adjustment with unit-price requirements in section 1.3 Unit Prices.
5. **Allowance #5: Rock Excavation in trenches**
Quantity Allowance: Include **250 cubic yards** of removal and disposal off-site of rippable rock in trenches, calculated based on in-place quantities, as specified in Section 312000 "Earth Moving."
 - a. Coordinate quantity allowance adjustment with unit-price requirements in section 1.3 Unit Prices.
6. **Allowance #6: General Construction Contingency**
Lump Sum Allowance: Miscellaneous construction changes and architectural footings.
 - a. Amount: **\$50,000**
 - b. Contractor's costs for products, delivery, installation, labor, insurance, payroll, taxes, bonding, equipment rental, overhead, and profit will be included in Change Orders authorizing expenditure of funds from this contingency allowance.
7. **Allowance #7: Permitting**
Lump Sum Allowance: Permitting Fees.
 - a. Amount: **\$10,000**
 - b. Contractor's costs for permit fees will be included in Change Orders authorizing expenditure of funds from this allowance.

1.3 UNIT PRICES

- A. Unit Prices listed on bid form govern changes in scope of Work during the construction period and are exclusive of the base bid.
- B. Contractor will take measurements and compute quantities accordingly. Architect/Engineer and/or Owner's Representative will review takeoff quantities.
- C. Payment Includes: Full compensation for required labor, products, tools, equipment, plant and facilities, transportation, services and incidentals; erection, application, or installation of item of the Work; overhead and profit.
- D. Final payment for Work governed by unit prices will be made on basis of actual measurements and quantities accepted by Architect/Engineer multiplied by unit sum/price for Work incorporated in or made necessary by the Work.
- E. Measurement of Quantities:
 1. Weigh Scales: Inspected, tested, and certified by applicable State weights and measures department within past year.
 2. Platform Scales: Of sufficient size and capacity to accommodate conveying vehicle.
 3. Metering Devices: Inspected, tested, and certified by applicable State department within past year.
 4. Measurement by Weight: Concrete reinforcing steel, rolled or formed steel, or other metal shapes will be measured by handbook weights. Welded assemblies will be measured by handbook or scale weight.
 5. Measurement by Volume: Measured by cubic dimension using mean length, width, and height or thickness.

6. Measurement by Area: Measured by square dimension using mean length and width or radius.
7. Linear Measurement: Measured by linear dimension, at item centerline or mean chord.
8. Stipulated Sum/Price Measurement: Items measured by weight, volume, area, or linear means or combination, as appropriate, as completed item or unit of the Work.

F. Unit Price Schedule:

1. Item: Rock Excavation in Open; Unit: CY; Section 312316.00.
2. Item: Rock Excavation in Trenches; Unit: CY; Section 312316.13 .
3. Item: Authorized removal of unsatisfactory soil, as determined by geotechnical consultant, and disposal off-site; Unit: CY; Section 312316.00.
4. Item: Authorized placement of suitable soil from off-site; Unit: CY; Section 312323.00.
5. Item: Authorized placement of crushed drainage stone from off-site; Unit: CY; Section 312323.00.
6. Item: Authorized placement of ABC from off-site; Section 321123.00.
7. Item: Standard concrete paving; Unit: SF; Section 321313.00.
8. Item: Standard asphalt paving; Unit: SF; Section 321216.00.
9. Item: Removal of existing tree (3"-10" DBH); Unit: EA; Section 024100.00.
10. Item: Removal of existing tree (10"-20" DBH); Unit: EA; Section 024100.00.
11. Item: Removal of existing tree (>20" DBH); Unit: EA; Section 024100.00.

1.4 TESTING AND INSPECTION ALLOWANCES

A. Costs Not Included in Testing and Inspecting Allowance but Included in Contract Sum/Price:

1. Costs of incidental labor and facilities required to assist testing or inspecting agency.
2. Costs of testing services used by Contractor separate from Contract Document requirements.
3. Costs of retesting upon failure of previous tests as determined by Architect/Engineer.

B. Owner will employ a 3rd party testing agency under a separate contract. Contractor shall coordinate with Testing Agency as required.

1.5 SCHEDULE OF VALUES

A. Coordination: Coordinate preparation of the Schedule of Values with preparation of Contractor's construction schedule.

1. Coordinate line items in the schedule of values with items required to be indicated as separate activities in Contractor's construction schedule.
2. Submit the schedule of values to Architect within the timeframes noted in the General Conditions.

B. Submit Schedule of Values as electronic file to Architect/Engineer within 15 days after date established in Notice to Proceed.

1. Schedule of Values shall be approved by Architect/Engineer and/or Owner prior to first pay application submittal.

- C. Format and Content: Use Table of Contents of this Project Manual. Identify each line item with number and title of major Specification Section. Also identify Site mobilization, bonds and insurance, and general conditions.
1. Identification: Include the following Project identification on the schedule of values:
 - a. Project name and location.
 - b. Owner's name.
 - c. Owner's Project number.
 - d. Name of Architect.
 - e. Architect's Project number.
 - f. Contractor's name and address.
 - g. Date of submittal.
 2. Submit electronic file to Architect/Engineer schedule on AIA G703 - Continuation Sheet for G702.
 3. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Provide multiple line items for principal subcontract amounts in excess of five percent of the Contract Sum.
 4. Provide a separate line item in the schedule of values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
 - a. Differentiate between items stored on-site and items stored off-site.
 5. Temporary Facilities: Show cost of temporary facilities and other major cost items that are not direct cost of actual work-in-place as separate line items.
 6. Closeout Costs. Include separate line items for Project closeout requirements.
- D. Include in each line item amount of allowances as specified in this Section. For unit cost allowances, identify quantities taken from Contract Documents multiplied by unit cost to achieve total for each item.
- E. Schedule of Values Revisions: Revise the schedule of values when Change Orders or Construction Change Directives result in a change in the Contract Sum. Include at least one separate line item for each Change Order and Construction Change Directive.

1.6 APPLICATION FOR PAYMENT

- A. Submit one (1) digital copy of each Application for Payment on AIA G702 - Application and Certificate for Payment and AIA G703 - Continuation Sheet for G702.
- B. Content and Format: Use Schedule of Values for listing items in Application for Payment.
- C. Submit updated construction schedule with each Application for Payment.
- D. Payment Period: Submit at intervals stipulated in the Agreement.
- E. Substantiating Data: When Architect/Engineer requires substantiating information, submit data justifying dollar amounts in question. Include the following with Application for Payment:
1. Current construction photographs specified in Section 013300 - Submittal Procedures.
 2. Partial release of liens from major Subcontractors and vendors.

3. Record Documents as specified in Section 017000 - Execution and Closeout Requirements, for review by Owner, which will be returned to Contractor.
 4. Affidavits attesting to off-Site stored products.
 5. Construction Progress Schedule, revised and current as specified in Section 013300 - Submittal Procedures.
- F. Stored Materials: Include in Application for Payment amounts applied for materials or equipment purchased or fabricated and stored, but not yet installed. Differentiate between items stored on-site and items stored off-site.
1. Provide certificate of insurance, evidence of transfer of title to Owner, and consent of surety to payment for stored materials.
 2. Provide supporting documentation that verifies amount requested, such as paid invoices. Match amount requested with amounts indicated on documentation; do not include overhead and profit on stored materials.
 3. Provide summary documentation for stored materials indicating the following:
 - a. Value of materials previously stored and remaining stored as of date of previous Applications for Payment.
 - b. Value of previously stored materials put in place after date of previous Application for Payment and on or before date of current Application for Payment.
 - c. Value of materials stored since date of previous Application for Payment and remaining stored as of date of current Application for Payment.
- G. Transmittal: Submit three signed and notarized original copies of each Application for Payment to Architect by a method ensuring receipt within 24 hours. One copy shall include waivers of lien and similar attachments if required.
1. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.
- H. Waivers of Mechanic's Lien: With each Application for Payment, submit waivers of mechanic's lien from entities lawfully entitled to file a mechanic's lien arising out of the Contract and related to the Work covered by the payment, subcontractors, subsubcontractors, and suppliers for construction period covered by the previous application.
1. Submit partial waivers on each item for amount requested in previous application, after deduction for retainage, on each item.
 2. When an application shows completion of an item, submit conditional final or full waivers.
 3. Owner reserves the right to designate which entities involved in the Work must submit waivers.
 4. Submit final Application for Payment with or preceded by conditional final waivers from every entity involved with performance of the Work covered by the application who is lawfully entitled to a lien.
- I. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
1. List of subcontractors.
 2. Schedule of values.
 3. Contractor's construction schedule (preliminary if not final).
 4. Products list (preliminary if not final).
 5. Schedule of unit prices.
 6. Submittal schedule (preliminary if not final).

7. List of Contractor's staff assignments.
 8. List of Contractor's principal consultants.
 9. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
 10. Initial progress report.
 11. Report of preconstruction conference.
- J. Application for Payment at Substantial Completion: After Architect issues the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.
1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
 - a. Complete administrative actions, submittals, and Work preceding this application, as described in Section 017700 "Closeout Procedures."
 2. This application shall reflect Certificate(s) of Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
- K. Final Payment Application: After completing Project closeout requirements, submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
1. Evidence of completion of Project closeout requirements.
 2. Certification of completion of final punch list items.
 3. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
 4. Updated final statement, accounting for final changes to the Contract Sum.
 5. AIA Document G706.
 6. AIA Document G706A.
 7. AIA Document G707.
 8. Evidence that claims have been settled.
 9. Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when Owner took possession of and assumed responsibility for corresponding elements of the Work.
 10. Final liquidated damages settlement statement.
 11. Proof that taxes, fees, and similar obligations are paid.
 12. Waivers and releases.
- 1.7 CHANGE PROCEDURES
- A. Submittals: Submit name of individual who is authorized to receive change documents and is responsible for informing others in Contractor's employ or Subcontractors of changes to the Work.
- B. Carefully study and compare Contract Documents before proceeding with fabrication and installation of Work. Promptly advise Architect/Engineer of any error, inconsistency, omission, or apparent discrepancy.
- C. Requests for Interpretation (RFI) and Clarifications: Allot time in construction scheduling for liaison with Architect/Engineer; establish procedures for handling queries and clarifications.

1. Use AIA G716 - Request for Information or similar for requesting interpretations.
 2. Architect/Engineer may respond with a direct answer on the Request for Interpretation form, AIA G710 - Architect's Supplemental Instruction, or Proposal Request.
- D. Architect/Engineer will advise of minor changes in the Work not involving adjustment to Contract Sum/Price or Contract Time by issuing supplemental instructions on AIA G710 or similar.
- E. Architect/Engineer may issue Proposal Request including a detailed description of proposed change with supplementary or revised Drawings and Specifications, a change in Contract Time for executing the change and with the period of time during which the requested price will be considered valid. Contractor will prepare and submit estimate within 14 days.
- F. Contractor may propose changes by submitting a request for change to Architect/Engineer, describing proposed change and its full effect on the Work. Include a statement describing reason for the change and the effect on Contract Sum/Price and Contract Time with full documentation.
- G. Stipulated Sum/Price Change Order: Based on Proposal Request and Contractor's fixed price quotation or Contractor's request for Change Order or Owner's Allowance Authorization as approved by Architect/Engineer.
- H. Unit Price Change Order: For Contract unit prices and quantities, the Change Order or Owner's Allowance Authorization will be executed on a fixed unit price basis. For unit costs or quantities of units of that which are not predetermined, execute Work under Construction Change Directive. Changes in Contract Sum/Price or Contract Time will be computed as specified for Force Account Change Order.
- I. Construction Change Directive: Architect/Engineer may issue directive, on AIA G714 - Construction Change Directive signed by Owner, instructing Contractor to proceed with change in the Work, for subsequent inclusion in a Change Order. Document will describe changes in the Work and designate method of determining any change in Contract Sum/Price or Contract Time. Promptly execute change.
1. Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive.
 2. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.
- J. Maintain detailed records of Work done on force account basis. Provide full information required for evaluation of proposed changes and to substantiate costs for changes in the Work.
- K. Document each quotation for change in Project Cost or Time with sufficient data to allow evaluation of quotation.
- L. Change Order Forms: AIA G701 - Change Order.
- M. Owner's Allowance Authorization: to be provided to Contractor during construction.
- N. Execution of Change Orders: Architect/Engineer will issue Change Orders for signatures of parties as provided in Conditions of the Contract.

O. Correlation of Contractor Submittals:

1. Promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as separate line item and adjust Contract Sum/Price.
2. Promptly revise Progress Schedules to reflect change in Contract Time, revise subschedules to adjust times for other items of Work affected by the change, and resubmit.
3. Promptly enter changes in Record Documents.

1.8 DEFECT ASSESSMENT

- A. Replace the Work, or portions of the Work, not conforming to specified requirements.
 1. Any replacement of defective work shall be at no additional cost to Owner.
- B. If, in the opinion of Architect/Engineer it is not practical to remove and replace the Work, Architect/Engineer will direct appropriate remedy or adjust payment.
- C. The defective Work may remain, but unit sum/price will be adjusted to new sum/price at discretion of Architect/Engineer and Owner.
- D. Defective Work will be partially repaired according to instructions of Architect/Engineer, and unit sum/price will be adjusted to new sum/price at discretion of Architect/Engineer and Owner.
- E. Individual Specification Sections may modify these options or may identify specific formula or percentage sum/price reduction.
- F. Authority of Architect/Engineer and/or Owner to assess defects and identify payment adjustments is final.
- G. Nonpayment for Rejected Products: Payment will not be made for rejected products for any of the following reasons:
 1. Products wasted or disposed of in a manner that is not acceptable.
 2. Products determined as unacceptable before or after placement.
 3. Products not completely unloaded from transporting vehicle.
 4. Products placed beyond lines and levels of the required Work.
 5. Products remaining on hand after completion of the Work.
 6. Loading, hauling, and disposing of rejected products.

1.9 ALTERNATES

- A. Alternates quoted on Bid Forms will be reviewed and accepted or rejected at Owner's option. Accepted Alternates will be identified in Owner-Contractor Agreement. The Owner-Contractor Agreement may identify certain Alternates to remain an Owner option for a stipulated period of time.
- B. Coordinate related Work and modify surrounding Work. Description for each Alternate is recognized to be abbreviated but requires that each change shall be complete for scope of Work affected.

1. Coordinate related requirements among Specification Sections as required.
2. Include as part of each Alternate: Miscellaneous devices, appurtenances, and similar items incidental to or necessary for complete installation.
3. Coordinate Alternate with adjacent Work and modify or adjust as necessary to ensure integration.

C. Schedule of Alternates:

1. Alternate No. 1: C-01 ADDITIONAL PARKING BAY AT EDUCATION CENTER
 - a. Base Bid Item: No Improvements.
 - b. Alternate Item (ADD.): 13 parking spaces (light duty asphalt paving), 2 ADA parking spaces (heavy duty concrete paving), accessible path)light duty concrete paving), associated signage and roadway improvements (heavy duty asphalt paving) as shown in drawings.
2. Alternate No. 2: G-01 POLE BARN AT MAINTENANCE YARD
 - a. Base Bid Item: Gravel paving, retaining wall and grading as shown in drawings.
 - b. Alternate Item (ADD.): Pole Barn (delegated design) and concrete foundation pad.
3. Alternate No. 3: G-02 MAINTENANCE STORAGE ADDITION
 - a. Base Bid Item: No Improvements.
 - b. Alternate Item (ADD.): Covered storage per Architectural Drawings, and Specifications.
4. Alternate No. 4: G-03A COMFORT STATION AT BOAT LAUNCH AREA
 - a. Base Bid Item: No Improvements.
 - b. Alternate Item (ADD.): Comfort station building per Architectural Drawings, and Specifications and associated utilities, light duty concrete paving, lighting as shown in drawings.
5. Alternate No. 5: G-03B COMFORT STATION ROOF
 - a. Base Bid Item: **Standing Seam Metal** Roof per Architectural Drawings, and Specifications.
 - b. Alternate Item (DEDUCT.): **Asphalt Shingle** roof per Architectural Drawings, and Specifications.
 - c. **Details for the asphalt shingle roof alternate are to be worked out via shop drawings if accepted.**
6. Alternate No. 6: G-04 REAR STAIR ACCESS AT EDUCATION BUILDING
 - a. Base Bid Item: No Improvements.
 - b. Alternate Item (ADD.): **Composite decking, wood Stair, railing, wood batten screen, steel concrete and masonry structure** per Architectural Drawings, and Specifications and light duty concrete paving as shown in site plan drawings.

7. Alternate No. 7: G-05 OUTDOOR CLASSROOM DECKING AT EDUCATION CENTER
 - a. Base Bid Item: Concrete foundation slab per Architectural Drawings, and Specifications
 - b. Alternate Item (ADD.): **Composite** Decking per Architectural Drawings, and Specifications
8. Alternate No. 8: G-06 EDUCATION CENTER WOOD SIDING
 - a. Base Bid Item: Cedar siding per Architectural Drawings, and Specification
 - b. Alternate Item (ADD.): Accoya wood siding per Architectural Drawings, and Specification
9. Alternate No. 9: G-07 EDUCATION CENTER WOOD FLOOR
 - a. Base Bid Item: Hardwood floor per Architectural Drawings, and Specification
 - b. Alternate Item (**DEDUCT.**): Impregnated wood floor per Architectural Drawings, and Specification
10. Alternate No. 10: F-01A FIRE ALARM SYSTEM FOR ALL BUILDINGS.
 - a. Base Bid Item: No improvements.
 - b. Alternate Item (ADD.): Fire alarm system per Architectural Drawings, and Specifications.
11. Alternate No. 11: F-01B - FIRE ALARM SYSTEM FOR ADMIN BUILDING ONLY
 - a. Base Bid Item: No improvements.
 - b. Alternate Item (ADD.): Fire alarm system per Architectural Drawings, and Specifications.
12. Alternate No. 12: F-01C - FIRE ALARM SYSTEM FOR MAINTENANCE BUILDING ONLY
 - a. Base Bid Item: No improvements.
 - b. Alternate Item (ADD.): Fire alarm system per Architectural Drawings, and Specifications.
13. Alternate No. 13: F-01D - FIRE ALARM SYSTEM FOR EDUCATION CENTER ONLY
 - a. Base Bid Item: No improvements.
 - b. Alternate Item (ADD.): Fire alarm system per Architectural Drawings, and Specifications.

PART 2 - PRODUCTS - Not Used

PART 3 - EXECUTION - Not Used

END OF SECTION 012000



Michael J. Landguth, A.A.E.
President & CEO

1000 Trade Drive • P.O. Box 80001 • RDU Airport, NC 27623
tel: (919) 840-7700 • fax: (919) 840-0175 • www.rdu.com

ELECTRONIC MAIL DELIVERY

August 4, 2026

Wake County
301 S. McDowell Street, 4th Floor
Raleigh, NC 27601
Eric.Staehle@wake.gov

Re: Conceptual Design Approval Notice – Lake Crabtree County Park Improvements Project (“Project”)

Dear Mr. Staehle:

The Authority reviewed the conceptual design submittals for the above referenced Project. The submittals are approved as noted within the design comments. Wake County is approved to develop construction documents.

Please contact me at (919) 840-7120 if you have questions.

Sincerely,

Adam Mitchell, A.A.E.
Vice President, Commercial Management
Raleigh-Durham Airport Authority

cc:

Jaymes Carter, Vice President, Buildings and Building Systems, Raleigh-Durham Airport Authority
Carrie Blevins, Director, Buildings and Building Systems, Raleigh-Durham Airport Authority
Michael Alderman, WithersRavenel

Raleigh-Durham Airport Authority Board Members

CITY OF DURHAM
Tammie Hall-Roberts, **Chair**
Nana Asante-Smith

CITY OF RALEIGH
Nina Szlosberg-Landis, **Vice Chair**
Shelley Winters, **Treasurer**

DURHAM COUNTY
Yesenia Polanco-Galdamez, **Secretary**
Nil Ghosh

WAKE COUNTY
Ellis Hankins
David Kushner



Michael J. Landguth, A.A.E.
President & CEO

1000 Trade Drive • P.O. Box 80001 • RDU Airport, NC 27623
tel: (919) 840-7700 • fax: (919) 840-0175 • www.rdu.com

ELECTRONIC MAIL DELIVERY

August 4, 2026

Wake County
301 S. McDowell Street, 4th Floor
Raleigh, NC 27601
Eric.Staehle@wake.gov

Re: Construction Documents Approval Notice – Lake Crabtree County Park Improvements Project
("Project")

Dear Mr. Staehle:

The construction documents submitted for the above referenced Project have been approved. Wake County is approved to submit the approved construction documents to Wake County Inspections & Permits and/or any other required local regulatory agencies for plan review.

In preparation for construction of the Project, please review the attached Construction Notice to Proceed Submittal List. The documents listed in the Demolition and General Construction sections must be submitted for the Authority to issue approval for construction to commence. You may begin to submit documents as they are ready. Please note that no construction may begin until a Notice to Proceed is issued by the Authority.

Please contact me at (919) 840-7120 if you have questions.

Sincerely,

Adam Mitchell, A.A.E.
Vice President, Commercial Management
Raleigh-Durham Airport Authority

cc:

Jaymes Carter, Vice President, Buildings and Building Systems, Raleigh-Durham Airport Authority
Carrie Blevins, Director, Buildings and Building Systems, Raleigh-Durham Airport Authority
Michael Alderman, WithersRavenel

Raleigh-Durham Airport Authority Board Members

CITY OF DURHAM
Tammie Hall-Roberts, **Chair**
Nana Asante-Smith

CITY OF RALEIGH
Nina Szlosberg-Landis, **Vice Chair**
Shelley Winters, **Treasurer**

DURHAM COUNTY
Yesenia Polanco-Galdamez, **Secretary**
Nil Ghosh

WAKE COUNTY
Ellis Hankins
David Kushner



Michael J. Landguth, A.A.E.
President & CEO

1000 Trade Drive • P.O. Box 80001 • RDU Airport, NC 27623
tel: (919) 840-7700 • fax: (919) 840-0175 • www.rdu.com

RALEIGH-DURHAM AIRPORT AUTHORITY CONSTRUCTION SUBMITTAL LIST

Tenant: WAKE COUNTY

Unit Name: Lake Crabtree County Park

Unit #: N/A

BUILDING NAME: All buildings/facilities within the approved Project scope

DATE RECEIVED	DEMOLITION
☐	Sample Board/Rendering(s)
☐	Project Manager Name and Contact Information, if applicable (Must include 24 hour number)
☐	Contractor Name and Contact Information (Must include 24 hour number for foreman)
☐	Sub-Contractor Name and Contact Information (Must include 24 hour number for all foremen)
☐	Contractor Insurance (Raleigh-Durham Airport Authority as Certificate Holder)
☐	Construction Wall Drawings with Graphic Design
☐	Copy of Construction Contract with Contractor (Signed)
☐	Copy of Construction Payment/Performance Bond (See Lease Sections 13.8.5 & 13.8.7)
☐	Copy of Builder's Risk Insurance (See Lease Sections 13.8.5 & 13.8.7)

GENERAL CONSTRUCTION

☐	Final Construction Documents: Includes contract conditions, drawings, specifications, samples, other contract documents, and (2 sealed/stamped full size and 2 sealed/stamped half size sets)
☐	Copy of all applicable Permit(s) for each unit noted above
☐	Construction Schedule for each unit noted above
☐	Digital file for each unit noted above

Unit Opening/Occupancy

☐	Copy of all required regulatory approvals including Certificate of Occupancy
☐	Copy of As-Built drawing and digital file for each unit
☐	Copy of Construction build-out cost

Comments

☐	
--------------------------	--

Raleigh-Durham Airport Authority Board Members

CITY OF DURHAM
Tammie Hall-Roberts, **Chair**
Nana Asante-Smith

CITY OF RALEIGH
Nina Szlosberg-Landis, **Vice Chair**
Shelley Winters, **Treasurer**

DURHAM COUNTY
Yesenia Polanco-Galdamez, **Secretary**
Nil Ghosh

WAKE COUNTY
Ellis Hankins
David Kushner



Michael J. Landguth, A.A.E.
President & CEO

1000 Trade Drive • P.O. Box 80001 • RDU Airport, NC 27623
tel: (919) 840-7700 • fax: (919) 840-0175 • www.rdu.com

August 4, 2026

Mr. Ed Moore
Permit Processing
Wake County Inspections & Permits
Wake County Office Building, Suite 101
P.O. Box 550
Raleigh, North Carolina 27602
Re: Approval for Construction Wake County – Lake Crabtree County Park Improvements Project
("Project")

Dear Mr. Moore:

The subject construction Project is located within the property limits of the Raleigh-Durham International Airport ("the Airport"). The Raleigh-Durham Airport Authority owns all property within these limits and also has the statutory power to regulate all land development activity within Airport property limits. Because of these ownership and statutory rights, the Authority approves all improvements on the Airport and does not have a zoning or subdivision ordinance. The Authority has reviewed and approved the construction for the following development:

All buildings/facilities within the approved Project scope, Lake Crabtree County Park Improvements Project

The work proposed by Wake County meets all land use requirements of the Raleigh Durham Airport Authority.

Please contact me at (919) 840-7120 if you have questions.

Sincerely,

Adam Mitchell, A.A.E.
Vice President, Commercial Management
Raleigh-Durham Airport Authority

cc:

Jaymes Carter, Vice President, Buildings and Building Systems, Raleigh-Durham Airport Authority
Carrie Blevins, Director, Buildings and Building Systems, Raleigh-Durham Airport Authority
Michael Alderman, WithersRavenel

Raleigh-Durham Airport Authority Board Members

CITY OF DURHAM
Tammie Hall-Roberts, **Chair**
Nana Asante-Smith

CITY OF RALEIGH
Nina Szlosberg-Landis, **Vice Chair**
Shelley Winters, **Treasurer**

DURHAM COUNTY
Yesenia Polanco-Galdamez, **Secretary**
Nil Ghosh

WAKE COUNTY
Ellis Hankins
David Kushner



WMCPA – WATERSHED MANAGEMENT CONSTRUCTION PLAN APPROVAL

Project Name	Lake Crabtree Park Improvements	Watershed	Crabtree Creek	Jurisdiction	Cary
Date Received	03/20/2026	Date Processing Initiated	04/16/2026	Disturbed Acreage	4.9 Acres
S&E Permit Number	N/A	S&E Plan Review Fee	N/A	S&E Permit Fee	N/A
SW Permit Number	SWF-166693-2026	SW Plan Review Fee	County Project Exempt	SW Permit Fee	County Project Exempt

Applicant:

Name: Eric Staehle
Address: P.O. Box 550, Raleigh, NC 27605
Phone: 919-830-0294
Email: eric.staehle@wake.gov

Engineer:

Name: Michael Alderman
Address: 137 S. Wilmington St. Unit 200 Raleigh, NC 27601
Phone: 919-265-8949
Email: malderman@withersravenel.com

Plan Date/Revision Date: 3/18/2026, 5/15/2026, 6/30/2026

Approval Date: 7/16/2026	The above-referenced stormwater management plans have been reviewed and approved. Suggested Approval Language: The project is approved limiting the maximum impervious surface of 45,350 SF (1.04 acres) The project shall provide stormwater control (nutrients, volume control and peak attenuation) with one of storm water control measures (constructed wetland) in Wake County. See approved site data below.
------------------------------------	--

Approved Site Data:**Impervious Surface Area (SF):**

Permitted = 45,350 Road = NA Lots = NA Other = NA

Nitrogen (lb./ac./yr.):

Pre = 2.59 Post = 3.01 Post BMP = 2.83 Offset (lb.) =

Phosphorus (lb./ac./yr.):

Pre = N/A Post = N/A Post BMP = Offset (lb.) = N/A



WMCPA – WATERSHED MANAGEMENT CONSTRUCTION PLAN APPROVAL

Conditions of Approval

Items marked with an “X” were noted as conditions of the Stormwater and Sediment and Erosion Control Plan approval. Unless otherwise noted, all references shown in brackets are for the [Wake County Unified Development Ordinance \(UDO\)](#), adopted 04/17/06.

☒	1.	A mandatory preconstruction meeting is required between the owner, contractor, and Wake County prior to issuance of the Stormwater Permit. Please call to schedule this meeting at your convenience. Please contact Betsy Pearce, CPSWQ, CFM at 919-868-6414 to schedule the preconstruction .
☒	2.	Grading, other than for installation of soil erosion and sedimentation control measures, is prohibited prior to the issuance of a Certificate of Compliance. [10-30-7(D)]
☒	3.	Contractor shall follow plans strictly and maintain contact with Wake County prior to making any field modifications to erosion and sediment control devices. No devices shall be removed without prior approval from Wake County.
☒	4.	Wake County’s sedimentation pollution control program is <u>performance oriented</u> , requiring protection of the natural resources and adjoining properties. If at any time during the project it is determined that the Erosion and Sedimentation Control Plan is inadequate to meet the requirements of the Erosion and Sedimentation Control Ordinance of Wake County, this office may require revisions in the plan and its implementation to ensure compliance with the Ordinance.
☐	5.	As of April 1, 2019, all new construction activities are required to complete and submit an electronic Notice of Intent (eNOI) form requesting a Certificate of Coverage (COC) under the NCG010000 Construction General Permit. After the form is reviewed and found to be complete, you will receive a link with payment instructions for the applicable annual permit fee. After the fee is processed, you will receive the COC via email. As the Financially Responsible Party shown on the FRO form submitted for this project, you MUST obtain the COC prior to commencement of any land disturbing activity. The eNOI form and fee details may be accessed at deq.nc.gov/NCG01 . Please direct questions about the eNOI form to the Stormwater Program staff in the Raleigh central office. If the owner/operator of this project changes in the future, the new responsible party must obtain a new COC.
☐	6.	SUBDIVISIONS ONLY Builders are required to obtain grading permits for cumulative disturbance over one acre (including non-contiguous lots).

North Carolina General Statute § 113A-61 (c) - Right to Appeal the Decision

☒	7.	The applicant has the right to appeal modifications of this decision per North Carolina General Statute § 113A-61(c).
-------------------------------------	----	---

Stormwater COA - All Conditions of Approval (COA) must be completed and approved by Wake County prior to final plat approval or signoff of the Certificate of Occupancy (C.O.) for future building permits. Items required prior to final plat or building permit approval are checked and listed below.

☒	8.	Performance Guarantee – The county may not approve a record plat or issue a building permit until stormwater improvements required of the developer have been completed or a performance guarantee has been provided. [9-31-1]
☒	9.	As-Built Plans – Upon completion of required improvements, an as-built plan of required stormwater improvements must be submitted (must indicate that stormwater improvements were constructed in accordance with the approved plan). [9-31-2]
☒	10.	Maintenance Plan
	☒ a.	The developer must record and reference on the record plat, a maintenance plan providing instruction about annual maintenance tasks and associated costs for at least a 20-year period. [9-32-3(A)]
	☒ b.	It will be the responsibility of the property owners’ association’s or lot owner to update the maintenance plan at least every 10 years. [9-32-3(B)]
☒	11.	Maintenance Agreement



WMCPA – WATERSHED MANAGEMENT CONSTRUCTION PLAN APPROVAL

☒	☒	a.	The developer must record and reference on the record plat, a maintenance agreement or restrictive covenant that sets for the property owners' association's or lot owner's continuing responsibilities for maintenance, including how cost will be apportioned among lot owners served. [9-32-4(A)]
	☒	b.	The maintenance agreement must provide that the association and its individual members are jointly and severable liable for maintenance. [9-32-4(B)]
☒	☒	12.	All maintenance documents required must be submitted prior to record plat approval and must be referenced on the record plat. For developments not requiring record plats, documentation must be submitted prior to building permit issuance. [9-32-6]
Applicable Regulations			
☒	☒	13.	Parties Responsible for Maintenance of Improvements [9-32-2]
	☒	a.	The developer must maintain stormwater improvements until accepted by a property owners' association or lot owner. The developer must disclose which party will be responsible for continued maintenance on the record plat.
	☒	b.	Before improvements are accepted for maintenance by the property owners' association or lot owner, the developer must certify to the property owners' association or lot owner and the county that improvements are complete and functioning as designed.
☒	☒	14.	Enforcement and Penalties [Article 9 – Part 6]
	☒	a.	Failure to complete required improvements or failure to maintain improvements as required by the approved plan are violations and subject to a fine of up to \$1,000 per day. [9-60]
	☒	b.	Inspection of Stormwater Improvements – Wake County agents have the right to inspect sites to determine whether stormwater improvements are being installed and maintained in compliance with the ordinance. [9-61]
☒	☒	15.	Validity of Plan, Lapse of Approval [10-30-6] – An approved erosion and sedimentation control plan is valid for 2 calendar years from the date of approval. If a land disturbance permit has not been obtained within the 2-year period, the erosion and sedimentation control plan approval becomes null and void.
☒	☒	16.	Actions Required Prior to Land Disturbance [10-30-8]
	☒	a.	S&EC plan approval and land disturbance permit issued must be prominently displayed until all construction is complete, all permanent sedimentation and erosion control measures are installed and the site has been stabilized. A copy of the approved plan must be kept on file at the job site.
	☒	b.	No person shall initiate a land-disturbing activity until notifying Wake County of the date that the land-disturbing activity will begin.
☒	☒	17.	Authority [10-31-1]
	☒	a.	County officials may enter any property, public or private, at reasonable times for the purpose of investigating and inspecting the sites of any land-disturbing activity. No person shall refuse entry or access to any authorized representative or agent for the County who requests entry for purposes of inspections, and presents appropriate credentials, nor shall any person obstruct, hamper, or interfere with any such representatives while in the process of carrying out their official duties.
	☒	b.	Agents and officials of the County will periodically inspect land-disturbing activities to ensure compliance with the North Carolina Sedimentation Pollution Control Act, this article, or rules or orders adopted or issued pursuant to this article, and to determine whether the measures required in the erosion and sedimentation control plan are effective in controlling erosion and sedimentation resulting from land-disturbing activity.
	☒	c.	Any land-disturbing activity will be the responsibility of the person(s) conducting the land disturbing activity, including the property owners. Failure to prevent off site sedimentation will be deemed a violation of the erosion and sedimentation control regulations of this article.



WMCPA – WATERSHED MANAGEMENT CONSTRUCTION PLAN APPROVAL

☒	18.	Neuse River Rule [15A NCAC 2B.0233] - Due to the location of this project, it should be noted that a rule to protect and maintain existing buffers along watercourses in all of Wake County became effective in 2006. The Neuse River Riparian Area Protection and Maintenance Rule applies to all perennial and intermittent streams, lakes, ponds and estuaries in Wake County with forest vegetation on the adjacent land or “riparian area”. In riparian areas with existing forest vegetation in the first 30 feet directly adjacent to the stream, the rule prohibits land disturbance, new development and fertilizer use within the first 50 feet of land next to the water. In riparian areas with forest vegetation that is less than 30 feet wide, the rule prohibits land disturbance, new development and fertilizer use within the area that contains forest vegetation (but not the entire 50-foot riparian area). For more information about this riparian area rule, please contact the Division of Water Quality’s Wetland/401 Unit at 919-707-3631. Wake County enforces the Neuse Buffer Rules in both the Cape Fear River Basin and the Neuse River Basin except when superseded by the Jordan Buffer Rules [15A NCAC 02B.0265].
Wake County Watershed Management Section is not responsible for subject approvals of other Local, State or Federal Agencies. The subject approvals are (but not limited to) conditioned upon compliance with Federal Emergency Management Area Flood regulations/requirements, Division of Water Quality under stormwater or other water quality regulations/requirements, U.S. Army Corps of Engineers under Article 404/401 (Wetlands/Streams) jurisdiction/requirements, and/or any Federal and State water quality laws, regulations, and rules, and County and Local municipal regulations or permit requirements. The approval issued in this letter cannot supersede any other required permit or approval.		
Environmental Consultant:	Betsy Pearce, CPSWQ, CFM	Contact Info: betsy.pearce@wake.gov 919-868-6414
Environmental Engineer:	 Jeevan Neupane, PE, CFM, CESSWI, CPESC	Contact Info: Jeevan.neupane@wake.gov 919-819-8907



GRAVITY SEWER, PUMP STATION, AND FORCE MAIN PERMIT APPLICATION

Applicability

- ☐ As a part of this project additional public sewer main (gravity or force) is being extended or abandoned
- ☐ As a part of this project work involving a public pump station will be completed
- ☒ As a part of this project new service taps are proposed
- ☐ As a part of this project sewer flow is expected to increase due to land use change or building addition
- ☐ As a part of this project flow from a private pump station is expected

If all the above are non-applicable AND only replacement of private service is proposed:
STOP HERE AND CONTACT INSPECTIONS AND PERMITS AT (919) 469-4046

Instructions

Indicate that you have included the following list of required application package items by checking in the space provided next to each item. Failure to submit all required items will lead to additional processing and review time for the permit application.

-
- ☒ **A. Application Form** – Submit one electronic (PDF) copy of the completed and appropriately executed application form as indicated in step D. The application form shall be signed as follows:
1. in the case of a corporation, by a principal executive officer of at least the level of vice-president, or their duly authorized representative;
 2. in the case of a partnership or limited partnership, by a general partner;
 3. in the case of a sole proprietorship, by the proprietor;
 4. in the case of a municipality, state agency, or other public entity, by either a principal executive officer, ranking elected official, or other duly authorized employee.
- ☒ **B. Detailed Plans** – Utility plans are submitted via the plan review process. No additional copies are required. Plans shall conform to the most recent versions of the Town of Cary Standard Specifications, North Carolina Department of Environmental Quality (NCDEQ) Gravity Sewer Minimum Design Criteria, NCDEQ Minimum Design Criteria for the Permitting of Pump Stations and Force Mains, and all other applicable regulations. Plans shall be signed, sealed, and dated by a North Carolina licensed Professional Engineer.
- ☐ **N/A C. Engineering Calculations (Pump Station/Force Main Applications)** - Submit one set of Engineering Calculations. Engineering Calculations shall include at a minimum: flow quantity calculations, flow velocity calculations, pipe capacity calculations, total dynamic head calculations and system curves, pumping cycle calculations, and structure buoyancy calculations. Engineering Calculations shall be signed, sealed, and dated by a North Carolina licensed Professional Engineer.
- ☒ **D. Application Submittal** - Submit application and all supporting documents as indicated during the plan review process.
-

Application Fee - The fee for projects permitted via the plan review process will be collected prior to project approval. Note: phased plans shall require multiple permits.

Permit Number: NP26022 (to be completed by Town of Cary)

Applicant Information						
Applicant Name: <u>Wake County</u>						
Applicant Address: <u>PO Box 550</u>						
City: <u>Raleigh</u>		State: <u>NC</u>		Zip: <u></u>		
Telephone Number: <u>(919)</u>			Email: <u>eric.staehle@wake.gov</u>			
Owner's or signing official's name and title (if different than applicant): <u>Eric Staehle</u>						
Project Information						
Project Name (name of subdivision, facility or establishment, etc.): <u>Lake Crabtree County Park Improvements</u>						
Project Site Plan Number (Cary, Morrisville, or NCDOT Assigned): <u>TOC #2000179</u>						
Engineering Firm Information						
Engineering Firm Name: <u>Withers-Ravenel</u>						
Engineering Firm Address: <u>137 S Wilmington Street, Suite 200</u>						
City: <u>Raleigh</u>		State: <u>NC</u>		Zip: <u>27601</u>		
Telephone Number: <u>(919) 469-3340</u>			Email: <u>malderman@withersravenel.com</u>			
Name and affiliation of contact person who can answer questions about application: <u>Michael Alderman, Project Manager</u>						
Permit Information						
Project is:		☒ New		☐ Modification		
If this application is being submitted as a result of a modification to an existing permit, provide information below:						
Existing Permit Number:			Issuance Date:			
Design Information						
Brief project description: The proposed park improvements include a new classroom building, updated administration and maintenance buildings, new comfort station, and general site improvements for parking, sidewalks, and utilities associated with the new development.						
Information on Wastewater						
1) Please provide a one- or two-word description specifying the origin of the wastewater (school, subdivision, hospital, commercial facility, industry, apartment, condominium, etc.): <u>Park facilities</u>						
2) Wastewater flow was determined from: (show calculation in section a or b)						
TOWN OF CARY FLOWRATES						
Land Use			Flow Factor			
Single Family Residential			280 GPD per dwelling unit			
Multi-Family Residential			100 GPD per bedroom			
Office and Institutional			0.09 GPD/SF building space			
Commercial			0.12 GPD/SF building space			
Industrial			0.20 GPD/SF building space			
a) TOC approved flowrates per Std. Spec 07010.A.2.b:						
b) OR if land use is not included in TOC approved flowrates use 15A NCAC 2T.0114:						
Establishment Type		Daily Design Flow		no. of units		Flow
<u>Park with restroom facilities</u>		<u>250 gal/ plumbing fixture</u>		<u>5</u>		<u>1,250 gpd</u>
3) Volume of wastewater generated by this project (Gallons Per Day): <u>1,250 gpd</u>						
4) Nature of wastewater:	<u>100 %</u>	<u>Domestic/Commercial</u>	<u>%</u>	<u>Industrial</u>	<u>%</u>	Other waste – specify:
5) If wastewater is industrial in nature:						
a) Level of pretreatment that has been provided to ensure protection of the receiving collection system and wastewater treatment facility:						
b) If a pretreatment permit is required, has one been issued? <u>Yes</u> ; <u>No</u> . If yes, please attach a copy of the pretreatment permit. If no, provide date application was submitted:						

Summary of Public Gravity Sewer Mains to be Permitted

Diameter (Inches)	Length (Linear Feet)	Material
n/a		

Minimum Gravity Sewer Design Criteria

Does the subject gravity sewer collection system comply with the most recent versions of the Town of Cary Standard Specifications, NCDEQ Gravity Sewer Minimum Design Criteria, and 15A NCAC 2T .0300?

Yes ☒ No. If no, please identify variances and explain below

Summary of Public Pump Stations to be Permitted

No. or Name	Design Flow (MGD)	Pump Operational Points	GPM @	feet TDH
n/a				

Summary of Public Force Mains to be Permitted

Diameter (Inches)	Length (Linear Feet)	Material
n/a		

Equipment Utilized

List any equipment being utilized that is not specifically mentioned elsewhere in the application or is not required in the Town of Cary Standard Specifications or NCDEQ Minimum Design Criteria for the Permitting of Pump Stations and Force Mains (e.g., telemetry, hoist, odor control equipment, mechanical bar screens, etc.):

n/a

Minimum Design Criteria for Pump Stations and Force Mains

Do the subject pump stations and force mains comply with the most recent versions of the Town of Cary Standard Specifications, NCDEQ Minimum Design Criteria for the Fast-Track Permitting of Pump Stations and Force Mains, and 15A NCAC 2T .0300?

Yes ☐ No. If no, please identify variances and explain below

n/a

Other Permits/Certifications

Have the following permits/certifications been received or submitted for approval? If yes, indicate date received or submitted. If no, please explain

Wetland/Stream Crossing – General Permit or 401 Certification: No, not needed.

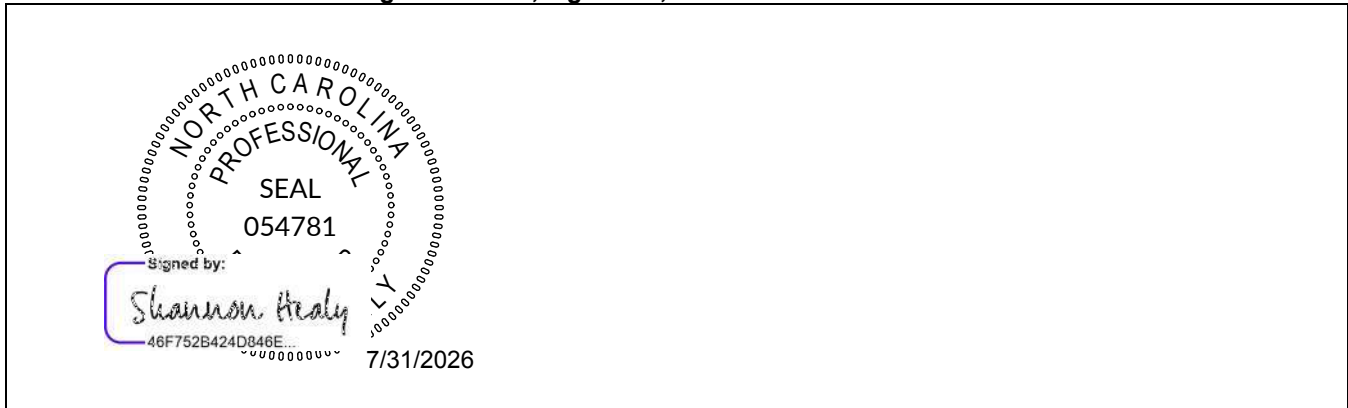
Sedimentation and Erosion Control Plan: Yes, approved on 04/13/2026, permit no. WAKE-2026-00364

Stormwater: Yes, approved on 07/16/2026, permit no. SWF-166693-2026

CERTIFICATIONS

Professional Engineer's Certification:

I, Shannon Healy, attest that this application for Lake Crabtree County Park Improvements has been reviewed by me and is accurate, complete, and consistent with the information in the engineering plans, calculations, and all other supporting documentation to the best of my knowledge. I further attest that to the best of my knowledge the proposed design has been prepared in accordance with the applicable regulations, including the most recent versions of the Town of Cary Standard Specifications, NCDEQ Gravity Sewer Minimum Design Criteria, NCDEQ Minimum Design Criteria for the Permitting of Pump Stations and Force Mains, and the watershed classification in accordance with NCDEQ guidance. Although certain portions of this submittal package may have been developed by other professionals, inclusion of these materials under my signature and seal signifies that I have reviewed this material and have judged it to be consistent with the proposed design. I understand that if any offsite easements are required for installation of the gravity sewer, pump station, or force main improvements as shown on the plans, this permit is not valid without legal proof of that easement acquisition.

North Carolina Professional Engineer's seal, signature, and date:

Applicant's Certification:

I, Eric Staehle, attest that this application for Lake Crabtree County Park Improvements has been reviewed by me and is accurate and complete to the best of my knowledge. I understand that if all required parts of this application are not completed and that if all required supporting information and attachments are not included, this application package will be returned as incomplete. I understand that if any offsite easements are required for installation of the gravity sewer, pump station, or force main improvements as shown on the plans, this permit is not valid without legal proof of that easement acquisition. Furthermore, I certify that upon complete installation of the gravity sewer, pump station, or force main improvements permitted through this application form, and Town of Cary approval, the gravity sewer, pump station, or force main infrastructure shall be dedicated to the Town of Cary.

Signature: <u>Eric Staehle</u> DocuSigned by: 1E98A7B63D3246D...	Date: <u>7/31/2026</u>
--	------------------------

APPROVAL:

The permit cited in the foregoing application is hereby approved insofar as the protection of public health is concerned as provided in the regulations, standards and criteria adopted under the authority of Chapter 36 of the Code of Ordinances for the Town of Cary, with the following provisions: The official copies of plans accompanying this application have been sealed and stamped with the serial number of this application NP26022. Only such plans are included in this permit approval, and any erasures, additions, or alterations of the proposed gravity sewer, pump station, or force main improvements will make such approval null and void. This permit shall be effective from the date of site plan approval or as dated below. This permit shall expire one (1) year from the date of site plan approval if the permitted improvements have not been initiated.

APPROVED BY _____



UTILITIES

WATER SYSTEM PERMIT APPLICATION

Applicability

- ☐ As a part of this project public water main is being extended or abandoned
☒ As a part of this project new service taps are proposed
☐ As a part of this project new fire hydrants or fire services are proposed

If all the above are non-applicable AND only a replacement meter or replacement of private service is proposed:
STOP HERE AND CONTACT INSPECTIONS AND PERMITS AT (919) 469-4046

Instructions

Indicate that you have included the following list of required application package items by checking in the space provided next to each item. Failure to submit all required items will lead to additional processing and review time for the permit application.

-
-
- ☒ **A. Application Form** – Submit one electronic (PDF) copy of the completed and appropriately executed application form as indicated in step C. The application form shall be signed as follows:
1. in the case of a corporation, by a principal executive officer of at least the level of vice-president, or their duly authorized representative;
 2. in the case of a partnership or limited partnership, by a general partner;
 3. in the case of a sole proprietorship, by the proprietor;
 4. in the case of a municipality, state agency, or other public entity, by either a principal executive officer, ranking elected official, or other duly authorized employee.
- ☒ **B. Detailed Plans** – Utility plans are submitted via the plan review process. No additional copies are required. Plans shall conform to the most recent version of the Town of Cary Standard Specifications, Town of Cary Water Distribution System Master Plan, and all other applicable regulations. Plans shall be signed, sealed, and dated by a North Carolina licensed Professional Engineer.
- ☒ **C. Application Submittal** - Submit application and all supporting documents as indicated during the plan review process.
-
-

Application Fee - The fee for projects permitted via the plan review process will be collected prior to project approval. Note: phased plans shall require multiple permits.

Permit Number: WP26023 (to be completed by Town of Cary)

Applicant Information		
Applicant Name: Wake County		
Applicant Address: Facilities, Design, & Construction PO Box 550		
City: Raleigh	State: NC	Zip: 27602
Telephone Number: 919-856-6369		Email: eric.staehle@wake.gov
Owner's or signing official's name and title (if different than applicant): Eric Staehle		
Project Information		
Project Name (name of subdivision, facility, or establishment, etc.): Lake Crabtree County Park Improvements		
Project Site Plan Number (Cary, Morrisville, or NCDOT Assigned): TOC #2000179		
Engineering Firm Information		
Engineering Firm Name: Withers-Ravenel		
Engineering Firm Address: 137 S Wilmington Street, Suite 200		
City: Raleigh	State: NC	Zip: 27601
Telephone Number: (919) 469-3340		Email: malderman@withersravenel.com
Name and affiliation of contact person who can answer questions about application: Michael Alderman, Project Manager		
Permit Information		
Project is:	☒ New	☐ Modification
If this application is being submitted as a result of a modification to an existing permit, provide information below:		
Existing Permit Number:		Issuance Date:
Design Information		
Brief project description: The proposed park improvements include a new classroom building, updated administration and maintenance buildings, new comfort station, and general site improvements for parking, sidewalks, and utilities associated with the new development.		
Summary of Public Water Main to be Permitted		
Diameter (Inches)	Length (Linear Feet)	Material
2"	34	TYPE K COPPER
Water Main Design Criteria		
Do the subject water lines comply with the most recent versions of the Town of Cary Standard Specifications and Town of Cary Water Distribution System Master Plan? (Note separation distances and cross connection control requirements of the Town of Cary Standard Specifications.)		
☒ Yes	☐ No. If no, please identify variances and explain below	
Other Permits/Certifications		
Have the following permits/certifications been received or submitted for approval? If yes, indicate date received or submitted. If no, please explain		
Wetland/Stream Crossing – General Permit or 401 Certification: No, not needed.		
Sedimentation and Erosion Control Plan: Yes, approved on 04/13/2026, permit no. WAKE-2026-00364		
Stormwater: Yes, approved on 07/16/2026, permit no. SWF-166693-2026		

CERTIFICATIONS

Professional Engineer's Certification:

I, Shannon Healy, attest that this application for Lake Crabtree C ements has been reviewed by me and is accurate, complete, and consistent with the information in the engineering plans, calculations, and all other supporting documentation to the best of my knowledge. I further attest that to the best of my knowledge the proposed design has been prepared in accordance with the applicable regulations, including the most recent versions of the Town of Cary Standard Specifications and Town of Cary Water Distribution System Master Plan. Although certain portions of this submittal package may have been developed by other professionals, inclusion of these materials under my signature and seal signifies that I have reviewed this material and have judged it to be consistent with the proposed design. I understand that if any offsite easements are required for installation of the water system improvements as shown on the plans, this permit is not valid without legal proof of that easement acquisition.

North Carolina Professional Engineer's seal, signature, and date:



Applicant's Certification:

I, Eric Staehle, attest that this application for Lake Crabtree County Park Improvements has been reviewed by me and is accurate and complete to the best of my knowledge. I understand that if all required parts of this application are not completed and that if all required supporting information and attachments are not included, this application package will be returned as incomplete. I understand that if any offsite easements are required for installation of the water system improvements as shown on the plans, this permit is not valid without legal proof of that easement acquisition. Furthermore, I certify that upon complete installation of the water system improvements permitted through this application form, and Town of Cary approval, the water system infrastructure shall be dedicated to the Town of Cary.

Signature: <u>Eric Staehle</u> DocuSigned by: 1E98A7B63D3246D...	Date: <u>7/31/2026</u>
--	------------------------

APPROVAL:

The permit cited in the foregoing application is hereby approved insofar as the protection of public health is concerned as provided in the regulations, standards and criteria adopted under the authority of Chapter 36 of the Code of Ordinances for the Town of Cary, with the following provisions: The official copies of plans accompanying this application have been sealed and stamped with the serial number of this application WP26023. Only such plans are included in this permit approval, and any erasures, additions, or alterations of the proposed water system improvements will make such approval null and void. This permit shall be effective from the date of site plan approval or as dated below. This permit shall expire one (1) year from the date of site plan approval if the permitted improvements have not been initiated.

APPROVED BY _____

**FINANCIAL RESPONSIBILITY/OWNERSHIP FORM
SEDIMENTATION POLLUTION CONTROL ACT**

No person may initiate any land-disturbing activity on one or more acres as covered by the Act, including any activity under a common plan of development of this size as covered by the NCG01 permit, before this form and an acceptable erosion and sedimentation control plan have been completed and approved by the Land Quality Section, N.C. Department of Environmental Quality. Submit the completed form to the appropriate Regional Office. (Please type or print and, if the question is not applicable or the e-mail address or phone number is unavailable, place N/A in the blank.)

Part A.

1. Project Name: Lake Crabtree County Park Improvements

**If this project involves American Rescue Plan Act (ARPA) funds, list the Project Name below under which you applied for funding through the Division of Water Infrastructure (DWI).*

Is Project ARPA Funded	ARPA Project Name	ARPA Project #
No		
Is Project SL 2023-134 Funded	SL 2023-134 Project Number	
No		

2. Location of land-disturbing activity: County: Wake City or Township: Morrisville

Highway/Street: 1400 Aviation Pkwy Latitude: 35.840689 Longitude: -78.792719

3. Approximate date land-disturbing activity will commence: 01/04/2027

4. Purpose of development (residential, commercial, industrial, institutional, etc.): Other

5. Total acreage disturbed or uncovered (including off-site borrow and waste areas): 4.9

6. The application fee of \$119.00 per acre (rounded up to the next acre) is assessed without a ceiling amount (Example: An 8.10 acre application fee is \$1,071).

7. Has an erosion and sediment control plan been filed? No

8. Person to contact should erosion and sediment control issues arise during land-disturbing activity:

Name: Mark Forestieri E-mail Address: mforestieri@wake.gov

Phone: 919.856.6356 Mobile: 919.623.8385

9. Landowner(s) of Record:

Landowner(s) of Record			
Name	Email	Business Phone	Mobile Phone
Wake County	mforestieri@wake.gov	919.856.6356	
Physical Address		Mailing Address	
336 Fayetteville St Suite 1100 Raleigh, NC 27601		336 Fayetteville St Suite 1100 Raleigh, NC 27601	

Part B.

1. Company(ies) who are financially responsible for the land-disturbing activity (Provide a comprehensive list of all responsible parties on accompanied page.) *If the company is a sole proprietorship or if the landowner(s) is an individual(s), the name(s) of the owner(s) may be listed as the financially responsible party(ies).*

Primary Financially Responsible Party			
Company Name	Email	Business Phone	Mobile Phone
Wake County Facilities Design & Construction	mforestieri@wake.gov	919.856.6356	
Physical Address		Mailing Address	
336 Fayetteville St Suite 1100 Raleigh, NC 27601		336 Fayetteville St Suite 1100 Raleigh, NC 27601	

Additional Financially Responsible Parties

No additional financially responsible parties were entered on the application.

Note: If the Financially Responsible Party is not the owner of the land to be disturbed, include with this form the landowner's signed and dated written consent for the applicant to submit a draft erosion and sedimentation control plan and to conduct the anticipated land disturbing activity.

2. (a) If the Financially Responsible Party is a domestic company registered on the NC Secretary of State business registry, give name and street address of the Registered Agent:

Registered Agent Information			
Name	Email	Business Phone	Mobile Phone
Physical Address		Mailing Address	

- (b) If the Financially Responsible Party is not a resident of North Carolina, give name and street address of the designated North Carolina agent who is registered on the NC Secretary of State business registry:

North Carolina Agent Information			
Name	Email	Business Phone	Mobile Phone
Physical Address		Mailing Address	

Engineering/Consulting Firm Information			
Name	Email	Business Phone	Mobile Phone
WithersRavenel	shealy@withersravenel.com	919.678.3797	
Physical Address		Mailing Address	
137 S Wilmington St Suite 200 Raleigh, NC 27601		137 S Wilmington St Suite 200 Raleigh, NC 27601	

Additional Details

1. Stream Classification: B: Primary Contact Recreation, Fresh Water, NSW: Nutrient Sensitive Waters
2. Was Express Review Requested: No

The above information is true and correct to the best of my knowledge and belief and was provided by me under oath. (This form must be signed by the Financially Responsible Person if an individual(s) or his attorney-in-fact, or if not an individual, by an officer, director, partner, or registered agent with the authority to execute instruments for the Financially Responsible Party). I agree to provide corrected information should there be any change in the information provided herein.

CERTIFICATE OF PLAN APPROVAL



The posting of this certificate certifies that an erosion and sedimentation control plan has been approved for this project by the North Carolina Department of Environmental Quality in accordance with North Carolina General Statute 113A – 57 (4) and 113A – 54 (d) (4) and North Carolina Administrative Code, Title 15A, Chapter 4B.0107 (c). This certificate must be posted at the primary entrance of the job site before construction begins and until establishment of permanent groundcover as required by North Carolina Administrative Code, Title 15A, Chapter 4B.0127 (b).

**Lake Crabtree County Park Improvements
1400 Aviation Pkwy Morrisville, NC 27560**

04/13/2026

Date of Plan Approval



WAKE-2026-00364

Project Identifier

Certificate of Coverage Number: _____

JOSH STEIN
Governor

D. REID WILSON
Secretary

WILLIAM E. TOBY VINSON, JR.
Director



04-13-2026

LETTER OF APPROVAL

Wake County Facilities Design & Construction
336 Fayetteville St
Raleigh, NC 27601

RE: Project Name: Lake Crabtree County Park Improvements
Permit Number: WAKE-2026-00364
Acres Approved: 4.9
County: Wake
City: Morrisville
Address: 1400 Aviation Pkwy
River Basin: Neuse
Stream Classification: B: Primary Contact Recreation, Fresh Water; NSW: Nutrient Sensitive Waters
Plan Type: New Plan

Dear Wake County Facilities Design & Construction,

This office has received and reviewed the subject erosion and sedimentation control plan. We find the plan to be acceptable and hereby issue this Letter of Approval. The enclosed Certificate of Approval must be posted at the job site. This plan shall expire three (3) years following the date of approval, if no land disturbing activity has been undertaken, as is required by Title 15A NCAC 4B .0129.

As of April 1, 2019, all new construction activities are required to complete and submit an electronic Notice of Intent (eNOI) form requesting a COC under the NCG010000 Construction Stormwater General Permit. You must apply for coverage by submitting a "Construction Stormwater – NCG01 (Subject to the SPCA) in the [AccessDEQ Portal](#). Once your application is complete, you will receive an invoice for the \$127 annual permit fee and can submit payment through the AccessDEQ Portal. Once the fee is processed and the application approved, you will receive the COC via email. As the Financially Responsible Party shown on the FRO form submitted for this project, you MUST obtain the COC prior to commencement of any land disturbing activity. Please direct questions about the eNOI form to the [Stormwater Program staff](#) in the Raleigh central office. If the owner/operator of this project changes in the future, the new responsible party must obtain a new COC.



North Carolina Department of Environmental Quality
Division of Energy, Mineral and Land Resources
512 North Salisbury Street | 1612 Mail Service Center
Raleigh, North Carolina 27699-1612

Title 15A NCAC 4B .0118(a) and the NCG01 permit require that the following documentation be kept on file at the job site:

1. The approved E&SC plan as well as any approved deviation.
2. The NCG01 permit and the COC, once it is received.
3. Records of inspections made during the previous 12 months.

Also, this letter gives the notice required by G.S. 113A-61.1(a) of our right of periodic inspection to ensure compliance with the approved plan.

North Carolina's Sedimentation Pollution Control Act is performance-oriented, requiring protection of existing natural resources and adjoining properties. If, following the commencement of this project, the erosion and sedimentation control plan is inadequate to meet the requirements of the Sedimentation Pollution Control Act of 1973 (North Carolina General Statute 113A-51 through 66), this office may require revisions to the plan and implementation of the revisions to ensure compliance with the Act.

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

Please note that this approval is based in part on the accuracy of the information provided in the Financial Responsibility Form and on the plan, which you provided. You are requested to file an amended form if there is any change in the information included on the form.

Your cooperation is appreciated.

Sincerely,

Prabesh Mishra

Land Quality Section

SECTION 042200 - CONCRETE UNIT MASONRY

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Concrete masonry units.
2. Lintels.
3. Mortar and grout materials.
4. Reinforcement.
5. Ties and anchors.
6. Embedded flashing.
7. Accessories.
8. Mortar and grout mixes.

B. Related Requirements:

1. Section 033000 "Cast-in-Place Concrete" for dovetail slots for masonry anchors.
2. Section 034500 "Precast Architectural Concrete" for precast concrete trim.
3. Section 042300 "Glass Unit Masonry" for glass block.
4. Section 042613 "Masonry Veneer" for unit masonry set as veneer.
5. Section 047200 "Cast Stone Masonry" for cast stone trim units.
6. Section 055000 "Metal Fabrications" for furnishing steel lintels and shelf angles.
7. Section 071900 "Water Repellents" for water repellents applied to surface of unit masonry assemblies.
8. Section 076200 "Sheet Metal Flashing and Trim" for sheet metal flashing and for furnishing manufactured reglets installed in masonry joints.

1.2 DEFINITIONS

- A. CMU(s): Concrete masonry unit(s).
- B. Reinforced Masonry: Masonry containing reinforcing steel in grouted cells.
- C. Exposed: Weather-exposed side of a constructed wall.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of specified product.
- B. Shop Drawings:
 1. Masonry Units: Show sizes, profiles, coursing, and locations of special shapes.
 2. Reinforcing Steel: Detail bending, lap lengths, and placement of unit masonry reinforcing bars. Comply with ACI PRC 315R. Indicate elevations of reinforced

- walls.
- 3. Lintel design and types required.
- 4. Veneer Anchors: Show layout and spacing for anchors for veneer.

C. Samples for Verification: For each type and color of the following:

- 1. Ground Face CMUs: Small-scale units.
- 2. Mortar: Colored mortar samples for ground face veneer.

1.4 INFORMATIONAL SUBMITTALS

A. Material Certificates: For each type and size of the following:

- 1. Masonry units.
 - a. Include data on material properties .
- 2. Cementitious materials. Include name of manufacturer, brand name, and type.
- 3. Mortar admixtures.
- 4. Preblended, dry mortar mixes. Include description of type and proportions of ingredients.
- 5. Grout mixes. Include description of type and proportions of ingredients.
- 6. Reinforcing bars.
- 7. Joint reinforcement.
- 8. Anchors, ties, and metal accessories.

B. Weather Procedures: Detailed description of methods, materials, and equipment to be used to comply with requirements for cold and hot weather.

1.5 QUALITY ASSURANCE

A. Testing Agency: Qualified in accordance with ASTM C1093 for testing indicated.

1.6 MOCKUPS

A. Sample Panels: Build sample panels to verify selections made under Sample submittals and to demonstrate aesthetic effects. Comply with requirements in Section 014000 "Quality Requirements" for mockups.

- 1. Build sample panels for typical exterior and interior walls in sizes approximately 48 inches long by 48 inches high by full thickness.
- 2. Build sample panels facing south.
- 3. Protect approved sample panels from the elements with weather-resistant membrane.
- 4. Approval of sample panels is for color, texture, and blending of masonry units; relationship of mortar and sealant colors to masonry unit colors; tooling of joints; aesthetic qualities of workmanship; and other material and construction qualities specifically approved by Architect in writing.

- a. Approval of sample panels does not constitute approval of deviations from

the Contract Documents contained in sample panels unless Owner specifically approves such deviations by Change Order.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store masonry units on elevated platforms in a dry location. If units are not stored in an enclosed location, cover tops and sides of stacks with waterproof sheeting, securely tied. If units become wet, do not install until they are dry.
- B. Store cementitious materials on elevated platforms, under cover, and in a dry location. Do not use cementitious materials that have become damp.
- C. Store aggregates where grading and other required characteristics can be maintained and contamination avoided.
- D. Deliver preblended, dry mortar mix in moisture-resistant containers. Store preblended, dry mortar mix in delivery containers on elevated platforms in a dry location or in covered weatherproof dispensing silos.
- E. Store masonry accessories, including metal items, to prevent corrosion and accumulation of dirt and oil.

1.8 FIELD CONDITIONS

- A. Protection of Masonry: During construction, cover tops of walls, projections, and sills with waterproof sheeting at end of each day's work. Cover partially completed masonry when construction is not in progress.
 - 1. Extend cover a minimum of 24 inches down both sides of walls, and hold cover securely in place.
- B. Do not apply uniform floor or roof loads for at least 12 hours and concentrated loads for at least three days after building masonry walls or columns.
- C. Stain Prevention: Prevent grout, mortar, and soil from staining the face of masonry to be left exposed or painted. Immediately remove grout, mortar, and soil that come in contact with such masonry.
 - 1. Protect base of walls from rain-splashed mud and from mortar splatter by spreading coverings on ground and over wall surface.
 - 2. Protect sills, ledges, and projections from mortar droppings.
 - 3. Protect surfaces of window and door frames, as well as similar products with painted and integral finishes, from mortar droppings.
 - 4. Turn scaffold boards near the wall on edge at the end of each day to prevent rain from splashing mortar and dirt onto completed masonry.
- D. Cold-Weather Requirements: Do not use frozen materials or materials mixed or coated with ice or frost. Do not build on frozen substrates. Remove and replace unit masonry damaged by frost or by freezing conditions. Comply with cold-weather construction

requirements contained in TMS 402/602.

1. Cold-Weather Cleaning: Use liquid cleaning methods only when air temperature is 40 deg F and higher and will remain so until masonry has dried, but not less than seven days after completing cleaning.
- E. Hot-Weather Requirements: Comply with hot-weather construction requirements contained in TMS 402/602.

PART 2 - PRODUCTS

2.1 SOURCE LIMITATIONS

- A. Obtain exposed masonry units cementitious mortar components and mortar aggregate from single manufacturer.
- B. For exposed masonry units and cementitious mortar components, obtain each color and grade from single source with resources to provide materials of consistent quality in appearance and physical properties.

2.2 PERFORMANCE REQUIREMENTS

- A. Provide unit masonry that develops indicated net-area compressive strengths at 28 days.
 1. Determine net-area compressive strength of masonry from average net-area compressive strengths of masonry units and mortar types (unit-strength method) in accordance with TMS 402/602.

2.3 CONCRETE UNIT MASONRY, GENERAL

- A. Masonry Standard: Comply with TMS 402/602 except as modified by requirements in the Contract Documents.
- B. Defective Units: Referenced masonry unit standards may allow a certain percentage of units to contain chips, cracks, or other defects exceeding limits stated. Do not use units where such defects are exposed in the completed Work.

2.4 CONCRETE MASONRY UNITS

- A. General: Provide shapes indicated and as follows, with exposed surfaces matching exposed faces of adjacent units unless otherwise indicated.
 1. Provide special shapes for lintels, corners, jambs, sashes, movement joints, headers, bonding, and other special conditions.
 2. Provide square-edged units for outside corners unless otherwise indicated.
- B. CMUs: ASTM C90, normal weight.

1. Size (Width): Manufactured to dimensions 3/8 inch less-than-nominal dimensions.
 2. Exposed Faces: Common smooth-faced units.
 3. Color: Manufacturer's standard gray color.
- C. Rebar Block CMUs: ASTM C90, 3000 psi minimum compressive strength on net section. Blocks must be 15 5/8" in length with each face continuous and ends open. Each block must have two connecting webs symmetrically arranged and a single internal enclosed cell, having formed cutouts in the block webs for locating horizontal reinforcing. Nominal face shell thickness must be 1.5 inches with webs not less than 15/16" thick for 8" block and 1 5/8" for 12" block.
1. Manufacturers: Subject to compliance with requirements, provide products by:
 - a. Fizzano Brothers (Ivany Block)
 - b. York Building Products (Ivany Block)
 - c. Johnson Masonry (Rebar Block)
- D. Ground Face CMUs: ASTM C90, normal-weight architectural units.
1. Basis-of-Design Product: Subject to compliance with requirements, provide **Echelon Masonry, an Oldcastle APG brand; Twenwyth High Polish – 5306** or comparable product by one of the following:
 - a. **Johnson Concrete Products; Prestige Masonry Ground Face – Night Mist JCL-3192**
 - b. York Building Products
 2. Size (Width): Manufactured to dimensions 3/8 inch less-than-nominal dimensions.
 - a. Nominal Size: 4 x 4 x 24 inches.
 3. Pattern and Texture: Standard pattern, ground-face finish.
 4. Colors: As selected by Architect from manufacturer's full range.

2.5 LINTELS

- A. Masonry Lintels: Prefabricated or built-in-place masonry lintels made from U-shape closed-bottom bond beam CMUs matching adjacent CMUs in color, texture, and density classification, with reinforcing bars placed as indicated and filled with coarse grout. Cure precast lintels before handling and installing. Temporarily support built-in-place lintels until cured.

2.6 MORTAR AND GROUT MATERIALS

- A. General: Provide mortar and grout materials to achieve performance requirements as specified in mortar and grout mixes.
- B. Portland Cement: ASTM C150/C150M, Type I or II, except Type III may be used for cold-weather construction. Provide natural color or white cement as required to produce mortar color indicated.
1. Alkali content is not more than 0.1 percent when tested in accordance with ASTM

C114.

- C. Hydrated Lime: ASTM C207, Type S.
- D. Portland Cement-Lime Mix: Packaged blend of portland cement and hydrated lime containing no other ingredients.
- E. Mortar Cement: ASTM C1329/C1329M.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by the following available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Lafarge North America Inc.
- F. Colored Mortar: Packaged blend made from portland cement-lime mix lime and mortar pigments, all complying with specified requirements, and containing no other ingredients.
 - 1. Colored Portland Cement-Lime Mix:
 - a. Manufacturers: Subject to compliance with requirements, provide products by one of the following available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1) Argos USA LLC
 - 2) Heidelberg Materials
 - 3) Holcim (US) Inc
 - 4) Lafarge North America Inc.
- G. Aggregate for Mortar: ASTM C144.
 - 1. For mortar that is exposed to view, use washed aggregate consisting of natural sand or crushed stone.
 - 2. For joints less than 1/4 inch thick, use aggregate graded with 100 percent passing the No. 16 sieve.
 - 3. White-Mortar Aggregates: Natural white sand or crushed white stone.
 - 4. Colored-Mortar Aggregates: Natural sand or crushed stone of color necessary to produce required mortar color.
- H. Aggregate for Grout: ASTM C404.
- I. Cold-Weather Admixture: Nonchloride, noncorrosive, accelerating admixture complying with ASTM C494/C494M, Type C, and recommended by manufacturer for use in masonry mortar of composition indicated.
- J. Water: Potable.

2.7 REINFORCEMENT

- A. Uncoated-Steel Reinforcing Bars: ASTM A615/A615M or ASTM A996/A996M,

Grade 60.

- B. Reinforcing Bar Positioners: Wire units designed to fit into mortar bed joints spanning masonry unit cells and to hold reinforcing bars in center of cells. Units are formed from 0.148-inch steel wire, hot-dip galvanized after fabrication. Provide units designed for number of bars indicated and having internal bends to securely hold bars in position.
1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following :
 - a. Heckmann Building Products, Inc.
 - b. Hohmann & Barnard, Inc
 - c. Wire-Bond
- C. Masonry-Joint Reinforcement: Ladder type complying with ASTM A951/A951M.
1. Interior Walls: Hot-dip galvanized carbon steel.
 2. Exterior Walls: Hot-dip galvanized carbon steel.
 3. Wire Size for Side Rods: 0.148-inch diameter.
 4. Wire Size for Cross Rods: 0.148-inch diameter.
 5. Spacing of Cross Rods: Not more than 16 inches o.c.
 6. Provide in lengths of not less than 10 ft. , with prefabricated corner and tee units.
 7. Where walls are constructed using multiple concrete masonry wythes without an intervening airspace, provide hot-dip galvanized ladder reinforcing with 0.148 inch continuous rods aligned with center of each face shell and 0.148 inch crossing rods extending across entire ladder wire assembly at 16" oc maximum.
 8. Where concrete masonry structural wythe supports masonry veneer separated by an airspace from the structural wythe, provide ladder wire with integral eye to receive adjustable wire pintle at 16" on center.
 - a. Wire size for pintle ties: W2.8 (0.187 inch)

2.8 TIES AND ANCHORS

- A. General: Ties and anchors extend at least 1-1/2 inches into masonry but with at least a 5/8-inch cover on outside face.
- B. Materials: Provide ties and anchors specified in this article that are made from materials that comply with the following unless otherwise indicated:
1. Hot-Dip Galvanized, Carbon-Steel Wire: ASTM A1064/A1064M, with ASTM A153/A153M, Class B-2 coating.
 - 2.
 3. Steel Plates, Shapes, and Bars: ASTM A36/A36M.
- C. Adjustable Anchors for Connecting to Structural Steel Framing: Provide anchors that allow vertical or horizontal adjustment but resist tension and compression forces perpendicular to plane of wall.
1. Anchor Section for Welding to Steel Frame: hot-dip galvanized steel wire.
 2. Tie Section: Triangular-shaped wire tie made from 0.187-inch diameter, hot-dip

galvanized steel wire.

- D. Partition Top Anchors: 0.105-inch-thick metal plate with a 3/8-inch-diameter metal rod 6 inches long welded to plate and with closed-end plastic tube fitted over rod that allows rod to move in and out of tube. Fabricate from steel, hot-dip galvanized after fabrication.
- E. Rigid Anchors: Fabricate from steel bars 1-1/2 inches wide by 1/4 inch thick by 24 inches long, with ends turned up 2 inches or with cross pins unless otherwise indicated.
 - 1. Corrosion Protection: Hot-dip galvanized to comply with ASTM A153M.

2.9 ACCESSORIES

- A. Compressible Filler: Premolded filler strips complying with ASTM D1056, Grade 2A1; compressible up to 35 percent; of width and thickness indicated; formulated from neoprene urethane or PVC.
- B. Preformed Control-Joint Gaskets: Made from styrene-butadiene-rubber compound, complying with ASTM D2000, Designation M2AA-805 or PVC, complying with ASTM D2287, Type PVC-65406 and designed to fit standard sash block and to maintain lateral stability in masonry wall; size and configuration as indicated.
- C. Bond-Breaker Strips: Asphalt-saturated felt complying with ASTM D226/D226M, Type I (No. 15 asphalt felt).

2.10 MORTAR AND GROUT MIXES

- A. General: Do not use admixtures, including pigments, air-entraining agents, accelerators, retarders, water-repellent agents, antifreeze compounds, or other admixtures unless otherwise indicated.
 - 1. Do not use calcium chloride in mortar or grout.
 - 2. Use portland cement-lime or mortar cement mortar unless otherwise indicated.
 - 3. Add cold-weather admixture (if used) at same rate for all mortar that will be exposed to view, regardless of weather conditions, to ensure that mortar color is consistent.
- B. Preblended, Dry Mortar Mix: Furnish dry mortar ingredients in form of a preblended mix. Measure quantities by weight to ensure accurate proportions, and thoroughly blend ingredients before delivering to Project site.
- C. Mortar for Unit Masonry: Comply with ASTM C270, Proportion Specification. Provide the following types of mortar for applications stated unless another type is indicated or needed to provide required compressive strength of masonry.
 - 1. For all masonry applications use Type S.
 - 2. For rebar-block construction, use Type M.
- D. Grout for Unit Masonry: Comply with ASTM C476.

1. Use grout of type indicated or, if not otherwise indicated, of type (fine or coarse) that will comply with TMS 402/602 for dimensions of grout spaces and pour height.
2. Proportion grout in accordance with ASTM C476, Table 1 or paragraph 4.2.2 for specified 28-day compressive strength indicated, but not less than 2000 psi.
3. Proportion grout used where Rebar Block is specified for a compressive strength of 3,000 psi.
4. Provide grout with a slump of 10 to 11 inches as measured in accordance with ASTM C143/C143M.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
 1. For the record, prepare written report, endorsed by Installer, listing conditions detrimental to performance of the Work.
 2. Verify that foundations are within tolerances specified.
 3. Verify that reinforcing dowels are properly placed.
 4. Verify that substrates are free of substances that would impair mortar bond.
- B. Before installation, examine rough-in and built-in construction for piping systems to verify actual locations of piping.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION, GENERAL

- A. Build chases and recesses to accommodate items specified in this and other Sections.
- B. Leave openings for equipment to be installed before completing masonry. After installing equipment, complete masonry to match construction immediately adjacent to opening.
- C. Use full-size units without cutting if possible. If cutting is required to provide a continuous pattern or to fit adjoining construction, cut units with motor-driven saws; provide clean, sharp, unchipped edges. Allow units to dry before laying unless wetting of units is specified. Install cut units with cut surfaces and, where possible, cut edges concealed.
- D. Exposed Masonry: Mix units to produce uniform blend of colors and textures.
- E. Matching Existing Masonry: Match coursing, bonding, color, and texture of existing masonry.
- F. Temperature Control: Perform temperature-sensitive construction procedures while

masonry Work is progressing. Temperature ranges indicated below apply to air temperatures existing at time of installation except for grout. For grout, temperature ranges apply to anticipated minimum night temperatures. In heating mortar and grout materials, maintain mixing temperature selected within 10 deg F.

1. 40 to 32 Deg F:
 - a. Mortar: Heat mixing water to produce mortar temperature between 40 and 120 deg F.
 - b. Grout: Follow normal masonry procedures.
2. 32 to 25 Deg F (0 to Minus 4 Deg C):
 - a. Mortar: Heat mixing water and sand to produce mortar temperatures between 40 and 120 deg F; maintain temperature of mortar on boards above freezing.
 - b. Grout: Heat grout materials to 90 deg F to produce in-place grout temperature of 70 deg F at end of workday.
3. 25 to 20 Deg F and below: Do not preform temperature-sensitive masonry construction procedures.
4. Do not heat water for mortar and grout to above 160 deg F.

G. Masonry Protection: Protect completed masonry and masonry not being worked on in the following manner. Temperature ranges indicated apply to mean daily air temperatures except for grouted masonry. For grouted masonry, temperature ranges apply to anticipated minimum night temperatures.

1. 40 to 32 Deg F: Protect masonry from rain or snow for at least 24 hours by covering with weather-resistive membrane.
2. 32 to 25 Deg F: Completely cover masonry with weather-resistive membrane for at least 24 hours.
3. 25 to 20 Deg F: Completely cover masonry with weather-resistive insulating blankets or similar protection for at least 24 hours, 48 hours for grouted masonry.
4. 20 Deg F and Below: Except as otherwise indicated, maintain masonry temperature above 32 deg F for 24 hours using enclosures and supplementary heat, electric heating blankets, infrared lamps or other methods proven to be satisfactory. For grouted masonry, maintain heated enclosure to 40 deg F for 48 hours.

3.3 TOLERANCES

A. Dimensions and Locations of Elements:

1. For dimensions in cross section or elevation, do not vary by more than plus 1/2 inch or minus 1/4 inch.
2. For location of elements in plan, do not vary from that indicated by more than plus or minus 1/2 inch.
3. For location of elements in elevation, do not vary from that indicated by more

than plus or minus 1/4 inch in a story height or 1/2 inch total.

B. Lines and Levels:

1. For bed joints and top surfaces of bearing walls, do not vary from level by more than 1/4 inch in 10 ft., or 1/2 inch maximum.
2. For conspicuous horizontal lines, such as lintels, sills, parapets, and reveals, do not vary from level by more than 1/8 inch in 10 ft., 1/4 inch in 20 ft., or 1/2 inch maximum.
3. For vertical lines and surfaces, do not vary from plumb by more than 1/4 inch in 10 ft., 3/8 inch in 20 ft., or 1/2 inch maximum.
4. For conspicuous vertical lines, such as external corners, door jambs, reveals, and expansion and control joints, do not vary from plumb by more than 1/8 inch in 10 ft., 1/4 inch in 20 ft., or 1/2 inch maximum.
5. For lines and surfaces, do not vary from straight by more than 1/4 inch in 10 ft., 3/8 inch in 20 ft., or 1/2 inch maximum.
6. For vertical alignment of exposed head joints, do not vary from plumb by more than 1/4 inch in 10 ft. or 1/2 inch maximum.
7. For faces of adjacent exposed masonry units, do not vary from flush alignment by more than 1/16 inch.

C. Joints:

1. For bed joints, do not vary from thickness indicated by more than plus or minus 1/8 inch, with a maximum thickness limited to 1/2 inch.
2. For exposed bed joints, do not vary from bed-joint thickness of adjacent courses by more than 1/8 inch.
3. For head and collar joints, do not vary from thickness indicated by more than plus 3/8 inch or minus 1/4 inch.
4. For exposed head joints, do not vary from thickness indicated by more than plus or minus 1/8 inch.

3.4 INSTALLATION OF MASONRY WALLS

- A. Lay out walls in advance for accurate spacing of surface bond patterns with uniform joint thicknesses and for accurate location of openings, movement-type joints, returns, and offsets. Avoid using less-than-half-size units, particularly at corners, jambs, and, where possible, at other locations.
- B. Bond Pattern for Exposed Masonry: Unless otherwise indicated, lay exposed masonry in 1/3 running bond; do not use units with less-than-nominal 4-inch horizontal face dimensions at corners or jambs.
- C. Lay concealed masonry with all units in a wythe in running bond. Bond and interlock each course of each wythe at corners. Do not use units with less-than-nominal 4-inch horizontal face dimensions at corners or jambs.
- D. Stopping and Resuming Work: Stop work by stepping back units in each course from those in course below; do not tooth. When resuming work, clean masonry surfaces that

are to receive mortar, remove loose masonry units and mortar, and wet brick if required before laying fresh masonry.

- E. Built-in Work: As construction progresses, build in items specified in this and other Sections. Fill in solidly with masonry around built-in items.
- F. Fill space between steel frames and masonry solidly with mortar unless otherwise indicated.
- G. Where built-in items are to be embedded in cores of hollow masonry units, place a layer of metal lath, wire mesh, or plastic mesh in the joint below, and rod mortar or grout into core.
- H. Fill cores in hollow CMUs with grout 24 inches under bearing plates, beams, lintels, posts, and similar items unless otherwise indicated.
- I. Rigid, Cellular Thermal Insulation, CMUs: Install molded-polystyrene insulation units into masonry unit cells before laying units.
- J. Build non-load-bearing interior partitions full height of story to underside of solid floor or roof structure above unless otherwise indicated.
 - 1. Install compressible filler in joint between top of partition and underside of structure above.
 - 2. Joint Sealants: Comply with ASTM C1193 for use of joint sealants, including acoustic sealants as applicable to materials, applications and Project conditions.

3.5 INSTALLATION OF MORTAR BEDDING AND JOINTING

- A. Lay hollow CMUs as follows:
 - 1. Bed face shells in mortar and make head joints of depth equal to bed joints.
 - 2. Bed webs in mortar in all courses of piers, columns, and pilasters.
 - 3. Bed webs in mortar in grouted masonry, including starting course on footings.
 - 4. Fully bed entire units, including areas under cells, at starting course on footings and where cells are not grouted.
- B. Lay solid CMUs with completely filled bed and head joints; butter ends with sufficient mortar to fill head joints and shove into place. Do not deeply furrow bed joints or slush head joints.
- C. Tool exposed joints slightly concave when thumbprint hard, using a jointer larger than joint thickness unless otherwise indicated.

3.6 INSTALLATION OF MASONRY-JOINT REINFORCEMENT

- A. General: Install entire length of longitudinal side rods in mortar with a minimum cover of 5/8 inch on exterior side of walls, 1/2 inch elsewhere. Lap reinforcement a minimum of

6 inches.

1. Space reinforcement not more than 16 inches o.c.
2. Space reinforcement not more than 8 inches o.c. in foundation walls and parapet walls.
3. Provide reinforcement not more than 8 inches above and below wall openings and extending 12 inches beyond openings in addition to continuous reinforcement.

- B. Interrupt joint reinforcement at control and expansion joints unless otherwise indicated.
- C. Provide continuity at wall intersections by using prefabricated T-shaped units.
- D. Provide continuity at corners by using prefabricated L-shaped units.
- E. Cut and bend reinforcing units as directed by manufacturer for continuity at corners, returns, offsets, column fireproofing, pipe enclosures, and other special conditions.

3.7 INSTALLATION OF ANCHORING MASONRY TO STRUCTURAL STEEL AND CONCRETE

- A. Anchor masonry to structural steel and concrete, where masonry abuts or faces structural steel or concrete, to comply with the following:
 1. Provide an open space not less than 1 inch wide between masonry and structural steel or concrete unless otherwise indicated. Keep open space free of mortar and other rigid materials.
 2. Anchor masonry with anchors embedded in masonry joints and attached to structure.
 3. Space anchors as indicated, but not more than 24 inches o.c. vertically and 36 inches o.c. horizontally.

3.8 INSTALLATION OF CONTROL JOINTS

- A. General: Install control joint materials in CMUs as masonry progresses. Do not allow materials to span control joints without provision to allow for in-plane wall or partition movement.
- B. Locate control joints. As indicated on structural drawings.
- C. Form control joints in CMUs as follows:
 1. Install preformed control joint gaskets designed to fit standard sash block.

3.9 INSTALLATION OF LINTELS

- A. Install lintels over openings as indicated.
- B. Provide formed-in-place masonry lintels where shown and where openings of more than 12 inches for brick-size units and 24 inches for block-size units are shown without

structural steel or other supporting lintels. Provide minimum bearing of 8 inches at each jamb unless otherwise indicated.

3.10 INSTALLATION OF REINFORCED UNIT MASONRY

- A. Temporary Formwork and Shores: Construct formwork and shores as needed to support reinforced masonry elements during construction.
 - 1. Do not remove forms and shores until reinforced masonry members have hardened sufficiently to carry their own weight and other loads that may be placed on them during construction.
- B. Placing Reinforcement: Comply with requirements in TMS 402/602.
- C. Grouting: Do not place grout until entire height of masonry to be grouted has attained enough strength to resist grout pressure.
 - 1. Comply with requirements in TMS 402/602 for cleanouts and for grout placement, including minimum grout space and maximum pour height.
 - 2. Limit height of vertical grout pours to not more than 60 inches.

3.11 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified masonry inspector to perform tests and inspections. Allow inspectors access to scaffolding and work areas as needed to perform tests and inspections. Retesting of materials that fail to comply with specified requirements is done at Contractor's expense.
- B. Quality Control Inspections: Special inspections in accordance with Level 2 in TMS 402/602.
 - 1. Begin masonry construction only after inspectors have verified proportions of site-prepared mortar.
 - 2. Place grout only after inspectors have verified compliance of grout spaces, grades, sizes, and locations of reinforcement.
 - 3. Place grout only after inspectors have verified proportions of site-prepared grout.
- C. Testing Prior to Construction: One set of tests.
- D. Mortar Aggregates: Ratio test (Proportion Specification) for each mix provided, in accordance with ASTM C780.
- E. Mortar: Test for each mix provided, in accordance with ASTM C780. Test mortar for mortar air content and compressive strength.
- F. Grout: Test for each mix provided, in accordance with ASTM C1019.

3.12 REPAIRING AND POINTING

- A. Remove and replace masonry units that are loose, chipped, broken, stained, or

otherwise damaged or that do not match adjoining units. Install new units to match adjoining units; install in fresh mortar, pointed to eliminate evidence of replacement.

- B. Pointing: During the tooling of joints, enlarge voids and holes, except weep holes, and completely fill with mortar. Point up joints, including corners, openings, and adjacent construction, to provide a neat, uniform appearance. Prepare joints for sealant application, where indicated.

3.13 CLEANING

- A. In-Progress Cleaning: Clean unit masonry as Work progresses by dry brushing to remove mortar fins and smears before tooling joints.
- B. Final Cleaning: After mortar is thoroughly set and cured, clean exposed masonry as follows:
 - 1. Remove large mortar particles by hand with wooden paddles and nonmetallic scrape hoes or chisels.
 - 2. Test cleaning methods on sample wall panel; leave one-half of panel uncleaned for comparison purposes. Obtain Architect's approval of sample cleaning before proceeding with cleaning of masonry.
 - 3. Clean concrete masonry by applicable cleaning methods indicated in TEK 08-04A.

3.14 MASONRY WASTE DISPOSAL

- A. Salvageable Materials: Unless otherwise indicated, excess masonry materials are Contractor's property. At completion of unit masonry work, remove from Project site.

END OF SECTION 042200

SECTION 105126 - HDPE LOCKERS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Standard-duty HDPE lockers.

1.2 RELATED REQUIREMENTS

- A. Section 061000 - Rough Carpentry: Wood blocking and nailers.

1.3 REFERENCE STANDARDS

- A. ADA Standards - 2010 ADA Standards for Accessible Design; 2010.
- B. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2023d.
- C. ICC A117.1 - Accessible and Usable Buildings and Facilities; 2017.

1.4 SUBMITTALS

- A. Product Data: Manufacturer's published data on locker construction, sizes, and accessories for each product used.
 - 1. Care and maintenance information.
- B. Shop Drawings: Indicate locker plan layout, including minimum required dimensions for installation, elevations and numbering pattern.
- C. Samples: Two 3 by 3 inches in size, indicating and color and finish of locker material.
- D. Manufacturer's Instructions: Indicate installation of each configuration indicated.
- E. Manufacturer's qualification statement.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with minimum three years documented experience.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. See Section 017419 - Construction Waste Management and Disposal for packaging waste requirements.
- B. Protect locker finish and adjacent surfaces from damage.
- C. Inspect lockers and benches upon receipt of delivery, and store in secure area until ready for assembly or installation.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:**

- 1. Scranton Products**
- 2. Summit Lockers**
- 3. ASI**

2.2 PERFORMANCE REQUIREMENTS

- A. Accessibility: Comply with ICC A117.1 and ADA Standards, Accessibility Guidelines.

2.3 STANDARD-DUTY HDPE LOCKERS

- A. LK1 Lockers, Scranton Products, Tufftec Locker

1. Selectable Attributes:

- a. Locker Configuration: One tier.
- b. Accessible Units: Lockers constructed to comply with referenced accessibility standards are indicated on drawings.
- c. Width: 15 inches.
- d. Depth: 15 inches.
- e. Enclosed Locker Height: 72 inches.
- f. Interior Color: Manufacturer's standard, homogeneous, natural color throughout.
- g. Exterior Color as indicated on drawings.
- h. Ventilation Type: Horizontal slotted door.

2. Innate Attributes:

- a. Locker Body Components: Made of solid plastic panels of the following type and minimum thicknesses:

- 1) Solid, High-Density Polyethylene (HDPE): Tested in accordance with ASTM E84, Class B; homogeneous color throughout.
 - a) Smoke Developed Index: Not to exceed 450.

- b) Flame Spread Index: Not to exceed 75.
- b. HDPE Component Thickness:
 - 1) Door and Door Frame: 1/2 inch.
 - 2) Back: 3/8 inch, minimum.
 - 3) Side: 3/8 inch, minimum.
 - 4) Top: 3/8 inch, minimum.
 - 5) Shelf: 3/8 inch, minimum.
 - 6) Bottom: 3/8 inch, minimum.
- c. Door Frame: Manufactured from single sheet of high-density polyethylene. Separate horizontal and vertical frame members will not be approved.
- d. Door Latching: Multipoint with a full height, spring loaded latch bar manufactured of 1/2-inch thick sheet of high-density polyethylene and securely mounted on interior face of locker door. Latch bar engages door frame at a minimum of two locations per door.
- e. Hinges: Full height, continuous type, 16 gauge, A-coated steel, blackfinish.
- f. Handle: One piece, recessed cup formed from black HDPE and securely mounted to interior of each door for smooth operation with integral latch bar. Capable of accepting various locking mechanisms.
- g. Latching Type: Positive, automatic-type locking device allowing locker door to be locked when open, then closed without unlocking.
- h. Locking Type: Hasps for combination locks provided by owner.
- i. Number Plates: Polished aluminum number plate with black numerals 3/8 inch high. Attached to door with rivets.
- j. Accessories:
 - 1) Base: 4-inch high, 1-inch thick, black HDPE base.
 - 2) Top: 1/2-inch thick, continuous sloped hoods.
 - 3) Trim: Select from filler panels, finished end panels and recessed trim.
- a) Material: 1/2-inch thick HDPE; color to match lockers.
- k. Interior Equipment:
 - 1) Shelf: Not included.
 - 2) Wall Hook: Two single-prong hooks.
 - 3) Ceiling Hook: Not included.
 - 4) Coat Rod: Not included.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify existing conditions and field dimensions meet manufacturer's requirements before starting work.
- B. Verify prepared bases specified in Section 033000 are in correct position and configuration.

3.2 INSTALLATION

- A. Install in accordance with manufacturer's written instructions.
- B. Place and secure on prepared base.
- C. Install lockers plumb and square.
- D. Secure lockers with anchor devices to suit substrate materials.
- E. Bolt adjoining locker units together to provide rigid installation.
- F. Install and end panels, filler panels and sloped tops.

3.3 ADJUSTING

- A. Adjust moving parts for smooth operation.
 - 1. Adjust doors and latches to operate without binding.
 - 2. Verify latches are operating properly.
 - 3. Adjust built-in locks to prevent binding.

3.4 CLEANING

- A. Clean interior and exterior surfaces of lockers.

3.5 PROTECTION

- A. Protect finishes until completion of project.
- B. Touch up damaged finishes after Substantial Completion.

END OF SECTION 105126

SECTION 329200 - TURF AND GRASSES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Seeding
 - 2. Sodding
 - 3. Turf renovation
- B. Related Sections include the following:
 - 1. Division 01 General Requirements
 - 2. Division 31 Clearing and Grubbing
 - 3. Division 31 Earthwork
 - 4. Division 32 Exterior Improvements
 - 5. Division 32 Exterior Plants
 - 6. Division 33 Stormwater Conveyance

1.3 DEFINITIONS

- A. Finish Grade: Elevation of finished surface of planting soil.
- B. Manufactured Soil: Soil produced off-site by homogeneously blending mineral soils or sand with stabilized organic soil amendments to produce topsoil or planting soil.
- C. Planting Soil: Standardized topsoil; existing, native surface topsoil; existing, in-place surface soil; imported topsoil; or manufactured topsoil that is modified with soil amendments and perhaps fertilizers to produce a soil mixture best for plant growth.
- D. Subgrade: Surface or elevation of subsoil remaining after excavation is complete, or top surface of a fill or backfill immediately beneath planting soil.
- E. Subsoil: All soil beneath the topsoil layer of the soil profile, and typified by the lack of organic matter and soil organisms.
- F. Surface Soil: Soil that is present at the top layer of the existing soil profile at the Project site. In undisturbed areas, the surface soil is typically topsoil, but in disturbed areas such as urban environments, the surface soil can be subsoil.

1.4 SUBMITTALS

- A. Product Data: For each type of product indicated, including planting soil.

1. Pesticides and Herbicides: Include product label and manufacturer's application instructions specific to this Project.
- B. Certification of Grass Seed: From seed vendor for each grass-seed monostand or mixture stating the botanical and common name and percentage by weight of each species and variety, and percentage of purity, germination, inert matter, noxious weeds by name & % per pound and weed seed. Include the year of production and date of packaging.
- C. Product Certificates: For soil amendments and fertilizers, signed by product manufacturer.
- D. Qualification Data: For landscape Installer. Include key personnel background and list of similar projects, minimum 3 projects completed and 5 years of experience in turf installation by Installer demonstrating Installer's capabilities and experience. Include project names, addresses, and year completed, and include names and addresses of owners' contact persons.
- E. Material Test Reports: For existing surface soil and imported or manufactured topsoil.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified landscape installer shall be a licensed Landscape Contractor. Only a landscape Contractor as defined by the General Statutes of North Carolina and licensed in North Carolina shall be permitted to perform this work. A copy of the Landscape Contractor's License or License Number shall be presented to the Owner's representative at the time the contract is executed
 1. Installer's Field Supervision: Require Installer to maintain an experienced full-time supervisor on Project site when planting is in progress.
 2. Personnel Certifications: Installer's field supervisor shall have certification with the Turfgrass Council of North Carolina
 3. Pesticide Applicator: State licensed, commercial.

Soil-Testing Laboratory Qualifications: An independent laboratory, recognized by the State Department of Agriculture, with the experience and capability to conduct the testing indicated and that specializes in types of tests to be performed.

- B. Soil Analysis: Furnish soil analysis by a qualified soil-testing laboratory stating percentages of organic matter; gradation of sand, silt, and clay content; cation exchange capacity; deleterious material; pH; and mineral and plant-nutrient content of the soil.
 1. Based on the test results, state recommended quantities of nitrogen, phosphorus, and potash nutrients and soil amendments to be added to produce satisfactory planting soil.
 2. Report presence of problem salts, minerals, or heavy metals, including aluminum, arsenic, barium, cadmium, chromium, cobalt, lead, lithium, and vanadium. If such problem materials are present, provide additional recommendations for corrective action.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Seed: Deliver seed in original sealed, labeled, and undamaged containers showing weight, certified analysis, name and address of manufacturer, and indication of conformance with state and federal laws, as applicable.

- B. Sod: Harvest, deliver, store, and handle sod according to requirements in Turfgrass Producers International's "Specifications for Turfgrass Sod Materials" and "Specifications for Turfgrass Sod Transplanting and Installation" in its "Guideline Specifications to Turfgrass Sodding." or other approved professional organization such as North Carolina State University's Turf Files or Clemson University. Deliver sod in time for planting within 24 hours of harvesting. Protect sod from breakage and drying.
- C. Bulk Materials:
1. Do not dump or store bulk materials near structures, utilities, walkways and pavements, or on existing turf areas or plants.
 2. Provide erosion control measures to prevent erosion or displacement of bulk materials, discharged of soil-bearing water runoff, and airborne dust reaching adjacent properties, water conveyance systems, or walkways.
 3. Accompany each delivery of bulk fertilizers, lime, and soil amendments with appropriate certificates.

1.7 COORDINATION

- A. Planting Restrictions: Plant during one of the following periods. Coordinate planting periods with maintenance periods to provide required maintenance from date of Substantial Completion. Variation in schedule shall be pre-approved by Owner.

1. Temporary Seeding Schedule:

Date	Type	Min.Application Rate
Sept. 15 – Mar. 30	Tall Fescue and	250 lbs/acre
	Winter Rye	50 lbs/acre
Apr. 1 – Sept. 14	Tall Fescue and	250 lbs/acre
	German Millet or	25 lbs/acre
	Sudangrass (small-stemmed var.)	30 lbs/acre

2. Permanent Seeding Schedule – Turf Areas

Date	Type	Min.Application Rate
Apr. 1 – July 15	Common Bermudagrass or Improved Bermudagrass	75 lbs/acre
Sept. 1 – Oct 15	Turf Type Tall Fescue	350 lbs/acre

3. Permanent Sodding Schedule – Turf Areas

Date	Type
May 15 – Sept. 15	Bermudagrass
Sept 15 – Dec. 1	Turf Type Tall Fescue

- B. Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit.
- C. Planting outside of the specified window only as approved by Landscape Architect. Extension of maintenance and warranty periods and additional required watering for planting outside of defined windows may apply at discretion of Landscape Architect

1.8 MAINTENANCE SERVICE

- A. Provide complete maintenance by skilled employees of landscape installer. Maintain as required in Part 3. Begin maintenance immediately after each area is planted and continue until acceptable turf or naturalized grass, including meadow and no-mow grasses, is established, for not less than 90 days from Substantial Completion, or as directed by Owner.
- B. Maintenance Service: Submit to Owner on first day of month Maintenance Report Form (provided) showing weekly maintenance completed. Owner shall verify and sign off on Maintenance Report Form prior to maintenance payment.

1.9 SATISFACTORY TURF AND GRASSES

- A. Turf maintenance: Installer shall repair or replace turf and accessories that fail in materials, workmanship, or growth within **90 days** from Substantial Completion. Turf shall meet the following criteria as determined by Architect:
 - 1. Satisfactory Seeded Turf: At end of maintenance period, a healthy, uniform, close stand of grass has been established, free of weeds and surface irregularities, with coverage exceeding 90 percent over any 10 sq. ft. and bare spots not exceeding 6 by 6 inches.
 - 2. Satisfactory Sodded Turf: At end of maintenance period, a healthy, well-rooted, even-colored, viable turf has been established, free of weeds, open joints, bare areas, and surface irregularities.
- B. Renovate, reseed or replace unsatisfactory turf, as required in Part 3, at end of **specified maintenance period**.

PART 2 - PRODUCTS

2.1 SEED

- A. Grass Seed: Fresh, clean, dry, new-crop seed complying with AOSA's "Journal of Seed Technology; Rules for Testing Seeds" for purity and germination tolerances.
- B. Seed Species: Seed of grass species as follows, with not less than 95 percent germination, not less than 85 percent pure seed, and not more than 0.5 percent weed:
 - 1. Permanent seeding:
 - Common Bermudagrass (Hulled)
 - Turf Type Tall Fescue
 - Improved Bermudagrass
 - 2. Temporary seeding:
 - Tall Fescue and Winter Rye
 - Tall Fescue and, German Millet or Sudangrass

2.2 TURFGRASS SOD

- A. Turfgrass Sod: Certified complying with TPI's "Specifications for Turfgrass Sod Materials" in its "Guideline Specifications to Turfgrass Sodding." Furnish viable sod of uniform density, color, and texture, strongly rooted, and capable of vigorous growth and development when planted.
- B. Turfgrass Species: Sod of grass species as follows, with not less than 95 percent germination, not less than 85 percent pure seed, and not more than 0.5 percent weed seed

1. Tifway 419, TifTuf, or Turf Type Tall Fescue, or as approved by Landscape Architect

2.3 PLANTING SOILS

- A. Topsoil: ASTM D 5268, pH range of 6.0 to 7.0 , a minimum of 6 percent organic material content; free of stones ½” or larger in any dimension and other extraneous materials harmful to plant growth.
 1. Topsoil Source: Reuse surface soil stockpiled on-site. Verify suitability of stockpiled surface soil to produce topsoil. Clean surface soil of roots, plants, sod, stones, clay lumps, and other extraneous materials harmful to plant growth.
 2. Supplement with imported or manufactured topsoil from off-site sources when quantities are insufficient. Obtain topsoil displaced from naturally well-drained construction or mining sites where topsoil occurs at least 4 inches (100 mm) deep; do not obtain from agricultural land, bogs or marshes.
- B. Topsoil stripped and stockpiled from the site shall be used in plant beds, tree pits and turf areas
- C. Have topsoil tested by a certified soil testing laboratory to determine the type and quantity of soil amendments necessary. Add amendments to topsoil as necessary to meet these requirements.

2.4 PLANTING ACCESSORIES

- A. Selective Herbicides: EPA registered and approved, of type recommended by manufacturer for application.

2.5 FERTILIZER

- A. Bonemeal: Commercial, raw or steamed, finely ground; a minimum of 4 percent nitrogen and 20 percent phosphoric acid.
- B. Commercial Fertilizer: Commercial-grade complete fertilizer of neutral character, consisting of fast- and slow-release nitrogen, 50 percent derived from natural organic sources of urea formaldehyde, phosphorous, and potassium in the following composition:
 1. Composition: Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified soil-testing agency.
- C. Slow-Release Fertilizer: Granular or pelletized fertilizer consisting of 50 percent water-insoluble nitrogen, phosphorus, and potassium in the following composition:
 1. Composition: Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified soil-testing agency.
 2. Fish-emulsion, compost tea.
- D. Other Organic Fertilizer: Contractor is encouraged to utilize other organic fertilizer with a lower nitrogen value, such as worm castings, sewage sludge. Contractor shall submit product information for Architect’s approval prior to application.

2.6 MULCHES

- A. Straw Mulch: Provide air-dry, clean, mildew- and seed-free, salt hay or threshed straw of wheat, rye, oats, or barley.
- B. Compost Mulch: Well-composted, stable, and weed-free organic matter, pH range of 5.5 to 8;

moisture content 35 to 55 percent by weight; 100 percent passing through 1-inch sieve; soluble salt content of 5 to 10 decisiemens/m; not exceeding 0.5 percent inert contaminants and free of substances toxic to plantings; and as follows:

1. Organic Matter Content: 50 to 60 percent of dry weight.
- C. Nonasphaltic Tackifier: Colloidal tackifier recommended by fiber-mulch manufacturer for slurry application; nontoxic and free of plant-growth or germination inhibitors.
- D. Asphalt Emulsion: ASTM D 977, Grade SS-1; nontoxic and free of plant-growth or germination inhibitors.

2.7 PESTICIDES AND HERBICIDES

- A. Pesticides: Registered and approved by EPA, acceptable to authorities having jurisdiction, and of type recommended by manufacturer for each specific problem and as required for Project conditions and application. Do not use restricted pesticides unless authorized in writing by authorities having jurisdiction.
- B. Pre-Emergent herbicide: Effective for controlling the germination of growth of weeds within planted areas at the soil level directly below the mulch layer.
- C. Post-Emergent Herbicide: Effective for controlling weed growth that has already germinated.

2.8 EROSION-CONTROL MATERIALS

- A. Erosion-Control Blankets: Biodegradable wood excelsior, straw, or coconut-fiber mat. Include manufacturer's recommended steel wire staples.
- B. Erosion-Control Fiber Mesh: Biodegradable twisted jute or spun-coir mesh, a minimum of 0.92 lb/sq. yd., with 50 to 65 percent open area. Include manufacturer's recommended steel wire staples.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas to receive turf and grass for compliance with requirements and other conditions affecting performance. Grade strictly according to the proposed grading plan. Proceed with installation only after Owner approves the subgrade and unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities, trees, shrubs, and plantings from damage caused by planting operations.
 1. Protect adjacent and adjoining areas from hydroseeding overspray.
 2. Protect grade stakes set by others until directed to remove them.
 3. Protect areas such as plant beds that should not receive seed.
- B. Provide erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

3.3 TURF PREPARATION

- A. Limit turf subgrade preparation to areas to be planted.
- B. Newly Graded Subgrades: Loosen subgrade to a minimum depth of 8 inches. Remove stones larger than 1 inch in any dimension and sticks, roots, rubbish, and other extraneous matter and legally dispose of them off Owner's property.
 - 1. Spread 6" of topsoil and mix thoroughly into loosened subgrade.
 - 2. Spread 2" of soil conditioner (pine fines, organic compost, or organic soil builder), soil amendments and fertilizer on surface, and thoroughly blend planting soil mix to a depth of 6-8". Till soil to a homogeneous mixture of medium texture (some clumping is acceptable).
 - a. Delay mixing fertilizer with planting soil if planting will not proceed within a few days.
 - b. Mix lime with dry soil before mixing fertilizer.
 - c. Do not spread if planting soil, topsoil or subgrade is frozen, muddy or excessively wet
 - 3. Spread and rake smooth planting soil mix to meet finish grades after light rolling and natural settlement.
 - 4. Reduce elevation of planting soil to allow for soil thickness of sod.
- C. Unchanged Subgrades: If turf is to be planted in areas unaltered or undisturbed by excavating, grading, or surface soil stripping operations, prepare surface soil as follows:
 - 1. Remove existing grass, vegetation, and turf. Do not mix into surface soil.
 - 2. Loosen surface soil to a depth of 6 inches. Apply soil amendments and fertilizers according to planting soil mix proportions and mix thoroughly into top 6 inches of soil. Till soil to a homogeneous mixture of medium texture.
 - 3. Remove stones larger than 1 inch in any dimension and sticks, roots, trash, and other extraneous matter.
 - 4. Legally dispose of waste material, including grass, vegetation, and turf, off Owner's property.
- D. Finish Grading: Grade planting areas to a smooth, uniform surface plane with loose, uniformly fine texture. Grade to within plus or minus 1/2 inch of finish elevation. Roll and rake, remove ridges, and fill depressions to meet finish grades. Limit fine grading to areas that can be planted in the immediate future.
- E. Moisten prepared turf areas before planting if soil is dry. Water thoroughly and allow surface to dry before planting. Do not create muddy soil.
- F. Restore areas if eroded or otherwise disturbed after finish grading and before planting.
- G. Before planting, obtain Architect's acceptance of finish grading; restore planting areas if eroded or otherwise disturbed after finish grading.

3.4 SEEDING

- A. Sow seed with spreader or seeding machine. Do not broadcast or drop seed when wind velocity

exceeds 5 mph. Evenly distribute seed by sowing equal quantities in two directions at right angles to each other.

1. Do not use wet seed or seed that is moldy or otherwise damaged.
- B. Sow seed at the rate recommended by seed manufacturer and as required to achieve 95% coverage over any 10 sq. ft.
- C. Rake seed lightly into top 1/8 inch of topsoil, roll lightly, and water with fine spray.
- D. Protect seeded areas with slopes exceeding 1:6 with erosion-control fiber mesh and 1:4 with erosion-control blankets installed and stapled according to manufacturer's written instructions.
- E. Protect seeded areas with slopes not exceeding 1:6 by spreading straw mulch. Spread uniformly at a minimum rate of 2 tons/acre to form a continuous blanket 1-1/2 inches in loose depth over seeded areas. Spread by hand, blower, or other suitable equipment.
1. Anchor straw mulch by crimping into topsoil with suitable mechanical equipment; Or
 2. Bond straw mulch by spraying with asphalt emulsion at the rate of 10 to 13 gal./1000 sq. ft. Take precautions to prevent damage or staining of structures or other plantings adjacent to mulched areas. Immediately clean damaged or stained areas.
- F. Protect seeded areas from hot, dry weather or drying winds by applying peat or compost mulch within 24 hours after completing seeding operations. Soak and scatter uniformly to a depth of 1/4 inch and roll to a smooth surface. Water daily or more frequently as necessary to maintain moist soil to a minimum depth of 2 inches.

3.5 HYDROSEEDING

- A. Hydroseeding: Mix specified seed, fertilizer, and fiber mulch in water, using equipment specifically designed for hydroseed application. Continue mixing until uniformly blended into homogeneous slurry suitable for hydraulic application.
1. Mix slurry with a tackifier.
 2. Apply slurry uniformly to all areas to be seeded in a one-step process. Apply mulch at a minimum rate of 1500-lb/acre dry weight but not less than the rate required to obtain specified seed-sowing rate.

3.6 SODDING

- A. Remove plastic netting or backing from sod.
- B. Lay sod within 24 hours of harvesting. Do not lay sod if dormant, unless overseeded, or if ground is frozen or muddy.
- C. Lay sod to form a solid mass with tightly fitted joints. Butt ends and sides of sod; do not stretch or overlap. Stagger sod strips or pads to offset joints in adjacent courses. Avoid damage to subgrade or sod during installation. Tamp and roll lightly to ensure contact with subgrade, eliminate air pockets, and form a smooth surface. Work sifted soil or fine sand into minor cracks between pieces of sod; remove excess to avoid smothering sod and adjacent grass.
1. Lay sod across angle of slopes exceeding 1:3.

2. Anchor sod on slopes exceeding 1:6 with wood pegs or steel staples spaced as recommended by sod manufacturer but not less than 2 anchors per sod strip to prevent slippage.
- D. Saturate sod with fine water spray within two hours of planting. Water daily or more frequently as necessary to maintain moist soil to a minimum depth of 2 inches below sod.

3.7 TURF RENOVATION

- A. Renovate existing turf damaged by Contractor's operations, such as storage of materials or equipment and movement of vehicles.
 1. Reestablish turf where settlement or washouts occur or where minor regrading is required.
- B. Remove sod and vegetation from diseased or unsatisfactory turf areas; do not bury in soil.
- C. Remove topsoil containing foreign materials resulting from Contractor's operations, including oil drippings, fuel spills, stone, gravel, and other construction materials, and replace with new topsoil.
- D. Mow, dethatch, core aerate, and rake existing turf.
- E. Remove weeds before seeding. Where weeds are extensive, apply selective herbicides as required. Do not use pre-emergence herbicides.
- F. Remove waste and foreign materials, including weeds, soil cores, grass, vegetation, and turf, and legally dispose of them off Owner's property.
- G. Till stripped, bare, and compacted areas thoroughly to a soil depth of 6 inches.
- H. Apply soil amendments and initial fertilizers required for establishing new turf and mix thoroughly into top 4 inches of existing soil. Provide new planting soil to fill low spots and meet finish grades.
- I. Apply seed and protect with straw mulch as required for new turf.
- J. Water newly planted areas and keep moist until new turf is established.

3.8 TURF MAINTENANCE

- A. Maintain and establish turf by watering, fertilizing, weeding, mowing, trimming, replanting, and other operations. Roll, regrade, top-dress and replant bare or eroded areas and remulch to produce a uniformly smooth turf.
 1. In areas where mulch has been disturbed by wind or maintenance operations, add new mulch. Anchor as required to prevent displacement.
 2. Contractor shall maintain turf areas for a period of **90 days** from Substantial Completion.
 - a. When initial maintenance period has not elapsed before end of planting season, or if turf is not fully established, continue maintenance during next planting season.
- B. Watering: Provide and maintain temporary piping, hoses, and turf-watering equipment to convey water from sources and to keep turf uniformly moist to a depth of 4 inches.
 1. Schedule watering to comply with the latest City of Raleigh Water Conservation Ordinance.
 2. Schedule watering to prevent wilting, puddling, erosion, and displacement of seed or mulch. Lay out temporary watering system to avoid walking over muddy or newly planted areas.
 3. Water turf at a minimum rate of 1 inch per week and document on Maintenance Report

Form.

- C. Mow turf as soon as top growth is tall enough to cut. Repeat mowing to maintain specified height without cutting more than 33 percent of grass height. Remove no more than 33 percent of grass-leaf growth in initial or subsequent mowings. Do not delay mowing until grass blades bend over and become matted. Do not mow when grass is wet.
- D. When seeding must take place out-of-season for permanent grass, appropriate temporary seeding shall be done and the contractor shall be responsible for permanent seeding as specified in season at no additional cost to Owner. Do not allow temporary cover to grow over 12 inches in height before mowing.

3.9 PESTICIDE AND HERBICIDE APPLICATION

- A. Apply pesticides and other chemical projects and biological control agents in accordance with requirements of authorities having jurisdiction and the product label. Coordinate applications with owner's operations and others in proximity to the Work. Notify Owner before each application is performed.
- B. Post-Emergent Herbicide: Apply only as necessary to treat already-germinated weeds and in accordance with manufacturer's written recommendations.

3.10 CLEANUP AND PROTECTION

- A. Promptly remove soil and debris created by turf work from paved areas. Clean wheels of vehicles before leaving site to avoid tracking soil onto roads, walks, or other paved areas.
- B. Erect barricades and warning signs as required protecting newly planted areas from traffic. Maintain barricades throughout maintenance period and remove after turf is established.
- C. Remove erosion-control measures after grass establishment period.

END OF SECTION 329200

BID SET

LAKE CRABTREE COUNTY PARK IMPROVEMENTS

SURVEY BENCHMARK

BENCHMARK IS LOCAL TO SITE.
SEE SHEETS C1.11-C1.31 FOR BENCHMARK INFORMATION.
VERTICAL DATUM BASED ON NAVD 88.

NOTES

1.

SURVEY PROVIDED BY WITHERSRAVENEL OCTOBER 31, 2025 IS SUPPLEMENTED BY GIS DATA TO PROVIDE ADDITIONAL CONTEXT
2.

FINAL ZONING AND SITE IMPROVEMENT INSPECTION SHALL BE REQUIRED TO VERIFY SITE PLAN COMPLIANCE BE DONE BEFORE A CERTIFICATE OF COMPLIANCE IS ISSUED BY WAKE COUNTY BUILDING INSPECTIONS
3.

DETERIORATED OR DEAD SCREENING SHALL BE REPAIRED OR REPLACED WITHIN SIX MONTHS
4.

THE DOCUMENTS LISTED IN THE DEMOLITION AND GENERAL CONDITIONS SECTIONS OF THE 'CONSTRUCTION NOTICE TO PROCEED SUBMITTAL LIST' MUST BE SUBMITTED FOR THE RDU AIRPORT AUTHORITY TO ISSUE APPROVAL FOR CONSTRUCTION TO COMMENCE. PLEASE NOT THAT NO CONSTRUCTION MAY BEGIN UNTIL A NOTICE TO PROCEED IS ISSUED BY THE AUTHORITY.

SITE DATA

PIN:

0767324317

OWNER:

RALEIGH DURHAM INTERNATIONAL

ADDRESS:

1400 AVIATION PARKWAY
MORRISVILLE, NC 27560

ZONING:

N/A

AREA:

4,584.26 AC

REAL ESTATE ID:

0110325

DISTURBED AREA:

4.93 AC

LAND USE:

WAKE COUNTY PARK

SETBACKS:

FRONT - N/A
SIDE - N/A
REAR - N/A

FLOODPLAIN:

3720076600K

WATERSHED:

UPPER CRABTREE CREEK

WATER SUPPLY WATERSHED AND IMPOUNDMENT BUFFERS:

30'

PARK HOURS

OF OPERATION:

8AM-SUNSET (361 DAYS/YEAR)

NO. OF STAFF:

8 FULL TIME, 5 PART TIME

IMPERVIOUS SURFACE DATA:

ADMIN & MAINTENANCE / EDUCATION CENTER

AREA DISTURBED:

146,349.49 SF (3.35 AC)

EXISTING IMPERVIOUS:

42,156.4 SF (0.97 AC)

PROPOSED IMPERVIOUS:

72,711 SF (1.67 AC)

IMPERVIOUS NET INCREASE:

+30,555 SF (0.70 AC)

COMFORT STATION

AREA DISTURBED:

68,794.67 SF (1.58 AC)

EXISTING IMPERVIOUS:

35,374.25 SF (0.81 AC)

PROPOSED IMPERVIOUS:

45,350 SF (1.04 AC)

IMPERVIOUS NET INCREASE:

+9,976 SF (0.23 AC)

UTILITY DATA

ADMIN & MAINTENANCE / EDUCATION CENTER

DOMESTIC WATER

20 LF 2" TYPE K COPPER

NO PROPOSED SEWER

COMFORT STATION:

DOMESTIC WATER

100 LF 2" TYPE K COPPER

31 LF TO METER

59 LF ¾" TYPE K COPPER

1.5" PRV & BFP IN BUILDING

2" METER

1 YARD HYDRANT

SEWER

22 LF 4" SCH. 40 PVC

EDUCATION CENTER

DOMESTIC WATER

97 LF 2" TYPE K COPPER

3 LF TO METER

2" METER

(2) 2" GV

2" ZURN 950XL3 DCV

1.5" PRV

DOMESTIC WATER SERVICE FLOW RATE: 43.6 GPM

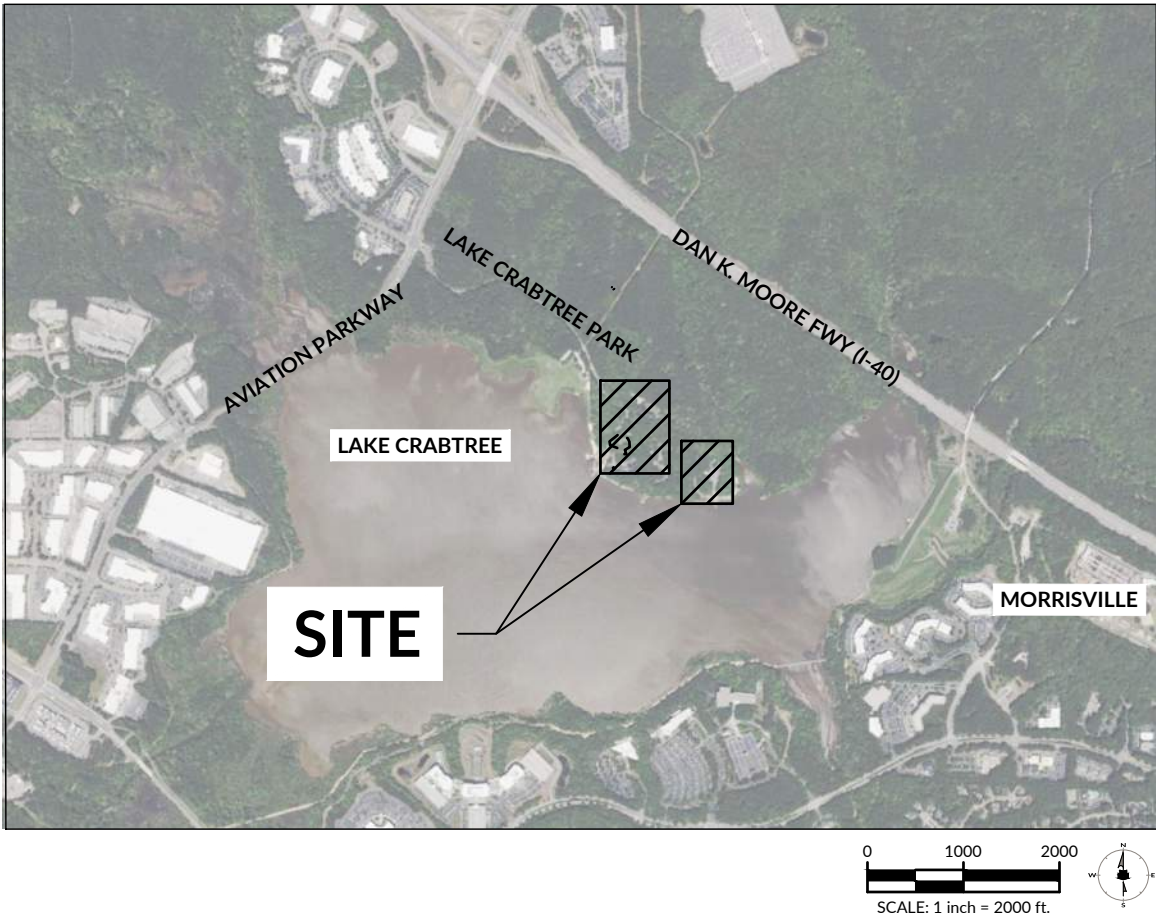
SEWER

20 LF 4" SCH. 40 PVC

PERMIT TRACKING

PERMIT STATUS			
PERMIT NAME	PERMIT NUMBER	GOVERNING AGENCY	STATUS
EROSION CONTROL	PA-050962	NC DEQ	4/13/2026
UTILITIES	2000179	TOWN OF CARY	IN REVIEW
STORMWATER MANAGEMENT	SWF-166693-2026	WAKE COUNTY	7/16/2026
BUILDING - MAINTNEANCE (RENO)	CBPR-174546-2026	WAKE COUNTY	PENDING
BUILDING - PRE-ENGINEERED SHELTER	TBD	WAKE COUNTY	PENDING
BUILDING - ADMIN (RENO)	CBPR-174547-2026	WAKE COUNTY	PENDING
BUILDING - EDUCATION CENTER	CBPR-174549-2026	WAKE COUNTY	PENDING
BUILDING - COMFORT STATION (DEMO)	DPR-174529-2026	WAKE COUNTY	PENDING
BUILDING - COMFORT STATION (NEW)	CBPR-174553-2026	WAKE COUNTY	PENDING

PARKING CALCULATIONS			
WORK AREA	SPACES REQUIRED/ SPACES PROVIDED		CALCULATIONS
MAINTENANCE BUILDING	2	8 (2 ADA)	1 PER 5 PERSONS (8 PEOPLE) (8/5=2 X 1 SPACE= 2) 2 SPACES REQUIRED
			1 PER 5 PERSONS (10 PEOPLE) (10/5=2 X 1 SPACE= 2) 2 SPACES REQUIRED
ADMIN BUILDING	2	10 (2 ADA)	1 PER 5 PERSONS (105 PEOPLE) (105/5= 53 X 1 SPACE= 53) 53 SPACES REQUIRED
			1 PER 2,000SF OF LOT AREA (LIMITS OF DISTURBANCE =147,196 SF) 73 SPACES REQUIRED
EDUCATION CENTER	126	139 (9 ADA)	1 PER 5 PERSONS (8 PEOPLE) (8/5=2 X 1 SPACE= 2) 2 SPACES REQUIRED
			1 PER 2,000SF OF LOT AREA (LIMITS OF DISTURBANCE = 68,794 SF) 35 SPACES REQUIRED
COMFORT STATION	37	34 (4 ADA)	



ALTERNATE SCHEDULE

ALTERNATE SCHEDULE		
ALTERNATE NUMBER	ALTERNATE NAME	DESCRIPTION
C-01: ADD ALTERNATE #01	ADDITIONAL PARKING BAY AT EDUCATION CENTER	13 PARKING SPACES (LIGHT DUTY ASPHALT PAVING), 2 ADA SPACES (HEAVY DUTY CONCRETE PAVING), ACCESSIBLE PATH (LIGHT DUTY CONCRETE PAVING), ASSOCIATED SIGNAGE & ROADWAY IMPROVEMENTS (HEAVY DUTY ASPHALT PAVEMENT). BASE BID: NO IMPROVEMENTS.
G-01: ADD ALTERNATE #02	POLE BARN AT MAINTENANCE YARD	POLE BARN, DELEGATED DESIGN, CONCRETE FOUNDATION PAD. BASE BID: GRADING, RETAINING WALL, GRAVEL PAVEMENT.
G-02: ADD ALTERNATE #03	MAINTENANCE STORAGE ADDITION	IMPROVEMENTS TO EXISTING OPEN AIR, COVERED STORAGE AT MAINTENANCE BUILDING. BASE BID: NO IMPROVEMENTS.
G-03A: ADD ALTERNATE #04	COMFORT STATION AT BOAT LAUNCH AREA	COMFORT STATION, ASSOCIATED UTILITIES, LIGHT DUTY CONCRETE PATH, LIGHTING. BASE BID: NO IMPROVEMENTS.
G-03B: ADD ALTERNATE #05	COMFORT STATION ROOF	ASPHALT SHINGLE ROOF. BASE BID: STANDING SEAM METAL ROOF.
G-04: ADD ALTERNATE #06	REAR STAIR ACCESS AT EDUCATION CENTER	COMPOSITE DECKING, WOOD STAIR, RAILING, WOOD BATTEN SCREEN, STEEL CONCRETE AND MASONARY STRUCTURE, LIGHT DUTY CONCRETE PATH. BASE BID: NO IMPROVEMENTS.
G-05: ADD ALTERNATE #07	OUTDOOR CLASSROOM DECKING AT EDUCATION CENTER	COMPOSITE DECKING. BASE BID: CONCRETE FOUNDATION SLAB.
G-06: ADD ALTERNATE #08	EDUCATION CENTER WOOD SIDING	ACCoya WOOD SIDING. BASE BID: CEDAR SIDING.
G-07: ADD ALTERNATE #09	EDUCATION CENTER WOOD FLOOR	IMPREGNATED WOOD FLOOR. BASE BID: HARD WOOD FLOOR.
F-01A: ADD ALTERNATE #10	FIRE ALARM SYSTEM	ADD FIRE ALARM SYSTEM. BASE BID: NO IMPROVEMENTS.
F-01B: ADD ALTERNATE #11	FIRE ALARM SYSTEM FOR ADMIN BUILDING ONLY	BUILDING. BASE BID: NO IMPROVEMENTS.
F-01C: ADD ALTERNATE #12	FIRE ALARM SYSTEM FOR MAINTENANCE BUILDING ONLY	ADD FIRE ALARM SYSTEM AT MAINTENANCE BUILDING. BASE BID: NO IMPROVEMENTS.
F-01D: ADD ALTERNATE #13	FIRE ALARM SYSTEM FOR EDUCATION CENTER ONLY	ADD FIRE ALARM SYSTEM AT EDUCATION CENTER. BASE BID: NO IMPROVEMENTS.

NOTE: REFER TO PRICE & PAYMENT SPECIFICATIONS FOR FULL DESCRIPTIONS

KEY	
NUMBER	CATEGORY
C	CIVIL
G	GENERAL
F	FIRE PROTECTION

TOWN OF CARY
Approved Utility Extensions

Water Permit#: WP26023

Sanitary Sewer Permit#: NP26022

Reclaimed Water Permit#: N/A

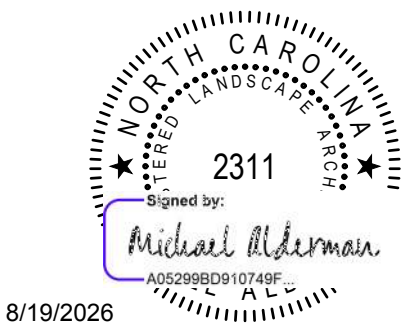
By:

CONTACT LIST:

Project Manager
Michael Alderman, PLA
WithersRavenel
137 S Wilmington Street, Suite 200
Raleigh, NC 27601
919-535-5200
malderman@withersravenel.com

Civil Engineer
Shannon Healy, PE
WithersRavenel
137 S Wilmington Street, Suite 200
Raleigh, NC 27601
919-678-3797
shealy@withersravenel.com

Architect
Jennifer Heintz
ClarkNexsen
421 N Harrington St, Suite 600
Raleigh, NC 27603
919-576-2121
jenifer.heintz@clarknexsen.com



PREPARED BY:

WithersRavenel
115 MacKenan Drive | Cary, NC 27511
License #: F-1479 | t: 919.469.3340 | www.withersravenel.com



8/19/2026

DEVELOPER:

Wake County

Facilities Design & Construction
Raleigh, NC 27601
PHONE #: (919) 856-6369
ATTENTION: Eric Staehle

eric.staehle@wake.gov



BID SET
Lake Crabtree County Park
Improvements
WR PROJECT NO. 22-0024-007
Wake County:
MUNI PRO NO: SWF-166693-2026
INITIAL PLAN DATE: 08/05/2026

SHEET LIST TABLE	
SHEET NUMBER	SHEET NAME
GENERAL	
G2.01	ADMIN BUILDING - BUILDING CODE SUMMARY
G2.02	ADMIN BUILDING - BUILDING CODE SUMMARY
G2.11	ADMIN BUILDING - LIFE SAFETY PLAN
G3.01	MAINTENANCE BUILDING - BUILDING CODE SUMMARY
G3.02	MAINTENANCE BUILDING - BUILDING CODE SUMMARY
G3.11	MAINTENANCE BUILDING - LIFE SAFETY PLAN
G3.21	ARCHITECTURAL SITE PLAN
G4.01	EDUCATION CENTER - BUILDING CODE SUMMARY
G4.02	EDUCATION CENTER - BUILDING CODE SUMMARY
G4.11	EDUCATION CENTER - LIFE SAFETY PLAN
G4.21	EDUCATION CENTER - ARCHITECTURAL SITE PLAN
G5.01.A	COMFORT STATION - BUILDING CODE SUMMARY
G5.02.A	COMFORT STATION - BUILDING CODE SUMMARY
G5.11.A	COMFORT STATION - LIFE SAFETY PLAN
CIVIL & LANDSCAPE	
C0.00	COVER
C0.01	INDEX OF SHEETS
C0.02	CONTEXT MAP
C0.03	GENERAL NOTES
C1.11	EXISTING CONDITIONS - ADMIN & MAINTENANCE
C1.21	EXISTING CONDITIONS - EDUCATION CENTER
C1.31	EXISTING CONDITIONS - COMFORT STATION
C2.11	DEMOLITION - ADMIN & MAINTENANCE
C2.21	DEMOLITION - EDUCATION CENTER
C2.30	DEMOLITION - COMFORT STATION - BASE BID
C2.31	DEMOLITION - COMFORT STATION - ALTERNATE
C3.11	SITE PLAN - ADMIN & MAINTENANCE
C3.20	SITE PLAN - EDUCATION CENTER - BASE BID
C3.21	SITE PLAN - EDUCATION CENTER - ALTERNATE
C3.30	SITE PLAN - COMFORT STATION - BASE BID
C3.31	SITE PLAN - COMFORT STATION - ALTERNATE
C4.11	UTILITY PLAN - ADMIN & MAINTENANCE
C4.21	UTILITY PLAN - EDUCATION CENTER
C4.31	UTILITY PLAN - COMFORT STATION
C5.11	GRADING & STORM DRAINAGE PLAN - ADMIN & MAINTENANCE
C5.21	GRADING & STORM DRAINAGE PLAN - EDUCATION CENTER
C5.31	GRADING & STORM DRAINAGE PLAN - COMFORT STATION
C5.41	STORM PLAN & PROFILES
C5.42	STORM PLAN & PROFILES
C5.43	STORM PLAN & PROFILES
C6.11	EROSION CONTROL STAGE 1 - ADMIN & MAINTENANCE
C6.21	EROSION CONTROL STAGE 1- EDUCATION CENTER
C6.31	EROSION CONTROL STAGE 1 - COMFORT STATION
C6.41	EROSION CONTROL STAGE 2 - ADMIN & MAINTENANCE
C6.51	EROSION CONTROL STAGE 2- EDUCATION CENTER
C6.61	EROSION CONTROL STAGE 2 - COMFORT STATION
C7.11	FIRE ACCESS PLAN - ADMIN & MAINTENANCE
C7.21	FIRE ACCESS PLAN - EDUCATION CENTER
C7.31	FIRE ACCESS PLAN - COMFORT STATION
C8.00	SCM PLAN & PROFILE
C8.01	SCM DETAILS
C9.00	SITE DETAILS
C9.01	SITE DETAILS
C9.02	SITE DETAILS
C9.03	EROSION CONTROL DETAILS
C9.04	EROSION CONTROL DETAILS
C9.05	EROSION CONTROL DETAILS
C9.06	EROSION CONTROL DETAILS
C9.07	UTILITY DETAILS
C9.08	STORMWATER DETAILS
L1.11	LANDSCAPE PLAN - ADMIN & MAINTENANCE
L1.20	LANDSCAPE PLAN - EDUCATION CENTER - BASE BID
L1.21	LANDSCAPE PLAN - EDUCATION CENTER - ALTERNATE
L1.31	LANDSCAPE PLAN - COMFORT STATION
L2.00	LANDSCAPE DETAILS
SL1.11	LIGHTING PLAN - ADMIN & MAINTENANCE
SL1.21	LIGHTING PLAN - EDUCATION CENTER
SL1.31	LIGHTING PLAN - COMFORT STATION
CR1.11	CONDUIT RACEWAY PLAN - ADMIN & MAINTENANCE
CR2.11	CONDUIT RACEWAY PLAN - EDUCATION CENTER
SC-08	SECURITY DETAILS
SC-09	SECURITY DETAILS
SC-10	RISER DIAGRAM
STRUCTURAL	
S3.00	MAINTENANCE BLDG - STRUCTURAL GENERAL NOTES AND LEGEND
S3.01	MAINTENANCE BLDG - STRUCTURAL GENERAL NOTES AND LEGEND
S3.10	MAINTENANCE BUILDING - FOUNDATION PLAN - BASE BID
S3.10.A	MAINTENANCE BUILDING - FOUNDATION PLAN - ALT G-02
S3.11	MAINTENANCE BUILDING - ROOF AND CEILING FRAMING PLAN - BASE BID

SHEET LIST TABLE	
SHEET NUMBER	SHEET NAME
S3.11.A	MAINTENANCE BUILDING - ROOF AND CEILING FRAMING PLAN - ALT G-02
S3.12.A	MAINTENANCE BUILDING - BUILDING ELEVATION - ALT G-02
S3.50	MAINTENANCE BUILDING - TYPICAL FOUNDATION/SLAB DETAILS
S3.51	MAINTENANCE BUILDING - TYPICAL FRAMING DETAILS
S3.52	MAINTENANCE BUILDING - TYPICAL FRAMING DETAILS
S3.53	MAINTENANCE BUILDING - TYPICAL FRAMING DETAILS
S4.00	EDUCATION CENTER - STRUCTURAL GENERAL NOTES AND LEGEND
S4.01	EDUCATION CENTER - STRUCTURAL GENERAL NOTES AND ABBREVIATIONS
S4.10	EDUCATION CENTER - FOUNDATION PLAN
S4.11	EDUCATION CENTER - LEVEL 1 FRAMING PLAN
S4.12	EDUCATION CENTER - ROOF FRAMING PLAN
S4.20	EDUCATION CENTER - BRACED FRAME ELEVATION AND DETAILS
S4.40	EDUCATION CENTER - ENLARGED CEILING FRAMING PLANS
S4.41	EDUCATION CENTER - MASONRY PLAN
S4.50	EDUCATION CENTER - TYPICAL FOUNDATION AND SLAB DETAILS
S4.51	EDUCATION CENTER - TYPICAL FOUNDATION AND SLAB DETAILS
S4.52	EDUCATION CENTER - FOUNDATION DETAILS AND SECTIONS
S4.53	EDUCATION CENTER - TYPICAL MASONRY DETAILS
S4.54	EDUCATION CENTER - TYPICAL MASONRY DETAILS
S4.55	EDUCATION CENTER - FRAMING SECTIONS
S4.56	EDUCATION CENTER - FRAMING SECTIONS
S4.57	EDUCATION CENTER - TYPICAL WOOD FRAMING DETAILS
S4.58	EDUCATION CENTER - TYPICAL WOOD FRAMING DETAILS
S4.59	EDUCATION CENTER - WOOD FRAMING SCHEDULES
S4.80.A	EDUCATION CENTER - ALTERNATE
S5.00.A	COMFORT STATION - STRUCTURAL GENERAL NOTES
S5.01.A	COMFORT STATION - STRUCTURAL GENERAL NOTES
S5.10.A	COMFORT STATION - FOUNDATION PLAN
S5.11.A	COMFORT STATION - FRAMING PLAN
S5.30.A	COMFORT STATION - BUILDING SECTIONS
S5.40.A	COMFORT STATION - ENLARGED MASONRY PLAN
S5.50.A	COMFORT STATION - TYPICAL DETAILS
S5.51.A	COMFORT STATION - TYPICAL DETAILS
ARCHITECTURAL	
A1.00	ARCHITECTURAL LEGEND, NOTES AND ABBREVIATIONS
A1.01	MOUNTING HEIGHTS
A2.00	ADMIN BUILDING - DEMOLITION PLANS
A2.11	ADMIN BUILDING - FLOOR PLAN
A2.12	ADMIN BUILDING - REFLECTED CEILING PLAN AND ROOF PLAN
A2.21	ADMIN BUILDING - EXTERIOR ELEVATIONS
A2.22	ADMIN BUILDING - BUILDING SECTIONS + DETAILS
A2.41	ADMIN BUILDING - TOILET PLAN AND ELEVATIONS
A2.42	ADMIN BUILDING - INTERIOR ELEVATIONS
A2.61	ADMIN BUILDING - SCHEDULES
A2.71	ADMIN BUILDING - MILLWORK SECTIONS + DETAILS
A3.00	MAINTENANCE BUILDING - DEMOLITION PLAN - BASE BID
A3.00.A	MAINTENANCE BUILDING - DEMOLITION PLANS - ALT G-02
A3.01	MAINTENANCE BUILDING - DEMOLITION RCP & ROOF PLAN - BASE BID
A3.01.A	MAINTENANCE BUILDING - DEMOLITION RCP & ROOF PLAN - ALT G-02
A3.11	MAINTENANCE BUILDING - FLOOR PLAN - BASE BID
A3.11.A	MAINTENANCE BUILDING - FLOOR PLAN - ALT G-02
A3.12	MAINTENANCE BUILDING - REFLECTED CEILING PLAN - BASE BID
A3.12.A	MAINTENANCE BUILDING - REFLECTED CEILING PLAN - ALT G-02
A3.13	MAINTENANCE BUILDING - ROOF PLAN - BASE BID
A3.13.A	MAINTENANCE BUILDING - ROOF PLAN - ALT G-02
A3.21	MAINTENANCE BUILDING - EXTERIOR ELEVATIONS - BASE BID
A3.21.A	MAINTENANCE BUILDING - EXTERIOR ELEVATIONS - ALT G-02
A3.31	MAINTENANCE BUILDING - BUILDING SECTIONS AND WALL SECTIONS - BASE BID
A3.31.A	MAINTENANCE BUILDING - BUILDING SECTIONS+DETAILS - ALT G-02
A3.32.A	MAINTENANCE BUILDING - DETAILS - ALT G-02
A3.41	MAINTENANCE BUILDING - TOILET PLANS AND INTERIOR ELEVATIONS

SHEET LIST TABLE	
SHEET NUMBER	SHEET NAME
A3.61	MAINTENANCE BUILDING - SCHEDULES
A3.71	MAINTENANCE BUILDING - MILLWORK SECTIONS + DETAILS
A3.81.A	MAINTENANCE BUILDING - POLE BARN - ALT G-01
A4.11	EDUCATION CENTER - LEVEL 0 FLOOR PLAN
A4.12	EDUCATION CENTER - LEVEL 1 PLAN
A4.13	EDUCATION CENTER - LEVEL 0 RCP
A4.14	EDUCATION CENTER - LEVEL 1 RCP
A4.15	EDUCATION CENTER - ROOF PLAN
A4.21	EDUCATION CENTER - EXTERIOR ELEVATIONS
A4.22	EDUCATION CENTER - EXTERIOR ELEVATIONS
A4.23	EDUCATION CENTER - EXTERIOR ELEVATIONS
A4.31	EDUCATION CENTER - BUILDING SECTIONS
A4.32	EDUCATION CENTER - BUILDING SECTIONS
A4.33	EDUCATION CENTER - WALL SECTIONS
A4.34	EDUCATION CENTER - WALL SECTIONS
A4.35	EDUCATION CENTER - WALL SECTIONS
A4.36	EDUCATION CENTER - WALL SECTIONS
A4.37	EDUCATION CENTER - WALL SECTIONS
A4.38	EDUCATION CENTER - WALL SECTIONS
A4.41	EDUCATION CENTER - TOILET PLAN AND ELEVATIONS
A4.42	EDUCATION CENTER - INTERIOR ELEVATIONS
A4.43	EDUCATION CENTER - INTERIOR ELEVATIONS
A4.44	EDUCATION CENTER - FRONT ENTRY DETAILS
A4.50	EDUCATION CENTER - ASSEMBLY TYPES
A4.51	EDUCATION CENTER - ASSEMBLY TYPES
A4.52	EDUCATION CENTER - SECTION DETAILS
A4.53	EDUCATION CENTER - SECTION DETAILS
A4.54	EDUCATION CENTER - SECTION DETAILS
A4.55	EDUCATION CENTER - SECTION DETAILS
A4.56	EDUCATION CENTER - SECTION DETAILS
A4.57	EDUCATION CENTER - SECTION DETAILS
A4.58	EDUCATION CENTER - PLAN DETAILS
A4.59	EDUCATION CENTER - PLAN DETAILS
A4.60	EDUCATION CENTER - PLAN DETAILS
A4.61	EDUCATION CENTER - DOOR SCHEDULE AND DOOR & FRAME TYPES
A4.62	EDUCATION CENTER - DOOR AND WINDOW DETAILS
A4.63	EDUCATION CENTER - SCREEN DETAILS
A4.71	EDUCATION CENTER - MILLWORK SECTIONS AND DETAILS
A4.81.A	EDUCATION CENTER - ALTERNATE
A4.82.A	EDUCATION CENTER - ALTERNATE
A5.11.A	COMFORT STATION - FLOOR PLAN - ALT G-03A
A5.12.A	COMFORT STATION - RCP AND ROOF PLAN - ALT G-03A
A5.12.A1	COMFORT STATION - ROOF PLAN - ALT G-3B
A5.21.A	COMFORT STATION - ELEVATIONS - ALT G-03A
A5.31.A	COMFORT STATION - BUILDING AND WALL SECTIONS - ALT G-03A
A5.41.A	COMFORT STATION - TOILET ROOM PLANS AND ELEVATIONS - ALT G-03A
A5.51.A	COMFORT STATION EXTERIOR SECTION DETAILS - ALT G-03A
A5.52.A	COMFORT STATION EXTERIOR PLAN DETAILS - ALT G-03A
A5.61.A	COMFORT STATION SCHEDULES - ALT G-03A
INTERIORS	
I2.10	ADMIN BUILDING - FINISH PLAN
I3.10	MAINTENANCE BUILDING - FINISH PLAN
I4.10	EDUCATION CENTER - FINISH PLANS
I4.60	EDUCATION CENTER - FINISH SCHEDULE AND FINISH LEGEND
FIRE PROTECTION	
F2.11.A	ADMIN BUILDING - FIRE ALARM PLAN - ALT F-1
F3.11.A	MAINTENANCE BUILDING - FIRE ALARM PLAN - ALT F-1
F3.11.A1	MAINTENANCE BUILDING - FIRE ALARM PLAN - ALT G-02, F-1
F4.11.A	EDUCATION CENTER - FIRE ALARM PLAN - ALT F-1
PLUMBING	
P1.00	PLUMBING - COVERSHEET
P1.01	GENERAL - PLUMBING DETAILS
P1.02	GENERAL PLUMBING SCHEDULES
P2.00	ADMIN BUILDING - DEMO PLAN - SANITARY PIPING
P2.01	ADMIN BUILDING - DOMESTIC WATER PIPING - DEMO PLAN
P2.10	ADMIN BUILDING - SANITARY PLAN
P2.11	ADMIN BUILDING - DOMESTIC PIPING PLAN
P2.21	ADMIN BUILDING - PLUMBING RISER DIAGRAMS
P3.00	MAINTENANCE BUILDING - SANITARY DEMOLITION PLAN
P3.01	MAINTENANCE BUILDING - DOMESTIC PIPING DEMOLITION PLAN

SHEET LIST TABLE	
SHEET NUMBER	SHEET NAME
P3.10	MAINTENANCE BUILDING - SANITARY PLAN
P3.11	MAINTENANCE BUILDING - DOMESTIC PIPING PLAN
P3.21	MAINTENANCE BUILDING - PLUMBING RISER DIAGRAMS
P4.10	EDUCATION CENTER - FOUNDATION SANITARY WASTE & VENT PLAN
P4.11	EDUCATION CENTER - LVL 0 SANITARY WASTE & VENT
P4.12	EDUCATION CENTER - LVL 1 SANITARY WASTE & VENT PLAN
P4.13	EDUCATION CENTER - LVL 0 DOMESTIC WATER PIPING
P4.14	EDUCATION CENTER - LVL 1 DOMESTIC WATER PIPING
P4.21	EDUCATION CENTER - PLUMBING RISER DIAGRAMS
P5.10.A	COMFORT STATION - FOUNDATION PLAN ALTERNATE G-03A
P5.11.A	COMFORT STATION - FLOOR PLAN ALTERNATE G-03A
P5.21.A	PLUMBING RISER DIAGRAMS ALTERNATE G-03A
MECHANICAL	
M1.00	MECHANICAL - COVERSHEET
M1.01	GENERAL - MECHANICAL DETAILS
M1.61	GENERAL MECHANICAL SCHEDULES
M2.00	ADMIN BUILDING - MECHANICAL DEMOLITION PLAN
M2.10	ADMIN BUILDING - MECHANICAL PLAN
M3.00	MAINTENANCE BUILDING - MECHANICAL DEMOLITION PLAN
M3.10	MAINTENANCE BUILDING - MECHANICAL PLAN - BASE BID
M3.10.A	MAINTENANCE BUILDING - MECHANICAL PLAN - ALT G-02
M4.10	EDUCATION BUILDING - LVL 0 MECHANICAL PLAN
M4.11	EDUCATION BUILDING - LVL 1 MECHANICAL PLAN
M4.21	EDUCATION BUILDING - AIRFLOW SCHEMATICS
M5.10.A	COMFORT STATION - MECHANICAL PLAN ALTERNATE G-03A
ELECTRICAL	
E1.00	ELECTRICAL COVERSHEET
E1.61	ELECTRICAL LIGHT FIXTURE SCHEDULE
E2.00	ADMIN BUILDING - ELECTRICAL DEMOLITION PLAN
E2.11	ADMIN BUILDING - ELECTRICAL POWER PLAN
E2.12	ADMIN BUILDING - ELECTRICAL LIGHTING PLAN
E2.21	ADMIN BUILDING - ELECTRICAL DETAILS AND SCHEDULES
E3.00	MAINTENANCE BUILDING - ELECTRICAL DEMOLITION PLAN
E3.11	MAINTENANCE BUILDING - ELECTRICAL POWER PLAN - BASE BID
E3.11.A	MAINTENANCE BUILDING - ELECTRICAL POWER PLAN - ALTERNATE G-02
E3.12	MAINTENANCE BUILDING - ELECTRICAL LIGHTING PLAN - BASE BID
E3.12.A	MAINTENANCE BUILDING - ELECTRICAL LIGHTING PLAN - ALTERNATE G-02
E3.21	MAINT. BUILDING - ECTRICAL DETAILS AND SCHEDULES
E4.10	EDUCATION CENTER - LVL 0 ELECTRICAL POWER PLAN
E4.11	EDUCATION CENTER - LVL 1 ELECTRICAL POWER PLAN
E4.12	EDUCATION CENTER - LVL 0 ELECTRICAL LIGHTING PLAN
E4.13	EDUCATION CENTER - LVL 1 LEVEL ELECTRICAL LIGHTING PLAN
E4.14	EDUCATION CENTER - SITE PLAN
E4.21	EDUCATION CENTER - ELECTRICAL DETAILS AND SCHEDULES
E5.11.A	COMFORT STATION - ELECTRICAL POWER PLAN ALTERNATE G-03A
E5.12.A	COMFORT STATION - ELECTRICAL LIGHTING PLAN ALTERNATE G-03A
E5.13.A	COMFORT STATION - ELECTRICAL SITE PLAN ALTERNATE G-03A
E5.21.A	COMFORT STATION - ELECTRICAL DETAILS AND SCHEDULES ALTERNATE G-03A

J:\2024\24-007 Lake Crabtree - Design and Permitting\CAD Drawings\Set\Construction\COL-03 - GENERAL NOTES.dwg Wednesday, August 14, 2024 5:59:06 PM JDC/AN

SURVEY NOTES:
1. THE FOLLOWING INFORMATION WAS USED FOR THE EXISTING SURVEY:
a. COORDINATE SYSTEM: NORTH CAROLINA STATE PLANE FOOT
b. PROJECT HORIZONTAL DATUM: NAD 83/2011
c. VERTICAL DATUM: NAVD 88
d. COORDINATE UNITS: US SURVEY FEET
e. VERTICAL UNITS: US SURVEY FEET

2. PROPERTY BOUNDARY & TOPOGRAPHIC SURVEY SHOWN AS PROVIDED BY WITHERSRAVENEL, DATED 10/31/2025.
3. PROPERTY FALLS WITHIN FEMA FLOODPLAIN PER FEMA FIRM 3720076600K, EFFECTIVE DATE 07/19/2022.
4. NO DETERMINATION HAS BEEN MADE BY THE SURVEYOR AS TO THE FOLLOWING: UNDERGROUND STORAGE FACILITIES, UNDERGROUND UTILITIES, GRAVES, CEMETERIES, BURIAL GROUNDS, HAZARDOUS WASTE DEPOSITS OR MATERIALS.
5. SURVEY CONTROL POINTS PROVIDED IN NC STATE PLANE COORDINATES. ALL PROPOSED COORDINATES ARE GROUND COORDINATES. THE CONTRACTOR'S SURVEYOR IS RESPONSIBLE FOR ANY CONVERSIONS NEEDED FOR THE STAKEOUT OF THE PROPOSED GROUND COORDINATES SHOWN.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING ADDITIONAL CONTROLS THAT MAY BE NEEDED THROUGHOUT THE PROJECT.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING AND COMPLYING WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER'S REPORT. PREPARED BY: FROELING & ROBERTSON, INC - MICHAEL S. SABODISH - 12/23/2025

GENERAL NOTES:

1. WORK ON THIS PROJECT SHALL CONFORM TO THE LATEST THE NORTH CAROLINA EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, WAKE COUNTY STANDARDS AND SPECIFICATIONS, GEOTECHNICAL REPORTS, AND ANY OTHER APPLICABLE DESIGN STANDARDS AT THE TIME OF PLAN APPROVAL. IN THE EVENT OF CONFLICT BETWEEN ANY OF THESE STANDARDS, SPECIFICATIONS OR PLANS, THE MOST STRINGENT SHALL GOVERN, UNLESS OTHERWISE NOTED IN THESE PLANS.
2. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR HAVING VISITED THE SITE AND HAVING FAMILIARIZED THEMSELVES WITH THE EXISTING CONDITIONS PRIOR TO COMMENCING WORK.
3. ANY DISCREPANCIES, INCONSISTENCIES OR AMBIGUITIES FOUND BETWEEN THE DRAWINGS, SPECIFICATIONS, AND SITE CONDITIONS SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER IN WRITING. WORK DONE BY THE CONTRACTOR AFTER THE DISCOVERY OF SUCH DISCREPANCIES, INCONSISTENCIES, OR AMBIGUITIES WITHOUT WRITTEN CLARIFICATION FROM THE ENGINEER AND APPROVAL BY OWNER SHALL BE DONE AT THE CONTRACTOR'S RISK AND EXPENSE.
4. THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR JOBSITE SAFETY DURING CONSTRUCTION. WORK MUST COMPLY WITH MUNICIPAL, COUNTY AND STATE REGULATIONS, AND OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS. CONTRACTOR MUST COMPLY WITH THE LATEST REVISIONS AND INTERPRETATIONS OF THE DEPARTMENT OF LABOR SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION PROMULGATED UNDER THE OSHA ACT.
5. THE CONTRACTOR IS RESPONSIBLE FOR HORIZONTALLY AND VERTICALLY LOCATING, AND SUBSEQUENTLY PROTECTING, PUBLIC AND PRIVATE UTILITIES (SHOWN OR NOT SHOWN) THAT LIE IN OR ADJACENT TO THE PROJECT SITE. THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION OF EXISTING UTILITIES AT LEAST 72 HOURS PRIOR TO ANY DEMOLITION, GRADING, OR CONSTRUCTION ACTIVITY AND AGREES TO BE FULLY RESPONSIBLE FOR ANY DAMAGES WHICH MIGHT BE OCCASIONED TO THE UNDERGROUND UTILITIES. NOT ALL UTILITIES AND FACILITIES ARE NECESSARILY SHOWN. HAND DIGGING TO PROTECT UTILITIES FROM DAMAGE MAY BE REQUIRED.
6. ANY UTILITIES AND EXISTING SITE ELEMENTS (I.E. SIGNS, ROADWAYS, PATHS, STRUCTURES, NATURAL VEGETATION, OTHER EXISTING PROPERTY ITEMS, ETC) DAMAGED DURING THE PROJECT BY THE CONTRACTOR'S WORKERS OR EQUIPMENT MUST BE PROMPTLY REPAIRED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER, UTILITY OWNER, REGULATORY AGENCY, AND ENGINEER.
7. THE CONTRACTOR MUST MAKE EVERY EFFORT TO PRESERVE PROPERTY IRONS, MONUMENTS, OTHER PERMANENT POINTS AND LINES OF REFERENCE AND CONSTRUCTION STAKES. A NORTH CAROLINA LICENSED LAND SURVEYOR MUST REPLACE, AT THE CONTRACTOR'S EXPENSE, PROPERTY IRONS, MONUMENTS, OTHER PERMANENT POINTS AND LINES OF REFERENCE AND CONSTRUCTION STAKES DESTROYED BY THE CONTRACTOR.
8. THE CONTRACTOR MUST PLAN AND CONSTRUCT WORK IN ORDER TO CAUSE MINIMUM DISTURBBANCE TO THE OWNER, ADJACENT PROPERTIES AND THE PUBLIC. CONTRACTOR MUST COORDINATE WITH AND OBTAIN APPROVAL FROM STATE AND LOCAL REGULATORY AGENCIES ON TRAFFIC CONTROL PLANS.
9. ADJACENT STREETS AND SIDEWALKS MUST BE MAINTAINED IN AN UNOBSTRUCTED, CLEAN CONDITION, MUD AND DUST-FREE.
10. THE CONTRACTOR MUST REPLACE WITH NEW, DRIVEWAY PIPES AND OTHER DRAINAGE PIPES/CULVERTS THAT ARE DISTURBED WHILE INSTALLING THE UTILITIES. NEW PIPE/CULVERTS MUST MEET THE REQUIREMENTS OF NCDOT.
11. ROADWAY DITCHES DISTURBED DURING CONSTRUCTION MUST BE RESTORED TO PRE-CONSTRUCTION CONDITION OR BETTER AND CONFORM TO NCDOT REQUIREMENTS OR AUTHORITIES HAVING JURISDICTION. DITCHES MUST BE LINED WITH EROSION CONTROL MATTING UNLESS OTHERWISE NOTED.
12. EXCAVATED MATERIAL MUST BE PLACED WITHIN THE LIMITS OF DISTURBBANCE DURING UTILITY INSTALLATION. THE CONTRACTOR MUST PROVIDE THE NECESSARY SEDIMENT AND EROSION CONTROL MEASURES TO CONTROL RUN-OFF. EXCESS EXCAVATED MATERIAL MUST BE REMOVED FROM THE CONSTRUCTION SITE AND DISPOSED OF LEGALLY.
13. THE CONTRACTOR MUST HAVE A COMPLETE SET OF CONTRACT DOCUMENTS AS WELL AS THE REQUIRED PERMIT APPROVALS AND EXECUTED EASEMENTS ON THE JOB SITE DURING CONSTRUCTION ACTIVITIES.
14. CONSTRUCTION STAKEOUT FOR THIS PROJECT MAY BE PERFORMED BY THE CONTRACTOR, USING A DIGITAL (CADD) FILE PROVIDED BY THE ENGINEER. THE CONTRACTOR MUST NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES FOUND BETWEEN THE DIGITAL FILE AND THE CRITICAL STAKING DIMENSIONS SHOWN ON THIS PLAN (I.E. PAVEMENT WIDTHS, CURB RADII, BUILDING SETBACKS, BUILDING FOOTPRINTS, ETC.). ANY MODIFICATIONS MADE BY OTHERS TO THE DIGITAL FILE PROVIDED BY THE ENGINEER WILL RENDER IT VOID.
15. WETLANDS SHOWN WILL HAVE DEED RESTRICTION AND MUST NOT BE CLEARED, DRAINED, OR OTHERWISE DISTURBED UNLESS SPECIFICALLY PERMITTED BY THE UNITED STATES ARMY CORPS OF ENGINEERS (USACE) AND NC DIVISION OF COASTAL MANAGEMENT (DCM) AND NC DIVISION OF WATER RESOURCES (DWR), AS APPLICABLE.
16. ANY WETLANDS THAT ARE TEMPORARILY IMPACTED DUE TO CONSTRUCTION ACTIVITIES MUST BE RETURNED TO PRE-CONSTRUCTION GRADE AND SEEDED WITH A WETLAND SEED MIX IN ACCORDANCE WITH THE SEDIMENT & EROSION CONTROL PLAN.
17. THE CONTRACTOR MUST FURNISH AND INSTALL PAVEMENT MARKINGS FOR FIRE LANES, PARKING STALLS, ACCESSIBLE PARKING SYMBOLS, AND MISCELLANEOUS STRIPING WITHIN PARKING LOT AND AROUND BUILDINGS AS SHOWN ON THE PLANS. THE PAVEMENT MARKING MATERIALS MUST ADHERE TO NCDOT STANDARDS, UNLESS NOTED OTHERWISE.
18. THE CONTRACTOR MUST COMPLY WITH MUTCD, RALEIGH-DURHAM AIRPORT AUTHORITY, WAKE COUNTY, AND NCDOT REQUIREMENTS, AS APPLICABLE RELATED TO TRAFFIC CONTROL DEVICES AND STREET SIGNS.
19. ACCESSIBLE ROUTES AND PARKING AREAS MUST BE PROVIDED IN ACCORDANCE WITH THE CURRENT NORTH CAROLINA BUILDING CODE AND ADA STANDARDS FOR ACCESSIBLE DESIGN.
20. WHERE THE PROPOSED CURB AND GUTTER TIES TO THE EXISTING CURB OR CURB AND GUTTER, A TRANSITION OF 10' MUST BE MADE TO CONFORM TO THE EXISTING HEIGHTS AND SHAPES, UNLESS OTHERWISE SHOWN ON THE PLANS.
21. THE CONTRACTOR MUST INSTALL A SEALED EXPANSION JOINT WHERE CONCRETE PAVEMENT ABUTS BACK OF CURB OR BUILDING FOUNDATION.
22. THERE SHALL BE NO FILLING OR THE ERECTION OF PERMANENT STRUCTURES IN THE AREAS OF WAKE COUNTY FLOOD HAZARD SOILS OR FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) 100 YEAR FLOOD ZONES UNTIL A FLOOD STUDY IS APPROVED BY WAKE COUNTY AND/OR FEMA.
23. BEFORE ACQUIRING A BUILDING PERMIT FOR LOTS WITH FLOOD HAZARD SOILS, THE BUILDER MAY NEED TO OBTAIN A FLOOD HAZARD AREA USE PERMIT FROM THE WAKE COUNTY ENVIRONMENTAL SERVICES. THE BUILDER'S ENGINEER, ARCHITECT, AND/OR SURVEYOR (AS APPROPRIATE) MUST CERTIFY ON ANY PERMIT THAT ALL FLOOD HAZARD REQUIREMENTS ARE MET.

DEMOLITION NOTES:

1. THE CONTRACTOR MUST COORDINATE WITH THE OWNER AND UTILITY OWNER TO PROPERLY MAINTAIN, REMOVE OR RELOCATE EXISTING UTILITY SERVICE CONNECTIONS WHEN NECESSARY.
2. THE CONTRACTOR MUST NOTIFY SURROUNDING NEIGHBORS ABOUT ANY POTENTIAL INTERRUPTION TO SERVICE OF ANY KIND.
3. EXISTING UTILITIES NOT INTENDED FOR DEMOLITION MUST BE MAINTAINED, PROTECTED AND UNDISTURBED DURING CONSTRUCTION ACTIVITIES.
4. THE CONTRACTOR MUST PROTECT ADJACENT PROPERTY, STRUCTURES AND UTILITIES. DAMAGE TO PROPERTIES OF OTHERS DUE TO THE CONTRACTOR'S ACTIVITIES WILL BE AT THE CONTRACTOR'S EXPENSE AND MUST BE REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE OWNER.
5. MATERIAL CLEARED OR DEMOLISHED BY THE CONTRACTOR IN ORDER TO CONSTRUCT THE WORK WILL BECOME THE PROPERTY OF THE CONTRACTOR, UNLESS OTHERWISE NOTED AND MUST BE PROPERLY DISPOSED OF OFF-SITE.
6. SAW CUTS OF EXISTING PAVEMENTS, CURBS, GUTTERS AND SIDEWALKS MUST PRODUCE A NEAT VERTICAL EDGE.
7. DEMOLITION WORK MUST BE DONE IN STRICT ACCORDANCE WITH AUTHORITIES HAVING JURISDICTION.
8. APPLICABLE PERMITS REQUIRED FOR THE DEMOLITION WORK WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN PRIOR TO THE START OF DEMOLITION ACTIVITIES.
9. THE CONTRACTOR IS RESPONSIBLE FOR PHASING DEMOLITION IN THE APPROPRIATE SEQUENCE IN ORDER TO MAINTAIN ACCESS TO ADJACENT BUILDINGS, PARKING LOTS, ETC.

STORM DRAINAGE NOTES:

1. CONSTRUCTION AND MATERIALS MUST BE IN ACCORDANCE WITH CURRENT WAKE COUNTY STANDARDS, SPECIFICATIONS AND DETAILS.
2. PUBLIC STORM DRAINAGE FRAMES, GRATES, AND HOODS MUST BE STAMPED WITH "DRAINS TO RIVER" IN ACCORDANCE WITH TOWN OF CARY STANDARDS.
3. RIM ELEVATION GIVEN FOR CATCH BASIN (CB) IS TOP OF CURB, YARD INLET (YI) IS OPENING INVERT FOR SLAB TOP, DROP INLET (DI) IS TOP OF GRATE AND JUNCTION BOX (JB) IS TOP OF RIM.
4. CONTRACTOR MUST VERIFY AND COORDINATE DIMENSIONS SHOWN, INCLUDING, BUT NOT LIMITED TO THE HORIZONTAL AND VERTICAL LOCATION OF STRUCTURES AND UTILITIES CROSSING THE STORM SEWER PIPE.
5. THE CONTRACTOR MUST PROVIDE MATERIALS AND APPURTENANCES NECESSARY FOR COMPLETE INSTALLATION OF THE STORM SEWER DRAINAGE SYSTEM.
6. STORM SEWER PIPE MUST BE MINIMUM CLASS III REINFORCED CONCRETE PIPE (RCP), UNLESS OTHERWISE NOTED. IF HDPE PIPE IS SPECIFIED, PIPE MUST BE TYPE 5 WATERTIGHT (WT) CONFORMING TO AASHTO M252/M254.
7. IF THERE ARE DISCREPANCIES BETWEEN THE PLAN AND FIELD CONDITIONS RELATED TO WHERE THE PROPOSED STORM SEWER PIPING TIES TO EXISTING STRUCTURES, PIPES, SWALES, ETC., THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER AND OWNER AFTER NOTIFICATION TO THE ENGINEER AND OWNER, THE CONTRACTOR WILL PERFORM THE AGREED UPON FIELD ADJUSTMENTS TO MATCH THE LOCATIONS OF THESE EXISTING FEATURES.
8. STORM SEWER PIPE MUST HAVE A MINIMUM COVER OF 2 FEET FROM FINISHED SUBGRADE TO THE PIPE CROWN IN TRAFFIC BEARING AREAS, UNLESS APPROVED BY AUTHORITIES HAVING JURISDICTION.
9. STORM SEWER PIPE MUST HAVE A MINIMUM COVER OF 1 FOOT TO THE PIPE CROWN IN NON-TRAFFIC BEARING AREAS.
10. THE STORM PIPE LENGTHS AS SHOWN ON THE DRAWINGS REPRESENTS THE DISTANCE FROM CENTER TO CENTER OF THE RESPECTIVE STRUCTURES.
11. STORM SEWER UTILITY STRUCTURE TABLES ARE AVAILABLE UPON REQUEST.
12. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING VIDEO INSPECTION OF THE STORM SEWER DRAINAGE SYSTEM, AS REQUIRED BY THE AUTHORITIES HAVING JURISDICTION.
13. THE STRUCTURAL DESIGN OF STORM DRAINAGE STRUCTURES IS THE CONTRACTOR'S RESPONSIBILITY. THE CONTRACTOR MUST PROVIDE SHOP DRAWINGS FOR NON-STANDARD PRECAST STRUCTURES THAT CONTAINS A SEAL OF THE REGISTERED PROFESSIONAL ENGINEER IN THE STATE THE WORK IS PROPOSED. NO PRECAST STRUCTURES WILL BE CUT OR ALTERED WITHOUT THE ENGINEER'S WRITTEN APPROVAL, UNLESS KNOCK-OUT PANELS PROVIDED.

GRADING NOTES:

1. ALL AREAS SHALL BE GRADED FOR POSITIVE DRAINAGE, AND AS SHOWN ON THESE PLANS. THE CONTRACTOR SHALL MAINTAIN ADEQUATE SITE DRAINAGE DURING ALL PHASES OF CONSTRUCTION. THE ADDITION TO THE MEASURES SHOWN IN THESE PLANS, THE CONTRACTOR SHALL USE INTERIM DIVERSION DITCHES, BERMS, OR OTHER METHODS AS REQUIRED TO DIRECT DRAINAGE AS SHOWN ON THESE PLANS AND TO PREVENT SILT AND CONSTRUCTION DEBRIS FROM FLOWING ONTO ADJACENT PROPERTIES, ROADWAYS, AND ENVIRONMENTALLY SENSITIVE AREAS SUCH AS BUFFERS AND WETLANDS. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND OWNER IN WRITING OF ANY DISCREPANCIES OR CONCERNS.
2. ALL SOILS USED FOR BACKFILL SHALL BE FREE OF UNSATISFACTORY MATERIALS INCLUDING ROCK OR GRAVEL LARGER THAN 3 INCHES IN ANY DIMENSION. DEBRIS, WASTE, FROZEN MATERIALS, VEGETATION AND OTHER DELETERIOUS MATTER, ROCK OR GRAVEL LARGER THAN 2 INCHES IN ANY DIMENSION SHALL NOT BE PLACED IN THE IN THE FINAL LIFT (MINIMUM OF 6 INCHES). UNSATISFACTORY MATERIALS ALSO INCLUDE MAN-MADE FILLS AND REFUSE DEBRIS DERIVED FROM ANY SOURCE. REFER TO FINAL GEOTECHNICAL REPORT FOR ANY SPECIAL FILL MATERIAL REQUIRED FOR THIS PROJECT, IF ANY. THE CONTRACTOR SHALL CONSULT WITH THE SITE GEOTECHNICAL ENGINEER PRIOR TO BACKFILL PLACEMENT TO VERIFY BACKFILL MEETS PROJECT REQUIREMENTS.
3. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING ALL SOIL TESTING IS PERFORMED AND THE RESULTS FORWARDED TO THE ENGINEER AND OWNER.
4. MATERIALS USED TO CONSTRUCT EMBANKMENTS FOR ANY PURPOSE, BACKFILL AROUND DRAINAGE STRUCTURES, OR IN UTILITY TRENCHES FOR ANY OTHER DEPRESSION REQUIRING FILL OR BACKFILL SHALL MEET THE REQUIREMENTS OF THE PROJECT GEOTECHNICAL ENGINEER RECOMMENDATIONS.
5. THE CONTRACTOR SHALL, PRIOR TO ANY OPERATIONS INVOLVING FILLING OR BACKFILLING, SUBMIT TO THE OWNER AND PROJECT GEOTECHNICAL ENGINEER THE RESULTS OF THE PROCTOR TEST TOGETHER WITH A CERTIFICATION THAT THE SOIL TESTED IS REPRESENTATIVE OF THE MATERIALS TO BE USED ON THE PROJECT. TESTS SHALL BE CONDUCTED BY A NORTH CAROLINA CERTIFIED MATERIALS TESTING LABORATORY AND CERTIFICATIONS MADE BY A LICENSED PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NORTH CAROLINA REPRESENTING THE LABORATORY.
6. ALL PAVEMENT SUBGRADES SHALL BE SCARIFIED TO A DEPTH OF 8 INCHES AND COMPACTED TO A MINIMUM DENSITY OF 100 PERCENT OF ASTM D1557 DENSITY AT OPTIMUM MOISTURE CONTENT UNLESS OTHERWISE SHOWN ON THE CONSTRUCTION PLANS OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER.
7. CONTOURS AND GUTTER GRADIENTS ARE APPROXIMATE. SPOT ELEVATIONS ARE TO BE USED IN CASE OF DISCREPANCY.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DEWATERING NECESSARY TO CONSTRUCT THE PROJECT AS SHOWN ON THE PLANS. DEWATERING SHALL BE INCIDENTAL TO GRADING OPERATIONS.
9. THE FRAMES AND COVERS OF ALL EXISTING AND PROPOSED DRAINAGE, SANITARY SEWER, WATER MAIN, GAS AND ELECTRIC UTILITY STRUCTURES SHALL BE ADJUSTED TO MATCH PROPOSED FINISHED ELEVATIONS AND SLOPES UNLESS OTHERWISE SHOWN ON THE PLANS.
10. BEFORE ANY EARTHWORK COMMENCES, THE CONTRACTOR SHALL STAKE OUT AND MARK THE LIMITS OF CONSTRUCTION AND OTHER ITEMS ESTABLISHED IN THE PLANS. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SURVEYING FOR LINE AND GRADE CONTROL POINTS RELATED TO EARTHWORK.

GENERAL LANDSCAPE NOTES:

1. THE CONTRACTOR SHALL TAKE PROPER PRECAUTIONS NOT TO DAMAGE EXISTING PLANTS, FACILITIES AND STRUCTURES THAT ARE TO REMAIN. THE CONTRACTOR SHALL RESTORE DISTURBED AREAS TO THEIR ORIGINAL CONDITION TO THE SATISFACTION OF THE LANDSCAPE ARCHITECT AND OWNER.
2. UTILITIES SHOWN ON THE LANDSCAPE DRAWINGS ARE FOR REFERENCE ONLY. SEE UTILITY DRAWINGS FOR EXISTING AND PROPOSED UTILITY LOCATIONS. SEE UTILITY NOTES FOR ADDITIONAL INFORMATION.
3. NO CHANGES TO ANY ASPECT OF APPROVED PLAN, INCLUDING BUT NOT LIMITED TO LANDSCAPING, GRADING, BUILDING ELEVATIONS, LIGHTING, OR UTILITIES SHALL BE MADE WITHOUT THE APPROVAL OF THE GOVERNING MUNICIPALITY, ENGINEER, LANDSCAPE ARCHITECT AND OWNER.
4. ALL LANDSCAPE AREAS ARE TO BE GRADED FOR POSITIVE DRAINAGE AND TO ENSURE NO STANDING WATER. SEE GRADING PLAN FOR SPECIFIC GRADING INFORMATION. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT AND/OR ENGINEER OF ANY GRADING DISCREPANCIES OR CONCERNS.
5. ESTABLISH AND MAINTAIN TOP OF GRADE BELOW ADJACENT CURBS, WALKWAYS AND OTHER HARDSCAPE AREAS TO ALLOW FOR INSTALLATION OF MULCH.
6. THE SITE SHALL BE STABILIZED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY (CO).

UTILITY NOTES:

1. GENERALLY, FILL MATERIAL SHALL BE IN PLACE AND COMPACTED BEFORE INSTALLATION OF PROPOSED UTILITIES.
2. ALL NECESSARY INSPECTIONS, CERTIFICATIONS, AND TESTING REQUIRED BY CODES AND UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO MUNICIPAL APPROVAL FOR THE FINAL CONNECTION OF SERVICE. CONTRACTOR SHALL BE RESPONSIBLE FOR PAYMENT OF TESTING SERVICES AND COORDINATION WITH UTILITY OWNER.
3. CONTRACTOR SHALL PROVIDE ALL MATERIALS AND APPURTENANCES NECESSARY FOR COMPLETE INSTALLATION OF THE IMPROVEMENTS SHOWN.
4. THE CONTRACTOR SHALL REPORT, IN WRITING ANY UTILITY CONFLICTS TO THE ENGINEER IMMEDIATELY UPON DISCOVERING CONFLICTS.
5. THE SANITARY SEWER PIPE LENGTHS AS SHOWN ON THE DRAWINGS REPRESENTS THE DISTANCE FROM CENTER TO CENTER OF THE RESPECTIVE STRUCTURES.
6. PRIOR TO UTILITY RELOCATION, REMOVAL OR ABANDONMENT, THE CONTRACTOR SHALL COORDINATE WITH THE LOCAL UTILITY PROVIDERS AND LOCAL MUNICIPALITY. KNOWN UTILITY PROVIDER INFORMATION IS CONTAINED ON THIS PLAN SHEET.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING SURROUNDING NEIGHBORS ABOUT ANY POTENTIAL INTERRUPTION TO SERVICE OF ANY KIND.
8. THE INSTALLATION OF THE NEW METERS WILL NEED TO BE COORDINATED WITH TOWN OF CARY STAFF DURING CONSTRUCTION.
9. PRE-CONSTRUCTION MEETING TO BE SCHEDULED WITH CARY FIELD SERVICES STAFF.

EROSION & SEDIMENT CONTROL NOTES:

1. CONTRACTOR SHALL INSTALL EROSION CONTROLS IN ORDER WITH THE SEQUENCE PROVIDED.
2. CONTRACTOR SHALL ENSURE GRADING OPERATIONS ARE CONDUCTED IN A MANNER THAT DOES NOT ALLOW ANY SEDIMENT TO DRAIN OFFSITE OR INTO WATERCOURSES.
3. A GRAVEL CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED AT THE LOCATIONS SHOWN ON THE DRAWINGS AND AT EACH POINT OF CONSTRUCTION ACCESS.
4. CONTRACTOR SHALL CONSTRUCT DIVERSION DITCHES AS NECESSARY TO ENSURE ALL SEDIMENT IS DIRECTED INTO EROSION CONTROL MEASURES.
5. IF STORM CROSS DRAINAGE CANNOT BE INSTALLED PRIOR TO GRADING, TEMPORARY HDPE STORM DRAINAGE PIPE SHALL BE USED TO CROSS WET WEATHER CHANNELS, EXCLUDING ANY PROTECTED WETLANDS OR STREAMS.
6. ALL STORM DRAINAGE PIPE SHALL BE PROTECTED AS SHOWN ON THE PLANS DURING CONSTRUCTION.
7. CONTRACTOR SHALL PROVIDE RIPRAP LINED DISSIPATOR PADS AT THE STORM DRAINAGE PIPE DISCHARGE POINTS AS REQUIRED TO ENSURE POSITIVE DRAINAGE. SEE PLANS FOR DIMENSIONS AND DETAILS.
8. PERMANENT GROUND COVER SHALL BE ESTABLISHED PER APPROVED NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT.
9. TREE PROTECTION FENCING SHALL BE INSTALLED AND INSPECTED PRIOR TO ISSUANCE OF A GRADING PERMIT. FENCING SHALL NOT BE REQUIRED ADJACENT TO AREAS WITHOUT WOODED VEGETATION. FENCING SHALL BE MAINTAINED ON THE SITE UNTIL ALL SITE WORK IS COMPLETED AND THE FINAL SITE INSPECTION PRIOR TO THE CERTIFICATE OF OCCUPANCY (CO) IS SCHEDULED. THE FENCING SHALL BE REMOVED PRIOR TO FINAL SITE INSPECTION FOR THE CO.

TREE PROTECTION NOTES:

1. ALL TREES THAT ARE TO REMAIN, WITHIN OR DIRECTLY ADJACENT TO THE LIMITS OF WORK, MUST BE PROTECTED WITH TREE PROTECTION FENCE AS INDICATED ON THE PLANS TO THE EXTENT OF THE TREE BOX OR THE DRIP LINE IN A PLANTING STRIP. THE DRIP LINE IS DEFINED AS THE GROUND AREA UNDER THE CANOPY OF THE TREE. FENCING IS TO BE INSTALLED PRIOR TO CONSTRUCTION, MAINTAINED THROUGHOUT, AND REMOVED ONLY AT THE END OF THE PROJECT.
2. NONE OF THE FOLLOWING WILL OCCUR WITHIN THE ROOT ZONE OF A TREE WITHOUT PERMISSION OF LANDSCAPE ARCHITECT OR PROJECT ARBORIST: ALTERATION OR DISTURBBANCE TO EXISTING GRADE; STAGING OR STORAGE OF CONSTRUCTION MATERIALS, EQUIPMENT USE, SOIL OR DEBRIS REMOVAL OR STOCKPILING, TRENCHING; OR DISPOSAL OF ANY LIQUIDS.
3. APPROVED EXCAVATIONS WITHIN THE DRIP LINE MUST PROCEED WITH CARE BY USE OF HAND TOOLS OR EQUIPMENT THAT WILL NOT CAUSE INJURY TO TREE TRUNKS, BRANCHES AND ROOTS.
4. NO ROOTS GREATER THAN 2 INCHES IN DIAMETER WILL BE CUT WITHOUT PERMISSION OF LANDSCAPE ARCHITECT OR PROJECT ARBORIST. EXPOSED ROOTS 2 INCHES AND LARGER IN DIAMETER MUST BE WRAPPED IN BURLAP OR OTHER APPROVED MATERIAL AND KEPT MOIST AT ALL TIMES.
5. IF THERE ARE ANY TREE CONFLICTS ON THIS JOB SITE, PERMIT HOLDER MUST SUSPEND ALL WORK THAT CONTRIBUTES TO THE CONFLICT AND IMMEDIATELY CONTACT LANDSCAPE ARCHITECT OR PROJECT ARBORIST FOR DIRECTION AND CLEARANCE TO CONTINUE THE CONFLICTING WORK.
6. TREES THAT ARE PROTECTED MUST BE THOROUGHLY WATERED AS REQUIRED TO KEEP ROOT BALLS FROM DRYING OUT, ESPECIALLY BETWEEN APRIL THROUGH SEPTEMBER.

TRAFFIC & PEDESTRIAN MANAGEMENT:

24. CONTRACTOR TO PROVIDE CONSTRUCTION & PEDESTRIAN ACCESS PLANS.



BID SET
LAKE CRABTREE COUNTY PARK
IMPROVEMENTS

1400 Aviation Pkwy | Morrisville, NC 27560 | Wake County



8/19/2026

INITIAL PLAN DATE: 08/05/2026
REVISIONS:
1 - 08/19/26 JMD
ADDENDUM 1

Know what's below.
Call before you dig.
WR JOB NUMBER 22-0024-007
DRN: JMD DGN: JMD CKD: MA

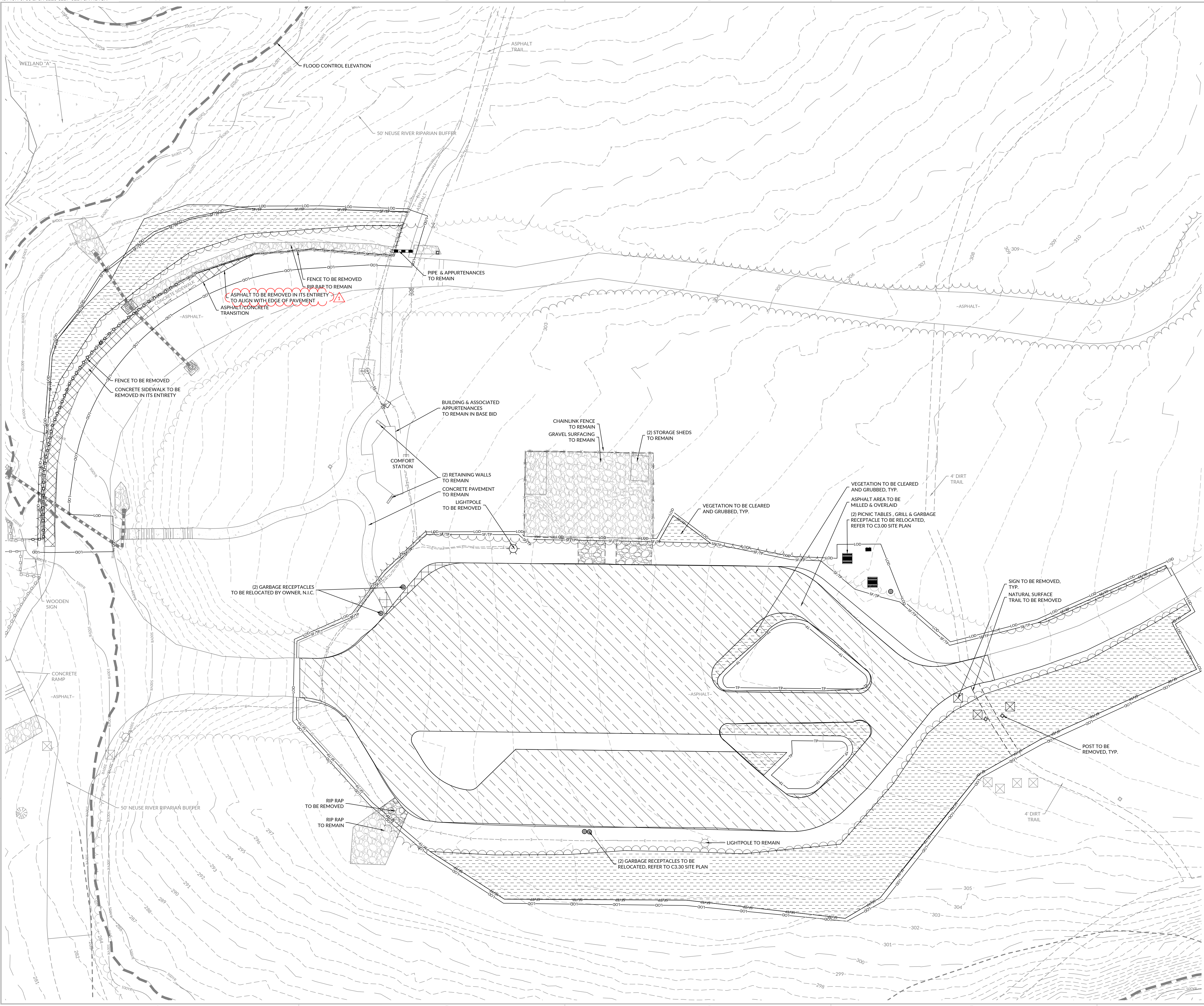
GENERAL NOTES

C0.03



137 S Wilmington Street | Suite 200 | Raleigh, NC 27601
License #: F-1479 | t: 919.469.3340 | www.withersravenel.com

CLARK NEXSEN & CO.
A DIVISION OF JOHNSON, MIRMIRAN & THOMPSON, INC.



DEMOLITION LEGEND

SYMBOL	DESCRIPTION
	GRAVEL AREAS TO BE REMOVED
	PAVEMENT AREAS TO BE REMOVED
	PAVEMENT AREAS TO BE MILLED & OVERLAID
	AREAS TO BE CLEARED & GRUBBED
	FENCE TO BE REMOVED
	STORM PIPE TO BE REMOVED
	SITE ITEM TO BE REMOVED

NOTE:

1. ALL TREES WITHIN THE LIMITS OF DISTURBANCE ARE TO BE REMOVED AND GRUBBED UNLESS NOTED OTHERWISE.
2. ADDITIONAL TREES OUTSIDE THE LIMITS OF DISTURBANCE MAY NEED TO BE REMOVED DUE TO CRITICAL ROOT ZONE IMPACT. THOSE TREES ARE TO BE REVIEWED BY THE LANDSCAPE ARCHITECT FOR REMOVAL. STUMPS SHOULD BE CUT TO 6" ABOVE GROUND AND LEFT TO REMAIN.
3. FLAG LIMITS OF TREE REMOVAL LANDSCAPE ARCHITECT AND OWNER TO VERIFY ALL TREES TO BE REMOVED PRIOR TO CLEARING.
4. TREE REMOVAL SHALL NOT OCCUR BETWEEN THE MONTHS OF MAY-JULY OR DECEMBER-FEBRUARY TO PROTECT ENDANGERED TRI-COLOR BAT POPULATIONS.
5. CONTRACTOR TO STAGE DRIVEWAY REPLACEMENT TO MAINTAIN DRIVEWAY ACCESS DURING CONSTRUCTION.

WithersRavenel
137 S Wilmington Street | Suite 200 | Raleigh, NC 27601
License #: F-1479 | t: 919.469.3340 | www.withersravenel.com

CLARK NEXSEN - NC
A DIVISION OF JOHNSON, MIRMIRAN & THOMPSON, INC.

WAKE COUNTY
NORTH CAROLINA

LAKE CRABTREE COUNTY PARK
IMPROVEMENTS

BID SET

1400 Aviation Pkwy | Morrisville, NC 27560 | Wake County

2311

Signed by: *Michael Alderman*
A00399800107496

8/19/2026

0 10 20
SCALE: 1 inch = 20 ft.

INITIAL PLAN DATE: 08/05/2026
REVISIONS:
1 - 08/19/26 JMD
ADDENDUM 1

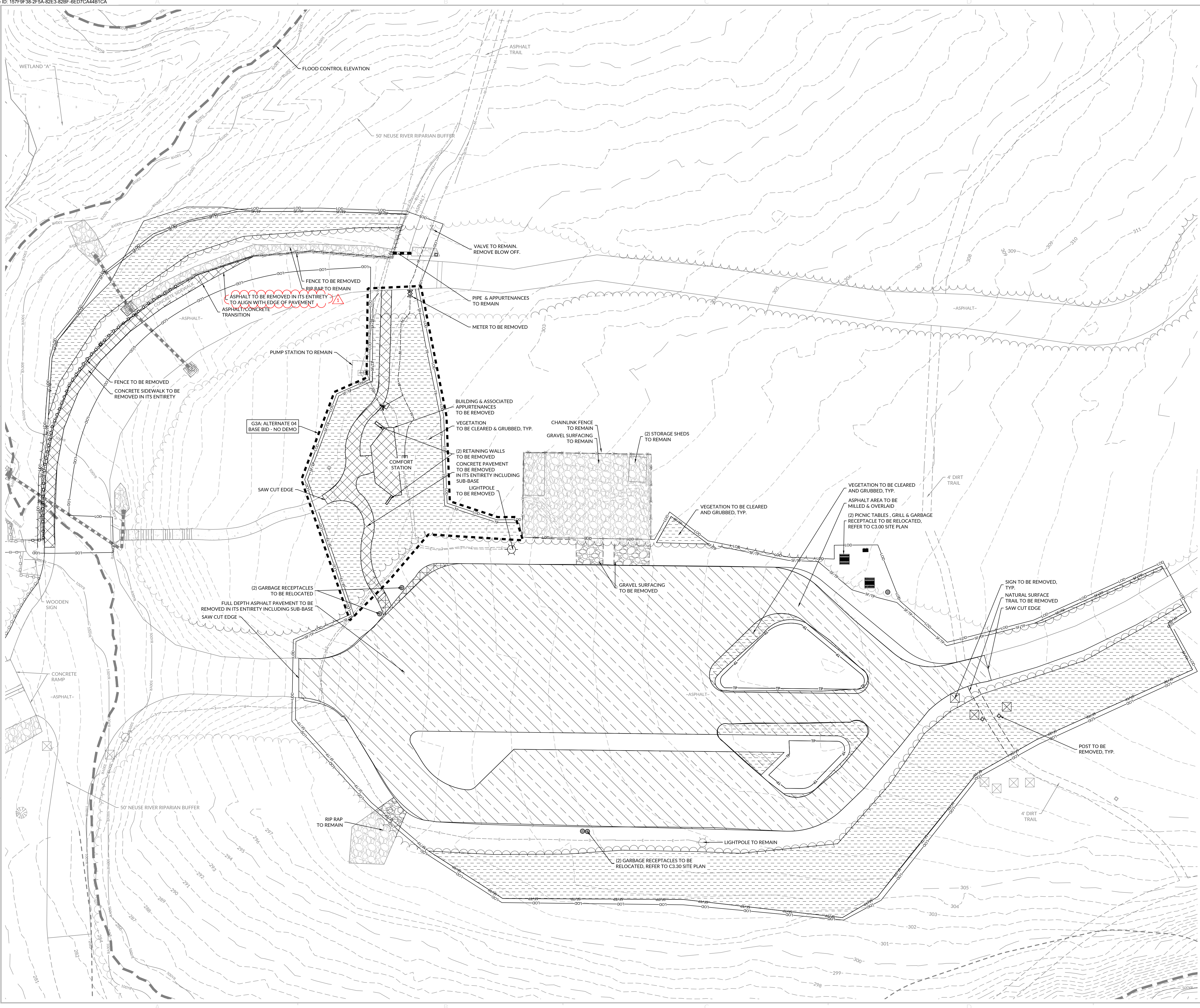
Know what's below.
Call before you dig.

WR JOB NUMBER 22-0024-007
DRN: JMD DGN: JMD CKD: MA

DEMOLITION - COMFORT STATION - BASE BID

C2.30

J:\2024\24-007 Lake Crabtree - Design and Permitting\CAD Drawings\Set Construction\C2.30 - DEMOLITION PLAN.dwg: Wednesday, August 19, 2026 3:15:15 PM - JDL/AN



DEMOLITION LEGEND

SYMBOL	DESCRIPTION
	GRAVEL AREAS TO BE REMOVED
	PAVEMENT AREAS TO BE REMOVED
	PAVEMENT AREAS TO BE MILLED & OVERLAID
	AREAS TO BE CLEARED & GRUBBED
	FENCE TO BE REMOVED
	STORM PIPE TO BE REMOVED
	SITE ITEM TO BE REMOVED

- NOTES:
- ALL TREES WITHIN THE LIMITS OF DISTURBANCE ARE TO BE REMOVED AND GRUBBED UNLESS NOTED OTHERWISE.
 - ADDITIONAL TREES OUTSIDE THE LIMITS OF DISTURBANCE MAY NEED TO BE REMOVED DUE TO CRITICAL ROOT ZONE IMPACT. THOSE TREES ARE TO BE REVIEWED BY THE LANDSCAPE ARCHITECT FOR REMOVAL. STUMPS SHOULD BE CUT TO 6" ABOVE GROUND AND LEFT TO REMAIN.
 - FLAG LIMITS OF TREE REMOVAL. LANDSCAPE ARCHITECT AND OWNER TO VERIFY ALL TREES TO BE REMOVED PRIOR TO CLEARING.
 - TREE REMOVAL SHALL NOT OCCUR BETWEEN THE MONTHS OF MAY-JULY OR DECEMBER-FEBRUARY TO PROTECT ENDANGERED TRI-COLOR BAT POPULATIONS.
 - CONTRACTOR TO STAGE DRIVEWAY REPLACEMENT TO MAINTAIN DRIVEWAY ACCESS DURING CONSTRUCTION.

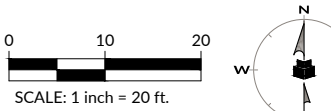


BID SET
LAKE CRABTREE COUNTY PARK
IMPROVEMENTS

1400 Aviation Pkwy | Morrisville, NC 27560 | Wake County



8/19/2026



INITIAL PLAN DATE: 08/05/2026
REVISIONS:
1 - 08/19/26 JMD
ADDENDUM 1

Know what's below.
Call before you dig.
WR JOB NUMBER 22-0024-007
DRN: JMD DGN: JMD CKD: MA

DEMOLITION - COMFORT
STATION - ALTERNATE

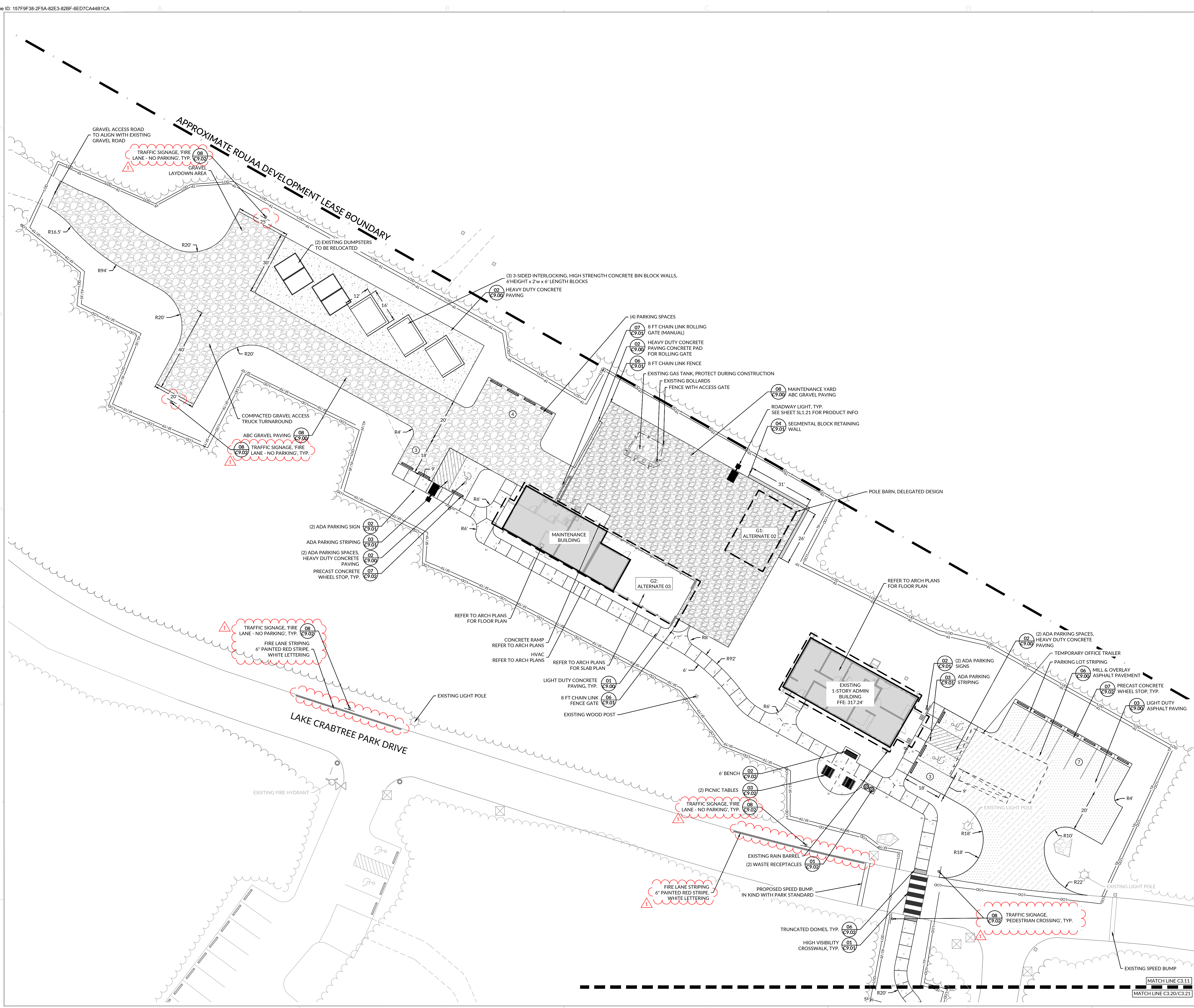
C2.31

WithersRavenel
137 S Wilmington Street | Suite 200 | Raleigh, NC 27601
License #: F-1479 | t: 919.469.3340 | www.withersravenel.com

CLARK NEXSEN - NC
A DIVISION OF JOHNSON, MIRMIRAN & THOMPSON, INC.

our people • your success

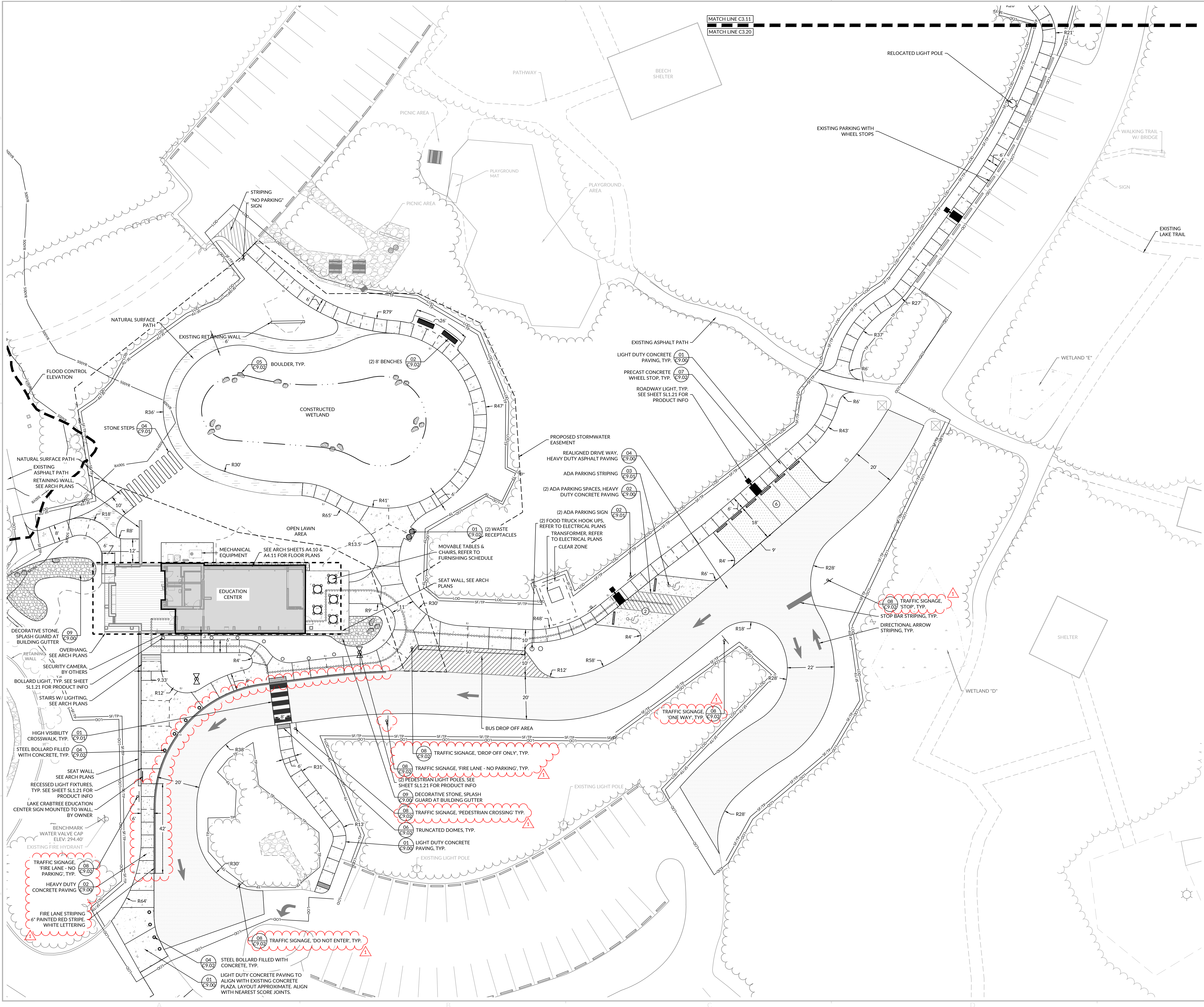
J:\2024\007 Lake Crabtree\Drawings\Site\Construction\3.11 - SITE PLAN.dwg Wednesday, August 17, 2023 3:38 PM - JDUN



SITE LEGEND			
SYMBOL	DESCRIPTION		
---	LOD	LIMIT OF DISTURBANCE	
---	SF/TP	SILT/TREE PROTECTION FENCE	
----		ADA ROUTE	
----		50' RIPARIAN BUFFER	
----		EASEMENT	
----		BUILDING OVERHANG	
----		BUILDING	
----		LIGHT DUTY CONCRETE PAVING	
----		HEAVY DUTY CONCRETE PAVING	
----		LIGHT DUTY ASPHALT PAVING	
----		HEAVY DUTY ASPHALT PAVING	
----		OVERLAID LIGHT DUTY ASPHALT PAVING	
----		OVERLAID HEAVY DUTY ASPHALT PAVING	
----		GRAVEL SURFACE	
----		DECORATIVE STONE	
----		DIRT PATH	
----		SITE WALL	
----		CHAIN LINK FENCE	
----		ARCHITECTURAL LIGHT POLE	
----		SIGN	
----		LIGHT POLE	
----		EXISTING BOLLARD	
----		PROPOSED BOLLARD	
----		PROPOSED FOOD TRUCK HOOK UP	
----		BOULDERS	
----		EXPANSION JOINT	

FURNISHINGS SCHEDULE			
SYMBOL	NAME	QTY	DESCRIPTION
----	BENCH	2	6' LENGTH PILOT ROCK METAL & TREATED PINE BENCH
----	TRASH CAN	10	32 GAL. PILOT ROCK TRASH & RECYCLING RECEPTACLE WITH WEATHERED WOOD SLATS
----	MOVEABLE TABLES & CHAIRS	5	FAVA CLUSTER MAGLIN TABLES WITH ATTACHED CHAIRS - 1 ADA SETTING
----	PICNIC TABLE	4	6' PILOT ROCK TREATED PINE PICNIC TABLE - 1 ADA SETTING

PARKING DATA	
MAINTENANCE	
EXISTING SPACES: 2	PROVIDED SPACES: 8
ADMIN BUILDING	
EXISTING SPACES: 4	PROVIDED SPACES: 10



SITE LEGEND	
SYMBOL	DESCRIPTION
	LIMIT OF DISTURBANCE
	SILT/TREE PROTECTION FENCE
	ADA ROUTE
	50' RIPARIAN BUFFER
	EASEMENT
	BUILDING OVERHANG
	BUILDING
	LIGHT DUTY CONCRETE PAVING
	HEAVY DUTY CONCRETE PAVING
	LIGHT DUTY ASPHALT PAVING
	HEAVY DUTY ASPHALT PAVING
	OVERLAID LIGHT DUTY ASPHALT PAVING
	OVERLAID HEAVY DUTY ASPHALT PAVING
	GRAVEL SURFACE
	DECORATIVE STONE
	DIRT PATH
	SITE WALL
	CHAIN LINK FENCE
	ARCHITECTURAL LIGHT POLE
	SIGN
	LIGHT POLE
	EXISTING BOLLARD
	PROPOSED BOLLARD
	PROPOSED FOOD TRUCK HOOK UP
	BOULDERS
	EXPANSION JOINT

FURNISHINGS SCHEDULE			
SYMBOL	NAME	QTY	DESCRIPTION
	BENCH	2	6' LENGTH PILOT ROCK METAL & TREATED PINE BENCH
	TRASH CAN	10	32 GAL. PILOT ROCK TRASH & RECYCLING RECEPTACLE WITH WEATHERED WOOD SLATS
	MOVEABLE TABLES & CHAIRS	5	FAVA CLUSTER MAGLIN TABLES WITH ATTACHED CHAIRS - 1 ADA SETTING
	PICNIC TABLE	4	6' PILOT ROCK TREATED PINE PICNIC TABLE - 1 ADA SETTING

PARKING DATA
EXISTING SPACES: 108 - PROVIDED SPACES: 126



LAKE CRABTREE COUNTY PARK IMPROVEMENTS

BID SET

2311

8/19/2026

0 10 20
SCALE: 1 inch = 20 ft.

INITIAL PLAN DATE: 08/05/2026
REVISIONS:
1 - 08/19/26 JMD
ADDENDUM 1

Know what's below.
Call before you dig.
WR JOB NUMBER 22-0024-007
DRN: JMD DGN: JMD CKD: MA

SITE PLAN - EDUCATION CENTER - BASE BID

C3.20

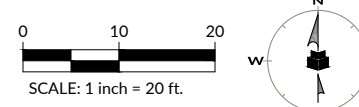


LAKE CRABTREE COUNTY PARK IMPROVEMENTS

1400 Aviation Pkwy | Morrisville NC 27560 | Wake County



8/19/2026



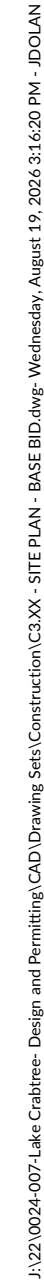
INITIAL PLAN DATE: 08/05/2026
REVISIONS:
1 - 08/19/26 JMD
ADDENDUM 1

Know what's below.
Call 800-487-2468 before you dig.

WR JOB NUMBER	22-0024-
DRN: JMD	DGN: JMD CKD:

SITE PLAN - EDUCATION CENTER - ALTERNATE

C3.21



FURNISHINGS SCHEDULE			
SYMBOL	NAME	QTY	DESCRIPTION
	BENCH	2	6' LENGTH PILOT ROCK METAL & TREATED PINE BENCH
	TRASH CAN	10	32 GAL. PILOT ROCK TRASH & RECYCLING RECEPTACLE WITH WEATHERED WOOD SLATS
	MOVEABLE TABLES & CHAIRS	5	FAVA CLUSTER MAGLIN TABLES WITH ATTACHED CHAIRS - 1 ADA SETTING
	PICNIC TABLE	4	6' PILOT ROCK TREATED PINE PICNIC TABLE - 1 ADA SETTING

FURNISHINGS SCHEDULE			
SYMBOL	NAME	QTY	DESCRIPTION
	BENCH	2	6' LENGTH PILOT ROCK METAL & TREATED PINE BENCH
	TRASH CAN	10	32 GAL. PILOT ROCK TRASH & RECYCLING RECEPTACLE WITH WEATHERED WOOD SLATS
	MOVEABLE TABLES & CHAIRS	5	FAVA CLUSTER MAGLIN TABLES WITH ATTACHED CHAIRS - 1 ADA SETTING
	PICNIC TABLE	4	6' PILOT ROCK TREATED PINE PICNIC TABLE - 1 ADA SETTING

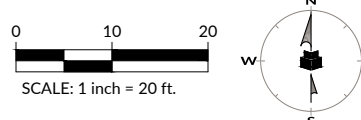


BID SET LAKE CRABTREE COUNTY PARK IMPROVEMENTS

1400 Aviation Pkwy | Morrisville, NC 27560 | Wake County



8/19/2026



INITIAL PLAN DATE: 08/05/2026
REVISIONS:
1 - 08/19/26 JMD
ADDENDUM 1

Know what's below.
Call  before you dig.

R JOB NUMBER	22-0024-C	
URN: JMD	DGN: JMD	CKD: M

**SITE PLAN - COMFORT
STATION - BASE BID**

C3.30

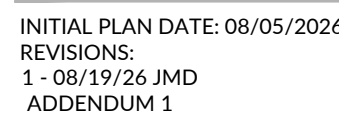


FURNISHINGS SCHEDULE			
SYMBOL	NAME	QTY	DESCRIPTION
	BENCH	2	6' LENGTH PILOT ROCK METAL & TREATED PINE BENCH
	TRASH CAN	10	32 GAL. PILOT ROCK TRASH & RECYCLING RECEPTACLE WITH WEATHERED WOOD SLATS
	MOVEABLE TABLES & CHAIRS	5	FAVA CLUSTER MAGLIN TABLES WITH ATTACHED CHAIRS - 1 ADA SETTING
	PICNIC TABLE	4	6' PILOT ROCK TREATED PINE PICNIC TABLE - 1 ADA SETTING



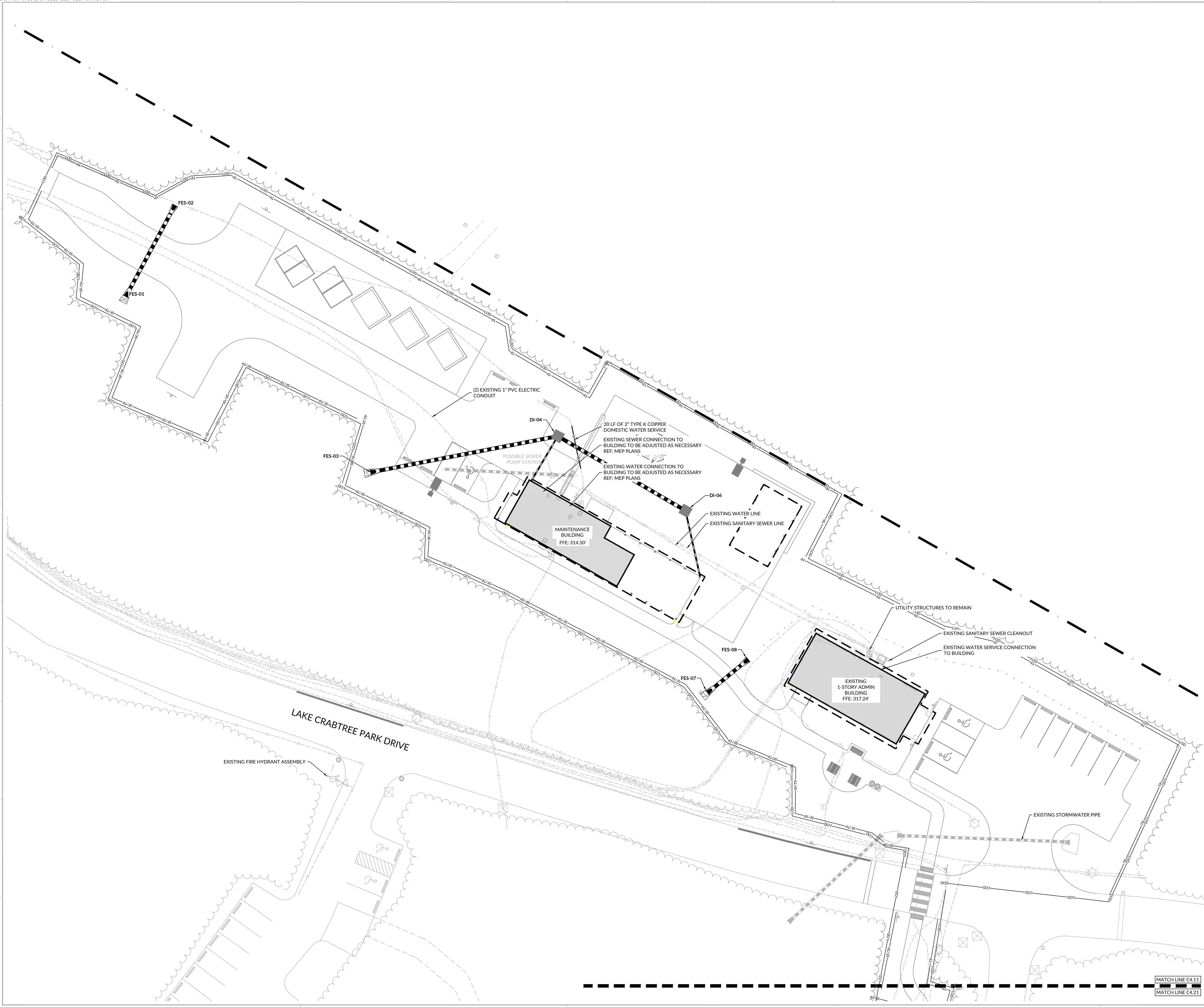
BID SET LAKE CRABTREE COUNTY PARK IMPROVEMENTS

8/19/2026



**SITE PLAN - COMFOR
STATION - ALTERNAT**

C3.31



PROPOSED UTILITIES LEGEND	
SYMBOL	DESCRIPTION
	FIRE LINE
	FORCE MAIN
	SANITARY SEWER PIPE
	WATER MAIN
	RECLAIMED WATER LINE
	BACKFLOW PREVENTER
	BLOW OFF
	FIRE DEPARTMENT CONNECTION (FDC)
	FIRE HYDRANT ASSEMBLY
	SEWER CLEANOUT
	SEWER MANHOLE
	WATER METER
	WATER VALVE
	POST INDICATOR VALVE

- NOTES:
1. IN ACCORDANCE WITH POLICY STATEMENT 49, CONTRACTOR TO COORDINATE WITH TOWN OF CARY PUBLIC WORKS DEPARTMENT TO ENSURE ISOLATION OF WORK AREA PRIOR TO WATER MAIN INSTALLATION.
 2. THIS DESIGN MEETS ALL CURRENT TOWN OF CARY STANDARD SPECIFICATIONS AND DETAILS. THERE ARE NO EXCEPTIONS.
 3. APPROVAL AND PERMITTING OF THIS UTILITY PLAN COVERS PUBLIC INFRASTRUCTURE ONLY. WHILE PRIVATE UTILITY LINES MAY BE SHOWN HEREON FOR REFERENCE, THEY ARE ALLOWED ONLY AFTER OBTAINING A SEPARATE PERMIT FOR PRIVATE UTILITIES.
 4. NEW WATER METERS WILL NEED TO BE COORDINATED WITH TOWN OF CARY STAFF DURING CONSTRUCTION.

WithersRavenel

137 S Wilmington Street | Suite 200 | Raleigh, NC 27601
License #: F-1479 | t: 919.469.3340 | www.withersravenel.com

CLARK NEXSEN - NC

A DIVISION OF JOHNSON, MIRMIRAN & THOMPSON, INC.



BID SET

LAKE CRABTREE COUNTY PARK
IMPROVEMENTS

1400 Aviation Pkwy | Morrisville, NC 27560 | Wake County

PROFESSIONAL SEAL

054781

Signed by: Shannon Hady

08/19/2026

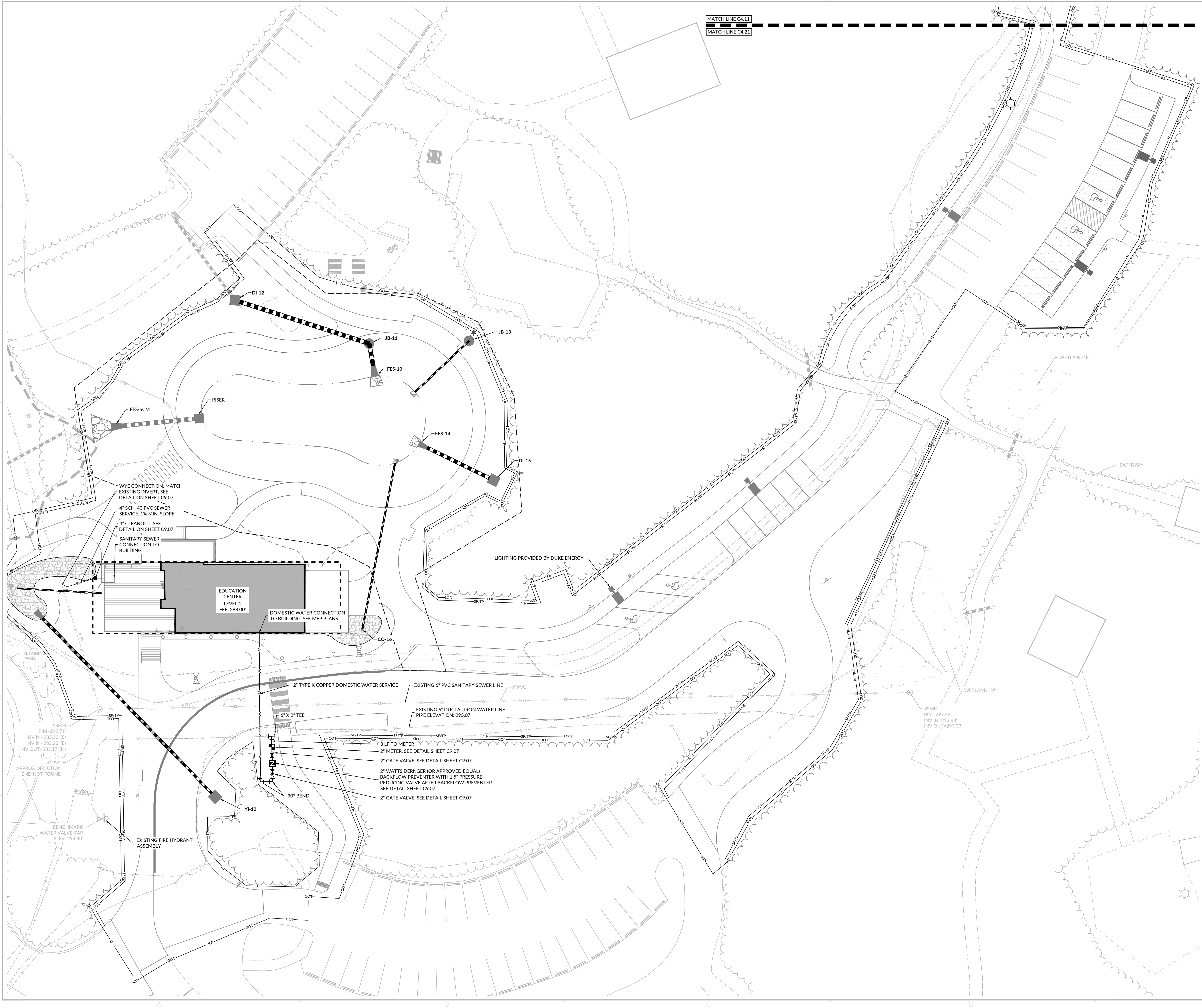


INITIAL PLAN DATE: 08/05/2026
REVISIONS:
1 - 08/19/26 JMD
ADDENDUM 1

Know what's below.
Call before you dig.
WR JOB NUMBER 22-0024-007
DRN: JMD DGN: JMD CKD: MA

UTILITY PLAN - ADMIN & MAINTENANCE

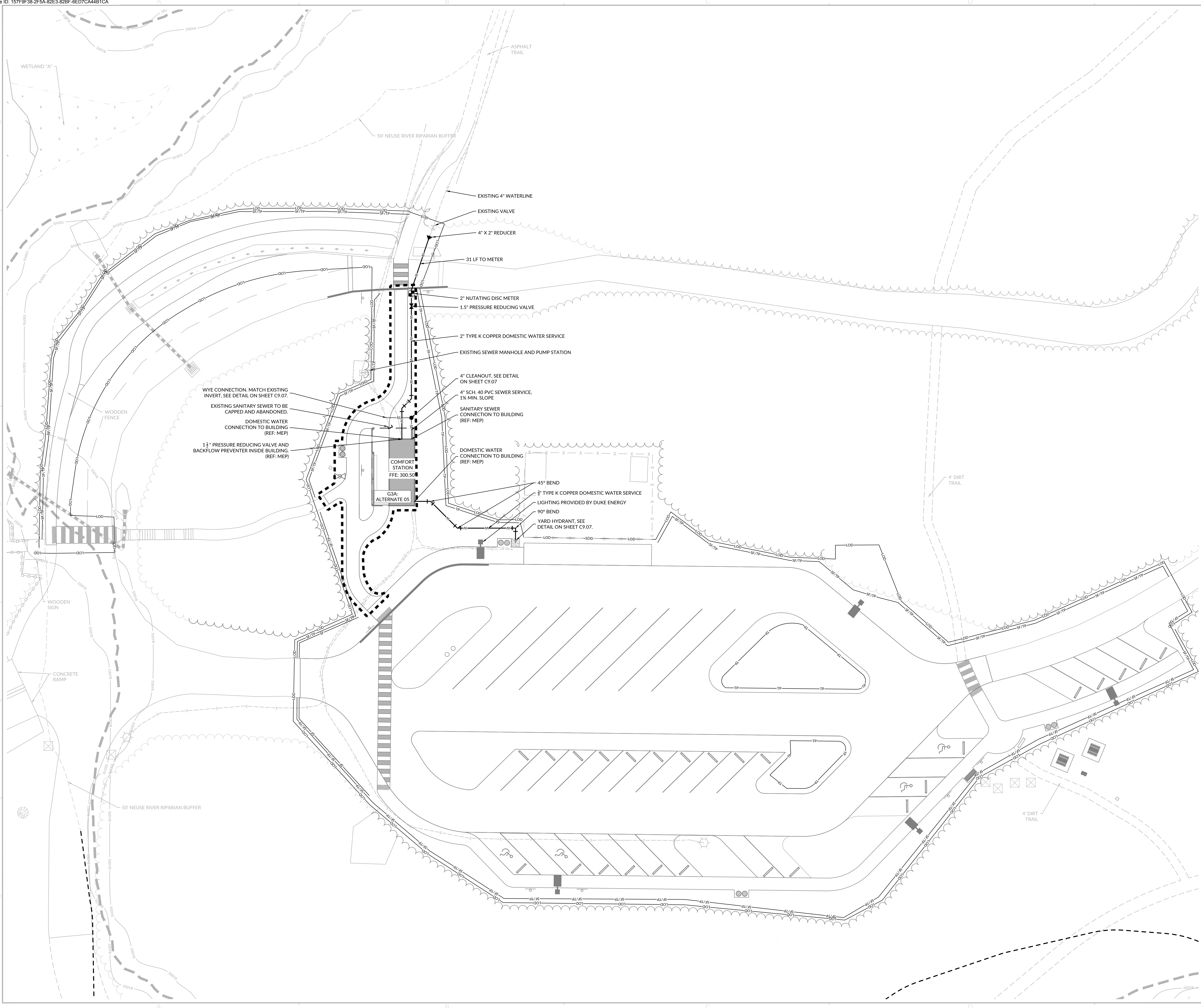
C4.11



PROPOSED UTILITIES LEGEND	
SYMBOL	DESCRIPTION
	FIRE LINE
	FORCE MAIN
	SANITARY SEWER PIPE
	WATER MAIN
	RECLAIMED WATER LINE
	BACKFLOW PREVENTER
	BLOW OFF
	FIRE DEPARTMENT CONNECTION (FDC)
	FIRE HYDRANT ASSEMBLY
	SEWER CLEANOUT
	SEWER MANHOLE
	WATER METER
	WATER VALVE
	POST INDICATOR VALVE

- NOTES:
1. IN ACCORDANCE WITH POLICY STATEMENT 49, CONTRACTOR TO COORDINATE WITH TOWN OF CARY PUBLIC WORKS DEPARTMENT TO ENSURE ISOLATION OF WORK AREA PRIOR TO WATER MAIN INSTALLATION.
 2. THIS DESIGN MEETS ALL CURRENT TOWN OF CARY STANDARD SPECIFICATIONS AND DETAILS. THERE ARE NO EXCEPTIONS.
 3. APPROVAL AND PERMITTING OF THIS UTILITY PLAN COVERS PUBLIC INFRASTRUCTURE ONLY. WHILE PRIVATE UTILITY LINES MAY BE SHOWN HEREON FOR REFERENCE, THEY ARE ALLOWED ONLY AFTER OBTAINING A SEPARATE PERMIT FOR PRIVATE UTILITIES.
 4. NEW WATER METERS WILL NEED TO BE COORDINATED WITH TOWN OF CARY STAFF DURING CONSTRUCTION.

J:\2024\007 Lake Crabtree: Design and Permitting\CAD Drawings\Site Construction\CK4.31 - UTILITY PLANS.dwg: Wednesday, August 13, 2025 1:24:18 PM - JDolan



PROPOSED UTILITIES LEGEND	
SYMBOL	DESCRIPTION
	FIRE LINE
	FORCE MAIN
	SANITARY SEWER PIPE
	WATER MAIN
	RECLAIMED WATER LINE
	BACKFLOW PREVENTER
	BLOW OFF
	FIRE DEPARTMENT CONNECTION (FDC)
	FIRE HYDRANT ASSEMBLY
	SEWER CLEANOUT
	SEWER MANHOLE
	WATER METER
	WATER VALVE
	POST INDICATOR VALVE

- NOTES:
1. IN ACCORDANCE WITH POLICY STATEMENT 49, CONTRACTOR TO COORDINATE WITH TOWN OF CARY PUBLIC WORKS DEPARTMENT TO ENSURE ISOLATION OF WORK AREA PRIOR TO WATER MAIN INSTALLATION.
 2. THIS DESIGN MEETS ALL CURRENT TOWN OF CARY STANDARD SPECIFICATIONS AND DETAILS. THERE ARE NO EXCEPTIONS.
 3. APPROVAL AND PERMITTING OF THIS UTILITY PLAN COVERS PUBLIC INFRASTRUCTURE ONLY. WHILE PRIVATE UTILITY LINES MAY BE SHOWN HEREON FOR REFERENCE, THEY ARE ALLOWED ONLY AFTER OBTAINING A SEPARATE PERMIT FOR PRIVATE UTILITIES.
 4. NEW WATER METERS WILL NEED TO BE COORDINATED WITH TOWN OF CARY STAFF DURING CONSTRUCTION.

137 S Wilmington Street | Suite 200 | Raleigh, NC 27601
License #: F-1479 | t: 919.469.3340 | www.withersravenel.com

A DIVISION OF JOHNSON, MIRMIRAN & THOMPSON, INC.



BID SET

LAKE CRABTREE COUNTY PARK
IMPROVEMENTS

1400 Aviation Pkwy | Morrisville, NC 27560 | Wake County



8/19/2026

0 10 20
SCALE: 1 inch = 20 ft.

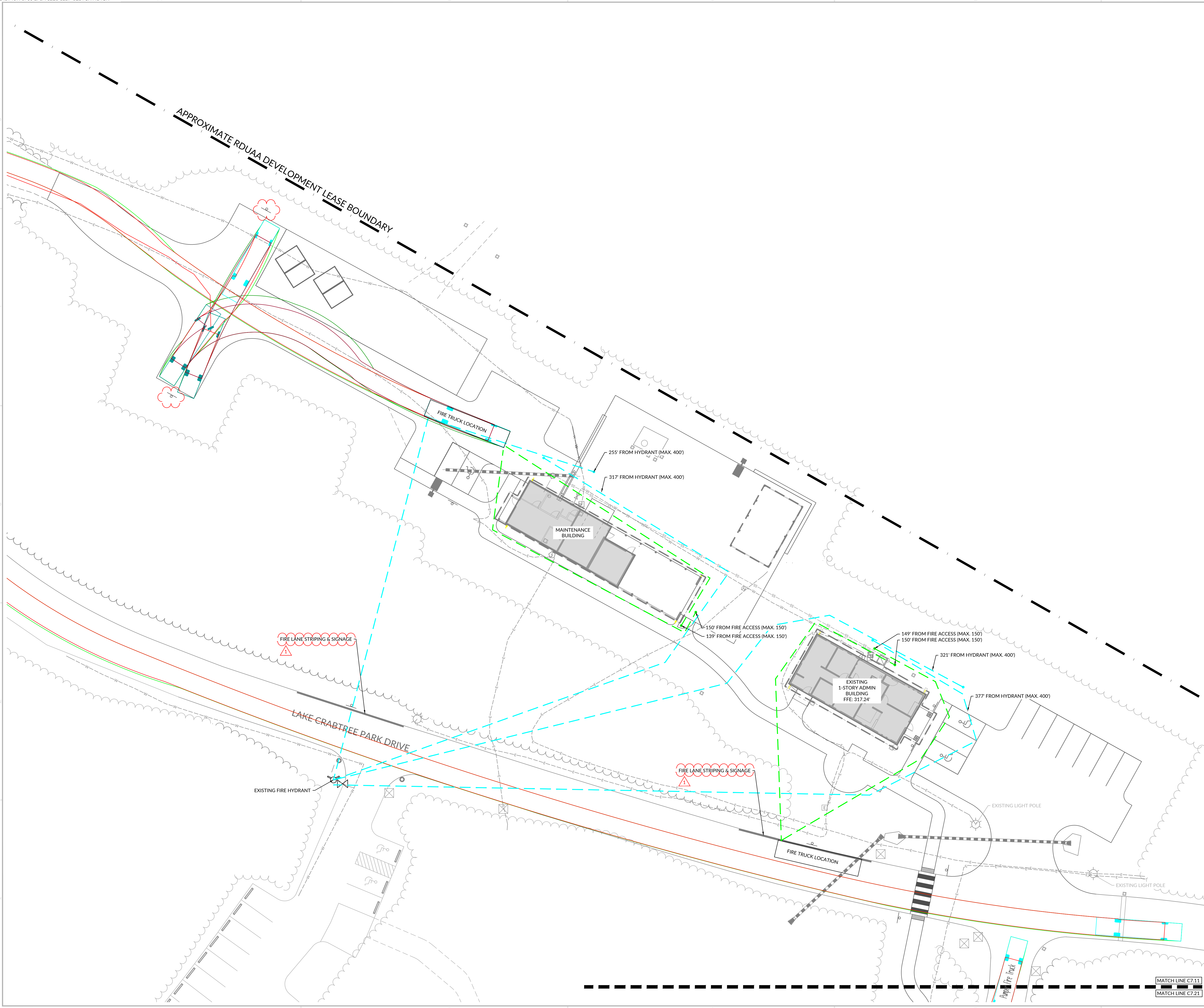
INITIAL PLAN DATE: 08/05/2026
REVISIONS:
1 - 08/19/26 JMD
ADDENDUM 1

Know what's below.
Call before you dig.

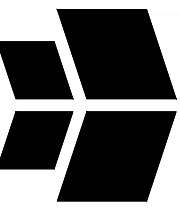
WR JOB NUMBER 22-0024-007
DRN: JMD DGN: JMD CKD: MA

UTILITY PLAN - COMFORT
STATION

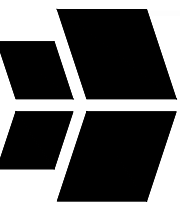
C4.31



FIRE ACCESS LEGEND	
SYMBOL	DESCRIPTION
	PROPOSED HOSE LAY ROUTE FROM FIRE TRUCK
	PROPOSED HOSE LAY ROUTE FROM FIRE HYDRANT ASSEMBLY
	PROPOSED FIRE HYDRANT
	EXISTING FIRE HYDRANT



WithersRavenel
137 S Wilmington Street | Suite 200 | Raleigh, NC 27601
License #: F-1479 | t: 919.469.3340 | www.withersravenel.com



CLARK NEXSEN - NC
A DIVISION OF JOHNSON, MIRMIRAN & THOMPSON, INC.



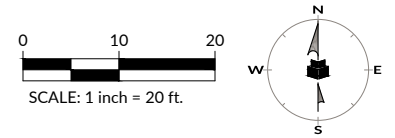
BID SET

LAKE CRABTREE COUNTY PARK IMPROVEMENTS

1400 Aviation Pkwy | Morrisville, NC 27560 | Wake County



8/19/2026

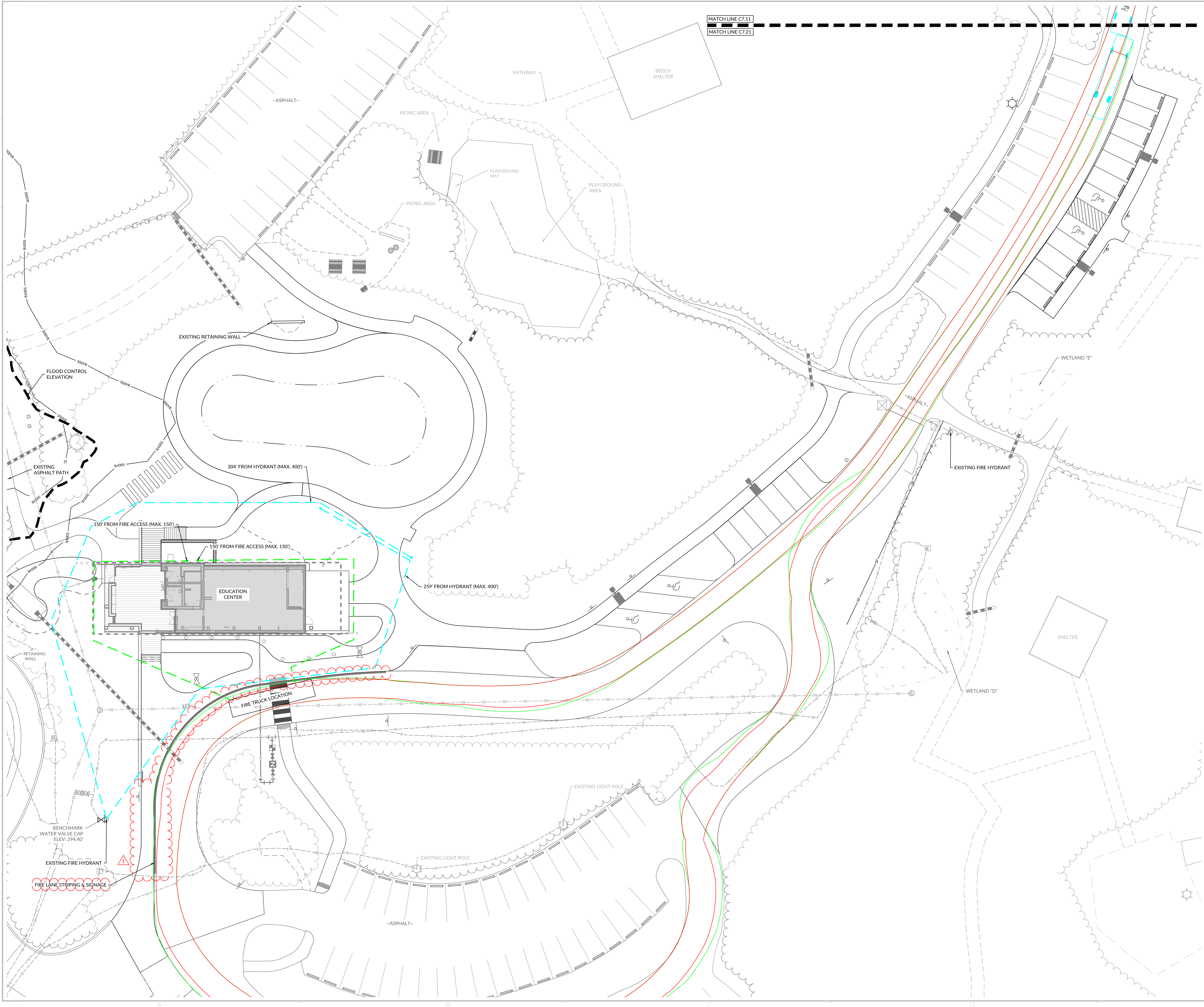


INITIAL PLAN DATE: 08/05/2026
REVISIONS:
1 - 08/19/26 JMD
ADDENDUM 1

Know what's below.
Call  before you dig.
WR JOB NUMBER 22-0024-007
DRN: JMD DGN: JMD CKD: MA

FIRE ACCESS PLAN - ADMIN & MAINTENANCE

C7.11



FIRE ACCESS LEGEND	
SYMBOL	DESCRIPTION
	PROPOSED HOSE LAY ROUTE FROM FIRE TRUCK
	PROPOSED HOSE LAY ROUTE FROM FIRE HYDRANT ASSEMBLY
	PROPOSED FIRE HYDRANT
	EXISTING FIRE HYDRANT



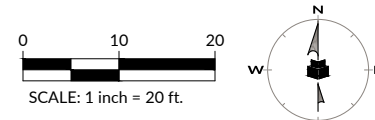
BID SET

LAKE CRABTREE COUNTY PARK IMPROVEMENTS

1400 Aviation Pkwy | Morrisville, NC 27560 | Wake County



8/19/2026



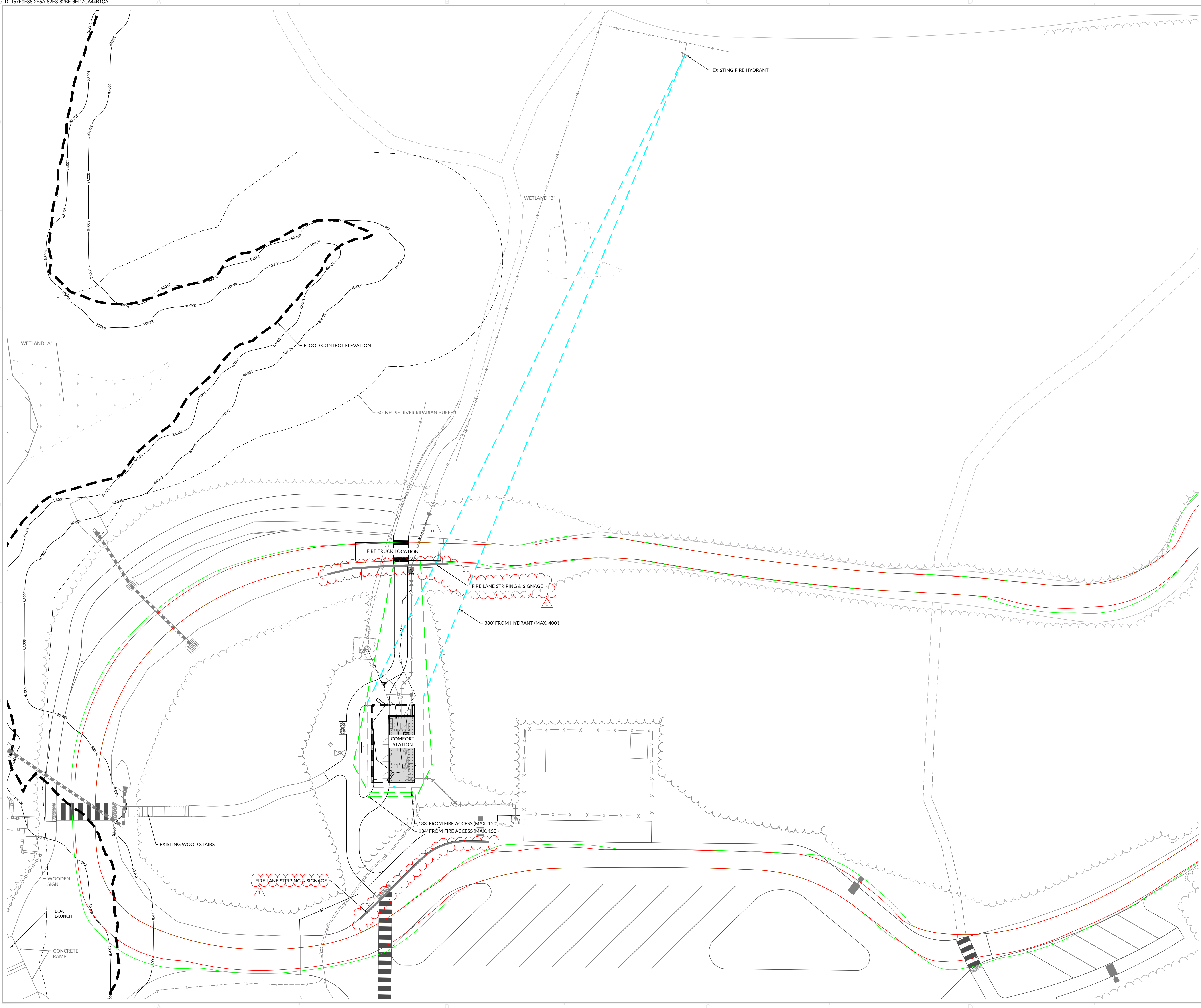
INITIAL PLAN DATE: 08/05/2026
 REVISIONS:
 1 - 08/19/26 JMD
 ADDENDUM 1

Know what's below.
 Call before you dig.
 WR JOB NUMBER 22-0024-007
 DRN: JMD DGN: JMD CKD: MA

FIRE ACCESS PLAN -
 EDUCATION CENTER

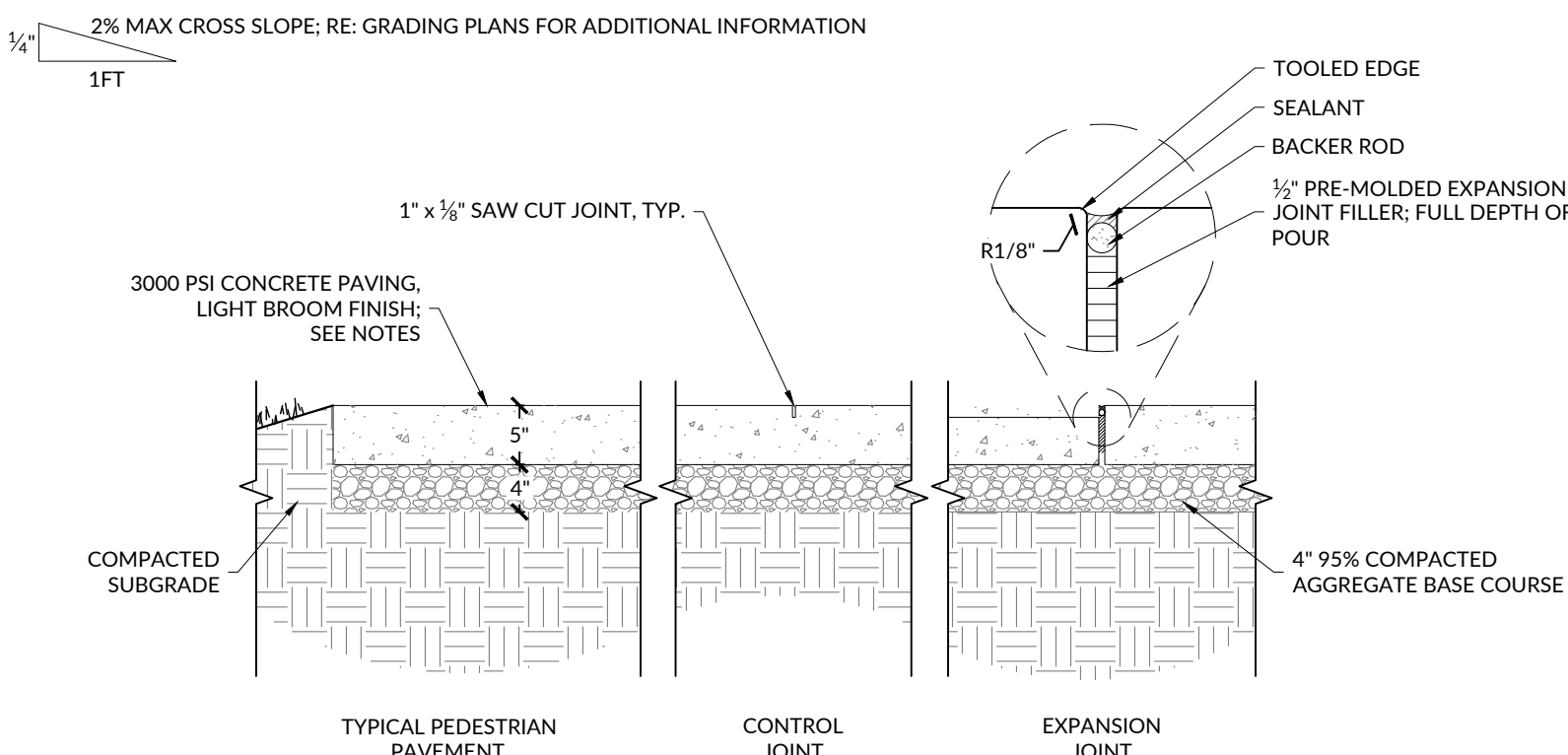
C7.21

J:\22\0024-007 Lake Crabtree - Design and Permitting\CAD Drawings\Site Construction\CD-00 - FIRE ACCESS PLAN.dwg, Wednesday, August 19, 2025, 10:41:19 PM - JTDJAN



FIRE ACCESS LEGEND	
SYMBOL	DESCRIPTION
	PROPOSED HOSE LAY ROUTE FROM FIRE TRUCK
	PROPOSED HOSE LAY ROUTE FROM FIRE HYDRANT ASSEMBLY
	PROPOSED FIRE HYDRANT
	EXISTING FIRE HYDRANT

J:\22\0024-007 Lake Crabtree: Design and Permitting\CAD Drawings\Set\Construction\03\03 SITE DETAILS.dwg, Wednesday, August 17, 2023, 3:58:38 PM, JDOUAN

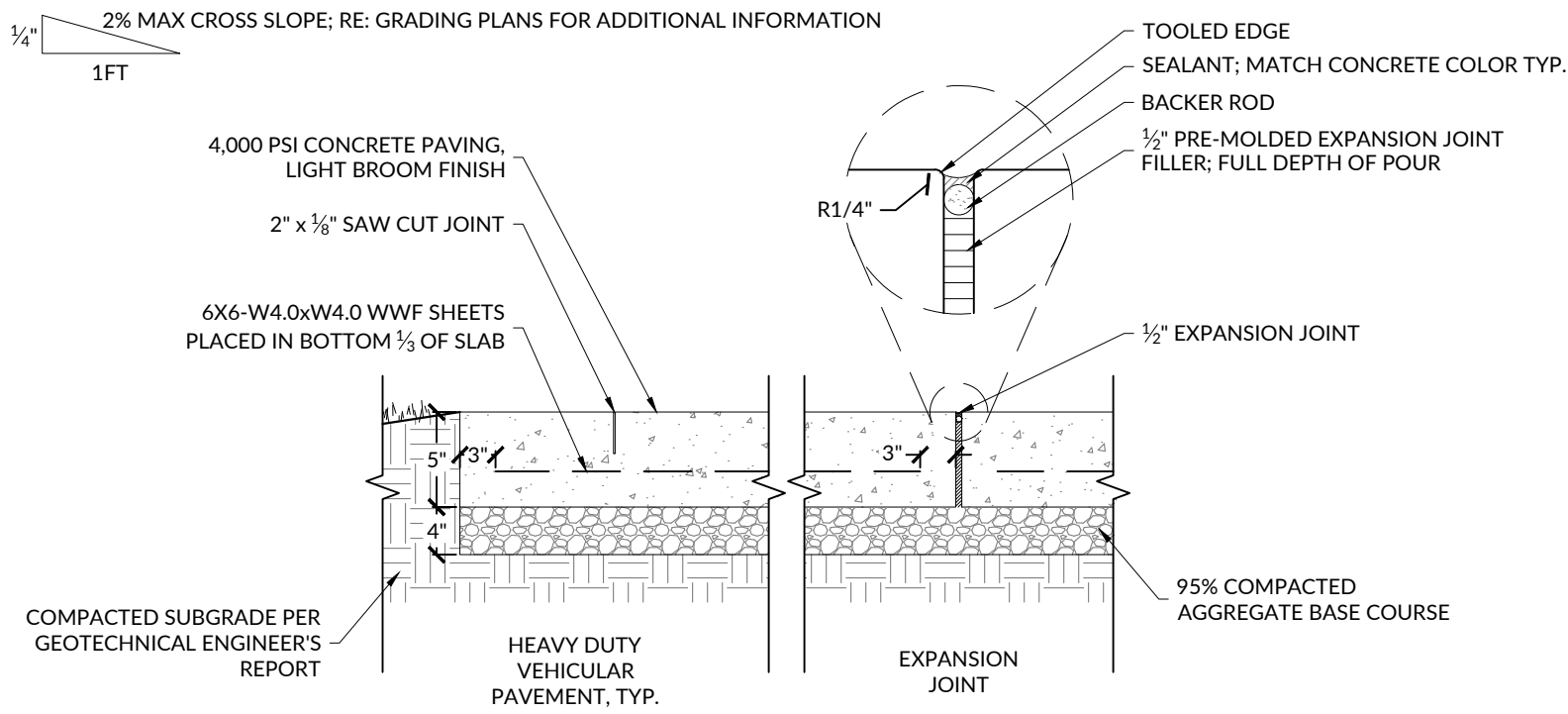


- NOTES:
1. PROVIDE EXPANSION JOINT WHERE WALKS ARE POURED AGAINST VERTICAL SURFACES AND/OR DIFFERENT PAVING MATERIALS & AS SPECIFIED ON PLANS OR 25'-0" MAX O.C.
 2. PROVIDE CONTRACTION JOINT AT 5' INTERVALS UNLESS OTHERWISE SPECIFIED (SEE PLAN).
 3. CONTRACTOR TO PROVIDE MOCK-UP OF CONCRETE FINISH, COLOR, AND SCORING FOR OWNERS APPROVAL. MOCK-UP CAN BE USED AS PART OF FINAL PROJECT.

01 LIGHT DUTY CONCRETE PAVING

SCALE: 3/4" = 1'-0"

SECTION

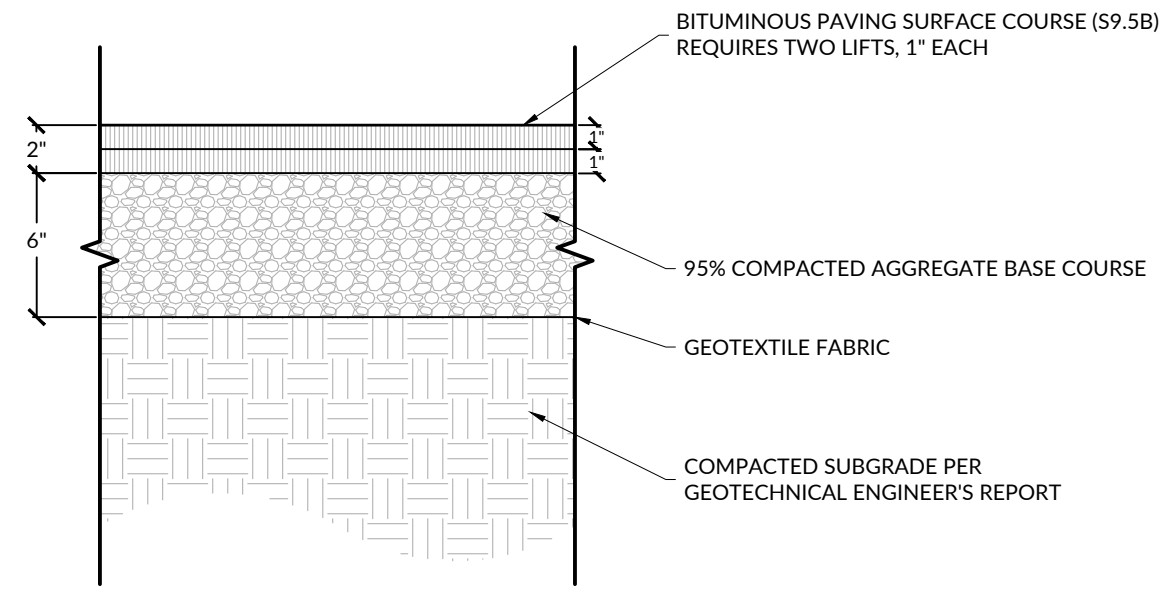


- NOTES:
1. CONTRACTOR TO PROVIDE MOCK-UP OF CONCRETE PAVING FINISH, COLOR, & SCORING FOR OWNER'S APPROVAL. MOCK-UP CAN BE USED AS PART OF FINAL PROJECT.
 2. PROVIDE EXPANSION JOINT WHERE SLAB MEETS VERTICAL SURFACES AND/OR DIFFERENT PAVING MATERIALS & AS SPECIFIED ON PLANS.
 3. PROVIDE 1/2" EXPANSION JOINTS AT 16' INTERVALS MIN., TYP.
 4. SAW CUT (CONTROL JOINTS) AT 4' INTERVALS OR AS SHOWN ON PLANS.
 5. MINIMUM WEIGHT CAPACITY: 75,000 POUNDS.

02 HEAVY DUTY CONCRETE PAVING

SCALE: 3/4" = 1'-0"

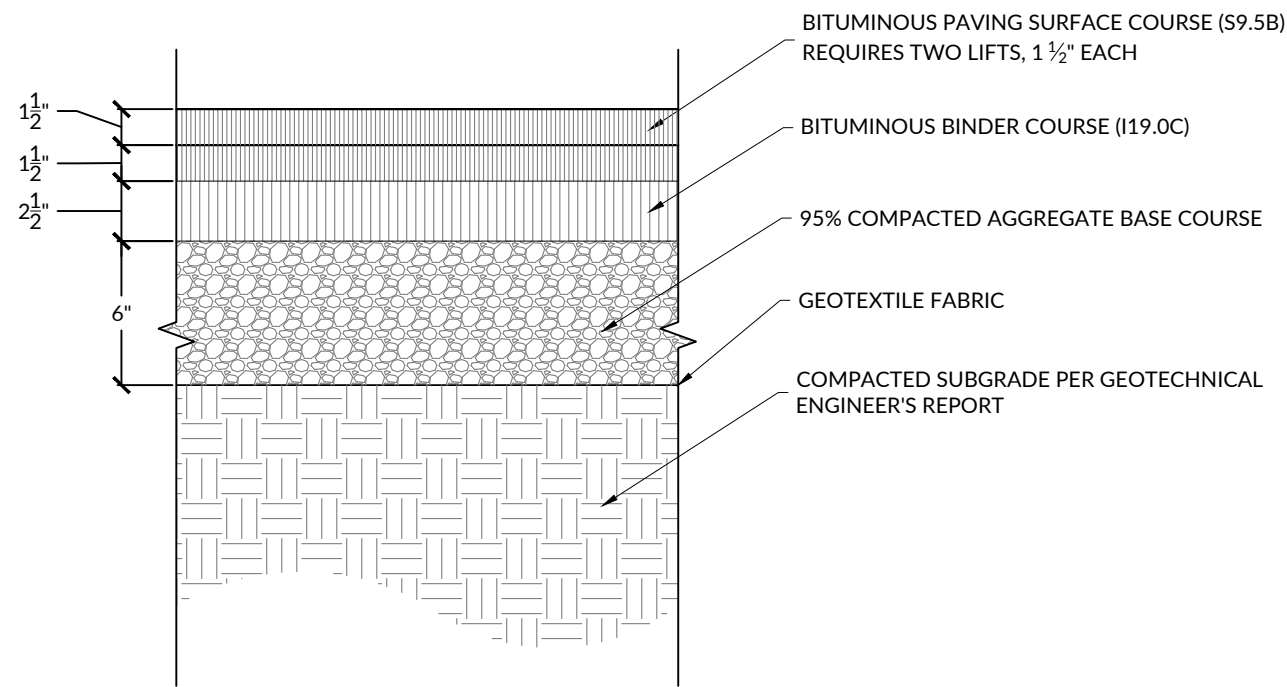
SECTION



03 LIGHT DUTY ASPHALT PAVING

SCALE: 1 1/2" = 1'-0"

SECTION

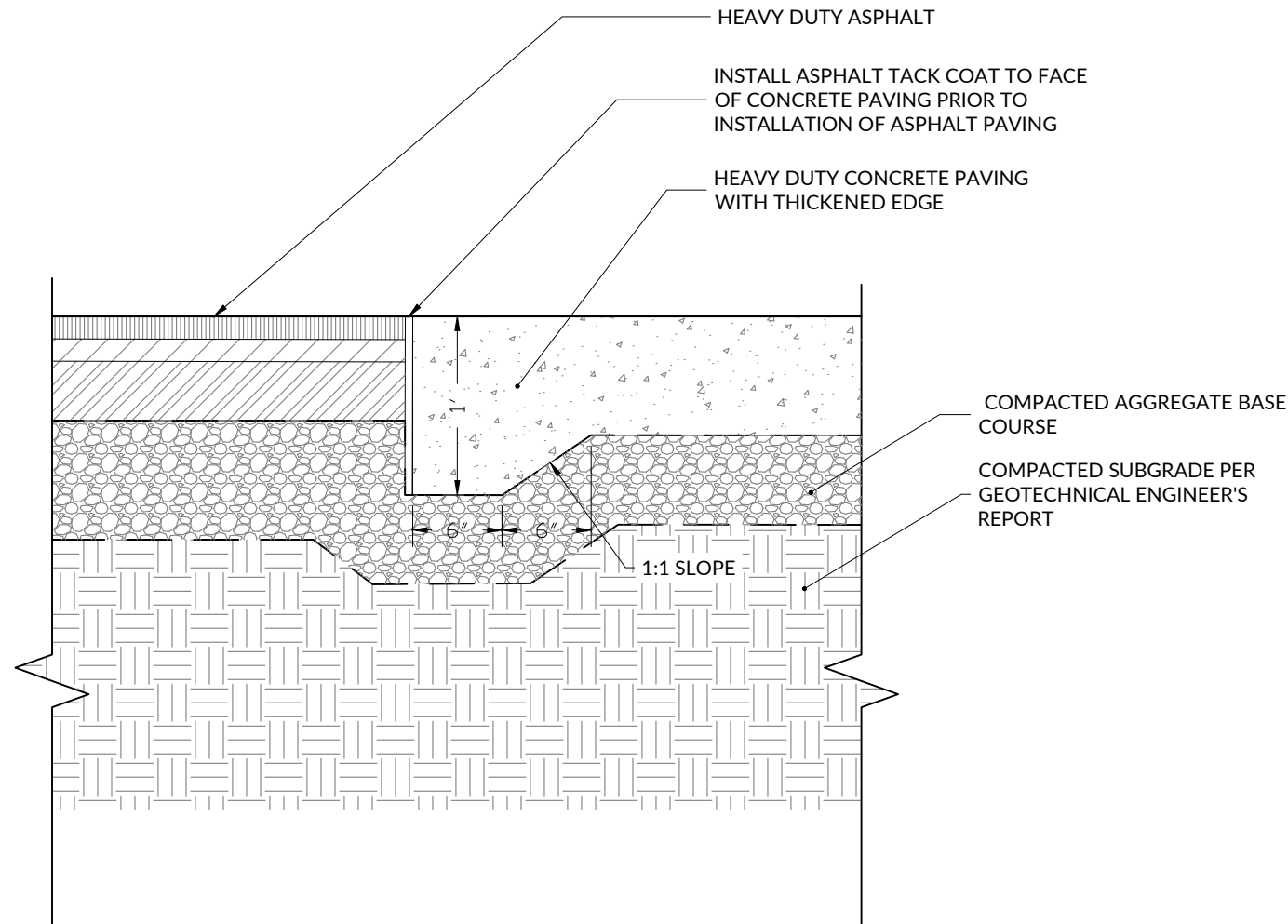


- NOTES:
1. MINIMUM WEIGHT CAPACITY: 75,000 POUNDS.

04 HEAVY DUTY ASPHALT PAVING

SCALE: 1 1/2" = 1'-0"

SECTION

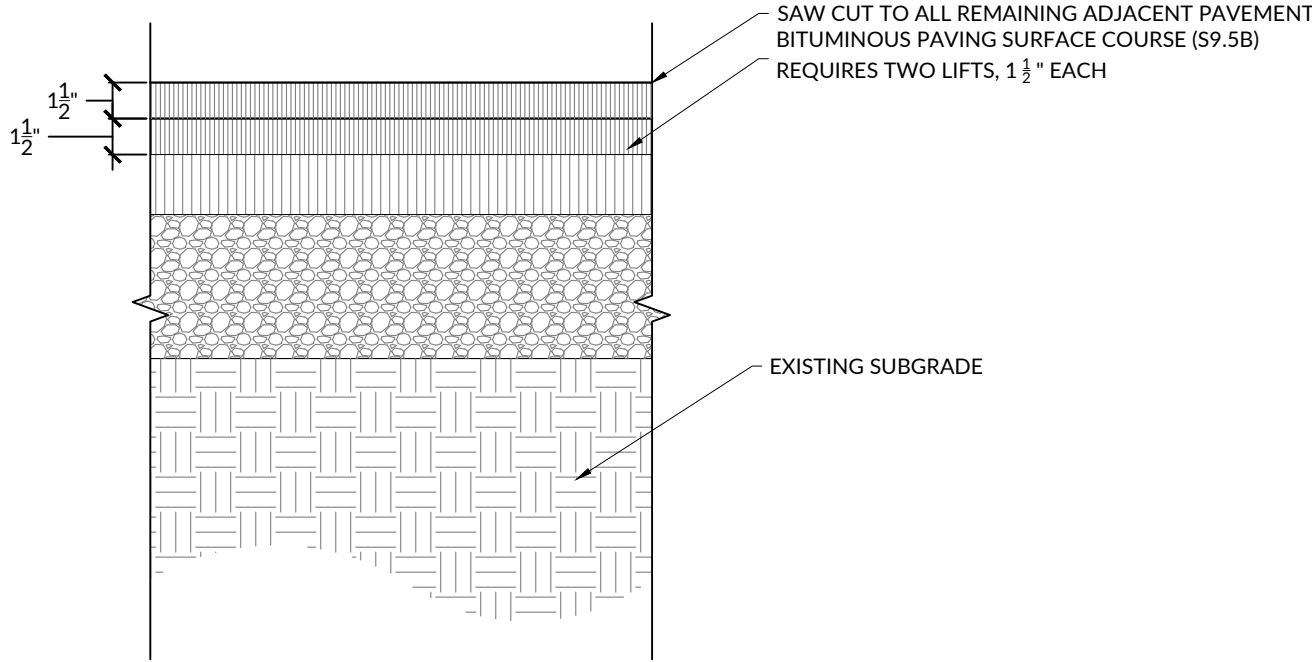


- Notes:
1. SEE GEOTECHNICAL ENGINEER'S REPORT FOR COMPACTION AND PLACEMENT SPECIFICATIONS

05 TYPICAL ASPHALT TO CONCRETE TRANSITION

SCALE: NTS

SECTION



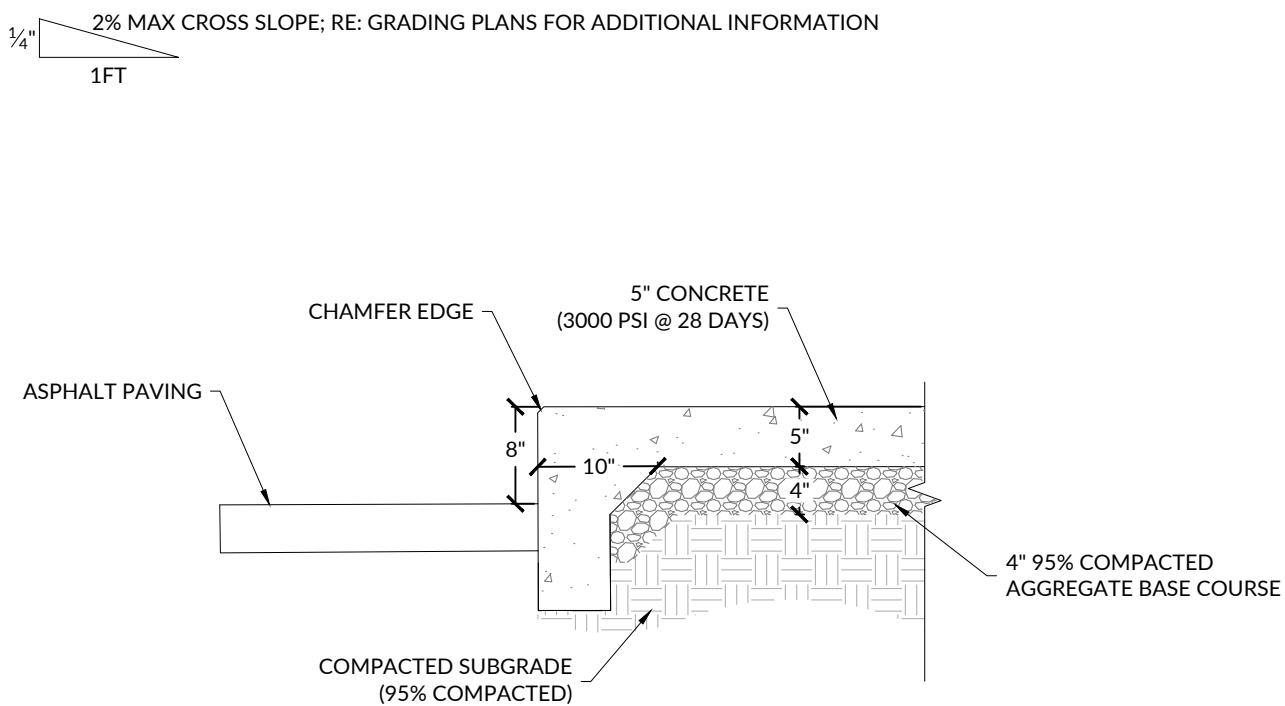
- MILL NOTES:
1. MILL EXISTING ASPHALT TO A UNIFORM +/- 2"
 2. REMOVE ALL LOOSE AND DETERIORATED MATERIAL
 3. DO NOT DISTURB BASE COURSE

- OVERLAY NOTES:
1. APPLY TACK COAT UNIFORMLY AT MANUFACTURER RATE & DO NOT PAVE OVER UNTIL PROPERLY CURED
 2. INSTALL TWO LIFTS OF COMPACTED HMA OVERLAY, COMPACT TO REQUIRED DENSITY PER SPECS
 3. MAINTAIN EXISTING CROSS SLOPE UNLESS SPECIFIED OTHERWISE

06 MILL & OVERLAY ASPHALT PAVEMENT

SCALE: 1 1/2" = 1'-0"

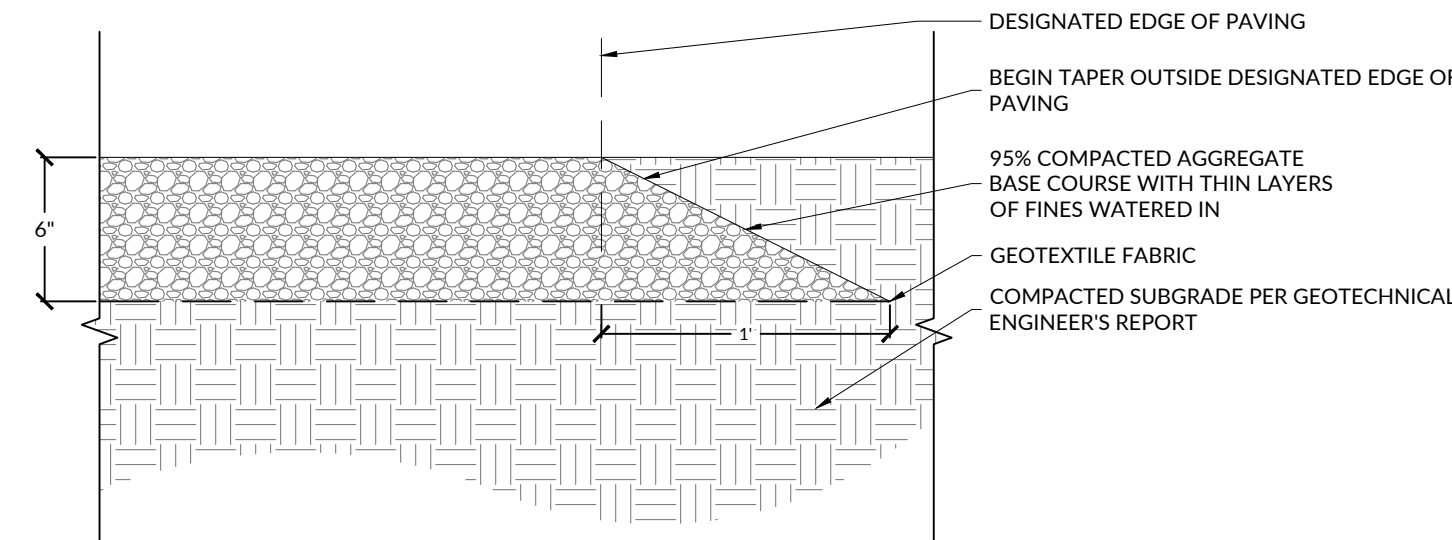
SECTION



07 CONCRETE SIDE WALK WITH TURN DOWN EDGE

SCALE: 3/4" = 1'-0"

SECTION

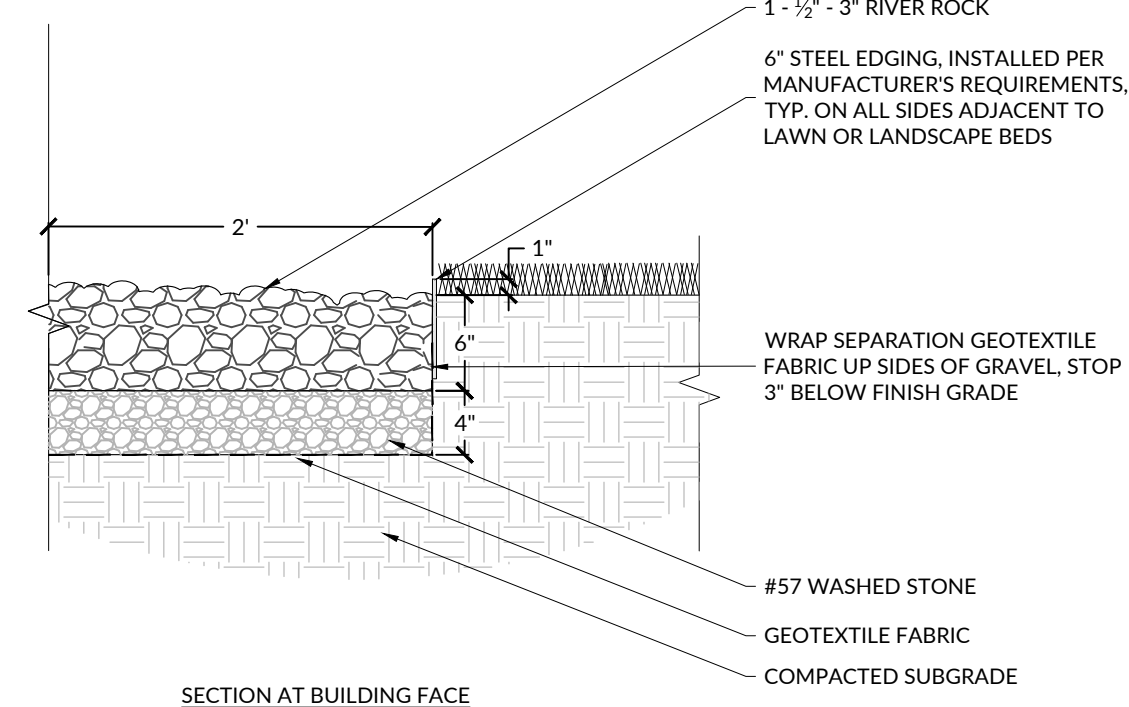


- NOTES:
1. CRUSHED STONE BASIS OF DESIGN: #78 STONE SLATE CHIPS FROM TRIANGLE LANDSCAPE SUPPLIES, OR APPROVED EQUAL.
 2. MINIMUM WEIGHT CAPACITY: 75,000 POUNDS.

08 ABC GRAVEL PAVING

SCALE: 1 1/2" = 1'-0"

SECTION



- NOTES:
1. RIVER ROCK BASIS OF DESIGN: GLACIER JAX RIVER ROCK 1" TO 3" SIZE, OR APPROVED EQUAL.

09 DECORATIVE STONE

SCALE: 1" = 1'-0"

SECTION



BID SET
LAKE CRABTREE COUNTY PARK
IMPROVEMENTS

1400 Aviation Pkwy | Morrisville, NC 27560 | Wake County



SCALE AS SHOWN

INITIAL PLAN DATE: 08/05/2026
REVISIONS:
1 - 08/19/26 JMD
ADDENDUM 1

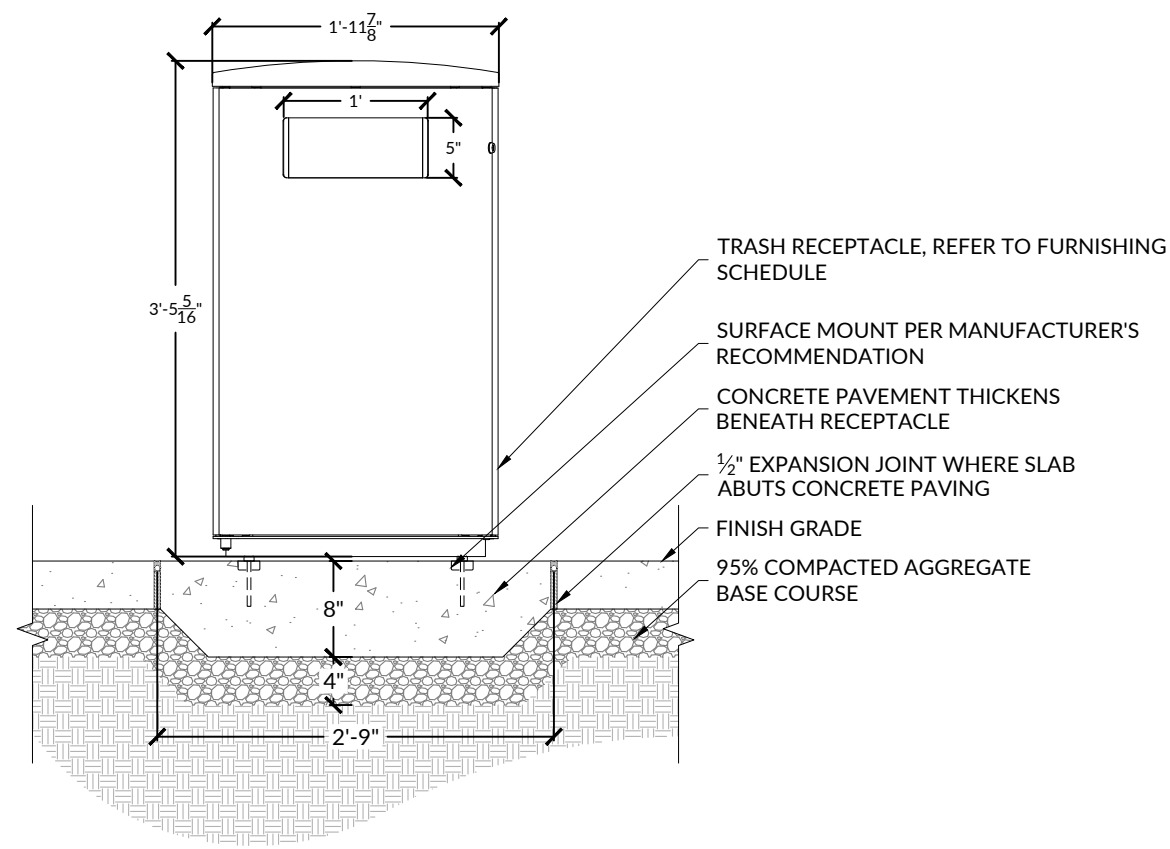
Know what's below.
Call before you dig.
WR JOB NUMBER 22-0024-007
DRN: JMD DGN: JMD CKD: MA

SITE DETAILS

C9.00



our people • your success



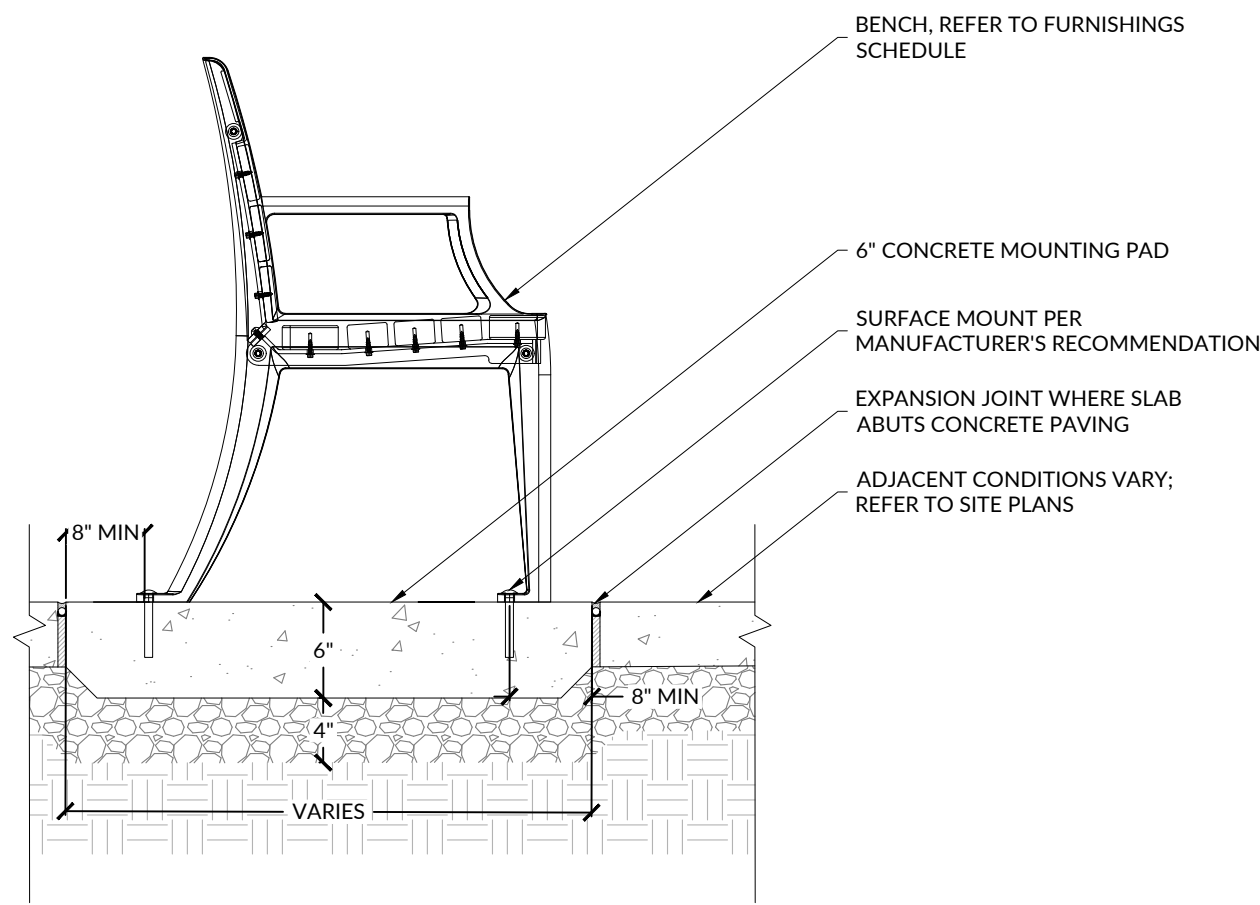
NOTES:

1. FOR WASTE RECEPTACLE PRODUCT INFORMATION SEE FINISHES & FURNISHINGS SCHEDULE.
2. ANCHORS FOR SURFACE MOUNTING BENCHES ARE TO BE STAINLESS STEEL & MEET REQUIREMENTS OF MANUFACTURER.

01 WASTE RECEPTACLE

SCALE: 3/4" = 1'-0"

SECTION



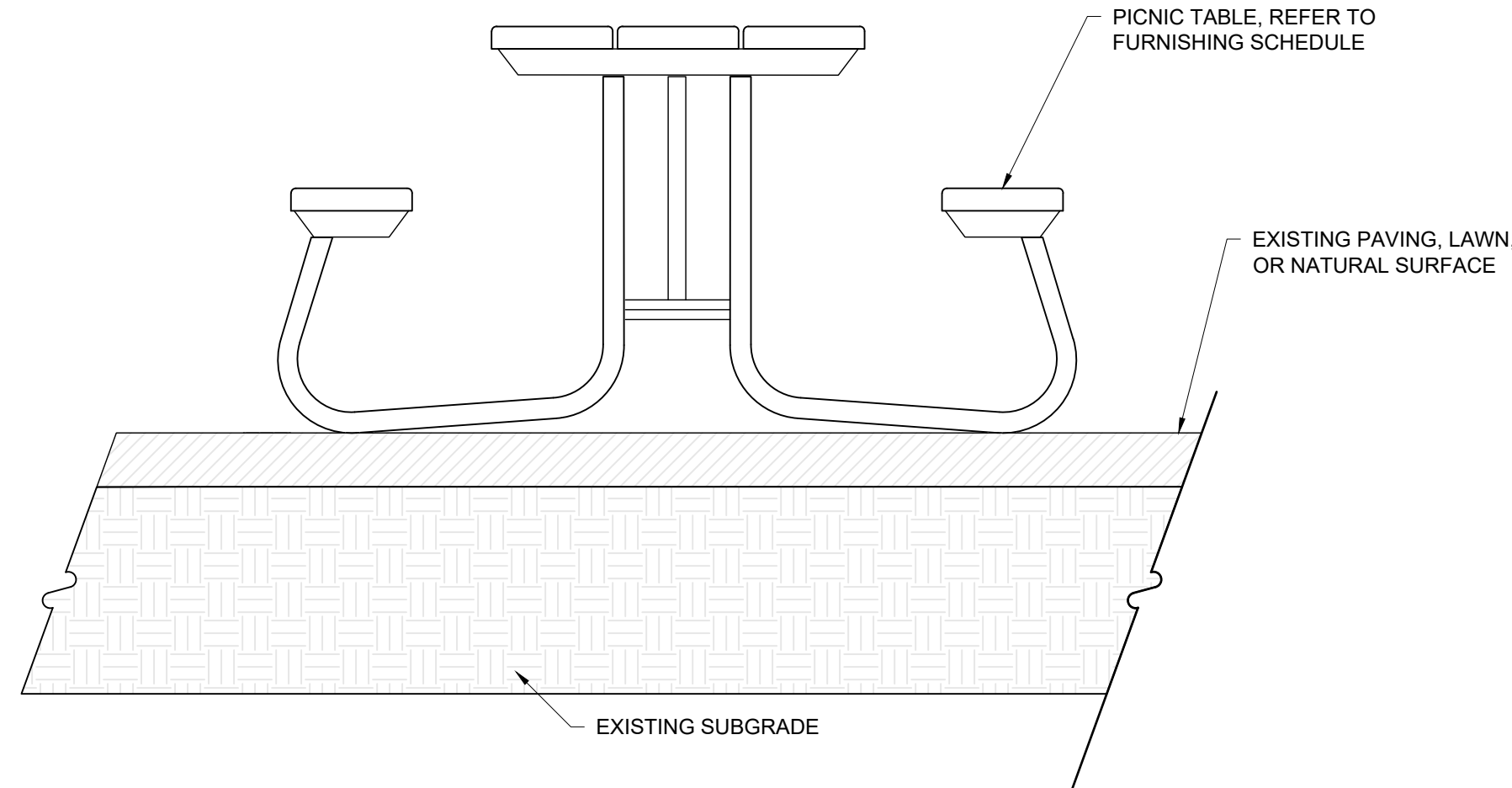
NOTES:

1. ANCHORS FOR SURFACE MOUNTING BENCHES ARE TO BE STAINLESS STEEL & MEET REQUIREMENTS OF MANUFACTURER.
2. SEE APPROPRIATE DETAILS FOR ADJACENT PAVING CONDITIONS
3. SEE FINISHES & FURNISHINGS SCHEDULE \FOR BENCH PRODUCT INFORMATION.

02 BENCH

SCALE: 1" = 1'-0"

SECTION

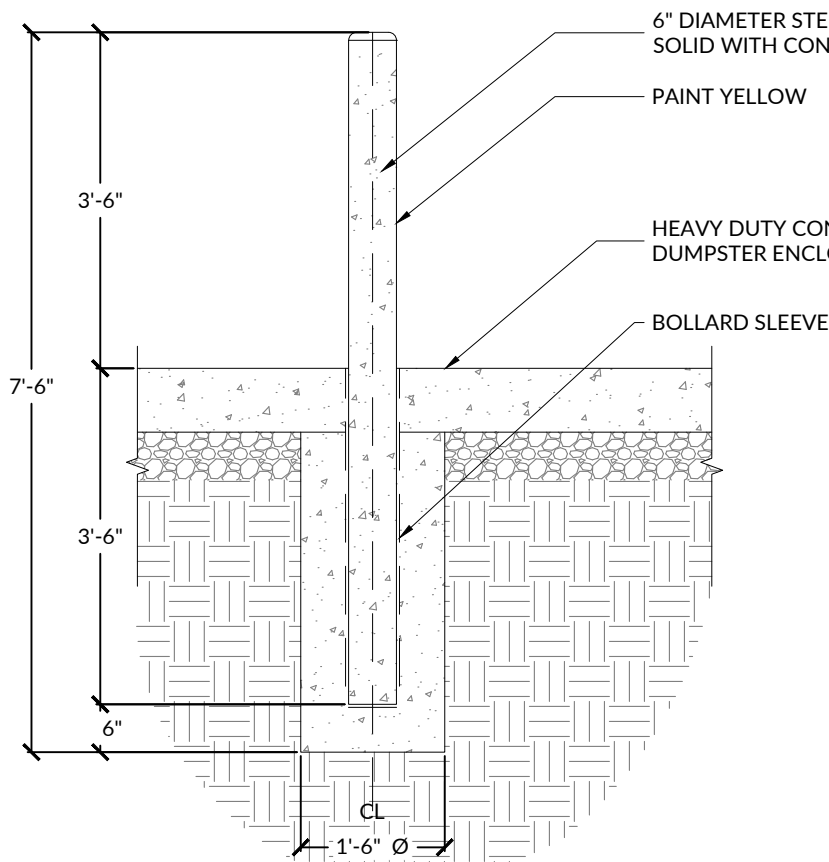


NOTE: SEE SITE PLAN FOR LOCATION

03 PICNIC TABLE

SCALE: 1" = 1'-0"

SECTION



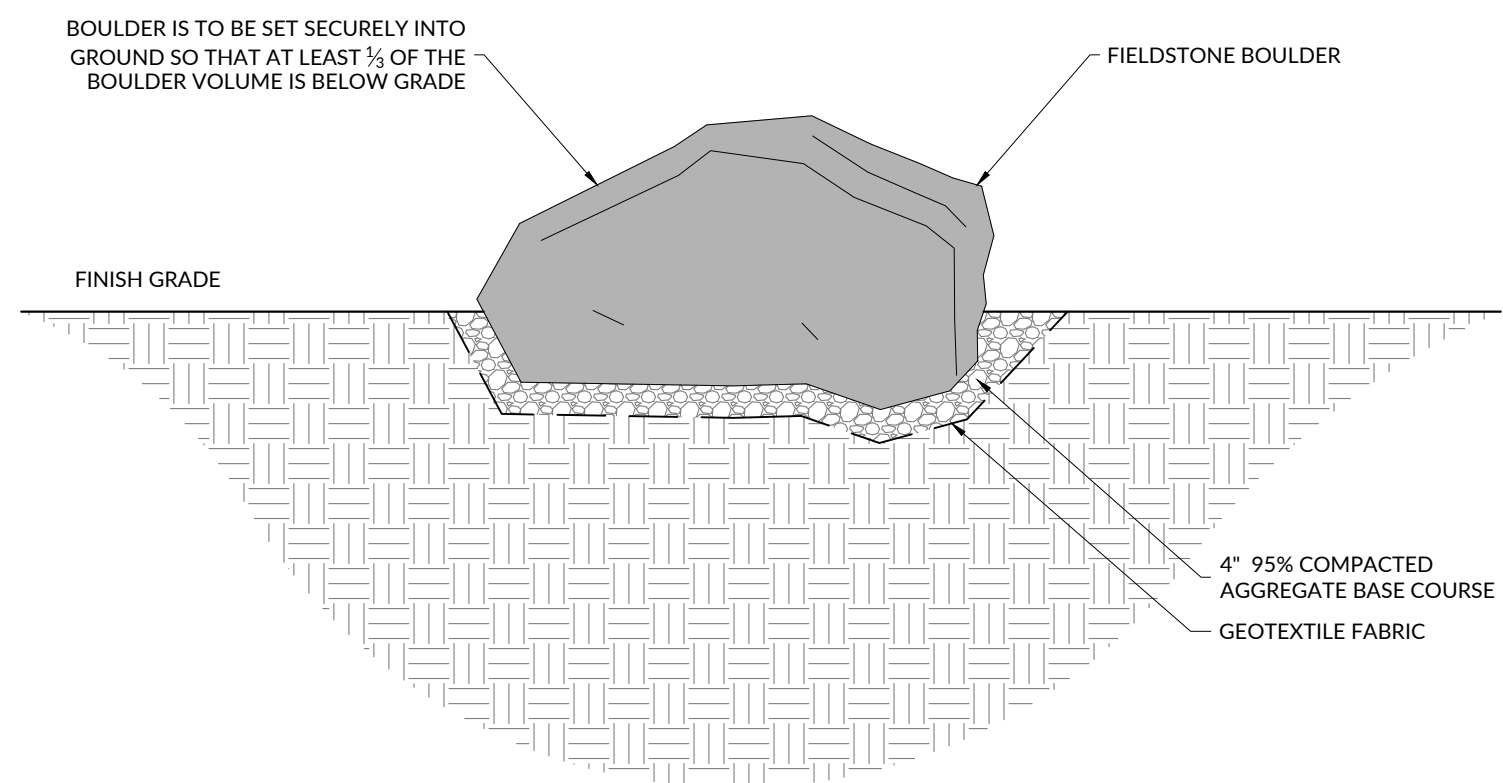
NOTE:

1. REFER TO PLANS FOR EXACT LOCATION & NUMBER OF BOLLARDS
2. FOR BOLLARD PRODUCT INFORMATION SEE FINISHES AND FURNISHING SCHEDULE.

04 STEEL BOLLARD FILLED WITH CONCRETE

SCALE: 1/2" = 1'-0"

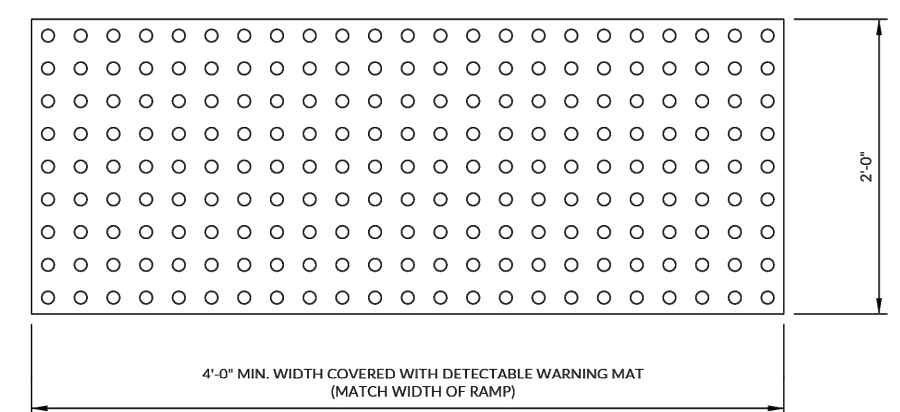
SECTION



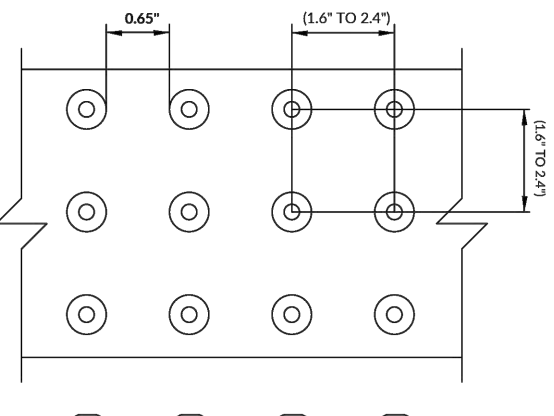
05 BOULDER

SCALE: 1/2" = 1'-0"

SECTION



TRUNCATED DOME PLAN VIEW



TRUNCATED DOME SECTION

TRUNCATED DOME SPACING

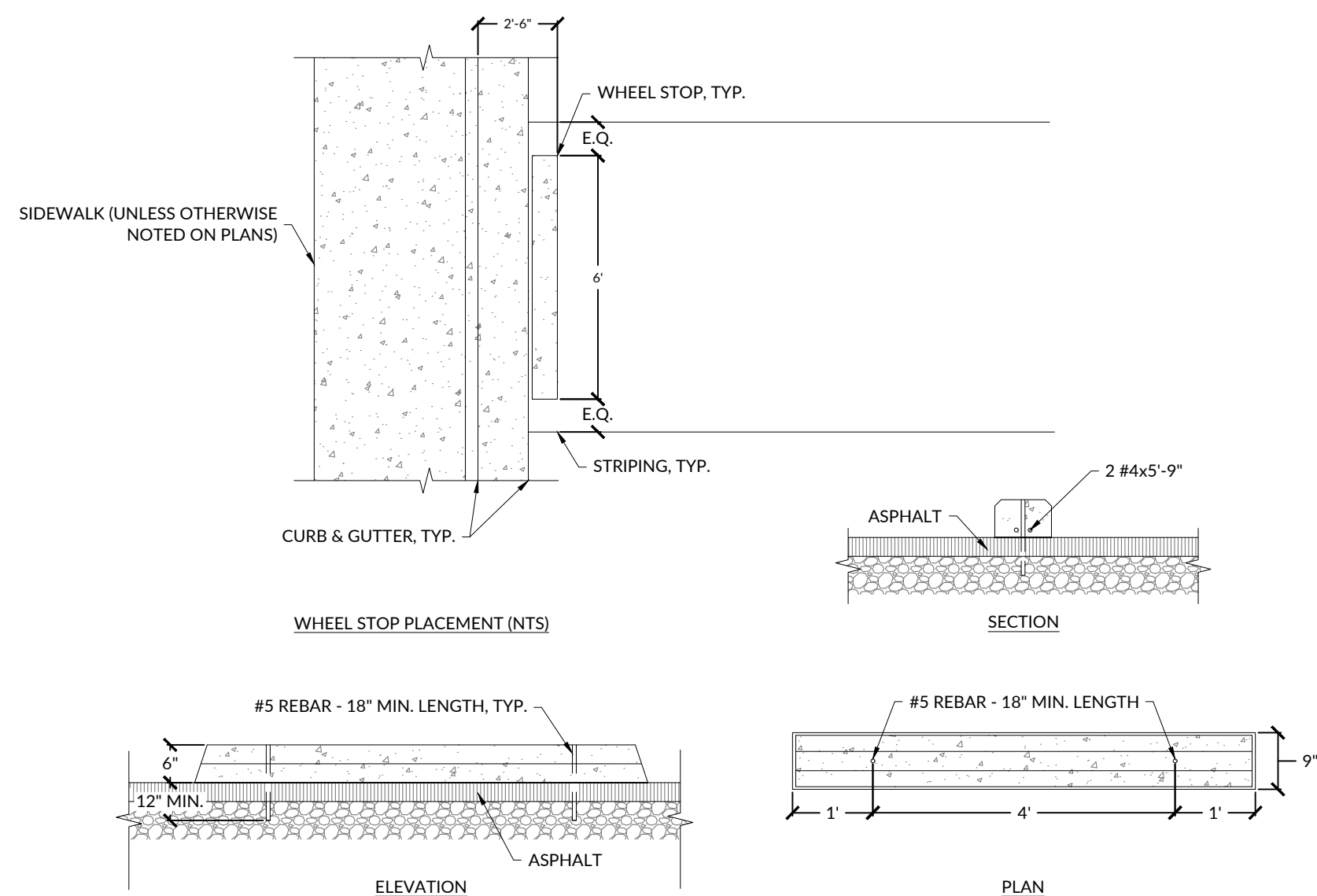
NOTES:

1. ALL DETECTABLE WARNING DEVICES USED IN NEW CONSTRUCTION SHALL BE OF A RIGID PRECAST OR EMBEDDED PRODUCT APPROVED BY THE CITY ENGINEER.
2. RAMP AND DETECTABLE WARNING AREA SHALL BE A MINIMUM OF 4 FEET IN WIDTH, BUT NO LESS THAN THE WIDTH OF SIDEWALK LEADING TO BACK OF RAMP.
3. DETECTABLE WARNING SURFACES SHALL EXTEND 2.0 FT MINIMUM IN THE DIRECTION OF PEDESTRIAN TRAVEL.
4. DETECTABLE WARNING AREA CAN BE PLACED SQUARE WHERE USED IN A CURB RADIUS.
5. THE BOWS OF TRUNCATED DOMES IN DETECTABLE WARNING SURFACES MUST BE ALIGNED PERPENDICULAR TO THE GRADE BREAK BETWEEN THE RAMP RUN AND THE STREET.
6. DETECTABLE WARNING AREA SHALL CONTRAST VISUALLY WITH ADJACENT GUTTER, STREET OR HIGHWAY, OR PEDESTRIAN ACCESS ROUTE SURFACE (OTHER LIGHT OR DARK OR DARK ON LIGHT).
7. IF PAVERS ARE TO BE USED, PAVERS SHALL BE MINIMUM 8000 PSI CONCRETE WITH A 2-INCH MINIMUM THICKNESS, SET ON A TWIN-SET MORTAR ON TOP OF 4" THICK 3600 PSI CONCRETE BASE.
8. MATS ARE TO BE RIGID WITH TURNED-DOWN EDGES EMBEDDED IN CONCRETE TO ELIMINATE TRIP HAZARD.
9. DIMENSIONS PER NCOT 610.04

06 TRUNCATED DOMES

SCALE: NTS

SECTION



07 PRECAST CONCRETE WHEEL STOP

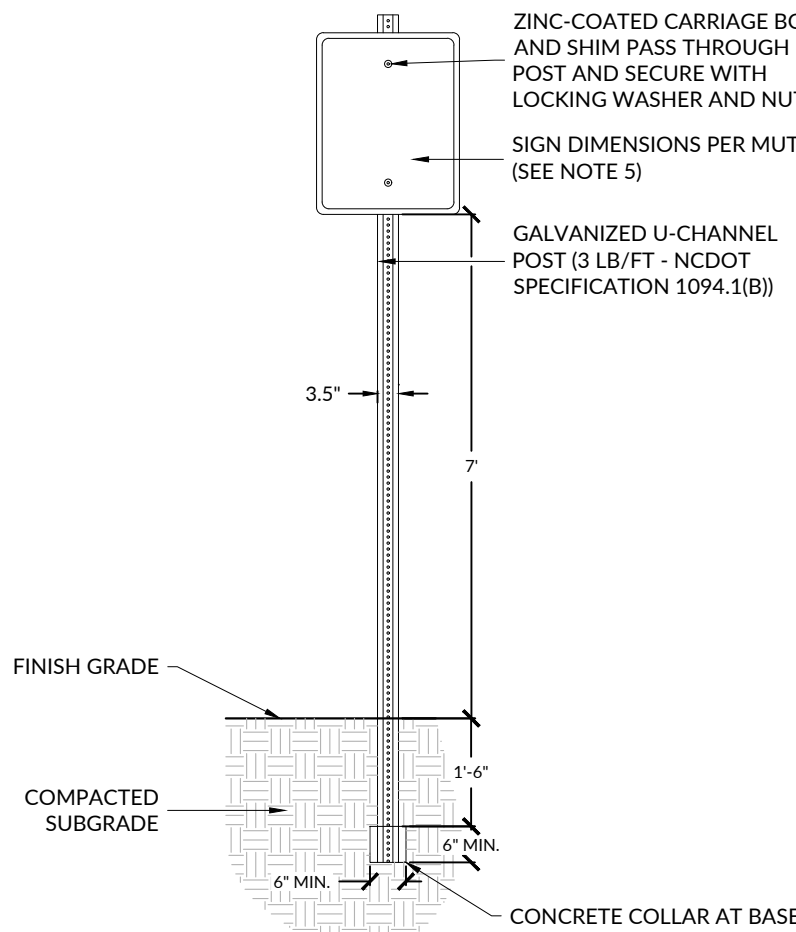
SCALE: 1/2" = 1'-0"

SECTION

- SECTION - IN LANDSCAPE
1. CONCRETE MIX SHALL BE 50 LB (APPROX. 0.375 CU FT) SACK OF PRE-BLENDED MIXTURE OF CEMENT AND AGGREGATES DESIGNATED "HIGH STRENGTH" FOR GENERAL STRUCTURAL USE AND REQUIRING ONLY THE ADDITION OF WATER.
 2. COMPACT DISTURBED AREAS ABOVE CONCRETE COLLAR IN MAXIMUM 6-INCH LIFTS.
 3. U-CHANNEL POSTS THAT ARE MECHANICALLY DRIVEN A MINIMUM OF 24-INCHES INTO UNDISTURBED GROUND MAY OMIT THE CONCRETE COLLAR.
 4. SIGN MATERIAL SHALL BE MINIMUM 0.125" ALUMINUM WITH RETROREFLECTIVE SHEETING THAT MEETS ASTM D4956 AND IS LISTED ON THE NC DOT APL.
 5. SIGN SIZES SHALL BE IN ACCORDANCE WITH TABLE 2B-1 OF THE MUTCD SHOWN BELOW FOR REFERENCE.

TABLE 2B-1. REGULATORY SIGN SIZES

SIGN	MUTCD CODE	CONVENTIONAL ROADS
STOP	R1-1	30" x 30"
ONE WAY	R6-2	24" x 30"
FIRE LANE	R8-31	12" x 18"
DROP OFF ONLY	R7-6D	12" x 18"
DO NOT ENTER	R5-1	30" x 30"
PEDESTRIAN CROSSING	W11-2	30" x 30"



SECTION - IN LANDSCAPE

08 TRAFFIC SIGNAGE

SCALE: 3/8" = 1'-0"

SECTION

8/19/2026

SCALE AS SHOWN

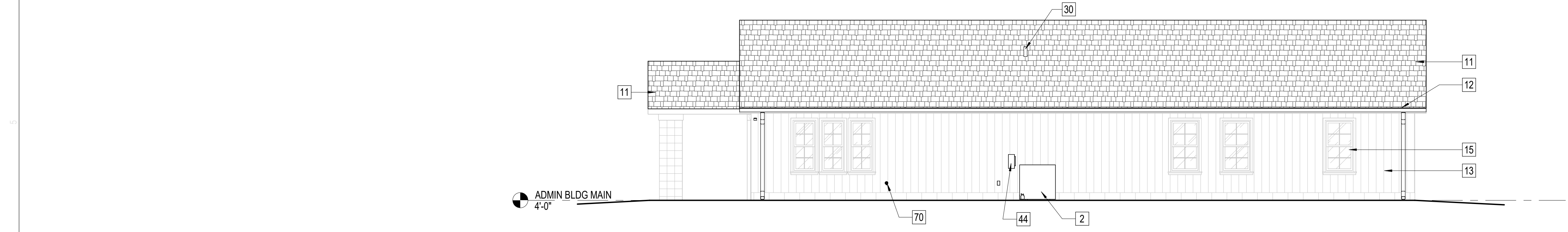
INITIAL PLAN DATE: 08/05/2026
REVISIONS:
1 - 08/19/26 JMD
ADDENDUM 1

Know what's below.
Call before you dig.
WR JOB NUMBER 22-0024-007
DRN: JMD DGN: JMD CKD: MA

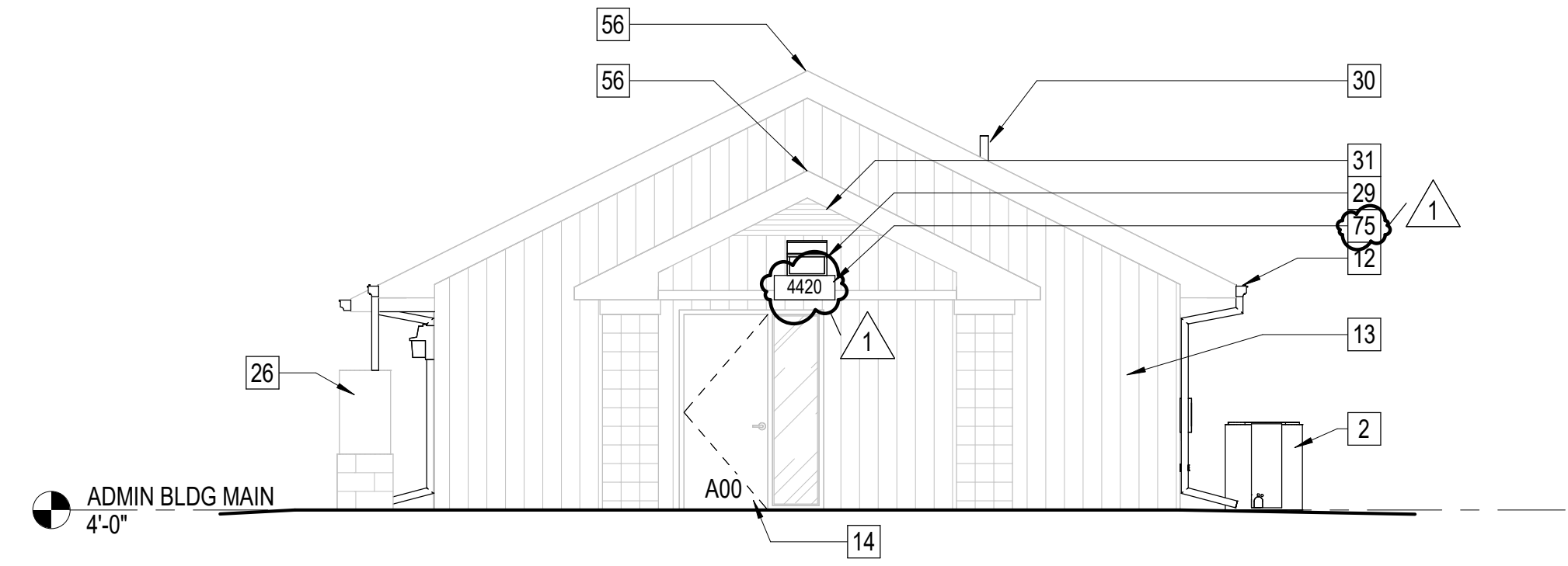
SITE DETAILS

C9.02

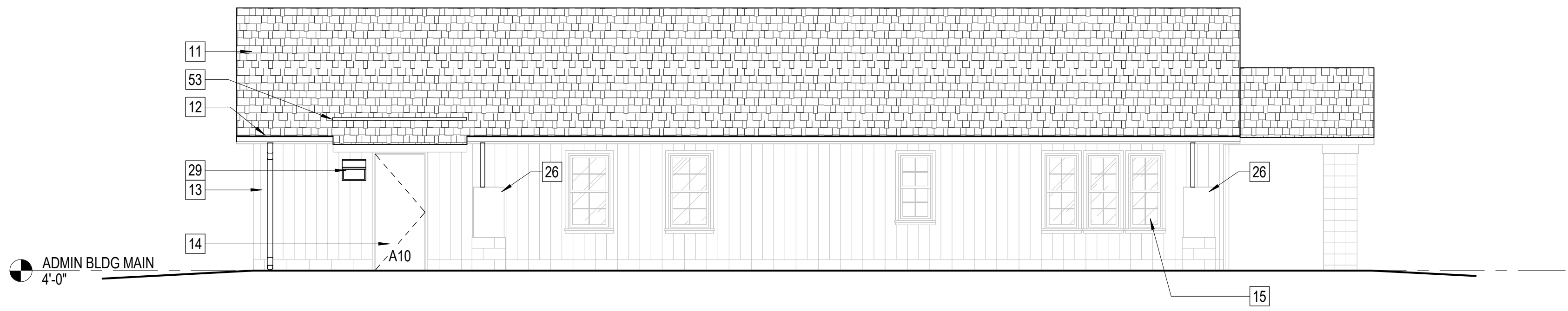
8/19/2026 11:41:20 AM
Autodesk Docs/Lake Crabtree County Park/101817-B_Maint & Admin Bldg_A25.rvt



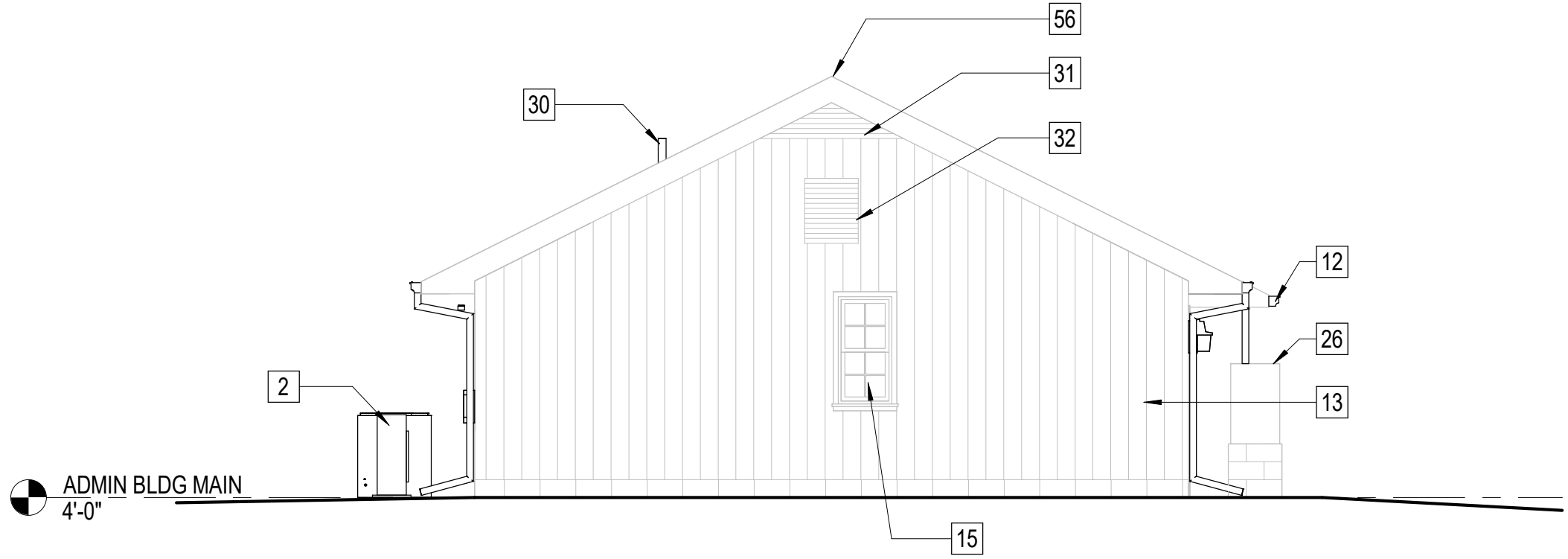
B4 ADMIN. NORTH ELEVATION
SCALE: 3/16" = 1'-0"



B3 ADMIN. EAST ELEVATION
SCALE: 3/16" = 1'-0"



B2 ADMIN. SOUTH ELEVATION
SCALE: 3/16" = 1'-0"



B1 ADMIN. WEST ELEVATION
SCALE: 3/16" = 1'-0"

GENERAL NOTES

1. REFER TO SHEET A1.00 FOR ARCHITECTURAL SYMBOLS LEGEND.
2. REFER TO SHEET A2.61 FOR CURTAIN WALL, LOUVER, AND DOOR ELEVATIONS.
3. REFER TO AND COORDINATE WITH STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS DRAWING.
4. REFER TO AND COORDINATE WITH CIVIL AND LANDSCAPING DRAWINGS FOR ALL FINISHED GRADES.
5. HOLLOW METAL DOORS AND FRAMES TO BE PAINTED REFER TO FINISH SCHEDULE AND SPECIFICATIONS FOR COLOR.

KEY NOTES

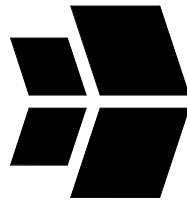
- 2 NEW MECHANICAL EQUIPMENT AND CONCRETE PAD PER MANUFACTURER, REFER TO MECHANICAL
- 11 NEW ASPHALT SHINGLE ROOF
- 12 NEW METAL GUTTERS WITH GUTTER GUARDS. INCLUDE EXPANSION JOINTS SPACED MAXIMUM 50'
- 13 DAMAGED TRIM AND CLADDING TO BE REPLACED TO MATCH EXISTING. FULL BUILDING TO BE REPAINTED AND CAULKED.
- 14 EXISTING HOLLOW METAL DOOR AND FRAMES TO BE PAINTED
- 15 WINDOWS TO REMAIN AND RECEIVE NEW PAINT AND CAULKING
- 26 EXISTING RAIN BARREL TO REMAIN, INSTALL NEW METAL DOWNSPOUTS.
- 29 EXTERIOR WALL MOUNTED FLOOD LIGHT, REF ELECTRICAL
- 30 NEW ROOF VENT, REF PLUMBING
- 31 EXISTING ATTIC VENT TO REMAIN
- 32 EXISTING LOUVER TO REMAIN, REF MECHANICAL
- 44 NEW ELECTRICAL EQUIPMENT, REFER TO ELECTRICAL.
- 53 ALUMINUM RAIN DIVERTER STRIP
- 56 RIDGE VENT
- 70 HOSE BIB, REFER TO PLUMBING
- 75 EXISTING ADDRESS SIGN TO REMAIN

GRAPHIC SCALE(S)



WithersRavenel
137 S. Wilmington Street | Suite 200 | Raleigh, NC 27601
License #: F-1479 | T: 919.469.3340 | www.withersravenel.com

CLARK KENSEN - NC
A DIVISION OF JOHNSON, MIRMAN & THOMPSON, INC.
License #: F-3097



BID SET
**LAKE CRABTREE COUNTY PARK
IMPROVEMENTS**

1400 Aviation Pkwy | Morrisville, NC 27560 | Wake County



2026.08.19 12:14:53-04'00'

INITIAL PLAN DATE: 08/05/2026
REVISIONS:

1 08/19/2026 ADDENDUM 1

WR JOB NUMBER 22-0024-007
DRN: TF DGN: BT CKD: JH

ADMIN BUILDING -
EXTERIOR
ELEVATIONS

A2.21

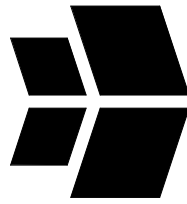
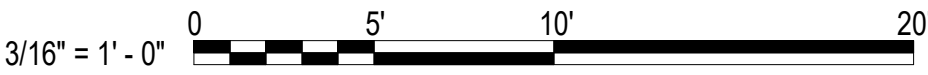
GENERAL NOTES

1. REFER TO SHEET A1.00 FOR ARCHITECTURAL SYMBOLS LEGEND.
2. REFER TO SHEET A2.61 FOR CURTAIN WALL, LOUVER, AND DOOR ELEVATIONS.
3. REFER TO AND COORDINATE WITH STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS DRAWING.
4. REFER TO AND COORDINATE WITH CIVIL AND LANDSCAPING DRAWINGS FOR ALL FINISHED GRADES.
5. HOLLOW METAL DOORS AND FRAMES TO BE PAINTED REFER TO FINISH SCHEDULE AND SPECIFICATIONS FOR COLOR.

KEY NOTES

- 2 NEW MECHANICAL EQUIPMENT AND CONCRETE PAD PER MANUFACTURER, REFER TO MECHANICAL
- 12 NEW METAL GUTTERS WITH GUTTER GUARDS. INCLUDE EXPANSION JOINTS SPACED MAXIMUM 50'
- 13 DAMAGED TRIM AND CLADDING TO BE REPLACED TO MATCH EXISTING. FULL BUILDING TO BE REPAINTED AND CAULKED.
- 15 WINDOWS TO REMAIN AND RECEIVE NEW PAINT AND CAULKING
- 21 NEW METAL DOWNSPOUT AND BOOT. CONNECT TO STORM. REFER TO CIVIL.
- 22 SLOPE CONCRETE SLAB TO DOOR SILL. REF. CIVIL
- 29 EXTERIOR WALL MOUNTED FLOOD LIGHT, REF ELECTRICAL
- 30 NEW ROOF VENT, REF PLUMBING
- 35 NEW METAL DOWNSPOUTS W/ SPLASH BLOCKS
- 39 NEW PLYWOOD DECK, UNDERLAYMENT AND ASPHALT SHINGLE ROOF OVER EXISTING WOOD TRUSSES. REFER TO STRUCTURAL.
- 51 PARAPET EXTEND ABOVE DECK IN BASE BID. OMIT IN ADD ALTERNATE G-02.
- 59 PROVIDE PRIVACY FILM AT EXISTING RESTROOM INTERIOR GLAZING
- 60 EXISTING HOSE BIB, REF PLUMBING
- 62 EXTEND FIRE RATED WALL 1' ABOVE NEW PLYWOOD DECK
- 70 HOSE BIB, REFER TO PLUMBING
- 72 ROOF MOUNTED OUTSIDE AIR INTAKE, REFER TO MECHANICAL
- 75 EXISTING ADDRESS SIGN TO REMAIN

GRAPHIC SCALE(S)



BID SET
LAKE CRABTREE COUNTY PARK
IMPROVEMENTS

1400 Aviation Pkwy | Morrisville, NC 27560 | Wake County



2026.08.19 12:15:10-04'00"

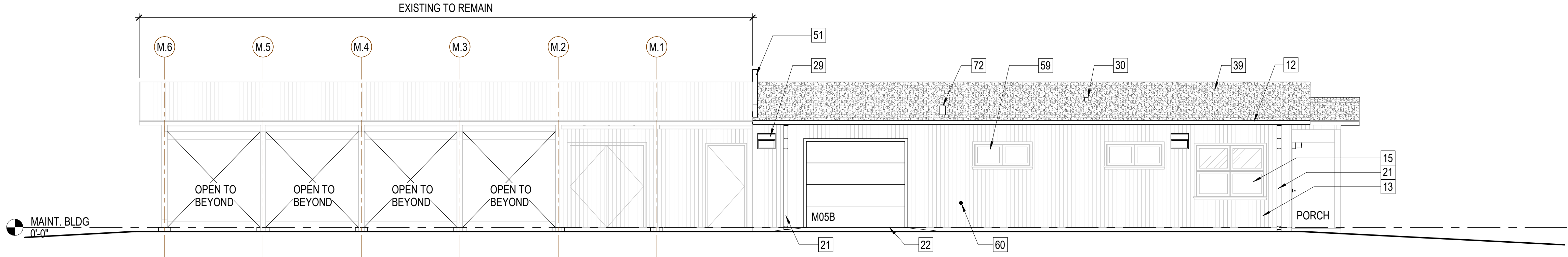
INITIAL PLAN DATE: 08/05/2026
REVISIONS:

1 08/19/2026 ADDENDUM 1

WR JOB NUMBER 22-0024-007
DRN: TF DGN: BT CKD: JH

MAINTENANCE
BUILDING - EXTERIOR
ELEVATIONS - BASE
BID

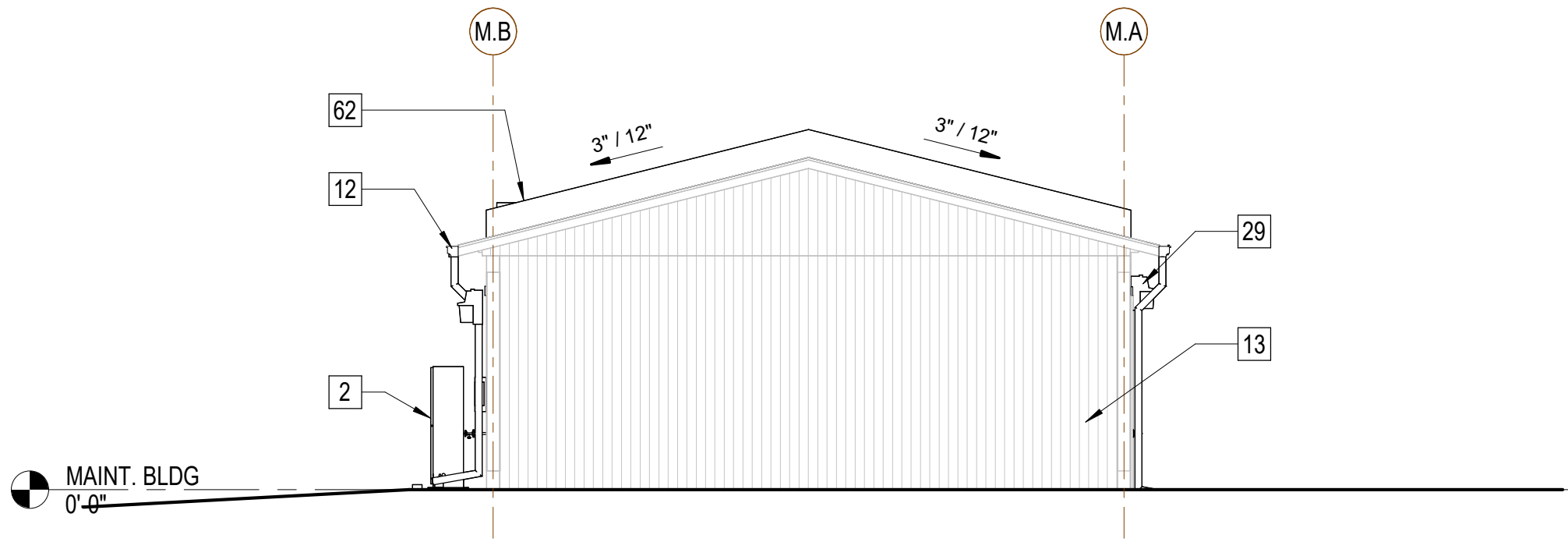
A3.21



MAINTENANCE NORTH ELEVATION - BASE

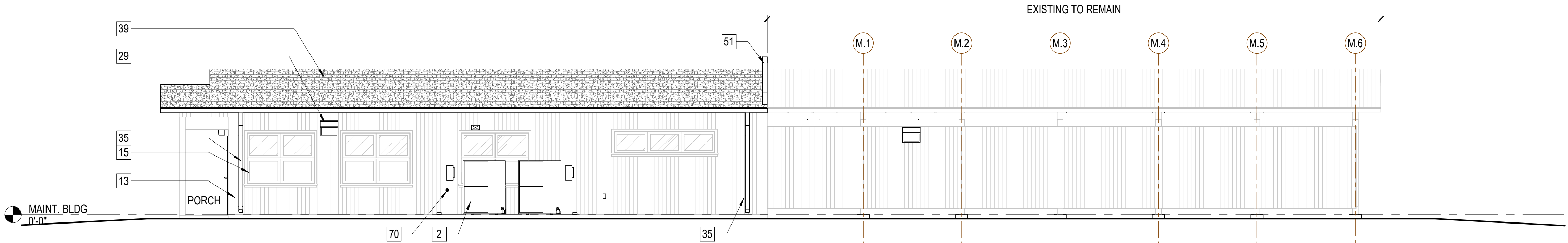
BID

SCALE: 3/16" = 1'-0"



MAINTENANCE EAST ELEVATION - BASE BID

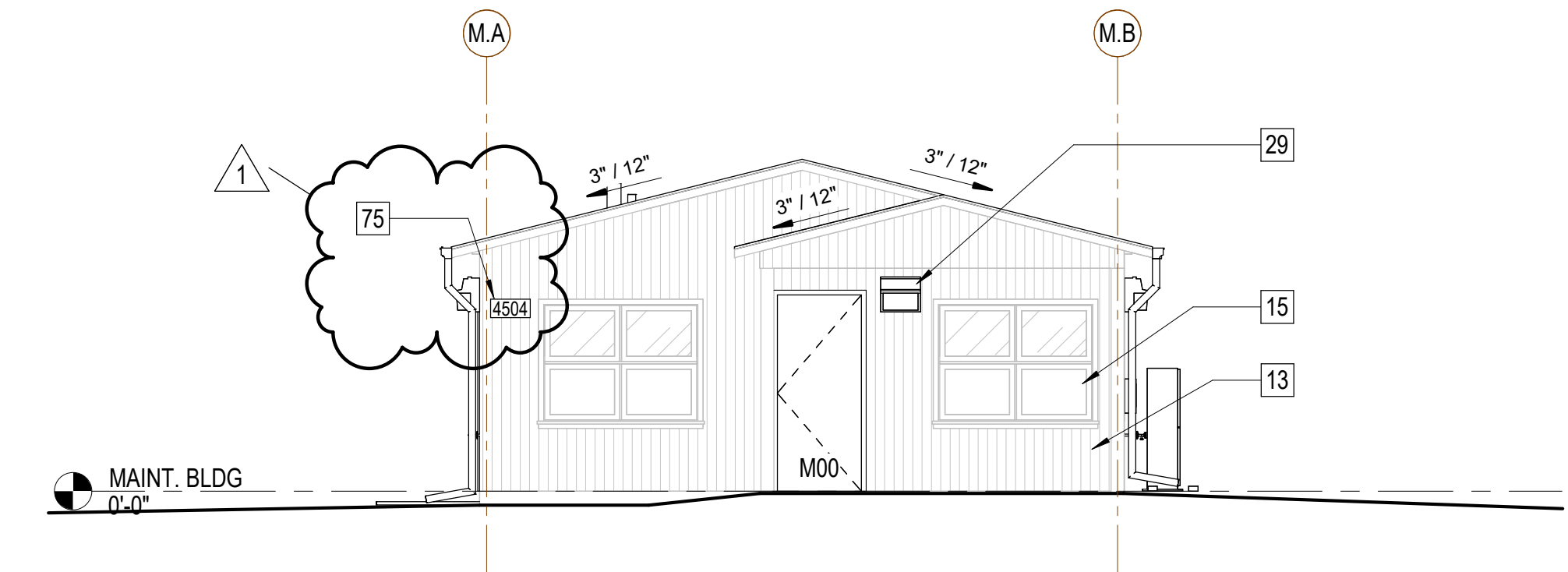
SCALE: 3/16" = 1'-0"



MAINTENANCE SOUTH ELEVATION - BASE

BID

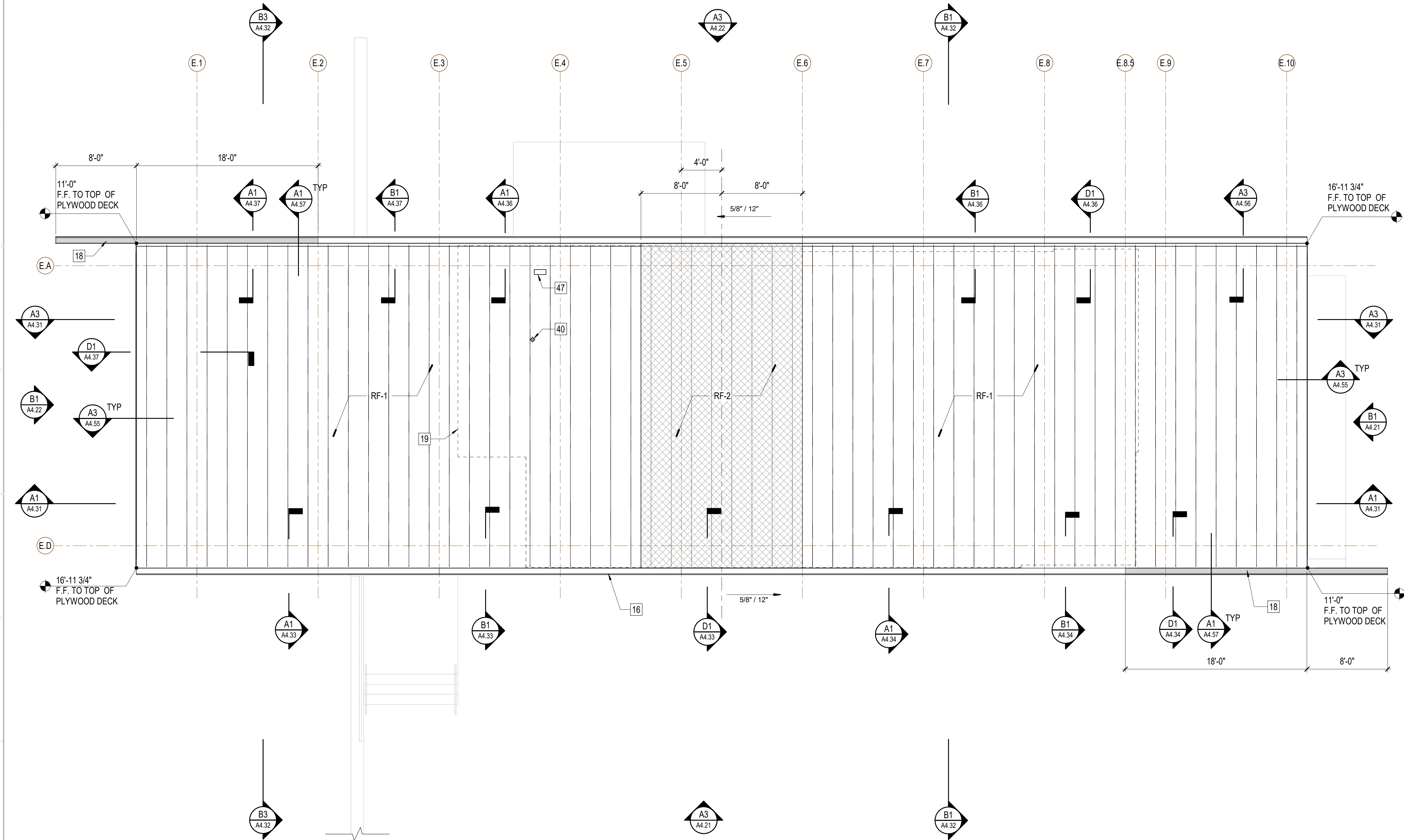
SCALE: 3/16" = 1'-0"



MAINTENANCE WEST ELEVATION - BASE BID

SCALE: 3/16" = 1'-0"

8/19/2026 11:37:45 AM
Autodesk Docs/Lake Crabtree County Park/10/18/17-B_Education Ctr_A4.15.rvt



 EDUCATION CENTER - ROOF PLAN
SCALE: 3/16" = 1'-0"

GENERAL NOTES

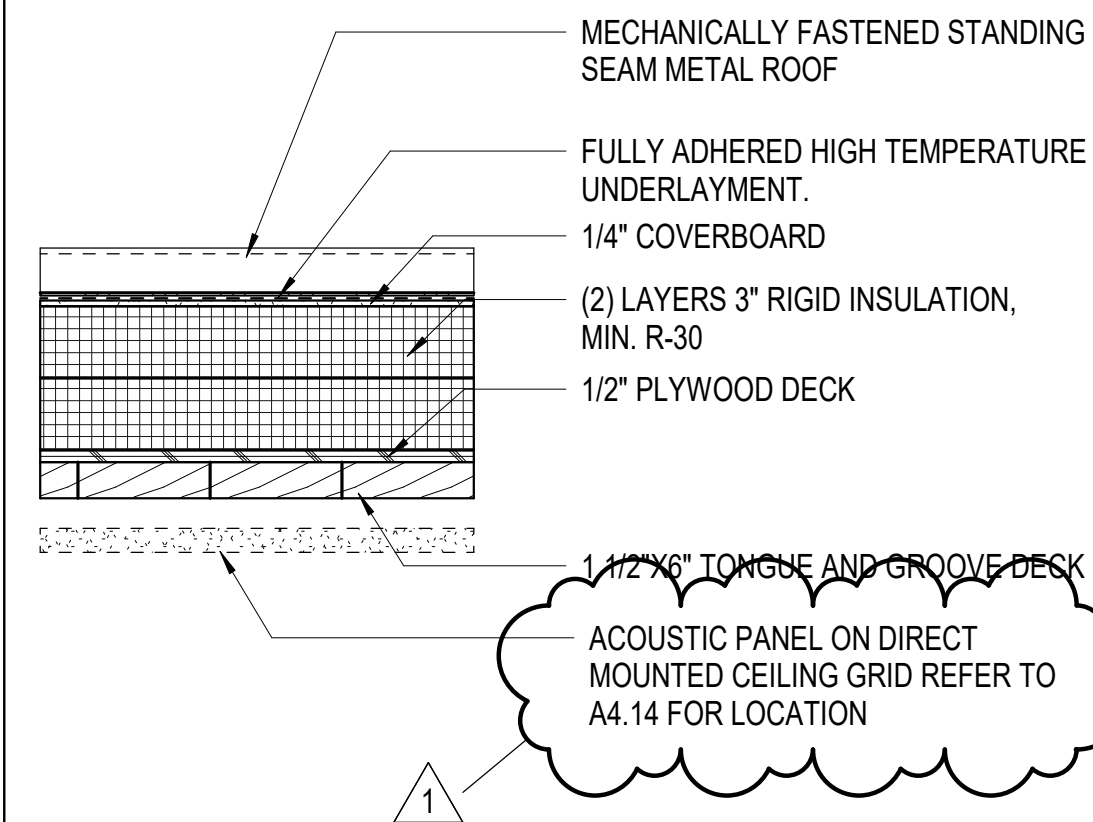
1. ROOF AREAS SLOPING LESS THAN 1/4" PER FOOT SHOWN AS HATCHED REGION. AREA TO INCLUDE CONTINUOUS SEAM CLIP AND FULLY ADHERED ICE AND WATER SHIELD PER SPECIFICATION AND ASSEMBLY DETAILS.
2. COORDINATE WITH MECHANICAL AND PLUMBING DRAWINGS FOR LOCATION OF ROOF PENETRATIONS THAT MAY NOT BE SHOWN ON THIS DRAWING.

KEY NOTES

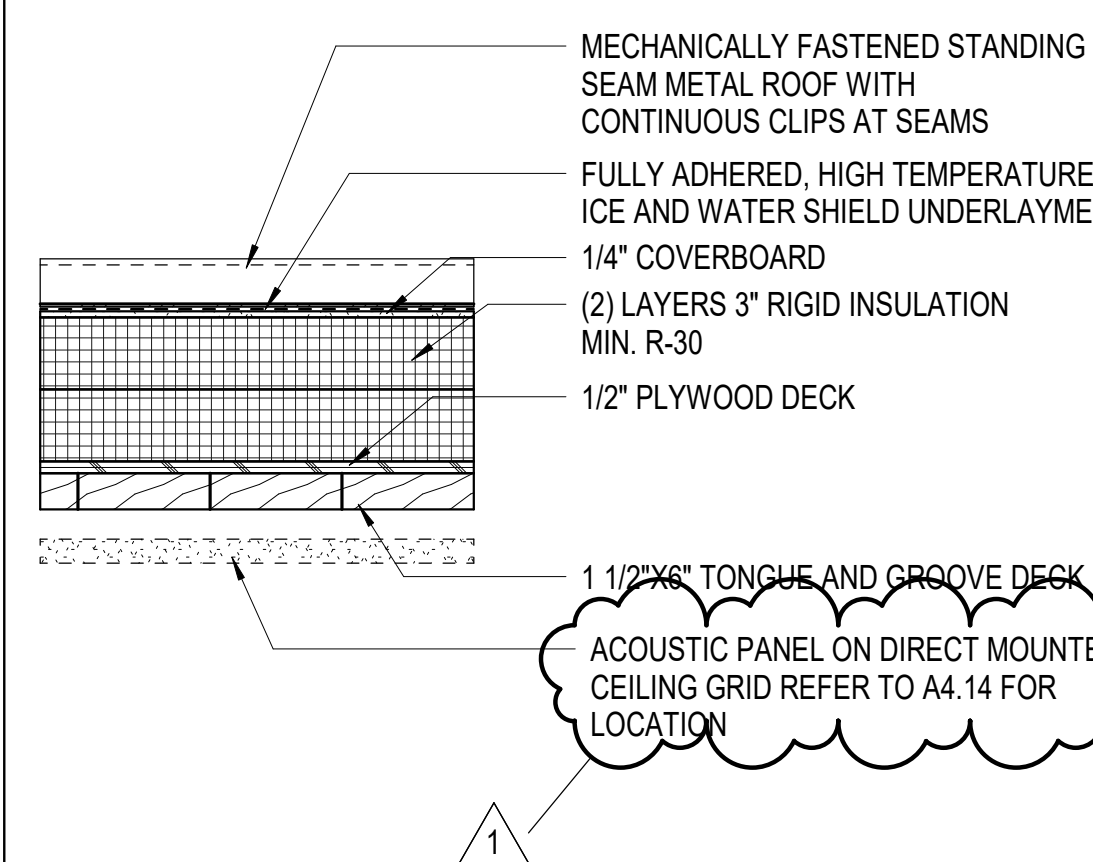
- 16 PREFINISHED METAL GUTTER W/ EXPANSION JOINTS SPACED 24' MAX.
- 18 PREFINISHED METAL GUTTER W/ CONTINUOUS STEEL SUPPORT AT CANTILEVERED ENDS
- 19 DASHED LINE REPRESENTS BUILDING ENCLOSURE UNDER ROOF
- 40 VENT PIPE, REFER TO PLUMBING
- 47 EXHAUST AIR, REFER TO MECHANICAL.

ROOF ASSEMBLIES

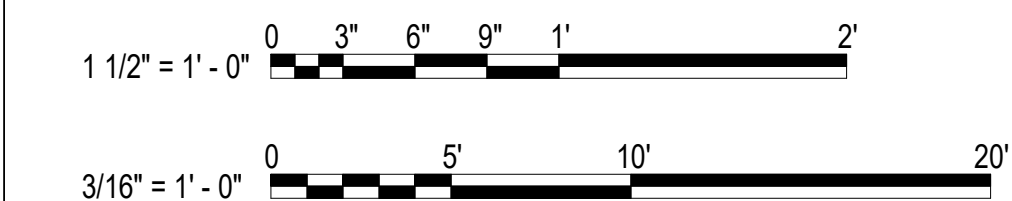
RF-1
SCALE: 1 1/2" = 1'-0"

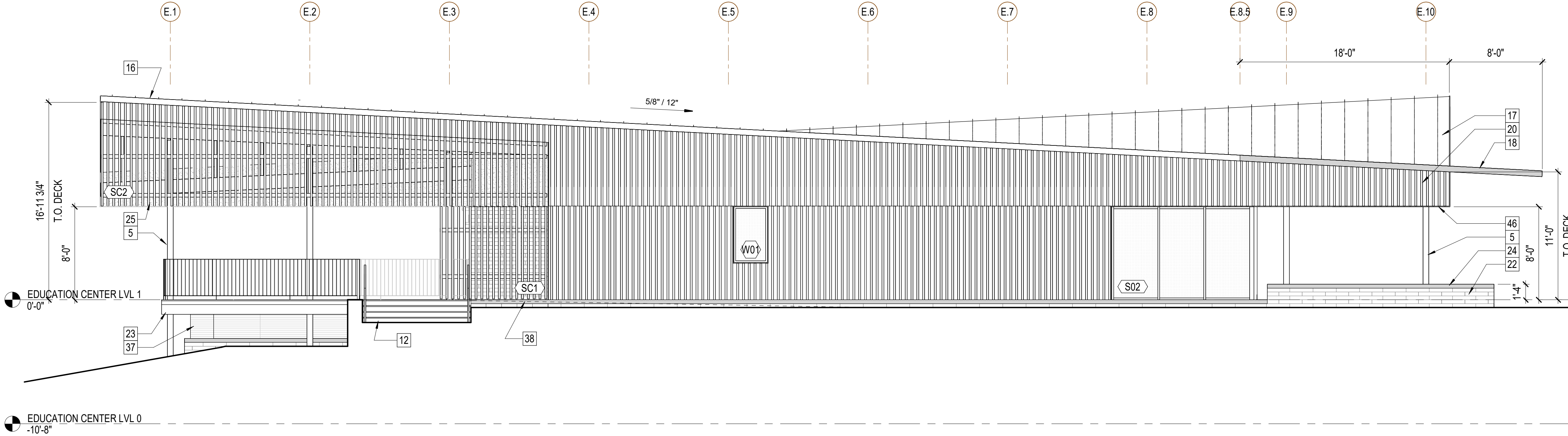


RF-2
SCALE: 1 1/2" = 1'-0"

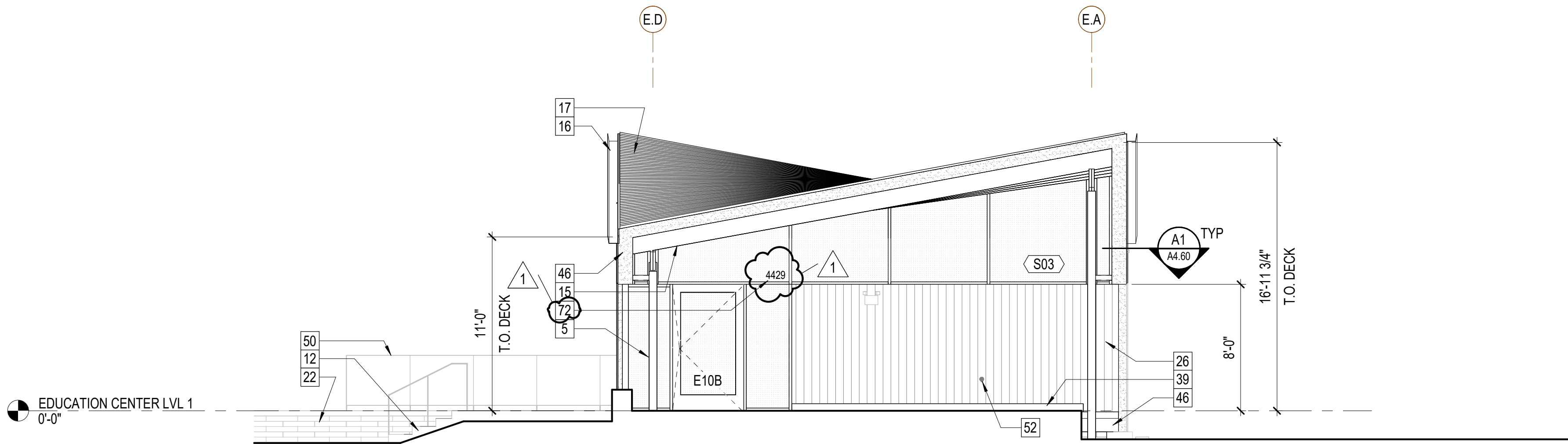


GRAPHIC SCALE(S)





A3 SOUTH ELEVATION
SCALE: 3/16" = 1'-0" 20260226_00



B1 EAST ELEVATION
SCALE: 3/16" = 1'-0" A4.11

GENERAL NOTES

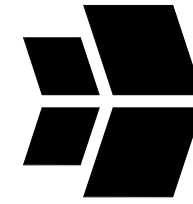
1. REFER TO SHEET A1.00 FOR ARCHITECTURAL SYMBOLS LEGEND.
2. REFER TO SHEET A4.61 FOR STOREFRONT, LOUVER, AND DOOR ELEVATIONS.
3. REFER TO AND COORDINATE WITH STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS DRAWING.
4. REFER TO AND COORDINATE WITH CIVIL AND LANDSCAPING DRAWINGS FOR ALL FINISHED GRADES.
5. HOLLOW METAL DOORS, FRAMES AND EXPOSED STEEL LINTELS TO BE PAINTED TO MATCH BRICK VENEER (COLOR TO BE SELECTED BY ARCHITECT).

KEY NOTES

- 5 HIGH PERFORMANCE COATING AND PAINTED HSS COLUMN TYP.
- 12 CAST IN PLACE CONCRETE STEPS WITH COMPOSITE WOOD TREADS AND RISERS
- 15 EXPOSED RAFTERS, REFER TO STRUCTURAL
- 16 PREFINISHED METAL GUTTER W/ EXPANSION JOINTS SPACED 24" MAX.
- 17 MECHANICALLY FASTENED STANDING SEAM METAL ROOF
- 18 PREFINISHED METAL GUTTER W/ CONTINUOUS STEEL SUPPORT AT CANTILEVERED ENDS
- 20 VERTICAL BOARD AND BATTEN CEDAR SIDING BASE BID || ALT G-06 - VERTICAL BOARD AND BATTEN ACCOYA SIDING
- 22 4"X4"X24" GROUND FACE CMU VENEER
- 23 COMPOSITE WOOD/FIBER CEMENT BOARD DECK TRIM
- 24 PRECAST STONE CAP
- 25 CEDAR BATTEN SCREEN WITH STEEL STRUCTURE, FINISH WITH HIGH PERFORMANCE COATING AND PAINT
- 26 VERTICAL SHIPLAP CEDAR SIDING - BASE BID || ALT G-06 - VERTICAL SHIPLAP ACCOYA SIDING - ALTERNATE 06
- 37 GALVANIZED AND PAINTED ENCLOSURE GRILLE PANELS W/ FLATBAR POSTS
- 38 CONCRETE SIDEWALK. REFER TO CIVIL.
- 39 METAL BASE TRIM
- 46 FIBER CEMENT BOARD TRIM W/ PREFINISHED EDGE
- 50 GALVANIZED AND PAINTED STEEL BARSTOCK RAIL WITH PLATE PANELS WELD AND GRIND FLAT AT SEAMS.
- 52 HOSE BIB, REFER TO PLUMBING
- 72 OFOI NEW BUILDING ADDRESS SIGNAGE. NUMBERS TO BE MIN. 6" TALL AND VISIBLE FROM THE STREET.

1

GRAPHIC SCALE(S)



LAKE CRABTREE COUNTY PARK IMPROVEMENTS

BID SET

1400 Aviation Pkwy | Morrisville, NC 27560 | Wake County



2026.08.19 12:15:45-04'00"

INITIAL PLAN DATE: 08/05/2026
REVISIONS:

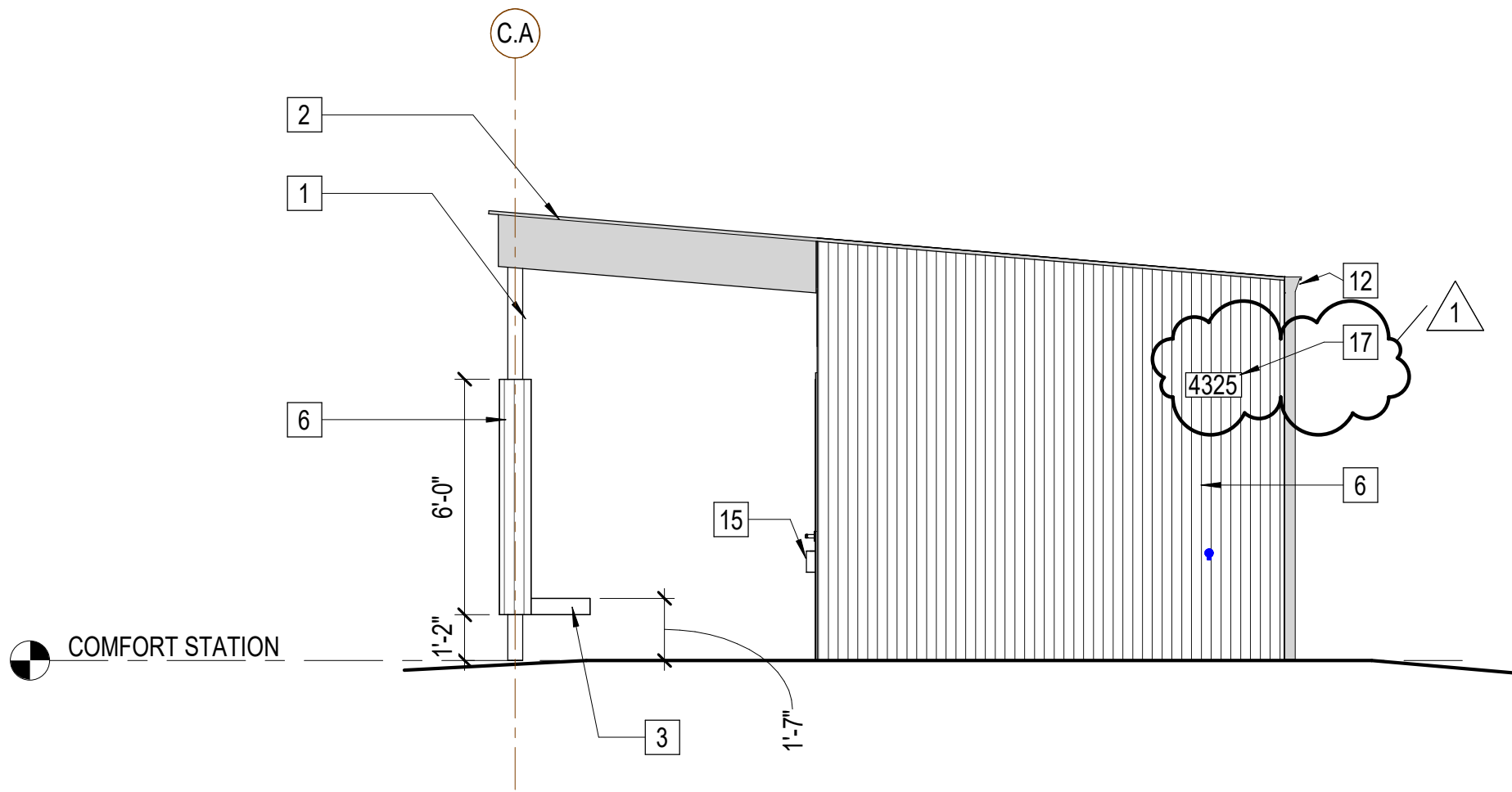
1 08/19/2026 ADDENDUM 1

WR JOB NUMBER 22-0024-007
DRN: TF DGN: BT CKD: JH

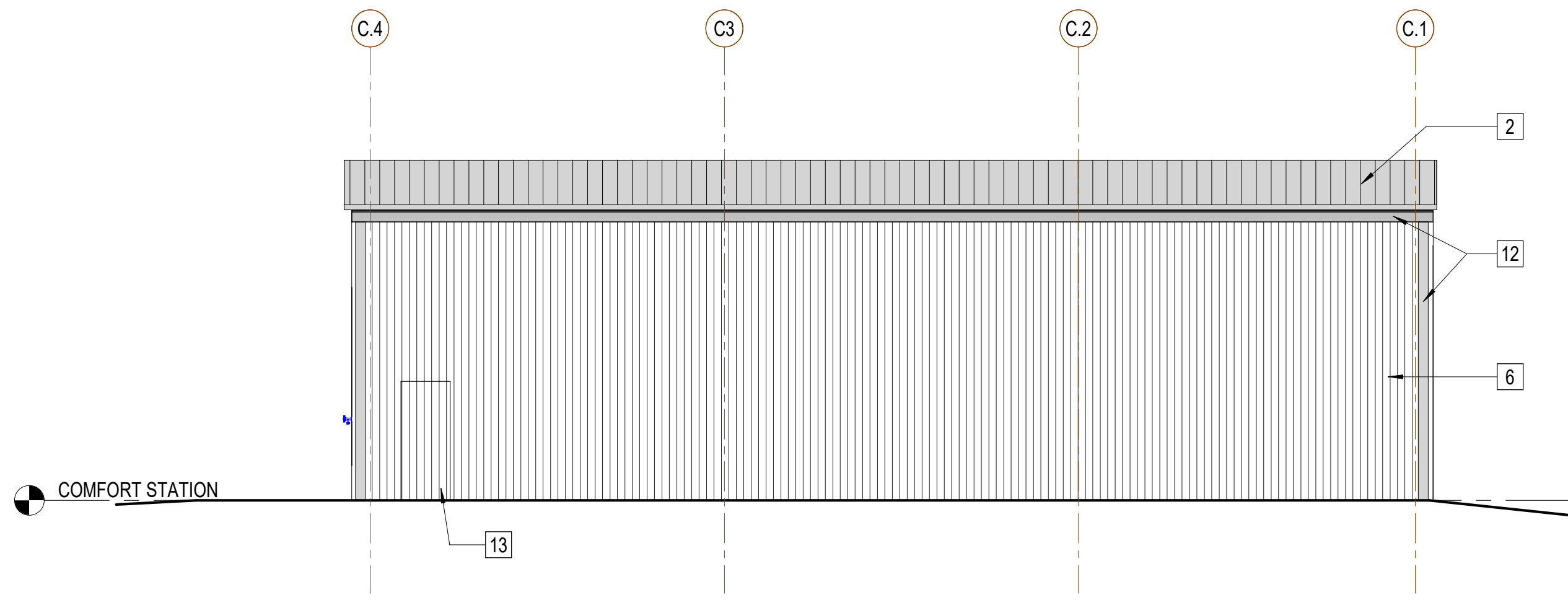
EDUCATION CENTER -
EXTERIOR
ELEVATIONS

A4.21

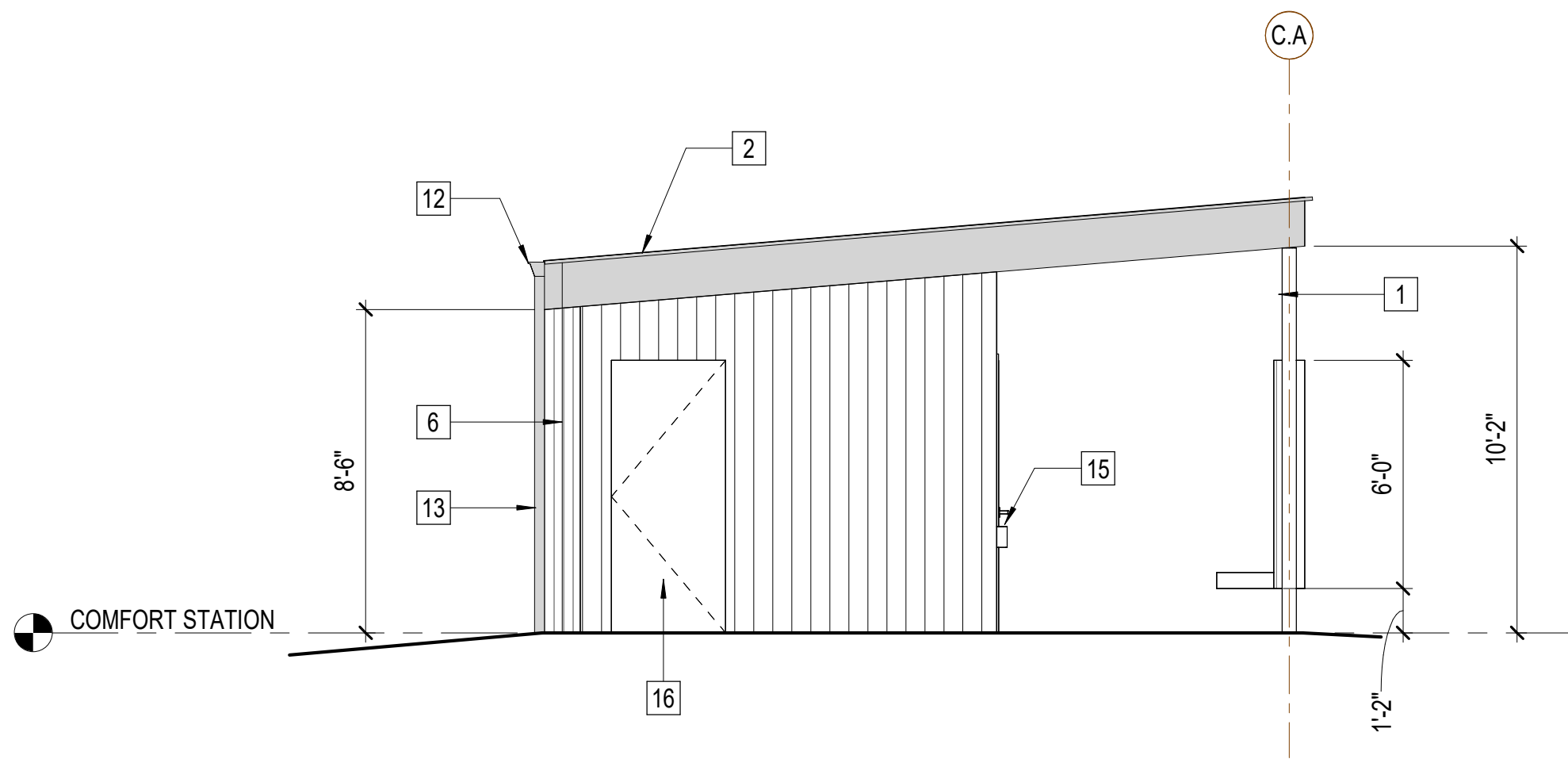
8/19/2026 11:49:51 AM
Autodesk Docs/Lake Crabtree County Park/101817-B, Comfort Station_A25.rvt



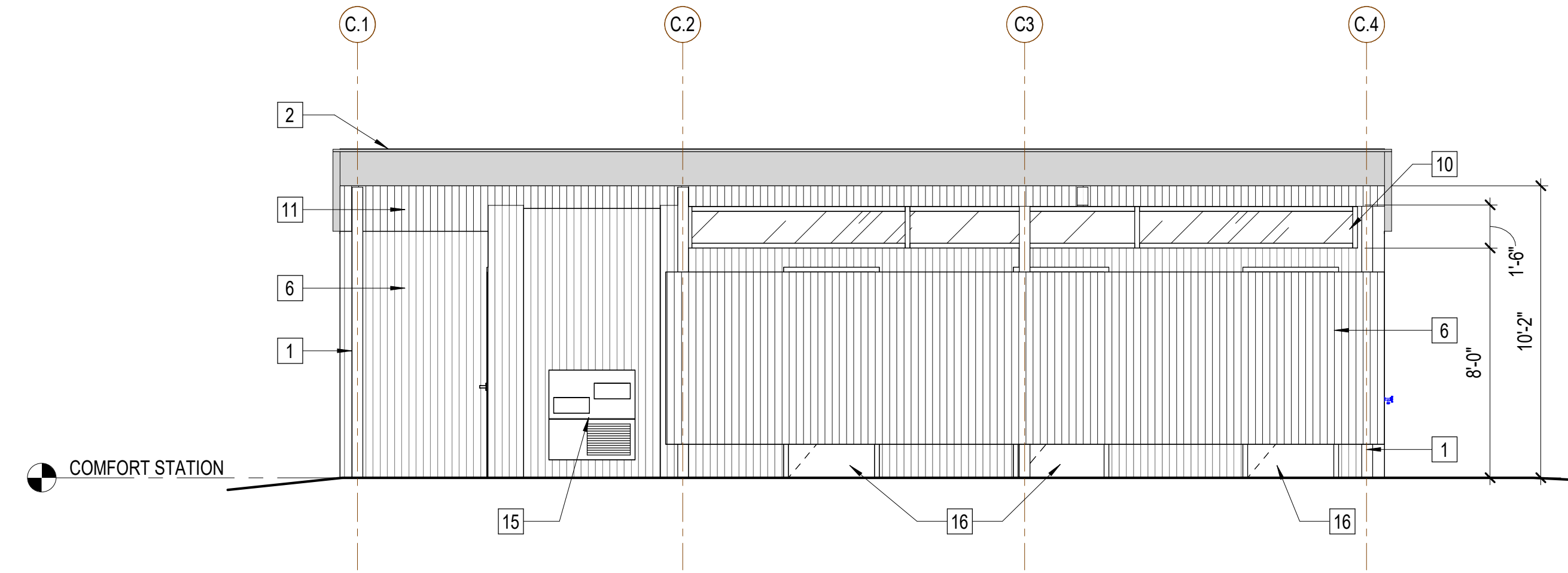
A3 COMFORT STATION - EAST ELEVATION
SCALE: 1/4" = 1'-0"



C3 COMFORT STATION - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



A1 COMFORT STATION - WEST ELEVATION
SCALE: 1/4" = 1'-0"



C1 COMFORT STATION - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"

GENERAL NOTES

1. REFER TO SHEET A1.00 FOR ARCHITECTURAL SYMBOLS LEGEND.
2. REFER TO SHEET A3.61 FOR STOREFRONT, LOUVER, AND DOOR ELEVATIONS.
3. REFER TO AND COORDINATE WITH STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS DRAWING.
4. REFER TO AND COORDINATE WITH CIVIL AND LANDSCAPING DRAWINGS FOR ALL FINISHED GRADES.

KEY NOTES

- 1 HIGH PERFORMANCE COATED STEEL TUBE STRUCTURE, SEE STRUCTURAL
- 2 STANDING SEAM METAL ROOFING SYSTEM
- 3 PREFINISHED WOOD BENCH
- 6 PREFINISHED WOOD VERTICAL PLANK CLADDING
- 10 PAINTED HM FRAME INSULATED GLAZING CLERESTORY WINDOWS
- 11 PREFINISHED WOOD PLANK CEILING
- 12 PREFINISHED METAL GUTTER WITH DOWNSPOUTS - FINISH TO MATCH ROOF PANELS. TERMINATE DOWNSPOUTS AT SPLASH BLOCKS
- 13 ELECTRICAL PANEL - SEE ELECTRICAL DRAWINGS
- 15 DUAL HEIGHT DRINKING FOUNTAIN, REFER TO A1.01 FOR MOUNTING HEIGHTS
- 16 PAINTED HOLLOW METAL DOOR AND FRAME
- 17 OFOI NEW BUILDING ADDRESS SIGNAGE. NUMBERS TO BE MIN. 6" TALL AND VISIBLE FROM THE STREET.

EXTERIOR FINISH LEGEND

NATURAL WOOD:	RESAWN - ALASKAN YELLOW CEDAR - "YAKUTAT" ALT: ACCOYA - "YOSE"
STANDING SEAM METAL ROOF:	GARLAND - CADET GRAY
EXPOSED COLUMNS PAINT:	MATCH GARLAND - CADET GRAY
DOWNSPOUTS AND GUTTERS:	MATCH GARLAND - CADET GRAY
HM DOORS AND FRAMES:	MATCH GARLAND CADET GRAY (HM FRAMES TO BE HIGH PERFORMANCE COATED)

GRAPHIC SCALE(S)

1/8" = 1' - 0" 0 5' 10' 15' 30'



LAKE CRABTREE COUNTY PARK IMPROVEMENTS

BID SET

1400 Aviation Pkwy | Morrisville, NC 27560 | Wake County



2026.08.19 12:16:00-04'00'

INITIAL PLAN DATE: 08/05/2026
REVISIONS:

1 08/19/2026 ADDENDUM 1

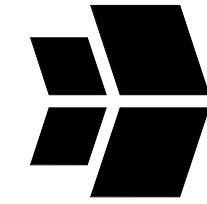
WR JOB NUMBER 22-0024-007
DRN: TH DGN: TF CKD: RT

COMFORT STATION - ELEVATIONS

A5.21.A

WithersRavenel
137 S. Wilmington Street | Suite 200 | Raleigh, NC 27601
License # F-1479 | T: 919.469.3340 | www.withersravenel.com

CLARK KENSEN - NC
A DIVISION OF JOHNSON, MIRMIRAN & THOMPSON, INC.
License # F-3097



our people • your success