

## **Addendum #1**

Project: Columbus County Schools PK-8  
Green Swamp Road Hwy 211 and Sam Potts Hwy 214  
Bolton, NC 28423

Owner: Columbus County Schools  
2586 James B. White Hwy North, Building A  
Whiteville, NC 28472

Architect: LS3P Associates Ltd.  
101 N. Third Street, Suite 500  
Wilmington, NC 28401

CM at Risk: Metcon, Inc.  
763 Comtech Drive  
Pembroke, NC 28372

Date: October 14, 2025

Notice to all: The following modifications, additions, deletions, clarifications, and information are, at this moment, made part of the Contract Documents and shall be fully binding. The addendum must be acknowledged as part of the Bid Form.

**REMINDERS: LAST Day for RFIs: Friday, October 24, 2025**  
**LAST Addendum: Tuesday, October 28, 2025**  
**BID DATE: Tuesday, November 04, 2025**

**Item #1: Pre-Bid Documents:**

- A. Pre-bid Presentation (55 pages)
- B. Pre-bid Sign-In Sheet (2 pages)
- C. Pre-bid meeting Chat Conversation (8 pages)

**Item #2: RFI Log:**

- A. Please see the attached RFI log as of 10/14/2025. (2 pages)

**Item #3: Geotechnical Report (40 pages)**

**END OF ADDENDUM #1**

# Columbus County Schools – East View PK-8



- **ABOUT METCON**
- **PROJECT TEAM**
- **KEY DATES**
- **LINES OF COMMUNICATION**
- **PROJECT INFORMATION**
- **SAFETY & HEALTH GUIDELINES**
- **MWSBE COMPLIANCE & WORKFORCE DEVELOPMENT**
- **HUB CERTIFICATION**
- **PREQUALIFICATION**
- **BID DOCUMENTS**
- **QUESTIONS / COMMENTS**

About Us  
Metcon

# ABOUT US

**metcon**  
BUILDINGS ■ INFRASTRUCTURE



**Established in 2000**



**Headquartered in Pembroke, NC**



**170 Employees**



**Divisions: Charlotte, Raleigh, Infrastructure**



**Completed over 800+ projects**



**Focused on K-12 projects**



**Over 40 Successful CMAR projects in Eastern North Carolina**



**Strong Subcontractor Relationships**



*Project Team*



Jesse Beck, Superintendent

R. Adam Thompson, Assistant Superintendent

## Design Team

### Architects

LS3P

### Civil Engineer

Paramounte Engineering

### Structural Engineer

Woods Engineering

### Food Consultant

Camacho

### Mechanical, Electrical, Plumbing, & Fire Protection Engineers

CMTA

### Cost Estimator

MBP

# Introduction to the Project Team



## ■ Preconstruction Team

■ Brandon Harper      Vice-President PreConstruction  
[bharper@metconus.com](mailto:bharper@metconus.com)  
910.521.8013

■ Cory Redmond      Sr. Preconstruction Manager  
[credmond@metconus.com](mailto:credmond@metconus.com)  
910.521.8013

■ Gene Deese      Preconstruction Manager  
[gdeese@metconus.com](mailto:gdeese@metconus.com)  
910.521.8013

■ Angelo Troiano      Project Estimator  
[atroiano@metconus.com](mailto:atroiano@metconus.com)  
910.521.8013

■ Tina Harris      Prequalification Manager  
[tharris@metconus.com](mailto:tharris@metconus.com)  
910.521.8013

■ Jason Deans      HUB Director  
[jdeans@metconus.com](mailto:jdeans@metconus.com)  
980.253.5799

## ■ Construction Team

■ Mark Floyd      Vice-President - Pembroke  
[mfloyd@metconus.com](mailto:mfloyd@metconus.com)  
910.521.8013

■ Mark Koenig      Project Executive  
[mkoenig@metconus.com](mailto:mkoenig@metconus.com)  
910.521.8013

■ Nirav Patel      Project Manager  
[npatel@metconus.com](mailto:npatel@metconus.com)  
910.521.8013

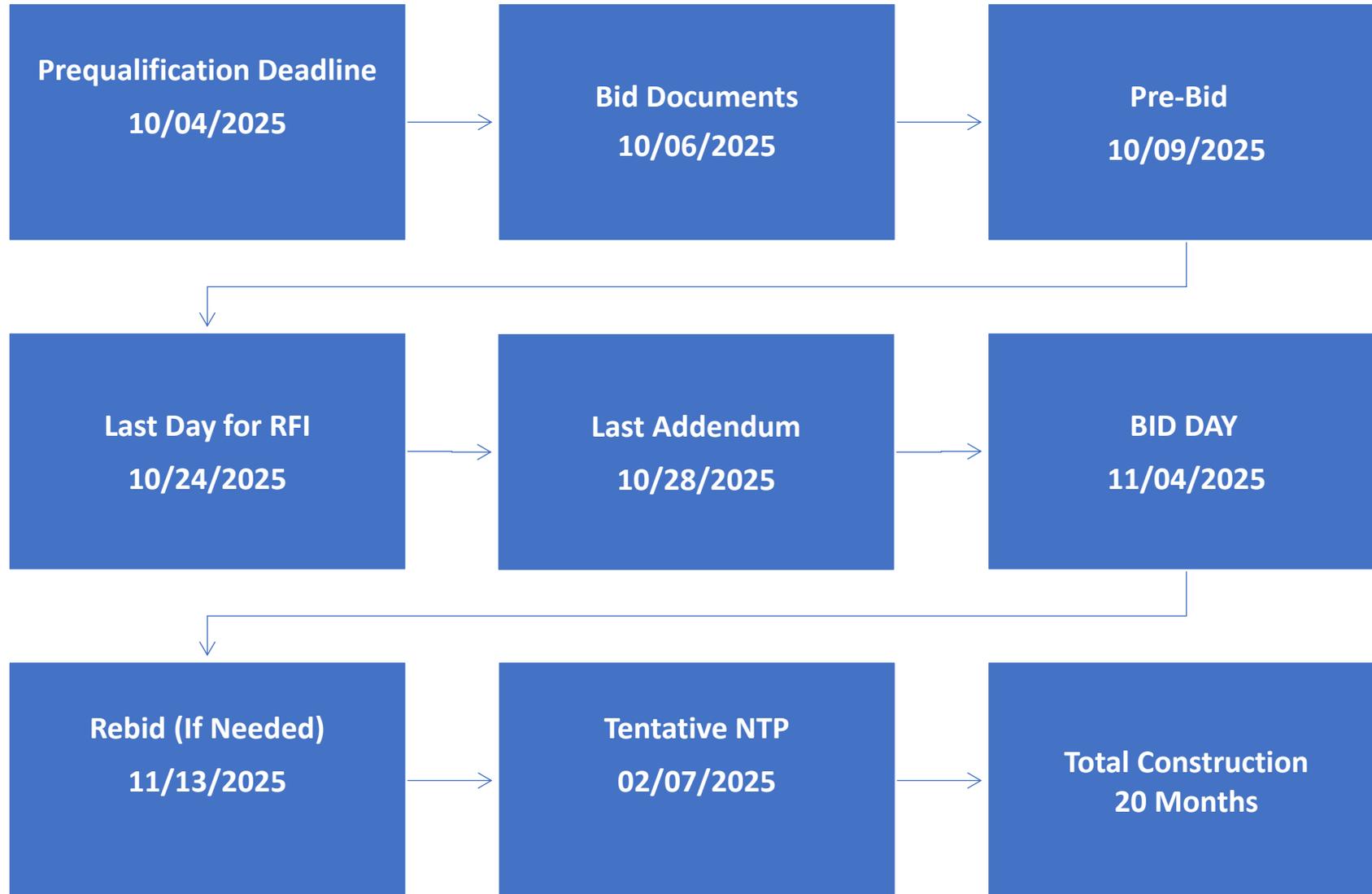
■ Mark Tosolini      Superintendent  
[mtosolini@metconus.com](mailto:mtosolini@metconus.com)  
910.521.8013

■ Victoria Locklear      Project Engineer 1  
[vlocklear@metconus.com](mailto:vlocklear@metconus.com)  
910.521.8013

■ Jason Jackowitz      Director of Safety  
[jjackowitz@metconus.com](mailto:jjackowitz@metconus.com)  
704.284.7717

*Key Dates*

# Key Dates



Lines of  
Communication

# ALL COMMUNICATION SHALL GO THROUGH METCON-CONSTRUCTION MANAGER

HUB/MWBE PARTICIPATION QUESTIONS: SEND TO  
[JDEANS@METCONUS.COM](mailto:JDEANS@METCONUS.COM) OR CALL JASON DEANS 980.253.5799

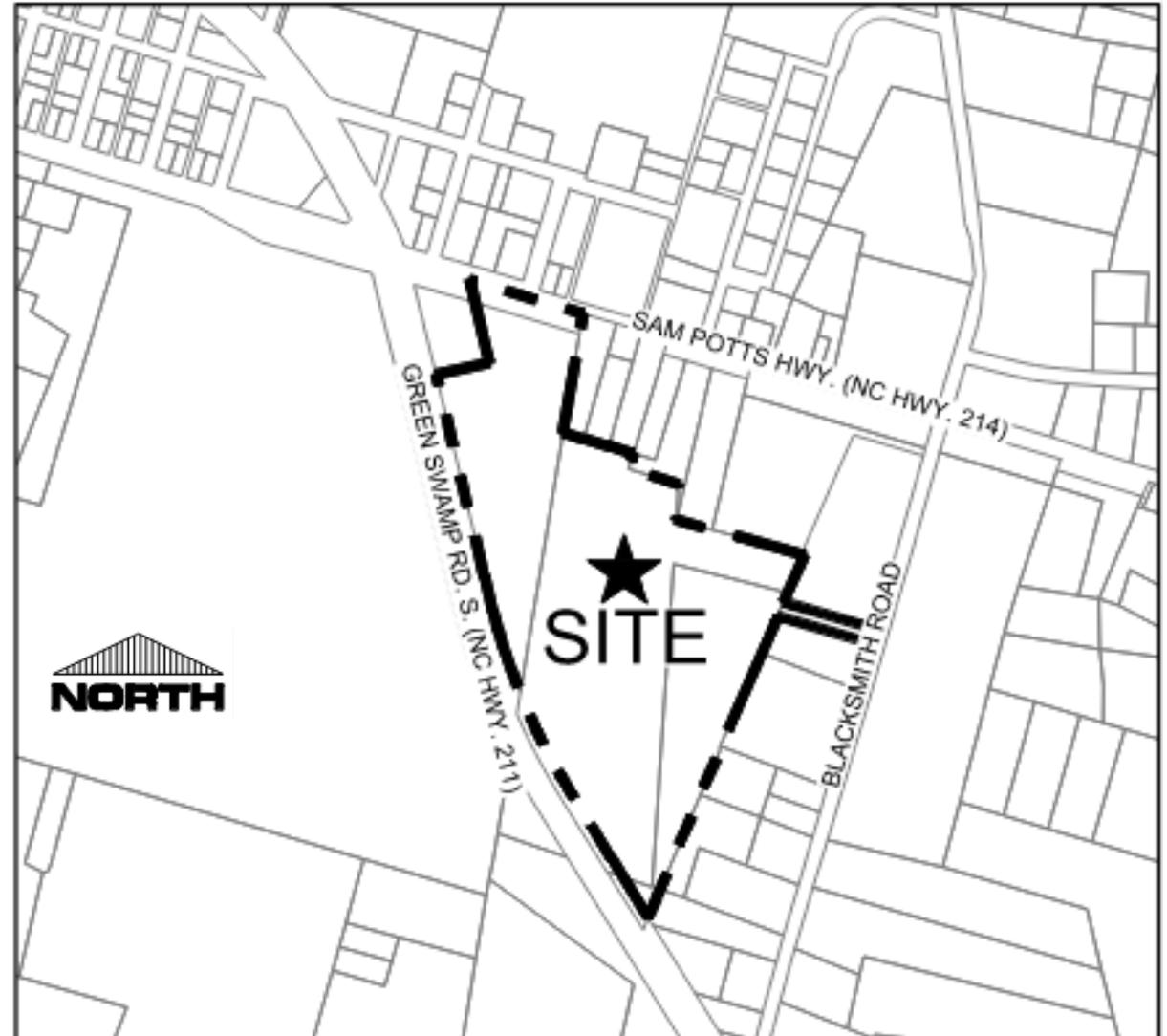
PRE-QUALIFICATION QUESTIONS: SEND TO  
[THARRIS@METCONUS.COM](mailto:THARRIS@METCONUS.COM) OR CALL TINA HARRIS 910.785.0155

ALL RFI'S: SEND TO  
[GDEESE@METCONUS.COM](mailto:GDEESE@METCONUS.COM) OR CALL GENE DEESE 910.521.8013 OR Send through  
Building Connected.

*Project Information*

# Project Location

The project is located at the cross section of Green Swamp Rd. S. (NC HWY. 211) and Sam Potts Hwy. (NC HWY. 214) in town of Bolton, NC.



## Columbus County Schools – East View PK-8 Project Summary

- New 117,799 SF educational campus for grades Pre-K–8 (Type IIB)
- Combination of one- and two-story buildings housing classrooms, offices, media center, gym, and cafeteria

### Structure & Envelope

- 2-story: Structural steel frame, masonry veneer, asphalt shingles on Tectum deck roof
- 1-story wings/gym: Pre-engineered structure with standing seam metal roof
- Exterior: Brick masonry veneer, drainable EIFS, metal panels, metal soffits (wood-look at main entry)

### Interior Finishes

- VCT in classrooms/corridors, LVT in cafeteria
- CMU and gypsum walls
- Mix of ACT, gypsum, and wood-look ceilings with exposed Tectum or open structure in select areas

### Systems

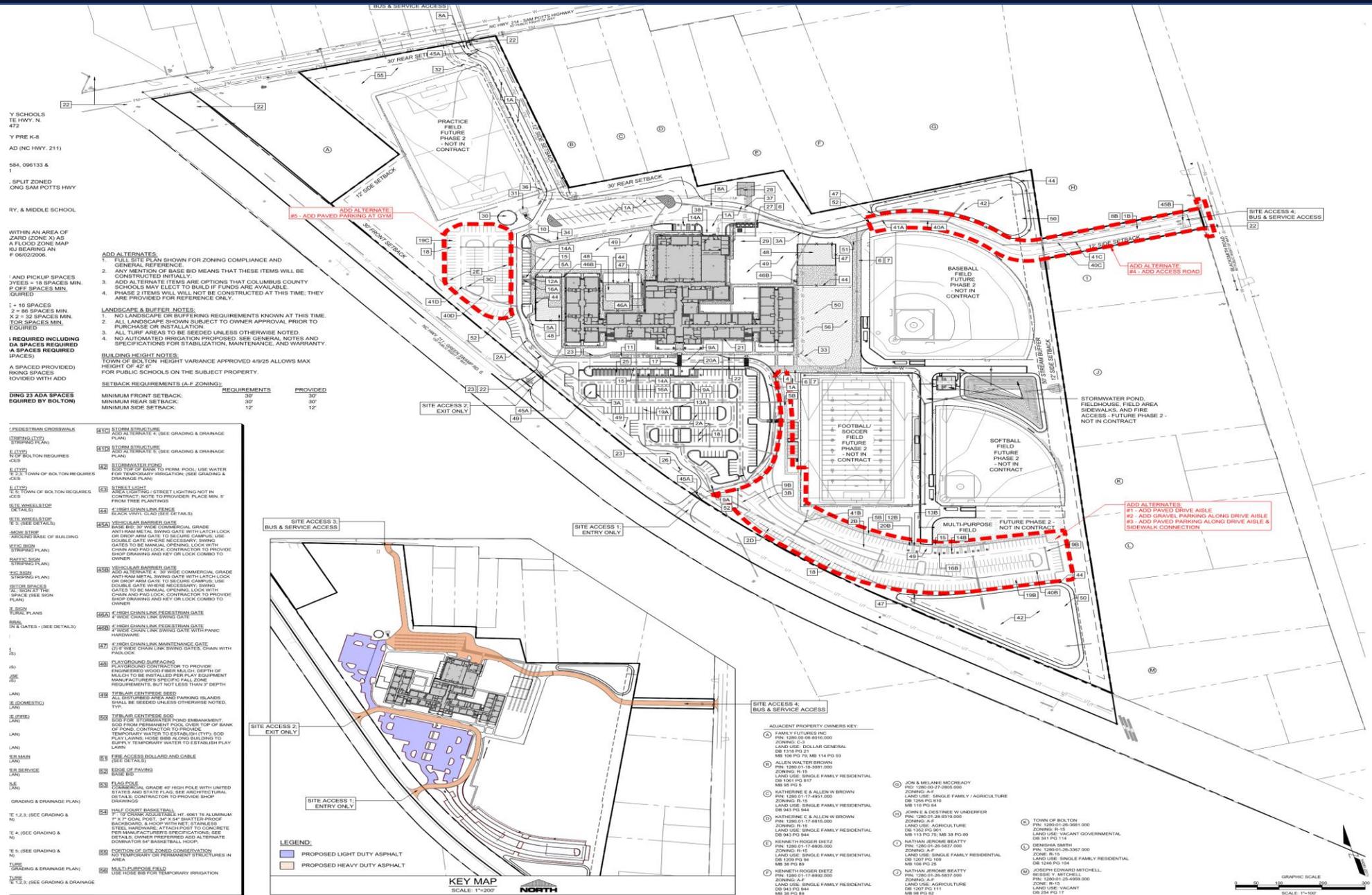
- Geo pier deep foundations, footings, slab-on-grade
- Fire suppression, plumbing, HVAC (geothermal)
- Electrical, communications, safety, and security systems

### Sitework

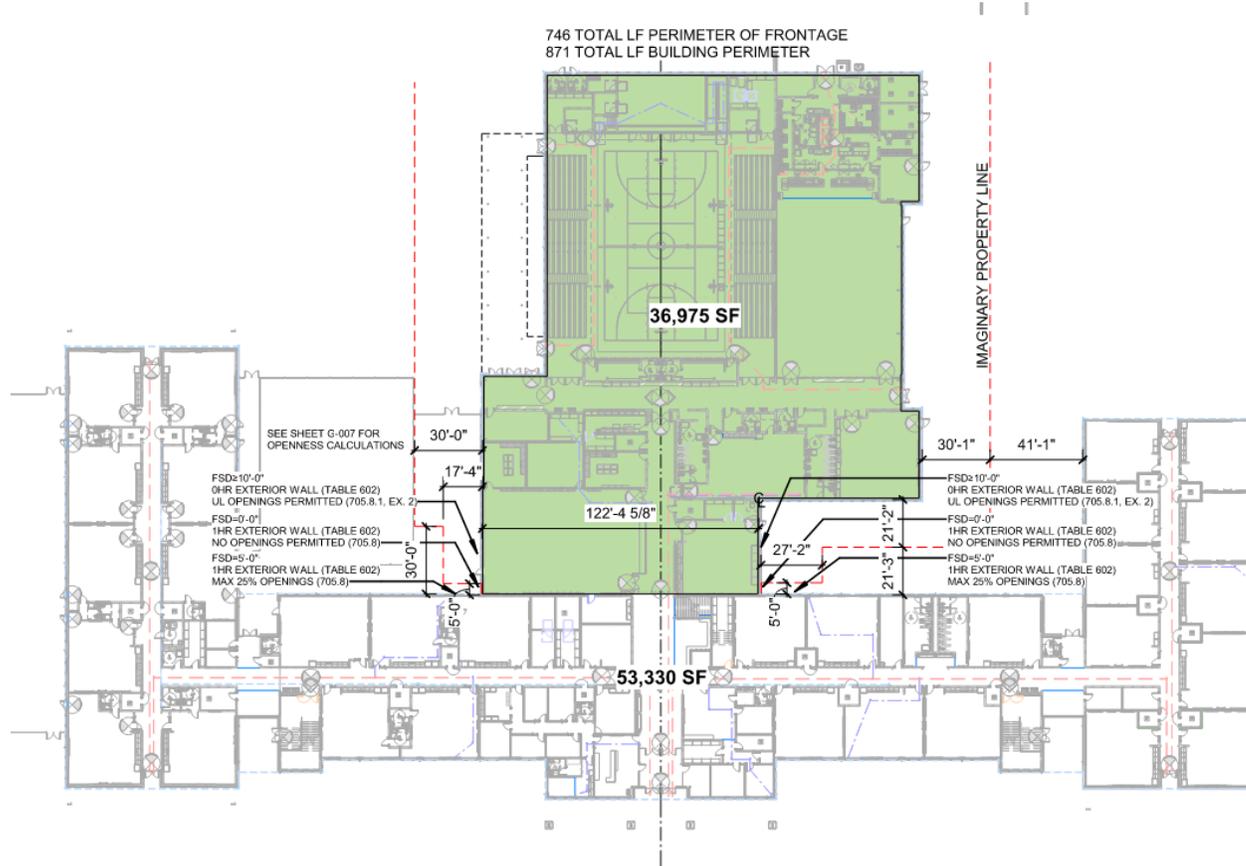
- 38.23-acre site; 25.00-acre LOD
- Parking, bus and drop-off lanes, service and fire access roads
- Sidewalks, playgrounds, stormwater management, monument sign
- Domestic and fire water utilities, hydrants, pump stations, gravity/sewer mains, and force main



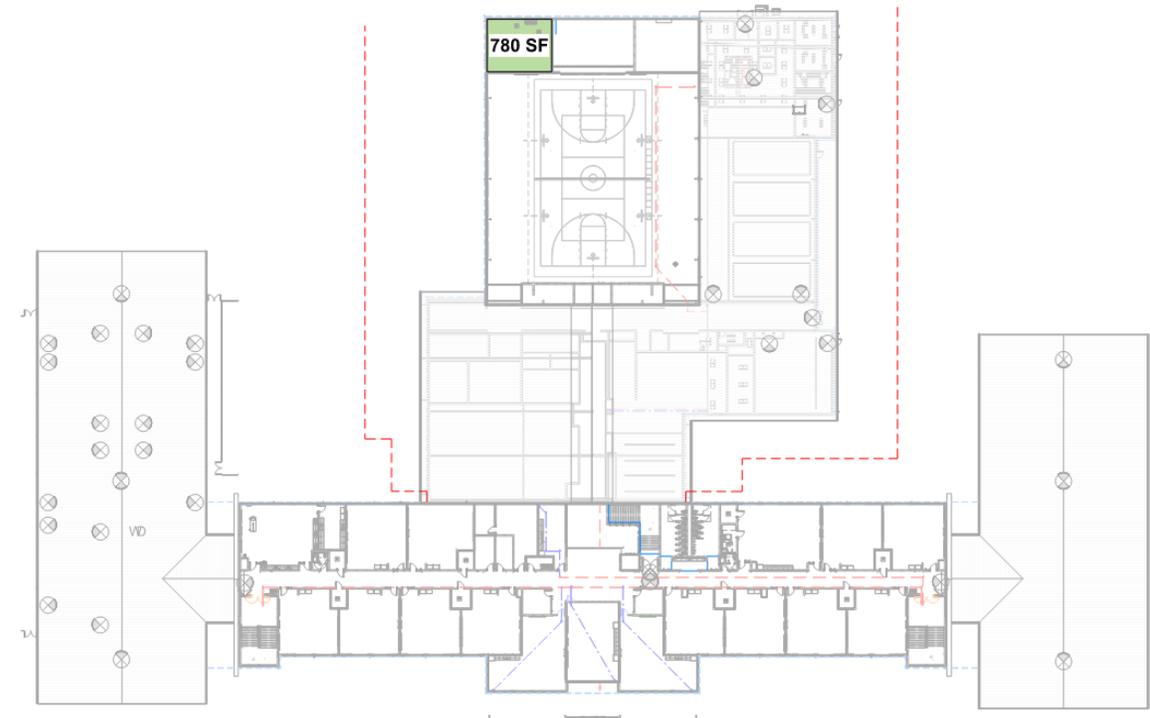
# Project Information – Overall Site Plan



# Project Information – Overall Building Plan

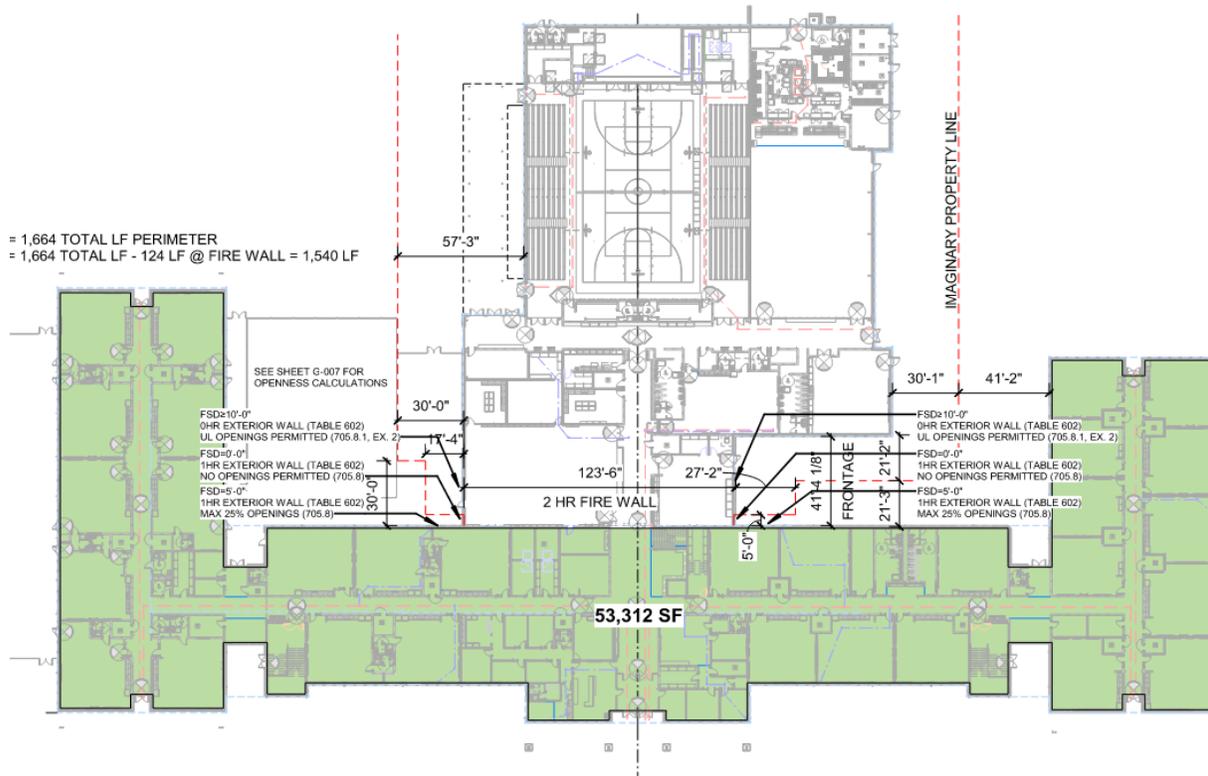


GYM BUILDING – LEVEL 1

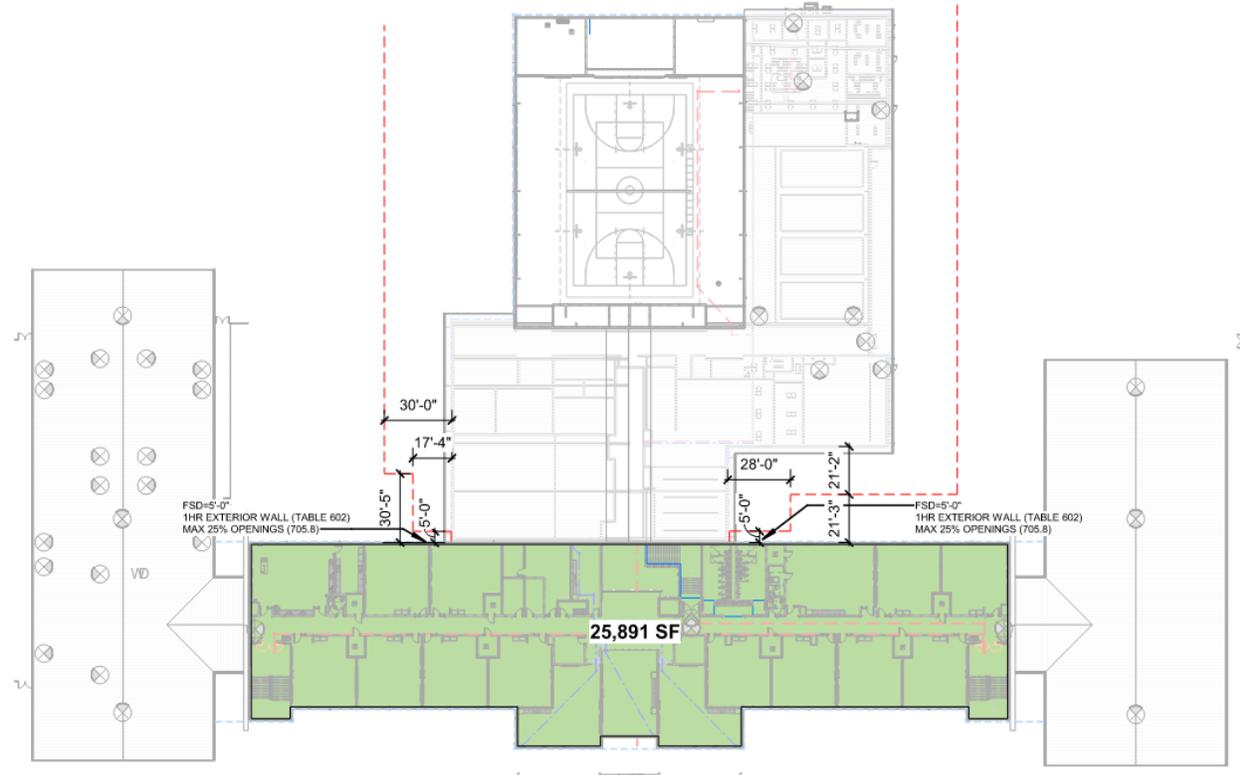


GYM BUILDING – EQUIPMENT PLATFORM

# Project Information – Overall Building Plan



CENTRAL BUILDING – LEVEL 1



CENTRAL BUILDING – LEVEL 2



CENTRAL BUILDING – MECHANICAL PLATFORM

# Project Information – Overall Building Elevations



**E1** OVERALL ELEVATION- EXTERIOR- SOUTH  
1/8" = 1'-0"



**C1** OVERALL ELEVATION- EXTERIOR- WEST  
1/8" = 1'-0"



**B1** OVERALL ELEVATION- EXTERIOR- NORTH  
1/8" = 1'-0"



# Project Information – Interior Imagery



**ATHLETIC CORRIDOR**



**BAND CLASSROOM**



**PRE-K SEATING NOOK**



**PRE-K CORRIDOR ENTRY**

# Project Information – Interior Imagery



MEDIA TO LOBBY



RECEPTION



LOBBY ENTRY



STAIRS TO LOBBY

# Project Information – Interior Imagery



SECOND FLOOR LOBBY



MEDIA CENTER ENTRY



MEDIA CENTER OVERALL

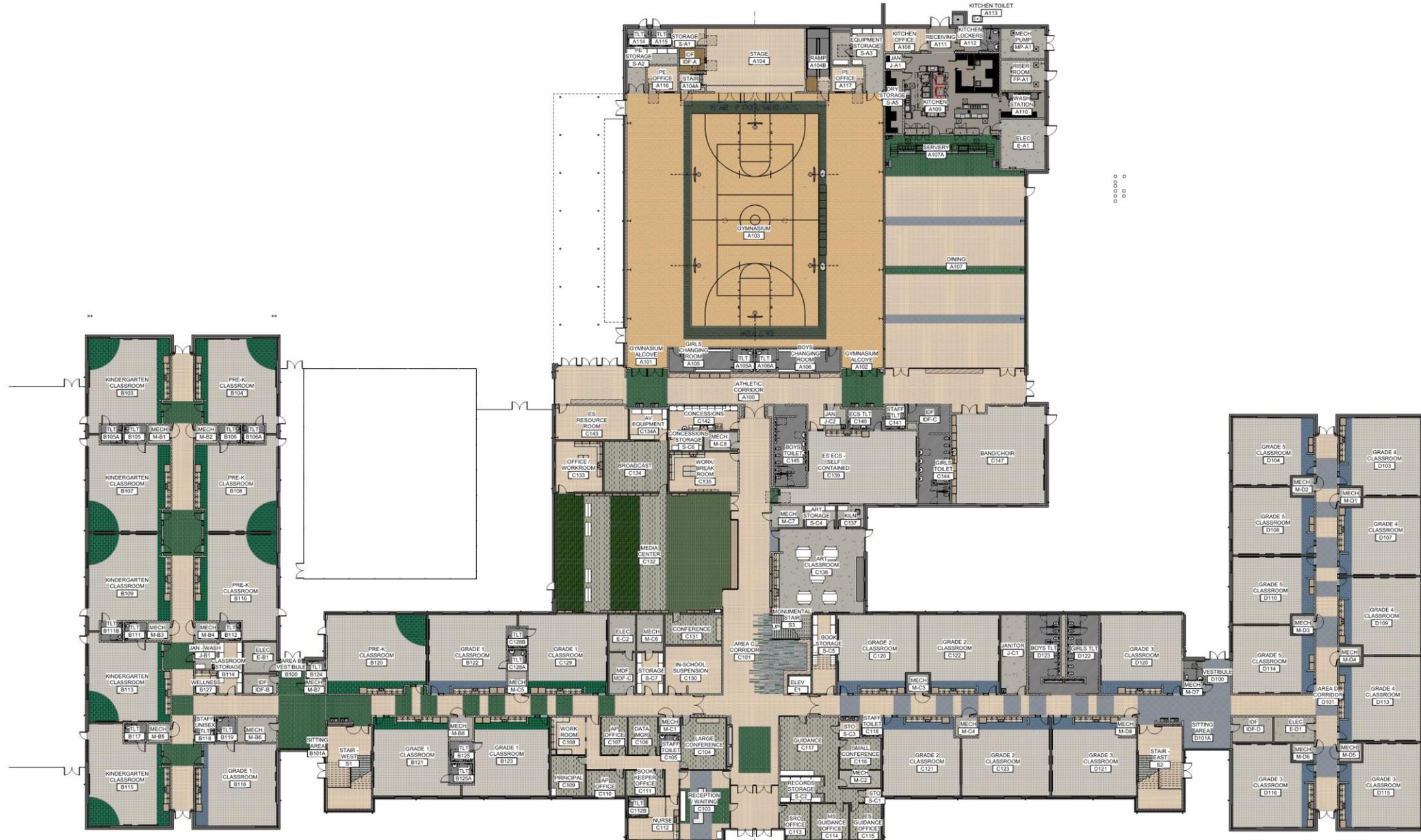


ART CLASSROOM

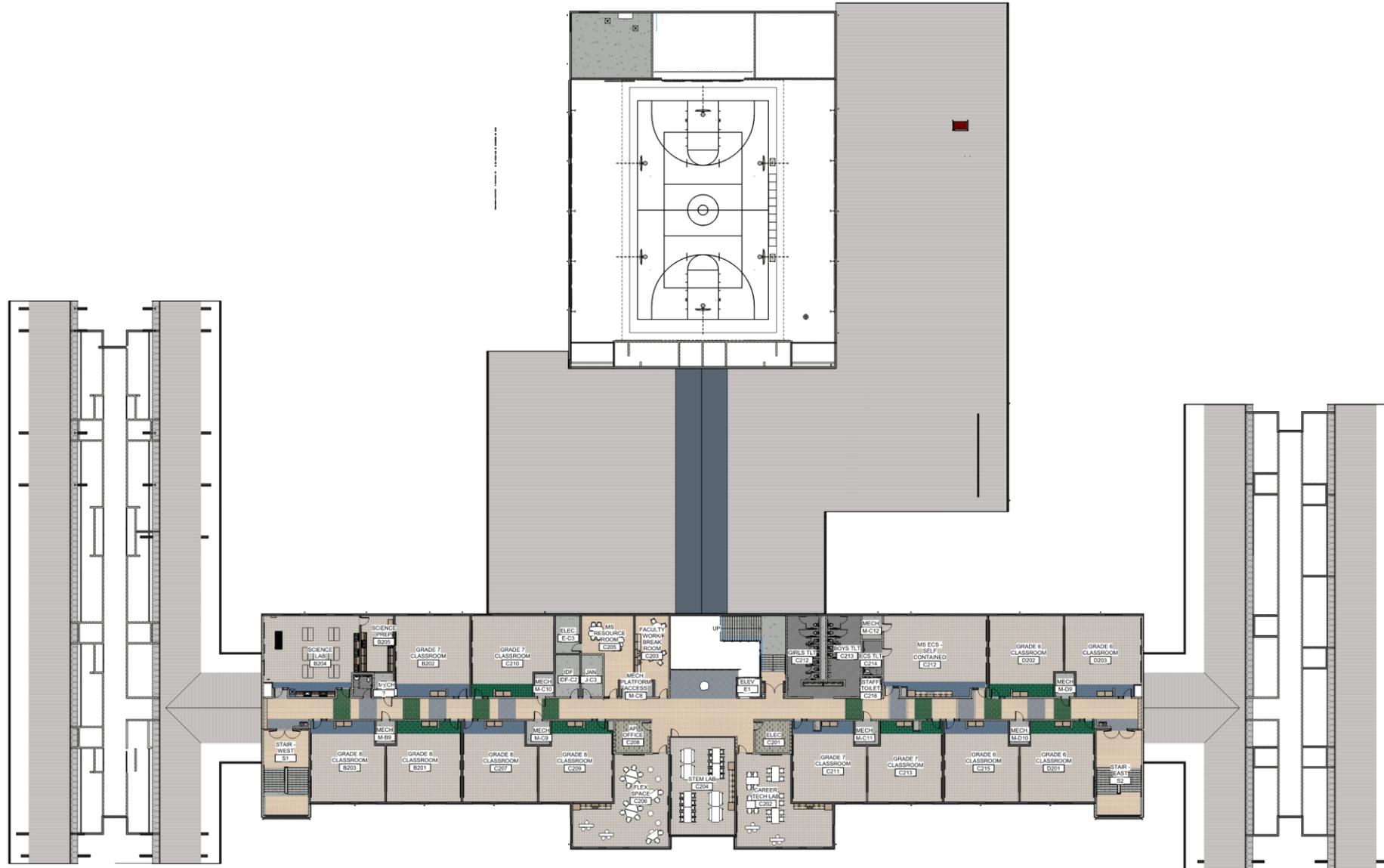
# Project Information – Exterior Imagery



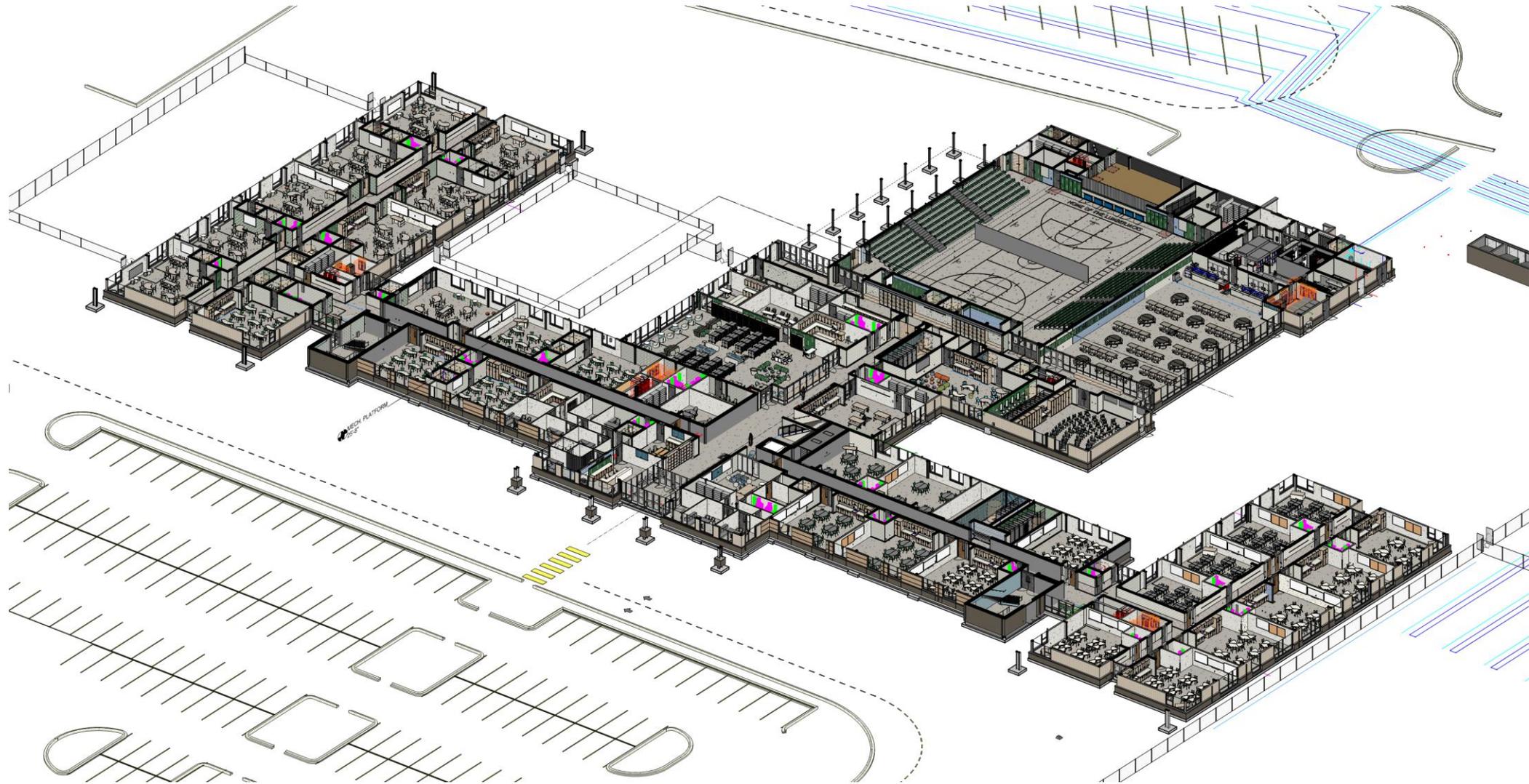
# Project Information – Colored Finish Plan Level 1



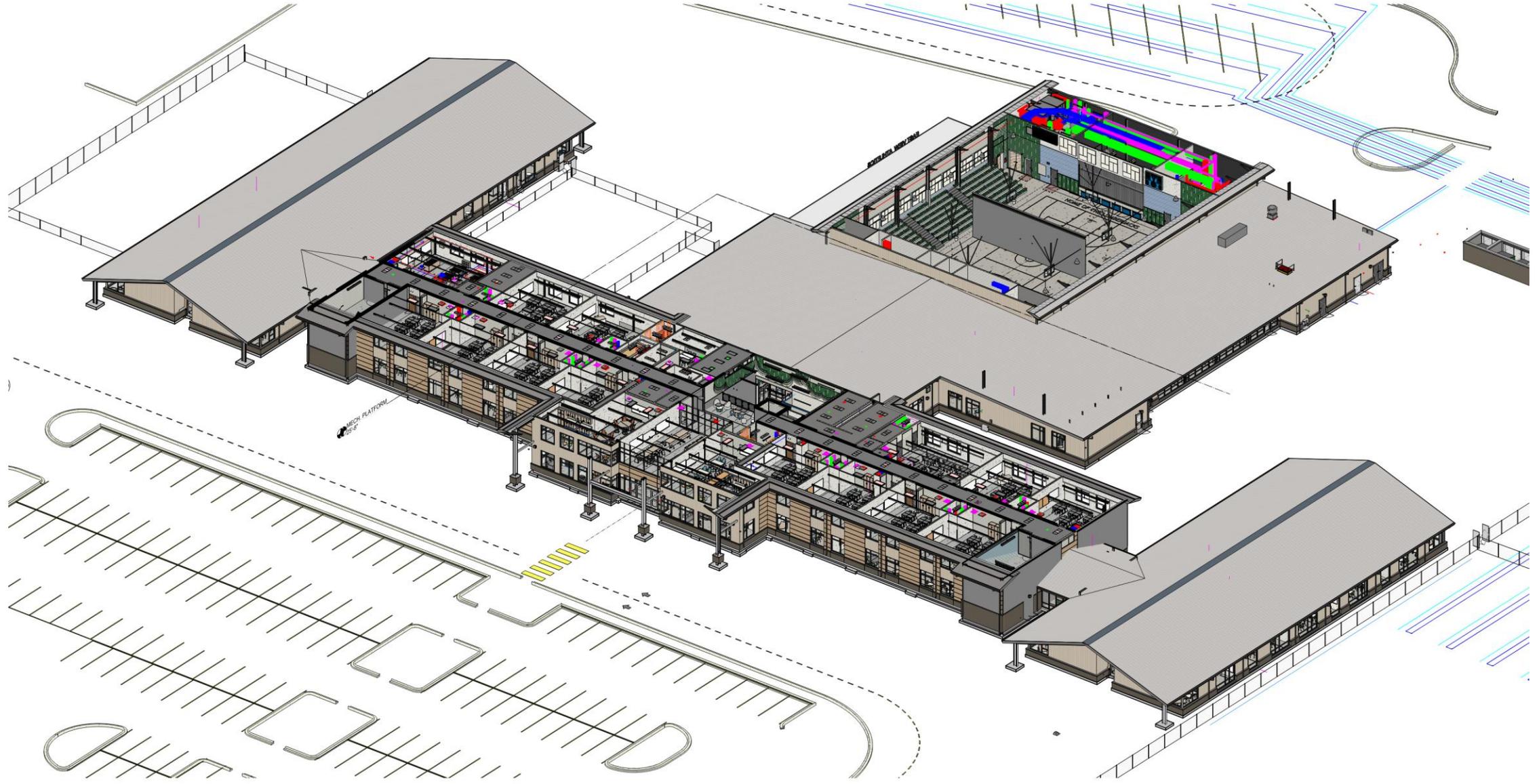
# Project Information – Colored Finish Plan Level 2



# Project Information – First Floor Axon



# Project Information – Second Floor Axon



# Safety & Health Guidelines



**OSHA Building Star Contractor**

**GOAL ONE SAFETY**  
BUILDING SAFER & SMARTER!

**metcon**  
BUILDINGS ■ INFRASTRUCTURE

**JOB SITE PERSONAL PROTECTION EQUIPMENT REQUIREMENTS**

- HARD HAT
- SAFETY GLASSES
- HI-VIZ VEST
- SAFETY BOOTS

ALL PERSONS VISITING THIS SITE MUST REPORT TO THE SITE OFFICE

NO ADMITTANCE TO UNAUTHORIZED PERSONS

REPORT ANY ACCIDENT IMMEDIATELY TO YOUR SUPERVISOR

**MetconUS.com**

1 of 23 General Contractors in NC in OSHA Building Star Program!

- ✓ NCDOL OSHA Building Star
- ✓ Safety Submittal Review/ Approval Process
- ✓ Safe Start Meeting
- ✓ Site Safety Orientation
- ✓ Trade Partners/ Worker Involvement
- ✓ Informal Training
- ✓ Safety Committee
- ✓ Safety Recognition Program



# Safety Submittals Review/Approval



## SITE SPECIFIC SAFETY SUBMITTAL RETURN CHECKLIST

Project Name: \_\_\_\_\_ Subcontractor Name: \_\_\_\_\_  
 Superintendent: \_\_\_\_\_ Project Manager: \_\_\_\_\_

Prior to mobilizing onsite, Subcontractors shall submit for review/approval to Metcon's Safety Director the following **mandatory** safety documents

**(NO EXCEPTIONS):**

- Executed/Signed Subcontractor Health & Safety Commitment Agreement
- Provide written Site-Specific Plans, with Site-Specific Scopes of Work, Job Hazard Analysis (JHA) detailing your scope of work, and OSHA or project required training as necessary.  
 For Example:
  - o Crane/Lift Plan
  - o Fall Protection Plan
  - o Scaffold Plan
  - o Excavation Plan
- Project Competent Person Designation Form needs to be completed and reviewed.
- Names of Trained and qualified equipment operators as required by the scope of the work for Cranes, Forklifts, Aerial Lifts, etc.
- Written Hazard Communication Program & Chemical Inventory List (Safety Data Sheets-SDS) needs to be created for all chemicals and materials used or stored on the site. **(must be in a 3-ring binder)**
- Safety and Health Training Certification Form needs to be completed and shall include training rosters.  
 Examples of required training may include:
  - o Fall Protection
  - o Scaffolding
  - o Trenching & Excavation
  - o Crane / Rigging
  - o Hazard Communication
  - o Ladders
  - o Confined Spaces
  - o Asbestos
  - o Demolition

The above requested safety information **shall** be submitted for review and approval to Metcon's Safety Director prior to attending Subcontractor Safe Start meeting or mobilizing onsite.



## Job Hazard Analysis

		JHA # _____					
Activity/Work Task/Contractor:	Medium Voltage Switching by Industrial High Voltage (tier of Gould)	Overall Risk Assessment Code (RAC) (Use highest code)				L	
Project Location:	Los Alamitos Joint Readiness Center	<b>Risk Assessment Code (RAC) Matrix</b>					
Contract Number:	12238000	<b>Severity</b>	<b>Probability</b>				
Date Prepared:			Frequent	Likely	Occasional	Seldom	Unlikely
Prepared by (Name/Title):	David Sellers/ General Foreman	Catastrophic	E	E	H	H	M
Reviewed by (Name/Title):	Steven Hild/ Owner	Critical	E	H	H	M	L
		Marginal	H	M	M	L	L
		Negligible	M	L	L	L	L
<b>Notes:</b> (Field Notes, Review Comments, etc.) This JHA covers the steps to isolate feeder F41 and to splice new conductors into the East Power Loop. This JHA is based on information contained on Jacobs Project No. F1W11801 Drawing No. E003.		Step 1: Review each "Hazard" with identified safety "Controls" and determine RAC (See above)					
		"Probability" is the likelihood to cause an incident, near miss, or accident and identified as: Frequent, Likely, Occasional, Seldom or Unlikely.				<b>RAC Chart</b>	
		"Severity" is the outcome/degree if an incident, near miss, or accident did occur and identified as: Catastrophic, Critical, Marginal, or Negligible				E = Extremely High Risk	
		Step 2: Identify the RAC (Probability/Severity) as E, H, M, or L for each "Hazard" on JHA. Annotate the overall highest RAC at the top of JHA.				H = High Risk	
						M = Moderate Risk	
						L = Low Risk	
<b>Job Steps</b>	<b>Hazards</b>	<b>Controls</b>				<b>RAC</b>	
Mobilization, Equipment and Material Placement	Strains/sprains  Struck by equipment/material  Equipment malfunction  Caught in/between	Warm up and stretch. Be careful when lifting—use a partner for heavier equipment/material. Use a mechanical lift if needed. Use safe lifting techniques—bend knees and lift with legs while keeping load close to body.  Wear proper PPE: Hard Hats, Gloves, Vests and Eye Protection. Never move material/equipment over or above workers. Be aware of surroundings while moving material and pay attention to the path of travel. Communicate clearly with crew persons. Back up alarms shall be audible and sufficiently distinct to be heard above surrounding noise levels. Signalpersons/spotters to be used when vision or path of travel is obstructed.  Before initial use, all equipment must be inspected and found in good operating condition.  Do not wear loose clothing or jewelry that could become entangled in equipment. Long hair must be secured under hard hats. Use a pry bar or other mechanical means to help position equipment/material in order to keep fingers and hands				L	

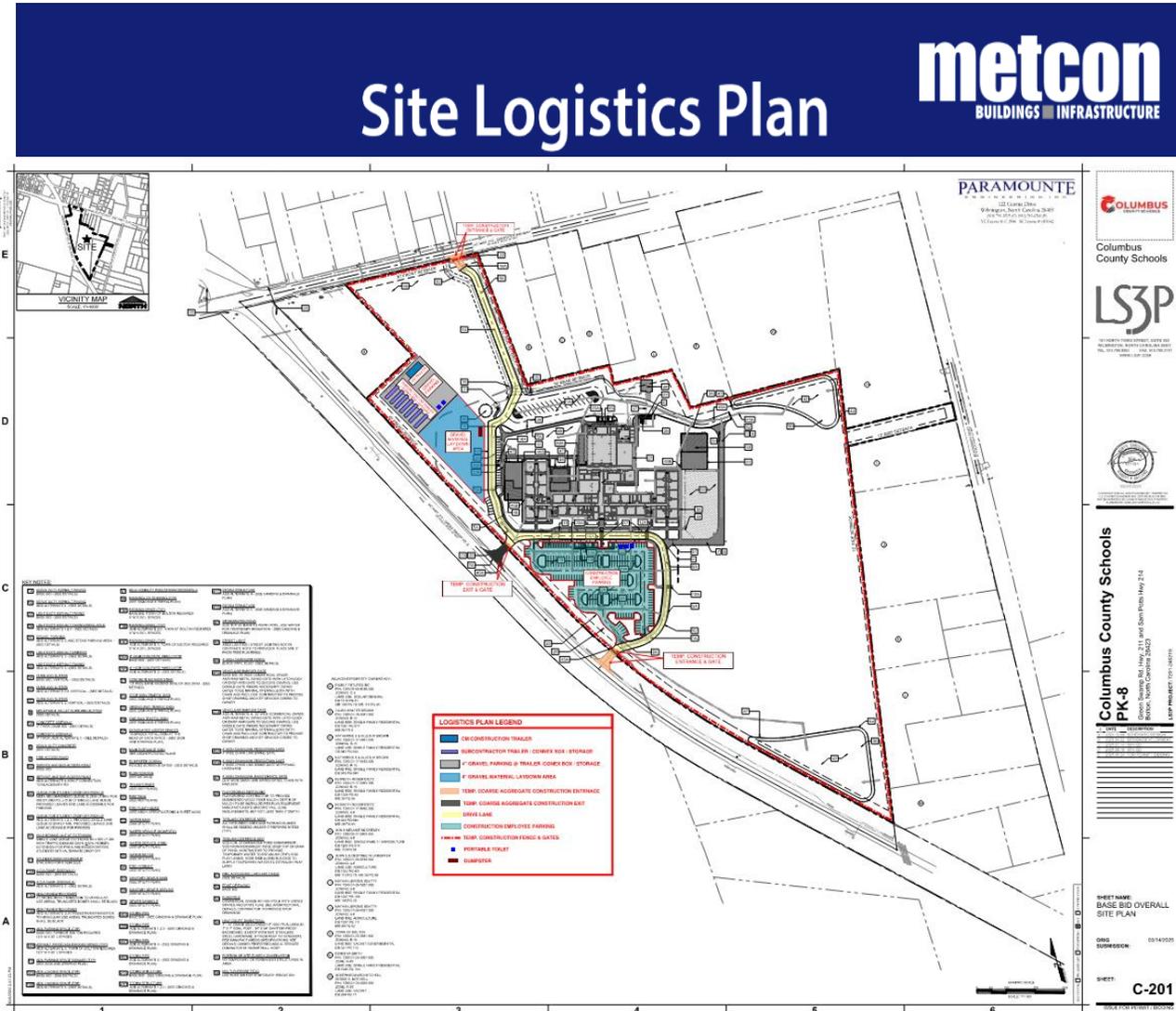
# Safe Start Meeting (2-weeks prior to mobilization on-site)



## Job Hazard Analysis (JHA)

ACTIVITY/WORK TASK:	Erect Steel	Overall Risk Assessment Code (RAC)	L	
LOCATION:				
PRIME CONTRACTOR:				
SUBCONTRACTOR:				
DATE OF START:				
PROJECT MANAGER:				
CONTRACTOR COMPETENT PERSON:				
		<b>Severity</b>	<b>Probability</b>	
			Frequent Likely Occasional Seldom Unlikely	
		Catastrophic	E E H H M	
		Critical	E H H M L	
		Marginal	H M M L L	
		Negligible	M L L L L	
<b>H = HIGH RISK (FEAD DIRECTOR)</b>		Identify the RAC (Probability/Severity) as E, H, M, or L for each "Hazard". Place the highest RAC at the top of AHA. This is the overall risk assessment code for this activity.		
<b>M = MODERATE RISK (CM or ET or PAR)</b>		"Severity" is the outcome/degree if an incident, near miss, or accident did occur and identified as: Catastrophic, Critical, Marginal, or Negligible after controls are in place.		
<b>L = LOW RISK (ET or PAR)</b>		"Probability" is the likelihood to cause an incident, near miss, or accident did occur and identified as: Frequent, Likely, Occasional, Seldom, or Unlikely after controls are put in place.		
<b>Job Steps</b>	<b>Hazards</b>			
1. Mobilization/Build Crane	Hand tools Heavy manual lifting/moving -Suspended Loads - Inclement Weather (including Wind) Repetitive motion or other ergonomic concerns Sharp objects - Slippery surfaces (water, ice, snow)	-Prior to the commencement of work, a safety orientation and AHA review will take place with the SSHO -Prior to commencing any Crane operations an approved crane plan must be on site and reviewed prior to crane operations -Crane operations will cease upon sustained 25mph wind, or lightning within 5 miles or both. -At no time will there be personnel under a suspended load. A Signalman/rigger will be in control of all movements of the crane by the use of hand signal, 2-way Radios or both.	L	
2. Direct Loads to unloading area	Cranes and crane trucks in motion Heavy manual lifting/moving	-Use Flagmen to direct truck into location. Chock Tires if ground is slope > 2 degrees. -Use proper PPE (Hard Hat, Gloves, Safety Glasses, Steel Toed Boots)		
3. Rig steel to be unloaded/hoisted to laydown area	Improper rigging equipment Lifting equipment (cranes) Lifting equipment (forklifts, hoists) Pinch Points Lacerations Improper/Damage Rigging Struck by swinging loads Falling Load Uncontrolled Load Improper or incorrect crane signals	-Choose correct and inspected rigging. -Use proper hand signals to direct crane/forklift. -Use 3 points of contact to access/egress trailer. -Select stable laydown area for steel. -Use proper dunnage. -Make sure steel is stable before cutting loose.  - Wear proper hand protection and be aware of hand position -Inspect rigging before use -Stay clear of swinging and overhead loads -Use Tag lines to control load -One rigger to signal at a time, using clear signals		

## SUB JHA - Scope of Work



\* Attended by Subcontractor Project Manager & Foreman/ Metcon's Project Team and Safety Dept.

# Safety Monitoring Awareness



## DAILY PRE-TASK SAFETY PLANNING "PTP"

THIS FORM IS REQUIRED TO BE TURNED IN EVERY MORNING BEFORE THE START OF WORK

Date: \_\_\_\_\_ Company: \_\_\_\_\_ Jobsite: \_\_\_\_\_ Weather Condition/Temperature: \_\_\_\_\_

Description of Activity: \_\_\_\_\_ Number of workers for this task: \_\_\_\_\_

Supervisor: \_\_\_\_\_ Specific Location of Task: \_\_\_\_\_

### Evaluating Your Work Area (Circle Yes or No) – REQUIRED TO BE COMPLETED

- Have you walked your area? Yes No
  - Are you working around power lines? Yes No
  - Does this task require special training? Yes No
  - Is a SDS onsite if using a chemical for this task? Yes No
  - Is air monitoring required? Yes No
  - Are work permits required for this task? Yes No; if yes, are they filled out? Yes No
  - Are you familiar with evacuations routes? Yes No
  - Have all tools/equipment been inspected prior to use? Yes No; if found damaged, did you tag them out and remove from site? Yes No
  - Has this task been coordinated with other trades (if applicable)? Yes No
- Do you have the PPE needed for this task? Yes No
  - Are the required materials and tools provided? Yes No
  - Are fire extinguishers nearby and fully charged? Yes No
  - Does this task involve confined space? Yes No
  - Is there a safety issue that has not been addressed? Yes No; if yes, explain below
  - Has U-locate (811) been contacted and underground utilities marked? Yes No

### Potential Hazard Checklist (place an "X" if applicable) – REQUIRED TO BE COMPLETED

- |                           |                           |                                |                               |  |
|---------------------------|---------------------------|--------------------------------|-------------------------------|--|
| • Pinch points _____      | • Inadequate Access _____ | • Hazardous Chemicals _____    | • Falls from Elevation _____  | • List of PPE that's required:                           |
| • Back-up hazards _____   | • High Noise Levels _____ | • Heat Exhaustion/Stress _____ | • Confined Spaces _____       | Hard Hat <input checked="" type="checkbox"/>             |
| • Particles in Eyes _____ | • Fall Objects _____      | • Sharp Objects/Tools _____    | • Critical Lift _____         | Safety Glasses <input checked="" type="checkbox"/>       |
| • Elevated Work _____     | • Manual Lifting _____    | • Excavations _____            | • Fire/Hot Work _____         | Hi-Vis Clothing/Vest <input checked="" type="checkbox"/> |
| • Housekeeping _____      | • Chemical Spill _____    | • Lockout/Tagout _____         | • Scaffolding _____           | PPAS _____   |
| • Chemical Burns _____    | • Ladders _____           | • Rigging _____                | • Power Tools _____           | Gloves <input checked="" type="checkbox"/>               |
| • Crushing/Cave-In _____  | • Electrical _____        | • Slip/Trip _____              | • Other (explain below) _____ | Welding Shield _____                                     |
|                           |                           | • U-locate (811) called _____  |                               | Protective Clothing _____                                |
|                           |                           |                                |                               | Torch Goggles _____                                      |
|                           |                           |                                |                               | Other: _____   |

Description/Steps of Activity Listed Above – THIS SECTION IS REQUIRED TO BE FILLED OUT	Hazards Associated with Each Step – THIS SECTION IS REQUIRED TO BE FILLED OUT	Required Actions to Eliminate or Control the Hazard – THIS SECTION IS REQUIRED TO BE FILLED OUT
1.	<b>SUB Daily PTP</b>	
2.		
3.		
4.		
5.		

\*IF ADDITIONAL STEPS ARE NEEDED, USE THE BACK OF THIS PAGE\*

\*\*\*SIGNATURES OF ALL EMPLOYEES ASSOCIATED WITH THIS TASK SHALL BE ON THE BACK OF THIS PTP\*\*\*

My Signature on the back of this sheet acknowledges I attended this PTP meeting and was properly equipped and trained for the tasks assigned, and that I was not injured on the job the previous day.



# SAFETY MATTERS AT METCON

TOOL BOX SAFETY TALK: SCISSOR LIFT SAFETY

**SUB Weekly Tool-Box Talks**

## Subcontractor Weekly Safety Inspection Report

Job: \_\_\_\_\_ Date: \_\_\_\_\_

Contractor: \_\_\_\_\_ Supt/Foreman: \_\_\_\_\_

Indicate in space if Y =if compliant N= if needs improvement N/A =if Not Applicable  
N= please list comment & date action was corrected

Description	Y	N	N/A	Comments	Date Corrected
<b>Personal Protective Equipment</b>					
Hard Hats are being worn					
Safety glasses are being worn					
Respirators are used when required					
Hearing protection being worn when required					
Safety vests/shirt being worn					
<b>Housekeeping</b>					
General neatness of work area					
Projecting nails removed or bent over					
Waste containers provided and used					
Passageways and walkways clear					
Cords and lead: off of the floor					
<b>Fire Prevention</b>					
Adequate fire extinguishers, checked and accessible					
"No Smoking" posted and enforced near flammables					
<b>Electrical</b>					
Extension cords with wires exposed or missing ground prong: taken out of service					
GFCI: tested and in place where needed					
Temporary power boxes: equipped with required covers					
<b>Hand Power &amp; Powder Actuated Tools</b>					
Hand Tools inspected regularly					
Guards in place on machines					
Right tools being used for job at hand					
Operators of powder actuated tools are licensed?					
<b>Fall Protection</b>					
Safety rails and cables are secured properly					
Harness & Lanyards: being used correctly					
Condition of harnesses, lanyards, retractables & lifelines					
Fall protection in place at 6'					
Fall Protection in all lifts					
Floor openings - guardrail used or cover secured & properly marked					
Impalement protection as needed					
<b>Ladders</b>					
Ladders extend at least 36" above landing					
Ladders are secured at top & bottom					
Ladders with split or missing rungs: taken out of service					
A Frame ladders: used in fully open position					
Proper ladder procedure discussed					

**SUB Weekly Safety Audit**

MWSBE Compliance  
and Workforce  
Development

## Project Goals



*Help us EXCEED our goal!*

# 20%

## MWSBE

- ✓ Assist with prequalification
- ✓ Identify subcontracting opportunities
- ✓ Information sharing
- ✓ Virtual Compliance workshop
- ✓ Matchmaking
- ✓ Certification Assistance

- No Bonds required for packages under \$300,000.00.
- Identify and target local MWBE contractors
- Enable MWBE contractors to develop and expand
- Ensure that all MWBE seek NC HUB Certification
- Mitigating Disputes/Grievances – Our MWBE/HUB

Director Jason Deans

- Prequalification Assistance  
How-To's
- Scope Review/Take Offs Pre & Post Bid Help
- Tailor Scopes/Bid Packages  
Smaller Packages
- Teaming Agreements  
1st & 2nd Tiers
- Reduced Bond Amounts
- **Post –Bid Instruction  
Submittals, Pay Apps, RFI's**
- Training  
Safety & Various Workshops

## Minority Trade Associations

United Minority Contractors of NC

Contact: Brenda Pollard

Phone: 919-817-8626

Address: 5 W Hargett Street, Ste 311, Raleigh, NC 27601

Website: <https://umcnc.org>

Office for Historically Underutilized Businesses

1336 Mail Service Center

Raleigh, North Carolina 27699-1336

Call 984-236-0130

Email: [huboffice.doa@doa.nc.gov](mailto:huboffice.doa@doa.nc.gov)



## Involving the **Community** in a Meaningful Way

- Strengthen the workforce pipeline on all fronts
- Align Trade Partners and Community Partners
- Develop a Centralized Outreach/Recruit Forum
- Pre-apprentice Participants
- Major Primes to present list of job openings [full, part-time, temporary] Upon Award
- Participate in Career Fair/Training Events
- Increase Construction Labor Force in NC

## Awareness | Opportunity | Putting People to Work

- Metcon's Community and Education Foundation
- Connect Youth to Jobs & Training in Construction Career Fairs, Apprenticeships
- Make Career Connections on Your Project
- Work Force Development
- Establish Partnerships in the Community
- Re-entry Work Program



# HUB Certification

To apply for HUB Certification under the Statewide Uniform Certification Program, you must:

**1. Register electronically in the Electronic Vendor Portal:**

<https://vendor.ncgov.com/vendor/login>

- Click “Vendor Not Registered. Register Now.”
- Complete the entire registration process
- **If you need assistance with registration, please call the Vendor Portal Help Desk at 1-888-211-7440, option 2.**

**2. Complete, sign and date the Statewide Uniform Certification Application**

<https://files.nc.gov/ncdoa/documents/files/SWUC-Application-Revised-01.07.21.pdf>

**3. Submit the required Documents**

<https://files.nc.gov/ncdoa/documents/files/New-Certification-Required-Documents-03.18.2021.pdf>

Submit your application and required documents to the HUB Office:

Fax: 919-807-2335

E-mail: [huboffice.doa@doa.nc.gov](mailto:huboffice.doa@doa.nc.gov)

Mail: NC Department of Administration Office for Historically Underutilized Businesses

1336 Mail Service Center

Raleigh, NC 27699-1336



For questions, please contact the HUB office at 984-236-0130 or by email at [huboffice.doa@doa.nc.gov](mailto:huboffice.doa@doa.nc.gov)

*Prequalification*

# Project Prequalification Submittal (Part A)



## Part A: CM at Risk 1<sup>st</sup> Tier Subcontractor Master Prequalification Form (Annual Submittal)

**NOTICE TO ALL SUBCONTRACTORS:** All sections of this Part A: Master Prequalification Form (Annual Submittal) must be provided ONCE A YEAR and filled out in its entirety. This form will expire on June 30<sup>th</sup> of each year and requires an update after July 1<sup>st</sup>. If any sections are not complete, then the prequal may be rejected. A separate Part B: Project Specific Supplement is required for each specific project. Part A and Part B will be evaluated together for the specific project.

### Part A: Master Prequalification (Annual Submittal)

Submittal Date: \_\_\_\_\_

Expiration Date: June 30<sup>th</sup> of each Year

Submitted to: \_\_\_\_\_ (Name of CM at Risk firm)

#### 1. Main Office Location & Company Contacts

\_\_\_\_\_  
Company Name

\_\_\_\_\_  
Physical Address

\_\_\_\_\_  
Mailing Address

\_\_\_\_\_  
City/State Zip Code + 4

( ) \_\_\_\_\_ ( ) \_\_\_\_\_  
Phone number Fax number

\_\_\_\_\_  
President/CEO CFO

\_\_\_\_\_  
Primary Prequalification Contact Name Primary Prequalification Contact Phone Number

\_\_\_\_\_  
Primary Prequalification Contact Email Address Company Website

\_\_\_\_\_  
Secondary Prequalification Contact Name Secondary Prequalification Contact Phone Number

\_\_\_\_\_  
Secondary Prequalification Contact Email Address

**2. Business Type**  
(check box)  Corporation  Partnership  Limited Liability Company  Sole Proprietor

Indicate your NC Statewide Uniform Certification: (check box):  
MBE  HBE  AABE  AIBE  WBE  SDB  DBE  NONE \_\_\_\_\_ (other)

See website link for more information: <http://www.doa.nc.gov/hub/swuc.htm>

Is your firm registered with the Department of the Secretary of State to conduct business in the State of North Carolina?  
 Yes  No

Is your firm owned or controlled by a parent or any other organization?  Yes  No  
Describe Ownership if Yes: \_\_\_\_\_

## Part A: CM at Risk 1st Tier Sub Master Prequalification Form (Annual Submittal)

1. Main Office Location & Company Contacts
2. Business Type
3. Licensing Information
4. Type of Scope of Performed
  - Completed Projects
5. Size of Company (Past 5 years)
6. Current Workload
7. Safety
  - EMR Ratings – Experience Modification Ratings
  - RIR Ratings - Recordable Incident Rate
  - DART – Days Away Restricted or Transferred
  - OSHA 300 Reports
8. Litigation, Claims, Criminal Convictions
9. HUB – HUB Plan
10. Signature

### Required Supplemental Information Needed for Part A

- Recent Audited or Reviewed Financial Statements
- Bonding Letter
- COI
- EMR from Insurance Company
- OSHA 300 Reports
- Copy of HUB Certification
- Copy of Professional Licenses (If Applicable)

# Project Prequalification Submittal (Part A)



## Part A: CM at Risk 1<sup>st</sup> Tier Subcontractor Master Prequalification Form (Annual Submittal)

Confirm that your company can demonstrate compliance with insurance coverages which meet or exceed the minimum requirements of State Construction Manual OC-15 Article 34.  Yes  No  
 See website link for more information: <https://ncadmin.nc.gov/businesses/construction/forms-documents>

List all other names and years of operation that your firm has operated under for the past five (5) years:

### 3. Licensing Information

(Please provide all North Carolina professional licenses required for you to perform your services.)

**NC License Type** (check box)  General Construction  Electrical  Mechanical  Plumbing  
 Fire Protection  Other (Trade Specific License)

NC License number/name of licensee	License Limit/Level
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>

Has any license ever been denied or revoked?  Yes  No If yes, please describe why,

### 4. Type of Scope Performed, Average project size (in terms of revenue), Largest project size (in terms of revenue)

List all Scopes of Work for which you would request prequalification review in the upcoming year (Bid Packages):

For Each Scope of Work list the following with values from the last 5 years. (Provide references upon request of the CM)

Scope #1:  Percentage of Self Performed Work:

Average project size (\$):  Largest Project Size (\$):

Scope #2:  Percentage of Self Performed Work:

Average project size (\$):  Largest Project Size (\$):

Scope #3:  Percentage of Self Performed Work:

Average project size (\$):  Largest Project Size (\$):

Scope #4:  Percentage of Self Performed Work:

Average project size (\$):  Largest Project Size (\$):

Scope #5:  Percentage of Self Performed Work:

Average project size (\$):  Largest Project Size (\$):

Scope #6:  Percentage of Self Performed Work:

Average project size (\$):  Largest Project Size (\$):

## Part A: CM at Risk 1<sup>st</sup> Tier Subcontractor Master Prequalification Form (Annual Submittal)

Indicate your two **largest** completed projects in the last 5 Years per scope. If submitting for multiple scopes, submit multiple sheets.

#1 –Completed - Project Name	
Description of Work Performed	<input type="text"/>
Contract Delivery Method (CMAR or GC?)	<input type="text"/>
Owner Name/ Representative	<input type="text"/>
Architect Name/Representative	<input type="text"/>
GC or CM Name/Representative	<input type="text"/>
GC or CM Address/Phone #/Email	<input type="text"/>
Lost Man-hours due to Accident	<input type="text"/>
Final Contract Dollar Value	<input type="text"/>
HUB % Achieved (on Contract Value)	<input type="text"/>
Date Complete	<input type="text"/>

#2 –Completed - Project Name	
Description of Work Performed	<input type="text"/>
Contract Delivery Method (CMAR or GC?)	<input type="text"/>
Owner Name/ Representative	<input type="text"/>
Architect Name/Representative	<input type="text"/>
GC or CM Name/Representative	<input type="text"/>
GC or CM Address/Phone #/Email	<input type="text"/>
Lost Man-hours due to Accident	<input type="text"/>
Final Contract Dollar Value	<input type="text"/>
HUB % Achieved (on Contract Value)	<input type="text"/>
Date Complete	<input type="text"/>

## Part A: CM at Risk 1<sup>st</sup> Tier Subcontractor Master Prequalification Form (Annual Submittal)

### 5. Size of Company

List the annual dollar value of billings the company has performed for each year over the last (5) five fiscal years (most recent Y/E listed first).

Year #1 (20\_\_ ) - \$ \_\_\_\_\_

Year #2 (20\_\_ ) - \$ \_\_\_\_\_

Year #3 (20\_\_ ) - \$ \_\_\_\_\_

Year #4 (20\_\_ ) - \$ \_\_\_\_\_

Year #5 (20\_\_ ) - \$ \_\_\_\_\_

### 6. Current Workload

Number of active projects that your company is presently working on - \_\_\_\_\_

Remaining revenue to earn (backlog) on active projects - \_\_\_\_\_

### 7. Safety

List your company's Experience Modification Rate (EMR) for past five years. Refer to Supplemental information, Item 4 for Insurance Carrier letter supporting Present Rate EMR.

_____	_____	_____	_____	_____
Present Rate	Last Rate	Year before rate	Year before rate	Year before rate

If any year your rate is over 1.00 please explain why:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

List your company's Recordable Incident Rate (RIR) for past five years:

_____	_____	_____	_____	_____
Present Rate	Last Rate	Year before rate	Year before rate	Year before rate

List your company's Days Away Restricted or Transferred Rate (DART) for past five years:

_____	_____	_____	_____	_____
Present Rate	Last Rate	Year before rate	Year before rate	Year before rate

List any OSHA fines and Jobsite fatalities in the past five (5) years. Please attach OSHA report describing the incident:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Does your company have a dedicated safety individual who inspects job sites on a regular base? If yes, please provide name and contact information for this individual:

## Part A: CM at Risk 1<sup>st</sup> Tier Subcontractor Master Prequalification Form (Annual Submittal)

\_\_\_\_\_  
\_\_\_\_\_

Does your company have a Written Safety Program and Plan in compliance with current OSHA requirements for your scopes of work (Y/N):  Yes  No

Does your company provide weekly training to your on-site employees (Y/N):  Yes  No

Does your company perform weekly safety inspections on the jobsite? (Y/N):  Yes  No

### 8. Litigation, Claims, Criminal Convictions & Administrative Actions

Has your company filed any claims against a CM at Risk or General Contractor within the last five years, whether resolved or still pending resolution?  Yes  No If yes, state the project name(s), year(s), and reason why:

\_\_\_\_\_  
\_\_\_\_\_

Has your company been involved in any judgments, arbitration or mediation proceedings, or suits within the last five years, whether resolved or still pending resolution?  Yes  No If yes, state the project name(s), year(s), case number and reason why:

\_\_\_\_\_  
\_\_\_\_\_

Has your company ever failed to complete work awarded to it or has your company's work been supplemented by a CMAR or GC?  Yes  No If yes, please provide project name(s), year(s), and reason why:

\_\_\_\_\_  
\_\_\_\_\_

Have you ever paid liquidated damages on any project?  Yes  No If yes, state the project name(s), year(s), and reason why.

\_\_\_\_\_  
\_\_\_\_\_

Has your bonding company had to take any of the following actions in the last 10 years: Project technical support, Payments to vendors, Supplement work on a contract, or complete a contract for your company?  Yes  No If yes, state the project name(s), year(s), and reason why.

\_\_\_\_\_  
\_\_\_\_\_

Has a Bid Bond ever been collected upon on a project your company bid in the last 5 years?  Yes  No If yes, state the project name(s), year(s), and reason why.

\_\_\_\_\_  
\_\_\_\_\_

Has your present company, its officers, owners, or agents ever been convicted of charges relating to conflicts of interest, bribery, or bid-rigging?  Yes  No If yes, state the project name(s), year(s), and reason why.

\_\_\_\_\_  
\_\_\_\_\_

## Part A: CM at Risk 1<sup>st</sup> Tier Subcontractor Master Prequalification Form (Annual Submittal)

Has your present company, its officers, owners, or agents ever been barred from bidding public work in North Carolina?  
 Yes  No If yes, state the project name(s), year(s), case number and reason why.

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### 9. Historically Underutilized Business (HUB) Plan

Does the company currently have a documented plan for engaging subcontractor participation from Historically Underutilized Businesses?  Yes  No if yes, please attach your company's HUB plan.

### 10. Signature

By signing this document, you are acknowledging that all answers are true to the best of your knowledge. **Any answers found to be falsified will ban you from being prequalified for projects.**

Signature

Date



Printed Name and Title

**Required Supplementary Information that needs to be included at the same time the prequalification form (Part A) is submitted.**

- 1) Your most recent CPA audited or reviewed financial statements.
- 2) Bonding Letter from your Surety Company listing single and aggregate bonding limits and what bonding capacity that is available.
- 3) A current Certificate of Insurance listing all insurance policies.
- 4) Letter from Insurance carrier stating last five years of EMR ratings.
- 5) The last five years of your OSHA 300A report
- 6) Copy of HUB Certification (if Applicable)
- 7) Copy of Professional Licenses (If Applicable)

**Note:**

## Part A: CM at Risk 1<sup>st</sup> Tier Subcontractor Master Prequalification Form (Annual Submittal)

*All pieces of supplementary information shall be provided. If they are not, then the prequal is deemed incomplete and may be rejected. If for some reason you are unable to provide one of the items listed above please explain below.*

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# Project Prequalification Submittal (Part B)



## Part B: CM at Risk 1st Tier Subcontractor Prequalification (Project Specific Supplement)

**NOTICE TO ALL SUBCONTRACTORS:** This Part B may be used as a project specific "short form" supplement to the prequalification process. ONLY IF said Subcontractor has submitted to the CMAR a "Complete" Master Prequalification Package Part A during the July 1 to June 30 fiscal year period of the project specific prequal advertisement

Subcontractor hereby agrees that the "complete" Master prequal Part A submitted to the CMAR dated \_\_\_/\_\_\_/20\_\_\_ remains in good standing for the overall accuracy of the subcontractor for the fiscal period.  Yes  No If no, explain the material changes safety, leadership or ownership, company size, licenses, type of work performed, financials, bonding, insurances, litigation, etc.:

(If changes are substantial to complete evaluate prequal, the CMAR may require Subcontractor to submit an updated Master Prequal and reject this supplement)

### 1. Information

- 1.a. Name of Project Advertised: \_\_\_\_\_  
 1.b. Subcontractor Full Company Name: \_\_\_\_\_  
 1.b.1 Primary Contact Full Name: \_\_\_\_\_  
 1.b.2 Primary Contact Phone No.: \_\_\_\_\_ Cell No.: \_\_\_\_\_  
 1.b.3 Primary Contact email Address: \_\_\_\_\_

1.c. Check the Boxes on the Attached Exhibit 1 (Listing of Bid Packages) to indicate which Bid Packages this Subcontractor is requesting to Prequalify for on this Project and return with Prequalification Part B.

1.d. Does Subcontractor intend to Partner or Joint Venture with another Subcontractor for this Project?  Yes  No  
 yes, list the Companies involved and their applicable participating percentage: \_\_\_\_\_

### 2. Updated Company Information (from Part A; Master Prequalification Form)

2. a. Update your Current Backlog \$ \_\_\_\_\_ (unearned revenue as of date of this supplement)  
 2. b. Attach updated Bonding letter from your Surety if anticipated Bid Package will exceed \$300,000. Letter shall be dated within the last 30 days. Have you attached a surety letter?  Yes  No  
 2.c. Attach a list to Part B of all the Projects working with the CM at Risk of the Project in the last 5 years

### 3. Project Specifics

- 3.a. The assigned project superintendent for this project shall be: \_\_\_\_\_  
 Include a resume. Have you included a resume?  Yes  No  
 3.b. Experience of the superintendent on this specific type of project is:  0-2  3-4  5-10  >10 years.  
 3.c. The assigned project manager for this project shall be \_\_\_\_\_  
 Include a resume. Have you included a resume?  Yes  No  
 3.d. Experience of the project manager on this specific type of project is:  0-2  3-4  5-10  >10 years.  
 3.e. List three (3) current or completed projects of similar type which most closely reflects the size and complexity of the type of work being requested for the currently proposed project within the last 5 years.

#1 - Similar Project Name (Size / Scope / over 50% Competed)
Description of Work Performed
Completion Date (or expected)
Owner Name/ Representative
Owner Address/Phone #/Email
Architect Name/Representative
Architect Address/Phone #/Email
GC or CM Name/Representative
GC or CM Address/Phone #/Email
Contract Dollar Value
Percentage Complete
HUB Percentage Achieved

## Part B: CM at Risk 1st Tier Subcontractor Prequalification (Project Specific Supplement)

#2 - Similar Project Name (Size / Scope / over 50% Competed)
Description of Work Performed
Completion Date (or expected)
Owner Name/ Representative
Owner Address/Phone #/Email
Architect Name/Representative
Architect Address/Phone #/Email
GC or CM Name/Representative
GC or CM Address/Phone #/Email
Contract Dollar Value
Percentage Complete
HUB Percentage Achieved
#3 - Similar Project Name (Size / Scope / over 50% Competed)
Description of Work Performed
Completion Date (or expected)
Owner Name/ Representative
Owner Address/Phone #/Email
Architect Name/Representative
Architect Address/Phone #/Email
GC or CM Name/Representative
GC or CM Address/Phone #/Email
Contract Dollar Value
Percentage Complete
HUB Percentage Achieved

### 3.f. Labor Resources for this project

- 3.f.1 What is total number of craft employees does Subcontractor employ for Bid Packages requesting:  
 3.f.1.a = supervisors and foreman = \_\_\_\_\_ each  
 3.f.1.b = skilled tradesman = \_\_\_\_\_ each  
 3.f.1.3 = unskilled tradesman = \_\_\_\_\_ each  
 3.f.2 What is percentage of anticipated self perform work with own forces vs. subcontracting to lower tiers:  
 \_\_\_\_\_% self perform with inhouse labor; \_\_\_\_\_% to outsource ready labor; \_\_\_\_\_% lower tier subcontract;

### 4. Signatures

By signing this document, you are acknowledging that all answers are true to the best of your knowledge. **Any answers found to be falsified will bar you from being prequalified on this project.**

Dated this day of: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Signature By Authorized Officer

\_\_\_\_\_  
Print Title of Authorized Officer

### 5. Scoring Matrix for Part A plus Part B

See Exhibit 2; CM at Risk Subcontractor scoring Matrix

## Part B: CM at Risk 1st Tier Subcontractor Prequalification (Project Specific Supplement)

Check BP	Preliminary Package	Scope of Work	Bid
	BP017000	FINAL CLEANING	\$ 114,674.00
	BP017100	GENERAL TRADES	\$ 413,996.00
	BP024000	DEMO	\$ 720,000.00
	BP033000	CAST-IN-PLACE CONCRETE	\$ 2,324,972.00
	BP340000	PRE-CAST CONCRETE	\$ 1,434,391.00
	BP042000	MASONRY	\$ 3,459,150.00
	BP051000	STRUCTURAL STEEL	\$ 3,591,000.00
	BP052000	MISCELLANEOUS METALS	\$ 363,150.00
	BP0618000	GLU-LAM	\$ 909,900.00
	BP071000	WATERPROOFING, JOINT EXPANSION & EXPANSION JOINTS	\$ 171,810.00
	BP0724000	EFIS	\$ 506,250.00
	BP074000	WALL PANELS	\$ 553,095.00
	BP075000	TURNKEY ROOFING	\$ 2,150,586.00
	BP081000	DOORS, FRAMES, & HARDWARE	\$ 548,280.00
	BP083000	SPECIALTY DOORS	\$ 67,500.00
	BP084000	STOREFRONT	\$ 3,271,612.00
	BP092000	METAL FRAMING & GYPSUM BOARD	\$ 1,526,874.00
	BP093000	HARD TILE	\$ 36,610.00
	BP095000	ACOUSTICAL CEILINGS	\$ 535,343.00
	BP095100	ACOUSTICAL WALL PANELS	\$ 155,029.00
	BP096000	RESILIENT FLOORING & RESILIENT ATHLETIC FLOORING	\$ 757,170.00
	BP0964000	ATHLETIC FLOORING - WOOD FLOORING	\$ 230,076.00
	BP096700	EPOXY FLOORING	\$ 197,416.00
	BP099000	PAINTING & COATINGS	\$ 395,814.00
	BP101000	SIGNAGE	\$ 89,099.00
	BP101100	VISUAL DISPLAYS	\$ 103,499.00
	BP102000	INTERIOR SPECIALTIES & PARTITIONS	\$ 179,195.00
	BP102200	OPERABLE PARTITIONS	\$ 58,500.00
	BP105000	STORAGE SPECIALTIES	\$ 176,400.00
	BP107300	AWNINGS & CANOPIES	\$ 511,200.00
	BP11400	FOOD SERVICE EQUIPMENT	\$ 696,433.00
	BP116100	STAGE EQUIPMENT	\$ 180,000.00
	BP116600	ATHLETIC EQUIPMENT	\$ 144,166.00
	BP122000	WINDOW TREATMENTS	\$ 108,000.00
	BP123000	CASEWORK	
	BP126100	FIXED AUDIENCE SEATING	\$ 270,000.00
	BP126600	TELESCOPIC BLEACHERS	\$ 304,258.00
	BP142000	ELEVATORS	\$ 139,500.00
	BP210000	FIRE SUPPRESSION	\$ 752,551.00
	BP220000	PLUMBING	\$ 2,114,310.00
	BP230000	HVAC	\$ 6,163,749.00
	BP260000	ELECTRICAL	\$ 5,692,500.00
	BP310000	TURNKEY SITEWORK	\$ 4,426,444.00
	BP329000	LANDSCAPING	\$ 270,000.00
	BP330000	SITE UTILITIES	\$ 450,000.00
	BP323000	FENCE & GATES	\$ 90,000.00

## Columbus County Schools PK-8 (East View) - PREQUAL

Bid Packages Messages Files Information **Bid Forms** Team Reports

### Scope-Specific Bid Forms

 You can request Line Item Pricing and Alternates in each bid package. Use the links to the right to jump to the Scope-specific bid forms.

### Project Bid Form

[Import a Form](#) [Edit](#)

### General Acknowledgments

Mark "yes" to all yes/no questions »

**NOTICE TO ALL SUBCONTRACTORS:** This Part B may be used as a project specific “short form” supplement to the pre-qualification process, ONLY IF, said Subcontractor has submitted to the CMAR a “Complete” Master Pre-qualification Package Part A during the current fiscal year period of the project specific prequal advertisement :

#### 1. Information:

- \* 1.a. Name of Project Advertised
- \* 1.b. Subcontractor Full Company Name
- \* 1.b.1 Subcontractor Primary Contact Full Name
- \* 1.b.2 Subcontractor Primary Contact Phone Number
- \* 1.b.3 Subcontractor Primary Contact email Address
- \* 1.c. Please list the Bid Package(s) your company is requesting to pre-qualify for on the project.
- \* 1.d. Does your company intend to Partner or Joint Venture with another Subcontractor for this Project?  Yes  No
- \* 1.d.1 If yes, please list companies involved & their applicable participating percentage (%), if not, please input "N/A."

# Project Prequalification Submittal



## GRADING MATRIX

### Company Information

- Business Type
- Licensing
- Scope of Work
- **Past/Present Project**
- Litigations
- Financial
- Bonding
- Insurance/EMR

**Part B - Exhibit 2**  
**Prequalification Ratings Matrix for First-Tier Subcontractors under CMAR**

Name of Subcontractor : \_\_\_\_\_  
 Project Name: \_\_\_\_\_  
 Bid Package No. & Description: \_\_\_\_\_

		Yes or N/A = 1 point for acceptance and No = 0 points for not acceptance	1	2	3	4	5	6	7	8
			Contractor Name							
Part A Section #	Description	Yes or No	Pts							
<b>Part A - 1. GENERAL COMPANY INFORMATION</b>		Yes or No	1							
<b>Part A - 2. BUSINESS TYPE</b>		Yes or No	1							
<b>Part A - 3. LICENSING INFORMATION</b>		Yes or No	1							
<b>Part A - 4. TYPE OF SCOPE OF WORK / AVERAGE SIZE / LARGEST PROJECT</b>		Yes or No	1							
<b>Part A - 5. SIZE OF COMPANY</b>		Yes or No	1							
<b>Part A - 6. CURRENT WORKLOAD</b>		Yes or No	1							
<b>Part A - 7. CURRENT WORKLOAD</b>		Yes or No	1							
<b>Part A - 8. LITIGATIONS AND CLAIMS</b>		Yes or No	1							
<b>Part A - 9. HUB OR DIVERSITY PLAN</b>		Yes or No	1							
<b>Part A - SUPPLEMENTAL INFORMATION</b>										
	Audited Financials	Yes or No	1							
	Bonding Company Letter	Yes or No	1							
	Current Insurance Certificate meeting OC-15 Article 34	Yes or No	1							
	Letter from Insurance Company stating EMR	Yes or No	1							
	OSHA 300 Reports	Yes or No	1							
	Copy of HUB Certification, if claimed in Section 2	Yes or No	1							
	Copy of Licenses for Specific work, if required in Section 3	Yes or No	1							
	<b>Part A Acceptance = Subtotal 15 out of 15 points</b>		<b>15</b>							
<b>Part B Section #</b>	<b>Description</b>	<b>Yes or No</b>	<b>Pts</b>							
<b>Part B - 1. INFORMATION</b>										
<b>Part B - 2. UPDATED COMPANY INFORMATION</b>										
	<b>2a</b> Current Backlog and Bonding Capacity Available	Yes or No	1							
	<b>2b</b> Attach bonding letter from Surety, if over \$300k	Yes or No	1							
	<b>2c</b> List of Projects working with CMAR in last 5 years	Yes or No	1							
<b>Part B - 3. PROJECT SPECIFICS</b>										
	<b>3a</b> Assigned Superintendent resume and experience	Yes or No	1							
	<b>3b</b> Relevant project experience of assigned Superintendent	Yes or No	1							
	<b>3c</b> Assigned Project Manager resume and experience	Yes or No	1							
	<b>3d</b> Relevant project experience of assigned Project Manager	Yes or No	1							
	<b>3e</b> Related Project Experience	Yes or No	1							
	<b>3f.1</b> Available Craftsman for Trade Prequalifying for	Yes or No	1							
	<b>3f.1</b> Self performance for Trade Prequalifying for	Yes or No	1							
	<b>Part B Acceptance = Subtotal 10 out of 10 points</b>		<b>10</b>							
	<b>TOTAL POINTS = 25 points out of 25 points</b>		<b>25</b>							

All scores of 25 points will be prequalified.

note: if an item is not applicable ("n/a"), then the CMAR shall make the line "n/a" for all subcontractors seeking prequalification for that bid package

*Bid Documents*

- GENERAL TRADES
- FINAL CLEANING
- TURNKEY CONCRETE
- TURNKEY MASONRY
- STRUCTURAL STEEL & MISC. METAL
- ARCHITECTURAL MILLWORK–LAB CASEWORK
- DAMPROOFING & WATERPROOFING
- EIFS
- WALL PANELS
- TURNKEY ROOFING
- DOORS, FRAMES, & HARDWARE
- SPECIALTY DOORS
- STOREFRONT
- METAL FRAMING & GYPSUM BOARD
- HARD TILE
- ACOUSTICAL CEILINGS & PANELS
- RESILIENT FLOORING & CARPET
- WOOD FLOORING
- EPOXY FLOORING
- PAINTING & COATINGS

- SIGNAGE
- INTERIOR SPECIALTIES
- **AWNINGS & CANOPIES\*- ALTERNATE**
- STAGE EQUIPMENT
- ATHLETIC EQUIPMENT
- **WINDOW TREATMENTS\*-ALTERNATE**
- MANUFACTURED CASEWORK
- TELESCOPING BLEACHERS
- PEMB
- ELEVATORS
- FIRE SUPPRESSION
- PLUMBING
- HVAC
- ELECTRICAL
- TURNKEY SITEWORK
- DEEP FOUNDATIONS
- FENCE & GATES
- **PLANROOMS, 2<sup>ND</sup> TIER SUBCONTRACTOR & SUPPLIERS**

- Bid Documents
- Plans
- Bid Manual
- Specifications

Columbus County Schools PK-8



Columbus County Schools PK-8

**BID MANUAL**

BID DATE: 11/4/2025  
BID TIME: 2:00 PM

METCON, INC.  
P.O. Box 1149  
763 Comtech Drive  
Pembroke, NC 28372  
Tele: 910-521-8013

Bid Manual  
Construction Management  
Bid Forms and Contract Information  
Page | 1

**Columbus County Schools PK-8**  
LS3P: 7201-240219  
Green Swamp Rd. Hwy. 211 and Sam  
Potts Hwy 214  
Bolton, North Carolina 28423



Columbus County Schools  
LS3P metcon

REVISED: 2025.09.24 FOR PERMIT / BIDDING  
ISSUED: 2025.04.02 ISSUE FOR PERMIT / BIDDING

<b>PARAMOUNTS ENGINEERING</b>	<b>WOODS ENGINEERING</b>	<b>CMTA</b>	<b>COMACTO</b>	<b>MBP</b>
<b>CIVIL ENGINEER</b>	<b>STRUCTURAL ENGINEER</b>	<b>MEP</b>	<b>FOOD CONSULTANT</b>	<b>COST ESTIMATOR</b>
122 CANEMA DRIVE WILMINGTON, NC 28403 910.791.8700 910.791.8700 RUB KALLAND rkalland@paramounte-eng.com	254 N. FRONT ST., SUITE 201 WILMINGTON, NC 28401 910.343.8000 910.343.8000 DON WOODS dowwoods@woodseng.com	10411 MEETING STREET PROSPECT, KY 40059 502.209.3000 JAMES CURRIE jcurrie@cmta.com	3103 MEDLOCK BRIDGE RD. NORCROSSE, GA 30071 770.902.1166 JAMES C. CAMACHO, FCSI, CSI jcamach@comactoc.com	4700 FALLS OF NEUSE RD. SUITE 370 RALEIGH, NC 27609 919.876.0124 MIKE BUSINESS mburke@mbp.com

**PROJECT MANUAL**



**COLUMBUS COUNTY SCHOOLS PK-8**  
GREEN SWAMP ROAD HWY 211 AND SAM POTTS HWY 214  
BOLTON, NORTH CAROLINA 28423

**ISSUE FOR PERMIT / BID DOCUMENT SET**  
SEPTEMBER 24, 2025 VOLUME NO. 1 OF 2



101 N. THIRD STREET  
SUITE 500  
WILMINGTON, NC 28401  
PHONE: 910.790.9901

**LS3P COMMISSION NUMBER: 7201-240219**

© 2025 LS3P

# Bid Documents- Plans, Bid Manual, Specifications



## Bid Bond Form



CMR 00 43 13 - Bid Bond Form

Please use the attached form or AIA-310 with similar listed parties.

KNOW ALL MEN BY THESE PRESENTS THAT \_\_\_\_\_

as principal, and \_\_\_\_\_

\_\_\_\_\_ as surety, who is duly licensed to act as surety in North Carolina, are held and firmly bound unto the State of North Carolina and \_\_\_\_\_, and as obligee, in penal sum of: FIVE, 5% percent of amount of bid or \_\_\_\_\_

\_\_\_\_\_ DOLLARS,

lawful money of the United States of America, for the payment of which, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

Sealed, signed and dated this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

WHEREAS, the said principal is herewith submitting proposal file this bid bond in lieu of making the cash deposit as required

NOW, THEREFORE, THE CONDITION OF THE ABOVE OBLIGATION shall be awarded the contract for which the bid is submitted and give bond for the faithful performance thereof with the same to the principal, then this obligation shall be null and void and execute such contract and give performance bond as required shall, upon demand, forthwith pay to the obligee the amount hereof. Provided further, that the bid may be withdrawn as provided

\_\_\_\_\_ (SEAL)

\_\_\_\_\_ (SEAL)

\_\_\_\_\_ (SEAL)

\_\_\_\_\_ (SEAL)

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## Bid Form



Columbus County Schools PK-8  
CMR 00 41 00 - Bid Proposal Forms

Columbus County Schools PK-8

BID PACKAGE # AND TITLE: \_\_\_\_\_

BID PROPOSAL OF: \_\_\_\_\_  
(Hereinafter called "BIDDER") (Name of Firm)

A(N) \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_  
(Corporation, Partnership, or Individual)

BIDDER'S North Carolina STATE LICENSE NUMBER: \_\_\_\_\_

The bidder, in compliance with the Instruction to Bidders for the above referenced project – Bid Package, having examined the complete contract documents including plans, specifications, and addenda issued by Metcon and the Bid Manual prepared by Metcon, Construction Manager, dated (Date) and being familiar with the site of the proposed work, schedule requirements, and with all of the conditions surrounding the construction of the proposed project, including availability of materials and labor, hereby proposes to furnish all labor, materials, engineering, permits, fees, taxes, insurance, bonds if required, scaffolding, hoisting, tools, equipment, machinery, rentals, transportation, supervision, clean-up, and all services necessary to provide the entire scope of work, for the prices indicated on this Form of Proposal.



### Bid Checklist

#### Print Outside Sealed Envelope

- Company Name
- Project Name
- Bid Package Name and Number (i.e., BP08100 Doors and Hardware)
- Bid Enclosed

#### Inside Sealed Envelope

- Bid Proposal Form
- Bid Bond or Cashier's Check if > than \$300,000.00
- Sign and Notarize Proposal Form
- Acknowledge all Addenda
- No Qualifications, Clarifications, or Exclusions should be written on the Bid Form
- Affidavit A or B
- Minority, Women, and Small Business Enterprise Identification Form

#### Viewed Contract Documents

- Drawings, Project Specifications, CMR Bid Manual (Scope of Work), Addendums, and Clarifications

All subcontractors are required to drop off their bid package at the bid opening location on November 4, 2025, before 2:00 PM. Alternatively, mailed-in bids must be received by November 3, 2025, at 5:00 PM at the PEMBROKE Office: 763 Comtech Drive, Pembroke, NC 28372.

Please use a checklist to ensure your proposal has all the required documents inside the envelope. PLEASE ATTACH THE CHECKLIST INSIDE A 9-1/2 ENVELOPE (9" X 12") SEALED ENVELOPE.

#### PLEASE PROVIDE INFORMATION TO CONTACT AFTER THE BID

Company Name: \_\_\_\_\_  
Contact Name: \_\_\_\_\_  
Contact Number: \_\_\_\_\_  
Contact Email: \_\_\_\_\_

**Bid Check List**

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## Addendums, Alternates, & Unit Prices



Columbus County Schools PK-8

The Bidder acknowledges receipt of the following Addenda issued by the Construction Manager:

Addendum No. \_\_\_\_\_ Dated: \_\_\_\_\_

### BASE BID

The undersigned agrees to perform the entire Scope of Work for this Bid package, as described in the Contract Documents, Addenda, and Bid Manual. Pricing list to be provided as follows:

#### Item 1 - Base Bid:

\_\_\_\_\_ Dollars,

(\$ \_\_\_\_\_), Circle one Add or Deduct

#### Item 2 - Performance and Payment Bonds (if not required)

\_\_\_\_\_ Dollars,

(\$ \_\_\_\_\_), Circle one Add or Deduct

#### Item 3 - (Total of Item 1 and 2):

\_\_\_\_\_ Dollars,

(\$ \_\_\_\_\_), Circle one Add or Deduct

Show the amount in both words and figures; in case of government.

All North Carolina State Sales and Use Taxes or Local Base Bid and Alternates (including taxes on purchase that this bid will remain good and may not be withdrawn of Bid Proposal.

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### UNIT PRICES & ALLOWANCES

The bid packages affected by the following Unit Prices have been identified. Provide the unit cost for the following items as it pertains to the work in this contract. Prices are to include all direct costs of the work, taxes, overhead, profit, supervision, equipment, sub-subcontracts, materials, labor, etc. Prices shall remain in effect for the entire duration of the project. Unit prices will be used as the basis for adjusting the contract total, whether work is added or deducted. A unit price must be provided in the appropriate space on the Bid Proposal Form for all unit prices corresponding to your bid package. The lump sum and unit-price allowances are listed below. Construction allowances, if required, are included in the Bid Packages for each applicable trade package.

#### UNIT PRICE:

Please see Specification 01 22 00 – Unit Prices for details. Please refer to the bid package scopes for the required quantity.

#### Unit Price No. 1: Woven Geo-Textile Separation and Stabilization of Fabric In-Place.

Allow for 25,550 square yards at \$ \_\_\_\_\_ per square yard,  
Totaling \$ \_\_\_\_\_ Allowance (Included in Base Bid).

#### Unit Price No. 2: Removal of Unsuitable Soils (Bulk Onsite).

Allow for 13,640 cubic yards at \$ \_\_\_\_\_ per cubic yard,  
Totaling \$ \_\_\_\_\_ Allowance (Included in Base Bid).

#### Unit Price No. 3: Removal of Unsuitable Soils (Bulk Offsite).

Allow for 3,410 cubic yards at \$ \_\_\_\_\_ per cubic yard,  
Totaling \$ \_\_\_\_\_ Allowance (Included in Base Bid).

#### Unit Price No. 4: Removal of Unsuitable Soils (Trench Onsite).

Allow for 500 cubic yards at \$ \_\_\_\_\_ per cubic yard,  
Totaling \$ \_\_\_\_\_ Allowance (Included in Base Bid).

#### Unit Price No. 5: Replacement of Removed Unsuitable Soils with Off-Site Suitable Soils In-Place.

Allow for 17,050 cubic yards at \$ \_\_\_\_\_ per cubic yard,  
Totaling \$ \_\_\_\_\_ Allowance (Included in Base Bid).

#### Unit Price No. 6: 6" Steel Casing for Geo-Thermal System

\$ \_\_\_\_\_ /LF

#### SCHEDULE

The bidder has reviewed the proposed Schedule in the bid manual and agrees that it can achieve the schedule shown.

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### Alternates

All alternates must be completed with words and a dollar figure. If the base bid is not changed by the acceptance of the alternate, the words "Zero", "No Change", "N/A", or Not Applicable are acceptable. Please do not leave BLANK.

Please refer to Specification 01 23 00 – Alternates and the cover page of the drawings for details.

#### ALTERNATE NO. 1: Add Paved Drive Aisle.

\_\_\_\_\_ Dollars,

(\$ \_\_\_\_\_), Circle one Add or Deduct

#### ALTERNATE NO. 2: Add Gravel Parking Along Drive Aisle.

\_\_\_\_\_ Dollars,

(\$ \_\_\_\_\_), Circle one Add or Deduct

#### ALTERNATE NO. 3: Add Paved Parking Along Drive Aisle.

\_\_\_\_\_ Dollars,

(\$ \_\_\_\_\_), Circle one Add or Deduct

\_\_\_\_\_ Dollars,

CMR 00 41 00  
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MWSBE Provisions

## BID COMPLIANCE Minority, Women, and Small Business Program

Bid Documents

State of North Carolina --- AFFIDAVIT C --- Portion of the Work to be Performed by M/W/SBE Firms

County of \_\_\_\_\_

\*\*\*\*\* (NOTE: THIS FORM IS TO BE SUBMITTED ONLY BY THE APPARENT LOWEST RESPONSIVE BIDDER) \*\*\*\*\*

If the portion of the work to be executed by M/WBE firms as defined in GS143-128.2(g) and Board of Education M/W/SBE Policy is equal to or greater than the M/W/SBE aspirational goal of MBE 10%, WBE 6%, and SBE 5% in Construction, and/or MBE 5%, WBE 4%, and SBE 5% in Other Services and/or MBE 3%, WBE 3%, and SBE 5% in Goods participation of the bidders total contract price, then the bidder must complete this affidavit. This affidavit shall be provided by the apparent lowest responsible, responsive bidder within 72 hours after notification of being the apparent low bidder.

Affidavit of \_\_\_\_\_ I do hereby certify that on the \_\_\_\_\_ (Name of Bidder) \_\_\_\_\_ (Project Name) \_\_\_\_\_ (Project ID#) \_\_\_\_\_ Amount of Bid \$ \_\_\_\_\_

I will expend a minimum of \_\_\_\_\_% of the total dollar amount of the contract with minority, women, or small business enterprises. M/W/SBEs will be employed as construction subcontractors, vendors, suppliers or providers of professional services. Such work will be subcontracted to the following firms listed below. Attach additional sheets if required.

Name and Address	*M/W/SBE Category	Work description	Dollar Value

\*M/W/SBE categories: Black, African American (B), Hispanic (H), Asian American (A) Native American Indian (N), Female (F) Socially and Economically Disadvantaged (D), Small (S)

In accordance with GS143-128.2(d) and Board of Education Policy the undersigned will enter into formal agreement with the firms for work listed in this schedule conditional upon execution of a contract with the Owner. Failure to fulfill this commitment may constitute a breach of contract. The undersigned hereby certifies that he or she has read the terms of the Minority, Women, and Small Business Enterprise commitment and is authorized to bind the bidder to the commitment herein set forth.

Date: \_\_\_\_\_ Name of Authorized Officer: \_\_\_\_\_

Signature: \_\_\_\_\_ Title: \_\_\_\_\_

State of \_\_\_\_\_, County of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

Notary Public \_\_\_\_\_

My commission expires \_\_\_\_\_

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Affidavit C

State of North Carolina AFFIDAVIT D - Good Faith Efforts  
County of Mecklenburg

If the aspirational goal of MBE 10%, WBE 6%, and SBE 5% in Construction, and/or MBE 5%, WBE 4%, and SBE 5% in Other Services and/or MBE 3%, WBE 3%, and SBE 5% in Goods participation by M/W/SBE businesses is not achieved, the apparent lowest responsible, responsive bidder shall provide the following documentation to the Owner of his good faith efforts and the M/W/SBE firms that will be used on the project. This affidavit shall be provided by the apparent lowest responsible, responsive bidder within 72 hours after notification of being the apparent low bidder. (Name of Bidder)

Affidavit of \_\_\_\_\_ I do certify the attached documentation as true and accurate representation of my good faith efforts.

I will expend a minimum of \_\_\_\_\_% of the total dollar amount of the contract with minority, women, or small business enterprises. M/W/SBEs will be employed as construction subcontractors, vendors, suppliers or providers of professional services. Such work will be subcontracted to the following firms listed below. Attach additional sheets if required.

Name and Address	*M/W/SBE Category	Work description	Dollar Value

\*M/W/SBE categories: Black, African American (B), Hispanic (H), Asian American (A) American Indian (I), Female (F) Socially and Economically Disadvantaged (D), Small (S)

Documentation of the Bidder's good faith efforts to meet the goals set forth in these provisions. Examples of documentation include, but are not limited to, the following evidence:

- Copies of solicitations for quotes to at least three (3) M/W/SBE firms from the source list provided by the State for each subcontract to be let under this contract. Each solicitation shall contain a specific description of the work to be subcontracted, location where bid documents can be reviewed, representative of the Prime Bidder to contact, and location, date and time when quotes must be received.
- Copies of quotes or responses received from each firm responding to the solicitation.
- A telephone log of follow-up calls to each firm sent a solicitation.
- For subcontracts where a minority business firm is not considered the lowest responsible sub-bidder, copies of quotes received from all firms submitting quotes for that particular subcontract.
- Documentation of any contacts or correspondence to minority business, community, or contractor organizations in an attempt to meet the goal.
- Letter documenting efforts to provide assistance in obtaining required bonding or insurance for minority business.
- Letter detailing reasons for rejection of minority business due to lack of qualification.
- Letter documenting proposed assistance offered to minority business in need of equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letter of credit, including waiving credit that is ordinarily required.

Failure to provide the documentation as listed in these provisions may result in rejection of the bid and award to the next lowest responsible and responsive bidder.

Date: \_\_\_\_\_ Name of Authorized Officer: \_\_\_\_\_

Signature: \_\_\_\_\_ Title: \_\_\_\_\_

State of \_\_\_\_\_, County of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

Notary Public \_\_\_\_\_

My commission expires \_\_\_\_\_

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Affidavit C  
Affidavit D  
Appendix V

Affidavit C  
Affidavit D  
Appendix V

APPENDIX V  
WAIVER REQUEST  
FOR GOOD FAITH EFFORTS

PROJECT: \_\_\_\_\_  
COMPANY: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_  
CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_  
CONTACT PERSON: \_\_\_\_\_ PHONE NO: \_\_\_\_\_  
TITLE: \_\_\_\_\_

The said company request a Full ( ) or Partial ( ) waiver for the M/W/SBE aspirational goals for this particular project for the following reasons:

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

---

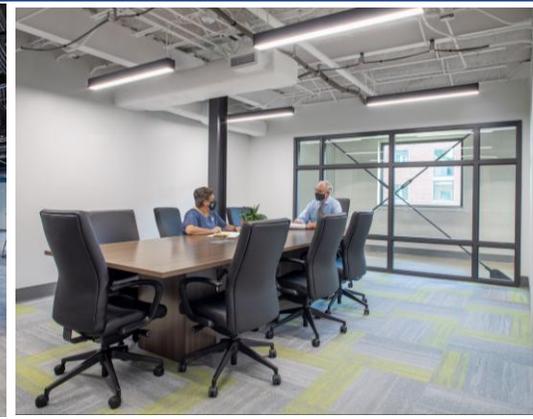
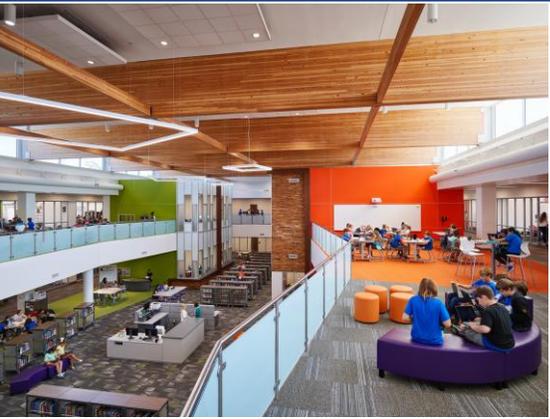
Good Faith Efforts Verified: \_\_\_\_\_ CMS USE ONLY

Request of Waiver Granted: YES ( ) NO ( )

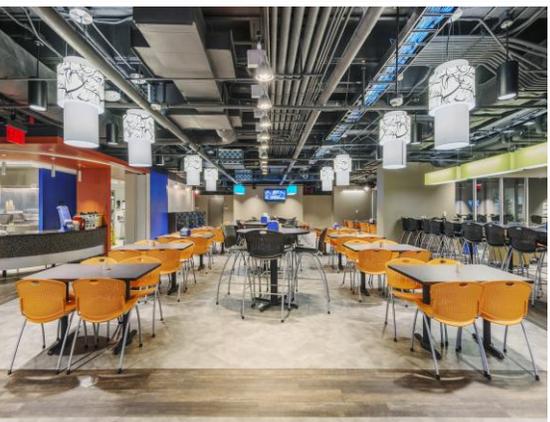
Comments: \_\_\_\_\_

M/WBE Administrator: \_\_\_\_\_ Date: \_\_\_\_\_

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# Q & A







00:02:07 Mike Hart with DW Evans Electric: Mike Hart

DW Evans Electric, Inc.

mhart@dwevans.com

919-323-7056

00:27:36 Lucas Probst: Lucas Probst - Stevens Industries, Inc. /

lucasp@stevensind.com

00:41:22 Savannah Salinski: Savannah Salinski - Haire Plumbing & Mechanical Co. Inc., 9104831421, savannah@haireplumbing.com

00:43:15 MGreene: Marty Greene - Martin Roofing Services, Inc -  
martygreene@martinroofingservices.com

00:45:48 bhelms: Brad Helms Strickland Waterproofing  
bhelms@stricklandwaterproofing.com

00:46:05 Stephanie Bass: Stephanie Bass- Triangle Grading & Paving, Inc-  
sbass@tgandp.com- 336-584-1745

00:48:07 Samantha Rodriguez: Samantha Rodriguez - Northedge -  
ap@northedge.us

00:51:25 Jeff Peshek: Jeff Peshek

Southeastern Contracting Inc.

Jeff@SoutheasternContractingInc.com

00:51:35 ChadCrawford: Chad Crawford, WxTite, ccrawford1@wxtite.com

00:51:43 Hine Sitework - Elayne Kincaid: Elayne Kincaid Hine Sitework  
elayne@hinesitework.com

00:51:50 Mike Johnson: Mike Johnson, BFPE International, mikej@bfpe.com

00:52:37 Kama (North State Steel): Kama Woolard -Estimating Coordinator - North  
State Steel - 252-830-8884 - Kama@northstatesteel.com

00:53:03 Robert G: Robert Goff - A1 Glass and Aluminum -  
robertg@a1glassnc.com

00:53:53 Jimmy Driscoll: Jimmy Driscoll- Ivey Mechanical -  
jimmy.driscoll@iveymechnical.com

00:54:20 Cindy Hodge, Clayton Commercial Glazing: Cindy Hodge, Clayton Commercial Glazing, cindy@claytoncommrcial.net

00:54:21 justin barbour: Justin Barbour; Barbour Brothers Construction Inc; justin@barbourbrothers.com; 919 242 1267

00:54:53 kford: Kathy Ford, Manganaro SE, kford@manganaro.com

00:55:47 randy: Randy Ream Catawba Fence randy@catawbainc.com 803-981-9015

00:55:49 read.ai meeting notes: Keith added read.ai meeting notes to the meeting.

Read provides AI generated meeting summaries to make meetings more effective and efficient. View our Privacy Policy at <https://www.read.ai/pp>

Type "read stop" to disable, or "opt out" to delete meeting data.

00:56:21 Frank smith: Frank Smith - Moonlite Electric & Construction, INC. fsmith@moonliteconstruction.co

00:56:25 Brian Levenduski - NC Glazing: Brian Levenduski NC Glazing & Fabrication LLC brian@ncglazing.com

00:56:33 K&R Building Solution, LLC: Rebecca Desmore K & R Building Solution rdesmore@krbldgsolution.org

00:56:40 Aaron Spencer: Aaron Spencer

00:56:43 Aaron Spencer: Sears Contract, Inc

00:56:49 dstaley: Donna Staley with Learning Environments dstaley@lecarolina.com

00:56:50 Sam Sneed: Sam Sneed - Summa GC sam.sneed@summagc.com

00:56:50 Sara Laughter, Firebird Sign Company: Hi! Sara Laughter, Firebird Sign Company, slaughter@firebirdsign.com, 919-354-3803

00:56:52 James Thorpe: James Thorpe SteelFab, Inc. jthorpe@steelfab-inc.com

00:57:30 Austin Eckersley: Austin Eckersley - Carolina Utilities & Sitework - austin@carolinasiteworkllc.com

00:57:42 Scott Tomlinson: Scott Tomlinson

00:57:49 ppaluso: Patrick Paluso

00:57:49 Nya Payne: Civil Works Contracting LLC.

00:57:52 Scott Tomlinson: CertaPro Painters of Fayetteville NC

00:57:53 Nya Payne: Contact

00:57:56 Sarah LaRue: Sarah LaRue-Barbizon Charlotte-slarue@barbizon.com

00:57:59 ppaluso: Civil Works Contracting

00:58:00 Mark: Mark Stollery - Imagine Design & Production Services, Inc. -  
Mark@Imaginedps.com - Theatrical Equipment Integration

00:58:05 Dan Goodling : Dan Goodling here with Intellicom

00:58:05 joshuahouser: HKS Hardware & Hollow Metal, INC

00:58:13 ppaluso: ppaluso@civilworkscontracting.com

00:58:17 Eliza Minor: Eliza Minor - Tint USA - elizaminor@tintusa.com - Window Film

00:58:20 joshuahouser: Joshua Hauser - 336-399-4848

00:58:21 Clifton: Clifton Lewis - Heartland Acoustics & Interiors 385-507-2470  
clifton.lewis@heartland-acoustics.com

00:58:28 Nya Payne: Nya Payne - npayne@civilworkscontracting.com; 910-742-  
8179

00:58:29 jrhott: JR Hott - Barnhill Contracting Company

00:58:30 nbell: Natalie Bell with Barbizon Charlotte, Inc. -  
capitolquotations@barbizon.com

00:58:33 Scott Tomlinson: Scott Tomlinson CertaPro painters of Fayetteville  
stomlinson@certapro.com

00:58:36 Charlie Betancourt: Charlie Betancourt  
Charliebetancourt@elitecourtsf.com ELITECOURT sports flooring, LLC

00:58:51 Britnee W. (Project Frontier Trainer): Legacy Cleanz, LLC

ADMIN

George Blakeney- +1 (252) 702-2902

00:59:03 Mark VanCleaf - Wilmington: Mark VanCleaf - Precision Walls, Inc.  
mvancleaf@precisionwalls.com

00:59:12 ppaluso: Patrick Paluso - Civil Works Contracting - (910) 742-8582 -  
ppaluso@civilworkscontracting.com - Turn Key Sitework

00:59:19 iAdam: Adam Daughety - Trinity Plumbing & Site Work. 910-489-0951 -  
trinitybids@trinitypands.com

00:59:27 acovington: Andrew Covington - RC Specialties

00:59:41 Andrew.Bowers: Andrew Bowers- Keller

01:00:01 Kayla G: Kayla Gore NJR Construction, LLC.

01:00:03 Majd Alawar: Majd Alawar - Hoffman Building Technologies  
majd.alawar@hbtech.com

919-819-0214

01:00:08 nickz: Nick Zohdi, Allied Geothermal/ Drilling nickzohdi@alliedwells.com

01:00:09 Jimmy Newton: Jimmy Newton - jnewton@intellicomusa.com -  
Intellicom

01:00:14 Vicente Rivera - U9: United Painting Services, Inc. - Vicente Rivera /  
vicente@unitedpaintingservices.com / 7046840357

01:00:15 Davis Beeman: Davis Beeman - East Coast Access LLC -  
davis@eastcoastaccessllc.com

01:00:23 Kayla G: Replying to "Kayla Gore NJR Cons..."

Kayla Gore NJR Construction, LLC.

kgore@njr-construction.com

01:00:24 Brooke Myers: Brooke Myers - Resolute Elevator /  
bmyers@resoluteelevator.com / 901-849-9808

01:00:35 Dan Goodling: Dan Goodling with Intellicom  
dgoodling@intellicomusa.com

01:00:51 Matthew Marcinko: Matt Marcinko - Civil Works Contracting -  
MMarcinko@civilworkscontracting.com

01:00:54 Danny Brown: Danny Brown - Geconstruction/UMG  
Dbrown7031@triad.rr.com - Geconstruct1@gmail.com

01:01:01 Yanira Espada- Access Services: Access Services, Yanira Espada-  
yanira@access-services.biz

01:01:54 Frank smith: Replying to "Sarah LaRue-Barbiz..."

Hey Sarah!

01:01:56 csanford: Cameron Sanford, Faulconer Construction,  
csanford@faulconerconstruction.com

01:02:12 Frank smith: Replying to "Sarah LaRue-Barbiz..."



01:02:14 Jeannette Campbell: Jeannette Campbell, NC Glazing & Fabrication,  
bids@ncglazing.com

01:03:45 Classic Cleaning LLC: Kierra - Classic Cleaning, LLC

01:03:56 Classic Cleaning LLC: classiccleaningllc1@gmail.com

01:06:31 Aaron Rachow: Aaron Rachow

Steel Technology, Inc.

aaron@steeltechn.com

01:07:51 Sarah LaRue: Replying to "Sarah LaRue-Barbizon..."

Hello!

01:16:49 Tarris Arnold: Taylor Interiors, LLC

01:17:52 Tarris Arnold: Taylor Interiors, LLC. Tarris Arnold Waterproofing & Joint  
Sealants. tarnold @taylorinteriorsllc.com

01:18:33 Frank smith: we can hear him

01:18:34 Sam Sneed: We can hear you  
01:18:53 Savannah Salinski: We can hear him  
01:18:57 Sara Laughter, Firebird Sign Company: We can hear you  
01:19:00 Cindy Hodge, Clayton Commercial Glazing: yes  
01:19:09 Scott Tomlinson: everyone online can hear you  
01:19:22 Sam Sneed: Seems like the meeting does not have the sound on  
01:19:23 Frank smith: Everyone can here him but you  
01:19:24 Faizan Ashraf: yeah we can hear you  
01:19:37 Keith's iPad: Keith Cumber

Sandhills Glass LLC

2sandhillsglass@gmail.com

910 995 4583

01:19:44 Nya Payne: yes  
01:19:48 Frank smith: we can here you  
01:19:50 Frank smith: lol  
01:19:54 kashif-Carpet Queen: Yes we can hear you.  
01:19:58 Yanira Espada- Access Services: yes we can hear you  
01:20:04 Dan Goodling : Yes  
01:20:13 Frank smith: they probably dont have their speaker on  
01:20:19 Rhonda Gay: Yes  
01:20:19 David Brohl: David Brohl - Nycom  
01:20:29 Cindy Hodge, Clayton Commercial Glazing: yes  
01:20:35 Frank smith: yes  
01:20:37 Dan Goodling : Yes  
01:20:40 FloorChem: yes we can  
01:20:48 Kendra Blackmon: Kendra Blackmon

Rush Masonry

Kblackmon@rushconstruction.org

01:27:27 Owens Roofing: Bianca Whitley: Owens Roofing, Inc.  
Estimating@owensroofinginc.com

01:53:21 nick.lewis: Nick Lewis

01:53:28 Heather Pate: Heather pate Resolute elevator hpate@resolutelevator.com

01:53:43 Faizan Ashraf: Faizan Ashraf

4EVERCOATING LLC

252-377-9939

01:54:31 nick.lewis: Nick Lewis: Oaks Brothers Inc. nlewis@oaksbrothers.com

01:55:29 jd: JD. Locklear of Allied Fire Protection, Inc.

01:59:34 Frank smith: yes

01:59:35 Savannah Salinski: Yes

01:59:42 Cindy Hodge, Clayton Commercial Glazing: yes

01:59:43 Rhonda Gay: Does all these forms apply to temp fencing. Apologies new at this.

02:00:34 Rhonda Gay: Great thank you

02:00:57 Yanira Espada- Access Services: yes

02:01:19 iAdam: Yes

02:01:38 JJackowitz: We can hear you

02:02:17 Justin Croom: Justin Croom - Triple-R Electric, Inc.

02:02:19 Yanira Espada- Access Services: thank you!!

02:02:20 Rhonda Gay: Thank you all.

02:02:20 Majd Alawar: thank you for your timr

02:02:22 Sara Laughter, Firebird Sign Company: Thanks!

02:02:33 Adam Sellers: Thank you

02:02:54 Cindy Hodge, Clayton Commercial Glazing: Cindy Hodge, Clayton  
Commercial Glazing cindy@claytoncommercial.net 919-550-4024

02:03:47 Rhonda Gay: Rhonda Gay

Summit Waste Services

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Piedmont Stucco, Inc.

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704.504.1313

**Columbus County PK-8 East View School:  
Bid Phase RFI LOG - October / November 2025**



ITEM #	REQUEST DATE	REQUEST LOCATION Plans/Spec/Bid Manual	QUESTION	RESPONSE	RESPONDER	ANSWER DATE	TRADE/SCOPE	SUBCONTRACTOR
1	9/26/2025	Specs	There is no specification section for the Epoxy flooring included in specification manual.	This will be included in Addendum 2	LS3P	10/13/2025	BP0967 Epoxy Flooring	Metcon
2	9/26/2025	Specs	Specification section 232113.33 Ground-Loop Heat Pump Piping 12.2 10. Calls "Contractor to provide 20'-0" length of 6" steel casing as part of the base bid. Contractor to provide a unit price per linear foot for additional steel casing over the 20'-0" length". However, schedule of unit price section 012200 does not have this line item.	CMTA: Section 12 is no longer required as the test bore is being completed by Metcon. It will be removed for Addendum 2.	LS3P	10/13/2025	BP2300 HVAC	Metcon
3	9/26/2025	Specs	There is specification section 072216 nail base insulation included in manual. It appears this is for the roof application. However there is no application of this product shown in the drawing. There is Cementitious Wood Fiber Composite Acoustic Plank Roof Deck System known as Tectum E-N Composite Acoustic Roof Deck System 035114 specified under asphalt shingle roofing include the insulation. Please advise where section 072216 is applicable?	This section will be removed in Addendum 2 and the wood nailer system components will be covered in the rough carpentry spec	LS3P	10/13/2025	BP0750 Turnkey Roofing	Metcon
4	9/28/2025	Plans	Drawing A-600 plan marked scoreboard on south wall of gymnasium whereas elevation drawing A-705 and E310 power shows scoreboard on north wall besides stage. Please confirm there is only one scoreboard on north wall of gymnasium.	Yes there should only be one scoreboard on the north wall of the gym. This note on A-600 will be removed in Addendum 2	LS3P	10/8/2025	BP1166 Athletic Equipment	Metcon
5	9/28/2025	Specs	There is no specification section included for scoreboard nor the detail provided in equipment schedule on drawing A-908. Please advise.	Scoreboard spec will be provided in Addendum 2	LS3P	10/8/2025	BP1166 Athletic Equipment	Metcon
6	9/28/2025	Plans/Specs	Only the foundation detail of flagpole is provided in drawing A-055. There is no other detail or specification section of flagpole provided. Civil and Architectural site plan shows one flagpole however exterior imagery shows two flagpoles. Please advise.	During DD, the Owner requested we only provide 1 pole with 2 flags (US and State, reference note #53 on C-202. This was updated from our side during DD.	Allison Engbretson, Paramounte Engineering	10/8/2025	BP3100 Turnkey Sitework	Metcon
7	9/30/2025	Plans/Specs	Specification section 098400 calls for Acoustical panel type AWP1. Drawing only shows AWP1 in Legend and Architectural material finish table in drawing A-651 but does not provide any installation location. Please advise.	This will be deleted in Addendum 2	LS3P	10/13/2025	BP0950 Acoustical Ceilings and Panels	Metcon
8	10/7/2025	Specs	I did not see where it specifies which manufacturer for the 8 Mil film. Can you let me know if they are looking for a specific one?	Manufacturer (Basis of Design): 3M, Product Type: 8-mil clear, shatter-resistant, abrasion-resistant safety and security window film, Referenced Systems: 3M™ Impact Protection Attachment / Adhesive systems. Alternates: Other manufacturers may be proposed only if they meet or exceed the listed ASTM and ANSI performance requirements. ; spec section 086723.16 lists Scotchshield Ultra S800 as BOD	Metcon ; LS3P	10/7/2025 & 10/13/2025	BP0840 Aluminum Windows	Tint USA
9	10/7/2025	Specs	I also did not see where it specifies which decorative film is needed, could you let me know that as well.	Manufacturer (Basis of Design): 3M, Product Types Covered: Interior and privacy/decorative films, Requirements: Must meet ASTM E84 and other performance standards; alternate manufacturers may be considered only if they meet or exceed the listed specifications through the substitution process.	Metcon	10/7/2025	BP0840 Aluminum Windows	Tint USA
10	10/8/2025	Bid Manual	Who is responsible for supplying and installing the grate for the trough drains located in the kitchen area? The plumbing drawings show the trough drain but do not clarify whether the grate is supplied by the plumbing, concrete, or food service scope. Please confirm scope responsibility.	Response is in progress...			BP2200 Plumbing	Trinity Plumbing & Sitework
11	10/8/2025	Bid Manual	Who is responsible for forming or framing out the trough drains prior to the concrete placement? I reviewed the Architectural (A), Structural (S), and Plumbing (P) sheets but did not find a detail showing framing or forming responsibility. Please clarify which trade (plumber or concrete subcontractor) is responsible for forming the trough drain channel before the pour.	Response is in progress...			BP2200 Plumbing	Trinity Plumbing & Sitework
12	10/8/2025	Plans/Specs	Please confirm the material type required for indirect waste piping in the kitchen. All underground kitchen waste is specified as cast iron due to grease waste, and the remainder of the project is PVC underground. However, there is no clear specification in the food service drawings, plumbing sheets, or specs for indirect waste material. Should indirect waste be cast iron, copper, or PVC? Given that all other kitchen floor waste is cast iron, we assume indirect waste should match unless otherwise directed. Please confirm.	Response is in progress...			BP2200 Plumbing	Trinity Plumbing & Sitework
13	10/8/2025	Plans	Please provide the color selection for the P2 trough sinks located outside the gang restrooms. Supplier requires color selection before pricing can be finalized. Please advise whether the color is standard white or a specified finish to match restroom finishes.	Standard White	LS3P	10/13/2025	BP2200 Plumbing	Trinity Plumbing & Sitework
14	10/8/2025	Plans	Please confirm the required locations and types of balancing valves for the domestic hot water system. The plumbing drawings show the domestic hot water return (DHW-R) lines but do not indicate where balancing valves are to be installed. Specifically, please clarify: Are balancing valves required at each fixture group or only at the main return manifold?	Response is in progress...			BP2200 Plumbing	Trinity Plumbing & Sitework
15	10/8/2025	Plans	Specifically, please clarify, according to question #14: Should valves be manual or automatic (temperature-compensating) type?	Response is in progress...			BP2200 Plumbing	Trinity Plumbing & Sitework
16	10/8/2025	Plans	Specifically, please clarify, according to question #14: Please identify the sheet references or provide a marked-up drawing showing each valve location if available.	Response is in progress...			BP2200 Plumbing	Trinity Plumbing & Sitework
17	10/8/2025	Plans/Spec	In spec section 116623 Gym Equipment Para. F 3. a mentions the Goal Height Adjusters as both Electric (keyswitch controlled) and Manual. On Drawing E310 shows Electric Height Adjuster for the main court goals but none on the side court. Should I assume Electric Height Adjusters will go on the main court and manual on the side court, please clarify.	E310 will be revised to provide power for height adjustment for each court goal.	CMTA	10/9/2025	BP1166 Athletic Equipment	Learning Environments
18	10/8/2025	Plans	While reviewing the plumbing drawings, we noticed that numerous branch line pipe sizes are not indicated throughout the waste, vent, and domestic water plans. For example, on Sheet P111 (Plumbing - Level 1), just above the "Plumbing - Level 1" title, the cold and hot water branch lines are shown but no sizes are provided. We can make assumptions; however, if different bidders interpret the sizes differently, the pricing will vary significantly. To maintain consistency across bids and ensure accurate scope, please provide clarification on the following:	Response is in progress...			BP2200 Plumbing	Trinity Plumbing & Sitework

19	10/8/2025	Plans	Reference question #18: <b>Branch Water Sizes</b> - Confirm cold and hot water branch sizes to each fixture group and individual fixture shown on P111 (and any other levels where sizes are missing).	Response is in progress...				BP2200 Plumbing	Trinity Plumbing & Sitework
20	10/8/2025	Plans	Reference question #18: <b>Branch Water Sizes</b> - Many fixtures include <b>flush valves</b> ; please confirm the intended cold-water branch size (e.g., 1-1/2") and hot-water branch size (e.g., 1/2" or 3/4").	Response is in progress...				BP2200 Plumbing	Trinity Plumbing & Sitework
21	10/8/2025	Plans	Reference question #18: <b>Branch Waste and Vent Sizes</b> - Confirm <b>waste and vent</b> branch sizes from mains/risers to each fixture group where not shown.	Response is in progress...				BP2200 Plumbing	Trinity Plumbing & Sitework
22	10/8/2025	Plans	Reference question #18: <b>Branch Waste and Vent Sizes</b> - Provide fixture-unit counts or design assumptions used for sizing.	Response is in progress...				BP2200 Plumbing	Trinity Plumbing & Sitework
23	10/8/2025	Plans	Reference question #18: <b>Design Criteria / Calcs (if available)</b> - Domestic water <b>fixture-unit calculations</b> , demand factors, and minimum pressure at flush-valve fixtures.	Response is in progress...				BP2200 Plumbing	Trinity Plumbing & Sitework
24	10/8/2025	Plans	Reference question #18: <b>Design Criteria / Calcs (if available)</b> - Vent system sizing method or length limits, if applicable.	Response is in progress...				BP2200 Plumbing	Trinity Plumbing & Sitework
25	10/8/2025	Plans	Reference question #18: Please provide a <b>domestic water riser diagram</b> showing vertical distribution, pipe sizes, and fixture branch connections for each floor. This will help confirm continuity between mains, branch lines, and fixture groups, and ensure accurate coordination and pricing.	Response is in progress...				BP2200 Plumbing	Trinity Plumbing & Sitework
26	10/9/2025	Spec	Received a <b>Substitution Request</b> from Cabinets by Design, Please let us know if this substitution is approved, documentation can be found at this link: <a href="https://www.dropbox.com/sc/fof46vnpfkj1e82ax64da2/AFsK6_GNO4rCwwK5fCrcRi?rikey=rept19alaa8xe58pabkaf66e&amp;dl=0">https://www.dropbox.com/sc/fof46vnpfkj1e82ax64da2/AFsK6_GNO4rCwwK5fCrcRi?rikey=rept19alaa8xe58pabkaf66e&amp;dl=0</a>	Approved	LS3P	10/13/2025		BP0620 Architectural Millwork	Cabinets By Design
27	10/10/2025	Plans	Drawing A-131 & A-132 legend shows "CIP concrete locker base - see details on A750" with dashed rectangle. These drawings does not shows the locations of locker base. In addition, there is no drawing A750 in the bid set.	Response is in progress...				BP0330 Concrete	Metcon
28	10/10/2025	Plans	Section detail 18&19/S-312 for elevator pit does not match with the detail shown in Architectural drawing D5/A-403. One has concrete wall and other has masonry wall. Which one is correct?	Either is acceptable. Which does Metcon prefer? Response is in progress...				BP0330 Concrete & BP0400 Masonry	Metcon
29	10/10/2025	Spec	Can we get a copy of the full geotechnical report?	The full Geotechnical Report can be found at this link: <a href="https://www.dropbox.com/sc/foqlv7x81bfjgvtbuxsD4II/AAmcSSLH-LL5O131Y7vuhB47rikey=kfskuxe9ej5gg3y0h5h6f6&amp;dl=0">https://www.dropbox.com/sc/foqlv7x81bfjgvtbuxsD4II/AAmcSSLH-LL5O131Y7vuhB47rikey=kfskuxe9ej5gg3y0h5h6f6&amp;dl=0</a>		Metcon	10/10/2025	All Trades	Metcon
30	10/10/2025	Spec	Received a <b>Substitution Request</b> from Champion Systems Inc., Please let us know if this substitution is approved, documentation can be found at this link: <a href="https://www.dropbox.com/sc/fo/kdktlvbzp7mki345ib0b/APdAwkBufaRG0XChecQ2UF8?rikey=2c9ijj0ydra9uc3tzyg9d84&amp;dl=0">https://www.dropbox.com/sc/fo/kdktlvbzp7mki345ib0b/APdAwkBufaRG0XChecQ2UF8?rikey=2c9ijj0ydra9uc3tzyg9d84&amp;dl=0</a>	Response is in progress...					
31	10/14/2025	Bid Manual	Confirm that the intent is for the wall panel package to pick up only the panels at the traditional construction subsystems (W3 & W3a) and any wall panels/soffit panels at the pre-engineered structures will be by others. Is that correct?	Yes, it is correct. Wall panel package to pickup only the panels at the traditional construction subsystems (W3 & W3a) as highlighted in drawing attached with the bid scope. In addition, all soffit panels @ 2 story building (MP-2 -WOOD-LOOK ALUM PLANK SOFFIT @ ENTRY OVERHANG and MP-3 -ALUMINUM SOFFIT @ PERIMETER is part of this wall panel package. For reference and clarification, I have attached few drawings highlighting the scope of soffit panel to be included in wall panel package. Any wall panel/soffit panels at pre-engineered structures by PEMB contractor. Drawings can be found at this link: <a href="https://www.dropbox.com/sc/fo/70y198ta5mcg1lm0tezy0/ANXvhwvEgPw8aBwfljTKEA?rikey=fc9etborna5h8jnbk5vzfz&amp;dl=0">https://www.dropbox.com/sc/fo/70y198ta5mcg1lm0tezy0/ANXvhwvEgPw8aBwfljTKEA?rikey=fc9etborna5h8jnbk5vzfz&amp;dl=0</a>	Metcon	10/14/2025		BP0740 Wall Panels	Sears Contract
32	10/14/2025	Bid Manual	Do you have a rough timeframe for when you would need the Casework/Millwork?	A milestone schedule can be found at this link: <a href="https://www.dropbox.com/sc/fo/e21y5ap59tqf3d2gc/ACsb5MNQkvAW1G5m0x9ielc?rikey=2gp0n283hrom3254q61o2tfo&amp;dl=0">https://www.dropbox.com/sc/fo/e21y5ap59tqf3d2gc/ACsb5MNQkvAW1G5m0x9ielc?rikey=2gp0n283hrom3254q61o2tfo&amp;dl=0</a>	Metcon	10/14/2025		BP1230 Manufactured Casework	Steven Industries
33	10/14/2025	Bid Manual	Would Casework/Millwork be delivered all at once or in multiple phases?	The casework/millwork can be delivered all at once if the schedule permits; however, there are good possibilities that will require performing the work in phases, at least by wing areas, to respect the project schedule. On-site storage of materials delivered out of sequence is not permitted.	Metcon	10/14/2025		BP1230 Manufactured Casework	Steven Industries

# REPORT OF SUBSURFACE INVESTIGATION AND GEOTECHNICAL ENGINEERING EVALUATION

## East Columbus School

December 19, 2024

Prepared For:

### Columbus County Schools

c/o: R. Adam Thompson

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**N|V|5**

3300 Regency Parkway  
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NV5 Project Number: 121-24-116740

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## APPENDICES

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## 1.0 SCOPE OF SERVICES

The scope of this study was outlined in our revised proposal 10707-R dated October 22, 2024. The main objective of the study was to evaluate the subsurface conditions at the subject site and to make recommendations regarding the geotechnical aspects of site preparation, foundation design, and construction. More specifically, the scope of this investigation included the following objectives:

- (1) To evaluate the existing subsurface soil and groundwater conditions within the area of proposed development.
- (2) To make recommendations concerning site preparation and site grading, including a discussion of the excavation characteristics of the materials encountered and recommendations for achieving high density structural fill capable of satisfactorily supporting the proposed construction.
- (3) To make recommendations for control of groundwater during construction and on a permanent basis if it appears necessary, and our evaluation of the seasonal high-water table in the planned stormwater control measure locations.
- (4) To evaluate the suitability of shallow foundation systems for support of the planned construction and to provide recommendations for a design allowable bearing pressure. We also evaluated the seismic site classification.
- (5) To make recommendations for a design modulus of subgrade reaction value for concrete slabs-on-grade.
- (6) To provide recommendations for material types and thicknesses for the expected asphaltic concrete paving system.
- (7) To provide pertinent recommendations concerning construction quality control measures.

## 2.0 PROPOSED CONSTRUCTION

Project information has been provided by our conversations with you and Mr. Adam Sisk, P.E., the project structural engineer. We understand that the planned construction will consist of a 1 to 2 story Pre-K to 8<sup>th</sup> grade school building located southeast of the intersection of Sam Potts Highway and Green Swamp Road South in Bolton, North Carolina. In addition to the planned building, we understand automobile and bus parking as well as an SCM pond are also planned for the site. The planned building will be steel-framed and with load bearing masonry, supported on shallow foundations, and have a concrete slab-on-grade floor system. Based on our conversations with the project structural engineer, the maximum column and wall loads will be 200 kips and 7 kips per lineal foot, respectively.

Traffic volumes in the planned pavement areas are not currently known. For purposes of this report, we have estimated traffic volumes of 500 automobiles per day, 12 school buses per day, and 4 dumpster and single frame delivery trucks per week. If actual traffic volumes are greater than these assumed maximums, please contact us and we will review our recommendations for their applicability.

## 3.0 INVESTIGATIVE PROCEDURES

### 3.1 FIELD INVESTIGATION

Our subsurface investigation consisted of twenty (20) mechanically advanced soil test borings within the planned development areas to planned depths ranging from 10 to 40 feet below the existing ground surface. The approximate locations of our test borings are shown on Figure 1, included in Appendix I.

The locations of the test borings were identified in the field by our representative by means of a hand-held GPS device and by measuring distances and angles from known reference points. Our scope of services did not include surveying of the planned construction areas or the locations of the test borings. In general, the locations of the test borings should be considered approximate.

The majority of our soil test borings were performed using the procedures described in ASTM D-1586. Standard Penetration Testing (SPT) was performed at selected intervals in the test borings to evaluate the strength, relative density and consistency of the soils encountered. Drilling was completed with a trailer-mounted drill rig equipped with an automatic hammer having a reported energy efficiency of approximately 97%. The standard penetration resistances (N-values) used in this report have been corrected to a uniform 60% efficiency ( $N_{60}$ ). The penetration resistance, in conjunction with soil classifications, provides some indication of the engineering characteristics of the encountered soils.

Cone penetration testing as described in ASTM D-3441 was also performed in one location (CPT-1) within the planned building area. The cone penetration results along with a measurement of shear wave velocity using a Seismic Cone was used to determine the site's seismic classification.

Detailed descriptions of the soils encountered in the test borings are provided in Appendix II – Test Boring Records. Groundwater conditions, penetration resistances, and other pertinent information are also included. Our sampling represents a small statistical sampling of overall site/subsurface conditions. It is possible that variations in the subsurface soils may exist that were not encountered by our industry standard test methods.

### 3.2 LABORATORY INVESTIGATION

The laboratory investigation consisted of a physical examination and classification of all samples obtained from the drilling operation. Classification of the soil samples was performed in general accordance with ASTM D2488 (Visual-Manual Procedure for Description of Soils). Soil classifications include the use of the Unified Soil Classification System described in ASTM D2487 (Classification of Soils for Engineering Purposes). The Visual-Manual procedure used for soil classification is a qualitative analysis performed in conjunction with the education, experience, and professional judgment of our geotechnical engineer. Quantitative analysis of soil properties, such as those referenced in ASTM D2487, could result in different soil classifications. In these instances, adjustments to the design and construction may be necessary, depending on the actual conditions.

The classifications also include our evaluation of the geologic origin of the materials. Evaluations of geologic origin are based on our experience and interpretation and may be subject to some degree of error.

## 4.0 GENERAL SITE & SUBSURFACE CONDITIONS

### 4.1 SITE LOCATION AND DESCRIPTION

The subject site consists of four adjoining parcels (PINs 100882, 009514, 008584, and 096133) totaling approximately 40 acres located southeast of the intersection of Sam Potts Highway and Green Swamp Road South in Bolton, North Carolina. The site is currently vacant but clear of trees. Based on our observations at the site and review of available aerial photographs, the site appears to have been recently used for crop farming.

Based on our site observations, the existing ground surface is relatively flat. Topographic information was not available to us at the time of this report and our scope of services did not include a topographic survey of the site. Based on our visual observations, we estimate that maximum relief across the site is 10 feet or less.

### 4.2 SOIL SURVEY REVIEW

We have reviewed the United States Department of Agriculture (USDA) Web Soil Survey Website for information related to the soil types likely to be encountered during development of the subject site. Based on our review, the onsite soils are likely to consist of Goldsboro, Lynchburg and Grifton series soils. According to the available information, the depth to ground water is 12 inches or less and the depth to the restrictive feature is greater than 80 inches for each of these soils. The Lynchburg and Grifton series soils are noted as being poorly drained, while the Goldsboro series is listed as well drained.

### 4.3 REGIONAL GEOLOGY

Based on our review of the Geologic Map of North Carolina (Brown, 1985), it appears that the site is located within the Coastal Plains geologic Province of North Carolina. The soils in this area generally consist of sands, clayey sands, clays, and are known to become greenish gray to olive black, massive, glauconitic, locally fossiliferous and calcareous with depth. Generally, these soils are derived from marine sediments which were deposited during successive periods of fluctuating sea level and moving shoreline. The formations tend to dip slightly seaward, and several are exposed at the surface in bands paralleling the coast. Many beds exist only as fragmented, erosional remnants with more continuous strata located above and below.

The soils in this province are typical of those deposited in a shallow, sloping sea bottom; sands, silts, and clays, with irregular deposits of shells. Some of the existing formations contain predominantly plastic clays interbedded with strata of sands and poorly consolidated limestones. Others contain predominantly sands with localized deposits of highly plastic clays.

The overall geologic conditions at the site have been altered by the placement of fill soils.

### 4.4 GENERAL SUBSURFACE CONDITIONS

A surficial layer of topsoil was encountered in all test boring locations to approximate depths ranging from 1 to 6 inches below the existing ground surface. The thickness of topsoil materials is generally variable and could be significantly different at other locations on the site. The reported topsoil thickness should not, therefore, be used for detailed quantity estimates.

Existing fill soils were encountered below the topsoil in test boring B-20. The existing fill soils, which generally consisted of clayey sands and sandy clays, extended to a depth of approximately 5.5 feet below the existing ground surface. Standard penetration resistances in the existing fill soils ranged from 10 to 11 blows per foot.

Soil borings B-8, B-10, B-18 and B-20 encountered layers of what is thought to be previously cultivated soils to depth of up to approximately 8 feet below the existing ground surface elevation. The encountered previously cultivated soils contained varying amounts of organic matter. Penetration resistances of these soils ranged from 6 to 16 blows per foot.

Beneath the existing fill soils and previously cultivated soils in test boring B-20, and beneath the surficial topsoil in the remaining test boring locations, soils typical of the Coastal Plain were encountered. These soils generally consisted of clayey sands (SC), sandy clays (CL), poorly graded sands (SM), and plastic "fat" clays (CH). The corrected standard penetration resistances ( $N_{60}$ ) of the coastal plain soils ranged from 0 to 32 blows-per-foot.

Groundwater was encountered at the time of our soil test boring operations at approximately 2 to 8 feet below the existing ground surface in each of our test boring locations. Based on our review of information available on the USDA Web Soil Survey website, we understand that the reported depth to groundwater table is expected to be 0 to 12 inches below the existing ground surface. It should be noted that groundwater levels will fluctuate depending on seasonal variations of precipitation and other factors and may occur at higher elevations at some time in the future. All soil test borings were backfilled upon completion using auger cuttings. For more detailed descriptions of subsurface soil and groundwater conditions, please refer to the Test Boring Records included in Appendix II.

#### 4.5 SEISMIC SITE CLASSIFICATION

We have reviewed the results of our shear wave testing as well as information available on the ASCE Hazard Tool website to determine a seismic site classification in accordance with the International Building Code (IBC). Our shear wave test boring encountered refusal at a depth of approximately 50 feet below the existing ground surface. We have used the results of our shear wave testing and our previous experience on nearby sites to evaluate the site classification. Based on the results of our evaluation, the site should be classified as **Type D**.

## 5.0 EVALUATIONS AND RECOMMENDATIONS

The following recommendations are based on the information available on the proposed construction, the data obtained from our field and laboratory investigation, and our experience with soils and subsurface conditions similar to those encountered at this site. Please note that the soil test borings represent a very small statistical sampling of subsurface conditions. Therefore, conditions may be encountered during construction that are substantially different than those indicated by the borings. In these instances, adjustments to the design and construction may be necessary depending on actual conditions.

### 5.1 GENERAL SITE PREPARATION

All trees, underbrush, weeds, grass, topsoil, roots, and other deleterious materials should be removed from the proposed construction areas prior to any mass grading operations. Special attention should be given to the removal of tree stumps within the proposed construction area. Extensive root systems and localized soft soils are commonly encountered during removal of large tree stumps. Site clearing, grubbing, and stripping should be performed only during dry weather conditions. The operation of heavy equipment on the site during wet conditions could result in the mixing of excessive topsoil and organic debris with clean underlying soils.

**Previously cultivated soils were encountered in the upper approximate 8 feet of borings B-8, B-10, B-18, and B-20.** Trace organics were also found near the ground surface in test boring B-16. We recommend that the organic content of soils in building and pavement areas be less than 3 and 5 percent, respectively, by weight. If the previously cultivated soils are found to have organic contents greater than these recommended amounts, they should be removed from building and pavement areas and replaced with suitable compacted structural fill soils.

Loose soils were encountered near the ground surface in several of our test borings and will likely be encountered in unexplored areas of the site. Depending on final site grades, **it is likely that remediation will be required in these areas prior to structural fill placement or further construction.** It is our opinion that the most cost-effective method of remediation will likely involve either re-compaction in-place, or removal and replacement with compacted, suitable structural fill soils. This remediation operation should take place under the supervision of an experienced engineering technician and under the responsible charge of a North Carolina licensed professional engineer. To limit the volume of required soil removal and replacement, it would be prudent to perform grading operations during times of drier weather. While wet weather can occur at any time during the year, the summer and early fall are times when drier weather is generally prevalent.

**Highly plastic "fat" clays were encountered at varying depths in test borings B-3, B-4, B-5, B-8, B-10 and B-17 from a depth of approximately 3 to 8 feet below the ground surface.** These soils are susceptible to volume changes based solely on changes in their moisture content that can cause cracking and damage to pavements and other structures. Therefore, we recommend that these soils not be utilized in the upper three feet of construction subgrades. These soils can be utilized as structural fill in areas where more than 3 feet of fill is planned, in the bottom of deep utility trench excavations, or within pond dams and pond liners. Another method to mitigate the presence of plastic clay and elastic silt soils would be to lower the shrink/swell potential of these soils by blending them with lime or cement. Recommendation for lime or cement stabilization can be provided, if requested. An evaluation of the possible presence of highly plastic clay soils should be performed by our representative prior to fill placement.

After completion of site clearing and stripping of topsoil **and soil remediation as described above (if/where necessary)**, we recommend that proofrolling operations be performed. Proofrolling should be performed using a loaded dump truck weighing at least 25 tons. Proofrolling should be accomplished by performing at least 3 passes in each of two perpendicular directions within entire construction areas, and 10 feet beyond. Any unsuitable materials that may be present, and any low consistency soils that are encountered which cannot be adequately densified in place, should generally be removed and replaced with well compacted fill material placed in accordance with the Structural Fill section of this report. Proofrolling should facilitate the identification of soft surficial soils but should not be expected to reveal soft conditions more than 2 feet below the ground surface at the time of proofrolling.

Although we did not perform an evaluation along Green Swamp Road, it is our experience that soft, wet and otherwise unsuitable soils are often present along existing roadways. This may present challenges during construction of the road widening if required. In this area, we expect that the soft, wet soils will require removal prior to fill placement or roadway construction. Furthermore, it is likely that underground utilities are present in the area of the proposed road widening. Our experience indicates that variable backfill conditions are likely present in these areas. Therefore, to minimize remediation costs and to avoid disturbance of existing underground utilities, the use of geotextile fabrics may be necessary to support the planned pavement structure above existing underground utilities. However, if any highly organic soils are encountered, removal may still be required. Recommendations for roadway support should be provided by our representative based on conditions that are encountered at the time of construction.

We recommend that site preparation operations be performed during times of dry weather. While wet weather can occur at any time during the year, the summer and early fall are times when drier weather is generally prevalent. Scheduling site grading during this time frame would reduce the probability of softening of the near surface soils from inclement weather conditions. If the existing soils at the site become softened from exposure to inclement weather, they should be dried, if necessary, and compacted to a minimum of 95 percent of their standard Proctor maximum dry density prior to fill placement operations.

During site preparation, burn pits or trash pits may be encountered. On sites located in developed areas, this is not an unusual occurrence. All too frequently, such buried material occurs in isolated areas which are not detected by the soil test borings. Any buried waste, construction debris or trash which is found during the construction operation should be thoroughly excavated and removed from the site.

## 5.2 SEASONAL HIGH-WATER TABLE

Based on our review of the provided preliminary site plan, we understand that a stormwater control measure (SCM) pond will be constructed in the southern portion of the site. Test boring B-17 was performed approximately within the center of the planned SCM location. The soils encountered in this boring generally consisted of clayey sands (SC), sandy clays (CL), and highly plastic clays (CH). Groundwater was encountered in soil test boring B-17 at the time of drilling at 7 feet depth. Groundwater readings measured 3.2 feet in depth in test boring B-17 after 24-hours. Mottling indicative of a previous anaerobic condition was not observed in the soils sampled from this soil test borings. We have also reviewed information on the Columbus County GIS website and the USDA Web Soil Survey website for information related to the soil types likely to be encountered in the area of the planned SCM. Based on our review, Grifton series soils are mapped within the planned pond area. The available information indicates that the expected depth to the groundwater table for Grifton series soils is between 0 and 12 inches below the existing ground surface. Based on the reviewed information and the results of our soil test borings, it is our opinion that the SHWT in the planned pond area is approximately 12 inches below the existing ground surface. We recommend that the expected SHWTs be evaluated further once site grading plans have been developed. If an understanding of precise

groundwater elevations is critical for the proper design of the planned stormwater management pond, wells or piezometers can be installed to monitor groundwater levels over an extended period of time in the location of the planned SCMs.

## 5.3 GROUNDWATER CONTROL

Groundwater was encountered in each of our soil test borings at depths ranging from approximately 2 to 8 feet below the existing ground surface at the time of drilling. Additionally, conditions at the site may be conducive to creating a perched groundwater condition. This occurs when sands are underlain with clays, silts, and/or rock or partially weathered rock. Based on the results of our soil test borings and previous experience with similar conditions, **remedial measures to control ground water at the site should be expected.** For shallow excavations (less than 3 feet below the existing ground surface), trench dewatering may provide the simplest and least costly method of construction dewatering. Trench dewatering can be implemented by excavating a perimeter trench around the area to be dewatered and pumping from the trench. Pumping from dewatering trenches should be done with care to prevent loss of soil fines, boils, or instability of slopes. In certain cases, gravity flow in a trench may be sufficient for effective dewatering. Pumping from excavations will likely be a suitable method of controlling groundwater in utility trench excavations. For excavations greater than 3 or 4 feet below the groundwater level, it may be necessary to use a well point system or other methods to efficiently perform construction dewatering. We must emphasize that dewatering requirements will be dictated by groundwater conditions at the time of construction. The contractor should use a technique or combination of techniques which achieves the desired result under actual field conditions.

In areas where offsite or onsite surface water becomes a problem, surface water controls may be required. Surface water should be directed around the construction areas using diversion ditches around the perimeter of the construction area or underground pipes. In instances where diversion ditches are deemed ineffective, permanent underdrains may be required to permanently control groundwater and surface water. Recommendations for underdrains can be provided, if necessary, by our representative at the time of construction.

## 5.4 EXCAVATION CHARACTERISTICS

For the purpose of discussing excavation characteristics, the materials found in the test borings consisted of existing fill soils, previously cultivated soils and coastal plain soils. These soils should generally be excavatable with conventional soil excavation equipment, such as scrapers, loaders, etc.

## 5.5 SUITABILITY OF EXCAVATED MATERIAL FOR REUSE AS STRUCTURAL FILL

Based on the field and laboratory investigation performed, the existing fill soils and coastal plain soils encountered in our soil test borings should generally be suitable for use as structural fill at the subject site. Organic-bearing soils can be utilized if the organic content is sufficiently low (less than 3 and 5 percent by weight for building and roadway areas, respectively) and does not contain any deleterious materials. Highly plastic clays should generally be considered unsuitable for use as structural fill within the upper 3 feet of building and pavement subgrades. The in-place maximum dry density of structural fill soils should be no less than 90 pounds per cubic foot. Routine adjustment of moisture content may be necessary to allow compaction in accordance with project specifications.

## 5.6 STRUCTURAL FILL

In order to achieve high density structural fill, the following recommendations are offered:

- (1) Materials selected for use as structural fill should be free of organic matter, waste construction debris, and other deleterious materials. The material should not contain rocks having a

diameter over 3 inches. It is our opinion that the following soils represented by their USCS group symbols will typically be suitable for use as structural fill: (ML), (CL), (SM), (SC), (SW), (SP), (SP-SM), and (SP-SC). At depths greater than 3 feet below finished grades, the following soil types will typically be suitable for use as structural fill: (CH) and (MH). The following soil types are considered unsuitable: (OL), (OH), and (Pt).

- (2) Laboratory Proctor compaction tests and classification tests should be performed on representative samples obtained from the proposed borrow material to provide data necessary to determine acceptability and for quality control. The moisture content of structural fill soils should generally not be more than 3 percentage points above or below optimum at the time of compaction. Tighter moisture limits may be necessary with certain soils.
- (3) Suitable fill material should be placed in thin lifts (lift thickness depends on type of compaction equipment, but in general, lifts of 8 inches loose measurement are recommended). The soil should be compacted by mechanical means such as steel drum or sheepsfoot rollers. Proofrolling with rubber tired, heavily loaded vehicles may be desirable at approximately every third lift to bind the lifts together and to seal the surface of the compacted area thus reducing potential for absorption of surface water following a rain event. This sealing operation is particularly important at the end of the workday and at the end of the week. Within small excavations such as plumbing trenches, we recommend the use of "wacker packers" or diesel sled tamps and loose lift thicknesses of 4 to 6 inches to achieve the specified compaction.
- (4) We recommend that structural fill be compacted to a minimum of 95% of the standard Proctor maximum dry density (ASTM Specification D-698). Additionally, the in-place maximum dry density of structural fill should be no less than 90 pounds per cubic foot (pcf). The upper 12 inches of floor slab subgrades should be compacted to at least 98% of the standard Proctor maximum dry density (ASTM D-698).
- (5) An experienced soil engineering technician should take adequate density tests throughout the fill placement operations to verify that the specified compaction is achieved. In the planned building pad areas, at least one density test should be performed for every 5,000 square feet of the planned building area. It is particularly important that this be accomplished during the initial stages of the compaction operation to enable adjustments to the compaction operation, if necessary.

## 5.7 EARTH SLOPES

Temporary construction slopes should be designed in strict compliance with the most recent OSHA regulations. The test borings indicate that there are Type B (silts & clays) and Type C (sands) materials as defined in the Occupational Safety and Health Standards for the Construction Industry (29 CFR, Part 1926, Subpart P), July 1, 2001. This dictates that temporary construction slopes for excavation depths up to 20 feet can be no steeper than the following horizontal (H) to vertical (V) ratios:

Table 1. Soil Types and Maximum Temporary Slopes

OSHA Soil Type	USCS Soil Classification	Maximum Temporary Slope (H:V)
Type B	ML, CL	1:1
Type C	SM, SC	1.5:1

Certain soils may require flatter excavation slopes. A competent person as defined by OSHA guidelines should be present to determine the type of material exposed during trench excavations. Temporary construction slopes should be closely observed for signs of mass movement: tension cracks near the crest, bulging at the toe of the slope, etc. If potential stability problems are observed, the geotechnical

engineer should be immediately contacted. The responsibility for excavation safety and stability of construction slopes should lie solely with the contractor.

We recommend that permanent cut or fill slopes be no steeper than 2.5 (H) to 1.0 (V) to maintain long term stability and to provide ease of maintenance. Slopes constructed steeper than 2.5 (H) to 1.0 (V) could be highly susceptible to erosion, will be difficult to maintain, and could experience large scale slope failure in some instances. The crest or toe of cut or fill slopes should be no closer than 15 feet to any building foundation. The crest or toe should be no closer than 5 feet to the edge of any pavements.

## 5.8 FOUNDATION DESIGN

Based on the reported structural loading conditions provided and the results of our subsurface investigation and geotechnical engineering evaluation, it is our opinion ***shallow foundations bearing on the encountered unimproved subgrade soils will result in excessive settlement*** and that aggregate pier ground improvement will be required to support the planned column and wall footings for the structure.

### Rammed Aggregate Piers

The rammed aggregate pier foundation system is a practical refinement on the traditional over-excavation and replacement method of strengthening subsoils for settlement control and bearing capacity improvement. Rammed aggregate piers are constructed by drilling a hole to create a cavity, removing a volume of compressible subsoil materials, then building a bottom bulb of aggregate while vertically pre-stressing and pre-straining subsoils underlying the bottom bulb. The rammed aggregate pier shaft is built on top of the bottom bulb, using an aggregate placed in thin lifts (generally on the order of 12 inches compacted thickness). Densification of the bottom bulb and of the undulating shaft lifts is accomplished by using the impact ramming action of a modified hydraulic hammer. The tamper consists of a steel shaft and a round, beveled tamper head. The beveled tamper head assists in transferring force laterally during impact densification, resulting in pushing of aggregate against the confined walls of the cavity. The nature of the soil is to “push back”, creating significant lateral pressure buildup in the soil matrix resulting in lateral confinement to the rammed aggregate pier elements. In addition to increasing shear resistance along the surfaces of the rammed aggregate pier element, the increased horizontal stress in the soil matrix increases the soil shear strength.

***Due to the shallow ground water and generally granular soils encountered at this site, we would recommend the use of displacement style aggregate piers utilizing a hollow-stem drill shaft with a hopper for bottom-fed aggregate placement. Additionally, due to the presence of excessively loose sands and possible presence of organic-laden soils, it may be necessary to include cementitious “plugs” within the aggregate pier elements. This is done to prevent bulging of the aggregate into the surrounding soils during construction or upon loading. Generally, this process may be as simple as blending Portland cement with the aggregate prior to installation at the locations and depths requiring rigid “plugs”.***

Shallow foundations are typically constructed directly above rammed aggregate pier elements, similarly to shallow foundation construction on unimproved subgrade. On a preliminary basis, we recommend that a design allowable bearing pressure of **3,000 to 4,000 psf** be used for portions of the planned structure supported on rammed aggregate piers. However, this allowable bearing pressure will depend on the rammed aggregate pier design, and a higher allowable bearing pressure may be suitable.

Rammed aggregate pier foundation design/installation is typically performed as a design/build operation by a specialty contractor. The rammed aggregate pier designer will design the elements to support the proposed structure within the structural design tolerances (i.e., settlement potential,

sliding resistance, uplift capacity, etc.). We suggest that detailed design drawings for the rammed aggregate pier system sealed by a North Carolina Registered Professional Engineer be reviewed by the project geotechnical and structural engineers prior to commencement of foundation construction. At this time, we have considered a total settlement tolerance of 1-inch for the column footings.

Upon completion of a preliminary design for the rammed aggregate pier system to support the structures, we recommend that at least one full-scale modulus load test be performed to verify design assumptions. The load test provides a conservative measure of the stiffness of the rammed aggregate pier element and will provide quality control guidelines for the installation procedures.

We recommend that NV5 be retained to monitor the rammed aggregate pier installer's operations as a Quality Assurance (QA) service. NV5 will supplement the installer's internal Quality Control (QC) program. Together, the QA and QC programs will monitor drill depths, rammed aggregate pier element lengths, average lift thickness, installation procedures, aggregate quality, and lift densification. These items will be documented for each rammed aggregate pier element installed, to provide a complete installation report.

## 5.9 CONCRETE SLABS-ON-GRADE

Based on our test boring results, and the anticipated site grading operations, we recommend that a design modulus of subgrade reaction (k) value of 115 pounds per cubic inch (pci) be used for the concrete slab on grade. We note that this modulus of subgrade reaction value is the expected value for a 1 foot by 1 foot loaded area. If the structural design of the slab requires a subgrade reaction modulus value adjusted for the size or shape of the subject slab, please contact us for re-evaluation. This recommended value also assumes that any fill soils will consist of silty sands or sandy clays and that the subgrade soils and fill soils will be compacted to a minimum of 98 percent of their standard Proctor (ASTM D698) maximum dry density in the upper 12 inches.

In order to prevent the capillary rise of groundwater from adversely affecting the concrete slab-on-grade floor system, we recommend that all slab-on-grade construction be underlain by a minimum 4-inch thickness of washed #57 stone in accordance with Division 10 of the current NCDOT Standard Specification for Roads and Structures. The stone layer should be adequately tamped using mechanical means to provide a firm base for the concrete floor slab.

Construction activities and exposure to the environment often cause deterioration of the prepared slab on grade subgrade. Therefore, we recommend that the subgrade soils be evaluated by our representative immediately prior to floor slab construction. This evaluation may include a combination of visual observations, proofrolling observations, and field density tests to verify that the subgrade has been properly prepared. If soft areas are encountered, recommendations for remedial measures should be provided by our project geotechnical engineer.

## 5.10 PAVEMENT DESIGN RECOMMENDATIONS

Based on the above-described site preparation recommendations, we anticipate that the pavement area subgrade soils will consist primarily of sandy clay (CL), sandy silt (ML), silty sand (SM), and clayey sand (SC). Based on our experience, these materials may reasonably have a California Bearing Ratio (CBR) ranging from approximately 2% to 8%, if compacted to 100% of the standard Proctor maximum dry density in the top 8 inches. The CBR could be different than these assumed values if off-site fill materials are imported.

Based on our experience with similar site conditions, and our engineering judgement, we have assumed a preliminary CBR value of 6, indicating that if compacted to 100% of the standard Proctor maximum dry density the subgrade soils will have 6% of the structural capability of Aggregate Base Course (ABC) stone.

Using the loading conditions described previously in this report, the 1993 AASHTO design method, and our previous experience, we suggest the following design pavement sections. Design assumptions for the 1993 AASHTO design method are provided below in Table 2.

Table 2. 1993 AASHTO Pavement Design Assumptions

Design Life (Years)	Growth Rate (r)	Terminal Serviceability Index (P <sub>t</sub> )	Reliability	Standard Error Deviate Flexible (S <sub>e</sub> )	Standard Error Deviate Rigid (S <sub>e</sub> )
20	1.0%	2.0	98%	0.49	0.39

Light duty pavement sections may be utilized in the parking field, minor drive aisles and other low traffic areas of the site where trucks and buses are not expected. Heavy duty asphaltic concrete pavement sections should be utilized for the main drive aisle aisles as well as areas traveled by buses and trucks. Portland cement concrete pavement sections should be utilized for dumpsters and in areas that are expected to see trucks turning and / or moving at low speeds.

#### **Light Duty Asphalt Pavement**

- 1.5 inches S9.5B Asphaltic Concrete Surface Course
- 1.5 inches S9.5C Asphaltic Concrete Surface Course
- 8.0 inches Aggregate Base Course

#### **Heavy Duty Asphalt Pavement**

- 1.5 inches S9.5C Asphaltic Concrete Surface Course
- 2.5 inches I19.0C Asphaltic Concrete Surface Course
- 8.0 inches Aggregate Base Course

The asphaltic concrete surface course should be a types S9.5B, S9.5C, and I19.0C in accordance with Division 6 of the current NCDOT Standard Specifications. Asphaltic prime and tack coats should be applied at the finished stone subbase and between lifts of asphaltic concrete, respectively. We recommend that the prime coats be applied at 0.2 to 0.5 gals/sy and tack coats be applied at 0.04 (+/- 0.01) gals/sy. Both prime and tack coat materials should be NCDOT approved products and also approved by our representative prior to usage at the site. Proper subgrade compaction and adherence to the NCDOT and project specifications, along with pavement maintenance operations, are critical to long-term pavement performance.

#### **Portland Cement Concrete Pavement**

- 6 inches Jointed Plain Concrete Pavement (JPCP)
- 8 inches Aggregate Base Course

The Portland cement concrete shall be a Type Pavement concrete mixture in accordance with Division 10 of the current NCDOT Standard Specification and shall have a minimum modulus of rupture of 650 psi. The spacing of transverse and longitudinal construction and control joints should be in accordance with the current NCDOT Standard Specifications. A design of joint spacing can be provided if desired.

Dowels and tie bars should be used at transverse and longitudinal joints within the new slab construction. Design of dowels and tie bars at the joints should comply with the provisions of NCDOT standard drawing 700.01, which is provided in Appendix IV. The dowels should be smooth, have a diameter of 1.5 inches, a length of 18 inches and be spaced a maximum 12 inches apart. We recommend that vehicle traffic not be allowed to utilize the Portland cement concrete pavement until a minimum compressive strength of 3,000 pounds per square-inch (psi) has been reached.

Aggregate base course stone should be in accordance with Division 5 of the current NCDOT Standard Specifications. Proper subgrade compaction and adherence to the NCDOT and project specifications, along with pavement maintenance operations, are critical to proper pavement performance. ABC stone shall be placed in 8-inch loose lifts and compacted to 95 percent (100 percent within the upper 8-inches) of the modified Proctor maximum dry density.

The recommended pavement design assumes pavement construction at or near the existing ground surface encountered at the time of our investigation. If site grading plans consist of significant mass excavation and/or fill placement, please contact us prior to construction for a revised pavement design recommendation.

## 6.0 ADDITIONAL SERVICES RECOMMENDED

- (1) Proofrolling Observations: Proofrolling should be observed by a representative of the Geotechnical Professional to determine if remedial measures are necessary in certain instances.
- (2) Site Preparation Observations: Site preparation, including implementation of the recommended remedial measures, should be observed by our representative. Removal of any soft, wet materials should be observed by our representative to verify that adequate but not excessive removal is accomplished.
- (3) Quality Control of Fill Placement and Compaction: We recommend that an experienced engineering technician witness all required filling operations and take sufficient in-place density tests to verify that the specified degree of compaction has been achieved.
- (4) Ground Improvement Observations: Installation characteristics of ground improvement elements should be observed to verify element depth, size and spacing as indicated on the project drawings and specifications.
- (5) Footing and Slab Evaluations: Footing and slab areas for this project should be evaluated by our representative. The purpose of these evaluations will be to verify that the design soil bearing pressure is available and that subgrade areas are properly prepared.
- (6) Pavement Components Testing and Inspection: Pavement components should be tested and inspected during and following construction to verify compliance with project plans and specifications.

The attached Appendices complete this report.

Sincerely,

NV5 Engineers and Consultants, Inc. (F-1333)



Grant H. Montieth  
Associate Project manager



Glen A. Malpass, P.E.  
Senior Principal Engineer

**APPENDIX I**

**APPROXIMATE TEST LOCATIONS**



## Figure 1 – Approximate Boring Locations

Base map from Google Earth  
Not to scale.

## APPENDIX II

# TEST BORING RECORDS

## SAMPLE/SAMPLER TYPE GRAPHICS

	AUGER SAMPLE
	STANDARD PENETRATION SPLIT SPOON SAMPLER
	BULK / GRAB SAMPLE
	MODIFIED CALIFORNIA SAMPLER
	SHELBY TUBE SAMPLER
	HQ ROCK CORE SAMPLE
	NQ ROCK CORE SAMPLE

## GROUNDWATER LEVEL GRAPHICS

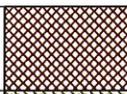
	WATER LEVEL (during drilling operations)
	WATER LEVEL (immediately after drilling completion)
	WATER LEVEL (additional levels after drilling completion)
	OBSERVED SEEPAGE

## NOTES

- The report and graphics key are an integral part of these logs. All data and interpretations in this log are subject to the explanations and limitations stated in the report.
- Lines separating strata on the logs represent approximate boundaries only. Actual transitions may be gradual or differ from those shown.
- No warranty is provided as to the continuity of soil or rock conditions between individual sample locations.
- Logs represent general soil or rock conditions observed at the point of exploration on the date indicated.
- In general, Unified Soil Classification System (USCS) designations presented on the logs were based on visual classification in the field and were modified where appropriate based on gradation and index property testing.
- Fine grained soils that plot within the hatched area on the Plasticity Chart, and coarse grained soils with between 5 and 12% passing the No. 200 sieve require dual USCS symbols, i.e., GW-GM, GP-GM, GW-GC, GP-GC, GC-GM, SW-SM, SP-SM, SW-SC, SP-SC, SC-SM.
- If sampler is not able to be driven at least 6 inches then Y/X indicates Y number of blows required to drive the identified sampler X inches with a 140 pound hammer falling 30 inches.

## UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D 2487)

GRAVELS (More than half of coarse fraction is larger than the #200 sieve)	CLEAN GRAVEL WITH <5% FINES	$Cu \geq 4$ and $1 \leq Cc \leq 3$		GW	WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES WITH LITTLE OR NO FINES
		$Cu < 4$ and/or $1 > Cc > 3$		GP	POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES WITH LITTLE OR NO FINES
	GRAVELS WITH 5 TO 12% FINES	$Cu \geq 4$ and $1 \leq Cc \leq 3$		GW-GM	WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES WITH LITTLE FINES
		$Cu < 4$ and/or $1 > Cc > 3$		GW-GC	WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES WITH LITTLE CLAY FINES
		$Cu < 4$ and/or $1 > Cc > 3$		GP-GM	POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES WITH LITTLE FINES
				GP-GC	POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES WITH LITTLE CLAY FINES
	GRAVELS WITH >12% FINES			GM	SILTY GRAVELS, GRAVEL-SILT-SAND MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
				GC-GM	CLAYEY GRAVELS, GRAVEL-SAND-CLAY-SILT MIXTURES
	COARSE GRAINED SOILS (More than half of coarse fraction is smaller than the #4 sieve)	CLEAN SANDS WITH <5% FINES	$Cu \geq 6$ and $1 \leq Cc \leq 3$		SW
		$Cu < 6$ and/or $1 > Cc > 3$		SP	POORLY-GRADED SANDS, SAND-GRAVEL MIXTURES WITH LITTLE OR NO FINES
SAND WITH 5 TO 12% FINES		$Cu \geq 6$ and $1 \leq Cc \leq 3$		SW-SM	WELL-GRADED SANDS, SAND-GRAVEL MIXTURES WITH LITTLE FINES
		$Cu \geq 6$ and $1 \leq Cc \leq 3$		SW-SC	WELL-GRADED SANDS, SAND-GRAVEL MIXTURES WITH LITTLE CLAY FINES
		$Cu > 6$ and/or $1 < Cc > 3$		SP-SM	POORLY GRADED SANDS, SAND-GRAVEL MIXTURES WITH LITTLE FINES
		$Cu > 6$ and/or $1 < Cc > 3$		SP-SC	POORLY-GRADED SANDS, SAND-GRAVEL MIXTURES WITH LITTLE CLAY FINES
SANDS WITH >12% FINES				SM	SILTY SANDS, SAND-GRAVEL-SILT MIXTURES
				SC	CLAYEY SANDS, SAND-GRAVEL-CLAY MIXTURES
				SC-SM	CLAYEY SANDS, SAND-SILT-CLAY MIXTURES
FINE GRAINED SOILS (More than half of material is smaller than the #200 sieve)		SILTS AND CLAYS (Liquid Limit less than 50)		ML	INORGANIC SILTS AND VERY FINE SANDS, SILTY OR CLAYEY FINE SANDS, SILTS WITH SLIGHT PLASTICITY
			CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS	
	SILTS AND CLAYS (Liquid Limit greater than 50)		CL-ML	INORGANIC CLAYS-SILTS OF LOW PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS	
			OL	ORGANIC SILTS & ORGANIC SILTY CLAYS OF LOW PLASTICITY	
			MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILT	
			CH	INORGANIC CLAYS OF HIGH PLASTICITY FAT CLAYS	
	OH	ORGANIC CLAYS & ORGANIC SILTS OF MEDIUM-TO-HIGH PLASTICITY			

EXISTING FILL SOILS (ASTM D2488)	
PARTIALLY WEATHERED ROCK N60 >= 100	

## Symbols and Nomenclature

I	Undisturbed Sample (UD)
●	Standard penetration resistance (ASTM D-1586)
100/2"	Number of blows (100) to drive the spoon a number of inches (2)
W-O-H, R	Weight of Hammer, Weight of Rods
AX, BX, NX	Core barrel sizes for rock cores
65%	Percentage of rock core recovered
RQD	Rock quality designation - % of core 4 or more inches long
▼	Water table at least 24 hours after drilling
▼	Water table one hour or less after drilling Loss of drilling water
△	A Atterberg Limits test performed
C	Consolidation test performed
GS	Grain size test performed
T	Triaxial shear test performed
P	Proctor compaction test performed
18	Natural moisture content (percent)

## Penetration Resistance Results

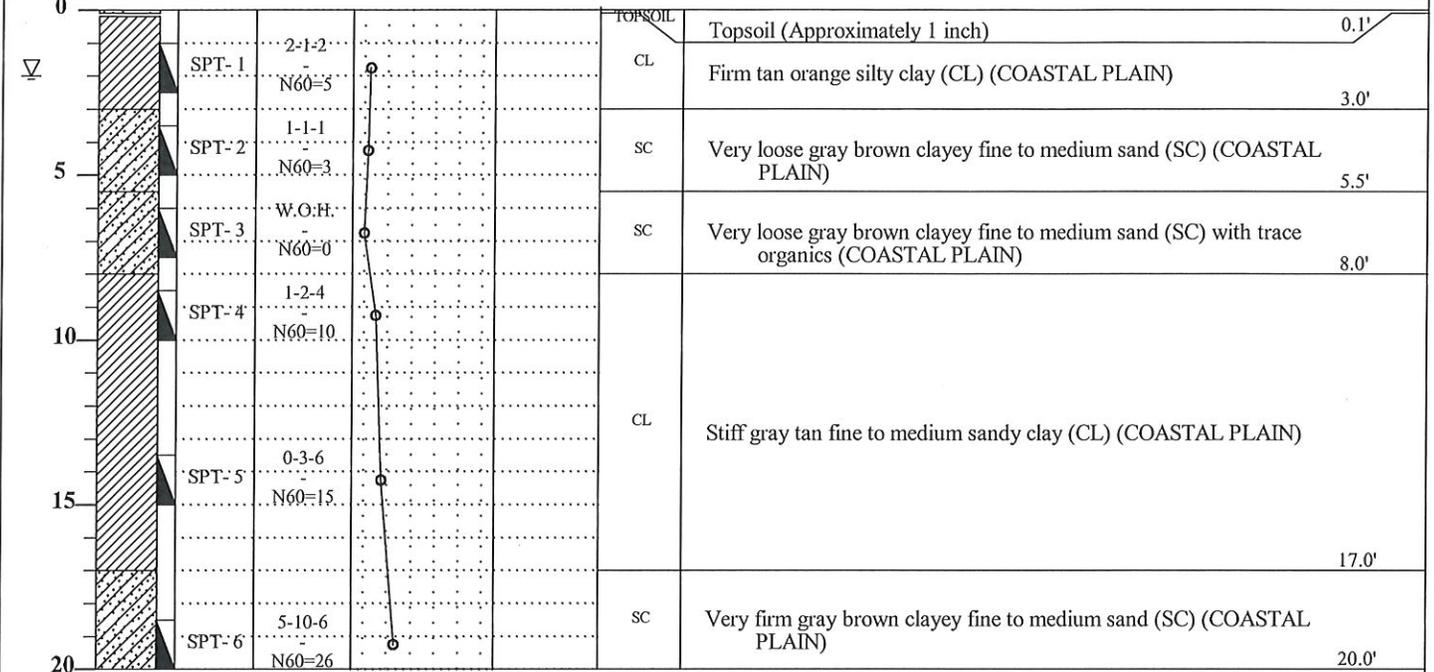
Sands	SPT N60-Value Penetration (blows/ft)	Relative Density Descriptor
	0-4	Very Loose
	5-10	Loose
	11-20	Firm
	21-30	Very Firm
	31-50	Dense
	Over 50	Very Dense
Silts and Clays	SPT N60-Value Penetration (blows/ft)	Relative Density Descriptor
	0-1	Very Soft
	2-4	Soft
	5-8	Firm
	9-15	Stiff
	16-30	Very Stiff
	31-50	Hard
	Over 50	Very Hard

## Drilling Procedures

Soil sampling and standard penetration testing performed in accordance with ASTM D-1586. The standard penetration resistance is the number of blows of a 140 pound hammer falling 30 inches to drive a 2 inch O.D., 1.4 inch I.D. split spoon sampler one foot. Core drilling performed in accordance with ASTM D-2113. Undisturbed sampling performed in accordance with ASTM D-1587.

Date	Started: 11/21/2024	Project Number 121-24-116740	Project East Columbus School		Boring No. B-01
	Completed: 11/21/2024				
	Hammer Type: Automatic	Drilling Method: HSA	Logged By: GHM		Reviewed By: GAM

Groundwater Depth (ft.)	Depth (ft.)	Graphical Log	Sample Taken	Sample ID	Unconfined Compressive Strength (UCS)	Standard Penetration (N60) Values ○ - Blows/ft	Other Test Remarks	USCS Class.	Location: See Figure 1	Efficiency: 97.0%		
					SPT N-Value Corrected N60				Sample Type	Groundwater		
									G - Bulk / Grab Sample SPT - 2" O.D. 1.4" I.D. Tube Sample MC - 3" O.D. 2.4" I.D. Ring Sample NR - No Recovery * - Uncorrected Blow Counts	Depth (ft)	Hour	Date



Notes:  
 Boring terminated at depth of (20.0')  
 Groundwater was encountered at an approximate depth of (2.0')  
 Boring backfilled upon completion with soil cuttings.

Date	Started: 11/21/2024	Project Number 121-24-116740	Project East Columbus School	Boring No. B-02
	Completed: 11/21/2024			
	Hammer Type: Automatic	Drilling Method: HSA	Logged By: GHM	Reviewed By: GAM

Groundwater Depth (ft.)	Depth (ft.)	Graphical Log	Sample Taken	Sample ID	Unconfined Compressive Strength (UCS)	Standard Penetration (N60) Values ○ - Blows/ft	Other Test Remarks	USCS Class.	Location: See Figure 1	Efficiency: 97.0%		
									Sample Type G - Bulk / Grab Sample SPT - 2" O.D. 1.4" I.D. Tube Sample MC - 3" O.D. 2.4" I.D. Ring Sample NR - No Recovery * - Uncorrected Blow Counts	Groundwater		
										Depth (ft)	Hour	Date

Groundwater Depth (ft.)	Depth (ft.)	Graphical Log	Sample Taken	Sample ID	Unconfined Compressive Strength (UCS)	Standard Penetration (N60) Values ○ - Blows/ft	Other Test Remarks	USCS Class.	Visual Classification	Depth (ft)
	0							TOPSOIL	Topsoil (Approximately 1 inch)	0.1'
	2.2			SPT- 1	2-2-2 N60=6	○		SC	Loose gray brown clayey fine to medium sand (SC) (COASTAL PLAIN)	3.0'
	5			SPT- 2	1-1-3 N60=6	○		CL	Firm brown tan fine to medium sandy clay (CL) (COASTAL PLAIN)	5.5'
	8			SPT- 3	W.O.H. N60=0	○		CL	Very soft brown tan fine to medium sandy clay (CL) (COASTAL PLAIN)	8.0'
	10			SPT- 4	1-2-1 N60=5	○		CL	Firm brown tan fine to medium sandy clay (CL) (COASTAL PLAIN)	12.0'
	15			SPT- 5	W.O.H. N60=0	○		SC	Very loose gray brown clayey fine to medium sand (SC) (COASTAL PLAIN)	17.0'
	20			SPT- 6	2-7-5 N60=19	○		CL	Very stiff gray tan fine to medium sandy clay (CL) (COASTAL PLAIN)	20.0'

Notes:  
 Boring terminated at depth of (20.0')  
 Groundwater was encountered at an approximate depth of (2.2')  
 Boring backfilled upon completion with soil cuttings.

Date	Started: 11/19/2024	Project Number 121-24-116740	Project East Columbus School	Boring No. B-03
	Completed: 11/19/2024			
	Hammer Type: Automatic	Drilling Method: HSA	Logged By: GHM	Reviewed By: GAM

Groundwater Depth (ft.)	Depth (ft.)	Graphical Log	Sample Taken	Sample ID	Unconfined Compressive Strength (UCS)		Standard Penetration (N60) Values ○ - Blows/ft	Other Test Remarks	USCS Class.	Location: See Figure 1		Efficiency: 97.0%		
					SPT N-Value	Corrected N60				Groundwater				
										Depth (ft)	Hour	Date		
										7.8				
										Visual Classification				
0									TOPSOIL	Topsoil (Approximately 1 inch)		0.1'		
				SPT-1	3-3-3	N60=10			CL	Stiff tan brown fine to medium sandy clay (CL) (COASTAL PLAIN)		5.5'		
	5			SPT-2	3-3-4	N60=11								
				SPT-3	1-3-3	N60=10			CH	Stiff gray red plastic 'fat' clay (CH) (COASTAL PLAIN)		8.0'		
	10			SPT-4	1-1-1	N60=3			SC	Very loose gray red clayey fine to medium sand (SC) (COASTAL PLAIN)		12.0'		
				SPT-5	2-6-9	N60=24			SC	Very firm gray red clayey fine to coarse sand (SC) (COASTAL PLAIN)		22.0'		
	20			SPT-6	4-5-8	N60=21								
				SPT-7	W.O.H.	N60=0			CH	Very soft gray brown plastic 'fat' clay (CH) (COASTAL PLAIN)		27.0'		
	25			SPT-8	2-2-5	N60=11			CH	Stiff gray brown plastic 'fat' clay (CH) (COASTAL PLAIN)		32.0'		
	30			SPT-9	4-9-11	N60=32			CH	Hard gray brown plastic 'fat' clay (CH) (COASTAL PLAIN)		35.0'		
				SPT-10	6-6-9	N60=24			SC	Very firm gray brown clayey fine to medium sand (SC) (COASTAL PLAIN)		40.0'		

Notes:  
 Boring terminated at depth of (40.0')  
 Groundwater was encountered at an approximate depth of (7.8')  
 Boring backfilled upon completion with soil cuttings.

Date	Started: 11/19/2024	Project Number 121-24-116740	Project East Columbus School	Boring No. B-04
	Completed: 11/19/2024			
	Hammer Type: Automatic	Drilling Method: HSA	Logged By: GHM	Reviewed By: GAM

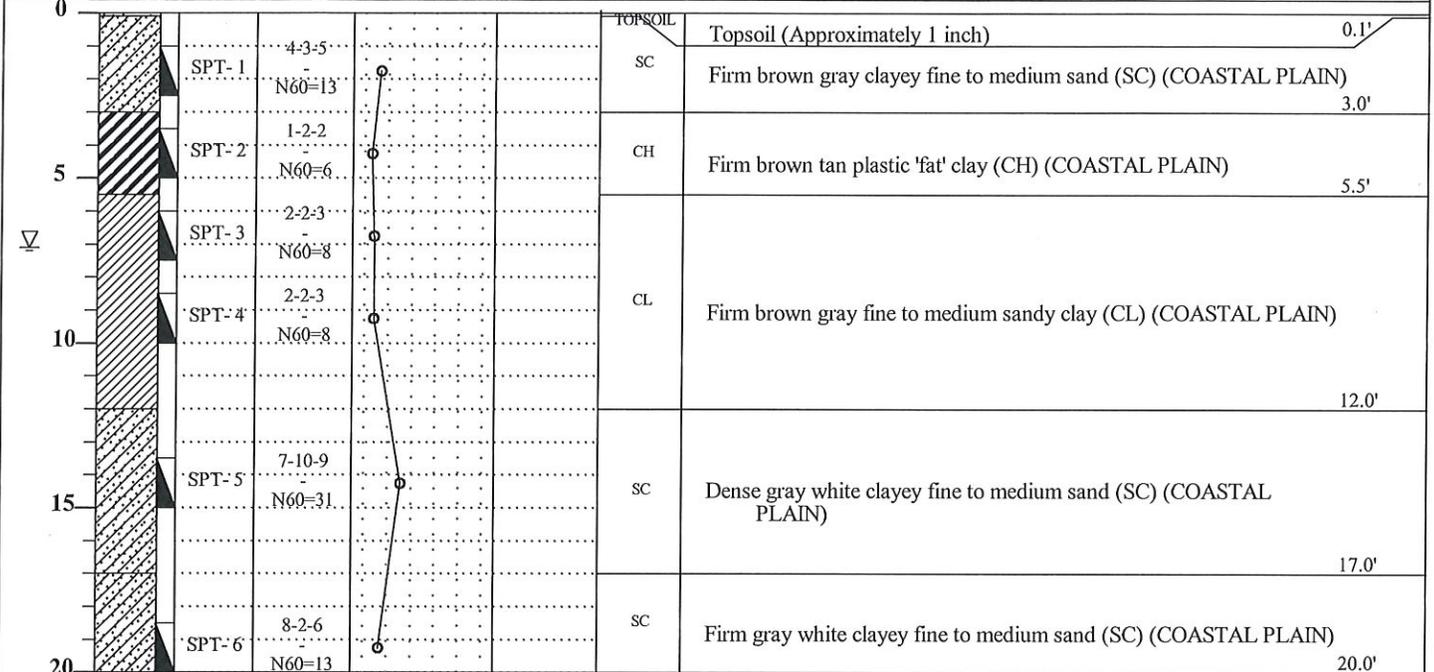
Groundwater Depth (ft.)	Depth (ft.)	Graphical Log	Sample Taken	Sample ID	Unconfined Compressive Strength (UCS)	Standard Penetration (N60) Values ○ - Blows/ft	Other Test Remarks	USCS Class.	Location: See Figure 1	Efficiency: 97.0%		
									Sample Type G - Bulk / Grab Sample SPT - 2" O.D. 1.4" I.D. Tube Sample MC - 3" O.D. 2.4" I.D. Ring Sample NR - No Recovery * - Uncorrected Blow Counts	Groundwater		
										Depth (ft)	Hour	Date

Groundwater Depth (ft.)	Depth (ft.)	Graphical Log	Sample Taken	Sample ID	Unconfined Compressive Strength (UCS)	Standard Penetration (N60) Values ○ - Blows/ft	Other Test Remarks	USCS Class.	Visual Classification	Depth (ft)
	0							TOPSOIL	Topsoil (Approximately 1 inch)	0.1'
	2.2-3		SPT-1	N60=8				CL	Firm gray red fine to medium sandy clay (CL) (COASTAL PLAIN)	3.0'
	4-3-8		SPT-2	N60=18				CL	Very stiff brown red fine to medium sandy clay (CL) (COASTAL PLAIN)	5.5'
	1-1-1		SPT-3	N60=3				CL	Soft to very soft gray white fine to medium sandy clay (CL) (COASTAL PLAIN)	12.0'
	W.O.H.		SPT-4	N60=0						
	1-5-7		SPT-5	N60=19				SC	Firm to very firm gray white clayey fine to medium sand (SC) (COASTAL PLAIN)	22.0'
	8-8-9		SPT-6	N60=27				CH	Firm gray brown plastic 'fat' clay (CH) (COASTAL PLAIN)	27.0'
	2-3-2		SPT-7	N60=8				CH	Very stiff gray brown plastic 'fat' clay (CH) (COASTAL PLAIN)	38.5'
	7-7-7		SPT-8	N60=23						
	7-5-5		SPT-9	N60=16				CH		
	9-12-15		SPT-10	N60=44				SC	Dense gray brown clayey fine to medium sand (SC) (COASTAL PLAIN)	40.0'

Notes:  
 Boring terminated at depth of (40.0')  
 Groundwater was encountered at an approximate depth of (7.8')  
 Boring backfilled upon completion with soil cuttings.

Date	Started: 11/20/2024	Project Number 121-24-116740	Project East Columbus School		Boring No. B-05
	Completed: 11/20/2024				
	Hammer Type: Automatic	Drilling Method: HSA	Logged By: GHM	Reviewed By: GAM	

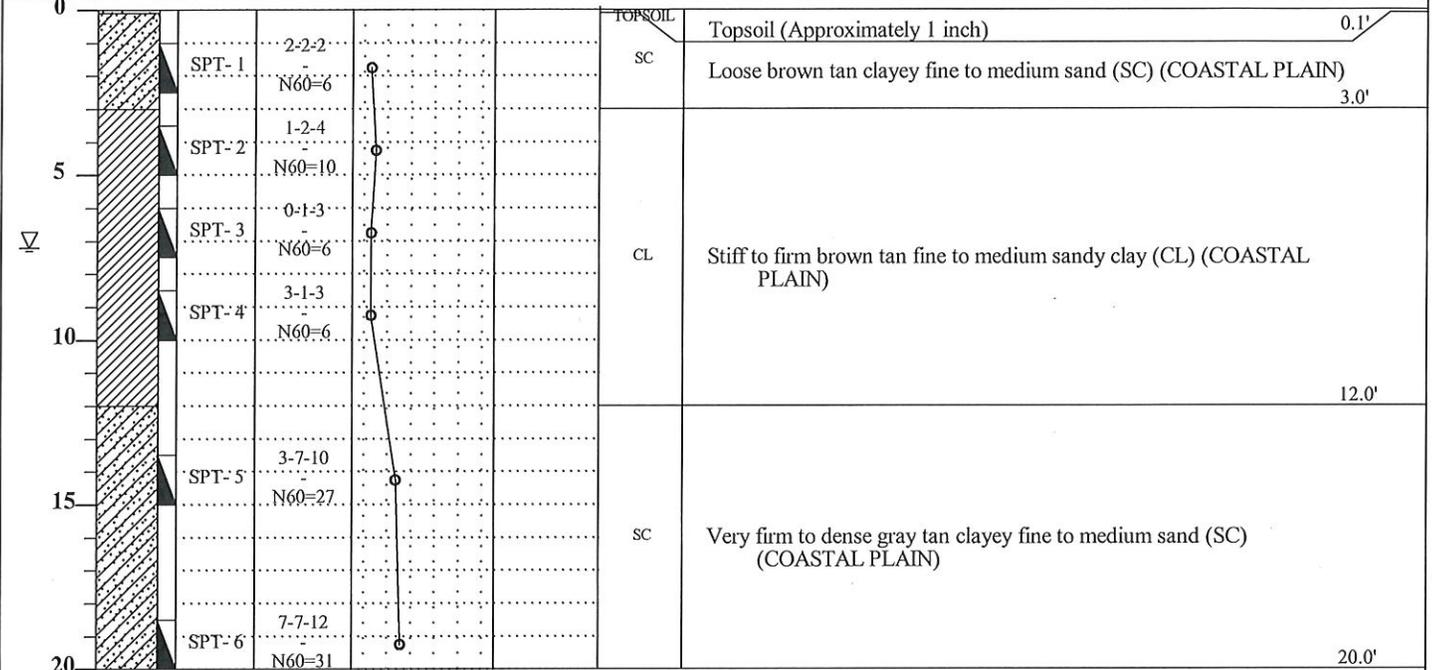
Groundwater Depth (ft.)	Depth (ft.)	Graphical Log	Sample Taken	Sample ID	Unconfined Compressive Strength (UCS)	SPT N-Value Corrected N60	Standard Penetration (N60) Values ○ - Blows/ft	Other Test Remarks	USCS Class.	Location: See Figure 1	Efficiency: 97.0%		
										Sample Type G - Bulk / Grab Sample SPT - 2" O.D. 1.4" I.D. Tube Sample MC - 3" O.D. 2.4" I.D. Ring Sample NR - No Recovery * - Uncorrected Blow Counts	Groundwater		
											Depth (ft)	Hour	Date



Notes:  
 Boring terminated at depth of (20.0')  
 Groundwater was encountered at an approximate depth of (7.1')  
 Boring backfilled upon completion with soil cuttings.

Date	Started: 11/20/2024	Project Number 121-24-116740	Project East Columbus School	Boring No. B-06
	Completed: 11/20/2024			
	Hammer Type: Automatic	Drilling Method: HSA	Logged By: GHM	Reviewed By: GAM

Groundwater Depth (ft.)	Depth (ft.)	Graphical Log	Sample Taken	Sample ID	Unconfined Compressive Strength (UCS)	Standard Penetration (N60) Values ○ - Blows/ft	Other Test Remarks	USCS Class.	Location: See Figure 1	Efficiency: 97.0%		
									Sample Type G - Bulk / Grab Sample SPT - 2" O.D. 1.4" I.D. Tube Sample MC - 3" O.D. 2.4" I.D. Ring Sample NR - No Recovery * - Uncorrected Blow Counts	Groundwater		
										Depth (ft)	Hour	Date



Notes:  
 Boring terminated at depth of (20.0')  
 Groundwater was encountered at an approximate depth of (7.2')  
 Boring backfilled upon completion with soil cuttings.

Date	Started: 11/21/2024	Project Number 121-24-116740	Project East Columbus School		Boring No. B-07
	Completed: 11/21/2024				
	Hammer Type: Automatic	Drilling Method: HSA	Logged By: GHM		Reviewed By: GAM

Groundwater Depth (ft.)	Depth (ft.)	Graphical Log	Sample Taken	Sample ID	Unconfined Compressive Strength (UCS)	SPT N-Value Corrected N60	Standard Penetration (N60) Values ○ - Blows/ft	Other Test Remarks	USCS Class.	Location: See Figure 1	Efficiency: 97.0%	
										Groundwater		
Sample Type										Depth (ft)	Hour	Date
G - Bulk / Grab Sample SPT - 2" O.D. 1.4" I.D. Tube Sample MC - 3" O.D. 2.4" I.D. Ring Sample NR - No Recovery * - Uncorrected Blow Counts										2		
0										TOPSOIL	Topsoil (Approximately 1 inch)	0.1'
4				SPT- 1		3-2-3 N60=8				SM	Loose brown tan silty fine to medium sand (SM) (COASTAL PLAIN)	
5				SPT- 2		2-2-2 N60=6						5.5'
7				SPT- 3		2-3-3 N60=10				SC	Loose to firm brown gray clayey fine to medium sand (SC) (COASTAL PLAIN)	
10				SPT- 4		6-5-4 N60=15						10.0'

Notes:  
 Boring terminated at depth of (10.0')  
 Groundwater was encountered at an approximate depth of (2.0')  
 Boring backfilled upon completion with soil cuttings.

Date	Started: 11/19/2024	Project Number 121-24-116740	Project East Columbus School		Boring No. B-08
	Completed: 11/19/2024				
	Hammer Type: Automatic	Drilling Method: HSA	Logged By: GHM		Reviewed By: GAM

Groundwater Depth (ft.)	Depth (ft.)	Graphical Log	Sample Taken	Sample ID	Unconfined Compressive Strength (UCS)	Standard Penetration (N60) Values ○ - Blows/ft	Other Test Remarks	USCS Class.	Location: See Figure 1	Efficiency: 97.0%
					SPT N-Value Corrected N60				Sample Type G - Bulk / Grab Sample SPT - 2" O.D. 1.4" I.D. Tube Sample MC - 3" O.D. 2.4" I.D. Ring Sample NR - No Recovery * - Uncorrected Blow Counts	Groundwater
						0 20 40 60 80 100				
									Visual Classification	

0								TOPSOIL	Topsoil (Approximately 6 inches)	0.5'	
			SPT- 1	5-5-5	N60=16			P.C.S.	Previously Cultivated Soils (Approximately 8.0 feet)		
			SPT- 2	2-2-3	N60=8						
5			SPT- 3	3-4-3	N60=11						
			SPT- 4	3-4-8	N60=19			CH	Very stiff brown tan plastic 'fat' clay (CH) (COASTAL PLAIN)	8.5'	
10										10.0'	

Notes:  
 Boring terminated at depth of (10.0')  
 Groundwater was encountered at an approximate depth of (7.1')  
 Boring backfilled upon completion with soil cuttings.

Date	Started: 11/21/2024	Project Number 121-24-116740	Project East Columbus School		Boring No. B-09
	Completed: 11/21/2024				
	Hammer Type: Automatic	Drilling Method: HSA	Logged By: GHM	Reviewed By: GAM	

Groundwater Depth (ft.)	Depth (ft.)	Graphical Log	Sample Taken	Sample ID	Unconfined Compressive Strength (UCS)		Standard Penetration (N60) Values O - Blows/ft	Other Test Remarks	USCS Class.	Location: See Figure 1	Efficiency: 97.0%		
					SPT N-Value	Corrected N60				Sample Type	Groundwater		
							0 20 40 60 80 100			G - Bulk / Grab Sample SPT - 2" O.D. 1.4" I.D. Tube Sample MC - 3" O.D. 2.4" I.D. Ring Sample NR - No Recovery * - Uncorrected Blow Counts	Depth (ft)	Hour	Date
											Visual Classification		
	0								TOPSOIL	Topsoil (Approximately 1 inch)			0.1'
				SPT-1	1-2-1				SC	Loose brown tan clayey fine to medium sand (SC) (COASTAL PLAIN)			3.0'
				SPT-2	3-2-2				CL	Firm to soft brown tan fine to medium sandy clay (CL) (COASTAL PLAIN)			8.0'
				SPT-3	1-1-1				CL	Very stiff brown tan fine to medium sandy clay (CL) (COASTAL PLAIN)			10.0'
				SPT-4	2-8-7								

Notes:  
 Boring terminated at depth of (10.0')  
 Groundwater was encountered at an approximate depth of (7.0')  
 Boring backfilled upon completion with soil cuttings.

Date	Started: 11/20/2024	Project Number 121-24-116740	Project East Columbus School	Boring No. B-10
	Completed: 11/20/2024			
	Hammer Type: Automatic	Drilling Method: HSA	Logged By: GHM	Reviewed By: GAM

Groundwater Depth (ft.)	Depth (ft.)	Graphical Log	Sample Taken	Sample ID	Unconfined Compressive Strength (UCS)	SPT N-Value Corrected N60	Standard Penetration (N60) Values ○ - Blows/ft	Other Test Remarks	USCS Class.	Location: See Figure 1	Efficiency: 97.0%			
										Sample Type	Groundwater			
							0 20 40 60 80 100			G - Bulk / Grab Sample SPT - 2" O.D. 1.4" I.D. Tube Sample MC - 3" O.D. 2.4" I.D. Ring Sample NR - No Recovery * - Uncorrected Blow Counts	Depth (ft)	Hour	Date	
										Visual Classification				
	0								TOPSOIL	Topsoil (Approximately 6 inches)				0.5'
				SPT-1		3-2-3 N60=8			P.C.S.	Previously Cultivated Soils (Approximately 5.0 feet)				5.5'
	5			SPT-2		3-2-4 N60=10								
				SPT-3		5-4-2 N60=10			CH	Stiff brown gray plastic 'fat' clay (CH) (COASTAL PLAIN)				8.0'
	10			SPT-4		4-5-10 N60=24			SC	Very firm gray tan clayey fine to medium sand (SC) (COASTAL PLAIN)				10.0'

Notes:

- Boring terminated at depth of (10.0')
- Groundwater was encountered at an approximate depth of (7.1')
- Boring backfilled upon completion with soil cuttings.

Date	Started: 11/21/2024	Project Number 121-24-116740	Project East Columbus School	Boring No. B-11
	Completed: 11/21/2024			
	Hammer Type: Automatic	Drilling Method: HSA	Logged By: GHM	Reviewed By: GAM

Groundwater Depth (ft.)	Depth (ft.)	Graphical Log	Sample Taken	Sample ID	Unconfined Compressive Strength (UCS)		Standard Penetration (N60) Values O - Blows/ft	Other Test Remarks	USCS Class.	Location: See Figure 1	Efficiency: 97.0%		
					SPT N-Value	Corrected N60				Sample Type	Groundwater		
							0 20 40 60 80 100			G - Bulk / Grab Sample SPT - 2" O.D. 1.4" I.D. Tube Sample MC - 3" O.D. 2.4" I.D. Ring Sample NR - No Recovery * - Uncorrected Blow Counts	Depth (ft)	Hour	Date
										Visual Classification			
	0								TOP SOIL	Topsoil (Approximately 1 inch)			0.1'
	3			SPT-1	4-3-2 N60=8				SC	Loose brown gray clayey fine to medium sand (SC) with trace organics (COASTAL PLAIN)			3.0'
	5			SPT-2	2-3-1 N60=6				SC	Loose to firm gray red clayey fine to medium sand (SC) (COASTAL PLAIN)			
	7			SPT-3	3-2-3 N60=8								8.0'
	10			SPT-4	3-9-4 N60=21				CL	Very stiff gray tan fine to medium sandy clay (CL) (COASTAL PLAIN)			10.0'

Notes:  
 Boring terminated at depth of (10.0')  
 Groundwater was encountered at an approximate depth of (2.1')  
 Boring backfilled upon completion with soil cuttings.

Date	Started: 11/21/2024	Project Number 121-24-116740	Project East Columbus School	Boring No. B-12
	Completed: 11/21/2024			
	Hammer Type: Automatic	Drilling Method: HSA	Logged By: GHM	Reviewed By: GAM

Groundwater Depth (ft.)	Depth (ft.)	Graphical Log	Sample Taken	Sample ID	Unconfined Compressive Strength (UCS)	Standard Penetration (N60) Values ○ - Blows/ft	Other Test Remarks	USCS Class.	Location: See Figure 1	Efficiency: 97.0%		
									Sample Type G - Bulk / Grab Sample SPT - 2" O.D. 1.4" I.D. Tube Sample MC - 3" O.D. 2.4" I.D. Ring Sample NR - No Recovery * - Uncorrected Blow Counts	Groundwater		
										Depth (ft)	Hour	Date

Groundwater Depth (ft.)	Depth (ft.)	Graphical Log	Sample Taken	Sample ID	Unconfined Compressive Strength (UCS)	Standard Penetration (N60) Values ○ - Blows/ft	Other Test Remarks	USCS Class.	Visual Classification
	0							TOPSOIL	Topsoil (Approximately 1 inch) 0.1'
	1-3		SPT- 1	1-3-4	N60=11			SC	Firm gray brown clayey fine to medium sand (SC) (COASTAL PLAIN) 3.0'
	2-5		SPT- 2	2-2-5	N60=11			CL	Stiff to firm brown tan fine to medium sandy clay (CL) (COASTAL PLAIN) 8.0'
	3-2		SPT- 3	3-2-2	N60=6			CL	Very stiff gray tan fine to medium sandy clay (CL) (COASTAL PLAIN) 10.0'
	4-5		SPT- 4	4-5-11	N60=26			CL	

Notes:  
 Boring terminated at depth of (10.0')  
 Groundwater was encountered at an approximate depth of (2.0')  
 Boring backfilled upon completion with soil cuttings.

Date	Started: 11/21/2024	Project Number 121-24-116740	Project East Columbus School	Boring No. B-13
	Completed: 11/21/2024			
	Hammer Type: Automatic	Drilling Method: HSA	Logged By: GHM	Reviewed By: GAM

Groundwater Depth (ft.)	Depth (ft.)	Graphical Log	Sample Taken	Sample ID	Unconfined Compressive Strength (UCS)	Standard Penetration (N60) Values ○ - Blows/ft	Other Test Remarks	USCS Class.	Location: See Figure 1	Efficiency: 97.0%		
									Sample Type G - Bulk / Grab Sample SPT - 2" O.D. 1.4" I.D. Tube Sample MC - 3" O.D. 2.4" I.D. Ring Sample NR - No Recovery * - Uncorrected Blow Counts	Groundwater		
										Depth (ft)	Hour	Date

Groundwater Depth (ft.)	Depth (ft.)	Graphical Log	Sample Taken	Sample ID	Unconfined Compressive Strength (UCS)	Standard Penetration (N60) Values ○ - Blows/ft	Other Test Remarks	USCS Class.	Visual Classification		
									TOPSOIL	Topsoil (Approximately 1 inch)	0.1'
									SM	Firm gray tan silty fine to medium sand (SM) (COASTAL PLAIN)	3.0'
									SC	Loose to firm brown tan clayey fine to medium sand (SC) (COASTAL PLAIN)	
											10.0'

Notes:  
 Boring terminated at depth of (10.0')  
 Groundwater was encountered at an approximate depth of (2.3')  
 Boring backfilled upon completion with soil cuttings.

Date	Started: 11/21/2024	Project Number 121-24-116740	Project East Columbus School	Boring No. B-14
	Completed: 11/21/2024			
	Hammer Type: Automatic	Drilling Method: HSA	Logged By: GHM	Reviewed By: GAM

Groundwater Depth (ft.)	Depth (ft.)	Graphical Log	Sample Taken	Sample ID	Unconfined Compressive Strength (UCS) SPT N-Value Corrected N60	Standard Penetration (N60) Values ○ - Blows/ft	Other Test Remarks	USCS Class.	Location: See Figure 1	Efficiency: 97.0%	
									Sample Type G - Bulk / Grab Sample SPT - 2" O.D. 1.4" I.D. Tube Sample MC - 3" O.D. 2.4" I.D. Ring Sample NR - No Recovery * - Uncorrected Blow Counts	Groundwater	
									Depth (ft)	Hour	Date
									2		
Visual Classification											
0								TOPSOIL	Topsoil (Approximately 1 inch)	0.1'	
5				SPT- 1 3-3-3 N60=10				SC	Loose to firm brown tan clayey fine to medium sand (SC) (COASTAL PLAIN)	8.0'	
				SPT- 2 3-2-3 N60=8							
				SPT- 3 3-4-5 N60=15							
10				SPT- 4 1-3-7 N60=16				CL	Very stiff gray tan fine to medium sandy clay (CL) (COASTAL PLAIN)	10.0'	

Notes:  
 Boring terminated at depth of (10.0')  
 Groundwater was encountered at an approximate depth of (2.0')  
 Boring backfilled upon completion with soil cuttings.

Date	Started: 11/20/2024	Project Number 121-24-116740	Project East Columbus School		Boring No. B-15
	Completed: 11/20/2024				
	Hammer Type: Automatic	Drilling Method: HSA	Logged By: GHM		Reviewed By: GAM

Groundwater Depth (ft.)	Depth (ft.)	Graphical Log	Sample Taken	Sample ID	Unconfined Compressive Strength (UCS)		Standard Penetration (N60) Values ○ - Blows/ft	Other Test Remarks	USCS Class.	Location: See Figure 1		Efficiency: 97.0%		
					SPT N-Value	Corrected N60				Sample Type		Groundwater		
							0 20 40 60 80 100			G - Bulk / Grab Sample SPT - 2" O.D. 1.4" I.D. Tube Sample MC - 3" O.D. 2.4" I.D. Ring Sample NR - No Recovery * - Uncorrected Blow Counts	Depth (ft)	Hour	Date	
											Visual Classification			
	0								TOPSOIL	Topsoil (Approximately 1 inch)				0.1'
				SPT-1	1-1-2 N60=5				SC	Loose brown tan clayey fine to medium sand (SC) (COASTAL PLAIN)				3.0'
				SPT-2	3-4-5 N60=15				CL	Stiff to firm brown red fine to medium sandy clay (CL) (COASTAL PLAIN)				
				SPT-3	2-2-3 N60=8									
				SPT-4	4-4-9 N60=21				SC	Very firm gray red clayey fine to medium sand (SC) (COASTAL PLAIN)				8.0'
	10													10.0'

Notes:  
 Boring terminated at depth of (10.0')  
 Groundwater was encountered at an approximate depth of (7.1')  
 Boring backfilled upon completion with soil cuttings.

Date	Started: 11/20/2024	Project Number 121-24-116740	Project East Columbus School		Boring No. B-16
	Completed: 11/20/2024				
	Hammer Type: Automatic	Drilling Method: HSA	Logged By: GHM	Reviewed By: GAM	

Groundwater Depth (ft.)	Depth (ft.)	Graphical Log	Sample Taken	Sample ID	Unconfined Compressive Strength (UCS)	Standard Penetration (N60) Values ○ - Blows/ft	Other Test Remarks	USCS Class.	Location: See Figure 1	Efficiency: 97.0%		
					SPT N-Value Corrected N60				Sample Type	Groundwater		
									Depth (ft)	Hour	Date	
									G - Bulk / Grab Sample SPT - 2" O.D. 1.4" I.D. Tube Sample MC - 3" O.D. 2.4" I.D. Ring Sample NR - No Recovery * - Uncorrected Blow Counts	7.2		
Visual Classification												
0								TOPSOIL	Topsoil (Approximately 1 inch)		0.1'	
				SPT- 1	2-1-2 N60=5			SC	Loose brown tan clayey fine to medium sand (SC) with trace organics (COASTAL PLAIN)		3.0'	
				SPT- 2	3-3-3 N60=10							
				SPT- 3	2-2-4 N60=10			CL	Stiff to very stiff brown red fine to medium sandy clay (CL) (COASTAL PLAIN)			
				SPT- 4	6-6-4 N60=16						10.0'	

Notes:  
 Boring terminated at depth of (10.0')  
 Groundwater was encountered at an approximate depth of (7.2')  
 Boring backfilled upon completion with soil cuttings.

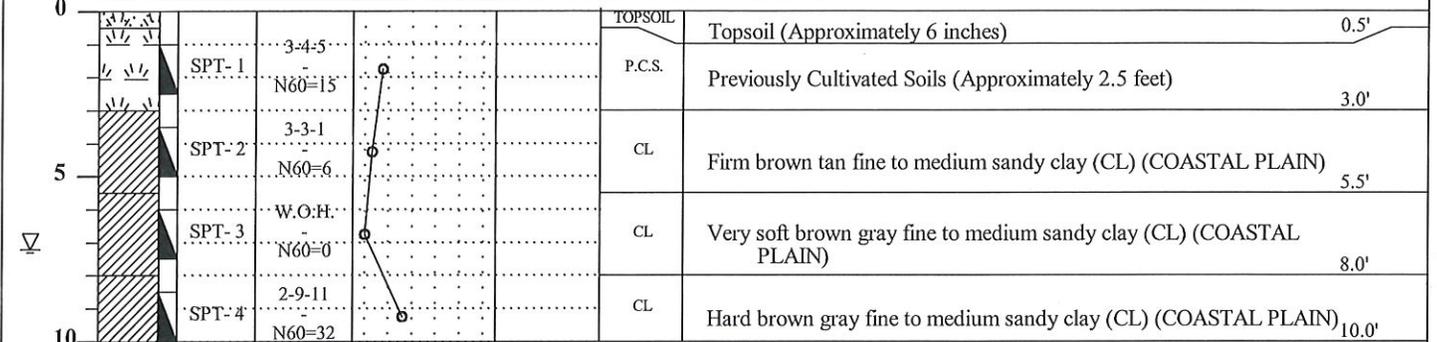
Date	Started: 11/20/2024	Project Number 121-24-116740	Project East Columbus School	Boring No. B-17
	Completed: 11/20/2024			
	Hammer Type: Automatic	Drilling Method: HSA	Logged By: GHM	Reviewed By: GAM

Groundwater Depth (ft.)	Depth (ft.)	Graphical Log	Sample Taken	Sample ID	Unconfined Compressive Strength (UCS)		Standard Penetration (N60) Values ○ - Blows/ft	Other Test Remarks	USCS Class.	Location: See Figure 1	Efficiency: 97.0%		
					SPT N-Value	Corrected N60				Sample Type	Groundwater		
										Groundwater			
										Depth (ft)	Hour	Date	
										Visual Classification			
0										TOPSOIL	Topsoil (Approximately 1 inch)	0.1'	
				SPT-1	2-2-2	N60=6			SC	Loose brown tan clayey fine to medium sand (SC) (COASTAL PLAIN)	3.0'		
				SPT-2	2-2-3	N60=8			CL	Firm to soft brown red fine to medium sandy clay (CL) (COASTAL PLAIN)	8.0'		
				SPT-3	0-0-1	N60=2			CH	Very stiff brown tan plastic 'fat' clay (CH) (COASTAL PLAIN)	10.0'		
				SPT-4	5-4-7	N60=18							

Notes:  
 Boring terminated at depth of (10.0')  
 After a period of 24-hours, groundwater was encountered at an approximate depth of (3.2')  
 Boring backfilled upon completion with soil cuttings.

Date	Started: 11/20/2024	Project Number 121-24-116740	Project East Columbus School		Boring No. B-18
	Completed: 11/20/2024				
	Hammer Type: Automatic	Drilling Method: HSA	Logged By: GHM		Reviewed By: GAM

Groundwater Depth (ft.)	Depth (ft.)	Graphical Log	Sample Taken	Sample ID	Unconfined Compressive Strength (UCS)	Standard Penetration (N60) Values ○ - Blows/ft	Other Test Remarks	USCS Class.	Location: See Figure 1	Efficiency: 97.0%		
					SPT N-Value Corrected N60				Sample Type	Groundwater		
									G - Bulk / Grab Sample SPT - 2" O.D. 1.4" I.D. Tube Sample MC - 3" O.D. 2.4" I.D. Ring Sample NR - No Recovery * - Uncorrected Blow Counts	Depth (ft)	Hour	Date



Notes:  
 Boring terminated at depth of (10.0')  
 Groundwater was encountered at an approximate depth of (7.2')  
 Boring backfilled upon completion with soil cuttings.

Date	Started: 11/20/2024	Project Number 121-24-116740	Project East Columbus School		Boring No. B-19
	Completed: 11/20/2024				
	Hammer Type: Automatic	Drilling Method: HSA	Logged By: GHM		Reviewed By: GAM

Groundwater Depth (ft.)	Depth (ft.)	Graphical Log	Sample Taken	Sample ID	Unconfined Compressive Strength (UCS)		Standard Penetration (N60) Values ○ - Blows/ft	Other Test Remarks	USCS Class.	Location: See Figure 1		Efficiency: 97.0%			
					SPT N-Value	Corrected N60				Sample Type		Groundwater			
										G - Bulk / Grab Sample		Depth (ft)	Hour	Date	
										SPT - 2" O.D. 1.4" I.D. Tube Sample		7.1			
										MC - 3" O.D. 2.4" I.D. Ring Sample					
										NR - No Recovery					
										* - Uncorrected Blow Counts					
													Visual Classification		
0									TOPSOIL	Topsoil (Approximately 1 inch)		0.1'			
				SPT- 1	2-1-5				SC	Loose brown tan clayey fine to medium sand (SC) (COASTAL PLAIN)		3.0'			
				SPT- 2	3-4-4										
				SPT- 3	2-3-7				CL	Stiff to very stiff brown tan fine to medium sandy clay (CL) (COASTAL PLAIN)					
				SPT- 4	5-7-6										
10												10.0'			

Notes:  
 Boring terminated at depth of (10.0')  
 Groundwater was encountered at an approximate depth of (7.1')  
 Boring backfilled upon completion with soil cuttings.

Date	Started: 11/20/2024	Project Number 121-24-116740	Project East Columbus School	Boring No. B-20
	Completed: 11/20/2024			
	Hammer Type: Automatic	Drilling Method: HSA	Logged By: GHM	Reviewed By: GAM

Groundwater Depth (ft.)	Depth (ft.)	Graphical Log	Sample Taken	Sample ID	Unconfined Compressive Strength (UCS)	Standard Penetration (N60) Values ○ - Blows/ft	Other Test Remarks	USCS Class.	Location: See Figure 1	Efficiency: 97.0%		
					SPT N-Value Corrected N60				Sample Type	Groundwater		
					0 20 40 60 80 100				G - Bulk / Grab Sample SPT - 2" O.D. 1.4" I.D. Tube Sample MC - 3" O.D. 2.4" I.D. Ring Sample NR - No Recovery * - Uncorrected Blow Counts	Depth (ft)	Hour	Date

Groundwater Depth (ft.)	Depth (ft.)	Graphical Log	Sample Taken	Sample ID	SPT N-Value Corrected N60	Standard Penetration (N60) Values ○ - Blows/ft	Other Test Remarks	USCS Class.	Visual Classification	Depth (ft)
	0							TOPSOIL	Topsoil (Approximately 1 inch)	0.1'
				SPT-1	1-3-4 N60=11			SC	Firm brown tan clayey fine to medium sand (SC) (EXISTING FILL)	3.0'
				SPT-2	3-3-3 N60=10			CL	Stiff brown red fine to medium sandy clay (CL) (EXISTING FILL)	5.5'
				SPT-3	2-2-2 N60=6			P.C.S.	Previously Cultivated Soils (Approximately 2.5 feet)	8.0'
				SPT-4	6-5-6 N60=18			CL	Very stiff gray tan fine to medium sandy clay (CL) (COASTAL PLAIN)	10.0'

Notes:  
 Boring terminated at depth of (10.0')  
 Groundwater was encountered at an approximate depth of (7.0')  
 Boring backfilled upon completion with soil cuttings.