Addendum #2 – Questions & Responses – Lenoir County Pad-Ready Shell Building – RFQ #26-01

1. **If known, what is the expected start date for construction?** As soon as possible after April 1 or once notice to proceed is issued, understanding the schedule provided in the RFQ is subject to change.

2. **Should submittals include civil/site design or has that effort been completed already? If the effort has been completed, are there plans available for sharing?** Respondents should include whatever site work they deem necessary to complete the shell building process. All plans and reports for work performed to this point are provided as a supplement to this addendum.

3. **Section 3.4 notes a 12-month design and construction schedule which is not feasible if we are including design and permitting, is there flexibility?** Yes, but this would be part of the discussion once the qualifications-based selection has been made. The County wants this project completed on an aggressive timeline in order to start targeting prospective buyers or tenants.

4. **Section 3.1 notes Architect must be an employee of the construction firm. This is not industry standard so we need confirmation if this is accurate or if the architect can be a subcontractor to our scope?** This section has been amended, and we will now allow for design and architecture services to be contracted. All subcontractors, including design and construction team members, should be included in responses.

5. **Section 3.3 max anticipated budget seems too low, was this intended to be hard cost only or including soft costs?** It was intended to be the entire project budget, but we will rely on the firm to determine costs and value engineer where possible once the selection has been made.

6. **Are there any pre-existing building plans?** No.

7. **Are the civil plans already done? Sewer, water, landscape?** All available plans are provided as supplements to this addendum.

8. **Has civil engineering already been taken care of?** All civil plans are provided as a supplement to this addendum. Respondents should determine what additional engineering work may be necessary to complete the project.

9. **Do we need to move the dirt? Is this pad ready? Are they scraping off the dirt? Is the plan to bring in ABC?** The Design-Build team will be responsible for any additional site work. In short, if respondents to not believe the site to be in condition that is ready for construction, it will be assume the respondent has the ability and will perform the necessary work to have the site ready for construction.

10. **Do you need a civil engineer, or do you already have one?** We do not currently have one.

11. **Can you supply information about disqualifications?** This is a qualifications-based process. The review criteria and scoring are provided in the RFQ.

12. **Do all consultants have to be in-house to the contractor?** No.

13. **Do you have a recent property survey?** One is being prepared, and will be available by the time the design-builder has been selected.

14. **Is it pre-engineered steel? What's the design conversation?** These and other design considerations will be made in conversation with the design-builder, once a formal selection has been made. The assumption is this question and others will be necessary to value engineer the building in a way that creates a viable shell building product but also balances the budgetary needs of Lenoir County.

15. **Where is the sewer? Is the water from the street? Is there stormwater retention? Include all utility details.** Water and sewer availability can be referenced on the map provided as a supplement to this addendum.

16. **What's the site acreage and building footprint?** The site is roughly 5.3 acres. Building footprint is provided in Section 1.4 of the RFQ.

17. **How many parking spaces will be required?** The end user will determine parking space needs. Unmarked paving sufficient to provide access to the site may be necessary but will be discussed as part of the design phase with the selected respondent.

18. **Will the requirement be waived for the in-house architect?** Yes. This has been waived.

19. **What's the correct address?** 2140 Sanderson Way.

20. **When should the building be delivered?** As soon as possible, but the final schedule and timeline will be negotiated with the selected design-build team.

21. **Will you share a list of those who attended today?** Provided as Addendum #1.

22. **Are prospective respondents allowed to return to the site?** Site access can be granted by appointment. Prior notification to the project managers listed in the RFQ should be made in advance.

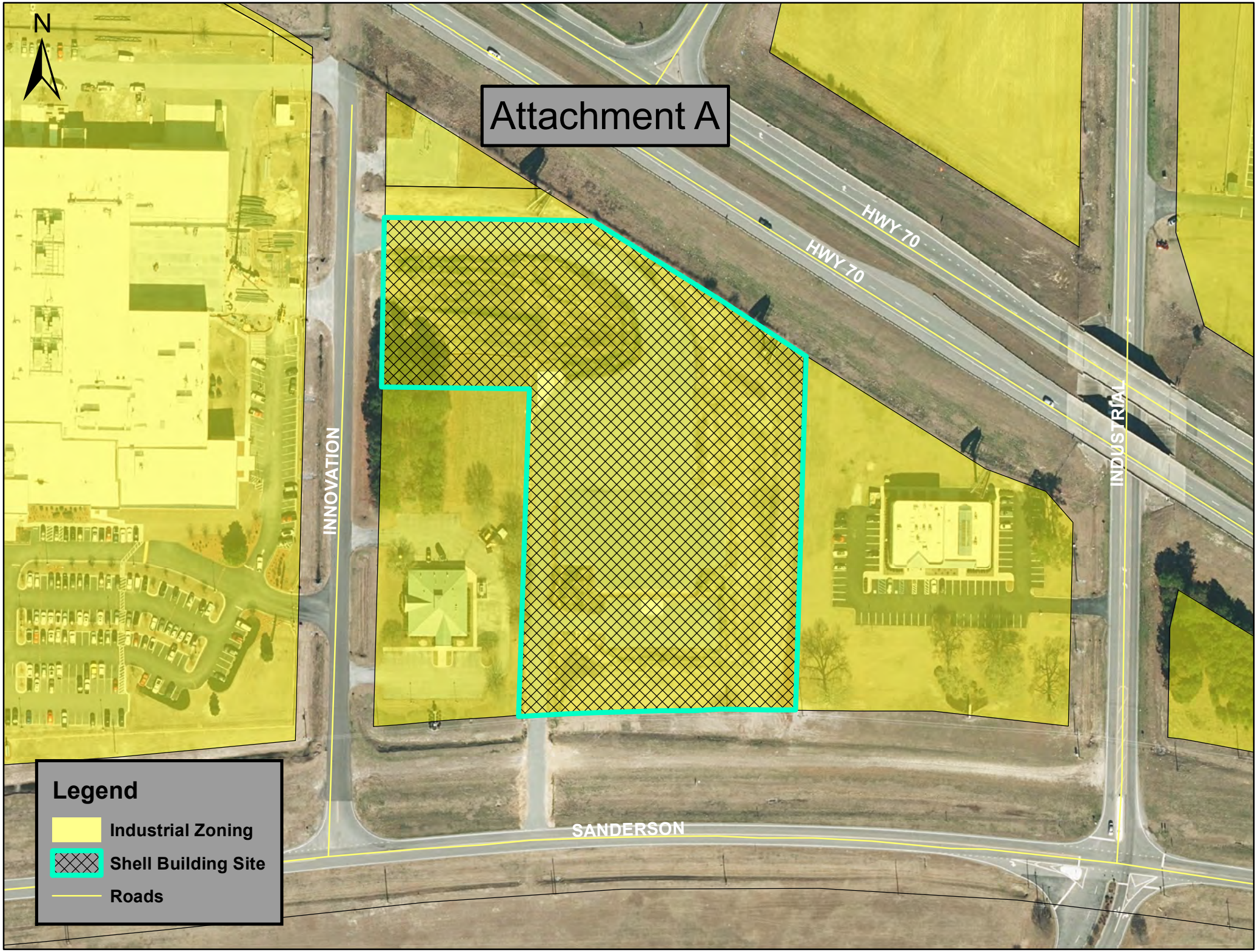
23. **Does the property go back to the access road?** A site map is provided as a supplement to this addendum.

24. **How is this zoned?** Industrial – Lenoir County is the zoning authority.

25. **Is the permitting done through the county?** Yes.

26. **Will BIM modeling be required for this project?** No.

27. **What was the previous use of this site?** See Section 3.0 of the Phase 1 ESA, provided as supplement to this addendum.


N
Attachment A
HWY 70
HWY 70
INNOVATION
INDUSTRIAL
SANDERSON
Legend
Industrial Zoning
Shell Building Site
Roads


10" DIP
16" DIP WATER MAIN
FIRE HYDRANTS
15" GRAVITY SS MAIN
SSMH
16" DIP
714C
714
15" VCP Gravity_Sewer
714E
15" VCP Gravity_Sewer
714F
15" VCP Gravity_Sewer
611F
12" VCP Gravity_Sewer
6116

REVISIONS

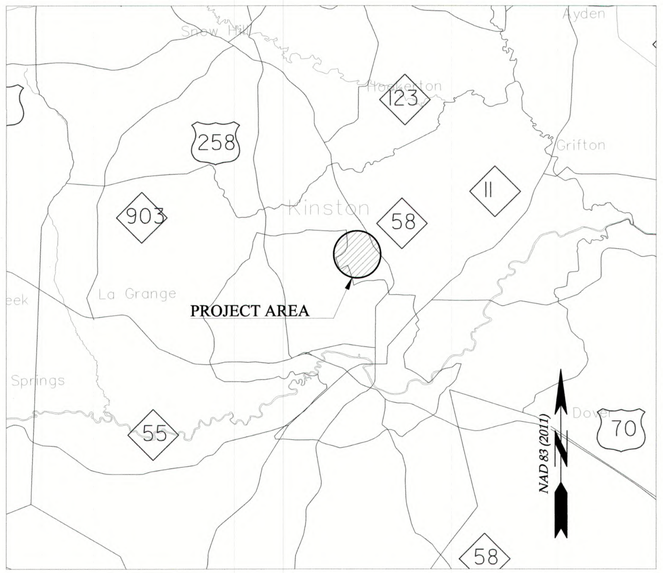
RECORD DRAWING - 02/28/2024
Revised per Record Documents as annotated by the Contractor. Revisions from the original design plans were made with the review and approval of the Engineer

LENOIR COUNTY
NORTH CAROLINA

HIGHWAY 70 INDUSTRIAL PARK
PAD READY SITE

TWC PROJECT No. 2551-Z

APRIL 2023

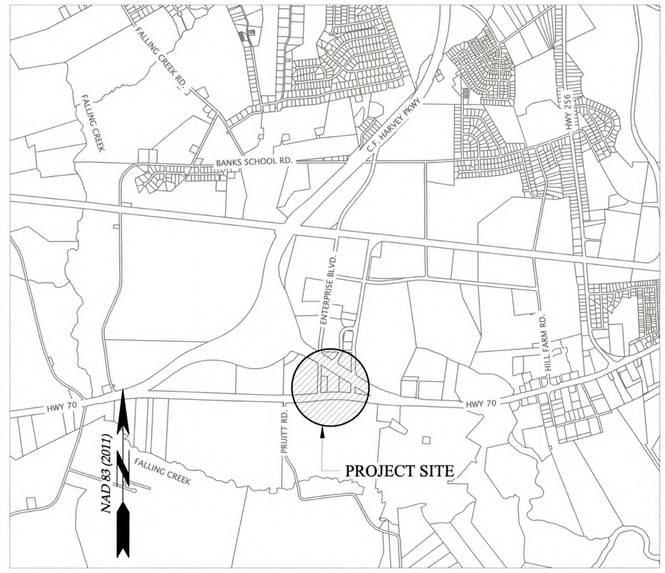


VICINITY MAP
NOT TO SCALE

Wooten
301 West 14th Street • Greenville, NC 27834
(252) 757-1096 • thewootencompany.com
License Number : F-0115

Design only
NORTH CAROLINA PROFESSIONAL SEAL 041415 ENGINEER WILLIAM A. LARSEN
2.29.2024

CONSTRUCTION ONLY
NORTH CAROLINA PROFESSIONAL SEAL 057105 ENGINEER STEWART M. BARNETTE
2.29.2024



PROJECT AREA MAP
NOT TO SCALE

ABBREVIATIONS:

A	AREA
ABAND	ABANDONED
ABC	AGGREGATE BASE COURSE
AC	ACRES
A.F.F.	ABOVE FINISHED FLOOR
AL	ALUMINUM
APPROX	APPROXIMATE
ASPH	ASPHALT
ASSY	ASSEMBLY
AVG	AVERAGE
ARV	AIR RELEASE VALVE
AZ	AZIMUTH
AWWA	AMERICAN WATER WORKS ASSOCIATION
B-B	BACK OF CURB TO BACK OF CURB
BLDG	BUILDING
BM	BENCHMARK
BOA	BLOW-OFF ASSEMBLY
BOT	BOTTOM
BW	BARB WIRE
C&G	CURB AND GUTTER
CB	CATCH BASIN
C	CENTERLINE
CIP	CAST IRON PIPE
CI	CURB INLET
CLR	CLEARANCE
CM	CONCRETE MONUMENT
CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONARY UNIT
CO	CLEAN OUT
CONC	CONCRETE
CONT	CONTINUOUS
CONSTR	CONSTRUCTION
CONTR	CONTRACTOR
COR	CORNER
CULV	CULVERT
D	DEPTH
DI	DROP INLET
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DIM	DIMENSION
DISCH	DISCHARGE
DIST	DISTANCE
DOT	DEPARTMENT OF TRANSPORTATION
DW	DOMESTIC WATER
	DELTA
E	EAST
EA	EACH
EFF	EFFLUENT
EIP	EXISTING IRON PIPE
EL	ELEVATION
ELEC	ELECTRIC
EP	EDGE OF PAVEMENT
EW	EACH WAY
EX	EXISTING
EXP.JT.	EXPANSION JOINT
F.F.E.	FINISHED FLOOR ELEVATION
FG	FINISHED GRADE
FH	FIRE HYDRANT
FIN	FINISH
FLG	FLANGE
FM	FORCE MAIN
FP	FIRE PROTECTION
FPS	FEET PER SECOND
FT	FEET
FTG	FOOTING
G	GAS
GA	GAGE
GALV	GALVANIZED
GM	GAS METER
GPM	GALLONS PER MINUTE
GR	GRADE
GV	GATE VALVE
GYP	GYPSUM
HCP	HANDICAPPED
HT	HEIGHT
HOR	HORIZONTAL
HP	HORSE POWER
HWA	HIGH WATER ALARM
HWL	HIGH WATER LEVEL
HYD	HYDRANT
ID	INSIDE DIAMETER
IN	INCH
IN/HR	INCHES PER HOUR
INF	INFLUENT
INT	INTERSECT
INV	INVERT
IPS	IRON PIPE SET
ISL	ISLAND
JB	JUNCTION BOX
KWY	KEYWAY
LF	LINEAR FEET
L	LENGTH
LP	LIGHT POLE
LT	LEFT
LWL	LOW WATER LEVEL
MAX	MAXIMUM
MECH	MATERIAL
MATL	MECHANICAL
MFR.	MANUFACTURER
MH	MANHOLE
MJ	MECHANICAL JOINT
MIN	MINIMUM
MON	MONUMENT
N/A	NOT AVAILABLE
N	NORTH
NAD 83	NORTH AMERICAN DATUM 1983
NC	NORMAL CROWN
NC GRID	NORTH CAROLINA GRID
NCGS	NORTH CAROLINA GEODETIC SURVEY
NO.	NUMBER
NTS	NOT TO SCALE
NOM	NOMINAL
NWL	NORMAL WATER LEVEL
OC	ON CENTER
OD	OUTSIDE DIAMETER
O/H	OVERHEAD
ORIG	ORIGINAL
PC	POINT OF CURVATURE
PED	PEDESTAL
PE	PLAIN END
PI	POINT OF INTERSECTION
PIV	POST INDICATOR VALVE
P	PROPERTY LINE
PP	POWER POLE
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
PT	POINT OR POINT OF TANGENCY
PVMT	PAVEMENT
R	RADIUS
R/W	RIGHT OF WAY
RCP	REINFORCED CONCRETE PIPE
REF	REFERENCE
REQ'D	REQUIRED
RET	RETAINING
REV	REVISED
RPZ	REDUCED PRESSURE ZONE
RPM	REVOLUTIONS PER MINUTE
REINF	REINFORCED
RT	RIGHT
S/W	SIDEWALK
SAN	SANITARY
SCH	SCHEDULE
SDMH	STORM DRAINAGE MANHOLE
SF	SILT FENCE
SHT	SHEET
S	SOUTH
SPECS	SPECIFICATIONS
SQ	SQUARE
SS	STAINLESS STEEL
ST	STREET
STA.	STATION
STD	STANDARD
SYM	SYMBOL
T	TANGENT
TBM	TEMPORARY BENCH MARK
TCP	TERRA COTTA PIPE
TDD	TEMPORARY DIVERSION DITCH
TEL	TELEPHONE
TEL PED	TELEPHONE PEDESTAL
TEMP	TEMPORARY
THK	THICK
TOC	TOP OF CURB
TOP	TOP OF SLOPE
TOW	TOP OF WALL
TP	TELEPHONE POLE
TRANS	TRANSFORMER
TYP	TYPICAL
U/G	UNDERGROUND
VC	VERTICAL CURVE
VCP	VITRIFIED CLAY PIPE
VERT	VERTICAL
VOL	VOLUME
VPC	VERTICAL POINT OF CURVATURE
VPI	VERTICAL POINT OF INTERSECTION
VPT	VERTICAL POINT OF TANGENCY
W/	WITH
WL	WATER LINE
WM	WATER METER
WT	WEIGHT
WV	WATER VALVE
WTP	WATER TREATMENT PLANT
WWF	WELDED WIRE FABRIC
WWTP	WASTE WATER TREATMENT PLANT
YI	YARD INLET

INDEX TO DRAWINGS

C-0.01	COVER SHEET
C-1.01	INDEX SHEET, ABBREVIATIONS, GENERAL NOTES & LEGENDS
C-2.01	EXISTING CONDITIONS AND DEMOLITION PLAN
C-2.02	EROSION CONTROL PLAN
C-2.03	NEW SITE PLAN IMPROVEMENTS
C-3.01	STORMWATER DETAILS
C-3.02	SITE DETAILS
C-3.03	EROSION CONTROL - 1 DETAILS
C-3.04	EROSION CONTROL - 2 DETAILS

GENERAL NOTES:

ADHERE TO THE FOLLOWING ITEMS IN THE CONSTRUCTION OF HIGHWAY 70 INDUSTRIAL PARK PAD READY SITE OR OTHERWISE NOTED.

1. Existing utilities are located on plans approximately. Notify utility locating service to mark location of existing utilities at least 72 hours prior to commencing construction activity. Contractor responsible for verifying exact location of these existing utilities. The cost to repair these facilities, if damaged, shall be the responsibility of the contractor.
2. Contractor shall protect existing property corner markers. Disturbed property corners shall be re-established by a professional land surveyor at the contractor's expense.
3. The contractor shall be responsible and liable for any damages to existing utilities, storm drainage, headwalls, and the facilities caused by the contractor or resulting from the contractor's work associated with accomplishing the project. The contractor shall correct or replace those utilities, storm drainage, headwalls, and other facilities damaged or destroyed during construction whether shown on the plans or not.
4. Support existing poles, fences, culverts, pavement, utilities, curbing and other structures during construction. Repair damaged items to their original condition at no additional cost to the owner.
5. Open cut gravel driveways. Replace curb & gutter and sidewalk with new concrete to match the existing cross section. Provide pavement patching per details.
6. Existing trees are to be protected unless otherwise noted.
7. Contractor must notify ONE - Call Center, Inc. (NC ONE-CALL) (811) at least 72 hours prior to start of excavation or trenching to have all underground utilities located.
8. Contractor shall notify Public Works, Street Maintenance Division 48 hours prior to making connections to existing storm drains located within public storm drainage easements or right-of-way.
9. This property is partially located in a Special Flood Hazard Area as determined by the Federal Emergency management Agency. This property is located in Zones "X " as shown on FIRM Panel number 3584, Community Number 370144, index date 1/2/2004
10. River basin: Neuse

EROSION CONTROL NOTES:

1. Install silt fence over and around the top of existing pipes and inlets at disturbed areas.
2. All disturbed areas shall be graded to minimize runoff.
3. Install silt fence around spoil piles and along trenches to minimize sediment from entering roadside ditches and existing drainage outlets.
4. All disturbed areas on the banks and approaches to ditch, stream or creek crossings shall be graded not to exceed 3:1 ratio and stabilized with bank stabilization. Surface water runoff shall be diverted from disturbed areas. All slopes shall be stabilized within 7 calendar days of disturbance.
5. Provide erosion control measures around stock/waste piles and staging areas as needed or as directed by engineer. Protect storm pipe inlets from sediment runoff from land disturbing activities with silt fence, stone check dam, or arc filter as appropriate for site conditions.
6. Replace disturbed storm pipe outlet protection with equal or greater amount of rip-rap immediately upon completion of installation of pipe.
7. Where the area around an outlet is disturbed and no outlet protection exists, class "b" rip-rap shall be placed around pipe outlet as needed or as directed by the engineer.
8. Provide erosion control matting in all disturbed ditches and swales unless directed otherwise by engineer.
9. All disturbed areas related to pipe installation shall be fertilized, limed, seeded, and mulched within fourteen (14) working days of completion of any land disturbing activity, or temporary seeded within fourteen (14) working days of any land disturbing activity.
10. Trench should be backfilled daily.
11. New or affected cut or filled slopes must be at an angle that can be retained by vegetative cover, and must be provided with a ground cover sufficient to restrain erosion within 7 calendar days of completion of any phase (rough or final) of grading. Rye grass is not in the approved seeding specifications nor is it an acceptable substitute for the providing of a temporary ground cover.
12. A permanent ground cover, sufficient to restrain erosion, must be provided within the shorter of fourteen working or 90 calendar days (if in a high quality zone, the shorter of 14 working or 60 calendar after completion of construction or development on any portion of the project (rye grass is not in the approved seeding specifications nor is it an acceptable substitute for the providing of a permanent ground cover).
13. At any given time within the project area, the maximum affected exposed and unrestored" area is limited to the lesser of 1 (one) acres (approximately 1 mile) or the affected length along any given road section. A road section being defined as a continuous section of road having the same number or road name.
14. No excavated material shall be placed on road during construction.

EROSION CONTROL CONSTRUCTION SEQUENCE:

1. Clear site only as necessary to install erosion control devices as indicated on the drawings or specified in the specifications.
2. Once erosion control devices are approved, begin construction operations.
3. Maintain erosion control devices as necessary during installation, inspect devices after every rainfall event and clean out traps and/or check dams when half full.
4. As construction progresses, install additional erosion control devices as indicated on the drawings, called for in the specifications, or as needed or directed by engineer.
5. Seed and mulch disturbed areas within fourteen (14) working days of disturbance:

a) Upon completion of any phase of construction.
b) When work will not proceed in an area within the above time frame.

6. Upon approval of site stabilization, remove temporary erosion devices, dress out area, and seed and mulch. Permanent erosion control devices shall be installed and approved by engineer.
7. Post construction and existing grades within the limits of disturbance shall be the same to the greatest extent practicable so as not to change drainage patterns, nor to create pocket wetlands. Positive drainage shall be provided.
8. Erosion and sediment control (E&SC) permit and a certificate of coverage (COC) must be obtained before any land disturbing activities occur. DEMLR Washington regional office (252-946-6481) must be contacted at least 48 hours prior to commencing the land disturbing activity.
9. Self-inspections for erosion and sedimentation control measures are to be performed a least once every seven calendar days and with 24 hours of every rain event of greater than 1 inch. Any needed repairs shall be maintained as specified in the construction details on this plan. A rain gauge shall be installed at the project site for monitoring.
10. Per NPDES requirements, a rain gauge, self-inspections records, permit, Certificate of Coverage, and S&E plan are required to be maintained on site and accessible during inspection. It is recommended that these items be placed in a permits box at the beginning or entrance of project.
11. All applicable E&SC measures will be installed at the commencement of demolition phase.
12. Any dewatering is to be done through a silt bag with a floating intake that is constantly monitored while in use.
13. When the project is complete, the permittee shall contact DEMLP to close out the E&SC plan. After DEMLR informs the project permittee of the close out, via inspection report, the permittee shall visit deq.nc.gov/NCG01 to submit am electronic notice of termination (e-NOT). A $100 annual general permit fee will be charged until the e-NOT has been filled out.

LEGEND

SURVEY

	CODE	Existing	PROPOSED
BENCHMARK	BM		
CONTROL POINT	CP		
IRON PIPE FOUND	IPF		
IRON PIPE SET	IPS		
NAIL FOUND	NLF		
NAIL SET	NLS		
PK NAIL FOUND	PKF		
PK NAIL SET	PKS		
PROPERTY LINE			
TEMPORARY BENCHMARK	TBM		

EASEMENTS

	Existing	PROPOSED
DRAINAGE EASEMENT	SDE	
PUBLIC UTILITY EASEMENT	UE/PUE	
RIGHT-OF-WAY	RW	
TEMPORARY CONSTRUCTION EASEMENT	TCE	

OTHER

	CODE	Existing	PROPOSED
FINISHED FLOOR ELEVATION, RIGHT OF ALIGNMENT	FFE		
FINISHED FLOOR ELEVATION, LEFT OF ALIGNMENT	FFE		

EROSION CONTROL

	CODE	Existing	PROPOSED
CHECK DAM	RCHK		
INLET PROTECTION			
RIP-RAP	RPRP		
LIMITS OF DISTURBANCE			LOD
LIMITS OF DISTURBANCE @ ACCESS EASEMENT			
LIMITS OF DISTURBANCE @ EDGE OF PAVEMENT			LOD/EP
LIMITS OF DISTURBANCE @ RIGHT-OF-WAY			LOD/RW
LIMITS OF DISTURBANCE @ UTILITY EASEMENT			LOD/UE
LIMITS OF DISTURBANCE @ TEMPORARY CONSTRUCTION EASEMENT			
LIMITS OF DISTURBANCE @ TEMPORARY CONSTRUCTION ACCESS			
SILT FENCE	SF	SF	SF
SILT FENCE OUTLET	SFOLT		SF
SILT FENCE / TREE PROTECTION FENCE	SF/TPF		SF/TPF
TREE PROTECTION FENCE	TPF		TPF
WATTLE BARRIER	WB		WB

VEGETATION

	CODE	Existing	PROPOSED
CONIFEROUS TREE	CTREE		
DECIDUOUS TREE	DTREE		
HEDGE / SHRUB ROW	HED		
LANDSCAPING	LSCP		
SHRUB	SHB		
STUMP			
SHRUB (TO BE REMOVED)			
TREE (TO BE REMOVED)			
TREELINE / WOODS			

UTILITIES

	CODE	Existing	PROPOSED
CABLE TV CABLE	CTV	CTV	
CABLE TV PEDESTAL	CPED		
UNDERGROUND ELECTRICAL CABLE	UGE	UGE	
OVERHEAD ELECTRICAL WIRE	OHE	OHE	
ELECTRICAL MANHOLE	EMH	E	
ELECTRICAL METER	EM	M	
ELECTRICAL PEDESTAL	EPED	E	
FIBER OPTIC CABLE	FOC	FOC	
GAS LINE	GL	G	
GAS METER	GM	G	
GAS VALVE	GV		
GUY / ANCHOR WIRE	GUY		
LIGHT POLE / AREA LIGHT	LP		
POWER POLE	PP		
TELECOMMUNICATIONS CABLE	COM	COM	
TELEPHONE PEDESTAL	TPED	T	
TRANSFORMER	TRNS	ET	
UTILITY MARKER / WARNING POST	WIT		
UTILITY POLE	UP		

STORM DRAINAGE

	CODE	Existing	PROPOSED
CATCH BASIN / COMBINATION INLET	CB		
CURB INLET	CI		
DROP INLET	DI		
FLARED END SECTION	FES		
JUNCTION BOX	JB	J	
DRAINAGE MANHOLE	SDMH	D	
STORM DRAINAGE PIPE			

WATER

	CODE	Existing	PROPOSED
FIRE HYDRANT	FH		
FIRE HYDRANT VALVE	FHV		
PLUG	PLUG		
MONITORING WELL	MW		
REDUCER / INCREASER	RDCR		
WATER LINE	WL	WL	WL
WATER METER	WM		
WATER VALVE	WV		
YARD HYDRANT	YH		

SEWER

	CODE	Existing	PROPOSED
CLEAN OUT	SSCO		
SEWER FORCE MAIN	FM	FM	FM
SEWER LINE	SS	SS	
SEWER MANHOLE	SSMH	S	
PLUG	PLUG		

SITE

	CODE	Existing	PROPOSED
AREA LIGHT / LIGHT POLE	LP		
BOLLARD	BOL		
CURB FLOW LINE			
FENCE	FNC	x x	x x
FIRE WATER LINE	FWL	FWZ	
SIGN	SN		

811 Know what's below. 811 before you dig.
Notify **NC811** Three Full Working Days Before Digging
Dial 811 or 1-800-632-4949, or visit www.nc811.org

RECORD DRAWING - 02/28/2024
Revised per Record Documents as annotated by the Contractor.
Revisions from the original design plans were made with the review and approval of the Engineer

REVISIONS

Wooten
301 West 14th Street • Greenville, NC 27834
(252) 757-1096 • thewootencompany.com
License Number : F-0115

LENOIR COUNTY NORTH CAROLINA
KINSTON
HIGHWAY 70 INDUSTRIAL PARK PAD READY SITE
INDEX SHEET, ABBREVIATIONS, GENERAL NOTES & LEGENDS

DESIGN ONLY
NORTH CAROLINA PROFESSIONAL SEAL 041415 ENGINEER WILLIAM A. WARSEN
2.29.2024

CONSTRUCTION ONLY
NORTH CAROLINA PROFESSIONAL SEAL 057105 ENGINEER STEWART M. BARNETTE
2.29.2024

DESIGNED BY: WAL
DRAWN BY: DRS
CHECKED BY: WAL
PROJECT NO.: 2551-Z
DATE: APRIL 2023
SCALE: AS NOTED

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

C-1.01

T:\Projects\Lenoir_County-2551\Z-PadReadySite_Hwy70\09-Construction\X-Closeout\Sheets\Sheets_2551-Z_Cover and Notes.dwg CHOGGARD 2/28/2024 3:35 PM

COMBINED SCALE FACTOR = 0.9998813
ALL DISTANCES ARE HORIZONTAL
GROUND MEASUREMENTS IN FEET
AND DECIMALS THEREOF UNLESS
OTHERWISE NOTED.

SOURCE OF TITLE
DB 900, P 253
PC 3, P 201

ACREAGE DATA
5.45 AC. ±
EXCL. R/W
BY COMPUTER

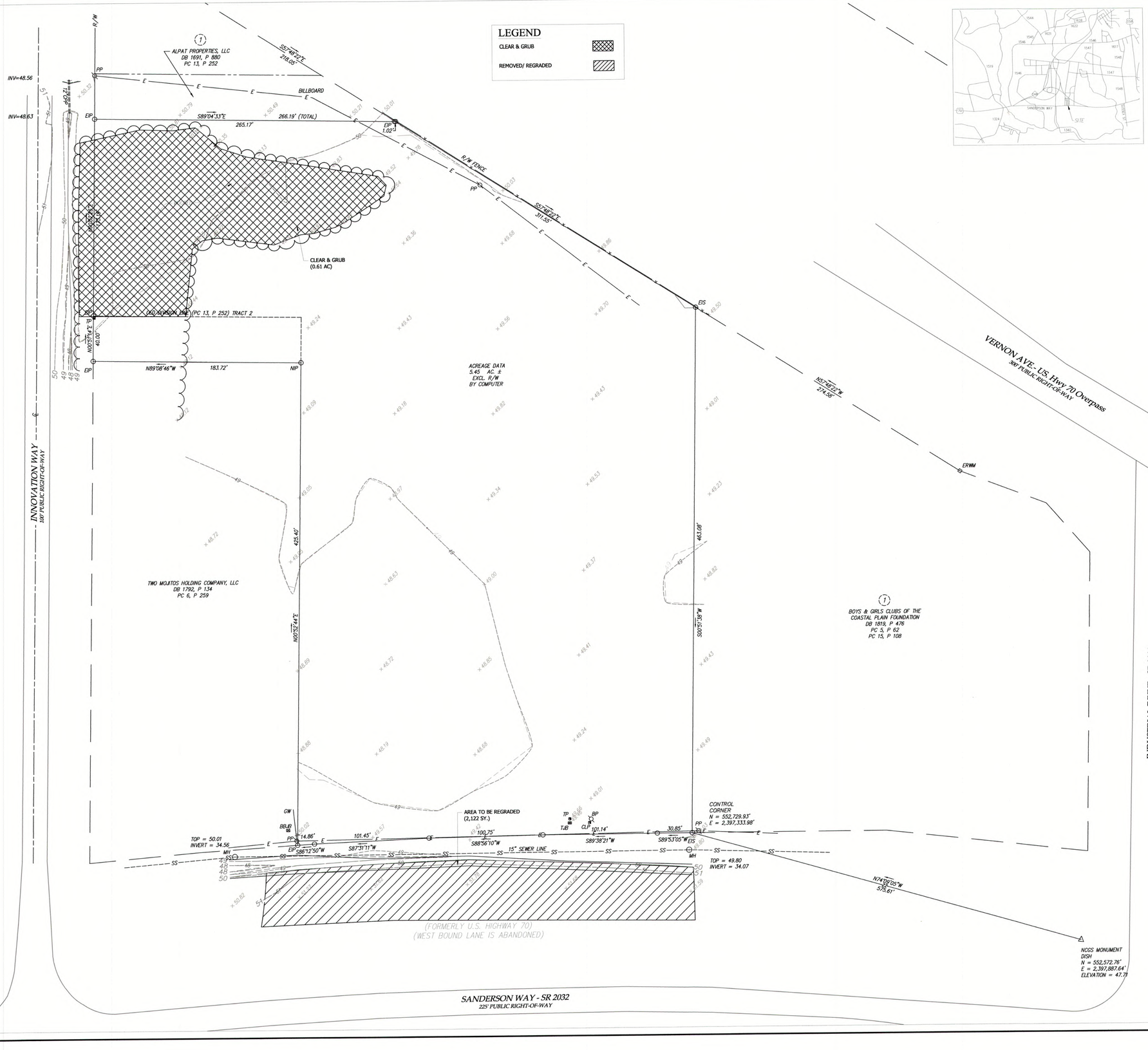
LEGEND
EIP = EXISTING IRON PIPE
EIS = EXISTING IRON STAKE
ERWM = EXISTING R/W MONUMENT
O = NO POINT SET
NIP = NEW IRON PIPE
R/W = RIGHT OF WAY
℄ = CENTERLINE
—ZZ— = NOT TO SCALE
—E— = OVERHEAD ELECTRICAL
—SS— = SANITARY SEWER LINE
PP = POWER POLE
TP = TELEPHONE PEDESTAL
TJB = TELEPHONE JUNCTION BOX
CLP = CENTURYLINK PEDESTAL
BP = PP/BRACE POLE
BBJB = BROADBAND JUNCTION BOX
—W— = WATER LINE
CPP = CORRUGATED PLASTIC PIPE
E/P = EDGE OF PAVEMENT

THIS DOCUMENT ORIGINALLY IS SUED AND SEALED BY F. WADE DAVENPORT, LICENSE NUMBER L-3552, ON 6/12/2022. THIS MEDIUM SHALL NOT BE CONSIDERED A CERTIFIED DOCUMENT.

SCALE: 1"=40'

DEMOLITION NOTES:

1. CONTRACTOR SHALL CONTACT NORTH CAROLINA ONE-CALL CENTER (NC 811) BY DIALING 811 OR 1-800-632-4949 AT LEAST 72 HOURS IN ADVANCE OF ANY LAND DISTURBING ACTIVITY OR DIGGING AND HAVE ALL UNDERGROUND UTILITIES LOCATED PRIOR TO EXCAVATING OR TRENCHING
2. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL LOCAL AND STATE PERMITS REQUIRED FOR DEMOLITION WORK.
3. THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE OWNER AND/OR ENGINEER FOR ANY AND ALL INJURIES AND/OR DAMAGES TO PERSONNEL, EQUIPMENT AND/OR EXISTING FACILITIES IN THE DEMOLITION AND CONSTRUCTION DESCRIBED IN THE PLANS AND SPECIFICATIONS.
4. EXISTING CONDITIONS AS DEPICTED ON THESE PLANS ARE GENERAL AND ILLUSTRATIVE IN NATURE AND DO NOT INCLUDE MECHANICAL, ELECTRICAL AND MISCELLANEOUS STRUCTURES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO EXAMINE THE SITE AND BE FAMILIAR WITH EXISTING CONDITIONS PRIOR TO BUILDING.
5. ALL DEMOLITION WASTE AND DEBRIS SHALL BE REMOVED BY THE CONTRACTOR AND DISPOSED OF IN A STATE APPROVED WASTE SITE AND IN ACCORDANCE WITH ALL LOCAL AND STATE CODES AND PERMIT REQUIREMENTS.
6. THE BURNING OF CLEARED MATERIAL AND DEBRIS SHALL NOT TO BE ALLOWED.
7. ASBESTOS OR HAZARDOUS MATERIALS, IF FOUND ON SITE, SHALL BE REMOVED BY A LICENSED HAZARDOUS MATERIALS CONTRACTOR. CONTRACTOR SHALL NOTIFY OWNER IMMEDIATELY IF HAZARDOUS MATERIALS ARE ENCOUNTERED.
8. CONTRACTOR SHALL PROTECT ALL CORNER PINS,MONUMENTS, PROPERTY CORNERS, AND BENCHMARKS DURING DEMOLITION ACTIVITIES. IF DISTURBED, CONTRACTOR SHALL HAVE DISTURBED ITEMS RESET BY A LICENSED SURVEYOR AT NO ADDITIONAL COST TO THE OWNER.
9. CONTRACTOR SHALL PROVIDE AND MAINTAIN TRAFFIC CONTROL MEASURES IN ACCORDANCE WITH THE NCDOT STANDARDS, AND REQUIRED BY LOCAL AGENCIES WHEN WORKING IN AND/OR ALONG STREETS, ROADS, HIGHWAYS, ETC. IT SHALL BE THE CONTRACTOR RESPONSIBILITY TO OBTAIN APPROVAL AND COORDINATED WITH LOCAL AND/OR STATE AGENCIES REGARDING THE NEED, EXTENT, AND LIMITATIONS ASSOCIATED WITH INSTALLING AND MAINTAINING TRAFFIC CONTROL MEASURES.
10. CONTRACTOR SHALL PROTECT AT ALL TIMES ADJACENT STRUCTURES AND ITEMS FROM DAMAGE DUE TO DEMOLITION OR CONSTRUCTION ACTIVITIES.
11. CONTRACTOR SHALL REMOVE EXISTING VEGETATION AND IMPROVEMENTS WITHIN LIMITS OF DISTURBANCE UNLESS NOTED OTHERWISE.
12. EXISTING IMPROVEMENTS OUTSIDE OF CONSTRUCTION LIMITS OR TREES NOT INDICATED TO BE REMOVED SHALL BE PROTECTED.



RECORD DRAWING – 02/28/2024
Revised per Record Documents as annotated by the Contractor.
Revisions from the original design plans were made with the review and approval of the Engineer

REVISIONS

Wooten
301 West 14th Street • Greenville, NC 27834
(252) 757-1096 • thewootencompany.com
License Number : F-0115

LENOIR COUNTY NORTH CAROLINA
KINSTON
HIGHWAY 70 INDUSTRIAL PARK PAD READY SITE
EXISTING CONDITIONS AND DEMOLITION PLAN

Design only
NORTH CAROLINA PROFESSIONAL SEAL 041415 ENGINEER WILLIAM A. LARSEN
2.29.2024
Construction Only
NORTH CAROLINA PROFESSIONAL SEAL 057105 ENGINEER STEWART M. BARNETTE
2.29.2024

DESIGNED BY: WAL
DRAWN BY: DRS
CHECKED BY: WAL
PROJECT NO.: 2551-Z
DATE: APRIL 2023
SCALE: AS NOTED

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

C-2.01

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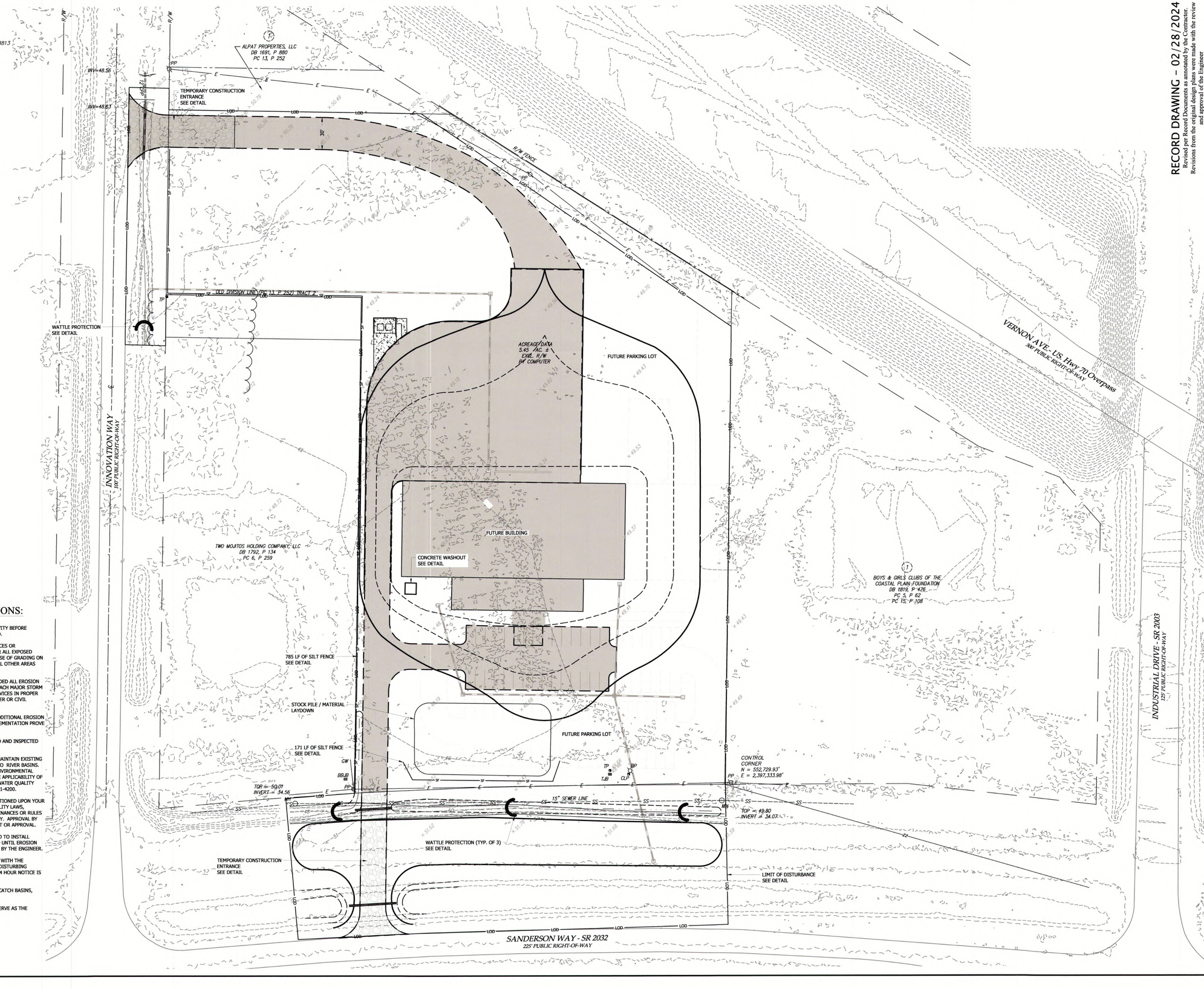

EROSION CONTROL PROVISIONS:

1. NO PERSON MAY INITIATE A LAND DISTURBING ACTIVITY BEFORE EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
2. SEED OR OTHERWISE PROVIDE GROUND COVER DEVICES OR STRUCTURES SUFFICIENT TO RESTRAIN EROSION FOR ALL EXPOSED SLOPES WITHIN 7 DAYS OF COMPLETION OF ANY PHASE OF GRADING ON PERIMETER AREAS AND SLOPES STEEPER THAN 3:1 ALL OTHER AREAS SHALL BE STABILIZED WITHIN 14 DAYS.
3. CONTRACTOR SHALL INSPECT AND MAINTAIN AS NEEDED ALL EROSION CONTROL DEVICES ON A WEEKLY BASIS AND AFTER EACH MAJOR STORM EVENT. FAILURE TO KEEP ALL EROSION CONTROL DEVICES IN PROPER WORKING ORDER MAY RESULT IN A STOP WORK ORDER OR CIVIL PENALTIES UP TO $5.000,00 PER DAY OF VIOLATION.
4. THE ENGINEER RESERVES THE RIGHT TO REQUIRE ADDITIONAL EROSION CONTROL MEASURES SHOULD THE PLAN OR ITS IMPLEMENTATION PROVE TO BE INADEQUATE.
5. EROSION CONTROL MEASURES SHALL BE MAINTAINED AND INSPECTED AS PER THE DETAIL SHEETS SHOWN.
6. PLEASE BE ADVISE OF THE RULES TO PROTECT AND MAINTAIN EXISTING BUFFERS ALONG WATERCOURSES IN THE TAR/PAMLICO RIVER BASINS. THESE RULES ARE ENFORCED BY THE DIVISION OF ENVIRONMENTAL QUALITY (DEQ). DIRECT ANY QUESTIONS ABOUT THE APPLICABILITY OF THESE RULES TO YOUR PROJECT TO THE REGIONAL WATER QUALITY SUPERVISOR, RALEIGH REGIONAL OFFICE AT (919) 791-4200.
7. ACCEPTANCE AND APPROVAL OF THIS PLAN IS CONDITIONED UPON YOUR COMPLIANCE WITH FEDERAL AND STATE WATER QUALITY LAWS, REGULATIONS AND RULES. IN ADDITION LOCAL ORDINANCES OR RULES MAY ALSO APPLY TO THIS LAND DISTURBING ACTIVITY. APPROVAL BY THE TOWN DOES NOT SUPERSEDE ANY OTHER PERMIT OR APPROVAL.
8. LAND DISTURBING ACTIVITY BEYOND THAT REQUIRED TO INSTALL APPROPRIATE EROSION CONTROL MAY NOT PROCEED UNTIL EROSION CONTROL MEASURES ARE INSPECTED AND APPROVED BY THE ENGINEER.
9. SCHEDULING OF A PRE-CONSTRUCTION CONFERENCE WITH THE ENGINEER IS REQUIRED PRIOR TO INITIATING LAND DISTURBING ACTIVITIES. FOR INSPECTION CALL (252) 757-1096 24 HOUR NOTICE IS REQUIRED.
10. INSTALL ROCK INLET SEDIMENT TRAPS AROUND ALL CATCH BASINS, DROP INLETS, AND YARD INLETS.
11. EXISTING ASPHALT AND STONE DRIVE ISLES SHALL SERVE AS THE CONSTRUCTION ENTRANCE.

LOD= 6.59 AC.

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License Number: 1-F-0115

LENOIR COUNTY NORTH CAROLINA
KINSTON HIGHWAY 70 INDUSTRIAL PARK PAD READY SITE
EROSION CONTROL PLAN

Design Engineer
NORTH CAROLINA PROFESSIONAL SEAL 041415 ENGINEER WILLIAM A. LARSEN
7.29.2024
CONSTRUCTION ONLY
NORTH CAROLINA PROFESSIONAL SEAL 057105 ENGINEER STEWART M. BARNETTE
7.29.2024

DESIGNED BY:	WAL
DRAWN BY:	DRS
CHECKED BY:	WAL
PROJECT NO.:	2551-Z
DATE:	APRIL 2023
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0 1/2 1
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C-2.02

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COMBINED SCALE FACTOR = 0.9998813
ALL DISTANCES ARE HORIZONTAL GROUND MEASUREMENTS IN FEET AND DECIMALS THEREOF UNLESS OTHERWISE NOTED.

SOURCE OF TITLE
DB 900, P 253
PC 3, P 201

ACREAGE DATA
5.45 AC. ±
EXCL. R/W
BY COMPUTER

N.C. GRID – NAD 83/2011

LEGEND
EIP = EXISTING IRON PIPE
EIS = EXISTING IRON STAKE
ERWM = EXISTING R/W MONUMENT
O = NO POINT SET
NIP = NEW IRON PIPE
R/W = RIGHT OF WAY
℄ = CENTERLINE
—Z— = NOT TO SCALE
—E— = OVERHEAD ELECTRICAL
—SS— = SANITARY SEWER LINE
PP = POWER POLE
TP = TELEPHONE PEDESTAL
TJB = TELEPHONE JUNCTION BOX
CLP = CENTURYLINK PEDESTAL
BP = PP/BRACE POLE
BBJB = BROADBAND JUNCTION BOX
—W— = WATER LINE
CPP = CORRUGATED PLASTIC PIPE
E/P = EDGE OF PAVEMENT

0 20' 40' 80'
SCALE: 1"=40'

NOTE:

1. DRIVEWAY TO BE GRADE TO PREVENT FLOW FROM EXISTING HWY TO R/W

INNOVATION WAY
100' PUBLIC RIGHT-OF-WAY

INV=48.56
INV=48.63
NEW 50 LF OF 15" RCP
160 LF OF NEW SWALE 2:1 ON THE SIDES AND TIE IN TO EX. DITCH
Area Drained Via Sheet Flow to Roadside Ditch
NEW GRAVEL DRIVE (14,827 SF.) SEE NOTE 1
FUTURE DRAINGE PIPE (BY OTHERS)
NEW DUMPSTER W/ CONCRETE PAD
NEW GRAVEL DRIVE & PARKING AREA (53,634 SF.)
NEW GRADE 15:1 SLOPE (TYP.)
FUTURE BUILDING F.F.E.: 52.5 (BY OTHERS)
NEW GRADE 25:1 SLOPE (TYP.)
NEW GRAVEL PAD WITH GEOTEXT FABRIC (22,672 SF.) GRAVEL PAD SHALL BE 6" DEPTH OF NO. 57 STONE
CONCRETE PARKING PAD SEE DETAIL 1/C-3.02
105 LF OF NEW SWALE 2:1 ON THE SIDES AND TIE IN TO EX. DITCH
297 LF OF SWALE TO BE REGRATE AT 2:1 ON THE SIDES
NEW 34 LF OF 15" RCP
NOTE: DRIVEWAY SHALL BE GRADED TO PROVIDE LEVEL ENTRANCE WITH POSITIVE DRAINAGE
NEW GRADE 5:1 SLOPE (TYP.)
NEW 44 LF OF 15" RCP
TOR = 50.01
INVERT = 34.56
TOP = 49.80
INVERT = 34.02
NCGS MONUMENT DISH
N = 552,572.76'
E = 2,397,887.84'

VERNON AVE - US Hwy 70 Overpass
300' PUBLIC RIGHT-OF-WAY

INDUSTRIAL DRIVE - SR 2003
25' PUBLIC RIGHT-OF-WAY

SANDERSON WAY - SR 2032
225' PUBLIC RIGHT-OF-WAY

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KINSTON
HIGHWAY 70 INDUSTRIAL PARK PAD READY SITE
LENOIR COUNTY NORTH CAROLINA

NEW SITE IMPROVEMENTS

DESIGN ONLY
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 041415 ENGINEER WILLIAM A. LARSEN
2.29.2024

CONSTRUCTION ONLY
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 057105 ENGINEER STEWART M. BARNETTE
2.29.2024

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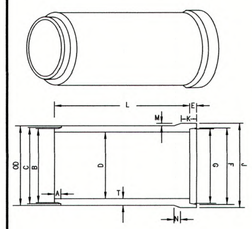
SIZE D	T	L	POUNDS PER FOOT	ASTM SPEC. & CLASS	OD	A	B	C	E	F	G	J	K	M	N	PLANT
15	B2 1/4	8'	134	ASTM C76 III IV V	19 1/2	2	16 15/16	17 1/4	2	17 3/4	17	21 3/8	4 1/2	7/16	1 1/4	SR VN-KN
18	B2 1/2	8'	173	ASTM C76 III IV V	23	2	20	20 3/4	2	21 1/4	20 1/2	23 1/2	6 1/2	3/4	1 1/4	SR VN-KN
24	B3	8'	268	ASTM C76 III IV V	30	2 1/2	26 3/16	26 7/8	2 13/16	27 3/4	27	31 1/32	4 1/4	1/2	1 1/2	VN-KN SR
30	B3 1/2	8'	396	ASTM C76 III IV V	37	2 15/16	32 1/16	33 1/8	3	34 1/32	33 1/32	38 1/2	5 1/2	3/4	1 1/2	SR-K
36	B4	8'	543	ASTM C76 III IV V	44	3 3/4	39 1/4	39 29/32	3 13/16	40 19/32	40 5/16	46 1/2	6	1 1/4	2 11/16	SR-K



A MINIMUM OF 6" OF #57 WASHED STONE IS REQUIRED FOR ALL PIPE INSTALLATION. SEE CITY CITY OF FAYETTEVILLE STANDARD DETAIL DR-1.

MODIFIED TONGUE AND GROOVE

8 FOOT LENGTH

MORTAR OF FLEXIBLE PLASTIC TYPE JOINT

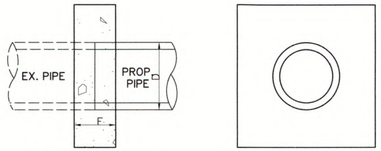
SPECIFICATIONS:
ASTM C 76-LATEST
NCDOT
REINFORCED IN ACCORDANCE WITH APPLICABLE SPECIFICATIONS

LIFT HOLES STANDARD ON 36" AS ALLOWED PER ASTM SPECIFICATIONS

MINIMUM FILL UNDER ROADWAYS	
PIPE CLASS	MINIMUM FILL
CLASS III	2'
CLASS IV	1'
CLASS V	1'

FILL HEIGHT IS MEASURED FROM THE TOP OF THE PIPE TO THE BOTTOM OF THE PAVEMENT STRUCTURE.

1 C-3.01 **REINFORCE CONCRETE SEWER, STORM DRAIN AND CULVERT 15" THRU 36" PIPE**
NOT TO SCALE



SIDE ELEVATION

GENERAL NOTES

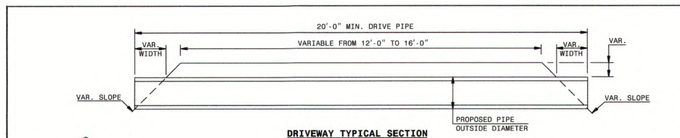
USE CONCRETE COLLAR FOR EXTENDING EXISTING CONCRETE PIPE CULVERTS TO BE USED AT LOCATIONS SHOWN ON PLANS OR DIRECTED BY THE ENGINEER.

CLASS "A" CONCRETE SHALL BE USED.

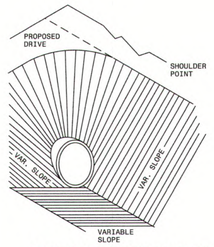
D	E	F	CU. YD.
12"	12"	12"	0.3528
15"	12"	12"	0.3990
18"	12"	12"	0.4465
24"	12"	12"	0.5526
30"	12"	12"	0.6560
36"	12"	12"	0.7640

D	E	F	CU. YD.
42"	12"	12"	0.8856
48"	12"	12"	1.0126
54"	18"	18"	2.5793
60"	18"	18"	2.8506
66"	18"	18"	3.1307
72"	18"	18"	3.4176

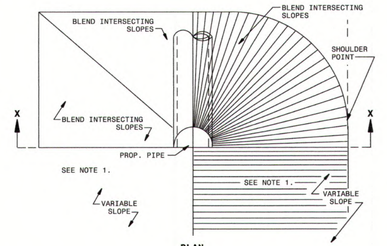
2 C-3.01 **CONCRETE COLLAR**
NOT TO SCALE



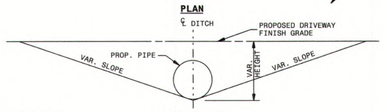
DRIVEWAY TYPICAL SECTION



ISOMETRIC OF END PIPE TREATMENT
USE AT LOCATIONS AS DIRECTED BY THE ENGINEER



PLAN



SECTION X-X

GENERAL NOTES:

ALL DIMENSIONS GIVEN ARE FOR MINIMUM CONDITIONS. PROPER ENGINEERING JUDGEMENT MUST BE USED IN DETERMINING DRIVEWAY LOCATIONS, WIDTHS, AND PIPE LENGTHS.

FACTORS SUCH AS VEHICLE TURNING RADIUS, TRAFFIC VOLUMES, DRIVEWAY SKEW, OFFSET DISTANCE OF PIPE FROM EDGE OF PAVEMENT, PIPE DEPTHS, AND DESIGN SPEED SHOULD BE CONSIDERED IN DETERMINING DRIVEWAY WIDTHS.

NOTE:
1. THESE AREAS ARE TO BE USED TO BLEND THE INTERSECTING SLOPES TO THE PROPOSED DITCH.

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

ROADWAY STANDARD DRAWING FOR
DRIVEWAY PIPE CONSTRUCTION
USING NO SPECIAL END SECTIONS

SHEET 1 OF 1
310.10

REVISIONS

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LENOIR COUNTY NORTH CAROLINA
KINSTON
HIGHWAY 70 INDUSTRIAL PARK PAD READY SITE
STORMWATER DETAILS

Design 03-24
NORTH CAROLINA PROFESSIONAL SEAL 041415 ENGINEER WILLIAM A. LARSON
2.29.2024

CONSTRUCTION ONLY
NORTH CAROLINA PROFESSIONAL SEAL 057105 ENGINEER STEWART M. BARNETTE
2/29/2024

DESIGNED BY:	WAL
DRAWN BY:	DRS
CHECKED BY:	WAL
PROJECT NO.:	2551-Z
DATE:	APRIL 2023
SCALE:	AS NOTED

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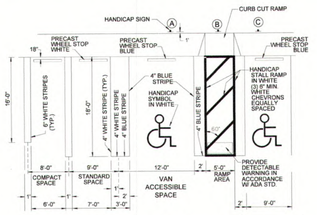
ACCESSIBLE PARKING REQUIREMENTS

TOTAL PARKING SPACES PROVIDE	MINIMUM NUMBER OF ACCESSIBLE SPACES REQUIRED	MINIMUM NUMBER OF ACCESSIBLE SPACES REQUIRED TO BE VAN ACCESSIBLE
1 TO 25	1	1
26TO 50	2	1
51 TO 75	3	1
76 TO 100	4	1
101 TO 150	5	1
151 TO 200	6	1
201 TO 300	7	1
301 TO 400	8	1
401 TO 500	9	2
501 TO 1000	2% OF TOTAL	1 IN EVERY 6 ACCESSIBLE SPACES
1001 AND OVER	20 PLUS 1 FOR EACH 100 OVER 1000	1 IN EVERY 6 ACCESSIBLE SPACES

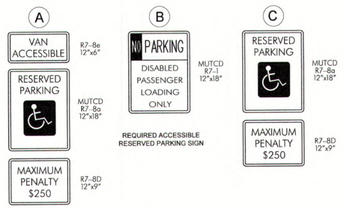
SECTION 4.1.2 (5) OF THE AMERICANS WITH DISABILITIES ACT (ADA).
SEE 4.1.2 (5) (d) FOR MEDICAL CARE FACILITIES.

NOTES:

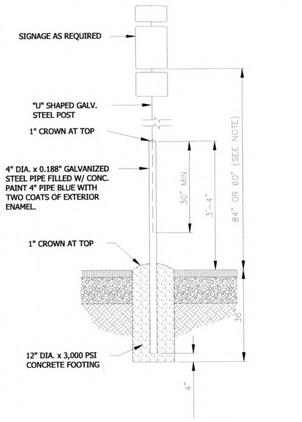
1. ALL 12"x18" ACCESSIBLE SIGNS (R7-8a & R7-1) SHALL BE MOUNTED AT 7 FEET FROM GRADE TO BOTTOM EDGE OF SIGN FACE (MUTCD). MOUNTING HEIGHT CAN BE REDUCED TO 5 FEET IF PLACED IN AN AREA BETWEEN SIDEWALK AND BUILDING FACE IN WHICH PEDESTRIANS ARE NOT EXPECTED TO USE.
2. REFER TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, (MUTCD) U.S. DEPARTMENT OF TRANSPORTATION AND NORTH CAROLINA DEPARTMENT OF TRANSPORTATION SUPPLEMENT.
3. IF ACCESSIBLE ROUTE IS A RAISED SIDEWALK AREA, THEN RAMPS ARE REQUIRED AT LOADING ZONE AREA.



PARKING SPACES PAVEMENT MARKINGS



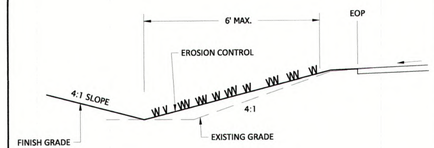
REQUIRED ACCESSIBLE RESERVED PARKING SIGN



NOT TO SCALE
(SIGNAGE SHALL BE IN ACCORDANCE WITH THE LATEST VERSION OF THE NORTH CAROLINA ACCESSIBILITY CODE 4.1.2.)

1 C-3.02 **ACCESIBLE PARKING**
NOT TO SCALE

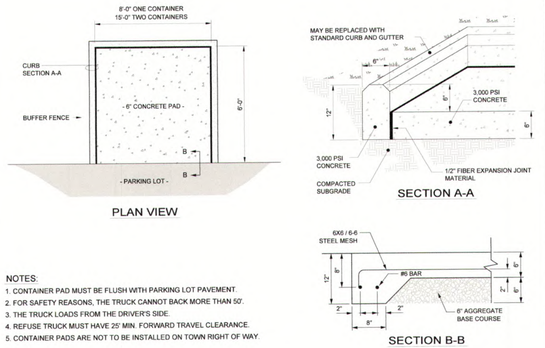
DETAIL HAS BEEN ERASED 1



3 C-3.02 **VEGETATED SWALE**
NOT TO SCALE

DETAIL HAS BEEN ERASED 1

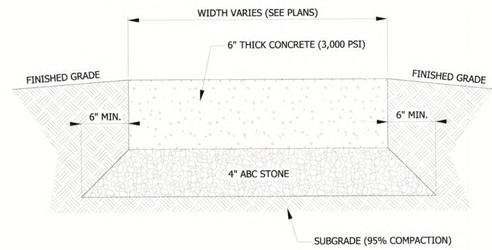
DETAIL HAS BEEN ERASED 1



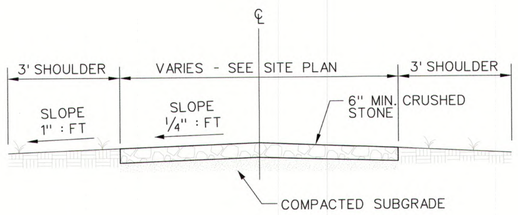
NOTES:

1. CONTAINER PAD MUST BE FLUSH WITH PARKING LOT PAVEMENT.
2. FOR SAFETY REASONS, THE TRUCK CANNOT BACK MORE THAN 50'.
3. THE TRUCK LOADS FROM THE DRIVER'S SIDE.
4. REFUSE TRUCK MUST HAVE 25' MIN. FORWARD TRAVEL CLEARANCE.
5. CONTAINER PADS ARE NOT TO BE INSTALLED ON TOWN RIGHT OF WAY.

6 C-3.02 **STANDARD CONTAINER PAD**
NOT TO SCALE



7 C-3.02 **CONCRETE DRIVE SECTION**
NOT TO SCALE



8 C-3.02 **TYPICAL GRAVEL DRIVE**
NOT TO SCALE

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REVISIONS
1 ADDENDUM 1 7 / 26 / 2023

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LENOIR COUNTY
KINSTON NORTH CAROLINA
HIGHWAY 70 INDUSTRIAL PARK PAD READY SITE
SITE DETAILS

Design Only
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C-3.02

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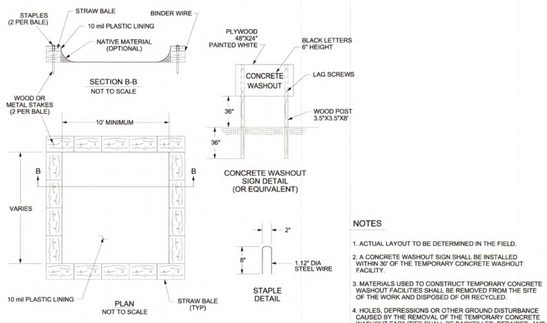


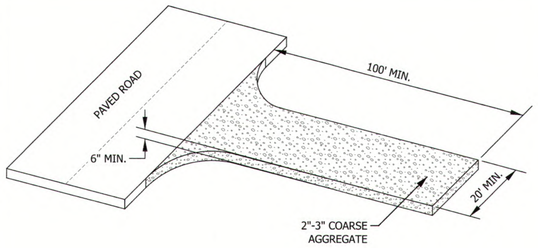
NOTES

1. ACTUAL LAYOUT TO BE DETERMINED IN THE FIELD.
2. A CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
3. MATERIALS USED TO CONSTRUCT TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE REMOVED FROM THE SITE OF THE WORK AND DISPOSED OF OR RECYCLED.
4. HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCE CAUSED BY THE REMOVAL OF THE TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE BACKFILLED, REPAIRED, AND STABILIZED TO PREVENT EROSION.

5. MAINTENANCE SHALL FOLLOW REQUIREMENTS IN NCG01

TYPE "ABOVE GRADE" WITH STRAW BALES

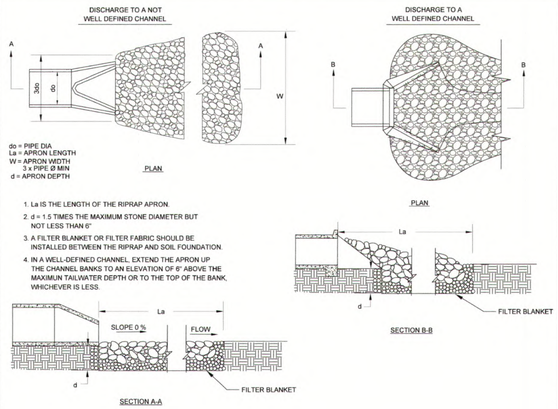
1 C-3.03 CONCRETE WASHOUT AREA
NOT TO SCALE



NOTE:

1. ENTRANCE APPLICABLE AT ALL POINTS OF INGRESS AND EGRESS UNTIL SITE IS STABLIZED.
2. CONSTRUCTION ENTRANCE SHALL BE PLACED FOR MAXIMUM UTILITY BY ALL CONSTRUCTION VEHICLES.
3. PERIODIC TOP DRESSING AND ROUTINE MAINTENANCE SHALL BE PROVIDED ON ENTRANCE AS REQUIRED. CONTRACTOR SHALL STOCKPILE FRESH STONE ON SITE.
4. ANY MATERIAL THAT MAKES IT TO EXISTING PUBLIC ROADWAY SHALL BE REMOVED AND CLEANED IMMEDIATELY.

2 C-3.03 TEMPORARY CONSTRUCTION ENTRANCE
NOT TO SCALE



3 C-3.03 FLARED END SECTION OUTLET TREATMENT
NOT TO SCALE

PERMANENT SEEDING SCHEDULE

	WARMER SEASON	COOL SEASON
SEEDING MIXTURE	100 lbs/acre of tall fescue 25 lbs/acre of german millet 25 lbs/acre of hulled bermuda	100 lbs/acre of tall fescue 30 lbs/acre of wheat 25 lbs/acre of unhulled bermuda
SEEDING DATES	March 15 – September 15	September 15 – March 15
SEEDING AMENDMENTS	Apply lime and fertilizer per soil tests, or 4000 lbs/acre limestone and 1000 lbs/acre 10-10-10 fertilizer.	Apply lime and fertilizer per soil tests, or 4000 lbs/acre limestone and 1000 lbs/acre 10-10-10 fertilizer.

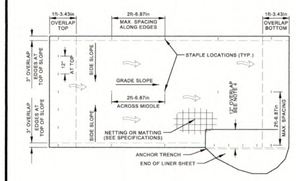
STABILIZATION TIMEFRAMES

SITE AREA DESCRIPTION	STABILIZATION	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES, SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES

TEMPORARY SEEDING SCHEDULE (SEASONAL)

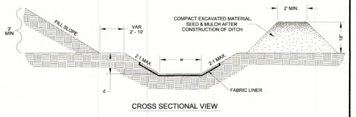
	EARLY SUMMER SEASON	FALL/WINTER SEASON	LATE WINTER/EARLY SPRING
SEEDING MIXTURE	40 lbs/acre of German millet 80 lbs/acre of tall fesse	120 lbs/acre Rye (grain)	120 lbs/acre Rye (grain) 50 lbs/acre Annual Lespedeza (Kobe) – Omit annual lespedeza when duration of temporary cover is not to extend beyond June.
SEEDING DATES	May 1 – August 15 Reinitilize if growth is not fully adequate. Apply 4000 lbs/acre straw or equivalent hydromedia.	August 15 – December 30 Between December 30 – February 15, add 50 lbs/acre of annual Kobe lespedeza if necessary to extend temporary cover beyond June 15. Reinitilize if growth is not fully adequate. Apply 4000 lbs/acre straw or equivalent hydromedia.	Piedmont – January 1 – May 1 Reinitilize if growth is not fully adequate. Apply 4000 lbs/acre straw or equivalent hydromedia.
SEEDING AMENDMENTS	Apply lime and fertilizer per soil tests, or 2000 lbs/acre limestone and 750 lbs/acre 10-10-10 fertilizer.	Apply lime and fertilizer per soil tests, or 2000 lbs/acre limestone and 750 lbs/acre 10-10-10 fertilizer.	Apply lime and fertilizer per soil tests, or 2000 lbs/acre limestone and 750 lbs/acre 10-10-10 fertilizer.

4 C-3.03 SEEDING SCHEDULE
NOT TO SCALE

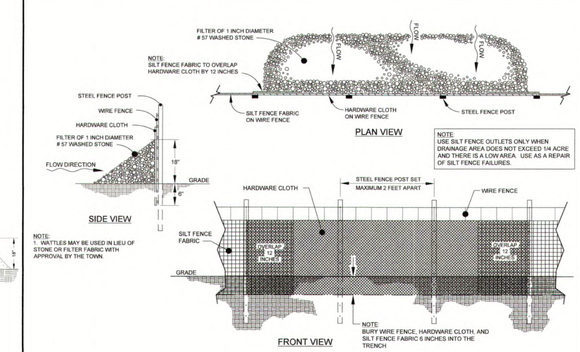


INSTALLATION OF LINER:

1. APPLY LIME, FERTILIZER, AND SEED BEFORE LAYING LINER.
2. LAY LINER FROM TOP OF SLOPE OR CHANNEL AND UNROLL IT DOWN THE GRADE. ALLOW NETTING TO LAY LOOSELY WITH WRINKLES. DO NOT STRECH LINER.
3. BURY THE UPSLOPE END IN AN ANCHOR TRENCH 6" DEEP, COVER WITH SOIL AND TAMP FIRMLY. PROVIDE STAPLES (1" WIDE x 6" LONG MIN.) AND OVERLAP AS SHOW ABOVE.
4. TO JOIN TWO STRIPS, CUT A TRENCH AND ANCHOR THE END OF THE NEW LINER. OVERLAP THE END OF PREVIOUS ROLL 12" MINIMUM AND STAPLE AT 12" O.C.



5 C-3.03 STANDARD TEMPORARY SILT DITCH
NOT TO SCALE



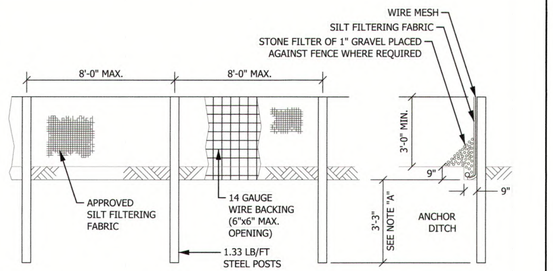
NOTES:

1. Hardware cloth and gravel should overlay the silt fence at least 12 inches.
2. Stone outlets should be placed on low elevation areas of silt fence and based on field conditions.

MAINTENANCE:

1. Per NCG-01, inspect outlet at lest once a week and after each 1 inch or greater rainfall event. Complete any required repairs immediately.
2. Freshen stone when sediment accumulation exceeds 6 inches.
3. Keep mesh free of debris to provide adequate flow.
4. Remove sediment when half of stone outlet is covered.
5. Replace stone as needed to facilitate de-watering.

6 C-3.03 STANDARD SILT FENCE OUTLET
NOT TO SCALE



NOTES:

A) POSTS SET AT DEPTHS OF 4' FOR EARTH BACKFILL. ANCHOR DITCH IS 9"x9" AND FILL IS TO BE COMPACTED.

B) PROVIDE ADEQUATE EXCAVATION AHEAD OF SILT FENCE TO ACT AS A VELOCITY BREAK AND SILT TRAP.

C) CONTRACTOR MAY USE ALTERNATE MATERIAL OR METHOD UPON APPROVAL FROM ENGINEER.

Construction:

1. Construct the sediment barrier of standard strength or extra strength synthetic filter fabrics.
2. Ensure that the height of the sediment fence does not exceed 24 inches above the ground. (Higher fences may impound volumes of water sufficient to cause failure of the structure)
3. Construct the filter fabric from a continuous roll cut to the length of the barrier to avoid joints. When joints are necessary, securely fasten the filter cloth only at a support post with 4 feet minimum overlap to the next post.
4. Support standard strength filter fabric by wire mesh fastened securely to the upslope side of the posts. Extend the wire mesh support to the bottom of the trench. Fasten the wire reinforcement, then fabric on the upslope side of the fence post. Wire or plastic zip ties should have a minimum 50 pound tensile strength.
5. When a wire mesh support fence is used, space posts a maximum of 8 feet apart. Supports should be driven securely into the ground a minimum of 24 inches.
6. Extra strength filter fabric with 6 foot post spacing does not require a wire mesh support fence. Securely fasten the filter fabric directly to posts. Wire or plastic zip ties should have a minimum of 50 pound tensile strength.
7. Excavate the trench**a minimum of** 4 inches wide and 8 inches deep along the proposed line of the posts and upslope from the barrier.
8. Place 12 inches of fabric along the bottom and side of the trench.
9. Backfill the trench with soil placed over the filter fabric and compact. Thorough compaction of the backfill is critical to silt fence performance.
10. Do not attach filter fabric to existing trees.

Maintenance:

1. Inspect sediment fences at least once a week and after each 1 inch or greater rainfall. Make any required repairs immediately.
2. Should the fabric of a sediment fence collapse, tear, decompose, or become ineffective, replace it promptly.
3. Remove sediment deposits as necessary to provide adequate storage volume for the next rain and reduce pressure on the fence. Take care to avoid undermining the fence during cleanouts.
4. Remove all fencing materials and unstable sediment deposits and bring the area to grade and stabilize it after the contributing drainage area has been properly stabilized.

7 C-3.03 SILT FENCE
NOT TO SCALE

REVISIONS

Wooten
301 West 14th Street • Greenville, NC 27834
(252) 757-1086 • thewootencompany.com
License Number: F-0115

LENOIR COUNTY
KINSTON NORTH CAROLINA
HIGHWAY 70 INDUSTRIAL PARK PAD READY SITE
EROSION CONTROL DETAILS #1

DESIGNED BY: WAL
DRAWN BY: DRS
CHECKED BY: WAL
PROJECT NO.: 2551-Z
DATE: APRIL 2023
SCALE: AS NOTED

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

C-3.03

RECORD DRAWING - 02/28/2024
Revised per Record Documents as annotated by the Contractor. Revisions from the original design plans were made with the review and approval of the Engineer

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GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT

Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

SECTION E: GROUND STABILIZATION

Required Ground Stabilization Timeframes		
Site Area Description	**Stabilize within this many calendar days after ceasing land disturbance**	**Timeframe variations**
(a) Perimeter dikes, swales, ditches, and perimeter slopes	7	None
(b) High Quality Water (HQW) Zones	7	None
(c) Slopes steeper than 3:1	7	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed
(d) Slopes 3:1 to 4:1	14	-7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed
(e) Areas with slopes flatter than 4:1	14	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope

Note: After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

GROUND STABILIZATION SPECIFICATION

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

Temporary Stabilization	Permanent Stabilization
• Temporary grass seed covered with straw or other mulches and tackifiers • Hydroseeding • Rolled erosion control products with or without temporary grass seed • Appropriately applied straw or other mulch • Plastic sheeting	• Permanent grass seed covered with straw or other mulches and tackifiers • Geotextile fabrics such as permanent soil reinforcement matting • Hydroseeding • Shrubs or other permanent plantings covered with mulch • Uniform and evenly distributed ground cover sufficient to restrain erosion • Structural methods such as concrete, asphalt or retaining walls • Rolled erosion control products with grass seed

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

1. Select flocculants that are appropriate for the soils being exposed during construction, selecting from the *NC DWR List of Approved PAMS/Flocculants*.
2. Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
3. Apply flocculants at the concentrations specified in the *NC DWR List of Approved PAMS/Flocculants* and in accordance with the manufacturer's instructions.
4. Provide ponding area for containment of treated Stormwater before discharging offsite.
5. Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

EQUIPMENT AND VEHICLE MAINTENANCE

1. Maintain vehicles and equipment to prevent discharge of fluids.
2. Provide drip pans under any stored equipment.
3. Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
4. Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
5. Remove leaking vehicles and construction equipment from service until the problem has been corrected.
6. Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

1. Never bury or burn waste. Place litter and debris in approved waste containers.
2. Provide a sufficient number and size of waste containers (e.g dumpster, trash receptacle) on site to contain construction and domestic wastes.
3. Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
4. Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
5. Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
6. Anchor all lightweight items in waste containers during times of high winds.
7. Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
8. Dispose waste off-site at an approved disposal facility.
9. On business days, clean up and dispose of waste in designated waste containers.

PAINT AND OTHER LIQUID WASTE

1. Do not dump paint and other liquid waste into storm drains, streams or wetlands.
2. Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
3. Contain liquid wastes in a controlled area.
4. Containment must be labeled, sized and placed appropriately for the needs of site.
5. Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

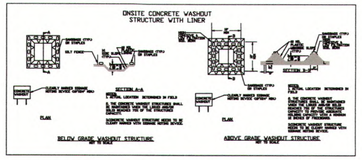
PORTABLE TOILETS

1. Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.
2. Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
3. Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

EARTHEN STOCKPILE MANAGEMENT

1. Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
2. Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
3. Provide stable stone access point when feasible.
4. Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.

NORTH CAROLINA *Environmental Quality*



CONCRETE WASHOUTS

1. Do not discharge concrete or cement slurry from the site.
2. Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
3. Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence.
4. Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
5. Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
6. Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow.
7. Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.
8. Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.
9. Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.
10. At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

HERBICIDES, PESTICIDES AND RODENTICIDES

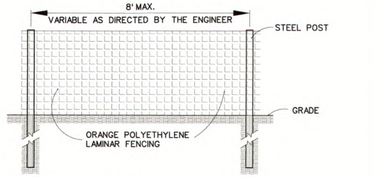
1. Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
2. Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
3. Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
4. Do not stockpile these materials onsite.

HAZARDOUS AND TOXIC WASTE

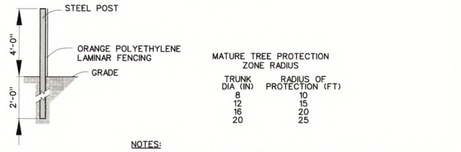
1. Create designated hazardous waste collection areas on-site.
2. Place hazardous waste containers under cover or in secondary containment.
3. Do not store hazardous chemicals, drums or bagged materials directly on the ground.

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

EFFECTIVE: 04/01/19



FRONT VIEW



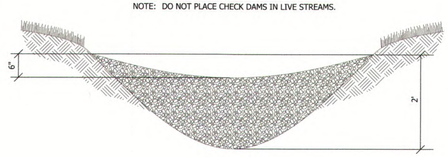
SIDE VIEW

NOTES:
MAINTAIN TREE PROTECTION FENCE THROUGHOUT DURATION OF PROJECT.

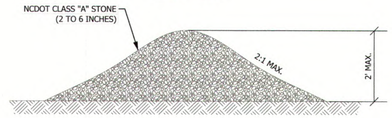
CONSTRUCTION:
1. Place berries to prevent the approach of equipment within the drip line of trees to be retained.
2. Do not nail boards to trees during building operations.
3. Do not cut tree roots inside of the tree drip line.
4. Do not place equipment, construction materials, topsoil, or fill dirt within the limit of the drip line of trees to be saved.
5. If a tree marked for preservation is damaged, removed it and replace it with a tree of the same or similar species, 2-inch caliper or larger, from balled and burlaped nursery stock within activity in the area is complete.
6. During final site cleanup, remove barriers around trees.

MAINTENANCE:
In spite of precautions, some damage to protected trees may occur. In such cases, repair any damage to the crown, trunk, or root system immediately.
1. Repair roots by cutting off the damage areas and painting them with tree paint. Spread peat moss or moist topsoil over exposed roots.
2. Repair damage to bark by trimming around the damaged areas by tapering the cut to provide drainage, and paint with tree paint.
3. Cut off all damaged tree limbs above the tree collar at the trunk or main branch. Use three separate cuts to avoid peeling bark from health areas of the tree.

1 C-3.04 TREE PROTECTION
NOT TO SCALE



ELEVATION



SECTION

CONSTRUCTION:
1. Place stone to the lines and dimensions shown in the plan on a filter fabric foundation.
2. Keep the center stone section at least 9 inches below natural ground level where the dam abuts the channel banks.
3. Extend the stone at least 1.5 feet beyond the ditch bank to keep water from cutting around the ends of the check dam.
4. Set spacing between dams to assure that elevation at the top of the lower dam is the same as the toe elevation of the upper dam.
5. Protect the channel after the lowest check dam from heavy flow that could cause erosion.
6. Make sure that the channel reach above the most upstream dam is stable.
7. Ensure that other areas of the channel, such as culvert entrances below the check dams, are not subject to damage or blockage from displaced stones.

MAINTENANCE:
1. Inspect check dams and channels at least weekly and after each significant (½ inch or greater) rainfall event and repair immediately. Clean out sediment straw, limbs, or other debris that could clog the channel when needed.
2. Anticipate submergence and deposition above the check dam and erosion from high flows around the edges of the dam. Correct all damage immediately. If significant erosion occurs between dams, additional measures can be taken such as, installing a protective riprap liner in that portion of the channel.
3. Remove sediment accumulated behind the dams as needed to prevent damage to channel vegetation, allow the channel to drain through the stone check dam, and prevent large flows from carrying sediment over the dam. Add stones to dams as needed to maintain design height and cross section.

2 C-3.04 ROCK CHECK DAM
NOT TO SCALE

REVISIONS

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301 West 14th Street • Greenville, NC 27834
(252) 757-1086 • thewootencompany.com
License Number : F-0115

LENOIR COUNTY
KINSTON
NORTH CAROLINA
HIGHWAY 70 INDUSTRIAL PARK PAD READY SITE
EROSION CONTROL DETAILS #2

Design 02-24
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 041415 WILLIAM A. LARSEN 2-24-2024
Construction Only
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 057105 STEWART M. BARNETTE 2/24/2024

DESIGNED BY:	WAL
DRAWN BY:	DRS
CHECKED BY:	WAL
PROJECT NO.:	2551-Z
DATE:	APRIL 2023
SCALE:	AS NOTED

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

C-3.04

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION A: SELF-INSPECTION

Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the Inspection Record.

Inspect	Frequency (during normal business hours)	Inspection records must include:
(1) Rain gague maintained in good working order	Daily	Daily rainfall amounts. If no daily rain gauge observations are made during weekend or holiday periods, and no individual-day rainfall information is available, record the cumulative rain measurement for those un-attended days (and this will determine if a site inspection is needed). Days on which no rainfall occurred shall be recorded as "zero." The permittee may use another rain-monitoring device approved by the Division.
(2) E&SC Measures	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the measures inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Indication of whether the measures were operating properly, 5. Description of maintenance needs for the measure, 6. Description, evidence, and date of corrective actions taken.
(3) Stormwater discharge outfalls (SDOs)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the discharge outfalls inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration, 5. Indication of visible sediment leaving the site, 6. Description, evidence, and date of corrective actions taken.
(4) Perimeter of site	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If visible sedimentation is found outside site limits, then a record of the following shall be made: 1. Actions taken to clean up or stabilize the sediment that has left the site limits, 2. Description, evidence, and date of corrective actions taken, and 3. An explanation as to the actions taken to control future releases.
(5) Streams or wetlands onsite or offsite (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If the stream or wetland has increased visible sedimentation or a stream has visible increased turbidity from the construction activity, then a record of the following shall be made: 1. Description, evidence and date of corrective actions taken, and 2. Records of the required reports to the appropriate Division Regional Office per Part III, Section C, Item (2)(a) of this permit.
(6) Ground stabilization measures	After each phase of grading	1. The phase of grading (installation of perimeter E&SC mreasures, clearing and grubbing, installation of storm drainage facilities, completion of all land-disturbing activity, construction or redevelopment, permanent ground cover), and 2. Documentation that the required ground stabilization measures have been provided within the required timeframe or an assurance that they will be provided as soon as possible.

NOTE: The rain inspection resets the required 7 calendar day inspection requirement.

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING

1. E&SC Plan Documentation

The approved E&SC plan as well as any approved deviation shall be kept on the site. The approved E&SC plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&SC plan shall be kept on site and available for inspection at all times during normal business hours.

Item to Document	Documentation Requirements
(a) Each E&SC measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&SC plan.	Initial and date each E&SC measure on a copy of the approved E&SC plan or complete, date and sign an inspection report that lists each E&SC measure shown on the approved E&SC plan. This documentation is required upon the initial installation of the E&SC measures or if the E&SC measures are modified after initial installation.
(b) A phase of grading has been completed.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved E&SC plan.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(d) The maintenance and repair requirements for all E&SC measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to E&SC measures.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

2. Additional Documentation to be Kept on Site

In addition to the E&SC plan documents above, the following items shall be kept on the site and available for inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

(a) This General Permit as well as the Certificate of Coverage, after it is received.

(b) Records of inspections made during the previous twelve months. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.

3. Documentation to be Retained for Three Years

All data used to complete the e-NOI and all inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION C: REPORTING

1. Occurrences that Must be Reported

Permittees shall report the following occurrences:

(a) Visible sediment deposition in a stream or wetland.

(b) Oil spills if:
- They are 25 gallons or more,
- They are less than 25 gallons but cannot be cleaned up within 24 hours,
- They cause sheen on surface waters (regardless of volume), or
- They are within 100 feet of surface waters (regardless of volume).

(c) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.

(d) Anticipated bypasses and unanticipated bypasses.

(e) Noncompliance with the conditions of this permit that may endanger health or the environment.

2. Reporting Timeframes and Other Requirements

After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Department's Environmental Emergency Center personnel at (800) 858-0368.

Occurrence	Reporting Timeframes (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	• ***Within 24 hours***, an oral or electronic notification. • ***Within 7 calendar days***, a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis. • If the stream is named on the NC 303(d) list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired-waters conditions.
(b) Oil spills and release of hazardous substances per Item 1(b)-(c) above	• ***Within 24 hours***, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release.
(c) Anticipated bypasses [40 CFR 122.41(m)(3)]	• ***A report at least ten days before the date of the bypass, if possible.*** The report shall include an evaluation of the anticipated quality and effect of the bypass.
(d) Unanticipated bypasses [40 CFR 122.41(m)(3)]	• ***Within 24 hours,*** an oral or electronic notification. • ***Within 7 calendar days,*** a report that includes an evaluation of the quality and effect of the bypass.
(e) Noncompliance with the conditions of this permit that may endanger health or the environment[40 CFR 122.41(l)(7)]	• ***Within 24 hours,*** an oral or electronic notification. • ***Within 7 calendar days,*** a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. [40 CFR 122.41(l)(6). • Division staff may waive the requirement for a written report on a case-by-case basis.

PART II, SECTION G, ITEM (4)
DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT

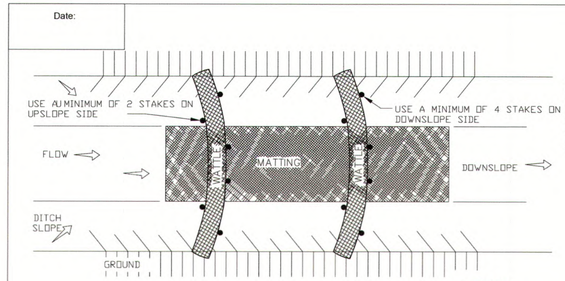
Sediment basins and traps that receive runoff from drainage areas of one acre or more shall use outlet structures that withdraw water from the surface when these devices need to be drawn down for maintenance or close out unless this is infeasible. The circumstances in which it is not feasible to withdraw water from the surface shall be rare (for example, times with extended cold weather). Non-surface withdrawals from sediment basins shall be allowed only when all of the following criteria have been met:

(a) The E&SC plan authority has been provided with documentation of the non-surface withdrawal and the specific time periods or conditions in which it will occur. The non-surface withdrawal shall not commence until the E&SC plan authority has approved these items,
(b) The non-surface withdrawal has been reported as an anticipated bypass in accordance with Part III, Section C, Item (2)(c) and (d) of this permit,
(c) Dewatering discharges are treated with controls to minimize discharges of pollutants from stormwater that is removed from the sediment basin. Examples of appropriate controls include properly sited, designed and maintained dewatering tanks, weir tanks, and filtration systems,
(d) Vegetated, upland areas of the sites or a properly designed stone pad is used to the extent feasible at the outlet of the dewatering treatment devices described in Item (c) above,
(e) Velocity dissipation devices such as check dams, sediment traps, and riprap are provided at the discharge points of all dewatering devices, and
(f) Sediment removed from the dewatering treatment devices described in Item (c) above is disposed of in a manner that does not cause deposition of sediment into waters of the United States.

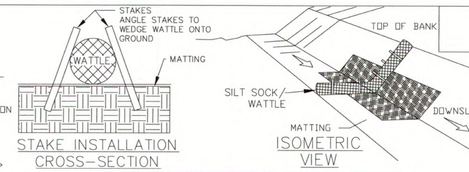
NORTH CAROLINA *Environmental Quality*

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING

EFFECTIVE: 04/01/19



PLAN VIEW

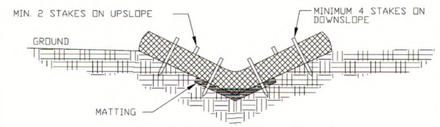


STAKE INSTALLATION CROSS-SECTION

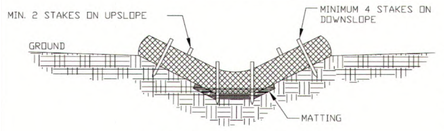
ISOMETRIC VIEW

Ditch Spacing For 12 Inch Silt Sock/Wattle

Channel Slope (%)	Space Between Silt Socks/ Wattles (Feet)
1	100
2	50
3	33
4	25
5	20



V-DITCH SECTION VIEW



TRAPEZOIDAL DITCH SECTION VIEW

NOTES:
1. Other materials providing equivalent protection against erosive velocities may be substituted for use in silt socks or wattles.
2. Use a minimum 12 inch diameter silt sock/wattle.
3. Fill silt sock/wattle netting uniformly to the desired length such that logs do not deform.
4. Use 24 inch long wooden stakes with a 2 inch x 2 inch nominal cross section.
5. Install silt sock/wattle(s) to a height on slope so flow will not wash around silt sock/wattle and scour slopes, or as directed.
6. Install a minimum of two upslope stakes and four downslope stakes at an angle to wedge silt sock/wattle to ground at bottom ditch.
7. The use of Polyacrylamide (PAM) is recommended. Apply 2-3 ounces of anionic PAM on top of sock/wattle. Apply 1-2 ounces to matting on either side of sock/wattle. Reapply after each 1.0 inch rainfall.

MAINTENANCE:
1. Inspect silt sock/wattle(s) weekly and after each rain of 1 inch or greater. Remove accumulated sediment and any debris.
2. Silt sock/Wattle(s) must be replaced if clogged or torn.
3. If ponding becomes excessive, the silt sock/wattle may need to be replaced with a larger diameter or a different measure.
4. Reinstall if damaged or dislodged.
5. Silt socks/Wattles shall be inspected until land disturbance is compete and the area above the measure is permanently stabilized.

RECORD DRAWING – 02/28/2024
Revised per Record Documents as annotated by the Contractor.
Revisions from the original design plans were made with the review and approval of the Engineer

NORTH CAROLINA *Environmental Quality*
EFFECTIVE DATE: 10/13/2006

SILT SOCK / WATTLE FOR CHECK DAMS

T:\Projects\Lenoir_County-2551\Z-PadReadySite_Hwy70\09-Construction\K-Closeout\Sheets\Sheets_2551-Z_Details.dwg CHOGGARD 2/28/2024 11:41 AM

Geotechnical Engineering Report

Lenoir County Shell Building Project
Kinston, North Carolina
January 20, 2023
Terracon Project No. 72225108

Prepared for:
The Wooten Company
Greenville, NC

Prepared by:
Terracon Consultants, Inc.
Winterville, North Carolina

Explore with us

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January 20, 2023

The Wooten Company
301 West 14th St
Greenville, NC 27834-4035

Attn: Mr. William Larsen, P.E. – Greenville Engineering Manager
P: (252) 757-1096
E: wlarsen@thewootencompany.com

Re: Geotechnical Engineering Report
Lenoir County Shell Building Project
Innovation Way & Sanderson Way
Kinston, North Carolina
Terracon Project No. 72225108

Dear Mr. Larsen:

We have completed the Geotechnical Engineering services for the above referenced project. This study was performed in general accordance with Terracon Proposal No. P72225108 dated September 20, 2022. This report presents the findings of the subsurface exploration and provides geotechnical recommendations concerning earthwork and the design and construction of foundations, floor slabs, and pavements for the proposed project.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning this report or if we may be of further service, please contact us.

Sincerely,
Terracon Consultants, Inc.

Buck T. Williams, P.E.
Project Engineer
NC PE: 055058

James (Jim) D. Hoskins, III, P.E.
Sr. Principal / Office Manager (Greensboro, NC)

REPORT TOPICS

REPORT SUMMARY I
INTRODUCTION 1
SITE CONDITIONS 1
PROJECT DESCRIPTION 2
GEOTECHNICAL CHARACTERIZATION 3
GEOTECHNICAL OVERVIEW 4
EARTHWORK 5
SHALLOW FOUNDATIONS 9
SEISMIC CONSIDERATIONS 11
LIQUEFACTION 11
FLOOR SLABS 11
PAVEMENTS 14
GENERAL COMMENTS 17
FIGURES 18

Note: This report was originally delivered in a web-based format. **Orange Bold** text in the report indicates a referenced section heading. The PDF version also includes hyperlinks which direct the reader to that section and clicking on the ***GeoReport*** logo will bring you back to this page. For more interactive features, please view your project online at client.terracon.com.

ATTACHMENTS

EXPLORATION AND TESTING PROCEDURES
PHOTOGRAPHY LOG
SITE LOCATION AND EXPLORATION PLANS
EXPLORATION RESULTS
SUPPORTING INFORMATION

Note: Refer to each individual Attachment for a listing of contents.

REPORT SUMMARY

Topic [1]	Overview Statement [2]
Project Description	The project consists of a proposed shell building, with an estimated footprint of 23,000 square feet, with associated driveways and parking lot. We understand that several design considerations including the foundations system for the building have not been finalized at this time.
Geotechnical Characterization	The exploration encountered near surface soils consisting of very loose to medium dense sand, underlain by loose to dense sand at greater depths. Fill soils were present at P-03 to a depth of approximately 1 foot below the existing grade. Groundwater is anticipated at a depth of approximately 4 to 7 feet below existing grades
Earthwork	After stripping topsoil, the exposed subgrade soils in the building and pavement footprints should be densified in place using a medium weight vibratory roller. The purpose of the vibratory rolling is to densify the exposed subgrade soils for floor slab and pavement support and to potentially improve the foundation bearing soils.
Shallow Foundations	Allowable bearing pressure = 2,000 psf Expected settlements: < 1-inch total, < ½ -inch differential
Pavements	With subgrade prepared as noted in **Earthwork**. Concrete: ■ 5.0 inches Portland Cement Concrete (PCC) in Light Duty areas ■ 6.0 inches PCC in Medium Duty areas Asphalt: ■ 3.0 inches Asphaltic Concrete (AC) over 6.0 inches granular base in Light Duty areas ■ 1.5 inches AC over 2.5 inches intermediate AC, underlain by 8.0 inches granular base in Medium Duty areas
General Comments	This section contains important information about the limitations of this geotechnical engineering report.

1. If the reader is reviewing this report as a pdf, the topics above can be used to access the appropriate section of the report by simply clicking on the topic itself.
2. This summary is for convenience only. It should be used in conjunction with the entire report for design purposes.

Geotechnical Engineering Report

Lenoir County Shell Building Project
Innovation Way & Sanderson Way
Kinston, North Carolina

Terracon Project No. 72225108
January 20, 2023

INTRODUCTION

This report presents the results of our subsurface exploration and geotechnical engineering services performed for the proposed shell building to be located at Innovation Way & Sanderson Way in Kinston, North Carolina. The purpose of these services is to provide information and geotechnical engineering recommendations relative to:

- Subsurface soil conditions
- Groundwater conditions
- Site preparation and earthwork
- Excavation considerations
- Foundation design and construction
- Floor slab design and construction
- Seismic site classification per NCSBC
- Pavement design and construction

The geotechnical engineering Scope of Services for this project included the advancement of eight test borings to depths ranging from approximately 5 to 20 feet below existing site grades with select macro core samples to depths of between 5 and 10 feet below existing grades.

Maps showing the site and boring locations are shown in the **Site Location** and **Exploration Plan** sections, respectively. The results of the laboratory testing performed on soil samples obtained from the site during the field exploration are included on the boring logs and as separate graphs in the **Exploration Results** section.

SITE CONDITIONS

The following description of site conditions is derived from our site visit in association with the field exploration and our review of publicly available geologic and topographic maps.

Item	Description
Parcel Information	The site is located along the east side of Innovation Way, north of Sanderson Way in Kinston, North Carolina. The site is approximately 5.45 acres. See **Site Location**.
Existing Improvements	The site is currently an undeveloped field.

Item	Description
Current Ground Cover	Grass, with an existing road bed near Sanderson Way.
Existing Topography	Relatively level with elevations between 48 feet and 50 feet MSL. Elevations provided on the site plan provided by The Wooten Company.
Geology	Coastal Plain Physiographic Region. See **Geology**.

We also collected photographs at the time of our field exploration program. Representative photos are provided in our **Photography Log**.

PROJECT DESCRIPTION

Our final understanding of the project conditions is as follows:

Item	Description
Information Provided	Project details were obtained from your email dated September 16, 2022 that included the approximate location of the site and a basic site plan for the proposed building.
Proposed Structure	The proposed shell building is anticipated to be a single story, high-bay, premanufactured steel building. Foundations are assumed to be a slab on grade or a raised slab with a shallow foundation system (non-basement).
Finished Floor Elevation	Unknown, assumed to match existing.
Maximum Loads (Assumed)	■ Columns: Up to 100 kips ■ Walls: less than 3 kips per linear foot (klf) ■ Slabs: less than 100 pounds per square foot (psf)
Grading/Slopes	Up to 2 feet of cut and fill assumed to develop final grade.
Pavements	We assume both rigid (concrete) and flexible (asphalt) pavement sections will be considered. Anticipated traffic is as follows: ■ Autos/light trucks: 150 vehicles per day ■ Light delivery and trash collection vehicles: 15 vehicles per week ■ Tractor-trailer trucks: 5 vehicles per week The pavement design period is 20 years.
Estimated Start of Construction	Early 2023

GEOTECHNICAL CHARACTERIZATION

Geology

The project site is located in the Coastal Plain Physiographic Province. The Coastal Plain soils consist mainly of marine sediments that were deposited during successive periods of fluctuating sea level and moving shoreline. The soils include sands, silts, and clays with irregular deposits of shells, which are typical of those lain down in a shallow sloping sea bottom. Recent alluvial sands, silts, and clays are typically present near rivers and creeks.

According to USGS Mineral Resources On-Line Spatial Data based on the 1998 digital equivalent of the 1985 Geologic Map of North Carolina updated in 1998, the site is mapped within the Peedee Formation.

Subsurface Profile

We have developed a general characterization of the subsurface conditions based upon our review of the subsurface exploration, laboratory data, geologic setting and our understanding of the project. This characterization, termed GeoModel, forms the basis of our geotechnical calculations and evaluation of site preparation and foundation options. Conditions encountered at each exploration point are indicated on the individual logs. Stratification boundaries on the boring logs represent the approximate location of changes in native soil types; in situ, the transition between materials may be gradual The individual logs can be found in the **Exploration Results** section and the GeoModel can be found in the **Figures** section of this report.

As part of our analyses, we identified the following model layers within the subsurface profile. For a more detailed view of the model layer depths at each boring location, refer to the GeoModel.

Model Layer	Layer Name	General Description
1	Fill	Loose to medium dense silty sand
2	Near Surface Soil	Loose to medium dense silty sand and clayey sand
3	Underlying Soil	Loose to dense silty sand and poorly graded sand

Groundwater Conditions

Groundwater was measured between approximately 5 to 6 feet below existing grades during our field exploration. Based on the measured water levels during exploration, cave in depths, CPT data, and moisture condition of the soil samples, groundwater is anticipated at a depth of 4 to 7 feet below the existing ground surface.

Groundwater level fluctuations occur due to seasonal variations in the amount of rainfall, runoff and other factors not evident at the time the borings were performed. Therefore, groundwater

levels during construction or at other times in the life of the structure may be higher or lower than the levels indicated on the boring logs. The possibility of groundwater level fluctuations should be considered when developing the design and construction plans for the project.

GEOTECHNICAL OVERVIEW

The exploration encountered near surface soils consisting of very loose to medium dense sand, underlain by loose to dense sand at greater depths. Fill soils were present at P-03 to a depth of approximately 1 foot below the existing grade. If the soils do not appear stable during excavation at the planned footing depths, we recommend they are undercut and replaced with approved structural fill.

The construction difficulties mentioned herein should be considered, and close observation of any potentially unstable soils should be performed if encountered during construction. We recommend that the contractor be requested to submit a unit rate cost for removal (undercutting) and replacement as part of the bidding process. Additional details are provided herein.

Support of floor slabs and pavements on or above existing fill materials is discussed in this report. However, even with the recommended construction procedures, there is inherent risk for the owner that compressible fill or unsuitable material, within or buried by the fill, will not be discovered. This risk of unforeseen conditions cannot be eliminated without completely removing the existing fill, but can be reduced by following the recommendations contained in this report. To take advantage of the cost benefit of not removing the entire amount of undocumented fill, the owner must be willing to accept the risk associated with building over the undocumented fills following any recommended reworking of the material.

After stripping topsoil and once any areas of cut are excavated to proposed subgrade elevation, the exposed subgrade soils in the building and pavement footprints should be densified in place using a medium weight vibratory roller. The purpose of the rolling is to densify the exposed subgrade soils for floor slab and pavement support and to potentially improve the foundation bearing soils.

Following the recommended **Earthwork**, the building can be supported on shallow foundations bearing on approved existing soils or structural fill compacted as recommended and sized for a maximum net allowable soil bearing pressure of 2,000 psf. The **Shallow Foundations** section addresses support of the building bearing on densified existing fill soils or structural fill. The **Floor Slabs** section addresses slab-on-grade support of the building.

A rigid or flexible pavement system is suitable for this site. The **Pavements** section addresses the design of pavement systems supported on the densified existing fill or structural fill.

Based on the results of our field testing and the 2018 North Carolina State Building Code (NCSBC), the seismic classification for the site is D.

The **General Comments** section provides an understanding of the report limitations.

EARTHWORK

Earthwork is anticipated to include clearing and grubbing, excavations, densification, and fill placement. The following sections provide recommendations for use in the preparation of specifications for the work. Recommendations include critical quality criteria, as necessary, to render the site in the state considered in our geotechnical engineering evaluation for foundations, floor slabs, and pavements. Grading for the structure should incorporate the limits of the proposed structure plus 5 feet beyond proposed perimeter building walls and any exterior columns.

Site Preparation

Site preparation should begin with the complete removal of surface vegetation and topsoil in the proposed building footprints and pavement areas. Low ground pressure or tracked equipment could be required. Based on site observations during the exploration process, topsoil should be stripped up to a depth of approximately 3 inches to 4 inches. The Geotechnical Engineer should field verify the stripping depth and existing fill material suitability during construction. Topsoil may be reused in areas of the site to be landscaped but should not be used as structural fill or backfill. The Geotechnical Engineer should field verify the stripping depth and existing fill material suitability during construction. Topsoil may be reused in areas of the site to be landscaped but should not be used as structural fill or backfill.

After stripping and removing topsoil and once any areas of cut have been excavated to proposed subgrade elevation, the exposed subgrade soils in the building and pavement footprints should be densified in place using a medium weight vibratory roller. The purpose of the vibratory rolling is to densify the exposed subgrade soils for floor slab and pavement support and to potentially improve the foundation bearing soils. The roller should make at least six passes across the site, with the second set of three passes perpendicular to the first set of three passes with intermittent vibration activated. If water is brought to the surface by the vibratory rolling, the operation should be discontinued until the water subsides. Vibratory rolling should be completed during dry weather. Static rolling and additional repairs should be anticipated for areas too wet for vibratory rolling.

After the vibratory rolling, pore pressures should be allowed to dissipate for a minimum of 16 hours. After the waiting period, proofrolling should be performed on the exposed subgrade soils in areas to receive fill or at the subgrade elevation with a loaded, tandem-axle dump truck (20 ton total vehicle weight) or similar rubber-tired construction equipment. Proofrolling is recommended as a means of detecting areas of soft or unstable subgrade soils. The proofrolling should be performed during a period of dry weather to avoid degrading an otherwise suitable subgrade. The

proofrolling operations should be observed by a representative of the geotechnical engineer. Subgrade soils that exhibit excessive rutting or deflection during proofrolling should be repaired as directed by the field representative. Typical repairs include overexcavation followed by replacement with either properly compacted fill or by a subgrade stabilization fabric in conjunction with a sand fill or crushed stone.

If subgrade soils are unsuitable, they will require removal and replacement; however, if they are unstable due to excessive moisture, the most economical solution for remediation may be to scarify, dry and recompact the material. This remediation is most effective during the typically hotter months of the year (May to October). If construction is performed during the cooler period of the year, the timeline for scarifying, drying, and recompacting typically increases considerably and may lead to alternative remediation solutions. These solutions can include overexcavation of some or all of the unstable material to be backfilled with either approved structural fill or geotextile and ABC Stone. Potential undercutting can be reduced if the site preparation work is performed during a period of dry weather and if construction traffic is kept to a minimum on prepared subgrades. We recommend that the contractor submit a unit rate cost for undercutting as part of the bidding process.

Existing Fill

As noted in **Geotechnical Characterization**, boring P-03 encountered existing fill to depths of approximately 1 foot beneath the existing ground surface. The fill appears to have been placed in a controlled manner, but we have no records to indicate the degree of control. Support of footings, floor slabs, and pavements, on or above existing fill soils, is discussed in this report. However, even with the recommended construction procedures, there is inherent risk for the owner that compressible fill or unsuitable material, within or buried by the fill will, not be discovered. This risk of unforeseen conditions cannot be eliminated without completely removing the existing fill, but can be reduced by following the recommendations contained in this report.

If the owner elects to construct the footings, floor slabs, and pavements on the existing fill, the following protocol should be followed. Once areas of cut are excavated to proposed subgrade elevation and after vibratory densification, the entire area should be proofrolled with heavy, rubber tire construction equipment, to aid in delineating areas of soft, or otherwise unsuitable soil. The bottom of footings should be checked with hand augers and Dynamic Cone Penetrometer (DCP) testing that extend through the existing fill material. Once any areas of unsuitable materials have been remediated, and the subgrade has passed the proofroll/DCP testing, the existing soils that were removed can be evaluated for reuse as structural fill.

Fill Material Types

Earthen materials used for structural fill should meet the following material property requirements.

Soil Type [1]	USCS Classification	Acceptable Location for Placement
Imported Soil	SC, SM, SP, SM-SP	All location and elevations.
On-Site Low to Moderate Plasticity Soils	SP, SM, SC (LL < 60 & PI < 30)	All locations and elevations.

1. Structural fill should consist of approved materials free of organic matter and debris. Frozen material should not be used, and fill should not be placed on a frozen subgrade. A sample of each material type should be submitted to the Geotechnical Engineer for evaluation prior to use on this site.

Fill Compaction Requirements

Structural fill should meet the following compaction requirements.

Item	Description
Maximum Lift Thickness	8 inches or less in loose thickness when heavy, self-propelled compaction equipment is used. 4 to 6 inches in loose thickness when hand-guided equipment (i.e. jumping jack or plate compactor) is used.
Minimum Compaction Requirements [1, 2, 3]	Minimum 95% of the material's maximum standard Proctor dry density (ASTM D 698). The upper 12 inches of subgrade in pavement areas should be compacted to at least 100% of the materials maximum standard Proctor dry density (ASTM D 698).
Water Content Range [1]	Within 3% of optimum moisture content

1. Maximum density and optimum water content as determined by the standard Proctor test (ASTM D 698).
2. High plasticity cohesive fill should not be compacted to more than 100 percent of standard Proctor maximum dry density.
3. If the granular material is a coarse sand or gravel, or of a uniform size, or has a low fines content, compaction comparison to relative density may be more appropriate. In this case, granular materials should be compacted to at least 70% relative density (ASTM D 4253 and D 4254).

Utility Trench Backfill

For low permeability subgrades, utility trenches are a common source of water infiltration and migration. Utility trenches penetrating beneath the building should be effectively sealed to restrict water intrusion and flow through the trenches, which could migrate below the building. The trench should provide an effective trench plug that extends at least 5 feet from the face of the building exterior. The plug material should consist of cementitious flowable fill or low permeability clay. The trench plug material should be placed to surround the utility line. If used, the clay trench plug material should be placed and compacted to comply with the water content and compaction recommendations for structural fill stated previously in this report.

Utility Trench Backfill

Any soft or unsuitable materials encountered at the bottom of utility trench excavations should be removed and replaced with structural fill or bedding material in accordance with public works specifications for the utility being supported. This recommendation is particularly applicable to utility work requiring grade control and/or in areas where subsequent grade raising could cause settlement in the subgrade supporting the utility. Trench excavation should not be conducted below a downward 1:1 projection from existing foundations without engineering review of shoring requirements and geotechnical observation during construction.

Trench backfill should be mechanically placed and compacted as discussed earlier in this report. Compaction of initial lifts should be accomplished with hand-operated tampers or other lightweight compactors. Where trenches are placed beneath slabs or footings, the backfill should satisfy the material requirements of engineered fill discussed in this report. Flooding or jetting for placement and compaction of backfill is not recommended.

Grading and Drainage

All grades must provide effective drainage away from the building during and after construction and should be maintained throughout the life of the structure. Water retained next to the building can result in soil movements greater than those discussed in this report. Greater movements can result in unacceptable differential floor slab and/or foundation movements, cracked slabs and walls, and roof leaks. The roof should have gutters/drains with downspouts that discharge onto splash blocks at a distance of at least 10 feet from the building.

Exposed ground should be sloped and maintained at a minimum 5% away from the building for at least 10 feet beyond the perimeter of the building. Locally, flatter grades may be necessary to transition ADA access requirements for flatwork. After building construction and landscaping have been completed, final grades should be verified to document effective drainage has been achieved. Grades around the structure should also be periodically inspected and adjusted, as necessary, as part of the structure's maintenance program. Where paving or flatwork abuts the structure, a maintenance program should be established to effectively seal and maintain joints and prevent surface water infiltration.

Earthwork Construction Considerations

Shallow excavations for the proposed structure are anticipated to be accomplished with conventional construction equipment. Upon completion of filling and grading, care should be taken to maintain the subgrade water content prior to construction of floor slabs. Construction traffic over the completed subgrades should be avoided. The site should also be graded to prevent ponding of surface water on the prepared subgrades or in excavations. Water collecting over or adjacent to construction areas should be removed. If the subgrade freezes, desiccates, saturates,

or is disturbed, the affected material should be removed, or the materials should be scarified, moisture conditioned, and recompacted prior to floor slab construction.

Groundwater encountered in excavations should be pumped out from sumps or well points if applicable. Pumping water, as required, should continue until excavations are completely backfilled

As a minimum, excavations should be performed in accordance with OSHA 29 CFR, Part 1926, Subpart P, “Excavations” and its appendices, and in accordance with any applicable local, and/or state regulations.

Construction site safety is the sole responsibility of the contractor who controls the means, methods, and sequencing of construction operations. Under no circumstances shall the information provided herein be interpreted to mean Terracon is assuming responsibility for construction site safety, or the contractor's activities; such responsibility shall neither be implied nor inferred.

Construction Observation and Testing

The earthwork efforts should be monitored under the direction of the Geotechnical Engineer. Monitoring should include documentation of adequate removal of vegetation and topsoil, proofrolling, and mitigation of areas delineated by the proofroll to require mitigation.

Each lift of compacted fill should be tested, evaluated, and reworked, as necessary, until approved by the Geotechnical Engineer prior to placement of additional lifts. Each lift of fill should be tested for density and water content at a frequency of at least one test for every 2,500 square feet of compacted fill in the building areas and 5,000 square feet in pavement areas. One density and water content test should be performed for every 50 linear feet of compacted utility trench backfill.

In areas of foundation excavations, the bearing subgrade should be evaluated under the direction of the Geotechnical Engineer. If unanticipated conditions are encountered, the Geotechnical Engineer should prescribe mitigation options.

In addition to the documentation of the essential parameters necessary for construction, the continuation of the Geotechnical Engineer into the construction phase of the project provides the continuity to maintain the Geotechnical Engineer’s evaluation of subsurface conditions, including assessing variations and associated design changes.

SHALLOW FOUNDATIONS

If the site has been prepared in accordance with the requirements noted in **Earthwork**, the following design parameters are applicable for shallow foundations.

Design Parameters – Compressive Loads

Item	Description
Maximum Net allowable bearing pressure [1]	2,000 psf
The required embedment below lowest adjacent finished grade for frost protection and protective embedment [2]	12 inches
Minimum width for continuous wall footings	12 inches for thickened slab 16 inches for strip footings
Minimum width for isolated column footings	24 inches
Approximate total settlement [3]	Less than 1 inch
Estimated differential settlement [3]	Up to 1/2 inch between columns and along 40 feet of wall
Ultimate coefficient of sliding friction [4]	0.35

1. The recommended net allowable bearing pressure is the pressure in excess of the minimum surrounding overburden pressure at the footing base elevation. The maximum net allowable bearing pressure may be increased by 1/3 for transient wind loads.
2. For frost protection and to reduce effects of seasonal moisture variations in subgrade soils. For perimeter footings and footings beneath unheated areas.
3. The actual magnitude of settlement that will occur beneath the foundations will depend upon the variations within the subsurface soil profile, the structural loading conditions and the quality of the foundation excavation. The estimated total and differential settlements listed assume that the foundation-related earthwork and the foundation design are completed in accordance with our recommendations.
4. For uplift resistance, use the weight of the foundation concrete plus the weight of the soil over the plan area of the footings. 110 pounds per cubic foot should be used for the density of the soil above the water table.

Foundation Construction Considerations

The foundation bearing materials should be evaluated at the time of the foundation excavation. This is an essential part of the construction process. A representative of the geotechnical engineer should use a combination of hand auger borings and dynamic cone penetrometer (DCP) testing to determine the suitability of the bearing materials for the design bearing pressure. DCP testing should be performed to a depth of 3 to 5 feet below the bottom of foundation excavation and through the existing fill soils. Excessively soft, loose, or wet bearing soils should be over excavated to a depth recommended by the geotechnical engineer. The excavated soils should be replaced with structural fill or washed, crushed stone (NCDOT No. 57) wrapped in a geotextile fabric (Mirafi 140 N or equivalent). The need for the geotextile fabric with the crushed stone should be determined by the Geotechnical Engineer during construction based on sloughing/caving soils and excavation observations. However, footings could bear directly on the soils after over excavation if approved by the Geotechnical Engineer.

The base of all foundation excavations should be free of water and loose soil prior to placing concrete. Concrete should be placed soon after excavating to reduce bearing soil disturbance. Should the soils at bearing level become excessively disturbed or saturated, the affected soil should be removed prior to placing concrete.

SEISMIC CONSIDERATIONS

Based on the soil properties encountered at the site and as described on the exploration logs and results, it is our professional opinion that the **Seismic Site Classification is Class D**. Subsurface explorations at this site were extended to a maximum depth of 20 feet. The site properties below the boring depth to 100 feet were estimated based on our experience and knowledge of geologic conditions of the general area. Deeper exploration or geophysical exploration could be performed to confirm the conditions below the current depth of exploration.

LIQUEFACTION

Based on the results of the soundings, liquefaction is not expected based on the relatively low level of ground motions associated with the design earthquake and density of the soils.

FLOOR SLABS

Design parameters for floor slabs assume the requirements for **Earthwork** have been followed. Specific attention should be given to positive drainage away from the structure and positive drainage of the aggregate base beneath the floor slab.

Floor Slab Design Parameters

Item	Description
Floor Slab Support	Suitable existing soils or new structural fill compacted in accordance with **Earthwork** section of this report. [1]
Estimated Modulus of Subgrade Reaction [2]	100 pounds per square inch per inch (psi/in) for point loads
Aggregate base course/capillary break [3]	Minimum 4 inches of free-draining granular material (less than 5% passing the U.S. No. 200 sieve)

1. Floor slabs should be structurally independent of building footings or walls to reduce the possibility of floor slab cracking caused by differential movements between the slab and foundation.
2. Modulus of subgrade reaction is an estimated value based upon our experience with the subgrade condition, the requirements noted in **Earthwork**, and the floor slab support as noted in this table. It is provided for point loads. For large area loads the modulus of subgrade reaction would be lower.

Item	Description
3.	Free-draining granular material should have less than 5% fines (material passing the No. 200 sieve). Other design considerations such as cold temperatures and condensation development could warrant more extensive design provisions.

The use of a vapor retarder should be considered beneath concrete slabs on grade covered with wood, tile, carpet, or other moisture sensitive or impervious coverings, or when the slab will support equipment sensitive to moisture. When conditions warrant the use of a vapor retarder, the slab designer should refer to ACI 302 and/or ACI 360 for procedures and cautions regarding the use and placement of a vapor retarder.

Saw-cut control joints should be placed in the slab to help control the location and extent of cracking. For additional recommendations refer to the ACI Design Manual. Joints or cracks should be sealed with a water-proof, non-extruding compressible compound specifically recommended for heavy duty concrete pavement and wet environments.

Where floor slabs are tied to perimeter walls or turn-down slabs to meet structural or other construction objectives, our experience indicates differential movement between the walls and slabs will likely be observed in adjacent slab expansion joints or floor slab cracks beyond the length of the structural dowels. The Structural Engineer should account for potential differential settlement through use of sufficient control joints, appropriate reinforcing or other means.

Settlement of floor slabs supported on existing fill materials cannot be accurately predicted, but could be larger than normal and result in some cracking. Mitigation measures, as noted in **Existing Fill** within **Earthwork**, are critical to the performance of floor slabs. In addition to the mitigation measures, the floor slab can be stiffened by adding steel reinforcement, grade beams and/or post-tensioned elements.

Floor Slab Construction Considerations

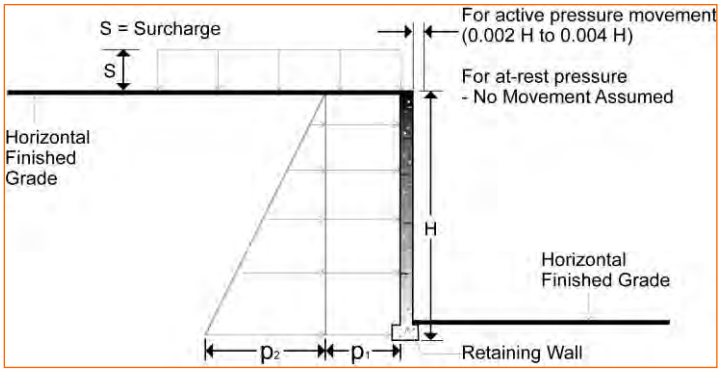
Finished subgrade, within and for at least 10 feet beyond the floor slab, should be protected from traffic, rutting, or other disturbance and maintained in a relatively moist condition until floor slabs are constructed. If the subgrade should become damaged or desiccated prior to construction of floor slabs, the affected material should be removed and structural fill should be added to replace the resulting excavation. Final conditioning of the finished subgrade should be performed immediately prior to placement of the floor slab support course.

The Geotechnical Engineer should approve the condition of the floor slab subgrades immediately prior to placement of the floor slab support course, reinforcing steel, and concrete. Attention should be paid to high traffic areas that were rutted and disturbed earlier, and to areas where backfilled trenches are located.

LATERAL EARTH PRESSURES

Design Parameters

Structures with unbalanced backfill levels on opposite sides should be designed for earth pressures at least equal to values indicated in the following table. Earth pressures will be influenced by structural design of the walls, conditions of wall restraint, methods of construction and/or compaction and the strength of the materials being restrained. Two wall restraint conditions are shown in the diagram below. Active earth pressure is commonly used for design of free-standing cantilever retaining walls and assumes wall movement. The "at-rest" condition assumes no wall movement and is commonly used for basement walls, loading dock walls, or other walls restrained at the top. The recommended design lateral earth pressures do not include a factor of safety and do not provide for possible hydrostatic pressure on the walls (unless stated).



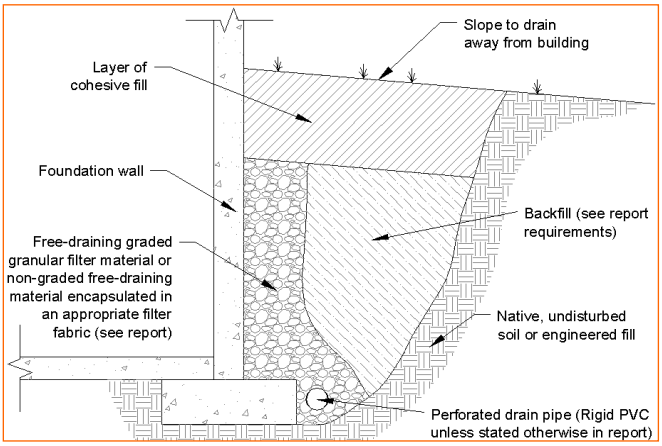
Lateral Earth Pressure Design Parameters				
Earth Pressure Condition [1]	**Coefficient for Backfill Type** [2]	**Surcharge Pressure p_1 (psf)** [3, 4, 5]	**Effective Fluid Pressures (psf)** [2, 4, 5]	
			Unsaturated [6]	**Submerged** [6]
Active (Ka)	Granular - 0.33	(0.33)S	(40)H	(80)H
At-Rest (Ko)	Granular - 0.50	(0.50)S	(60)H	(90)H
Passive (Kp)	Granular - 3.00	---	(360)H	(235)H

1. For active earth pressure, wall must rotate about base, with top lateral movements 0.002 H to 0.004 H, where H is wall height. For passive earth pressure, wall must move horizontally to mobilize resistance.
2. Uniform, horizontal backfill, compacted to at least 95% of the ASTM D 698 maximum dry density, rendering a maximum unit weight of 120 pcf.
3. Uniform surcharge, where S is surcharge pressure.
4. Loading from heavy compaction equipment is not included.
5. No safety factor is included in these values.
6. To achieve "Unsaturated" conditions, follow guidelines in **Subsurface Drainage for Below-Grade Walls** below. "Submerged" conditions are recommended when drainage behind walls is not incorporated into the design.

Backfill placed against structures should consist of granular soils or low plasticity cohesive soils. For the granular values to be valid, the granular backfill must extend out and up from the base of the wall at an angle of at least 45 and 60 degrees from vertical for the active and passive cases, respectively.

Subsurface Drainage for Below-Grade Walls

A perforated rigid plastic drain line installed behind the base of walls and extends below adjacent grade is recommended to prevent hydrostatic loading on the walls. The invert of a drain line around a below-grade building area or exterior retaining wall should be placed near foundation bearing level. The drain line should be sloped to provide positive gravity drainage to daylight or to a sump pit and pump. The drain line should be surrounded by clean, free-draining granular material having less than 5% passing the No. 200 sieve, such as No. 57 aggregate. The free-draining aggregate should be encapsulated in a filter fabric. The granular fill should extend to within 2 feet of final grade, where it should be capped with compacted cohesive fill to reduce infiltration of surface water into the drain system.



As an alternative to free-draining granular fill, a pre-fabricated drainage structure may be used. A pre-fabricated drainage structure is a plastic drainage core or mesh which is covered with filter fabric to prevent soil intrusion, and is fastened to the wall prior to placing backfill.

PAVEMENTS

Pavement thickness design is dependent upon the following:

- Anticipated traffic conditions during the life of the pavement.
- Subgrade and paving material characteristics.
- Climatic conditions of the region.

Two pavement section alternatives have been provided. The light-duty pavement sections are for car parking areas only. Medium-duty pavement sections should be used for concentrated car traffic (drive lanes / entrance drives) and garbage/delivery truck traffic areas.

A subgrade CBR of 3 percent was selected for design based upon our experience with similar near surface subgrade soils and our understanding of the quality of the subgrade as prescribed by the Site Preparation conditions as outlined in **Earthwork**. Based on our experience with past projects, we have assumed a 20-year design period and the following minimum traffic volume:

Medium-duty Areas	Light-duty Areas
■ 150 cars and pickups per day ■ Up to 15 delivery and trash collection vehicles per week ■ Up to five tractor trailers per week	■ 150 cars and pickups per day

For areas subject to concentrated and repetitive loading conditions, i.e. dumpster pads and ingress/egress aprons, or in areas where vehicles will turn at low speeds, we recommend using a Portland cement concrete pavement with a thickness of at least 7 inches underlain by at least 4 inches of crushed stone. For dumpster pads, the concrete pavement area should be large enough to support the container and tipping axle of the refuse truck.

Recommended Minimum Pavement Sections

Pavement Type	Material	Layer Thickness (inches)	
		Light Duty	Medium Duty
Portland Cement Concrete (PCC)/ Rigid	Portland Cement Concrete (4,000 psi)	5.0	6.0
	Crushed Aggregate Base Course (NCDOT ABC)	4.0[2]	
Asphaltic Concrete (AC)/ Flexible (Superpave)	Asphalt Surface (NCDOT S9.5B)	3.0[1]	1.5
	Intermediate Asphalt (NCDOT I19.0C)	N/A	2.5
	Crushed Aggregate Base Course (NCDOT ABC)	6.0[2]	8.0[2]

1. To be placed in two equal lifts
2. Place geosynthetic and additional stone as needed

For subgrade instability that could develop due to the weather, and based on our field services and laboratory testing, some of the on-site material has a natural moisture content higher than the plastic limit, which may indicate unstable subgrade material. For this reason, we recommend that contingencies be placed in the budget for stabilization of the subgrade in planned pavement

areas using a geosynthetic fabric and additional ABC stone. The geosynthetic could be left off corridors/easements for deeper utility lines for ease of construction.

The placement of a partial pavement thickness for use during construction is not suggested without a detailed pavement analysis incorporating construction traffic. In addition, we should be contacted to confirm the traffic assumptions outlined above. If the actual traffic varies from the assumptions outlined above, modification of the pavement section thickness could be required.

Recommendations for pavement construction presented depend upon compliance with recommended material specifications. To assess compliance, observation and testing should be performed under the direction of the geotechnical engineer.

Asphalt concrete and aggregate base course materials should conform to the North Carolina Department of Transportation (NCDOT) “Standard Specifications for Roads and Structures”. Concrete pavement materials should conform to ACI 330.1 “Specifications for Unreinforced Parking Lots”. Concrete pavement should be air-entrained and have a minimum compressive strength of 4,000 psi after 28 days of laboratory curing per ASTM C-31. ACI 330R-01 recommendations should be followed concerning control and expansion joints, as well as other concrete pavement practices.

Pavement Maintenance

The pavement sections represent minimum recommended thicknesses and, as such, periodic maintenance should be anticipated. Therefore, preventive maintenance should be planned and provided for through an on-going pavement management program. Maintenance activities are intended to slow the rate of pavement deterioration and to preserve the pavement investment. Maintenance consists of both localized maintenance (e.g., crack and joint sealing and patching) and global maintenance (e.g., surface sealing). Preventive maintenance is usually the priority when implementing a pavement maintenance program. Additional engineering observation is recommended to determine the type and extent of a cost-effective program. Even with periodic maintenance, some movements and related cracking may still occur, and repairs may be required.

Pavement performance is affected by its surroundings. In addition to providing preventive maintenance, the civil engineer should consider the following recommendations in the design and layout of pavements:

- Final grade adjacent to paved areas should slope down from the edges at a minimum 2%.
- Subgrade and pavement surfaces should have a minimum 2% slope to promote proper surface drainage.
- Install below pavement drainage systems surrounding areas anticipated for frequent wetting.
- Install joint sealant and seal cracks immediately.

- Seal all landscaped areas in or adjacent to pavements to reduce moisture migration to subgrade soils.
- Place compacted, low permeability backfill against the exterior side of curb and gutter.
- Place curb, gutter and/or sidewalk directly on clay subgrade soils rather than on unbound granular base course materials.

GENERAL COMMENTS

Our analysis and opinions are based upon our understanding of the project, the geotechnical conditions in the area, and the data obtained from our site exploration. Natural variations will occur between exploration point locations or due to the modifying effects of construction or weather. The nature and extent of such variations may not become evident until during or after construction. Terracon should be retained as the Geotechnical Engineer, where noted in this report, to provide observation and testing services during pertinent construction phases. If variations appear, we can provide further evaluation and supplemental recommendations. If variations are noted in the absence of our observation and testing services on-site, we should be immediately notified so that we can provide evaluation and supplemental recommendations.

Our Scope of Services does not include either specifically or by implication any environmental or biological (e.g., mold, fungi, bacteria) assessment of the site or identification or prevention of pollutants, hazardous materials or conditions. If the owner is concerned about the potential for such contamination or pollution, other studies should be undertaken.

Our services and any correspondence or collaboration through this system are intended for the sole benefit and exclusive use of our client for specific application to the project discussed and are accomplished in accordance with generally accepted geotechnical engineering practices with no third-party beneficiaries intended. Any third-party access to services or correspondence is solely for information purposes to support the services provided by Terracon to our client. Reliance upon the services and any work product is limited to our client, and is not intended for third parties. Any use or reliance of the provided information by third parties is done solely at their own risk. No warranties, either express or implied, are intended or made.

Site characteristics as provided are for design purposes and not to estimate excavation cost. Any use of our report in that regard is done at the sole risk of the excavating cost estimator as there may be variations on the site that are not apparent in the data that could significantly impact excavation cost. Any parties charged with estimating excavation costs should seek their own site characterization for specific purposes to obtain the specific level of detail necessary for costing. Site safety, and cost estimating including, excavation support, and dewatering requirements/design are the responsibility of others. If changes in the nature, design, or location of the project are planned, our conclusions and recommendations shall not be considered valid unless we review the changes and either verify or modify our conclusions in writing.

FIGURES

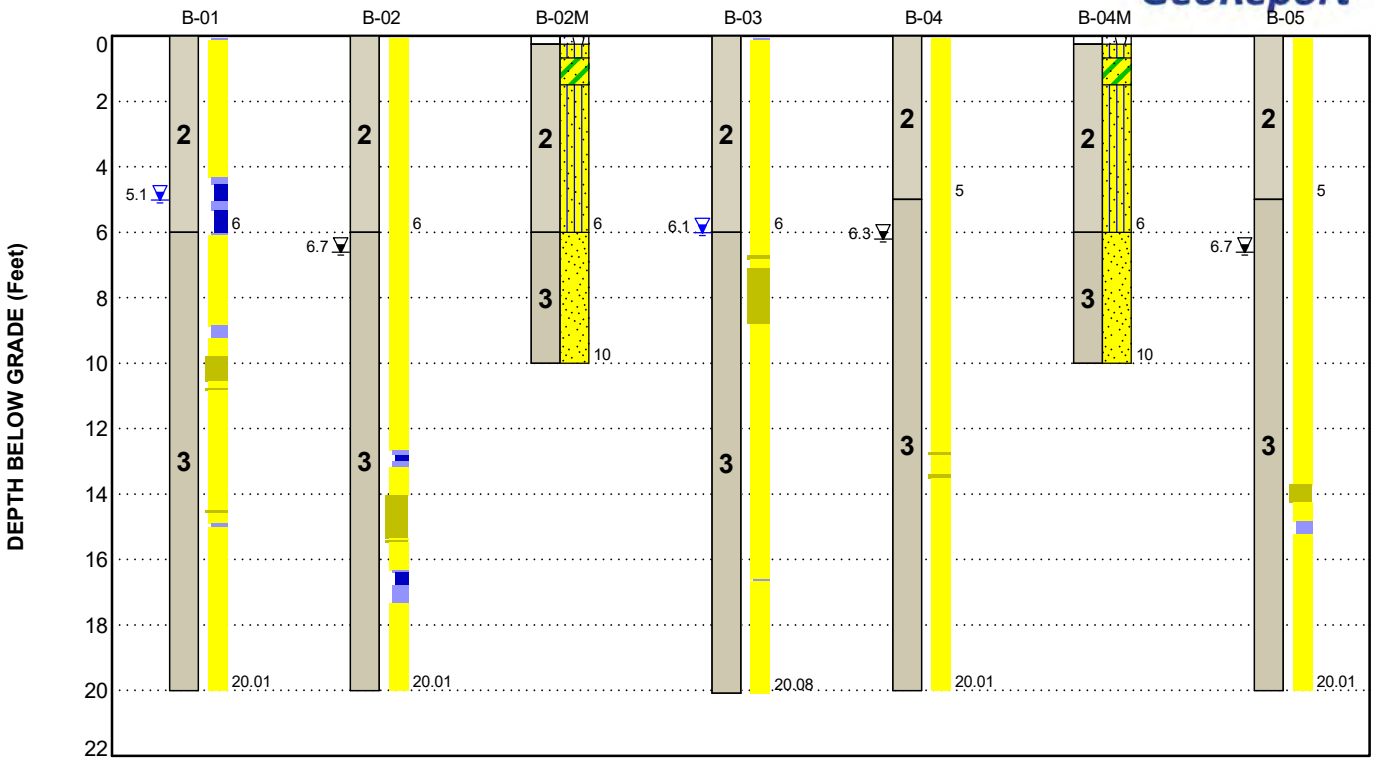
Contents:

GeoModel (2 pages)

GEOMODEL

Proposed Lenoir County Shell Building ■ Kinston, NC
Terracon Project No. 72225108

Terracon GeoReport



This is not a cross section. This is intended to display the Geotechnical Model only. See individual logs for more detailed conditions.

Model Layer	Layer Name	General Description
1	Fill	Loose to medium dense silty sand
2	Near Surface Soil	Loose to medium dense silty sand and clayey sand
3	Underlying Soil	Loose to dense silty sand and poorly graded sand

LEGEND

Topsoil
Poorly-graded Sand
Silty Sand
Clayey Sand

Soil Behavior Type (SBT)

1 Sensitive, fine grained
2 Organic soils - clay
3 Clay - silty clay to clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to dense sand
8 Very stiff sand to clayey sand
9 Very stiff fine grained

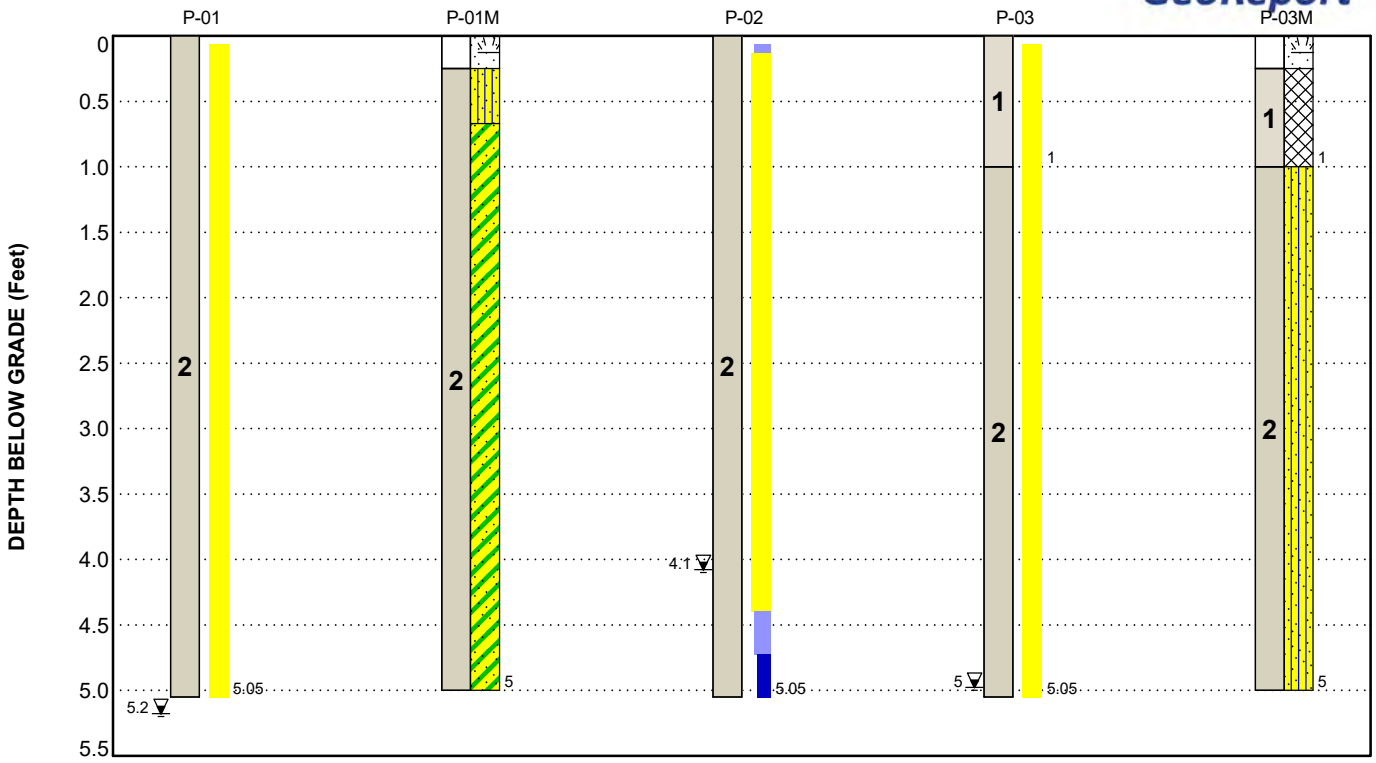
CPT Assumed Water Depth
CPT Water Depth

NOTES:
Layering shown on this figure has been developed by the geotechnical engineer for purposes of modeling the subsurface conditions as required for the subsequent geotechnical engineering for this project. Numbers adjacent to soil column indicate depth below ground surface.

GEOMODEL

Proposed Lenoir County Shell Building ■ Kinston, NC
Terracon Project No. 72225108

Terracon GeoReport



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ATTACHMENTS

EXPLORATION AND TESTING PROCEDURES

Field Exploration

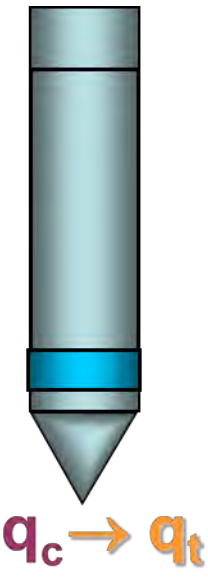
Exploration Points	Exploration Depth (feet)[1]	Location
Five	20	Proposed Building
Three	5	Proposed Pavement

1. Referenced from existing ground surface.

Boring Layout and Elevations: Unless otherwise noted, Terracon personnel provided the exploration layout. Coordinates of the exploration locations were determined by overlaying the plans provided on aerial photography and referencing common features. The exploration locations were identified in the field by referencing or measuring distance from existing site features, and a handheld GPS device (horizontal accuracy approximately ±10 feet). Elevations were obtained by referencing GPS coordinates to elevation data provided Google Earth. If elevations and a more precise boring layout are desired, we recommend the locations be surveyed following completion of fieldwork.

Subsurface Exploration Procedures: The subsurface exploration was performed by a track mounted power drilling rig utilizing direct push, cone penetration testing (CPT) to advance into the subsurface. Samples taken during the drilling process were tagged for identification, sealed to reduce moisture loss, and taken to our laboratory for further examination, testing, and classification.

Cone Penetration Testing (CPT): The CPT hydraulically pushes an instrumented cone through the soil while nearly continuous readings are recorded to a portable computer. The cone is equipped with electronic load cells to measure tip resistance and sleeve resistance and a pressure transducer to measure the generated ambient pore pressure. The face of the cone has an apex angle of 60° and an area of 10 cm^2. Digital data representing the tip resistance, friction resistance, pore water pressure, and probe inclination angle are recorded about every 2 centimeters while advancing through the ground at a rate between 1½ and 2½ centimeters per second. These measurements are correlated to various soil properties used for geotechnical design. No soil samples are gathered through this subsurface investigation technique.



CPT testing is conducted in general accordance with ASTM D5778 "Standard Test Method for Performing Electronic Friction Cone and Piezocone Penetration Testing of Soils." Upon completion, the data collected was downloaded and processed by the project engineer.

Laboratory Testing

The project engineer reviewed the field data and assigned laboratory tests to understand the engineering properties of the various soil strata, as necessary, for this project. Procedural standards noted below are for reference to methodology in general. In some cases, variations to methods were applied because of local practice or professional judgment. Standards noted below include reference to other, related standards. Such references are not necessarily applicable to describe the specific test performed.

- ASTM D2216 Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass
- ASTM D2487 Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)
- ASTM D4318 Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils
- ASTM D1140 Standard Test Methods for Determining the Amount of Material Finer than 75-µm (No. 200) Sieve in Soils by Washing
- ASTM D422 Standard Test Methods for Determining Particle Size Analysis of Soils

Detailed results of our laboratory testing can be found in in the **Exploration Results** section and are attached herein. Our laboratory testing program includes examination of soil samples by an engineer. Based on the material's texture and plasticity, we describe and classify soil samples in accordance with the Unified Soil Classification System (USCS).

PHOTOGRAPHY LOG

Photo 1: View near B-03 facing northwest

Photo 2: View near B-05 facing south

SITE LOCATION AND EXPLORATION PLANS

Contents:

Site Location
Exploration Plan

Note: All attachments are one page unless noted above.

SITE LOCATION

Lenoir County Shell Building Project ■ Kinston, North Carolina
January 20, 2023 ■ Terracon Project No. 72225108

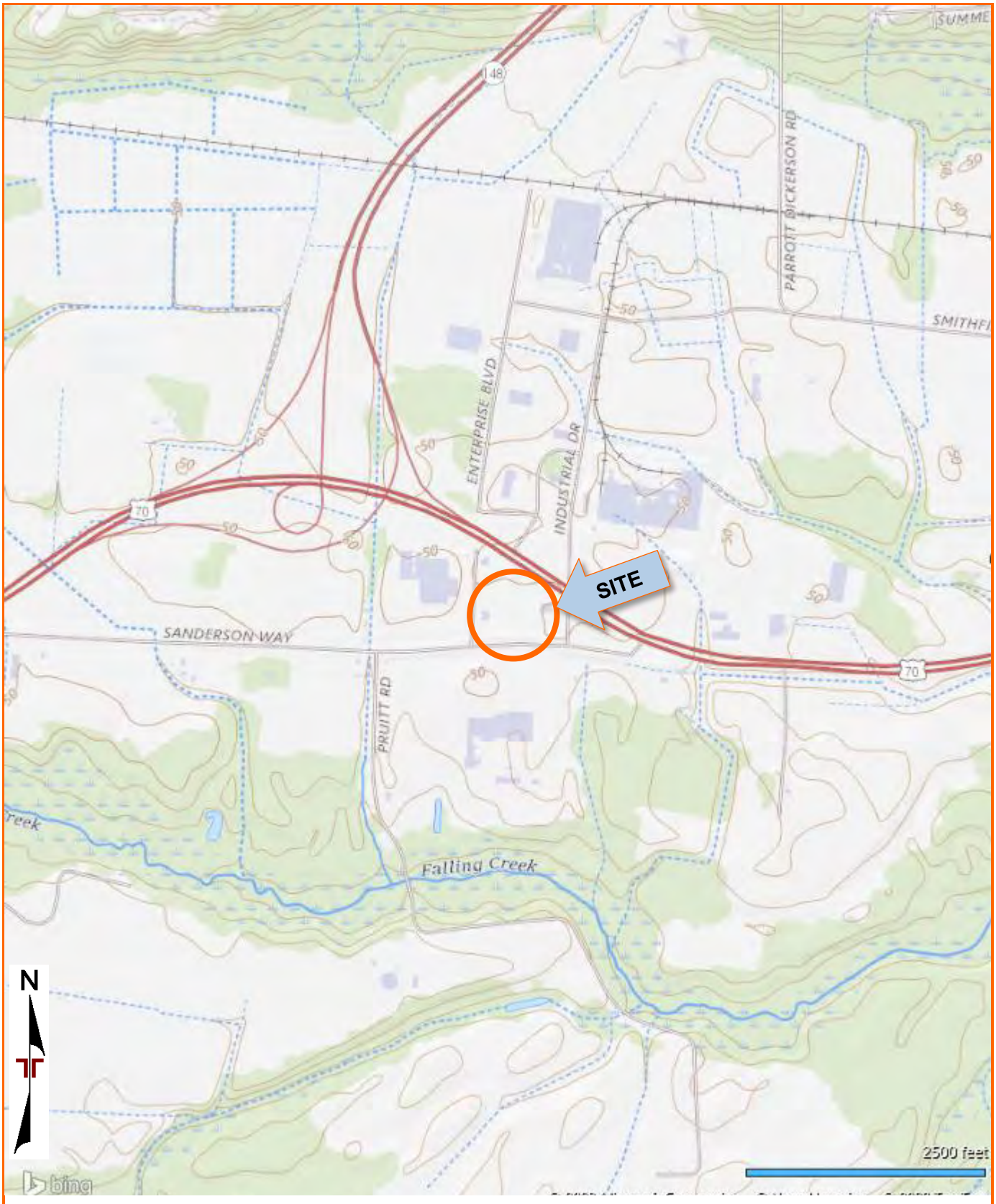


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

MAP PROVIDED BY USGS

EXPLORATION PLAN

Lenoir County Shell Building Project ■ Kinston, North Carolina
January 20, 2023 ■ Terracon Project No. 72225108

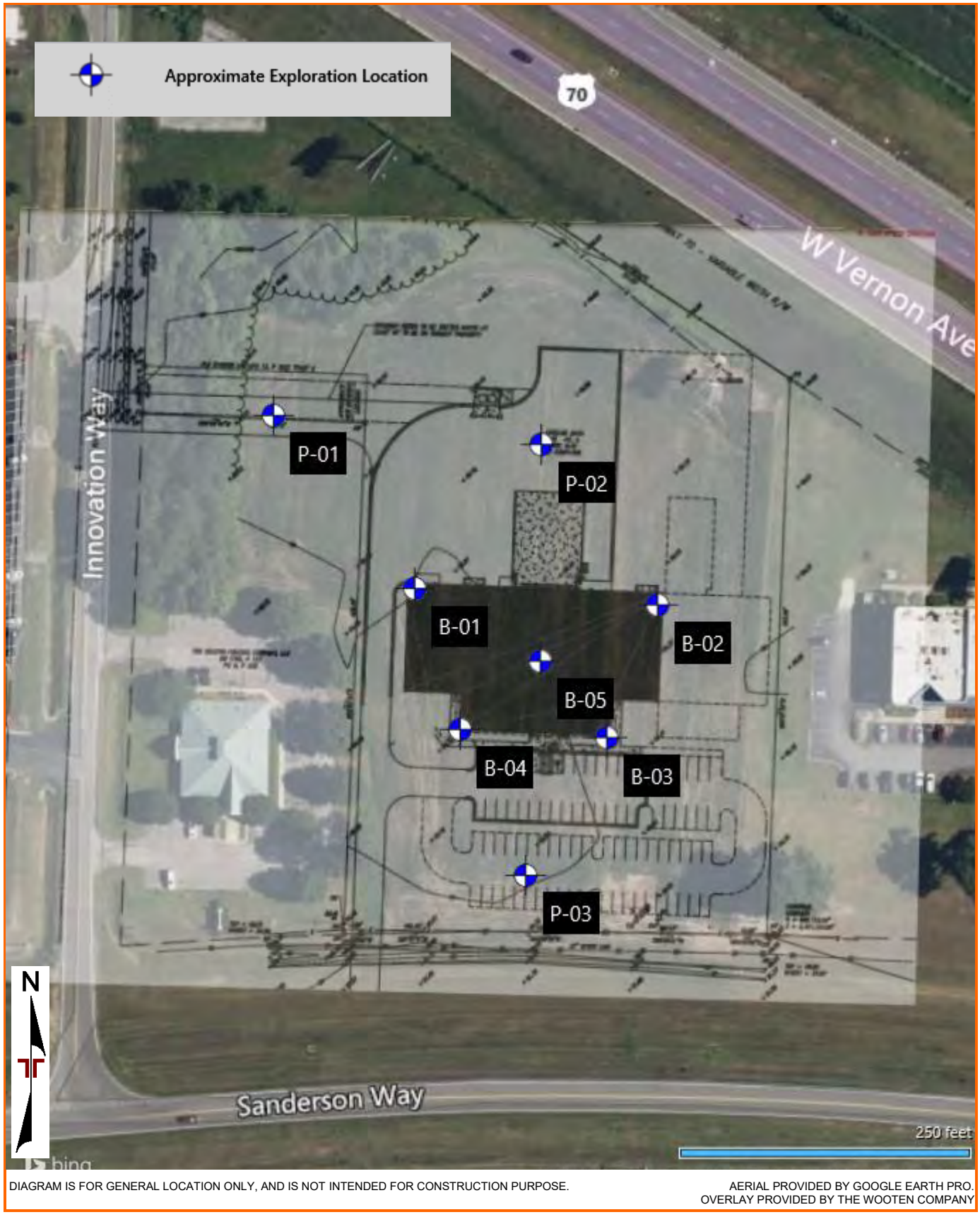


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSE.

AERIAL PROVIDED BY GOOGLE EARTH PRO.
OVERLAY PROVIDED BY THE WOOTEN COMPANY

EXPLORATION RESULTS

Contents:

Exploration Logs (B-01 thru B-05, & P-01 thru P-03)
Grain Size Distribution
Atterberg Limits Results

Note: All attachments are one page unless noted above.

CPT LOG NO. B-01

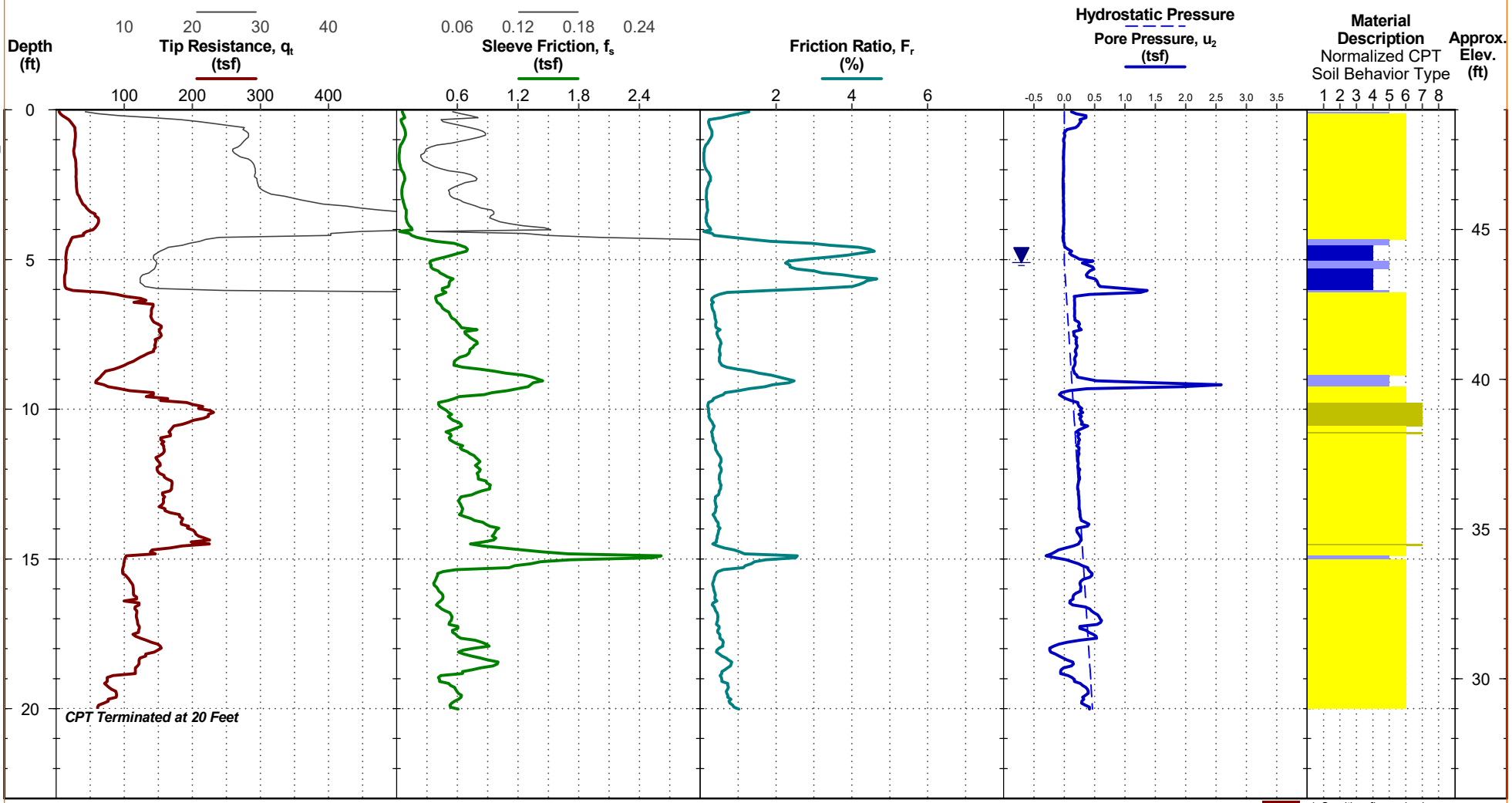
PROJECT: Proposed Lenoir County Shell Building

CLIENT: The Wooten Company
Greenville, NC

SITE: Innovation Way
Kinston, NC

TEST LOCATION: See Exploration Plan

Approx. Surface Elev: 49 ft +/-
Latitude: 35.26220204°
Longitude: -77.66987946°



Cave-in depth = 6.7 feet

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

Auger anchors used as reaction force.

CPT sensor calibration reports available upon request.

1 Sensitive, fine grained
2 Organic soils - clay
3 Clay - silty clay to clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to dense sand
8 Very stiff sand to clayey sand
9 Very stiff fine grained

WATER LEVEL OBSERVATION

▼ 5.1 ft measured water depth
(used in normalizations and correlations; See Supporting Information)

Probe no. 5420 with net area ratio of .811
U2 pore pressure transducer location
Manufactured by Nova Cone; calibrated 8/16/2019
Tip and sleeve areas of 10 cm^2 and 150 cm^2
Ring friction reducer with O.D. of 1.875 in

Terracon
314 Beacon Dr
Winterville, NC

CPT Started: 11/11/2022
CPT Completed: 11/11/2022
Rig: Pagani
Operator: AM
Project No.: 72225108

CPT LOG NO. B-02

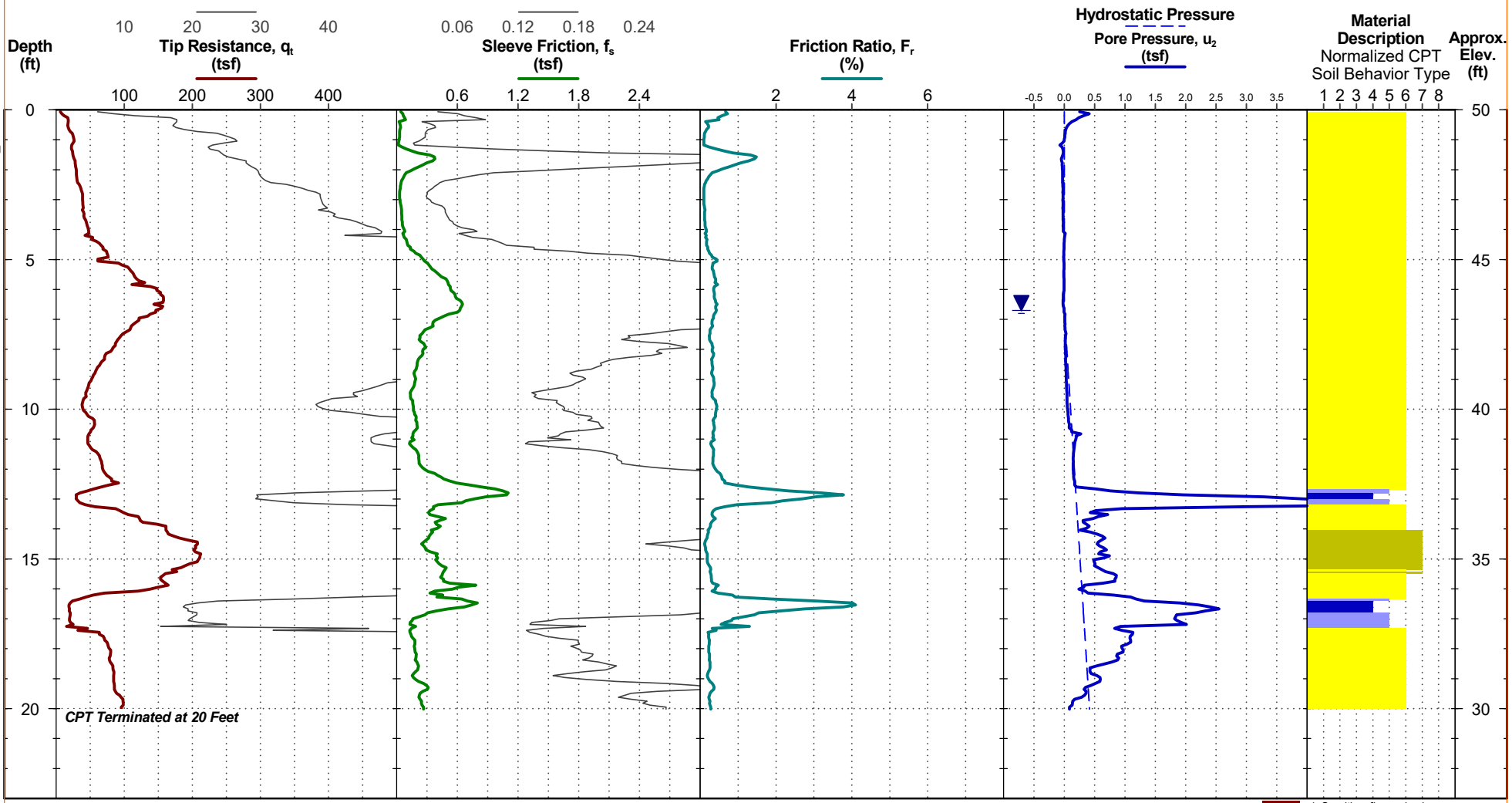
PROJECT: Proposed Lenoir County Shell Building

CLIENT: The Wooten Company
Greenville, NC

SITE: Innovation Way
Kinston, NC

TEST LOCATION: See Exploration Plan

Approx. Surface Elev: 50 ft +/-
Latitude: 35.26216354°
Longitude: -77.66918032°



Cave-in depth = 6.7 feet

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

Auger anchors used as reaction force.

CPT sensor calibration reports available upon request.

1 Sensitive, fine grained
2 Organic soils - clay
3 Clay - silty clay to clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to dense sand
8 Very stiff sand to clayey sand
9 Very stiff fine grained

WATER LEVEL OBSERVATION

▼ 6.7 ft estimated water depth
(used in normalizations and correlations; See Supporting Information)

Probe no. 5420 with net area ratio of .811
U2 pore pressure transducer location
Manufactured by Nova Cone; calibrated 8/16/2019
Tip and sleeve areas of 10 cm^2 and 150 cm^2
Ring friction reducer with O.D. of 1.875 in

Terracon
314 Beacon Dr
Winterville, NC

CPT Started: 11/11/2022
CPT Completed: 11/11/2022
Rig: Pagani
Operator: AM
Project No.: 72225108

BORING LOG NO. B-02M

PROJECT: Proposed Lenoir County Shell Building

CLIENT: The Wooten Company
Greenville, NC

SITE: Innovation Way
Kinston, NC

LOCATION See Exploration Plan

Latitude: 35.2622° Longitude: -77.6692°

Approximate Surface Elev.: 50 (Ft.) +/-

MODEL LAYER	DEPTH	ELEVATION (Ft.)	
	0.3	49.8+/-	**TOPSOIL**, 3 inches
	0.7	49.3+/-	**SILTY SAND (SM)**, brown and dark brown, organically stained
	1.5	48.5+/-	**CLAYEY SAND (SC)**, orangish brown and tan
2			**SILTY SAND (SM)**, brownish tan
	6.0	44+/-	
3			**POORLY GRADED SAND (SP)**, orangish tan
	10.0	40+/-	
			Boring Terminated at 10 Feet

DEPTH (Ft.) | WATER LEVEL OBSERVATIONS | SAMPLE TYPE | WATER CONTENT (%) | ATTERBERG LIMITS LL-PL-PI | PERCENT FINES

Stratification lines are approximate. In-situ, the transition may be gradual.

Advancement Method:
Sampler with vibratory hammer

Abandonment Method:
N/A

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

Groundwater not encountered

Cave-in

Terracon
314 Beacon Dr
Winterville, NC

Boring Started: 11-11-2022 | Boring Completed: 11-11-2022

Drill Rig: Pagani | Driller: AM

Project No.: 72225108

CPT LOG NO. B-03

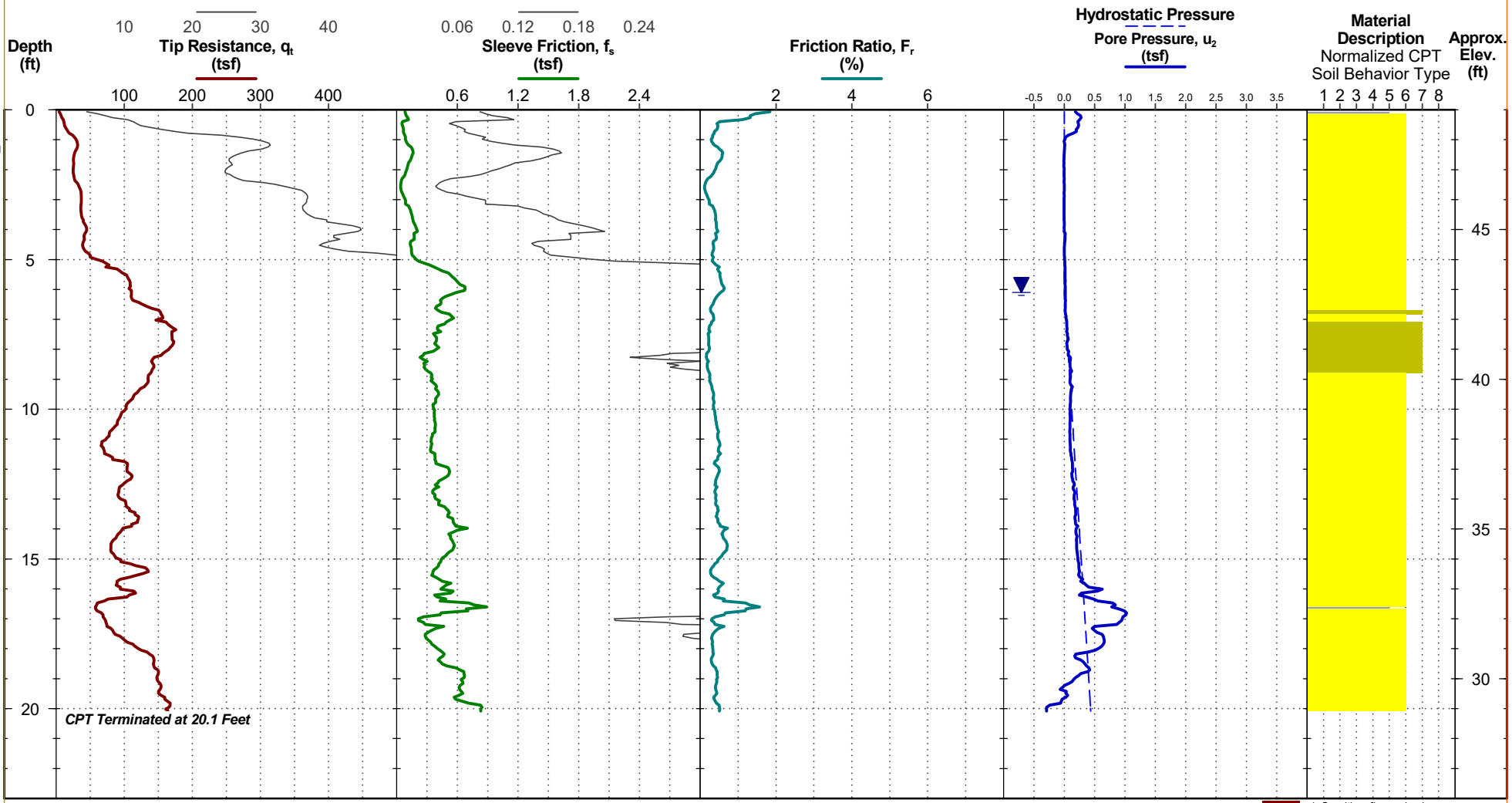
PROJECT: Proposed Lenoir County Shell Building

CLIENT: The Wooten Company
Greenville, NC

SITE: Innovation Way
Kinston, NC

TEST LOCATION: See Exploration Plan

Approx. Surface Elev: 49 ft +/-
Latitude: 35.26185157°
Longitude: -77.6693265°



Cave-in depth = 7.1 feet

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

Auger anchors used as reaction force.

CPT sensor calibration reports available upon request.

1 Sensitive, fine grained
2 Organic soils - clay
3 Clay - silty clay to clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to dense sand
8 Very stiff sand to clayey sand
9 Very stiff fine grained

WATER LEVEL OBSERVATION

▼ 6.1 ft measured water depth
(used in normalizations and correlations; See Supporting Information)

Probe no. 5420 with net area ratio of .811
U2 pore pressure transducer location
Manufactured by Nova Cone; calibrated 8/16/2019
Tip and sleeve areas of 10 cm^2 and 150 cm^2
Ring friction reducer with O.D. of 1.875 in

Terracon
314 Beacon Dr
Winterville, NC

CPT Started: 11/11/2022
CPT Completed: 11/11/2022
Rig: Pagani
Operator: AM
Project No.: 72225108

CPT LOG NO. B-04

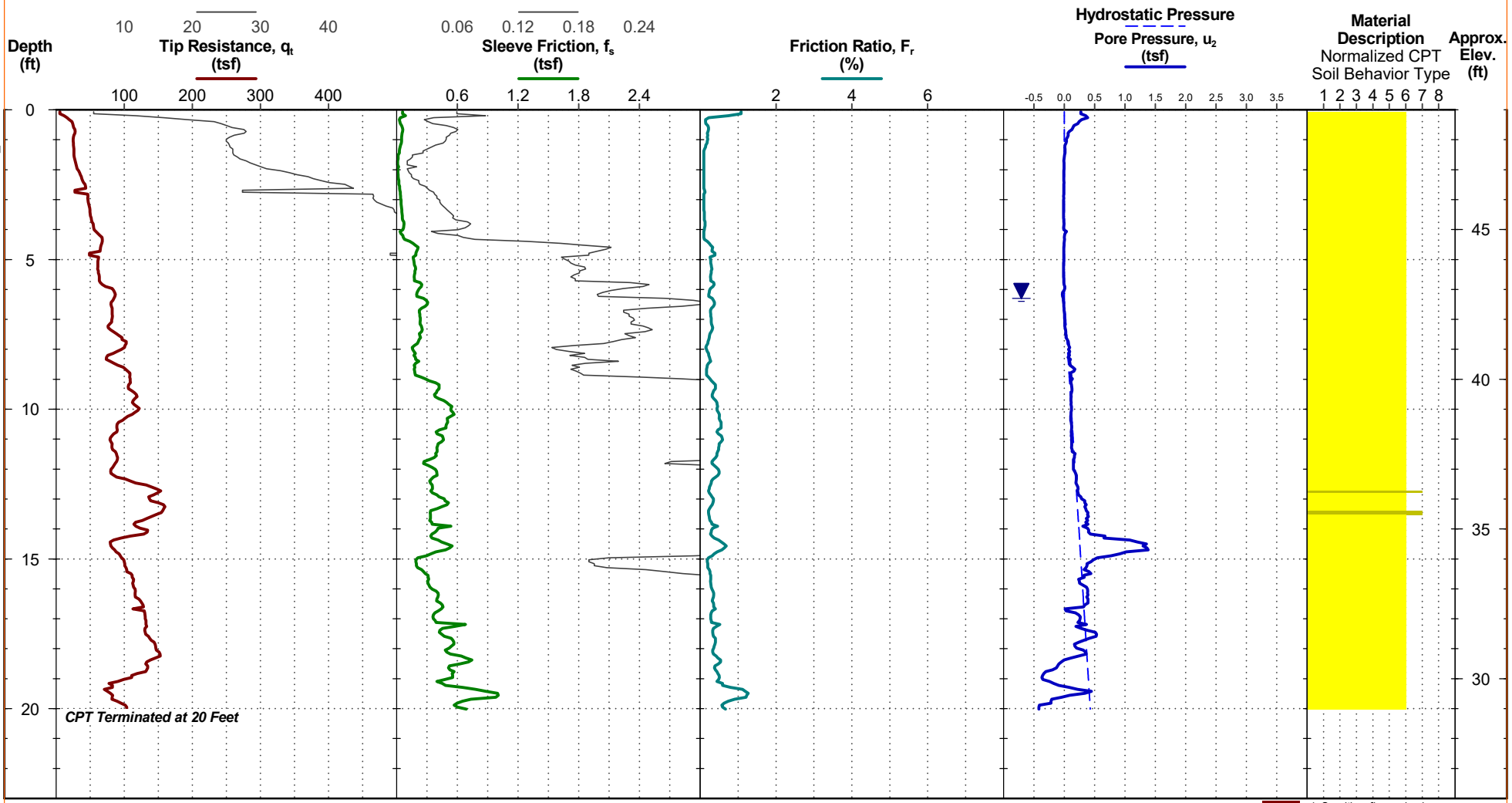
PROJECT: Proposed Lenoir County Shell Building

CLIENT: The Wooten Company
Greenville, NC

SITE: Innovation Way
Kinston, NC

TEST LOCATION: See Exploration Plan

Approx. Surface Elev: 49 ft +/-
Latitude: 35.26187085°
Longitude: -77.6697488°



Cave-in depth = 6.3 feet

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

Auger anchors used as reaction force.

CPT sensor calibration reports available upon request.

1 Sensitive, fine grained
2 Organic soils - clay
3 Clay - silty clay to clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to dense sand
8 Very stiff sand to clayey sand
9 Very stiff fine grained

WATER LEVEL OBSERVATION

▼ 6.3 ft estimated water depth
(used in normalizations and correlations; See Supporting Information)

Probe no. 5420 with net area ratio of .811
U2 pore pressure transducer location
Manufactured by Nova Cone; calibrated 8/16/2019
Tip and sleeve areas of 10 cm^2 and 150 cm^2
Ring friction reducer with O.D. of 1.875 in

Terracon
314 Beacon Dr
Winterville, NC

CPT Started: 11/11/2022
CPT Completed: 11/11/2022
Rig: Pagani
Operator: AM
Project No.: 72225108

BORING LOG NO. B-04M

PROJECT: Proposed Lenoir County Shell Building

CLIENT: The Wooten Company
Greenville, NC

SITE: Innovation Way
Kinston, NC

LOCATION See Exploration Plan

Latitude: 35.2619° Longitude: -77.6697°

Approximate Surface Elev.: 49 (Ft.) +/-

MODEL LAYER	GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	WATER CONTENT (%)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
		0.3 **TOPSOIL**, 3 inches	48.8+/-						
		0.7 **SILTY SAND (SM)**, brown and dark brown, organically stained	48.3+/-						
2		1.5 **CLAYEY SAND (SC)**, orangish brown and tan	47.5+/-						
2		**SILTY SAND (SM)**, brownish tan							
		6.0	43+/-	5					
3		**POORLY GRADED SAND (SP)**, orangish tan					15.5	NP	4
		10.0	39+/-	10					
		Boring Terminated at 10 Feet							

Stratification lines are approximate. In-situ, the transition may be gradual.

Advancement Method:
Sampler with vibratory hammer

Abandonment Method:
N/A

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

Groundwater not encountered

Cave-in

Terracon
314 Beacon Dr
Winterville, NC

Boring Started: 11-11-2022 | Boring Completed: 11-11-2022

Drill Rig: Pagani | Driller: AM

Project No.: 72225108

CPT LOG NO. B-05

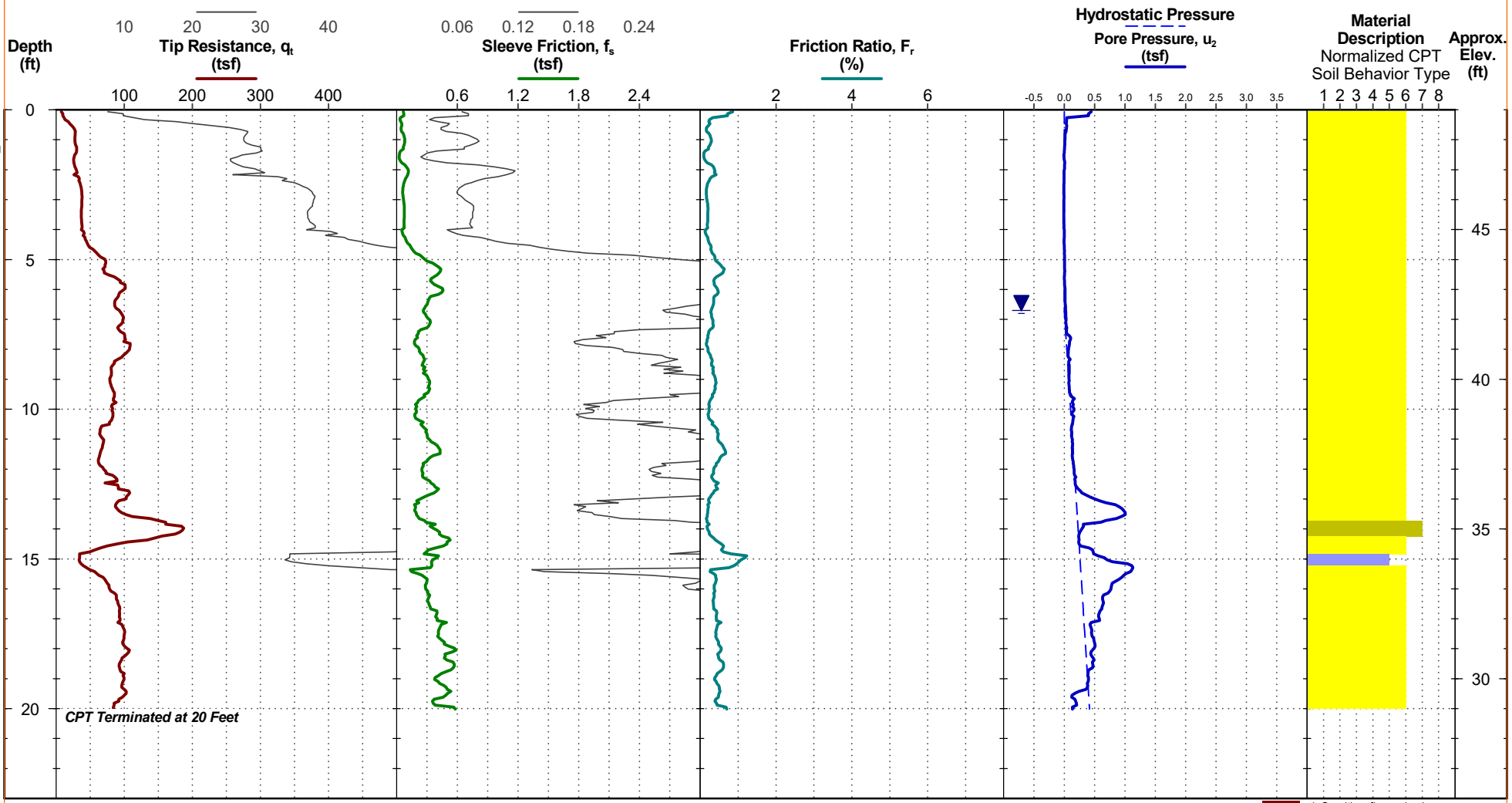
PROJECT: Proposed Lenoir County Shell Building

CLIENT: The Wooten Company
Greenville, NC

SITE: Innovation Way
Kinston, NC

TEST LOCATION: See Exploration Plan

Approx. Surface Elev: 49 ft +/-
Latitude: 35.26203133°
Longitude: -77.66951786°



Cave-in depth = 6.7 feet

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

Auger anchors used as reaction force.

CPT sensor calibration reports available upon request.

WATER LEVEL OBSERVATION

▼ 6.7 ft estimated water depth
(used in normalizations and correlations; See Supporting Information)

Probe no. 5420 with net area ratio of .811
U2 pore pressure transducer location
Manufactured by Nova Cone; calibrated 8/16/2019
Tip and sleeve areas of 10 cm^2 and 150 cm^2
Ring friction reducer with O.D. of 1.875 in

Terracon
314 Beacon Dr
Winterville, NC

CPT Started: 11/11/2022
CPT Completed: 11/11/2022
Rig: Pagani
Operator: AM
Project No.: 72225108

CPT LOG NO. P-01

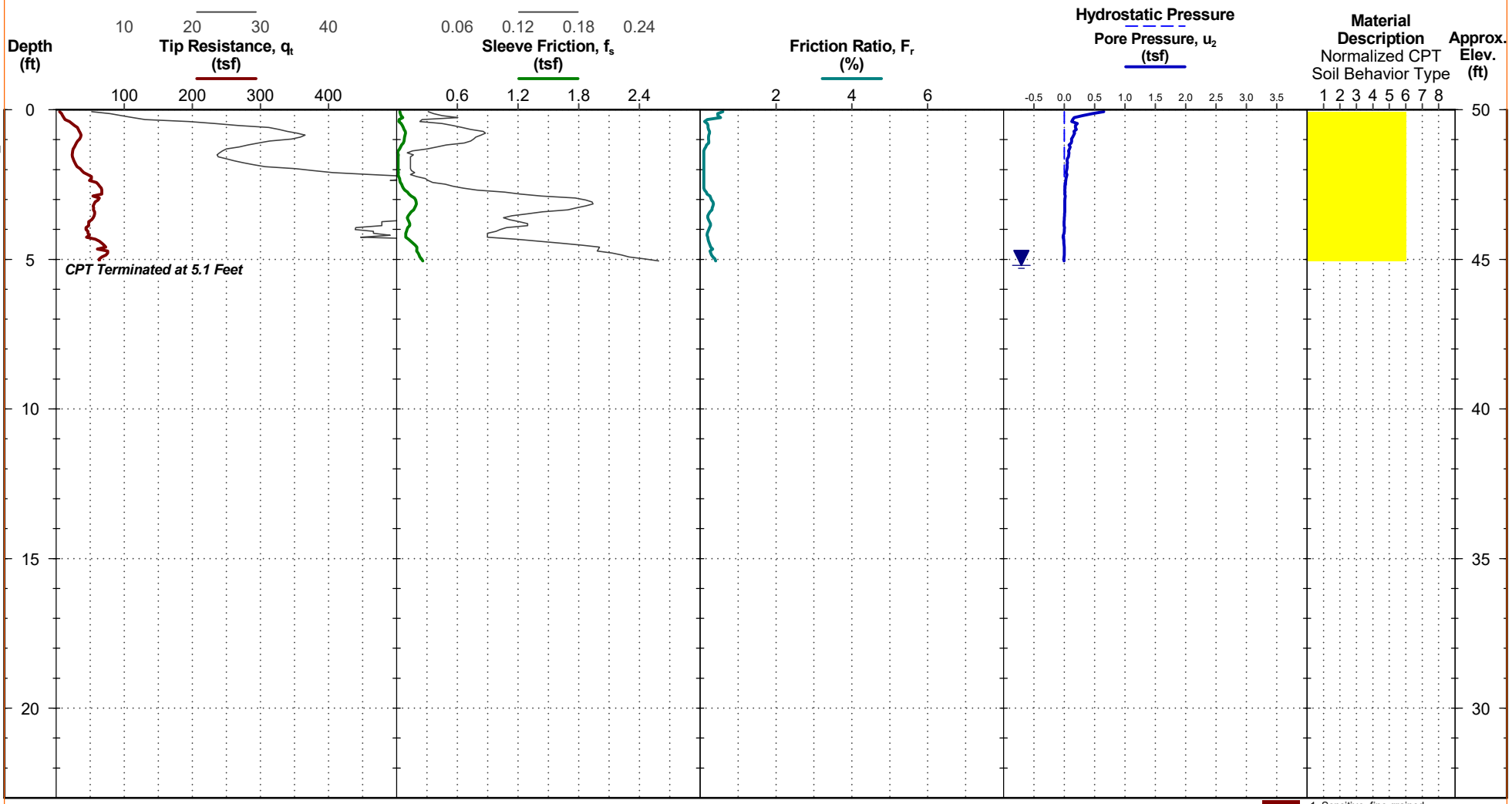
PROJECT: Proposed Lenoir County Shell Building

CLIENT: The Wooten Company
Greenville, NC

SITE: Innovation Way
Kinston, NC

TEST LOCATION: See Exploration Plan

Approx. Surface Elev: 50 ft +/-
Latitude: 35.26260867°
Longitude: -77.67028609°



No cave-in

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

Auger anchors used as reaction force.

CPT sensor calibration reports available upon request.

1 Sensitive, fine grained
2 Organic soils - clay
3 Clay - silty clay to clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to dense sand
8 Very stiff sand to clayey sand
9 Very stiff fine grained

WATER LEVEL OBSERVATION

▼ 5.2 ft estimated water depth
(used in normalizations and correlations; See Supporting Information)

Probe no. 5420 with net area ratio of .811
U2 pore pressure transducer location
Manufactured by Nova Cone; calibrated 8/16/2019
Tip and sleeve areas of 10 cm^2 and 150 cm^2
Ring friction reducer with O.D. of 1.875 in

Terracon
314 Beacon Dr
Winterville, NC

CPT Started: 11/11/2022
CPT Completed: 11/11/2022
Rig: Pagani
Operator: AM
Project No.: 72225108

BORING LOG NO. P-01M

PROJECT: Proposed Lenoir County Shell Building

CLIENT: The Wooten Company
Greenville, NC

SITE: Innovation Way
Kinston, NC

LOCATION See Exploration Plan

Latitude: 35.2626° Longitude: -77.6703°

Approximate Surface Elev.: 50 (Ft.) +/-

MODEL LAYER	GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	WATER CONTENT (%)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
		0.3	49.8+/-						
		TOPSOIL, 3 inches							
		0.7	49.3+/-						
2		**SILTY SAND (SM)**, brown and dark brown, organically stained **CLAYEY SAND (SC)**, orangish brown and tan, sand lense noted at 3 feet							
		5.0	45+/-	5					
		Boring Terminated at 5 Feet							

Stratification lines are approximate. In-situ, the transition may be gradual.

Advancement Method:
Sampler with vibratory hammer

Abandonment Method:
N/A

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

Groundwater not encountered

No Cave-in

Terracon
314 Beacon Dr
Winterville, NC

Boring Started: 11-11-2022 | Boring Completed: 11-11-2022

Drill Rig: Pagani | Driller: AM

Project No.: 72225108

CPT LOG NO. P-02

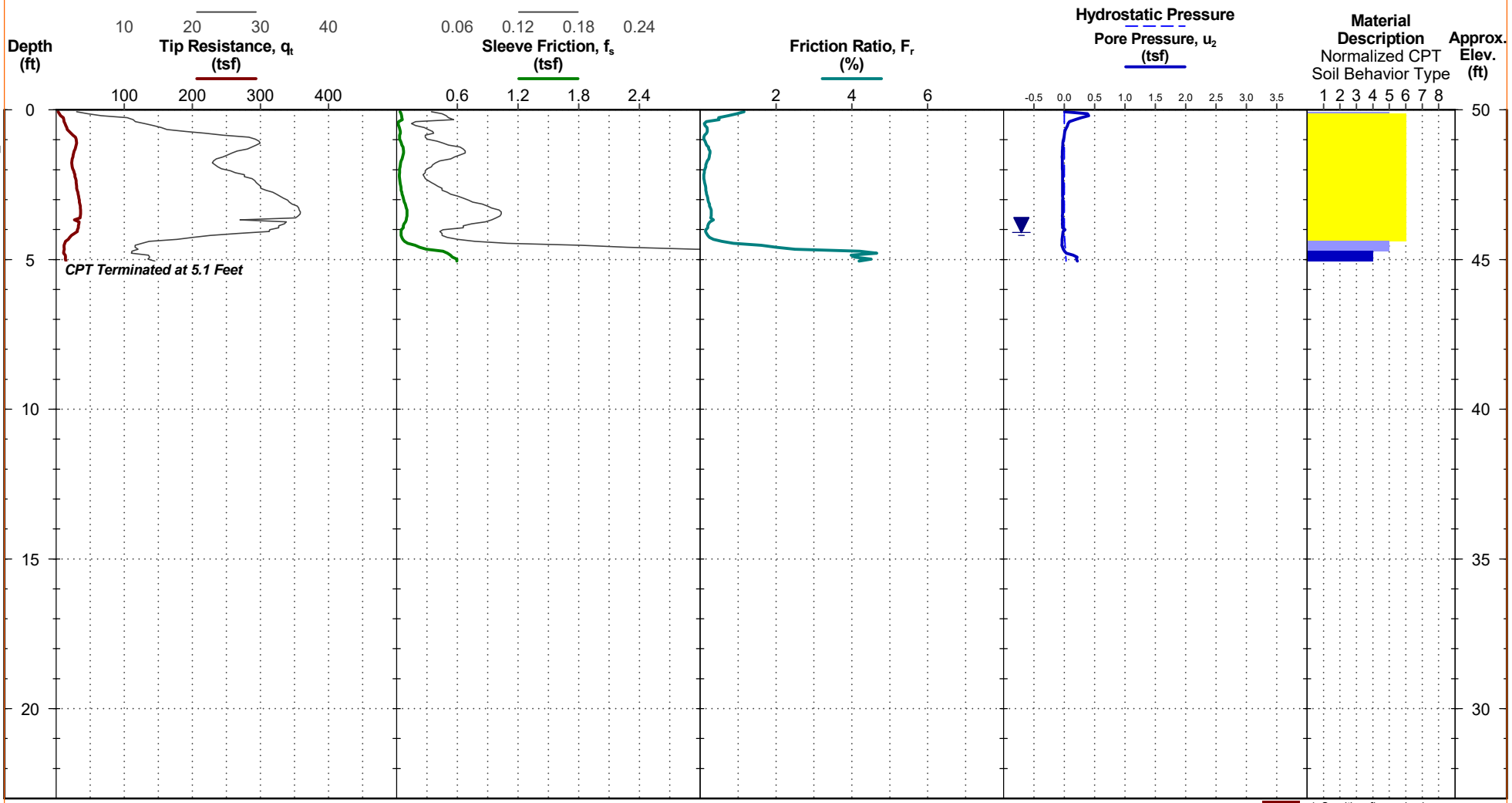
PROJECT: Proposed Lenoir County Shell Building

CLIENT: The Wooten Company
Greenville, NC

SITE: Innovation Way
Kinston, NC

TEST LOCATION: See Exploration Plan

Approx. Surface Elev: 50 ft +/-
Latitude: 35.26254055°
Longitude: -77.66951507°



Cave-in depth = 4.1 feet

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

Auger anchors used as reaction force.

CPT sensor calibration reports available upon request.

1 Sensitive, fine grained
2 Organic soils - clay
3 Clay - silty clay to clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to dense sand
8 Very stiff sand to clayey sand
9 Very stiff fine grained

WATER LEVEL OBSERVATION

▼ 4.1 ft estimated water depth
(used in normalizations and correlations; See Supporting Information)

Probe no. 5420 with net area ratio of .811
U2 pore pressure transducer location
Manufactured by Nova Cone; calibrated 8/16/2019
Tip and sleeve areas of 10 cm^2 and 150 cm^2
Ring friction reducer with O.D. of 1.875 in

Terracon
314 Beacon Dr
Winterville, NC

CPT Started: 11/11/2022
CPT Completed: 11/11/2022
Rig: Pagani
Operator: AM
Project No.: 72225108

CPT LOG NO. P-03

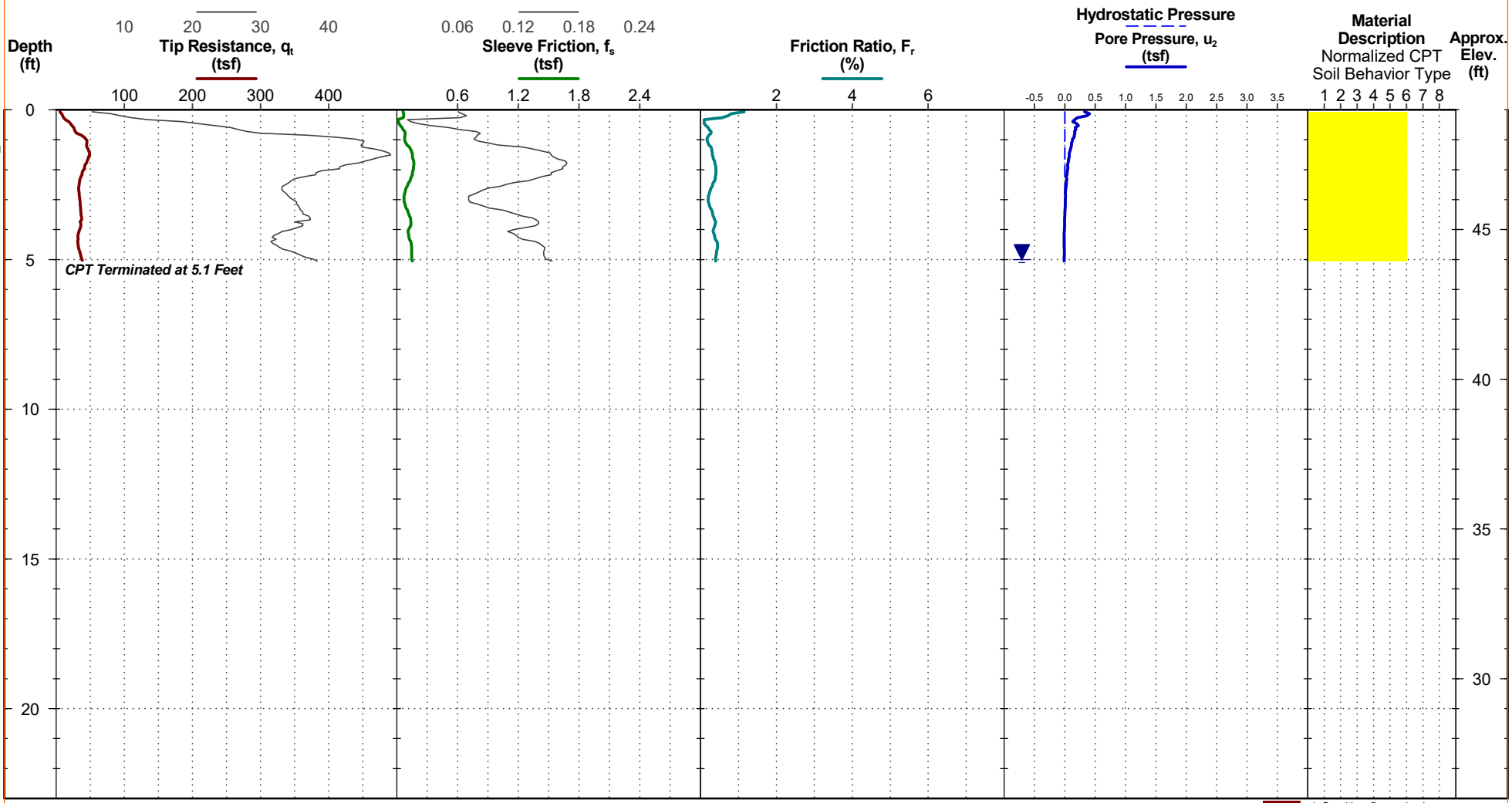
PROJECT: Proposed Lenoir County Shell Building

CLIENT: The Wooten Company
Greenville, NC

SITE: Innovation Way
Kinston, NC

TEST LOCATION: See Exploration Plan

Approx. Surface Elev: 49 ft +/-
Latitude: 35.26152775°
Longitude: -77.66955999°



No cave-in

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

Auger anchors used as reaction force.

CPT sensor calibration reports available upon request.

1 Sensitive, fine grained
2 Organic soils - clay
3 Clay - silty clay to clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to dense sand
8 Very stiff sand to clayey sand
9 Very stiff fine grained

WATER LEVEL OBSERVATION

5 ft estimated water depth
(used in normalizations and correlations; See Supporting Information)

Probe no. 5420 with net area ratio of .811
U2 pore pressure transducer location
Manufactured by Nova Cone; calibrated 8/16/2019
Tip and sleeve areas of 10 cm^2 and 150 cm^2
Ring friction reducer with O.D. of 1.875 in

Terracon
314 Beacon Dr
Winterville, NC

CPT Started: 11/11/2022
CPT Completed: 11/11/2022
Rig: Pagani
Operator: AM
Project No.: 72225108

BORING LOG NO. P-03M

PROJECT: Proposed Lenoir County Shell Building

CLIENT: The Wooten Company
Greenville, NC

SITE: Innovation Way
Kinston, NC

LOCATION See Exploration Plan

Latitude: 35.2615° Longitude: -77.6696°

Approximate Surface Elev.: 49 (Ft.) +/-

MODEL LAYER	GRAPHIC LOG	DEPTH		ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	WATER CONTENT (%)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
1		0.3	**TOPSOIL**, 3 inches	48.8+/-						
		1.0	**FILL - SILTY SAND**, brown and dark brown, organically stained, trace gravel noted	48+/-						
2			**SILTY SAND (SM)**, brown and dark brown					6.4	NP	11
		5.0		44+/-	5					
			Boring Terminated at 5 Feet							

Stratification lines are approximate. In-situ, the transition may be gradual.

Advancement Method:
Sampler with vibratory hammer

Abandonment Method:
N/A

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

Groundwater not encountered

No Cave-in

Terracon
314 Beacon Dr
Winterville, NC

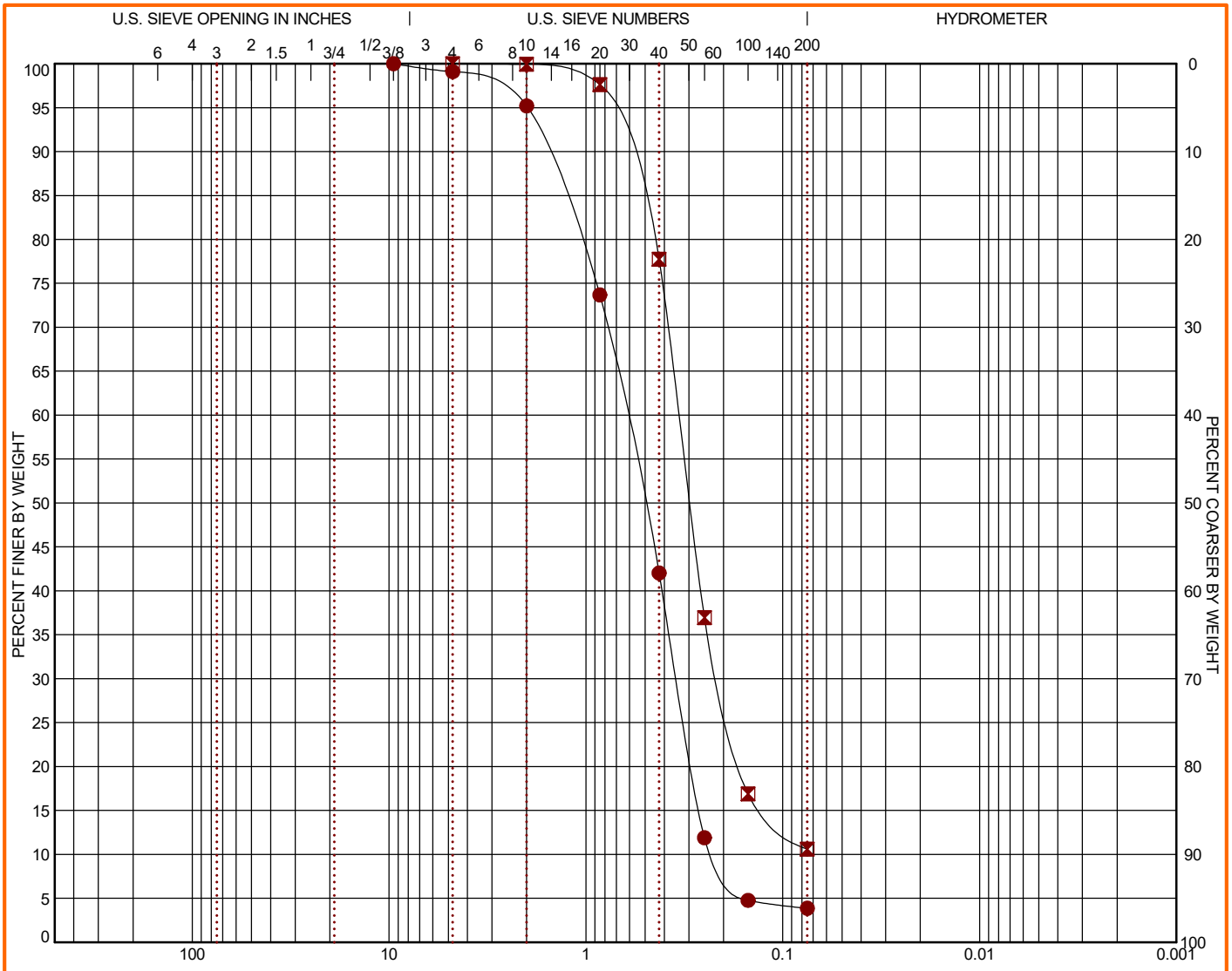
Boring Started: 11-11-2022 | Boring Completed: 11-11-2022

Drill Rig: Pagani | Driller: AM

Project No.: 72225108

GRAIN SIZE DISTRIBUTION

ASTM D422 / ASTM C136



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	BORING ID	DEPTH	% COBBLES	% GRAVEL	% SAND	% SILT	% FINES	% CLAY	USCS
●	B-04M	7.5	0.0	0.9	95.2		3.9		SP
⊠	P-03M	2	0.0	0.0	89.4		10.6		SP-SM

GRAIN SIZE	●	⊠	
D_{60}	0.63	0.337	
D_{30}	0.344	0.209	
D_{10}	0.218		

COEFFICIENTS	●	⊠	
C_C	0.86	1.85	
C_U	2.89	4.80	

●		⊠			
Sieve	% Finer	Sieve	% Finer	Sieve	% Finer
3/8"	100.0	#4	100.0		
#4	99.09	#10	99.94		
#10	95.19	#20	97.63		
#20	73.68	#40	77.74		
#40	42.03	#60	36.94		
#60	11.9	#100	16.9		
#100	4.77	#200	10.59		
#200	3.87				

SOIL DESCRIPTION	
●	POORLY GRADED SAND (SP)
⊠	POORLY GRADED SAND with SILT (SP-SM)

REMARKS	
●	7-8 ft
⊠	1.5-2.5 ft

PROJECT: Proposed Lenoir County Shell Building

SITE: Innovation Way
Kinston, NC

Terracon
314 Beacon Dr
Winterville, NC

PROJECT NUMBER: 72225108

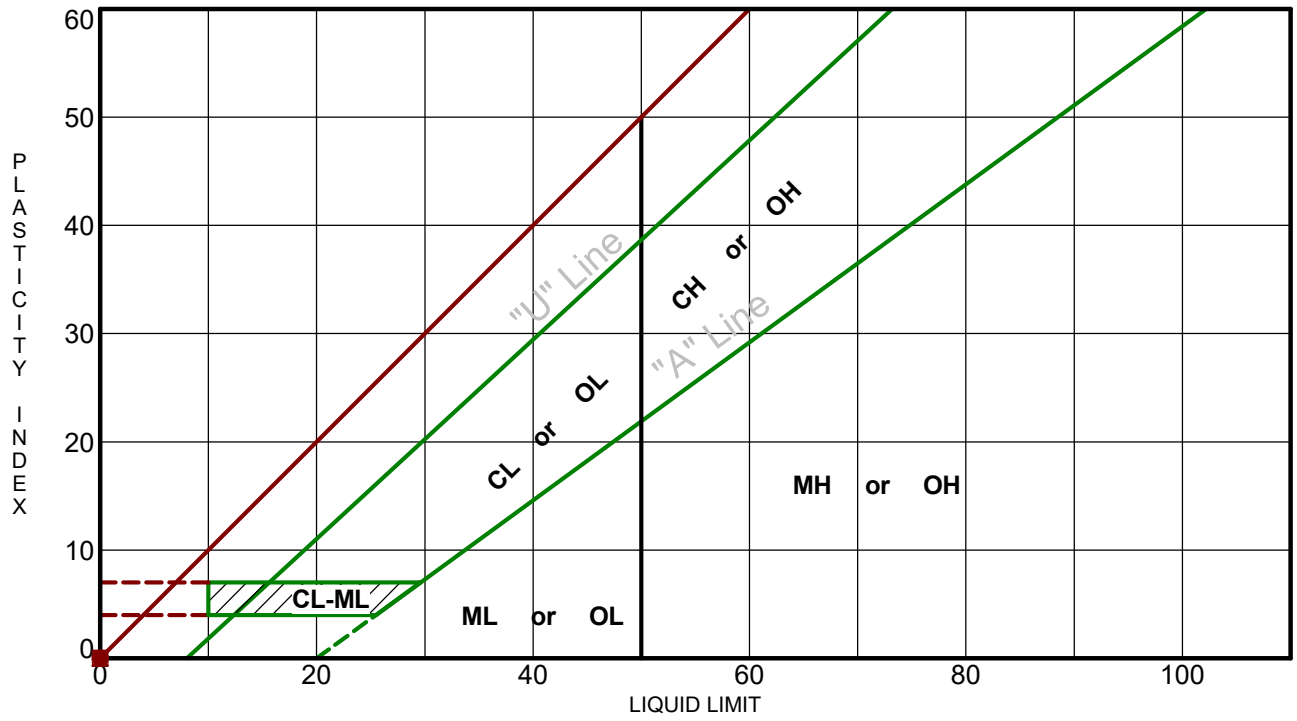
CLIENT: The Wooten Company
Greenville, NC

GRAIN SIZE: USCS 1 72225108 PROPOSED LENOIR C.GPJ TERRACON_DATATEMPLATE.GDT 12/22/22

LABORATORY TESTS ARE NOT VALID IF SEPARATED FROM ORIGINAL REPORT.

ATTERBERG LIMITS RESULTS

ASTM D4318



Boring ID	Depth (Ft)	LL	PL	PI	Fines	USCS	Description
● B-04M	7.5	NP	NP	NP	3.9	SP	POORLY GRADED SAND
⊠ P-03M	2	NP	NP	NP	10.6	SP-SM	POORLY GRADED SAND with SILT

PROJECT: Proposed Lenoir County Shell Building

SITE: Innovation Way
Kinston, NC

Terracon
314 Beacon Dr
Winterville, NC

PROJECT NUMBER: 72225108

CLIENT: The Wooten Company
Greenville, NC

SUPPORTING INFORMATION

Contents:

General Notes
CPT General Notes
Unified Soil Classification System

Note: All attachments are one page unless noted above.

GENERAL NOTES

DESCRIPTION OF SYMBOLS AND ABBREVIATIONS
Proposed Lenoir County Shell Building ■ Kinston, NC
Terracon Project No. 72225108

SAMPLING	WATER LEVEL	FIELD TESTS
GeoProbe Macro Core or Large Bore	**Water Initially Encountered** **Water Level After a Specified Period of Time** **Water Level After a Specified Period of Time** **Cave In Encountered** Water levels indicated on the soil boring logs are the levels measured in the borehole at the times indicated. Groundwater level variations will occur over time. In low permeability soils, accurate determination of groundwater levels is not possible with short term water level observations.	**N** Standard Penetration Test Resistance (Blows/Ft.) **(HP)** Hand Penetrometer **(T)** Torvane **(DCP)** Dynamic Cone Penetrometer **UC** Unconfined Compressive Strength **(PID)** Photo-Ionization Detector **(OVA)** Organic Vapor Analyzer

DESCRIPTIVE SOIL CLASSIFICATION

Soil classification as noted on the soil boring logs is based Unified Soil Classification System. Where sufficient laboratory data exist to classify the soils consistent with ASTM D2487 "Classification of Soils for Engineering Purposes" this procedure is used. ASTM D2488 "Description and Identification of Soils (Visual-Manual Procedure)" is also used to classify the soils, particularly where insufficient laboratory data exist to classify the soils in accordance with ASTM D2487. In addition to USCS classification, coarse grained soils are classified on the basis of their in-place relative density, and fine-grained soils are classified on the basis of their consistency. See "Strength Terms" table below for details. The ASTM standards noted above are for reference to methodology in general. In some cases, variations to methods are applied as a result of local practice or professional judgment.

LOCATION AND ELEVATION NOTES

Exploration point locations as shown on the Exploration Plan and as noted on the soil boring logs in the form of Latitude and Longitude are approximate. See Exploration and Testing Procedures in the report for the methods used to locate the exploration points for this project. Surface elevation data annotated with +/- indicates that no actual topographical survey was conducted to confirm the surface elevation. Instead, the surface elevation was approximately determined from topographic maps of the area.

STRENGTH TERMS

RELATIVE DENSITY OF COARSE-GRAINED SOILS (More than 50% retained on No. 200 sieve.) Density determined by Standard Penetration Resistance		CONSISTENCY OF FINE-GRAINED SOILS (50% or more passing the No. 200 sieve.) Consistency determined by laboratory shear strength testing, field visual-manual procedures or standard penetration resistance		
Descriptive Term (Density)	**Standard Penetration or N-Value Blows/Ft.**	**Descriptive Term (Consistency)**	**Unconfined Compressive Strength Qu, (tsf)**	**Standard Penetration or N-Value Blows/Ft.**
Very Loose	0 - 3	Very Soft	less than 0.25	0 - 1
Loose	4 - 9	Soft	0.25 to 0.50	2 - 4
Medium Dense	10 - 29	Medium Stiff	0.50 to 1.00	4 - 8
Dense	30 - 50	Stiff	1.00 to 2.00	8 - 15
Very Dense	> 50	Very Stiff	2.00 to 4.00	15 - 30
		Hard	> 4.00	> 30

RELEVANCE OF SOIL BORING LOG

The soil boring logs contained within this document are intended for application to the project as described in this document. Use of these soil boring logs for any other purpose may not be appropriate.

CPT GENERAL NOTES

DESCRIPTION OF SYMBOLS AND ABBREVIATIONS

Proposed Lenoir County Shell Building ■ Kinston, NC

Terracon Project No. 72225108

Terracon GeoReport

DESCRIPTION OF MEASUREMENTS AND CALIBRATIONS

To be reported per ASTM D5778:

Uncorrected Tip Resistance, q_c
Measured force acting on the cone divided by the cone's projected area

Corrected Tip Resistance, q_t
Cone resistance corrected for porewater and net area ratio effects
$q_t = q_c + u_2(1 - a)$

Where a is the net area ratio, a lab calibration of the cone typically between 0.70 and 0.85

Pore Pressure, u
Pore pressure measured during penetration
u_1 - sensor on the face of the cone
u_2 - sensor on the shoulder (more common)

Sleeve Friction, f_s
Frictional force acting on the sleeve divided by its surface area

Normalized Friction Ratio, F_r
The ratio as a percentage of f_s to q_t, accounting for overburden pressure

To be reported per ASTM D7400, if collected:

Shear Wave Velocity, V_s
Measured in a Seismic CPT and provides direct measure of soil stiffness

DESCRIPTION OF GEOTECHNICAL CORRELATIC

Normalized Tip Resistance, Q_{tn}
$Q_{tn} = ((q_t - \sigma_{v0})/P_a)(P_a/\sigma'_{v0})^n$
$n = 0.381(I_c) + 0.05(\sigma'_{v0}/P_a) - 0.15$

Over Consolidation Ratio, OCR
$OCR\ (1) = 0.25(Q_{tn})^{1.25}$
$OCR\ (2) = 0.33(Q_{tn})$

Undrained Shear Strength, S_u
$S_u = Q_{tn} \times \sigma'_{v0}/N_{kt}$
N_{kt} is a soil-specific factor (shown on S_u plot)

Sensitivity, S_t
$S_t = (q_t - \sigma_{v0}/N_{kt}) \times (1/f_s)$

Effective Friction Angle, ϕ'
$\phi'\ (1) = \tan^{-1}(0.373[\log(q_t/\sigma'_{v0}) + 0.29])$
$\phi'\ (2) = 17.6 + 11[\log(Q_{tn})]$

Unit Weight, γ
$\gamma = (0.27[\log(F_r)]+0.36[\log(q_t/atm)]+1.236) \times \gamma_{water}$
σ_{v0} is taken as the incremental sum of the unit weights

Small Strain Shear Modulus, G_0
$G_0\ (1) = \rho V_s^2$
$G_0\ (2) = 0.015 \times 10^{(0.55Ic + 1.68)}(q_t - \sigma_{v0})$

Soil Behavior Type Index, I_c
$I_c = [(3.47 - \log(Q_{tn}))^2 + (\log(F_r) + 1.22)^2]^{0.5}$

SPT N_{60}
$N_{60} = (q_t/atm) / 10^{(1.1268 - 0.2817Ic)}$

Elastic Modulus, E_s (assumes $q/q_{ultimate} \sim 0.3$, i.e. FS = 3)
$E_s\ (1) = 2.6\psi G_0$ where $\psi = 0.56 - 0.33\log Q_{tn,clean\ sand}$
$E_s\ (2) = G_0$
$E_s\ (3) = 0.015 \times 10^{(0.55Ic + 1.68)}(q_t - \sigma_{v0})$
$E_s\ (4) = 2.5q_t$

Constrained Modulus, M
$M = \alpha_M(q_t - \sigma_{v0})$
For $I_c > 2.2$ (fine-grained soils)
$\alpha_M = Q_{tn}$ with maximum of 14
For $I_c < 2.2$ (coarse-grained soils)
$\alpha_M = 0.0188 \times 10^{(0.55Ic + 1.68)}$

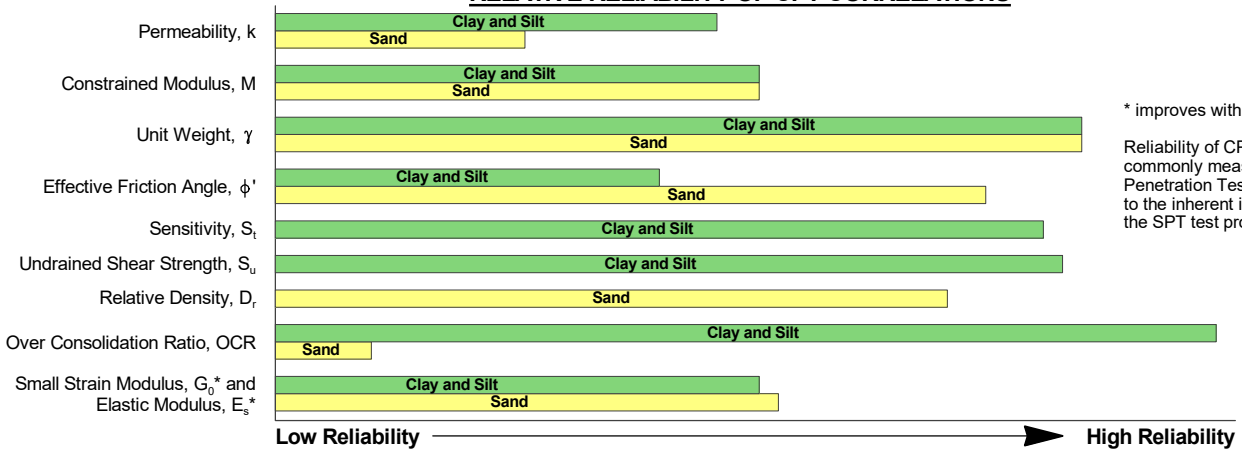
Hydraulic Conductivity, k
For $1.0 < I_c < 3.27$ $k = 10^{(0.952 - 3.04Ic)}$
For $3.27 < I_c < 4.0$ $k = 10^{(-4.52 - 1.37Ic)}$

Relative Density, D_f
$D_r = (Q_{tn} / 350)^{0.5} \times 100$

REPORTED PARAMETERS

CPT logs as provided, at a minimum, report the data as required by ASTM D5778 and ASTM D7400 (if applicable). This minimum data include q_t, f_s, and u. Other correlated parameters may also be provided. These other correlated parameters are interpretations of the measured data based upon published and reliable references, but they do not necessarily represent the actual values that would be derived from direct testing to determine the various parameters. To this end, more than one correlation to a given parameter may be provided. The following chart illustrates estimates of reliability associated with correlated parameters based upon the literature referenced below.

RELATIVE RELIABILITY OF CPT CORRELATIONS



* improves with seismic V_s measurements

Reliability of CPT-predicted N_{60} values as commonly measured by the Standard Penetration Test (SPT) is not provided due to the inherent inaccuracy associated with the SPT test procedure.

WATER LEVEL

The groundwater level at the CPT location is used to normalize the measurements for vertical overburden pressures and as a result influences the normalized soil behavior type classification and correlated soil parameters. The water level may either be "measured" or "estimated:"

Measured - Depth to water directly measured in the field

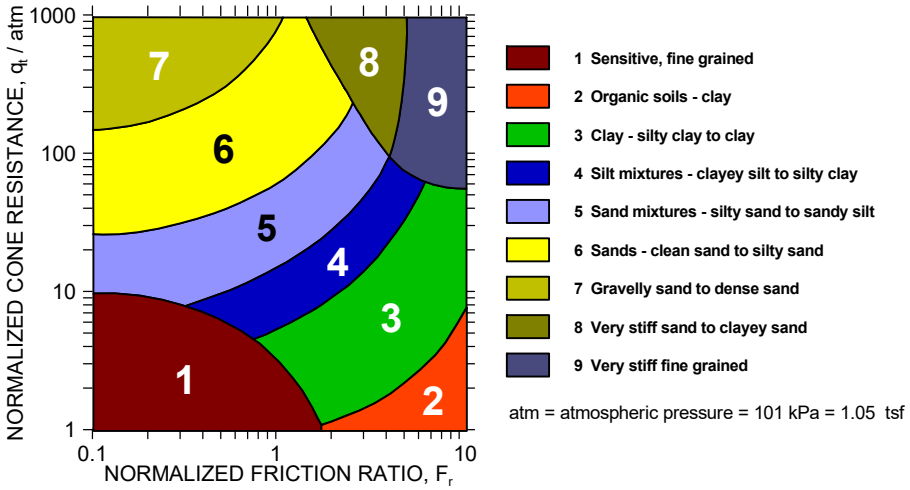
Estimated - Depth to water interpolated by the practitioner using pore pressure measurements in coarse grained soils and known site conditions

While groundwater levels displayed as "measured" more accurately represent site conditions at the time of testing than those "estimated," in either case the groundwater should be further defined prior to construction as groundwater level variations will occur over time.

CONE PENETRATION SOIL BEHAVIOR TYPE

The estimated stratigraphic profiles included in the CPT logs are based on relationships between corrected tip resistance (q_t), friction resistance (f_s), and porewater pressure (u_2). The normalized friction ratio (F_r) is used to classify the soil behavior type.

Typically, silts and clays have high F_r values and generate large excess penetration porewater pressures; sands have lower F_r's and do not generate excess penetration porewater pressures. The adjacent graph (Robertson *et al.*) presents the soil behavior type correlation used for the logs. This normalized SBT chart, generally considered the most reliable, does not use pore pressure to determine SBT due to its lack of repeatability in onshore CPTs.



atm = atmospheric pressure = 101 kPa = 1.05 tsf

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Kulhawy, F.H., Mayne, P.W., (1997). "Manual on Estimating Soil Properties for Foundation Design," Electric Power Research Institute, Palo Alto, CA.

Mayne, P.W., (2013). "Geotechnical Site Exploration in the Year 2013," Georgia Institue of Technology, Atlanta, GA.

Robertson, P.K., Cabal, K.L. (2012). "Guide to Cone Penetration Testing for Geotechnical Engineering," Signal Hill, CA.

Schmertmann, J.H., (1970). "Static Cone to Compute Static Settlement over Sand," *Journal of the Soil Mechanics and Foundations Division*, 96(SM3), 1011-1043.

UNIFIED SOIL CLASSIFICATION SYSTEM

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests [A]					Soil Classification	
					Group Symbol	Group Name [B]
Coarse-Grained Soils: More than 50% retained on No. 200 sieve	**Gravels:** More than 50% of coarse fraction retained on No. 4 sieve	**Clean Gravels:** Less than 5% fines [C]	$Cu \geq 4$ and $1 \leq Cc \leq 3$ [E]		GW	Well-graded gravel [F]
			$Cu < 4$ and/or [$Cc<1$ or $Cc>3.0$] [E]		GP	Poorly graded gravel [F]
		Gravels with Fines: More than 12% fines [C]	Fines classify as ML or MH		GM	Silty gravel [F, G, H]
			Fines classify as CL or CH		GC	Clayey gravel [F, G, H]
	Sands: 50% or more of coarse fraction passes No. 4 sieve	**Clean Sands:** Less than 5% fines [D]	$Cu \geq 6$ and $1 \leq Cc \leq 3$ [E]		SW	Well-graded sand [I]
			$Cu < 6$ and/or [$Cc<1$ or $Cc>3.0$] [E]		SP	Poorly graded sand [I]
		Sands with Fines: More than 12% fines [D]	Fines classify as ML or MH		SM	Silty sand [G, H, I]
			Fines classify as CL or CH		SC	Clayey sand [G, H, I]
Fine-Grained Soils: 50% or more passes the No. 200 sieve	**Silts and Clays:** Liquid limit less than 50	**Inorganic:**	PI > 7 and plots on or above "A"		CL	Lean clay [K, L, M]
			PI < 4 or plots below "A" line [J]		ML	Silt [K, L, M]
		Organic:	Liquid limit - oven dried	< 0.75	OL	Organic clay [K, L, M, N]
			Liquid limit - not dried			Organic silt [K, L, M, O]
	Silts and Clays: Liquid limit 50 or more	**Inorganic:**	PI plots on or above "A" line		CH	Fat clay [K, L, M]
			PI plots below "A" line		MH	Elastic Silt [K, L, M]
		Organic:	Liquid limit - oven dried	< 0.75	OH	Organic clay [K, L, M, P]
			Liquid limit - not dried			Organic silt [K, L, M, Q]
Highly organic soils:	Primarily organic matter, dark in color, and organic odor				PT	Peat

[A] Based on the material passing the 3-inch (75-mm) sieve.

[B] If field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.

[C] Gravels with 5 to 12% fines require dual symbols: GW-GM well-graded gravel with silt, GW-GC well-graded gravel with clay, GP-GM poorly graded gravel with silt, GP-GC poorly graded gravel with clay.

[D] Sands with 5 to 12% fines require dual symbols: SW-SM well-graded sand with silt, SW-SC well-graded sand with clay, SP-SM poorly graded sand with silt, SP-SC poorly graded sand with clay.

[E] $Cu = D_{60}/D_{10}$ $\quad Cc = \dfrac{(D_{30})^2}{D_{10} \times D_{60}}$

[F] If soil contains ≥ 15% sand, add "with sand" to group name.

[G] If fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.

[H] If fines are organic, add "with organic fines" to group name.

[I] If soil contains ≥ 15% gravel, add "with gravel" to group name.

[J] If Atterberg limits plot in shaded area, soil is a CL-ML, silty clay.

[K] If soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel," whichever is predominant.

[L] If soil contains ≥ 30% plus No. 200 predominantly sand, add "sandy" to group name.

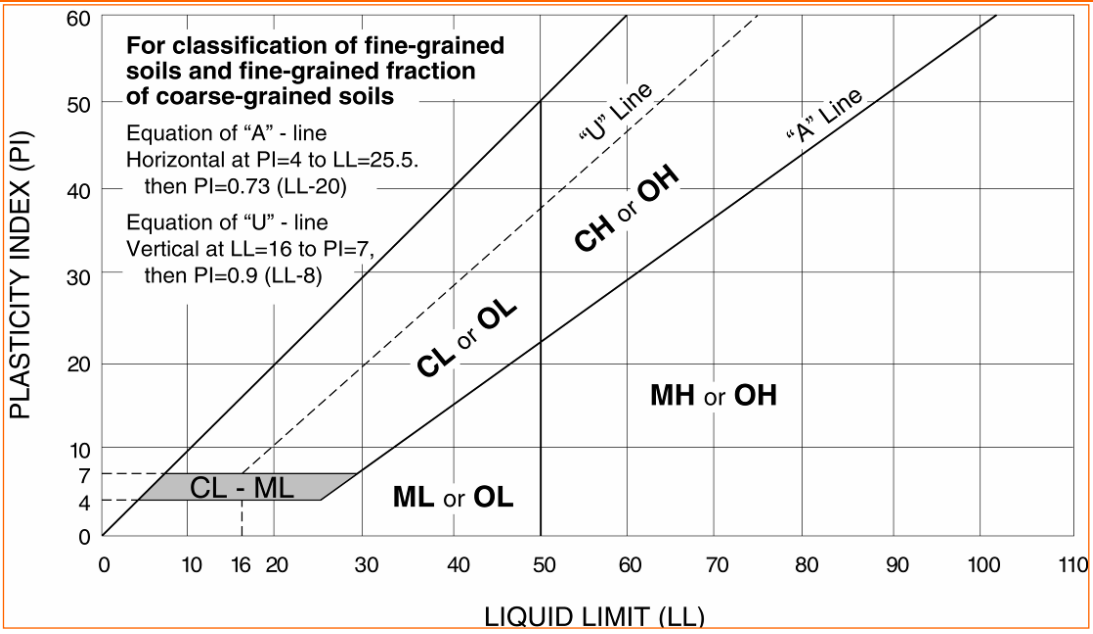
[M] If soil contains ≥ 30% plus No. 200, predominantly gravel, add "gravelly" to group name.

[N] PI ≥ 4 and plots on or above "A" line.

[O] PI < 4 or plots below "A" line.

[P] PI plots on or above "A" line.

[Q] PI plots below "A" line.



Phase I Environmental Site Assessment

Proposed Lenoir County Shell Building

Innovation Way and Sanderson Way

Kinston, Lenoir County, NC

November 11, 2022

Terracon Project No. 72227124

Prepared for:

The Wooten Company

Greenville, North Carolina

Prepared by:

Terracon Consultants, Inc.

Winterville, North Carolina

Explore with us

November 11, 2022

The Wooten Company
301 West 14th Street
Greenville, NC 27834

Attention: Mr. Will Larsen, PE
P: (252) 757-1096
E: wlarsen@thewootencompany.com

Re: Phase I Environmental Site Assessment
Proposed Lenoir County Shell Building
Innovation Way and Sanderson Way
Kinston, Lenoir County, North Carolina
Terracon Project No. 72227124

Dear Mr. Larsen:

Terracon Consultants, Inc. (Terracon) is pleased to submit the enclosed Phase I Environmental Site Assessment (ESA) report for the above-referenced site. This assessment was performed in accordance with Terracon Proposal No. P72225108, dated September 20, 2022, with client authorization to proceed on October 25, 2022.

We appreciate the opportunity to be of service to you on this project. In addition to Phase I services, our professionals provide geotechnical, environmental, construction materials, and facilities services on a wide variety of projects locally, regionally and nationally. For more detailed information on all of Terracon's services please visit our website at www.terracon.com. If there are any questions regarding this report or if we may be of further assistance, please do not hesitate to contact us.

Sincerely,
Terracon Consultants, Inc.

Allen McColl
Project Scientist

Carl F Bonner, PE
Principal / Office Manager

Attachments

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APPENDICES

APPENDIX A Exhibit 1 - Topographic Map, Exhibit 2 - Site Diagram

APPENDIX B Site Photographs

APPENDIX C Historical Documentation

APPENDIX D Environmental Database Information

APPENDIX E Credentials

APPENDIX F Description of Terms and Acronyms

EXECUTIVE SUMMARY

This Phase I Environmental Site Assessment (ESA) was performed in accordance with Terracon Proposal No. P72225108, dated September 20, 2022, with client authorization to proceed on October 25, 2022 and was conducted consistent with the procedures included in ASTM E1527-13, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. The ESA was conducted under the supervision or responsible charge of Allen McColl, Environmental Professional. Mr. McColl performed the site reconnaissance on November 8, 2022.

Findings and Opinions

A summary of findings is provided below. It should be recognized that details were not included or fully developed in this section and the report must be read in its entirety for a comprehensive understanding of the items contained herein.

Site Description and Use

The site is a portion of a larger parcel that is not currently addressed that is situated along Innovation Way and Sanderson Way in Kinston, Lenoir County, North Carolina. Based on information provided by the client and/or the Lenoir County GIS website, we further understand the following: the site is an approximately 5.45 acre portion of Parcel Identification Number 26174; the site is currently an undeveloped field with a thinly wooded area in the northwestern quadrant of the site; and the site is located between commercial properties addressed as 1400 Industrial Boulevard (currently Affordable Dentures) and 1001 Innovation Way (currently Eskra Plastic Surgery).

Historical Information

Based on a review of the historical information, the site has been undeveloped field and/or contained wooded areas since at least 1942. Recognized Environmental Conditions (RECs) were not identified in connection with the historical usage of the site.

The adjoining properties were historically undeveloped fields, undeveloped woodland, residences and/or developed with agricultural buildings from at least 1942 until at least 1993. An industrial building (likely West Pharmaceuticals) was observed on the western adjoining property across Innovation Way and the commercial building currently occupied by Affordable Dentures was observed on the eastern adjoining property on the 1998 aerial photograph. The commercial building that is currently occupied by Eskra Plastic Surgery was first observed on the 2006 aerial photograph. Sanderson Farms industrial building on the southern adjoining property across Sanderson Way and Highway 70 West to the north of the site were first present on the 2012 aerial photograph. An office for Barnhill Contractors is currently located on a northern adjoining property across Highway 70 West and this office building was constructed sometime after 2016. Other

adjoining properties remained undeveloped through at least the date of our site visit. RECs were not identified with the current or historical usage of the adjoining properties.

Records Review

West Pharmaceutical, located on the western adjoining property across Innovation Way and apparently cross-gradient to the site, is listed on the Resource Conservation and Recovery Act (RCRA) Small Quantity Generator (SGG), Integrated Compliance Information System (ICIS) and Air Quality Permit Listing (AIRS) databases.

The RCRA-SQG listing is due to the facility generating between 100 to 1,000 kilograms of hazardous waste per month. The waste generated at this facility is reported on the regulatory database report as chromium. Based on a review of information provided on the regulatory database report, the last on-site compliance inspection was in 2013 and no violations were reported. In addition, no violations were identified on the "Three-Year Compliance History by Quarter" between 2019 to 2022.

The AIRs listing is due to the facility being required to obtain air quality permits for operation. The ICIS listing is due to a Notice of Violations (NOV) reported at the facility for air quality.

Based on review of topographic maps, the expected groundwater flow direction would be towards the south from this facility and not towards the site.

Due to this facility being located apparently cross-gradient to the site with the expected groundwater flow being towards the south and the nature of the listings, this facility operating as an industrial facility and being on the RCRA-SQG, ICIS and AIRS databases is not considered a REC to the site.

SC-9 is listed on the US Mines database. Based on the address provided on the regulatory database report, this facility would be located where Barnhill Contracting's office is located on the northern adjoining property across Highway 70 West. This facility would be apparently up-gradient to the site. Potentially this listing is associated for a mine owned by Barnhill that is located elsewhere or for Barnhill's asphalt plant located approximately 700 feet northwest of the site and the listing and violations are tied to Barnhill's office located at this facility. Based on the nature of the citation and there being no report of a release, Terracon does not consider the SC-9 Mines listing to be a REC associated with the site.

Sanderson Farms, located on the southern adjoining property across Sanderson Way and apparently down-gradient to the site, is listed on the Leaking Aboveground Storage Tank (LAST) database. Based on information from the regulatory database, the LAST listing for this facility is due to a "minor spill" that was "cleaned up immediately" that occurred in 2012. The regulatory database report indicates that NCDEQ issued a Notice of No Further Action for the incident on March 28, 2012. Based on this facility being located down-gradient to the site and the release

achieving closure with NCDEQ, the LAST listing for Sanderson Farms is not considered a REC to the site.

Only one other facility (a recycling center) is listed on the regulatory database report. This facility is located approximately 700 feet northwest of the site and is not considered a REC to the site.

Site Reconnaissance

Terracon observed the site as being mostly an undeveloped field with thinly wooded areas on the northwestern portion of the site.

In addition, Terracon observed the following site characteristics: pole-mounted electrical transformers, utility pipeline markers (fiber optic, electrical and sewer), minor wind-blown trash consisting of plastic wrap and paper bags and a discarded broken PVC pipe. Based on our observations, these listed site characteristics do not appear to be hazardous in nature and are not considered to be RECs to the site.

Adjoining Properties

The site is adjoined to the north by a grassed lot with a billboard and Highway 70 West with an undeveloped field of the parent tract and an office for Barnhill Contracting located across the road; to the east by Affordable Dentures and Implants; to the south by Sanderson Way with a processing plant for Sanderson Farm located across Sanderson Way and a large grassed field; west by Eskra Plastic Surgery and Innovation Way with West Pharmaceutical across the road. Based on usage and/or area topography, RECs were not identified in connection with the adjoining properties.

Significant Data Gaps

None.

Conclusions

We have performed a Phase I ESA consistent with the procedures included in ASTM Practice E 1527-13 at the Proposed Lenoir County Shell Building property located near the intersection of Sanderson Way and Innovation Way in Kinston, Lenoir County, North Carolina, the site. Evidence of RECs were not identified in connection with the site.

Recommendations

Based on the scope of services, limitations, and findings of this assessment, Terracon did not identify RECs, HRECS or Controlled RECs (CRECs) associated with the site. No further investigation is warranted at this time.

1.0 INTRODUCTION

1.1 Site Description

Site Name	Proposed Lenoir County Shell Building
Site Location/Address	The site is a portion of a larger parcel that is not currently addressed that is situated along Innovation Way and Sanderson Way in Kinston, Lenoir County, North Carolina
Land Area	Approximately 5.45 acres
Site Improvements	The site is currently an undeveloped field with woodland on the northwestern portion of the site.
Anticipated Future Site Use	To be developed with an industrial shell building
Purpose of the ESA	Due diligence prior to property transaction

The location of the site is depicted on Exhibit 1 of Appendix A, which was reproduced from a portion of the USGS 7.5-minute series topographic map. The site and adjoining properties are depicted on the Site Diagram, which is included as Exhibit 2 of Appendix A. Acronyms and terms used in this report are described in Appendix F.

1.2 Scope of Services

This Phase I ESA was performed in accordance with Terracon Proposal No. P72225108, dated September 20, 2022, with client authorization to proceed on October 25, 2022, and was conducted consistent with the procedures included in ASTM E1527-13, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. The purpose of this ESA was to assist the client in developing information to identify RECs in connection with the site as reflected by the scope of this report. This purpose was undertaken through user-provided information, a regulatory database review, historical and physical records review, interviews, including local government inquiries, as applicable, and a visual noninvasive reconnaissance of the site and adjoining properties. Limitations, ASTM deviations, and significant data gaps (if identified) are noted in the applicable sections of the report.

ASTM E1527-13 contains a new definition of "migrate/migration," which refers to “the movement of hazardous substances or petroleum products in any form, including, for example, solid and liquid at the surface or subsurface, and vapor in the subsurface.” By including this explicit reference to migration in ASTM E1527-13, the Standard clarifies that the potential for vapor migration should be addressed as part of a Phase I ESA. This Phase I ESA has considered vapor migration in evaluation of RECs associated with the site.

1.3 Standard of Care

This ESA was performed in accordance with generally accepted practices of this profession, undertaken in similar studies at the same time and in the same geographical area. We have endeavored to meet this standard of care, but may be limited by conditions encountered during performance, a client-driven scope of work, or inability to review information not received by the report date. Where appropriate, these limitations are discussed in the text of the report, and an evaluation of their significance with respect to our findings has been conducted.

Phase I ESAs, such as the one performed at this site, are of limited scope, are noninvasive, and cannot eliminate the potential that hazardous, toxic, or petroleum substances are present or have been released at the site beyond what is identified by the limited scope of this ESA. In conducting the limited scope of services described herein, certain sources of information and public records were not reviewed. It should be recognized that environmental concerns may be documented in public records that were not reviewed. No ESA can wholly eliminate uncertainty regarding the potential for RECs in connection with a property. Performance of this practice is intended to reduce, but not eliminate, uncertainty regarding the potential for RECs. No warranties, express or implied, are intended or made. The limitations herein must be considered when the user of this report formulates opinions as to risks associated with the site or otherwise uses the report for any other purpose. These risks may be further evaluated – but not eliminated – through additional research or assessment. We will, upon request, advise you of additional research or assessment options that may be available and associated costs.

1.4 Additional Scope Limitations, ASTM Deviations and Data Gaps

Based upon the agreed-on scope of services, this ESA did not include subsurface or other invasive assessments, vapor intrusion assessments or indoor air quality assessments (i.e. evaluation of the presence of vapors within a building structure), business environmental risk evaluations, or other services not particularly identified and discussed herein. Credentials of the company (Statement of Qualifications) have not been included in this report but are available upon request. Pertinent documents are referred to in the text of this report, and a separate reference section has not been included. Reasonable attempts were made to obtain information within the scope and time constraints set forth by the client; however, in some instances, information requested is not, or was not, received by the issuance date of the report. Information obtained for this ESA was received from several sources that we believe to be reliable; nonetheless, the authenticity or reliability of these sources cannot and is not warranted hereunder. This ESA was further limited due to the following:

- Historical information was only available back to 1942. Since the site has been undeveloped since 1942, the lack of historical information prior to 1942 is not considered a significant data gap.
- The northwestern portion of the site was wooded and vegetative growth obscured our view across this portion of the site.

An evaluation of the significance of limitations and missing information with respect to our findings has been conducted, and where appropriate, significant data gaps are identified and discussed in the text of the report. However, it should be recognized that an evaluation of significant data gaps is based on the information available at the time of report issuance, and an evaluation of information received after the report issuance date may result in an alteration of our conclusions, recommendations, or opinions. We have no obligation to provide information obtained or discovered by us after the issuance date of the report, or to perform any additional services, regardless of whether the information would affect any conclusions, recommendations, or opinions in the report. This disclaimer specifically applies to any information that has not been provided by the client. This report represents our service to you as of the report date and constitutes our final document; its text may not be altered after final issuance. Findings in this report are based upon the site's current utilization, information derived from the most recent reconnaissance and from other activities described herein; such information is subject to change. Certain indicators of the presence of hazardous substances or petroleum products may have been latent, inaccessible, unobservable, or not present during the most recent reconnaissance and may subsequently become observable (such as after site renovation or development). Further, these services are not to be construed as legal interpretation or advice.

1.5 Reliance

This ESA report is prepared for the exclusive use and reliance of The Wooten Company. Use or reliance by any other party is prohibited without the written authorization of Stocks and The Wooten Company and Terracon Consultants, Inc. (Terracon).

Reliance on the ESA by the client and all authorized parties will be subject to the terms, conditions and limitations stated in the proposal, ESA report, and Terracon's Agreement. The limitation of liability defined in the Agreement is the aggregate limit of Terracon's liability to the client and all relying parties.

Continued viability of this report is subject to ASTM E1527-13 Sections 4.6 and 4.8. If the ESA will be used by a different user (third party) than the user for whom the ESA was originally prepared, the third party must also satisfy the user's responsibilities in Section 6 of ASTM E1527-13.

1.6 Client Provided Information

Prior to the site visit, Mr. Will Larson, client's representative, was asked to provide the following user questionnaire information as described in ASTM E1527-13 Section 6.

Client Questionnaire Responses

Client Questionnaire Item	Client Did Not Respond	Client's Response	
		Yes	No
Specialized Knowledge or Experience that is material to a REC in connection with the site.	X		
Actual Knowledge of Environmental Liens or Activity Use Limitations (AULs) that may encumber the site.	X		
Actual Knowledge of a Lower Purchase Price because contamination is known or believed to be present at the site.	X		
Commonly Known or Reasonably Ascertainable Information that is material to a REC in connection with the site.	X		
Obvious Indicators of Contamination at the site.	X		

At the issuance of this report, the client representative has not returned the client user questionnaire.

2.0 PHYSICAL SETTING

Physical Setting Information		Source
Topography		
Site Elevation	Approximately 50 feet (NGVD)	USGS Topographic Map, Quadrangle: Falling Creek, NC 1998
Topographic Gradient	Gently sloping downward towards the south.	
Closest Surface Water	An unnamed tributary of Falling Creek is located approximately 1,100 feet west of the site with Falling Creek being located approximately 1,800 south of the site.	
Soil Characteristics		
Soil Type	Jo – Johns sandy loam	Lenoir County, North Carolina USDA, Natural Resources Conservation Service Soil Survey issued March 1977
Description	Jo – moderately well drained soil on broad, low ridges, infiltration is moderate, runoff is medium to slow and depth to seasonal high-water table is at 1 foot below the surface.	

Physical Setting Information		Source
Geology/Hydrogeology		
Formation	Pee Dee Formation	Geologic Map of North Carolina, 1985
Description	Regionally the site is located in the lower Coastal Plain Physiographic Province. The Coastal Plain deposits consist mainly of marine and deltaic sediments, which were deposited during successive periods of fluctuating sea level and moving shoreline. The soils in this province are typical of those laid down in a shallow, sloping sea bottom. They include sands, silts and clays with irregular deposits of shells. Alluvial sands, silts and clays are typically present near rivers and creeks. The subject site is underlain by a sequence of marine sediments of Cretaceous age known as the Pee Dee Formation.	
Estimated Depth to First Occurrence of Groundwater	The estimated depth to the first occurrence of groundwater is at a depth just below the land surface.	Lenoir County, North Carolina USDA, Natural Resources Conservation Service Soil Survey issued March 1977
*Hydrogeologic Gradient	Not known - may be inferred to be parallel to topographic gradient (primarily to the south or west of the site).	

* The groundwater flow direction and the depth to shallow, unconfined groundwater, if present, would likely vary depending upon seasonal variations in rainfall and other hydrogeological features. Without the benefit of on-site groundwater monitoring wells surveyed to a datum, groundwater depth and flow direction beneath the site cannot be directly ascertained.

3.0 HISTORICAL USE INFORMATION

Terracon reviewed the following historical sources to develop a history of the previous uses of the site and surrounding area, in order to help identify RECs associated with past uses. Copies of selected historical documents are included in Appendix C.

3.1 Historical Topographic Maps, Aerial Photographs, Sanborn Maps

Readily available historical USGS topographic maps and selected historical aerial photographs (at approximately 10 to 15 year intervals) were reviewed to evaluate land development and obtain information concerning the history of development on and near the site. Reviewed historical topographic maps and aerial photographs are summarized below. The aerial photographs were obtained from Environmental Database Resources (EDR). According to EDR, aerial photographs prior to 1942 where not readily available for the site area.

Historical fire insurance maps produced by the Sanborn Map Company were requested from EDR to evaluate past uses and relevant characteristics of the site and surrounding properties. Based upon inquiries to the above-listed Sanborn provider, Sanborn maps were not available for the site.

Topographic map

- Falling Creek, NC dated 1998 — Scale 1: 24,000

Aerial Photographs

- EDR, 1942 — Scale 1":500'
- EDR, 1950 — Scale 1":500'
- EDR, 1956 — Scale 1":500'
- EDR, 1961 — Scale 1":500'
- EDR, 1964 — Scale 1":500'
- EDR, 1974 — Scale 1":500'
- EDR, 1977 — Scale 1":500'
- EDR, 1982 — Scale 1":500'
- EDR, 1994 — Scale 1":500'
- EDR, 1998 — Scale 1":500'
- EDR, 2006 — Scale 1":500'
- EDR, 2009 — Scale 1":500'
- EDR, 2012 — Scale 1":500'
- EDR, 2016 — Scale 1":500'

Historical Maps and Aerial Photographs

Direction	Description
Site	**Topographic map:** Development is not shown. The site is shaded white to indicate field and green to indicate woodland. **Aerial photographs:** Undeveloped field and/or woodland (1942 – 2016).
North	**Topographic map:** Development not shown and shaded green to indicate woodland and white to indicate field. **Aerial photographs:** Undeveloped woodland and field with a few small structures assumed to be former agricultural buildings (1942 – 1974); the northern adjoining property is not shown on this aerial photograph (1977); similar to the 1942 through 1974 aerial photograph (1982); undeveloped woodland and field (1994 – 1998); undeveloped field (2006 – 2009); Highway 70 West is being constructed and across the road are undeveloped fields (2012); Highway 70 West is now present and across the road are undeveloped fields (2016).

Direction	Description
East	**Topographic map:** Developed with a structure in a similar location as the current Affordable Dentures and Implants facility. **Aerial photographs:** Several small structures assumed to be homesteads and agricultural buildings (1942 – 1982); undeveloped field (1994); developed with a building with a similar shape and in a similar location as the current Affordable Dentures and Implants facility (1998 – 2016).
South	**Topographic map:** Across the current Sanderson Way (formerly Highway 70) development is not shown and this area is shaded white to indicate field with woodland and Falling Creek further south. **Aerial photographs:** Across the current Sanderson Way (formerly Highway 70) is a large undeveloped field (1942 – 2009); across the road is a large industrial facility currently occupied by Sanderson Farms (2012 – 2016).
West	**Topographic map:** Innovation Way with a large industrial structure (potentially West Pharmaceutical) located across the road. **Aerial photographs:** Field, residences or agricultural buildings (1942 – 1982); undeveloped field (1994); Innovation Way with an industrial building that is currently occupied by West Pharmaceutical being present across the road, note this building had a few additions over the years (1998 – 2016).

3.2 Historical City Directories

The EDR Digital Archive city directories used in this study were made available through EDR. Selected years reviewed: (2000 – 2017). The city directories were reviewed at approximate five-year intervals, if readily available. City directories for the site area were not readily available prior to 2000. The site is currently undeveloped and not currently addressed and a historical address for the site was not identified.

Historical City Directories

Direction	Description
Site	The site is currently undeveloped and not currently addressed and a historical address for the site was not identified.
North	**1131 Enterprise Boulevard:** address not listed (2000 – 2017). The other northern adjoining properties are not currently addressed and a historical address was not identified.

Direction	Description
East	**1400 Industrial Boulevard:** address not listed (2000 – 2010); Affordable Dentures (2014 – 2017).
South	**2801 Sanderson Way:** address not listed (2000 – 2010); Sanderson Farms (2014 – 2017).
East	**1028 Innovation Way:** address not listed (2000 – 2010); West Pharmaceuticals (2014 – 2017).

3.3 Site Ownership

Based on a review of information obtained from the Lenoir County GIS Website, the current site owner is Lenoir County. Previous site owners were not listed on the GIS website.

3.4 Title Search

At the direction of the client, a title search was not included as part of the scope of services. Unless notified otherwise, we assume that the client is evaluating this information outside the scope of this report.

3.5 Environmental Liens and Activity and Use Limitations

The EDR regulatory database report included a review of both Federal and State Engineering Control (EC) and Institutional Control (IC) databases. Based on a review of the database report, the site was not listed on the EC or IC databases. Please note that in addition to these federal and state listings, AULs can be recorded at the county and municipal level that may not be listed in the regulatory database report. Environmental lien and activity and use limitation records recorded against the site were not provided by the client. At the direction of the client, performance of a review of these records was not included as part of the scope of services and unless notified otherwise, we assume that the client is evaluating this information outside the scope of this report.

3.6 Interviews Regarding Current and Historical Site Uses

The following individuals were interviewed regarding the current and historical use of the site.

Interviews

Interviewer	Name / Phone #	Title	Date/Time
Mr. Allen McColl	Mr. Mark Pope / 252-559-3907	Senior Vice President of Global Transpark Economic Development Region and Long Time Resident of Kinston, NC	November 9, 2022 / 3:40 pm

Mr. Mark Pope Interview:

- His is familiar with the site from living in Kinston for 60 years.
- The site has been undeveloped.
- He is not aware of underground storage tanks (USTs) that would be onsite.
- Affordable Dentures on the eastern adjoining property was the first commercial property in the site area followed by an industrial facility (Electrolux) further northeast of the site.
- The industrial building currently occupied by West Pharmaceutical on the western adjoining property across Innovation Way was built as a shell building in the late 1990s and remained empty until West Pharmaceutical moved into this building around 2003.
- Sanderson Farms on the southern adjoining property across Sanderson Way was constructed in 2010 or 2011.
- He is not aware of gas stations, automotive repair shops, dry cleaners or other industrial facilities that are currently on the adjoining properties or have historically operated on adjoining properties to the site.

3.7 Prior Report Review

Previous environmental reports, permits, registrations and geotechnical reports for the site were not provided by the client to Terracon for review.

4.0 RECORDS REVIEW

Regulatory database information was provided by EDR, a contract information services company. The purpose of the records review was to identify RECs in connection with the site. Information in this section is subject to the accuracy of the data provided by the information services company and the date at which the information is updated. The scope herein did not include confirmation of facilities listed as "unmappable" by regulatory databases.

In some of the following subsections, the words up-gradient, cross-gradient and down-gradient refer to the topographic gradient in relation to the site. As stated previously, the groundwater flow direction and the depth to shallow groundwater, if present, would likely vary depending upon seasonal variations in rainfall and the depth to the soil/bedrock interface. Without the benefit of on-site groundwater monitoring wells surveyed to a datum, groundwater depth and flow direction beneath the site cannot be directly ascertained.

4.1 Federal and State/Tribal Databases

Listed below are the facility listings identified on federal and state/tribal databases within the ASTM-required search distances from the approximate site boundaries. Database definition, descriptions, and the database search report are included in Appendix D.

Federal Databases

Database	Description	Distance (miles)	Listings
CERCLIS	Comprehensive Environmental Response, Compensation, & Liability Information System	0.5	0
CERCLIS / NFRAP	Comprehensive Environmental Response, Compensation, & Liability Information System/No Further Remedial Action Planned	0.5	0
ERNS	Emergency Response Notification System	Site	0
IC / EC	Institutional Control/Engineering Control	Site	0
NPL	National Priorities List	1	0
NPL (Delisted)	National Priorities Delisted List	0.5	0
RCRA CORRACTS/ TSD	RCRA Corrective Action Activity	1	0
RCRA Generators	Resource Conservation and Recovery Act	Site and adjoining properties	1
RCRA Non-CORRACTS/ TSD	RCRA Non-Corrective Action Activity	0.5	0

State/Tribal Databases

Brownfields	Brownfields Projects Inventory	0.5	0
DRYCLEANERS	Dry-cleaning Sites	0.25	0
HSDS	Hazardous Substance Disposal Sites	1	0
IC	Institutional Controls Sites	Site	0
IMD	Incident Management Database	0.5	0
LUST	Leaking Underground Storage Tanks	0.5	0
LAST	Leaking Aboveground Storage Tanks	0.5	1
SHWS	State Hazardous Waste Site	0.5	0
SWF/LF	Solid Waste Facilities/Landfills	0.5	0
UST	Underground Storage Tanks	Site and adjoining properties	0
VCP	Voluntary Cleanup Program	0.5	0

Other Environmental Database Listings

SWRCY	Recycling Center	0.5	1
US Mines	Mines	0.5	1
AIRS and/or ICIS	Air Quality Permit Listing / Integrated Compliance Information System	Site and adjoining properties	1

In addition to the above ASTM-required listings, Terracon reviewed other federal, state, local, and proprietary databases provided by the database firm. A list of the additional reviewed databases is included in the regulatory database report included in Appendix D. Please note that the EDR report may indicate facilities at incorrect locations. Terracon utilized the Lenoir County GIS website and our knowledge of the area in order to identify the correct locations of these listed facilities. The following table summarizes the site-specific information provided by the database and/or gathered by this office for the identified facilities within 500 feet of the site.

Listed Facilities Within 500 Feet of the Site

Facility Name and Location	Estimated Distance / Direction/Gradient	Database Listings	Is a REC, CREC, or HREC to the Site
West Pharmaceutical / 1028 Innovation Way	Western Adjoining Property / Cross-Gradient	RCRA-SQG, AIRS, ICIS	No
SC-9 / 1131 Enterprise Boulevard	Northern Adjoining Property / Up-Gradient	US Mines	No
Sanderson Farms / 4985 Highway 70 West	Southern Adjoining Property / Down-Gradient	LAST	No

West Pharmaceutical, located on the western adjoining property across Innovation Way and apparently cross-gradient to the site, is listed on the Resource Conservation and Recovery Act RCRA-SGG, ICIS and AIRS databases.

The RCRA-SQG listing is due to the facility generating between 100 to 1,000 kilograms of hazardous waste per month. The waste generated at this facility is reported on the regulatory database report as chromium. Based on a review of information provided on the regulatory database report, the last on-site compliance inspection was in 2013 and no violations were reported. In addition, no violations were identified on the “Three-Year Compliance History by Quarter” between 2019 to 2022.

The AIRs listing is due to the facility being required to obtain air quality permits for operation. The ICIS listing is due to a NOV reported at the facility for air quality.

Based on review of topographic maps, the expected groundwater flow direction would be towards the south from this facility and not towards the site.

Due to this facility being located apparently cross-gradient to the site with the expected groundwater flow being towards the south and the nature of the listings, this facility operating as an industrial facility and being on the RCRA-SQG, ICIS and AIRS databases is not considered a REC to the site.

SC-9 is listed on the US Mines database. Based on the address provided on the regulatory database report, this facility would be located where Barnhill Contracting’s office is located on the

northern adjoining property across Highway 70 West. based on the address provided on the regulatory database report, this facility would be located where Barnhill Contracting's office is located on the northern adjoining property across Highway 70 West. This facility would be apparently up-gradient to the site. This facility is listed as a MINES facility (Mine ID: 3102321). According to the regulatory database report, this facility is associated with a surface/sand mine owned by Barnhill Contracting Company since April 11, 2018. A citation was reported on January 13, 2022 (Violation Number: 9633025) and identified as code 56.14100, which appears to be associated with safety defects; examination, correction and records. Potentially this listing is associated for a mine owned by Barnhill that is located elsewhere or for Barnhill's asphalt plant located approximately 700 feet northwest of the site and the listing and violations are tied to Barnhill's office located at this facility. Based on the nature of the citation and there being no report of a release, Terracon does not consider the SC-9 Mines listing to be a REC associated with the site.

Sanderson Farms, located on the southern adjoining property across Sanderson Way and apparently down-gradient to the site, is listing on the LAST database. Based on information from the regulatory database, the LAST listing for this facility is due to a "minor spill" that was "cleaned up immediately" that occurred in 2012. The regulatory database report indicates that NCDEQ issued a Notice of No Further Action for the incident on March 28, 2012. Based on this facility being located down-gradient to the site and the release achieving closure with NCDEQ, the LAST listing for Sanderson Farms is not considered a REC to the site.

Only one other facility (a recycling center) is listed on the regulatory database report. This facility is located approximately 700 feet northwest of the site and is not considered a REC to the site.

Unmapped facilities are those that do not contain sufficient address or location information to evaluate the facility listing locations relative to the site. No facilities are listed in the unmapped section.

4.2 Local Agency Inquiries

Agency Contacted/ Contact Method	Response
Lenoir County Environmental Health Department / Phone (252) 526-4200	According to the Lenoir County Environmental Health Department, other than septic tank violations and restaurant violations, they do not keep records of environmental concerns and suggested that we contact the North Carolina Department of Environmental Quality (NCDEQ) for the records we are requesting.

Agency Contacted/ Contact Method	Response
The City of Kinston Inspections Department and Zoning/Planning Department / Phone 252-939-3265	The City of Kinston Zoning/Planning Department was contacted regarding environmental records for the site. The City of Kinston Zoning/Planning Department was not aware of environmental liens, use restrictions or environmental records associated with the site. The City of Kinston Inspections Department was contacted regarding environmental records for the site. According to representatives of this agency, no liens, use restrictions or environmental records are on file at their agency for the site.
City of Kinston Fire Department / Phone 252-939-3164	City of Kinston Fire Department was contacted by telephone regarding documentation, which might indicate recognized environmental conditions on the site. At the issuance of this report, a response has not been received from this agency.
NCDEQ / Phone 252-946-6481 (Washington Regional Office)	Terracon contacted NCDEQ about the site and about reported incidents on the adjoining properties. Terracon obtained additional files from NCDEQ's online repository. Please see Section 4.0 Records Review for additional information.

4.3 Local Area Knowledge

Terracon does not have local area knowledge privy to environmental concerns at the site or on its adjoining properties and has relied on information gathered during historical interviews, regulatory database reports and site characteristics observed during our site visit to gather information about potential environmental concerns associated with the site.

5.0 SITE RECONNAISSANCE

5.1 General Site Information

Information contained in this section is based on a visual reconnaissance conducted while walking through the site and the accessible interior areas of structures, if any, located on the site. The site and adjoining properties are depicted on the Site Diagram, which is included in Exhibit 2 of Appendix A. Photo documentation of the site at the time of the visual reconnaissance is provided in Appendix B. Credentials of the individuals planning and conducting the site visit are included in Appendix E.

General Site Information

Site Reconnaissance	
Field Personnel	Allen McColl
Reconnaissance Date	November 8, 2022
Weather Conditions	Windy / Sunny / 62°
Site Contact/Title	Mr. Mark Pope / Senior Vice President of Global Transpark Economic Development Region
Site Utilities	
Drinking Water	Available by the municipal water provider.
Wastewater	Available by the municipal sewer provider.

5.2 Overview of Current Site Occupants and Operations

The site is a portion of a larger parcel that is not currently addressed that is situated along Innovation Way and Sanderson Way in Kinston, Lenoir County, North Carolina. Based on information provided by the client and/or the Lenoir County GIS website, we further understand the following: the site is an approximately 5.45 acre portion of Parcel Identification Number 26174; the site is currently an undeveloped field with a thinly wooded area in the northwestern quadrant of the site; and the site is located between commercial properties addressed as 1400 Industrial Boulevard (currently Affordable Dentures) and 1001 Innovation Way (currently Eskra Plastic Surgery).

5.3 Site Observations

The following table summarizes site observations and interviews. Affirmative responses (designated by an “X”) are discussed in more detail following the table.

Site Characteristics

Category	Item or Feature	Observed or Identified
Site Operations, Processes, and Equipment	Emergency generators	
	Elevators	
	Air compressors	
	Hydraulic lifts	
	Dry cleaning	
	Photo processing	
	Ventilation hoods and/or incinerators	
	Waste treatment systems and/or water treatment systems	
	Heating and/or cooling systems	
	Paint booths	
	Sub-grade mechanic pits	
	Wash-down areas or carwashes	
	Pesticide/herbicide production or storage	
	Printing operations	
	Metal finishing (e.g., electroplating, chrome plating, galvanizing, etc.)	
	Salvage operations	
	Oil, gas or mineral production	
	Other processes or equipment	
Aboveground Chemical or Waste Storage	Aboveground storage tanks	
	Drums, barrels and/or containers ≥ 5 gallons	
	MSDS or SDS	
Underground Chemical or Waste Storage, Drainage or Collection Systems	Underground storage tanks or ancillary UST equipment	
	Sumps, cisterns, French drains, catch basins and/or dry wells	
	Grease traps	
	Septic tanks and/or leach fields	
	Oil/water separators, clarifiers, sand traps, triple traps, interceptors	
	Pipeline markers	X
	Interior floor drains	
Electrical Transformers/ PCBs	Transformers and/or capacitors	X
	Other equipment	

Category	Item or Feature	Observed or Identified
Releases or Potential Releases	Stressed vegetation	
	Stained soil	
	Stained pavement or similar surface	
	Leachate and/or waste seeps	
	Trash, debris and/or other waste materials	X
	Dumping or disposal areas	
	Construction/demolition debris and/or dumped fill dirt	
	Surface water discoloration, odor, sheen, and/or free-floating product	
	Strong, pungent or noxious odors	
	Exterior pipe discharges and/or other effluent discharges	
Other Notable Site Features	Surface water bodies	
	Quarries or pits	
	Wastewater lagoons	
	Wells	

Underground Chemical or Waste Storage, Drainage or Collection Systems

Pipeline markers

A pipeline marker for a sewer line was observed near the southeastern corner of the site. In addition, Terracon observed markers for fiber optic and electrical lines along the southern portion of the site. These markers or the buried utilities are not considered RECs to the site.

Electrical Transformers/ PCBs

Transformers and/or capacitors

Terracon observed three pole-mounted electrical transformers on a common pole near the southwestern property corner of the site. “Blue Dot” stickers were observed on each of these electrical transformers indicating they are PCB free. Evidence of current or prior release was not observed in the vicinity of the electrical equipment during site reconnaissance. Based on the site observations, the observed electrical transformers do not constitute a REC to the site.

Releases or Potential Releases

Trash, debris and/or other waste materials

Terracon observed wind-blown trash scattered along areas of the road frontages of the site that consisted of paper bags and plastic wrap. Terracon also observed a broken discarded PVC pipe on the northern portion of the site near the tree line. Based on the site observations, the observed debris does not constitute a REC to the site.

6.0 ADJOINING PROPERTY RECONNAISSANCE

Visual observations of adjoining properties (from site boundaries) are summarized below.

Adjoining Properties

Direction	Description
North	**1131 Enterprise Boulevard:** an office for Barnhill Contracting The other northern adjoining properties are not currently addressed and a historical address was not identified.
East	**1400 Industrial Boulevard:** Affordable Dentures and Implants
South	**2801 Sanderson Way (aka 4985 Highway 70 West):** Sanderson Farms Processing Plant
West	**1028 Innovation Way:** West Pharmaceutical

Based on usage and/or area topography, RECs were not identified in connection with the adjoining properties.

7.0 ADDITIONAL SERVICES

Per the agreed scope of services specified in the proposal, additional services (e.g. asbestos sampling, lead-based paint sampling, wetlands evaluation, lead in drinking water testing, radon testing, vapor encroachment screening, etc.) were not conducted.

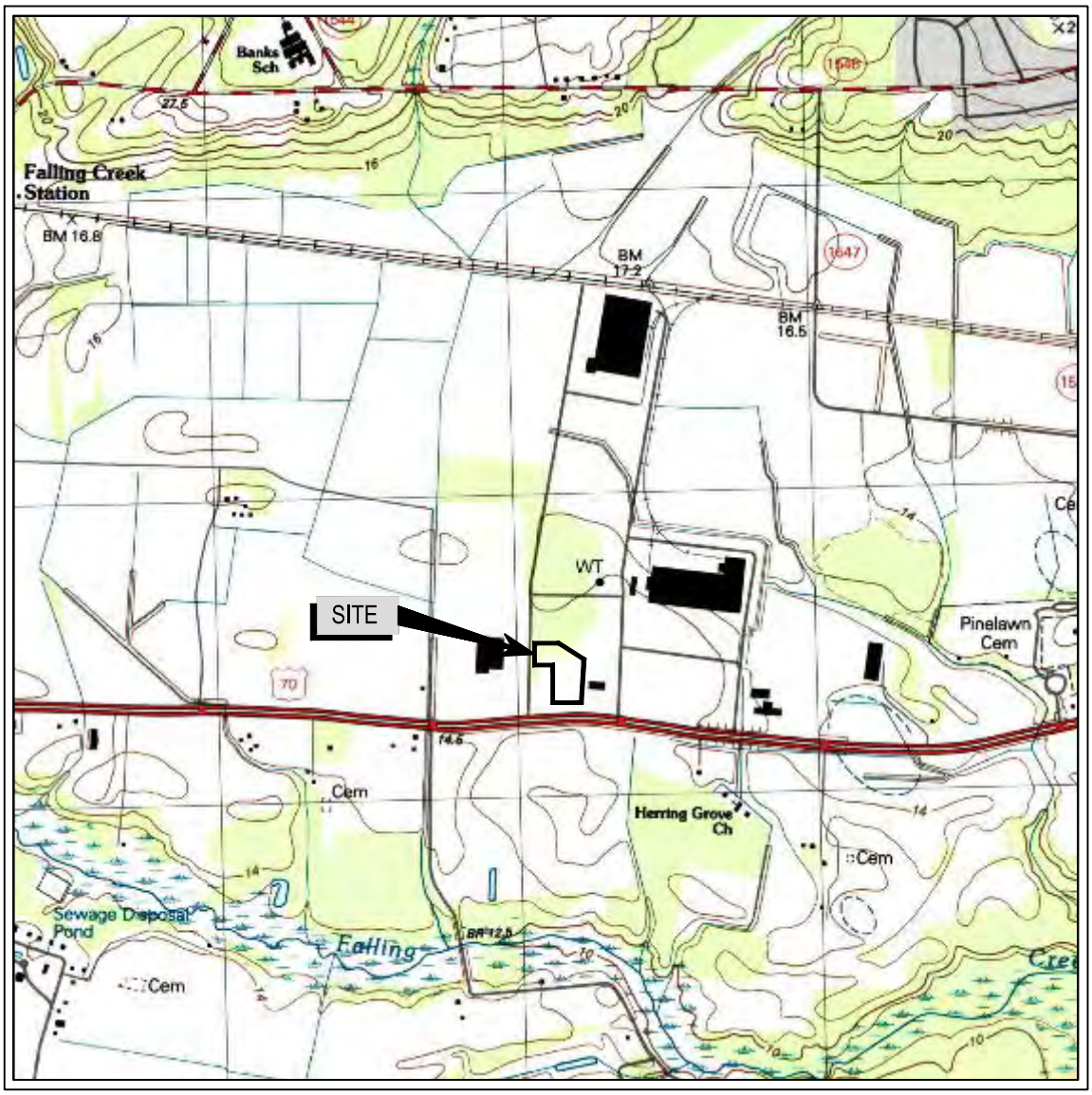
8.0 DECLARATION

I, Allen McColl, declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in Section 312.10 of 40 CFR 312; and I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the site. I have developed and performed the All Appropriate Inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Allen McColl
Environmental Professional

APPENDIX A
EXHIBIT 1 – TOPOGRAPHIC MAP
EXHIBIT 2 – SITE DIAGRAM

UNITED STATES – DEPARTMENT OF THE INTERIOR – GEOLOGICAL SURVEY



SCALE 1:24 000

1 .5 0 KILOMETERS 1 2

1000 0 METERS 1000 2000

1 .5 0 1

MILES

1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10 000

FEET

CONTOUR INTERVAL 2 METER

NATIONAL GEODETIC VERTICAL DATUM OF 1929

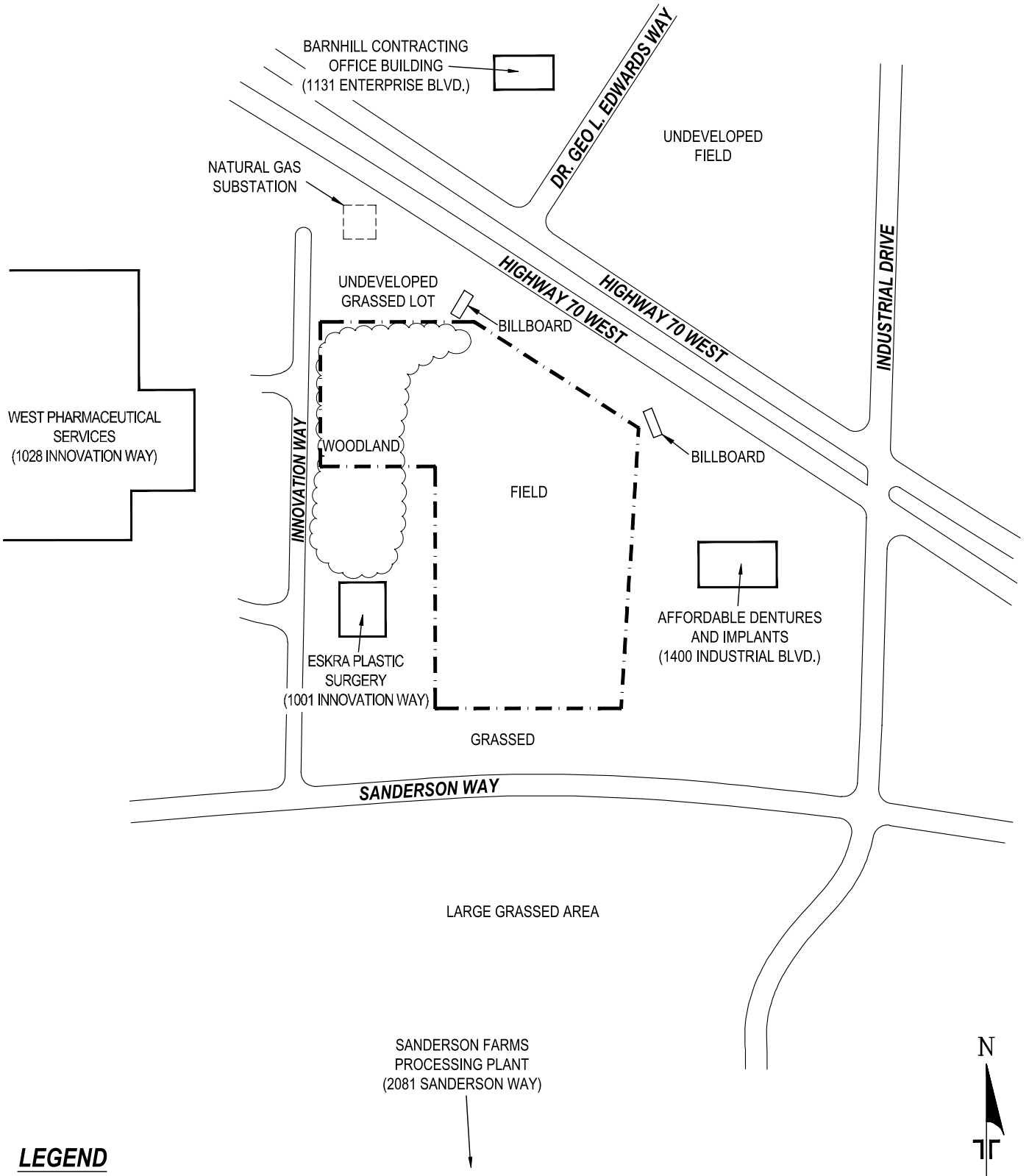
N

QUADRANGLE
FALLING CREEK, NC
1998
7.5 MINUTE SERIES (TOPOGRAPHIC)

*INDICATES WHICH MAP SITE IS LOCATED ON

Project Mngr: KAM	Project No. 72227124	Terracon	TOPOGRAPHIC VICINITY MAP
Drawn By: RLW	Scale: AS SHOWN		PHASE I ENVIRONMENTAL SITE ASSESSMENT
Checked By: KAM/MRF	File No. ESA72227124-1		PROPOSED LENOIR COUNTY SHELL BUILDING
Approved By: KAM	Date: NOV. 2022	314 Beacon Drive Winterville, NC 28590 (252) 353-1600 (252) 353-0002	INNOVATION WAY KINSTON, NC

EXHIBIT 1



THIS DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Project Mngr: KAM	Project No. 72227124	terracon	SITE DIAGRAM
Drawn By: RLW	Scale: AS SHOWN		PHASE I ENVIRONMENTAL SITE ASSESSMENT
Checked By: KAM/MRF	File No. ESA72227124		PROPOSED LENOIR COUNTY SHELL BUILDING
Approved By: KAM	Date: NOV. 2022	314 Beacon Drive Winterville, NC 28590 (252) 353-1600 (252) 353-0002	INNOVATION WAY KINSTON, NC

EXHIBIT 2

APPENDIX B
SITE PHOTOGRAPHS

Photo 1 Near the southeastern property corner, looking northwest across the site.

Photo 2 Near the southeastern property corner, looking north along the eastern property line.

Photo 3 Near the southeastern property corner, looking west along the southern property line and along Sanderson Way..

Photo 4 A manhole cover and pipeline marker for municipal sewer located near the southeastern property corner.

Photo 5 Utility equipment consisting of electrical and fiber optics observed on the southern portion of the site.

Photo 6 Pole-mounted electrical transformers observed near the southwestern property corner.

Photo 7 Near the southwestern property corner, looking east along the southern property line and along Sanderson Way.

Photo 8 Near the southwestern property corner, looking northeast across the site.

Photo 9 Near the southwestern property corner, looking north along the western property line.

Photo 10 Looking northwest and showing the wooded portions of the site that are located on the northwestern portion of the site.

Photo 11 A typical view inside the wooded portion of the site.

Photo 12 Another typical view inside the wooded portion of the site.

Photo 13 A broken PVC pipe observed along the edge of the wooded area of the site.

Photo 14 Looking north along the western property line that extends along Innovation Way.

Photo 15 A grassed lot with a billboard and a natural gas substation on northern adjoining properties.

Photo 16 An undeveloped field (portion of the parent tract) on the northern adjoining property across Highway 70 West.

Photo 17 An office for Barnhill Contacting located on the northern adjoining property across Highway 70 West.

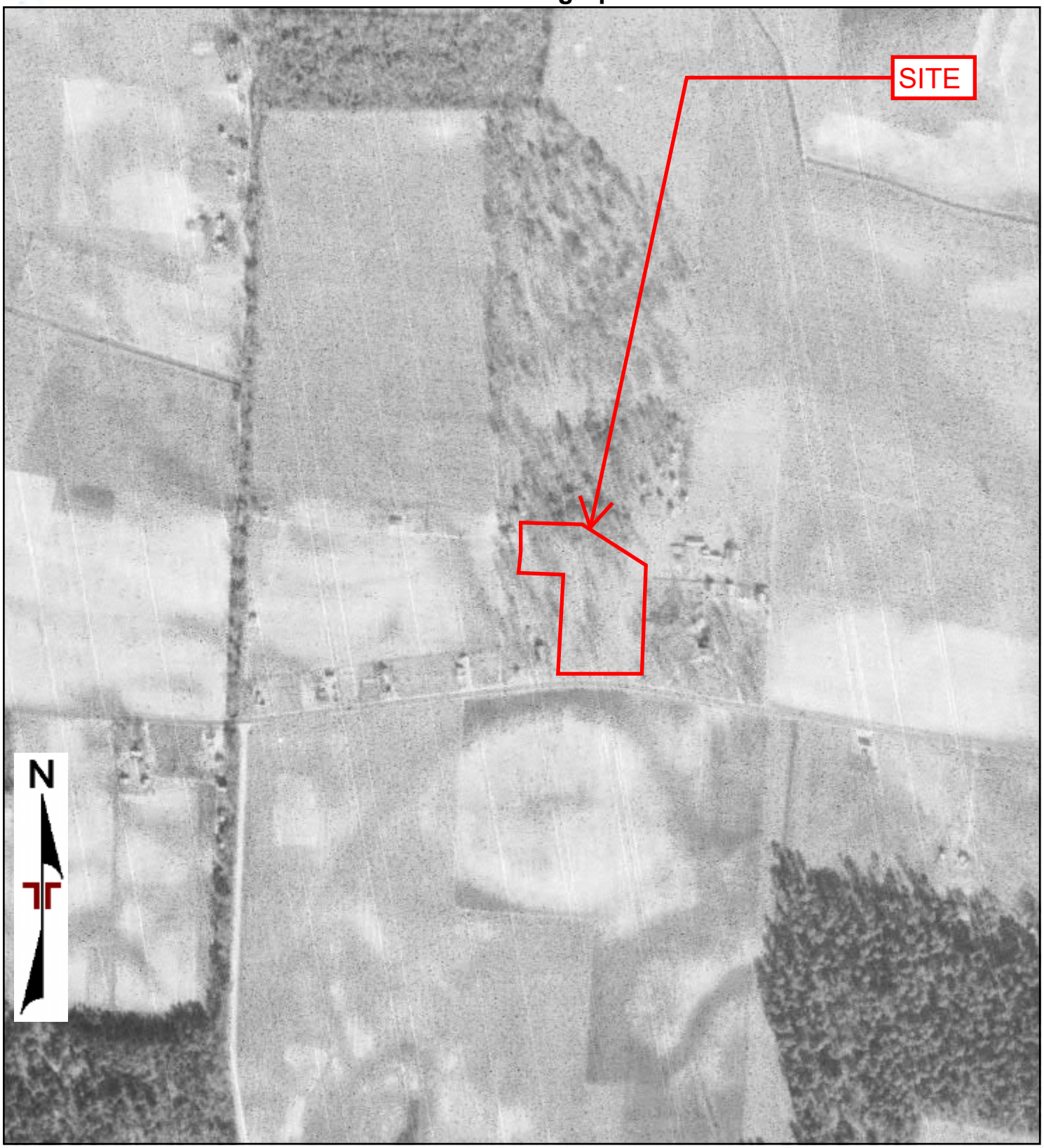
Photo 18 Affordable Dentures and Implants on the eastern adjoining property.

Photo 19 Sanderson Farms processing plant on the southern adjoining property across Sanderson Way.

Photo 20 Eskra Plastic Surgery located on the western adjoining property.

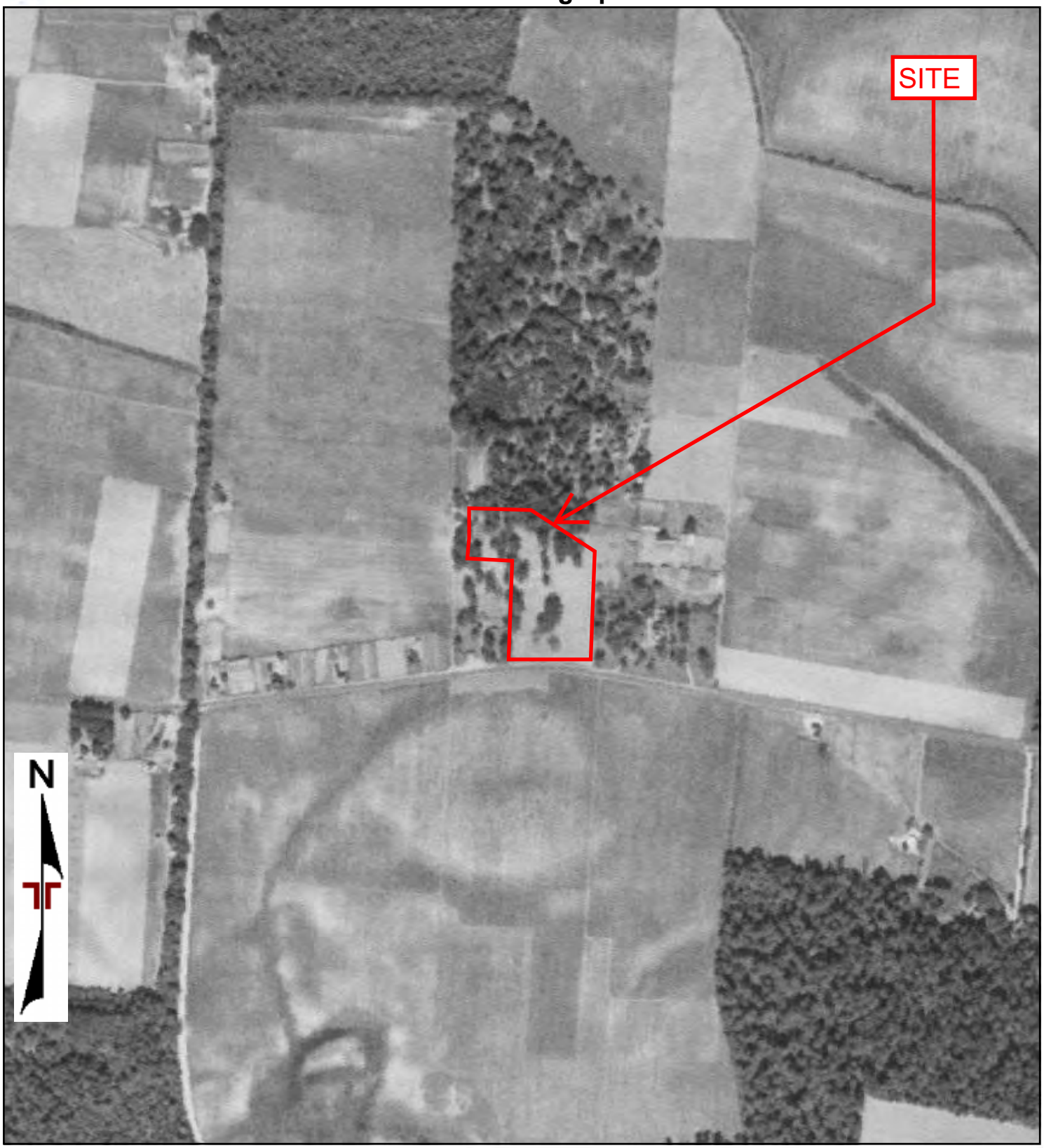
Photo 21 West Pharmaceutical on the western adjoining property across Innovation Way.

APPENDIX C
HISTORICAL DOCUMENTATION



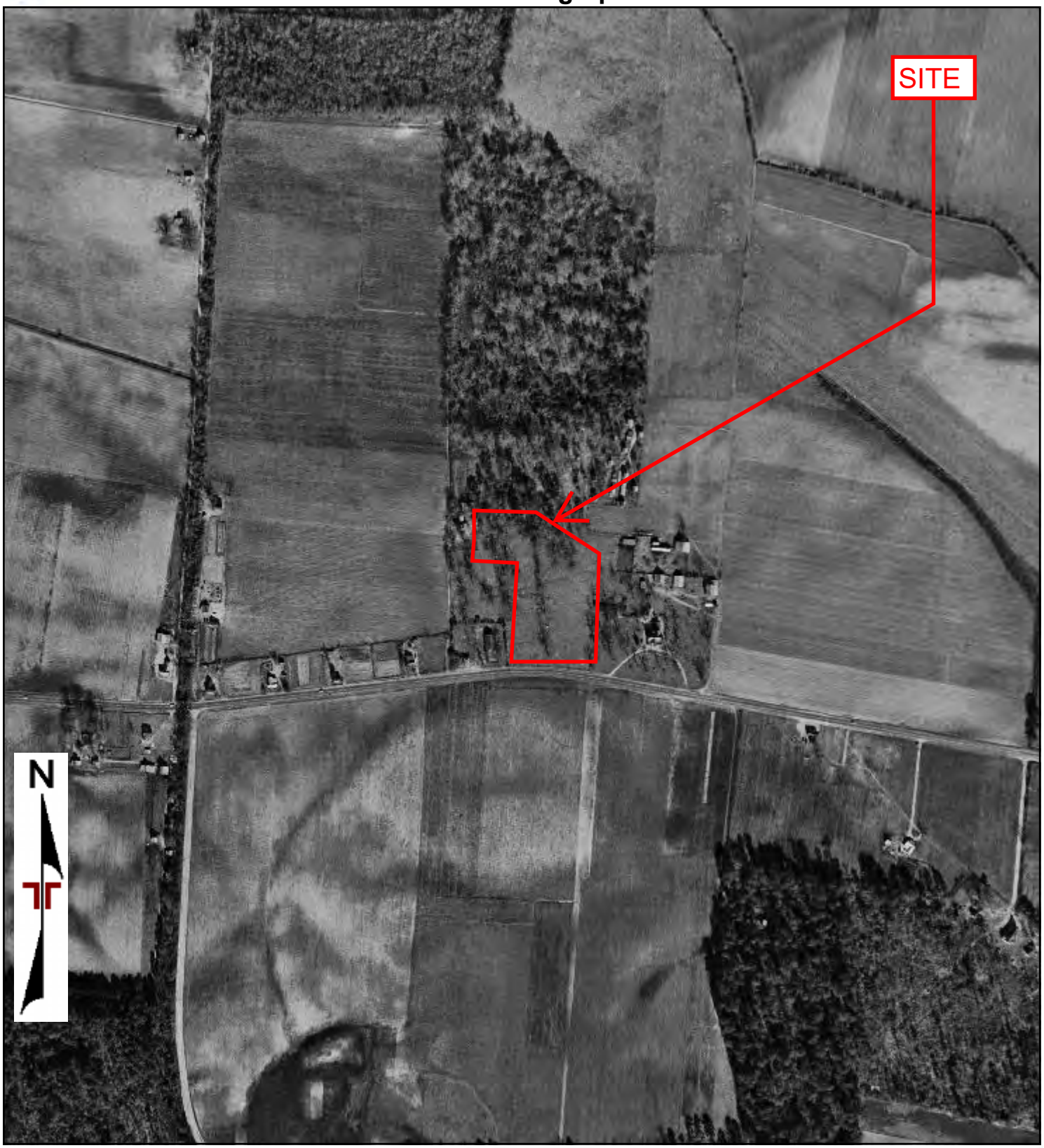
0 Feet 500 1000 2000

Project Manager: KAM	Project No: 72227124	Terracon 314 Beacon Drive Winterville, NC 28590	1942 AERIAL PHOTOGRAPH Proposed Lenoir County Shell Building Innovation Way Kinston, NC	Appendix C
Drawn By: KAM	Scale: As Shown			
Checked By: CFB	File Name: 72227124			
Approved By: KAM	Date: 1942			



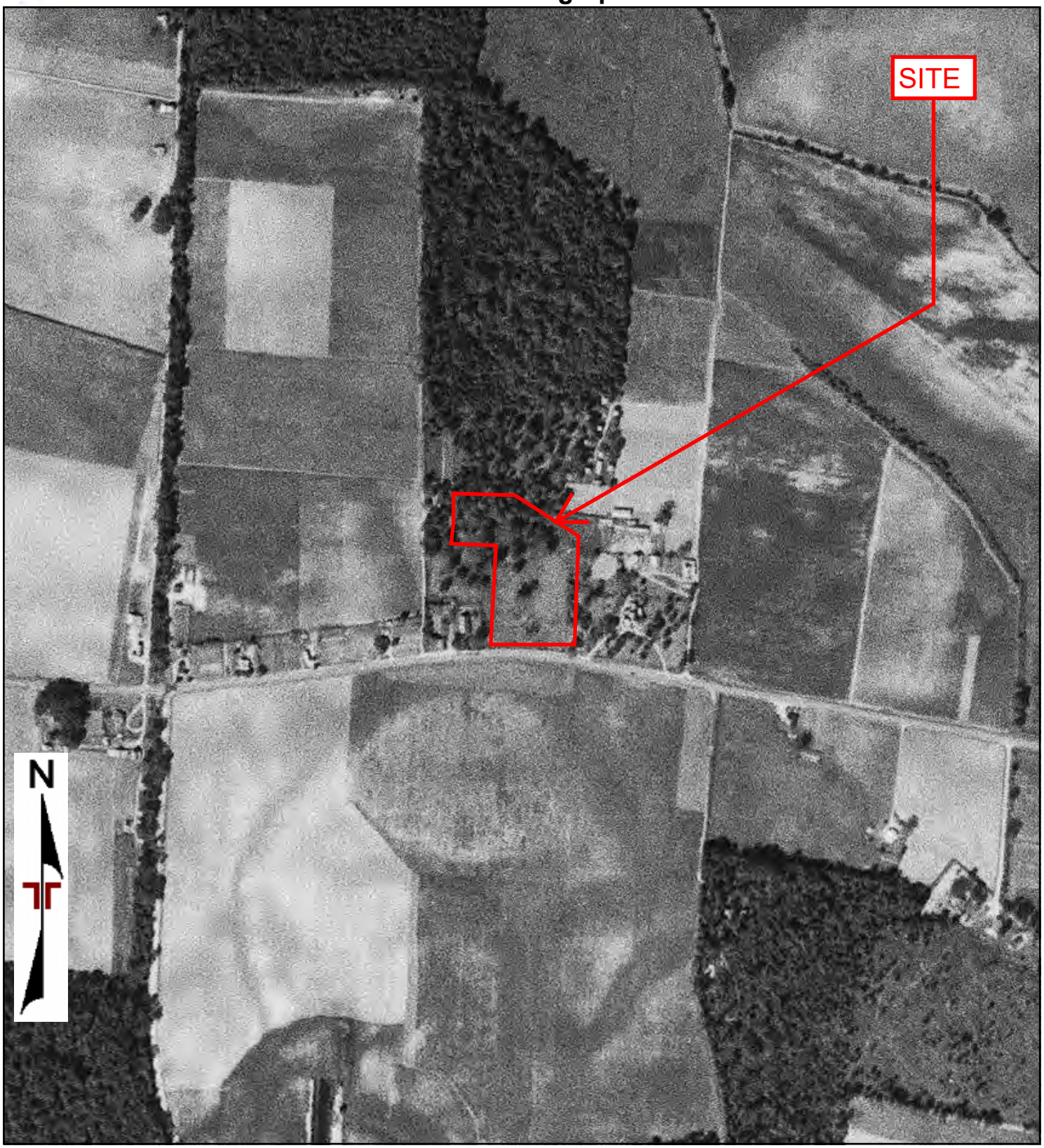
0 Feet 500 1000 2000

Project Manager: KAM	Project No: 72227124	Terracon 314 Beacon Drive Winterville, NC 28590	1950 AERIAL PHOTOGRAPH Proposed Lenoir County Shell Building Innovation Way Kinston, NC	Appendix C
Drawn By: KAM	Scale: As Shown			
Checked By: CFB	File Name: 72227124			
Approved By: KAM	Date: 1950			



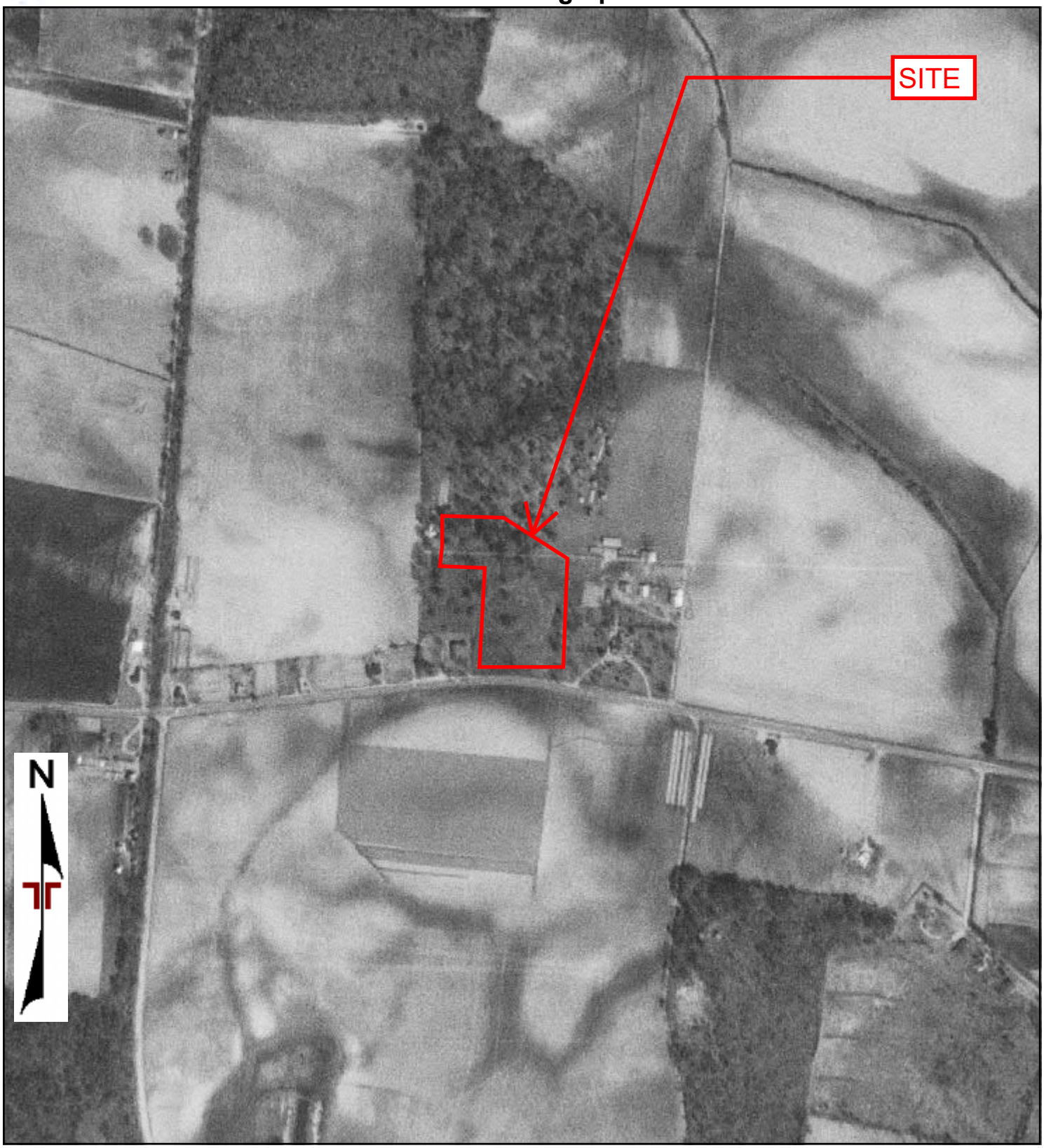
0 Feet 500 1000 2000

Project Manager: KAM	Project No: 72227124	Terracon 314 Beacon Drive Winterville, NC 28590	1956 AERIAL PHOTOGRAPH Proposed Lenoir County Shell Building Innovation Way Kinston, NC	Appendix C
Drawn By: KAM	Scale: As Shown			
Checked By: CFB	File Name: 72227124			
Approved By: KAM	Date: 1956			



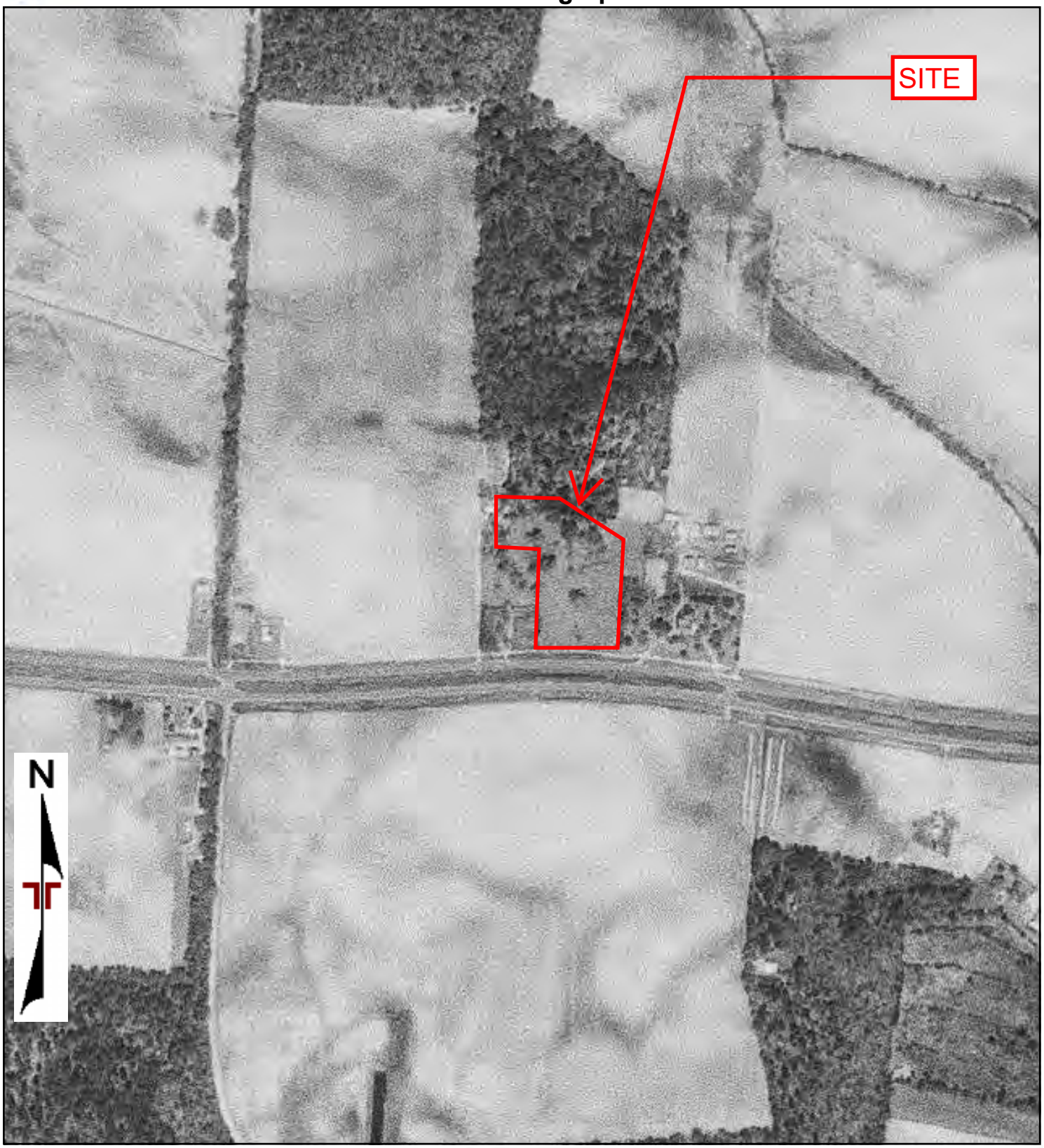
0 Feet 500 1000 2000

Project Manager: KAM	Project No: 72227124	Terracon 314 Beacon Drive Winterville, NC 28590	1961 AERIAL PHOTOGRAPH Proposed Lenoir County Shell Building Innovation Way Kinston, NC	Appendix C
Drawn By: KAM	Scale: As Shown			
Checked By: CFB	File Name: 72227124			
Approved By: KAM	Date: 1961			



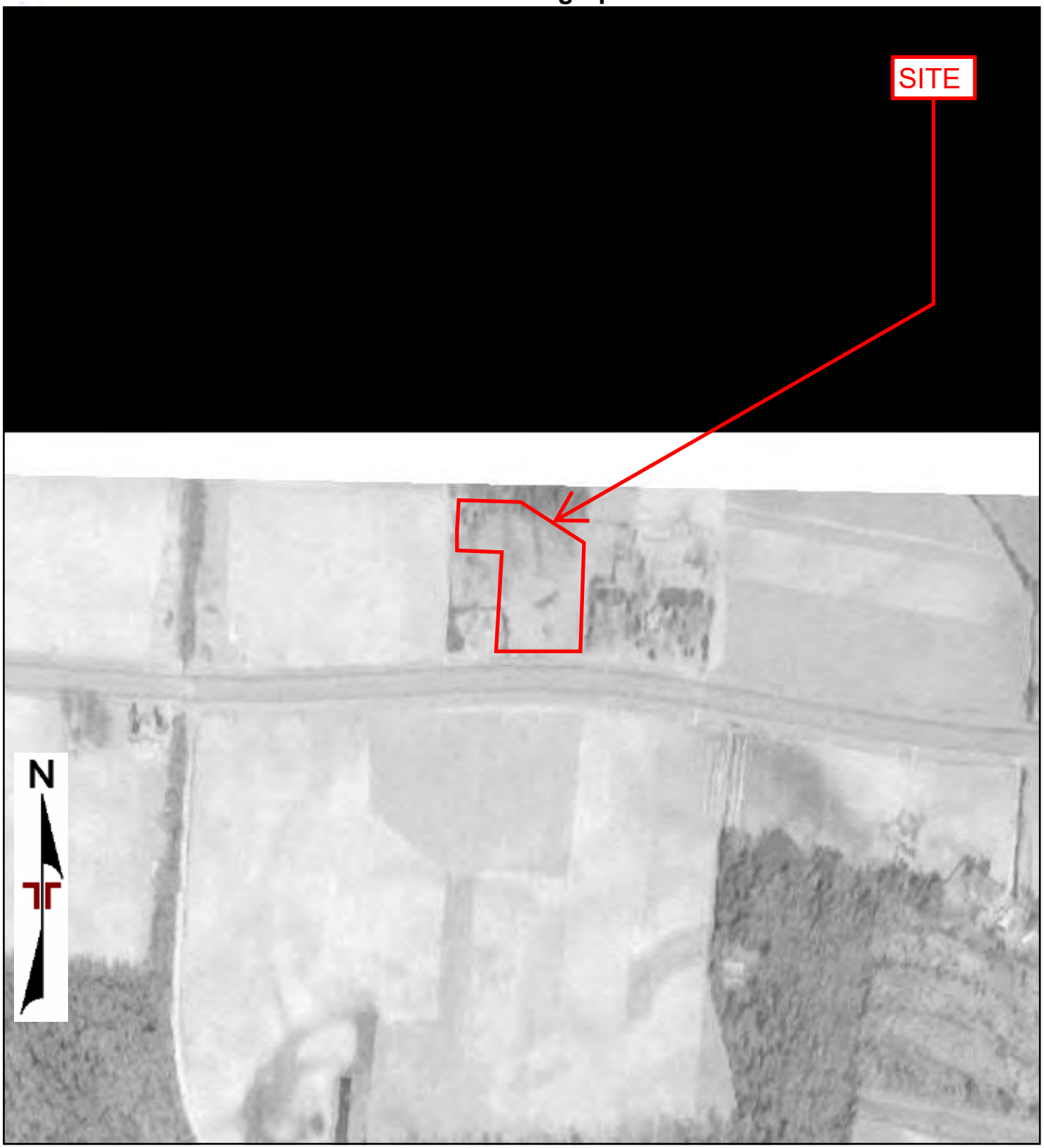
0 Feet 500 1000 2000

Project Manager: KAM	Project No: 72227124	Terracon 314 Beacon Drive Winterville, NC 28590	1964 AERIAL PHOTOGRAPH Proposed Lenoir County Shell Building Innovation Way Kinston, NC	Appendix C
Drawn By: KAM	Scale: As Shown			
Checked By: CFB	File Name: 72227124			
Approved By: KAM	Date: 1964			



0 Feet 500 1000 2000

Project Manager: KAM	Project No: 72227124	Terracon 314 Beacon Drive Winterville, NC 28590	1974 AERIAL PHOTOGRAPH Proposed Lenoir County Shell Building Innovation Way Kinston, NC	Appendix C
Drawn By: KAM	Scale: As Shown			
Checked By: CFB	File Name: 72227124			
Approved By: KAM	Date: 1974			



0 Feet 500 1000 2000

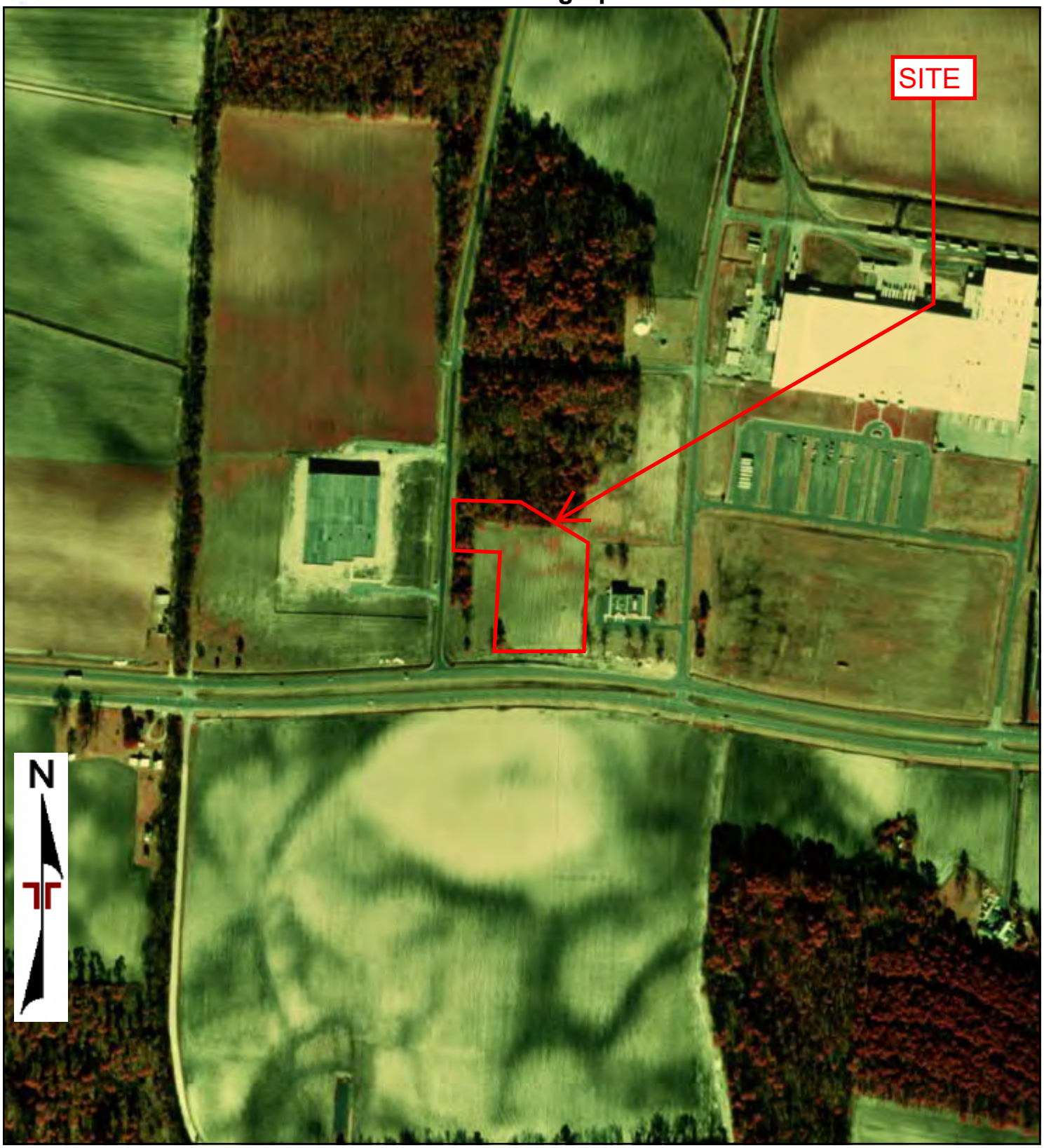
Project Manager: KAM	Project No: 72227124	Terracon 314 Beacon Drive Winterville, NC 28590	1977 AERIAL PHOTOGRAPH Proposed Lenoir County Shell Building Innovation Way Kinston, NC	Appendix C
Drawn By: KAM	Scale: As Shown			
Checked By: CFB	File Name: 72227124			
Approved By: KAM	Date: 1977			

0 Feet 500 1000 2000

Project Manager: KAM	Project No: 72227124	Terracon 314 Beacon Drive Winterville, NC 28590	1982 AERIAL PHOTOGRAPH Proposed Lenoir County Shell Building Innovation Way Kinston, NC	Appendix C
Drawn By: KAM	Scale: As Shown			
Checked By: CFB	File Name: 72227124			
Approved By: KAM	Date: 1982			

0 Feet 500 1000 2000

Project Manager: KAM	Project No: 72227124	Terracon 314 Beacon Drive Winterville, NC 28590	1994 AERIAL PHOTOGRAPH Proposed Lenoir County Shell Building Innovation Way Kinston, NC	Appendix C
Drawn By: KAM	Scale: As Shown			
Checked By: CFB	File Name: 72227124			
Approved By: KAM	Date: 1994			



0 Feet 500 1000 2000

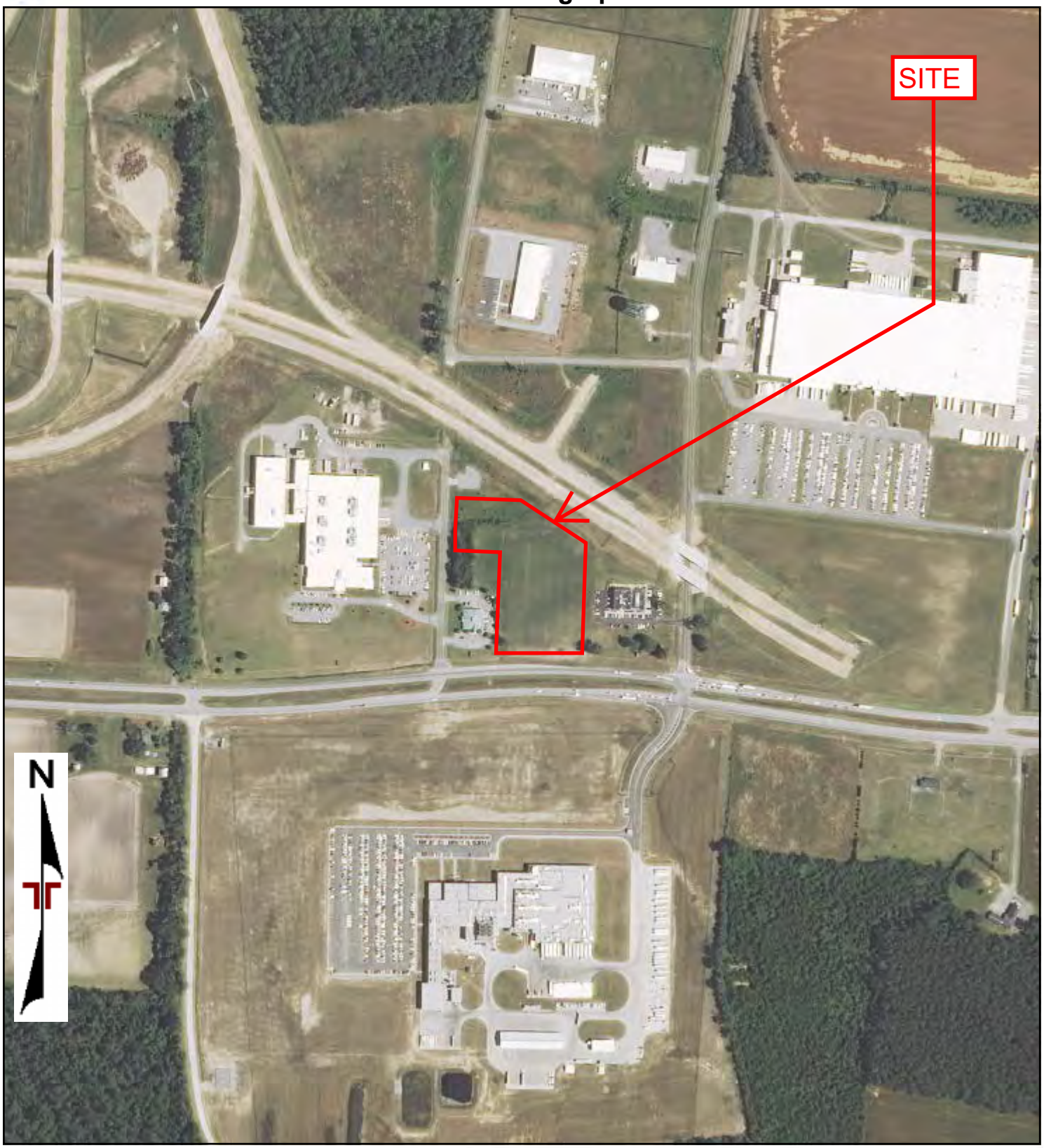
Project Manager: KAM	Project No: 72227124	Terracon 314 Beacon Drive Winterville, NC 28590	1998 AERIAL PHOTOGRAPH Proposed Lenoir County Shell Building Innovation Way Kinston, NC
Drawn By: KAM	Scale: As Shown		
Checked By: CFB	File Name: 72227124		
Approved By: KAM	Date: 1998		Appendix C

0 Feet 500 1000 2000

Project Manager: KAM	Project No: 72227124	Terracon 314 Beacon Drive Winterville, NC 28590	2006 AERIAL PHOTOGRAPH Proposed Lenoir County Shell Building Innovation Way Kinston, NC	Appendix C
Drawn By: KAM	Scale: As Shown			
Checked By: CFB	File Name: 72227124			
Approved By: KAM	Date: 2006			

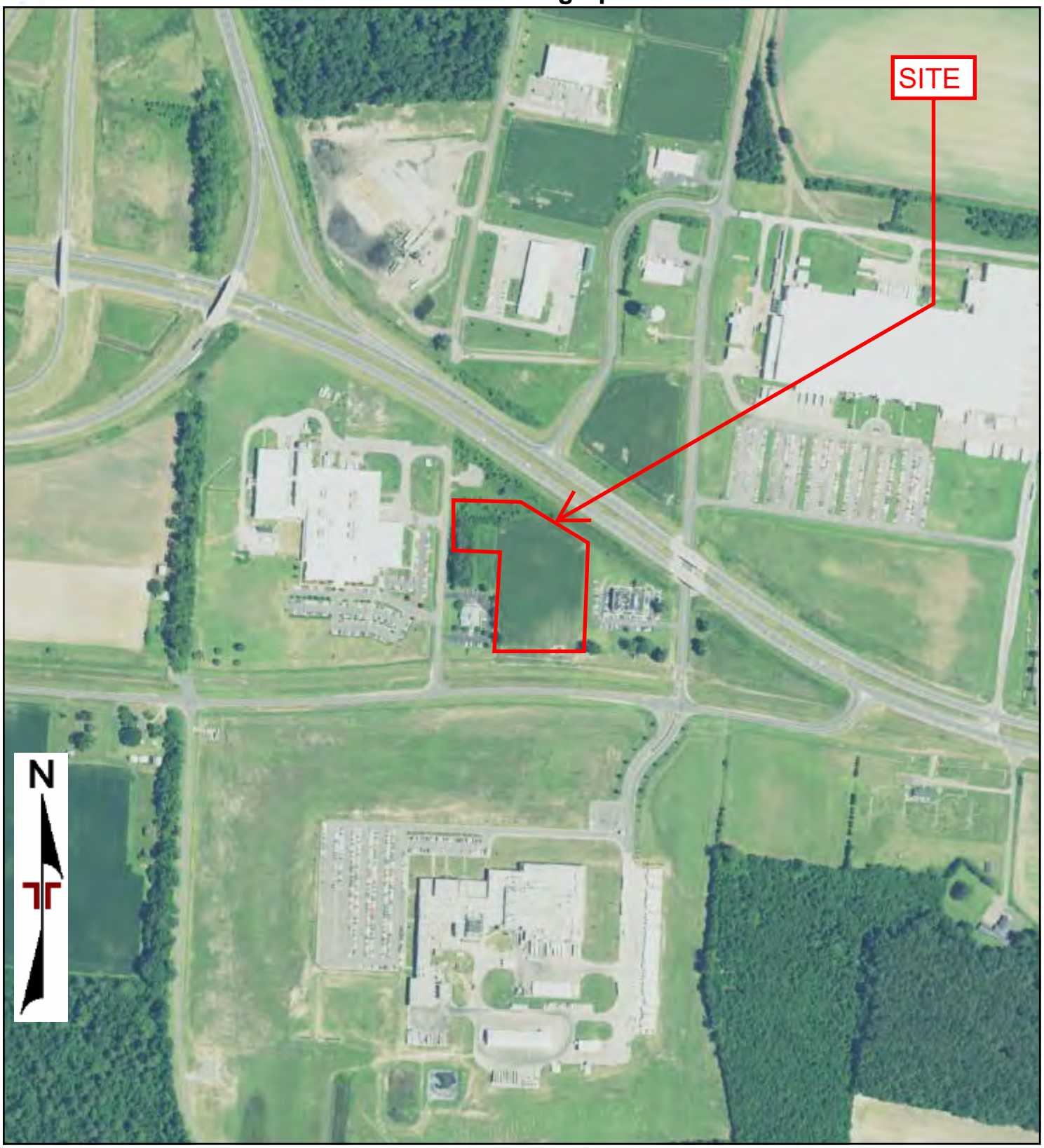
0 Feet 500 1000 2000

Project Manager: KAM	Project No: 72227124	Terracon 314 Beacon Drive Winterville, NC 28590	2009 AERIAL PHOTOGRAPH Proposed Lenoir County Shell Building Innovation Way Kinston, NC	Appendix C
Drawn By: KAM	Scale: As Shown			
Checked By: CFB	File Name: 72227124			
Approved By: KAM	Date: 2009			



0 Feet 500 1000 2000

Project Manager: KAM	Project No: 72227124	Terracon 314 Beacon Drive Winterville, NC 28590	2012 AERIAL PHOTOGRAPH Proposed Lenoir County Shell Building Innovation Way Kinston, NC
Drawn By: KAM	Scale: As Shown		Appendix C
Checked By: CFB	File Name: 72227124		
Approved By: KAM	Date: 2012		



0 Feet 500 1000 2000

Project Manager: KAM	Project No: 72227124	Terracon 314 Beacon Drive Winterville, NC 28590	2016 AERIAL PHOTOGRAPH Proposed Lenoir County Shell Building Innovation Way Kinston, NC
Drawn By: KAM	Scale: As Shown		Appendix C
Checked By: CFB	File Name: 72227124		
Approved By: KAM	Date: 2016		

Proposed Lenoir County Shell Building
Innovation Way
Kinston, NC 28504

Inquiry Number: 7162586.3
October 28, 2022

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

10/28/22

Site Name:

Proposed Lenoir County Shell I
Innovation Way
Kinston, NC 28504
EDR Inquiry # 7162586.3

Client Name:

Terracon
314 Beacon Drive
Winterville, NC 28590
Contact: Nick Saieed

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Terracon were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # CEDC-49DA-BD63

PO # 72227124

Project 72227124

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results

Certification #: CEDC-49DA-BD63

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ✓ Library of Congress
- ✓ University Publications of America
- ✓ EDR Private Collection

The Sanborn Library LLC Since 1866™

Limited Permission To Make Copies

Terracon (the client) is permitted to make up to FIVE photocopies of this Sanborn Map transmittal and each fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an EDR Account Executive, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR's copyright policy; a copy of which is available upon request.

APPENDIX D
ENVIRONMENTAL DATABASE INFORMATION

Proposed Lenoir County Shell Building
Innovation Way
Kinston, NC 28504

Inquiry Number: 7162586.2s
October 28, 2022

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting Source Map	A-7
Physical Setting Source Map Findings	A-8
Physical Setting Source Records Searched	PSGR-1

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

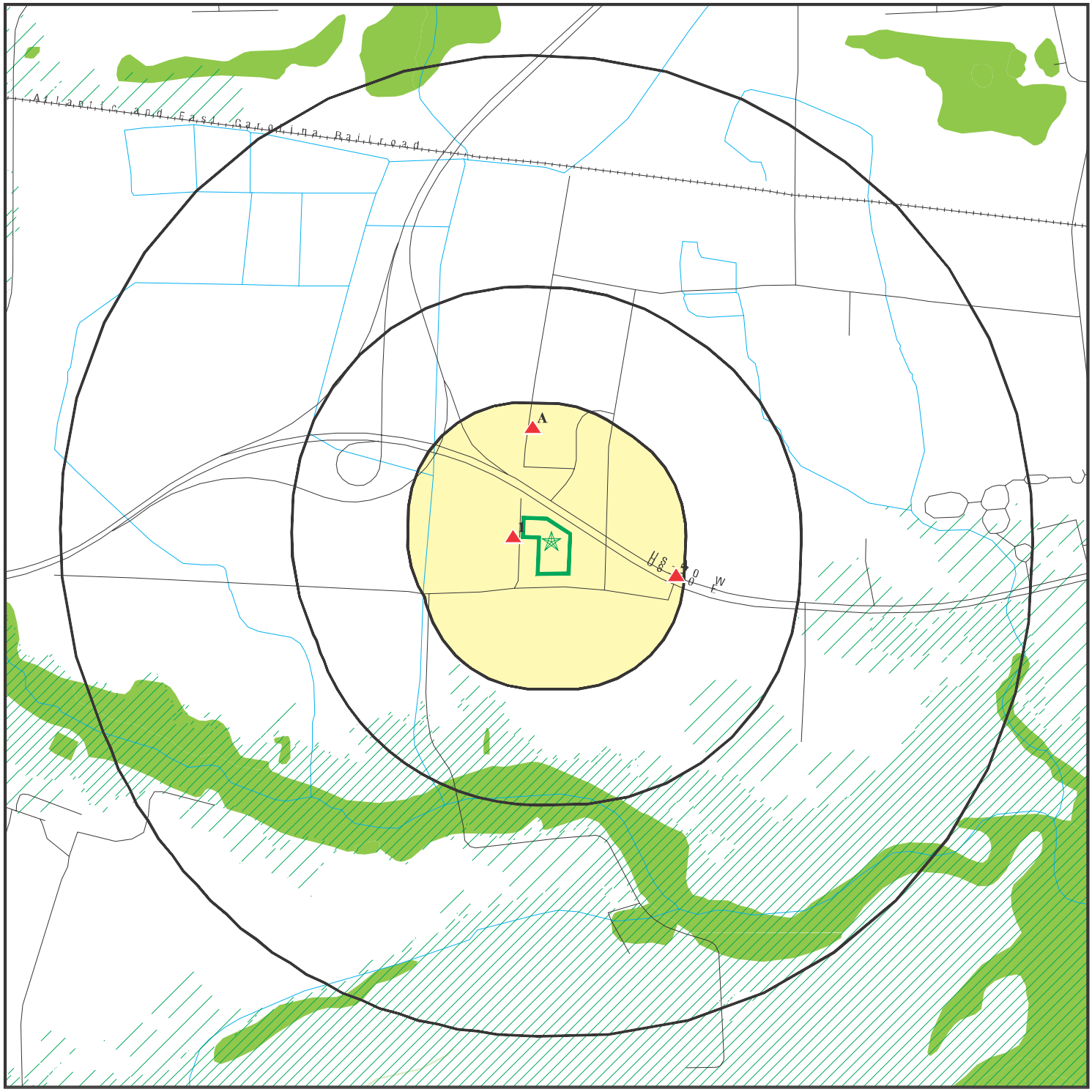
MAPPED SITES SUMMARY

Target Property Address:
INNOVATION WAY
KINSTON, NC 28504

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
1	WEST PHARMACEUTICAL	1028 INNOVATION WAY	RCRA-SQG, ICIS, US AIRS	Higher	109, 0.021, West
A2	SC-9	1131 ENTERPRISE BLVD	US MINES	Higher	845, 0.160, NNW
A3	BARNHILL CONTRACTING	1180 ENTERPRISE BLVD	SWRCY	Higher	1041, 0.197, North
4	SANDERSON FARMS	4985 HWY 70 WEST	LAST	Higher	1227, 0.232, ESE

OVERVIEW MAP - 7162586.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

0 1/4 1/2 1 Miles

Indian Reservations BIA

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

National Wetland Inventory

State Wetlands

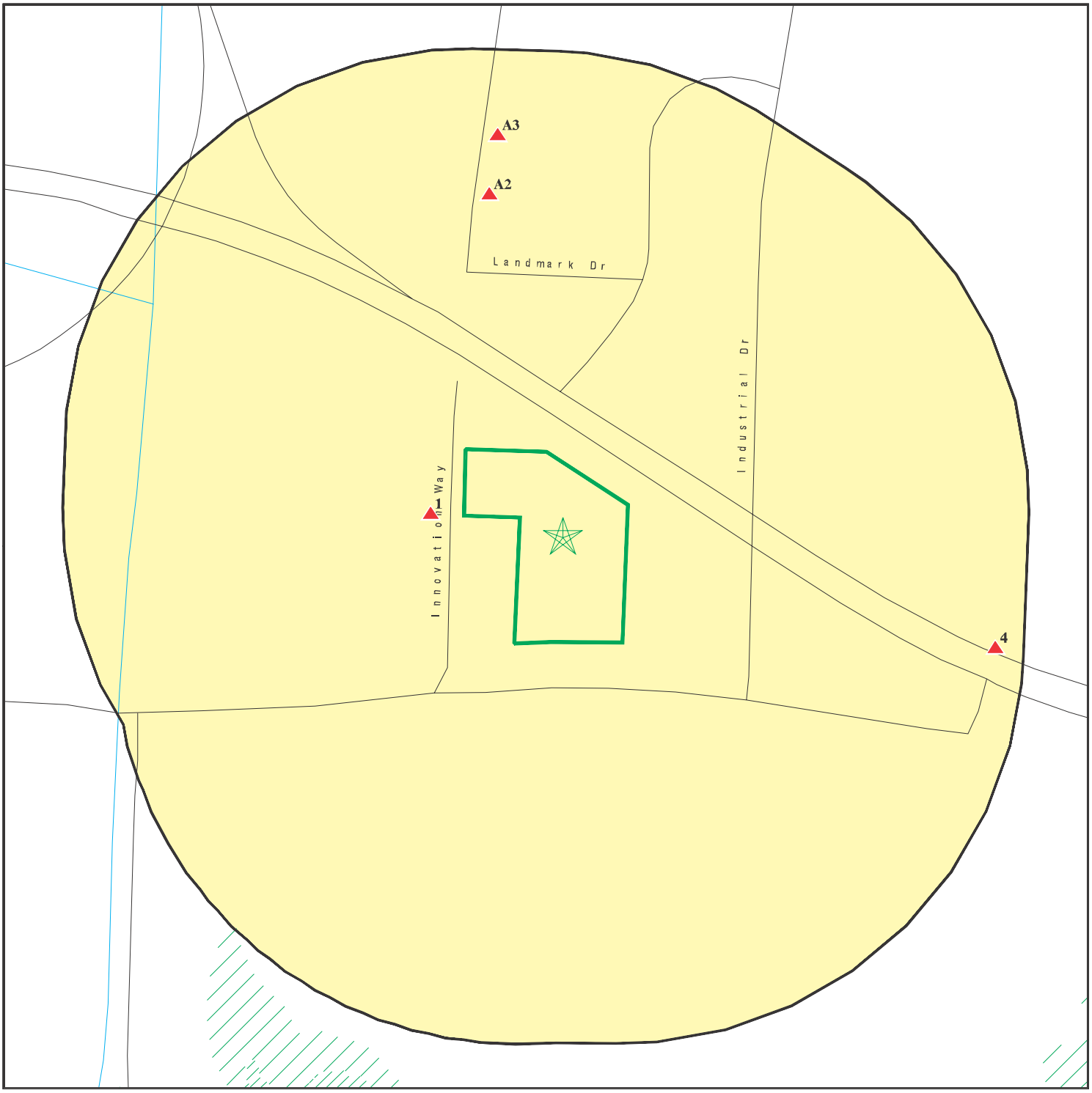
Hazardous Substance Disposal Sites

N

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	Proposed Lenoir County Shell Building	CLIENT:	Terracon
ADDRESS:	Innovation Way Kinston NC 28504	CONTACT:	Nick Saieed
		INQUIRY #:	7162586.2s
LAT/LONG:	35.262401 / 77.669553	DATE:	October 28, 2022 12:13 pm

DETAIL MAP - 7162586.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

0 1/16 1/8 1/4 Miles

Indian Reservations BIA

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

Hazardous Substance Disposal Sites

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Proposed Lenoir County Shell Building	CLIENT: Terracon
ADDRESS: Innovation Way Kinston NC 28504	CONTACT: Nick Saieed
LAT/LONG: 35.262401 / 77.669553	INQUIRY #: 7162586.2s DATE: October 28, 2022 12:14 pm

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Lists of Federal NPL (Superfund) sites								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Lists of Federal Delisted NPL sites								
Delisted NPL	1.000		0	0	0	0	NR	0
Lists of Federal sites subject to CERCLA removals and CERCLA orders								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Lists of Federal CERCLA sites with NFRAP								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA facilities undergoing Corrective Action								
CORRACTS	1.000		0	0	0	0	NR	0
Lists of Federal RCRA TSD facilities								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA generators								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		1	0	NR	NR	NR	1
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
Lists of state- and tribal (Superfund) equivalent sites								
NC HSDS	1.000		0	0	0	0	NR	0
Lists of state- and tribal hazardous waste facilities								
SHWS	1.000		0	0	0	0	NR	0
Lists of state and tribal landfills and solid waste disposal facilities								
SWF/LF	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
OLI	0.500		0	0	0	NR	NR	0
DEBRIS	0.500		0	0	0	NR	NR	0
LCID	0.500		0	0	0	NR	NR	0
Lists of state and tribal leaking storage tanks								
LAST	0.500		0	1	0	NR	NR	1
LUST	0.500		0	0	0	NR	NR	0
INDIAN LUST	0.500		0	0	0	NR	NR	0
Lists of state and tribal registered storage tanks								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
INST CONTROL	0.500		0	0	0	NR	NR	0
Lists of state and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
Lists of state and tribal brownfield sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
SWRCY	0.500		0	1	0	NR	NR	1
HIST LF	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
US CDL	TP		NR	NR	NR	NR	NR	0
PFAS	TP		NR	NR	NR	NR	NR	0
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
SPILLS	TP		NR	NR	NR	NR	NR	0
IMD	0.500		0	0	0	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
SPILLS 80	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	1	NR	NR	NR	1
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
ECHO	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
AIRS	TP		NR	NR	NR	NR	NR	0
ASBESTOS	TP		NR	NR	NR	NR	NR	0
COAL ASH	0.500		0	0	0	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
AOP	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
PCSRP	0.500		0	0	0	NR	NR	0
SEPT HAULERS	TP		NR	NR	NR	NR	NR	0
CCB	0.500		0	0	0	NR	NR	0
MINES MRDS	TP		NR	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA HWS	TP		NR	NR	NR	NR	NR	0
RGA LF	TP		NR	NR	NR	NR	NR	0
RGA LUST	TP		NR	NR	NR	NR	NR	0
- Totals --		0	1	3	0	0	0	4

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

1
West
< 1/8
0.021 mi.
109 ft.

WEST PHARMACEUTICAL SERVICES
1028 INNOVATION WAY
KINSTON, NC 28504

RCRA-SQG **1009217549**
ICIS **NC0991302536**
US AIRS

Relative:
Higher

Actual:
50 ft.

RCRA Listings:

Date Form Received by Agency:	20111005
Handler Name:	WEST PHARMACEUTICAL SERVICES
Handler Address:	1028 INNOVATION WAY
Handler City,State,Zip:	KINSTON, NC 28504
EPA ID:	NC0991302536
Contact Name:	JIM MERKEL
Contact Address:	INNOVATION WAY
Contact City,State,Zip:	KINSTON, NC 28504
Contact Telephone:	252-522-2626
Contact Fax:	252-522-2672
Contact Email:	JIM.MERKEL@WESTPHARMA.COM
Contact Title:	EHS MGR
EPA Region:	04
Land Type:	Private
Federal Waste Generator Description:	Small Quantity Generator
Non-Notifier:	E
Active Site Indicator:	Handler Activities
Mailing Address:	INNOVATION WAY
Mailing City,State,Zip:	KINSTON, NC 28504
Owner Name:	WEST PHARMACEITICAL SERVICE
Owner Type:	Private
Operator Name:	WEST PHARMACEITICAL
Operator Type:	Private
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site State-Reg Handler:	---
Hazardous Secondary Material Indicator:	NN
Commercial TSD Indicator:	No
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A

WEST PHARMACEUTICAL SERVICES (Continued) **1009217549**

Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Handler Date of Last Change:	20150414
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Sub-Part P Indicator:	No

Hazardous Waste Summary:

Waste Code:	D007
Waste Description:	CHROMIUM

Handler - Owner Operator:

Owner/Operator Indicator:	Operator
Owner/Operator Name:	WEST PHARMACEITICAL
Legal Status:	Private
Date Became Current:	20040915
Owner/Operator City,State,Zip:	NC

Owner/Operator Indicator:	Operator
Owner/Operator Name:	WEST PHARMACEITICAL
Legal Status:	Private
Date Became Current:	20040915
Owner/Operator City,State,Zip:	NC

Owner/Operator Indicator:	Owner
Owner/Operator Name:	WEST PHARMACEITICAL SERVICE
Legal Status:	Private
Date Became Current:	20000101
Owner/Operator City,State,Zip:	NC
Owner/Operator Telephone:	252-522-2626

Owner/Operator Indicator:	Owner
Owner/Operator Name:	WEST PHARMACEITICAL SERVICE
Legal Status:	Private
Date Became Current:	20000101
Owner/Operator City,State,Zip:	NC
Owner/Operator Telephone:	252-522-2626

Owner/Operator Indicator:	Operator
Owner/Operator Name:	WEST PHARMACEITICAL
Legal Status:	Private
Date Became Current:	20040915
Owner/Operator City,State,Zip:	NC

Owner/Operator Indicator:	Owner
Owner/Operator Name:	WEST PHARMACEITICAL SERVICE
Legal Status:	Private
Date Became Current:	20000101
Owner/Operator City,State,Zip:	NC
Owner/Operator Telephone:	252-522-2626

WEST PHARMACEUTICAL SERVICES (Continued) **1009217549**

Historic Generators:
Receive Date: 20080731
Handler Name: WEST PHARMACEUTICAL SERVICES
Federal Waste Generator Description: Small Quantity Generator
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No

Receive Date: 20111005
Handler Name: WEST PHARMACEUTICAL SERVICES
Federal Waste Generator Description: Small Quantity Generator
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: Yes

Receive Date: 20040303
Handler Name: WEST PHARMACEUTICAL SERVICES
Federal Waste Generator Description: Small Quantity Generator
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No

List of NAICS Codes and Descriptions:
NAICS Code: 326299
NAICS Description: ALL OTHER RUBBER PRODUCT MANUFACTURING

Facility Has Received Notices of Violation:
Found Violation: No

Found Violation: No

Evaluation Action Summary:
Evaluation Date: 20120412
Evaluation Responsible Agency: State
Found Violation: No
Evaluation Type Description: COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier: NC060
Evaluation Responsible Sub-Organization: 07

Evaluation Date: 20130214
Evaluation Responsible Agency: State
Found Violation: No
Evaluation Type Description: COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier: NC060
Evaluation Responsible Sub-Organization: 07

WEST PHARMACEUTICAL SERVICES (Continued) **1009217549**

ICIS:

Enforcement Action ID:	NC000A0000371070015500007
FRS ID:	110000350423
Action Name:	WEST PHARMACEUTICAL SERVICES 371070015500007
Facility Name:	WEST PHARMACEUTICAL SERVICES
Facility Address:	1028 INNOVATION WAY KINSTON, NC 28504
Enforcement Action Type:	Notice of Violation
Facility County:	LENOIR
Program System Acronym:	AIR
Enforcement Action Forum Desc:	Administrative - Informal
EA Type Code:	NOV
Facility SIC Code:	3069
Latitude in Decimal Degrees:	35.31719
Longitude in Decimal Degrees:	-77.61404
Program System Acronym:	NC0000003705400155
Facility NAICS Code:	326299

Enforcement Action ID:	NC000A0000371070015500003
FRS ID:	110000350423
Action Name:	WEST PHARMACEUTICAL SERVICES 371070015500003
Facility Name:	WEST PHARMACEUTICAL SERVICES
Facility Address:	1028 INNOVATION WAY KINSTON, NC 28504
Enforcement Action Type:	Warning Letter
Facility County:	LENOIR
Program System Acronym:	AIR
Enforcement Action Forum Desc:	Administrative - Informal
EA Type Code:	DAWL
Facility SIC Code:	3069
Latitude in Decimal Degrees:	35.31719
Longitude in Decimal Degrees:	-77.61404
Program System Acronym:	NC0000003705400155
Facility NAICS Code:	326299

Enforcement Action ID:	NC000A0000370540015500027
FRS ID:	110000350423
Facility Name:	WEST PHARMACEUTICAL SERVICES
Facility Address:	1028 INNOVATION WAY KINSTON, NC 28504
Enforcement Action Type:	Notice of Violation
Facility County:	LENOIR
Program System Acronym:	AIR
Enforcement Action Forum Desc:	Administrative - Informal
EA Type Code:	NOV
Facility SIC Code:	3069
Latitude in Decimal Degrees:	35.31719
Longitude in Decimal Degrees:	-77.61404
Program System Acronym:	NC0000003705400155
Facility NAICS Code:	326299

US AIRS MINOR:

Envid:	1009217549
Region Code:	04
Programmatic ID:	AIR NC0000003705400155

WEST PHARMACEUTICAL SERVICES (Continued) **1009217549**

Facility Registry ID: 110000350423
Primary SIC Code: 3069
NAICS Code: 326299
Default Air Classification Code: MIN
Facility Type of Ownership Code: POF

US AIRS MINOR:
Region Code: 04
Programmatic ID: AIR NC0000003705400155
Facility Registry ID: 110000350423
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: New Source Performance Standards (Non-Major)
Activity Date: 2011-02-10 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 04
Programmatic ID: AIR NC0000003705400155
Facility Registry ID: 110000350423
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: New Source Performance Standards (Non-Major)
Activity Date: 2015-07-15 00:00:00
Activity Status Date: 2015-11-02 11:01:10
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 04
Programmatic ID: AIR NC0000003705400155
Facility Registry ID: 110000350423
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: New Source Performance Standards (Non-Major)
Activity Date: 2016-06-22 00:00:00
Activity Status Date: 2016-07-14 10:12:00
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 04
Programmatic ID: AIR NC0000003705400155
Facility Registry ID: 110000350423
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: New Source Performance Standards (Non-Major)
Activity Date: 2009-02-14 00:00:00
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation

Region Code: 04
Programmatic ID: AIR NC0000003705400155
Facility Registry ID: 110000350423
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: New Source Performance Standards (Non-Major)

WEST PHARMACEUTICAL SERVICES (Continued) **1009217549**

Activity Date: 2009-11-17 00:00:00
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation

Region Code: 04
Programmatic ID: AIR NC0000003705400155
Facility Registry ID: 110000350423
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: New Source Performance Standards (Non-Major)
Activity Date: 2010-10-22 00:00:00
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation

Region Code: 04
Programmatic ID: AIR NC0000003705400155
Facility Registry ID: 110000350423
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: New Source Performance Standards (Non-Major)
Activity Date: 2011-02-07 00:00:00
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation

Region Code: 04
Programmatic ID: AIR NC0000003705400155
Facility Registry ID: 110000350423
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: New Source Performance Standards (Non-Major)
Activity Date: 2011-02-09 00:00:00
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation

Region Code: 04
Programmatic ID: AIR NC0000003705400155
Facility Registry ID: 110000350423
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: New Source Performance Standards (Non-Major)
Activity Date: 2012-04-25 00:00:00
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation

Region Code: 04
Programmatic ID: AIR NC0000003705400155
Facility Registry ID: 110000350423
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: New Source Performance Standards (Non-Major)
Activity Date: 2014-06-19 00:00:00
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation

Region Code: 04
Programmatic ID: AIR NC0000003705400155
Facility Registry ID: 110000350423

WEST PHARMACEUTICAL SERVICES (Continued) **1009217549**

Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: New Source Performance Standards (Non-Major)
Activity Date: 2011-02-10 00:00:00
Activity Status Date: 2011-02-10 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 04
Programmatic ID: AIR NC0000003705400155
Facility Registry ID: 110000350423
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2015-07-15 00:00:00
Activity Status Date: 2015-11-02 11:01:10
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 04
Programmatic ID: AIR NC0000003705400155
Facility Registry ID: 110000350423
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2016-06-22 00:00:00
Activity Status Date: 2016-07-14 10:12:00
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 04
Programmatic ID: AIR NC0000003705400155
Facility Registry ID: 110000350423
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1994-05-11 00:00:00
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation

Region Code: 04
Programmatic ID: AIR NC0000003705400155
Facility Registry ID: 110000350423
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1997-10-03 00:00:00
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation

Region Code: 04
Programmatic ID: AIR NC0000003705400155
Facility Registry ID: 110000350423
Air Operating Status Code: OPR

WEST PHARMACEUTICAL SERVICES (Continued) **1009217549**

Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1998-10-08 00:00:00
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation

Region Code: 04
Programmatic ID: AIR NC0000003705400155
Facility Registry ID: 110000350423
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2000-07-14 00:00:00
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation

Region Code: 04
Programmatic ID: AIR NC0000003705400155
Facility Registry ID: 110000350423
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2001-06-19 00:00:00
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation

Region Code: 04
Programmatic ID: AIR NC0000003705400155
Facility Registry ID: 110000350423
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2005-05-05 00:00:00
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation

Region Code: 04
Programmatic ID: AIR NC0000003705400155
Facility Registry ID: 110000350423
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2005-07-06 00:00:00
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation

Region Code: 04
Programmatic ID: AIR NC0000003705400155
Facility Registry ID: 110000350423
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2006-01-09 00:00:00
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation

Region Code: 04

WEST PHARMACEUTICAL SERVICES (Continued) **1009217549**

Programmatic ID: AIR NC0000003705400155
Facility Registry ID: 110000350423
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2006-05-26 00:00:00
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation

Region Code: 04
Programmatic ID: AIR NC0000003705400155
Facility Registry ID: 110000350423
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2006-07-03 00:00:00
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation

Region Code: 04
Programmatic ID: AIR NC0000003705400155
Facility Registry ID: 110000350423
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2007-01-04 00:00:00
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation

Region Code: 04
Programmatic ID: AIR NC0000003705400155
Facility Registry ID: 110000350423
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2007-06-01 00:00:00
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation

Region Code: 04
Programmatic ID: AIR NC0000003705400155
Facility Registry ID: 110000350423
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2007-06-29 00:00:00
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation

Region Code: 04
Programmatic ID: AIR NC0000003705400155
Facility Registry ID: 110000350423
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2008-01-07 00:00:00
Activity Group: Compliance Monitoring

WEST PHARMACEUTICAL SERVICES (Continued) **1009217549**

Activity Type: Inspection/Evaluation

Region Code: 04
Programmatic ID: AIR NC0000003705400155
Facility Registry ID: 110000350423
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2008-07-08 00:00:00
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation

Region Code: 04
Programmatic ID: AIR NC0000003705400155
Facility Registry ID: 110000350423
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2009-02-14 00:00:00
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation

Region Code: 04
Programmatic ID: AIR NC0000003705400155
Facility Registry ID: 110000350423
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2009-11-17 00:00:00
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation

Region Code: 04
Programmatic ID: AIR NC0000003705400155
Facility Registry ID: 110000350423
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2010-10-22 00:00:00
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation

Region Code: 04
Programmatic ID: AIR NC0000003705400155
Facility Registry ID: 110000350423
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2012-04-25 00:00:00
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation

Region Code: 04
Programmatic ID: AIR NC0000003705400155
Facility Registry ID: 110000350423
Air Operating Status Code: OPR
Default Air Classification Code: MIN

WEST PHARMACEUTICAL SERVICES (Continued) **1009217549**

Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2014-06-19 00:00:00
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Region Code:	04
Programmatic ID:	AIR NC0000003705400155
Facility Registry ID:	110000350423
Air Operating Status Code:	OPR
Default Air Classification Code:	MIN
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	1997-10-14 00:00:00
Activity Status Date:	1997-10-14 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Informal
Activity Status:	Achieved
Region Code:	04
Programmatic ID:	AIR NC0000003705400155
Facility Registry ID:	110000350423
Air Operating Status Code:	OPR
Default Air Classification Code:	MIN
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2001-04-10 00:00:00
Activity Status Date:	2001-04-10 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Informal
Activity Status:	Achieved

A2 **SC-9** **US MINES** **1027101760**
NNW **1131 ENTERPRISE BLVD.** **N/A**
1/8-1/4 **KINSTON, NC 28504**
0.160 mi.
845 ft. **Site 1 of 2 in cluster A**

Relative:
Higher

Actual:
50 ft.

MINES VIOLATIONS:

Name:	SC-9
Address:	1131 ENTERPRISE BLVD.
City,State,Zip:	KINSTON, NC 28504

MINES VIOLATIONS:

Violation Number:	9633025
Mine ID:	3102321
Date Issued:	1/13/2022
Action Type:	104(a)
Type of Issue:	Citation
S and S:	N
Term Date:	1/13/2022
Title 30 Code of Federal Regulations:	56.14100(c)
Proposed Penalty:	133.00
Assessment Amount:	133.00
Paid Penalty Amount:	133.00
Assessment Status:	Proposed
Year:	2022
Address Type:	MineLocation
Address:	1131 ENTERPRISE BLVD.
City:	KINSTON

SC-9 (Continued) **1027101760**

State:	NC
Operator:	Barnhill Contracting Company
Zip:	28504
Mine Controller Name:	Barnhill Contracting Company
Name:	SC-9
Ownership Date:	4/11/2018
Mine Status:	Active
Status Date:	4/11/2018
Primary Site Description:	Sand, Common
Mine Type:	Surface
State 2:	NC
County:	LENOIR
Violation Number:	9633089
Mine ID:	3102321
Date Issued:	7/7/2022
Action Type:	104(a)
Type of Issue:	Citation
S and S:	N
Term Date:	7/7/2022
Title 30 Code of Federal Regulations:	50.30(a)
Year:	2022
Address Type:	MineLocation
Address:	1131 ENTERPRISE BLVD.
City:	KINSTON
State:	NC
Operator:	Barnhill Contracting Company
Zip:	28504
Mine Controller Name:	Barnhill Contracting Company
Name:	SC-9
Ownership Date:	4/11/2018
Mine Status:	Active
Status Date:	4/11/2018
Primary Site Description:	Sand, Common
Mine Type:	Surface
State 2:	NC
County:	LENOIR
Violation Number:	9633025
Mine ID:	3102321
Date Issued:	1/13/2022
Action Type:	104(a)
Type of Issue:	Citation
S and S:	N
Term Date:	1/13/2022
Title 30 Code of Federal Regulations:	56.14100(c)
Proposed Penalty:	133.00
Assessment Amount:	133.00
Paid Penalty Amount:	0.00
Assessment Status:	Proposed
Year:	2021
Address Type:	MineLocation
Address:	1131 ENTERPRISE BLVD.
City:	KINSTON
State:	NC
Operator:	Barnhill Contracting Company
Zip:	28504

SC-9 (Continued) **1027101760**

Mine Controller Name:	Barnhill Contracting Company
Name:	SC-9
Ownership Date:	4/11/2018
Mine Status:	Active
Status Date:	4/11/2018
Primary Site Description:	Sand, Common
Mine Type:	Surface
State 2:	NC
County:	LENOIR

A3 **BARNHILL CONTRACTING COMPANY-KINSTON** **SWRCY** **S121736494**
North **1180 ENTERPRISE BLVD** **N/A**
1/8-1/4 **KINSTON, NC 28504**
0.197 mi.
1041 ft. **Site 2 of 2 in cluster A**

Relative: SWRCY:
Higher

Name:	BARNHILL CONTRACTING COMPANY-KINSTON
Address:	1180 ENTERPRISE BLVD
City,State,Zip:	KINSTON, NC 28504
Mailing Address:	PO Box 1529
Mailing City:	Tarboro
Mailing State:	NC
Mailing Zip:	27886
Company Type:	- End User;- Handler;- Processor;;
Company Service Area:	- Eastern North Carolina;

Actual:
49 ft.

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4 **SANDERSON FARMS** **LAST** **S118361986**
ESE **4985 HWY 70 WEST** **N/A**
1/8-1/4 **KINSTON, NC 28504**
0.232 mi.
1227 ft.

Relative: LAST:
Higher

Name:	SANDERSON FARMS
Address:	4985 HWY 70 WEST
City,State,Zip:	KINSTON, NC 28504
UST Number:	WA-89123
Contamination Type:	NO
Source Type:	19
Product Type:	P
Date Reported:	03/27/2012
Date Occur:	03/27/2012
Close Out:	03/28/2012
Tank Regulated Status:	N
# Of Supply Wells:	0
Commercial/NonCommercial UST Site:	C
MTBE:	No
MTBE1:	No
Flag:	Yes
Flag1:	No
Release Detection:	0
Current Status:	C
PETOPT:	3
RPL:	False

Actual:
50 ft.

SANDERSON FARMS (Continued) **S118361986**

CD Num:	0
Reel Num:	0
RPOW:	False
RPOP:	False
Error Flag:	0
Error Code:	N
Valid:	False
Lat/Long Decimal:	35.25828 -77.66994
Regional Officer Project Mgr:	RMB
Region:	WAS
RP City,St,Zip:	NC
Comments:	MINOR SPILL CLEANUP UP IMMEDIATELY-NFA3/28/12

Count: 0 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
		NO SITES FOUND			

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
NC	AIRS	Air Quality Permit Listing	Department of Environmental Quality	06/01/2022	06/07/2022	08/25/2022
NC	AOP	Animal Operation Permits Listing	Department of Environmental Quality	04/01/2020	05/26/2020	05/27/2020
NC	ASBESTOS	ASBESTOS	Department of Health & Human Services	04/30/2022	05/17/2022	08/08/2022
NC	AST	AST Database	Department of Environment and Natural Resourc	05/17/2022	06/10/2022	08/29/2022
NC	BROWNFIELDS	Brownfields Projects Inventory	Department of Environment and Natural Resourc	06/01/2022	06/27/2022	06/29/2022
NC	CCB	Coal Ash Structural Fills (CCB) Listing	Department of Environmental Quality	05/10/2021	07/02/2021	09/27/2021
NC	COAL ASH	Coal Ash Disposal Sites	Department of Environment & Natural Resources	11/12/2021	12/16/2021	03/11/2022
NC	DEBRIS	Solid Waste Active Disaster Debris Sites Listing	Department of Environmental Quality	06/13/2022	06/14/2022	08/30/2022
NC	DRYCLEANERS	Drycleaning Sites	Department of Environment & Natural Resources	12/06/2021	12/13/2021	02/25/2022
NC	Financial Assurance 1	Financial Assurance Information Listing	Department of Environment & Natural Resources	07/29/2022	08/01/2022	10/18/2022
NC	Financial Assurance 2	Financial Assurance Information Listing	Department of Environmental & Natural Resourc	10/02/2012	10/03/2012	10/26/2012
NC	Financial Assurance 3	Financial Assurance Information	Department of Environment & Natural Resources	01/12/2022	03/10/2022	06/03/2022
NC	HIST LF	Solid Waste Facility Listing	Department of Environment & Natural Resource	11/06/2006	02/13/2007	03/02/2007
NC	HSDS	Hazardous Substance Disposal Site	North Carolina Center for Geographic Informat	08/09/2011	11/08/2011	12/05/2011
NC	IMD	Incident Management Database	Department of Environment and Natural Resourc	07/29/2022	08/01/2022	10/18/2022
NC	INST CONTROL	No Further Action Sites With Land Use Restrictions Monitorin	Department of Environmental Quality	06/01/2022	06/07/2022	08/25/2022
NC	LAST	Leaking Aboveground Storage Tanks	Department of Environment & Natural Resources	10/14/2022	10/19/2022	10/21/2022
NC	LCID	Land-Clearing and Inert Debris (LCID) Landfill Notifications	Department of Environmental Quality	07/05/2022	07/06/2022	09/19/2022
NC	LUST	Regional UST Database	Department of Environment and Natural Resourc	07/29/2022	08/01/2022	10/18/2022
NC	NPDES	NPDES Facility Location Listing	Department of Environment & Natural Resources	04/01/2022	04/27/2022	07/18/2022
NC	OLI	Old Landfill Inventory	Department of Environment & Natural Resources	09/11/2020	10/09/2020	12/30/2020
NC	PCSRP	Petroleum-Contaminated Soil Remediation Permits	Department of Environmental Quality	07/05/2022	07/06/2022	09/19/2022
NC	PFAS	PFAS Contamination Site Listing	Department of Environmental Quality	05/18/2022	05/18/2022	08/08/2022
NC	RGA HWS	Recovered Government Archive State Hazardous Waste Facilitie	Department of Environment, Health and Natural		07/01/2013	12/24/2013
NC	RGA LF	Recovered Government Archive Solid Waste Facilities List	Department of Environment, Health and Natural		07/01/2013	01/13/2014
NC	RGA LUST	Recovered Government Archive Leaking Underground Storage Tan	Department of Environment, Health and Natural		07/01/2013	12/20/2013
NC	SEPT HAULERS	Permitted Septage Haulers Listing	Department of Environmental Quality	07/07/2022	07/07/2022	07/19/2022
NC	SHWS	Inactive Hazardous Sites Inventory	Department of Environment, Health and Natural	06/01/2022	06/07/2022	06/08/2022
NC	SPILLS	Spills Incident Listing	Department of Environment & Natural Resources	06/21/2022	06/22/2022	07/01/2022
NC	SPILLS 80	SPILLS80 data from FirstSearch	FirstSearch	06/14/2001	01/03/2013	03/06/2013
NC	SPILLS 90	SPILLS90 data from FirstSearch	FirstSearch	09/27/2012	01/03/2013	03/06/2013
NC	SWF/LF	List of Solid Waste Facilities	Department of Environment and Natural Resourc	11/12/2021	12/16/2021	03/11/2022
NC	SWRCY	Recycling Center Listing	Department of Environment & Natural Resources	01/31/2022	02/02/2022	04/29/2022
NC	UIC	Underground Injection Wells Listing	Department of Environment & Natural Resources	02/22/2022	03/01/2022	05/27/2022
NC	UST	Petroleum Underground Storage Tank Database	Department of Environment and Natural Resourc	07/29/2022	08/01/2022	10/17/2022
NC	VCP	Responsible Party Voluntary Action Sites	Department of Environment and Natural Resourc	06/01/2022	06/07/2022	08/25/2022
US	2020 COR ACTION	2020 Corrective Action Program List	Environmental Protection Agency	09/30/2017	05/08/2018	07/20/2018
US	ABANDONED MINES	Abandoned Mines	Department of Interior	06/14/2022	06/15/2022	08/22/2022
US	BRS	Biennial Reporting System	EPA/NTIS	12/31/2019	03/02/2022	03/25/2022
US	COAL ASH DOE	Steam-Electric Plant Operation Data	Department of Energy	12/31/2020	11/30/2021	02/22/2022
US	COAL ASH EPA	Coal Combustion Residues Surface Impoundments List	Environmental Protection Agency	01/12/2017	03/05/2019	11/11/2019
US	CONSENT	Superfund (CERCLA) Consent Decrees	Department of Justice, Consent Decree Library	06/30/2022	07/21/2022	09/30/2022
US	CORRACTS	Corrective Action Report	EPA	06/20/2022	06/21/2022	06/28/2022
US	DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations	EPA, Region 9	01/12/2009	05/07/2009	09/21/2009
US	DOCKET HWC	Hazardous Waste Compliance Docket Listing	Environmental Protection Agency	05/06/2021	05/21/2021	08/11/2021
US	DOD	Department of Defense Sites	USGS	06/07/2021	07/13/2021	03/09/2022
US	DOT OPS	Incident and Accident Data	Department of Transporation, Office of Pipeli	01/02/2020	01/28/2020	04/17/2020

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
US	Delisted NPL	National Priority List Deletions	EPA	07/26/2022	08/02/2022	08/22/2022
US	ECHO	Enforcement & Compliance History Information	Environmental Protection Agency	06/25/2022	07/01/2022	09/30/2022
US	EDR Hist Auto	EDR Exclusive Historical Auto Stations	EDR, Inc.			
US	EDR Hist Cleaner	EDR Exclusive Historical Cleaners	EDR, Inc.			
US	EDR MGP	EDR Proprietary Manufactured Gas Plants	EDR, Inc.			
US	EPA WATCH LIST	EPA WATCH LIST	Environmental Protection Agency	08/30/2013	03/21/2014	06/17/2014
US	ERNS	Emergency Response Notification System	National Response Center, United States Coast	06/14/2022	06/15/2022	06/21/2022
US	FEDERAL FACILITY	Federal Facility Site Information listing	Environmental Protection Agency	05/25/2021	06/24/2021	09/20/2021
US	FEDLAND	Federal and Indian Lands	U.S. Geological Survey	04/02/2018	04/11/2018	11/06/2019
US	FEMA UST	Underground Storage Tank Listing	FEMA	10/14/2021	11/05/2021	02/01/2022
US	FINDS	Facility Index System/Facility Registry System	EPA	08/03/2022	08/25/2022	10/24/2022
US	FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fu	EPA/Office of Prevention, Pesticides and Toxi	04/09/2009	04/16/2009	05/11/2009
US	FTTS INSP	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fu	EPA	04/09/2009	04/16/2009	05/11/2009
US	FUDS	Formerly Used Defense Sites	U.S. Army Corps of Engineers	08/11/2022	08/11/2022	09/30/2022
US	FUELS PROGRAM	EPA Fuels Program Registered Listing	EPA	08/11/2022	08/11/2022	09/30/2022
US	FUSRAP	Formerly Utilized Sites Remedial Action Program	Department of Energy	07/26/2021	07/27/2021	10/22/2021
US	HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing	Environmental Protection Agency	10/19/2006	03/01/2007	04/10/2007
US	HIST FTTS INSP	FIFRA/TSCA Tracking System Inspection & Enforcement Case Lis	Environmental Protection Agency	10/19/2006	03/01/2007	04/10/2007
US	HMIRS	Hazardous Materials Information Reporting System	U.S. Department of Transportation	09/19/2022	09/19/2022	09/30/2022
US	ICIS	Integrated Compliance Information System	Environmental Protection Agency	11/18/2016	11/23/2016	02/10/2017
US	IHS OPEN DUMPS	Open Dumps on Indian Land	Department of Health & Human Serivces, Indian	04/01/2014	08/06/2014	01/29/2015
US	INDIAN LUST R1	Leaking Underground Storage Tanks on Indian Land	EPA Region 1	04/28/2021	06/11/2021	09/07/2021
US	INDIAN LUST R10	Leaking Underground Storage Tanks on Indian Land	EPA Region 10	04/20/2022	06/13/2022	08/16/2022
US	INDIAN LUST R4	Leaking Underground Storage Tanks on Indian Land	EPA Region 4	06/02/2022	06/13/2022	08/31/2022
US	INDIAN LUST R5	Leaking Underground Storage Tanks on Indian Land	EPA, Region 5	04/11/2022	06/13/2022	08/16/2022
US	INDIAN LUST R6	Leaking Underground Storage Tanks on Indian Land	EPA Region 6	04/28/2022	06/13/2022	08/16/2022
US	INDIAN LUST R7	Leaking Underground Storage Tanks on Indian Land	EPA Region 7	04/14/2022	06/13/2022	08/16/2022
US	INDIAN LUST R8	Leaking Underground Storage Tanks on Indian Land	EPA Region 8	04/20/2022	06/13/2022	08/16/2022
US	INDIAN LUST R9	Leaking Underground Storage Tanks on Indian Land	Environmental Protection Agency	04/08/2022	06/13/2022	08/16/2022
US	INDIAN ODI	Report on the Status of Open Dumps on Indian Lands	Environmental Protection Agency	12/31/1998	12/03/2007	01/24/2008
US	INDIAN RESERV	Indian Reservations	USGS	12/31/2014	07/14/2015	01/10/2017
US	INDIAN UST R1	Underground Storage Tanks on Indian Land	EPA, Region 1	04/07/2022	06/13/2022	08/16/2022
US	INDIAN UST R10	Underground Storage Tanks on Indian Land	EPA Region 10	04/20/2022	06/13/2022	08/16/2022
US	INDIAN UST R4	Underground Storage Tanks on Indian Land	EPA Region 4	06/02/2022	06/13/2022	08/31/2022
US	INDIAN UST R5	Underground Storage Tanks on Indian Land	EPA Region 5	04/11/2022	06/13/2022	08/16/2022
US	INDIAN UST R6	Underground Storage Tanks on Indian Land	EPA Region 6	04/28/2022	06/13/2022	08/16/2022
US	INDIAN UST R7	Underground Storage Tanks on Indian Land	EPA Region 7	04/14/2022	06/13/2022	08/16/2022
US	INDIAN UST R8	Underground Storage Tanks on Indian Land	EPA Region 8	04/20/2022	06/13/2022	08/16/2022
US	INDIAN UST R9	Underground Storage Tanks on Indian Land	EPA Region 9	04/08/2022	06/13/2022	08/16/2022
US	INDIAN VCP R1	Voluntary Cleanup Priority Listing	EPA, Region 1	07/27/2015	09/29/2015	02/18/2016
US	INDIAN VCP R7	Voluntary Cleanup Priority Lisitng	EPA, Region 7	03/20/2008	04/22/2008	05/19/2008
US	LEAD SMELTER 1	Lead Smelter Sites	Environmental Protection Agency	07/26/2022	08/02/2022	08/22/2022
US	LEAD SMELTER 2	Lead Smelter Sites	American Journal of Public Health	04/05/2001	10/27/2010	12/02/2010
US	LIENS 2	CERCLA Lien Information	Environmental Protection Agency	07/26/2022	08/02/2022	08/22/2022
US	LUCIS	Land Use Control Information System	Department of the Navy	08/16/2022	08/22/2022	10/24/2022
US	MINES MRDS	Mineral Resources Data System	USGS	04/06/2018	10/21/2019	10/24/2019
US	MINES VIOLATIONS	MSHA Violation Assessment Data	DOL, Mine Safety & Health Admi	08/01/2022	08/02/2022	09/30/2022

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
US	MLTS	Material Licensing Tracking System	Nuclear Regulatory Commission	06/10/2022	06/14/2022	08/22/2022
US	NPL	National Priority List	EPA	07/26/2022	08/02/2022	08/22/2022
US	NPL LIENS	Federal Superfund Liens	EPA	10/15/1991	02/02/1994	03/30/1994
US	ODI	Open Dump Inventory	Environmental Protection Agency	06/30/1985	08/09/2004	09/17/2004
US	PADS	PCB Activity Database System	EPA	01/20/2022	01/20/2022	03/25/2022
US	PCB TRANSFORMER	PCB Transformer Registration Database	Environmental Protection Agency	09/13/2019	11/06/2019	02/10/2020
US	PCS	Permit Compliance System	EPA, Office of Water	07/14/2011	08/05/2011	09/29/2011
US	PCS ENF	Enforcement data	EPA	12/31/2014	02/05/2015	03/06/2015
US	PCS INACTIVE	Listing of Inactive PCS Permits	EPA	11/05/2014	01/06/2015	05/06/2015
US	PRP	Potentially Responsible Parties	EPA	07/26/2022	08/02/2022	08/31/2022
US	Proposed NPL	Proposed National Priority List Sites	EPA	07/26/2022	08/02/2022	08/22/2022
US	RAATS	RCRA Administrative Action Tracking System	EPA	04/17/1995	07/03/1995	08/07/1995
US	RADINFO	Radiation Information Database	Environmental Protection Agency	07/01/2019	07/01/2019	09/23/2019
US	RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated	Environmental Protection Agency	06/20/2022	06/21/2022	06/28/2022
US	RCRA-LQG	RCRA - Large Quantity Generators	Environmental Protection Agency	06/20/2022	06/21/2022	06/28/2022
US	RCRA-SQG	RCRA - Small Quantity Generators	Environmental Protection Agency	06/20/2022	06/21/2022	06/28/2022
US	RCRA-TSDF	RCRA - Treatment, Storage and Disposal	Environmental Protection Agency	06/20/2022	06/21/2022	06/28/2022
US	RCRA-VSQG	RCRA - Very Small Quantity Generators (Formerly Conditionall	Environmental Protection Agency	06/20/2022	06/21/2022	06/28/2022
US	RMP	Risk Management Plans	Environmental Protection Agency	04/27/2022	05/04/2022	05/10/2022
US	ROD	Records Of Decision	EPA	07/26/2022	08/02/2022	08/22/2022
US	SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing	Environmental Protection Agency	01/01/2017	02/03/2017	04/07/2017
US	SEMS	Superfund Enterprise Management System	EPA	07/26/2022	08/02/2022	08/22/2022
US	SEMS-ARCHIVE	Superfund Enterprise Management System Archive	EPA	07/26/2022	08/02/2022	08/22/2022
US	SSTS	Section 7 Tracking Systems	EPA	07/18/2022	07/18/2022	07/29/2022
US	TRIS	Toxic Chemical Release Inventory System	EPA	12/31/2018	08/14/2020	11/04/2020
US	TSCA	Toxic Substances Control Act	EPA	12/31/2016	06/17/2020	09/10/2020
US	UMTRA	Uranium Mill Tailings Sites	Department of Energy	08/30/2019	11/15/2019	01/28/2020
US	US AIRS (AFS)	Aerometric Information Retrieval System Facility Subsystem (	EPA	10/12/2016	10/26/2016	02/03/2017
US	US AIRS MINOR	Air Facility System Data	EPA	10/12/2016	10/26/2016	02/03/2017
US	US BROWNFIELDS	A Listing of Brownfields Sites	Environmental Protection Agency	02/23/2022	03/10/2022	03/10/2022
US	US CDL	Clandestine Drug Labs	Drug Enforcement Administration	07/29/2022	08/18/2022	10/24/2022
US	US ENG CONTROLS	Engineering Controls Sites List	Environmental Protection Agency	08/15/2022	08/17/2022	10/24/2022
US	US FIN ASSUR	Financial Assurance Information	Environmental Protection Agency	06/20/2022	06/21/2022	08/31/2022
US	US HIST CDL	National Clandestine Laboratory Register	Drug Enforcement Administration	07/29/2022	08/18/2022	10/24/2022
US	US INST CONTROLS	Institutional Controls Sites List	Environmental Protection Agency	08/15/2022	08/17/2022	10/24/2022
US	US MINES	Mines Master Index File	Department of Labor, Mine Safety and Health A	08/03/2022	08/17/2022	08/31/2022
US	US MINES 2	Ferrous and Nonferrous Metal Mines Database Listing	USGS	05/06/2020	05/27/2020	08/13/2020
US	US MINES 3	Active Mines & Mineral Plants Database Listing	USGS	04/14/2011	06/08/2011	09/13/2011
US	UXO	Unexploded Ordnance Sites	Department of Defense	12/31/2020	01/11/2022	02/14/2022

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
CT	CT MANIFEST	Hazardous Waste Manifest Data	Department of Energy & Environmental Protecti	08/08/2022	08/08/2022	10/21/2022
NJ	NJ MANIFEST	Manifest Information	Department of Environmental Protection	12/31/2018	04/10/2019	05/16/2019
NY	NY MANIFEST	Facility and Manifest Data	Department of Environmental Conservation	01/01/2019	10/29/2021	01/19/2022
PA	PA MANIFEST	Manifest Information	Department of Environmental Protection	06/30/2018	07/19/2019	09/10/2019
RI	RI MANIFEST	Manifest information	Department of Environmental Management	12/31/2020	11/30/2021	02/18/2022
WI	WI MANIFEST	Manifest Information	Department of Natural Resources	05/31/2018	06/19/2019	09/03/2019
US	AHA Hospitals	Sensitive Receptor: AHA Hospitals	American Hospital Association, Inc.			
US	Medical Centers	Sensitive Receptor: Medical Centers	Centers for Medicare & Medicaid Services			
US	Nursing Homes	Sensitive Receptor: Nursing Homes	National Institutes of Health			
US	Public Schools	Sensitive Receptor: Public Schools	National Center for Education Statistics			
US	Private Schools	Sensitive Receptor: Private Schools	National Center for Education Statistics			
NC	Daycare Centers	Sensitive Receptor: Child Care Facility List	Department of Health & Human Services			
US	Flood Zones	100-year and 500-year flood zones	Emergency Management Agency (FEMA)			
US	NWI	National Wetlands Inventory	U.S. Fish and Wildlife Service			
NC	State Wetlands	Wetland Inventory	US Fish & Wildlife Service			
US	Topographic Map	Current USGS 7.5 Minute Topographic Map	U.S. Geological Survey			
US	Oil/Gas Pipelines		Endeavor Business Media			
US	Electric Power Transmission Line Data		Endeavor Business Media			

STREET AND ADDRESS INFORMATION

GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

PROPOSED LENOIR COUNTY SHELL BUILDING
INNOVATION WAY
KINSTON, NC 28504

TARGET PROPERTY COORDINATES

Latitude (North):	35.262401 - 35ˆ 15’ 44.64’’
Longitude (West):	77.669553 - 77ˆ 40’ 10.39’’
Universal Tranverse Mercator:	Zone 18
UTM X (Meters):	257143.9
UTM Y (Meters):	3905212.2
Elevation:	49 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	13720736 FALLING CREEK, NC
Version Date:	2019
South Map:	13720726 DEEP RUN, NC
Version Date:	2019

EDR’s GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

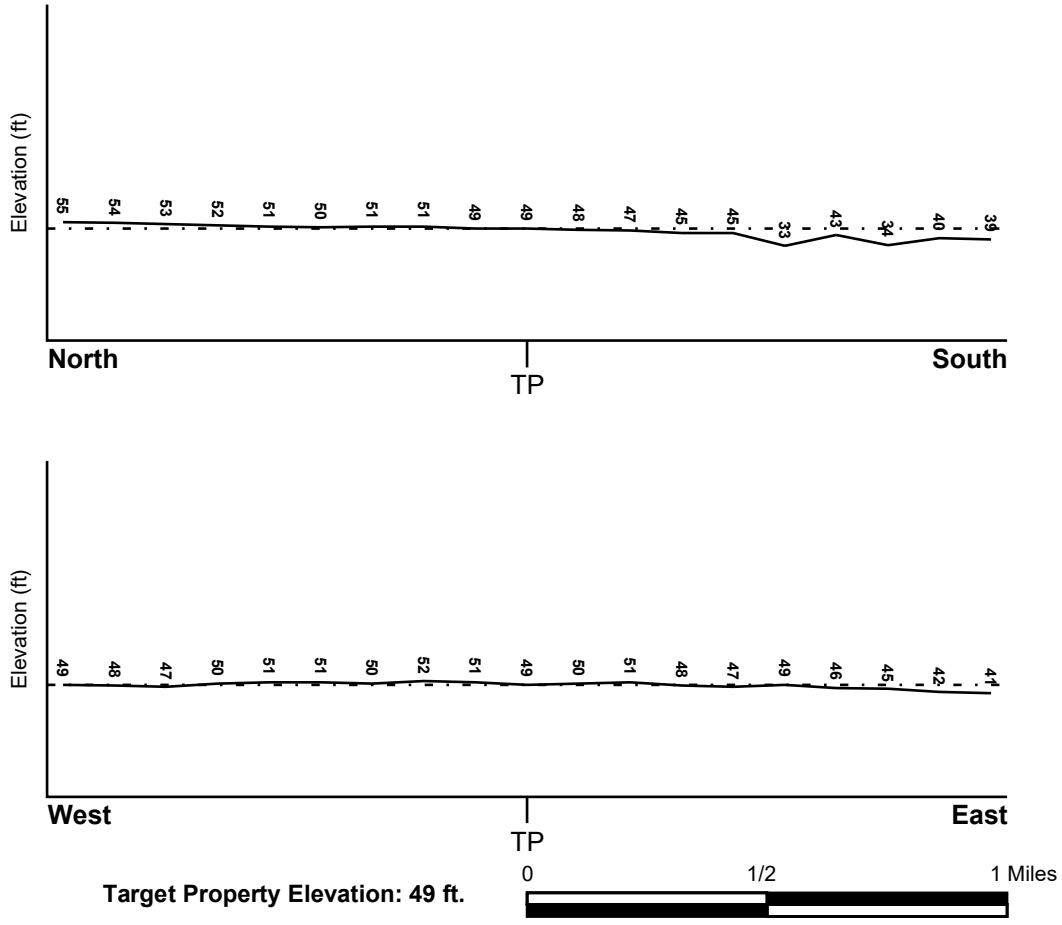
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General East

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
3720358400K	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
3720450400K	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
FALLING CREEK	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

Era:	Mesozoic
System:	Cretaceous
Series:	Navarro Group
Code:	uK4 *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name:	ROANOKE
Soil Surface Texture:	loam
Hydrologic Group:	Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.
Soil Drainage Class:	Poorly. Soils may have a saturated zone, a layer of low hydraulic conductivity, or seepage. Depth to water table is less than 1 foot.

Hydric Status: Soil meets the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: HIGH

Depth to Bedrock Min: > 60 inches

Depth to Bedrock Max: > 60 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)	Soil Reaction (pH)
1	0 inches	7 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 2.00 Min: 0.60	Max: 5.50 Min: 3.60
2	7 inches	12 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 20.00 Min: 0.00	Max: 5.50 Min: 3.60
3	12 inches	50 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 0.20 Min: 0.00	Max: 5.50 Min: 3.60
4	50 inches	72 inches	stratified	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 20.00 Min: 0.06	Max: 6.50 Min: 3.60

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: muck
loamy sand
fine sandy loam
silt loam
loamy fine sand
sandy loam

Surficial Soil Types: muck
loamy sand
fine sandy loam
silt loam
loamy fine sand
sandy loam

Shallow Soil Types: silt loam
sandy clay loam

Deeper Soil Types: sand

loamy sand

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
2	USGS40000885966	1/2 - 1 Mile NE

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

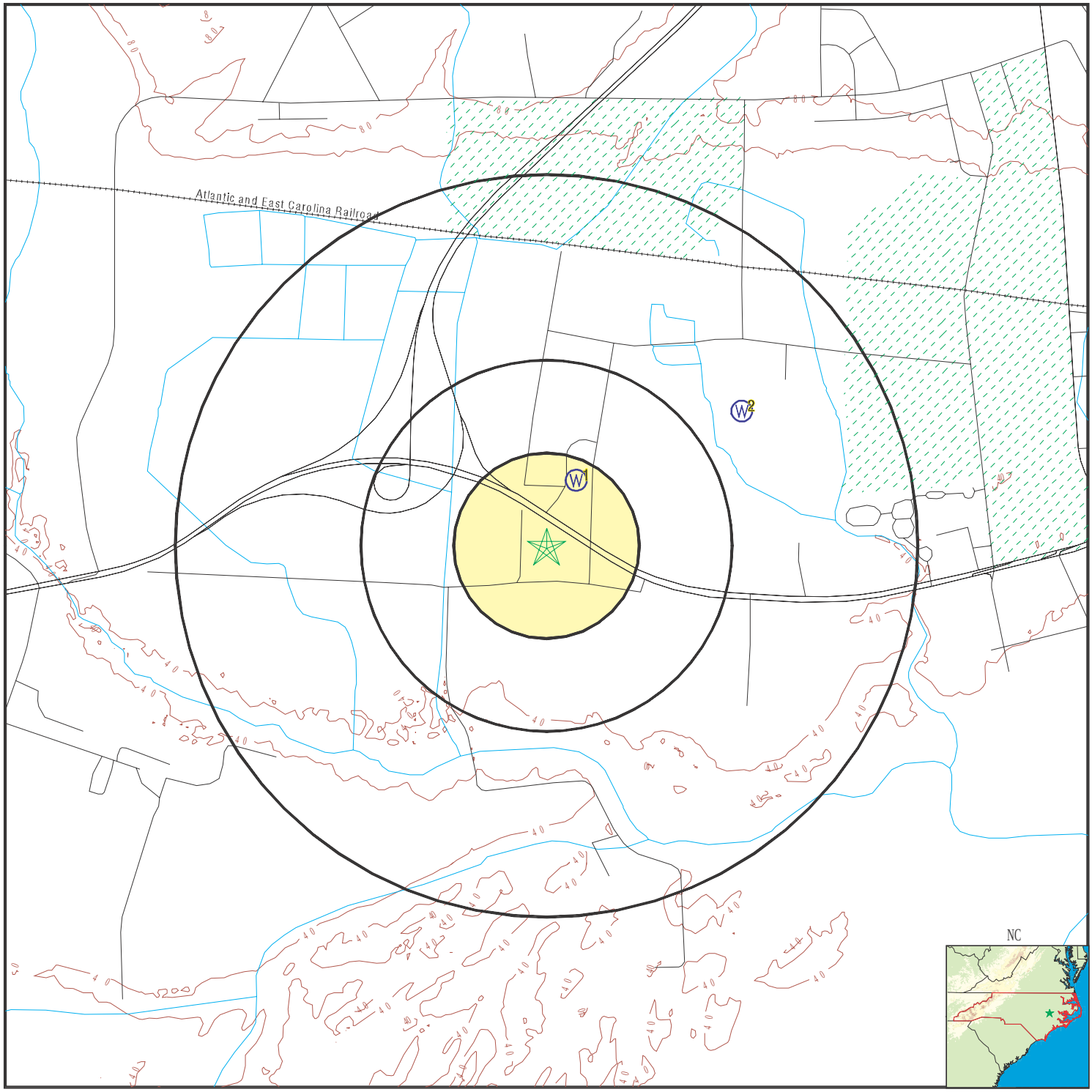
MAP ID	WELL ID	LOCATION FROM TP
1	NC2000000002808	1/8 - 1/4 Mile NNE

OTHER STATE DATABASE INFORMATION

NORTH CARLOLINA WILDLIFE RESOURCES COMMISSION GAME LANDS DATABASE

WELL DIRECTION	DISTANCE FROM TP
	NC30000983
	NC30000987
	NC30000988
	NC30000997

PHYSICAL SETTING SOURCE MAP - 7162586.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- Wildlife Areas
- Natural Areas
- Rare & Endangered Species

SITE NAME:	Proposed Lenoir County Shell Building	CLIENT:	Terracon
ADDRESS:	Innovation Way Kinston NC 28504	CONTACT:	Nick Saieed
		INQUIRY #:	7162586.2s
LAT/LONG:	35.262401 / 77.669553	DATE:	October 28, 2022 12:15 pm

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

1
NNE
1/8 - 1/4 Mile
Higher

NC WELLS **NC2000000002808**

PWS ID:	NC0454010	System Name:	KINSTON, CITY OF
PWS Type:	C	Primary Source:	SWP
Water Type:	GW	Facility Name:	WCI HWY 70/WELL #14
Well Depth:	383	Owner:	CITY OF KINSTON

2
NE
1/2 - 1 Mile
Higher

FED USGS **USGS40000885966**

Organization ID:	USGS-NC		
Organization Name:	USGS North Carolina Water Science Center		
Monitor Location:	LN-040 E L JOHNSON	Type:	Well
Description:	Not Reported	HUC:	03020202
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Northern Atlantic Coastal Plain aquifer system		
Formation Type:	Peedee Formation	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	200
Well Depth Units:	ft	Well Hole Depth:	200
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1953-02-25
Feet below surface:	10.5	Feet to sea level:	Not Reported
Note:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance	Database	EDR ID Number
	NC_WILD	**NC30000983**
	NC_WILD	**NC30000987**
	NC_WILD	**NC30000988**
	NC_WILD	**NC30000997**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: NC Radon

Radon Test Results

Num Results	Avg pCi/L	Min pCi/L	Max pCi/L
1	0.30	0.3	0.3
2	0.30	0.3	0.3
1	0.30	0.3	0.3

Federal EPA Radon Zone for LENOIR County: 3

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for LENOIR COUNTY, NC

Number of sites tested: 4

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.150 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005, 2010 and 2015 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: US Fish & Wildlife Service
Telephone: 703-358-2171

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

North Carolina Public Water Supply Wells
Source: Department of Environmental Health
Telephone: 919-715-3243

OTHER STATE DATABASE INFORMATION

North Carolina Wildlife Resources/Game Lands
Source: Center for Geographic Information and Analysis
Telephone: 919-733-2090
All publicly owned game lands managed by the North Carolina Wildlife Resources Commission and as listed in Hunting and Fishing Maps.

NC Natural Heritage Sites: Natural Heritage Element Occurrence Sites
Source: Natural Heritage Occurrence Sites Center for Geographic Information and Analysis
Telephone: 919-733-2090
A point coverage identifying locations of rare and endangered species, occurrences of exemplary or unique natural ecosystems (terrestrial or aquatic), and special animal habitats (e.g., colonial waterbird nesting sites).

NC Natural Areas: Significant Natural Heritage Areas
Source: Center for Geographic Information and Analysis
Telephone: 919-733-2090
A polygon converage identifying sites (terrestrial or aquatic) that have particular biodiversity significance. A site's significance may be due to the presenceof rare species, rare or high quality natural communities, or other important ecological features.

RADON

State Database: NC Radon
Source: Department of Environment & Natural Resources
Telephone: 919-733-4984
Radon Statistical and Non Statiscal Data

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

STREET AND ADDRESS INFORMATION

APPENDIX E
CREDENTIALS

KENNETH ALLEN MCCOLL, JR.

PROJECT SCIENTIST OF ENVIRONMENTAL SERVICES

Education
Bachelor of Science, Biology w/ Biomedical Emphasis, 1997, UNC-Pembroke

Registrations
North Carolina Notary Public

Certifications
NC Accredited Asbestos Inspector #12649

40 Hr OSHA HAZWOPER Training

Petroleum Vapor Intrusion: Fundamentals of Screening, Investigation and Management Training – August 2015

Work History
Terracon, Greenville, NC, Project Scientist – Environmental Services, 2007 to present

Environmental Hydrogeological Consultants, Inc., Red Springs, NC, Office Manager / Environmental Technician / Environmental Professional, 2000-2007

George Paris & Associates Land Surveying, Red Springs, NC, Office Manager/Field Technician, 1999-2000

PROFESSIONAL EXPERIENCE

Mr. McColl has over 20 years experience as an Environmental Professional, Environmental Technician and Environmental Project Manager. Responsibities and experience include project coordination and implementation, direction and oversight of field activities, data analysis and interpretation, report preparation and client/regulatory communication. He has conducted Environmental Site Assessment PHASE I & II's of varying degree and extent for a variety of commercial, residential, and industrial properties. Mr. McColl also has experience with underground storage tank (UST) removal/closure supervision activites, petroleum related spill incidents, and contaminated soil removal in accordance with environmental regulations. Mr. McColl is also experienced in AutoCAD map drafting.

PROJECT EXPERIENCE

Environmental Site Assessments – North, South Carolina and Virginia
Experienced with accounts for financial institutes, land trusts, real estate, developers, and industrial, commercial, residential property owners.

Supervision of UST Removals/Closures – North & South Carolina
Conducting direct and indirect supervision of UST removals / closures for a variety of gas stations, industrial locations, and residential heating oil tanks in accordance with NCDEQ and SCDHEC guidelines and regulations.

Petroleum Related Spill Incident Response/Clean Up – North & South Carolina
Provided supervision and over site for a variety of petroleum related spill incidents including trucking accidents and aboveground storage tank releases.

Grifton Food Mart UST Closure Consulting Services – Grifton, NC
Supervised the removal and tank closure activities of 13 underground storage tanks. Responsible for providing reporting to regulatory authorities.

The Province – Greenville, NC
Performed a Phase I Environmental Site Assessment of seven tracts prior to the client's purchase. Supervised underground storage tank closures. Performed limited site investigations, including soil, groundwater and soil gas sampling. Obtained Brownfields eligibility for the site due to findings of our Limited Site Investigation.

Physicians Quadrangle – Greenville, NC
Performed AHERA Building Inspection of multiple buildings considered for potential demolition.

Proposed Barnhill Contracting Property Limited Site Assessment and Receptor Survey – Kinston, NC
Performed an Environmental Site Assessment, Limited Site Investigation/Receptor Survey for identifying water supply wells and surface water on a 200 acre tract of land.

APPENDIX F
DESCRIPTION OF TERMS AND ACRONYMS

Description of Selected General Terms and Acronyms

Term/Acronym	Description
ACM	Asbestos Containing Material. Asbestos is a naturally occurring mineral, three varieties of which (chrysotile, amosite, crocidolite) have been commonly used as fireproofing or binding agents in construction materials. Exposure to asbestos, as well as ACM, has been documented to cause lung diseases including asbestosis (scarring of the lung), lung cancer and mesothelioma (a cancer of the lung lining). Regulatory agencies have generally defined ACM as a material containing greater that one (1) percent asbestos, however some states (e.g. California) define ACM as materials having 0.1% asbestos. In order to define a homogenous material as non-ACM, a minimum number of samples must be collected from the material dependent upon its type and quantity. Homogenous materials defined as non-ACM must either have 1) no asbestos identified in all of its samples or 2) an identified asbestos concentration below the appropriate regulatory threshold. Asbestos concentrations are generally determined using polarized light microscopy or transmission electron microscopy. Point counting is an analytical method to statistically quantify the percentage of asbestos in a sample. The asbestos component of ACM may either be friable or non-friable. Friable materials, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure and have a higher potential for a fiber release than non-friable ACM. Non-friable ACM are materials that are firmly bound in a matrix by plastic, cement, etc. and, if handled carefully, will not become friable. Federal and state regulations require that either all suspect building materials be presumed ACM or that an asbestos survey be performed prior to renovation, dismantling, demolition, or other activities that may disturb potential ACM. Notifications are required prior to demolition and/or renovation activities that may impact the condition of ACM in a building. ACM removal may be required if the ACM is likely to be disturbed or damaged during the demolition or renovation. Abatement of friable or potentially friable ACM must be performed by a licensed abatement contractor in accordance with state rules and NESHAP. Additionally, OSHA regulations for work classification, worker training and worker protection will apply.
AHERA	Asbestos Hazard Emergency Response Act
AST	Aboveground Storage Tanks. ASTs are generally described as storage tanks less than 10% of which are below ground (i.e., buried). Tanks located in a basement, but not buried, are also considered ASTs. Whether, and the extent to which, an AST is regulated, is determined on a case-by-case basis and depends upon tank size, its contents and the jurisdiction of its location.
BGS	Below Ground Surface
Brownfields	State and/or tribal listing of Brownfield properties addressed by Cooperative Agreement Recipients or Targeted Brownfields Assessments.
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes. BTEX are VOC components found in gasoline and commonly used as analytical indicators of a petroleum hydrocarbon release.
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act (a.k.a. Superfund). CERCLA is the federal act that regulates abandoned or uncontrolled hazardous waste sites. Under this Act, joint and several liability may be imposed on potentially responsible parties for cleanup-related costs.
CERCLIS	Comprehensive Environmental Response, Compensation and Liability Information System. An EPA compilation of sites having suspected or actual releases of hazardous substances to the environment. CERCLIS also contains information on site inspections, preliminary assessments and remediation of hazardous waste sites. These sites are typically reported to EPA by states and municipalities or by third parties pursuant to CERCLA Section 103.
CESQG	Conditionally Exempt Small Quantity Generators
CFR	Code of Federal Regulations

Description of Selected General Terms and Acronyms

Term/Acronym	Description
CREC	Controlled Recognized Environmental Condition is defined in ASTM E1527-13 as "a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority) , with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). A condition considered by the environmental professional to be a controlled recognized environmental condition shall be listed in the findings section of the Phase I Environmental Site Assessment report, and as a recognized environmental condition in the conclusions section of the Phase I Environmental Site Assessment report."
DOT	U.S. Department of Transportation
EPA	U.S. Environmental Protection Agency
ERNS	Emergency Response Notification System. An EPA-maintained federal database which stores information on notifications of oil discharges and hazardous substance releases in quantities greater than the applicable reportable quantity under CERCLA. ERNS is a cooperative data-sharing effort between EPA, DOT, and the National Response Center.
ESA	Environmental Site Assessment
FRP	Fiberglass Reinforced Plastic
Hazardous Substance	As defined under CERCLA, this is (A) any substance designated pursuant to section 1321(b)(2)(A) of Title 33, (B) any element, compound, mixture, solution, or substance designated pursuant to section 9602 of this title; (C) any hazardous waste having characteristics identified under or listed pursuant to section 3001 of the Solid Waste Disposal Act (with some exclusions); (D) any toxic pollutant listed under section 1317(a) of Title 33; (E) any hazardous air pollutant listed under section 112 of the Clean Air Act; and (F) any imminently hazardous chemical substance or mixture with respect to which the EPA Administrator has taken action under section 2606 of Title 15. This term does not include petroleum, including crude oil or any fraction thereof which is not otherwise listed as a hazardous substance under subparagraphs (A) through (F) above, and the term include natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas).
Hazardous Waste	This is defined as having characteristics identified or listed under section 3001 of the Solid Waste Disposal Act (with some exceptions). RCRA, as amended by the Solid Waste Disposal Act of 1980, defines this term as a "solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may (A) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; or (B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed."
HREC	Historical Recognized Environmental Condition is defined in ASTM E1527-13 as "a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted residential use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). Before calling the past release a historical recognized environmental condition, the environmental professional must determine whether the past release is a recognized environmental condition at the time of the Phase I Environmental Site Assessment is conducted (for example, if there has been a change in the regulatory criteria). If the EP considers the past release to be a recognized environmental condition at the time the Phase I ESA is conducted, the condition shall be included in the conclusions section of the report as a recognized environmental condition."

Description of Selected General Terms and Acronyms

Term/Acronym	Description
IC/EC	A listing of sites with institutional and/or engineering controls in place. IC include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls. EC include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.
ILP	Innocent Landowner/Operator Program
LQG	Large Quantity Generators
LUST	Leaking Underground Storage Tank. This is a federal term set forth under RCRA for leaking USTs. Some states also utilize this term.
MCL	Maximum Contaminant Level. This Safe Drinking Water concept (and also used by many states as a ground water cleanup criteria) refers to the limit on drinking water contamination that determines whether a supplier can deliver water from a specific source without treatment.
MSDS	Material Safety Data Sheets. Written/printed forms prepared by chemical manufacturers, importers and employers which identify the physical and chemical traits of hazardous chemicals under OSHA's Hazard Communication Standard.
NESHAP	National Emissions Standard for Hazardous Air Pollutants (Federal Clean Air Act). This part of the Clean Air Act regulates emissions of hazardous air pollutants.
NFRAP	Facilities where there is "No Further Remedial Action Planned," as more particularly described under the Records Review section of this report.
NOV	Notice of Violation. A notice of violation or similar citation issued to an entity, company or individual by a state or federal regulatory body indicating a violation of applicable rule or regulations has been identified.
NPDES	National Pollutant Discharge Elimination System (Clean Water Act). The federal permit system for discharges of polluted water.
NPL	The NPL is the EPA's database of uncontrolled or abandoned hazardous waste facilities that have been listed for priority remedial actions under the Superfund Program.
OSHA	Occupational Safety and Health Administration or Occupational Safety and Health Act
PACM	Presumed Asbestos-Containing Material. A material that is suspected of containing or presumed to contain asbestos but which has not been analyzed to confirm the presence or absence of asbestos.
PCB	Polychlorinated Biphenyl. A halogenated organic compound commonly in the form of a viscous liquid or resin, a flowing yellow oil, or a waxy solid. This compound was historically used as dielectric fluid in electrical equipment (such as electrical transformers and capacitors, electrical ballasts, hydraulic and heat transfer fluids), and for numerous heat and fire sensitive applications. PCB was preferred due to its durability, stability (even at high temperatures), good chemical resistance, low volatility, flammability, and conductivity. PCBs, however, do not break down in the environment and are classified by the EPA as a suspected carcinogen. 1978 regulations, under the Toxic Substances Control Act, prohibit manufacturing of PCB-containing equipment; however, some of this equipment may still be in use today.
pCi/L	picoCuries per Liter of Air. Unit of measurement for Radon and similar radioactive materials.
PLM	Polarized Light Microscopy (see ACM section of the report, if included in the scope of services)
PST	Petroleum Storage Tank. An AST or UST that contains a petroleum product.

Description of Selected General Terms and Acronyms

Term/Acronym	Description
Radon	A radioactive gas resulting from radioactive decay of naturally-occurring radioactive materials in rocks and soils containing uranium, granite, shale, phosphate, and pitchblende. Radon concentrations are measured in picoCuries per Liter of Air. Exposure to elevated levels of radon creates a risk of lung cancer; this risk generally increases as the level of radon and the duration of exposure increases. Outdoors, radon is diluted to such low concentrations that it usually does not present a health concern. However, radon can accumulate in building basements or similar enclosed spaces to levels that can pose a risk to human health. Indoor radon concentrations depend primarily upon the building's construction, design and the concentration of radon in the underlying soil and ground water. The EPA recommended annual average indoor "action level" concentration for residential structures is 4.0 pCi/l.
RCRA	Resource Conservation and Recovery Act. Federal act regulating solid and hazardous wastes from point of generation to time of disposal ('cradle to grave"). 42 U.S.C. 6901 et seq.
RCRA Generators	The RCRA Generators database, maintained by the EPA, lists facilities that generate hazardous waste as part of their normal business practices. Generators are listed as either large (LQG), small (SQG), or conditionally exempt (CESQG). LQG produce at least 1000 kg/month of non-acutely hazardous waste or 1 kg/month of acutely hazardous waste. SQG produce 100-1000 kg/month of non-acutely hazardous waste. CESQG are those that generate less than 100 kg/month of non-acutely hazardous waste.
RCRA CORRACTS/TSDs	The USEPA maintains a database of RCRA facilities associated with treatment, storage, and disposal (TSD) of hazardous materials which are undergoing "corrective action". A "corrective action" order is issued when there is a release of hazardous waste or constituents into the environment from a RCRA facility.
RCRA Non-CORRACTS/TSDs	The RCRA Non-CORRACTS/TSD Database is a compilation by the USEPA of facilities which report storage, transportation, treatment, or disposal of hazardous waste. Unlike the RCRA CORRACTS/TSD database, the RCRA Non-CORRACTS/TSD database does not include RCRA facilities where corrective action is required.
RCRA Violators List	RAATS. RCRA Administrative Actions Taken. RAATS information is now contained in the RCRIS database and includes records of administrative enforcement actions against facilities for noncompliance.
RCRIS	Resource Conservation and Recovery Information System, as defined in the Records Review section of this report.
REC	Recognized Environmental Conditions are defined by ASTM E1527-13 as "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: 1) due to any release to the environment; 2) under conditions indicative of a release to the environment. De minimis conditions are not recognized environmental conditions."
SCL	State "CERCLIS" List (see SPL /State Priority List, below).
SPCC	Spill Prevention, Control and Countermeasures. SPCC plans are required under federal law (Clean Water Act and Oil Pollution Act) for any facility storing petroleum in tanks and/or containers of 55-gallons or more that when taken in aggregate exceed 1,320 gallons. SPCC plans are also required for facilities with underground petroleum storage tanks with capacities of over 42,000 gallons. Many states have similar spill prevention programs, which may have additional requirements.
SPL	State Priority List. State list of confirmed sites having contamination in which the state is actively involved in clean up activities or is actively pursuing potentially responsible parties for clean up. Sometimes referred to as a State "CERCLIS" List.
SQG	Small Quantity Generator
SWF/LF	State and/or Tribal database of Solid Waste/Landfill facilities. The database information may include the facility name, class, operation type, area, estimated operational life, and owner.
TPH	Total Petroleum Hydrocarbons
TRI	Toxic Release Inventory. Routine EPA report on releases of toxic chemicals to the environment based upon information submitted by entities subject to reporting under the Emergency Planning and Community Right to Know Act.

Description of Selected General Terms and Acronyms

Term/Acronym	Description
TSCA	Toxic Substances Control Act. A federal law regulating manufacture, import, processing and distribution of chemical substances not specifically regulated by other federal laws (such as asbestos, PCBs, lead-based paint and radon). 15 U.S.C 2601 et seq.
USACE	United States Army Corps of Engineers
USC	United States Code
USGS	United States Geological Survey
USNRCS	United States Department of Agriculture-Natural Resource Conservation Service
UST	Underground Storage Tank. Most federal and state regulations, as well as ASTM E1527-13, define this as any tank, incl., underground piping connected to the tank, that is or has been used to contain hazardous substances or petroleum products and the volume of which is 10% or more beneath the surface of the ground (i.e., buried).
VCP	State and/or Tribal facilities included as Voluntary Cleanup Program sites.
VOC	Volatile Organic Compound
Wetlands	Areas that are typically saturated with surface or ground water that creates an environment supportive of wetland vegetation (i.e., swamps, marshes, bogs). The Corps of Engineers Wetlands Delineation Manual (Technical Report Y-87-1) defines wetlands as areas inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. For an area to be considered a jurisdictional wetland, it must meet the following criteria: more than 50 percent of the dominant plant species must be categorized as Obligate, Facultative Wetland, or Facultative on lists of plant species that occur in wetlands; the soil must be hydric; and, wetland hydrology must be present. The federal Clean Water Act which regulates “waters of the US,” also regulates wetlands, a program jointly administered by the USACE and the EPA. Waters of the U.S. are defined as: (1) waters used in interstate or foreign commerce, including all waters subject to the ebb and flow of tides; (2) all interstate waters including interstate wetlands; (3) all other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, etc., which the use, degradation, or destruction could affect interstate/ foreign commerce; (4) all impoundments of waters otherwise defined as waters of the U. S., (5) tributaries of waters identified in 1 through 4 above; (6) the territorial seas; and (7) wetlands adjacent to waters identified in 1 through 6 above. Only the USACE has the authority to make a final wetlands jurisdictional determination.