



# Administrative Site Review Application

Planning and Development Customer Service Center • One Exchange Plaza, Suite 400 | Raleigh, NC 27601 | 919-996-2500

This form is required when submitting site plans as referenced in Unified Development Ordinance (UDO) Section 10.2.8. Please check the appropriate building types and include the plan checklist document when submitting.

**Office Use Only:** Case #: \_\_\_\_\_ Planner (print): \_\_\_\_\_

Please review UDO Section 10.2.8. to determine the site plan tier. If assistance determining a Site Plan Tier is needed a Site Plan Tier Verification request can be submitted online via the [Permit and Development Portal](#). (Note: There is a fee for this verification service.)

Tier Two Site Plan		Tier Three Site Plan
Building and Development Type (Check all that apply)		Site Transaction History
Detached	General	Subdivision case #: _____
Attached	Mixed use	Scoping/sketch plan case #: _____
Townhouse	Civic	Certificate of Appropriateness #: _____
Apartment	Cottage Court	Board of Adjustment #: _____
Tiny house	Frequent Transit	Zoning Case #: _____, <b>Z-33-1974</b>
Open lot	Development Option	Design Alternate #: _____

### GENERAL INFORMATION

Development name: \_\_\_\_\_

Inside City limits?    Yes    No

Property address(es): \_\_\_\_\_

Site P.I.N.(s): \_\_\_\_\_

Please describe the scope of work. Include any additions, expansions, and uses (UDO 6.1.4).  
Expansion to incorporate a third bank at the existing Duke Energy Progress Caraleigh Substation. The expansion will be sited to stay within the existing substation fence, but will require modification to the existing access drive and substation yard entrance gates. Proposed work limits will align with Tier Two criteria (4,000-10,000SF increase or 10%-25% of existing). Existing Zoning is R-6 and existing Zoning Use is Minor Utility (Electrical Substation). Proposed Zoning Use is also Minor Utility.

### Current Property Owner(s):

Company: **Duke Energy Progress, Inc.**      Title: \_\_\_\_\_

Address: \_\_\_\_\_

Phone #: \_\_\_\_\_      Email: \_\_\_\_\_

### Applicant Name (If different from owner. See "who can apply" in instructions):

Relationship to owner:    Lessee or contract purchaser    Owner's authorized agent    Easement holder

Company: **Dewberry Engineers, Inc.**      Address: \_\_\_\_\_

Phone #:	Email:
<b>NOTE: please attach purchase agreement or contract, lease or easement when submitting this form.</b>	
<b>Developer Contact:</b>	
Company:	Title:
Address:	
Phone #:	Email:
Applicant Name:	
Company:	Address:
Phone #:	Email:

DEVELOPMENT TYPE + SITE DATE TABLE (Applicable to all developments)	
SITE DATA	BUILDING DATA
Zoning district(s) (please provide the acreage of each):	Existing gross floor area (not to be demolished):
Gross site acreage:	Existing gross floor area to be demolished:
# of parking spaces proposed:	New gross floor area:
Max # parking permitted (7.1.2.C):	Total sf gross (to remain and new):
Overlay District (if applicable):	Proposed # of buildings:
Existing use (UDO 6.1.4):	Proposed # of stories for each:
Proposed use (UDO 6.1.4):	Proposed # of basement levels (UDO 1.5.7.A.6)

STORMWATER INFORMATION	
Imperious Area on Parcel(s): Existing (sf) _____ Proposed total (sf) _____	Impervious Area for Compliance (includes ROW): Existing (sf) _____ Proposed total (sf) _____

RESIDENTIAL & OVERNIGHT LODGING DEVELOPMENTS	
Total # of dwelling units:	Total # of hotel bedrooms:
# of bedroom units: 1br _____ 2br _____ 3br _____ 4br or more _____	
# of lots:	Is your project a cottage court?      Yes      No
	A frequent transit development?      Yes      No

Continue to Applicant Signature Block on Page Three.

**APPLICANT SIGNATURE BLOCK**

Pursuant to state law (N.C. Gen. Stat. § 160D-403(a)), applications for development approvals may be made by the landowner, a lessee or person holding an option or contract to purchase or lease land, or an authorized agent of the landowner. An easement holder may also apply for development approval for such development as is authorized by the easement.

By submitting this application, the undersigned applicant acknowledges that they are either the property owner or one of the persons authorized by state law (N.C.G.S. 160D-403(a)) to make this application, as specified in the application. The undersigned also acknowledges that the information and statements made in the application are correct and the undersigned understands that developments approvals are subject to revocation for false statements or misrepresentations made in securing the development approval, pursuant to N.C. Gen. Stat. § 160D-403(f).

The undersigned indicates that the property owner(s) is aware of this application and that the proposed project described in this application will be maintained in all respects in accordance with the plans and specifications submitted herewith, and in accordance with the provisions and regulations of the City of Raleigh Unified Development Ordinance.

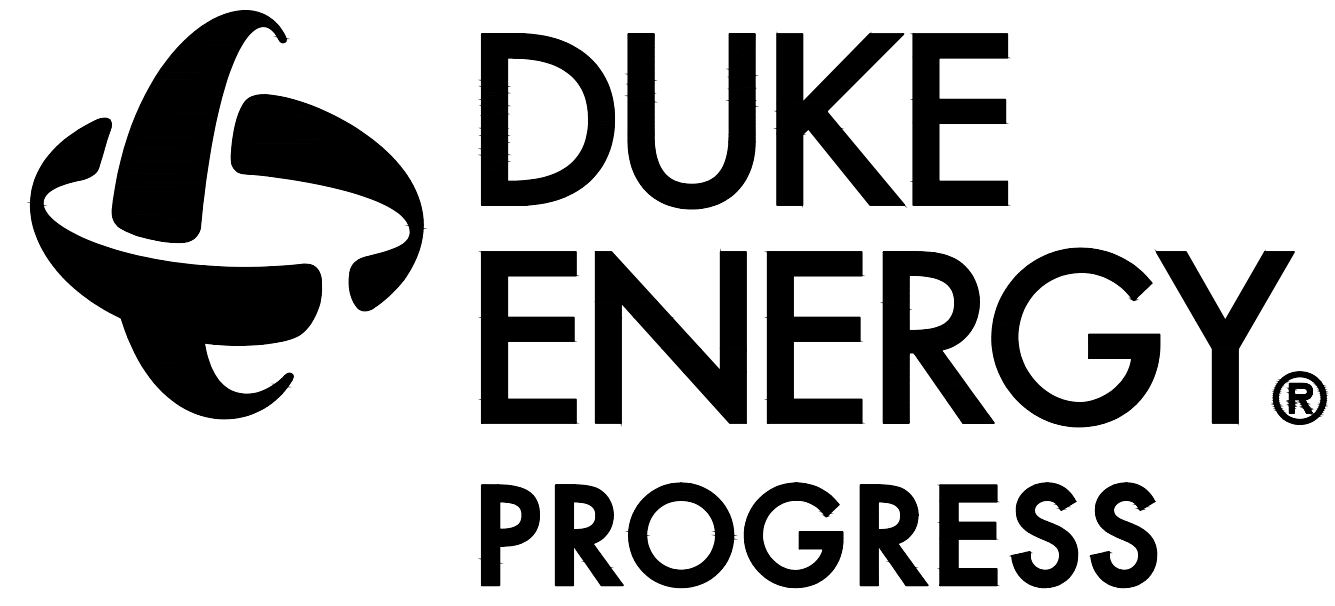
The undersigned hereby acknowledges that, pursuant to state law (N.C.G.S. 143-755(b1)), if this permit application is placed on hold at the request of the applicant for a period of six consecutive months or more, or if the applicant fails to respond to comments or provide additional information requested by the City for a period of six consecutive months or more, then the application review is discontinued and a new application is required to proceed and the development regulations in effect at the time permit processing is resumed shall apply to the new application.

Signature:

Date:

Printed Name:



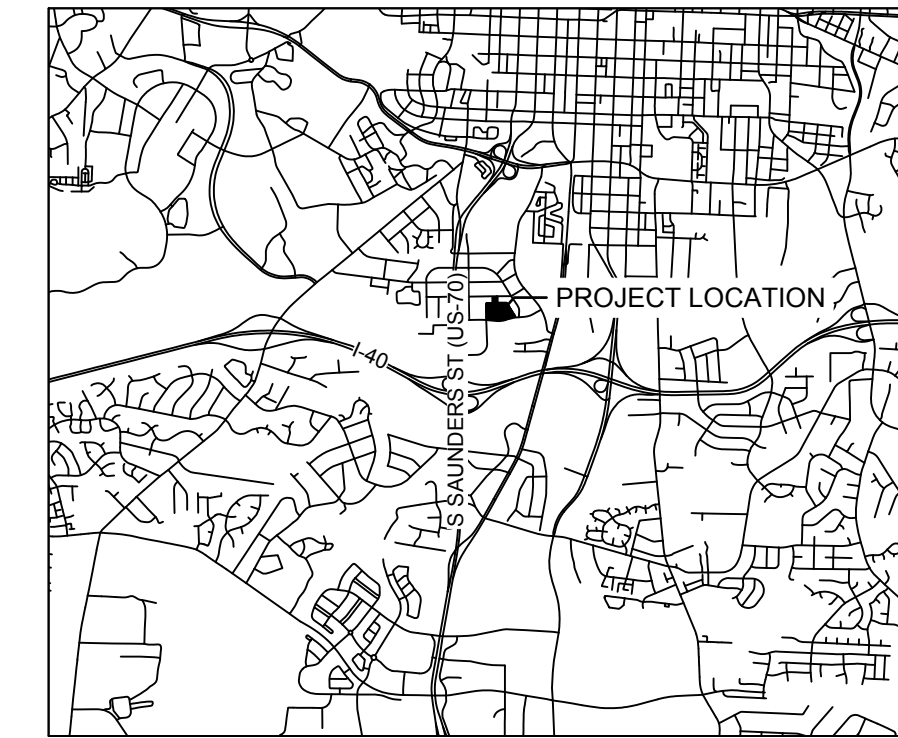


# CARALEIGH 230kV SUBSTATION

## 133 GILBERT AVE, RALEIGH, NC 27603

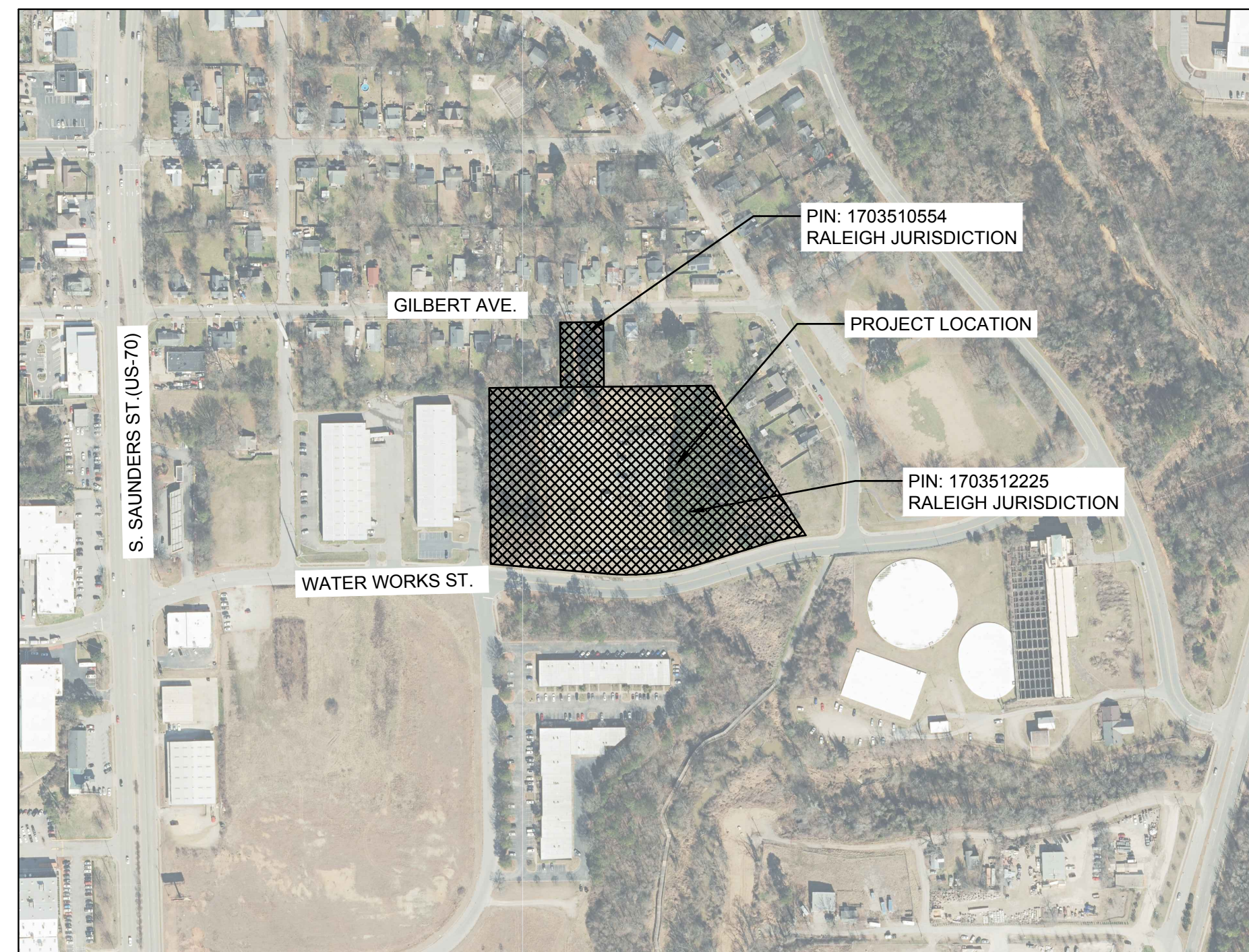
DEP PROJECT NUMBER: E21010701

LATITUDE: 35.75858°  
LONGITUDE: -78.64544°



**LOCATION MAP**  
SCALE: 1" = 5000'

PROJECT INFORMATION	
LANDOWNER	DUKE ENERGY PROGRESS, LLC 411 FAYETTEVILLE ST RALEIGH, NC 27601
ENGINEER	DEWBERRY ENGINEERS INC. 2610 WYCLIFF ROAD, SUITE 410 RALEIGH, NC 27607 PH: 919.881.9939
SURVEYOR	THE JOHN R McADAMS COMPANY INC. 2905 MERIDIAN PARKWAY DURHAM, NC 27713 PH: 800.733.5646
PARCEL ID	1703510554, 1703512225
DEED BOOK AND PAGE NUMBER	D.B. 2312, PG. 643 D.B. 2312, PG. 543
SITE ZONING	R-6
TOTAL ACREAGE OF PARCEL AREA	6.34 AC
ACREAGE OF LAND TO BE DISTURBED	4.99 ACRES
TOTAL NET BUILT UPON AREA	0.17 AC
TOTAL EXISTING AND NEW BUILT UPON AREA	2.26 AC
TOTAL NEW IMPERVIOUS AREA %	2.80%
RIVER BASIN	NEUSE
WATERSHED	NEUSE RIVER



**VICINITY MAP**  
SCALE: 1" = 300'

### GENERAL NOTES

- FIELD SURVEY PERFORMED BY THE JOHN R McADAMS COMPANY, DATED OCTOBER 25-27, 2022. REFERENCE DATUM IS NAD83 (2011).
  - ALL MATERIALS, CONSTRUCTION, WORKMANSHIP SHALL MEET DUKE ENERGY PROGRESS, LLC (DEP) SPECIFICATIONS, STANDARDS AND DESIGN.
  - CONTRACTOR SHALL COMPLY WITH ALL PERTINENT PROVISIONS OF THE "MANUAL OF ACCIDENT PREVENTION IN CONSTRUCTION" ISSUED BY AGC OF AMERICA, INC., AND THE SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION ISSUED BY THE U.S. DEPARTMENT OF LABOR.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF ANY EXISTING PAVEMENT OR EXISTING UTILITIES THAT ARE DAMAGED DUE TO CONSTRUCTION ACTIVITY.
  - DO NOT POUR ANY CONCRETE BEFORE FORMS ARE INSPECTED AND APPROVED BY THE PROJECT ENGINEER. FAILURE TO DO SO MAY CONSTITUTE REMOVAL OF WORK PERFORMED AT CONTRACTOR'S COST UNTIL MADE SATISFACTORY BY THE ENGINEER.
  - CONTRACTOR IS REQUIRED TO REDLINE ANY FIELD CHANGES ON DRAWINGS UPON COMPLETION OF CONSTRUCTION. NOTE ANY DEVIATIONS FROM THE ORIGINAL PLANS. PLANS ARE TO REFLECT THE ACTUAL LOCATION AND MATERIALS.
- EARTHWORK/EROSION:**
- SITE DISTURBANCE IS MORE THAN 1 ACRE THEREFORE AN EROSION CONTROL PERMIT WILL BE OBTAINED. ALL ADDITIONAL EROSION CONTROL ITEMS THAT ARE INSTALLED THAT ARE NOT SHOWN ON THE PLANS, SHALL BE APPROVED BY THE LOCAL AGENCY OR DEP REPRESENTATIVE BEFORE INSTALLING IN ORDER TO APPROVE FOR PAYMENT. ITEMS NOT APPROVED WILL BE INSTALLED AT THE CONTRACTOR'S EXPENSE.
  - ALL DISTURBED AREAS SHALL BE STABILIZED IN ACCORDANCE WITH NCG01 GROUND STABILIZATION REQUIREMENTS.
  - THE LOCATION OF ANY STOCKPILES SHALL BE COORDINATED WITH DEP REPRESENTATIVE.
  - ALL CONSTRUCTION DEBRIS SHALL BE DISPOSED OF OFF-SITE IN A STATE PERMITTED LANDFILL.
  - UNLESS NOTED OTHERWISE, ALL TREES NOT MARKED TO BE REMOVED ARE NOT TO BE DISTURBED. THEY ARE TO BE PROTECTED FROM DAMAGE BY EQUIPMENT DURING CONSTRUCTION.
- ENVIRONMENTAL:**
- THE SITE LIES WITHIN AN AREA OF MINIMAL FLOOD HAZARD (ZONE X) AS REFERENCED PER FEMA PANEL 3720170300K MAP EFFECTIVE DATE: 07/19/2022.
- STREETS:**
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK ZONE TRAFFIC CONTROL MEASURES IN AND/OR ADJACENT TO NCDOT RIGHT-OF-WAY. ALL METHODS SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND NCDOT STANDARDS.
  - WORK WITHIN THE RIGHT-OF-WAY SHALL CONFORM TO NCDOT STANDARDS AND SPECIFICATIONS.
- UTILITIES:**
- EXISTING UTILITY LOCATIONS SHOWN, IF ANY, ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD PRIOR TO BEGINNING WORK. CONTRACTOR SHALL CONTACT NC ONE CALL CENTER AT 1-800-632-4949 (OR 811) FOR LOCATIONS OF EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION. NO SUBSURFACE UTILITY INVESTIGATION HAS BEEN CONDUCTED AT THIS TIME.
  - CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN WORKING UNDER, AROUND, AND/OR ADJACENT TO EXISTING POWER LINES AND UTILITY STRUCTURES.

SHEET LIST TABLE	
SHEET #	SHEET TITLE
1	COVER
2	EXISTING CONDITIONS
3	DEMOLITION PLAN
4	SITE PLAN
5	ESC PLAN PHASE 1
6	ESC PLAN PHASE 2
7	ESC PLAN PHASE 3
8	GRADING AND DRAINAGE PLAN
9	PAD GRADING PLAN
10	ACCESS ROAD PLAN & PROFILE
11	SITE PROFILES AND DETAILS
12	SITE PROFILES AND DETAILS

13	STORM PROFILES
14	EXISTING IMPERVIOUS MAP
15	PROPOSED IMPERVIOUS MAP
16	STORM DETAILS
17	ESC DETAILS 1
18	ESC DETAILS 2
19	ESC DETAILS 3
20	NCG01 DETAILS 1
21	NCG01 DETAILS 2

**MIGRATORY BIRD HOTLINE**

STATE AND FEDERAL LAWS PROTECT ALL SPECIES OF NATIVE BIRDS FOUND THROUGHOUT THE DUKE ENERGY SERVICE AREA. INTERACTIONS OF BIRDS WITH GENERATING FACILITIES, TRANSMISSION, AND DISTRIBUTIONS, SUBSTATIONS, OTHER STRUCTURES AND EQUIPMENT, AND OPERATIONS ARE POTENTIALLY HARMFUL OR FATAL TO BIRDS. DUKE ENERGY OPERATES THESE 24-HOUR MIGRATORY BIRD HOTLINES TO ASSIST EMPLOYEES AND CONTRACTORS WITH RELATED INCIDENTS THAT OCCUR DURING WORK ACTIVITIES.  
CAROLINAS: 800.573.3853

**SPILL REPORTING HOTLINE**

IN ORDER TO ENSURE THE PROTECTION OF HUMAN HEALTH AND THE ENVIRONMENT, FEDERAL AND STATE LAWS REQUIRE THAT CERTAIN TYPES OF SPILLS AND UNPERMITTED RELEASES BE REPORTED TO THE PROPER REGULATORY AGENCIES AS SOON AS POSSIBLE FOLLOWING IDENTIFICATION. IMMEDIATELY NOTIFY YOUR SUPERVISOR AND THE FIELD ENVIRONMENTAL/EHS PROFESSIONAL WHEN A SPILL OR UNPERMITTED RELEASE IS DISCOVERED. IF YOU ARE UNABLE TO REACH THE FIELD ENVIRONMENTAL/EHS PROFESSIONAL, CONTACT ONE OF THE DUKE ENERGY SPILL REPORTING HOTLINES AT:  
CAROLINAS: 800.527.3853

**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION

NO.	DATE	REVISION	BY	CK.	APP.
1	08/23/2023	CITY OF RALEIGH ADMIN SITE REVIEW	RAY	ARB	DAR



CARALEIGH  
230kV - SUBSTATION  
COVER

LOCATION CARALEIGH SUBSTATION  
SCALE AS NOTED SCALE RATIO 1:1  
DRAWN RAY CHK. ARB APP. DAR  
DATE 08/23/2023 DWG NO. RDC-83516 SHEET 1 OF 21



**GENERAL NOTES**

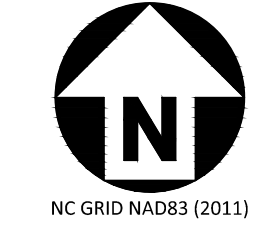
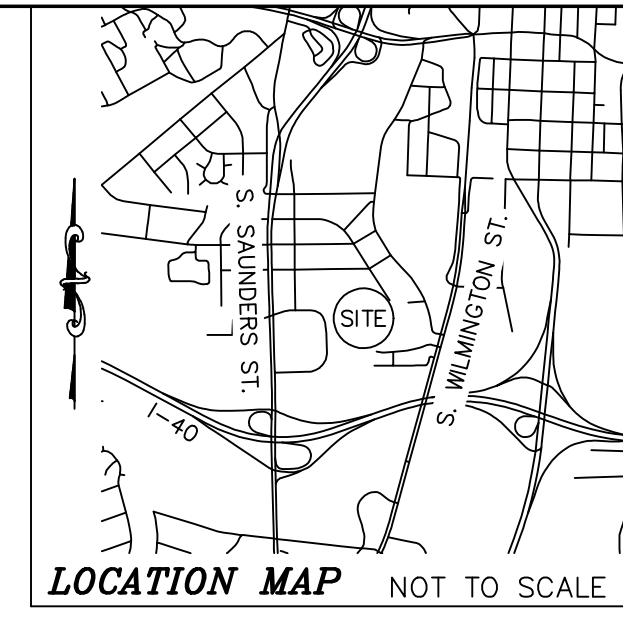
- THIS IS A SURVEY OF AN EXISTING PARCEL OF LAND. THIS IS A BOUNDARY AND TOPOGRAPHIC SURVEY.
- BEARINGS FOR THIS SURVEY ARE BASED ON NC GRID NAD 83(2011).
- ALL DISTANCES ARE HORIZONTAL GROUND DISTANCES UNLESS OTHERWISE NOTED.
- ZONING: R-6 PER WAKE COUNTY GIS.
- AREA BY COORDINATE COMPUTATION.
- FLOOD NOTE: THIS PROPERTY IS NOT LOCATED IN A SPECIAL FLOOD HAZARD ZONE. IT IS LOCATED IN ZONE "X" AS DEFINED BY F.E.M.A. F.I.R.M COMMUNITY PANEL #3720170300K DATED 07/19/2022.
- REFERENCES: AS SHOWN
- UTILITY STATEMENT  
THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.
- THIS SURVEY PERFORMED AND MAP PREPARED WITHOUT BENEFIT OF A TITLE REPORT, PROPERTY SUBJECT TO ANY VALID AND ENFORCEABLE EASEMENTS, RESTRICTIONS, AND RIGHTS OF WAY OR RECORD.
- ELEVATIONS FOR THIS SURVEY ARE BASED ON NAVD88.
- SURVEY IS BASED ON PHYSICAL EVIDENCE AND EXISTING MONUMENTATION FOUND DURING THE SURVEY.
- PROPERTY CORNER PIPE SIZES AS SHOWN ARE NOMINAL INSIDE DIAMETER.
- RIGHT OF LIMITS BASED ON MAP R-0-2350. TRANSMISSION SURVEY LINE BASED ON DRAWING CT-61132 PI STRUCTURES.
- REVISIONS:  
- 3/15/23: ADDED INVERTS AND DRAINAGE INLET TO LEGEND

N.G.S. MON. "WHEELER"  
N.C. GRID COORDINATES  
NAD83(2011) NAVD88  
N: 730,928.45'  
E: 2,099,382.28'  
ELEV: 290.22'

STATE PLANE COORDINATES AS SHOWN WERE ESTABLISHED BY NC REAL TIME NETWORK (VRS) GPS METHOD, AND WERE BASED ON NGS MONUMENTS WHEELER AND QUARRY, AND THE DATUM IS NAD 83 (2011). THE PROJECT COMBINED FACTOR IS 0.99990278  
PROJECT COORDINATES ARE LOCALIZED ON PT #401 (NAIL) AND HAVE A STATE PLANE VALUE OF N:731,632.12' E:2,105,121.16'  
VERTICAL DATUM BASED ON NAVD88

CURVE TABLE				
CURVE	RADIUS	ARC LENGTH	CHORD BEARING	CHORD LENGTH
C1	630.00'	103.38'	S 77°40'45" W	103.28'
C2	570.00'	219.28'	S 83°54'28" W	217.93'

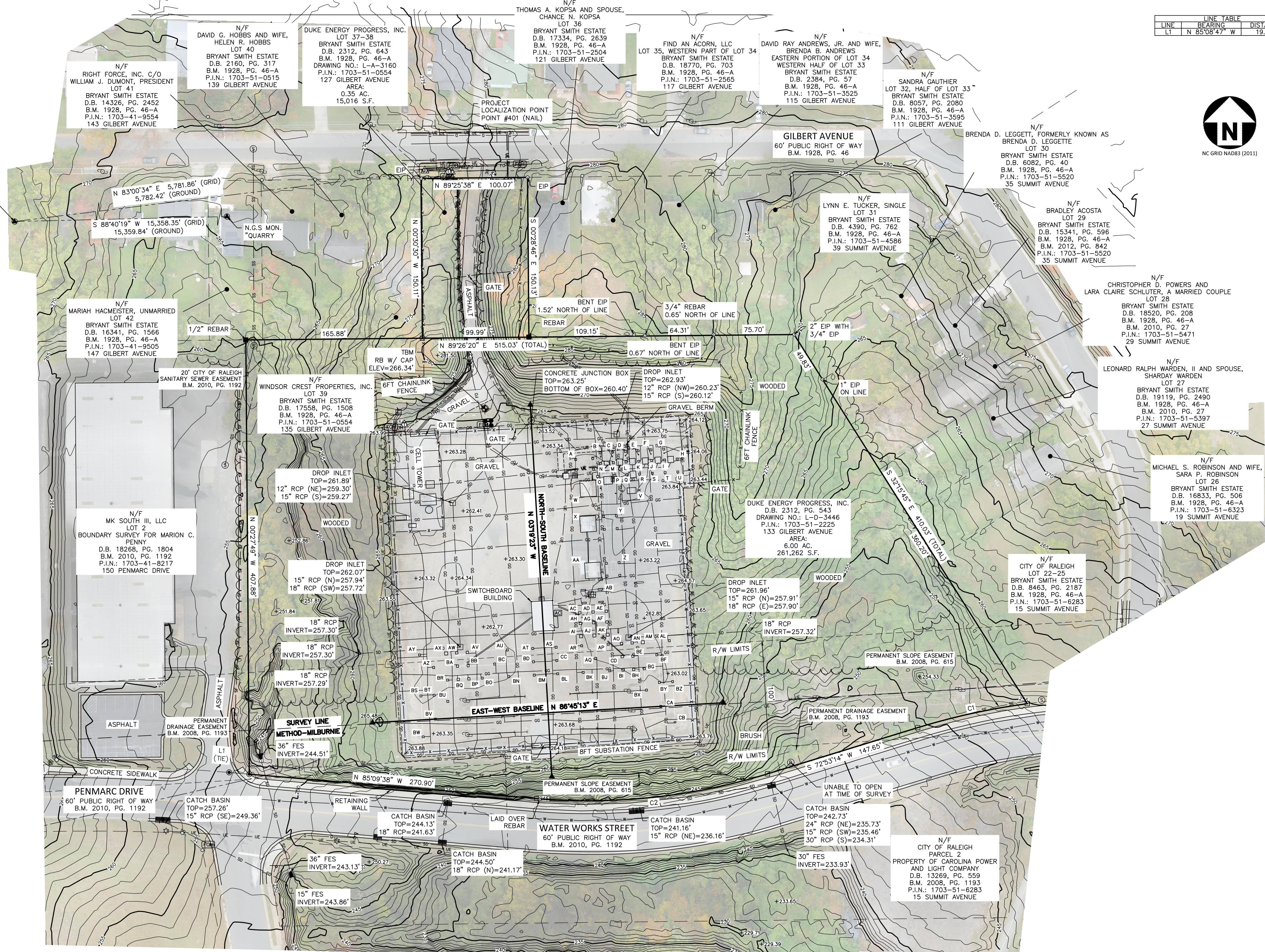
LINE TABLE		
LINE	BEARING	DISTANCE
L1	N 85°08'47" W	19.00'



STR	TOC/STR	GRND
A	263.84	263.08
B	263.85	263.22
C	263.87	263.16
D	263.84	263.19
E	263.85	263.32
F	263.83	263.49
G	263.84	263.54
H	263.83	263.62
I	263.86	263.46
J	263.83	263.33
K	263.85	263.30
L	263.83	263.18
M	263.82	263.22
N	263.84	263.04
O	263.31	262.94
P	263.83	263.07
Q	263.84	263.11
R	263.84	263.13
S	263.85	263.27
T	263.84	263.48
U	263.83	263.61
V	263.67	263.48
W	264.33	262.89
X	264.32	263.65
Y	263.81	263.85
Z	263.81	263.08
AA	264.33	263.32
AB	263.83	263.11
AC	263.87	263.31
AD	263.85	263.31
AE	263.87	262.89
AF	263.85	262.86
AG	263.83	262.97
AH	263.86	263.27
AI	263.89	263.24
AJ	263.96	263.28
AK	263.87	262.91
AL	263.48	263.11
AM	263.45	262.75
AN	263.97	262.62
AO	263.88	262.77
AP	263.86	262.99
AQ	263.85	263.10
AR	263.89	263.25
AS	263.86	263.44
AT	263.86	263.28
AU	263.86	262.93
AV	263.95	262.53
AW	263.88	262.37
AX	263.51	262.64
AY	263.52	263.11
AZ	263.54	262.93
BA	263.91	262.70
BB	263.92	263.75
BC	263.84	262.82
BD	263.84	263.25
BE	263.87	262.91
BF	263.46	262.95
BG	263.44	263.01
BH	263.85	263.04
BI	263.88	263.11
BJ	263.85	263.22
BK	263.85	263.31
BL	263.87	263.50
BM	263.82	263.81
BN	263.85	263.03
BO	263.86	262.94
BP	263.91	262.91
BQ	263.91	262.98
BR	263.54	262.98
BS	263.50	263.10
BT	263.51	263.06
BU	263.51	263.16
BV	263.51	263.20
BW	263.52	263.30
BX	263.44	263.23
BY	263.47	263.10
BZ	263.45	263.15
CA	263.42	263.32
CB	263.40	263.39
CC	263.87	263.42
CD	263.89	262.92

**LEGEND**

- NAIL
- BENCHMARK
- EXISTING IRON PIPE
- CALCULATED POINT
- NC GEODETIC SURVEY MON.
- #4 REBAR(S)
- #4 REBAR(F)
- PK(F)
- LIGHT POLE
- POWER POLE STRUCTURE
- WATER METER
- BACKFLOW PREVENTER
- CL CATCH BASIN AT BC
- SEWER MANHOLE
- STORM DRAIN MANHOLE
- JUNCTION BOX
- DRAINAGE INLET
- ELECTRIC BOX
- FIBER OPTIC MARKER
- FIBER OPTIC HANDHOLE
- TELEPHONE PEDESTAL
- BOUNDARY LINE
- BOUNDARY SURVEY FOR MARION C. PENNY
- TRANSMISSION RIGHT OF WAY LIMITS
- OVERHEAD DISTRIBUTION LINE
- TIE LINE
- GAS LINE
- WATER LINE
- SEWER LINE
- STORM LINE
- UNDERGROUND FIBER OPTIC CABLE
- UNDERGROUND ELECTRIC LINE
- UNDERGROUND TELEPHONE
- GROUNDING GRID
- FENCE
- WOODS LINE



I, JAMES S. ARMSTRONG, CERTIFY THAT THIS PLAT WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION (GOOD DESCRIPTION RECORDED IN BOOK AND PAGE AS SHOWN; THAT THE BOUNDARIES NOT SURVEYED ARE CLEARLY INDICATED AS DRAWN FROM INFORMATION FOUND IN BOOK AND PAGE AS SHOWN; THAT THE RATIO OF PRECISION OR POSITIONAL ACCURACY IS 1:148,493; AND THAT THIS MAP MEETS THE REQUIREMENTS OF THE STANDARDS OF PRACTICE FOR LAND SURVEYING IN NORTH CAROLINA (21 NCAC 56.1600). WITNESS MY ORIGINAL SIGNATURE, LICENSE NUMBER AND SEAL THIS 15TH DAY OF MARCH, A.D., 2023.

*James S. Armstrong*  
JAMES S. ARMSTRONG, PROFESSIONAL LAND SURVEYOR L-441T

I, JAMES S. ARMSTRONG, CERTIFY THAT THIS MAP WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL GPS SURVEY MADE UNDER MY SUPERVISION AND THE FOLLOWING INFORMATION WAS USED TO PERFORM THE SURVEY:  
(1) CLASS OF SURVEY: A  
(2) POSITIONAL ACCURACY: 0.018" HORIZONTAL 0.004" VERTICAL  
(3) TYPE OF GPS FIELD PROCEDURE: NC REAL TIME NETWORK (VRS)  
(4) DATES OF SURVEY: OCTOBER 25, 2022 - OCTOBER 27, 2022  
(5) DATUM/EPOCH: NAD83 (2011)  
(6) PUBLISHED/FIXED-CONTROL USE: NGS MON. WHEELER AND QUARRY  
(7) GEOID MODEL: 18  
(8) COMBINED GRID FACTOR(S): 0.99990278  
(9) UNITS: U.S. SURVEY FEET

*James S. Armstrong*  
JAMES S. ARMSTRONG, PLS DATE

I, JAMES S. ARMSTRONG, CERTIFY THAT THIS PROJECT WAS COMPLETED UNDER MY DIRECT AND RESPONSIBLE CHARGE FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION; THAT THIS GROUND AND AIRBORNE SURVEY WAS PERFORMED AT THE 95 PERCENT CONFIDENCE LEVEL TO MEET FEDERAL GEOGRAPHIC DATA COMMITTEE STANDARDS; THAT THIS SURVEY WAS PERFORMED TO MEET THE REQUIREMENTS FOR A TOPOGRAPHIC/PLANIMETRIC SURVEY TO THE ACCURACY OF CLASS A AND VERTICAL ACCURACY WHEN APPLICABLE TO THE CLASS A STANDARD; AND THAT THE ORIGINAL DATA WAS OBTAINED ON OCTOBER 25, 2022; THAT THE SURVEY WAS COMPLETED ON OCTOBER 31, 2022; THAT CONTOURS SHOWN AS [BROKEN LINES] MAY MEET THE STATED STANDARD; AND ALL COORDINATES ARE BASED ON NAD83 AND REALIZATION (2011) AND ALL ELEVATIONS ARE BASED ON NAVD88.

*James S. Armstrong*  
JAMES S. ARMSTRONG, PLS DATE

TESTED 0.143 FEET IN NON-VEGETATED VERTICAL ACCURACY (NVA) AT 95 PERCENT CONFIDENCE LEVEL IN ALL OPEN AND NON-VEGETATED LAND COVERING CATEGORIES COMBINED USING RMSEZ (0.073) X 1.96. COMPILED TO MEET 0.50 VERTICAL ACCURACY AT 95% CONFIDENCE INTERVAL.

SITE: 105370 FOR SOURCE OF TITLE REFER TO D.B.K. 2312, PG. 543

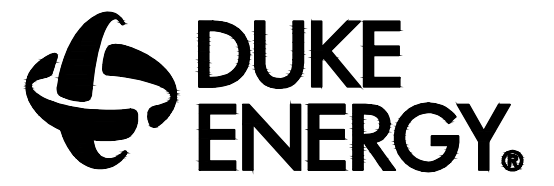
DUKE ENERGY PROGRESS, LLC  
CARALEIGH 230kV SUBSTATION  
SUBSTATION MAP

**DUKE ENERGY PROGRESS**

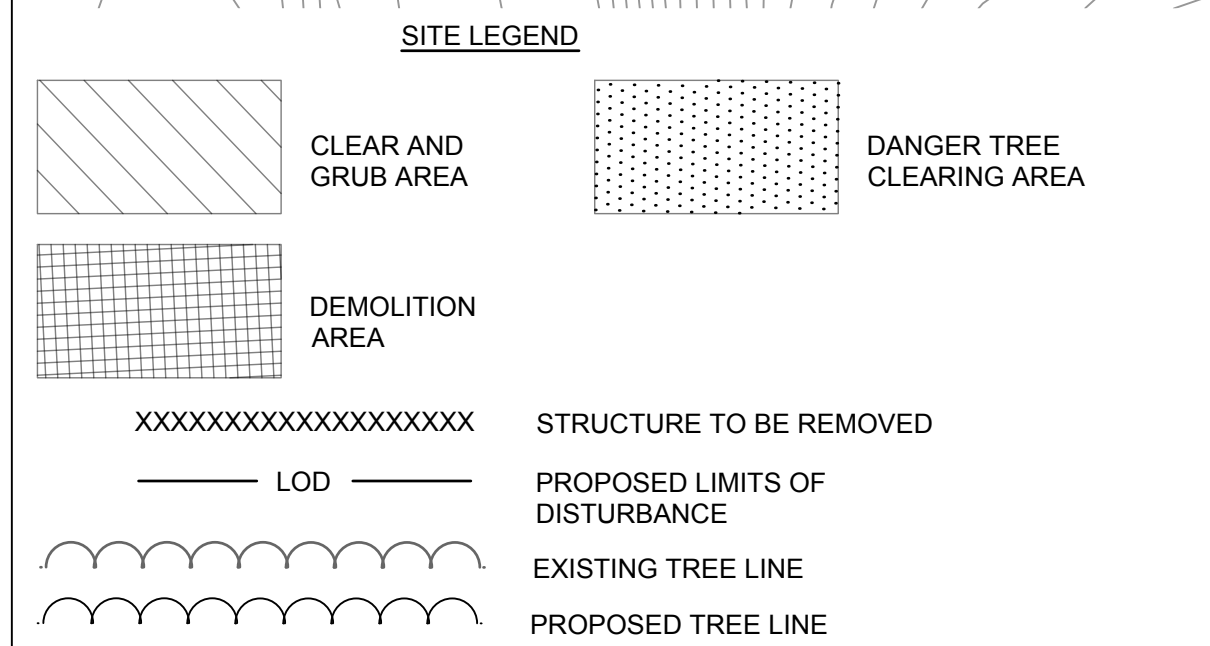
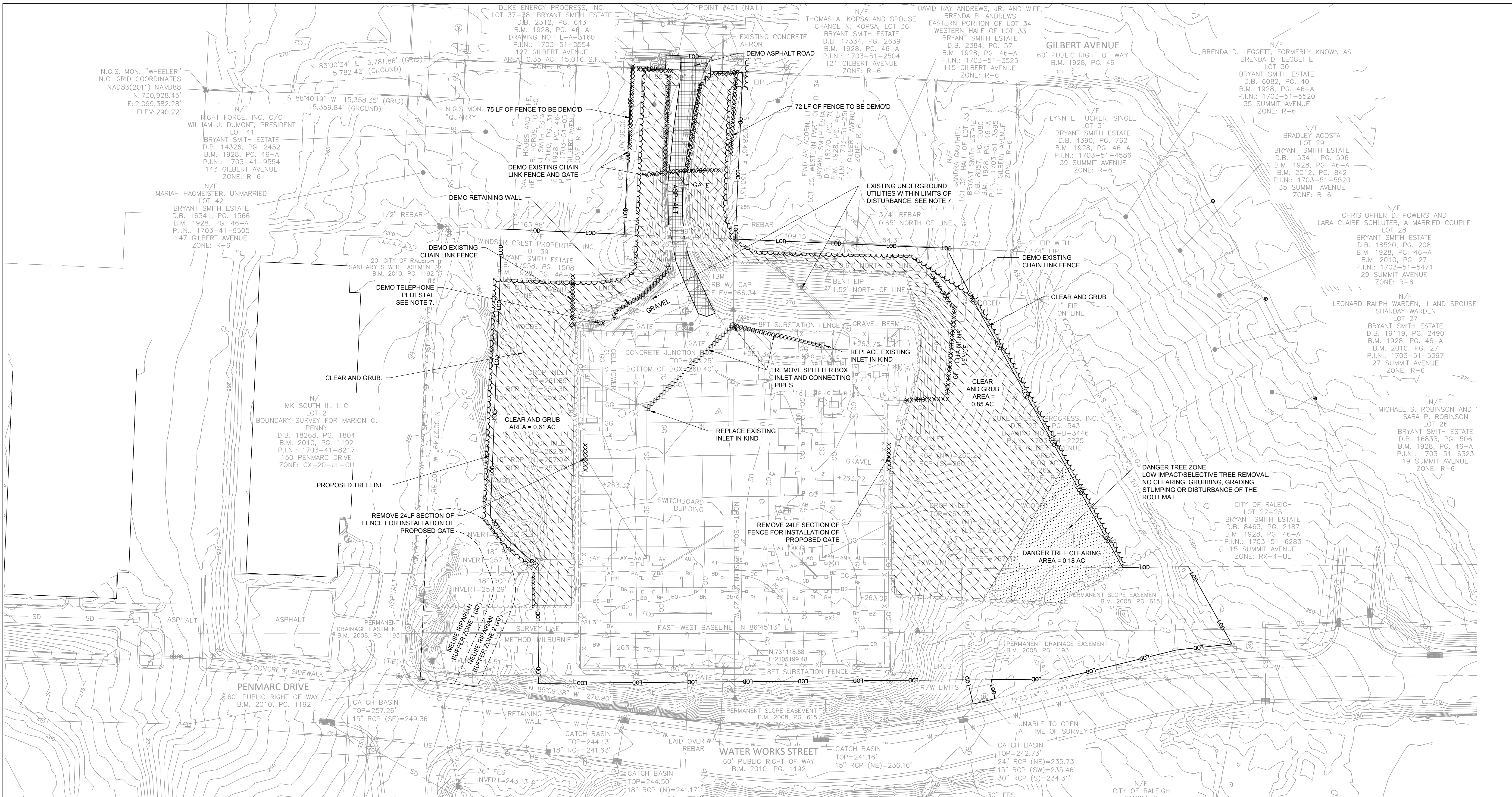
RALEIGH TOWNSHIP WAKE COUNTY, N.C.

BOOK: 11/01/22 25' 0' 25' 50' 75' DRAWN BY: JSA/CJS  
DATE: 11/01/22 SCALE IN FEET R.O.P.: 1"=10,000'+  
SCALE: 1"=50' MAP: 105370-010664

550 S. TRYON STREET  
CHARLOTTE N.C. 28201-1007  
TELEPHONE NO. (704) 382-2361







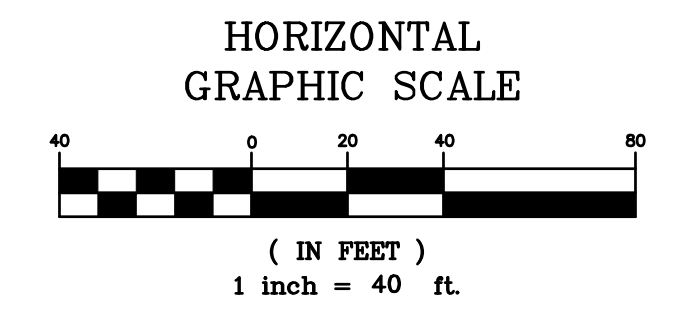
- SITE NOTES:**
- EXISTING TOPOGRAPHIC SURVEY INFORMATION PROVIDED BY JOHN R. MCADAMS, DATED OCT 25-27, 2022 AND REVISED MARCH 15, 2023. SEE SHEET 2 FOR CURRENT SURVEY INFORMATION.
  - CONTRACTOR SHALL OBTAIN COPIES OF ALL PERMITS FROM DEP PRIOR TO CONSTRUCTION. ALL PROVISIONS MUST BE FOLLOWED.
  - ALL CONSTRUCTION TO BE COMPLETED IN ACCORDANCE WITH CITY OF RALEIGH AND DEP STANDARDS.
  - CONTRACTOR SHALL RESTORE THE DISTURBED AREA TO EXISTING GRADE UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
  - ALL UTILITIES SHALL BE PROTECTED AND REMAIN ACTIVE UNLESS OTHERWISE NOTED. CONTRACTOR SHALL NOT DISTURB UTILITY POLES, GUY WIRES, OR ANCHORS WITHOUT PERMISSION FROM DEP
  - CONTRACTOR SHALL SEED, MULCH, AND TACK ANY DISTURBED AREAS NOT RECEIVING STONE OR OTHER HARD SURFACE PER THE EROSION CONTROL PLAN.
  - CONTRACTOR SHALL COORDINATE ALL UTILITY RELOCATION AND/OR DISRUPTIONS WITH DEP.

- CONTRACTOR SHALL OBTAIN DIRECTION FROM DEP REGARDING REMOVAL OF ANY EXISTING SOIL MATERIAL FROM THE SITE. CONTRACTOR SHALL LEGALLY DISPOSE OF ALL CONSTRUCTION WASTE AND EXCESS MATERIALS AS WELL AS UNSUITABLE MATERIALS OFF SITE. CONTRACTOR SHALL PROVIDE DEP WITH PROOF OF DISPOSAL.
- WHERE SPECIFIED ON THE PLAN, LOW IMPACT/SELECTIVE CLEARING SHALL COMPLY WITH DUKE ENERGY PROGRESS "HAND CLEARING" TRANSMISSION RIGHT-OF-WAY SPECIFICATIONS. LOW IMPACT/SELECTIVE CLEARING INVOLVES MACHINE CLEARING FROM MATS WITHIN 4-INCHES OF THE GROUND SURFACE. THERE WILL BE NO CLEARING, GRUBBING, GRADING, OR DISTURBANCE OF THE ROOT MAT.

**TOTAL DISTURBED AREA - 4.99 ACRES**

**WARNING:**  
OVERHEAD POWER IN VICINITY OF WORK AREA. CONTRACTOR SHALL USE CAUTION WHILE WORKING AROUND ENERGIZED POWER LINES.

**CAUTION:**  
UNDERGROUND TELEPHONE AND FIBER OPTIC LINES ARE IN VICINITY OF SUBSTATION. CONTRACTOR TO VERIFY LOCATION PRIOR TO DIGGING.



**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION

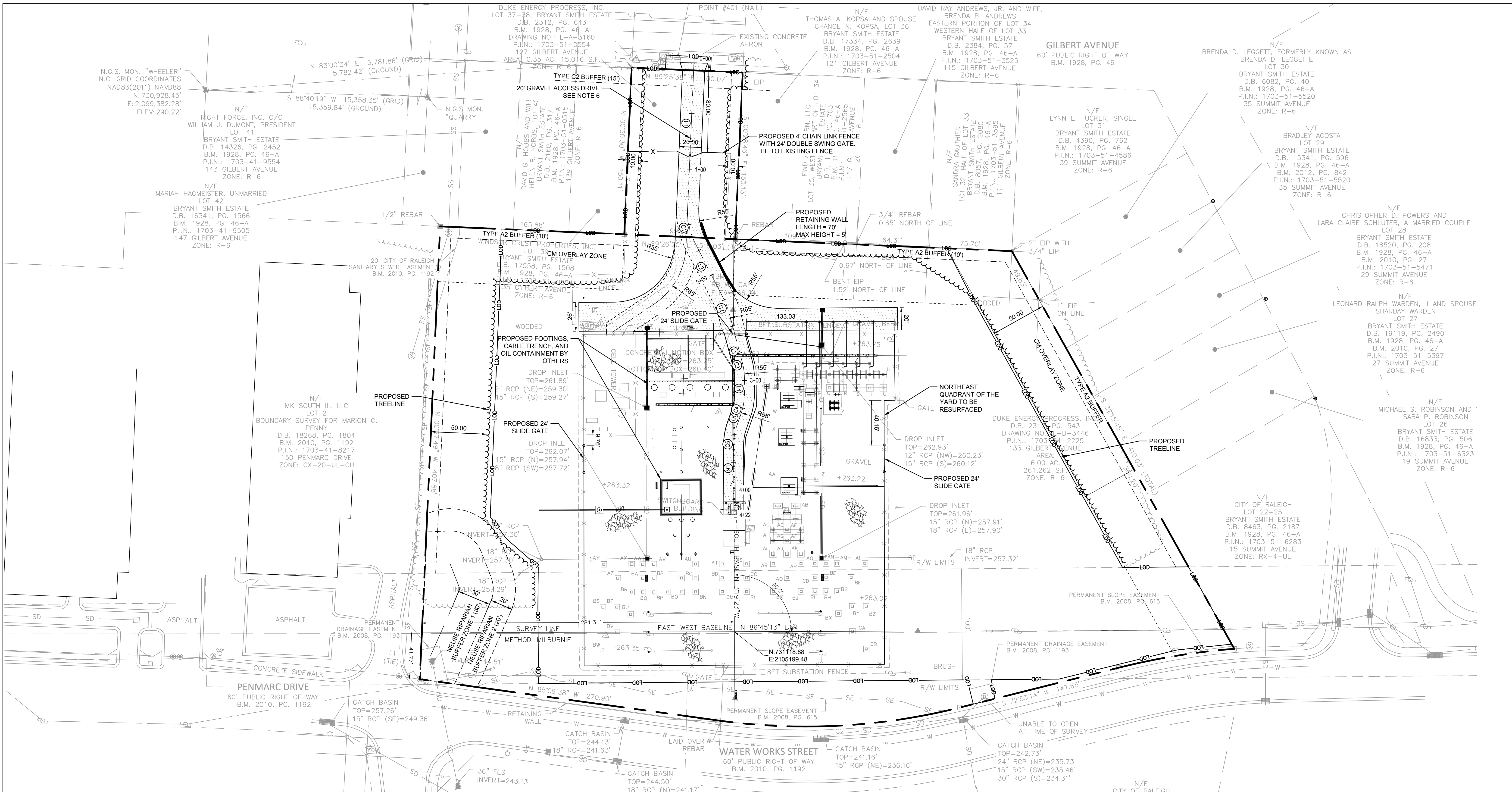
NO.	DATE	REVISION	BY	CK.	APP.
1	08/23/2023	CITY OF RALEIGH ADMIN SITE REVIEW	RAY	ARB	DAR



**CARALEIGH 230KV - SUBSTATION DEMOLITION PLAN**

LOCATION CARALEIGH SUBSTATION  
SCALE AS NOTED SCALE RATIO 1:1  
DRAWN RAY CHK. ARB APP. DAR  
DATE 08/23/2023 DWG NO. RDC-83516 SHEET 3 OF 21





- SITE NOTES:**
- EXISTING TOPOGRAPHIC SURVEY INFORMATION PROVIDED BY McADAMS, DATED OCT 25-27, 2022 AND REVISED MARCH 15, 2023. SEE SHEET 2 FOR CURRENT SURVEY INFORMATION.
  - ALL COMPONENTS WITHIN THE SUBSTATION FENCE ARE PROVIDED BY OTHERS. THE EQUIPMENT IS SHOWN FOR SCHEMATIC PURPOSES ONLY.
  - TRANSMISSION STRUCTURES, TRANSMISSION GUYS AND ANCHORS, DISTRIBUTION STRUCTURES AND DISTRIBUTION GUYS AND ANCHORS ARE PROVIDED BY OTHERS AND SHOWN FOR REFERENCE PURPOSES ONLY.
  - CONTRACTOR SHALL OBTAIN COPIES OF ALL PERMITS FROM DEP PRIOR TO CONSTRUCTION. ALL PROVISIONS MUST BE FOLLOWED.
  - ALL CONSTRUCTION TO BE COMPLETED IN ACCORDANCE WITH CITY OF RALEIGH AND DEP STANDARDS.
  - SEE SHEET 10 FOR ACCESS DRIVE PROFILES, SECTIONS, AND DETAILS.

**IMPERVIOUS SURFACE COVERAGE:**

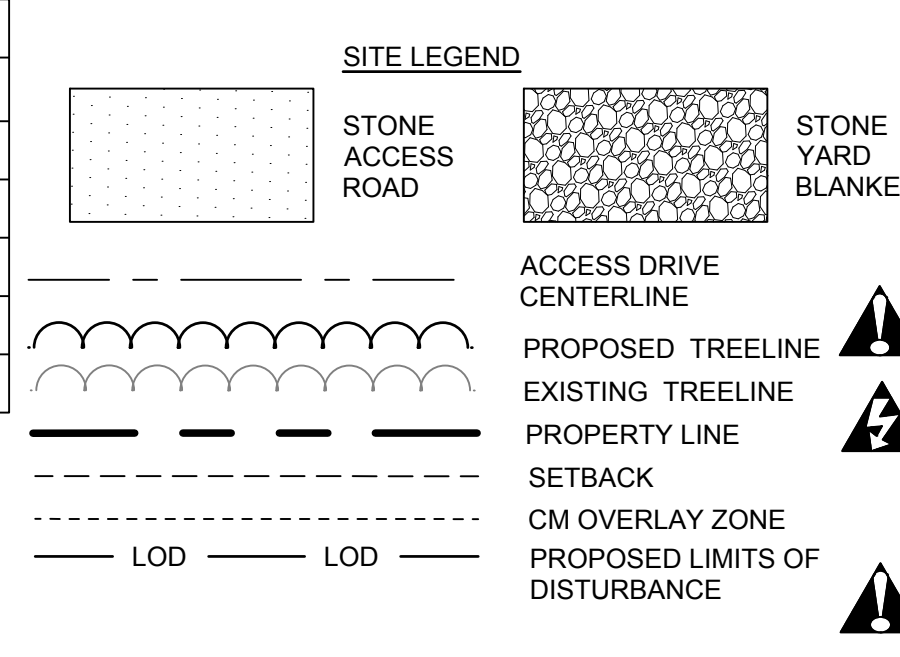
PROPERTY AREA:	6.34 AC
TIER II SITE PLAN ALLOWABLE IMPERVIOUS:	10,000SF
ALLOWABLE IMPERVIOUS %:	3.6%
ALLOWABLE IMPERVIOUS AREA:	0.23 AC
TOTAL NEW IMPERVIOUS AREA:	0.146 AC
ACCESS DRIVE:	0.029 AC
OIL CONTAINMENT:	
TOTAL NEW IMPERVIOUS AREA %:	2.8%

**LINE TABLE**

NUMBER	BEARING	LENGTH (FT)	START POINT	END POINT
L1	S00°33'40"E	134.96	N731632.3764 E2105135.9060	N731497.4257 E2105137.2275
L2	S30°10'00"E	55.81	N731465.3985 E2105146.0275	N731417.1472 E2105174.0729
L3	S17°55'20"E	45.66	N731404.4857 E2105179.7220	N731361.0431 E2105193.7721
L4	S03°04'21"E	13.88	N731347.0663 E2105196.3619	N731333.2052 E2105197.1059
L5	S16°14'44"W	10.95	N731314.8706 E2105194.9889	N731304.3557 E2105191.9250
L6	S03°20'12"E	62.08	N731285.7879 E2105189.8221	N731223.7968 E2105193.4353

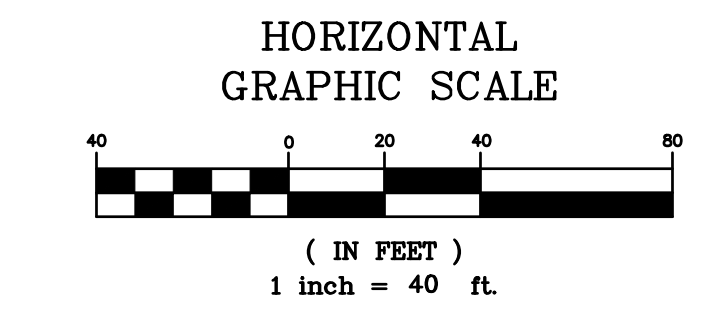
**CURVE TABLE**

NUMBER	RADIUS (FT)	LENGTH (FT)	TANGENT (FT)	DELTA	CHORD LENGTH (FT)	CHORD BEARING
C1	65	33.59	17.18	029°36'20"	33.21	S15°21'50"E
C2	65	13.89	6.97	012°14'40"	13.86	S24°02'40"E
C3	55	14.25	7.17	014°50'59"	14.21	S10°29'51"E
C4	55	18.54	9.36	019°19'05"	18.46	S06°35'11"W
C5	55	18.80	9.49	019°34'57"	18.71	S06°27'16"W



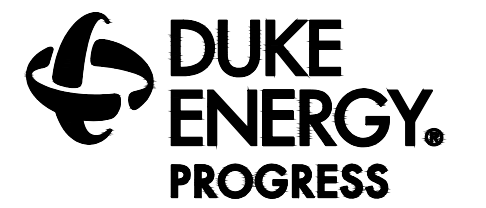
**WARNING:**  
OVERHEAD POWER IN VICINITY OF WORK AREA. CONTRACTOR SHALL USE CAUTION WHILE WORKING AROUND ENERGIZED POWER LINES.

**CAUTION:**  
UNDERGROUND TELEPHONE AND FIBER OPTIC LINES ARE IN VICINITY OF SUBSTATION. CONTRACTOR TO VERIFY LOCATION PRIOR TO DIGGING.



**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION

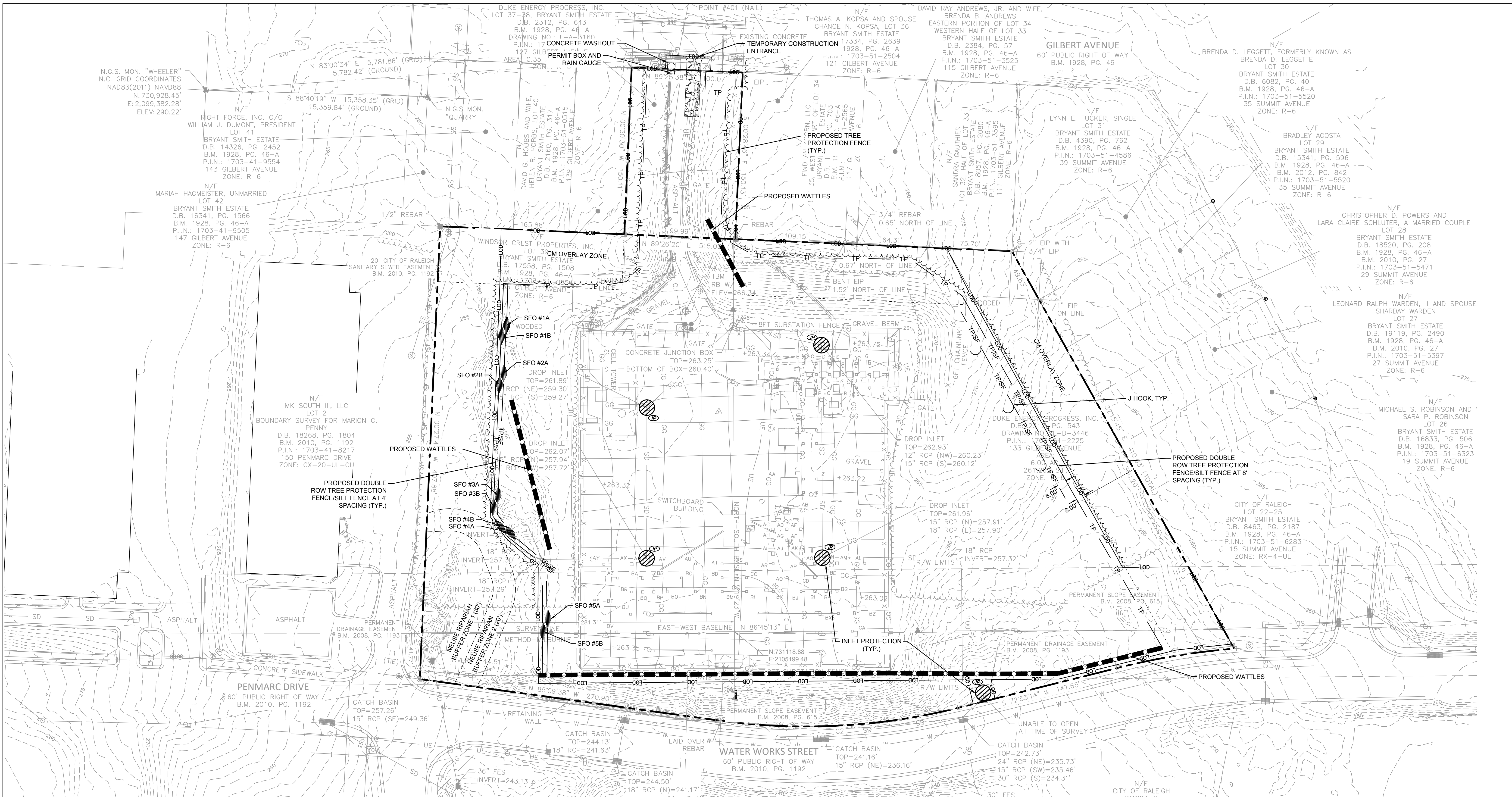
NO.	DATE	REVISION	BY	CK.	APP.
1	08/23/2023	CITY OF RALEIGH ADMIN SITE REVIEW	RAY	ARB	DAR



CARALEIGH  
230KV - SUBSTATION  
SITE PLAN

LOCATION CARALEIGH SUBSTATION  
SCALE AS NOTED SCALE RATIO 1:1  
DRAWN RAY CHK. ARB APP. DAR  
DATE 08/23/2023 DWG NO. RDC-83516 SHEET 4 OF 21

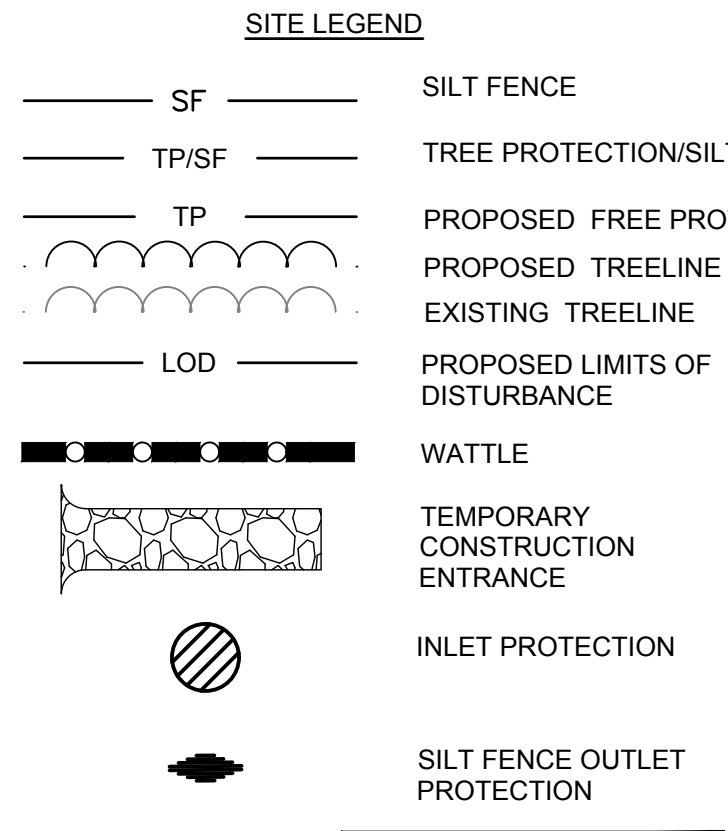




- SITE NOTES:**
- EXISTING TOPOGRAPHIC SURVEY INFORMATION PROVIDED BY McADAMS, DATED OCT 25-27, 2022 AND REVISED MARCH 15, 2023. SEE SHEET 2 FOR CURRENT SURVEY INFORMATION.
  - TRANSMISSION STRUCTURES, TRANSMISSION GUYS AND ANCHORS, DISTRIBUTION STRUCTURES AND DISTRIBUTION GUYS AND ANCHORS ARE PROVIDED BY OTHERS AND SHOWN FOR REFERENCE PURPOSES ONLY.
  - CONTRACTOR SHALL OBTAIN COPIES OF ALL PERMITS FROM DEP PRIOR TO CONSTRUCTION. ALL PROVISIONS MUST BE FOLLOWED.
  - ALL CONSTRUCTION TO BE COMPLETED IN ACCORDANCE WITH RALEIGH CITY AND DEP STANDARDS.
  - FOR EROSION AND SEDIMENT CONTROL SEQUENCE, NOTES AND DETAILS, SEE SHEETS 17-19.

- PHASE 1 SEQUENCE:**
- INSTALL THE PERMIT BOX, RAIN GAUGE, AND CONCRETE WASHOUT AT THE CONSTRUCTION ENTRANCE. POST THE SEDIMENTATION CERTIFICATE OF APPROVAL AND MAINTAIN COPIES OF PROJECT EROSION CONTROL PERMITS IN PERMIT BOX.
  - NOTIFY THE STATE DEQ-DEMLR, LAND QUALITY SECTION AT THE REGIONAL OFFICE (RALEIGH AT 919-791-4200) AT LEAST 24 HOURS PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES.
  - INSTALL CONSTRUCTION ENTRANCE, SILT FENCE, TREE PROTECTION FENCE, SILT FENCE OUTLETS, AND WATTLES AS SHOWN ON THE PLAN. CLEAR ONLY ENOUGH TREES TO INSTALL THESE INITIAL MEASURES.
  - CONTRACTOR MUST TEST SOILS ACCORDING TO DEP STANDARDS AND HAVE APPROVAL BY A DEP REPRESENTATIVE PRIOR TO ANY EXCAVATION OR REMOVAL OF SOIL FROM SITE.
  - UTILIZE EXISTING FLAT, USABLE AREAS FOR TEMPORARY STOCKPILE AREAS

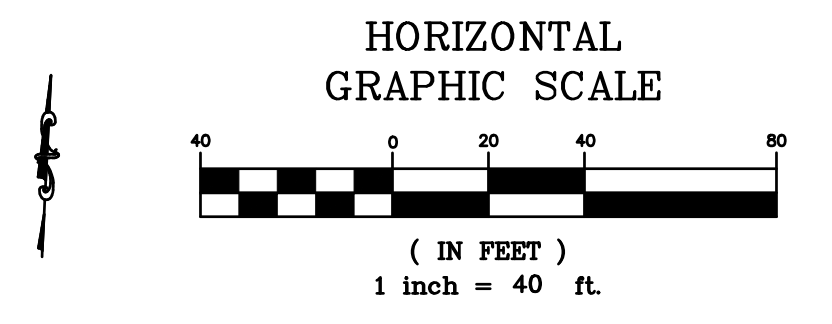
Name	Weir Length (ft)
SFO#1A/B	3
SFO#2A/B	3
SFO#3A/B	3
SFO#4A/B	3
SFO#5A/B	3



**TOTAL DISTURBED AREA - 4.99 ACRES**

**WARNING:**  
OVERHEAD POWER IN VICINITY OF WORK AREA. CONTRACTOR SHALL USE CAUTION WHILE WORKING AROUND ENERGIZED POWER LINES.

**CAUTION:**  
UNDERGROUND TELEPHONE AND FIBER OPTIC LINES ARE IN VICINITY OF SUBSTATION. CONTRACTOR TO VERIFY LOCATION PRIOR TO DIGGING.



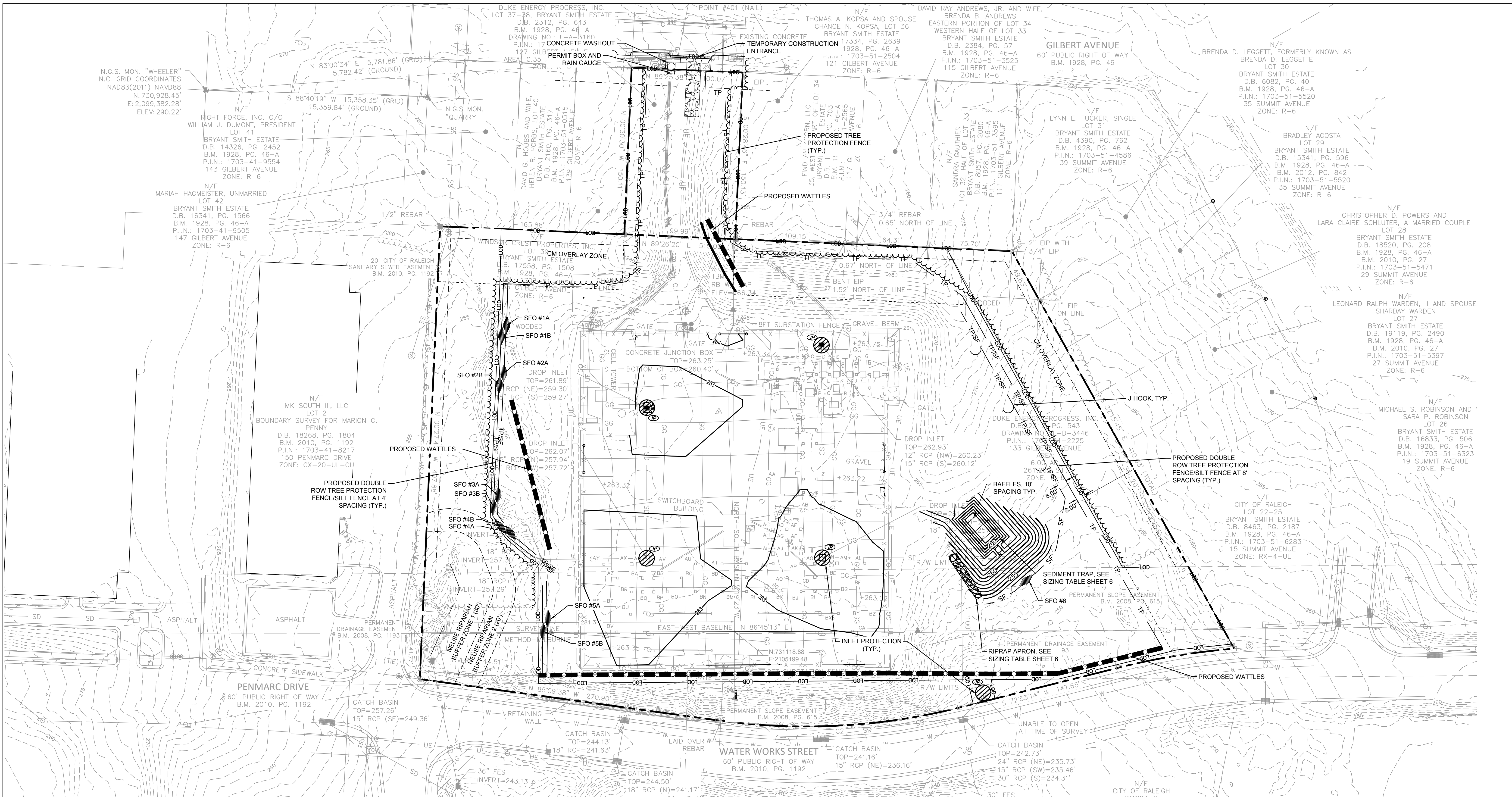
**CARALEIGH 230KV - SUBSTATION ESC PLAN PHASE 1**

LOCATION CARALEIGH SUBSTATION  
SCALE AS NOTED SCALE RATIO 1:1  
DRAWN RAY CK. ARB APP. DAR  
DATE 08/23/2023 DWG NO. RDC-83516 SHEET 5 OF 21

NO.	DATE	REVISION	BY	CK.	APP.
1	08/23/2023	CITY OF RALEIGH ADMIN SITE REVIEW	RAY	ARB	DAR

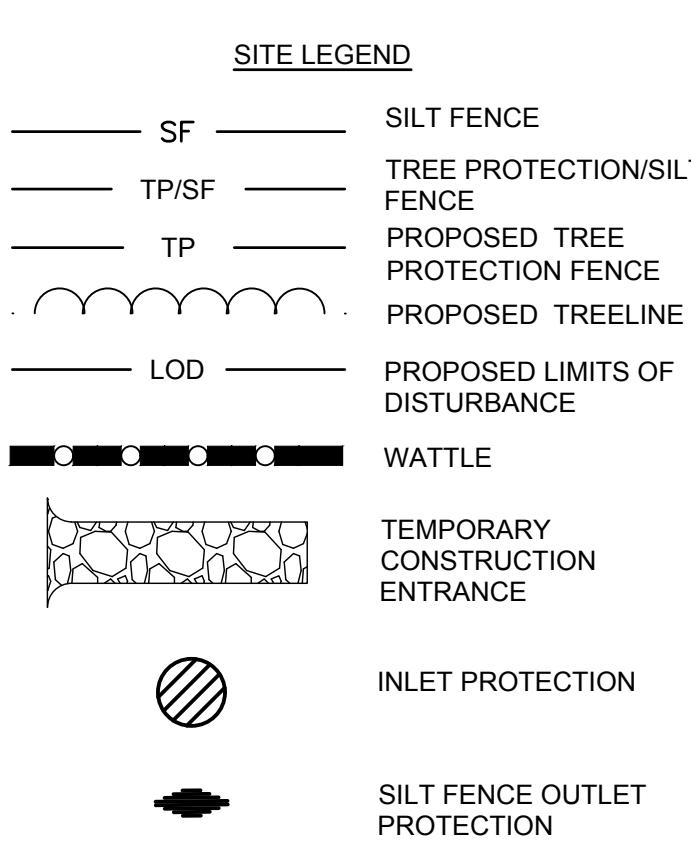
**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION





- SITE NOTES:**
- EXISTING TOPOGRAPHIC SURVEY INFORMATION PROVIDED BY McADAMS, DATED OCT 25-27, 2022 AND REVISED MARCH 15, 2023. SEE SHEET 2 FOR CURRENT SURVEY INFORMATION.
  - TRANSMISSION STRUCTURES, TRANSMISSION GUYS AND ANCHORS, DISTRIBUTION STRUCTURES AND DISTRIBUTION GUYS AND ANCHORS ARE PROVIDED BY OTHERS AND SHOWN FOR REFERENCE PURPOSES ONLY.
  - CONTRACTOR SHALL OBTAIN COPIES OF ALL PERMITS FROM DEP PRIOR TO CONSTRUCTION. ALL PROVISIONS MUST BE FOLLOWED.
  - ALL CONSTRUCTION TO BE COMPLETED IN ACCORDANCE WITH RALEIGH CITY AND DEP STANDARDS.
  - FOR EROSION AND SEDIMENT CONTROL SEQUENCE, NOTES AND DETAILS, SEE SHEETS 17-19.

- PHASE 2 SEQUENCE:**
- CLEAR TREES TO INSTALL SEDIMENT TRAP AND SPOILS AREA.
  - NO GRUBBING SHALL TAKE PLACE UNTIL THE SEDIMENT TRAP IS INSTALLED.
  - PROVIDE ROLLED EROSION CONTROL ON ALL SLOPES 4:1 OR STEEPER.
  - BEGIN CONSTRUCTION OF THE RETAINING WALL. FILL BEHIND RETAINING WALL TO SUPPORT CONSTRUCTION OF THE WALL AND SUFFICIENTLY DIVERT AND AVOID DRAINAGE BEHIND THE WALL.
  - BEGIN GRADING SITE AS SHOWN ON GRADING AND DRAINAGE PLAN.
  - STABILIZE DENUDED AREAS WITH TEMPORARY SEEDING ACCORDING TO NPDES TIME FRAMES.
  - UTILIZE EXISTING FLAT, USABLE AREAS FOR TEMPORARY STOCKPILE AREAS
  - EXCAVATIONS ARE TO BE CUT AND HAULED OFFSITE AND NO SPOILS SHOULD BE LEFT OVERNIGHT



**Caraleigh Silt Fence Outlet Sizing**

Name	Weir Length (ft)
SFO#1A/B	3
SFO#2A/B	3
SFO#3A/B	3
SFO#4A/B	3
SFO#5A/B	3
SFO#6	3

**TOTAL DISTURBED AREA - 4.99 ACRES**

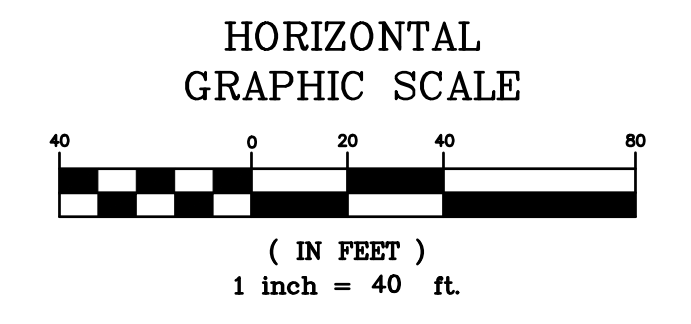
**RIPRAP APRON SIZING TABLE**

WIDTH AT PIPE (FT)	LENGTH (FT)	STONE THICKNESS (FT)
3	6	1.25

**TEMPORARY SEDIMENT TRAP SIZING TABLE**

REQUIRED VOLUME (CF)	PROVIDED VOLUME (CF)	BOTTOM WIDTH (FT)	BOTTOM LENGTH (FT)	SPILLWAY WIDTH (FT)	SPILLWAY LENGTH (FT)
1476	1668	10	28	5	10

**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION



- WARNING:**  
OVERHEAD POWER IN VICINITY OF WORK AREA. CONTRACTOR SHALL USE CAUTION WHILE WORKING AROUND ENERGIZED POWER LINES.
- CAUTION:**  
UNDERGROUND TELEPHONE AND FIBER OPTIC LINES ARE IN VICINITY OF SUBSTATION. CONTRACTOR TO VERIFY LOCATION PRIOR TO DIGGING.



CARALEIGH  
230KV - SUBSTATION  
ESC PLAN PHASE 2

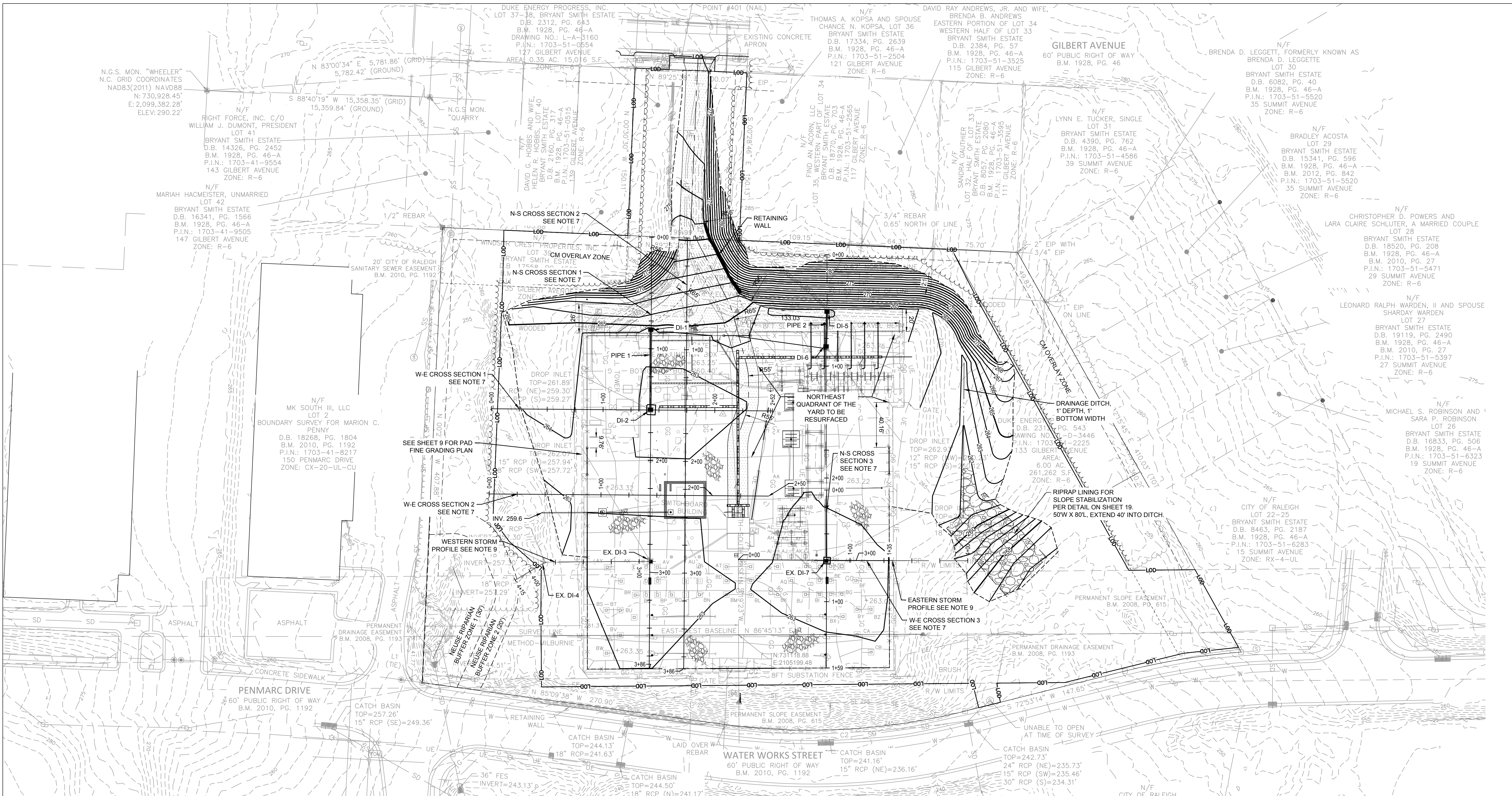
NO.	DATE	REVISION	BY	CK.	APP.
1	08/23/2023	CITY OF RALEIGH ADMIN SITE REVIEW	RAY	ARB	DAR

LOCATION CARALEIGH SUBSTATION  
SCALE AS NOTED SCALE RATIO 1:1  
DRAWN RAY CHK. ARB APP. DAR  
DATE 08/23/2023 DWG NO. RDC-83516 SHEET 6 OF 21









- SITE NOTES:**
- EXISTING TOPOGRAPHIC SURVEY INFORMATION PROVIDED BY McADAMS, DATED OCT 25-27, 2022 AND REVISED MARCH 15, 2023. SEE SHEET 2 FOR CURRENT SURVEY INFORMATION.
  - ALL COMPONENTS WITHIN THE SUBSTATION FENCE ARE PROVIDED BY OTHERS. THE EQUIPMENT IS SHOWN FOR SCHEMATIC PURPOSES ONLY.
  - TRANSMISSION STRUCTURES, TRANSMISSION GUYS AND ANCHORS, DISTRIBUTION STRUCTURES AND DISTRIBUTION GUYS AND ANCHORS ARE PROVIDED BY OTHERS AND SHOWN FOR REFERENCE PURPOSES ONLY.
  - CONTRACTOR SHALL OBTAIN COPIES OF ALL PERMITS FROM DEP PRIOR TO CONSTRUCTION. ALL PROVISIONS MUST BE FOLLOWED.
  - ALL CONSTRUCTION TO BE COMPLETED IN ACCORDANCE WITH RALEIGH CITY AND DEP STANDARDS.
  - SEE SHEET 10 FOR ACCESS DRIVE PROFILES, SECTIONS, AND DETAILS.
  - SEE SHEET 11 FOR SITE CROSS SECTIONS AND DETAILS.
  - SEE SHEET 9 FOR FINE GRADING LEVEL OF DETAIL PAD GRADING PLAN.
  - SEE SHEET 13 FOR STORM PROFILES. SEE SHEET 19 FOR DITCH DETAIL.

**GRADING AND DRAINAGE LEGEND**

	PROPOSED SPOT ELEVATION FINISHED GRADE
	PROPOSED LIMITS OF DISTURBANCE
	PROPOSED TREE LINE
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	PROPOSED STORM STRUCTURE
	PROPOSED STORM SEWER PIPE
	GRADING LIMITS

**CARALEIGH 230 Kv SUBSTATION EARTHWORK CALCULATIONS**

	CUT (CY)	FILL (CY)	NET (CY)
ACCESS ROAD AND SHOULDER	4262	112	4150 (CUT)
GRADING INSIDE THE SUBSTATION	1603	0	1603 (CUT)
<b>INSTALLATION TOTALS</b>	<b>5865</b>	<b>112</b>	<b>5753 (CUT)</b>
TRUCK TRIPS		479	TRIPS

\*QUANTITIES ARE RAW VALUES USING A CUT/FILL ADJUSTMENT FACTOR OF 1.00

**PERMANENT DITCH**

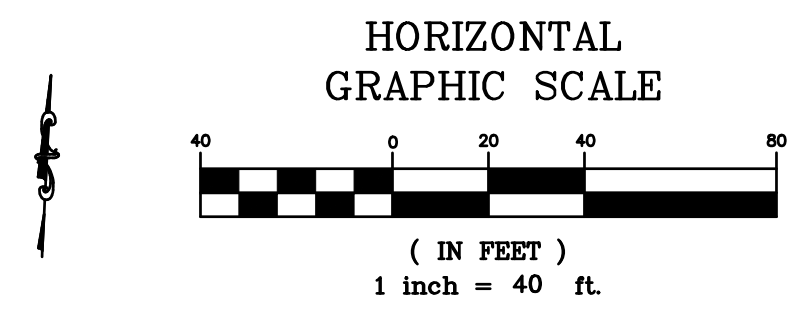
CHANNEL NAME	DEPTH (D)	BOTTOM WIDTH (B)	SIDE SLOPE (M:1)	MAX SLOPE	LENGTH (FT)	LINING
#1	1	1	3	1.2%	130	Straw with net

**STRUCTURE TABLE**

ID NO.	DETAILS
DI-1	RIM = 263.99 P-1 INV OUT = 260.00
DI-2	RIM = 261.89 P-1 INV IN = 259.30
DI-5	RIM = 262.63 P-2 INV OUT = 260.55
DI-6	RIM = 263.95 P-2 INV IN = 260.23

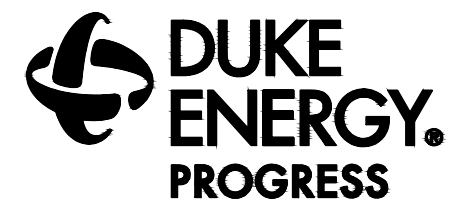
**PIPE TABLE**

PIPE NAME	SIZE	MATERIAL	LENGTH	SLOPE
P-1	15"	RCP CLASS IV	71'	0.99%
P-2	15"	RCP CLASS IV	31'	1.03%



**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION

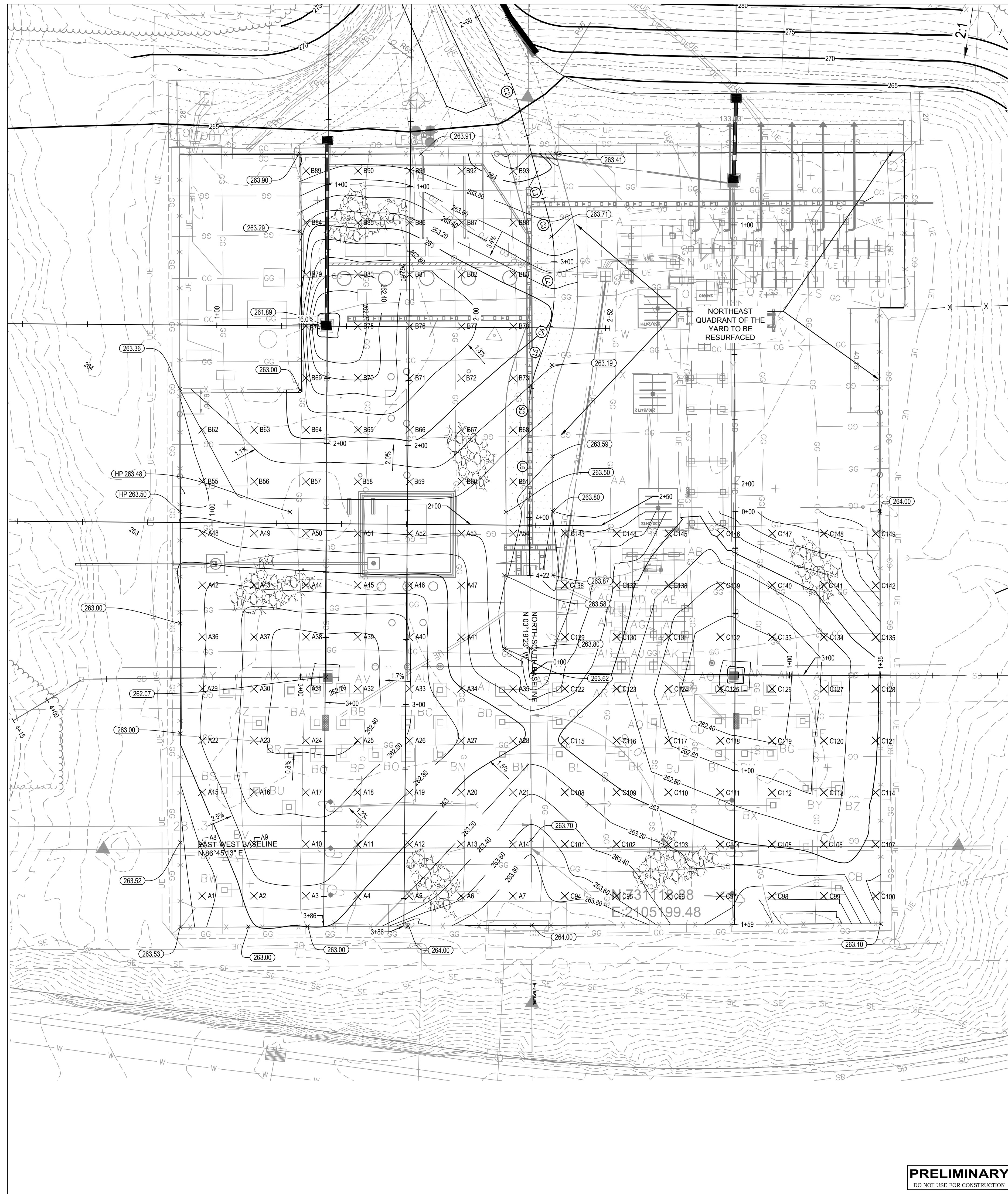
NO.	DATE	REVISION	BY	CHK.	APP.
1	08/23/2023	CITY OF RALEIGH ADMIN SITE REVIEW	RAY	ARB	DAR



CARALEIGH 230KV - SUBSTATION  
GRADING AND DRAINAGE PLAN

LOCATION CARALEIGH SUBSTATION  
SCALE AS NOTED SCALE RATIO 1:1  
DRAWN RAY CHK. ARB APP. DAR  
DATE 08/23/2023 DWG NO. RDC-83516 SHEET 8 OF 21





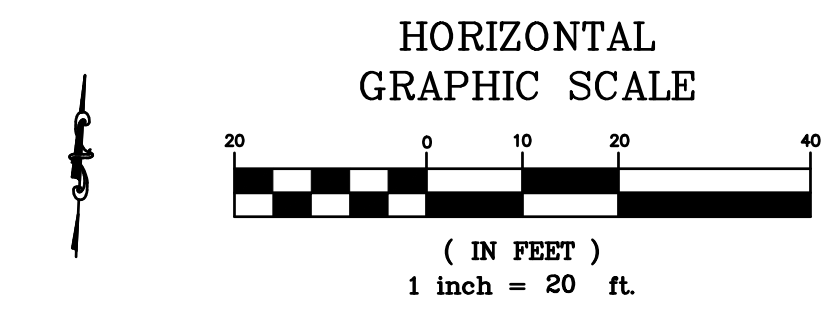
POINT TABLE					POINT TABLE					POINT TABLE				
POINT NO.	NORTHING	EASTING	ELEVATION	RAW DESCRIPTION	POINT NO.	NORTHING	EASTING	ELEVATION	RAW DESCRIPTION	POINT NO.	NORTHING	EASTING	ELEVATION	RAW DESCRIPTION
1	731093.5219	2105073.7148	263.32	A1	51	731236.4702	2105126.3055	263.39	A51	101	731120.9074	2105212.4715	263.53	C101
2	731094.5686	2105093.6874	262.91	A2	52	731237.5169	2105146.2781	263.40	A52	102	731121.9541	2105232.4441	263.31	C102
3	731095.6154	2105113.6600	262.86	A3	53	731238.5636	2105166.2507	263.41	A53	103	731123.0009	2105252.4167	263.18	C103
4	731096.6621	2105133.6326	263.00	A4	54	731239.6104	2105186.2233	263.57	A54	104	731124.0476	2105272.3893	263.05	C104
5	731097.7088	2105153.6052	263.27	A5	55	731240.6572	2105206.1959	263.60	A55	105	731125.0943	2105292.3619	262.98	C105
6	731098.7555	2105173.5778	263.58	A6	56	731241.7040	2105226.1685	263.31	A56	106	731126.1410	2105312.3345	262.91	C106
7	731099.8022	2105193.5504	263.89	A7	57	731242.7508	2105246.1411	263.31	A57	107	731127.1877	2105332.3071	263.06	C107
8	731113.4945	2105072.6681	263.18	A8	58	731256.4428	2105125.2588	263.31	A58	108	731140.8800	2105211.4248	263.24	C108
9	731114.5412	2105092.6407	262.77	A9	59	731257.4895	2105145.2314	263.31	A59	109	731141.9267	2105231.3974	263.03	C109
10	731115.5879	2105112.6133	262.69	A10	60	731258.5362	2105165.2040	263.36	A60	110	731142.9735	2105251.3700	262.88	C110
11	731116.6347	2105132.5859	262.80	A11	61	731259.5830	2105185.1766	263.53	A61	111	731144.0202	2105271.3426	262.76	C111
12	731117.6814	2105152.5585	263.01	A12	62	731273.2752	2105064.2943	263.38	A62	112	731145.0669	2105291.3152	262.66	C112
13	731118.7281	2105172.5310	263.25	A13	63	731274.3219	2105084.2669	263.13	A63	113	731146.1136	2105311.2878	262.68	C113
14	731119.7748	2105192.5036	263.60	A14	64	731275.3687	2105104.2395	262.96	A64	114	731147.1603	2105331.2604	263.02	C114
15	731133.4671	2105071.6214	262.98	A15	65	731276.4154	2105124.2121	262.94	A65	115	731160.8526	2105210.3781	262.99	C115
16	731134.5138	2105091.5940	262.56	A16	66	731277.4621	2105144.1847	262.93	A66	116	731161.8993	2105230.3507	262.87	C116
17	731135.5605	2105111.5666	262.53	A17	67	731278.5088	2105164.1573	263.13	A67	117	731162.9460	2105250.3233	262.61	C117
18	731136.6073	2105131.5391	262.62	A18	68	731279.5555	2105184.1299	263.33	A68	118	731163.9928	2105270.2959	262.46	C118
19	731137.6540	2105151.5117	262.81	A19	69	731280.6022	2105204.1025	262.82	A69	119	731165.0395	2105290.2685	262.39	C119
20	731138.7007	2105171.4843	263.03	A20	70	731281.6489	2105224.0751	262.43	A70	120	731166.0862	2105310.2411	262.66	C120
21	731139.7474	2105191.4569	263.27	A21	71	731282.6956	2105244.0477	262.68	A71	121	731167.1329	2105330.2136	262.99	C121
22	731153.4397	2105070.5746	262.79	A22	72	731283.7423	2105264.0203	262.91	A72	122	731168.1796	2105250.1862	262.50	C122
23	731154.4864	2105090.5472	262.50	A23	73	731284.7890	2105284.0929	263.10	A73	123	731169.2263	2105270.1588	262.90	C123
24	731155.5331	2105110.5198	262.35	A24	74	731315.3138	2105102.1461	262.66	A74	124	731182.9186	2105249.2766	262.50	C124
25	731156.5798	2105130.4924	262.42	A25	75	731316.3606	2105122.1187	262.17	A75	125	731183.9654	2105269.2492	262.21	C125
26	731157.6266	2105150.4650	262.63	A26	76	731317.4073	2105142.0913	262.63	A76	126	731185.0121	2105289.2217	262.27	C126
27	731158.6733	2105170.4376	262.82	A27	77	731318.4540	2105162.0639	262.77	A77	127	731186.0588	2105309.1943	262.63	C127
28	731159.7200	2105190.4102	262.98	A28	78	731319.5007	2105182.0365	262.93	A78	128	731187.1055	2105329.1669	262.98	C128
29	731173.4123	2105069.5279	262.81	A29	79	731335.2864	2105101.0994	262.94	A79	129	731200.7978	2105208.2847	263.54	C129
30	731174.4590	2105089.5005	262.52	A30	80	731336.3332	2105121.0719	262.46	A80	130	731201.8445	2105228.2573	263.05	C130
31	731175.5057	2105109.4731	262.16	A31	81	731337.3799	2105141.0445	262.65	A81	131	731202.8912	2105248.2298	262.61	C131
32	731176.5524	2105129.4457	262.25	A32	82	731338.4266	2105161.0171	262.93	A82	132	731203.9379	2105268.2024	262.28	C132
33	731177.5992	2105149.4183	262.60	A33	83	731339.4733	2105180.9897	263.14	A83	133	731204.9847	2105288.1750	262.40	C133
34	731178.6459	2105169.3909	262.99	A34	84	731355.2590	2105100.0526	263.24	A84	134	731206.0314	2105308.1476	262.76	C134
35	731179.6926	2105189.3635	263.27	A35	85	731356.3057	2105120.0252	263.07	A85	135	731207.0781	2105328.1202	263.20	C135
36	731193.3849	2105068.4812	262.83	A36	86	731357.3525	2105139.9978	263.14	A86	136	731208.1248	2105348.0928	263.71	C136
37	731194.4316	2105088.4538	262.54	A37	87	731358.3992	2105159.9704	263.46	A87	137	731209.1715	2105368.0654	263.16	C137
38	731195.4783	2105108.4264	262.36	A38	88	731359.4459	2105179.9430	263.69	A88	138	731210.2182	2105388.0380	262.81	C138
39	731196.5250	2105128.3990	262.39	A39	89	731375.2316	2105099.0059	263.91	A89	139	731223.9105	2105267.1557	262.59	C139
40	731197.5717	2105148.3716	262.63	A40	90	731376.2783	2105118.9785	263.74	A90	140	731224.9572	2105287.1283	262.83	C140
41	731198.6184	2105168.3442	263.12	A41	91	731377.3251	2105138.9511	263.79	A91	141	731226.0040	2105307.1009	263.11	C141
42	731213.3575	2105067.4345	262.85	A42	92	731378.3718	2105158.9237	263.81	A92	142	731227.0507	2105327.0735	263.69	C142
43	731214.4042	2105087.4071	262.83	A43	93	731379.4185	2105178.8963	263.92	A93	143	731240.7430	2105206.1912	263.70	C143
44	731215.4509	2105107.3797	262.86	A44	94	731100.9348	2105213.5183	263.77	C94	144	731241.7897	2105226.1638	263.54	C144
45	731216.4976	2105127.3523	262.89	A45	95	731101.9816	2105233.4908	263.59	C95	145	731242.8364	2105246.1364	263.01	C145
46	731217.5443	2105147.3249	262.91	A46	96	731103.0283	2105253.4634	263.35	C96	146	731243.8831	2105266.1090	263.08	C146
47	731218.5910	2105167.2974	263.17	A47	97	731104.0750	2105273.4360	263.30	C97	147	731244.9298	2105286.0816	263.45	C147
48	731233.3300	2105066.3878	263.19	A48	98	731105.1217	2105293.4086	263.54	C98	148	731245.9766	2105306.0542	263.60	C148
49	731234.3768	2105086.3604	263.33	A49	99	731106.1684	2105313.3812	263.55	C99	149	731247.0233	2105326.0268	263.93	C149
50	731235.4235	2105106.3330	263.36	A50	100	731107.2151	2105333.3538	263.26	C100					

**GRADING NOTES:**

- SEE SHEET 8 - OVERALL GRADING PLAN FOR NOTES.
- PROPOSED SPOT ELEVATIONS ARE SPACED ON A 20' X 20' GRID UNLESS OTHERWISE NOTED.

**GRADING LEGEND**

- XX PROPOSED SPOT ELEVATION
- PROPOSED DIRECTION OF FLOW
- - - - - EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR



CARALEIGH  
230KV - SUBSTATION  
PAD GRADE PLAN

LOCATION CARALEIGH SUBSTATION  
SCALE AS NOTED SCALE RATIO 1:1  
DRAWN RAY CHK. ARB APP. DAR  
DATE 08/23/2023 DWG NO. RDC-83516 SHEET 9 OF 21

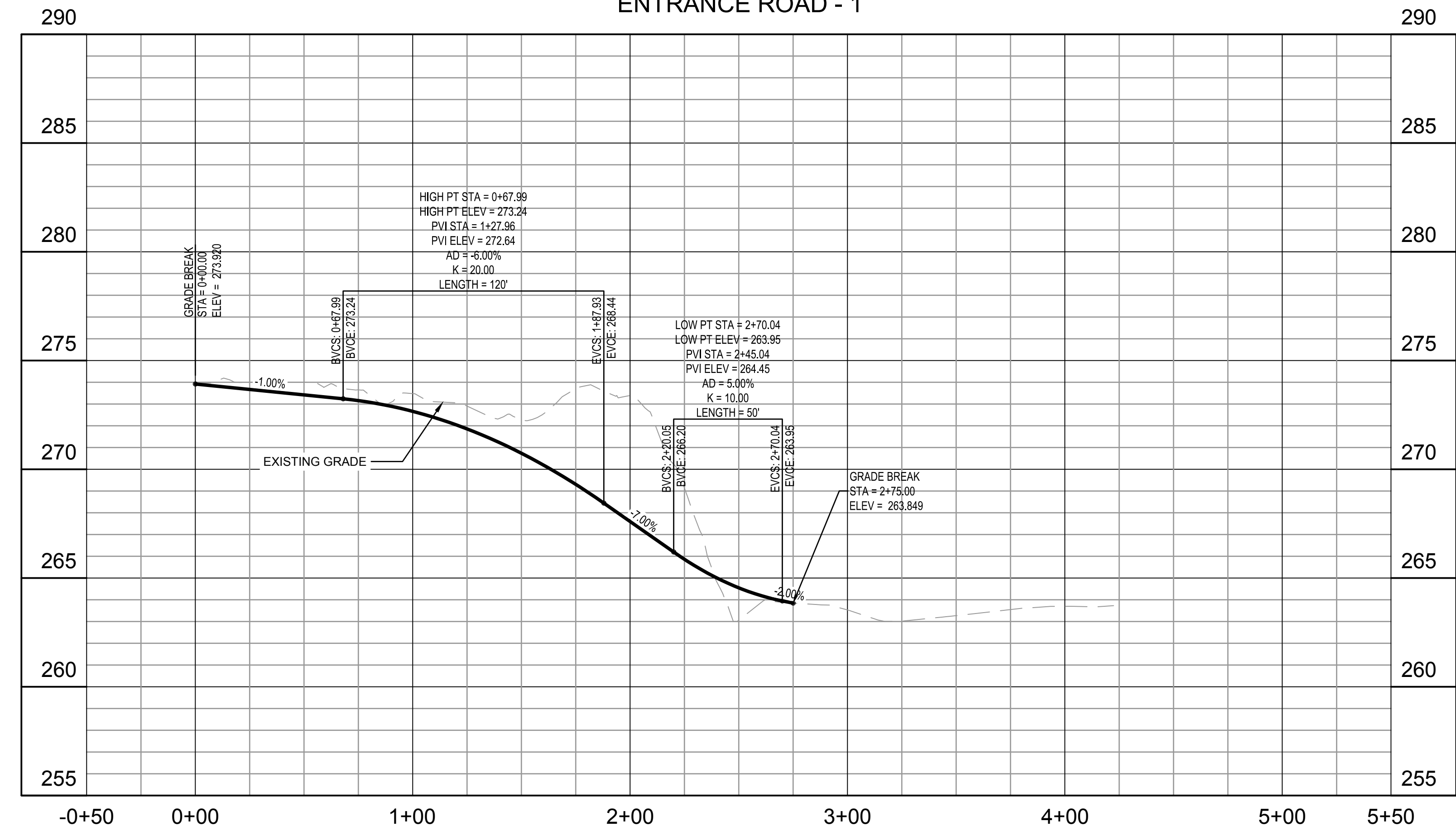
**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION

NO.	DATE	REVISION	BY	CK.	APP.
1	08/23/2023	CITY OF RALEIGH ADMIN SITE REVIEW	RAY	ARB	DAR



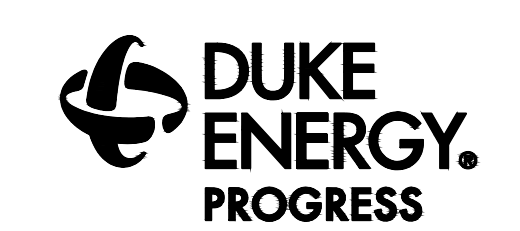
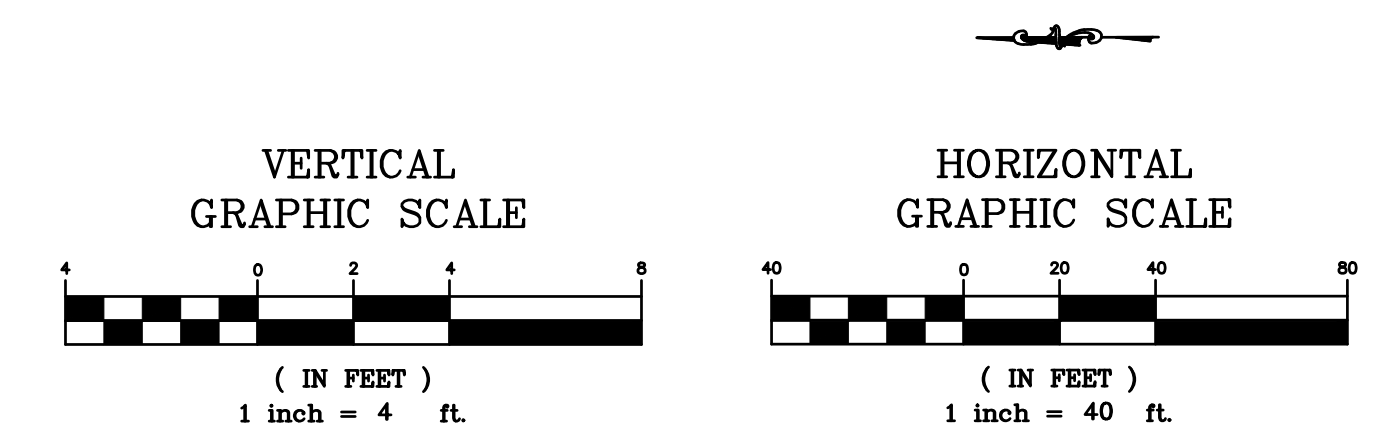


ENTRANCE ROAD - 1



CURVE TABLE						
NUMBER	RADIUS (FT)	LENGTH (FT)	TANGENT (FT)	DELTA	CHORD LENGTH (FT)	CHORD BEARING
C1	65	33.59	17.18	029°36'20"	33.21	S15°21'50"E
C2	65	13.89	6.97	012°14'40"	13.86	S24°02'40"E
C3	55	14.25	7.17	014°50'59"	14.21	S10°29'51"E
C4	55	18.54	9.36	019°19'05"	18.46	S08°35'11"W
C5	55	18.80	9.49	019°34'57"	18.71	S06°27'16"W

LINE TABLE				
NUMBER	BEARING	LENGTH (FT)	START POINT	END POINT
L1	S00°33'40"E	134.96	N731632.3764 E2105135.9060	N731497.4257 E2105137.2275
L2	S30°10'00"E	55.81	N731465.3985 E2105146.0275	N731417.1472 E2105174.0729
L3	S17°55'20"E	45.66	N731404.4857 E2105179.7220	N731361.0431 E2105193.7721
L4	S03°04'21"E	13.88	N731347.0663 E2105196.3619	N731333.2052 E2105197.1059
L5	S16°14'44"W	10.95	N731314.8706 E2105194.9889	N731304.3557 E2105191.9250
L6	S03°20'12"E	62.08	N731285.7679 E2105189.8221	N731223.7968 E2105193.4353

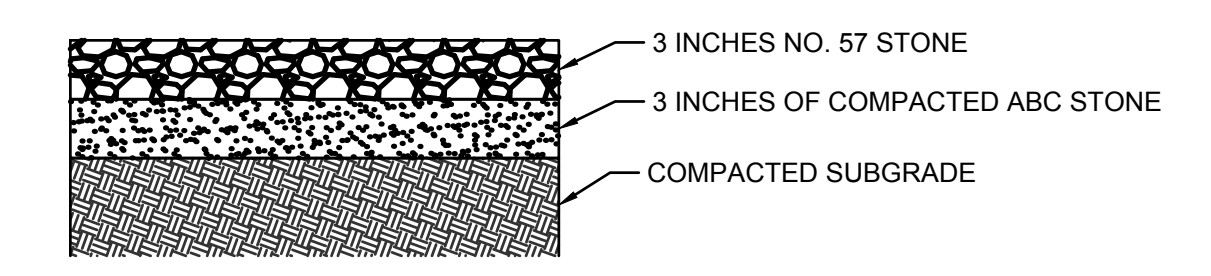
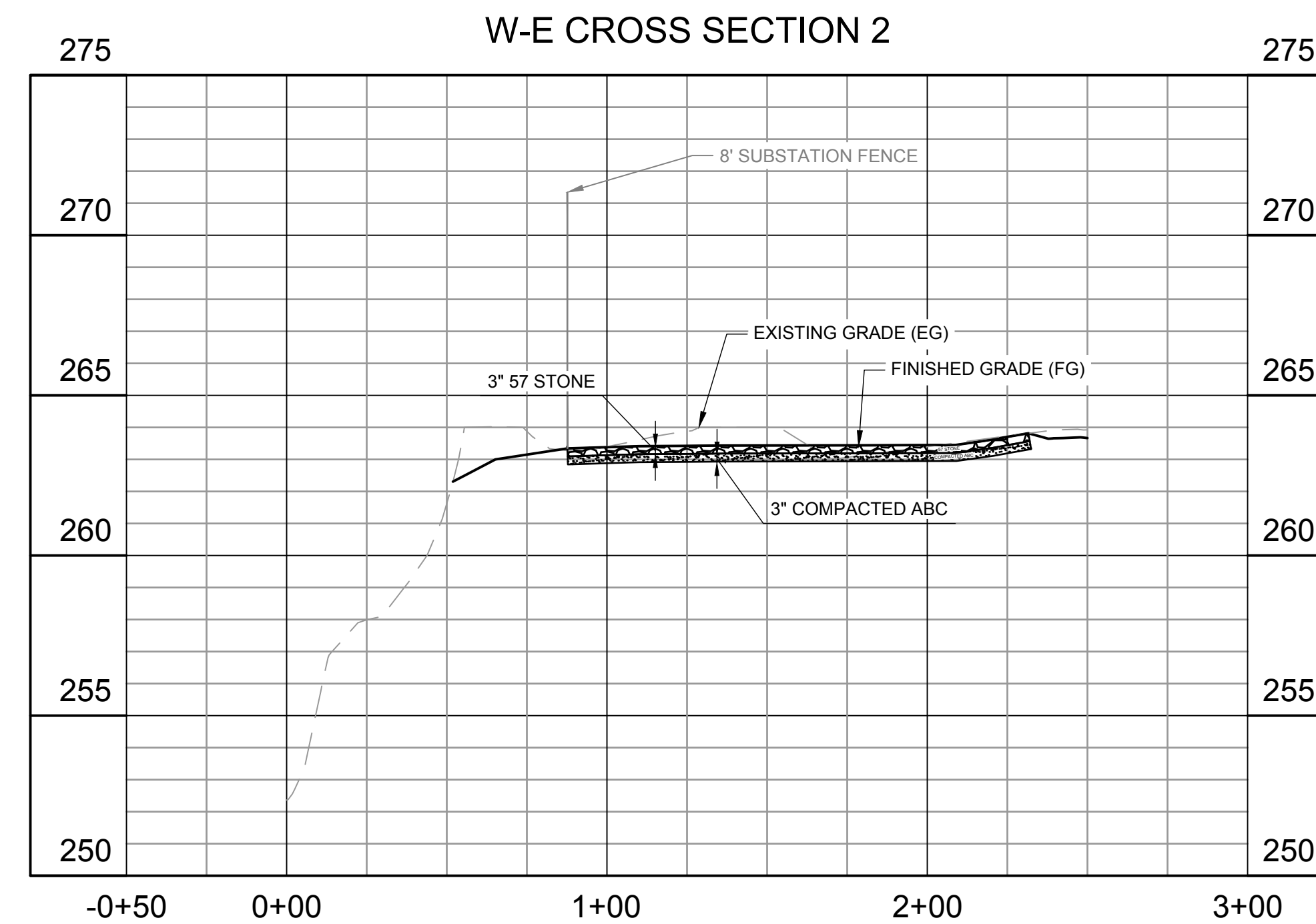
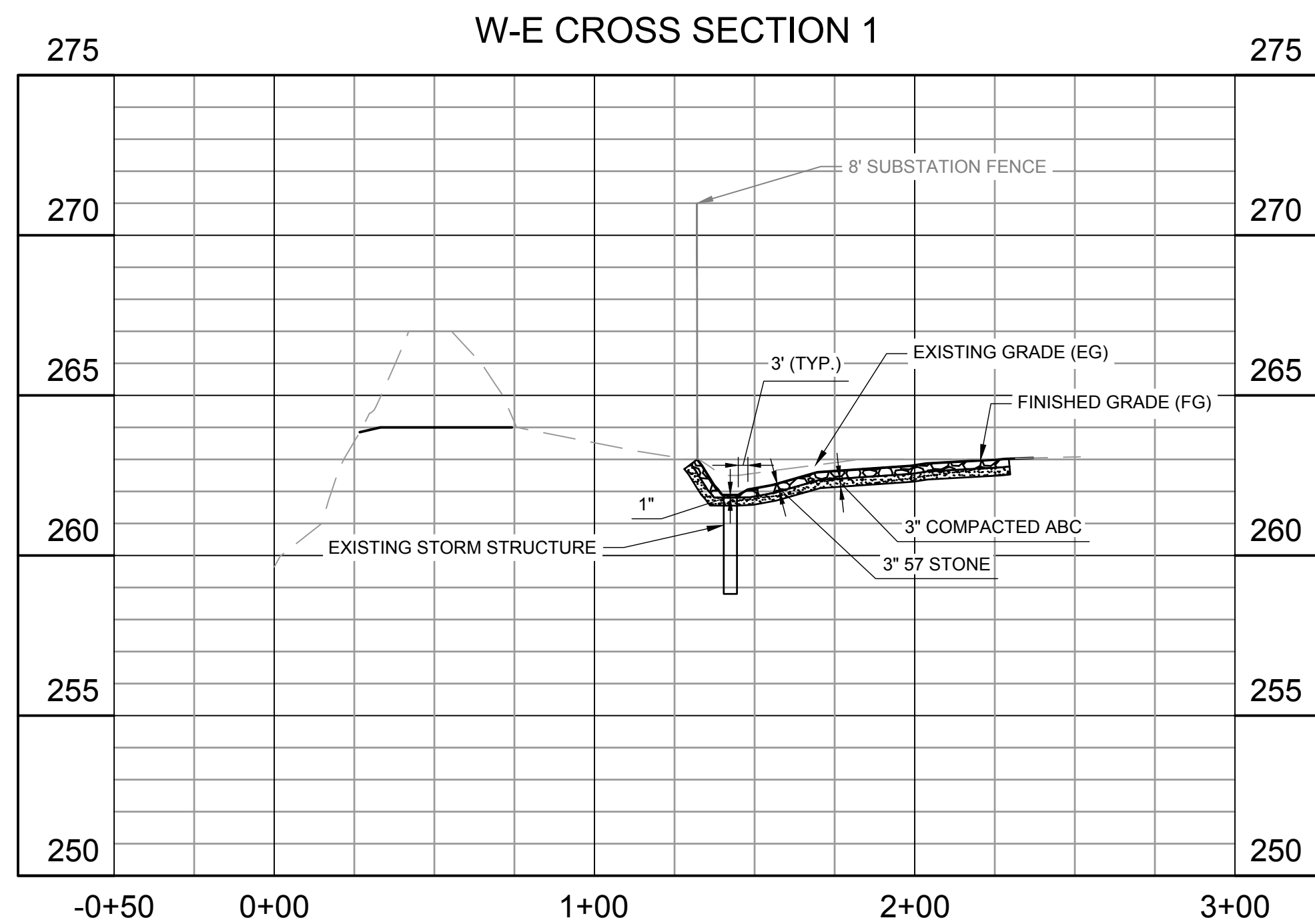
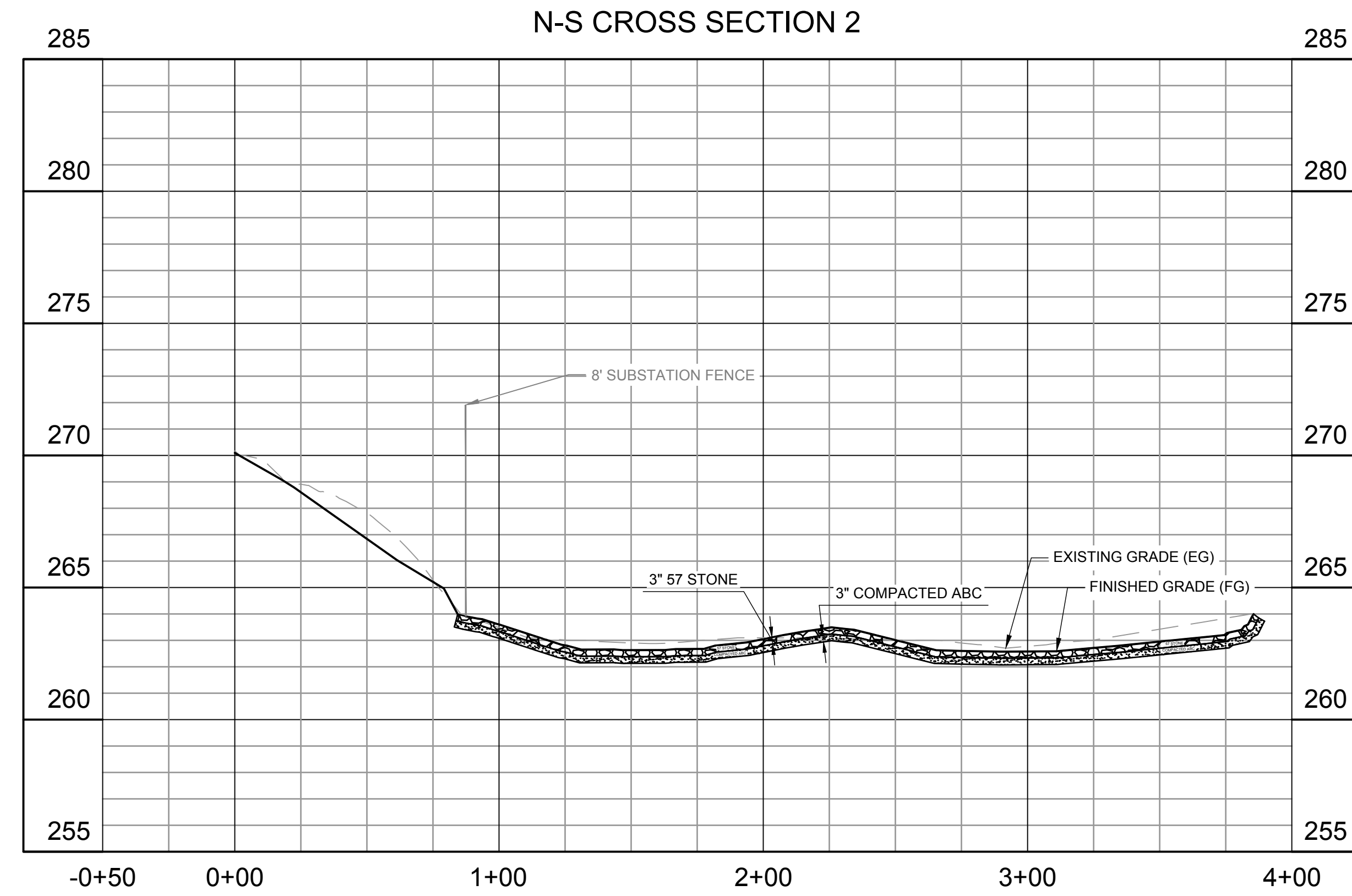
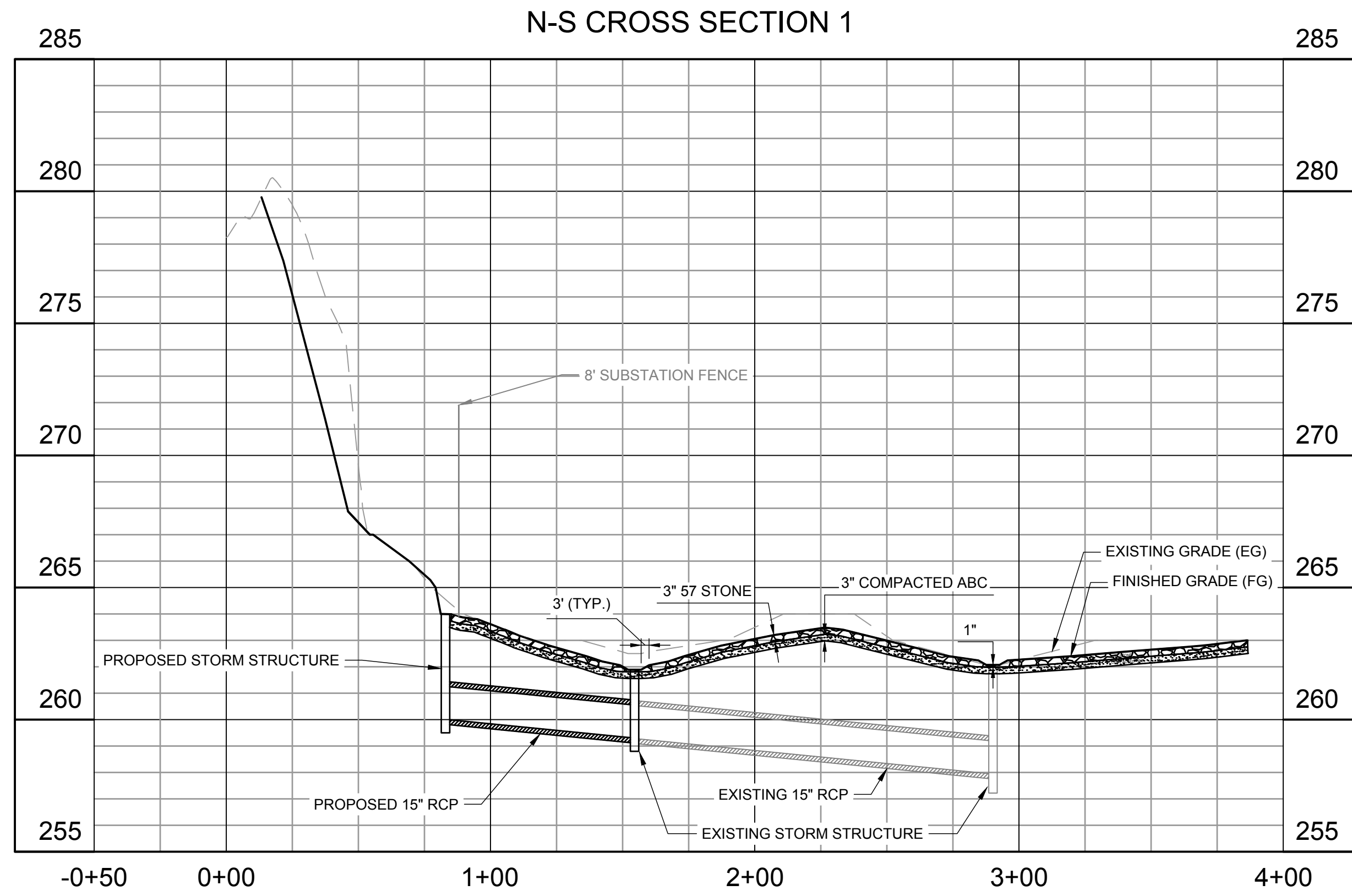


CARALEIGH  
230KV - SUBSTATION  
ACCESS ROAD PLAN & PROFILE

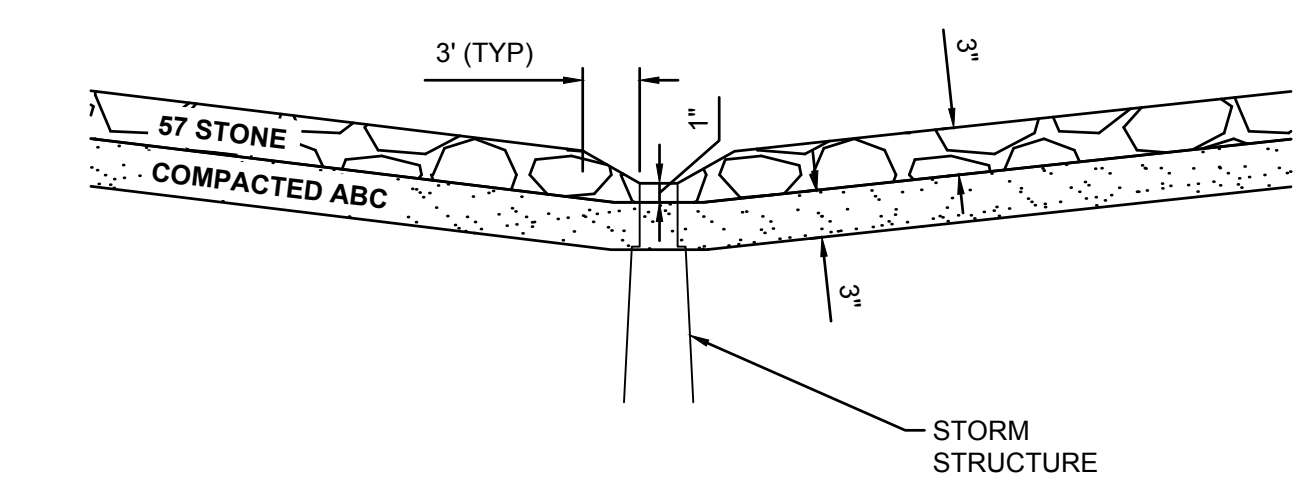
NO.	DATE	REVISION	BY	CHK.	APP.	DATE 08/23/2023	DWG NO. RDC-83516	SHEET 10 OF 21
1	08/23/2023	CITY OF RALEIGH ADMIN SITE REVIEW	RAY	ARB	DAR			

**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION



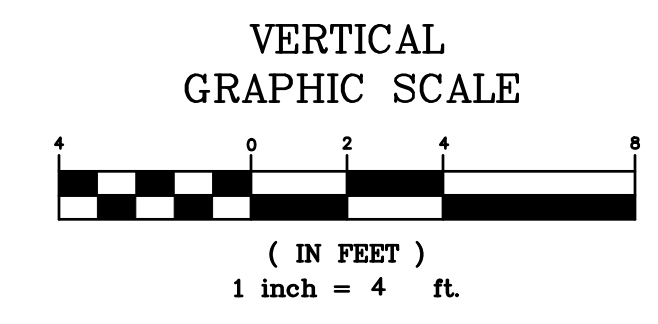
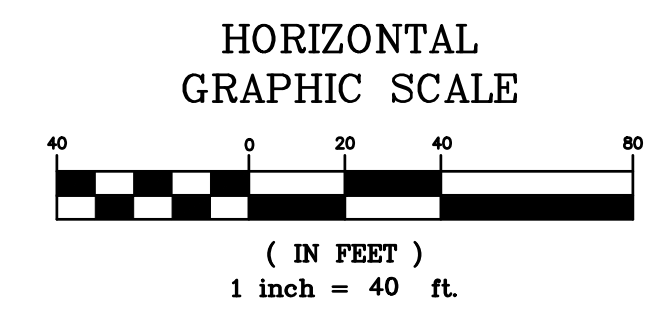


**SWITCHYARD TYPICAL SECTION**  
NOT TO SCALE



**TYPICAL INLET SECTION**  
NOT TO SCALE

**SUBSTATION PAD CROSS SECTIONS**



**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION

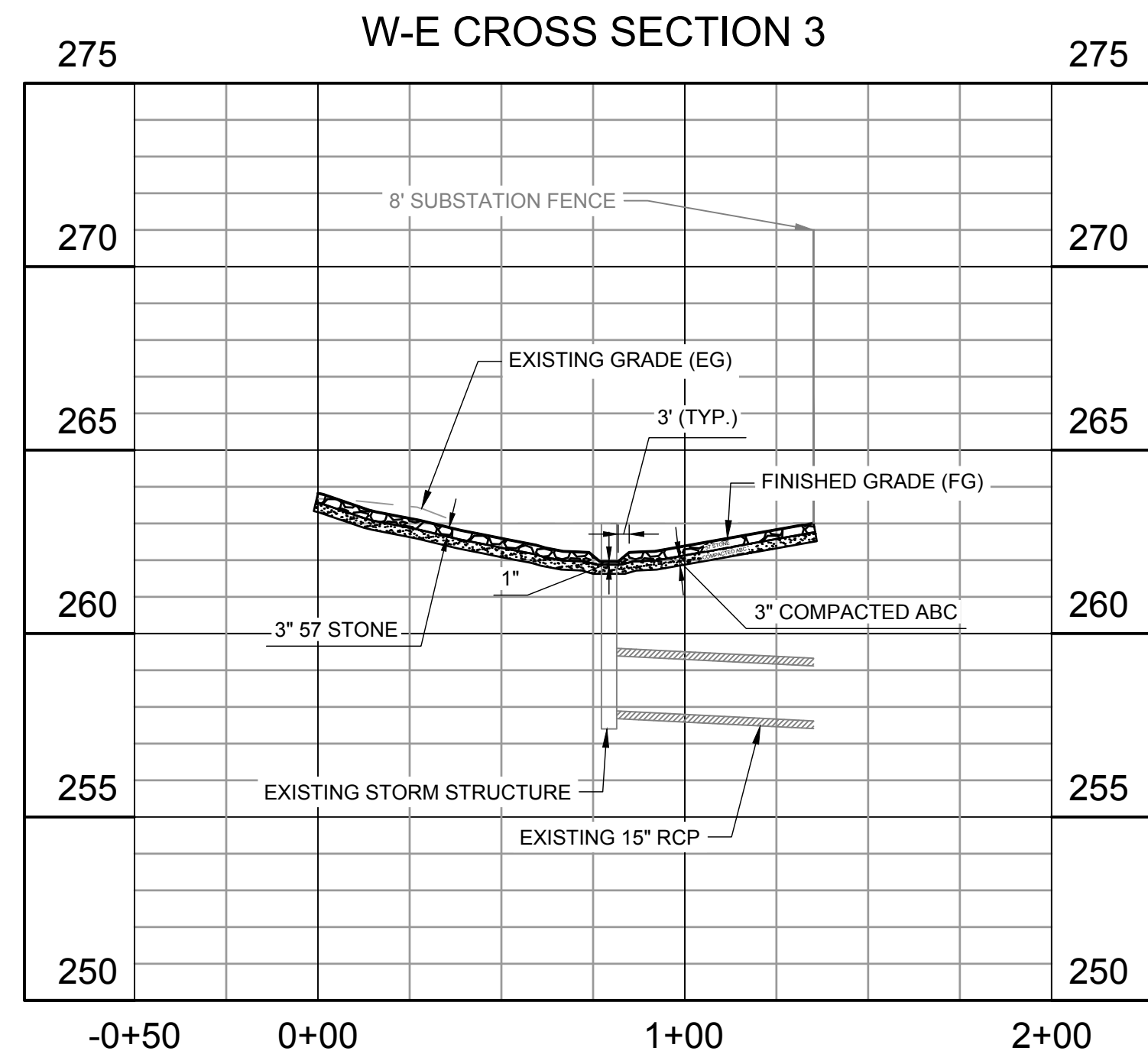
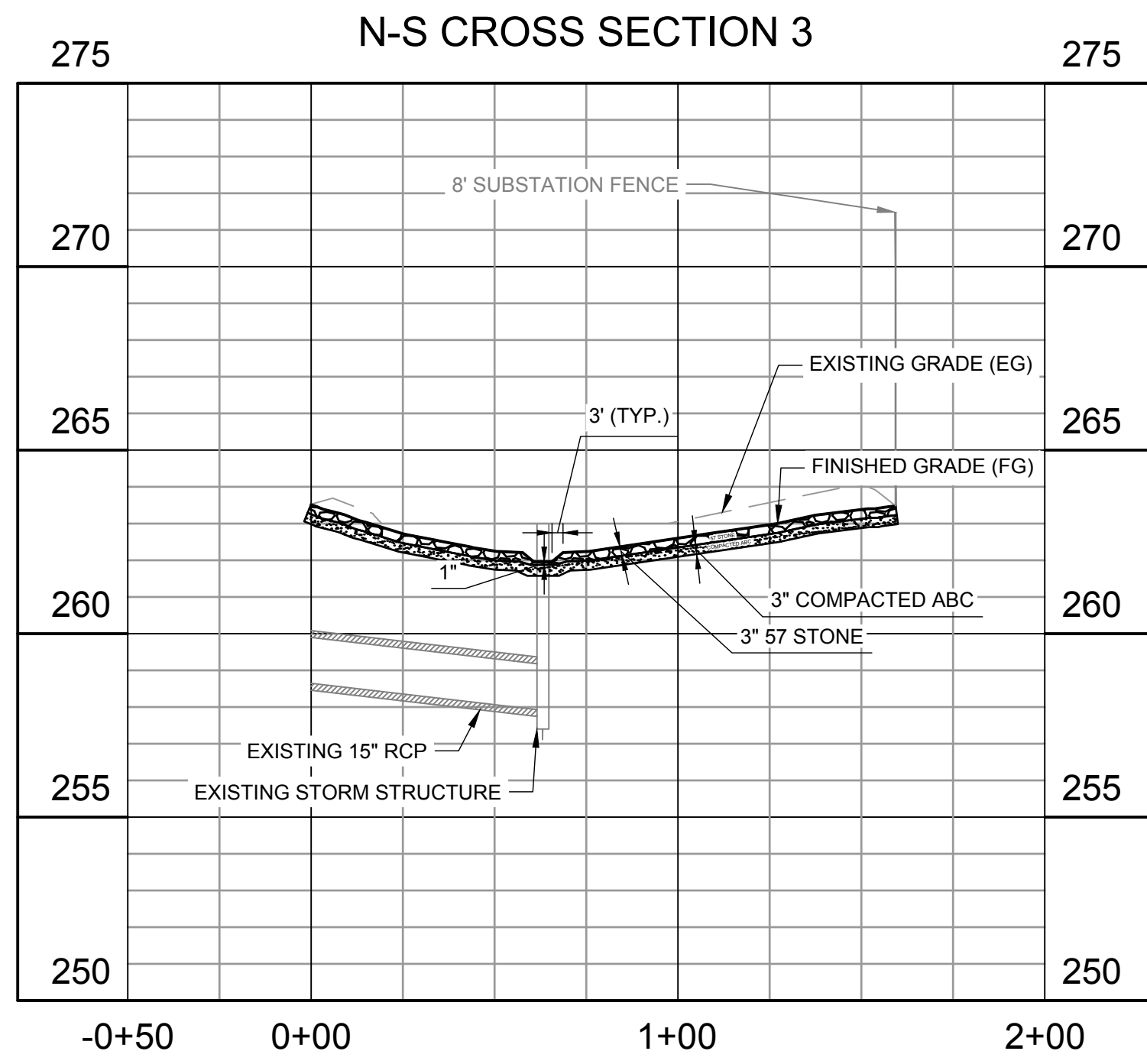
NO.	DATE	REVISION	BY	CK.	APP.
1	08/23/2023	CITY OF RALEIGH ADMIN SITE REVIEW	RAY	ARB	DAR

**DUKE ENERGY**  
PROGRESS

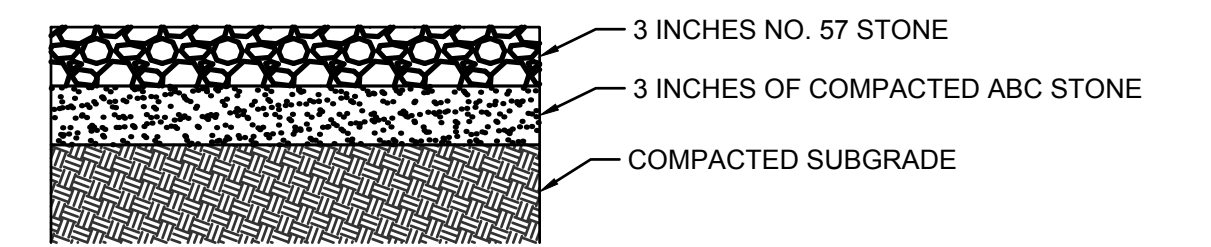
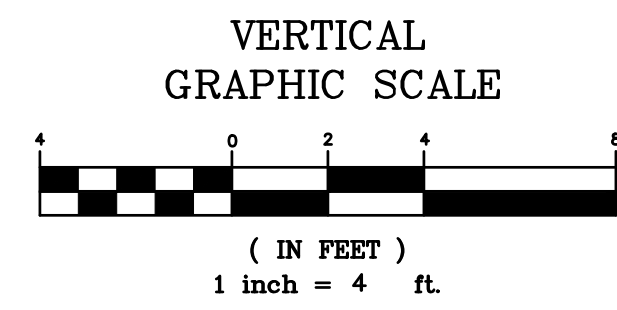
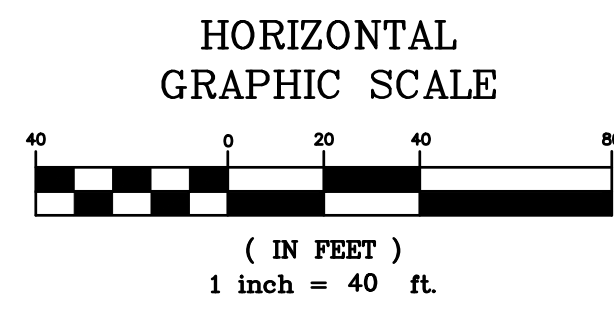
CARALEIGH  
230KV - SUBSTATION  
SITE PROFILE AND DETAILS

LOCATION CARALEIGH SUBSTATION  
SCALE AS NOTED SCALE RATIO 1:1  
DRAWN RAY CHK. ARB APP. DAR  
DATE 08/23/2023 DWG NO. RDC-83516 SHEET11 OF 21



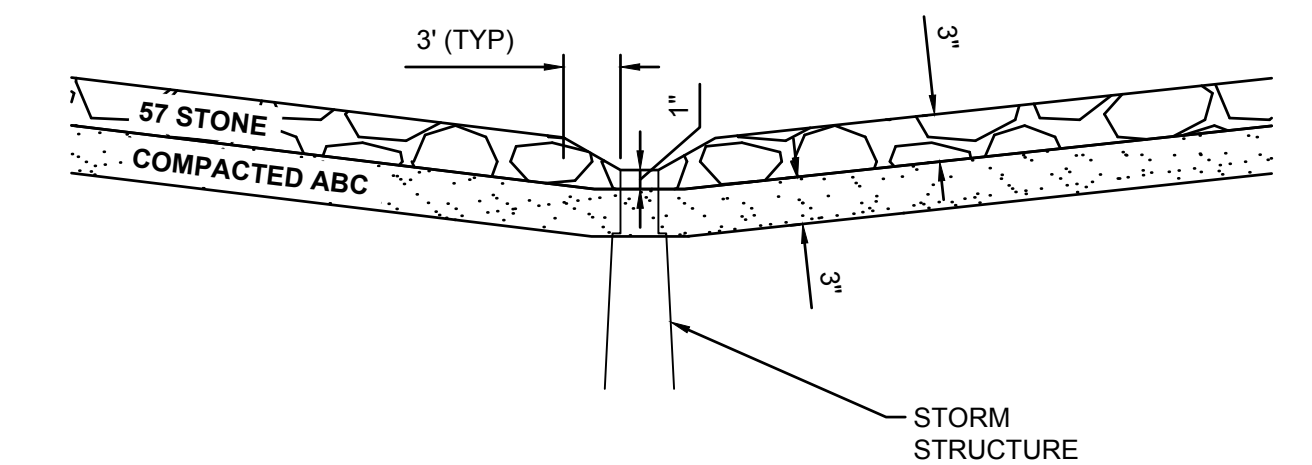


**SUBSTATION PAD CROSS SECTIONS**



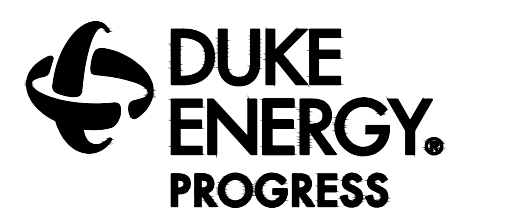
**SWITCHYARD TYPICAL SECTION**

NOT TO SCALE



**TYPICAL INLET SECTION**

NOT TO SCALE

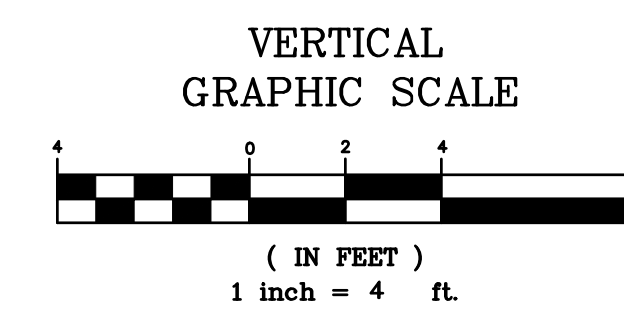
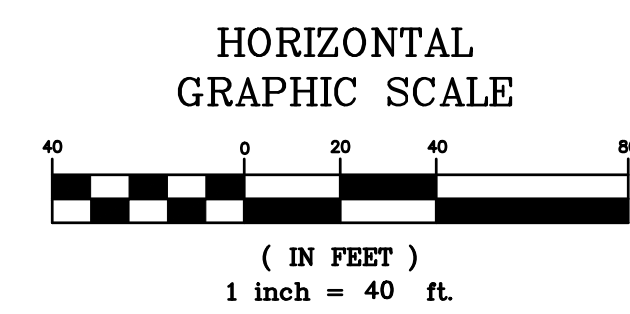
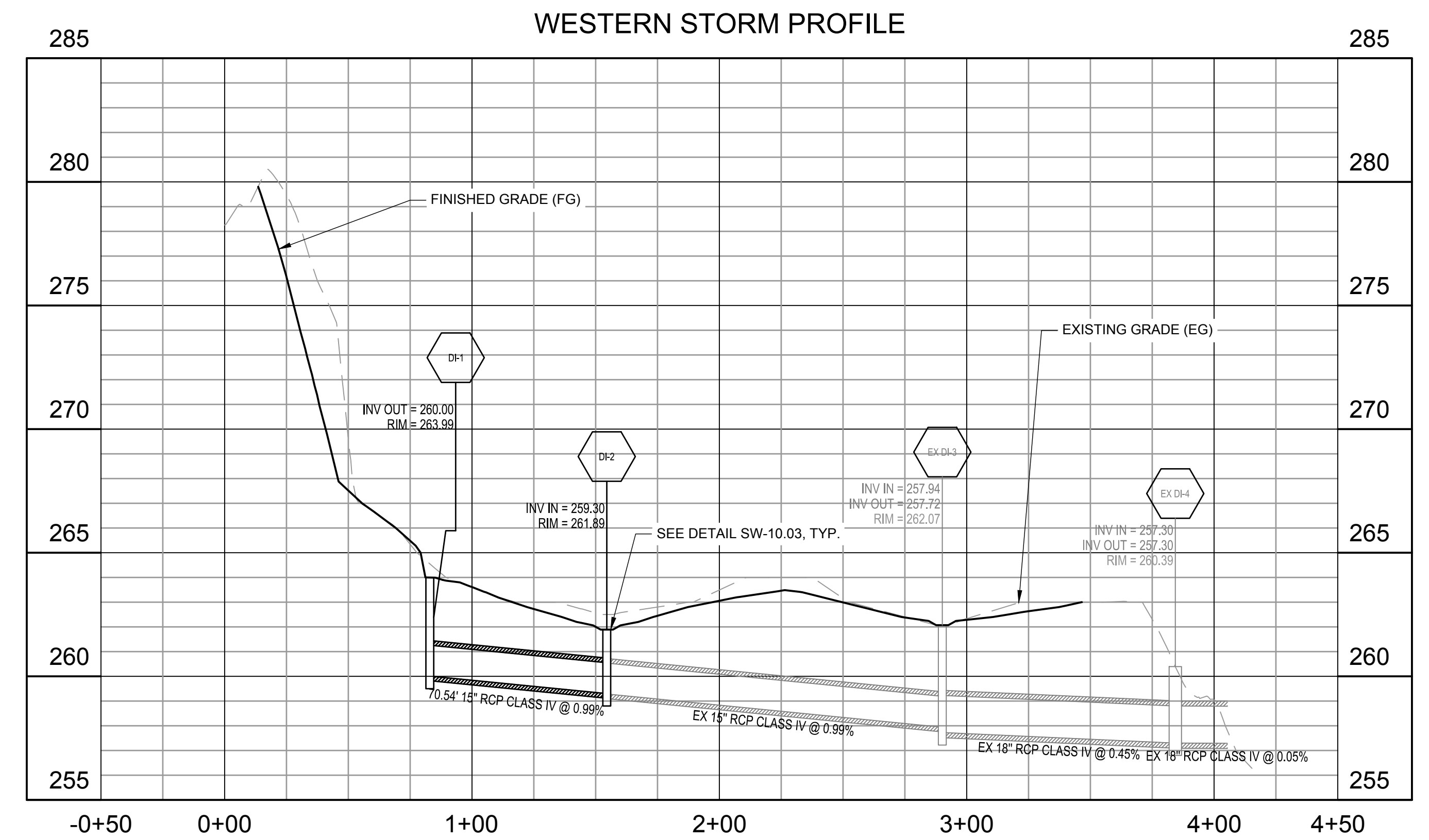
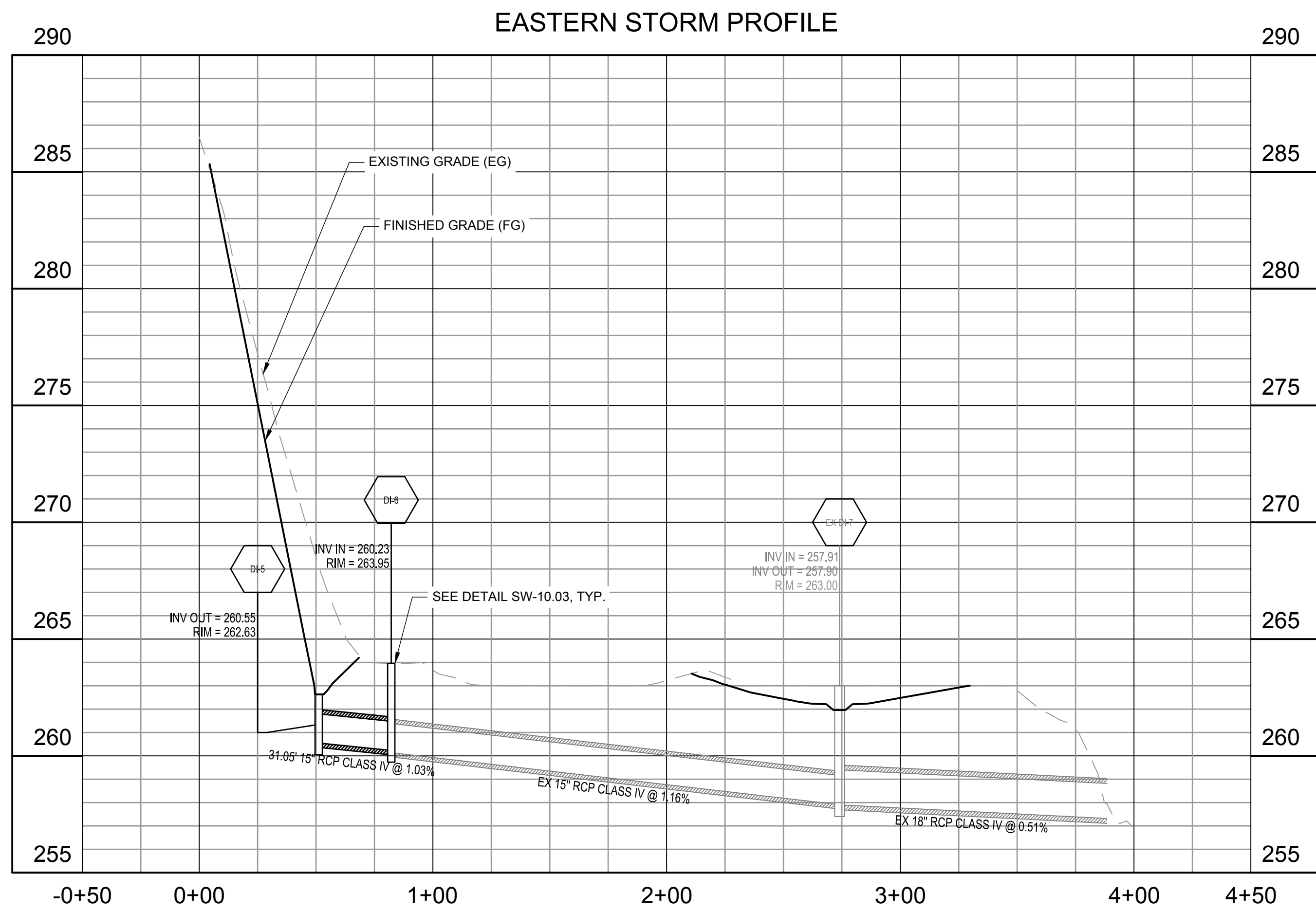


CARALEIGH  
230KV - SUBSTATION  
SITE PROFILE AND DETAILS

1		08/23/2023	CITY OF RALEIGH ADMIN SITE REVIEW	RAY	ARB	DAR	LOCATION CARALEIGH SUBSTATION SCALE AS NOTED SCALE RATIO 1:1 DRAWN RAY CHK. ARB APP. DAR DATE 08/23/2023 DWG NO. RDC-83516 SHEET12 OF 21
NO.	DATE	REVISION	BY	CK.	APP.		

**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION





## SUBSTATION STORM PROFILES



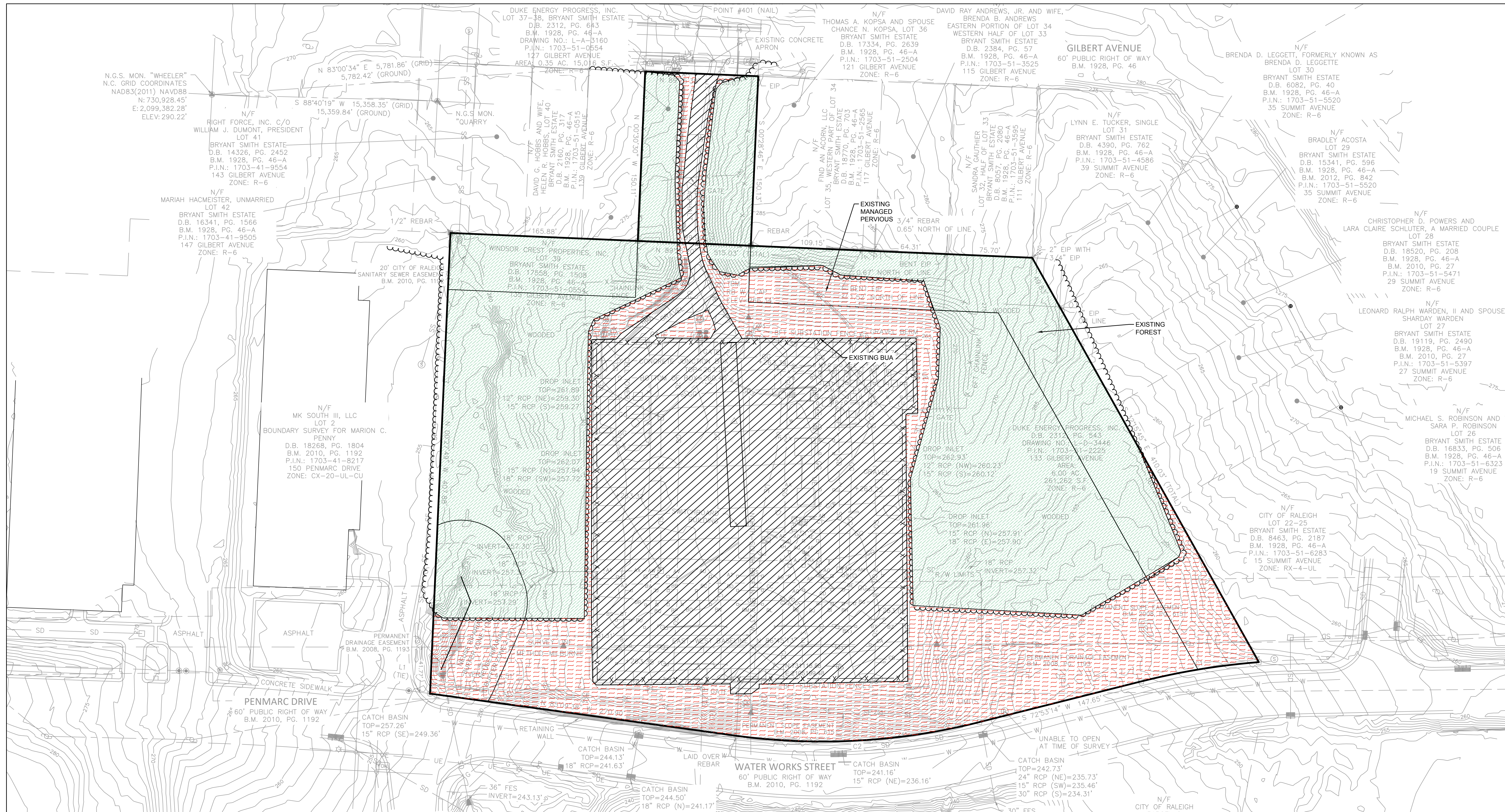
CARALEIGH SUBSTATION  
230KV - SUBSTATION  
STORM PROFILES




**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION

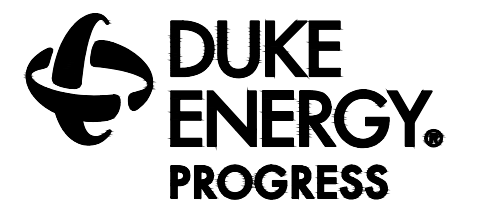
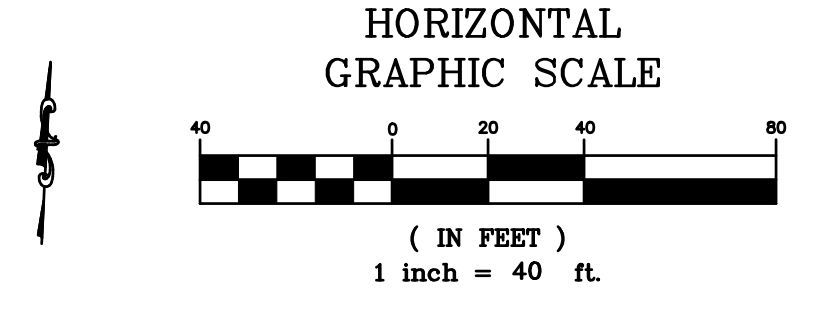
NO.	DATE	REVISION	BY	CK.	APP.	LOCATION	SCALE	SCALE RATIO	DATE	DWG NO.	SHEET
1	08/23/2023	CITY OF RALEIGH ADMIN SITE REVIEW	RAY	ARB	DAR	CARALEIGH SUBSTATION	AS NOTED	1:1	08/23/2023	RDC-83516	13 OF 21

DRAWN RAY  
CHK. ARB  
APP. DAR





- LEGEND:**
-  EXISTING BUILT UPON AREA ( 91009 SF)
  -  FORESTED AREA (116158 SF)
  -  MANAGED PERVIOUS AREA (69111 SF)



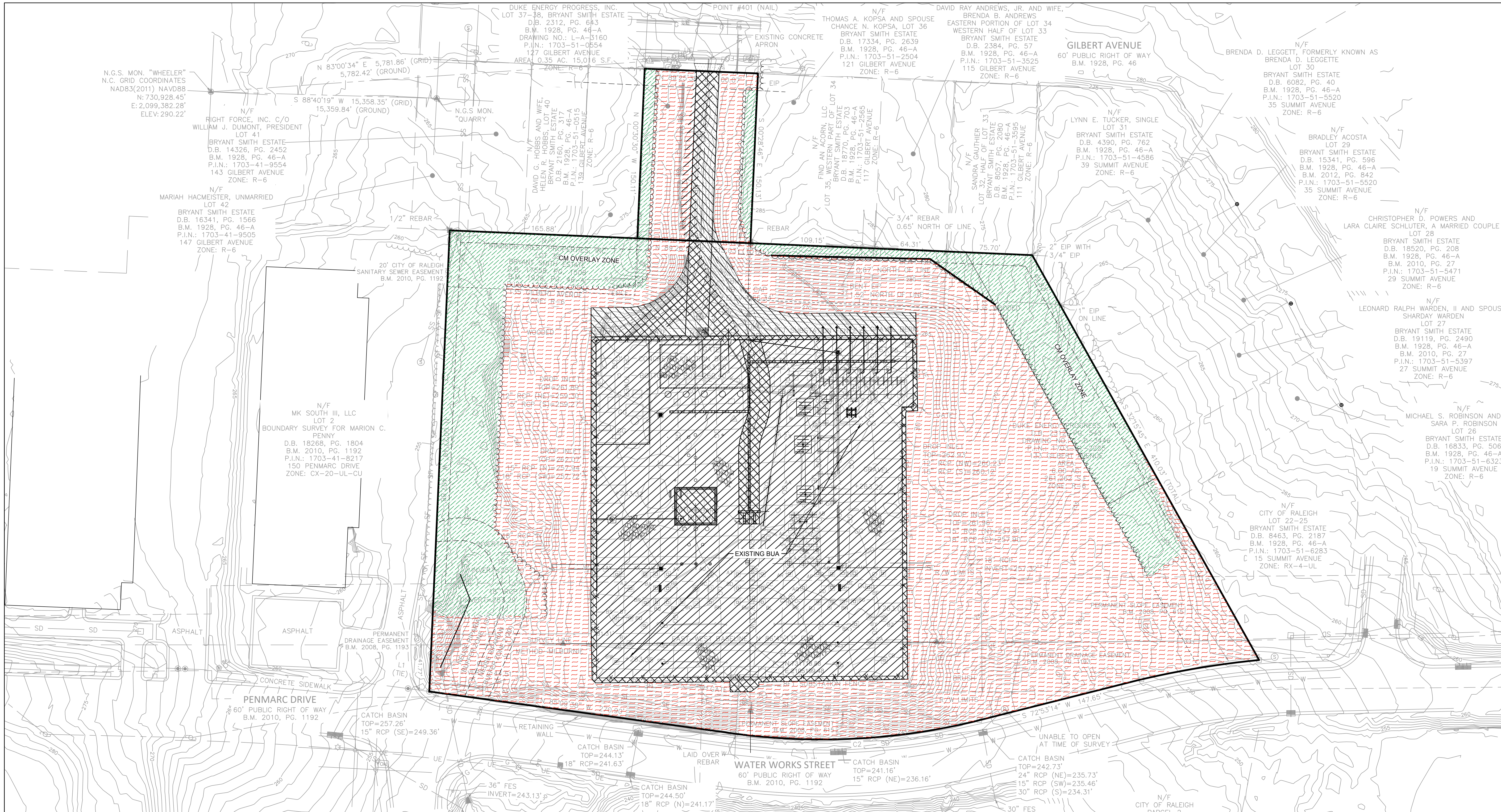
**CARALEIGH  
230KV - SUBSTATION  
EXISTING IMPERVIOUS MAP**

LOCATION CARALEIGH SUBSTATION  
SCALE AS NOTED SCALE RATIO 1:1  
DRAWN RAY CHK. ARB APP. DAR  
DATE 08/23/2023 DWG NO. RDC-83516 SHEET 14 OF 21

**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION

NO.	DATE	REVISION	BY	CK.	APP.
1	08/23/2023	CITY OF RALEIGH ADMIN SITE REVIEW	RAY	ARB	DAR





**IMPERVIOUS SURFACE COVERAGE:**

PROPERTY AREA:	6.34 AC
TIER II SITE PLAN ALLOWABLE IMPERVIOUS:	10,000SF
ALLOWABLE IMPERVIOUS %:	3.6%
ALLOWABLE IMPERVIOUS AREA:	0.23 AC
TOTAL NEW IMPERVIOUS AREA:	0.146 AC
ACCESS DRIVE:	0.029 AC
OIL CONTAINMENT:	0.029 AC
TOTAL NEW IMPERVIOUS AREA %:	2.8%

**CARALEIGH SUBSTATION BUA CALCULATIONS**

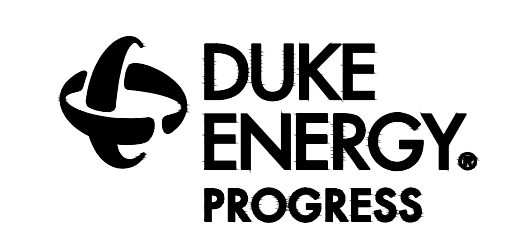
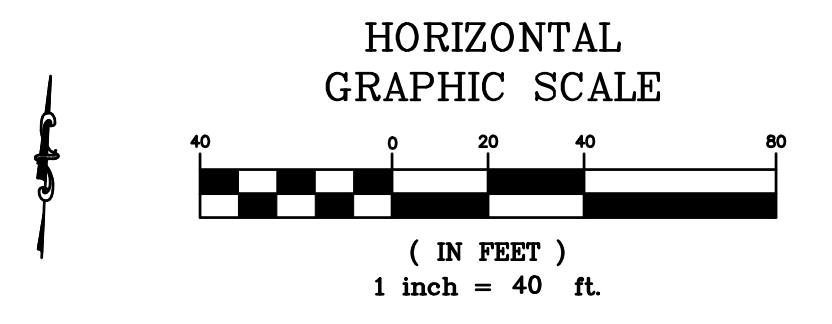
TOTAL SITE AREA (AC)	6.34
EXISTING BUA (AC)	2.09
PROJECT AREA (AC)	4.25
NET BUA (AC)	0.17
PERCENT NET BUA/PROJECT AREA	4.10%

**STORMWATER QUANTITY CALCULATIONS**

EXISTING 2 YR FLOW	18.43 CFS
PROPOSED 2 YR FLOW	19.42 CFS
MAXIMUM ALLOWABLE % INCREASE IN FLOW	10%
PROPOSED % INCREASE IN FLOW	5.4%

**LEGEND:**

	EXISTING BUILT UPON AREA (91009 SF)
	PROPOSED BUILT UPON AREA (21860 SF)
	NET BUILT UPON AREA (7597 SF)
	FORESTED AREA (43868 SF)
	MANAGED PERVIOUS AREA (133804 SF)



**CARALEIGH  
230KV - SUBSTATION  
PROPOSED IMPERVIOUS MAP**

LOCATION CARALEIGH SUBSTATION  
SCALE AS NOTED SCALE RATIO 1:1  
DRAWN RAY CHK. ARB APP. DAR  
DATE 08/23/2023 DWG NO. RDC-83516 SHEET 15 OF 21

**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION

NO.	DATE	REVISION	BY	CK.	APP.
1	08/23/2023	CITY OF RALEIGH ADMIN SITE REVIEW	RAY	ARB	DAR







# EROSION AND SEDIMENTATION CONTROL AND CONSTRUCTION SEQUENCE NOTES:

- THE CONTRACTOR SHALL POST THE SEDIMENTATION CERTIFICATE OF APPROVAL AT THE CONSTRUCTION ENTRANCE AND MAINTAIN COPIES OF THE PROJECT EROSION CONTROL PERMITS IN THE PERMITS BOX. ANY CHANGES TO PROJECT DESIGN THAT RESULT IN ADDITIONAL DISTURBANCE OR CHANGE THE DRAINAGE PATTERNS SHALL BE SUBMITTED TO NCDEQ FOR PERMIT MODIFICATION.
- A RAIN GAUGE SHALL BE INSTALLED AT THE PROJECT SITE TO FACILITATE RAINFALL MONITORING. THE CONTRACTOR SHALL MAINTAIN THESE RECORDS IN THE PERMIT BOX FOR AUDIT BY REGULATORY AGENCIES.
- NOTIFY THE STATE DEQ-DEMLR, LAND QUALITY SECTION AT THE REGIONAL OFFICE (RALEIGH AT 919-791-4200) AT LEAST 24 HOURS PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES.
- NOTIFY PROPERTY OWNERS THAT ARE AFFECTED BY TREE CLEARING OR CONSTRUCTION PRIOR TO BEGINNING ANY WORK.
- SENSITIVE AREA BUFFERS INCLUDING WETLANDS AND STREAMS SHALL BE CLEARLY MARKED USING BLUE FLAGGING PRIOR TO START OF CLEARING/CONSTRUCTION.
- NO CLEARING, DEMOLITION, CONSTRUCTION, OR LAND DISTURBANCE ACTIVITIES SHALL BEGIN UNTIL ALL APPLICABLE EROSION AND SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED IN LOCATIONS AS SHOWN ON THE CONTRACT DRAWINGS. IF CLEARING IS REQUIRED FOR INSTALLATION OF A GIVEN MEASURE, ALL OTHER MEASURES SHALL BE INSTALLED FIRST. THE NECESSARY LAND DISTURBANCE ACTIVITIES REQUIRED FOR INSTALLATION OF THE GIVEN MEASURE MAY THEN PROCEED.
- DEP SHALL CONDUCT PROJECT INSPECTIONS OF EROSION CONTROL MEASURES AND STORMWATER OUTFALLS WEEKLY AND AFTER EVERY RAIN EVENT 1" OR GREATER. ALL CONTROL DEVICES SHALL BE MAINTAINED AS SPECIFIED BY THE CONTRACT DOCUMENTS. A RAIN GAUGE SHALL BE INSTALLED AT THE PROJECT SITE TO FACILITATE RAINFALL MONITORING. THE CONTRACTOR SHALL MAINTAIN THESE RECORDS AT THE ON-SITE OFFICE FOR AUDIT BY CONTRACTING OFFICER. INSPECTIONS ARE REQUIRED UNTIL PROJECT STABILIZATION IS EVIDENT BY 95% VEGETATIVE GROWTH FOR AREAS PROVIDED WITH SEEDING. AT SUCH TIME THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL DEVICES. ADDITIONALLY, CONTRACTOR SHALL BE RESPONSIBLE FOR CONDUCTING 'SELF-INSPECTIONS' INDICATING DATE DEVICES ARE INSTALLED AND STABILIZATION MEASURES ARE INITIATED. THE 'SELF-INSPECTION' REPORTS SHALL BE MAINTAINED AND SUBMITTED TO DUKE ENERGY PROGRESS ONCE STABILIZATION OF PROJECT HAS BEEN ACCOMPLISHED AND TEMPORARY MEASURES HAVE BEEN REMOVED.
- ANY BORROW MATERIAL BROUGHT ONTO THIS SITE SHALL BE FROM A LEGALLY OPERATED MINE OR OTHER APPROVED SOURCE. A SINGLE USE BORROW SITE OR AN AREA TO WASTE MATERIAL IS ONLY PERMISSIBLE IF IT IS OPERATED UNDER THE TOTAL CONTROL OF THE FINANCIALLY RESPONSIBLE PERSON OR FIRM WHO IS DEVELOPING THIS SITE AND HAS BEEN SEPARATELY PERMITTED AND INCORPORATED AS PART OF THIS PLAN MEETING ALL THE REQUIREMENTS OF NC GENERAL STATUTE 74-49(7).
- CONTRACTOR SHALL MAINTAIN COMPLIANCE WITH ALL PERMITS AND PLANS. ANY CHANGES SHALL BE APPROVED BY THE STATE PRIOR TO EXECUTION. A COPY OF ALL PERMITS SHALL BE MAINTAINED BY THE CONTRACTOR ON-SITE AT ALL TIMES.
- PURSUANT TO NC GENERAL STATUTE 113A-54 (IE), THE CONTRACTOR SHALL CONDUCT SELF-INSPECTIONS OF EROSION CONTROL DEVICES AT COMPLETION OF EACH CONSTRUCTION PHASE AND DOCUMENT SUCH INSPECTIONS AS OUTLINED IN 5A NCAC 04B.0131. FOR INSPECTION AND MONITORING RECORDS FOR ACTIVITIES UNDER STORMWATER GENERAL PERMIT NCG010000 AND SELF-INSPECTION RECORDS FOR LAND DISTURBING ACTIVITIES PER G.S. 113A.54.1 FORMS SEE: <https://deq.nc.gov/about/divisions/energy-mineral-land-resources/erosion-sediment-control/forms>
- UTILITIES SHOWN IN APPROXIMATE MANNER ONLY. CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES PRIOR TO DEMOLITION, CONSTRUCTION OR LAND DISTURBANCE ACTIVITIES BEGIN.
- PHASE 1 SEQUENCE: INSTALL THE PERMIT BOX AT THE CONSTRUCTION ENTRANCE. POST THE CERTIFICATE OF COVERAGE AND MAINTAIN COPIES OF PROJECT EROSION CONTROL PERMITS IN THE PERMIT BOX. INSTALL RAIN GAUGE.
- INSTALL CONSTRUCTION ENTRANCE, TEMPORARY STOCKPILE/STAGING AREAS, CONSTRUCTION FENCE, DOUBLE ROW SILT FENCE/TREE PROTECTION WITH SILT FENCE OUTLETS, TREE PROTECTION FENCING, AND WATTLES IN LOCATIONS SHOWN ON PHASE 1. CLEAR ONLY ENOUGH TREES TO INSTALL THESE INITIAL MEASURES.
- CONTRACTOR MUST TEST SOILS ACCORDING TO DEP STANDARDS AND HAVE APPROVAL BY A DEP REPRESENTATIVE PRIOR TO ANY EXCAVATION OR REMOVAL OF SOIL FROM SITE.
- PHASE 2 SEQUENCE: CONTINUE TREE CLEARING TO INSTALL SEDIMENT TRAP. NO GRUBBING SHALL TAKE PLACE UNTIL SEDIMENT TRAP IS INSTALLED.
- INSTALL STORM DRAIN NETWORK, STRUCTURES, AND INLET PROTECTION PER PLAN.
- CLEAR REMAINING AREAS ACCORDING TO DEMOLITION PLAN.
- THE CONTRACTOR SHALL COORDINATE LOCATION OF TEMPORARY STOCKPILE AREAS WITH THE DEP REPRESENTATIVE. IMPACT OF TEMPORARY STORAGE OF EXCAVATED SOILS SHALL BE MINIMIZED. EXCAVATED SOILS SHALL NOT BE STORED WITHOUT PERMISSION OF THE DEP REPRESENTATIVE. STOCKPILE AREA SHALL BE DELINEATED WITH SILT FENCE AND PROVIDED TEMPORARY GROUND COVER.
- BEGIN GRADING SITE AS SHOWN ON GRADING AND DRAINAGE PLAN. THIS INCLUDES THE ACCESS DRIVES AND SHOULDERS. REFER TO SPECIFIC SEQUENCE ON PHASED EROSION CONTROL PLANS FOR MORE DETAIL.
- PROVIDE TEMPORARY GROUND COVER TO ALL DENUDE AREAS AFTER CLEARING AND GRUBBING OPERATIONS WITHIN 7 CALENDAR DAYS (SEE NPDES STABILIZATION TIME FRAMES THIS SHEET). PROVIDE PERMANENT GROUND COVER WITHIN THE SHORTER OF 15 WORKING DAYS OR 60 CALENDAR DAYS OF ESTABLISHING FINAL GRADES.
- EXCAVATIONS ARE TO BE CUT AND HAUL OFFSITE AND NO SPOILS SHOULD BE LEFT OVERNIGHT.
- PHASE 3 SEQUENCE: COMPLETE FINAL GRADING.
- AT 95% STABILIZATION, CONTACT STATE DEQ-DEMLR FOR FINAL INSPECTION. UPON APPROVAL, DEWATER SEDIMENT TRAP USING A DEWATERING SILT BAG, REMOVE SEDIMENT AND DISPOSE OFF-SITE. REMOVE SEDIMENT TRAP THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF SEDIMENT ON-SITE. IF THE APPROVED EROSION AND SEDIMENTATION CONTROL MEASURES PROVE INSUFFICIENT, THE CONTRACTOR MUST TAKE THOSE ADDITIONAL STEPS NECESSARY TO STOP SEDIMENT FROM LEAVING THE SITE.
- CONTACT DEQ LAND QUALITY AT (910)-433-3300 TO SCHEDULE A CLOSEOUT INSPECTION.
- CONSTRUCTION ACTIVITIES THAT HAVE AN E&S PLAN APPROVED ON OR AFTER APRIL 1, 2019 ARE REQUIRED TO FILL OUT AND SUBMIT AN ELECTRONIC NOTICE OF INTENT (E-NOI) FORM. ALL CONSTRUCTION ACTIVITIES ARE REQUIRED TO FOLLOW THE NEW NCG01 PERMIT REGARDLESS OF WHEN THEY WERE APPROVED.
- EROSION AND SEDIMENT CONTROL (E&S) PERMIT AND A CERTIFICATE OF COVERAGE (COC) MUST BE OBTAINED BEFORE ANY LAND DISTURBING ACTIVITIES OCCUR. THE COC CAN BE OBTAINED BY FILLING OUT THE ELECTRONIC NOTICE OF INTENT (E-NOI) FROM AT DEP.NC.GOV/NCG01. THE E-NOI FORM MAY ONLY BE FILLED OUT ONCE THE PLANS HAVE BEEN APPROVED. A COPY OF THE E&S PERMIT, THE COC, AND A HARD COPY OF THE PLAN MUST BE KEPT ON SITE, PREFERABLY IN A PERMITS BOX, AND ACCESSIBLE DURING INSPECTION.
- WHEN THE PROJECT IS COMPLETE, THE PERMITTEE SHALL CONTACT DEMLR TO CLOSE OUT THE E&S PLAN. AFTER DEMLR INFORMS THE PERMITTEE OF THE PROJECT CLOSE OUT, VIA INSPECTION REPORT, THE PERMITTEE SHALL VISIT DEQ.NC.GOV/NCG01 TO SUBMIT AN ELECTRONIC NOTICE OF TERMINATION (E-NOT). A \$100 ANNUAL GENERAL PERMIT FEE WILL BE CHARGED UNTIL THE E-NOI HAS BEEN FILLED OUT.
- WHERE SUBSURFACE COMPACTION, INCLUDING HARD PANS HAS OCCURRED, ADDITIONAL REPAIR MEASURES BEYOND THOSE LISTED IN TYPICAL SEEDING SCHEDULE DETAIL MAY BE REQUIRED AT THE DIRECTION OF A DEP REPRESENTATIVE. ADDITIONAL MEASURES MAY INCLUDE DEEP PLOWING AND/OR SUB-SOILING/RIPPING OF THE COMPACTED SUBSOL AREA.

## TYPICAL SEEDING SCHEDULE FOR PIEDMONT AND COASTAL AREAS (EXCEPT BEACH DUNES)

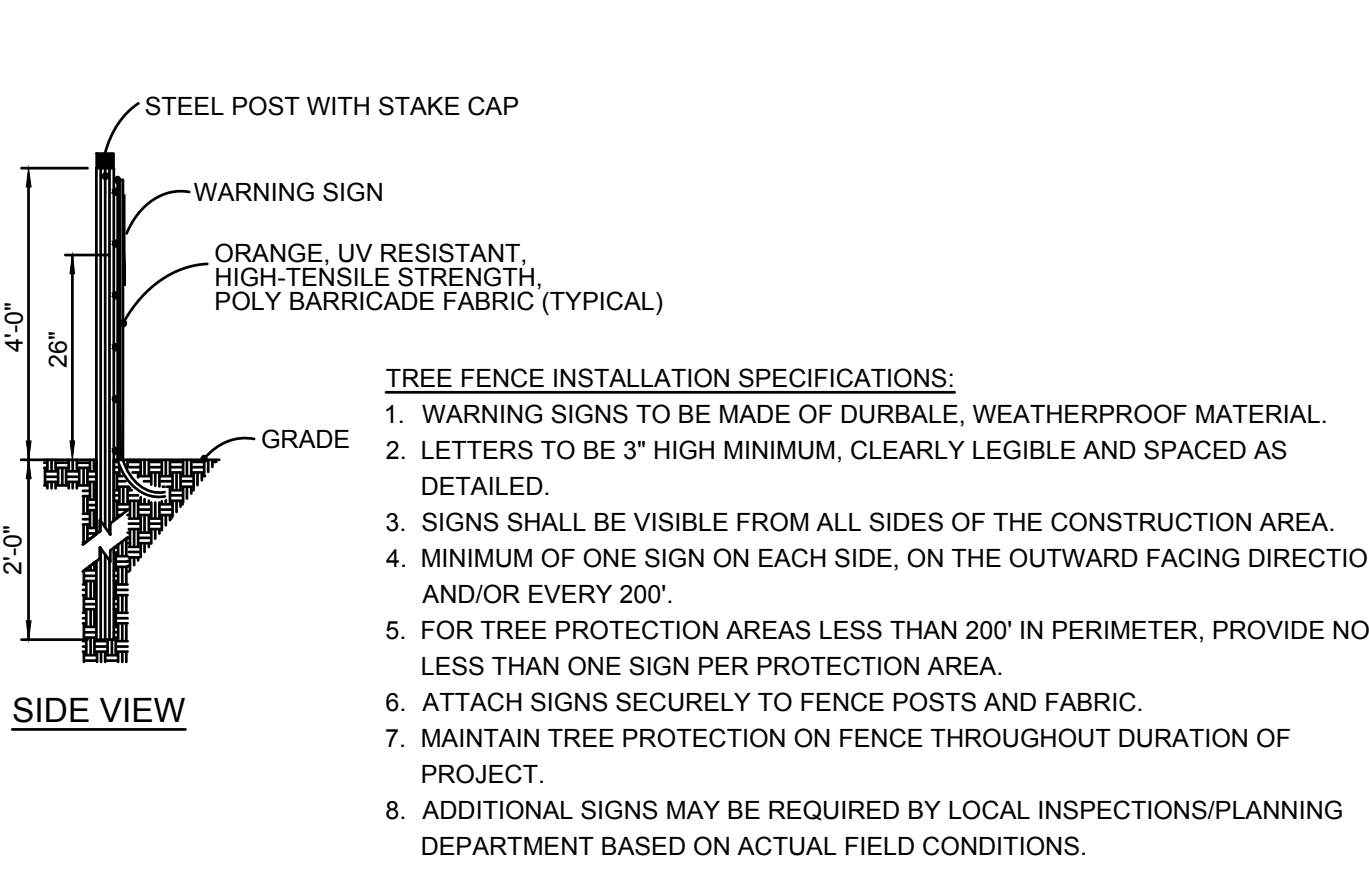
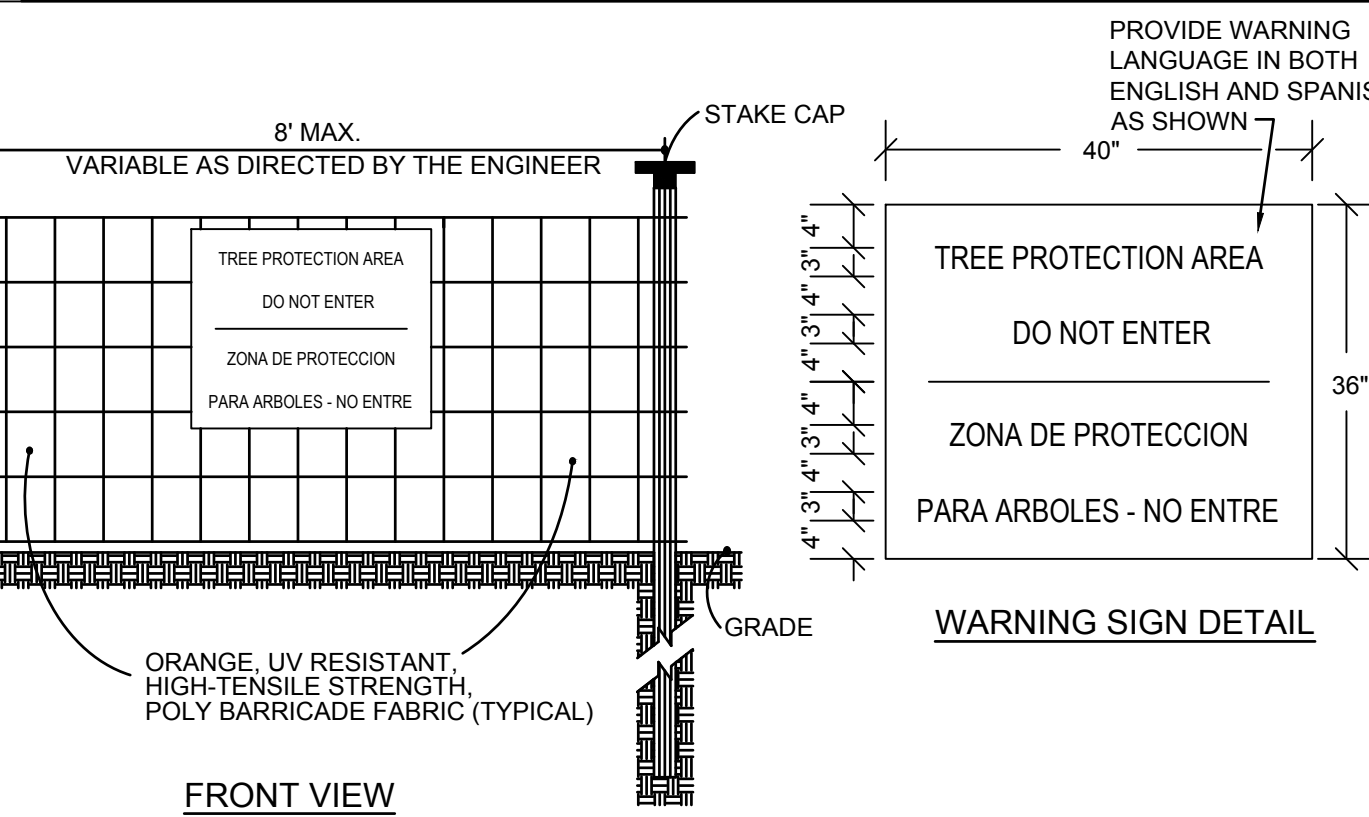
LIME, SEED, AND FERTILIZER SHALL BE APPLIED WITH NECESSARY EQUIPMENT TO GIVE UNIFORM DISTRIBUTION OF THESE MATERIALS. THE KINDS OF MATERIALS TO BE APPLIED PER ACRE:

TEMPORARY SEEDING	APPLIES WHERE VEGETATIVE COVER IS NEEDED FOR LESS THAN 1 YEAR DURING CLEARING AND CONSTRUCTION ACTIVITIES. WHEN DISTURBED AREAS ARE TEMPORARILY LEFT INACTIVE, TEMPORARY GROUND COVER SHALL BE ESTABLISHED ACCORDING TO THE FOLLOWING SCHEDULE:				
DATE	TYPE	PLANTING RATE	FERTILIZER	LIMESTONE	STRAW/MULCH
MAR. 1 - AUG. 31	GERMAN OR BROWN TOP MILLET	50 LBS/ACRE	800 LBS/ACRE	4000 LBS/ACRE	4000 LBS/ACRE
SEP. 1 - FEB. 28	RYE GRAIN	100 LBS/ACRE	800 LBS/ACRE	4000 LBS/ACRE	4000 LBS/ACRE

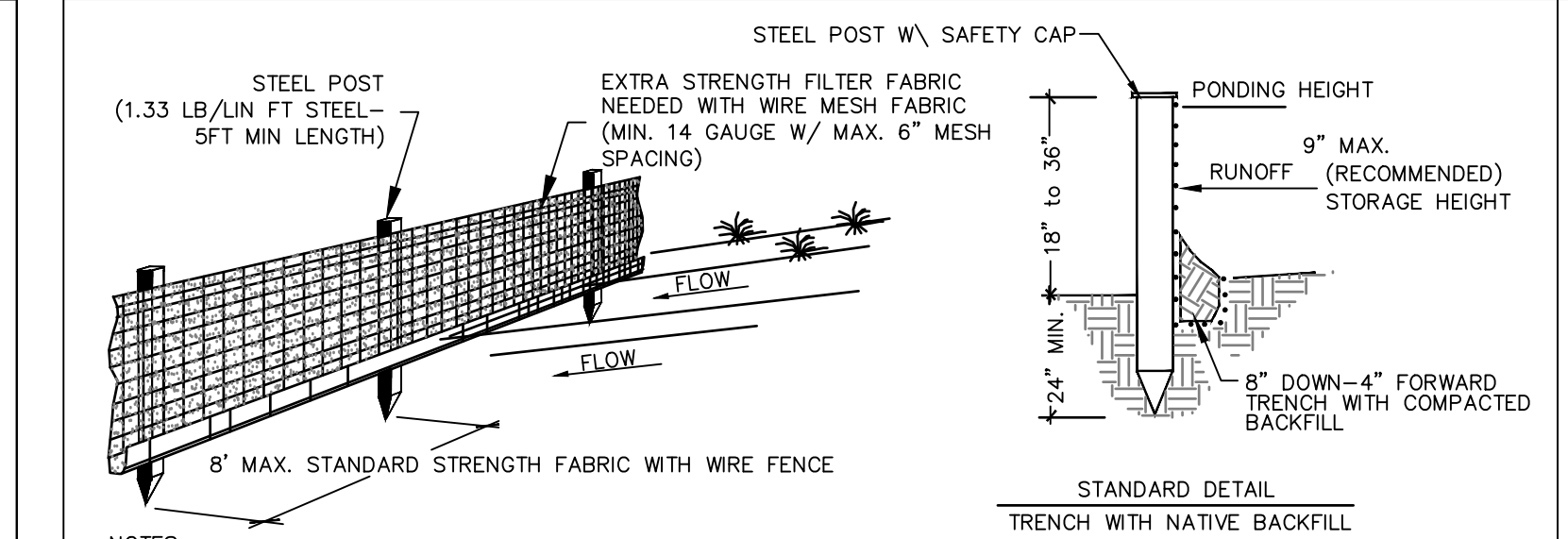
PERMANENT SEEDING	APPLIES WHERE VEGETATIVE COVER IS NEEDED FOR MORE THAN 1 YEAR DURING CLEARING AND CONSTRUCTION ACTIVITIES. WHEN DISTURBED AREAS ARE TEMPORARILY LEFT INACTIVE, TEMPORARY GROUND COVER SHALL BE ESTABLISHED ACCORDING TO THE FOLLOWING SCHEDULE:				
DATE	TYPE	PLANTING RATE	FERTILIZER	LIMESTONE	STRAW/MULCH
MAR. 1 - AUG. 31	TALL FESCUE HULLED BERMIUDA GRASS CENTPEDE	100 LBS/ACRE 25 LBS/ACRE 10 LBS/ACRE	800 LBS/ACRE	4000 LBS/ACRE	4000 LBS/ACRE
SEP. 1 - FEB. 28	TALL FESCUE UNHULLED BERMIUDA GRASS CENTPEDE RYE GRAIN	100 LBS/ACRE 35 LBS/ACRE 10 LBS/ACRE 15 LBS/ACRE	800 LBS/ACRE	4000 LBS/ACRE	4000 LBS/ACRE

- \*FOR 2:1 SLOPES OR STEEPER, ADD 20 LBS/ACRE SERICOLA LESPEDEZA YEAR ROUND.  
AT THE ENVIRONMENTAL ENGINEER'S REQUEST, 50 LBS/ACRE PENSACOLA BAHIAHASS MAY BE ADDED OR SUBSTITUTED TO THE SEED MIX.
- THE SURFACE SHALL BE MADE SMOOTH AND TRUE TO GRADE. THE AREAS SHALL BE PREPARED BY MEANS OF DOWING AND CROSS-DROWING, HARROWING, OR OTHER APPROVED METHOD OF PREPARATION SHALL BE CONTINUED UNTIL A FRABLE AND THOROUGHLY FLOTTED FOUR-INCH DEEP SEEDBED IS OBTAINED. CARE SHALL BE EXERCISED IN PREPARATION OF SEEDBEDS ON SLOPES TO KEEP LOOSE SOIL IN PLACE RATHER THAN PERMIT IT TO ACCUMULATE AT THE FOOT OF THE SLOPE. SEEDBEDS SHALL BE APPROVED PRIOR TO PLANTING THE SEED. PRIOR TO THE LAST TILLAGE OPERATION, LIME AND FERTILIZER SHALL BE BROADCAST WITH AN APPROVED SPREADER OVER THE SEEDBEDS IN ACCORDANCE WITH THE SCHEDULE.
  - AFTER THE SEEDBEDS HAVE BEEN PREPARED AND APPROVED, THE MIXTURE OF GRASS SEED, AS SPECIFIED, SHALL BE SOWN BY MEANS OF AN APPROVED SEEDER AT THE APPROPRIATE RATE. THE SEED WORKED INTO THE SOIL TO A DEPTH APPROXIMATELY 1/2 INCH AND THEN COMPACTED BY MEANS OF A CULTIPACKER ROLLER OR OTHER APPROVED EQUIPMENT.
  - GRAIN STRAW SHALL BE APPLIED OVER SEEDBED AREAS AS A MULCH WITHIN 24 HOURS OF THE INITIAL SEEDING OPERATION. NO BARE GROUND SHALL BE VISIBLE WHEN VIEWED BY A NUCLEATED AREA IF PROPER APPLICATIONS ARE ACHIEVED. THICK CLUMPS OF STRAW ARE NOT PERMISSIBLE AS A UNIFORM COVERAGE IS EXPECTED.
  - STRAW MULCH AREAS SHALL BE TACKED WITH ASPHALT (APPLICATION RATE OF 0.10 GALLON PER SQUARE YARD) / 10 GALLONS PER 1000 SQ. FT. / 438 GALLONS PER ACRE), ROVING, OR NETTING, ON STEEP SLOPES, NETTING IS PREFERRED.
  - ROLLED EROSION CONTROL PRODUCTS SHALL BE USED AS DITCH TREATMENT OR ON SLOPES AS SPECIFIED ON THE PLANS.
  - AT COMPLETION OF ANY PHASE OF GRADING ACTIVITIES OR WHERE CONSTRUCTION WILL TEMPORARILY CEASE, SEEDING SHALL BE COMPLETED IN ALL DISTRIBUTED AREAS AS SPECIFIED IN THE STABILIZATION TIMEFRAME TABLE BELOW AS A MINIMUM.
  - QUANTITY OF FERTILIZER AND LIME SHALL BE CONFIRMED BY SOILS TEST. COMPOST OR SOIL TESTS SHALL BE APPLIED AT THE DISCRETION OF THE DEP REPRESENTATIVE.

NO.	DATE	INITIAL RELEASE	REVISION	BY	CL.	APP.
1	05-06-2013					
2	05-06-2013					
3	05-06-2013					
4	05-06-2013					

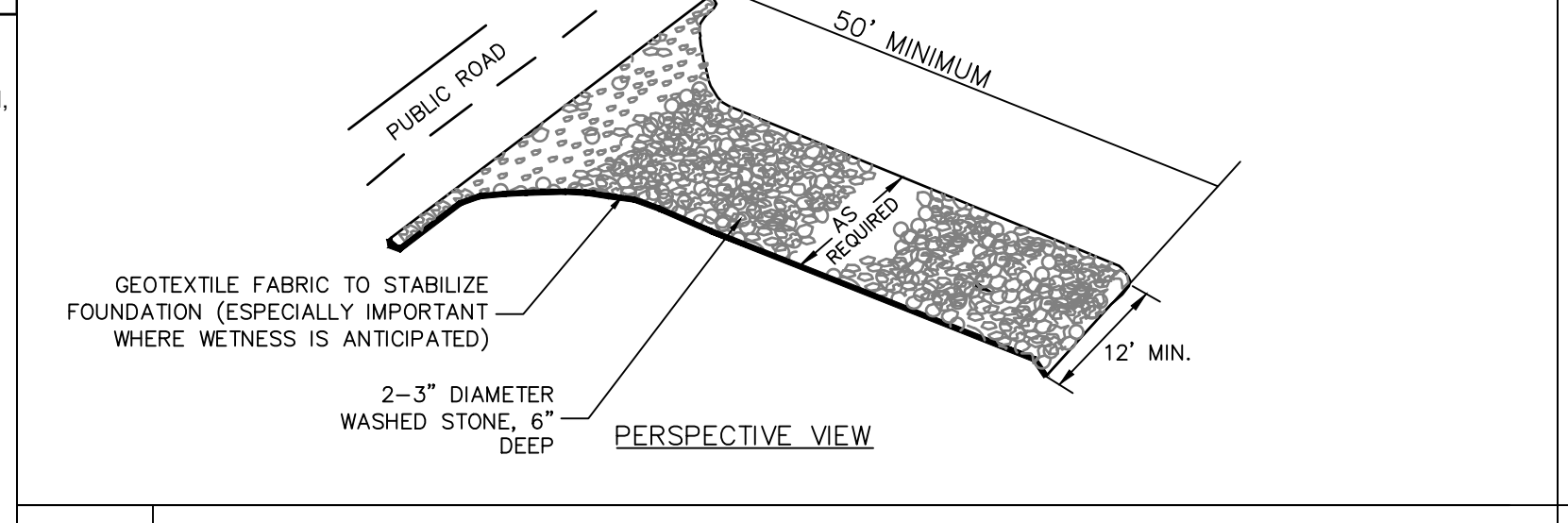
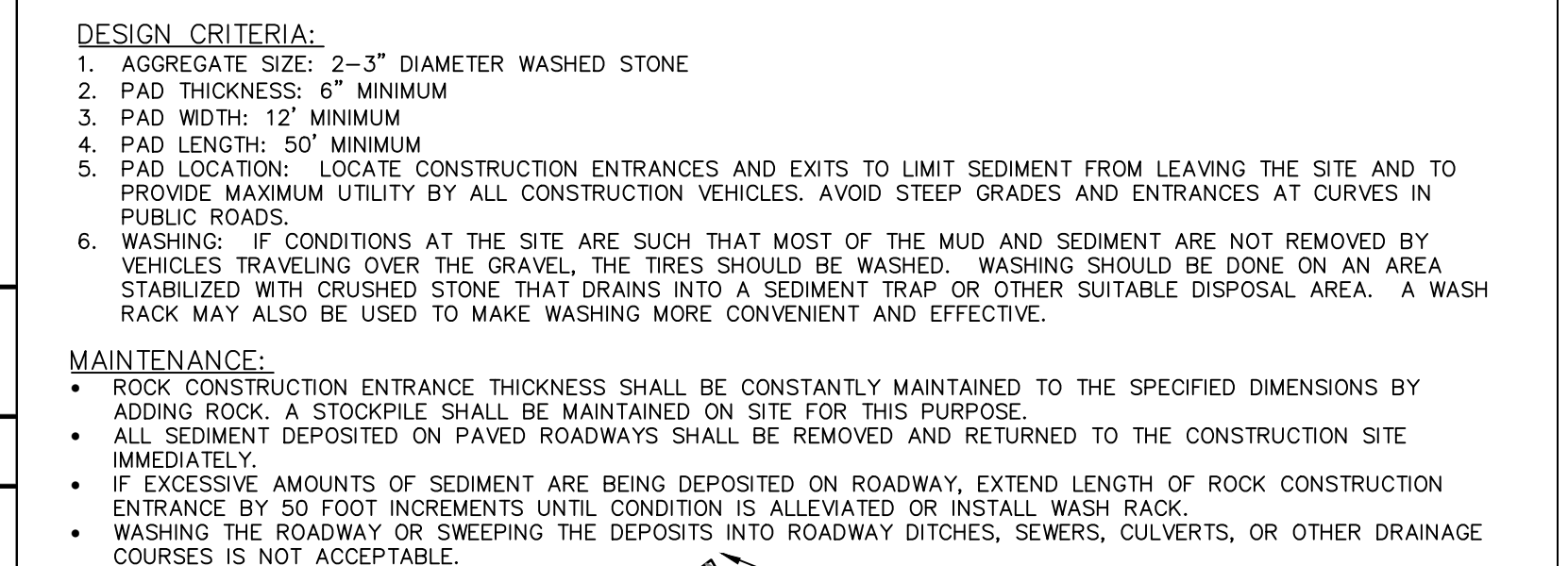


NO.	DATE	INITIAL RELEASE	REVISION	BY	CL.	APP.
1	12-17-2019					
2	2-22-2016					
3	12-17-2019					
4	12-21-2015					
5	03-06-2013					

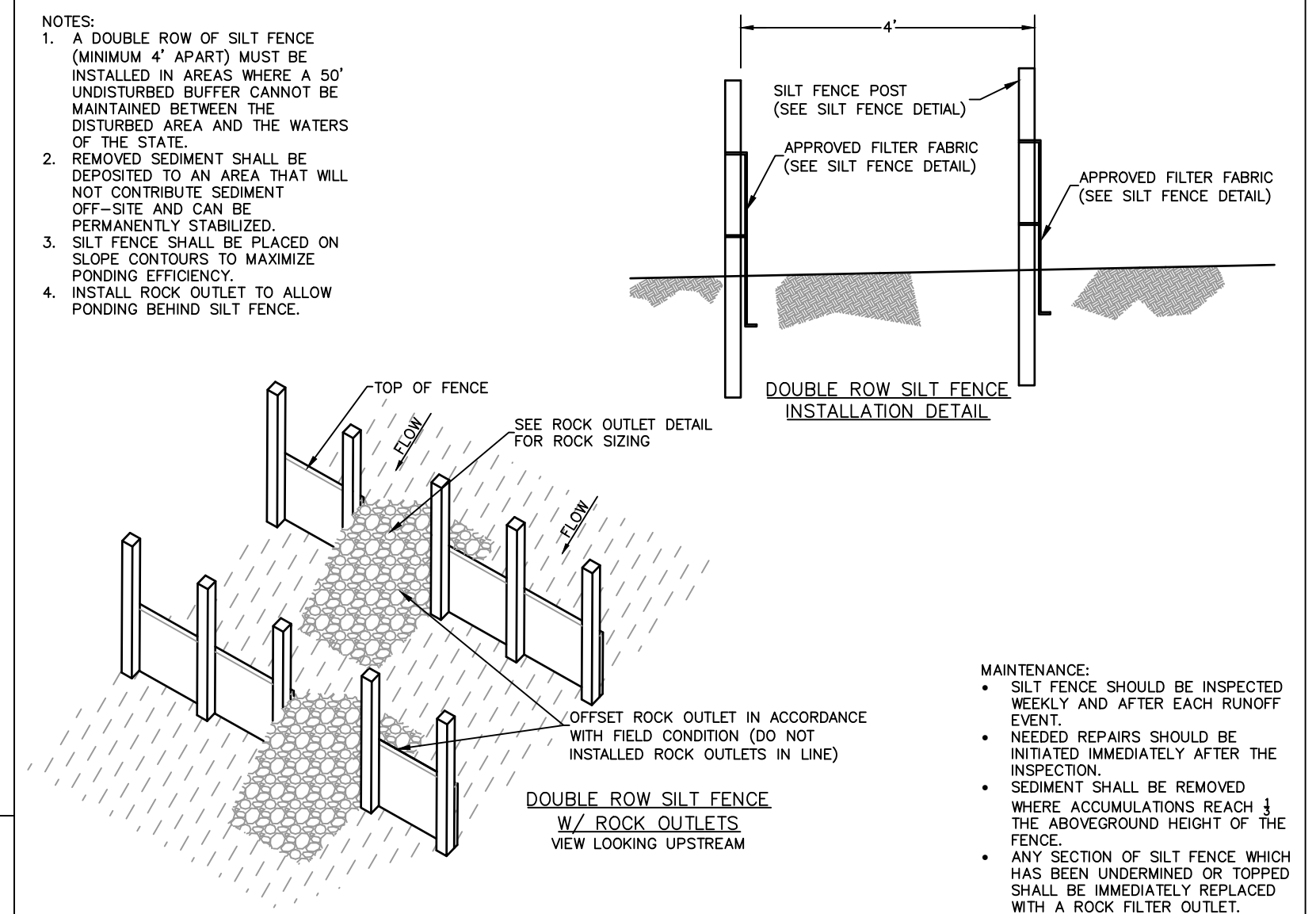


- NOTES:
- A DOUBLE ROW OF SILT FENCE (MINIMUM 4' APART) MUST BE INSTALLED IN AREAS WHERE A 50' UNDISTURBED BUFFER CANNOT BE MAINTAINED BETWEEN THE DISTURBED AREA AND THE WATERS OF THE STATE.
  - A MINIMUM 10' MAINTENANCE BUFFER SHALL BE PROVIDED BETWEEN LAST ROW OF SILT FENCE AND THE WATERS OF THE STATE.
  - INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN DEPOSITS REACH 30% OF FENCE HEIGHT.
  - REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
  - SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.
  - DRAINAGE AREA OF 1/4 ACRE OR LESS PER 100 LF.
  - USE FILTRATION GEOTEXTILE A MINIMUM OF 36" IN WIDTH AND FASTEN ADEQUATELY TO THE POSTS AND WIRE AS DIRECTED.
  - USE WIRE A MINIMUM OF 32" IN WIDTH AND WITH A MINIMUM OF 6 LINE WIRES WITH 12" STAY SPACING.
  - PROVIDE 5'-0" STEEL POST OF THE SELF-FASTENER ANGLE STEEL TYPE.
  - FOR MECHANICAL SLICING METHOD INSTALLATION, GEOTEXTILE SHALL BE A MAXIMUM OF 18" ABOVE GROUND SURFACE.

## SILT FENCE DETAIL NTS



## NC CONSTRUCTION ENTRANCE NTS



## SILT FENCE SEPARATION DETAIL NTS

## EROSION CONTROL MATTING DETAIL FOR STEEP SLOPES

INSTALLATION: BLANKET IS DESIGNED TO PROTECT SEED ON SLOPES AND REDUCE OR PREVENT EROSION. PROPERLY PREPARE, FERTILIZE AND SEED AREA TO BE COVERED BEFORE BLANKET IS APPLIED. OVERCUT CHANNELS 2" TO ALLOW BULKING DURING SEEDBED PREPARATION. WHEN THE BLANKET IS UNROLLED, NETTING SHOULD BE ON TOP AND FIBERS IN CONTACT WITH THE SOIL OVER THE ENTIRE AREA. IN DITCHES, APPLY BLANKETS IN THE DIRECTION THE WATER FLOWS, BUTTING THEM AT THE ENDS AND SIDES AND THEN STAPLING. ON SLOPES, APPLY BLANKETS HORIZONTAL TO SLOPE. OVERLAP ENDS AND SIDES 6" AND THEN STAPLE. VERTICAL INSTALLATION MAY USE UPON ENGINEERS APPROVAL. INSTALL 6" LONGitudinal ANCHOR TRENCHES AT TOP OF SLOPE AND ANCHOR. LONGITUDINAL ANCHOR TRENCHES SHOULD BE LOCATED ABOVE THE DESIGN DEPTH OF DITCHES.

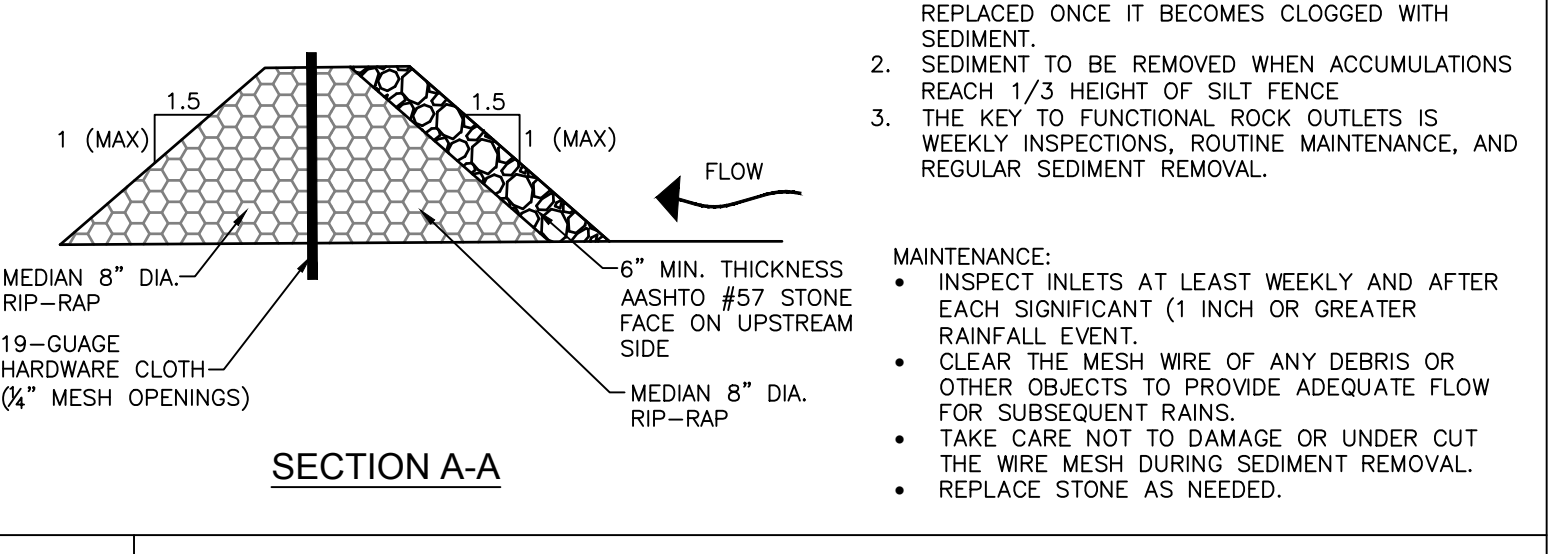
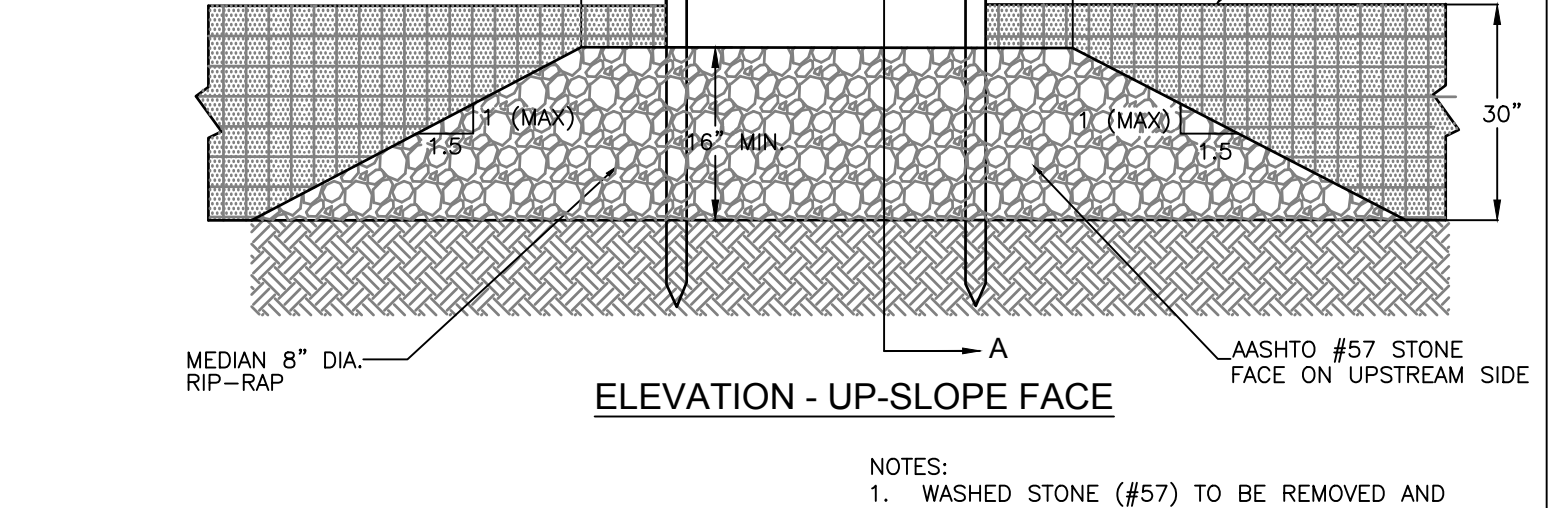
STAPLING INSTRUCTIONS:  
USE WIRE STAPLES, .091" DIAMETER OR GREATER, "U" SHAPED WITH LEGS 6" LONG OR LONGER AND 1" CROWN. SIZE AND GAUGE OF STAPLES USED WILL VARY WITH SOIL CONDITIONS. DRIVE STAPLES VERTICALLY INTO THE GROUND. USE FOUR STAPLES ACROSS AT THE START OF EACH ROLL. FOR SLOPE INSTALLATION, CONTINUE TO STAPLE ALONG THE LENGTH OF THE ROLL AT 3' TO 5' INTERVALS. FOR DITCH LINER, STAPLE ALONG THE LENGTH OF THE ROLL AT 3' FT. INTERVALS. ANOTHER ROW OF STAPLES IN THE CENTER OF EACH BLANKET SHOULD BE ALTERNATELY SPACED BETWEEN EACH SIDE FOR EITHER SLOPE FOR DITCH. USE A COMMON ROW OF STAPLES ON ADJOINING BLANKETS.

TYPICAL STAPLING PATTERN FOR HIGH-VELOCITY DITCHES AND SLOPES.  
USE 4 STAPLES ACROSS AT THE START OF EACH ROLL AND CONTINUE TO STAPLE THROUGHOUT THE LENGTH OF THE ROLL AT 1.5 FT. INTERVALS.

MATting MATERIALS: NORTH AMERICAN GREEN SLOPES 2:1 OR GREATER, OR ON SENSITIVE AREAS-- TYPE S75 OR APPROVED EQUAL SWALES OR HIGH VELOCITY AREAS-- TYPE S150 OR APPROVED EQUAL



## MATting STEEP SLOPES (IF NEEDED) NTS



## SILT FENCE ROCK OUTLET NTS

**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION

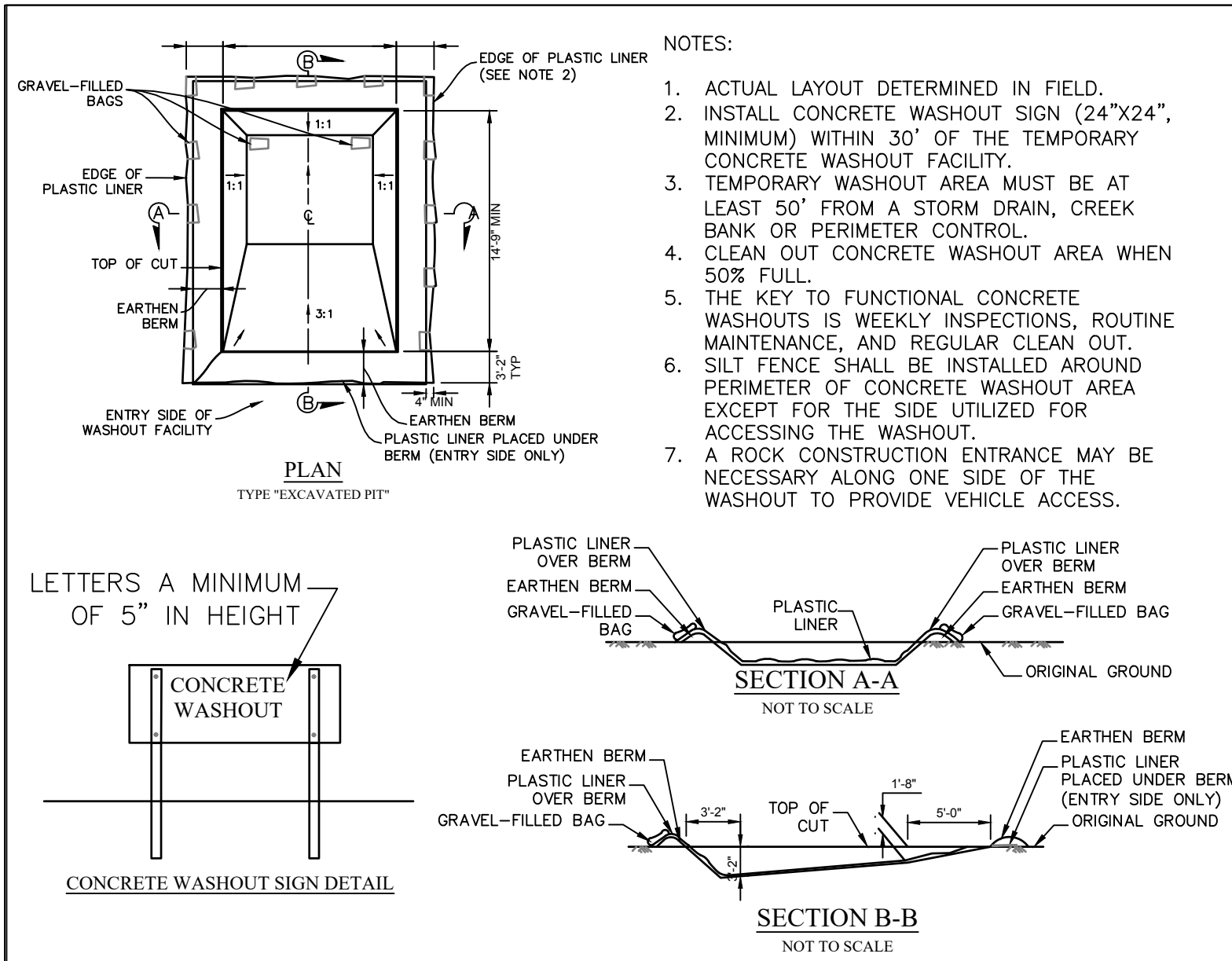
NO.	DATE	REVISION	BY	CK.	APP.
1	08/23/2023	CITY OF RALEIGH ADMIN SITE REVIEW	RAY	ARB	DAR



CARALEIGH  
230KV - SUBSTATION  
ESC DETAILS 1

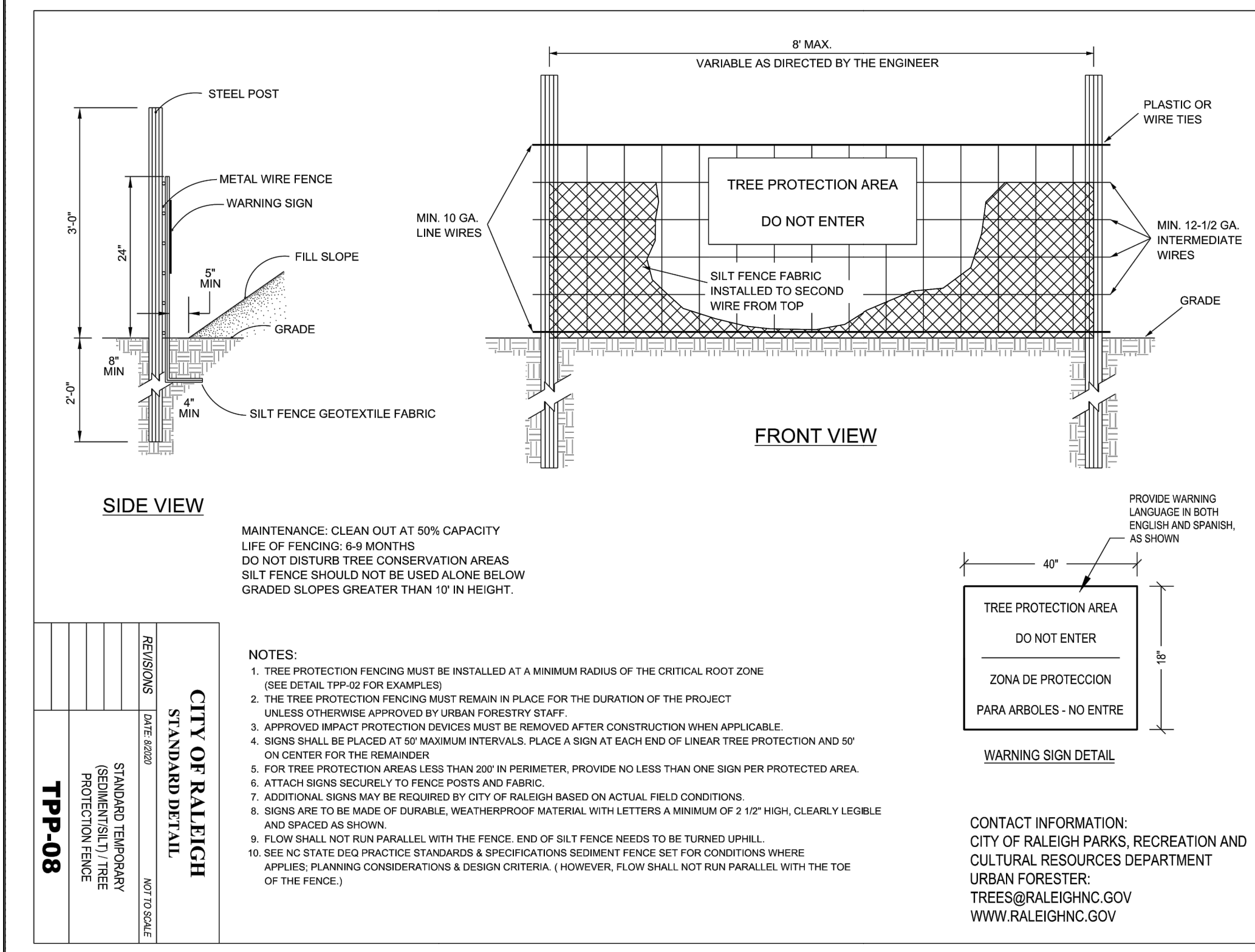
LOCATION CARALEIGH SUBSTATION  
SCALE AS NOTED SCALE RATIO 1:1  
DRAWN RAY CHK. ARB APP. DAR  
DATE 08/23/2023 DWG NO. RDC-83516 SHEET 17 OF 21





- NOTES:**
1. ACTUAL LAYOUT DETERMINED IN FIELD.
  2. INSTALL CONCRETE WASHOUT SIGN (24"X24", MINIMUM) WITHIN 30' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
  3. TEMPORARY WASHOUT AREA MUST BE AT LEAST 50' FROM A STORM DRAIN, CREEK BANK OR PERIMETER CONTROL.
  4. CLEAN OUT CONCRETE WASHOUT AREA WHEN 50% FULL.
  5. THE KEY TO FUNCTIONAL CONCRETE WASHOUTS IS WEEKLY INSPECTIONS, ROUTINE MAINTENANCE, AND REGULAR CLEAN OUT.
  6. SILT FENCE SHALL BE INSTALLED AROUND PERIMETER OF CONCRETE WASHOUT AREA EXCEPT FOR THE SIDE UTILIZED FOR ACCESSING THE WASHOUT.
  7. A ROCK CONSTRUCTION ENTRANCE MAY BE NECESSARY ALONG ONE SIDE OF THE WASHOUT TO PROVIDE VEHICLE ACCESS.

**EXCAVATED CONCRETE WASHOUT NTS**



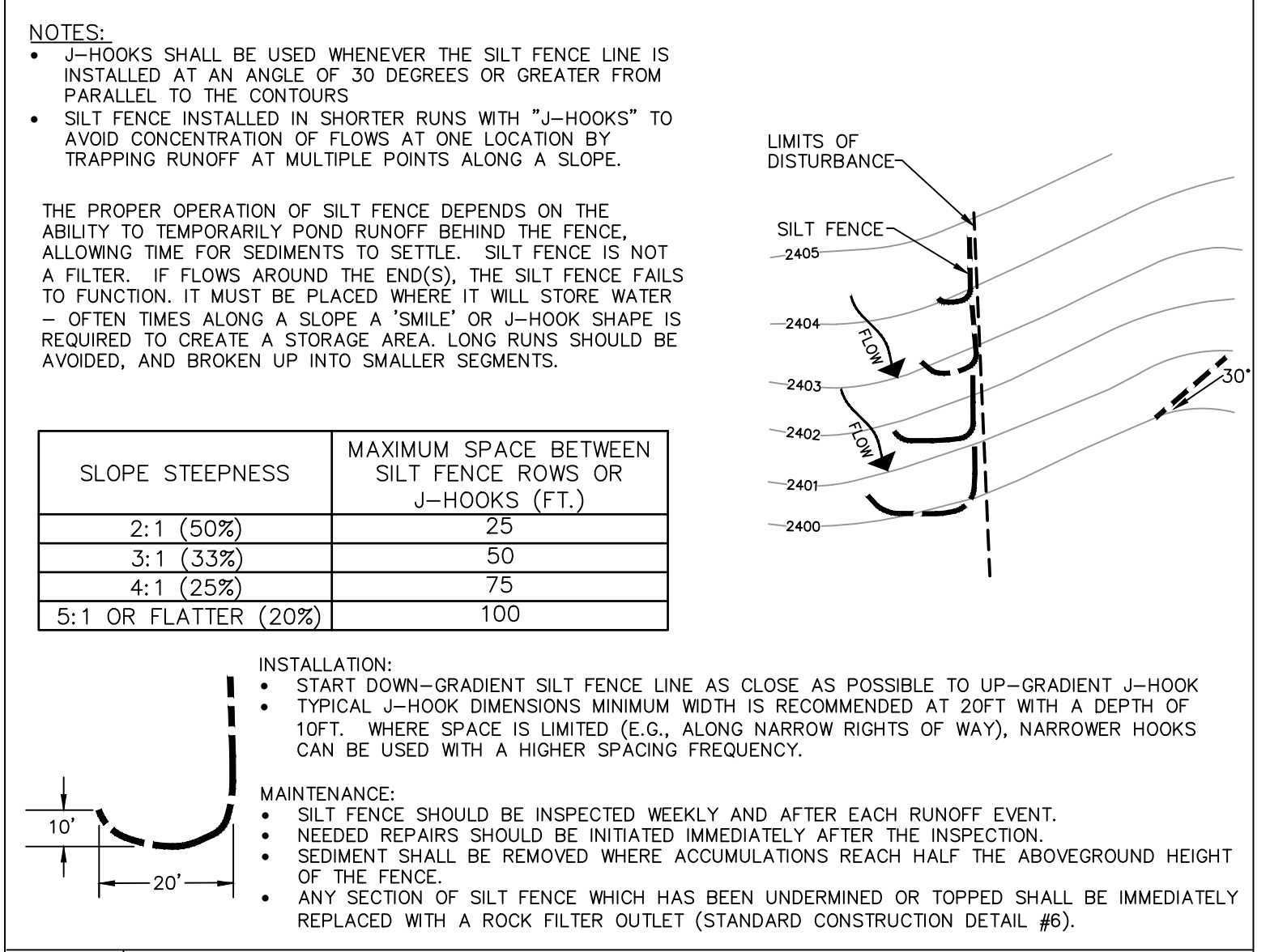
MAINTENANCE: CLEAN OUT AT 50% CAPACITY LIFE OF FENCING: 6-8 MONTHS DO NOT DISTURB TREE CONSERVATION AREAS SILT FENCE SHOULD NOT BE USED ALONG BELOW GRADED SLOPES GREATER THAN 10' IN HEIGHT.

**CITY OF RALEIGH**  
STANDARD DETAIL  
TPP-08

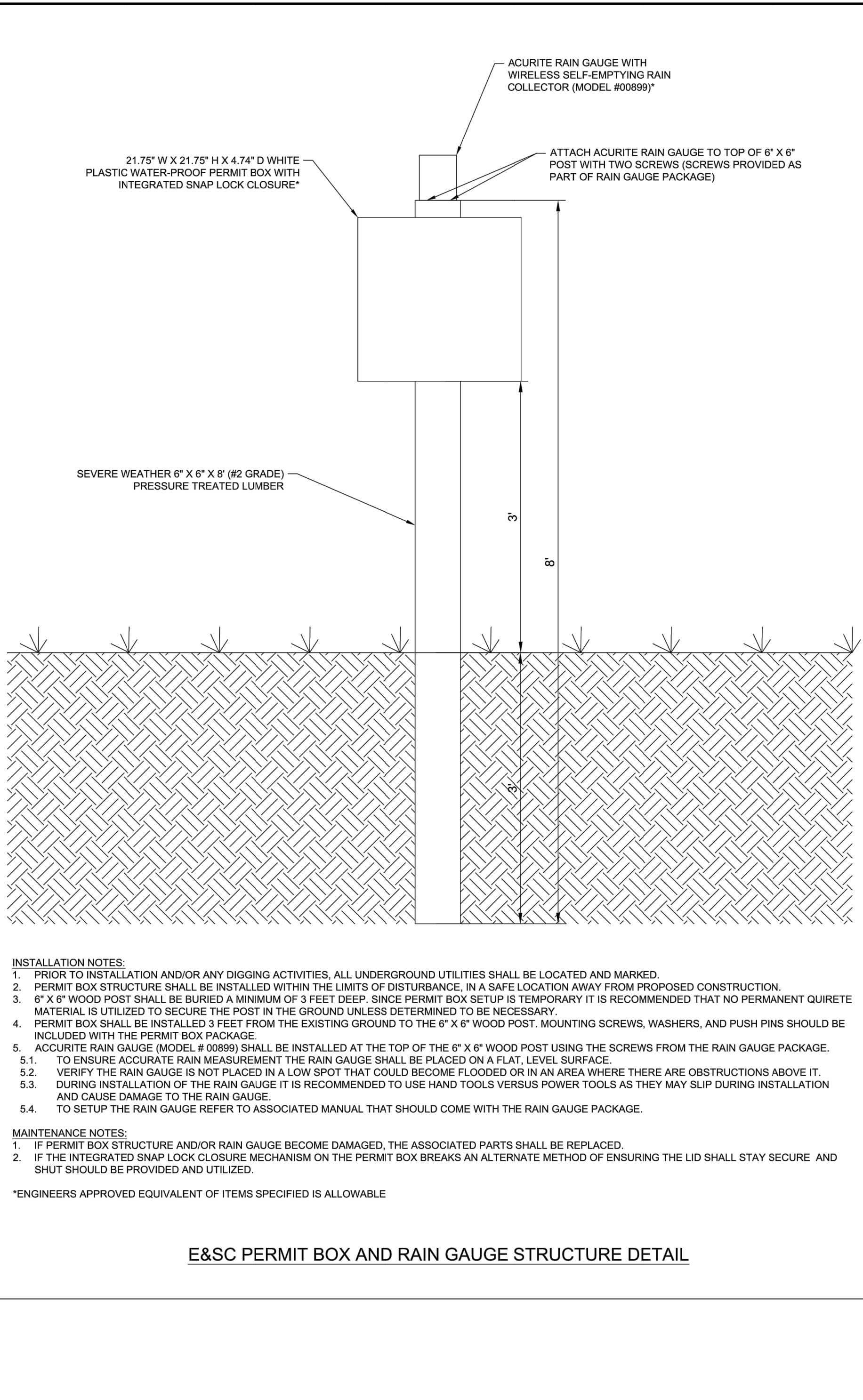
**NOTES:**

1. TREE PROTECTION FENCING MUST BE INSTALLED AT A MINIMUM RADIUS OF THE CRITICAL ROOT ZONE (SEE DETAIL TPP-02 FOR EXAMPLES).
2. THE TREE PROTECTION FENCING MUST REMAIN IN PLACE FOR THE DURATION OF THE PROJECT UNLESS OTHERWISE APPROVED BY URBAN FORESTRY STAFF.
3. APPROVED IMPACT PROTECTION DEVICES MUST BE REMOVED AFTER CONSTRUCTION WHEN APPLICABLE.
4. SIGNS SHALL BE PLACED AT 50' MAXIMUM INTERVALS. PLACE A SIGN AT EACH END OF LINEAR TREE PROTECTION AND 50' ON CENTER FOR THE REMAINDER.
5. FOR TREE PROTECTION AREAS LESS THAN 200' IN PERIMETER, PROVIDE NO LESS THAN ONE SIGN PER PROTECTED AREA.
6. ATTACH SIGNS SECURELY TO FENCE POSTS AND FABRIC.
7. ADDITIONAL SIGNS MAY BE REQUIRED BY CITY OF RALEIGH BASED ON ACTUAL FIELD CONDITIONS.
8. SIGNS ARE TO BE MADE OF DURABLE, WEATHERPROOF MATERIAL WITH LETTERS A MINIMUM OF 2 1/2" HIGH, CLEARLY LEGIBLE AND SPACED AS SHOWN.
9. FLOW SHALL NOT RUN PARALLEL WITH THE FENCE. END OF SILT FENCE NEEDS TO BE TURNED UPHILL.
10. SEE NC STATE DEQ PRACTICE STANDARDS & SPECIFICATIONS SEDIMENT FENCE SET FOR CONDITIONS WHERE APPLIES; PLANNING CONSIDERATIONS & DESIGN CRITERIA. (HOWEVER, FLOW SHALL NOT RUN PARALLEL WITH THE TOE OF THE FENCE.)

**CONTACT INFORMATION:**  
CITY OF RALEIGH PARKS, RECREATION AND CULTURAL RESOURCES DEPARTMENT  
URBAN FORESTER  
TREES@RALEIGHNC.GOV  
WWW.RALEIGHNC.GOV

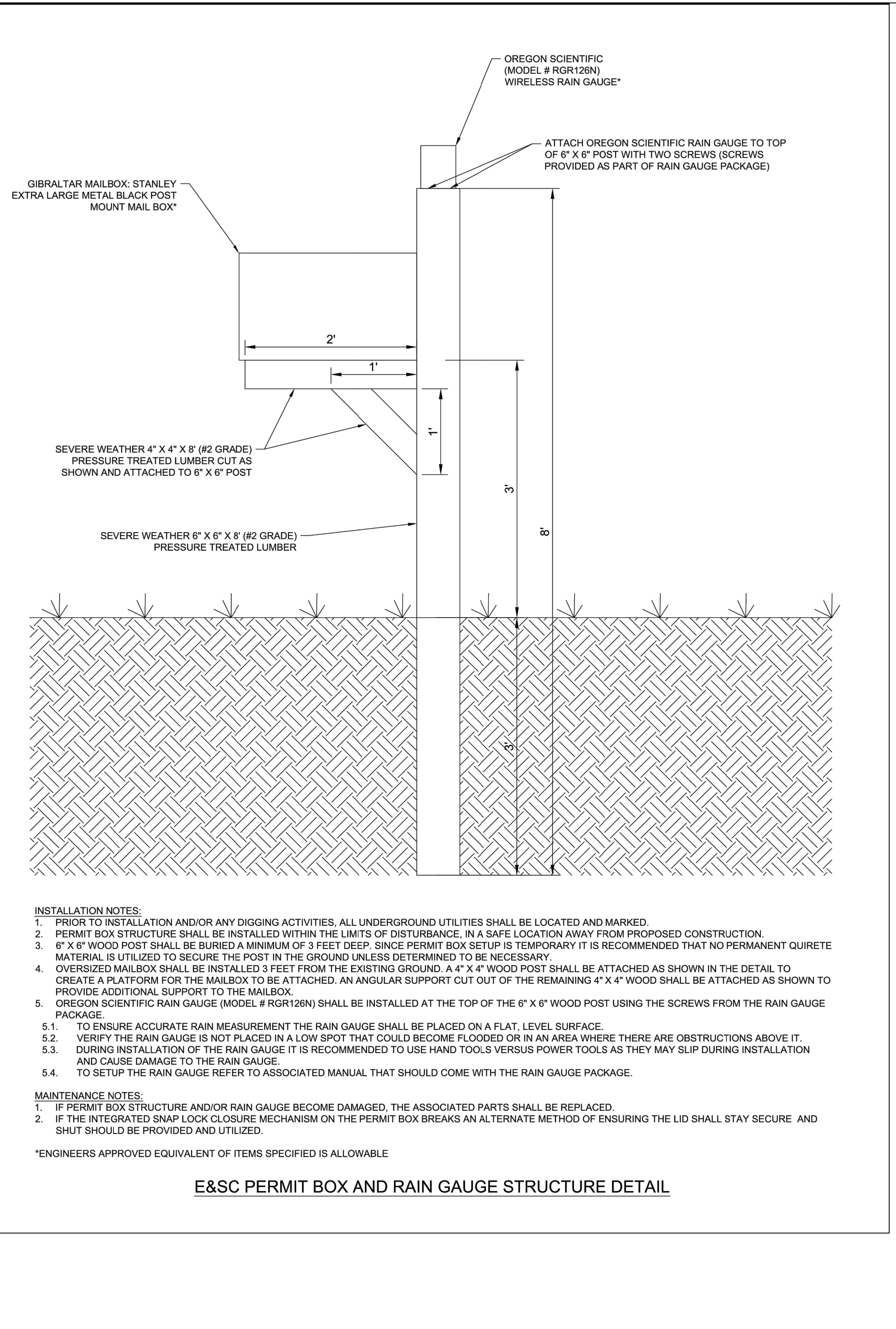


**SILT FENCE J-HOOKS DETAIL NTS**



- INSTALLATION NOTES:**
1. PRIOR TO INSTALLATION AND/OR ANY DIGGING ACTIVITIES, ALL UNDERGROUND UTILITIES SHALL BE LOCATED AND MARKED.
  2. PERMIT BOX STRUCTURE SHALL BE INSTALLED WITHIN THE LIMITS OF DISTURBANCE, IN A SAFE LOCATION AWAY FROM PROPOSED CONSTRUCTION.
  3. 6" X 6" WOOD POST SHALL BE BURIED A MINIMUM OF 3 FEET DEEP. SINCE PERMIT BOX SETUP IS TEMPORARY IT IS RECOMMENDED THAT NO PERMANENT QUIRETE MATERIAL IS UTILIZED TO SECURE THE POST IN THE GROUND UNLESS DETERMINED TO BE NECESSARY.
  4. PERMIT BOX SHALL BE INSTALLED 3 FEET FROM THE EXISTING GROUND TO THE 6" X 6" WOOD POST. MOUNTING SCREWS, WASHERS, AND PUSH PINS SHOULD BE INCLUDED WITH THE PERMIT BOX PACKAGE.
  5. ACURITE RAIN GAUGE (MODEL # 00899) SHALL BE INSTALLED AT THE TOP OF THE 6" X 6" WOOD POST USING THE SCREWS FROM THE RAIN GAUGE PACKAGE.
    - 5.1. TO ENSURE ACCURATE RAIN MEASUREMENT THE RAIN GAUGE SHALL BE PLACED ON A FLAT, LEVEL SURFACE.
    - 5.2. VERIFY THE RAIN GAUGE IS NOT PLACED IN A LOW SPOT THAT COULD BECOME FLOODED OR IN AN AREA WHERE THERE ARE OBSTRUCTIONS ABOVE IT.
    - 5.3. DURING INSTALLATION OF THE RAIN GAUGE IT IS RECOMMENDED TO USE HAND TOOLS VERSUS POWER TOOLS AS THEY MAY SLIP DURING INSTALLATION AND CAUSE DAMAGE TO THE RAIN GAUGE.
    - 5.4. TO SETUP THE RAIN GAUGE REFER TO ASSOCIATED MANUAL THAT SHOULD COME WITH THE RAIN GAUGE PACKAGE.
- MAINTENANCE NOTES:**
1. IF PERMIT BOX STRUCTURE AND/OR RAIN GAUGE BECOME DAMAGED, THE ASSOCIATED PARTS SHALL BE REPLACED.
  2. IF THE INTEGRATED SNAP LOCK CLOSURE MECHANISM ON THE PERMIT BOX BREAKS AN ALTERNATE METHOD OF ENSURING THE LID SHALL STAY SECURE AND SHUT SHOULD BE PROVIDED AND UTILIZED.
- \*ENGINEERS APPROVED EQUIVALENT OF ITEMS SPECIFIED IS ALLOWABLE

**E&S PERMIT BOX AND RAIN GAUGE STRUCTURE DETAIL**

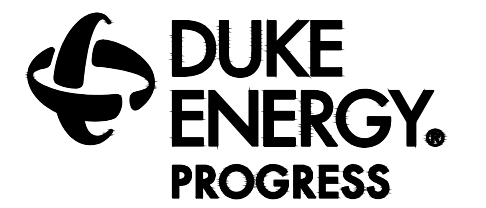


- INSTALLATION NOTES:**
1. PRIOR TO INSTALLATION AND/OR ANY DIGGING ACTIVITIES, ALL UNDERGROUND UTILITIES SHALL BE LOCATED AND MARKED.
  2. PERMIT BOX STRUCTURE SHALL BE INSTALLED WITHIN THE LIMITS OF DISTURBANCE, IN A SAFE LOCATION AWAY FROM PROPOSED CONSTRUCTION.
  3. 6" X 6" WOOD POST SHALL BE BURIED A MINIMUM OF 3 FEET DEEP. SINCE PERMIT BOX SETUP IS TEMPORARY IT IS RECOMMENDED THAT NO PERMANENT QUIRETE MATERIAL IS UTILIZED TO SECURE THE POST IN THE GROUND UNLESS DETERMINED TO BE NECESSARY.
  4. OVERSIZED MAILBOX SHALL BE INSTALLED 3 FEET FROM THE EXISTING GROUND. A 4" X 4" WOOD POST SHALL BE ATTACHED AS SHOWN IN THE DETAIL TO CREATE A PLATFORM FOR THE MAILBOX TO BE ATTACHED. AN ANGULAR SUPPORT CUT OUT OF THE REMAINING 4" X 4" WOOD SHALL BE ATTACHED AS SHOWN TO PROVIDE ADDITIONAL SUPPORT TO THE MAILBOX.
  5. OREGON SCIENTIFIC RAIN GAUGE (MODEL # RGR126N) SHALL BE INSTALLED AT THE TOP OF THE 6" X 6" WOOD POST USING THE SCREWS FROM THE RAIN GAUGE PACKAGE.
    - 5.1. TO ENSURE ACCURATE RAIN MEASUREMENT THE RAIN GAUGE SHALL BE PLACED ON A FLAT, LEVEL SURFACE.
    - 5.2. VERIFY THE RAIN GAUGE IS NOT PLACED IN A LOW SPOT THAT COULD BECOME FLOODED OR IN AN AREA WHERE THERE ARE OBSTRUCTIONS ABOVE IT.
    - 5.3. DURING INSTALLATION OF THE RAIN GAUGE IT IS RECOMMENDED TO USE HAND TOOLS VERSUS POWER TOOLS AS THEY MAY SLIP DURING INSTALLATION AND CAUSE DAMAGE TO THE RAIN GAUGE.
    - 5.4. TO SETUP THE RAIN GAUGE REFER TO ASSOCIATED MANUAL THAT SHOULD COME WITH THE RAIN GAUGE PACKAGE.
- MAINTENANCE NOTES:**
1. IF PERMIT BOX STRUCTURE AND/OR RAIN GAUGE BECOME DAMAGED, THE ASSOCIATED PARTS SHALL BE REPLACED.
  2. IF THE INTEGRATED SNAP LOCK CLOSURE MECHANISM ON THE PERMIT BOX BREAKS AN ALTERNATE METHOD OF ENSURING THE LID SHALL STAY SECURE AND SHUT SHOULD BE PROVIDED AND UTILIZED.
- \*ENGINEERS APPROVED EQUIVALENT OF ITEMS SPECIFIED IS ALLOWABLE

**E&S PERMIT BOX AND RAIN GAUGE STRUCTURE DETAIL**

**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION

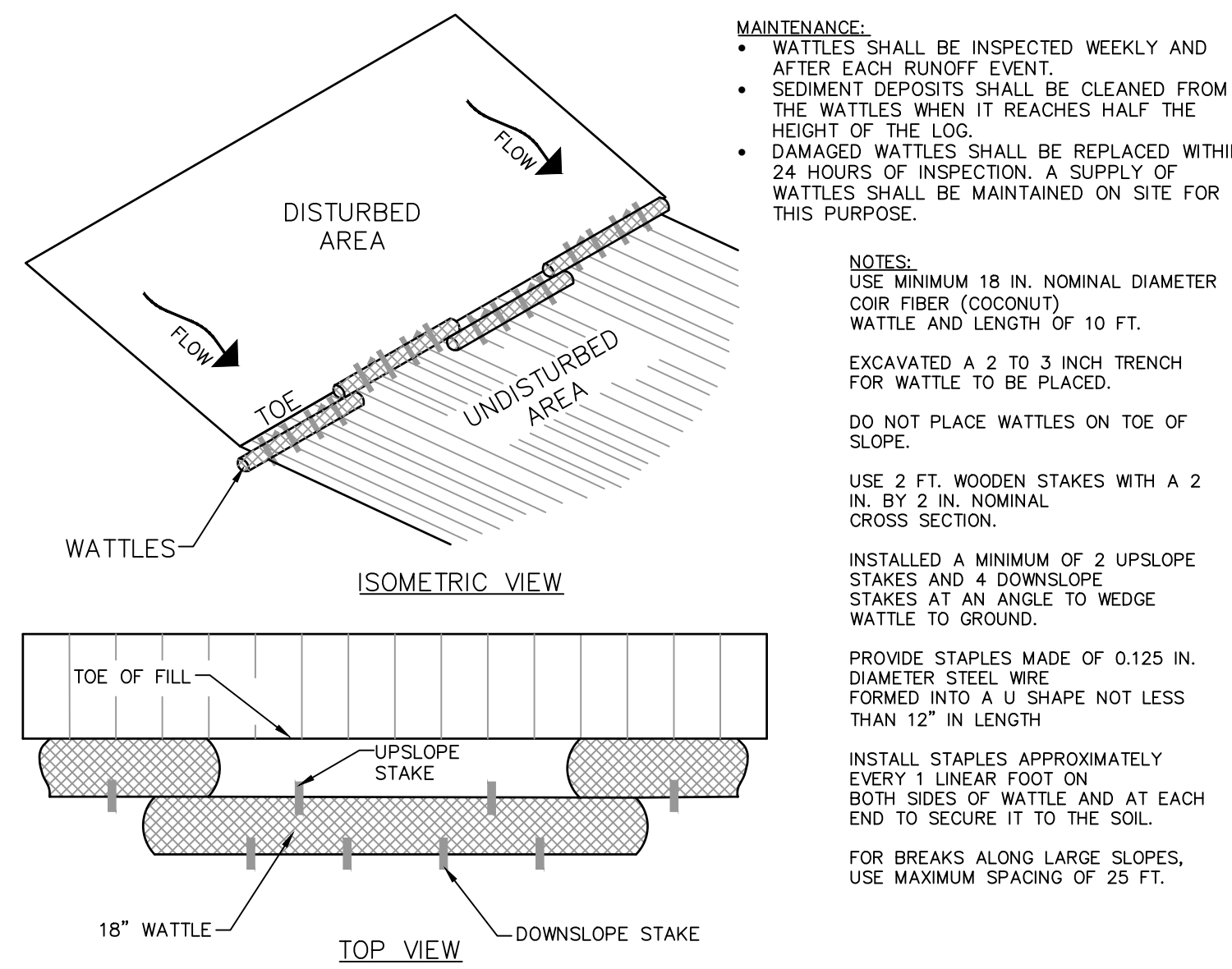
NO.	DATE	REVISION	BY	CK.	APP.
1	08/23/2023	CITY OF RALEIGH ADMIN SITE REVIEW	RAY	ARB	DAR



CARALEIGH SUBSTATION  
230KV - SUBSTATION  
ESC DETAILS 2

LOCATION CARALEIGH SUBSTATION  
SCALE AS NOTED SCALE RATIO 1:1  
DRAWN RAY CHK. ARB APP. DAR  
DATE 08/23/2023 DWG NO. RDC-83516 SHEET 18 OF 21



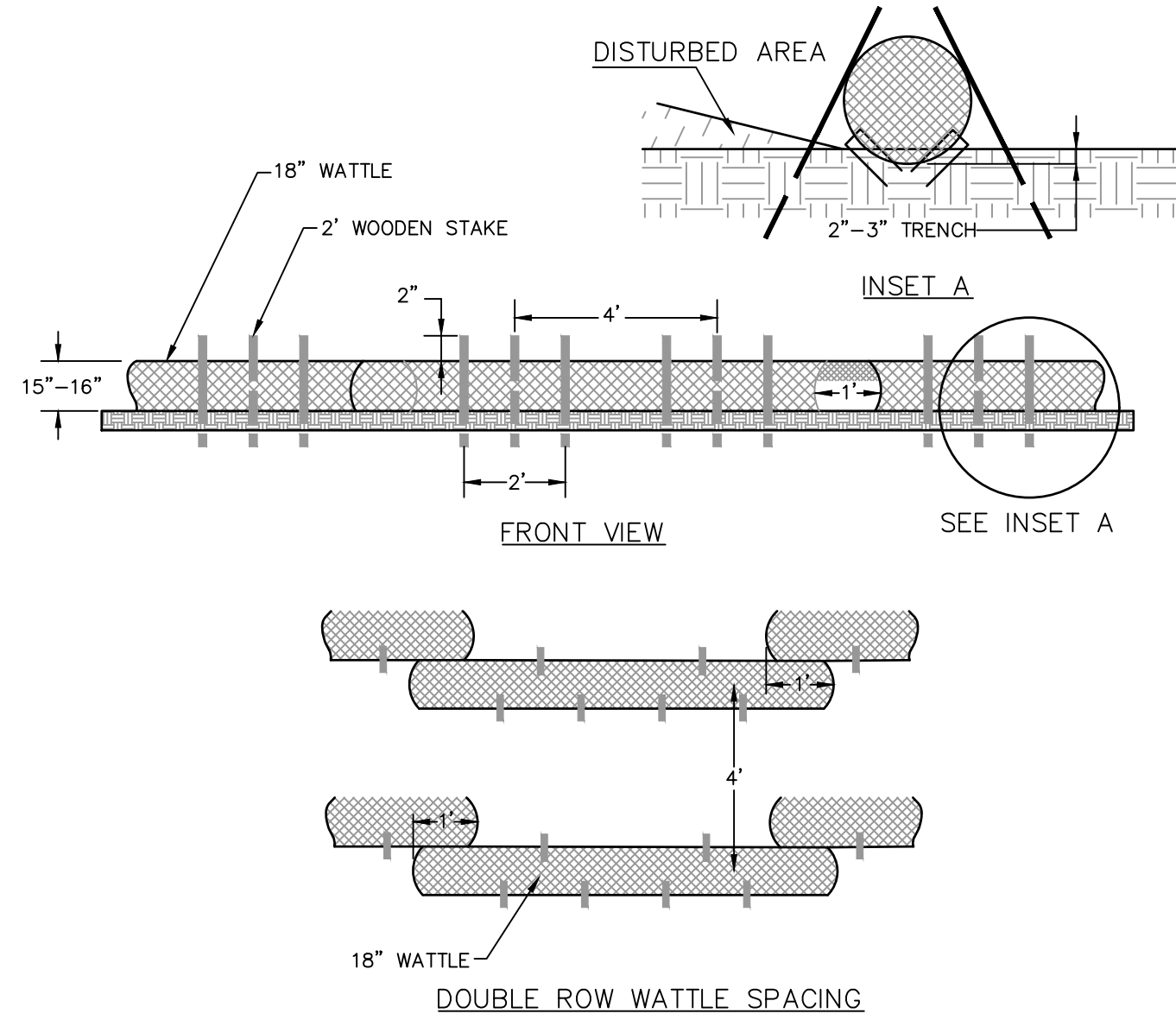


**MAINTENANCE:**

- WATTLES SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT.
- SEDIMENT DEPOSITS SHALL BE CLEANED FROM THE WATTLES WHEN IT REACHES HALF THE HEIGHT OF THE LOG.
- DAMAGED WATTLES SHALL BE REPLACED WITHIN 24 HOURS OF INSPECTION. A SUPPLY OF WATTLES SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE.

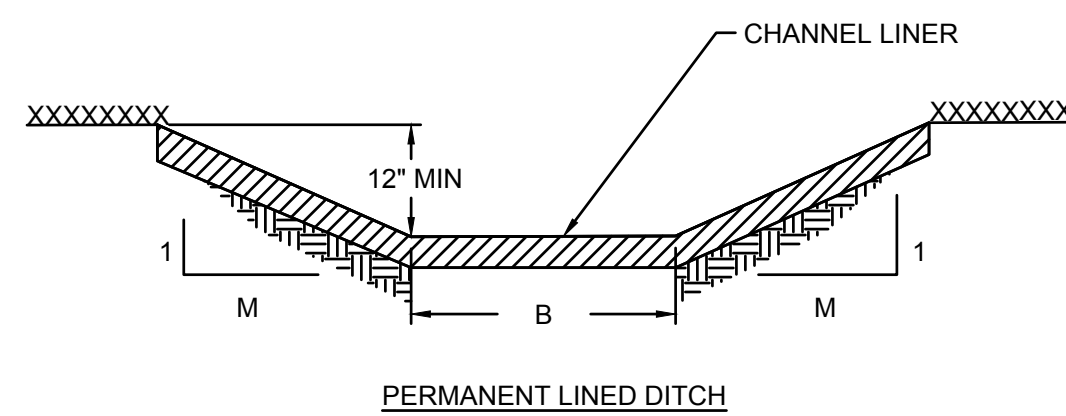
**NOTES:**

- USE MINIMUM 18 IN. NOMINAL DIAMETER COIR FIBER (COCONUT) WATTLE AND LENGTH OF 10 FT.
- EXCAVATE A 2 TO 3 INCH TRENCH FOR WATTLE TO BE PLACED.
- DO NOT PLACE WATTLES ON TOE OF SLOPE.
- USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
- INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO GROUND.
- PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.
- INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.
- FOR BREAKS ALONG LARGE SLOPES, USE MAXIMUM SPACING OF 25 FT.



WATTLES

NTS



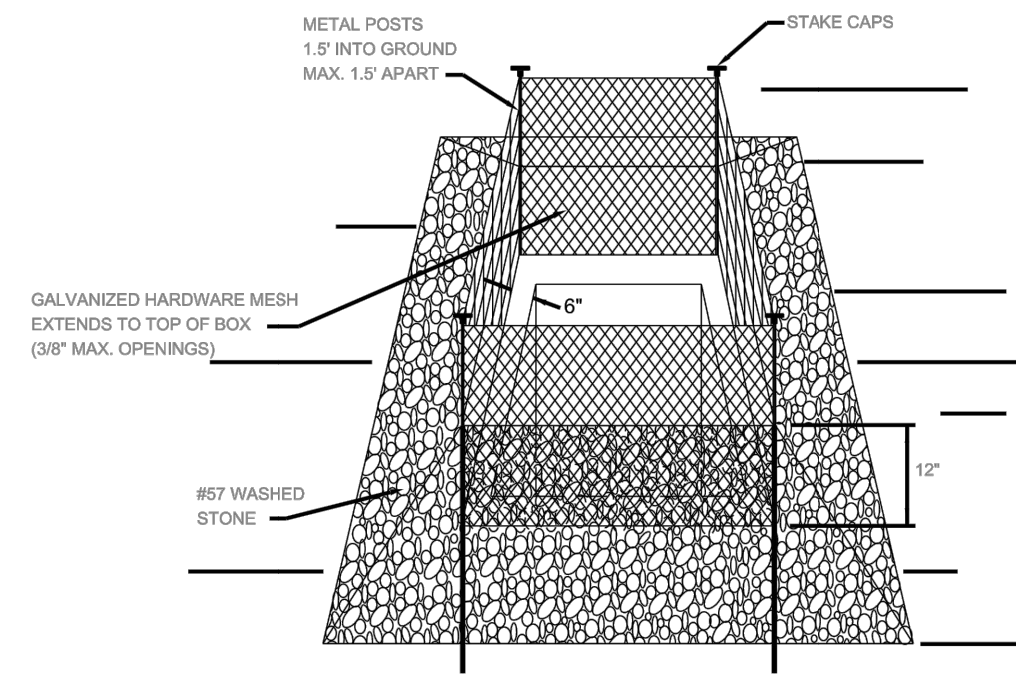
PERMANENT LINED DITCH

**CONSTRUCTION SPECIFICATIONS:**

- REMOVE ALL TREES, BRUSH, STUMPS, AND OTHER OBJECTIONABLE MATERIAL FROM THE FOUNDATION AREA AND DISPOSE OF PROPERLY.
- EXCAVATE THE CHANNEL, AND SHAPE IT TO NEAT LINES AND DIMENSIONS AS SHOWN ON THE PLANS.
- REMOVE AND PROPERLY DISPOSE OF ALL EXCESS SOIL SO THAT SURFACE WATER MAY ENTER THE CHANNEL FREELY.
- REFER TO THE TABLE FOR PERMANENT CHANNEL LINING TYPE. FOR RIP RAP LINED CHANNELS INSTALL TYPE 2 FABRIC. MIRAFI 140N OR EQUIVALENT, AND AN 18" LAYER OF CLASS B RIP RAP.

**PERMANENT DITCH TYPICAL SECTION**

NOT TO SCALE



**MAINTENANCE:**

- CONTRACTOR SHALL INSPECT THE GRAVEL FILTER EVERY 7 DAYS AND AFTER EACH SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL AND MAKE REPAIRS AS NEEDED.
- CONTRACTOR SHALL REMOVE SEDIMENT WHEN APPROXIMATELY 1/3 OF THE STORAGE CAPACITY HAS BEEN REACHED AS NECESSARY TO PROVIDE ABSOLUTE STORAGE VOLUME FOR SUBSEQUENT RAINS.
- WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN ADEQUATELY STABILIZED, THE CONTRACTOR SHALL REMOVE ALL MATERIALS AND UNSUITABLE SOIL. CONTRACTOR SHALL BRING THE DISTURBED AREA TO PROPER GRADE, THEN SMOOTH AND COMPACT IT AND APPROPRIATELY STABILIZE ALL BARE AREAS AROUND THE INLET.

**TYPICAL YARD INLET PROTECTION DETAIL (TEMPORARY)**  
NTS

**DUKE ENERGY PROGRESS**

SEDIMENT AND EROSION CONTROL DETAILS  
TRANSMISSION ENGINEERING  
INLET PROTECTION DETAIL

STANDARD DRAWING  
SCALE: 1" = 4'-0" SCALE RATIO: 1/48  
DRAWN: SFP CHK: BGT APP: SFP  
DATE: 05-06-13 DWG. NO. C1-65370 SH 1 OF 1

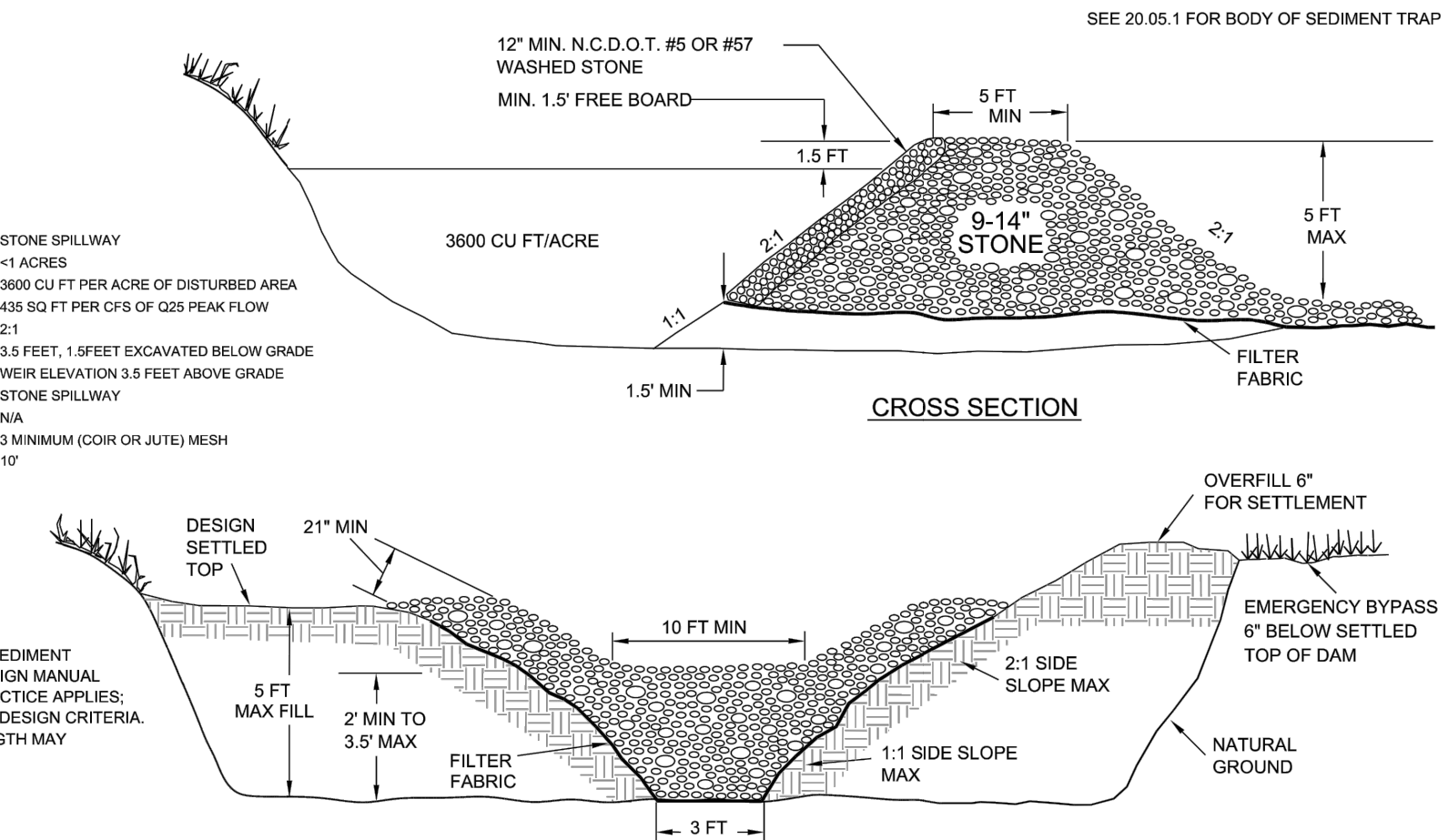
NO.	DATE	REVISION	BY	CHK.	APP.
1	2-11-2018	REVISIONS TO 'MAINTENANCE' NOTES	LDE	BGT	BGT
2	2-22-2016	REVISIONS	LDE	BGT	BGT
3	12-20-2015	REVISIONS	LDE	BGT	BGT
4	05-06-2013	INITIAL RELEASE	SFP	BGT	SFP

**DESIGN CRITERIA**

SUMMARY:

- PRIMARY SPILLWAY: STONE SPILLWAY
- MAXIMUM DRAINAGE AREA: +1 ACRES
- MINIMUM VOLUME: 3600 CU FT PER ACRE OF DISTURBED AREA
- MINIMUM SURFACE AREA: 435 SQ FT PER CFS OF Q25 PEAK FLOW
- MINIMUM L/W RATIO: 2:1
- MINIMUM DEPTH: 3.5 FEET, 1.5 FEET EXCAVATED BELOW GRADE
- MAXIMUM HEIGHT: WEIR ELEVATION 3.5 FEET ABOVE GRADE
- DOWATERING MECHANISM: STONE SPILLWAY
- MINIMUM DOWATERING TIME: N/A
- BAFFLES REQUIRED: 3 MINIMUM (COIR OR JUTE) MESH 1/2"
- MIN WEIR (COIR): 1/2"

NOTE: TRAPS LESS THAN 20" IN LENGTH MAY USE BAFFLES.



STRUCTURE LIFE LIMITED TO 2 YEARS

**MAINTENANCE:**

REMOVE SEDIMENT AND RESTORE TRAP TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE DESIGN DEPTH OF THE TRAP. PLACE THE SEDIMENT THAT IS REMOVED IN A DESIGNATED DISPOSAL AREA AND REPLACE THE CONTAMINATED PART OF THE GRAVEL FACING.

CHECK THE STRUCTURE FOR DAMAGE FROM EROSION OR PIPING. PERIODICALLY CHECK THE DEPTH OF THE SPILLWAY TO ENSURE IT IS A MINIMUM OF 1.5 FT BELOW THE LOW POINT OF THE EMBANKMENT. IMMEDIATELY FILL ANY SETTLEMENT OF THE EMBANKMENT TO SLIGHTLY ABOVE DESIGN GRADE.

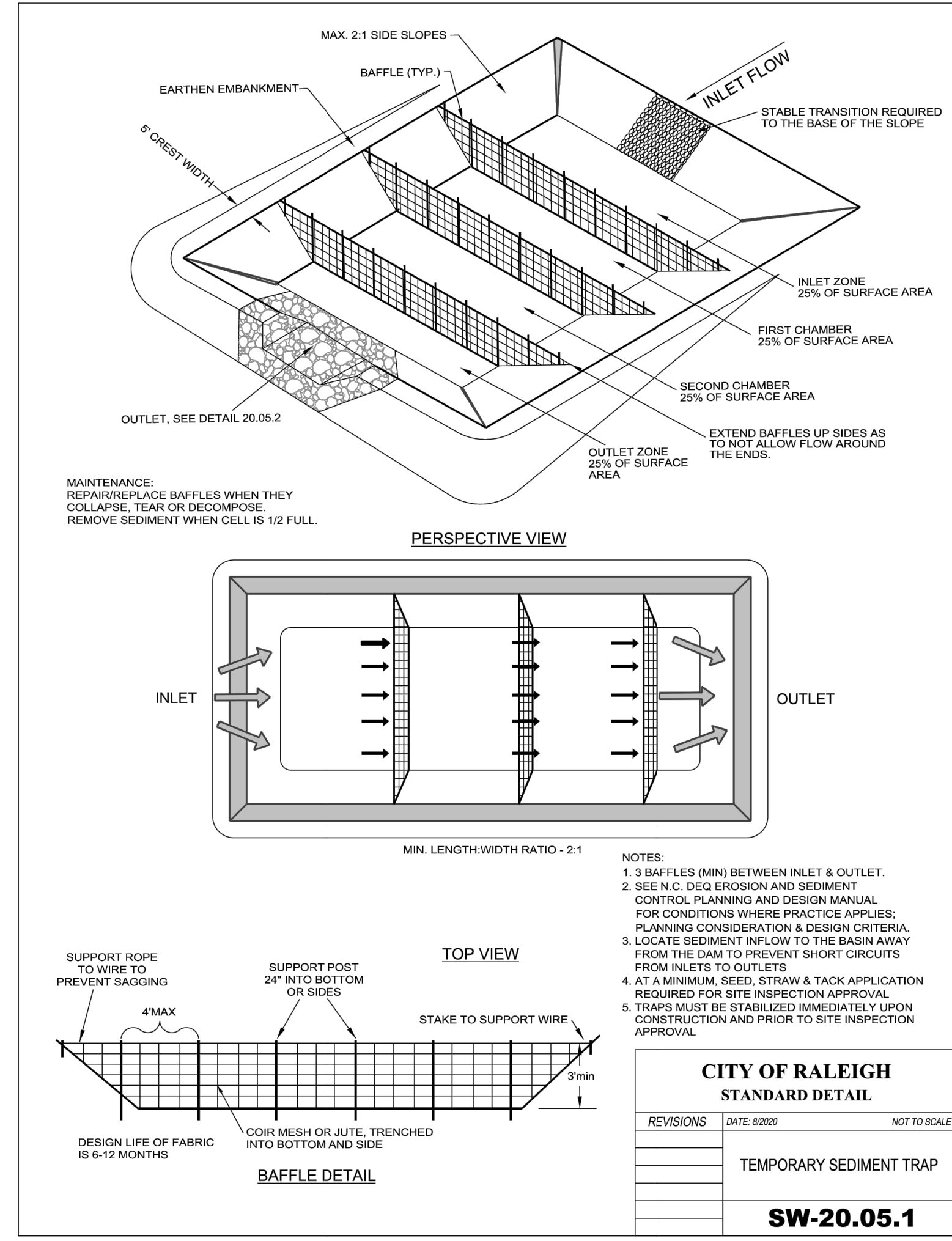
ANY RIP RAP DISPLACED FROM THE SPILLWAY MUST BE REPLACED IMMEDIATELY.

REVISIONS

CITY OF RALEIGH  
STANDARD DETAIL  
NOT TO SCALE

TEMPORARY SEDIMENT TRAP  
OUTLET DETAIL

SW-20.05.2



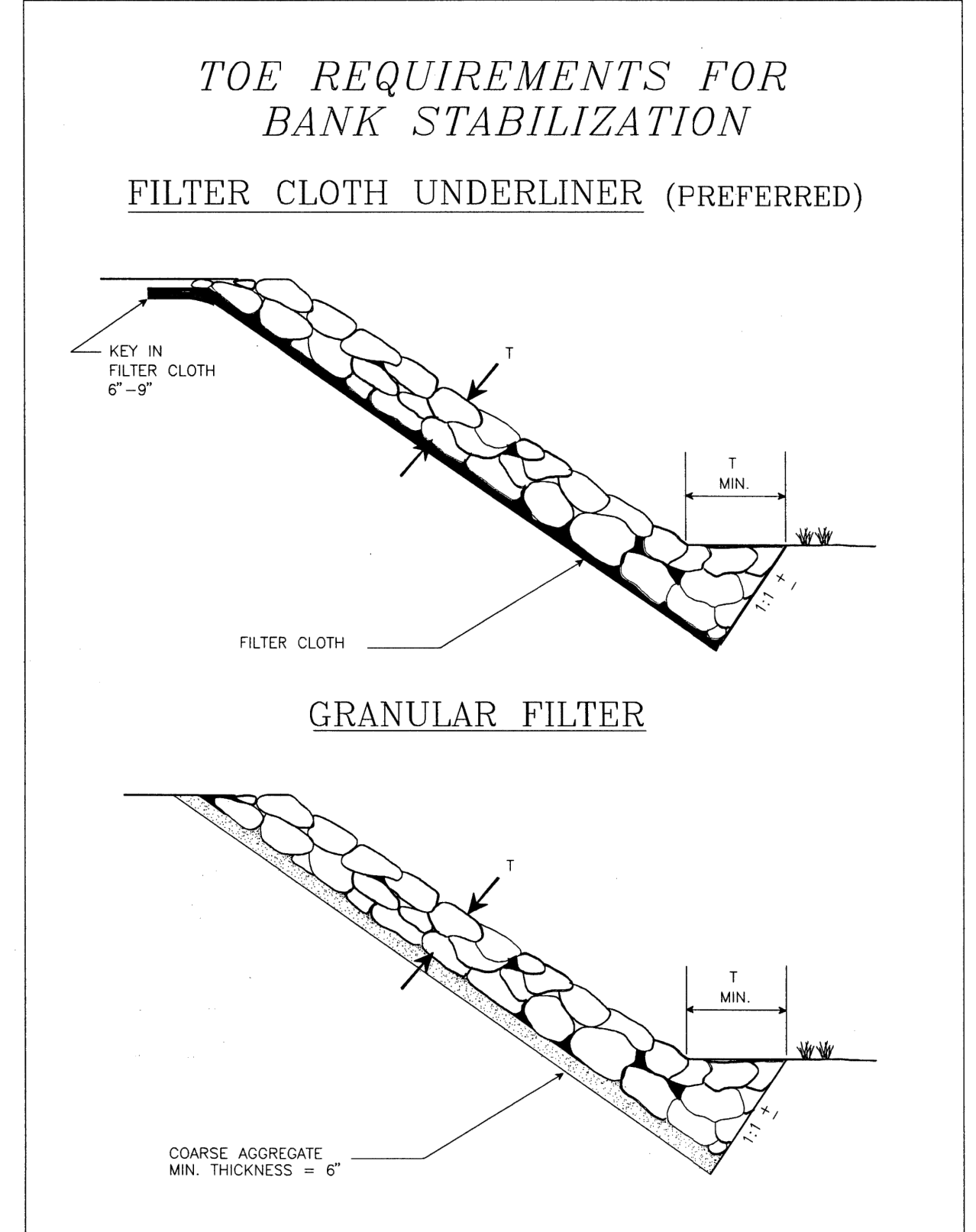
**NOTES:**

- 1.3 BAFFLES (MIN) BETWEEN INLET & OUTLET.
- SEE N.C. DEQ EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL FOR CONDITIONS WHERE PRACTICE APPLIES; PLANNING CONSIDERATION & DESIGN CRITERIA.
- LOCATE SEDIMENT INFLOW TO THE BASIN AWAY FROM THE DAM TO PREVENT SHORT CIRCUITS FROM INLETS TO OUTLETS
- AT A MINIMUM, SEED, STRAW & TACK APPLICATION REQUIRED FOR SITE INSPECTION APPROVAL.
- TRAPS MUST BE STABILIZED IMMEDIATELY UPON CONSTRUCTION AND PRIOR TO SITE INSPECTION APPROVAL.

CITY OF RALEIGH  
STANDARD DETAIL  
NOT TO SCALE

TEMPORARY SEDIMENT TRAP

SW-20.05.1

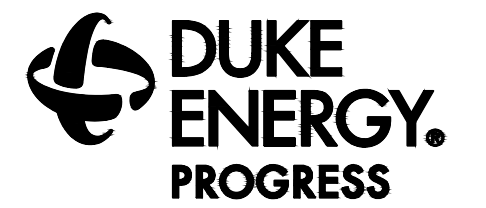


Source: Adapted from VDOT Drainage Manual Plate 3.19-1

III - 173

**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION

NO.	DATE	REVISION	BY	CHK.	APP.
1	08/23/2023	CITY OF RALEIGH ADMIN SITE REVIEW	RAY	ARB	DAR



CARALEIGH  
230KV - SUBSTATION  
ESC DETAILS 3

LOCATION: CARALEIGH SUBSTATION  
SCALE: AS NOTED SCALE RATIO: 1:1  
DRAWN: RAY CHK: ARB APP: DAR  
DATE: 08/23/2023 DWG. NO.: RDC-83516 SHEET: 19 OF 21



**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
<ul style="list-style-type: none"> <li>Temporary grass seed covered with straw or other mulches and tackifiers</li> <li>Hydroseeding</li> <li>Rolled erosion control products with or without temporary grass seed</li> <li>Appropriately applied straw or other mulch</li> <li>Plastic sheeting</li> </ul>	<ul style="list-style-type: none"> <li>Permanent grass seed covered with straw or other mulches and tackifiers</li> <li>Geotextile fabrics such as permanent soil reinforcement matting</li> <li>Hydroseeding</li> <li>Shrubs or other permanent plantings covered with mulch</li> <li>Uniform and evenly distributed ground cover sufficient to restrain erosion</li> <li>Structural methods such as concrete, asphalt or retaining walls</li> <li>Rolled erosion control products with grass seed</li> </ul>

**POLYACRYLAMIDES (PAMS) AND FLOCCULANTS**

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

**EQUIPMENT AND VEHICLE MAINTENANCE**

- Maintain vehicles and equipment to prevent discharge of fluids.
- Provide drip pans under any stored equipment.
- Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
- Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
- Remove leaking vehicles and construction equipment from service until the problem has been corrected.
- 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**

- Never bury or burn waste. Place litter and debris in approved waste containers.
- Provide a sufficient number and size of waste containers (e.g dumpster, trash receptacle) on site to contain construction and domestic wastes.
- Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- 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.
- Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
- Anchor all lightweight items in waste containers during times of high winds.
- Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
- Dispose waste off-site at an approved disposal facility.
- On business days, clean up and dispose of waste in designated waste containers.

**PAINT AND OTHER LIQUID WASTE**

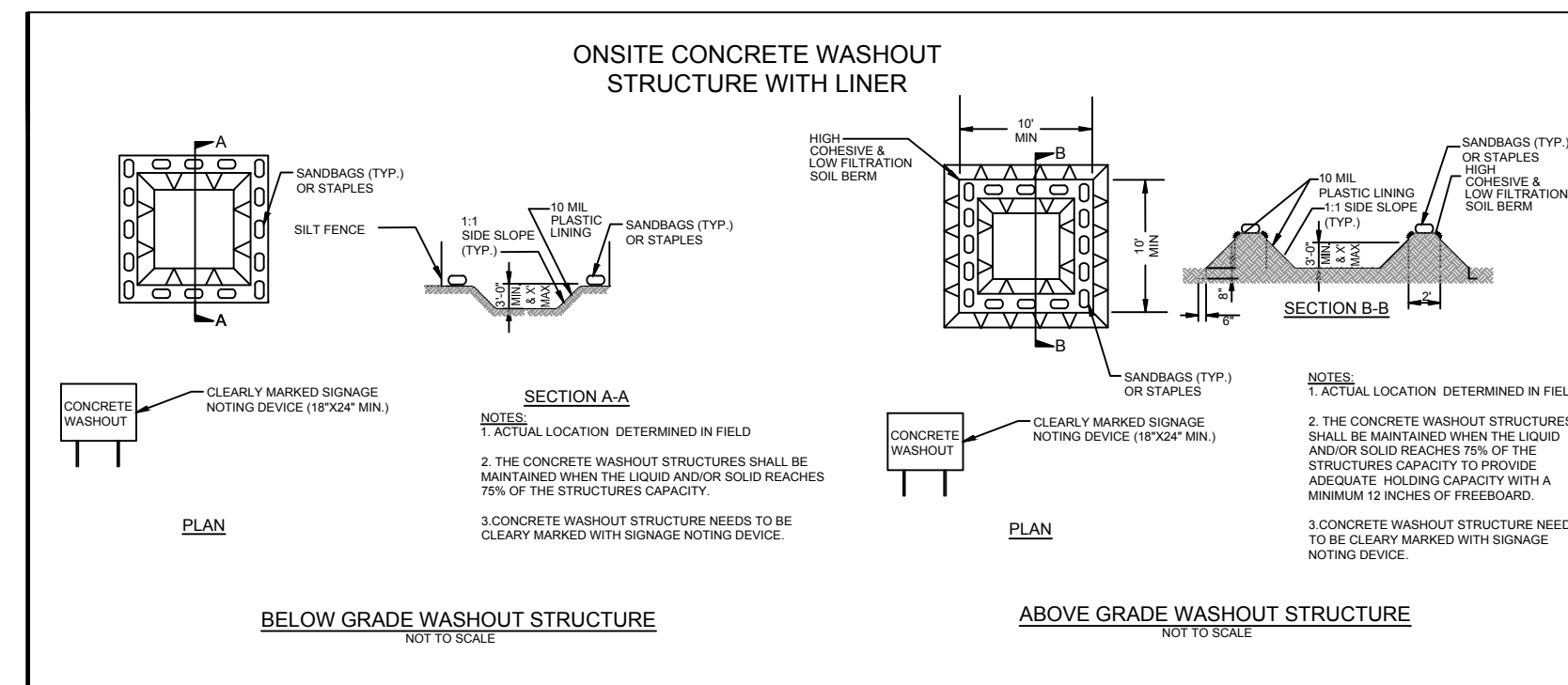
- Do not dump paint and other liquid waste into storm drains, streams or wetlands.
- Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- Contain liquid wastes in a controlled area.
- Containment must be labeled,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

**PORTABLE TOILETS**

- 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.
- Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
- 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**

- 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.
- Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
- Provide stable stone access point when feasible.
- 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.



**CONCRETE WASHOUTS**

- Do not discharge concrete or cement slurry from the site.
- Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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**

- Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
- 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.
- 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.
- Do not stockpile these materials onsite.

**HAZARDOUS AND TOXIC WASTE**

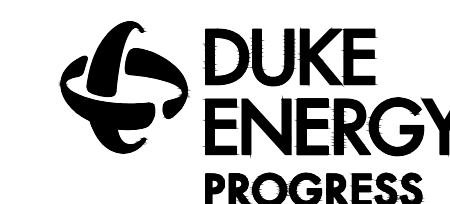
- Create designated hazardous waste collection areas on-site.
- Place hazardous waste containers under cover or in secondary containment.
- Do not store hazardous chemicals, drums or bagged materials directly on the ground.

**NCG01 GROUND STABILIZATION AND MATERIALS HANDLING**

**EFFECTIVE: 04/01/19**

**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION

NO.	DATE	REVISION	BY	CK.	APP.
1	08/23/2023	CITY OF RALEIGH ADMIN SITE REVIEW	RAY	ARB	DAR



CARALEIGH  
230KV - SUBSTATION  
NCG01 DETAILS 1

LOCATION CARALEIGH SUBSTATION  
SCALE AS NOTED SCALE RATIO 1:1  
DRAWN RAY CHK. ARB APP. DAR  
DATE 08/23/2023 DWG NO. RDC-83516 SHEET20 OF 21



**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 gauge 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 unattended 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 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 of this permit.
(6) Ground stabilization measures	After each phase of grading	1. The phase of grading (installation of perimeter E&SC measures, clearing and grubbing, installation of storm drainage facilities, completion of all land-disturbing activity, construction or redevelopment, permanent ground cover). 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 documented in the manner described:

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**

In addition to the E&SC Plan documents above, the following items shall be kept on the site and available for agency 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 30 days. 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.
- (c) All data used to complete the Notice of Intent and older 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).
- (a) 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.
- (b) Anticipated bypasses and unanticipated bypasses.
- (c) 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 Division's Emergency Response personnel at (800) 662-7956, (800) 858-0368 or (919) 733-3300.

Occurrence	Reporting Timeframes (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	<ul style="list-style-type: none"> <li>• <b>Within 24 hours</b>, an oral or electronic notification.</li> <li>• <b>Within 7 calendar days</b>, 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.</li> <li>• If the stream is named on the <a href="#">NC 303(d) list</a> 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.</li> </ul>
(b) Oil spills and release of hazardous substances per Item 1(b)-(c) above	<ul style="list-style-type: none"> <li>• <b>Within 24 hours</b>, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release.</li> </ul>
(c) Anticipated bypasses [40 CFR 122.41(m)(3)]	<ul style="list-style-type: none"> <li>• <b>A report at least ten days before the date of the bypass, if possible.</b> The report shall include an evaluation of the anticipated quality and effect of the bypass.</li> </ul>
(d) Unanticipated bypasses [40 CFR 122.41(m)(3)]	<ul style="list-style-type: none"> <li>• <b>Within 24 hours</b>, an oral or electronic notification.</li> <li>• <b>Within 7 calendar days</b>, a report that includes an evaluation of the quality and effect of the bypass.</li> </ul>
(e) Noncompliance with the conditions of this permit that may endanger health or the environment [40 CFR 122.41(l)(7)]	<ul style="list-style-type: none"> <li>• <b>Within 24 hours</b>, an oral or electronic notification.</li> <li>• <b>Within 7 calendar days</b>, 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).</li> <li>• Division staff may waive the requirement for a written report on a case-by-case basis.</li> </ul>

**NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING**

**EFFECTIVE: 04/01/19**



CARALEIGH  
230KV - SUBSTATION  
NCG01 DETAILS 2

LOCATION CARALEIGH SUBSTATION  
SCALE AS NOTED SCALE RATIO 1:1  
DRAWN RAY CHK. ARB APP. DAR  
DATE 08/23/2023 DWG NO. RDC-83516 SHEET 21 OF 21

**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION

NO.	DATE	REVISION	BY	CK.	APP.
1	08/23/2023	CITY OF RALEIGH ADMIN SITE REVIEW	RAY	ARB	DAR