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CIVIL ENGINEER  
THE WOOTEN COMPANY  
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WWW.THEWOOTENCOMPANY.COM

## REGISTRATION



CLIENT

DecuSigned by:  
Ana Wadsworth

3/19/2025



## FACILITIES DESIGN AND CONSTRUCTION

WAKE COUNTY OFFICE BUILDING  
11TH FLOOR  
RALEIGH, NC 27602

BLUE JAY POINT  
COUNTY PARK

3200 PLEASANT UNION  
CHURCH ROAD

## KEY MAP

[illegible]

ISSUE:

100% CONSTRUCTION DOCS

PROJECT NO:

DATE: MARCH 21, 202

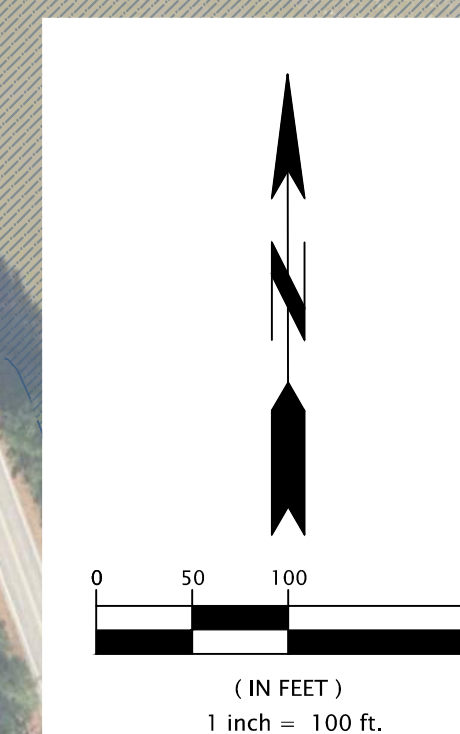
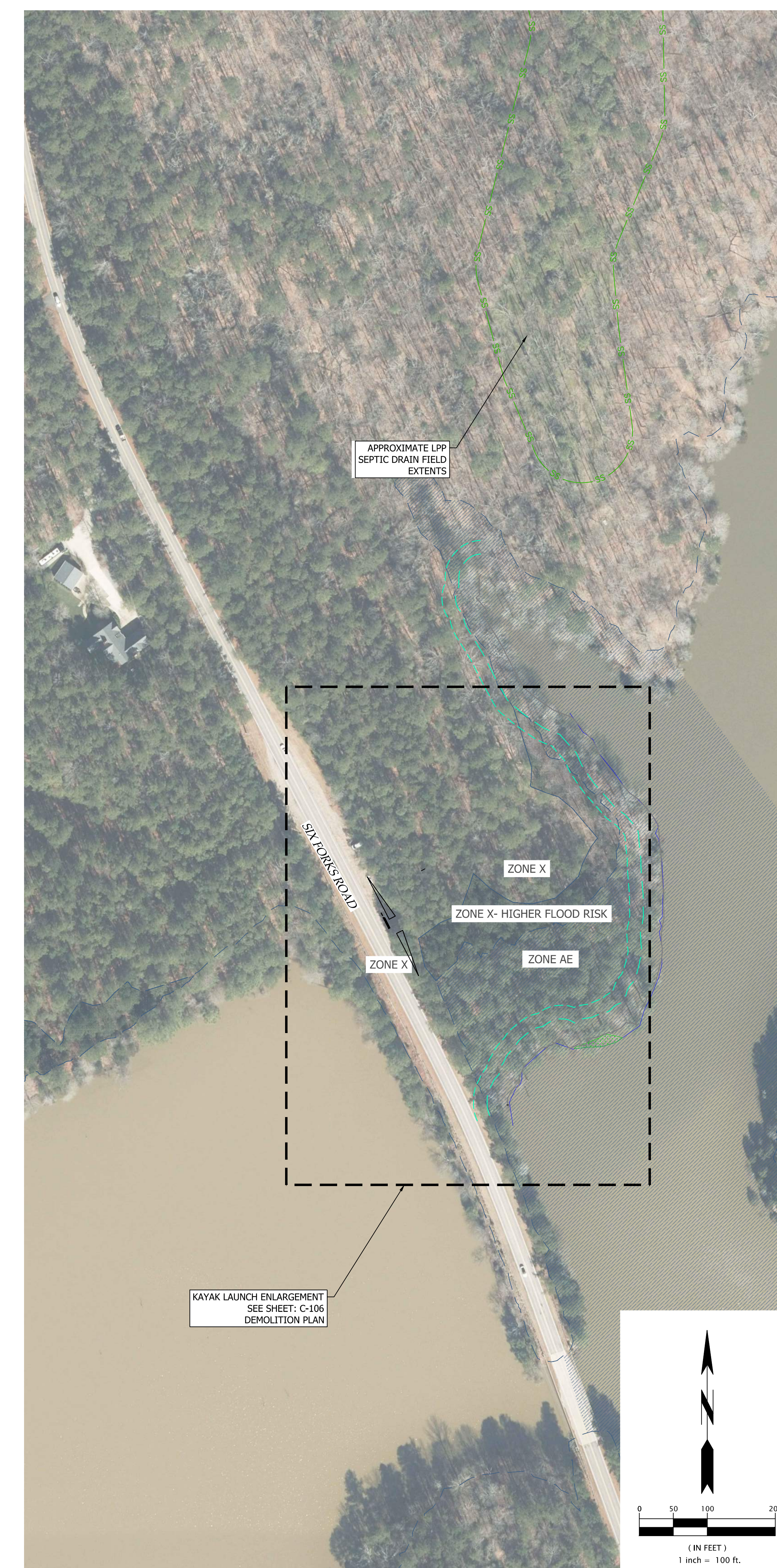
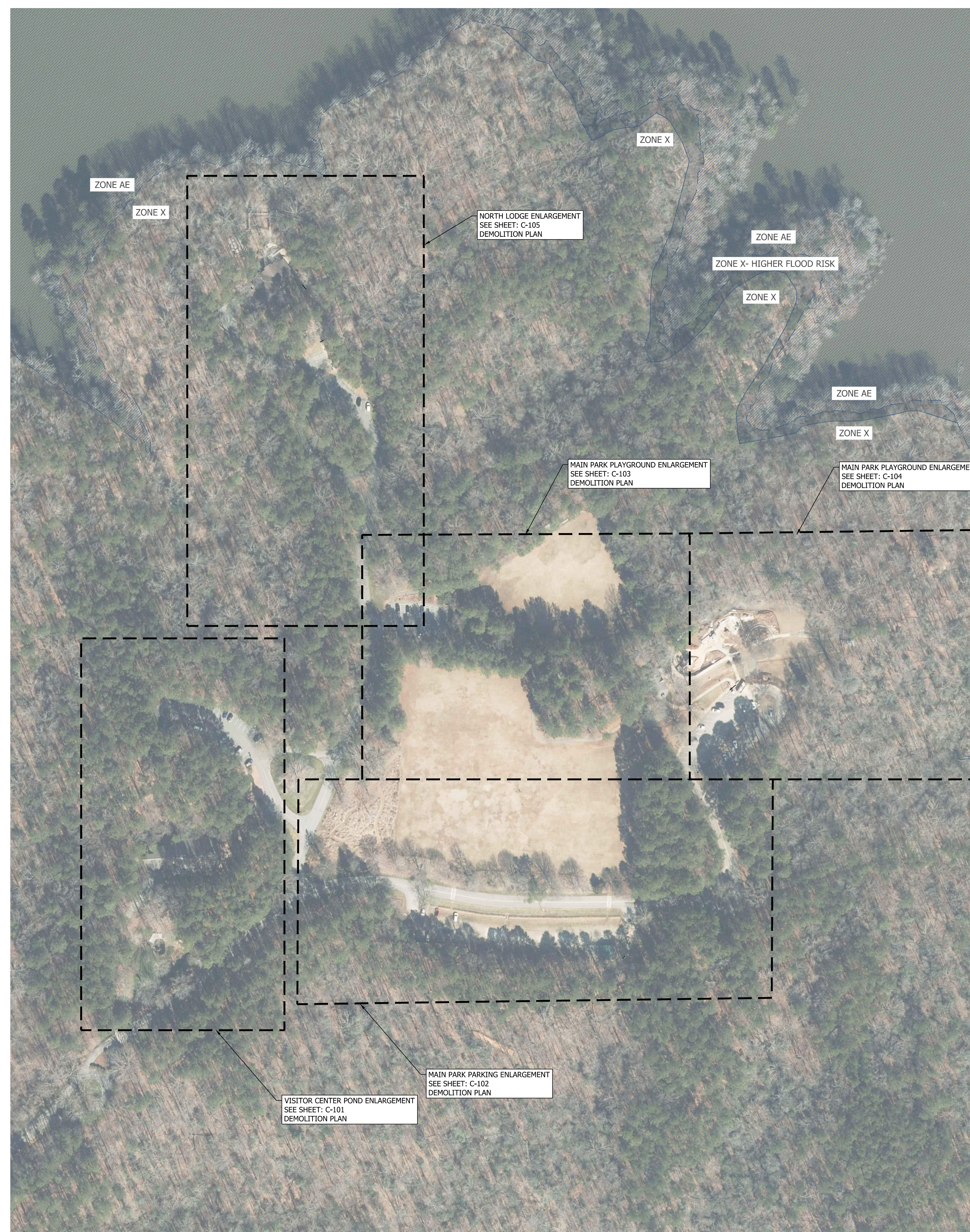
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CHECKED: AMV

SHEET TITLE:

## OVERALL EXISTING CONDITIONS KEY

C-100





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11TH FLOOR  
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**BLUE JAY POINT  
COUNTY PARK**

**3200 PLEASANT UNION  
CHURCH ROAD**

KEY MAP

NO.	REVISION	DATE
1	RESUBMISSION- SITE PLAN	11/08/2024

ISSUE:

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PROJECT NO:

DATE: MARCH 21, 2024

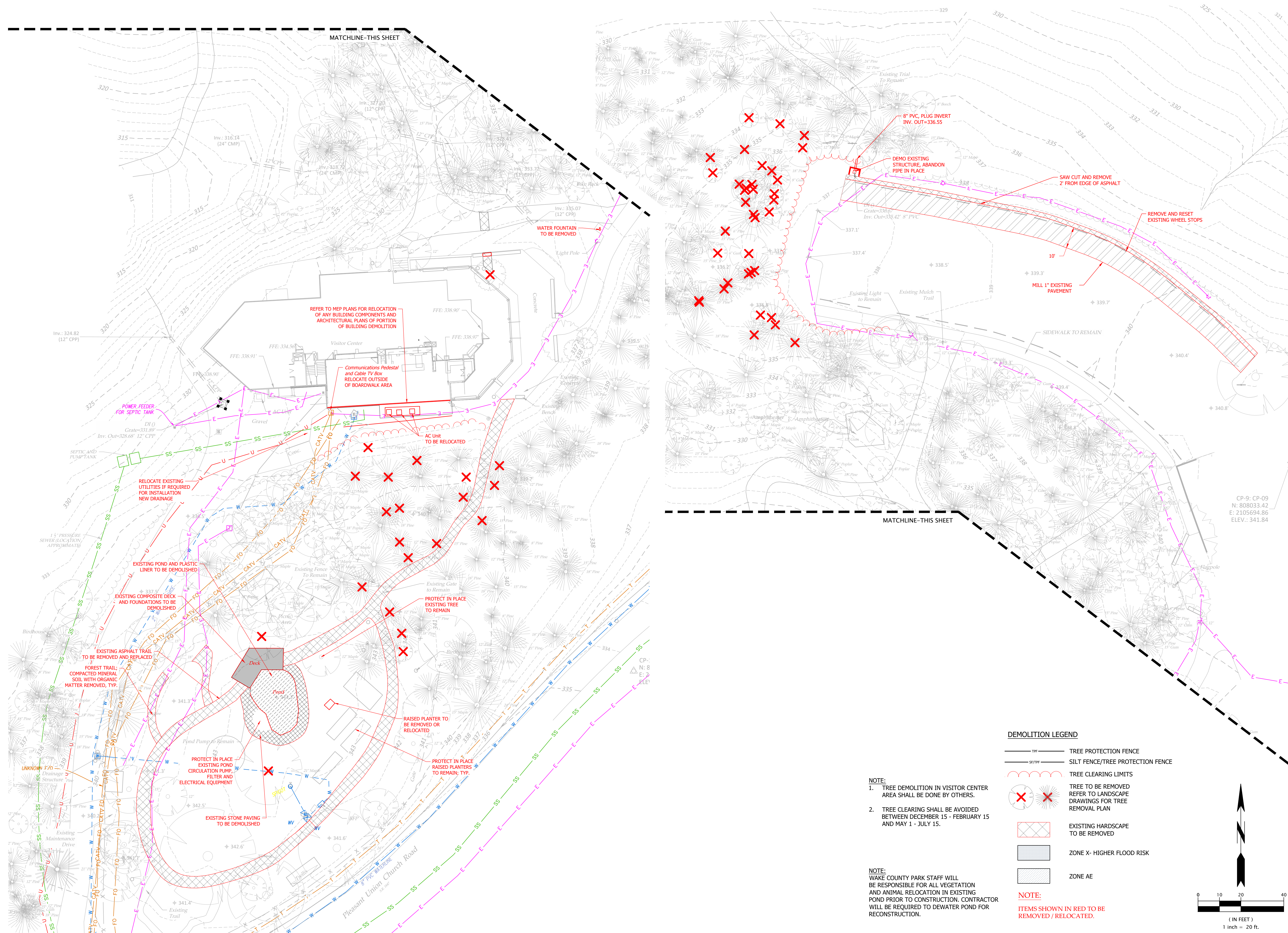
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SHEET TITLE:

**DEMOLITION PLAN  
VISITOR'S CENTER**

**C-101**



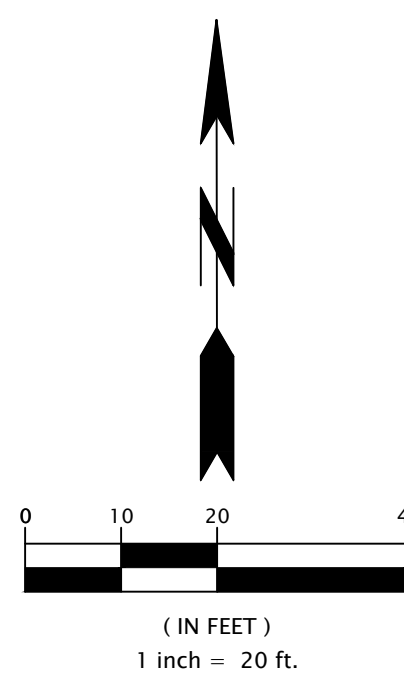
- NOTE:  
1. TREE DEMOLITION IN VISITOR CENTER AREA SHALL BE DONE BY OTHERS.  
2. TREE CLEARING SHALL BE AVOIDED BETWEEN DECEMBER 15 - FEBRUARY 15 AND MAY 1 - JULY 15.

NOTE:  
WAKE COUNTY PARK STAFF WILL BE RESPONSIBLE FOR ALL VEGETATION AND ANIMAL RELOCATION IN EXISTING POND PRIOR TO CONSTRUCTION. CONTRACTOR WILL BE REQUIRED TO DEWATER POND FOR RECONSTRUCTION.

DEMOLITION LEGEND

- TREE PROTECTION FENCE
- SILT FENCE/TREE PROTECTION FENCE
- TREE CLEARING LIMITS
- TREE TO BE REMOVED  
REFER TO LANDSCAPE DRAWINGS FOR TREE REMOVAL PLAN
- EXISTING HARDSCAPE TO BE REMOVED
- ZONE X- HIGHER FLOOD RISK
- ZONE AE

NOTE:  
ITEMS SHOWN IN RED TO BE REMOVED / RELOCATED.



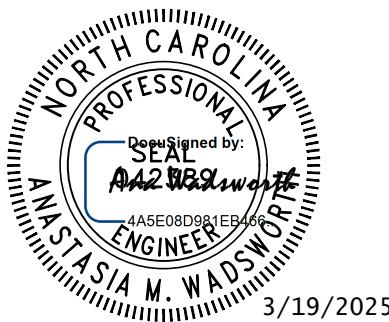


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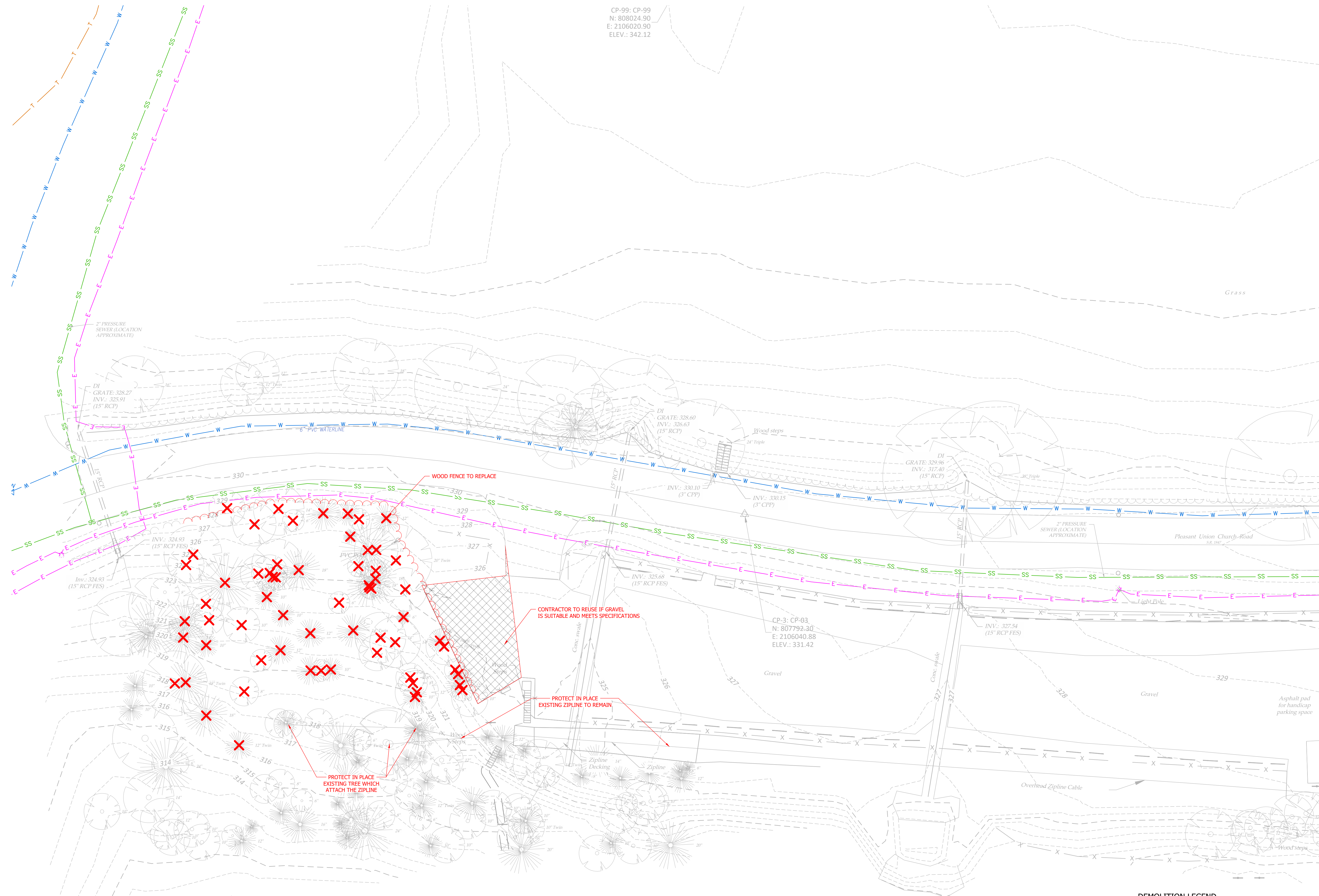
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SHEET TITLE:

**DEMOLITION PLAN MAIN  
PARK PARKING**

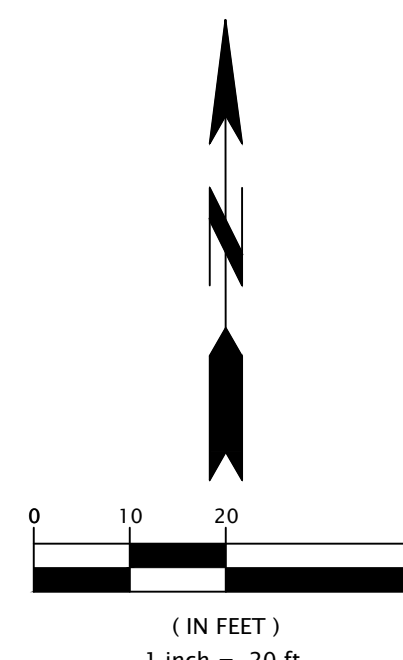
**C-102**



DEMOLITION LEGEND

- TPF TREE PROTECTION FENCE
- STPF SILT FENCE/TREE PROTECTION FENCE
- TREE CLEARING LIMITS
- TREE TO BE REMOVED  
REFER TO LANDSCAPE  
DRAWINGS FOR TREE  
REMOVAL PLAN
- EXISTING HARDSCAPE  
TO BE REMOVED
- ZONE X- HIGHER FLOOD RISK
- ZONE AE

NOTE:  
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CHW:THR

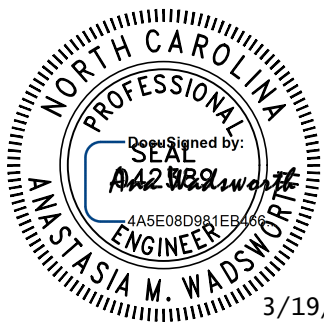


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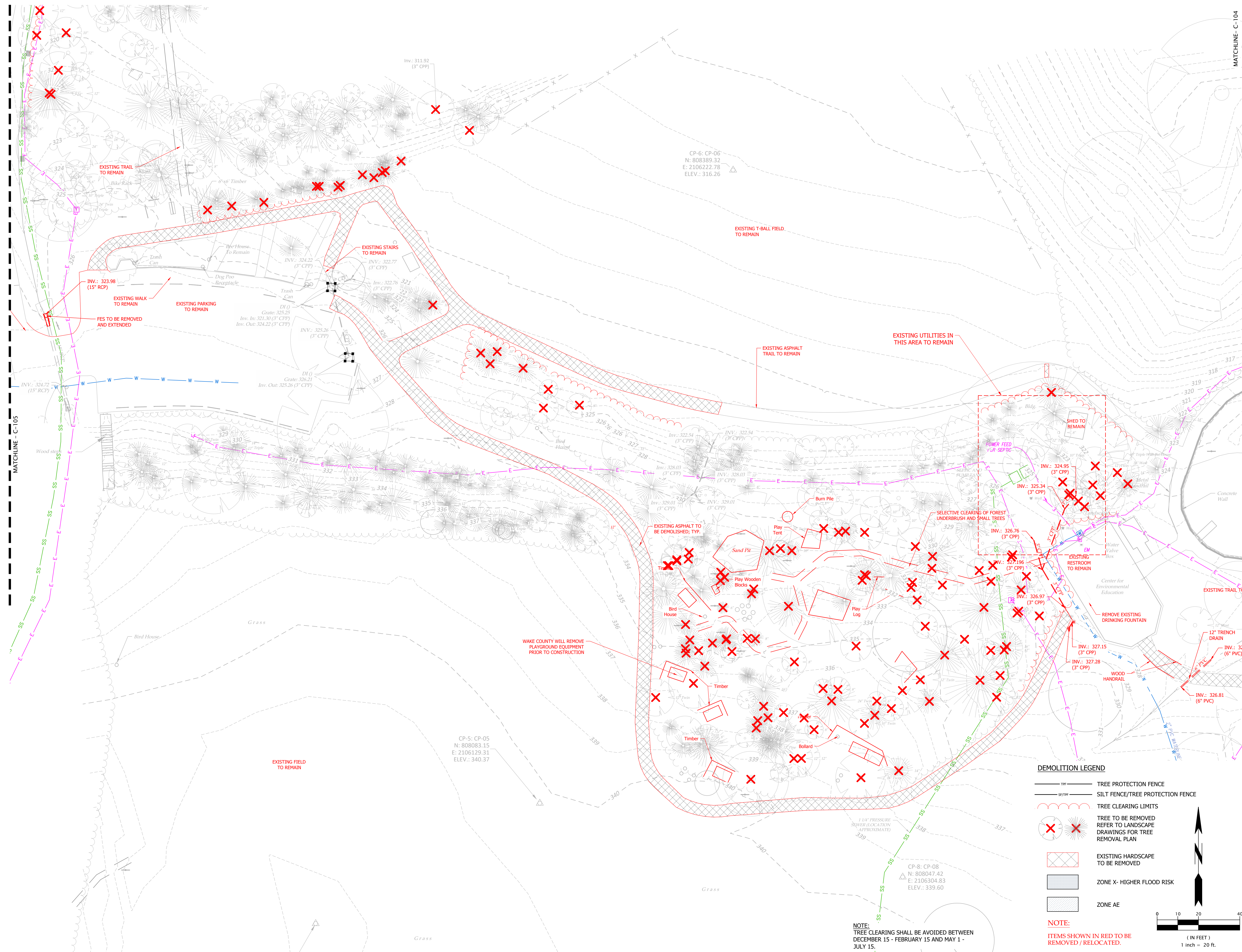
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SHEET TITLE:

**DEMOLITION PLAN  
PLAYGROUND**

**C-103**





NOTE:  
TREE CLEARING SHALL BE AVOIDED BETWEEN  
DECEMBER 15 - FEBRUARY 15 AND MAY 1 -  
JULY 15



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11TH FLOOR  
RALEIGH, NC 27602

**BLUE JAY POINT  
COUNTY PARK**

**3200 PLEASANT UNION  
CHURCH ROAD**

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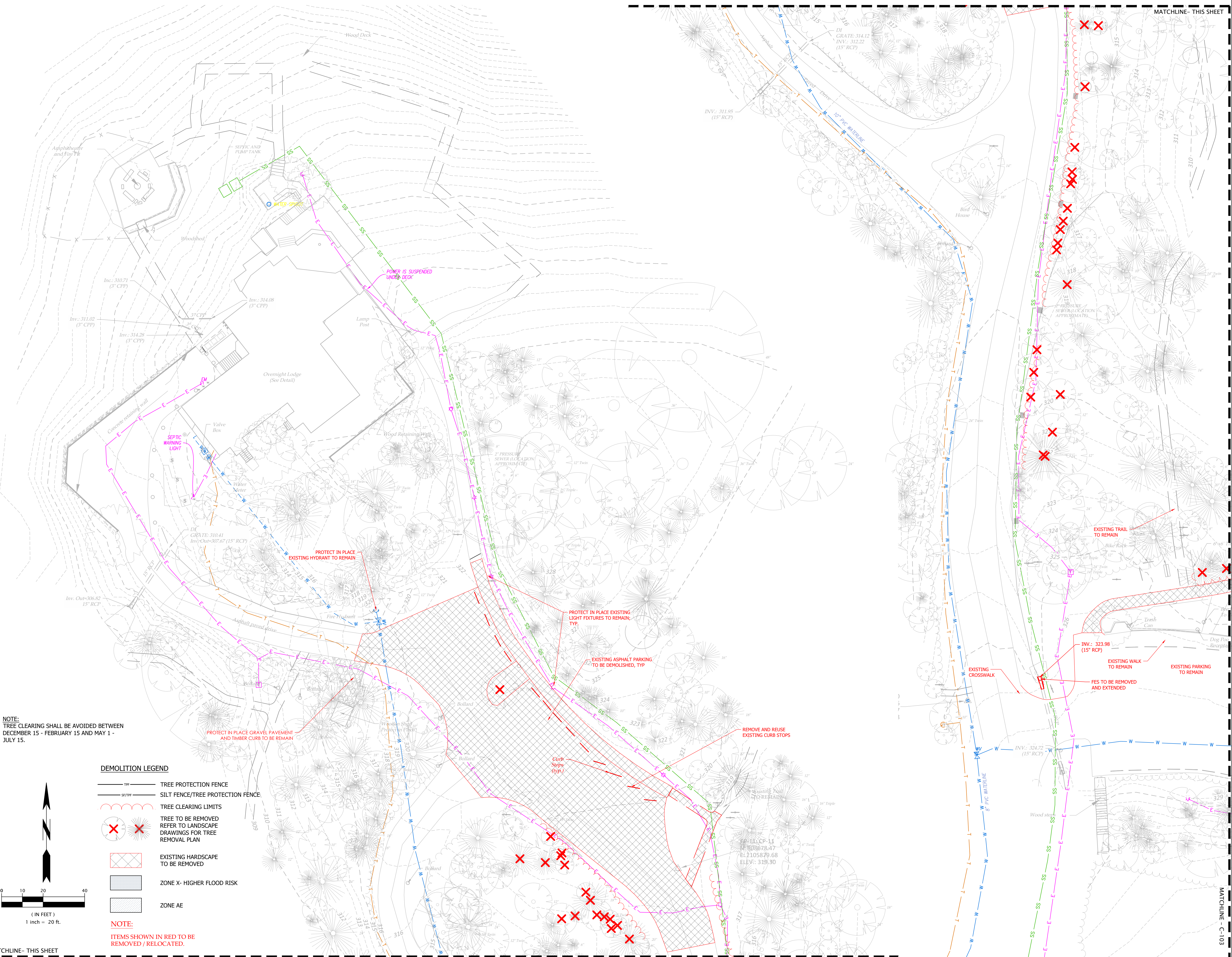
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SHEET TITLE:

**DEMOLITION PLAN PARK  
LODGE**

**C-105**



NOTE:  
TREE CLEARING SHALL BE AVOIDED BETWEEN  
DECEMBER 15 - FEBRUARY 15 AND MAY 1 -  
JULY 15.

DEMOLITION LEGEND

- TYP TREE PROTECTION FENCE
- WTYP SILT FENCE/TREE PROTECTION FENCE
- Tree Clearing Limits
- Tree to be removed  
Refer to landscape  
drawings for tree  
removal plan
- Existing hardscape  
to be removed
- Zone X- Higher Flood Risk
- Zone AE

NOTE:  
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DATE: MARCH 21, 2024

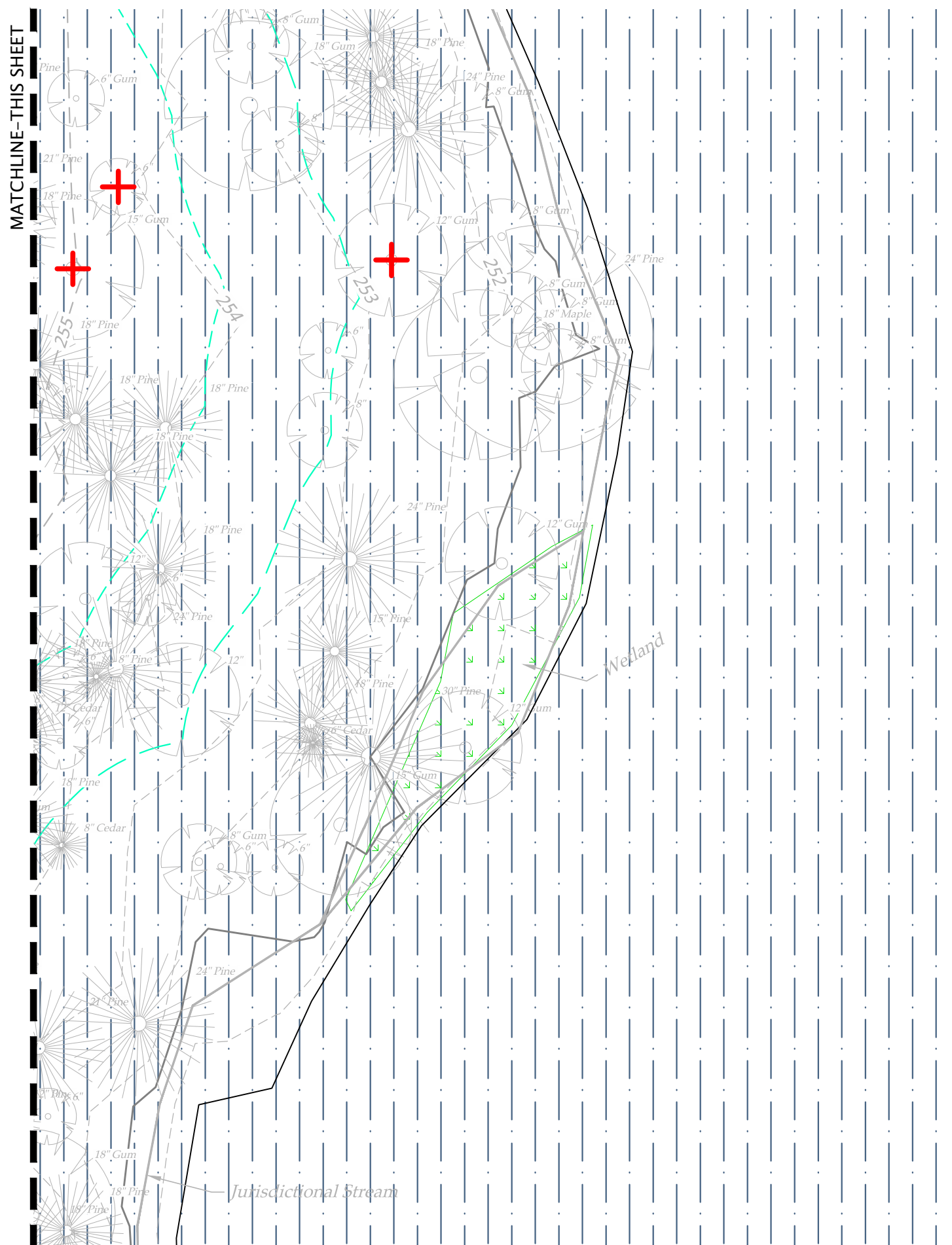
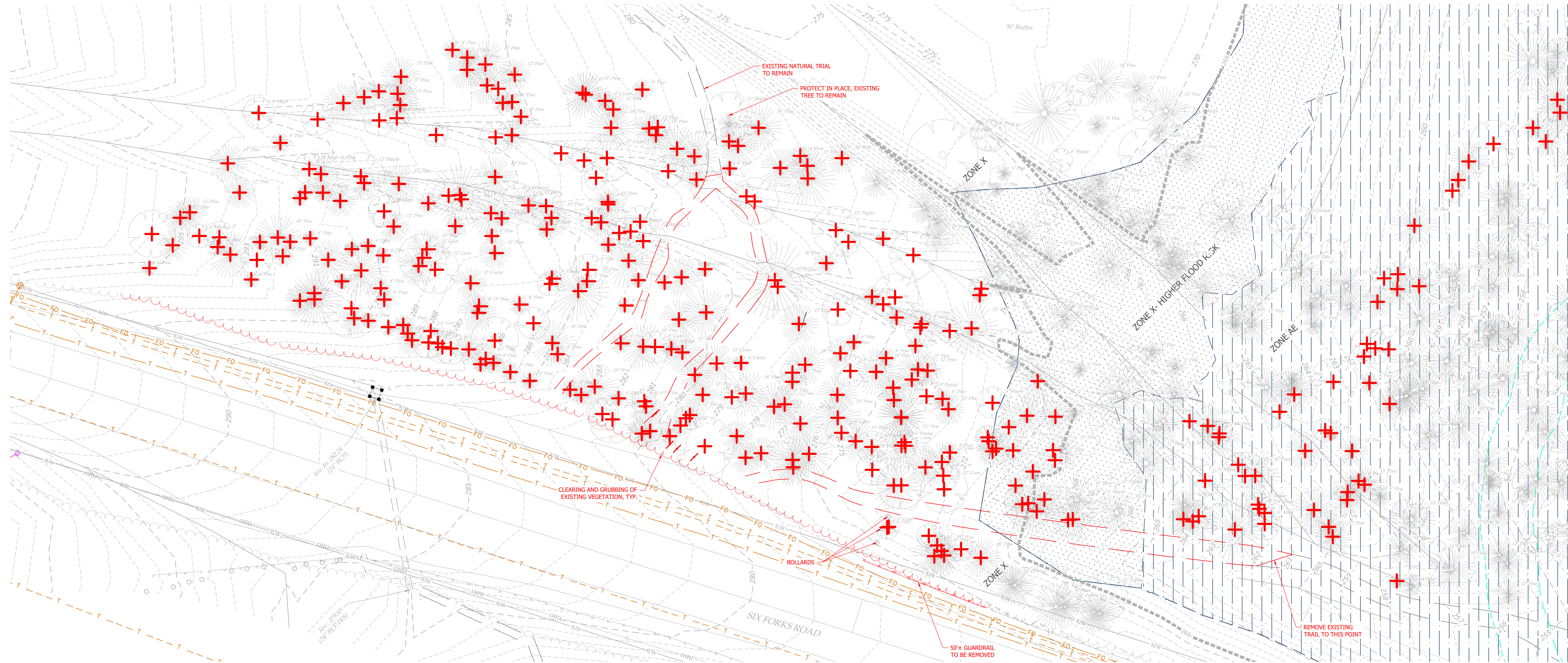
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SHEET TITLE:

**DEMOLITION PLAN  
KAYAK LAUNCH**

**C-106**



NOTE:  
TREE CLEARING SHALL BE AVOIDED BETWEEN  
DECEMBER 15 - FEBRUARY 15 AND MAY 1 -  
JULY 15.

DEMOLITION LEGEND

- TYP — TREE PROTECTION FENCE
- 5/1/19 — SILT FENCE/TREE PROTECTION FENCE
- TREE CLEARING LIMITS
- TREE TO BE REMOVED  
REFER TO LANDSCAPE  
DRAWINGS FOR TREE  
REMOVAL PLAN
- EXISTING HARDSCAPE  
TO BE REMOVED
- ZONE X- HIGHER FLOOD RISK
- ZONE AE

NOTE:  
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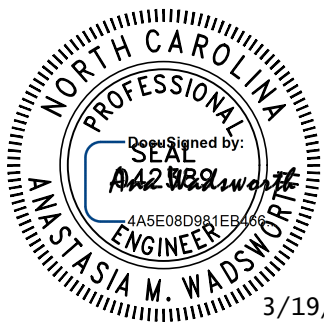


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11TH FLOOR  
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**BLUE JAY POINT COUNTY PARK**

**3200 PLEASANT UNION CHURCH ROAD**

KEY MAP

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PROJECT NO:

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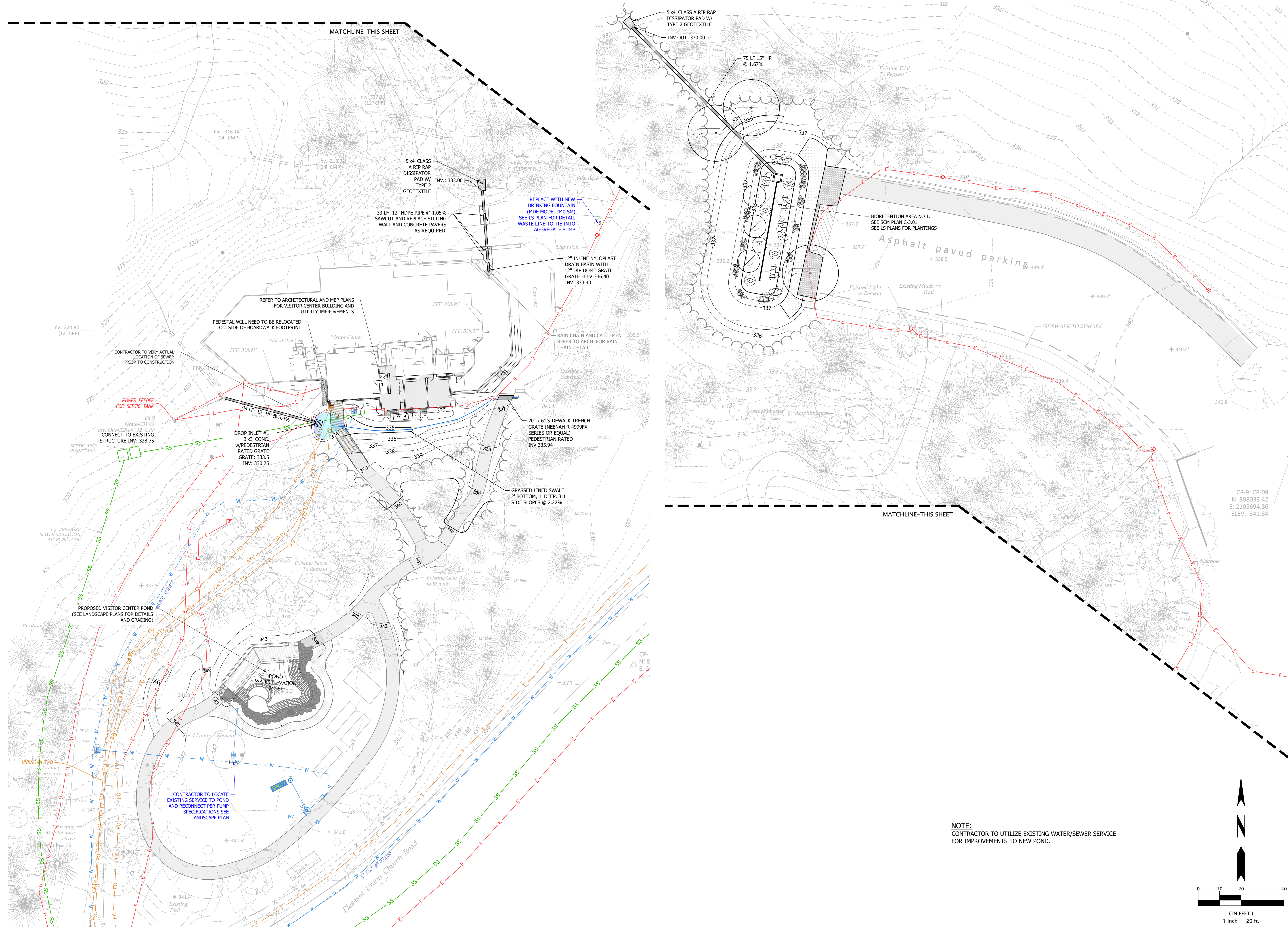
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SHEET TITLE:

**DRAINAGE, UTILITY AND STORMWATER PLAN  
VISITOR'S CENTER**

**C-201**



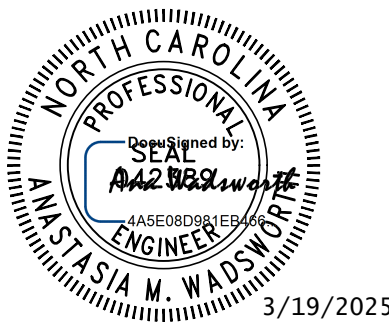


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COUNTY PARK**

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100% CONSTRUCTION DOCS

PROJECT NO:

DATE: MARCH 21, 2024

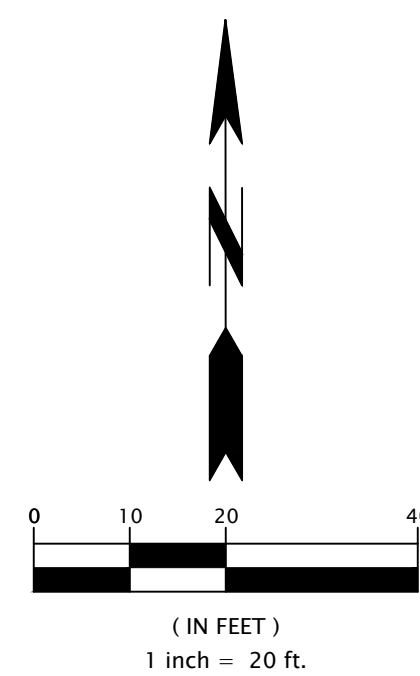
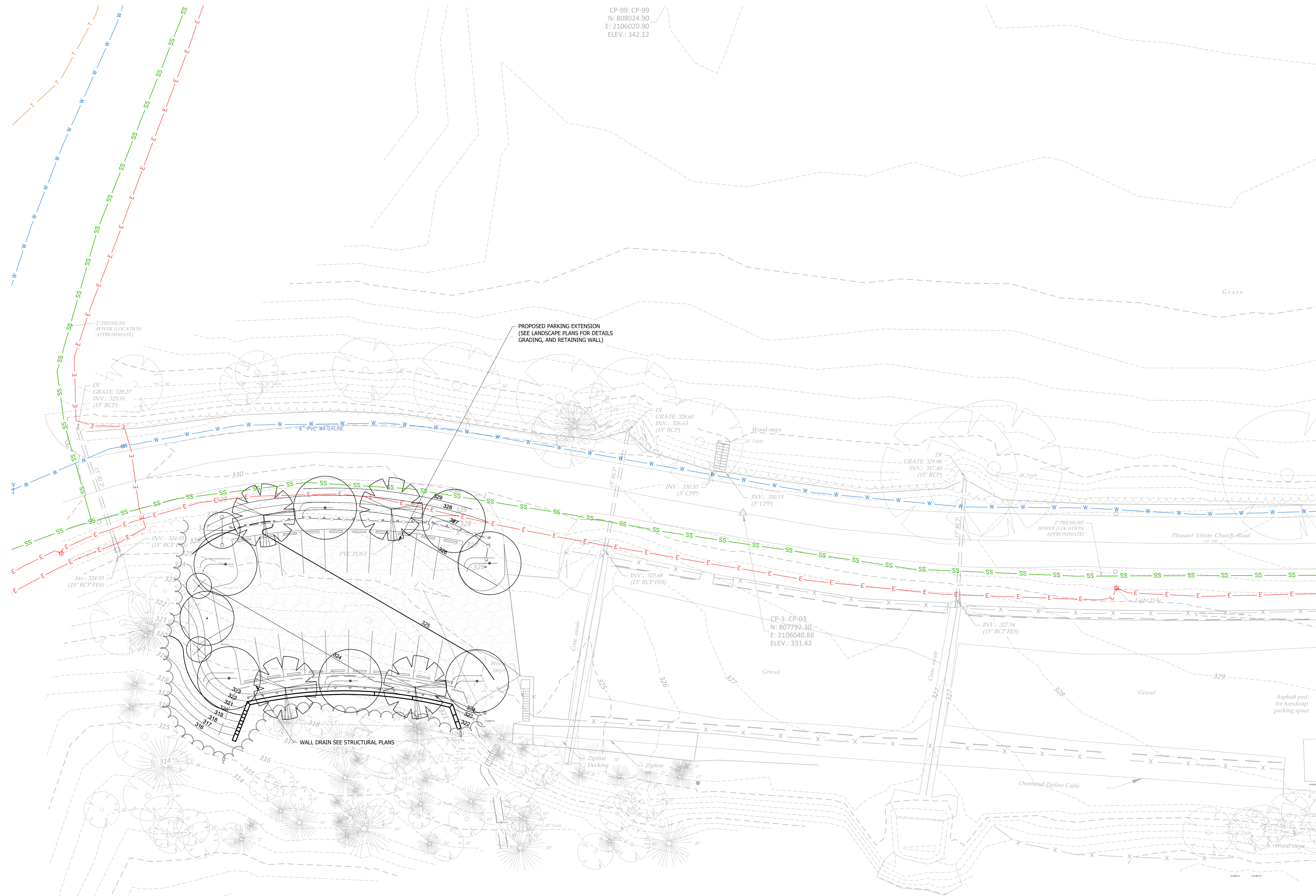
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SHEET TITLE:

**DRAINAGE, UTILITY AND  
STORMWATER PLAN MAIN  
PARK PARKING**

**C-202**



Owner:

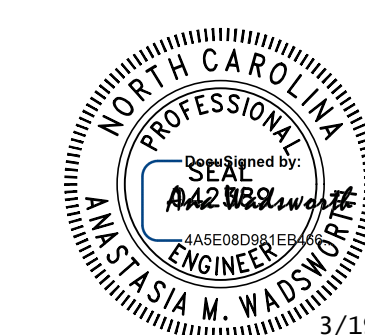


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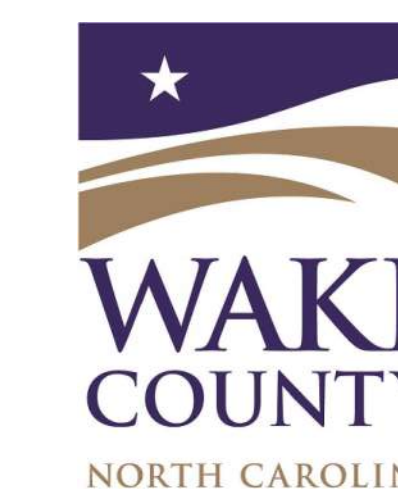
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## FACILITIES DESIGN AND CONSTRUCTION

WAKE COUNTY OFFICE BUILDING  
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COUNTY PARK

3200 PLEASANT UNION  
CHURCH ROAD

## KEY MAP

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ISSUE:

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PROJECT NO:

DATE: MARCH 21.2

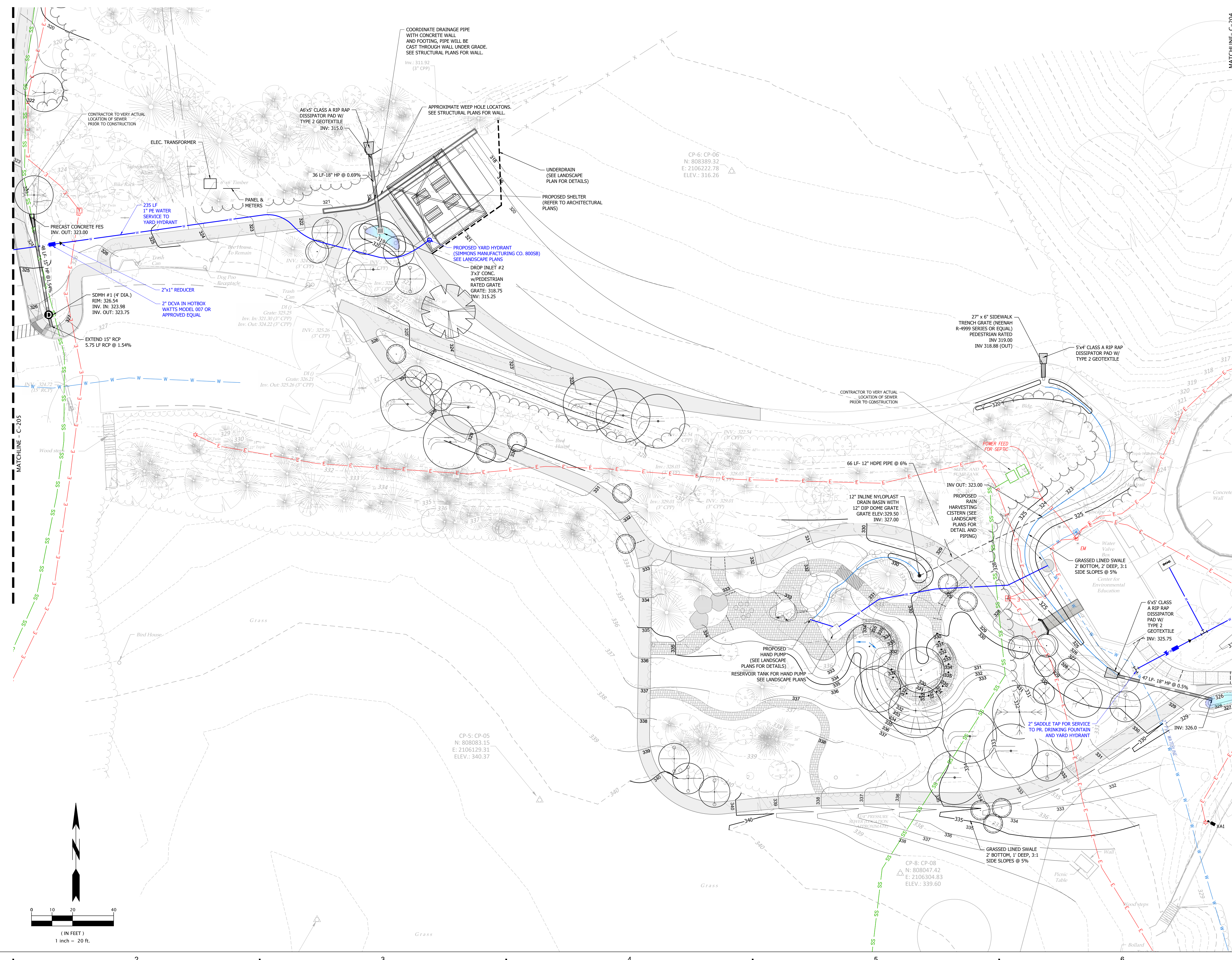
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**SHEET TITLE:**

DRAINAGE, UTILITY AND  
STORMWATER PLAN  
PLAYGROUND

C-203



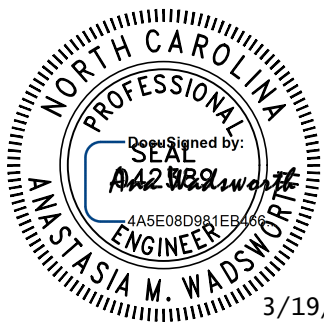


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KEY MAP

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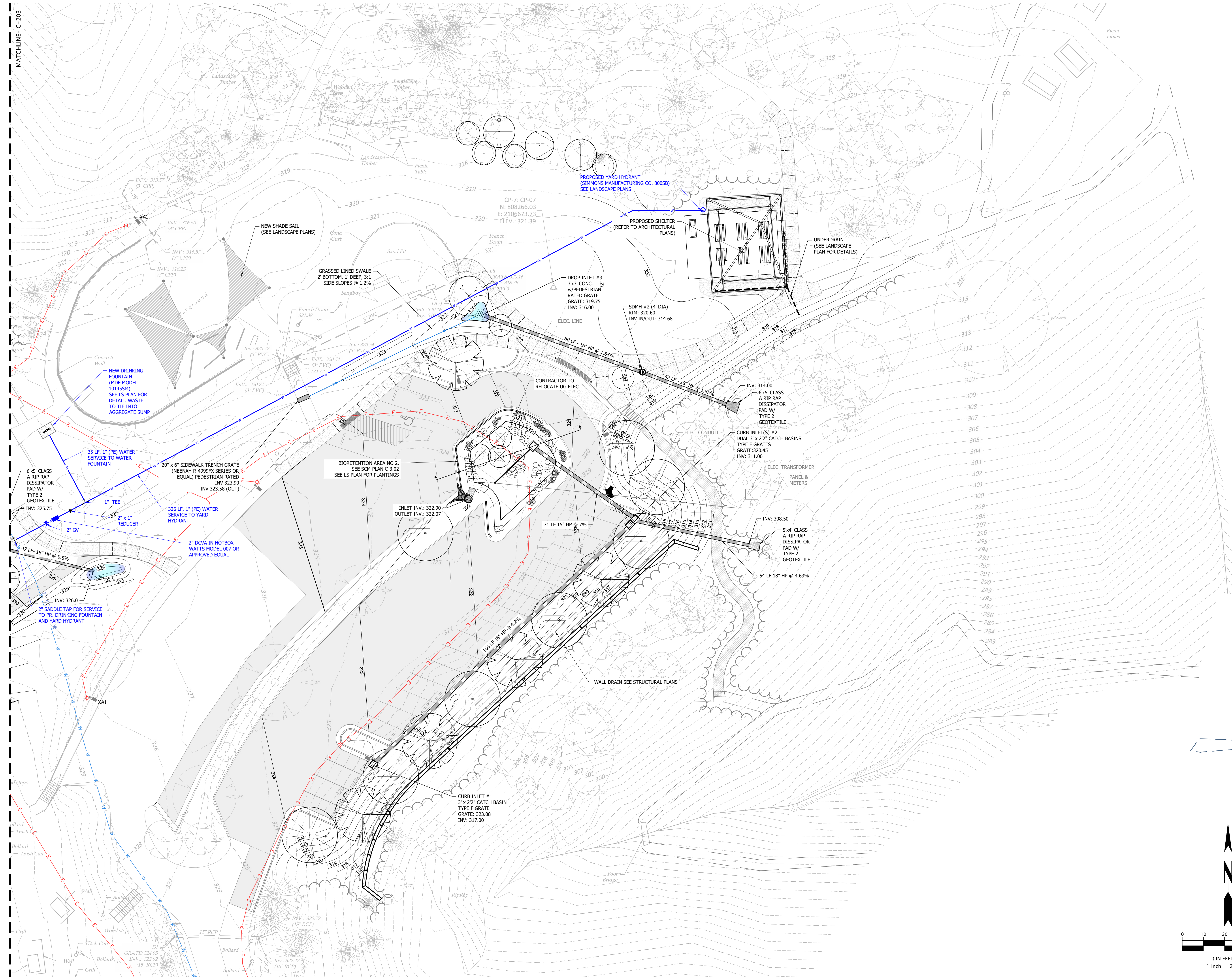
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SHEET TITLE:

**DRAINAGE, UTILITY AND  
STORMWATER PLAN  
PLAYGROUND**

**C-204**





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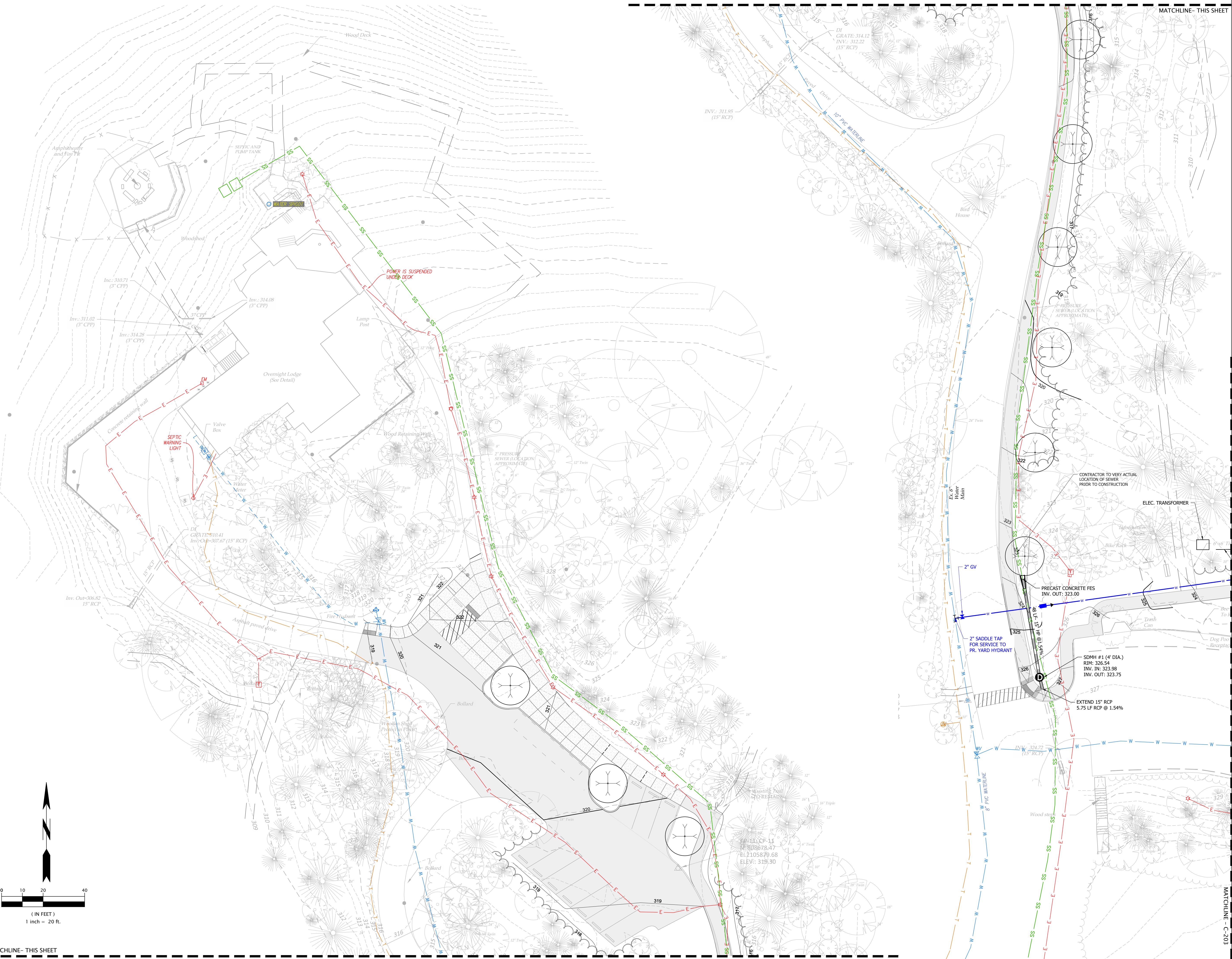
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SHEET TITLE:

DRAINAGE, UTILITY AND  
STORMWATER PLAN  
PARK LODGE

C-205



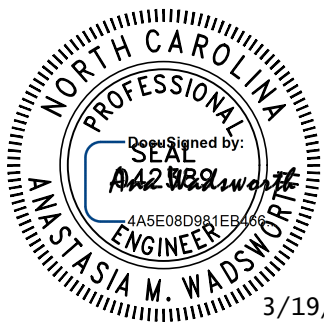


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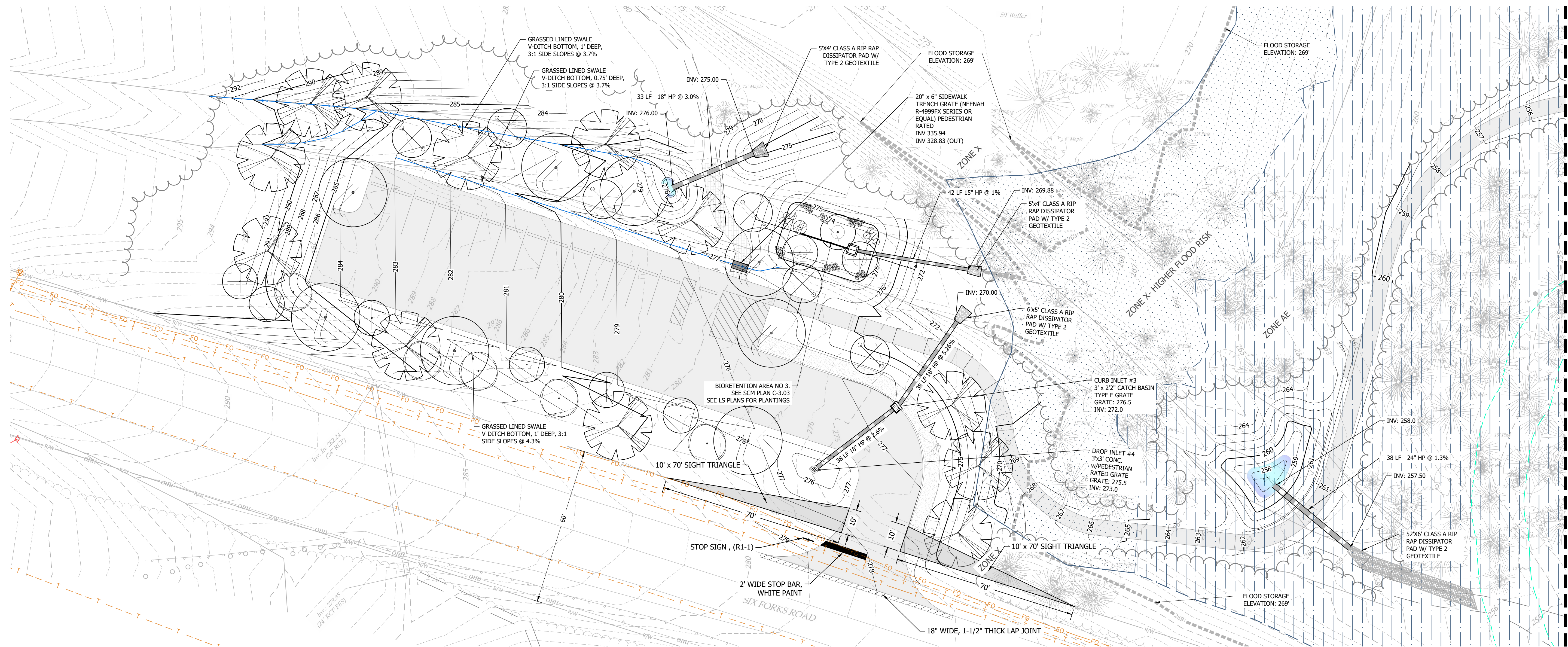
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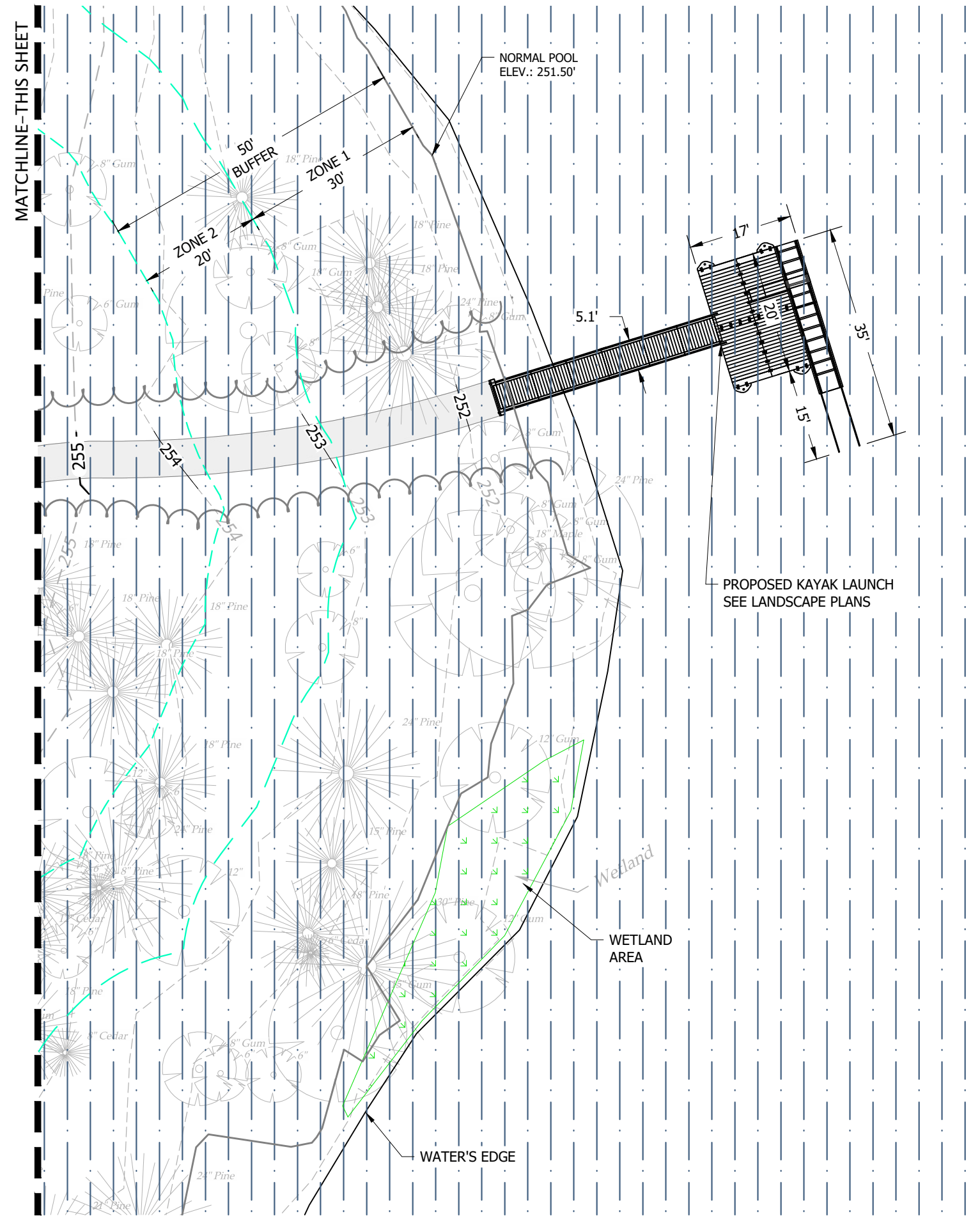
SHEET TITLE:

**DRAINAGE, UTILITY AND  
STORMWATER PLAN  
KAYAK LAUNCH**

**C-206**

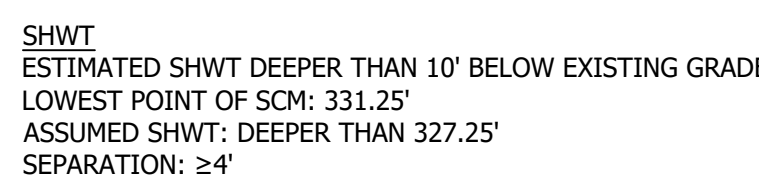


FLOOD ELEVATION: 269'  
C.Y. FILL BELOW FLOOD ELEVATION: 7 C.Y.  
C.Y. CUT BELOW FLOOD ELEVATION: 234 C.Y.



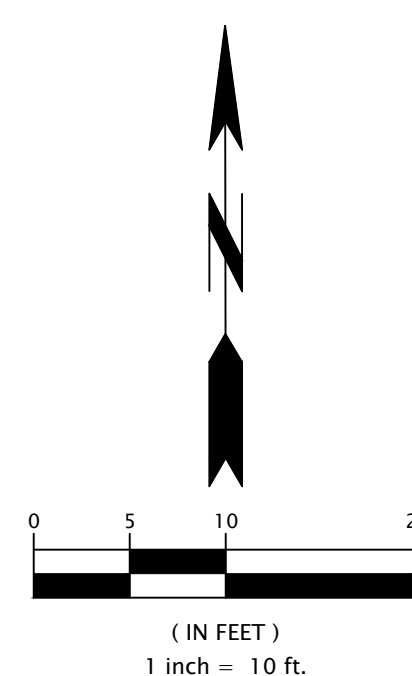


A



BIORETENTION MAINTENANCE REQUIREMENTS ARE TYPICAL LANDSCAPE CARE PROCEDURES AND INCLUDE

- [illegible]



**MEDIA NOTES:**  
**SUPPLEMENTED MEDIA 5: MEDIA DEPTH.**  
 The minimum depth of the media depends on the design of the cell as follows:  
 a) cells with three and six straws: 36 inches;  
 b) cells with 12 straws: 48 inches;  
 c) cells with internal water storage: 24 inches; or  
 d) with internal water storage: 20 inches.

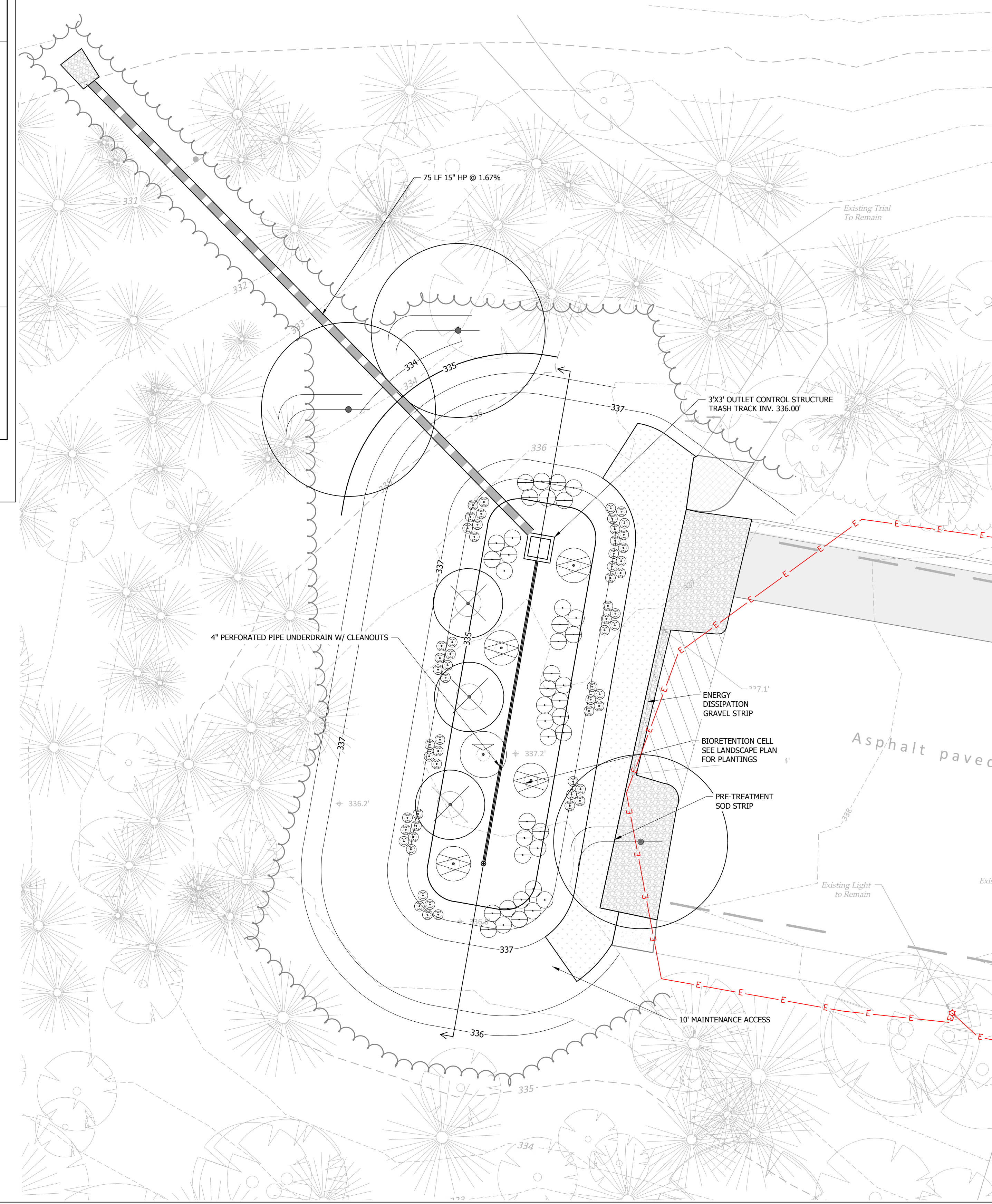
**SUPPLEMENTED MEDIA 6: MEDIA MIX.**  
 The media shall be a homogeneous mix of engineered media blend with approximate volumes of:  
 a) 40% GFAH 60, ASTH G30, ASTH G45, or the equivalent;  
 b) 8 to 10 percent fines (silts and clay); and  
 c) 5 to 10 percent organic (such as pine bark fines).

**SUPPLEMENTED MEDIA 7: MEDIA  $\gamma$ -INDEX.**  
 The  $\gamma$ -index shall not exceed 50. The  $\gamma$ -index shall not exceed 20 in NSH waters as defined in 1.5A.

**SUPPLEMENTED MEDIA 8: NO MECHANICAL CONNECTION.**  
 The media shall not be mechanically connected. It is recommended to either water it or walk on it as placed.

**SUPPLEMENTED MEDIA 9: MAINTENANCE OF MEDIA.**  
 The bioreactor cell shall be maintained in a manner that results in a disbandment of at least one

- **IMPORTANT OPERATION AND MAINTENANCE PROCEDURES:**
- **IMMEDIATELY AFTER THE BIORETENTION CELL IS ESTABLISHED, THE PLANTS WILL BE WATERED TWICE WEEKLY IF NEEDED UNTIL THE PLANTS BECOME ESTABLISHED (COMMONLY SIX WEEKS).**
- **NO SNOW, MULCH OR ANY OTHER MATERIAL WILL NEVER BE PILED ON THE SURFACE OF THE BIORETENTION CELL.**
- **HEAVY EQUIPMENT WILL NEVER BE DRIVEN OVER THE BIORETENTION CELL.**
- **SPECIAL CARE WILL BE TAKEN TO PREVENT SEDIMENT FROM ENTERING THE BIORETENTION CELL.**
- **ONCE A YEAR, A SOIL TEST OF THE SOIL MEDIA WILL BE CONDUCTED.**
- **AFTER THE BIORETENTION CELL IS ESTABLISHED, INSPECT IT ONCE A QUARTER. RECORDS OF OPERATION AND MAINTENANCE WILL BE KEPT IN A KNOWN SET LOCATION AND WILL BE AVAILABLE UPON REQUEST.**
- **INSPECTION ACTIVITIES SHALL BE PERFORMED AS FOLLOWS: ANY PROBLEMS THAT ARE FOUND SHALL BE REPAIRED IMMEDIATELY.**
- **REMOVE TOP LAYERS OF FILL MEDIA WHEN THE POOL DOES NOT DRAIN QUICKLY. BASED ON THE MEDIA SPECIFICATION, THE POOL SHOULD DRAIN WITHIN 24 HOURS.**



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f : 919-419-1669

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BLUE JAY POINT  
COUNTY PARK

3200 PLEASANT UNION  
CHURCH ROAD

### KEY MAP

[illegible]

**ISSUE:**

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PROJECT NO:

DATE: MARCH 21, 2024

DRAWN: \_\_\_\_\_ THF \_\_\_\_\_

CHECKED: AMW

SHEET TITLE:

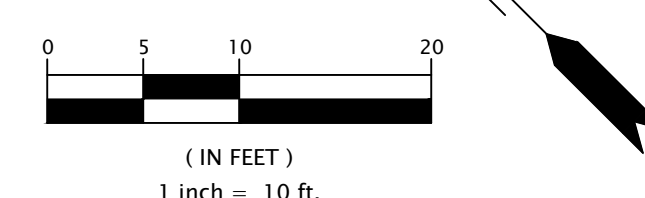
STORMWATER  
MANAGEMENT PLAN  
VISITOR'S CENTER

C-301



( IN FEET )  
1 inch = 10 ft





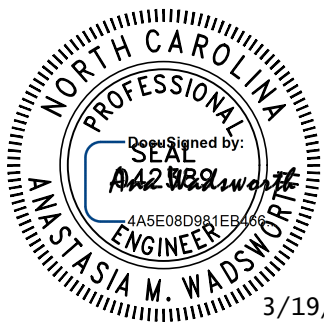


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**FACILITIES DESIGN AND CONSTRUCTION**  
WAKE COUNTY OFFICE BUILDING  
11TH FLOOR  
RALEIGH, NC 27602

**BLUE JAY POINT  
COUNTY PARK**

**3200 PLEASANT UNION  
CHURCH ROAD**

KEY MAP

NO.	REVISION	DATE
1	RESUBMISSION- SITE PLAN	11/08/2024

ISSUE:

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PROJECT NO:

DATE: MARCH 21, 2024

DRAWN:

THR

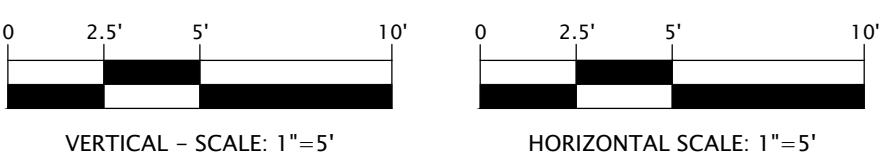
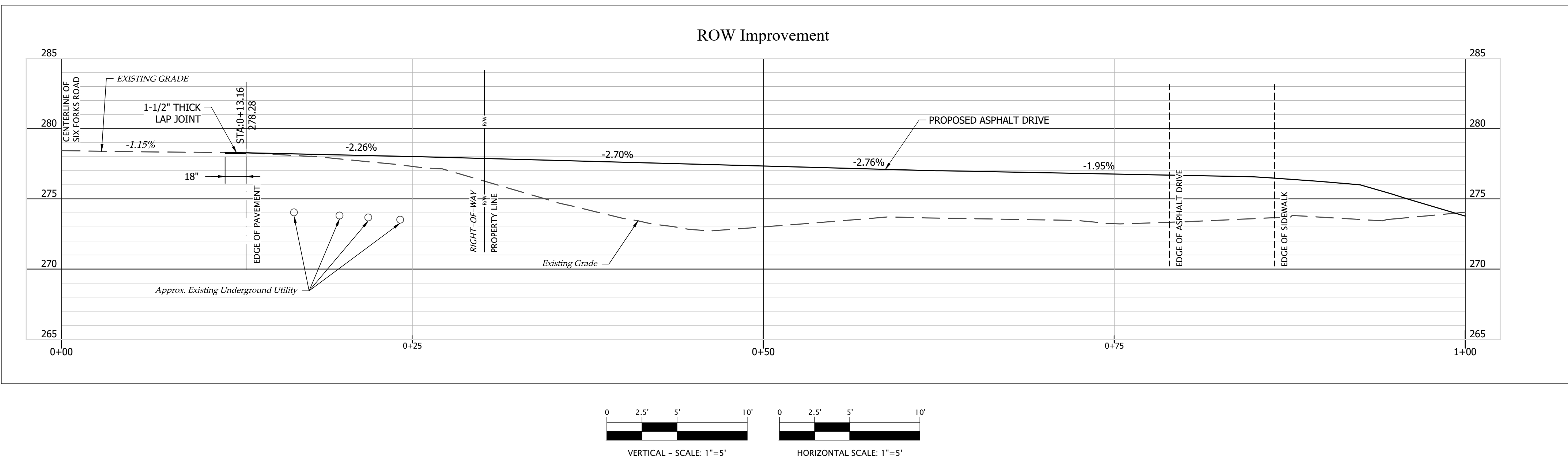
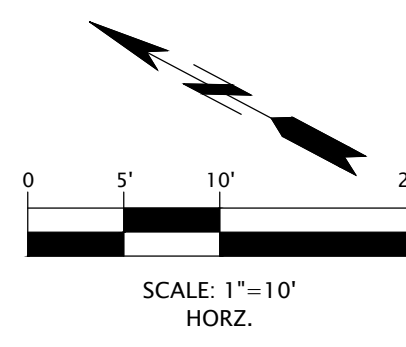
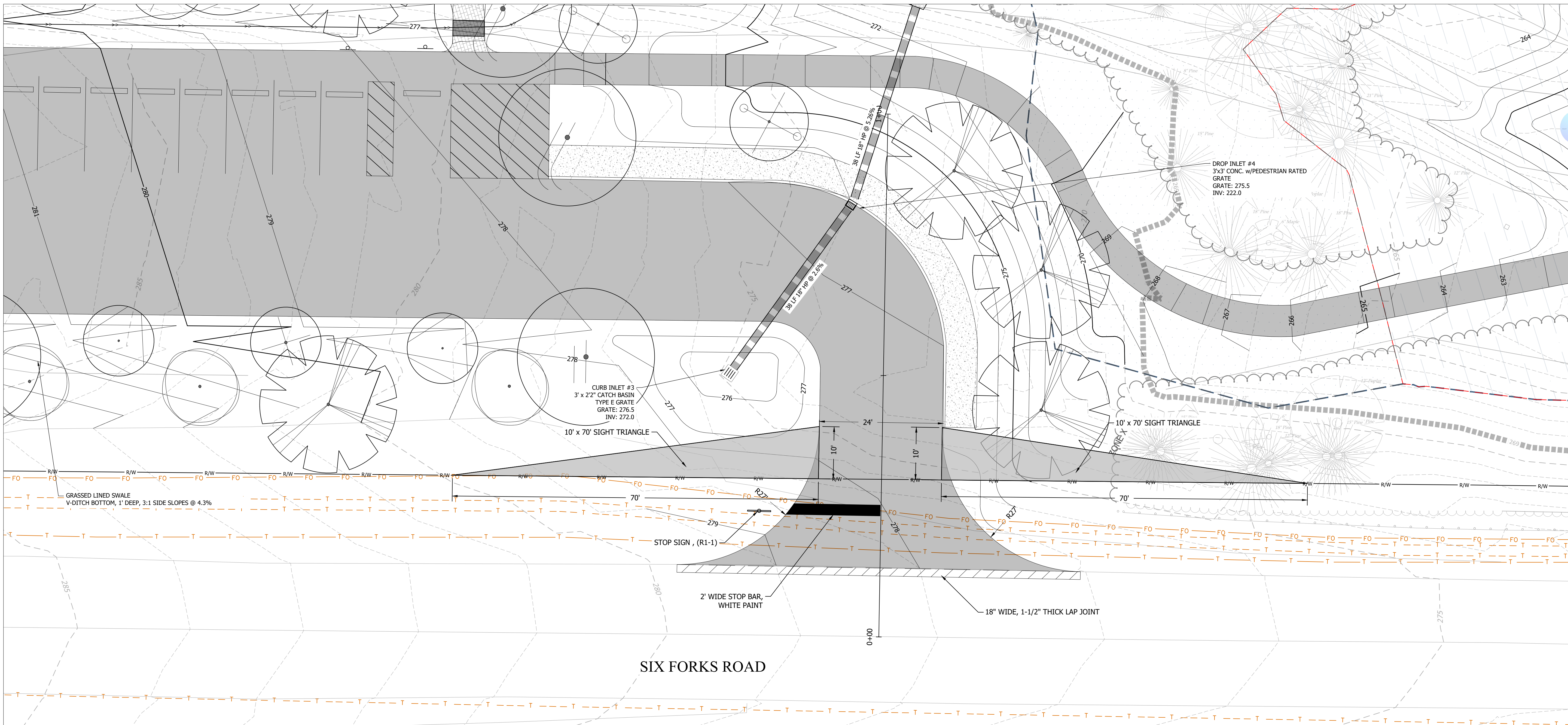
CHECKED:

AMW

SHEET TITLE:

**KAYAK LAUNCH  
RIGHT-OF-WAY  
LAYOUT PLAN**

**C-401**



NOTE:  
1: NC 1005 EXISTING SPEED LIMIT IS 45 MPH.

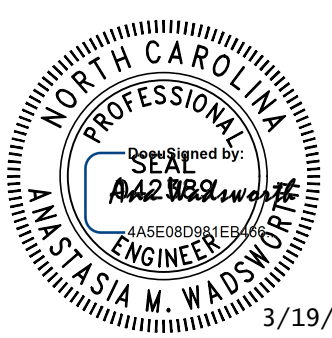


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WAKE COUNTY OFFICE BUILDING  
11TH FLOOR  
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COUNTY PARK

3200 PLEASANT UNION  
CHURCH ROAD

KEY MAP

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1	RESUBMISSION- SITE PLAN	11/08/2024

ISSUE:

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PROJECT NO:

DATE: MARCH 21, 2024

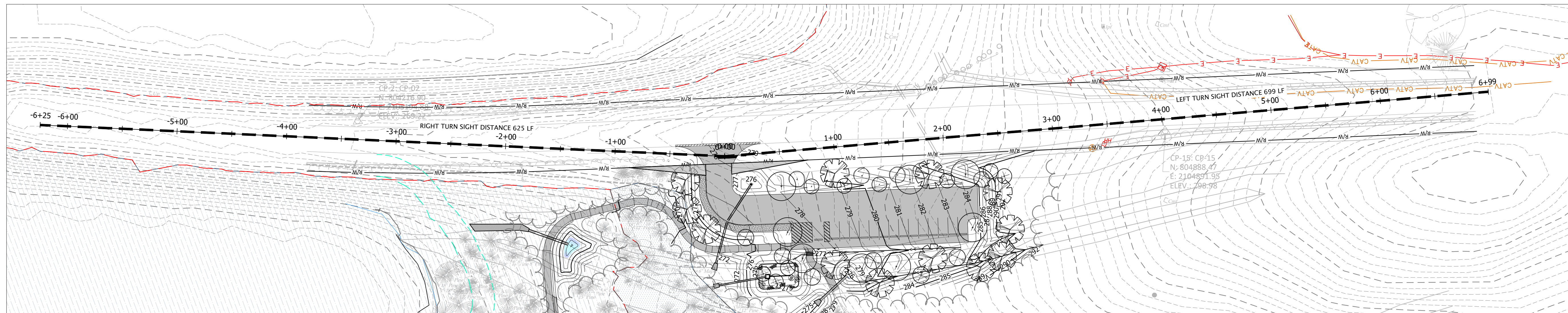
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CHECKED: AMW

SHEET TITLE:

SIGHT DISTANCE PLAN

C-402

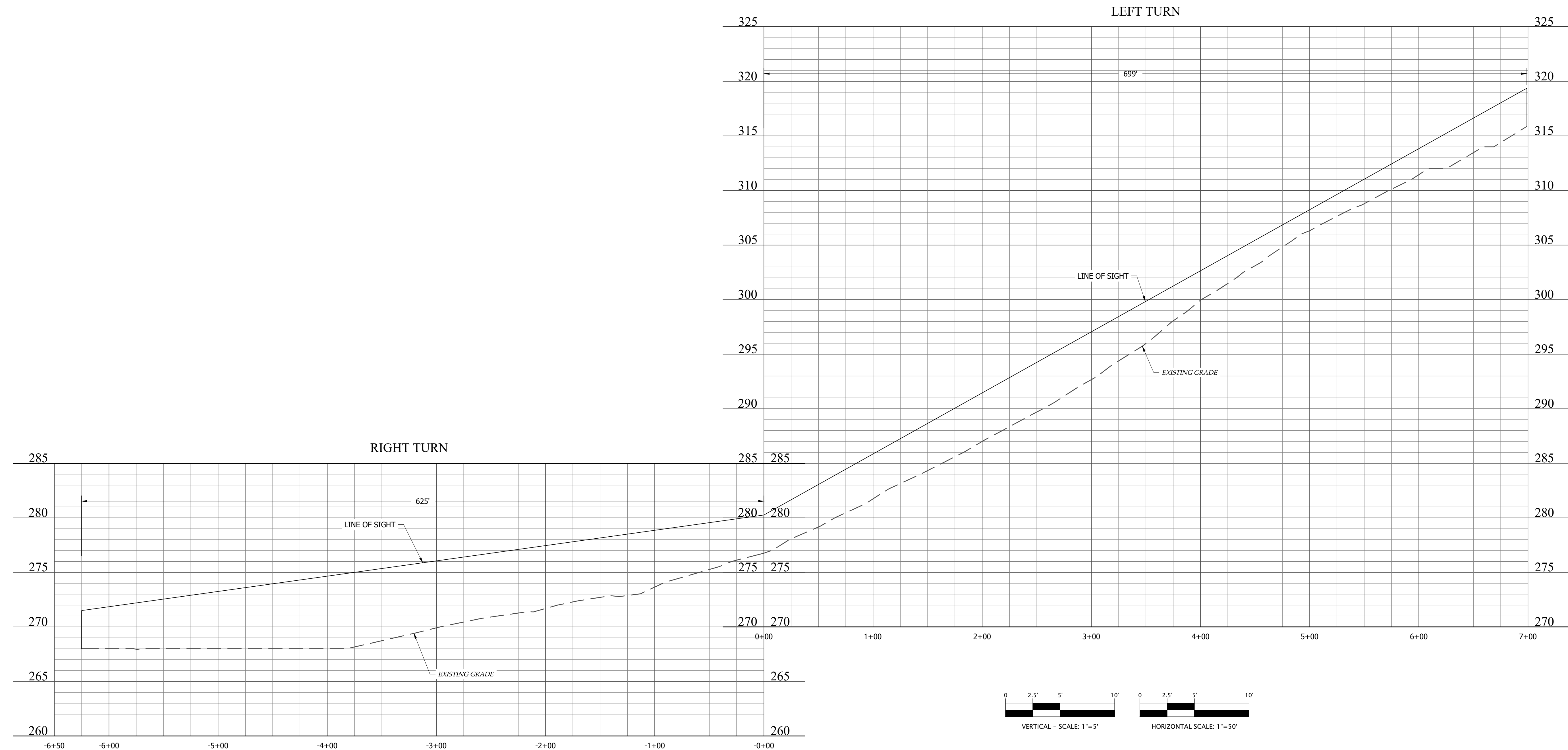


SIGHT DISTANCE CALCULATIONS

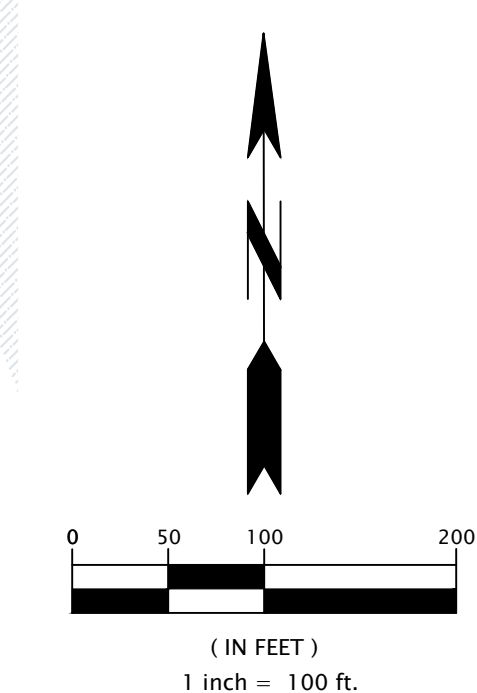
POSTED SPEED LIMIT: 45 MPH  
DESIGN SPEED LIMIT: 50 MPH

CASE B1- LEFT TURN FROM MINOR ROAD  
ISD =  $1.47 \times 50\text{MPH} \times 9.5$   
ISD = 699 LF

CASE B2- RIGHT TURN FROM MINOR ROAD  
ISD =  $1.47 \times 50\text{MPH} \times 8.5$   
ISD = 625 LF







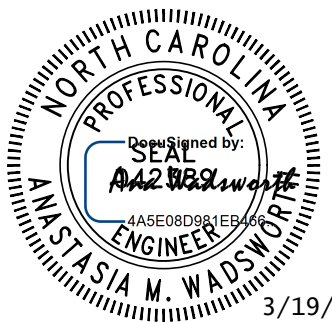


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WAKE COUNTY OFFICE BUILDING  
11TH FLOOR  
RALEIGH, NC 27602

**BLUE JAY POINT  
COUNTY PARK**

**3200 PLEASANT UNION  
CHURCH ROAD**

KEY MAP

NO.	REVISION	DATE
1	RESUBMISSION- SITE PLAN	11/08/2024

ISSUE:

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PROJECT NO:

DATE: MARCH 21, 2024

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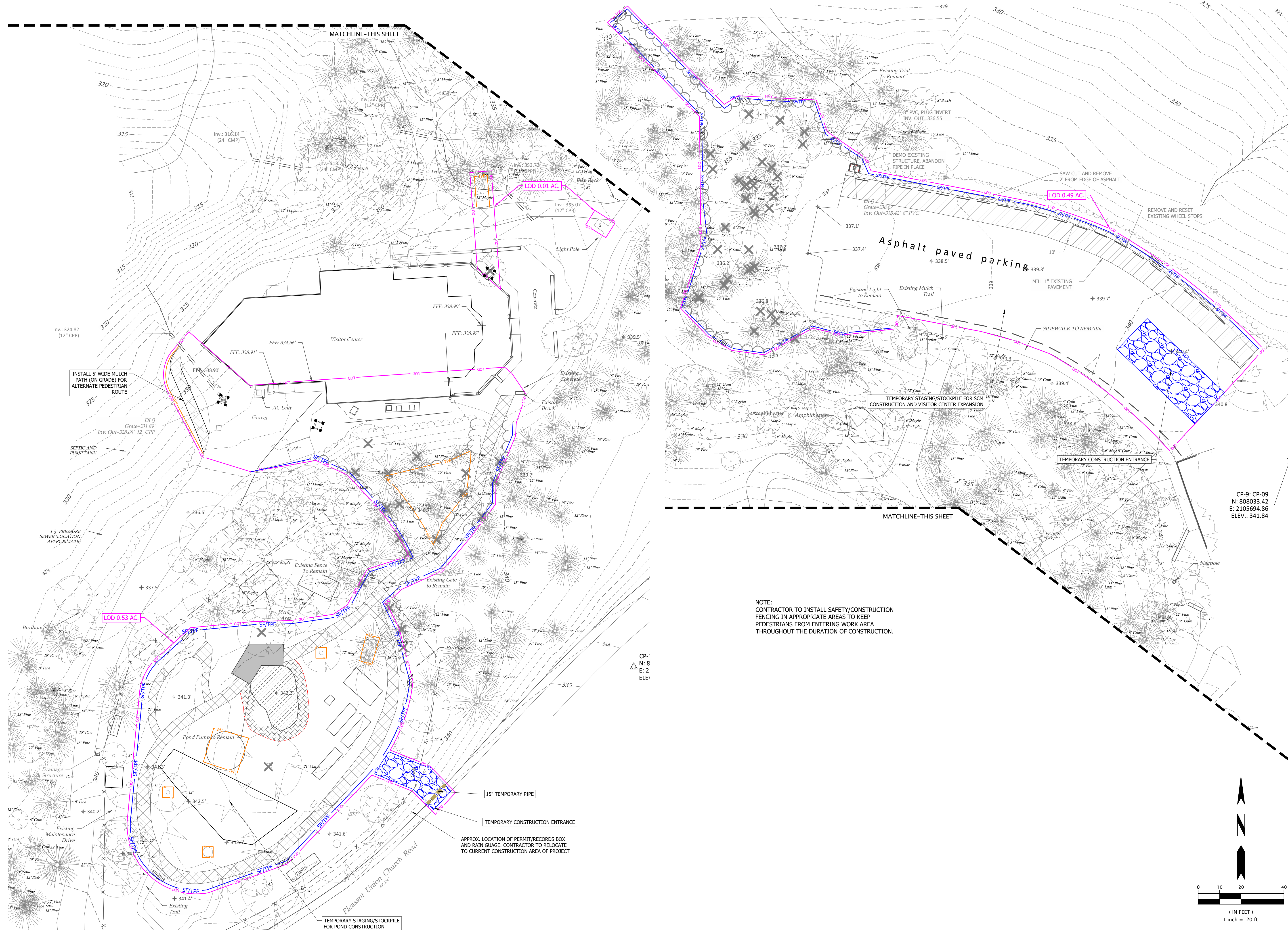
CHECKED:

AMW

SHEET TITLE:

INITIAL EROSION &  
SEDIMENT CONTROL PLAN  
VISITOR'S CENTER

C-501



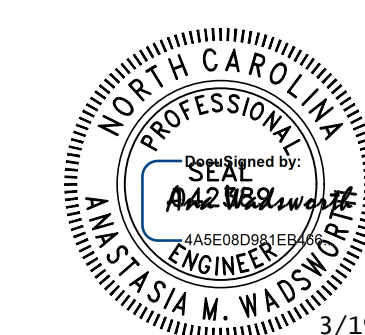


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WAKE COUNTY OFFICE BUILDING  
11TH FLOOR  
RALEIGH, NC 27602

BLUE JAY POINT  
COUNTY PARK

3200 PLEASANT UNION  
CHURCH ROAD

## KEY MAP

[illegible]

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PROJECT NO:

DATE: MARCH 21, 202

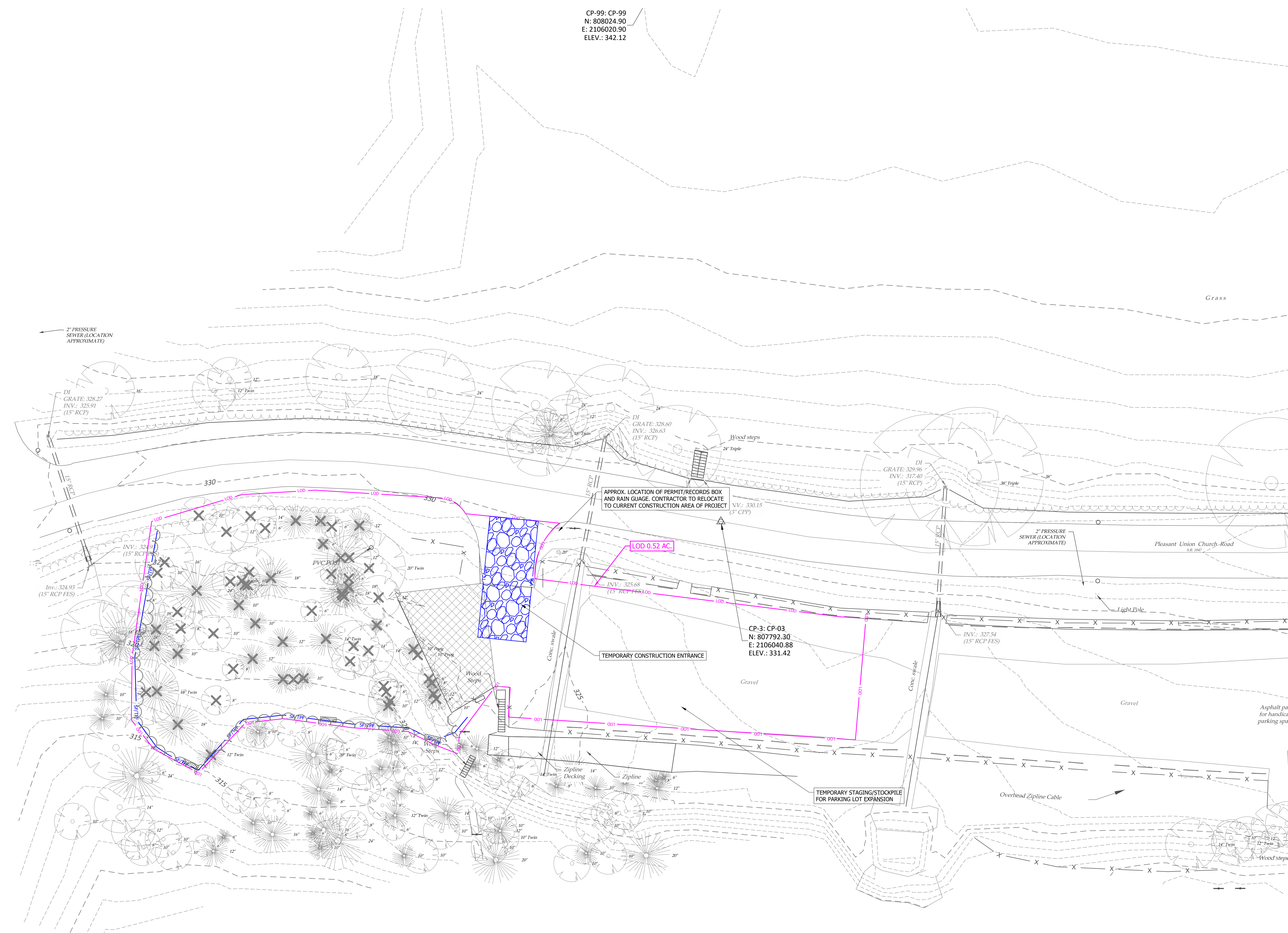
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CHECKED: \_\_\_\_\_ AM

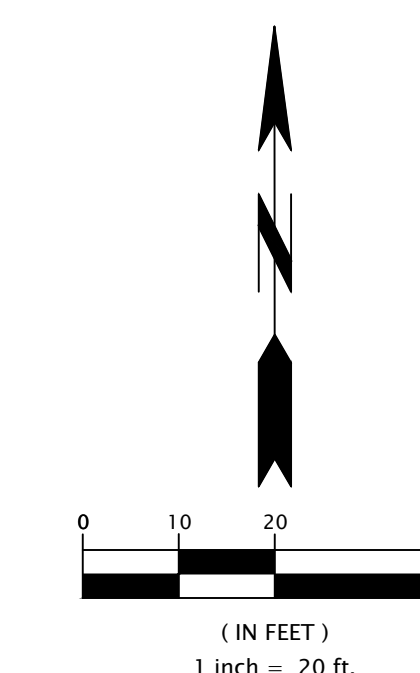
SHEET TITLE:

## INITIAL EROSION & SEDIMENT CONTROL PLAN MAIN PARK PARKING

C-502



NOTE:  
CONTRACTOR TO INSTALL SAFETY/CONSTRUCTION  
FENCING IN APPROPRIATE AREAS TO KEEP  
PEDESTRIANS FROM ENTERING WORK AREA  
THROUGHOUT THE DURATION OF CONSTRUCTION



Qwz



# Surface

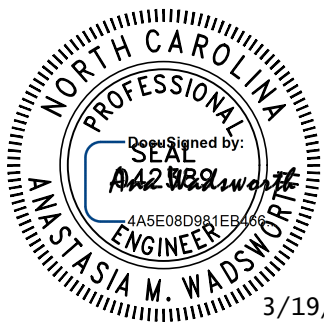
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## FACILITIES DESIGN AND CONSTRUCTION

WAKE COUNTY OFFICE BUILDING  
11TH FLOOR  
RALEIGH, NC 27602

## BLUE JAY POINT COUNTY PARK

3200 PLEASANT UNION CHURCH ROAD

## KEY MAP

NO.	REVISION	DATE
1	RESUBMISSION- SITE PLAN	11/08/2024

## ISSUE:

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## PROJECT NO:

DATE: MARCH 21, 2024

## DRAWN:

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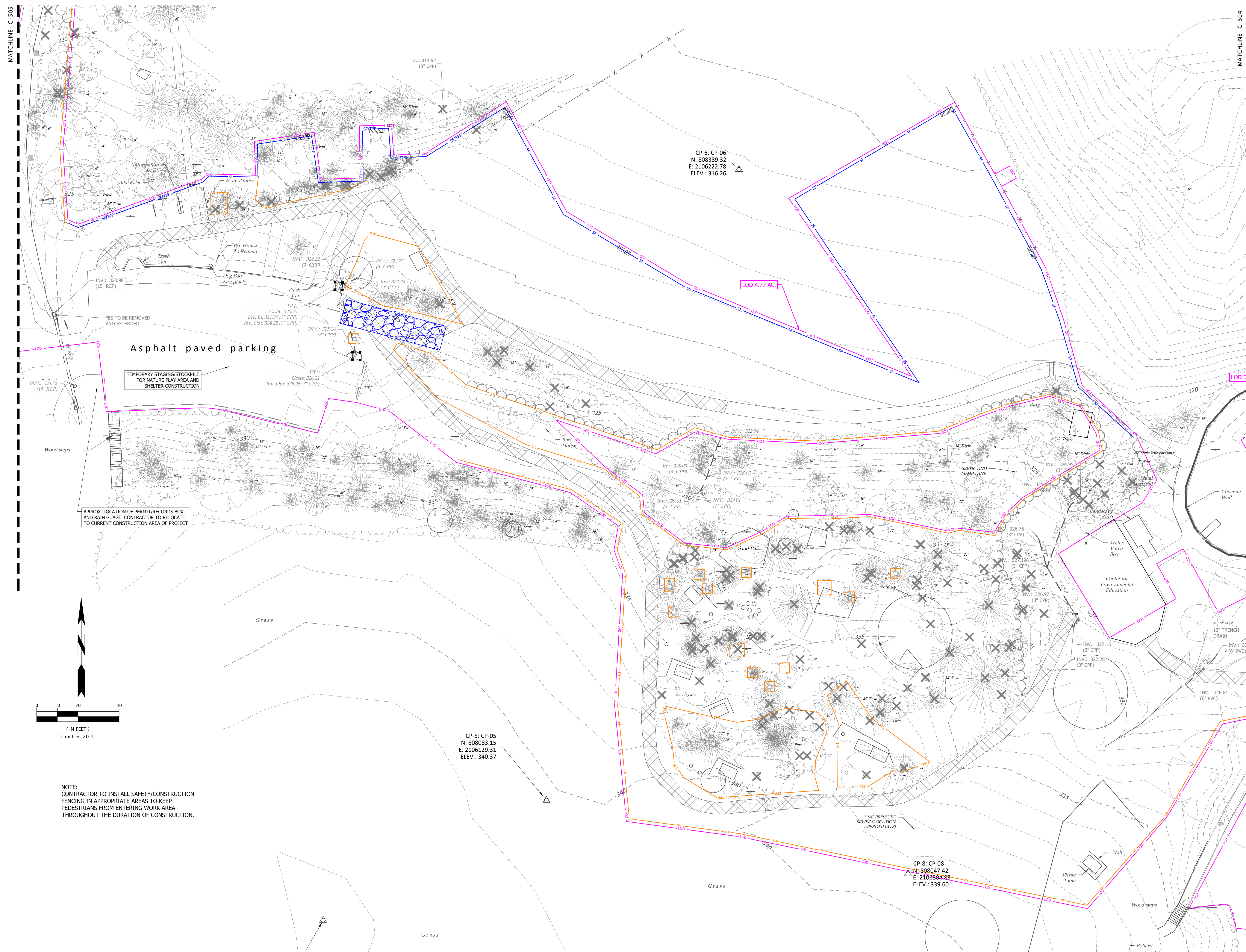
## CHECKED:

AMW

## SHEET TITLE:

INITIAL EROSION &  
SEDIMENT CONTROL PLAN  
PLAYGROUND

C-503





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WAKE COUNTY OFFICE BUILDING  
11TH FLOOR  
RALEIGH, NC 27602

BLUE JAY POINT  
COUNTY PARK

3200 PLEASANT UNION  
CHURCH ROAD

KEY MAP

NO.	REVISION	DATE
1	RESUBMISSION- SITE PLAN	11/08/2024

ISSUE:

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PROJECT NO:

DATE: MARCH 21, 2024

DRAWN:

THR

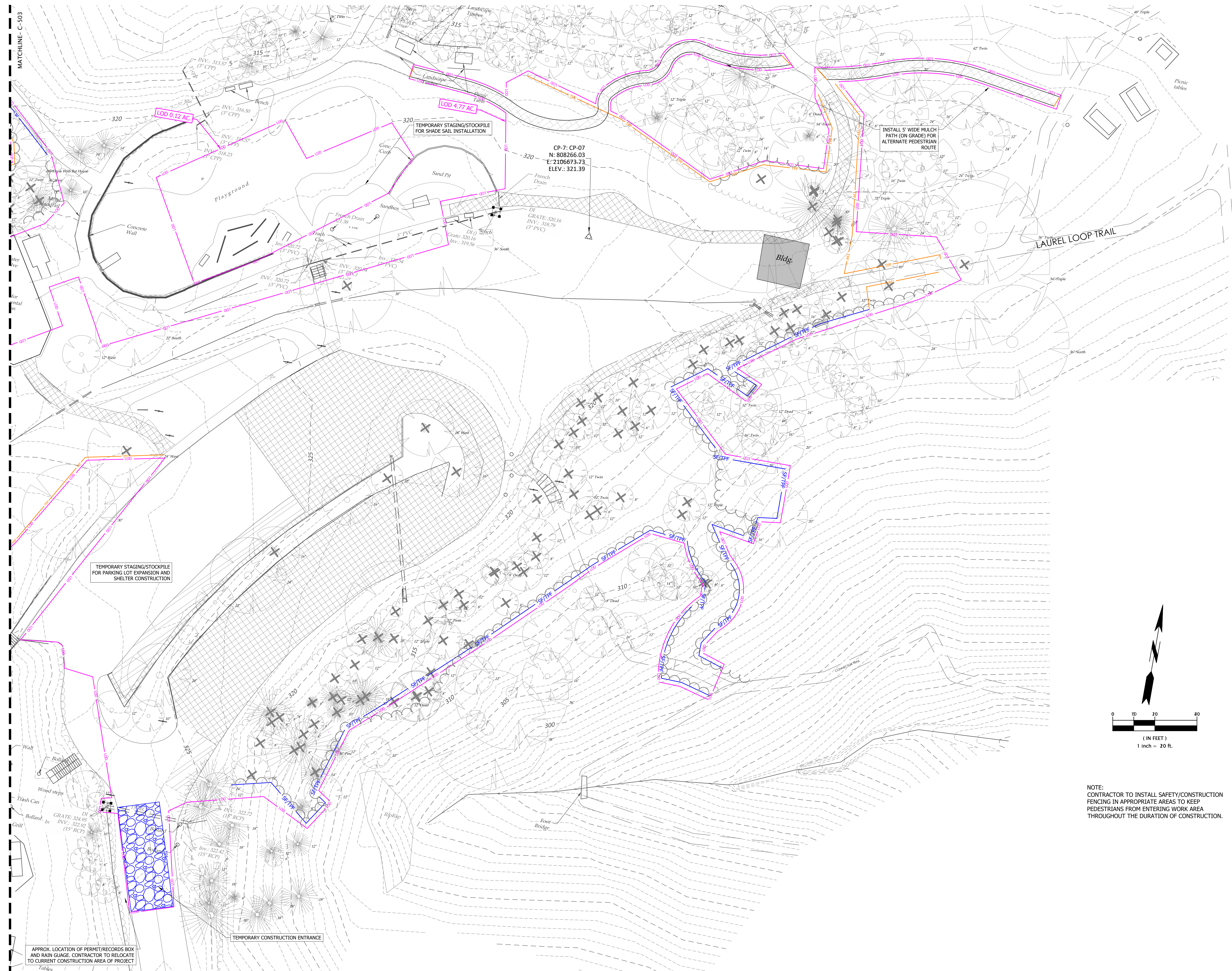
CHECKED:

AMW

SHEET TITLE:

INITIAL EROSION &  
SEDIMENT CONTROL PLAN  
PLAYGROUND

C-504





# Surface

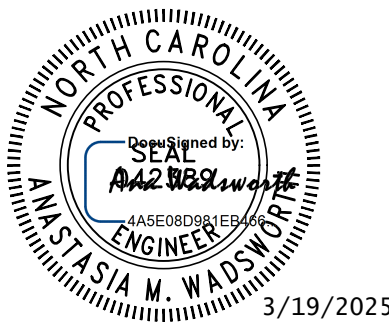
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WAKE COUNTY OFFICE BUILDING  
11TH FLOOR  
RALEIGH, NC 27602

## BLUE JAY POINT COUNTY PARK

## 3200 PLEASANT UNION CHURCH ROAD

## KEY MAP

NO.	REVISION	DATE
1	RESUBMISSION- SITE PLAN	11/08/2024

## ISSUE:

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## PROJECT NO:

DATE: MARCH 21, 2024

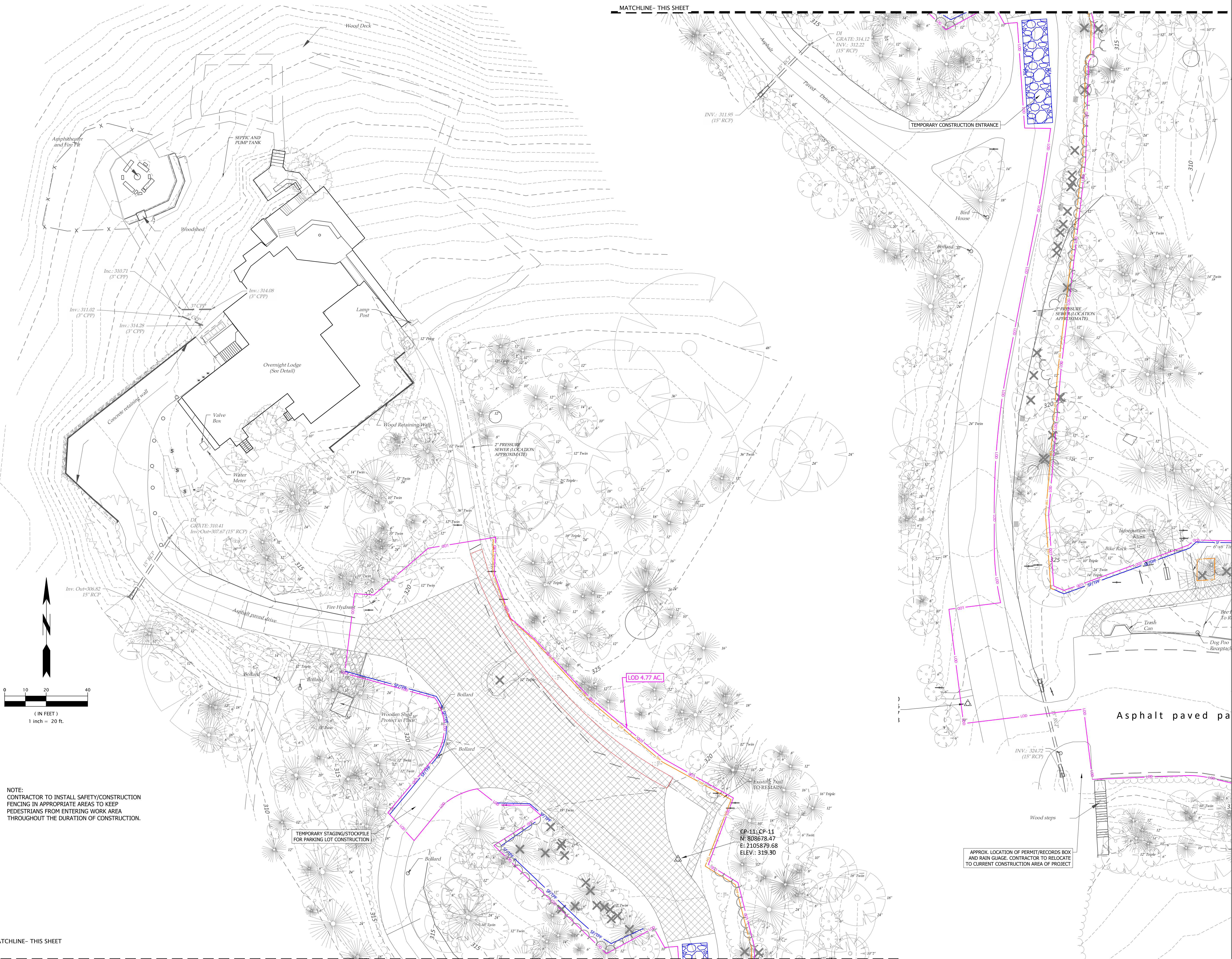
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CHECKED: THW

## SHEET TITLE:

INITIAL EROSION &  
SEDIMENT CONTROL PLAN  
LODGE

C-505



NOTE:  
CONTRACTOR TO INSTALL SAFETY/CONSTRUCTION  
FENCING IN APPROPRIATE AREAS TO KEEP  
PEDESTRIANS FROM ENTERING WORK AREA  
THROUGHOUT THE DURATION OF CONSTRUCTION.

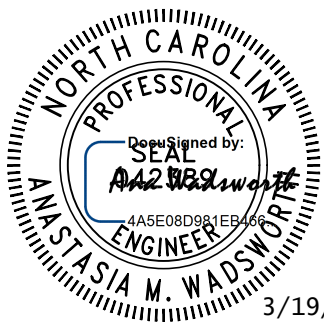


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RALEIGH, NC 27602

**BLUE JAY POINT  
COUNTY PARK**

**3200 PLEASANT UNION  
CHURCH ROAD**

KEY MAP

NO.	REVISION	DATE
1	RESUBMISSION- SITE PLAN	11/08/2024

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PROJECT NO:

DATE: MARCH 21, 2024

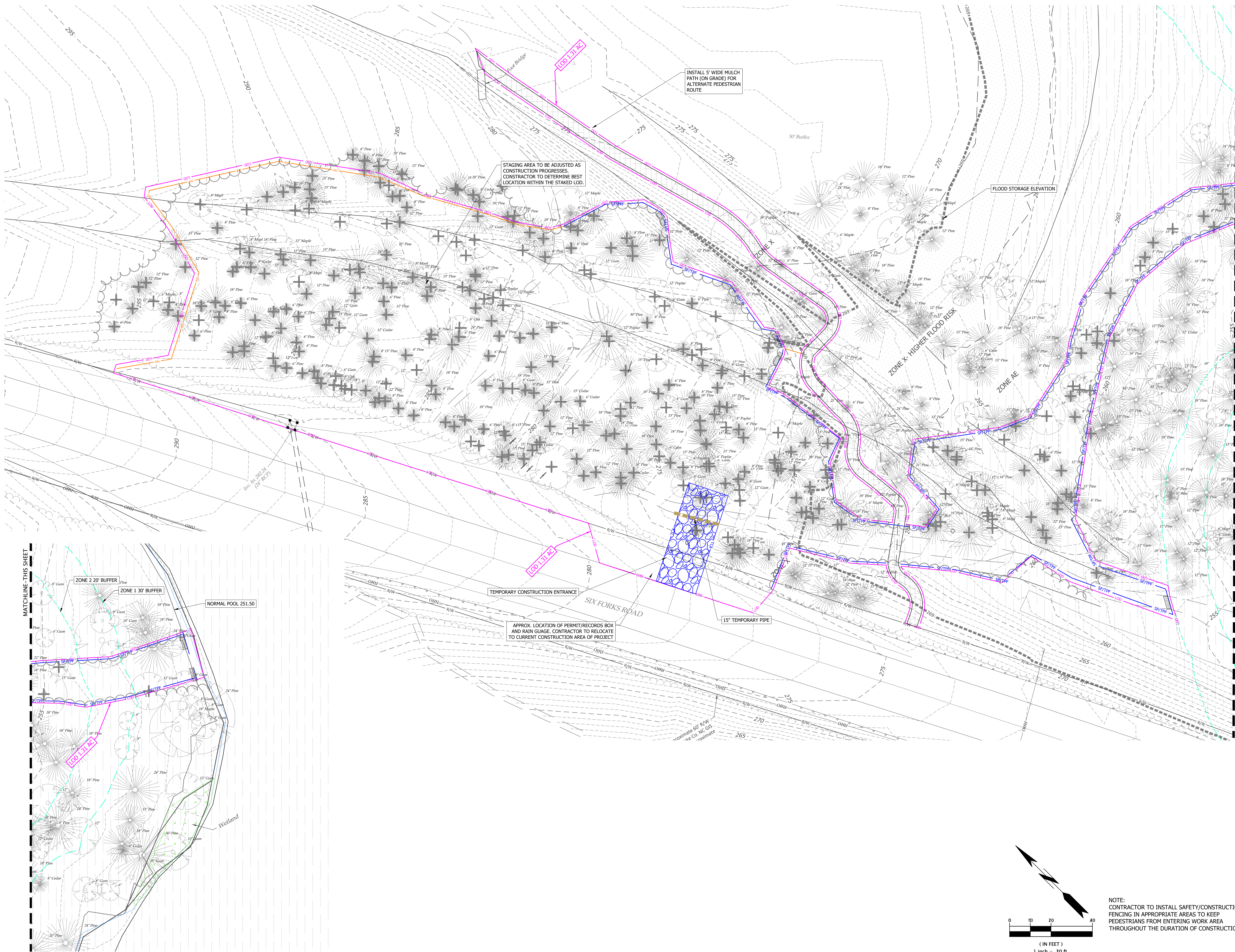
DRAWN: THR

CHECKED: AMW

SHEET TITLE:

**INITIAL EROSION &  
SEDIMENT CONTROL PLAN  
KAYAK LAUNCH**

**C-506**



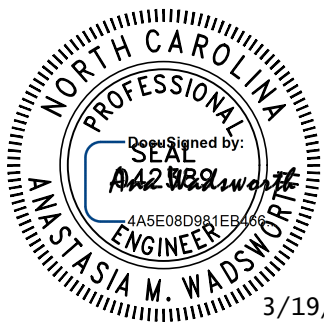


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**BLUE JAY POINT COUNTY PARK**

**3200 PLEASANT UNION CHURCH ROAD**

KEY MAP

NO.	REVISION	DATE
1	RESUBMISSION- SITE PLAN	11/08/2024

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PROJECT NO:

DATE: MARCH 21, 2024

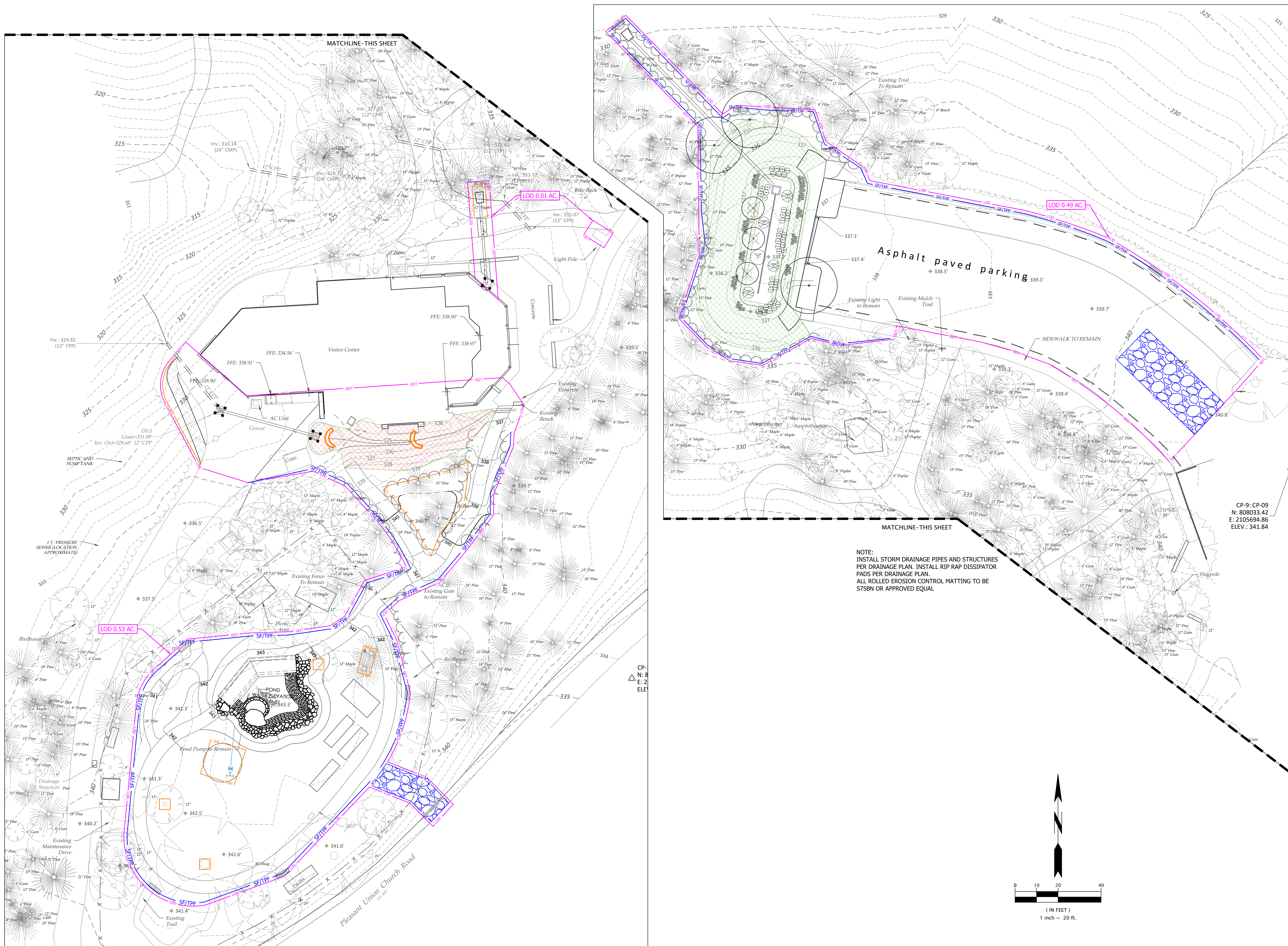
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CHECKED: AMW

SHEET TITLE:

**CONSTRUCTION PHASE E & S  
CONTROL PLAN VISITOR'S  
CENTER**

**C-507**





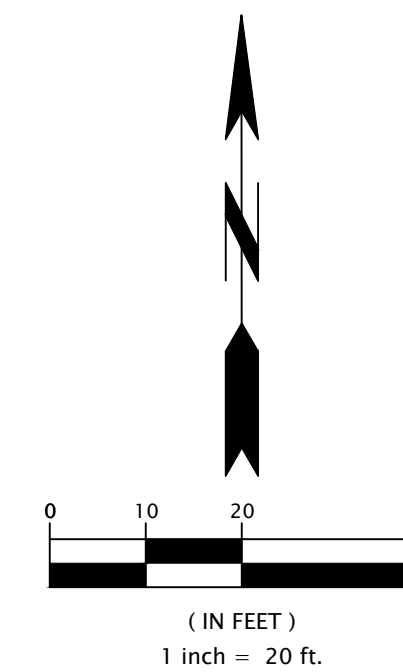
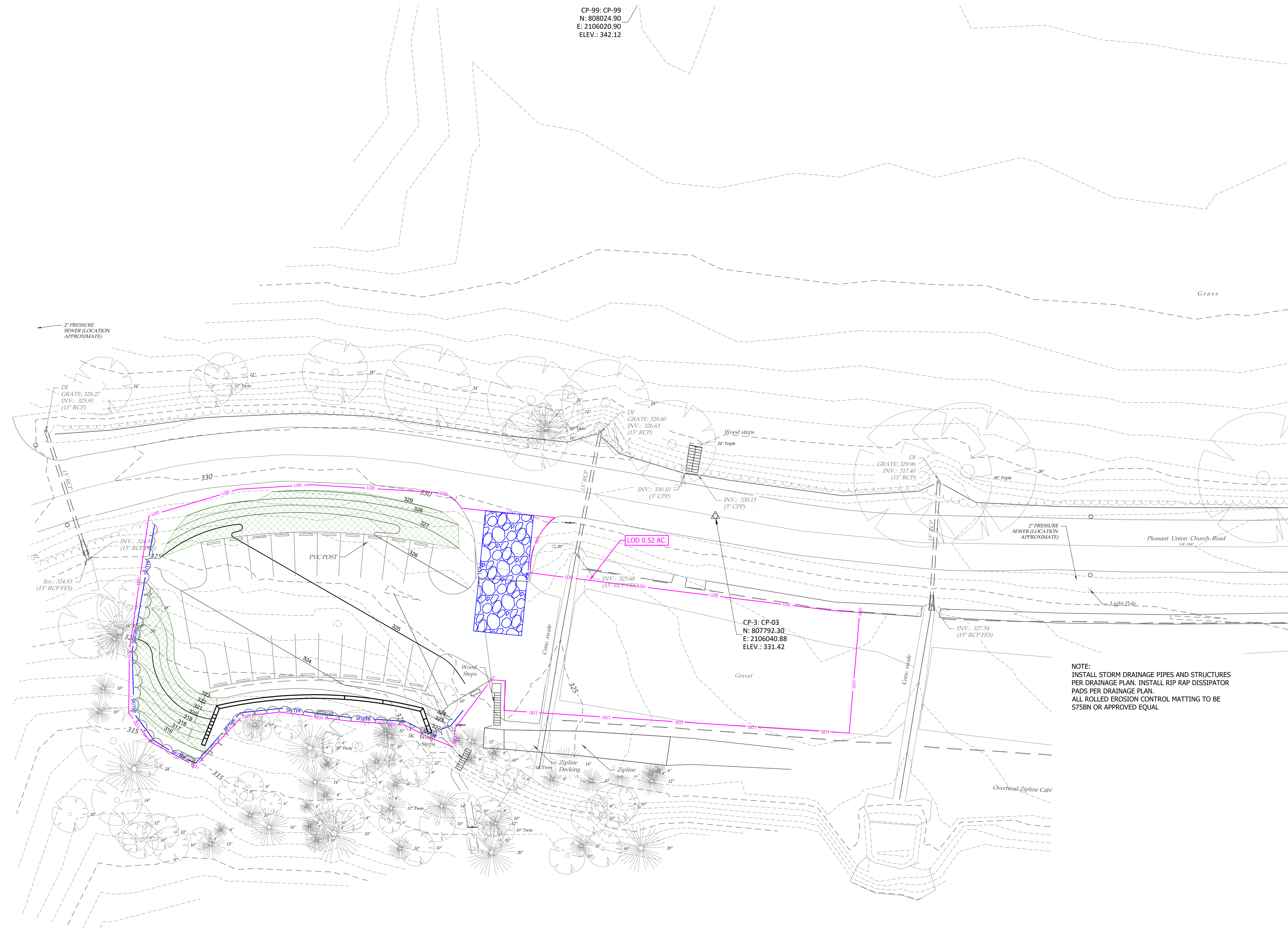
E

D

C

B

A



# Surface

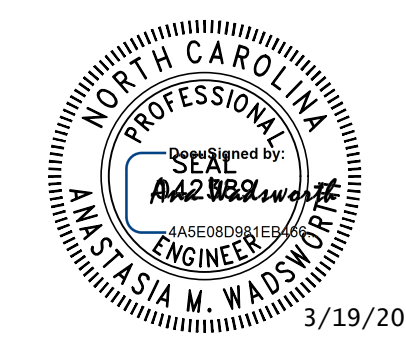
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WAKE COUNTY OFFICE BUILDING  
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RALEIGH, NC 27602

## BLUE JAY POINT COUNTY PARK

## 3200 PLEASANT UNION CHURCH ROAD

## KEY MAP

NO.	REVISION	DATE
1	RESUBMISSION- SITE PLAN	11/08/2024

## ISSUE:

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## PROJECT NO:

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## SHEET TITLE:

CONSTRUCTION PHASE E  
& S CONTROL PLAN MAIN  
PARK PARKING

C-508

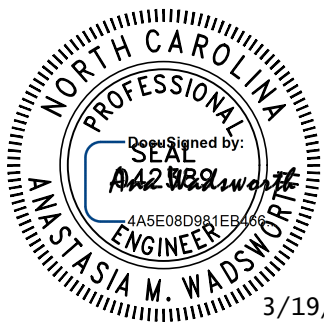


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FACILITIES DESIGN AND CONSTRUCTION

WAKE COUNTY OFFICE BUILDING  
11TH FLOOR  
RALEIGH, NC 27602

BLUE JAY POINT  
COUNTY PARK

3200 PLEASANT UNION  
CHURCH ROAD

KEY MAP

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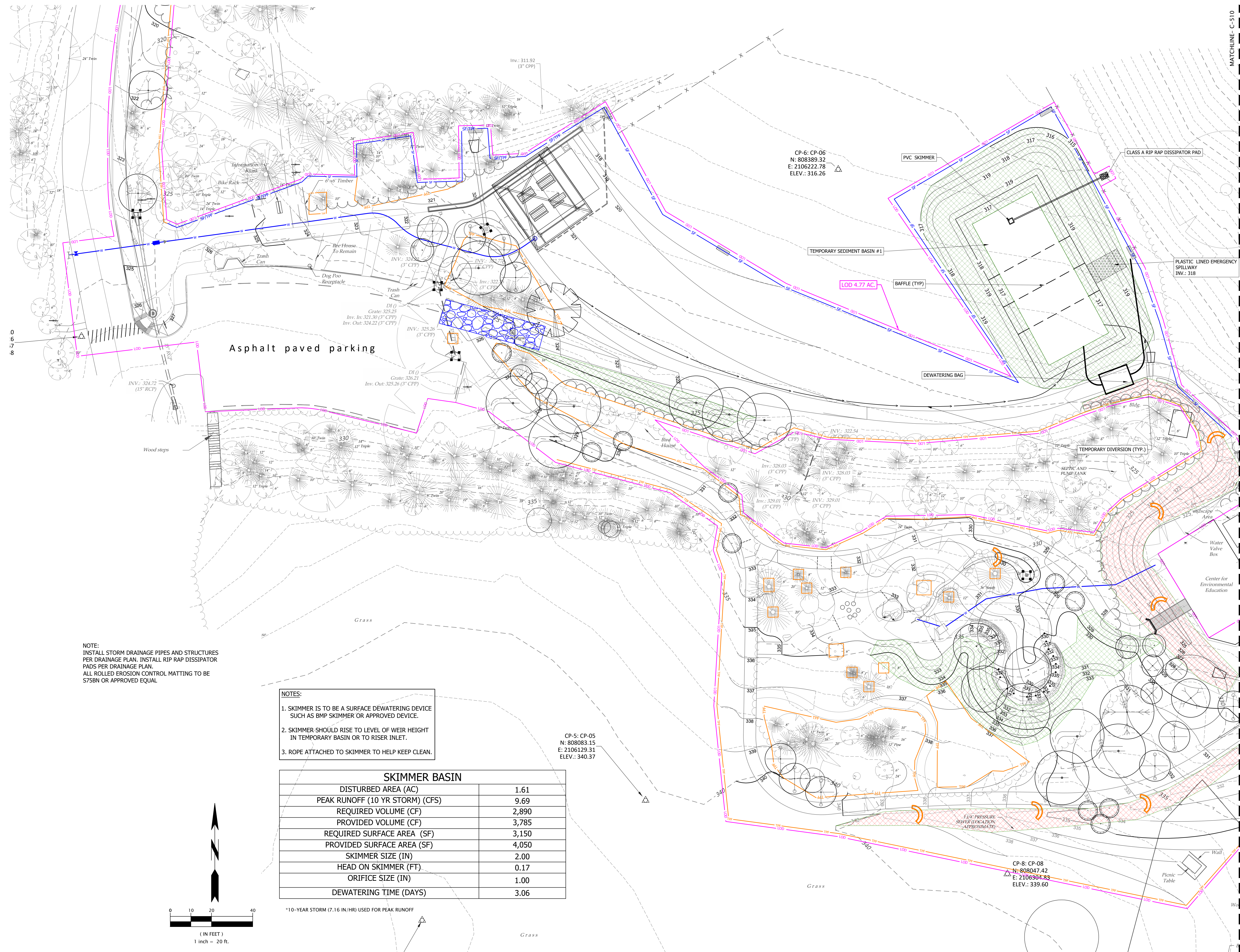
CHECKED:

AMW

SHEET TITLE:

CONSTRUCTION PHASE E  
& S CONTROL PLAN  
PLAYGROUND

C-509



NOTE:  
INSTALL STORM DRAINAGE PIPES AND STRUCTURES  
PER DRAINAGE PLAN. INSTALL RIP RAP DISSIPATOR  
PADS PER DRAINAGE PLAN.  
ALL ROLLED EROSION CONTROL MATTING TO BE  
575BN OR APPROVED EQUAL

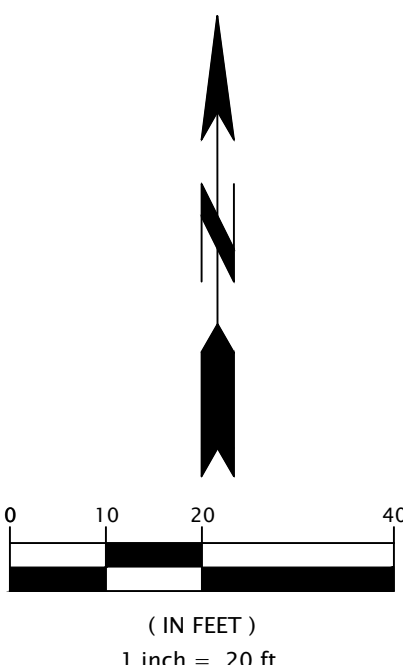
NOTES:

- SKIMMER IS TO BE A SURFACE DEWATERING DEVICE  
SUCH AS BMP SKIMMER OR APPROVED DEVICE.
- SKIMMER SHOULD RISE TO LEVEL OF WEIR HEIGHT  
IN TEMPORARY BASIN OR TO RISER INLET.
- ROPE ATTACHED TO SKIMMER TO HELP KEEP CLEAN.

SKIMMER BASIN

DISTURBED AREA (AC)	1.61
PEAK RUNOFF (10 YR STORM) (CFS)	9.69
REQUIRED VOLUME (CF)	2,890
PROVIDED VOLUME (CF)	3,785
REQUIRED SURFACE AREA (SF)	3,150
PROVIDED SURFACE AREA (SF)	4,050
SKIMMER SIZE (IN)	2.00
HEAD ON SKIMMER (FT)	0.17
ORIFICE SIZE (IN)	1.00
DEWATERING TIME (DAYS)	3.06

\*10-YEAR STORM (7.16 IN/HR) USED FOR PEAK RUNOFF



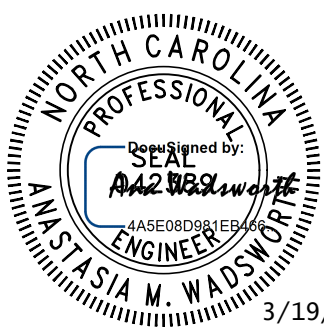


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WAKE COUNTY OFFICE BUILDING  
11TH FLOOR  
RALEIGH, NC 27602

**BLUE JAY POINT  
COUNTY PARK**

**3200 PLEASANT UNION  
CHURCH ROAD**

KEY MAP

NO.	REVISION	DATE
1	RESUBMISSION- SITE PLAN	11/08/2024

ISSUE:

100% CONSTRUCTION DOCS

PROJECT NO:

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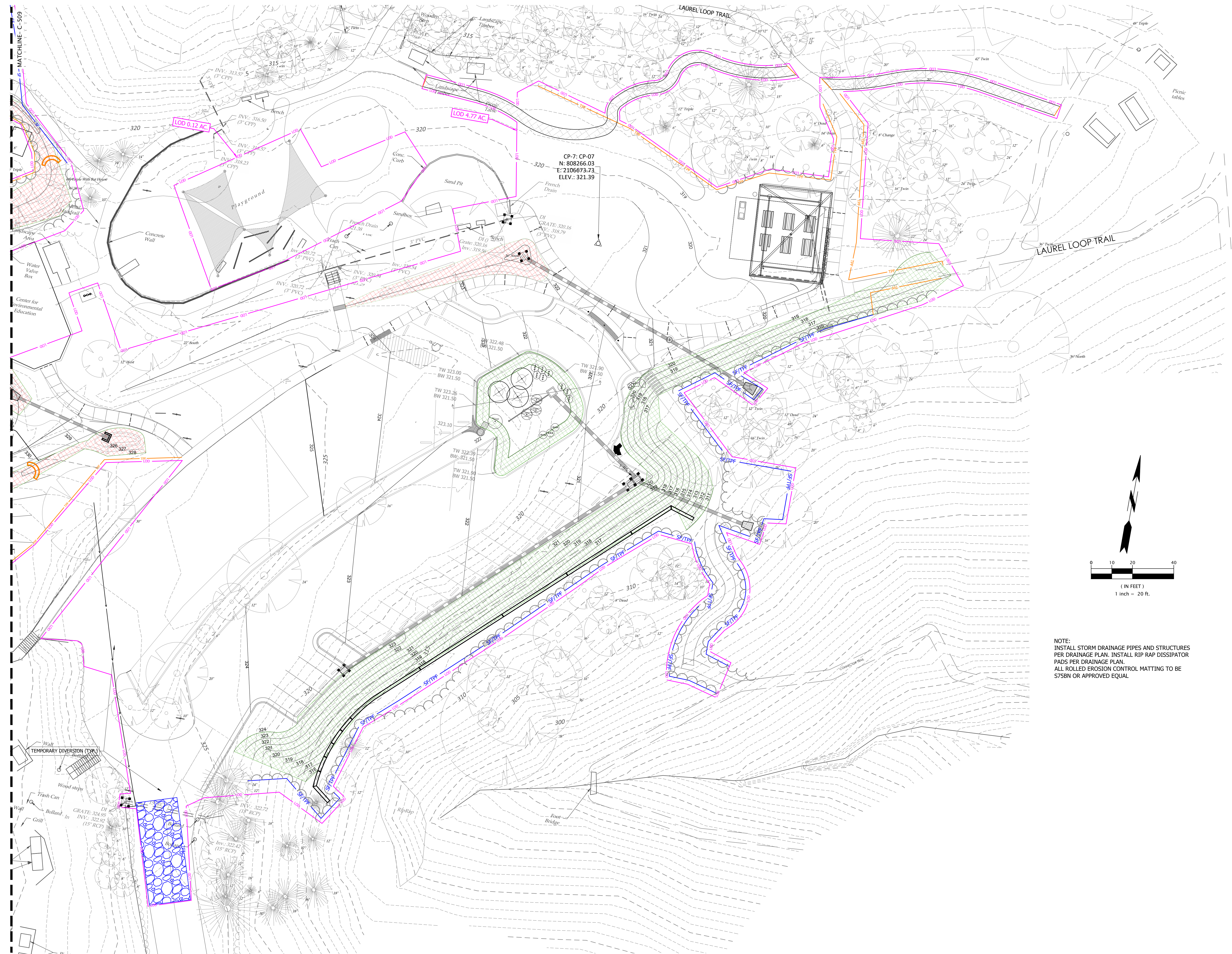
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**CONSTRUCTION PHASE E  
& S CONTROL PLAN  
PLAYGROUND**

**C-510**





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WAKE COUNTY OFFICE BUILDING  
11TH FLOOR  
RALEIGH, NC 27602

**BLUE JAY POINT COUNTY PARK**

**3200 PLEASANT UNION CHURCH ROAD**

## KEY MAP

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## ISSUE:

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## PROJECT NO:

DATE: MARCH 21, 2024

## DRAWN:

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## SHEET TITLE:

**CONSTRUCTION PHASE E  
& S CONTROL PLAN  
LODGE**

**C-511**

NOTE:  
INSTALL STORM DRAINAGE PIPES AND STRUCTURES  
PER DRAINAGE PLAN. INSTALL RIP RAP DISSIPATOR  
PADS PER DRAINAGE PLAN.  
ALL ROLLED EROSION CONTROL MATTING TO BE  
S75BN OR APPROVED EQUAL

MATCHLINE- THIS SHEET

MATCHLINE- THIS SHEET

0 10 20 40  
(IN FEET)  
1 inch = 20 ft.



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WAKE COUNTY OFFICE BUILDING  
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RALEIGH, NC 27602

**BLUE JAY POINT  
COUNTY PARK**

**3200 PLEASANT UNION  
CHURCH ROAD**

KEY MAP

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PROJECT NO:

DATE: MARCH 21, 2024

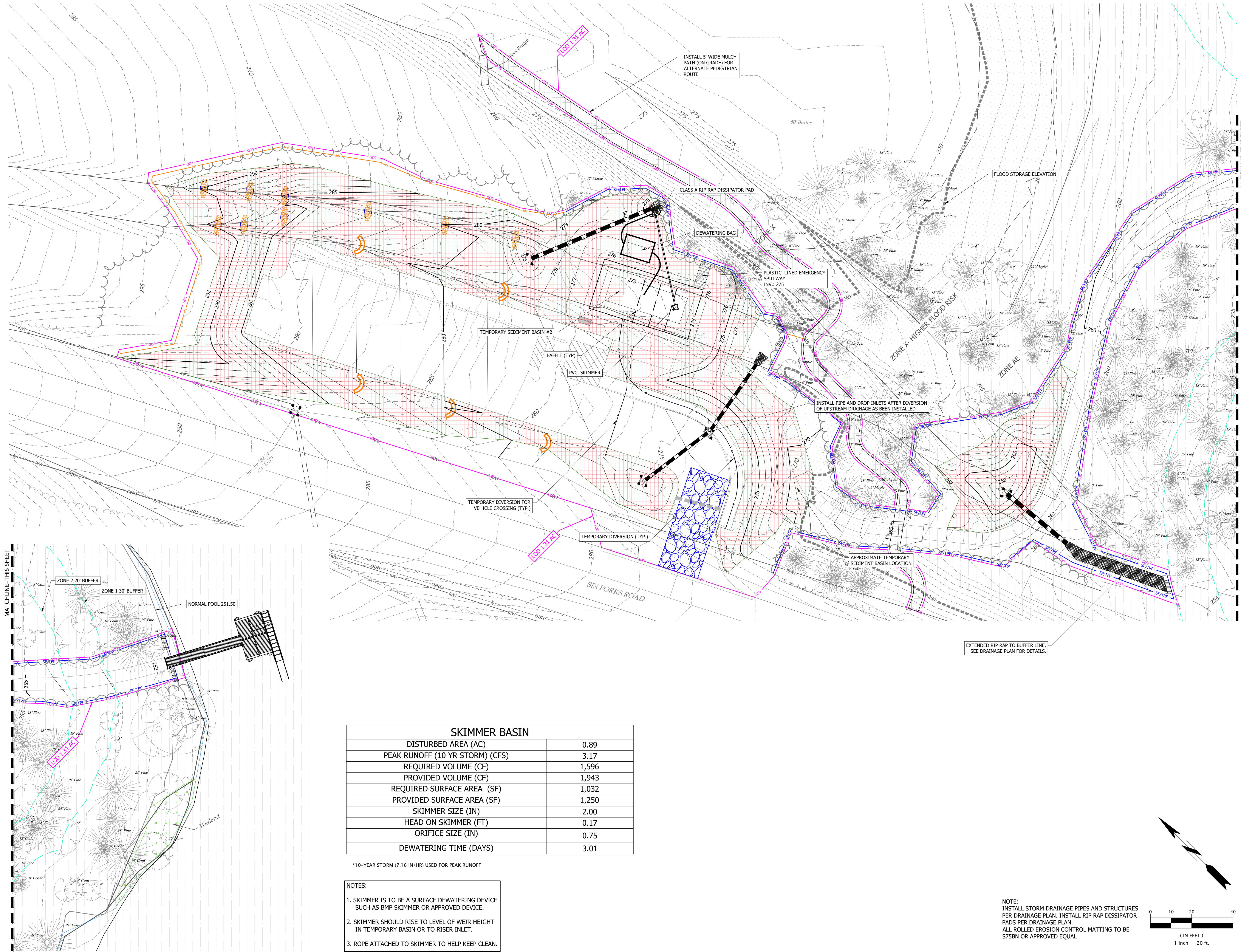
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CHECKED: AMW

SHEET TITLE:

**CONSTRUCTION PHASE E  
& S CONTROL PLAN  
KAYAK LAUNCH**

**C-512**



SKIMMER BASIN	
DISTURBED AREA (AC)	0.89
PEAK RUNOFF (10 YR STORM) (CFS)	3.17
REQUIRED VOLUME (CF)	1,596
PROVIDED VOLUME (CF)	1,943
REQUIRED SURFACE AREA (SF)	1,032
PROVIDED SURFACE AREA (SF)	1,250
SKIMMER SIZE (IN)	2.00
HEAD ON SKIMMER (FT)	0.17
ORIFICE SIZE (IN)	0.75
DEWATERING TIME (DAYS)	3.01

\*10-YEAR STORM (7.16 IN/HR) USED FOR PEAK RUNOFF

NOTES:

- SKIMMER IS TO BE A SURFACE DEWATERING DEVICE SUCH AS BMP SKIMMER OR APPROVED DEVICE.
- SKIMMER SHOULD RISE TO LEVEL OF WEIR HEIGHT IN TEMPORARY BASIN OR TO RISER INLET.
- ROPE ATTACHED TO SKIMMER TO HELP KEEP CLEAN.

NOTE:  
INSTALL STORM DRAINAGE PIPES AND STRUCTURES PER DRAINAGE PLAN. INSTALL RIP RAP DISSIPATOR PADS PER DRAINAGE PLAN.  
ALL ROLLED EROSION CONTROL MATTING TO BE S75BN OR APPROVED EQUAL.

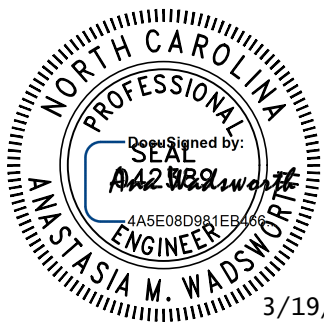


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**FACILITIES DESIGN AND CONSTRUCTION**  
WAKE COUNTY OFFICE BUILDING  
11TH FLOOR  
RALEIGH, NC 27602

**BLUE JAY POINT  
COUNTY PARK**

**3200 PLEASANT UNION  
CHURCH ROAD**

KEY MAP

NO.	REVISION	DATE
1	RESUBMISSION- SITE PLAN	11/08/2024

ISSUE:

100% CONSTRUCTION DOCS

PROJECT NO:

DATE: MARCH 21, 2024

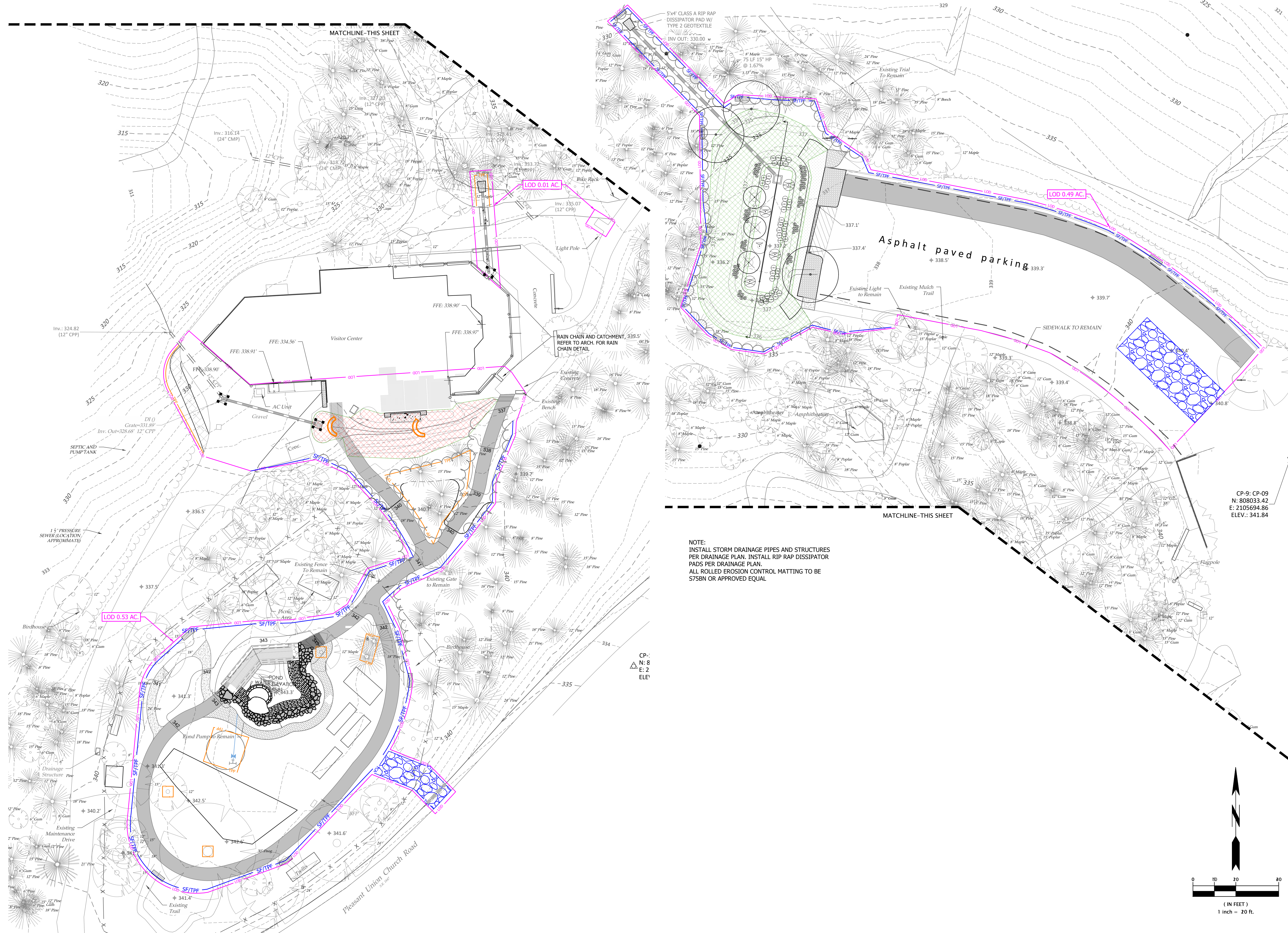
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SHEET TITLE:

**FINAL STABILIZATION  
PHASE E & S CONTROL  
PLAN VISITOR'S CENTER**

**C-513**





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WAKE COUNTY OFFICE BUILDING  
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COUNTY PARK

3200 PLEASANT UNION  
CHURCH ROAD

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PROJECT NO:

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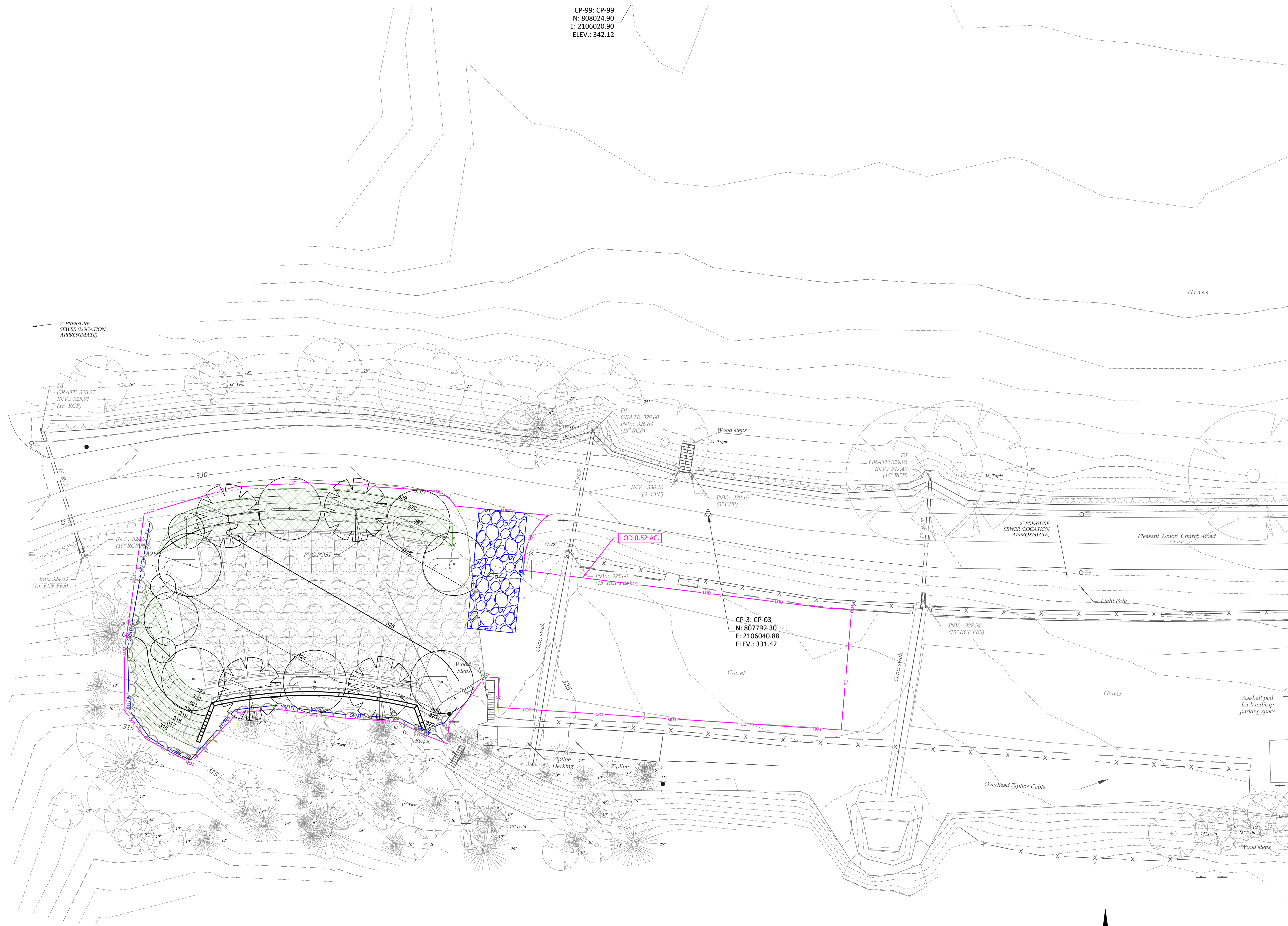
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CHECKED: AMW

SHEET TITLE:

FINAL STABILIZATION  
PHASE E & S CONTROL  
PLAN MAIN PARK PARKING

C-514



NOTE:  
INSTALL STORM DRAINAGE PIPES AND STRUCTURES  
PER DRAINAGE PLAN. INSTALL RIP RAP DISSIPATOR  
PADS PER DRAINAGE PLAN.  
ALL ROLLED EROSION CONTROL MATTING TO BE  
S75BN OR APPROVED EQUAL

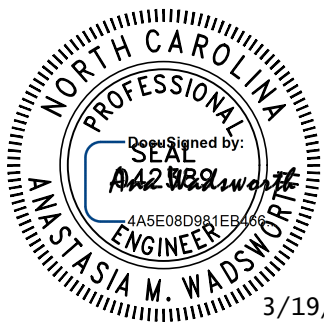


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## FACILITIES DESIGN AND CONSTRUCTION

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RALEIGH, NC 27602

## BLUE JAY POINT COUNTY PARK

3200 PLEASANT UNION CHURCH ROAD

## KEY MAP

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## ISSUE:

100% CONSTRUCTION DOCS

## PROJECT NO:

DATE: MARCH 21, 2024

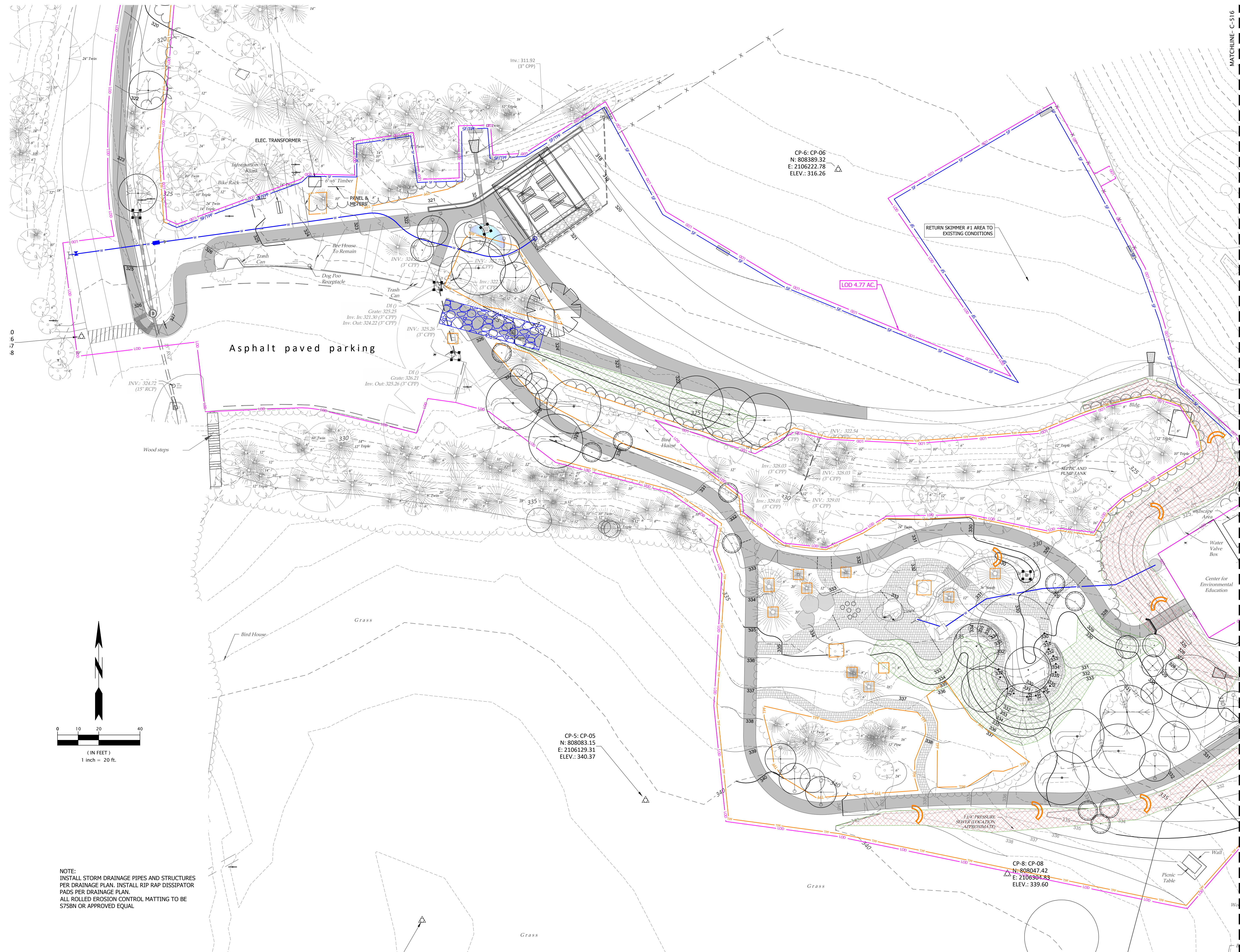
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## SHEET TITLE:

FINAL STABILIZATION  
PHASE E & S CONTROL  
PLAN PLAYGROUND

C-515



NOTE:  
INSTALL STORM DRAINAGE PIPES AND STRUCTURES  
PER DRAINAGE PLAN. INSTALL RIP RAP DISSIPATOR  
PADS PER DRAINAGE PLAN.  
ALL ROLLED EROSION CONTROL MATTING TO BE  
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**BLUE JAY POINT  
COUNTY PARK**

**3200 PLEASANT UNION  
CHURCH ROAD**

KEY MAP

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PROJECT NO:

DATE: MARCH 21, 2024

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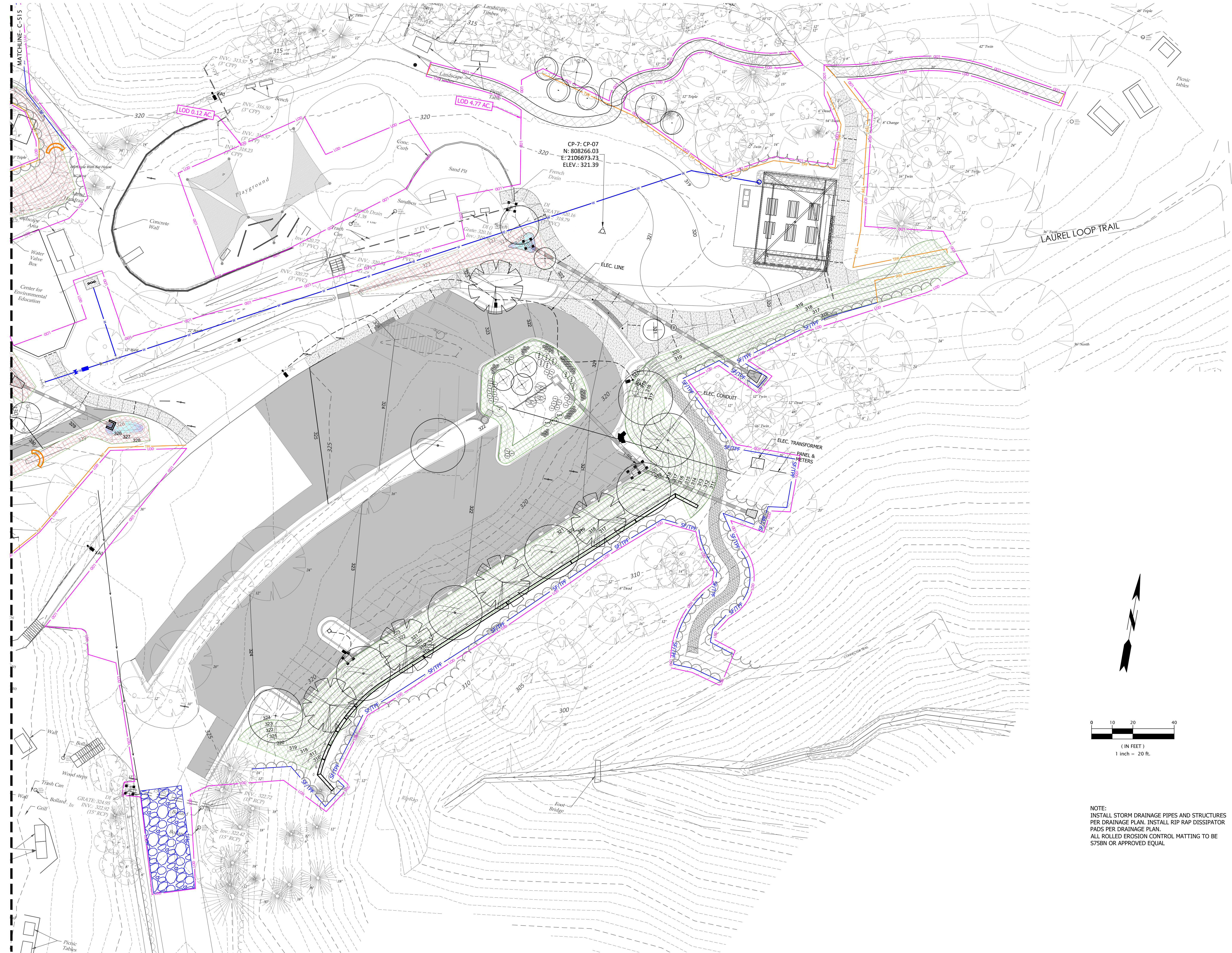
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AMW

SHEET TITLE:

**FINAL STABILIZATION  
PHASE E & S CONTROL  
PLAN PLAYGROUND**

**C-516**





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RALEIGH, NC 27602

**BLUE JAY POINT  
COUNTY PARK**

**3200 PLEASANT UNION  
CHURCH ROAD**

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PROJECT NO:

DATE: MARCH 21, 2024

DRAWN:

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SHEET TITLE:

**FINAL STABILIZATION  
PHASE E & S CONTROL  
PLAN PARK LODGE**

**C-517**



NOTE:  
INSTALL STORM DRAINAGE PIPES AND STRUCTURES  
PER DRAINAGE PLAN. INSTALL RIP RAP DISSIPATOR  
PADS PER DRAINAGE PLAN.  
ALL ROLLED EROSION CONTROL MATTING TO BE  
S75BN OR APPROVED EQUAL



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**BLUE JAY POINT  
COUNTY PARK**

**3200 PLEASANT UNION  
CHURCH ROAD**

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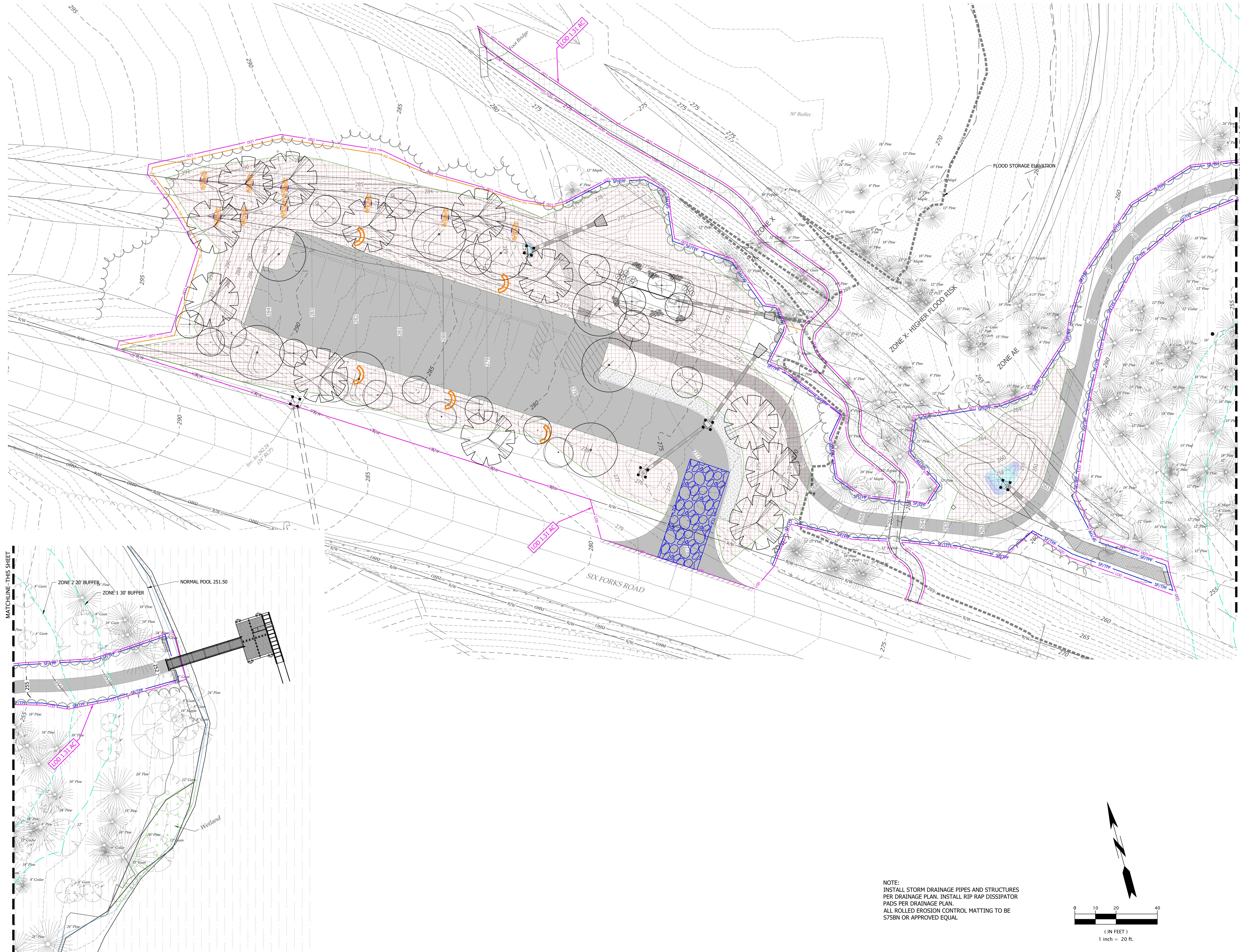
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AMW

SHEET TITLE:

**FINAL STABILIZATION  
PHASE E & S CONTROL  
PLAN KAYAK LAUNCH**

**C-518**





E

D

C

B

A

# Surface

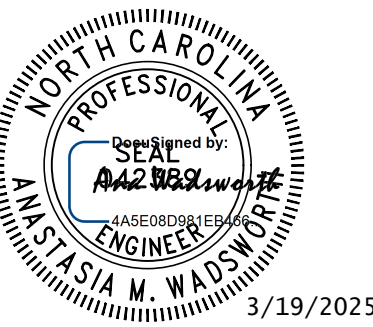
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**FACILITIES DESIGN AND CONSTRUCTION**  
WAKE COUNTY OFFICE BUILDING  
11TH FLOOR  
RALEIGH, NC 27602

## BLUE JAY POINT COUNTY PARK

**3200 PLEASANT UNION CHURCH ROAD**

## KEY MAP

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## ISSUE:

100% CONSTRUCTION DOCS

## PROJECT NO:

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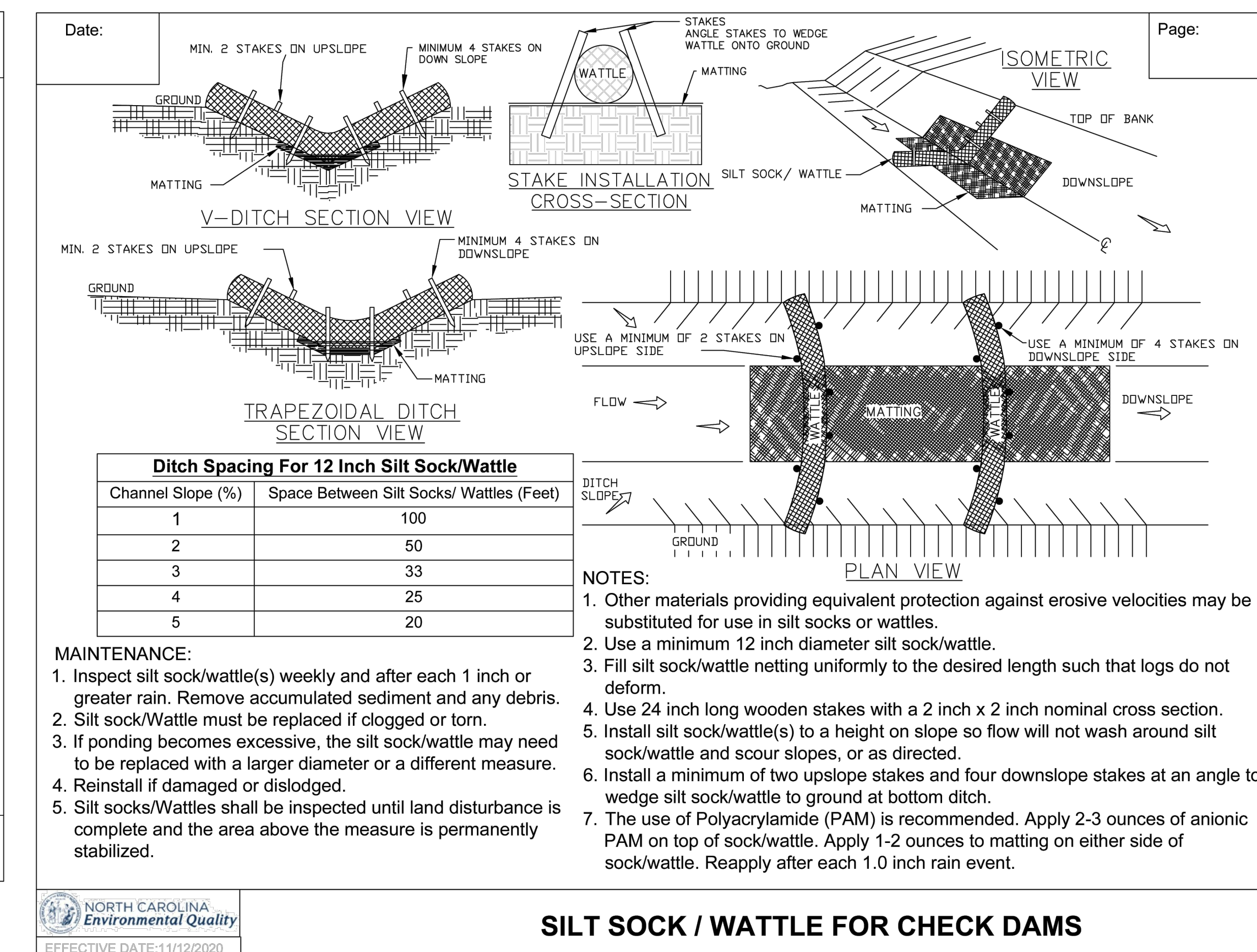
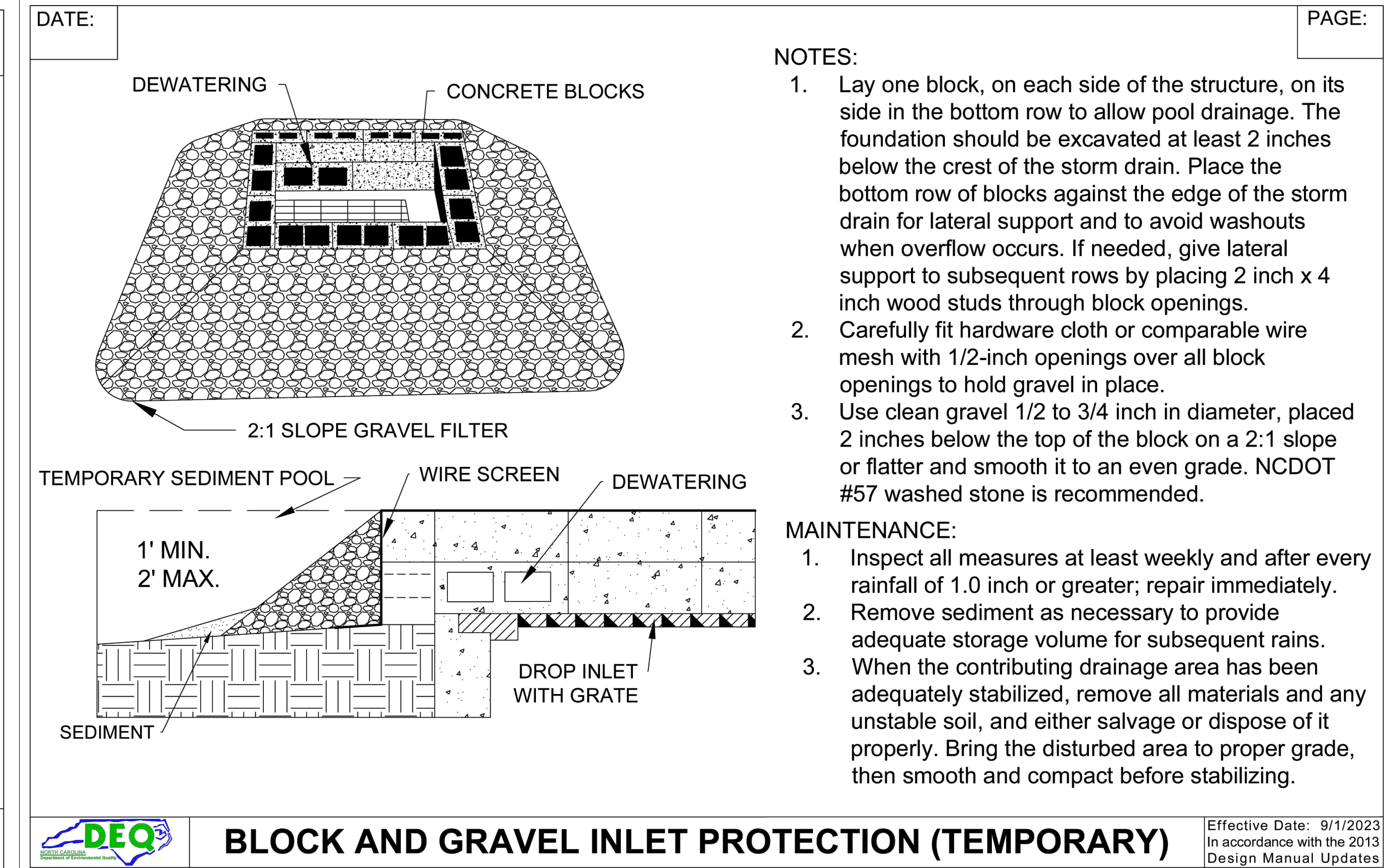
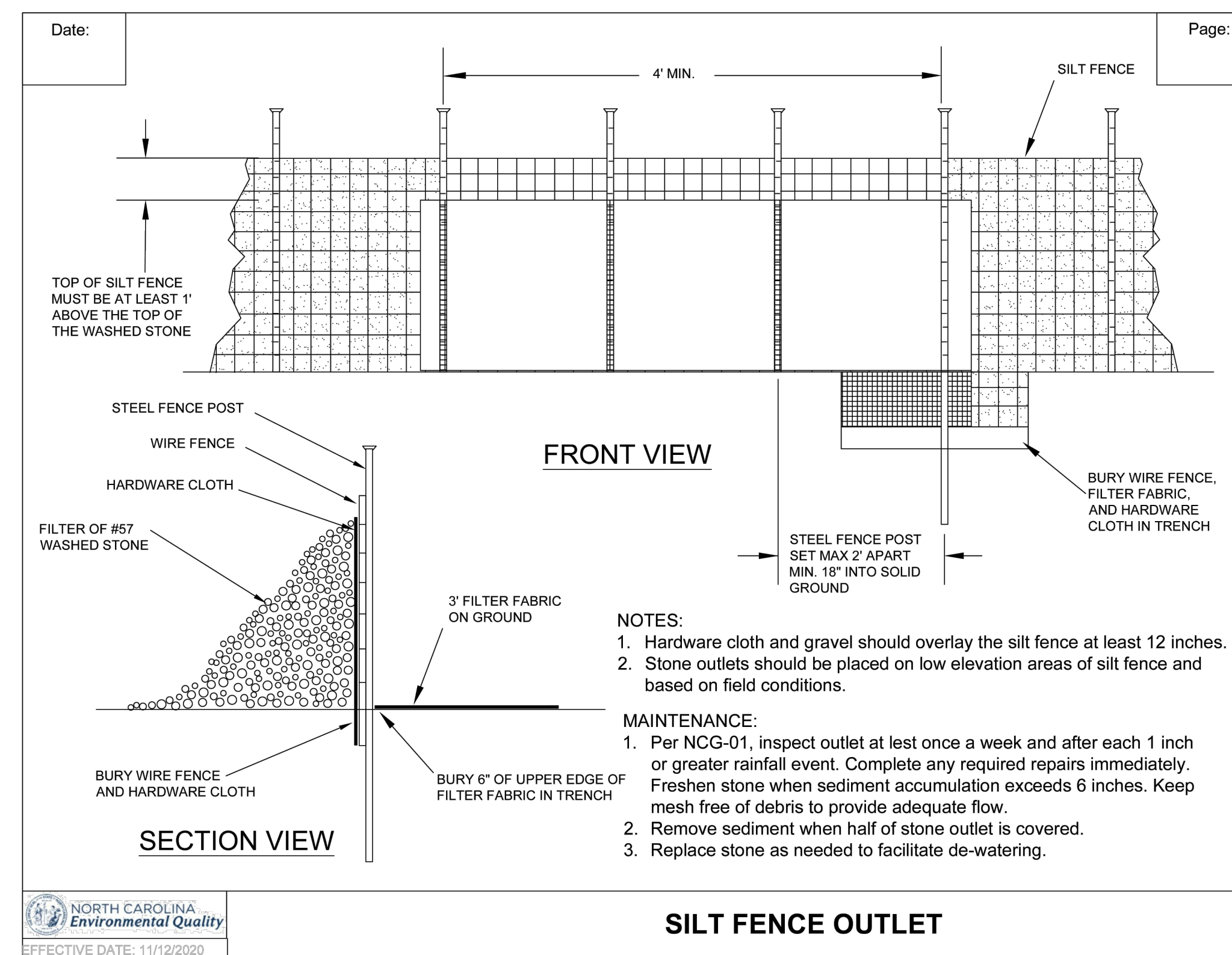
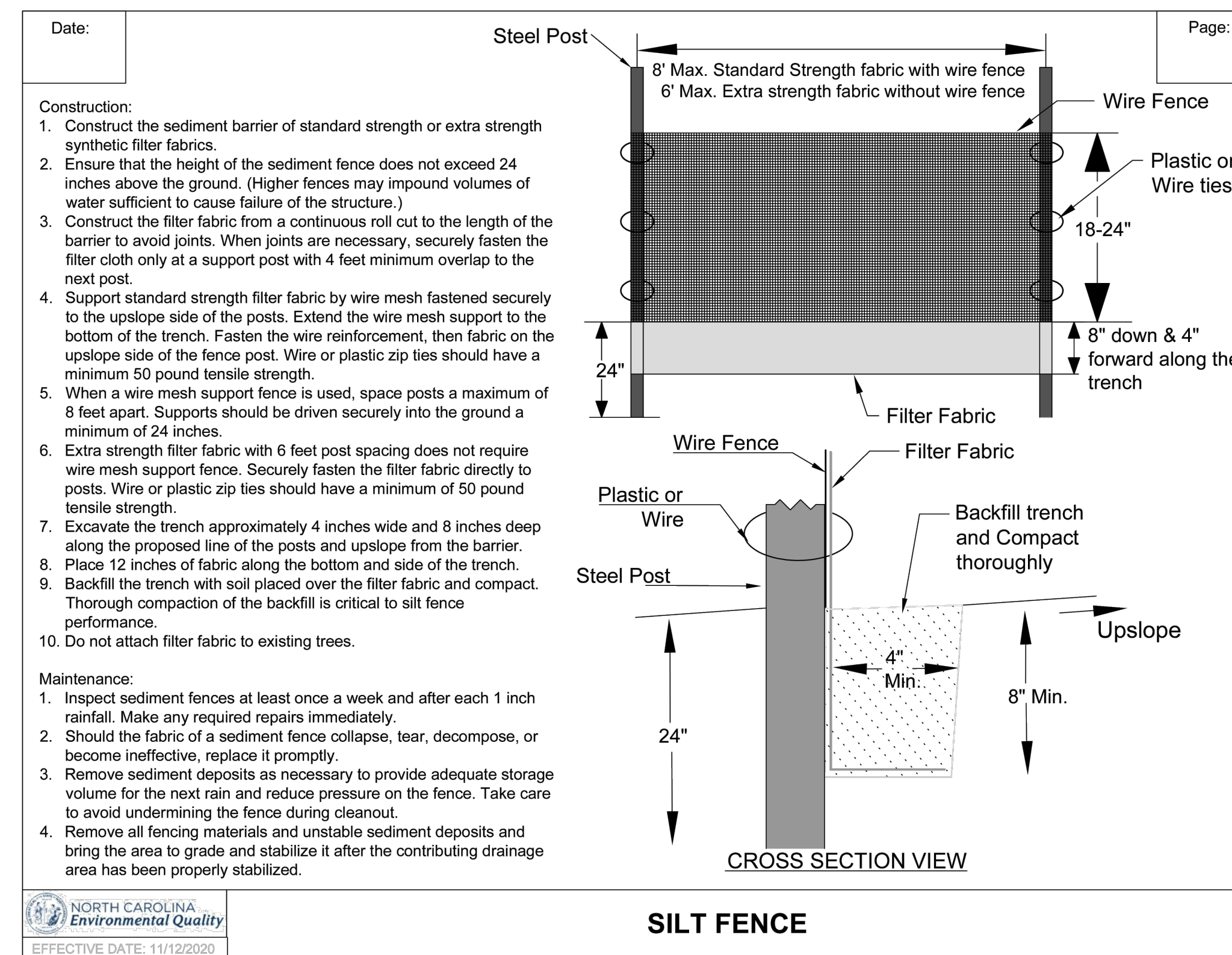
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## SHEET TITLE:

EROSION CONTROL DETAILS

C-600





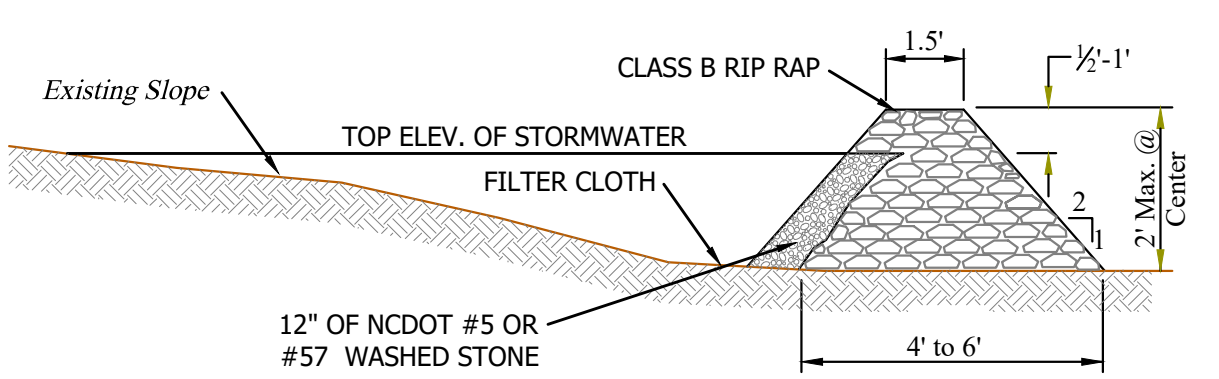
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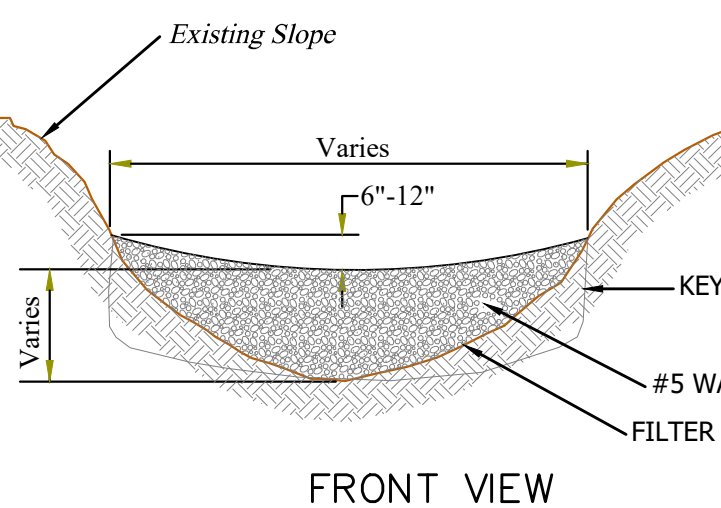
C

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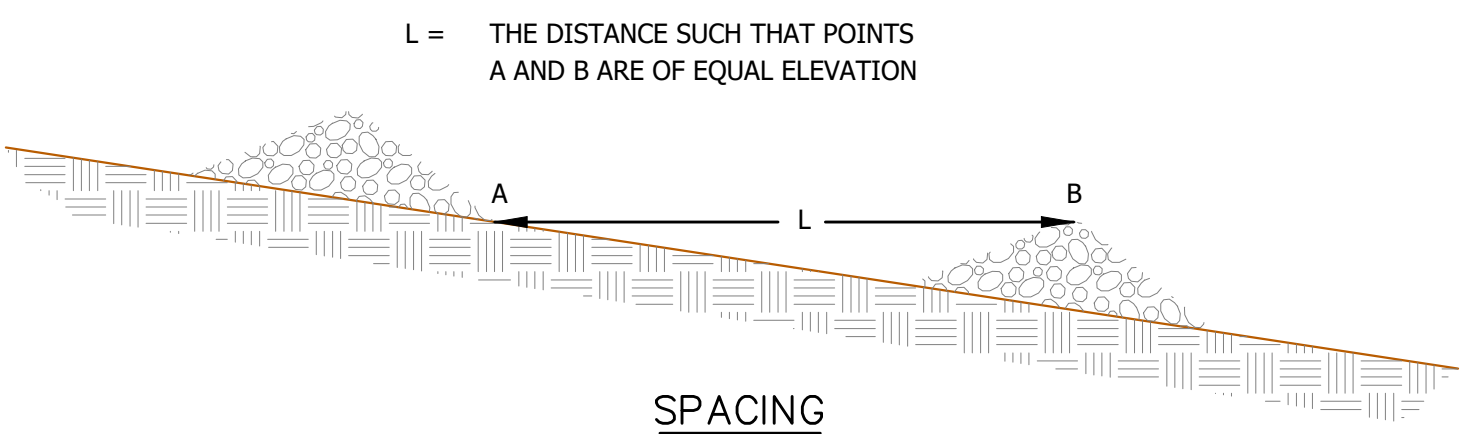


**NOTES:**  
HEIGHT AND WIDTH DETERMINED BY EXISTING TOPOGRAPHY AND SEDIMENT STORAGE REQUIRED.  
KEY RIP RAP INTO THE DAM FOR STABILIZATION.



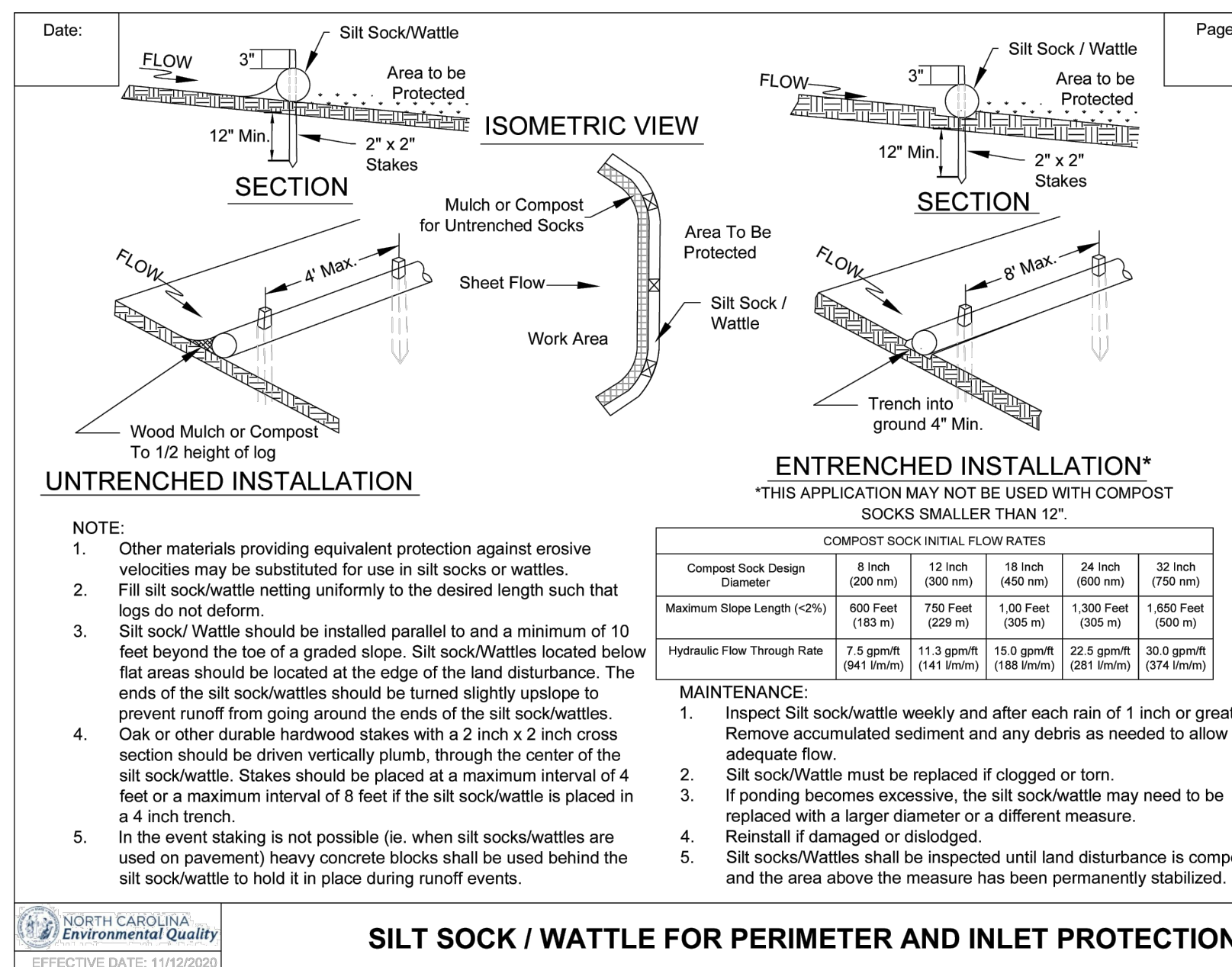
#### MAINTENANCE

1. INSPECT CHECK DAMS AND CHANNELS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. CLEAN OUT SEDIMENT, STRAW, LIMBS, OR OTHER DEBRIS THAT COULD CLOG THE CHANNEL WHEN NEEDED.
2. ANTICIPATE SUBMERGENCE AND DEPOSITION ABOVE THE CHECK DAM AND EROSION FROM HIGH FLOWS AROUND THE EDGES OF THE DAM. CORRECT ALL DAMAGE IMMEDIATELY.
3. REMOVE SEDIMENT ACCUMULATED BEHIND THE DAMS AS NEEDED TO PREVENT DAMAGE TO CHANNEL VEGETATION, ALLOW THE CHANNEL TO DRAIN THROUGH THE STONE CHECK DAM, AND PREVENT LARGE FLOWS FROM CARRYING SEDIMENT OVER THE DAM. ADD STONES TO DAMS AS NEEDED TO MAINTAIN DESIGN HEIGHT AND CROSS SECTION.

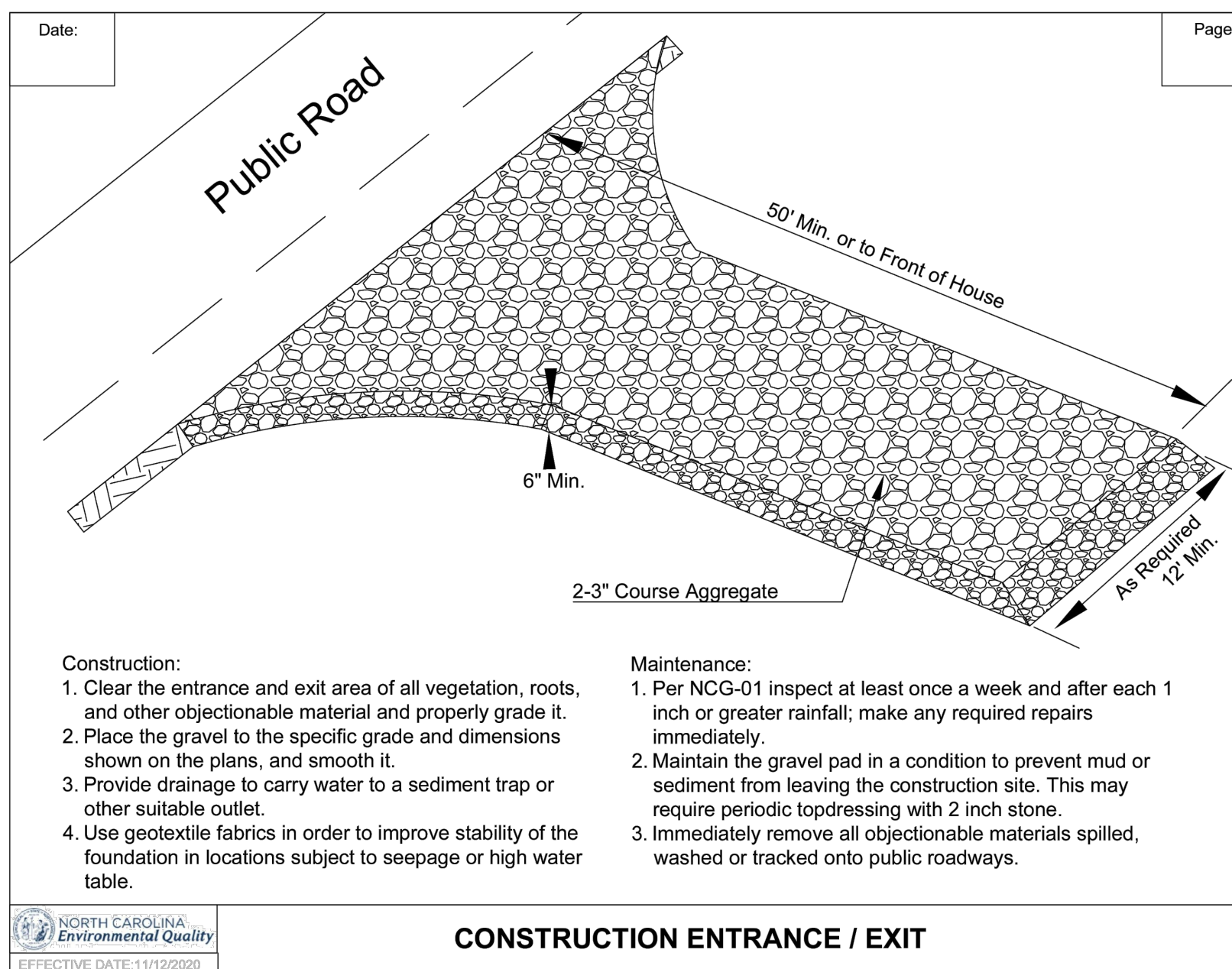


NOTE: DO NOT PLACE CHECK DAMS IN LIVE STREAMS.

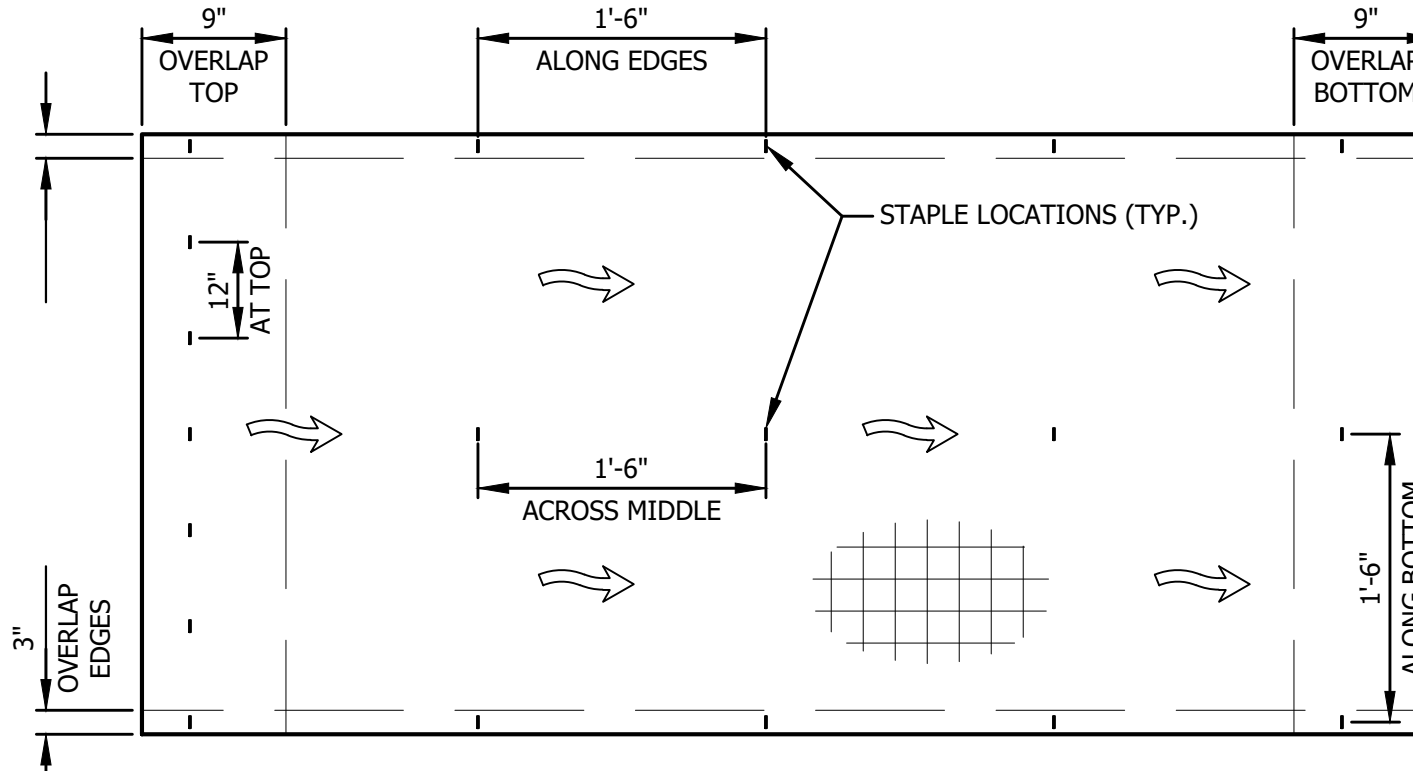
#### ROCK CHECK DAM NOT TO SCALE



#### SILT SOCK / WATTLE FOR PERIMETER AND INLET PROTECTION



#### CONSTRUCTION ENTRANCE / EXIT



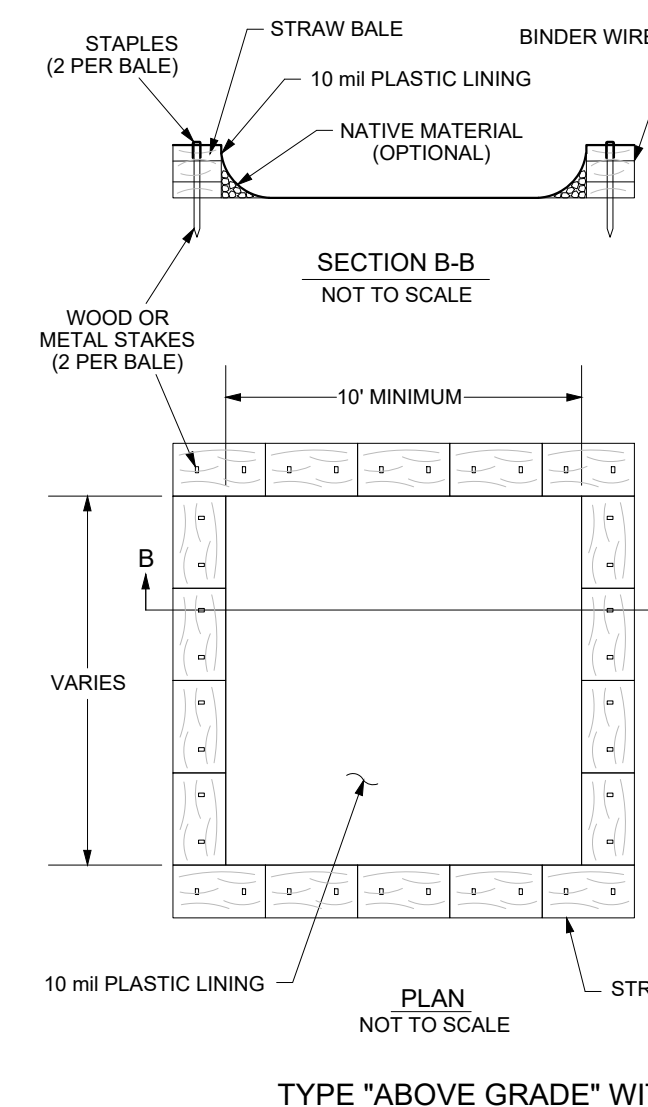
#### INSTALLATION OF LINER:

1. APPLY LIME, FERTILIZER, AND SEED BEFORE LAYING LINER.
2. LAY LINER FROM TOP OF DITCH OR CHANNEL AND UNROLL IT DOWNGRADE. DO NOT STRETCH OR LEAVE WRINKLES.
3. BURY THE UPSLOPE END IN A SLOT 6\"/>

#### MAINTENANCE:

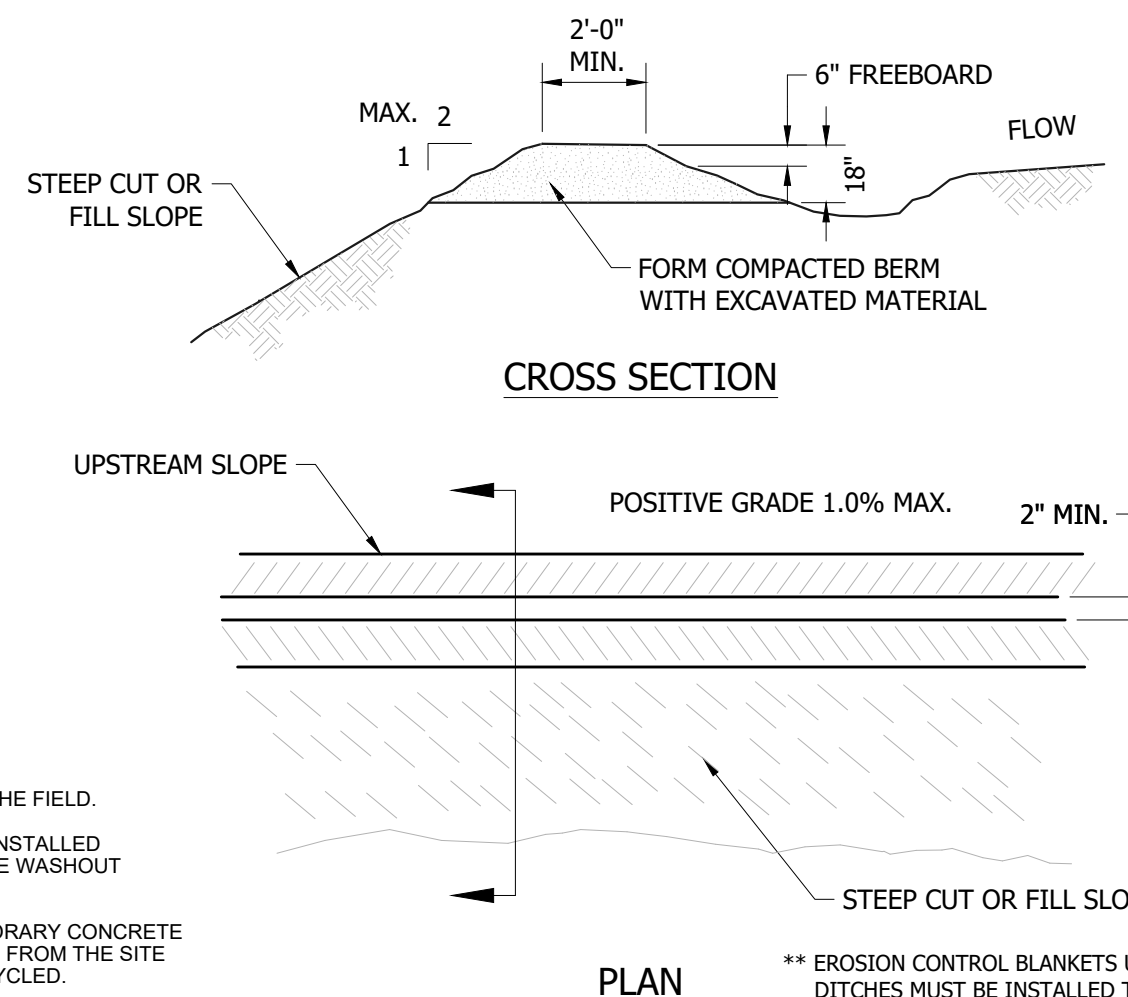
INSPECT AFTER RAINSTORMS FOR EROSION OR FAILURE. REPAIR ALL WASHED OUT AREAS BY REGRADING, RESEEDING, AND REINSTALLING MULCH.

#### EROSION CONTROL BLANKET NOT TO SCALE

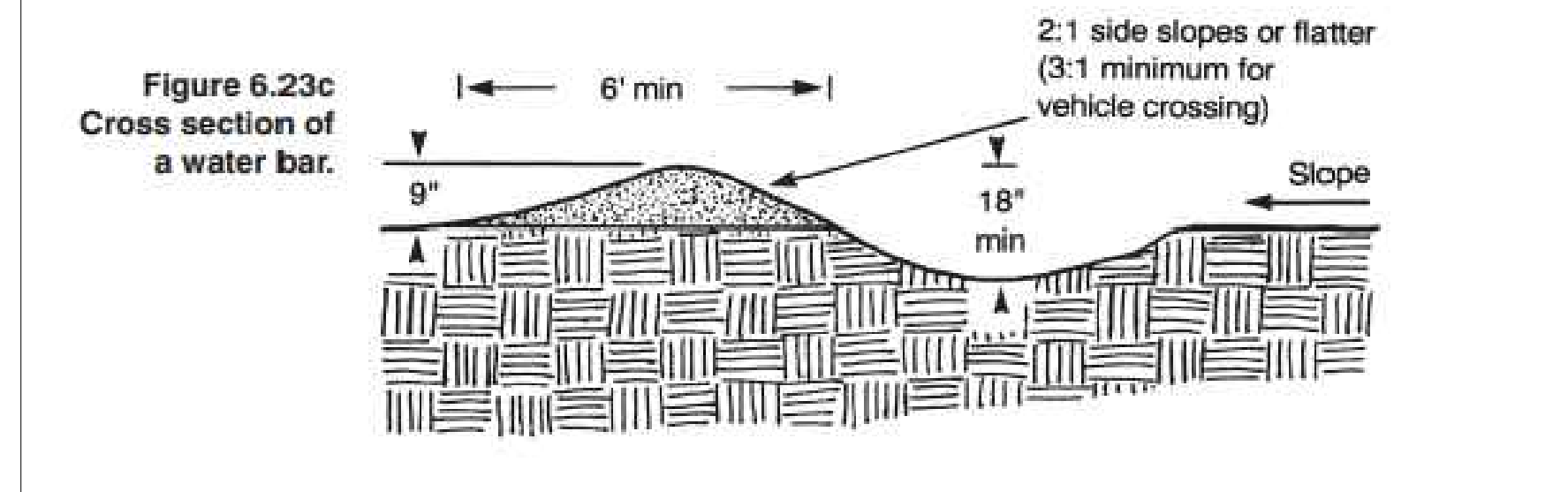


TYPE "ABOVE GRADE" WITH STRAW BALES

CONCRETE WASHOUT AREA  
NOT TO SCALE



#### TEMPORARY DIVERSION DITCH NOT TO SCALE



Minimum Requirements	
■ Height:	18 inches minimum from channel bottom to top of settled ridge.
■ Side slope:	2:1 or flatter (3:1 or flatter where vehicles cross).
■ Spacing:	For right-of-way widths less than 100 ft, spacing is given in Table 6.23a.
■ Base width of ridge:	6 ft minimum (Figure 6.23c).

Table 6.23a Spacing of Water Bars	Slope (%)	Diversion Spacing (ft)
	<5	125
	5 to 10	100
	10 to 20	75
	20 to 35	50
	>35	25

**Installation**  
Construct the diversion system as soon as the access right-of-way has been cleared and graded (Figure 6.23b).  
Locate first diversion at required distance from the slope crest depending on steepness of right-of-way slope (Table 6.23a). Set crossing angle to keep positive grade less than 2% (approximately 60-degree angle preferred).  
Mark location and width of ridge and disk the entire length.  
Fill and compact ridge above design height and compact with wheeled equipment to the design cross section (Figure 6.23c).  
Construct diversions on constant or slightly increasing grade not to exceed 2%. Avoid reverse grades.  
Set direction of water bars to utilize the most stable outlet locations. If necessary, adjust length of water bars or make small adjustments to spacing. Do not allow runoff from upslope water bars to converge with downslope water bar outlets. Construct sediment traps or outlet stabilization structures as needed.  
Seed and mulch the ridge and channel immediately.

**Maintenance**  
Inspect water bars periodically for vehicle wear. Inspect for erosion and sediment deposition above water bars.  
Remove debris and sediment from diversion channel and sediment traps, repair ridge to positive grade and cross section. Add gravel at crossing areas and stabilize outlet as needed.  
Repair and stabilize water bars immediately if right-of-way is disturbed by installation of additional outlets.  
In removing temporary water bars, grade ridge and channel to blend with natural ground. Compact channel fill and stabilize disturbed areas with vegetation. Water bars should not be removed until all disturbed areas draining to them have been stabilized, inspected, and approved.  
If water bars are designed for permanent use, correct any erosion problems, stabilize outlets, and apply permanent seeding.

#### TEMPORARY WATER BAR NOT TO SCALE

# Surface

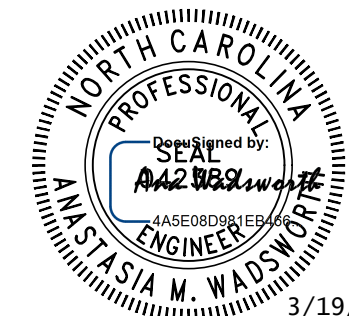
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**FACILITIES DESIGN AND CONSTRUCTION**  
WAKE COUNTY OFFICE BUILDING  
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## BLUE JAY POINT COUNTY PARK

### 3200 PLEASANT UNION CHURCH ROAD

#### KEY MAP

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1	RESUBMISSION- SITE PLAN	11/08/2024

#### ISSUE:

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#### PROJECT NO:

DATE: MARCH 21, 2024

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#### SHEET TITLE:

#### EROSION CONTROL DETAILS

## C-601

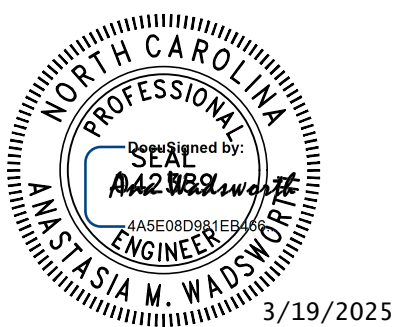


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WAKE COUNTY OFFICE BUILDING  
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RALEIGH, NC 27602

**BLUE JAY POINT  
COUNTY PARK**

**3200 PLEASANT UNION  
CHURCH ROAD**

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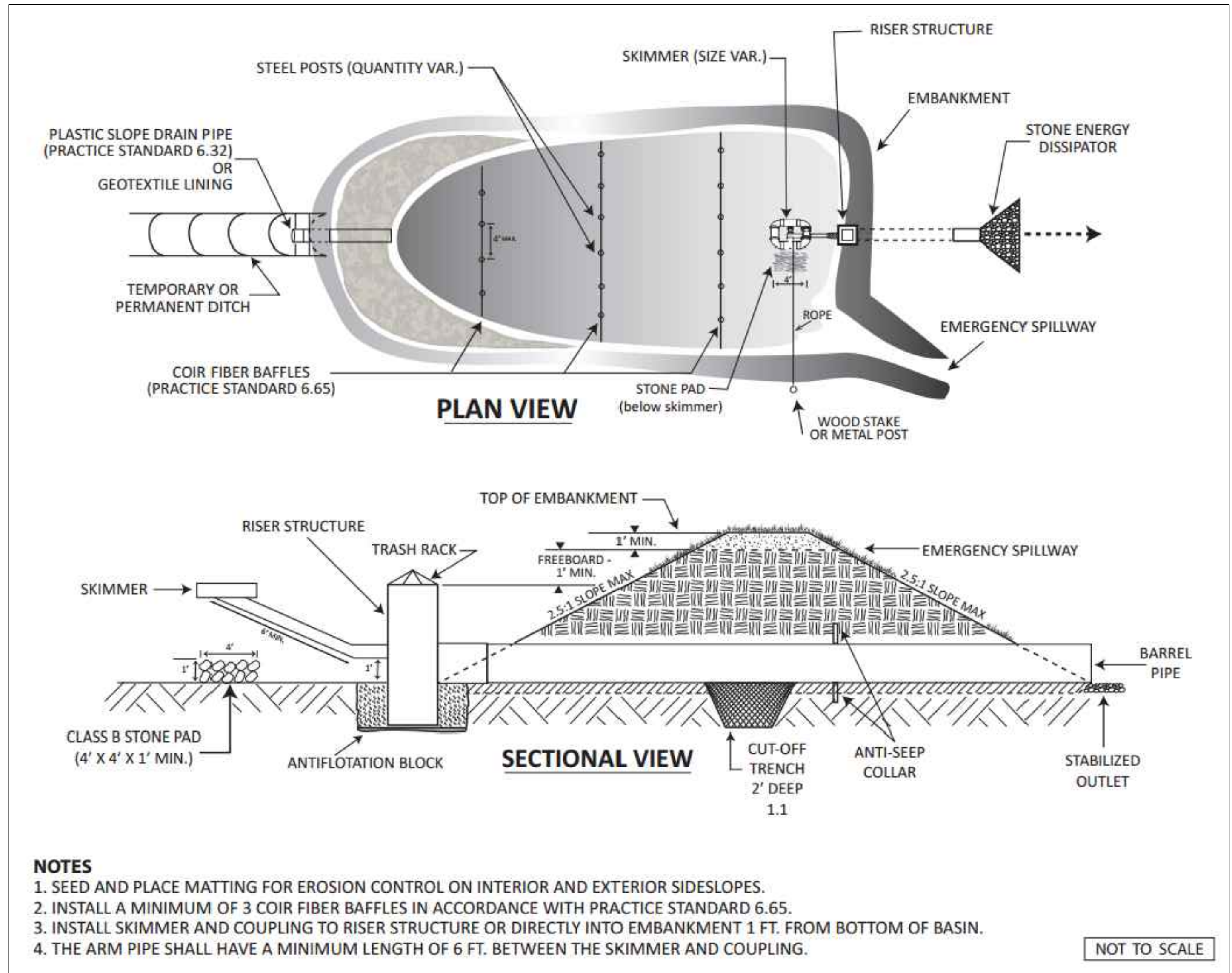
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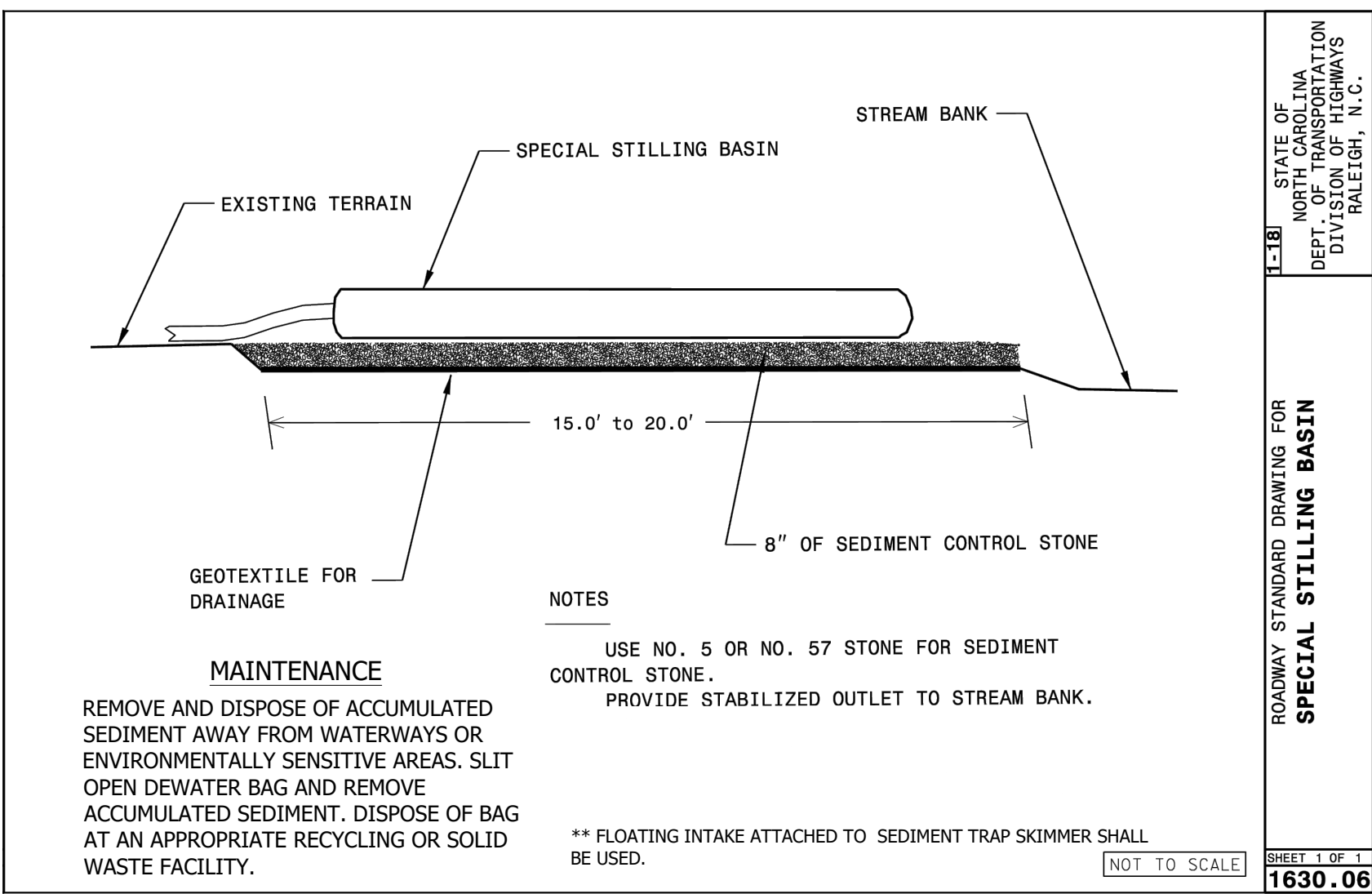
SHEET TITLE:

EROSION CONTROL DETAILS

C-602

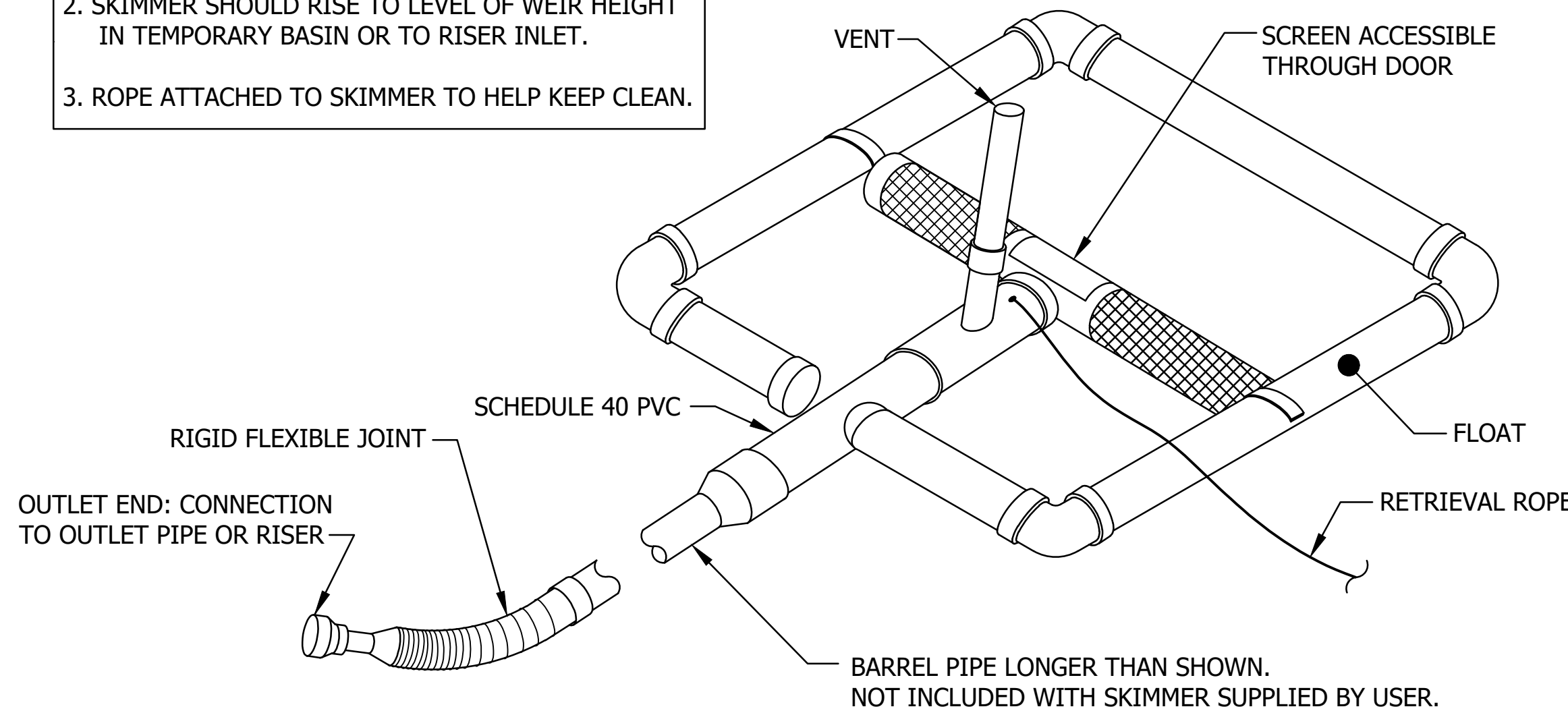


TEMPORARY SEDIMENT BASIN WITH SKIMMER  
NOT TO SCALE



SILT BAG  
NOT TO SCALE

- NOTES:
1. SKIMMER IS TO BE A SURFACE DEWATERING DEVICE SUCH AS BMP SKIMMER OR APPROVED DEVICE.
  2. SKIMMER SHOULD RISE TO LEVEL OF WEIR HEIGHT IN TEMPORARY BASIN OR TO RISER INLET.
  3. ROPE ATTACHED TO SKIMMER TO HELP KEEP CLEAN.



STANDARD SKIMMER DETAIL  
NOT TO SCALE







E

D

C

B

A

PHASED EROSION CONTROL SEQUENCE

EROSION AND SEDIMENT CONTROL (E&SC) PERMIT AND CERTIFICATE OF COVERAGE (COC) MUST BE OBTAINED BEFORE ANY LAND DISTURBING ACTIVITIES (INCLUDING TIMBERING AND DEMOLITION) OCCUR.

INITIAL PHASE

1. EROSION AND SEDIMENT CONTROL (E&SC) PERMIT AND A CERTIFICATE OF COVERAGE MUST BE OBTAINED BEFORE ANY LAND DISTURBING ACTIVITIES (INCLUDING TIMBERING AND DEMOLITION) OCCUR.
2. POST SEDIMENTATION & EROSION CONTROL APPROVAL AT A CONSPICUOUS LOCATION AT THE PROJECT SITE.
3. CALL NCDEQ AT THE RALEIGH REGIONAL OFFICE AT 919-791-4200 TO SCHEDULE A PRE-CONSTRUCTION MEETING AT LEAST 48 HOURS PRIOR TO PROJECT ACTIVATION.
4. CONSTRUCTION ACTIVITIES THAT HAVE AN E&SC PLAN APPROVED ON OR AFTER APRIL 1, 2019 ARE REQUIRED TO FILL OUT AND SUBMIT AN ELECTRONIC NOTICE OF INTENT (E-NOT) FORM. ALL CONSTRUCTION ACTIVITIES AREA REQUIRED TO FOLLOW THE NEW NCGO PERMIT REGARDLESS OF WHEN THEY ARE APPROVED.
5. EROSION AND SEDIMENT CONTROL (E&SC) PERMIT AND A CERTIFICATE OF COVERAGE (COC) MUST BE OBTAINED BEFORE ANY LAND DISTURBING ACTIVITIES OCCUR.
6. IN ADDITION TO THE REQUIREMENTS OF THIS PLAN AND OUTLINED IN THE PROJECT SPECIFICATIONS, THE CONTRACTOR SHALL ADHERE TO THE LATEST NCDEQ SEDIMENTATION AND EROSION CONTROL MANUAL FOR GUIDANCE ON CONSTRUCTION OF MEASURES REQUIRED BY THIS PLAN. CONTRACTOR SHALL ALSO ADHERE TO THE SELF INSPECTION AND SELF REPORTING AND NPDES AS REQUIRED UNDER THE SEDIMENTATION POLLUTION CONTROL ACT AND NPDES STORMWATER PERMIT FOR CONSTRUCTION ACTIVITIES, NCG 010000. SEE PLAN SHEET.
7. A RAIN GAUGE WILL BE INSTALLED ON THE SITE, AND A WRITTEN RECORD OF DAILY RAINFALL AMOUNTS SHALL BE RETAINED AND MADE AVAILABLE TO DIVISION OF WATER QUALITY UPON REQUEST. AN APPROVED COPY OF THE E&SC PLAN WITH PLACARD & APPROVAL LETTER, AN APPROVED COPY OF NPDES PERMIT WITH A MINIMUM OF 30 DAYS OF SELF-INSPECTION REPORTS ARE TO BE KEPT ON SITE UNTIL PROJECT CLOSURE.
8. INSTALL CONSTRUCTION ENTRANCE AS INDICATED ON THE DRAWINGS.
9. INSTALL ALL PERIMETER CONTROLS, SEDIMENT BASIN AND ROCK DAM SEDIMENT BASINS, DIVERSION DITCHES WITH WATTLES AND OUTLET PROTECTION AS INDICATED ON THE DRAWINGS.  
*\*NOTE: ES MEASURES ARE TO BE INSTALLED AT ANY AREAS USED FOR CONTRACTOR EQUIPMENT STAGING, LAY DOWN/SPILL/WASTE AREAS.*
10. STABILIZE ALL RUNOFF CONVEYANCE SYSTEMS AND INSTALL INLET PROTECTION AND OUTLET PROTECTION AS INDICATED ON THE DRAWINGS.
11. ONCE THE TEMPORARY MEASURES HAVE BEEN INSTALLED, CONTACT THE STATE EROSION CONTROL FIELD ENGINEER REPRESENTATIVE TO REQUEST INSPECTION OF INSTALLED MEASURES PRIOR TO CONSTRUCTION CLEARING AND DEMOLITION.
12. AFTER THE STATE HAS CONDUCTED AN INSPECTION AND PROVIDED AN AUTHORIZATION TO PROCEED, THE REMAINING WORK MAY BEGIN.

SELF-INSPECTION REQUIREMENTS

THE SEDIMENTATION POLLUTION CONTROL ACT WAS AMENDED IN 2006 TO REQUIRE THAT PERSONS RESPONSIBLE FOR LAND-DISTURBING ACTIVITIES INSPECT A PROJECT AFTER EACH PHASE OF THE PROJECT TO MAKE SURE THAT THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN IS BEING FOLLOWED. RULES DETAILING THE DOCUMENTATION OF THESE INSPECTIONS BECAME EFFECTIVE OCTOBER 1, 2010. TO SIMPLIFY DOCUMENTATION OF SELF-INSPECTION REPORTS AND NPDES SELF-MONITORING REPORTS, A COMBINED FORM IS NOW AVAILABLE. THE NEW FORM WAS DEVELOPED TO SATISFY THE REQUIREMENTS OF THE SEDIMENTATION POLLUTION CONTROL ACT AND THE NPDES STORMWATER PERMIT FOR CONSTRUCTION ACTIVITIES, NCG 010000.

BEGINNING AUGUST 1, 2013, THE DIVISION OF ENERGY, MINERAL, AND LAND RESOURCES IS RESPONSIBLE FOR ADMINISTERING BOTH THE SPCA AND THE NPDES STORMWATER PERMIT FOR CONSTRUCTION ACTIVITIES. NCG 010000. THE COMBINED FORM SHOULD MAKE IT EASIER TO COMPLY WITH SELF-INSPECTION REQUIREMENTS.

THE COMBINED SELF-MONITORING FORM IS AVAILABLE AS A PDF AND WORD DOCUMENT FROM THE LAND QUALITY WEBSITE: <https://deq.nc.gov/about/divisions/energy-mineral-land-resources/erosion-sediment-control/forms>

EROSION CONTROL MAINTENANCE

THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING EROSION CONTROL DEVICES THROUGH THE PROJECT DURATION.

1. THE SEDIMENTATION POLLUTION CONTROL ACT WAS AMENDED IN 2006 TO REQUIRE THAT PERSONS RESPONSIBLE FOR LAND-DISTURBING ACTIVITIES INSPECT A PROJECT AFTER EACH PHASE OF THE PROJECT TO MAKE SURE THAT THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN IS BEING FOLLOWED. RULES DETAILING THE DOCUMENTATION OF THESE INSPECTIONS BECAME EFFECTIVE OCTOBER 1, 2010. TO SIMPLIFY DOCUMENTATION OF SELF-INSPECTION REPORTS AND NPDES SELF-MONITORING REPORTS, A COMBINED FORM IS NOW AVAILABLE. THE NEW FORM WAS DEVELOPED TO SATISFY THE REQUIREMENTS OF THE SEDIMENTATION POLLUTION CONTROL ACT AND THE NPDES STORMWATER PERMIT FOR CONSTRUCTION ACTIVITIES, NCG 010000. BEGINNING AUGUST 1, 2013, THE DIVISION OF ENERGY, MINERAL, AND LAND RESOURCES IS RESPONSIBLE FOR ADMINISTERING BOTH THE SPCA AND THE NPDES STORMWATER PERMIT FOR CONSTRUCTION ACTIVITIES. NCG 010000. THE COMBINED FORM SHOULD MAKE IT EASIER TO COMPLY WITH SELF-INSPECTION REQUIREMENTS. THE COMBINED SELF-MONITORING FORM IS AVAILABLE AS A PDF AND WORD DOCUMENT FROM THE LAND QUALITY WEB SITE: <https://deq.nc.gov/about/divisions/energy-mineral-land-resources/erosion-sediment-control/forms>
2. ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF-PRODUCING RAINFALL (≥1.0 IN.) BUT IN NO CASE LESS THAN ONCE EVERY WEEK. ANY NEEDED REPAIRS WILL BE MADE IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED.
3. SEDIMENT WILL BE REMOVED FROM THE BEHIND ANY EROSION CONTROL DEVICES WHEN STORAGE CAPACITY HAS BEEN APPROXIMATELY 50% FILLED. GRAVEL WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS PROPERLY.
4. SEDIMENT WILL BE REMOVED FROM BEHIND THE SEDIMENT FENCE WHEN IT BECOMES 6 INCHES DEEP AT THE FENCE. THE SEDIMENT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER.
5. SEDIMENTS WILL BE REMOVED FROM THE GRAVEL INLET PROTECTION AND ALL INLET PROTECTIONS AFTER EACH SIGNIFICANT RAINFALL EVENT.
6. ANY DEWATERING OF SEDIMENT CONTAINMENT DEVICES FOR MAINTENANCE, REMOVAL OR CONVERSION PURPOSES IS TO BE DONE THROUGH A SILT BAG.
7. ALL SEEDED AREAS WILL BE FERTILIZED, RESEEDED AS NECESSARY AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.
8. SEE NCDEQ SEDIMENTATION AND EROSION CONTROL PLANNING AND DESIGN MANUAL FOR FURTHER INSTALLATION/MAINTENANCE INSTRUCTIONS.

CONTACT INFORMATION FOR RESPONSIBLE PARTY FOR MAINTENANCE  
ERIC STAEBLE, WAKE COUNTY 919.856.6369

CONSTRUCTION PHASE

1. BEGIN EARTHWORK/GRADING AS INDICATED ON THE DRAWINGS.
2. STABILIZE DENUDED AREAS AND STOCKPILE AS SOON AS PRACTICAL. STOCKPILES, LAYDOWN OR WASTE AREAS, CONCRETE WASHOUTS, PORTABLE TOILETS, AND FUELS MUST BE LOCATED AT LEAST 50 FEET AWAY FROM ANY OPEN WATER CONVEYANCES, SUCH AS BASINS, DITCHES, STORM DRAIN INLETS, ETC. THE LOCATION OF THESE ACTIVITIES MAY BE FIELD ADJUSTED IF THE DISTANCE REQUIREMENTS ARE MET.
3. INSTALL STORM DRAINAGE, WATER, ELECTRIC, AND OTHER PROPOSED UTILITIES AS INDICATED ON THE DRAWINGS.
4. MAINTAIN EROSION CONTROL DEVICES AS NECESSARY DURING CONSTRUCTION OF THE BUILDING AND INSTALLATION OF UTILITIES. INSPECT DEVICES AFTER EVERY RAINFALL EVENT AND CLEAN BEHIND THE DEVICES WHEN HALF-FULL. REPAIR OR REPLACE ANY MEASURES NOT PERFORMING AS INTENDED.
5. ANY DEWATERING FOR ESC MAINTENANCE OR UTILITY/STORM TRENCHING TO BE DONE THROUGH A SILT BAG. ALL SILT BAGS ARE TO BE CONTINUOUSLY MONITORED DURING OPERATION.
6. ALL DITCHES WILL BE LINED TO THE TOP OF BANK.
7. ANY BARE SOILS BETWEEN DOWNSTREAM TOE OF BASIN OR DIVERSIONS AND PERIMETER MEASURES IS TO BE IMMEDIATELY SEEDED, MULCHED, AND TACKED AFTER INSTALLATION.
8. UPSTREAM AND DOWNSTREAM SEDIMENT BASIN SLOPES WILL BE COVERED WITH A SUITABLE RCP IMMEDIATELY AFTER SEEDING.
9. INSTALL ADDITIONAL SILT FENCE OVER AND AROUND TOP OF ALL CULVERTS AND ALONG SIDES OF OUTLET PROTECTION.
10. ANY VEGETATION ALONG THE TOP OF DRAINAGE WAY WILL BE MAINTAINED WITHOUT THE USE OF HEAVY EQUIPMENT. SILT FENCE WILL BE INSTALLED ALONG TOP OF BANK, AND THE STUMPS AND ROOT WADS WILL BE LEFT IN PLACE UNTIL AN APPLICABLE CROSSING IS MADE AND DISTURBED SOILS ARE PERMANENTLY STABILIZED.
11. INSTALL WATER BARS THAT DIRECT RUN-OFF TO ADDITIONAL SILT FENCE OUTLETS TO CONTROL WATER VELOCITY UNTIL THE TRAILS ARE COMPLETED AND PERMANENTLY STABILIZED.
12. INSTALL GRAVEL INLET PROTECTION AFTER PROPOSED STORM WATER NETWORK HAS BEEN INSTALLED AS WELL AS WATTLES ONCE DITCHES HAVE BEEN GRADED. PERMANENT EROSION CONTROL MEASURE INCLUDING RIPRAP WILL BE INSTALLED AT THIS TIME.
13. ALL SEDIMENT CONTAINMENT DEVICES MUST BE MAINTAINED UNTIL ALL AREAS HAVE BEEN STABILIZED WITH THE ESTABLISHMENT OF PERMANENT VEGETATION.
14. PERIMETER MEASURES MUST BE LEFT IN PLACE UNTIL ALL UPLAND AREAS ARE PERMANENTLY STABILIZED. AFTER SITE IS PERMANENTLY STABILIZED, REMOVE ALL TEMPORARY EROSION CONTROL MEASURES, AND PROVIDE PERMANENT SEEDING WHERE TEMPORARY MEASURES HAVE BEEN REMOVED AND GROUND COVER IS NOT ADEQUATE. SEDIMENT BASINS MAY NOT BE REMOVED OR CONVERTED TO PERMANENT SCMS UNTIL ALL UPLAND AREAS ARE PERMANENTLY STABILIZED.
15. BEGIN PAVING AND INSTALL CURB AND/OR CURB AND GUTTER AS INDICATED ON THE DRAWINGS.

STABILIZATION PHASE

1. BEGIN FINE GRADING OF SITE.
2. INSTALL PERMANENT SEEDING/SOD AS REQUIRED. SEE LANDSCAPE PLAN FOR SPECIFIC GROUND COVER.
3. COMPLY WITH THE GROUND STABILIZATION REQUIREMENTS AS PER PLANS AND SPECIFICATIONS. GROUND STABILIZATION WILL BE APPLIED WITHIN 14 CALENDAR DAYS FROM LAST LAND DISTURBING ACTIVITY. FOR STEEP SLOPES, THAT AREA MUST BE STABILIZED WITHIN 7 CALENDAR DAYS. FOR CRITICAL AREAS, GROUND STABILIZATION WILL BE APPLIED AT THE END OF THE DAY.
4. PERMANENT GROUND COVER SHALL BE ESTABLISHED IN 15 WORKING DAYS OR 90 CALENDAR DAYS, WHICHEVER IS SHORTER. HOWEVER, NPDES GROUND COVER REQUIREMENTS TAKE PRECEDENCE.
5. UPON COMPLETION OF FINAL CONSTRUCTION AND ONCE SITE IS 70% STABILIZED, REMOVE ANY ACCUMULATED SEDIMENT FROM SEDIMENT BASINS AND DIVERSION DITCHES. THEN CONVERT THESE DEVICES TO PERMANENT STORMWATER CONTROL MEASURES AS INDICATED ON THE DRAWINGS.
6. REMOVE ANY ACCUMULATED SEDIMENT FROM STORM DRAINAGE STRUCTURES.
7. REMOVE ALL TEMPORARY MEASURES, AND RE-ESTABLISH GRADES. SEED AND MULCH PER PLANS AND SPECIFICATIONS.
8. REQUEST AN INSPECTION BY THE ENGINEER AND CONTACT THE STATE EROSION CONTROL FIELD ENGINEER REPRESENTATIVE TO REQUEST FINAL INSPECTION.
9. WHEN THE PROJECT IS COMPLETE, THE PERMITTEE SHALL CONTACT NCDEQ TO CLOSE OUT. VIA INSPECTION REPORT, THE PERMITTEE SHALL VISIT DEQ.NC.GOV NCGO TO SUBMIT AN ELECTRONIC NOTICE OF TERMINATION (E-NOT). A \$120 ANNUAL GENERAL PERMIT FEE WILL BE CHARGED UNTIL THE E-NOT HAS BEEN CLOSED OUT.

PERMITTING OF LAND DISTURBING ACTIVITY

IF THE SAME PERSON CONDUCTS THE LAND DISTURBING ACTIVITY & ANY RELATED BORROW OR WASTE ACTIVITY, THE RELATED BORROW OR WASTE ACTIVITY SHALL CONSTITUTE PART OF THE LAND-DISTURBING ACTIVITY UNLESS THE BORROW OR WASTE ACTIVITY IS REGULATED UNDER THE MINING ACT OF 1971, OR IS A LANDFILL REGULATED BY THE DIVISION OF WASTE MANAGEMENT. IF THE LAND-DISTURBING ACTIVITY AND ANY RELATED BORROW OR WASTE ACTIVITY ARE NOT CONDUCTED BY THE SAME PERSON, THEY SHALL BE CONSIDERED SEPARATE LAND-DISTURBING ACTIVITIES AND MUST BE PERMITTED EITHER THROUGH THE SEDIMENTATION POLLUTION CONTROL ACT AS A ONE-USE BORROW SITE OR THROUGH THE MINING ACT.

Surface

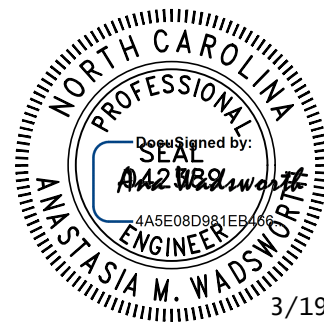
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REGISTRATION



CLIENT



FACILITIES DESIGN AND CONSTRUCTION

WAKE COUNTY OFFICE BUILDING  
11TH FLOOR  
RALEIGH, NC 27602

BLUE JAY POINT COUNTY PARK

3200 PLEASANT UNION CHURCH ROAD

KEY MAP

NO.	REVISION	DATE
1	RESUBMISSION- SITE PLAN	11/08/2024

ISSUE:

100% CONSTRUCTION DOCS

PROJECT NO:

DATE: MARCH 21, 2024

DRAWN: THR

CHECKED: AMW

SHEET TITLE:

EROSION CONTROL DETAILS

C-604



GENERAL STRUCTURAL NOTES

GENERAL

THESE DRAWINGS, AS INSTRUMENTS OF PROFESSIONAL SERVICE, ARE THE PROPERTY OF LYSAGHT & ASSOCIATES, P.A., FOR USE SOLELY WITH THIS PROJECT AND SHALL NOT BE REPRODUCED FOR OTHER PURPOSES.

THE PROFESSIONAL ENGINEER WHOSE SEAL APPEARS ON THESE DRAWINGS IS THE PROJECT STRUCTURAL ENGINEER-OF-RECORD (SER) WHO BEARS LEGAL RESPONSIBILITY FOR THE PERFORMANCE OF THE STRUCTURAL FRAMING RELATING TO PUBLIC HEALTH, SAFETY AND WELFARE. NO OTHER PARTY, WHETHER OR NOT A PROFESSIONAL ENGINEER, MAY COMPLETE, CORRECT, REVISE, DELETE OR ADD TO THESE CONSTRUCTION DOCUMENTS OR PERFORM INSPECTIONS OF THE WORK WITHOUT THE WRITTEN PERMISSION OF THE SER.

USE STRUCTURAL DRAWINGS IN CONJUNCTION WITH JOB SPECIFICATIONS, AND OTHER DRAWINGS.

SECTIONS AND DETAILS SHOWN SHALL BE CONSIDERED TYPICAL FOR ALL SIMILAR CONDITIONS.

ALL NON-STRUCTURAL ELEMENTS INDICATED ON THE DRAWINGS HAVE BEEN SHOWN IN GENERAL RELATIONSHIP TO THE STRUCTURAL ELEMENTS. THEY SHALL NOT BE ASSUMED TO BE ACCURATE AND REFERENCE MUST BE MADE TO THE APPROPRIATE CONSULTANT(S) PLANS AND SPECIFICATIONS.

CONTRACTOR SHALL VERIFY ALL CONDITIONS IN THE FIELD AND TAKE ALL NECESSARY FIELD MEASUREMENTS.

THE STRUCTURE SHOWN ON THESE DRAWINGS IS STRUCTURALLY SOUND ONLY IN ITS COMPLETED FORM. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BRACING TO STABILIZE THE BUILDING DURING CONSTRUCTION.

LATERAL LOAD RESISTING SYSTEM

LATERAL STABILITY FOR THE BUILDING WILL BE PROVIDED BY SHEAR WALLS AND MOMENT FRAMES AS SHOWN ON THE DRAWINGS.

DIMENSIONS

THE CONTRACTOR, BEFORE STARTING ANY WORK, SHALL CHECK ALL DIMENSIONS GIVEN ON THE STRUCTURAL DRAWINGS, RELATING TO GRID LINES, COLUMN AND WALL LOCATIONS, STRUCTURAL AND FINISHED FLOOR ELEVATIONS, MEMBER SIZES, ETC., WITH THE ARCHITECTURAL DRAWINGS. IF ANY DISCREPANCY IS NOTICED, IT SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER AND WORK SHALL NOT COMMENCE UNTIL INSTRUCTIONS ARE RECEIVED FROM THE ENGINEER.

THE CONTRACTOR SHALL SEEK INSTRUCTION FROM THE ENGINEER FOR ANY DIMENSION NOT GIVEN OR OBTAINABLE FROM THE DRAWINGS. THE CONTRACTOR SHALL NOT USE SCALE TO OBTAIN OR VERIFY ANY DIMENSION SHOWN ON THESE DRAWINGS.

SCOPE OF STRUCTURAL ENGINEERING SERVICES

THE STRUCTURAL ENGINEER HAS PERFORMED THE STRUCTURAL DESIGN AND REVIEWED THE ARCHITECTURAL PLANS FOR THIS PROJECT. SITE VISITS ARE ALSO INCLUDED IN THE FEE (IF THE ARCHITECT, CONTRACTOR OR OWNER CONTACTS THE STRUCTURAL ENGINEER AT THE APPROPRIATE TIME). THE ARCHITECT, CONTRACTOR OR OWNER SHALL CONTACT THE STRUCTURAL ENGINEER AT THE FOLLOWING STAGES OF CONSTRUCTION FOR A FIELD REVIEW OF THE WORK:

1. AFTERFOOTING EXCAVATION AND REBAR PLACEMENT, BEFORE CONCRETE IS POURED.
2. AFTER COMPLETION OF STEEL FRAMING SYSTEM, BEFORE INTERIOR FINISHES ARE INSTALLED.
3. AFTER COMPLETION OF THE WOOD FRAMING SYSTEM, BEFORE INTERIOR FINISHES ARE INSTALLED.
4. AT ANY STAGE OF CONSTRUCTION WHEN DESIGN OR CONSTRUCTION PROBLEMS ARE ENCOUNTERED.

A "CONSTRUCTION REVIEW REPORT" WILL BE SENT TO THE CONTRACTOR AND THE ARCHITECT FOLLOWING EACH FIELD TRIP.

THE STRUCTURAL ENGINEER IS RESPONSIBLE FOR THE DESIGN OF THE PRIMARY STRUCTURAL SYSTEM, EXCEPT FOR THE COMPONENTS NOTED ABOVE. THE STRUCTURAL ENGINEER IS NOT RESPONSIBLE FOR ANY SECONDARY STRUCTURAL AND NON-STRUCTURAL SYSTEMS NOT SHOWN ON THE STRUCTURAL PLANS

THE STRUCTURAL ENGINEER HAS NOT DONE A SUBSURFACE INVESTIGATION (HE IS NOT A SOILS SPECIALIST). THE FOUNDATION DESIGN IS BASED UPON AN ASSUMED ALLOWABLE BEARING PRESSURE AS SHOWN IN THE "FOUNDATION" STRUCTURAL NOTES.

THE STRUCTURAL ENGINEER IS NOT RESPONSIBLE FOR, AND WILL NOT HAVE CONTROL OF, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE CONSTRUCTION WORK; NOR WILL HE BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE CONSTRUCTION WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

FIELD MEASUREMENTS AND THE VERIFICATION OF FIELD DIMENSIONS ARE NOT PART OF LYSAGHT & ASSOCIATES' RESPONSIBILITY. THE CONTRACTOR SHALL CHECK ALL (ASSUMED) EXISTING CONDITIONS SHOWN ON THESE DRAWINGS FOR ACCURACY AND NOTIFY THE STRUCTURAL ENGINEER OF ANY DISCREPANCIES.

ABBREVIATIONS

@	AT
AB	ANCHOR BOLT
AFF	ABOVE FINISH FLOOR
ASD	ALLOWABLE STRESS DESIGN
B/U	BUILT-UP
C/C	CENTER TO CENTER
CLNG	CEILING
COL	COLUMN
DJ	DOUBLE JOIST
DR	DOUBLE RAFTER
EJ	EXPANSION JOINT
EW	EACH WAY
FF	FINISH FLOOR
GLULAM	GLUED LAMINATED WOOD
HD	HOLD DOWN
JBE	JOIST BEARING ELEVATION
LBW	LOAD BEARING WALL
LLV	LONG LEG VERTICAL
LVL	LAMINATED VENEER LUMBER
NTS	NOT TO SCALE
OC	ON CENTER
PSL	PARALLEL STRAND LUMBER (PARALLAM)
PT	PRESSURE TREATED
SER	STRUCTURAL ENGINEER-OF-RECORD
S-P-F	SPRUCE-PINE-FIR
STD	STANDARD
STL	STEEL
SW	SHEAR WALL
SYP	SOUTHERN YELLOW PINE
TOF	TOP OF FOOTING
TOS	TOP OF STEEL
TYP	TYPICAL
UD	UPSIDE DOWN
UNO	UNLESS NOTED OTHERWISE
VIF	VERIFY IN FIELD

CODE

NORTH CAROLINA STATE BUILDING CODE, 2018 EDITION

DESIGN DATA

ALLOWABLE STRESS DESIGN OCCUPANCY CATEGORY	II	
FLOOR LIVE LOAD	50	PSF
ROOF DEAD LOAD	15	PSF
ROOF LIVE LOAD	20	PSF
ATTIC LIVE LOAD	10	PSF
GROUND SNOW LOAD	15	PSF
FLAT ROOF SNOW LOAD	15	PSF
SNOW EXPOSURE FACTOR	1.0	
SNOW LOAD IMPORTANCE FACTOR	1.0	
THERMAL FACTOR	1.1	
BASIC ULTIMATE WIND SPEED (3-SECOND GUST)	115	MPH
WIND IMPORTANCE FACTOR	1.0	
WIND EXPOSURE	B	
INTERNAL PRESSURE COEFFICIENT	+/- 0.18	
SEISMIC IMPORTANCE FACTOR		1.00
MAPPED SPECTRAL RESPONSE COEFFICIENT	Ss	0.147
MAPPED SPECTRAL RESPONSE COEFFICIENT	S1	0.074
SITE CLASS		D
SPECTRAL RESPONSE COEFFICIENT	Sds	0.157
SPECTRAL RESPONSE COEFFICIENT	Sd1	0.119
SEISMIC DESIGN CATEGORY		B

BASIC SEISMIC-FORCE-RESISTING SYSTEM (VISITOR'S CENTER):  
LIGHT-FRAME (WOOD) WALLS SHEATHED WITH WOOD STRUCTURAL PANELS RATED FOR SHEAR RESISTANCE AND STEEL ORDINARY MOMENT FRAMES

BASIC SEISMIC-FORCE-RESISTING SYSTEM (SHELTERS):  
ORDINARY REINFORCED CONCRETE MOMENT FRAMES

FOUNDATIONS

ALL FOOTINGS SHALL REST ON SOIL CAPABLE OF SAFELY SUPPORTING 2000 PSF. CONTACT STRUCTURAL ENGINEER IF UNSATISFACTORY SUBSURFACE CONDITIONS ARE ENCOUNTERED.

FOOTINGS SHALL BE CARRIED TO A LOWER ELEVATION THAN THOSE INDICATED ON THESE DRAWINGS IF NECESSARY TO REACH FIRM UNDISTURBED SOIL.

THE BOTTOM OF ALL EXTERIOR FOOTINGS SHALL BE A MINIMUM OF 1'-4" BELOW FINISHED GRADE.

ALL FILL SHALL BE PLACED IN 8" MAXIMUM LOOSE LIFTS AND SHALL BE COMPACTED TO A MINIMUM OF 95 PERCENT MAXIMUM DRY DENSITY AS DETERMINED IN ACCORDANCE WITH ASTM D-698 (STANDARD PROCTOR METHOD). THIS REQUIREMENT SHALL BE INCREASED TO 98 PERCENT OF ASTM D-698 IN THE FINAL FOOT BENEATH FLOOR SLABS AND PAVEMENTS.

THE SURFACE AREA ADJACENT TO THE FOUNDATION WALL SHALL BE PROVIDED WITH ADEQUATE DRAINAGE AND SHALL BE GRADED SO AS TO DRAIN SURFACE WATER AWAY FROM FOUNDATION WALLS.

WHEN TOP OR SUBSOILS ARE EXPANSIVE, COMPRESSIBLE OR SHIFTING, SUCH SOILS SHALL BE REMOVED TO A DEPTH AND WIDTH SUFFICIENT TO ASSURE STABLE MOISTURE CONTENT IN EACH ACTIVE ZONE AND SHALL NOT BE USED AS FILL.

CONCRETE

CONCRETE SHALL BE PROPORTIONED, MIXED AND PLACED IN ACCORDANCE WITH ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE," AND ACI 301, " SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS." ANY ADMIXTURES SHALL BE APPROVED BY THE STRUCTURAL ENGINEER.

CONCRETE SHALL BE NORMAL WEIGHT.

MINIMUM 28 DAY COMPRESSIVE STRENGTH OF CONCRETE SHALL BE 3000 PSI.

REINFORCING STEEL

ALL DETAILING, FABRICATION AND PLACING OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH THE LATEST "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES," ACI 315.

REINFORCING BARS SHALL BE NEW BILLET STEEL CONFORMING TO ASTM A615, GRADE 60. CLEAR CONCRETE COVER OVER BARS SHALL BE 3" FOR FOOTINGS.

PROVIDE CORNER BARS AT ALL FOOTING STEPS AND CORNERS. BARS SHALL BE A MINIMUM OF 2'-6" LONG AND SHALL HAVE THE SAME SIZE AND SPACING AS HORIZONTAL REINFORCING.

LAP ALL SPLICES IN CONCRETE AS SPECIFICALLY CALLED FOR, BUT AT LEAST 36 BAR DIAMETERS (24" MINIMUM) FOR TENSION OR COMPRESSION, UNLESS NOTED OTHERWISE. LAP SPLICES IN GROUTED MASONRY 48 BAR DIAMETERS U.N.O.

PROVIDE DOWELS IN WALL FOOTINGS EQUIVALENT IN SIZE AND NUMBER TO VERTICAL STEEL EXTENDING 24 BAR DIAMETERS INTO FOOTING AND 36 BAR DIAMETERS INTO WALL, UNLESS NOTED OTHERWISE.

STRUCTURAL GLUED LAMINATED WOOD

MATERIALS, MANUFACTURE AND QUALITY CONTROL SHALL BE IN CONFORMANCE WITH AMERICAN NATIONAL STANDARD ANSI/AITC A190.1 "STRUCTURAL GLUED LAMINATED TIMBER".

LAMINATING COMBINATIONS SHALL MEET THE REQUIREMENTS OF ANSI/AITC A190.1, AND SHALL PROVIDE ALLOWABLE DESIGN VALUES OF 2400 PSI IN BENDING, 1700 PSI IN COMPRESSION PARALLEL TO GRAIN, 1150 PSI IN TENSION PARALLEL TO GRAIN, 450 PSI IN COMPRESSION PERPENDICULAR TO GRAIN, 200 PSI IN HORIZONTAL SHEAR, AND 1700000 PSI IN MODULUS OF ELASTICITY FOR DRY CONDITIONS OF SERVICE.

ADHESIVES SHALL MEET THE REQUIREMENTS FOR WET CONDITION OF SERVICE.

MEMBERS SHALL BE MARKED WITH QUALITY MARK, AND, IN ADDITION, A CERTIFICATE OF CONFORMANCE SHALL BE PROVIDED TO INDICATE CONFORMANCE WITH ANSI/AITC A190.1.

THE FABRICATOR SHALL FURNISH CONNECTION STEEL AND HARDWARE FOR JOINING GLUED LAMINATED TIMBER MEMBERS TO EACH OTHER AND TO THEIR SUPPORTS EXCLUSIVE OF ANCHORAGE EMBEDDED IN MASONRY OR CONCRETE, SETTING PLATES, AND ITEMS FIELD-WELDED TO STRUCTURAL STEEL. METAL SHAPES TO HAVE ONE COAT OF SHOP APPLIED PAINT CONTAINING A RUST INHIBITOR.

CAREFULLY UNLOAD AND HANDLE THE LAMINATED MEMBERS AT JOBSITE TO PREVENT SURFACE MARRING AND DAMAGE. IF LAMINATED WOOD IS TO BE STORED BEFORE ERECTION, PLACE IT ON BLOCKS WELL OFF THE GROUND WITH INDIVIDUAL MEMBERS SEPARATED BY STRIPS SO THAT AIR MAY CIRCULATE. COVER THE TOP AND SIDES OF STORAGE PILES WITH MOISTURE-RESISTANT COVERING. (DO NOT USE CLEAR POLYETHYLENE FILMS). WHEN HOISTING MEMBERS INTO PLACE USE PADDED OR NON-MARRING SLINGS, AND PROTECT CORNERS WITH WOOD BLOCKING. ADEQUATELY BRACE MEMBERS AS THEY ARE ERECTED TO HOLD THEM IN A SAFE POSITION UNTIL FULL STABILITY IS PROVIDED.

CONTRACTOR TO ENGAGE A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF THE PROJECT FOR ALL GLULAM CONNECTIONS. CONTRACTOR TO SUBMIT SIGNED AND SEALED CALCULATIONS AND SHOP DRAWINGS FOR REVIEW PRIOR TO COMMENCING FABRICATION OF GLULAM AND RELATED STEEL COMPONENTS.

PRIOR TO FABRICATION, CONTRACTOR TO SUBMIT FOR REVIEW SHOP DRAWINGS INDICATING THE LAYOUT OF GLULAM MEMBERS, THE SPECIES AND LAMINATING COMBINATIONS, AND LARGE-SCALE DETAILS OF CONNECTIONS.

ALL GLULAM APPEARANCE GRADES TO BE ARCHITECTURAL PER AITC 110.

DO NOT CUT, DRILL, OR NOTCH GLULAM BEAMS WITHOUT THE APPROVAL OF THE ENGINEER OF RECORD.

SOLID WOOD FRAMING, HEADERS AND PLYWOOD

ALL SOLID WOOD FRAMING SHALL COMPLY WITH THE NATIONAL FOREST PRODUCTS ASSOCIATION "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION."

FLOOR AND ROOF JOISTS SHALL BE THE GRADE AND SPECIES SHOWN ON THE STRUCTURAL DRAWINGS.

PLYWOOD SHALL CONFORM TO THE AMERICAN PLYWOOD ASSOCIATION "PLYWOOD DESIGN SPECIFICATION". PLYWOOD SHALL BE CDX OR STRUCTURAL EQUIVALENT.

ALL MEMBERS SHALL BE FRAMED, ANCHORED, TIED AND BRACED IN ACCORDANCE WITH GOOD CONSTRUCTION PRACTICE AND THE NORTH CAROLINA STATE BUILDING CODE.

HEADERS OVER OPENINGS IN LOAD BEARING WALLS SHALL BE AS SHOWN AT THE "HEADER SCHEDULE".

USE LVL FOR ALL FLITCH BEAMS AND A36 STEEL FOR FLITCH PLATE. ATTACH THE MEMBERS TOGETHER WITH 5/8" DIAMETER BOLTS @ 16" O.C. STAGGERED, AND DOUBLE BOLTS AT BOTH ENDS. PROVIDE CONTINUOUS LATERAL SUPPORT FOR TOP OF BEAM. DO NOT SPLICE LVL BEAMS BETWEEN SUPPORT POINTS.

LVL HEADERS THAT ARE DOUBLED SHALL BE NAILED TOGETHER WITH 2 ROWS OF 16d NAILS @ 12" O.C. STAGGERED. PROVIDE CONTINUOUS LATERAL SUPPORT FOR TOP OF HEADER. STRENGTH OF LVL HEADERS SHALL BE EQUAL TO THAT PROVIDED BY MICROLAM HEADERS AS MANUFACTURED BY TRUS JOIST: Fv = 285 PSI, Fb = 3100 PSI, E = 2000 KSI.

PARALLAM, PARALLEL STRAND LUMBER (PSL), IS MADE FROM LONG, THIN STRANDS OF WOOD STRUCTURALLY BONDED TOGETHER IN A MICROWAVE PROCESS TO MAKE A LARGE CROSS-SECTION BEAMS AND COLUMNS. PARALLAM MEMBERS SHOWN ON THE DRAWINGS SHALL BE THE WIDTH SHOWN AND NOT BUILT UP FROM MULTIPLE PLIES. PARALLAM MEMBERS SHALL HAVE THE FOLLOWING MINIMUM STRUCTURAL PROPERTIES: Fv = 290 PSI, Fb = 2900 PSI, E = 2000 KSI. LVL CANNOT BE SUBSTITUTED FOR PARALLAM.

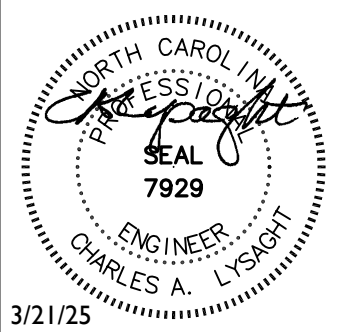
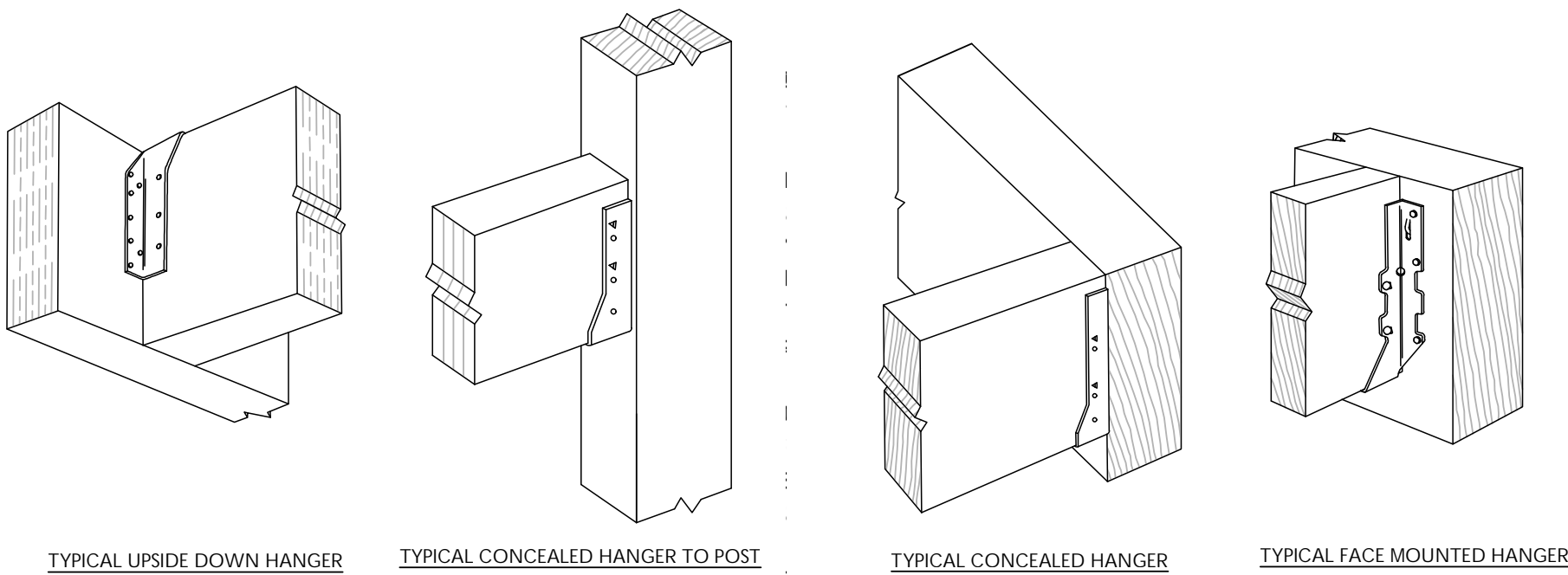
BUILT-UP STUD COLUMNS SHALL BE SECURELY NAILED TOGETHER TO ACT AS A COMPOSITE MEMBER. USE (2) 12d NAILS FOR EACH STUD AT 9" O.C. WITH NAILS INSTALLED ON ALTERNATE SIDES OF COLUMN.

THE HEIGHT OF STUD BEARING WALLS IS LIMITED TO 10' BETWEEN LATERAL BRACING UNLESS NOTED OTHERWISE ON THE DRAWINGS. CONTACT STRUCTURAL ENGINEER FOR STUD HEIGHTS GREATER THAN 10'-0". STUDS SHALL NOT BE SPLICED AT TALL WALLS, EXCEPT AT POINTS OF LATERAL SUPPORT.

AN EXTRA JOIST SHALL BE PLACED UNDER NON-LOAD BEARING PARTITIONS WHICH ARE ADDED DURING THE RENOVATION AND RUN PARALLEL TO THE FLOOR JOISTS. (THIS NOTE GOVERNS OVER INFORMATION SHOWN ON THE FRAMING PLANS.)

SIMPSON HANGER SCHEDULE		
SIZE	HANGER	ALLOW. LOAD
2 X 6	LUS26, LUC26Z	710#
(2) 2 X 6	HU26-2, HUC26-2	1190#
(3) 2 X 6	HU26-3, HUC26-3	1190#
2 X 8	LUS26, LUC26Z	710#
(2) 2 X 8	HU26-2, HUC26-2	1190#
(3) 2 X 8	HU26-3, HUC28-2	1190#
2 X 10	LUS210, LUC210Z	1150#
(2) 2 X 10	HU210-2, HUC210-2	2085#
(3) 2 X 10	HU210-3, HUC210-3	2085#
2 X 12	LUS210, LUC210Z	1150#
(2) 2 X 12	HU212-2, HUC212-2	2385#
(3) 2 X 12	HU212-3, HUC212-3	2385#
1 3/4 X 9 1/4 (9 1/2) LVL	HU9, HUCQ1.81/9-SDS	2000#
3 1/2 X 9 1/4 (9 1/2) LVL OR PSL	HGUS410, HUCQ410-SDS	9100#, 4500#
5 1/4 X 9 1/4 (9 1/2) LVL OR PSL	HGUS5.5/10, HUCQ610-SDS	5635#, 4680#
1 3/4 X 11 1/4 (11 7/8) LVL	HU11, HUCQ1.81/11-SDS	2500#
3 1/2 X 11 1/4 (11 7/8) LVL OR PSL	HGUS412, HUCQ412-SDS	9400#, 5045#

- NOTES
1. LOAD VALUES SHOWN IN THE TABLE ABOVE DO NOT INCLUDE THE LOAD DURATION FACTOR.
2. USE HANGER PER SCHEDULE ABOVE UNLESS SPECIFIED DIFFERENTLY ON FRAMING PLAN. ALL FLUSH WOOD/WOOD CONNECTIONS SHALL BE MADE WITH HANGERS. OTHER HANGERS MAY BE SUBSTITUTED FOR THOSE SHOWN IF DESIGN VALUES ARE EQUAL TO OR GREATER THAN THOSE IN THE TABLE.
3. INSTALL HANGERS PER MANUFACTURER'S SPECIFICATIONS.
4. USE STAINLESS STEEL HANGERS IF EXPOSED TO THE ELEMENTS OR IN CONTACT WITH TREATED WOOD. (GALVANIZED HANGERS MAY BE USED IN LIEU OF STAINLESS STEEL IF SPECIFICALLY RECOMMENDED BY SIMPSON AND THE TREATING COMPANY.)



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DATE	DESCRIPTION	REV#

BLUE JAY POINT COUNTY PARK  
3200 PLEASANT UNION CHURCH RD  
RALEIGH, NC 27614

100% CONSTRUCTION DOCUMENTS

DATE: 03/21/25

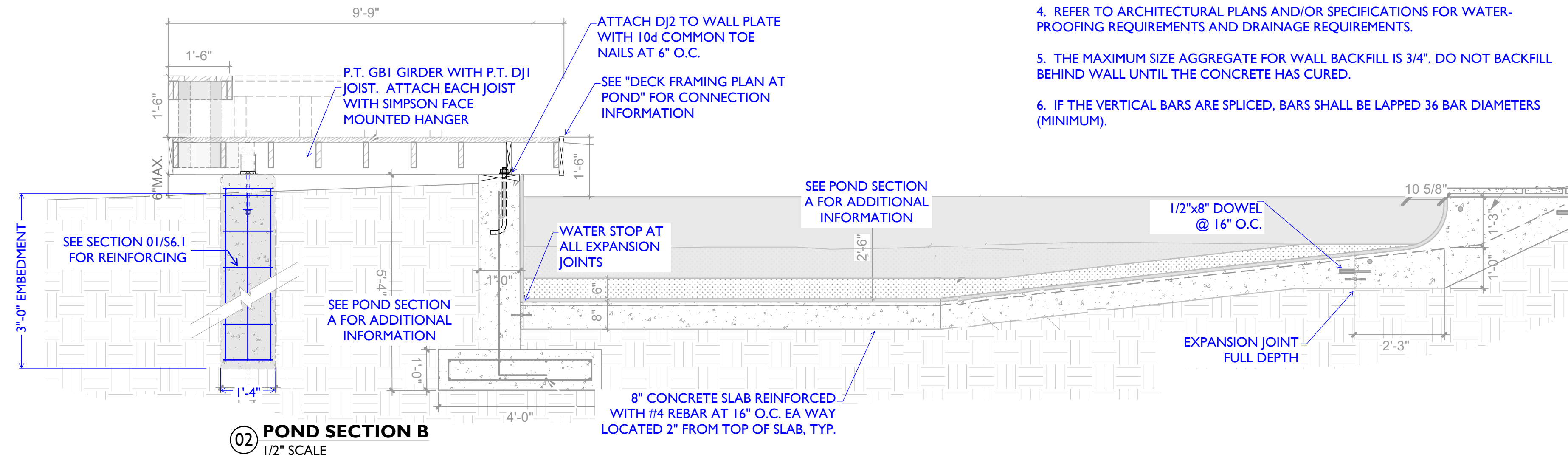
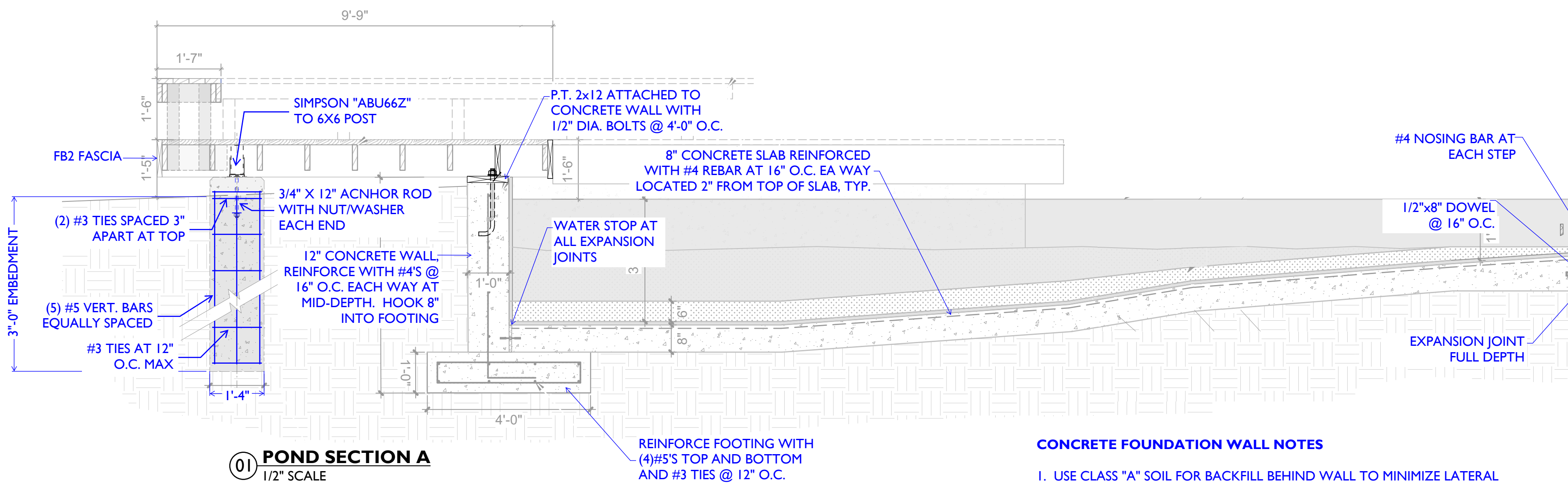
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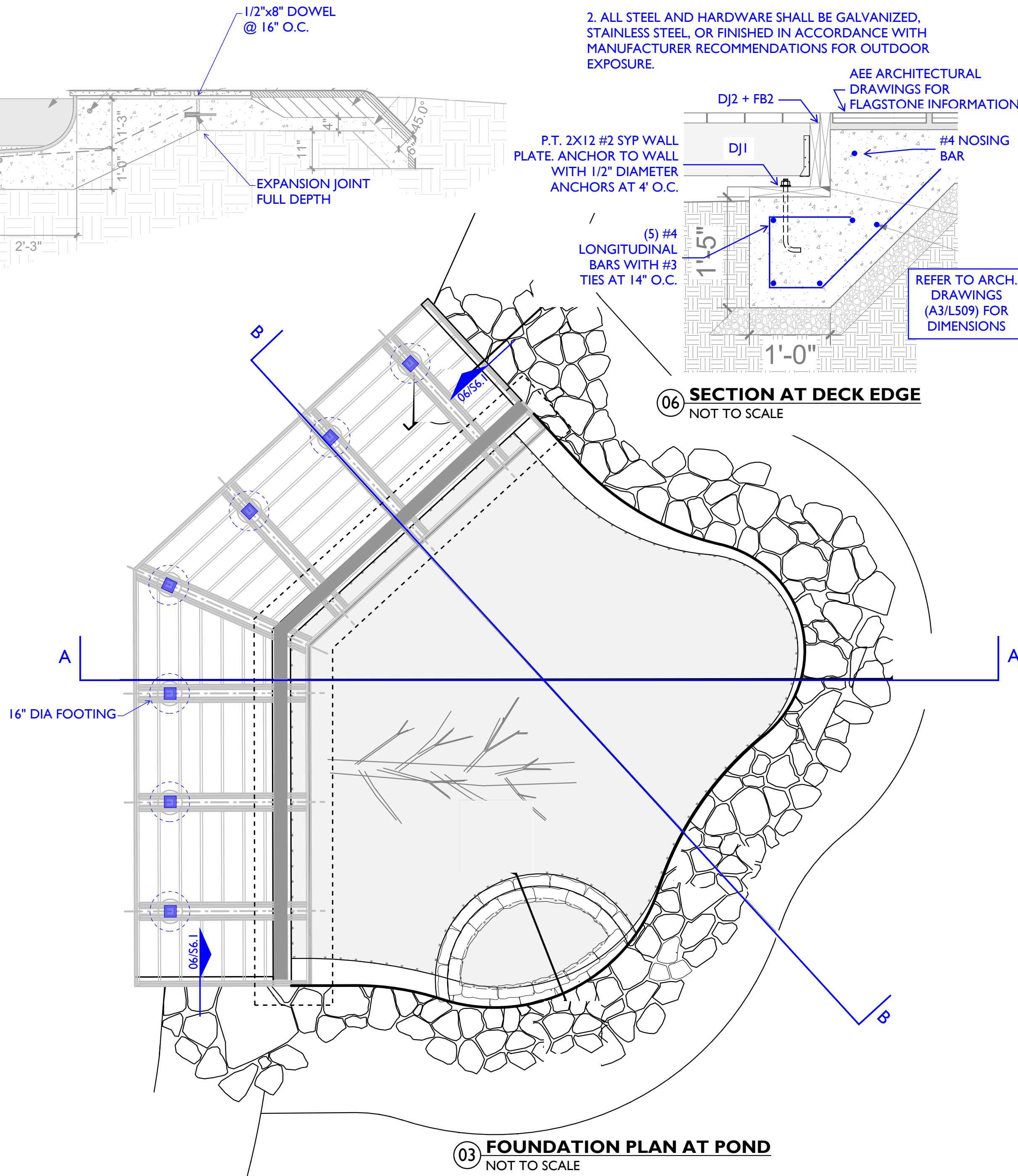
SHEET  
SI.0





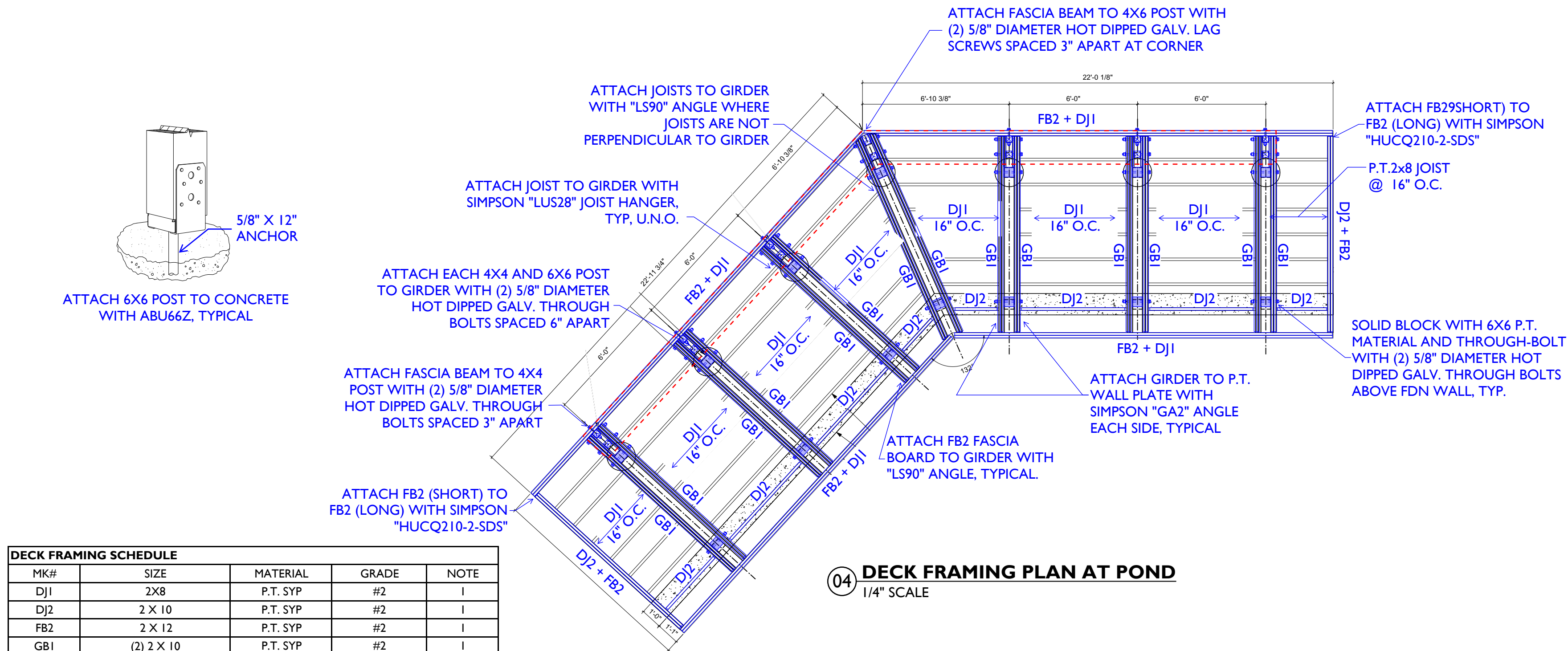
CONCRETE FOUNDATION WALL NOTES

1. USE CLASS "A" SOIL FOR BACKFILL BEHIND WALL TO MINIMIZE LATERAL PRESSURE. CLASS "A" IS CLEAN SAND OR GRAVEL, FREE OF FINES THAT MIGHT OBSTRUCT FREE DRAINAGE.
2. STRUCTURAL DATA:  $f_c = 3,000$  PSI FOR FOOTINGS,  $f_c = 4,000$  PSI FOR WALLS, GRADE 60 REBARS, 2,000 PSF ALLOWABLE SOIL BEARING PRESSURE, 40 PCF EQUIVALENT FLUID PRESSURE.
3. REINFORCING BARS MUST BE ACCURATELY PLACED AT THE LOCATIONS SHOWN AT THE DETAILS TO ENSURE THAT THE COMPLETED CONSTRUCTION WILL REFLECT THE STRUCTURAL DESIGN.
4. REFER TO ARCHITECTURAL PLANS AND/OR SPECIFICATIONS FOR WATER-PROOFING REQUIREMENTS AND DRAINAGE REQUIREMENTS.
5. THE MAXIMUM SIZE AGGREGATE FOR WALL BACKFILL IS 3/4". DO NOT BACKFILL BEHIND WALL UNTIL THE CONCRETE HAS CURED.
6. IF THE VERTICAL BARS ARE SPICED, BARS SHALL BE LAPPED 36 BAR DIAMETERS (MINIMUM).



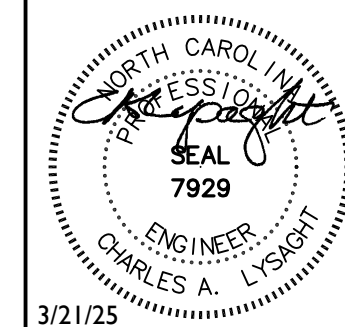
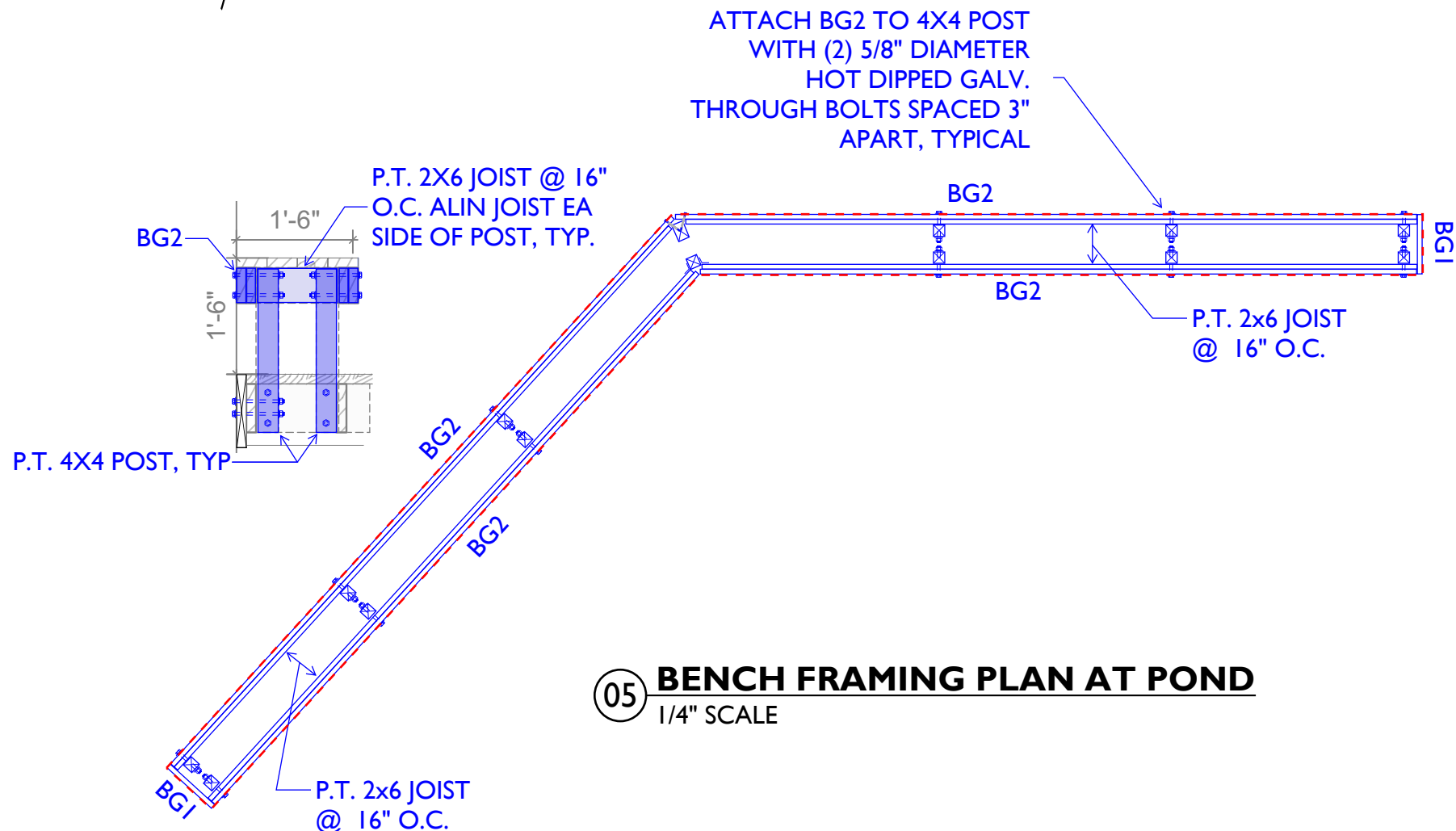
WOOD DECK FRAMING NOTES

1. ALL LUMBER SHALL BE PRESSURE TREATED #2 (OR BETTER) SOUTHERN YELLOW PINE, TREATED IN ACCORDANCE WITH AWWA STANDARD UI TO THE REQUIREMENTS OF USE CATEGORY 2 (UC2).
2. ALL STEEL AND HARDWARE SHALL BE GALVANIZED, STAINLESS STEEL, OR FINISHED IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS FOR OUTDOOR EXPOSURE.



DECK FRAMING SCHEDULE				
MK#	SIZE	MATERIAL	GRADE	NOTE
DJ1	2X8	P.T. SYP	#2	I
DJ2	2 X 10	P.T. SYP	#2	I
FB2	2 X 12	P.T. SYP	#2	I
GB1	(2) 2 X 10	P.T. SYP	#2	I
BG1	2 X 6	P.T. SYP	#2	I
BG2	(2) 2 X 6	P.T. SYP	#2	I

NOTES  
1. SIZE SHOWN IS NOMINAL



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RALEIGH, NC 27614

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CHECKED:	DLH
APPROVED:	CAL

SHEET  
S6.1



1. ALL LUMBER SHALL BE PRESSURE TREATED #2 (OR BETTER) SOUTHERN YELLOW PINE, TREATED IN ACCORDANCE WITH AWPA STANDARD UI TO THE REQUIREMENTS OF USE CATEGORY 3 (UC3B).

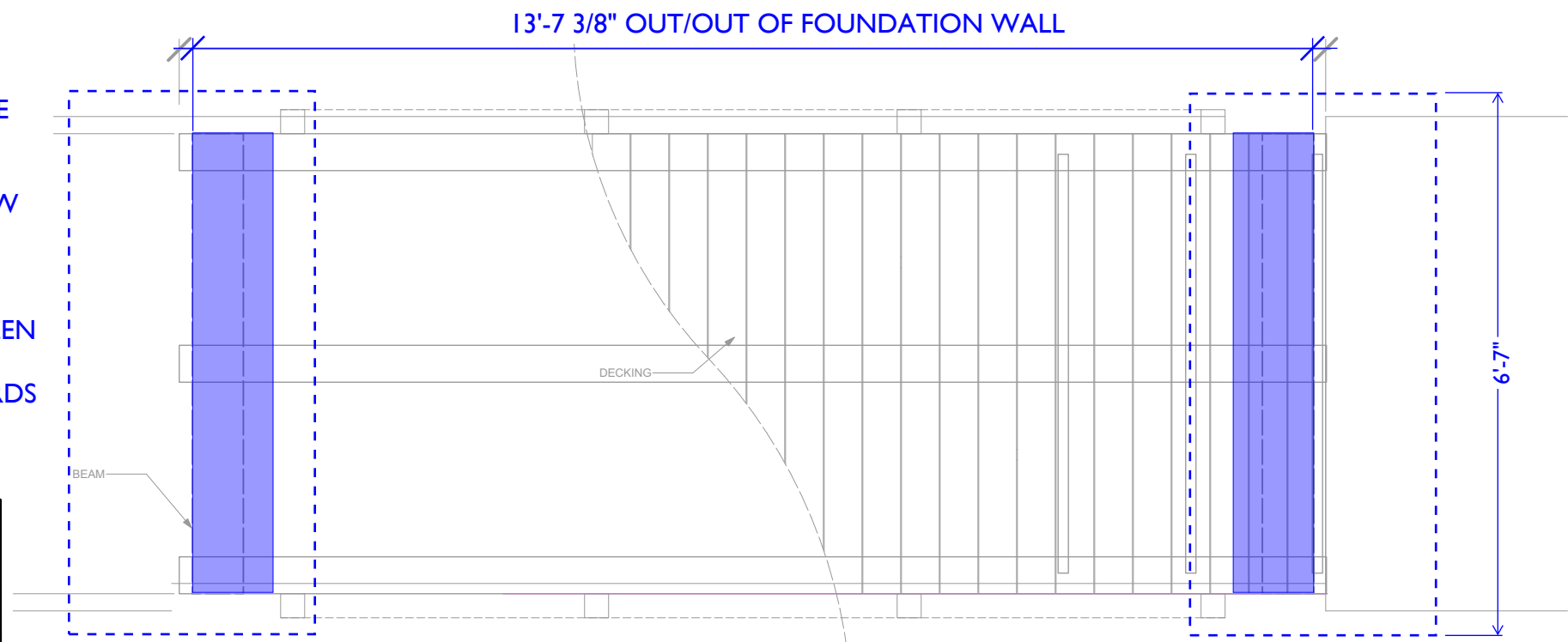




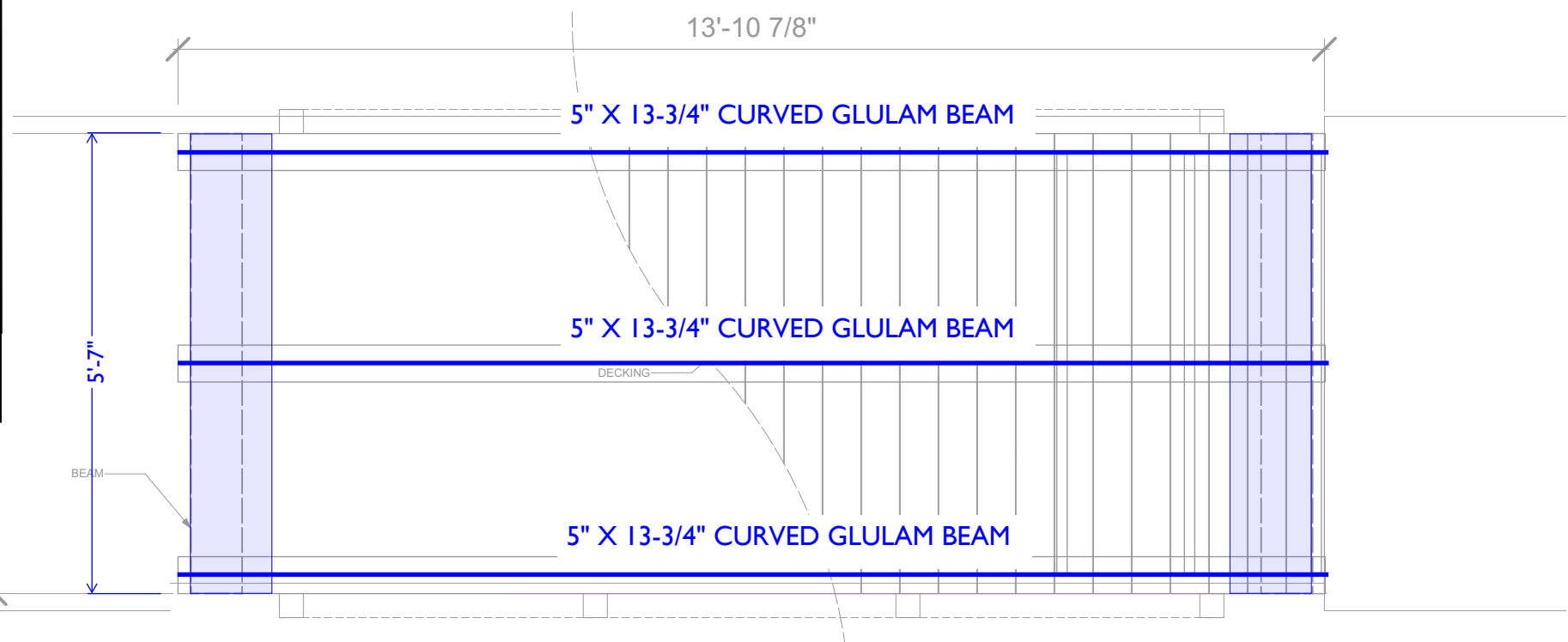
GLUE-LAMINATED BRIDGE FRAMING NOTES

1. GLULAM BEAMS SHALL BE FABRICATED WITH 0.6 PCF CCA LUMBER, PRIOR TO GLUING, PER AITC 109. LUMBER SHALL BE PRESSURE TREATED FOR ABOVE GROUND USE PER AITC 109.
2. ALL GLULAM MEMBERS SHALL BE SOUTHERN PINE, MANUFACTURED IN ACCORDANCE WITH ANSI A190.1-2017 AND ANSI 117-2020.
3. STEEL COMPONENTS ARE "A36" STEEL U.N.O. ALL WELDS SHALL COMPLY WITH AWS STANDARDS. ALL BOLTS SHALL BE GRADE A307 OR BETTER U.N.O.
4. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR REVIEW AND APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO FABRICATION, CONSTRUCTION, AND INSTALLATION.
5. THE BRIDGES SHOWN IN THESE DRAWINGS HAVE NOT BEEN DESIGNED FOR VEHICULAR TRAFFIC. THE OWNER IS RESPONSIBLE FOR PLACEMENT OF SIGNAGE AND/OR BOLLARDS ADEQUATE TO PREVENT THE OCCURANCE OF VEHICULAR TRAFFIC.

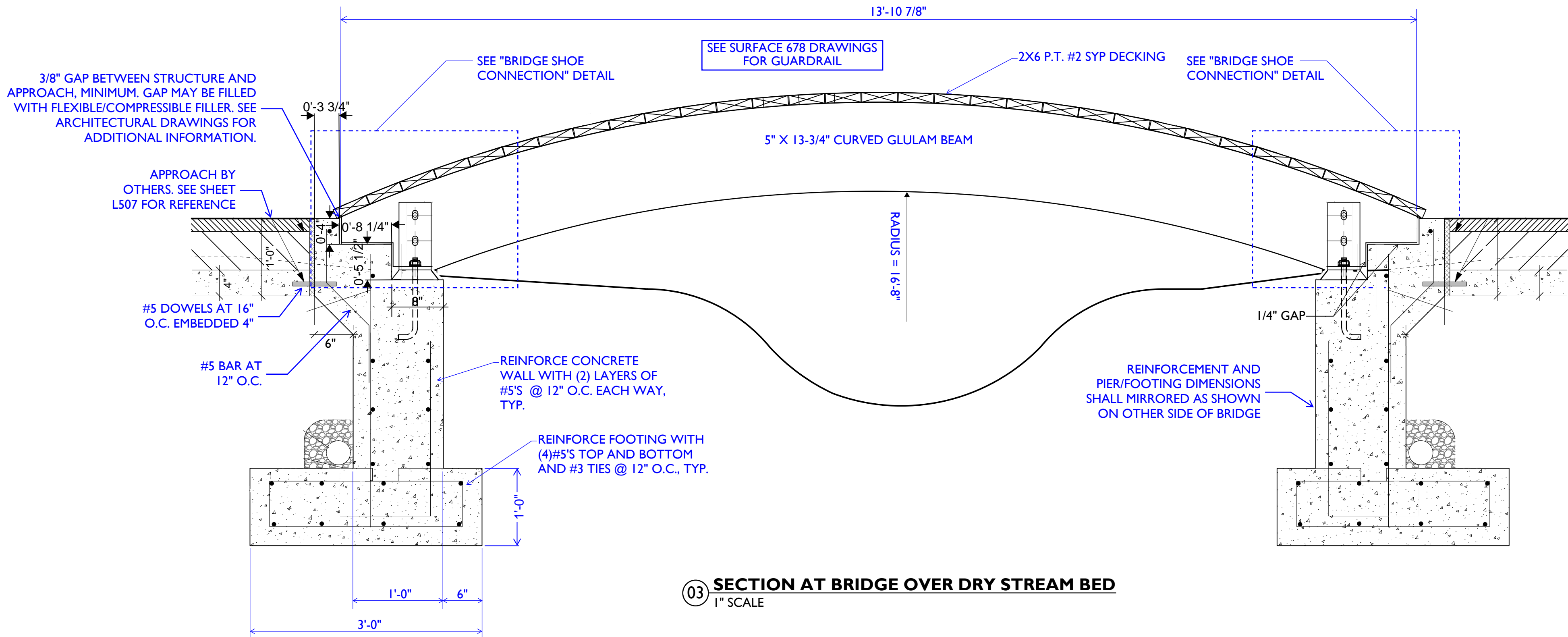
PEDESTRIAN BRIDGE CODE SUMMARY	
Project:	Blue Jay Point County Park
Location:	Raleigh, NC
Code:	AASHTO LRFD Bridge Design Spec, 2nd Ed. with 2015 Revisions.
Design Data:	
Bridge Dead Load:	12 psf Dead Load + Stringer Weight
Bridge Live Load:	85 psf Uniform (no Impact)
SNOW DESIGN DATA (ASCE 7)	
Ground Snow Load:	15 psf
Snow Exposure Factor, Ce:	1.0
Snow Importance Factor, Is:	1.0
Snow Thermal Factor, Ct:	1.2
WIND DESIGN DATA	
Ultimate Design Wind Speed (3-sec gust), Vult	115 mph
Nominal Design Wind Speed (3-sec gust), Vnsd	90 mph
Wind Exposure Category:	B
Comp. and Cladding Pressures:	22 psf
Wind Base Shears (ASD Level):	1.7 Kips
SEISMIC DESIGN DATA	
SEE GENERAL STRUCTURAL NOTES ON S1.0	
GOVERNING LATERAL FORCE: WIND	



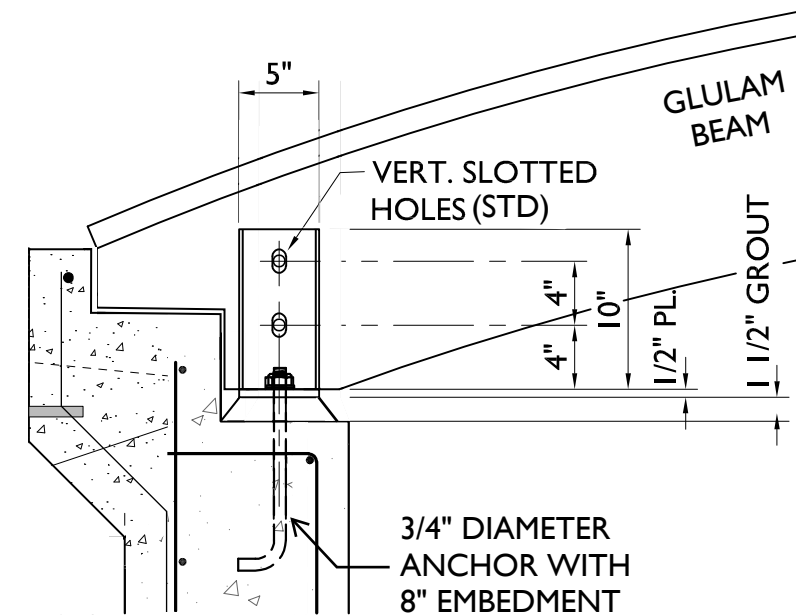
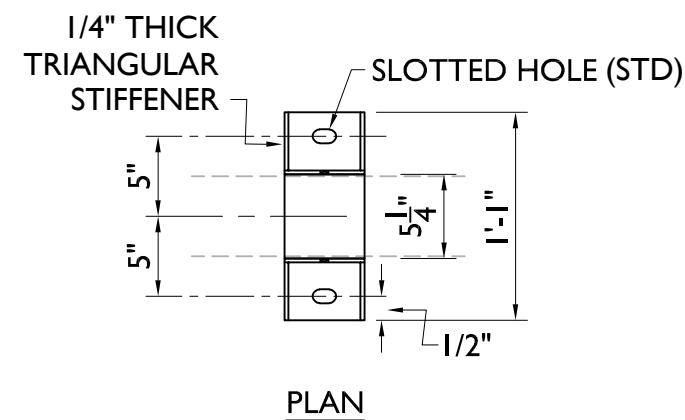
01 BRIDGE FOUNDATION PLAN AT DRY STREAM BED  
1/2\"/>



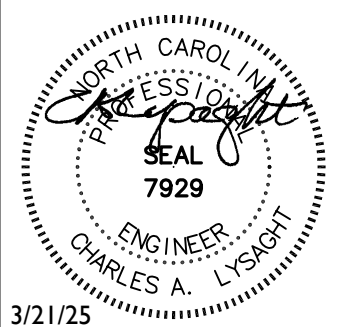
02 BRIDGE FRAMING PLAN AT DRY STREAM BED  
1/2\"/>



03 SECTION AT BRIDGE OVER DRY STREAM BED  
1\"/>



04 BRIDGE SHOE CONNECTION  
1\"/>



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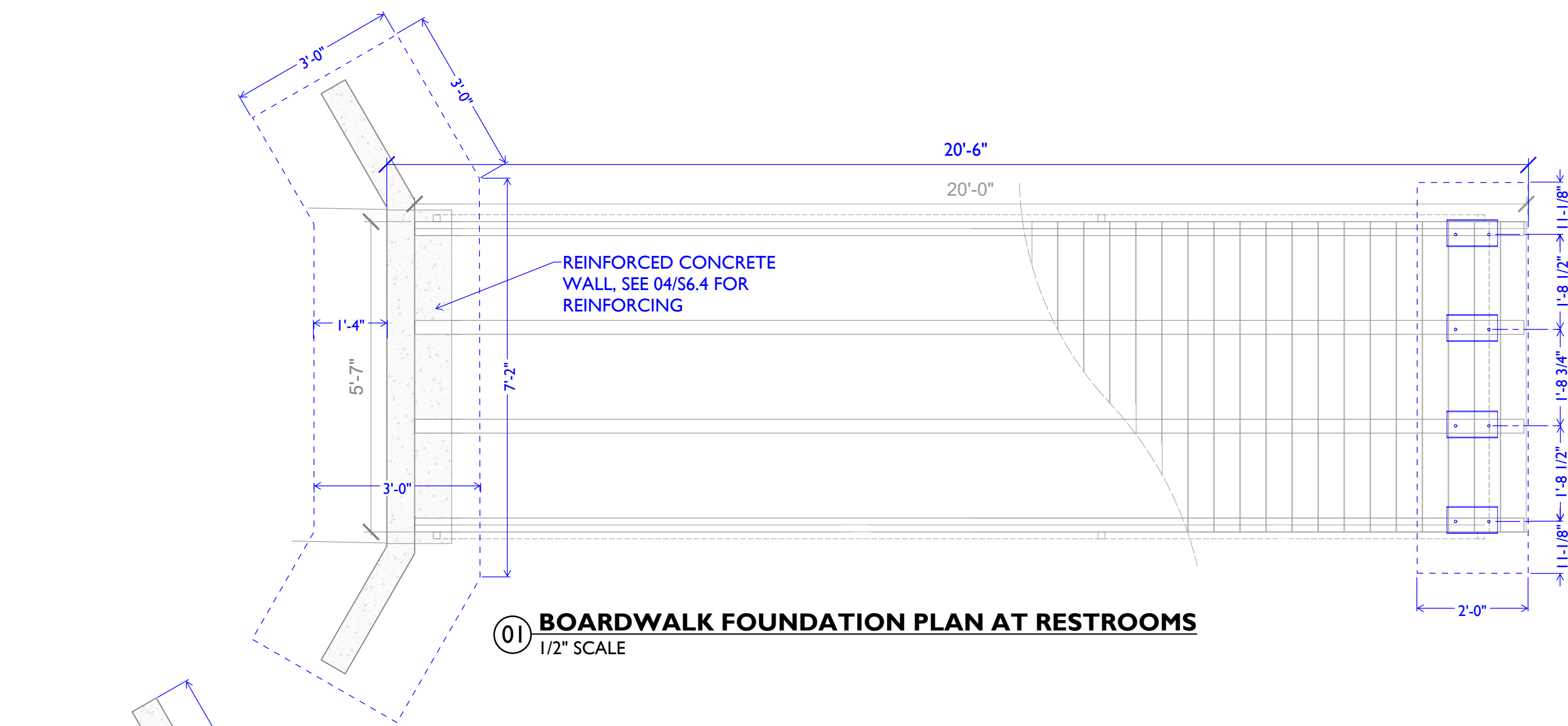
BLUE JAY POINT COUNTY PARK  
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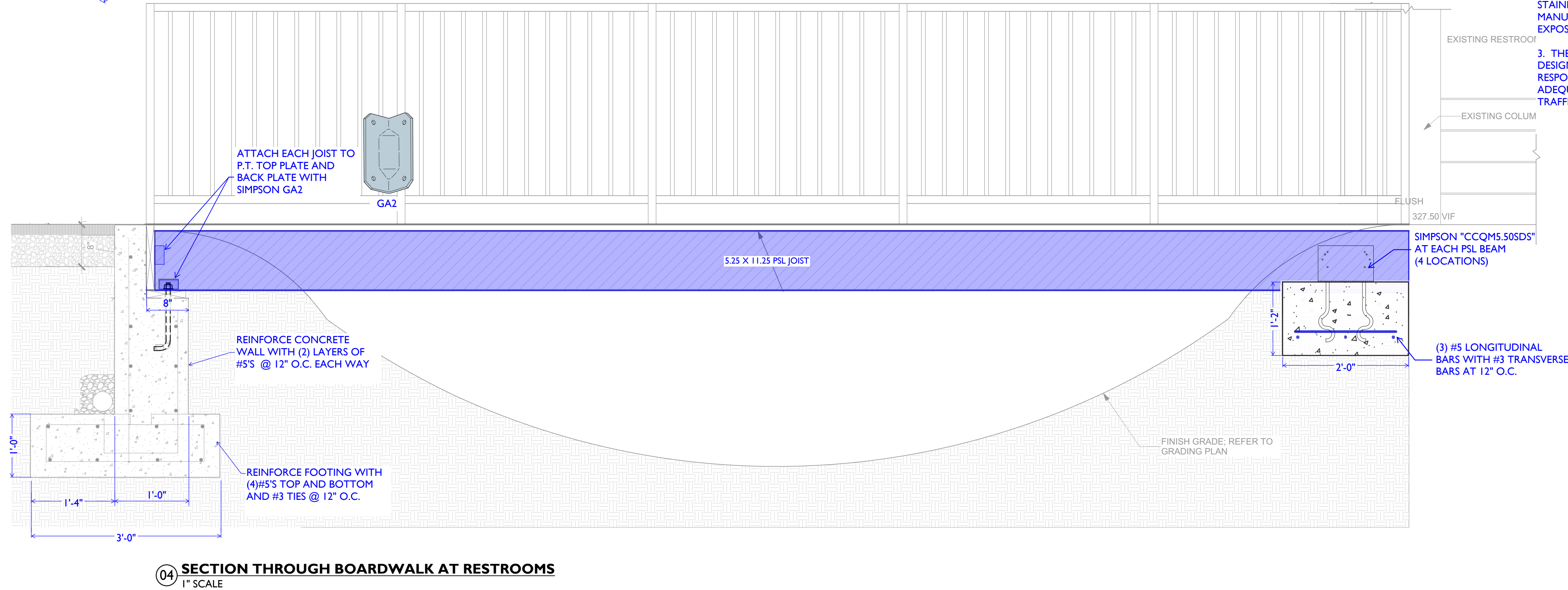




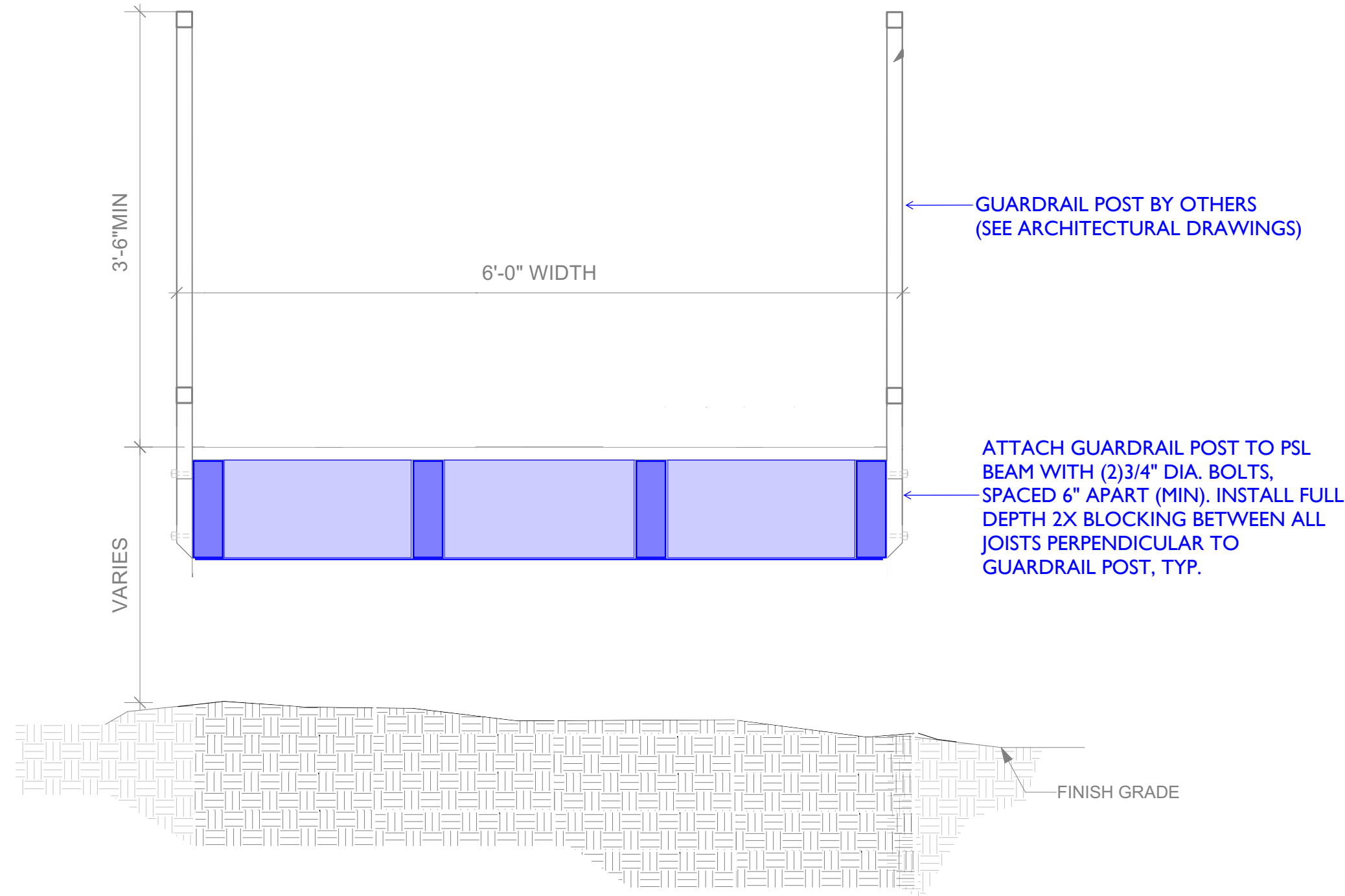
01 BOARDWALK FOUNDATION PLAN AT RESTROOMS  
1/2" SCALE



02 BOARDWALK FRAMING PLAN AT RESTROOMS  
1/2" SCALE



04 SECTION THROUGH BOARDWALK AT RESTROOMS  
1" SCALE

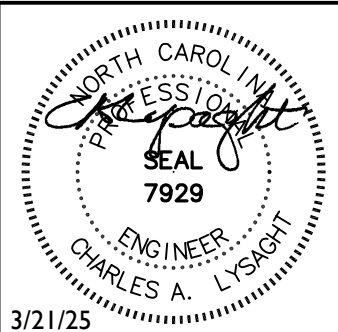


03 SECTION THROUGH BOARDWALK AT RESTROOMS  
1" SCALE

PARALLAM PSL BRIDGE FRAMING NOTES

1. ALL LUMBER SHALL BE PRESSURE TREATED #2 (OR BETTER) SOUTHERN YELLOW PINE OR PSL (PARALLAM 2.0E) WHERE NOTED, TREATED IN ACCORDANCE WITH AWPA STANDARD UI TO THE REQUIREMENTS OF USE CATEGORY 3 (UC3B).
2. ALL STEEL AND HARDWARE SHALL BE GALVANIZED, STAINLESS STEEL, OR FINISHED IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS FOR OUTDOOR EXPOSURE.
3. THE BRIDGES SHOWN IN THESE DRAWINGS HAVE NOT BEEN DESIGNED FOR VEHICULAR TRAFFIC. THE OWNER IS RESPONSIBLE FOR PLACEMENT OF SIGNAGE AND/OR BOLLARDS ADEQUATE TO PREVENT THE OCCURANCE OF VEHICULAR TRAFFIC.

PEDESTRIAN BRIDGE CODE SUMMARY	
Project:	Blue Jay Point County Park
Location:	Raleigh, NC
Code:	AASHTO LRFD Bridge Design Spec, 2nd Ed. with 2015 Revisions.
Design Data:	
Bridge Dead Load:	12 psf Dead Load + Stringer Weight
Bridge Live Load:	85 psf Uniform (no Impact)
SNOW DESIGN DATA (ASCE 7)	
Ground Snow Load:	15 psf
Snow Exposure Factor, Ce:	1.0
Snow Importance Factor, Is:	1.0
Snow Thermal Factor, Ct:	1.2
WIND DESIGN DATA	
Ultimate Design Wind Speed (3-sec gust), Vult	115 mph
Nominal Design Wind Speed (3-sec gust), Vasd	90 mph
Wind Exposure Category:	B
Comp. and Cladding Pressures:	22 psf
Wind Base Shears (ASD Level):	1.7 Kips
SEISMIC DESIGN DATA	
SEE GENERAL STRUCTURAL NOTES ON S1.0	
GOVERNING LATERAL FORCE: WIND	



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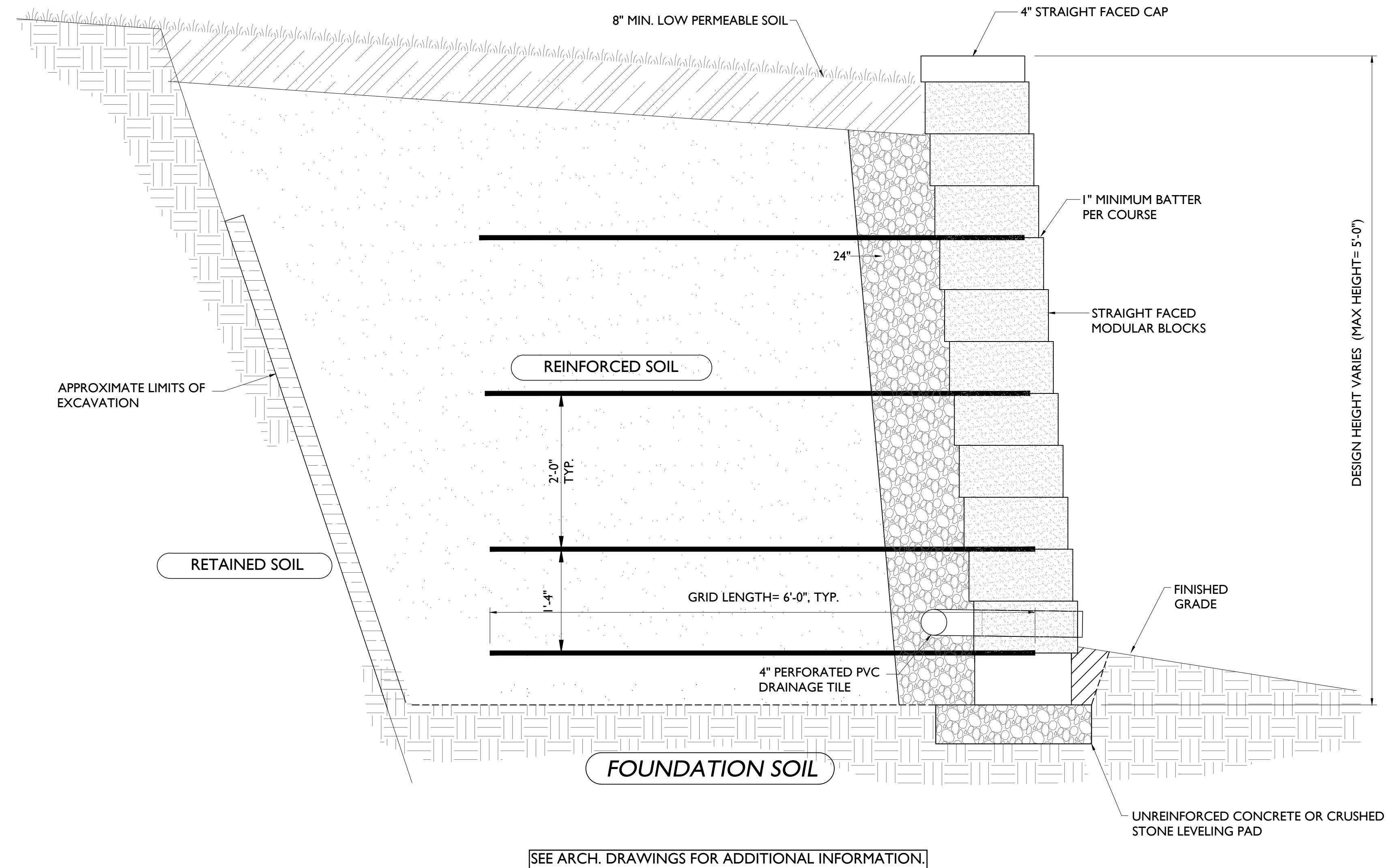
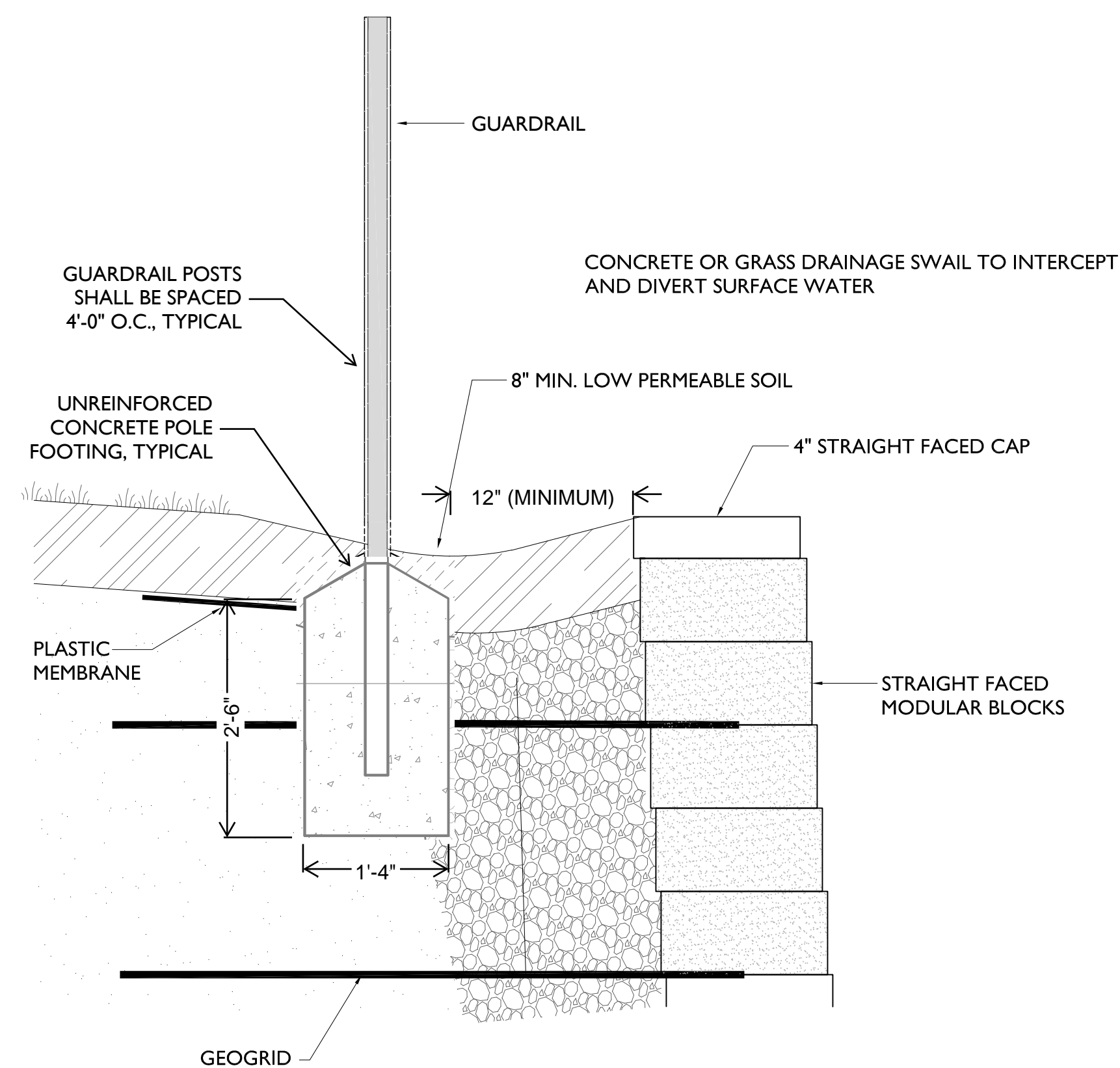
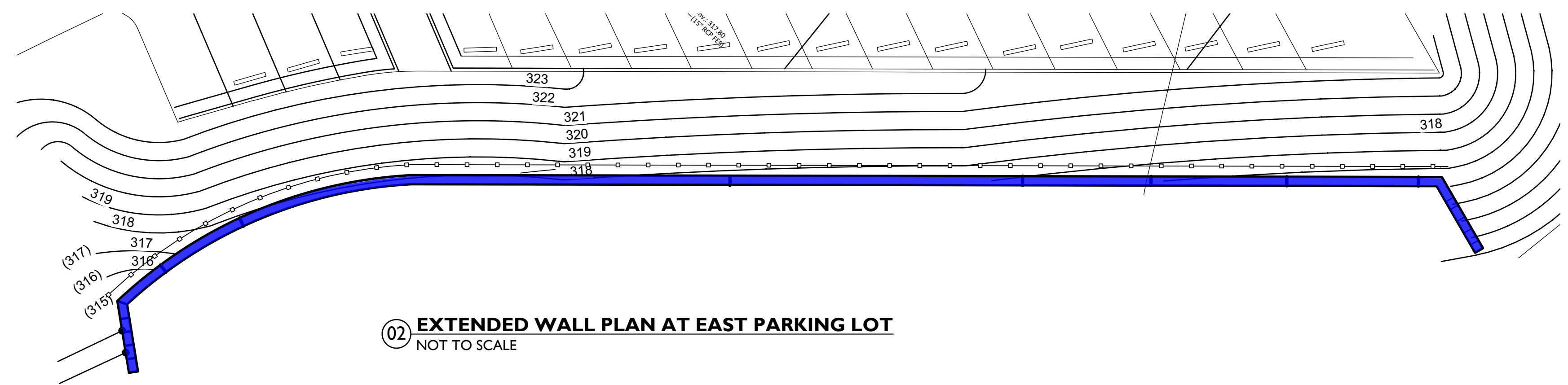
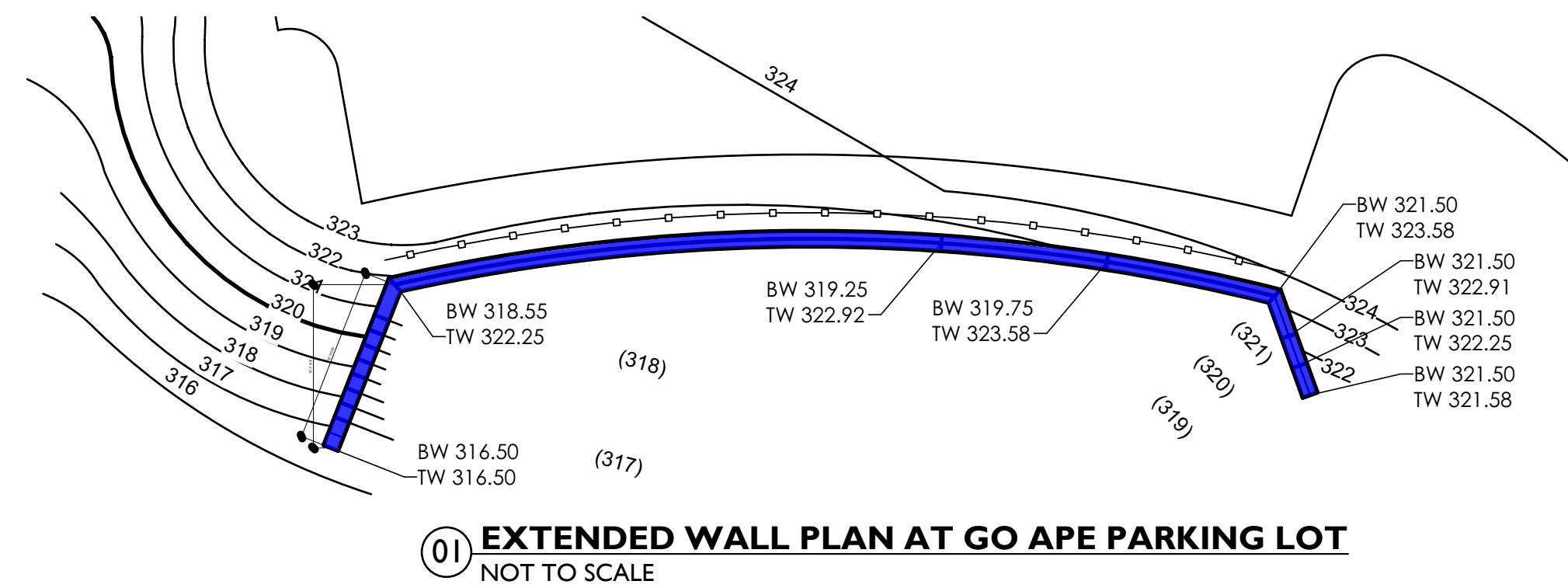
DATE	DESCRIPTION	REV#

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3200 PLEASANT UNION CHURCH RD  
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SEGMENTAL RETAINING WALLS

THE RETAINING WALL SYSTEM SHALL BE CONSTRUCTED USING BEVELED FACE CONCRETE MASONRY UNITS WITH "GRIDLOK 270 COATED POLYESTER GEOGRID (LTD'S = 1475 LB/FT<sup>2</sup>) OR BETTER. ALL GEOGRID SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATION AND GUIDELINES.

THE BOTTOM OF THE RETAINING WALL MAY BE STEPPED AS REQUIRED TO MAINTAIN ADEQUATE EMBEDMENT OF THE LEVELING PAD PER PLAN SPECIFICATIONS.

CONTRACTOR SHALL DETERMINE EXACT LOCATION OF WALL IN FIELD.

MATERIAL SHALL CONSIST OF A COMPACTED CRUSHED STONE BASE OR UNREINFORCED CONCRETE AS SHOWN ON THE CONSTRUCTION DRAWINGS.

UNIT DRAINAGE FILL SHALL CONSIST OF CLEAN #57 CRUSHED STONE OR CRUSHED GRAVEL.

DRAINAGE FILL SHALL BE PLACED WITHIN THE CORES OF, BETWEEN, AND BEHIND THE UNITS AS INDICATED ON THE DESIGN DRAWINGS.

MATERIAL CAN BE SITE-EXCAVATED SOILS WHERE THE ABOVE REQUIREMENTS CAN BE MET. UNSUITABLE SOILS FOR BACKFILL (HIGH PLASTIC CLAYS OR ORGANIC SOILS) SHALL NOT BE USED IN THE BACKFILL OR IN THE REINFORCED SOIL MASS.

DRAINAGE, BY CONTRACTOR, SHALL BE PERFORATED OR SLOTTED PVC PIPE MANUFACTURED IN ACCORDANCE WITH ASTM D-3034 OR CORRUGATED HDPE PIPE MANUFACTURED IN ACCORDANCE WITH AASHTO M252.

SHEAR CONNECTORS SHALL BE CAPABLE OF HOLDING THE GEOGRID IN THE PROPER DESIGN POSITION DURING GRID PRE-TENSIONING AND BACKFILLING.

LEVELING PAD MATERIAL SHALL BE PLACED TO THE LINES AND GRADES SHOWN ON THE CONSTRUCTION DRAWINGS, TO A MINIMUM THICKNESS OF 6" AND EXTEND Laterally A MINIMUM OF 6" IN FRONT AND 12" BEHIND THE KEYSTONE WALL UNIT.

SOIL LEVELING PAD MATERIALS SHALL BE COMPACTED TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY PER ASTM D-698 OR 92% MODIFIED PROCTOR DENSITY PER ASTM D1557.

LEVELING PAD SHALL BE PREPARED TO INSURE FULL CONTACT TO THE BASE SURFACE OF THE CONCRETE UNITS.

FIRST COURSE OF UNITS SHALL BE PLACED ON THE LEVELING PAD AT THE APPROPRIATE LINE AND GRADE. ALIGNMENT AND LEVEL SHALL BE CHECKED IN ALL DIRECTIONS AND INSURE THAT ALL UNITS ARE IN FULL CONTACT WITH THE BASE AND PROPERLY SEATED.

PLACE THE FRONT OF UNITS SIDE-BY-SIDE. DO NOT LEAVE GAPS BETWEEN ADJACENT UNITS. LAYOUT OF CORNERS AND CURVES SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

INSTALL SHEAR/CONNECTING DEVICES PER MANUFACTURER'S RECOMMENDATIONS.

PLACE AND COMPACT DRAINAGE FILL WITHIN AND BEHIND WALL UNITS. PLACE AND COMPACT BACKFILL SOIL BEHIND DRAINAGE FILL. FOLLOW WALL ERECTION AND DRAINAGE FILL CLOSELY WITH STRUCTURE BACKFILL.

MAXIMUM STACKED VERTICAL HEIGHT OF WALL UNITS, PRIOR TO UNIT DRAINAGE FILL AND BACKFILL PLACEMENT AND COMPACTION, SHALL NOT EXCEED TWO COURSES.

BOND CONFIGURATION - RUNNING WITH BONDS NOMINALLY LOCATED AT MIDPOINT OF VERTICALLY ADJACENT UNITS, IN BOTH STRAIGHT AND CURVED ALIGNMENTS.

GEOGRID SHALL BE ORIENTED WITH THE HIGHEST STRENGTH AXIS PERPENDICULAR TO THE WALL ALIGNMENT.

GEOGRID REINFORCEMENT SHALL BE PLACED AT THE STRENGTHS, LENGTHS, AND ELEVATIONS SHOWN ON THE CONSTRUCTION DESIGN DRAWINGS.

THE GEOGRID SHALL BE LAID HORIZONTALLY ON COMPACTED BACKFILL AND ATTACHED TO THE KEYSTONE WALL UNITS. PLACE THE NEXT COURSE OF KEYSTONE CONCRETE UNITS OVER THE GEOGRID. THE GEOGRID SHALL BE PULLED TAUT, AND ANCHORED PRIOR TO BACKFILL PLACEMENT ON THE GEOGRID.

GEOGRID REINFORCEMENTS SHALL BE CONTINUOUS THROUGHOUT THEIR EMBEDMENT LENGTHS AND PLACED SIDE-BY-SIDE TO PROVIDE 100% COVERAGE AT EACH LEVEL. SPLICED CONNECTIONS BETWEEN SHORTER PIECES OF GEOGRID OR GAPS BETWEEN ADJACENT PIECES OF GEOGRID ARE NOT PERMITTED.

REINFORCED BACKFILL SHALL BE PLACED, SPREAD, AND COMPACTED IN SUCH A MANNER THAT MINIMIZES THE DEVELOPMENT OF SLACK IN THE GEOGRID AND INSTALLATION DAMAGE.

REINFORCED BACKFILL SHALL BE PLACED AND COMPACTED IN LIFTS NOT TO EXCEED 7" WHERE HAND COMPACTION IS USED, OR 8"-10" WHERE HEAVY COMPACTION EQUIPMENT IS USED. LIFT THICKNESS SHALL BE DECREASED TO ACHIEVE THE REQUIRED DENSITY AS REQUIRED.

REINFORCED BACKFILL SHALL BE COMPACTED TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY PER ASTM D-698 OR 92% MODIFIED PROCTOR DENSITY PER ASTM D1557.

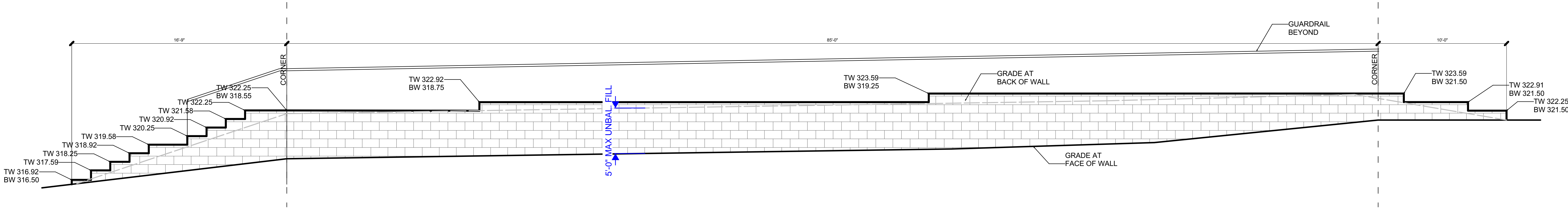
ONLY LIGHTWEIGHT HAND-OPERATED EQUIPMENT SHALL BE ALLOWED WITHIN 3' FROM THE TAIL OF THE KEYSTONE CONCRETE UNIT.

TRACKED CONSTRUCTION EQUIPMENT SHALL NOT BE OPERATED DIRECTLY UPON THE GEOGRID REINFORCEMENT. A MINIMUM FILL THICKNESS OF 4" IS REQUIRED PRIOR TO OPERATION OF TRACKED VEHICLES OVER THE GEOGRID. TRACKED VEHICLE TURNING SHOULD BE KEPT TO A MINIMUM TO PREVENT TRACKS FROM DISPLACING THE FILL AND DAMAGING THE GEOGRID.

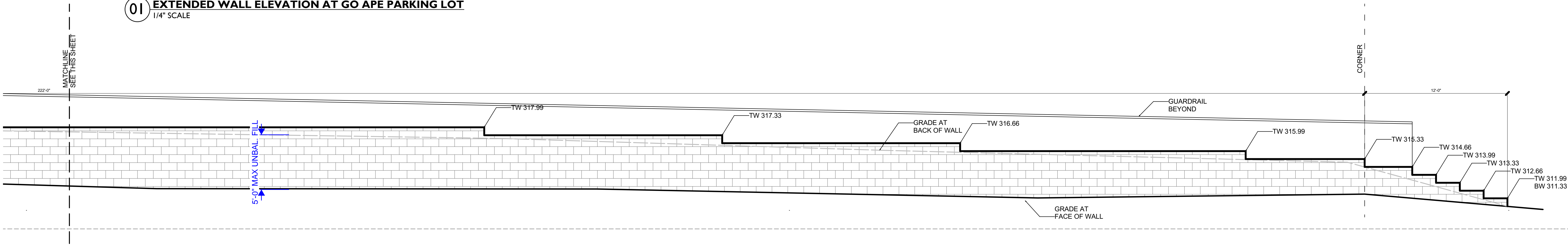
RUBBER Tired EQUIPMENT MAY PASS OVER GEOGRID REINFORCEMENT AT SLOW SPEEDS, LESS THAN 10 MPH. SUDDEN BRAKING AND SHARP TURNING SHALL BE AVOIDED.

AT THE END OF EACH DAY'S OPERATION, THE CONTRACTOR SHALL SLOPE THE LAST LIFT OF REINFORCED BACKFILL AWAY FROM THE WALL UNITS TO DIRECT RUNOFF AWAY FROM WALL FACE. THE CONTRACTOR SHALL NOT ALLOW SURFACE RUNOFF FROM ADJACENT AREAS TO ENTER THE WALL CONSTRUCTION SITE.

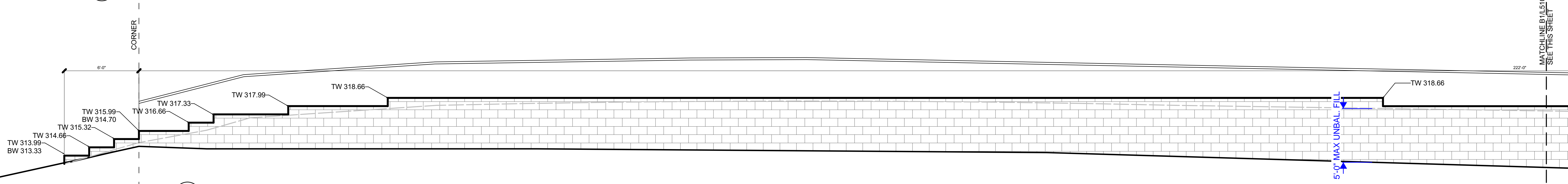
CAP UNITS SHALL BE GLUED TO UNDERLYING UNITS WITH AN ALL-WEATHER ADHESIVE RECOMMENDED BY THE MANUFACTURER.



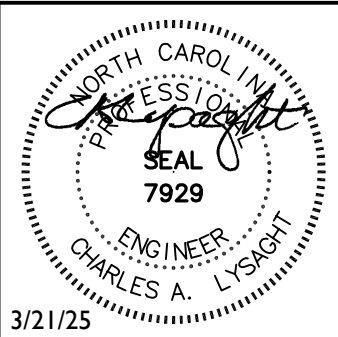
01 EXTENDED WALL ELEVATION AT GO APE PARKING LOT  
1/4" SCALE



02 EXTENDED WALL ELEVATION AT EAST PARKING LOT  
1/4" SCALE



03 EXTENDED WALL ELEVATION AT EAST PARKING LOT  
1/4" SCALE



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APPROVED:	CAL
SHEET	S6.51





1. USE CLASS "A" SOIL FOR BACKFILL BEHIND WALL TO MINIMIZE LATERAL PRESSURE. CLASS "A" IS CLEAN SAND OR GRAVEL, FREE OF FINES THAT MIGHT OBSTRUCT FREE DRAINAGE. BACKFILL MUST BE APPROVED BY THE GEOTECHNICAL ENGINEER.
2. STRUCTURAL DATA:  $f_c = 3,000$  PSI FOR FOOTINGS,  $f_c = 4,000$  PSI FOR WALLS, GRADE 60 REBARS, 3,000 PSF ALLOWABLE SOIL BEARING PRESSURE, 30 PCF EQUIVALENT FLUID PRESSURE.
3. THIS DESIGN IS BASED UPON LEVEL BACKFILL AND NO ADDITIONAL SURCHARGE LOAD. CONTACT THE STRUCTURAL ENGINEER FOR A REDESIGN OF THE WALL AND FOOTING IF THERE WILL BE A SLOPING BACKFILL OR SURCHARGE LOAD.
4. REINFORCING BARS MUST BE ACCURATELY PLACED AT THE LOCATIONS SHOWN AT THE DETAILS TO ENSURE THAT THE COMPLETED CONSTRUCTION WILL REFLECT THE STRUCTURAL DESIGN.
5. PROVIDE WEAKENED PLANE CONTRACTION JOINTS AT INTERVALS OF ABOUT 25 FEET AND KEYED EXPANSION JOINTS AT EVERY FOURTH CONTRACTION JOINT. CUT ALTERNATE LONGITUDINAL BARS EXACTLY OPPOSITE WEAKENED PLANE JOINTS.
6. CONCRETE FOOTINGS SHALL BE ON FIRM UNDISTURBED EARTH (OR ENGINEERED FILL) AND SHALL BE PLACED BELOW THE FROST LINE.
7. REFER TO ARCHITECTURAL PLANS AND/OR SPECIFICATIONS FOR WATER-PROOFING REQUIREMENTS AND DRAINAGE REQUIREMENTS.
8. THE MAXIMUM SIZE AGGREGATE FOR WALLS IS 3/4".
9. DO NOT BACKFILL BEHIND WALL UNTIL THE CONCRETE HAS CURED.
10. IF THE "V-BARS" ARE SPICED, USE A CLASS B SPlice WITH A LAP THAT IS 1.3 \* Ld.