

GENERAL NOTES:

- PROJECT NAME: ALGONQUIN
- OWNER/APPLICANT: JOEL K. & STACY A. JUSTICE
PO BOX 208
GRANDY, NC 27939
- PROPERTY DATA:
PARCEL ID# 0109-000-053F-0000
ADDRESS: INDIAN KETTLE RD. JARVISBURG, NC
RECORDED REFERENCES: D.B. 02, PG. SP/55/57, PC: K, SL. 30
PROPERTY ZONING: SFM
- F.I.R.M. DATA:
ZONE X, F.E.M.A. F.I.R.M. MAP PANEL 3720092000K, CID 370078, EFFECTIVE DATE
DECEMBER 21, 2018.
- THE PROPERTY CONTAINS NO 404 JURISDICTIONAL WETLANDS AS CONFIRMED BY THE US
ARMY CORPS OF ENGINEERS.
- EXISTING CONDITION INFORMATION BASED ON A COMBINATION OF THE FOLLOWING:
• FIELD SURVEY DATA OBTAINED BY BISSELL PROFESSIONAL GROUP
• 2020 AERIAL IMAGERY OBTAINED FROM NCONEMAP.COM
• ELEVATIONS ARE REFERENCED TO NAVD 1988 VERTICAL DATUM.
- DRAINAGE AND UTILITY EASEMENTS WILL BE PROVIDED ON THE FINAL PLATS PREPARED
FOR RECORDING OF THE SUBDIVISION.
• A 10' EASEMENT FOR UTILITIES AND DRAINAGE TO BE DEDICATED ALONG ALL REAR
AND SIDE PROPERTY LINES
• A 15' EASEMENT FOR UTILITIES AND DRAINAGE TO BE DEDICATED ALONG ALL FRONT
PROPERTY LINES
• A NON-EXCLUSIVE DRAINAGE EASEMENT TO BE DEDICATED TO CURRITUCK COUNTY &
NCEQ ACROSS ALL OPEN SPACE AREAS AND ALONG ALL MAJOR DRAINAGE WAYS
SERVING MORE THAN 5 ACRES.
• A 10' EASEMENT TO BE DEDICATED BEYOND THE 15' FRONT EASEMENT FOR PLANTING
AND MAINTENANCE OF STREET TREES.
- EXISTING VEGETATION IN OPEN SPACE AREAS SHALL BE MAINTAINED.
- ALL NEW UTILITIES SHALL BE INSTALLED UNDERGROUND.
- THE PROJECT INCLUDES ROADWAY, SIDEWALK, DRAINAGE AND UTILITY IMPROVEMENTS
ALONG SOME 340 FT OF THE EXISTING INDIAN KETTLE ROAD. ALL RELATED
CONSTRUCTION SHALL STAY WITHIN THE LIMITS OF THE ROADWAY'S 45' PRIVATE R/W
AND THE 15' DRAINAGE AND UTILITY EASEMENTS FRONTING THE (4) ADJOINING LOTS, AS
PRESCRIBED BY THE SUBDIVISION PLAT RECORDED IN PC: C-2, SL: 363. THE
CONTRACTOR SHALL NOTIFY THE LOT OWNERS AHEAD OF ANY CONSTRUCTION ACTIVITIES
ON THEIR PROPERTY, MINIMIZE DISTURBANCES TO THEIR PROPERTY AND MAINTAIN
REASONABLE MEANS OF ACCESS AND CLEANLINESS.

DEVELOPMENT NOTES:

- PROPERTY SUMMARY:
PROPOSED SUBDIVISION AREA: 14.53 AC.
PROPOSED AREA TO BE RECOMBINED INTO PARCEL "A": 0.95 AC.
TOTAL PROPERTY AREA: 14.48 AC.
- DEVELOPMENT SUMMARY:
PROPOSED LOT AREA: 9.41 AC.
PROPOSED R/W AREA: 0.74 AC.
PROPOSED OPEN SPACE AREA: 4.38 AC.
TOTAL SUBDIVISION AREA: 14.53 AC.

OF PROPOSED LOTS: 10
MINIMUM LOT AREA: 40,000 SF
PROPOSED RIGHT-OF-WAY WIDTH: 45 FT.
PROPOSED PAVED ROADWAY WIDTH: 20 FT.
LINEAR FEET OF EXISTING ROAD TO BE IMPROVED: 340 L.F.±
LINEAR FEET OF NEW ROAD TO BE CONSTRUCTED: 500 L.F.±

- DEVELOPMENT IMPERVIOUS COVERAGE DATA (BUA):
COVERAGE ON INDIVIDUAL LOTS WILL BE LIMITED TO 20.0% OF LOT AREA
MAXIMUM TOTAL LOT COVERAGE: 81,979 SF
ROADWAY COVERAGE: 16,600 SF
SIDEWALKS: 6,000 SF
TOTAL COVERAGE: 104,579 SF
COVERAGE PERCENTAGE: 16.52%
- PROPOSED DISTURBED AREA: 11 ACRES

THE FOLLOWING PERMITS ARE REQUIRED PRIOR TO PROJECT CONSTRUCTION:

| PERMIT | AGENCY | REFERENCE NUMBER | DATE OF ISSUANCE |
|--|---|------------------|------------------|
| SEDIMENTATION AND EROSION CONTROL PERMIT | N.C.D.E.Q. - DIVISION OF LAND RESOURCES | | |
| STORMWATER MANAGEMENT LOW DENSITY PERMIT | N.C.D.E.Q. - DIVISION OF LAND RESOURCES | | |
| WATERMAIN EXTENSION AUTHORIZATION TO CONSTRUCT | N.C.D.E.Q. - PUBLIC WATER SUPPLY | | |
| DRIVEWAY PERMIT | N.C.D.O.T. | | |
| ENCROACHMENT AGREEMENT | N.C.D.O.T. | | |
| CURRITUCK COUNTY PRELIMINARY PLAT & USE PERMIT | CURRITUCK COUNTY BOARD OF COMMISSIONERS | PB 21-21 | 8/21/2023 |
| CURRITUCK COUNTY CONSTRUCTION AUTHORIZATION | CURRITUCK COUNTY PLANNING STAFF | | |

CONSTRUCTION DRAWINGS FOR ALGONQUIN

A 10 LOT TRADITIONAL RESIDENTIAL SUBDIVISION POPLAR BRANCH TOWNSHIP CURRITUCK COUNTY NORTH CAROLINA

Sheet List Table

| Sheet Number | Sheet Title |
|--------------|---|
| 1 | COVER SHEET, DEVELOPMENT NOTES & SITE LOCATION |
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| 5 | EROSION AND SEDIMENT CONTROL PLAN |
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| 10 | ROADWAY, DRAINAGE & TYP. CONSTRUCTION DETAILS |
| 11 | EROSION & SEDIMENT CONTROL CONSTRUCTION NOTES & DETAILS |
| 12 | NCG01 - SELF INSPECTION, RECORD KEEPING & REPORTING |
| 13 | NCG01 - GROUND STABILIZATION & MATERIALS HANDLING |

| LEGEND | |
|--------|----------------------------------|
| | ROADWAY CENTERLINE |
| | RIGHT-OF-WAY |
| | PROPERTY BOUNDARY |
| | ADJOINING PROPERTY LINE |
| | EXISTING DITCH CENTERLINE |
| | EXISTING TREE LINE (APPROXIMATE) |
| | PROPOSED SWALE W/ FLOW ARROW |
| | PROPOSED SWALE HIGH POINT |
| | EXISTING GRADE CONTOUR |
| | PROPOSED GRADE CONTOUR |
| | EXISTING SPOT GRADE |
| | PROPOSED SPOT GRADE |
| | EXISTING CULVERT |
| | PROPOSED CULVERT |
| | PROPOSED DRAINAGE STRUCTURE |
| | NO PARKING SIGN |
| | CROSSWALK |

| EROSION CONTROL LEGEND | |
|------------------------|---|
| | PROPOSED LIMITS OF DISTURBANCE |
| | PROPOSED SILT FENCE |
| | PROPOSED STABILIZED CONSTRUCTION ENTRANCE |
| | PROPOSED TEMPORARY CHECK DAM |

| UTILITY LEGEND | |
|----------------|-------------------------------------|
| | EXISTING WATER LINE |
| | PROPOSED WATER LINE (SIZE AS NOTED) |
| | PROPOSED FIRE HYDRANT (APRX) |
| | PROPOSED WATER SERVICE (APRX) |
| | PROPOSED VALVE (APRX) |
| | PROPOSED BLOW-OFF (APRX) |
| | PROPOSED REDUCER (APRX) |

| PROFILE LEGEND | |
|----------------|-------------------------------------|
| | EXISTING GRADE @ ROAD C/L |
| | PROPOSED GRADE @ ROAD C/L |
| | PROPOSED WATER LINE (SIZE AS NOTED) |
| | PROPOSED HYDRANT ASSEMBLY |
| | PROPOSED GATE VALVE |
| | PROPOSED REDUCER |

| SOILS LEGEND | |
|--------------|----------------------------|
| CnA | CONETOE LOAMY SAND |
| Mu | MUNDEN LOAMY SAND |
| No | NIMMO LOAMY SAND |
| Pt | PORTSMOUTH FINE SANDY LOAM |

SCS - SOIL SURVEY OF CURRITUCK COUNTY

NOTE: EXISTING SITE INFORMATION DESCRIBED HEREON IS BELIEVED TO BE ACCURATE, HOWEVER, BPG INC. MAKES NO WARRANTY AS TO THE ACCURACY. IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY THIS INFORMATION BEFORE RELYING ON IT. THE CONTENT OF THESE DOCUMENTS MAY ALSO INCLUDE TECHNICAL INACCURACIES OR TYPOGRAPHICAL ERRORS. IF SUCH CONDITIONS EXIST, THE CONTRACTOR SHALL CONSULT WITH THE ENGINEER PRIOR TO PROCEEDING WITH THE SCHEDULED WORK AND MAY CONTINUE AFTER AN AUTHORIZATION TO PROCEED HAS BEEN GRANTED.

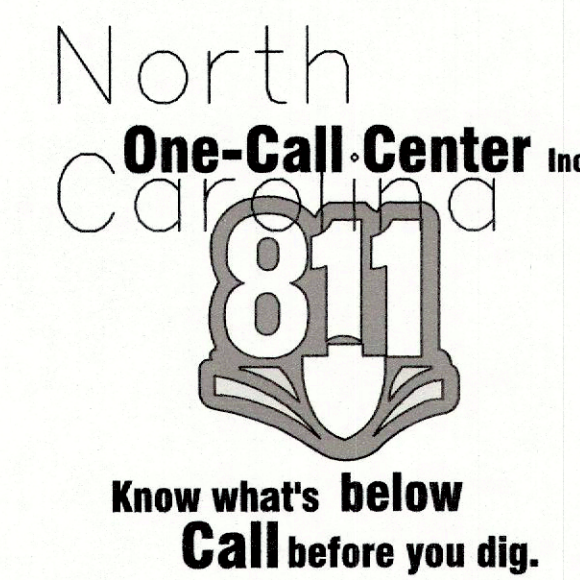
**FINAL DRAWING
NOT RELEASED FOR
CONSTRUCTION**

STORMWATER CERTIFICATE

I, _____ OWNER/AGENT HEREBY CERTIFY THE INFORMATION INCLUDED ON THIS AND ATTACHED PAGES IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

ON THE PLAN ENTITLED, ALGONQUIN CONSTRUCTION DRAWINGS - GRADING, DRAINAGE AND STORMWATER MANAGEMENT PLAN, STORMWATER DRAINAGE IMPROVEMENTS SHALL BE INSTALLED ACCORDING TO THESE PLANS AND SPECIFICATIONS AND APPROVED BY CURRITUCK COUNTY. YEARLY INSPECTIONS ARE REQUIRED AS PART OF THE STORMWATER PLAN. THE OWNER IS RESPONSIBLE FOR ALL MAINTENANCE REQUIRED. CURRITUCK COUNTY ASSUMES NO RESPONSIBILITY FOR THE DESIGN, MAINTENANCE, OR PERFORMANCE OF THE STORMWATER IMPROVEMENTS.

DATE _____ OWNER/AGENT _____



| SURVEY LEGEND | |
|---------------|------------------------|
| SCHM | SET CONCRETE MONUMENT |
| SR | SET IRON ROD |
| ER | EXISTING IRON ROD |
| EIP | EXISTING IRON PIPE |
| CP | CALCULATED POINT |
| M.B.L. | MAXIMUM BUILDING LIMIT |
| N.T.S. | NOT TO SCALE |
| P.C. | PLAT CABINET |
| D.B. | DEED BOOK |
| SL | SLIDE |
| SF | SQUARE FEET |
| AC | ACRES |

BISSELL PROFESSIONAL GROUP
3012 North Carolina Highway
Kitty Hawk, North Carolina 27949
TEL: (252) 281-1700 FAX: (252) 281-1700

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COVER SHEET, DEVELOPMENT NOTES & SITE LOCATION

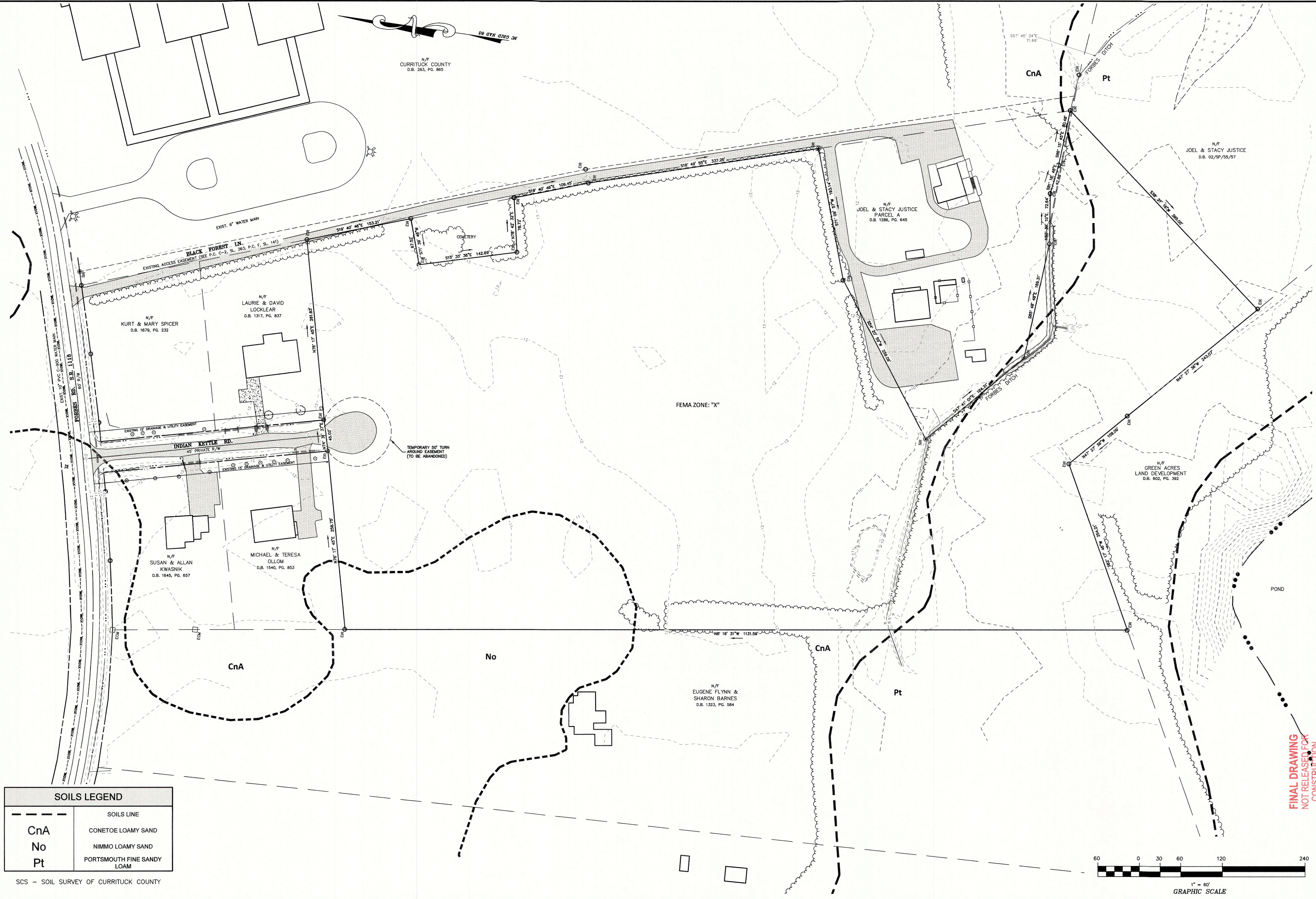
ALGONQUIN
CURRITUCK COUNTY
POPLAR BRANCH TOWNSHIP
NORTH CAROLINA

CONSTRUCTION DRAWINGS

| NO. | DATE | DESCRIPTION | BY |
|-----|------------|--------------------|----|
| 1 | 11/19/2024 | ISSUED FOR PERMITS | AM |

DATE: 8/28/24 SCALE: N/A
DESIGNED: BPG CHECKED: MSB
DRAWN: KFW/DMK APPROVED: BPG

SHEET: 1 OF 13
CAD FILE: 382600B2
PROJECT NO: 3826



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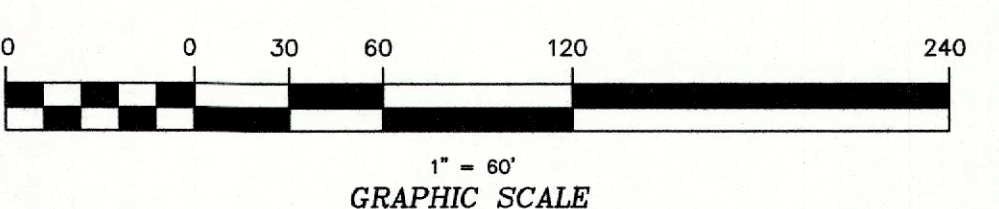
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BY: BPG
DATE: 11/19/24

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REVISIONS

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| APPROVED: | |
| KFW/DMK | BPG |
| SHEET: | |

**FINAL DRAWING
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CONSTRUCTION**



N/F
CURRITUCK COUNTY
D.B. 283, PG. 865

N/F
JOEL & STACY JUSTICE
D.B. 02/29/55/57

N/F
JOEL & STACY JUSTICE
PARCEL A
D.B. 1285, PG. 645

RESIDUAL PARCEL TO
BE RECOMBINED INTO
PARCEL A
34,300 S.F. (0.79 AC.)

LOT #4
42819 S.F.
0.98 AC.

LOT #3
40000 S.F.
0.92 AC.

LOT #5
46232 S.F.
1.06 AC.

LOT #2
40000 S.F.
0.92 AC.

LOT #1
40000 S.F.
0.92 AC.

LOT #6
40697 S.F.
0.93 AC.

OPEN SPACE
190863 S.F.
4.38 AC.

LOT #7
40075 S.F.
0.92 AC.

LOT #8
40037 S.F.
0.92 AC.

LOT #9
40024 S.F.
0.92 AC.

LOT #10
40009 S.F.
0.92 AC.

N/F
EUGENE FLYNN &
SHARON BARNES
D.B. 1323, PG. 584

N/F
KURT & MARY SPICER
D.B. 1678, PG. 232

N/F
LAURIE & DAVID
LOCKLEAR
D.B. 1317, PG. 837

N/F
SUSAN & ALLAN
KWASNIK
D.B. 1645, PG. 657

N/F
MICHAEL & TERESA
OLLOM
D.B. 1540, PG. 853

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**DEVELOPMENT
OVER VIEW PLAN**

ALGONQUIN
NORTH CAROLINA
CURRITUCK COUNTY
POPLAR BRANCH TOWNSHIP

CONSTRUCTION DRAWINGS

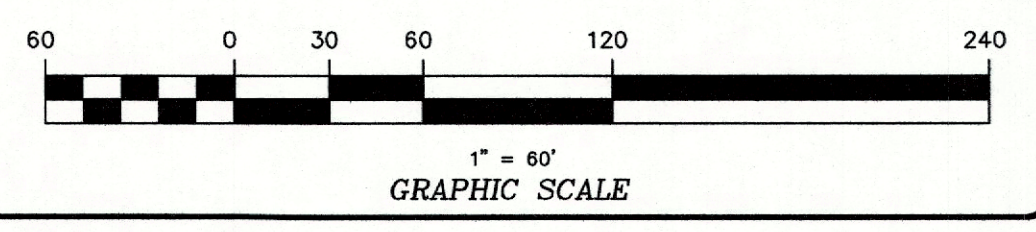
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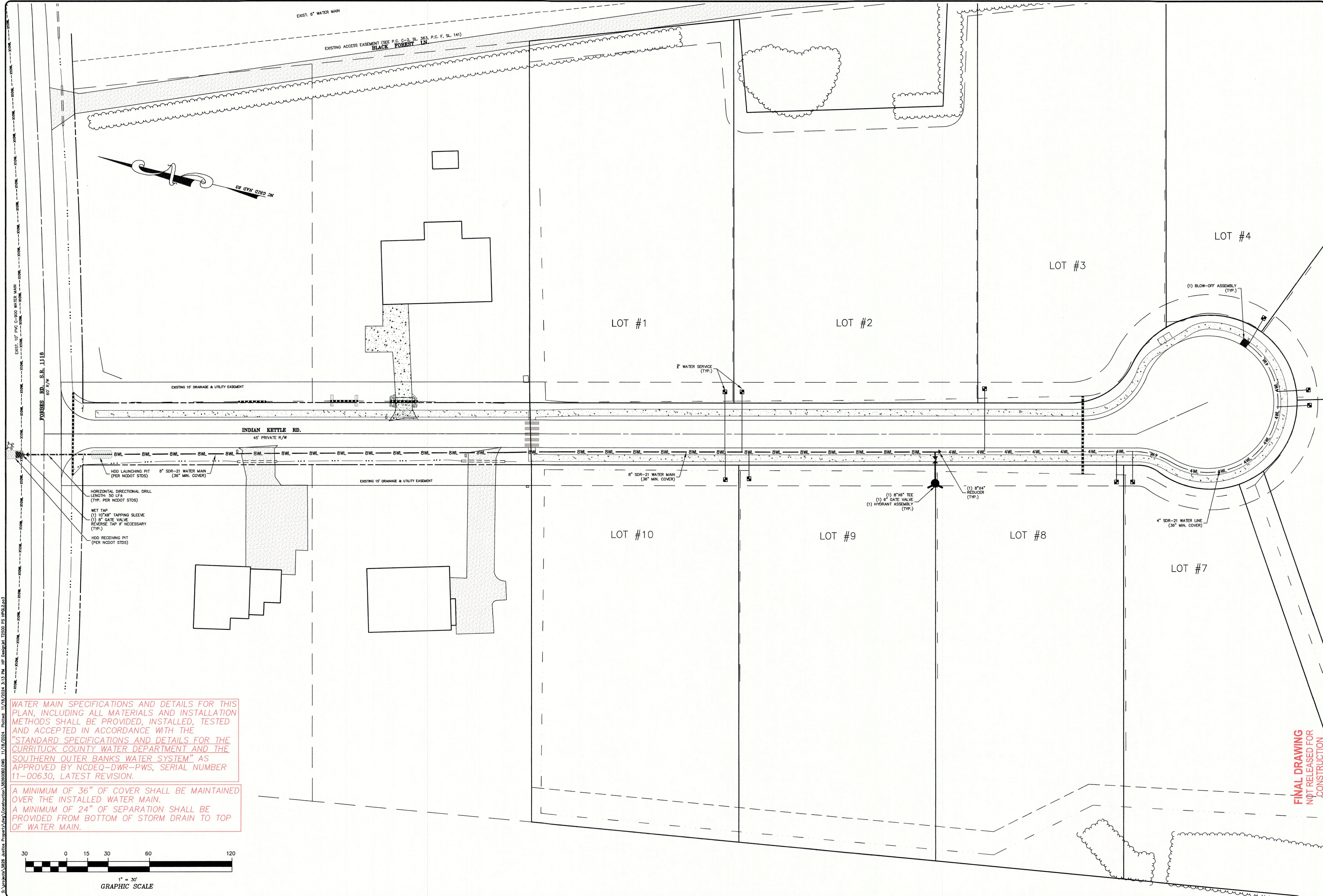
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PROJECT NO: 3826

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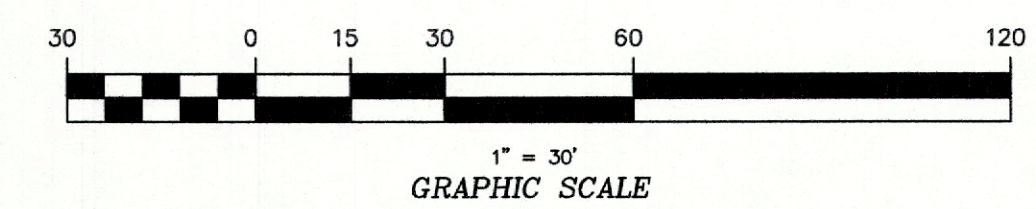


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WATER MAIN SPECIFICATIONS AND DETAILS FOR THIS PLAN, INCLUDING ALL MATERIALS AND INSTALLATION METHODS SHALL BE PROVIDED, INSTALLED, TESTED AND ACCEPTED IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS AND DETAILS FOR THE CURRITUCK COUNTY WATER DEPARTMENT AND THE SOUTHERN OUTER BANKS WATER SYSTEM" AS APPROVED BY NCDEQ-DWR-PWS, SERIAL NUMBER 11-00630, LATEST REVISION.

A MINIMUM OF 36" OF COVER SHALL BE MAINTAINED OVER THE INSTALLED WATER MAIN.
 A MINIMUM OF 24" OF SEPARATION SHALL BE PROVIDED FROM BOTTOM OF STORM DRAIN TO TOP OF WATER MAIN.



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**WATERMAIN EXTENSION
 AND WATER SERVICE PLAN**
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PROJECT: **ALGONQUIN**
 NORTH CAROLINA
 CURRITUCK COUNTY
 POPLAR BRANCH TOWNSHIP
CONSTRUCTION DRAWINGS

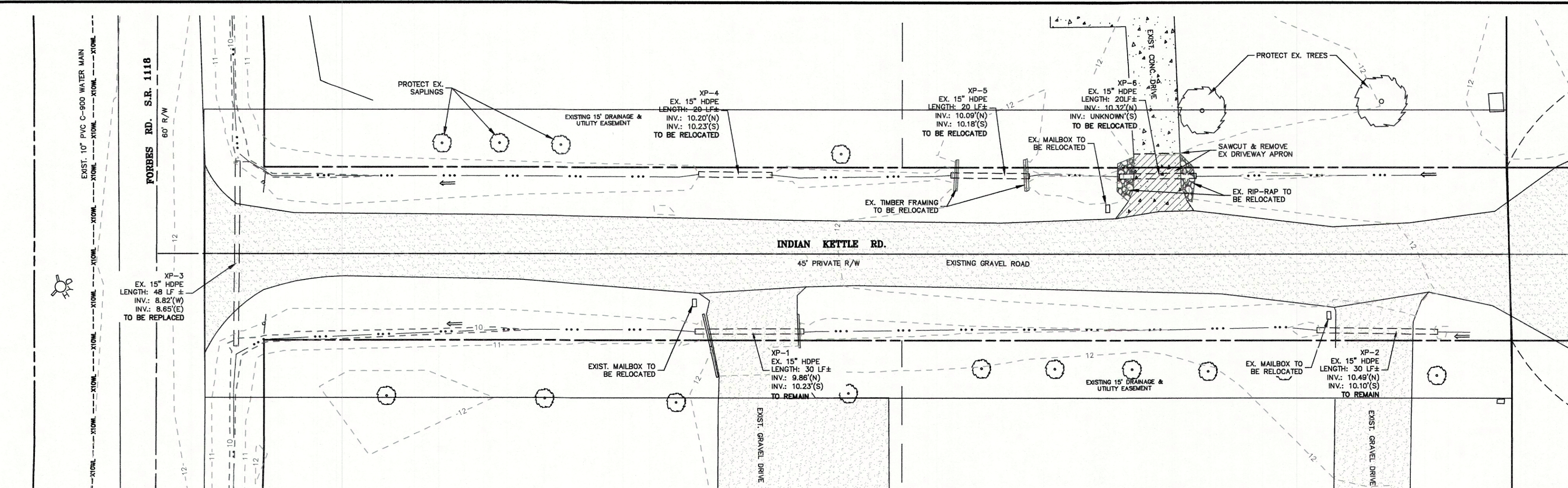
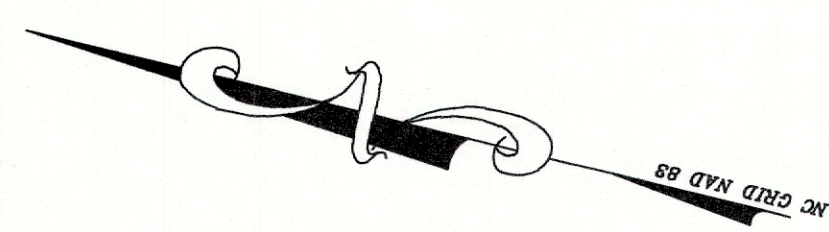
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| 2 | 11/14/24 | FOR COMMENTS |

DATE: 8/28/24
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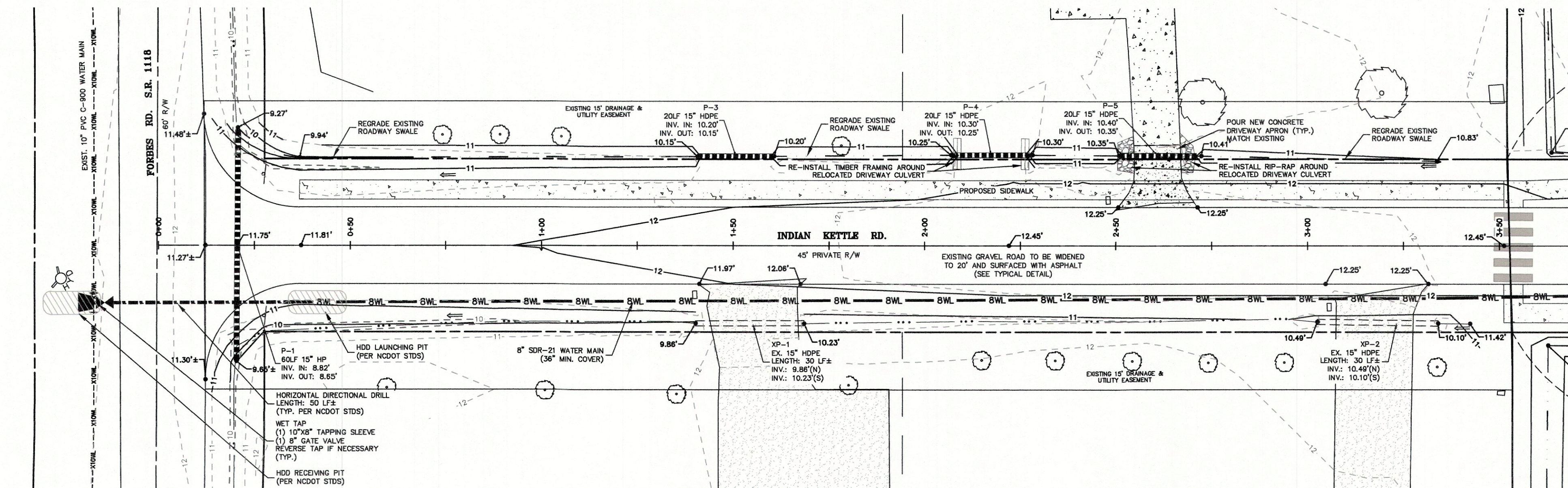
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6 OF 13
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 PROJECT NO: 3826

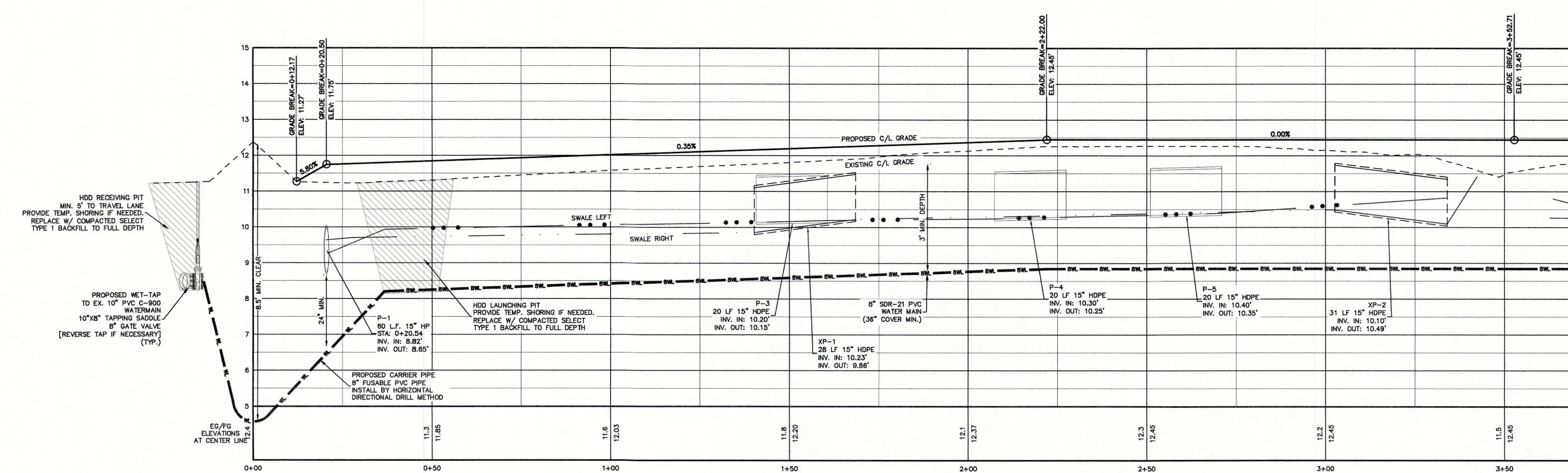
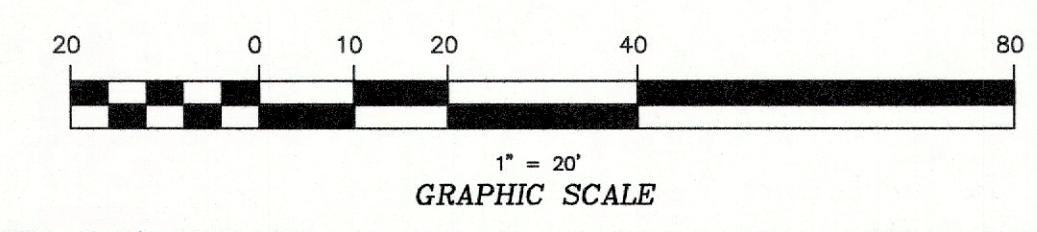
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ALIGNMENT: EXISTING INDIAN KETTLE RD. (STA 0+00 - 3+50) - DEMOLITION PLAN
SCALE: HOR.: 1"=20' VERT.(PLAN VIEW)



ALIGNMENT: EXISTING INDIAN KETTLE RD. (STA 0+00 - 3+50) - IMPROVEMENT PLAN
SCALE: HOR.: 1"=20' VERT.(PLAN VIEW)



ALIGNMENT: EXISTING INDIAN KETTLE RD. (STA 0+00 - 3+50)
SCALE: HOR.: 1"=20' VERT.: 1"=2' (PROFILE VIEW)

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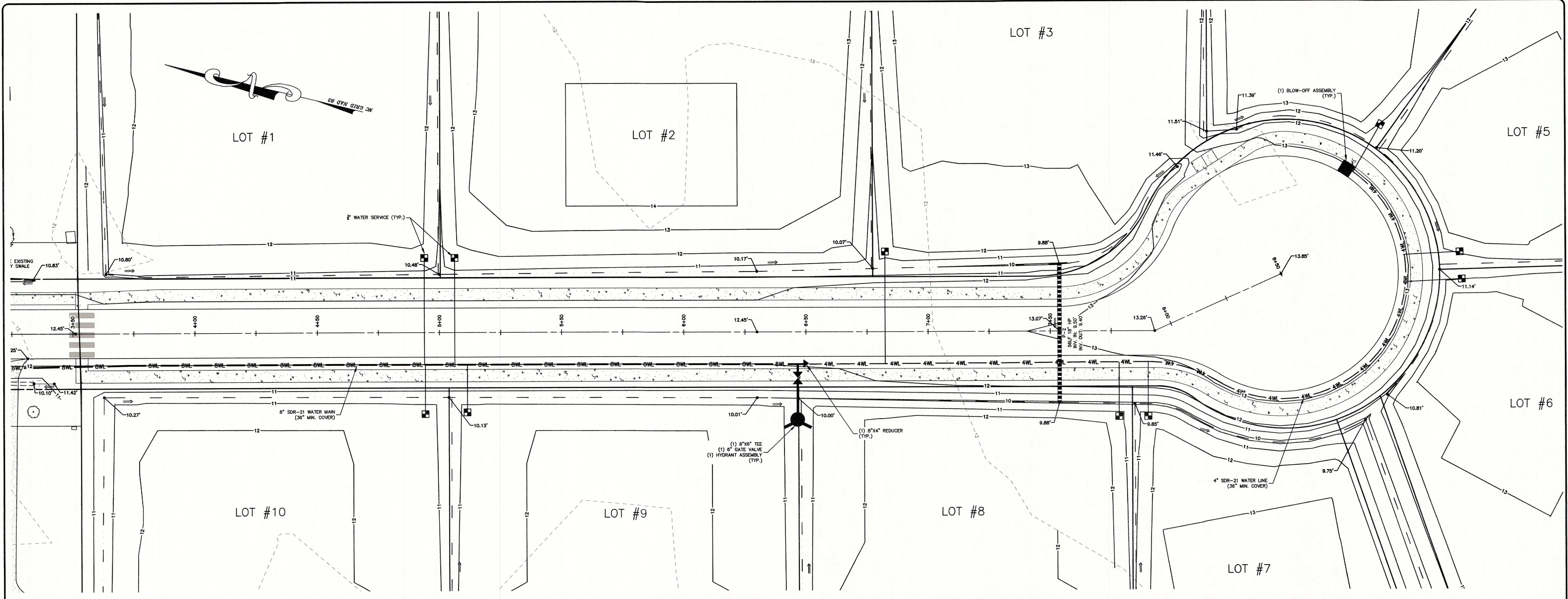
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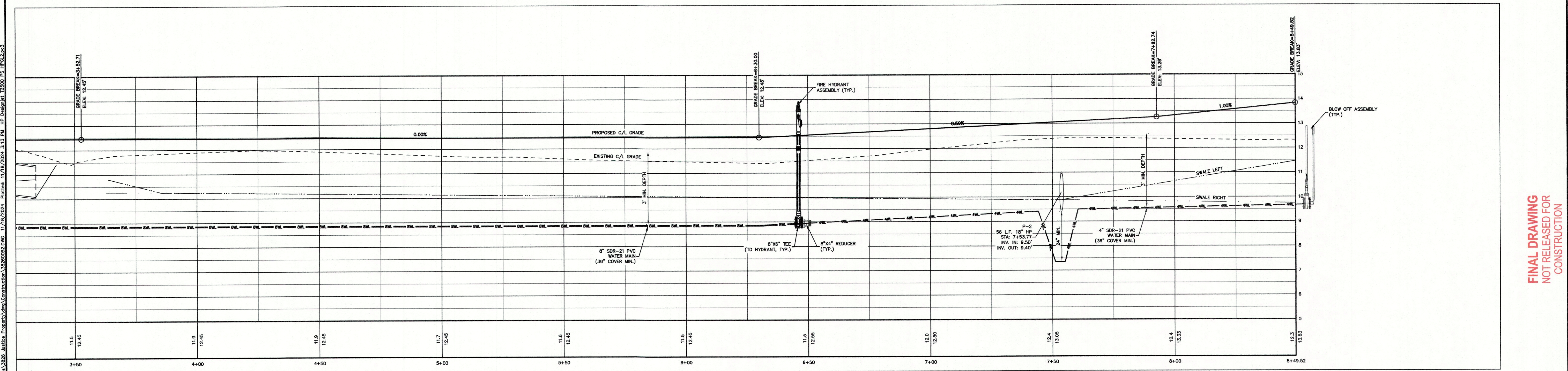
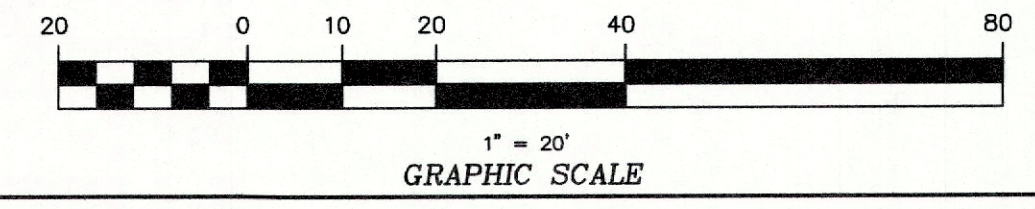
ALGONQUIN
CURRITUCK COUNTY
POPLAR BRANCH TOWNSHIP
NORTH CAROLINA
CONSTRUCTION DRAWINGS

| REVISIONS | | DATE | BY | DESCRIPTION |
|-----------|--|----------|-----|--------------|
| 1 | | 11/19/24 | DMK | POS COMMENTS |
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| CAD FILE: | 382600B2 | | |
| PROJECT NO.: | 3826 | | |



ALIGNMENT: PROPOSED INDIAN KETTLE RD. (STA 3+50 - 8+50)
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ALIGNMENT: PROPOSED INDIAN KETTLE RD. (STA 3+50 - 8+50)
 SCALE: HOR.: 1"=20' VERT.: 1"=2' (PROFILE VIEW)

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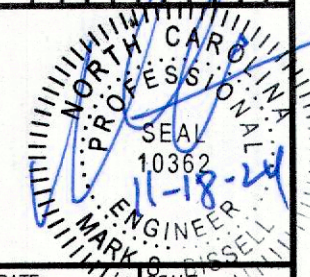
ALGONQUIN
 CURRITUCK COUNTY
 NORTH CAROLINA
 POPULAR BRANCH TOWNSHIP
 CONSTRUCTION DRAWINGS

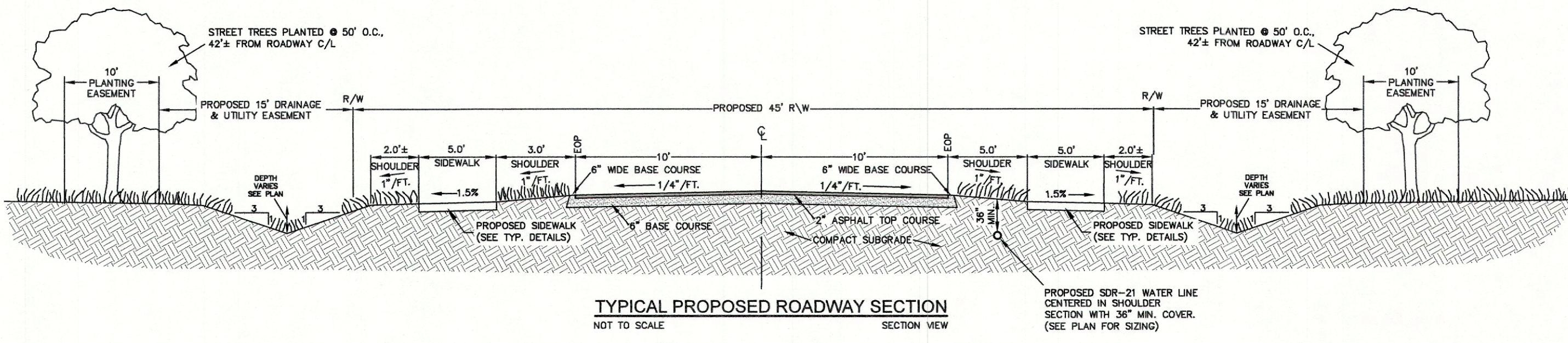
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| 1 | 11/01/24 | DMK | UPDATES TO WATERLINE TO 4" |
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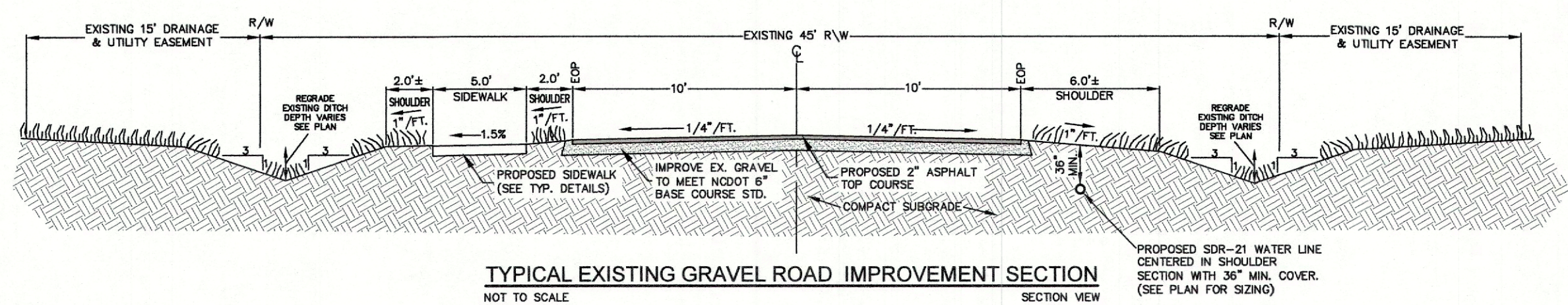
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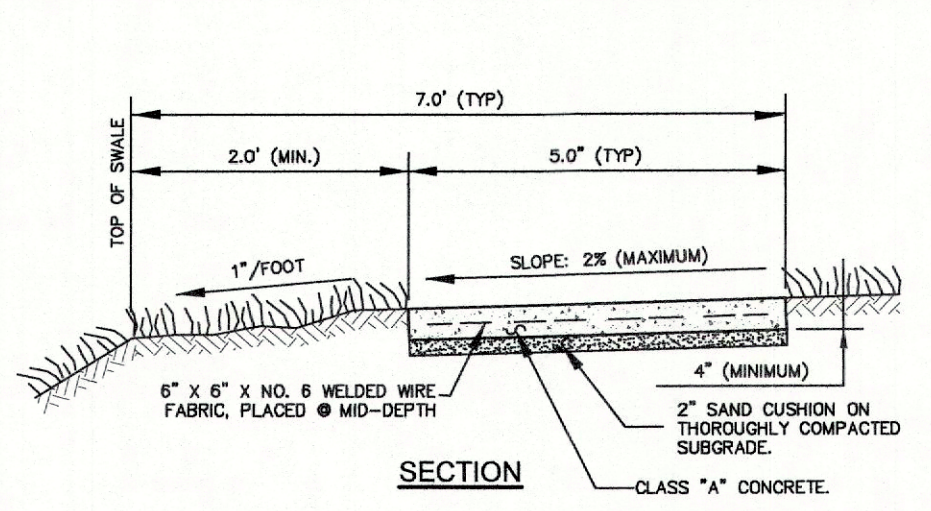




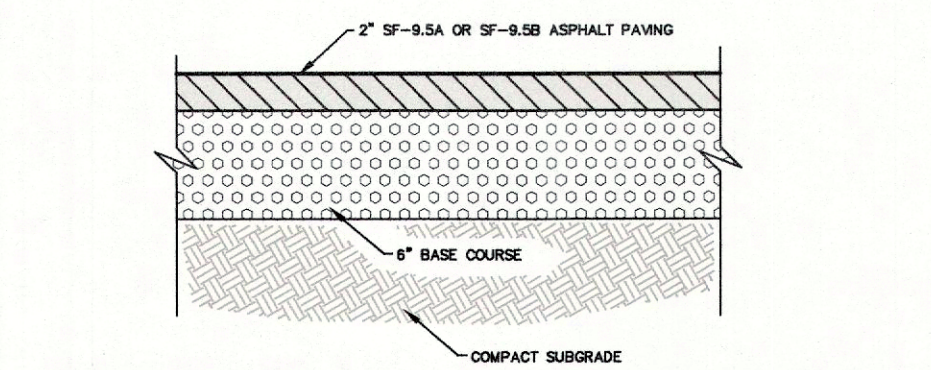
TYPICAL PROPOSED ROADWAY SECTION
NOT TO SCALE SECTION VIEW



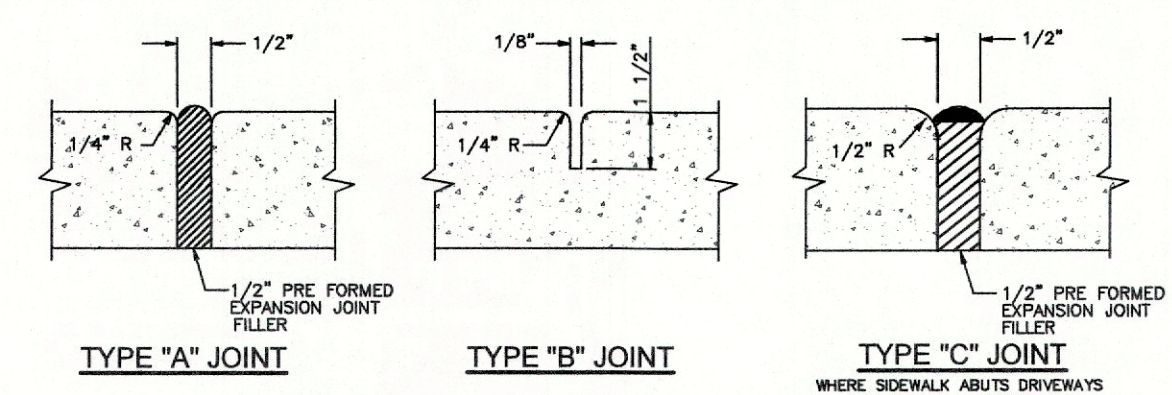
TYPICAL EXISTING GRAVEL ROAD IMPROVEMENT SECTION
NOT TO SCALE SECTION VIEW



CONCRETE SIDEWALK DETAIL
NOT TO SCALE



TYPICAL RESIDENTIAL ROADWAY PAVEMENT SECTION
NOT TO SCALE



TYPE "A" JOINT TYPE "B" JOINT TYPE "C" JOINT

- SIDEWALK AND WALKING TRAIL NOTES:**
1. WALKS SHALL HAVE A 4" MINIMUM THICKNESS.
 2. CONCRETE SHALL BE A MINIMUM OF 3000 PSI.
 3. WALKS SHALL HAVE A 1" FOOT MINIMUM WIDTH.
 4. CROSS SLOPE SHALL BE LIMITED TO A MAXIMUM OF 2%.
 5. LONGITUDINAL SLOPE SHALL BE LIMITED TO A MAXIMUM OF 1.20 (1%) EXCEPT WHERE ACCESSIBILITY RAMPS ARE PROVIDED AS NOTED.
 6. ALL SIDEWALKS AND TRAILS SHALL BE COMPLIANT WITH THE LATEST HANDICAP ACCESSIBILITY REQUIREMENTS.

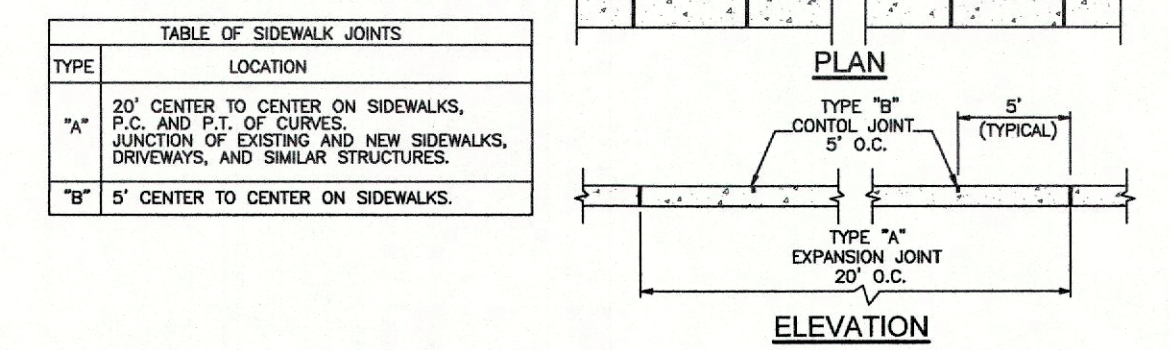
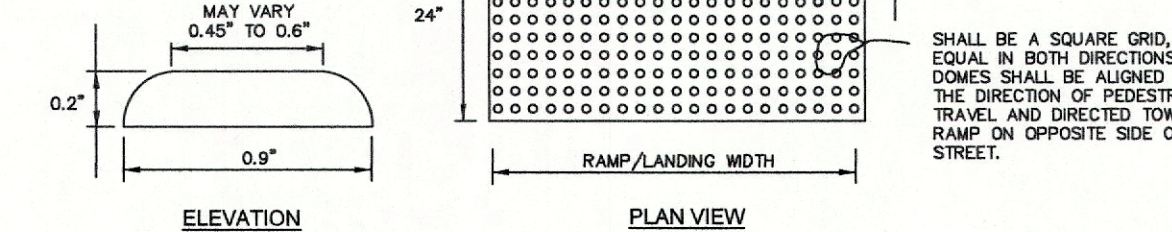


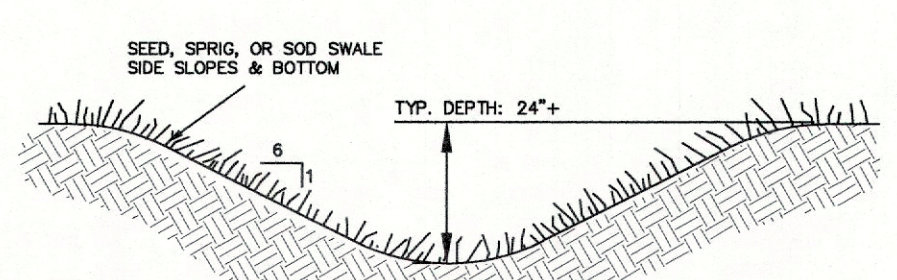
TABLE OF SIDEWALK JOINTS



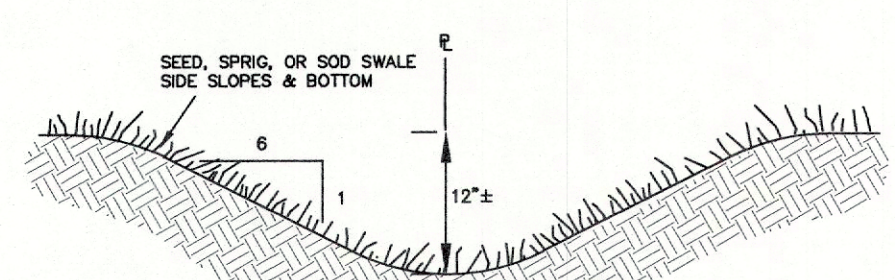
TRUNCATED DOME DETECTABLE WARNING DETAIL
NOT TO SCALE

DETECTABLE WARNING GENERAL NOTES

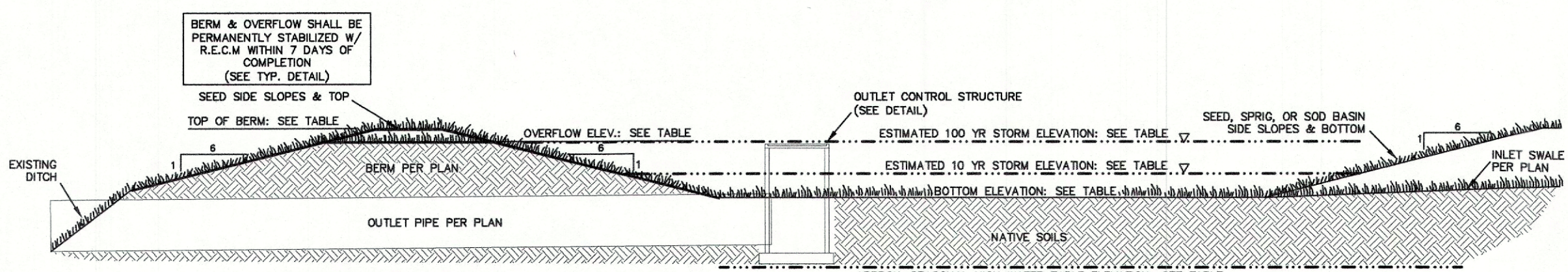
1. DETECTABLE WARNING SHALL CONSIST OF RAISED TRUNCATED DOMES MANUFACTURED BY "COTE-L INDUSTRIES, INC." CALLED "SAFTY-TRAX", WITH POLYURETHANE COATING "DURABAK", OR APPROVED EQUAL, APPLIED ON SMOOTH (NON-GROOVED) CLEAN CONCRETE RAMP, AND SHALL CONFORM TO THE DETAILS IN THE PLANS AND IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND INSTALLATION INSTRUCTIONS.
2. ALL DETECTABLE WARNING AREAS SHALL START AT BACK OF CURB, BE 24 INCHES IN DEPTH AND COVER THE COMPLETE WIDTH OF THE RAMP AREA 48 INCHES MIN.
3. 70% VISUAL CONTRAST IS REQUIRED. THE COLOR SHALL BE AN INTEGRAL PART OF THE DETECTABLE WARNING MATERIAL, AS SPECIFIED ON THE PLANS. COLOR TO BE DETERMINED BY THE CITY STAFF, SAFETY YELLOW IS THE DEFAULT COLOR.
4. THE SMOOTH AND CLEAN CONCRETE UNDER DETECTABLE WARNING DEVICE AREA SHALL BE INCLUDED IN THE COST OF THE CONCRETE CURB RAMP. THE COST OF FURNISHING AND INSTALLING THE DETECTABLE WARNING DEVICE SHALL BE INCLUDED SEPARATELY AS "DETECTABLE WARNING DEVICE" PER SQUARE FOOT OR AS OUTLINED IN THE SPECIFICATIONS.
5. DETECTABLE WARNING SURFACE: APPLIED A COATING OF "DURABAK" SLIP-RESISTANT POLYURETHANE COATING TO THE SMOOTH/ CLEAN CONCRETE SURFACE. ON TOP OF THE POLYURETHANE COATING APPLY TRUNCATED DOMES FROM A "SAFTY-TRAX" CONTACT SHEET ON TOP OF THE TRUNCATED DOMES AND INITIAL POLYURETHANE COATING PLACE THREE ADDITIONAL COATS OF "DURABAK" POLYURETHANE COATING. COLOR TO BE DETERMINED BY CITY STAFF OR AS SPECIFIED ON THE PLANS. SAFETY YELLOW IS A DEFAULT COLOR.
6. ALL RAMPS AND DETECTABLE WARNING SHALL BE ALIGNED IN THE DIRECTION OF PEDESTRIAN TRAVEL AND DIRECTED TOWARD RAMP ON THE OPPOSITE SIDE OF STREET.



TYPICAL PRIMARY SWALE SECTION
NOT TO SCALE



TYPICAL PROPERTY LINE SWALE SECTION
NOT TO SCALE



EROSION CONTROL NOTE:

DURING CONSTRUCTION, THE BMP WILL BE UTILIZED AS EROSION & SEDIMENT CONTROL SEDIMENT BASIN. ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS PROPERLY STABILIZED, THE BMP SHALL BE CLEANED AND RESTORED TO THEIR DESIGN SPECIFICATIONS AND THE BANKS PERMANENTLY STABILIZED WITHIN 7 DAYS.

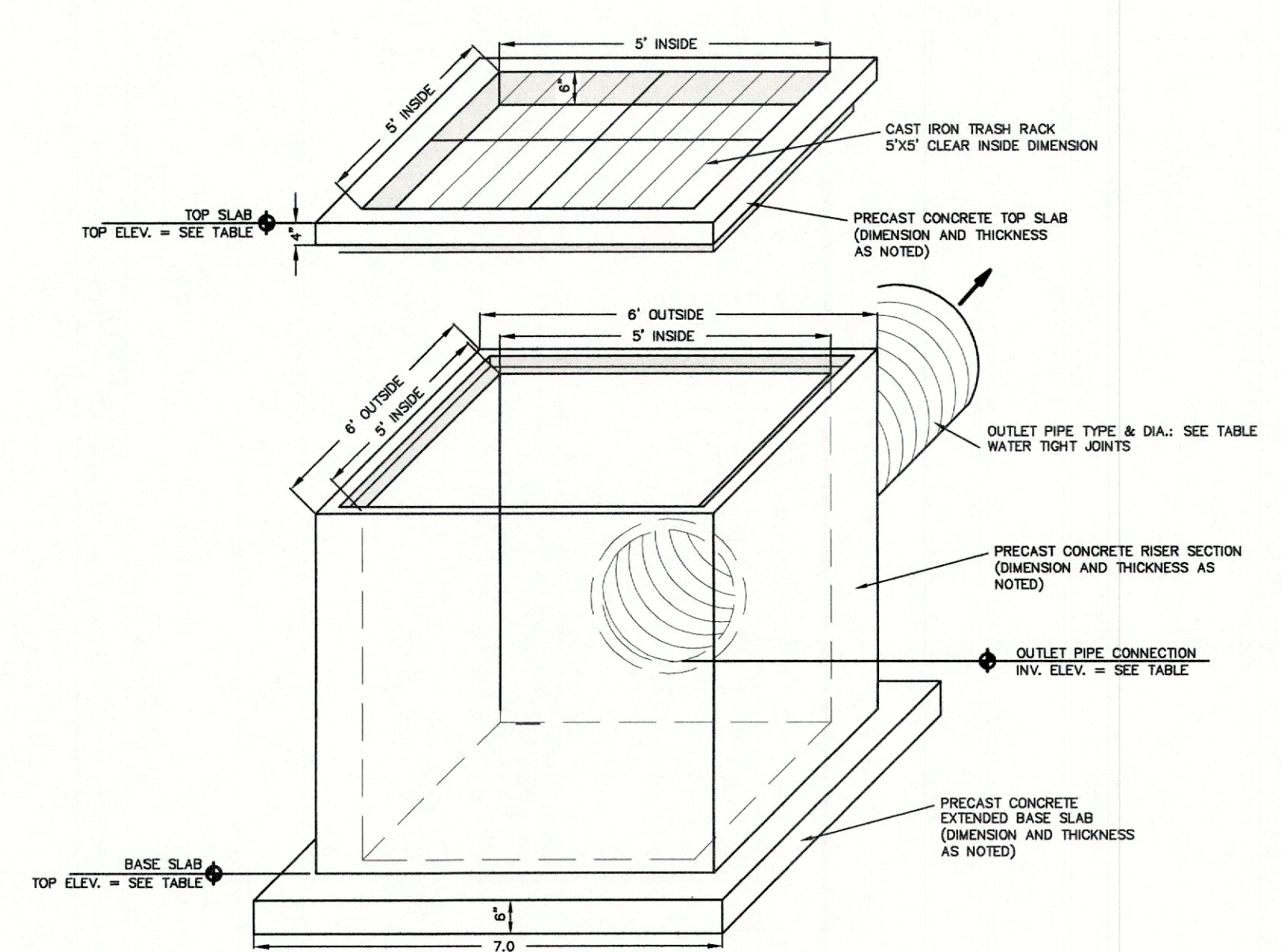
BMP CONSTRUCTION SEQUENCE NOTES:

1. THE POND SHALL BE CONSTRUCTED AS DIRECTED ON THE PLAN AND DETAILS. PERIMETER SLOPE IMPROVEMENTS SHALL BE STABILIZED WITH TEMPORARY VEGETATION WITHIN 7 DAYS OF CONSTRUCTION. THIS WILL CREATE A TEMPORARY SEDIMENT BARRIER DURING PROJECT CONSTRUCTION. A GOOD TEMPORARY MEANS OF STABILIZATION IS A WET HYDROSEED MIX.
2. DURING CONSTRUCTION, THE POND WILL BE UTILIZED AS AN EROSION & SEDIMENT CONTROL SEDIMENT BASIN. ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS PROPERLY STABILIZED THE POND SHALL BE CLEANED AND RESTORED TO ITS DESIGN SPECIFICATIONS AND THE BANKS PERMANENTLY STABILIZED WITHIN 7 DAYS.

BASIN ELEVATION TABLE

| TOP ELEV. (FMSL) | OVERFLOW ELEV. (FMSL) | 100YR STORM ELEV. (FMSL) | 10YR STORM ELEV. (FMSL) | BOTTOM ELEV. (FMSL) | SHIFT ELEV. (FMSL) |
|------------------|-----------------------|--------------------------|-------------------------|---------------------|--------------------|
| 12.00 | 11.50 | 11.46 | 10.04 | 9.50 | 7.50± |

STORMWATER INFILTRATION BASIN TYPICAL CROSS SECTION
NOT TO SCALE (LOCATION AS DENOTED ON PLAN)



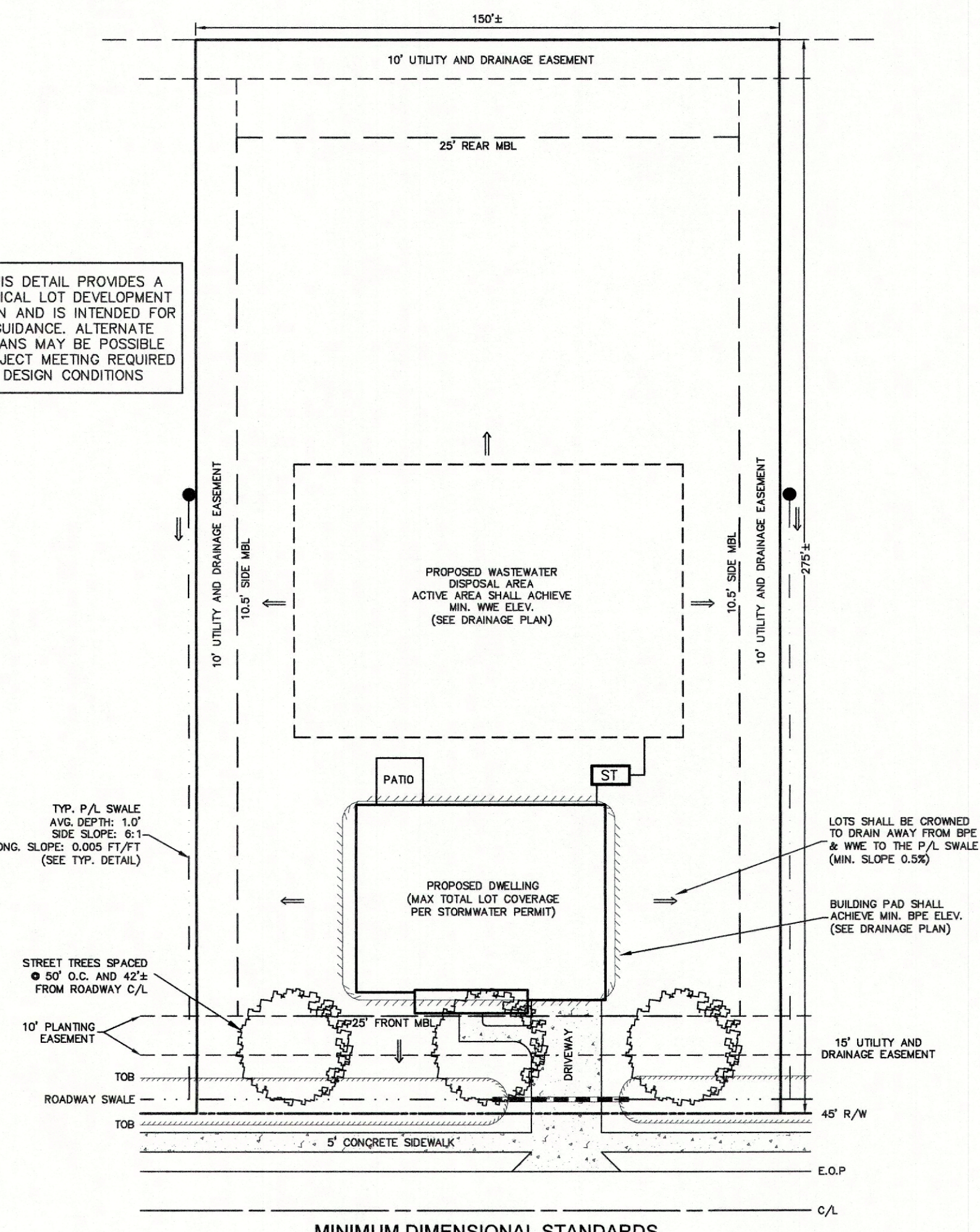
OUTLET CONTROL STRUCTURE
NO SCALE LOCATION AS NOTED ON PLAN

OUTLET CONTROL STRUCTURE TABLE

| STRUCTURE | TOP ELEV. (FMSL) | BASE ELEV. (FMSL) | DIAMETER (INCHES) | INVERT IN (FMSL) | OUTLET PIPE |
|-----------|------------------|-------------------|-------------------|------------------|-------------|
| 01 | 11.40 | 7.40 | (1) 24" HDPE | 7.70 | |

- OUTLET STRUCTURE NOTES:**
1. STRUCTURE DESIGN SPECIFICATIONS SHALL CONFORM TO LATEST ASTM 0913 SPECIFICATIONS FOR "PRECAST CONCRETE WATER & WASTEWATER STRUCTURES".
 2. CONCRETE COMPRESSIVE STRENGTH SHALL BE A MINIMUM OF 3,000PSI.
 3. STEEL REINFORCING DESIGN TO CONFORM TO THE REQUIREMENTS OF ASTM A618 OR WWP CONFORMING TO THE REQUIREMENTS OF ASTM A185 OR BOTH.
 4. PIPE PENETRATION TO BE AS SPECIFIED. PIPE TO BE INSTALLED AS PER NCDOT STANDARDS FOR WORTAR JOINT CONNECTIONS.
 5. JOINTS TO BE SEALED WITH BUTYL RUBBER JOINT SEALANT CONFORMING TO THE REQUIREMENTS OF ASTM C990, OR WORTAR AS PER NCDOT REQUIREMENTS OR BOTH.
 6. ANY DEVIATIONS FROM THE APPROVED PLAN & SPECIFICATIONS SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.

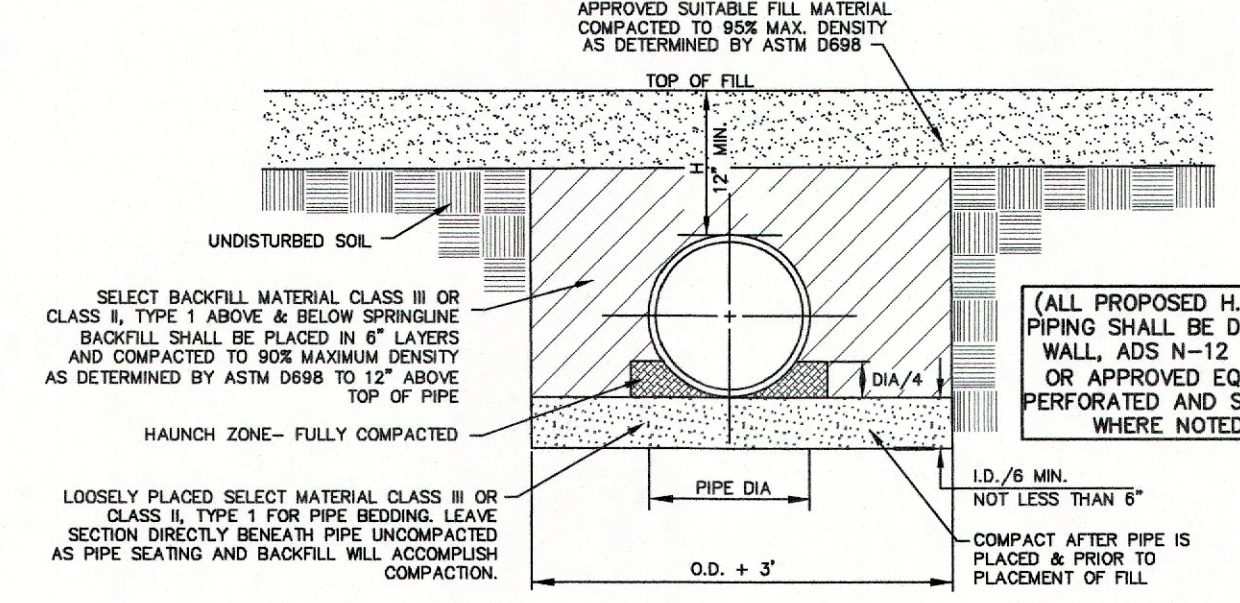
THIS DETAIL PROVIDES A TYPICAL LOT DEVELOPMENT PLAN AND IS INTENDED FOR GUIDANCE. ALTERNATE PLANS MAY BE POSSIBLE SUBJECT MEETING REQUIRED DESIGN CONDITIONS



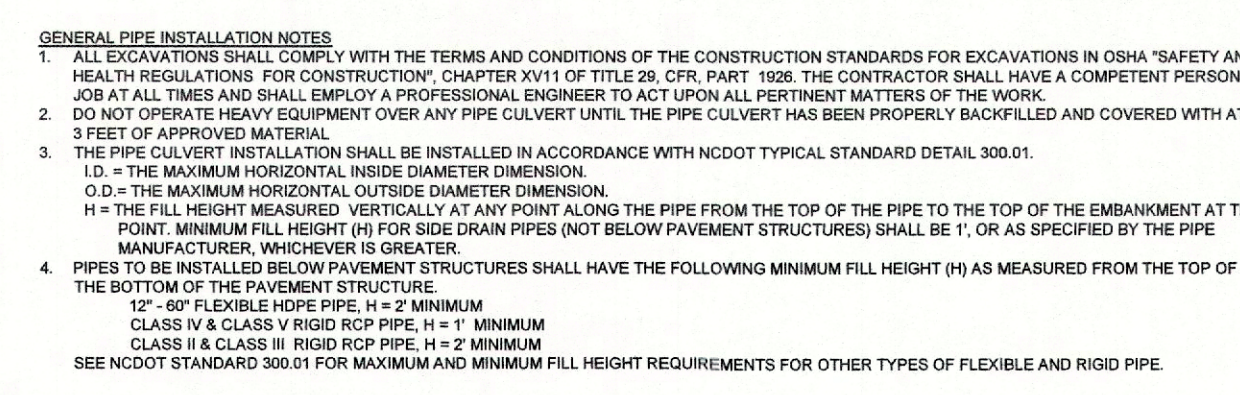
MINIMUM DIMENSIONAL STANDARDS

MINIMUM LOT SIZE = 40,000 S.F.
MINIMUM LOT WIDTH = 125'
(EXCEPT CUL-DE-SAC LOTS)
SCALE: 1"=30'

STANDARD RIGID PIPE INSTALLATION DETAIL
NOT TO SCALE



STANDARD FLEXIBLE PIPE INSTALLATION DETAIL
NOT TO SCALE



CONSTRUCTION DRAWINGS

| NO. | DATE | DESCRIPTION | BY | CHKD. |
|-----|------|-------------|----|-------|
| | | | | |

GENERAL PROJECT NOTES:

- PROJECT NAME: ALGONQUIN
POPULAR BRANCH TOWNSHIP, CURRITUCK COUNTY, NORTH CAROLINA
- APPLICANT: JOEL & STACY JUSTICE
PO BOX 208
GRANDY, NC 27939
- PROJECT DESCRIPTION: 10 LOT RESIDENTIAL SUBDIVISION
- NEAREST RECEIVING STREAM: CURRITUCK SOUND INLET NUMBER: 30-1
- STREAM CLASSIFICATION: SC PASQUOTANK RIVER BASIN
- PROJECT AREA TABULATION:

| | |
|--------------------------------|-----------|
| TOTAL PROPERTY AREA: | 14.53 AC. |
| TOTAL PROPOSED DISTURBED AREA: | 11.00 AC. |

AREA CALCULATION NOTE:
All areas have been calculated utilizing properties within the Autocad software.

MATERIAL BALANCE NOTE:
All excavated material occurring during the course of construction shall remain on-site for roadway construction and over lot grading. No borrow material is anticipated. See SCHEDULE OF LAND DISTURBING ACTIVITIES provided on Sheet 04 of this set for an estimated cut fill material balance for the project.

WETLAND NOTE:
No 404 jurisdictional wetlands were identified in the project area.

STABILIZATION NOTE:
The angle of graded slopes and fills shall be no greater than the angle that can be retained by vegetative cover or other adequate erosion control devices or structures. In any event, all disturbed areas left exposed will, WITHIN 14 CALENDAR DAYS OF COMPLETION of any phase of grading, be planted or otherwise provided with temporary or permanent ground cover, devices, or structures sufficient to restrain erosion.

Additionally, certain critical areas as identified on the plan, such as, but not limited to, perimeter dikes, swales, slopes steeper than 3:1, and areas located within High Quality Water Zones, must be temporarily or permanently stabilized WITHIN 7 CALENDAR DAYS OF COMPLETION of any phase of grading in these areas. A permanent ground cover for all disturbed areas must be provided WITHIN 15 WORKING DAYS OR 30 CALENDAR DAYS (whichever is shorter) following completion of construction or disturbance.

SEDIMENTATION AND EROSION CONTROL NOTES:

A. NARRATIVE AND SITE DATA
The 14.5 acre property is located at the end of Indian Kettle Rd., an existing gravel subdivision road off of Forbes Rd. in Jarvisburg, Currituck County. The site is currently vacant with a mixture of grass and woodlands. Surrounding development is a mixture of residential, farm land and an adjoining elementary school.
Portions of the property drain north to the roadway ditch along Forbes Rd. while the remaining drains south to the locally named Forbes Ditch. Both drainage ways ultimately lead into unnamed tributaries to the Currituck Sound, classified as SC waters.
Topography is generally flat, with slopes ranging between 0-1% and ground surface elevations ranging from 13 to below 7 ft.msl along Forbes Ditch.
The U.S.A.C.O.E. engineers evaluated the property and determined that there are no jurisdictional wetlands.
Pursuant to the USDA Soil Survey Manual of Currituck County, soils across the proposed development are primarily composed of Conoeta Loamy Sand that are described as well drained with moderately rapid permeability. A small portion of the site is composed of Nimmo loamy sand that is described as poorly drained with moderate to moderately rapid permeability.

CONSTRUCTION SEQUENCE SCHEDULE

CONSTRUCTION ACTIVITY

Construction Access— Construction entrance, construction routes, equipment parking areas
Sediment Traps & Barriers
Basin traps, sediment fences, & outlet protection
Runoff Control— Diversions, perimeter dikes, water bars, and outlet protection
Runoff Conveyance System— Stabilizes stream banks, storm drains, channels, inlet & outlet protection, slope drains
Land Clearing & Grading— Site preparation— cutting, filling & grading, sediment traps, barriers, diversions, drains, surface roughening
Surface Stabilization— Temporary & permanent seeding, mulching, sodding, rip, rap.
Building Construction— Buildings, utilities, paving.
Landscaping & Final Stabilization— Toppers, trees & shrubs, permanent seeding, mulching, sodding, rip, rap

SCHEDULE CONSIDERATION

First land-disturbing activity—Stabilize bare areas immediately with gravel & temporary vegetation as construction takes place.
Install principal basins after construction site is accessed. Install additional traps and barriers as needed during grading.
Install key practices after principal sediments traps and before land grading. Install additional runoff-control conveyance measures during grading.
Where necessary, stabilize stream banks as early as possible. Install principal runoff conveyance system with runoff-control measures. Install remainder of system after grading.
Begin major clearing and grading after principal & key runoff-control measures are installed. Clear borrow & disposal areas as needed. Install additional control measures as grading progresses. Mark trees & buffer areas for preservation.
Apply temporary or permanent stabilization measures immediately on all disturbed areas where work is delayed or complete.
Install necessary erosion & sedimentation control practices as work takes place.
Stabilize all open areas, including borrow & spoil areas. Remove & stabilize all temporary control measures.

LAND GRADING CONSTRUCTION SPECIFICATIONS

- Construct & maintain all erosion & sedimentation control practices & measures in accordance with the approved sedimentation control plan and construction schedule.
 - Remove good topsoil from areas to be graded and filled, and preserve it for use in finishing the grading of all critical areas.
 - Scarify areas to be topsoiled to a minimum depth of 2 inches before placing topsoil.
 - Clear & grub areas to be filled to remove trees, vegetation, roots, or other objectionable material that would affect the planned stability of fills.
 - Ensure that fill material is free of brush, rubbish, rocks, logs, stumps, building debris, and other materials inappropriate for constructing stable fills.
 - Place all fill in layers not to exceed 9 inches in thickness, and compact the layers as required to reduce erosion, slippage, settlement, or other related problems.
 - Do not incorporate frozen material or soft, mucky, or highly compressible materials into fill slopes.
 - Do not place fill on a frozen foundation, due to possible subsidence and slippage.
 - Keep diversions and other water conveyance measures free of sediment during all phases of development.
 - Handle spools or springs encountered during construction in accordance with approved methods.
 - Following completion of any phase of grading, provide a groundcover (temporary or permanent) on all exposed slopes within 14 calendar days, or 7 calendar days in critical areas identified on the plan; and, a permanent groundcover for all disturbed areas within 15 working days or 90 calendar days (whichever is shorter) following completion of construction or development.
 - Provide adequate protection from erosion for all topsoil stockpiles, borrow areas, and spoil areas.
- MAINTENANCE**
Periodically check all graded areas & the supporting erosion & sedimentation control practices, especially after heavy rainfalls. Promptly remove all sediment from diversions and other water-disposal practices. If washouts or breaks occur, repair them immediately. Prompt maintenance of small-eroded areas before they become significant gulches is an essential part of an effective erosion & sedimentation control plan.

PERMANENT SEEDING

The purpose of permanent seeding is to reduce erosion and decrease sediment yield from disturbed areas, and to permanently stabilize such areas in a manner that is economical, adapts to site conditions, and allows selection of the most appropriate plant materials. These areas must be seeded or planted within 15 working days or 90 calendar days after final grade is reached, unless temporary stabilization is applied.

PERMANENT SEEDING SPECIFICATIONS
Seeding Recommendations for Summer
SEEDING DATES— April to July
SEEDING MIXTURE
Species Rate
Common bermudagrass 10/1,000 sf (sprigs)
1-2 lb/1,000 sf (seed)
500 (See Sodding Notes)
Seeding Recommendations for Early Fall through Early Spring
SEEDING DATES— August to March (early fall and spring recommended)
Species Rate
Kentucky 31 Tall Fescue 6 lb/1,000 sf (broadcast seed)

SEEDING NOTES—
1. Sprig or sod. Moisture is essential during initial establishment. Sod must be kept watered for 2-3 weeks, but can be planted earlier or later than sprigs.
Soil Amendments—
It is highly recommended that soils be tested and amended as found necessary. If a soil is not tested follow these recommendations: Apply 3,000 lb/acre of ground agricultural limestone and 500 lb/acre of 10-10-10 starter fertilizer, or 50 lb/acre nitrogen from turf-type slow-release fertilizer. Add 25-50 lb/acre nitrogen at 2-3 week intervals through midsummer.

TEMPORARY SEEDING

The purpose of temporary seeding is to temporarily stabilize denuded areas that will not be brought to final grade or permanently seeded for a period of more than 14 calendar days, or 7 days in critical areas indentified on the plan.

TEMPORARY SEEDING SPECIFICATIONS
Seeding Recommendations for Late Winter & Early Spring
SEEDING DATES— December 1 to April 15
SEEDING MIXTURE
Species Rate (lb/acre)
Winter Rye (grain) 120 (Annual Ryegrass shall not be used)
Annual Lespedeza 50
(Kobe)
*Omit Annual Lespedeza when duration of temporary cover is not to extend beyond June.
Soil Amendments—
Follow recommendations of soil tests or apply 2,000 lb/acre ground agricultural limestone and 750 lb/acre 10-10-10 fertilizer.

SODDING

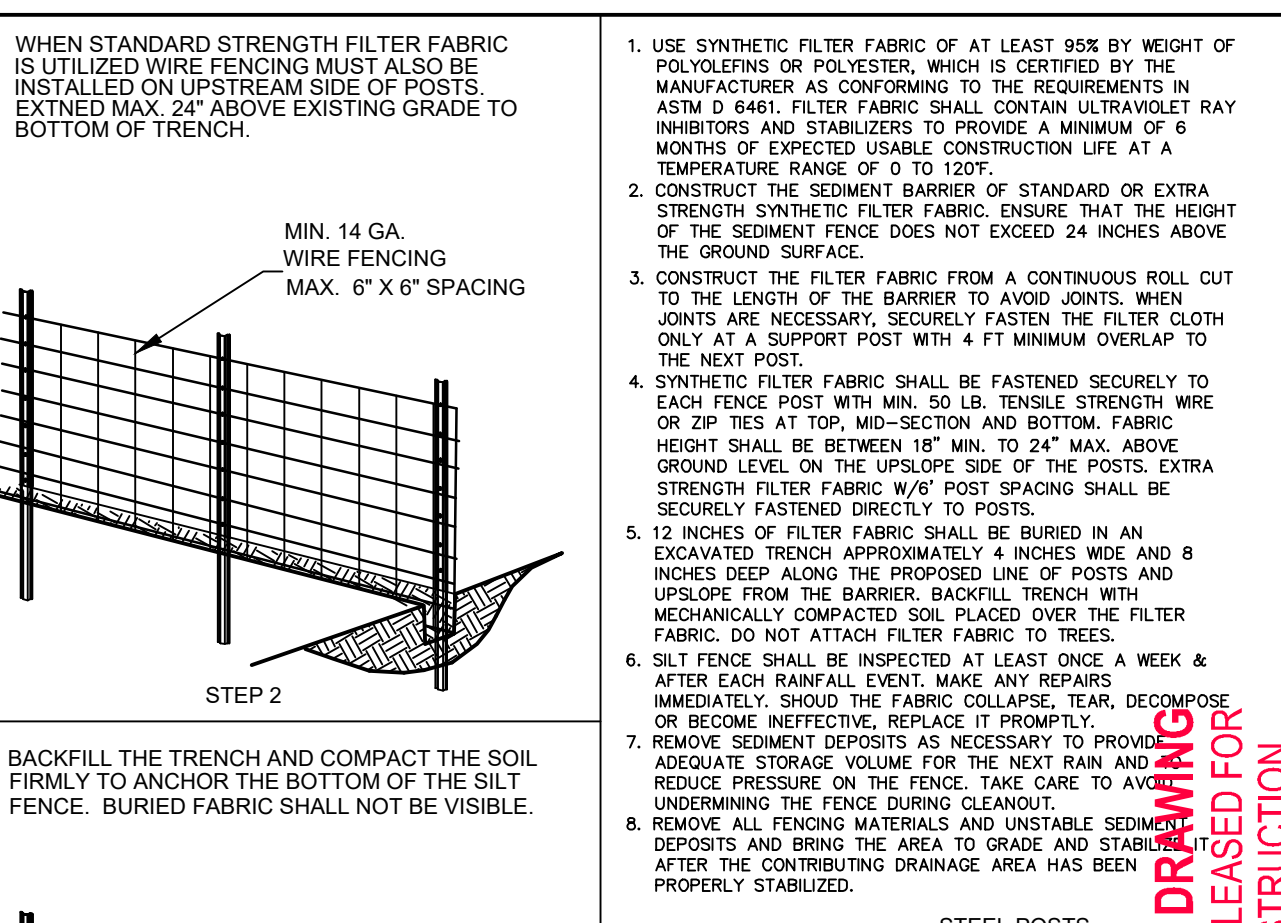
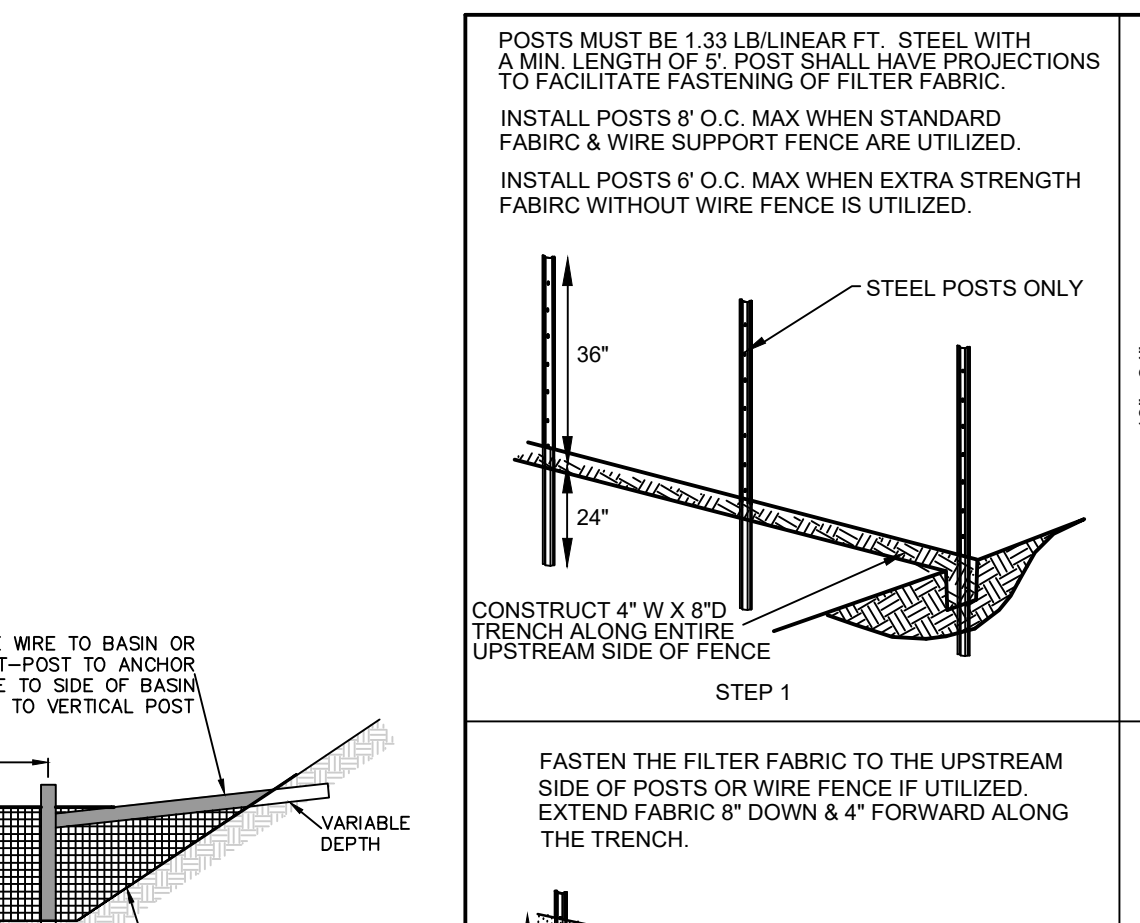
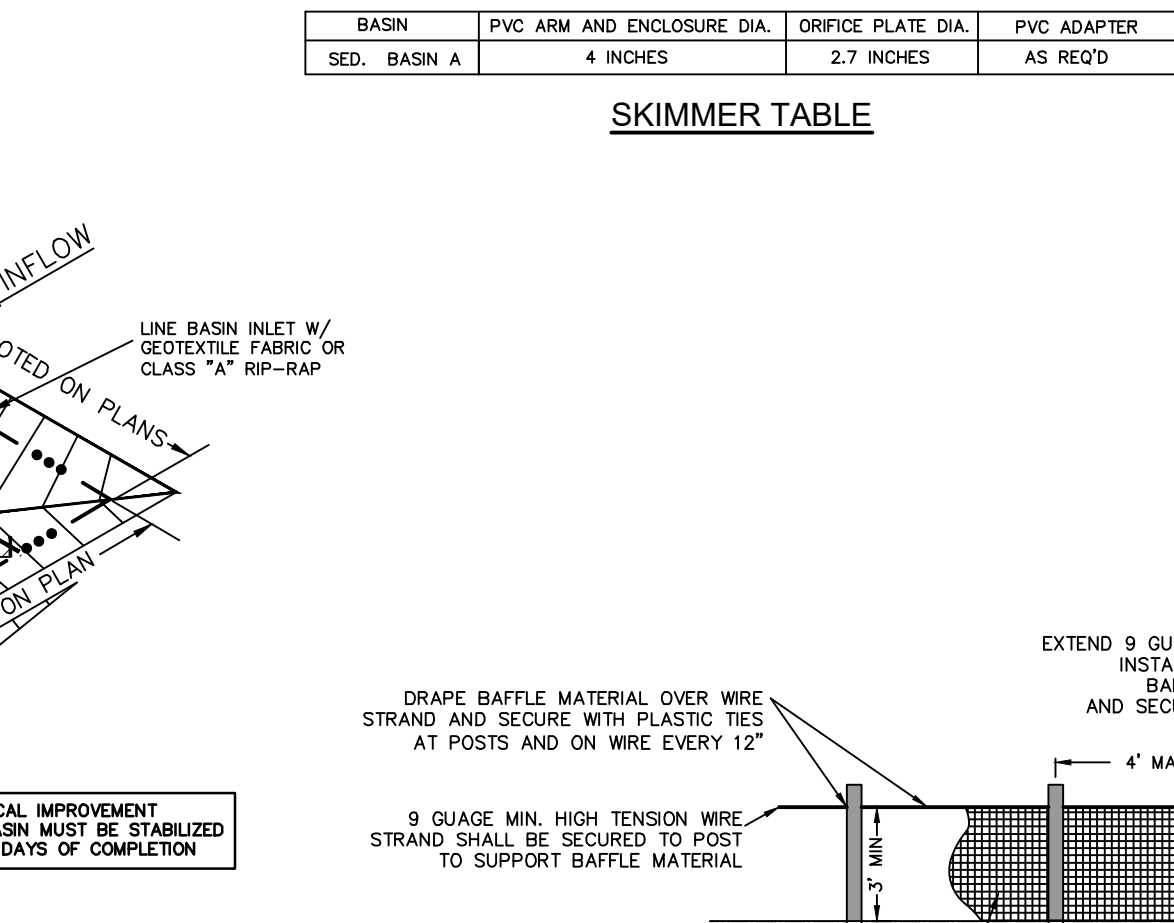
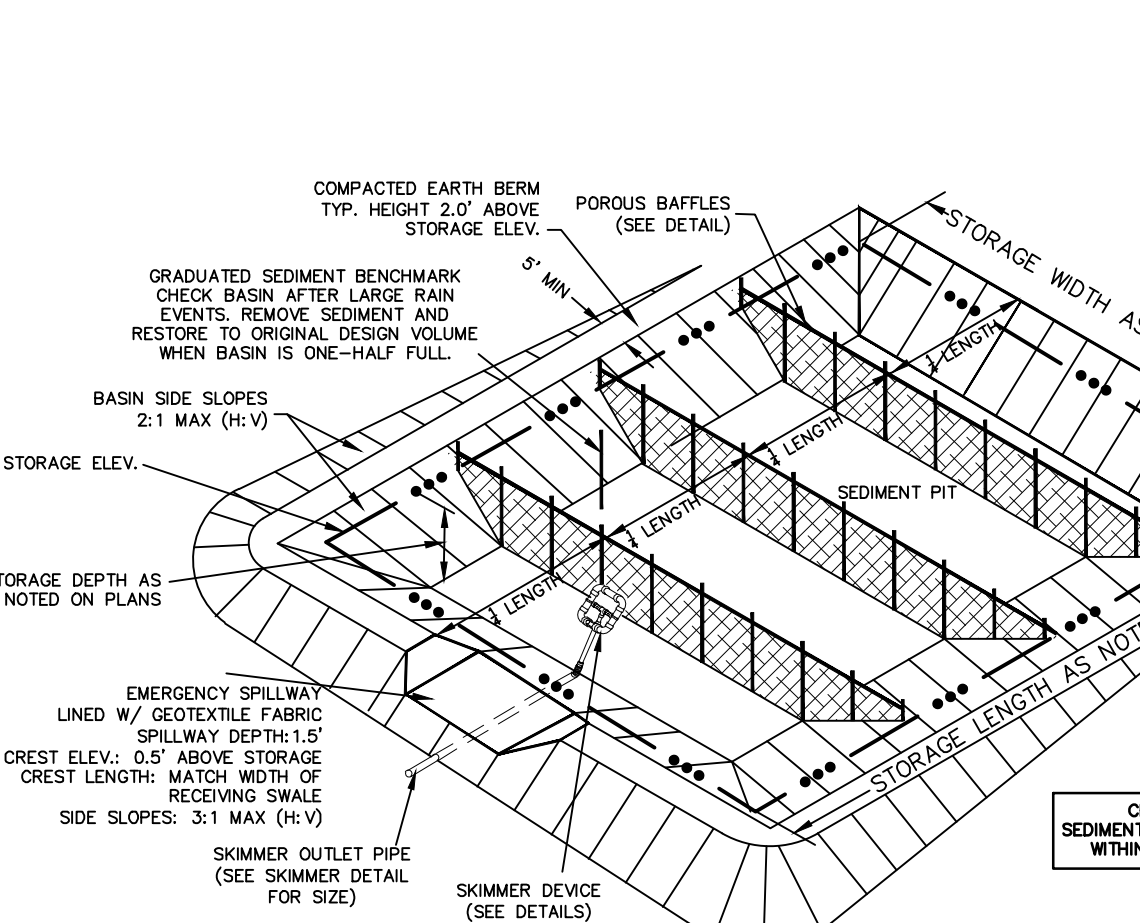
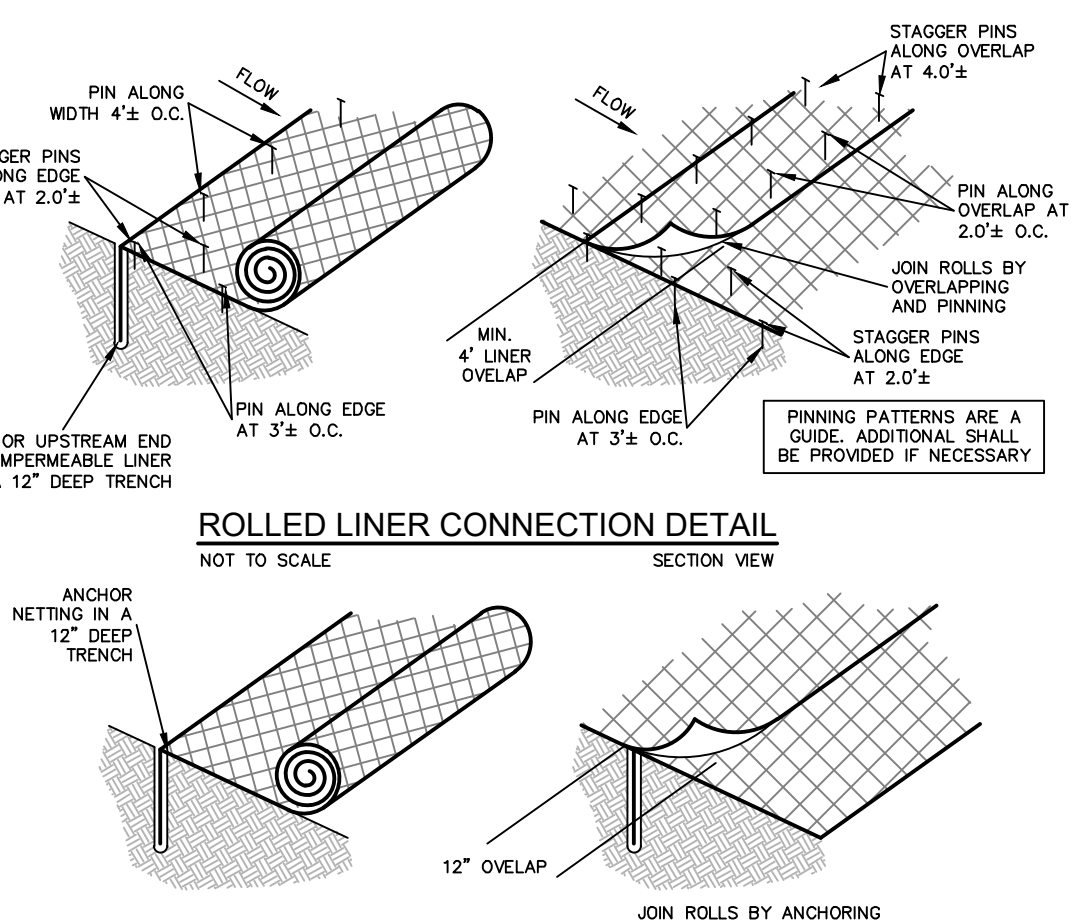
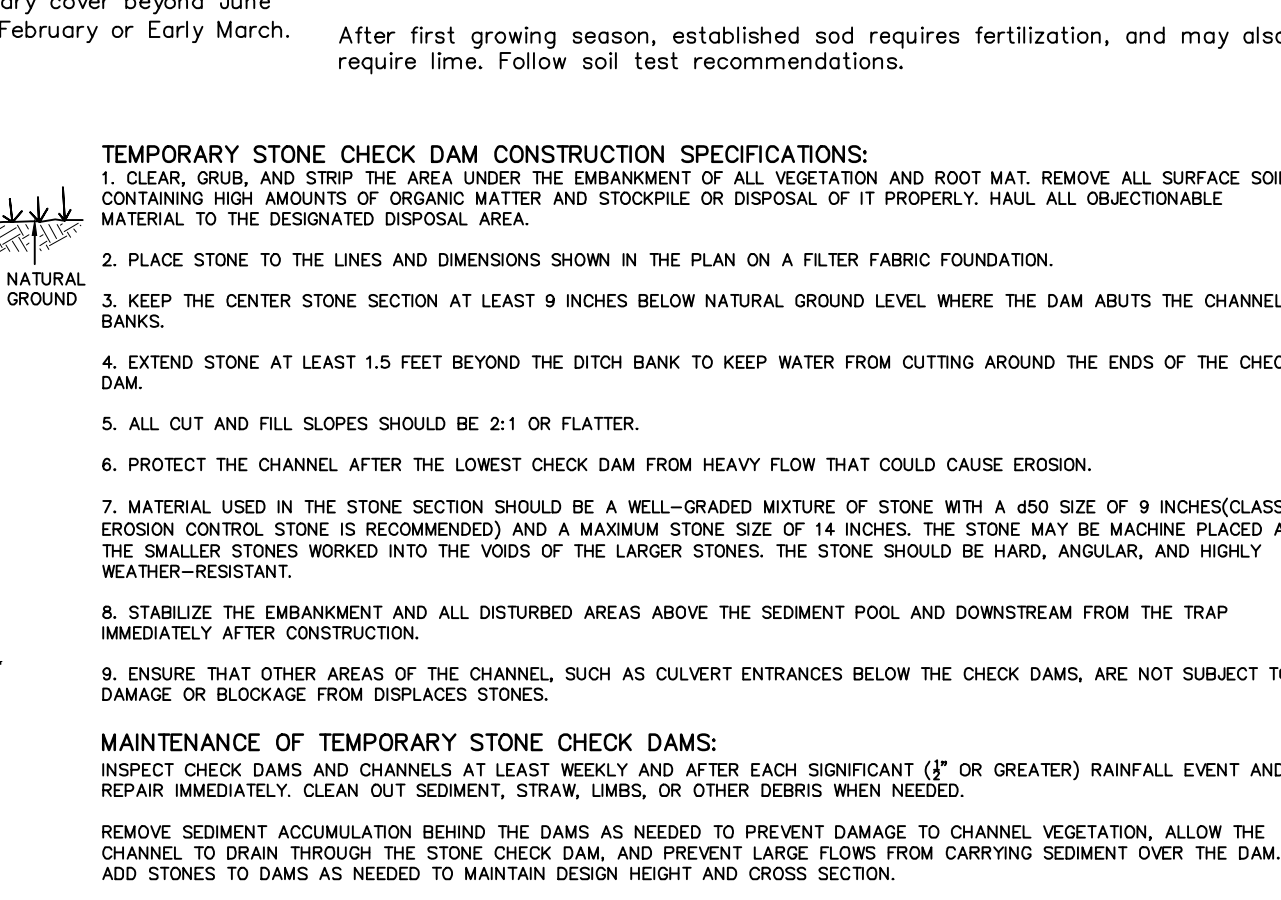
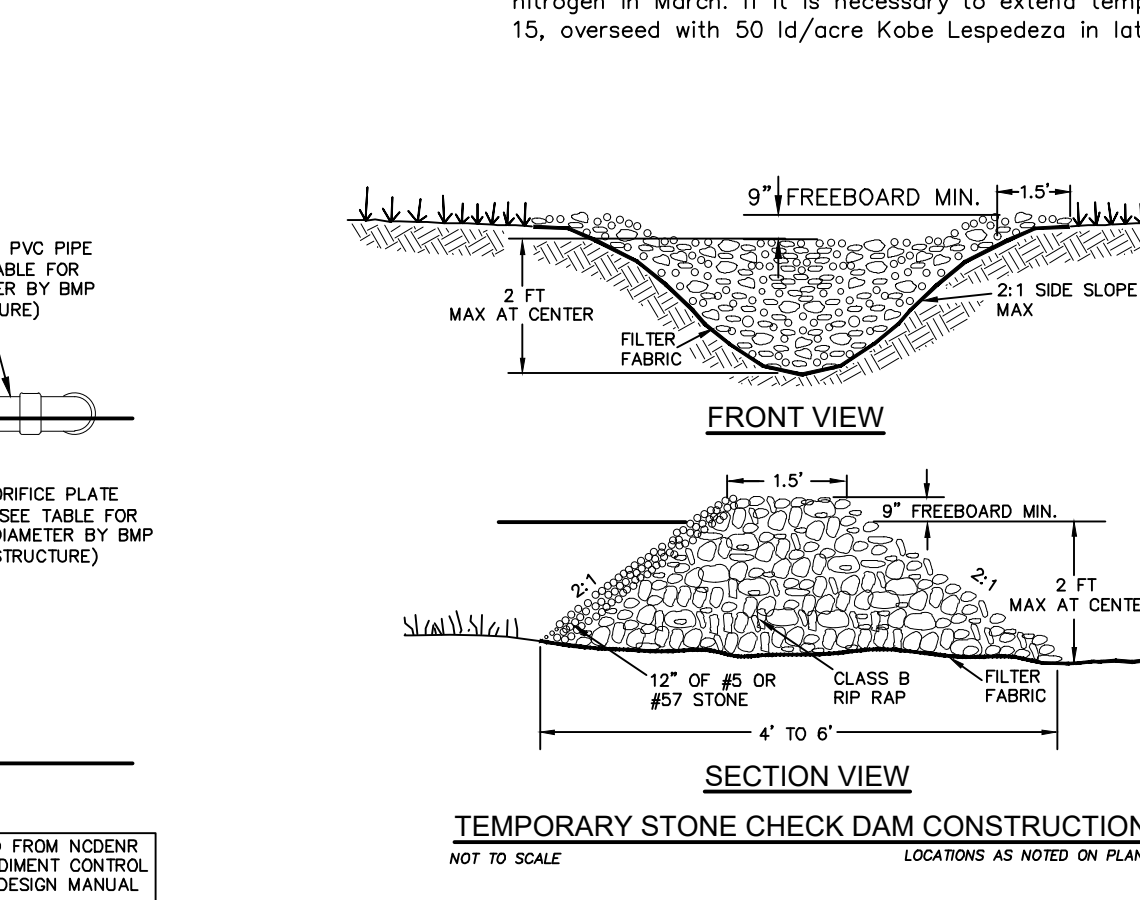
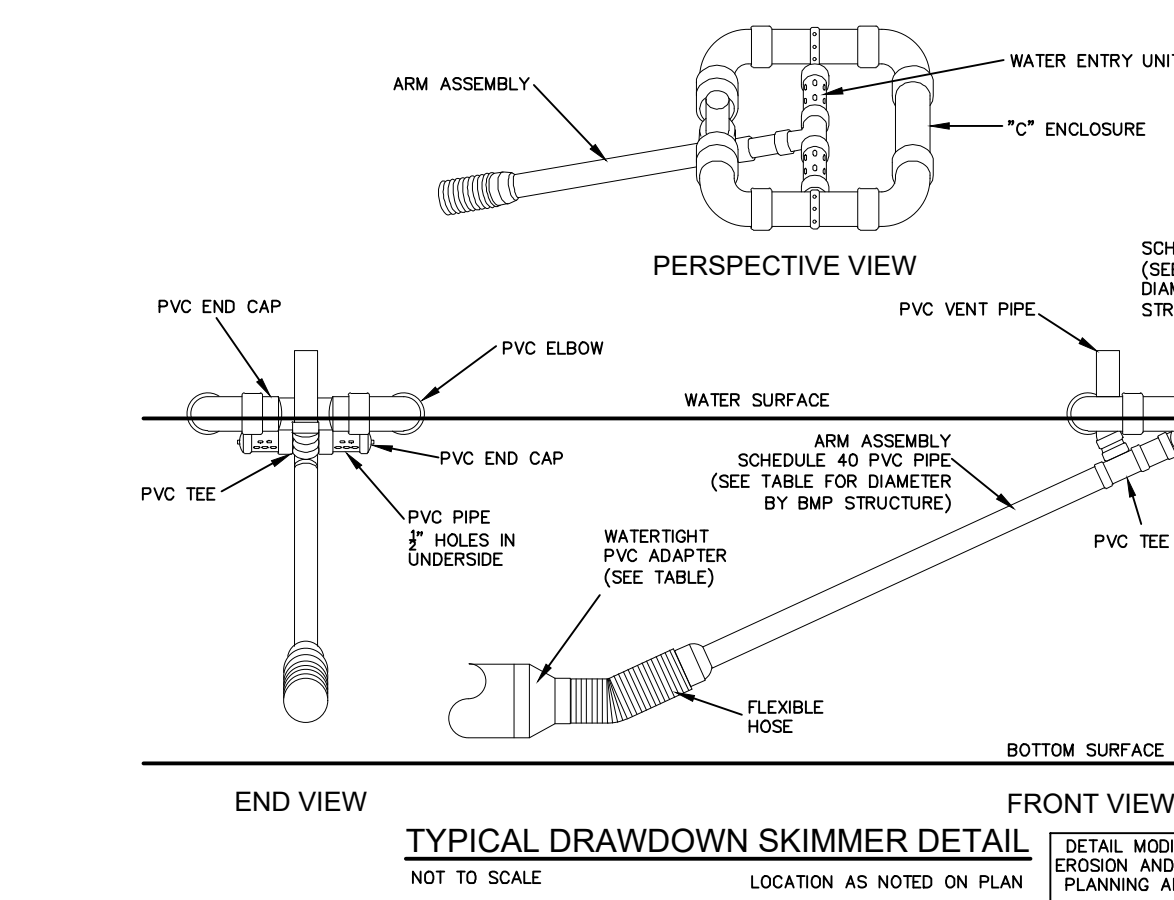
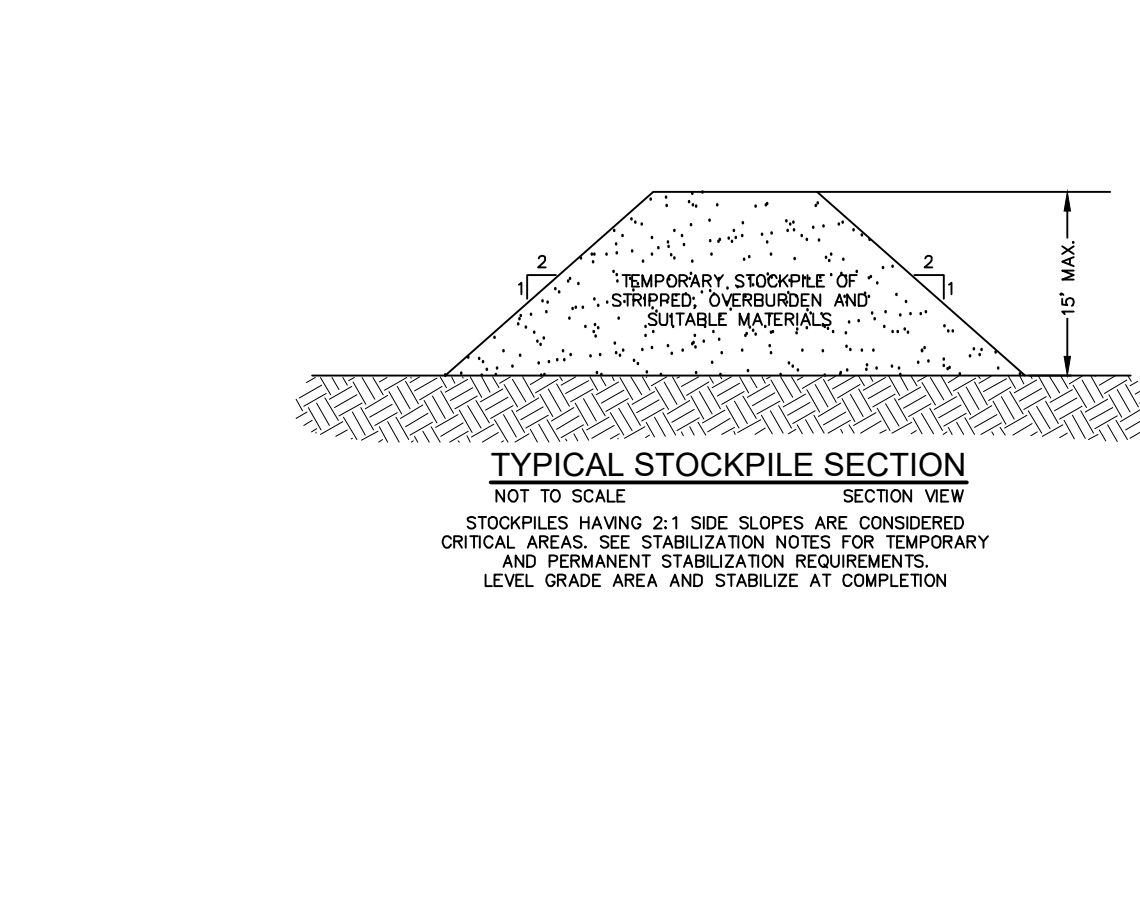
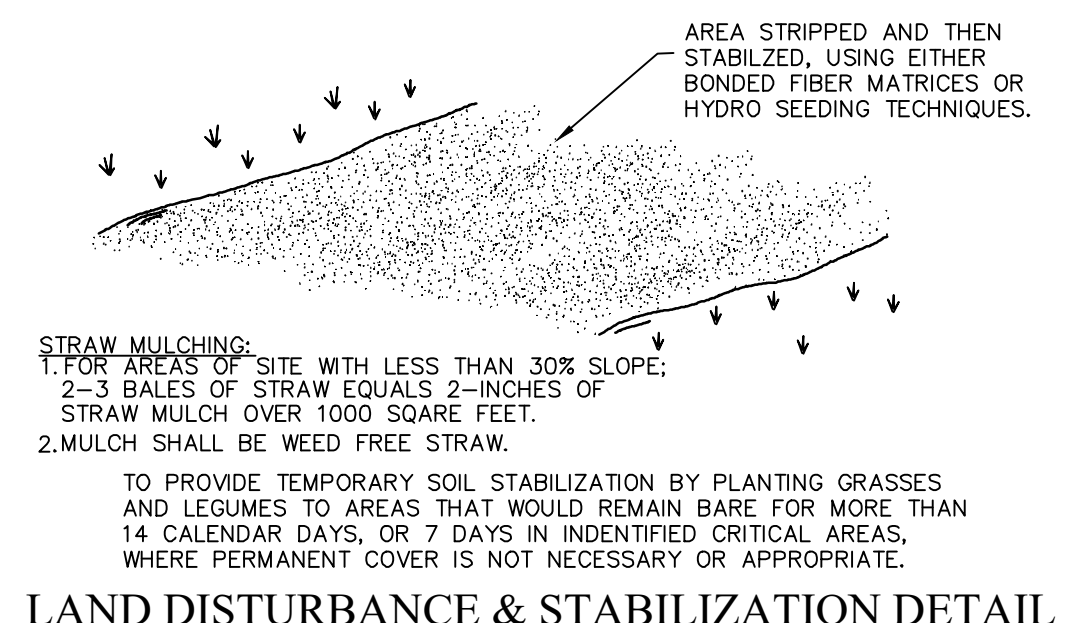
The purpose of permanent seeding is to prevent erosion and damage from sediment and runoff by stabilizing the soil surface with permanent vegetation for the purpose of:
-the provision of immediate vegetative cover in critical areas
-to stabilize disturbed areas with a suitable plant material that cannot be established by seed.
-to stabilize drainage ways & channels and other areas of concentrated flow where flow velocities will not exceed that specified grass lining.

SODDING SPECIFICATIONS
Sod Quality
-Sod should be machine cut at a uniform depth of 1/2-2 inches
-Sod should not have been cut in excessively wet or dry weather.
-Sections of sod should be standard size as determined by the supplier, uniform, and uniform.
-Sections of sod should be strong enough to support their own weight and retain their size and shape when lifted by one end.
-Harvest, delivery, and installation of sod should take place within a period of 36 hours.
Soil Amendments—
Apply lime and fertilizer according to soil tests or apply 2 tons/acre of pulverized agricultural limestone and 1,000 lb/acre 10-10-10 fertilizer in the fall, or 5-10-10 in spring.

Prior to laying sod, clear the soil surface of trash, debris, roots, branches, stones, and sods larger than 2 inches in diameter. Fill or level low spots in order to avoid standing water. Rake or harrow the site to achieve a smooth and level final grade. Complete soil preparation by rolling or outcropping to firm soil.
Sod Installation—
1. Moisten the sod after it is unrolled helps maintain viability. Store in shade during installation.
2. Rake the soil surface to break the crust just before laying sod. During the summer, lightly irrigate the soil, immediately before laying sod to cool the soil and reduce root burning & dieback.
3. Do not sod on grove, frozen soils, or soils that have been treated recently with sterilants or herbicides.
4. Lay the first row of sod in a straight line with subsequent rows placed parallel to and butting tightly against each other. Stagger strips in a brick-like pattern. Be sure that the sod is not stretched or overlapped and that all joints are butted tightly to prevent voids. Use a knife or sharp spade to trim and fit irregular shaped areas.
5. Install strips of sod with their longest dimension perpendicular to the slope. On slopes of 3:1 or greater, or wherever erosion may be a problem, secure sod with peels or staples.
6. As sodding of clearly defined areas is completed, roll sod to provide good contact between roots and soil.
7. After rolling, irrigate until the soil is wet 4 inches below the sod.
8. Keep sodded areas moist to a depth of 4 inches until the grass takes root. This can be determined by tugging on the sod.
9. Mowing should not be attempted until the sod is firmly rooted, usually 2-3 weeks.

Sodded Waterways
1. Prepare soil as described above.
2. Lay sod strips perpendicular to the direction of flow, with the lateral joints staggered in a brick-like pattern. Butt edges tightly together.
Maintenance—
After the first week, water as necessary to maintain adequate moisture in the root zone & prevent dormancy of the sod.
Maintenance—
Do not remove more than one-third of the shoot in any one mowing. Grass height should be maintained between 2-3 inches unless otherwise specified.
After first growing season, established sod requires fertilization, and may also require lime. Follow soil test recommendations.

TEMPORARY STONE CHECK DAM CONSTRUCTION SPECIFICATIONS:
1. CLEAR GRUB AND STRIP AREA UNDER THE EMBANKMENT AND ROOT MAT. REMOVE ALL SURFACE SOIL CONTAINING HIGH AMOUNTS OF ORGANIC MATTER AND STOCKPILE OR DISPOSAL OF IT PROPERLY. HAUL ALL OBJECTIONABLE MATERIAL TO THE DESIGNATED DISPOSAL AREA.
2. PLACE STONE TO THE LINES AND DIMENSIONS SHOWN IN THE PLAN ON A FILTER FABRIC FOUNDATION.
3. KEEP THE CENTER STONE SECTION AT LEAST 9 INCHES BELOW NATURAL GROUND LEVEL WHERE THE DAM ABUTS THE CHANNEL BANKS.
4. EXTEND STONE AT LEAST 1.5 FEET BEYOND THE DITCH BANK TO KEEP WATER FROM CUTTING AROUND THE ENDS OF THE CHECK DAM.
5. ALL CUT AND FILL SLOPES SHOULD BE 2:1 OR FLATTER.
6. PROTECT THE CHANNEL AFTER THE LOWEST CHECK DAM FROM HEAVY FLOW THAT COULD CAUSE EROSION.
7. MATERIAL USED IN THE STONE SECTION SHOULD BE A WELL-GRADED Mixture OF STONE WITH A 60 SIZE OF 9 INCHES (CLASS B EROSION CONTROL STONE IS RECOMMENDED) AND A MAXIMUM STONE SIZE OF 14 INCHES. THE STONE MAY BE MACHINE PLACED AND THE SMALLER STONES WORKED INTO THE VOIDS OF THE LARGER STONES. THE STONE SHOULD BE HARD, ANGULAR, AND HIGHLY WEATHER-RESISTANT.
8. STABILIZE THE EMBANKMENT AND ALL DISTURBED AREAS ABOVE THE SEDIMENT POOL AND DOWNSTREAM FROM THE TRAP IMMEDIATELY AFTER CONSTRUCTION.
9. ENSURE THAT OTHER AREAS OF THE CHANNEL, SUCH AS OULVERT ENTRANCES BELOW THE CHECK DAMS, ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPOSAL STONES.
MAINTENANCE OF TEMPORARY STONE CHECK DAMS:
INSPECT CHECK DAMS AND CHANNELS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (2" OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. CLEAN OUT SEDIMENT, STRAW, LIMBS, OR OTHER DEBRIS WHEN NEEDED.
REMOVE SEDIMENT ACCUMULATION 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 CARRIING SEDIMENT OVER THE DAM. ADD STONES TO DAMS AS NEEDED TO MAINTAIN DESIGN HEIGHT AND CROSS SECTION.



BISSELL PROFESSIONAL GROUP
3512 North Carolina Highway
K-10, Box 1068, Currituck County
North Carolina 27949
(252) 261-3066
Fax: (252) 261-1790

EROSION & SEDIMENT CONTROL CONSTRUCTION NOTES & DETAILS

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Engineers, Planners, Surveyors and Environmental Specialists

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3/28/2024, 8:02 AM, up, Desktop, 12500, P5, URC2, 2x3

ALGONQUIN
CURRITUCK COUNTY
NORTH CAROLINA

CONSTRUCTION DRAWINGS

PROJECT: POPULAR BRANCH TOWNSHIP

| NO. | DATE | REVISIONS | BY |
|-----|------|-----------|----|
| | | | |

NOT RELEASED FOR CONSTRUCTION

7882DFD8A040C6
42639

MADE IN CHINA

DATE: 8/28/24 SCALE: AS NOTED
PREPARED: BFG CHECKED: MSB
DESIGN: BFG APPROVED: BFG
SHEET: 11 OF 13
CAD FILE: 382600B2
PROJECT NO: 3826

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.

Table with 3 columns: Inspect, Frequency (during normal business hours), and Inspection records must include. Rows include Rain gauge, E&SC Measures, Stormwater outfalls, Perimeter of site, Streams or wetlands, and Ground stabilization measures.

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

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

Sediment basins and traps that receive runoff from drainage areas of one acre or more shall use outlet structures that withdraw water from the surface when these devices need to be drawn down for maintenance or close out unless this is infeasible.

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

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING

1. E&SC Plan Documentation

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

Table with 2 columns: Item to Document and Documentation Requirements. Rows include E&SC measures, grading completion, ground cover, maintenance/repair, and corrective actions.

2. Additional Documentation to be Kept on Site

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

- (a) This General Permit as well as the Certificate of Coverage, after it is received.
(b) Records of inspections made during the previous twelve months. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements.

3. Documentation to be Retained for Three Years

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

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION C: REPORTING

1. Occurrences that Must be Reported

- Permittees shall report the following occurrences:
(a) Visible sediment deposition in a stream or wetland.
(b) Oil spills if:
- They are 25 gallons or more,
- They are less than 25 gallons but cannot be cleaned up within 24 hours,
- They cause sheen on surface waters (regardless of volume), or
- They are within 100 feet of surface waters (regardless of volume).
(c) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act...
(d) Anticipated bypasses and unanticipated bypasses.
(e) Noncompliance with the conditions of this permit that may endanger health or the environment.

2. Reporting Timeframes and Other Requirements

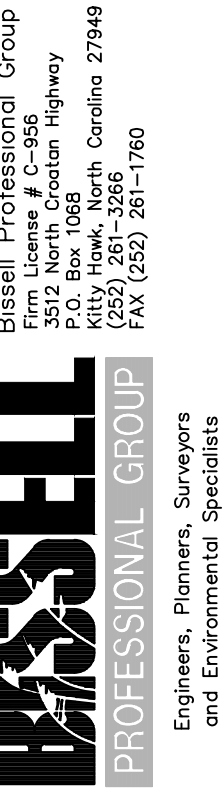
After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below.

Table with 2 columns: Occurrence and Reporting Timeframes (After Discovery) and Other Requirements. Rows include sediment deposition, oil spills, anticipated bypasses, and noncompliance.



NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING

EFFECTIVE: 04/01/19



NCG01 - SELF INSPECTION, RECORD KEEPING & REPORTING
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ALGONQUIN
CURRITUCK COUNTY, NORTH CAROLINA
POPULAR BRANCH TOWNSHIP
CONSTRUCTION DRAWINGS

Table with 4 columns: NO, DATE, DESCRIPTION, BY. Includes a circular seal for David M. Kierulff, Professional Engineer.

FINAL DRAWING
NOT RELEASED FOR
CONSTRUCTION

Table with columns: DATE, SCALE, PERSON, CHECKED, DRAWN, APPROVED. Includes sheet number 12 of 13 and project number 382600B2.

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

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

- 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

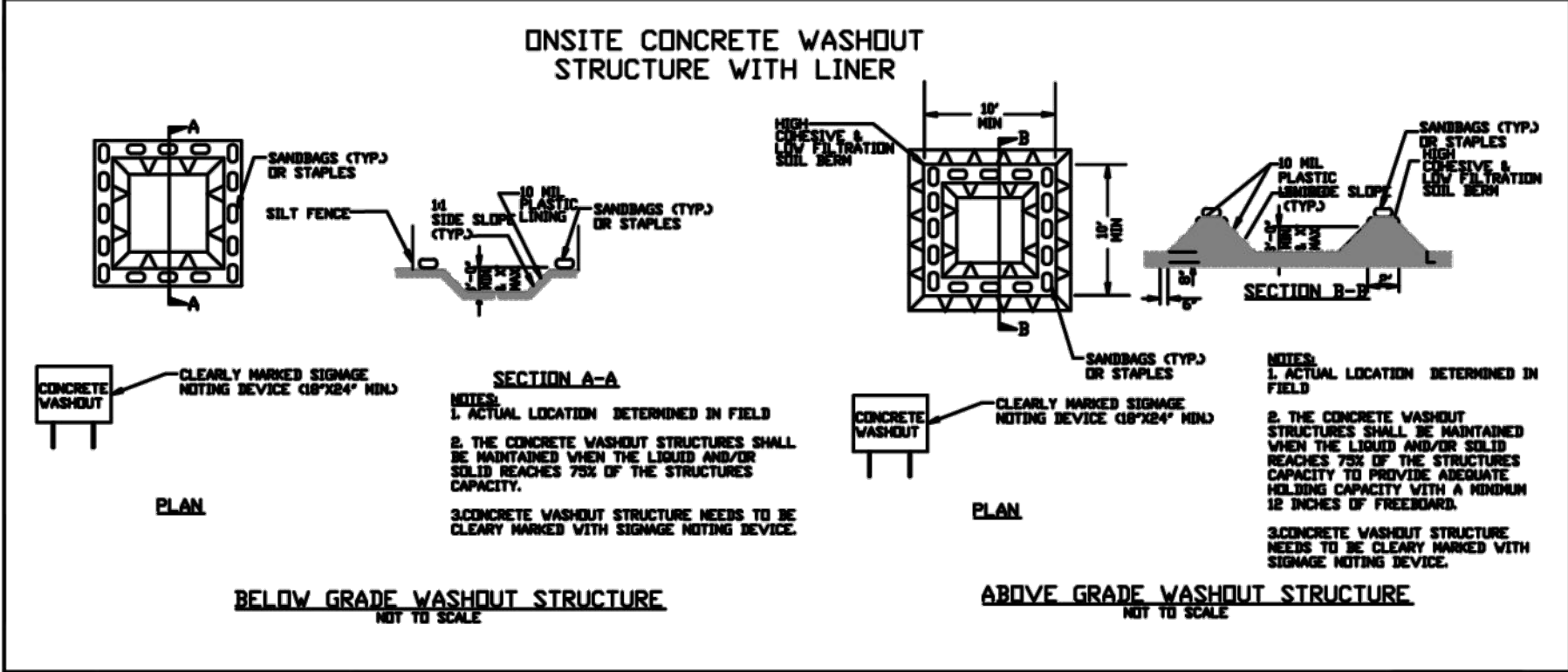
- Do not dump paint and other liquid waste into storm drains, streams or wetlands.
- Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- Contain liquid wastes in a controlled area.
- Containment must be labeled, 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

Blissell Professional Group
3572 North Carolina Highway
110, Box 1086, Raleigh, Carolina 27614
(919) 281-3866
(919) 281-1750
BLISSSELL
PROFESSIONAL GROUP
Engineers, Planners, Surveyors
and Environmental Specialists

NCG01 - GROUND STABILIZATION
& MATERIALS HANDLING
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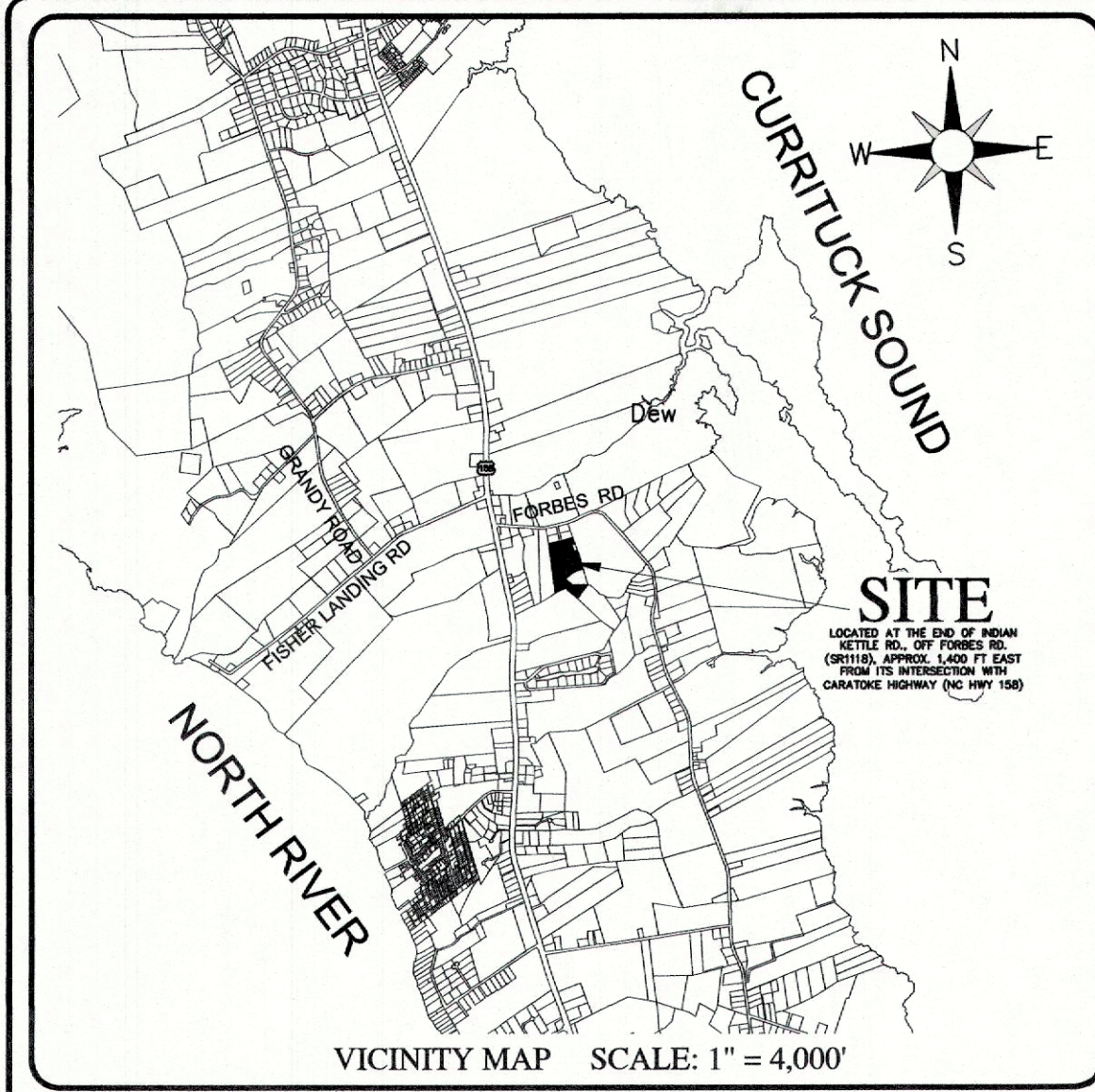
ALGONQUIN
CURRITUCK COUNTY
NORTH CAROLINA
POPLAR BRANCH TOWNSHIP
CONSTRUCTION DRAWINGS

| NO. | DATE | DESCRIPTION | BY |
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DATE: 8/28/24 SCALE: AS NOTED
PERSON: BPG CHECKED: MSB
DRAWN: KFW/DMK APPROVED: BPG
SHEET: 13 OF 13
CAD FILE: 382600B2
PROJECT NO: 3826

FINAL DRAWING NOT RELEASED FOR CONSTRUCTION

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- GENERAL NOTES:**
- PROJECT NAME: ALGONQUIN
 - OWNER/APPLICANT: JOEL K. & STACY A. JUSTICE
PO BOX 208
GRANDY, NC 27939
 - PROPERTY DATA:
PARCEL ID# 0109-000-053F-0000
ADDRESS: INDIAN KETTLE RD., JARVISBURG, NC
RECORDED REFERENCES: D.B. 02, PG. SP/55/57, PC: K, SL. 30
PROPERTY ZONING: SFM
 - F.I.R.M. DATA:
ZONE X, F.E.M.A. F.I.R.M. MAP PANEL 3720092000K, CID 370078, EFFECTIVE DATE DECEMBER 21, 2018.
 - THE PROPERTY CONTAINS NO 404 JURISDICTIONAL WETLANDS AS CONFIRMED BY THE US ARMY CORPS OF ENGINEERS.
 - EXISTING CONDITION INFORMATION BASED ON A COMBINATION OF THE FOLLOWING:
• FIELD SURVEY DATA OBTAINED BY BISSELL PROFESSIONAL GROUP
• 2020 AERIAL IMAGERY OBTAINED FROM NCONEMAP.COM
• ELEVATIONS ARE REFERENCED TO NAVD 1988 VERTICAL DATUM.
 - DRAINAGE AND UTILITY EASEMENTS WILL BE PROVIDED ON THE FINAL PLATS PREPARED FOR RECORDING OF THE SUBDIVISION.
• A 10' EASEMENT FOR UTILITIES AND DRAINAGE TO BE DEDICATED ALONG ALL REAR AND SIDE PROPERTY LINES
• A 15' EASEMENT FOR UTILITIES AND DRAINAGE TO BE DEDICATED ALONG ALL FRONT PROPERTY LINES
• A NON-EXCLUSIVE DRAINAGE EASEMENT TO BE DEDICATED TO CURRITUCK COUNTY & NCDOT ACROSS ALL OPEN SPACE AREAS AND ALONG ALL MAJOR DRAINAGE WAYS SERVING MORE THAN 5 ACRES.
• A 10' EASEMENT TO BE DEDICATED BEYOND THE 15' FRONT EASEMENT FOR PLANTING AND MAINTENANCE OF STREET TREES.
 - EXISTING VEGETATION IN OPEN SPACE AREAS SHALL BE MAINTAINED.
 - ALL NEW UTILITIES SHALL BE INSTALLED UNDERGROUND.
 - THE PROJECT INCLUDES ROADWAY, SIDEWALK, DRAINAGE AND UTILITY IMPROVEMENTS ALONG SOME 340 FT OF THE EXISTING INDIAN KETTLE ROAD. ALL RELATED CONSTRUCTION SHALL STAY WITHIN THE LIMITS OF THE ROADWAY'S 45' PRIVATE R/W AND THE 15' DRAINAGE AND UTILITY EASEMENTS FRONTING THE (4) ADJOINING LOTS, AS PRESCRIBED BY THE SUBDIVISION PLAT RECORDED IN PC: C-2, SL: 363. THE CONTRACTOR SHALL NOTIFY THE LOT OWNERS AHEAD OF ANY CONSTRUCTION ACTIVITIES ON THEIR PROPERTY, MINIMIZE DISTURBANCES TO THEIR PROPERTY AND MAINTAIN REASONABLE MEANS OF ACCESS AND CLEANLINESS.

- DEVELOPMENT NOTES:**
- PROPERTY SUMMARY:
PROPOSED SUBDIVISION AREA: 14.53 AC.
PROPOSED AREA TO BE RECOMBINED INTO PARCEL "A": 0.95 AC.
TOTAL PROPERTY AREA: 14.48 AC.
 - DEVELOPMENT SUMMARY:
PROPOSED LOT AREA: 9.41 AC.
PROPOSED R/W AREA: 0.74 AC.
PROPOSED OPEN SPACE AREA: 4.38 AC.
TOTAL SUBDIVISION AREA: 14.53 AC.
 - # OF PROPOSED LOTS: 10
MINIMUM LOT AREA: 40,000 SF
PROPOSED RIGHT-OF-WAY WIDTH: 45 FT.
PROPOSED PAVED ROADWAY WIDTH: 20 FT.
LINEAR FEET OF EXISTING ROAD TO BE IMPROVED: 340 L.F.±
LINEAR FEET OF NEW ROAD TO BE CONSTRUCTED: 500 L.F.±
 - DEVELOPMENT IMPERVIOUS COVERAGE DATA (BUA):
COVERAGE ON INDIVIDUAL LOTS WILL BE LIMITED TO 20.0% OF LOT AREA
MAXIMUM TOTAL LOT COVERAGE: 81,979 SF
ROADWAY COVERAGE: 16,600 SF
SIDEWALKS: 6,000 SF
TOTAL COVERAGE: 104,579 SF
COVERAGE PERCENTAGE: 16.52%
 - PROPOSED DISTURBED AREA: 11 ACRES

THE FOLLOWING PERMITS ARE REQUIRED PRIOR TO PROJECT CONSTRUCTION:

| PERMIT | AGENCY | REFERENCE NUMBER | DATE OF ISSUANCE |
|--|---|------------------|------------------|
| SEDIMENTATION AND EROSION CONTROL PERMIT | N.C.D.E.Q. - DIVISION OF LAND RESOURCES | | |
| STORMWATER MANAGEMENT LOW DENSITY PERMIT | N.C.D.E.Q. - DIVISION OF LAND RESOURCES | | |
| WATERMAIN EXTENSION AUTHORIZATION TO CONSTRUCT | N.C.D.E.Q. - PUBLIC WATER SUPPLY | | |
| DRIVEWAY PERMIT | N.C.D.O.T. | | |
| ENCROACHMENT AGREEMENT | N.C.D.O.T. | | |
| CURRITUCK COUNTY PRELIMINARY PLAT & USE PERMIT | CURRITUCK COUNTY BOARD OF COMMISSIONERS | PB 21-21 | 8/21/2023 |
| CURRITUCK COUNTY CONSTRUCTION AUTHORIZATION | CURRITUCK COUNTY PLANNING STAFF | | |

CONSTRUCTION DRAWINGS FOR ALGONQUIN

A 10 LOT TRADITIONAL RESIDENTIAL SUBDIVISION POPLAR BRANCH TOWNSHIP CURRITUCK COUNTY NORTH CAROLINA

Sheet List Table

| Sheet Number | Sheet Title |
|--------------|---|
| 1 | COVER SHEET, DEVELOPMENT NOTES & SITE LOCATION |
| 2 | EXISTING SITE CONDITIONS MAP |
| 3 | DEVELOPMENT OVERVIEW PLAN |
| 4 | GRADING, DRAINAGE AND STORMWATER MANAGEMENT PLAN |
| 5 | EROSION AND SEDIMENT CONTROL PLAN |
| 6 | WATERMAIN EXTENSION AND WATER SERVICE PLAN |
| 7 | LANDSCAPING, SIGNAGE AND BUFFERING PLAN |
| 8 | EXISTING INDIAN KETTLE RD. PLAN AND PROFILE |
| 9 | PROPOSED INDIAN KETTLE RD. PLAN AND PROFILE |
| 10 | ROADWAY, DRAINAGE & TYP. CONSTRUCTION DETAILS |
| 11 | EROSION & SEDIMENT CONTROL CONSTRUCTION NOTES & DETAILS |
| 12 | NCG01 - SELF INSPECTION, RECORD KEEPING & REPORTING |
| 13 | NCG01 - GROUND STABILIZATION & MATERIALS HANDLING |

LEGEND

- ROADWAY CENTERLINE
- RIGHT-OF-WAY
- PROPERTY BOUNDARY
- ADJOINING PROPERTY LINE
- EXISTING DITCH CENTERLINE
- EXISTING TREE LINE (APPROXIMATE)
- PROPOSED SWALE W/ FLOW ARROW
- PROPOSED SWALE HIGH POINT
- EXISTING GRADE CONTOUR
- PROPOSED GRADE CONTOUR
- EXISTING SPOT GRADE
- PROPOSED SPOT GRADE
- EXISTING CULVERT
- PROPOSED CULVERT
- PROPOSED DRAINAGE STRUCTURE
- NO PARKING SIGN
- CROSSWALK

EROSION CONTROL LEGEND

- PROPOSED LIMITS OF DISTURBANCE
- PROPOSED SILT FENCE
- PROPOSED STABILIZED CONSTRUCTION ENTRANCE
- PROPOSED TEMPORARY CHECK DAM

UTILITY LEGEND

- X12WL - EXISTING WATER LINE
- WL - PROPOSED WATER LINE (SIZE AS NOTED)
- PROPOSED FIRE HYDRANT (APRX)
- PROPOSED WATER SERVICE (APRX)
- PROPOSED VALVE (APRX)
- PROPOSED BLOW-OFF (APRX)
- PROPOSED REDUCER (APRX)

PROFILE LEGEND

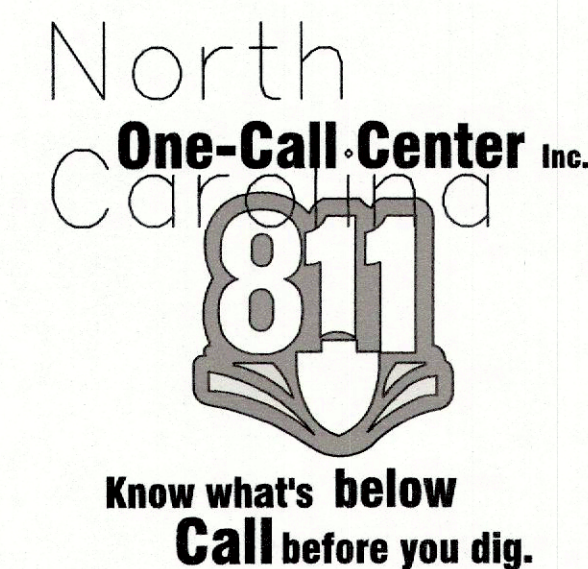
- EXISTING GRADE @ ROAD C/L
- PROPOSED GRADE @ ROAD C/L
- PROPOSED WATER LINE (SIZE AS NOTED)
- PROPOSED HYDRANT ASSEMBLY
- PROPOSED GATE VALVE
- PROPOSED REDUCER

SOILS LEGEND

| SOILS LINE | SOILS LINE |
|------------|----------------------------|
| CnA | CONETOE LOAMY SAND |
| Mu | MUNDEN LOAMY SAND |
| No | NIMMO LOAMY SAND |
| Pt | PORTSMOUTH FINE SANDY LOAM |

SCS - SOIL SURVEY OF CURRITUCK COUNTY

**FINAL DRAWING
NOT RELEASED FOR
CONSTRUCTION**



SURVEY LEGEND

| | |
|--------|------------------------|
| SCHM | SET CONCRETE MONUMENT |
| SR | SET IRON ROD |
| ER | EXISTING IRON ROD |
| EIP | EXISTING IRON PIPE |
| CP | CALCULATED POINT |
| M.B.L. | MAXIMUM BUILDING LIMIT |
| N.T.S. | NOT TO SCALE |
| P.C. | PLAT CABINET |
| D.B. | DEED BOOK |
| SL | SLIDE |
| SF | SQUARE FEET |
| AC | ACRES |

STORMWATER CERTIFICATE

I, _____ OWNER/AGENT HEREBY CERTIFY THE INFORMATION INCLUDED ON THIS AND ATTACHED PAGES IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

ON THE PLAN ENTITLED, ALGONQUIN CONSTRUCTION DRAWINGS - GRADING, DRAINAGE AND STORMWATER MANAGEMENT PLAN, STORMWATER DRAINAGE IMPROVEMENTS SHALL BE INSTALLED ACCORDING TO THESE PLANS AND SPECIFICATIONS AND APPROVED BY CURRITUCK COUNTY. YEARLY INSPECTIONS ARE REQUIRED AS PART OF THE STORMWATER PLAN. THE OWNER IS RESPONSIBLE FOR ALL MAINTENANCE REQUIRED. CURRITUCK COUNTY ASSUMES NO RESPONSIBILITY FOR THE DESIGN, MAINTENANCE, OR PERFORMANCE OF THE STORMWATER IMPROVEMENTS.

DATE _____ OWNER/AGENT _____

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BISSELL PROFESSIONAL GROUP
3012 North Carolina Highway
Kitty Hawk, North Carolina 27949
TEL: (252) 281-1700
FAX: (252) 281-1700

BISSELL PROFESSIONAL GROUP
Engineers, Planners, Surveyors
and Environmental Specialists

COVER SHEET, DEVELOPMENT NOTES & SITE LOCATION

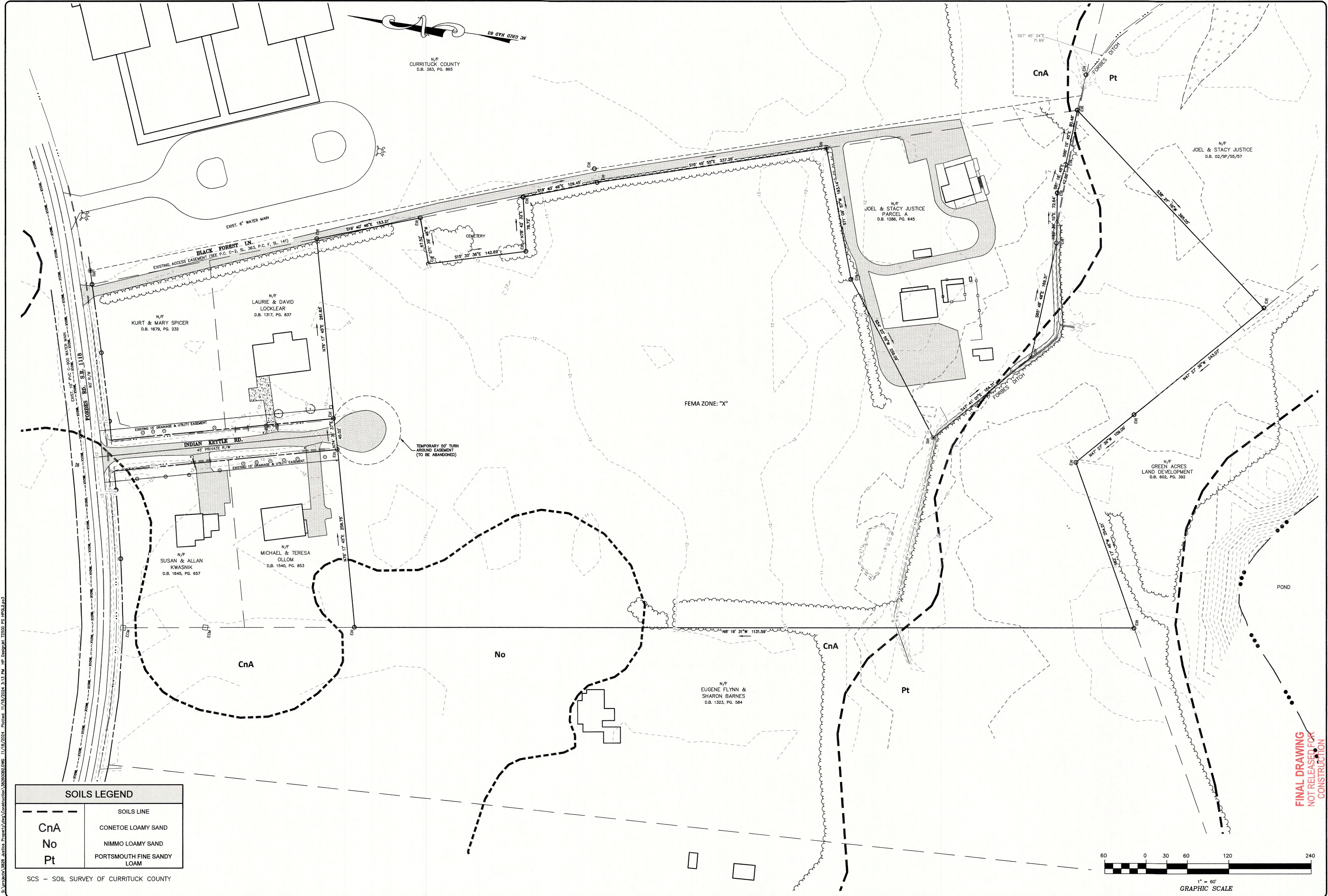
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ALGONQUIN
CURRITUCK COUNTY
POPLAR BRANCH TOWNSHIP
CONSTRUCTION DRAWINGS

REVISIONS

| NO. | DATE | DESCRIPTION | BY |
|-----|------------|-------------------|----|
| 1 | 11/18/2024 | ISSUE FOR PERMITS | AM |

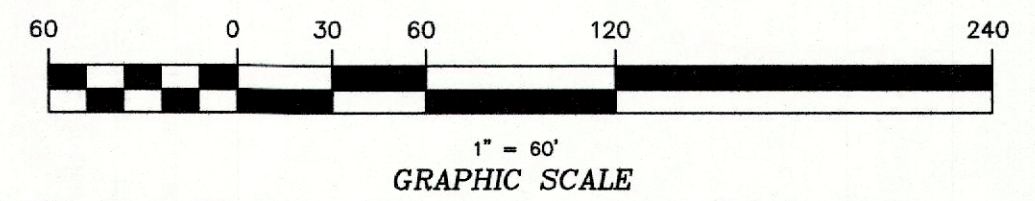
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DRAWN: KFW/DMK APPROVED: BPG
SHEET: 1 OF 13
CAD FILE: 382600B2
PROJECT NO: 3826



SCS - SOIL SURVEY OF CURRITUCK COUNTY

SOILS LEGEND

| SOILS LINE | SOILS LINE |
|------------|----------------------------|
| CnA | CONETOE LOAMY SAND |
| No | NIMMO LOAMY SAND |
| Pt | PORTSMOUTH FINE SANDY LOAM |



FINAL DRAWING NOT RELEASED FOR CONSTRUCTION

BISSSELL PROFESSIONAL GROUP
 Firm License # C-806
 E.O. No. 13800 Section Highway
 (252) 791-2300 Carolina 27949
 (252) 791-2300 Fax
 (252) 261-1790
PROFESSIONAL GROUP
 Engineers, Planners, Surveyors
 and Environmental Specialists

EXISTING SITE CONDITIONS MAP
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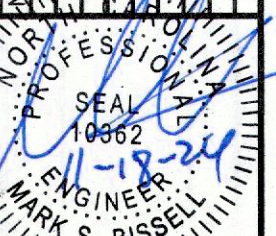
ALGONQUIN
 CURRITUCK COUNTY
 NORTH CAROLINA

PROJECT: **POPLAR BRANCH TOWNSHIP**

CONSTRUCTION DRAWINGS

| NO. | DATE | DESCRIPTION |
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 PROJECT NO: 3826



DATE: 8/28/24 SCALE: 1" = 60'
 DESIGNED: BPG CHECKED: MSB
 DRAWN: KFW/DMK APPROVED: BPG
 SHEET: 2 OF 13



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BISSELL
 PROFESSIONAL GROUP
 Engineers, Planners, Surveyors
 and Environmental Specialists

**DEVELOPMENT
 OVER VIEW PLAN**

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ALGONQUIN
 NORTH CAROLINA
 CURRITUCK COUNTY
 POPLAR BRANCH TOWNSHIP

CONSTRUCTION DRAWINGS

| NO. | DATE | DESCRIPTION |
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DATE: 8/28/24 1" = 60'

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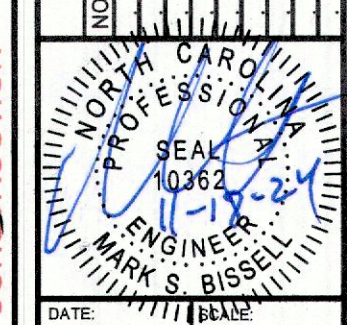
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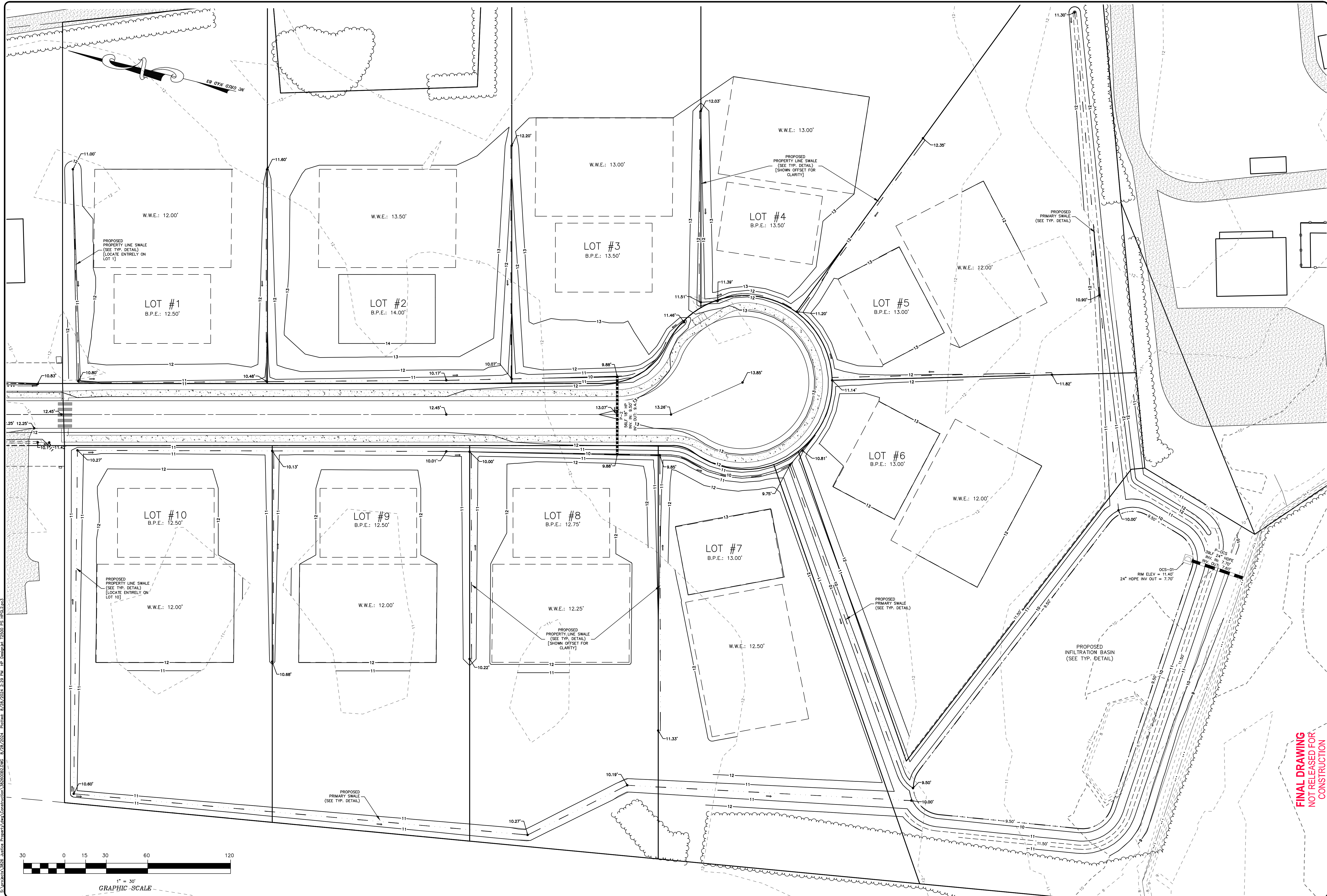
SHEET: 3 OF 13

CAD FILE: 382600B2

PROJECT NO: 3826

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 CONSTRUCTION





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 PROFESSIONAL GROUP
 Engineers, Planners, Surveyors
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**GRADING, DRAINAGE AND
 STORMWATER MANAGEMENT PLAN**

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ALGONQUIN
 CURRITUCK COUNTY
 NORTH CAROLINA

POPULAR BRANCH TOWNSHIP

CONSTRUCTION DRAWINGS

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Seal of the Professional Engineer
 State of North Carolina
 License No. 42639
 David M. Klement

DATE: 8/28/24 SCALE: 1" = 30'
 PERSON: BPG CHECKED: MSB
 DRAWN: KFW/DMK APPROVED: BPG
 SHEET: 4 OF 13
 CAD FILE: 382600B2
 PROJECT NO: 3826

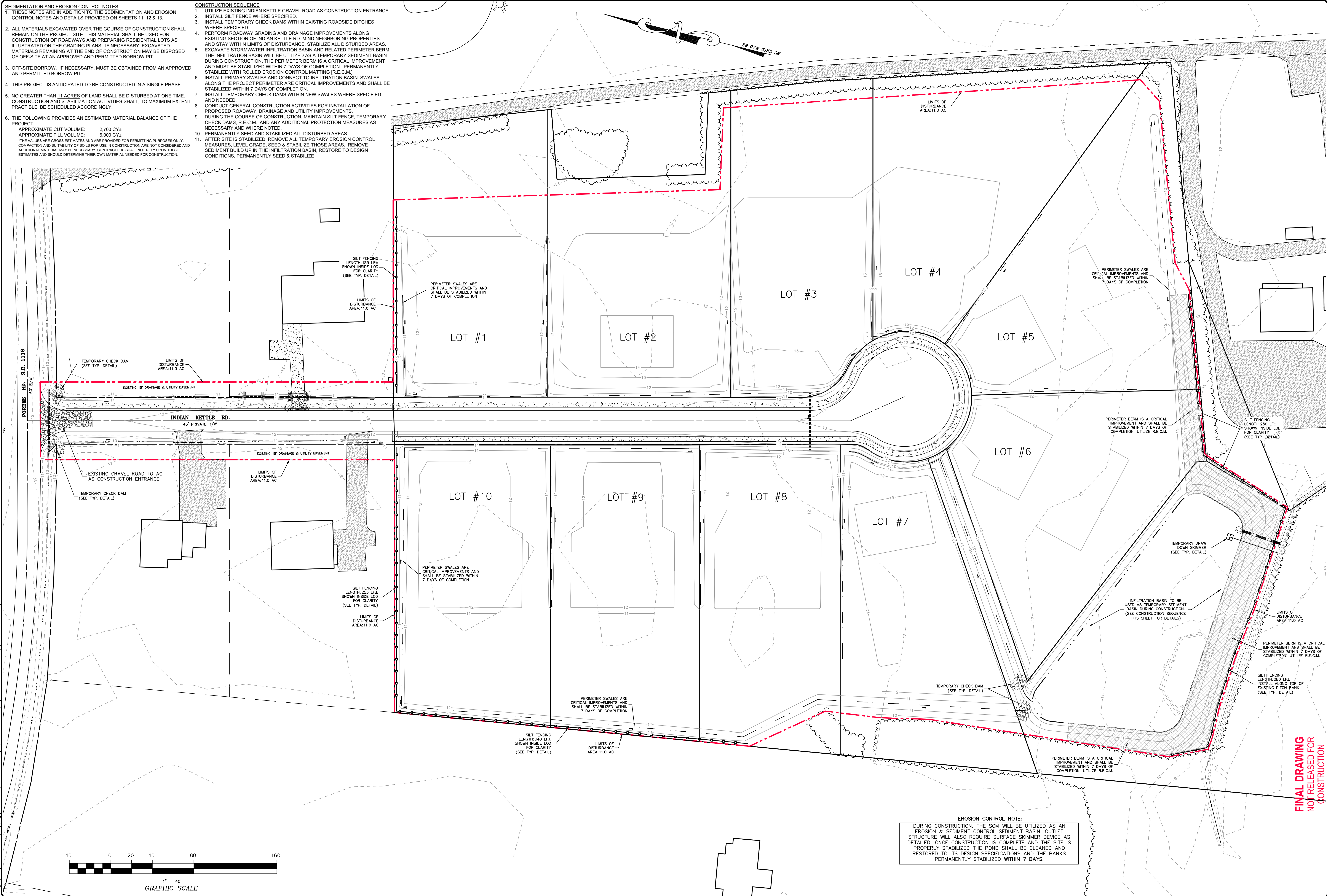
**FINAL DRAWING
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 CONSTRUCTION**

SEDIMENTATION AND EROSION CONTROL NOTES

1. THESE NOTES ARE IN ADDITION TO THE SEDIMENTATION AND EROSION CONTROL NOTES AND DETAILS PROVIDED ON SHEETS 11, 12 & 13.
2. ALL MATERIALS EXCAVATED OVER THE COURSE OF CONSTRUCTION SHALL REMAIN ON THE PROJECT SITE. THIS MATERIAL SHALL BE USED FOR CONSTRUCTION OF ROADWAYS AND PREPARING RESIDENTIAL LOTS AS ILLUSTRATED ON THE GRADING PLANS. IF NECESSARY, EXCAVATED MATERIALS REMAINING AT THE END OF CONSTRUCTION MAY BE DISPOSED OF OFF-SITE AT AN APPROVED AND PERMITTED BORROW PIT.
3. OFF-SITE BORROW, IF NECESSARY, MUST BE OBTAINED FROM AN APPROVED AND PERMITTED BORROW PIT.
4. THIS PROJECT IS ANTICIPATED TO BE CONSTRUCTED IN A SINGLE PHASE.
5. NO GREATER THAN 11 ACRES OF LAND SHALL BE DISTURBED AT ONE TIME. CONSTRUCTION AND STABILIZATION ACTIVITIES SHALL, TO MAXIMUM EXTENT PRACTICABLE, BE SCHEDULED ACCORDINGLY.
6. THE FOLLOWING PROVIDES AN ESTIMATED MATERIAL BALANCE OF THE PROJECT:
 APPROXIMATE CUT VOLUME: 2,700 CY±
 APPROXIMATE FILL VOLUME: 6,000 CY±
THE VALUES ARE GROSS ESTIMATES AND ARE PROVIDED FOR PERMITTING PURPOSES ONLY. COMPACTION AND SUITABILITY OF SOILS FOR USE IN CONSTRUCTION ARE NOT CONSIDERED AND ADDITIONAL MATERIAL MAY BE NECESSARY. CONTRACTORS SHALL NOT RELY UPON THESE ESTIMATES AND SHOULD DETERMINE THEIR OWN MATERIAL NEEDED FOR CONSTRUCTION.

CONSTRUCTION SEQUENCE

1. UTILIZE EXISTING INDIAN KETTLE GRAVEL ROAD AS CONSTRUCTION ENTRANCE.
2. INSTALL SILT FENCE WHERE SPECIFIED.
3. INSTALL TEMPORARY CHECK DAMS WITHIN EXISTING ROADSIDE DITCHES WHERE SPECIFIED.
4. PERFORM ROADWAY GRADING AND DRAINAGE IMPROVEMENTS ALONG EXISTING SECTION OF INDIAN KETTLE RD. MIND NEIGHBORING PROPERTIES AND STAY WITHIN LIMITS OF DISTURBANCE. STABILIZE ALL DISTURBED AREAS.
5. EXCAVATE STORMWATER INFILTRATION BASIN AND RELATED PERIMETER BERM. THE INFILTRATION BASIN WILL BE UTILIZED AS A TEMPORARY SEDIMENT BASIN DURING CONSTRUCTION. THE PERIMETER BERM IS A CRITICAL IMPROVEMENT AND MUST BE STABILIZED WITHIN 7 DAYS OF COMPLETION. PERMANENTLY STABILIZE WITH ROLLED EROSION CONTROL MATTING [R.E.C.M.]
6. INSTALL PRIMARY SWALES AND CONNECT TO INFILTRATION BASIN. SWALES ALONG THE PROJECT PERIMETER ARE CRITICAL IMPROVEMENTS AND SHALL BE STABILIZED WITHIN 7 DAYS OF COMPLETION.
7. INSTALL TEMPORARY CHECK DAMS WITHIN NEW SWALES WHERE SPECIFIED AND NEEDED.
8. CONDUCT GENERAL CONSTRUCTION ACTIVITIES FOR INSTALLATION OF PROPOSED ROADWAY, DRAINAGE AND UTILITY IMPROVEMENTS.
9. DURING THE COURSE OF CONSTRUCTION, MAINTAIN SILT FENCE, TEMPORARY CHECK DAMS, R.E.C.M., AND ANY ADDITIONAL PROTECTION MEASURES AS NECESSARY AND WHERE NOTED.
10. PERMANENTLY SEED AND STABILIZED ALL DISTURBED AREAS.
11. AFTER SITE IS STABILIZED, REMOVE ALL TEMPORARY EROSION CONTROL MEASURES, LEVEL GRADE, SEED & STABILIZE THOSE AREAS. REMOVE SEDIMENT BUILD UP IN THE INFILTRATION BASIN, RESTORE TO DESIGN CONDITIONS, PERMANENTLY SEED & STABILIZE.



EROSION CONTROL NOTE:
 DURING CONSTRUCTION, THE SCM WILL BE UTILIZED AS AN EROSION & SEDIMENT CONTROL SEDIMENT BASIN. OUTLET STRUCTURE WILL ALSO REQUIRE SURFACE SKIMMER DEVICE AS DETAILED. ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS PROPERLY STABILIZED THE POND SHALL BE CLEANED AND RESTORED TO ITS DESIGN SPECIFICATIONS AND THE BANKS PERMANENTLY STABILIZED WITHIN 7 DAYS.

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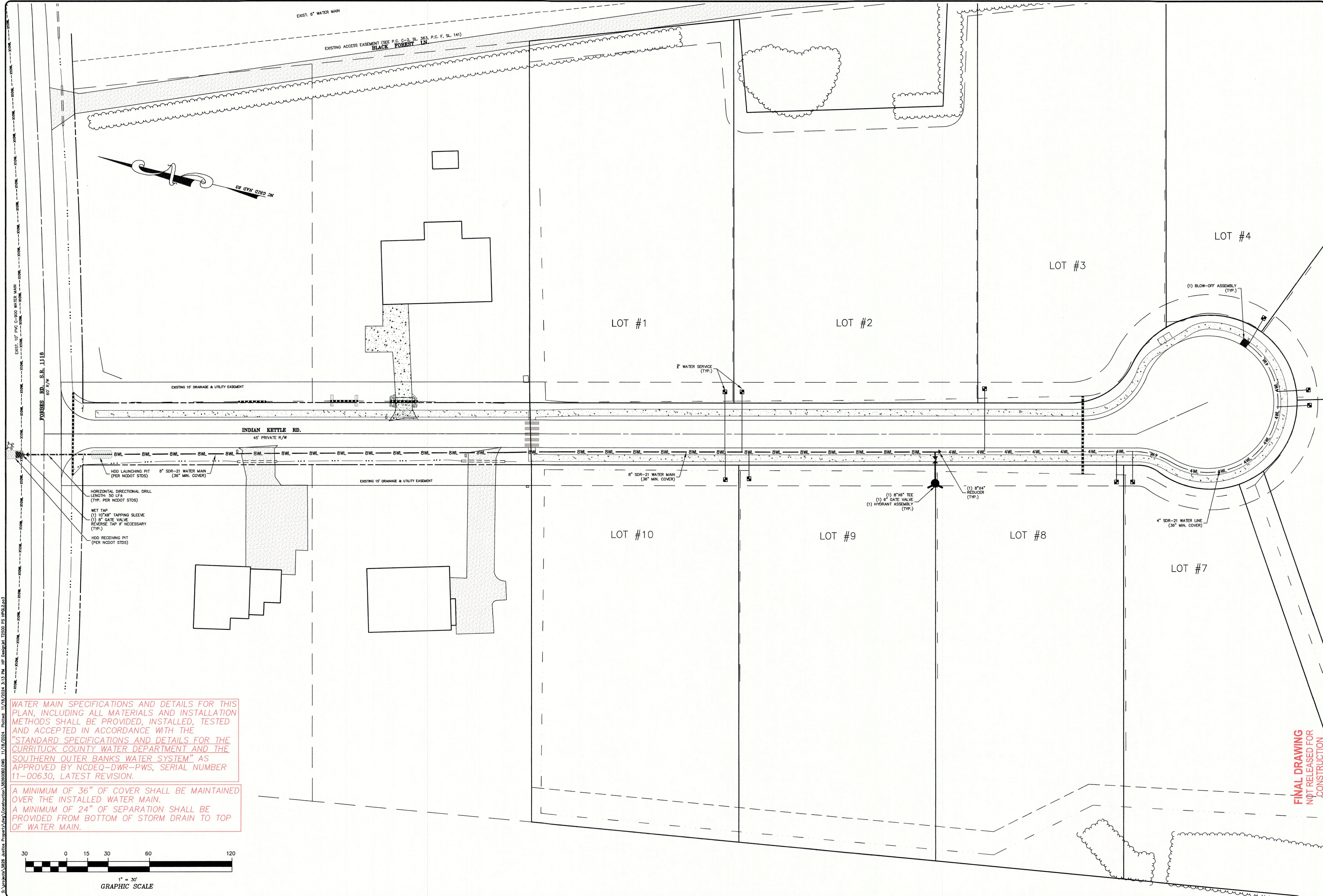
BISSELL
 PROFESSIONAL GROUP
 Engineers, Planners, Surveyors
 and Environmental Specialists
 3512 North Clayton Highway
 Kitty Hawk, North Carolina 27949
 (252) 251-2556
 FAX (252) 251-7190

EROSION AND SEDIMENT CONTROL PLAN
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ALGONQUIN
 POPULAR BRANCH TOWNSHIP CURRITUCK COUNTY NORTH CAROLINA
CONSTRUCTION DRAWINGS

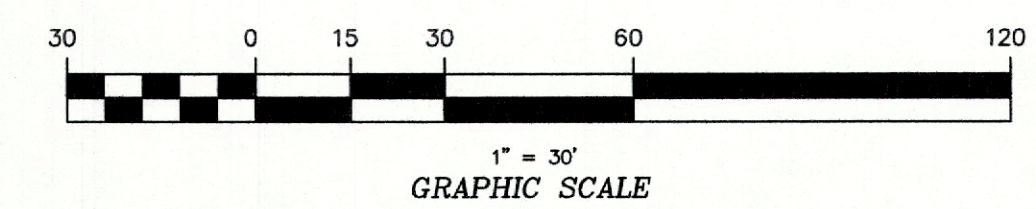
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DATE: 8/28/24 SCALE: 1" = 40'
 DESIGNED: BFG CHECKED: MSB
 DRAWN: KIW/DMK APPROVED: BFG
 SHEET: 5 OF 13
 CAD FILE: 382600B2
 PROJECT NO: 3826



WATER MAIN SPECIFICATIONS AND DETAILS FOR THIS PLAN, INCLUDING ALL MATERIALS AND INSTALLATION METHODS SHALL BE PROVIDED, INSTALLED, TESTED AND ACCEPTED IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS AND DETAILS FOR THE CURRITUCK COUNTY WATER DEPARTMENT AND THE SOUTHERN OUTER BANKS WATER SYSTEM" AS APPROVED BY NCDEQ-DWR-PWS, SERIAL NUMBER 11-00630, LATEST REVISION.

A MINIMUM OF 36" OF COVER SHALL BE MAINTAINED OVER THE INSTALLED WATER MAIN.
 A MINIMUM OF 24" OF SEPARATION SHALL BE PROVIDED FROM BOTTOM OF STORM DRAIN TO TOP OF WATER MAIN.



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**WATERMAIN EXTENSION
 AND WATER SERVICE PLAN**
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PROJECT: **ALGONQUIN**
 NORTH CAROLINA
 CURRITUCK COUNTY
 POPLAR BRANCH TOWNSHIP
CONSTRUCTION DRAWINGS

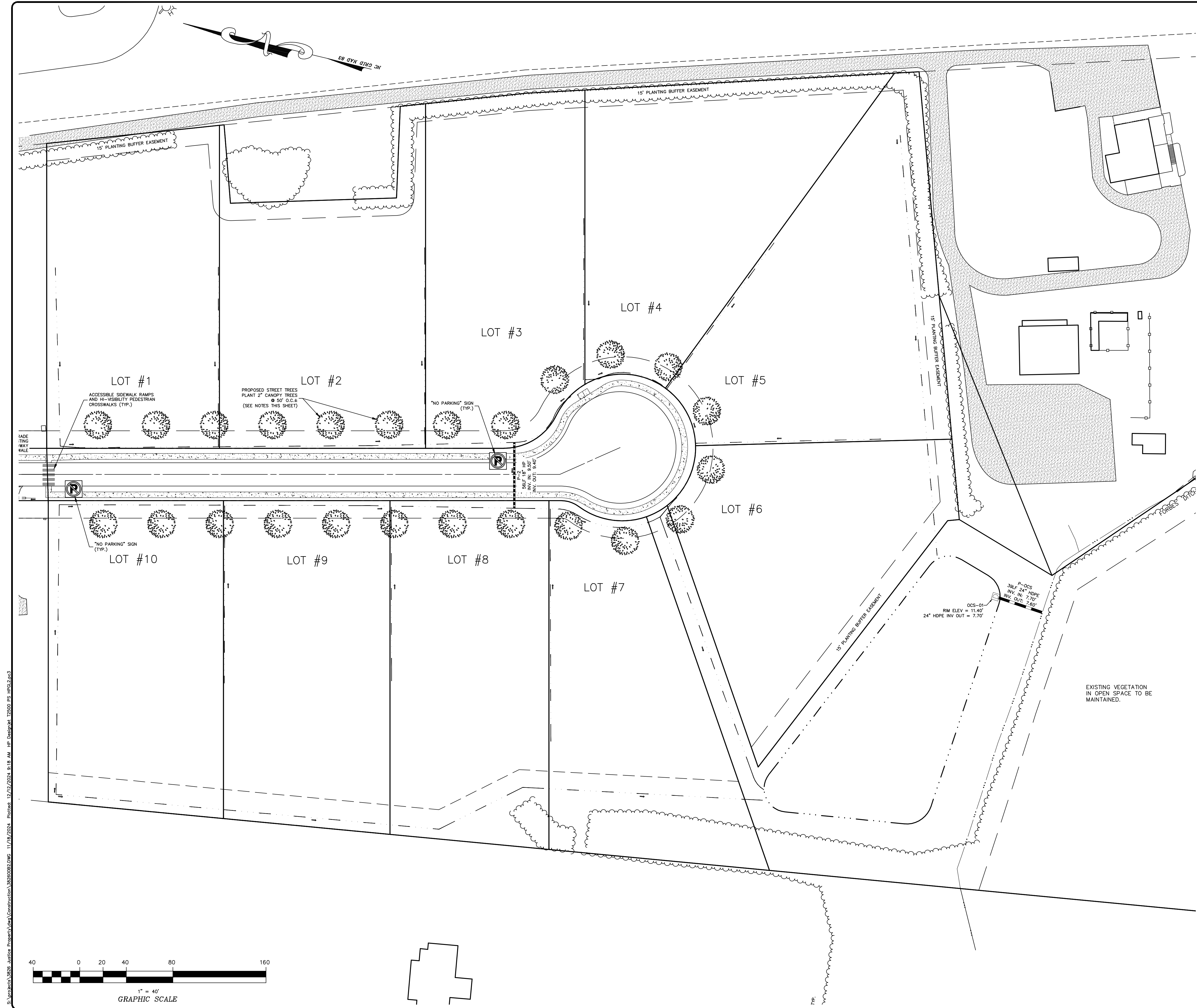
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| 1 | 8/28/24 | ISSUE 2 - WATERLINE TO 4" |
| 2 | 11/14/24 | FOR COMMENTS |

DATE: 8/28/24
 SCALE: 1" = 30'

DRAWN: BPG
 CHECKED: MSB
 APPROVED: KFW/DMK
 SHEET: BPG

6 OF 13
 CAD FILE: 382600B2
 PROJECT NO: 3826

**FINAL DRAWING
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 CONSTRUCTION**



- GENERAL LANDSCAPING AND BUFFERING NOTES:**
- STREET TREES:**
 - STREET TREES SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 6.2.1.K OF THE CURRITUCK UDO AND THIS PLAN.
 - TREES SHALL BE PLANTED ALONG EACH SIDE OF ROADWAYS AS GENERALLY SPECIFIED ON THE LANDSCAPE PLAN.
 - SEE TYPICAL ROADWAY SECTION DETAIL ON SHEET 11
 - TREES SHALL BE PLANTED 35'-1" FROM CENTERLINE OF THE ROAD
 - TREES SHALL BE CANOPY TYPE PLANTED A MAXIMUM OF 50' O/C. UNDERSTORY TYPE TREES MAY BE SUBSTITUTED AND PLANTED A MAXIMUM OF 30' O/C
 - SEE TREE SPECIES AND PLANTING NOTE BELOW
 - PERIMETER LANDSCAPE BUFFER:**
 - EXISTING TREES AROUND THE PERIMETER OF THE PROPERTY ARE BEING RETAINED TO BUFFER ADJOINING PROPERTIES. AS SHOWN, A 15' PLANTING BUFFER EASEMENT WILL BE PROVIDED FOR MAINTENANCE OF PERIMETER LANDSCAPING
 - TREE & SHRUB SPECIES AND PLANTING GUIDELINES:**
 - ALL TREES AND SHRUBS SHALL BE INSTALLED IN ACCORDANCE WITH THE PLANTING STANDARDS SPECIFIED IN SECTION 3.5 OF THE CURRITUCK COUNTY ADMINISTRATIVE MANUAL AND THIS PLAN.
 - CANOPY AND UNDERSTORY TREE SPECIES SHALL BE OF THOSE LISTED UNDER "TABLE 3.4.6: RECOMMENDED PLANTINGS" IN THE SAME MANUAL.
 - TREE SPECIES SHALL BE DIVERSE. A MINIMUM OF (4) DIFFERENT SPECIES OF CANOPY AND UNDERSTORY TREES SHALL BE INSTALLED IN ROUGHLY EQUAL PROPORTIONS.
 - AT INSTALLATION, CANOPY TREES SHALL HAVE A MINIMUM CALIPER OF 2 INCHES, MEASURED AT 6 INCHES ABOVE GRADE. EIGHT FOOT HIGH TREES MAY BE PLANTED AS AN ALTERNATIVE.
 - AT INSTALLATION, UNDERSTORY TREES SHALL HAVE A MINIMUM CALIPER OF 1.5 INCHES MEASURED AT 6 INCHES ABOVE GRADE. SIX FOOT HIGH TREES MAY BE PLANTED AS AN ALTERNATIVE.
 - SHRUBS SHALL BE PLANTED AT THE SPACING NOTED ON THE PLANS AND FORM A VISUAL SCREEN WITH A MIN. MATURE HEIGHT OF 36". SHRUBS SHALL BE EVERGREEN AS NOTED AND BE A MINIMUM OF (3) GALLON SIZE AT PLANTING.
 - MATERIALS SHALL BE OF HIGH-QUALITY NURSERY GRADE.
 - THE USE OF NATIVE, DROUGHT TOLERANT TREES IS ENCOURAGED.
 - A REPUTABLE LANDSCAPE CONTRACTOR OR SUPPLIER SHALL PREPARE AN ITEMIZED SCHEDULE OF TREES TO BE INSTALLED IN ACCORDANCE WITH THIS LANDSCAPE PLAN. THIS SCHEDULE SHALL BE REVIEWED BY CURRITUCK COUNTY AND THE ENGINEER TO DETERMINE COMPLIANCE BEFORE ORDERING AND INSTALLATION. ALTERNATE TREES AND SPECIFICATIONS MAY BE PRESENTED FOR REVIEW AND APPROVAL.

Bissell Professional Group
 5372 North Carolina Highway
 100, Box 1066, North Carolina 27949
 (252) 261-3866
 (252) 261-1790 FAX



LANDSCAPING, SIGNAGE AND BUFFERING PLAN
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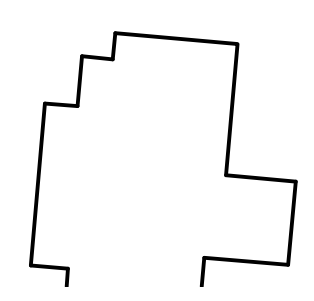
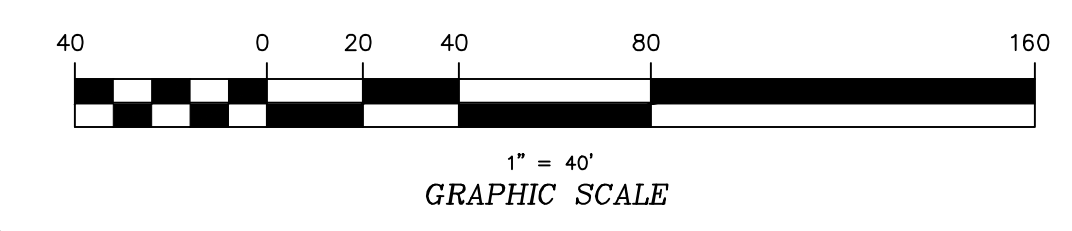
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 ALGONQUIN
 CONSTRUCTION DRAWINGS

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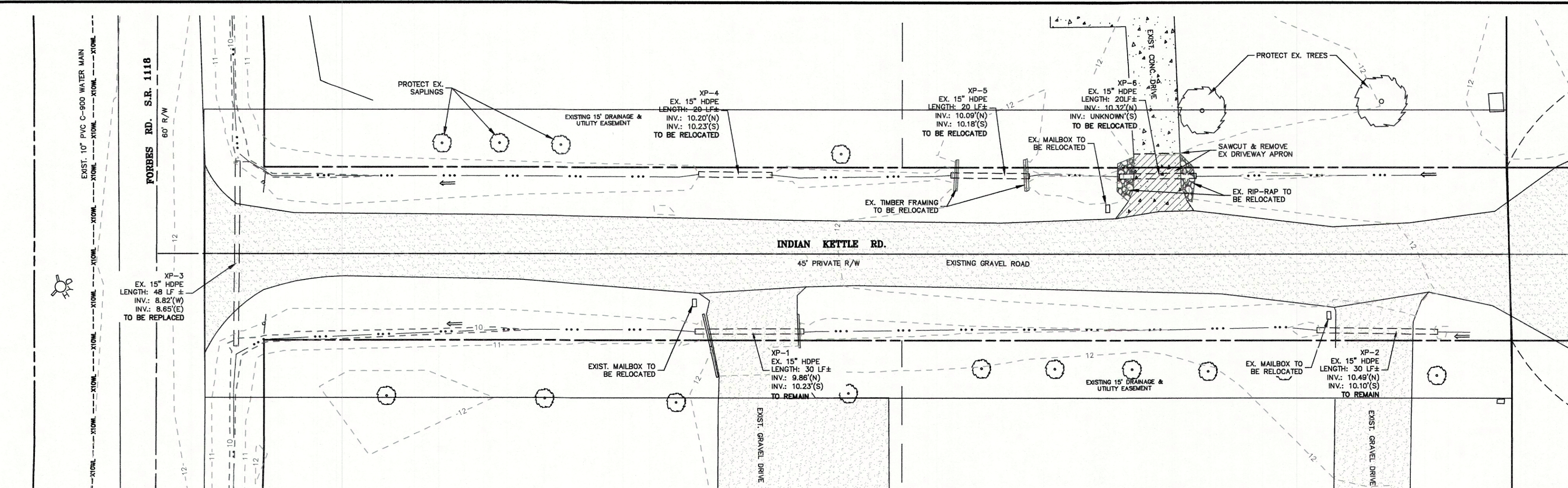
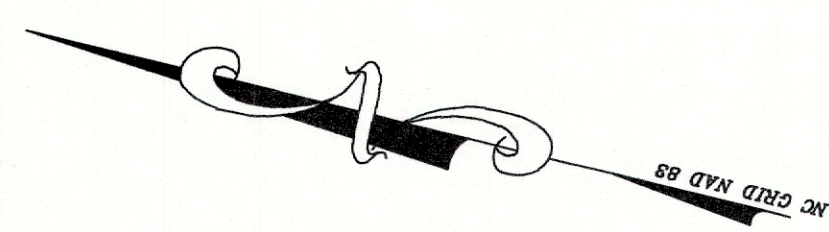
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 PROJECT NO: 3826

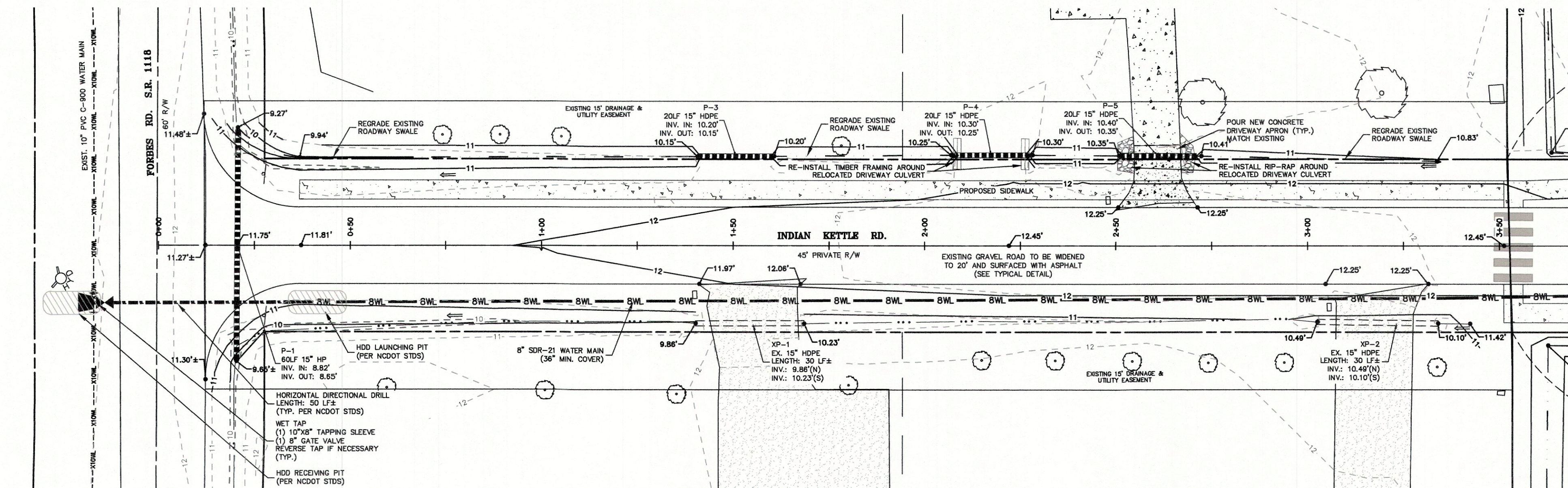
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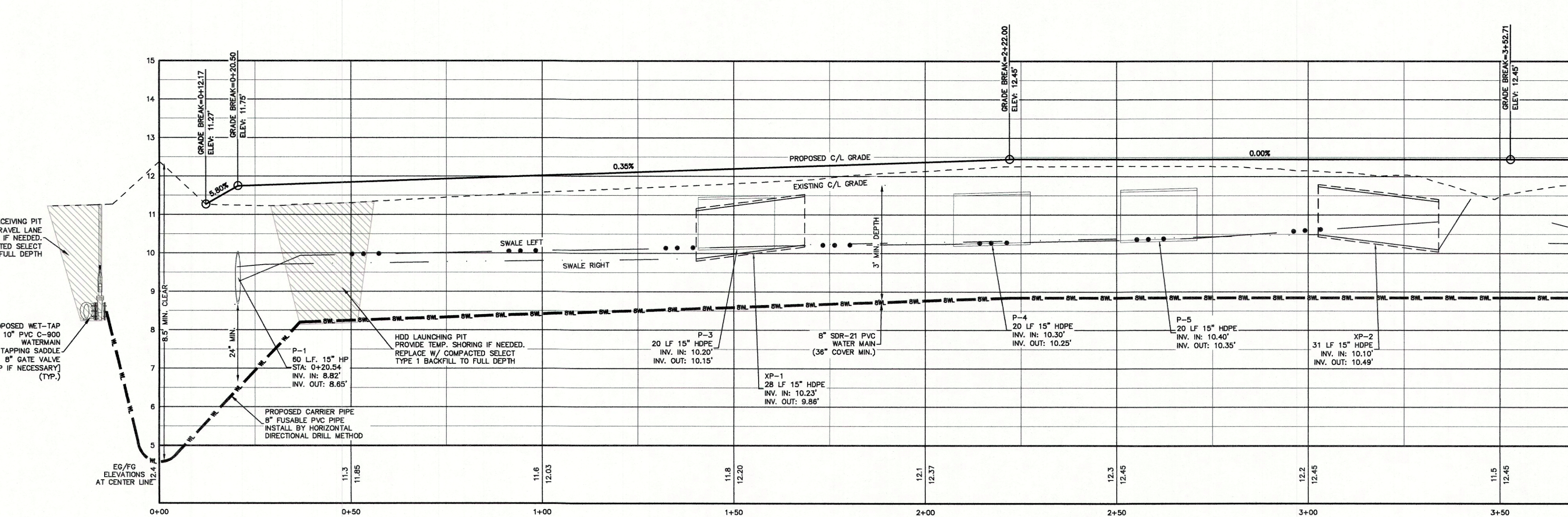
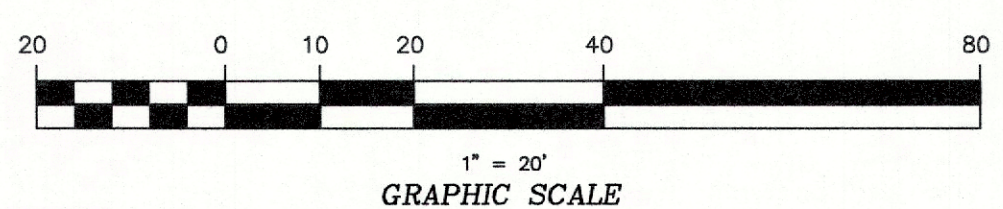
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SCALE: HOR.: 1"=20' VERT.(PLAN VIEW)



ALIGNMENT: EXISTING INDIAN KETTLE RD. (STA 0+00 - 3+50) - IMPROVEMENT PLAN
SCALE: HOR.: 1"=20' VERT.(PLAN VIEW)



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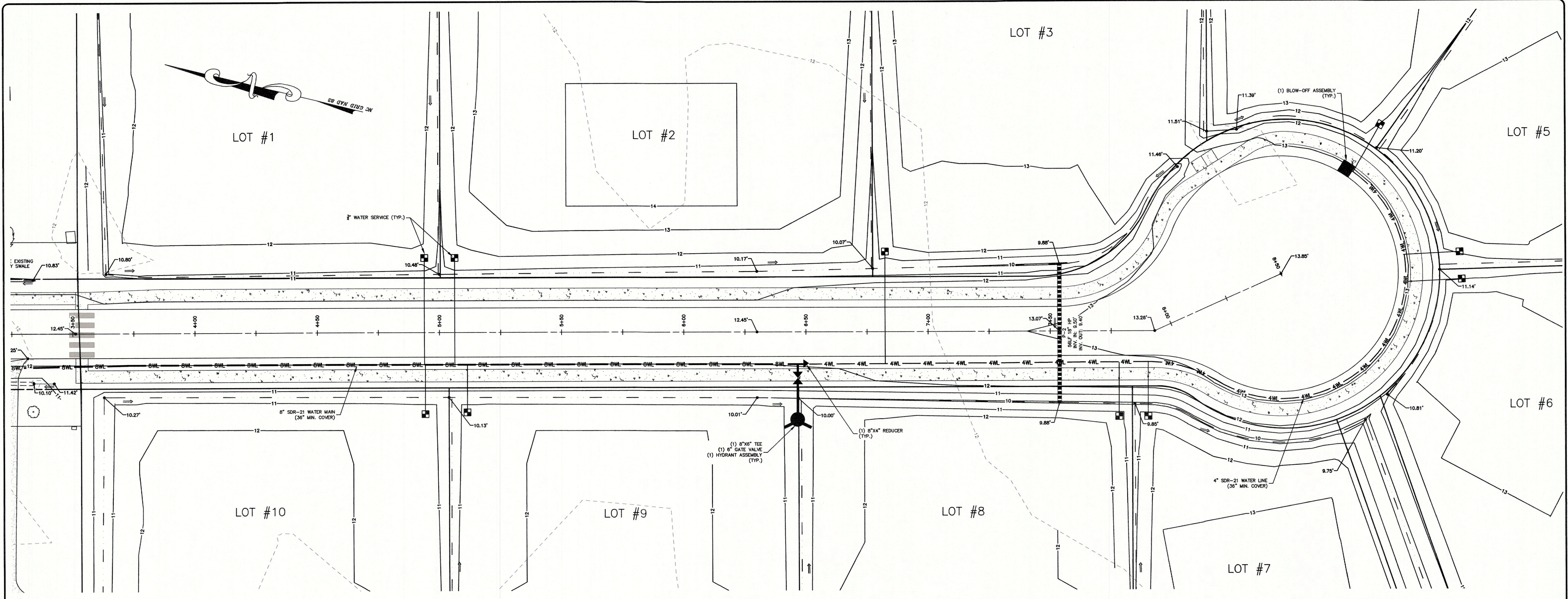
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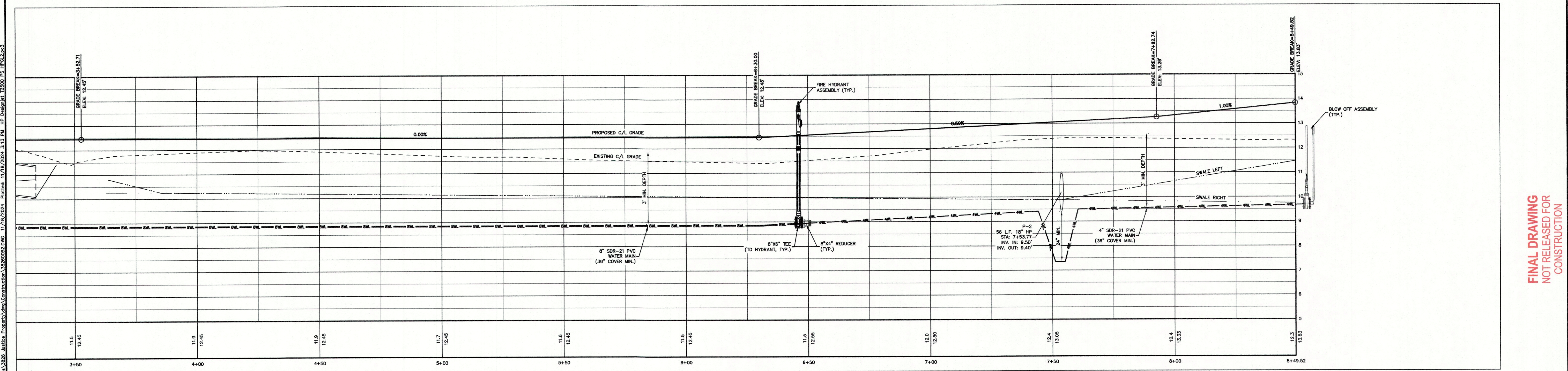
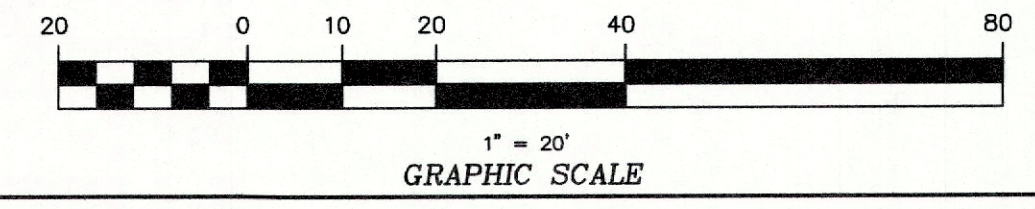
ALGONQUIN
CURRITUCK COUNTY
POPLAR BRANCH TOWNSHIP
NORTH CAROLINA
CONSTRUCTION DRAWINGS

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| SHEET: | 8 | OF: | 13 |
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| PROJECT NO.: | 3826 | | |



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SCALE: HOR.: 1"=20' VERT.: 1"=2' (PROFILE VIEW)

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Bissell Professional Group
Firm License # C-545
11000 North Carolina Highway
P.O. Box 10400
Charlotte, North Carolina 27949
(704) 261-2000
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FAX (704) 261-1790

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ALGONQUIN
CURRITUCK COUNTY
NORTH CAROLINA
POPLAR BRANCH TOWNSHIP

CONSTRUCTION DRAWINGS

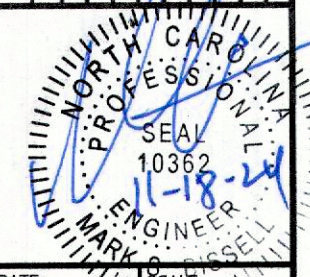
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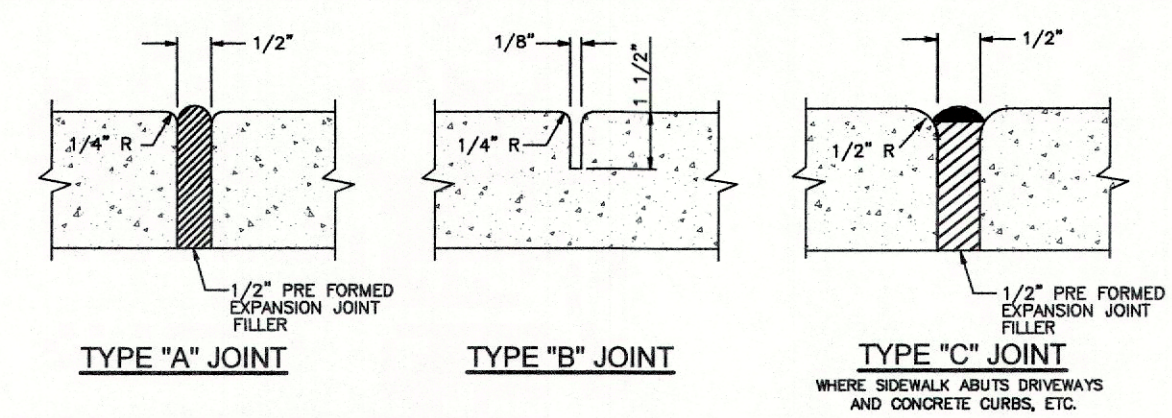
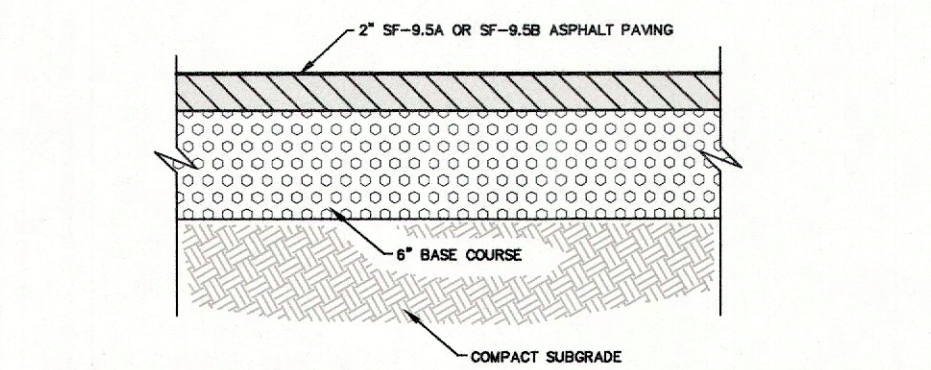
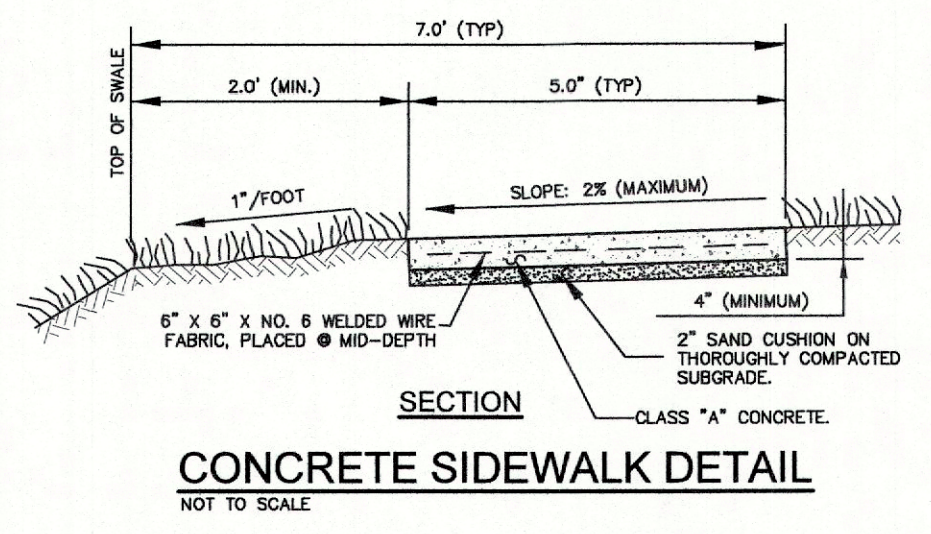
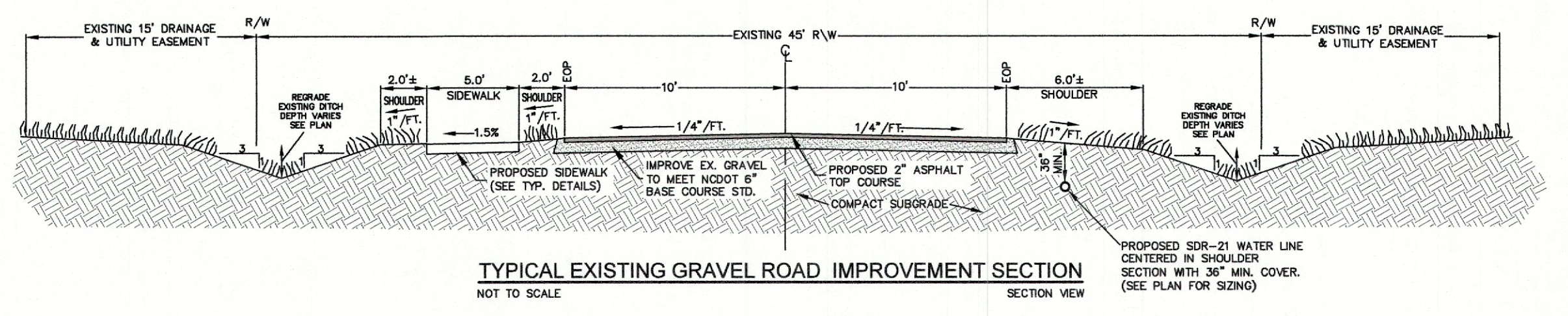
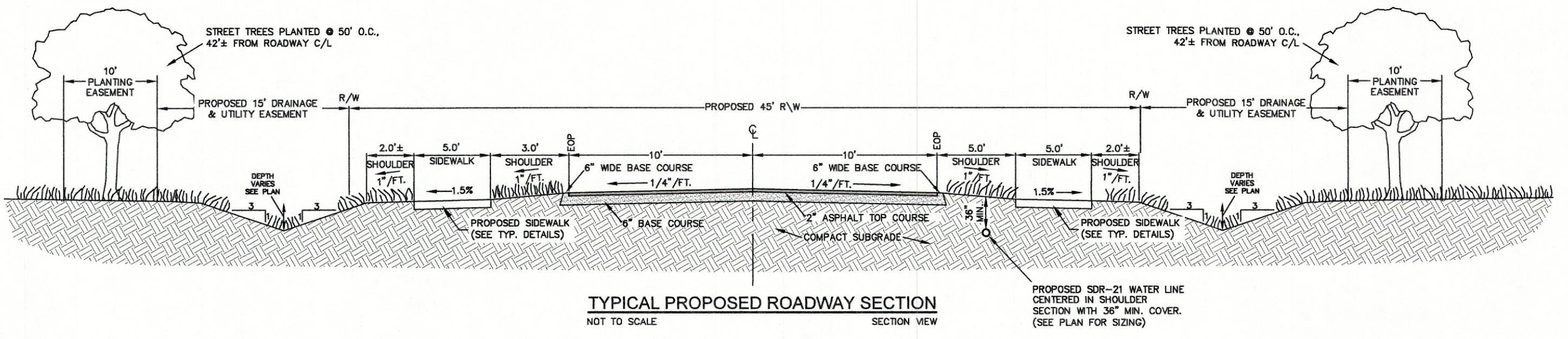
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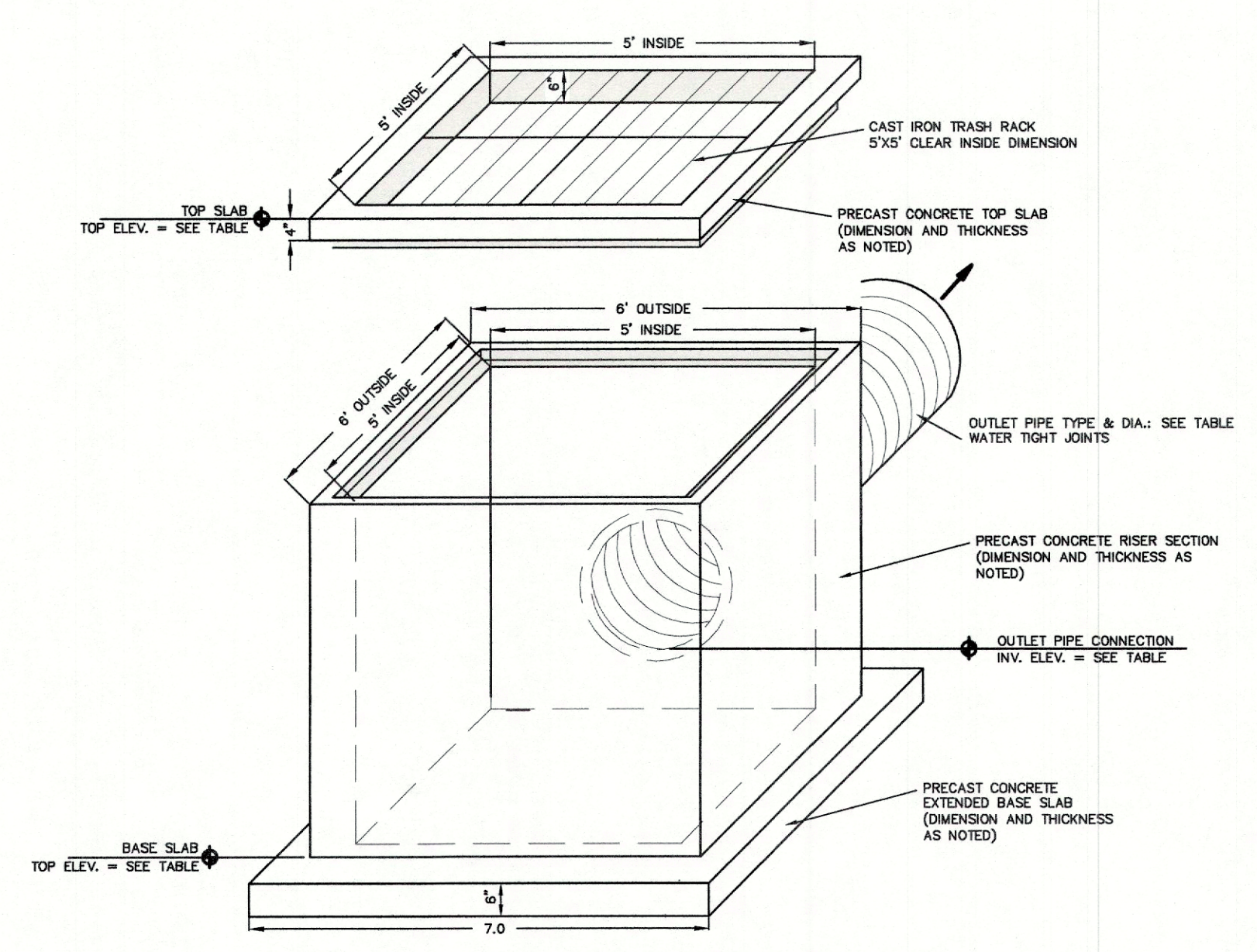
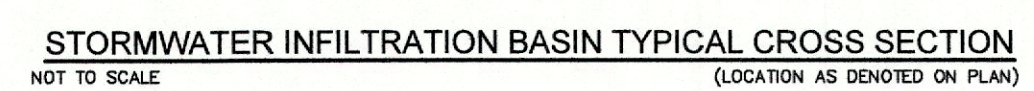
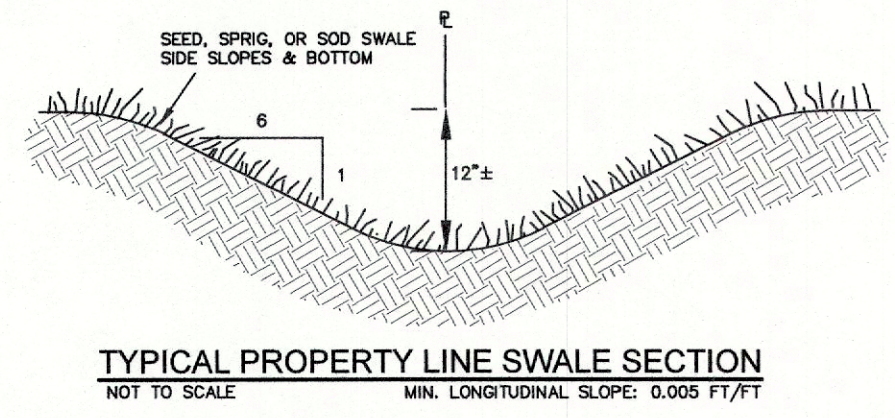
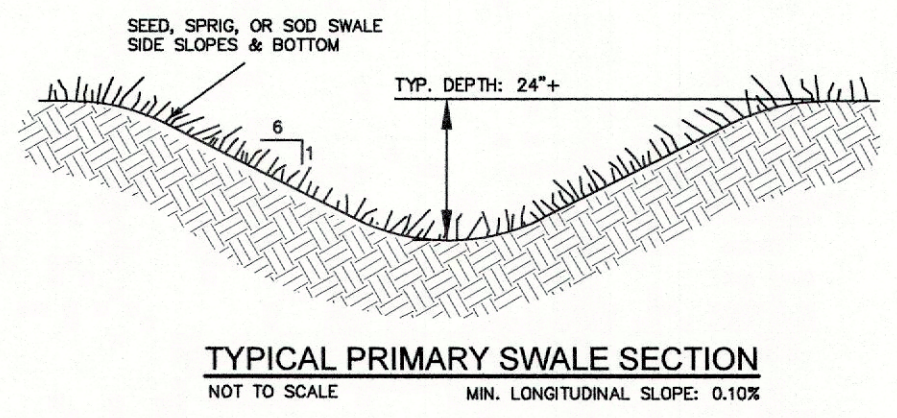
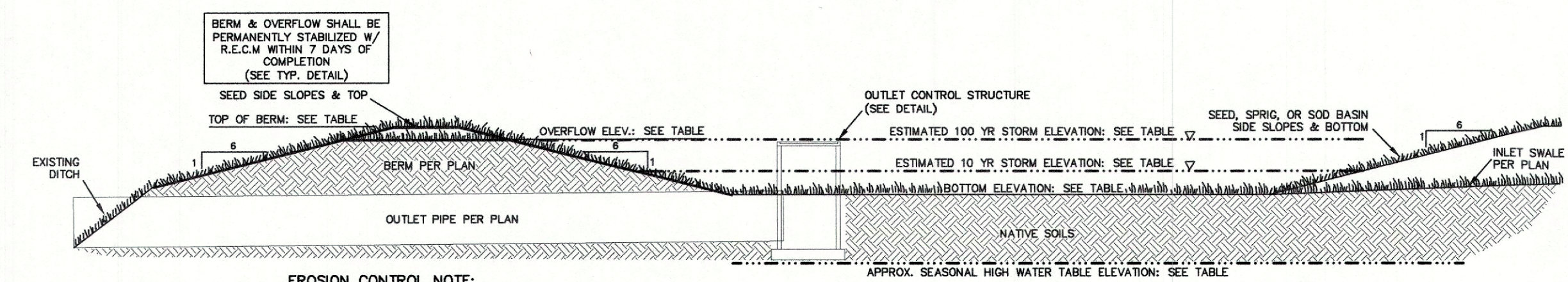
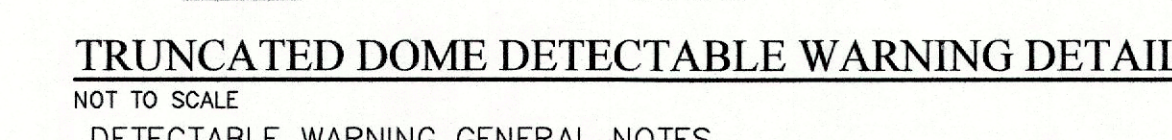
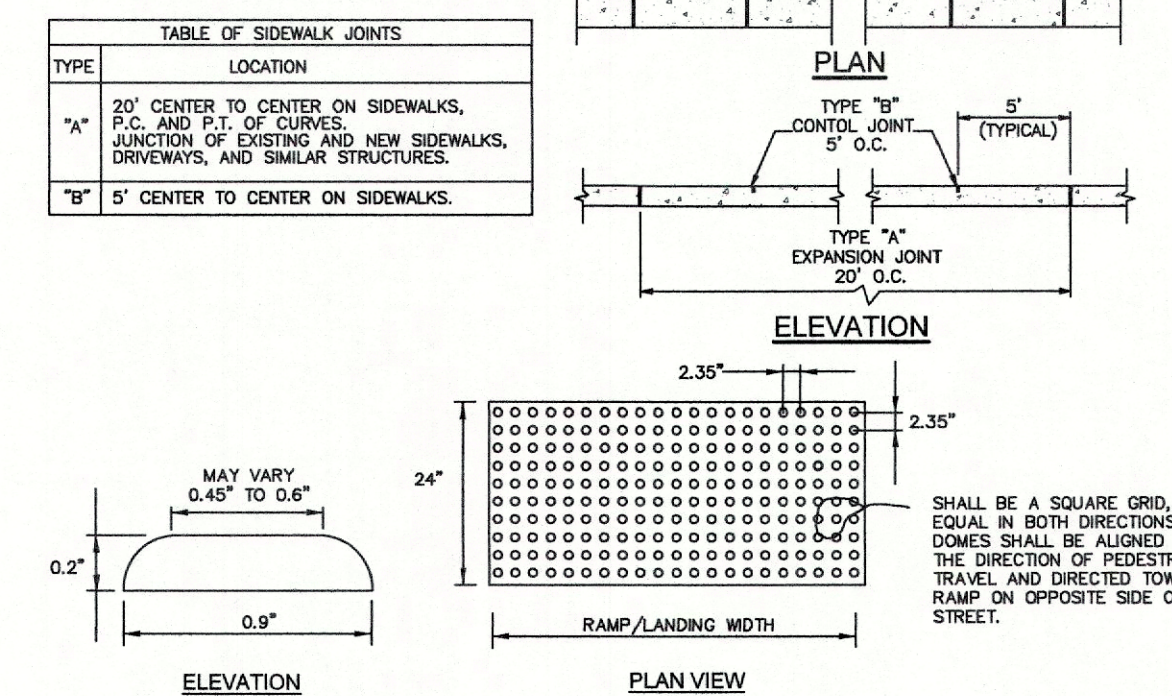
SHEET: 9 OF 13
CAD FILE: 382600B2
PROJECT NO: 3826

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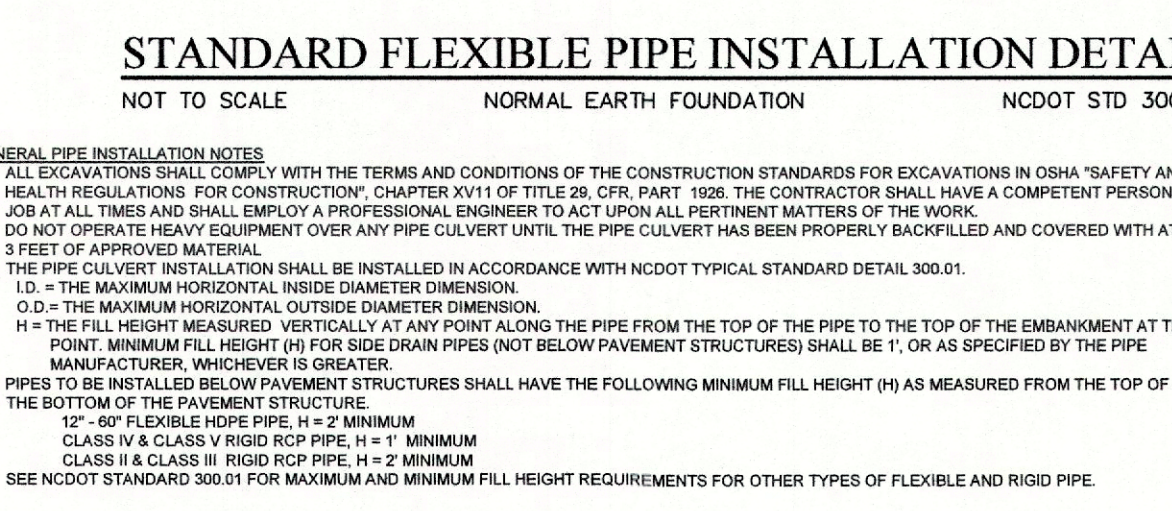
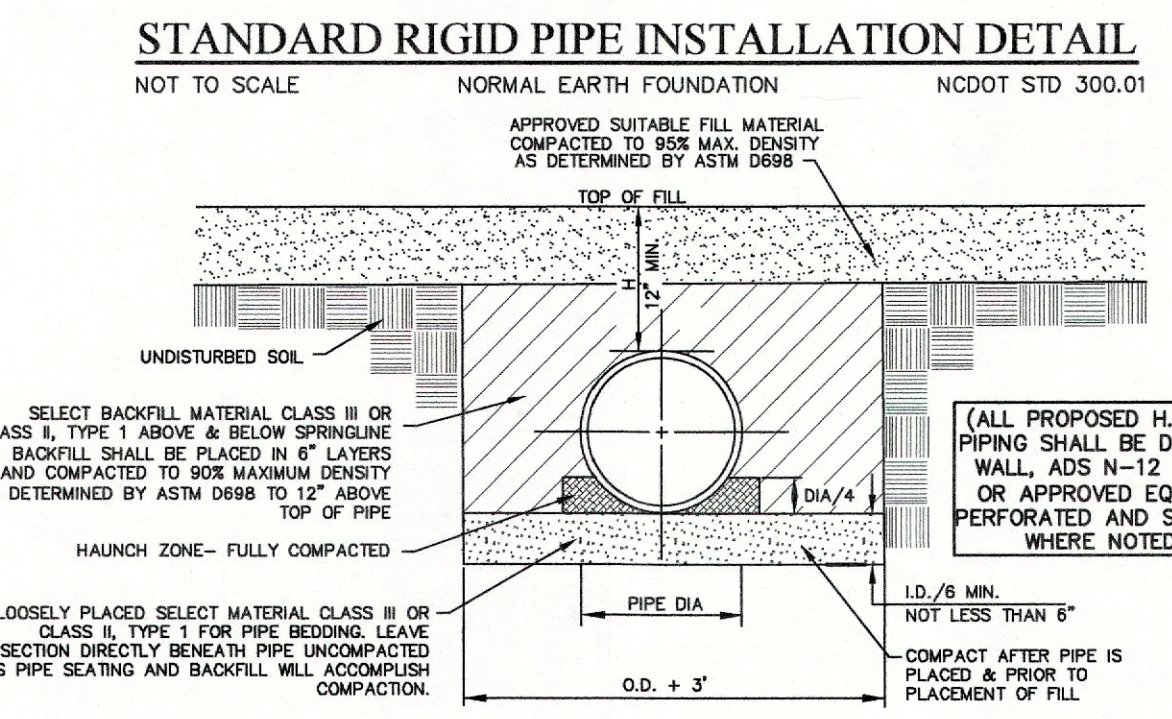
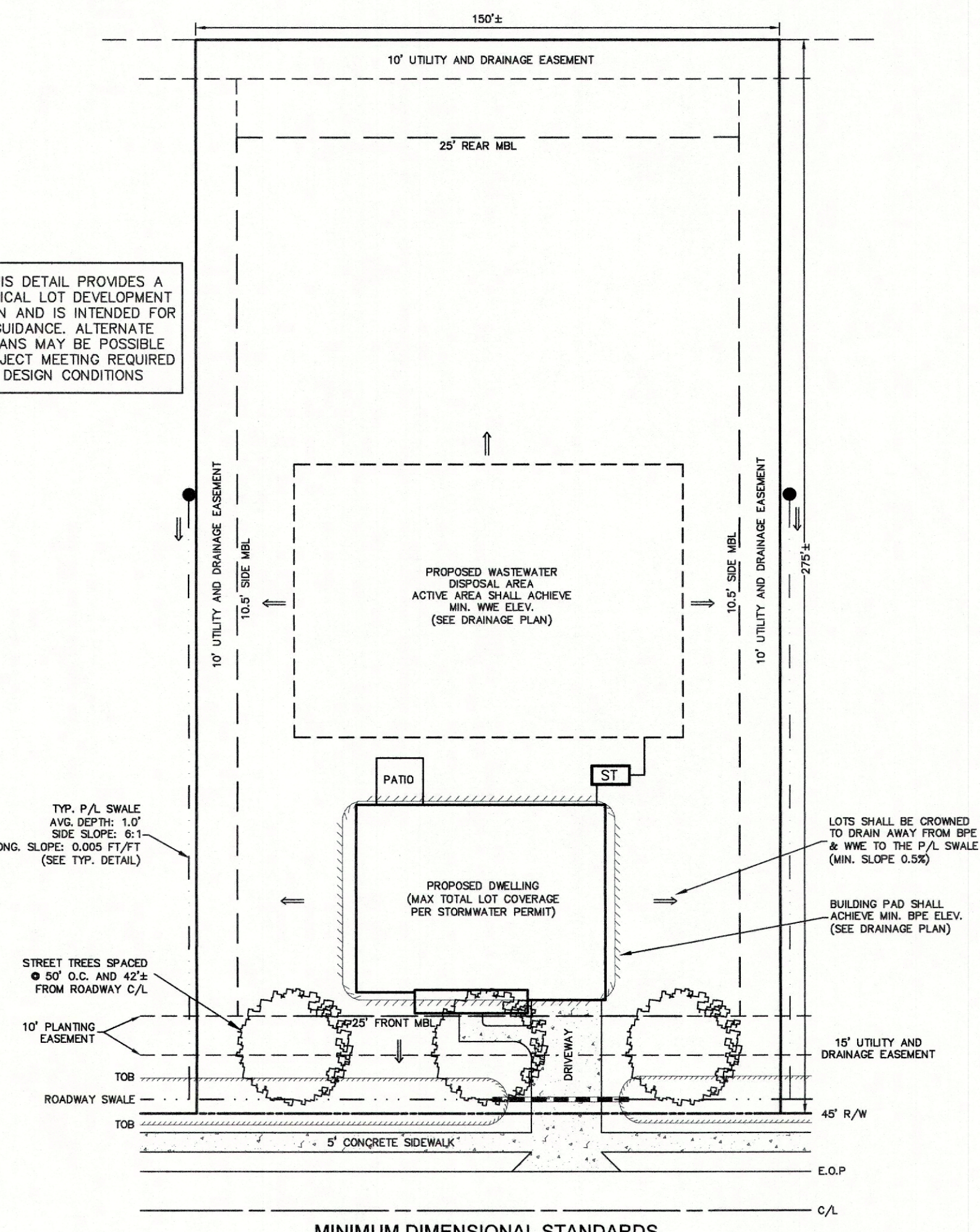




- SIDEWALK AND WALKING TRAIL NOTES:**
1. WALKS SHALL HAVE A 4" MINIMUM THICKNESS.
 2. CONCRETE SHALL BE A MINIMUM OF 3000 PSI.
 3. WALKS SHALL HAVE A 1" FOOT MINIMUM WIDTH.
 4. CROSS SLOPE SHALL BE LIMITED TO A MAXIMUM OF 2%.
 5. LONGITUDINAL SLOPE SHALL BE LIMITED TO A MAXIMUM OF 1:20 (5%) EXCEPT WHERE ACCESSIBILITY RAMPS ARE PROVIDED AS NOTED.
 6. ALL SIDEWALKS AND TRAILS SHALL BE COMPLIANT WITH THE LATEST HANDICAP ACCESSIBILITY REQUIREMENTS.



THIS DETAIL PROVIDES A TYPICAL LOT DEVELOPMENT PLAN AND IS INTENDED FOR GUIDANCE. ALTERNATE PLANS MAY BE POSSIBLE SUBJECT MEETING REQUIRED DESIGN CONDITIONS



Russell

Professional Group
Firm License # C-558
2200 Brierly Road
Charlotte, NC 28208
Phone: (704) 261-1990
Fax: (704) 261-1990

ROADWAY, DRAINAGE & TYP. CONSTRUCTION DETAILS

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ALGONQUIN

CURRITUCK COUNTY

POPLAR BRANCH TOWNSHIP

CONSTRUCTION DRAWINGS

REVISIONS

| NO. | DATE | DESCRIPTION |
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10 OF **13**

SHEET: 382600B2

PROJECT NO: 3826

GENERAL PROJECT NOTES:

- 1. PROJECT NAME: ALGONQUIN
2. APPLICANT: JOEL & STACY JUSTICE
3. PROJECT DESCRIPTION: 10 LOT RESIDENTIAL SUBDIVISION
4. NEAREST RECEIVING STREAM: CURRITUCK SOUND INLET NUMBER: 30-1
5. STREAM CLASSIFICATION: SC PASQUOTANK RIVER BASIN
6. PROJECT AREA TABULATION:
TOTAL PROPERTY AREA: 14.53 AC.
TOTAL PROPOSED DISTURBED AREA: 11.00 AC.

AREA CALCULATION NOTE: All areas have been calculated utilizing properties within the Autocad software.
MATERIAL BALANCE NOTE: All excavated material occurring during the course of construction shall remain on-site for roadway construction and over lot grading.
WETLAND NOTE: No 404 jurisdictional wetlands were identified in the project area.
STABILIZATION NOTE: The angle of graded slopes and fills shall be no greater than the angle that can be retained by vegetative cover or other adequate erosion control devices or structures.

SEDIMENTATION AND EROSION CONTROL NOTES:

A. NARRATIVE AND SITE DATA
The 14.5 acre property is located at the end of Indian Kettle Rd., an existing gravel subdivision road off of Forbes Rd. in Jarvisburg, Currituck County.
B. LAND DISTURBANCE & STABILIZATION DETAIL
TO PROVIDE TEMPORARY SOIL STABILIZATION BY PLANTING GRASSES AND LEGUMES TO AREAS THAT WOULD REMAIN BARE FOR MORE THAN 14 CALENDAR DAYS, OR 7 DAYS IN IDENTIFIED CRITICAL AREAS, WHERE PERMANENT COVER IS NOT NECESSARY OR APPROPRIATE.

CONSTRUCTION SEQUENCE SCHEDULE

CONSTRUCTION ACTIVITY
Construction Access- Construction entrance, construction routes, equipment parking areas
Sediment Traps & Barriers
Basin traps, sediment fences, & outlet protection
Runoff Control- Diversion, perimeter dikes, water bars, and outlet protection
Runoff Conveyance System- Stabilizes stream banks, storm drains, channels, inlet & outlet protection, slope drains

Land Clearing & Grading- Site preparation- cutting, filling & grading, sediment traps, barriers, diversions, drains, surface roughening
Surface Stabilization- Temporary & permanent seeding, mulching, sodding, rip, rap.
Building Construction- Buildings, utilities, paving.
Landscaping & Final Stabilization- Topping, trees & shrubs, permanent seeding, mulching, sodding, rip, rap

SCHEDULE CONSIDERATION

First land-disturbing activity- Stabilize bare areas immediately with gravel & temporary vegetation as construction takes place.
Install principal basins after construction site is accessed. Install additional traps and barriers as needed during grading.
Install key practices after principal sediments traps and before land grading. Install additional runoff-control conveyance measures during grading.

Where necessary, stabilize stream banks as early as possible. Install principal runoff conveyance system with runoff-control measures. Install remainder of system after grading.
Begin major clearing and grading after principal & key runoff-control measures are installed. Clear borrow & disposal areas as needed. Install additional control measures as grading progresses. Mark trees & buffer areas for preservation.
Apply temporary or permanent stabilization measures immediately on all disturbed areas where work is delayed or complete.
Install necessary erosion & sedimentation control practices as work takes place.
Stabilize all open areas, including borrow & spoil areas. Remove & stabilize all temporary control measures.

LAND GRADING CONSTRUCTION SPECIFICATIONS

- 1. Construct & maintain all erosion & sedimentation control practices & measures in accordance with the approved sedimentation control plan and construction schedule.
2. Remove good topsoil from areas to be graded and filled, and preserve it for use in finishing the grading of all critical areas.
3. Scarify areas to be topsoiled to a minimum depth of 2 inches before placing topsoil.
4. Clear & grub areas to be filled to remove trees, vegetation, roots, or other objectionable material that would affect the planned stability of fill.
5. Ensure that fill material is free of brush, rubbish, rocks, logs, stumps, building debris, and other materials inappropriate for constructing stable fills.
6. Place all fill in layers not to exceed 9 inches in thickness, and compact the layers as required to reduce erosion, slippage, settlement, or other related problems.
7. Do not incorporate frozen material or soft, mucky, or highly compressible materials into fill slopes.
8. Do not place fill on a frozen foundation, due to possible subsidence and slippage.
9. Keep diversions and other water conveyance measures free of sediment during all phases of development.
10. Handle spurs or springs encountered during construction in accordance with approved methods.
11. Following completion of any phase of grading, provide a groundcover (temporary or permanent) on all exposed slopes within 14 calendar days, or 7 calendar days in critical areas identified on the plan; and, a permanent groundcover for all disturbed areas within 15 working days or 90 calendar days (whichever is shorter) following completion of construction or development.
12. Provide adequate protection from erosion for all topsoil stockpiles, borrow areas, and spoil areas.

MAINTENANCE
Periodically check all graded areas & the supporting erosion & sedimentation control practices, especially after heavy rainfalls. Promptly remove all sediment from diversions and other water-disposal practices. If washouts or breaks occur, repair them immediately. Prompt maintenance of small-eroded areas before they become significant gulches is an essential part of an effective erosion & sedimentation control plan.

PERMANENT SEEDING

The purpose of permanent seeding is to reduce erosion and decrease sediment yield from disturbed areas, and to permanently stabilize such areas in a manner that is economical, adapts to site conditions, and allows selection of the most appropriate plant materials. These areas must be seeded or planted within 15 working days or 90 calendar days after final grade is reached, unless temporary stabilization is applied.
PERMANENT SEEDING SPECIFICATIONS
Seeding Recommendations for Summer
SEEDING MIXTURE
Species Rate (lb/acre)
Common bermudagrass 10/1,000 sf (sprigs)
1-2 lb/1,000 sf (seed)
500 (See Sodding Notes)
Seeding Recommendations for Early Fall through Early Spring
SEEDING MIXTURE
Species Rate
Kentucky 31 Tall Fescue 6 lb/1,000 sf (broadcast seed)

SEEDING NOTES-
1. Sprig or sod. Moisture is essential during initial establishment. Sod must be kept watered for 2-3 weeks, but can be planted earlier or later than sprigs.
Soil Amendments-
It is highly recommended that soils be tested and amended as found necessary. If a soil is not tested follow these recommendations: Apply 3,000 lb/acre of ground agricultural limestone and 500 lb/acre of 10-10-10 starter fertilizer, or 50 lb/acre nitrogen from turf-type slow-release fertilizer. Add 25-50 lb/acre nitrogen at 2-3 week intervals through midsummer.
Sprigging-
Plant sprigs in furrows with a tractor-drawn transplanter, or broadcast by hand. (Not recommended for Tall Fescue)
Furrows should be 4-6 inches deep and 2 feet apart. Place sprigs about 2 ft. apart in a row with one end at or above ground level.
Broadcast at rates shown above, and press sprigs into the top 1/2-2 inches of soil with a disk set straight so that sprigs are not brought back toward the surface.
Mulch-
Do not mulch Bermuda Grass. For Tall Fescue seed, apply 4,000-lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch-anchoring tool. A disk with blades set nearly straight can be used as a mulch-anchoring tool.

Maintenance-
Water as needed. Mow bermuda to 3/4 to 1-inch height and tall fescue to 2.5 - 3.5 inch height. Topdress bermuda with 40 lb/acre nitrogen in April, 50 lb in May, 50 lb in June, 50 lb in July, and 25 lb in August. Top dress tall fescue in mid September, again in November and February with turf-grade 3-1-2 or 4-1-2 ratio turf-grade fertilizer. Fertilize with 1 lb of actual nitrogen per 1,000 sf. Do not fertilize tall fescue between Mid March and Early September.
Maintenance-
Repair and reseed damaged areas immediately. Topdress with 50 lb/acre of nitrogen in March. If it is necessary to extend temporary cover beyond June 15, overseed with 50 lb/acre Koba Lespedeza in late February or Early March.

TEMPORARY SEEDING

The purpose of temporary seeding is to temporarily stabilize denuded areas that will not be brought to final grade or permanently seeded for a period of more than 14 calendar days, or 7 days in critical areas identified on the plan.
TEMPORARY SEEDING SPECIFICATIONS
Seeding Recommendations for Late Winter & Early Spring
SEEDING MIXTURE
Species Rate (lb/acre)
Winter Rye (grain) 120 (Annual Ryegrass shall not be used)
Annual Lespedeza 50 (Koba)
*Omit Annual Lespedeza when duration of temporary cover is not to extend beyond June
Soil Amendments-
Follow recommendations of soil tests or apply 2,000 lb/acre ground agricultural limestone and 750 lb/acre 10-10-10 fertilizer.

Mulch-
Apply 4,000-lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch-anchoring tool. A disk with blades set nearly straight can be used as a mulch-anchoring tool.
Maintenance-
Refer to note if growth is not fully adequate. Reseed, fertilize and mulch immediately following erosion or other damage.
Seeding Recommendations for Summer
SEEDING MIXTURE
Species Rate (lb/acre)
German Millet 40
Soil Amendments-
Follow recommendations of soil tests or apply 2,000 lb/acre ground agricultural limestone and 750 lb/acre 10-10-10 fertilizer.
Mulch-
Apply 4,000-lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch-anchoring tool. A disk with blades set nearly straight can be used as a mulch-anchoring tool.
Maintenance-
Refer to note if growth is not fully adequate. Reseed, fertilize and mulch immediately following erosion or other damage.
Seeding Recommendations for Fall
SEEDING MIXTURE
Species Rate (lb/acre)
Winter Rye (grain) 120
Soil Amendments-
Follow recommendations of soil tests or apply 2,000 lb/acre ground agricultural limestone and 1,000 lb/acre 10-10-10 fertilizer.
Mulch-
Apply 4,000-lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch-anchoring tool. A disk with blades set nearly straight can be used as a mulch-anchoring tool.
Maintenance-
Repair and reseed damaged areas immediately. Topdress with 50 lb/acre of nitrogen in March. If it is necessary to extend temporary cover beyond June 15, overseed with 50 lb/acre Koba Lespedeza in late February or Early March.

SODDING

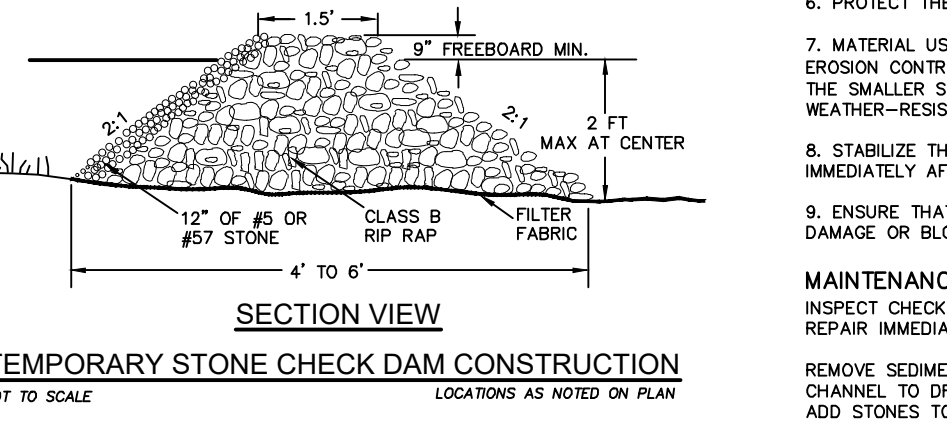
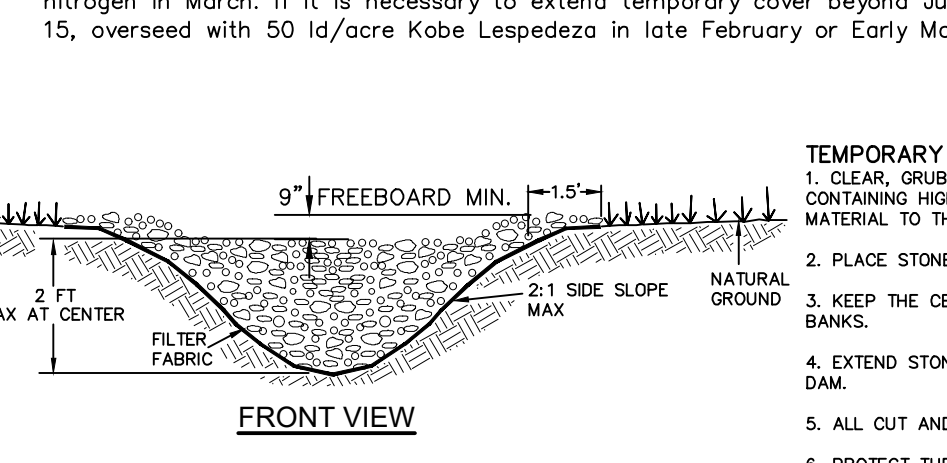
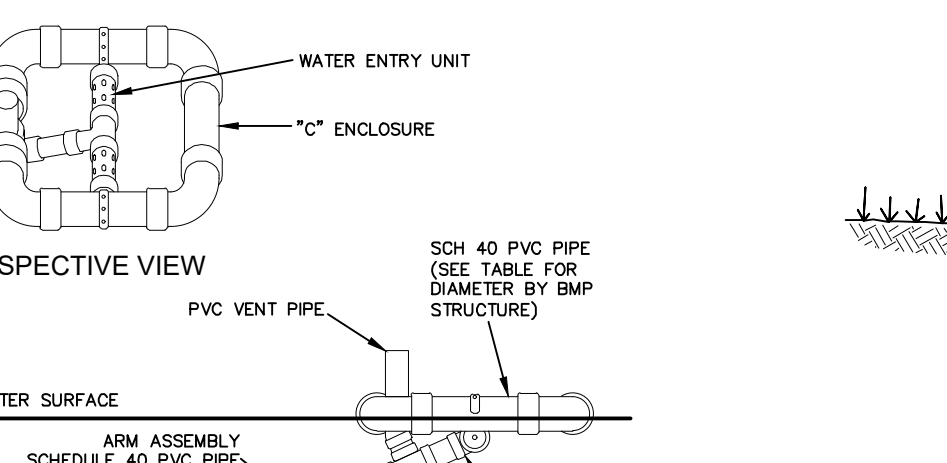
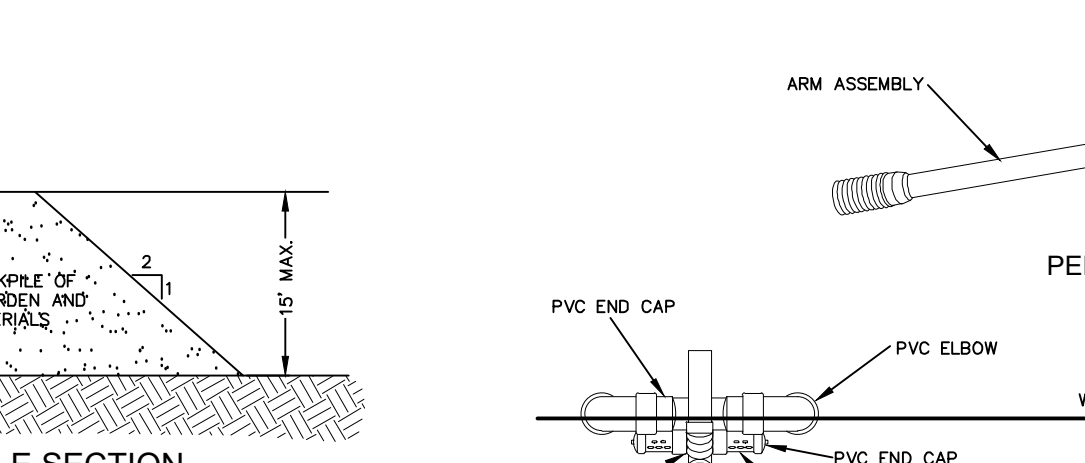
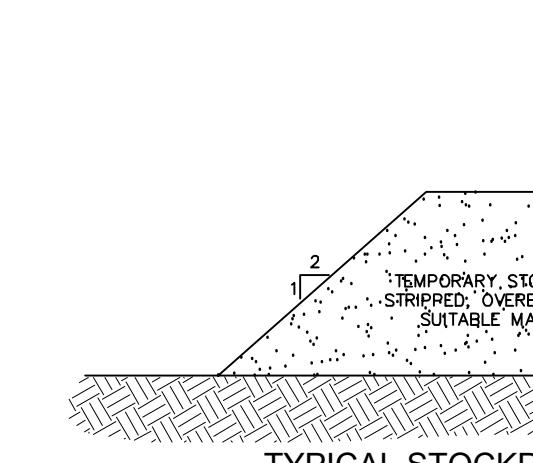
The purpose of permanent seeding is to prevent erosion and damage from sediment and runoff by stabilizing the soil surface with permanent vegetation for the purpose of:
- the provision of immediate vegetative cover in critical areas
- to stabilize disturbed areas with a suitable plant material that cannot be established by seed.
- to stabilize drainage ways & channels and other areas of concentrated flow where flow velocities will not exceed that specified grass lining.
SODDING SPECIFICATIONS
Sod Quality
- Sod should be machine cut at a uniform depth of 1 1/2-2 inches
- Sod should not have been cut in excessively wet or dry weather.
- Sections of sod should be standard size as determined by the supplier, uniform, and uniform.
- Sections of sod should be strong enough to support their own weight and retain their size and shape when lifted by one end.
- Harvest, delivery, and installation of sod should take place within a period of 36 hours.

Soil Amendments-
Apply lime and fertilizer according to soil tests or apply 2 tons/acre of pulverized agricultural limestone and 1,000 lb/acre 10-10-10 fertilizer in the fall, or 5-10-10 in spring.
Prior to laying sod, clear the soil surface of trash, debris, roots, branches, stones, and weeds larger than 2 inches in diameter. Fill or level low spots in order to avoid standing water. Rake or harrow the site to achieve a smooth and level final grade. Complete soil preparation by rolling or outcropping to firm soil.
Sod Installation-
1. Moistening the sod after it is unrolled helps maintain viability. Store in shade during installation.
2. Rake the soil surface to break the crust just before laying sod. During the summer, lightly irrigate the soil, immediately before laying sod to cool the soil and reduce root burning & dieback.
3. Do not sod on grave, frozen soils, or soils that have been treated recently with sterilants or herbicides.
4. Lay the first row of sod in a straight line with subsequent rows placed parallel to and butting tightly against each other. Stagger strips in a brick-like pattern. Be sure that the sod is not stretched or overlapped and that all joints are butted tightly to prevent voids. Use a knife or sharp spade to trim and fit irregular shaped areas.
5. Install strips of sod with their longest dimension perpendicular to the slope. On slopes of 3:1 or greater, or wherever erosion may be a problem, secure sod with pegs or staples.
6. As sodding of clearly defined areas is completed, roll sod to provide good contact between roots and soil.
7. After rolling, irrigate until the soil is wet 4 inches below the sod.
8. Keep sodded areas moist to a depth of 4 inches until the grass takes root. This can be determined by tugging on the sod.
9. Mowing should not be attempted until the sod is firmly rooted, usually 2-3 weeks.
Sodded Waterways
1. Prepare soil as described above.
2. Lay sod strips perpendicular to the direction of flow, with the lateral joints staggered in a brick-like pattern. Butt edges tightly together.

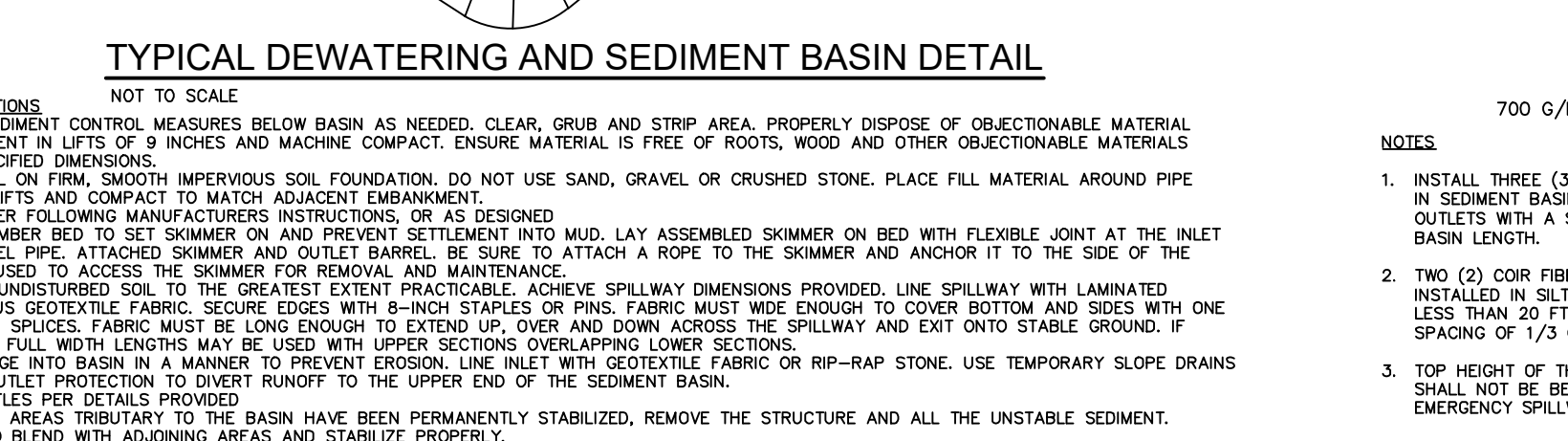
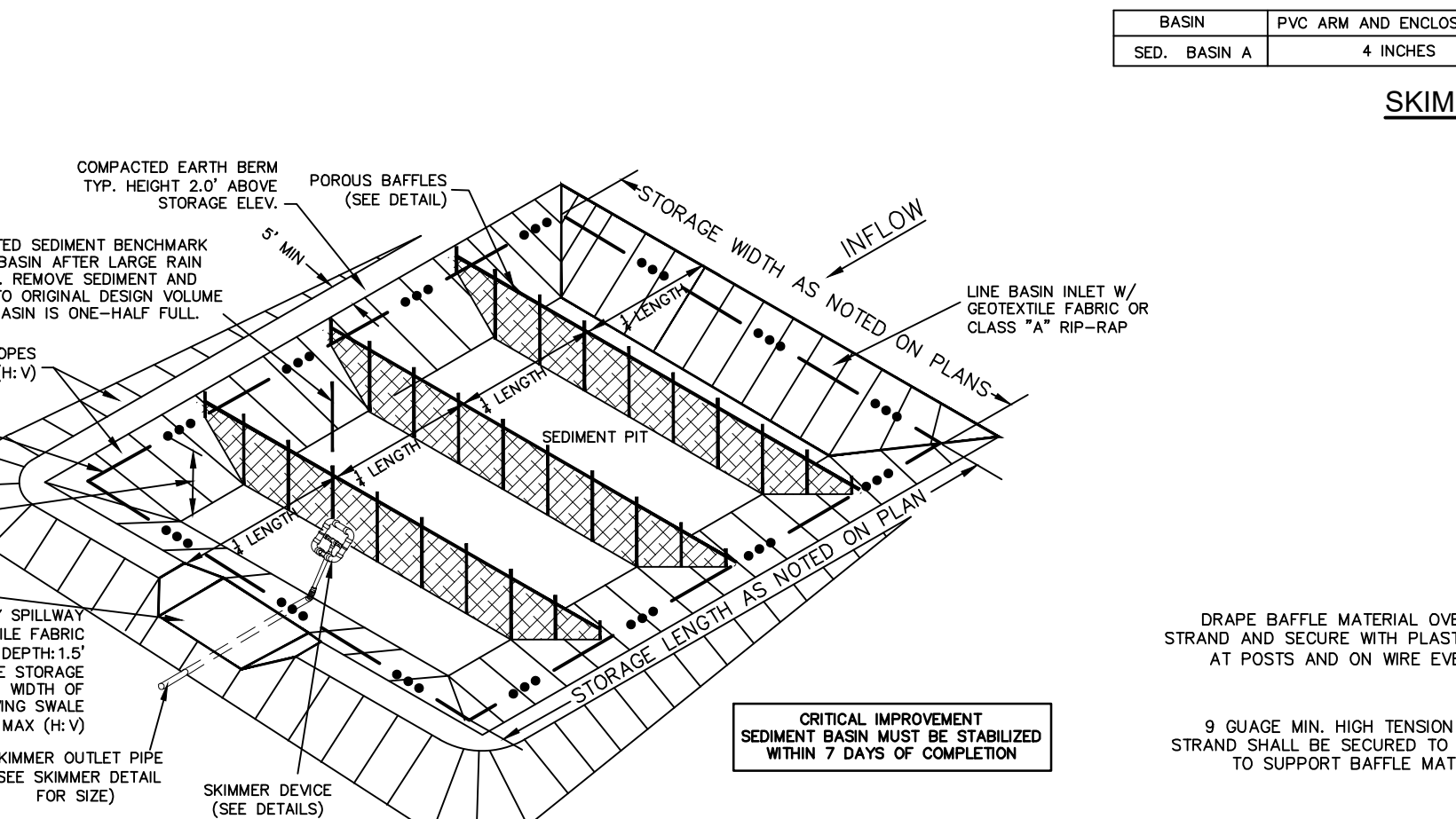
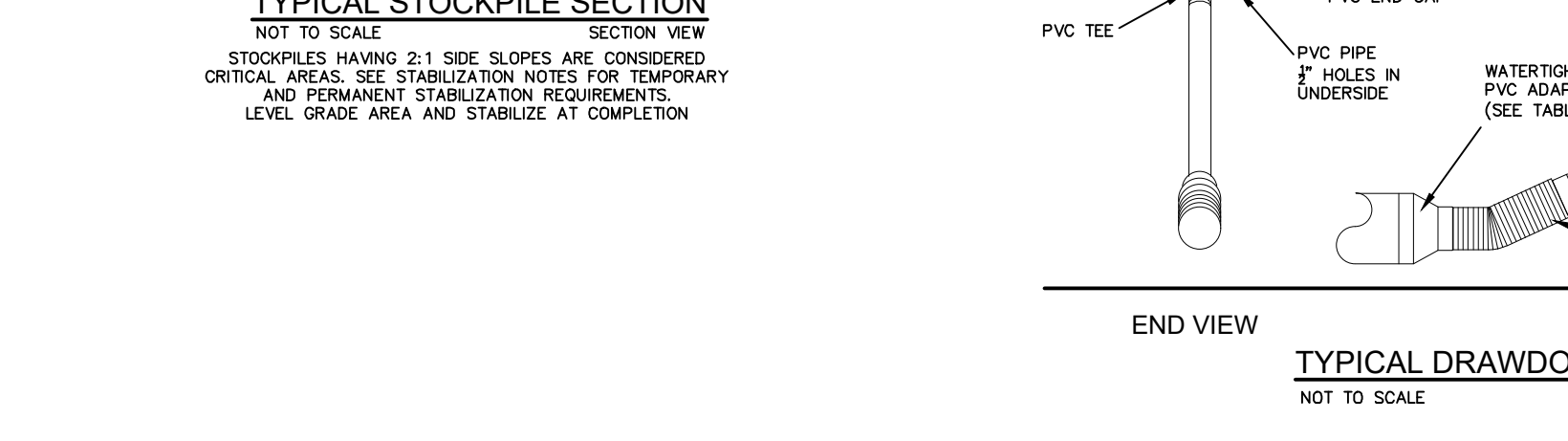
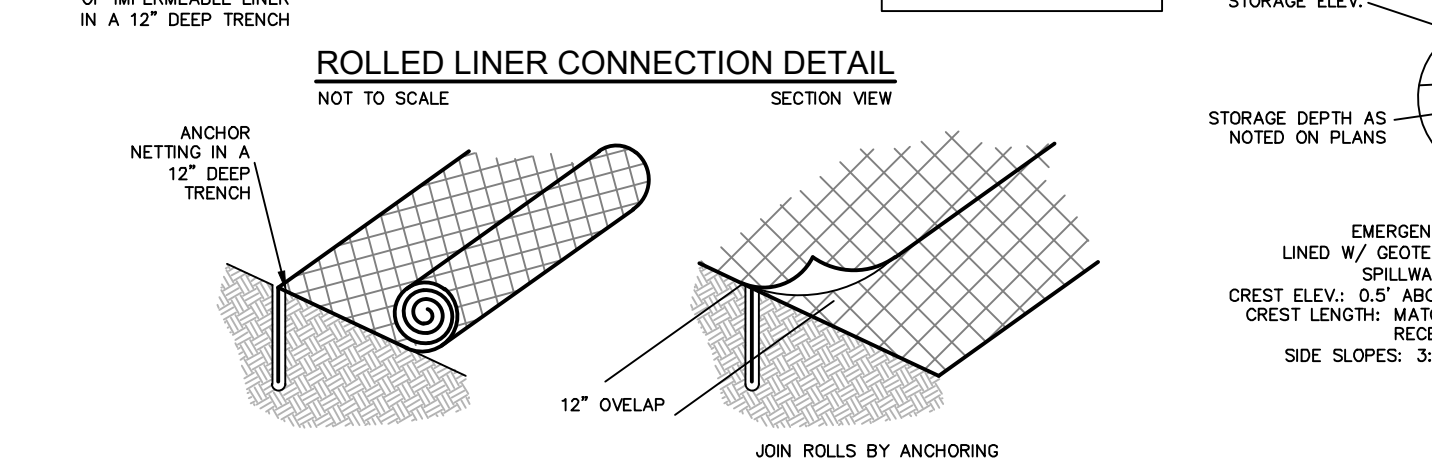
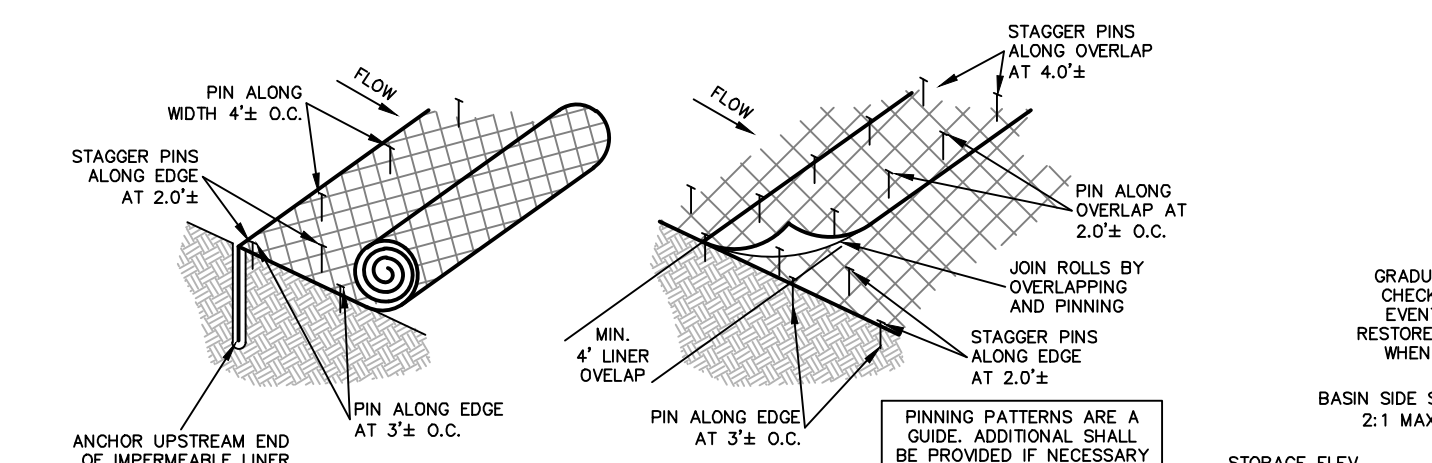
Maintenance-
After the first week, water as necessary to maintain adequate moisture in the root zone & prevent dormancy of the sod.
Do not remove more than one-third of the shoot in any one mowing. Grass height should be maintained between 2-3 inches unless otherwise specified.
After first growing season, established sod requires fertilization, and may also require lime. Follow soil test recommendations.

TEMPORARY STONE CHECK DAM CONSTRUCTION SPECIFICATIONS:

- 1. CLEAR GRUB AND STRIP AREA UNDER THE EMBANKMENT AND ROOT MAT. REMOVE ALL SURFACE SOIL CONTAINING HIGH AMOUNTS OF ORGANIC MATTER AND STOCKPILE OR DISPOSAL OF IT PROPERLY. HAUL ALL OBJECTIONABLE MATERIAL TO THE DESIGNATED DISPOSAL AREA.
2. PLACE STONE TO THE LINES AND DIMENSIONS SHOWN IN THE PLAN ON A FILTER FABRIC FOUNDATION.
3. KEEP THE CENTER STONE SECTION AT LEAST 9 INCHES BELOW NATURAL GROUND LEVEL WHERE THE DAM ABUTS THE CHANNEL BANKS.
4. EXTEND STONE TO AT LEAST 1.5 FEET BEYOND THE DITCH BANK TO KEEP WATER FROM CUTTING AROUND THE ENDS OF THE CHECK DAM.
5. ALL CUT AND FILL SLOPES SHOULD BE 2:1 OR FLATTER.
6. PROTECT THE CHANNEL AFTER THE LOWEST CHECK DAM FROM HEAVY FLOW THAT COULD CAUSE EROSION.
7. MATERIAL USED IN THE STONE SECTION SHOULD BE A WELL-GRADED MIXTURE OF STONE WITH A #50 SIZE OF 9 INCHES (CLASS B EROSION CONTROL STONE IS RECOMMENDED) AND A MAXIMUM STONE SIZE OF 14 INCHES. THE STONE MAY BE MACHINE PLACED AND THE SMALLER STONES WORKED INTO THE VOIDS OF THE LARGER STONES. THE STONE SHOULD BE HARD, ANGULAR, AND HIGHLY WEATHER-RESISTANT.
8. STABILIZE THE EMBANKMENT AND ALL DISTURBED AREAS ABOVE THE SEDIMENT POOL AND DOWNSTREAM FROM THE TRAP IMMEDIATELY AFTER CONSTRUCTION.
9. ENSURE THAT OTHER AREAS OF THE CHANNEL, SUCH AS OULVERT ENTRANCES BELOW THE CHECK DAMS, ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONES.
MAINTENANCE OF TEMPORARY STONE CHECK DAMS:
INSPECT CHECK DAMS AND CHANNELS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (2" OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. CLEAN OUT SEDIMENT, STRAW, LIMBS, OR OTHER DEBRIS WHEN NEEDED.
REMOVE SEDIMENT ACCUMULATION 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 CARRIING SEDIMENT OVER THE DAM. ADD STONES TO DAMS AS NEEDED TO MAINTAIN DESIGN HEIGHT AND CROSS SECTION.

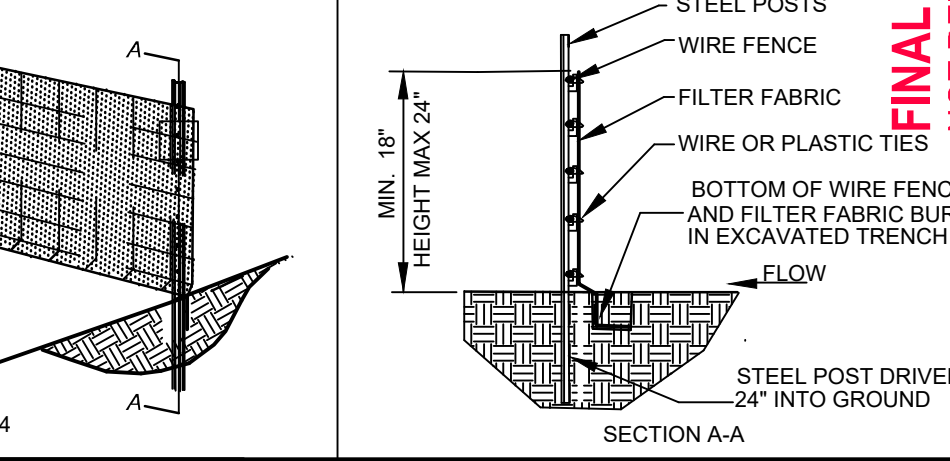
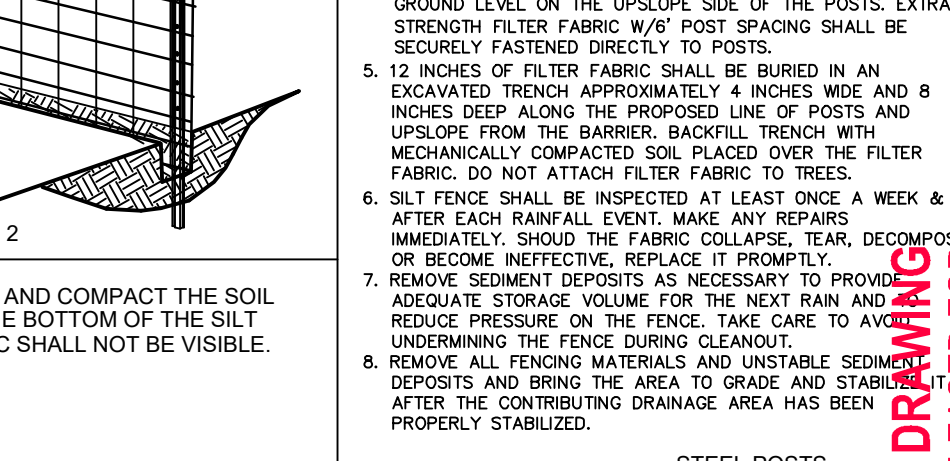
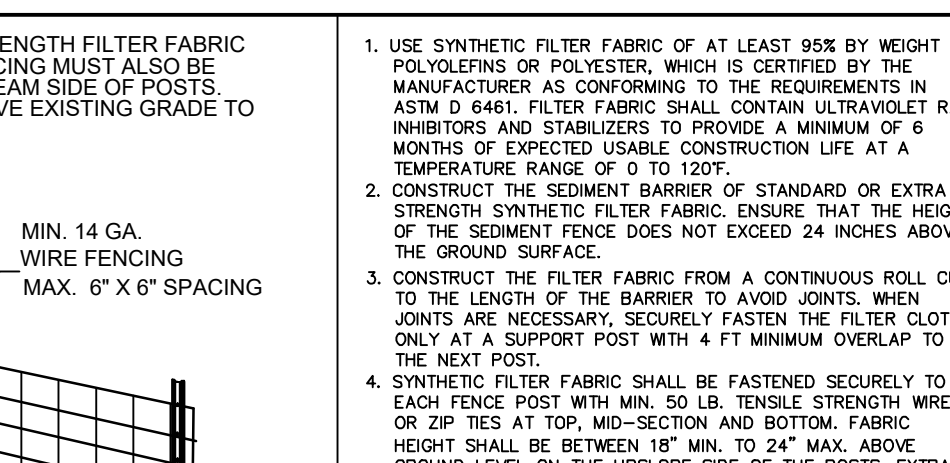
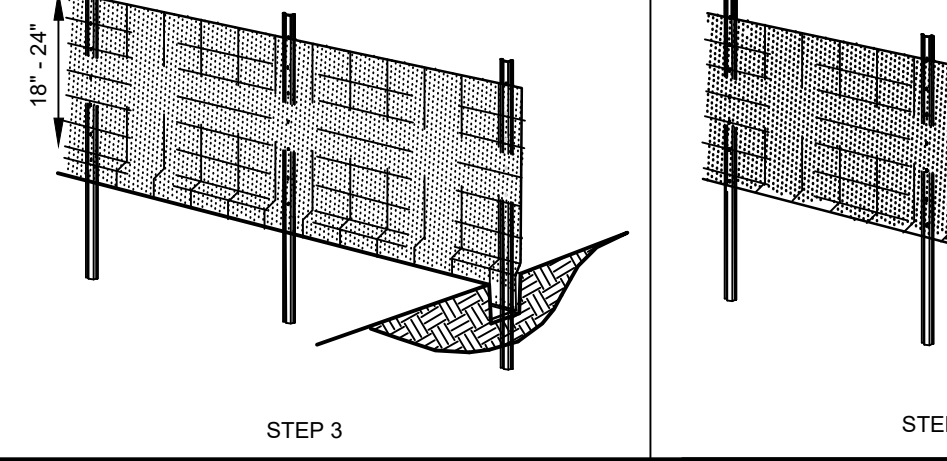
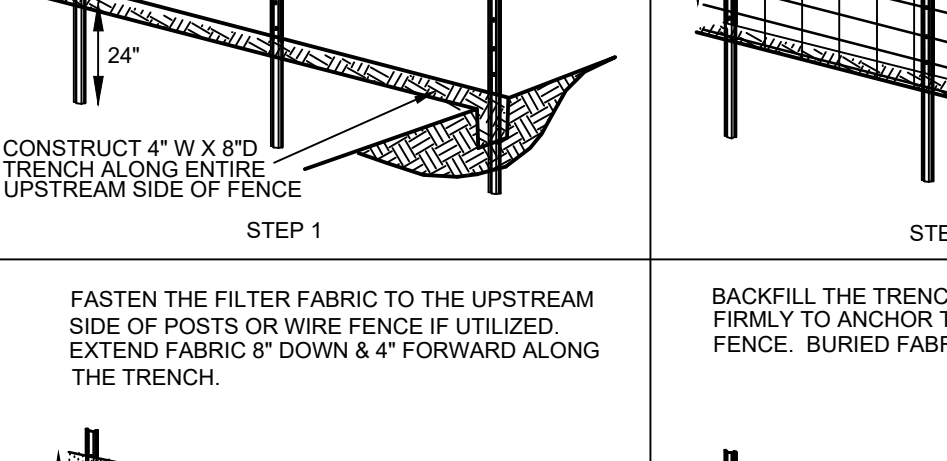
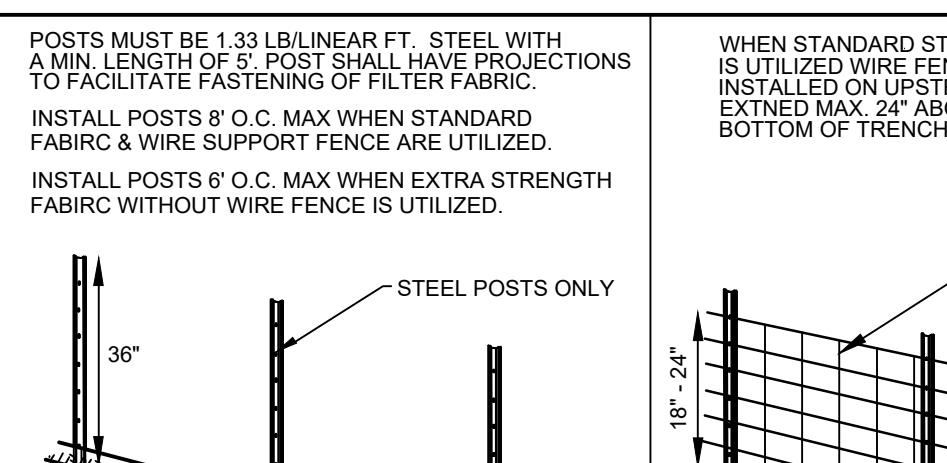
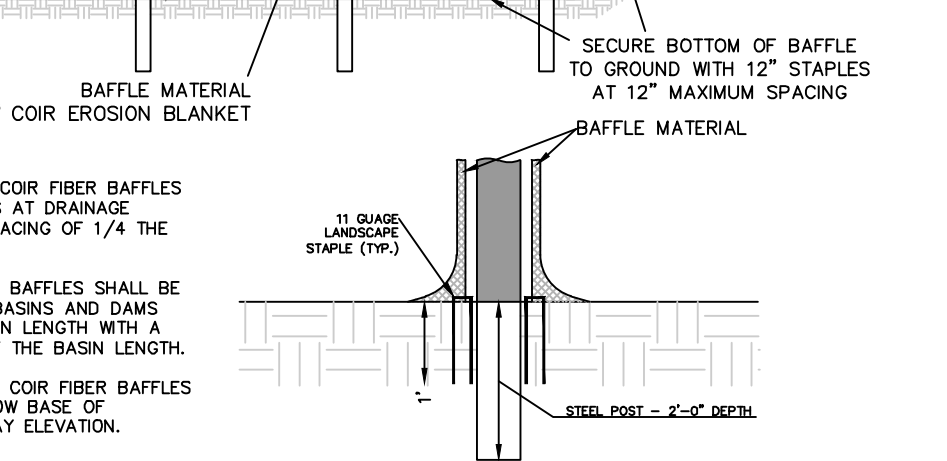
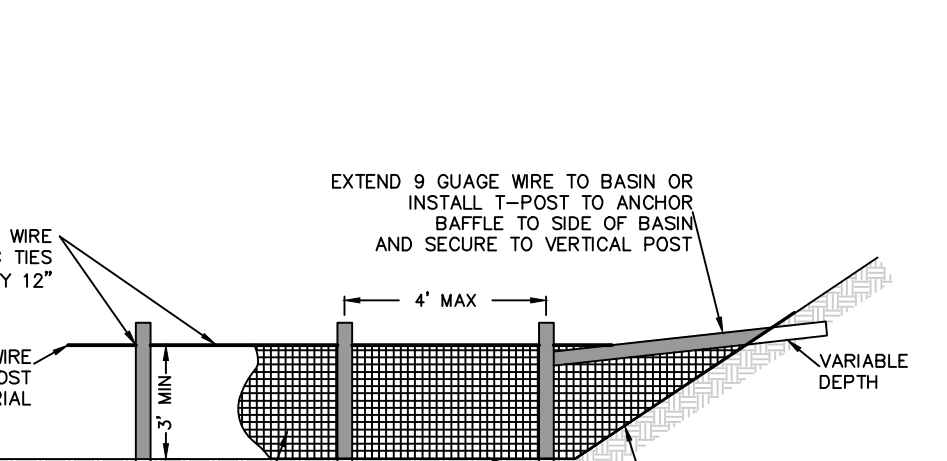


LAND DISTURBANCE & STABILIZATION DETAIL



SKIMMER TABLE
BASIN SED. BASIN A PVC ARM AND ENCLOSURE DIA. 4 INCHES ORIFICE PLATE DIA. 2.7 INCHES PVC ADAPTER AS REQ'D

SKIMMER TABLE
DETAIL MODIFIED FROM NCGEN REGIONAL DISTRICT PLANNING AND DESIGN MANUAL



Professional Group logo and contact information for Bissell Professional Group, including address, phone, and website. Includes a table for revisions and a sheet number of 11 of 13.

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.

Table with 3 columns: Inspect, Frequency (during normal business hours), and Inspection records must include:.

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

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING

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

Table with 2 columns: Item to Document and Documentation Requirements.

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

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

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

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION C: REPORTING

1. Occurrences that Must be Reported

- Permittees shall report the following occurrences:
(a) Visible sediment deposition in a stream or wetland.
(b) Oil spills if:
- They are 25 gallons or more,
- They are less than 25 gallons but cannot be cleaned up within 24 hours,
- They cause sheen on surface waters (regardless of volume), or
- They are within 100 feet of surface waters (regardless of volume).
(c) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.
(d) Anticipated bypasses and unanticipated bypasses.
(e) Noncompliance with the conditions of this permit that may endanger health or the environment.

2. Reporting Timeframes and Other Requirements

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

Table with 2 columns: Occurrence and Reporting Timeframes (After Discovery) and Other Requirements.



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

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

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

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING

EFFECTIVE: 04/01/19



NCG01 - SELF INSPECTION, RECORD KEEPING & REPORTING

ALGONQUIN CURRITUCK COUNTY NORTH CAROLINA

Table with 3 columns: NO, DATE, DESCRIPTION.

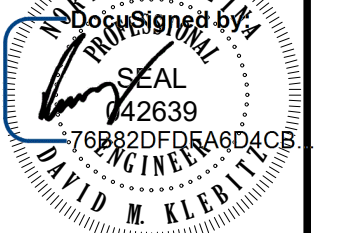


Table with 2 columns: DATE, SCALE, PERSON, CHECKED, DRAWN, APPROVED, SHEET, CAD FILE, PROJECT NO.

FINAL DRAWING NOT RELEASED FOR CONSTRUCTION

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

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

- 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

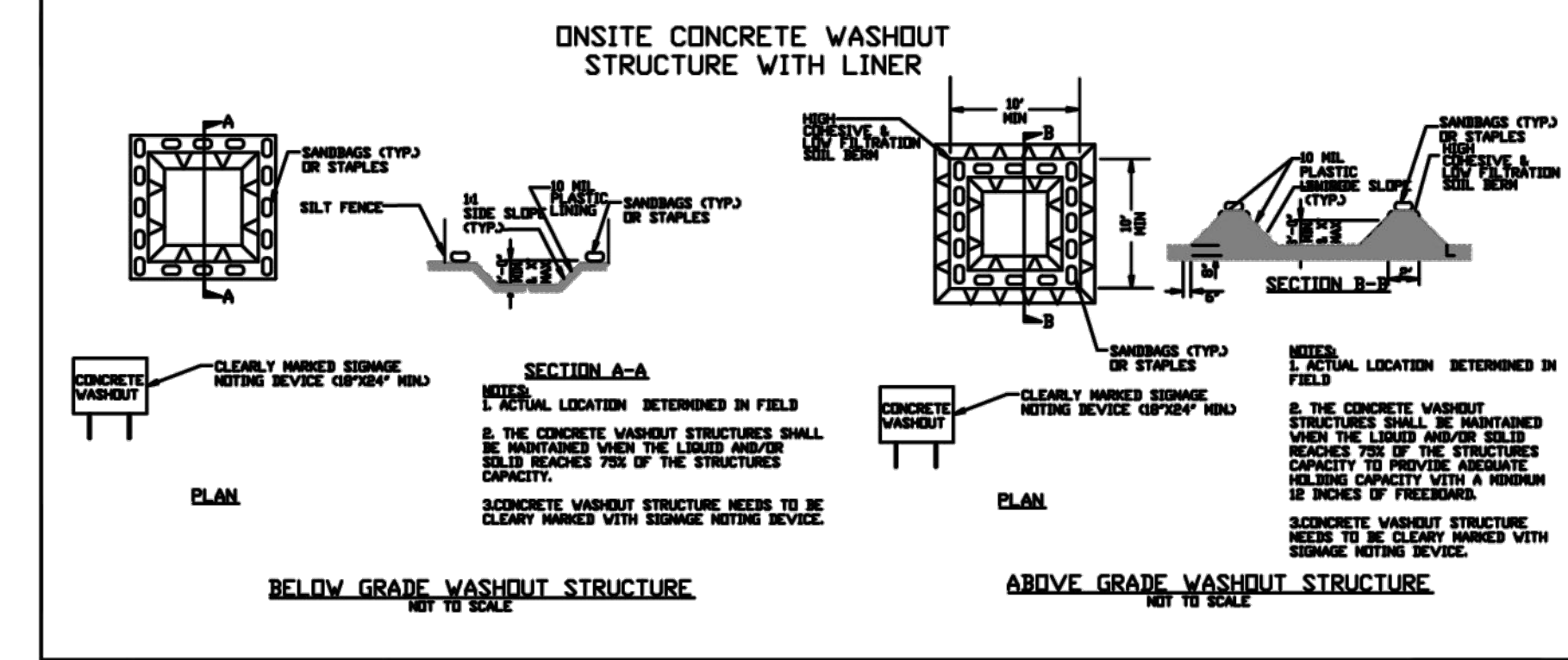
- Do not dump paint and other liquid waste into storm drains, streams or wetlands.
- Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- Contain liquid wastes in a controlled area.
- Containment must be labeled, 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

Bissell Professional Group
3572 North Carolina Highway
K-10, Box 10826, Raleigh, North Carolina 27619
(919) 261-3966
Fax (919) 261-1790

BISSELL
PROFESSIONAL GROUP

Engineers, Planners, Surveyors
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NCG01 - GROUND STABILIZATION
& MATERIALS HANDLING

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ALGONQUIN
CURRITUCK COUNTY
NORTH CAROLINA

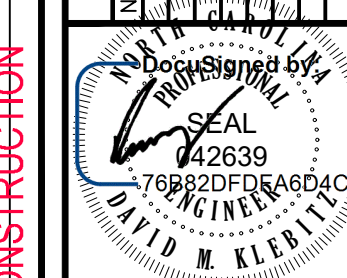
POPULAR BRANCH TOWNSHIP

CONSTRUCTION DRAWINGS

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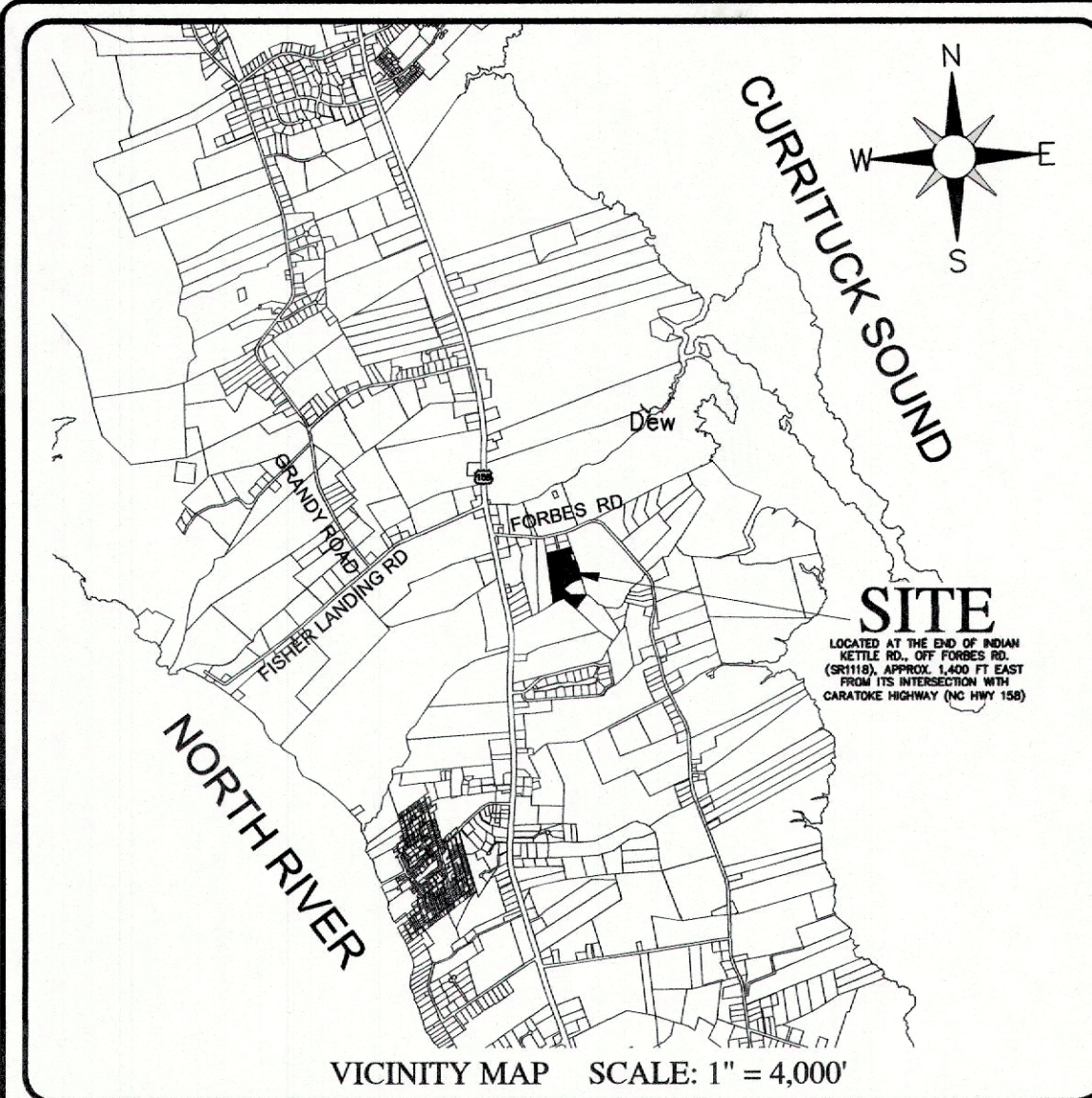
DATE: 8/28/24 SCALE: AS NOTED
PERSON: BPG CHECKED: MSB
DRAWN: KPW/DMK APPROVED: BPG
SHEET: 13 OF 13
CAD FILE: 382600B2
PROJECT NO: 3826

FINAL DRAWING NOT RELEASED FOR CONSTRUCTION



CONSTRUCTION DRAWINGS FOR ALGONQUIN

A 10 LOT TRADITIONAL RESIDENTIAL SUBDIVISION POPLAR BRANCH TOWNSHIP CURRITUCK COUNTY NORTH CAROLINA



- GENERAL NOTES:**
- PROJECT NAME: ALGONQUIN
 - OWNER/APPLICANT: JOEL K. & STACY A. JUSTICE
PO BOX 208
GRANDY, NC 27939
 - PROPERTY DATA:
PARCEL ID# 0109-000-053F-0000
ADDRESS: INDIAN KETTLE RD., JARVISBURG, NC
RECORDED REFERENCES: D.B. 02, PG. SP/55/57, PC: K, SL. 30
PROPERTY ZONING: SFM
 - F.I.R.M. DATA:
ZONE X, F.E.M.A. F.I.R.M. MAP PANEL 3720092000K, CID 370078, EFFECTIVE DATE
DECEMBER 21, 2018.
 - THE PROPERTY CONTAINS NO 404 JURISDICTIONAL WETLANDS AS CONFIRMED BY THE US
ARMY CORPS OF ENGINEERS.
 - EXISTING CONDITION INFORMATION BASED ON A COMBINATION OF THE FOLLOWING:
• FIELD SURVEY DATA OBTAINED BY BISSELL PROFESSIONAL GROUP
• 2020 AERIAL IMAGERY OBTAINED FROM NCONEMAP.COM
• ELEVATIONS ARE REFERENCED TO NAVD 1988 VERTICAL DATUM.
 - DRAINAGE AND UTILITY EASEMENTS WILL BE PROVIDED ON THE FINAL PLATS PREPARED
FOR RECORDING OF THE SUBDIVISION.
• A 10' EASEMENT FOR UTILITIES AND DRAINAGE TO BE DEDICATED ALONG ALL REAR
AND SIDE PROPERTY LINES
• A 15' EASEMENT FOR UTILITIES AND DRAINAGE TO BE DEDICATED ALONG ALL FRONT
PROPERTY LINES
• A NON-EXCLUSIVE DRAINAGE EASEMENT TO BE DEDICATED TO CURRITUCK COUNTY &
NCDOT ACROSS ALL OPEN SPACE AREAS AND ALONG ALL MAJOR DRAINAGE WAYS
SERVING MORE THAN 5 ACRES.
• A 10' EASEMENT TO BE DEDICATED BEYOND THE 15' FRONT EASEMENT FOR PLANTING
AND MAINTENANCE OF STREET TREES.
 - EXISTING VEGETATION IN OPEN SPACE AREAS SHALL BE MAINTAINED.
 - ALL NEW UTILITIES SHALL BE INSTALLED UNDERGROUND.
 - THE PROJECT INCLUDES ROADWAY, SIDEWALK, DRAINAGE AND UTILITY IMPROVEMENTS
ALONG SOME 340 FT OF THE EXISTING INDIAN KETTLE ROAD. ALL RELATED
CONSTRUCTION SHALL STAY WITHIN THE LIMITS OF THE ROADWAY'S 45' PRIVATE R/W
AND THE 15' DRAINAGE AND UTILITY EASEMENTS FRONTING THE (4) ADJOINING LOTS, AS
PRESCRIBED BY THE SUBDIVISION PLAT RECORDED IN PC: C-2, SL: 363. THE
CONTRACTOR SHALL NOTIFY THE LOT OWNERS AHEAD OF ANY CONSTRUCTION ACTIVITIES
ON THEIR PROPERTY, MINIMIZE DISTURBANCES TO THEIR PROPERTY AND MAINTAIN
REASONABLE MEANS OF ACCESS AND CLEANLINESS.

- DEVELOPMENT NOTES:**
- PROPERTY SUMMARY:
PROPOSED SUBDIVISION AREA: 14.53 AC.
PROPOSED AREA TO BE RECOMBINED INTO PARCEL "A": 0.95 AC.
TOTAL PROPERTY AREA: 15.48 AC.
 - DEVELOPMENT SUMMARY:
PROPOSED LOT AREA: 9.41 AC.
PROPOSED R/W AREA: 0.74 AC.
PROPOSED OPEN SPACE AREA: 4.38 AC.
TOTAL SUBDIVISION AREA: 14.53 AC.
 - # OF PROPOSED LOTS: 10
MINIMUM LOT AREA: 40,000 SF
PROPOSED RIGHT-OF-WAY WIDTH: 45 FT.
PROPOSED PAVED ROADWAY WIDTH: 20 FT.
LINEAR FEET OF EXISTING ROAD TO BE IMPROVED: 340 L.F.±
LINEAR FEET OF NEW ROAD TO BE CONSTRUCTED: 500 L.F.±
 - DEVELOPMENT IMPERVIOUS COVERAGE DATA (BUA):
COVERAGE ON INDIVIDUAL LOTS WILL BE LIMITED TO 20.0% OF LOT AREA
MAXIMUM TOTAL LOT COVERAGE: 81,979 SF
ROADWAY COVERAGE: 16,600 SF
SIDEWALKS: 6,000 SF
TOTAL COVERAGE: 104,579 SF
COVERAGE PERCENTAGE: 16.52%
 - PROPOSED DISTURBED AREA: 11 ACRES

THE FOLLOWING PERMITS ARE REQUIRED PRIOR TO PROJECT CONSTRUCTION:

| PERMIT | AGENCY | REFERENCE NUMBER | DATE OF ISSUANCE |
|--|---|------------------|------------------|
| SEDIMENTATION AND EROSION CONTROL PERMIT | N.C.D.E.Q. - DIVISION OF LAND RESOURCES | | |
| STORMWATER MANAGEMENT LOW DENSITY PERMIT | N.C.D.E.Q. - DIVISION OF LAND RESOURCES | | |
| WATERMAIN EXTENSION AUTHORIZATION TO CONSTRUCT | N.C.D.E.Q. - PUBLIC WATER SUPPLY | | |
| DRIVEWAY PERMIT | N.C.D.O.T. | | |
| ENCROACHMENT AGREEMENT | N.C.D.O.T. | | |
| CURRITUCK COUNTY PRELIMINARY PLAT & USE PERMIT | CURRITUCK COUNTY BOARD OF COMMISSIONERS | PB 21-21 | 8/21/2023 |
| CURRITUCK COUNTY CONSTRUCTION AUTHORIZATION | CURRITUCK COUNTY PLANNING STAFF | | |

Sheet List Table

| Sheet Number | Sheet Title |
|--------------|---|
| 1 | COVER SHEET, DEVELOPMENT NOTES & SITE LOCATION |
| 2 | EXISTING SITE CONDITIONS MAP |
| 3 | DEVELOPMENT OVERVIEW PLAN |
| 4 | GRADING, DRAINAGE AND STORMWATER MANAGEMENT PLAN |
| 5 | EROSION AND SEDIMENT CONTROL PLAN |
| 6 | WATERMAIN EXTENSION AND WATER SERVICE PLAN |
| 7 | LANDSCAPING, SIGNAGE AND BUFFERING PLAN |
| 8 | EXISTING INDIAN KETTLE RD. PLAN AND PROFILE |
| 9 | PROPOSED INDIAN KETTLE RD. PLAN AND PROFILE |
| 10 | ROADWAY, DRAINAGE & TYP. CONSTRUCTION DETAILS |
| 11 | EROSION & SEDIMENT CONTROL CONSTRUCTION NOTES & DETAILS |
| 12 | NCG01 - SELF INSPECTION, RECORD KEEPING & REPORTING |
| 13 | NCG01 - GROUND STABILIZATION & MATERIALS HANDLING |

LEGEND

- ROADWAY CENTERLINE
- RIGHT-OF-WAY
- PROPERTY BOUNDARY
- ADJOINING PROPERTY LINE
- EXISTING DITCH CENTERLINE
- EXISTING TREE LINE (APPROXIMATE)
- PROPOSED SWALE W/ FLOW ARROW
- PROPOSED SWALE HIGH POINT
- EXISTING GRADE CONTOUR
- PROPOSED GRADE CONTOUR
- EXISTING SPOT GRADE
- PROPOSED SPOT GRADE
- EXISTING CULVERT
- PROPOSED CULVERT
- PROPOSED DRAINAGE STRUCTURE
- NO PARKING SIGN
- CROSSWALK

EROSION CONTROL LEGEND

- PROPOSED LIMITS OF DISTURBANCE
- PROPOSED SILT FENCE
- PROPOSED STABILIZED CONSTRUCTION ENTRANCE
- PROPOSED TEMPORARY CHECK DAM

UTILITY LEGEND

- X12WL EXISTING WATER LINE
- PROPOSED WATER LINE (SIZE AS NOTED)
- PROPOSED FIRE HYDRANT (APRX)
- PROPOSED WATER SERVICE (APRX)
- PROPOSED VALVE (APRX)
- PROPOSED BLOW-OFF (APRX)
- PROPOSED REDUCER (APRX)

PROFILE LEGEND

- EXISTING GRADE @ ROAD C/L
- PROPOSED GRADE @ ROAD C/L
- PROPOSED WATER LINE (SIZE AS NOTED)
- PROPOSED HYDRANT ASSEMBLY
- PROPOSED GATE VALVE
- PROPOSED REDUCER

SOILS LEGEND

| | |
|-----|----------------------------|
| CnA | CONETOE LOAMY SAND |
| Mu | MUNDEN LOAMY SAND |
| No | NIMMO LOAMY SAND |
| Pt | PORTSMOUTH FINE SANDY LOAM |

SCS - SOIL SURVEY OF CURRITUCK COUNTY

NOTE: EXISTING SITE INFORMATION DESCRIBED HEREON IS BELIEVED TO BE ACCURATE, HOWEVER, BPG INC. MAKES NO WARRANTY AS TO THE ACCURACY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THIS INFORMATION BEFORE RELYING ON IT. THE CONTENT OF THESE DOCUMENTS MAY ALSO INCLUDE TECHNICAL INACCURACIES OR TYPOGRAPHICAL ERRORS. IF SUCH CONDITIONS EXIST, THE CONTRACTOR SHALL CONSULT WITH THE ENGINEER PRIOR TO PROCEEDING WITH THE SCHEDULED WORK AND MAY CONTINUE AFTER AN AUTHORIZATION TO PROCEED HAS BEEN GRANTED.

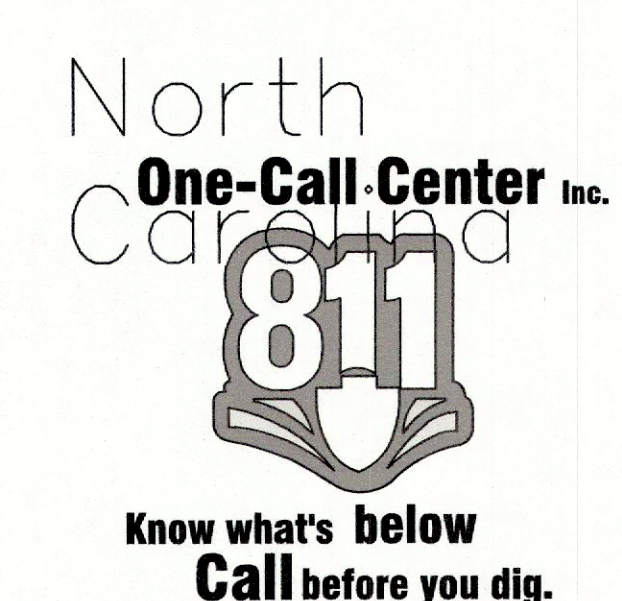
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STORMWATER CERTIFICATE

I, _____ OWNER/AGENT HEREBY CERTIFY THE INFORMATION INCLUDED ON THIS AND ATTACHED PAGES IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

ON THE PLAN ENTITLED, ALGONQUIN CONSTRUCTION DRAWINGS - GRADING, DRAINAGE AND STORMWATER MANAGEMENT PLAN, STORMWATER DRAINAGE IMPROVEMENTS SHALL BE INSTALLED ACCORDING TO THESE PLANS AND SPECIFICATIONS AND APPROVED BY CURRITUCK COUNTY. YEARLY INSPECTIONS ARE REQUIRED AS PART OF THE STORMWATER PLAN. THE OWNER IS RESPONSIBLE FOR ALL MAINTENANCE REQUIRED. CURRITUCK COUNTY ASSUMES NO RESPONSIBILITY FOR THE DESIGN, MAINTENANCE, OR PERFORMANCE OF THE STORMWATER IMPROVEMENTS.

DATE _____ OWNER/AGENT _____



SURVEY LEGEND

| | |
|--------|------------------------|
| SCHM | SET CONCRETE MONUMENT |
| SR | SET IRON ROD |
| ER | EXISTING IRON ROD |
| EIP | EXISTING IRON PIPE |
| CP | CALCULATED POINT |
| M.B.L. | MAXIMUM BUILDING LIMIT |
| N.T.S. | NOT TO SCALE |
| P.C. | PLAT CABINET |
| D.B. | DEED BOOK |
| SL | SLIDE |
| SF | SQUARE FEET |
| AC | ACRES |

BISSELL PROFESSIONAL GROUP
3012 North Carolina Highway
Kitty Hawk, North Carolina 27949
TEL: (252) 281-1700 FAX: (252) 281-1700

COVER SHEET, DEVELOPMENT NOTES & SITE LOCATION

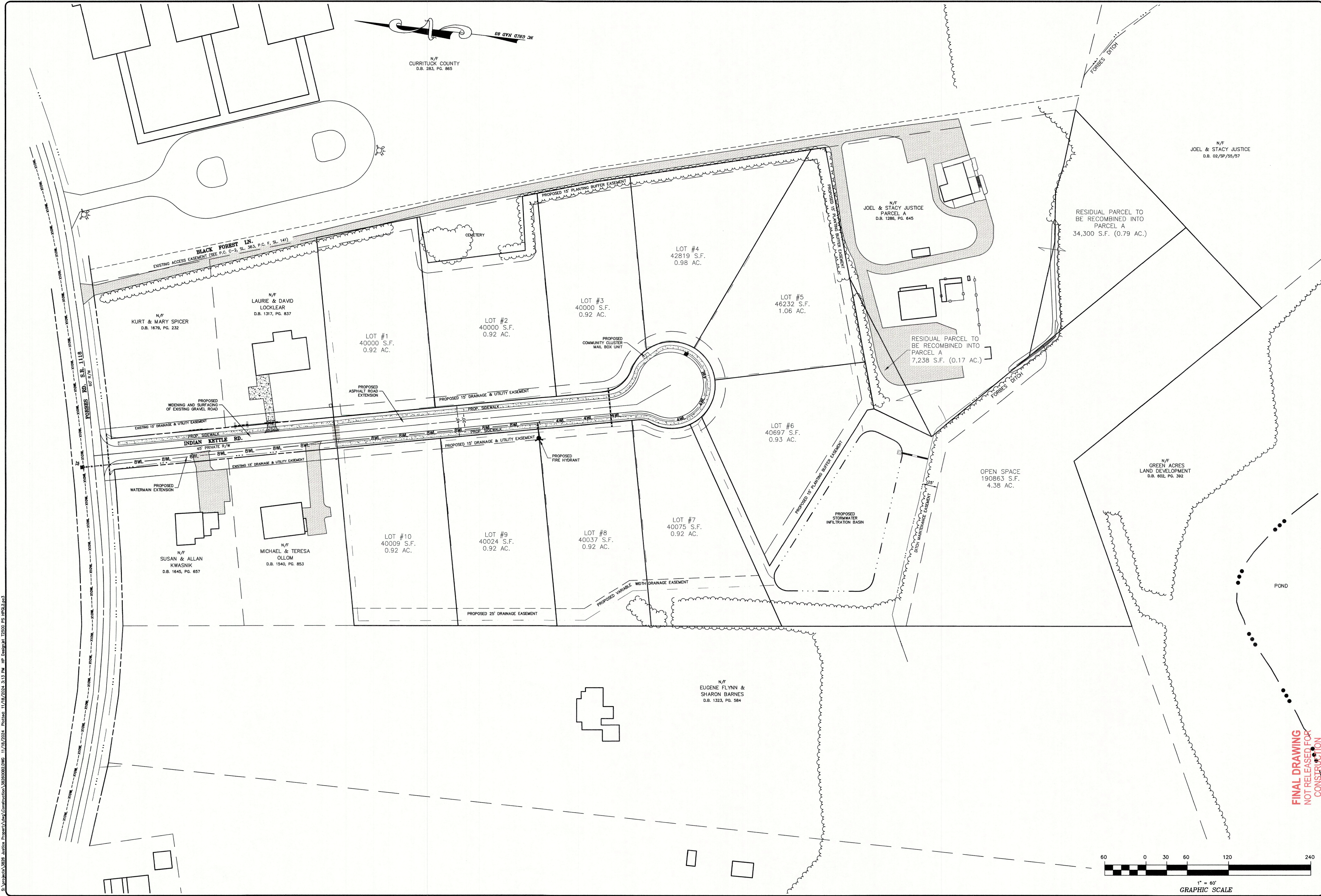
ALGONQUIN
CURRITUCK COUNTY
POPLAR BRANCH TOWNSHIP
NORTH CAROLINA

CONSTRUCTION DRAWINGS

| NO. | DATE | DESCRIPTION | BY |
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| 1 | 11/08/2024 | ISSUED FOR PERMITS | AM |

DATE: 8/28/24 SCALE: N/A
DESIGNED: BPG CHECKED: MSB
DRAWN: KFW/DMK APPROVED: BPG

SHEET: 1 OF 13
CAD FILE: 382600B2
PROJECT NO: 3826



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**DEVELOPMENT
OVER VIEW PLAN**

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CURRITUCK COUNTY
POPLAR BRANCH TOWNSHIP

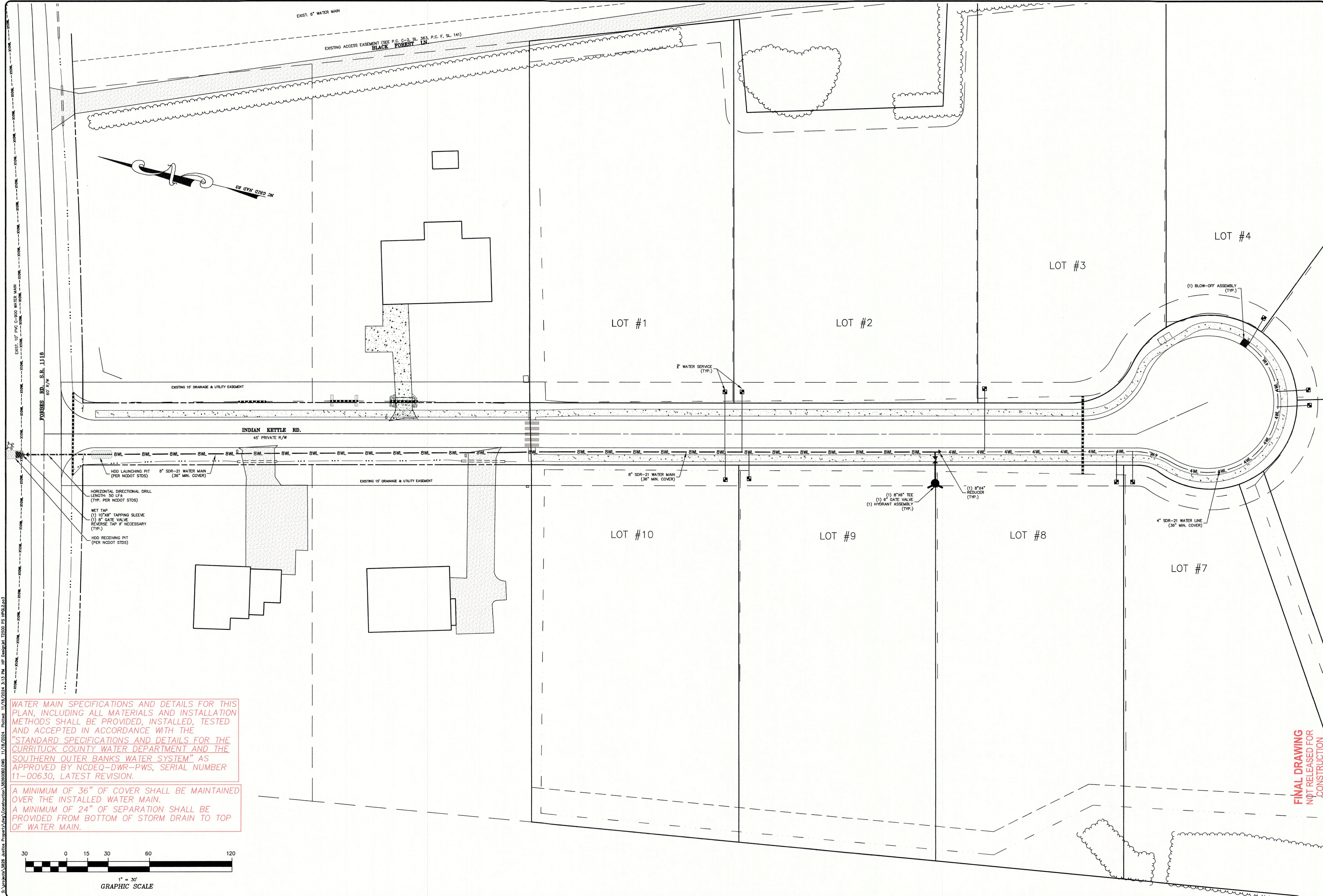
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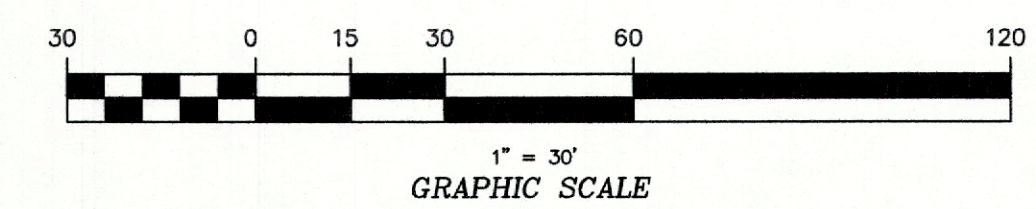
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CONSTRUCTION**

DATE: 8/28/24 1" = 60'
DESIGNED: BPG CHECKED: MSB
DRAWN: KFW/DMK APPROVED: BPG
SHEET: 3 OF 13
CAD FILE: 382600B2
PROJECT NO: 3826



WATER MAIN SPECIFICATIONS AND DETAILS FOR THIS PLAN, INCLUDING ALL MATERIALS AND INSTALLATION METHODS SHALL BE PROVIDED, INSTALLED, TESTED AND ACCEPTED IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS AND DETAILS FOR THE CURRITUCK COUNTY WATER DEPARTMENT AND THE SOUTHERN OUTER BANKS WATER SYSTEM" AS APPROVED BY NCDEQ-DWR-PWS, SERIAL NUMBER 11-00630, LATEST REVISION.

A MINIMUM OF 36" OF COVER SHALL BE MAINTAINED OVER THE INSTALLED WATER MAIN.
 A MINIMUM OF 24" OF SEPARATION SHALL BE PROVIDED FROM BOTTOM OF STORM DRAIN TO TOP OF WATER MAIN.



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 Engineers, Planners, Surveyors
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**WATERMAIN EXTENSION
 AND WATER SERVICE PLAN**
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PROJECT: **ALGONQUIN**
 NORTH CAROLINA
 CURRITUCK COUNTY
 POPLAR BRANCH TOWNSHIP
CONSTRUCTION DRAWINGS

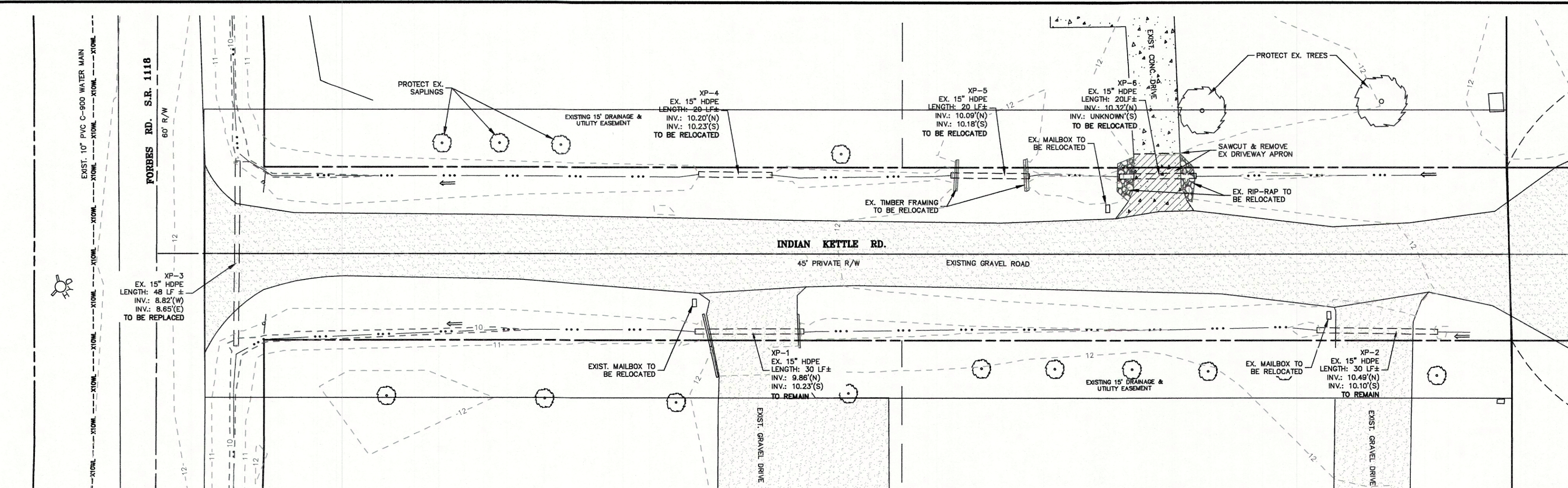
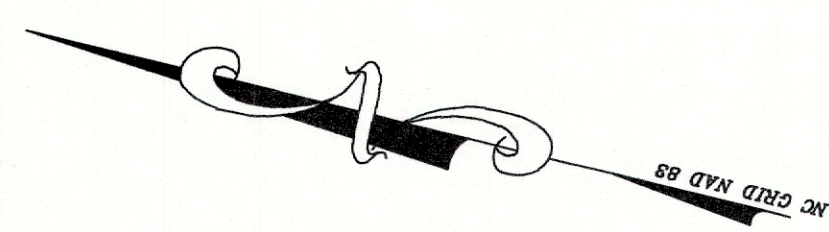
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| 1 | 8/28/24 | ISSUE 2 - WATERLINE TO LOT #7 |
| 2 | 11/14/24 | FOR COMMENTS |

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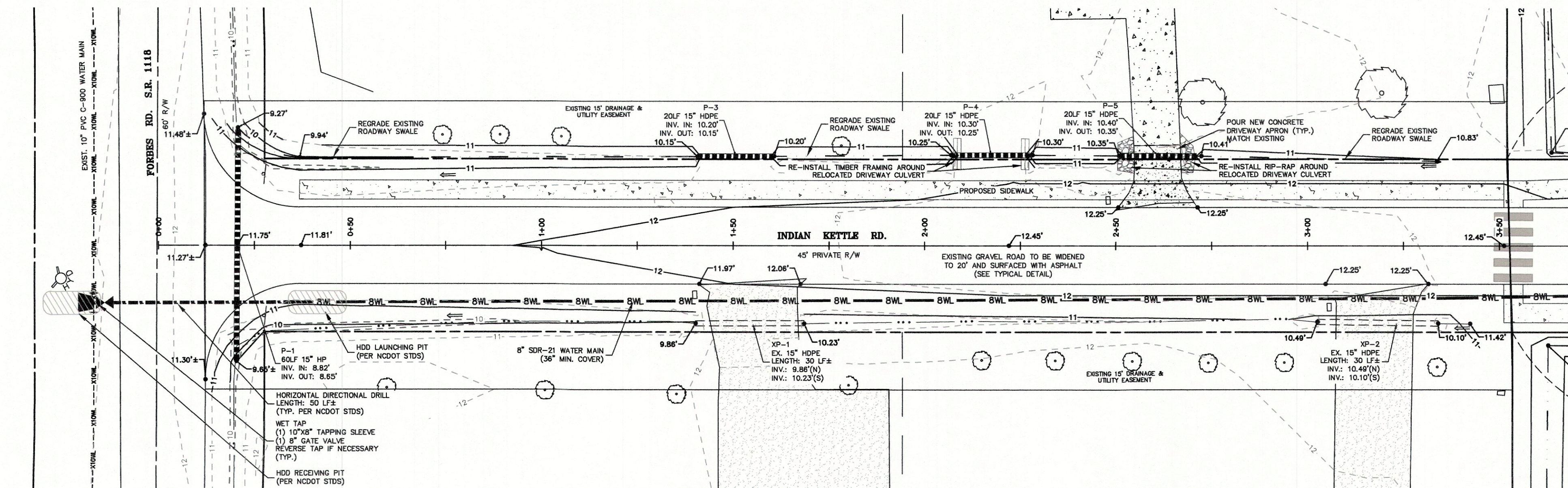
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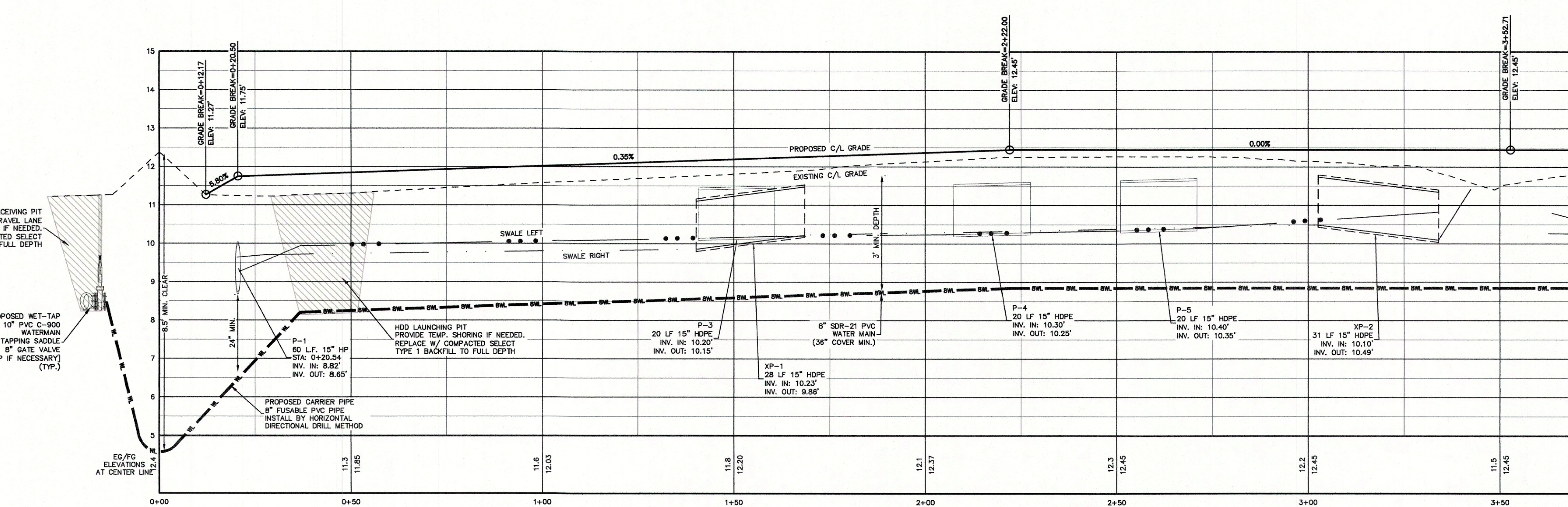
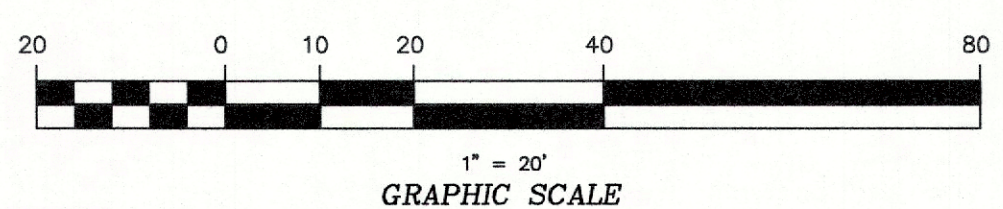
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ALIGNMENT: EXISTING INDIAN KETTLE RD. (STA 0+00 - 3+50) - DEMOLITION PLAN
SCALE: HOR.: 1"=20' VERT.(PLAN VIEW)



ALIGNMENT: EXISTING INDIAN KETTLE RD. (STA 0+00 - 3+50) - IMPROVEMENT PLAN
SCALE: HOR.: 1"=20' VERT.(PLAN VIEW)



ALIGNMENT: EXISTING INDIAN KETTLE RD. (STA 0+00 - 3+50)
SCALE: HOR.: 1"=20' VERT.: 1"=2' (PROFILE VIEW)

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Bissell Professional Group
2500 North Carolina Highway
Kitty Hawk, North Carolina 27849
(252) 326-1700
(252) 326-1700

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EXISTING INDIAN KETTLE RD
PLAN AND PROFILE

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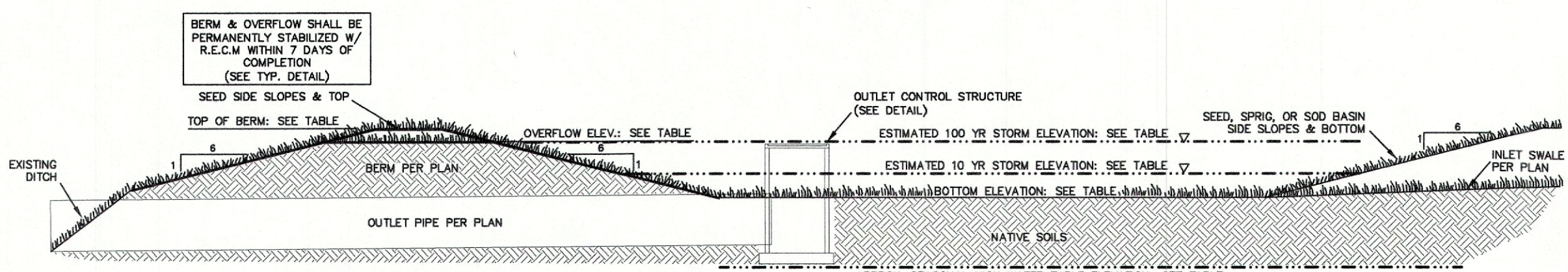
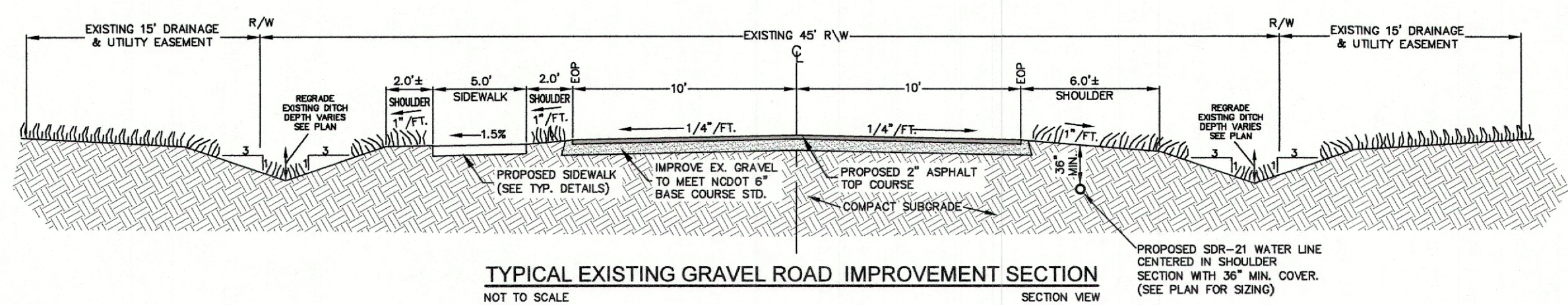
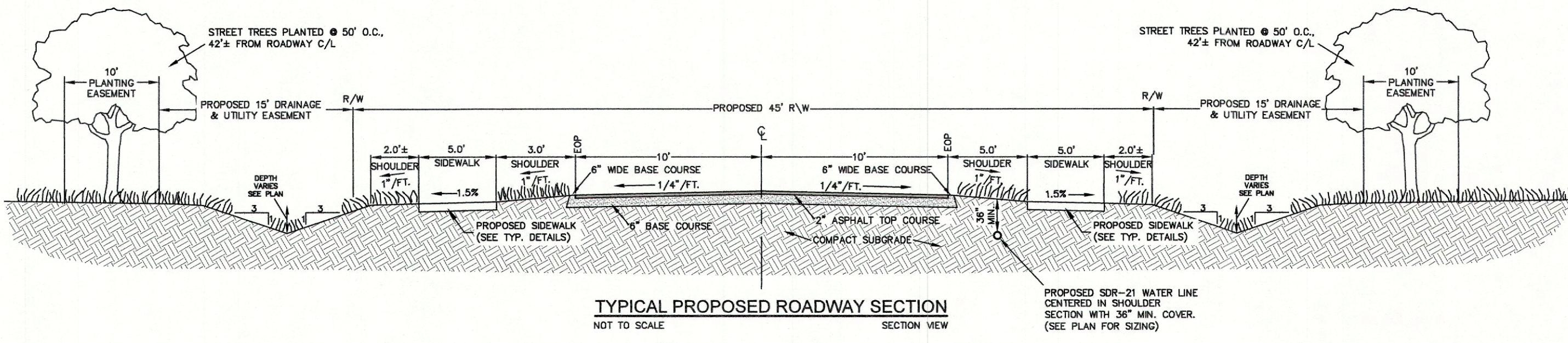
ALGONQUIN

CURRITUCK COUNTY NORTH CAROLINA

CONSTRUCTION DRAWINGS

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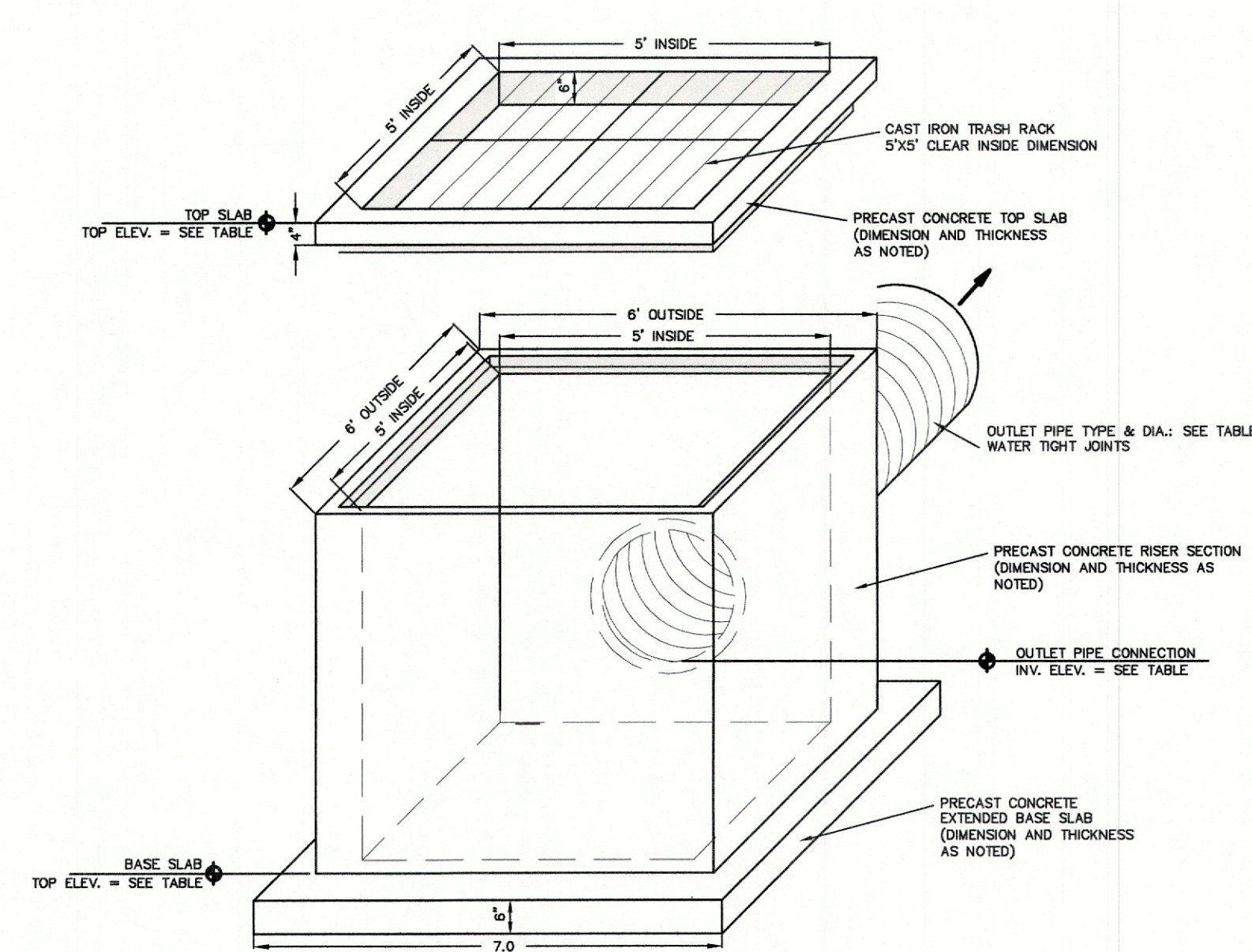
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| SHEET: 8 | OF 13 |
| CAD FILE: 382600B2 | |
| PROJECT NO: 3826 | |



BASIN ELEVATION TABLE

| TOP ELEV. (FMSL) | OVERFLOW ELEV. (FMSL) | 100YR STORM ELEV. (FMSL) | 10YR STORM ELEV. (FMSL) | BOTTOM ELEV. (FMSL) | SHIFT ELEV. (FMSL) |
|------------------|-----------------------|--------------------------|-------------------------|---------------------|--------------------|
| 12.00 | 11.50 | 11.46 | 10.04 | 9.50 | 7.50± |

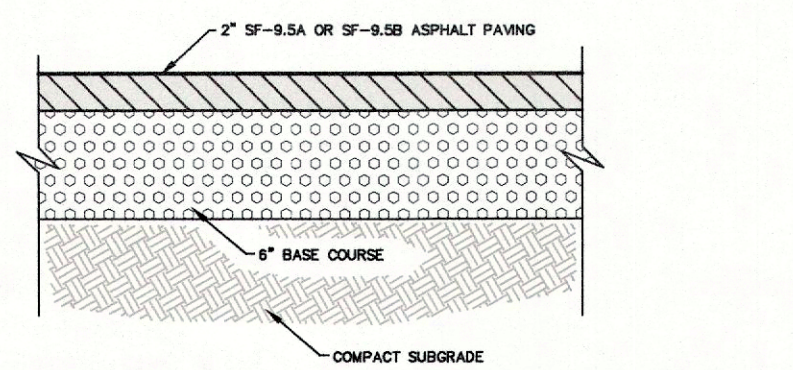
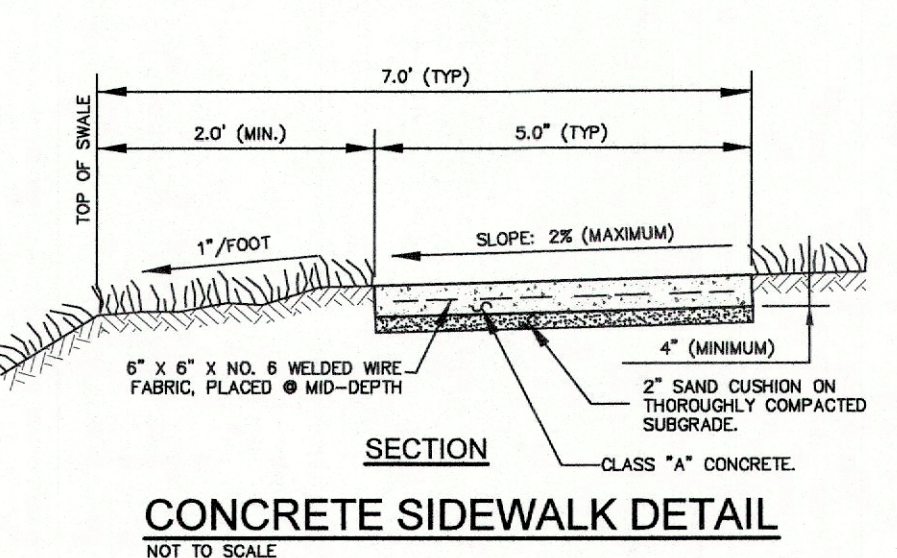
STORMWATER INFILTRATION BASIN TYPICAL CROSS SECTION
NOT TO SCALE



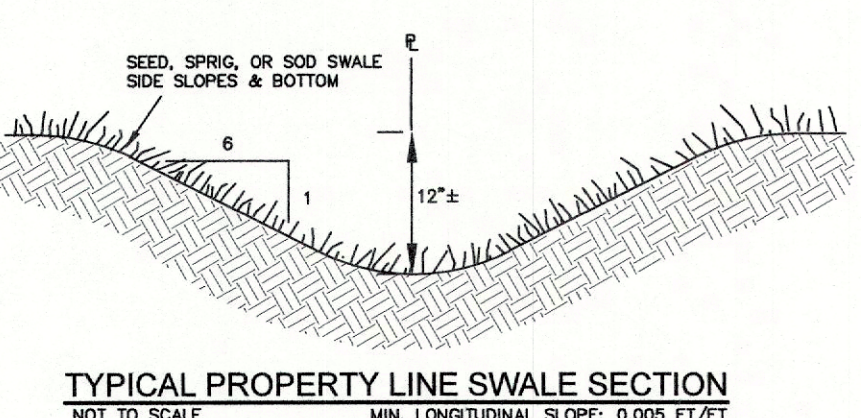
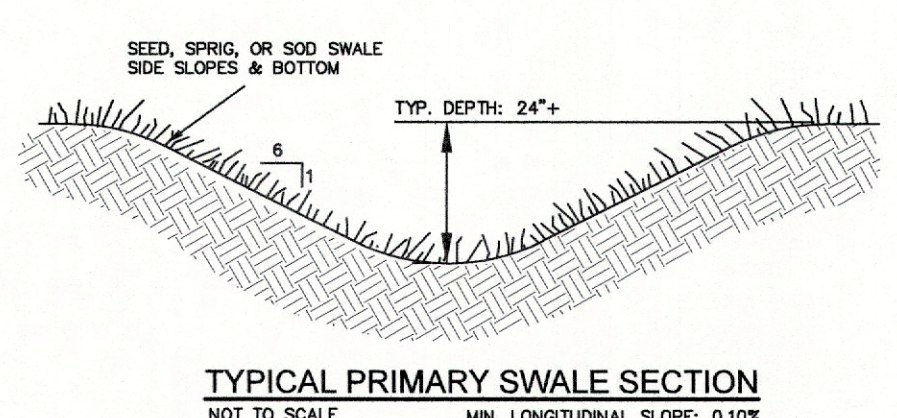
OUTLET CONTROL STRUCTURE TABLE

| STRUCTURE | TOP ELEV. (FMSL) | BASE ELEV. (FMSL) | DIAMETER (INCHES) | INVERT IN (FMSL) | OUTLET PIPE |
|-----------|------------------|-------------------|-------------------|------------------|-------------|
| 01 | 11.40 | 7.40 | (1) 24" HDPE | 7.70 | |

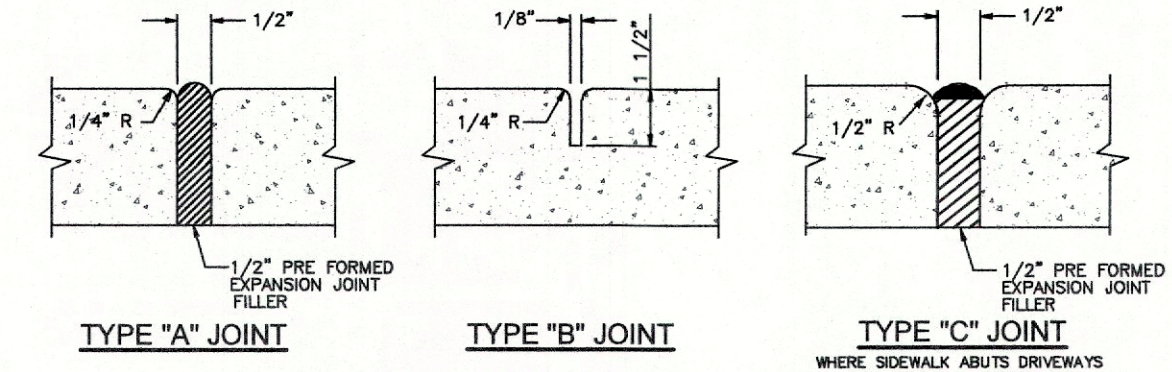
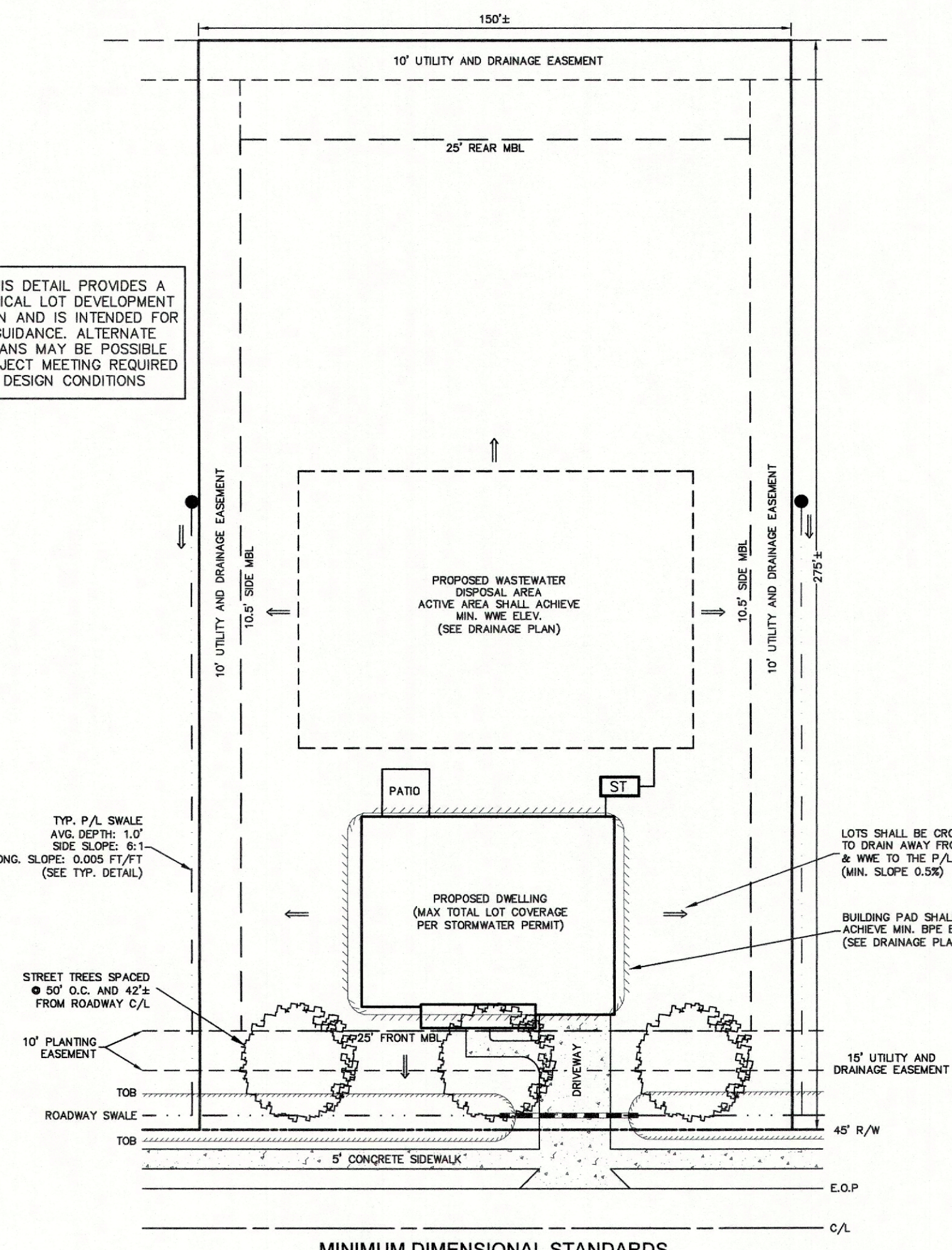
OUTLET STRUCTURE NOTES:
1. STRUCTURE DESIGN SPECIFICATIONS SHALL CONFORM TO LATEST ASTM 0913 SPECIFICATIONS FOR PRECAST CONCRETE WATER & WASTEWATER STRUCTURES.
2. CONCRETE COMPRESSIVE STRENGTH SHALL BE A MINIMUM OF 3,000 PSI.
3. STEEL REINFORCING DESIGN TO CONFORM TO THE REQUIREMENTS OF ASTM A630 SPECIFICATIONS FOR STRUCTURAL DESIGN LOADING FOR WATER & WASTEWATER STRUCTURES AND SHALL UTILIZE GRADE 60 RE-BARS CONFORMING TO THE REQUIREMENTS OF ASTM A615 OR W/IF CONFORMING TO THE REQUIREMENTS OF ASTM A185 OR BOTH, PER NCDOT STANDARDS FOR WORTAR JOINT CONNECTIONS.
5. JOINTS TO BE SEALED WITH BUTYL RUBBER JOINT SEALANT CONFORMING TO THE REQUIREMENTS OF ASTM C990, OR WORTAR AS PER NCDOT REQUIREMENTS OR BOTH.
6. ANY DEVIATIONS FROM THE APPROVED PLAN & SPECIFICATIONS SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.



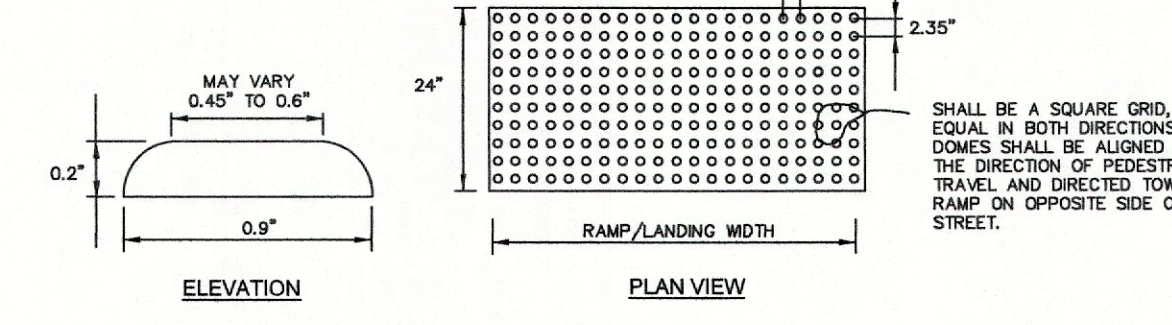
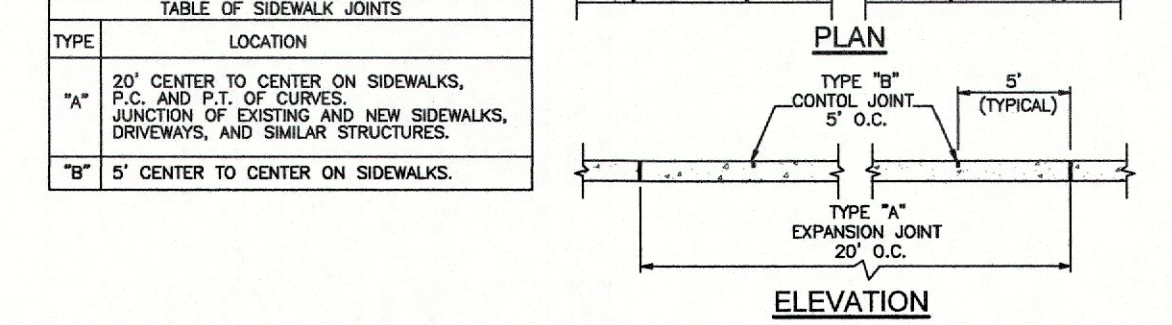
NOTE:
PAVING SHALL CONSIST OF FINE GRADING THE SPECIFIED PARKING & DRIVE AREAS AND INSTALLING 2" 5'-9.5A OR 5'-9.5B ASPHALT CONCRETE SURFACE COURSE IN CONJUNCTION WITH A 6" AGGREGATE BASE COURSE. THE SOIL SUBGRADE BENEATH PAVEMENTS SHALL BE COMPACTED TO AT LEAST 95% OF ASTM D 1557 PRIOR TO ANY PLACEMENT OF SURFACE FILL OR STONE BASE COURSE. ALL SITE PREPARATION AND THE DESIGN AND CONSTRUCTION OF ALL FOUNDATIONS, GRADE SLABS, AND PAVEMENTS SHALL BE IN ACCORDANCE WITH RECOMMENDATIONS PROVIDED BY A GEOTECHNICAL ENGINEER.



THIS DETAIL PROVIDES A TYPICAL LOT DEVELOPMENT PLAN AND IS INTENDED FOR GUIDANCE. ALTERNATE PLANS MAY BE POSSIBLE SUBJECT MEETING REQUIRED DESIGN CONDITIONS

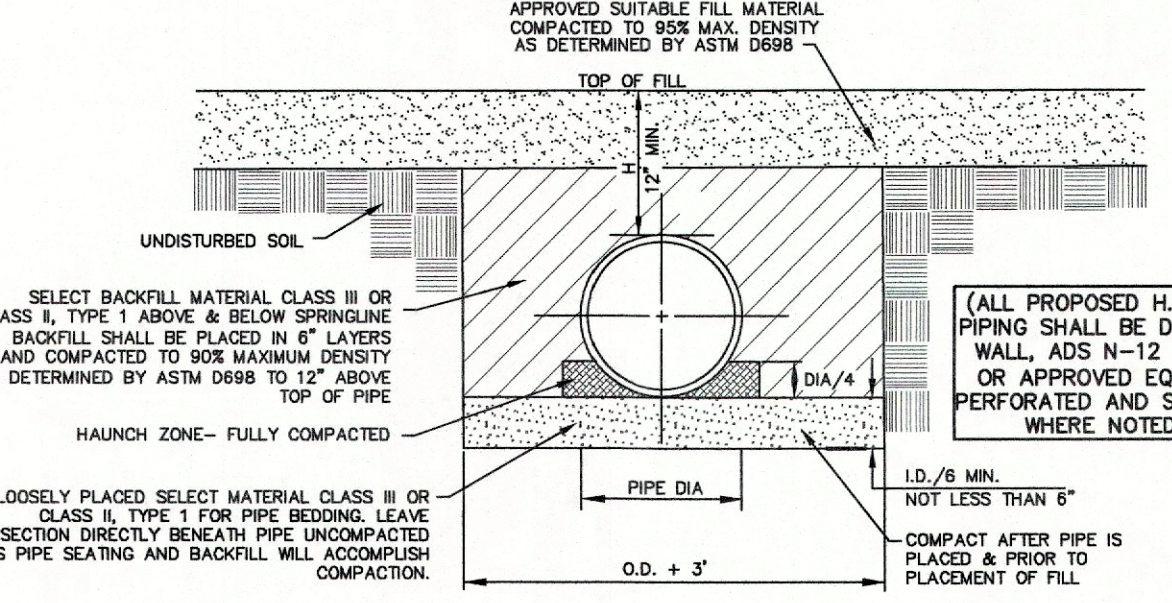


SIDEWALK AND WALKING TRAIL NOTES:
1. WALKS SHALL HAVE A 4" MINIMUM THICKNESS.
2. CONCRETE SHALL BE A MINIMUM OF 3,000 PSI.
3. WALKS SHALL HAVE A 3" MINIMUM WIDTH.
4. CROSS SLOPE SHALL BE LIMITED TO A MAXIMUM OF 2%.
5. LONGITUDINAL SLOPE SHALL BE LIMITED TO A MAXIMUM OF 1.20% EXCEPT WHERE ACCESSIBILITY RAMPS ARE PROVIDED AS NOTED.
6. ALL SIDEWALKS AND TRAILS SHALL BE COMPLIANT WITH THE LATEST HANDICAP ACCESSIBILITY REQUIREMENTS.



DETECTABLE WARNING GENERAL NOTES
1. DETECTABLE WARNING SHALL CONSIST OF RAISED TRUNCATED DOMES MANUFACTURED BY "COTE-L INDUSTRIES, INC." CALLED "SAFETY-TRAX", WITH POLYURETHANE COATING "DURABAK", OR APPROVED EQUAL, APPLIED ON SMOOTH (NON-GROOVED) CLEAN CONCRETE RAMP, AND SHALL CONFORM TO THE DETAILS IN THE PLANS AND IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND INSTALLATION INSTRUCTIONS.
2. ALL DETECTABLE WARNING AREAS SHALL START AT BACK OF CURB, BE 24 INCHES IN DEPTH AND COVER THE COMPLETE WIDTH OF THE RAMP AREA 48 INCHES MIN.
3. 70% VISUAL CONTRAST IS REQUIRED. THE COLOR SHALL BE AN INTEGRAL PART OF THE DETECTABLE WARNING MATERIAL, AS SPECIFIED ON THE PLANS. COLOR TO BE DETERMINED BY THE CITY STAFF, SAFETY YELLOW IS THE DEFAULT COLOR.
4. THE SMOOTH AND CLEAN CONCRETE UNDER DETECTABLE WARNING DEVICE AREA SHALL BE INCLUDED IN THE COST OF THE CONCRETE CURB RAMP. THE COST OF FURNISHING AND INSTALLING THE DETECTABLE WARNING DEVICE SHALL BE INCLUDED SEPARATELY AS "DETECTABLE WARNING DEVICE" PER SQUARE FOOT OR AS OUTLINED IN THE SPECIFICATIONS.
5. DETECTABLE WARNING SURFACE:
APPLIED A COATING OF "DURABAK" SLIP-RESISTANT POLYURETHANE COATING TO THE SMOOTH/ CLEAN CONCRETE SURFACE. ON TOP OF THE POLYURETHANE COATING APPLY TRUNCATED DOMES FROM A "SAFETY-TRAX" CONTACT SHEET ON TOP OF THE TRUNCATED DOMES AND INITIAL POLYURETHANE COATING PLACE THREE ADDITIONAL COATS OF "DURABAK" POLYURETHANE COATING. COLOR TO BE DETERMINED BY CITY STAFF OR AS SPECIFIED ON THE PLANS. SAFETY YELLOW IS A DEFAULT COLOR.
6. ALL RAMPS AND DETECTABLE WARNING SHALL BE ALIGNED IN THE DIRECTION OF PEDESTRIAN TRAVEL AND DIRECTED TOWARD RAMP ON THE OPPOSITE SIDE OF STREET.

STANDARD RIGID PIPE INSTALLATION DETAIL
NOT TO SCALE



STANDARD FLEXIBLE PIPE INSTALLATION DETAIL
NOT TO SCALE

GENERAL PIPE INSTALLATION NOTES:
1. ALL EXCAVATIONS SHALL COMPLY WITH THE TERMS AND CONDITIONS OF THE CONSTRUCTION STANDARDS FOR EXCAVATIONS IN DSHA "SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION" CHAPTER XVII OF TITLE 15B, PART 1508. THE CONTRACTOR SHALL HAVE A COMPETENT PERSON ON THE JOB AT ALL TIMES AND SHALL EMPLOY A PROFESSIONAL ENGINEER TO ACT UPON ALL PERTINENT MATTERS OF THE WORK.
2. DO NOT OPERATE HEAVY EQUIPMENT OVER ANY PIPE UNLESS IT HAS BEEN PROPERLY BACKFILLED AND COVERED WITH AT LEAST 3 FEET OF APPROVED MATERIAL.
3. THE PIPE CULVERT INSTALLATION SHALL BE INSTALLED IN ACCORDANCE WITH NCDOT TYPICAL STANDARD DETAIL 300.01.
4. LD = THE MAXIMUM HORIZONTAL INSIDE DIAMETER DIMENSION.
5. H = THE MINIMUM VERTICAL HEIGHT FROM THE TOP OF THE PIPE TO THE TOP OF THE EMBANKMENT AT THAT POINT. MINIMUM VERTICAL HEIGHT FOR SUBMERGED PIPES (NOT BELOW PAVEMENT STRUCTURES) SHALL BE 1', OR AS SPECIFIED BY THE PIPE MANUFACTURER, WHICHEVER IS GREATER.
6. PIPES TO BE INSTALLED BELOW PAVEMENT STRUCTURES SHALL HAVE THE FOLLOWING MINIMUM FILL HEIGHT (H) AS MEASURED FROM THE TOP OF PIPE TO THE BOTTOM OF THE PAVEMENT STRUCTURE:
12" - 60" FLEXIBLE HDPE PIPE, H = 2' MINIMUM
CLASS IV & CLASS V RIGID RCP PIPE, H = 1' MINIMUM
CLASS II & CLASS III RIGID RCP PIPE, H = 2' MINIMUM
SEE NCDOT STANDARD 300.01 FOR MAXIMUM AND MINIMUM FILL HEIGHT REQUIREMENTS FOR OTHER TYPES OF FLEXIBLE AND RIGID PIPE.

Russell
Professional Group
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Durham, North Carolina 27704
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ROADWAY, DRAINAGE & TYP. CONSTRUCTION DETAILS
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ALGONQUIN
CURRITUCK COUNTY
POPLAR BRANCH TOWNSHIP
NORTH CAROLINA

CONSTRUCTION DRAWINGS

| NO. | DATE | DESCRIPTION | BY | CHECKED |
|-----|------|-------------|----|---------|
| | | | | |
| | | | | |

DESIGNED: RPK
DRAWN: MSB
CHECKED: RPK

10 OF **13**

CAD FILE: 382600B2
PROJECT NO: 3826

FINAL DRAWING NOT FOR CONSTRUCTION

GENERAL PROJECT NOTES:

- 1. PROJECT NAME: ALGONQUIN
2. APPLICANT: JOEL & STACY JUSTICE
3. PROJECT DESCRIPTION: 10 LOT RESIDENTIAL SUBDIVISION
4. NEAREST RECEIVING STREAM: CURRITUCK SOUND INLET NUMBER: 30-1
5. STREAM CLASSIFICATION: SC PASQUOTANK RIVER BASIN
6. PROJECT AREA TABULATION:
TOTAL PROPERTY AREA: 14.53 AC.
TOTAL PROPOSED DISTURBED AREA: 11.00 AC.

AREA CALCULATION NOTE: All areas have been calculated utilizing properties within the Autocad software.
MATERIAL BALANCE NOTE: All excavated material occurring during the course of construction shall remain on-site for roadway construction and over lot grading.
WETLAND NOTE: No 404 jurisdictional wetlands were identified in the project area.
STABILIZATION NOTE: The angle of graded slopes and fills shall be no greater than the angle that can be retained by vegetative cover or other adequate erosion control devices or structures.

SEDIMENTATION AND EROSION CONTROL NOTES:

A. NARRATIVE AND SITE DATA
The 14.5 acre property is located at the end of Indian Kettle Rd., an existing gravel subdivision road off of Forbes Rd. in Jarvisburg, Currituck County.
B. LAND DISTURBANCE & STABILIZATION DETAIL
TO PROVIDE TEMPORARY SOIL STABILIZATION BY PLANTING GRASSES AND LEGUMES TO AREAS THAT WOULD REMAIN BARE FOR MORE THAN 14 CALENDAR DAYS, OR 7 DAYS IN IDENTIFIED CRITICAL AREAS, WHERE PERMANENT COVER IS NOT NECESSARY OR APPROPRIATE.

CONSTRUCTION SEQUENCE SCHEDULE

CONSTRUCTION ACTIVITY
Construction Access- Construction entrance, construction routes, equipment parking areas
Sediment Traps & Barriers
Basin traps, sediment fences, & outlet protection
Runoff Control- Diversion, perimeter dikes, water bars, and outlet protection
Runoff Conveyance System- Stabilizes stream banks, storm drains, channels, inlet & outlet protection, slope drains

Land Clearing & Grading- Site preparation- cutting, filling & grading, sediment traps, barriers, diversions, drains, surface roughening
Surface Stabilization- Temporary & permanent seeding, mulching, sodding, rip, rap.
Building Construction- Buildings, utilities, paving.
Landscaping & Final Stabilization- Topping, trees & shrubs, permanent seeding, mulching, sodding, rip, rap

SCHEDULE CONSIDERATION

First land-disturbing activity- Stabilize bare areas immediately with gravel & temporary vegetation as construction takes place.
Install principal basins after construction site is accessed. Install additional traps and barriers as needed during grading.
Install key practices after principal sediments traps and before land grading. Install additional runoff-control conveyance measures during grading.

Where necessary, stabilize stream banks as early as possible. Install principal runoff conveyance system with runoff-control measures. Install remainder of system after grading.
Begin major clearing and grading after principal & key runoff-control measures are installed. Clear borrow & disposal areas as needed. Install additional control measures as grading progresses. Mark trees & buffer areas for preservation.
Apply temporary or permanent stabilization measures immediately on all disturbed areas where work is delayed or complete.
Install necessary erosion & sedimentation control practices as work takes place.
Stabilize all open areas, including borrow & spoil areas. Remove & stabilize all temporary control measures.

LAND GRADING CONSTRUCTION SPECIFICATIONS

- 1. Construct & maintain all erosion & sedimentation control practices & measures in accordance with the approved sedimentation control plan and construction schedule.
2. Remove good topsoil from areas to be graded and filled, and preserve it for use in finishing the grading of all critical areas.
3. Scarify areas to be topsoiled to a minimum depth of 2 inches before placing topsoil.
4. Clear & grub areas to be filled to remove trees, vegetation, roots, or other objectionable material that would affect the planned stability of fill.
5. Ensure that fill material is free of brush, rubbish, rocks, logs, stumps, building debris, and other materials inappropriate for constructing stable fills.
6. Place all fill in layers not to exceed 9 inches in thickness, and compact the layers as required to reduce erosion, slippage, settlement, or other related problems.
7. Do not incorporate frozen material or soft, mucky, or highly compressible materials into fill slopes.
8. Do not place fill on a frozen foundation, due to possible subsidence and slippage.
9. Keep diversions and other water conveyance measures free of sediment during all phases of development.
10. Handle spools or springs encountered during construction in accordance with approved methods.
11. Following completion of any phase of grading, provide a groundcover (temporary or permanent) on all exposed slopes within 14 calendar days, or 7 calendar days in critical areas identified on the plan; and, a permanent groundcover for all disturbed areas within 15 working days or 90 calendar days (whichever is shorter) following completion of construction or development.
12. Provide adequate protection from erosion for all topsoil stockpiles, borrow areas, and spoil areas.

MAINTENANCE
Periodically check all graded areas & the supporting erosion & sedimentation control practices, especially after heavy rainfalls. Promptly remove all sediment from diversions and other water-disposal practices. If washouts or breaks occur, repair them immediately. Prompt maintenance of small-eroded areas before they become significant gulches is an essential part of an effective erosion & sedimentation control plan.

PERMANENT SEEDING

The purpose of permanent seeding is to reduce erosion and decrease sediment yield from disturbed areas, and to permanently stabilize such areas in a manner that is economical, adapts to site conditions, and allows selection of the most appropriate plant materials. These areas must be seeded or planted within 15 working days or 90 calendar days after final grade is reached, unless temporary stabilization is applied.

PERMANENT SEEDING SPECIFICATIONS
Seeding Recommendations for Summer
SEEDING MIXTURE
Species Rate (lb/acre)
Common bermudagrass 10/1,000 sf (sprigs)
1-2 lb/1,000 sf (seed)
500 (See Sodding Notes)
Seeding Recommendations for Early Fall through Early Spring
SEEDING MIXTURE
Species Rate
Kentucky 31 Tall Fescue 6 lb/1,000 sf (broadcast seed)

Soil Amendments- It is highly recommended that soils be tested and amended as found necessary. If a soil is not tested follow these recommendations: Apply 3,000 lb/acre of ground agricultural limestone and 500 lb/acre of 10-10-10 starter fertilizer, or 50 lb/acre nitrogen from turf-type slow-release fertilizer. Add 25-50 lb/acre nitrogen at 2-3 week intervals through midsummer.

Sprigging- Plant sprigs in furrows with a tractor-drawn transplanter, or broadcast by hand. (Not recommended for Tall Fescue)
Furrows should be 4-6 inches deep and 2 feet apart. Place sprigs about 2 ft. apart in a row with one end at or above ground level.

Broadcast at rates shown above, and press sprigs into the top 1/2-2 inches of soil with a disk set straight so that sprigs are not brought back toward the surface.

Mulch- Do not mulch Bermuda Grass. For Tall Fescue seed, apply 4,000-lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch-anchoring tool. A disk with blades set nearly straight can be used as a mulch-anchoring tool.

Maintenance- Water as needed. Mow bermuda to 3/4 to 1-inch height and tall fescue to 2.5 - 3.5 inch height. Topdress bermuda with 40 lb/acre nitrogen in April, 50 lb in May, 50 lb in June, 50 lb in July, and 25 lb in August. Top dress tall fescue in mid September, again in November and February with turf-grade 3-1-2 or 4-1-2 ratio turf-grade fertilizer. Fertilize with 1 lb of actual nitrogen per 1,000 sf. Do not fertilize tall fescue between Mid March and Early September.

TEMPORARY SEEDING

The purpose of temporary seeding is to temporarily stabilize denuded areas that will not be brought to final grade or permanently seeded for a period of more than 14 calendar days, or 7 days in critical areas identified on the plan.

TEMPORARY SEEDING SPECIFICATIONS
Seeding Recommendations for Late Winter & Early Spring
SEEDING DATES- December 1 to April 15
SEEDING MIXTURE
Species Rate (lb/acre)
Winter Rye (grain) 120 (Annual Ryegrass shall not be used)
Annual Lespedeza 50 (Kobe)
*Omit Annual Lespedeza when duration of temporary cover is not to extend beyond June

Soil Amendments- Follow recommendations of soil tests or apply 2,000 lb/acre ground agricultural limestone and 1,000 lb/acre 10-10-10 fertilizer.

Mulch- Apply 4,000-lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch-anchoring tool. A disk with blades set nearly straight can be used as a mulch-anchoring tool.

Maintenance- Referentize if growth is not fully adequate. Reseed, fertilize and mulch immediately following erosion or other damage.

Seeding Recommendations for Summer
SEEDING DATES- April 15 to August 15
SEEDING MIXTURE
Species Rate (lb/acre)
German Millet 40

Soil Amendments- Follow recommendations of soil tests or apply 2,000 lb/acre ground agricultural limestone and 1,000 lb/acre 10-10-10 fertilizer.

Mulch- Apply 4,000-lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch-anchoring tool. A disk with blades set nearly straight can be used as a mulch-anchoring tool.

Maintenance- Repair and referentize damaged areas immediately. Topdress with 50 lb/acre of nitrogen in March. If it is necessary to extend temporary cover beyond June 15, overseed with 50 lb/acre Kobe Lespedeza in late February or Early March.

SODDING

The purpose of permanent seeding is to prevent erosion and damage from sediment and runoff by stabilizing the soil surface with permanent vegetation for the purpose of:
- the provision of immediate vegetative cover in critical areas
- to stabilize disturbed areas with a suitable plant material that cannot be established by seed.
- to stabilize drainage ways & channels and other areas of concentrated flow where flow velocities will not exceed that specified grass lining.

SODDING SPECIFICATIONS
Sod Quality
- Sod should be machine cut at a uniform depth of 1 1/2-2 inches
- Sod should not have been cut in excessively wet or dry weather.
- Sections of sod should be standard size as determined by the supplier, uniform, and uniform.
- Sections of sod should be strong enough to support their own weight and retain their size and shape when lifted by one end.
- Harvest, delivery, and installation of sod should take place within a period of 36 hours.

Soil Amendments- Apply lime and fertilizer according to soil tests or apply 2 tons/acre of pulverized agricultural limestone and 1,000 lb/acre 10-10-10 fertilizer in the fall, or 5-10-10 in spring.

Prior to laying sod, clear the soil surface of trash, debris, roots, branches, stones, and weeds larger than 2 inches in diameter. Fill or level low spots in order to avoid standing water. Rake or harrow the site to achieve a smooth and level final grade. Complete soil preparation by rolling or outcropping to firm soil.

Sod Installation- 1. Moisten the sod after it is unrolled helps maintain viability. Store in shade during installation.
2. Rake the soil surface to break the crust just before laying sod. During the summer, lightly irrigate the soil, immediately before laying sod to cool the soil and reduce root burning & dieback.

3. Do not sod on grave, frozen soils, or soils that have been treated recently with sterilants or herbicides.
4. Lay the first row of sod in a straight line with subsequent rows placed parallel to and butting tightly against each other. Stagger strips in a brick-like pattern. Be sure that the sod is not stretched or overlapped and that all joints are butted tightly to prevent voids. Use a knife or sharp spade to trim and fit irregular shaped areas.

5. Install strips of sod with their longest dimension perpendicular to the slope. On slopes of 3:1 or greater, or wherever erosion may be a problem, secure sod with pegs or staples.
6. As sodding of clearly defined areas is completed, roll sod to provide good contact between roots and soil.

7. After rolling, irrigate until the soil is wet 4 inches below the sod.
8. Keep sodded areas moist to a depth of 4 inches until the grass takes root. This can be determined by tugging on the sod.
9. Mowing should not be attempted until the sod is firmly rooted, usually 2-3 weeks.

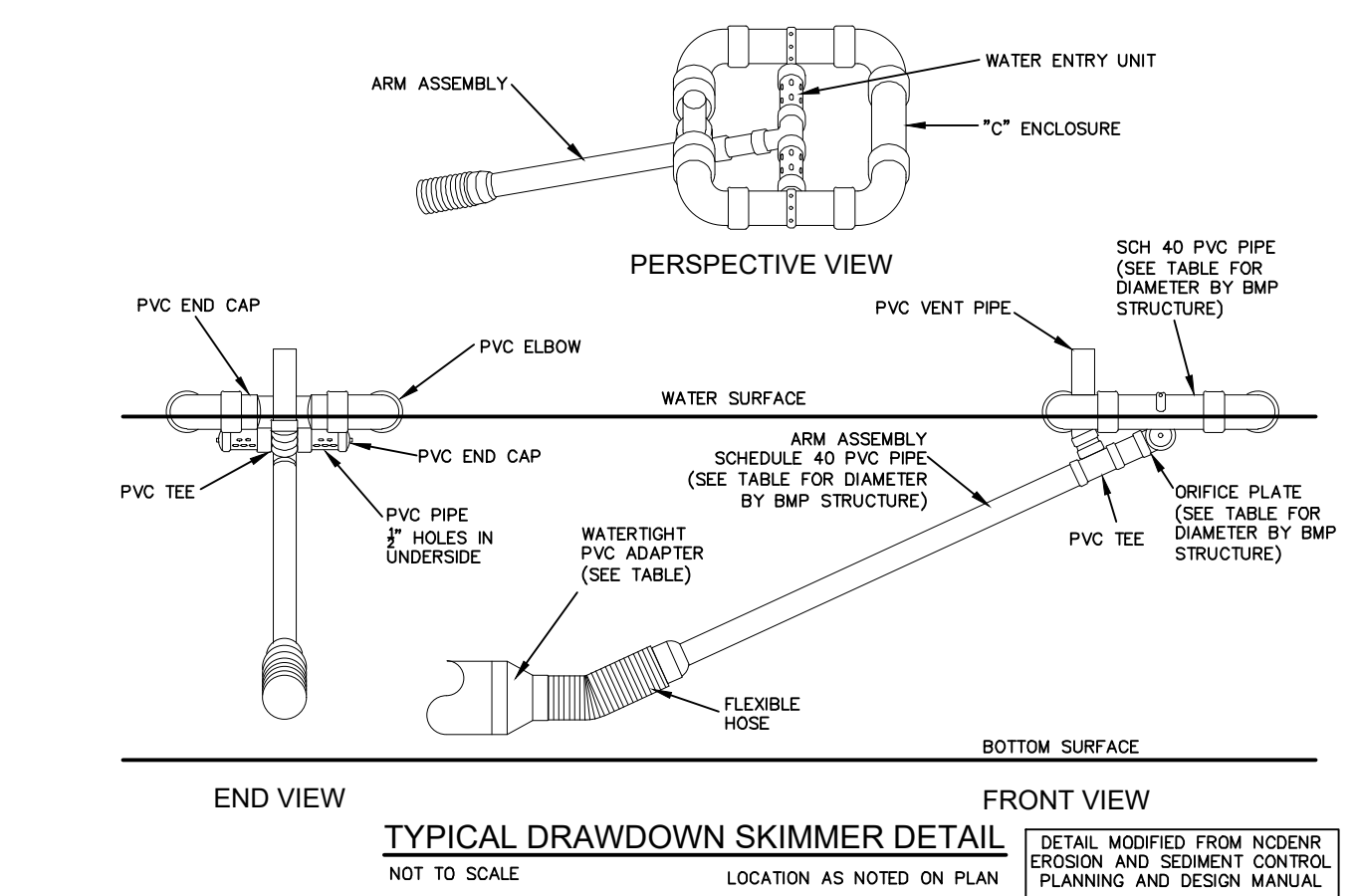
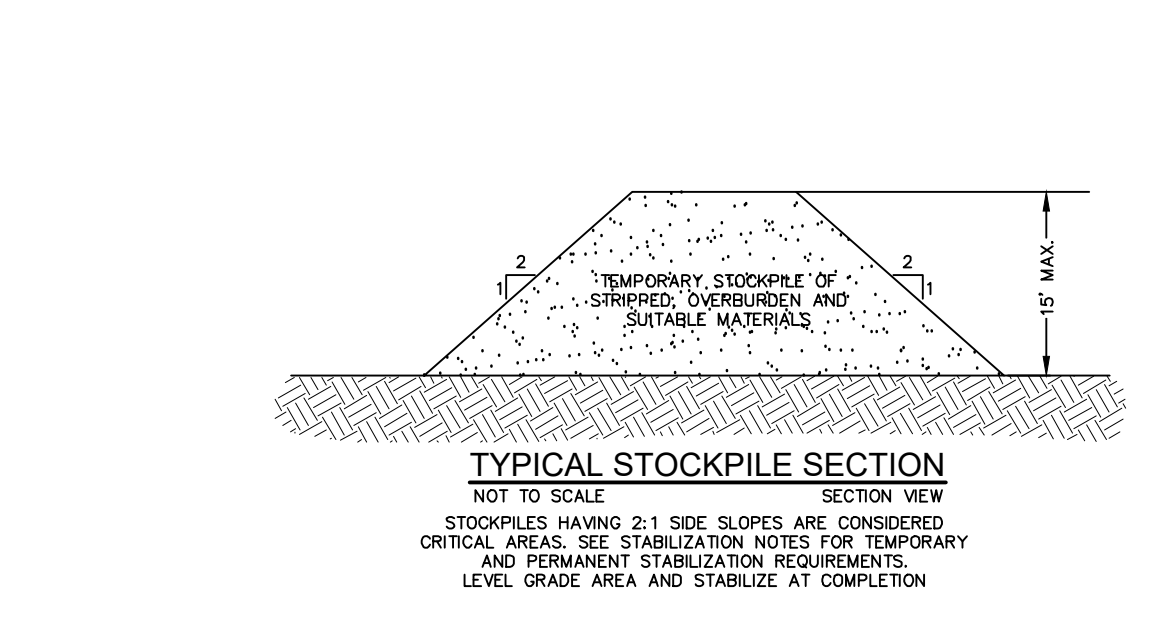
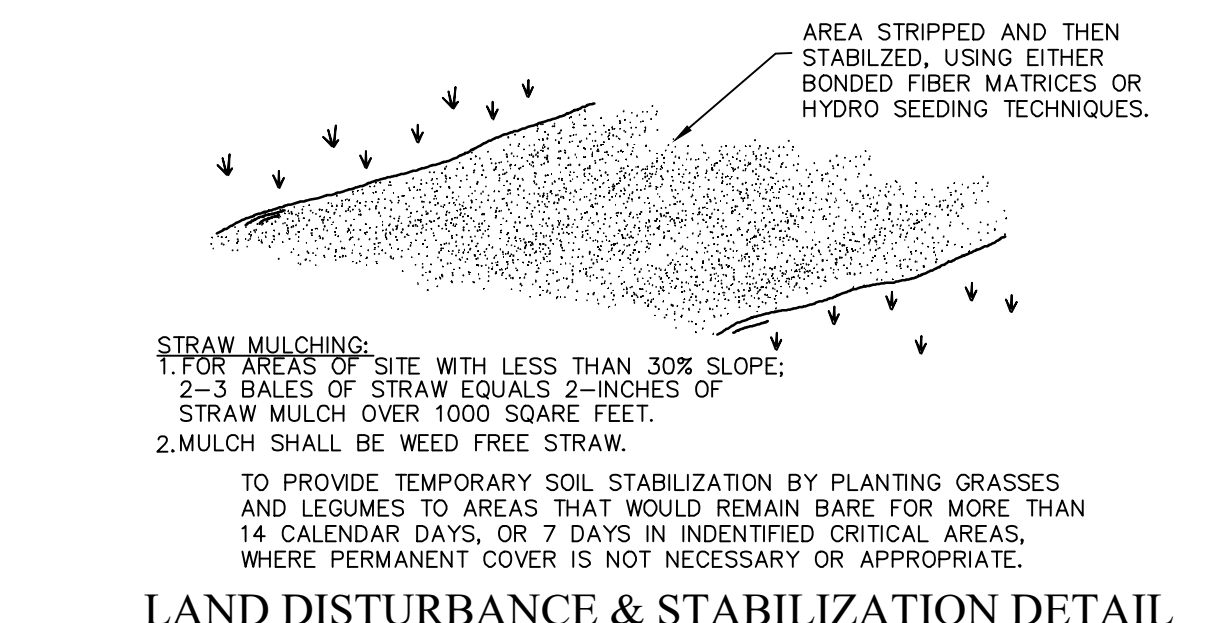
Sodded Waterways
1. Prepare soil as described above.
2. Lay sod strips perpendicular to the direction of flow, with the lateral joints staggered in a brick-like pattern. Butt edges tightly together.
Maintenance- After the first week, water as necessary to maintain adequate moisture in the root zone & prevent dormancy of the sod.
Do not remove more than one-third of the shoot in any one mowing. Grass height should be maintained between 2-3 inches unless otherwise specified.
After first growing season, established sod requires fertilization, and may also require lime. Follow soil test recommendations.

TEMPORARY STONE CHECK DAM CONSTRUCTION SPECIFICATIONS:

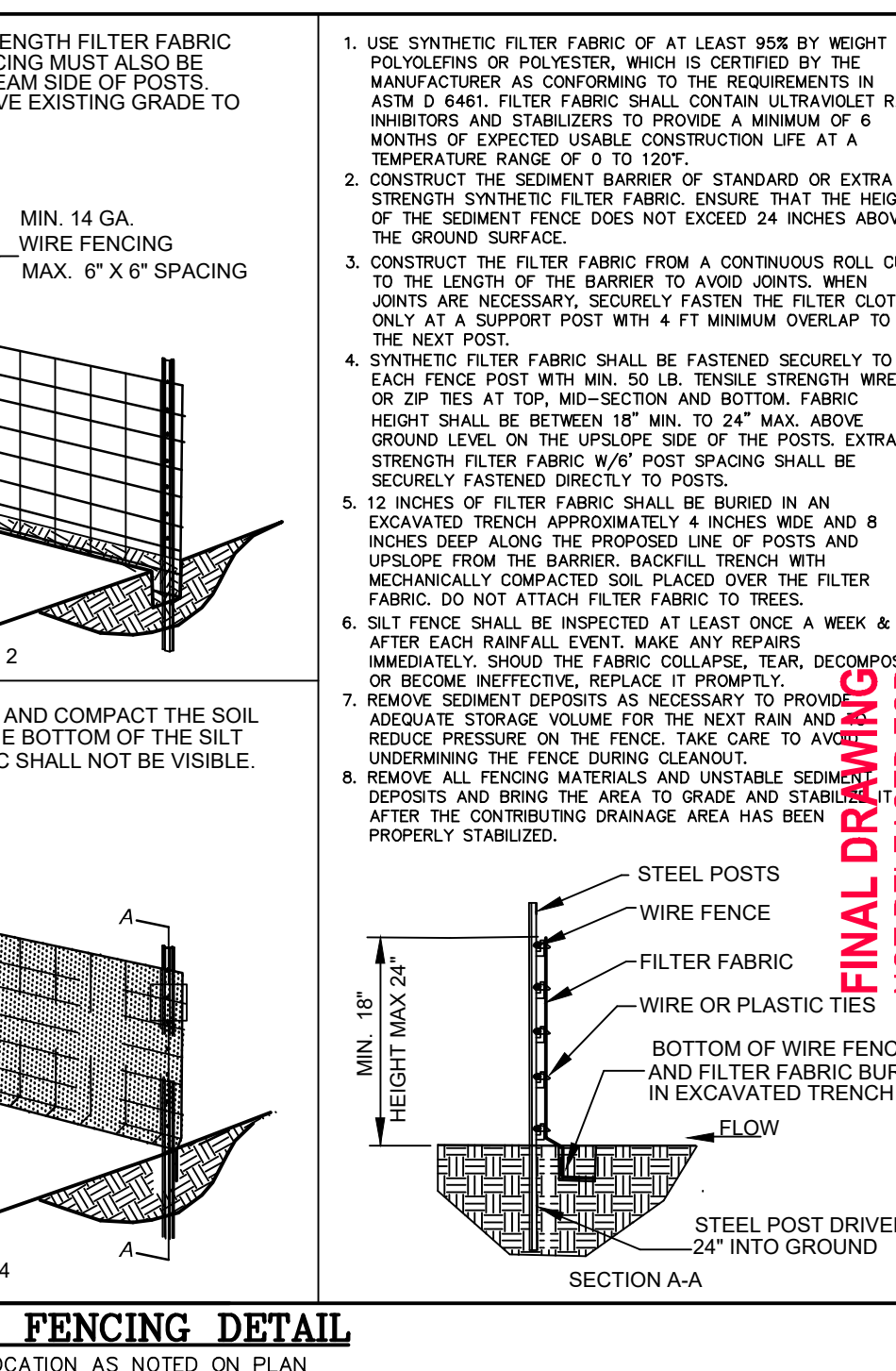
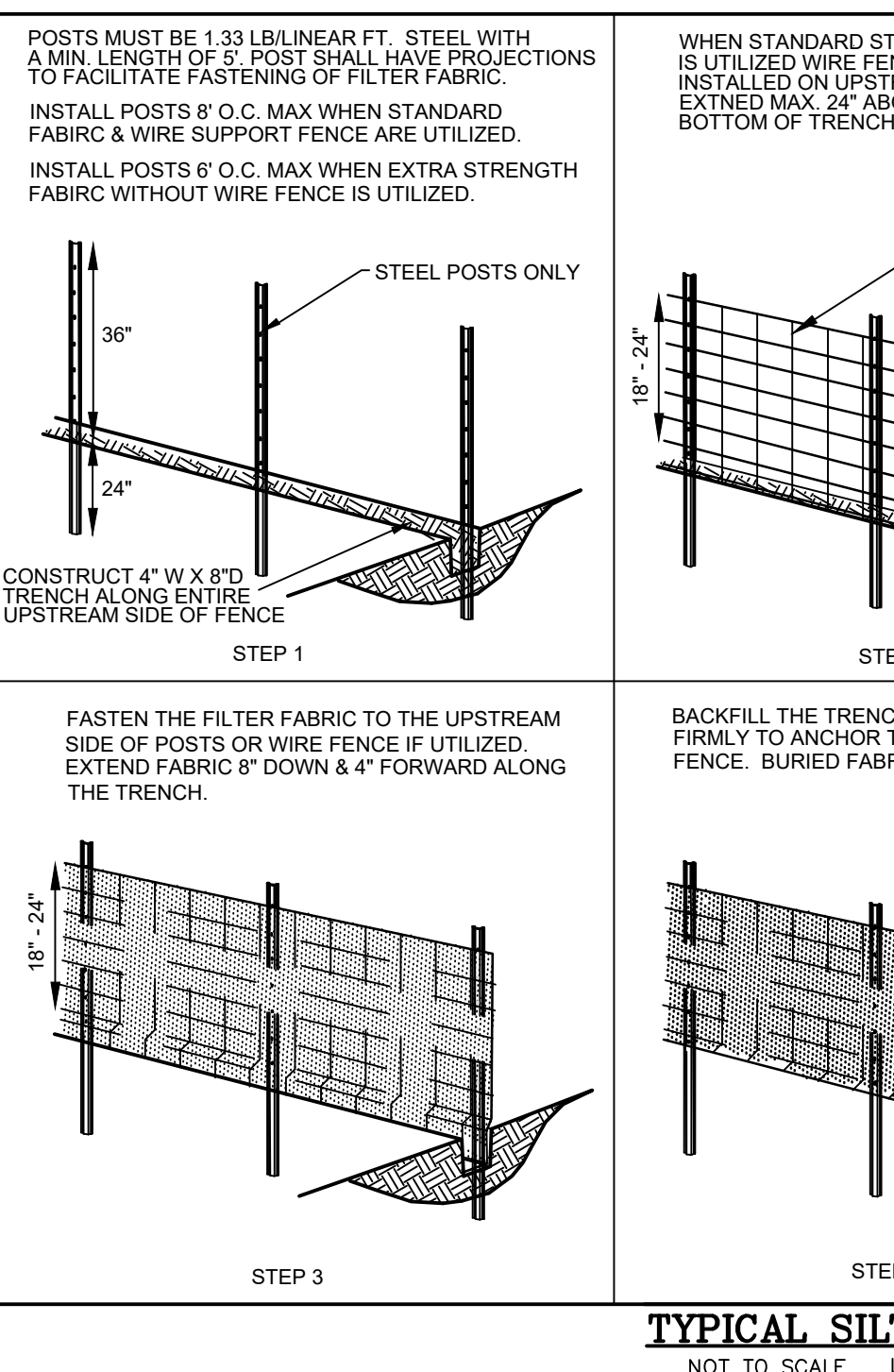
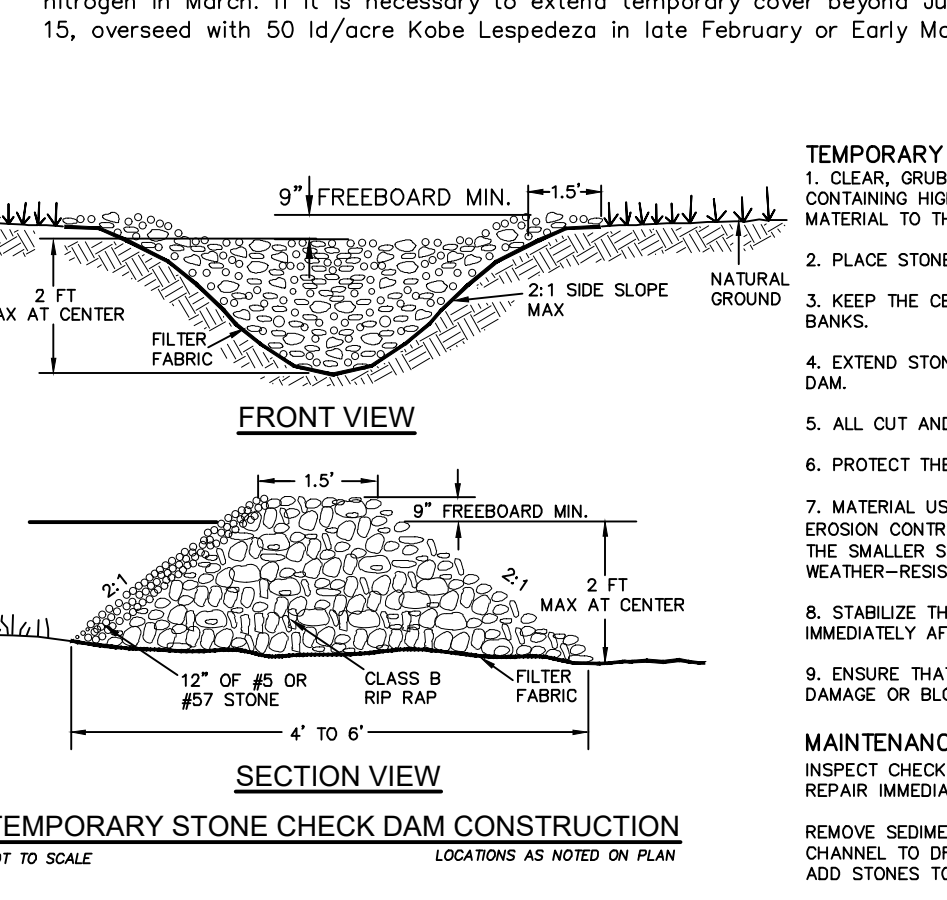
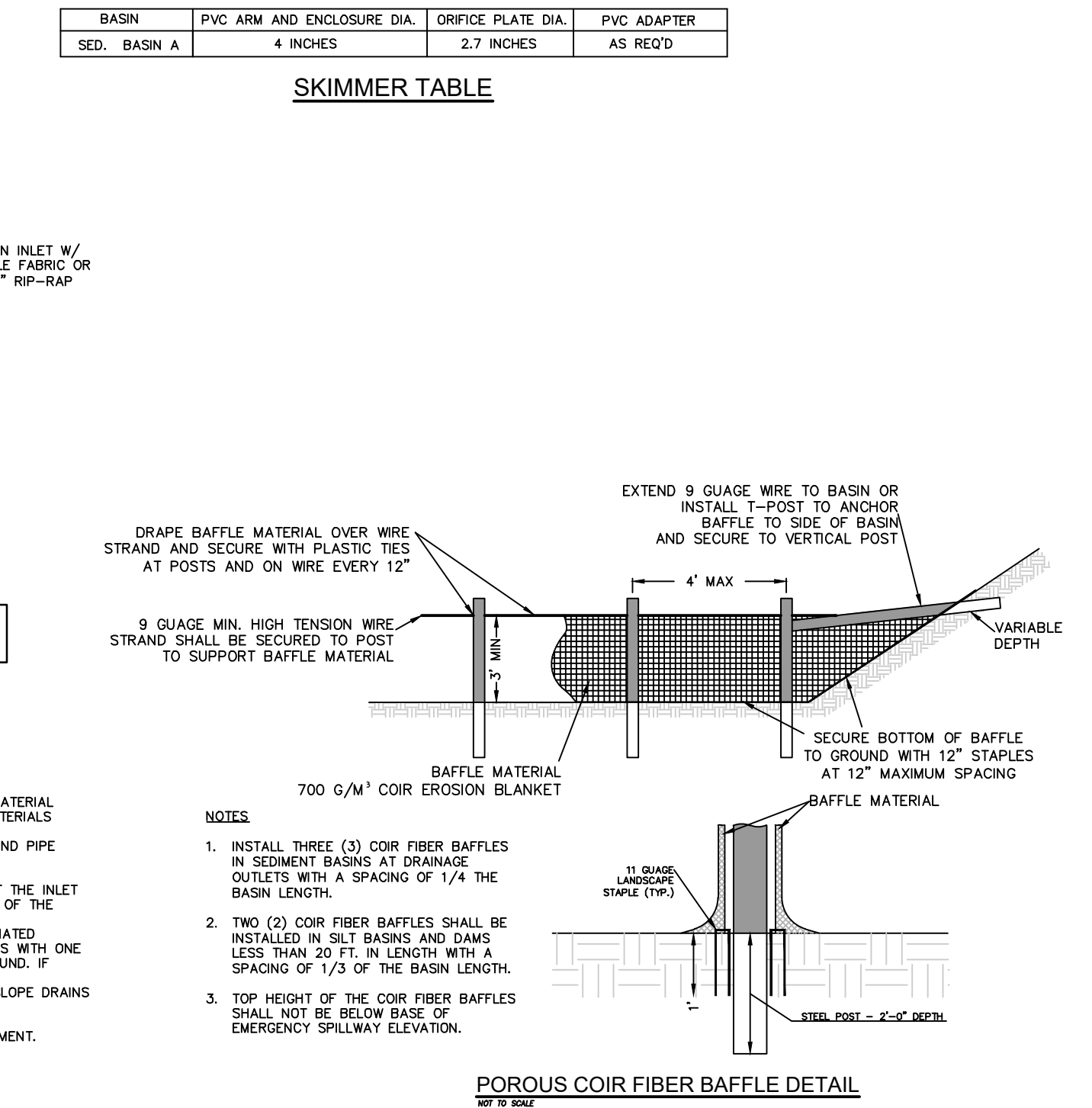
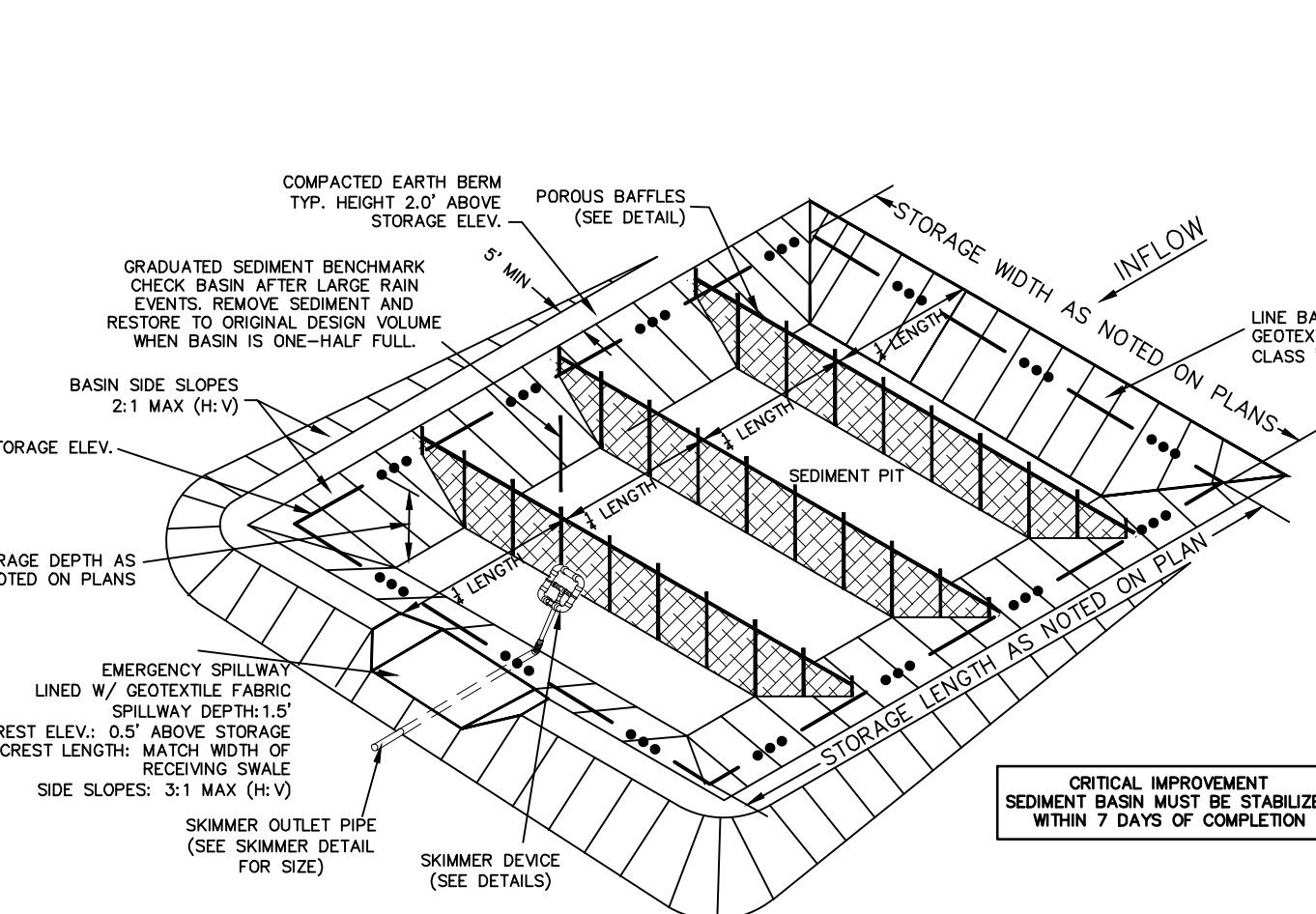
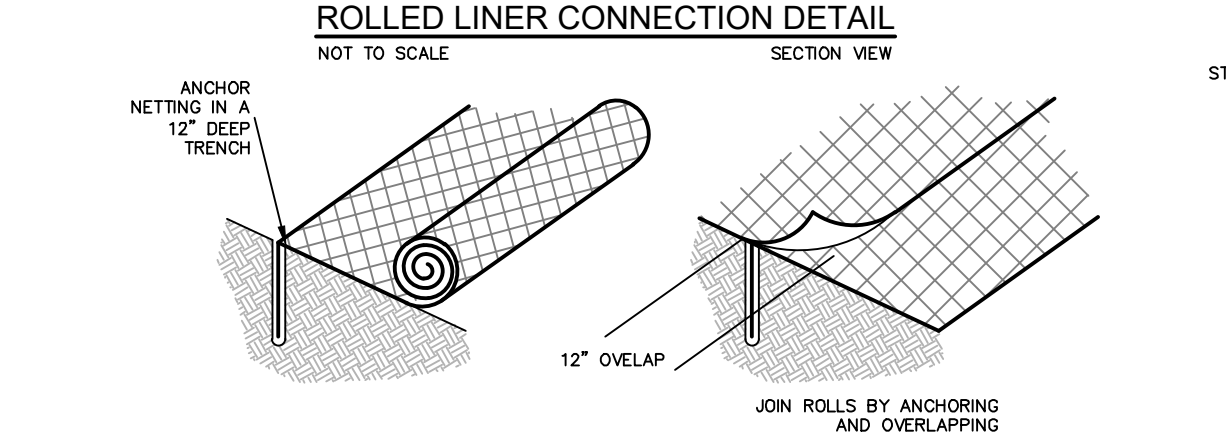
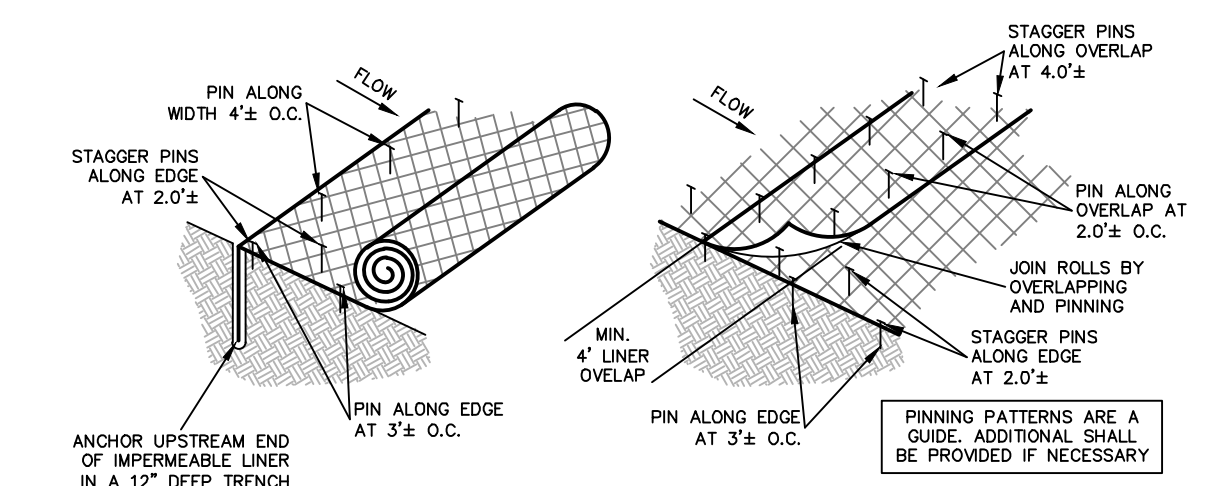
- 1. CLEAR GRUB AND STRIP AREA UNDER THE EMBANKMENT AND ROOT MAT. REMOVE ALL SURFACE SOIL CONTAINING HIGH AMOUNTS OF ORGANIC MATTER AND STOCKPILE OR DISPOSAL OF IT PROPERLY. HAUL ALL OBJECTIONABLE MATERIAL TO THE DESIGNATED DISPOSAL AREA.
2. PLACE STONE TO THE LINES AND DIMENSIONS SHOWN IN THE PLAN ON A FILTER FABRIC FOUNDATION.
3. KEEP THE CENTER STONE SECTION AT LEAST 9 INCHES BELOW NATURAL GROUND LEVEL WHERE THE DAM ABUTS THE CHANNEL BANKS.
4. EXTEND STONE TO AT LEAST 1.5 FEET BEYOND THE DITCH BANK TO KEEP WATER FROM CUTTING AROUND THE ENDS OF THE CHECK DAM.
5. ALL CUT AND FILL SLOPES SHOULD BE 2:1 OR FLATTER.
6. PROTECT THE CHANNEL AFTER THE LOWEST CHECK DAM FROM HEAVY FLOW THAT COULD CAUSE EROSION.
7. MATERIAL USED IN THE STONE SECTION SHOULD BE A WELL-GRADED MIXTURE OF STONE WITH A 60 SIZE OF 9 INCHES (CLASS B EROSION CONTROL STONE IS RECOMMENDED) AND A MAXIMUM STONE SIZE OF 14 INCHES. THE STONE MAY BE MACHINE PLACED AND THE SMALLER STONES WORKED INTO THE VOIDS OF THE LARGER STONES. THE STONE SHOULD BE HARD, ANGULAR, AND HIGHLY WEATHER-RESISTANT.
8. STABILIZE THE EMBANKMENT AND ALL DISTURBED AREAS ABOVE THE SEDIMENT POOL AND DOWNSTREAM FROM THE TRAP IMMEDIATELY AFTER CONSTRUCTION.
9. ENSURE THAT OTHER AREAS OF THE CHANNEL, SUCH AS OULVERT ENTRANCES BELOW THE CHECK DAMS, ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONES.

MAINTENANCE OF TEMPORARY STONE CHECK DAMS:

INSPECT CHECK DAMS AND CHANNELS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (2" OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. CLEAN OUT SEDIMENT, STRAW, LIMBS, OR OTHER DEBRIS WHEN NEEDED. REMOVE SEDIMENT ACCUMULATION 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 CARRIING SEDIMENT OVER THE DAM. ADD STONES TO DAMS AS NEEDED TO MAINTAIN DESIGN HEIGHT AND CROSS SECTION.



SKIMMER TABLE
BASIN SED. BASIN A PVC ARM AND ENCLOSURE DIA. 4 INCHES ORIFICE PLATE DIA. 2.7 INCHES PVC ADAPTER AS REQ'D



Professional Group logo for Bissell Professional Group, Inc. with contact information and project details for ALGONQUIN CONSTRUCTION DRAWINGS.

**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 discharge outfalls (SDCs) | At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours | 1. Identification of the discharge outfalls inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration, 5. Indication of visible sediment leaving the site, 6. Description, evidence, and date of corrective actions taken. |
| (4) Perimeter of site | At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours | If visible sedimentation is found outside site limits, then a record of the following shall be made: 1. Actions taken to clean up or stabilize the sediment that has left the site limits, 2. Description, evidence, and date of corrective actions taken, and 3. An explanation as to the actions taken to control future releases. |
| (5) Streams or wetlands onsite or offsite (where accessible) | At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours | If the stream or wetland has increased visible sedimentation or a stream has visible increased turbidity from the construction activity, then a record of the following shall be made: 1. Description, evidence and date of corrective actions taken, and 2. Records of the required reports to the appropriate Division Regional Office per Part III, Section C, Item (2)(a) of this permit. |
| (6) Ground stabilization measures | After each phase of grading | 1. The phase of grading (installation of perimeter E&SC 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 kept on site and available for inspection at all times during normal business hours.

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

2. Additional Documentation to be Kept on Site

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

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

3. Documentation to be Retained for Three Years

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

**PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING**

SECTION C: REPORTING

1. Occurrences that Must be Reported

Permittees shall report the following occurrences:

- (a) Visible sediment deposition in a stream or wetland.
- (b) Oil spills if:
 - They are 25 gallons or more,
 - They are less than 25 gallons but cannot be cleaned up within 24 hours,
 - They cause sheen on surface waters (regardless of volume), or
 - They are within 100 feet of surface waters (regardless of volume).
- (c) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.
- (d) Anticipated bypasses and unanticipated bypasses.
- (e) Noncompliance with the conditions of this permit that may endanger health or the environment.

2. Reporting Timeframes and Other Requirements

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

| Occurrence | Reporting Timeframes (After Discovery) and Other Requirements |
|--|--|
| (a) Visible sediment deposition in a stream or wetland | <ul style="list-style-type: none"> • Within 24 hours, an oral or electronic notification. • Within 7 calendar days, a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis. • If the stream is named on the NC 303(d) list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired-waters conditions. |
| (b) Oil spills and release of hazardous substances per Item 1(b)-(c) above | <ul style="list-style-type: none"> • Within 24 hours, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release. |
| (c) Anticipated bypasses [40 CFR 122.41(m)(3)] | <ul style="list-style-type: none"> • A report at least ten days before the date of the bypass, if possible. The report shall include an evaluation of the anticipated quality and effect of the bypass. |
| (d) Unanticipated bypasses [40 CFR 122.41(m)(3)] | <ul style="list-style-type: none"> • Within 24 hours, an oral or electronic notification. • Within 7 calendar days, a report that includes an evaluation of the quality and effect of the bypass. |
| (e) Noncompliance with the conditions of this permit that may endanger health or the environment [40 CFR 122.41(l)(7)] | <ul style="list-style-type: none"> • Within 24 hours, an oral or electronic notification. • Within 7 calendar days, a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. [40 CFR 122.41(l)(6). • Division staff may waive the requirement for a written report on a case-by-case basis. |



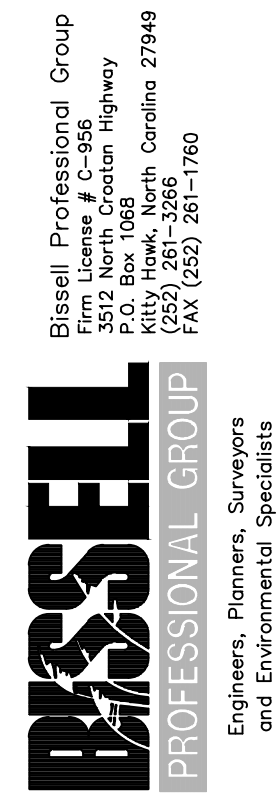
**PART II, SECTION G, ITEM (4)
DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT**

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

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

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING

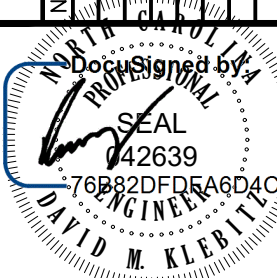
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NCG01 - SELF INSPECTION,
RECORD KEEPING & REPORTING

ALGONQUIN
CURRITUCK COUNTY
NORTH CAROLINA

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| DATE: 8/28/24 | SCALE: AS NOTED |
| PERSON: BFG | CHECKED: MSB |
| ISSUED: KFW/DMK | APPROVED: BFG |
| SHEET: 12 | OF 13 |
| CAD FILE: 382600B2 | PROJECT NO: 3826 |

**FINAL DRAWING
NOT RELEASED FOR
CONSTRUCTION**

