

CONSTRUCTION PLANS

FOR THE

SEWERLINE EXTENSION WATERLINE EXTENSION AND SEWER PUMP STATION

TRANSYLVANIA COUNTY, NORTH CAROLINA MARCH 16, 2022

ARC# 19156-2020

PREPARED FOR: TRANSYLVANIA COUNTY 101 S. BROAD STREET BREVARD, NC 28712 TOWN OF ROSMAN **6 MAIN STREET**

ROSMAN, NC 28772

SHEET INDEX SHEET NO. DESCRIPTION **COVER SHEET** C-1 MASTER PLAN C-2 FORCE MAIN 'A' & WATERLINE 'T' (STA. 0+00 TO 30+00) C-3 FORCE MAIN 'A' & WATERLINE 'T' (STA. 30+00 TO 60+00) C-4 FORCE MAIN 'A' & WATERLINE 'T' (STA. 60+00 TO 90+00) C-5 FORCE MAIN 'A' & WATERLINE 'T' (STA. 90+00 TO 120+00) C-6 FORCE MAIN 'A' & WATERLINE 'T' (STA. 120+00 TO 137+31) C-7 FORCE MAIN 'B' (STA. 0+00 TO 27+34) C-8 WATERLINE 'S' (STA. 0+00 TO 27+85) C-8A WATERLINE 'W' (STA. 0+00 TO 14+80) C-9 PUMP STATION SITE, GRADING, & NCDOT DRIVEWAY PLAN C-10 DETAILS C-11 **DETAILS** C-12 C-13 EROSION CONTROL PLAN FM 'A' & WL 'T' (STA. 0+00 TO 45+00) C-14 EROSION CONTROL PLAN FM 'A' & WL 'T' (STA. 45+00 TO 90+00) C-15 EROSION CONTROL PLAN FM 'A' & WL 'T' (STA. 90+00 TO 137+26) C-16 E.C. PLAN FM 'B' (STA. 0+00 TO 27+34) & WL 'S' (STA. 0+00 TO 15+00) C-17 EROSION CONTROL PLAN WL 'S' (STA. 15+00 TO 27+85) & PUMP STATION C-18 EROSION CONTROL PLAN WL 'R' (STA. 0+00 TO 13+60) C-19 DETAILS **REVISIONS** REVISION AND SHEET NO. DESCRIPTION 10/13/2021 A - ISSUE 1 ALL SUBMITTAL TO CLIENT AND REGULATORY AGENCIES FOR REVIEW 12/14/2021 A - ISSUE 2 ALL RESUBMITTAL TO REGULATORY AGENCIES TO ADDRESS REVIEW COMMENTS SUBMITTAL TO CLIENT AND REGULATORY AGENCIES FOR REVIEW 2/11/2022 A - ISSUE 3 ALL

ISSUED FOR BID

B - ISSUE 1

ALL

EARTHWORK SPECIFICATIONS

SPECIAL PROJECT NOTE: Due to potential presence of endangered species (various bat species), clearing SHALL be limited to <u>November 16 through March 14</u>. Clearing shall <u>NOT</u> be

clearing and grubbing shall consist of clearing the surface of the ground of the designated areas of all trees, logs, snags, brush, undergrowth, heavy growth of grass, weeds, fence structures, debris and rubbish of any nature, natural obstructions such as objectionable soil material unsatisfactory for foundations. It shall also consist of grubbing of stumps, roots foundations and disposal of all such material. All holes remaining after the grubbing operation in embankment areas and in excavation areas less than two (2) feet in depth, shall have sides broken down and leveled if necessary to flatten out slopes, refilled with acceptable material that is properly compacted in layers by tampers, rollers or

Burning on site is not permitted without written approval of the local governing authorities having

2. Existing trees and area outside of grading limits line

Trees and vegetation to be saved shall be protected from damage by a fence barricade prior to, or during, clearing operations. Trees to be saved shall be designated by the owner. No trees are to be removed from the area outside the limits of grading or from specifically designated areas within the construction areas. If, in the opinion of the engineer, a contractor damages a tree not to be removed the contractor will be fined a predetermined amount for each damaged tree. The contractor shall also be responsible for all costs associated in removing the damaged trees from the site.

All vegetation such as roots, brush, heavy growth of grass, topsoil, all decayed vegetable matter, rubbish, and other unsuitable material within the area upon which fill is to be placed shall be stripped or be otherwise removed before the fill operation is started. In no case shall unsuitable material remain in or under the fill area. Sloped ground surface steeper than one vertical to four horizontal, on which fill s to be placed, shall be placed, stepped or benched in such a manner that the fill to be placed shall b 95 percent of the maximum laboratory dry density according to standard proctor (AASHTO T99, ASTN 1-698). Moisture content shall be within 3 percent of the optimum moisture content. Proof-roll the areas to be filled or on which structures are to be placed. A loaded dump truck or other rubber tired equipment shall be used proof-rolling. Overlapping passes of a vehicle should be made across the site n one direction and then perpendicular to the original direction of rolling.

Any yielding, pumping or soft areas should be cut out and replaced with fill compacted as described

The proposed fill should be limited to soils classified in accordance with ASTM D-2487 as GM, GC, SW, SM, SC, ML and CL. Soil classified as PT, OH, OL, CH and MH are not satisfactory as

Fills and embankments shall be constructed at the locations and to the lines and grades indicated or construction plans. The slope shall not exceed two feet horizontal to one foot vertical. The completed fill shall correspond to the shape of the typical sections indicated on the construction plans. Materia removed from the excavation shall be used in forming the fill. Fill material shall be reasonably free from roots, other organic material, trash and stones having maximum dimensions greater than 6 inches 4 inches in trenches for utilities). No frozen material will be permitted in the fill. Stones having a maximum dimension of 4 inches will not be permitted in the upper six inches of fill or embankment o utility trench. The material shall be placed in successive horizontal layers not more than 8 inches thic unless otherwise noted, in loose depth for the width of the cross-section and shall be compacted to at least 95 percent of the maximum laboratory dry density according to standard proctor (ASTM D-698 AASHTO T-99). Moisture shall be within 3 percent of the optimum moisture content. The top 12 inches of the paving, parking and/or roadway sub-grade shall be compacted to 95 percent of the maximum dry density (standard proctor). Each lift shall be rolled with a vibratory roller, a sheepsfoo roller, or a loaded rubber tired dump truck, scraper or loader. If the soil is to dry, a water truck with spreader bar or spray hose shall be used to bring the soil to the proper moisture range. The water shall be thoroughly and properly mixed with the soil prior to compaction.

Storm drain pipes shall be placed on a firm bottom and hand tamped to shore up the pipe. A cushion of soil shall be tamped above the crown of the pipe in accordance with the pipe manufacturer's recommendations so that the heavier compaction equipment can then be used to bring the soil to a density as described above for fill areas

If soils investigation report is provided, then follow the recommendations of the report if they exceed the recommendations of these specifications.

Unless otherwise specified, areas designated for grading operations that contain a blanket of topsoil shall be stripped and placed in convenient stockpiles for later use as a topsoil blanket on the new graded areas specified herein, or as designated. Topsoil shall be stripped from all areas designated t receive fill. The stripping of material for topsoil shall be carefully determined and only the quantity required shall be stockpiled. Material stockpiled shall be stored in a satisfactory manner to afford proper drainage. When grading operations permit, instead of stockpiling, the topsoil shall be hauled and spread directly on the areas designated to receive topsoil.

5.Rock excavation

3/16/2022

If rock is encountered, clear away earth to expose material. Notify owner and receive written instructions prior to excavation. Remove rock to a depth of 6 inches below and 8 inches on each side of pipes in trenches. A measurement of the extent of rock to be removed shall be made. Rock excavation shall be paid for in accordance with agreement with the owner.

CONSTRUCTION NOTES:

The drawings and specifications are intended to cover a complete project, ready to use, and all items necessary for a complete and workable job shall be furnished and installed. Any discrepancy shall be immediately reported to the owner or his representative.

All work shall comply with all applicable local, state, and federal codes. The contractor, at his expense shall obtain all necessary licenses and permits, unless already obtained by the owner

The contractor shall coordinate location and installation of all underground utilities and appurtenances to minimize disturbing curbing, paving and all other utilities.

The existing utilities shown are for the contractor's convenience only. There may be other utilities not shown on these drawings. The utilities shown are based on the best available information and surface evidence where available. The engineer assumes no responsibility for the location of the utilities shown. It shall be the contractor's responsibility to verify the locations of all utilities within the limits of work. All damage made to existing utilities by the contractor shall be the sole responsibility

Deviations from these plans and specifications without prior consent of the engineer and the municipality may be cause for the work to be unacceptable

All materials shall be new unless used or salvaged materials are authorized by the owner.

The contractor shall furnish and maintain all necessary barricades around the work and shall provide protection against water damage and soil erosion. All work shall be performed in a finished and workmanlike manner to the entire satisfaction of the

owner, and in accordance with the best-recognized trade practices. The contractor shall provide sheeting and shoring for all trench construction in accordance with

0. All pipe lengths shown are to the centerline of the structures unless specifically noted. . Pipes (storm and sanitary sewer) shall be laid on smooth, continuous grades with no visible bends at

2. Bedding requirements specified herein are to be considered as minimum required for relatively dry stable earth conditions. Additional bedding shall be required for rock trenches to provide such additional bedding as required to properly construct work.

3. All storm drainage inlet structures shall have metal ring and cover for access.

4. All angles shown are 90 degrees unless shown otherwise.

i. All grades shown are finished grades. Contractor shall verify dimensions, grades, and existing elevations prior to construction.

6. Concrete curbs shall be constructed in accordance with the details shown on plans. Materials, equipment, methods of construction and workmanship shall conform to state D.O.T. standard

'. All concrete shall have 3000-PSI compressive strength after 28 days, with a maximum slump of four (4) inches, unless specified otherwise

All exposed concrete shall have a fine hair broomed finish.

conform to the requirements of NCDOT.

9. Parking and driveway base course and asphaltic concrete surface and prime materials, equipment, methods for construction and workmanship shall conform to state D.O.T. standard specifications. 20. Contractor to field verify all storm, sanitary, water and other utilities locations and inverts prior to

installation of <u>any</u> utilities. Notify engineer prior to proceeding with any work if discrepancies found.

I. Contractor shall notify the proper local authorities 24 hours prior to any road being closed for construction, including but not limited to local newspaper, radio station, fire department, county sheriff's department, ambulance service, and county emergency agency. All traffic control shall

2. All fence damaged during construction shall be replaced with like materials in a workmanlike manne and in accordance with standard fence construction practices at the contractor's expense.

Contractor shall be responsible for any damage to existing roads during construction and shall repair

road per requirements of NCDOT. No open cuts of existing roads shall be allowed except where indicated on the drawings or where specific permission is granted by NCDOT. 4. Contractor shall be responsible for any damage to existing property during construction and shall repair said property to pre-existing or better conditions.

SOIL EROSION AND SEDIMENT CONTROL NOTES:

Disposed sediment shall be permanently grassed.

Provisions to prevent erosion of the soil from the site shall conform to the requirements of the "North Carolina Sedimentation Pollution Control Act of 1973" as shown herein and stipulated in the "Erosion and Sediment Control Planning and Design Manual". Installation shall be in a manner so as to minimize erosion of the disturbed areas and prevent sediment from leaving the site.

The contractor shall incorporate all temporary and permanent erosion control measures into the project at the earliest practicable time during construction. The erosion control measures detailed hereon shall be continued until permanent drainage structures have been installed and until grass on planted shoulders and slopes is sufficiently established to be an effective erosion deterrent. The sediment removed from the control structures shall be evenly distributed outside construction limits

Temporary and permanent vegetative cover shall be installed in accordance with the requirements of Chapter 6, Section 10 - Temporary Seeding, and Section 11 - Permanent Seeding of the "Planning and Design Manual" as described in note no. 1 above.

The contractor shall not restrict the use of silt fences or any other means of erosion control to the locations shown on these plans. Moreover, the contractor should constantly be aware of minimizing soil erosion and use erosion control means accordingly. The contractor shall promptly repair,

improve or add erosion control measures as required by the local reviewing agency. 5. Divert all runoff to the erosion control devices shown on the drawings.

Provide daily maintenance of erosion control devices to maintain their function at all times

Disturbed areas shall be stabilized at the end of each work day. No work shall take place during period of wet weather or periods of predicted wet weather. Work within riparian buffers shall be resored at the end of each work day. Restoration shall utilize native grass seed mixes and fertilizers shall not be used. Erosion control matting shall be 100% biodegradable such as coconut coir fabric

3. All silt fences must be installed immediately following clearing. No grading shall be performed until silt fence installation is complete.

D. Additional sediment control measures may be required based on actual field conditions as per local governing authorities.

All erosion control measures shall be checked and maintained daily.

1. Maximum cut and fill slopes shall be two (2) foot horizontal to one (1) foot vertical, unless otherwise

2. Erosion control measures shall be maintained at all times. If full implementation of the approved plar does not provide for effective erosion control, additional erosion and sediment control measures shall be implemented to control or treat the sediment source

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13. The escape of sediment from the site shall be prevented by the installation of erosion and sedimen control measures and practices prior to, or concurrent with, land-disturbing activities

PROJECT NOTES

Town of Rosman Transvlvania County 101 S. Broad Street 6 Main Street Brevard, NC 28712

High Country Engineering, PC (C-3347) 111 E. Chestnut Street Asheville, North Carolina 28801 T:828-230-4511 Contact: James N. Johnston, PE

Email: jjohnston@hcepc.net

. Proposed use is for Public Water and Sewer Infrastructure.

2. Project Coordinates: 35.198329° N, 82.780805° W

. The receiving water courses as classified by the NCDEQ for this project are:

Cathev's Creek, Stream Index 6-16-(9.5), Class: C: Tr: HQW

Wilson Mill Creek, Stream Index 6-16-12, Class: C; HQW Lime Kiln Branch, Stream Index 6-15, Class: C Patterson Creek, Stream Index 6-14, Class: C; Tr

3.5. Cheerryfield Creek, 6-11, Class; C: Tr

4. Total disturbed area= ±9.6 acres. Total new impervious area = ±0.01 acres (0.13%).

Topographical information obtained from survey by Cameron Baker, PLS # L-4920 of Associated Land Surveyors and Planners, PC.

6. Contour interval is 2 feet, (Contour Interval @ Pump Station Site is 1 foot)

This property is shown on F.I.R.M. panel numbers 3700855300J, 3700856300J, 3700856400J, & 3700857400J, all dated October 2, 2009 and a portion of the development is located within a special

The location of underground utilities shown is approximate based on surface field evidence and information supplied by utility agencies. The survey makes no certification as to the completeness of the locations shown. Appropriate utility companies should be contacted for verification of locations

The contractor shall verify the invert elevations of all existing storm and sanitary sewer structures prior to commencement of storm and sanitary sewer construction

0. Contractor shall notify the engineer and owner/developer of any information found in the field that is different from what is shown on these design plans.



HIGH COUNTRY ENGINEERING, P.C.

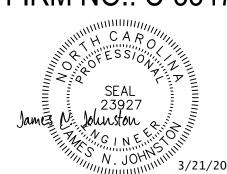
111 E. CHESTNUT STREET

ASHEVILLE, NORTH CAROLINA 28801

T: 828.230.4511

F: 828.348.5040

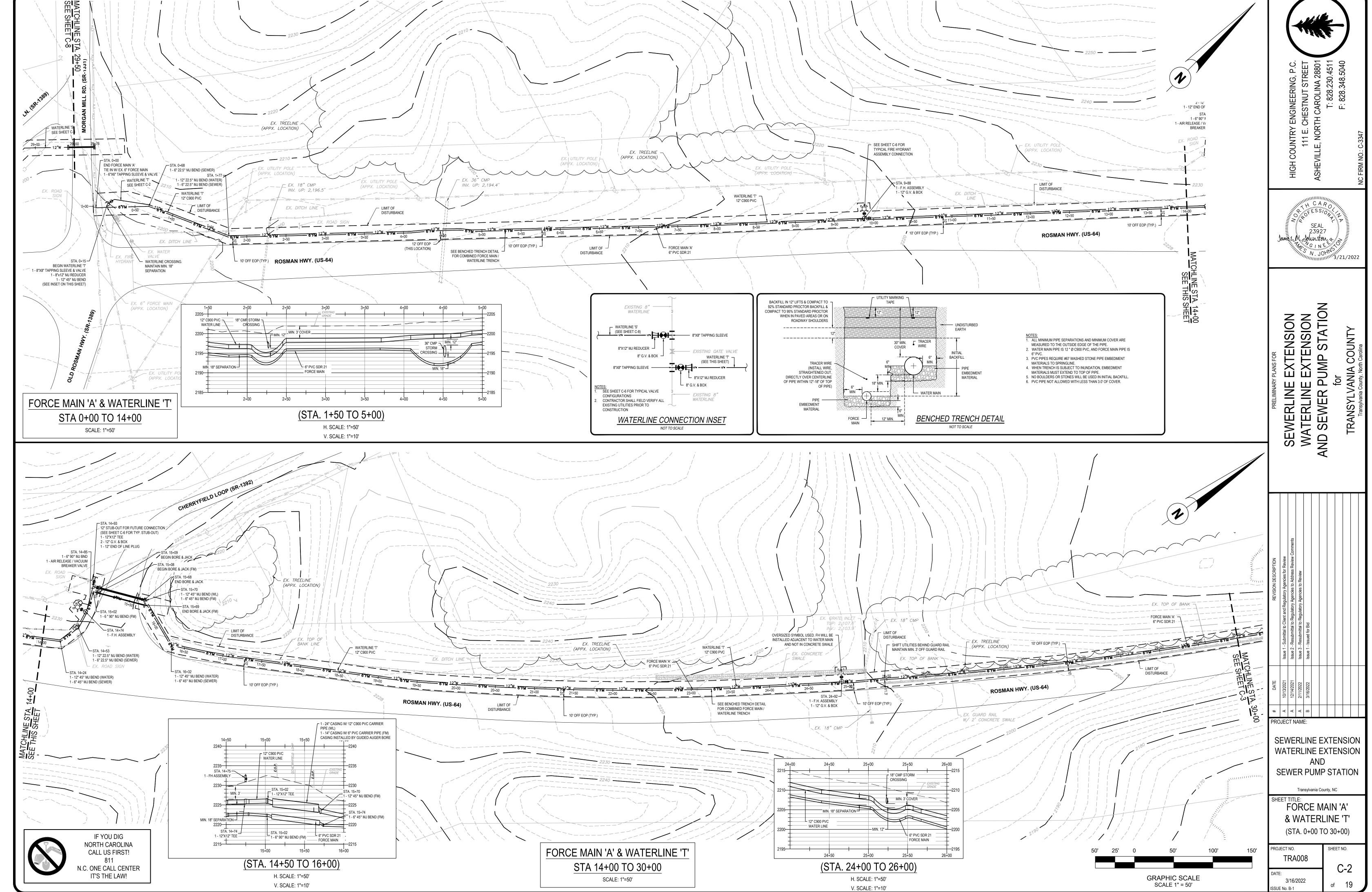
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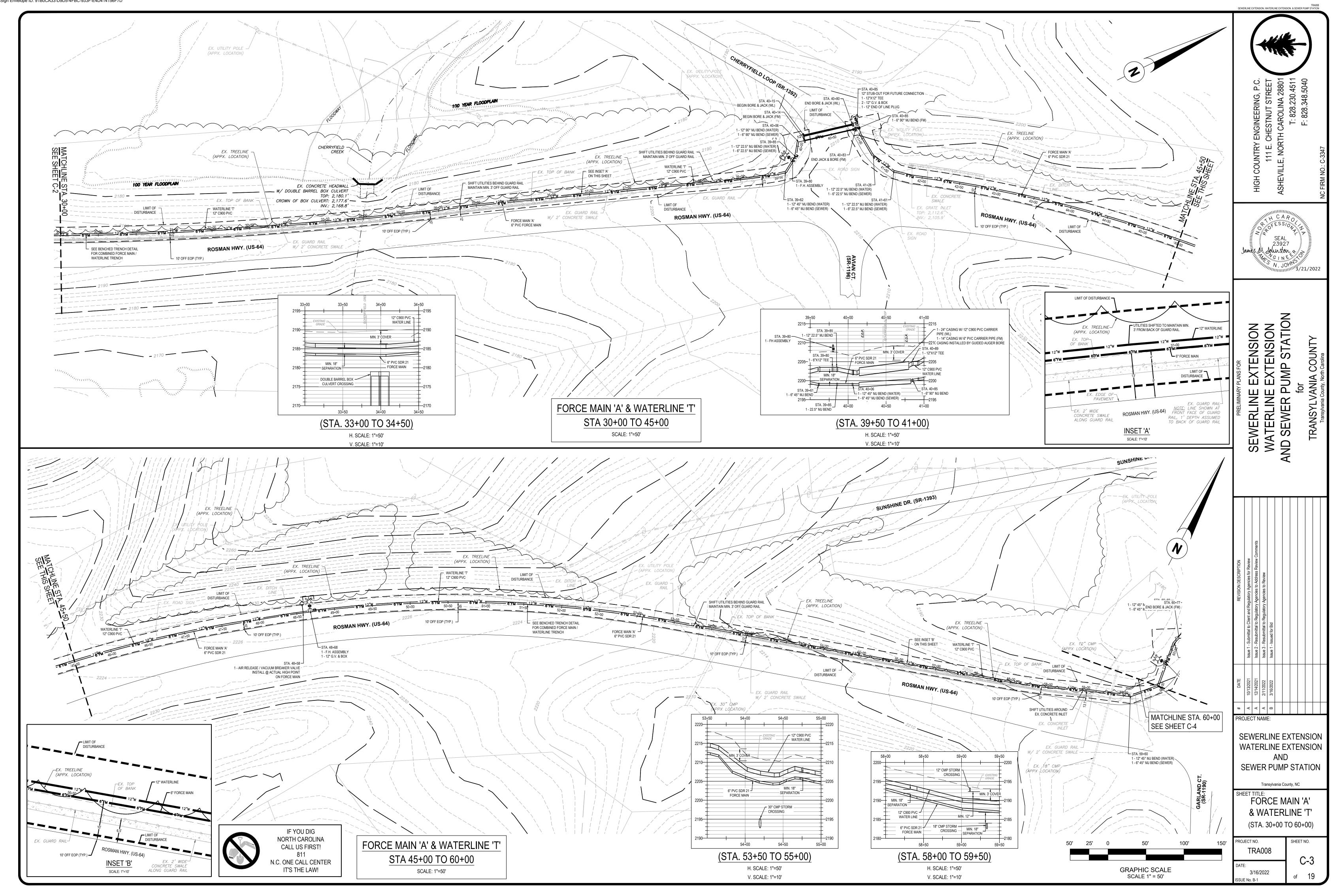


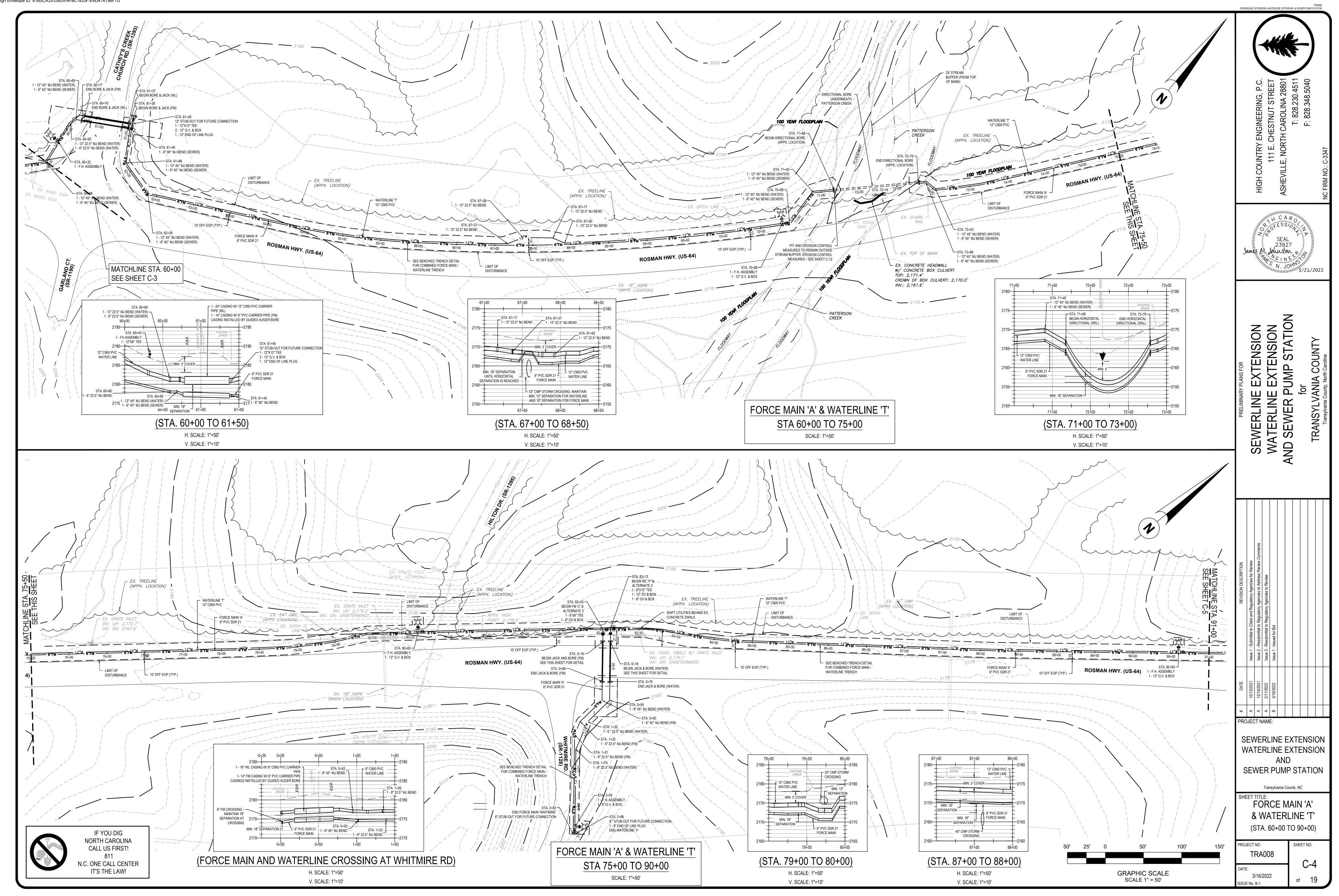
CONSTRUCTION PLANS

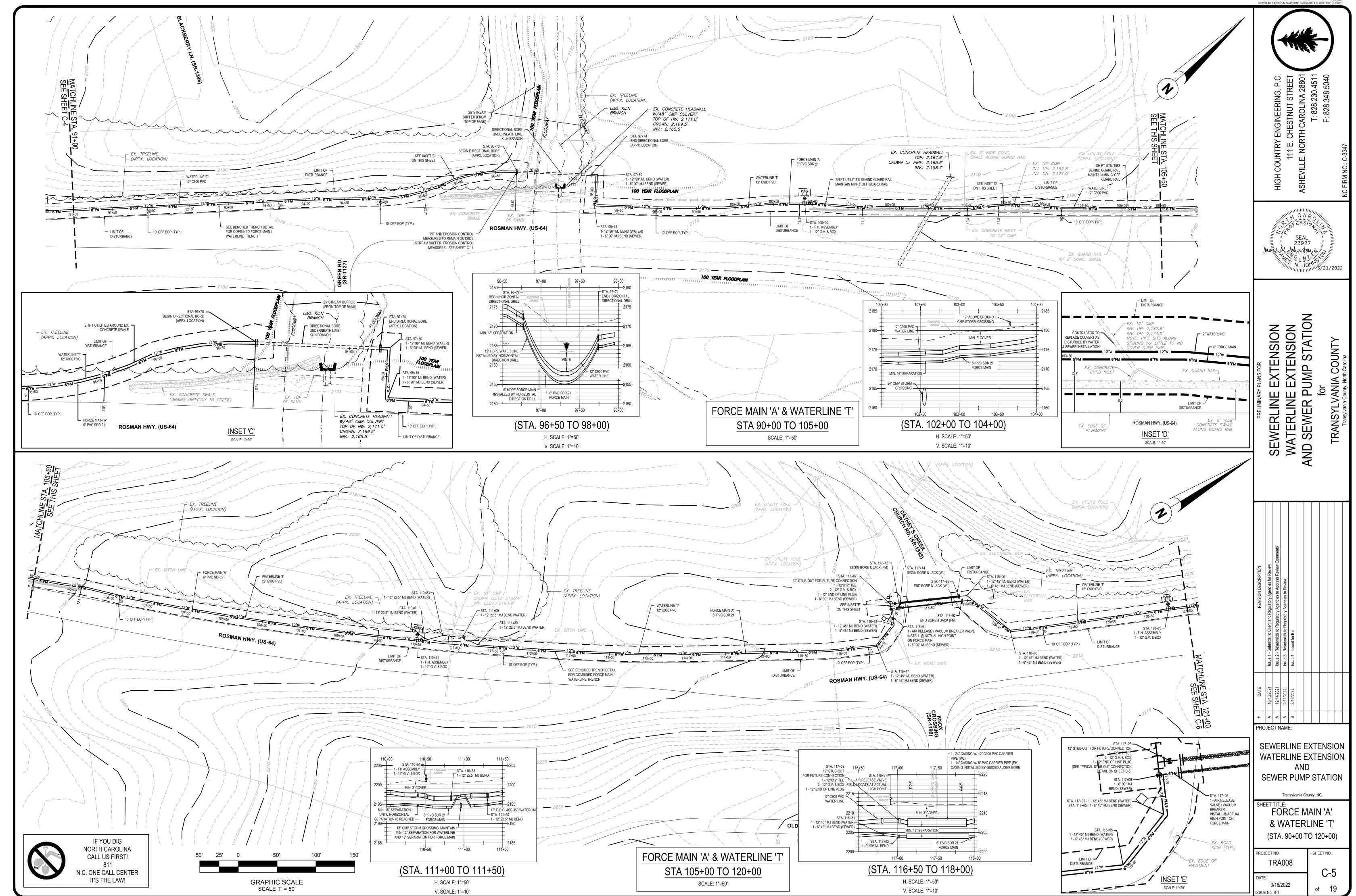
SEWERLINE EXTENSION WATERLINE EXTENSION & SEWER PUMP STATION

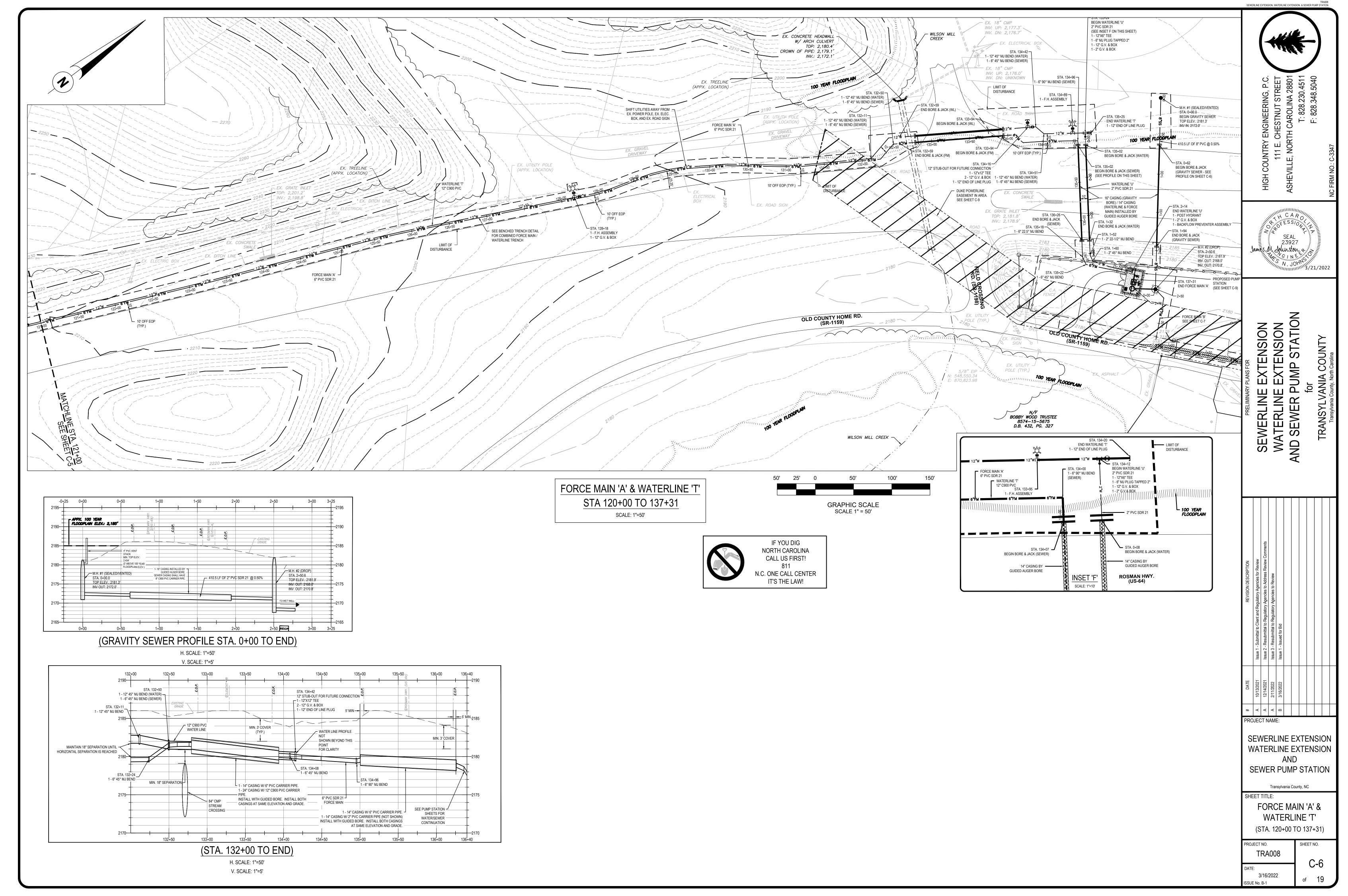
TRANSYLVANIA COUNTY, NORTH CAROLINA March 16, 2022

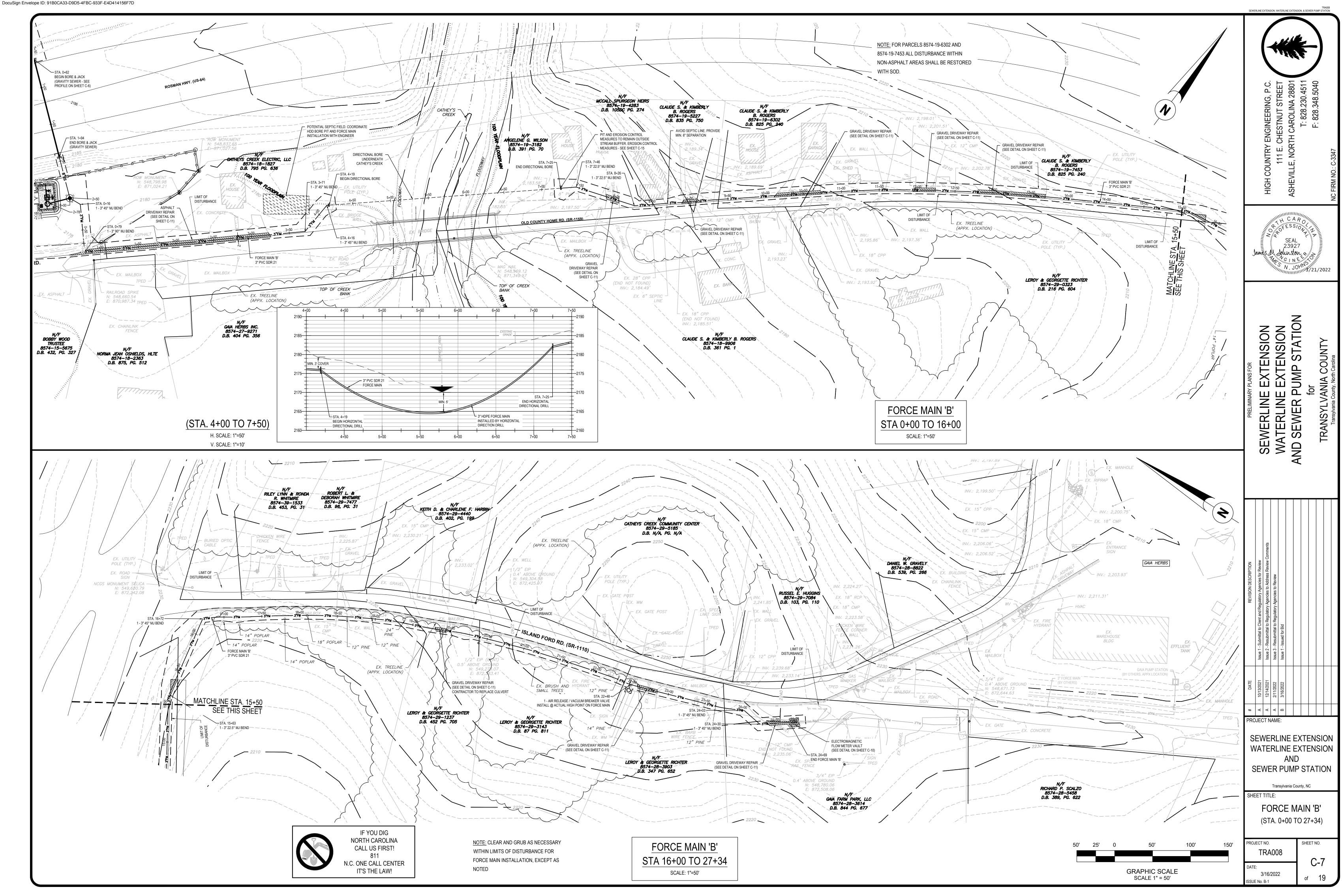


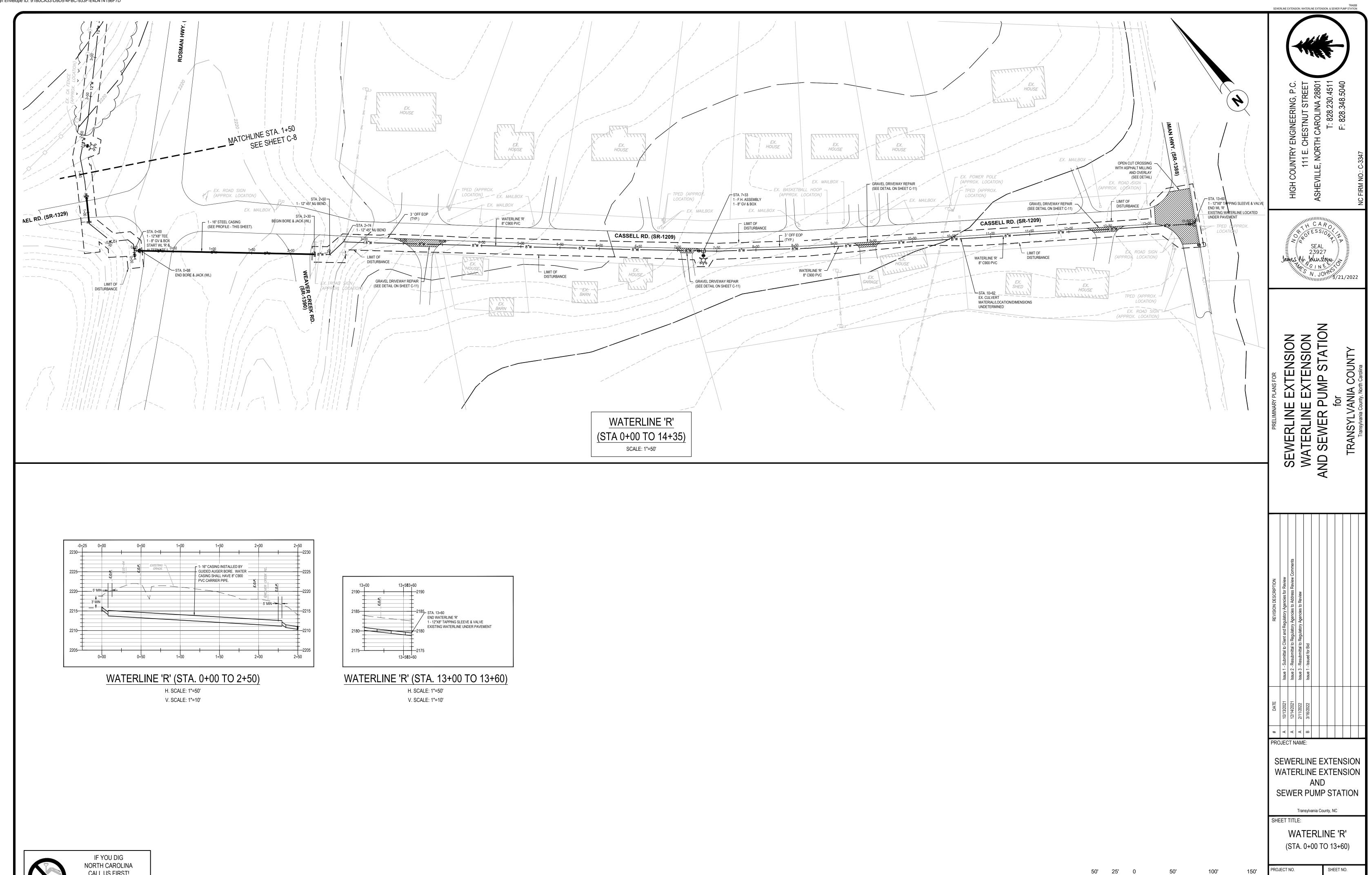








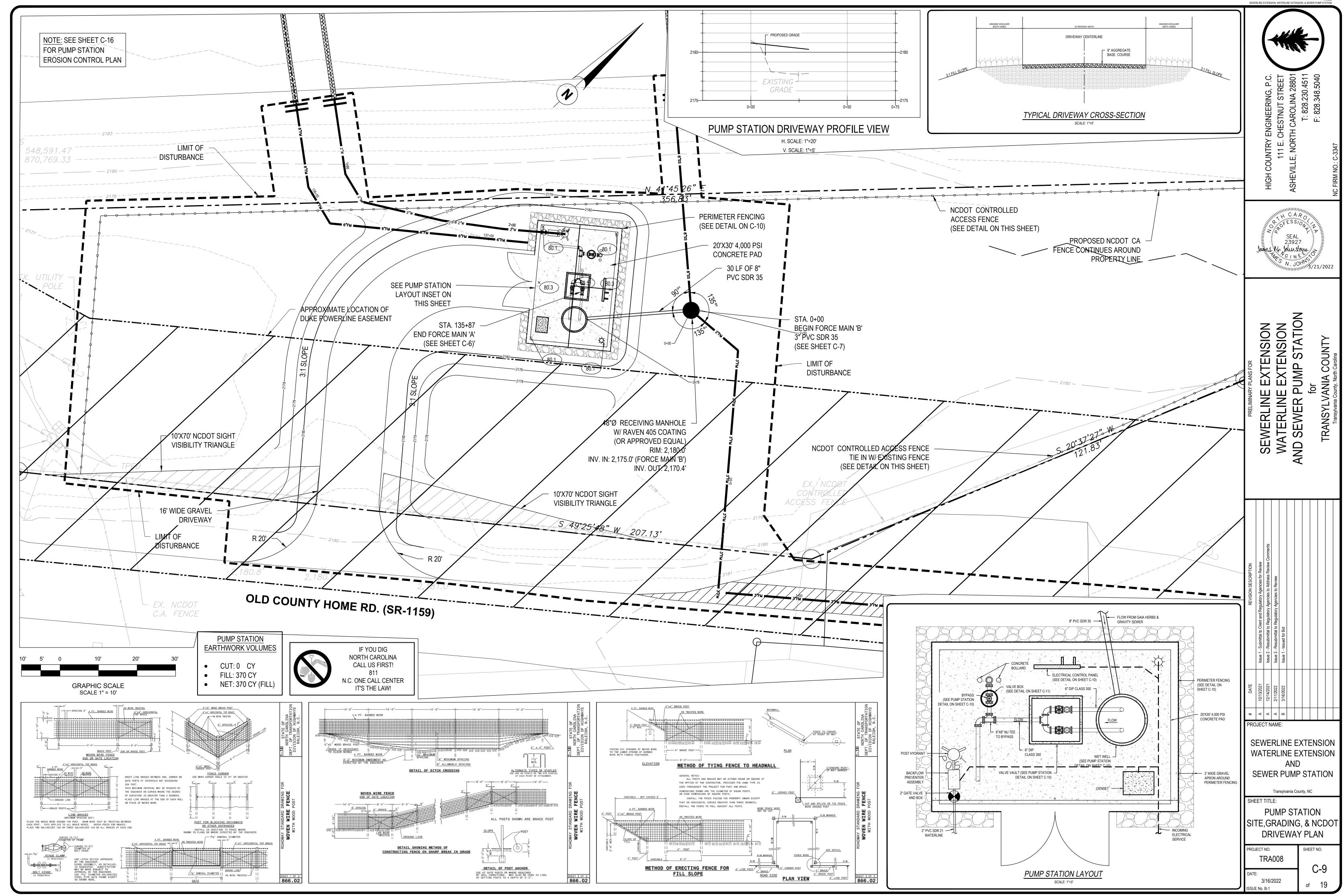


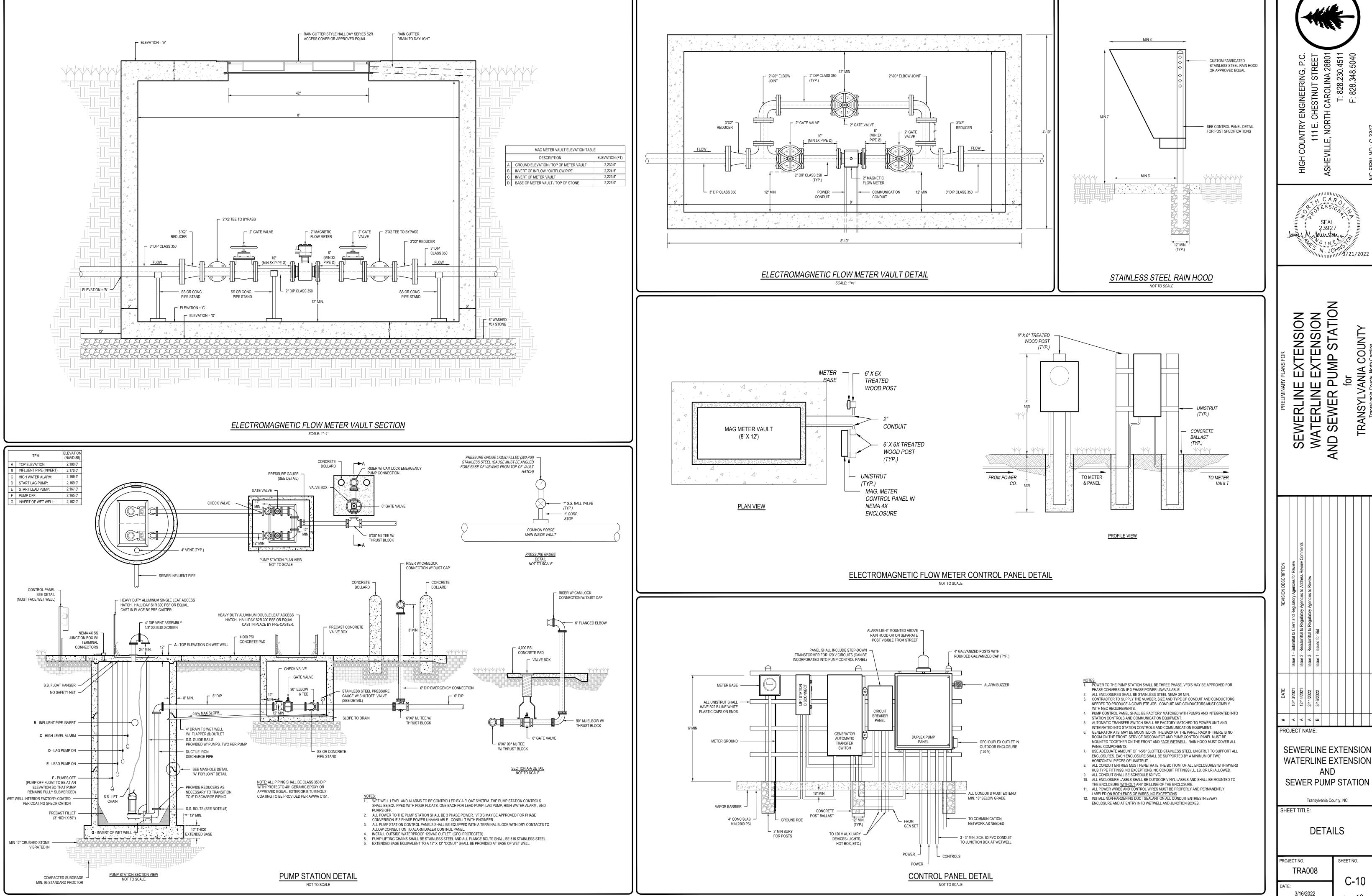


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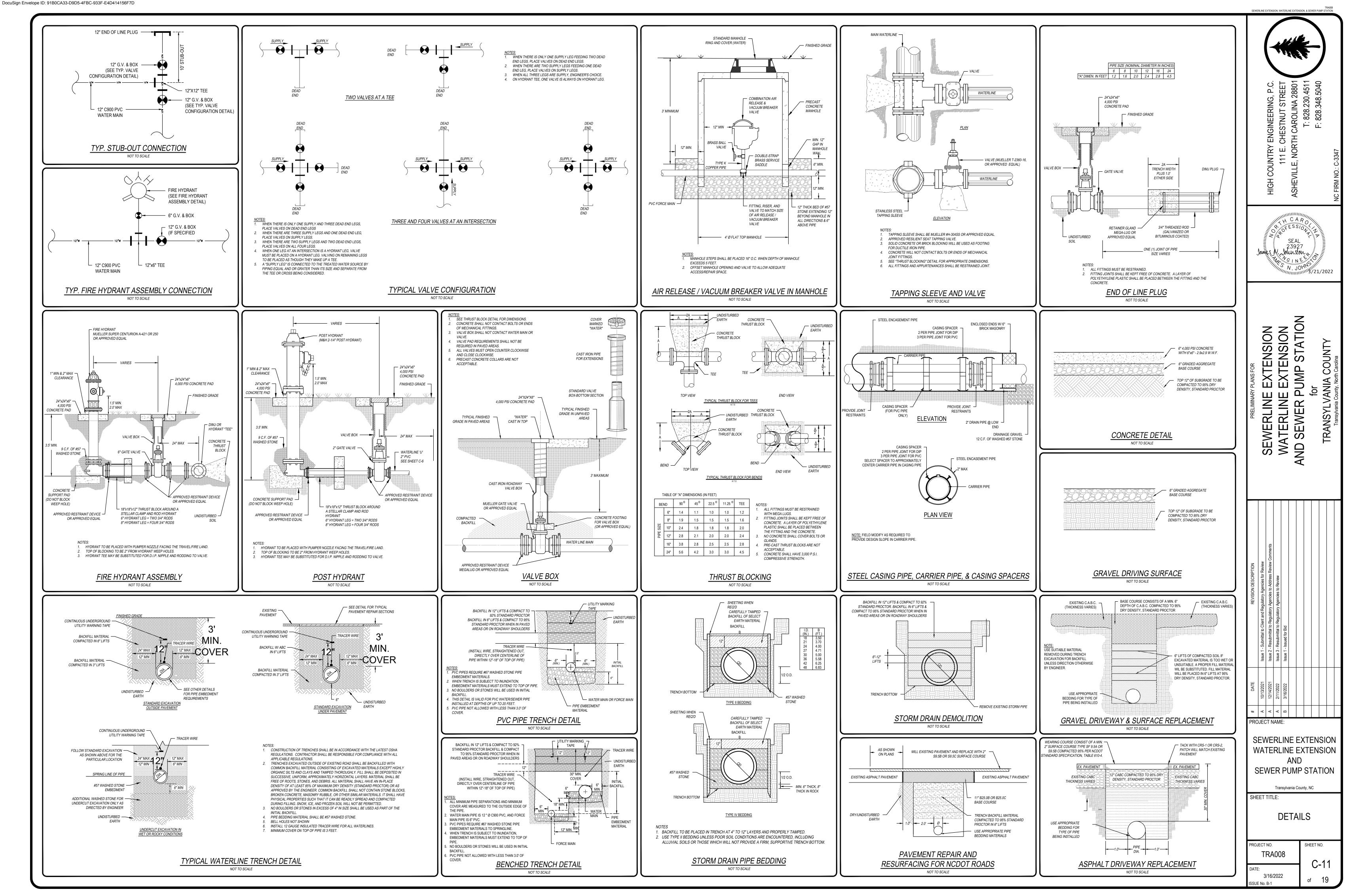
GRAPHIC SCALE SCALE 1" = 50'

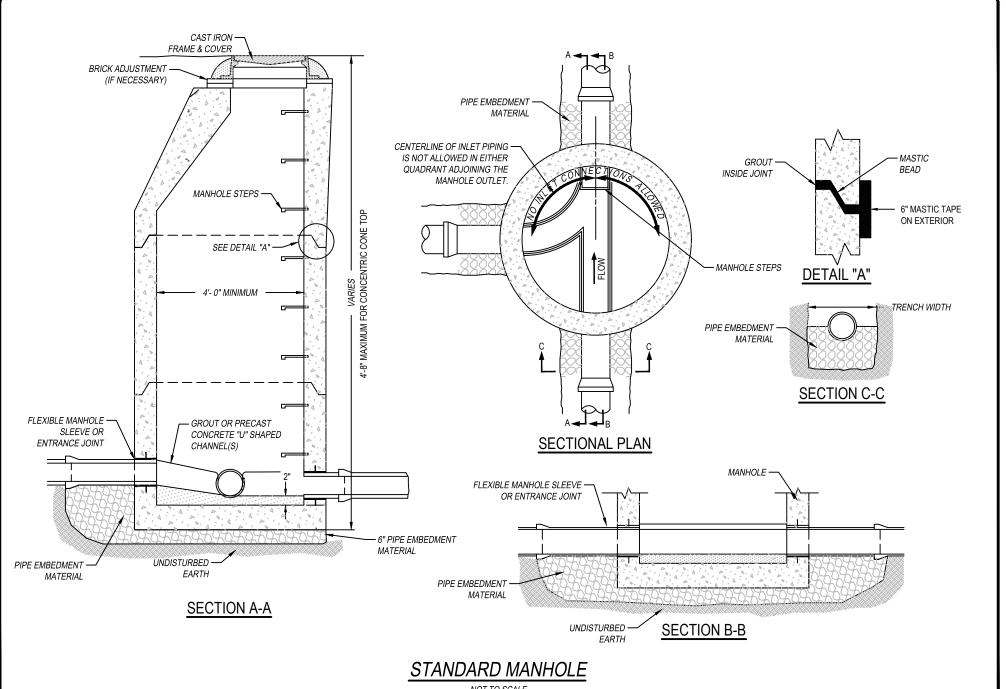
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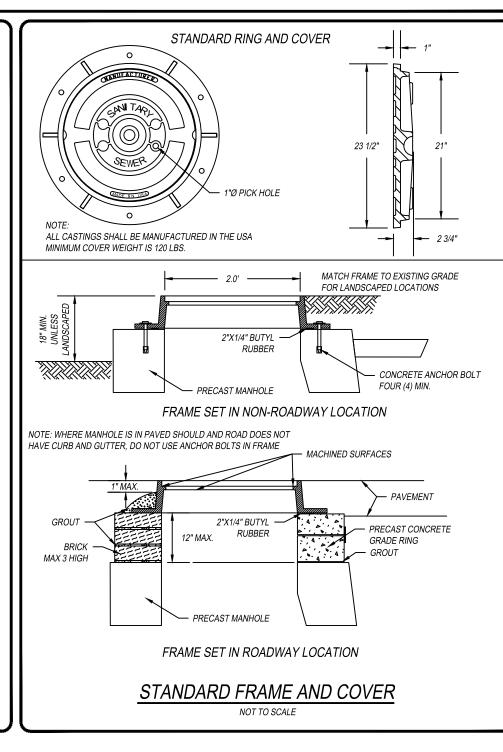


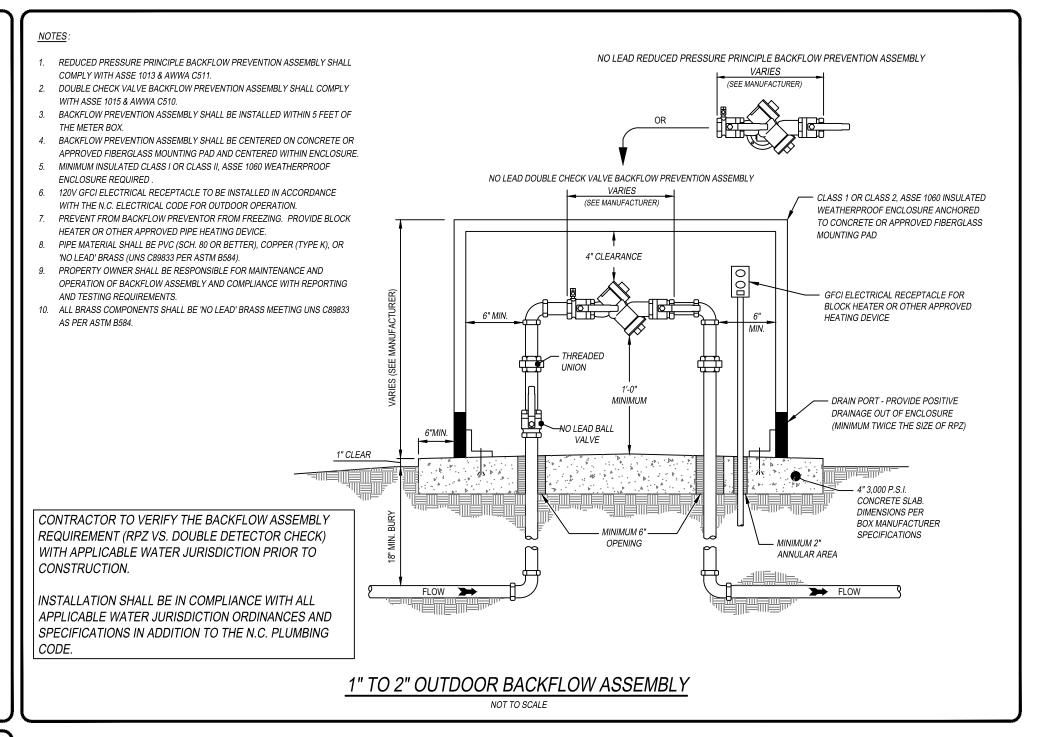


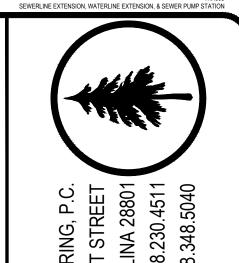
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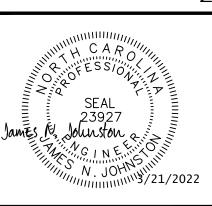












SEWERLINE EXTENSION WATERLINE EXTENSION AND SEWER PUMP STATION

REVISION DESCRIPTION	Issue 1 - Submittal to Client and Regulatory Agencies for Review	Issue 2 - Resubmittal to Regulatory Agencies to Address Review Comments	Issue 3 - Resubmittal to Regulatory Agencies to Review	Issue 1 - Issued for Bid				
DATE	3/2021	1/2021	2022	2022				

SEWERLINE EXTENSION WATERLINE EXTENSION AND

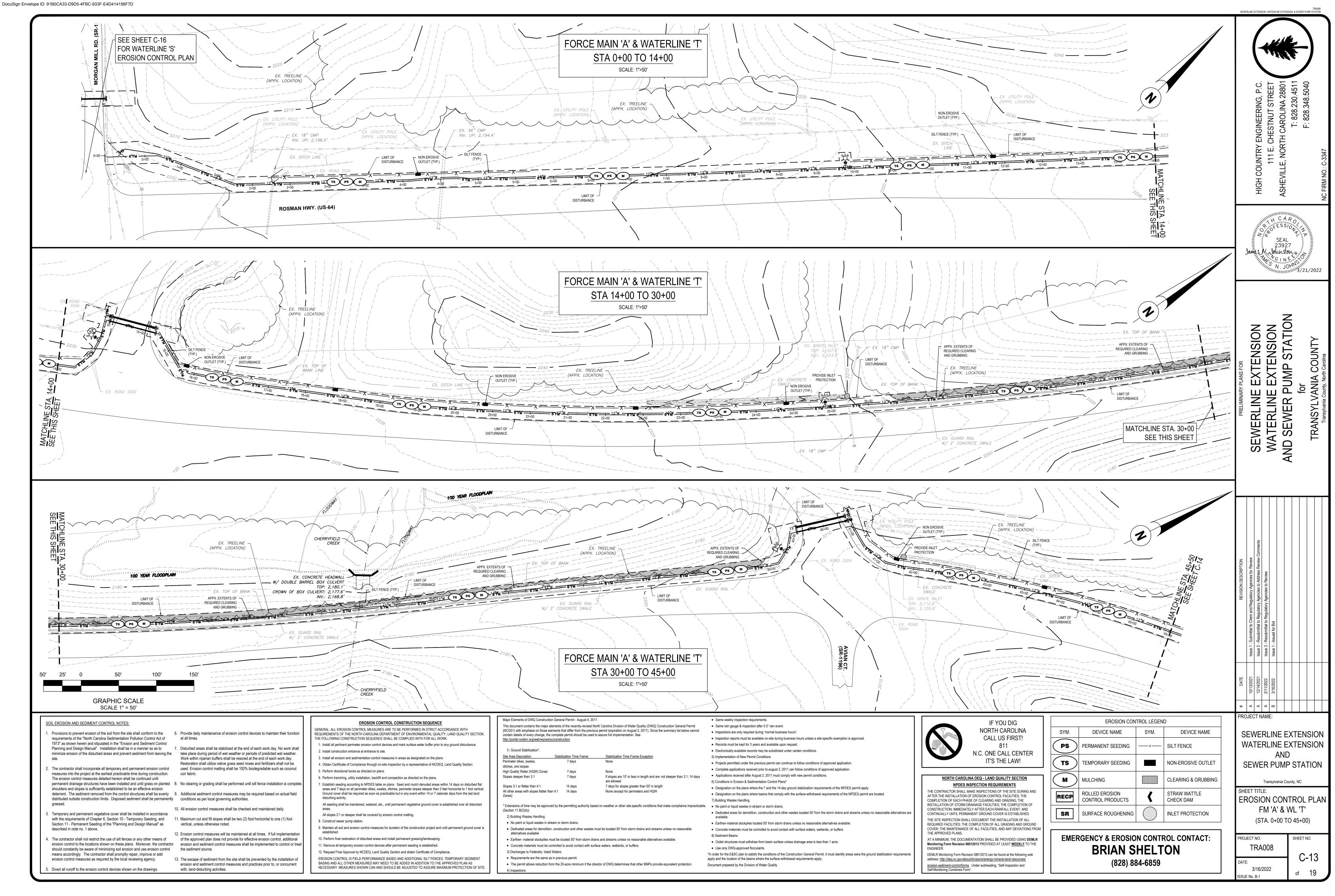
SEWER PUMP STATION Transylvania County, NC

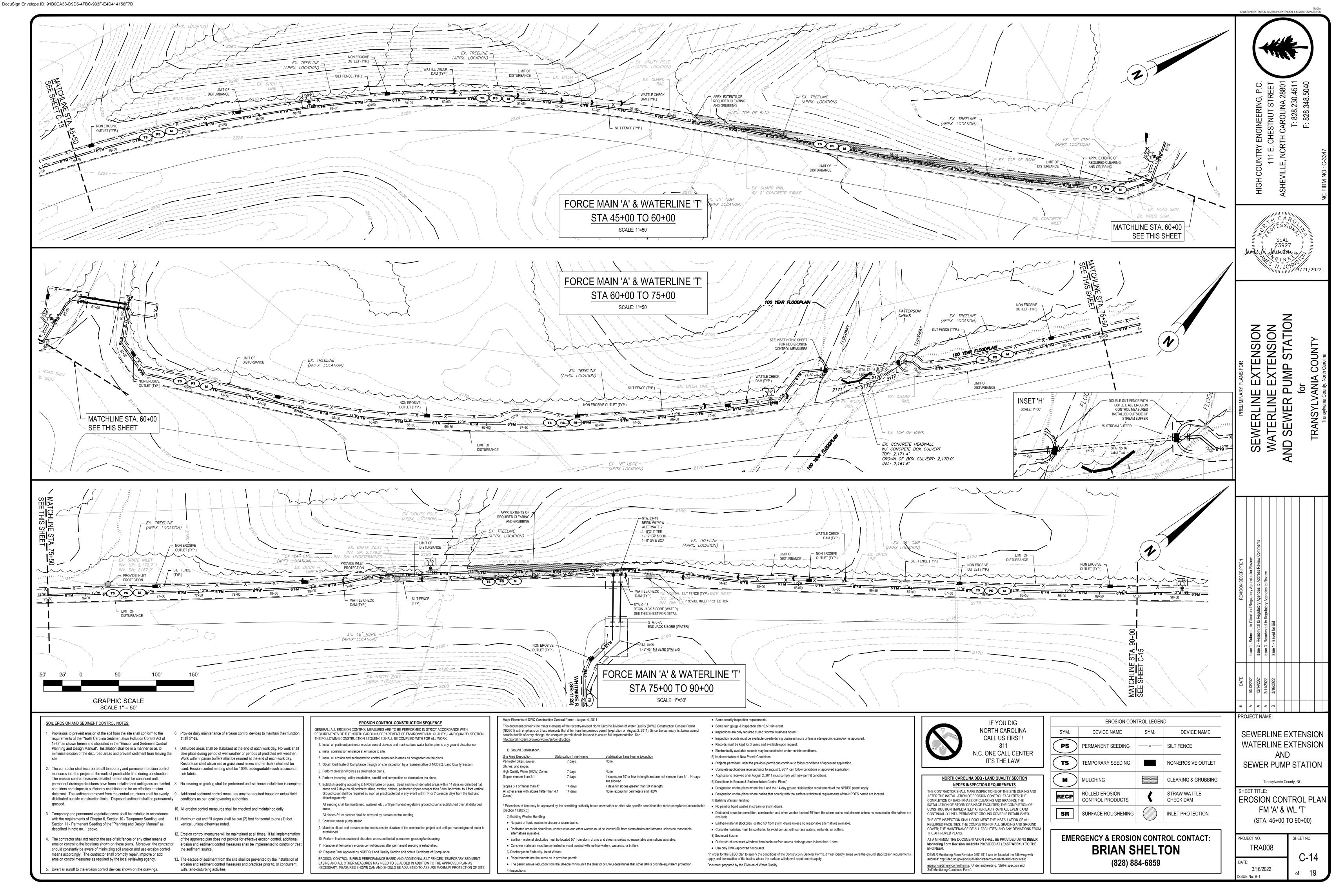
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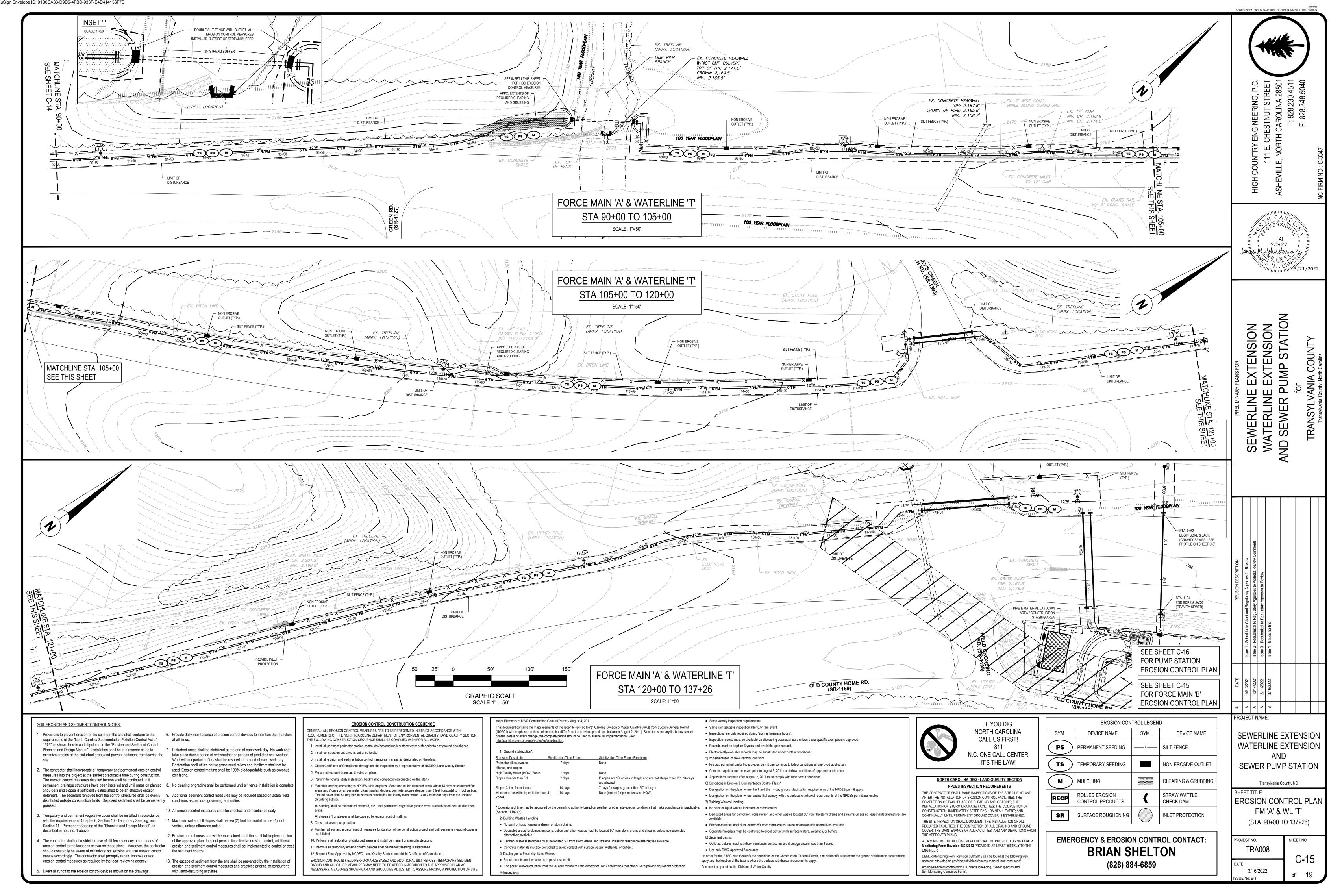
DETAILS

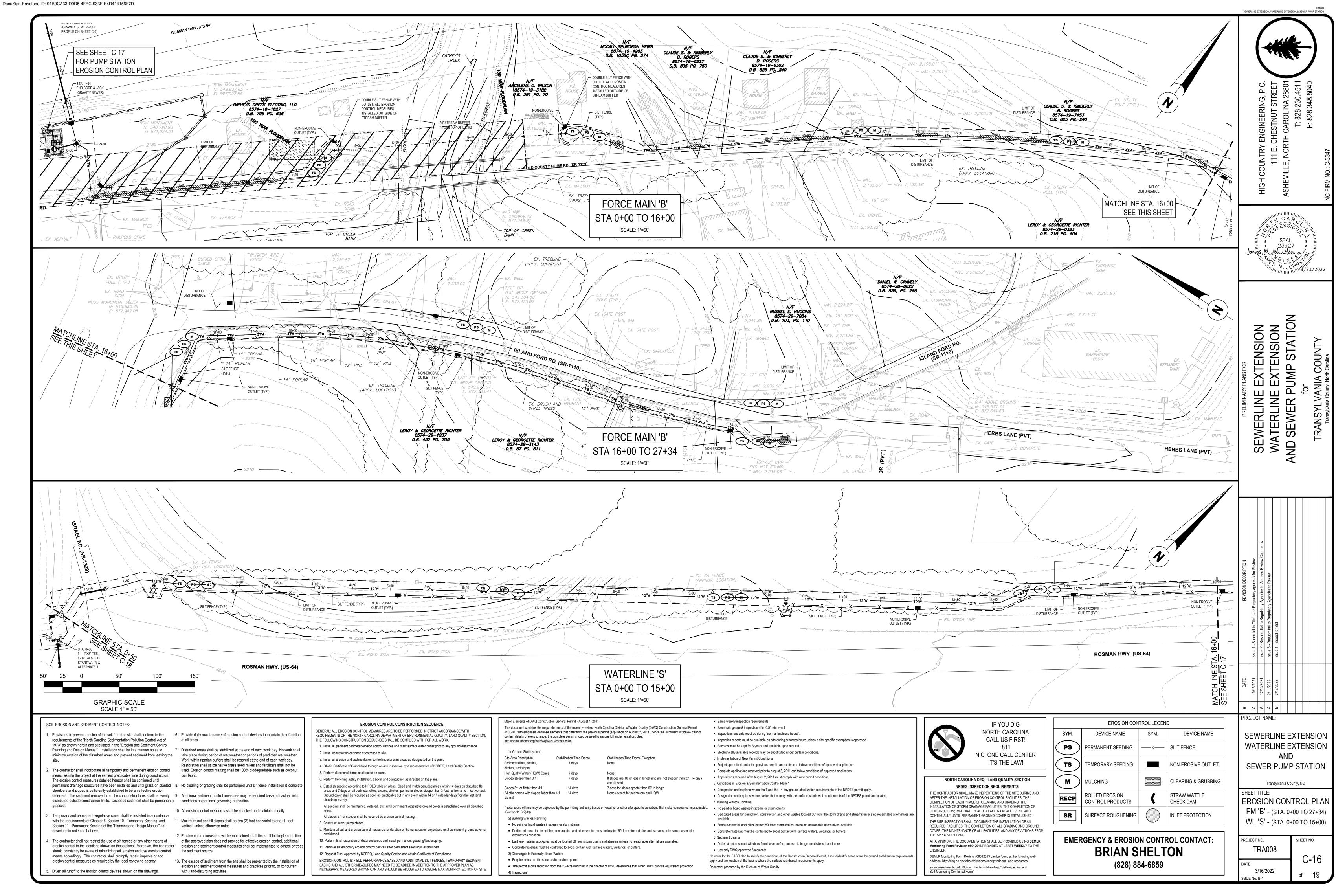
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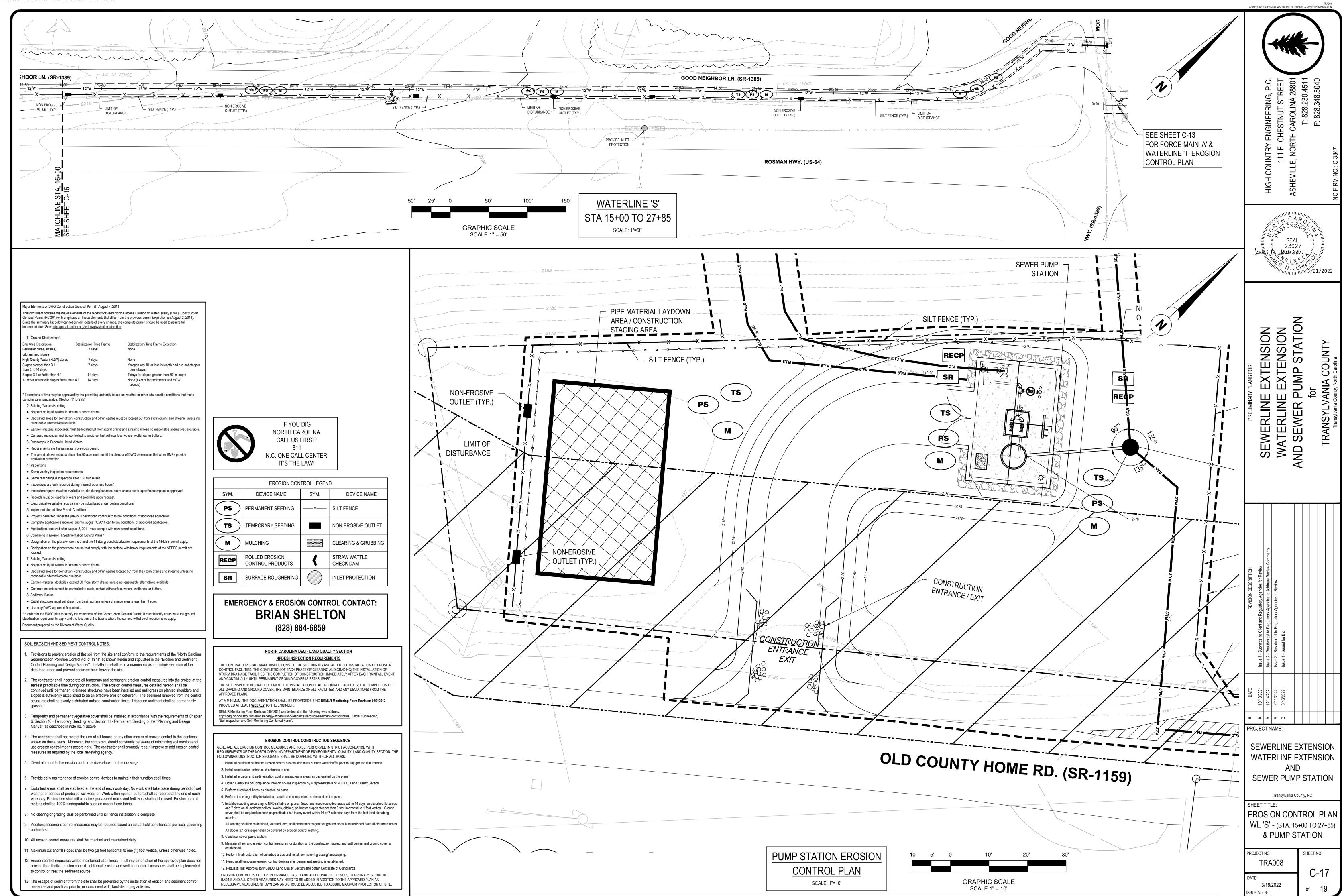
SHEET NO.











SOIL EROSION AND SEDIMENT CONTROL NOTES:

Provisions to prevent erosion of the soil from the site shall conform to the

6. Provide daily maintenance of erosion control devices to maintain their function requirements of the "North Carolina Sedimentation Pollution Control Act of 1973" as shown herein and stipulated in the "Erosion and Sediment Control Planning and Design Manual". Installation shall be in a manner so as to

7. Any disturbed area left exposed for a period greater than fourteen (14) days minimize erosion of the disturbed areas and prevent sediment from leaving the shall be stabilized with mulch or temporary seeding.

at all times.

vertical, unless otherwise noted.

the sediment source.

of the approved plan does not provide for effective erosion control, additional

erosion and sediment control measures shall be implemented to control or treat

- ?. The contractor shall incorporate all temporary and permanent erosion control measures into the project at the earliest practicable time during construction. 9. Additional sediment control measures may be required based on actual field The erosion control measures detailed hereon shall be continued until permanent drainage structures have been installed and until grass on planted shoulders and slopes is sufficiently established to be an effective erosion 10. All erosion control measures shall be checked and maintained daily. deterrent. The sediment removed from the control structures shall be evenly distributed outside construction limits. Disposed sediment shall be permanently 11. Maximum cut and fill slopes shall be two (2) foot horizontal to one (1) foot
- Temporary and permanent vegetative cover shall be installed in accordance 12. Erosion control measures will be maintained at all times. If full implementation with the requirements of Chapter 6, Section 10 - Temporary Seeding, and Section 11 - Permanent Seeding of the "Planning and Design Manual" as described in note no. 1 above.
- The contractor shall not restrict the use of silt fences or any other means of 13. The escape of sediment from the site shall be prevented by the installation of erosion control to the locations shown on these plans. Moreover, the contractor erosion and sediment control measures and practices prior to, or concurrent should constantly be aware of minimizing soil erosion and use erosion control with, land-disturbing activities. means accordingly. The contractor shall promptly repair, improve or add
- 5. Divert all runoff to the erosion control devices shown on the drawings.

EROSION CONTROL CONSTRUCTION SEQUENCE

- GENERAL: ALL EROSION CONTROL MEASURES ARE TO BE PERFORMED IN STRICT ACCORDANCE WITH REQUIREMENTS OF THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY, LAND QUALITY SECTION. THE FOLLOWING CONSTRUCTION SEQUENCE SHALL BE COMPLIED WITH FOR ALL WORK.
- 1. Install all pertinent perimeter erosion control devices and mark surface water buffer prior to any ground disturbance. 2. Install construction entrance at entrance to site.
- 3. Install all erosion and sedimentation control measures in areas as designated on the plans
- 8. No clearing or grading shall be performed until silt fence installation is complete. 4. Obtain Certificate of Compliance through on-site inspection by a representative of NCDEQ, Land Quality Section 5. Perform directional bores as directed on plans.
 - 6. Perform trenching, utility installation, backfill and compaction as directed on the plans.
 - 7. Establish seeding according to NPDES table on plans. Seed and mulch denuded areas within 14 days on disturbed flat areas and 7 days on all perimeter dikes, swales, ditches, perimeter slopes steeper than 3 feet horizontal to 1 foot vertical. Ground cover shall be required as soon as practicable but in any event within 14 or 7 calendar days from the last land
 - All seeding shall be maintained, watered, etc., until permanent vegetative ground cover is established over all disturbed
 - All slopes 2:1 or steeper shall be covered by erosion control matting. 8. Construct sewer pump station.
 - 9. Maintain all soil and erosion control measures for duration of the construction project and until permanent ground cover is
 - 10. Perform final restoration of disturbed areas and install permanent grassing/landscaping.
 - 11. Remove all temporary erosion control devices after permanent seeding is established.
 - 12. Request Final Approval by NCDEQ, Land Quality Section and obtain Certificate of Compliance. EROSION CONTROL IS FIELD PERFORMANCE BASED AND ADDITIONAL SILT FENCES, TEMPORARY SEDIMENT BASINS AND ALL OTHER MEASURES MAY NEED TO BE ADDED IN ADDITION TO THE APPROVED PLAN AS NECESSARY. MEASURES SHOWN CAN AND SHOULD BE ADJUSTED TO ASSURE MAXIMUM PROTECTION OF SITE.

Major Elements of DWQ Construction General Permit - August 4, 2011

This document contains the major elements of the recently-revised North Carolina Division of Water Quality (DWQ) Construction General Permit (NCG01) with emphasis on those elements that differ from the previous permit (expiration on August 2, 2011). Since the summary list below cannot contain details of every change, the complete permit should be used to assure full implementation. See:

http://portal.ncdenr.org/web/wq/ws/su/construction.

Perimeter dikes, swales,	7 days	None
ditches, and slopes		
High Quality Water (HQW) Zones	7 days	None
Slopes steeper than 3:1	7 days	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed
Slopes 3:1 or flatter than 4:1	14 days	7 days for slopes greater than 50' in length
All other areas with slopes flatter than 4:1	14 days	None (except for perimeters and HQW

* Extensions of time may be approved by the permitting authority based on weather or other site-specific conditions that make compliance impracticable.

• No paint or liquid wastes in stream or storm drains. (Section 11.B(2)(b))

- 2) Building Wastes Handling • No paint or liquid wastes in stream or storm drains.
- Dedicated areas for demolition, construction and other wastes must be located 50' from storm drains and streams unless no reasonable
- Earthen- material stockpiles must be located 50' from storm drains and streams unless no reasonable alternatives available. • Concrete materials must be controlled to avoid contact with surface waters, wetlands, or buffers.

Site Area Description Stabilization Time Frame Stabilization Time Frame Exception

- 3) Discharges to Federally- listed Waters
- Requirements are the same as in previous permit • The permit allows reduction from the 20-acre minimum if the director of DWQ determines that other BMPs provide equivalent protection.

 Document prepared by the Division of Water Quality

- · Same weekly inspection requirements
- Same rain gauge & inspection after 0.5" rain event.
- Inspections are only required during "normal business hours". • Inspection reports must be available on-site during business hours unless a site-specific exemption is approved.
- Electronically-available records may be substituted under certain conditions.

Records must be kept for 3 years and available upon request

- 5) Implementation of New Permit Conditions • Projects permitted under the previous permit can continue to follow conditions of approved application.
- Complete applications received prior to august 3, 2011 can follow conditions of approved application.
- Applications received after August 2, 2011 must comply with new permit conditions. 6) Conditions in Erosion & Sedimentation Control Plans*
- Designation on the plans where the 7 and the 14-day ground stabilization requirements of the NPDES permit apply.
- Designation on the plans where basins that comply with the surface-withdrawal requirements of the NPDES permit are located. 7) Building Wastes Handling
- Dedicated areas for demolition, construction and other wastes located 50' from the storm drains and streams unless no reasonable alternatives are • Earthen-material stockpiles located 50' from storm drains unless no reasonable alternatives available.
- Concrete materials must be controlled to avoid contact with surface waters, wetlands, or buffers.
- 8) Sediment Basins Outlet structures must withdraw from basin surface unless drainage area is less than 1 acre.
- Use only DWQ-approved flocculants.

*In order for the E&SC plan to satisfy the conditions of the Construction General Permit, it must identify areas were the ground stabilization requirements



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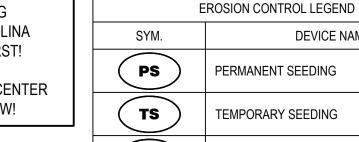
NORTH CAROLINA DEQ - LAND QUALITY SECTION NPDES INSPECTION REQUIREMENTS THE CONTRACTOR SHALL MAKE INSPECTIONS OF THE SITE DURING AND

COMPLETION OF EACH PHASE OF CLEARING AND GRADING; THE INSTALLATION OF STORM DRAINAGE FACILITIES: THE COMPLETION OF CONSTRUCTION: IMMEDIATELY AFTER EACH RAINFALL EVENT: AND CONTINUALLY UNTIL PERMANENT GROUND COVER IS ESTABLISHED. THE SITE INSPECTION SHALL DOCUMENT THE INSTALLATION OF ALL REQUIRED FACILITIES; THE COMPLETION OF ALL GRADING AND GROUND COVER; THE MAINTENANCE OF ALL FACILITIES; AND ANY DEVIATIONS FROM

THE APPROVED PLANS. AT A MINIMUM, THE DOCUMENTATION SHALL BE PROVIDED USING **DEMLR** Monitoring Form Revision 08012013 PROVIDED AT LEAST $\underline{\text{WEEKLY}}$ TO THE

DEMLR Monitoring Form Revision 08012013 can be found at the following web erosion-sediment-control/forms. Under subheading, "Self-inspection and Self-Monitoring Combined Form".

AFTER THE INSTALLATION OF EROSION CONTROL FACILITIES; THE



SR

MULCHING RECP ROLLED EROSION CONTROL PRODUCTS

EMERGENCY & EROSION CONTROL CONTACT:

DEVICE NAME

EXTENSION EXTENSION PUMP STATION PUMP

SEWERLINE I WATERLINE I ND SEWER PU SURFACE ROUGHENING **BRIAN SHELTON** (828) 884-6859

WATERLINE EXTENSION AND SEWER PUMP STATION

SHEET TITLE:

EROSION CONTROL PLAN WL 'R' - (STA. 0+00 TO 13+60)

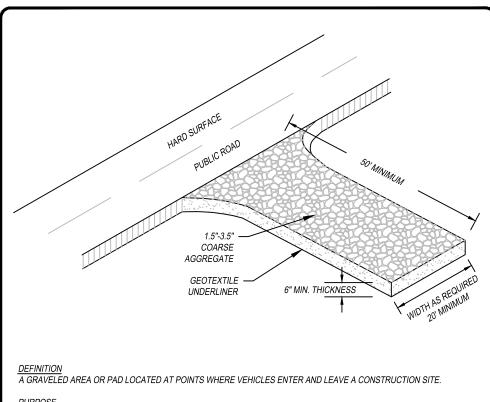
> TRA008 3/16/2022

SEWERLINE EXTENSION

Transylvania County, NC

SHEET NO.

C-18 SSUE No. B-1



TO PROVIDE A BUFFER AREA WHERE VEHICLES CAN DROP THEIR MUD AND SEDIMENT TO AVOID TRANSPORTING

INSTALLATION
- INSTALL ACCORDING TO APPROVED PLAN - MINIMUM PAD THICKNESS OF 6 INCHES - MINIMI IM PAD WIDTH OF 20 FFFT - MINIMUM PAD LENGTH OF 50 FEET - EXCAVATE FOOTPRINT A MINIMUM OF 3 INCHES

MATERIALS.

<u>INSTALLATION</u> - APPLY ACCORDING TO APPROVED PLANS.

- MAINTAIN 6" OR MORE OF TOP GROWTH.

THE PERMANENT SPECIES.

DETAIL FOR EXACT SPECIFICATIONS.

- SPRAY WITH EMULSIFIED ASPHALT

- INSTALL 1"X1" MESH NETTING

- APPLY SYNTHETIC TACKIFIERS OR BINDERS

- IF POSSIBLE. USE CONVENTIONAL PLANTING METHODS.

- SCARIFY, PIT OR TRENCH SEALED OR CRUSTED SOIL

FERTILIZE BASED ON SOIL TESTS OR AS SHOWN IN TABLE

<u>IOTES</u> - GRADING AND SHAPING REQUIRED WHERE FEASIBLE AND PRACTICAL.

- ROUTE RUNOFF TO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN - INSTALL #200 ROAD STABILIZATION FABRIC AS A BASE UNDER STONE

<u>MAINTENANCE</u> - PERIODICALLY DRESS WITH 1.5" TO 3.5" STONE - MAINTAIN IN A CONDITION THAT WILL PREVENT TRACKING OF MUD ONTO PUBLIC ROADWAYS - IMMEDIATELY REMOVE MUD OR DEBRIS TRACKED OR SPILLED ONTO ROADWAYS

<u>DEFINITION</u> CONTROLLING RUNOFF AND EROSION ON DISTURBED AREAS BY ESTABLISHING PERENNIAL VEGETATIVE COVER WITH SEED.

MANNER THAT IS ECONOMICAL, ADAPTS TO SITE CONDITIONS, AND ALLOWS SELECTION OF THE MOST APPROPRIATE PLANT

- APPLY AGRICULTURAL LIME AS PRESCRIBED BY SOIL TESTS OR AT A RATE OF 1 TON TO 2 TONS PER ACRE.

- IRRIGATION SHOULD BE USED TO SUPPLEMENT RAINFALL, BUT NOT TO THE POINT TO CAUSE EROSION.

AREAS LESS FORMAL AND HAVING LOWER MAINTENANCE REQUIREMENTS THAN GRASSED LAWN AREAS.

- FOR INDIVIDUAL PLANTS PREPARE SOIL BY EXCAVATING SOIL, OPENING FURROWS, OR DIBBLE PLANTING.

- TAKE SOIL SAMPLES FROM SEVERAL AREAS FOR EFFICIENT CHEMICAL APPLICATION AND OPTIMUM PLANT HEALTH.

ANCHOR STRAW OR HAY MULCH IMMEDIATELY AFTER APPLICATION WITH ONE OF THE FOLLOWING METHODS:

- APPLY ONE TON OF AGRICULTURAL LIME AS INDICATED BY SOIL TEST OR EVERY 4 TO 6 YEARS.

TO REDUCE EROSION AND DECREASE SEDIMENT YIELD FROM DISTURBED AREAS. TO PERMANENTLY STABILIZE SUCH AREAS IN A

- CHECK THE TAG ON THE BAG OF SEED TO VERIFY TYPE AND GERMINATION OF THE SEED TO BE PLANTED AND THE DATE OF THE

- APPLY SEED BY HAND, CYCLONE SEEDER, DRILL OR HYDRO-SEEDER. SEED PLANTED WITH A DRILL SHOULD BE PLANTED 1/2" TO 1"

<u>MAINTENANCE</u>
- RESEED AREAS WHERE AN ADEQUATE STAND OF TEMPORARY VEGETATION FAILS TO EMERGE OR WHERE A POOR STAND EXISTS.

- MOW BERMUDA AND BAHIA AS DESIRED. MOW SERICEA LESPEDEZA ONLY AFTER FROST TO ENSURE SEEDS ARE MATURE.

CRITICAL AREA: DISTURBED LAND THAT IS EITHER HIGHLY ERODED OR HIGHLY ERODIBLE. TYPICALLY ADJACENT TO NATURAL

3:1 OR FLATTER / 4" - 6" DEPTH

3:1 TO 2:1 / 1" - 4" DEPTH

2:1 OR STEEPER / HAND TOOLED TRENCHES (6"-8" APART)

- NO-TILL SEEDING. WITH APPROPRIATE EQUIPMENT, IS PERMISSIBLE INTO ANNUAL COVER CROPS IF THE PLANTING IS DONE AFTER

THE COVER CROP HAS MATURED OR IF THE TEMPORARY COVER STAND IS SPARSE ENOUGH TO ALLOW ADEQUATE GROWTH OF

- MULCH IS REQUIRED ON ALL SLOPES STEEPER THAN 3 PERCENT, IN THE BOTTOM OF SPILLWAYS, ON ROADBANKS, AND WHEN

SEEDING IS DONE TOO LATE IN THE FALL OR WINTER FOR GERMINATION TO BE EXPECTED BEFORE SPRING. REFER TO MULCHING

- SOIL RETENTION BLANKETS, EROSION CONTROL NETTING, OTHER MANUFACTURE MATERIALS OR BLOCK SOD MAY BE REQUIRED IN

SEEDING PREPARATION: NOT REQUIRED WHERE HYDRAULIC SEEDING AND FERTILIZING EQUIPMENT IS TO BE USED WITH

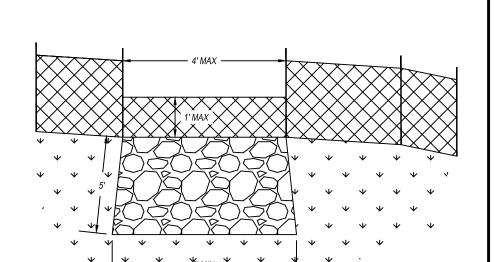
CONSTRUCTION EXIT

<u>DEFINITION</u> AN OUTLET WITHIN THE SILT FENCE PERIMETER WHERE OUTLET STORM FLOW MUST BE STABILIZED AGAINST EROSION. <u>NFOSE.</u> I DETAIN AND PROVIDE A CONTROLLED RELEASE AREA FOR SEDIMENT LADEN WATER RUNOFF.

<u>STALLATION</u> PLACE STABILIZED OUTLET EVERY 200' OF SILT FENCE. SET FABRIC HEIGHT AT 1 FOOT MAXIMUM BETWEEN SUPPORT POSTS SPACED NO MORE THAN 4 FEET APART. INSTALL A HORIZONTAL BRACE BETWEEN THE SUPPORT POSTS TO SERVE AS AN OVERFLOW WEIR AND TO SUPPORT TOP OF FABRIC PROVIDE A RIP RAP OUTLET APRON ACCORDING TO DETAIL. EXCAVATE FOUNDATION FOR THE SPLASH PAD A MINIMUM OF 5 FEET WIDE, 1 FOOT DEEP, AND 5 FEET LONG ON LEVEL RADE. THE FINISHED SURFACE OF THE RIPRAP SHOULD BLEND WITH THE SURROUNDING AREA, ALLOWING NO OVERALL.

NSPECT BARRIERS AT THE END OF EACH WORKING DAY, OR AFTER EACH RAIN, AND REPAIR OR CLEAN AS NECESSARY. REMOVE SEDIMENT FROM BARRIER WHEN TWO-THIRDS FULL. DISPOSE OF SEDIMENT SO THAT IT WILL NOT ENTER THE BARRIER AGAIN AND STABILIZE IT WITH VEGETATION. REPLACE FILTER FABRIC WHEN DETERIORATED. DESIGN LIFE OF A SYNTHETIC SILT FENCE IS APPROXIMATELY 6 MONTHS. MAINTAIN LINTIL THE PROJECT IS VEGETATED OR OTHERWISE STABILIZED.

REMOVE BARRIERS AND ACCUMULATED SEDIMENT AND STABILIZE THE EXPOSED AREA WHEN THE PROJECT IS STABILIZED.



NON-NATIVE SPECIES

MOUNTAINS

8/15-5/1

8/1-6/1

USE MANUFACTURERS RECOMMENDED FERTILIZATION/LIMESTONE RATES

NATIVE SPECIES

MOUNTAINS

12/1-4/15

12/1-4/15

5/1-4/15

12/1-4/15

12/1-4/15

12/1-4/15

12/1-4/15

12/1-5/15

8/15-10/15

12/1-5/15

8/15-10/15

* WHEN MIXED WITH 3 OTHER VARIETIES. SEE NC DEQ TABLE 6.11.c FOR

* USE MANUFACTURERS RECOMMENDED FERTILIZATION/LIMESTONE RATES

8/15-10/15

OPTIMAL PLANTING DATES

COMMON NAME

FESCUE

KY BLUE GRASS

HARD FESCUE

COMMON NAME

SWITCHGRASS

INDIAN GRASS

DEERTONGUE

BIG BLUESTEM

BLUESTEM

SWEET

WOOREED

RICE CUTGRASS

SOFT RUSH

SEDGE

FOX SEDGE

SEEDING RATES

100 lbs

SEEDING RATES*

3.5 lbs

7.0 lbs

7.0 lbs

2.5 lbs

6.0 lbs

2.5 lbs

2.5 lbs

2.5 lbs

ALL SEEDING RATES.

OR FROM A SOIL TEST.

lbs/acre

OPTIMAL PLANTING DATES

PIEDMONT

9/1-4/15

RECOMMENDE

RECOMMENDED

PIEDMONT

RECOMMENDED

5/1-4/1

12/1-4/1

12/1-4/1

12/1-4/1

12/1-5/1

12/1-5/1

9/1-11/1

12/1-5/1

9/1-11/1

NON-EROSIVE OUTLET

SUN/SHADE

SHADE

SUN

SHADE

TOI FRAN

SUN

SUN & SHADE

SUN

SUN & MOD.

SHADE

SUN

SUN

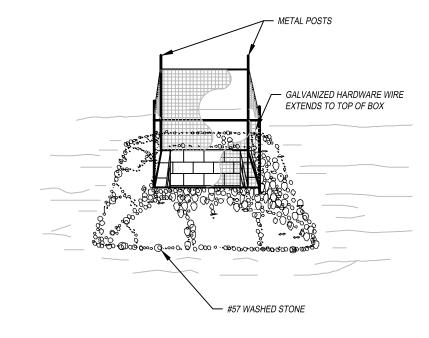
SUN

SUN

SELF-INSPECTION, RECORDKEEPING AND REPORTING

NATURAL TRAPEZOIDAL DITCH SIDE VIEW CROSS SECTION VEE DITCH ISOMETRIC VIEW

- USE 2 FT WOODEN STAKES WITH A 2"X2" NOMINAL CROSS SECTION. ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE OR SCOUR DITCH SLOPES INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH. PROVIDE STAPLES MADE OF 0.125"Ø STEEL WIRE FORMED INTO A 'U' SHAPE NOT LESS THAN 12" IN LENGTH. INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL
- WATTLE CHECK DAM INSTALLATION DETAIL



<u>DEFINITION</u>
A TEMPORARY SEDIMENT BARRIER PLACED AROUND A STORM DRAIN DROP INLET.

INSTALL ACCORDING TO APPROVED PLAN - DO NOT INSTALL WHERE VEHICULAR TRAFFIC WILL BE AFFECTED. - INSTALL AT OR AROUND ALL STORM DRAIN DROP INLETS THAT RECEIVE RUNOFF FROM DISTURBED AREAS. - CONSTRUCT ON NATURAL GROUND SURFACE, EXCAVATED SURFACE, OR ON MACHINE

INSPECT, CLEAR, AND/OR REPAIR TRAP AT THE END OF EACH WORKING DAY. DO NOT REMOVE INLET PROTECTION AND WASH SEDIMENT INTO THE STORM DRAIN. REMOVE SEDIMENT FROM TRAP AND STABILIZE IT WITH VEGETATION. REMOVE ALL MATERIALS AND ANY UNSTABLE SOIL ONCE THE CONTRIBUTING DRAINAGE AREA HAS BEEN ADEQUATELY STABILIZED. - APPROPRIATELY STABILIZE ALL BARE AREAS AROUND INLET.

INLET PROTECTION

NOT TO SCALE

SURFACE WITH HORIZONTAL GROOVES ACROSS THE SLOPE OF RACKING WITH CONSTRUCTION QUIPMENT. <u>'URPOSE</u> TO AID THE ESTABLISHMENT OF VEGETAVTIVE COVER FROM SEED. TO REDUCE RUNOFF VELOCITY AND INCREASE INFILTRATION. <u>INSTALLATION</u> - INSTALL ACCORDING TO PPROVED PLAN INSTALL ALL OTHER BMPS FIRST ROUGHEN ALL SLOPES STEEPER

ERIODICALLY CHECK THE SEEDED SLOPES FOR RILLS AND WASHES. ILL THESE AREAS SLIGHTLY ABOVE

RESEED AND MULCH AS SOON AS

A TEMPORARY PROTECTIVE BLANKET OF STRAW OR OTHER PLANT PRACTICAL.

GROWTH OF VEGETATION, CONSERVE MOISTURE, INSULATE THE SOIL SUPPRESS WEED GROWTH <u>INSTALLATION</u> - INSTALL ALL OTHER REQUIRED BMPS FIRST - GRADE SITE, IF POSSIBLE, TO PERMIT THE USE OF EQUIPMENT FOR APPLYING AND ANCHORING MULCH - IF POSSIBLE, LOOSEN COMPACTED SOIL TO A DEPTH OF THREE (3) - APPLY STRAW OR HAY UNIFORMLY, BY HAND ANCHOR BY PRESSING INTO SOIL OR USE NETTING. - MULCH ON SLOPES GREATER THAN 3% SHOULD BE ANCHORED WITH CORN STALKS EMULSIFIED ASPHALT (GRADE AE-5 OR SS-1) OR OTHER SUITABLE JUTE MATTING - WOOD WASTE ON SLOPES FLATTER THAN 3:1 DO NOT NEED NETTING. ETC.

ANCHORING. **MAINTENANCE** - INSPECT AFTER HEAVY RAINS FOR EROSION AND DISLODGED MULCH. - ADD MULCH AS NEEDED TO MAINTAIN THE SUGGESTED DEPTH. - IF ORGANIC MULCH IS TO BE LEFT AND INCORPORATED INTO THE SOIL. APPLY 20 TO 30 POUNDS OF NITROGEN IN ADDITION TO THE FERTILIZER REQUIRED FOR VEGETATION. MULCHING

PLANTING RAPID-GROWING, ANNUAL GRASSES OR SMALL GRAINS TO PROVIDE INITIAL, TEMPORARY COVER FOR EROSION CONTROL ON DISTURBED AREAS.

INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE NCDOT STANDARD SPECIFICATIONS.

O TEMPORARILY STABILIZE DENUDED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE FOR A PERIOD OF MORE THAN 21 CALENDAR DAYS.

INSTALL ALL FROSION CONTROL MEASURES PRIOR TO APPLYING TEMPORARY VEGETATION GRADING AND SHAPING ARE NOT REQUIRED IF SLOPES CAN BE PLANTED WITH A HYDROSEEDER OR HAND SEEDBED PREPARATION IS NOT REQUIRED IF SOIL IS LOOSE AND NOT SEALED.

WHEN THE SOIL IS SEALED, IT SHOULD BE PITTED, TRENCHED OR SCARIFIED TO PROVIDE A PLACE FOR SEED TO LODGE AND GERMINATE. APPLY AGRICULTURAL LIME AT RATES RECOMMENDED BY SOILS REPORT OR A MINIMUM OF 1500 LBS/ACRE. FERTILIZE LOW FERTILITY SOILS BY ADDING AND MIXING INTO SOIL PRIOR TO PLANTING AT THE RATE OF 500-700 POUNDS PER ACRE OF 10-10-10 FERTILIZER OR EQUIVALENT. T IS IMPERATIVE THAT YOU CHECK THE TAG ON THE BAG OF SEED TO VERIFY TYPE AND GERMINATION OF THE - APPLY SEED BY HAND, CYCLONE SEEDER, DRILL OR HYDRO-SEEDER. SEED PLANTED WITH A DRILL SHOULD BE

PLANTED 1/2" TO 1' DEEP ESEED AREAS WHERE SEEDLING EMERGENCE IS POOR, OR WHERE EROSION OCCURS, AS SOON AS POSSIBLE. DO NOT MOW AND PROTECT FROM TRAFFIC AS MUCH AS POSSIBLE.

SEEDING DATES MAY BE ALTERED TO FIT TEMPERATURE VARIATIONS AND LOCAL CONDITIONS. UNUSUAL SITE CONDITIONS MAY REQUIRE HEAVIER SEEDING RATES. SEEDINGS FOR JANUARY AND FEBRUARY FOLLOW NCDENR RECOMMENDATIONS

USE 2 TONS OF HAY OR STRAW PER ACRE (IF NECESSARY)

MAY 15 - AUG. 15

AUG. 15 - DEC. 31

TEMPORARY SEEDING SCHEDULE				
DATE RANGE	SEEDING MIXTURE	RATE (LB./ACRE)		
FEB. 1 - MAY 15	RYE (GRAIN)	120		
	ANNUAL LESPEDEZA	50		

GERMAN MILLET

RYE (GRAIN)

40

120

TEMPORARY SEEDING

USE DOZER TRACKS TO CREATE GROOVES PERDENCULAR TO SURFACE ROUGHENING PURPOSE - REDUCE RUNOFF, EROSION, AND SEDIMENTATION, FOSTER THE MULCHING APPLICATION RATES MATERIAL RATE PER ACRE DEPTH STRAW OR HAY | 1.5 TO 2.5 TONS | 6" TO 10" 2" TO 3" 5 TO 6 TONS FIBERS 35 CUBIC YARDS 3" TO 4" BARK 4 TO 6 TONS 5" TO 6"

NOT TO SCALE

GROUND STABILIZATION	AND MATERIALS HAN	DLING PRACTICES FOR COMPLIANCE WITH
THE NCG01 CONSTRUCTION	ON GENERAL PERMIT	
permittee shall comply wit delegated authority having	th the Erosion and Sed g jurisdiction. All detail on site conditions and	mit (Sections E and F, respectively). The iment Control plan approved by the s and specifications shown on this sheet the delegated authority having jurisdiction
D.	equired Ground Stabili	ization Timeframes
I K		
Site Area Description	Stabilize within this many calendar days after ceasing land disturbance	Timeframe variations

ROLLED EROSION CONTROL PRODUCTS (RECP) ARE MANUFACTURED OR

FABRICATED INTO ROLLS DESIGNED TO REDUCE SOIL EROSION AND ASSIST

EROSION CONTROL MATS AND BLANKETS ARE INTENDED TO PROTECT SOIL

AND HOLD SEED AND MULCH IN PLACE ON SLOPES AND IN CHANNELS SO

THAT VEGETATION CAN BECOME WELL ESTABLISHED.

IN THE GROWTH, ESTABLISHMENT AND PROTECTION OF VEGETATION.

MATS/BLANKETS SHOULD BE

INSTALLED VERTICALLY DOWN

OVERLAP ~

ISOMETRIC VIEW

Required Ground Stabilization Timeframes Stabilize within this					
Si	te Area Description	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 Zon -10 days for Falls Lake Watershed unles there is zero slope		

GROUND STABILIZATION SPECIFICATION bilize the ground sufficiently so that rain will not dislodge the soil. Use one of the gues in the table below: Temporary Stabilization Permanent Stabilization other mulches and tackifiers other mulches and tackifiers · Geotextile fabrics such as permanent soi Rolled erosion control products with or reinforcement matting without temporary grass seed Appropriately applied straw or other mulch
 Shrubs or other permanent plantings covered

sufficient to restrain erosion Structural methods such as concrete, asphalt or Rolled erosion control products with grass seed POLYACRYLAMIDES (PAMS) AND FLOCCULANTS lect flocculants that are appropriate for the soils being exposed during construction, selecting from the NC DWR List of Approved PAMS/Flocculants

Apply flocculants at the concentrations specified in the NC DWR List of Approved

MS/Flocculants and in accordance with the manufacturer's instructions.

Provide ponding area for containment of treated Stormwater before discharging

Store flocculants in leak-proof containers that are kept under storm-resistant cover

QUIPMENT AND VEHICLE MAINTENANCE

<u>INSTALLATION</u>
- INSTALL ACCORDING TO APPROVED PLAN

AND TRASH FROM THE SOIL SURFACE.

SPREAD SEED BEFORE RECP INSTALLATION.

ACCOMPANYING DETAIL

GROUND SURFACE.

INSTALL ON SLOPES AND IN CHANNELS AS SHOWN IN THE

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 t

GRADE THE SURFACE OF INSTALLATION AREAS SO THAT THE GROUND IS

DRIVE STAPLES SO THAT THE TOP OF THE STAPLE IS FLUSH WITH THE

ROLLED EROSION CONTROL PRODUCTS

NOT TO SCALE

SMOOTH AND LOOSE. REMOVE ALL LARGE ROCKS, STUMPS, ROOTS

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 Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum product to a recycling or disposal center that handles these materials.

INITIAL CHANNEL ANCHOR TRENCH

LONGITUDINAL ANCHOR TRENCH

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. waters unless no other alternatives are reasonably available.

Locate waste containers at least 50 feet away from storm drain inlets and surface 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 Dispose waste off-site at an approved disposal facility. On business days, clean up and dispose of waste in designated waste contained PAINT AND OTHER LIQUID WASTE

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

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

Show stockpile locations on plans. Locate earthen-material stockpile areas at leas 50 feet away from storm drain inlets, sediment basins, perimeter sed ment contr and surface waters unless it can be shown no other alternatives are reasonably 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 define as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs

NORTH CAROLINA Environmental Quality

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

Store and apply herbicides, pesticides and rodenticides in accordance with label Store herbicides, pesticides and rodenticides in their original containers with the 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 wat or surface water. If a spill occurs, clean area immediately. Do not stockpile these materials onsite. Create designated hazardous waste collection areas on-site.

Place hazardous waste containers under cover or in secondary containme

Do not store hazardous chemicals, drums or bagged materials directly on the groun

| EFFECTIVE: 04/01/19

INTERMITTENT CHECK SLOT

TERMINAL SLOPE & CHANNEL ANCHOR

MAIN LENANGE
- INSPECT RECP AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2

MONITOR AND REPAIR THE RECP AS NECESSARY UNTIL GROUND COVER

- STAKING OR STAPLING LAYOUT PER MANUFACTURE'S SPECIFICATIONS

ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER

A THE COMMETTE VARIENT STRUCTURES BY BE INCHTACKE WHEN THE LIBITS ABOVE BOLIS READIES THE OF THE STRUCTURES

ot discharge concrete or cement slurry from the site.

and state solid waste regulations and at an approved facility.

ypes of temporary concrete washouts provided on this detail.

limits. Post signage on the washout itself to identify this location.

Dispose of, or recycle settled, hardened concrete residue in accordance with loc

Manage washout from mortar mixers in accordance with the above item and in

ddition place the mixer and associated materials on impervious barrier and with

Install temporary concrete washouts per local requirements, where applicable. If an

review and approval. If local standard details are not available, use one of the two

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

ischarged to the storm drain system or receiving surface waters. Liquid waste mu:

Locate washouts at least 50 feet from storm drain inlets and surface waters unless

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

entrance pad in front of the washout. Additional controls may be required by the

Install at least one sign directing concrete trucks to the washout within the projection

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 proprietar

. 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 disturbanc caused by removal of washout.

Locate washouts in an easily accessible area, on level ground and install a stone

alternate method or product is to be used, contact your approval authority for

BELOW GRADE WASHOUT STRUCTURE

lot perimeter silt fence.

approving authority.

be pumped out and removed from project.

roducts, follow manufacturer's instructions.

CONCRETE WASHOUTS

⊞RECP ⊞

INCH OR GREATER) RAIN FALL EVENT REPAIR IMMEDIATELY.

MAINTAIN GOOD CONTACT WITH THE GROUND SURFACE.

CHECK SLOTS TO BE CONSTRUCTED PER MANUFACTURE'S

IS ESTABLISHED.

SELF-INSPECTION, RECORDKEEPING AND REPORTING ECTION A: SELF-INSPECTION ow. When adverse weather or site conditions would cause the safety of the inspection el to be in jeopardy, the inspection may be delayed until the next business day o ch it is safe to perform the inspection. In addition, when a storm event of equal to or eater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be med upon the commencement of the next business day. Any time when inspectio ere delayed shall be noted in the Inspection Record.

ADDITION TO MULCH ON UNSTABLE SOILS AND CONCENTRATED FLOW AREAS.

- PRESS INTO THE SOIL WITH A ROLLER, PACKER DISK, ETC.

- ADD RYE OR WHEAT SEED TO FALL AND WINTER PLANTINGS

WOOD CELLULOSE AND WOOD FIBER MULCH IS SELF-ANCHORING.

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 n-attended days (and this will determine if a site inspection needed). Days on which no rainfall occurred shall be recorde zero." The permittee may use another rain-monitoring device At least once per 1. Identification of the measures inspected. At least once per 1. Identification of the measures inspected,
7 calendar days.
and within 24
hours of a rain
tevent > 1.0 inch
in 24 hours

1. Identification of the measures inspected,
7 calendar days.
3. Name of the person performing the inspection,
4. Indication of whether the measures were operating properl
event > 1.0 inch
in 24 hours

6. Description of maintenance needs for the measure,
6. Description, evidence, and date of corrective actions taken. At least once 1. Identification of the discharge outfalls inspected, ter per 7 calendar days and within 2. Date and time of the inspection, 3. Name of the person performing the inspection, 24 hours of a rain event > 1.0 inch in 24 hours of a stormwater pollution such as oil sheen, floating or suspended solids or discoloration, inch in 24 hours 5. Indication of visible sediment leaving the site, 6. Description, evidence, and date of corrective actions taken. If visible sedimentation is found outside site limits, then a re of per 7 calendar days and within 24 hours of a rain event > 1.0 calendar event > 1.0 calenda inch in 24 hours and 3. An explanation as to the actions taken to control future r wetlands | per 7 calendar | stream has visible increased turbidity from the construction days and within activity, then a record of the following shall be made: 1. Description, evidence and date of corrective actions taken,

rain event > 1.0 | 2. Records of the required reports to the appropriate Division

nch in 24 hours Regional Office per Part III, Section C, Item (2)(a) of this perm

measures, clearing and grubbing, installation of storm drainage facilities, completion of all land-disturbing activity, construction

an assurance that they will be provided as soon as possible

6) Ground After each phase 1. The phase of grading (installation of perimeter E&SC

aspection at all times during normal business hours Each E&SC measure has been installed in accordance with the approved E&SC plan. (d) The maintenance and repair rements for all E&SC measures ave been performed. to E&SC measures. 2. Additional Documentation to be Kept on Site

SECTION B: RECORDKEEPING

PERMANENT SEEDING

SELF-INSPECTION, RECORDKEEPING AND REPORTING

prrective action. 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 General Permit as well as the Certificate of Coverage, after it is received. Division or a similar inspection form that includes all the required elements. Use of shown to provide equal access and utility as the hard-copy records. Documentation to be Retained for Three Years All data used to complete the e-NOI and all inspection records shall be maintained for a peri

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

ent 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 naintenance 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 weath) rface withdrawals from sediment basins shall be allowed only when all of the following criteria have been met:

shall not commence until the E&SC plan authority has approved these items, 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, 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, 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,

Velocity dissipation devices such as check dams, sediment traps, and riprap are provided at the discharge points of all dewatering devices, and 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 St.

 E&SC Plan Documentation The approved E&SC plan as well as any approved deviation shall be kept on the site. The Occurrences that Must be Reported approved E&SC plan must be kept up-to-date throughout the coverage under this permit. Permittees shall report the following occurrences ne following items pertaining to the E&SC plan shall be kept on site and available for Visible sediment deposition in a stream or wetland. b) Oil spills if: They are 25 gallons or more. Initial and date each E&SC measure on a copy They are less than 25 gallons but cannot be cleaned up within 24 hours, talled and does not significantly of the approved E&SC plan or complete, date They cause sheen on surface waters (regardless of volume), or e from the locations, dimensions and sign an inspection report that lists each nd relative elevations shown on the E&SC measure shown on the approved E&SC They are within 100 feet of surface waters (regardless of volume). plan. This documentation is required upon the 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 initial installation of the E&SC measures or if the E&SC measures are modified after initial (Ref: 40 CFR 302.4) or G.S. 143-215.85. Anticipated bypasses and unanticipated bypasses Noncompliance with the conditions of this permit that may endanger health or the plan or complete, date and sign an inspection struction phase. . Reporting Timeframes and Other Requirements Initial and date a copy of the approved E&S 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 plan or complete, date and sign an inspection report to indicate compliance with approved other requirements listed below. Occurrences outside normal business hours may also be orted to the Department's Environmental Emergency Center personnel at (800) Complete, date and sign an inspection repor Reporting Timeframes (After Discovery) and Other Requirement Corrective actions have been taken | Initial and date a copy of the approved E&S a) Visible sediment • Within 24 hours, an oral or electronic notification. plan or complete, date and sign an inspection report to indicate the completion of the 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 determines the determines that additional determines the determines that additional determines that additional determines the determines that additional determines the determines the determines that additional determines the determines that additional determines the determines that additional determines th requirements are needed to assure compliance with the federal or state impaired-waters conditions. • Within 24 hours, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the bstances per Item spill or release. Records of inspections made during the previous twelve months. The permittee shall record the required observations on the Inspection Record Form provided by the A report at least ten days before the date of the bypass, if possible. The 40 CFR 122.41(m)(3)] report shall include an evaluation of the anticipated quality and effect of the passes [40 CFR . Within 7 calendar days, a report that includes an evaluation of the quality and effect of the bypass. ith • Within 24 hours, an oral or electronic notification. e conditions of this

* Within 7 calendar days, a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact anger health or the dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncomplia [40 CFR 122.41(I)(6). . Division staff may waive the requirement for a written report on 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

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING EFFECTIVE: 04/01/19

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RECOMMENDATIONS

SEWERLINE EXTENSION

WATERLINE EXTENSION SEWER PUMP STATION

Transylvania County, NC SHEET TITLE:

DETAILS

SHEET NO. TRA008 3/16/2022