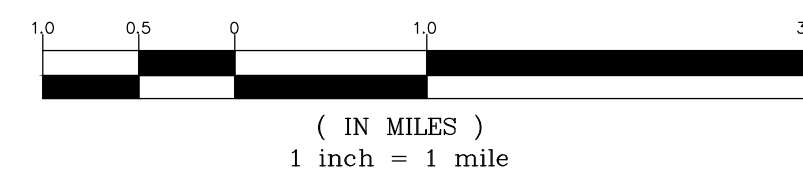
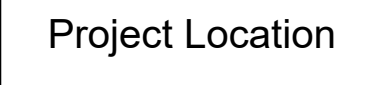


Newberry County
Economic Development

S O U T H C A R O L I N A

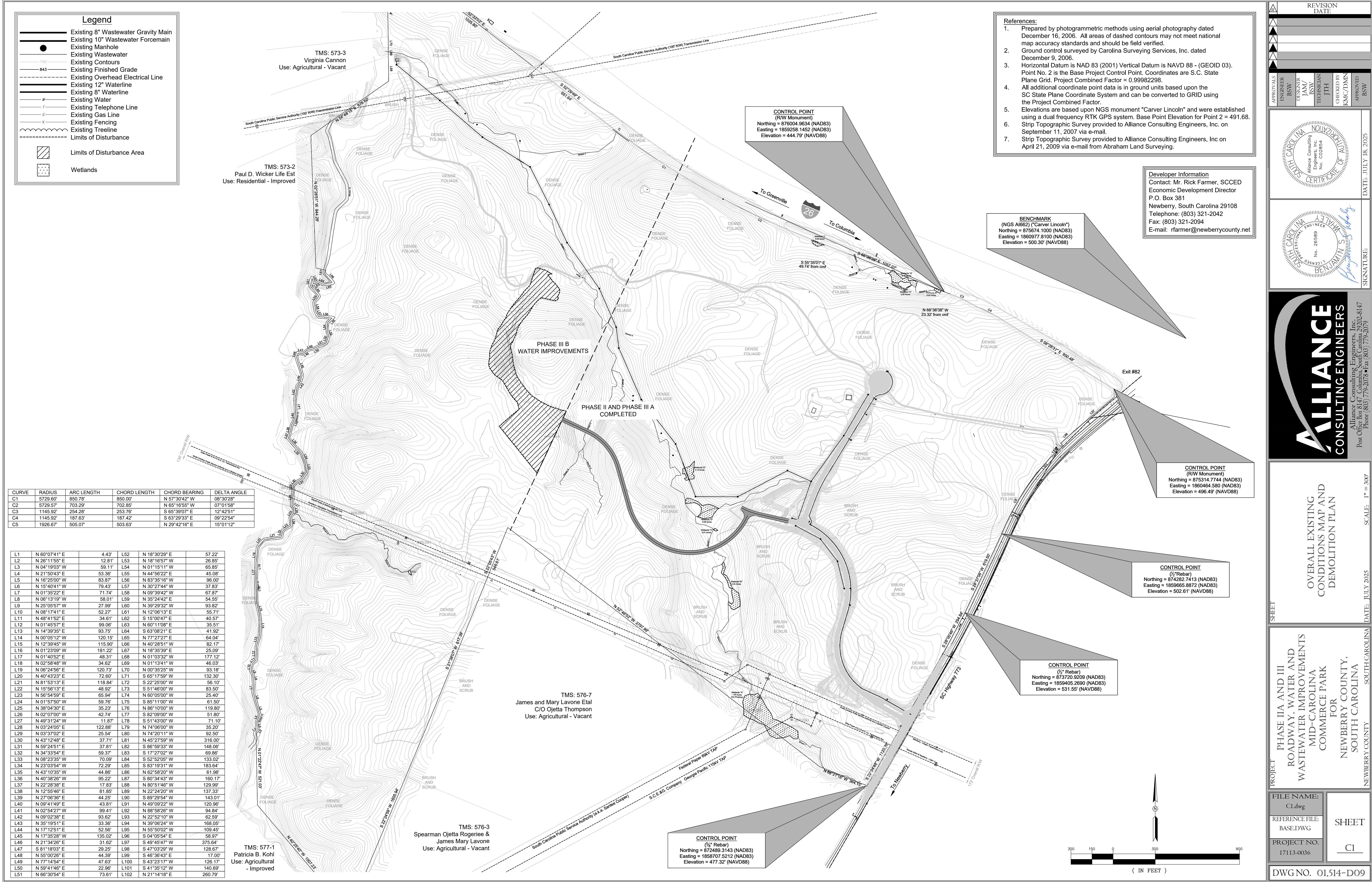


South Carolina 811
Call 811 Before you Dig

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July 16, 2025 - 1:03:45 PM S:\Projects\17113-0036 Phase IIA & Phase III Roadway & Wastewater Infrastructure Improve Mid-Carolina Cor. Parkway\Construction Plans C-Overall Existing Conditions Map.dwg



REVISION DATE

APPROVALS

ENGINEER: RSW
DESIGNER: JAM/
CHECKED BY: JTH
TITLED BY: KAC/DMN
APPROVED: RSW

DATE: JULY 18, 2025

SIGNATURE: *Benjamin S. Williams*

ALLIANCE CONSULTING ENGINEERS, Inc.
Alliance Consulting Engineers, Inc.
Post Office Box 8147, Columbia, South Carolina 29202-8147
Phone: (803) 779-2078 • Fax: (803) 779-2079

OVERALL EXISTING CONDITIONS MAP AND DEMOLITION PLAN

PHASE IIA AND III ROADWAY, WATER AND WASTEWATER IMPROVEMENTS MID-CAROLINA COMMERCE PARK FOR NEWBERRY COUNTY, SOUTH CAROLINA

FILE NAME: CI.dwg
REFERENCE FILE: BASED.WG
PROJECT NO: 17113-0036

DWG NO. 01,514-D09

SHEET

SCALE: 1" = 30'

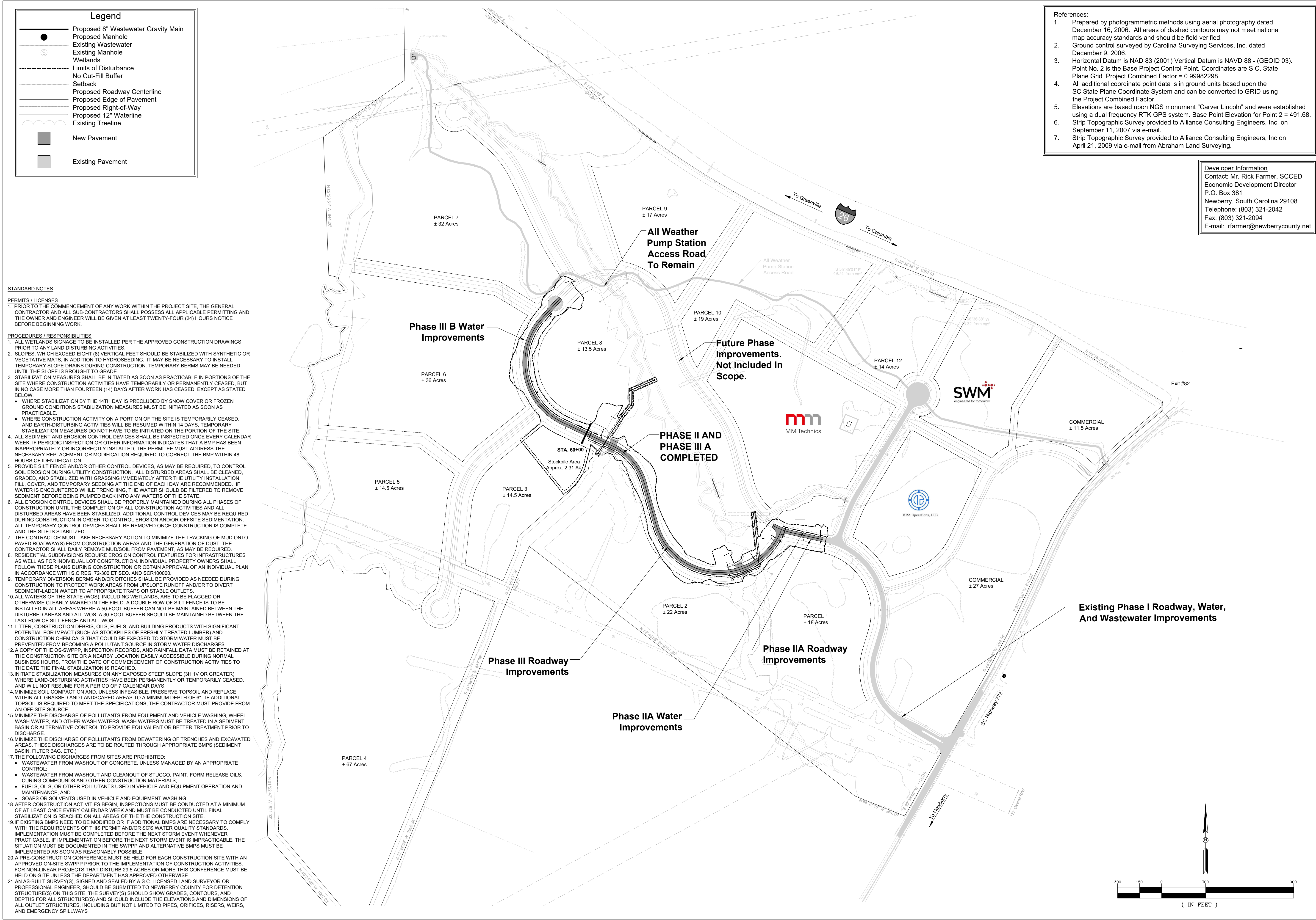
DATE: JULY 2025

SOUTH CAROLINA

NEWBERRY COUNTY

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July 16, 2025 - 1:08:43 PM US (Project)17113-0036 Phase IIA & Phase III Roadway & Wastewater Infrastructure Improvements Mid-Carolina Comm. Parkway/Construction Plans C2-Overall Site Plan.dwg



References:

1. Prepared by photogrammetric methods using aerial photography dated December 16, 2006. All areas of dashed contours may not meet national map accuracy standards and should be field verified.

2. Ground control surveyed by Carolina Surveying Services, Inc. dated December 9, 2006.

3. Horizontal Datum is NAD 83 (2001) Vertical Datum is NAVD 88 - (GEOID 03). Point No. 2 is the Base Project Control Point. Coordinates are S.C. State Plane Grid. Project Combined Factor = 0.99982298.

4. All additional coordinate point data is in ground units based upon the SC State Plane Coordinate System and can be converted to GRID using the Project Combined Factor.

5. Elevations are based upon NGS monument "Carver Lincoln" and were established using a dual frequency RTK GPS system. Base Point Elevation for Point 2 = 491.68.

6. Strip Topographic Survey provided to Alliance Consulting Engineers, Inc. on September 11, 2007 via e-mail.

7. Strip Topographic Survey provided to Alliance Consulting Engineers, Inc. on April 21, 2009 via e-mail from Abraham Land Surveying.

Developer Information

Contact: Mr. Rick Farmer, SCCED
Economic Development Director
P.O. Box 381
Newberry, South Carolina 29108
Telephone: (803) 321-2042
Fax: (803) 321-2094
E-mail: rfarmer@newberrycounty.net

REVISION DATE

APPROVALS

ENGINEER ISW

DESIGNER ISW

JAN/

ISSN

TECHNICAL JTH

CHECKED BY KAC/DMN

APPROVED ISW

ALLIANCE CONSULTING ENGINEERS

ALLIANCE CONSULTING ENGINEERS, Inc.
Alliance Consulting Engineers, Inc.
Post Office Box 8147, Columbia, South Carolina 29202-8147
Phone (803) 793-2078 • Fax (803) 793-2079

OVERALL SITE PLAN

PROJECT PHASE IIA AND III ROADWAY, WATER AND WASTEWATER IMPROVEMENTS MID-CAROLINA COMMERCE PARK FOR NEWBERRY COUNTY, SOUTH CAROLINA

FILE NAME: C2.DWG

REFERENCE FILE: BASE.DWG

PROJECT NO: 17113-0036

DWG NO. 01,514-D09

SHEET

C2

DATE: JULY 2025

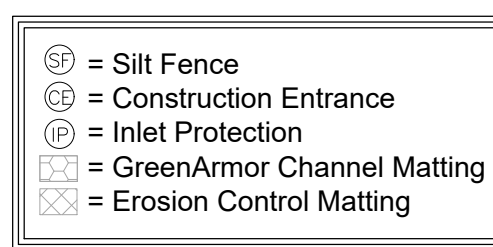
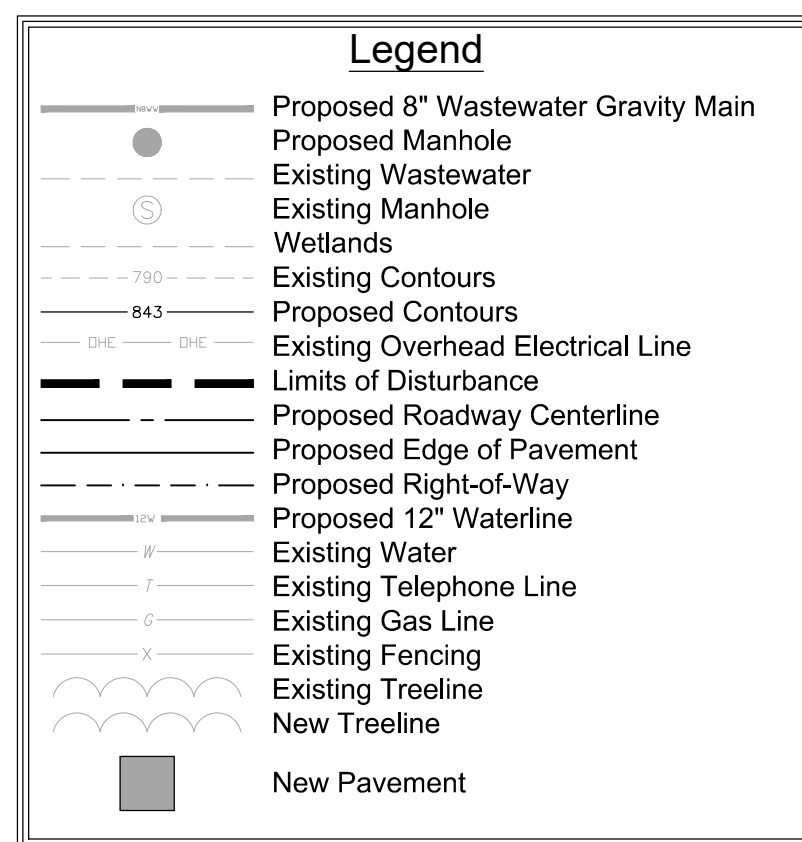
SCALE: 1" = 300'

SHEET

DATE: JULY 18, 2025

SIGNATURE:

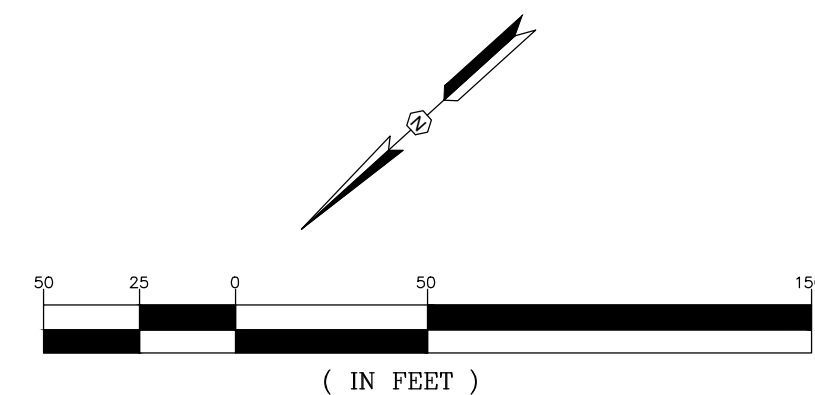
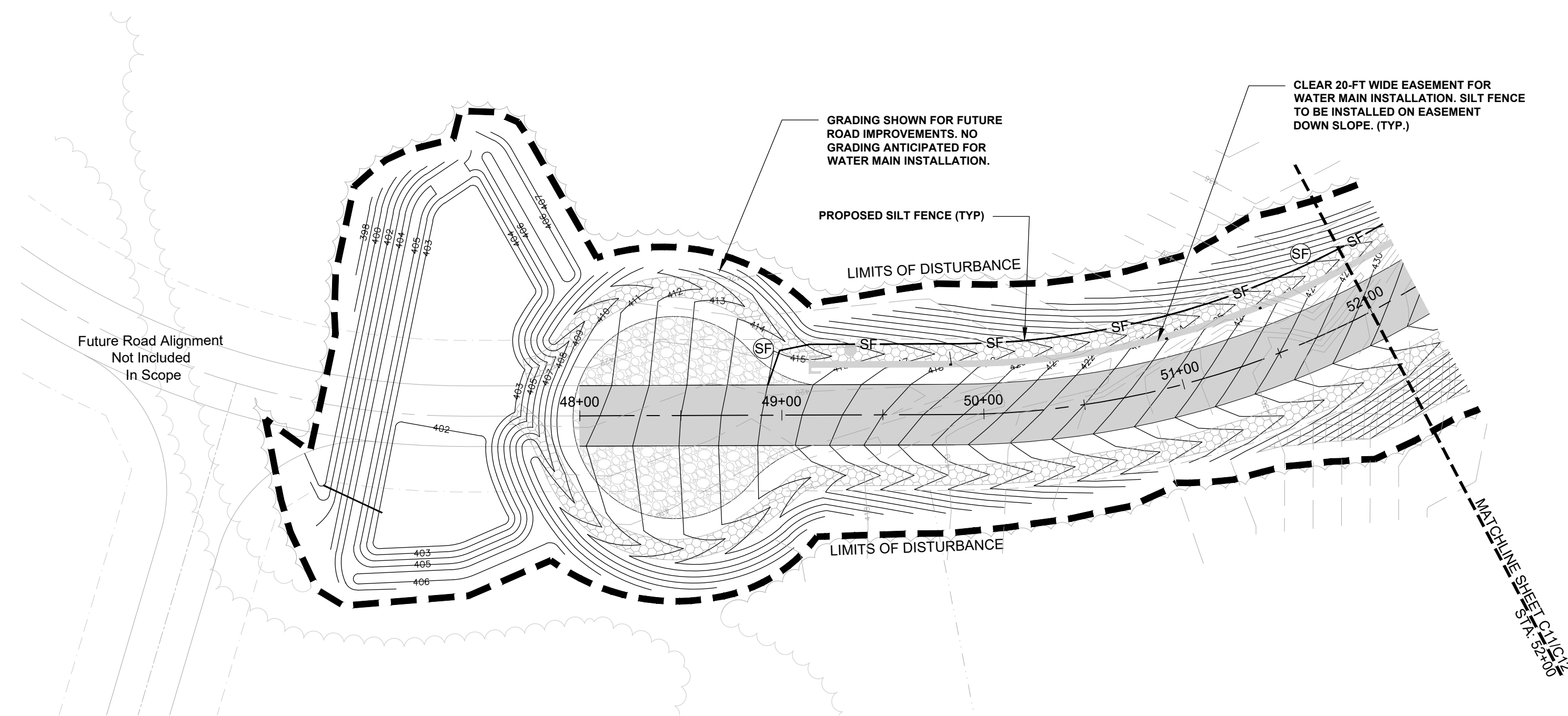
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CONTRACTOR NOTES:
EFFORTS SHOULD BE MADE TO AVOID THE REMOVAL OF LARGE TREES AT THE EDGES OF CONSTRUCTION CORRIDORS. DISTURBED AREAS SHOULD BE RESEEDED WITH SEED MIXTURES THAT ARE BENEFICIAL TO WILDLIFE. FESCUE-BASED MIXTURES SHOULD BE AVOIDED; FESCUE IS INVASIVE AND PROVIDES LITTLE BENEFIT TO WILDLIFE. NATIVE ANNUAL SMALL GRAINS APPROPRIATE FOR THE SEASON ARE PREFERRED AND RECOMMENDED. WHERE FEASIBLE, USE WOODY DEBRIS AND LOGS FROM CORRIDOR CLEARING TO ESTABLISH BRUSH PILES AND DOWNED LOGS AT THE EDGE OF THE CLEARED RIGHT-OF-WAY TO IMPROVE HABITAT FOR WILDLIFE. CORRIDOR MAINTENANCE SHOULD BE MINIMIZED, AND MOWING SHOULD BE PROHIBITED BETWEEN APRIL 1 AND OCTOBER 1 IN ORDER TO REDUCE IMPACTS TO NESTING WILDLIFE. ADDITIONALLY, HERBICIDES SHOULD NOT BE USED IN WETLAND AREAS OR NEAR STREAMS.

- References:**
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Developer Information
Contact: Mr. Rick Farmer, SCCED
Economic Development Director
P.O. Box 381
Newberry, South Carolina 29108
Telephone: (803) 321-2042
Fax: (803) 321-2094
E-mail: rfarmer@newberrycounty.net



Phase III Grading, Storm Drainage and Erosion and Sediment Control Plan
(STA: 48+00 TO 52+00)

Scale: Horiz. 1"=50'

APPROVALS		REVISION DATE	
ENGINEER	BSW		
DESIGNER	JAM/BSW		
TECHNICIAN	JTH		
CHECKED BY	KWC/DMN		
APPROVED	BSW		

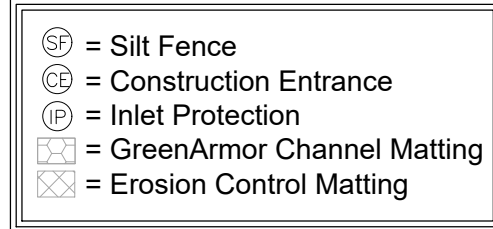
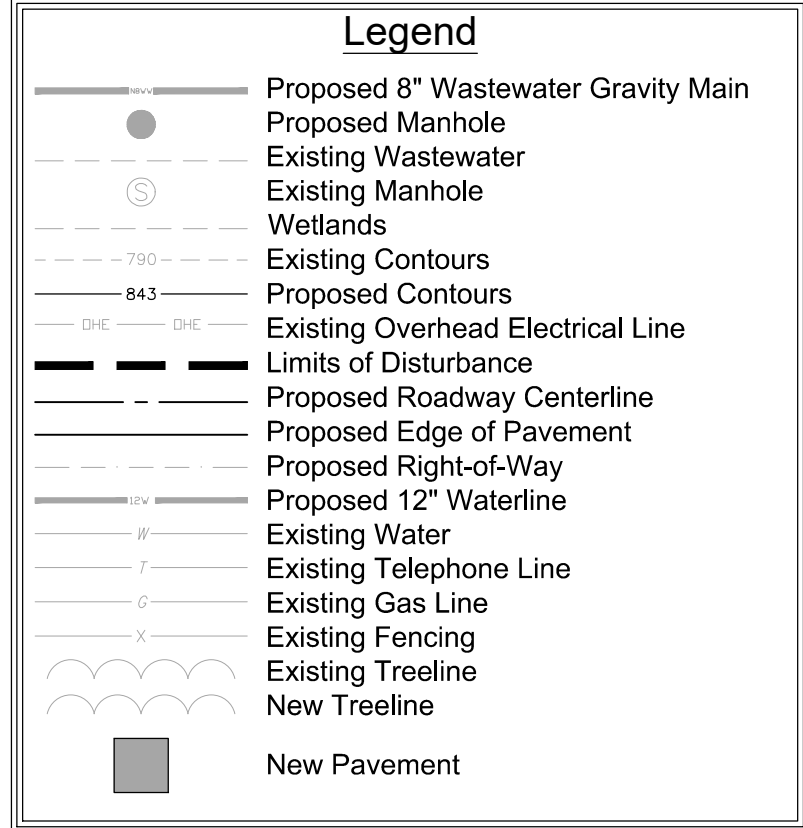
		DATE: JULY 18, 2025
		SIGNATURE: <i>Benjamin S. Wiley</i>

		Alliance Consulting Engineers, Inc. Post Office Box 8147 Columbia South Carolina 29202-8147 Phone (803) 779-2078 • Fax (803) 779-2079
--	--	---

PROJECT PHASE IIA AND III ROADWAY, WATER AND WASTEWATER IMPROVEMENTS MID-CAROLINA COMMERCE PARK FOR NEWBERRY COUNTY, SOUTH CAROLINA SOUTH CAROLINA		DATE: JULY 2025 SCALE: AS SHOWN
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FILE NAME: C11.dwg	SHEET
REFERENCE FILE: BASE.DWG	
PROJECT NO. 17113-0036	

DWG NO. 01,514-D09	C11
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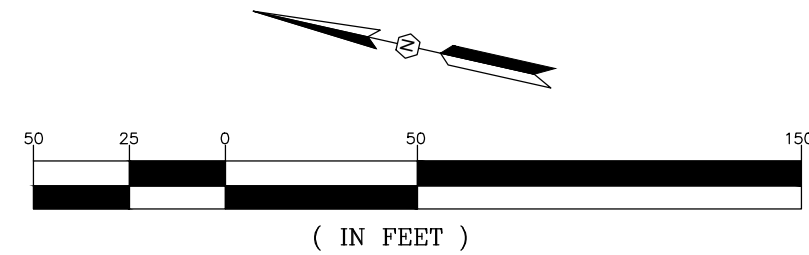
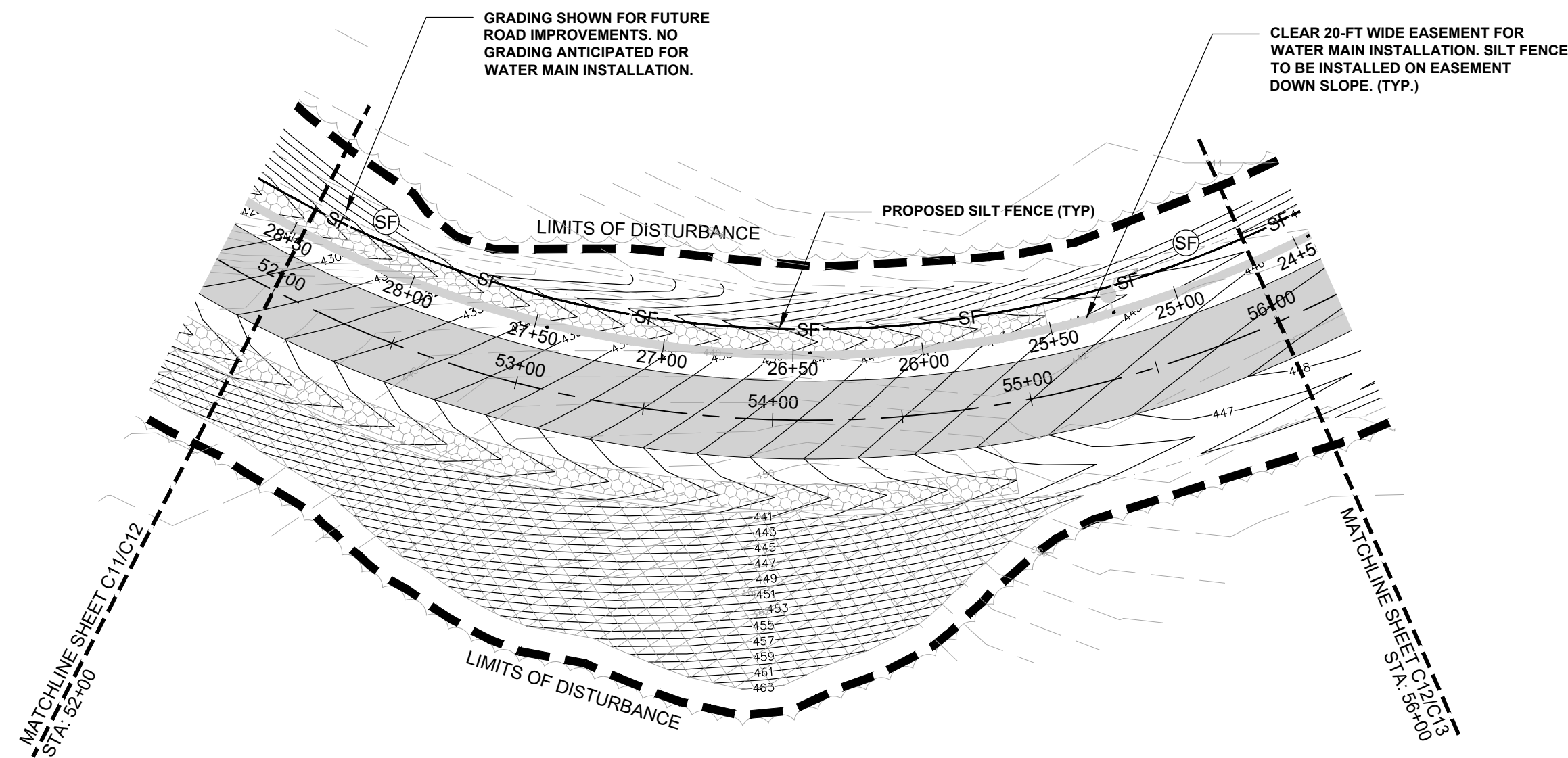


CONTRACTOR NOTES:

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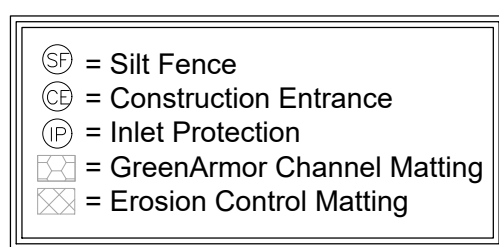
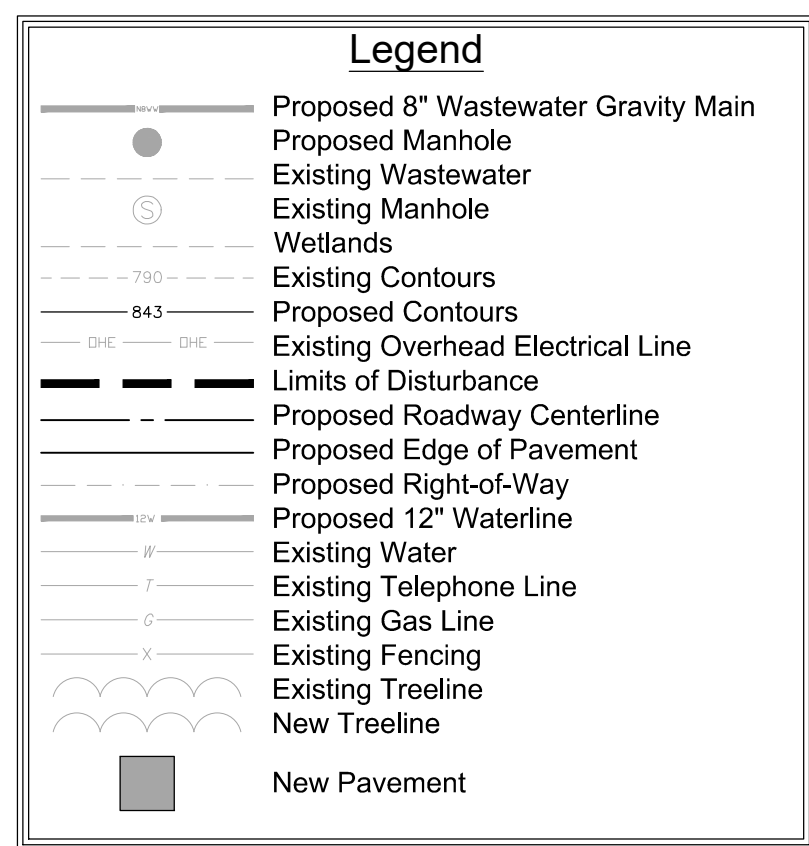
Developer Information
Contact: Mr. Rick Farmer, SCCED
Economic Development Director
P.O. Box 381
Newberry, South Carolina 29108
Telephone: (803) 321-2042
Fax: (803) 321-2094
E-mail: rfarmer@newberrycounty.net



Phase III Grading, Storm Drainage and Erosion and Sediment Control Plan
(STA: 52+00 TO 56+00)

Scale: Horiz. 1"=50'

APPROVALS	ENGINEER	DESIGNER	TECHNICIAN	CHECKED BY	APPROVED
	BSW	JAM/ BSW	JTH	KMC/DMS	BSW
REVISION DATE DATE: JULY 18, 2025 SIGNATURE: <i>Raymond S. Moly</i>					
PHASE IIA AND III ROADWAY, WATER AND WASTEWATER IMPROVEMENTS MID-CAROLINA COMMERCE PARK FOR NEWBERRY COUNTY, SOUTH CAROLINA PHASE III GRADING, STORM DRAINAGE AND EROSION AND SEDIMENT CONTROL (STA: 52+00 TO 56+00) DATE: JULY 2025 SCALE: AS SHOWN					
PROJECT FILE NAME: C12.dwg REFERENCE FILE: BASE.DWG PROJECT NO. 17113-0036 SHEET C12					
DWG NO. 01,514-D09					

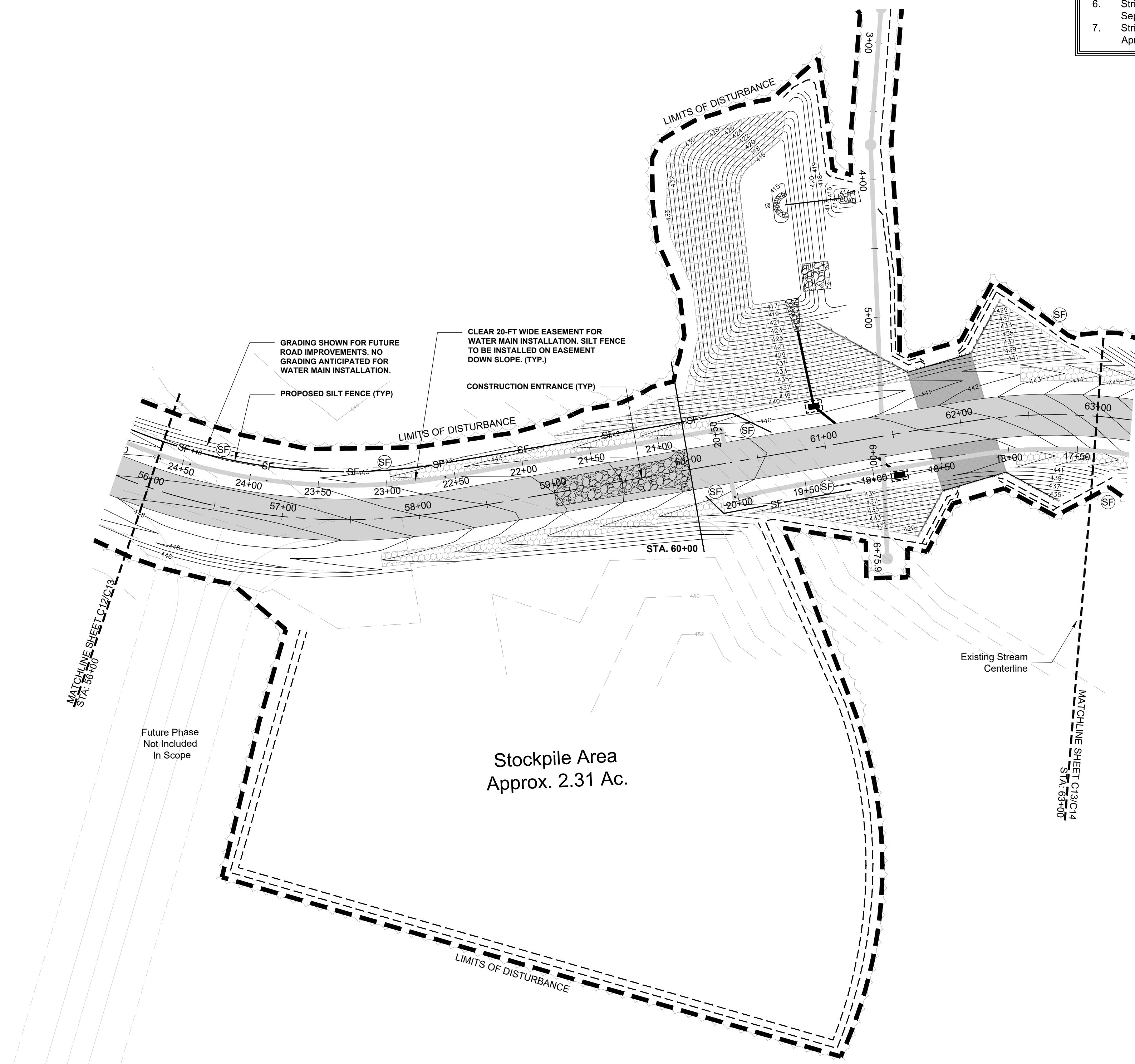


CONTRACTOR NOTES:

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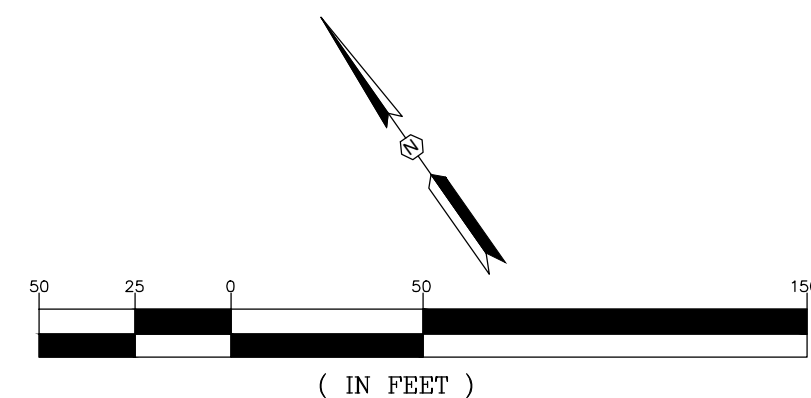
- ## References:
1. Prepared by photogrammetric methods using aerial photography dated December 16, 2006. All areas of dashed contours may not meet national map accuracy standards and should be field verified.
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Contact: Mr. Rick Farmer, SCCED
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P.O. Box 381
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Telephone: (803) 321-2042
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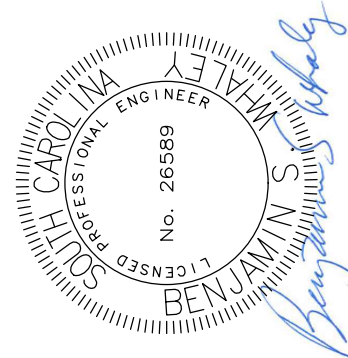
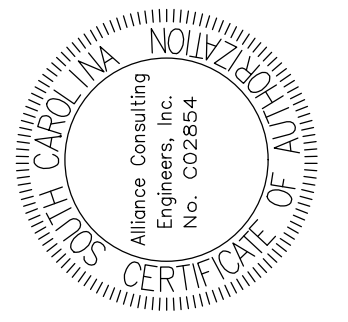


Phase III Grading, Storm Drainage and Erosion and Sediment Control Plan
(STA: 56+00 TO 63+00)

Scale: Horiz. 1"=50



REVISION		DATE	
APPROVALS	ENGINEER	DESIGNER	CHECKED BY
BSW	BSW	JTH	DNMC/DMS
APPROVED	BSW		



DATE: JULY 18, 2025

SIGNATURE:



Alliance Consulting Engineers, Inc.
Post Office Box 8147 Columbia, South Carolina 29202-8147
Phone (803) 779-2078 • Fax (803) 779-2079

PHASE III GRADING, STORM
DRAINAGE AND EROSION AND
SEDIMENT CONTROL
(STA: 56+00 TO 63+00)

SCALE, AS SHOWN

PROJECT
PHASE IIA AND III
ROADWAY, WATER AND
WASTEWATER IMPROVEMENTS
MID-CAROLINA
COMMERCE PARK
FOR
NEWBERRY COUNTY,

SOUTH CAROLINA

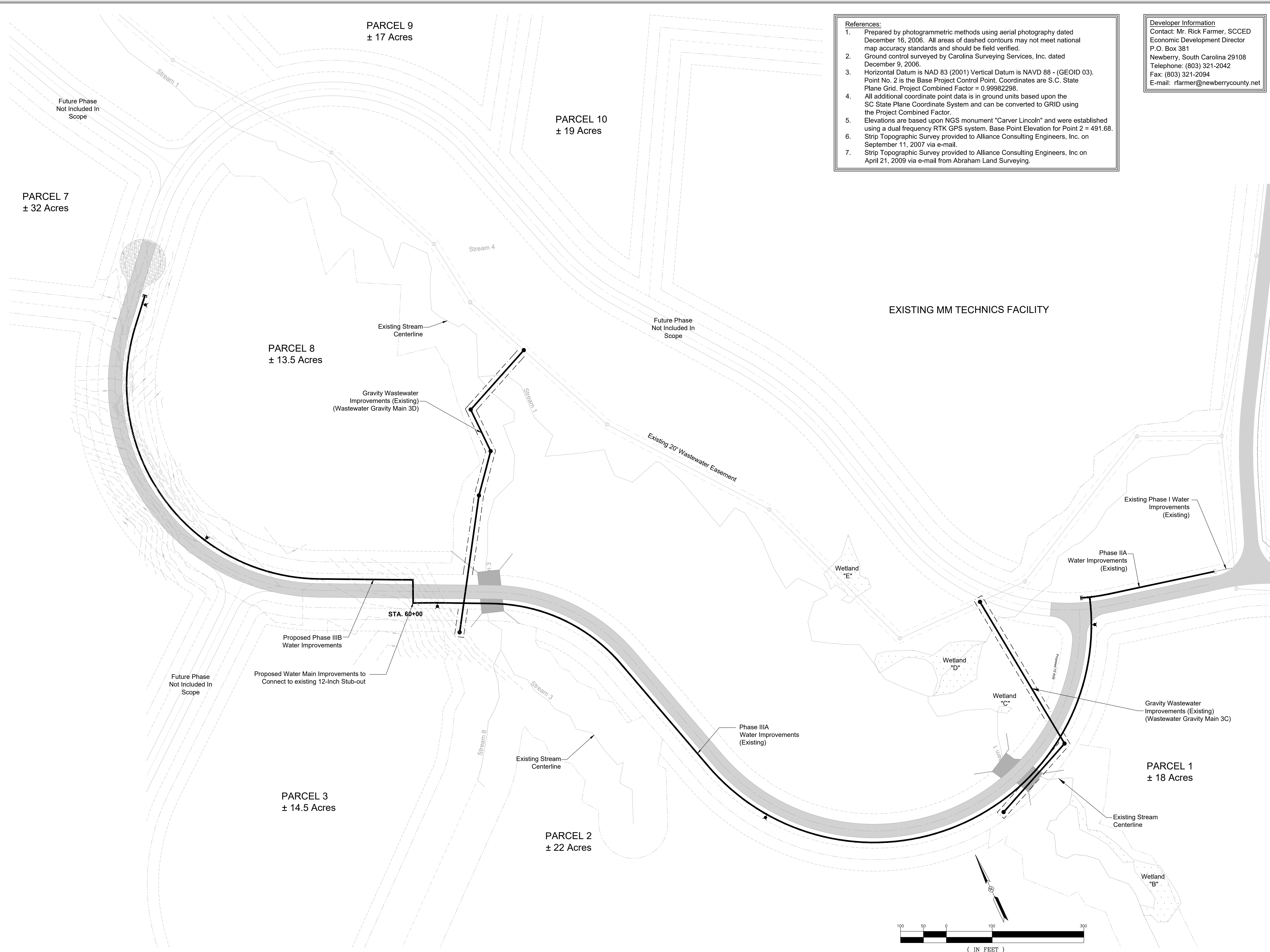
NEWBERRY COUNTY

FILE NAME:	C13.dwg
REFERENCE FILE:	BASE.DWG
PROJECT NO.:	17113-0036

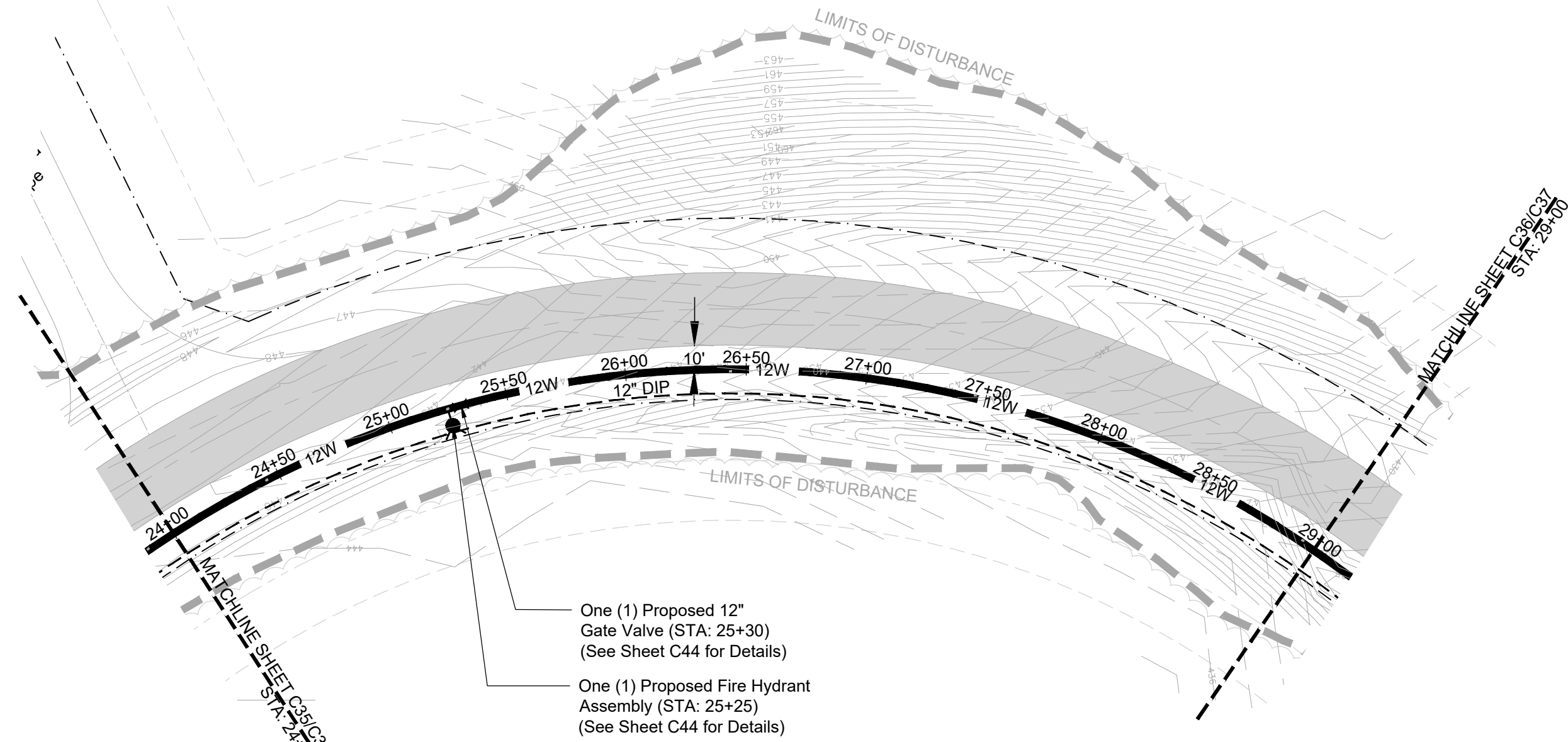
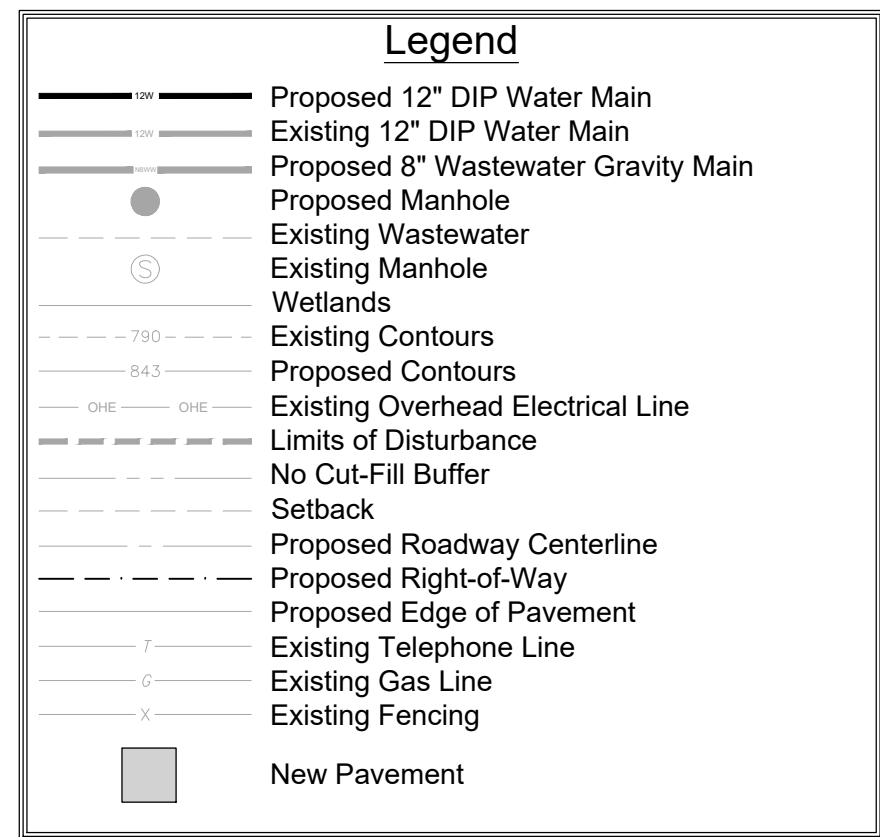
SHEET

C13

DWG NO. 01,514-D09

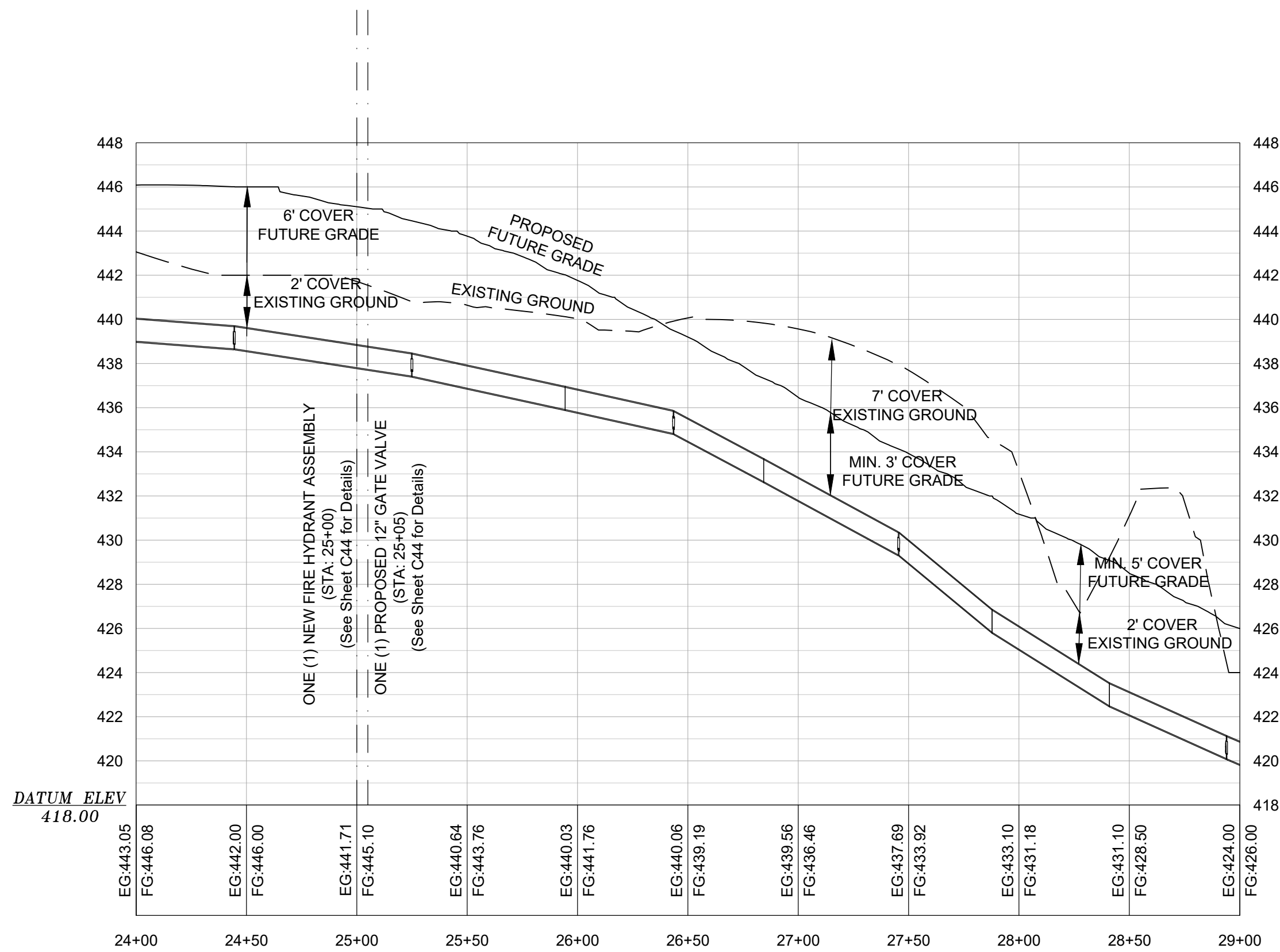
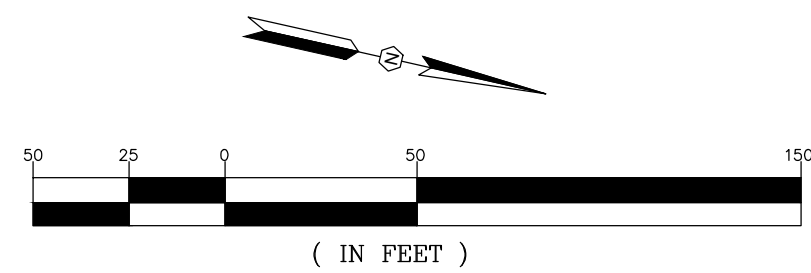
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July 22, 2025 - 1:18:49 PM S:\Projects\17113-0036 Phase IIA & Phase III Rdway & Wastewater Infrastructure Improve Mid-Carolina Cor. Park\dwg\Construction Plans\ C36-Phase III Water Line Plan and Profile (5 of 6).dwg



Phase III Water Line Plan (STA: 24+00 TO 29+00)

Scale: Horiz. 1"=50'



Phase III Water Line Profile (STA: 24+00 TO 29+00)

Scale: Horiz. 1"=50', Vert. 1"=5'

References:

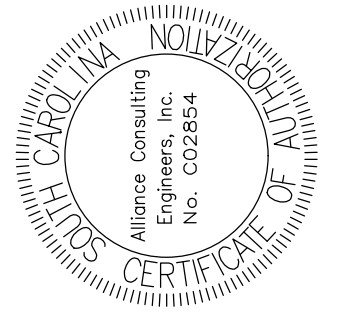
1. Prepared by photogrammetric methods using aerial photography dated December 16, 2006. All areas of dashed contours may not meet national map accuracy standards and should be field verified.
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Developer Information

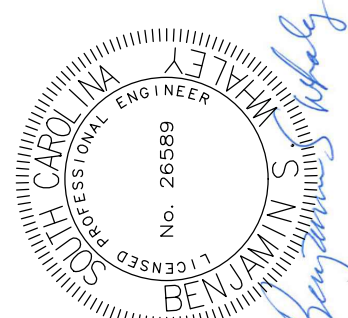
Contact: Mr. Rick Farmer, SCCED
Economic Development Director
P.O. Box 381
Newberry, South Carolina 29108
Telephone: (803) 321-2042
Fax: (803) 321-2094
E-mail: rfarmer@newberrycounty.net

NOTE

1. Approximately 1,200-LF of 12-Inch DIP Water Main (Includes Fittings, Bends, Appurtenances, etc to complete Water Main as shown on Plans. Linear foot cost to include these items.)

[illegible]

DATE: JULY 18, 2025



SIGNATURE:



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Post Office Box 8147 Columbia, South Carolina 29202-8147
Phone (803) 779-2078 • Fax (803) 779-2079

Phone (803) 779-2078 • Fax (803) 779-2079
P.O. Box 8147 Columbia, South Carolina 29202-8147

PROJECT	PHASE IIA AND III ROADWAY, WATER AND WASTEWATER IMPROVEMENTS MID-CAROLINA COMMERCE PARK FOR NEWBERRY COUNTY, SOUTH CAROLINA	SHEET	PHASE III WATER LINE PLAN AND PROFILE (STA: 24+00 TO 29+00)	DATE: JULY 2025	SCALE: AS SHOWN
NEWBERRY COUNTY SOUTH CAROLINA					

DATE: JULY 2025

SOUTH CAROLINA

RY COUNTY

NEWARK

FILE NAME:

C36.dwg

REFERENCE FILE:

BASE.DWC

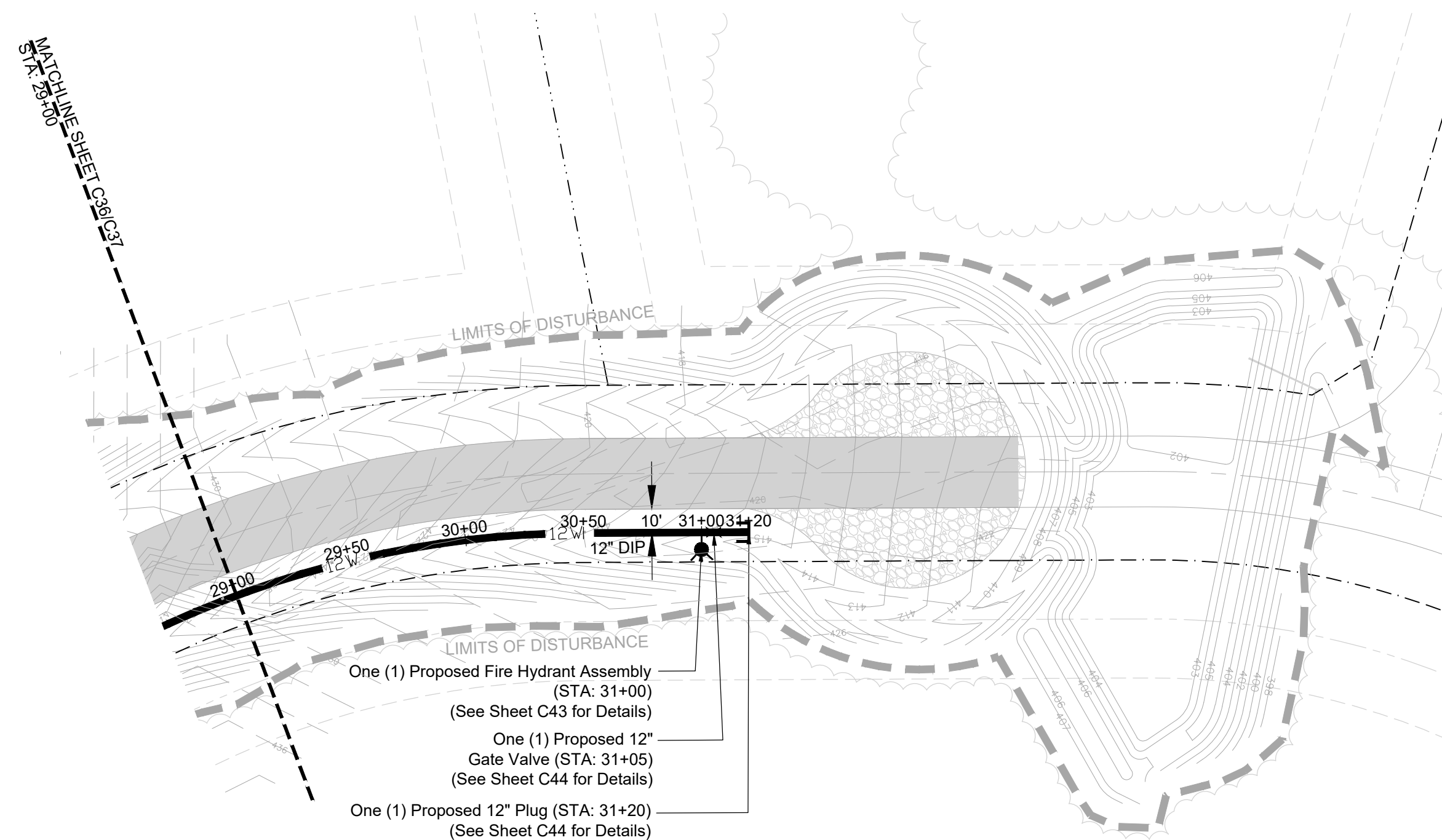
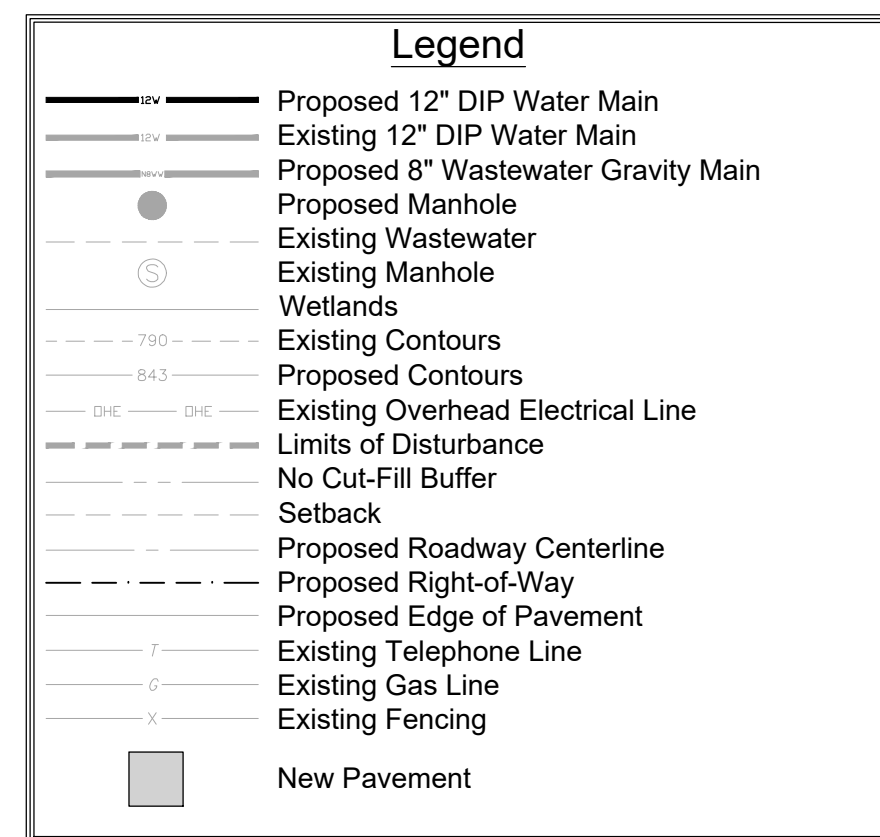
PROJECT NO.

17113-0034

SHEET

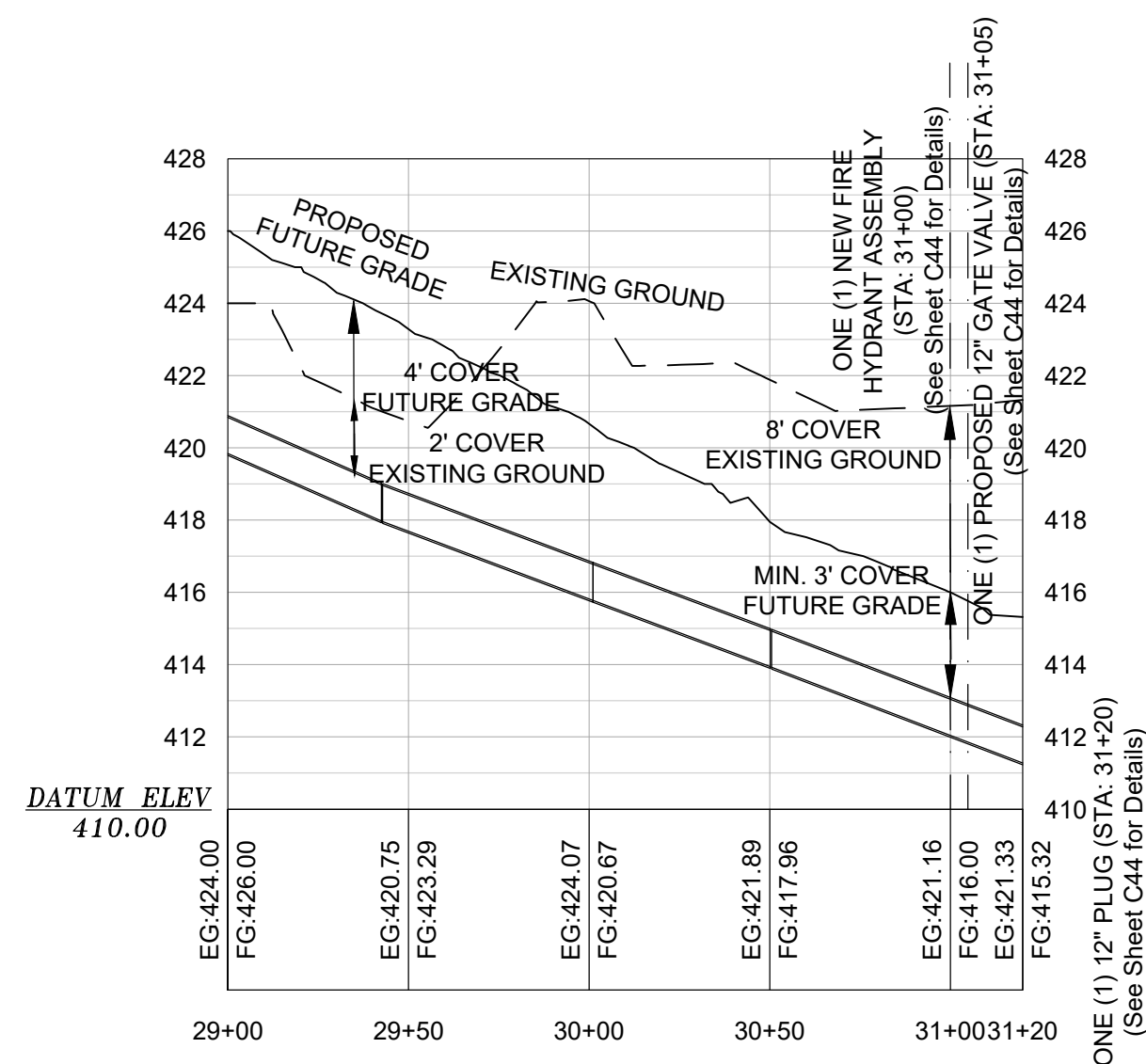
C36

DWG NO. 01,514-D09



Phase III Water Line Plan (STA: 29+00 TO 31+20.00)

Scale: Horiz. 1"=50'



Phase III Water Line Profile (STA: 29+00 TO 31+20)

Scale: Horiz. 1"=50', Vert. 1"=5'

References:

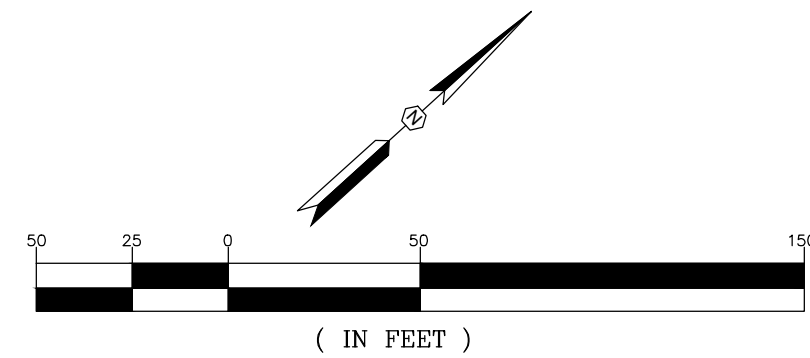
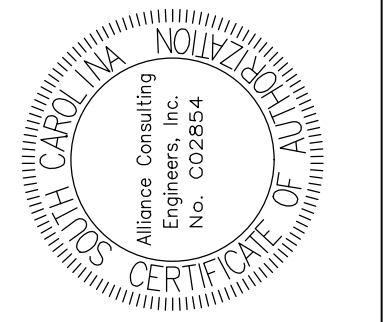
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Developer Information

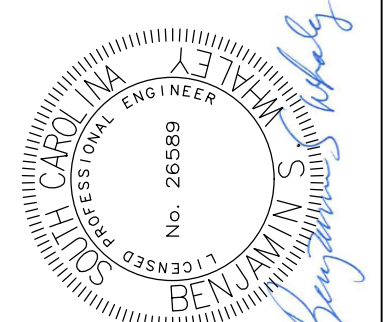
Contact: Mr. Rick Farmer, SCCED
Economic Development Director
P.O. Box 381
Newberry, South Carolina 29108
Telephone: (803) 321-2042
Fax: (803) 321-2094
E-mail: rfarmer@newberrycounty.net

NOTE:

1. Approximately 1,200-LF of 12-Inch DIP Water Main (Includes Fittings, Bends, Appurtenances, etc to complete Water Main as shown on Plans. Linear foot cost to include these items.)

[illegible]

DATE: JULY 18, 2025



SIGNATURE:



PHASE III WATER LINE
PLAN AND PROFILE
(STA: 29+00 TO 31+20)

SCALE: AS SHOWN

DATE: JULY 2025

PROJECT
PHASE IIA AND III
ROADWAY, WATER AND
WASTEWATER IMPROVEMENTS
MID-CAROLINA
COMMERCE PARK
FOR
NEWBERRY COUNTY,
SOUTH CAROLINA

SOUTH CAROLINA

NEWBERRY COUNTY

FILE NAME:
C37.dwg

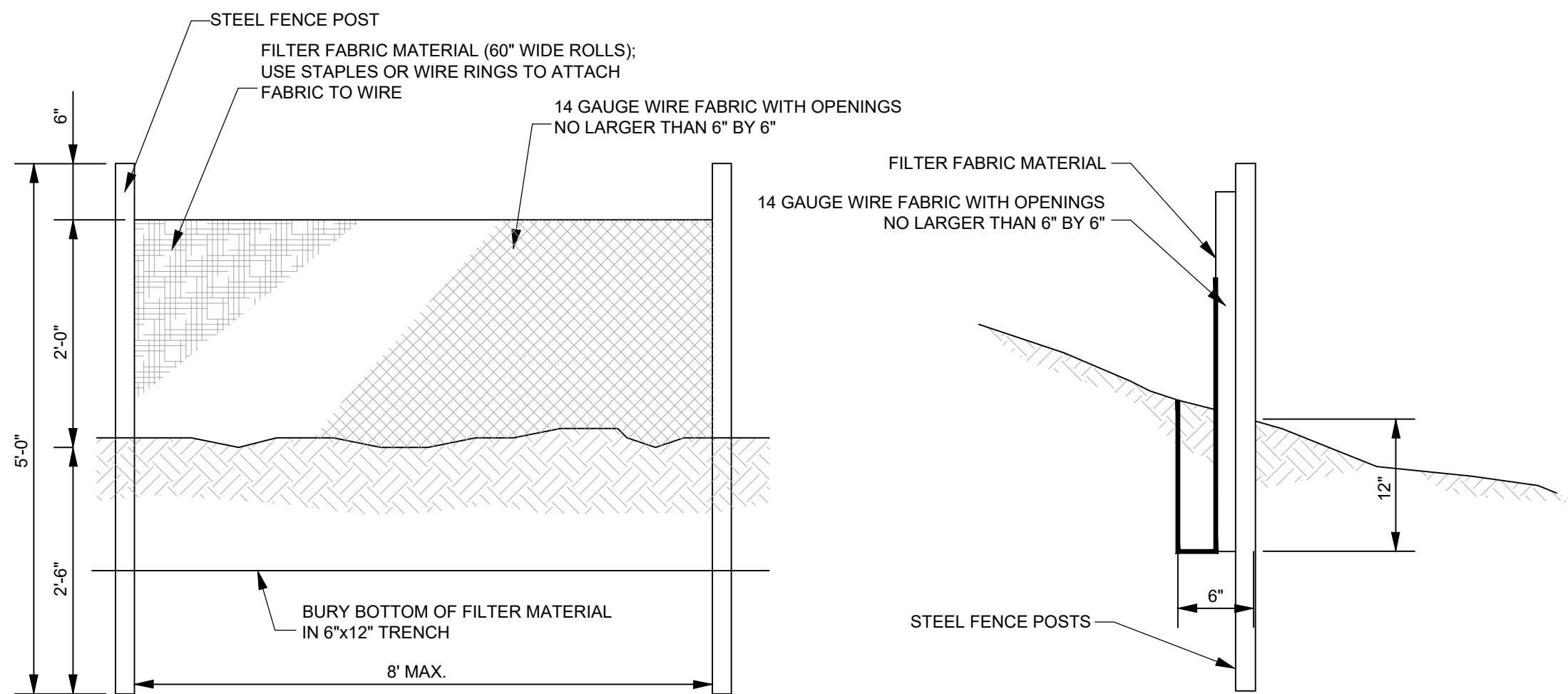
REFERENCE FILE:
BASE.DWG

PROJECT N°	17113-0036
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SHEET

C37

DWG NO. 01,514-D09



NOTE: SEDIMENT TO BE CLEANED OUT WHEN SEDIMENT HEIGHT REACHES ONE-THIRD (1/3) THE SILT FENCE HEIGHT.

SILT FENCE
NOT TO SCALE

CONSTRUCTION SEQUENCE

1. Receive NPDES coverage from SCDHEC.
2. Notify SCDHEC Regional Office 48 hours prior to any land disturbing activities.
3. Clearing and Grubbing only as necessary for installation of perimeter controls (e.g., Silt Fence and Construction Entrance).
4. Install perimeter Erosion and Sediment Control Devices.
5. Clearing and Grubbing of Site as necessary to install all Stormwater Detention features and all accompanying Erosion and Sediment Control Measures in these areas.
6. Begin Rough Grading Operations.
7. Install Storm Drainage in relation to Rough Grading.
8. Complete Rough Grading Operation.
9. Temporary Grassing as necessary.
10. Install Stone Base and Asphalt.
11. Complete Fine Grading of Shoulder Areas.
12. Install Rip-Rap and Filter Fabric.
13. Install pavement striping and Parking/Roadway signage.
14. Install Permanent Grassing and Stabilization.
15. Maintain all Erosion and Sediment Control Devices for the Extent of the Project.
16. Once the site stabilizes, remove temporary Erosion and Sediment Control Devices after entire area draining to the structure is finally stabilized (SCDHEC recommends that the Project Owner/Operator have the SWPPP Preparer (if applicable) or registration equivalent approve the removal of the temporary structures).

1. North American Green Product SC250 to be used as Rolled Erosion Control Product (RECP).
2. Prepare soil before installing RECPs, including any necessary application of lime, fertilizer, and seed. Begin at the top of the slope by anchoring the RECPs in a 6" (15cm) deep x 6" (15cm) wide trench with approximately 12" (30cm) of RECPs extended beyond the up-slope portion of the trench. Anchor the RECPs with a row of staples/stakes approximately 12" (30cm) apart in the bottom of the trench. Backfill and compact the trench after stapling. Apply seed to compacted soil and fold remaining 12" (30cm) portion of RECPs back over seed and compacted soil. Secure RECPs over compacted soil with a row of staples/stakes spaced approximately 12" (30cm) apart across the width of the RECPs.
3. Roll the RECPs (a) down or (b.) horizontally across the slope. RECPs will unroll with appropriate side against the soil surface. All RECPs must be securely fastened to soil surface by placing staples/stakes in appropriate locations as shown in the staple pattern guide. When using the dot system™, staples/stakes should be placed through each of the colored dots corresponding to the appropriate staple pattern.
4. The edges of parallel RECPs must be stapled with approximately 2'-5" (5cm-12.5cm) overlap depending on RECP type.
5. Consecutive RECPs spliced down the slope must be placed end over end (shingle style) with an approximate 3" (7.5cm) overlap. Staple through overlapped area, approximately 12" (30cm) apart across entire RECP width.

Note: In loose soil conditions, the use of staple or stake lengths greater than 6" (15cm) may be necessary to properly secure the reeps.

SLOPE INSTALLATION
DETAIL PROVIDED BY NORTH AMERICAN GREEN
NOT TO SCALE

Sediment and Erosion Control Notes

Standard Notes:

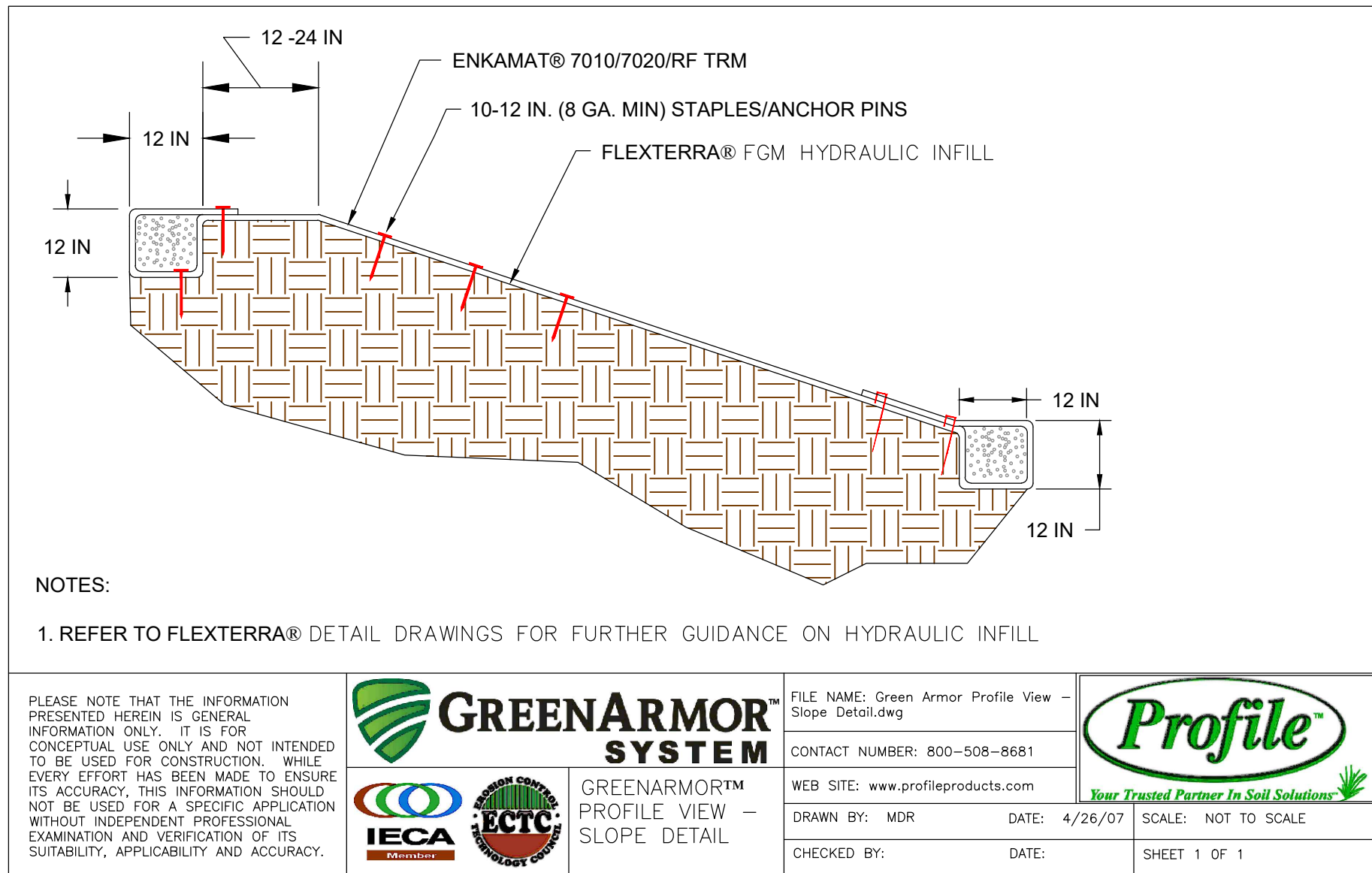
1. If necessary, slopes, which exceed eight (8) vertical feet should be stabilized with synthetic or vegetative mats, in addition to hydroseeding. It may be necessary to install temporary slope drains during construction. Temporary berms may be needed until the slope is brought to grade.
2. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than fourteen (14) days after work has ceased, except as stated below.
 - > Where stabilization by the 14th day is precluded by snow cover or frozen ground conditions stabilization measures must be initiated as soon as practicable.
 - > Where construction activity on a portion of the Site is temporarily ceased, and earth-disturbing activities will be resumed within fourteen (14) days, temporary stabilization measures do not have to be initiated on that portion of the Site.
3. All sediment and erosion control devices shall be inspected every seven (7) days. If site inspectors identify BMPs that are damaged or are not operating effectively, maintenance must be performed as soon as practical or as reasonably possible and before the next storm event whenever practicable.
4. Provide silt fence and/or other control devices, as may be required, to control soil erosion during utility construction. All disturbed areas shall be cleared, graded, and stabilized with grassing immediately after the utility installation. Fill, cover, and temporary seeding at the end of each day are recommended. If water is encountered while trenching, the water should be filtered to remove any sediments before being pumped back into any waters of the State.
5. All erosion control devices shall be properly maintained during all phases of construction until the completion of all construction activities and all disturbed areas have been stabilized. Additional control devices may be required during construction in order to control erosion and/or off-site sedimentation. All temporary control devices shall be removed once construction is complete and the site is stabilized.
6. The contractor must take necessary action to minimize the tracking of mud onto paved roadway(s) from construction areas and the generation of dust. The contractor shall daily remove mud/soil from pavement, as may be required.
7. Residential subdivisions require erosion control features for infrastructure as well as for individual lot construction. Individual property owners shall follow these plans during construction or obtain approval of an individual plan in accordance with S.C Reg. 72-300 et seq. and SCR100000.
8. Temporary diversion berms and/or ditches will be provided as needed during construction to protect work areas from upslope runoff and/or to divert sediment-laden water to appropriate traps or stable outlets.
9. All waters of the State (WoS), including wetlands, are to be flagged or otherwise clearly marked in the field. A double row of silt fence is to be installed in all areas where a 55-foot buffer can't be maintained between the disturbed area and all WoS. A 10-foot buffer should be maintained between the last row of silt fence and all WoS.
10. Litter, construction debris, oils, fuels, and building products with significant potential for impact (such as stockpiles of freshly treated lumber) and construction chemicals that could be exposed to storm water must be prevented from becoming a pollutant source in storm water discharges.

Additional Notes:

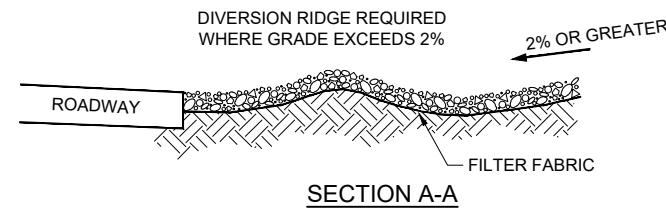
- A. Install permanent vegetative cover and the long-term erosion protection measures or structures as soon as practical in the development process.
 - B. Provide for handling the increased runoff caused by changed soil and surface conditions. Use effective means to conserve existing on-site soil including the use of diversion ditches, grassed waterways and storm sewers.
 - C. Place silt fence barriers at locations shown on plan. Silt barriers shall be maintained in place and in good condition until ground cover is established.
 - D. All disturbed areas not paved shall be grassed. Use temporary plant cover, mulching, and/or structures to control runoff and protect areas subject to erosion during construction.
 - E. Sediment ponds are to be excavated to original grades upon the accumulation of 1.0' on sediment stake placed at outlet.
 - F. Provide a temporary stone splash pad at all fire hydrants or other points if discharge during testing of the water distribution system.
 - G. Should Permanent Grassing requirements conflict with Landscape Plans, Landscape Plans supersede Permanent Grassing requirements.
- Grassing Specifications:**
- A. All seed mixtures for the various seeding schedules shall be weighed and mixed to the proper proportions in the presence of the owner or the owner's representative.
 - B. Schedule No. 1 - Planting dates March to August:

Common name of seed	Rate A (#/1000 sq)	Rate B (#/1000 sq)
Annual Rye Grass	10	8
Hulled Bermuda	3	2
Pensacola Bahia	2	0
Seinoea Lespedeza (Clay soils)	2	0
Weeping Love Grass (Sandy soils)	2	0
 - C. Schedule No. 2 - Planting dates September to February:

Common name of seed	Rate A (#/1000 sq)	Rate B (#/1000 sq)
Annual Rye Grass	10	8
Hulled Bermuda	0	0
Brown Top Millet	5	0
Unhulled Bermuda	3	2.0
 - D. Utilize Rate A on slopes over 5:1 vertical in height but less than 3:1, and Use Rate B lbs. per 1000 sq. ft. on slopes less than 5:1 vertical.
 - E. Double seed (Rate A) all grassed swales, water ways, and embankments from top of bank to bottom of bank on all bank slopes less than 3:1.
 - F. Provide dolomitic limestone at 1 ton per acre and 16-4-12 fertilizer, at 0.5-ton per Acre and 12-4-8 fertilizer, at 0.5 ton per Acre.

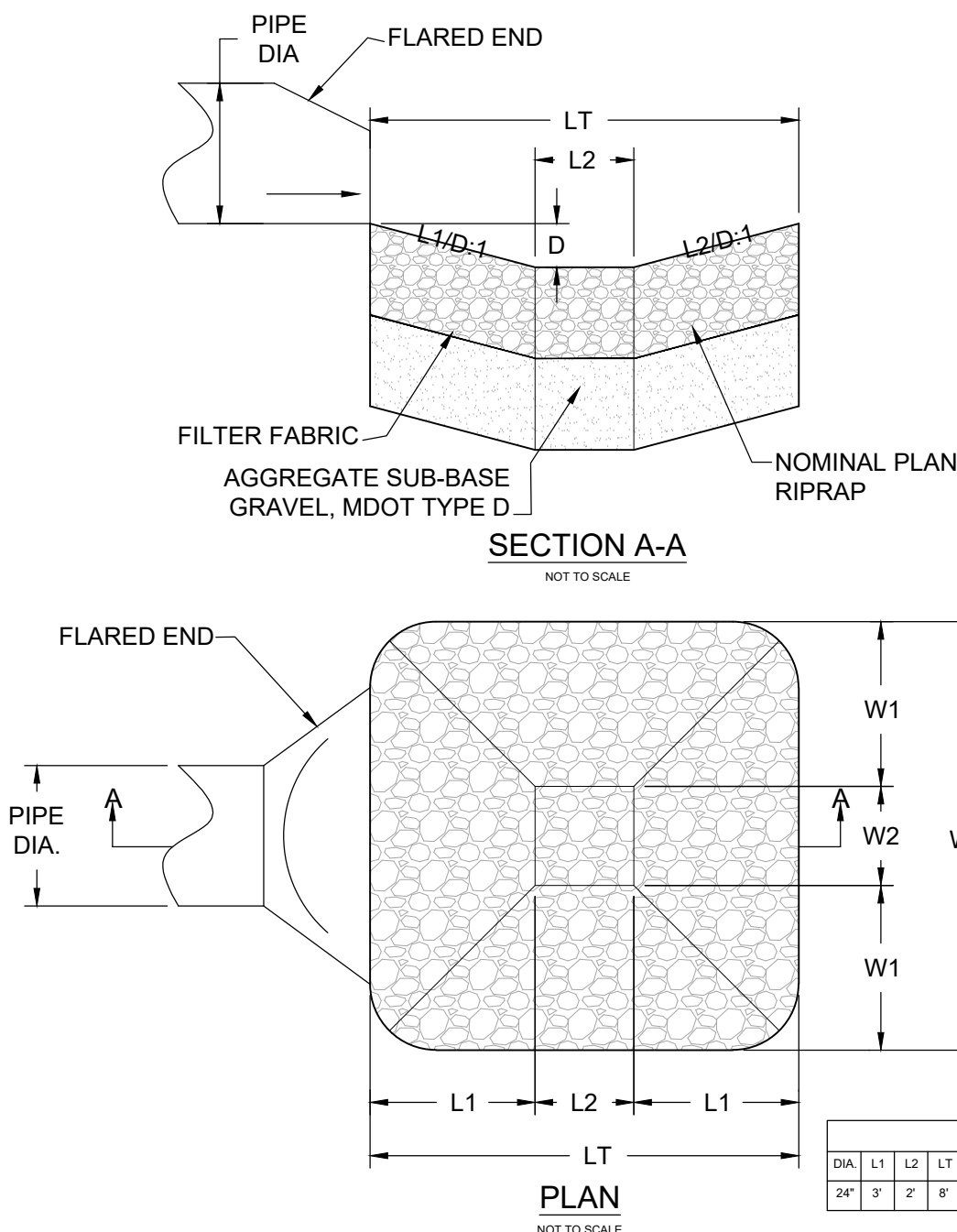


CHANNEL STABILIZATION MATTING DETAIL
NOT TO SCALE

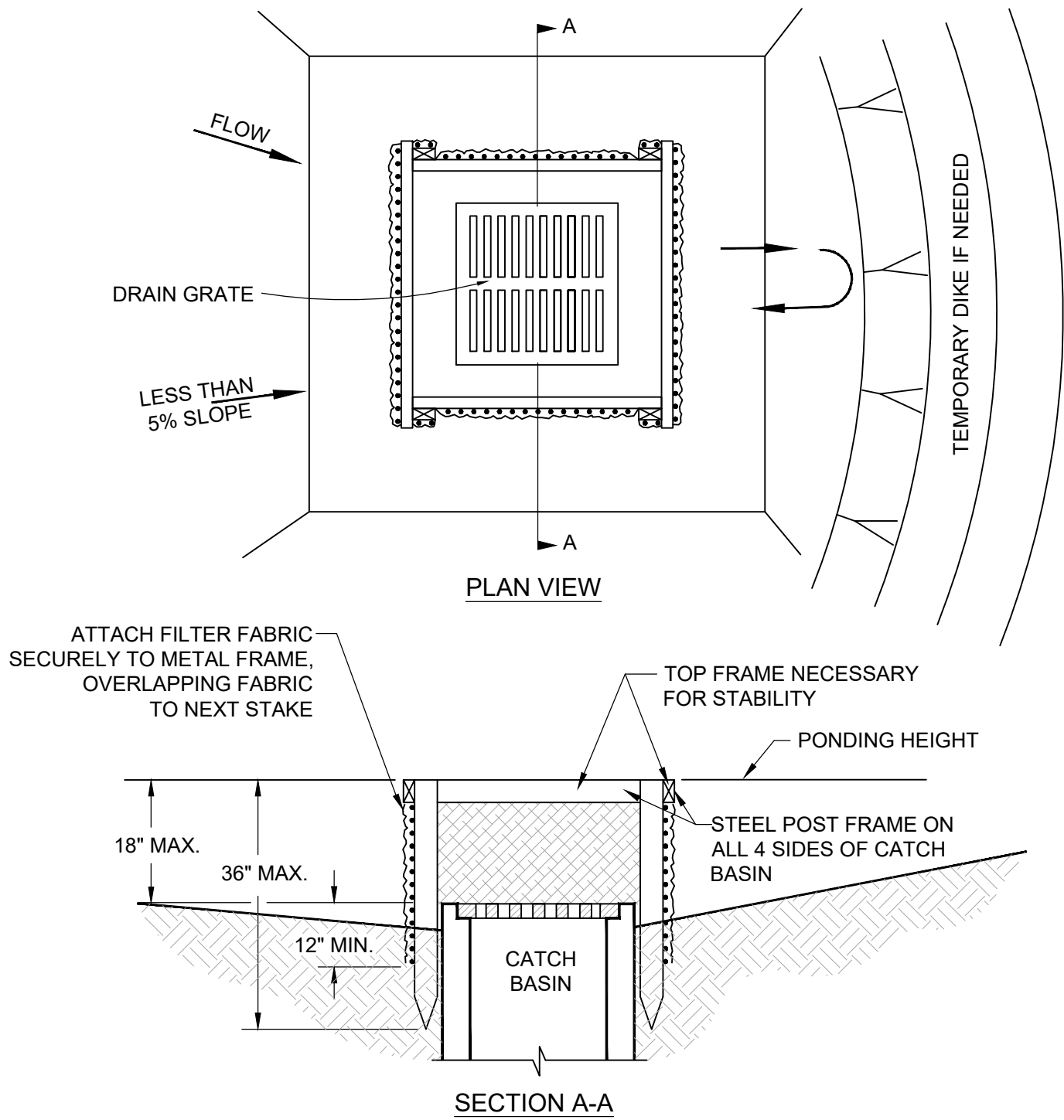


- NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
 2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
 3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.
 4. ROCK BAGS OR SANDBAGS SHALL BE PLACED SUCH THAT NO GAPS ARE EVIDENT.

CONSTRUCTION ENTRANCE/EXIT DETAIL
NOT TO SCALE

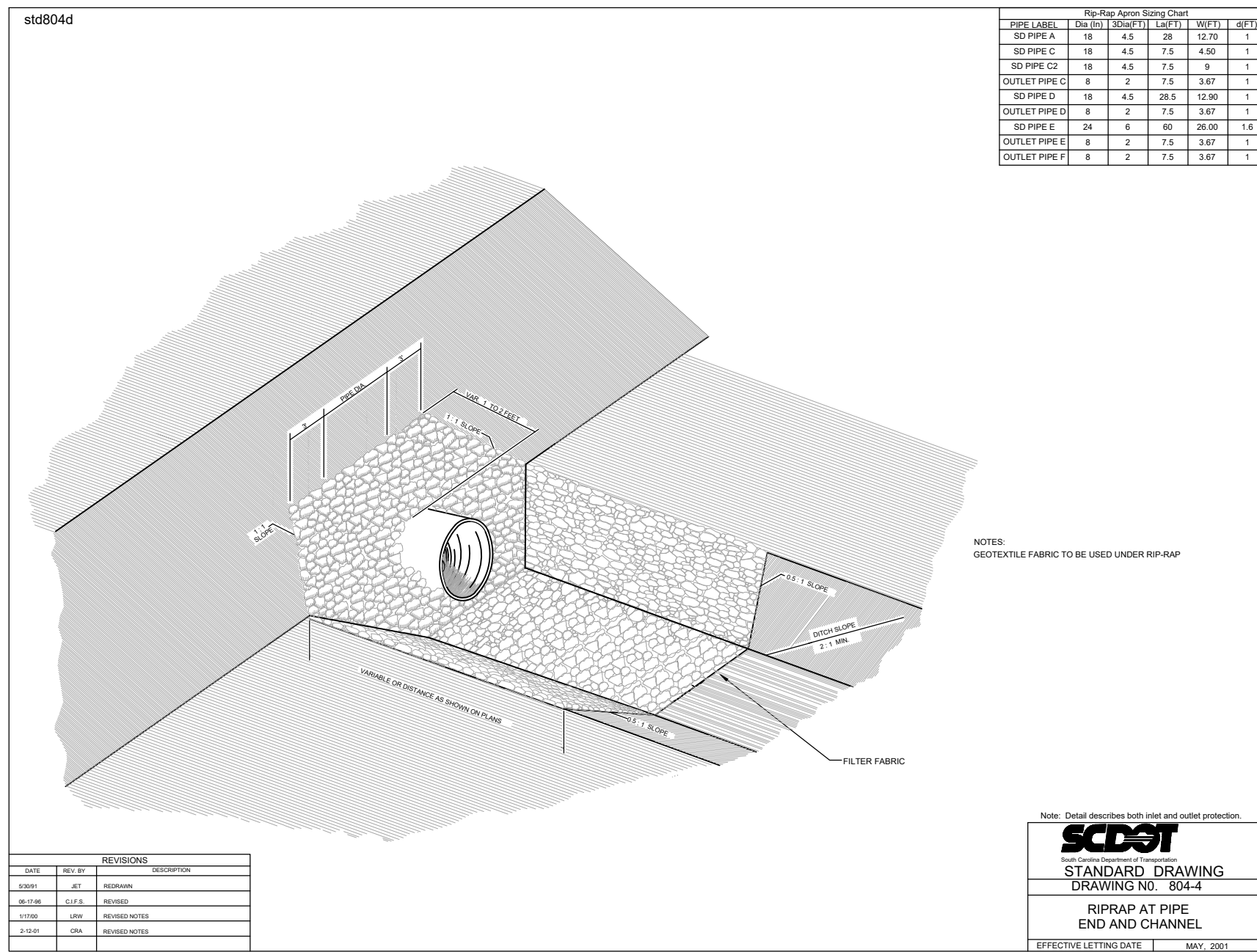


RIPRAP PLUNGE POOL DETAIL FOR OUTFALL



- NOTES:
1. CATCH BASIN SEDIMENT BARRIERS ARE TO BE USED FOR SMALL, NEARLY LEVEL DRAINAGE AREAS (LESS THAN 5%).
 2. USE METAL STAKES, 3' MINIMUM LENGTH.
 3. INSTALL METAL TOP FRAME TO ENSURE STABILITY.
 4. THE TOP OF THE FRAME (PONDING HEIGHT) MUST BE WELL BELOW THE GROUND ELEVATION DOWNSLOPE TO PREVENT RUNOFF FROM BYPASSING THE INLET. A TEMPORARY DIKE MAY BE NECESSARY ON THE DOWNSLOPE SIDE OF THE STRUCTURE.
 5. SEDIMENT TO BE CLEANED OUT WHEN SEDIMENT HEIGHT REACHES ONE-THIRD (1/3) THE SILT FENCE HEIGHT.

INLET PROTECTION
NOT TO SCALE



REVISION
DATE

APPROVALS

ENGINEER
DESIGNER
CHECKER
APPROVED

DATE: JULY 18, 2025

ALLIANCE
CONSULTING ENGINEERS

Alliance Consulting Engineers, Inc.
Post Office Box 8147 Columbia, South Carolina 29202-8147
Phone (803) 793-2078 • Fax (803) 793-2079

EROSION AND
SEDIMENT CONTROL
DETAILS

PHASE IIA AND III
ROADWAY, WATER AND
WASTEWATER IMPROVEMENTS
MID-CAROLINA
COMMERCE PARK
FOR
NEWBERRY COUNTY,
SOUTH CAROLINA

PROJECT

FILE NAME:
C43.dwg

REFERENCE FILE:
BASED.WG

PROJECT NO.
17113-0036

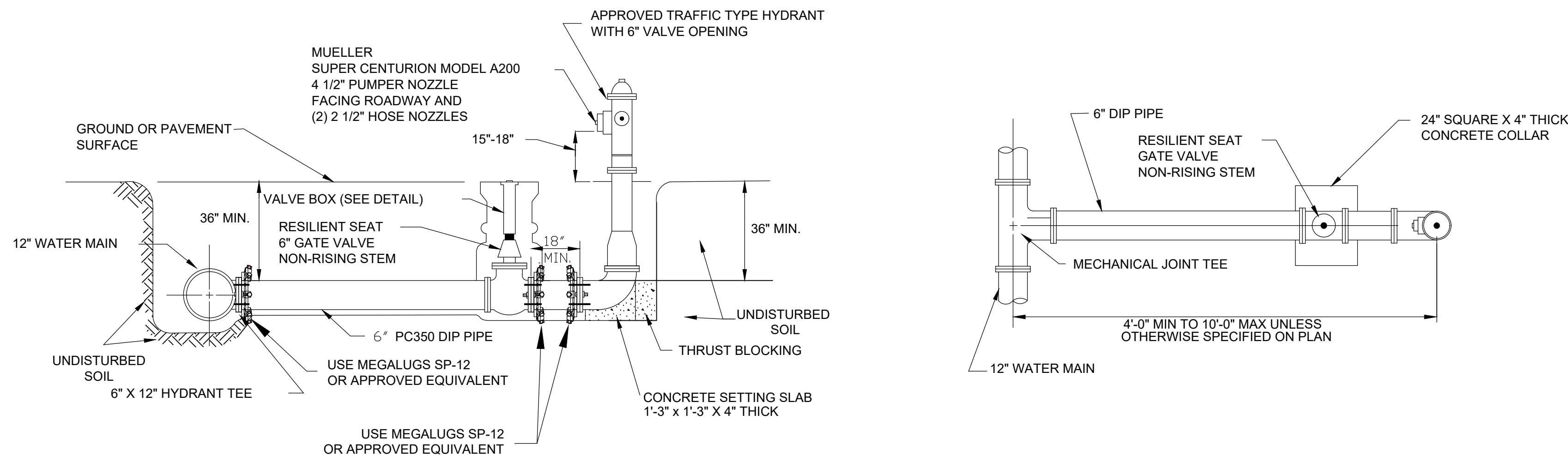
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C43

DWG NO. 01,514-D09

DATE: JULY 2025

SCALE: AS SHOWN

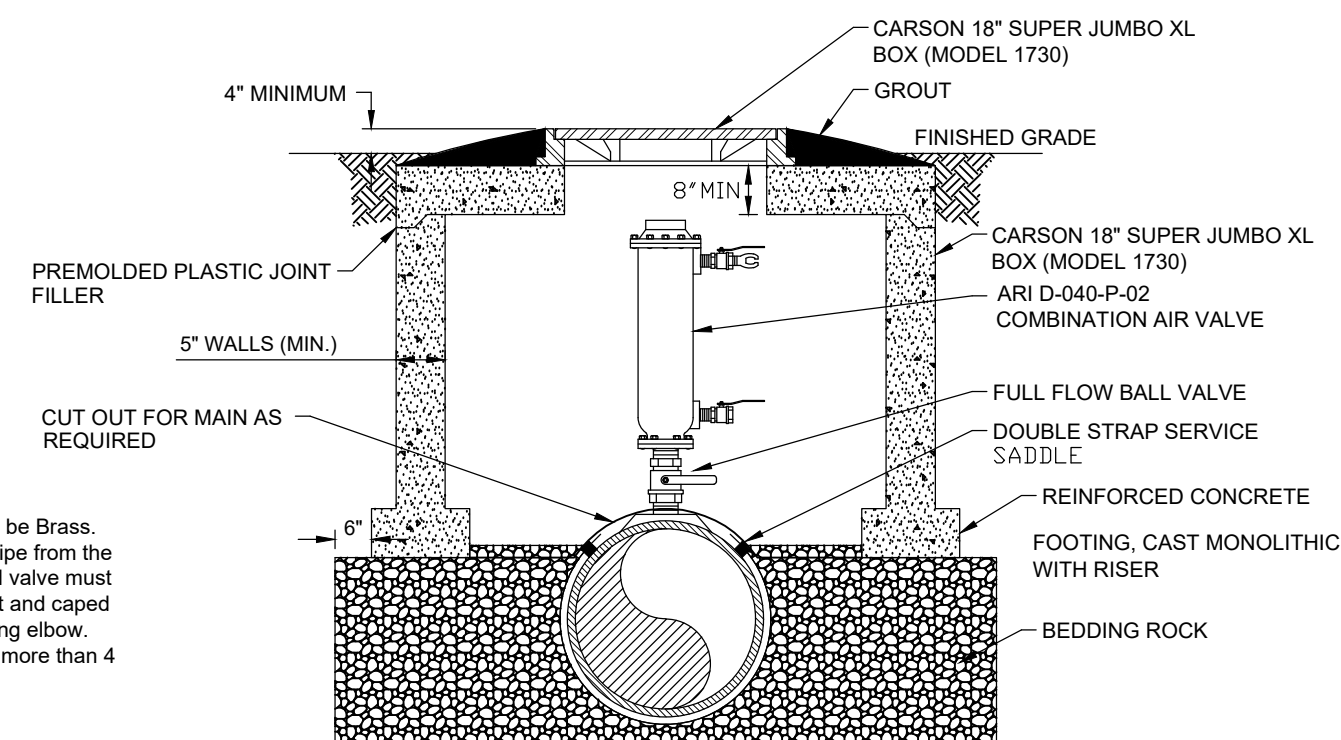
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- Notes:**
1. HYDRANT SHALL BE AS MANUFACTURED: MUELLER SUPER CENTURION MODEL A200.
 2. HYDRANT SHALL BE PAINTED CARNIVAL RED FROM FACTORY.
 3. 6" GATE VALVE SHALL BE AWWA 250WP - 500 TEST OPEN LEFT.
 4. HYDRANT ASSEMBLY MUST BE RESTRAINED TO TEE.
 5. FIRE HYDRANTS WILL BE INSTALLED IN TRUE VERTICAL POSITION.
 6. MEGALUGS MAY BE USED ON FIRE HYDRANT BRANCH LEGS FOR RODDING, IF MORE THAN ROD COUPLING IS EXCEEDED.
 7. FIRE ASSEMBLY TO BE MECHANICALLY RESTRAINED.
 8. HYDRANT LEADS SHALL BE A MINIMUM OF 6 INCHES IN DIAMETER
 9. PROVIDE A GRAVEL POCKET OR DRY WELL, UNLESS THE NATURAL SOILS PROVIDE ADEQUATE DRAINAGE.
 10. DO NOT ALLOW THRUST BLOCKING TO BLOCK FIRE HYDRANT WEEP HOLES.

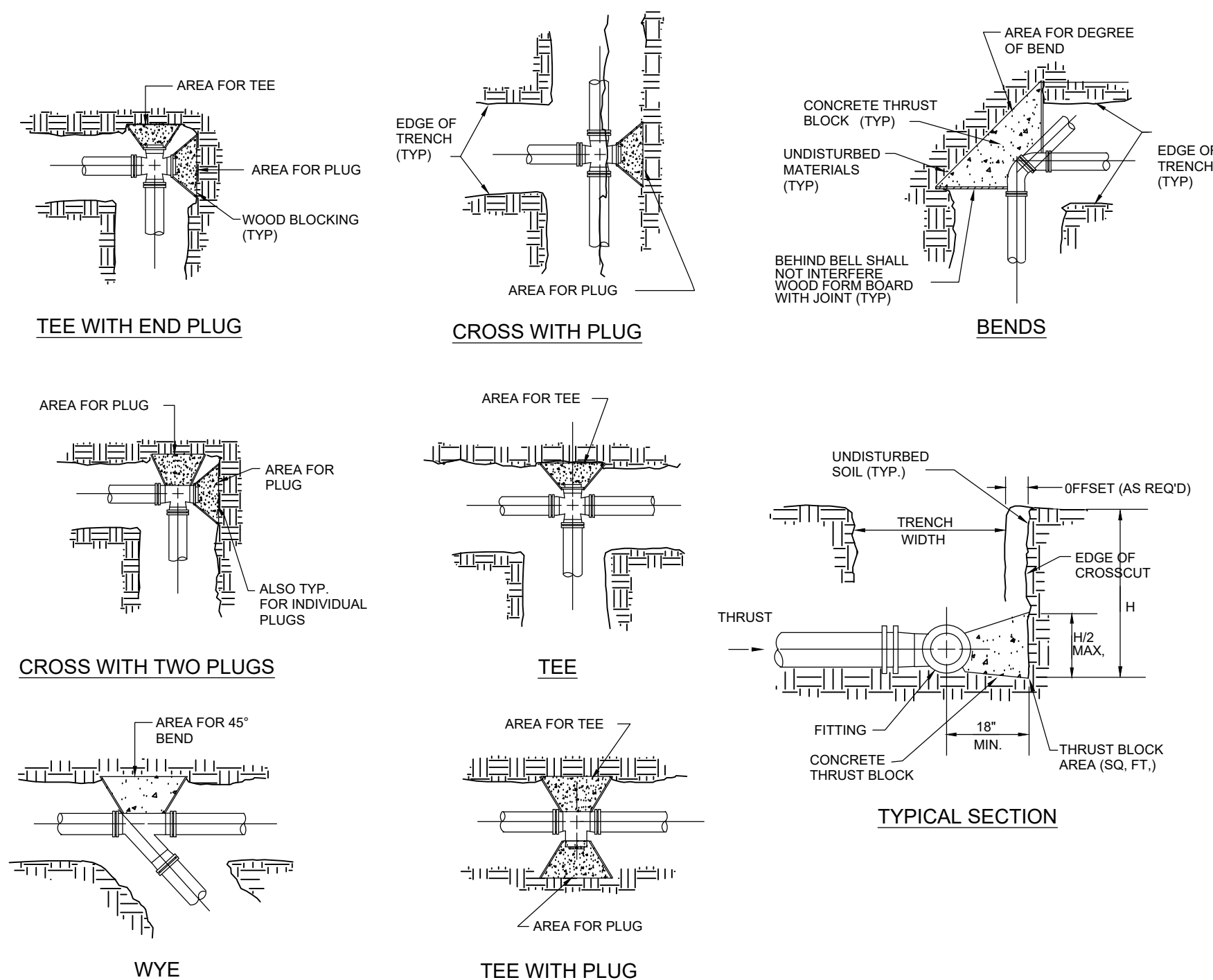
FIRE HYDRANT DETAIL

NOT TO SCALE



WATER COMBINATION AIR RELEASE VALVE CONNECTION

NOT TO SCALE



NOTE: ALTHOUGH THRUST BLOCKS ARE ALLOWED, THE USE OF RESTRAINED JOINTS IS ENCOURAGED.

1. THRUST BLOCK BEARING AREAS SHALL BE POURED AGAINST UNDISTURBED MATERIALS WHERE TRENCH WALL HAS BEEN DISTURBED. EXCAVATE ALL LOOSE MATERIAL, AND REPAIR WITH CONCRETE.
2. EXTEND THRUST BLOCK FULL LENGTH OF FITTINGS. PUT BOARD IN FRONT OF PLUG BEFORE POURING CONCRETE. JOINTS SHALL NOT BE COVERED WITH ANY TYPE OF FITTING.
3. ROUGH BLOCKING FORMS SHALL BE USED ALONG SIDES OF THRUST BLOCK. THRUST BLOCKS SHALL BE USED IN COMBINATION, AS REQUIRED, TO SUIT THE SIZE OF THE FITTINGS.
4. ALTERNATE DESIGN RESTRAINING SYSTEM SHALL BE PROVIDED WHERE STANDARD THRUST BLOCKING IS NOT SUITABLE, AND/OR SOIL BEARING CAPACITY LESS THAN THAT OF CONCRETE. SUCH SYSTEMS ARE GREATER, AND SHALL BE APPROVED BY ORANGEBURG COUNTY.
5. THRUST BLOCKING SHALL BE CONSTRUCTED OF CLASS "A" CONCRETE.
6. CONCRETE THRUST BLOCKING SHALL HAVE A MIN. COMPRESSION STRENGTH OF 3000 PSI.
7. CONCRETE SHALL BE PLACED AGAINST UNDISTURBED MATERIAL AND SHALL NOT COVER JOINTS, BOT'S, OR NUTS OR INTERFERE WITH REMOVAL OF ANY PART OF THE SIDE FORMS. PROTECTION BE PROVIDED FOR THRUST BLOCKS WHERE TRENCH CONDITIONS REQUIRE.
8. THRUST BLOCKS SHALL BE PROPERLY SET AND ADEQUATELY CURED PRIOR TO PROCEEDING WITH THE TRENCHING.
9. FITTINGS SHALL BE PROTECTED BY POLYETHYLENE FILM, MIN. 8 MIL. THICK.

SIZE	TEE. PLUGS	90° BENDS	45° BENDS	22-1/2° BENDS
2"	363	513	259	141
2-1/2"	531	751	379	207
3"	788	1114	562	307
4"	1302	1841	928	508
5"	2822	3990	2012	1101
8"	4783	6763	3410	1865
10"	7430	10506	5297	2898
12"	10452	14778	7452	4076

POUNDS CONCRETE FOR 100PSI SYSTEM PRESSURE

TO CALCULATE THRUST BLOCK POUNDS REQUIRED, ADJUST POUNDS CONCRETE FROM CHART BY RATIO OF SYSTEM PRESSURE TO 100PSI. SYSTEM PRESSURE IS 80PSI
DIVIDE POUNDS REQUIRED BY SOIL BEARING CAPACITY OF 3,000 LBS/SQ. FT. TO DETERMINE AREA OF

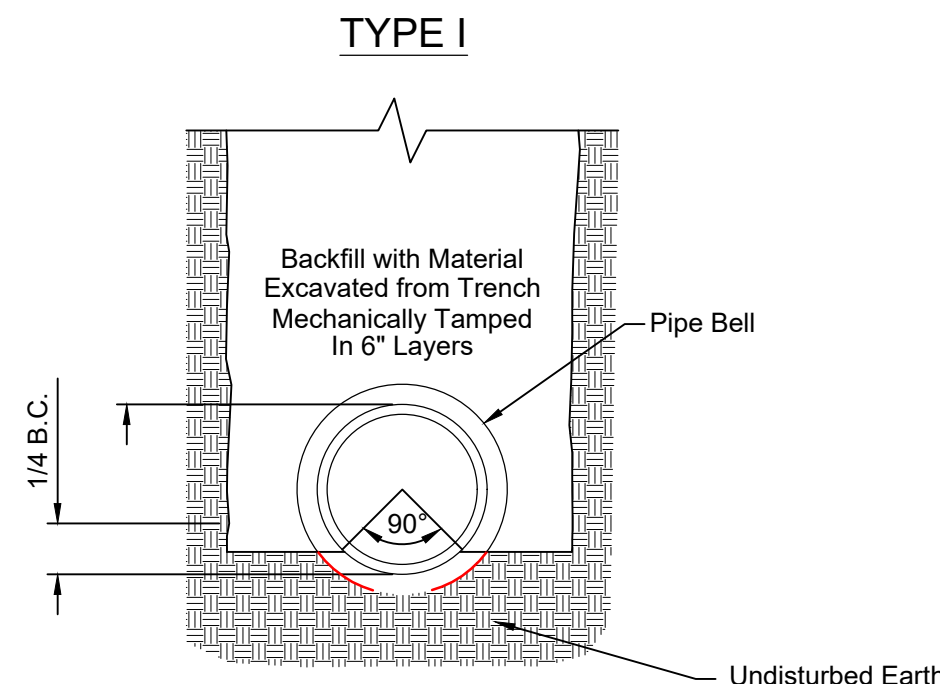
THRUST BLOCK REQUIRED TO BE IN CONTACT WITH UNDISTURBED SOIL

IF CONTRACTOR ENCOUNTERS SUBSURFACE MATERIAL VARYING FROM THAT DESCRIBED IN THE
GEOTECHNICAL REPORT, CONTACT ENGINEER AT (803) 779-2078

Note:
A Newberry County Water and Sewer Authority Representative must be present during the placement of all Thrust Blocking. (See Cover for Contact Information)

THRUST BLOCK DETAILS

NOT TO SCALE



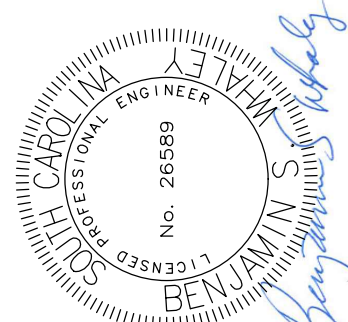
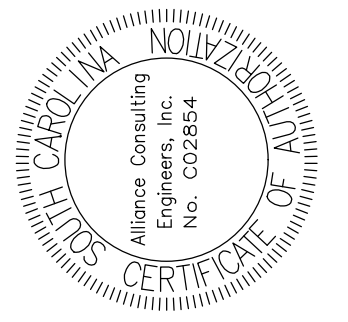
Note:

1. Hand Shaped Bottom - Shape Bell Holes for use in dry earth trenches only. Applicable to both earth and rock trenches.
2. B.C. = Outside Bell Circumference
3. No Sand, Gravel or Crushed Stone to be used for Bedding Material.

CLASS "C" BEDDING

NOT TO SCALE

REVISION DATE	
APPROVALS	
ENGINEER	
BSW	
DESIGNER	
JAM/	
BSW	
TECHNICIAN	
JTH	
CHECKED BY	
SMC/DMN	
APPROVED	
BSW	



DATE: JULY 18, 2025

SIGNATURE:



SHEET

WATER DETAILS

DATE: JULY 2025

SCALE: AS SHOWN

PROJECT PHASE IIA AND III
ROADWAY, WATER AND
WASTEWATER IMPROVEMENTS
MID-CAROLINA
COMMERCE PARK
FOR
NEWBERRY COUNTY,
SOUTH CAROLINA
NEWBERRY COUNTY
SOUTH CAROLINA

FILE NAME: C44.dwg	SHEET <u>C44</u>
REFERENCE FILE: BASE.DWG	
PROJECT NO. 17113-0036	

DWG NO. 01,514-D09