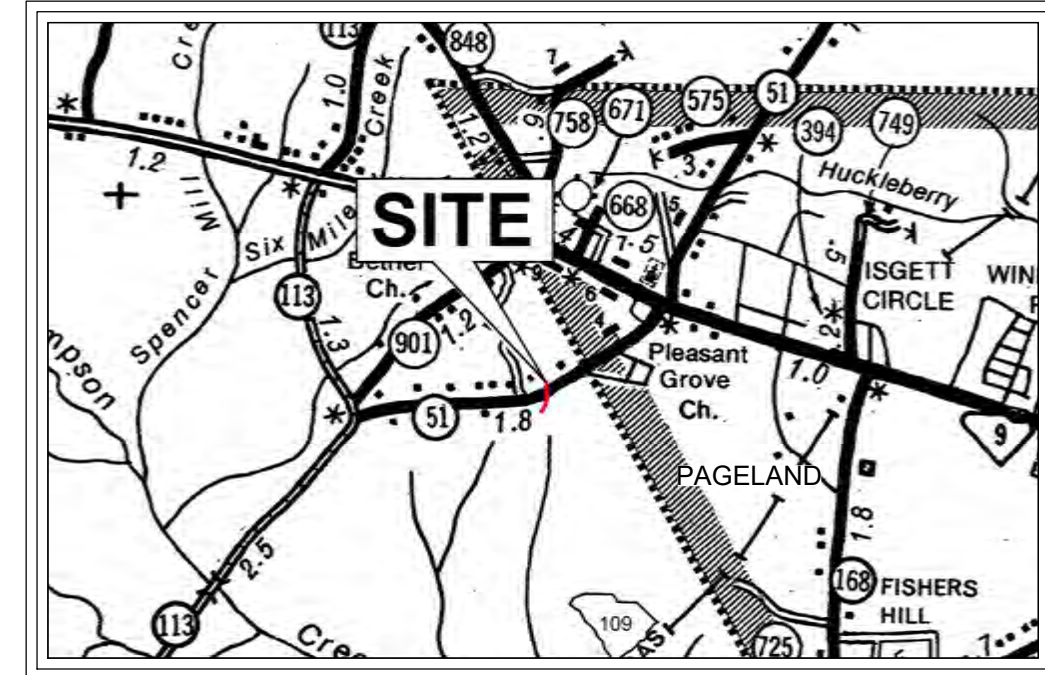


VICINITY MAP
N.T.S.



SITE LOCATION

2022 C-FUND ROAD IMPROVEMENTS FOR THE ±750-LF THISTLE DOWN LANE OFF S13-51(BRIDLEWOOD ROAD) NEAR THE TOWN OF CHERAW IN INCORPORATED CHESTERFIELD COUNTY,SOUTH CAROLINA



SHEET INDEX

SHEET	SHEET NO
COVER	C0.0
OVERALL SITE CONCEPTUAL LAYOUT AND GENERAL NOTES	C1.0
EXISTING CONDITIONS PLAN	C1.1
THISTLE DOWN LANE PLAN AND PROFILE	C2.0
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SEDIMENT AND EROSION CONTROL PLAN	C3.0
THISTLE DOWN LANE CROSS SECTION STA 0+50 TO 1+50 (SHEET 1 OF 6)	C4.0
THISTLE DOWN LANE CROSS SECTION STA 2+00 TO 3+00 (SHEET 2 OF 6)	C4.1
THISTLE DOWN LANE CROSS SECTION STA 3+50 TO 4+50 (SHEET 3 OF 6)	C4.2
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THISTLE DOWN LANE CROSS SECTION STA 6+50 TO 7+50 (SHEET 5 OF 6)	C4.4
THISTLE DOWN LANE CROSS SECTION STA 7+92 TO 8+15 (SHEET 6 OF 6)	C4.5
SITE DETAILS	C5.0
STORM DRAINAGE DETAILS	C6.0
EROSION AND SEDIMENT CONTROL DETAILS (SHEET 2 OF 2)	C7.0
EROSION AND SEDIMENT CONTROL DETAILS (SHEET 2 OF 2)	C7.1
	C4.2

NPDES PERMIT INFORMATION

NPDES DISTURBED AREA = ± 1.35 ACRES
MAXIMUM LENGTH OF DISTURBED AREA = ± 820 LINEAR FEET (LF)

ENGINEER INFORMATION

COMPANY: ALLIANCE CONSULTING ENGINEERS, INC.
CONTACT: BENJAMIN S. WHALEY, P.E.
ADDRESS: P.O. BOX 8147
CITY, STATE: COLUMBIA, SOUTH CAROLINA 29202
TELEPHONE: (803) 779-2078
FAX: (803) 779-2079
EMAIL: SSWHALEY@ALLIANCECE.COM

Utility Provider Contacts

Water Provider:
Contact: Chesterfield County Rural Water - Mr. Ray Wallace
13598 South Carolina 9 Bypass; Chesterfield, SC
Mobile: (843) 672-4005 (wallaceray4005@aol.com)

Wastewater Provider: None Available

Electrical Utility Provider:
Contact: Duke Energy, Inc.
Ms. Kelly Harrell (kelly.harrell@duke-energy.com)
Mobile: (910) 695-9469

Telecommunications Provider:
Contact: Sand Hill Telephone Cooperative
112 South Main Street
Jefferson, South Carolina
Telephone: (843) 658-3434

Gas Provider: None Available

Chesterfield County Board Members

Mr. William Rhett Butler, Chairman
Ms. Mary D. Anderson, Vice-Chair
Ms. Hattie Burns
Mr. Benjamin Conklin, Jr.
Mr. Douglas A. Curtis
Mr. Ethan Thomas Foard
Mr. Gerald L. Miller
Mr. Bruce E. Rivers
Mr. William Todd Smallwood

DEVELOPER INFORMATION

DEVELOPER: CHESTERFIELD COUNTY PUBLIC WORKS
CONTACT: MR. JEFF McCARN
ADDRESS: 97 JONES ROAD
CITY, STATE: CHESTERFIELD, SC 29709
TELEPHONE: (843) 623-2464 (OFFICE)
EMAIL: JMcCARN@SHTC.NET

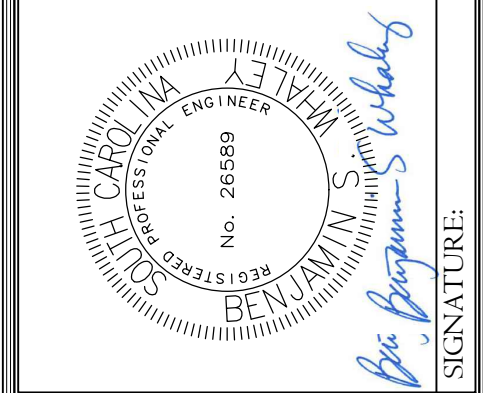
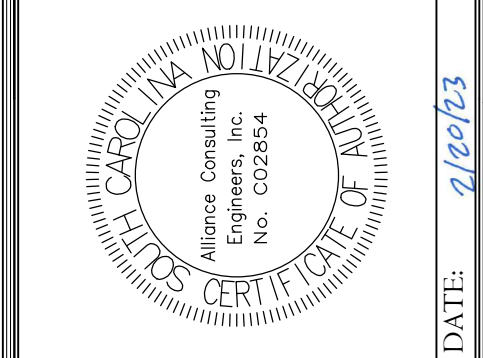
OWNER INFORMATION

OWNER: CHESTERFIELD COUNTY
CONTACT: MR. TIM EUBANKS
ADDRESS: 178 MILLS STREET
CITY, STATE: CHESTERFIELD, SC 29709
TELEPHONE: (843) 623-2595 (OFFICE)
(843) 680-2216 (CELL)
EMAIL: TIMEUBANKS@CHESTERFIELDCOUNTY SC.COM

"I, Benjamin S. Whaley, have placed my signature and seal on the design documents submitted signifying that I accept responsibility for the design of the system. Further, I certify to the best of my knowledge and belief that the design is consistent with the requirements of Title 48, Chapter 14 of the Code of Laws of SC, 1976 as amended, pursuant of Regulation 72-300 et seq. (if applicable), and in accordance with the terms and conditions of SCR100000."



REVISION DATE



ALLIANCE CONSULTING ENGINEERS, INC.
POST OFFICE BOX 8147
COLUMBIA, SOUTH CAROLINA 29202-8147
PHONE (803) 779-2078
FAX (803) 779-2079
WWW.ALLIANCECE.COM

PROJECT: 2022 C-FUND ROAD IMPROVEMENTS FOR THE #750-LF THISTLE DOWN LANE OFF S13-51 (BRIDLEWOOD ROAD) NEAR THE TOWN OF CHERAW IN INCORPORATED CHESTERFIELD COUNTY, SOUTH CAROLINA

DECEMBER 2022

Project No. 22211-0013

DWG NO. 01.1589-D27

February 21, 2023 - 11:04:26 AM S:\Projects\22211-0013\2022_C-Fund_Roadway_Improvements\Thistle_Down_Ln_Town_of_Cheraw\Cheraw_County\Construction\Plant\Cl.0_Overall_Site.dwg

LEGEND	
---	EXISTING CONTOUR MINOR
---	EXISTING CONTOUR MAJOR
---	EXISTING PROPERTY LINE
---	EXISTING RIGHT-OF-WAY
---	EXISTING FENCE
---	EXISTING WATER MAIN
---	EXISTING WASTEWATER GRAVITY LINE
---	EXISTING WASTEWATER FORCE MAIN
---	EXISTING NATURAL GAS MAIN
---	EXISTING OVERHEAD ELECTRIC
---	EXISTING UNDERGROUND ELECTRIC
---	EXISTING TELECOMMUNICATIONS
---	EXISTING STORM DRAINAGE
---	EXISTING FENCE
---	EXISTING PAVEMENT
---	LIMITS OF DISTURBANCE
---	PROPOSED BUILDING
---	PROPOSED PAVEMENT
---	PROPOSED CONCRETE
---	PROPOSED SIGN

REFERENCES:

- REFERENCE IS MADE TO LIDAR DATA PROVIDED BY THE UNITED STATES DEPARTMENT OF AGRICULTURE (USDA) NATURAL RESOURCES CONSERVATION SERVICE (NRCS) GEOSPATIAL DATA GATEWAY FOR THE MAJORITY OF THE PROPERTY.
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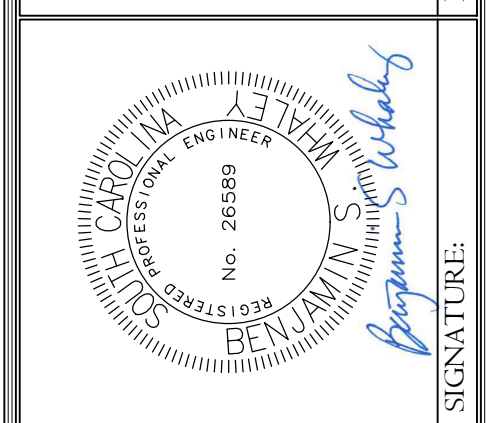
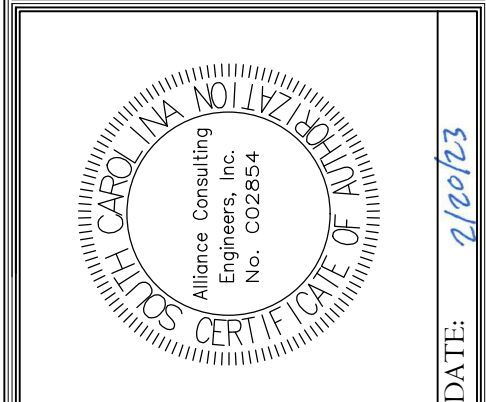
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REVISION DATE	
▲	SCDOT COMMENT - BSW
▲	2.20.23
▲	SCDOT COMMENT - BSW
▲	2.21.23



ALLIANCE CONSULTING ENGINEERS

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

OVERALL SITE LAYOUT AND GENERAL NOTES

PROJECT: 2022 C-FUND ROAD IMPROVEMENTS FOR THE #750-LF THISTLE DOWN LANE OFF S13-51 (BRIDLEWOOD ROAD) NEAR THE TOWN OF CHERAW IN INCORPORATED CHESTERFIELD COUNTY, SOUTH CAROLINA

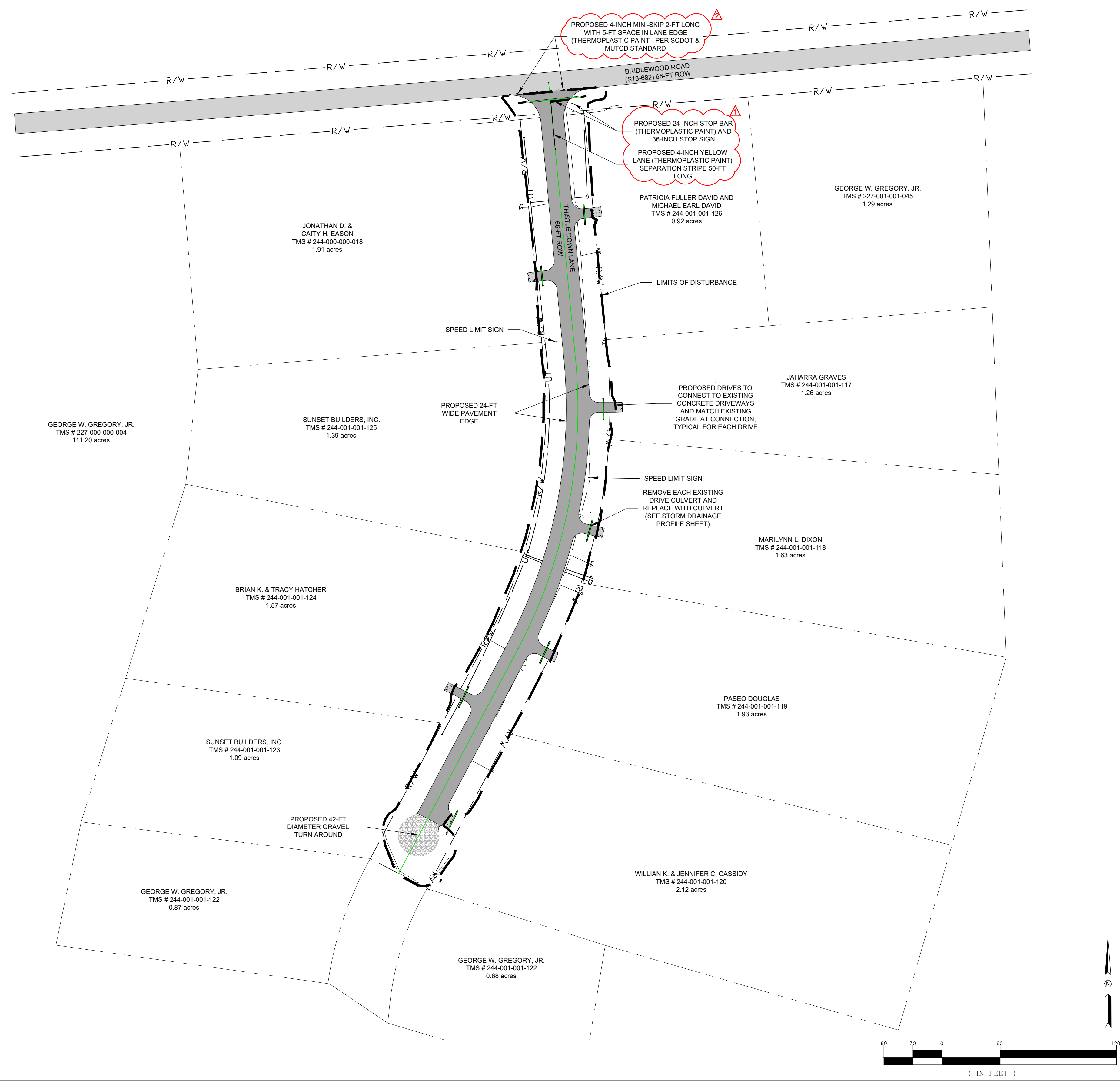
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 PROJECT NO: 22211-0013

SHEET Cl.0

DWG NO. 01.1589-D27

STANDARD NOTES

- PERMITS / LICENSES**
- PRIOR TO THE COMMENCEMENT OF ANY WORK WITHIN THE PROJECT SITE, THE GENERAL CONTRACTOR AND ALL SUB-CONTRACTORS SHALL POSSESS ALL APPLICABLE PERMITTING AND THE OWNER AND ENGINEER WILL BE GIVEN AT LEAST TWENTY-FOUR (24) HOURS NOTICE BEFORE BEGINNING WORK.
- PROCEDURES / RESPONSIBILITIES**
- ALL WETLANDS SIGNAGE TO BE INSTALLED PER THE APPROVED CONSTRUCTION DRAWINGS PRIOR TO ANY LAND DISTURBING ACTIVITIES.
 - SLOPES, WHICH EXCEED EIGHT (8) VERTICAL FEET SHOULD BE STABILIZED WITH SYNTHETIC OR VEGETATIVE MATS, IN ADDITION TO HYDROGENATING. IT MAY BE NECESSARY TO INSTALL TEMPORARY SLOPE DRAINS DURING CONSTRUCTION. TEMPORARY BERMS MAY BE NEEDED UNTIL THE SLOPE IS BROUGHT TO GRADE.
 - 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 14 DAYS, TEMPORARY STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THE PORTION OF THE SITE.
 - ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSPECTED ONCE EVERY CALENDAR WEEK. IF PERIODIC INSPECTION OR OTHER INFORMATION INDICATES THAT A BMP HAS BEEN INAPPROPRIATELY OR INCORRECTLY INSTALLED, THE PERMITTEE MUST ADDRESS THE NECESSARY REPLACEMENT OR MODIFICATION REQUIRED TO CORRECT THE BMP WITHIN 48 HOURS OF IDENTIFICATION.
 - PROVIDE SILT FENCE AND/OR OTHER CONTROL DEVICES, AS MAY BE REQUIRED, TO CONTROL SOIL EROSION DURING UTILITY CONSTRUCTION. ALL DISTURBED AREAS SHALL BE CLEANED, 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 SEDIMENT BEFORE BEING PUMPED BACK INTO ANY WATERS OF THE STATE.
 - 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 OFFSITE SEDIMENTATION. ALL TEMPORARY CONTROL DEVICES SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED.
 - 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.
 - RESIDENTIAL SUBDIVISIONS REQUIRE EROSION CONTROL FEATURES FOR INFRASTRUCTURES 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.
 - TEMPORARY DIVERSION BERMS AND/OR DITCHES SHALL 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.
 - 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 50-FOOT BUFFER CAN NOT BE MAINTAINED BETWEEN THE DISTURBED AREAS AND ALL WOS. A 30-FOOT BUFFER SHOULD BE MAINTAINED BETWEEN THE LAST ROW OF SILT FENCE AND ALL WOS.
 - 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.
 - A COPY OF THE OS-SWPPP, INSPECTION RECORDS, AND RAINFALL DATA MUST BE RETAINED AT THE CONSTRUCTION SITE OR A NEARBY LOCATION EASILY ACCESSIBLE DURING NORMAL BUSINESS HOURS, FROM THE DATE OF COMMENCEMENT OF CONSTRUCTION ACTIVITIES TO THE DATE THE FINAL STABILIZATION IS REACHED.
 - INITIATE STABILIZATION MEASURES ON ANY EXPOSED STEEP SLOPE (3H:1V OR GREATER) WHERE LAND-DISTURBING ACTIVITIES HAVE BEEN PERMANENTLY OR TEMPORARILY CEASED, AND WILL NOT RESUME FOR A PERIOD OF 7 CALENDAR DAYS.
 - MINIMIZE SOIL COMPACTION AND, UNLESS INFEASIBLE, PRESERVE TOPSOIL AND REPLACE WITHIN ALL GRASSED AND LANDSCAPED AREAS TO A MINIMUM DEPTH OF 6". IF ADDITIONAL TOPSOIL IS REQUIRED TO MEET THE SPECIFICATIONS, THE CONTRACTOR MUST PROVIDE FROM AN OFF-SITE SOURCE.
 - MINIMIZE THE DISCHARGE OF POLLUTANTS FROM EQUIPMENT AND VEHICLE WASHING, WHEEL WASH WATER, AND OTHER WASH WATERS. WASH WATERS MUST BE TREATED IN A SEDIMENT BASIN OR ALTERNATIVE CONTROL TO PROVIDE EQUIVALENT OR BETTER TREATMENT PRIOR TO DISCHARGE.
 - MINIMIZE THE DISCHARGE OF POLLUTANTS FROM DEWATERING OF TRENCHES AND EXCAVATED AREAS. THESE DISCHARGES ARE TO BE ROUTED THROUGH APPROPRIATE BMPs (SEDIMENT BASIN, FILTER BAG, ETC.)
 - THE FOLLOWING DISCHARGES FROM SITES ARE PROHIBITED:
 - WASTEWATER FROM WASHOUT OF CONCRETE, UNLESS MANAGED BY AN APPROPRIATE CONTROL;
 - WASTEWATER FROM WASHOUT AND CLEANOUT OF STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS;
 - FUELS, OILS, OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE; AND
 - SOAPS OR SOLVENTS USED IN VEHICLE AND EQUIPMENT WASHING.
 - AFTER CONSTRUCTION ACTIVITIES BEGIN, INSPECTIONS MUST BE CONDUCTED AT A MINIMUM OF AT LEAST ONCE EVERY CALENDAR WEEK AND MUST BE CONDUCTED UNTIL FINAL STABILIZATION IS REACHED ON ALL AREAS OF THE THE CONSTRUCTION SITE.
 - IF EXISTING BMPs NEED TO BE MODIFIED OR IF ADDITIONAL BMPs ARE NECESSARY TO COMPLY WITH THE REQUIREMENTS OF THIS PERMIT AND/OR SC'S WATER QUALITY STANDARDS, IMPLEMENTATION MUST BE COMPLETED BEFORE THE NEXT STORM EVENT WHENEVER PRACTICABLE. IF IMPLEMENTATION BEFORE THE NEXT STORM EVENT IS IMPRACTICABLE, THE SITUATION MUST BE DOCUMENTED IN THE SWPPP AND ALTERNATIVE BMPs MUST BE IMPLEMENTED AS SOON AS REASONABLY POSSIBLE.
 - A PRE-CONSTRUCTION CONFERENCE MUST BE HELD FOR EACH CONSTRUCTION SITE WITH AN APPROVED ON-SITE SWPPP PRIOR TO THE IMPLEMENTATION OF CONSTRUCTION ACTIVITIES. FOR NON-LINEAR PROJECTS THAT DISTURB 29.5 ACRES OR MORE THIS CONFERENCE MUST BE HELD ON-SITE UNLESS THE DEPARTMENT HAS APPROVED OTHERWISE.
 - AN AS-BUILT SURVEY(S), SIGNED AND SEALED BY A S.C. LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER, SHOULD BE COMPLETED FOR CHESTERFIELD COUNTY ON THIS SITE. THE SURVEY(S) WILL BE PROVIDED BY THE CONTRACTOR TO ALLIANCE CONSULTING ENGINEERS TO SHOW DITCH DEPTH AND LOCATIONS, PIPE SIZE AND INVERTS, AND ANY RELOCATED UTILITIES.



February 20, 2023 - 8:14:09 AM S:\Projects\22211-0013\2023 C-Fund Road Improv\Thistle Down\Ln Town of Cheraw, Chesterfield County\Construction Plans\C1.1 Existing Conditions.dwg
 THIS DRAWING IS THE PROPERTY OF ALLIANCE CONSULTING ENGINEERS, INC. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM. THE DRAWING IS INTENDED SPECIFICALLY FOR THE PROJECT IDENTIFIED HEREIN AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.

LEGEND	
---	EXISTING CONTOUR MINOR
---	EXISTING CONTOUR MAJOR
---	EXISTING PROPERTY LINE
---	EXISTING RIGHT-OF-WAY
⊗	EXISTING WATER SERVICE METER
---	EXISTING WATER MAIN
---	EXISTING OVERHEAD ELECTRIC
---	EXISTING UNDERGROUND ELECTRIC
---	EXISTING TELECOMMUNICATIONS
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REFERENCES:

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DEVELOPER INFORMATION

DEVELOPER: CHESTERFIELD COUNTY PUBLIC WORKS
 CONTACT: MR. JEFF McCARN
 ADDRESS: 97 JONES ROAD
 CITY, STATE: CHESTERFIELD, SC 29709
 TELEPHONE: (843) 623-2464 (OFFICE)
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REVISION DATE	

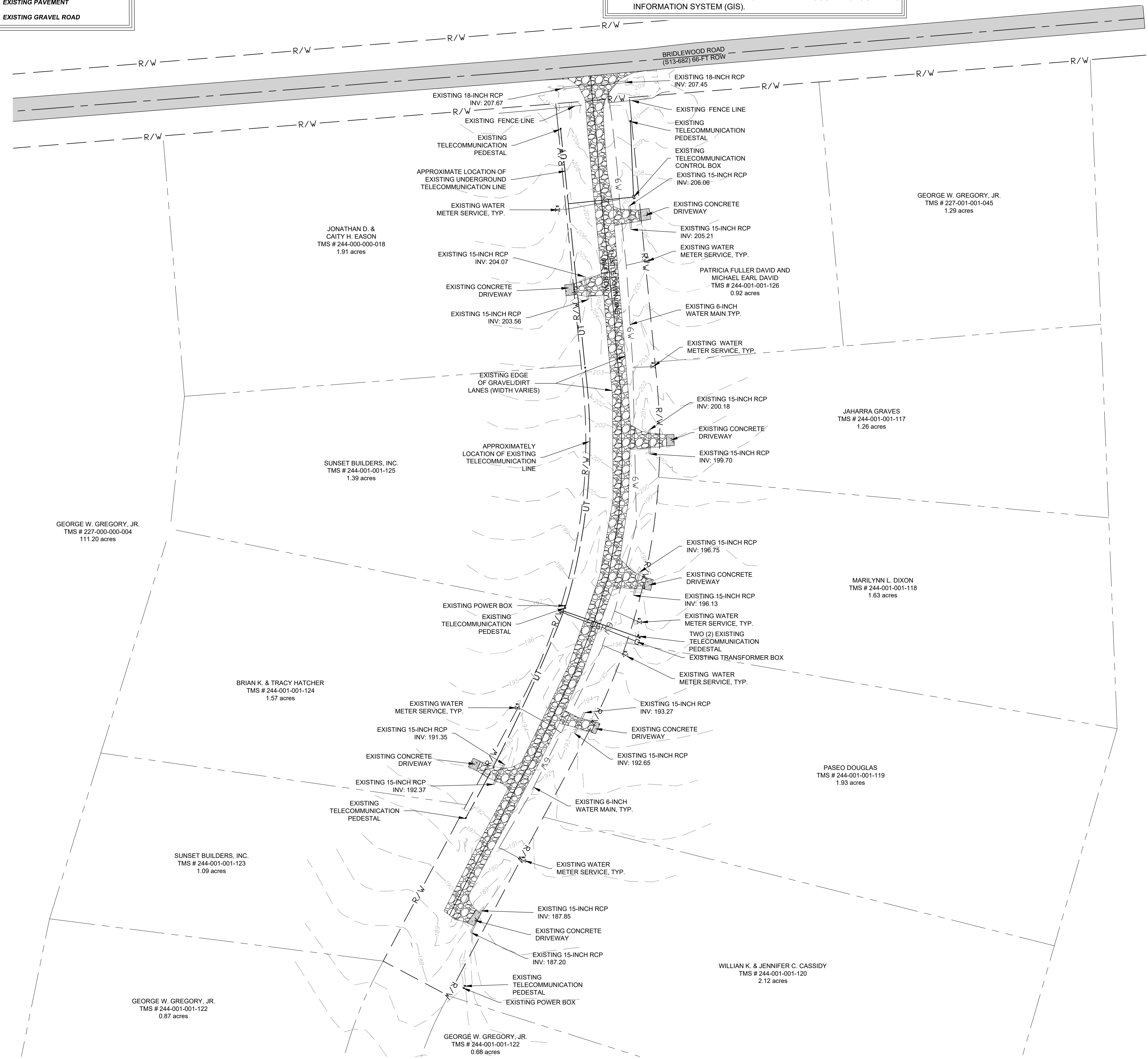
APPROVALS:

ENGINEER	DESIGNER	TELECOMMUNICATOR	CHECKED BY	APPROVED BY
BSW	JAM	JAM	BSW	BSW

Professional Engineer Seal: **ALLIANCE CONSULTING ENGINEERS, INC.** No. 26589, State of South Carolina. *Signature: William E. Hayes*

Professional Engineer Seal: **WILLIAM E. HAYES** No. 26589, State of South Carolina. *Signature: William E. Hayes*

DATE: 2/20/23



ALLIANCE CONSULTING ENGINEERS

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PROJECT: 2022 C-FUND ROAD IMPROVEMENTS FOR THE #750-LF THISTLE DOWN LANE OFF S13-51 (BRIDLEWOOD ROAD) NEAR THE TOWN OF CHERAW IN INCORPORATED CHESTERFIELD COUNTY, SOUTH CAROLINA

SHEET: EXISTING CONDITION PLAN

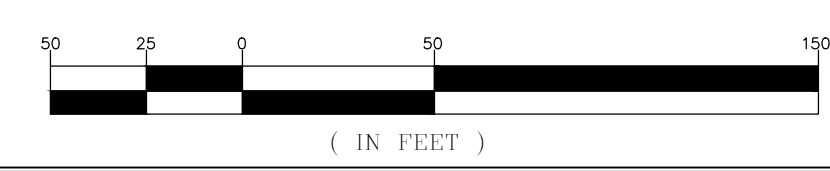
DATE: DECEMBER 2022

SCALE: 1" = 50'

FILE NAME: C1.1.dwg
 REFERENCE FILE: 22211-0013 BASE.dwg
 PROJECT NO: 22211-0013

SHEET: C1.1

DWG NO. 01.1589-D27



February 21, 2023 - 11:08:45 AM S:\Projects\22211-0013\2022_C-Fund_Road_Improvements\Thistle Down Ln Town of Cheraw Chartered County\Construction Plans\C2.0 Plan & Profile.dwg

LEGEND	
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---	EXISTING FENCE
---	EXISTING PAVEMENT
---	EXISTING GRAVEL ROAD

- GENERAL NOTES:**
- CONNECT TO ALL EXISTING CONCRETE DRIVEWAYS AND MATCH EXISTING GRADES AND WIDTHS WITH THE PROPOSED PAVED DRIVE (MOST OF THE DRIVEWAYS ARE APPROXIMATELY 10-FT WIDE EXCEPT THE LAST DRIVE).
 - REMOVE ALL EXISTING CULVERTS AND REPLACE WITH THE CULVERT NOTED ON THE STORM DRAINAGE PROFILE SHEET.
 - CONTRACTOR TO FIELD LOCATE THE EXISTING UTILITIES AND COORDINATE WITH THE SUPPLIERS ON FIELD RELOCATIONS IF CUT SECTION WILL CONFLICT WITH EXISTING UTILITY LOCATION OR DEPTH.
 - ANY EXCESS CUT MATERIAL WILL BE REMOVED FROM THE SITE TO AN APPROVAL LOCATION FOR ACCEPTANCE OF FILL MATERIAL BY SCDHEC.

- REFERENCES:**
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▲	2.20.23
▲	SCDOT COMMENT - BSW
▲	2.21.23

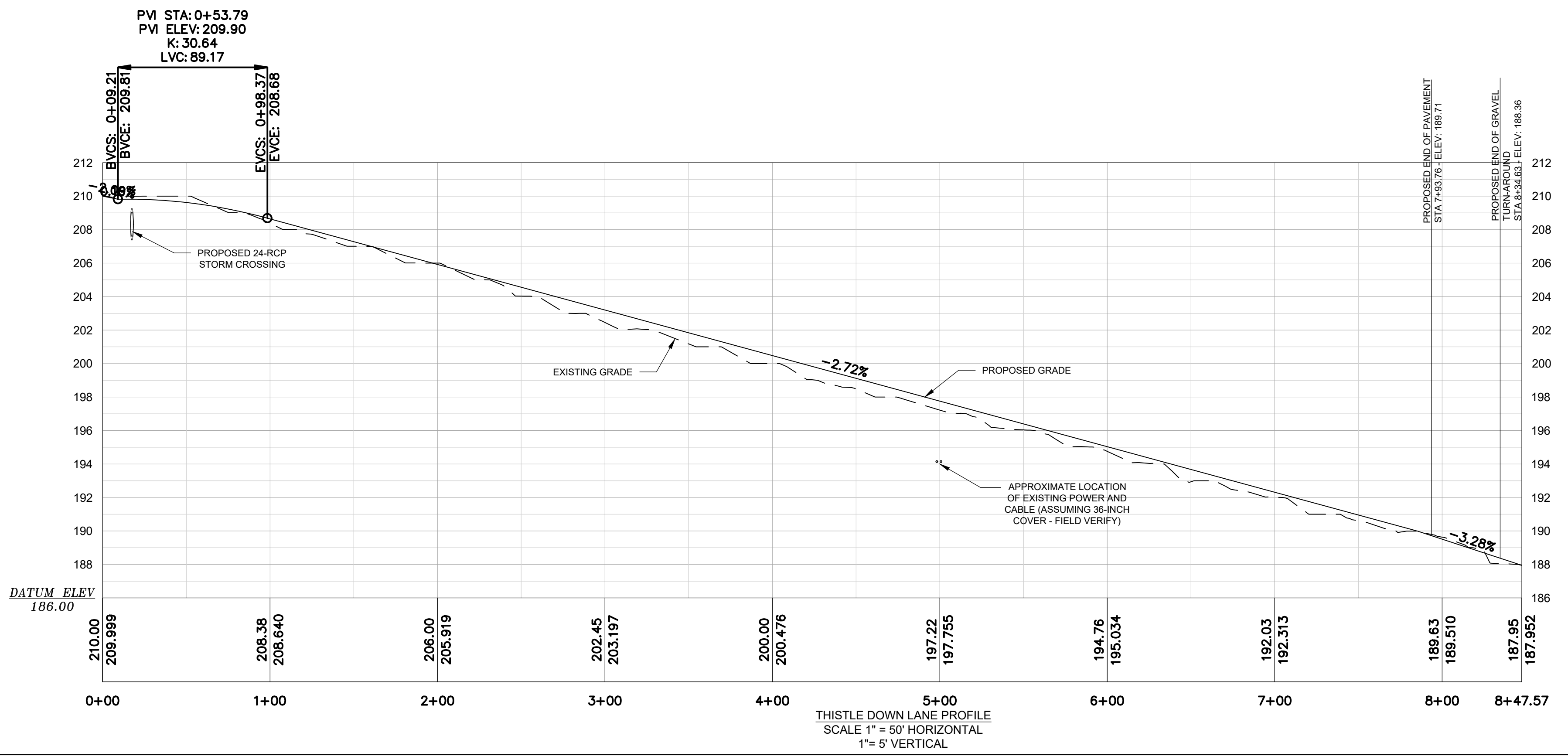
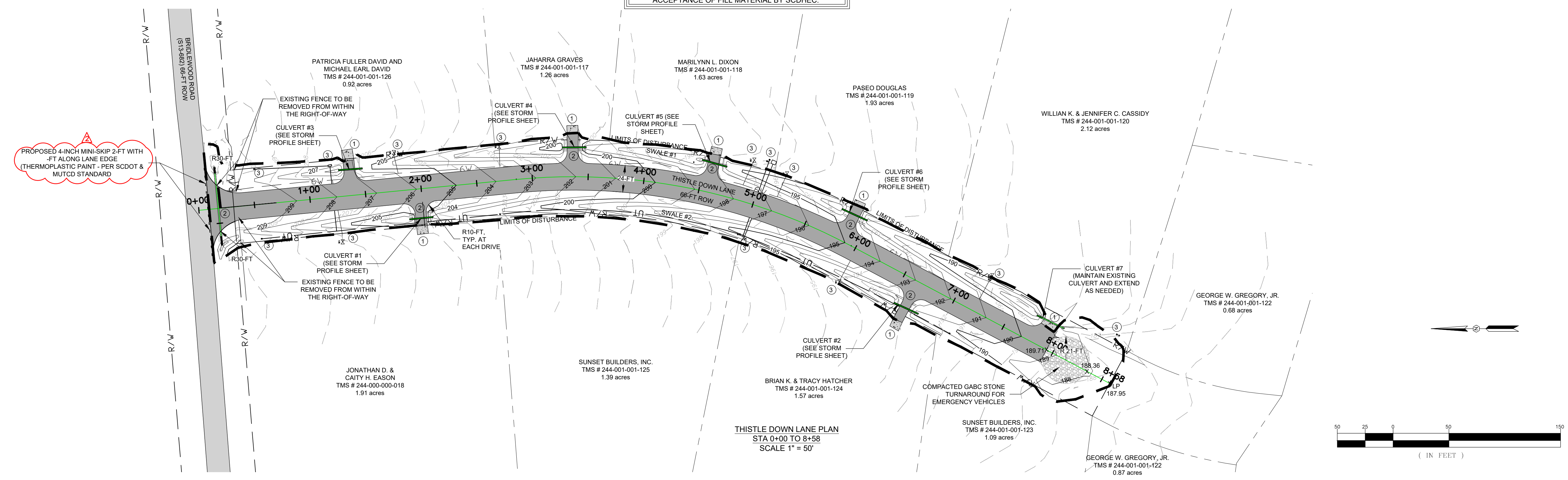
APPROVALS:

ENGINEER	DESIGNER	CHECKED BY	APPROVED BY
BSW	JAM	JAM	BSW

Professional Engineer Seal: JAMES W. HAYES, No. 26589, State of South Carolina.

DATE: 2/20/23

SIGNATURE: James W. Hayes



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THISTLE DOWN LANE
 PLAN & PROFILE

SHEET

DATE: DECEMBER 2022

SCALE: 1" = 50'

PROJECT

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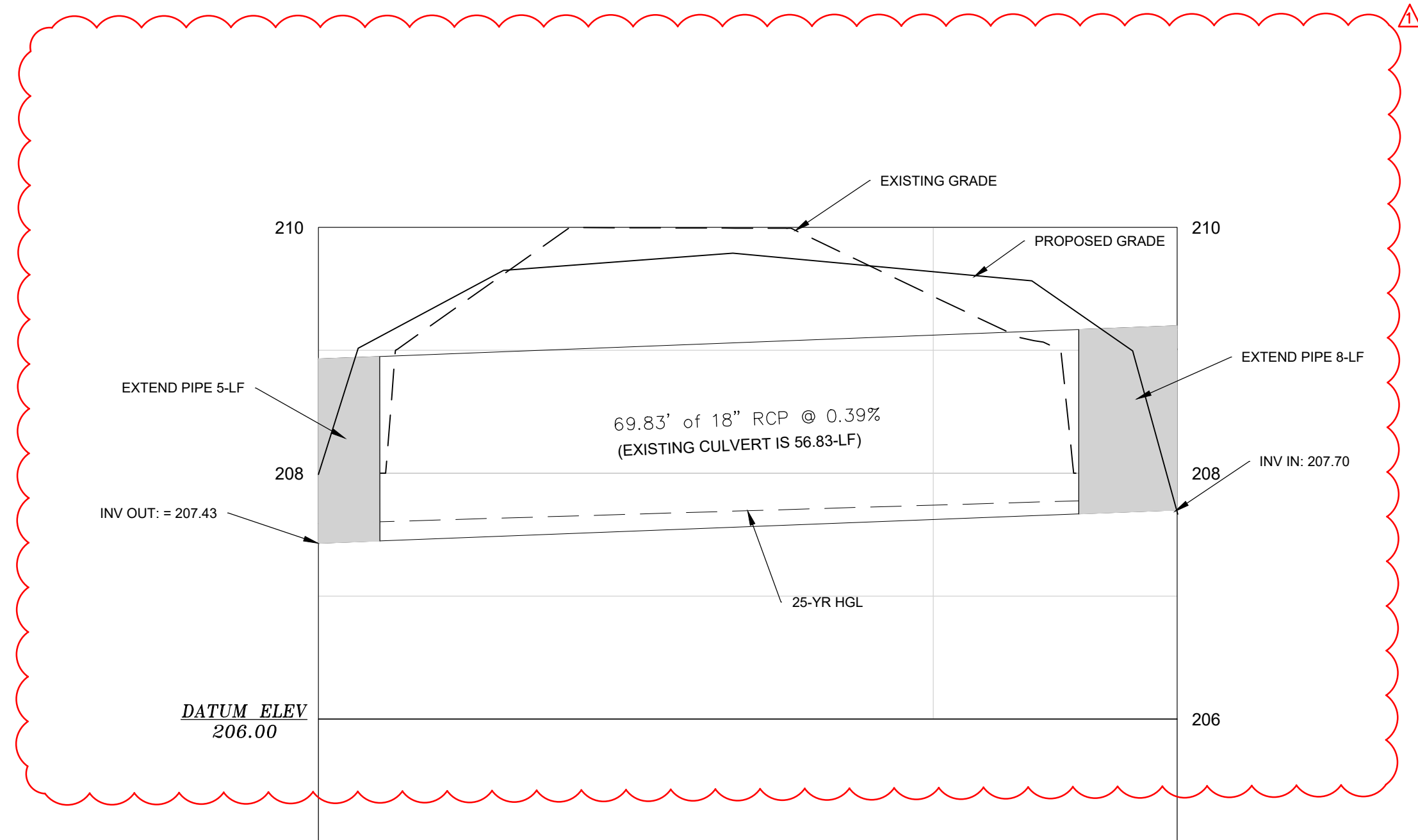
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DWG NO. 01.1589-D27

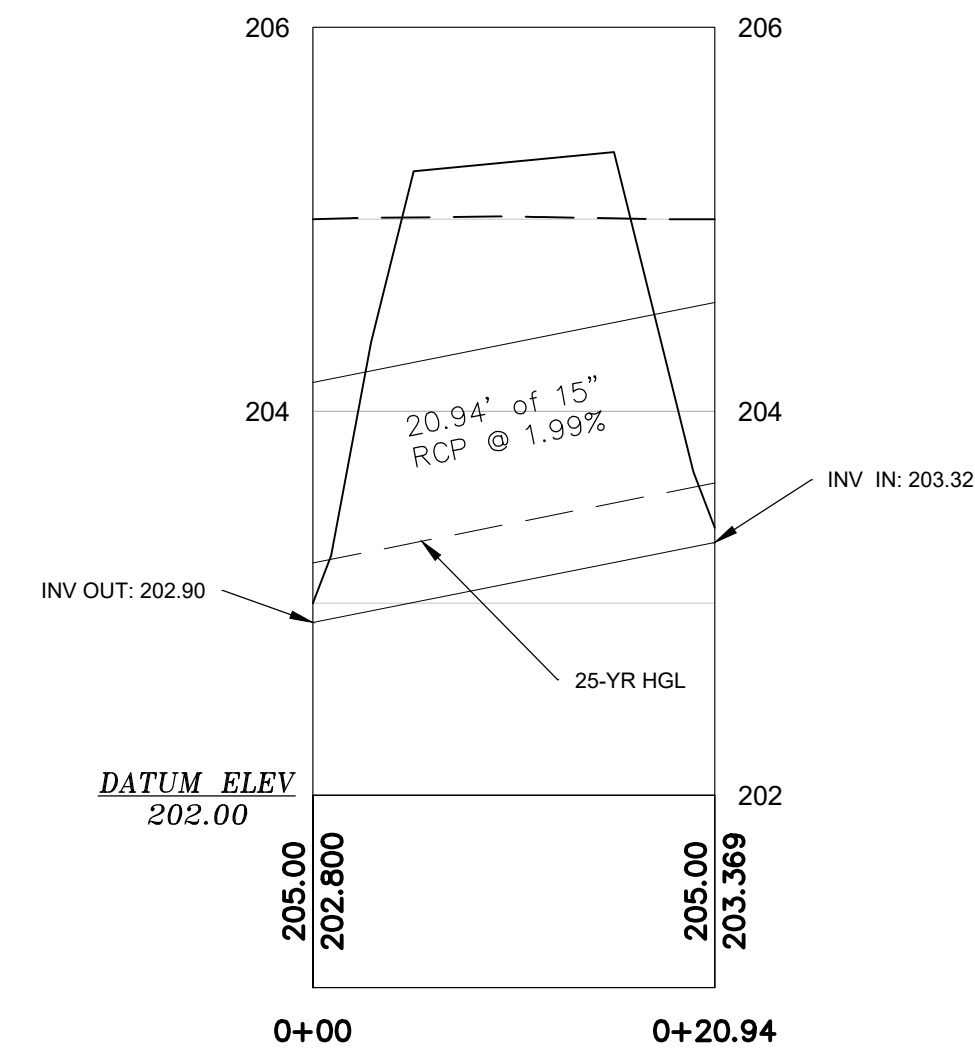
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February 20, 2023 - 8:21:23 AM S:\Projects\22211-0013\2023 C-Fund Rwy Improv - Thistle Down\Lin Town of Cheraw, Chesterfield County\Construction Plans\C2.1 Storm Profile.dwg

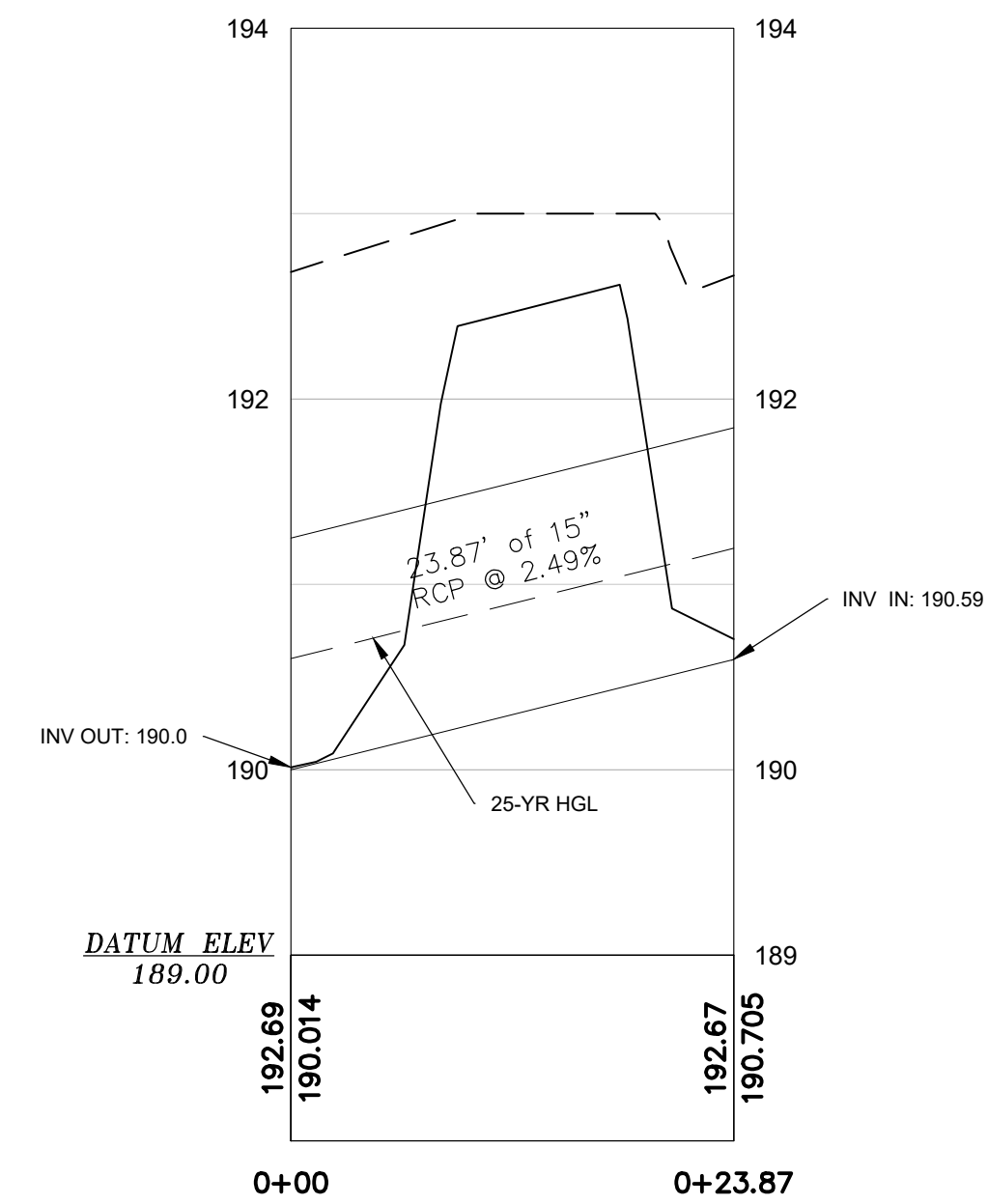
LEGEND	
EXISTING GRADE	---
PROPOSED SURFACE	---



ENTRANCE CULVERT
SCALE: 1"=10' HORIZONTAL
1"=1' VERTICAL

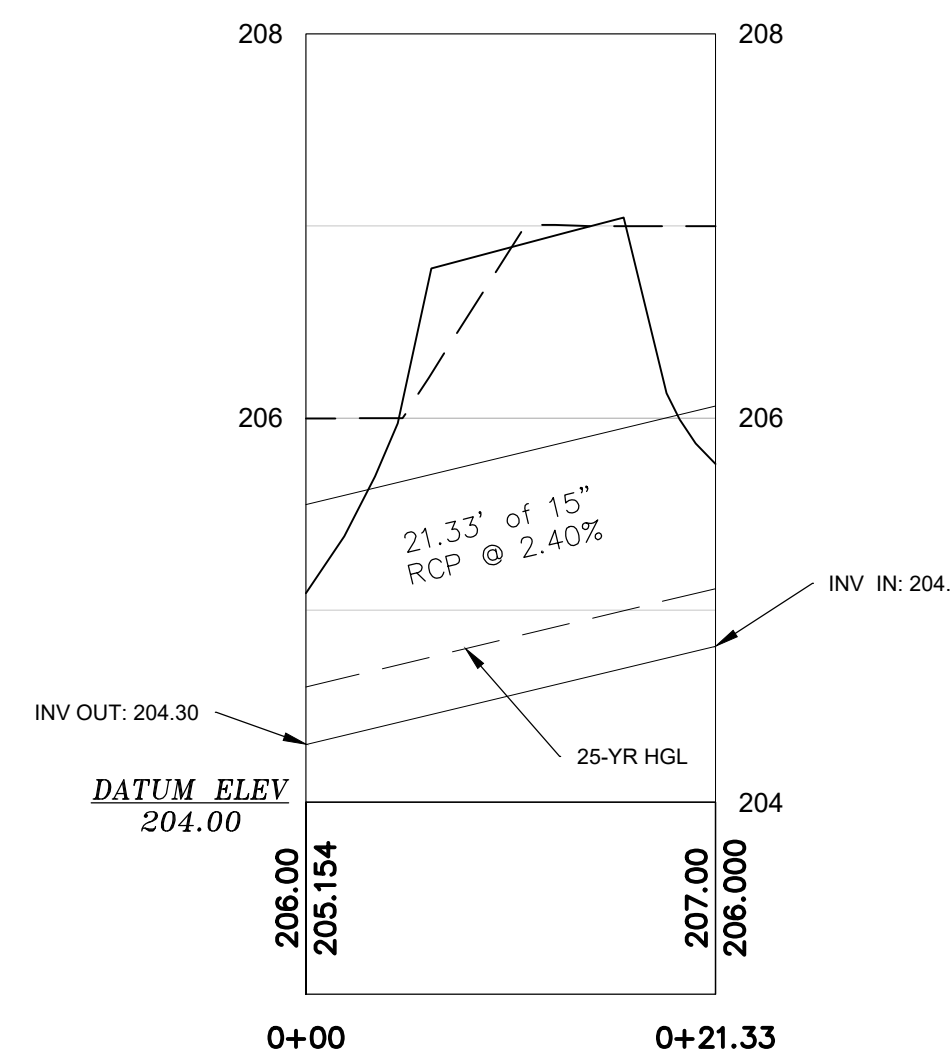


CULVERT 1
SCALE: 1"=10' HORIZONTAL
1"=1' VERTICAL

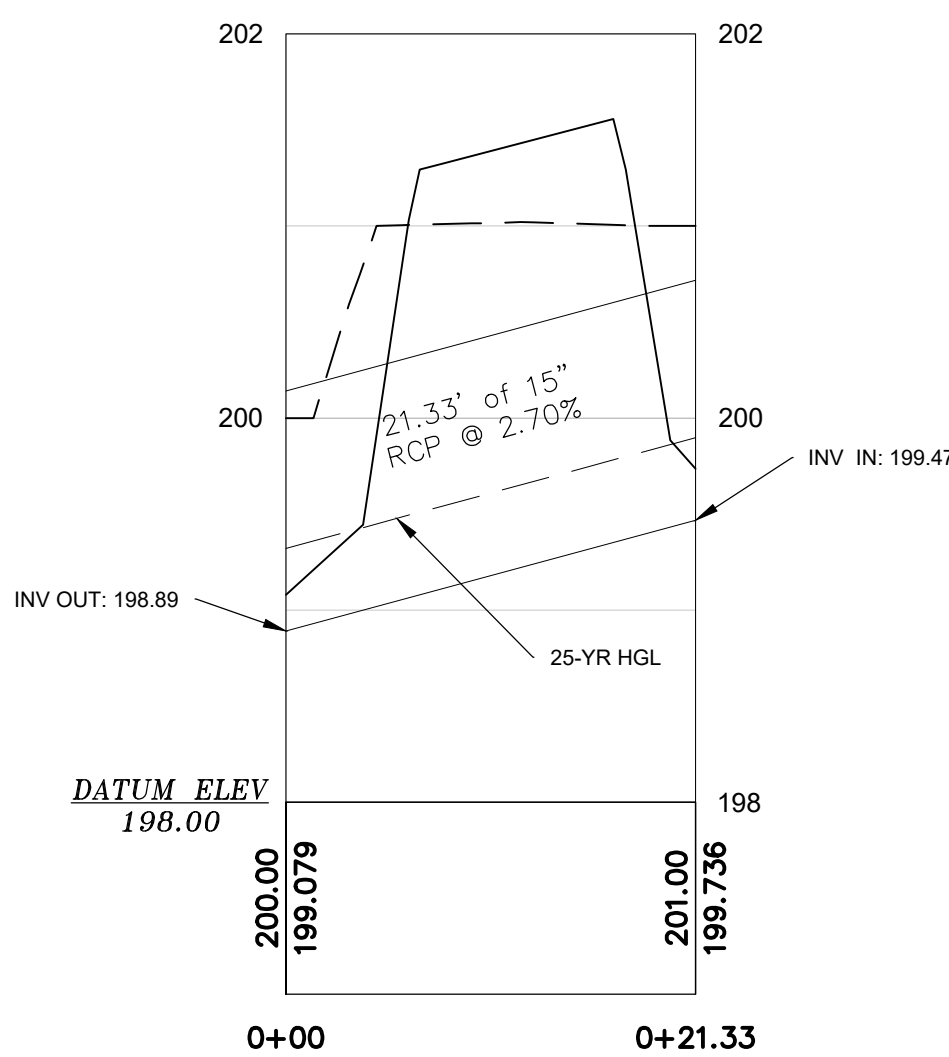


CULVERT 2
SCALE: 1"=10' HORIZONTAL
1"=1' VERTICAL

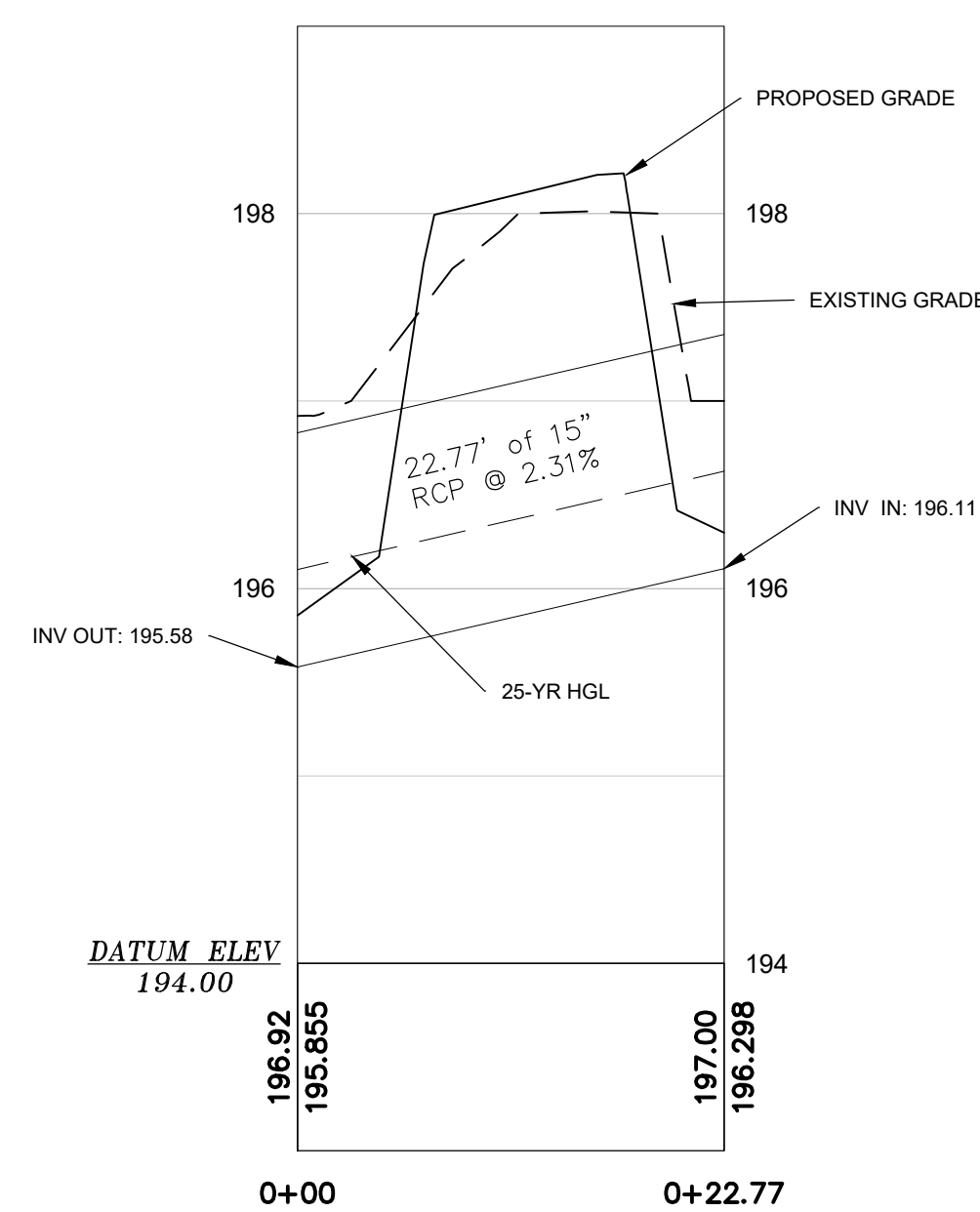
NOTE:
SOME CULVERTS WILL REQUIRE CLASS V RCP TO ENSURE STRENGTH FOR COVER LESS THAN 18-INCHES. IF THE CULVERT HAS 18-INCHES OR MORE, CLASS III STANDARD RCP IS ACCEPTABLE. FIELD ENSURE THAT CULVERT GETS 18-INCH COVER TO MAINTAIN CLASS III PIPES.



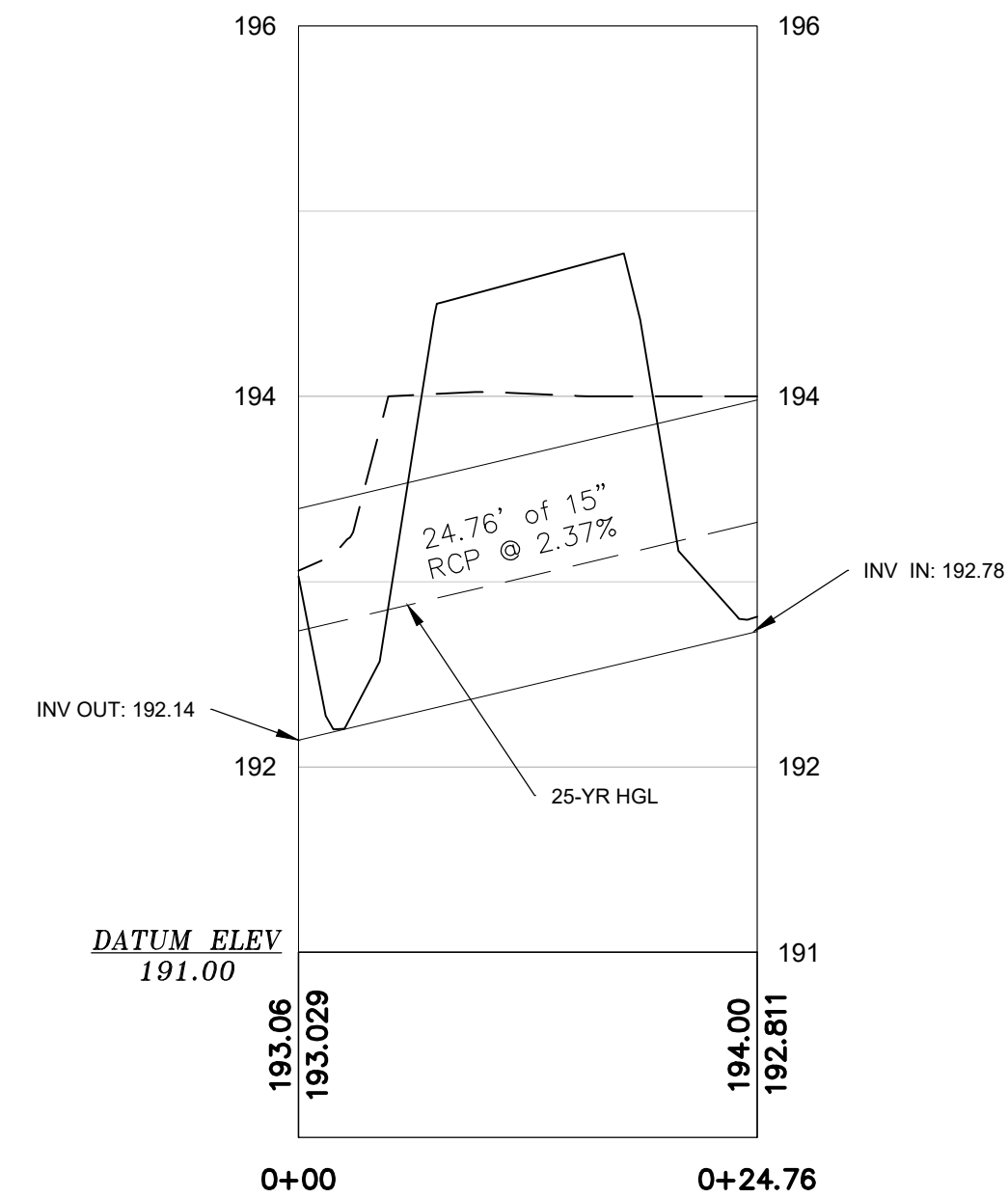
CULVERT 3
SCALE: 1"=10' HORIZONTAL
1"=1' VERTICAL



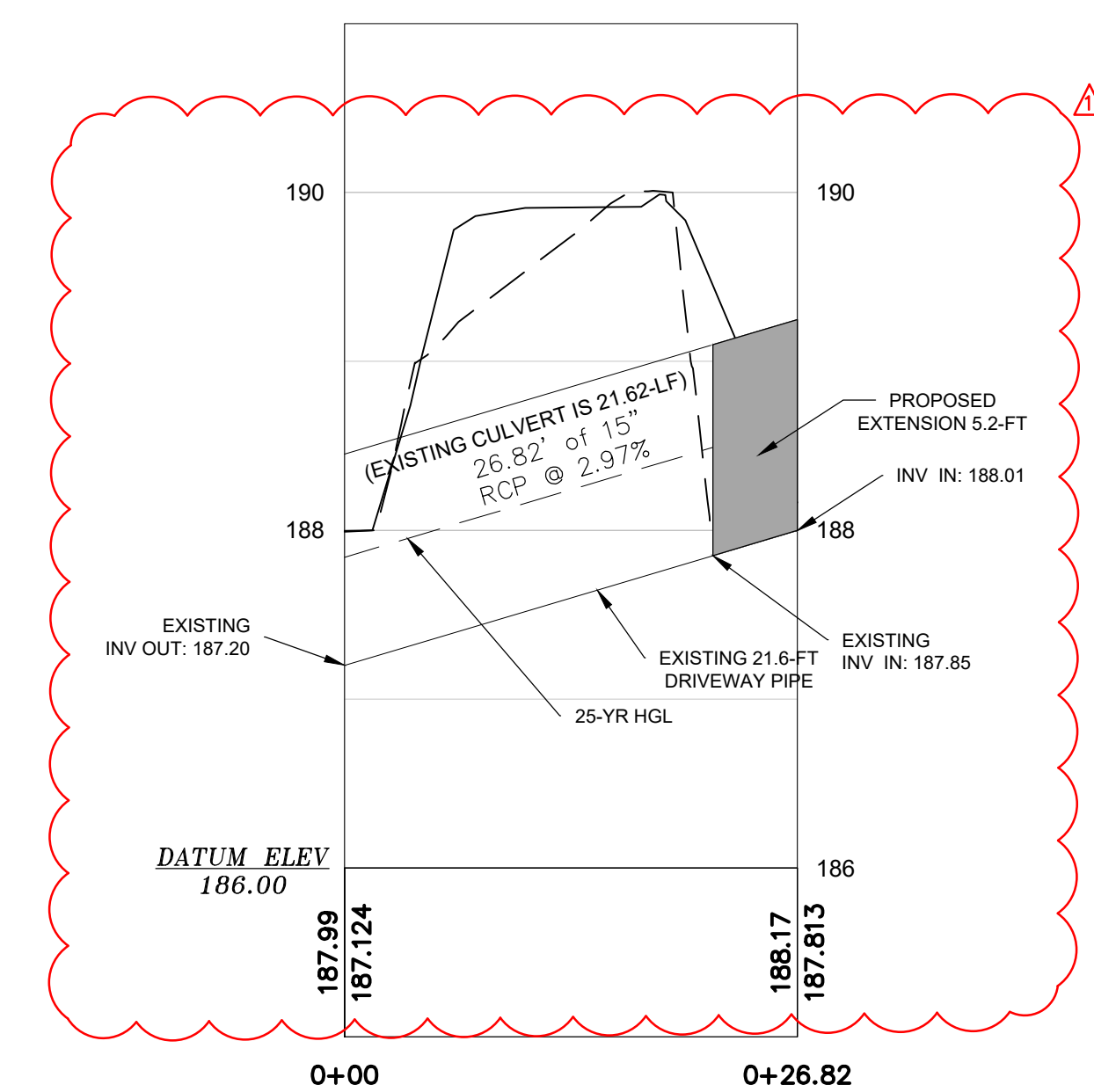
CULVERT 4
SCALE: 1"=10' HORIZONTAL
1"=1' VERTICAL



CULVERT 5
SCALE: 1"=10' HORIZONTAL
1"=1' VERTICAL



CULVERT 6
SCALE: 1"=10' HORIZONTAL
1"=1' VERTICAL



CULVERT 7
SCALE: 1"=10' HORIZONTAL
1"=1' VERTICAL

REVISION DATE	
SCDOT COMMENT - BSW	2.20.23

APPROVALS	
ENGINEER BSW	DESIGNER JAM
TECHNICAL CT	CHECKED BY BSW
APPROVED BY BSW	

	DATE: 2/20/23
	SIGNATURE: J. M. Jamison

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PROJECT: 2022 C-FUND ROAD IMPROVEMENTS FOR THE #750-LF THISTLE DOWN LANE OFF S13-51BRIDLEWOOD ROAD NEAR THE TOWN OF CHERAW IN INCORPORATED CHESTERFIELD COUNTY, SOUTH CAROLINA

SHEET: STORM DRAINAGE PROFILES

DATE: DECEMBER 2022

SCALE: 1"=10'

FILE NAME: C2.1.dwg	SHEET C2.1
REFERENCE FILE: 22211-0013 BASE.dwg	
PROJECT NO. 22211-0013	

DWG NO. 01.1589-D27

February 20, 2023 - 8:33:42 AM S:\Projects\22211-0013\2023 C-Fund Hwy Improv Thistle Down Ln Town of Cheraw Chesterfield County\Construction Plans\C3.0 Stationing and Erosion Control Plan.dwg
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LEGEND

---	EXISTING CONTOUR MINOR	---	EXISTING UNDERGROUND ELECTRIC
---	EXISTING CONTOUR MAJOR	---	EXISTING TELECOMMUNICATIONS
---	EXISTING PROPERTY LINE	---	EXISTING STORM DRAINAGE
---	EXISTING RIGHT-OF-WAY	---	EXISTING FENCE
---	EXISTING FENCE	---	EXISTING PAVEMENT
---	EXISTING WATER MAIN	---	LIMITS OF DISTURBANCE
---	EXISTING WASTEWATER GRAVITY LINE	---	PROPOSED CONTOUR MAJOR
---	EXISTING WASTEWATER FORCE MAIN	---	PROPOSED CONTOUR MINOR
---	EXISTING NATURAL GAS MAIN	---	PROPOSED STORM DRAINAGE
---	EXISTING OVERHEAD ELECTRIC	---	PROPOSED PAVEMENT

LEGEND

[Symbol]	PROPOSED SILT FENCE	[Symbol]	OUTLET PROTECTION
[Symbol]	TEMPORARY CONSTRUCTION ENTRANCE	[Symbol]	PROPOSED GRASSING
[Symbol]	PROPOSED RIP RAP	[Symbol]	EROSION CONTROL MATTING (NORTH AMERICAN GREEN SC150)
[Symbol]	PROPOSED SILT LOG	[Symbol]	ROCK CHECK DAM
[Symbol]	INLET PROTECTION		

- CONSTRUCTION SEQUENCE**
- RECEIVE LAND DISTURBANCE PERMIT FROM SCDHEC.
 - NOTIFY SCDHEC REGIONAL OFFICE AND CHESTERFIELD COUNTY ROAD MAINTENANCE 48 HOURS PRIOR TO ANY LAND DISTURBING ACTIVITIES.
 - PRE-CONSTRUCTION MEETING WILL BE HELD ON SITE WITH THE SCDHEC REPRESENTATIVE, OWNER AND CONTRACTOR TO DISCUSS THE MEASURES AND HOW TO FOLLOW THE OS-SWPPP STANDARDS BEFORE WORK BEGINS.
 - CLEARING AND GRUBBING ONLY AS NECESSARY ALONG THE LIMITS OF DISTURBANCE FOR INSTALLATION OF PERIMETER CONTROLS, TEMPORARY SEDIMENT CONTROL MEASURES, AND BEST MANAGEMENT PRACTICES (BMPs) (e.g., CONSTRUCTION ENTRANCE, SILT FENCE, INLET AND OUTLET PROTECTION WITH RIP-RAP).
 - INSTALL PERIMETER EROSION AND SEDIMENT CONTROL DEVICES.
 - VERIFY LOCATION OF EXISTING UNDERGROUND UTILITIES WITHIN THE RIGHT-OF-WAY AND HAVE RELOCATED EXISTING UTILITIES WITHIN THE WORK ZONE WILL NEED TO BE COORDINATED WITH THE SUPPLIERS PHYSICALLY LOCATED AND VERIFIED BEFORE ANY CONSTRUCTION PROCESS BEGINS.
 - CUT ROAD GRADE DOWN TO SUBGRADE AND INSTALL SUB-BASE STONE AND COMPACTED TO MAINTAIN TRAFFIC ACCESS TO THE EXISTING HOMES (ALL EROSION AND SEDIMENT CONTROL MEASURES FOR THESE AREAS MUST BE INSTALLED INITIALLY).
 - ONCE THE ROAD SUBGRADE/SUBBASE HAS BEEN ESTABLISHED, GO THROUGH AND CUT IN THE NEW DITCH LOCATION AND SET DRIVEWAY CULVERTS THROUGH THE ROADWAY. MAINTAIN ACCESS THROUGHOUT THE CONSTRUCTION PROCESS.
 - INSTALL PERIMETER EROSION CONTROL INLET CONTROL FOR PIPE INLETS OR BASINS AND MATTING ON SLOPES TO BEGIN STABILIZATION. INSTALL SWALE LININGS AND CHECK DAMS AFTER THE SWALES HAVE BEEN FINE GRADED.
 - ONCE SHOULDERS ARE ESTABLISHED AND SUBBASE FOR DRIVES AND ROADWAY SET AND PROOF ROLL PASSED, PAVEMENT SURFACE WILL BE COMPLETED AND STRIPING OF THE ENTRANCE STOP BAR AND LANE SEPARATION AS SOON AS POSSIBLE TO FINALIZE THE ROADWAY.
 - INSTALL PERMANENT SEEDING AND REMAINING RIP-RAP OUTLET PROTECTION.
 - ONCE THE SITE HAS REACHED 70% STABILIZATION PER SCDHEC REQUIREMENTS, REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER ENTIRE ROADWAY IS FINALLY STABILIZED (SCDHEC/CHESTERFIELD COUNTY INSPECTION RECOMMENDS THAT THE PROJECT OWNER/OPERATOR HAVE THE SWPPP PREPARER (IF APPLICABLE) OR REGISTRATION EQUIVALENT APPROVE THE REMOVAL OF THE TEMPORARY STRUCTURES).

- REFERENCES:**
- REFERENCE IS MADE TO LIDAR DATA PROVIDED BY THE UNITED STATES DEPARTMENT OF AGRICULTURE (USDA) NATURAL RESOURCES CONSERVATION SERVICE (NRCS) GEOSPATIAL DATA GATEWAY FOR THE MAJORITY OF THE PROPERTY.
 - REFERENCE IS MADE TO TOPOGRAPHIC SURVEY OF THE PROPOSED ROADWAY ALIGNMENT & UNDERGROUND UTILITIES BY WILLIAM E. HAYES PROFESSIONAL LAND SURVEYOR DATED NOVEMBER 4, 2022.
 - REFERENCE IS MADE TO PROPERTY AND RIGHT-OF-WAY LINE FOR THE INDIVIDUAL LOTS BY THE CHESTERFIELD COUNTY GEOGRAPHIC INFORMATION SYSTEM (GIS).

DEVELOPER INFORMATION
 DEVELOPER: CHESTERFIELD COUNTY PUBLIC WORKS
 CONTACT: MR. JEFF McCARN
 ADDRESS: 97 JONES ROAD
 CITY, STATE: CHESTERFIELD, SC 29709
 TELEPHONE: (843) 623-2464 (OFFICE)
 EMAIL: JMCCARN@SHTC.NET

OWNER INFORMATION
 OWNER: CHESTERFIELD COUNTY
 CONTACT: MR. TIM EUBANKS
 ADDRESS: 178 MILLS STREET
 CITY, STATE: CHESTERFIELD, SC 29709
 TELEPHONE: (843) 623-2595 (OFFICE)
 (843) 680-2216 (CELL)
 EMAIL: TIMEUBANKS@CHESTERFIELDCOUNTY SC.COM

TOTAL ROAD ROW AREA: 1.45 ACRES
 TOTAL DISTURBED AREA: 1.35 ACRES

REVISION DATE

APPROVALS

ENGINEER	DESIGNER	CHECKER	APPROVED
BSW	JAM	JAM	BSW

DATE: 2/20/23

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SEDIMENT AND EROSION CONTROL PLAN

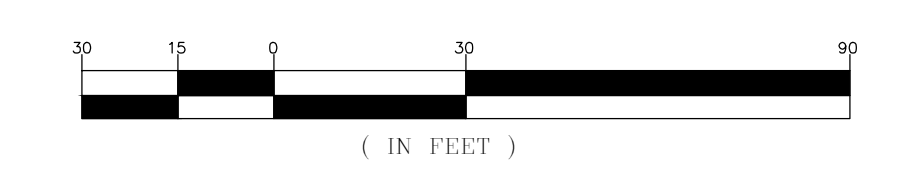
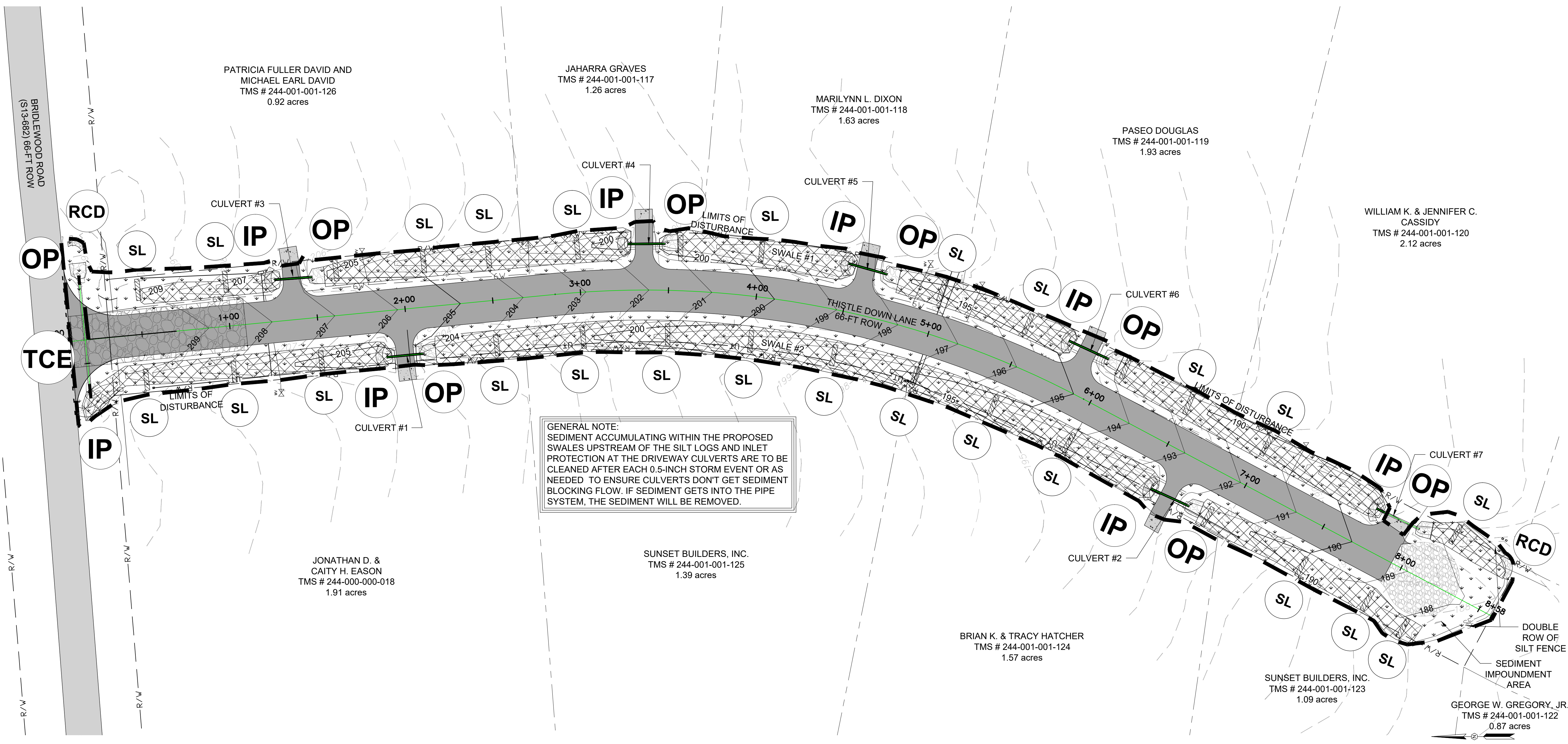
PROJECT: 2022 C-FUND ROAD IMPROVEMENTS FOR THE #750-LF THISTLE DOWN LANE OFF S13-51 (BRIDLEWOOD ROAD) NEAR THE TOWN OF CHERAW IN INCORPORATED CHESTERFIELD COUNTY, SOUTH CAROLINA

FILE NAME: C3.0.dwg
 REFERENCE FILE: 22211-0013 BASE.dwg
 PROJECT NO.: 22211-0013

SHEET C3.0

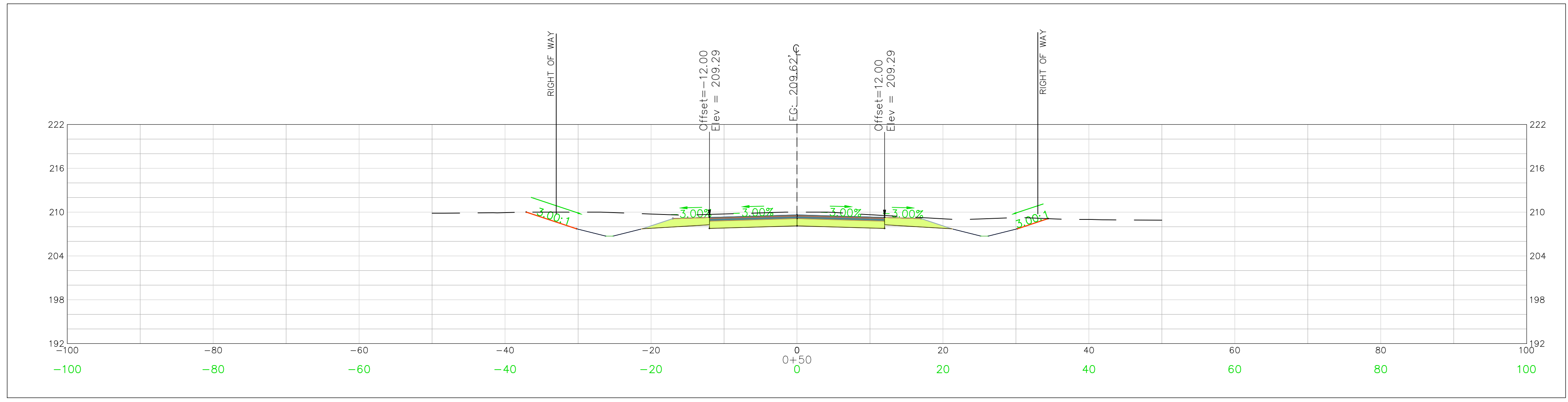
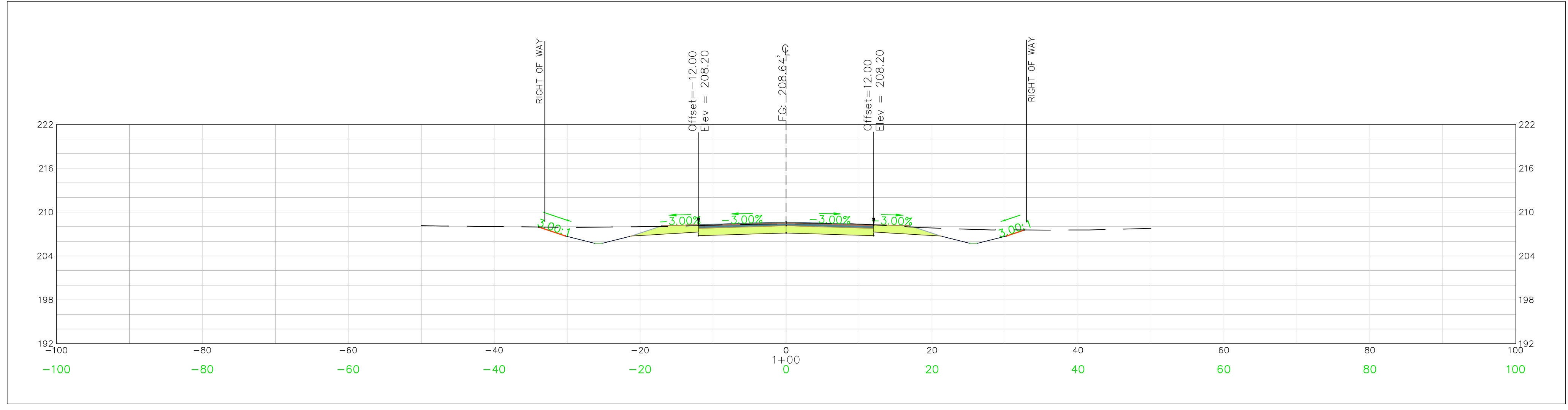
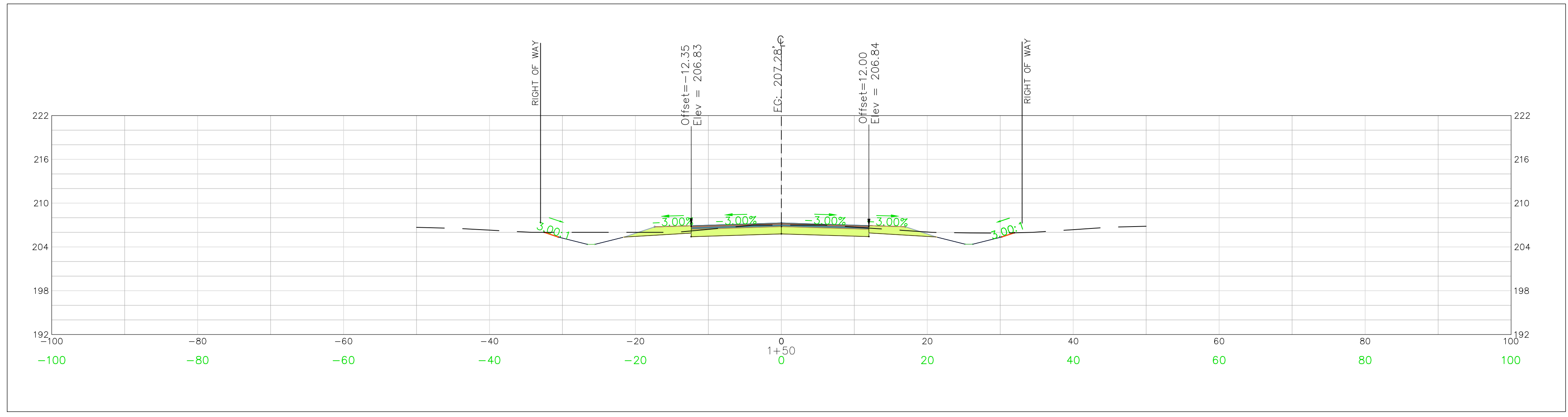
DWG NO. 01.1589-D27

DATE: DECEMBER 2022
 SCALE: 1" = 30'



February 20, 2023 - 8:34:23 AM S:\Projects\22211-0013\2022 C-Fund Road Improv\Thistle Down.Lin Town of Cheraw, Chesterfield County\Construction Plans\C4.0 Entrance Cross Section (1 of 6).dwg

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THISTLE DOWN LANE
CROSS SECTIONS 0+50 - 1+50
SCALE 1" = 10' HORIZONTAL
1" = 1' VERTICAL

LEGEND	
EXISTING GRADE	---
PROPOSED SURFACE	---

REVISION DATE	

APPROVALS:

ENGINEER BSW	DESIGNER JAM	TITLE ENGINEER JAT	CHECKED BY BSW	APPROVED BY BSW
-----------------	-----------------	-----------------------	-------------------	--------------------

DATE: 2/20/23

SIGNATURE:

Benjamin S. Whaley
No. 26589

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SHEET: THISTLE DOWN LANE CROSS SECTION STA 0+50 TO 1+50 (SHEET 1 OF 6)

DATE: DECEMBER 2022

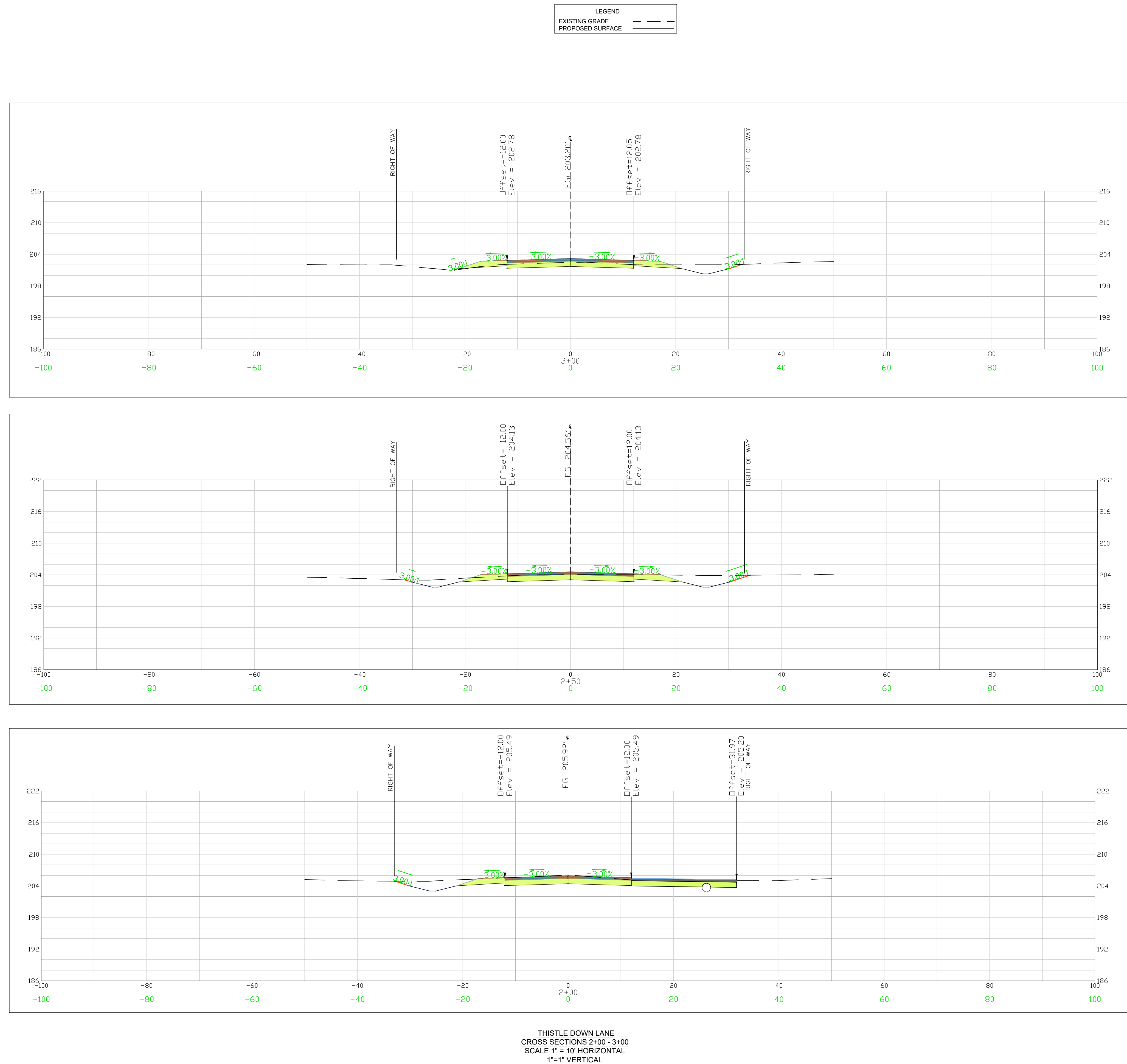
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FILE NAME: C4.0.dwg	SHEET C4.0
REFERENCE FILE: 22211-0013 BASE.dwg	
PROJECT NO. 22211-0013	

DWG NO. 01.1589-D27

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THISTLE DOWN LANE
 CROSS SECTIONS 2+00 - 3+00
 SCALE 1" = 10' HORIZONTAL
 1" = 1" VERTICAL

REVISION	
NO.	DATE

APPROVALS:

ENGINEER	DESIGNER	TECHNICAL	CHECKED BY	APPROVED BY
BSW	JAM	CT	BSW	BSW

Professional Engineer Seal: BENJAMIN S. WILSON, No. 26589, State of South Carolina.

SIGNATURE: Benjamin S. Wilson

DATE: 2/20/23

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PROJECT: 2022 C-FUND ROAD IMPROVEMENTS FOR THE #750-LF THISTLE DOWN LANE OFF S13-51BRIDLEWOOD ROAD NEAR THE TOWN OF CHERAW IN INCORPORATED CHERSEFIELD COUNTY, SOUTH CAROLINA

SHEET: THISTLE DOWN LANE CROSS SECTION STA 2+00 TO 3+00 (SHEET 2 OF 6)

DATE: DECEMBER 2022

SCALE: 1" = 10'

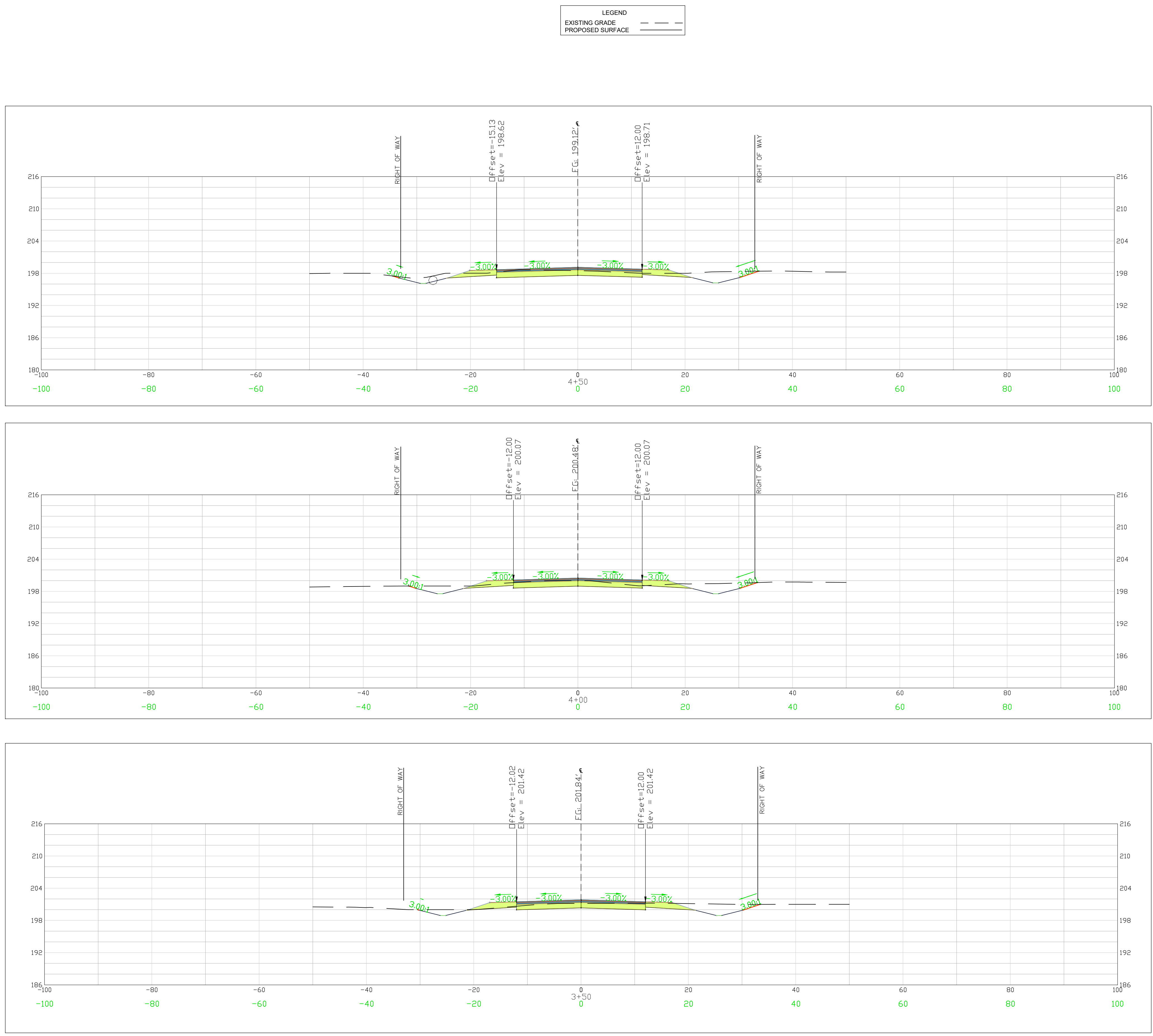
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 PROJECT NO.: 22211-0013

SHEET: C4.1

DWG NO. 01.1589-D27

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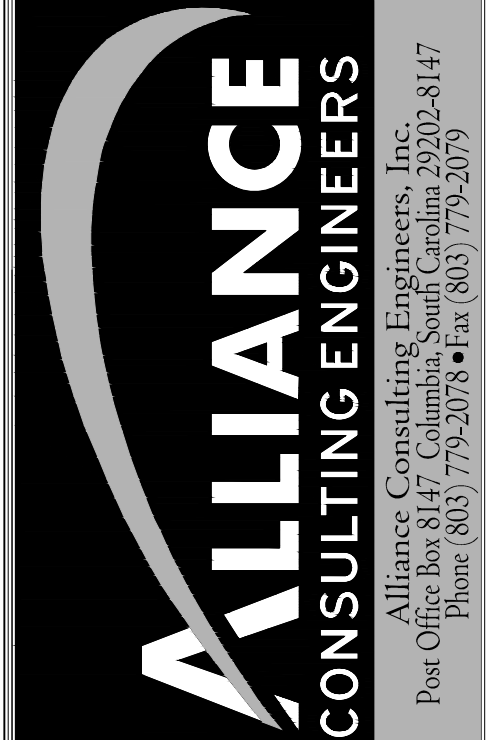
THISTLE DOWN LANE
 CROSS SECTIONS 3+50 - 4+50
 SCALE 1" = 10' HORIZONTAL
 1" = 1" VERTICAL

REVISION DATE	

APPROVALS	ENGINEER	DESIGNER	TECHNICAL	CHECKED BY	APPROVED BY
	BSW	JAM	CT	BSW	BSW



SIGNATURE: *Benjamin S. White*
 DATE: 2/20/23



PROJECT: 2022 C-FUND ROAD IMPROVEMENTS FOR THE #750-LF THISTLE DOWN LANE OFF S13-51BRIDLEWOOD ROAD NEAR THE TOWN OF CHERAW IN INCORPORATED CHERSEFIELD COUNTY, SOUTH CAROLINA

SHEET: THISTLE DOWN LANE CROSS SECTION STA 3+50 TO 4+50 (SHEET 3 OF 6)

DATE: DECEMBER 2022 SCALE: 1" = 10'

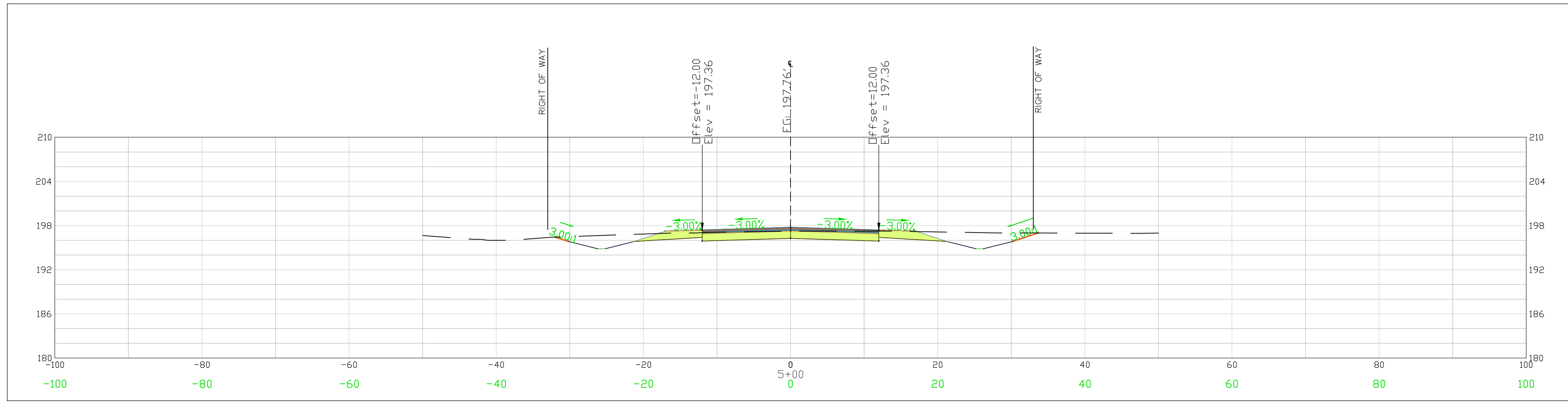
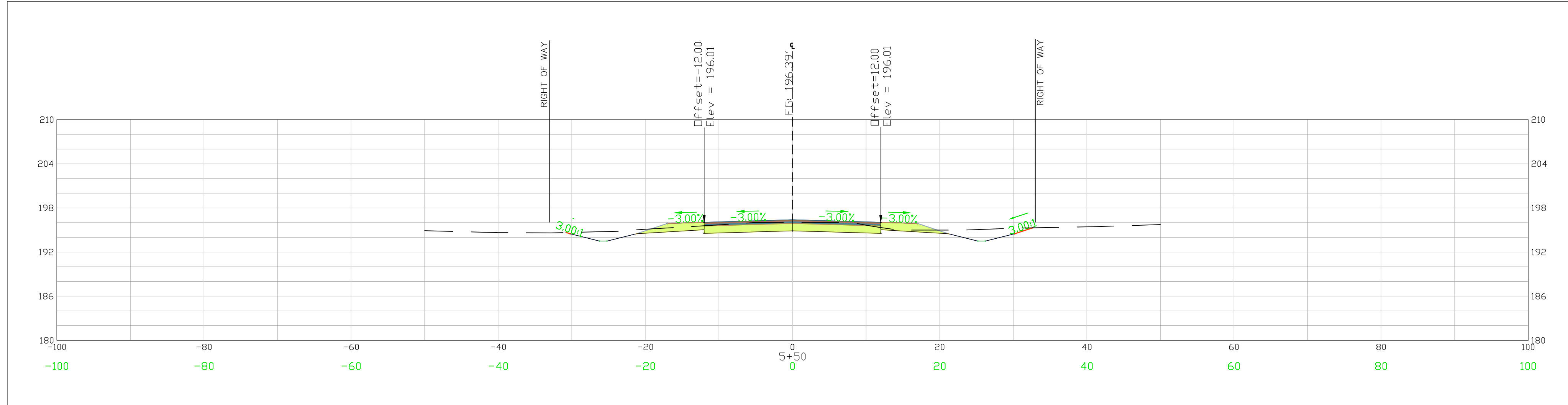
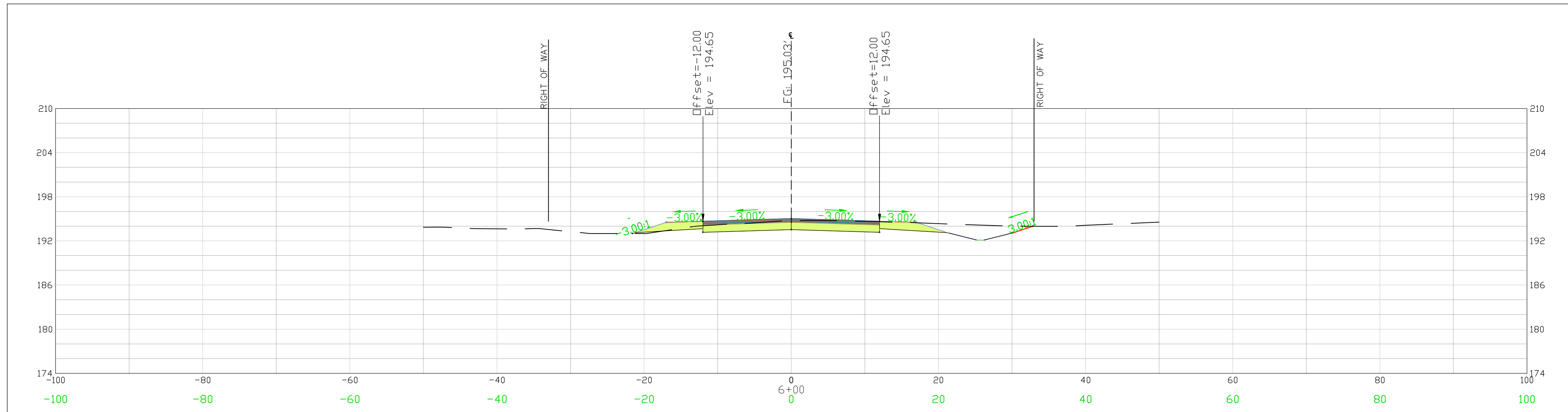
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SHEET C4.2

DWG NO. 01.1589-D27

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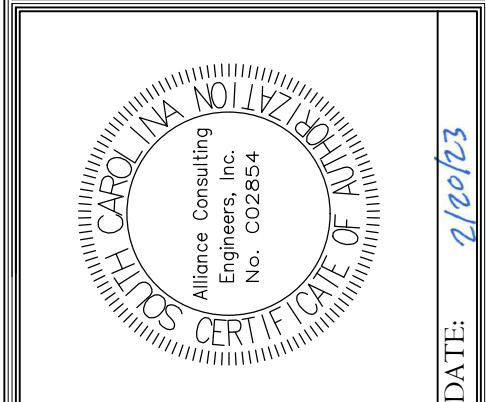


LEGEND	
---	EXISTING GRADE
---	PROPOSED SURFACE

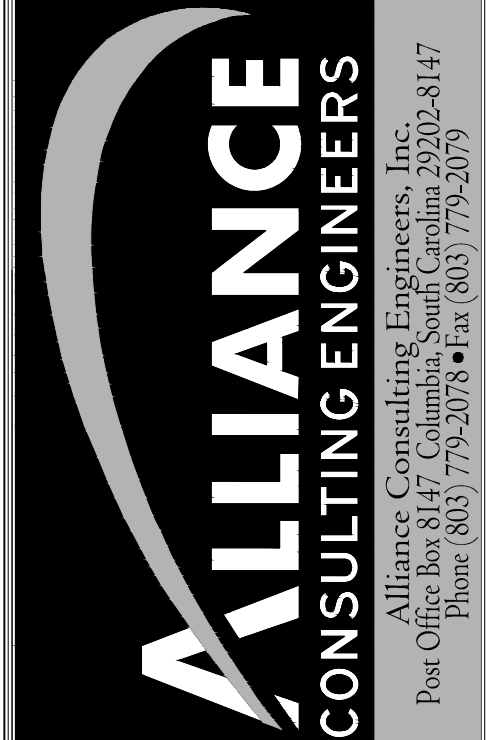
THISTLE DOWN LANE
CROSS SECTIONS 5+00 - 6+00
SCALE 1" = 10' HORIZONTAL
1"=1" VERTICAL

REVISION DATE	

APPROVALS
ENGINEER BSW
DESIGNER JAM
TECHNICAL CT
CHECKED BY BSW
APPROVED BY BSW



SIGNATURE: *Benjamin S. Webb*
DATE: 2/20/23



PROJECT: 2022 C-FUND ROAD IMPROVEMENTS FOR THE #750-LF THISTLE DOWN LANE OFF S13-51BRIDLEWOOD ROAD NEAR THE TOWN OF CHERAW IN INCORPORATED CHERSEFIELD COUNTY, SOUTH CAROLINA

SHEET: THISTLE DOWN LANE CROSS SECTION STA 5+00 TO 6+00 (SHEET 4 OF 6)

DATE: DECEMBER 2022 SCALE: 1" = 10'

FILE NAME: C4.3.dwg
REFERENCE FILE: 22211-0013 BASE.dwg
PROJECT NO.: 22211-0013

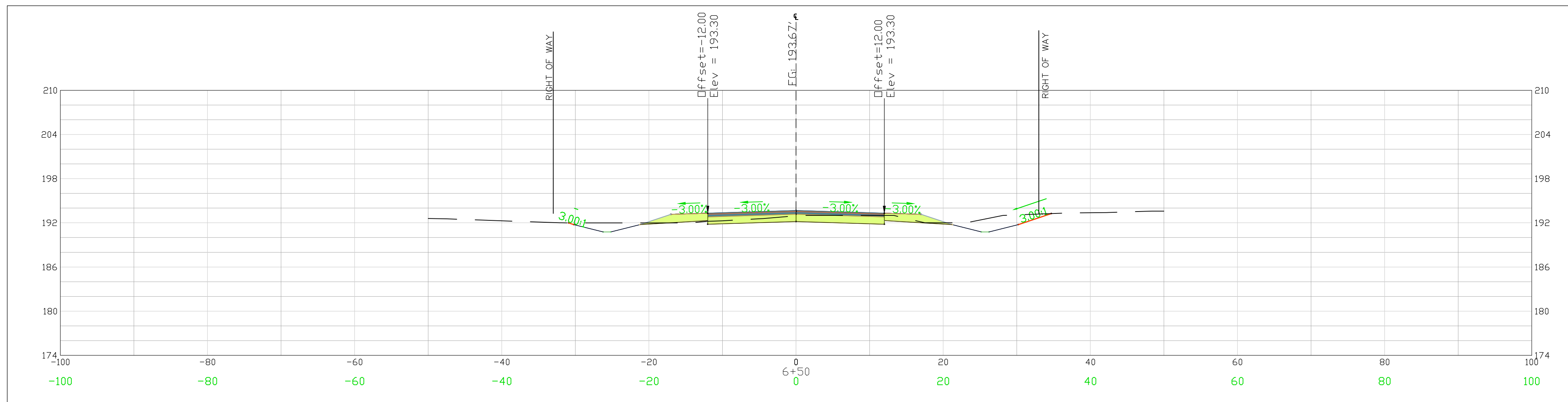
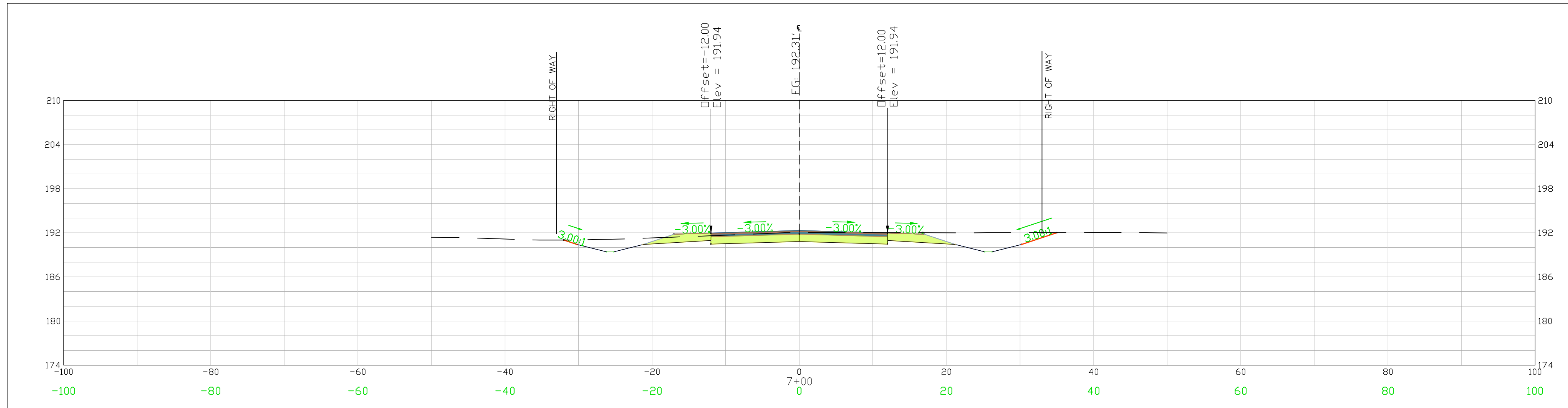
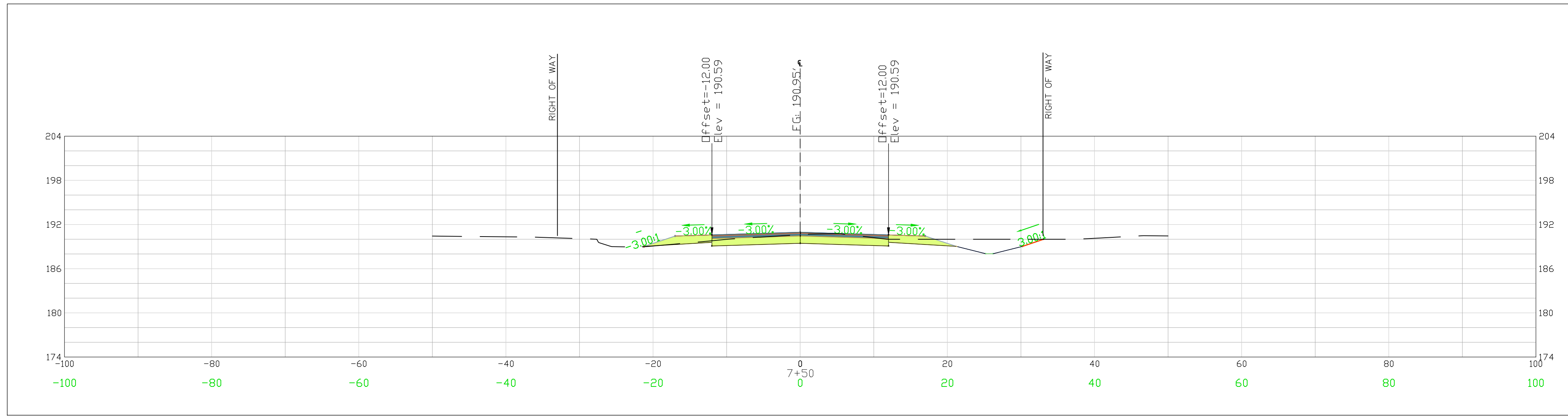
SHEET C4.3

DWG NO. 01.1589-D27

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LEGEND	
EXISTING GRADE	---
PROPOSED SURFACE	---



THISTLE DOWN LANE
CROSS SECTIONS 6+50 - 7+50
SCALE 1" = 10' HORIZONTAL
1" = 1" VERTICAL

REVISION DATE	

ENGINEER BSW	DESIGNER JAM	TECHNICAL CT	CHECKED BY BSW	APPROVED BY BSW
-----------------	-----------------	-----------------	-------------------	--------------------

DATE: 2/20/23

SIGNATURE: *Benjamin S. Webb*

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Alliance Consulting Engineers, Inc.
Post Office Box 8147 Columbia, South Carolina 29202-8147
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THISTLE DOWN LANE
CROSS SECTION
STA 6+50 TO 7+50
(SHEET 5 OF 6)

SCALE: 1" = 10'

DATE: DECEMBER 2022

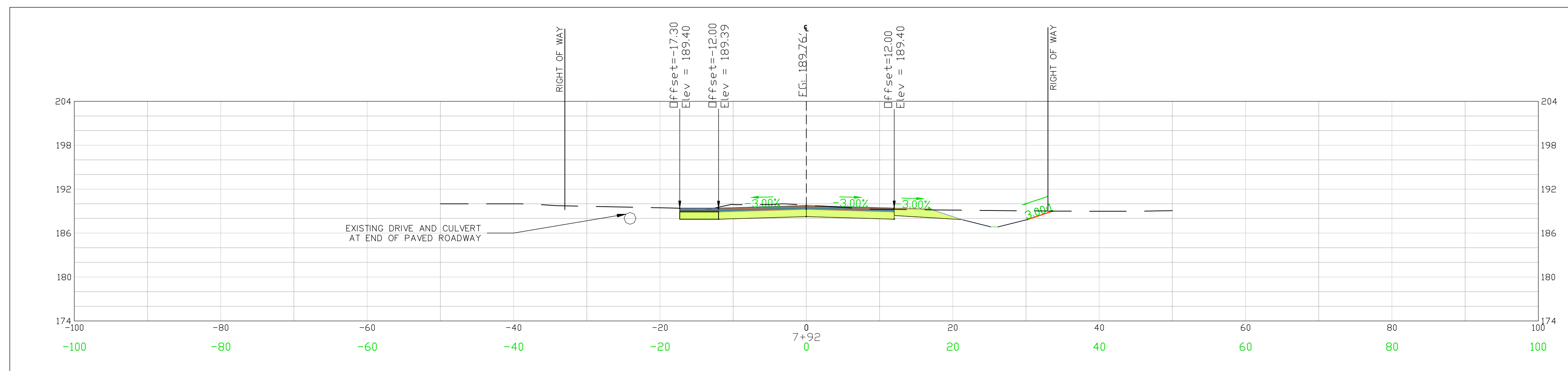
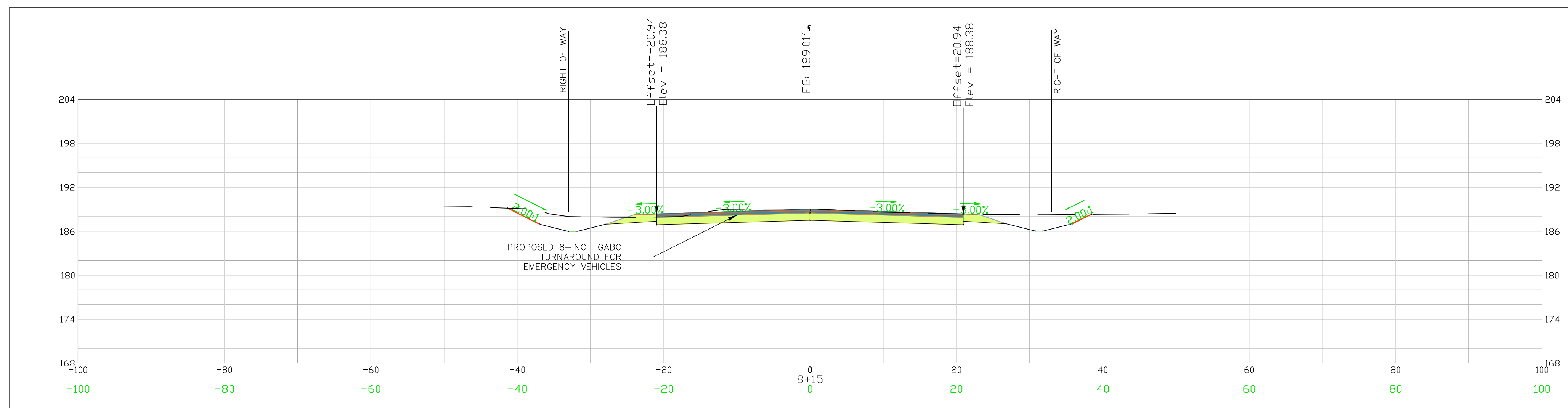
PROJECT: 2022 C-FUND ROAD IMPROVEMENTS FOR THE #750-LF THISTLE DOWN LANE OFF S13-51BRIDLEWOOD ROAD NEAR THE TOWN OF CHERAW IN INCORPORATED CHERSEFIELD COUNTY, SOUTH CAROLINA

FILE NAME: C4.3.dwg	SHEET C4.4
REFERENCE FILE: 22211-0013 BASE.dwg	
PROJECT NO. 22211-0013	

DWG NO. 01.1589-D27

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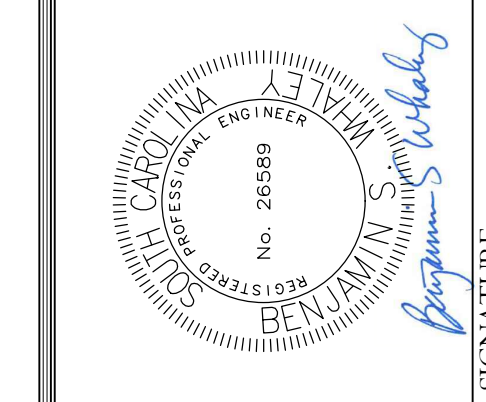
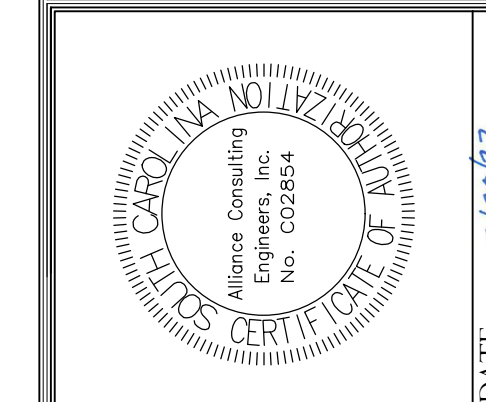
February 20, 2023 - 8:38:17 AM S:\Projects\22211-0013\2022 C-Fund Road Improv\Thistle Down Ln\Town of Cheraw\Chatterfield Color\Construction Plans\C4.5 Entrance Cross Section (6 of 6).dwg



THISTLE DOWN LANE
 CROSS SECTIONS 7+92 (END OF PAVEMENT) - 8+15 (CENTER OF GRAVEL TURN AROUND)
 SCALE 1" = 10' HORIZONTAL
 1" = 1" VERTICAL

REVISION DATE	

APPROVALS	ENGINEER	DESIGNER	TECHNICAL	CHECKED BY	APPROVED
	BSW	JAM	CT	BSW	BSW



PROJECT: 2022 C-FUND ROAD IMPROVEMENTS FOR THE #750-LF THISTLE DOWN LANE OFF S13-51BRIDLEWOOD ROAD NEAR THE TOWN OF CHERAW IN INCORPORATED CHERSEFIELD COUNTY, SOUTH CAROLINA

SHEET: THISTLE DOWN LANE CROSS SECTION STA 7+92 TO 8+15 (SHEET 6 OF 6)

DATE: DECEMBER 2022 SCALE: 1" = 10'

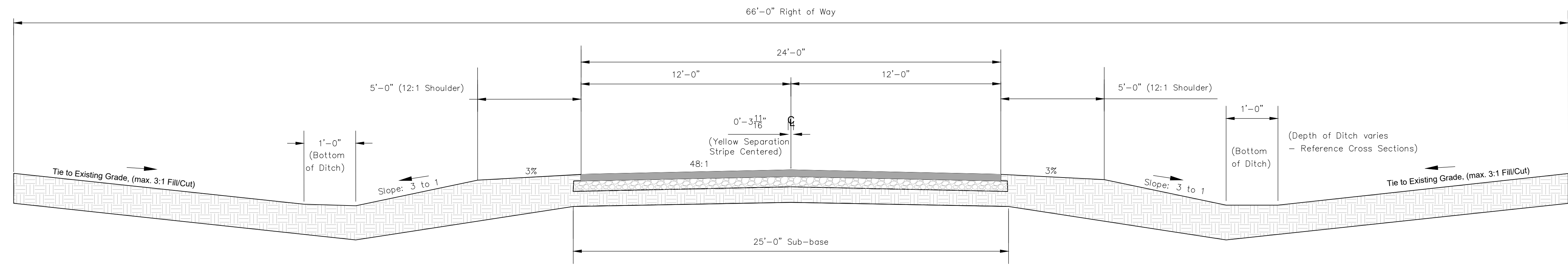
FILE NAME: C4.3.dwg
 REFERENCE FILE: 22211-0013 BASE.dwg
 PROJECT NO.: 22211-0013

SHEET C4.5

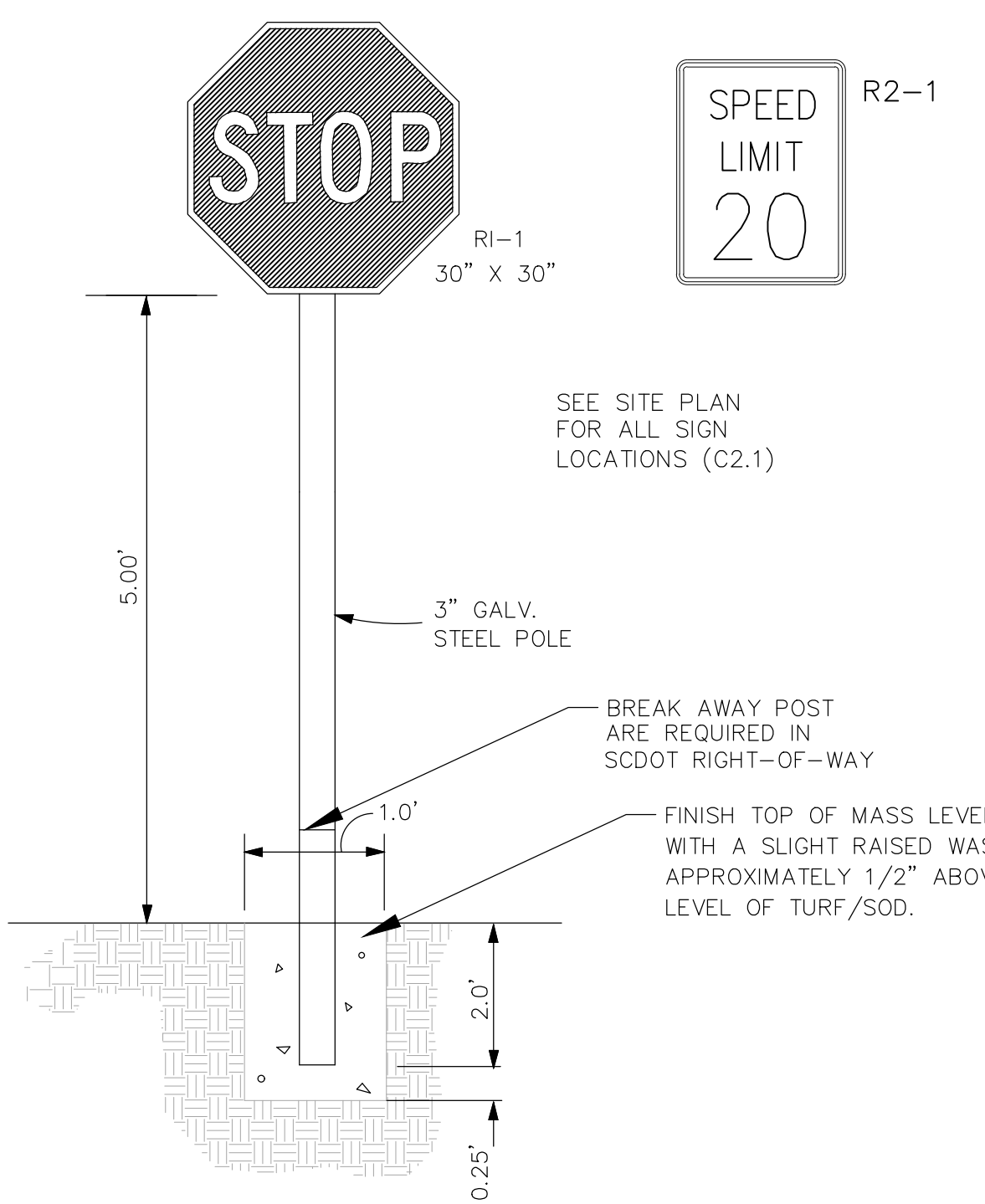
DWG NO. 01.1589-D27

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February 20, 2023 8:39:36 AM S:\Projects\22211-0013 2022 C-Fund Relay Improv Thistle Down Ln Town of Cheraw Chesterfield County\Construction Plans\C-6.0 Site Details.dwg

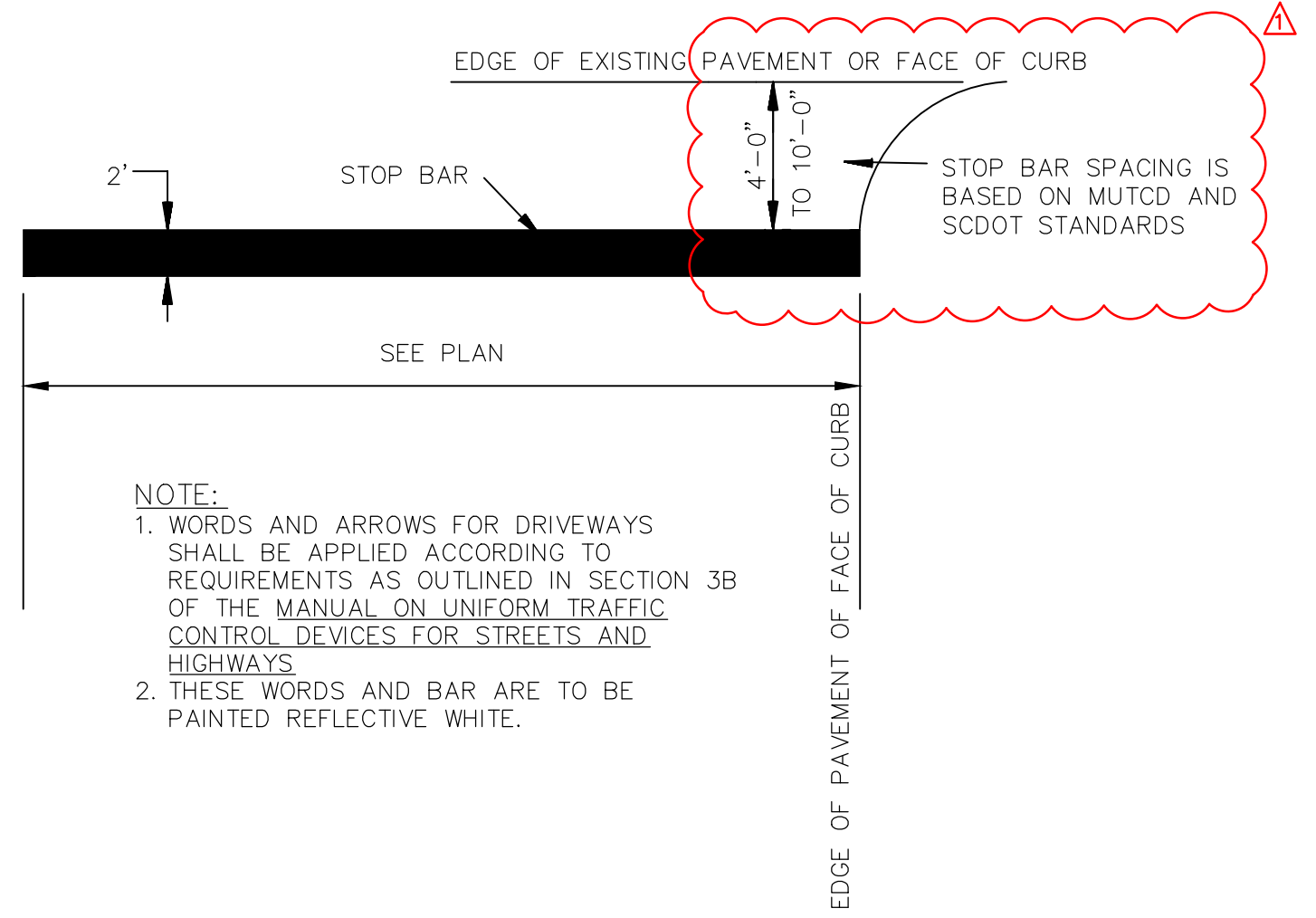


TYPICAL LOCAL ROADWAY SECTION



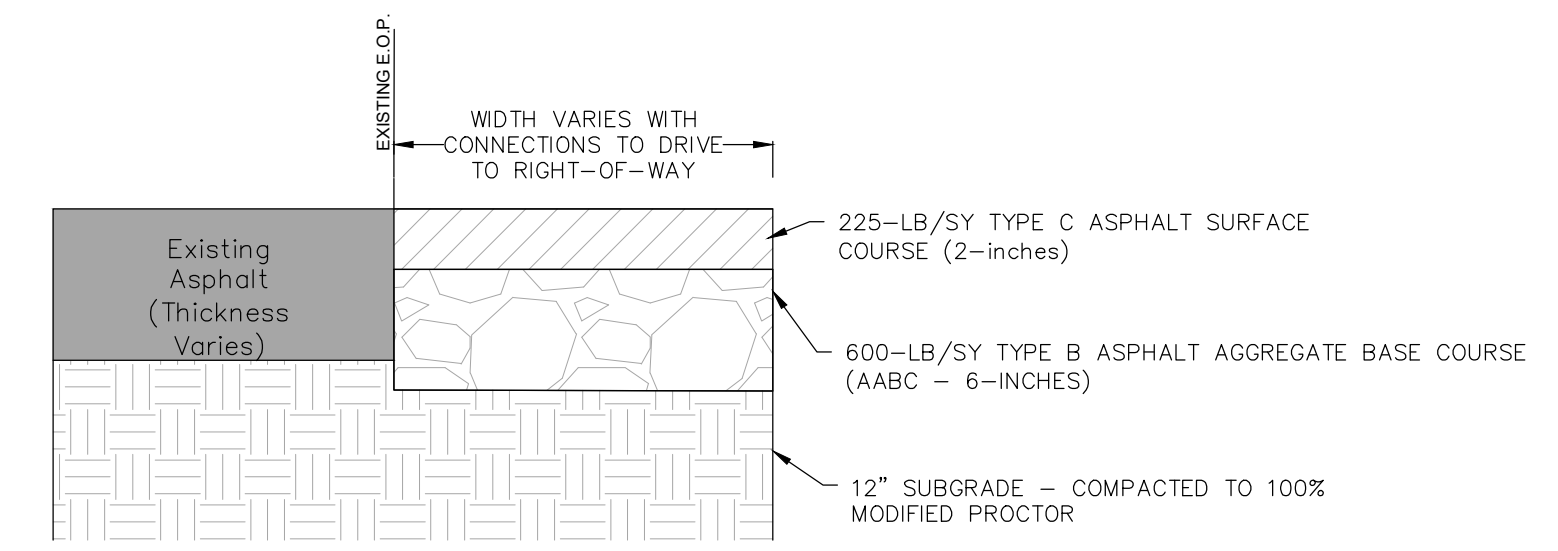
- NOTES:
1. ALL SIGNS SHALL CONFORM WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR COLOR, SIZE, REFLECTIVITY, AND HEIGHT.
 2. SIGNS TO PLACED AS SHOWN ON PLAN.

TYPICAL SIGN DETAIL (NOT TO SCALE)



- NOTE:
1. WORDS AND ARROWS FOR DRIVEWAYS SHALL BE APPLIED ACCORDING TO REQUIREMENTS AS OUTLINED IN SECTION 3B OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS
 2. THESE WORDS AND BAR ARE TO BE PAINTED REFLECTIVE WHITE.

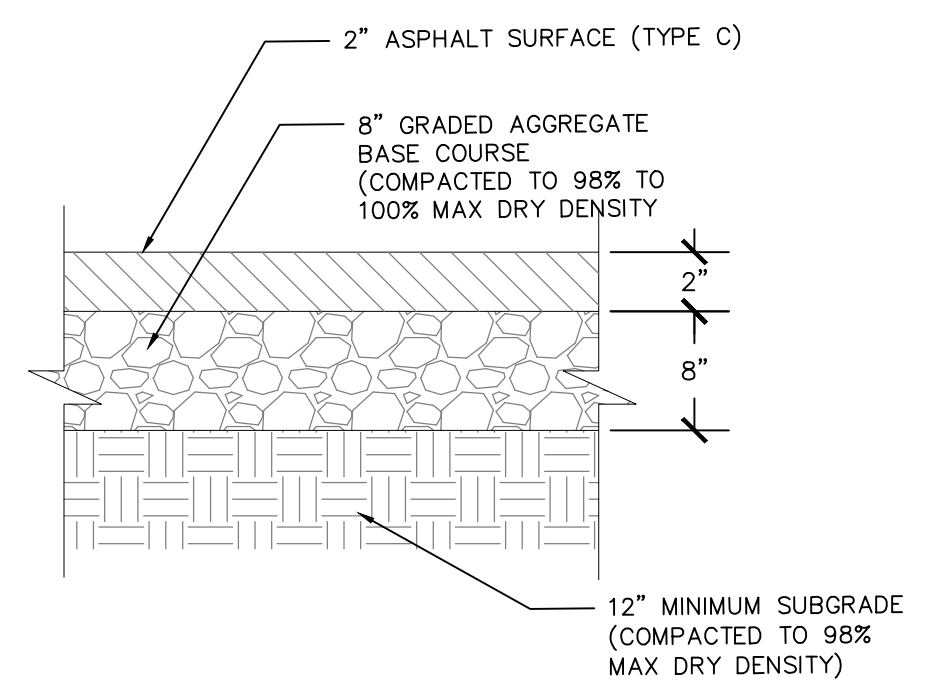
STOP BAR DETAIL (NOT TO SCALE)



SCDOT ASPHALT SCALE: N.T.S.

- NOTE:
1. FULL DEPTH ASPHALT SECTION TO BE USED FOR SCDOT DRIVE CONNECTION SECTION WITHIN THE SCDOT RIGHT-OF-WAY.
 2. FOR WIDENING OF 0' TO 6' WIDE - USE 5-INCHES OF HMA TYPE BASE IN LIEU OF 700-LB/SY OF AABC.
 3. DEPTH BASED ON GUIDELINES FOR ASPHALT PAVEMENT DESIGN FOR DRIVEWAYS AND TURNING LANES FOR PERMITTING APPLICATIONS SCDOT STANDARDS.

- NOTE:
1. THE ROADWAY PAVEMENT SECTION IS BASED ON THE LIMITED SUBSURFACE EXPLORATION THISTLE DOWN LANE ROADWAY IMPROVEMENTS REPORT PROVIDED BY ECS SOUTHEAST, LLP - REPORT NUMBER: 08:15331 DATED NOVEMBER 9, 2022



LOCAL ASPHALT SECTION SCALE: N.T.S.

REVISION DATE	
SCDOT COMMENT - BSW	2.20.23

APPROVALS	ENGINEER	DESIGNER	TECHNICIAN	CHECKED BY	APPROVED
	BSW	JAM	CT	BSW	BSW

ALLIANCE CONSULTING ENGINEERS, INC. No. 26889

DATE: 2/20/23

SIGNATURE: Benjamin S. White

ALLIANCE CONSULTING ENGINEERS, INC.

Post Office Box 1000, South Carolina 29505
Phone: (803) 779-2079 • Fax: (803) 779-2079

SITE DETAILS

SCALE: AS SHOWN

DATE: DECEMBER 2022

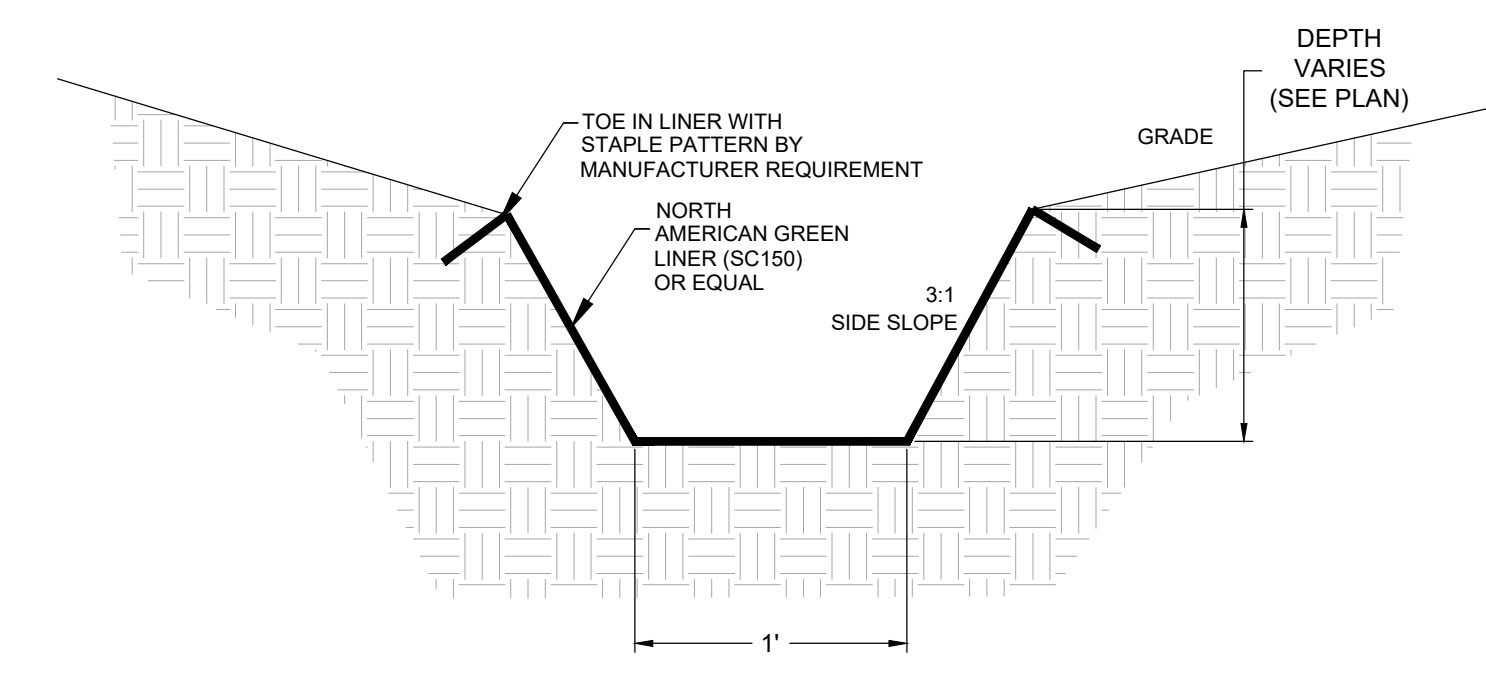
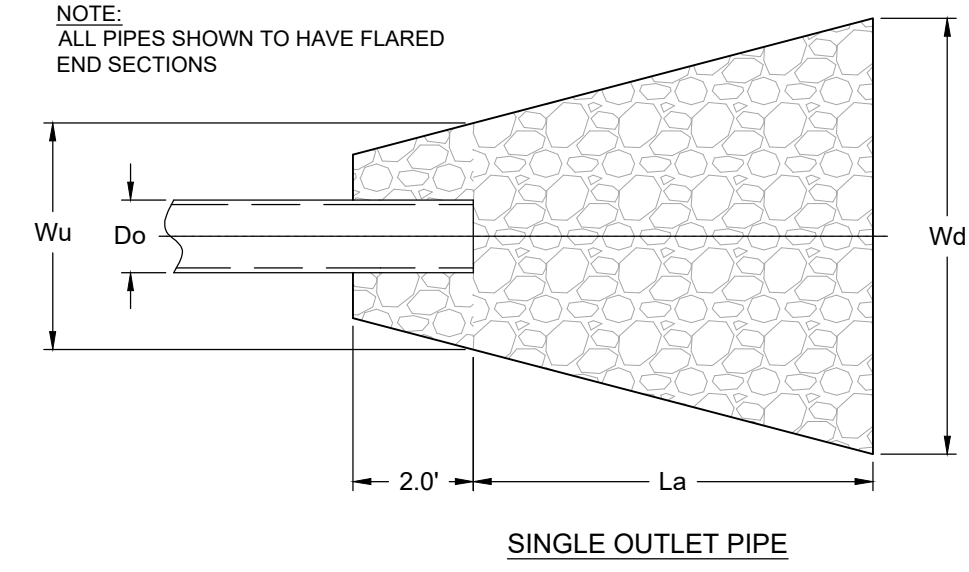
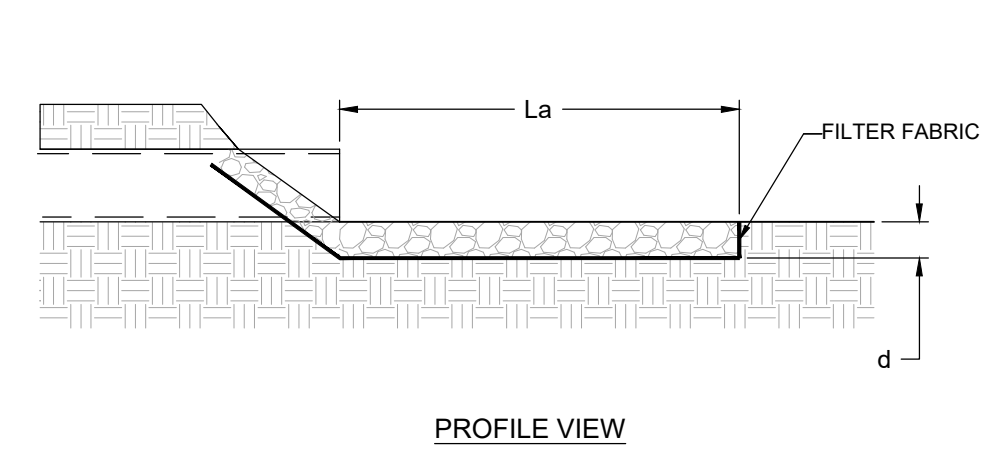
PROJECT

2022 C-FUND ROAD IMPROVEMENTS FOR THE #750-LF THISTLE DOWN LANE OFF S3-5 BRIDLEWOOD ROAD NEAR THE TOWN OF CHERAW IN INCORPORATED CHESTERFIELD COUNTY, SOUTH CAROLINA

FILE NAME:	C5.0.DWG	SHEET
REFERENCE FILE:	22211-0013 BASE.dwg	
PROJECT NO.	22211-0013	C5.0

DWG NO. 01.1589-D27

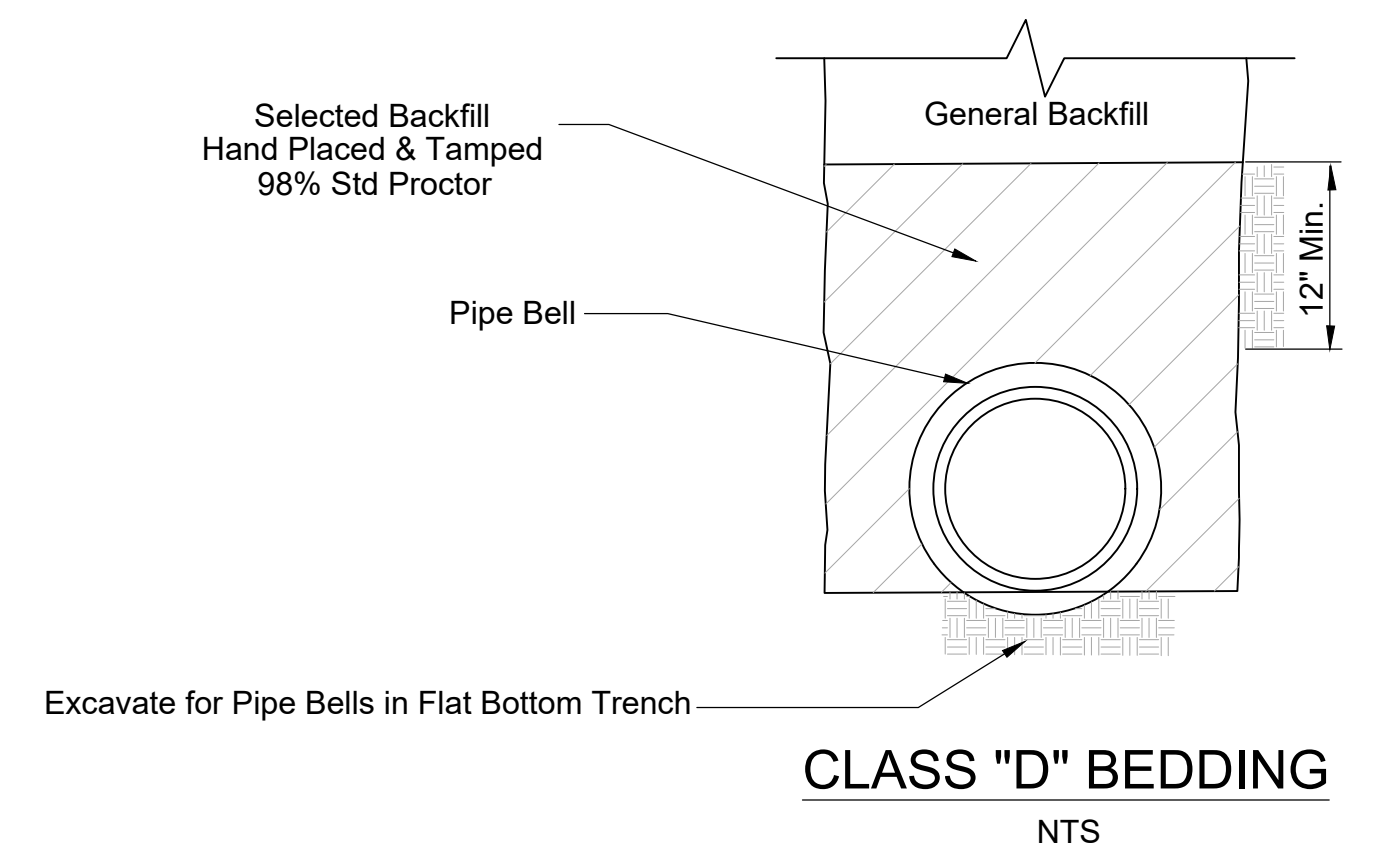
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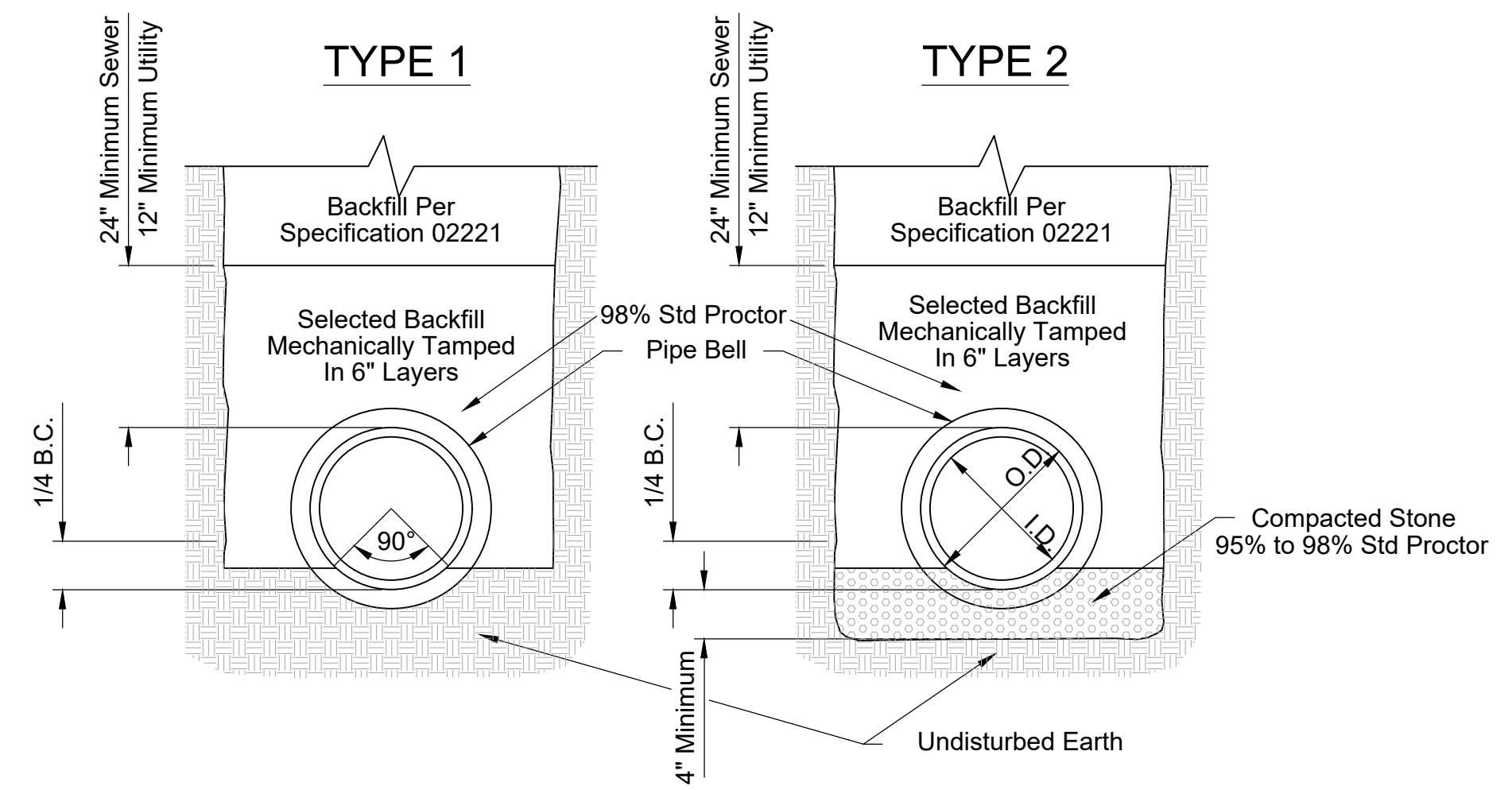
Swale Chart		
Swale #	10 Year Storm Outflow, (cfs)	Matting type or equal value
1	5.36	SC150
2	7.18	SC150

Rip-Rap Outlet Protection Chart						
Outlet Pipe	Outlet Pipe Diameter, Do (inches)	25 Year Storm Outflow, (cfs)	Apron Length, La (ft)	Average Rock Diameter, d50 (feet)	Upstream Protection Width, Wu (feet)	Downstream Protection Width, Wd (feet)
CULVERT 1	15	1.40	8	0.75	4	10
CULVERT 2	15	5.63	8	0.75	4	10
CULVERT 3	15	1.40	8	0.75	4	10
CULVERT 4	15	3.36	8	0.75	4	10
CULVERT 5	15	4.32	8	0.75	4	10
CULVERT 6	15	5.35	8	0.75	4	10
CULVERT 7	15	6.81	9	0.75	4	11
ENTRANCE	18	1.17	10	0.75	6	11

RIP RAP OUTLET PROTECTION DETAIL
NOT TO SCALE



Excavate for Pipe Bells in Flat Bottom Trench



- NOTE:**
- TYPE 2 BEDDING USED IN MOIST AREAS (INDICATING GROUNDWATER) AND HIGH TRAFFIC AREAS.
 - HAND SHAPED BOTTOM - SHAPE BELL HOLES FOR USE IN DRY EARTH TRENCHES ONLY. APPLICABLE TO BOTH EARTH AND ROCK TRENCHES.
 - B.C. = OUTSIDE BELL CIRCUMFERENCE.

CLASS "C" BEDDING
NTS

REFERENCES

GENERAL NOTES

- ALL SIGN LOCATIONS ARE TO BE MEASURED FROM THE WORK AREA. WORK LIMITS FOR THE PROJECT WILL BE DETERMINED BY THE ENGINEER AND AS INDICATED IN THE CONTRACT.
- INSTALL ADVANCE WARNING SIGNS MOUNTED ON PORTABLE SIGN SUPPORTS NO LESS THAN 4 FEET FROM THE NEAR EDGE OF THE SIGN TO THE NEAR EDGE OF AN ADJACENT TRAVEL LANE OR ROADWAYS WITH EARTH SHOULDER, AND NO LESS THAN 4 FEET FROM THE NEAR EDGE OF THE SIGN TO THE NEAR EDGE OF AN ADJACENT TRAVEL LANE ON ROADWAYS WITH PAVED SHOULDER. WHEN CURB & GUTTER IS PRESENT, INSTALL THE SIGN NO LESS THAN 2 FEET FROM THE NEAR EDGE OF THE SIGN TO THE FACE OF THE CURB.
- SIGNPOSTS INDICATED ARE FOR NORMAL CONSIDERED ADJUSTMENTS MAY BE REQUIRED DUE TO HORIZONTAL AND/OR VERTICAL ALIGNMENTS OR OTHER SIGHT DISTANCE RESTRICTIONS.
- ALL SIGNS MOUNTED ON PORTABLE SIGN SUPPORTS SHALL HAVE A MINIMUM MOUNTING HEIGHT OF 5 FEET FROM THE GROUND TO THE BOTTOM OF THE SIGN. ALL SIGNS MOUNTED ON GROUND MOUNTED U-CHEMEL POSTS OR SQUARE STEEL TUBE POSTS SHALL HAVE A MINIMUM MOUNTING HEIGHT OF 7 FEET FROM THE GRADE ELEVATION OF THE NEAR EDGE OF THE ADJACENT TRAVEL LANE TO THE BOTTOM OF THE SIGN UNLESS OTHERWISE DIRECTED BY THE DEPARTMENT. MOUNT ALL SIGNS STRAIGHT AND LEVEL AND WITH THE FACE OF THE SIGN PERPENDICULAR TO THE SURFACE OF THE ROADWAY.
- REFLECTORIZING ORANGE ADVANCE WARNING SIGNS WITH A FLUORESCENT ORANGE COLORED PRISMATIC RETROREFLECTIVE SHEETING. REFLECTORIZING WHITE REGULATORY SIGNS OR ANY WHITE AREAS OF A MULTI-COLORED ADVANCE WARNING SIGN WITH A WHITE COLORED PRISMATIC RETROREFLECTIVE SHEETING.
- ALL TRAFFIC CONTROL DEVICES SHALL COMPLY WITH ALL NORTH CAROLINA REPORT 350 REQUIREMENTS AND SHALL REQUIRE APPROVAL BY THE DEPARTMENT. ONLY THOSE TRAFFIC CONTROL DEVICES LISTED ON THE "APPROVED PRODUCTS LIST FOR TRAFFIC CONTROL DEVICES IN WORK ZONES" ARE CONSIDERED ACCEPTABLE FOR USE. THIS LIST MAY BE ACCESSED ON THE DEPARTMENT'S WEB SITE AT: www.ncdot.gov.
- THE CONTRACTOR SHALL PROVIDE AND UTILIZE ANY SPECIAL SIGN MOUNTING ASSEMBLIES AND HARDWARE THAT MAY BE NECESSARY FOR INSTALLING AND MOUNTING SIGNS IN AREAS OF CONCRETE MEDIAN BARRIER, BRIDGE PARAPET WALLS OR DOUBLED FACED GUARDRAIL.
- THE PRIMARY TRAFFIC CONTROL DEVICES UTILIZED FOR DAYTIME SHOULDER CLOSURES ARE 36" CONES. THE PRIMARY TRAFFIC CONTROL DEVICES UTILIZED FOR NIGHTTIME SHOULDER CLOSURES ARE PORTABLE PLASTIC CONES. DURING DAYTIME SHOULDER CLOSURES, 42" OVERSIZED CONES MAY BE SUBSTITUTED FOR 36" CONES. DURING NIGHTTIME SHOULDER CLOSURES, 42" OVERSIZED CONES ARE PROHIBITED FOR USE. IF THIS TRAFFIC CONTROL SETUP EXTENDS INTO THE HOURS OF DARKNESS, REPLACE ALL CONES, 36" OR 42" OVERSIZED WITH PORTABLE PLASTIC CONES.
- THE 36" CONES UTILIZED DURING DAYLIGHT HOURS ARE NOT REQUIRED TO BE REFLECTORIZED. REFLECTORIZED 42" OVERSIZED CONES UTILIZED DURING DAYTIME SHOULDER CLOSURES WITH TYPE II FLUORESCENT PRISMATIC RETROREFLECTIVE SHEETING UNLESS OTHERWISE DIRECTED BY THE DEPARTMENT. REFLECTORIZED ALL PORTABLE PLASTIC SIGNS WITH TYPE III FLUORESCENT PRISMATIC RETROREFLECTIVE SHEETING UNLESS OTHERWISE DIRECTED BY THE DEPARTMENT.
- THE DEPARTMENT PROHIBITS CONDUCTING WORK ON PRIMARY AND SECONDARY ROUTES WITHIN 1' OF THE NEAR EDGE OF THE ADJACENT TRAVEL LANE UNDER A SHOULDER CLOSURE. ALL WORK THAT MAY REQUIRE THE PRESENCE OF EQUIPMENT, PERSONNEL, MATERIALS OR WORK VEHICLES WITHIN 1' OF THE NEAR EDGE OF THE ADJACENT TRAVEL LANE SHALL BE CONDUCTED UNDER A LANE CLOSURE.
- FOR A CASE I SCENARIO IN THE RIGHT SHOULDER AREA, ADJUST THE TAPER AS NECESSARY TO FIT THE WIDTH OF THE SHOULDER WHILE MAINTAINING THE REQUIRED 250' TAPER LENGTH. IF WORK IS BEING CONDUCTED SIMULTANEOUSLY AT TWO DIFFERENT LOCATIONS AT THE SAME TIME UNDER CASE I SHOULDER CLOSURES, SEPARATE THE TWO LOCATIONS BY NO LESS THAN 100 FEET FROM THE END OF THE FIRST CASE I CLOSURE THAT A MOTORS VEHICLE ENCOUNTERS TO THE BEGINNING OF THE TAPER OF THE SECOND CASE I CLOSURE. A MINIMUM SEPARATION DISTANCE OF ONE-HALF MILE IS RECOMMENDED BETWEEN SHOULDER CLOSURES WHEN ONE OR BOTH SHOULDER CLOSURES IS A CASE I CLOSURE.
- THE DEPARTMENT RESERVES THE RIGHT TO RESTRICT WORK OPERATIONS AND/OR WITHHOLD THIS WORK FROM PROGRESS IF THE TRAFFIC CONTROL SETUPS, INSTALLATIONS AND ADJUSTMENTS WITHIN THE CONFERES OF THE SPECIAL PROVISIONS, THE SPECIAL PROVISIONS, THE STANDARD DRAWINGS, THE PLANS AND/OR THE ENGINEER.
- THIS TRAFFIC CONTROL SETUP APPLIES TO THE INSTALLATION OF SHOULDER CLOSURES IN THE RIGHT SHOULDER AREAS OF PRIMARY AND SECONDARY ROADWAYS.

CASE I

CASE II

PORTABLE TRUCK MOUNTED ATTENUATOR

- UTILIZE A TRUCK MOUNTED ATTENUATOR ATTACHED TO THE REAR OF A TRUCK WITH A MINIMUM GROSS VEHICULAR WEIGHT (GVW) OF 15,000 POUNDS (ACTUAL WEIGHT). IF THE ADDITION OF SUPPLEMENTAL WEIGHT TO THE VEHICLE AS BALLAST IS NECESSARY, CONTAIN THE MATERIAL WITHIN A STRUCTURE CONSTRUCTED OF STEEL. CONSTRUCT THIS STEEL STRUCTURE TO HAVE A MINIMUM OF FOUR SEES AND A BOTTOM. A TOP IS OPTIONAL. SECURE THIS STRUCTURE TO THE FRAME OF THE TRUCK. UTILIZE A SUFFICIENT NUMBER OF FASTENERS FOR ATTACHMENT OF THE STEEL STRUCTURE TO THE FRAME OF THE TRUCK. ENSURE AN IMPACT UPON THE ATTACHED TRUCK MOUNTED ATTENUATOR. UTILIZE EITHER DRY LONGSAND OR STEEL NON-DRIP CONCRETE FOR BALLAST MATERIAL WITHIN THE STEEL STRUCTURE TO ACHIEVE THE NECESSARY WEIGHT. THE BALLAST MATERIAL SHALL REMAIN CONTAINED WITHIN THE CONFERES OF THE STEEL STRUCTURE AND SHALL NOT PROTRUDE FROM THE STEEL STRUCTURE IN ANY MANNER.
- LOCATE THE TRUCK MOUNTED ATTENUATOR 100 FEET IN ADVANCE OF THE WORK AREA UNLESS OTHERWISE SPECIFIED.
- PROVIDE, INSTALL AND MAINTAIN THE TRUCK MOUNTED ATTENUATOR AS SPECIFIED BY THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER.

ADVANCE WARNING ARROW PANEL

ALL ADVANCE WARNING ARROW PANELS SHALL BE 48" x 96" WITH A MINIMUM LEGIBILITY DISTANCE OF 1 MILE. PLACEMENT OF AN ADVANCE WARNING ARROW PANEL MAY REQUIRE ADJUSTMENTS DUE TO HORIZONTAL AND/OR VERTICAL ALIGNMENT OR OTHER SIGHT DISTANCE RESTRICTIONS. THE PANEL FACE SHALL BE NONREFLECTIVE BLACK. ALL ADVANCE WARNING ARROW PANELS SHALL COMPLY WITH THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, LATEST EDITION.

WHEN AN ADVANCE WARNING ARROW PANEL IS REQUIRED TO OPERATE IN THE CAUTION MODE, THE ADVANCE WARNING ARROW PANEL SHALL DISPLAY THE "CAUTION" CAUTION MODE, WITH THE LAMP IN EACH CORNER. DISPLAY OF ANY OTHER TYPE OF CAUTION MODE OTHER THAN THE "FOUR CORNERS" CAUTION MODE SUCH AS THE "FLASHING BAY" OR THE "ALTERNATING DIAMOND" CAUTION MODE ARE UNACCEPTABLE AND PROHIBITED.

LEGEND

○ 36" TRAFFIC CONES

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REVISION DATE	
▲	SCDOT COMMENT - BSW
▲	2.20.23
▲	SCDOT COMMENT - BSW
▲	2.21.23

APPROVALS	ENGINEER	DESIGNER	TECHNICIAN	CHECKED BY	APPROVED BY
	BSW	JAM	CF	BSW	BSW

WILLIAM E. MCCONNELL
PROFESSIONAL ENGINEER
NO. 24242
STATE OF SOUTH CAROLINA

DATE: 4/20/23
SIGNATURE: *William E. McConnell*

BENJAMIN S. WEBB
PROFESSIONAL ENGINEER
NO. 26589
STATE OF SOUTH CAROLINA

SIGNATURE: *Benjamin S. Webb*

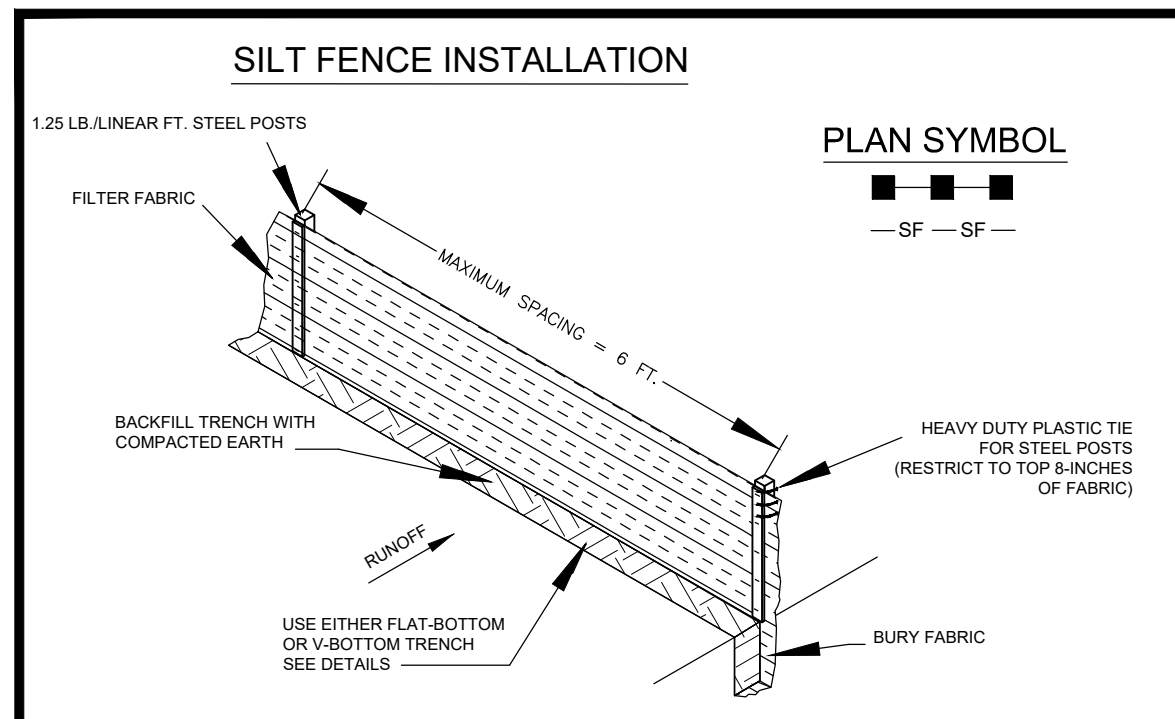
ALLIANCE CONSULTING ENGINEERS
Alliance Consulting Engineers, Inc.
Post Office Box 8147 Columbia, South Carolina 29202-8147
Phone: (803) 779-2078 • Fax: (803) 779-2079

SCALE: AS SHOWN
DATE: DECEMBER 2022
SOUTH CAROLINA
CHESTERFIELD COUNTY

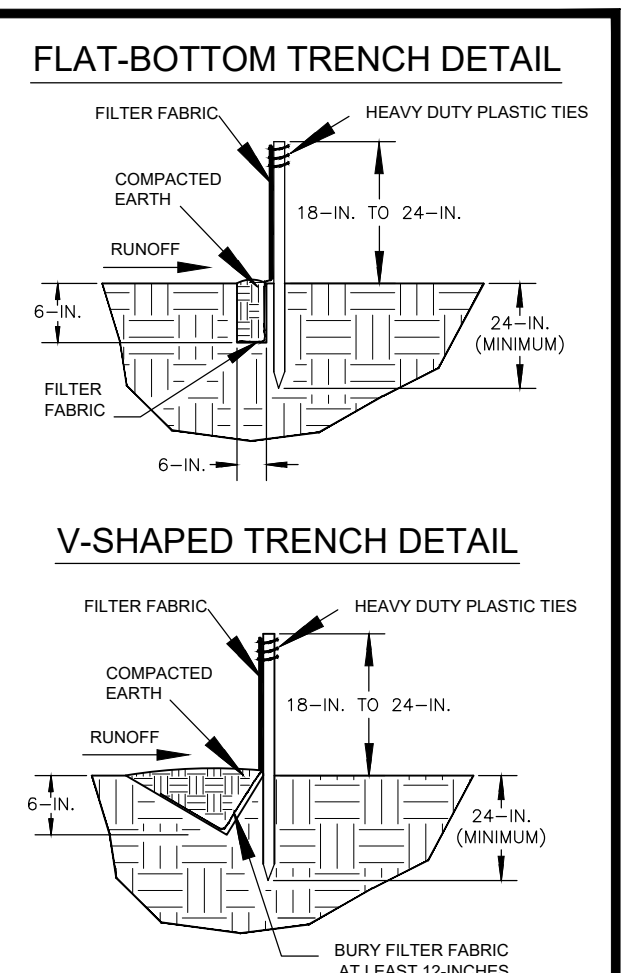
PROJECT: 2022 C-FUND ROAD IMPROVEMENTS FOR THE 4750-LF THISTLE DOWN LANE OFF S13-51BRIDLEWOOD ROAD NEAR THE TOWN OF CHERAW IN INCORPORATED CHESTERFIELD COUNTY, SOUTH CAROLINA

FILE NAME: 22211-0013 BASE.dwg
PROJECT NO: 22211-0013
SHEET C6.0
DWG NO. 01,1589-D27

February 20, 2023 - 8:40:38 AM S:\Projects\2211-0013 2022 C-Fund Roadway Improv. Thistle Down Ln Town of Cheraw Chestnutfield Overlay\Construction Plans\ C-7.0 ESC Detail Sheets.dwg
 PROJECT: 2022 C-FUND ROADWAY IMPROVEMENTS FOR THE TOWN OF CHERAW NEAR THE TOWN OF CHERAW IN INCORPORATED CHESTERFIELD COUNTY, SOUTH CAROLINA
 SHEET: EROSION AND SEDIMENT CONTROL DETAILS (SHEET 1 OF 2)
 SCALE: AS SHOWN
 DATE: DECEMBER 2022
 SOUTH CAROLINA CHESTERFIELD COUNTY



- SILT FENCE - GENERAL NOTES**
- Do not place silt fence across channels or in other areas subject to concentrated flows. Silt fence should not be used as a velocity control BMP. Concentrated flows are any flows greater than 0.5 cfs.
 - Maximum sheet or overland flow path length to the silt fence shall be 100-feet.
 - Maximum slope steepness (normal [perpendicular] to the fence line) shall be 2:1.
 - Silt fence joints, when necessary, shall be completed by one of the following options:
 - Wrap each fabric together at a support post with both ends fastened to the post, with a 1-foot minimum overlap;
 - Overlap silt fence by installing 3-feet passed the support post to which the new silt fence roll is attached. Attach old roll to new roll with heavy-duty plastic ties, or;
 - Overlap entire width of each silt fence roll from one support post to the next support post.
 - Attach filter fabric to the steel posts using heavy-duty plastic ties that are evenly spaced within the top 8-inches of the fabric.
 - Install the silt fence perpendicular to the direction of the stormwater flow and place the silt fence the proper distance from the top of steep slopes to provide sediment storage and access for maintenance and cleanup.
 - Install Silt Fence Checks (Tie-Backs) every 50-100 feet, dependent on slope, along silt fence that is installed with slope and where concentrated flows are expected or are documented along the proposed/installed silt fence.



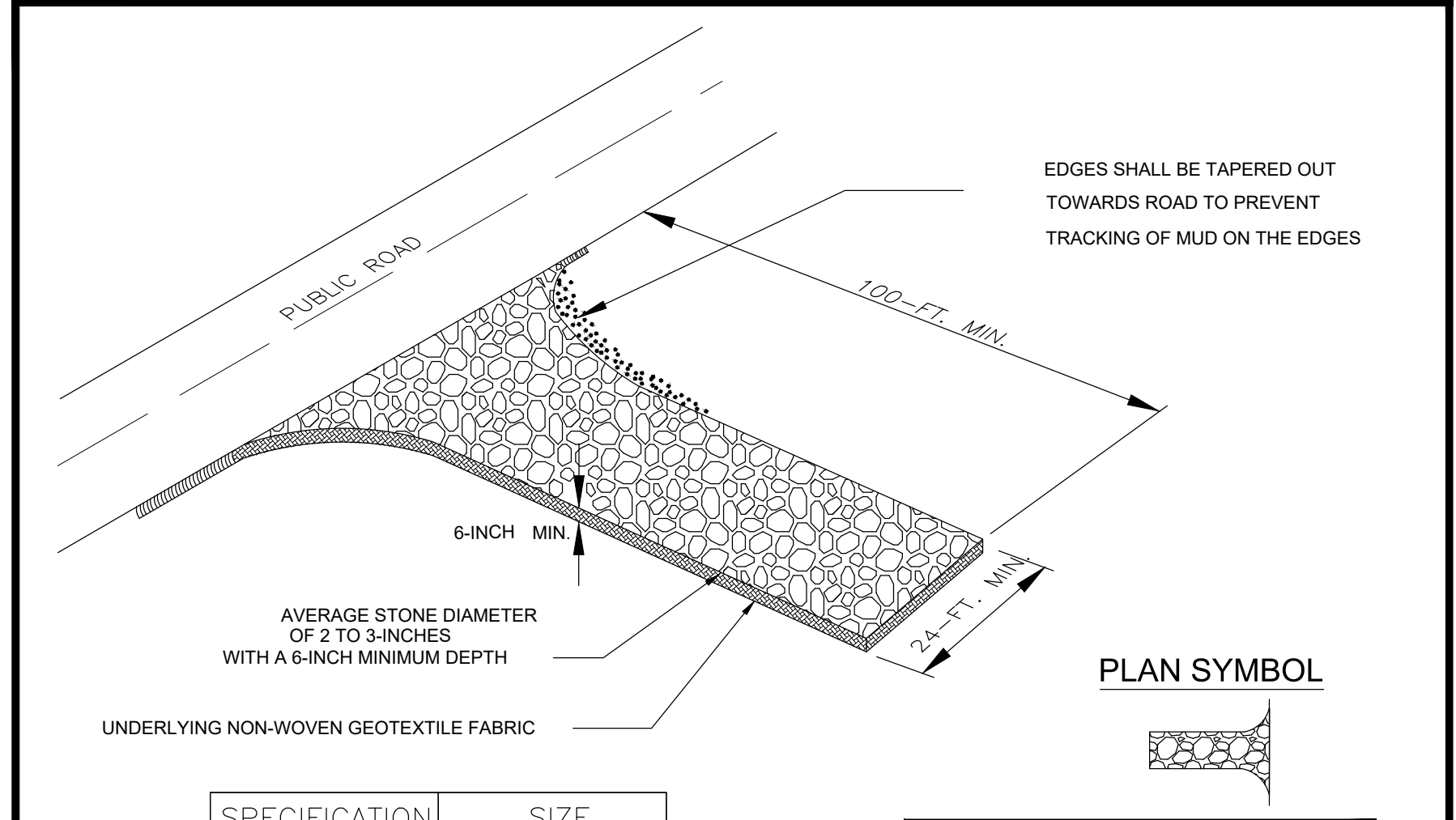
South Carolina Department of Health and Environmental Control
SILT FENCE
 STANDARD DRAWING NO. SC-03 PAGE 1 of 2
 NOT TO SCALE FEBRUARY 2014 DATE

- SILT FENCE - POST REQUIREMENTS**
- Silt fence posts must be 48-inch long steel posts that meet, at a minimum, the following physical characteristics:
 - Composed of a high strength steel with a minimum yield strength of 50,000 psi.
 - Include a standard "T" section with a nominal face width of 1.38-inches and a nominal "T" length of 1.48-inches.
 - Weight 1.25 pounds per foot (± 8%)
 - Posts shall be equipped with projections to aid in fastening of filter fabric.
 - Steel posts may need to have a metal soil stabilization plate welded near the bottom when installed along steep slopes or installed in loose soils. The plate should have a minimum cross section of 17-square inches and be composed of 16 gauge steel, at a minimum. The metal soil stabilization plate should be completely buried.
 - Install posts to a minimum of 24-inches. A minimum height of 1- to 2- inches above the fabric shall be maintained, and a maximum height of 3 feet shall be maintained above the ground.
 - Post spacing shall be at a maximum of 6-feet on center.

- SILT FENCE - FABRIC REQUIREMENTS**
- Silt fence must be composed of woven geotextile filter fabric that consists of the following requirements:
 - Composed of fibers consisting of long chain synthetic polymers of at least 85% by weight of polyolefins, polyesters, or polyamides that are formed into a network such that the filaments or yarns retain dimensional stability relative to each other;
 - Free of any treatment or coating which might adversely alter its physical properties after installation;
 - Free of any defects or flaws that significantly affect its physical and/or filtering properties; and,
 - Have a minimum width of 36-inches.
 - Use only fabric appearing on SC DOT's Qualified Products Listing (QPL), Approval Sheet #34, meeting the requirements of the most current edition of the SC DOT Standard Specifications for Highway Construction.
 - 12-inches of the fabric should be placed within excavated trench and toed in when the trench is backfilled.
 - Filter Fabric shall be purchased in continuous rolls and cut to the length of the barrier to avoid joints.
 - Filter Fabric shall be installed at a minimum of 24-inches above the ground.

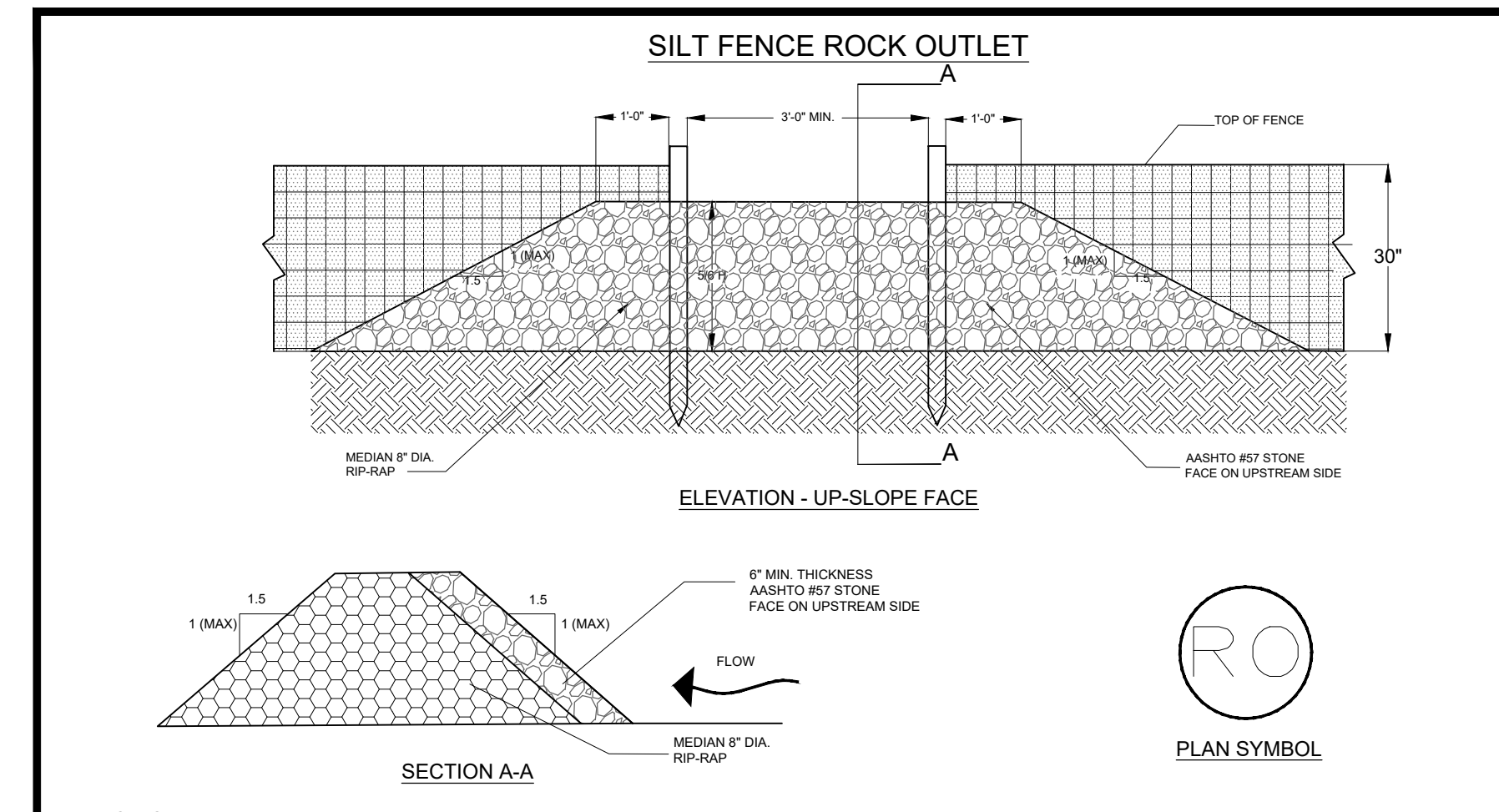
- SILT FENCE - INSPECTION & MAINTENANCE**
- The key to functional silt fence is weekly inspections, routine maintenance, and regular sediment removal.
 - Regular inspections of silt fence shall be conducted once every calendar week and, as recommended, within 24-hours after each rainfall event that produces 1/2-inch or more of precipitation.
 - Attention to sediment accumulations along the silt fence is extremely important. Accumulated sediment should be continually monitored and removed when necessary.
 - Remove accumulated sediment when it reaches 1/3 the height of the silt fence.
 - Removed sediment shall be placed in stockpile storage areas or spread thinly across disturbed area. Stabilize the removed sediment after it is relocated.
 - Check for areas where stormwater runoff has eroded a channel beneath the silt fence, or where the fence has sagged or collapsed due to runoff overtopping the silt fence. Install checks/tie-backs and/or reinstall silt fence, as necessary.
 - Check for tears within the silt fence, areas where silt fence has begun to decompose, and for any other circumstance that may render the silt fence ineffective. Removed damaged silt fence and reinstall new silt fence immediately.
 - Silt fence should be removed within 30 days after final stabilization is achieved and once it is removed, the resulting disturbed area shall be permanently stabilized.

South Carolina Department of Health and Environmental Control
SILT FENCE
 STANDARD DRAWING NO. SC-03 PAGE 2 of 2
 GENERAL NOTES FEBRUARY 2014 DATE



SPECIFICATION	SIZE
ROCK PAD THICKNESS	6 INCHES
ROCK PAD WIDTH	24 FEET
ROCK PAD LENGTH	100 FEET
ROCK PAD STONE SIZE	D = 2-3 INCHES

South Carolina Department of Health and Environmental Control
CONSTRUCTION ENTRANCE
 STANDARD DRAWING NO. SC-06 PAGE 1 of 2
 NOT TO SCALE FEBRUARY 2014 DATE



- NOTES:**
- WASHED STONE (#57) TO BE REMOVED AND REPLACED ONCE IT BECOMES CLOGGED WITH SEDIMENT.
 - SEDIMENT TO BE REMOVED WHEN ACCUMULATIONS REACH 1/3 HEIGHT OF SILT FENCE
 - THE KEY TO FUNCTIONAL ROCK OUTLETS IS WEEKLY INSPECTIONS, ROUTINE MAINTENANCE, AND REGULAR SEDIMENT REMOVAL.

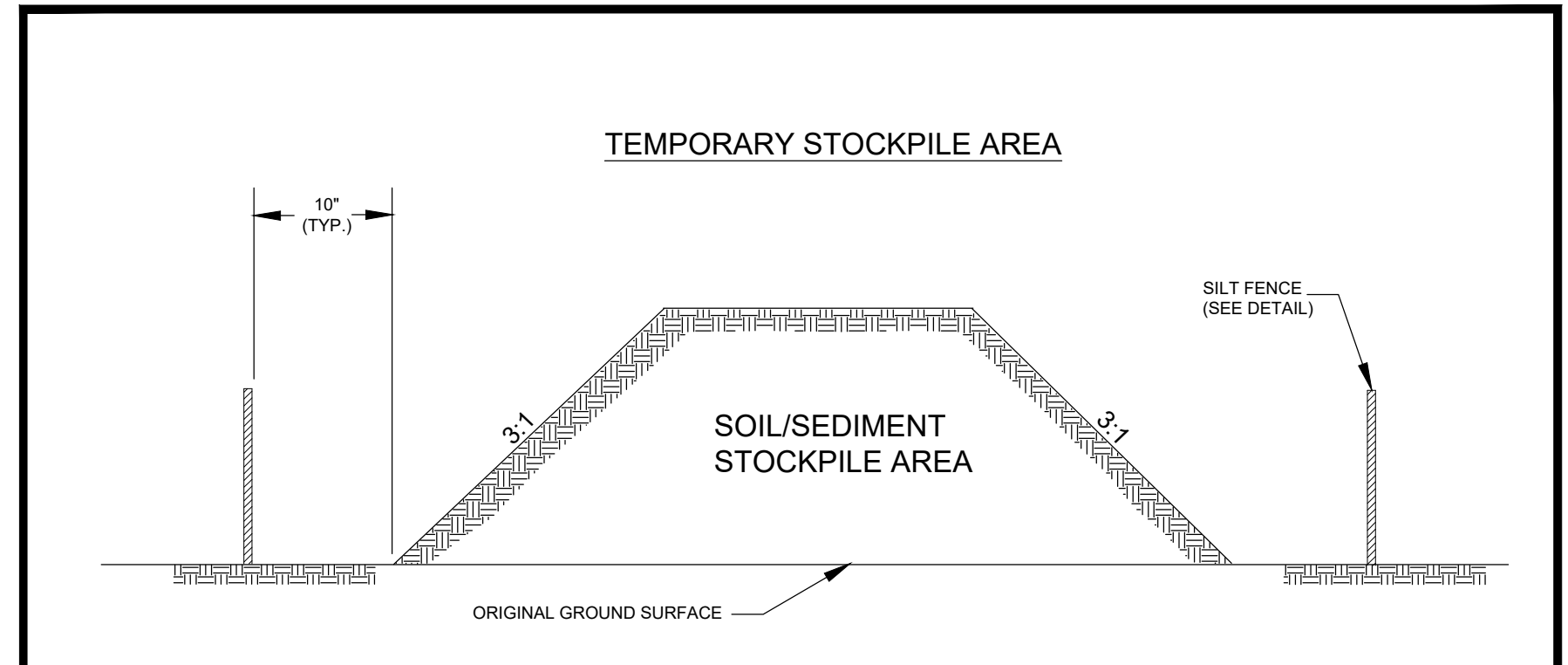
South Carolina Department of Health and Environmental Control
SILT FENCE ROCK OUTLET
 STANDARD DRAWING NO. SC-14 PAGE 1 of 1
 NOT TO SCALE FEBRUARY 2014 DATE

- NOTES:**
- J-HOOK OR TIE-BACK SILT FENCE WILL BE ADDED ALONG SECTIONS OF SILT FENCE RUNNING PERPENDICULAR TO CONTOURS AND SPACES NO GREATER THAN 100- FEET APART - SEE PLAN VIEW ON SHEETS C5.0 - PHASE I EROSION AND SEDIMENT CONTROL PLAN SHEET.
 - IN AREAS OF PROTECTION TO THE EXISTING WETLANDS, A DOUBLE ROW OF SILT FENCE WILL BE INSTALLED AT THE EDGE OF THE WETLAND BUFFER AND THE ROWS OF SILT FENCE WILL BE A MINIMUM OF 3- FEET WHERE GRADING IS TIGHT OR 5- FEET IN AREAS WHERE SPACING ALLOWS.

- CONSTRUCTION ENTRANCE - GENERAL NOTES**
- Stabilized construction entrances should be used at all points where traffic will egress/ingress a construction site onto a public road or any impervious surfaces, such as parking lots.
 - Install a non-woven geotextile fabric prior to placing any stone.
 - Install a culvert pipe across the entrance when needed to provide positive drainage.
 - The entrance shall consist of 2-inch to 3-inch D50 stone placed at a minimum depth of 6-inches.
 - Minimum dimensions of the entrance shall be 24-feet wide by 100-feet long, and may be modified as necessary to accommodate site constraints.
 - The edges of the entrance shall be tapered out towards the road to prevent tracking at the edge of the entrance.
 - Divert all surface runoff and drainage from the stone pad to a sediment trap or basin or other sediment trapping structure.
 - Limestone may not be used for the stone pad.

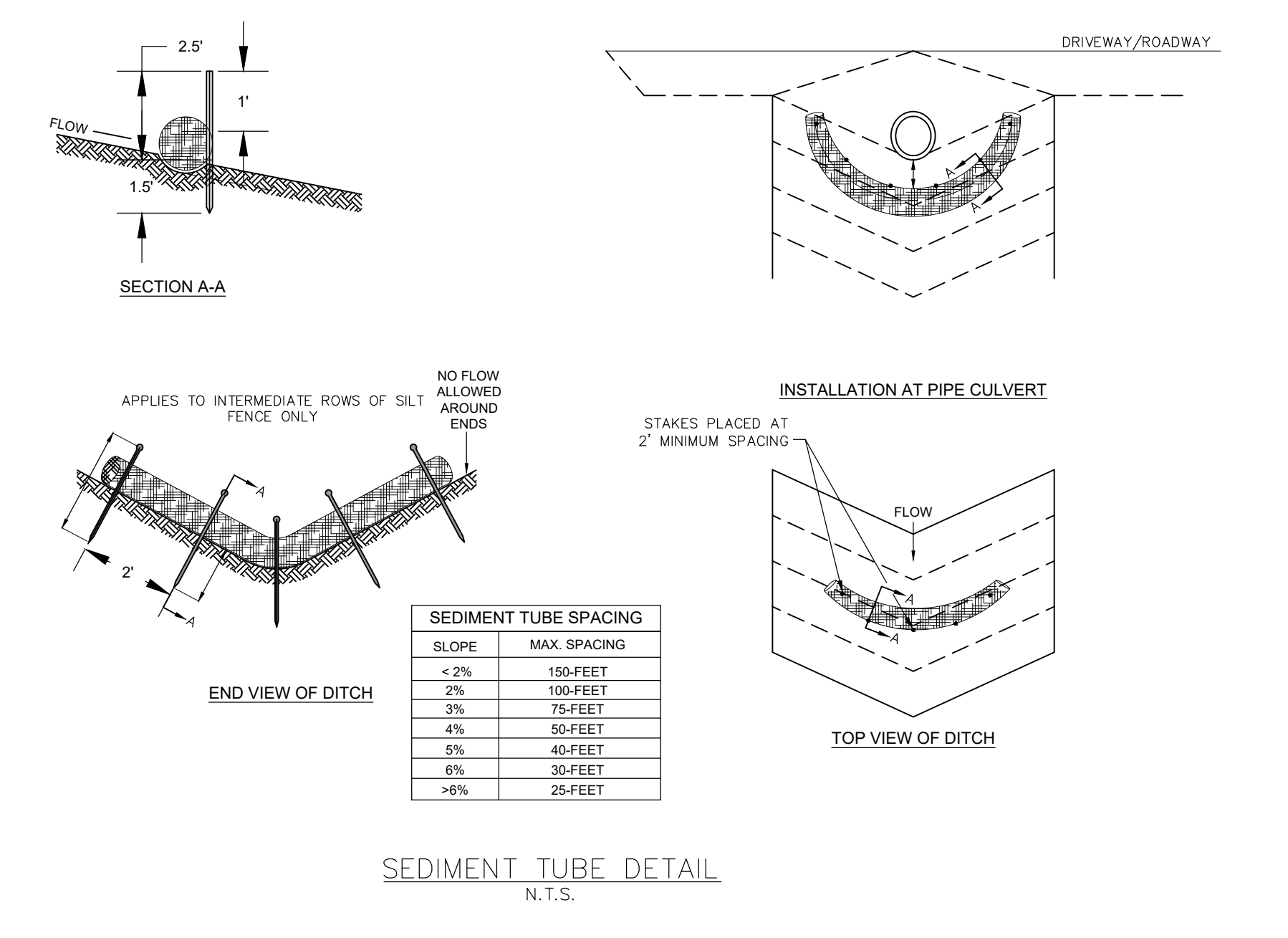
- CONSTR. ENTRANCE - INSPECTION & MAINTENANCE**
- The key to functional construction entrances is weekly inspections, routine maintenance, and regular sediment removal.
 - Regular inspections of construction entrances shall be conducted once every calendar week and, as recommended, within 24-hours after each rainfall event that produces 1/2-inch or more of precipitation.
 - During regular inspections, check for mud and sediment buildup and pad integrity. Inspection frequencies may need to be more frequent during long periods of wet weather.
 - Reshape the stone pad as necessary for drainage and runoff control.
 - Wash or replace stones as needed and as directed by site inspector. The stone in the entrance should be washed or replaced whenever the entrance fails to reduce the amount of mud being carried off-site by vehicles. Frequent washing will extend the useful life of stone pad.
 - Immediately remove mud and sediment tracked or washed onto adjacent impervious surfaces by brushing or sweeping. Flushing should only be used when the water can be discharged to a sediment trap or basin.
 - During maintenance activities, any broken pavement should be repaired immediately.
 - Construction entrances should be removed after the site has reached final stabilization. Permanent vegetation should replace areas from which construction entrances have been removed, unless area will be converted to an impervious surface to serve post-construction.

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- NOTES:**
- SILT FENCE TO EXTEND AROUND ENTIRE PERIMETER OF STOCKPILE, OR IF STOCKPILE AREA IS LOCATED ON NEAR A SLOPE THE SILT FENCE IS TO EXTEND ALONG CONTOURS OF THE DOWN-GRADIENT AREA.
 - IF STOCKPILE IS TO REMAIN FOR MORE THAN 14 DAYS, TEMPORARY STABILIZATION MEASURES MUST BE IMPLEMENTED.
 - SILT FENCE SHALL BE MAINTAINED UNTIL STOCKPILE AREA HAS EITHER BEEN REMOVED OR PERMANENTLY STABILIZED.
 - THE KEY TO FUNCTIONAL TEMPORARY STOCKPILE AREAS IS WEEKLY INSPECTIONS, ROUTINE MAINTENANCE, AND REGULAR SEDIMENT REMOVAL.

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

EROSION AND SEDIMENT CONTROL DETAILS (SHEET 1 OF 2)

2022 C-FUND ROADWAY IMPROVEMENTS FOR THE TOWN OF CHERAW NEAR THE TOWN OF CHERAW IN INCORPORATED CHESTERFIELD COUNTY, SOUTH CAROLINA

SHEET C7.0
 FILE NAME: C7.0.DWG
 REFERENCE FILE: 22211-0013 BASE.dwg
 PROJECT NO. 22211-0013
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