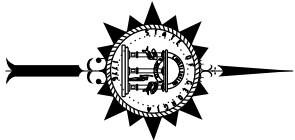


TOWN OF TYRONE
STATE OF GEORGIA
PLAN AND PROFILE OF PROPOSED
SHAMROCK INDUSTRIAL PARK
EMERGENCY ACCESS ROAD

TOWN OF TYRONE
FAYETTE COUNTY

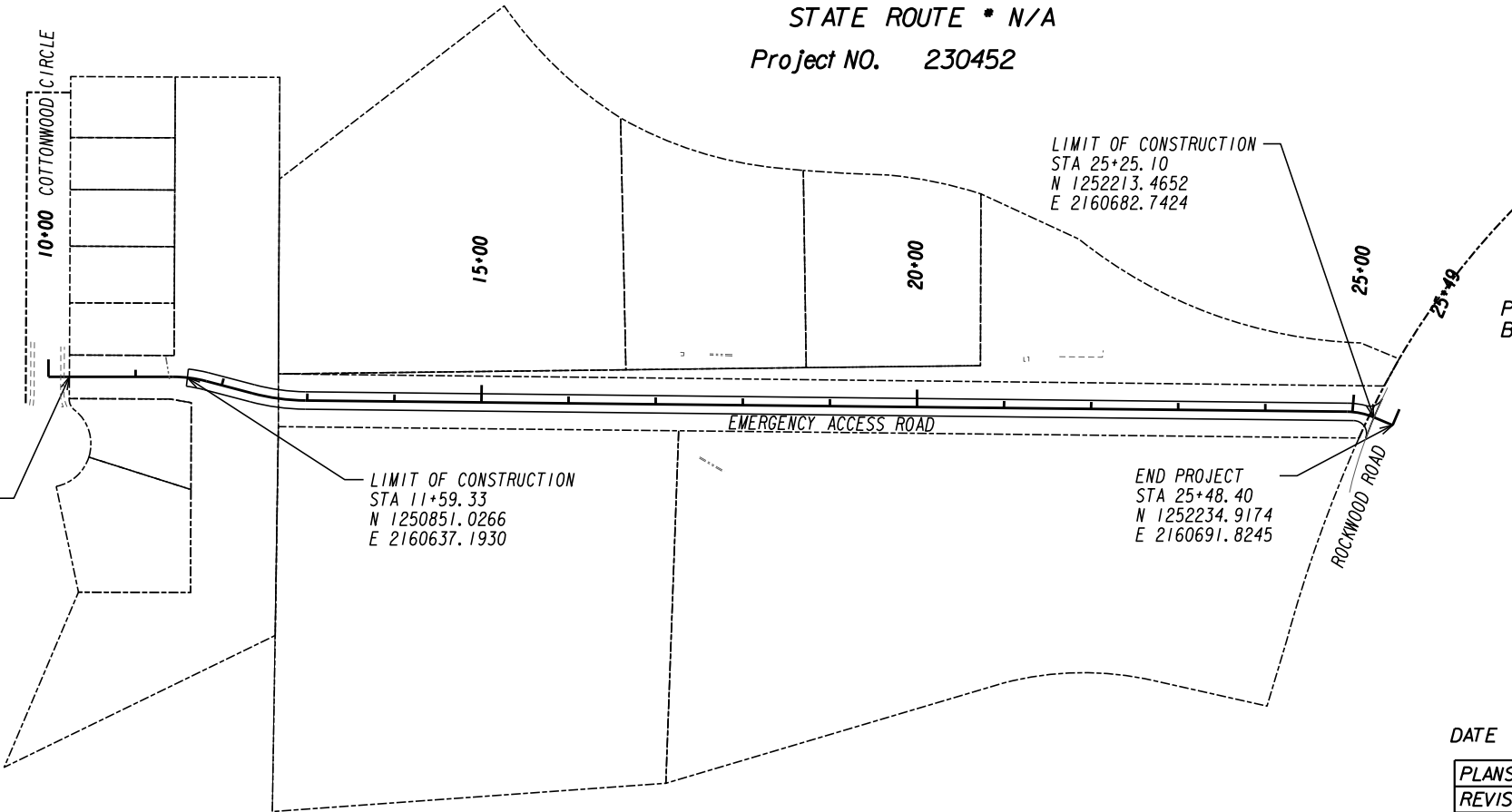
FEDERAL ROUTE * N/A
STATE ROUTE * N/A
Project NO. 230452



NOTE :
ALL REFERENCES IN THIS DOCUMENT,WHICH INCLUDES ALL PAPERS,WRITINGS,
DOCUMENTS,DRAWINGS,OR PHOTOGRAPHS USED,OR TO BE USED IN CONNECTION
WITH THIS DOCUMENT,TO "STATE HIGHWAY DEPARTMENT OF GEORGIA ","STATE
HIGHWAY DEPARTMENT ","GEORGIA STATE HIGHWAY DEPARTMENT ","HIGHWAY
DEPARTMENT ","OR "DEPARTMENT "WHEN THE CONTEXT THEREOF MEANS THE
STATE HIGHWAY DEPARTMENT OF GEORGIA,AND SHALL BE DEEMED TO MEAN
THE DEPARTMENT OF TRANSPORTATION.

THESE PLANS HAVE BEEN PREPARED IN ACCORDANCE WITH THE 2026 CONSTRUCTION
STANDARDS AND DETAILS BOOK AND ATTACHED APPLICABLE REVISIONS.THE 2026
CONSTRUCTION STANDARDS AND DETAILS BOOK IS AVAILABLE AT:
<http://mydocs.dot.ga.gov/Info/gdtpubs/ConstructionStandardsAndDetails/Forms/AllItems.aspx>
ANY REVISIONS CONTAINED WITHIN THIS PLAN SET SUPERSEDE THE 2025 CONSTRUCTION
STANDARDS AND DETAILS BOOK WHICH THEY REVISE OR IN WHICH THERE IS A CONFLICT.

PLANS PREPARED BY: JOHN BENJAMIN MORDEN, P.E.
DESIGN



DESIGN DATA:
TRAFFIC A.D.T.: N/A
TRAFFIC A.D.T.: N/A
TRAFFIC D.H.V.: N/A
DIRECTIONAL DIST:N/A
% TRUCKS: N/A
24 HR.TRUCKS %: N/A
SPEED DESIGN: N/A

LOCATION & DESIGN
APPROVAL DATE: N/A

FUNCTIONAL CLASS:
N/A

THIS PROJECT IS 100% IN
FAYETTE COUNTY AND IS
100% IN CONG. DIST. NO. 03.

PROJECT DESIGNATION: N/A

THIS PROJECT HAS BEEN PREPARED
USING THE HORIZONTAL GEORGIA
COORDINATE SYSTEM OF 1984 (NAD
1983/94 WEST ZONE,AND THE NORTH
AMERICAN VERTICAL DATUM (NAVD)
OF 1988.

THE DATA,TOGETHER WITH ALL OTHER INFORMATION SHOWN ON THESE PLANS OR IN ANYWAY
INDICATED THEREBY,WHETHER BY DRAWINGS OR NOTES,OR IN ANY OTHER MANNER,ARE BASED UPON
FIELD INVESTIGATIONS AND ARE BELIEVED TO BE INDICATIVE OF ACTUAL CONDITIONS, HOWEVER,THE
SAME ARE SHOWN AS INFORMATION ONLY,ARE NOT GUARANTEED,AND DO NOT BIND THE DEPARTMENT
OF TRANSPORTATION IN ANY WAY.THE ATTENTION OF BIDDER IS SPECIFICALLY DIRECTED TO
SUBSECTIONS 102.04,102.05,AND 104.03 OF THE SPECIFICATIONS.

LENGTH OF PROJECT	COUNTY No.113
	Project No. 230452
	MILES
NET LENGTH OF ROADWAY	0.259
NET LENGTH OF BRIDGES	0.000
NET LENGTH OF PROJECT	0.289
NET LENGTH OF EXCEPTIONS	0.000
GROSS LENGTH OF PROJECT	0.289



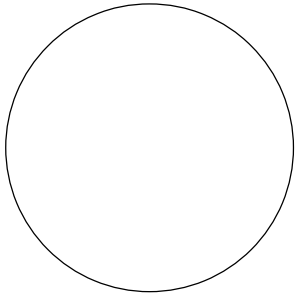
Keck+Wood
COLLABORATION BY DESIGN
3090 Premiere Parkway, Suite 200
Duluth, GA 30097
(678) 417-4000 keckwood.com

DATE CHIEF ENGINEER

PLANS COMPLETED	- -
REVISIONS	

DRAWING No.

01-0001



THE DRAWINGS AS LISTED BELOW
HAVE BEEN SIGNED AND SEALED BY

JOHN BENJAMIN MORDEN, P.E.
PE No PE042121

KECK & WOOD, INC
3090 PREMIERE PARKWAY
SUITE 200
DULUTH, GA 30097

2025.XX.XX

DRAWING No.	DRAWING DESCRIPTION
01-0001	COVER SHEET
02-0001	INDEX
03-0001	REVISION SUMMARY
04-0001 - 04-0002	GENERAL NOTES
05-0001	TYPICAL SECTIONS
13-0001	CONSTRUCTION PLANS
15-0001 - 15-0002	MAINLINE ROADWAY PROFILE
23-0001 - 23-0005	CROSS SECTIONS
24-0000 - 24-0001	UTILITY PLANS
52-0001 - 52-0007	EROSION CONTROL LEGEND
54-0001	BMP LOCATION DETAILS
56-0001 - 56-0003	EROSION CONSTRUCTION DETAILS

NOTE: DRAWINGS IN SECTIONS 52 AND 56
ARE GDOT STANDARDS AND DETAILS AND ARE NOT
COVERED BY THIS SIGNATURE AND SEAL.

[illegible]

[illegible][illegible]

REVISION DATES			REVISION SUMMARY				
			SHAMROCK IND PARK EMERGENCY ACCESS ROAD				
			TOWN OF TYRONE				
			CHECKED:		DATE:		DRAWING No. 03-0001
			BACKCHECKED:		DATE:		
			CORRECTED:		DATE:		
			VERIFIED:		DATE:		

GENERAL NOTES:

1. A NOTICE OF INTENT (NOI) FOR STORM WATER DISCHARGE WILL BE REQUIRED FOR THIS PROJECT.
2. ALL BORROW AND WASTE SITES FOR THIS PROJECT SHALL BE ENVIRONMENTALLY APPROVED PRIOR TO CONSTRUCTION ACTIVITES OCCURING IN THEM. ALL COMMON FILL OR EXCESS MATERIAL DISPOSED OUTSIDE THE PROJECT RIGHT OF WAY SHALL BE PLACED IN EITHER A PERMITTED SOLID WASTE FACILITY, A PERMITTED INERT WASTE LANDFILL OR IN AN ENGINEERED FILL.SEE SECTION 201 OF THE STANDARD SPECIFICATION AND SUPPLEMENTS THERETO FOR ADDITIONAL INFORMATION.
3. THERE IS NO KNOWN SUITABLE PLACE TO BURY EXISTING CONSTRUCTION DEBRIS WITHIN THE PROJECT'S LIMITS. THE CONTRACTOR SHALL PROVIDE AN ENVIRONMENTALLY APPROVED SITE AS SHOWN IN GA. SPECIFICATION 201 TO DISPOSE OF EXISTING CONSTRUCTION DEBRIS AT NO ADDITIONAL COST TO THE CITY OF DOUGLAS.
4. THE CONTRACTOR SHALL ENSURE THAT NO CONSTRUCTION-RELATED ACTIVITIES (SUCH AS USE OF EASEMENTS, STAGING, CONSTRUCTION, VEHICULAR USE, BORROW OR WASTE ACTIVITIES, SEDIMENT BASINS TRAILER PLACEMENT, ETC.) OCCUR UNDER THE DRIP LINE OF EXISTING TREES IN THE RIGHT OF WAY. THIS DOES NOT APPLY TO TREES WITHIN THE CONSTRUCTION LIMITS OR LIMITS OF DISTURBANCE THAT WILL BE REMOVED OR DESTROYED TO ALLOW FOR CONSTRUCTION.
5. ANY VERTICAL CONSTRUCTION EQUIPMENT, SUCH AS CRANES, IN EXCESS OF 30 FEET ABOVE THE ROADWAY ELEVATION MUST BE EVALUATED BY THE FAA. EVALUATION BY FILING OF "NOTICE OF PROPOSED CONSTRUCTION" FAA FORM 7460-1 MUST BE ACCOMPLISHED NOT EARLIER THAN 18 MONTHS AND NOT LATER THAN 120 DAYS PRIOR TO CONSTRUCTION. E-FILE AT <https://oeaaa.faa.gov/oeaaa/external/portal.jsp>
6. ALL EXISTING DRAINAGE PIPE SHALL REMAIN UNLESS OTHERWISE NOTED ON THE PLANS.
7. ALL EXISTING PIPES AND DRAINAGE STRUCTURES THAT, ARE PROPOSED TO BE RETAINED IN PLACE, SHALL BE CLEANED OUT AT A MINIMUM PRIOR TO STOPPAGE OF TIME. THE ENGINEER MAY REQUIRE EXISTING PIPES AND DRAINAGE STRUCTURES TO BE CLEANED OUT AT OTHER TIMES IF BLOCKAGE OR RESTRICTIONS ARE FOUND. THIS WORK SHALL BE INCLUDED IN THE OVERALL BID PRICE FOR CLEARING AND GRUBBING.

pH

5.3

Resistivity

0.0

Project Number: 0015397

County: COFFEE

P. I. Number: 0015397

			Pipe Culvert Material Alternates										
			PIPE TYPE										
TYPE OF INSTALLATION			CONCRETE	STEEL			ALUMINUM	THERMOPLASTIC					
			REINFORCED CONCRETE AASHTO M-170	CORRUGATED STEEL ALUMINUM COATED (TYPE 2) AASHTO M-36	CORRUGATED STEEL PLAIN ZINC COATED AASHTO M-36	POLYMER COATED STEEL AASHTO M-245	CORRUGATED ALUMINUM AASHTO M-196	CORRUGATED HDPE AASHTO M-252	CORRUGATED SMOOTH LINED HDPE TYPE "S" AASHTO M-294	CORRUGATED SMOOTH LINED POLYPROPYLENE AASHTO M-330	PVC CORRUGATED SMOOTH INTERIOR AASHTO F-949	PVC Profile Wall Drain Pipe AASHTO M-304	
S T O R M D R A I N	NON-TRAVEL BEARING (OUTSIDE ROADBED)	INTERSTATE	X										
		NON INTERSTATE	X	X		X	X		X	X	X	X	
	TRAVEL BEARING (INSIDE ROADBED)	GRADE 10%	ADT < 1,500	X	X		X	X		X	X	X	X
			1,500 < ADT < 5,000	X	X		X	X		X	X	X	X
			5,000 < ADT < 15,000	X						X	X	X	X
			ADT > 15,000 & INTERSTATES	X									
		GRADE > 10%				X			X	X	X	X	
	SIDE DRAIN		X	X	X	X	X		X	X	X	X	
	PERMANENT SLOPE DRAIN			X	X	X	X		X	X	X	X	
	PERFORATED UNDERDRAIN			X	X		X	X	X	X	X	X	

NOTE:

1. Allowable materials are indicated by an "X".

2. Structural, installation, fill heightand backfill requirements of storm drain pipe will be in accordance with Georgia Standard 1030-D or 1030-P and the Standard Specifications.

3. The Contractor shall provide additional storm sewer capacity calculations if a pipe material other than concrete is selected.

4. Pipe used under mechanically stabilized earth (MSE) walls, within MSE wall backfill, or within five feet of an MSE wall face shall be Class V Concrete Pipe.

Rev. 1-12-16



Know what's below.
Call before you dig.

UTILITY OWNER	SERVICE
ATLANTA GAS LIGHT	GAS
AT&T - D	TELECOMMUNICATION
COMCAST	TELECOMMUNICATION
COMETA FAYETTE EMC	ELECTRIC
FAYETTE COUNTY WATER SYSTEM	WATER
GEORGIA POWER	ELECTRIC
HC CABLE OPCO (WIDEOPENNET)	TELECOMMUNICATION
PEACHTREE CITY WATER & SEWERAGE AUTHORITY	SEWER

*UTILITY LOCATION FOR THIS PROJECT WAS DETERMINED VIA UTILITY OWNER MARK-UPS.

10/23/2015
GPLN

COLLABORATION BY DESIGN

3090 Premiere Parkway, Suite 200
Duluth, GA 30097
(678) 417-4000 keckwood.com

REVISION DATES		

GENERAL NOTES			
SHAMROCK IND PARK EMERGENCY ACCESS ROAD TOWN OF TYRONE			
CHECKED:		DATE:	
BACKCHECKED:		DATE:	
CORRECTED:		DATE:	
VERIFIED:		DATE:	

DRAWING No.
04-0001

GENERAL NOTES - STANDARD SIGNS

1. ALL STANDARD HIGHWAY SIGNS SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE DETAILS SHOWN IN THE PLANS, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION, AND THE GEORGIA STANDARD SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS, AND/OR SPECIAL PROVISIONS.

2. SIGN ERECTION STATIONS ARE APPROXIMATE AND MAY BE ADJUSTED TO MEET FIELD CONDITIONS WHERE NECESSARY, BUT SHALL BE WITHIN THE LIMITATIONS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION. NO SIGN LOCATION SHALL BE CHANGED BY THE CONTRACTOR OR BY THE PROJECT ENGINEER WITHOUT PRIOR APPROVAL FROM THE OFFICE OF TRAFFIC OPERATIONS.

3. ALL STANDARD HIGHWAY SIGNS SHALL BE ERECTED AT A HEIGHT OF 7 FEET ABOVE THE NORMAL EDGE OF PAVEMENT TO THE BOTTOM OF THE SIGN OR ASSEMBLY,

4a. HORIZONTAL CLEARANCE FOR STANDARD HIGHWAY SIGNS ON INTERSTATE HIGHWAYS SHALL BE 32 FEET FROM THE NORMAL EDGE OF PAVEMENT TO THE NEARER EDGE OF THE SIGN(S), UNLESS SPECIFIED OTHERWISE IN THE PLANS. HORIZONTAL CLEARANCE FOR STANDARD HIGHWAY SIGNS ON RAMPS SHALL BE 2 FEET FROM THE NORMAL EDGE OF PAVED SHOULDER, OR EDGE OF GRADED SHOULDER WHEN PRESENT.

4b. HORIZONTAL CLEARANCE FOR STANDARD HIGHWAY SIGNS ON ALL OTHER ROADWAYS SHALL BE 6 FEET FROM THE EDGE OF THE PAVED SHOULDER OR 12 FEET FROM THE NORMAL EDGE OF PAVEMENT TO THE NEARER EDGE OF THE SIGN(S), WHICHEVER IS GREATER. THE HORIZONTAL CLEARANCE IN NON-MOUNTABLE CURB SECTIONS SHALL BE AT LEAST 2 FEET FROM THE CURB FACE TO THE NEARER EDGE OF THE SIGN(S).

4c. HORIZONTAL CLEARANCE FOR STANDARD HIGHWAY SIGNS MOUNTED BEHIND GUARD RAIL SHALL BE 6 FEET FROM THE FACE OF THE GUARD RAIL TO THE NEARER EDGE OF THE SIGN(S).

5. SINGLE PLATE, HORIZONTAL RECTANGULAR SIGNS OVER 48 INCHES IN WIDTH SHALL BE MOUNTED ON TWO POSTS WITH 2 EACH 2 INCH x ½ INCH x (WIDTH OF SIGN) ALUMINUM OR GALVANIZED STEEL STRAPS. THE STRAPS SHALL BE FLUSH WITH THE BACK OF THE SIGN WITH ONE EACH ACROSS THE TOP AND BOTTOM OF THE SIGN. THE CENTERLINE OF EACH POST SHALL BE INSET 1/6TH OF THE SIGN WIDTH FROM THE EDGE OF THE SIGN. SIGN PLATE BOLT HOLES SHALL BE ⅝ INCH DIAMETER, DRILLED OR PUNCHED, AS SHOWN ON THE SIGN PLATE DETAILS.

6. EACH 42 OR 48 INCH WIDE x 18 OR 24 INCH HIGH SIGN REQUIRES ONE 2 INCH x ½ INCH x (WIDTH OF SIGN) ALUMINUM OR GALVANIZED STEEL STRAP LOCATED IN THE CENTER OF THE SIGN AND FLUSH WITH THE BACK OF THE SIGN.

7. SIGN ASSEMBLIES SHALL BE MOUNTED ON ALUMINUM OR GALVANIZED STEEL STRAP FRAMES. FOR DETAILS AND STRAP SPECIFICATIONS REFER TO SIGN ASSEMBLY-TYPICAL FRAMING DETAILS.

8. TYPE 3 (HIGH INTENSITY LENS) REFLECTIVE SHEETING SHALL BE USED FOR ALL STANDARD HIGHWAY SIGNS REQUIRING REFLECTORIZED BACKGROUNDS EXCEPT AS SPECIFIED BELOW OR SPECIFIED OTHERWISE IN THE PLANS. EITHER CLASS 1 OR CLASS 2 ADHESIVE BACKING IS PERMISSIBLE.

9. TYPE 9 (VERY HIGH INTENSITY) REFLECTIVE SHEETING SHALL BE USED FOR ALL RED SERIES SIGNS (R1-1, R1-2, R1-3P, R5-1, R5-1A, R5-1B).

10. TYPE 9 (VERY HIGH INTENSITY) FLUORESCENT YELLOW GREEN REFLECTIVE SHEETING SHALL BE USED FOR SCHOOL ZONE (S1-1, S2-1, S3-1, S4-3, AND THE TOP PORTION OF THE S5-1) SIGNS, BIBYCLE CROSSING (W11-1) SIGNS, AND PEDESTRIAN CROSSING (W11-2 AND W11A-2) SIGNS. SIGNS WITHIN THE SAME ASSEMBLY AS THE SCHOOL ZONE SIGNS SPECIFICALLY LISTED ABOVE AND ALL REGULATORY SIGNS WITHIN THE SCHOOL ZONE SIGNING SHALL HAVE TYPE 9 (VERY HIGH INTENSITY) REFLECTIVE SHEETING BACKGROUNDS OF THE APPROPRIATE COLOR.

11. TYPE 9 (VERY HIGH INTENSITY) FLUORESCENT YELLOW REFLECTIVE SHEETING SHALL BE USED FOR ALL WARNING SIGNS.

12. A ½ INCH MINIMUM AIR SPACE SHALL BE REQUIRED BETWEEN ALL SIGN PLATES WITHIN AN ASSEMBLY.

13. WHERE SIGNS WITHIN AN ASSEMBLY EXTEND BELOW THE STANDARD MOUNTING HOLES ON THE POST(S), ADDITIONAL¾INCH DIAMETER HOLE(S), DRILLED OR PUNCHED, SHALL BE REQUIRED TO PROPERLY MOUNT THE ASSEMBLY.

14. INTERSTATE SHIELDS SHALL CONTAIN THE WORD GEORGIA. ALL INTERSTATE, U.S., AND GEORGIA SHIELDS REQUIRING ALT, BUS, CONN, LOOP, OR SPUR SHALL USE 4 INCH SERIES "D" LETTERS. REFER TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION, FOR DETAILS.

15. FOR DETAILS OF SPECIAL DESIGN HIGHWAY SIGNS, SEE DETAILS OF MISCELLANEOUS SIGNS.

16. REFER TO PLAN SHEETS FOR LOCATION OF THE DISTRICT ENGINEERS OFFICE TO BE SHOWN ON ALL R552-1 (LIMITED ACCESS) SIGNS IN THIS PROJECT, IF ANY.

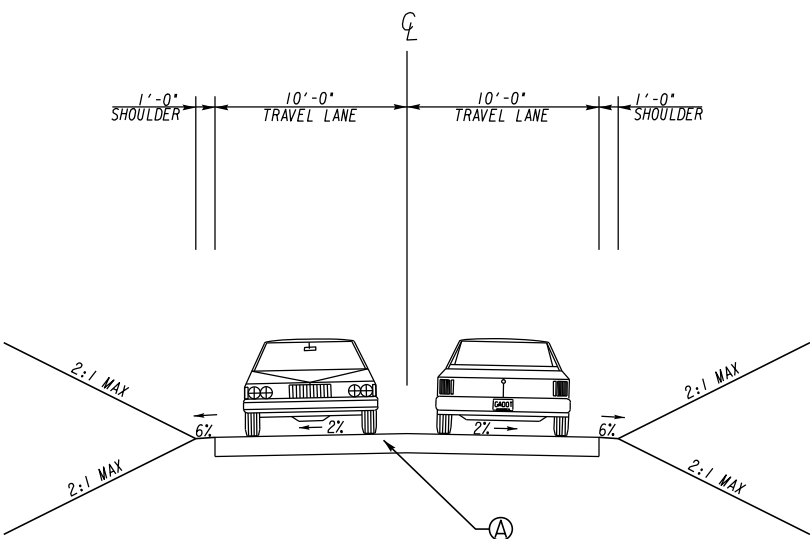
17. THE CONTRACTOR WILL, AS REQUESTED BY THE DISTRICT TRAFFIC OPERATIONS ENGINEER, BE REQUIRED TO REMOVE ANY EXISTING SIGNS THAT ARE DUPLICATED OR ARE CONTRARY TO THESE SIGN PLANS.

18. ALL EXISTING SIGNS SHALL REMAIN IN PLACE UNLESS SPECIFIED OTHERWISE.

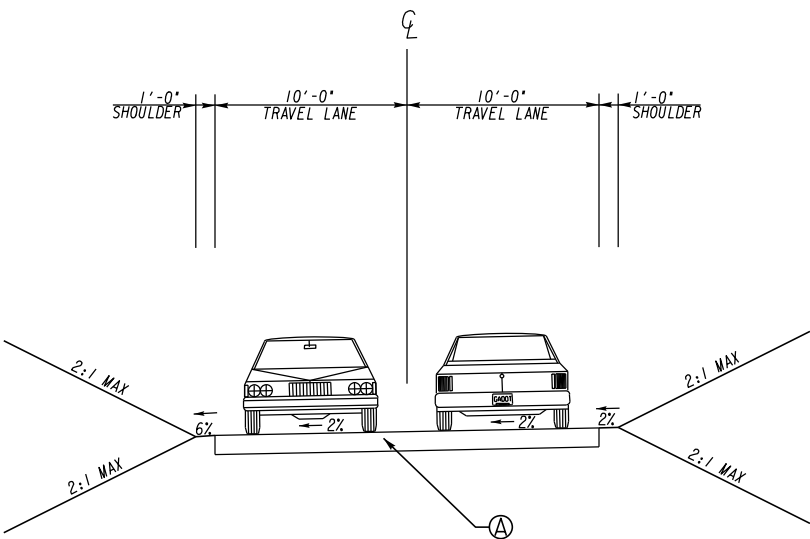
REVISION DATES

GENERAL NOTES
SHAMROCK IND PARK EMERGENCY ACCESS ROAD
TOWN OF TYRONE

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		
CORRECTED:		DATE:		
VERIFIED:		DATE:		



TYPICAL SECTION 1
EMERGENCY ACCESS ROAD
STA. 16+75.00 TO STA. 20+75.00



TYPICAL SECTION 2
EMERGENCY ACCESS ROAD
STA. 11+59.33 TO STA. 16+75.00
STA. 20+75.00 TO STA. 25+48.40

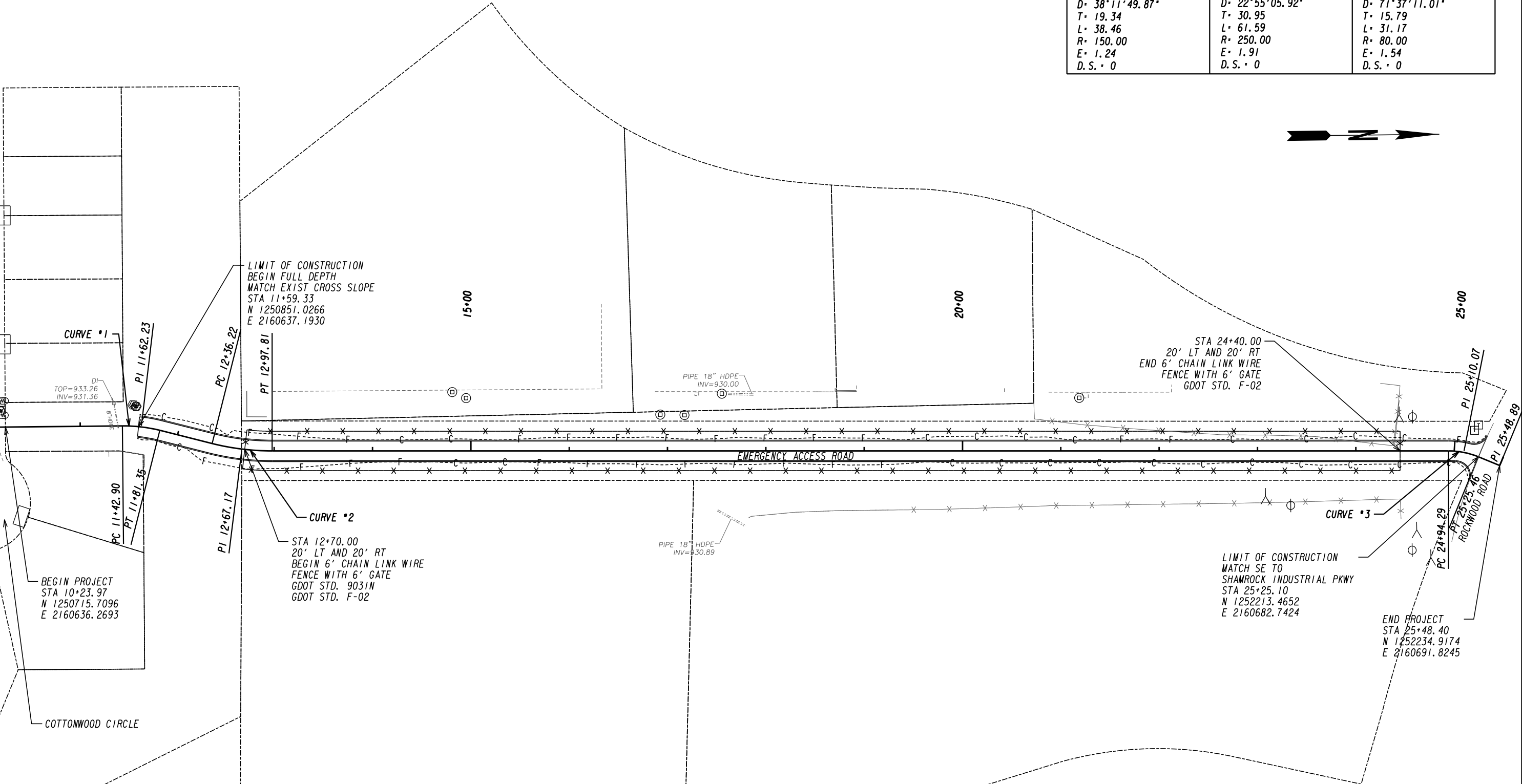
Ⓐ EXISTING SOIL MIXED WITH PERMAZYNE, 12 IN

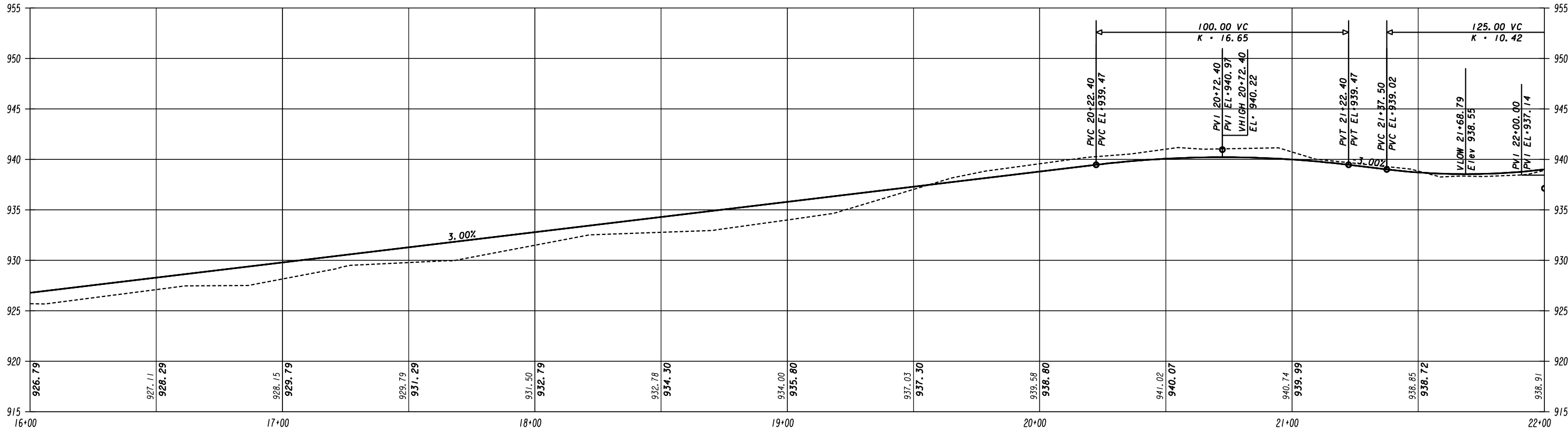
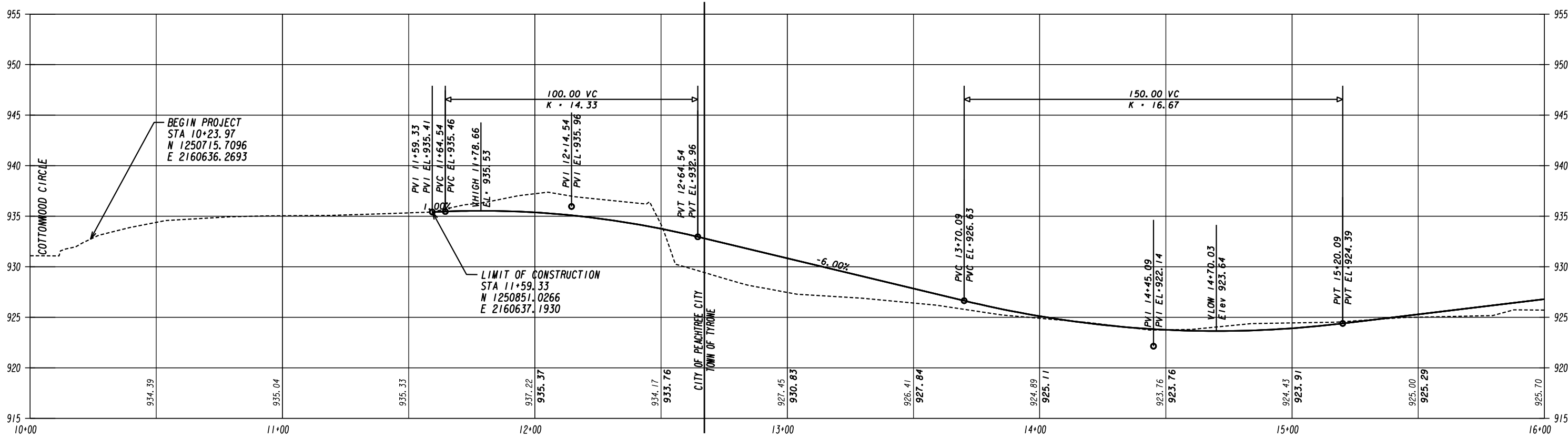
keck+Wood
COLLABORATION BY DESIGN
3090 Premiere Parkway, Suite 200
Duluth, GA 30097
(678) 417-4000 keckwood.com

NOT TO SCALE

REVISION DATES			TYPICAL SECTIONS			
			SHAMROCK IND PARK EMERGENCY ACCESS ROAD			
			TOWN OF TYRONE			
CHECKED:		DATE:		DRAWING No.		
BACKCHECKED:		DATE:		05-0001		
CORRECTED:		DATE:				
VERIFIED:		DATE:				

Curve* 1 PI Sta* 11+62.23 N* 1250853.9676 E* 2160636.2967 DELTA* 14°41'24.3" (RT) D* 38°11'49.87" T* 19.34 L* 38.46 R* 150.00 E* 1.24 D.S.* 0	Curve* 2 PI Sta* 12+67.17 N* 1250955.6601 E* 2160663.0455 DELTA* 14°06'55.0" (LT) D* 22°55'05.92" T* 30.95 L* 61.59 R* 250.00 E* 1.91 D.S.* 0	Curve* 3 PI Sta* 25+10.07 N* 1252198.8041 E* 2160676.5355 DELTA* 22°19'27.0" (RT) D* 71°37'11.01" T* 15.79 L* 31.17 R* 80.00 E* 1.54 D.S.* 0
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COLLABORATION BY DESIGN

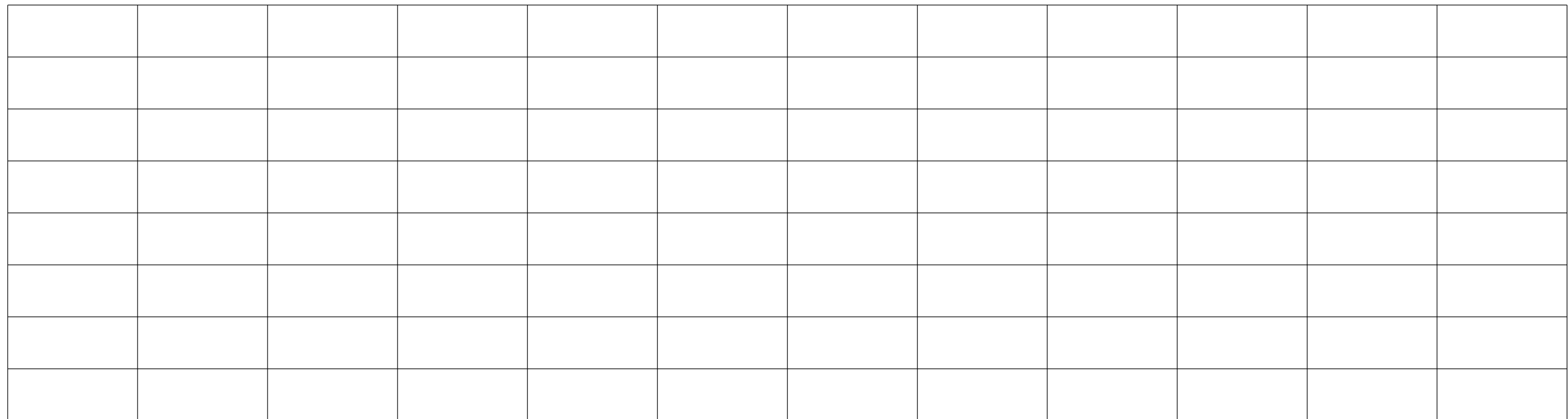
3090 Premiere Parkway, Suite 200
Duluth, GA 30097
(678) 417-4000 keckwood.com

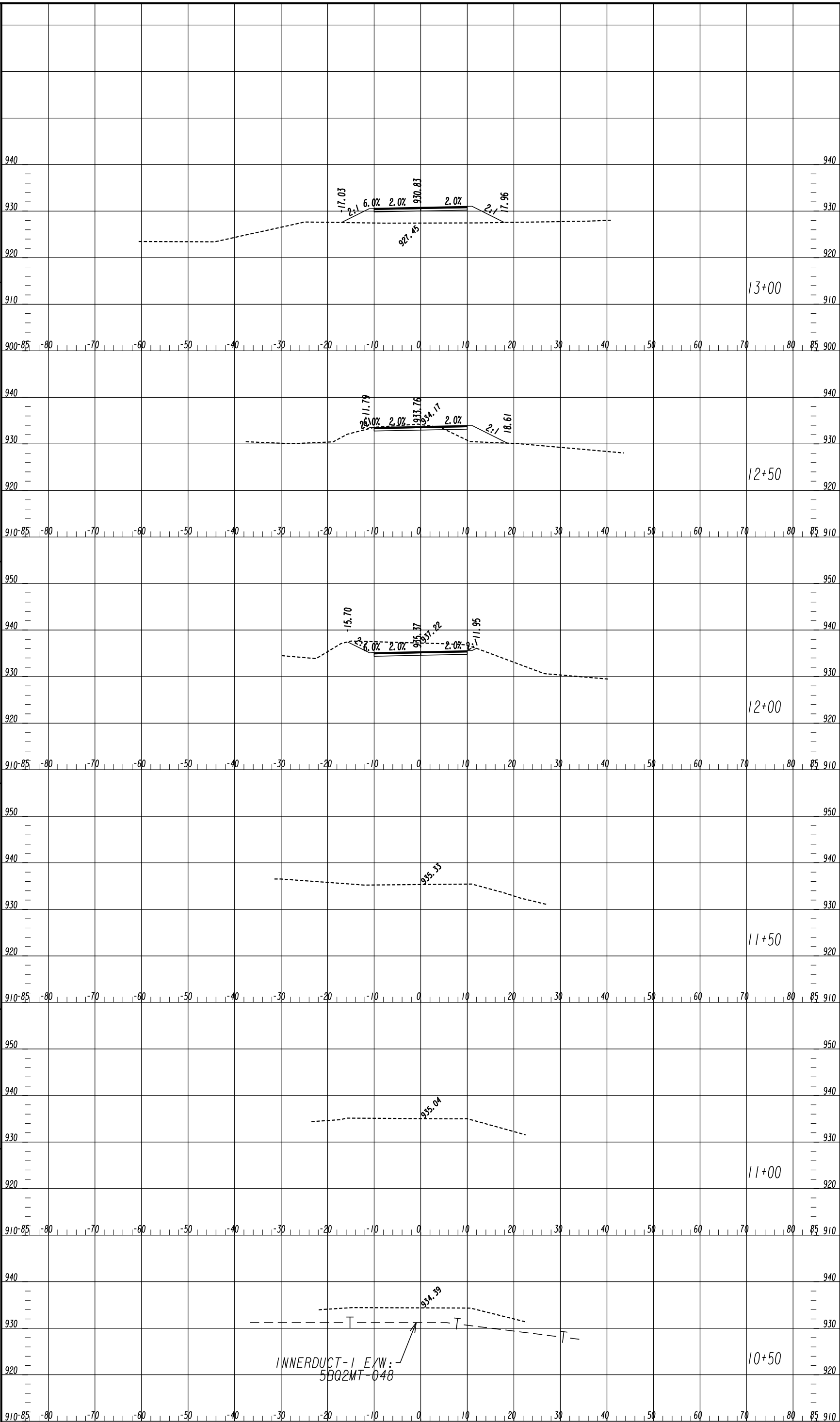
VERTICAL SCALE IN FEET

HORIZONTAL SCALE IN FEET

REVISION DATES	

MAINLINE PROFILE	
SHAMROCK IND PARK EMERGENCY ACCESS ROAD	
TOWN OF TYRONE	
CHECKED: BACKCHECKED: CORRECTED: VERIFIED:	DATE: DATE: DATE: DATE:
DRAWING No. 15-0001	





REVISION DATES

CROSS SECTIONS

SHAMROCK IND PARK EMERGENCY ACCESS ROAD

TOWN OF TYRONE

CHECK

BACKCHECKED:

CORRECTED:

VERIFIED:

DATE _____

DATE _____

DATE _____

DATE _____

DRAWING NO.

23-0001



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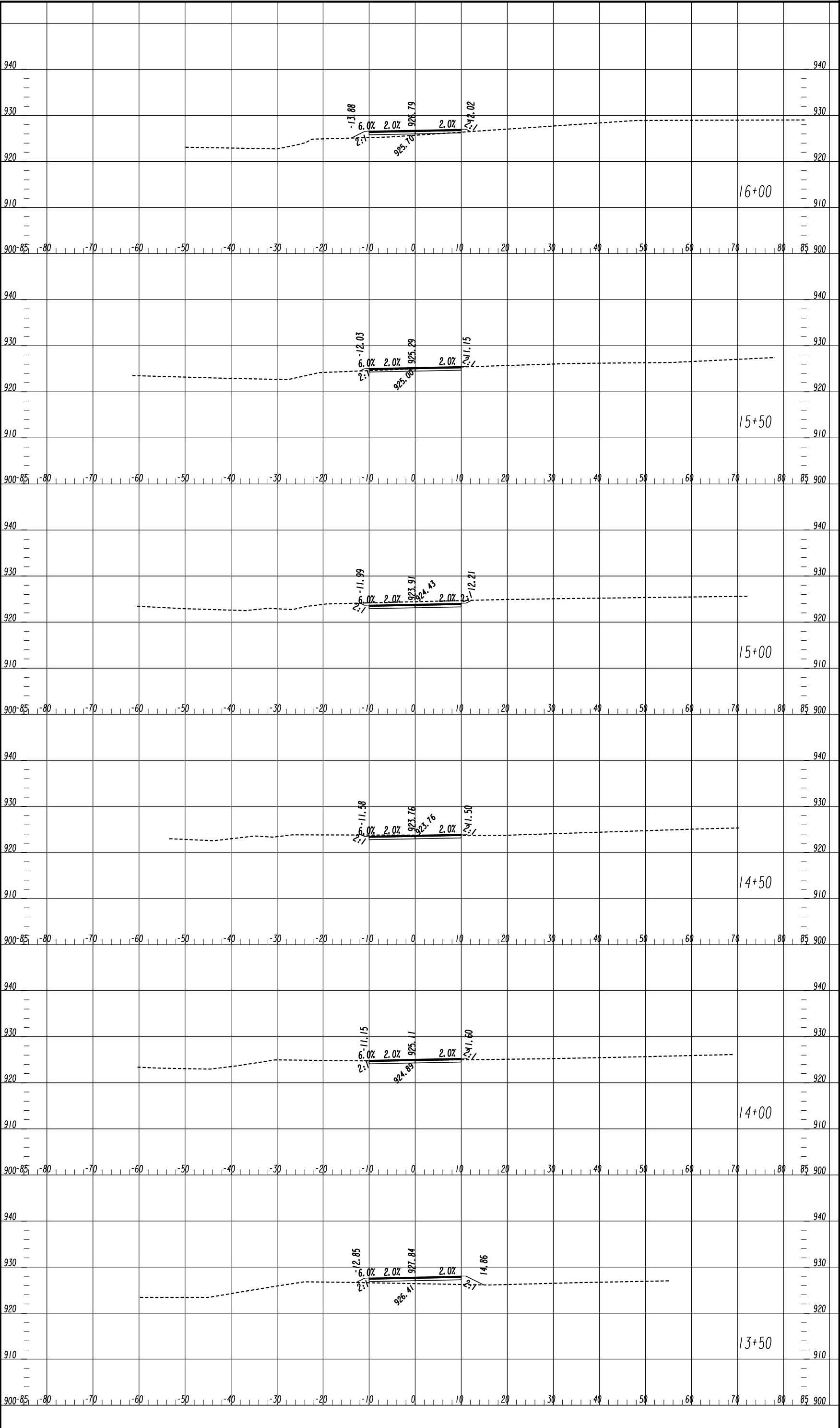
SCALE IN FEET

0

10

20

40



0

10

20

40

SCALE IN FEET

REVISION DATES

SHAMROCK IND PARK EMERGENCY ACCESS ROAD

TOWN OF TYRONE

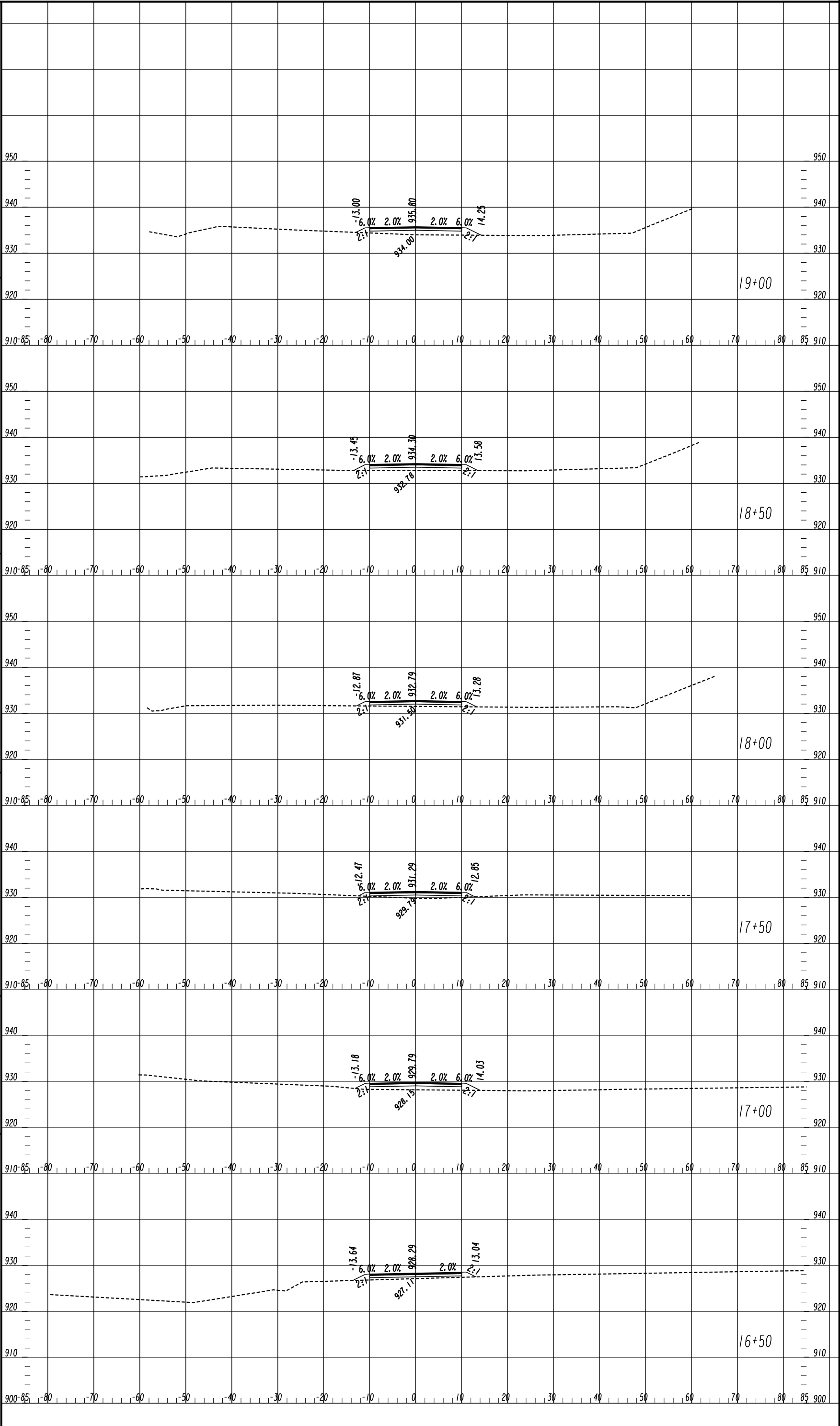
CHECKED: DATE: 23-0002

BACKCHECKED: DATE:

CORRECTED: DATE:

VERIFIED: DATE:

DRAWING NO.



0/23/2025
GPM

Keck+Wood

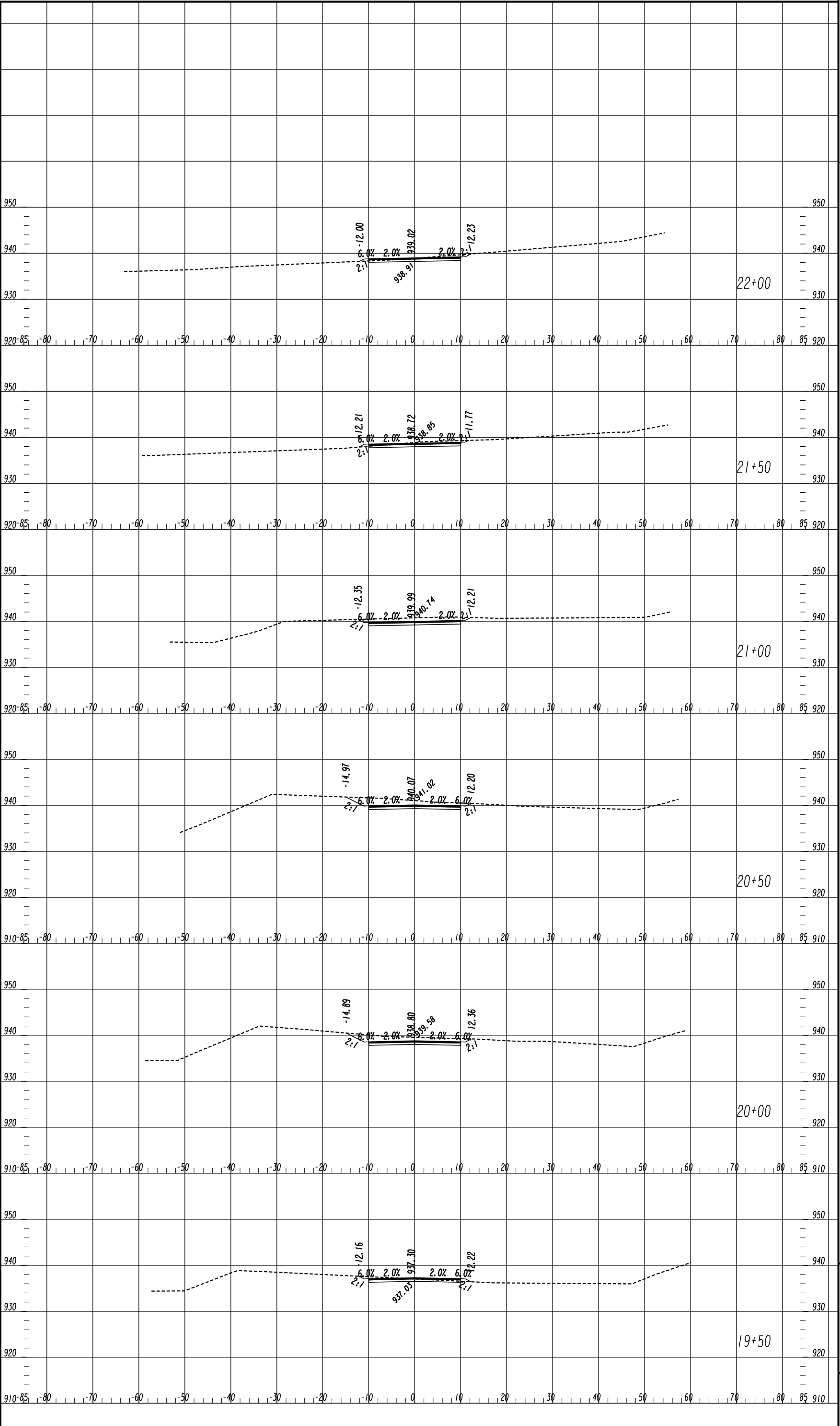
COLLABORATION BY DESIGN

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(678) 417-4000
keckwood.com

0 10 20 40

SCALE IN FEET

REVISION DATES	CROSS SECTIONS
	SHAMROCK IND PARK EMERGENCY ACCESS ROAD
	TOWN OF TYRONE
	DRAWING NO.
	23-0003



0/23/2025
GPM

Keck+Wood

COLLABORATION BY DESIGN

3090 Premiere Parkway, Suite 200
Duluth, GA 30097
(678) 417-4000
keckwood.com

0 10 20 40

SCALE IN FEET

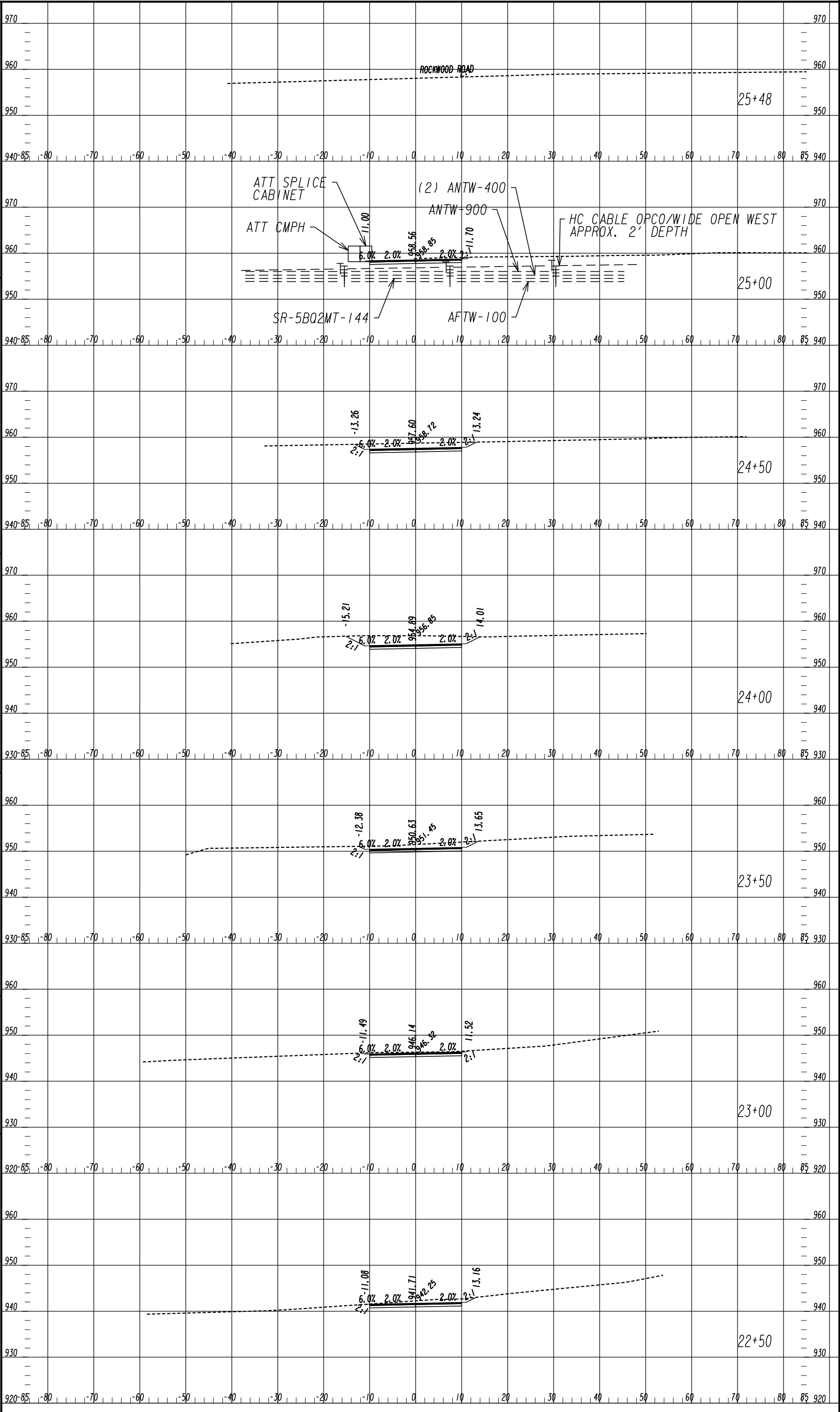
REVISION DATES			

CROSS SECTIONS

SHAMROCK IND PARK EMERGENCY ACCESS ROAD

TOWN OF TYRONE

DRAWING NO.
23-0004



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COLLABORATION BY DESIGN
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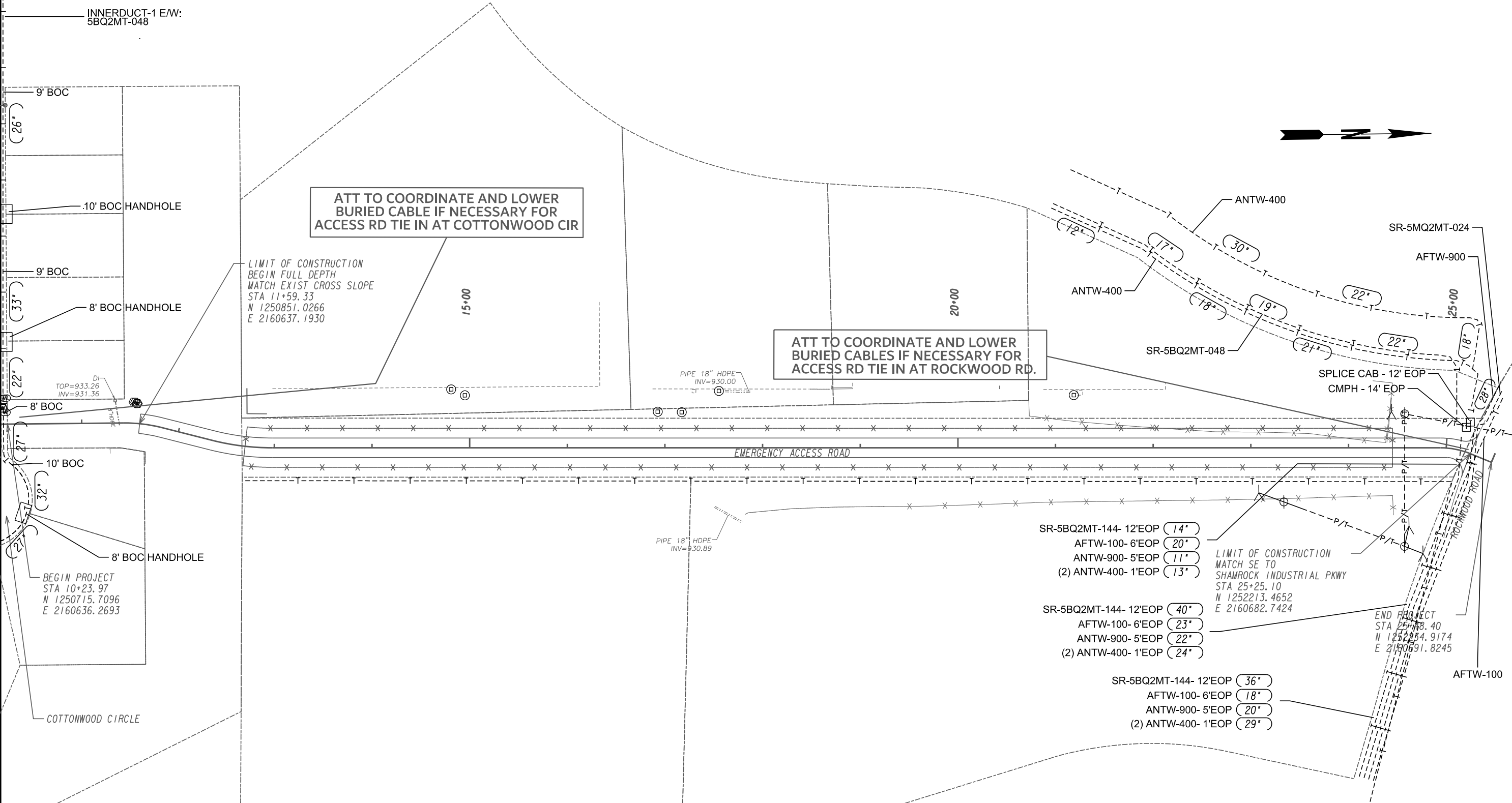


CROSS SECTIONS	
SHAMPOCK 1ND PARK EMERGENCY ACCESS ROAD	
TOWN OF TYRONE	
CHECKED:	DRAWING NO.
DATE:	
BACKCHECKED:	
DATE:	
CORRECTED:	
DATE:	
VERIFIED:	
DATE:	
	23-0005

UTILITY LINECODES					UTILITY SYMBOLS						
OVERHEAD	EXISTING	TO BE REMOVED	PROPOSED	TYPE OF UTILITY	EXISTING	PROPOSED	TEMPORARY	EXISTING	PROPOSED	TEMPORARY	
				ELECTRIC							FIRE HYDRANT ASSEMBLY (INCLUDES ASSOCIATED VALVE)
				ELECTRIC/TELECOMMUNICATIONS							BACKFLOW PREVENTER
				ELECTRIC/CABLE TV							PRESSURE INDICATOR VALVE
				ELECTRIC/TELECOMMUNICATIONS/CABLE TV							AIR RELEASE VALVE
				GUY WIRE							WELL
				TELECOMMUNICATIONS							WATER VAULT
				TELECOMMUNICATIONS/CABLE TV							WATER VALVE MARKER
				CABLE TV							STAND PIPE
											CLEANOUT
UNDERGROUND				ELECTRIC							SANITARY SEWER MANHOLE
				TELECOMMUNICATIONS							AIR RELEASE VALVE
				CABLE TV							GREASE TRAP
				WATER							SANITARY SEWER FORCE MAIN VALVE
				WATER FOR LABELED PIPE SIZES							GAS VALVE
				NON-POTABLE WATER							GAS METER
				NON-POTABLE WATER FOR LABELED PIPE SIZES							GAS MANHOLE
				STEAM							GAS PRESSURE REGULATOR
				STEAM FOR LABELED PIPE SIZES							GAS VAULT
				SANITARY SEWER WITH FLOW DIRECTION							GAS TEST STATION
				SANITARY SEWER WITH FLOW DIRECTION FOR LABELED PIPE SIZES							PETROLEUM VALVE
				SANITARY SEWER FORCE MAIN WITH FLOW DIRECTION							
				GAS							
				GAS FOR LABELED PIPE SIZES							
				PETROLEUM							
				PETROLEUM FOR LABELED PIPE SIZES							

UTILITY OWNER	SERVICE
ATLANTA GAS LIGHT	GAS
AT&T - D	TELECOMMUNICATION
COMCAST	TELECOMMUNICATION
COWETA FAYETTE EMC	ELECTRIC
FAYETTE COUNTY WATER SYSTEM	WATER
GEORGIA POWER	ELECTRIC
HC CABLE OPCO (WIDOPENWEST)	TELECOMMUNICATION
PEACHTREE CITY WATER & SEWERAGE AUTHORITY	SEWER

UTILITY OWNER	SERVICE
ATLANTA GAS LIGHT	GAS
AT&T - D	TELECOMMUNICATION
COMCAST	TELECOMMUNICATION
COWETA FAYETTE EMC	ELECTRIC
FAYETTE COUNTY WATER SYSTEM	WATER
GEORGIA POWER	ELECTRIC
HC CABLE OPCO (WIDEOPENWEST)	TELECOMMUNICATION
PEACHTREE CITY WATER & SEWERAGE AUTHORITY	SEWER



keck+Wood
COLLABORATION BY DESIGN
3090 Premiere Parkway, Suite 200
Duluth, GA 30097
(678) 417-4000 keckwood.com



REVISION DATES			UTILITY PLANS			
			SHAMROCK IND PARK EMERGENCY ACCESS ROAD			
			TOWN OF TYRONE			
CHECKED:		DATE:		DRAWING No.		
BACKCHECKED:		DATE:		24-0001		
CORRECTED:		DATE:				
VERIFIED:		DATE:				

PERMA-ZYME

The original Perma-Zyme is a unique enzymatic compound designed for soil stabilization, roadway construction, and water lining applications. The secret formula uses catalytic bonding to stabilize clay particles and produce high-density dirt road surfaces, or a strong foundation for traditional road construction, at a fraction of the cost of traditional construction materials.



USE RECOMMENDATIONS

ROAD CONSTRUCTION

Dilution	1 gallon per 160 cubic yards
Soil Requirements	15-20% cohesive fines
Operating Temperature	40° F to 115° F
Set Time	4 Hours
Curing Time	72 Hours

POND CONSTRUCTION

Dilution	1 gallon per 160 cubic yards
Soil Requirements	30% cohesive fines
Operating Temperature	40° F to 115° F
Set Time	4 Hours
Curing Time	72 Hours

EXISTING POND REPAIR

Dilution	1 gallon per 6,000 square feet
Soil Requirements	30% cohesive fines
Operating Temperature	40° F to 115° F
Set Time	N/A
Curing Time	10-14 days

TYPICAL CHARACTERISTICS

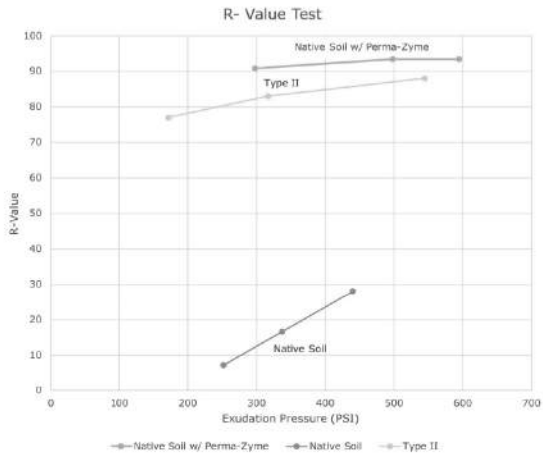
Physical Form	Liquid
Color	Brown
Odor	Mild
Viscosity	70 cSt
Weight	8.8 lbs/gal
pH Range	4-5.5
Foaming Tendency	Mild to Moderate
Enzymes Present	Protease, Lipase, Chitinase
Safety	Avoid contact with eyes and ingestion. See Perma-Zyme.us for SDS document.

This information herein is offered as a guide and is believed to be accurate and reliable as of the date of the printing. This information is subject to change without prior notice. For additional information regarding our products or for information concerning current specifications, please contact Substrata.

SUBSTRATA
SOLUTIONS POWERED BY ENZYMES

ENGINEERING REPORT: PERMA-ZYME TEST DATA

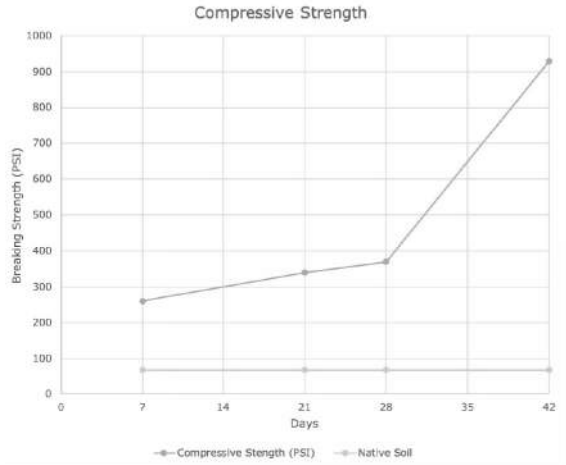
R-VALUE



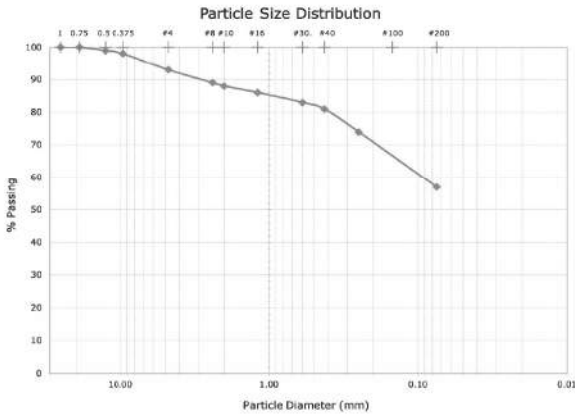
What is R-Value?
The R-Value test measures the response of a compacted sample (soil or aggregate) to a vertically applied pressure under specific conditions.

The larger the R-Value the more resistance the soil has to resist lateral spreading due to an applied vertical load.

COMPRESSIVE STRENGTH



SOIL CLASSIFICATION



SUBSTRATA

Perma-Zyme® Safety Data Sheet

Section 1 - Identification

Product Name Perma-Zyme®

PERMA-ZYME

Manufacturer Substrata LLC
7330 Eastgate Rd Suite #150
Henderson, NV 89011 USA
702.825.5200
info@substrata.us
substrata.us

Emergency Contact 702.825.5200

Intended Uses

Perma-Zyme is intended to be used to stabilize and harden soil, and to abate dust for applications such as, but not limited to, road construction and pond lining.

Section 2 – Hazards Identification

Classification of Substance/Mixture

This product is not classified according the Globally Harmonized System (GHS).

Hazard Statements and Symbols

None needed.

NFPA Rating



Health = 0
Fire = 0
Reactivity = 0

U.S. Hazardous Materials Identification System (HMIS) Rating

Health	0	No significant risk
Flammability	0	Material is nonflammable and will not burn
Physical Hazard	0	Material is stable, non-reactive and non-explosive
Personal Protection	-	No special hazard when used normally

SUBSTRATA

Section 2 – Hazards Identification (Continued)

Hazards Not Otherwise Classified

None

Section 3 – Composition/Information on Ingredients

Chemical Characterization

Mixture

Chemical Name	Concentration	CAS Number
Proprietary mixture	70%	Proprietary
Water	30%	7732-18-5

Section 4 – First Aid Measures

Inhalation

Not expected to cause respiratory irritation. If adverse symptoms develop move victim away from source of exposure and into a well-ventilated area or an area with fresh air. If symptoms persist, seek medical attention.

Skin Contact

Not expected to cause skin irritation. In event of skin contact, remove contaminated clothing and wash affected area with water and mild soap. If irritation develops or persists, seek medical attention.

Eye Contact

If irritation or redness occurs from exposure, flush eyes with clean water for several minutes. Remove contact lenses, if present and easily removable. If irritation continues to develop, seek medical attention.

Ingestion

If swallowed, nausea or upset stomach may occur. Do not induce vomiting. Drink plenty of water to dilute. If symptoms persist, seek medical attention.

Section 5 – Fire-Fighting Measures

Flammability

Nonflammable and noncombustible

This material is a water-based mixture that will not burn.

Flash Point

Nonflammable

REVISION DATES

SPECIAL CONSTRUCTION DETAIL

SHAMROCK IND PARK EMERGENCY ACCESS ROAD
TOWN OF TYRONE

CHECKED:		DATE:		DRAWING No.
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CORRECTED:		DATE:		
VERIFIED:		DATE:		

SUBSTRATA

Section 5 – Fire-Fighting Measures (Continued)

Extinguishing Media
Use dry chemical, CO2, or water spray.

Special Protective Actions for Fire-Fighters
Wear full protective clothing including positive pressure breathing apparatus.

Section 6 – Accidental Release Measures

Method for Clean Up
Avoid spills and clean up immediately. Prevent product from spreading by using sand, earth, clay, or containment material to absorb spilled material. Slippery when spilled. Dispose of material properly. See Section 13 for disposal considerations.

Protective Measures
Avoid contact with skin and eyes. Use appropriate personal protective equipment. Use appropriate measures to prevent the spill from spreading or entering drains, sewer system, rivers or open bodies of water.

Section 7 – Handling and Storage

Safe Handling
Always wear personal protective equipment. When working with drums or totes wear safety footwear. Avoid prolonged or repeated contact with skin.

Storage
Store material in tightly closed container in a dry well-ventilated place. Maintain proper storage temperatures of 40°F - 120°F, optimum storage temperature is 75°F. Store containers upright to avoid any leakage.

Section 8 – Exposure Controls / Personal Protection

Occupational Exposure Limits
Contains no substances or ingredients with known occupation exposure limit values.

Appropriate Engineering Controls
Good ventilation should be used. Appropriate eyewash stations should be provided.

Individual Protection Measures / Personal Protective Equipment
General hygiene consideration should be taken including washing hands after handling and before eating and drinking.

SUBSTRATA

Section 8 – Exposure Controls / Personal Protection (Continued)

Eye Protection	Eye protection is NOT generally required under normal usage. If material is handled in a manner that could be splashed it is recommended that splash-proof safety glasses or a full-face shield is used.
Respiratory Protection	When used in well ventilated areas respiratory protection is NOT required.
Skin Protection	Use protective gloves and clothing when used for prolonged periods or when user is dermally sensitive. For prolonged or repeated exposures, use chemical resistant boots, gloves, and apron of body parts subjected to exposure.

Section 9 – Physical and Chemical Properties

Appearance:	Amber Brown	Boiling Point:	90° C (194° F)
Physical Form:	Thick liquid	Vapor Pressure:	21.84 mmHg
Odor:	Mild and sweet	Vapor Density:	1.4
Odor Threshold:	Not determined	Relative Density:	8.8 lb/gal
pH:	4 - 5.5	Solubility:	Infinitely Soluble
Freezing Point:	0° C (32° F)	Viscosity:	70 cSt

Section 10 – Stability and Reactivity

Reactivity None
Chemical Stability Stable under normal conditions. Stable at 70° F ≥ 36 months.
Conditions to Avoid Extreme heat or cold
Incompatible Materials Do not mix with anything other than water.
Hazardous Decomposition Hazardous decomposition products are not expected to form throughout normal usage.



REVISION DATES

SPECIAL CONSTRUCTION DETAIL
SHAMROCK IND PARK EMERGENCY ACCESS ROAD
TOWN OF TYRONE

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SUBSTRATA

Section 11 – Toxicological Information

Likely Routes of Exposure

Inhalation	Not expected to cause any irritation
Skin Contact	Mild skin irritation with prolonged contact
Eye Contact	Causes mild eye irritation
Ingestion	May cause upset stomach

Acute Toxicity

Oral LD ₅₀	>5 g/kg
Dermal LD ₅₀	No data available.
Inhalation LD ₅₀	No data available.

Carcinogenicity

Contains no component that is known to be carcinogenic

Section 12 – Ecological Information

Ecotoxicity

Ingredients used do not trigger toxicity classifications under the Globally Harmonized System of Classification and Labeling of Chemicals.

Aquatic

No data available

Terrestrial

No data available

Persistence and Degradability

Readily biodegradable

Bioaccumulative Potential

No data available

Mobility in Soil

Highly mobile in soil

Section 13 – Disposal Considerations

Material Disposal

Recover or recycle if possible. Do NOT dispose into drains, bodies of water, or environment. Solidify product and dispose in approved landfill. Check with local, regional, and/or national regulations for appropriate methods of disposal.

Perma-Zyme SDS

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Revised: 7/16/19

SUBSTRATA

Section 13 – Disposal Considerations (Continued)

Container Disposal

Containers may be offered for recycling

Section 14 – Transport Information

U.N. Number

Not applicable

U.N. Proper Shipping Name

Enzyme Preparations

Transport Hazard Classes

Not applicable

Environmental Hazards

None

Transport in Bulk (according to Annex II of MARPOL 73/78 and IBC Code)

Unknown

Special precautions for users to be aware of/comply with, in connection with transport or conveyance either within or outside their premises:

None known

U.S. DOT / Canadian TDG	Not regulated for shipping
IMO/ IDMG	Not classified as Hazardous
ICAO/ IATA	Not classified as Hazardous
ADR/ RID	Not classified as Hazardous

Section 15 – Regulatory Information

TSCA Inventory

Yes, all ingredients listed

OSHA Hazard

Not regulated

Perma-Zyme SDS

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Revised: 7/16/19

REVISION DATES

SPECIAL CONSTRUCTION DETAIL

SHAMROCK IND PARK EMERGENCY ACCESS ROAD
TOWN OF TYRONE

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38-0004

SUBSTRATA

Section 16 – Other Information

SDS Version
1.01

Revision Date
July 16, 2019

The information contained in this document was carefully compiled and is believed to be accurate. The information represents the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. However, it does not represent any guarantee of the properties of the product. Substrata shall not be held liable for any damages resulting from handling or from contact with the above product. It is the responsibility of the purchaser to determine the suitability of the product for their particular purposes.

Call Substrata for product information or order placement, 702.825.5200



Keck+Wood
COLLABORATION BY DESIGN

3090 Premiere Parkway, Suite 200
Duluth, GA 30097
(678) 417-4000 keckwood.com

REVISION DATES

SPECIAL CONSTRUCTION DETAIL

SHAMROCK IND PARK EMERGENCY ACCESS ROAD
TOWN OF TYRONE

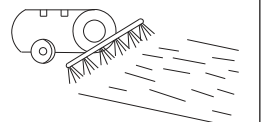
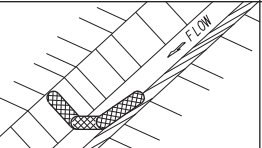
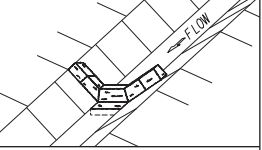
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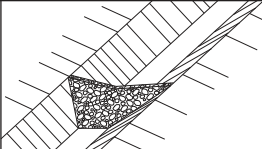
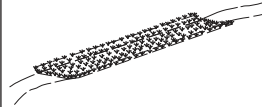
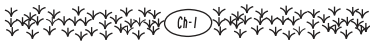
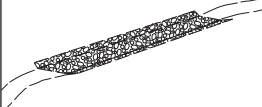
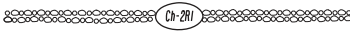
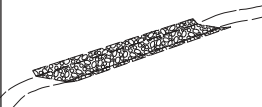
CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
	ORANGE BARRIER FENCE		ORANGE BARRIER FENCE DELINEATES ENVIRONMENTALLY SENSITIVE AREAS WHERE THE CONTRACTOR SHALL NOT CLEAR, GRUB, OR PLACE CONSTRUCTION MATERIALS OR EQUIPMENT WITHIN THIS AREA.
	LINE CODE ORANGE BARRIER FENCE		
ESA	ENVIRONMENTALLY SENSITIVE AREA		AN ENVIRONMENTALLY SENSITIVE AREA (ESA) CONTAINS RESOURCES THAT ARE ENVIRONMENTALLY, CULTURALLY, OR HISTORICALLY SENSITIVE. ESAs INCLUDE, BUT ARE NOT LIMITED TO: STATE WATER BUFFERS, HISTORIC SITES, ARCHAEOLOGICAL SITES, AND PROTECTED ANIMAL AND PLANT SPECIES HABITATS. IF WORK IS AUTHORIZED IN THIS AREA, THE WORK MUST BE PERFORMED IN ACCORDANCE WITH SECTION 107 AND ANY OTHER APPLICABLE SPECIAL PROVISIONS AND APPLICABLE PLAN NOTES.
	LINE CODE ESA-25'(OR 50')STREAM BUFFER, ETC.		
Bf	BUFFER ZONE		A STRIP OF UNDISTURBED ORIGINAL VEGETATION, ENHANCED OR RESTORED EXISTING VEGETATION, OR THE RE-ESTABLISHMENT OF VEGETATION SURROUNDING AN AREA OF DISTURBANCE OR BORDERING STREAMS, PONDS, WETLANDS, LAKES, AND COASTAL WATERS. WHEN NECESSARY, BUFFER ZONES ARE TO BE PROTECTED BY ORANGE BARRIER FENCE.
	SYMBOL 		
Ds1	MULCH SECTION 163		THIS IS AN APPLICATION OF STRAW MULCH USED TO REDUCE SOIL EROSION AND STABILIZE THE SOIL. IT IS USED TO CONTROL EROSION IN AREAS WHERE PERMANENT VEGETATION IS OUT OF SEASON OR TO TEMPORARILY STABILIZE AREAS PRIOR TO FINAL GRADING. MULCHING REQUIREMENTS ARE ADDRESSED BY STANDARD SPECIFICATIONS AND/OR THE PROJECT ENGINEER.
	SYMBOL 		THE BMP SYMBOL FOR APPLICABLE AREAS AND/OR A NOTE SHALL BE INCLUDED ON APPLICABLE SHEETS IN SECTION 54.
Ds2	TEMPORARY GRASSING SECTION 163,700		THE SOWING OF A QUICK GROWING SPECIES OF GRASS SUITABLE TO THE AREA AND SEASON. IT IS TYPICALLY USED TO CONTROL EROSION IN AREAS LONGER THAN MULCHING IS EXPECTED TO LAST. TEMPORARY GRASSING SHOULD BE USED ON ALL PROJECTS ACCORDING TO THE STANDARD SPECIFICATIONS.
	SYMBOL 		THE BMP SYMBOL FOR APPLICABLE AREAS AND/OR A NOTE SHALL BE INCLUDED ON APPLICABLE SHEETS IN SECTION 54.

CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
Ds3	PERMANENT GRASSING SECTION 700		THE SOWING OF PERMANENT VEGETATION, SUCH AS GRASS, SUITABLE TO THE AREA AND SEASON. PERMANENT VEGETATION SHALL BE USED ON ALL PROJECTS ACCORDING TO THE STANDARD SPECIFICATION. THE BMP SYMBOL FOR APPLICABLE AREAS AND/OR A NOTE SHALL BE INCLUDED ON APPLICABLE SHEETS IN SECTION 54.
	SYMBOL 		
Ds4	SODDING CONSTRUCTION DETAIL D-54 SECTION 700, 890		THE INSTALLATION OF A SPECIES OF GRASS SODDING SUITABLE TO THE AREA AND SEASON TO PROVIDE IMMEDIATE PERMANENT VEGETATION. SODDING MAY BE SHOWN FOR HIGHLY SENSITIVE AREAS, TO IMPROVE AESTHETICS, OR FOR SPECIAL PLANTING REQUIREMENTS ON THE BASIS OF ENVIRONMENTAL COMMITMENTS OR LANDSCAPING REQUIREMENTS.
	PATTERN 		THE BMP PATTERN FOR APPLICABLE AREAS AND/OR A NOTE SHALL BE INCLUDED ON APPLICABLE SHEETS IN SECTION 54.
Fl-Co	FLOCCULANTS COAGULANTS SECTION 163,700, 895		FLOCCULANTS AND COAGULANTS ARE USED TO SETTLE SUSPENDED SEDIMENT, HEAVY METALS, AND HYDROCARBONS (TSS) IN SLOW MOVING RUNOFF FROM CONSTRUCTION SITES FOR WATER CLARIFICATION. ANIONIC POLYACRYLAMIDES (PAM) MAY BE USED IN CONJUNCTION WITH BMPs WITHIN CHANNELS UPSTREAM OF A POST-CONSTRUCTION POND, TEMPORARY SEDIMENT BASIN, OR TEMPORARY SEDIMENT TRAP. FLOCCULANTS SHALL NOT BE USED DOWNSTREAM OF AFOREMENTIONED BMPs!
	SYMBOL 		FLOCCULANTS/COAGULANTS ARE TO BE SHOWN ON PLANS WITH APPLICABLE BMP IF NEEDED. PAYMENT FOR PAM AS A FLOCCULANT WILL BE INCLUDED IN THE PRICE FOR THE INSTALLATION AND/OR MAINTENANCE OF THE BMP IT IS USED IN CONJUNCTION WITH. NO SEPARATE PAYMENT WILL BE MADE.
Sb	STREAMBANK STABILIZATION SECTION 702		STREAMBANK STABILIZATION IS THE USE OF READILY AVAILABLE NATIVE PLANT MATERIALS TO MAINTAIN AND ENHANCE STREAMBANKS, OR TO PREVENT, OR RESTORE AND REPAIR SMALL STREAMBANK EROSION PROBLEMS.
	PATTERN 		STREAMBANK STABILIZATION AREAS SHOULD BE SHOWN ON THE PLANS WHEN APPLICABLE TO THE PROJECT. REFER TO THE PROJECT'S STREAM AND STREAM BUFFER MITIGATION PLANS FOR PLANT SPECIES, LOCATIONS, AND OTHER PLANTING DETAILS.

NOTE:

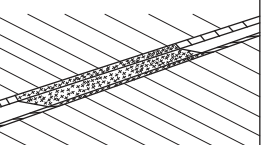
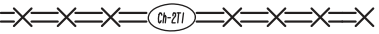
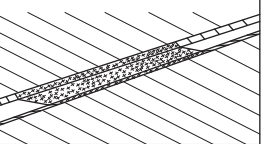
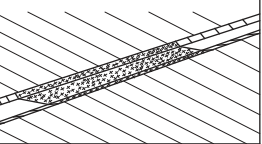
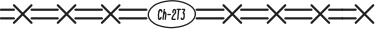
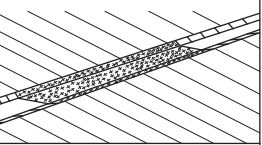
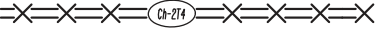
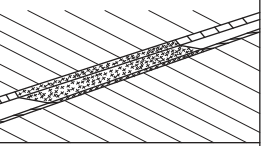
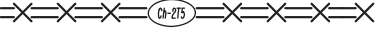
- DO NOT USE EROSION CONTROL ITEMS IN A FLOWING STREAM OR IN A TIDAL AREA BELOW HIGH TIDE.
- FOR ADDITIONAL INFORMATION ON THE DESIGN AND APPLICATION OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPs), REFER TO THE LATEST EDITION OF THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION'S, "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA".

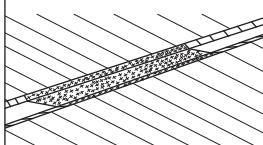
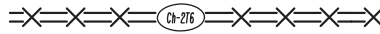
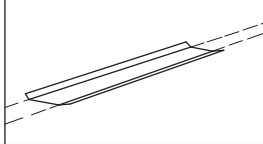
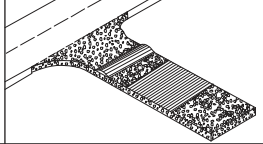
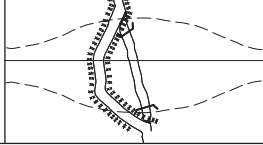
CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
Ss	SLOPE STABILIZATION CONSTRUCTION DETAIL D-35 SECTION 716		SLOPE STABILIZATION (EROSION CONTROL MATTING) IS A PROTECTIVE COVERING USED TO PREVENT EROSION AND ESTABLISH TEMPORARY OR PERMANENT VEGETATION ON STEEP SLOPES, SHORE LINES, OR CHANNELS. SLOPE STABILIZATION MAY BE A ROLLED EROSION CONTROL PRODUCT (RECP) OR A HYDRAULIC EROSION CONTROL PRODUCT (HECP).
	PATTERN 		SLOPE STABILIZATION SHALL BE USED ON ALL CUT OR FILL SLOPES OF 2.5:1 OR STEEPER AND WITHIN 50 FEET OF ALL CROSS DRAINS AND CULVERTS. NOTE: ONLY COCONUT FIBER BLANKET OR WOOD FIBER BLANKET SHALL BE USED AS SLOPE STABILIZATION WITHIN BUFFERED AREAS.
Tac	TACKIFIERS SECTION 163, 700, 895		TACKIFIERS HYDRATE IN WATER AND READILY BLEND WITH OTHER SLURRY MATERIALS AND ARE USED TO TIE-DOWN FOR SOIL, COMPOST, SEED, STRAW, HAY OR MULCH. TACKIFIERS REQUIREMENTS, SUCH AS ANIONIC POLYACRYLAMIDES (PAM) ARE ADDRESSED BY STANDARD SPECIFICATIONS AND ARE NOT TYPICALLY SHOWN ON THE PLANS. PAM IS TYPICALLY USED BY THE CONTRACTOR FOR TEMPORARY OR PERMANENT GRASSING.
	SYMBOL  POLYACRYLAMIDE		REFER TO THE LATEST EDITION OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR CRITERIA.
Cd-F	FABRIC CHECK DAM CONSTRUCTION DETAIL D-24D SECTION 171		A CHECK DAM COMPOSED OF SYNTHETIC FIBER FABRIC, WIRE REINFORCED, POST, OVERFLOW WEIR, AND TURF REINFORCEMENT MATTING (TRM) SPLASHPAD PLACED IN DITCHES IN A SPECIAL CONFIGURATION WHICH CONTROLS ENERGY DISSIPATION AND FILTRATION OF STORM WATER. SEE CONSTRUCTION DETAIL D-24D FOR ADDITIONAL INFORMATION AND SPACING REQUIREMENTS.
	SYMBOL 		THIS ITEM IS SUITABLE FOR USE IN ROADSIDE DITCHES THAT ARE PART OF INFRASTRUCTURE CONSTRUCTION PROJECTS AND WITHIN THE CLEAR ZONE. IF THIS ITEM IS USED IN AN AREA WITH FLOWS GREATER THAN 2.0-CFS OR WITHOUT A SEDIMENT BASIN, A MINIMUM OF ONE ROCK FILTER DAM SHALL BE USED AT THE DOWNSTREAM DISCHARGE POINT.
Cd-Fs	COMPOST FILTER SOCK CHECK DAM CONSTRUCTION DETAIL D-52 SECTION 163		A COMPOST FILTER SOCK CHECK DAM IS COMPOSED OF A PHOTODEGRADABLE OR BIODEGRADABLE KNITTED MESH MATERIAL CONTAINING A WEED FREE FILLER MATERIAL DERIVED FROM A WELL-DECOMPOSED SOURCE OF ORGANIC MATTER. THEY SHALL BE PROPERLY STAKED FOR DITCH APPLICATIONS.
	SYMBOL 		REFER TO THE LATEST EDITION OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR MATERIAL SPECIFICATIONS. IF THIS ITEM IS USED IN AN AREA WITH FLOWS GREATER THAN 2.0-CFS OR WITHOUT A SEDIMENT BASIN, A MINIMUM OF ONE ROCK FILTER DAM SHALL BE USED AT THE DOWNSTREAM DISCHARGE POINT.
Cd-Hb	BALED STRAW CHECK DAM CONSTRUCTION DETAIL D-52 SECTION 163		A BALE STRAW CHECK DAM IS COMPOSED OF BALES PREFERABLY BOUND WITH WIRE OR NYLON INSTEAD OF TWINE. BALES SHOULD BE PLACED IN ROWS WITH BALE ENDS TIGHTLY ABUTTING ADJACENT BALES. THE DOWNSTREAM ROW OF BALES SHALL BE PLACED IN A TRENCH TO ALLOW THE TOP OF THE BALE'S LONG, WIDE SIDE TO BE LEVEL WITH THE GROUND AS A NON-ERODIBLE SPLASH PAD. PROPER STAKING IS ALSO REQUIRED FOR DITCH APPLICATIONS.
	SYMBOL 		IF THIS ITEM IS USED IN AN AREA WITH FLOWS GREATER THAN 2.0-CFS OR WITHOUT A SEDIMENT BASIN, A MINIMUM OF ONE ROCK FILTER DAM SHALL BE USED AT THE DOWNSTREAM DISCHARGE POINT.

CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
Cd-S	STONE CHECK DAM OR SANDBAG CHECK DAM CONSTRUCTION DETAIL D-56 SECTION 163, 603		STONE CHECK DAMS ARE CONSTRUCTED OF TYPE-3 RIP-RAP WITH GEOTEXTILE UNDERLINER. STONE CHECK DAMS ARE PREFERRED IN ROADWAY DITCHES OUTSIDE THE CLEAR ZONE. CONSIDERATION SHOULD BE GIVEN TO USING OTHER APPROPRIATE CHECK DAMS AND/OR BMPs WITHIN THE CLEAR ZONE. SANDBAG CHECK DAMS ARE RECOMMENDED IN CONCRETE LINED CHANNELS FOR TEMPORARY VELOCITY CONTROL ONLY. ENSURE DISCHARGE POINT IS PROPERLY STABILIZED AND INCLUDE APPROPRIATE BMPs FOR SEDIMENT STORAGE UPSTREAM AND/OR DOWNSTREAM OF CONCRETE LINED CHANNELS.
	SYMBOL 		IF THIS ITEM IS USED IN AN AREA WITH FLOWS GREATER THAN 2.0-CFS OR WITHOUT A SEDIMENT BASIN, A MINIMUM OF ONE ROCK FILTER DAM SHALL BE USED AT THE DOWNSTREAM DISCHARGE POINT.
Ch-I	VEGETATED CHANNEL STABILIZATION SECTION 700		A NEW OR EXISTING CHANNEL MAY BE LINED WITH PERMANENT VEGETATION ONLY FOR VELOCITIES UP TO 5.0 fps. THIS MEASURE SHALL BE DESIGNED IN ACCORDANCE WITH THE GDOT CHANNEL LINING DESIGN PROGRAM. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED.
	LINE CODE 		TYPICALLY NOT SHOWN IN PLANS.
Ch-2R1	CHANNEL STABILIZATION RIP-RAP, TYPE 1 CONSTRUCTION DETAIL D-49 SECTION 603		THIS ITEM CONSISTS OF LINING A CHANNEL WITH TYPE 1 RIP-RAP 24" THICK (UNLESS SPECIFIED OTHERWISE) PLACED ON TOP OF A GEOTEXTILE UNDERLINER. THE RIP-RAP SHALL PROTECT THE CHANNEL FLOWING TO A DEPTH "Dp" RECOMMENDED BY THE GDOT CHANNEL LINING PROGRAM. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED.
	LINE CODE 		"Dp" SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS AND IN THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
Ch-2R3	CHANNEL STABILIZATION RIP-RAP, TYPE 3 CONSTRUCTION DETAIL D-49 SECTION 603		THIS ITEM CONSISTS OF LINING A CHANNEL WITH TYPE 3 RIP-RAP 24" THICK (UNLESS SPECIFIED OTHERWISE) PLACED ON TOP OF A GEOTEXTILE UNDERLINER. THE RIP-RAP SHALL PROTECT THE CHANNEL FLOWING TO A DEPTH "Dp" RECOMMENDED BY THE GDOT CHANNEL LINING PROGRAM. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED.
	LINE CODE 		"Dp" SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS AND IN THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.

NOTE:

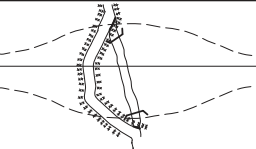
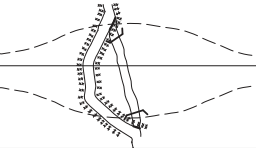
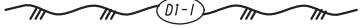
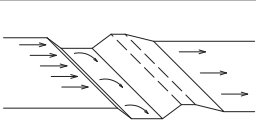
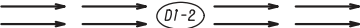
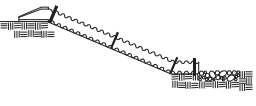
- DO NOT USE EROSION CONTROL ITEMS IN A FLOWING STREAM OR IN A TIDAL AREA BELOW HIGH TIDE.
- FOR ADDITIONAL INFORMATION ON THE DESIGN AND APPLICATION OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPs), REFER TO THE LATEST EDITION OF THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION'S, "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA".

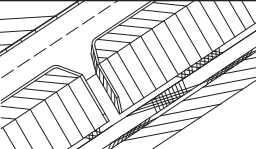
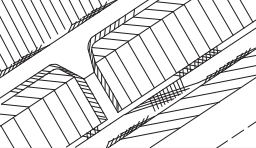
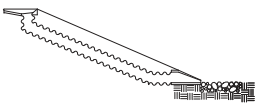
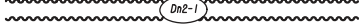
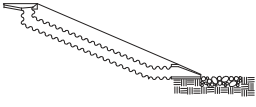
CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
Ch-2T1	TURF REINFORCEMENT MAT (TRM) CONSTRUCTION DETAIL D-35 SECTION 711		THIS THREE DIMENSIONAL EROSION CONTROL MAT IS USED IN CONJUNCTION WITH PERMANENT VEGETATION IN CHANNELS TO STABILIZE THE SOIL BY REINFORCING THE GRASS ROOTS TO PROVIDE LONG-TERM PROTECTION FOR SHEAR STRESSES 0-2 psf. THE TRM SHALL PROTECT THE CHANNEL FLOWING TO A DEPTH "Dp" RECOMMENDED BY THE GDOT CHANNEL LINING PROGRAM.
	LINE CODE		"Dp" SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS AND IN THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
Ch-2T2	TURF REINFORCEMENT MAT (TRM) CONSTRUCTION DETAIL D-35 SECTION 711		THIS THREE DIMENSIONAL EROSION CONTROL MAT IS USED IN CONJUNCTION WITH PERMANENT VEGETATION IN CHANNELS TO STABILIZE THE SOIL BY REINFORCING THE GRASS ROOTS TO PROVIDE LONG-TERM PROTECTION FOR SHEAR STRESSES 0-4 psf. THE TRM SHALL PROTECT THE CHANNEL FLOWING TO A DEPTH "Dp" RECOMMENDED BY THE GDOT CHANNEL LINING PROGRAM.
	LINE CODE		"Dp" SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS AND IN THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
Ch-2T3	TURF REINFORCEMENT MAT (TRM) CONSTRUCTION DETAIL D-35 SECTION 711		THIS THREE DIMENSIONAL EROSION CONTROL MAT IS USED IN CONJUNCTION WITH PERMANENT VEGETATION IN CHANNELS TO STABILIZE THE SOIL BY REINFORCING THE GRASS ROOTS TO PROVIDE LONG-TERM PROTECTION FOR SHEAR STRESSES 0-6 psf. THE TRM SHALL PROTECT THE CHANNEL FLOWING TO A DEPTH "Dp" RECOMMENDED BY THE GDOT CHANNEL LINING PROGRAM.
	LINE CODE		"Dp" SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS AND IN THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
Ch-2T4	TURF REINFORCEMENT MAT (TRM) CONSTRUCTION DETAIL D-35 SECTION 711		THIS THREE DIMENSIONAL EROSION CONTROL MAT IS USED IN CONJUNCTION WITH PERMANENT VEGETATION IN CHANNELS TO STABILIZE THE SOIL BY REINFORCING THE GRASS ROOTS TO PROVIDE LONG-TERM PROTECTION FOR SHEAR STRESSES 0-8 psf. THE TRM SHALL PROTECT THE CHANNEL FLOWING TO A DEPTH "Dp" RECOMMENDED BY THE GDOT CHANNEL LINING PROGRAM.
	LINE CODE		"Dp" SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS AND IN THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
Ch-2T5	TURF REINFORCEMENT MAT (TRM) CONSTRUCTION DETAIL D-35 SECTION 711		THIS THREE DIMENSIONAL EROSION CONTROL MAT IS USED IN CONJUNCTION WITH PERMANENT VEGETATION IN CHANNELS TO STABILIZE THE SOIL BY REINFORCING THE GRASS ROOTS TO PROVIDE LONG-TERM PROTECTION FOR SHEAR STRESSES 0-10 psf. THE TRM SHALL PROTECT THE CHANNEL FLOWING TO A DEPTH "Dp" RECOMMENDED BY THE GDOT CHANNEL LINING PROGRAM.
	LINE CODE		"Dp" SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS AND IN THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.

CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
Ch-2T6	TURF REINFORCEMENT MAT (TRM) CONSTRUCTION DETAIL D-35 SECTION 711		THIS THREE DIMENSIONAL EROSION CONTROL MAT IS USED IN CONJUNCTION WITH PERMANENT VEGETATION IN CHANNELS TO STABILIZE THE SOIL BY REINFORCING THE GRASS ROOTS TO PROVIDE LONG-TERM PROTECTION FOR SHEAR STRESSES 0-12 psf. THE TRM SHALL PROTECT THE CHANNEL FLOWING TO A DEPTH "Dp" RECOMMENDED BY THE GDOT CHANNEL LINING PROGRAM.
	LINE CODE		"Dp" SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS AND IN THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
Ch-3	CONCRETE CHANNEL STABILIZATION CONSTRUCTION DETAIL D-10, D-49 SECTION 441		CHANNELS ARE LINED WITH CONCRETE FOR VELOCITIES >10 fps. THIS ITEM CONSISTS OF CONSTRUCTING A 4" THICK CONCRETE CHANNEL. THE CONCRETE SHALL PROTECT THE CHANNEL FLOWING TO A DEPTH "Dp" RECOMMENDED BY THE GDOT CHANNEL LINING PROGRAM.
	LINE CODE		"Dp" SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS AND IN THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN. RIP-RAP SHOULD BE USED TO DISSIPATE ENERGY DOWNSTREAM OF CONCRETE LINED CHANNELS.
Co	CONSTRUCTION EXIT CONSTRUCTION DETAIL D-41 SECTION 163, 800		A CONSTRUCTION EXIT IS A STONE STABILIZED PAD THAT REDUCES OR ELIMINATES THE TRANSPORT OF MUD FROM CONSTRUCTION AREAS ONTO PUBLIC ROADS BY EQUIPMENT OR RUNOFF. BEST USED AT ACCESS POINTS, I. e. NEW LOCATION PROJECTS, BORROW PITS, WASTE PITS, ACCESS ROADS, ETC. SHOULD BE MINIMUM 20' WIDE, 50' LONG, 6" THICK, AND REQUIRES A GEOTEXTILE UNDERLINER. ON SITES WHERE THE GRADE TOWARD A PAVED AREA IS GREATER THAN 2%, A FULL WIDTH DIVERSION RIDGE 6" TO 8" HIGH WITH 3:1 SLOPES SHALL BE CONSTRUCTED APPROXIMATELY 15' UPSTREAM OF PAVED AREA. A TIRE WASHING AREA TO REMOVE MUD MAY ALSO BE REQUIRED PRIOR TO ENTRANCE ONTO PUBLIC ROADWAYS.
	SYMBOL		ALL CONSTRUCTION EXIT REQUIREMENTS ARE INCLUDED IN THE PRICE OF THE CONSTRUCTION EXIT.
Dc-A	STREAM DIVERSION CHANNEL GEOTEXTILE, POLYETHYLENE FILM SECTION 163		A TEMPORARY CHANNEL CONSTRUCTED TO CONVEY FLOW AROUND A CONSTRUCTION SITE WHILE A PERMANENT DRAINAGE STRUCTURE IS BEING CONSTRUCTED IN A NATURAL STREAM. THIS IS A MEASURE USED TO PROTECT STREAM BEDS FROM EROSION. LINE THE CHANNEL WITH GEOTEXTILE OR POLYETHYLENE FILM. INSTALL TWO ROWS OF Sd1-S PARALLEL TO THE CHANNEL TO PREVENT SEDIMENT LADEN RUNOFF FROM ENTERING THE STREAM. THE SIZE OF THE CHANNEL WILL DEPEND ON THE DISCHARGE, CHANNEL GEOMETRY, CHANNEL SLOPE AND ROUGHNESS. IT IS ACCEPTABLE FOR VELOCITIES BETWEEN 0 - 2.5 fps.
	LINE CODE		THE DRAINAGE AREA SHALL BE NOT GREATER THAN 1 SQUARE MILE. CONSTRUCTION OF THE DIVERSION CHANNEL IS INCLUDED IN THE COST OF THE STRUCTURE.

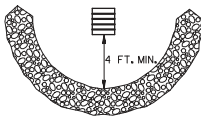
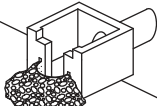
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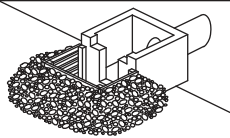
- DO NOT USE EROSION CONTROL ITEMS IN A FLOWING STREAM OR IN A TIDAL AREA BELOW HIGH TIDE.
- FOR ADDITIONAL INFORMATION ON THE DESIGN AND APPLICATION OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPs), REFER TO THE LATEST EDITION OF THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION'S, "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA".

CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
Dc-B	STREAM DIVERSION CHANNEL GEOTEXTILE ONLY SECTION 163		A TEMPORARY CHANNEL CONSTRUCTED TO CONVEY FLOW AROUND A CONSTRUCTION SITE WHILE A PERMANENT DRAINAGE STRUCTURE IS BEING CONSTRUCTED IN A NATURAL STREAM. THIS IS A MEASURE USED TO PROTECT STREAM BEDS FROM EROSION. LINE THE CHANNEL WITH GEOTEXTILE ONLY. INSTALL TWO ROWS OF Sd1-S PARALLEL TO THE CHANNEL TO PREVENT SEDIMENT LADEN RUNOFF FROM ENTERING THE STREAM. THE SIZE OF THE CHANNEL WILL DEPEND ON THE DISCHARGE, CHANNEL GEOMETRY, CHANNEL SLOPE AND ROUGHNESS. IT IS ACCEPTABLE FOR VELOCITIES BETWEEN 2.5 - 9.0 fps.
	LINE CODE 		THE DRAINAGE AREA SHALL BE NOT GREATER THAN 1 SQUARE MILE. CONSTRUCTION OF THE DIVERSION CHANNEL IS INCLUDED IN THE COST OF THE STRUCTURE.
Dc-C	STREAM DIVERSION CHANNEL RIP-RAP & GEOTEXTILE SECTION 163		A TEMPORARY CHANNEL CONSTRUCTED TO CONVEY FLOW AROUND A CONSTRUCTION SITE WHILE A PERMANENT DRAINAGE STRUCTURE IS BEING CONSTRUCTED IN A NATURAL STREAM. THIS IS A MEASURE USED TO PROTECT STREAM BEDS FROM EROSION. LINE THE CHANNEL WITH RIP-RAP AND GEOTEXTILE. INSTALL TWO ROWS OF Sd1-S PARALLEL TO THE CHANNEL TO PREVENT SEDIMENT LADEN RUNOFF FROM ENTERING THE STREAM. THE SIZE OF THE CHANNEL WILL DEPEND ON THE DISCHARGE, CHANNEL GEOMETRY, CHANNEL SLOPE AND ROUGHNESS. IT IS ACCEPTABLE FOR VELOCITIES BETWEEN 9.0 - 13.0 fps.
	LINE CODE 		THE DRAINAGE AREA SHALL BE NOT GREATER THAN 1 SQUARE MILE. CONSTRUCTION OF THE DIVERSION CHANNEL IS INCLUDED IN THE COST OF THE STRUCTURE.
D1-1	DIVERSION BERM CONSTRUCTION DETAIL D-47 SECTION 205		A NON-DESIGNED TEMPORARY EARTHEN BERM WITH A COMPACTED SUPPORTING RIDGE ON THE LOWER SIDE TO BE USED AT THE EDGE OF EMBANKMENT DURING THE GRADING OPERATION. THE BERMS ARE ALSO CONSTRUCTED ABOVE, ACROSS OR BELOW A SLOPE TO REDUCE THE LENGTH OF A SLOPE. THEY ARE USED TO INTERCEPT RUNOFF, PREVENTING SLOPE EROSION AND TO DIRECT THE RUNOFF TO A STABLE OUTLET, DOWN DRAINS 'Dn1' OR CATCHMENT AREAS AND ON ALL GRADING PROJECTS.
	LINE CODE 		
D1-2	DIVERSION CHANNEL SECTION 205		A DESIGNED TEMPORARY OR PERMANENT CHANNEL WITH A COMPACTED SUPPORTING RIDGE ON THE LOWER SIDE TO DIVERT OFFSITE RUNOFF AWAY FROM DISTURBED AREAS WITHIN THE PROJECT AREA. CHANNEL FOR OFFSITE RUNOFF SHALL BE STABILIZED WITH APPROPRIATE CHANNEL STABILIZATION. REFER TO THE LATEST EDITION OF THE 'MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA' FOR DESIGN CRITERIA. A DIVERSION CHANNEL DETAIL MUST ALSO BE PROVIDED IN THE ESPCP.
	LINE CODE 		RUNOFF FROM DISTURBED AREAS WITHIN THE PROJECT AREA SHALL NOT BE ALLOWED TO CONVERGE WITH OFFSITE RUNOFF WITHIN THIS DIVERSION.
Dn1	TEMPORARY DOWNDRAIN STRUCTURE FLEXIBLE CONSTRUCTION DETAIL D-19 SECTION 163		A TEMPORARY PIPE SLOPE DRAIN IS A PLASTIC FLEXIBLE PIPE TO CARRY WATER FROM THE WORK AREA TO A LOWER ELEVATION. TEMPORARY SLOPE DRAINS SHOULD BE PLACED AT INTERVALS OF 350 FEET ON 0% - 2% GRADES, 200 FEET ON STEEPER GRADES AND MORE FREQUENTLY AS DICTATED BY FIELD CONDITIONS. THE TYPICAL PIPE SIZE IS A CORRUGATED 10". THE PIPE WILL BE ANCHORED WITH STAKES AT INTERVALS NOT TO EXCEED 10'.
	LINE CODE 		THE OUTLET AREA SHALL BE STABILIZED FOR VELOCITY DISSIPATION AND EROSION CONTROL.

CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
Dn2-A	PERMANENT DOWNDRAIN STRUCTURE CONCRETE CONSTRUCTION DETAIL D-9 SECTION 441		A CONCRETE FLUME TYPE "A" IS USED TO DIRECT SURFACE RUNOFF DOWN A ROADWAY SLOPE INTO ANOTHER FORM OF CONTROL. IT IS USED IN ALL DEPRESSED AREAS WHERE WATER WILL FLOW DOWN THE SLOPE. IT IS DESIGNED FOR A 25-YEAR STORM AND MUST HAVE SOME FORM OF OUTLET PROTECTION. ADDITIONAL LABELING IS NOT REQUIRED IF SHOWN AS A PERMANENT DRAINAGE STRUCTURE ON THE CONSTRUCTION PLANS. INLETS SHALL BE SPACED ACCORDING TO GDOT GUIDELINES (REGARDING GUTTER SPREAD AND OTHER CRITERIA).
	LINE CODE 		
Dn2-B	PERMANENT DOWNDRAIN STRUCTURE CONCRETE CONSTRUCTION DETAIL D-9 SECTION 441		A CONCRETE FLUME TYPE "B" IS USED TO DIRECT SURFACE DITCH RUNOFF DOWN A BACK SLOPE INTO ANOTHER FORM OF CONTROL. IT IS USED IN DEPRESSED AREAS WHERE CONCENTRATED OFFSITE WATER REACHES THE CUT SLOPE. IT IS DESIGNED TO SAFELY CONVEY WATER DOWN THE CUT SLOPE. IT IS DESIGNED FOR A 25-YEAR STORM AND MUST HAVE SOME FORM OF OUTLET PROTECTION. ADDITIONAL LABELING IS NOT REQUIRED IF SHOWN AS A PERMANENT DRAINAGE STRUCTURE ON THE CONSTRUCTION PLANS. INLETS SHALL BE SPACED ACCORDING TO GDOT GUIDELINES (REGARDING GUTTER SPREAD AND OR OTHER CRITERIA).
	LINE CODE 		
Dn2-1	PERMANENT DOWNDRAIN STRUCTURE GA. STD 9013 TPI, 9017J TPI, DETAIL D-26 TPI SECTION 576, 577		CONCRETE DRAIN INLET WITH METAL PIPE IS USED TO DRAIN CURBS, ON A GRADE, DOWN TO A LOWER ELEVATION. THIS IS A PERMANENT STRUCTURE, REQUIRING OUTLET PROTECTION, TEMPORARY AND PERMANENT. INLETS SHALL BE SPACED ACCORDING TO GDOT GUIDELINES (REGARDING GUTTER SPREAD AND OR OTHER CRITERIA).
	LINE CODE 		
Dn2-2	PERMANENT DOWNDRAIN STRUCTURE GA. STD 9013 TP2, 9017J TP2, DETAIL D-26 TP2 SECTION 576, 577		CONCRETE DRAIN INLET AND METAL PIPE IS USED TO DRAIN CURB, IN A SAG, DOWN TO A LOWER ELEVATION. THIS IS A PERMANENT STRUCTURE, REQUIRING OUTLET PROTECTION, TEMPORARY AND PERMANENT. INLETS SHALL BE SPACED ACCORDING TO GDOT GUIDELINES (REGARDING GUTTER SPREAD AND OR OTHER CRITERIA).
	LINE CODE 		

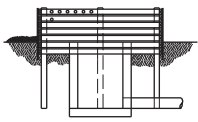
- NOTE:
- DO NOT USE EROSION CONTROL ITEMS IN A FLOWING STREAM OR IN A TIDAL AREA BELOW HIGH TIDE.
 - FOR ADDITIONAL INFORMATION ON THE DESIGN AND APPLICATION OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPs), REFER TO THE LATEST EDITION OF THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION'S, 'MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA'.

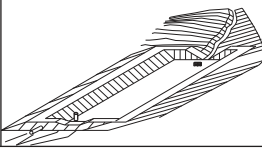
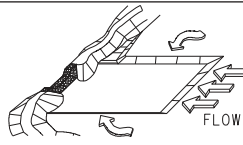
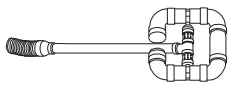
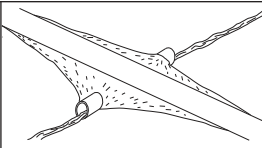
CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
Fr	FILTER RING CONSTRUCTION DETAIL D-46 SECTION 163		A TEMPORARY STONE BARRIER CONSTRUCTED AT DRAINAGE STRUCTURE INLETS AND POST-CONSTRUCTION POND OUTLETS. IT REDUCES RUNOFF VELOCITY AND HELPS PREVENT SEDIMENT FROM LEAVING SITE PRIOR TO PERMANENT STABILIZATION OF THE DISTURBED AREA. REFER TO THE LATEST EDITION OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR ADDITIONAL INFORMATION ON USAGE.
	SYMBOL Fr		
Rd	ROCK FILTER DAM CONSTRUCTION DETAIL D-43 SECTION 163, 603		ROCK FILTER DAMS ARE CONSTRUCTED OF TYPE 3 STONE RIP-RAP FACED WITH *57 STONE ON THE UPSTREAM SIDE. THEY ARE PLACED ACROSS DRAINAGWAYS WHICH DRAIN 50 ACRES OR LESS. GEOTEXTILE UNDERLINER SHALL BE USED WHEN PLACING ROCK FILTER DAMS. THE DAM SHOULD NOT BE HIGHER THAN THE CHANNEL BANKS. ROCK FILTER DAMS SHOULD BE USED IN DITCHES PRIOR TO DISCHARGING INTO STREAMS, WETLANDS, OPEN-WATERS, OR OTHER ESAs.
	SYMBOL 		
Rd-B	STONE FILTER BERM CONSTRUCTION DETAIL D-50 SECTION 163, 603		STONE FILTER BERMS ARE CONSTRUCTED SIMILAR TO ROCK FILTER DAMS FOR A LINEAR APPLICATION. THEY ARE CONSTRUCTED OF TYPE-3 STONE RIP-RAP FACED WITH *57 STONE ON THE UPSTREAM SIDE. GEOTEXTILE UNDERLINER SHALL BE USED WHEN PLACING STONE FILTER BERMS. STONE FILTER BERMS ARE IDEAL ALONG THE PERIMETER FOR SHEET FLOW AND/OR SHALLOW CONCENTRATED FLOW TO A COMMON LOW AREA WHERE PERIMETER SILT FENCE ALONE MAY BE INSUFFICIENT. THERE IS NO WELL-DEFINED CHANNEL FOR A STANDARD ROCK FILTER DAM, AND/OR CONSTRUCTING A ROCK OUTLET TEMPORARY SEDIMENT TRAP IS NOT APPLICABLE.
	LINE CODE 		
Rp	RIP-RAP SECTION 603		RIP-RAP IS A FLEXIBLE PERMANENT BLANKET FOR PROTECTION OF FILL SLOPES AND BRIDGE END ROLLS. RIP-RAP TYPE-1 SHOULD BE PLACED ON TOP OF A GEOTEXTILE UNDERLINER AT A MINIMUM 24" THICKNESS OR AS INDICATED ON THE PLANS. RIP-RAP MAY ALSO BE USED AT DRAINAGE STRUCTURE OUTLETS WITHIN THE RIGHT-OF-WAY. HOWEVER, APPROPRIATE OUTLET PROTECTION SHOULD BE PROVIDED AT OUTFALLS. REFER TO STORM DRAIN OUTLET PROTECTION FOR ADDITIONAL INFORMATION ON USING RIP-RAP AT OUTFALLS.
	PATTERN 		
Rt-P	RETROFITTING PERFORATED HALF-ROUND PIPE CONSTRUCTION DETAIL D-44 SECTION 163		A PERFORATED HALF-ROUND PIPE WITH STONE FILTER PLACED IN FRONT OF A PERMANENT STORMWATER DETENTION POND OUTLET STRUCTURE TO SERVE AS A TEMPORARY SEDIMENT FILTER. SHOULD BE USED ONLY IN DETENTION PONDS WITH LESS THAN 30 ACRES TOTAL DRAINAGE AREA. SHALL ONLY BE USED IN DETENTION BASINS LARGE ENOUGH TO STORE 67 CUBIC YARDS OF SEDIMENT PER ACRE OF DISTURBED AREA. REFER TO THE LATEST EDITION OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR DESIGN CRITERIA.
	SYMBOL Rt-P		

CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
Rt-B	RETROFITTING SLOTTED BOARD DAM CONSTRUCTION DETAIL D-45 SECTION 163		A SLOTTED BOARD DAM CONSISTS OF STONE AND/OR FILTER FABRIC AND BOARDS WITH 0.5' - 1.0' SPACING TO SERVE AS A TEMPORARY SEDIMENT FILTER. PERMANENT STORMWATER DETENTION POND OUTLET: -DRAINAGE AREA UP TO 100 ACRES -DETENTION BASINS LARGE ENOUGH TO STORE 67 CUBIC YARDS OF SEDIMENT PER ACRE OF DISTURBED AREA ROADWAY DRAINAGE STRUCTURE: -OPEN END PIPES, WINGED HEADWALLS, OR CONCRETE WEIR OUTLETS WITH DRAINAGE AREA LESS THAN 30 ACRES REFER TO THE LATEST EDITION OF THE 'MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA' FOR DESIGN CRITERIA.
	SYMBOL Rt-B		
Rt-Sg1 Rt-Sg2 Rt-Sg3	RETROFITTING SILT CONTROL GATES CONSTRUCTION DETAIL D-20 SECTION 163	 FRONT VIEW	A SILT CONTROL GATE CONSISTS OF BOARDS WITHOUT SPACING AND FILTER FABRIC TO BE USED FOR TEMPORARY SEDIMENT STORAGE ON ROADWAY PROJECTS AT THE INLET OF STRUCTURES WITH A DRAINAGE AREA UP TO 50 ACRES. THE DISTURBED AREA WITHIN THE DRAINAGE AREA SHALL NOT EXCEED 5 ACRES. SILT CONTROL GATES SHOULD NOT BE USED ALONE, BUT WITH ANOTHER BMP DOWNSTREAM PRIOR TO DISCHARGE LEAVING PROJECT AREA. DO NOT USE SILT GATES IN STATE WATERS. Rt-Sg1-TYPE 1: USED ON BOX CULVERTS Rt-Sg2-TYPE 2: USED ON STRAIGHT HEADWALLS Rt-Sg3-TYPE 3: USED ON FLARED END SECTIONS AND TAPERED HEADWALLS
		SYMBOL Rt-Sg1 Rt-Sg2 Rt-Sg3	
SdI-NS	SEDIMENT BARRIER (NON-SENSITIVE) SILT FENCE TYPE A CONSTRUCTION DETAIL D-24 SECTION 171		SEDIMENT BARRIERS MINIMIZE AND PREVENT SEDIMENT CARRIED BY SHEET FLOW FROM LEAVING THE PROJECT AREA BY CAUSING DEPOSITION AND/OR FILTRATION OF SEDIMENT. SILT FENCE USED AS PERIMETER CONTROL SHALL NOT BE INSTALLED ACROSS CONCENTRATED FLOW. TYPE-A SILT FENCE IS TYPICALLY USED IN NON-ENVIRONMENTALLY SENSITIVE AREAS (ESAs) OR IN AREAS WITH FILLS LESS THAN 10'.
	LINE CODE A—A—A— SdI-NS —A—A—A—		IT SHOULD BE PLACED A MINIMUM OF 10' FROM CONSTRUCTION LIMITS OR ALONG THE RIGHT-OF-WAY LINE.
SdI-S	SEDIMENT BARRIER (SENSITIVE) SILT FENCE TYPE C CONSTRUCTION DETAIL D-24 SECTION 171		SEDIMENT BARRIERS MINIMIZE AND PREVENT SEDIMENT CARRIED BY SHEET FLOW FROM LEAVING THE PROJECT AREA BY CAUSING DEPOSITION AND/OR FILTRATION OF SEDIMENT. SILT FENCE USED AS PERIMETER CONTROL SHALL NOT BE INSTALLED ACROSS CONCENTRATED FLOW. TYPE-C SILT FENCE IS TYPICALLY USED IN ENVIRONMENTALLY SENSITIVE AREAS (ESAs) OR IN AREAS WITH FILLS 10' AND GREATER.
	LINE CODE C—C—C— SdI-S —C—C—C—		ALL ENVIRONMENTALLY SENSITIVE AREAS (ESAs) SHALL BE PROTECTED WITH A DOUBLE-ROW OF TYPE-C SILT FENCE REGARDLESS OF FILL HEIGHT. A SINGLE-ROW MAY BE USED FOR OTHER APPLICATIONS. IT SHOULD BE PLACED A MINIMUM OF 10' FROM CONSTRUCTION LIMITS OR ALONG THE RIGHT-OF-WAY LINE.

NOTE:

- DO NOT USE EROSION CONTROL ITEMS IN A FLOWING STREAM OR IN A TIDAL AREA BELOW HIGH TIDE.
- FOR ADDITIONAL INFORMATION ON THE DESIGN AND APPLICATION OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPs), REFER TO THE LATEST EDITION OF THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION'S, "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA".

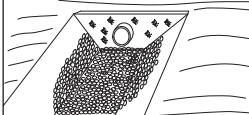
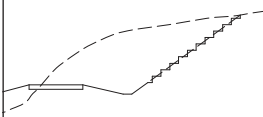
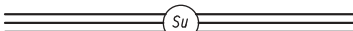
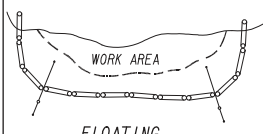
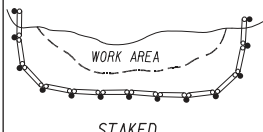
CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
Sd1-BB	SEDIMENT BARRIER BRUSH BARRIER CONSTRUCTION DETAIL D-24B SECTION 201		THIS ITEM CONSISTS OF INTERMINGLED BRUSH, LOGS, ETC. SO AS NOT TO FORM A SOLID DAM. CONSTRUCTED AT THE TOE OF FILL SLOPES ONLY DURING THE CLEARING AND GRUBBING OPERATION. THE BARRIER SHOULD BE USED AT THE TOE OF FILL SLOPES ON GRADING PROJECTS IN RURAL AREAS WHERE SUFFICIENT RIGHT OF WAY OR EASEMENT IS AVAILABLE (10 FEET OR MORE). THE BARRIER SHOULD RUN ROUGHLY PERPENDICULAR TO THE FLOW OF WATER WHERE THIS DOES NOT CONFLICT WITH RIGHT-OF-WAY OR EASEMENT LIMITS. THEY WILL NOT BE PLACED IN WETLANDS. TYPICALLY NOT SHOWN ON PLANS. PAYMENT FOR THIS ITEM IS INCLUDED IN THE CLEARING AND GRUBBING COST. NO SEPARATE PAYMENT SHALL BE MADE.
	LINE CODE * * * Sd1-BB * * *		
Sd2-B	INLET SEDIMENT TRAP (BAFFLE BOX) CONSTRUCTION DETAIL D-42 SECTION 163		BAFFLE BOX INLET SEDIMENT TRAP USED FOR INLETS RECEIVING HIGH FLOW RATE AND/OR VELOCITY. A GUIDE FOR USE WILL BE FOR AN INLET RECEIVING FLOW RATES 7 cfs AND GREATER.
	SYMBOL Sd2-B		
Sd2-Bg	INLET SEDIMENT TRAP (BLOCK & GRAVEL) CONSTRUCTION DETAIL D-42 SECTION 163		BLOCK AND GRAVEL DROP INLET PROTECTION USED FOR WHERE HEAVY FLOWS ARE EXPECTED AND WHERE OVERFLOW CAPACITY IS NECESSARY TO PREVENT EXCESSIVE PONDING AROUND THE STRUCTURE. CAN BE USED AT CULVERT INLETS. A GUIDE FOR USE WILL BE FOR AN INLET RECEIVING FLOW RATES THAT RANGE FROM 5 - 7 cfs.
	SYMBOL Sd2-Bg		
Sd2-F	INLET SEDIMENT TRAP (FILTER FABRIC) CONSTRUCTION DETAIL D-24C SECTION 163	 OR  OR 	(a) A SEDIMENT BARRIER CONSISTING OF A PREFABRICATED FRAME WITH FILTER FABRIC USED AROUND A DROP INLET OR CATCH BASIN. (b) A SEDIMENT BARRIER CONSISTING OF A PERFORATED METAL STAND PIPE WITH FILTER FABRIC USED AROUND A DROP INLET OR CATCH BASIN. (c) TYPE C SILT FENCE WITH SUPPORTING FRAME CAN BE USED AS AN ALTERNATE TO INLET SEDIMENT TRAP FOR AREAS WITH SLOPES < 5%. THIS ITEM IS USED TO PREVENT SILT FROM ENTERING THE PIPE SYSTEM. SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS. RECOMMENDED FOR INLET RECEIVING FLOW RATES THAT RANGE FROM 0 - 4 cfs.
	SYMBOL Sd2-F		
Sd2-G	INLET SEDIMENT TRAP (GRAVEL) CONSTRUCTION DETAIL D42 SECTION 163		GRAVEL DROP INLET PROTECTION USED WHERE HEAVY CONCENTRATED FLOWS ARE EXPECTED. STONE AND GRAVEL ARE USED TO TRAP SEDIMENT. THE SLOPE TOWARD THE INLET SHALL BE NO MORE THAN 3:1. A GUIDE FOR USE WILL BE FOR AN INLET RECEIVING FLOW RATES THAT RANGE FROM 3 - 5 cfs.
	SYMBOL Sd2-G		

CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
Sd3	TEMPORARY SEDIMENT BASIN CONSTRUCTION DETAIL D-22A, D-22B SECTION 163		A BASIN CREATED BY EXCAVATING AN AREA, DAMMING CONCENTRATED FLOW, OR A COMBINATION OF BOTH. THE BASIN IS DESIGNED TO STORE 67 CUBIC YARDS OF SEDIMENT PER ACRE OF DRAINAGE AREA. THE DRAINAGE AREA SHOULD NOT EXCEED 150 ACRES. BASINS TYPICALLY CONSISTS OF A DAM, PRINCIPAL SPILLWAY, AND AN EMERGENCY SPILLWAY. A FLOATING SURFACE SKIMMER SHALL BE REQUIRED AS PART OF THE PRINCIPAL SPILLWAY UNLESS INFEASIBLE. SUFFICIENT RIGHT-OF-WAY OR EASEMENT IS NEEDED FOR BASIN CONSTRUCTION AND MAINTENANCE ACCESS.
	SYMBOL Sd3		SEDIMENT BASINS SHALL BE CONSIDERED ON ALL PROJECTS, BUT MAY NOT BE PRACTICAL. BASINS SHOULD BE LOCATED TO MINIMIZE INTERFERENCE WITH CONSTRUCTION ACTIVITIES AND UTILITIES. REFER TO THE LATEST EDITION OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR DESIGN CRITERIA.
Sd4-C	ROCK OUTLET TEMPORARY SEDIMENT TRAP CONSTRUCTION DETAIL D-53 SECTION 163		TEMPORARY POND WITH ROCK OUTLET DESIGNED TO STORE 67 CUBIC YARDS OF SEDIMENT PER DRAINAGE AREA. DRAINAGE AREA SHALL NOT EXCEED 5 ACRES. DISTINGUISHED FROM TEMPORARY SEDIMENT BASIN BY LACK OF PRINCIPAL SPILLWAY. MAXIMUM POND DEPTH FROM BOTTOM OF POND TO EMERGENCY SPILLWAY IS 4 FEET.
	SYMBOL Sd4-C		A TEMPORARY SEDIMENT BASIN SHALL BE EVALUATED PRIOR TO CONSIDERING A TEMPORARY SEDIMENT TRAP. A TEMPORARY SEDIMENT TRAP IS IDEAL FOR SMALL AREAS WITH NO UNUSUAL DRAINAGE FEATURES AND EFFECTIVE AGAINST COARSE SEDIMENT, BUT NOT AGAINST SILT OR CLAY PARTICLES THAT REMAIN SUSPENDED. REFER TO THE LATEST EDITION OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR DESIGN CRITERIA.
Sk	FLOATING SURFACE SKIMMER CONSTRUCTION DETAIL D-22A, D-22B SECTION 163		A BUOYANT DEVICE THAT DRAINS WATER FROM THE SURFACE OF A TEMPORARY SEDIMENT BASIN AT A CONTROLLED FLOW RATE. THE INLET/ORIFICE SIZE IS DESIGNED TO DRAIN THE BASIN WITHIN 24 - 48 HOURS. THE SKIMMER INFORMATION SHALL BE PROVIDED IN CONJUNCTION WITH THE SEDIMENT BASIN INFORMATION IN PLANS. IF A SKIMMER IS INFEASIBLE, THE DESIGNER SHALL PROVIDE A WRITTEN JUSTIFICATION IN THE PLANS.
	SYMBOL Sk		SKIMMERS ARE ATTACHED TO A RISER WITHOUT PERFORATIONS AND ACTS AS THE PRIMARY SPILLWAY. THE SKIMMER BMP SYMBOL SHALL BE SHOWN IN CONJUNCTION WITH THE TEMPORARY SEDIMENT BASIN BMP SYMBOL WHEN APPLICABLE. REFER TO THE LATEST EDITION OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR ADDITIONAL INFORMATION.
Sr	TEMPORARY STREAM CROSSING SECTION 107		A TEMPORARY STRUCTURE INSTALLED ACROSS A FLOWING STREAM OR WATERCOURSE FOR USE BY CONSTRUCTION EQUIPMENT. THIS BMP PROVIDES A MEANS TO CROSS STREAMS OR WATERCOURSES WITHOUT MOVING SEDIMENT INTO STREAMS, DAMAGING THE STREAM BED OR CHANNEL, OR CAUSING FLOODING. THIS BMP SHOULD NOT BE USED ON STREAMS WITH DRAINAGE AREAS GREATER THAN ONE SQUARE MILE, UNLESS SPECIFICALLY DESIGNED TO ACCOMMODATE THE ADDITIONAL DRAINAGE AREA BY THE DESIGN PROFESSIONAL. A CERTIFICATION STATEMENT AND SIGNATURE SHALL ACCOMPANY THE DESIGN.
	SYMBOL Sr		THIS BMP SHALL BE DESIGNED ACCORDING TO THE LATEST EDITION OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA". FOR CONTRACTOR'S USE ONLY!

NOTE:

1. DO NOT USE EROSION CONTROL ITEMS IN A FLOWING STREAM OR IN A TIDAL AREA BELOW HIGH TIDE.
2. FOR ADDITIONAL INFORMATION ON THE DESIGN AND APPLICATION OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPs), REFER TO THE LATEST EDITION OF THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION'S, "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA".

REVISION DATES			EROSION CONTROL LEGEND			
			UNIFORM CODE SHEET			
			SHEET 6 OF 7			
			CHECKED:	DATE:	DRAWING No.	
			BACKCHECKED:	DATE:		
			CORRECTED:	DATE:		
			VERIFIED:	DATE:	52-0006	

CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
St	STORM DRAIN OUTLET PROTECTION GA. STD. 1125 & 2332		A PIPE OR BOX CULVERT OUTLET HEADWALL WITH AN APRON AND DISSIPATOR BLOCKS IS USED TO REDUCE VELOCITY AT THE OUTLET OF A PIPE PRIOR TO ENTERING AN EXISTING STREAM OR PUBLICLY MAINTAINED DRAINAGE SYSTEM. IT IS USED ON THE OUTLET OF ALL BOX CULVERTS AND ON 48" AND LARGER PIPES. MAY BE USED ON INLET FOR FLOWING STREAMS. USE ON SMALL PIPES WHEN OUTLET VELOCITY OF THE 25-YEAR STORM IS 12 fps AND GREATER.
	SYMBOL 		
St-Rp	STORM DRAIN OUTLET PROTECTION (RIP-RAP) CONSTRUCTION DETAIL D-55 SECTION 603		RIP-RAP OUTLET PROTECTION IS USED TO REDUCE VELOCITY AT THE OUTLET OF A PIPE, CHANNEL, OR STRUCTURE PRIOR TO ENTERING AN EXISTING STREAM OR PUBLICLY MAINTAINED DRAINAGE SYSTEM. THE MINIMUM DESIGN OF RIP-RAP OUTLET PROTECTION SHALL BE THE 25-YEAR STORM PEAK FLOW, BUT LARGER STORMS ARE RECOMMENDED. TYPE-1 RIP-RAP AT A DEPTH OF 36" AND PLACED ON FILTER FABRIC IS PREFERRED FOR ALL d50 <= 1.2 FEET. TYPE-3 RIP-RAP AT A DEPTH OF 18" AND PLACED ON FILTER FABRIC MAY BE USED FOR d50 <= 0.7 FEET.
	PATTERN 		REFER TO THE LATEST EDITION OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR REQUIRED DESIGN DIMENSIONS AND OTHER INFORMATION TO BE INCLUDED IN THE PLANS.
Su	SURFACE ROUGHENING SERRATED SLOPES CONSTRUCTION DETAIL S-7 SECTION 205		PROVIDING A ROUGH SOIL SURFACE WITH HORIZONTAL DEPRESSIONS, BY OPERATING A CLEATED DOZER ON THE SLOPE IN A VERTICAL DIRECTION. CREATING SERRATED SLOPES IN THE GRADING PROCESS TO CONSTRUCT BENCHES WILL REDUCE RUNOFF VELOCITY AND INCREASE INFILTRATION OF WATER. IN MOST CASES THIS BMP IS NOT REQUIRED TO BE SHOWN ON THE PLANS, BUT REQUIRED TO BE COMPLETED BY THE CONTRACTOR UNDER ALL PROJECTS. IF SERRATED SLOPES ARE SPECIFIED BY THE SOIL SURVEY, THEN THIS BMP SHALL BE SHOWN ON THE PLANS WHERE SERRATED SLOPES ARE TO BE USED.
	LINE CODE 		
Tc-F	TURBIDITY CURTAIN FLOATING CONSTRUCTION DETAIL D-51 SECTION 170		A FLOATING TURBIDITY CURTAIN IS USED TO PREVENT SEDIMENT FROM MOVING IN WATER BY ALLOWING IT TO DROP OUT OF SUSPENSION AND REMAIN WITHIN THE CONSTRUCTION AREA. IT IS TYPICALLY USED WHERE CONSTRUCTION IS REQUIRED IN A LARGE BODY OF WATER SUCH AS LAKES AND RIVERS. IT SHOULD BE USED AS DIRECTED BY THE ENGINEER. THIS BMP IS ONLY TO BE USED WHEN PERMITTED FILL IS BEING PLACED INTO A STATE WATER, OR AS A SUPPLEMENT TO ADEQUATELY PLACED PERIMETER BMPs. IT MAY ALSO BE REFERRED TO AS A FLOATING BOOM, SILT BARRIER, OR SILT CURTAIN.
	LINE CODE 		
Tc-S	TURBIDITY CURTAIN STAKED CONSTRUCTION DETAIL D-51 SECTION 170		A STAKED TURBIDITY CURTAIN IS USED TO PREVENT SEDIMENT FROM MOVING IN WATER BY ALLOWING IT TO DROP OUT OF SUSPENSION AND REMAIN WITHIN THE CONSTRUCTION AREA. IT IS TYPICALLY USED IN SHALLOW INUNDATED AREAS. IT MAY BE USED TO PROTECT A SMALL STREAM BEING REALIGNED OR RESTORED. IN THIS CASE, CURTAIN SHOULD EXTEND TO BOTTOM OF STREAMBED. THE HEIGHT SHOULD BE LIMITED TO 5 FEET UNLESS DIRECTED AND EXTEND 2 FEET ABOVE NORMAL WATER ELEVATION. IT SHOULD BE USED AS DIRECTED BY THE ENGINEER. THIS BMP IS ONLY TO BE USED WHEN PERMITTED FILL IS BEING PLACED INTO A STATE WATER, OR AS A SUPPLEMENT TO ADEQUATELY PLACED PERIMETER BMPs. IT MAY BE REFERRED TO AS A SILT BARRIER OR SILT CURTAIN.
	LINE CODE 		

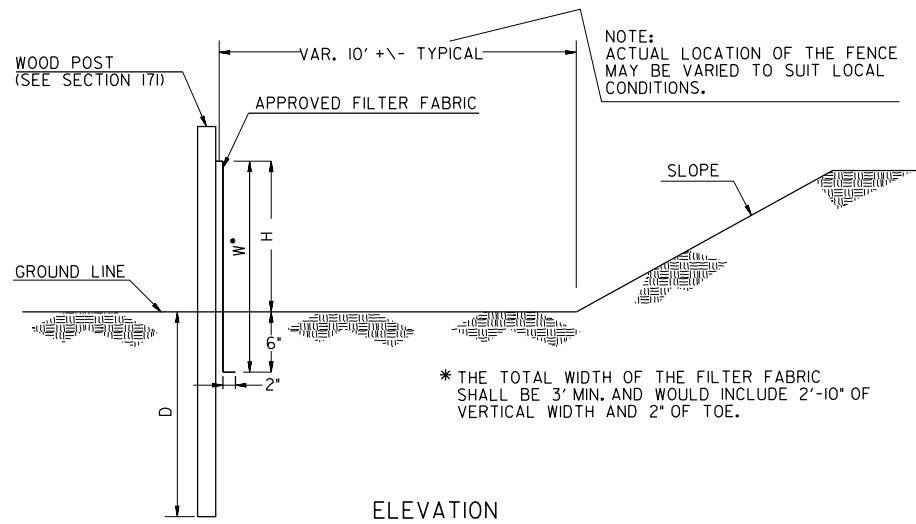
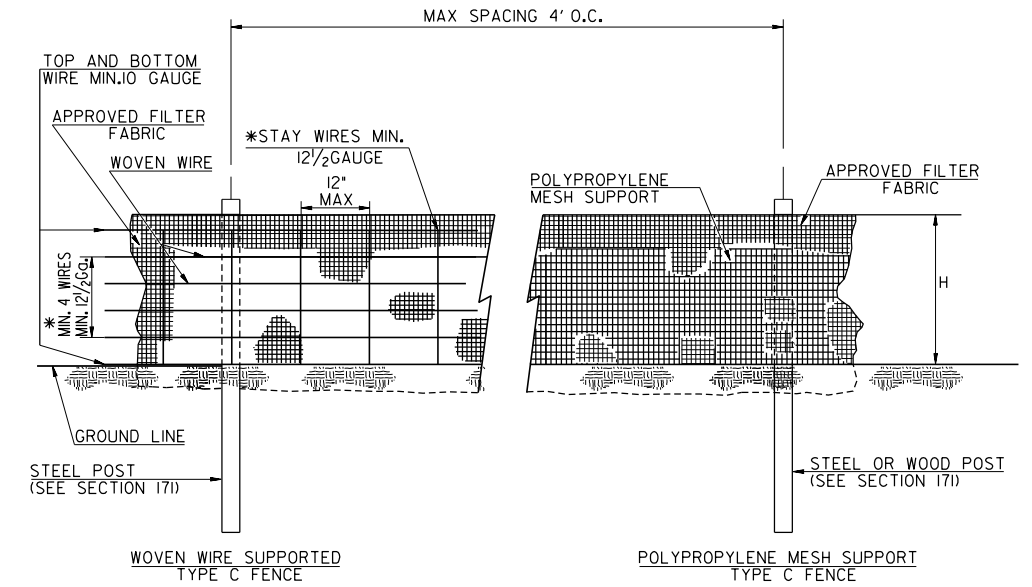
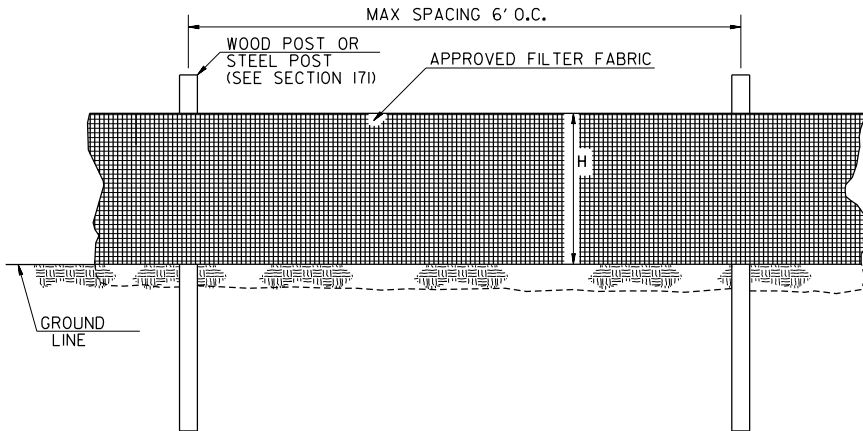
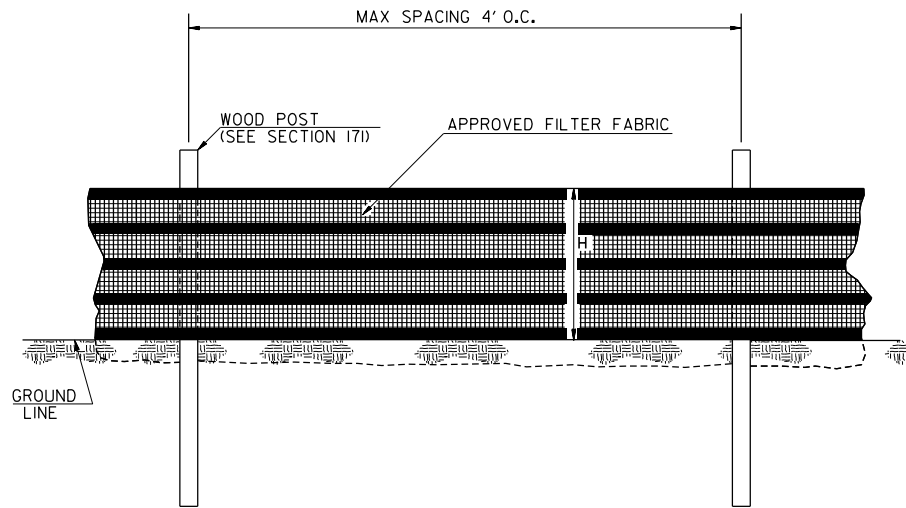
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NOTE:

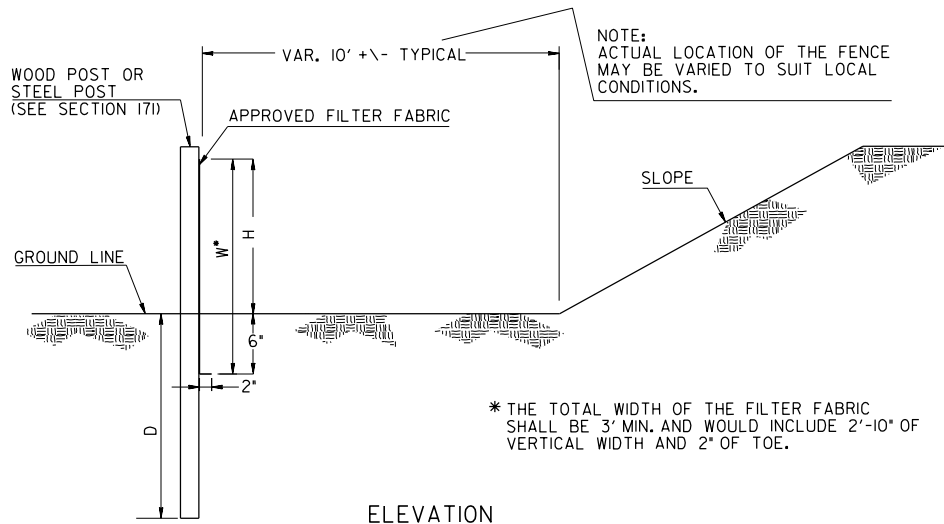
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NO SCALE

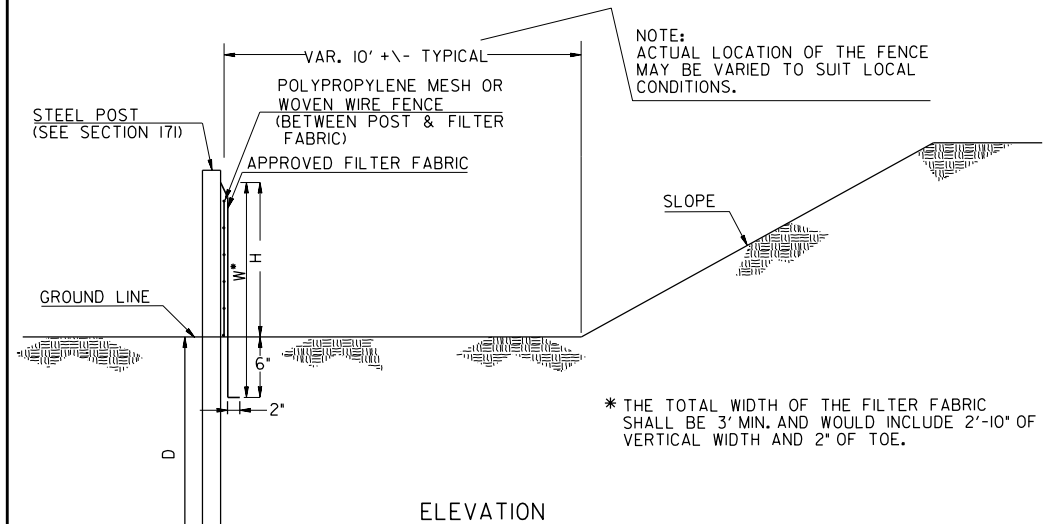
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			CHECKED:		DATE:		DRAWING No. 52-0007
			BACKCHECKED:		DATE:		
			CORRECTED:		DATE:		
			VERIFIED:		DATE:		



SINGLE ROW TYPE C SILT FENCE WITH HIGH TENSILE
POLYPROPYLENE INTEGRATED SUPPORT WOVEN FABRIC



SINGLE ROW TYPE A SILT FENCE



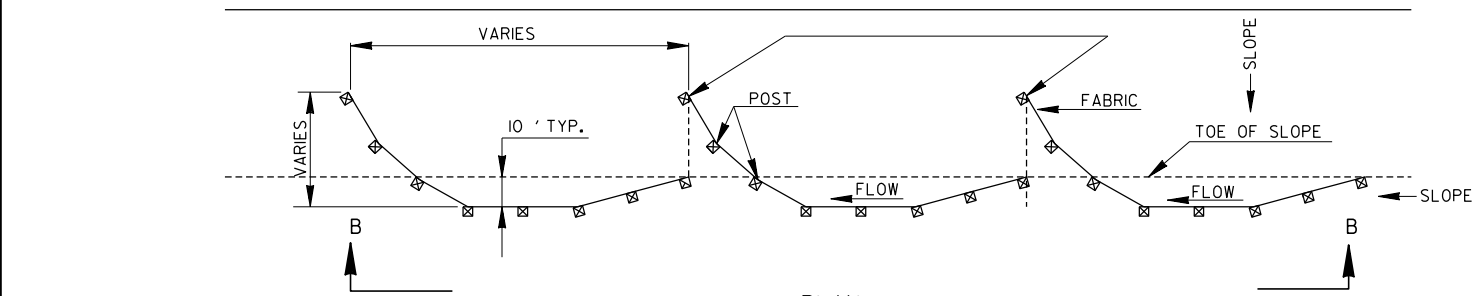
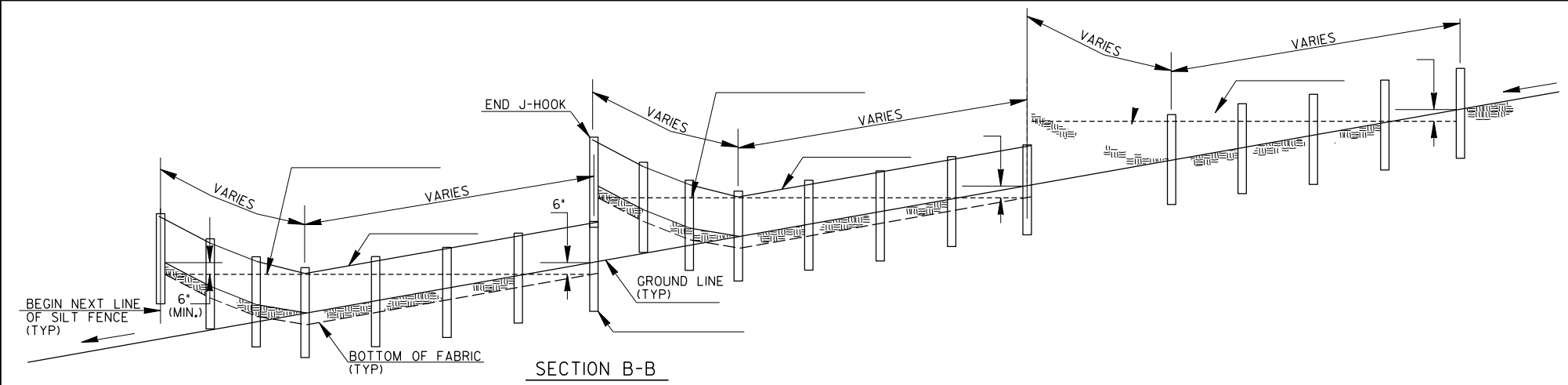
SINGLE ROW TYPE C SILT FENCE WITH WOVEN WIRE SUPPORT
OR POLYPROPYLENE MESH SUPPORT

FENCE TYPE	POST LENGTH	H	D	W*	TYPICAL USES
TYPE "A"	4 FT.	2'-4"	1'-6"	3'-0"	
TYPE "C"	4 FT.	2'-4"	1'-6"	3'-0"	AT BRIDGE END ROLLS, DOUBLE ROW ALONG STREAMS, WETLANDS AND ENVIRONMENTALLY SENSITIVE AREAS FOR USE OF THIS MATERIAL IN FABRIC CHECKDAMS SEE D-240.

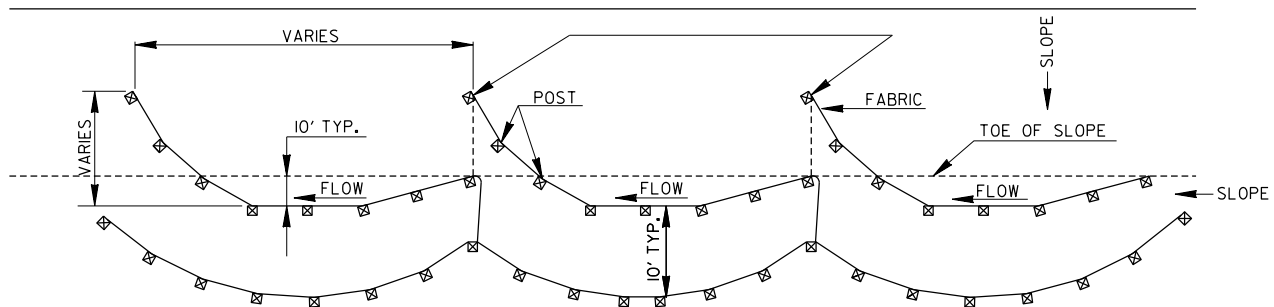
NOTES:

1. WIRE STAPLES SHALL BE AT LEAST 17 GAUGE, WITH LEGS AT LEAST $\frac{1}{2}$ INCHES LONG AND A CROWN AT LEAST $\frac{3}{4}$ INCHES WIDE. NAILS SHALL BE AT LEAST 14 GAUGE, 1 INCH LONG, WITH BUTTON HEADS AT LEAST $\frac{3}{4}$ INCHES WIDE.
2. SEE SECTION 171 FOR PLACEMENT OF NAILS OR STAPLES FOR TYPE A AND TYPE C FENCES.
3. THE VERTICAL WIRES FOR THE WOVEN WIRE SUPPORT FENCE SHALL HAVE A MAXIMUM SPACING OF 12 INCHES. THE TOP AND BOTTOM WIRES SHALL BE AT LEAST 10 GAUGE AND ALL OTHER WIRES SHALL BE AT LEAST 12 $\frac{1}{2}$ GAUGE.
4. TEMPORARY SILT FENCE INSTALLATION IS DIFFERENT THAN THE SILT RETENTION BARRIER INSTALLATION.
5. SEE SECTION 171 FOR SILT FENCE SPECIFICATIONS.
6. SEE SECTION 894 FOR FENCING SPECIFICATIONS.
7. SEE QPL-36 FOR A LIST OF APPROVED SILT FENCE FABRIC.
8. TEMPORARY SILT FENCE SHALL NOT BE PLACED WITHIN STATE WATERS UNLESS PERMITTED.

			09-2022	DATE	DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA	
		ADDED HIGH TENSILE POLYPROPYLENE INTEGRATED FABRIC	REVISION		CONSTRUCTION DETAIL TEMPORARY SILT FENCE	
	AL	BY	JANUARY 2011 NO SCALE			NUMBER D-24A 1 OF 4



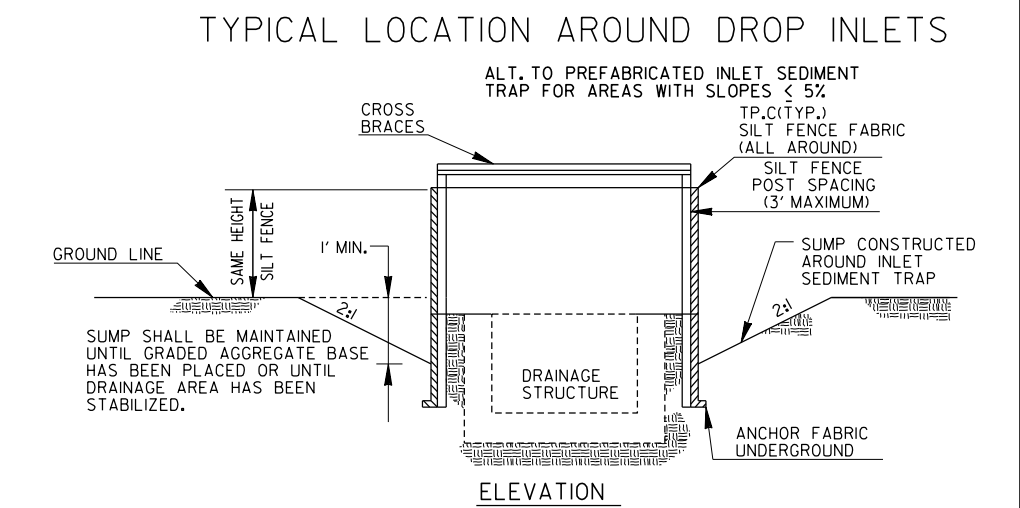
PLAN
SINGLE ROW SILT FENCE



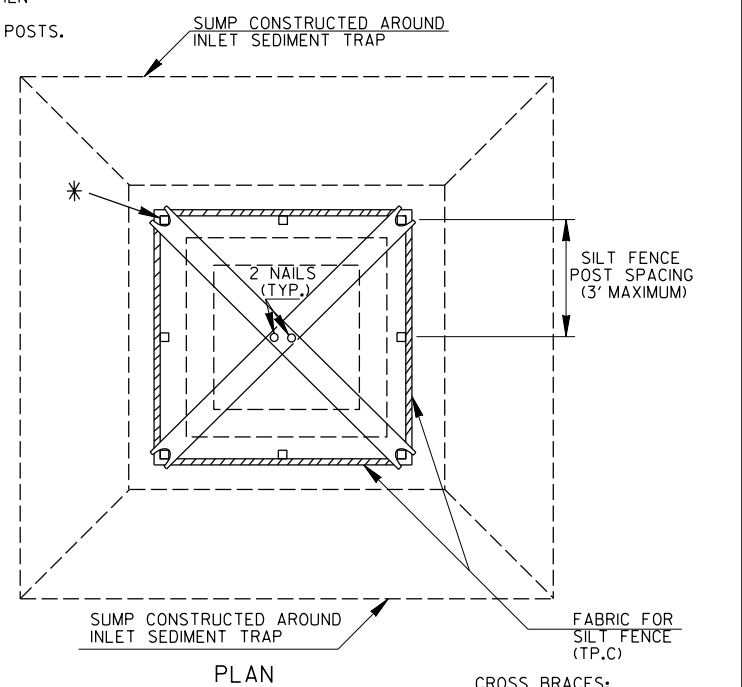
PLAN
DOUBLE ROW SILT FENCE

TYPICAL J HOOK SPACING		
SLOPE PERCENT	TYPE OF SILT FENCE	MINIMUM SPACING (FEET)
1% TO 2%	TYPE A OR TYPE C	100' ±
2% TO 3%	TYPE A OR TYPE C	50' ±
3% TO 4%	TYPE C	50' ±
4% TO 5%	TYPE C	25' ±

- NOTE:
1. IF THE GRADE IS BETWEEN 0 TO 1 PERCENT, THE SILT FENCE SHALL BE PLACED ACROSS THE DITCH.
 2. TEMPORARY SILT FENCE SHALL NOT BE PLACED WITHIN STATE WATERS UNLESS PERMITTED.



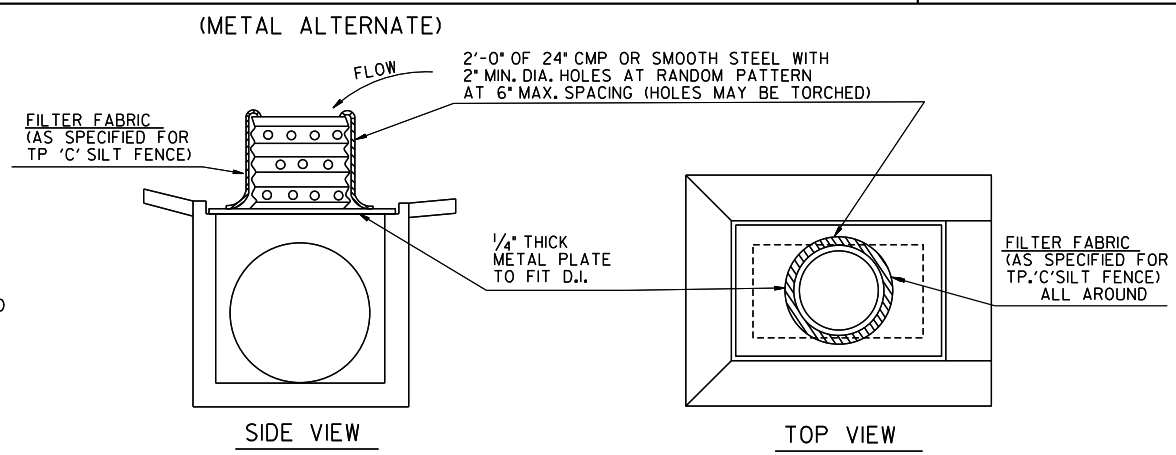
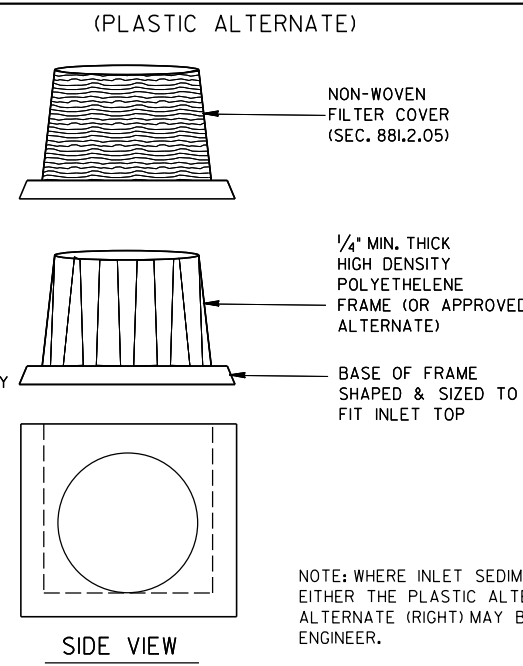
* CROSS BRACING REQUIRED WHEN USING "ALTERNATE" TYPE C PRODUCTS WHICH USE WOOD POSTS.



CROSS BRACES:
TWO - 2 X 4's WITH ENDS TO FIT POST, PROVIDING STURDY SUPPORT, OR AN APPROVED ALTERNATE

NOTE:
PAYMENT AS INLET SEDIMENT TRAP PER EACH.
NOTE:
SEE SEPARATE SHEET ENTITLED "TEMPORARY SILT FENCE DETAILS" FOR SILT FENCE ERECTION DETAILS.

- NOTE:
THE DRAINAGE AREA ENTERING THE INLET SEDIMENT TRAP SHALL BE NO GREATER THAN ONE ACRE.
- TYPICAL CONSTRUCTION SEQUENCE FOR INLET SEDIMENT TRAP ALTERNATE
1. EXCAVATE APPROXIMATELY 4" TO 6" BELOW THE TOP OF THE INLET STRUCTURE.
 2. PLACE THE FRAME ONTO THE INLET STRUCTURE, ENSURING PROPER SEATING OF FRAME TO STRUCTURE.
 3. SLIDE THE FILTER OVER THE FRAME.
 4. FILL THE FILTER POCKETS WITH SOIL, #57 GRAVEL OR EQUIVALENT. THE FILTER POCKETS SHOULD BE COMPLETELY FILLED TO ENSURE A GOOD SEAL BETWEEN THE GROUND AND INLET STRUCTURE.
 5. BACK FILL AROUND THE FRAME AND FILTER ASSEMBLY IS NOT REQUIRED TO COMPLETE INSTALLATION; HOWEVER, BACK FILLING MAY BE NECESSARY TO COMPLETE EXCAVATION REQUIREMENTS FOR THE SITE.
- NOTE:
INLET SEDIMENT TRAP ALTERNATE SHALL BE AS APPROVED BY THE GA. D.O.T. OFFICE OF MATERIALS & RESEARCH. DETAILS & SPECIFICATIONS NOT SHOWN ARE PER THE MANUFACTURER'S REQUIREMENTS.



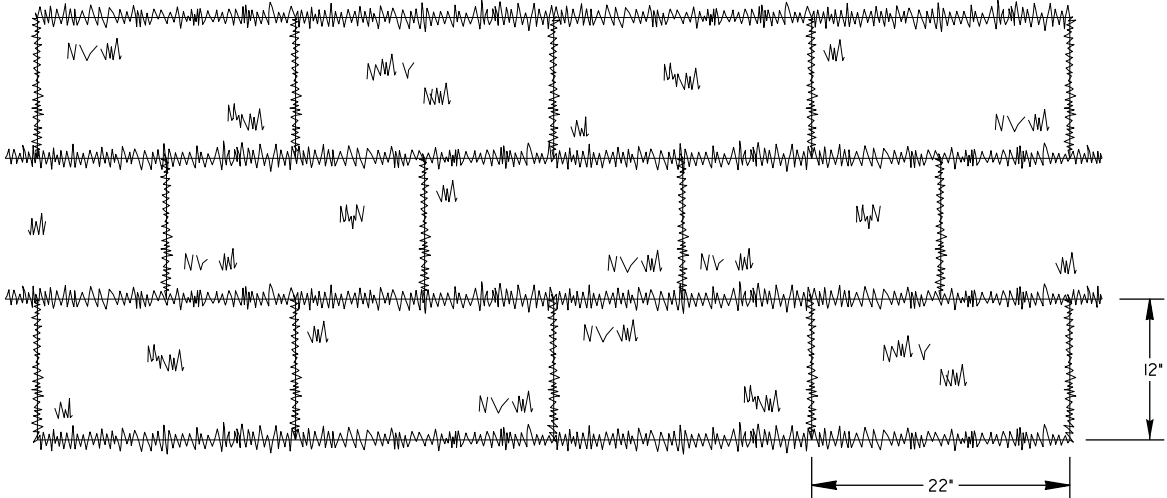
NOTE: WHERE INLET SEDIMENT TRAPS ARE SPECIFIED, EITHER THE PLASTIC ALTERNATE (LEFT) OR THE METAL ALTERNATE (RIGHT) MAY BE USED AS APPROVED BY THE ENGINEER.

NOTE:
INLET SEDIMENT TRAP AND INLET TO BE BUILT CONTINUOUS WITH PIPE
NOTE:
PAYMENT AS INLET SEDIMENT TRAP PER EACH

NOTE: SEE SEPARATE DETAILS FOR SILT FENCE AROUND DROP INLETS.

INLET SEDIMENT TRAP - FOR DROP INLETS

SOD LAYOUT

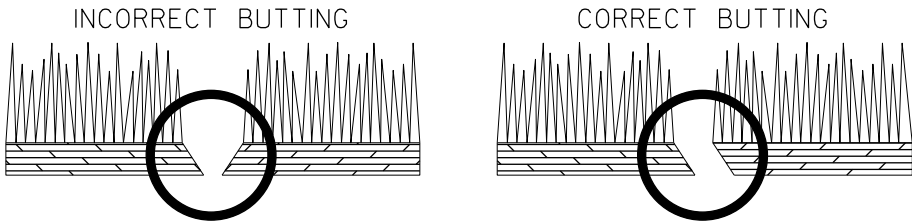


NOTE: SOD MAY BE EITHER 12" WIDE BY 22" LONG BLOCKS OR 21" WIDE BY 52" LONG ROLLS.

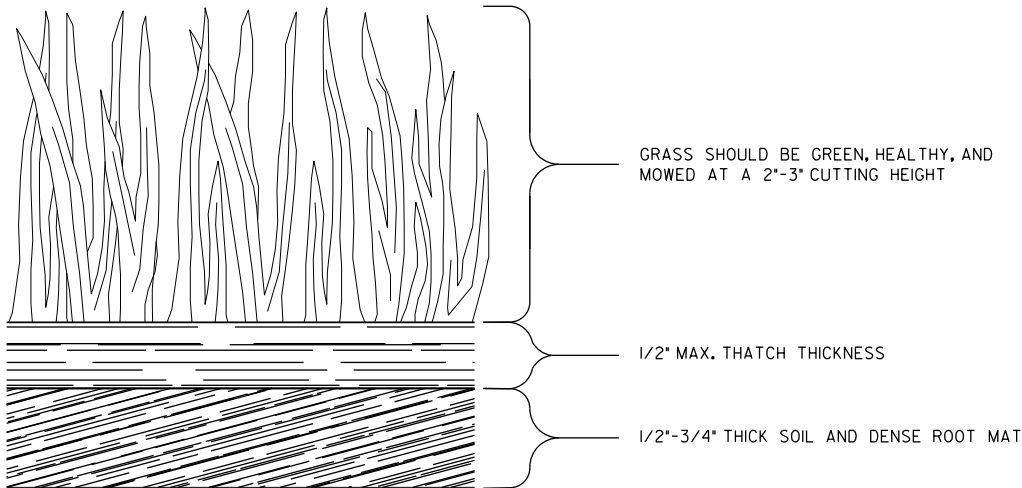
GENERAL NOTES:

- SOD SHALL MEET SECTIONS 700 AND 890 OF THE STANDARD SPECIFICATIONS AND SUPPLEMENTS THERETO. SOD SHALL BE CUT INTO 12"Wx22"L BLOCKS OR 21"Wx52"L ROLLS.
- PLACE SOD IN A STAGGERED PATTERN ENSURING FIRM CONTACT WITH THE SOIL. BUTT THE STRIPS TIGHTLY AGAINST EACH OTHER WITH THE AUTOMATIC SOD CUTTER ANGLES CORRECTLY MATCHED WITHOUT SPACES OR OVERLAP.
- PLACE THE LONG SIDE OF SOD PERPENDICULAR TO DRAINAGE FLOW IF INSTALLED IN DITCHES.
- STAKE SOD PLACED IN DITCHES OR SLOPES STEEPER THAN 2:1 OR ANY OTHER AREAS WHERE SOD SLIPPING MAY OCCUR. USE WOOD STAKES THAT ARE A MINIMUM OF 8" LONG AND A MAXIMUM OF 1" WIDE. DRIVE STAKES FLUSH WITH THE TOP OF SOD AND USE A MINIMUM OF 8 STAKES PER SQUARE YARD TO HOLD SOD IN PLACE.
- ROLL SOD IMMEDIATELY TO ACHIEVE FIRM CONTACT WITH THE SOIL.
- WATER THE SOD IMMEDIATELY AFTER INSTALLATION AND WATER TO A DEPTH OF 4" AS NEEDED.
- MOW ESTABLISHED SOD TO A HEIGHT NOT LESS THAN 2"-3" AS NECESSARY.

ABUTTING SOD



SOD APPEARANCE



PAY ITEM:
700-9300 SOD (SY)

		DATE	DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA	
		REVISION	CONSTRUCTION DETAILS SOD INSTALLATION	
			NO SCALE	4-22-2016
		BY	DESIGNED _____ DRAWN <u>DLE</u> TRACED _____ CHECKED _____	NUMBER D-54