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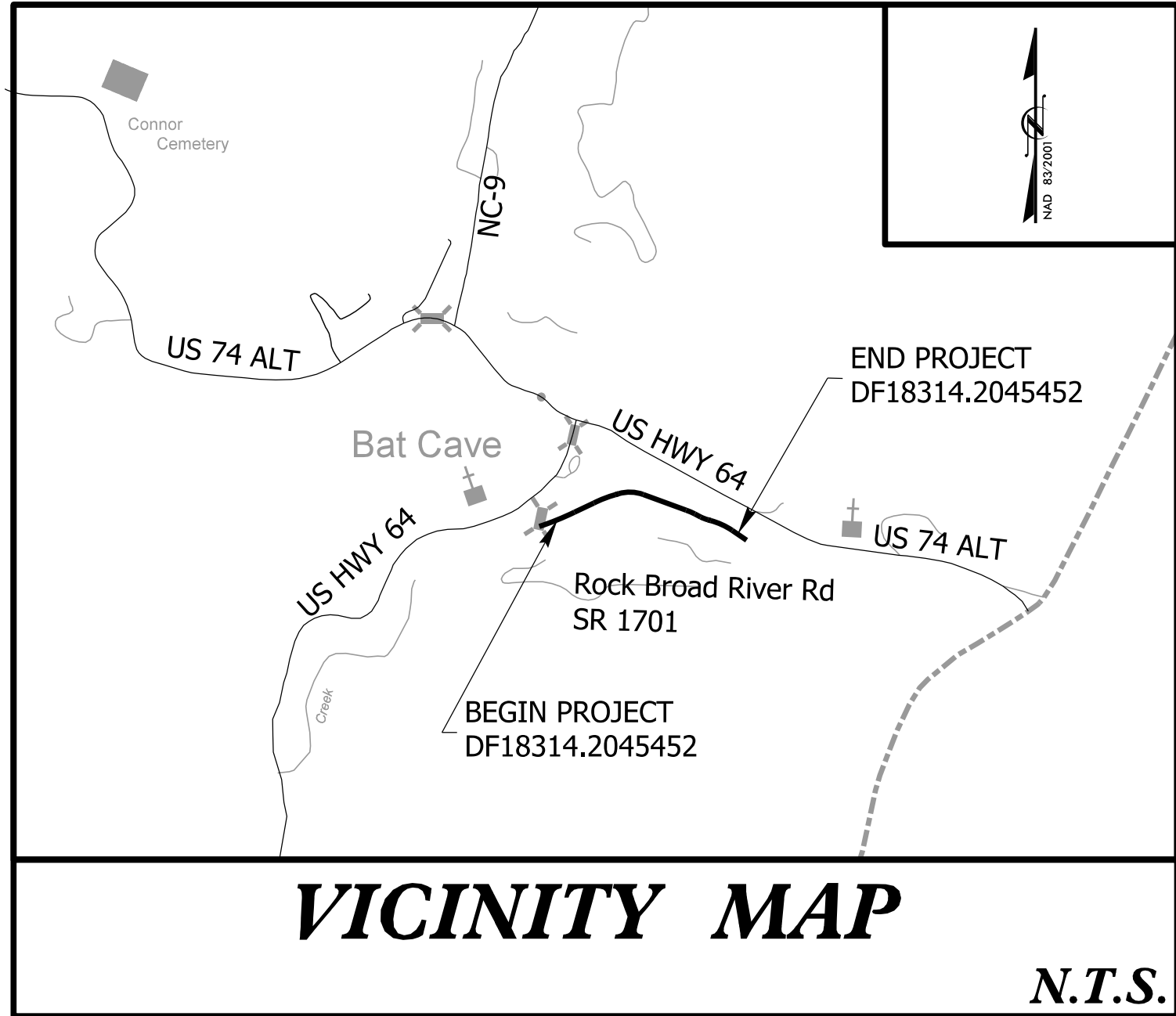
6/22/2026
X:\Reign\24-0176.002 - Riverside Drive\05-CAD\Riverside Dr\Roadway\Proj\RiversideDr_Rdy_tsh.dgn
acpcenter

09/08/99

CONTRACT: DN01165

PROJECT: DF18314.2045452

See Sheet 1A For Index of Sheets

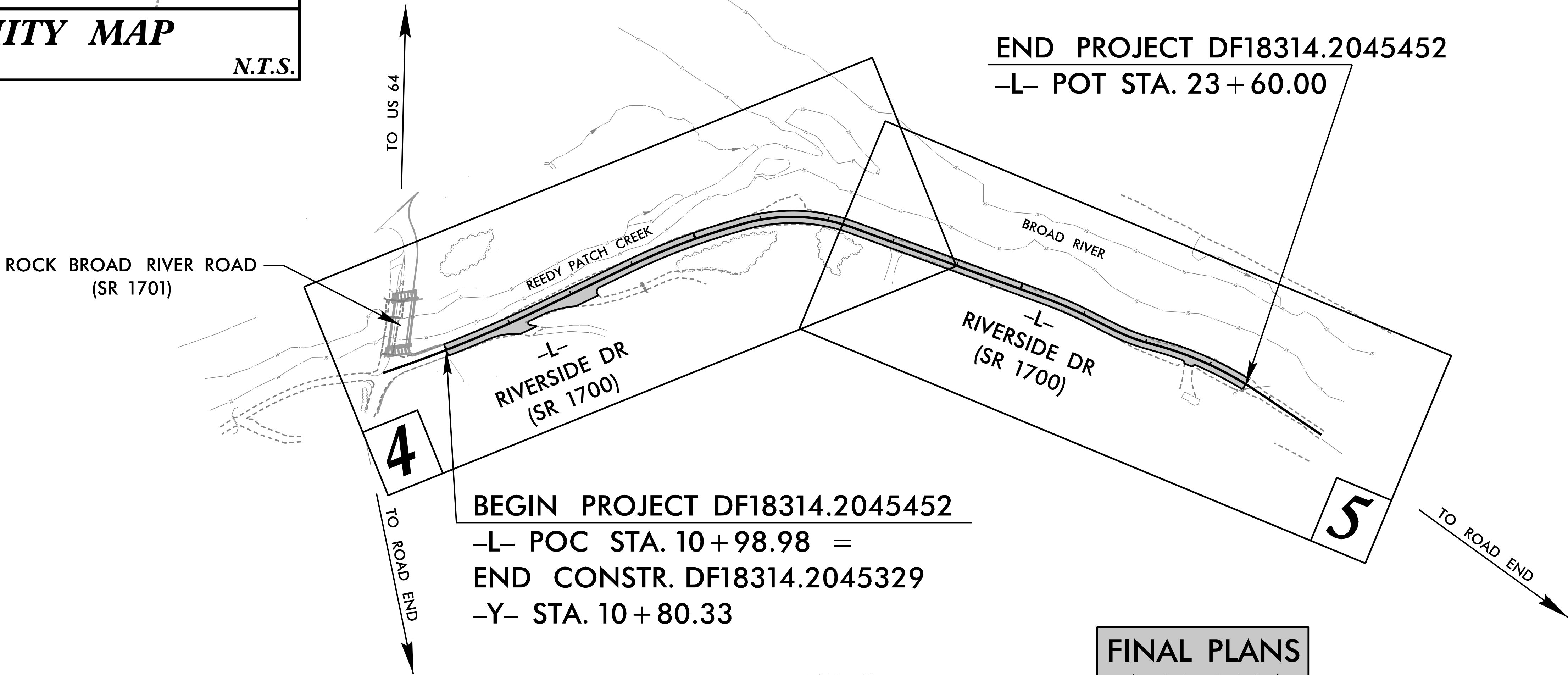


STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

HENDERSON COUNTY

LOCATION: SR 1700 (RIVERSIDE DR).
ALONG REEDYPATCH CREEK

TYPE OF WORK: GRADING, DRAINAGE, AND GRAVEL PAVING



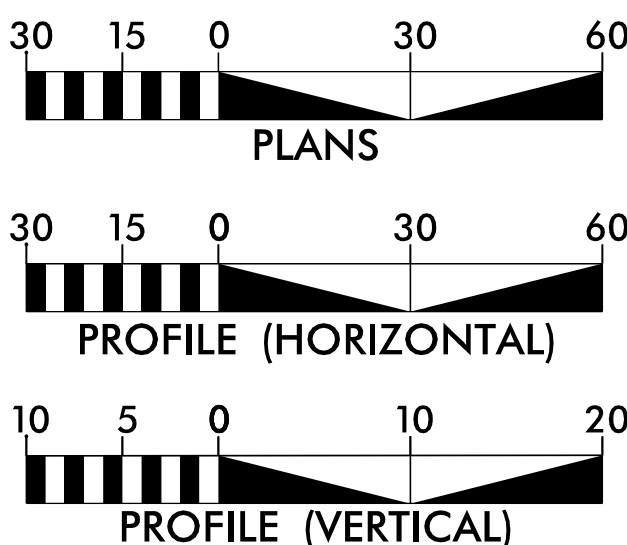
NOTES:

1. CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II.
2. THIS PROJECT IS NOT WITHIN MUNICIPAL BOUNDARIES.
3. THIS IS NOT A CONTROL OF ACCESS PROJECT

FINAL PLANS
6-23-2026

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES



DESIGN DATA

ADT = N/A
ADT = N/A
K = N/A %
D = N/A %
T = N/A % *
V = 30 MPH
* TTST = N/A DUAL N/A
FUNC CLASS =
LOCAL
N/A TIER

PROJECT LENGTH

LENGTH OF ROADWAY PROJECT = 0.239 MILES
LENGTH OF STRUCTURE PROJECT = 0.000 MILES
TOTAL LENGTH OF PROJECT = 0.239 MILES

PLANS PREPARED BY:

AMT
A. MORTON THOMAS AND ASSOCIATES, INC.
900 RIDGEFIELD DRIVE, SUITE 325 • RALEIGH, NC 27609
(919) 855-9989 • NC LICENSE NO. F-1049
WWW.AMTENGINEERING.COM

RIGHT OF WAY DATE:
JUNE 18, 2026

LETTING DATE:
AUGUST 11, 2026

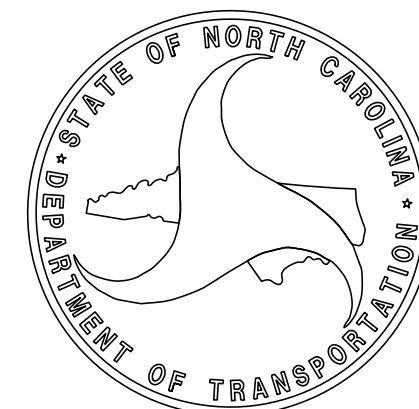
ROBERT WILLIAMS, PE
PROJECT ENGINEER
JP HAINLINE, PE
PROJECT DESIGN ENGINEER
BARRY MOSTELLER
NCDOT CONTACT

HYDRAULICS ENGINEER

Signed by:
Andrew M. Howell
6/23/2026
P.E.

ROADWAY DESIGN
ENGINEER

Signed by:
Robert Williams
6/23/2026
P.E.



INDEX OF SHEETS, LIST OF STANDARD DRAWINGS, & GENERAL NOTES

PROJECT REFERENCE NO.	SHEET NO.
DF18314.2045452	1A

INDEX OF SHEETS

SHEET NUMBER	SHEET
1	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES AND STANDARD DRAWINGS
1B	CONVENTIONAL SYMBOLS
2A-1	PAVEMENT SCHEDULE AND TYPICAL SECTIONS
2C-1 THRU 2C-2	DETAILS IN LIEU OF STANDARDS
2G-1 THRU 2G-5	GEOTECHNICAL DETAIL SHEETS
3B-1	ROADWAY SUMMARIES
3D-1	DRAINAGE SUMMARY SHEET
3P-1	PARCEL SUMMARIES
4 THRU 5	PLAN AND PROFILE SHEET
RW-1	RIGHT OF WAY SHEET
EC-1 THRU EC-7	EROSION CONTROL SHEETS
RF-1	REFORESTATION DETAIL SHEET
X-1	CROSS-SECTION SUMMARY
X-2 THRU X-17	CROSS-SECTION SHEETS

LIST OF STANDARD DRAWINGS

2024 ROADWAY ENGLISH STANDARD DRAWINGS	
The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch - N. C. Department of Transportation - Raleigh, N. C., Dated January, 2024 are applicable to this project and by reference hereby are considered a part of these plans:	
STD.NO.	TITLE
DIVISION 2 - EARTHWORK	
200.02	Method of Clearing - Method II
225.02	Guide for Grading Subgrade - Secondary and Local
225.04	Method for Obtaining Superelevation - Two Lane Pavement
DIVISION 3 - PIPE CULVERTS	
300.01	Method of Pipe Installation
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction - High Side of Superelevated Curve - Method I
DIVISION 8 - INCIDENTALS	
806.01	Concrete Right-of-Way Marker
876.01	Rip Rap in Channels and Ditches
DIVISION 11 - WORK ZONE TRAFFIC CONTROL	
1101.01	Work Zone Advance Warning Signs
1101.02	Temporary Lane Closures
1101.03	Temporary Road Closures
1101.04	Temporary Shoulder Closures
1101.05	Work Zone Vehicle Accesses
1101.11	Traffic Control Design Tables
1110.01	Stationary Work Zone Signs
1110.02	Portable Work Zone Signs
1130.01	Drums
1135.01	Cones
1145.01	Barricades - Type III
1150.01	Flaggers
1180.01	Skinny Drums

GENERAL NOTES

2024 SPECIFICATIONS
EFFECTIVE: 01-16-2024
REVISED:
GRADING AND SURFACING OR RESURFACING AND WIDENING: THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. WHERE NO GRADE LINES ARE SHOWN, THE PROFILES SHOWN DENOTE THE TOP ELEVATION OF THE EXISTING PAVEMENT ALONG THE CENTER LINE OF SURVEY ON WHICH THE PROPOSED RESURFACING WILL BE PLACED. GRADE LINES MAY BE ADJUSTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE-IN.
CLEARING: CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD 11.
SIDE ROADS: THE CONTRACTOR WILL BE REQUIRED TO DO ALL NECESSARY WORK TO PROVIDE SUITABLE CONNECTIONS WITH ALL ROADS, STREETS, AND DRIVES ENTERING THIS PROJECT. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PARTICULAR ITEMS INVOLVED.
SUBSURFACE PLANS: NO SUBSURFACE PLANS ARE AVAILABLE ON THIS PROJECT. THE CONTRACTOR SHOULD MAKE HIS OWN INVESTIGATION OF THE SUBSURAFCE CONDITIONS.
UTILITIES: UTILITIES PRESENT ON THIS PROJECT ARE: DUKE ENERGY AND AT&T. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL UTILITIES WITHIN WORK AREAS BEFORE STARTING WORK. ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS.
RIGHT-OF-WAY MARKERS: ALL RIGHT-OF-WAY MARKERS ON THIS PROJECT SHALL BE PLACED BY CONTRACT.

8/17/99

6/28/2026 X:\Raleigh\24-0176.002 - Riverside Drive\05-CAD\Riverside Dr\Roadway\Proj\RiversideDr_Rd.psh01A.dgn

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS
CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:

State Line	
County Line	
Township Line	
City Line	
Reservation Line	
Property Line	
Existing Iron Pin	
Computed Property Corner	
Property Monument	
Parcel/Sequence Number	
Existing Fence Line	
Proposed Woven Wire Fence	
Proposed Chain Link Fence	
Proposed Barbed Wire Fence	
Existing Wetland Boundary	
Proposed Wetland Boundary	
Existing Endangered Animal Boundary	
Existing Endangered Plant Boundary	
Existing Historic Property Boundary	
Known Contamination Area: Soil	
Potential Contamination Area: Soil	
Known Contamination Area: Water	
Potential Contamination Area: Water	
Contaminated Site: Known or Potential	

BUILDINGS AND OTHER CULTURE:

Gas Pump Vent or U/G Tank Cap	
Sign	
Well	
Small Mine	
Foundation	
Area Outline	
Cemetery	
Building	
School	
Church	
Dam	

HYDROLOGY:

Stream or Body of Water	
Hydro, Pool or Reservoir	
Jurisdictional Stream	
Buffer Zone 1	
Buffer Zone 2	
Flow Arrow	
Disappearing Stream	
Spring	
Wetland	
Proposed Lateral, Tail, Head Ditch	
False Sump	

RAILROADS:

Standard Gauge	
RR Signal Milepost	
Switch	
RR Abandoned	
RR Dismantled	

RIGHT OF WAY & PROJECT CONTROL:

Secondary Horiz and Vert Control Point	
Primary Horiz Control Point	
Primary Horiz and Vert Control Point	
Exist Permanent Easment Pin and Cap	
New Permanent Easement Pin and Cap	
Vertical Benchmark	
Existing Right of Way Marker	
Existing Right of Way Line	
New Right of Way Line	
New Right of Way Line with Pin and Cap	
New Right of Way Line with Concrete or Granite R/W Marker	
New Control of Access Line with Concrete C/A Marker	
Existing Control of Access	
New Control of Access	
Existing Easement Line	
New Temporary Construction Easement	
New Temporary Drainage Easement	
New Permanent Drainage Easement	
New Permanent Drainage /Utility Easement	
New Permanent Utility Easement	
New Temporary Utility Easement	
New Aerial Utility Easement	

ROADS AND RELATED FEATURES:

Existing Edge of Pavement	
Existing Curb	
Proposed Slope Stakes Cut	
Proposed Slope Stakes Fill	
Proposed Curb Ramp	
Existing Metal Guardrail	
Proposed Guardrail	
Existing Cable Guiderail	
Proposed Cable Guiderail	
Equality Symbol	
Pavement Removal	

VEGETATION:

Single Tree	
Single Shrub	

Note: Not to Scale

*S.U.E. = Subsurface Utility Engineering

Hedge	
Woods Line	
Orchard	
Vineyard	

EXISTING STRUCTURES:

MAJOR:	
Bridge, Tunnel or Box Culvert	
Bridge Wing Wall, Head Wall and End Wall	
MINOR:	
Head and End Wall	
Pipe Culvert	
Footbridge	
Drainage Box: Catch Basin, DI or JB	
Paved Ditch Gutter	
Storm Sewer Manhole	
Storm Sewer	

UTILITIES:

POWER:	
Existing Power Pole	
Proposed Power Pole	
Existing Joint Use Pole	
Proposed Joint Use Pole	
Power Manhole	
Power Line Tower	
Power Transformer	
U/G Power Cable Hand Hole	
H-Frame Pole	
U/G Power Line LOS B (S.U.E.*)	
U/G Power Line LOS C (S.U.E.*)	
U/G Power Line LOS D (S.U.E.*)	

TELEPHONE:

Existing Telephone Pole	
Proposed Telephone Pole	
Telephone Manhole	
Telephone Pedestal	
Telephone Cell Tower	
U/G Telephone Cable Hand Hole	
U/G Telephone Cable LOS B (S.U.E.*)	
U/G Telephone Cable LOS C (S.U.E.*)	
U/G Telephone Cable LOS D (S.U.E.*)	
U/G Telephone Conduit LOS B (S.U.E.*)	
U/G Telephone Conduit LOS C (S.U.E.*)	
U/G Telephone Conduit LOS D (S.U.E.*)	
U/G Fiber Optics Cable LOS B (S.U.E.*)	
U/G Fiber Optics Cable LOS C (S.U.E.*)	
U/G Fiber Optics Cable LOS D (S.U.E.*)	

WATER:

Water Manhole	
Water Meter	
Water Valve	
Water Hydrant	
U/G Water Line LOS B (S.U.E.*)	
U/G Water Line LOS C (S.U.E.*)	
U/G Water Line LOS D (S.U.E.*)	
Above Ground Water Line	

TV:

TV Pedestal	
TV Tower	
U/G TV Cable Hand Hole	
U/G TV Cable LOS B (S.U.E.*)	
U/G TV Cable LOS C (S.U.E.*)	
U/G TV Cable LOS D (S.U.E.*)	
U/G Fiber Optic Cable LOS B (S.U.E.*)	
U/G Fiber Optic Cable LOS C (S.U.E.*)	
U/G Fiber Optic Cable LOS D (S.U.E.*)	

GAS:

Gas Valve	
Gas Meter	
U/G Gas Line LOS B (S.U.E.*)	
U/G Gas Line LOS C (S.U.E.*)	
U/G Gas Line LOS D (S.U.E.*)	
Above Ground Gas Line	

SANITARY SEWER:

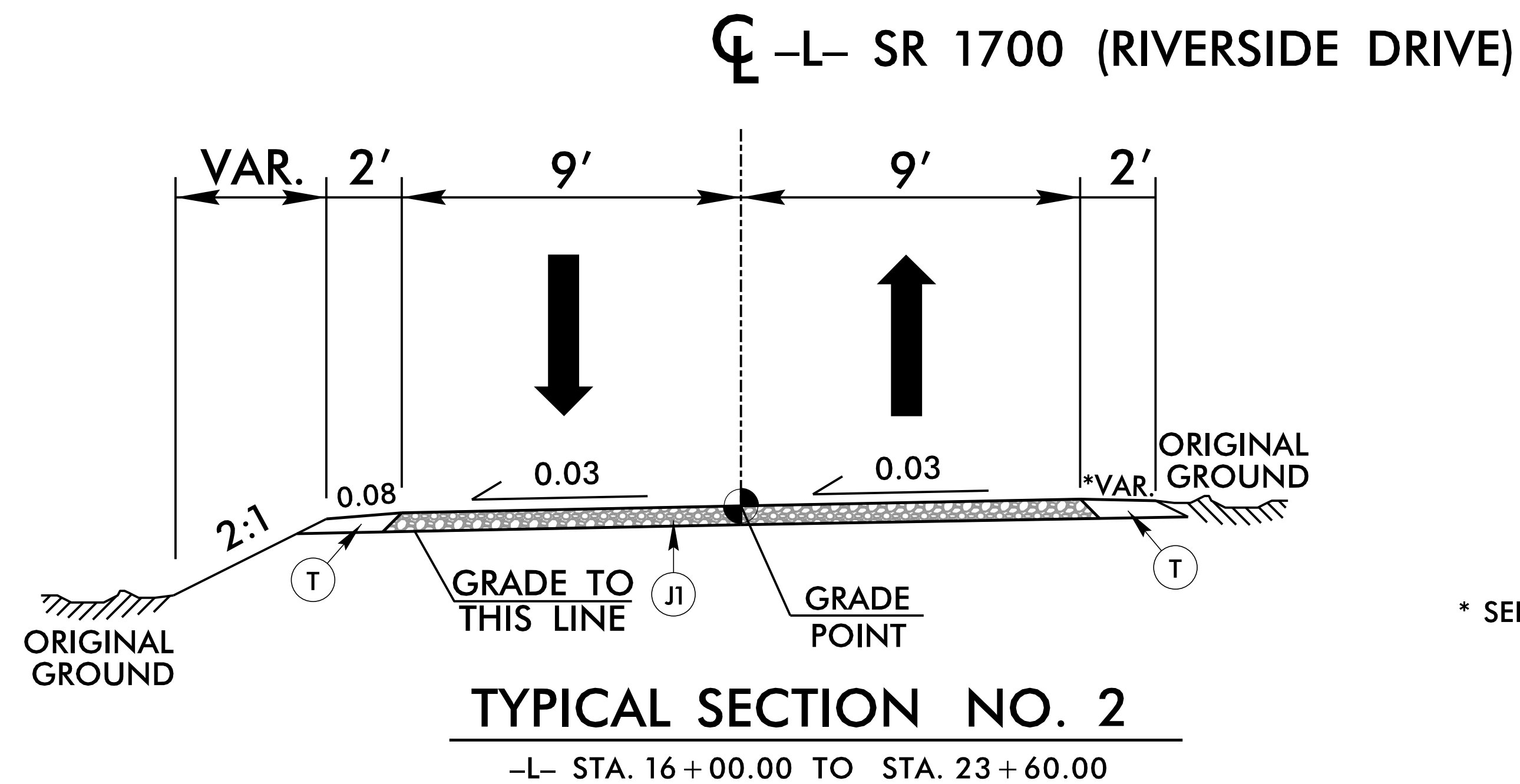
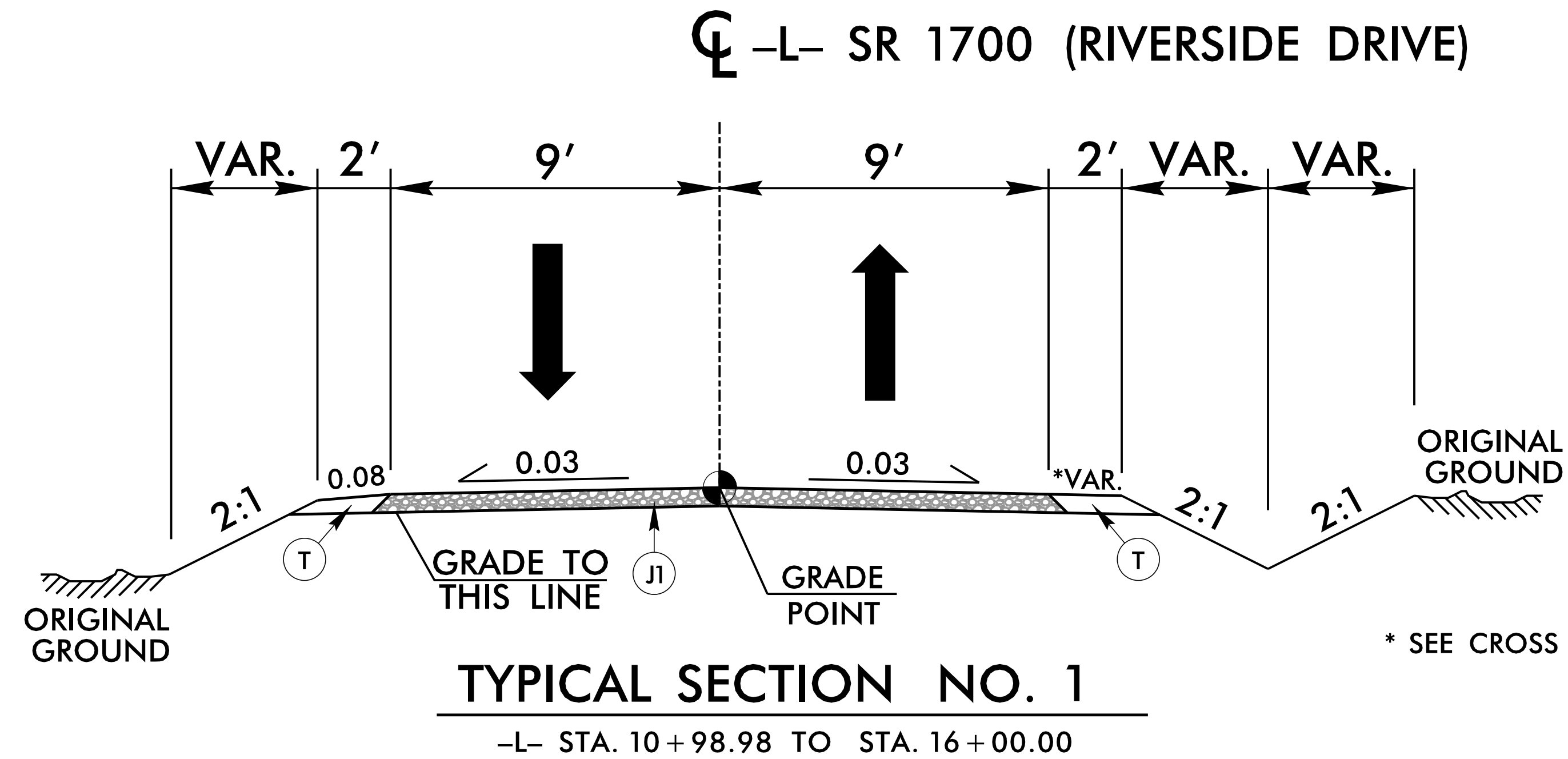
Sanitary Sewer Manhole	
Sanitary Sewer Cleanout	
U/G Sanitary Sewer Line	
Above Ground Sanitary Sewer	
SS Forced Main Line LOS B (S.U.E.*)	
SS Forced Main Line LOS C (S.U.E.*)	
SS Forced Main Line LOS D (S.U.E.*)	

MISCELLANEOUS:

Utility Pole	
Utility Pole with Base	
Utility Located Object	
Utility Traffic Signal Box	
Utility Unknown U/G Line LOS B (S.U.E.*)	
U/G Tank; Water, Gas, Oil	
Underground Storage Tank, Approx. Loc.	
A/G Tank; Water, Gas, Oil	
Geoenvironmental Boring	
U/G Test Hole LOS A (S.U.E.*)	
Abandoned According to Utility Records	
End of Information	

PAVEMENT SCHEDULE (PRELIMINARY PAVEMENT DESIGN)	
J 1	PROP. APPROX. 6" AGGREGATE BASE COURSE
T	EARTH MATERIAL.

NOTE: ALL PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.



PROJECT REFERENCE NO.	SHEET NO.
DF1834.2045452	2A-1
RW SHEET NO.	
ROADWAY DESIGN ENGINEER Signed by: <i>Robert A. Williams</i>  010608104AF-000 SEAL 30932 ENGINEER ROBERT A. WILLIAMS 7/2/2026	PAVEMENT ENGINEER Signed by: <i>Joseph T. Holland</i>  719968195ED-04 SEAL 024964 ENGINEER JOSEPH T. HOLLAND 7/2/2026
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

* SEE CROSS SECTIONS FOR VARIABLE SHOULDER SLOPE

* SEE CROSS SECTIONS FOR VARIABLE SHOULDER SLOPE

STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR
METHOD OF PIPE INSTALLATION
FLEXIBLE PIPE

SHEET 1 OF 2
300.01

Diagram showing a pipe in a trench with normal earth foundation. The pipe is surrounded by compacted material. Labels include: TOP OF FILL, GROUND LINE, H, I.D. /6 MIN. NOT LESS THAN 6", O.D. + 3', COMPACT AFTER PIPE IS PLACED & PRIOR TO PLACEMENT OF FILL, and NORMAL EARTH FOUNDATION.

Diagram showing a pipe in a trench with a rock foundation. The pipe is surrounded by compacted material, and the trench bottom is rock. Labels include: TOP OF FILL, GROUND LINE, H, I.D. /6 MIN. NOT LESS THAN 6", O.D. + 3', COMPACT AFTER PIPE IS PLACED & PRIOR TO PLACEMENT OF FILL, ROCK, and ROCK FOUNDATION.

Diagram showing a pipe in a trench with an unsuitable material foundation. The pipe is surrounded by compacted material, and the trench bottom is unsuitable material. Labels include: TOP OF FILL, GROUND LINE, H, I.D. /6 MIN. NOT LESS THAN 6", O.D. + 3', COMPACT AFTER PIPE IS PLACED & PRIOR TO PLACEMENT OF FILL, TYPE 4a GEOTEXTILE, 1/2" PER FOOT OF 'H' BUT NOT LESS THAN 12" NOR MORE THAN 24" AS DIRECTED BY ENGR., and UNSUITABLE MATERIAL FOUNDATION.

Diagram showing a pipe above ground with normal earth foundation. The pipe is surrounded by compacted material. Labels include: TOP OF FILL, GROUND LINE, H, MIN. O.D., 1:1, COMPACT AFTER PIPE IS PLACED & PRIOR TO PLACEMENT OF FILL, I.D. /6 MIN. NOT LESS THAN 6", O.D. + 2', and NORMAL EARTH FOUNDATION.

Diagram showing a pipe above ground with a rock foundation. The pipe is surrounded by compacted material, and the foundation is rock. Labels include: TOP OF FILL, GROUND LINE, H, MIN. O.D., 1:1, COMPACT AFTER PIPE IS PLACED & PRIOR TO PLACEMENT OF FILL, I.D. /6 MIN. NOT LESS THAN 6", O.D. + 2', and ROCK FOUNDATION.

Diagram showing a pipe above ground with an unsuitable material foundation. The pipe is surrounded by compacted material, and the foundation is unsuitable material. Labels include: TOP OF FILL, GROUND LINE, H, MIN. O.D., 1:1, COMPACT AFTER PIPE IS PLACED & PRIOR TO PLACEMENT OF FILL, I.D. /6 MIN. NOT LESS THAN 6", O.D. + 2', TYPE 4a GEOTEXTILE, 1/2" PER FOOT OF 'H' BUT NOT LESS THAN 12" NOR MORE THAN 24" AS DIRECTED BY ENGINEER, and UNSUITABLE MATERIAL FOUNDATION.

GENERAL NOTES:

I.D. = THE MAXIMUM HORIZONTAL INSIDE DIAMETER DIMENSION.

O.D. = THE MAXIMUM HORIZONTAL OUTSIDE DIAMETER DIMENSION.

H = THE FILL HEIGHT MEASURED VERTICALLY AT ANY POINT ALONG THE PIPE FROM THE TOP OF THE PIPE TO THE TOP OF THE EMBANKMENT AT THAT POINT.

APPROVED SUITABLE LOCAL MATERIAL.

TAKE CARE TO FULLY COMPACT HAUNCH ZONE OF PIPE BACKFILL.

LOOSELY PLACED SELECT MATERIAL CLASS III OR CLASS II, TYPE 1 FOR PIPE BEDDING. LEAVE SECTION DIRECTLY BENEATH PIPE UNCOMPACTED AS PIPE SEATING AND BACKFILL WILL ACCOMPLISH COMPACTION.

DO NOT OPERATE HEAVY EQUIPMENT OVER ANY PIPE CULVERT UNTIL THE PIPE CULVERT HAS BEEN PROPERLY BACKFILLED AND COVERED WITH AT LEAST 3 FEET OF APPROVED MATERIAL.

REFER TO NCDOT PIPE MATERIAL SELECTION GUIDE AND STANDARD SPECIFICATIONS FOR ALLOWABLE PIPE FILL HEIGHTS AND PIPE SPECIFICATIONS.

SPRINGLINE OF PIPE

SELECT BACKFILL MATERIAL CLASS III OR CLASS II, TYPE 1 ABOVE AND BELOW SPRINGLINE.

UNDISTURBED EARTH MATERIAL

SELECT MATERIAL CLASS V OR VI FOR FOUNDATION CONDITIONING. ENCAPSULATE WITH TYPE IV GEOTEXTILE AS DIRECTED BY THE ENGINEER.

Signed by:

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

CONTRACTS STANDARDS
AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

SEE TITLE BLOCK

ORIGINAL BY: S.CALHOUN	DATE: 7-25-2024
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC.:	

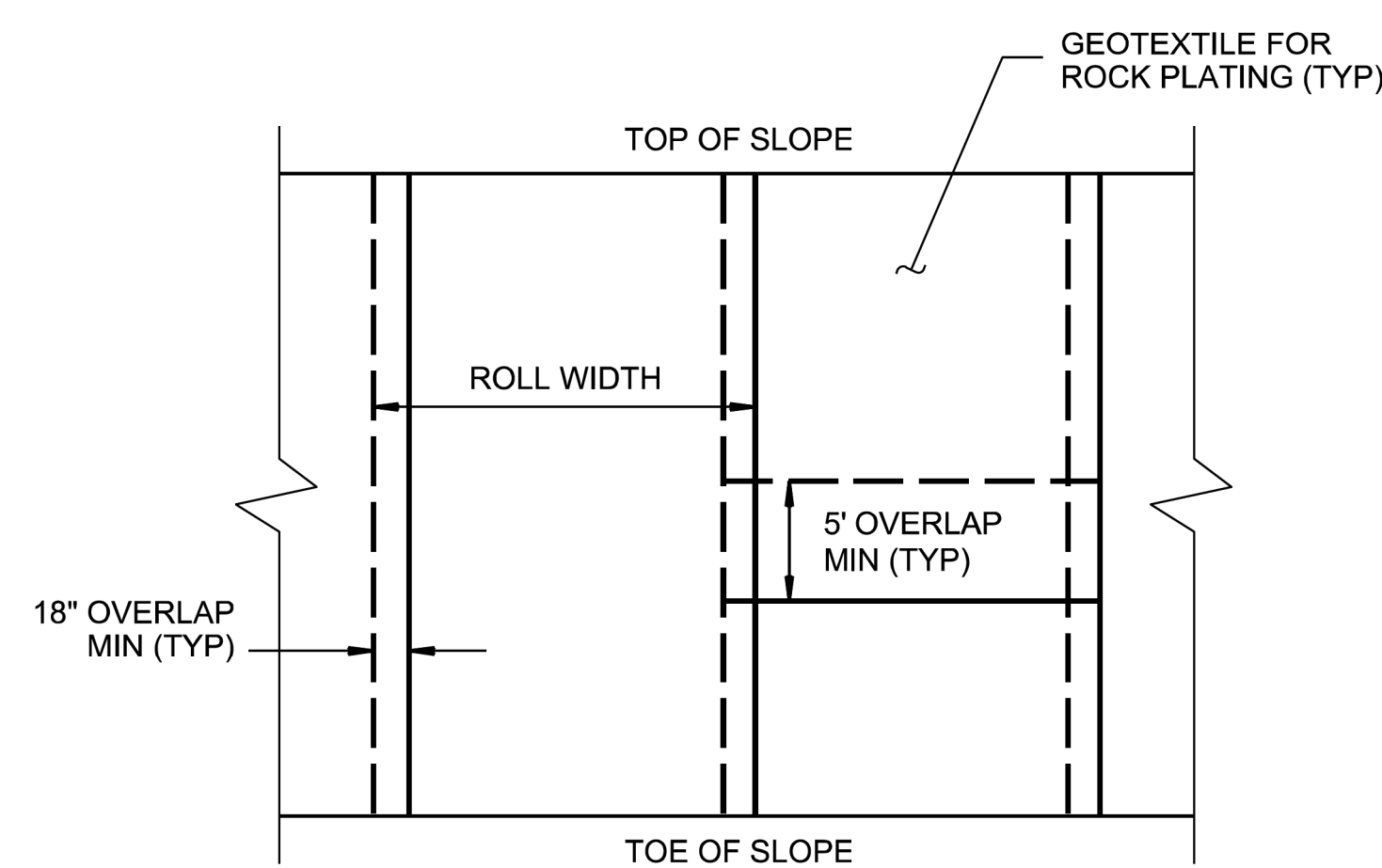
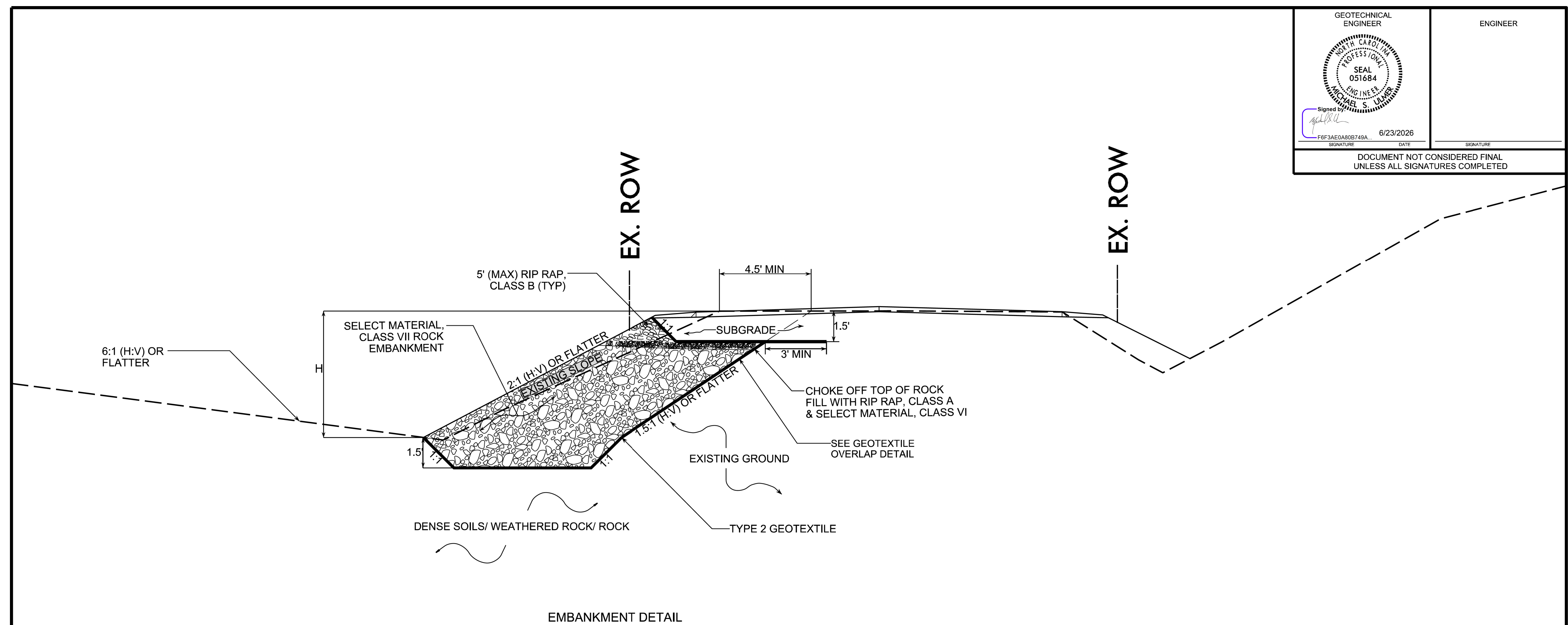
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 MODIFIED BY: _____ DATE: _____
 CHECKED BY: _____ DATE: _____
 FILE SPEC.: _____

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

GEOTECHNICAL DETAILS

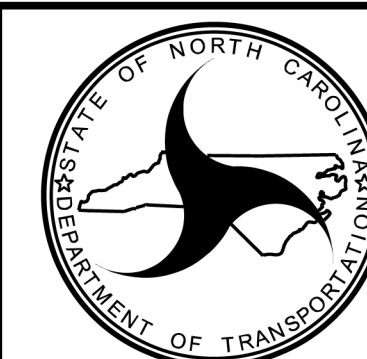
PROJECT REFERENCE NO.	SHEET NO.
DF18314.2045452	2G-1
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GEOTECHNICAL ENGINEER  Signed by 	ENGINEER
FF33AE0A0B0749A. 6/23/2026 SIGNATURE DATE	SIGNATURE
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



GEOTEXTILE OVERLAP DETAIL
(PLAN VIEW)

ESP ESP ASSOCIATES, INC.
P.O. BOX 7030
CHARLOTTE, NC 28241
WWW.ESPASSOCIATES.COM
FIRM NC LICENSE NO.: F-1407



NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

GEOTECHNICAL
ENGINEERING UNIT

DF18314.2045452
SR 1700 (RIVERSIDE DR) ALONG
REEDYPATCH CREEK
ROCK EMBANKMENT

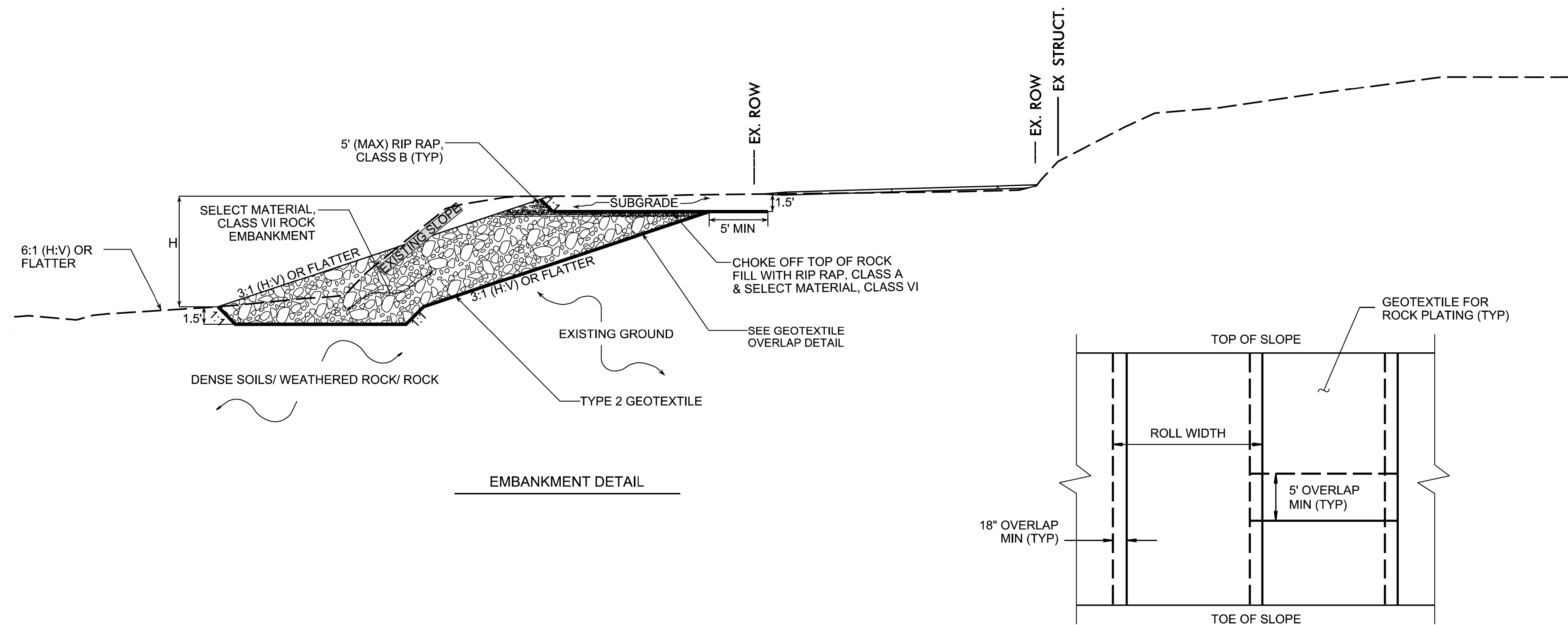
REVISIONS						SHEET NO. 1 OF 5
NO.	BY	DATE	NO.	BY	DATE	
1			3			
2			4			

PREPARED BY: PB	DATE: 5/2026
REVIEWED BY: HAA/MML	DATE: 5/2026

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

GEOTECHNICAL DETAILS

PROJECT REFERENCE NO.	SHEET NO.
DF18314.2045452	2G-2
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



GEOTEXTILE OVERLAP DETAIL

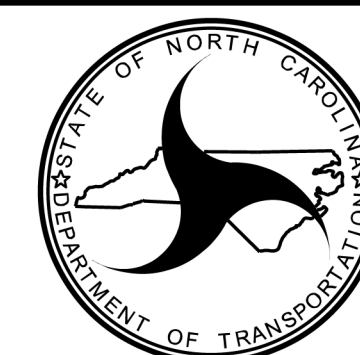
NOTES (PLAN VIEW)

NOTES:

1. FOR ROCK EMBANKMENT, BENCH EXISTING SLOPE IN ACCORDANCE WITH SECTION 235 OF THE STANDARD SPECIFICATIONS, WHERE POSSIBLE.
2. INSTALL GEOTEXTILE FABRIC BENEATH RIP RAP TO SEPARATE RIP RAP FROM NATIVE SOILS AND REDUCE POTENTIAL FOR MIGRATION OF FINE MATERIALS. GEOTEXTILE SHALL BE EMBEDDED BENEATH THE ROADWAY SUBGRADE OR TO A MINIMUM DEPTH OF 1.5'. AT THE CREEK SIDE, PLACE THE FABRIC BENEATH THE RIP RAP.
3. TYPICAL DETAIL - DRAWN BASED ON CONDITIONS AT -L- STA. 16+50.00. VERIFY APPLICABILITY AT EACH LOCATION FROM -L- STA. 16+25.00 TO 16+75.00.

PREPARED BY: PB	DATE: 6/2026
REVIEWED BY: HAA	DATE: 6/2026

ESP ESP ASSOCIATES, INC.
P.O. BOX 7030
CHARLOTTE, NC 28241
WWW.ESPASSOCIATES.COM
FIRM NC LICENSE NO.: F-1407



NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

GEOTECHNICAL
ENGINEERING UNIT

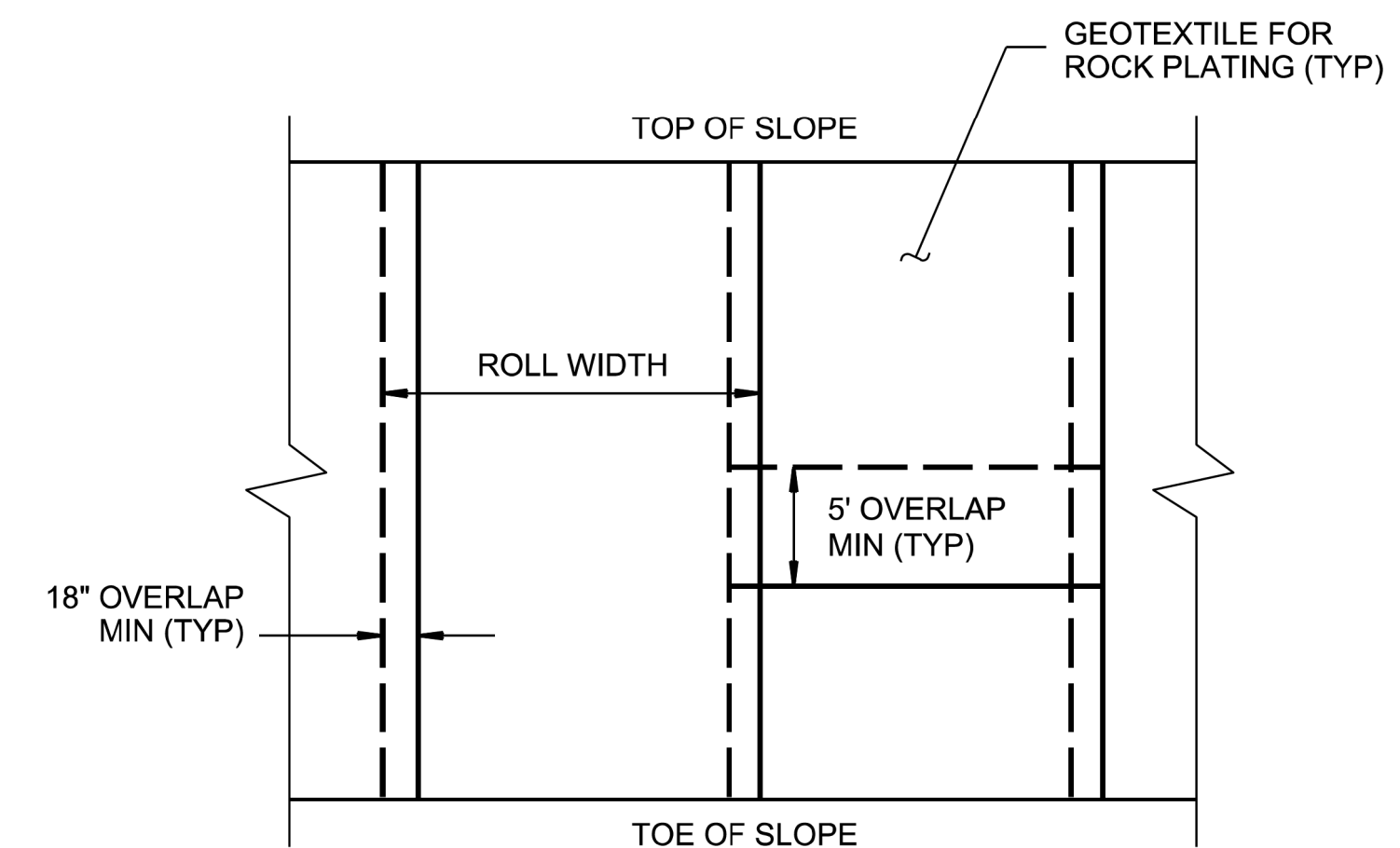
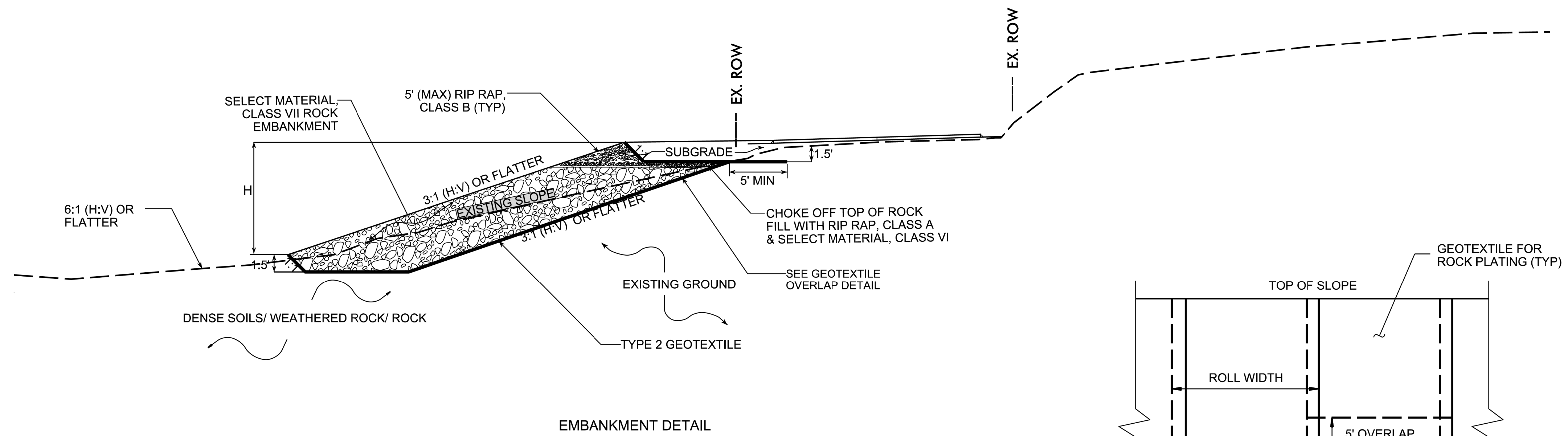
DF18314.2045452 SR 1700 (RIVERSIDE DR) ALONG REEDYPATCH CREEK ROCK EMBANKMENT						
REVISIONS						
NO.	BY	DATE	NO.	BY	DATE	SHEET NO. 2 OF 5
1			3			

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

GEOTECHNICAL DETAILS

PROJECT REFERENCE NO.	SHEET NO.
DF18314.2045452	2G-3
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

GEOTECHNICAL ENGINEER  Signed by  MICHAEL S. UNGER 6/23/2026 FIG3AEAD08D5740A... SIGNATURE DATE	ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



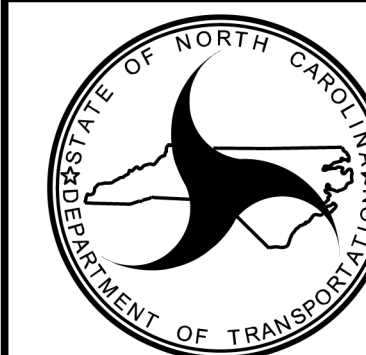
GEOTEXTILE OVERLAP DETAIL
(PLAN VIEW)

NOTES:

1. FOR ROCK EMBANKMENT, BENCH EXISTING SLOPE IN ACCORDANCE WITH SECTION 235 OF THE STANDARD SPECIFICATIONS, WHERE POSSIBLE.
2. INSTALL GEOTEXTILE FABRIC BENEATH RIP RAP TO SEPARATE RIP RAP FROM NATIVE SOILS AND REDUCE POTENTIAL FOR MIGRATION OF FINE MATERIALS. GEOTEXTILE SHALL BE EMBEDDED BENEATH THE ROADWAY SUBGRADE OR TO A MINIMUM DEPTH OF 1.5'. AT THE CREEK SIDE, PLACE THE FABRIC BENEATH THE RIP RAP.
3. TYPICAL DETAIL - DRAWN BASED ON CONDITIONS AT -L- STA. 17+00. VERIFY APPLICABILITY AT EACH LOCATION FROM -L- STA. 16+75.00 TO 17+24.24.

PREPARED BY: PB	DATE: 6/2026
REVIEWED BY: HAA	DATE: 6/2026

ESP ESP ASSOCIATES, INC.
P.O. BOX 7030
CHARLOTTE, NC 28241
WWW.ESPASSOCIATES.COM
FIRM NC LICENSE NO.: F-1407



NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

GEOTECHNICAL
ENGINEERING UNIT

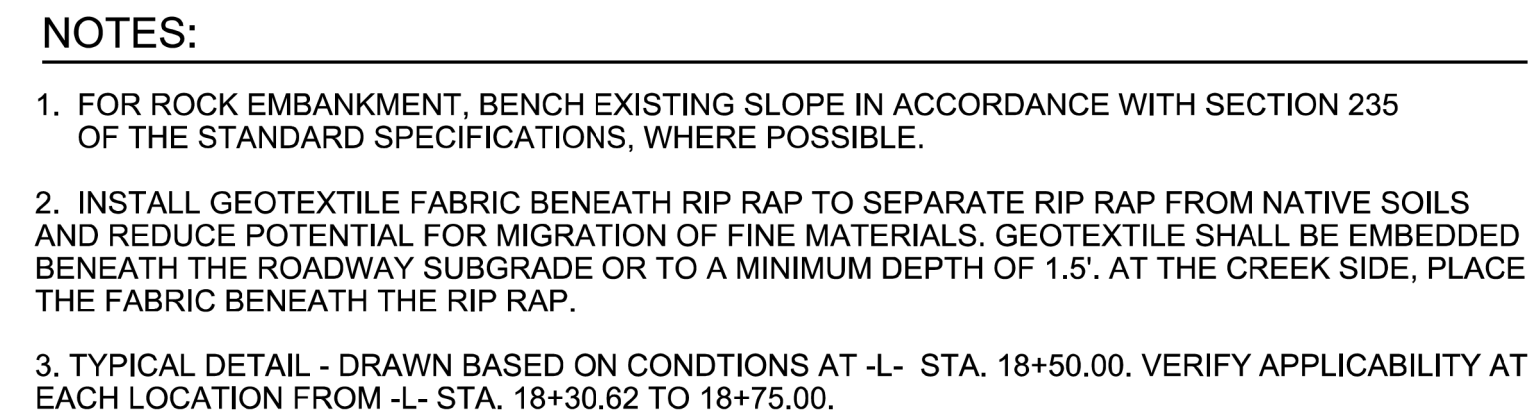
REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		

SHEET
NO.
3 OF 5



A. MORTON THOMAS AND ASSOCIATES, INC.
900 RIDGEFIELD DRIVE, SUITE 325 • RALEIGH, NC 27609
(919) 855-9989 • NC LICENSE NO. F-1049
WWW.AMTENGINEERING.COM

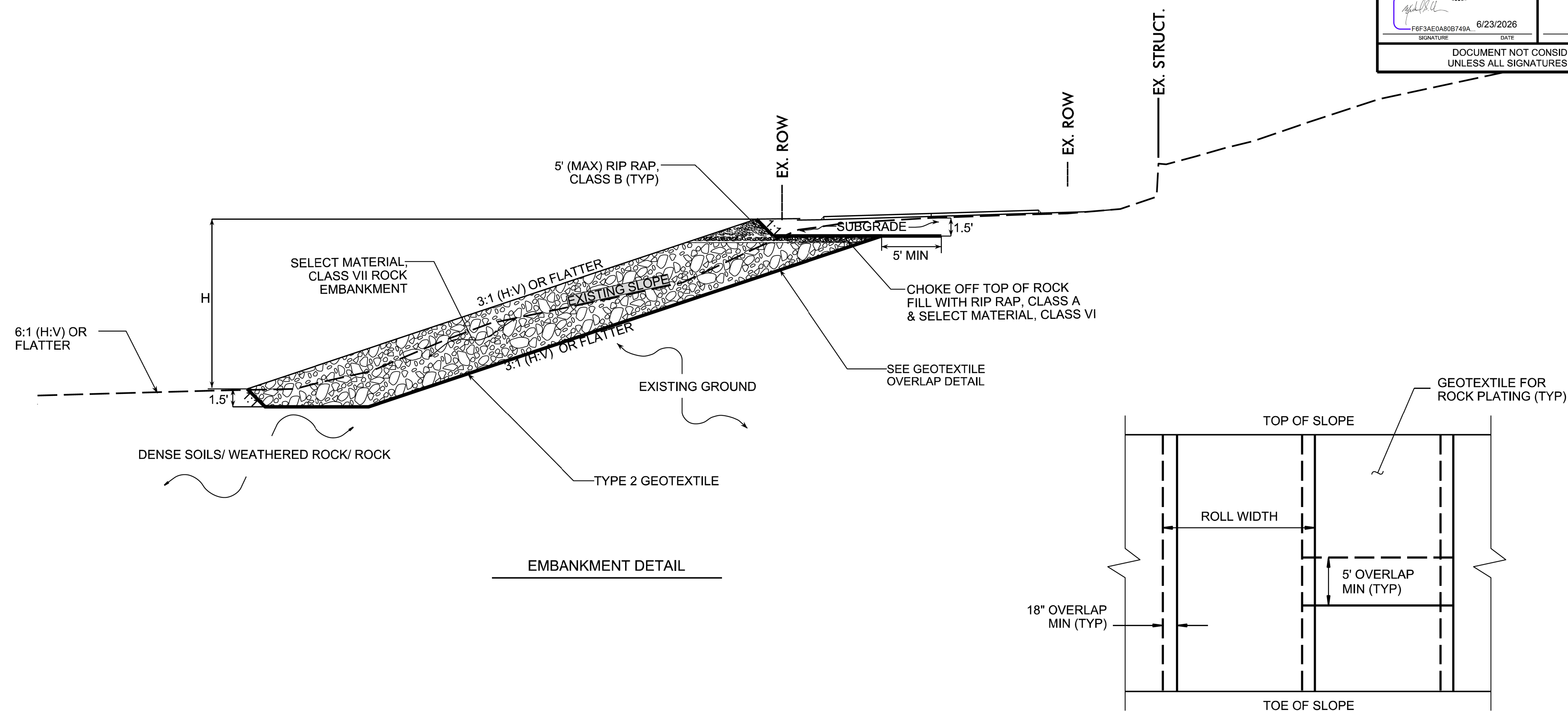
GEOTECHNICAL ENGINEER  NOTED CARLOS PROFESSIONAL SEAL 051684 ENGINEER MICHAEL S. UMEH Signed by:  F6F3AE0A80B749A	ENGINEER
DATE	SIGNATURE
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



GEOTECHNICAL
ENGINEERING UNIT

SHEET
NO.
4 OF 5

GEOTECHNICAL ENGINEER  Seal: NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 051684 MICHAEL S. DUMAS Signature:  FF63AEDAB0B748A	ENGINEER 6/23/2026 SIGNATURE
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



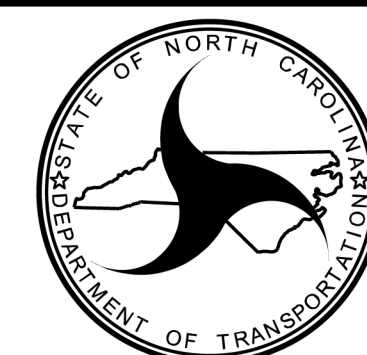
GEOTEXTILE OVERLAP DETAIL
(PLAN VIEW)

NOTES:

1. FOR ROCK EMBANKMENT, BENCH EXISTING SLOPE IN ACCORDANCE WITH SECTION 235 OF THE STANDARD SPECIFICATIONS, WHERE POSSIBLE.
2. INSTALL GEOTEXTILE FABRIC BENEATH RIP RAP TO SEPARATE RIP RAP FROM NATIVE SOILS AND REDUCE POTENTIAL FOR MIGRATION OF FINE MATERIALS. GEOTEXTILE SHALL BE EMBEDDED BENEATH THE ROADWAY SUBGRADE OR TO A MINIMUM DEPTH OF 1.5'. AT THE CREEK SIDE, PLACE THE FABRIC BENEATH THE RIP RAP.
3. TYPICAL DETAIL - DRAWN BASED ON CONDITIONS AT -L- STA. 19+00. VERIFY APPLICABILITY AT EACH LOCATION FROM -L- STA. 18+75.00 TO 19+00.00.

PREPARED BY: PB	DATE: 6/2026
REVIEWED BY: HAA	DATE: 6/2026

ESP ESP ASSOCIATES, INC.
P.O. BOX 7030
CHARLOTTE, NC 28241
WWW.ESPASSOCIATES.COM
FIRM NC LICENSE NO.: F-1407



GEOTECHNICAL
ENGINEERING UNIT

DF18314.2045452
SR 1700 (RIVERSIDE DR) ALONG
BROAD RIVER
ROCK EMBANKMENT

REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		

SHEET
NO.
5 OF 5



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

EARTHWORK SUMMARY

STATION	STATION	EXCAVATION		EMBANKMENT	BORROW	TOTAL WASTE
		TOTAL UNCLASS.	UNDERCUT			
-L- 10+98.98	-L-23+60.00	2,372		657		1,715
	SUBTOTAL	2,372		657		1,715
	TOTAL	2,372		657		1,715
MATERIAL FOR SHOULDER CONSTRUCTION						
LOSS DUE TO CLEARING & GRUBBING						
WASTE IN LIEU OF BORROW						
	PROJECT TOTAL	2,372		657		1,715
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT						
	GRAND TOTAL	2,372		657		1,715
	SAY	2,400				

Note: Approximate quantities only. Unclassified Excavation, Fine Grading, and Clearing and Grubbing will be paid for at the contract lump sum price for "Grading."

Note: Earthwork quantities are calculated by the roadway designer. No subsurface data provided is available for this project.

PROJECT REFERENCE NO.	SHEET NO.
DF18314.2045452	3D-1

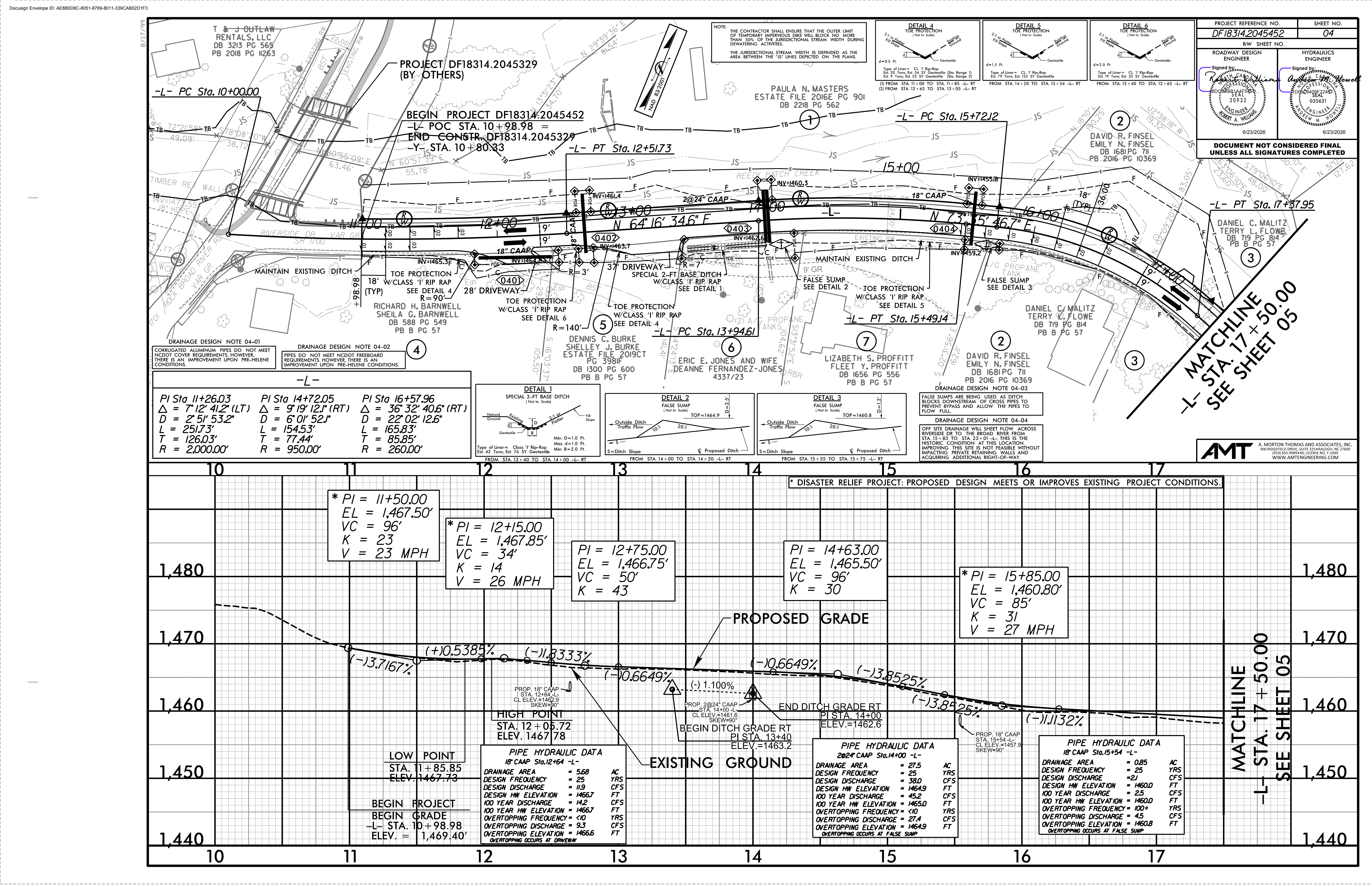
***SUB-REGIONAL & REGIONAL
LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48" & UNDER)***

TOTALS

TOTALS

PARCEL SUMMARY

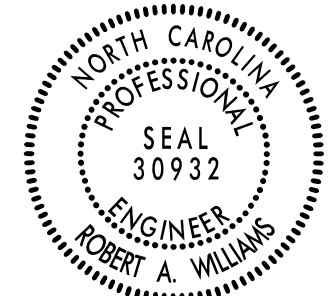
6/23/2026
Drive\05-CAD\Riverside Dr\Roadway\Proj\RiversideDr_Prdy-ps03.dgn
acarpenter

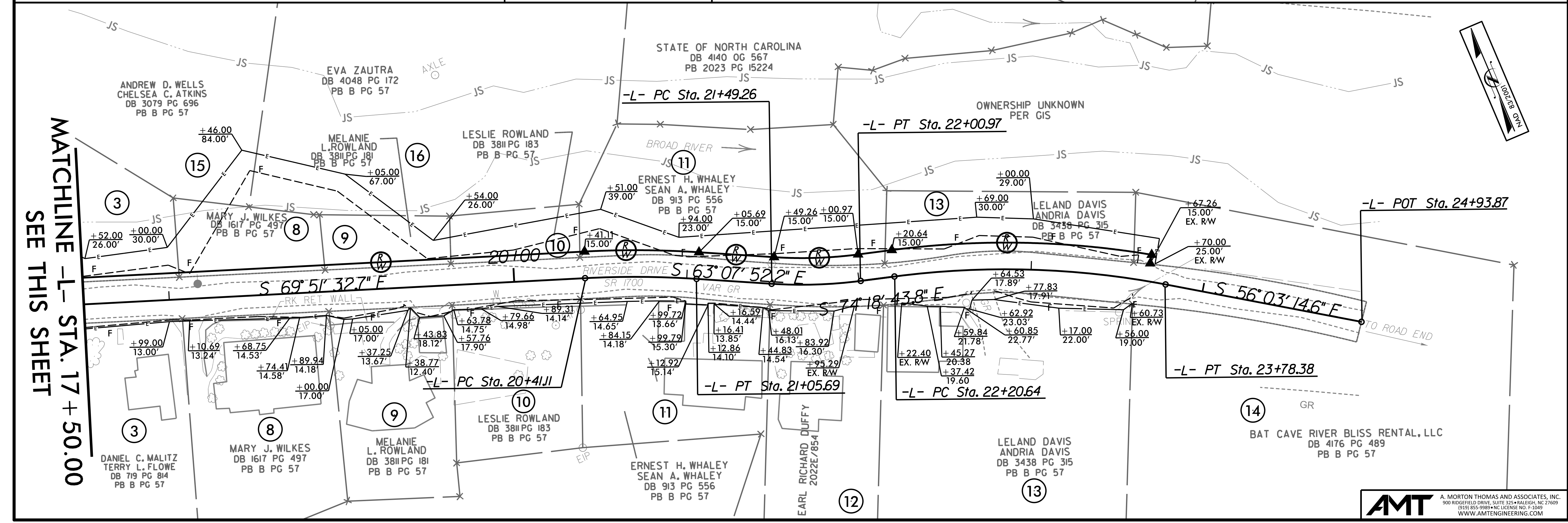
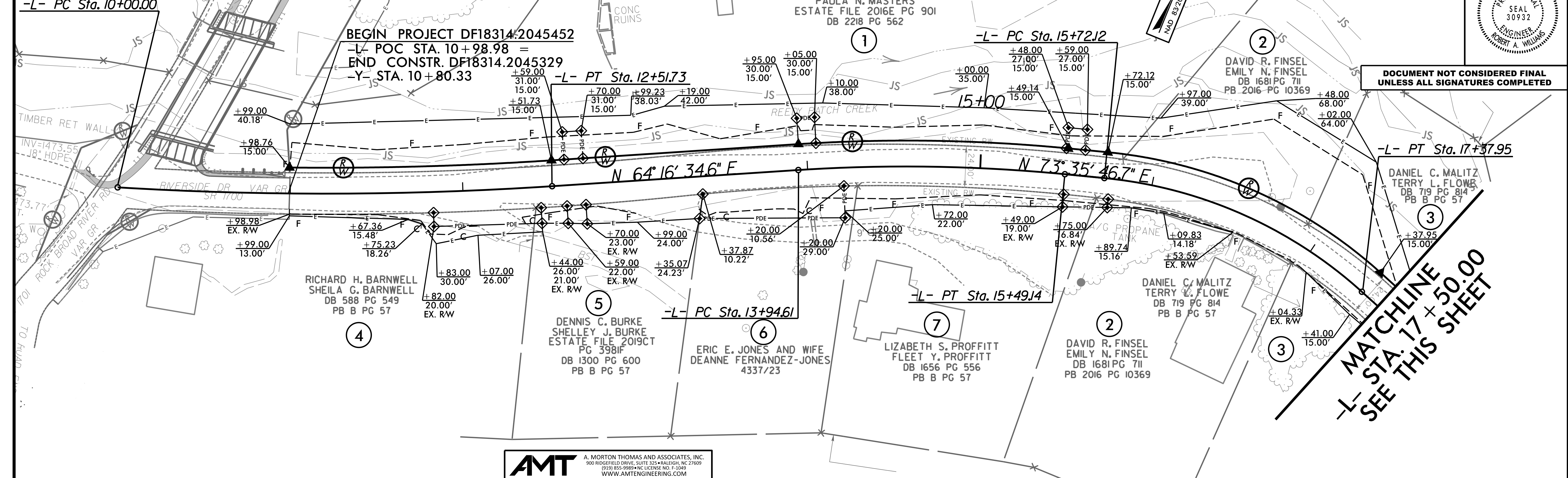




8/17/99

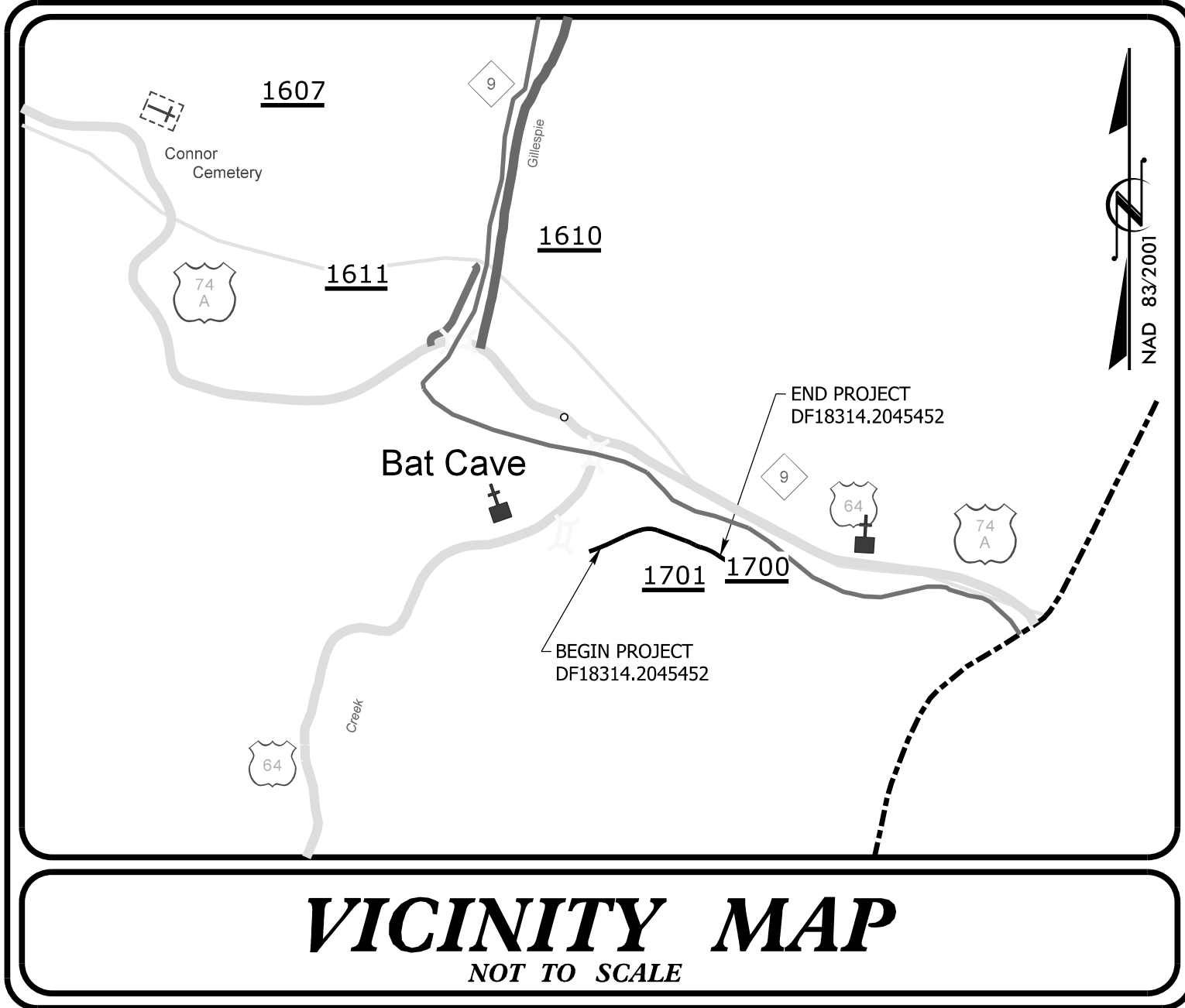
T & J OUTLAW
RENTALS, LLC
DB 3213 PG 565
PB 2018 PG 11263

PROJECT REFERENCE NO. DF18314.2045452	SHEET NO. RW-1
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	
	



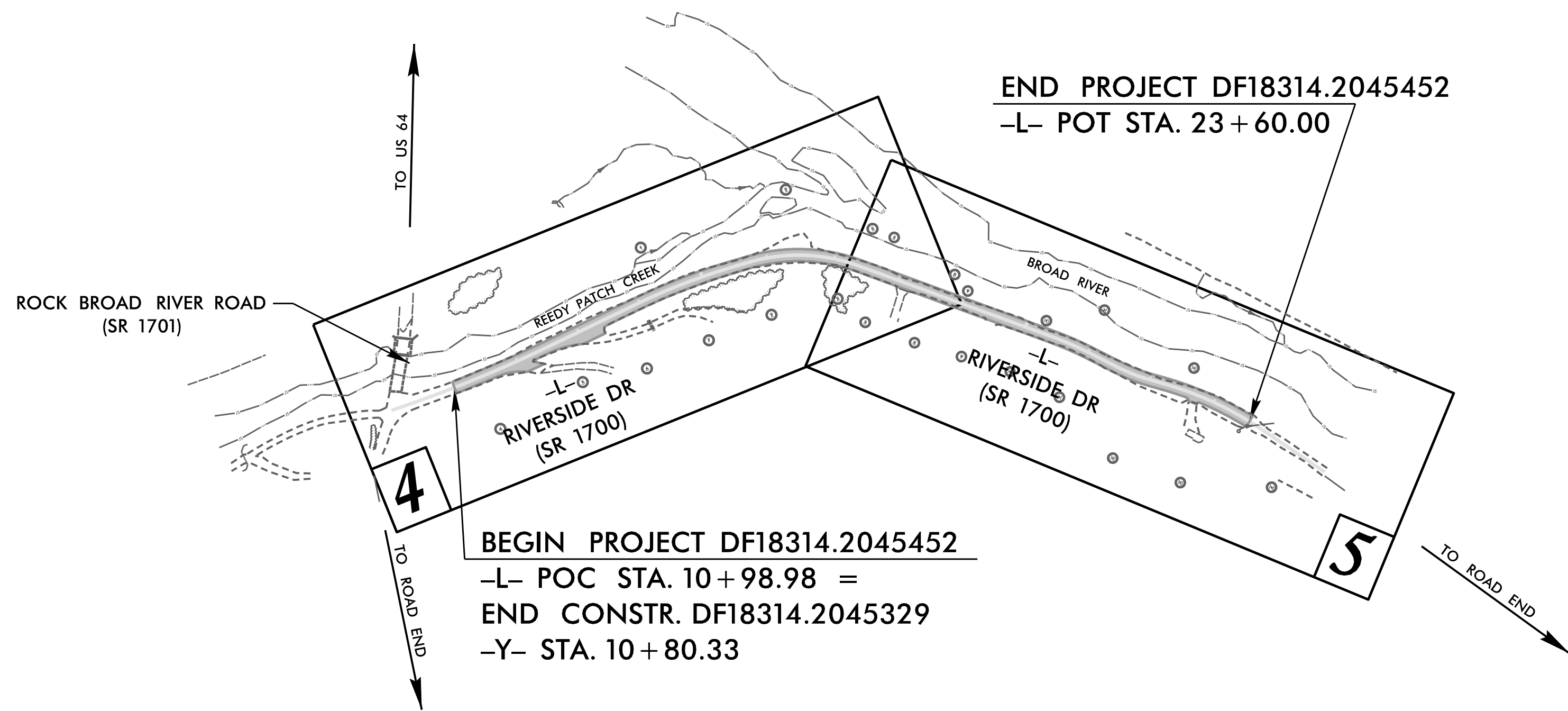
5/23/2026
N:\Users\jason\OneDrive\Documents\15452.REU.EC-1.TSH.dgn

TIP PROJECT: DF18314.2045452



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL
HENDERSON COUNTY

LOCATION: SR 1700 (RIVERSIDE DR).
ALONG REEDYPATCH CREEK
TYPE OF WORK: GRADING, DRAINAGE, AND GRAVEL PAVING



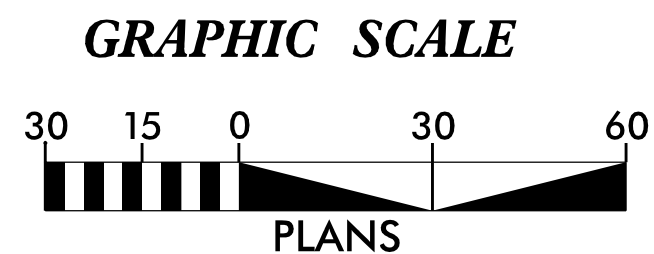
- NOTES:
1. CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II.
 2. THIS PROJECT IS NOT WITHIN MUNICIPAL BOUNDARIES.
 3. THIS IS NOT A CONTROL OF ACCESS PROJECT

THIS PROJECT CONTAINS
EROSION CONTROL PLANS
FOR CLEARING AND
GRUBBING PHASE OF
CONSTRUCTION.

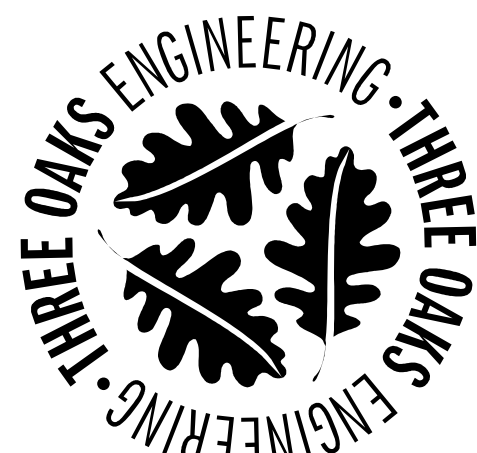
THIS PROJECT HAS
BEEN DESIGNED TO
SENSITIVE WATERSHED
STANDARDS.

ENVIRONMENTALLY
SENSITIVE AREA(S) EXIST
ON THIS PROJECT

Refer To E. C. Special Provisions
for Special Considerations.



THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH
THE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL
STORMWATER CONSTRUCTION PERMIT
ISSUED BY THE NORTH CAROLINA DEPARTMENT OF
ENVIRONMENTAL QUALITY DIVISION OF ENERGY, MINERAL, AND
LAND RESOURCES.



NC Firm License No: F-1334
324 Blackwell Street
Suite 1200
Durham, NC 27701
919.732.1300

Prepared In the Office of:
Three Oaks Engineering
324 Blackwell Street, Suite 1200
Durham, NC 27701

Designed by:
Andrew M. Howell 3105
NAME LEVEL III CERTIFICATION NO.

Roadway Standard Drawings

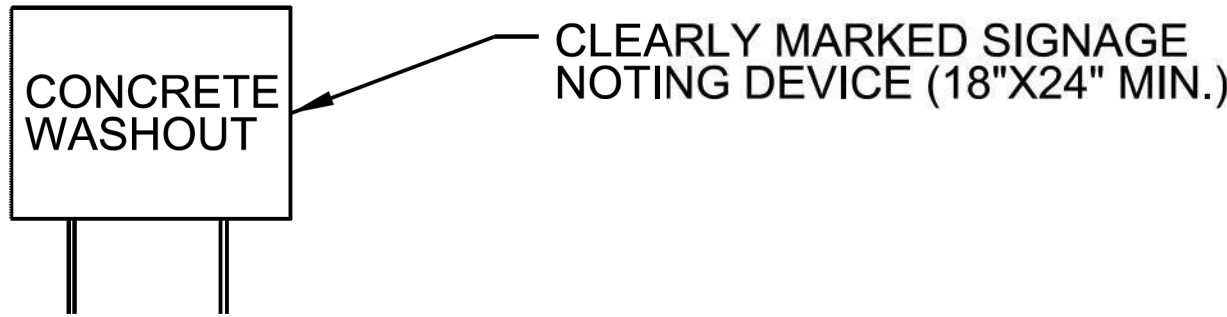
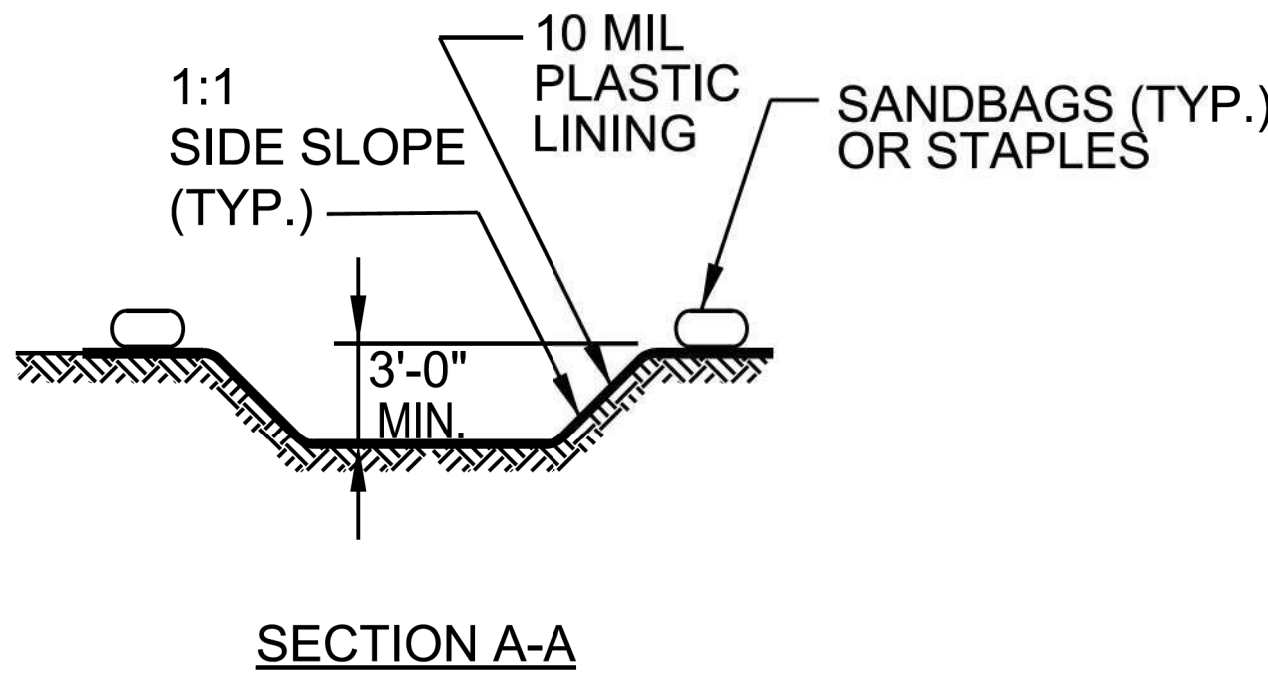
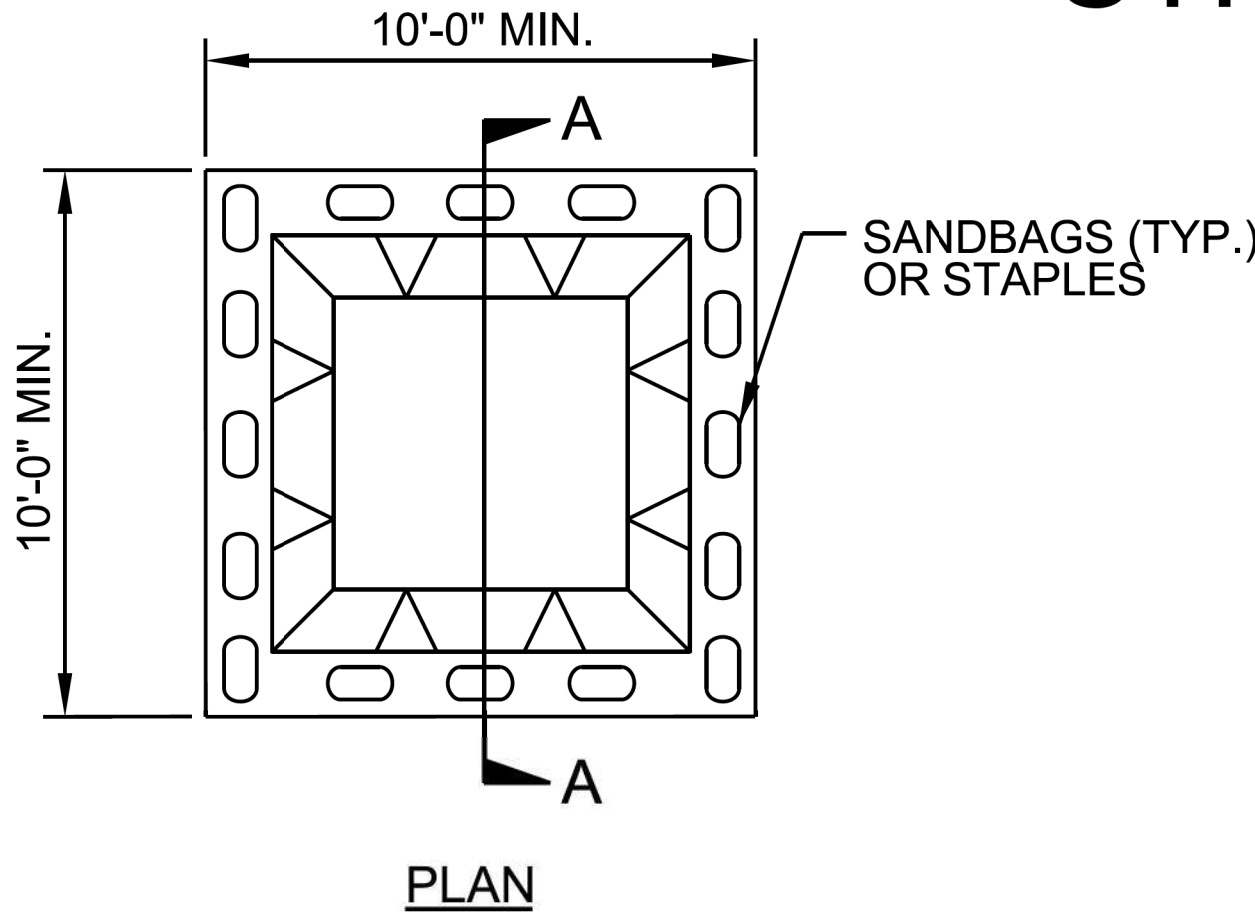
The "Roadway Standard Drawings"- Roadway Design Unit - N.C.
Department of Transportation - Raleigh, N. C., dated January 2024
and the latest revision thereto are applicable to this project and by
reference hereby are considered a part of these plans.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

EROSION & SEDIMENT CONTROL LEGEND

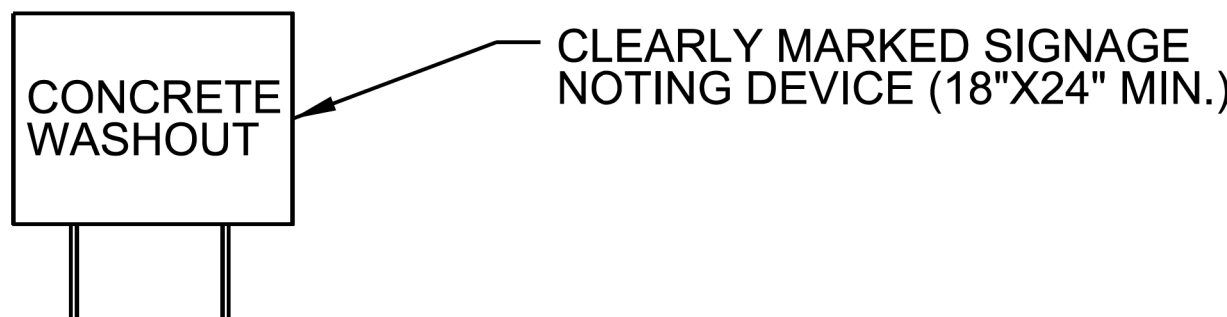
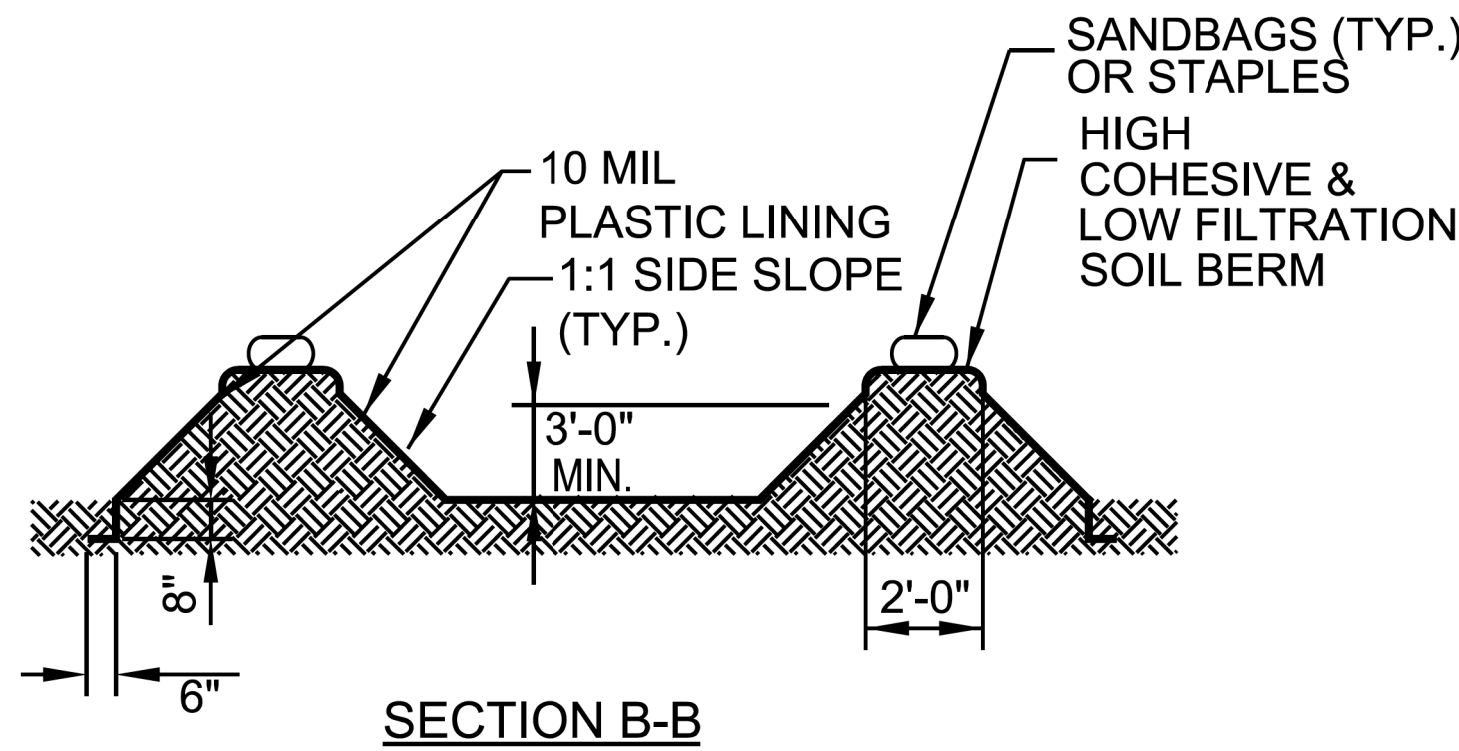
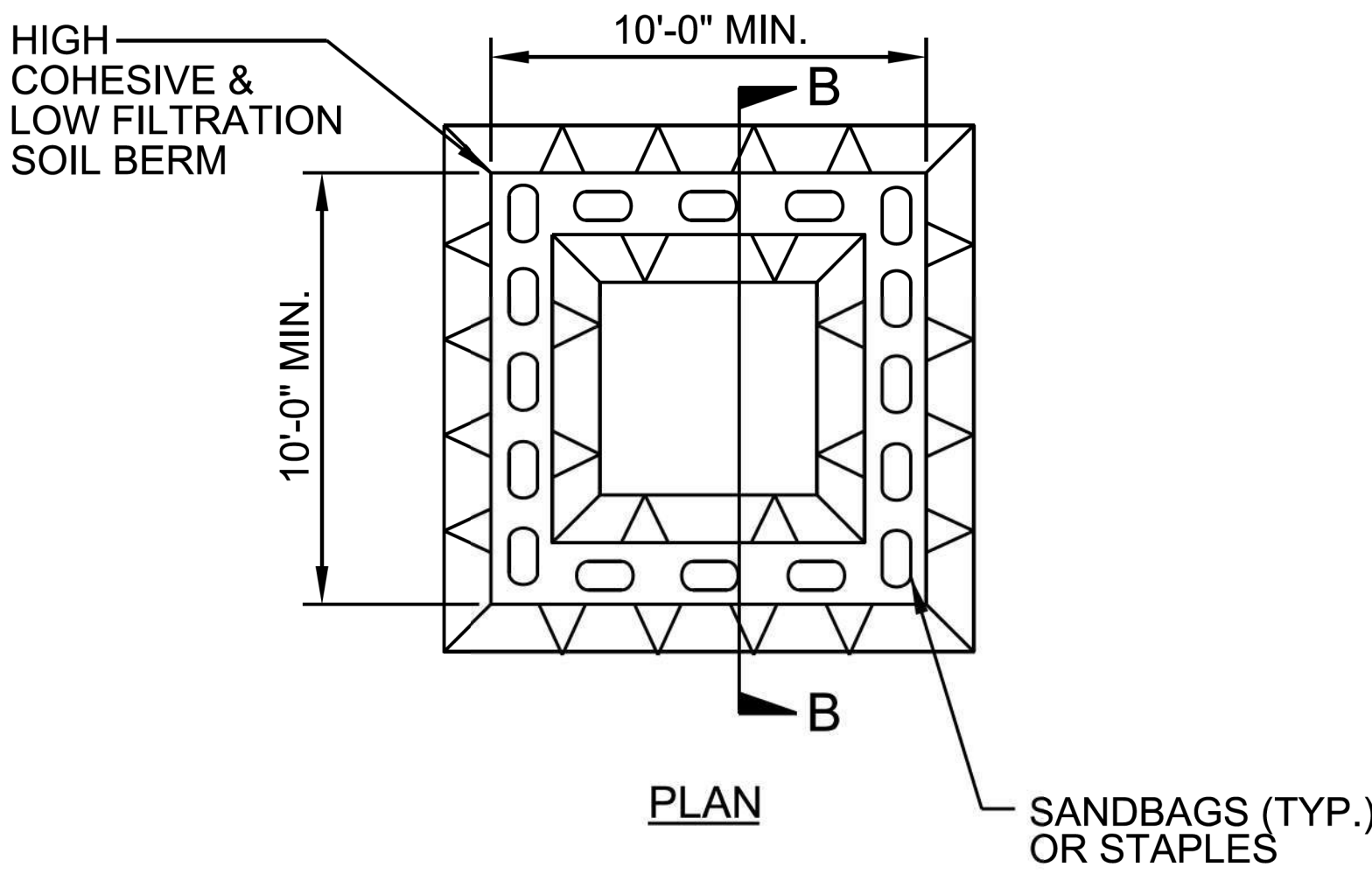
Std. #	Description	Symbol	Std. #	Description	Symbol
1605.01	Temporary Silt Fence		1633.01	Temporary Rock Silt Check Type A	
1606.01	Special Sediment Control Fence		1633.02	Temporary Rock Silt Check Type B	
1622.01	Temporary Berms and Slope Drains		1633.03	Temporary Rock Silt Check Type A with Excelsior Matting and Flocculant	
1630.02	Silt Basin Type B		1634.01	Temporary Rock Sediment Dam Type A	
1630.03	Temporary Silt Ditch		1634.02	Temporary Rock Sediment Dam Type B	
1630.04	Stilling Basin		1635.01	Rock Pipe Inlet Sediment Trap Type A	
1630.05	Temporary Diversion		1635.02	Rock Pipe Inlet Sediment Trap Type B	
1630.06	Special Stilling Basin		1636.01	Excelsior Wattle Check	
1630.07	Skimmer Basin		1636.01	Excelsior Wattle Check with Flocculant	
1630.08	Tiered Skimmer Basin		1636.01	Coir Fiber Wattle Check	
1630.09	Earthen Dam with Skimmer		1636.01	Coir Fiber Wattle Check with Flocculant	
	Infiltration Basin		1636.02	Silt Fence Excelsior Wattle Break	
	Rock Inlet Sediment Trap:			Silt Fence Coir Fiber Wattle Break	
1632.01	Type A				
1632.02	Type B		1636.03	Excelsior Wattle Barrier	
1632.03	Type C		1636.03	Coir Fiber Wattle Barrier	

ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER



BELOW GRADE WASHOUT STRUCTURE
NOT TO SCALE

- NOTES:**
1. ACTUAL LOCATION DETERMINED IN FIELD
 2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.
 3. CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED WITH SIGNAGE NOTING DEVICE.



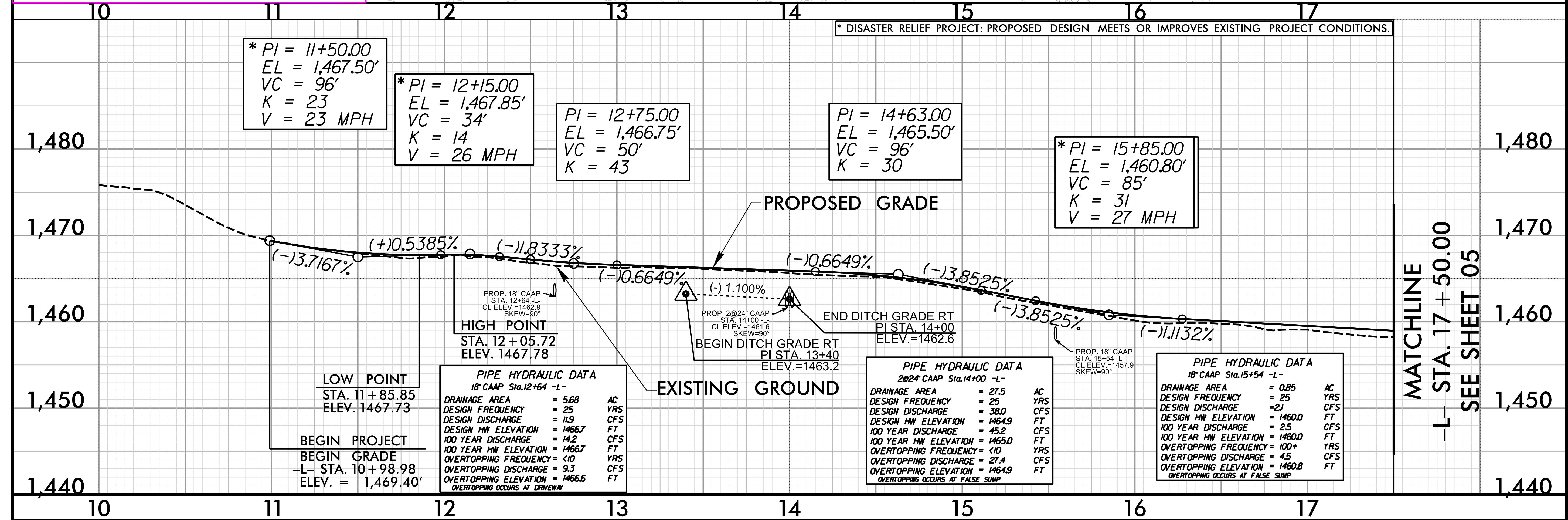
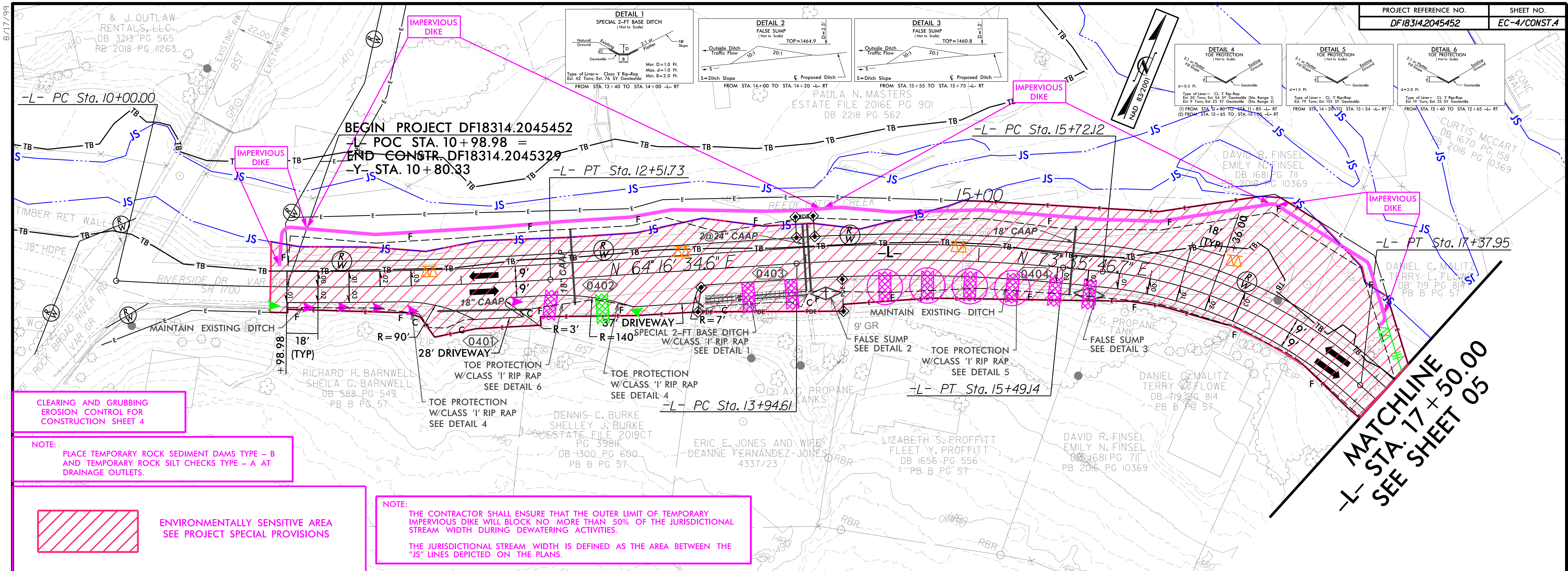
ABOVE GRADE WASHOUT STRUCTURE
NOT TO SCALE

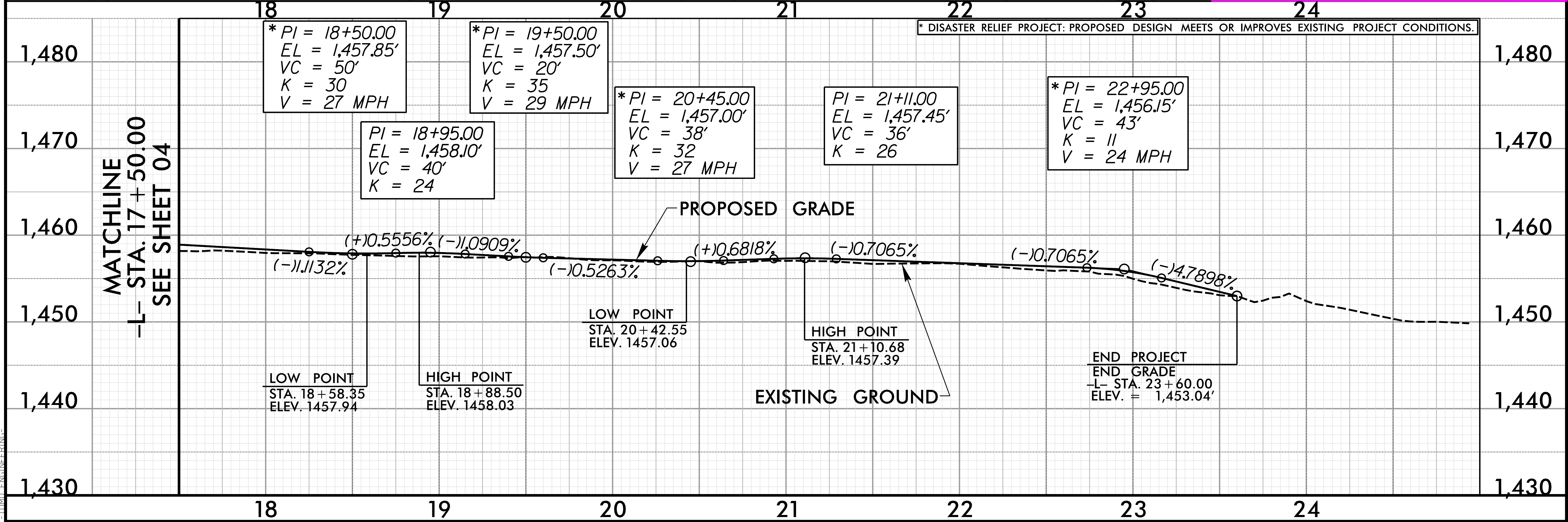
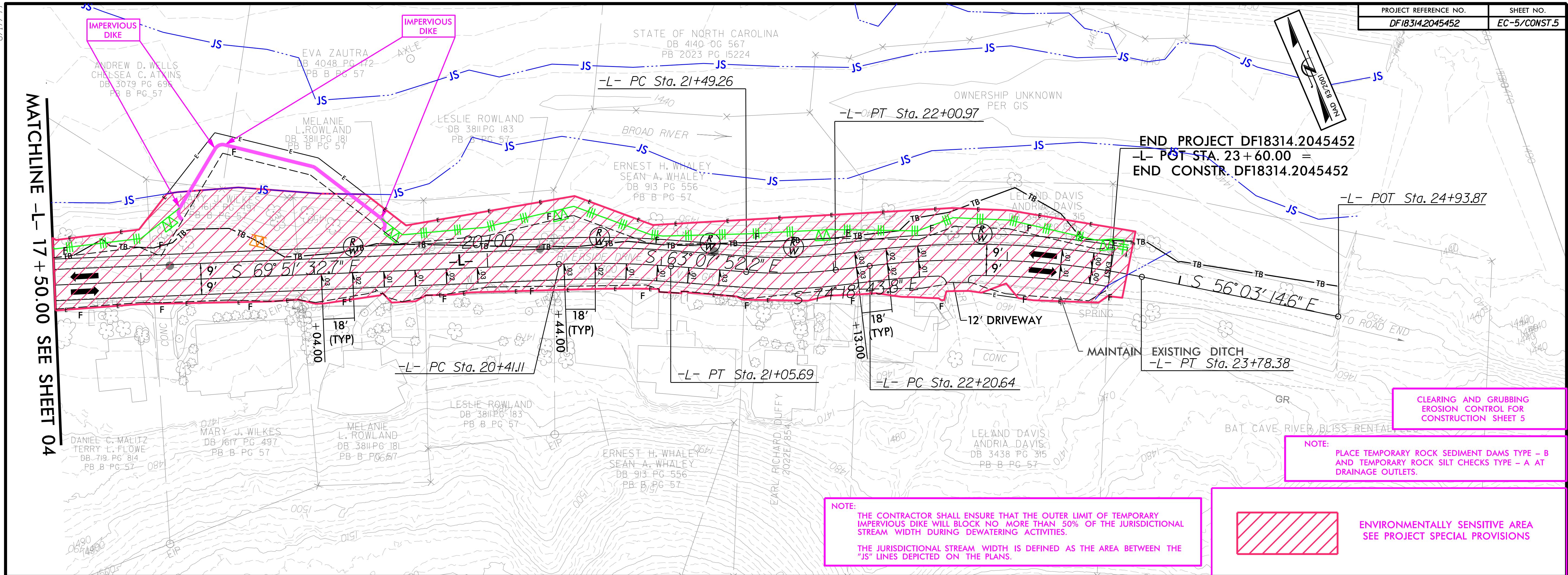
- NOTES:**
1. ACTUAL LOCATION DETERMINED IN FIELD
 2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.
 3. CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED WITH SIGNAGE NOTING DEVICE.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

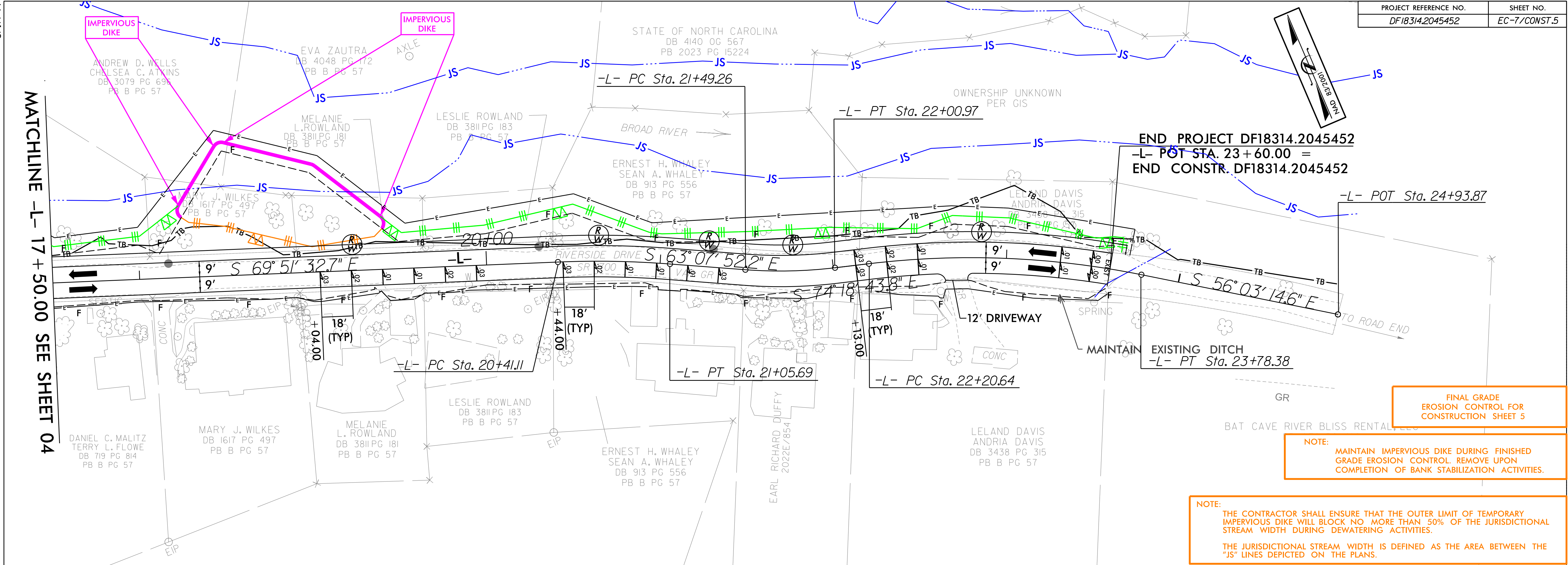
SOIL STABILIZATION TIMEFRAMES

SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.

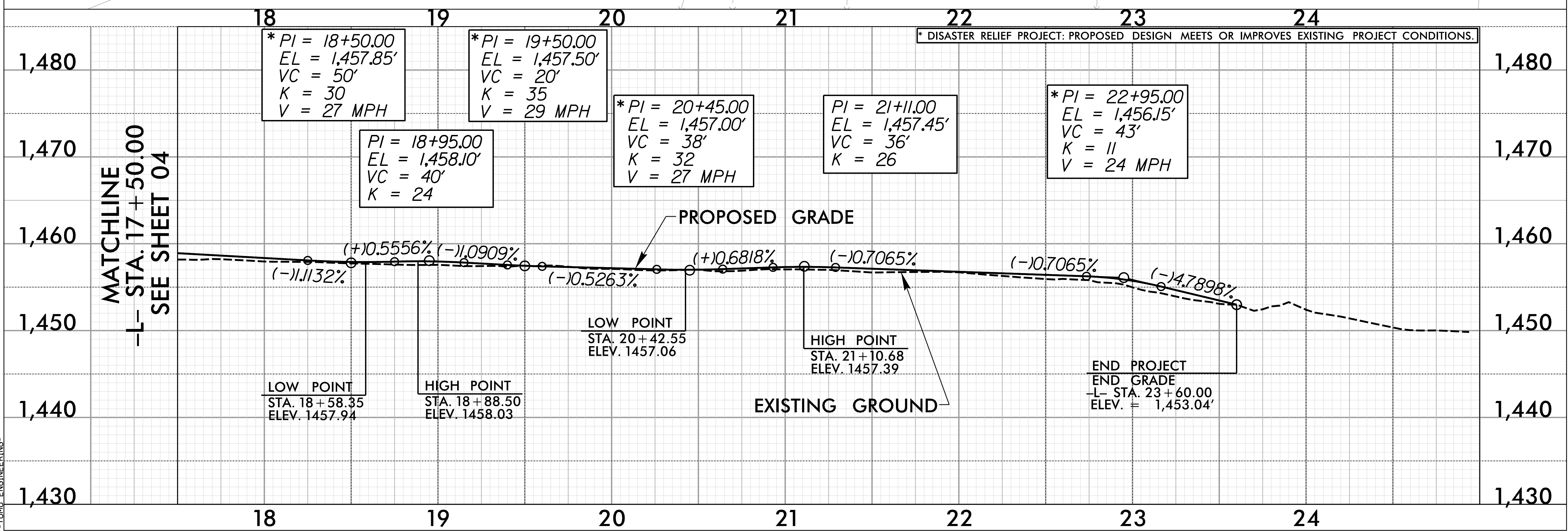




8/17/99



6/23/2023
TOMO ENGINEERING
6/23/2023
TOMO ENGINEERING
6/23/2023
TOMO ENGINEERING

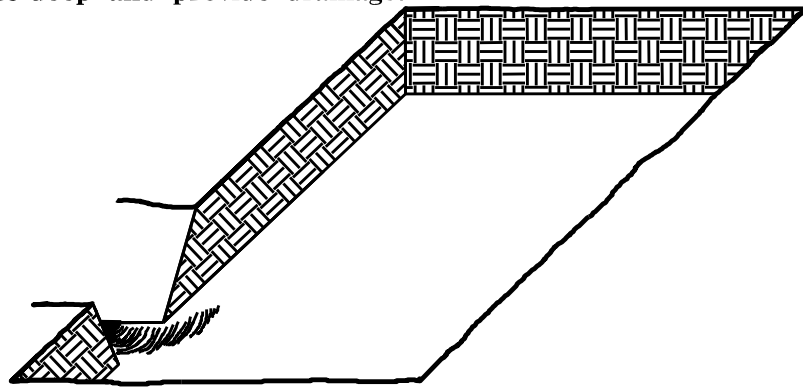


PLANTING DETAILS

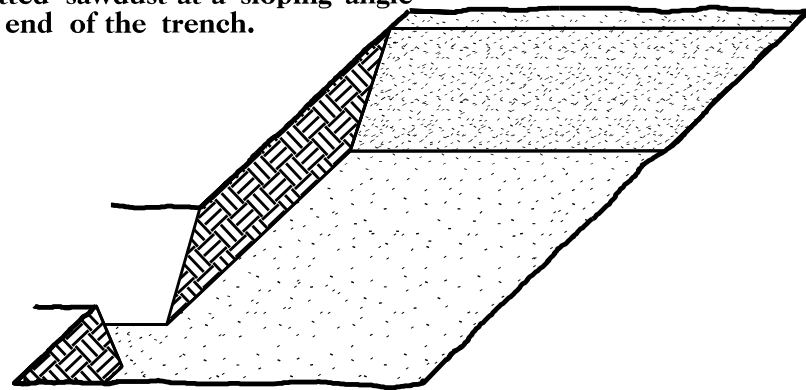
SEEDLING / LINER BAREROOT PLANTING DETAIL

HEALING IN

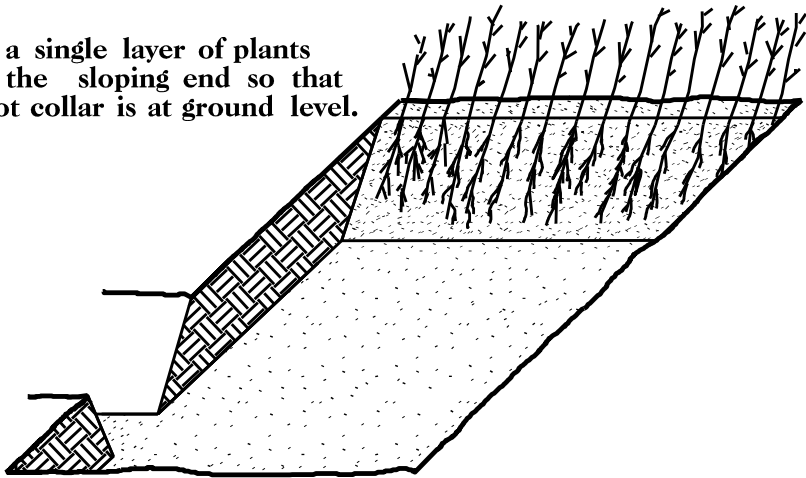
1. Locate a healing-in site in a shady, well protected area.
2. Excavate a flat bottom trench 12 inches deep and provide drainage.



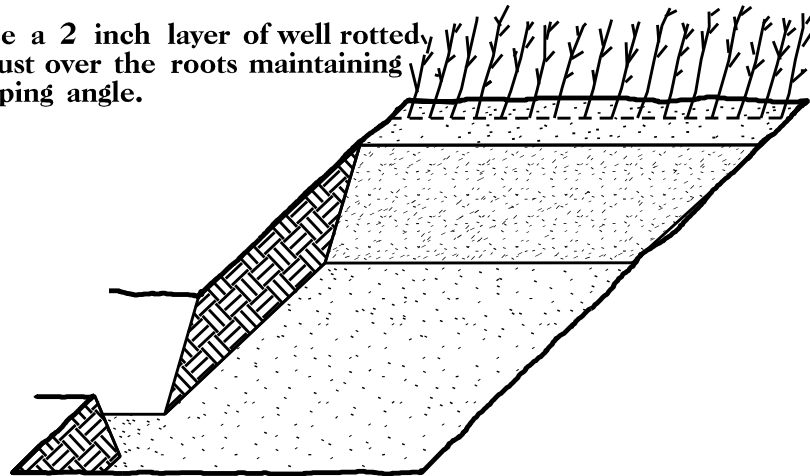
3. Jackfill the trench with 2 inches well rotted sawdust. Place a 2 inch layer of well rotted sawdust at a sloping angle at one end of the trench.



4. Place a single layer of plants against the sloping end so that the root collar is at ground level.

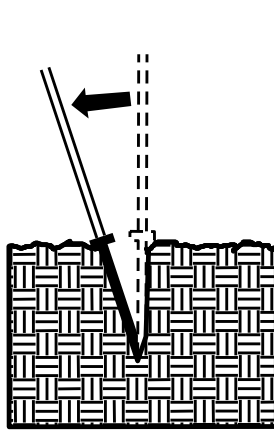


5. Place a 2 inch layer of well rotted sawdust over the roots maintaining a sloping angle.

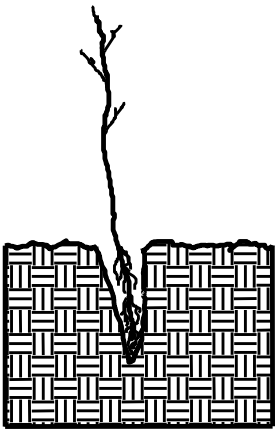


6. Repeat layers of plants and sawdust as necessary and water thoroughly.

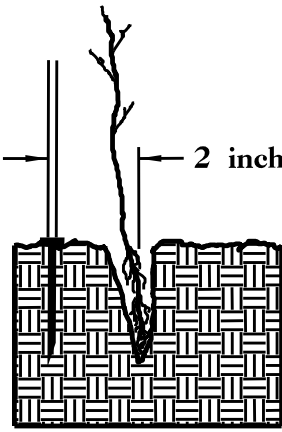
DIBBLE PLANTING METHOD USING THE K3C PLANTING BAR



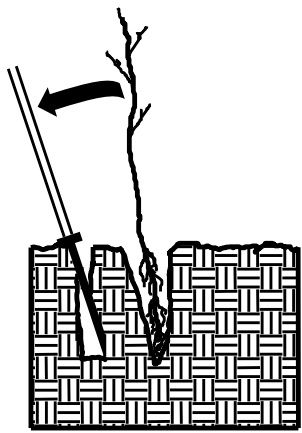
1. Insert planting bar as shown and pull handle toward planter.



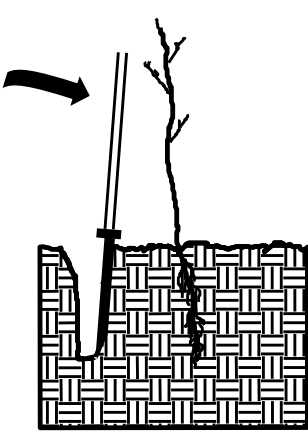
2. Remove planting bar and place seedling at correct depth.



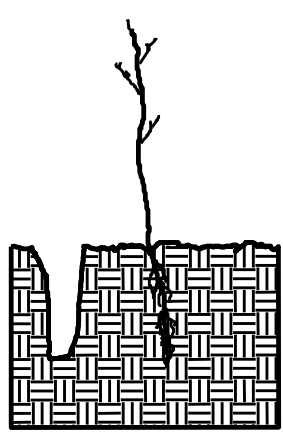
3. Insert planting bar 2 inches toward planter from seedling.



4. Pull handle of bar toward planter, firming soil at bottom.



5. Push handle forward firming soil at top.



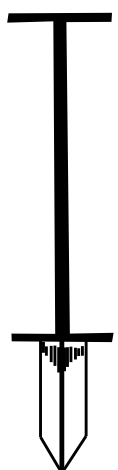
6. Leave compaction hole open. Water thoroughly.

PLANTING NOTES:

PLANTING BAG
During planting, seedlings shall be kept in a moist canvas bag or similar container to prevent the root systems from drying.



K3C PLANTING BAR
Planting bar shall have a blade with a triangular cross section, and shall be 12 inches long, 4 inches wide and 1 inch thick at center.



ROOT PRUNING
All seedlings shall be root pruned, if necessary, so that no roots extend more than 10 inches below the root collar.

REFORESTATION

- TREE REFORESTATION SHALL BE PLANTED 6 FT. TO 10 FT. ON CENTER, RANDOM SPACING, AVERAGING 8 FT. ON CENTER, APPROXIMATELY 680 PLANTS PER ACRE.

REFORESTATION

MIXTURE, TYPE, SIZE, AND FURNISH SHALL CONFORM TO THE FOLLOWING:

34%	LIRIODENDRON TULIPIFERA	TULIP POPLAR	12 in - 18 in 3R
33%	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	12 in - 18 in 3R
33%	BETULA NIGRA	RIVER BIRCH	12 in - 18 in 3R

REFORESTATION DETAIL SHEET

N.C.D.O.T.- ROADSIDE ENVIRONMENTAL UNIT