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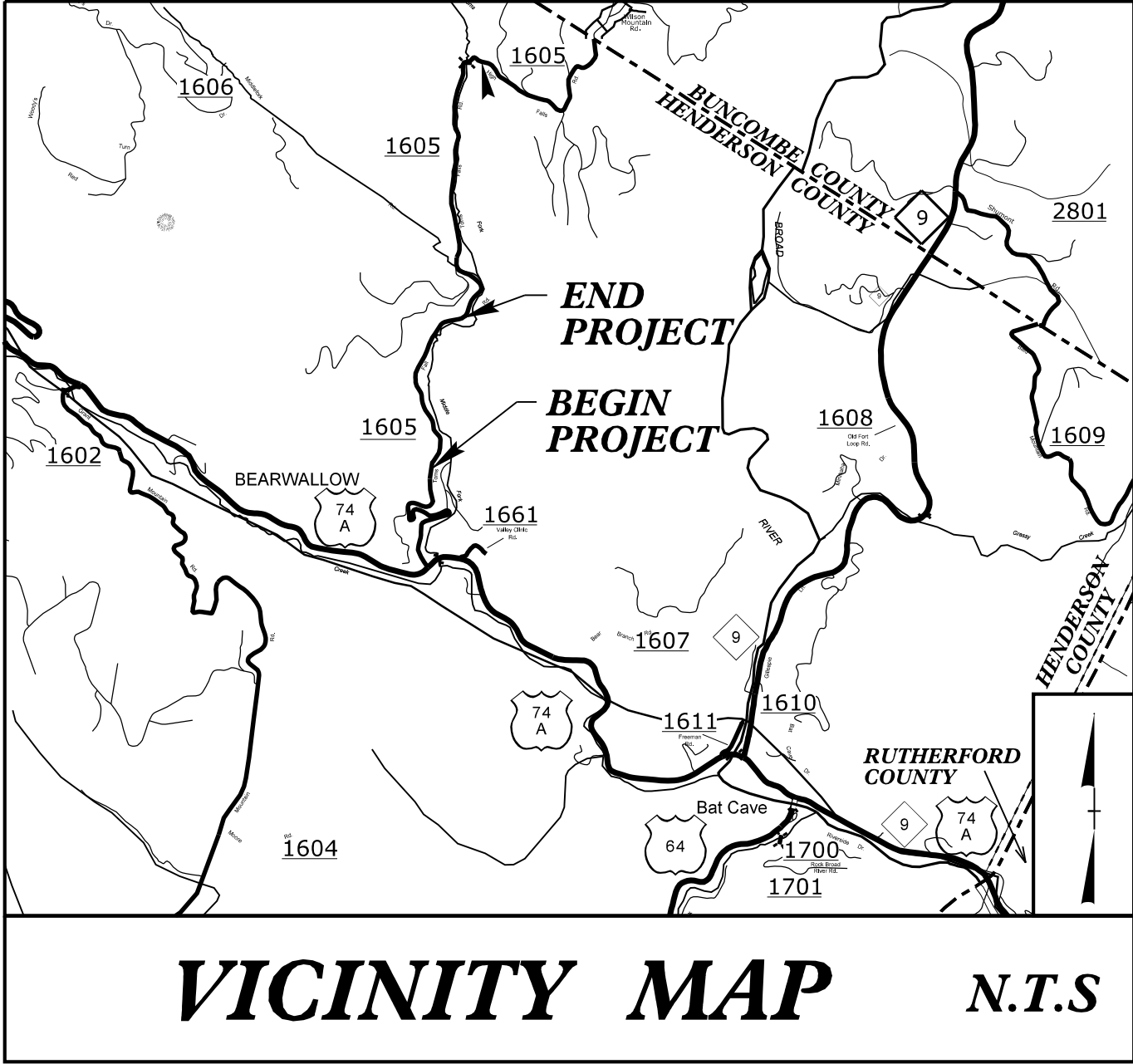
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CONTRACT: DN01122

WBS PROJECT: DF18314.2045381

See Sheet 1A For Index of Sheets
See Sheet 1B For Conventional Symbols



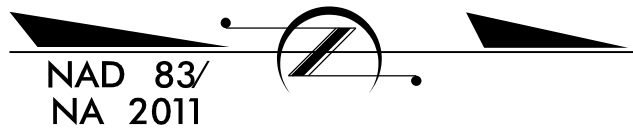
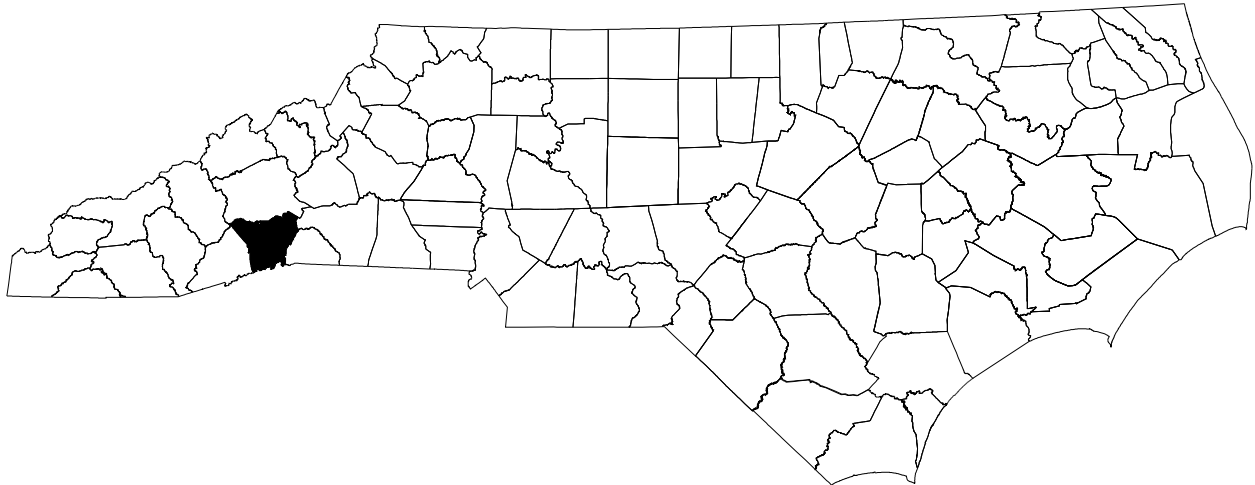
CONTRACT ROADWAY DESIGN PLANS

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

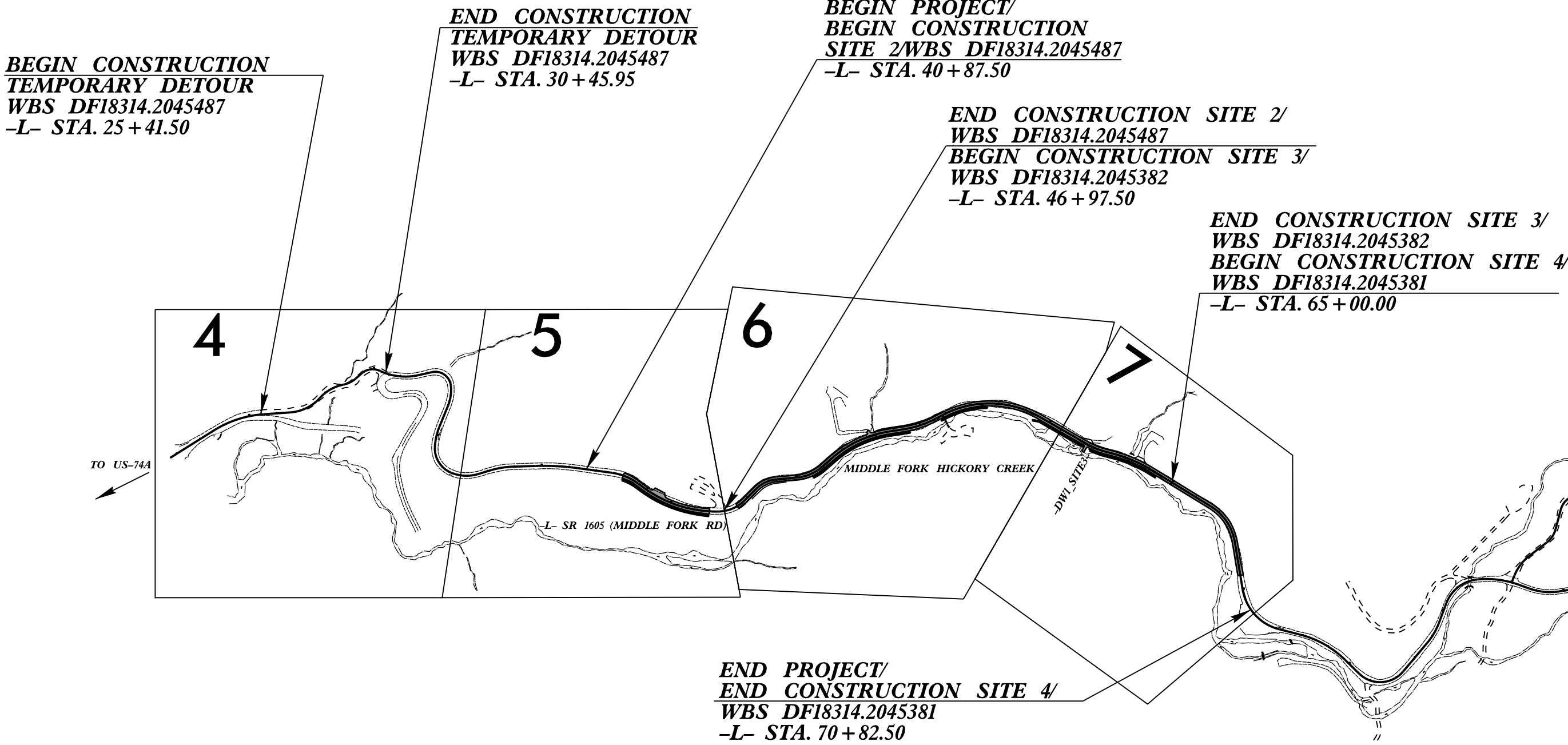
HENDERSON COUNTY

LOCATION: EMERGENCY DESIGN FOR SR 1605
(MIDDLE FORK ROAD/TOMS FALLS ROAD)

TYPE OF WORK: GRADING, PAVING, DRAINAGE
& RETAINING WALLS



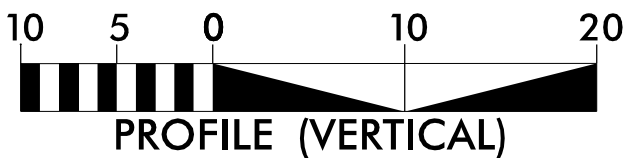
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	DF18314.2045381	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
DF18314.2045487		PE, RW, UTIL., CONST.	
DF18314.2045382		PE, RW, UTIL., CONST.	
DF18314.2045381		PE, RW, UTIL., CONST.	



A DESIGN EXCEPTION IS NEEDED FOR DESIGN SPEED, LANE WIDTH, SHOULDER WIDTH, HORIZONTAL CURVE RADIUS, STOPPING SIGHT DISTANCE FOR CREST VERTICAL CURVES, AND MAXIMUM GRADE. THERE IS NO CONTROL OF ACCESS ON THIS PROJECT. THIS PROJECT IS NOT WITHIN MUNICIPAL BOUNDARIES.

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES



DESIGN DATA

ADT 2025 = 610
ADT 2045 = 780

V = 30 MPH

FUNC CLASS =
LOCAL
SUBREGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY WBS PROJECT = 0.567 MILES
DF18314.2045381

TOTAL LENGTH WBS PROJECT = 0.567 MILES
DF18314.2045381

PREPARED IN THE OFFICE OF:

RS&H

1520 SOUTH BOULEVARD, SUITE 200
CHARLOTTE, NC 28203
NC FIRM LICENSE No: F-0493

FOR THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
APRIL 22, 2025

LETTING DATE:
JULY 22, 2025

ALLISON DRAKE, PE
PROJECT ENGINEER

BROOKE PARKER, PE
JENNIFER STARNES, PE
PROJECT DESIGN ENGINEER

BARRY MOSTELLER
NCDOT CONTACT

HYDRAULICS ENGINEER

6/11/2025

P.E.

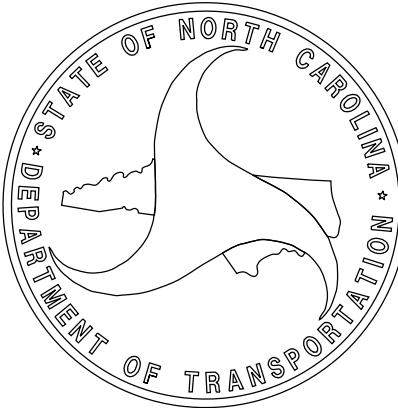
SIGNATURE:

ROADWAY DESIGN
ENGINEER

6/10/2025

P.E.

SIGNATURE:



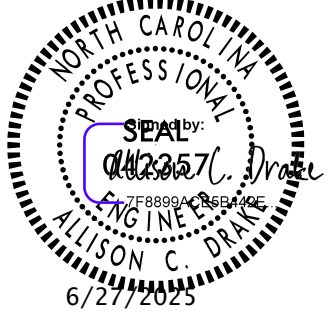
8/17/99

27-JUN-2025 11:53
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User:dek

PROJECT REFERENCE NO.
DF18314.2045381

SHEET NO.
1A

ROADWAY DESIGN ENGINEER



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RS&H 1520 SOUTH BOULEVARD, SUITE 200
CHARLOTTE, NC 28203
NC FIRM LICENSE No. F-0493

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	GUARDRAIL PLACEMENT
2C-2	RAISED PAVEMENT MARKERS
2C-3	GUARDRAIL ANCHOR UNIT TYPE B-77 SHOP CURVED
2D-1 THRU 2D-2	METHOD OF PIPE INSTALLATION
3B-1 THRU 3B-3	EARTHWORK SUMMARY, SUMMARY OF PAVEMENT REMOVAL, MEDIAN HAZARD PROECTION SUMMARY, EXPRESSWAY GUTTER SUMMARY, SUMMARY OF GUARDRAIL
3D-1 THRU 3D-3	DRAINAGE SUMMARY SHEETS
3G-1 THRU 3G-3	GEOTECHNICAL SUMMARIES
3P-1	PARCEL INDEX SHEET
4 THRU 7	PLAN SHEETS
8 THRU 9	PROFILE SHEETS
RW01 THRU RWXX	RIGHT OF WAY SHEETS (TO BE DETERMINED)
TMP-1 THRU TMP-12	TRAFFIC MANAGEMENT PLANS
PMP-1 THRU PMP-4	PAVEMENT MARKING PLANS
EC-1 THRU EC-11	EROSION CONTROL PLANS
RF-1 THRU RF-3	REFORESTATION PLANS
UO-1 THRU UO-5	UTILITIES BY OTHERS PLANS
X-1	CROSS SECTION INDEX
X-1A	CROSS SECTION SUMMARY
X-2 THRU X-51	CROSS SECTIONS
W-1 THRU W-22	WALL PLANS

GENERAL NOTES

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.
SUPERELEVATION:	ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH STD. NO. 225.04 USING THE RATE OF SUPERELEVATION AND RUNOFF SHOWN ON THE PLANS. SUPERELEVATION IS TO BE REVOLVED ABOUT THE GRADE POINTS SHOWN ON THE TYPICAL SECTIONS.
SHOULDER CONSTRUCTION:	ASPHALT, EARTH, AND CONCRETE SHOULDER CONSTRUCTION ON THE HIGH SIDE OF SUPERELEVATED CURVES SHALL BE IN ACCORDANCE WITH STD. NO. 560.01
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 DRAINS:	SUBSURFACE DRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 815.02 AT LOCATIONS DIRECTED BY THE ENGINEER.
DRIVEWAYS:	DRIVEWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. 848.03 AT LOCATIONS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER.
GUARDRAIL:	THE GUARDRAIL LOCATIONS SHOWN ON THE PLANS MAY BE ADJUSTED DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHOULD CONSULT WITH THE ENGINEER PRIOR TO ORDERING GUARDRAIL MATERIAL.
TEMPORARY SHORING:	SHORING REQUIRED FOR THE MAINTENANCE OF TRAFFIC NOT SHOWN ON THE PLANS WILL BE PAID FOR AT THE CONTRACT PRICE FOR "TEMPORARY SHORING".
UTILITIES:	UTILITY OWNERS ON THIS PROJECT ARE DUKE ENERGY, AT&T, SPECTRUM 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 OTHERS.

STANDARD DRAWINGS

2024 ROADWAY ENGLISH STANDARD DRAWINGS	EFF. 01-16-2024 REV.
The following Roadway Standards as appear in "Roadway Standard Drawings" Contracts Standards and Development Unit - N. C. Department of Transportation - Raleigh, N. C., Dated January 16, 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 11
225.02	Guide for Grading Subgrade - Secondary and Local
225.04	Method of Obtaining Superelevation - Two Lane Pavement
275.01	Rock Plating
DIVISION 3 - PIPE CULVERTS	
300.01	Method of Pipe Installation (Use Details in Lieu of Standards for Sheets 4, 5, 6, 7, 8, 9, 10, 11, and 12 of 13)
310.10	Driveway Pipe Construction
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction - High Side of Superelevated Curve - Method I
DIVISION 6 - ASPHALT BASES AND PAVEMENTS	
654.01	Pavement Repairs
DIVISION 8 - INCIDENTALS	
815.02	Subsurface Drain
838.01	Concrete Endwall for Single and Double Pipe Culverts - 15" thru 48" Pipe 90 Skew
838.11	Brick Endwall for Single and Double Pipe Culverts - 15" thru 48" Pipe 90 Skew
840.00	Concrete Base Pad for Drainage Structures
840.29	Frames and Narrow Slot Flat Grates
840.31	Concrete Junction Box - 12" thru 66" Pipe
840.32	Brick Junction Box - 12" thru 66" Pipe
840.34	Traffic Bearing Junction Box - for Use with Pipes 42" and Under
840.35	Traffic Bearing Grated Drop Inlet - for Cast Iron Double Frame and Grates
840.45	Precast Drainage Structure
840.46	Traffic Bearing Precast Drainage Structure
840.54	Manhole Frame and Cover
840.66	Drainage Structure Steps
846.01	Concrete Curb, Gutter and Curb & Gutter
846.02	Drop Inlet Installation in Expressway Gutter
848.03	Driveway Turnout - Drop Curb Type
850.01	Concrete Paved Ditches
854.06	Median Hazard Protection
862.01	Guardrail Placement (Use Details in Lieu of Standards for Sheets 4, 5, 6, 7, 8, 9, 10, and 11 of 13)
862.02	Guardrail Installation
862.03	Structure Anchor Units
862.04	Anchoring End of Guardrail - for B-77 and B-83 Anchor Units
876.01	Rip Rap in Channels and Ditches
876.02	Guide for Rip Rap at Pipe Outlets
876.04	Drainage Ditches with Class 'B' Rip Rap

CONVENTIONAL PLAN SHEET SYMBOLS

PROJECT REFERENCE NO.	SHEET NO.
DF18314.2045381	1B

Note: Not to Scale

BOUNDARIES AND PROPERTY:

State Line	
County Line	
Township Line	
City Line	
Reservation Line	
Property Line	
Existing Iron Pin (EIP)	
Computed Property Corner	
Existing Concrete Monument (ECM)	
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:

Primary Horiz Control Point	
Primary Horiz and Vert Control Point	
Secondary Horiz and Vert Control Point	
Vertical Benchmark	
Existing Right of Way Monument	
Proposed Right of Way Monument (Rebar and Cap)	
Proposed Right of Way Monument (Concrete)	
Existing Permanent Easement Monument	
Proposed Permanent Easement Monument (Rebar and Cap)	
Existing C/A Monument	
Proposed C/A Monument (Rebar and Cap)	
Proposed C/A Monument (Concrete)	
Existing Right of Way Line	
Proposed Right of Way Line	
Existing Control of Access Line	
Proposed Control of Access Line	
Proposed ROW and CA Line	
Existing Easement Line	
Proposed Temporary Construction Easement	
Proposed Temporary Drainage Easement	
Proposed Permanent Drainage Easement	
Proposed Permanent Drainage/Utility Easement	
Proposed Permanent Utility Easement	
Proposed Temporary Utility Easement	
Proposed 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	
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:

* SUE – Subsurface Utility Engineering
LOS – Level of Service – A,B,C or D (Accuracy)

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 Test Hole (SUE – LOS A)*	
U/G Power Line (SUE – LOS B)*	
U/G Power Line (SUE – LOS C)*	
U/G Power Line (SUE – LOS D)*	

TELEPHONE:

Existing Telephone Pole	
Proposed Telephone Pole	
Telephone Manhole	
Telephone Pedestal	
Telephone Cell Tower	
U/G Telephone Cable Hand Hole	
U/G Telephone Test Hole (SUE – LOS A)*	
U/G Telephone Cable (SUE – LOS B)*	
U/G Telephone Cable (SUE – LOS C)*	
U/G Telephone Cable (SUE – LOS D)*	
U/G Telephone Conduit (SUE – LOS B)*	
U/G Telephone Conduit (SUE – LOS C)*	
U/G Telephone Conduit (SUE – LOS D)*	
U/G Fiber Optics Cable (SUE – LOS B)*	
U/G Fiber Optics Cable (SUE – LOS C)*	
U/G Fiber Optics Cable (SUE – LOS D)*	

WATER:

Water Manhole	
Water Meter	
Water Valve	
Water Hydrant	
U/G Water Line Test Hole (SUE – LOS A)*	
U/G Water Line (SUE – LOS B)*	
U/G Water Line (SUE – LOS C)*	
U/G Water Line (SUE – LOS D)*	
Above Ground Water Line	

TV:

TV Pedestal	
TV Tower	
U/G TV Cable Hand Hole	
U/G TV Test Hole (SUE – LOS A)*	
U/G TV Cable (SUE – LOS B)*	
U/G TV Cable (SUE – LOS C)*	
U/G TV Cable (SUE – LOS D)*	
U/G Fiber Optic Cable (SUE – LOS B)*	
U/G Fiber Optic Cable (SUE – LOS C)*	
U/G Fiber Optic Cable (SUE – LOS D)*	

GAS:

Gas Valve	
Gas Meter	
U/G Gas Line Test Hole (SUE – LOS A)*	
U/G Gas Line (SUE – LOS B)*	
U/G Gas Line (SUE – LOS C)*	
U/G Gas Line (SUE – LOS D)*	
Above Ground Gas Line	

SANITARY SEWER:

Sanitary Sewer Manhole	
Sanitary Sewer Cleanout	
U/G Sanitary Sewer Line	
Above Ground Sanitary Sewer	
SS Force Main Line Test Hole (SUE – LOS A)*	
SS Force Main Line (SUE – LOS B)*	
SS Force Main Line (SUE – LOS C)*	
SS Force Main Line (SUE – LOS D)*	

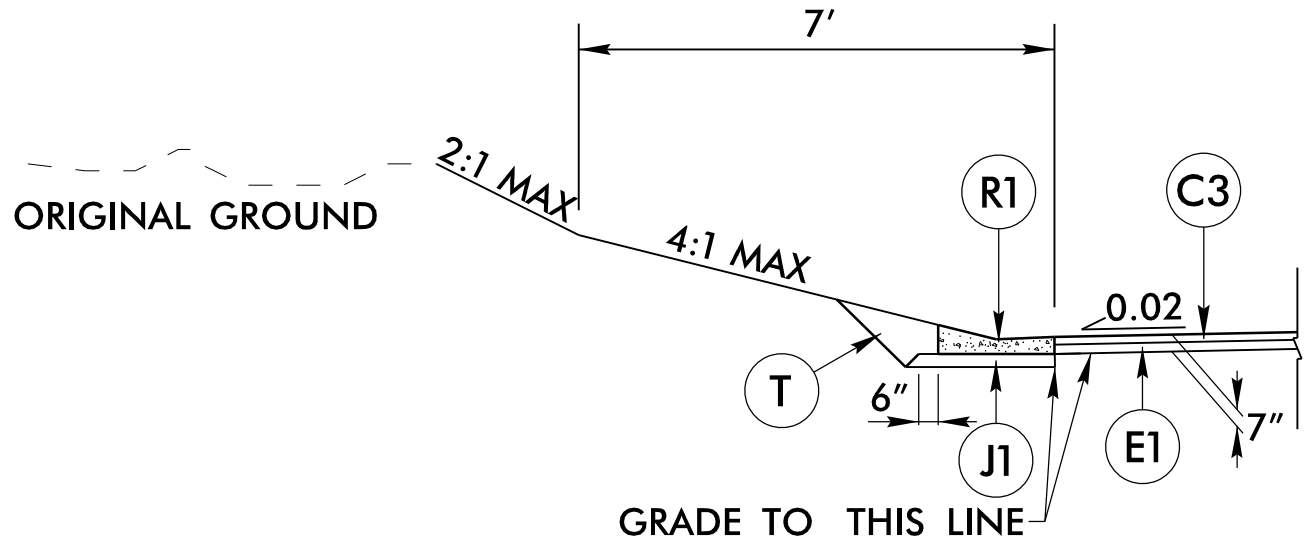
MISCELLANEOUS:

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

5/14/99

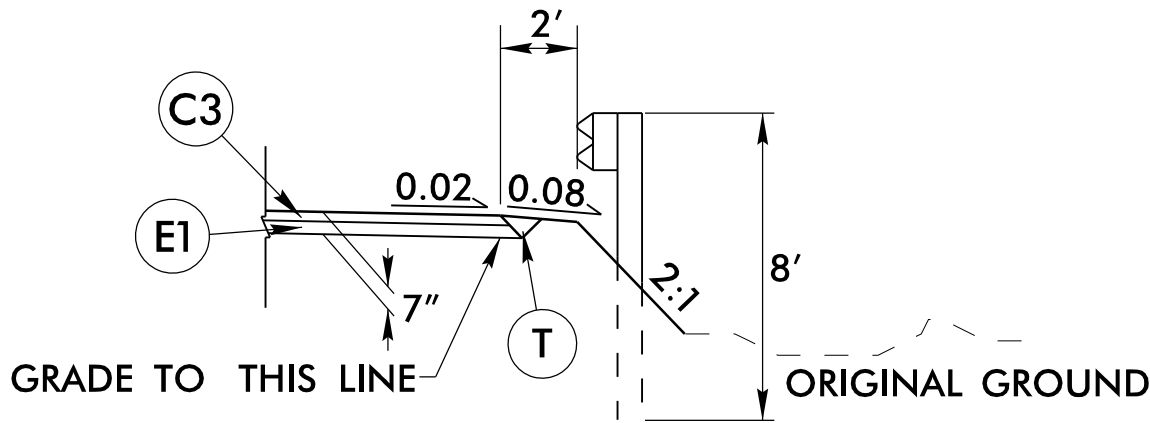
FINAL PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C2	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
C3	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
E1	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
J1	PROP. 8" AGGREGATE BASE COURSE.
R1	EXPRESSWAY GUTTER
R2	REINFORCED SINGLE FACED CONCRETE BARRIER
R3	4" CONCRETE COVER
T	EARTH MATERIAL
U	EXISTING PAVEMENT

NOTE: ALL PAVEMENT SLOPES 1:1 UNLESS NOTED OTHERWISE

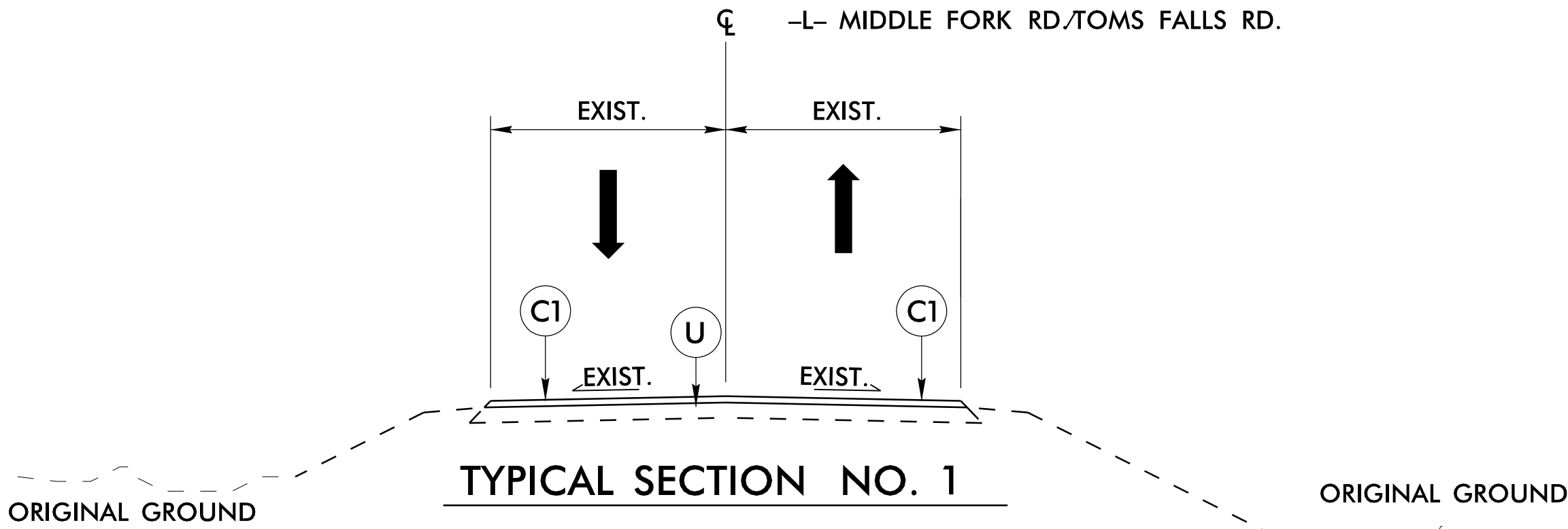


TYPICAL SECTION DETAIL

SHOULDER SECTION WITH EXPRESSWAY GUTTER
SEE PLANS FOR LOCATIONS

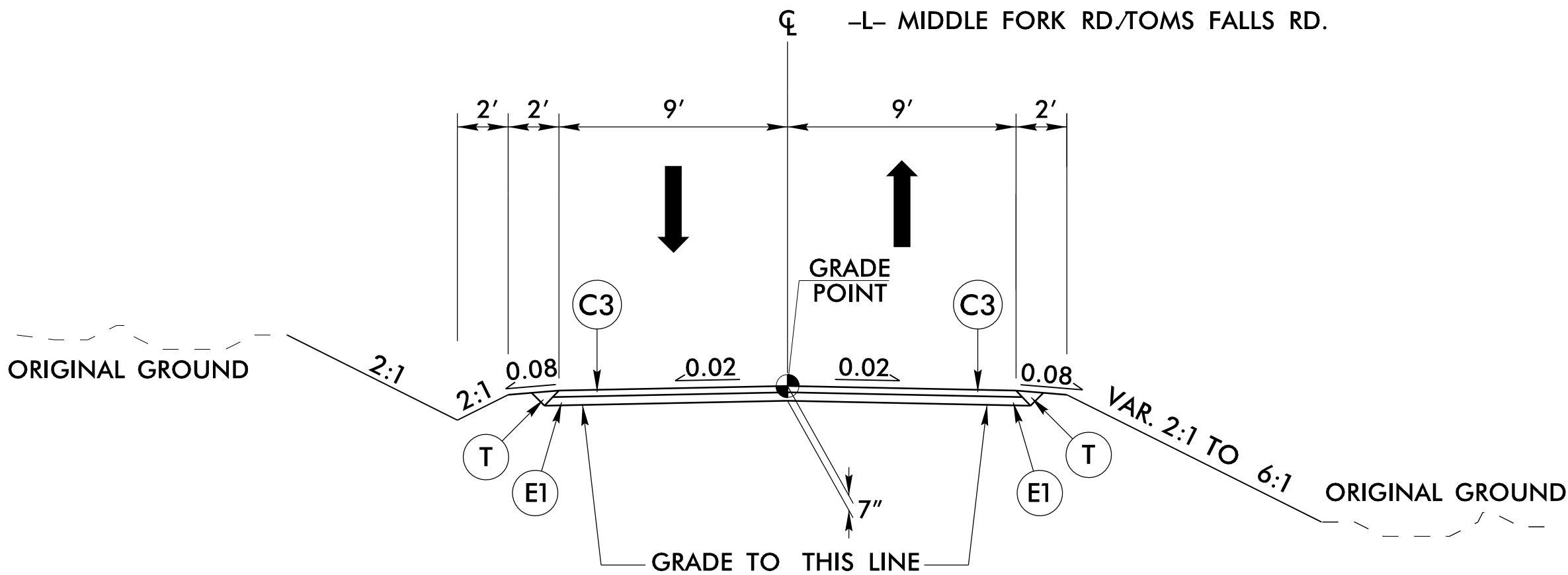


TYPICAL SECTION DETAIL
8' GUARDRAIL POST ON 2:1 SLOPE
SEE PLANS FOR LOCATIONS



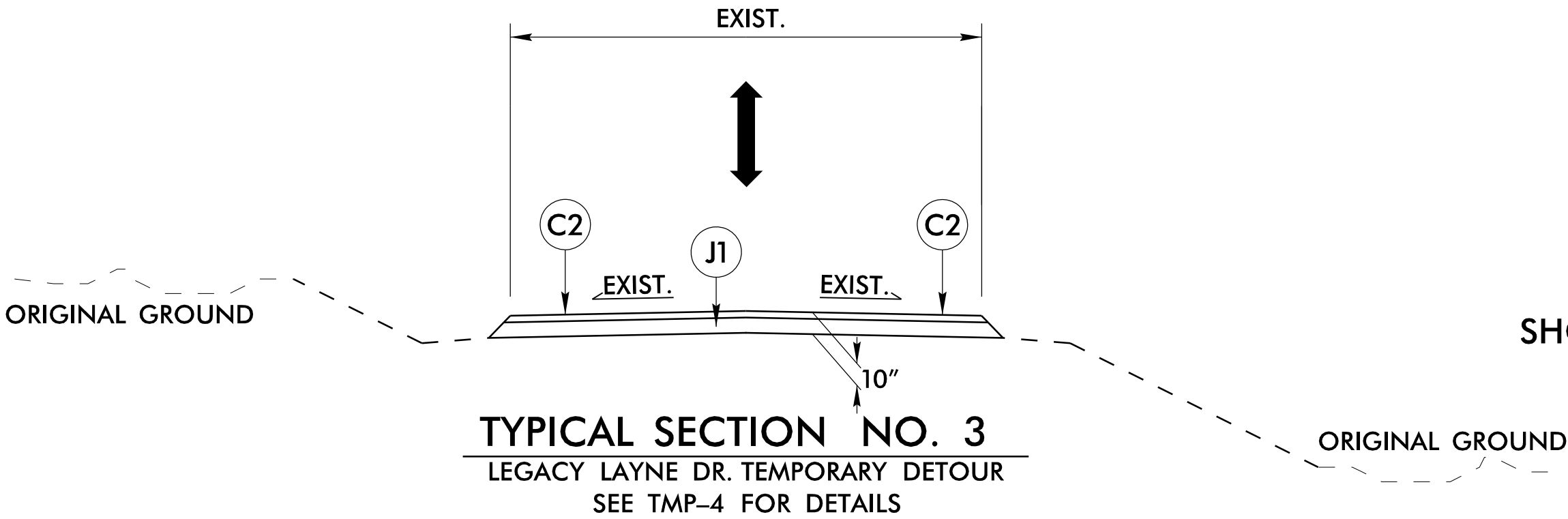
TYPICAL SECTION NO. 1

-L- STA. 46 + 45.00 TO -L- STA. 47 + 50.00
-L- STA. 69 + 50.00 TO -L- STA. 70 + 82.50



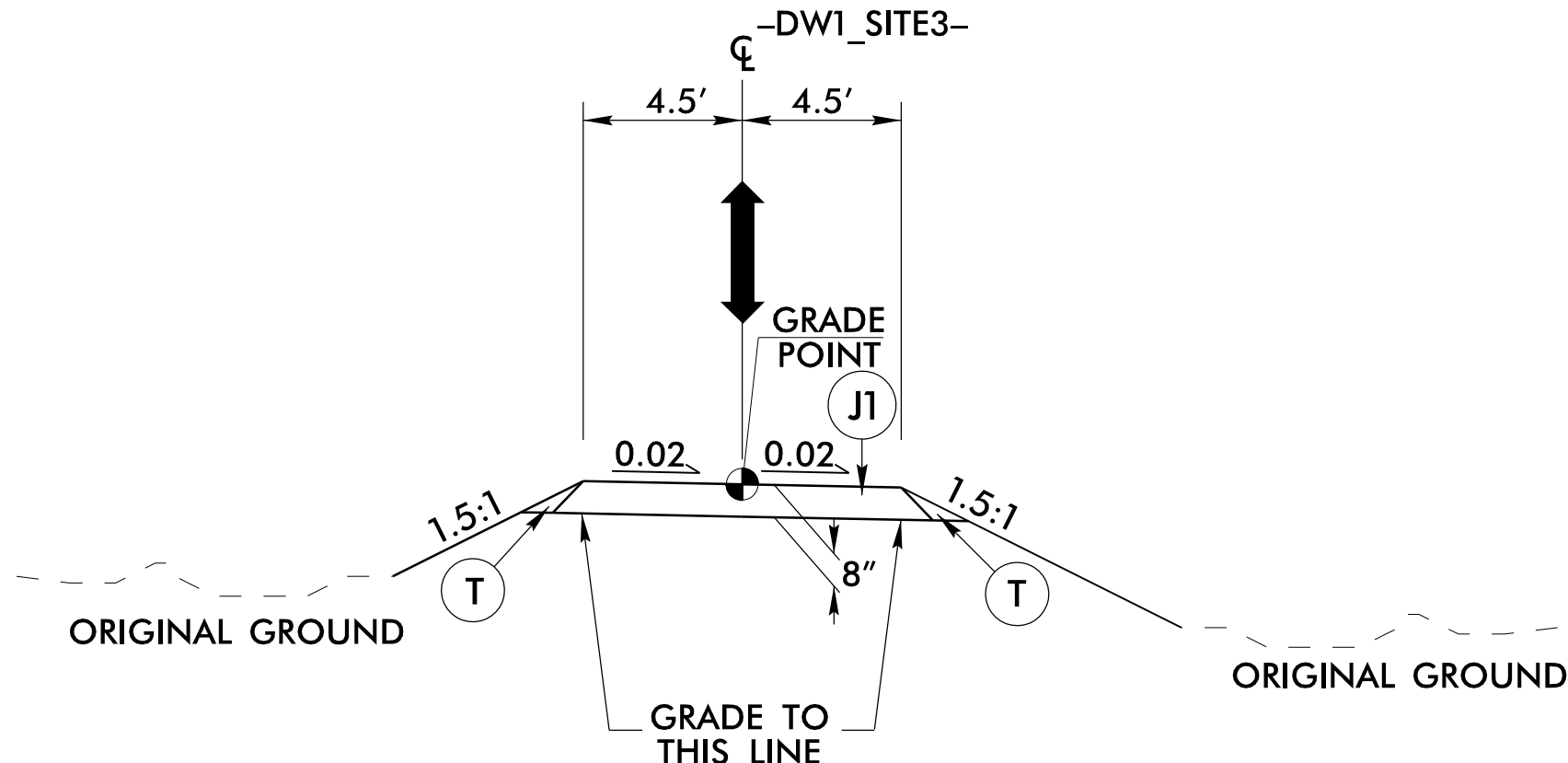
TYPICAL SECTION NO. 2

-L- STA. 43 + 00.00 TO -L- STA. 46 + 45.00
-L- STA. 47 + 50.00 TO -L- STA. 69 + 50.00



TYPICAL SECTION NO. 3

LEGACY LAYNE DR. TEMPORARY DETOUR
SEE TMP-4 FOR DETAILS

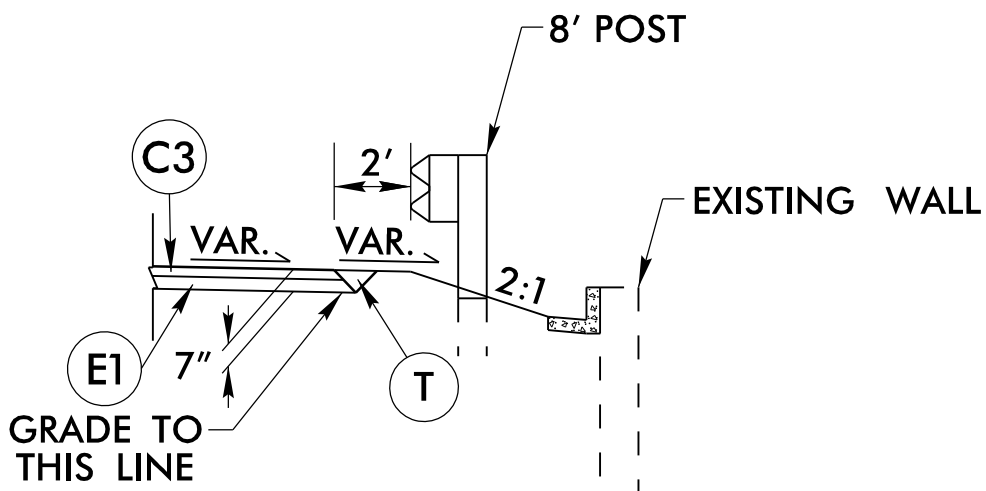


TYPICAL SECTION NO. 4

-DW1_SITE3- STA. 10 + 09.00 TO -DW1_SITE3- STA. 10 + 30.00

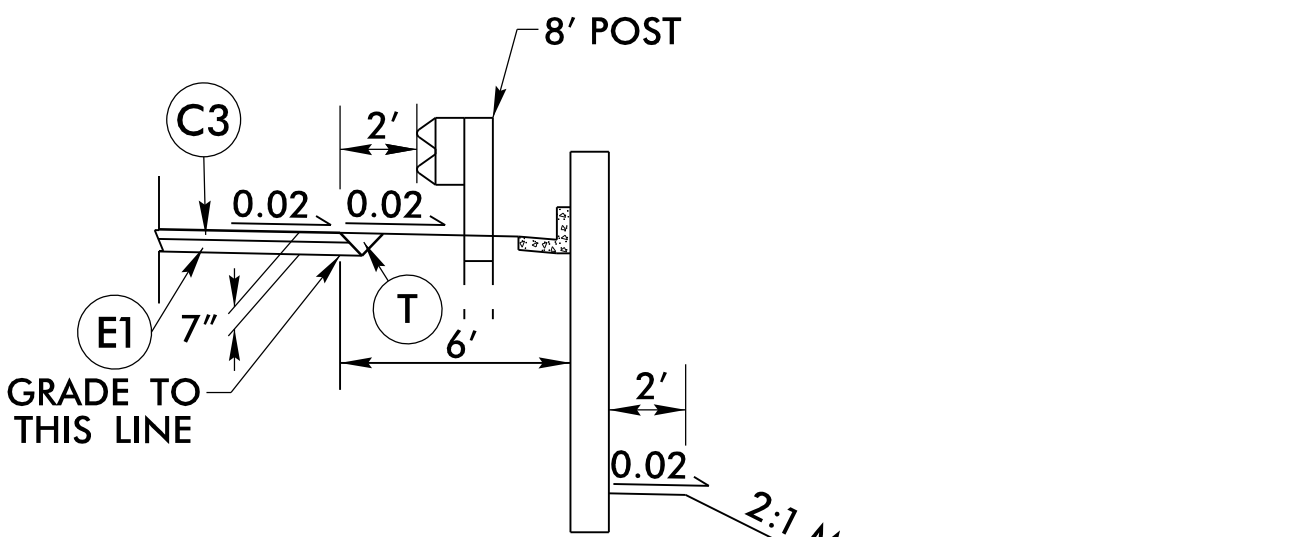
PROJECT REFERENCE NO.	SHEET NO.
DF18314.2045381	2A-1
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

RS&H 1520 SOUTH BOULEVARD, SUITE 200
CHARLOTTE, NC 28203
NC FIRM LICENSE No: F-0493



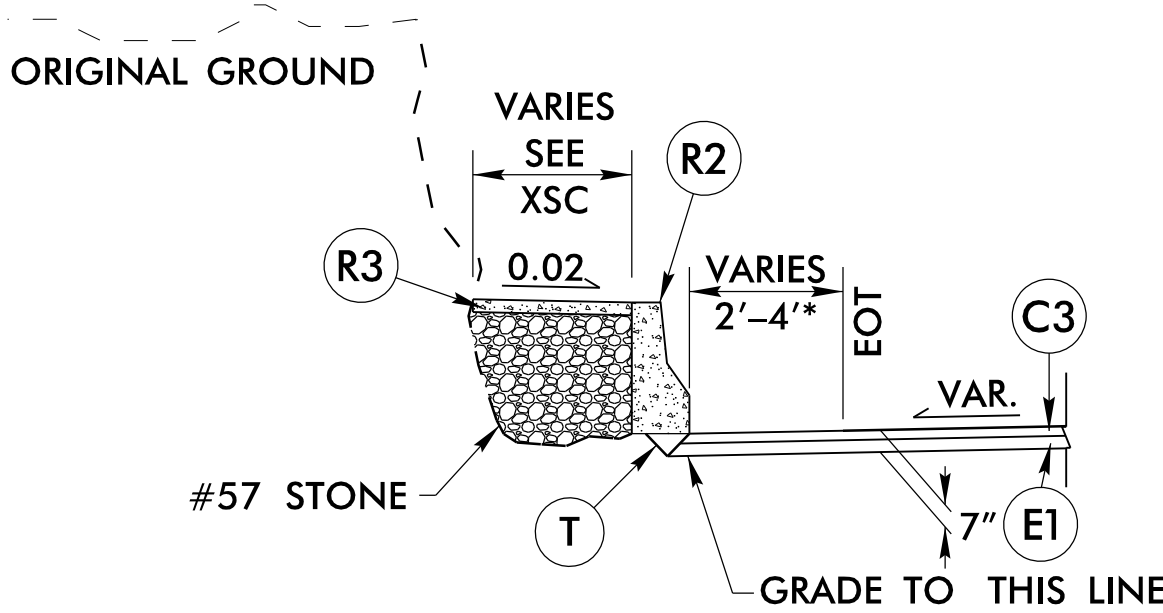
TYPICAL SECTION DETAIL

SHOULDER SECTION AT EXISTING
RETAINING WALL LOCATIONS
SEE PLANS FOR LOCATIONS



TYPICAL SECTION DETAIL

SHOULDER SECTION WITH FILL WALL
AND GUARDRAIL
SEE PLANS FOR LOCATIONS

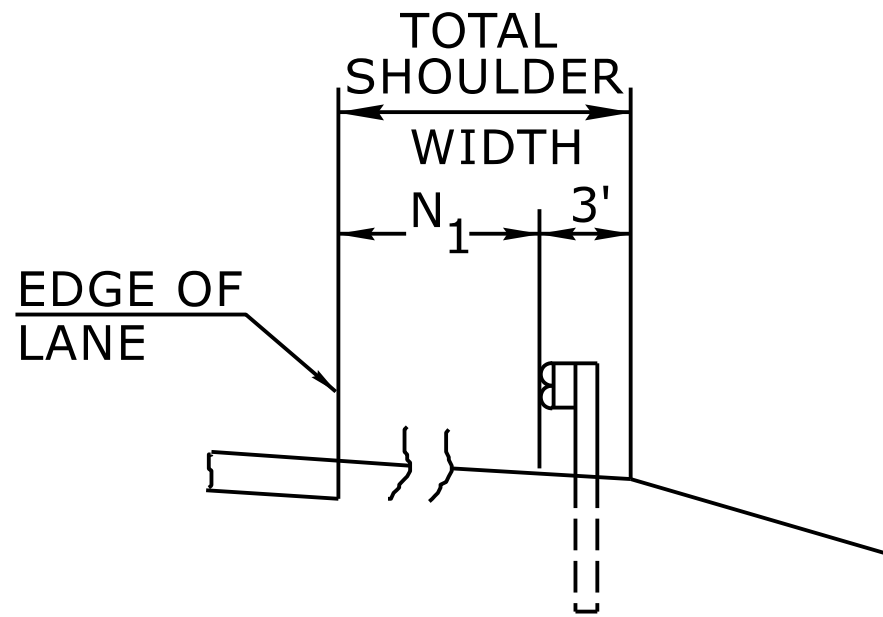


TYPICAL SECTION DETAIL

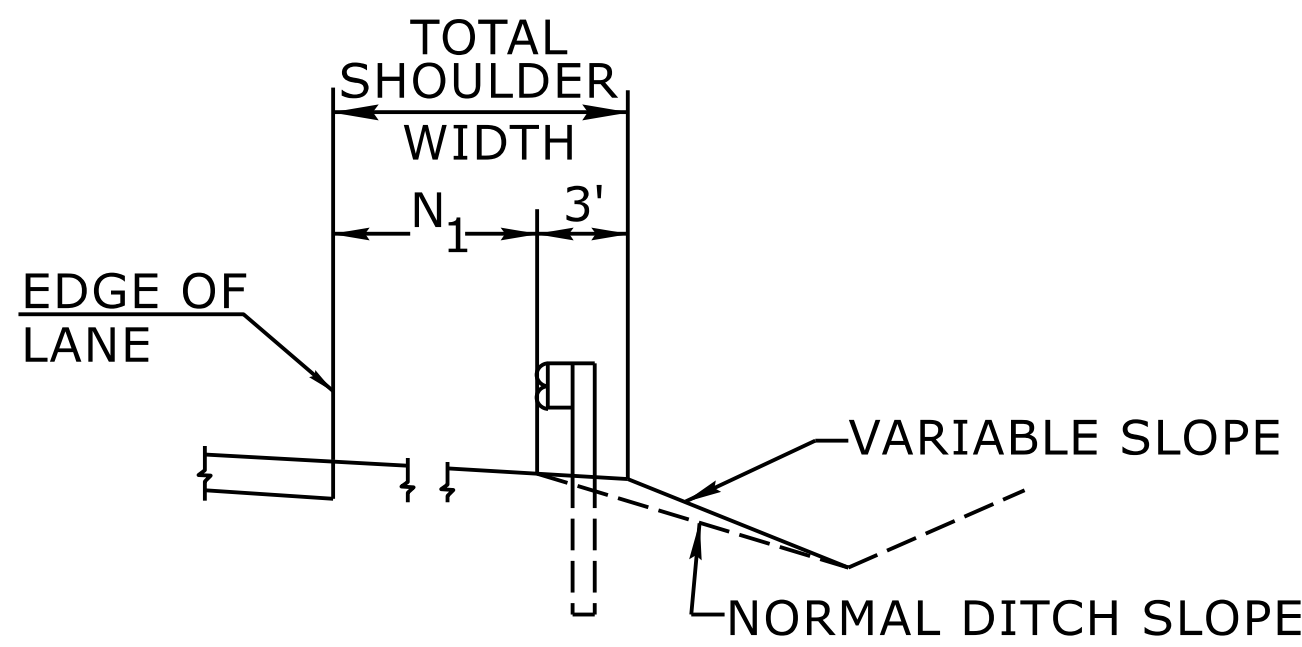
PAVED SHOULDER WITH SINGLE FACE BARRIER WALL
SEE PLANS FOR LOCATIONS

*NOTE: 2'-6" PAVED SHOULDER AT
-L- STA. 50 + 30.00 TO -L- STA. 50 + 40.00
-L- STA. 51 + 35.00 TO -L- STA. 51 + 45.00

10-JUN-2025 11:45 Roadway\Projects\18314\Drawings\18314-2A-1.dgn

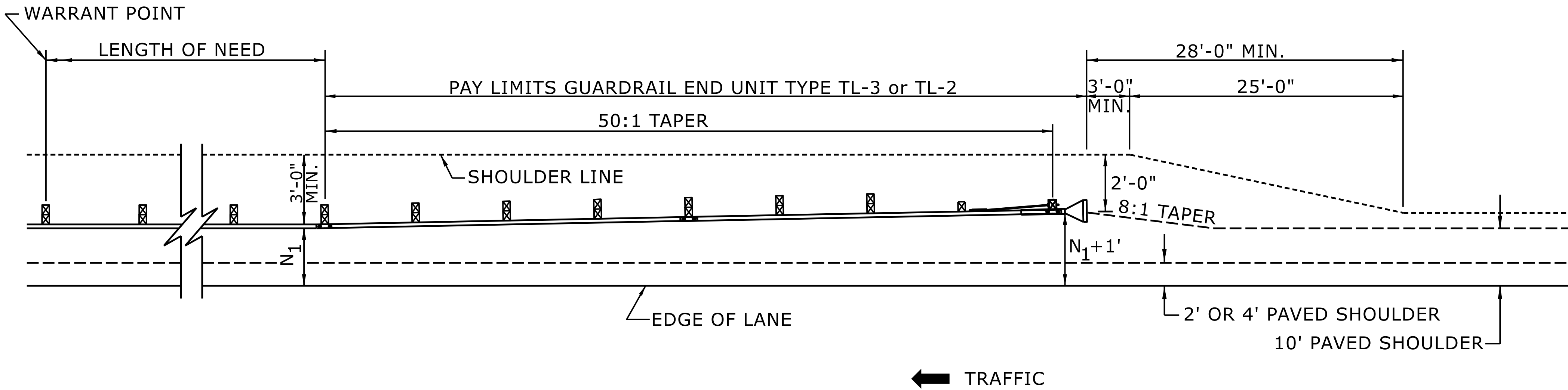


FILL SECTION



CUT SECTION

"N₁"= DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL WHERE GUARDRAIL IS PARALLEL TO LANE.

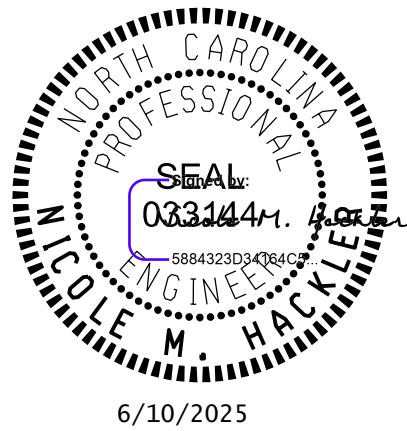


FOR POSTED SPEEDS ≥ 45mph USE GREU TYPE TL-3
FOR POSTED SPEEDS < 45mph USE GREU TYPE TL-2

DETAIL OF BEGINNING OF GUARDRAIL IN CUT OR FILL SECTION

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

ROADWAY DETAIL DRAWING FOR
GUARDRAIL PLACEMENT



SHEET 6 OF 15
862D01

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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.:			

10'-30'/SP SKIP LINE

10' WHITE SKIP

15'

15'

80'

REFER TO SPACING CHART FOR SPACING REDUCTIONS

3'-9'/SP MINI-SKIP LINE

24'

MARKER CENTERED BETWEEN MINI-SKIP LINES

LEGEND

CRYSTAL/RED PAVEMENT MARKER

YELLOW/YELLOW PAVEMENT MARKER

DIRECTION OF TRAFFIC FLOW

GORE LINES

20'

MARKERS OFFSET 2" FROM GORE LINES

YELLOW CENTER LINES

REFER TO SPACING CHART FOR SPACING REDUCTIONS

80'

80'

15'

15'

15'

15'

15'

15'

MARKERS CENTERED BETWEEN DOUBLE CENTER LINES

CENTER LINES FOR -

TWO-LANE, TWO-WAY ROADWAYS

UNDIVIDED ROADWAYS

TWO-WAY LEFT TURN LANES

DETAIL OF PAVEMENT MARKER PLACEMENT

RAISED REFLECTIVE PAVEMENT MARKERS

6"

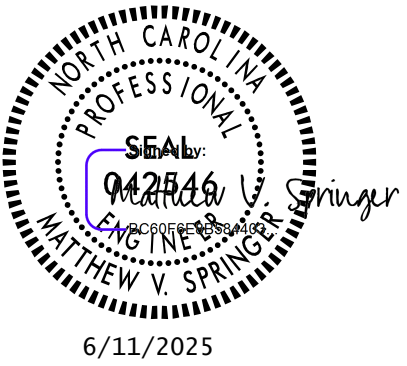
MARKERS CENTERED BETWEEN DOUBLE CENTER LINES

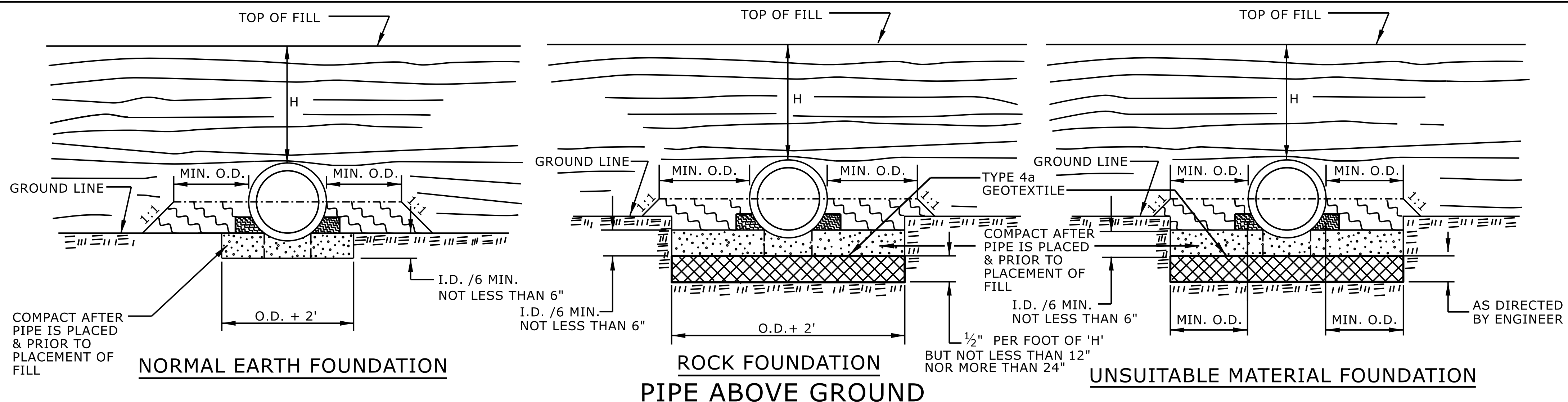
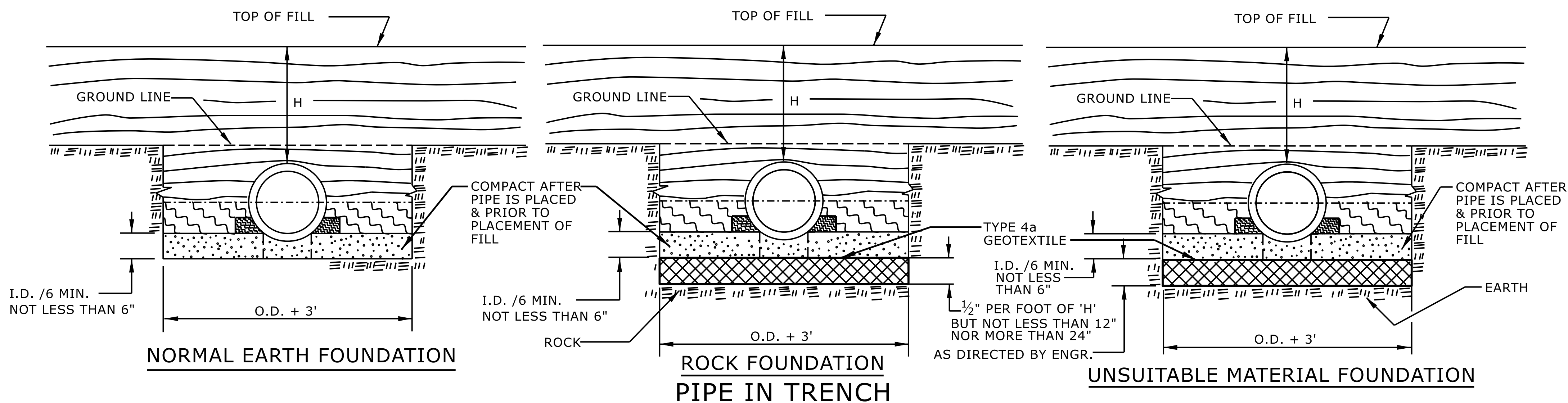
MARKERS CENTERED BETWEEN SKIP LINES

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

ROADWAY DETAIL DRAWING FOR
RAISED PAVEMENT MARKERS
INSTALLATION SPACING

SHEET 2 OF 3
1250D01





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.

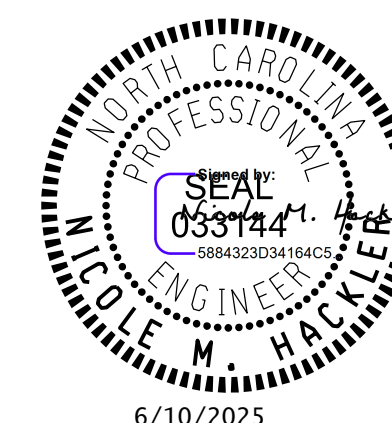
DO NOT OPERATE HEAVY EQUIPMENT OVER ANY PIPE CULVERT UNTIL THE PIPE CULVERT HAS BEEN PROPERLY BACKFILLED AND COVERED WITH AT LEAST 3 FEET OF APPROVED MATERIAL.

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

ROADWAY DETAIL DRAWING FOR METHOD OF PIPE INSTALLATION RIGID PIPE	STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
---	---

SHEET 2 OF 2
300.01



**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

**CONTRACTS STANDARDS
AND DEVELOPMENT UNIT**
919-707-6950 FAX 919-250-4

SEE TITLE BLOCK

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

COMPUTED BY: RCM DATE: 6/4/2025
CHECKED BY: BEP DATE: 6/4/2025

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

PROJECT REFERENCE NO.	SHEET NO.
DF18314.2045382 (SITE 3)	3B-2

SUMMARY OF EARTHWORK

STATION	STATION	UNCL. EXCAV.	EMBANK. + %	BORROW	WASTE
-L- 47 + 50.00	-L- 65 + 00.00	407	3,196	2,789	
-DW1_SITE3- 10 + 09.00	-DW1_SITE3- 10 + 30.00		7	7	
SUBTOTALS:		407	3,203	2,796	
PROJECT TOTALS:		407	3,203	2,796	
LOSS DUE TO CLEARING & GRUBBING		-50		50	
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT				142	
WASTE IN LIEU OF BORROW					
GRAND TOTALS:		357	3,203	2,988	
SAY:		380		3,140	

NOTE: EARTHWORK QUANTITIES ARE CALCULATED BY RS&H. THESE EARTHWORK QUANTITIES ARE BASED IN PART ON SUBSURFACE DATA PROVIDED BY CAROLINAS GEOTECHNICAL GROUP, PLLC (CG2)

EST 950 CY UNDERCUT EXCAVATION (PER GEOTECH RECOMMENDATIONS)
 EST 100 CY SHALLOW UNDERCUT (PER GEOTECH RECOMMENDATIONS)
 EST 200 TON CLASS IV SUBGRADE STABILIZATION (PER GEOTECH RECOMMENDATIONS)

MEDIAN HAZARD PROTECTION SUMMARY

SURVEY LINE	STATION	STATION	LENGTH	COMMENTS
-L-	47 + 66.00	48 + 80.00	114.00	
-L-	50 + 30.00	52 + 10.00	180.00	
-L-	53 + 60.00	54 + 70.00	110.00	
-L-	61 + 80.00	62 + 70.00	90.00	
		TOTAL:	494.00	
		SAY:	500	

PAVEMENT REMOVAL SUMMARY

SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	YD
-L-	47 + 50.00	48 + 43.00	CL	186.06
-L-	53 + 39.00	54 + 71.00	CL	264.00
-L-	64 + 62.00	65 + 00.00	CL	75.07
			TOTAL:	525.14
			SAY:	530

EXPRESSWAY GUTTER SUMMARY

SURVEY LINE	STATION	STATION	LENGTH
-L-	55 + 10.00	55 + 60.00	50
TOTAL:			50
SAY:			50

"N" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL.
 TOTAL SHOULDER WIDTH = DISTANCE FROM EDGE OF TRAVEL LANE TO SHOULDER BREAK POINT.
 FLARE LENGTH = DISTANCE FROM LAST SECTION OF PARALLEL GUARDRAIL TO END OF GUARDRAIL.
 W = TOTAL WIDTH OF FLARE FROM BEGINNING OF TAPER TO END OF GUARDRAIL.
 G = GATING IMPACT ATTENUATOR TYPE 350
 NG = NON-GATING IMPACT ATTENUATOR TYPE 350

GUARDRAIL SUMMARY

[illegible]

12/06/07

COMPUTED BY: RCM DATE: 6/4/2025
CHECKED BY: BEP DATE: 6/4/2025

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

PROJECT REFERENCE NO.	SHEET NO.
DF18314.2045381 (SITE 4)	3B-3

SUMMARY OF EARTHWORK

STATION	STATION	UNCL. EXCAV.	EMBANK. + %	BORROW	WASTE
-L- 65+00.00	-L- 69+50.00	282	942	660	
SUBTOTALS:		282	942	660	
PROJECT TOTALS:		282	942	660	
LOSS DUE TO CLEARING & GRUBBING		-50		50	
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT				36	
WASTE IN LIEU OF BORROW					
GRAND TOTALS:		232	942	746	
SAY:		250		790	

NOTE: EARTHWORK QUANTITIES ARE CALCULATED BY RS&H. THESE EARTHWORK QUANTITIES ARE BASED IN PART ON SUBSURFACE DATA PROVIDED BY CAROLINAS GEOTECHNICAL GROUP, PLLC (CG2)

EST 400 CY UNDERCUT EXCAVATION (PER GEOTECH RECOMMENDATIONS)

EST 100 CY SHALLOW UNDERCUT (PER GEOTECH RECOMMENDATIONS)

EST 200 TON CLASS IV SUBGRADE STABILIZATION (PER GEOTECH RECOMMENDATIONS)

PAVEMENT REMOVAL SUMMARY

SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	YD ¹
-L-	65 + 00.00	69 + 50.00	CL	906.39
			TOTAL:	906.39
			SAY:	910

"N" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL.
TOTAL SHOULDER WIDTH = DISTANCE FROM EDGE OF TRAVEL LANE TO SHOULDER BREAK POINT.
FLARE LENGTH = DISTANCE FROM LAST SECTION OF PARALLEL GUARDRAIL TO END OF GUARDRAIL.
W = TOTAL WIDTH OF FLARE FROM BEGINNING OF TAPER TO END OF GUARDRAIL.
G = GATING IMPACT ATTENUATOR TYPE 350
NG = NON-GATING IMPACT ATTENUATOR TYPE 350

GUARDRAIL SUMMARY

[illegible]

**NA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS**

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48 INCHES & UNDER)

ABBREVIATIONS

RUGATED ALUMINUM INLET
B.C. - CATCH BASIN
- CORRUGATED STEEL
D.I. - DROP INLET
- GRATED DROP INLET
IGH DENSITY POLYETHYLENE
B. - JUNCTION BOX
M.H. - MANHOLE
S. - NARROW SLOT
- POLYVINYL CHLORIDE
REINFORCED CONCRETE
RAFFIC BEARING DROP INLET
AFFIC BEARING JUNCTION BOX
W.S. - WIDE SLOT

COMPUTED BY: PMP DATE: 06/04/2025 CHECKED BY: KND DATE: 06/04/2025		(9-17-24)				PROJECT NO. DF18314.2045487 (SITE 2)		SHEET NO. 3G-1							
STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS															
SUMMARY OF SUBSURFACE DRAINAGE						SUMMARY OF AGGREGATE SUBGRADE/STABILIZATION									
LINE	Station	Station	Location LT/RT/CL	Drain Type* UD/BD/SD	LF	LINE	Station	Station	Aggregate Type* ASU(1/2)/ AST	Aggregate Thickness INCHES [8" for ASU(2)]	Shallow Undercut CY	Class IV Subgrade Stabilization TONS	Geotextile for Subgrade Stabilization SY	Stabilizer Aggregate TONS	Class IV Aggregate Stabilization TONS
CONTINGENCY				SD	200										
				TOTAL LF:	200				ASU	1	100	200	300		
									TOTAL CY/TONS/SY:		100	200**	300**	0	0
						*ASU(1/2) = Aggregate Subgrade (Type 1 or 2) *AST = Aggregate Stabilization **Total tons of "Class IV Subgrade Stabilization" and total square yards of "Geotextile for Subgrade Stabilization" are only the estimated quantities for ASU(1/2)/AST and may only represent a portion of the subgrade stabilization and geotextile quantities shown in the Item Sheets of the Proposal.									
SUMMARY OF ROCK PLATING															
LINE	Beginning Slope (H:V)	Approx. Station	Ending Slope (H:V)	Approx. Station	Location LT/RT	Rock Plating Detail No. 1/2/3/4	Riprap Class* 1/2/B	Rock Plating SY							
CONTINGENCY								100							
							TOTAL SY:	100							
									*Use Class 1, 2 or B riprap if riprap class is not shown for rock plating location.						

COMPUTED BY: PMP DATE: 06/04/2025 CHECKED BY: KND DATE: 06/04/2025		(9-17-24)				PROJECT NO. DF18314.2045382 (SITE 3)		SHEET NO. 3G-2							
STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS															
SUMMARY OF SUBSURFACE DRAINAGE						SUMMARY OF AGGREGATE SUBGRADE/STABILIZATION									
LINE	Station	Station	Location LT/RT/CL	Drain Type* UD/BD/SD	LF	LINE	Station	Station	Aggregate Type* ASU(1/2)/ AST	Aggregate Thickness INCHES [8" for ASU(2)]	Shallow Undercut CY	Class IV Subgrade Stabilization TONS	Geotextile for Subgrade Stabilization SY	Stabilizer Aggregate TONS	Class IV Aggregate Stabilization TONS
CONTINGENCY				SD	200										
				TOTAL LF:	200				ASU	1	100	200	300		
									TOTAL CY/TONS/SY:		100	200**	300**	0	0
						*ASU(1/2) = Aggregate Subgrade (Type 1 or 2) *AST = Aggregate Stabilization **Total tons of "Class IV Subgrade Stabilization" and total square yards of "Geotextile for Subgrade Stabilization" are only the estimated quantities for ASU(1/2)/AST and may only represent a portion of the subgrade stabilization and geotextile quantities shown in the Item Sheets of the Proposal.									
SUMMARY OF ROCK PLATING															
LINE	Beginning Slope (H:V)	Approx. Station	Ending Slope (H:V)	Approx. Station	Location LT/RT	Rock Plating Detail No. 1/2/3/4	Riprap Class* 1/2/B	Rock Plating SY							
-L-	1.5:1	55+00	1.5:1	55+75	RT	1		150							
-L-	1.5:1	64+40	1.5:1	65+00	RT	1		150							
							TOTAL SY:	300							
									*Use Class 1, 2 or B riprap if riprap class is not shown for rock plating location.						

COMPUTED BY: PMP DATE: 06/04/2025 CHECKED BY: KND DATE: 06/04/2025		(9-17-24)				PROJECT NO. DF18314.2045381 (SITE 4)		SHEET NO. 3G-3							
STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS															
SUMMARY OF SUBSURFACE DRAINAGE						SUMMARY OF AGGREGATE SUBGRADE/STABILIZATION									
LINE	Station	Station	Location LT/RT/CL	Drain Type* UD/BD/SD	LF	LINE	Station	Station	Aggregate Type* ASU(1/2)/ AST	Aggregate Thickness INCHES [8" for ASU(2)]	Shallow Undercut CY	Class IV Subgrade Stabilization TONS	Geotextile for Subgrade Stabilization SY	Stabilizer Aggregate TONS	Class IV Aggregate Stabilization TONS
CONTINGENCY				SD	200										
				TOTAL LF:	200				ASU	1	100	200	300		
									TOTAL CY/TONS/SY:		100	200**	300**	0	0
						*ASU(1/2) = Aggregate Subgrade (Type 1 or 2) *AST = Aggregate Stabilization **Total tons of "Class IV Subgrade Stabilization" and total square yards of "Geotextile for Subgrade Stabilization" are only the estimated quantities for ASU(1/2)/AST and may only represent a portion of the subgrade stabilization and geotextile quantities shown in the Item Sheets of the Proposal.									
SUMMARY OF ROCK PLATING															
LINE	Beginning Slope (H:V)	Approx. Station	Ending Slope (H:V)	Approx. Station	Location LT/RT	Rock Plating Detail No. 1/2/3/4	Riprap Class* 1/2/B	Rock Plating SY							
-L-	1.5:1	65+00	1.5:1	69+50	RT	1/2		1000							
							TOTAL SY:	1000							
									*Use Class 1, 2 or B riprap if riprap class is not shown for rock plating location.						

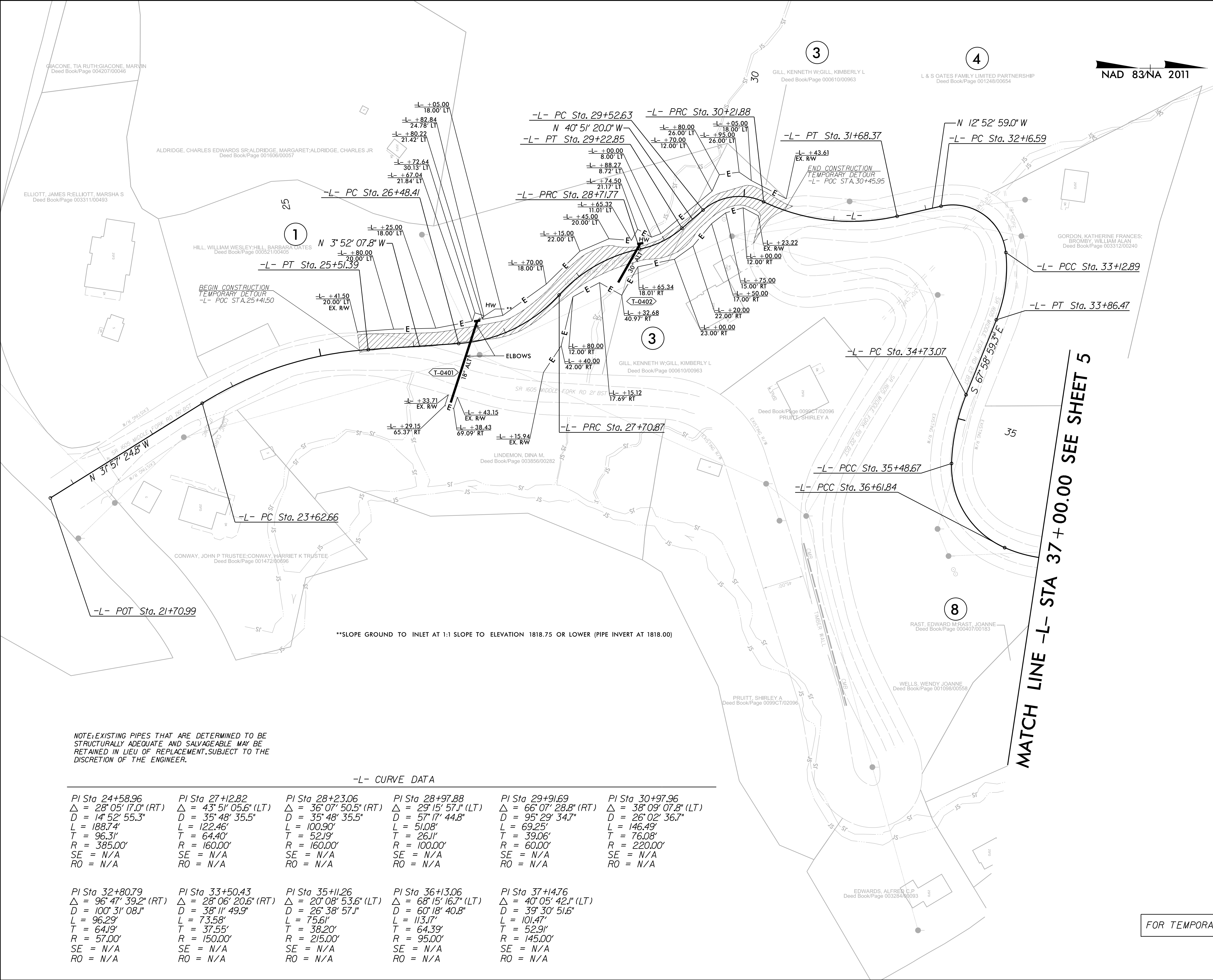
PROJECT REFERENCE NO.	SHEET NO.
DF18314.2045381	3P-1



PARCEL INDEX SHEET

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NOTE: EXISTING PIPES THAT ARE DETERMINED TO BE STRUCTURALLY ADEQUATE AND SALVAGEABLE MAY BE RETAINED IN LIEU OF REPLACEMENT, SUBJECT TO THE DISCRETION OF THE ENGINEER.

-L- CURVE DATA

PI Sta 24+58.96 Δ = 28° 05' 17.0" (RT) D = 14° 52' 55.3" L = 188.74' T = 96.31' R = 385.00' SE = N/A RO = N/A	PI Sta 27+12.82 Δ = 43° 51' 05.6" (LT) D = 35° 48' 35.5" L = 122.46' T = 64.40' R = 160.00' SE = N/A RO = N/A	PI Sta 28+23.06 Δ = 36° 07' 50.5" (RT) D = 35° 48' 35.5" L = 100.90' T = 52.19' R = 160.00' SE = N/A RO = N/A	PI Sta 28+97.88 Δ = 29° 15' 57.1" (LT) D = 57° 17' 44.8" L = 51.08' T = 26.11' R = 100.00' SE = N/A RO = N/A	PI Sta 29+91.69 Δ = 66° 07' 28.8" (RT) D = 95° 29' 34.7" L = 69.25' T = 39.06' R = 60.00' SE = N/A RO = N/A	PI Sta 30+97.96 Δ = 38° 09' 07.8" (LT) D = 26° 02' 36.7" L = 146.49' T = 76.08' R = 220.00' SE = N/A RO = N/A
PI Sta 32+80.79 Δ = 96° 47' 39.2" (RT) D = 100° 31' 08.1" L = 96.29' T = 64.19' R = 57.00' SE = N/A RO = N/A	PI Sta 33+50.43 Δ = 28° 06' 20.6" (RT) D = 38° 11' 49.9" L = 73.58' T = 37.55' R = 150.00' SE = N/A RO = N/A	PI Sta 35+11.26 Δ = 20° 08' 53.6" (LT) D = 26° 38' 57.1" L = 75.61' T = 38.20' R = 215.00' SE = N/A RO = N/A	PI Sta 36+13.06 Δ = 68° 15' 16.7" (LT) D = 60° 18' 40.8" L = 113.17' T = 64.39' R = 95.00' SE = N/A RO = N/A	PI Sta 37+14.76 Δ = 40° 05' 42.1" (LT) D = 39° 30' 51.6" L = 101.47' T = 52.91' R = 145.00' SE = N/A RO = N/A	

FOR TEMPORARY DETOUR SEE SHEET TMP-4

PROJECT REFERENCE NO.
DF18314.2045487

SHEET NO.
4

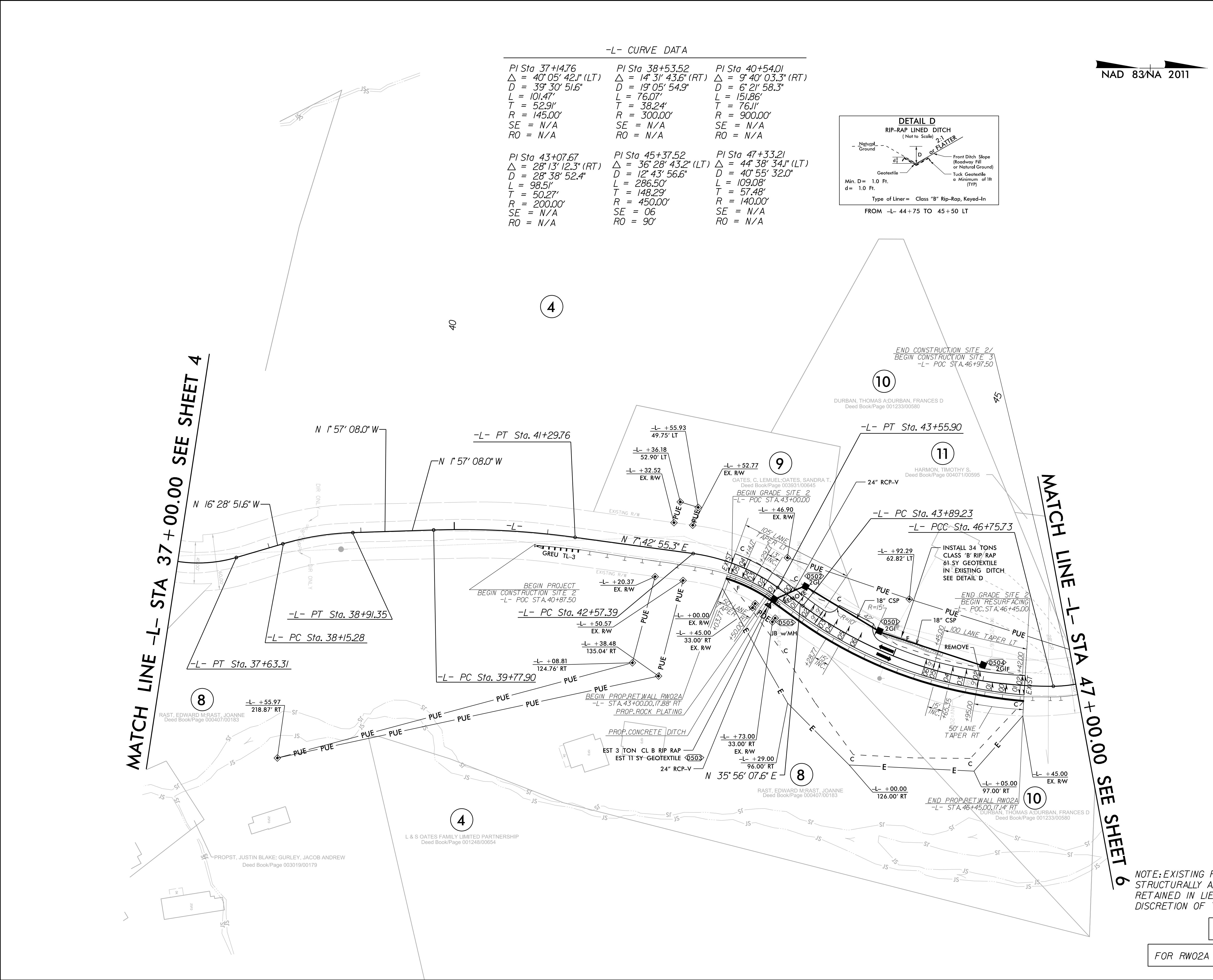
RW SHEET NO.

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL
042387
JASON C. DRAKE
6/11/2025

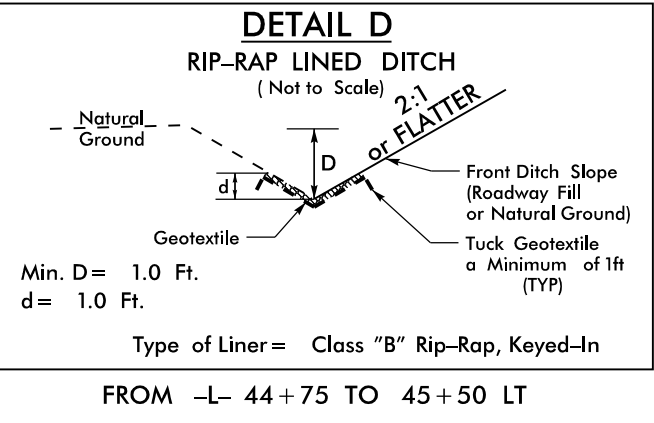
HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL
049964
ALEXANDER R. VINO
6/11/2025

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

RS&H 1520 SOUTH BOULEVARD, SUITE 200
CHARLOTTE, NC 28203
NC FIRM LICENSE No. F-0493



-L- CURVE DATA		
PI Sta 37+14.76 Δ = 40° 05' 42.1" (LT) D = 39° 30' 51.6" L = 101.47' T = 52.91' R = 145.00' SE = N/A RO = N/A	PI Sta 38+53.52 Δ = 14° 31' 43.6" (RT) D = 19° 05' 54.9" L = 76.07' T = 38.24' R = 300.00' SE = N/A RO = N/A	PI Sta 40+54.01 Δ = 9° 40' 03.3" (RT) D = 6° 21' 58.3" L = 151.86' T = 76.11' R = 900.00' SE = N/A RO = N/A
PI Sta 43+07.67 Δ = 28° 13' 12.3" (RT) D = 28° 38' 52.4" L = 98.51' T = 50.27' R = 200.00' SE = N/A RO = N/A	PI Sta 45+37.52 Δ = 36° 28' 43.2" (LT) D = 12° 43' 56.6" L = 286.50' T = 148.29' R = 450.00' SE = 06 RO = 90°	PI Sta 47+33.21 Δ = 44° 38' 34.1" (LT) D = 40° 55' 32.0" L = 109.08' T = 57.48' R = 140.00' SE = N/A RO = N/A



NAD 83/NA 2011

PROJECT REFERENCE NO. DF18314.2045487	SHEET NO. 5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER NORTH CAROLINA PROFESSIONAL SEAL 042387 ALEXANDER R. VINSON 6/11/2025	HYDRAULICS ENGINEER NORTH CAROLINA PROFESSIONAL SEAL 049764 ALEXANDER R. VINSON 6/11/2025
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

RS&H 1520 SOUTH BOULEVARD, SUITE 200
CHARLOTTE, NC 28203
NC FIRM LICENSE No: F-0493

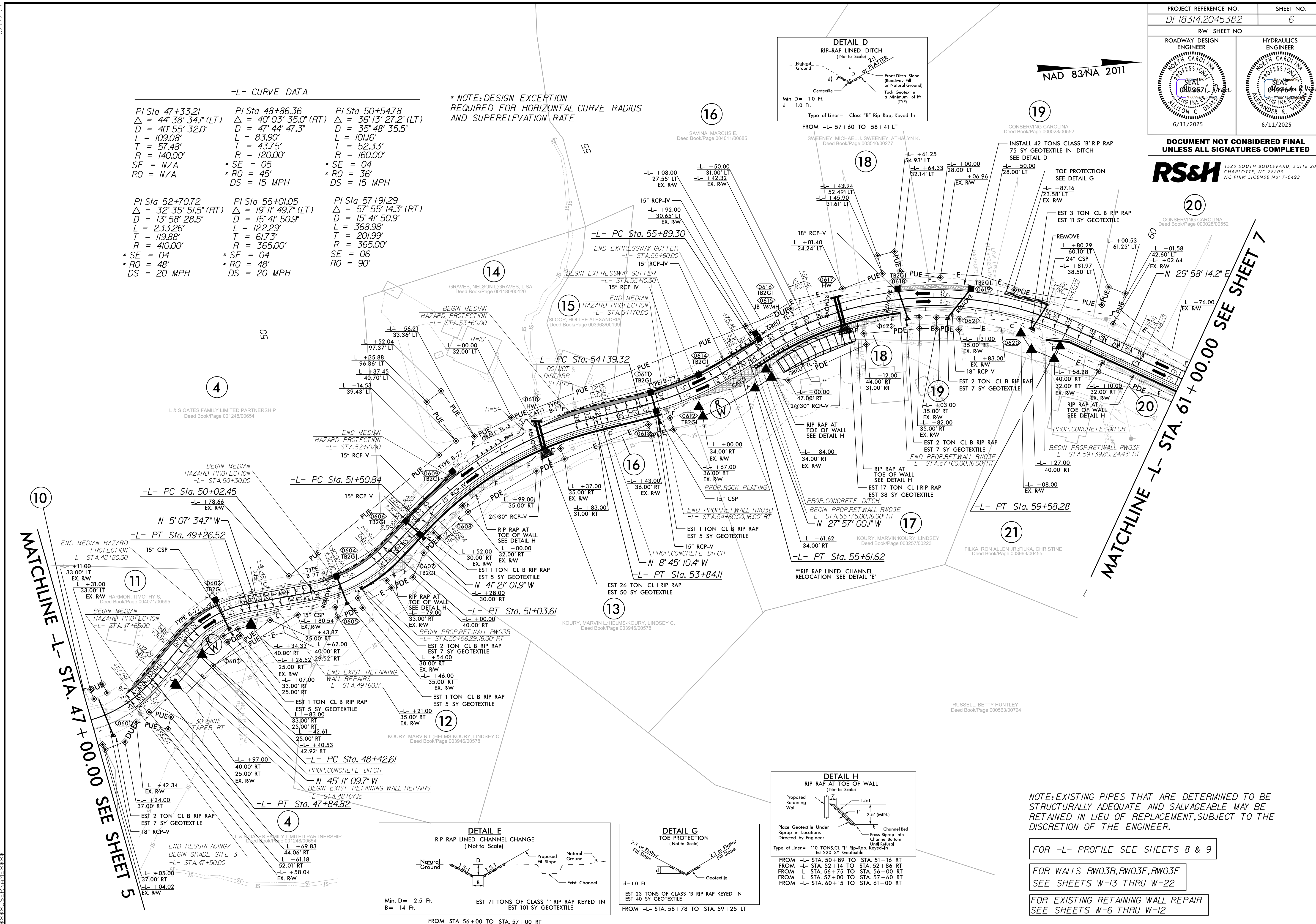
NOTE: EXISTING PIPES THAT ARE DETERMINED TO BE STRUCTURALLY ADEQUATE AND SALVAGEABLE MAY BE RETAINED IN LIEU OF REPLACEMENT, SUBJECT TO THE DISCRETION OF THE ENGINEER.

FOR -L- PROFILE SEE SHEET 8

FOR RW02A WALL SEE SHEETS W-1 THRU W-5

8/17/99

10 JUN 2025 17:18
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RS&H



-L- CURVE DATA		
PI Sta 47+33.21 Δ = 44° 38' 34.1" (LT) D = 40° 55' 32.0" L = 109.08' T = 57.48' R = 140.00' SE = N/A RO = N/A	PI Sta 48+86.36 Δ = 40° 03' 35.0" (RT) D = 47° 44' 47.3" L = 83.90' T = 43.75' R = 120.00' SE = 05 RO = 45' DS = 15 MPH	PI Sta 50+54.78 Δ = 36° 13' 27.2" (LT) D = 35° 48' 35.5" L = 101.16' T = 52.33' R = 160.00' SE = 04 RO = 36' DS = 15 MPH
PI Sta 52+70.72 Δ = 32° 35' 51.5" (RT) D = 13° 58' 28.5" L = 233.26' T = 119.88' R = 410.00' SE = 04 RO = 48' DS = 20 MPH	PI Sta 55+01.05 Δ = 19° 11' 49.7" (LT) D = 15° 41' 50.9" L = 122.29' T = 61.73' R = 365.00' SE = 04 RO = 48' DS = 20 MPH	PI Sta 57+91.29 Δ = 57° 55' 14.3" (RT) D = 15° 41' 50.9" L = 368.98' T = 201.99' R = 365.00' SE = 06 RO = 90'

PROJECT REFERENCE NO. DF18314.2045382		SHEET NO. 6	
RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER		NORTH CAROLINA PROFESSIONAL SEAL 042387 ALEXANDER R. VINO 6/11/2025	
NORTH CAROLINA PROFESSIONAL SEAL 042387 ALEXANDER R. VINO 6/11/2025		NORTH CAROLINA PROFESSIONAL SEAL 042387 ALEXANDER R. VINO 6/11/2025	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

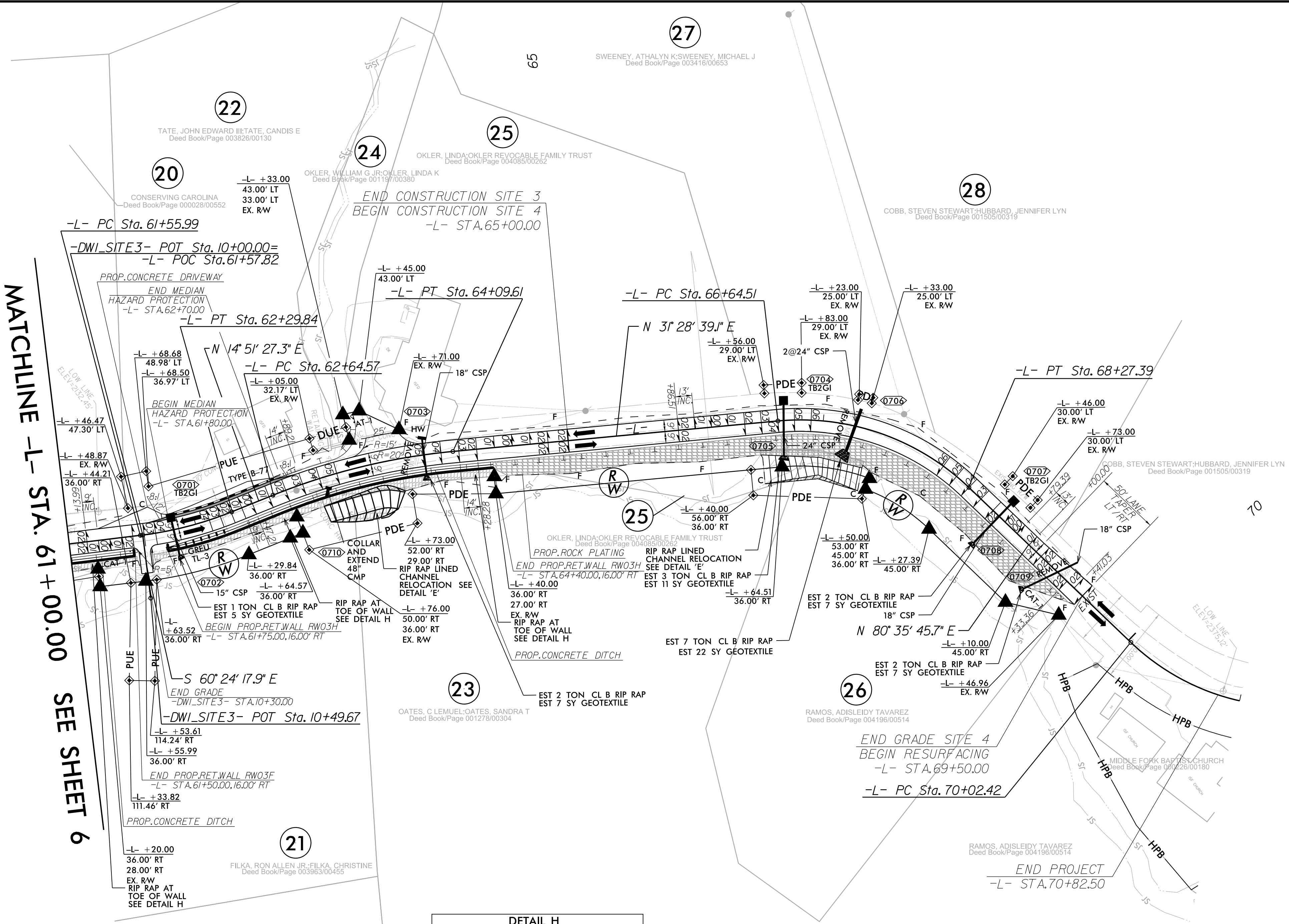
RS&H
1520 SOUTH BOULEVARD, SUITE 200
CHARLOTTE, NC 28203
NC FIRM LICENSE No: F-0493

NOTE: EXISTING PIPES THAT ARE DETERMINED TO BE STRUCTURALLY ADEQUATE AND SALVAGEABLE MAY BE RETAINED IN LIEU OF REPLACEMENT, SUBJECT TO THE DISCRETION OF THE ENGINEER.

FOR -L- PROFILE SEE SHEETS 8 & 9

FOR WALLS RW03B, RW03E, RW03F SEE SHEETS W-13 THRU W-22

FOR EXISTING RETAINING WALL REPAIR SEE SHEETS W-6 THRU W-12



PROJECT REFERENCE NO.
DF18314.2045382/
DF18314.2045381

SHEET NO.
7

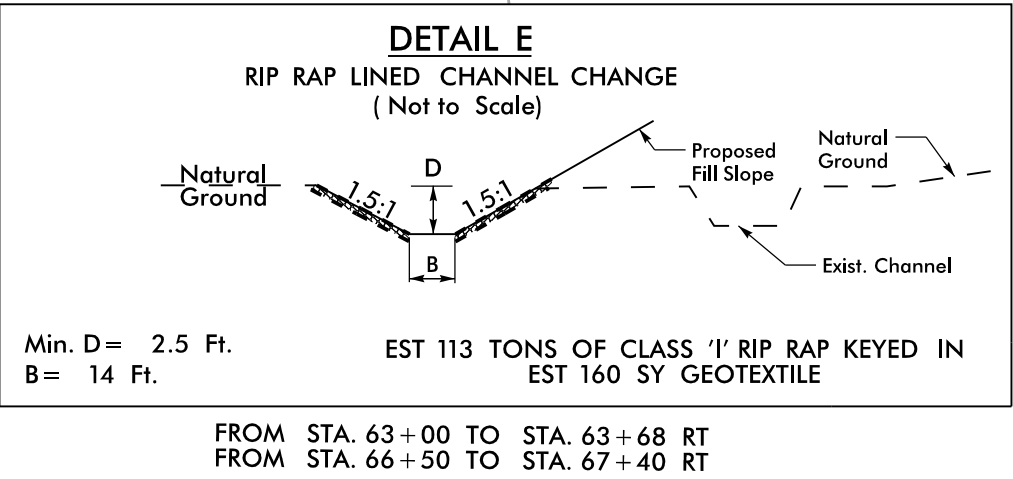
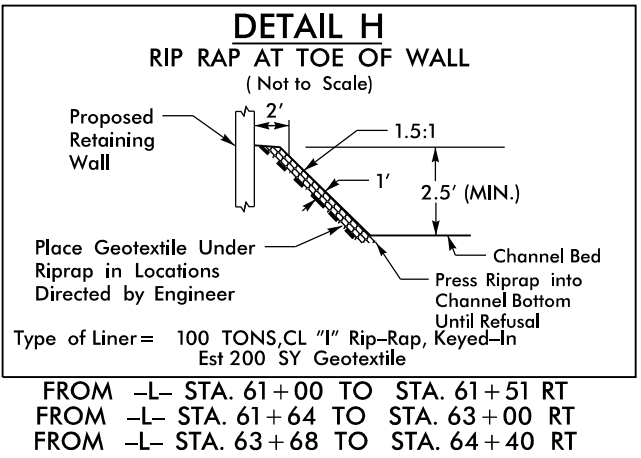
RW SHEET NO.

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL
ALEXANDER R. VINE
6/11/2025

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL
ALEXANDER R. VINE
6/11/2025

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

RS&H
1520 SOUTH BOULEVARD, SUITE 200
CHARLOTTE, NC 28203
NC FIRM LICENSE No: F-0493



-L- CURVE DATA		
PI Sta 61+93.13 Δ = 15° 06' 46.9" (LT) D = 20' 27' 46.0" L = 73.86' T = 37.14' R = 280.00' * SE = 04 * RO = 36 DS = 15 MPH	PI Sta 63+37.60 Δ = 16° 37' 11.8" (RT) D = 11' 27' 33.0" L = 145.04' T = 73.03' R = 500.00' SE = 05 RO = 70	* NOTE: DESIGN EXCEPTION REQUIRED FOR HORIZONTAL CURVE RADIUS AND SUPERELEVATION RATE
-DWI_SITE3- CURVE DATA		
PI Sta 67+51.33 Δ = 49° 07' 06.6" (RT) D = 30' 09' 20.4" L = 162.88' T = 86.83' R = 190.00' * SE = 06 * RO = 78 DS = 25 MPH	PI Sta 71+19.91 Δ = 66° 15' 54.7" (LT) D = 31' 49' 51.6" L = 208.18' T = 117.49' R = 180.00' SE = N/A RO = N/A	PI Sta 10+78.75 Δ = 74° 24' 35.0" (RT) D = 150' 46' 42.1" L = 49.35' T = 28.85' R = 38.00' SE = N/A RO = N/A

NOTE: EXISTING PIPES THAT ARE DETERMINED TO BE
STRUCTURALLY ADEQUATE AND SALVAGEABLE MAY BE
RETAINED IN LIEU OF REPLACEMENT, SUBJECT TO THE
DISCRETION OF THE ENGINEER.

FOR -L- PROFILE SEE SHEET 9

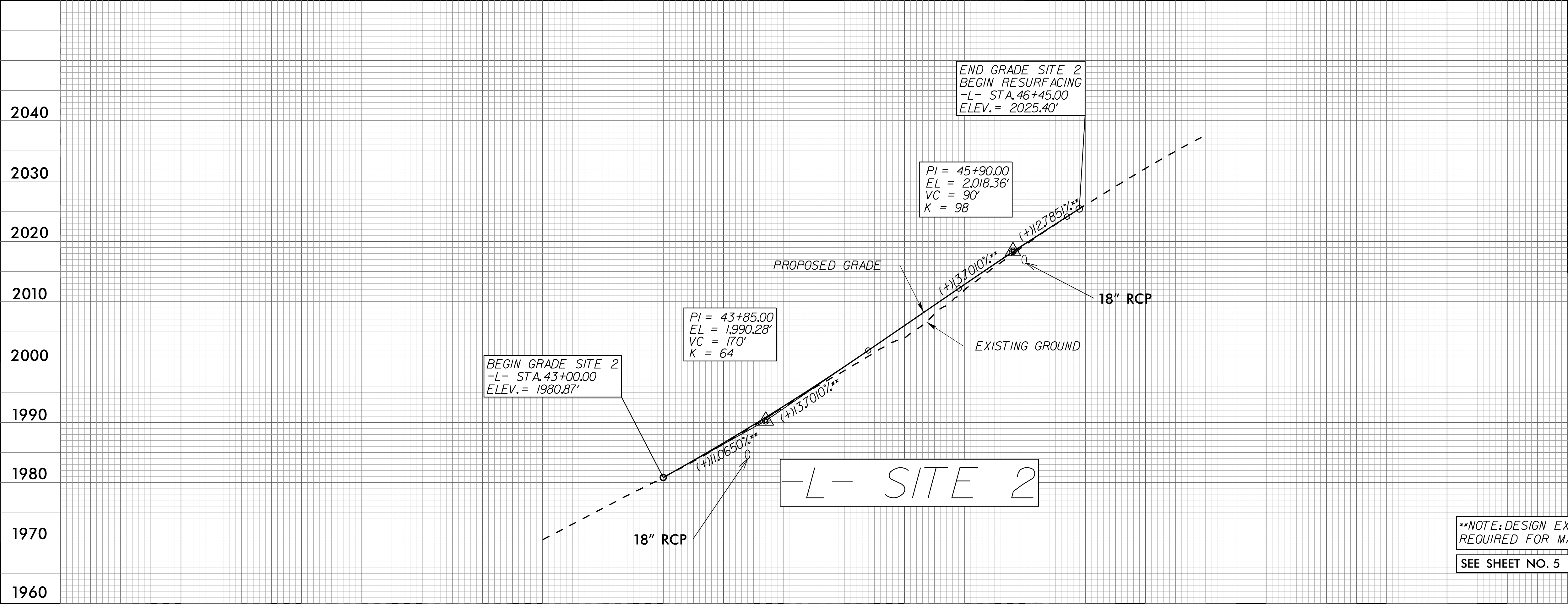
FOR -DWI_SITE3- PROFILE SEE SHEET 9

FOR WALLS RW03F, RW03H
SEE SHEETS W-13 THRU W-22

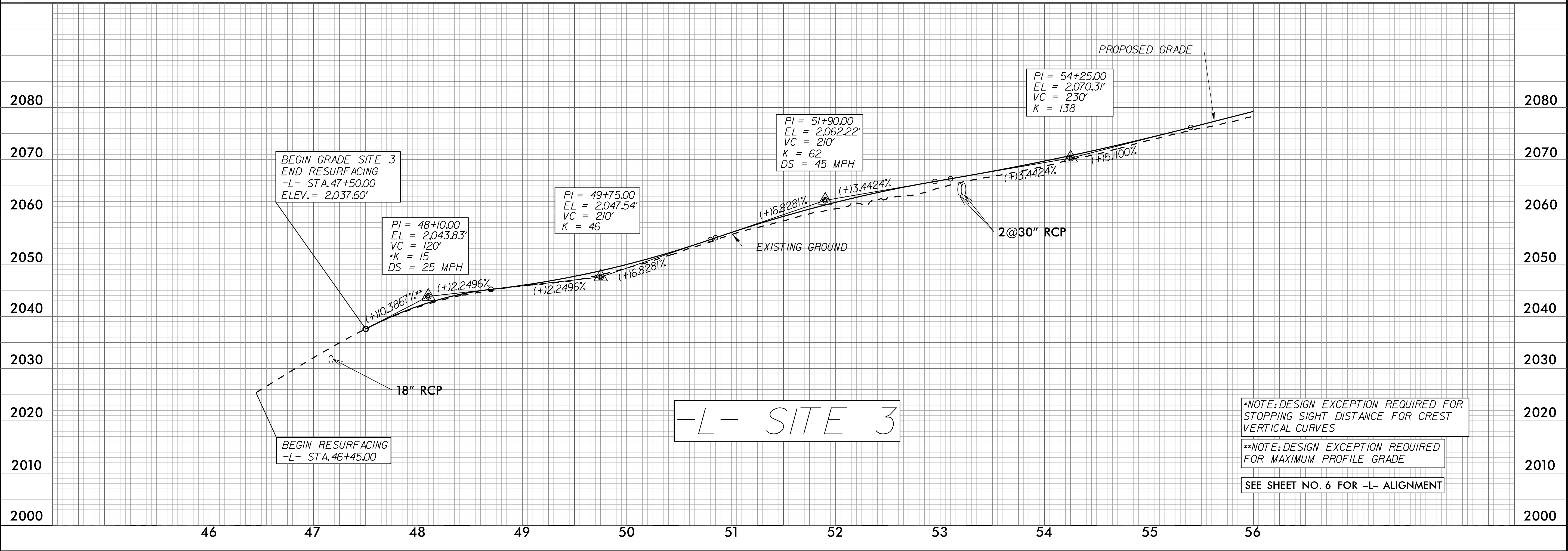
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5/28/24

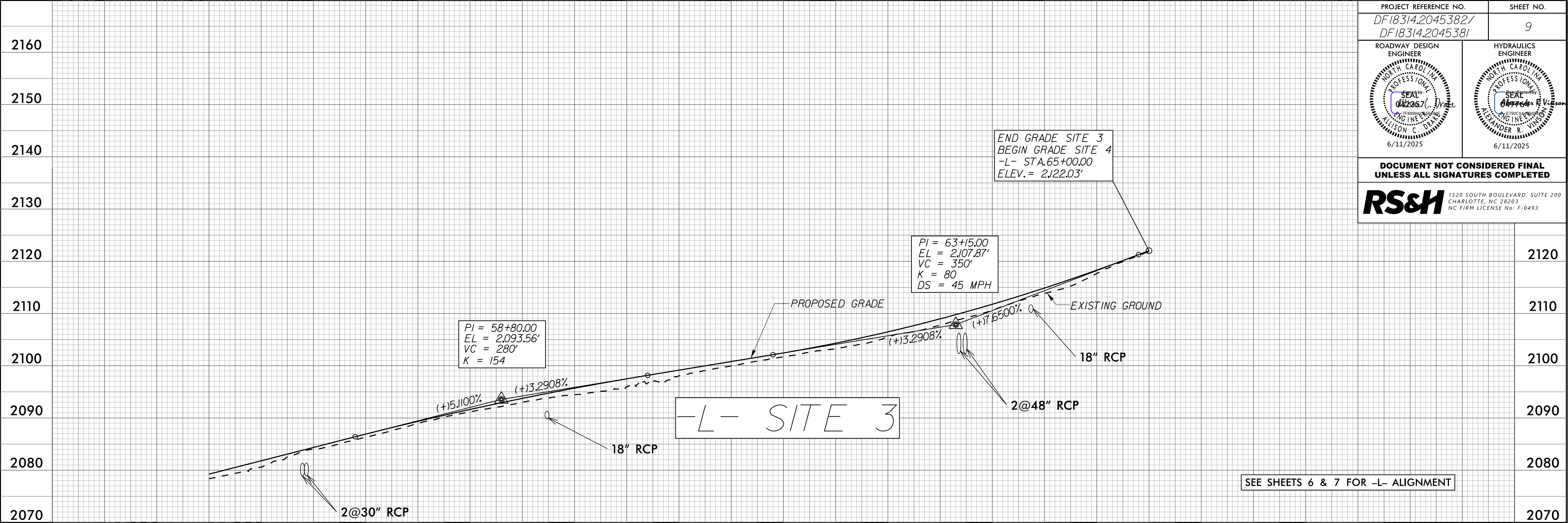
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PROJECT REFERENCE NO. DF18314.2045487 / DF18314.2045382		SHEET NO. 8
ROADWAY DESIGN ENGINEER ALEXANDER C. DRAKE 6/11/2025	HYDRAULICS ENGINEER ALEXANDER R. ANDERSON 6/11/2025	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		
 1520 SOUTH BOULEVARD, SUITE 200 CHARLOTTE, NC 28203 NC FIRM LICENSE No: F-0493		

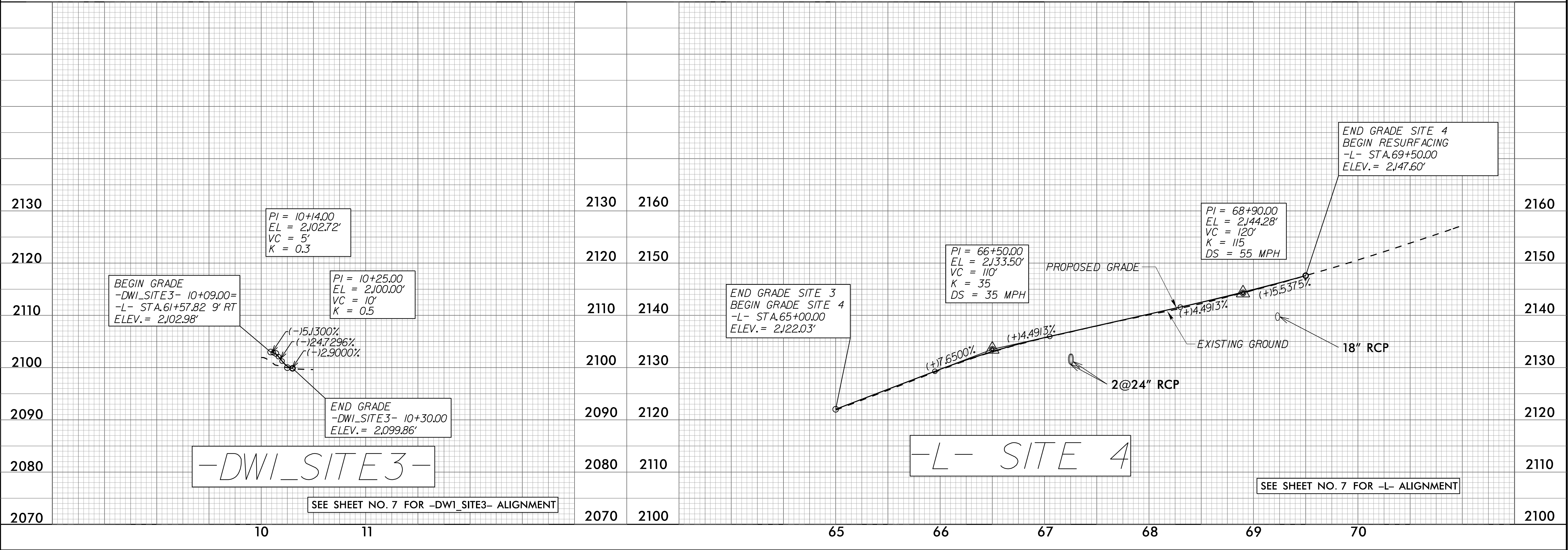


5/28/99



PROJECT REFERENCE NO. DF18314.2045382/ DF18314.2045381		SHEET NO. 9
ROADWAY DESIGN ENGINEER NORTH CAROLINA PROFESSIONAL SEAL JULIUS C. DRAKE 6/11/2025	HYDRAULICS ENGINEER NORTH CAROLINA PROFESSIONAL SEAL ALEXANDER R. VINCIGUERRA 6/11/2025	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		
RS&H 1520 SOUTH BOULEVARD, SUITE 200 CHARLOTTE, NC 28203 NC FIRM LICENSE No: F-0493		

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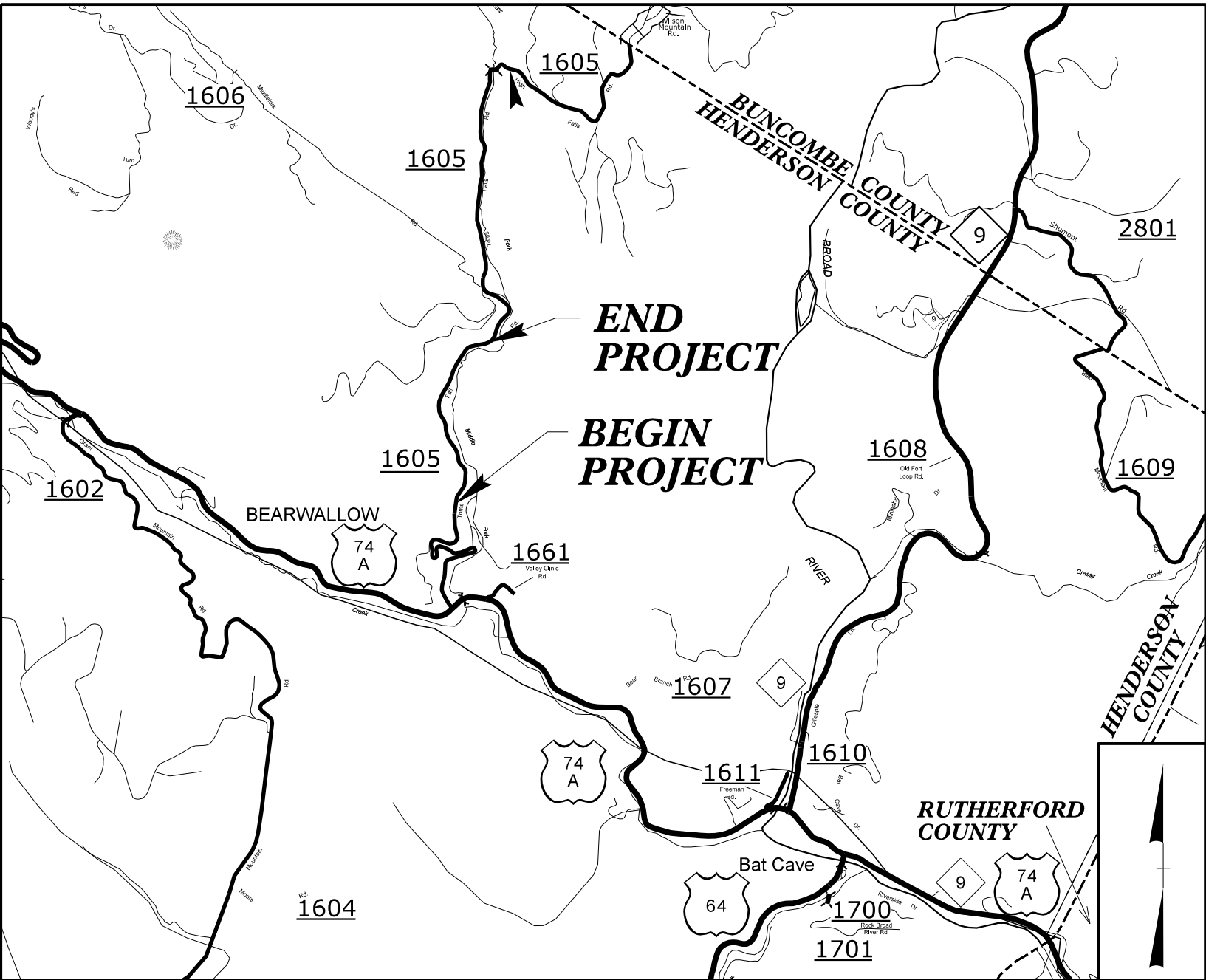
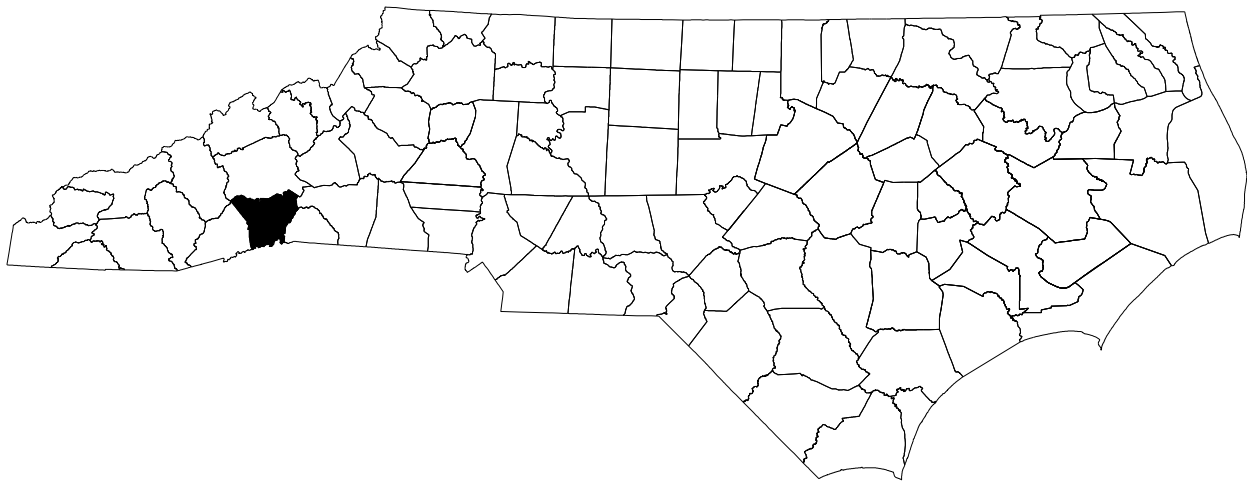
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

HENDERSON COUNTY

LOCATION: EMERGENCY DESIGN FOR SR 1605
(MIDDLE FORK ROAD/TOMS FALLS ROAD)

TITLE OF WORK: GRADING, PAVING, DRAINAGE
& RETAINING WALLS



VICINITY MAP N.T.S



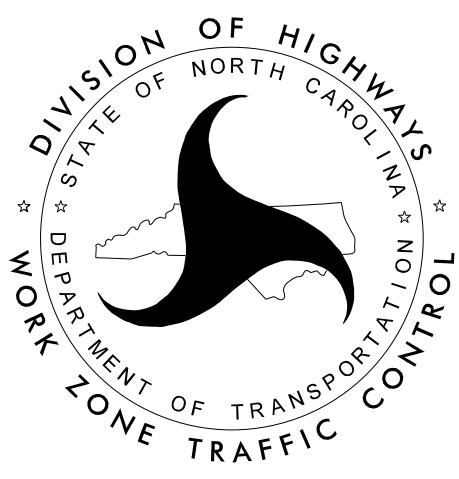
PLANS PREPARED BY:

ALLISON C. DRAKE, PE
PROJECT ENGINEER

REBECCA E. WRIGHT, PE
NIKI E. AVGERINOS, PE
PROJECT DESIGN ENGINEER

NCDOT CONTACT:

BARRY MOSTELLER
PROJECT ENGINEER

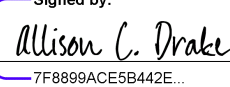


INDEX OF SHEETS

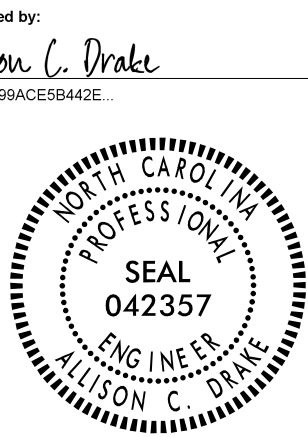
SHEET NO.	TITLE
TMP-1	TITLE SHEET, VICINITY MAP, AND INDEX OF SHEETS
TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND, AND MANAGEMENT STRATEGIES
TMP-1B	SITES LAYOUT SHEET
TMP-2	TRANSPORTATION OPERATIONS PLAN: GENERAL NOTES
TMP-3	TEMPORARY TRAFFIC CONTROL PHASING
TMP-4	TEMPORARY DETOUR
TMP-5 THRU 6	TEMPORARY TRAFFIC CONTROL SITE 2 DETAILS
TMP-7 THRU 12	TEMPORARY TRAFFIC CONTROL SITE 3 AND SITE 4 DETAILS

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CHARLOTTE, NC 28203

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DATE: 6/27/2025

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SHEET NO.
TMP-1

WBS PROJECT: DF18314.2045381

CONTRACT: DN01122

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED J ANUARY 2024 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1130.01	DRUM
1150.01	FLAGGING DEVICES
1180.01	SKINNY-DRUM

MANAGEMENT STRATEGIES

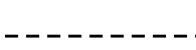
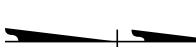
THE FOLLOWING LISTED WORK ZONE STRATEGIES ARE RECOMMENDED FOR INCLUSION WITHIN THIS TRANSPORTATION MANAGEMENT PLAN (TMP).

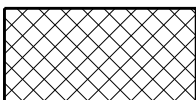
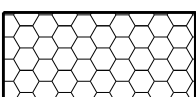
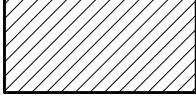
RECOMMENDED STRATEGIES:

- TRAFFIC MANAGEMENT STRATEGIES:
- LANE SHIFTS OR CLOSURES
- ONE-LANE, TWO WAY OPERATION (FLAGGING)
- ONE-LANE, TWO WAY OPERATION (SIGNALIZED)
- NIGHT WORK
- WORK ZONE SAFETY & MOBILITY STRATEGIES:
- AUTOMATED FLAGGER ASSISTANCE DEVICES (AFADS)
- CORRIDOR / NETWORK MANAGEMENT STRATEGIES:
- STREET / INTERSECTION IMPROVEMENTS
- COORDINATION WITH ADJACENT CONSTRUCTION SITE(S)

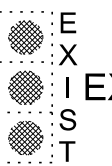
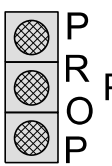
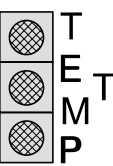
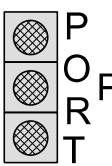
LEGEND

GENERAL

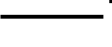
-  DIRECTION OF TRAFFIC FLOW
-  DIRECTION OF PEDESTRIAN TRAFFIC FLOW
-  EXIST. PVMT.
-  NORTH ARROW
-  PROPOSED PVMT.
-  TEMP. SHORING (LOCATION PURPOSES ONLY)

-  WORK AREA
-  GRAVEL REMOVAL
-  TEMPORARY GRAVEL
-  TEMPORARY ASPHALT PAVEMENT

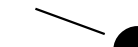
SIGNALS

-  EXISTING
-  PROPOSED
-  TEMPORARY
-  PORTABLE

PAVEMENT MARKINGS

-  EXISTING LINES
-  TEMPORARY LINES

TRAFFIC CONTROL DEVICES

-  BARRICADE (TYPE III)
-  CONE
-  DRUM  SKINNY DRUM  TUBULAR MARKER
-  TEMPORARY CRASH CUSHION
-  FLASHING ARROW BOARD
-  FLAGGER
-  LAW ENFORCEMENT
-  TRUCK MOUNTED ATTENUATOR (TMA)
-  CHANGEABLE MESSAGE SIGN

TEMPORARY SIGNING

-  PORTABLE SIGN
-  STATIONARY SIGN
-  STATIONARY OR PORTABLE SIGN

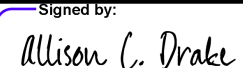
PAVEMENT MARKERS

-  CRYSTAL/CRYSTAL
-  CRYSTAL/RED
-  YELLOW/YELLOW

PAVEMENT MARKING SYMBOLS

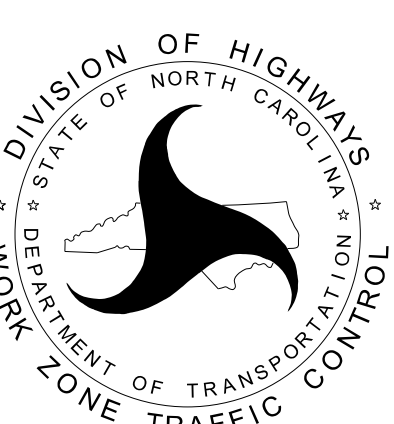
-    PAVEMENT MARKING SYMBOLS

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ROADWAY STANDARD
DRAWINGS, LEGEND,
AND MANAGEMENT
STRATEGIES

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PROJ. REFERENCE NO.	SHEET NO.
DF18314.2045381	TMP - 1B

ROADWAY SHEET

PSH-4

PSH-5

PSH-6

PSH-7

TMP SHEET

TMP-4

TMP-5 THRU TMP-6

TMP-7, TMP-9, TMP-11

TMP-8, TMP-10, TMP-12

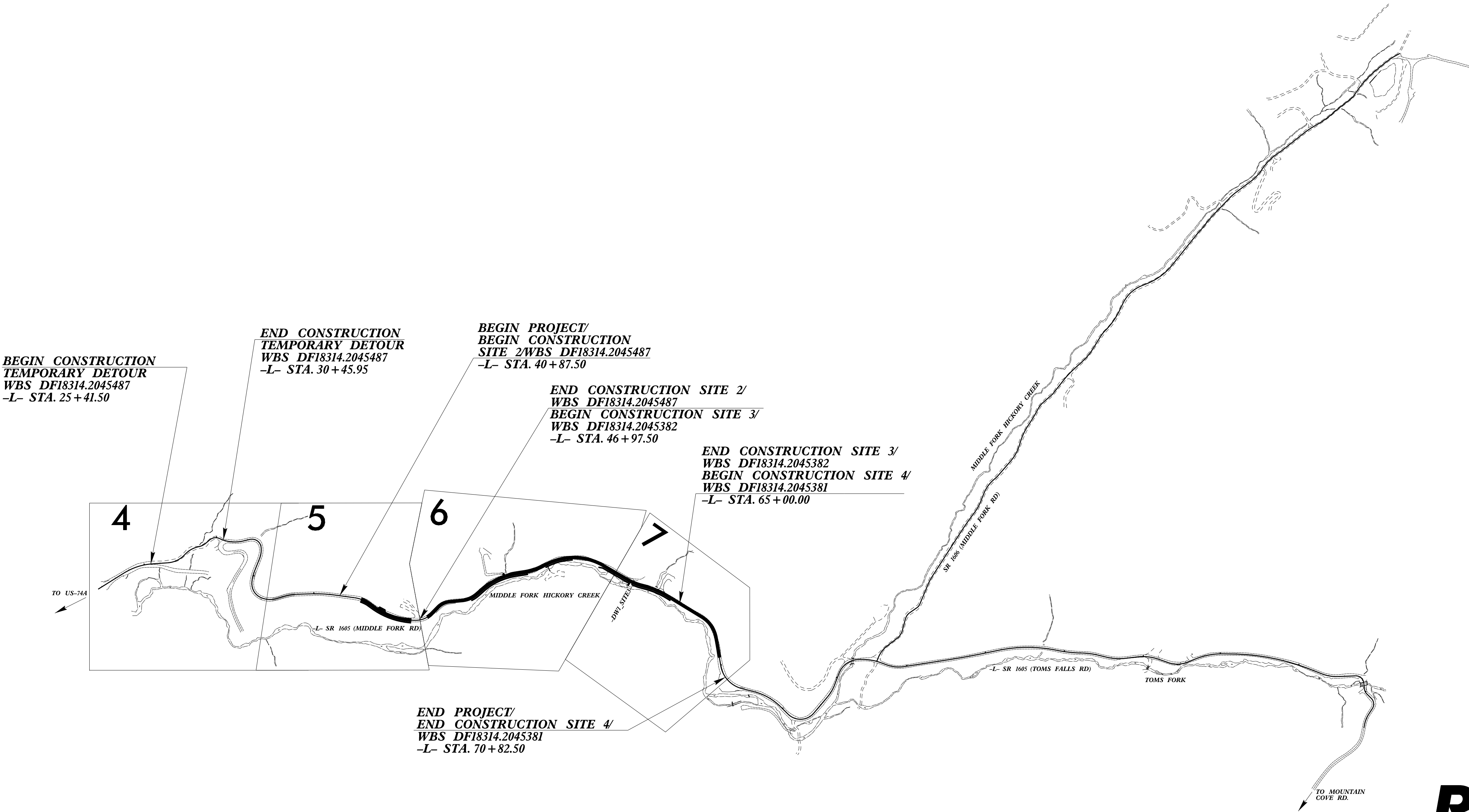
PHASE

TEMPORARY DETOUR

SITE 2 PHASE I THRU PHASE II

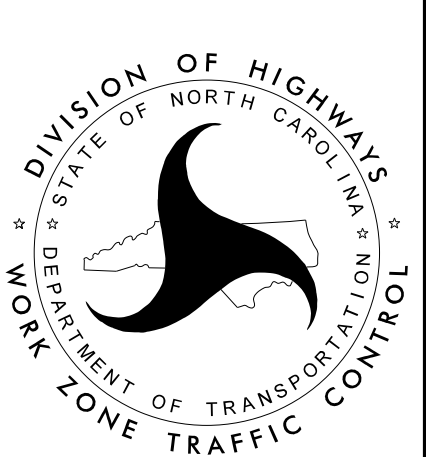
SITE 3 PHASE I THRU PHASE III

SITES 3 & 4 PHASE I THRU PHASE III



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CHARLOTTE, NC 28203
NC FIRM LICENSE No: F-0493

APPROVED: _____	Signed by: <u>Allison C. Drake</u> 7F8B99ACE58442E...
DATE: 6/27/2025	
SEAL	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



SITES LAYOUT
SHEET

GENERAL NOTES

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS, AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS OR RESULT IN DUPLICATE OR UNDESIRE OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING, OR REMOVAL OF DEVICES AS DIRECTED BY THE ENGINEER.

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT EXCEPT WHEN OTHERWISE NOTED IN THE PLAN OR DIRECTED BY THE ENGINEER.

TIME RESTRICTIONS

A) DO NOT CLOSE OR NARROW TRAVEL LANES AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS
ALL ROADS	MONDAY THRU FRIDAY 7:00 AM TO 8:00 AM AND 5:00 PM TO 6:00 PM

B) DO NOT CLOSE OR NARROW TRAVEL LANES DURING HOLIDAYS AND SPECIAL EVENTS AS FOLLOWS:

ROAD NAME	
ALL ROADS	
HOLIDAY	
1.	FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
2.	FOR NEW YEAR'S, BETWEEN THE HOURS OF 7:00 A.M. DECEMBER 31st TO 4:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 4:00 P.M. THE FOLLOWING TUESDAY.
3.	FOR EASTER, BETWEEN THE HOURS OF 7:00 A.M. THURSDAY AND 4:00 P.M. MONDAY.
4.	FOR MEMORIAL DAY, BETWEEN THE HOURS OF 7:00 A.M. FRIDAY TO 4:00 P.M. TUESDAY.
5.	FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 7:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 4:00 P.M. THE DAY AFTER INDEPENDENCE DAY. IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 7:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 4:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.
6.	FOR LABOR DAY, BETWEEN THE HOURS OF 7:00 A.M. FRIDAY AND 4:00 P.M. TUESDAY.
7.	FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 7:00 A.M. TUESDAY TO 4:00 P.M. MONDAY.
8.	FOR CHRISTMAS, BETWEEN THE HOURS OF 7:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 4:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

LANE AND SHOULDER CLOSURE REQUIREMENTS

- C) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.
- D) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.
- E) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 5 FT OF AN OPEN TRAVEL LANE ON AN UNDIVIDED FACILITY, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.
- F) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS, OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.
- G) DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP, OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.
- H) DO NOT INSTALL MORE THAN ONE LANE CLOSURE IN ANY ONE DIRECTION ON ALL ROADS.
- I) USE SEQUENTIAL FLASHING WARNING LIGHTS ON DRUMS USED FOR THE MERGING TAPERS OF NIGHTTIME LANE CLOSURES IN ACCORDANCE WITH SECTION 1140 IN THE STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES.
- J) PROVIDE TRAFFIC CONTROL FOR APPROPRIATE LANE CLOSURES FOR SURVEYING DONE BY THE DEPARTMENT.

PAVEMENT EDGE DROP OFF REQUIREMENTS

K) BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS AN EDGE OF PAVEMENT DROP-OFF AS FOLLOWS:

BACKFILL DROP-OFFS THAT EXCEED 2 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.

BACKFILL DROP-OFFS THAT EXCEED 3 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS LESS THAN 45 MPH.

BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER, AT NO EXPENSE TO THE DEPARTMENT.

L) DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 200 FT IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

M) NOTIFY THE ENGINEER THIRTY (30) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

SIGNING

N) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE(3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.

O) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

P) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 200 FT IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

TRAFFIC CONTROL DEVICES

Q) WHEN LANE CLOSURES ARE NOT IN EFFECT SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH) EXCEPT, 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DRUMS), 1135 (CONES) AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.

PAVEMENT MARKINGS AND MARKERS

R) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

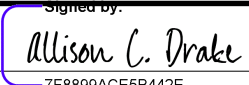
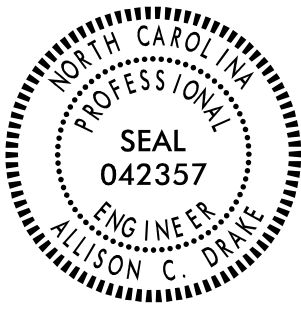
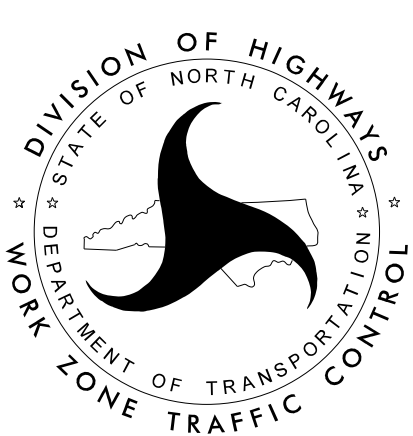
S) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

MISCELLANEOUS

T) LAW ENFORCEMENT MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS AS DIRECTED BY THE ENGINEER.

U) IN THE EVENT A TIE-IN CANNOT BE MADE IN ONE DAY'S TIME, BRING THE TIE-IN AREA TO AN APPROPRIATE ROADWAY ELEVATION AS DETERMINED BY THE ENGINEER. PLACE BLACK ON ORANGE "LOOSE GRAVEL" SIGNS (W8-7) AND BLACK ON ORANGE "PAVEMENT ENDS" SIGNS (W8-3) 200 FT AND 400 FT RESPECTIVELY IN ADVANCE OF THE UNEVEN AREAS. USE DRUMS TO DELINEATE THE EDGE OF ROADWAY ALONG UNPAVED AREAS.

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NOTES: -RSD REFERS TO ROADWAY STANDARD DRAWINGS
-ALL PROPOSED ASPHALT ROADWAY CONSTRUCTION IS UP TO, BUT NOT INCLUDING, THE FINAL LAYER OF SURFACE COURSE UNLESS OTHERWISE NOTED.
-MAINTAIN ALL DRIVEWAY ACCESS DURING CONSTRUCTION

TEMP DETOUR

SITE 2

SITE 3 & 4

PHASE I

STEP 1

USING RSD 1101.01 (SHEET 1 OF 3), INSTALL ALL ADVANCED WORK ZONE WARNING SIGNS.

STEP 2

USING RSD 1101.02 (SHEET 17 OF 19), SHIFT TRAFFIC INTO A ONE-LANE TWO-WAY PATTERN ALONG RT OF -L- (MIDDLE FORK RD). INSTALL TEMPORARY GRAVEL ALONG LT OF -L- (MIDDLE FORK RD). SEE SHEETS TMP-7 & TMP-8

-L- STA.	47+26±	LT TO	-L- STA.	51+94±	LT
-L- STA.	52+54±	LT TO	-L- STA.	53+07±	LT
-L- STA.	53+17±	LT TO	-L- STA.	56+40±	LT
-L- STA.	56+94±	LT TO	-L- STA.	58+17±	LT
-L- STA.	58+36±	LT TO	-L- STA.	59+68±	LT
-L- STA.	61+36±	LT TO	-L- STA.	70+15±	LT

PHASE II

USING RSD 1101.02 (SHEET 17 OF 19), SHIFT TRAFFIC INTO A ONE-LANE TWO-WAY PATTERN ALONG LT OF -L- (MIDDLE FORK RD) AND CONSTRUCT PROPOSED ROADWAY INCLUDING GUARDRAIL, RETAINING WALLS, DRAINAGE AND RETAINING WALL REPAIRS ALONG RT OF -L- (MIDDLE FORK RD). SEE SHEETS TMP-9 & TMP-10

-L- STA. 46+98± RT TO -L- STA. 70+83± RT

PHASE III

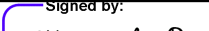
USING RSD 1101.02 (SHEET 17 OF 19), SHIFT TRAFFIC INTO A ONE-LANE TWO-WAY
PATTERN ALONG RT OF -L- (MIDDLE FORK RD) AND CONSTRUCT PROPOSED ROADWAY
INCLUDING DRAINAGE, EXPRESSWAY GUTTER, GUARDRAIL, AND TEMPORARY GRAVEL
REMOVAL ALONG LT OF -L- (MIDDLE FORK RD). SEE SHEETS TMP-11 & TMP-12

-L- STA. 46+98± LT TO -L- STA. 70+83± LT
-L- STA. 55+10± LT TO -L- STA. 55+60± LT (EXPRESSWAY GUTTER)

PHASE IV

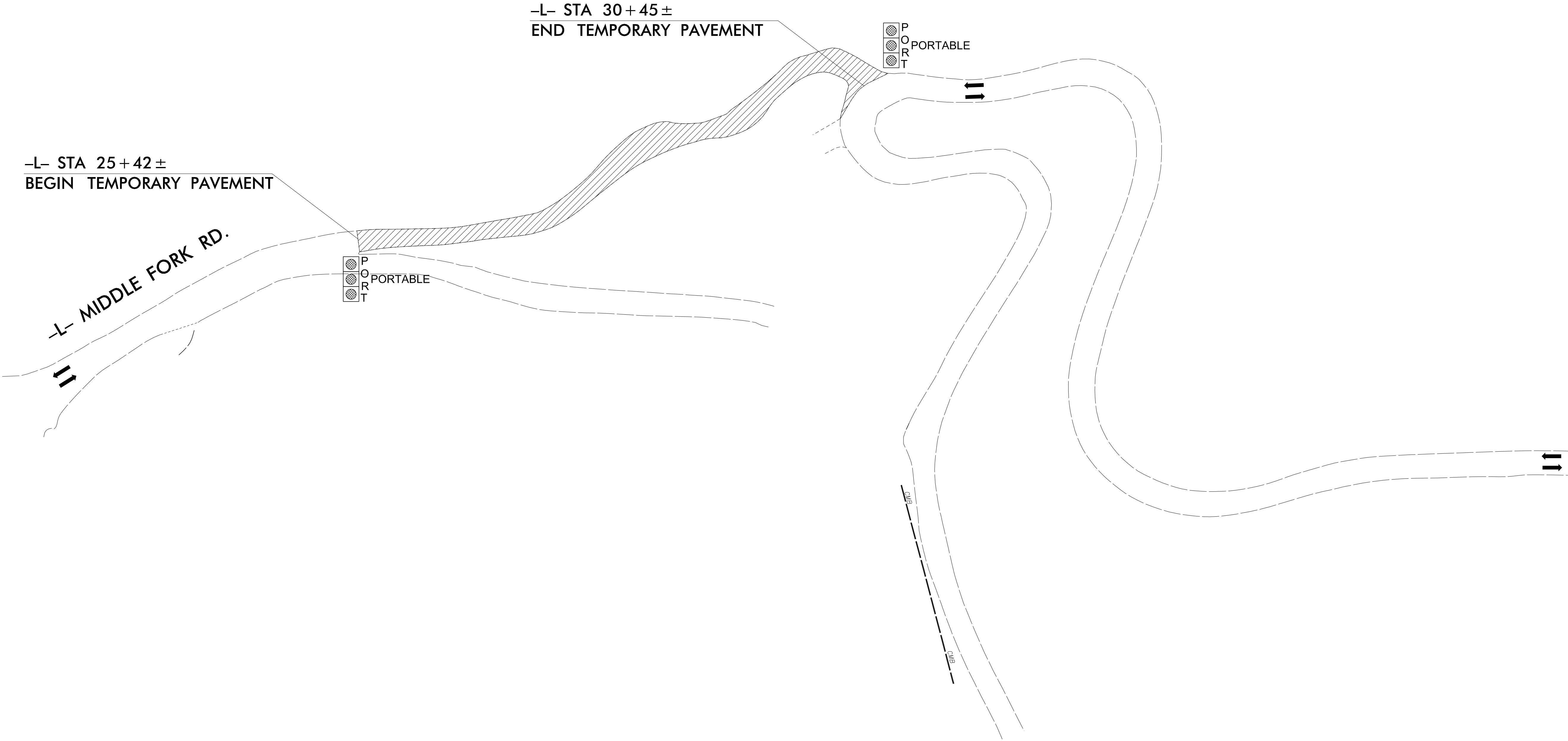
USING RSD 1101.02 (SHEET 17 OF 19), PLACE FINAL LAYER OF SURFACE COURSE,
FINAL MARKINGS AND MARKERS ON ALL ROADWAYS WITHIN THE PROJECT LIMITS.
THEN REMOVE ALL TRAFFIC CONTROL DEVICES, AND OPEN -L- (MIDDLE FORK RD)
TO FINAL TRAFFIC PATTERN.



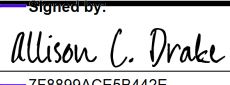
APPROVED: _____ DATE: 6/27/2025 SEAL	SIGNED BY:  7F8899AC5B442E		PHASING NOTES
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

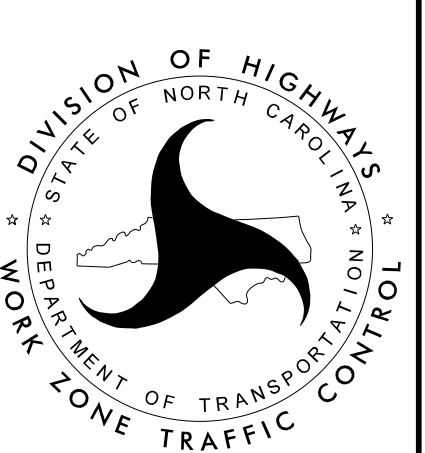
PROJ. REFERENCE NO.	SHEET NO.
DF18314.2045487	TMP-4

NAD 83/NA 2011



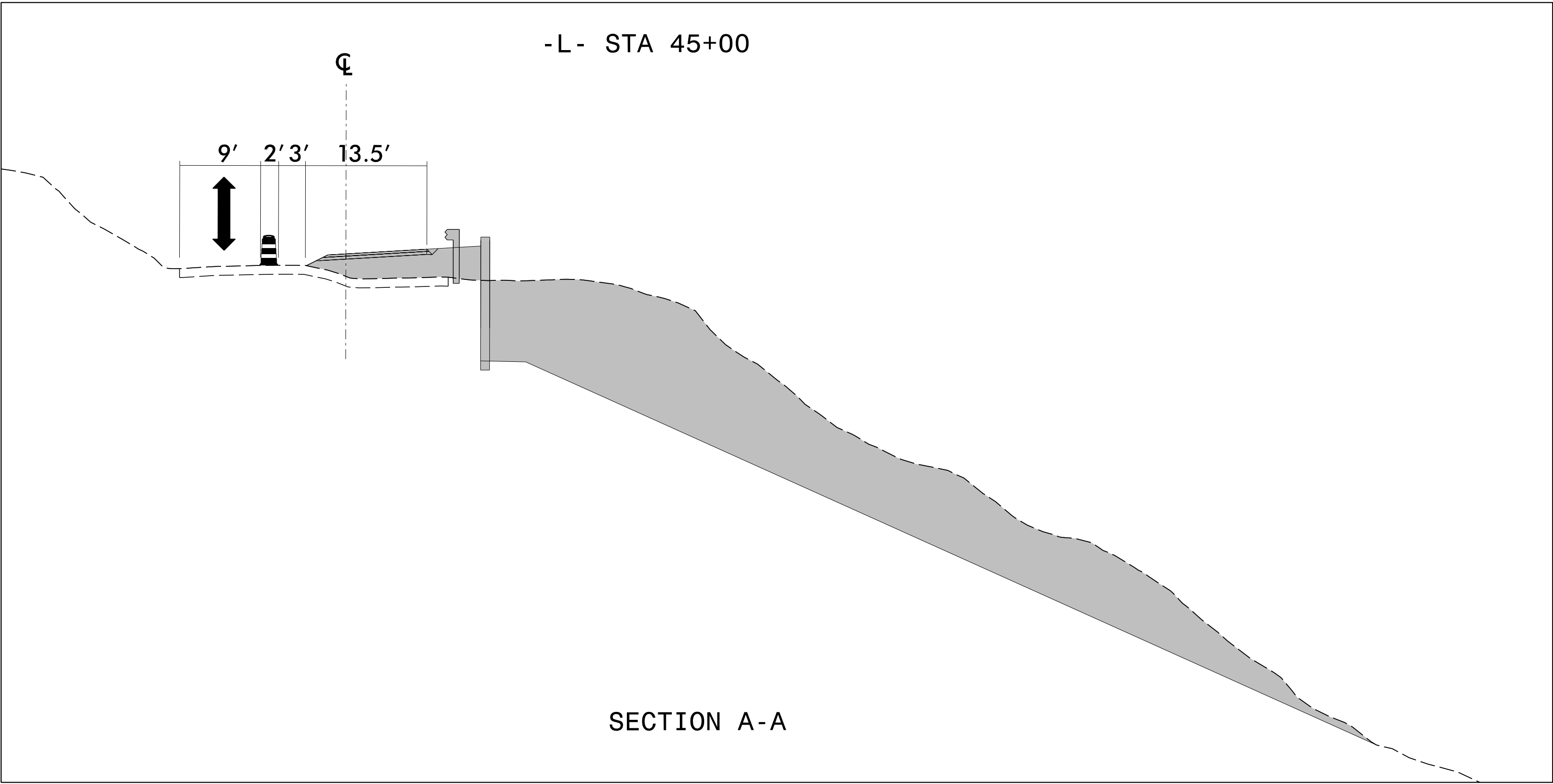
RS&H 1520 SOUTH BOULEVARD, SUITE 200
CHARLOTTE, NC 28203
NC FIRM LICENSE No: F-0493

APPROVED: 
DATE: 6/10/2025
SEAL 
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



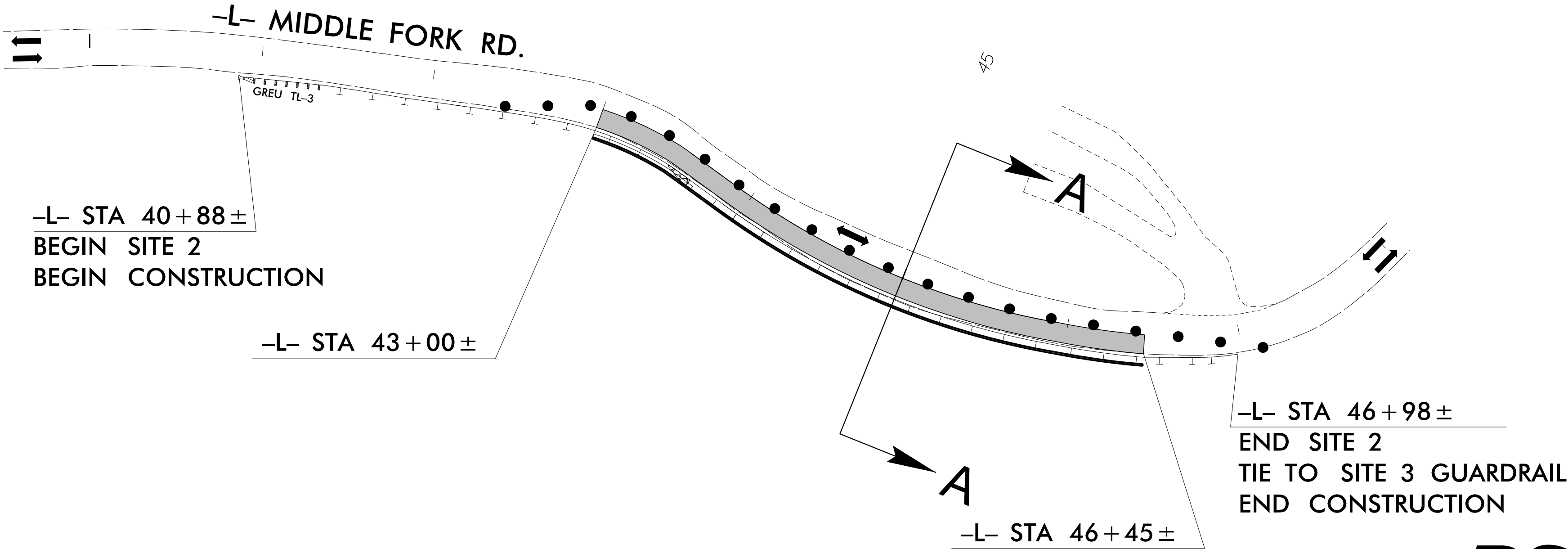
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DF18314.2045487	TMP -5

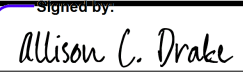


NAD 83/NA 2011

SECTION A-A



RS&H 1520 SOUTH BOULEVARD, SUITE 200
CHARLOTTE, NC 28203
NC FIRM LICENSE No: F-0493

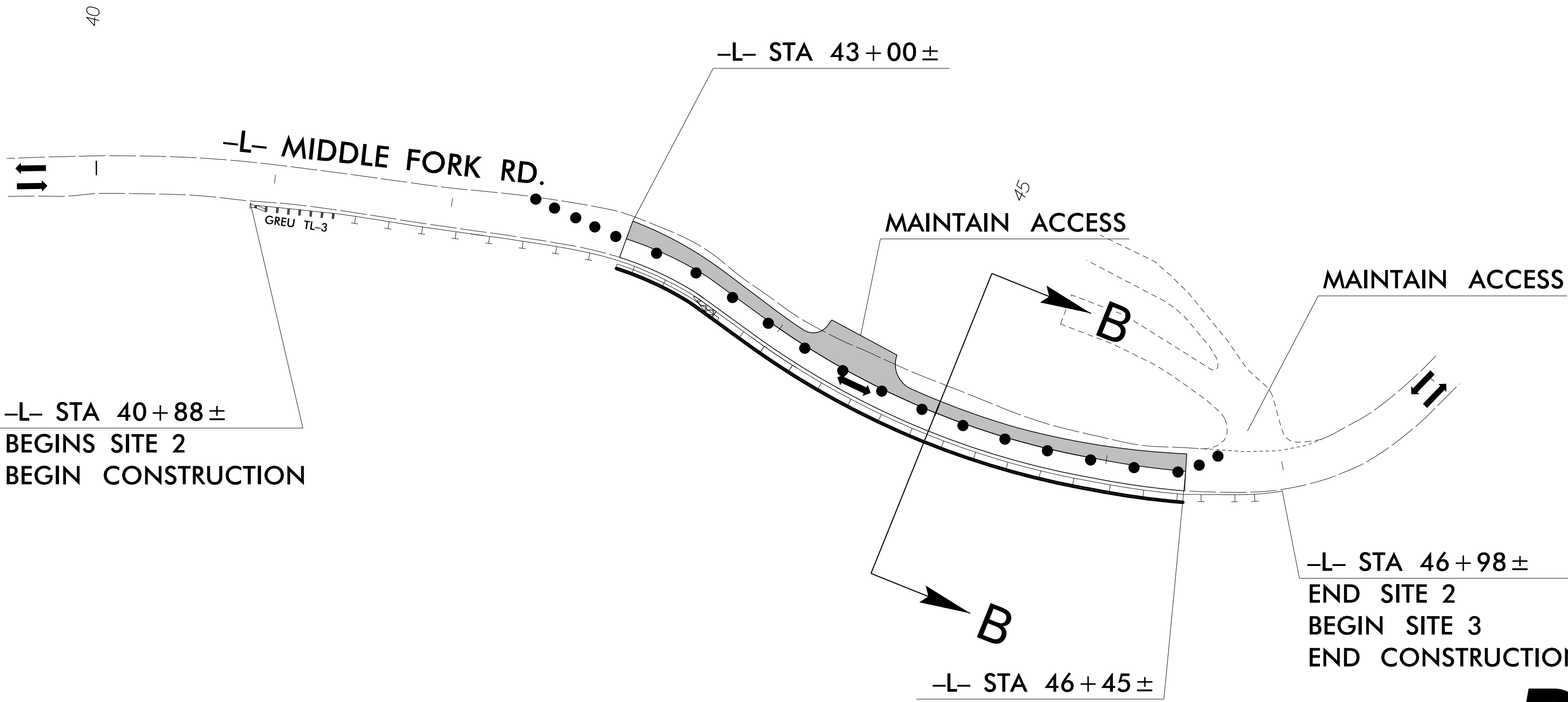
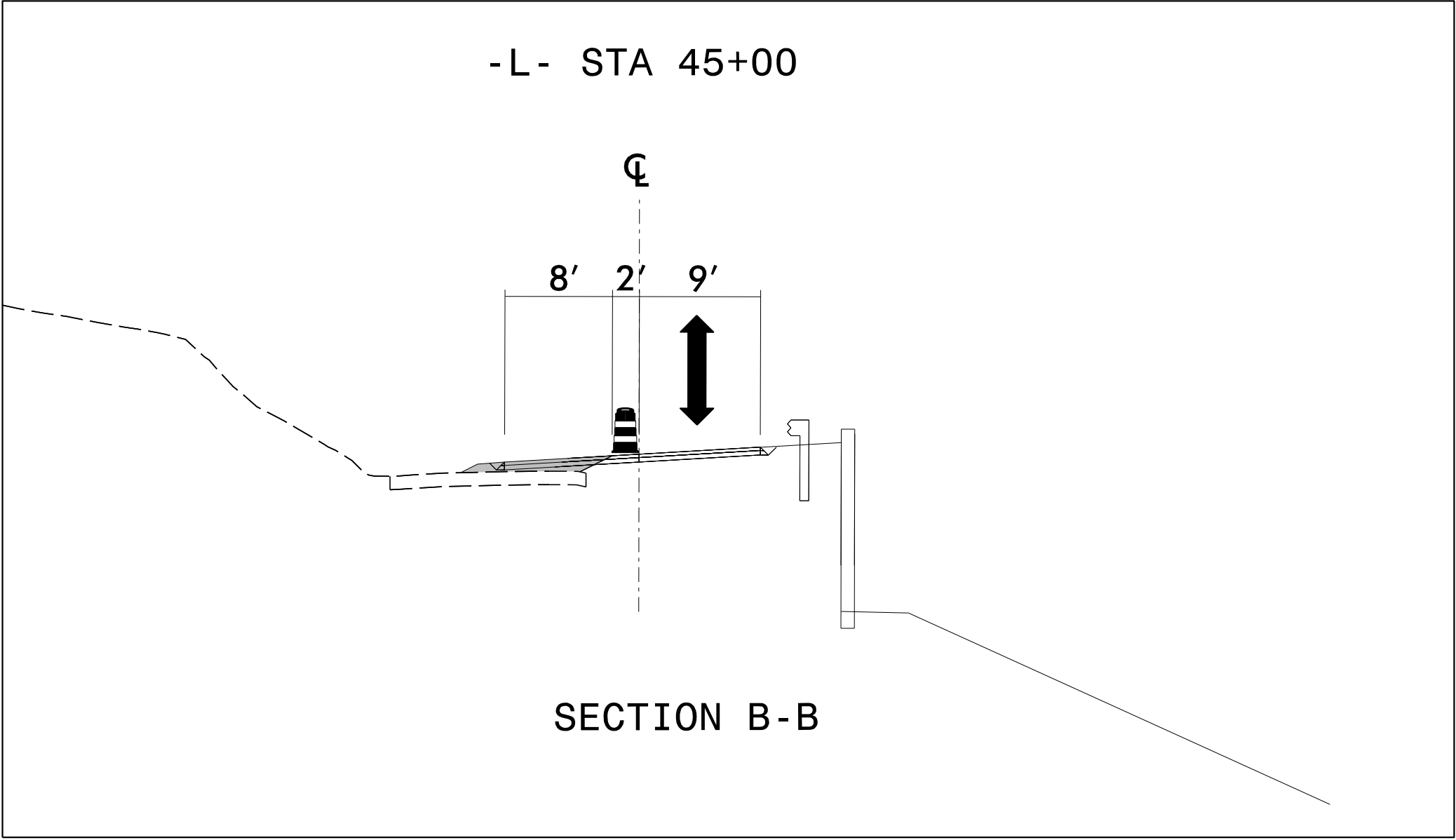
APPROVED:	
DATE:	6/10/2025
SEAL	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



SITE 2
PHASE I

PROJ. REFERENCE NO.	SHEET NO.
DF18314.2045487	TMP - 6

NAD 83/NA 2011



RS&H 1520 SOUTH BOULEVARD, SUITE 200
CHARLOTTE, NC 28203
NC FIRM LICENSE No: F-0493

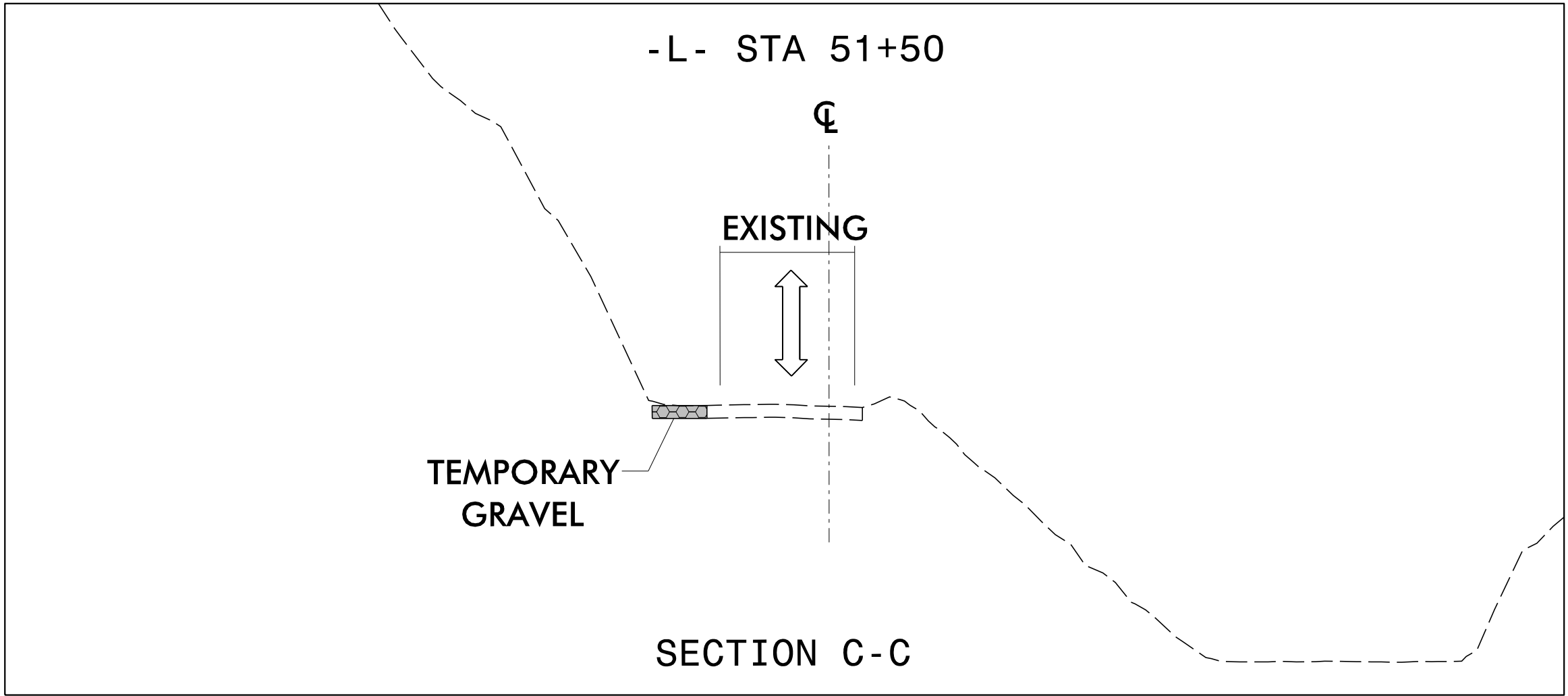
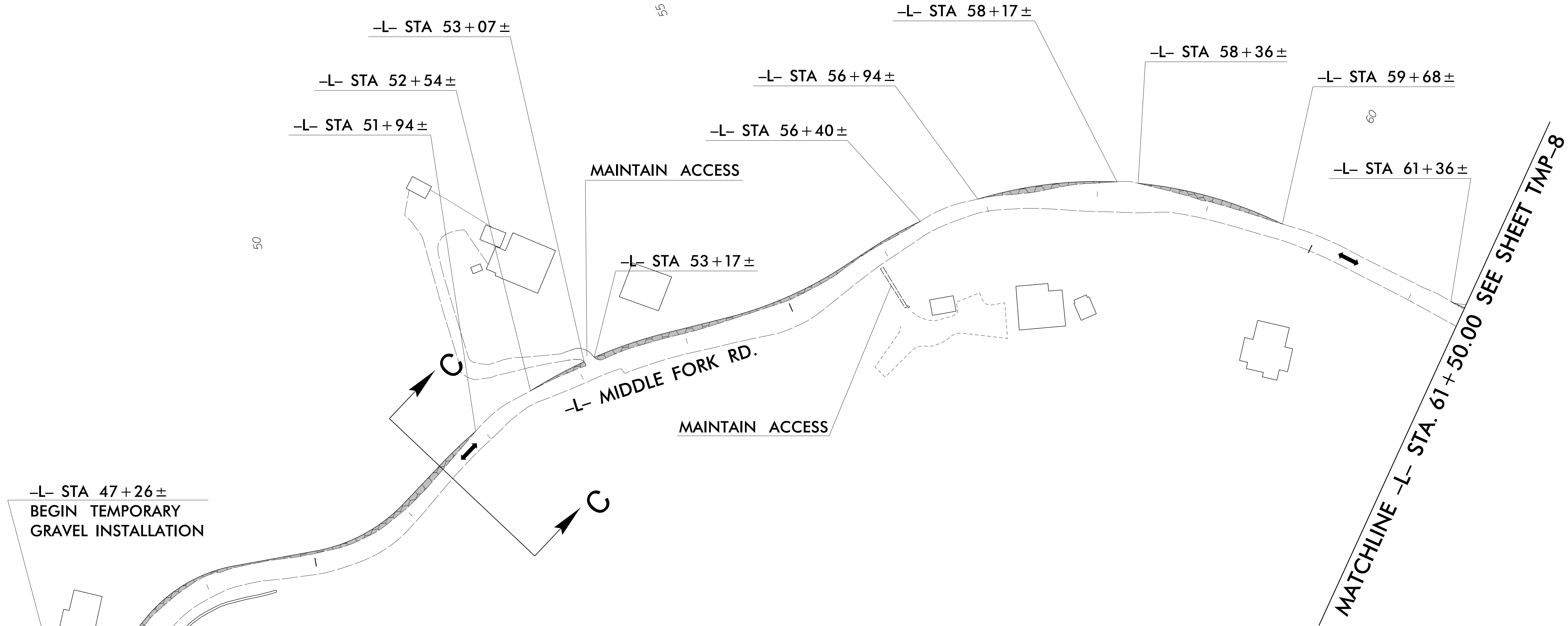
APPROVED:	Signed by: <i>Allison C. Drake</i> 7F889BACEB442E...
DATE:	6/10/2025
SEAL	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



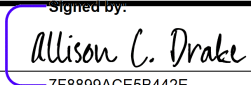
SITE 2
PHASE II

PROJ. REFERENCE NO.	SHEET NO.
DF18314.2045382	TMP-7

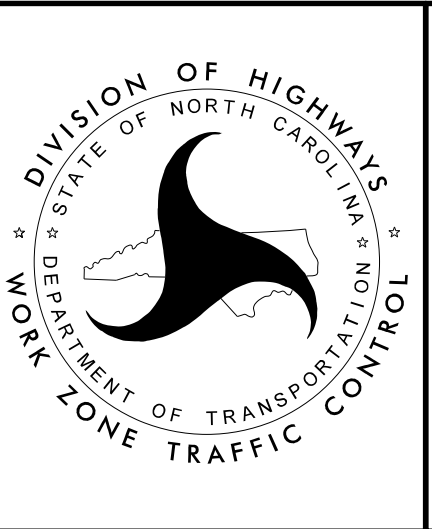
NAD 83/NA 2011



RS&H 1520 SOUTH BOULEVARD, SUITE 200
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NC FIRM LICENSE No: F-0493

APPROVED: 
DATE: 6/10/2025
SEAL

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SITE 3 AND SITE 4
PHASE I

PROJ. REFERENCE NO.	SHEET NO.
DF18314.2045382/ DF18314.2045381	TMP-8



MATCHLINE -L- STA. 61+50.00 SEE SHEET TMP-7

MAINTAIN ACCESS

MAINTAIN ACCESS

-L- STA 65+00±
END SITE 3
BEGIN SITE 4

-L- MIDDLE FORK RD.

MAINTAIN ACCESS

D

D

-L- STA 70+15±
END TEMPORARY
GRAVEL INSTALLATION

-L- STA 70+83±
END SITE 4

-L- STA 67+00

℄

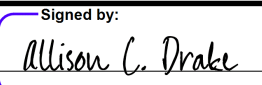
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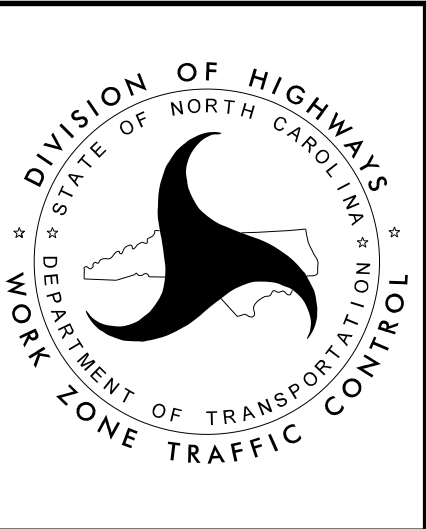
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GRAVEL

SECTION D-D

RS&H

1520 SOUTH BOULEVARD, SUITE 200
CHARLOTTE, NC 28203
NC FIRM LICENSE No: F-0493

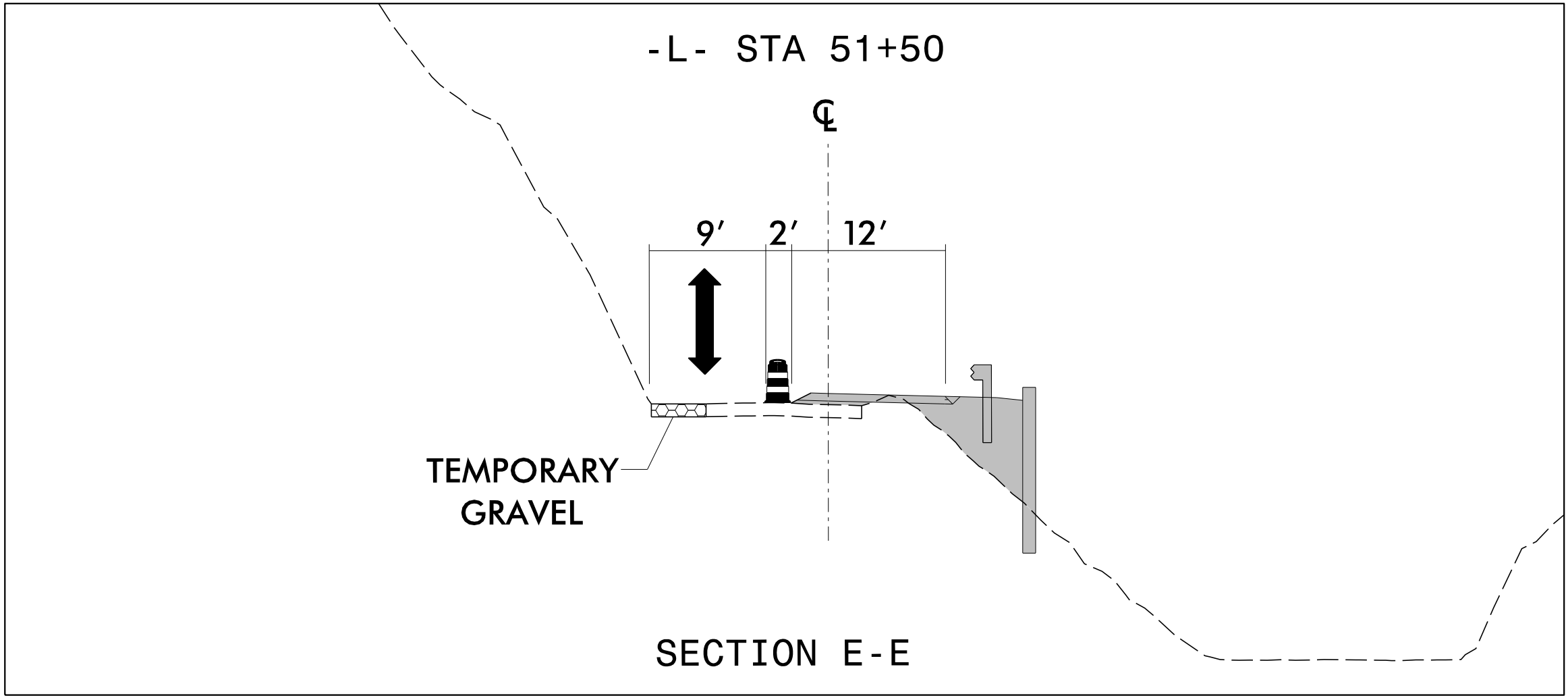
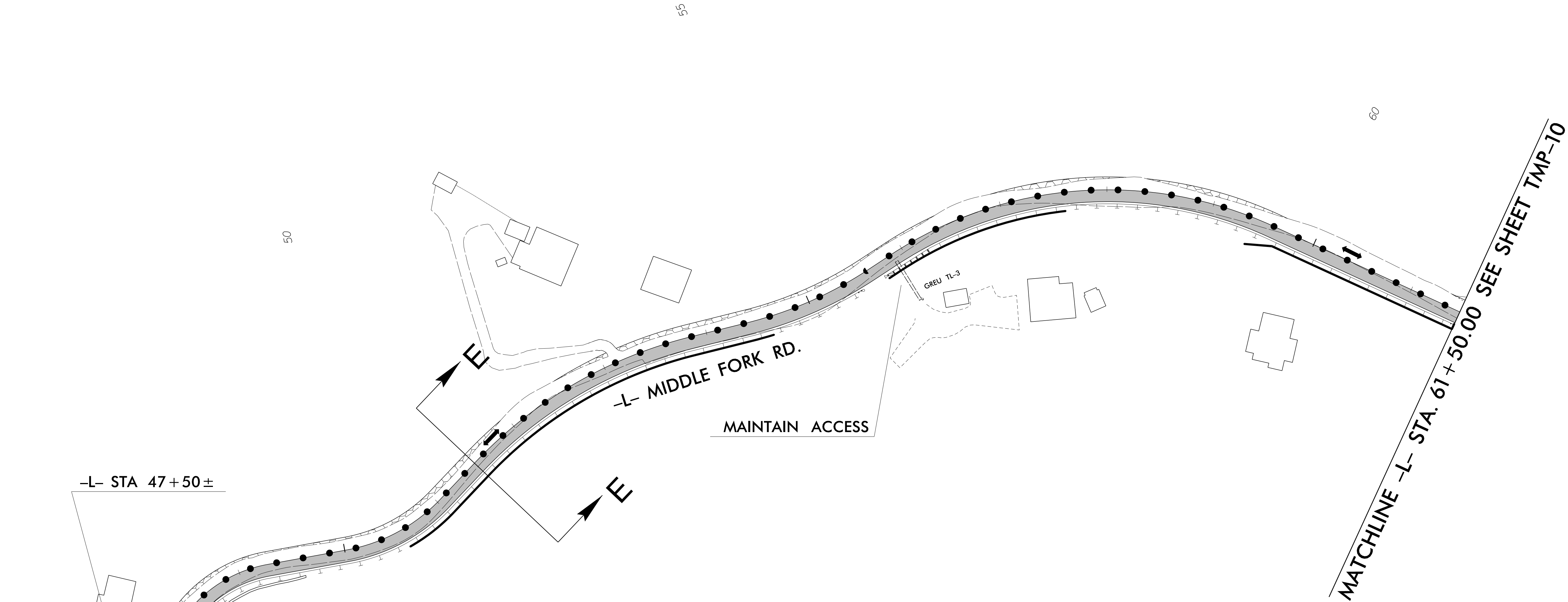
APPROVED: 
DATE: 6/10/2025
SEAL 
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



SITE 3 AND SITE 4
PHASE I

PROJ. REFERENCE NO.	SHEET NO.
DF18314.2045382	TMP-9

NAD 83/NA 2011



RS&H 1520 SOUTH BOULEVARD, SUITE 200
CHARLOTTE, NC 28203
NC FIRM LICENSE No: F-0493

APPROVED: Allison C. Drake
DATE: 6/10/2025
SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER
SEAL 042357
ALLISON C. DRAKE
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

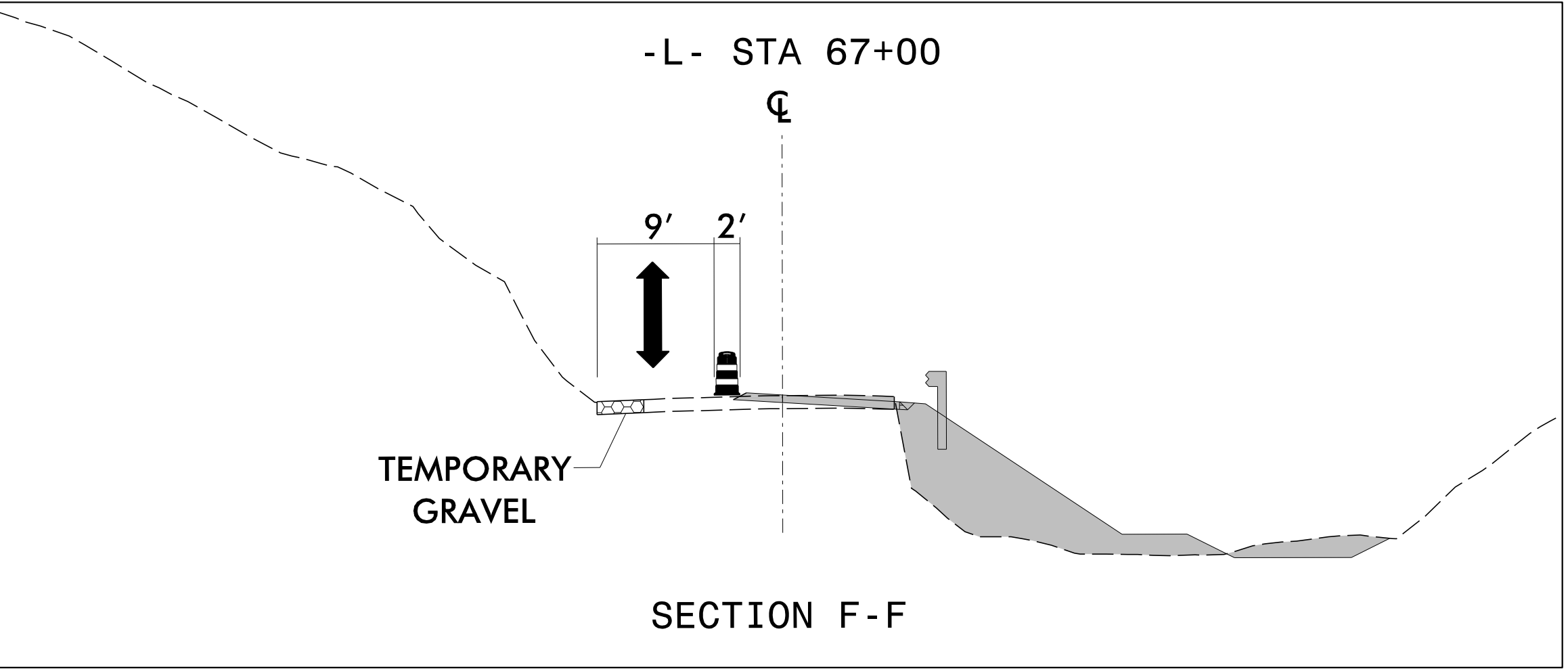
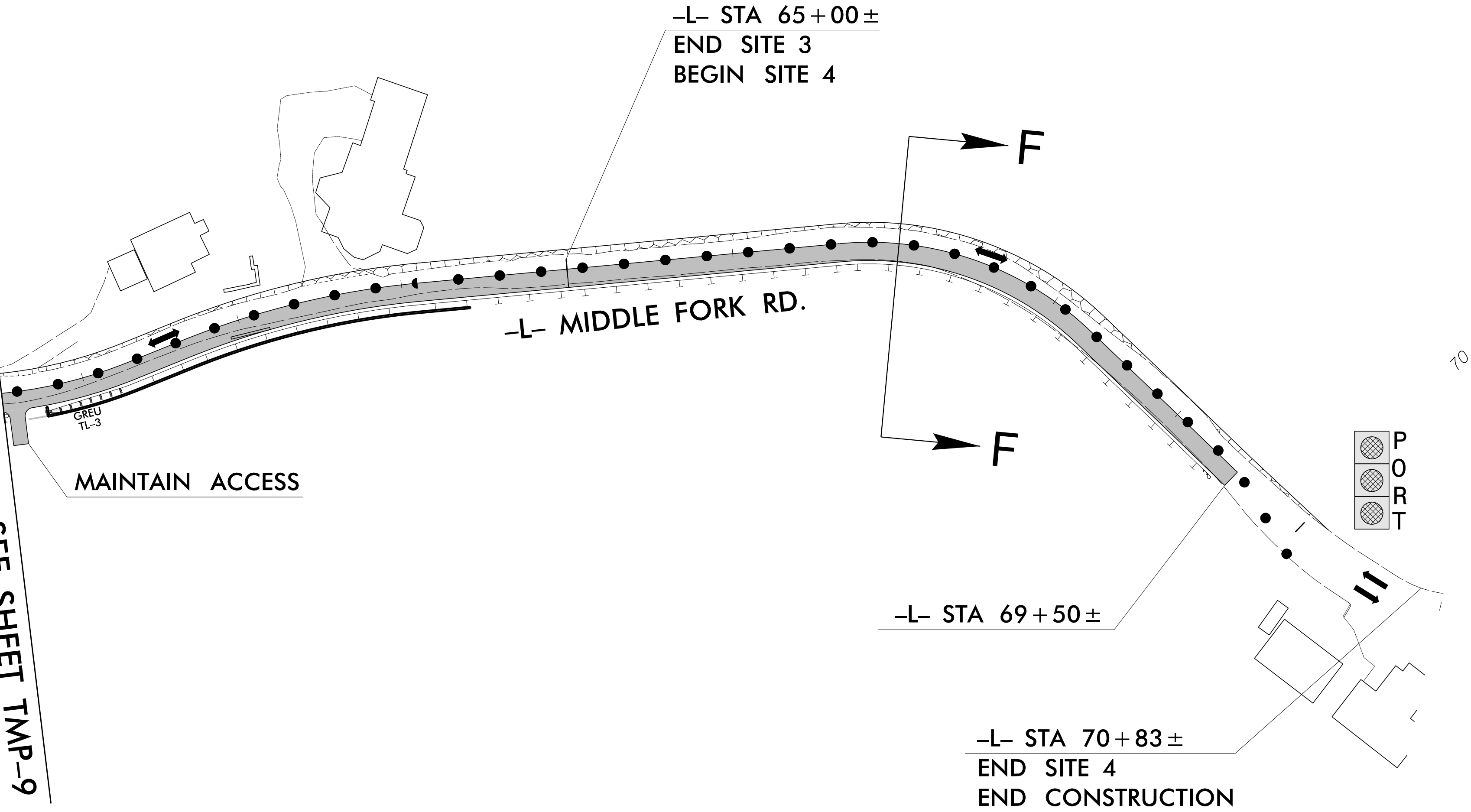


SITE 3 AND SITE 4
PHASE II

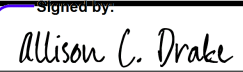
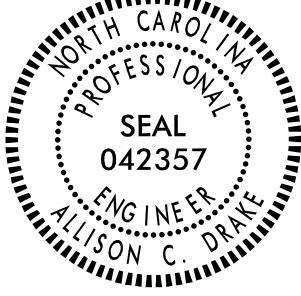
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DF18314.2045382/ DF18314.2045381	TMP-10



MATCHLINE -L- STA. 61+50.00 SEE SHEET TMP-9



RS&H 1520 SOUTH BOULEVARD, SUITE 200
CHARLOTTE, NC 28203
NC FIRM LICENSE No: F-0493

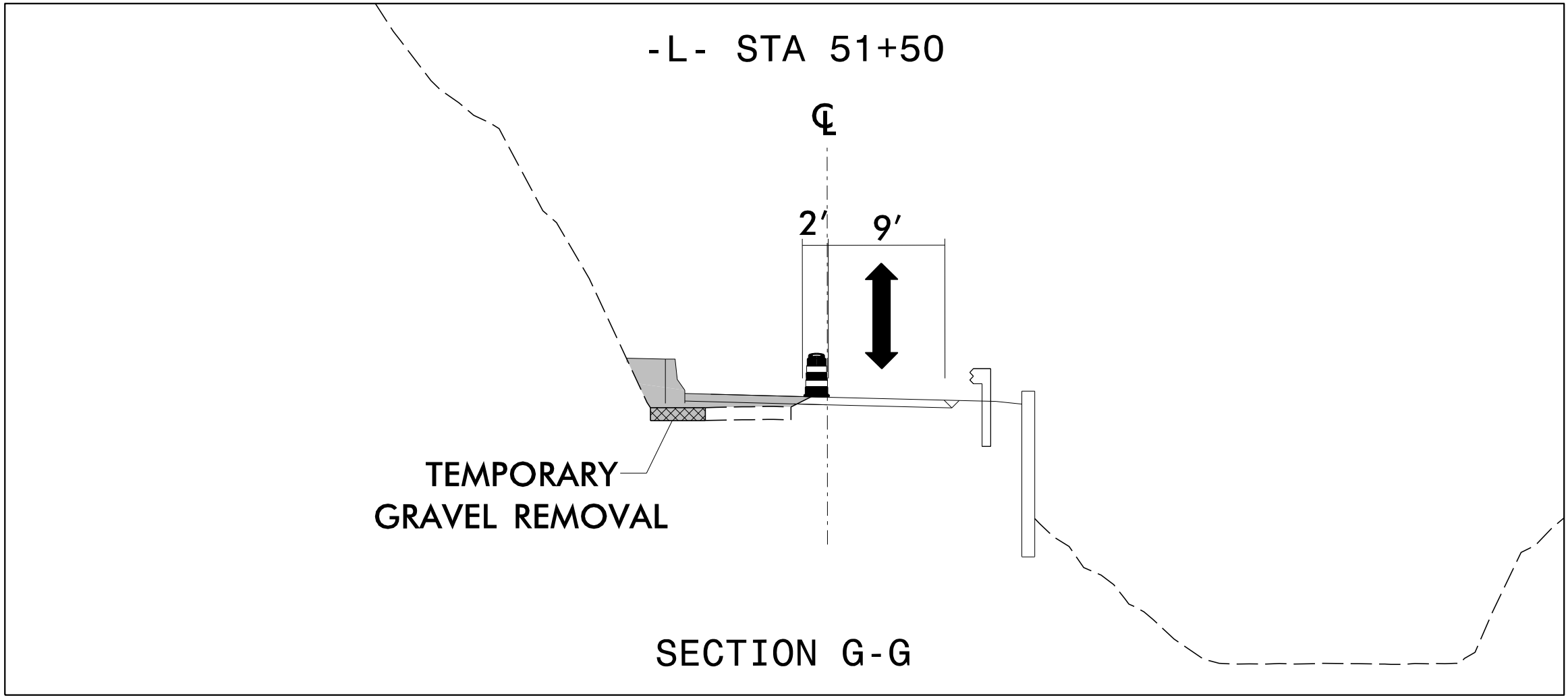
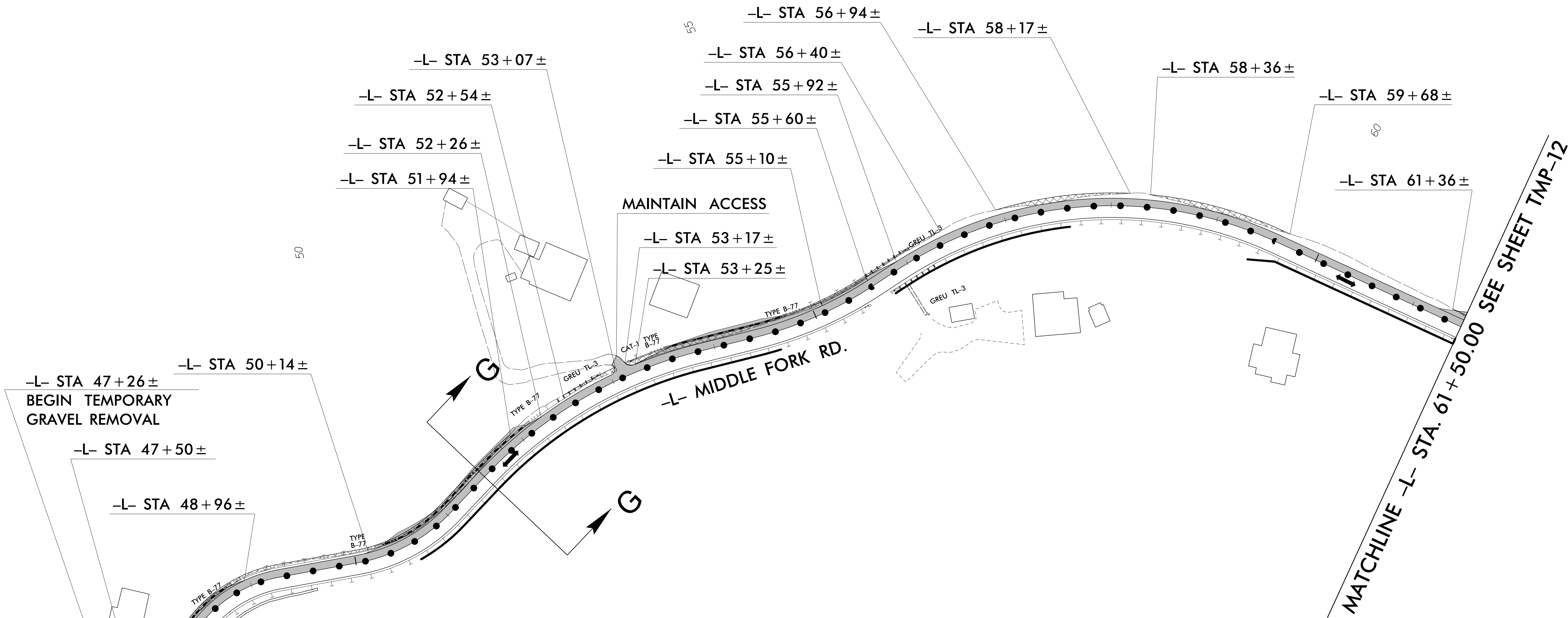
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DATE: 6/10/2025
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SITE 3 AND SITE 4
PHASE II

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DF18314.2045382	TMP-11

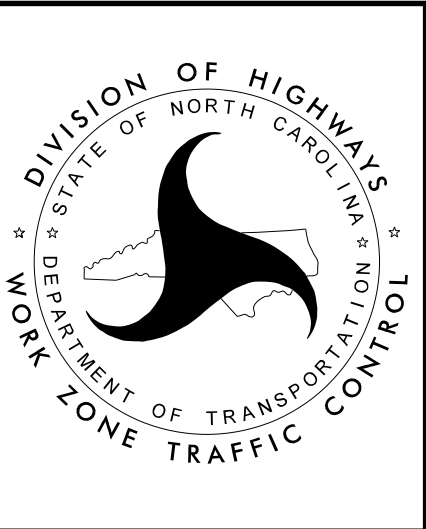
NAD 83/NA 2011



RS&H 1520 SOUTH BOULEVARD, SUITE 200
CHARLOTTE, NC 28203
NC FIRM LICENSE No: F-0493

APPROVED: 
DATE: 6/10/2025
SEAL

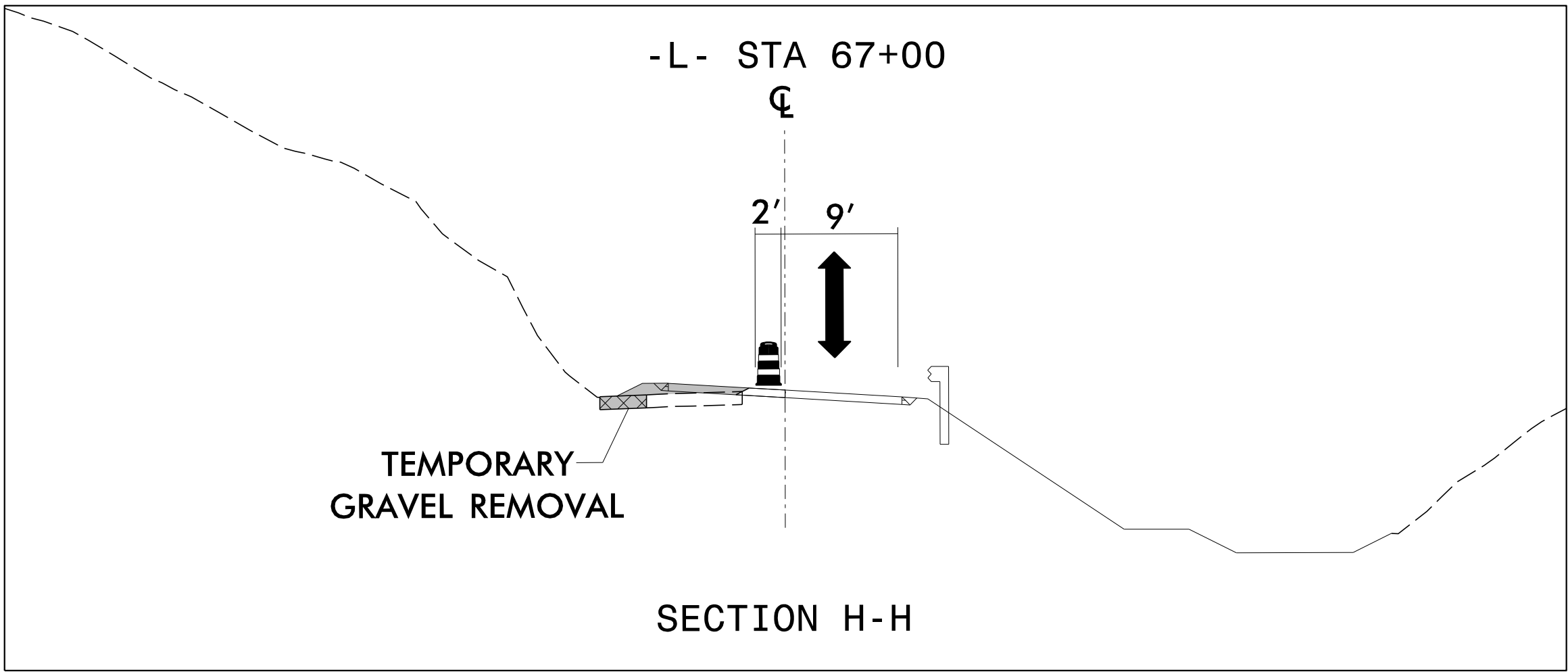
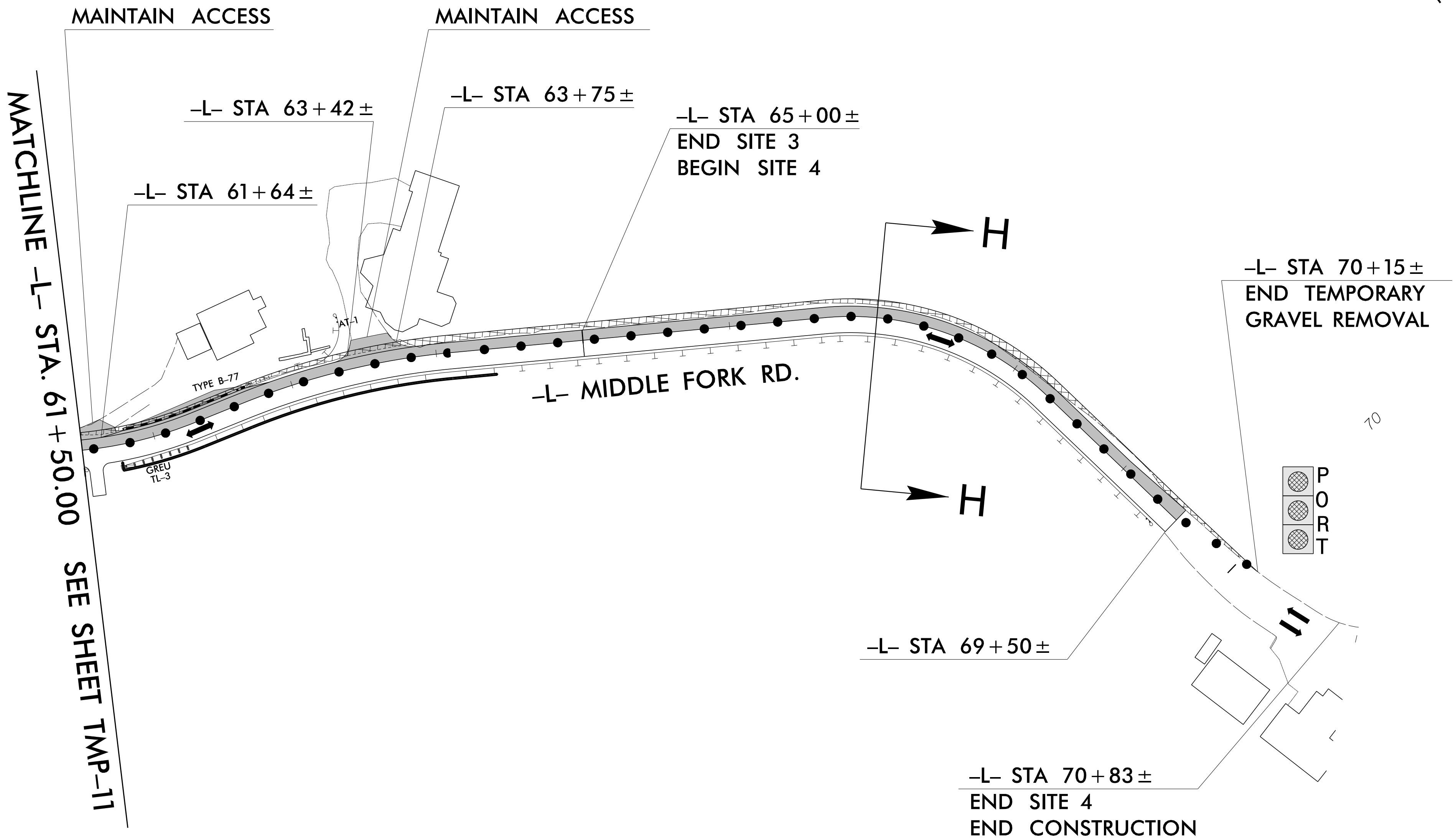
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UNLESS ALL SIGNATURES COMPLETED**



**SITE 3 AND SITE 4
PHASE III**

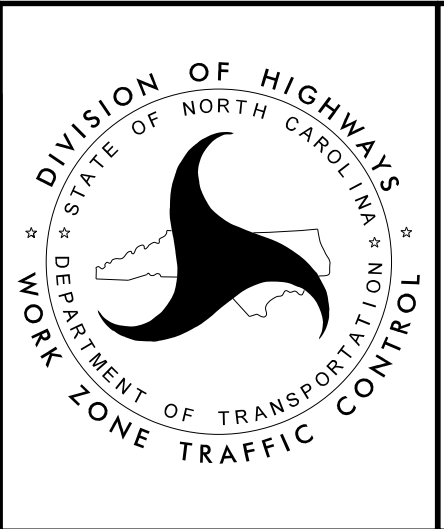
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PROJ. REFERENCE NO.	SHEET NO.
DF18314.2045382/ DF18314.2045381	TMP-12



RS&H 1520 SOUTH BOULEVARD, SUITE 200
CHARLOTTE, NC 28203
NC FIRM LICENSE No: F-0493

APPROVED:	
DATE:	6/10/2025
SEAL	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



SITE 3 AND SITE 4
PHASE III

6/10/2025
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User:krowczaj

PROJECT TIP: DF18314.2045381

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN
HENDERSON COUNTY

LOCATION: EMERGENCY DESIGN FOR SR 1605
(MIDDLE FORK ROAD/TOMS FALLS ROAD)

TYPE OF WORK: GRADING, PAVING, DRAINAGE & RETAINING WALLS

TIP NO.	SHEET NO.
DF18314.2045381	PMP - 1
APPROVED: ALLISON C. DRAKE	
DATE: 6/10/2025	
SEAL	
042357 ENGINEER ALLISON C. DRAKE	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

INDEX

SHEET NO.	DESCRIPTION
PMP-1	PAVEMENT MARKING PLAN TITLE AND SCHEDULE SHEET
PMP-2 THRU PMP-4	PAVEMENT MARKING DETAIL

GENERAL NOTES

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT, EXCEPT WHEN OTHERWISE NOTED IN THE PLAN, OR DIRECTED BY THE ENGINEER.

- A) INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS FOLLOWS:

ROAD NAME	MARKING	MARKER
MIDDLE FORK RD/TOMS FALLS RD	THERMOPLASTIC	CAST IRON

- B) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
C) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS.

ROADWAY STANDARD DRAWING

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - 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:

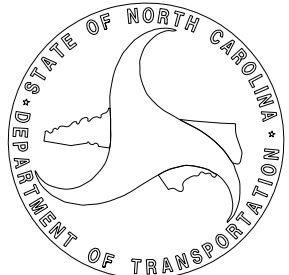
STD. NO.	TITLE
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTILANE ROADWAYS
1250D01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY
1261.01	GUARDRAIL AND BARRIER DELINEATORS - INSTALLATION SPACING
1261.02	GUARDRAIL AND BARRIER DELINEATORS - TYPES AND MOUNTING
1262.01	GUARDRAIL END DELINEATION

PAVEMENT MARKING SCHEDULE

T1	WHITE EDGELINE	THERMOPLASTIC (4", 90 MIL)
T13	YELLOW DOUBLE CENTER	THERMOPLASTIC (4", 90 MIL)

PLAN SUBMITTED TO: NCDOT DIVISION 14

BARRY MOSTELLER NCDOT CONTACT



PLAN PREPARED BY: RS&H

ALLISON C. DRAKE, PE PROJECT ENGINEER
REBECCA E. WRIGHT, PE PROJECT DESIGNER

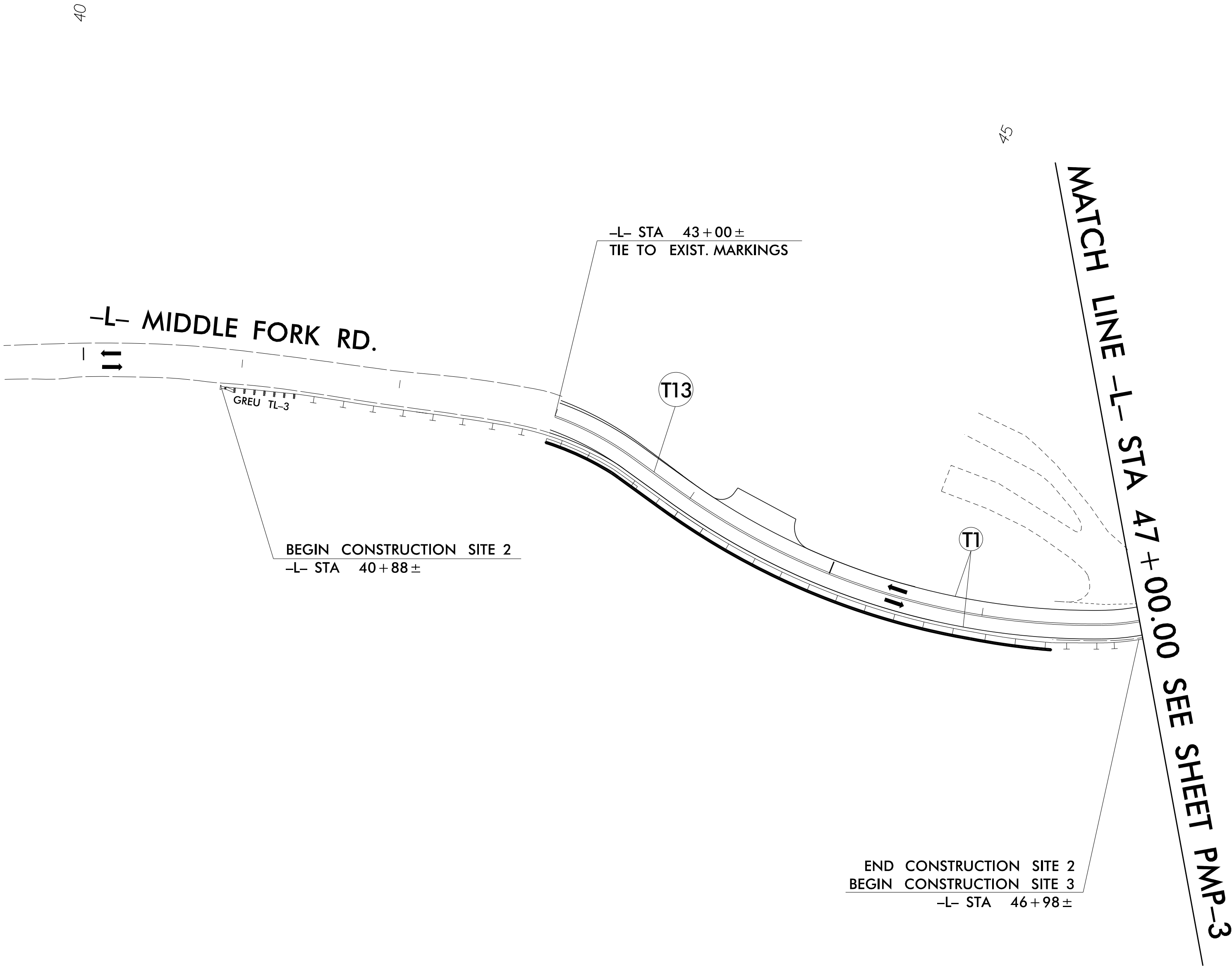


1520 SOUTH BOULEVARD, SUITE 200
CHARLOTTE, NC 28203
NC FIRM LICENSE No: F-0493

6/10/2025
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NAD 83/NA 2011

TIP NO.	SHEET NO.
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APPROVED: Signature of: Allison C. Drake 7F889ACEB942E...	
DATE: 6/10/2025	
SEAL	
Professional Seal Allison C. Drake Engineer Seal 042357 North Carolina	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

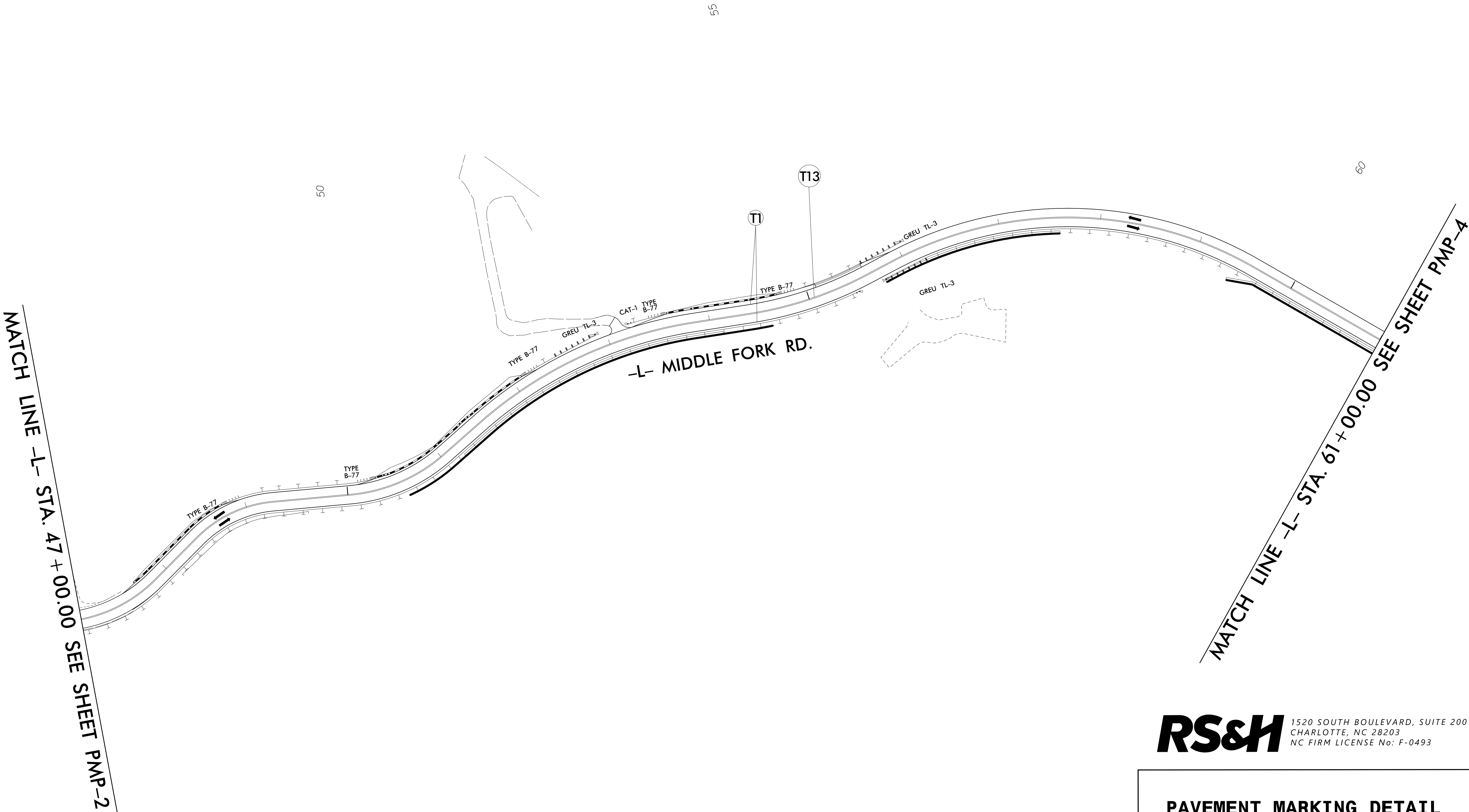


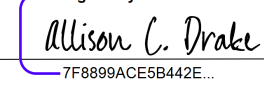
RS&H 1520 SOUTH BOULEVARD, SUITE 200
CHARLOTTE, NC 28203
NC FIRM LICENSE No: F-0493

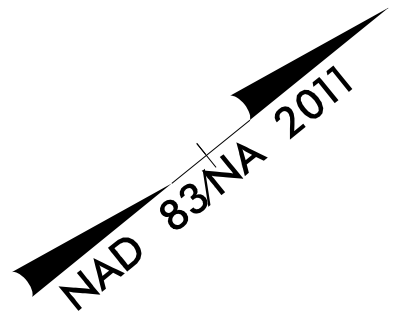
PAVEMENT MARKING DETAIL

RS&H 1520 SOUTH BOULEVARD, SUITE 200
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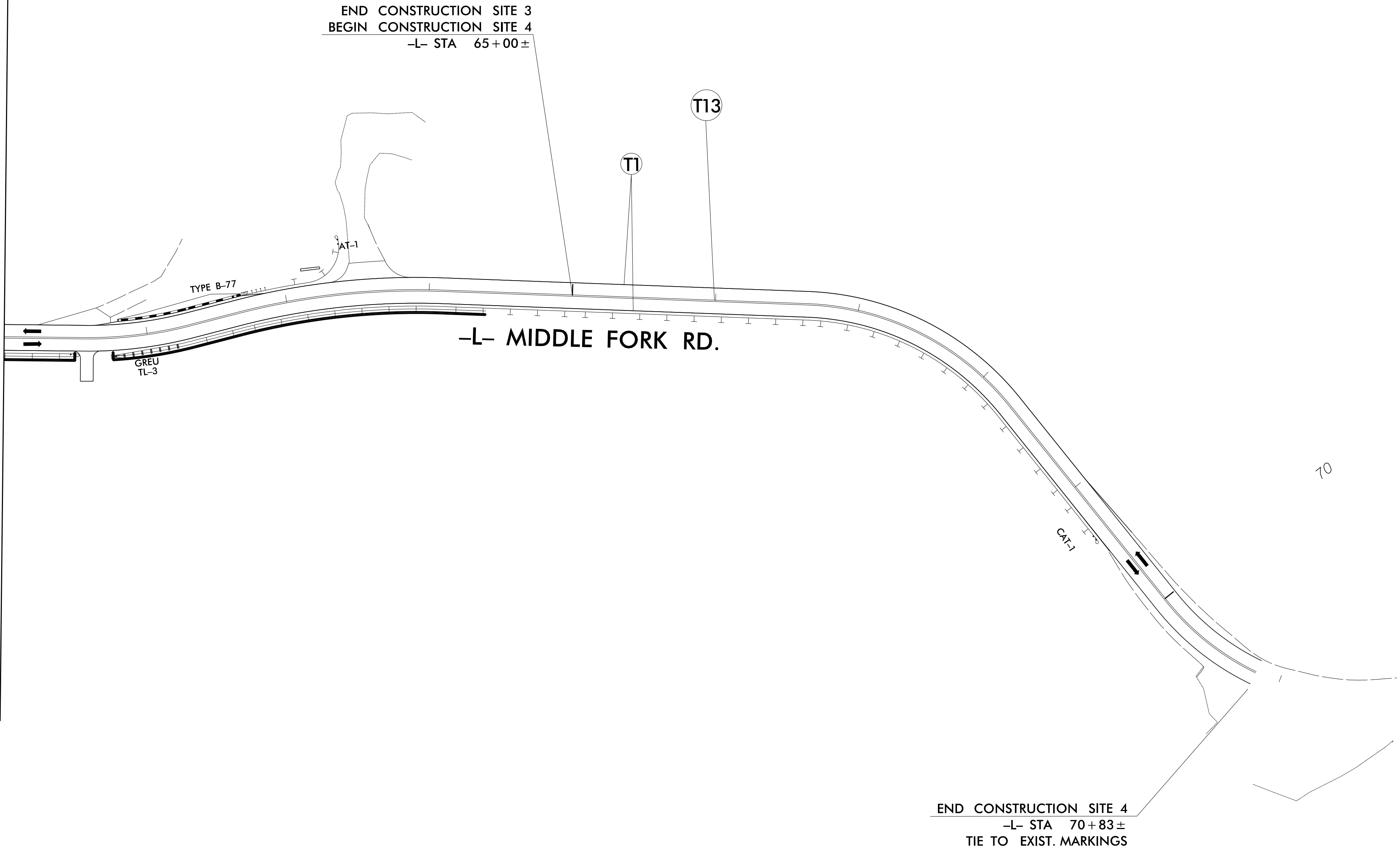
PAVEMENT MARKING DETAIL



TIP NO. DF18314.2045382/ DF18314.2045381	SHEET NO. PMP - 4
APPROVED:  PROFESSOR/ENGINEER	
DATE: 6/10/2025	
SEAL 	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



MATCH LINE -L- STA. 61 + 00.00 SEE SHEET PMP-3



RS&H 1520 SOUTH BOULEVARD, SUITE 200
CHARLOTTE, NC 28203
NC FIRM LICENSE No: F-0493

PAVEMENT MARKING DETAIL