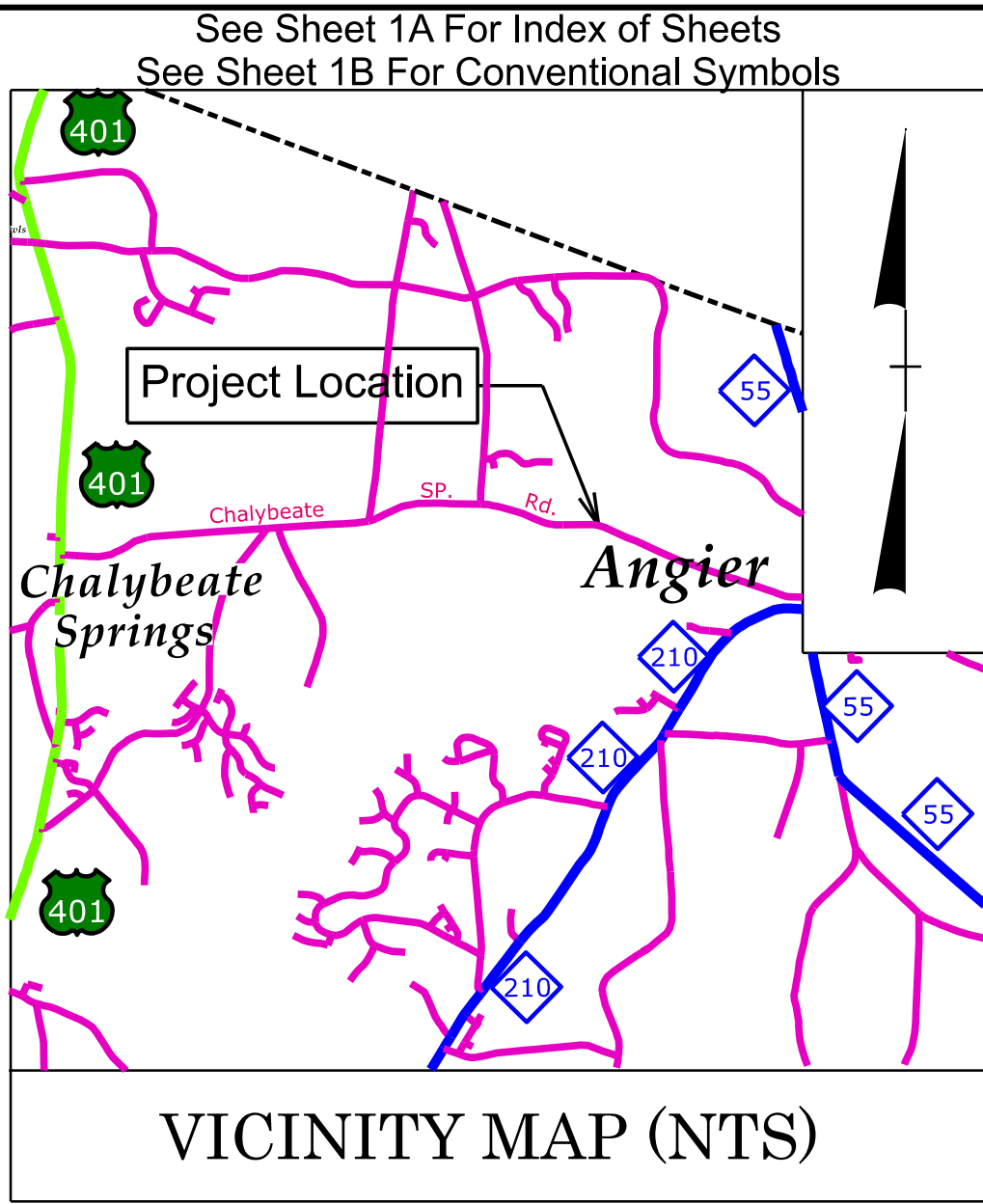


09/08/09

TIP PROJECT: HS-2006K

CONTRACT: DF00519



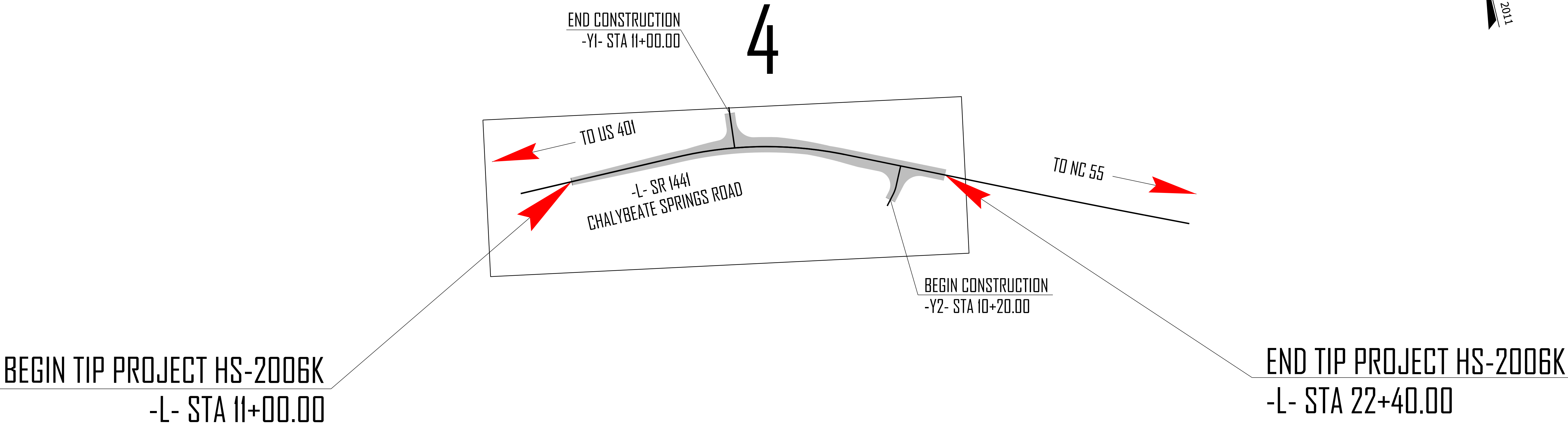
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

HARNETT COUNTY

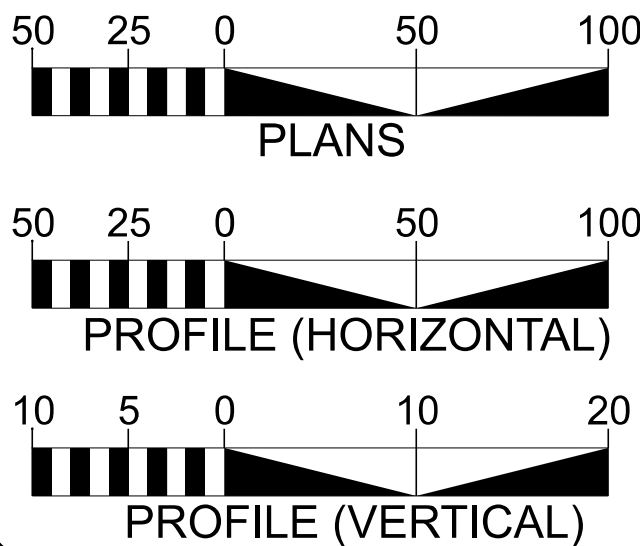
LOCATION: *SR 1441 (CHALYBEATE SPRINGS ROAD)*
BETWEEN NC 55 AND US 401

TYPE OF WORK: *GRADING, PAVING, AND DRAINAGE*

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	HS-2006K	11	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
49312.1.15	HSIP-1441(005)	PE	
49312.2.15		ROW	
49312.2.28		UTILITIES	
49312.3.15		CONST	



GRAPHIC SCALES



DESIGN DATA

ADT 2024 = 3,300
ADT 2044 = 4,900
K = %
D = %
T = 6 % *
V = 50 MPH
* TTST = 2% DUAL = 4%
FUNC CLASS =
MINOR COLLECTOR
Subregional TIER

PROJECT LENGTH

HS-2006K TOTAL LENGTH = 0.216 MILES

Prepared in the Office of:

DIVISION OF HIGHWAYS

431 TRANSPORTATION DR., FAYETTEVILLE NC 28301

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
SEPTEMBER 30, 2024

LETTING DATE:
JULY 16, 2025

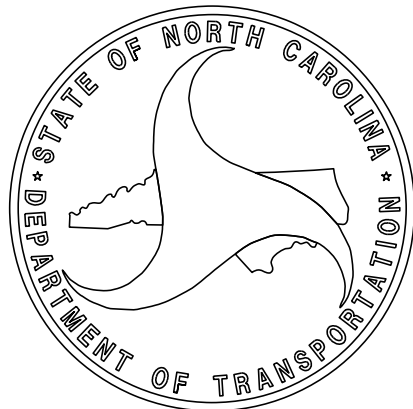
JOHN GAUTHIER
PROJECT ENGINEER

JULIO WILLIAMS
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.
ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.



INDEX OF SHEETS

SHEET NUMBER	SHEET
1	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES, AND STANDARD DRAWINGS
1B	CONVENTIONAL SYMBOLS
2A-1 THRU 2A-	PAVEMENT SCHEDULE AND TYPICAL SECTIONS
2B-1 THRU 2B-	ROADWAY DETAILS
2C-1 THRU 2C-	SPECIAL DETAILS
3B-1 THRU 3B-	ROADWAY SUMMARIES
3D-1 THRU 3D-	DRAINAGE SUMMARIES
3P-1	PARCEL INDEX SHEET
4 THRU 5	PLAN AND PROFILE SHEET
PMP-1 THRU PMP-	PAVEMENT MARKING PLANS
E-1 THRU E-	ELECTRICAL PLANS
EC-1 THRU EC-	EROSION CONTROL PLANS
SIGN-1 THRU SIGN-	SIGNING PLANS
X-1A THRU X-1	CROSS-SECTION SUMMARY SHEET
X-1 THRU X-	CROSS-SECTIONS
S-1 THRU S-	STRUCTURE PLANS

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 II.

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

TEMPORARY SHORING:

SHORING REQUIRED FOR THE MAINTENANCE OF TRAFFIC WILL BE PAID FOR AS "EXTRA WORK" IN ACCORDANCE WITH SECTION 104-7.

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS.

EFF, 01-16-2024
REV.
2024 ROADWAY ENGLISH STANDARD DRAWINGS

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 II
225.02	Guide for Grading Subgrade - Secondary and Local
225.04	Method of Obtaining Superelevation - Two Lane Pavement
DIVISION 3 - PIPE CULVERTS	
300.01	Method of Pipe Installation (Use Details in Lieu of Standards for Sheets 1 and 2 of 2)
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction - High Side of Superelevated Curve - Method I
DIVISION 7 - CONCRETE PAVEMENTS AND SHOULDERS	
700.01	Concrete Pavement Joints - Construction and Contraction Joints
700.03	Dowel Assembly
700.04	Concrete Pavement Header Board
700.05	Tying Proposed Pavement to Existing Pavement
710.01	Concrete Pavement - Station Marking
DIVISION 8 - INCIDENTALS	
840.72	Pipe Collar
846.01	Concrete Curb, Gutter and Curb & Gutter
852.01	Concrete Islands
876.02	Guide for Rip Rap at Pipe Outlets

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	

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

Woods Line	
Orchard	
Vineyard	

EXISTING STRUCTURES:

Bridge, Tunnel or Box Culvert	
Bridge Wing Wall, Head Wall and End Wall	
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)*	

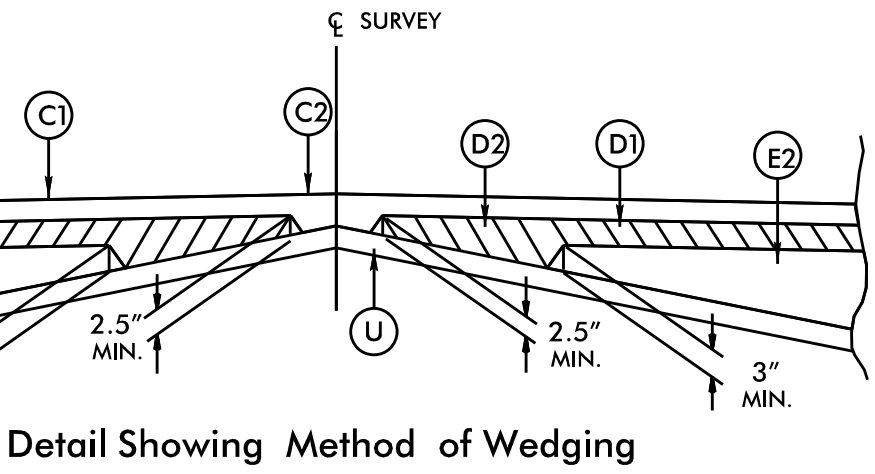
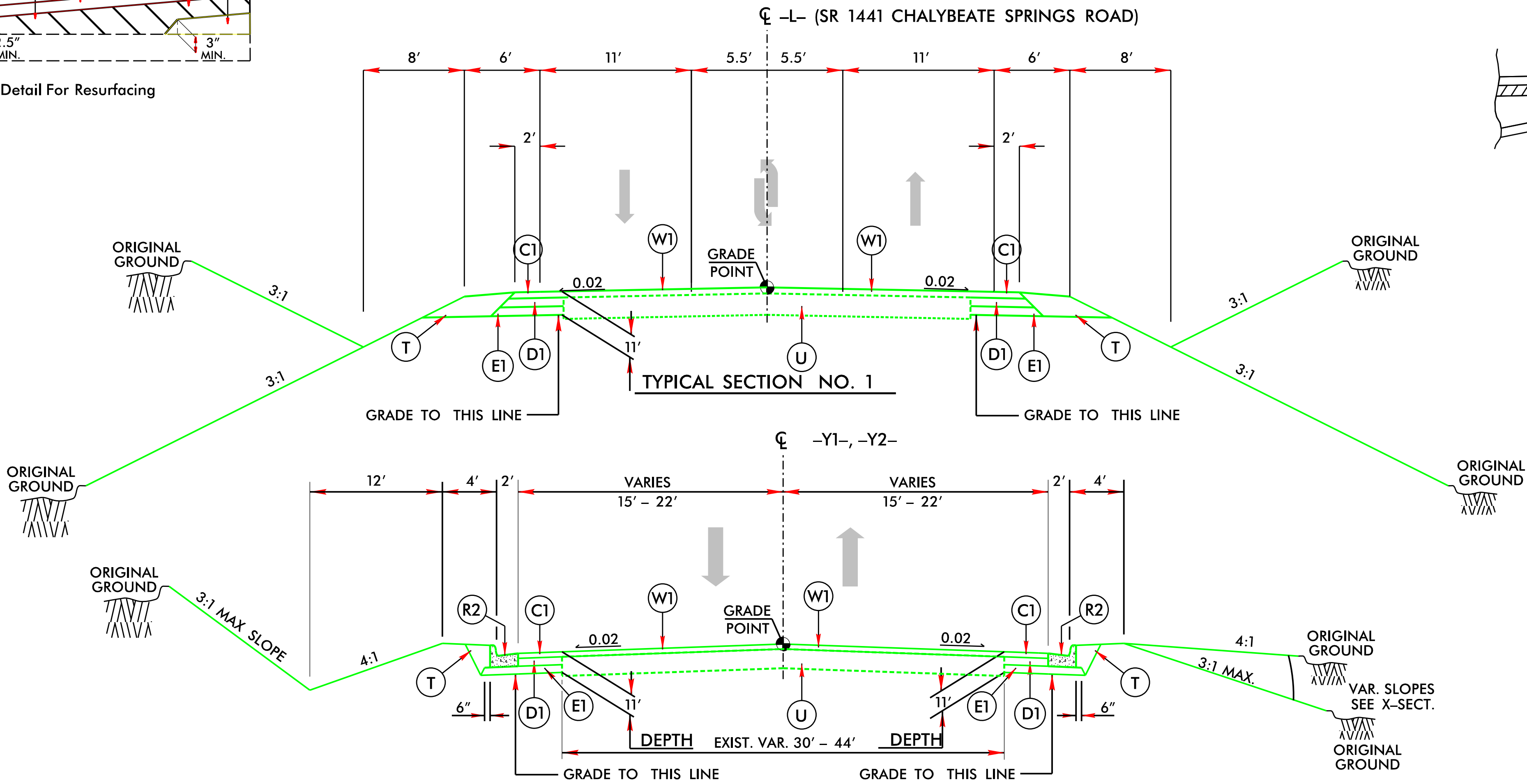
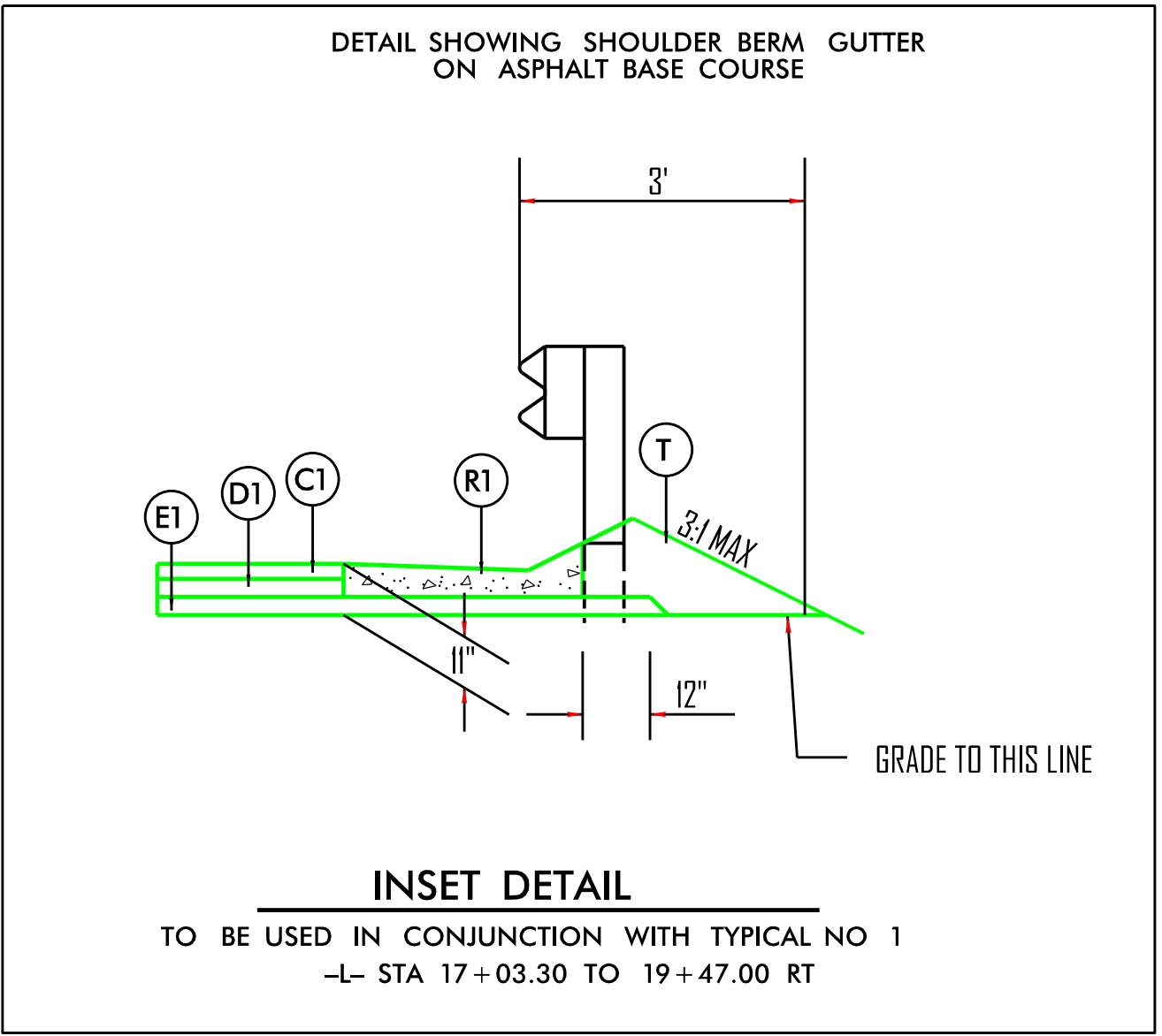
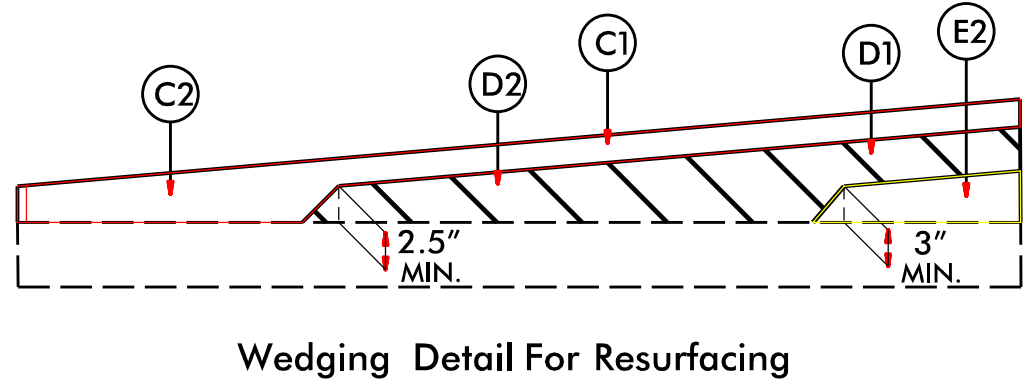
MISCELLANEOUS:

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	
Geoenviromental Boring	
Abandoned According to Utility Records	
End of Information	

HS-2006K

001B

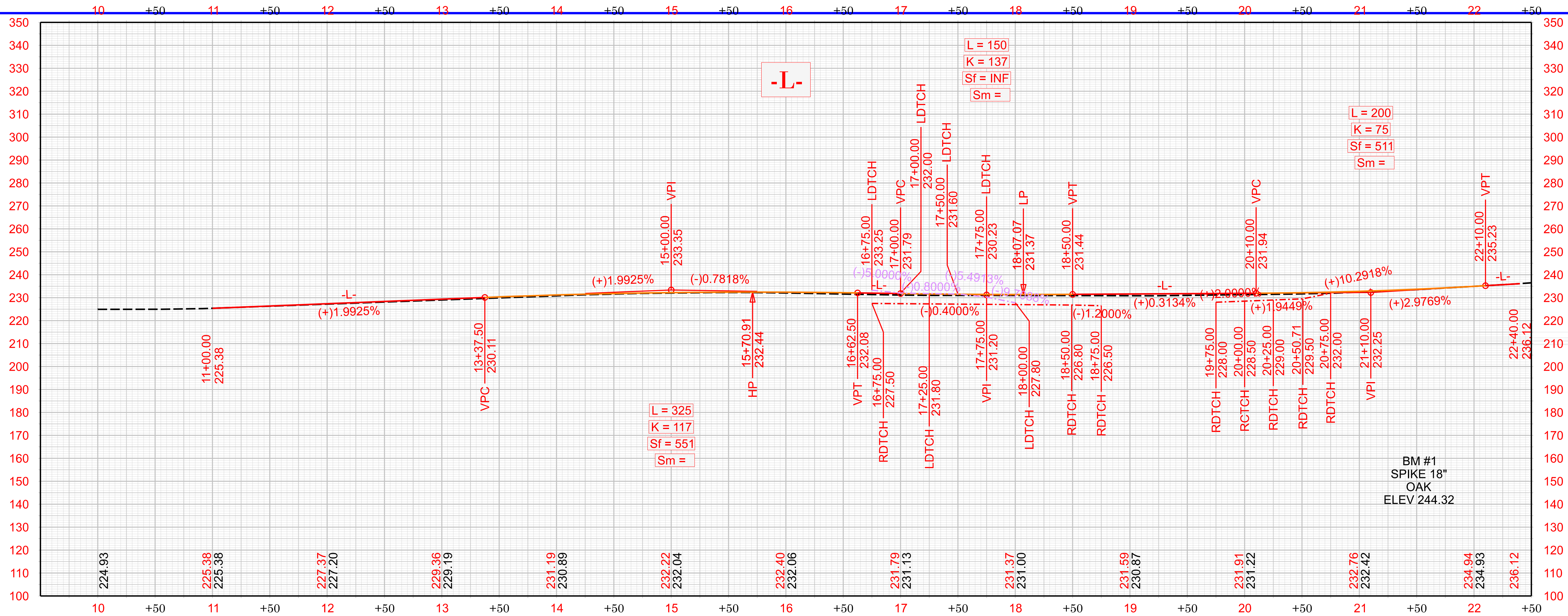
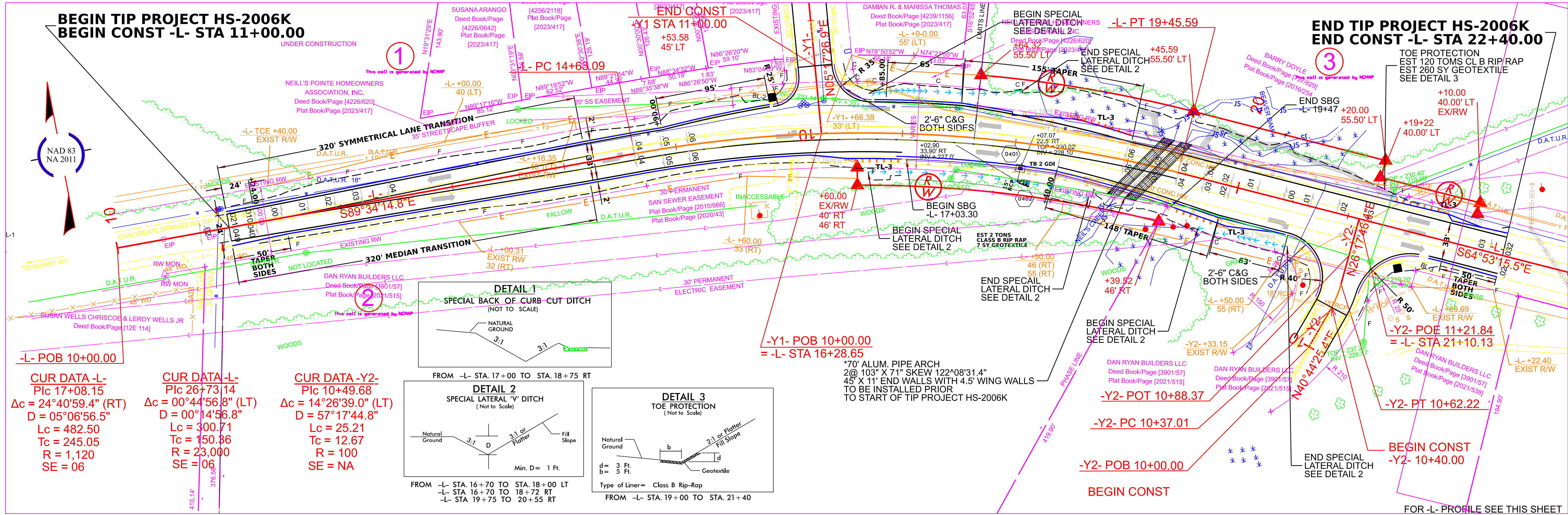
PAVEMENT SCHEDULE			
(PRELIMINARY PAVEMENT DESIGN)			
C1	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD. IN EACH OF TWO LAYERS	E2	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 5½" IN DEPTH.
C2	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AN AVERAGE RATE OF 110 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 2" IN DEPTH	R1	SHOULDER BERM GUTTER
D1	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.	R2	2'-6" CURB AND GUTTER
D2	PROP. VAR. DEPTH ASPHALT CONCRETE BINDER COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 2½" IN DEPTH OR GREATER THAN 4" IN DEPTH.	T	EARTH MATERIAL
E1	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.	U	EXISTING PAVEMENT
		W	WEDGING

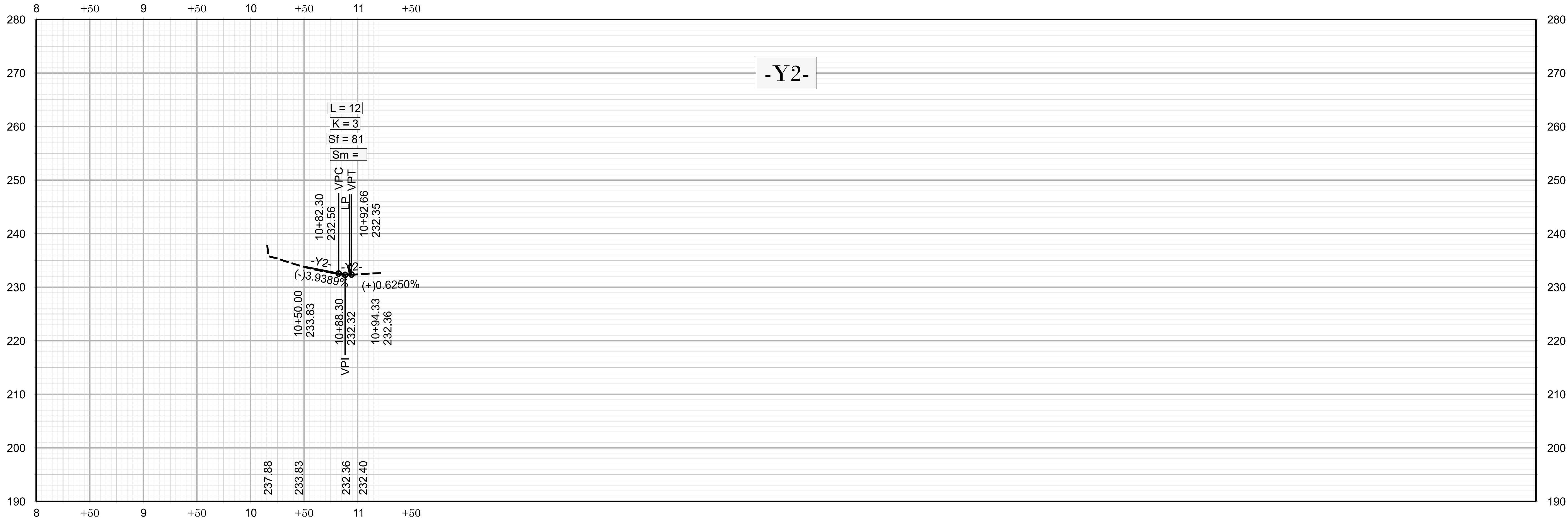
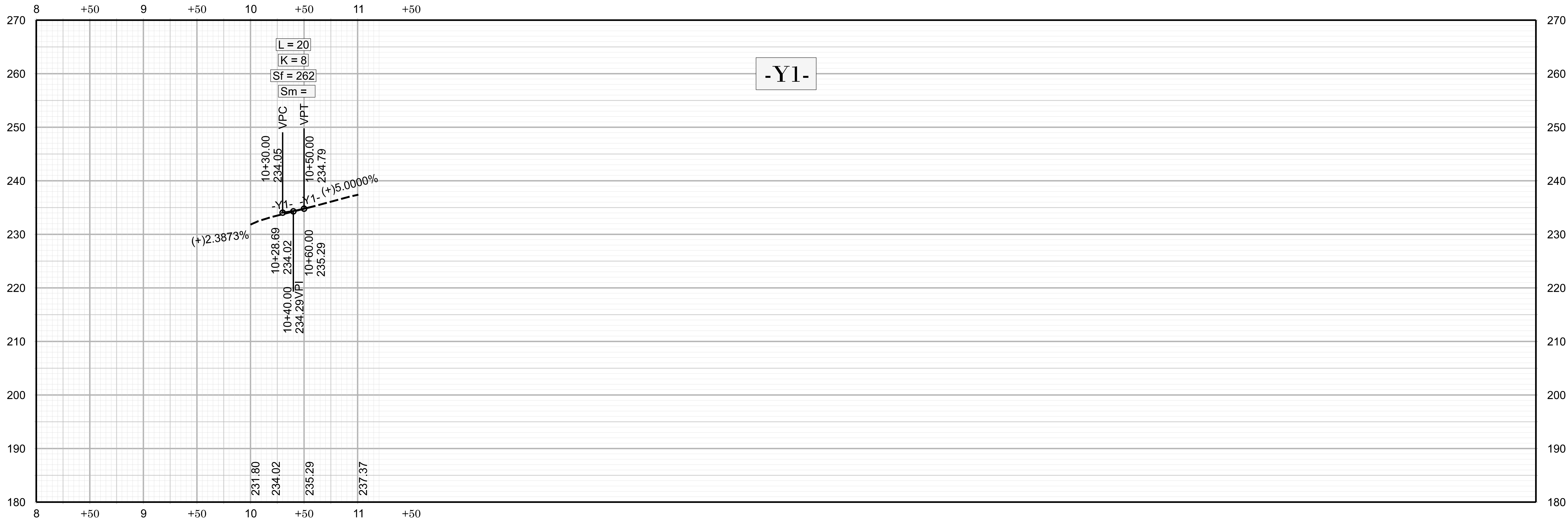


TYPICAL SECTION NO. 1
-L- STA 11+00.00 TO 14+25.00
TRANSITION TO TYPICAL NO 1
-L- STA 14+25.00 TO 22+40.00

TYPICAL SECTION NO. 2
-Y1- STA 10+28.69 TO 10+60.00
-Y2- STA 10+50.00 TO 10+94.33

[illegible]



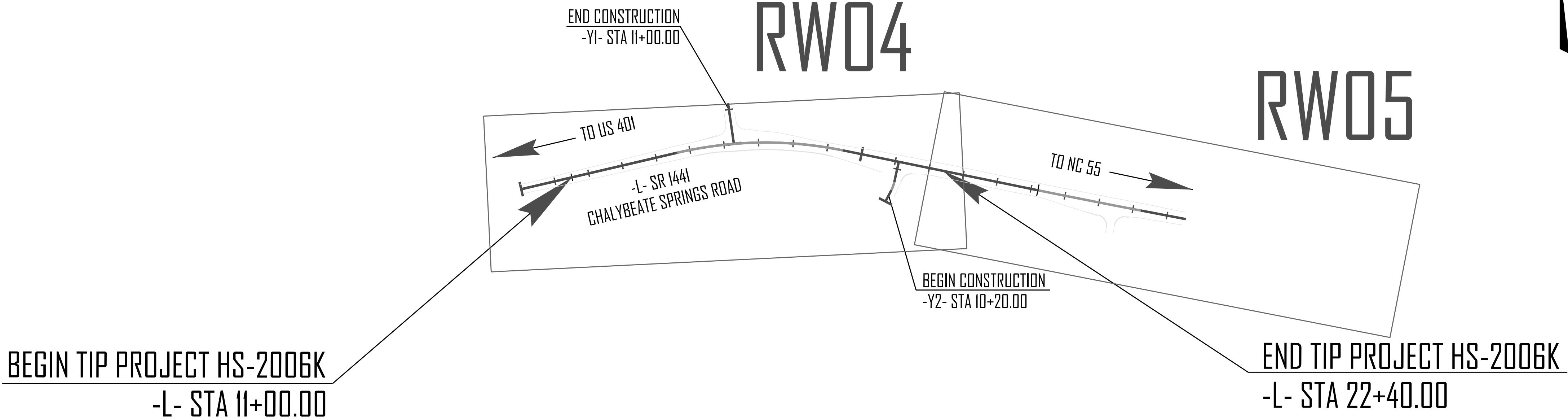
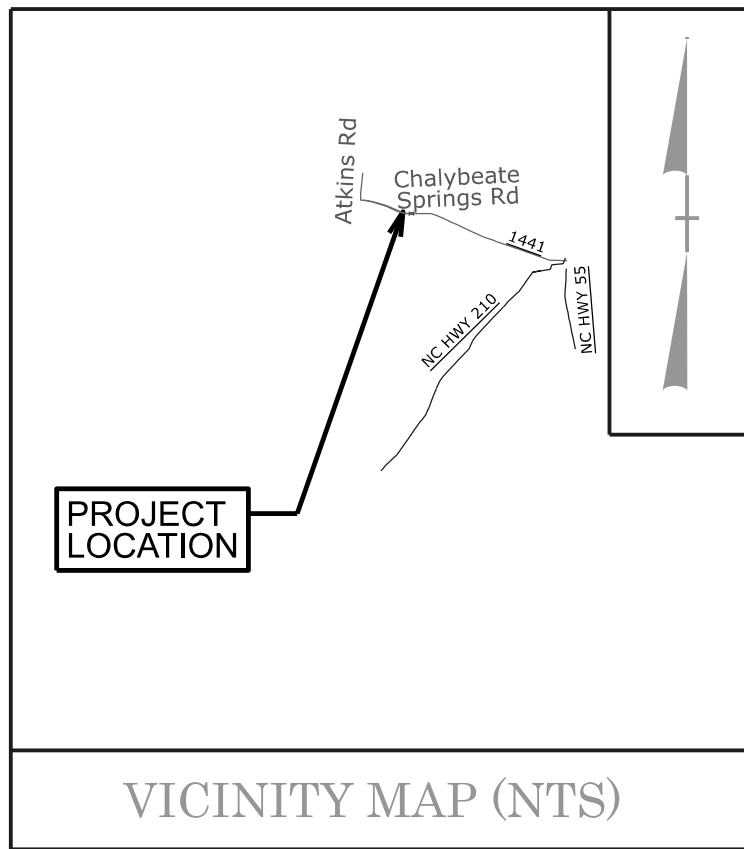


STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

STATE NO.	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	HS-2006K	RW01	07

SURVEY CONTROL, EXISTING CENTERLINES,
RIGHT OF WAY, EASEMENTS AND PROPERTY TIES

HARNETT COUNTY



DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES



NOT TO SCALE

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT
IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY
NCDOT FOR MONUMENT R5705/U5751 AZ-1
WITH NAD 83/ NA 2011STATE PLANE GRID COORDINATES OF
NORTHING: 644697.210 EASTING: 2075359.162
ELEVATION: 320.901 FEET
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT
(GROUND TO GRID) IS: 0.99987346
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88

Prepared in the Office of:

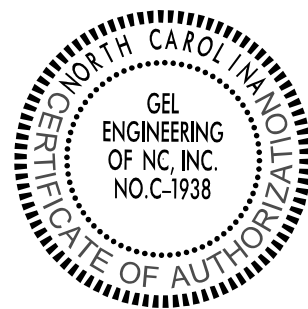
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2700 SUMNER BLVD.
SUITE 106
RALEIGH, NC 27616
(919) 544-1100
WWW.GEL-SOLUTIONS.COM

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
SEPTEMBER 30 2024

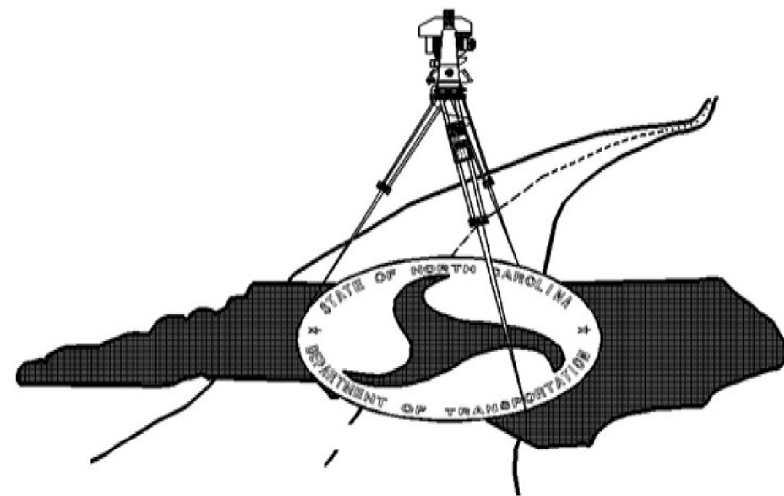
LETTING DATE:
JULY 16 2025

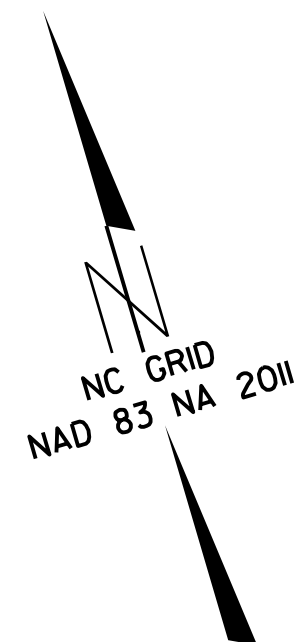
PROFESSIONAL LAND
SURVEYOR



SIGNATURE:

DATE:





**SEE SHEET RW02C-2
FOR FURTHER
ALIGNMENT DETAILS**

1. THE PROPOSED ALIGNMENT CONTROL DATA FOR THIS PROJECT HAS BEEN COMPILED FROM VARIOUS SOURCES. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

24 STANDARD SPECIFICATIONS

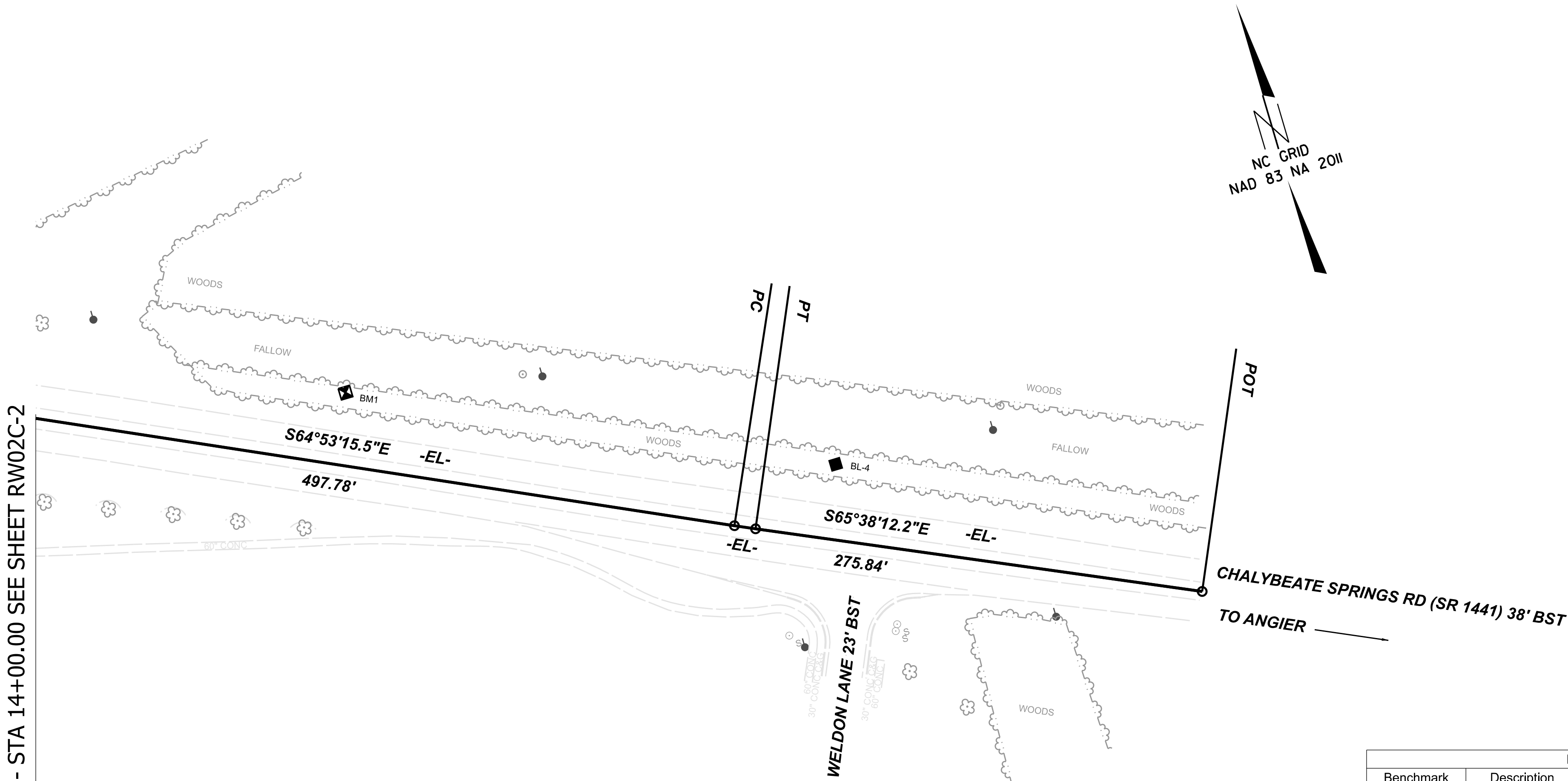
PROJECT: HS-2006K
County: HARNETT

LOCATION AND
SURVEYS UNIT

PREPARED BY

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700 SUMNER BLVD.
SUITE 106
ALEIGH, NC 27616
(919) 544-1100
WWW.GEL-SOLUTIONS.COM

SURVEY CONTROL SHEET
W/EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION



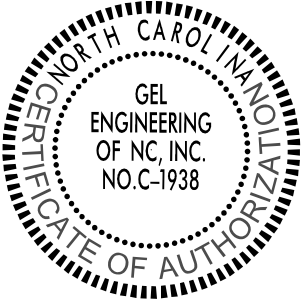
BL POINTS TABLE				
Benchmark	Description	Northing	Easting	Elevation
1	HS-2006K BL-1	642175.2616	2070124.6880	224.76
2	HS-2006K BL-2	642180.2799	2070816.5840	234.47
3	HS-2006K BL-3	641929.4147	2071329.4230	233.85
4	HS-2006K BL-4	641760.9412	2071878.1410	263.27
111	R-5705B BY6-111	641456.4810	2072412.1950	285.49
39	R-5705B BL-39	641253.7273	2072990.6306	309.13

BENCH MARK TABLES				
Benchmark	Northing	Easting	Elevation	Description
BM1	641887.5557	2071602.857	244.36	RR SPIKE IN BASE OF 12" OAK

EXISTING ALIGNMENT NAME:EL								
POINT	NORTHING	EASTING	BEARING	DIST	DELTA	D	L	T
POT	642157.6452	2070225.2851						
LINE			S89°34'14.8"E	468.4003				
PC	642154.1363	2070693.6722						
CURVE					23°31'34.3" Right	18°04'29.3"	427.03	216.57
PT	642064.5819	2071108.1477						1040.00
LINE			S66°02'40.6"E	252.6778				
PC	641961.9883	2071339.0603						
CURVE					01°09'25.1" Right	18°47'52.0"	20.19	10.10
PT	641953.6036	2071357.4300						1000.00
LINE			S64°53'15.5"E	497.7813				
PC	641742.3478	2071808.1596						
CURVE					00°44'56.8" Left	18°47'52.0"	13.07	6.54
PT	641736.8766	2071820.0341						1000.00
LINE			S65°38'12.2"E	275.8395				
POT	641623.0872	2072071.3096						

I, Parks H. Icenhour Jr., PLS, CERTIFY THAT THE PROJECT CONTROL WAS PERFORMED UNDER MY SUPERVISION FROM AN ACTUAL GPS SURVEY MADE UNDER MY SUPERVISION AND THE FOLLOWING INFORMATION WAS USED TO PERFORM THE SURVEY:

CLASS OF SURVEY: **AA**
TYPE OF GPS FIELD PROCEDURE: STATIC
DATES OF SURVEY: 3/1/2018 - 7/19/2018
DATUM/EPOCH:NAD 83/ NA 2011
PUBLISHED/FIXED-CONTROL USE: Utilized
LOCALIZED AROUND: R5705/U5751-AZ1
NORTHING: 644697.210
EASTING: 2075359.162
COMBINED GRID FACTOR: 0.99987346
GEOID MODEL: G12NC
UNITS:US SURVEY FEET



I ALSO CERTIFY THAT THE BASELINE CONTROL FOR THIS PROJECT WAS COMPLETED UNDER MY DIRECT AND RESPONSIBLE CHARGE FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION; THAT ALL HORIZONTAL CLOSURES HAD A MINIMUM RATIO OF PRECISION OF 1:20,000 (CLASS AA) AND VERTICAL ACCURACY TO CLASS A. FIELD WORK WAS PERFORMED FROM 3/1/2018 TO 7/19/2018 , AND ALL COORDINATES ARE BASED ON NAD 83/NA 2011 AND ALL ELEVATIONS ARE BASED ON NAVD 88; THAT THIS SURVEY WAS PERFORMED TO MEET THE REQUIREMENTS OF 21NCAC 56.1600 AS APPLICABLE.

THIS 16th DAY OF MAY, 2025.

PROFESSIONAL LAND SURVEYOR L-3996

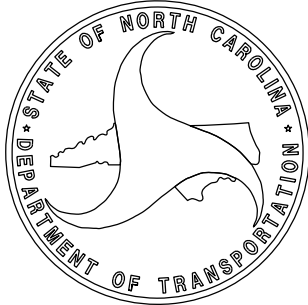
NOTES:

1. THE PROPOSED ALIGNMENT CONTROL DATA FOR THIS PROJECT HAS BEEN COMPILED FROM VARIOUS SOURCES. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

HS-2006K

R/W 02C-2

NORTH CAROLINA
DEPARTMENT
OF TRANSPORTATION



PROFESSIONAL LAND
SURVEYOR

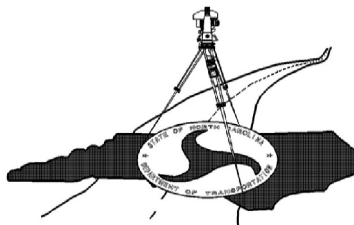


DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL SIGNATURES
ARE COMPLETED

2024 STANDARD
SPECIFICATIONS

TIP PROJECT: HS-2006K
County: HARNETT

PREPARED FOR



LOCATION AND
SURVEYS UNIT

PREPARED BY

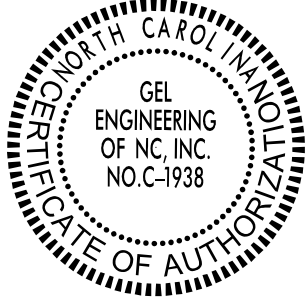
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2700 SUMNER BLVD.
SUITE 106
RALEIGH, NC 27616
(919) 544-1100
WWW.GEL-SOLUTIONS.COM

PROPOSED ALIGNMENT CONTROL SHEET

I, Parks H. Icenhour JR., PLS, CERTIFY THAT THE DATA COMPILED CAME FROM AVAILABLE SURVEYS/MAPPING PERFORMED BY OTHERS AND PROVIDED TO ME BY NCDOT AND DO NOT CERTIFY TO THE ACCURACY OR QUALITY OF THE INDIVIDUAL DATA SOURCES.

THIS 15th DAY OF MAY, 2025.

PROFESSIONAL LAND SURVEYOR L-3996



HS-2006K

R/W020-I

NORTH CAROLINA
DEPARTMENT
OF TRANSPORTATION

PROFESSIONAL LAND
SURVEYOR

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL SIGNATURES
ARE COMPLETED

2024 STANDARD
SPECIFICATIONS

PROPOSED ALIGNMENT: L												
POINT	STATION	NORTHING	EASTING	BEARING	DIST	DELTA	D	L	T	R	LT	ST
POT	10+00.00	642157.6452	2070225.2851	S89°34'14.8"E	463.09							
PC	14+63.09	642154.1761	2070688.3666	S77°13'45.2"E	478.78	24°40'59.4"	05°06'56.5"	482.50	245.05	1120.00		
PT	19+45.59	642048.3420	2071155.2989	S64°53'15.5"E	577.19							
PC	25+22.79	641803.3841	2071677.9342	S65°15'43.9"E	300.71	00°44'56.8"	00°14'56.8"	300.71	150.36	23000.00		
PT	28+23.50	641677.5480	2071951.0464	S65°38'12.2"E	132.02							
POT	29+55.52	641623.0872	2072071.3096									

PROPOSED ALIGNMENT: Y1												
POINT	STATION	NORTHING	EASTING	BEARING	DIST	DELTA	D	L	T	R	LT	ST
POT	10+00.00	642140.7274	2070853.2215	N05°17'26.9"E	118.33							
POT	11+18.33	642258.5567	2070864.1331									

PROPOSED ALIGNMENT: Y2												
POINT	STATION	NORTHING	EASTING	BEARING	DIST	DELTA	D	L	T	R	LT	ST
POT	10+00.00	641876.0592	2071239.8386	N40°44'25.4"E	37.01							
PC	10+37.01	641904.0979	2071263.9901	N33°31'05.9"E	25.14	14°26'39.0"	57°17'44.8"	25.21	12.67	100.00		
PT	10+62.22	641925.0599	2071277.8742	N26°17'46.4"E	26.16							
HPI	10+88.37	641948.5098	2071289.4619	N26°17'46.4"E	33.46							
POT	11+21.84	641978.5115	2071304.2872									

NOTES:

1. THE PROPOSED ALIGNMENT CONTROL DATA FOR THIS PROJECT HAS BEEN COMPILED FROM VARIOUS SOURCES. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

TIP PROJECT: HS-2006K
County: HARNETT

PREPARED FOR

LOCATION AND
SURVEYS UNIT

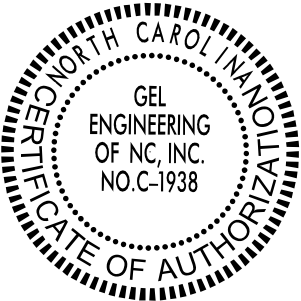
PREPARED BY

GEL SOLUTIONS
an Affiliate of THE GEL GROUP, INC.
2700 SUMNER BLVD.
SUITE 108
RALEIGH, NC 27616
(919) 544-1100
WWW.GEL-SOLUTIONS.COM

RIGHT OF WAY CONTROL SHEET

I, PARKS H. ICENHOUR JR., PLS, CERTIFY THAT THE RIGHT OF WAY AND PERMANENT EASEMENT MONUMENTATION FOR THIS PROJECT SHOWN HEREIN WAS COMPLETED UNDER MY DIRECT AND RESPONSIBLE CHARGE FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION; THAT ALL HORIZONTAL CLOSURES HAD A MINIMUM RATIO OF PRECISION OF 1:10,000 (CLASS A). FIELD WORK WAS PERFORMED FROM APRIL 9th 2025 TO APRIL 11th 2025, AND ALL COORDINATES ARE BASED ON NAD83/NA 2011; THAT THIS SURVEY WAS PERFORMED TO MEET THE REQUIREMENTS OF 21NCAC 56.1600 AS APPLICABLE.

THIS 15th DAY OF MAY, 2025.



PROFESSIONAL LAND SURVEYOR L-3996

HS-2006K

R/W03E-1

NORTH CAROLINA
DEPARTMENT
OF TRANSPORTATION

PROFESSIONAL LAND
SURVEYOR

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL SIGNATURES
ARE COMPLETED

2024 STANDARD
SPECIFICATIONS

PERMANENT ROW MARKER IRON PIN AND CAP: L			
STATION	OFFSET	NORTH	EAST
16+60.00	30.34	642105.6088	2070878.5997
16+60.00	46.00	642090.2114	2070875.7453
17+64.32	-55.50	642165.0762	2071000.8135
19+39.52	46.00	642009.1434	2071130.4980
19+45.59	-55.50	642098.5960	2071178.8528
21+19.22	-40.00	642010.8739	2071329.4916
21+20.00	-55.50	642024.5804	2071336.7704
22+10.00	-40.00	641972.3482	2071411.6890
22+10.00	-30.00	641963.2934	2071407.4451

NOT SET UNDER WATER

NOTES:

1. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

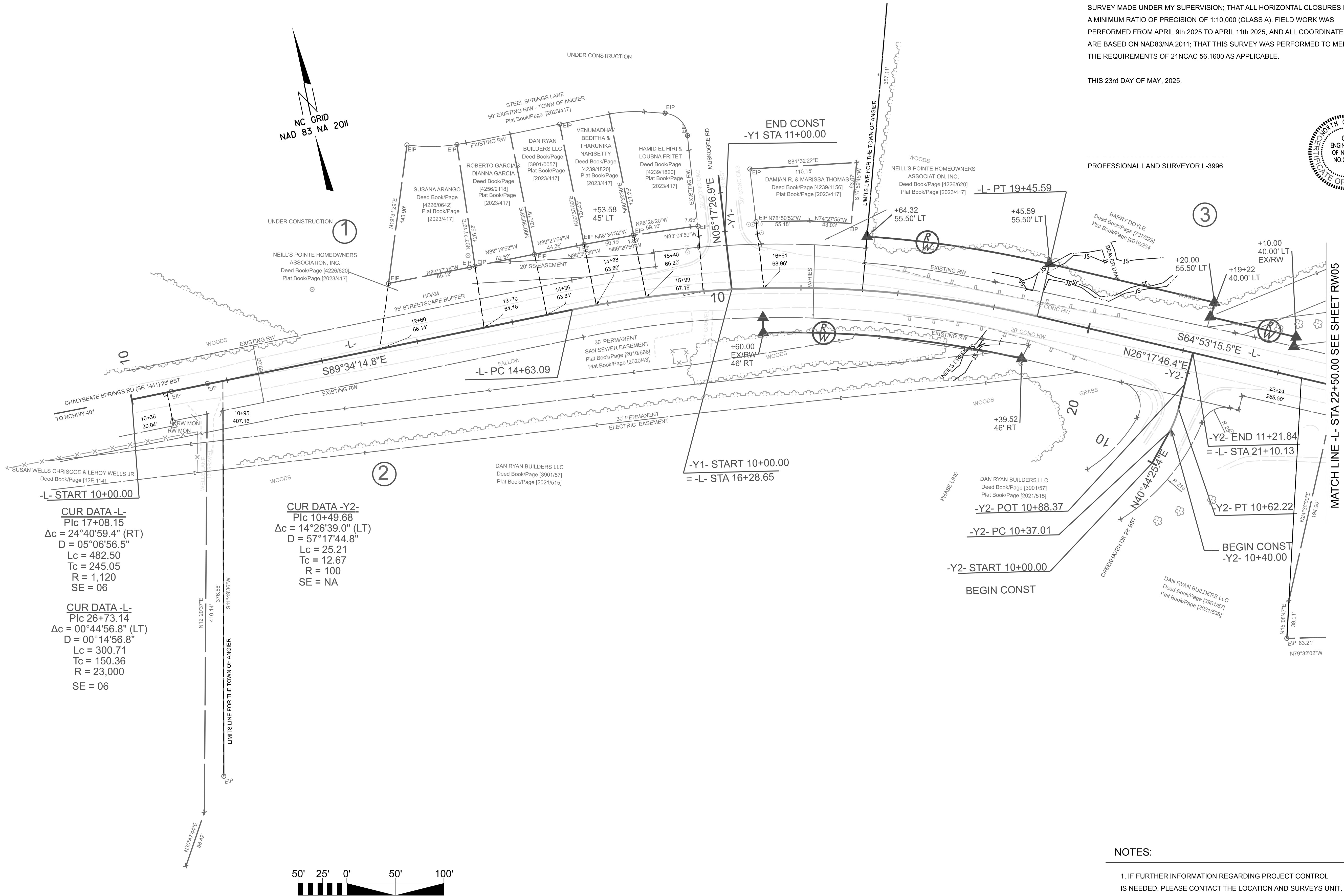
TIP PROJECT: HS-2006K
County: HARNETT

PREPARED FOR

LOCATION AND
SURVEYS UNIT

PREPARED BY

an Affiliate of THE GEL GROUP, INC.
2760 SUMNER BLVD.
SUITE 108
RALEIGH, NC 27616
(919) 544-1100
WWW.GEL-SOLUTIONS.COM



HS-2006K

R/W04

NORTH CAROLINA
DEPARTMENT
OF TRANSPORTATION

PROFESSIONAL LAND
SURVEYOR

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL SIGNATURES
ARE COMPLETED

2024 STANDARD
SPECIFICATIONS

TIP PROJECT: HS-2006K

County: HARNETT

PREPARED FOR

LOCATION AND
SURVEYS UNIT

PREPARED BY

GEL SOLUTIONS

an Affiliate of THE GEL GROUP, INC.

2700 SUMMER BLVD.

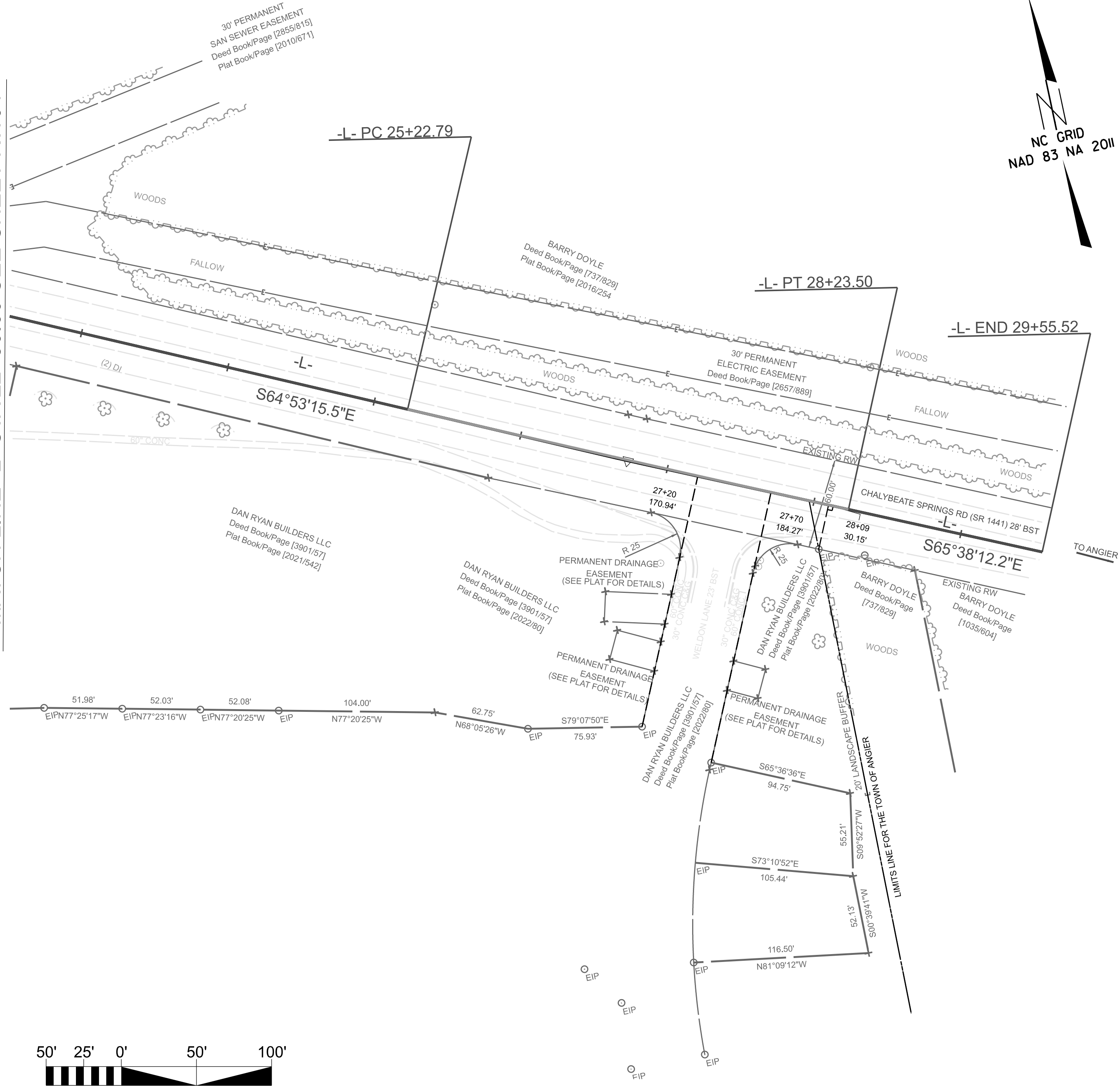
SUITE 106

RALEIGH, NC 27616

(919) 544-1100

WWW.GEL-SOLUTIONS.COM

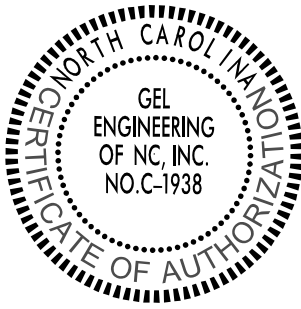
MATCH LINE -L- STA 22+50.00 SEE SHEET RW04



I, Parks H. Icenhour Jr., PLS, CERTIFY THAT THE RIGHT OF WAY AND PERMANENT EASEMENT MONUMENTATION FOR THIS PROJECT SHOWN HEREIN WAS COMPLETED UNDER MY DIRECT AND RESPONSIBLE CHARGE FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION; THAT ALL HORIZONTAL CLOSURES HAD A MINIMUM RATIO OF PRECISION OF 1:10,000 (CLASS A). FIELD WORK WAS PERFORMED FROM APRIL 9th 2025 TO APRIL 11th 2025, AND ALL COORDINATES ARE BASED ON NAD83/NA 2011; THAT THIS SURVEY WAS PERFORMED TO MEET THE REQUIREMENTS OF 21NCAC 56.1600 AS APPLICABLE.

THIS 23rd DAY OF MAY, 2025.

PROFESSIONAL LAND SURVEYOR L-3996



HS-2006K

R/W05

NORTH CAROLINA
DEPARTMENT
OF TRANSPORTATION

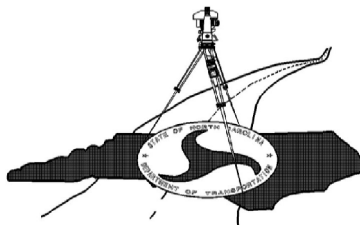
PROFESSIONAL LAND
SURVEYOR

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL SIGNATURES
ARE COMPLETED

2024 STANDARD
SPECIFICATIONS

TIP PROJECT: HS-2006K
County: HARNETT

PREPARED FOR



LOCATION AND
SURVEYS UNIT

PREPARED BY

NOTES:

- IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

GEL SOLUTIONS
an Affiliate of THE GEL GROUP, INC.
2700 SUMNER BLVD.
SUITE 106
RALEIGH, NC 27616
(919) 644-1100
WWW.GEL-SOLUTIONS.COM

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND SIGNING PLAN

HARNETT COUNTY
LOCATION: SR1141 (CHALYBEATE SPRINGS RD)
BETWEEN NC 55 AND US 401

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
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING (SHEETS 1 AND 3)
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

SYMBOL	DESCRIPTION
THERMOPLASTIC (4", 90 MILS)	
T1:	WHITE EDGELINE
T2:	WHITE SOLID LANE LINE
T4:	3 FT.- 9 FT./SP WHITE MINISKIP
T13:	YELLOW DOUBLE CENTER
THERMOPLASTIC (12", 90 MILS)	
T52:	YELLOW DIAGONAL
THERMOPLASTIC PAVEMENT MARKING SYMBOLS (90 MILS)	
T70:	LEFT TURN ARROW
T71:	RIGHT TURN ARROW

PAVEMENT MARKING 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:
- | | | |
|---------------------------------|---------------|---------------|
| SR 1141 (CHALYBEATE SPRINGS RD) | THERMOPLASTIC | RAISED MARKER |
|---------------------------------|---------------|---------------|
- B) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- C) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS.

SIGNING GENERAL NOTES

- . IF REMOVAL OR RELOCATION OF SIGNS ON PRIVATE STREET (NON-STATE MAINTAINED) IS REQUIRED DUE TO CONSTRUCTION, THE CONTRACTOR SHALL INFORM THE ENGINEER. THE WORK WILL BE COMPLETED BY OTHERS.
- . SEE ROADWAY PLANS FOR GUARD/GUIDE RAIL DETAILS.

SUMMARY OF QUANTITIES

ITEM NO.		ITEM DESCRIPTION	QUANTITY	UNIT
DESC. NO.	SECT. NO.			
4685000000	1205	THERMOPLASTIC (4", 90 MILS)	4889	L.F.
4700000000	1205	THERMOPLASTIC (12", 90 MILS)	294	L.F.
4725000000	1205	THERMOPLASTIC PAVEMENT MARKING SYMBOLS (90 MILS)	5	EA
4875000000	1205	REMOVAL OF PAVEMENT MARKING SYMBOLS & CHARACTERS	1	EA
4900000000	1205	PERMANENT RAISED PAVEMENT MARKERS (YELLOW & YELLOW)	44	EA
4900000000	1205	PERMANENT RAISED PAVEMENT MARKERS (CRYSTAL & RED)	31	EA

INDEX

SHEET NO.	DESCRIPTION
PMP-1	PAVEMENT MARKING AND SIGNING PLAN TITLE AND SCHEDULE SHEET
PMP-1A	RAISED PAVEMENT MARKING DETAIL SHEET
PMP-2	PAVEMENT MARKING AND SIGNING DETAILS

PLAN PREPARED BY: N.C.D.O.T. SIGNING AND DELINEATION UNIT

D. Mitch Eaton, PE SIGNING & DELINEATION REGIONAL ENGINEER
Peri Ela Akozer, EI SIGNING & DELINEATION PROJECT DESIGN ENGINEER

HS-2006K

PMP001

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

Desigined by:
David M. Eaton

APPROVED: DATE:06/04/2025

DATE:06/04/2025

SEAL:

NORTH CAROLINA
PROFESSIONAL
ENGINEER
DAVID M. EATON

SEAL
043780

INCOMPLETE PLANS
(DO NOT BE USED FOR CONSTRUCTION)

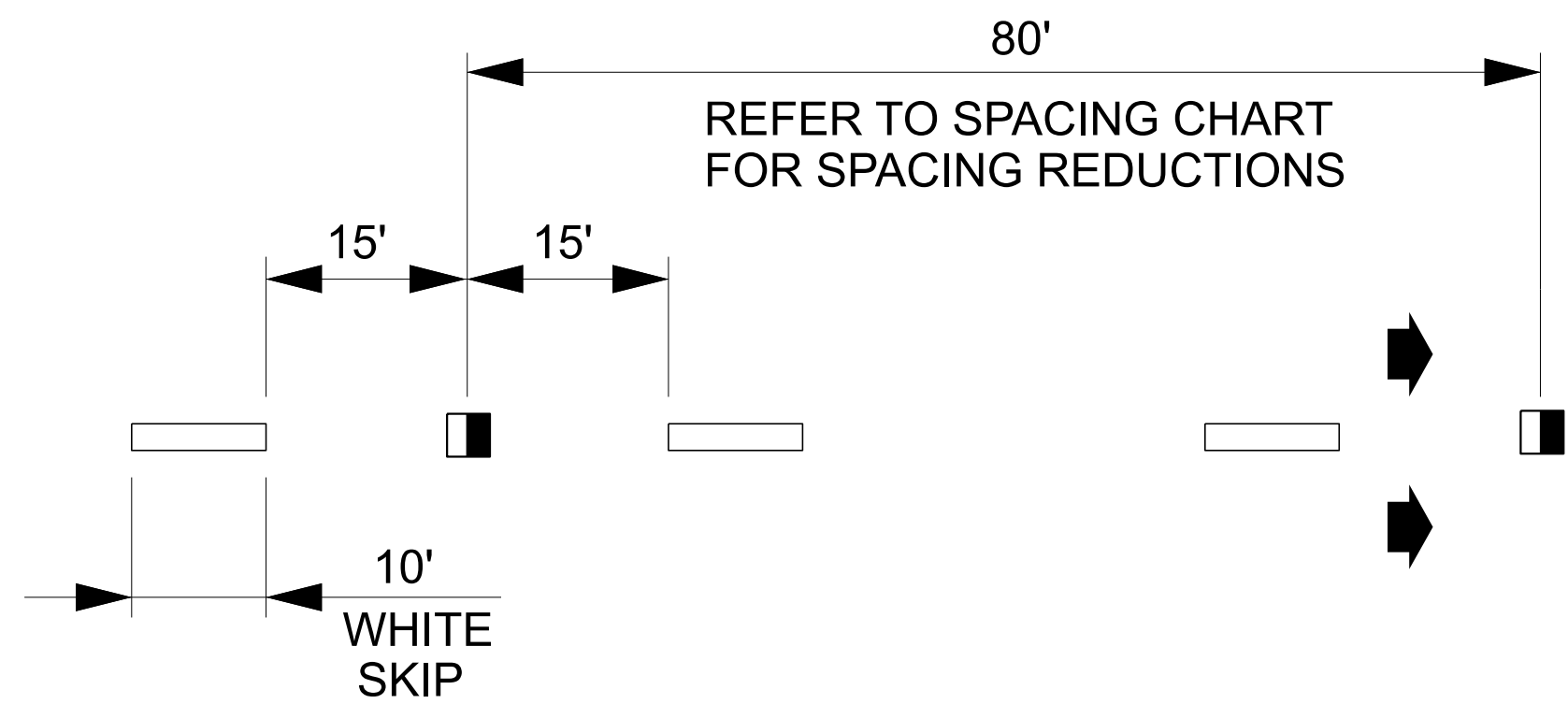
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

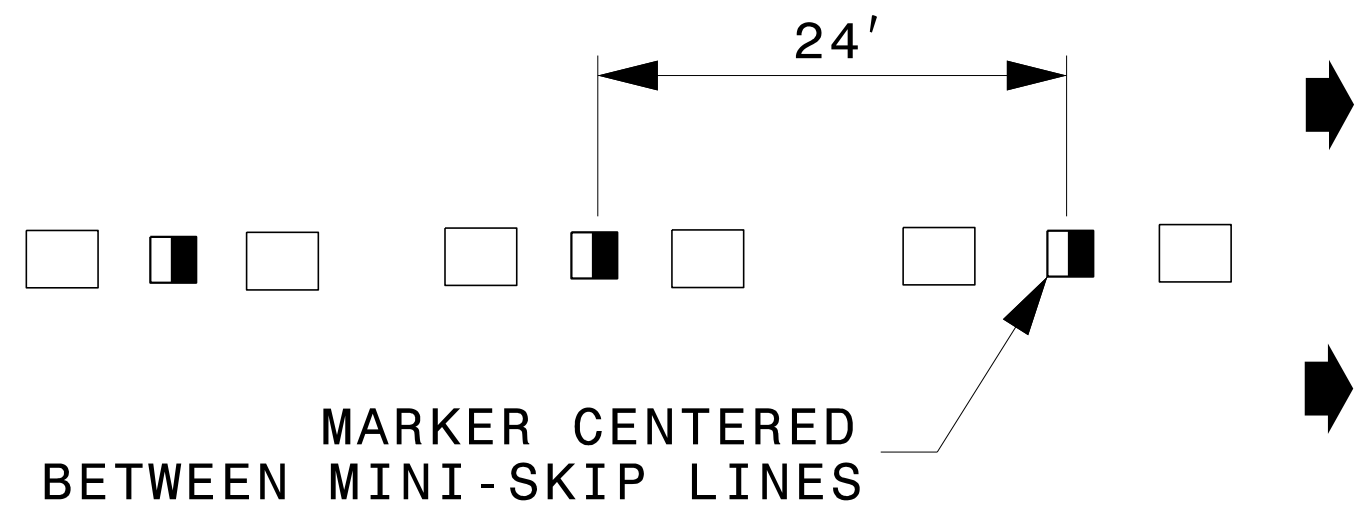
T.I.P.: HS-2006K

5/26/20

10'-30'/SP SKIP LINE



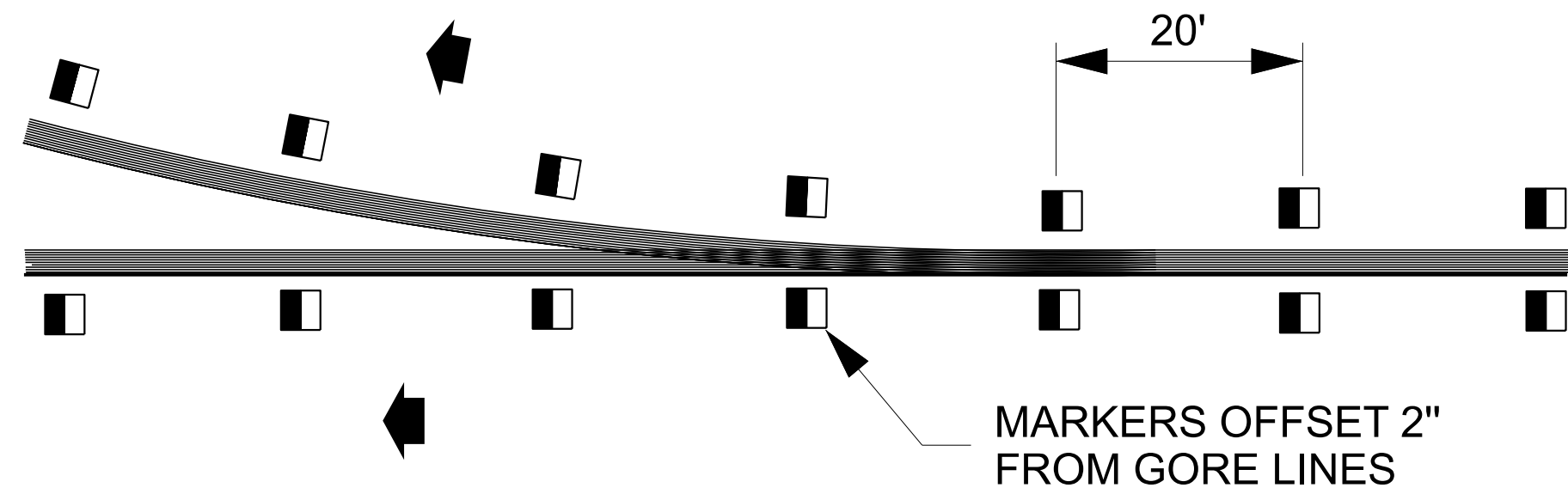
3'-9'/SP MINI-SKIP LINE



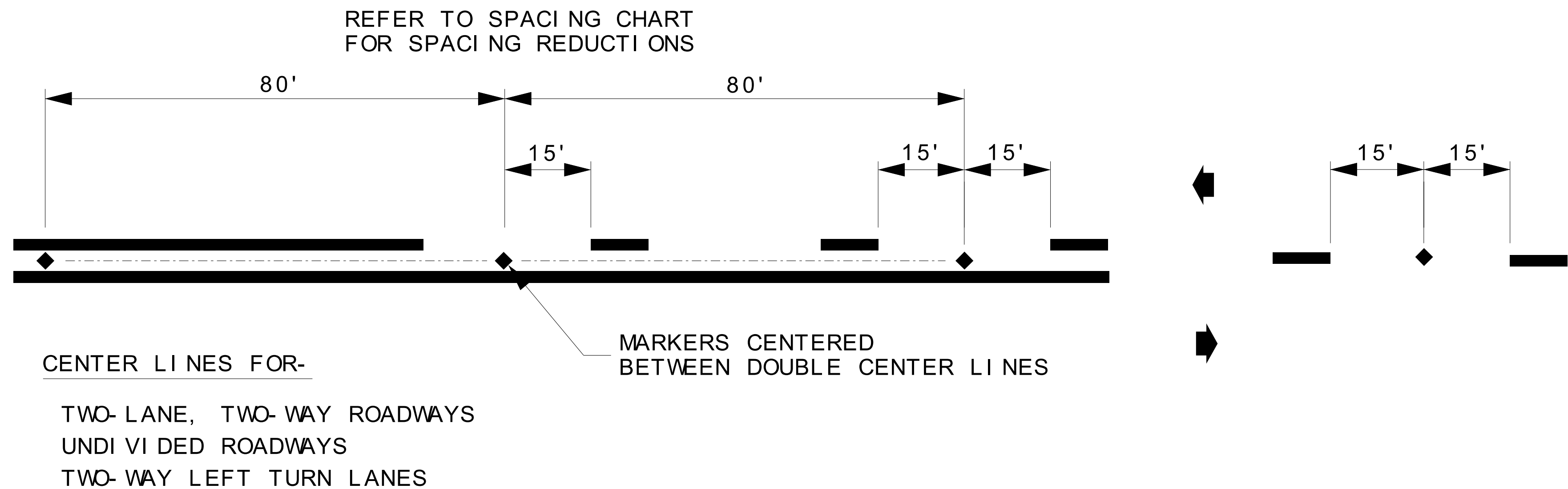
LEGEND

- CRYSTAL/RED PAVEMENT MARKER
- YELLOW YELLOW PAVEMENT MARKER
- DIRECTION OF TRAFFIC FLOW

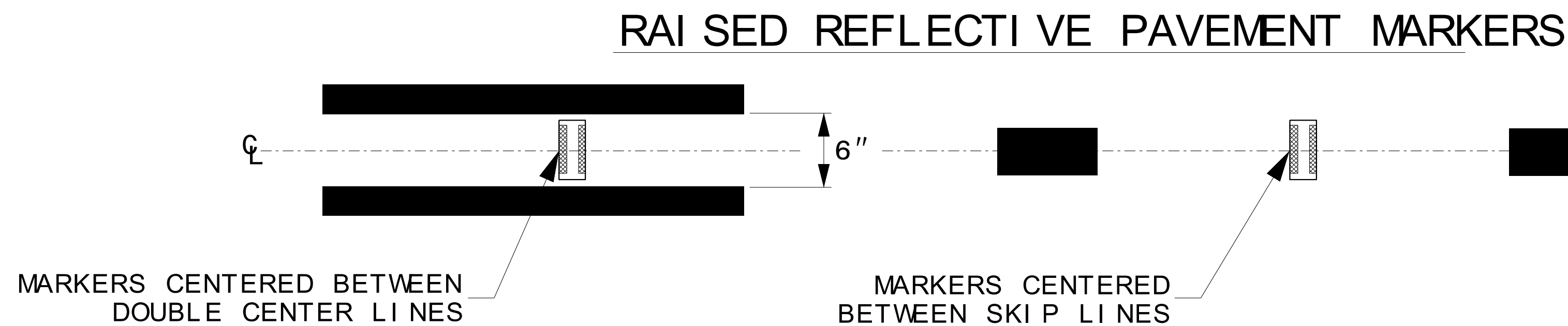
GORE LINES



YELLOW CENTER LINES



DETAIL OF PAVEMENT MARKER PLACEMENT



HS-2006K

PMPDIA

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

APPROVED: _____

DATE: _____

SEAL: _____

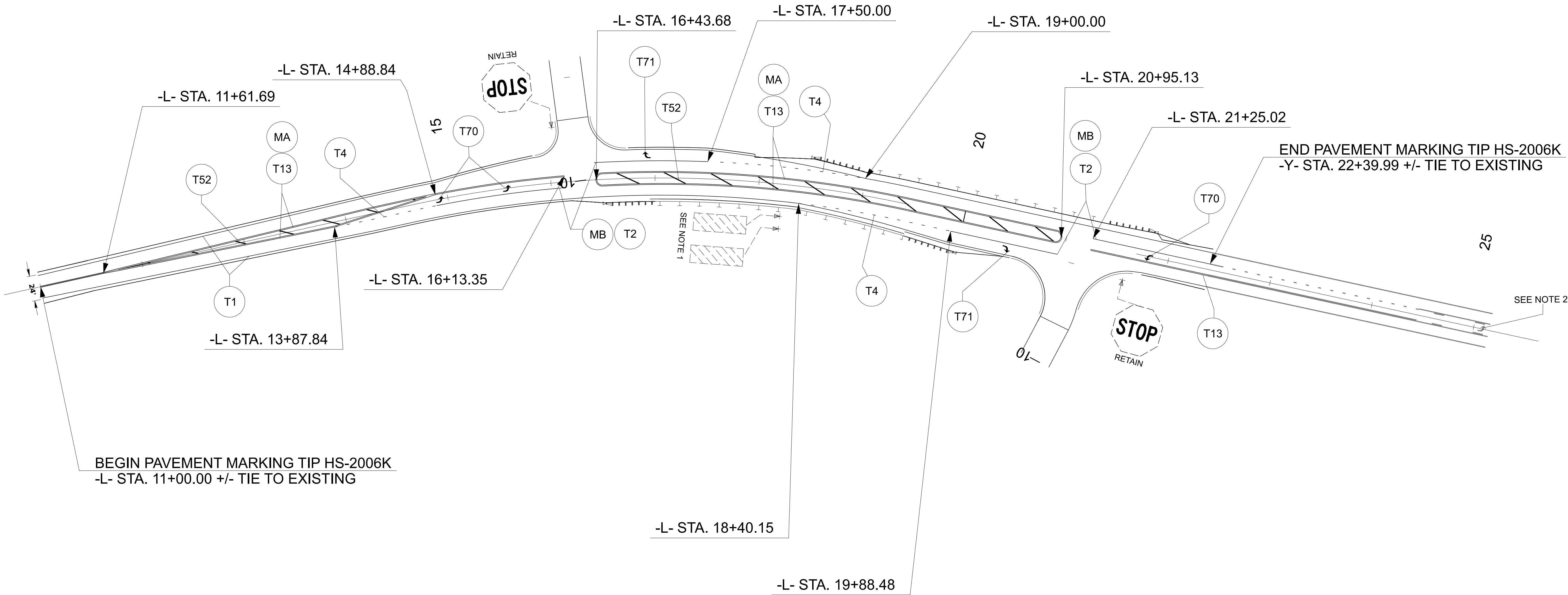
INCOMPLETE PLANS
DO NOT USE FOR CONSTRUCTION
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

1250D01
SHEET 2 OF 3

ROADWAY DETAIL DRAWING FOR
RASISED PAVEMENT MARKINGS
INSTALLATION SPACING

PAVEMENT MARKING CODES

- T1: WHITE EDGELINE (4", 90 MILS)
- T2: WHITE SOLID LANE LINE (4", 90 MILS)
- T4: 3 FT.- 9 FT./SP WHITE MINISKIP (4", 90 MILS)
- T13: YELLOW DOUBLE CENTER (4", 90 MILS)
- T52: YELLOW DIAGONAL (12", 90 MILS)
- T70: LEFT TURN ARROW (90 MILS)
- T71: RIGHT TURN ARROW (90 MILS)



SIGNING AND PAVEMENT MARKING NOTES

- 1. DISPOSAL OF SIGN SYSTEM, U-CHANNEL
- 2. REMOVAL OF PAVEMENT MARKING CHARACTER



HS-2006K

PMP002

NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

Designed by

David M. Eaton

APPROVED

DATE06/04/2025

SEAL

NORTH CAROLINA

PROFESSIONAL

SEAL

043780

ENGINEER

DAVID M. EATON

INCOMPLETE PLANS

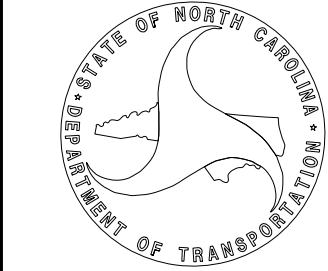
DO NOT USE FOR AS-BUILT RECORDS

DOCUMENT NOT CONSIDERED FINAL

UNLESS ALL SIGNATURES COMPLETED

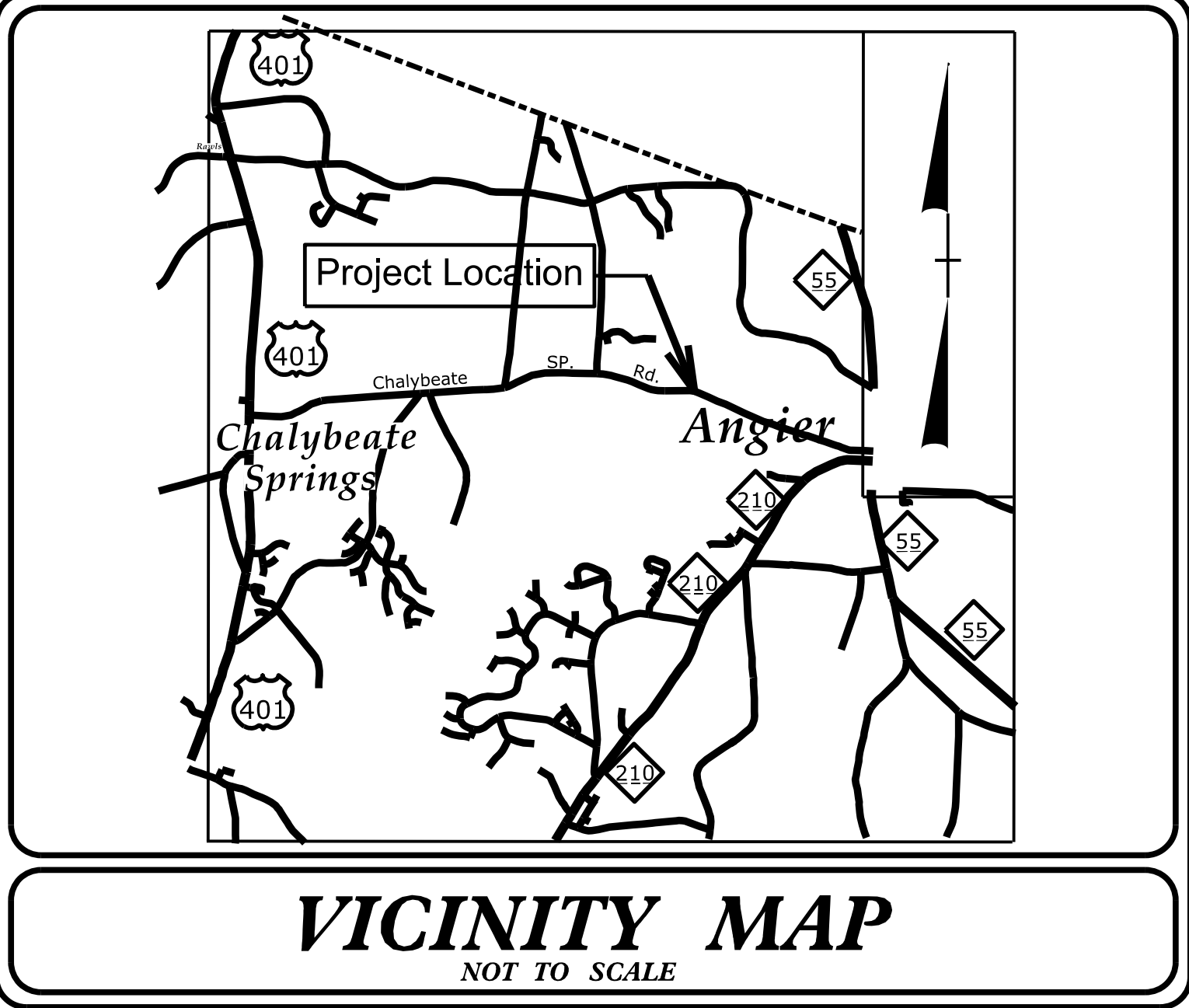
STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	HS-2006K	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

TIP PROJECT: HS-2006K

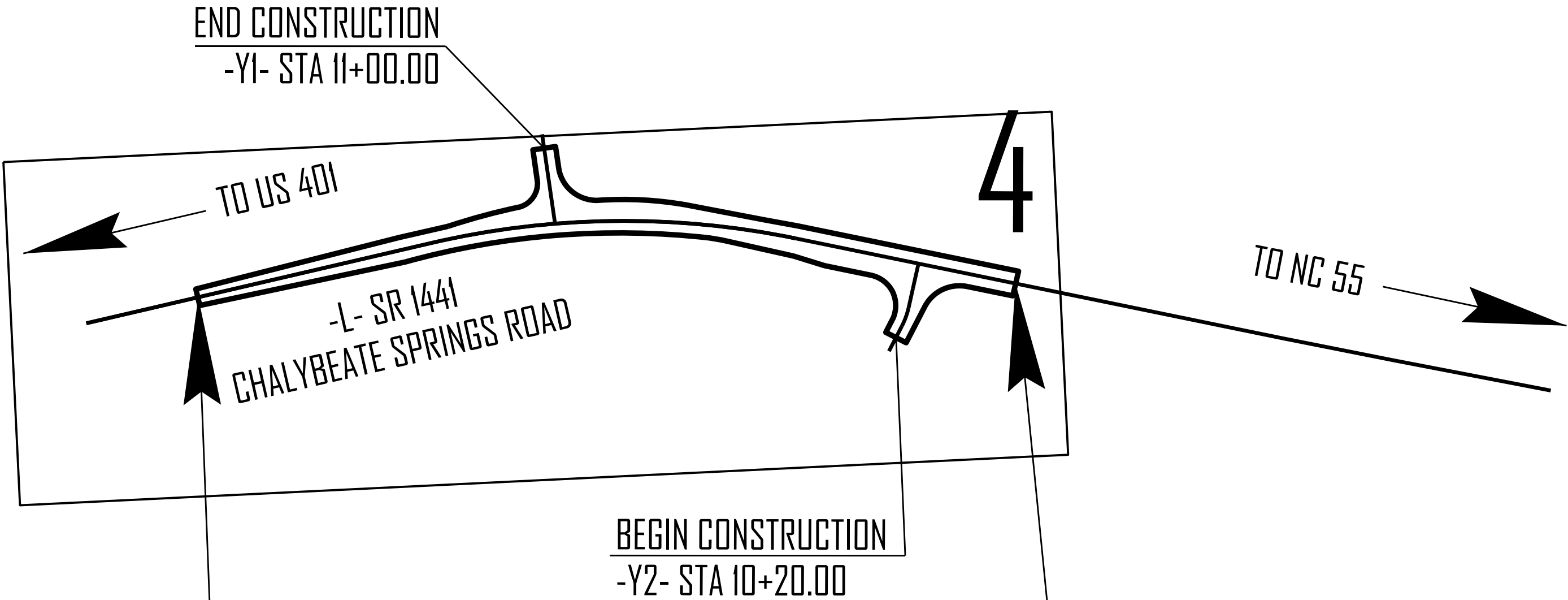


STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL
HARNETT COUNTY

LOCATION: *SR 1441 (CHALYBEATE SPRINGS ROAD)*

BETWEEN NC 55 AND US 401

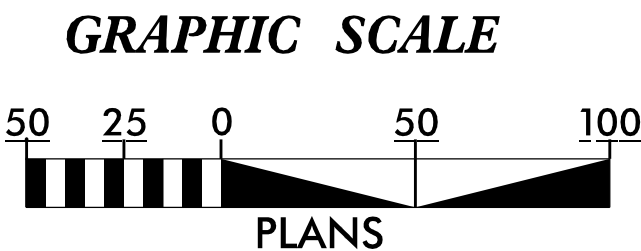
TYPE OF WORK: *GRADING, PAVING, AND DRAINAGE*



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

BEGIN TIP PROJECT HS-2006K
-L- STA 11+00.00

END TIP PROJECT HS-2006K
-L- STA 22+40.00



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.

Prepared In the Office of:
ROADSIDE ENVIRONMENTAL UNIT

1 South Wilmington St.
Raleigh, NC 27611

2024 STANDARD SPECIFICATIONS

Designed by:

Noelle Ring
NAME

3456
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

PROJECT REFERENCE NO.	SHEET NO.
HS-2006K	EC-02
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

EROSION & SEDIMENT CONTROL LEGEND

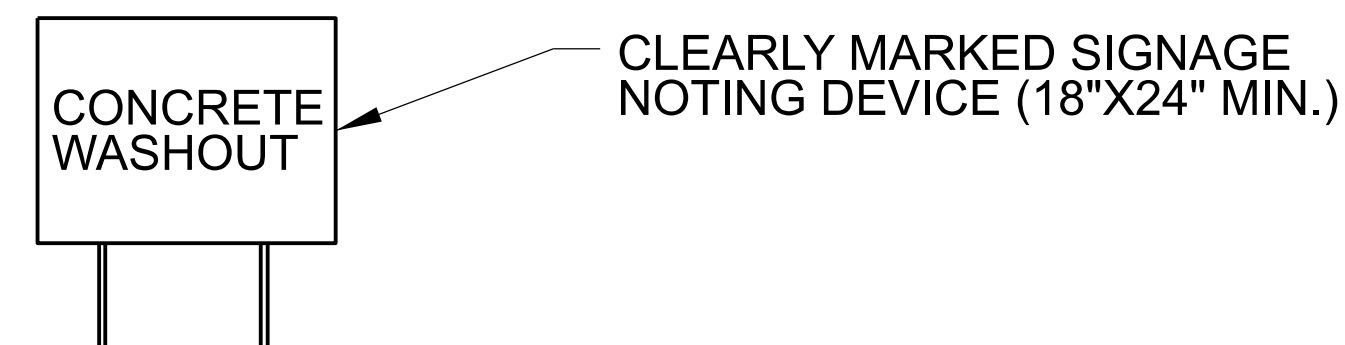
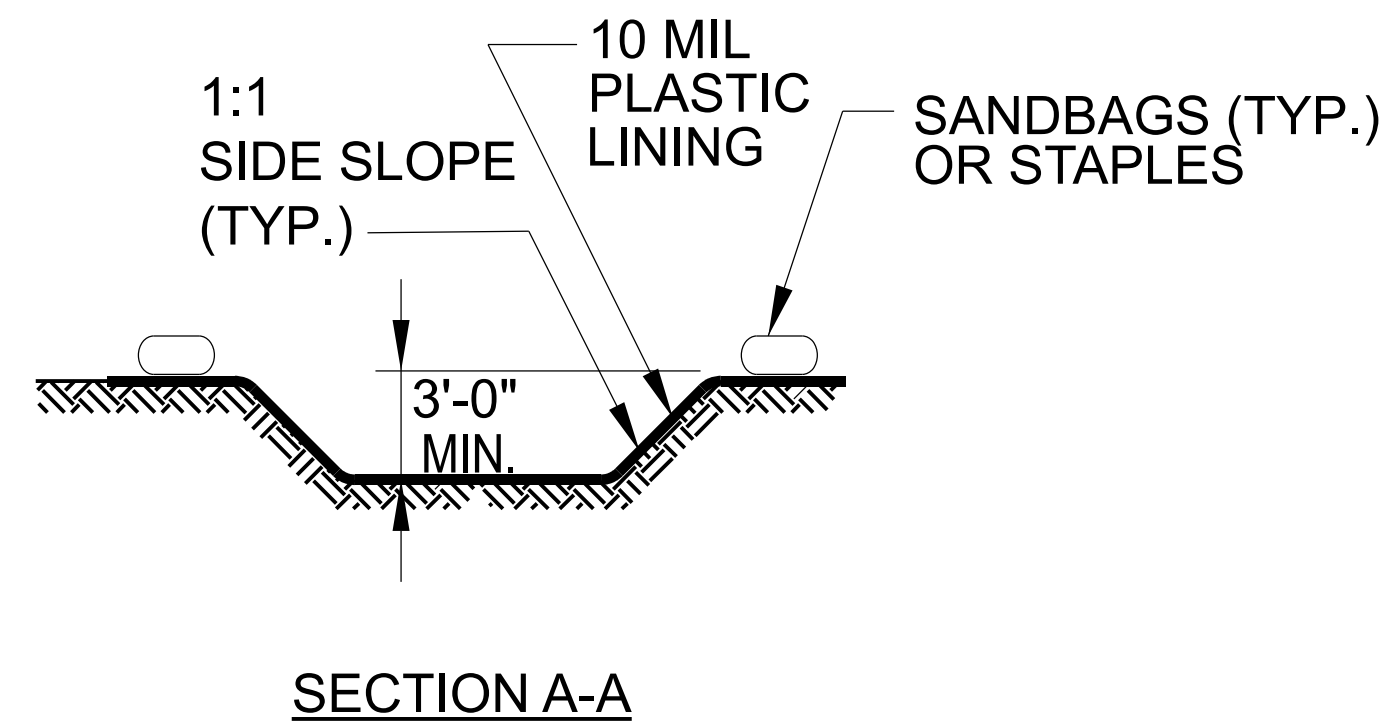
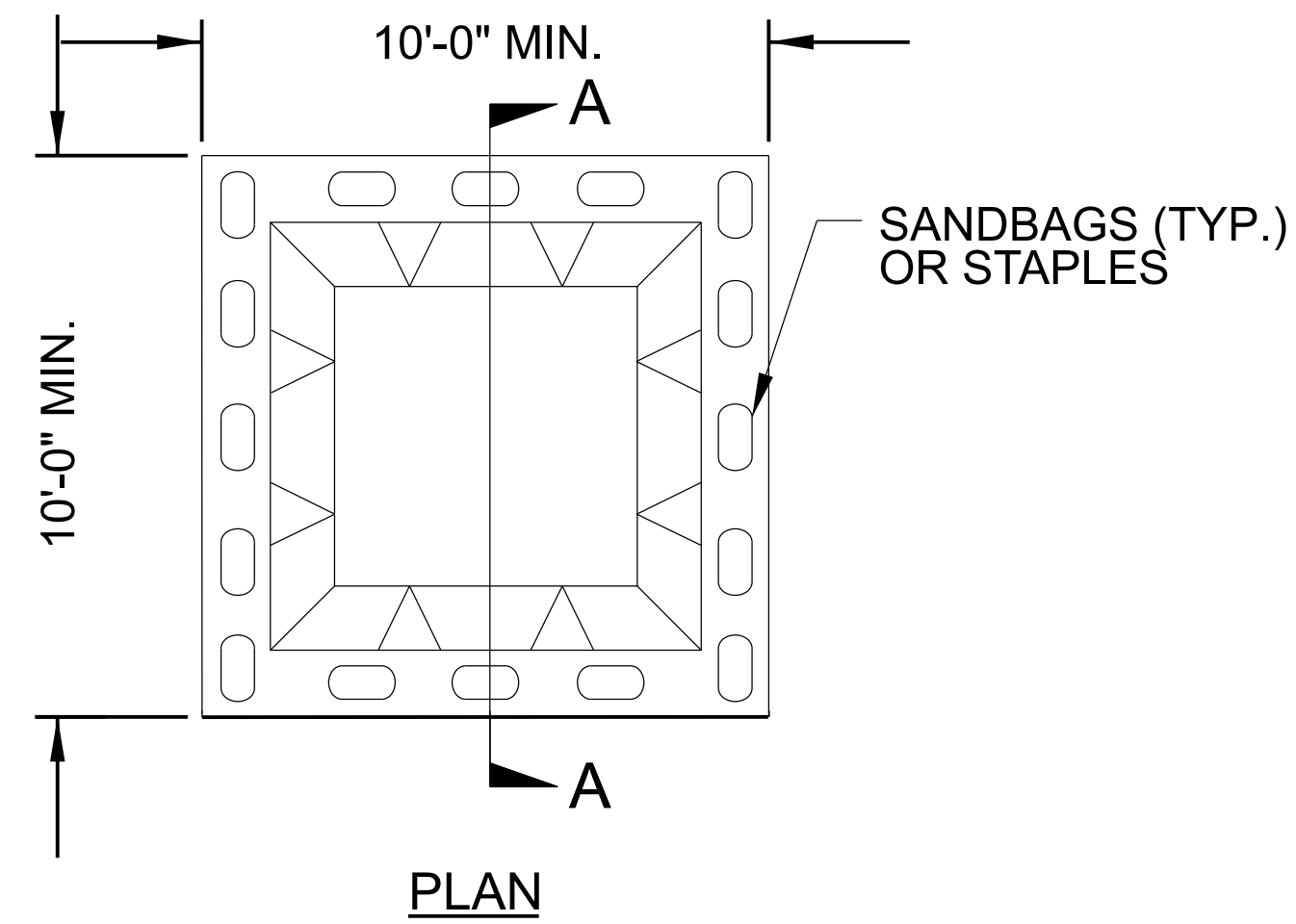
Std. #	Description	Symbol
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1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.02	Silt Basin Type B	
1630.03	Temporary Silt Ditch	
1630.04	Stilling Basin	
1630.05	Temporary Diversion	
1630.06	Special Stilling Basin	
1630.07	Skimmer Basin	
1630.08	Tiered Skimmer Basin	
1630.09	Earthen Dam with Skimmer	
	Infiltration Basin	
	Rock Inlet Sediment Trap:	
1632.01	Type A	
1632.02	Type B	
1632.03	Type C	

Std. #	Description	Symbol
1633.01	Temporary Rock Silt Check Type A	
1633.02	Temporary Rock Silt Check Type B	
1633.03	Temporary Rock Silt Check Type A with Excelsior Matting and Flocculant	
1634.01	Temporary Rock Sediment Dam Type A	
1634.02	Temporary Rock Sediment Dam Type B	
1635.01	Rock Pipe Inlet Sediment Trap Type A	
1635.02	Rock Pipe Inlet Sediment Trap Type B	
1636.01	Excelsior Wattle Check	
1636.01	Excelsior Wattle Check with Flocculant	
1636.01	Coir Fiber Wattle Check	
1636.01	Coir Fiber Wattle Check with Flocculant	
1636.02	Silt Fence Excelsior Wattle Break	
	Silt Fence Coir Fiber Wattle Break	
1636.03	Excelsior Wattle Barrier	
1636.03	Coir Fiber Wattle Barrier	

ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER

HS-2006K

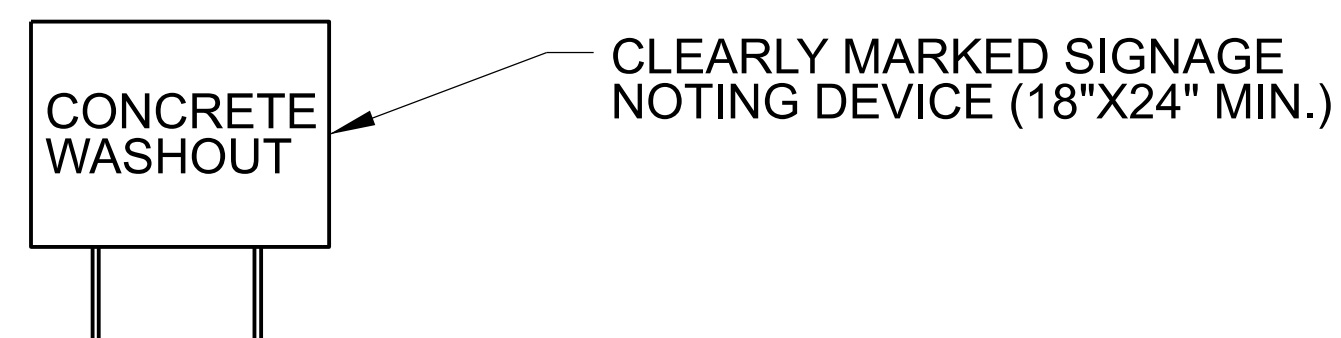
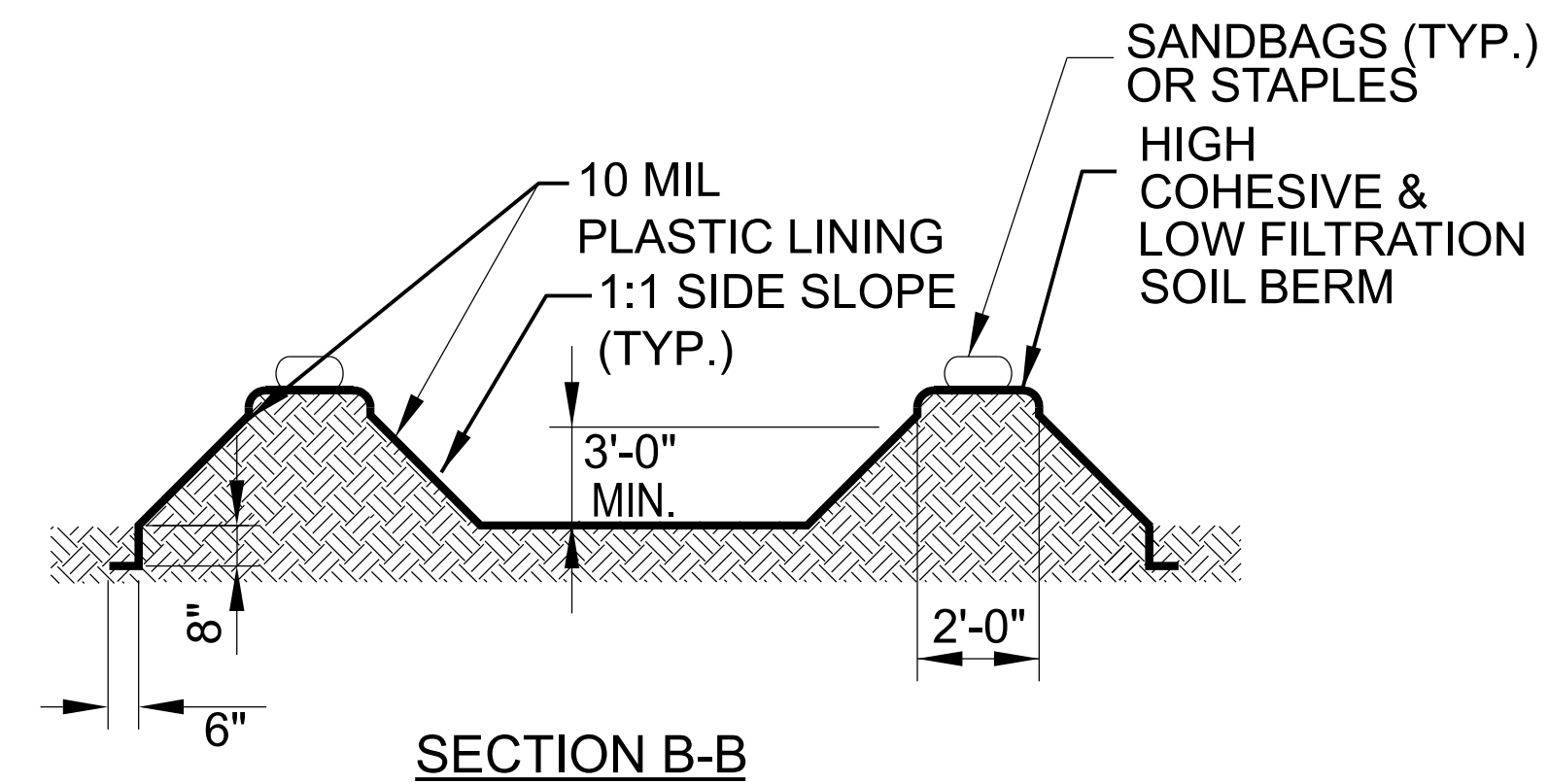
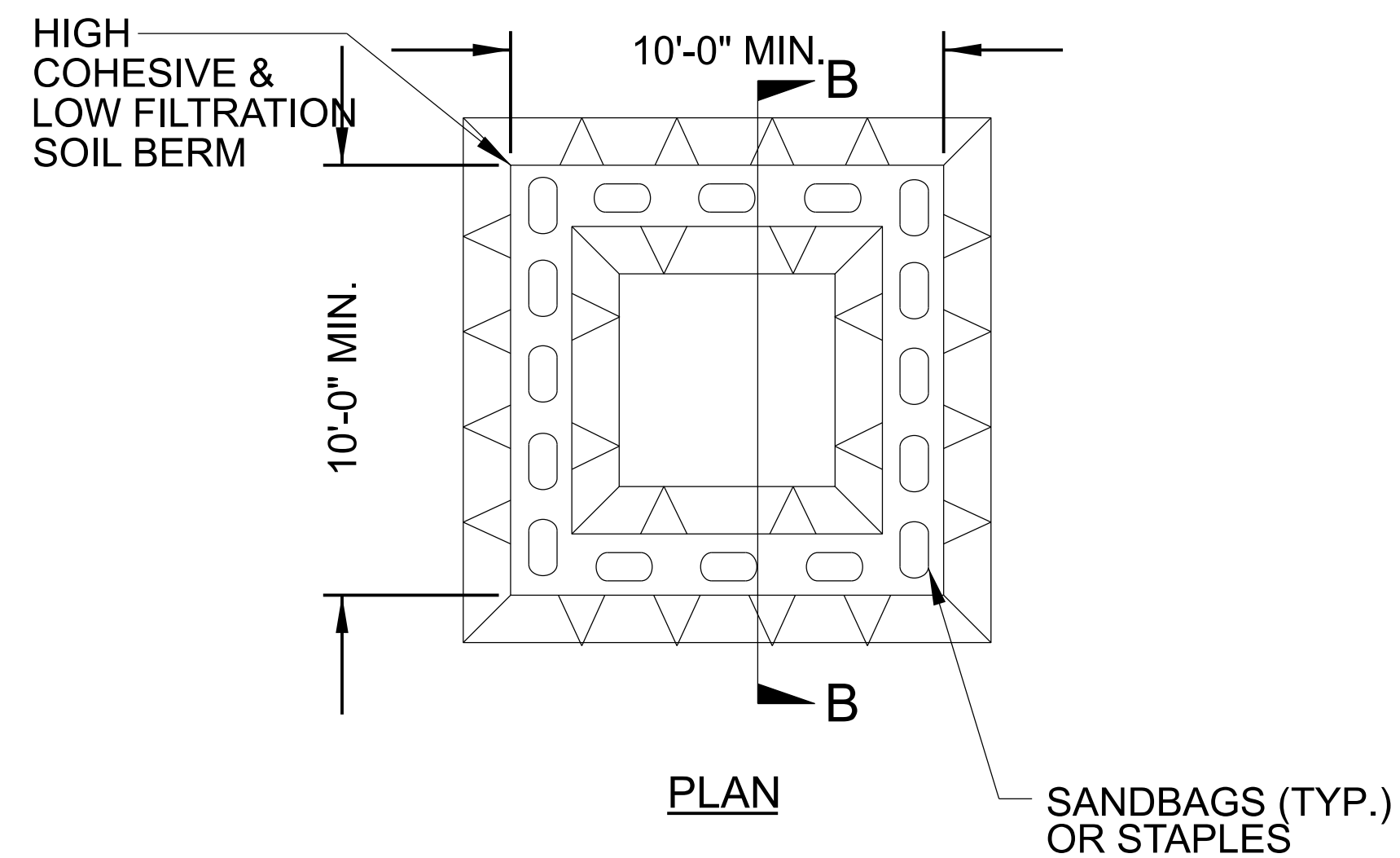
EC-2A



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

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.

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL (STRAW)

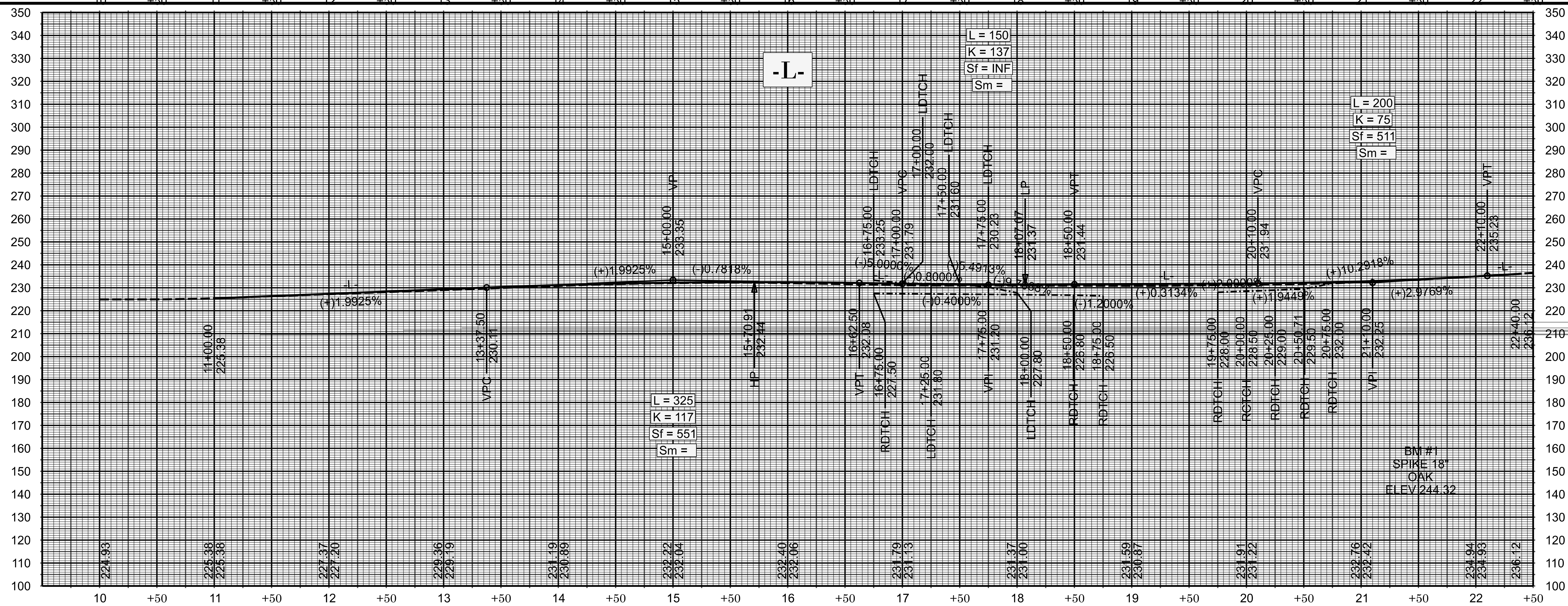
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DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

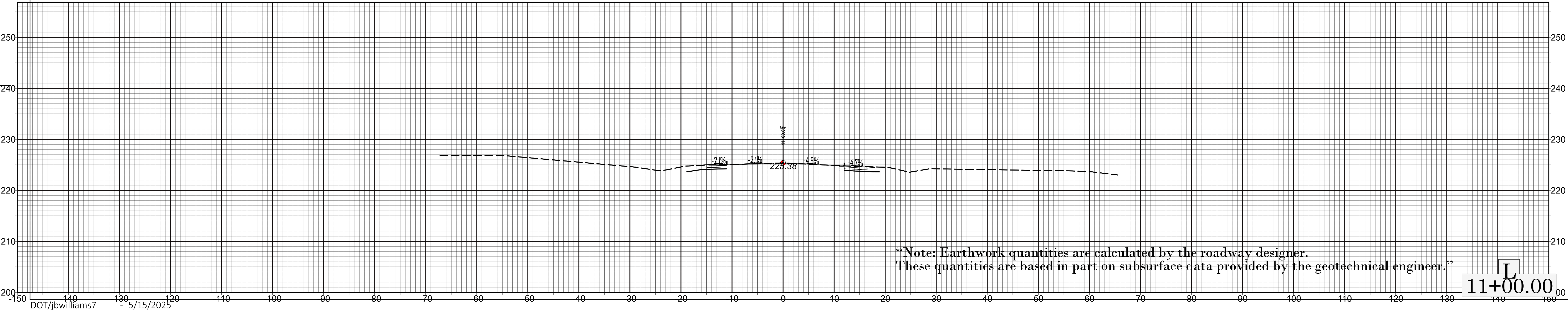
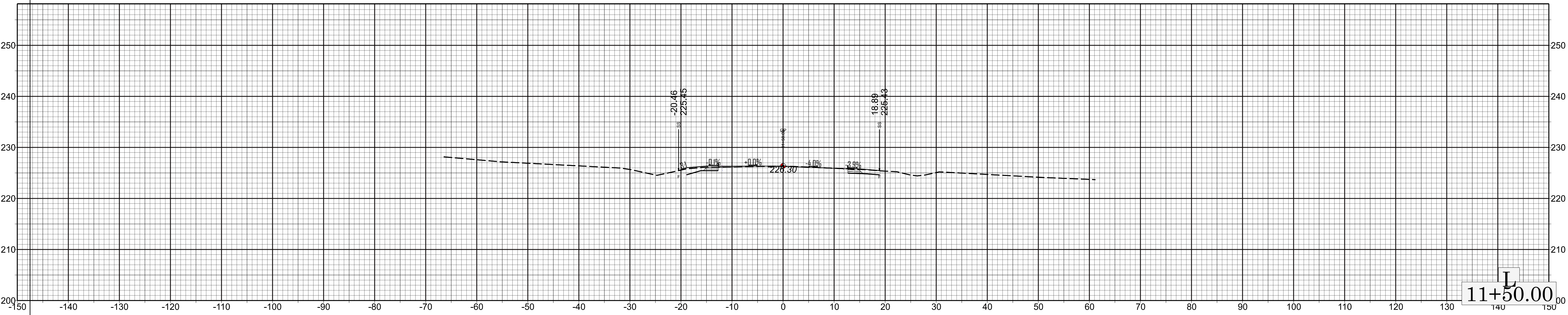
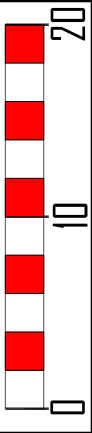
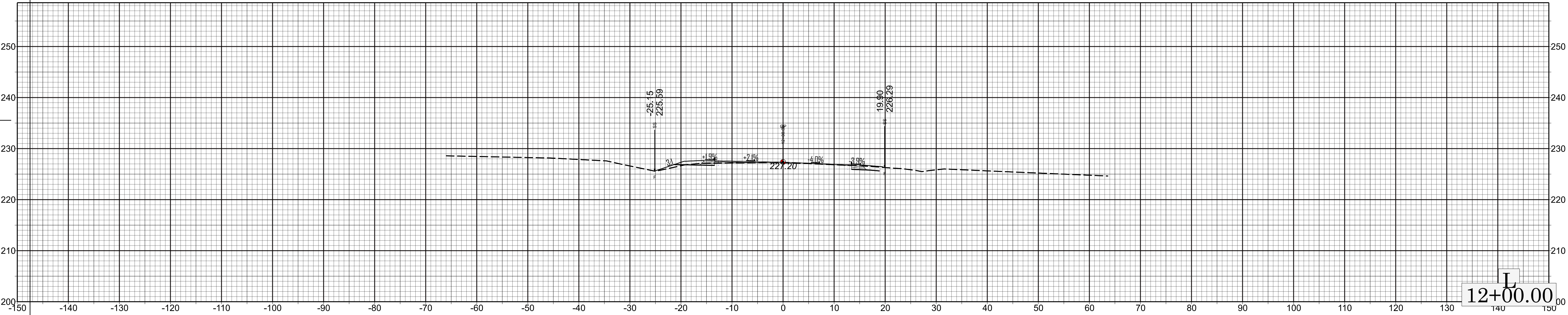
SOIL STABILIZATION TIMEFRAMES

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 TO 4:1	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH WITH SLOPES STEEPER THAN 4:1. 7 DAYS FOR PERIMETER DIKES, SWALES, DITCHES PERIMETER SLOPES, AND HQW ZONES
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	7 DAYS FOR PERIMETER DIKES, SWALES, DITCHES PERIMETER SLOPES, AND HQW ZONES





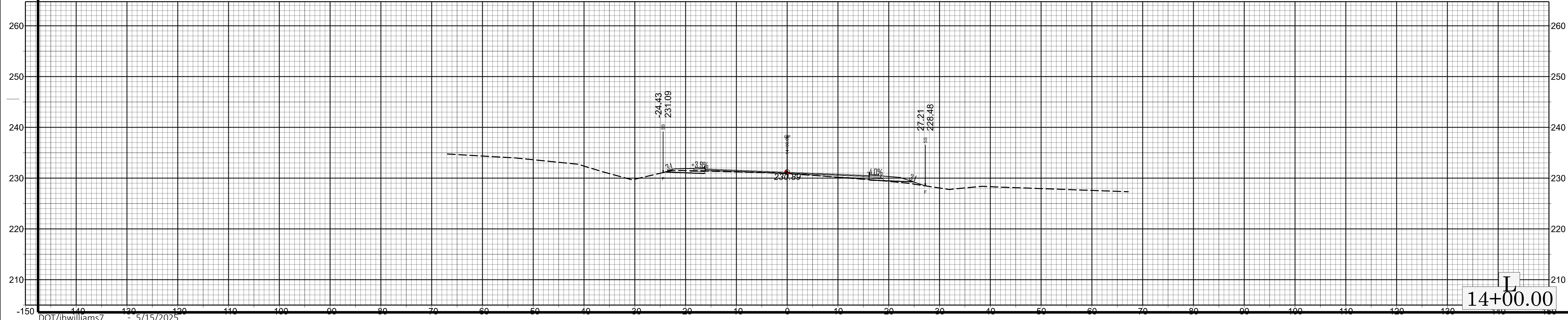
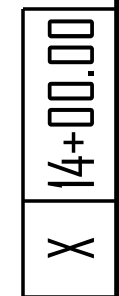
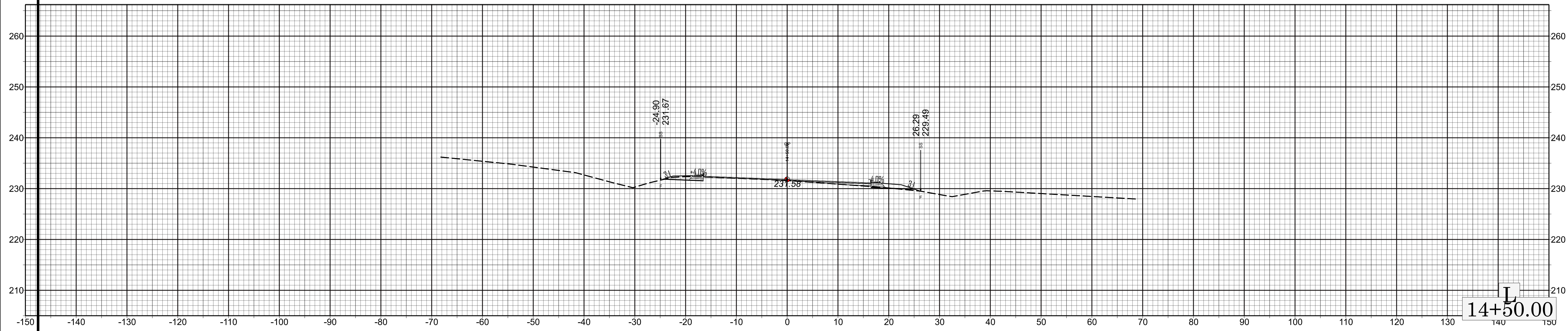
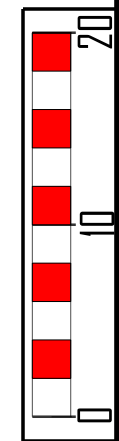
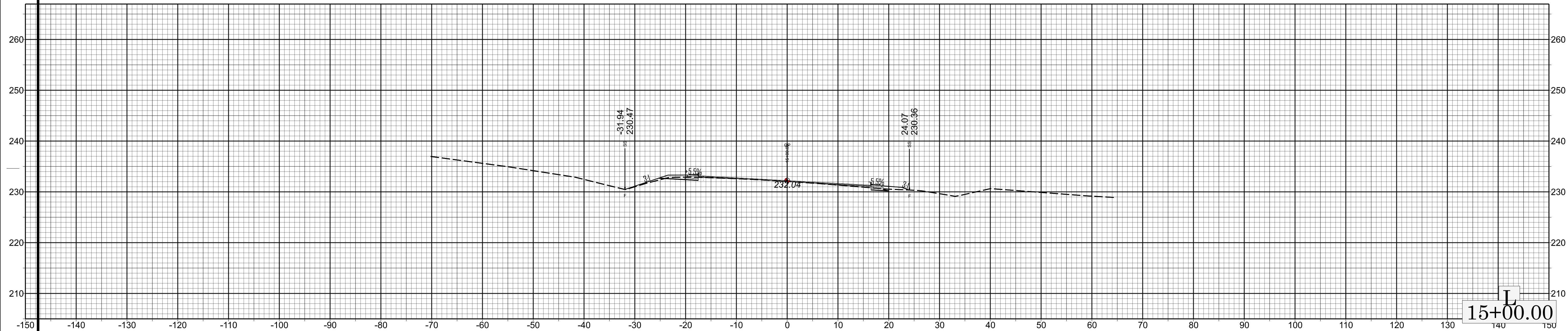
PREYSTONS

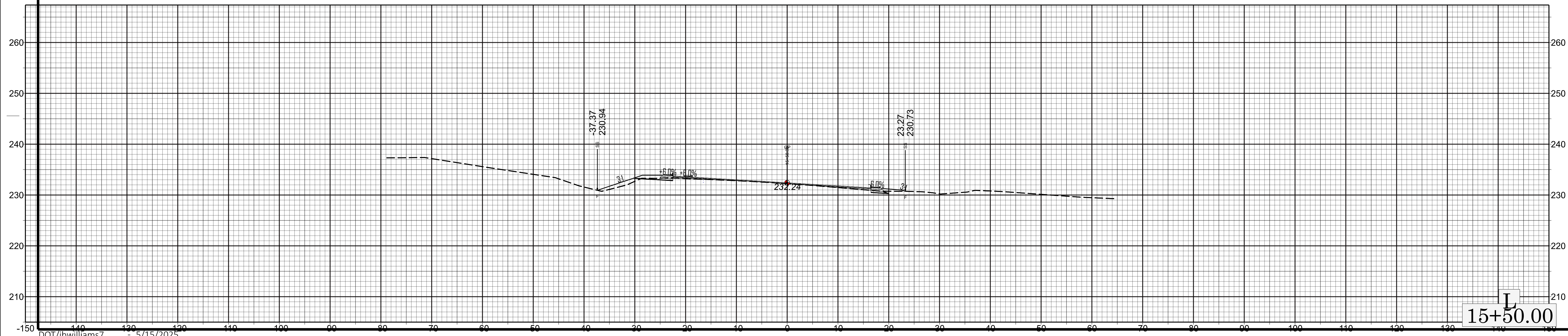
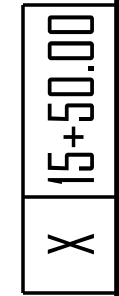
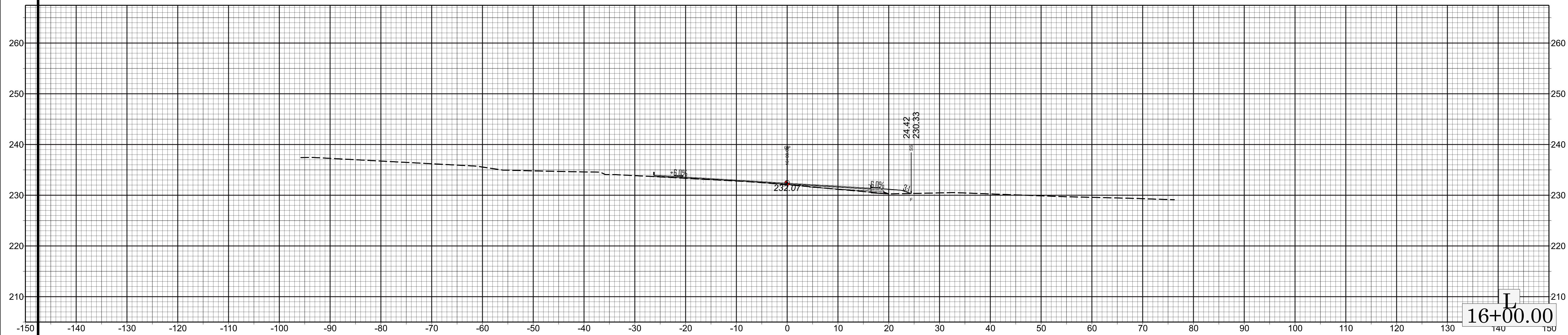
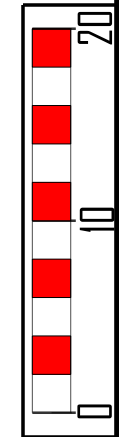
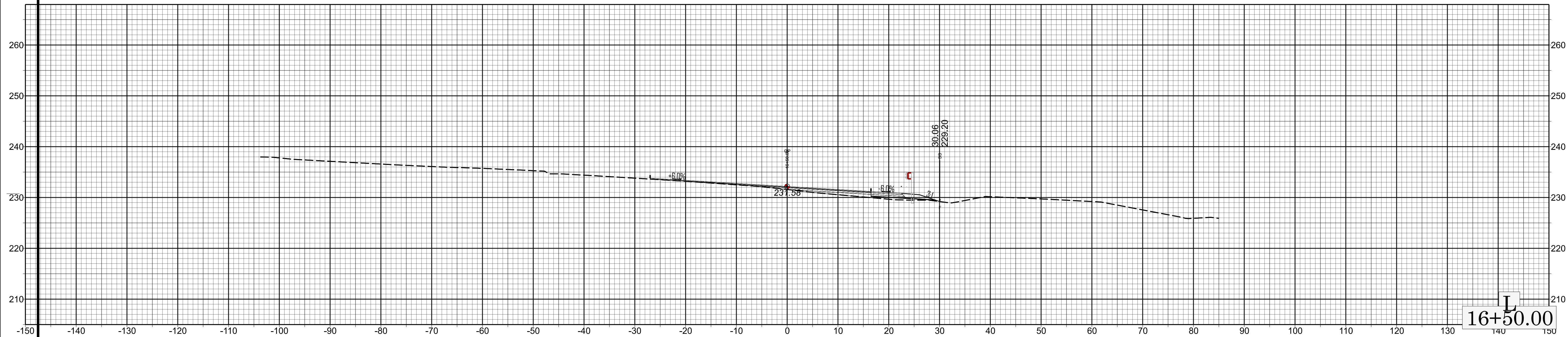


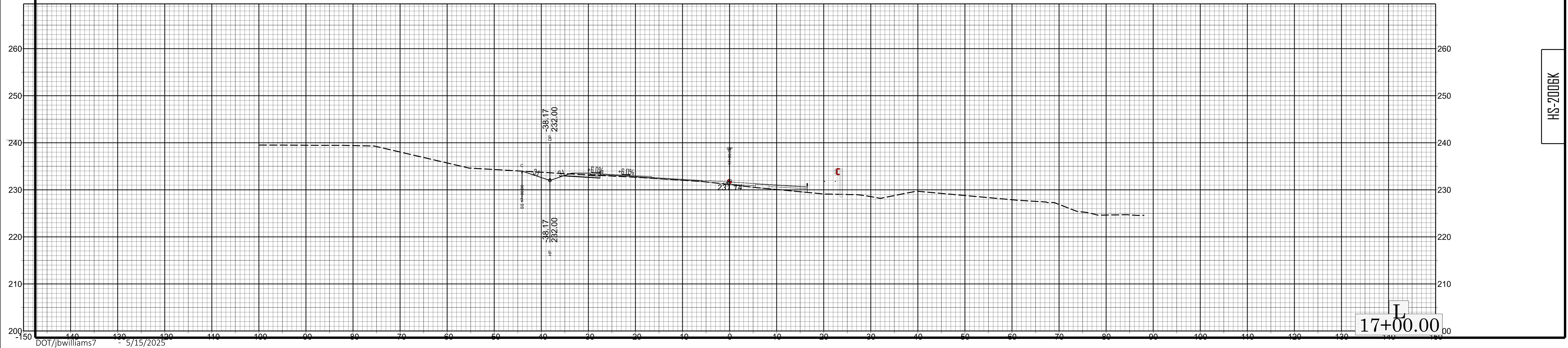
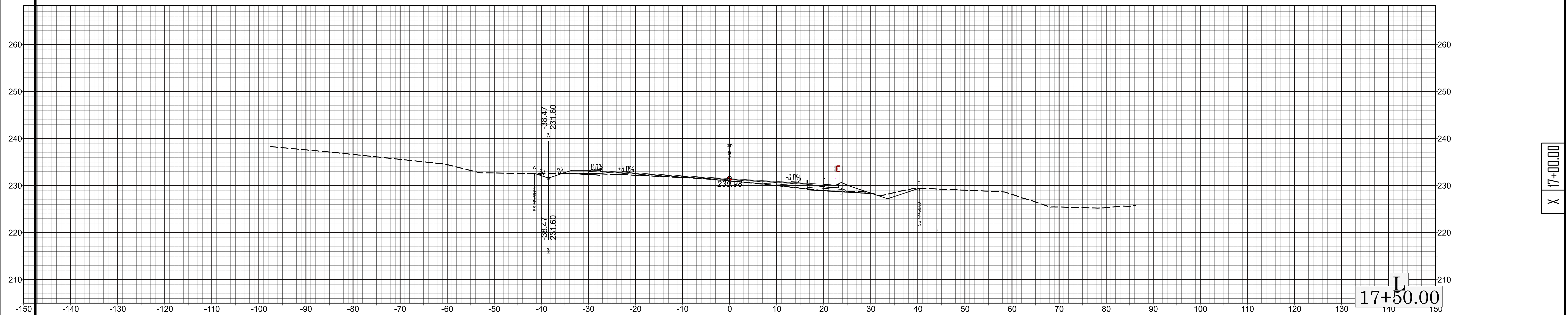
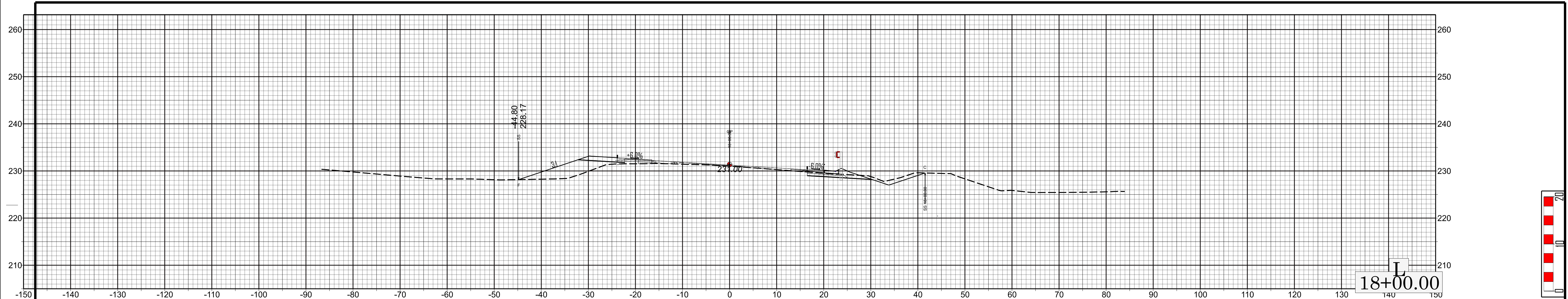
“Note: Earthwork quantities are calculated by the roadway designer.
These quantities are based in part on subsurface data provided by the geotechnical engineer.”

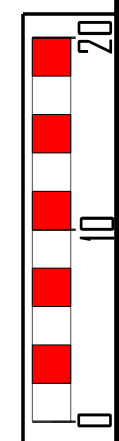
HS-2006K

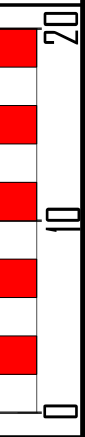
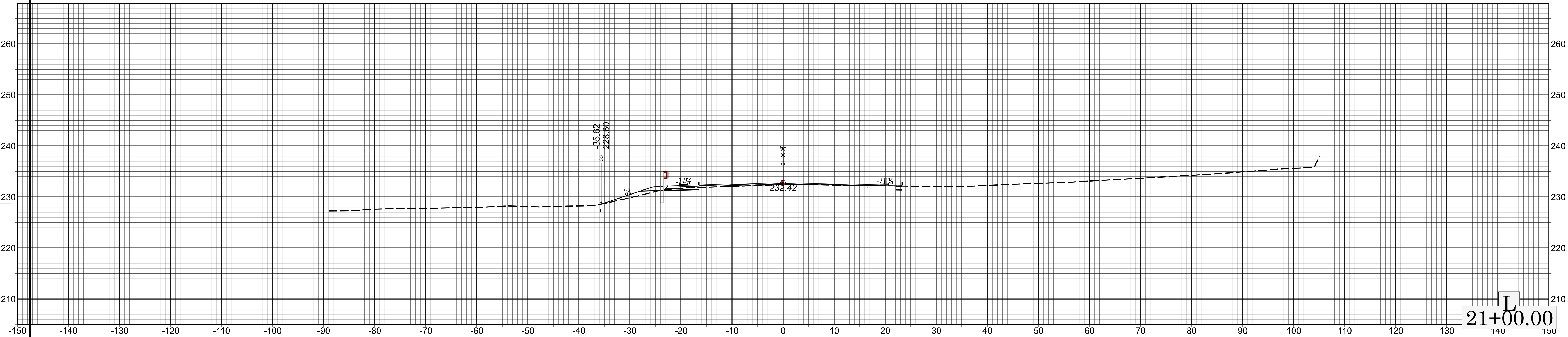




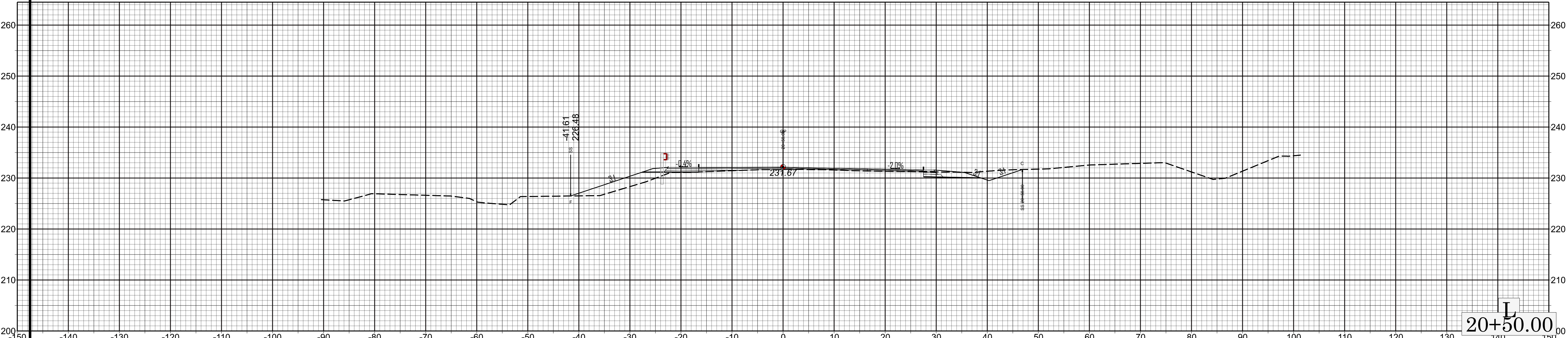




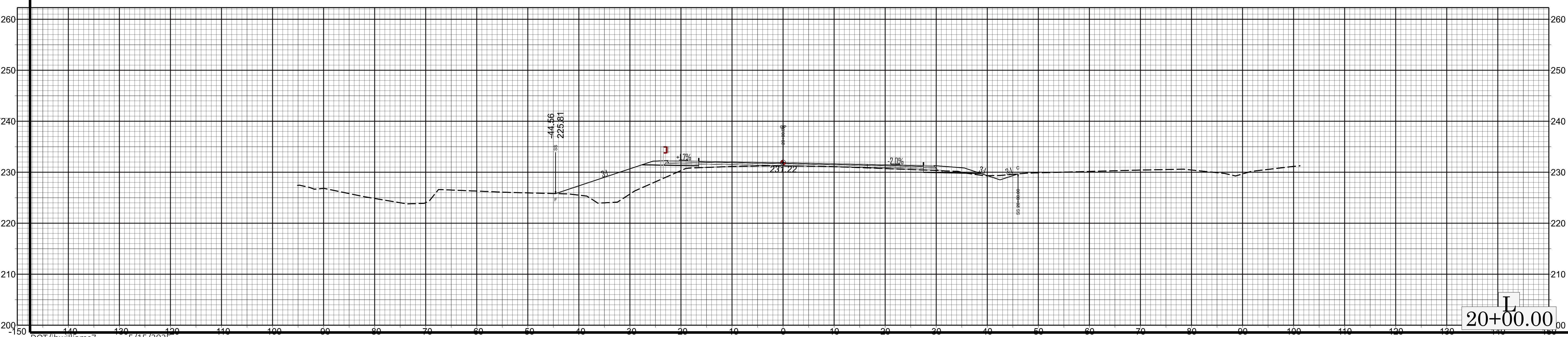


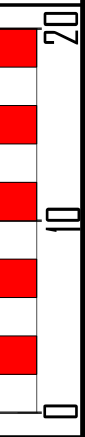
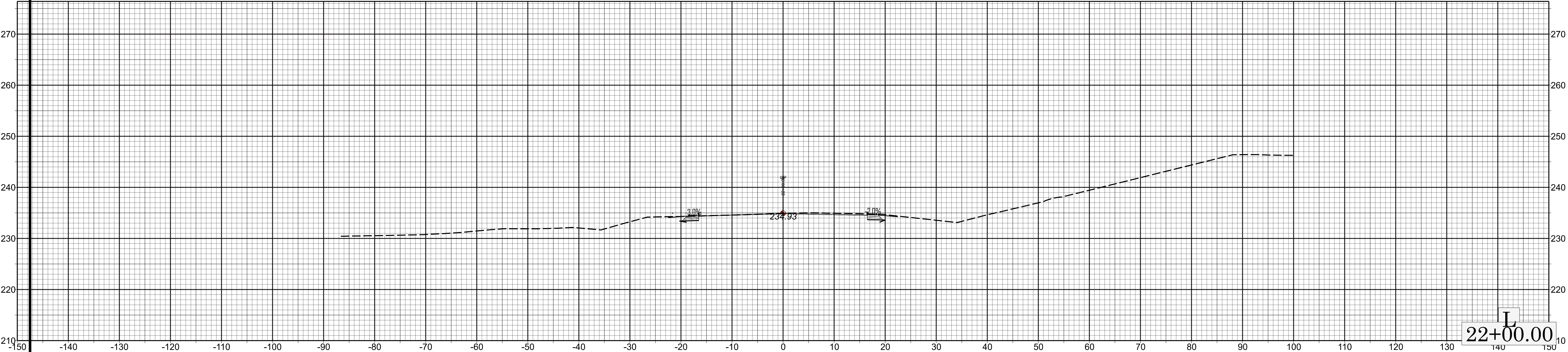


X 20+00.00



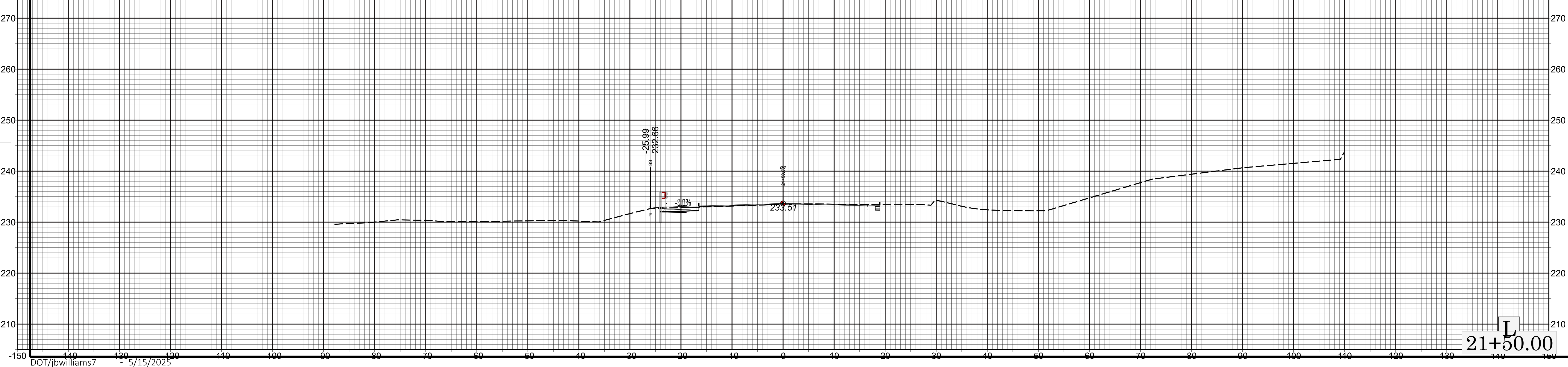
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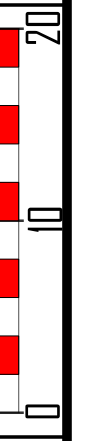




X 21+50.00

HS-2006K





X	22+40.00
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HS-2006K

