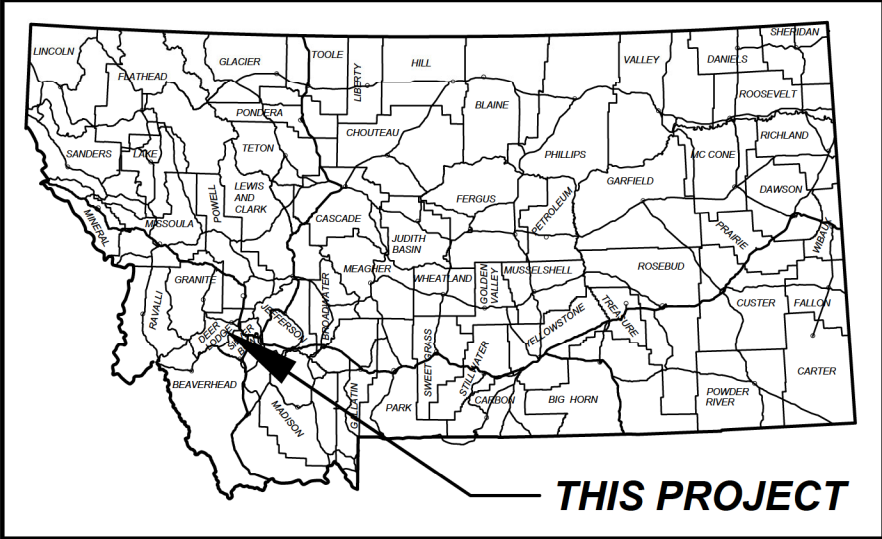


FOR

PRELIMINARY

AGR



MONTANA DEPARTMENT OF TRANSPORTATION

FEDERAL AID PROJECT SSS 569-1(11)6

RECONSTRUCTION & SAFETY IMPROVEMENTS

MILL CREEK HIGHWAY

DEER LODGE COUNTY

LENGTH 4.9 MILES

PROJECT DESIGN DATA				
PRESENT	2025	A.A.D.T. =	410	
LETTING	2026	A.A.D.T. =	410	
DESIGN	2046	A.A.D.T. =	570	
		D.H.V. =	70	
		TRUCKS =	57.9%	
		V. =	55 MPH*	
		18 KIP ESAL'S =	159 DAILY	
		ANNUAL GROWTH RATE =	1.6%	

* VERTICAL PROFILE AND CLEAR ZONE IS DESIGNED TO 40 MPH.
SEE BELOW FOR HORIZONTAL DESIGN SPEED:

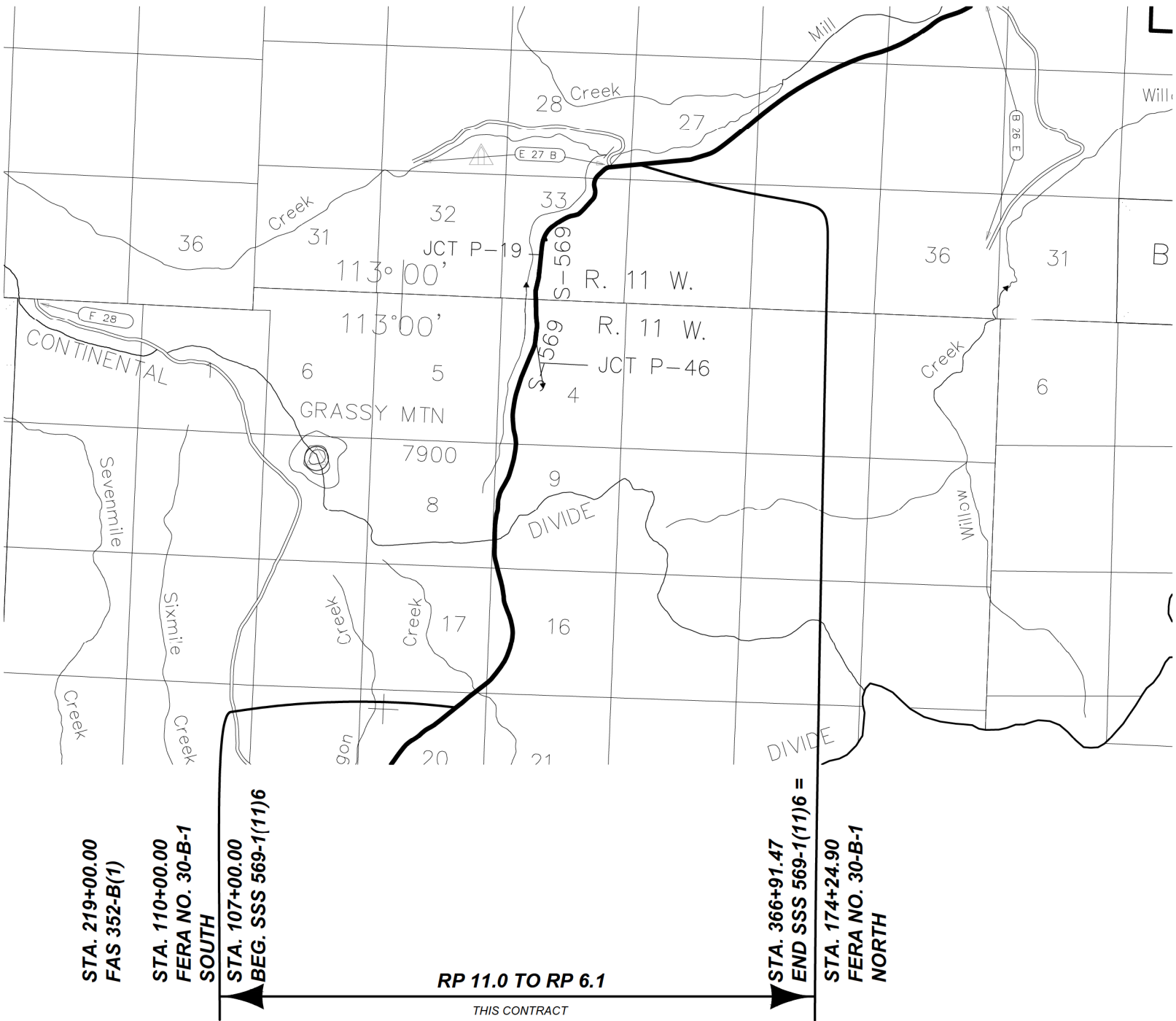
STA. 107+00.00 TO 233+00.00 - 55 MPH
STA. 233+00.00 TO 259+00.00 - 50 MPH
STA. 259+00.00 TO 308+00.00 - 55 MPH
STA. 308+00.00 TO 358+00.00 - 50 MPH
STA. 358+00.00 TO 366+91.47 - 55 MPH

ASSOCIATED PROJECT AGREEMENT NUMBERS	
R/W	#####
I.C.	#####
P.E.	#####

RELATED PROJECTS
####

SURFACING SOURCES -
CONTRACTOR FURNISHED

Phase 1 Documents-Preliminary Road Plans



CONSULTANT NAME	
APPROVED BY:	
_____	_____
DATE	
MONTANA DEPARTMENT OF TRANSPORTATION	
_____	_____
DATE	

SHEET NO.	
1	
TITLE	
MILL CREEK HIGHWAY	
DEER LODGE	
SSS 569-1(11)6	
10473000	
DESIGNED BY	02/2025
REVIEWED BY	06/2025
CHECKED BY	06/2025
10473000RDTTLZ01.DWG	
MONTANA Department of Transportation	ROAD PLANS
6/17/2025 4:08 PM	

TABLE OF CONTENTS

ROAD PLANS

SHEET NO.

TITLE SHEET	1
TABLE OF CONTENTS	2
NOTES	2-3
CENTERLINE COORDINATE TABLE	3
CONTROL DIAGRAM & LEVEL DATA	4-5
TYPICAL SECTIONS	6-8
SUMMARIES	9-14
GRADING	9
ADDITIONAL GRADING	9
PULVERIZATION	9
OBLITERATE ROADWAY	9
SPECIAL BORROW	9
BITUMINOUS PAVEMENT REMOVAL	9
GEOTEXTILE	9
SURFACING	10
ADDITIONAL SURFACING	11
RANDOM RIPRAP	11
MEDIAN INLET	11
EMBANKMENT PROTECTORS	11
CULVERT SUMMARY RECAP	11
APPROACH PIPE	11
CULVERTS	12-13
REMOVE TREES	13
FENCING	13
GUARDRAIL	14
PAVEMENT MARKINGS	14
RUMBLE STRIPS	14
TOPSOIL & SEEDING	14
HYDRAULIC DATA SUMMARY	15
DETAILS	16-34
DRAINAGE DETAILS	16-22
DITCH DETAILS	23
APPROACH & TURNAROUND DETAILS	24-31
PAVEMENT REMOVAL DETAIL	32
LEVELING CRUSHED AGGREGATE COURSE DETAIL	33
SPECIAL BORROW DETAIL	34
PLAN & PROFILE	35-44
SIGNING PLANS	
SUMMARY	S1
SPECIFICATIONS	S2-S7
DETAILS	S8
PLANS	S9-S14
CROSS SECTIONS	
MAINLINE	1-397

BASIS OF PLAN QUANTITIES

(QUANTITIES FOR ESTIMATING PURPOSES ONLY)	
COMP. AGGREGATE WEIGHT	= 3700 LBS. PER CUBIC YARD
COMP. WEIGHT OF PL. MIX BIT. SURF.	= 3855 LBS. PER CUBIC YARD
ASPHALT CEMENT - GRADE S - 3/4" AGG.	= 5.4% OF PL.MIX BIT.SURF.
HYDRATED LIME	= 1.4% OF PL.MIX BIT.SURF.
ASPHALT CEMENT	= 3.0% OF RECYCLED PL.MIX (50% RAP)
HYDRATED LIME	= 1.4% OF RECYCLED PL.MIX BIT.SURF.
BITUMINOUS MATERIAL	= 8.5 LBS. PER GAL.
EMULSIFIED ASPHALT - TACK (ALL OTHER SURFACES)	= 0.05 GAL. PER SQ.YARD (UNDILUTED)
EMULSIFIED ASPHALT - FOG SEAL (S & C)	= 0.075 GAL. PER SQ.YARD (UNDILUTED)
EMULSIFIED ASPHALT - FOG SEAL (RUMBLE STRIPS)	= 0.10 GAL. PER SQ.YARD (UNDILUTED)
SEAL	= 0.42 GAL. PER SQ.YARD
COVER	= 25 LBS. PER SQ.YARD
BASE ONE	= 0.0075 GAL. PER SQ. YARD

APPROACHES

CONSTRUCT APPROACHES TO A 24' FINISHED TOP ON A 34' SUBGRADE UNLESS NOTED OTHERWISE IN THE PLANS.

PROVIDE THE FOLLOWING SURFACING:
0.20' PLANT MIX BITUMINOUS SURF.
0.60' CRUSHED AGGREGATE COURSE

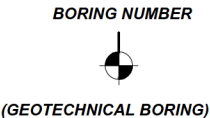
PLANT MIX SURFACE ALL PUBLIC APPROACHES TO R/W.

PLANT MIX SURFACE ALL PRIVATE APPROACHES TO R/W.

GRAVEL SURFACE ALL FARM FIELD APPROACHES TO R/W WITH A12' WIDE PLANT MIX STRIP ADJACENT AND PARALLEL TO THE ROADWAY.

SOILS INFORMATION

SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION. THE LOCATION OF GEOTECHNICAL BORINGS IS SHOWN ON THE PLAN VIEW WITH THE FOLLOWING SYMBOL:

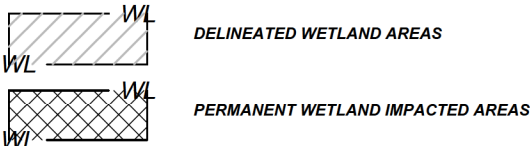


UTILITIES

CALL THE UTILITIES UNDERGROUND LOCATION CENTER (811) OR OTHER NOTIFICATION SYSTEM FOR THE MARKING AND LOCATION OF ALL LINES AND SERVICES BEFORE EXCAVATING. ALL CLEARANCES OR DEPTHS PROVIDED FOR UTILITIES ARE FROM EXISTING GROUND LINE.

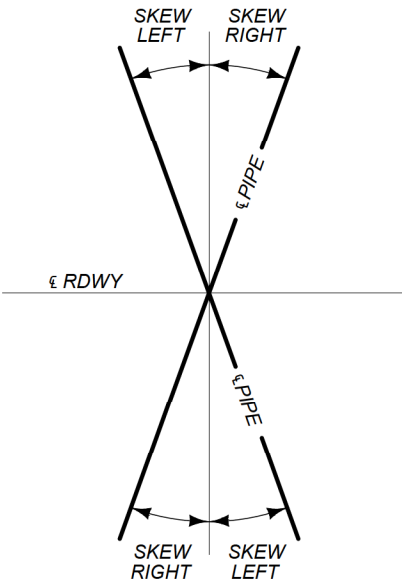
WETLANDS

WETLANDS EXIST ADJACENT TO THE ROADWAY AND MAY EXIST BEYOND THE PROJECT LIMITS. WETLAND AREAS AND PERMANENT WETLAND IMPACT AREAS WITHIN THE PROJECT LIMITS HAVE BEEN DELINEATED AND ARE SHOWN ON THE PLANS. ANY ACTION IMPACTING WETLAND AREAS OUTSIDE OF THE PERMANENT IMPACT AREAS SHOWN IS THE RESPONSIBILITY OF THE CONTRACTOR.



NOTES

SKEW DIAGRAM



NOTES

PROJECT NAME		MILL CREEK HIGHWAY	
COUNTY		DEER LODGE	
PROJECT ID		SSS 569-1(11)6	
UPN		10473000	
DESIGNED BY	B. MARTISHIUS	02/2025	
REVIEWED BY	N. PAVIA	06/2025	
CHECKED BY	J. SPRINGER	06/2025	
MONTANA Department of Transportation		ROAD PLANS	
		10473000RDTTLZ01.DWG	
		6/17/2025 4:09 PM	

BEARING SOURCE
GRID NORTH OF MONTANA STATE PLANE
COORDINATE SYSTEM NAD83(2011)(EPOCH2010)

LEVEL DATUM SOURCE
ELEVATIONS ARE NAVD88 U.S. SURVEY FEET. ELEVATIONS ARE CONSTRAINED VERTICALLY BY NGS BENCHMARK L69 (PID QY0248) AND A CLOSED LEVEL LOOP FROM NGS BENCHMARK L69 TO PROJECT CONTROL POINTS D1047 AND AU1047. REMAINING PROJECT CONTROL POINTS UTILIZED GNSS DERIVED ELEVATIONS (GEOID 18) WITH APPLIED NETWORK ADJUSTMENTS HOLDING LEVELED ELEVATIONS AT D1047 AND AU1047.


CONTROL DIAGRAM

SCALE: 1"=2000'

NOTE:
THIS PROJECTS IS ON STATE PLANE COORDINATES
HORIZONTAL COORDINATES ARE INTERNATIONAL FEET (NAD83-2011)
ELEVATIONS ARE NAVD88 U.S. SURVEY FEET. ELEVATIONS ARE CONSTRAINED VERTICALLY BY NGS BENCHMARK L69 (PID QY0248) AND CLOSED LEVEL LOOP FROM NGS BENCHMARK L69 TO PROJECT CONTROL POINTS D1047 AND AU1047.
ALL SURVEY AND STAKING WILL REQUIRE THE USE OF A COMBINATION SCALE FACTOR (CSF)=0.999238145. ALL DIMENSIONS ON THE PLANS ARE GRID DIMENSIONS AND MUST BE DIVIDED BY THE CSF TO ARRIVE AT GROUND DIMENSIONS.



CONTROL ABSTRACT AND DIAGRAM

<div><div><div>MONTANA</div><div>Department of Transportation</div></div></div>		DESIGNED BY B. MARTISHIUS		02/2025
		REVIEWED BY N. PAVIA		06/2025
		CHECKED BY J. SPRINGER		06/2025
ROAD PLANS		10473000RDRTRVZ01.DWG		
6/17/2025 4:10 PM				
PROJECT NAME MILL CREEK HIGHWAY				
COUNTY DEER LODGE				
PROJECT ID SSS 569-1(11)6				
UPN 10473000				

CONTROL DIAGRAM CONT.

CONTROL ABSTRACT				
POINT NAME	N OR Y COORDINATE	E OR X COORDINATE	POINT ELEVATION	LOCATION AND DESCRIPTION
A1047	681454.047	1091982.641	5687.79	SET 5/8" x 30" REBAR WITH 2" ALUMINUM CAP MARKED "MDT CONTROL A1047" ON NORTHERLY RIGHT-OF-WAY MILL CREEK ROAD AT MILE MARK 5.6 PULL OUT
AA1047	669927.973	1084998.590	6429.19	SET 5/8" x 30" REBAR WITH 2" ALUMINUM CAP MARKED "MDT CONTROL AA1047" ON EASTERLY RIGHT-OF-WAY OF MILL CREEK ROAD AT APPROX. MILE MARK 8.7; 6.0 IFT FROM EDGE OF ASPHALT PAVEMENT.
AB1047	669062.702	1085081.312	6486.05	SET 5/8" x 30" REBAR WITH 2" ALUMINUM CAP MARKED "MDT CONTROL AB1047" ON EASTERLY RIGHT-OF-WAY OF MILL CREEK ROAD NEAR POINT OF CURVE AT APPROX. MILE MARK 8.85; NEAR TOE OF SLOPE
AC1047	668332.034	1084769.326	6539.70	SET 5/8" x 30" REBAR WITH 2" ALUMINUM CAP MARKED "MDT CONTROL AC1047" ON SOUTHEASTERLY RIGHT-OF-WAY OF MILL CREEK ROAD 171.0 IFT SOUTHEAST OF MILE POST 9.0; 15.0 IFT NORTH OF A 24#€ CULVERT AND 9.0 IFT FROM EDGE OF ASPHALT PAVEMENT.
AD1047	667808.745	1084508.850	6580.27	SET 5/8" x 30" REBAR WITH 2" ALUMINUM CAP MARKED "MDT CONTROL AD1047" ON NORTHWESTERLY RIGHT-OF-WAY OF MILL CREEK ROAD AT NORTH END OF TURNOUT AT APPROX. MILE MARK 9.1; 29.5 IFT FROM EDGE OF ASPHALT PAVEMENT.
AE1047	667203.223	1084425.924	6623.23	SET 5/8" x 30" REBAR WITH 2" ALUMINUM CAP MARKED "MDT CONTROL AE1047" ON SOUTHEASTLERLY RIGHT-OF-WAY OF MILL CREEK ROAD AT APPROX. MILE MARK 9.25; 9.6 IFT FROM EDGE OF ASPHALT PAVEMENT AND ACROSS TRAVELED WAY FROM THE NORTH END OF LARGE TURNOUT.
AF1047	666570.504	1084214.682	6667.12	SET 5/8" x 30" REBAR WITH 2" ALUMINUM CAP MARKED "MDT CONTROL AF1047" ON SOUTHEASTERLY RIGHT-OF-WAY OF MILL CREEK ROAD AT APPROX. MILE MARK 9.38; 115 IFT SOUTHWESTERLY OF LARGE DRAINAGE; 9.8 IFT FROM EDGE OF ASPHALT PAVEMENT.
AG1047	665862.887	1084048.589	6714.80	SET 5/8" x 30" REBAR WITH 2" ALUMINUM CAP MARKED "MDT CONTROL AG1047" ON WESTERLY RIGHT-OF-WAY OF MILL CREEK ROAD AT APPROX. MILE MARK 9.5; 5.0 IFT FROM EDGE OF ASPHALT PAVEMENT.
AH1047	664439.088	1084145.027	6712.14	SET 5/8" x 30" REBAR WITH 2" ALUMINUM CAP MARKED "MDT CONTROL AH1047" ON SOUTHWESTERLY RIGHT-OF-WAY OF MILL CREEK ROAD AT APPROX. MILE MARK 9.8; 201 IFT NORTHWEST OF CENTERLINE PRIVATE PROPERTY GRAVEL ACCESS ROAD
AJ1047	663061.733	1084458.251	6599.39	SET 5/8" x 30" REBAR WITH 2" ALUMINUM CAP MARKED "MDT CONTROL AJ1047" ON SOUTHWESTERLY RIGHT-OF-WAY OF MILL CREEK ROAD
AK1047	662226.434	1084703.628	6576.41	SET 5/8" x 30" REBAR WITH 2" ALUMINUM CAP MARKED "MDT CONTROL AK1047" ON NORTHEASTERLY RIGHT-OF-WAY OF MILL CREEK ROAD AT APPROX. MILE MARK 10.2; 7.5 IFT FROM EDGE OF ASPHALT PAVEMENT.
AL1047	661661.195	1084842.804	6562.36	SET 5/8" x 30" REBAR WITH 2" ALUMINUM CAP MARKED "MDT CONTROL AL1047" ON SOUTHEASTERLY RIGHT-OF-WAY OF MILL CREEK ROAD AT APPROX. MILE MARK 10.4; 20 IFT SOUTHERLY OF GRAVEL ENTRANCE TO CALIFORNIA CREEK ROAD
AM1047	660977.927	1084923.771	6572.88	SET 5/8" x 30" REBAR WITH 2" ALUMINUM CAP MARKED "MDT CONTROL AM1047" ON EASTERLY RIGHT-OF-WAY OF MILL CREEK ROAD AT APPROX. MILE MARK 10.5; 3.7 IFT FROM EDGE OF ASPHALT PAVEMENT.
AN1047	660234.790	1084740.390	6560.10	SET 5/8" x 30" REBAR WITH 2" ALUMINUM CAP MARKED "MDT CONTROL AN1047" ON SOUTHEASTERLY RIGHT-OF-WAY OF MILL CREEK ROAD AT APPROX. MILE MARK 10.6; 105 IFT SOUTHWEST OF 24 in CULVERT
AP1047	659808.824	1084483.434	6570.32	SET 5/8" x 30" REBAR WITH 2" ALUMINUM CAP MARKED "MDT CONTROL AP1047" ON SOUTHEASTERLY RIGHT-OF-WAY OF MILL CREEK ROAD AT APPROX. MILE MARK 10.7
AR1047	659523.198	1084103.726	6562.15	SET 5/8" x 30" REBAR WITH 2" ALUMINUM CAP MARKED "MDT CONTROL AR1047" ON NORTHWESTERLY RIGHT-OF-WAY OF MILL CREEK ROAD AT APPROX. MILE MARK 10.8
AS1047	658953.610	1083308.945	6547.94	SET 5/8" x 30" REBAR WITH 2" ALUMINUM CAP MARKED "MDT CONTROL AS1047" ON NORTHWESTERLY RIGHT-OF-WAY OF MILL CREEK ROAD
AT1047	658558.779	1082827.996	6567.72	SET 5/8" x 30" REBAR WITH 2" ALUMINUM CAP MARKED "MDT CONTROL AT1047" ON SOUTHEASTERLY RIGHT-OF-WAY OF MILL CREEK ROAD AT APPROX. MILE MARK 11.1
AU1047	658308.493	1082403.796	6560.59	SET 5/8" x 30" REBAR WITH 2" ALUMINUM CAP MARKED "MDT CONTROL AU1047" ON NORTHWESTERLY RIGHT-OF-WAY OF MILL CREEK ROAD AT APPROX. MILE MARK 11.2
B1047	677829.655	1085807.454	6045.69	SET 5/8" x 30" REBAR WITH 2" ALUMINUM CAP MARKED "MDT CONTROL B1047" ON WESTERLY RIGHT-OF-WAY OF MILL CREEK ROAD AT APPROX. MILE MARK 7.1
C1047	664970.905	1083973.678	6771.84	SET 5/8" x 30" REBAR WITH 2" ALUMINUM CAP MARKED "MDT CONTROL C1047" ON WESTERLY RIGHT-OF-WAY OF MILL CREEK ROAD AT APPROX. MILE MARK 9.7 AT CONTINENTAL DIVIDE; ON TOP OF RISE ABOVE PRESENT TRAVELED WAY AND APPROX. 220 IFT SOUTH OF PULL OUT
D1047	657950.736	1082141.285	6545.90	SET 5/8" x 30" REBAR WITH 2" ALUMINUM CAP MARKED "MDT CONTROL D1047" AT APPROX. MILE MARK 11.3 IN OPEN FIELD SOUTHEAST OF RIGHT-OF-WAY OF MILL CREEK ROAD; APPROX. 101 IFT NORTHEAST OF CENTERLINE OF GATED DRIVEWAY ENTRANCE FOR 11162 MILL CREEK ROAD AND 65 IFT SOUTHWEST OF BARBED WIRE FENCE.
E1047	681358.688	1091741.427	5694.71	SET 5/8" x 30" REBAR WITH 2" ALUMINUM CAP MARKED "MDT CONTROL E1047" ON SOUTHERLY RIGHT-OF-WAY OF MILL CREEK ROAD AT APPROX. MILE MARK 5.6; 265 IFT WEST OF CONTROL POINT A1047 AND 9.0 IFT FROM EDGE OF ASPHALT PAVEMENT.
F1047	681323.625	1090858.608	5711.48	SET 5/8" x 30" REBAR WITH 2" ALUMINUM CAP MARKED "MDT CONTROL F1047" ON NORTHERLY RIGHT-OF-WAY OF MILL CREEK ROAD AT APPROX. MILE MARK 5.7; 64.0 IFT WESTERLY OF POWER POLE GUY ANCHOR AND 10.0 IFT FROM EDGE OF ASPHALT PAVEMENT.
G1047	681216.375	1090047.628	5745.29	SET 5/8" x 30" REBAR WITH 2" ALUMINUM CAP MARKED "MDT CONTROL G1047" ON NORTHERLY RIGHT-OF-WAY OF MILL CREEK ROAD
H1047	681183.106	1089075.821	5793.07	SET 5/8" x 30" REBAR WITH 2" ALUMINUM CAP MARKED "MDT CONTROL H1047" ON NORTHWESTERLY RIGHT-OF-WAY OF MILL CREEK ROAD AT APPROX. MILE MARK 6.2; 97.0 IFT NORTHEASTERLY OF CENTERLINE GATED DRIVEWAY ENTRANCE
J1047	680824.982	1088378.985	5825.16	SET 5/8" x 30" REBAR WITH 2" ALUMINUM CAP MARKED "MDT CONTROL J1047" ON NORTHWESTERLY RIGHT-OF-WAY OF MILL CREEK ROAD AT APPROX. MILE MARK 6.3; 70.0 IFT NORTHEASTERLY OF END OF BUCKRAIL STYLE FENCE
K1047	680574.174	1087984.694	5853.20	SET 5/8" x 30" REBAR WITH 2" ALUMINUM CAP MARKED "MDT CONTROL K1047" ON NORTHWESTERLY RIGHT-OF-WAY OF MILL CREEK ROAD AT APPROX. MILE MARK 6.4; 4.1 IFT SOUTHWEST OF SECOND CHEVRON SIGN TRAVELLING SOUTH AND 8.2 IFT FROM EDGE OF ASPHALT PAVEMENT.
L1047	678462.333	1087071.814	6004.39	SET 5/8" x 30" REBAR WITH 2" ALUMINUM CAP MARKED "MDT CONTROL L1047" ON SOUTHEASTERLY RIGHT-OF-WAY OF MILL CREEK ROAD NEAR POINT OF TANGENT AT APPROX. MILE MARK 6.9; 12.2 IFT NORTHEAST OF SECOND CHEVRON SIGN TRAVELLING NORTH AND 9.0 IFT FROM EDGE OF ASPHALT PAVEMENT.
M1047	678150.068	1086165.566	6032.68	SET 5/8" x 30" REBAR WITH 2" ALUMINUM CAP MARKED "MDT CONTROL M1047" ON NORTHWESTERLY RIGHT-OF-WAY OF MILL CREEK ROAD NEAR POINT OF CURVE AT APPROX. MILE MARK 7.1; 13.5 IFT FROM EDGE OF ASPHALT PAVEMENT.
N1047	677299.841	1085764.039	6052.64	SET 5/8" x 30" REBAR WITH 2" ALUMINUM CAP MARKED "MDT CONTROL N1047" ON WESTERLY RIGHT-OF-WAY OF MILL CREEK ROAD AT APPROX. MILE MARK 7.25; 43.0 IFT NORTH OF DOUBLE POST SIGN; 6.5 IFT FROM EDGE OF ASPHALT PAVEMENT.
P1047	676750.914	1085912.355	6080.50	SET 5/8" x 30" REBAR WITH 2" ALUMINUM CAP MARKED "MDT CONTROL P1047" ON EASTERLY RIGHT-OF-WAY OF MILL CREEK ROAD AT OLD ROAD CUT THAT EXTENDS NORTHERLY AT APPROX. MILE MARK 7.35; 27.0 IFT FROM EDGE OF ASPHALT PAVEMENT.
R1047	676050.531	1085846.780	6099.28	SET 5/8" x 30" REBAR WITH 2" ALUMINUM CAP MARKED "MDT CONTROL R1047" ON EASTERLY RIGHT-OF-WAY OF MILL CREEK ROAD AT APPROX. MILE MARK 7.5; ON BENCH ABOVE TRAVELED WAY
S1047	675335.844	1085689.814	6130.21	SET 5/8" x 30" REBAR WITH 2" ALUMINUM CAP MARKED "MDT CONTROL S1047" ON WESTERLY RIGHT-OF-WAY OF MILL CREEK ROAD AT SOUTHERLY END OF SMALL TURNOUT AT APPROX. MILE MARK 7.6; 10.0 IFT FROM EDGE OF ASPHALT PAVEMENT.
T1047	674564.291	1085705.468	6152.27	SET 5/8" x 30" REBAR WITH 2" ALUMINUM CAP MARKED "MDT CONTROL T1047" ON EASTERLY RIGHT-OF-WAY OF MILL CREEK ROAD AT NORTH END OF OLD ROAD CUT THAT PARALLELS TRAVELED WAY AT APPROX. MILE MARK 7.8; 10.5 IFT FROM EDGE OF ASPHALT PAVEMENT.
U1047	673656.791	1085688.286	6181.29	SET 5/8" x 30" REBAR WITH 2" ALUMINUM CAP MARKED "MDT CONTROL U1047" ON WESTERLY RIGHT-OF-WAY OF MILL CREEK ROAD
V1047	673046.211	1085745.341	6210.23	SET 5/8" x 30" REBAR WITH 2" ALUMINUM CAP MARKED "MDT CONTROL V1047" ON EASTERLY RIGHT-OF-WAY OF MILL CREEK ROAD AT APPROX. MILE MARK 8.1; 7.5 IFT FROM EDGE OF ASPHALT PAVEMENT; INTERVISIBLE WITH CONTROL POINTS U1047 AND W1047.
W1047	672507.938	1085497.657	6253.02	SET 5/8" x 30" REBAR WITH 2" ALUMINUM CAP MARKED "MDT CONTROL W1047" ON SOUTHEASTERLY RIGHT-OF-WAY OF MILL CREEK ROAD APPROX 60 IFT SOUTHWESTERLY OF POINT OF TANGENT ON CURVE AT APPROX. MILE MARK 8.2; 11.0 IFT FROM EDGE OF ASPHALT PAVEMENT.
X1047	672108.102	1085164.963	6286.24	SET 5/8" x 30" REBAR WITH 2" ALUMINUM CAP MARKED "MDT CONTROL X1047" ON NORTHWESTERLY RIGHT-OF-WAY OF MILL CREEK ROAD AT APPROX. MILE MARK 8.25
Y1047	671535.776	1084943.426	6328.54	SET 5/8" x 30" REBAR WITH 2" ALUMINUM CAP MARKED "MDT CONTROL Y1047" ON NORTHWESTERLY RIGHT-OF-WAY OF MILL CREEK ROAD AT APPROX. MILE MARK 8.4; 2.5 IFT FROM EDGE OF ASPHALT PAVEMENT.
Z1047	670738.373	1084912.486	6379.81	SET 5/8" x 30" REBAR WITH 2" ALUMINUM CAP MARKED "MDT CONTROL Z1047" ON EASTERLY RIGHT-OF-WAY OF MILL CREEK ROAD AT APPROX. MILE MARK 8.55; APPROX. 95 IFT NORTH OF 24" CULVERT

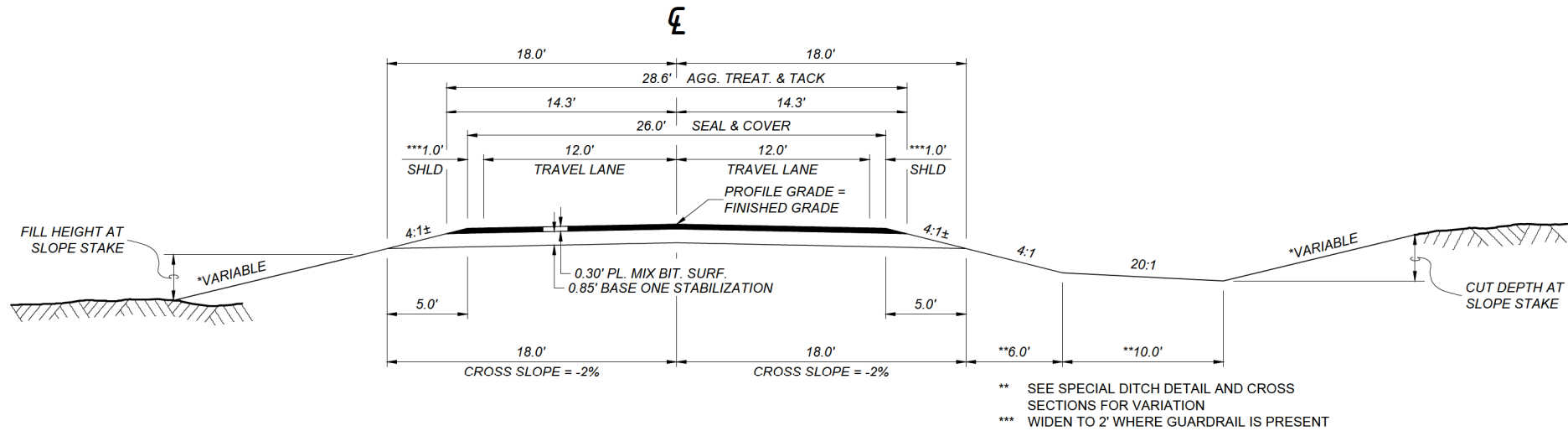
BENCHMARKS				
POINT NAME	N OR Y COORDINATE	E OR X COORDINATE	POINT ELEVATION	LOCATION AND DESCRIPTION
L69	659822.232	1081207.810	6556.47	SEE NGS DATA SHEET PID #QY0248

AGR

FOR PRELIMINARY

TYPICAL SECTION NO. 1

MAINLINE



QUANTITIES								
UNIT	AGGREGATE			UNIT	BITUMINOUS MATERIAL			
	COVER	PLANT MIX	BASE ONE STABILIZATIO N ##		ASPHALT CEMENT	SEAL	AGG. TREATMENT	EMULSIFIED ASPHALT TACK ^
AREA square feet		8.19	27.46	square yards PER STATION	3.15	289	318	636
cubic yards PER STATION		30.3	101.7	tons PER STATION		0.52		
tons PER STATION		58.4		gals. PER STATION				32
square yards PER STATION	289							

^ BASED ON 2 APPLICATIONS
FOR INFORMATION ONLY. SEE SURFACING SUMMARY FRAME FOR BASE ONE QUANTITY

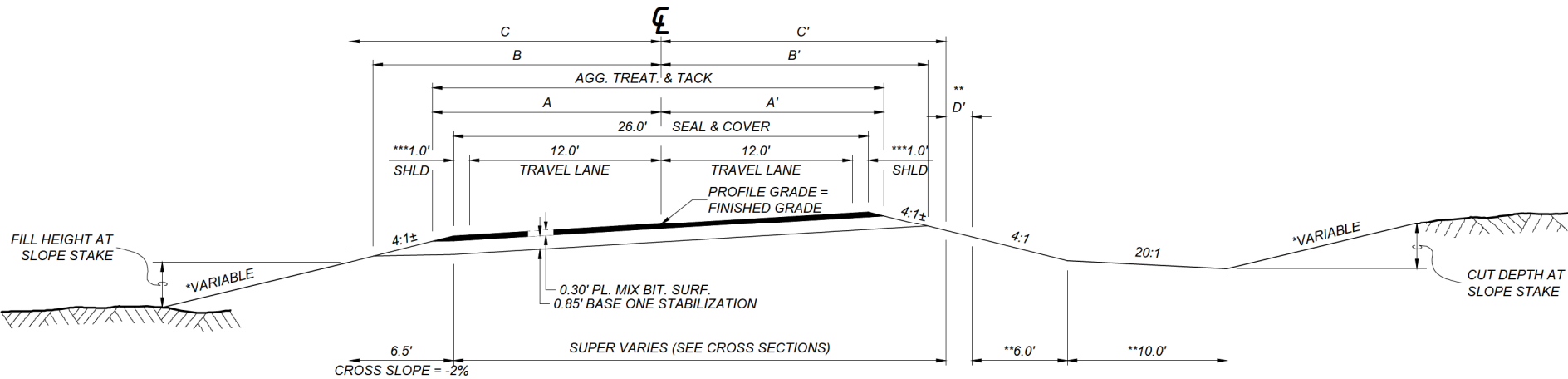
*FILL SLOPES		*BACK SLOPES	
0' - 10'	6:1	0' - 5'	5:1
10' - 20'	4:1	5' - 10'	4:1
20' - 30'	3:1	10' - 15'	3:1
OVER 30'	^^ 2:1	OVER 20'	^^ 2:1

* SEE CROSS SECTIONS FOR DEVIATIONS

^^ STEEPEN TO 1.5:1 AS SHOWN IN THE CROSS SECTIONS. VERIFY WITH GEOTECHINCAL ENGINEER IF STEEPENING FROM 2:1 OUTSIDE WHAT IS SHOWN IN THE PLANS.

TYPICAL SECTION NO. 2

MAINLINE



FOR QUANTITIES SEE TYPICAL NO. 1

SUPER %	WIDTHS (ft)						
	A	B	C	A'	B'	C'	D'
2%	14.3	18.0	19.5	14.1	17.3	18.4	0.9
3%	14.3	18.0	19.5	14.1	17.1	18.2	1.1
4%	14.3	18.0	19.5	14.0	17.0	18.1	1.3
5%	14.3	18.0	19.5	14.0	16.8	17.9	1.5
6%	14.3	18.0	19.5	14.0	16.7	17.8	1.7
8%	14.3	18.0	19.5	13.9	16.5	17.6	2.0

** SEE SPECIAL DITCH DETAIL AND CROSS SECTIONS FOR VARIATION
*** WIDEN TO 2' WHERE GUARDRAIL IS PRESENT

STA. 364+83.47 TO STA. 365+35.47
TRANS. RT. LANE FROM 8% RT. TO 6% RT.
STA. 365+35.47 TO STA. 366+84.71
HOLD RT. LANE 6%
STA. 366+84.71 TO STA. 366+91.47
TRANS. RT. LANE FROM 6% RT. TO EX. CROSS SLOPE (5.74% RT.)

107+00.00		BEGIN PROJECT - TIE TO PTW
107+00.00	TO 116+32.50	TYP. NO. 1 - NEXT TYP. NO. 3
150+45.00	TO 155+85.00	TYP. NO. 1 - NEXT TYP. NO. 5
157+80.00	TO 159+59.32	TYP. NO. 1 - NEXT TYP. NO. 3
167+40.00	TO 170+85.00	TYP. NO. 1 - NEXT TYP. NO. 5
172+65.00	TO 175+05.23	TYP. NO. 1
175+05.23	TO 176+61.23	TRANS. TYP. NO. 1 TO NO. 2
228+66.04		TYP. NO. 1 - NEXT TYP. NO. 5
231+00.00	TO 234+90.00	TYP. NO. 1 - NEXT TYP. NO. 3
258+97.65	TO 260+28.20	TYP. NO. 1
260+28.20	TO 261+32.20	TRANS. TYP. NO. 1 TO NO. 2
280+20.00	TO 280+90.00	TYP. NO. 1 - NEXT TYP. NO. 3
297+75.00	TO 300+90.00	TYP. NO. 1 - NEXT TYP. NO. 3

123+60.00	TO 124+45.83	TYP. NO. 2 (TRANS. 2.7% LT. TO 6% LT.)	242+70.00	TO 243+30.12	TYP. NO. 2 (3% RT.)
124+45.83	TO 125+25.00	TYP. NO. 2 (6% LT.) - NEXT TYP. NO. 4	243+30.12	TO 243+54.12	TYP. NO. 2 (TRANS. 3% RT. TO 2% RT.)
132+42.00	TO 133+50.00	TYP. NO. 2 (6% LT.) - NEXT TYP. NO. 6	243+54.12	TO 244+64.48	TYP. NO. 2 (2% RT.)
136+95.00	TO 141+00.00	TYP. NO. 2 (6% LT.) - NEXT TYP. NO. 4	244+64.48	TO 245+36.48	TYP. NO. 2 (TRANS. 2% RT. TO 5% RT.)
144+30.00	TO 145+20.00	TYP. NO. 2 (6% LT.) - NEXT TYP. NO. 4	245+36.48	TO 247+05.00	TYP. NO. 2 (5% RT.) - NEXT TYP. NO. 6
176+61.23	TO 177+45.00	TYP. NO. (4% RT.) - NEXT TYP. NO. 4	250+50.00	TO 250+92.83	TYP. NO. 2 (TRANS. 4.22% RT. TO 6% RT.)
187+20.00	TO 188+10.00	TYP. NO. 2 (4% RT.) - NEXT TYP. NO. 6	250+92.83	TO 253+95.00	TYP. NO. 2 (6% RT.) - NEXT TYP. NO. 4
194+10.00	TO 195+30.00	TYP. NO. 2 (4% RT.) - NEXT TYP. NO. 4	257+05.65		TYP. NO. 2 (6% RT.)
201+45.00	TO 202+57.83	TYP. NO. 2 (TRANS. 2.34% RT. TO 2% LT.)	257+05.65	TO 258+97.65	TRANS. TYP. NO. 2 TO TYP. NO. 1
202+57.83	TO 204+21.58	TYP. NO. 2 (2% LT.)	261+32.20		TYP. NO. 2 (2% LT.) - NEXT TYP. NO. 6
204+21.58	TO 204+47.58	TYP. NO. 2 (TRANS. 2% LT. TO 3% LT.)	274+95.00	TO 275+19.46	TYP. NO. 2 (TRANS. 2.06% RT. TO 3% RT.)
204+47.58	TO 205+20.00	TYP. NO. 2 (3% LT.) - NEXT TYP. NO. 6	275+19.46	TO 277+79.54	TYP. NO. 2 (3% RT.) - NEXT TYP. NO. 6
207+45.00	TO 207+57.99	TYP. NO. 2 (3% LT.)	287+85.00	TO 289+13.07	TYP. NO. 2 (4% RT.)
207+57.99	TO 209+17.05	TYP. NO. 2 (TRANS. 3% LT. TO 3% RT.)	289+13.07	TO 289+65.07	TYP. NO. 2 (TRANS. 4% RT. TO 2% RT.) - NEXT TYP. NO. 6
209+17.05	TO 214+09.94	TYP. NO. 2 (3% RT.)	307+41.98	TO 310+44.60	TYP. NO. 2 (TRANS. 2% LT. TO 8% RT.) - NEXT TYP. NO. 4
214+09.94	TO 214+35.94	TYP. NO. 2 (TRANS. 3% RT. TO 2% RT.)	351+00.00	TO 351+75.00	TYP. NO. 2 (TRANS. 2% LT. TO 8% RT.) - NEXT TYP. NO. 4
214+35.94	TO 216+24.89	TYP. NO. 2 (2% RT.)	361+20.00	TO 361+95.00	TYP. NO. 2 (TRANS. 3.77% RT. TO 6.65% RT.) - NEXT TYP. NO. 4
216+24.89	TO 217+28.89	TYP. NO. 2 (TRANS. 2% RT. TO 6% RT.)	365+00.00	TO 366+91.47	TYP. NO. 2 (TRANS. 7.36% RT. TO 0%) #
217+28.89	TO 218+62.39	TYP. NO. 2 (6% RT.)	366+91.47		END PROJECT - TIE TO PTW
218+62.39	TO 220+37.15	TYP. NO. 2 (TRANS. 6% RT. TO 0%)			
220+37.15	TO 222+30.00	TYP. NO. 2 (TRANS. 0% TO 7.42% LT.) - NEXT TYP. NO. 6			
225+30.00	TO 226+06.04	TYP. NO. 2 (8% LT.)			
226+06.04	TO 228+66.04	TRANS. TYP. NO. 2 TO TYP. NO. 1			

SHEET NO.
6

TYPICAL SECTIONS

MILL CREEK HIGHWAY

DEER LODGE

SSS 569-1(11)6

10473000

PROJECT NAME

COUNTY

PROJECT ID

UPN

DESIGNED BY
B. MARTISHIUS

REVIEWED BY
N. PAVIA

CHECKED BY
J. SPRINGER

DATE
02/2025

DATE
06/2025

DATE
06/2025

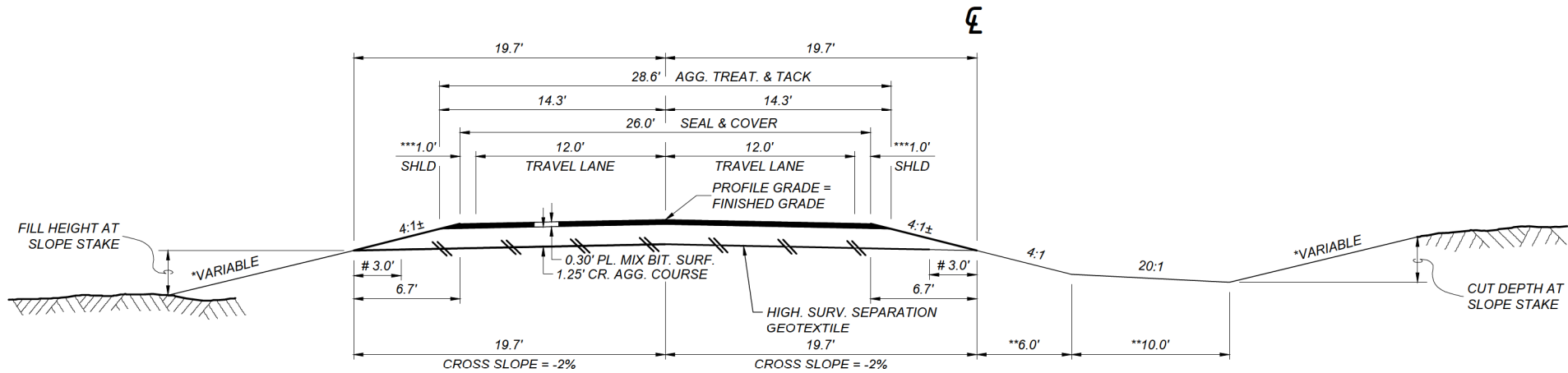
MONTANA
Department of Transportation

ROAD PLANS

6/17/2025 4:10 PM

TYPICAL SECTION NO. 3

MAINLINE



QUANTITIES								
UNIT	AGGREGATE			UNIT	BITUMINOUS MATERIAL			
	COVER	PLANT MIX	CR. AGG. COURSE		ASPHALT CEMENT	SEAL	AGG. TREATMENT	EMULSIFIED ASPHALT TACK ^
AREA square feet		8.19	42.50	square yards PER STATION		289	318	636
cubic yards PER STATION		30.3	157.4	tons PER STATION	3.15	0.52		
tons PER STATION		58.4		gals. PER STATION				32
square yards PER STATION	289							

^ BASED ON 2 APPLICATIONS

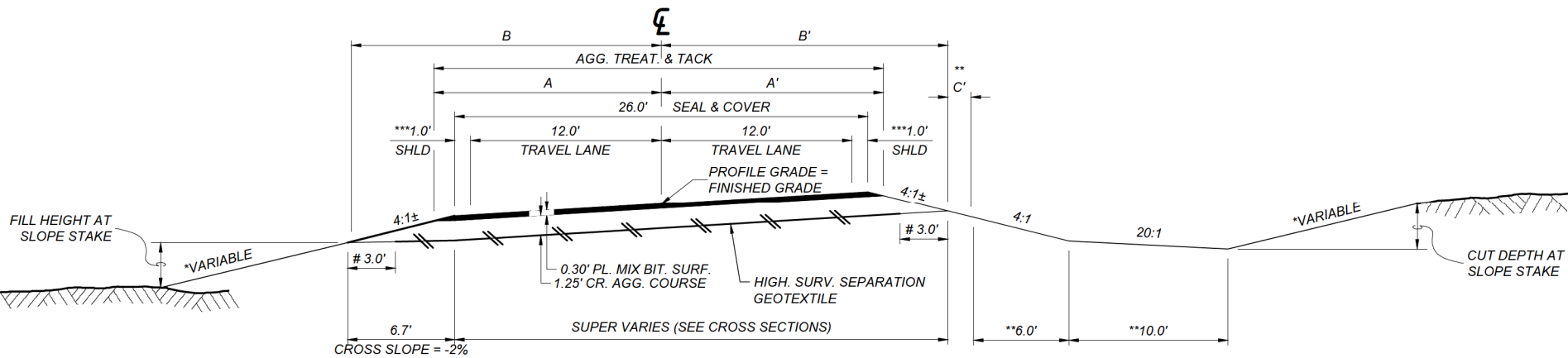
*FILL SLOPES		*BACK SLOPES	
0' - 10'	6:1	0' - 5'	5:1
10' - 20'	4:1	5' - 10'	4:1
20' - 30'	3:1	10' - 15'	3:1
OVER 30'	^^ 2:1	OVER 20'	^^ 2:1

* SEE CROSS SECTIONS FOR DEVIATIONS

^^ STEEPEN TO 1.5:1 AS SHOWN IN THE CROSS SECTIONS. VERIFY WITH GEOTECHINICAL ENGINEER IF STEEPENING FROM 2:1 OUTSIDE WHAT IS SHOWN IN THE PLANS.

TYPICAL SECTION NO. 4

MAINLINE



FOR QUANTITIES SEE TYPICAL NO. 3

SUPER %	WIDTHS (ft)					
	A	B		A'	B'	C'
2%	14.3	19.7		14.1	18.8	0.9
3%	14.3	19.7		14.1	18.6	1.1
4%	14.3	19.7		14.0	18.4	1.3
6%	14.3	19.7		14.0	18.0	1.7
8%	14.3	19.7		13.0	17.7	2.0

END GEOTEXTILE 1-3 FT. FROM DAYLIGHT. QUANTITIES ARE CALCULATED 3.0' FROM DAYLIGHT.

** SEE SPECIAL DITCH DETAIL AND CROSS SECTIONS FOR VARIATION

*** WIDEN TO 2' WHERE GUARDRAIL IS PRESENT

**** SEE SPECIAL BORROW DETAIL

116+32.50	TO	122+37.83	TYP. NO. 3
122+37.83	TO	123+60.00	TRANS. TYP. NO. 3 TO TYP. NO. 4
148+37.61	TO	150+45.00	TYP. NO. 3 - NEXT TYP. NO. 1
159+59.32	TO	167+40.00	TYP. NO. 3 - NEXT TYP. NO. 1
234+90.00	TO	236+19.18	TYP. NO. 3
236+19.18	TO	237+39.18	TRANS. TYP. NO. 3 TO TYP. NO. 4
271+34.81	TO	273+89.46	TYP. NO. 3
273+89.46	TO	274+95.00	TRANS. TYP. NO. 3 TO TYP. NO. 4
280+90.00	TO	282+75.19	TYP. NO. 3
282+75.19	TO	284+31.19	TRANS. TYP. NO. 3 TO TYP. NO. 4
294+00.00	TO	297+75.00	TYP. NO. 3 - NEXT TYP. NO. 1
300+90.00	TO	301+04.72	TYP. NO. 3
301+04.72	TO	303+64.72	TRANS. TYP. NO. 3 TO TYP. NO. 4
320+70.13	TO	334+84.70	TYP. NO. 3
334+84.70	TO	337+24.70	TRANS. TYP. NO. 3 TO TYP. NO. 4
356+67.87	TO	359+70.10	TYP. NO. 3
359+70.10	TO	361+20.00	TRANS. TYP. NO. 3 TO TYP. NO. 4

END GEOTEXTILE 1-3 FT. FROM DAYLIGHT. QUANTITIES ARE CALCULATED 3.0' FROM DAYLIGHT.

** SEE SPECIAL DITCH DETAIL AND CROSS SECTIONS FOR VARIATION

*** WIDEN TO 2' WHERE GUARDRAIL IS PRESENT

123+60.00			TYP. NO. 4 (2.7% LT.) - NEXT TYP. NO. 2
125+25.00	TO	132+42.00	TYP. NO. 4 (6% LT.) - NEXT TYP. NO. 2
141+00.00	TO	144+30.00	TYP. NO. 4 (6% LT.) - NEXT TYP. NO. 2
145+20.00	TO	146+29.61	TYP. NO. 4 (6% LT.)
146+29.61	TO	148+37.61	TRANS. TYP. NO. 4 TO TYP. NO. 3
177+45.00	TO	187+20.00	TYP. NO. 4 (4% RT.) - NEXT TYP. NO. 2
195+30.00	TO	201+01.83	TYP. NO. 4 (4% RT.)
201+01.83	TO	201+45.00	TYP. NO. 4 (TRANS. 4% RT. TO 2.34% RT.) - NEXT TYP. NO. 2
237+39.18	TO	242+70.00	TYP. NO. 4 (3% RT.) - NEXT TYP. NO. 2
253+95.00	TO	257+05.65	TYP. NO. 4 (6% RT.) - NEXT TYP. NO. 2
262+50.00	TO	262+88.20	TRANS. 6.53% LT. TO 8% LT. ****
262+88.20	TO	268+74.81	TYP. NO. 4 (8% LT.) ****
268+74.81	TO	271+34.81	TRANS. TYP. NO. 4 TO TYP. NO. 3 ****
274+95.00			TYP. NO. 4 (2.06%) - NEXT TYP. NO. 2
284+31.19	TO	287+85.00	TYP. NO. 4 (4% RT.) - NEXT TYP. NO. 2
303+64.72	TO	305+60.40	TYP. NO. 4 (8% LT.)
305+60.40	TO	307+41.98	TYP. NO. 4 (TRANS. 8% LT. TO 2% LT.) - NEXT TYP. NO. 2
310+44.60	TO	318+30.13	TYP. NO. 4 (8% RT.)
318+30.13	TO	320+70.13	TRANS. TYP. NO. 4 TO TYP. NO. 3
337+24.70	TO	343+40.57	TYP. NO. 4 (8% LT.)
343+40.57	TO	347+46.81	TYP. NO. 4 (TRANS. 8% LT. TO 8% RT.)
347+46.81	TO	351+00.00	TYP. NO. 4 (8% RT.) - NEXT TYP. NO. 2
351+75.00	TO	354+27.87	TYP. NO. 4 (8% RT.)
354+27.87	TO	356+67.87	TRANS. TYP. NO. 4 TO TYP. NO. 3
361+20.00			TYP. NO. 4 (3.77% RT.) - NEXT TYP. NO. 2
361+95.00	TO	362+30.10	TYP. NO. 4 (TRANS. 6.65% RT. TO 8% RT.)
362+30.10	TO	364+83.47	TYP. NO. 4 (8% RT.)
364+83.47	TO	365+00.00	TYP. NO. 4 (TRANS. 8% RT. TO 7.36% RT.) - NEXT TYP. NO. 2

SHEET NO.

7

TYPICAL SECTIONS

MILL CREEK HIGHWAY

DEER LODGE

SSS 569-1(11)6

10473000

PROJECT NAME

COUNTY

PROJECT ID

UPN

DESIGNED BY

09/2025

REVIEWED BY

06/2025

CHECKED BY

06/2025

10473000RDTYPZ01.DWG



ROAD PLANS

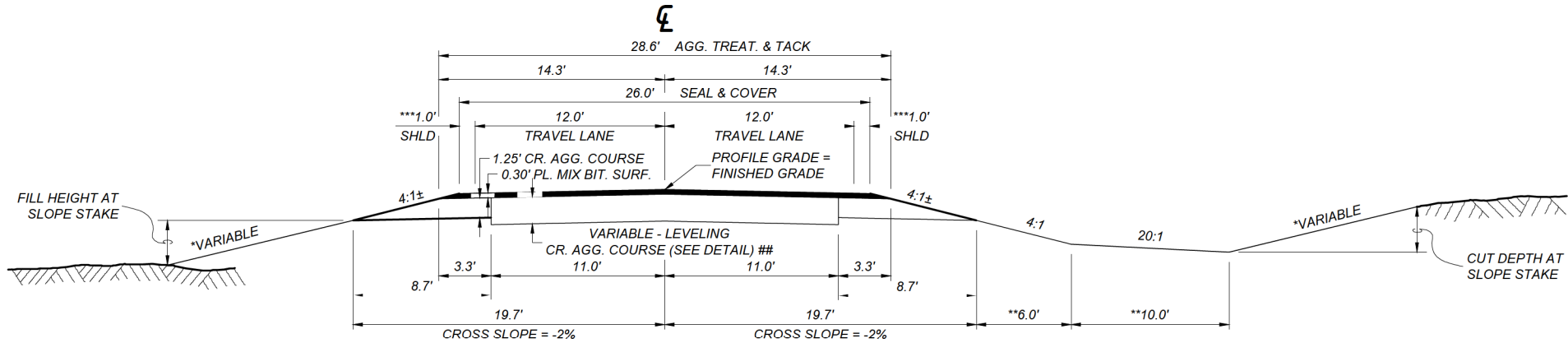
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AGR

FOR PRELIMINARY

TYPICAL SECTION NO. 5

MAINLINE



QUANTITIES								
UNIT	AGGREGATE			UNIT	BITUMINOUS MATERIAL			
	COVER	PLANT MIX	CR. AGG. COURSE		ASPHALT CEMENT	SEAL	AGG. TREATMENT	EMULSIFIED ASPHALT TACK ^
AREA square feet		8.19	15.00	square yards PER STATION		289	318	636
cubic yards PER STATION		30.3	55.6	tons PER STATION	3.15	0.52		
tons PER STATION		58.4		gals. PER STATION				32
square yards PER STATION	289							

^ BASED ON 2 APPLICATIONS
SEE DETAIL FOR LEVELING CR. AGG. COURSE QUANTITIES

END GEOTEXTILE 1-3 FT. FROM DAYLIGHT. QUANTITIES ARE CALCULATED 3.0' FROM DAYLIGHT.
** SEE SPECIAL DITCH DETAIL AND CROSS SECTIONS FOR VARIATION
*** WIDEN TO 2' WHERE GUARDRAIL IS PRESENT

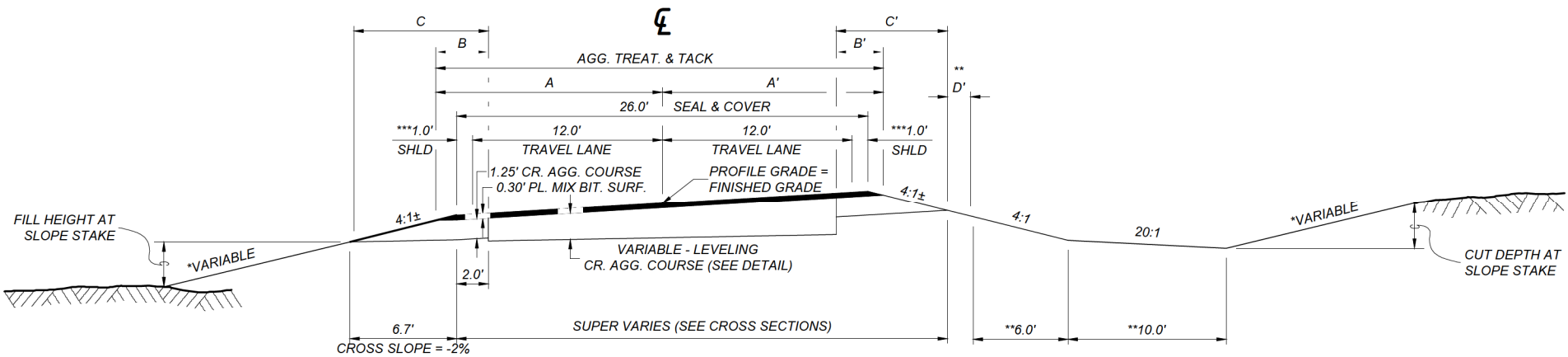
*FILL SLOPES		*BACK SLOPES	
0' - 10'	6:1	0' - 5'	5:1
10' - 20'	4:1	5' - 10'	4:1
20' - 30'	3:1	10' - 15'	3:1
OVER 30'	^^ 2:1	OVER 20'	^^ 2:1

* SEE CROSS SECTIONS FOR DEVIATIONS

^^ STEEPEN TO 1.5:1 AS SHOWN IN THE CROSS SECTIONS. VERIFY WITH GEOTECHINICAL ENGINEER IF STEEPENING FROM 2:1 OUTSIDE WHAT IS SHOWN IN THE PLANS.

TYPICAL SECTION NO. 6

MAINLINE



FOR QUANTITIES SEE TYPICAL NO. 5

SUPER %	WIDTHS (ft)							
	A	B	C	A'	B'	C'	D'	
2%	14.3	3.3	8.7	14.1	3.1	7.8	0.9	
3%	14.3	3.3	8.7	14.0	3.1	7.6	1.1	
4%	14.3	3.3	8.7	14.0	3.0	7.4	1.3	
5%	14.3	3.3	8.7	14.0	3.0	7.2	1.5	
6%	14.3	3.3	8.7	14.0	3.0	7.0	1.7	
8%	14.3	3.3	8.7	13.0	2.9	6.7	2.0	

END GEOTEXTILE 1-3 FT. FROM DAYLIGHT. QUANTITIES ARE CALCULATED 3.0' FROM DAYLIGHT.
** SEE SPECIAL DITCH DETAIL AND CROSS SECTIONS FOR VARIATION
*** WIDEN TO 2' WHERE GUARDRAIL IS PRESENT
**** SEE SPECIAL BORROW DETAIL

155+85.00	TO	157+80.00	TYP. NO. 5 - NEXT TYP. NO. 1
170+85.00	TO	172+65.00	TYP. NO. 5 - NEXT TYP. NO. 1
228+66.04	TO	231+00.00	TYP. NO. 5 - NEXT TYP. NO. 1
279+09.54	TO	280+20.00	TYP. NO. 5 - NEXT TYP. NO. 1
290+69.07	TO	294+00.00	TYP. NO. 5 - NEXT TYP. NO. 3

133+50.00	TO	136+95.00	TYP. NO. 6 (6% LT.) - NEXT TYP. NO. 2
188+10.00	TO	194+10.00	TYP. NO. 6 (4% RT.) - NEXT TYP. NO. 2
205+20.00	TO	207+45.00	TYP. NO. 6 (3% LT.) - NEXT TYP. NO. 2
222+30.00	TO	222+45.15	TYP. NO. 6 (TRANS. 7.42% LT. TO 8% LT.)
222+45.15	TO	225+30.00	TYP. NO. 6 (8% LT.) - NEXT TYP. NO. 2
247+05.00	TO	248+45.10	TYP. NO. 6 (5% RT.)
248+45.10	TO	249+17.10	TYP. NO. 6 (TRANS. 5% RT. TO 2% RT.)
249+17.10	TO	249+96.83	TYP. NO. 6 (2% RT.)
249+96.83	TO	250+50.00	TYP. NO. 6 (TRANS. 2% RT. TO 4.22% RT.)
261+32.20	TO	262+50.00	NEXT TYP. NO. 2
277+79.54	TO	279+09.54	TYP. NO. 6 (TRANS. 2% LT. TO 6.53% LT.) - NEXT TYP. NO. 4 ****
277+79.54	TO	279+09.54	TYP. NO. 6 (3% RT.)
289+65.07	TO	289+65.07	TRANS. TYP. NO. 6 TO TYP. NO. 5
289+65.07	TO	290+69.07	TYP. NO. 6 (2% RT.)
289+65.07	TO	290+69.07	TRANS. TYP. NO. 6 TO TYP. NO. 5

SHEET NO.

8

TYPICAL SECTIONS

MILL CREEK HIGHWAY

DEER LODGE

SSS 569-1(11)6

10473000

PROJECT NAME

COUNTY

PROJECT ID

UPN

DESIGNED BY

B. MARTISHIUS

REVIEWED BY

N. PAVIA

CHECKED BY

J. SPRINGER

10473000RDTYPZ01.DWG



ROAD PLANS

6/17/2025 4:10 PM

SHEET NO.

9

SUMMARY FRAMES

FOR INFORMATION ONLY

SPECIAL BORROW			
STATION		cu. yards	REMARKS
		SPECIAL BORROW NEAT LINE	
FROM	TO		
262+50.00	269+32.00	3,679	SEE SPECIAL BORROW DETAIL
TOTAL		3,679	


GEOTEXTILE					
STATION		sq. yards			REMARKS
		HIGH SURV. SEPARATION GEOTEXTILE	GEOTEXT. STAB.		
FROM	TO				
116+32.50	123+60.00	2,700			RECONSTRUCTION TYPICAL
125+25.00	132+42.00	2,661			RECONSTRUCTION TYPICAL
141+00.00	144+30.00	1,225			RECONSTRUCTION TYPICAL
145+20.00	150+45.00	1,948			RECONSTRUCTION TYPICAL
159+59.32	167+40.00	2,897			RECONSTRUCTION TYPICAL
177+45.00	187+20.00	3,618			RECONSTRUCTION TYPICAL
195+30.00	201+45.00	2,282			RECONSTRUCTION TYPICAL
234+90.00	242+70.00	2,895			RECONSTRUCTION TYPICAL
253+95.00	257+05.65	1,153			RECONSTRUCTION TYPICAL
262+50.00	269+32.00		4,062		SEE SPECIAL BORROW DETAIL
269+32.00	274+95.00	2,089			RECONSTRUCTION TYPICAL
280+90.00	287+85.00	2,579			RECONSTRUCTION TYPICAL
294+00.00	297+75.00	1,392			RECONSTRUCTION TYPICAL
300+90.00	307+41.98	2,420			RECONSTRUCTION TYPICAL
310+44.60	351+00.00	15,050			RECONSTRUCTION TYPICAL
351+75.00	361+20.00	3,507			RECONSTRUCTION TYPICAL
361+95.00	365+00.00	1,132			RECONSTRUCTION TYPICAL
TOTAL		49,548	4,062		

OBLITERATE ROADWAY					
STATION		stations	cu. yards		REMARKS
		OBLITERATE ROADWAY	INCL. IN ADD. GRADING		
			UNCL. EXC. #	EMB.+ #	
FROM	TO				
320+64	333+19	13	8,549	0	SECTION 1
340+79	348+17	8	7,510	322	SECTION 2
TOTAL		21	~	~	

INCLUDED IN ROADWAY QUANTITIES

NOTE: REMOVED PLANT MIX CAN BE USED IN THE ROADWAY EMBANKMENT OR DISPOSED OF IN AN APPROPRIATE LANDFILL.

BITUMINOUS PAVEMENT REMOVAL			
STATION		sq. yards	REMARKS
		REMOVE BITUMINOUS PAVEMENT	
FROM	TO		
315+73.23	334+14.64	5,347	SECTION 1
340+78.94	349+88.38	2,170	SECTION 2
TOTAL		8,117	

<div><div><div>MONTANA</div><div>Department of Transportation</div></div></div>	DESIGNED BY		PROJECT NAME	
	B. MARTISHIUS		MILL CREEK HIGHWAY	
	REVIEWED BY		COUNTY	
	N. PAVIA		DEER LODGE	
	06/2025		PROJECT ID	
ROAD PLANS	CHECKED BY		SSS 569-1(11)6	
	J. SPRINGER		UPN	
	06/2025		10473000	
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SUMMARY

SURFACING																		
STATION		linear feet				FOR	tons	AGGREGATE				BITUMINOUS MATERIAL					REMARKS	
		GROSS	NET	+	-		HYDRATED LIME	sq. yards	tons		cu. yards	LEVELING CRUSHED AGG. COURSE #	tons		gals.			sq. yards
								COVER TYPE 1	PLANT MIX BIT. SURF. 3/4"	PLANT MIX SURF. MISC.	CRUSHED AGG. COURSE		ASPHALT BINDER PG 58V-34	EMULSIFIE D ASPHALT CHFRS-2P	EMULSIFIE D ASPHALT TACK	BASE ONE #		
FROM	TO																	
107+00.00	116+32.50	932.50	932.50			MAINLINE		2,695	546		0		29.5	4.8	296		2,965	TYP. NO. 1
116+32.50	122+37.83	605.33	605.33			MAINLINE		1,749	354		953		19.1	3.1	192		1,925	TYP. NO. 3
122+37.83	123+60.00	122.17	122.17			MAINLINE		353	71		192		3.9	0.6	39		389	TRANS. TYP. NO. 3 TO TYP. NO. 4
123+60.00	125+25.00	165.00	165.00			MAINLINE		477	97		0		5.2	0.9	52	4	525	TYP. NO. 2
125+25.00	132+42.00	717.00	717.00			MAINLINE		2,072	419		1,129		22.7	3.7	228		2,280	TYP. NO. 4
132+42.00	133+50.00	108.00	108.00			MAINLINE		312	63		0		3.4	0.6	34	3	343	TYP. NO. 2
133+50.00	136+95.00	345.00	345.00			MAINLINE		997	202		192	206	10.9	1.8	110		1,097	TYP. NO. 6
136+95.00	141+00.00	405.00	405.00			MAINLINE		1,170	237		0		12.8	2.1	129	10	1,288	TYP. NO. 2
141+00.00	144+30.00	330.00	330.00			MAINLINE		954	193		519		10.4	1.7	105		1,049	TYP. NO. 4
144+30.00	145+20.00	90.00	90.00			MAINLINE		260	53		0		2.8	0.5	29	2	286	TYP. NO. 2
145+20.00	146+29.61	109.61	109.61			MAINLINE		317	64		173		3.5	0.6	35		349	TYP. NO. 4
146+29.61	148+37.61	208.00	208.00			MAINLINE		601	122		327		6.6	1.1	66		661	TRANS. TYP. NO. 4 TO TYP. NO. 3
148+37.61	150+45.00	207.39	207.39			MAINLINE		599	121		326		6.6	1.1	66		660	TYP. NO. 3
150+45.00	155+85.00	540.00	540.00			MAINLINE		1,561	316		0		17.1	2.8	172	13	1,717	TYP. NO. 1
155+85.00	157+80.00	195.00	195.00			MAINLINE		564	114		108	121	6.2	1.0	62		620	TYP. NO. 5
157+80.00	159+59.32	179.32	179.32			MAINLINE		518	105		0		5.7	0.9	57	4	570	TYP. NO. 1
159+59.32	167+40.00	780.68	780.68			MAINLINE		2,256	457		1,229		24.7	4.0	248		2,483	TYP. NO. 3
167+40.00	170+85.00	345.00	345.00			MAINLINE		997	202		0		10.9	1.8	110	8	1,097	TYP. NO. 1
170+85.00	172+65.00	180.00	180.00			MAINLINE		520	105		100	140	5.7	0.9	57		572	TYP. NO. 5
172+65.00	175+05.23	240.23	240.23			MAINLINE		694	141		0		7.6	1.2	76	6	764	TYP. NO. 1
175+05.23	176+61.23	156.00	156.00			MAINLINE		451	91		0		4.9	0.8	50	4	496	TRANS. TYP. NO. 1 TO TYP. NO. 2
176+61.23	177+45.00	83.77	83.77			MAINLINE		242	49		0		2.6	0.4	27	2	266	TYP. NO. 2
177+45.00	187+20.00	975.00	975.00			MAINLINE		2,818	570		1,535		30.8	5.0	310		3,101	TYP. NO. 4
187+20.00	188+10.00	90.00	90.00			MAINLINE		260	53		0		2.8	0.5	29	2	286	TYP. NO. 2
188+10.00	194+10.00	600.00	600.00			MAINLINE		1,734	351		334	319	19.0	3.1	191		1,908	TYP. NO. 6
194+10.00	195+30.00	120.00	120.00			MAINLINE		347	70		0		3.8	0.6	38	3	382	TYP. NO. 2
195+30.00	201+45.00	615.00	615.00			MAINLINE		1,177	360		968		19.4	3.2	195		1,956	TYP. NO. 4
201+45.00	205+20.00	375.00	375.00			MAINLINE		1,084	219		0		11.8	1.9	119	9	1,193	TYP. NO. 2
205+20.00	207+45.00	225.00	225.00			MAINLINE		650	132		125	84	7.1	1.2	72		716	TYP. NO. 6
207+45.00	222+30.00	1,485.00	1,485.00			MAINLINE		4,292	869		0		46.9	7.7	472	35	4,722	TYP. NO. 2
222+30.00	225+30.00	300.00	300.00			MAINLINE		867	176		167	165	9.5	1.5	95		954	TYP. NO. 6
225+30.00	226+06.04	76.04	76.04			MAINLINE		220	44		0		2.4	0.4	24	2	242	TYP. NO. 2
226+06.04	228+66.04	260.00	260.00			MAINLINE		751	152		0		8.2	1.3	83	6	827	TRANS. TYP. NO. 2 TO TYP. NO. 1
228+66.04	231+00.00	233.96	233.96			MAINLINE		676	137		130	148	7.4	1.2	74		744	TYP. NO. 5
231+00.00	234+90.00	390.00	390.00			MAINLINE		1,127	228		0		12.3	2.0	124	9	1,240	TYP. NO. 1
234+90.00	236+19.18	129.18	129.18			MAINLINE		373	76		203		4.1	0.7	41		411	TYP. NO. 3
236+19.18	237+39.18	120.00	120.00			MAINLINE		347	70		189		3.8	0.6	38		382	TRANS. TYP. NO. 3 TO TYP. NO. 4
237+39.18	242+70.00	530.82	530.82			MAINLINE		1,534	311		836		16.8	2.7	169		1,688	TYP. NO. 4
242+70.00	247+05.00	435.00	435.00			MAINLINE		1,257	254		0		13.7	2.2	138	10	1,383	TYP. NO. 2
247+05.00	250+50.00	345.00	345.00			MAINLINE		997	202		192	209	10.9	1.8	110		1,097	TYP. NO. 6
250+50.00	253+95.00	345.00	345.00			MAINLINE		997	202		0		10.9	1.8	110	8	1,097	TYP. NO. 2
253+95.00	257+05.65	310.65	310.65			MAINLINE		898	182		489		9.8	1.6	99		988	TYP. NO. 4
257+05.65	258+97.65	192.00	192.00			MAINLINE		555	112		0		6.1	1.0	61	5	611	TRANS. TYP. NO. 2 TO TYP. NO. 1
258+97.65	260+28.20	130.55	130.55			MAINLINE		377	76		0		4.1	0.7	41	3	415	TYP. NO. 1
260+28.20	261+32.20	104.00	104.00			MAINLINE		301	61		0		3.3	0.5	33	2	331	TRANS. TYP. NO. 1 TO TYP. NO. 2
261+32.20	262+50.00	117.80	117.80			MAINLINE		340	69		65	121	3.7	0.6	37		375	TYP. NO. 6
262+50.00	268+74.81	624.81	624.81			MAINLINE		1,806	366		983		19.7	3.2	199		1,987	TYP. NO. 4
268+74.81	271+34.81	260.00	260.00			MAINLINE		751	152		409		8.2	1.3	83		827	TRANS. TYP. NO. 4 TO TYP. NO. 3
271+34.81	273+89.46	254.65	254.65			MAINLINE		736	149		401		8.0	1.3	81		810	TYP. NO. 3
273+89.46	274+95.00	105.54	105.54			MAINLINE		305	62		166		3.3	0.5	34		336	TRANS. TYP. NO. 3 TO TYP. NO. 4
274+95.00	277+79.54	284.54	284.54			MAINLINE		822	166		0		9.0	1.5	90	7	905	TYP. NO. 2
277+79.54	279+09.54	130.00	130.00			MAINLINE		376	76		72	203	4.1	0.7	41		413	TRANS. TYP. NO. 6 TO TYP. NO. 5
279+09.54	280+20.00	110.46	110.46															

SUMMARY FRAMES

MILL CREEK HIGHWAY

DEER LODGE

SSS 569-1(11)6

10473000

PROJECT NAIVE

COUNTY

PROJECT ID

UPN

DESIGNED BY

5

REVIEWED BY

CHECKED BY

10473000RDSUMZ01.DWG



ROAD PLANS

1/17/2025 4:10 PM

SUMMARY

ADDITIONAL SURFACING (INCLUDED IN SURFACING FRAME)

ADDITIONAL SURFACING (INCLUDED IN SURFACING FRAME)																		
STATION		linear feet				FOR	tons	AGGREGATE				BITUMINOUS MATERIAL					REMARKS	
		GROSS	NET	+	-			HYDRATED LIME	sq. yards	tons		cu. yards	tons		gals.			sq. yards
										COVER TYPE 1	PLANT MIX BIT. SURF. 3/4"		PLANT MIX SURF. MISC.	CRUSHED AGG. COURSE	ASPHALT BINDER PG 58V-34	EMULSIFIE D ASPHALT CHFRS-2P		
FROM	TO																	
117+80.67	121+92.50	411.83	411.83			GUARDRAIL SHOULDER WIDENING		45	9		19	0.5	0.1	5		49		
116+57.50	122+94.32	636.82	636.82			GUARDRAIL SHOULDER WIDENING		70	13		29	0.7	0.1	7		76		
143+07.50	148+05.51	498.01	498.01			GUARDRAIL SHOULDER WIDENING		55	10		23	0.6	0.1	6		60		
147+05.68	150+17.50	311.82	311.82			GUARDRAIL SHOULDER WIDENING		34	7		14	0.4	0.1	3		37		
153+30.68	160+42.50	711.82	711.82			GUARDRAIL SHOULDER WIDENING		78	15		33	0.8	0.1	8		85		
156+57.50	159+59.32	301.82	301.82			GUARDRAIL SHOULDER WIDENING		33	6		14	0.3	0.1	3		36		
162+32.50	173+94.32	1,161.82	1,161.82			GUARDRAIL SHOULDER WIDENING		128	24		53	1.3	0.2	13		139		
164+55.68	173+42.50	886.82	886.82			GUARDRAIL SHOULDER WIDENING		98	19		41	1.0	0.2	10		106		
187+30.68	259+67.50	7,236.82	7,236.82			GUARDRAIL SHOULDER WIDENING		796	152		333	8.2	1.4	80		868		
272+80.68	294+67.50	2,186.82	2,186.82			GUARDRAIL SHOULDER WIDENING		241	46		101	2.5	0.4	24		262		
306+05.68	314+92.50	886.82	886.82			GUARDRAIL SHOULDER WIDENING		98	19		41	1.0	0.2	10		106		
332+77.50	342+19.32	941.82	941.82			GUARDRAIL SHOULDER WIDENING		104	20		43	1.1	0.2	10		113		
348+82.50	353+44.32	461.82	461.82			GUARDRAIL SHOULDER WIDENING		51	10		21	0.5	0.1	5		55		
						TURNAROUND 2		1,860		361		19.5	3.3	189	14	1,888		
						TURNAROUND 3		1,273		247		13.3	2.3	129	10	1,293		
						15 PRIVATE APPROACHES				522	1,393	28.2		237		4,876		
SUBTOTAL		~	~	~	~		~	4,964	360	1,130	2,168	79.9	8.9	739	24	10,049		

RANDOM RIPRAP

RANDOM RIPRAP				
STATION	cu. yards	sq. yards		REMARKS
	RANDOM RIPRAP	GEOTEXTILE	RIPRAP REVEGETATIO N	
		PERM. EROS. CNTRL.		
		HIGH SURV. CLASS B		
FROM	CL. 2			
199+93	22.0	26		CULVERT OUTLET
206+31	19.0	22		CULVERT OUTLET
214+90	9.0	10		CULVERT OUTLET
251+25	9.0	10		CULVERT OUTLET
TOTAL	59.0	68	0	

MEDIAN INLETS

MEDIAN INLETS			
STATION	each		REMARKS
	MEDIAN INLET		
	TYPE 2		
240+79	RT	1	EAST SHOULDER DROP INLET
251+25	RT	1	EAST SHOULDER DROP INLET
258+28	RT	1	EAST SHOULDER DROP INLET
277+17	RT	1	EAST SHOULDER DROP INLET
283+10	RT	1	EAST SHOULDER DROP INLET
291+60	RT	1	EAST SHOULDER DROP INLET
TOTAL		6	

EMBANKMENT PROTECTORS #

EMBANKMENT PROTECTORS #						
STATION	linear feet				REMARKS	
	EMBANKMENT PROTECTOR					
	24" *		30" **			
	LEFT	RIGHT	LEFT	RIGHT		
220+88	36				INCLUDES TEE BRANCH BASE. CONNECT TO DRAINAGE CULVERT	
228+32			22		INCLUDES TEE BRANCH BASE. CONNECT TO DRAINAGE CULVERT	
240+79	12				INCLUDES TEE BRANCH BASE. CONNECT TO DRAINAGE CULVERT	
258+28	40				INCLUDES TEE BRANCH BASE. CONNECT TO DRAINAGE CULVERT	
277+17	24				INCLUDES TEE BRANCH BASE. CONNECT TO DRAINAGE CULVERT	
283+10	16				INCLUDES TEE BRANCH BASE. CONNECT TO DRAINAGE CULVERT	
291+60	18				INCLUDES TEE BRANCH BASE. CONNECT TO DRAINAGE CULVERT	
TOTAL	146	0	22	0		

SEE DETAIL SHEETS DETAILING EMBANKMENT PROTECTION IN THE DETAIL SHEETS.

* PAID FOR AS 24 IN CSP

**** PAID FOR AS 30 IN CSP**

CULVERT SUMMARY RECAP

CULVERT SUMMARY RECAP									
BASIC BID	linear feet		cu. yards						sq. yards
	NEW PIPE (TOTAL)	REMOVE PIPE CULVERT	FOUNDATION MATERIAL	GRANULAR BEDDING MATERIAL	SPECIAL BACKFILL	RIPRAP - CLASS II	STREAMBED MATERIAL	FILL & ABANDON PIPE	GEOTEXT. STAB.
8"x 4' RCB	56		50	25	415		13.0		373
12" PVC		69.9							
15" RCP		59.8							
24" RCP	52	745.5		4					
36" RCP		138.7		16					
48" RCP		226.5							
24" SCP	146			15		18			20
36" SCP	276			49		41			48
12" CSP		20.0							
18" CSP	62								
24" CSP	766	100.0		64					
30" CSP	190	147.8		18				21	
36" CSP	100	409.6						36	
42" CSP	128			26					
48" CSP	114		55	26	1,097		11.0		204
54" CSP	164			44					
60" CSP	82			21					
TOTAL	~	1,918	105	308	1,512	59	24	57	645

APPROACH PIPE (INCLUDED IN CULVERT SUMMARY RECAP)

APPROACH PIPE (INCLUDED IN CULVERT SUMMARY RECAP)										
STATION	BASIC BID ITEMS			PIPE OPTIONS in	END SECTIONS		linear feet	SKEW ANGLE	CULVERT IN PL. in x ft	REMARKS
	CULVERT PIPE in	linear feet		STEEL - 2 2/3 x 1/2 CORR. 0.064 THK.			HEIGHT OF COVER			
		LENGTH OF PIPE	REMOVE PIPE CULVERT		LEFT	RIGHT				
107+47 LT	30	42	35.0	42	-	-	1.0	90	30" x 35' CMP	
144+21 LT	24	74	40.0	74	-	-	1.4	86	24" x 40' CMP	
159+91 RT	18	62	20.0	38	-	-	1.0	37	12" x 20' CMP	
174+99 LT	24	40	60.0	40	-	-	4.2	87	24" x 60' CMP	
TOTAL	~	~	155	~	~	~	~	~	~	

SUMMARY

CULVERTS (INCLUDED IN CULVERT SUMMARY RECAP)																							
STATION	CULVERT PIPE in	BASIC BID ITEMS							PIPE OPTIONS in			END SECTIONS		cu. yards				sq. yards	linear feet	SKEW ANGLE	CULVERT IN PL. in x ft	REMARKS	
		LENGTH OF PIPE	REMOVE PIPE CULVERT	FOUND- ATION MATERIAL	GRANULAR BEDDING MATERIAL	cu. yards		FILL & ABANDON PIPE	sq. yards	STEEL - 2 2/3 X 1/2 CORR. CONCRETE ALUMINUM - 2 2/3 x 1/2 CORR.	CLASS OR THK.			COATIN G *	FOUND- ATION MATERIAL	GRANULAR BEDDING MATERIAL	SPECIAL BACKFIL L	STREAMBED MATERIAL	GEOTEXT. STAB.				HEIGHT OF COVER
						SPECIAL BACKFIL L	STREAMBED MATERIAL					LEFT	RIGHT										
119+40	48	114		55 58 55	26 29 26	1,097 1,195 1,097	11.0 11.0 11.0		204 214 204	48 CSP 48 RCP 48 CAP	0.064 CL. 3 0.105	YES NONE NONE	FETS	FETS	55.0 58.0 55.0	26.0 29.0 26.0	1,097.0 1,195.0 1,097.0	11.0 11.0 11.0	204 214 204	15.7 15.5 15.7	8 RT		
119+46			85.2																			36" x 85.2' RCP	REMOVE
134+92			53.0																			24" x 53' RCP	REMOVE
135+12	24	76			8 9 8					24 CSP 24 RCP 24 CAP	0.064 CL. 3 0.060	YES NONE NONE	#SSES	FETS		8 9 8				3.5 3.4 3.5	-		
147+93			57.0																			36" x 57' CMP	REMOVE
147+98	60	82			21 24 21					60 CSP 60 RCP 60 CAP	0.064 CL. 3 0.135	YES NONE NONE	#SSES	FETS		21 24 21				3.5 3.2 3.5	27 RT		
158+03	54	164			44 50 44					54 CSP 54 RCP 54 CAP	0.079 CL. 3 0.105	YES NONE NONE	FETS	FETS		44 50 44				9.4 9.1 9.4	58 LT		
158+19			114.8																			36" x 114.8' CMP	REMOVE
165+44	42	128			26 29 26					42 CSP 42 RCP 42 CAP	0.064 CL. 3 0.105	YES NONE NONE	FETS	FETS		26 29 26				19.6 19.4 19.6	14 RT		
165+57			112.8					21.0														30" x 112.8' CMP	FILL AND ABANDON
199+85			137.8					36.0														36" x 137.8' CMP	FILL AND ABANDON
199+93	36	188			35				26	36 SCP		NONE	SQ	FETS		35			26	22.5	13 RT		
206+30			100.0																			36" x 100' CMP	REMOVE
206+31	36	88			14				22	36 SCP		NONE	SQ	#SSES		14			22	4.8	-		
214+90	24	86	48.5		9				10	24 SCP		NONE	SQ	#SSES		9			10	3.7	5 RT	24" x 48.5' RCP	REMOVE
216+91			55.2																			24" x 55.2' RCP	REMOVE
216+94	24	76			8 8					24 CSP ~ 24 CAP	0.064 0.060	YES NONE	FETS	#SSES		8 8				2.6 2.6	6 LT		
220+83			73.1																			24" x 73.1' RCP	REMOVE
220+88	24	72			7 7					24 CSP ~ 24 CAP	0.064 0.060	YES NONE	-	#SSES		7 7				3.7 3.7	15 RT		EMB. PROTECTOR LT- SEE EMB. PROTECTOR FRAME & DETAILS
228+28			56.3																			24" x 56.3' RCP	REMOVE
228+32	30	72			9					30 CSP ~ ~	0.064 0.064	YES YES	-	#SSES		9 9				2.2	4 RT		EMB. PROTECTOR LT- SEE EMB. PROTECTOR FRAME & DETAILS
234+79			39.1																			24" x 39.1' RCP	REMOVE
234+80	24	68			7 7					24 CSP ~ 24 CAP	0.064 0.060	YES NONE	FETS	#SSES		7 7				2.4 2.4	3 RT		
240+79	24	48	42.7		4 4					24 CSP ~ 24 CAP	0.064 0.060	YES NONE	-	-		4 4				2.3 2.3	-	24" x 42.7' RCP	MEDIAN INLET RT- SEE MEDIAN INLET FRAME & DETAILS. EMB. PROTECTOR LT- SEE EMB. PROTECTOR FRAME & DETAILS
251+25	24	60	48.6		6				10	24 SCP			FETS	-		6			10	3.6	-	24" x 48.6' RCP	MEDIAN INLET RT- SEE MEDIAN INLET FRAME
258+26			46.0																			24" x 46.0' RCP	REMOVE
258+28	24	56			5 5					24 CSP ~ 24 CAP	0.064 0.060	YES NONE	-	-		5 5				3.0 3.0	2 RT		MEDIAN INLET RT- SEE MEDIAN INLET FRAME & DETAILS. EMB. PROTECTOR LT- SEE EMB. PROTECTOR FRAME & DETAILS
262+82			59.3																			24" x 59.3' RCP	REMOVE
263+02			69.9																			12" x 69.9' PVC	REMOVE
264+51			59.8																			15" x 59.8' RCP	REMOVE
269+32			53.5																			36" x 53.5' RCP	REMOVE
269+42	36	100			16 18 16					36 CSP 36 RCP 36 CAP	0.064 CL. 3 0.075	YES NONE NONE	FETS	FETS		16 18 16				6.5 6.3 6.5	19 RT		
277+16			40.0																			24" x 40.0' RCP	REMOVE
277+17	24	56			5 5					24 CSP ~ 24 CAP	0.064 0.060	YES NONE	-	-		5 5				3.4 3.4	3 RT		MEDIAN INLET RT- SEE MEDIAN INLET FRAME & DETAILS. EMB. PROTECTOR LT- SEE EMB. PROTECTOR FRAME & DETAILS
283+10	24	54	39.5		5 5					24 CSP ~ 24 CAP	0.064 0.060	YES NONE	-	-		5 5				2.2 2.2	-	24" x 39.5' RCP	MEDIAN INLET RT- SEE MEDIAN INLET FRAME & DETAILS. EMB. PROTECTOR LT- SEE EMB. PROTECTOR FRAME & DETAILS
291+57			52.3																			24" x 52.3' RCP	REMOVE
291+60	24	70			7 7					24 CSP ~ 24 CAP	0.064 0.060	YES NONE	-	-		7 7				2.7 2.7	-		MEDIAN INLET RT- SEE MEDIAN INLET FRAME & DETAILS. EMB. PROTECTOR LT- SEE EMB. PROTECTOR FRAME & DETAILS
298+56	24	76	45.8		8 8					24 CSP ~ 24 CAP	0.064 0.060	YES NONE	FETS	#SSES		8 8				1.5 1.5	-	24" x 45.8' RCP	REMOVE EXISTING CULVERT

SUMMARY

SUMMARY FRAMES

CULVERTS CONT. (INCLUDED IN CULVERT SUMMARY RECAP)																							
STATION	BASIC BID ITEMS									PIPE OPTIONS in			END SECTIONS		cu. yards				sq. yards	linear feet	SKEW ANGLE	CULVERT IN PL. In x ft	REMARKS
	CULVERT PIPE in	linear feet LENGTH OF PIPE	REMOVE PIPE CULVERT	FOUND- ATION MATERIAL	GRANULAR BEDDING MATERIAL	SPECIAL BACKFIL L	STREAMBED MATERIAL	FILL & ABANDON PIPE	sq. yards GEOTEXT. STAB.	STEEL - 2 2/3 X 1/2 CORR. CONCRETE ALUMINUM - 2 2/3 x 1/2 CORR.	CLASS OR THK.	COATING *			FOUND- ATION MATERIAL	GRANULAR BEDDING MATERIAL	SPECIAL BACKFIL L	STREAMBED MATERIAL	GEOTEXT. STAB.	HEIGHT OF COVER			
													LEFT	RIGHT									
313+18	4 X 8 RCB	56		50	25	415	13.0		373				WINGWALLS	WINGWALLS	50	25	415	13.0	373	1.1	8 LT		
313+23			50.0																			48" x 50.0' RCP	REMOVE
323+82	24	52			4					24 RCP	CL. 3	NONE	#SSES	#SSES		5				1.2			
327+56			176.5																			48" x 176.5' RCP	REMOVE FROM OLD HIGHWAY EMBANKMENT
344+46			46.1																			24" x 46.1' RCP	REMOVE FROM OLD HIGHWAY EMBANKMENT
351+45	30	76			9					30 CSP ~ 30 CAP	0.064 0.075	YES NONE	#SSES	#SSES		9 9				3.5 3.5	- -		
TOTAL	~	~	1,763	105	308	1,512	24.0	57	645	~	~	~	~	~	~	~	~	~	~	~	~	~	

* SEE STANDARD SPEC. SEC. 709.05
SAFETY SLOPED END SECTION SEE DETAILS

REMOVE TREES		
STATION	lump sum REMOVE TREES	REMARKS
	1	TO BE DETERMINED BY DESIGN BUILD TEAM
TOTAL	1	

FENCING												
STATION		linear feet			each					linear feet		REMARKS
		FARM FENCE		TEMP. FENCE	FARM FENCE PANEL				DEADMAN	FARM GATE		
		TYPE ---	TYPE ---		SINGLE		DOUBLE			TYPE G2	TYPE G3	
					FW	FM	FW	FM				
FROM	TO				FW	FM	FW	FM				
TOTAL		0	0	0	0	0	0	0	0	0	0	

DESIGNED BY
B. MARTISHIUS
02/2025

REVIEWED BY
N. PAVIA
06/2025

CHECKED BY
J. SPRINGER
06/2025

PROJECT NAME
MILL CREEK HIGHWAY

COUNTY
DEER LODGE

PROJECT ID
SSS 569-1(11)6

UPN
10473000

MONTANA
Department of Transportation

ROAD PLANS

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SUMMARY

TOPSOIL & SEEDING										
STATION		cu. yards	acres						REMARKS	
		TOPSOIL SALVAGING & PLACING	SEED			FERTILIZER		CONDITION SEEDBED #		MULCH - COMPOST
			NO. 1	NO. 2	NO.3	NO. 1	NO. 2			
FROM	TO									
107+00.00	137+00.00	1,042	0.9	0.1	0.9	0.9	0.1	1.8	0.1	
107+00.00	137+00.00	930	0.6	0.2	1.0	0.6	0.2	1.6	0.2	
137+00.00	167+00.00	756	0.2	0.2	1.0	0.2	0.2	1.2	0.2	
137+00.00	167+00.00	1,028	0.9	0.1	0.9	0.9	0.1	1.8	0.1	
167+00.00	197+00.00	1,322	0.8	0.7	1.0	0.8	0.7	1.8	0.7	
167+00.00	197+00.00	756	0.7	0.0	0.7	0.7	0.0	1.4	0.0	
197+00.00	227+00.00	653	0.0	0.7	0.6	0.0	0.7	0.6	0.7	
197+00.00	227+00.00	989	0.9	0.0	0.9	0.9	0.0	1.8	0.0	
227+00.00	257+00.00	745	0.0	0.7	0.7	0.0	0.7	0.7	0.7	
227+00.00	257+00.00	1,128	1.3	0.0	0.8	1.3	0.0	2.1	0.0	
257+00.00	287+00.00	1,132	0.8	0.3	1.0	0.8	0.3	1.8	0.3	
257+00.00	287+00.00	1,153	1.1	0.0	1.0	1.1	0.0	2.1	0.0	
287+00.00	317+00.00	1,019	0.9	0.1	0.8	0.9	0.1	1.7	0.1	
287+00.00	317+00.00	1,151	1.2	0.0	1.0	1.2	0.0	2.2	0.0	
317+00.00	347+00.00	1,614	0.1	1.9	1.0	0.1	1.9	1.1	1.9	
317+00.00	347+00.00	1,322	1.3	0.2	1.0	1.3	0.2	2.3	0.2	
347+00.00	377+00.00	610	0.2	0.3	0.6	0.2	0.3	0.8	0.3	
347+00.00	377+00.00	574	0.4	0.0	0.6	0.4	0.0	1.0	0.0	
TOTAL		17,924	12.3	5.5	15.5	12.3	5.5	~	5.5	

FOR INFORMATION ONLY - INCLUDED IN THE COST OF SEEDING AREA NO.1 & SEEDING AREA NO. 3

PAVEMENT MARKINGS				
ITEM	UNIT	INTERIM APPLICA- TION #	FINAL APPLICA- TION	TOTAL
STRIPING - WHITE PAINT	gallon	365		365
STRIPING - YELLOWPAINT	gallon	238		238
WORDS & SYMBOLS - WHITE PAINT	gallon	0		0
STRIPING - WHITE EPOXY	gallon		244	244
STRIPING - YELLOW EPOXY	gallon		159	159
WORDS & SYMBOLS - WHITE EPOXY	gallon		0	0
TEMPORARY STRIPING	linear feet			51,983
FINAL SWEEP AND BROOM	course mile			4.9

BASED ON 2 APPLICATIONS.

RUMBLE STRIPS				
STATION		miles	gals	REMARKS
		RUMBLE STRIPS	EMULSIFIED ASPHALT	
		CENTERLINE TYPE 2	FOG SEAL #	
FROM	TO			
170+00.00	366+91.47	4.9	193	
SUBTOTAL		4.9	193	
TOTAL		4.9	~	

FOR INFORMATION ONLY, INCLUDE IN THE COST OF RUMBLE STRIPS

GUARDRAIL										
STATION		linear feet						each		REMARKS
		MGS GUARDRAIL		MGS GUARDRAIL - LONG POST		MGS INTERSECTING ROADWAY TERMINAL SECTION		MASH W-BEAM TERMINAL SECTION		
FROM	TO	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	
NEW RAIL										
116+70.00	122+81.82		550.0						2	
117+93.18	121+80.00	325.0						2		
143+20.00	148+75.96		462.5				37.5		1	24' RADIUS
147+18.18	150+05.00	225.0						2		
153+43.18	160+30.00	625.0								
156+70.00	159+46.82		212.5						2	
162+45.00	173+81.82		1,075.0						2	
164+68.18	173+30.00	800.0						2		
187+43.18	194+00.00	625.0						1		
194+00.00	201+50.00			750.0						
201+50.00	239+25.00	3,775.0								
239+25.00	245+00.00			575.0						
245+00.00	248+00.00	300.0								
248+00.00	251+75.00			375.0						
251+75.00	259+55.00	750.0						1		
272+93.18	283+00.00	975.0						1		
283+00.00	286+00.00			300.0						
286+00.00	294+55.00	825.0						1		
306+18.18	310+00.00	350.0						1		
310+00.00	313+50.00			350.0						
313+50.00	314+80.00	100.0						1		
332+90.00	334+20.00		100.0						1	
334+20.00	336+50.00				225.0					
336+50.00	338+50.00		200.0							
338+50.00	342+06.82				325.0				1	
348+95.00	353+31.82		375.0						2	
SUBTOTAL		9,675.0	2,975.0	2,350.0	550.0	0.0	37.5	12	11	
TOTAL		12,650.0		2,900.0		37.5		23		

SHEET NO.

14

SUMMARY FRAMES

PROJECT NAME

MILL CREEK HIGHWAY

COUNTY

DEER LODGE

PROJECT ID

SSS 569-1(1)6

UPN

10473000

DESIGNED BY

B. MARTISHIUS

REVIEWED BY

N. PAVIA

CHECKED BY

J. SPRINGER

DATE

02/2025

DATE

06/2025

DATE

06/2025

MONTANA

Department of Transportation

ROAD PLANS

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HYDRAULIC DATA SUMMARY

PROJECT NAME
MILL CREEK HIGHWAY
COUNTY
DEER LODGE
PROJECT ID
SSS 569-1(11)6
UPN
10473000

DESIGNED BY
B. MARTISHIUS
02/2025
REVIEWED BY
N. PAVIA
06/2025
CHECKED BY
J. SPRINGER
06/2025
10473000RDSUM202.DWG

MONTANA
Department of Transportation
ROAD PLANS
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HYDRAULIC DATA SUMMARY *

STATION	DRAINAGE AREA (mi²)	SIZE/TYPE STRUCTURE ① ② ⑤	DESIGN FLOOD			BASE FLOOD (1%)		OVERTOPPING FLOOD ③ ④			REMARKS (FLOOD OF RECORD, Qp(max), etc.) ⑥
			MAGNITUDE (cfs)	FREQUENCY (%)	H.W. ELEV. (ft)	MAGNITUDE (cfs)	H.W. ELEV. (ft)	MAGNITUDE (cfs)	APPROX. FREQUENCY (%)	H.W. ELEV. (ft)	
119+40	0.53	48" CSP	5.7	2	6526.86	13.4	6527.40	146.0	<0.5	6543.65	Qp(max)
147+98	1.30	60" CSP	108.0	2	6562.74	154.0	6564.15	191.1	<0.5	6566.23	Qp(max)
158+03	1.22	54" CSP	103.0	2	6577.88	148.0	6580.52	223.9	<0.5	6587.49	Qp(max)
165+44	0.21	42" CSP	9.3	2	6600.65	15.5	6601.03	186.7	<0.5	6621.21	Qp(max)
199+93	0.06	36" SCP	20.1	2	6645.99	26.8	6646.40	132.3	<0.5	6660.01	Qp(max)
206+31	0.04	36" SCP	6.3	2	6614.46	9.9	6614.70	37.5	<0.5	6616.35	Qp(max)
228+30	0.04	30" CSP	1.7	2	6460.48	3.4	6460.70	35.6	<0.5	6463.45	Qp(max)
313+18	4.94	8' X 4' RCB	125.0	2	6043.00	198.0	6043.75	284.0	0.5	6047.17	Qp(max)
351+45	0.07	30" CSP	0.8	2	5854.58	2.1	5856.35	41.3	1.0	5856.16	

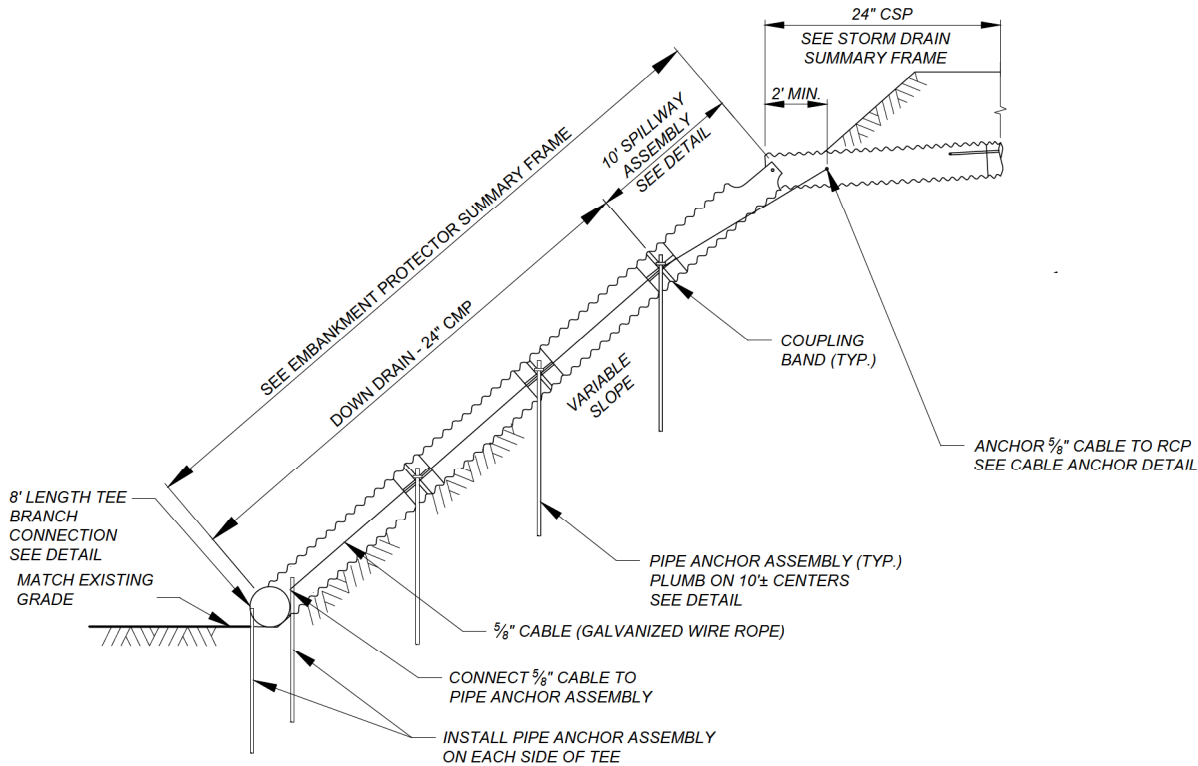
NOTES:
* H.W. ELEVATIONS SHOWN ARE BASED UPON PEAK FLOW ANALYSIS UNLESS NOTED IN REMARKS COLUMN.
ADDITIONAL GUIDANCE ON THE HYDRAULIC DATA SUMMARY SHEET CAN BE FOUND IN SECTION 11.8.2 OF THE HYDRAULICS MANUAL.

- ① STRUCTURE SIZE OR TYPE AND RELATED HYDRAULIC DATA MAY NOT REFLECT CHANGES MADE DUE TO R/W OR OTHER CONSIDERATIONS (I.E. STOCKPASS ADDED, STRUCTURE SIZE OR TYPE CHANGED, ROAD GRADE CHANGED DURING CONSTRUCTION, ETC.)
- ② BRIDGE TOP LENGTH AND NUMBER OF SPANS OR BASE BID CULVERT SIZE AND SHAPE.
- ③ OVERTOPPING IS DEFINED AS FLOW OVER THE ROAD, FLOW THROUGH A SIGNIFICANT RELIEF STRUCTURE OR FLOW OVER THE BASIN DIVIDE WHICHEVER IS LOWER.
- ④ FOR THOSE CROSSINGS NOTED BY Qp(max) IN THE REMARKS COLUMN, OVERTOPPING DOES NOT OCCUR THROUGH THE Qp(max) EVENT. Qp(max) IS THE 200 YEAR EVENT FOR CULVERTS AND THE 500 YEAR EVENT FOR BRIDGES.
- ⑤ HEAD WATER ELEVATIONS MAY VARY SLIGHTLY DEPENDING UPON THE PIPE OPTION SELECTED.
- ⑥ NOTE ANY CULVERTS THAT WERE SIZED USING THE HEADWATER EXCEPTION PROCEDURE PER SECTION 11.3.1.3.2 OF THE HYDRAULICS MANUAL. (FORMERLY CALLED PM10.)

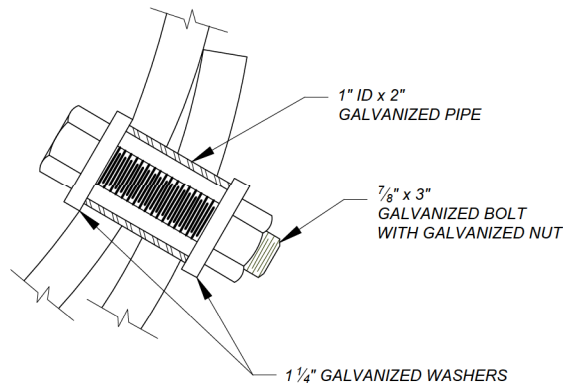
EXCEEDANCE PROBABILITY	
25 YEAR	4% CHANCE
50 YEAR	2% CHANCE
100 YEAR	1% CHANCE
200 YEAR	0.5% CHANCE
500 YEAR	0.2% CHANCE

DETAIL

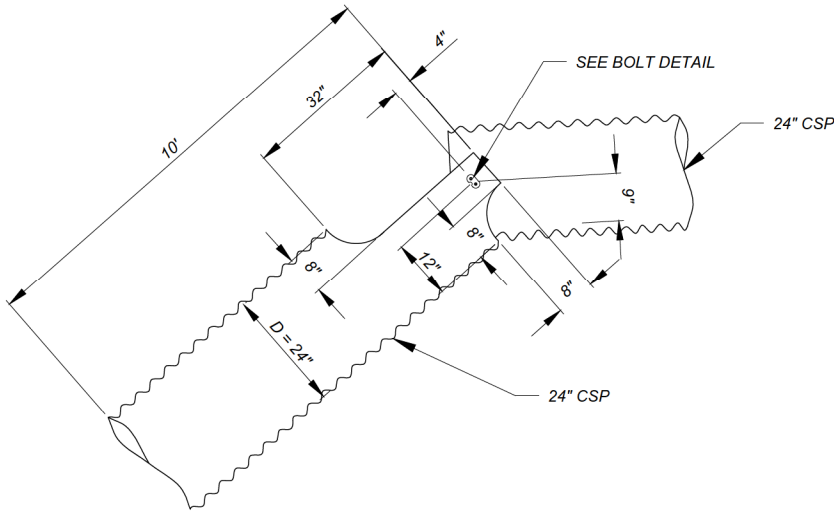
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24" SPILLWAY ASSEMBLY WITH DOWN DRAIN
AND TEE BRANCH
PROFILE

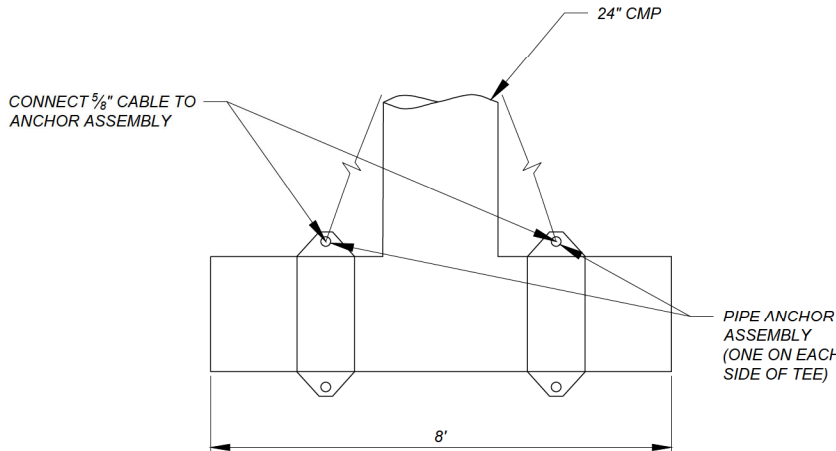


BOLT DETAIL



SPILLWAY ASSEMBLY DETAIL

D = DIAMETER OF CULVERT



TEE BRANCH CONNECTION DETAIL

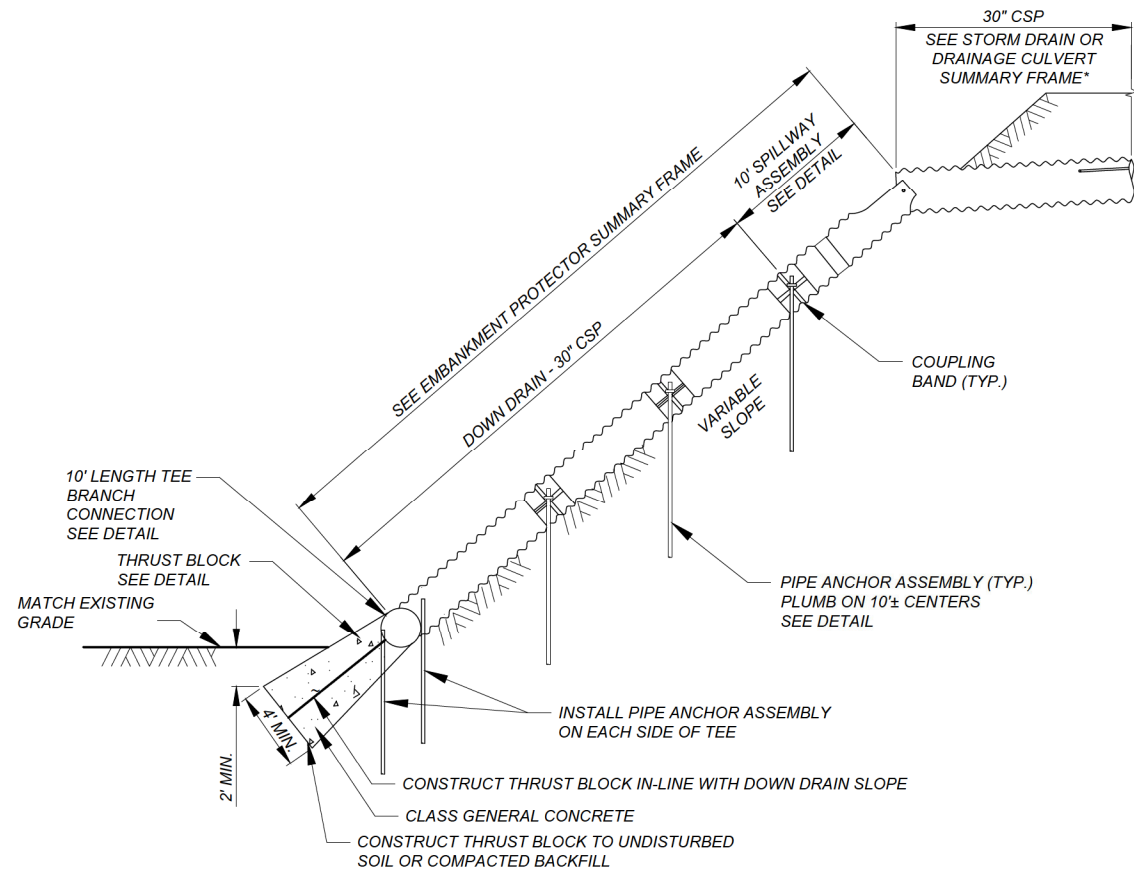
- NOTES:
- FABRICATE SPILLWAY ASSEMBLY FROM ANNULAR CORRUGATED PIPE, OR FROM HELICALLY CORRUGATED PIPE WITH FACTORY ANNULAR OR PREFORMED ENDS. USE 0.109 INCH THICK GALVANIZED STEEL PIPE WITH AN APPROVED TYPE II ALUMINIZED COATING IN ACCORDANCE WITH STANDARD SPEC. SEC. 709.12 OR 0.105 INCH THICK ALUMINUM PIPE FOR ALL EMBANKMENT PROTECTORS.
 - MAKE ALL BANDED CONNECTIONS WATER TIGHT BY PLACING 3/16" BEAD OF APPROVED CAULKING UNDER EACH HALF OF THE BAND BEFORE TIGHTENING.
 - PROVIDE APPROVED PIPE CAP(S) FOR TEE BRANCH CONNECTIONS WHERE SPECIFIED ON THE PLANS.
 - MEASUREMENT AND PAYMENT FOR TEE BRANCH CONNECTION IS INCLUDED IN THE LINEAR MEASUREMENT AND THE UNIT COST BID FOR 24" EMBANKMENT PROTECTOR. MEASURE TEE BRANCH CONNECTIONS ALONG THE INVERT OF THE TEE.
 - APPROVED ALTERNATE DESIGNS MAY BE USED.
 - PAYMENT FOR PIPE ANCHOR ASSEMBLIES AND 5/8" CABLE IS INCLUDED IN THE UNIT COST BID FOR 24" EMBANKMENT PROTECTOR.
 - PAYMENT FOR SPILLWAY ASSEMBLIES IS INCLUDED IN THE LINEAR MEASUREMENT AND THE UNIT COST BID FOR 24" EMBANKMENT PROTECTOR.
 - PAYMENT FOR PIPE CAPS (WHERE SPECIFIED) AND FOR EXCAVATION AND GRADING, TREE, BRUSH, VEGETATION, ROCK, AND DEBRIS REMOVAL AS REQUIRED TO FACILITATE CONSTRUCTION ALONG SLOPES, AS WELL AS FOR PROPER DISPOSAL OF ALL DEBRIS AND MATERIALS, IS INCLUDED IN THE UNIT COST BID FOR 24" EMBANKMENT PROTECTOR.
 - PAYMENT FOR TIE BOLT CONNECTIONS IS INCLUDED IN THE UNIT COST BID FOR 24" STORM DRAIN PIPE (PAID FOR AS CSP 24 IN).

24" SPILLWAY
ASSEMBLY WITH DOWN
DRAIN DETAIL

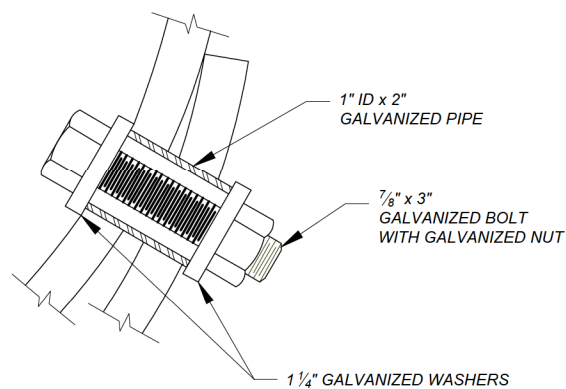
NO SCALE

DETAIL

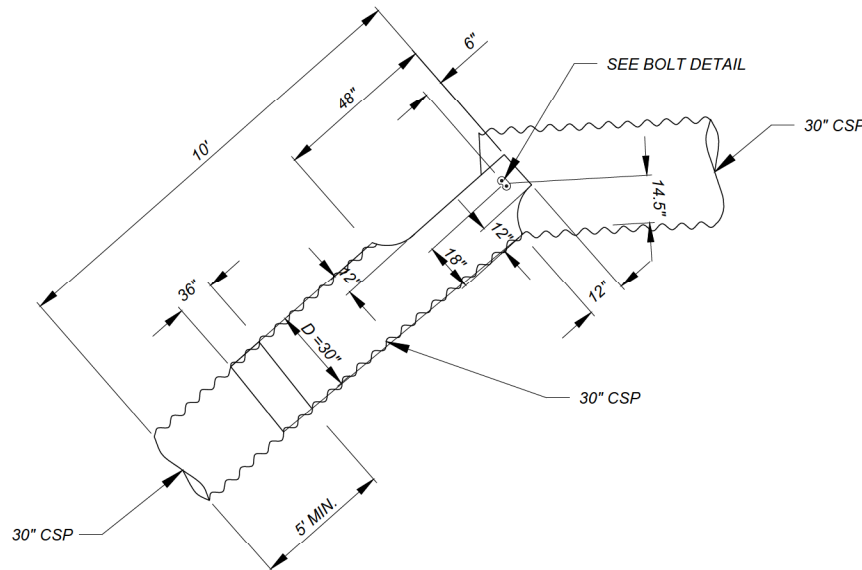
NO SCALE



30" SPILLWAY ASSEMBLY WITH DOWN DRAIN AND TEE BRANCH
PROFILE



BOLT DETAIL



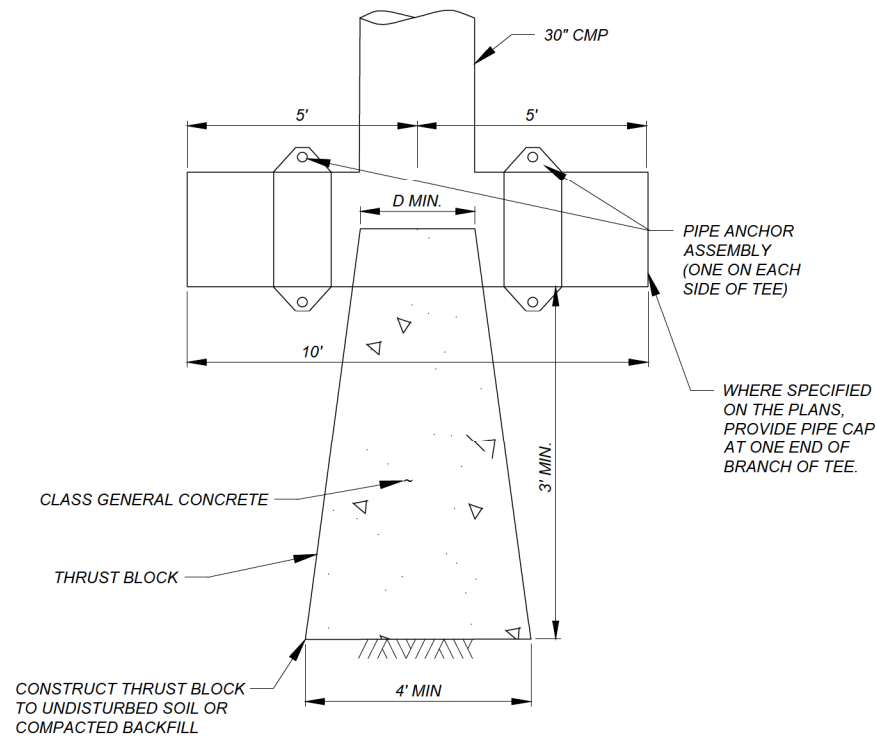
SPILLWAY ASSEMBLY DETAIL

D = DIAMETER OF CULVERT

- * PROVIDE 36" CMP FOR 30" CMP DOWN DRAINS. PAYMENT FOR 36" CMP FOR SPILLWAY ASSEMBLIES TO BE PAID FOR AS 30" EMBANKMENT PROTECTOR (PAID FOR AS CSP 30 IN).

NOTES:

- * WHERE PIPE IS CONNECTED TO A MEDIAN INLET, SEE MEDIAN INLET SUMMARY FRAME, OTHERWISE, SEE DRAINAGE CULVERT SUMMARY FRAME.
- FABRICATE SPILLWAY ASSEMBLY FROM ANNULAR CORRUGATED PIPE, OR FROM HELICALLY CORRUGATED PIPE WITH FACTORY ANNULAR OR PREFORMED ENDS. USE 0.109 INCH THICK GALVANIZED STEEL PIPE WITH AN APPROVED TYPE II ALUMINIZED COATING IN ACCORDANCE WITH STANDARD SPEC. SEC. 709.12 OR 0.105 INCH THICK ALUMINUM PIPE FOR ALL EMBANKMENT PROTECTORS.
 - MAKE ALL BANDED CONNECTIONS WATER TIGHT BY PLACING $\frac{3}{16}$ " BEAD OF APPROVED CAULKING UNDER EACH HALF OF THE BAND BEFORE TIGHTENING.
 - PROVIDE APPROVED PIPE CAP(S) FOR TEE BRANCH CONNECTIONS WHERE SPECIFIED ON THE PLANS.
 - MEASUREMENT AND PAYMENT FOR TEE BRANCH CONNECTION IS INCLUDED IN THE LINEAR MEASUREMENT AND THE UNIT COST BID FOR 30" EMBANKMENT PROTECTOR (PAID FOR AS CSP 30 IN). MEASURE TEE BRANCH CONNECTIONS ALONG THE INVERT OF THE TEE.
 - APPROVED ALTERNATE DESIGNS MAY BE USED.
 - PAYMENT FOR SPILLWAY ASSEMBLIES IS INCLUDED IN THE LINEAR MEASUREMENT AND THE UNIT COST BID FOR 30" EMBANKMENT PROTECTOR (PAID FOR AS CSP 30 IN).
 - PAYMENT FOR PIPE ANCHOR ASSEMBLIES AND THRUST BLOCKS, INCLUDING CLASS GENERAL CONCRETE AND EXCAVATION, IS INCLUDED IN THE UNIT COST BID FOR 30" EMBANKMENT PROTECTOR (PAID FOR AS CSP 30 IN).
 - PAYMENT FOR PIPE CAPS (WHERE SPECIFIED) AND FOR EXCAVATION AND GRADING, TREE, BRUSH, VEGETATION, ROCK, AND DEBRIS REMOVAL AS REQUIRED TO FACILITATE CONSTRUCTION ALONG SLOPES, AS WELL AS FOR PROPER DISPOSAL OF ALL DEBRIS AND MATERIALS, IS INCLUDED IN THE UNIT COST BID FOR 30" EMBANKMENT PROTECTOR (PAID FOR AS CSP 30 IN).
 - PAYMENT FOR TIE BOLT CONNECTIONS IS INCLUDED IN THE UNIT COST BID FOR 30 IN STORM DRAIN PIPE (PAID FOR AS RCP 30 IN).



TEE BRANCH CONNECTION AND THRUST BLOCK DETAIL

30" SPILLWAY ASSEMBLY WITH DOWN DRAIN DETAIL

NO SCALE

SHEET NO.

17

DRAINAGE DETAILS

MILL CREEK HIGHWAY

DEER LODGE

SSS 569-1(11)6

10473000

PROJECT NAME

COUNTY

PROJECT ID

UPN

DESIGNED BY

02/2025

REVIEWED BY

06/2025

CHECKED BY

06/2025

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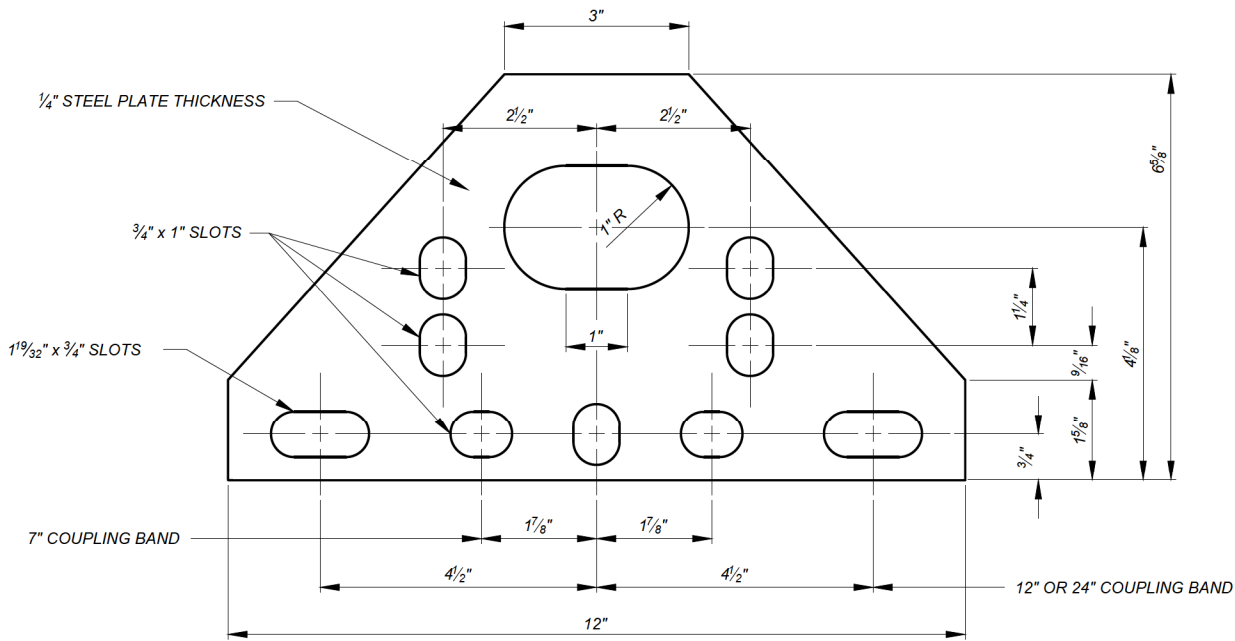
MONTANA
Department of Transportation

ROAD PLANS

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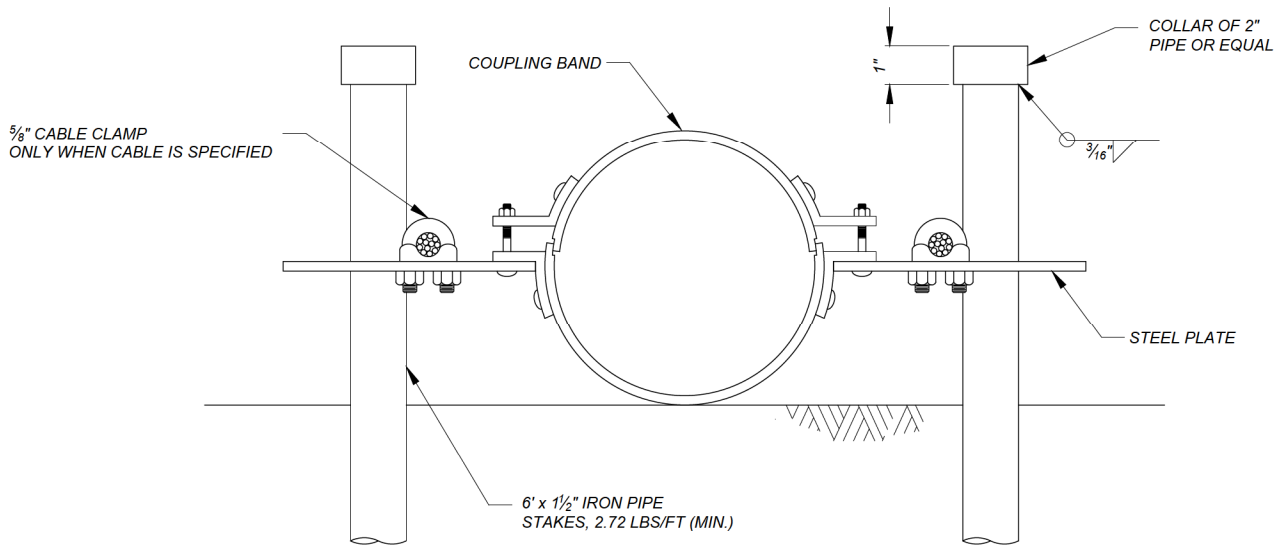
DETAIL

NO SCALE



MEASURE LENGTH OF COUPLING BAND PARALLEL TO THE CENTERLINE OF THE PIPE

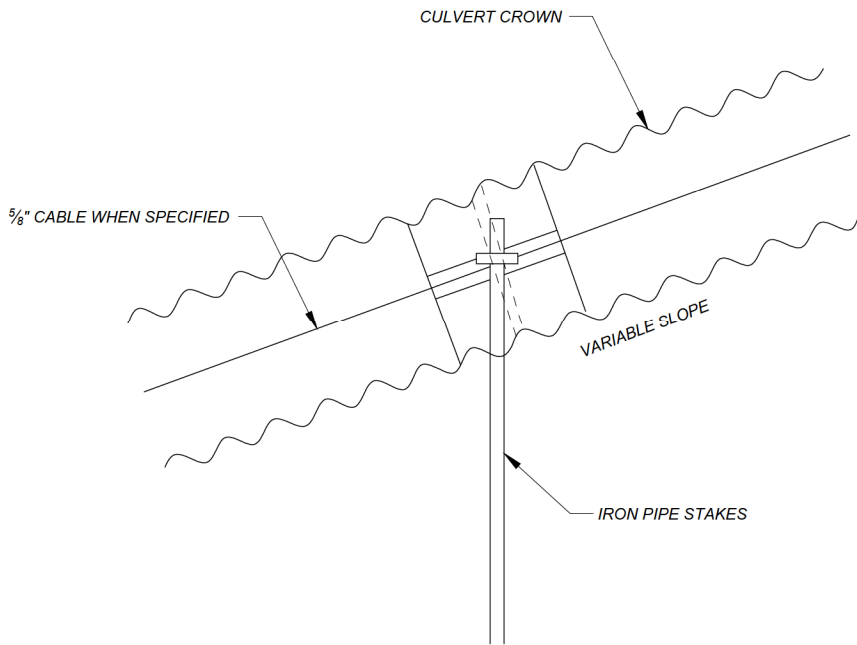
STEEL PLATE (FOR PIPE ANCHOR ASSEMBLIES) *



PIPE ANCHOR ASSEMBLY

NOTES:

- * CONFIRM STEEL PLATE DIMENSIONS ARE COMPATIBLE WITH THE PROPOSED CULVERT COUPLING BANDS PRIOR TO FABRICATION. PROVIDE CULVERT COUPLING BANDS COMPATIBLE WITH THE STEEL PLATE SLOT LAYOUT OR ADJUST DIMENSIONS IF REQUIRED TO MATCH THE PROPOSED CULVERT COUPLING BANDS.
- 1. ALL PIPE STAKES AND HARDWARE TO BE GALVANIZED AFTER FABRICATION.
- 2. APPROVED ALTERNATIVE PIPE ANCHOR ASSEMBLIES MAY BE USED.
- 3. AFTER FABRICATION, PLATE MATERIAL TO BE ASTM A36. PLATE MATERIAL TO BE GALVANIZED.
- 4. PAYMENT FOR PIPE ANCHOR ASSEMBLIES, INCLUDING ALL MATERIALS AND FABRICATION, AND EQUIPMENT, MATERIALS, AND LABOR REQUIRED FOR INSTALLATION, IS INCLUDED IN THE UNIT COST BID FOR THE CORRESPONDING EMBANKMENT PROTECTOR [24" EMBANKMENT PROTECTOR OR 30" EMBANKMENT PROTECTOR (PAID FOR AS CSP)].



METAL PIPE ASSEMBLY (FOR PIPE ANCHOR ASSEMBLIES)

SPILLWAY DETAIL

NO SCALE

SHEET NO.

18

DRAINAGE DETAILS

PROJECT NAME
MILL CREEK HIGHWAY

COUNTY

DEER LODGE

PROJECT ID

SSS 569-1(11)6

UPN

10473000

DESIGNED BY

B. MARTISHIUS 02/2025

REVIEWED BY

N. PAVIA 06/2025

CHECKED BY

J. SPRINGER 06/2025

10473000RDDTZ04.DWG



ROAD PLANS

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DETAIL
NO SCALE

SHEET NO.

19

DRAINAGE DETAILS

PROJECT NAME	MILL CREEK HIGHWAY
COUNTY	

DEER LODGE

SSS 569-1(11)6


10473000

DESIGNED BY	
P. MARTISHIUS	02/2005

B. MATHANESINGH	02/2023
REVIEWED BY	
SALVA	

CHECKED BY	
J. SPRINGER	06/2025

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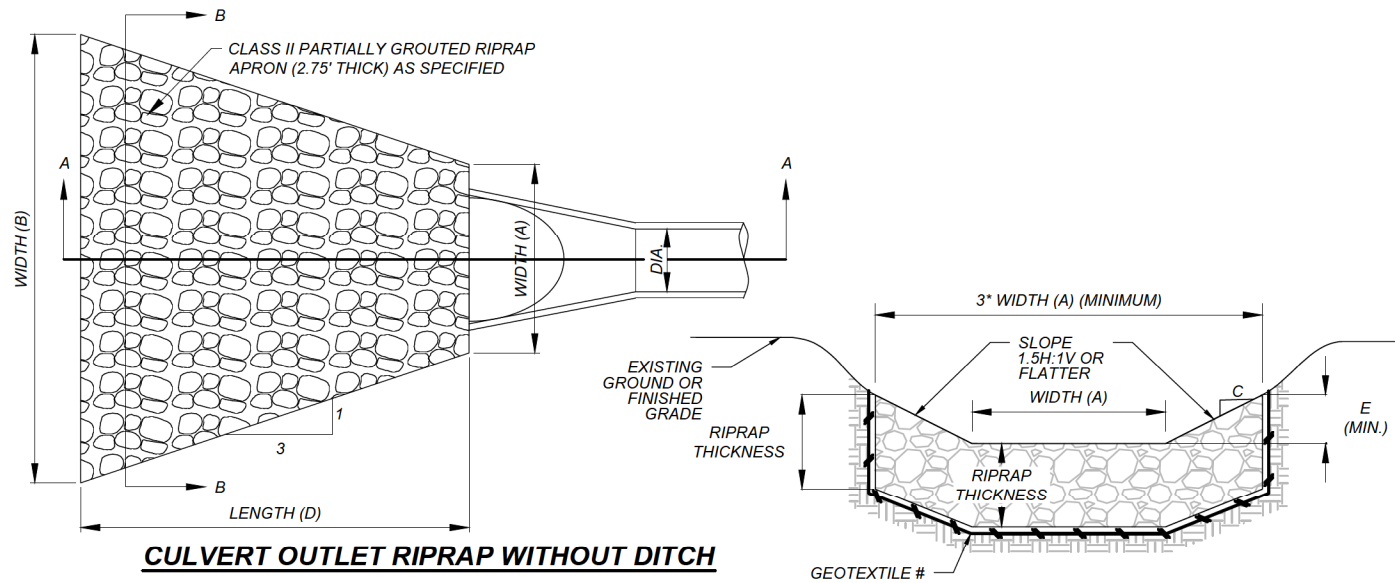
MONTANA
Department of Transportation

ROAD PLANS

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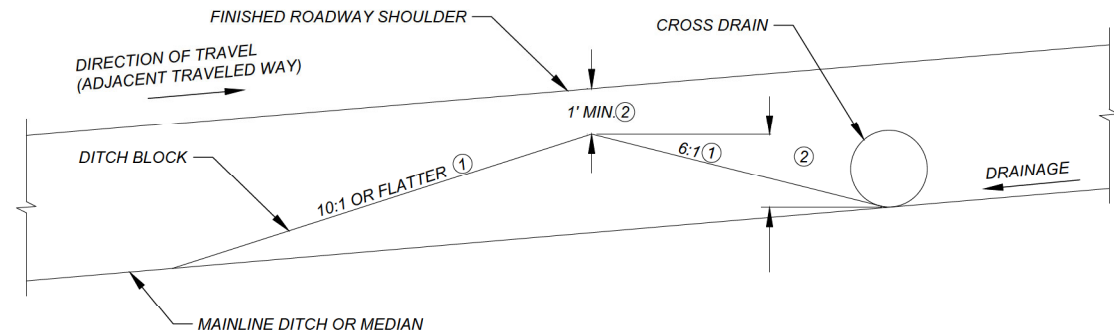
**CULVERT OUTLET
RIPRAP AND DITCH
BLOCK DETAIL**

NO SCALE



NOTES:

- ① CONSTRUCT DITCH BLOCKS TO FIT LOCAL CONDITIONS. WHEN CONDITIONS DO NOT ALLOW 10:1 SLOPES, USE 6:1 SLOPES.
- ② HEIGHTS SHOWN ARE MINIMUMS. SET HEIGHT OF DITCH BLOCKS BASED ON THE CULVERT DIAMETER OR ON THE ELEVATION SHOWN IN THE PLANS.

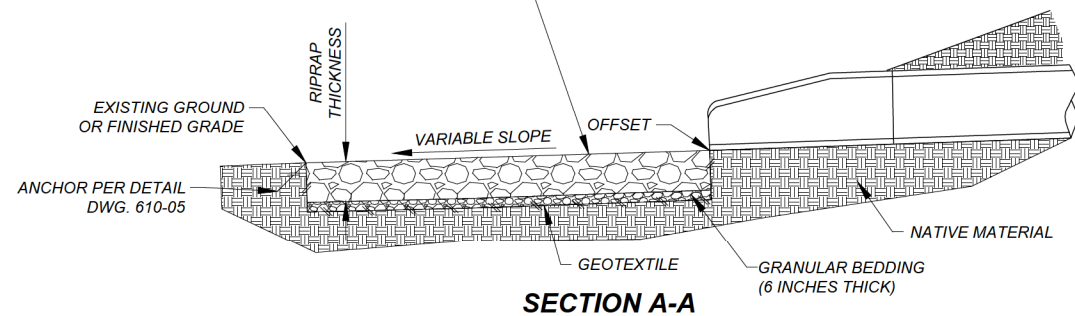


DITCH BLOCK DETAIL

DITCH BLOCK LOCATIONS				
CULVERT	STATION	SIDE	TOP OF DITCH BLOCK ELEVATION (FT)	EMB+ (CY)
C17	206+31	RT.	6618.55	11
C16	214+90	RT.	6553.71	53
C15	216+94	RT.	6540.33	295
C14	220+86	RT.	6513.50	509
C13	228+30	RT.	6462.06	89
C12	234+80	RT.	6421.55	316
C11	240+79	RT.	6384.16	17
C10	251+25	RT.	6317.92	639
C9	258+28	RT.	6270.88	453
C7	277+17	RT.	6146.98	10
C6	283+10	RT.	6150.67	13
C5	291+60	RT.	6121.01	167
C4	298+56	RT.	6086.80	72

CLASS II PARTIALLY GROUTED RIPRAP APRON (2.75' THICK)

SECTION B-B



GROUT FOR RIPRAP:

FOR GROUTED RIPRAP, USE CEMENT GROUT CONFORMING TO SECTION 713.04 OF THE STANDARD SPECIFICATIONS.

NOTES:

MATCH THE DOWNSTREAM BASE WIDTH OF TRAPEZOIDAL RIPRAP APRON TO THE EXISTING CHANNEL WIDTH, ENSURING IT IS AT LEAST THE SAME WIDTH AS THE BASE WIDTH AT THE CULVERT OUTFALL. GRADE SIDE SLOPES TO THE TOP OF THE EXISTING CHANNEL AS APPROPRIATE TO REACH THE SPECIFIED SLOPE. ADJUST SIDE SLOPE GRADING IMMEDIATELY DOWNSTREAM OF THE APRON TO PROVIDE A SMOOTH TRANSITION TO THE EXISTING CHANNEL.

STATION	OFFSET	LENGTH (FT)	RIPRAP CLASS	QUANTITIES		NOTES
				RIPRAP (CY)	GEOTEXTILE# (SY)	
199+93	110.31' LT.	18	II	22	26	CULVERT C18
206+31	53.55' LT.	18	II	19	22	CULVERT C17
214+90	53.82' LT.	12	II	9	10	CULVERT C16
251+25	39.52' LT.	12	II	9	10	CULVERT C10

HIGH SURVIVABILITY CLASS B PERMANENT EROSION CONTROL GEOTEXTILE

CULVERT:	STATION	WIDTH		SIDE SLOPES	LENGTH	RIPRAP HEIGHT
		A	B	C	D	E
C18	199+93	3.00 Ft	VARIABLE	1.5H:1V	18 Ft	2.00 Ft
C17	206+31	3.00 Ft	VARIABLE	1.5H:1V	18 Ft	1.50 Ft
C16	214+90	2.00 Ft	VARIABLE	1.5H:1V	12 Ft	1.00 Ft
C10	251+25	2.00 Ft	VARIABLE	1.5H:1V	12 Ft	1.00 Ft

AGR

PRELIMINARY



DETAIL

NO SCALE

NOTES:

1. USE ASTM A36 STEEL IN FABRICATION OF DISSIPATER RINGS AND DISSIPATER RING BRACES.
2. ALL WELDING IN ACCORDANCE WITH AWS D1.1.
3. FABRICATION OF RESISTANCE RINGS, FABRICATION OF DISSIPATER RING BRACES, WELDING AND INSTALLATION OF DISSIPATER RINGS IS INCLUDED IN THE COST OF STEEL CASING.
4. INSTALL DISIPATER RINGS FOR CULVERT LINERS AT STATIONS 251+25, 214+90, 206+31, and 199+93.

SHEET NO.

20

DRAINAGE DETAILS

PROJECT NAME
MILL CREEK HIGHWAY

COUNTY

DEER LODGE

PROJECT ID

SSS 569-1(11)6

UPN

10473000

DESIGNED BY
B. MARTISHIUS

02/2025

REVIEWED BY

N. PAVIA

06/2025

CHECKED BY

J. SPRINGER

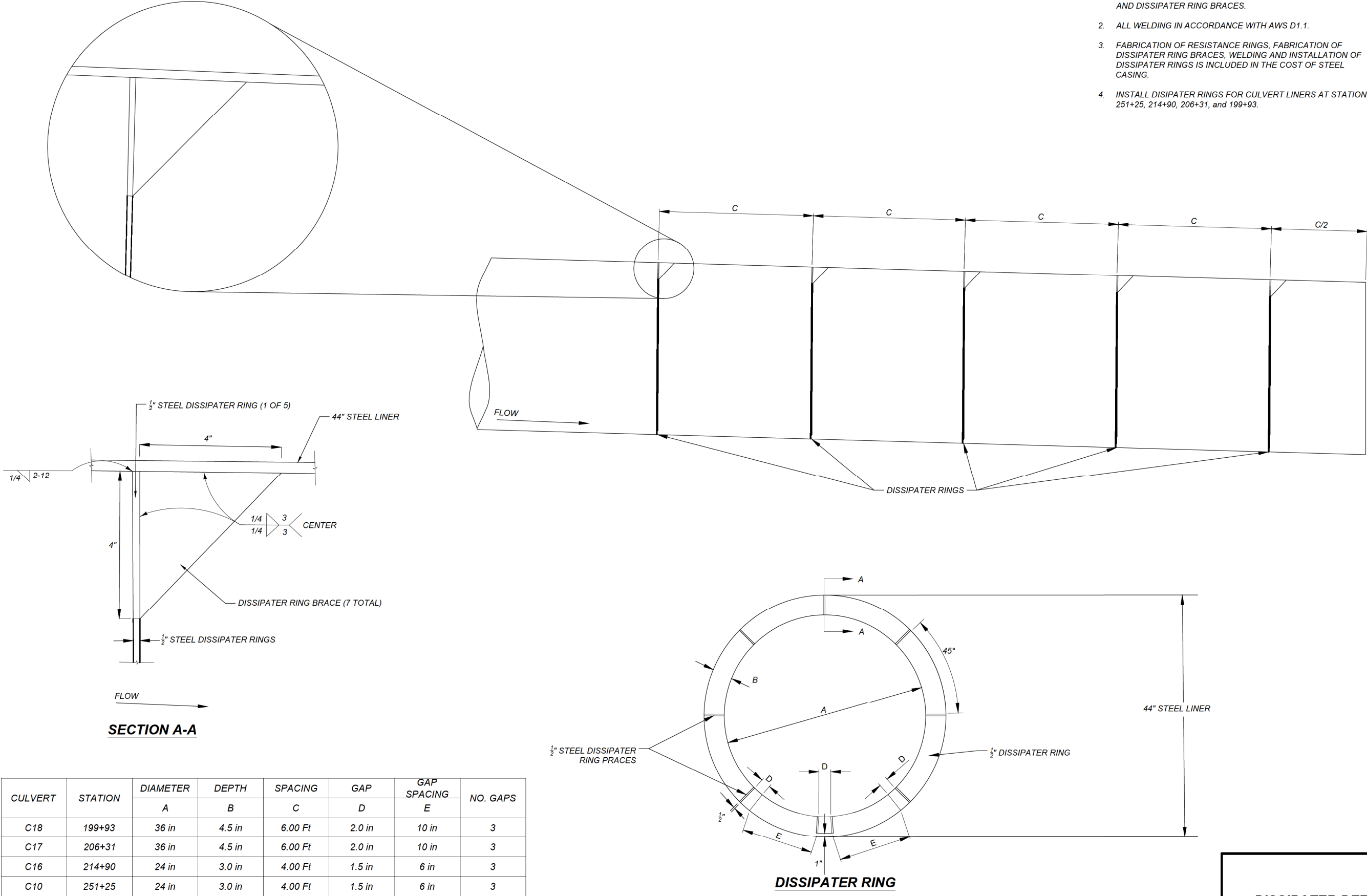
06/2025

10473000RDDTZ04.DWG



ROAD PLANS

6/17/2025 4:10 PM

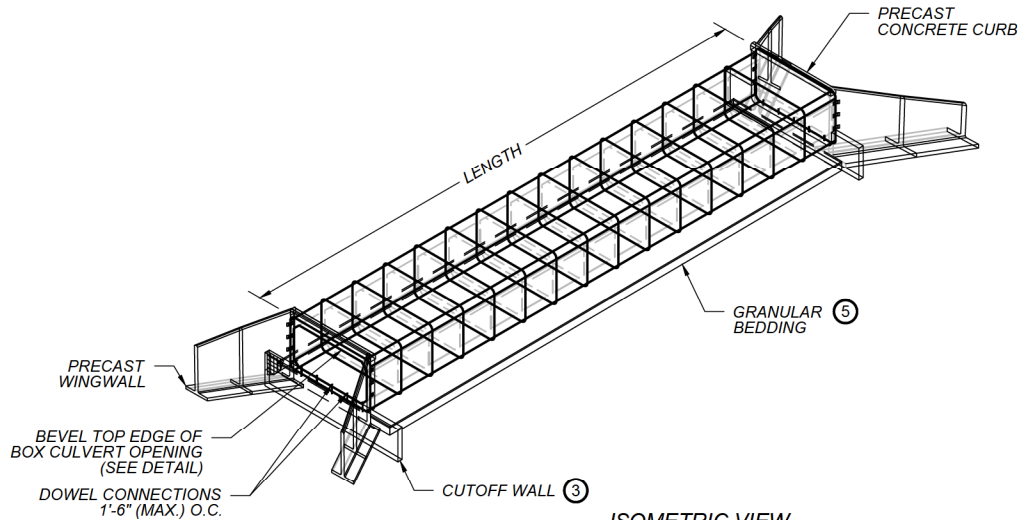


DISSIPATER DETAIL

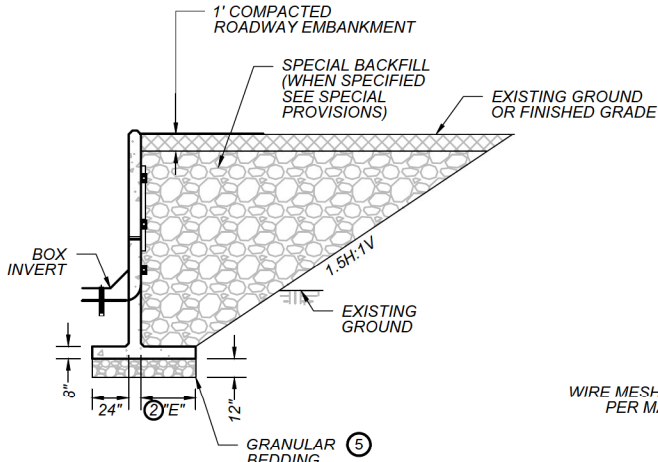
NO SCALE

DETAIL

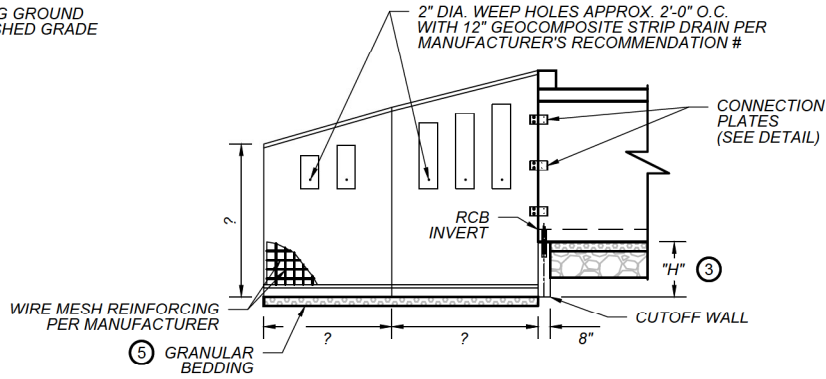
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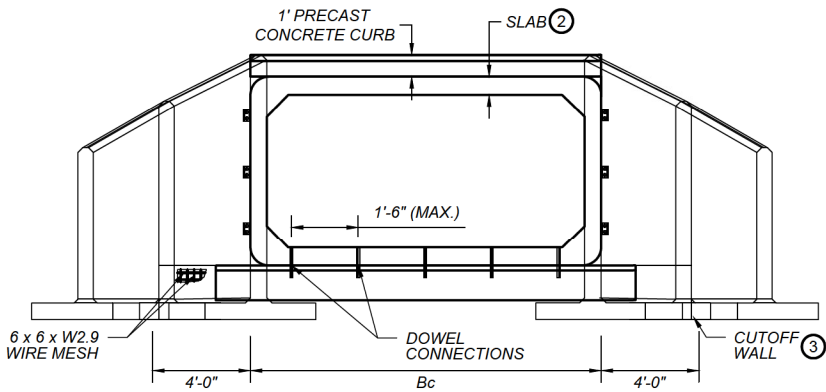
ISOMETRIC VIEW
OUTLET END



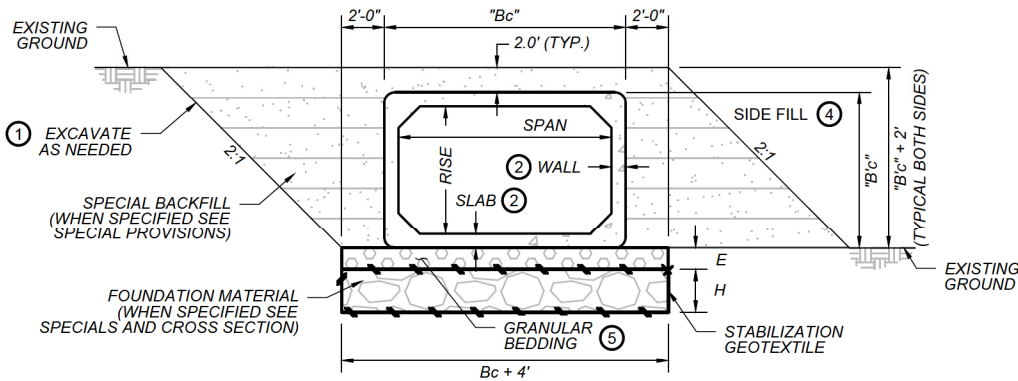
PRECAST TAPERED WINGWALL
BEDDING AND BACKFILL DETAIL



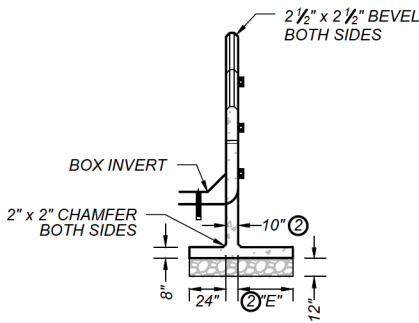
PRECAST TAPERED WINGWALL
DETAIL SIDE VIEW



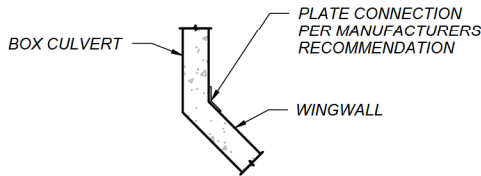
PRECAST TAPERED SINGLE CELL BOX CULVERT
WITH CUTOFF WALL AND 45° PRECAST WINGWALLS



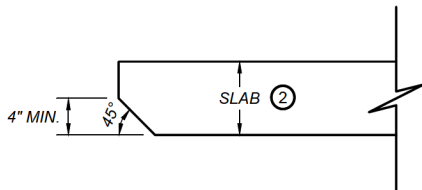
BOX CULVERT BEDDING DETAIL



PRECAST TAPERED WINGWALL
DETAIL END VIEW



CONNECTION
PLATE DETAIL



TOP BEVEL DETAIL

NOTES:

- EXCAVATE A SUFFICIENT AMOUNT TO PROVIDE A SAFE WORKING ENVIRONMENT AND TO ALLOW ACHIEVEMENT OF ALL CULVERT INSTALLATION AND COMPACTION REQUIREMENTS. SLOPE, BENCH OR PROVIDE SHORING FOR ALL EXCAVATIONS IN ACCORDANCE WITH THE U.S. DEPARTMENT OF LABOR, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION.
- FOR ESTIMATING QUANTITIES ONLY. ACTUAL DIMENSION TO BE DETERMINED BY PRECAST MANUFACTURER.
- 3'-0" MIN. OR 1'-0" BELOW BOTTOM OF FOUNDATION MATERIAL IF SPECIFIED.
- COMPACT AND PLACE SIDE FILL PER SECTION 603 AND 203 OF THE STANDARD SPECIFICATIONS.
- SEE SECTION 701 OF THE STANDARD SPECIFICATIONS FOR GRANULAR BEDDING REQUIREMENTS. THE CONTRACTOR HAS THE OPTION OF USING A SAND CUSHION ABOVE THE GRANULAR BEDDING TO FACILITATE JOINING OF THE BOX CULVERT SECTIONS.

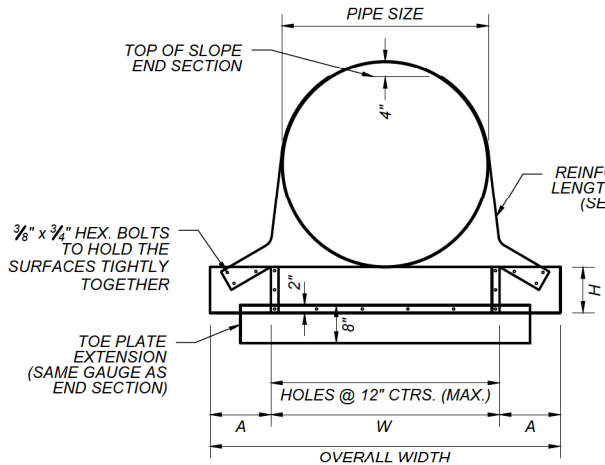
DIMENSIONS										
STATION	SPAN (ft.)	RISE (ft.)	LENGTH (ft.)	WALL (in.)	SLAB (in.)	"E" (in.)	"Bc" (ft.)	"B'c" (ft.)	"H" (ft.)	COVER (ft.)
313+18	8	4	56	8	8	12	9.33	5.33	2	1.33
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

NOTE: QUANTITIES ARE BASED ON THE DIMENSIONS IN THE TABLE. PROVIDE BOX CULVERTS MEETING ASTM C1577. INCLUDE PRECAST TAPERED WINGWALLS, PRECAST CONCRETE CURBS, CUTOFF WALLS, SPECIAL BACKFILL BEHIND PRECAST TAPERED WINGWALLS, GEOTEXTILE STRIP DRAINS, AND GRANULAR BEDDING BENEATH THE PRECAST TAPERED WINGWALLS IN THE UNIT PRICE BID PER LINEAR FOOT OF RCB.

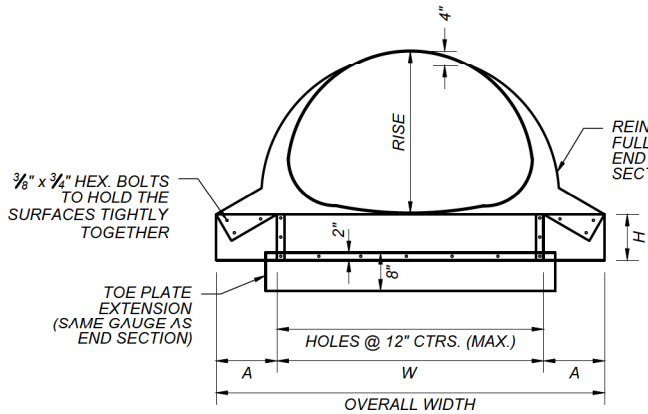
PROVIDE A GEOTEXTILE STRIP DRAIN CONSTRUCTED OF A HDPE DRAINAGE CORE WITH A MINIMUM COMPRESSIVE STRENGTH OF 9000 PSF PER ASTM D 1621 AND A MINIMUM FLOW CAPACITY OF 20 GPM PER ASTM D 4716. THE STRIP DRAIN MUST BE WRAPPED IN A SUBSURFACE DRAINAGE GEOTEXTILE FILTER MEETING THE REQUIREMENTS OF HIGH SURVIVABILITY, CLASS B OF SECTION 716.

DETAIL

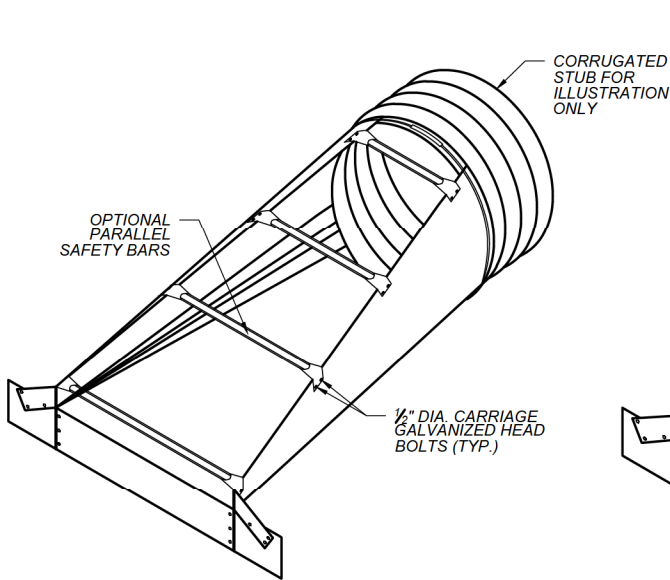
NO SCALE



FRONT VIEW

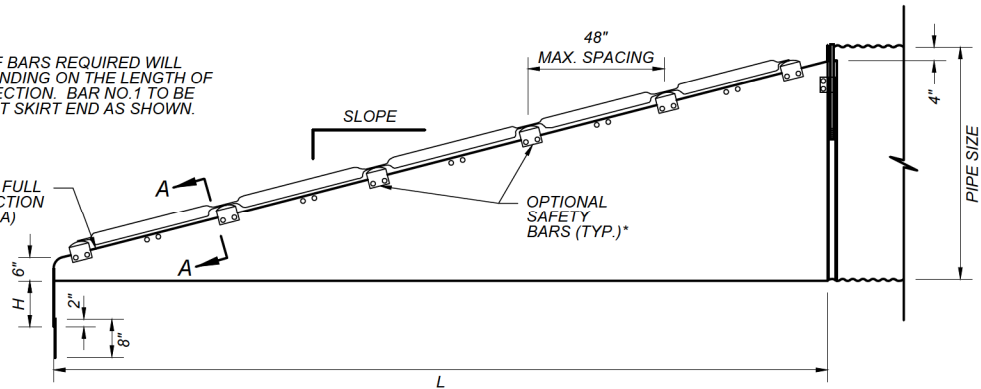


FRONT VIEW

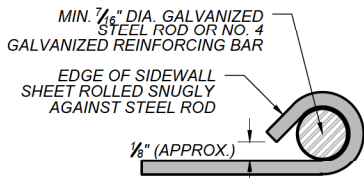


PARALLEL DRAINAGE STRUCTURE

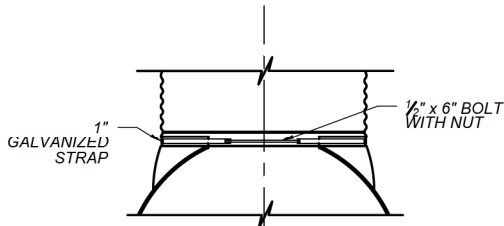
* NUMBER OF BARS REQUIRED WILL VARY DEPENDING ON THE LENGTH OF THE END SECTION. BAR NO. 1 TO BE LOCATED AT SKIRT END AS SHOWN.



SIDE ELEVATION FOR CROSS DRAINAGE STRUCTURE

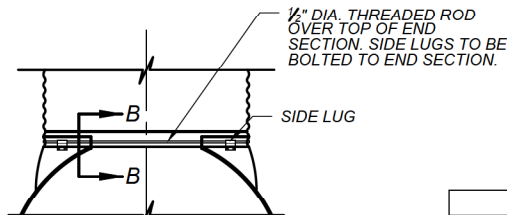


SECTION A-A



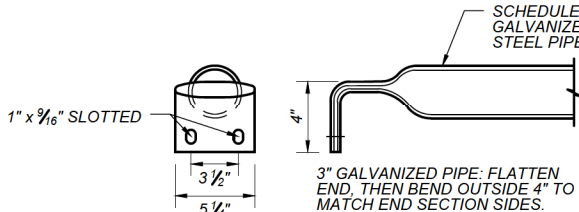
TYPE #1 CONNECTOR DETAIL

THRU 24"

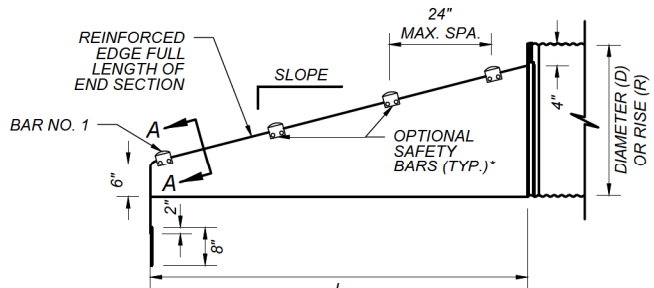


TYPE #2 CONNECTOR DETAILS

FOR 30" AND LARGER
21" x 15" AND LARGER



SAFETY BAR DETAIL

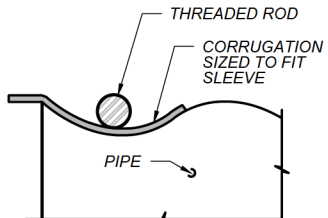


SIDE ELEVATION
OF PARALLEL DRAINAGE STRUCTURE

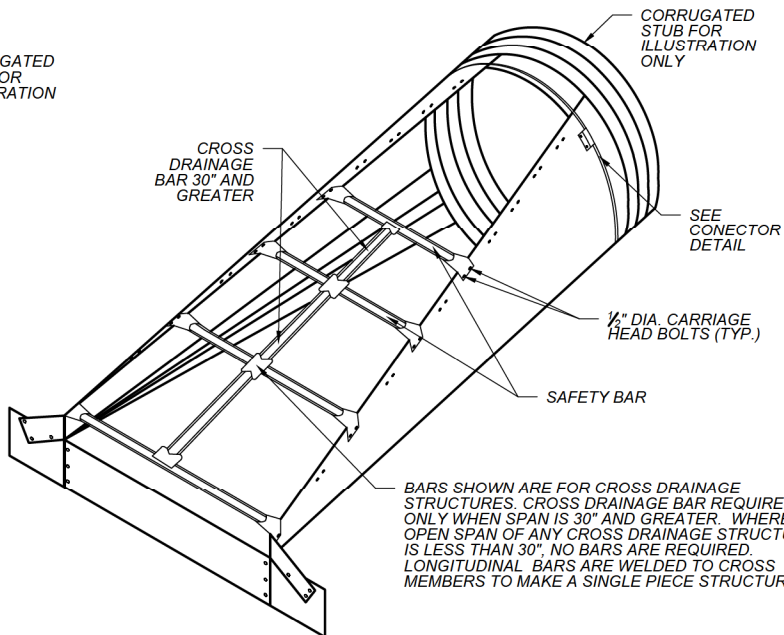
METAL END SECTIONS FOR CIRCULAR PIPES												
PIPE DIA. (in.)	MIN. THICK.		DIMENSIONS (INCHES)				L DIMENSIONS					
	IN.	GAUGE	A	H	W	OVERALL WIDTH	SLOPE	LENGTH (in.)	SLOPE	LENGTH (in.)	SLOPE	LENGTH (in.)
15	.064	16	8	6	21	37	4:1	20	6:1	30	10:1*	70
18	.064	16	8	6	24	40	4:1	32	6:1	48	10:1*	100
21	.064	16	8	6	27	43	4:1	44	6:1	66	10:1*	130
24	.064	16	8	6	30	46	4:1	56	6:1	84	10:1*	160
30	.109	12	12	9	36	60	4:1	80	6:1	120	10:1*	220
36	.109	12	12	9	42	66	4:1	104	6:1	156	10:1*	280
42	.109	12	16	12	48	80	4:1	128	6:1	192	-	-
48	.109	12	16	12	54	86	4:1	152	6:1	228	-	-
54	.109	12	16	12	60	92	4:1	176	6:1	264	-	-
60	.109	12	16	12	66	98	4:1	200	6:1	300	-	-

METAL END SECTIONS FOR ARCHED PIPES												
PIPE DIA. (in.)	(INCHES)		MIN. THICK.		DIMENSIONS (INCHES)				L DIMENSIONS			
	SPAN	RISE	IN.	GAUGE	A	H	W	OVERALL WIDTH	SLOPE	LENGTH (in.)	SLOPE	LENGTH (in.)
18	21	15	.064	16	8	6	27	43	4:1	20	6:1	30
21	24	18	.064	16	8	6	30	46	4:1	32	6:1	48
24	28	20	.064	16	8	6	34	50	4:1	40	6:1	60
30	35	24	.079	14	12	9	41	65	4:1	56	6:1	84
36	42	29	.109	12	12	9	48	72	4:1	76	6:1	114
42	49	33	.109	12	16	12	55	87	4:1	92	6:1	138
48	57	38	.109	12	16	12	63	95	4:1	112	6:1	168
54	64	43	.109	12	16	12	70	102	4:1	132	6:1	198
60	71	47	.109	12	16	12	77	109	4:1	148	6:1	222

* MINIMUM THICKNESS OF ALL 10:1 SLOPE END SECTIONS IS .109" - 12 GAUGE

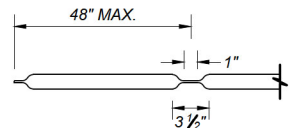


SECTION B-B



CROSS DRAINAGE STRUCTURE

BARS SHOWN ARE FOR CROSS DRAINAGE STRUCTURES. CROSS DRAINAGE BAR REQUIRED ONLY WHEN SPAN IS 30" AND GREATER. WHERE THE OPEN SPAN OF ANY CROSS DRAINAGE STRUCTURE IS LESS THAN 30", NO BARS ARE REQUIRED. LONGITUDINAL BARS ARE WELDED TO CROSS MEMBERS TO MAKE A SINGLE PIECE STRUCTURE.



CROSS DRAINAGE BAR DETAIL

NOTES:

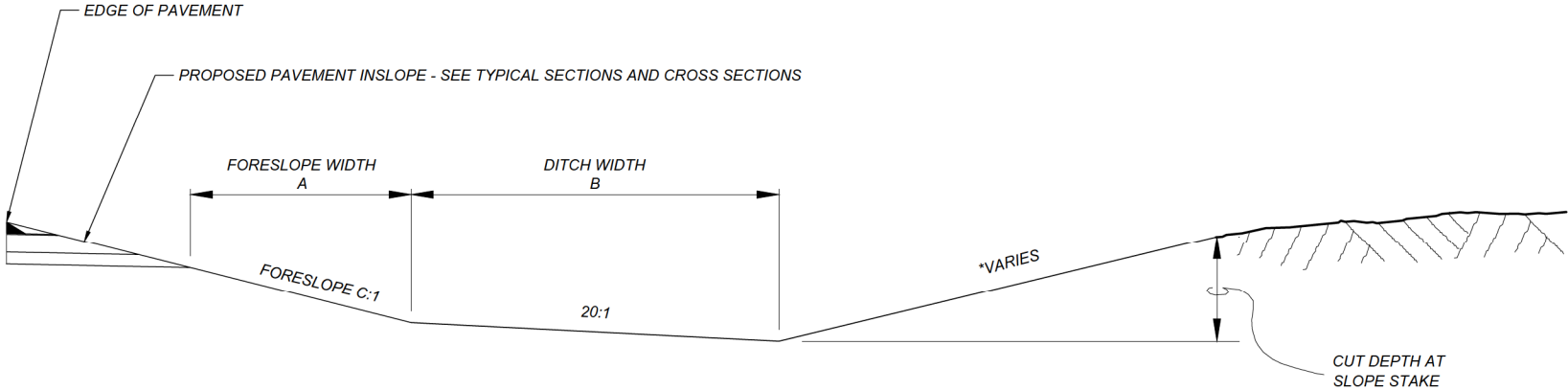
STEEL
GALVANIZED STEEL PER SECTION 711 OF THE STANDARD SPECIFICATIONS.

TOE PLATE EXTENSIONS
WHEN REQUIRED, TOE PLATE EXTENSIONS ARE THE SAME GAUGE AS END SECTION. TOE PLATE EXTENSIONS DIMENSIONS ARE OVERALL WIDTH LESS 6 INCHES BY 8 INCHES HIGH.

RIGHT SIDE					
STATION			A (FT)	B (FT)	C
148+50	TO	149+90	2	0	4
149+90	TO	150+40	TRANS. 2 TO 6	0	4
150+40	TO	156+50	6	0	4
156+50	TO	157+00	6	TRANS. 0 TO 10	4
178+50	TO	179+00	TRANS. 6 TO 1	TRANS. 10 TO 0	4
179+00	TO	185+50	1	0	4
185+50	TO	186+00	TRANS. 1 TO 6	TRANS. 0 TO 10	TRANS. 20 TO 4
189+00	TO	189+50	TRANS. 6 TO 1	TRANS. 10 TO 0	TRANS. 4 TO 20
189+50	TO	195+50	1	0	20
195+50	TO	196+00	TRANS. 1 TO 6	TRANS. 0 TO 10	TRANS. 20 TO 4
201+00	TO	201+50	TRANS. 6 TO 2	TRANS. 10 TO 0	TRANS. 4 TO 50
201+50	TO	204+50	2	0	50
204+50	TO	205+00	TRANS. 2 TO 6	TRANS. 0 TO 10	TRANS. 50 TO 4
208+00	TO	208+50	TRANS. 6 TO 3	TRANS. 10 TO 0	TRANS. 4 TO 50
208+50	TO	212+50	3	0	50
212+50	TO	213+00	TRANS. 3 TO 6	TRANS. 0 TO 10	TRANS. 50 TO 4
215+00	TO	215+50	6	TRANS. 10 TO 0	4
215+20	TO	219+25	6	0	4
219+25	TO	219+75	6	TRANS. 0 TO 10	4
226+00	TO	226+50	6	TRANS. 10 TO 0	4
226+50	TO	227+25	6	0	4
227+25	TO	227+75	6	TRANS. 0 TO 10	4
236+00	TO	236+50	6	TRANS. 10 TO 0	4
236+50	TO	239+00	6	0	4
239+00	TO	239+50	TRANS. 6 TO 0	0	TRANS. 4 TO 50
239+50	TO	253+50	0	0	50
253+50	TO	254+00	TRANS. 0 TO 6	TRANS. 0 TO 10	4
257+00	TO	257+50	TRANS. 6 TO 4	TRANS. 10 TO 0	4
257+50	TO	261+00	4	0	4
261+00	TO	261+50	TRANS. 4 TO 6	TRANS. 10 TO 0	4
273+25	TO	273+75	6	TRANS. 10 TO 0	4
273+75	TO	275+00	6	0	4
275+00	TO	275+50	6	TRANS. 0 TO 10	4
276+40	TO	281+20	4	0	4
281+25	TO	281+75	TRANS. 6 TO 2	TRANS. 10 TO 0	TRANS. 4 TO 50
281+75	TO	296+00	2	0	50
296+00	TO	296+50	TRANS. 2 TO 6	0	TRANS. 50 TO 4
296+50	TO	303+50	6	0	4
303+50	TO	304+00	6	0 TO 5	4
304+00	TO	307+00	6	5	4
307+00	TO	307+50	6	TRANS. 5 TO 0	4
307+50	TO	308+50	6	0	4
308+50	TO	309+00	TRANS. 6 TO 3	0	4
309+00	TO	310+50	3	0	4
310+50	TO	311+00	TRANS. 3 TO 6	0	4
311+00	TO	314+00	6	0	4
314+00	TO	314+50	6	TRANS. 0 TO 10	4
363+00	TO	363+50	TRANS. 10 TO 8	10	4
363+50	TO	365+00	8	10	4
365+00	TO	365+50	TRANS. 8 TO 10	10	4

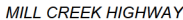
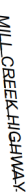
DETAIL

NO SCALE



* SEE TYPICAL SECTIONS AND CROSS SECTIONS FOR VARIATIONS

LEFT SIDE					
STATION			A (FT)	B (FT)	C
179+50	TO	180+00	TRANS. 6 TO 4	TRANS. 10 TO 0	4
180+00	TO	184+50	4	0	4
184+50	TO	185+00	TRANS. 4 TO 6	TRANS. 0 TO 10	4
313+50	TO	316+50	6	3	4
327+00	TO	327+50	6	TRANS. 10 TO 0	TRANS. 4 TO 50
327+50	TO	338+75	6	0	50
338+75	TO	339+25	6	TRANS. 0 TO 10	TRANS. 50 TO 4
353+00	TO	353+50	TRANS. 6 TO 10	TRANS. 10 TO 0	TRANS. 4 TO 50
353+50	TO	354+50	10	0	50
354+50	TO	355+00	TRANS. 10 TO 6	TRANS. 0 TO 10	TRANS. 50 TO 4

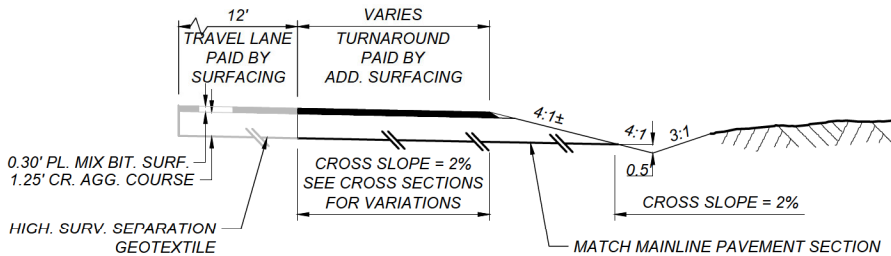
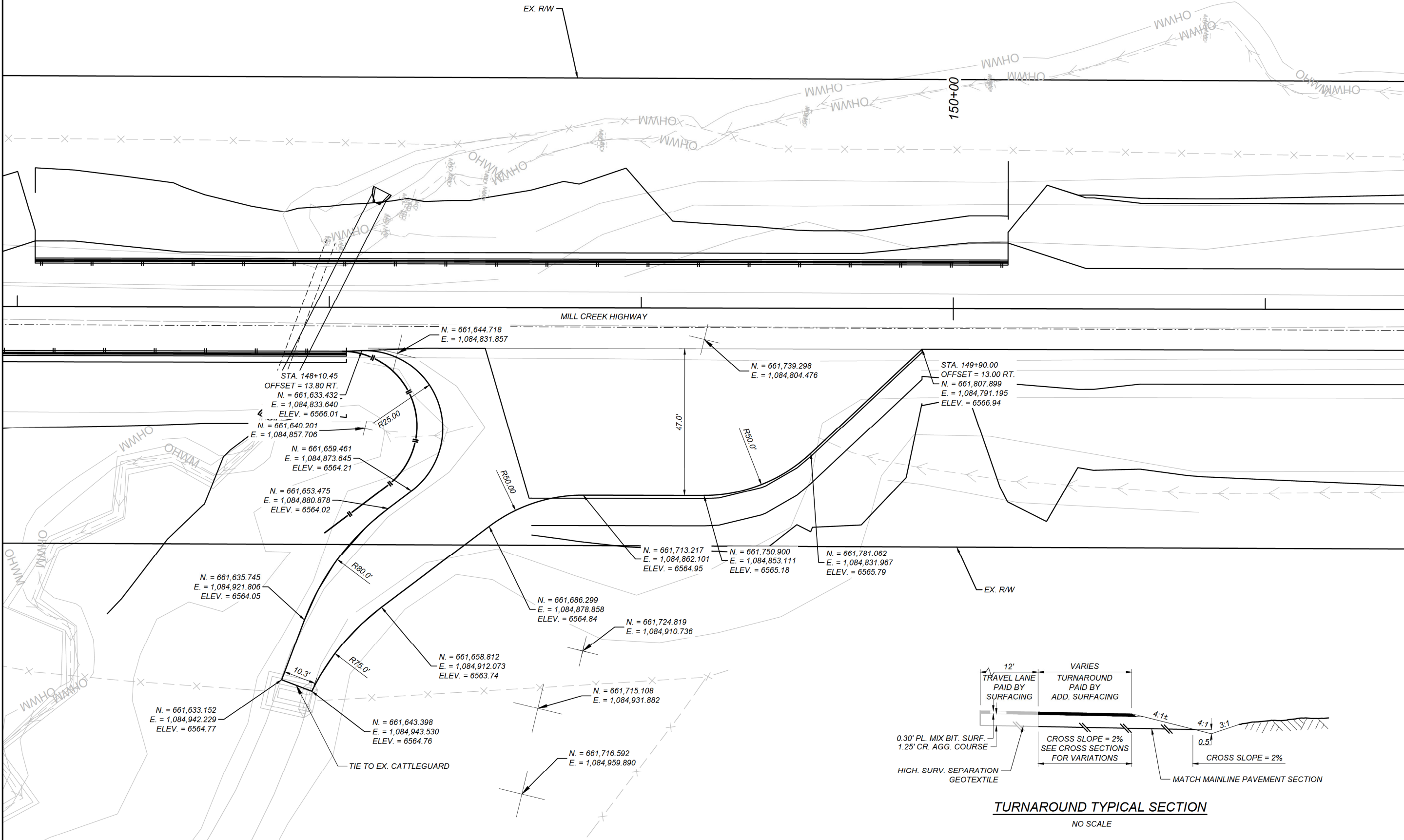
$1''=20$  $1''=20'$ 

FOR PRELIMINARY

AGR

148+72 RT. APPROACH WITH TURNAROUND DETAIL

1"=30'



TURNAROUND TYPICAL SECTION

NO SCALE

SHEET NO.

25

APPROACH &
TURNAROUND DETAILS

MILL CREEK HIGHWAY

DEER LODGE

SSS 569-1(11)6

10473000

PROJECT NAME

COUNTY

PROJECT ID

UPN

DESIGNED BY

B. MARTISHIUS 02/2025

REVIEWED BY

N. PAVIA 06/2025

CHECKED BY

J. SPRINGER 06/2025

10473000RDDTZ02.DWG

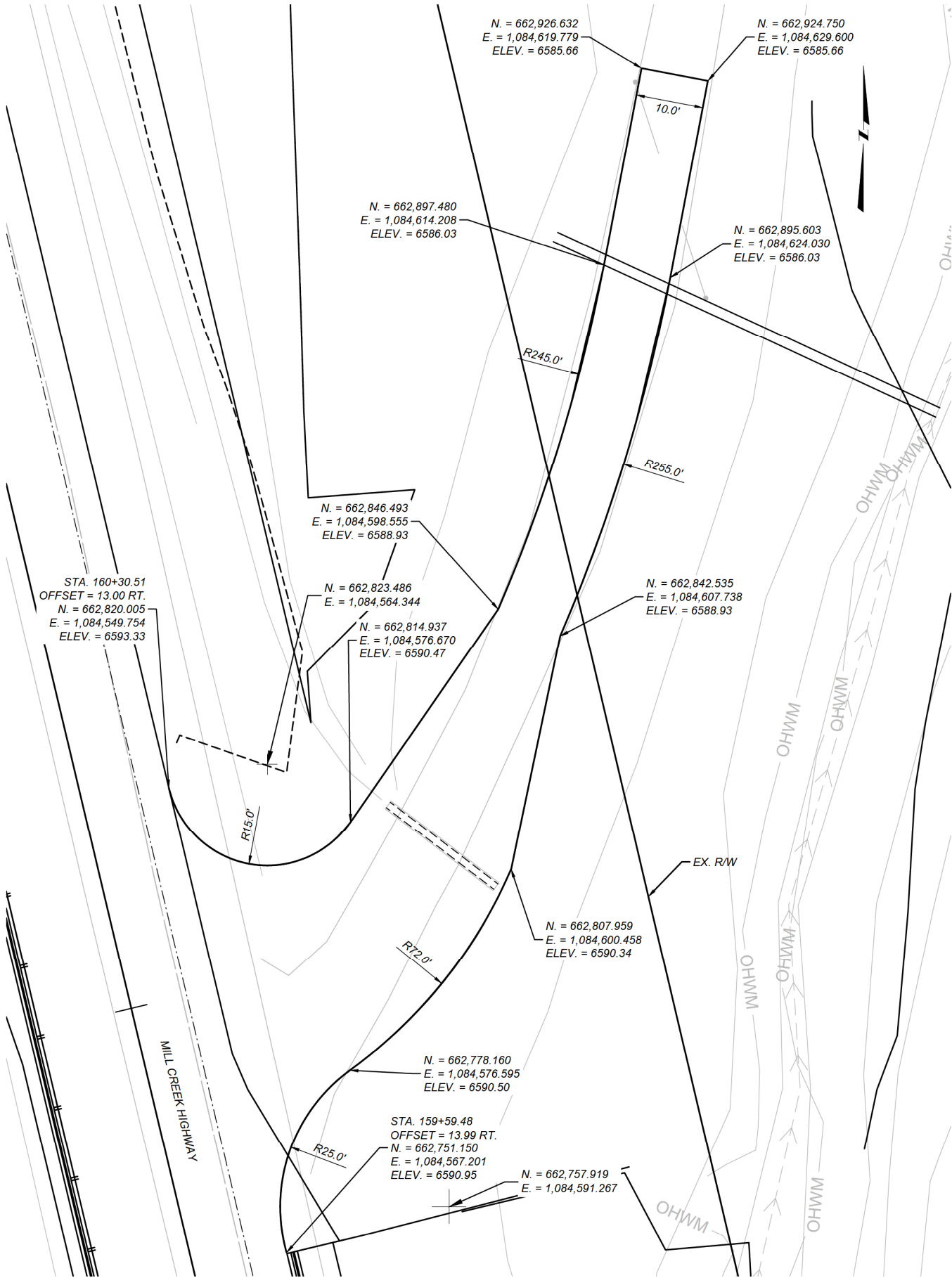


ROAD PLANS

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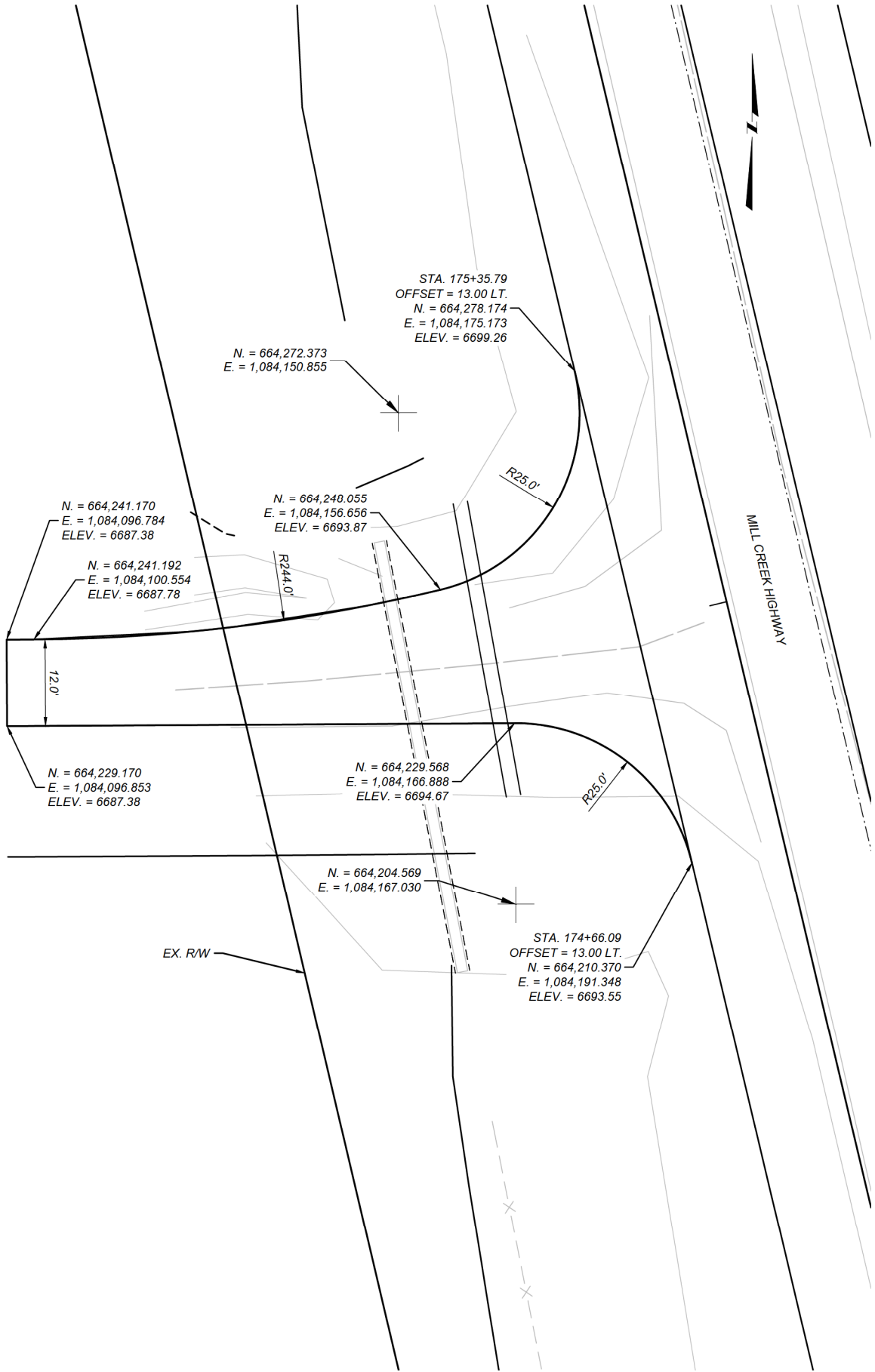
159+91 RT. APPROACH DETAIL

1"=20'



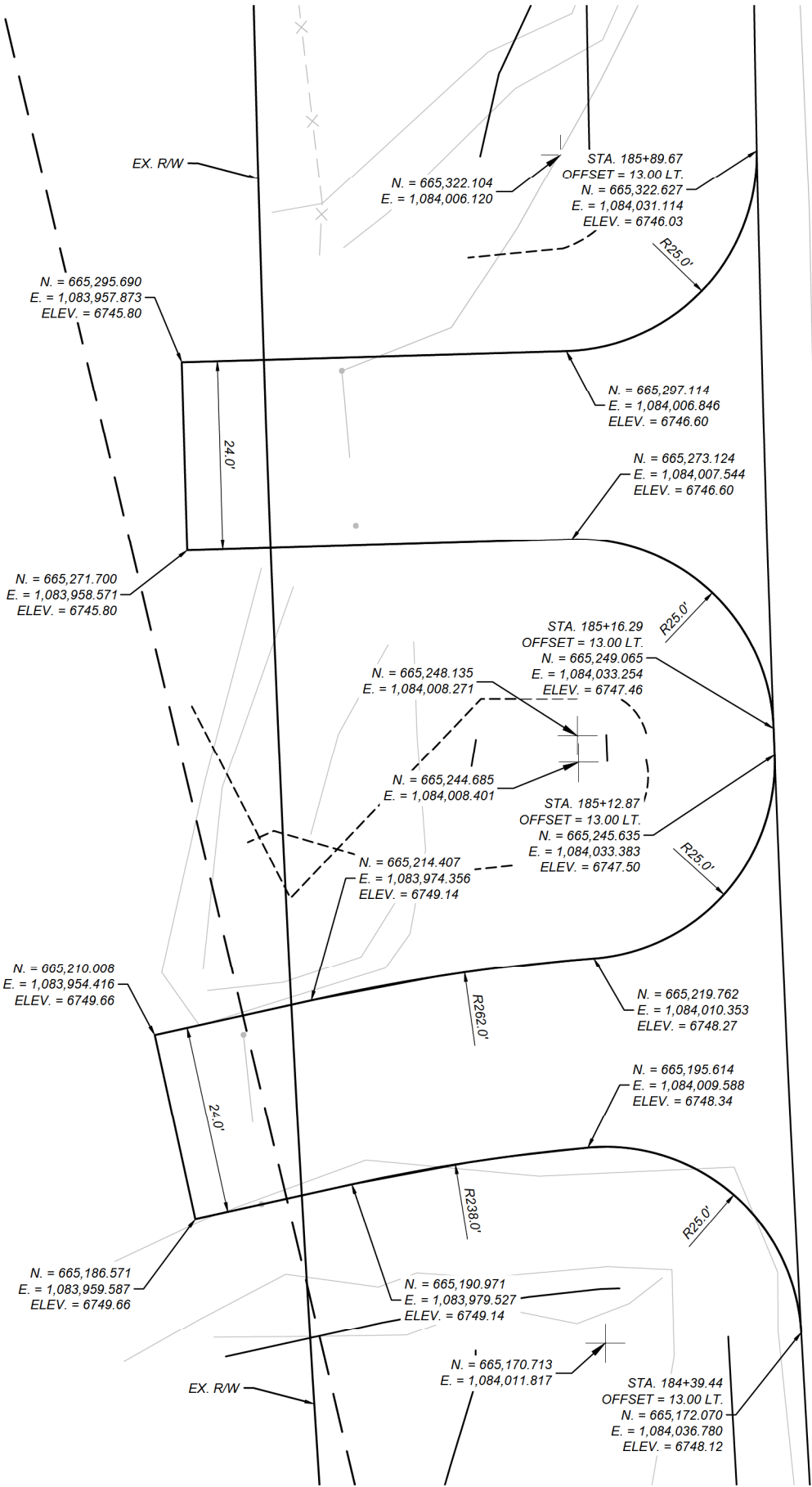
174+99 LT. APPROACH DETAIL

1"=20'



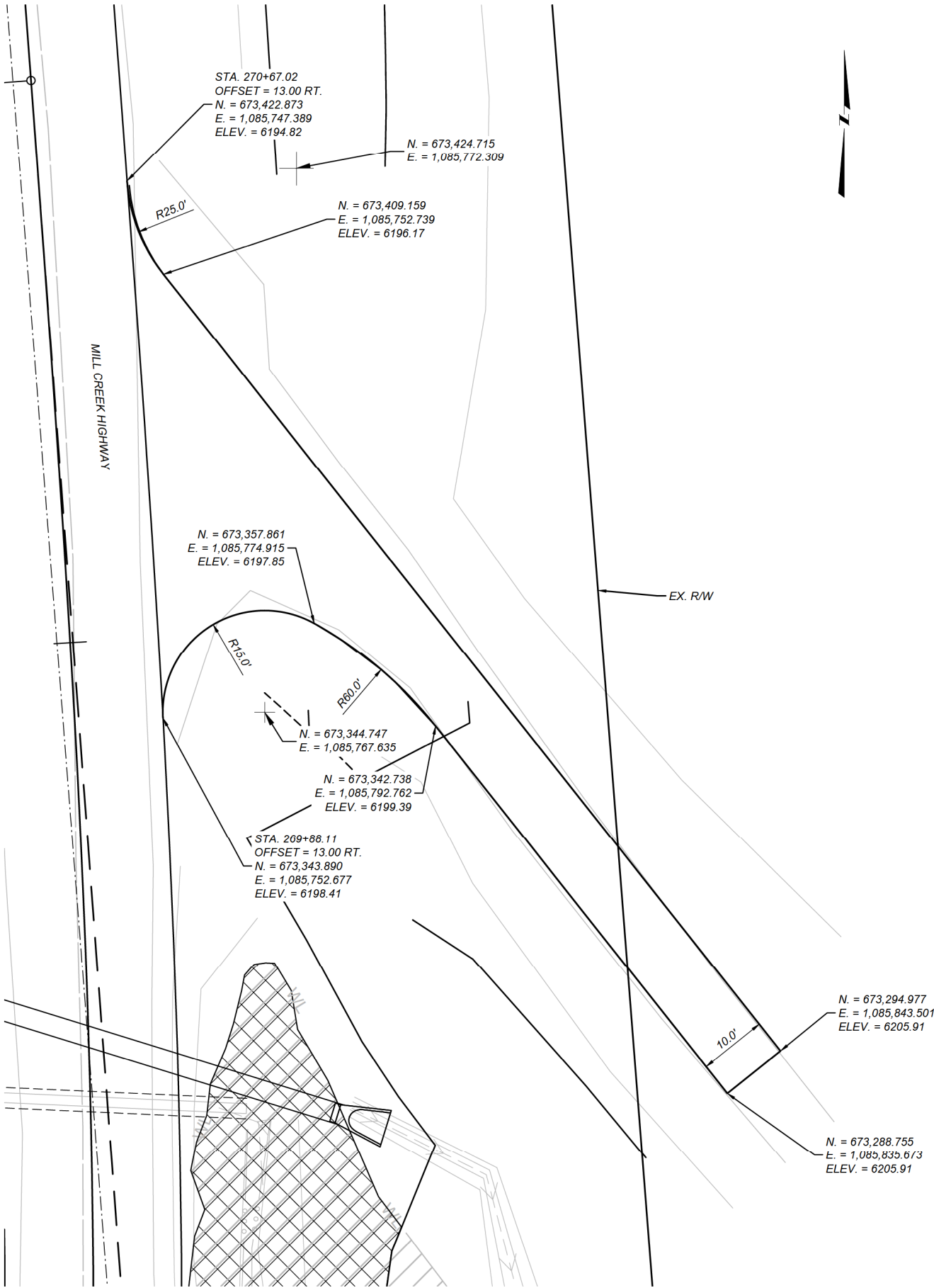
184+76 LT. & 185+53 LT. APPROACH DETAIL

1"=20'

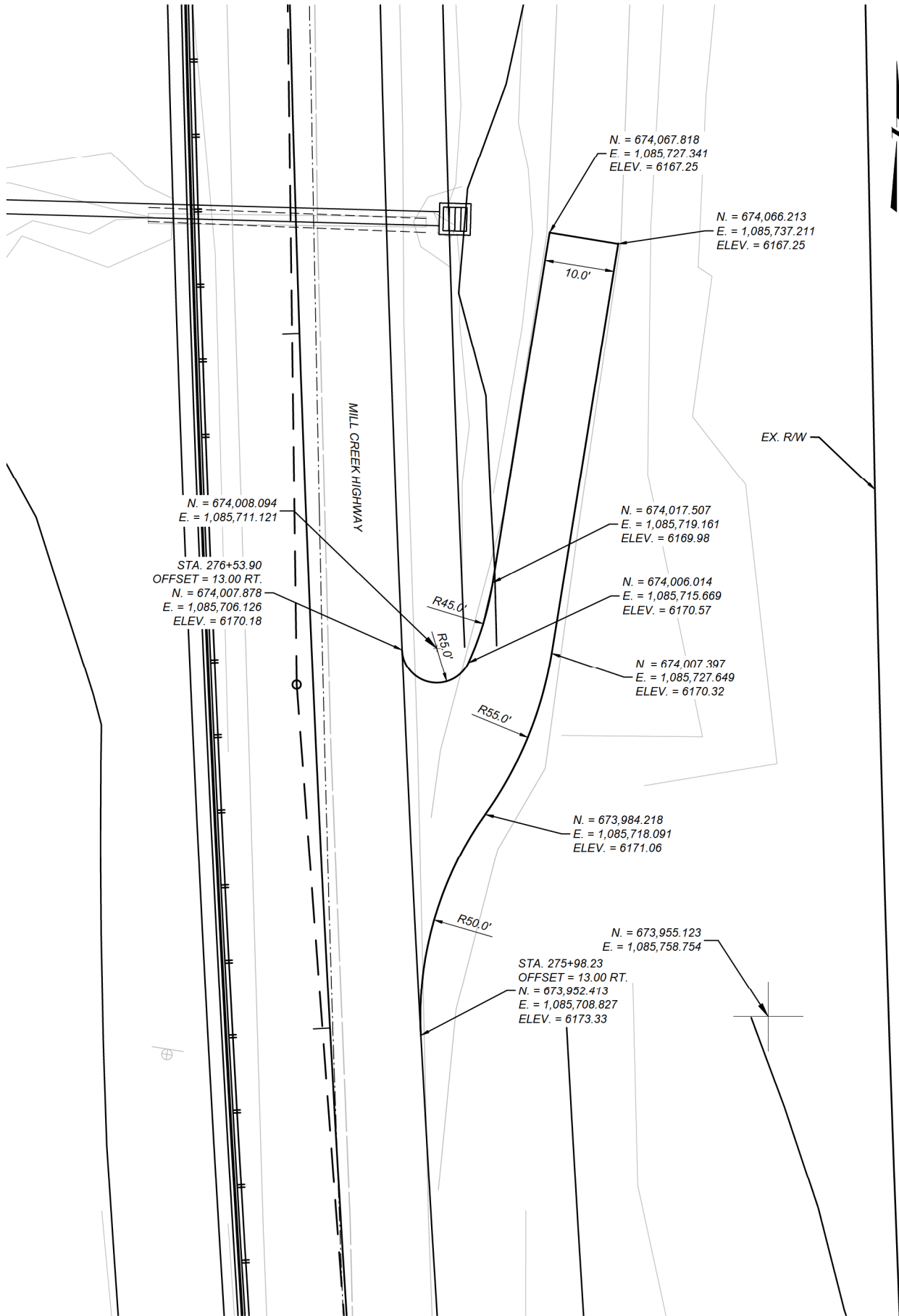


270+20 RT. APPROACH DETAIL

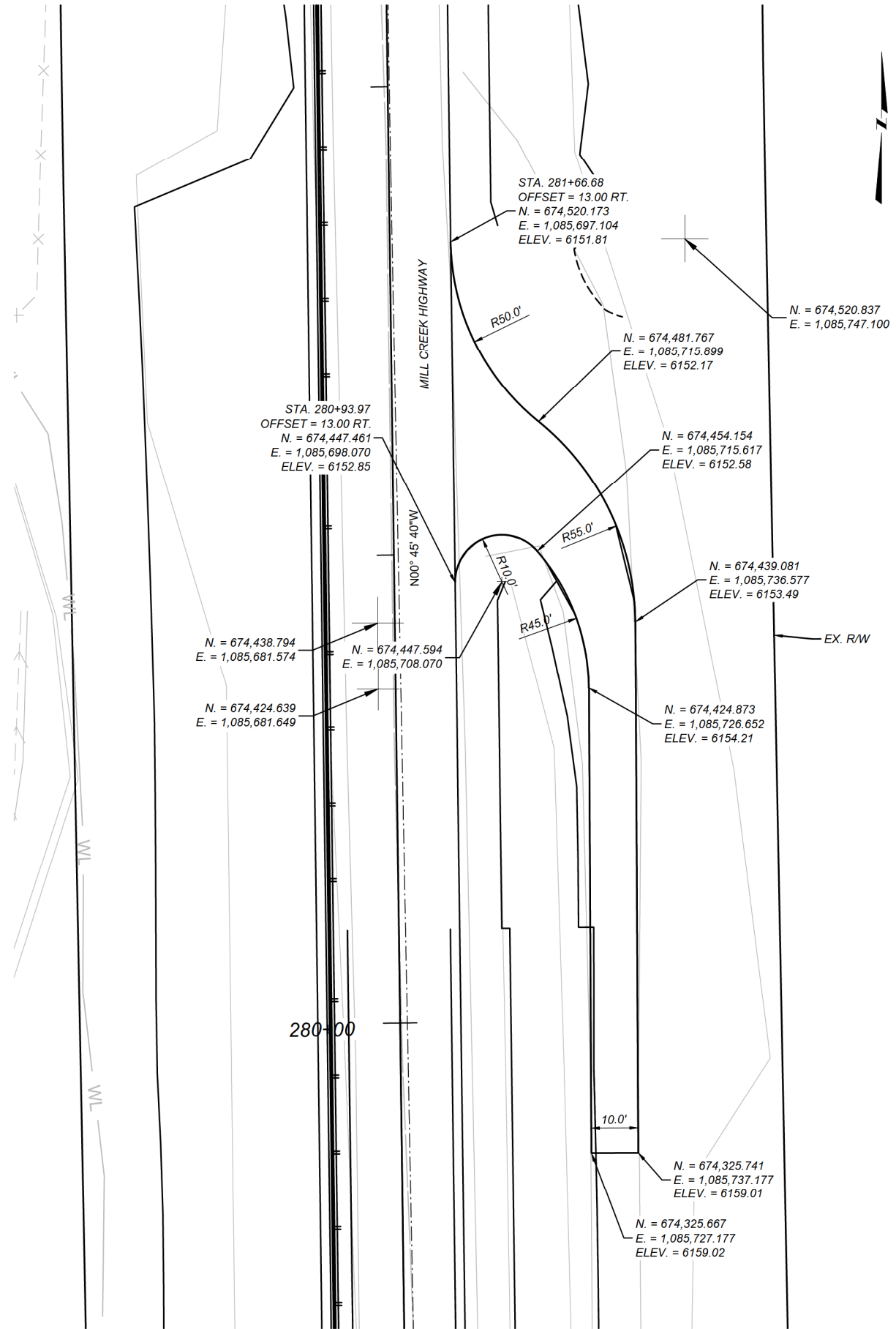
1"=20'



276+32 RT. APPROACH DETAIL

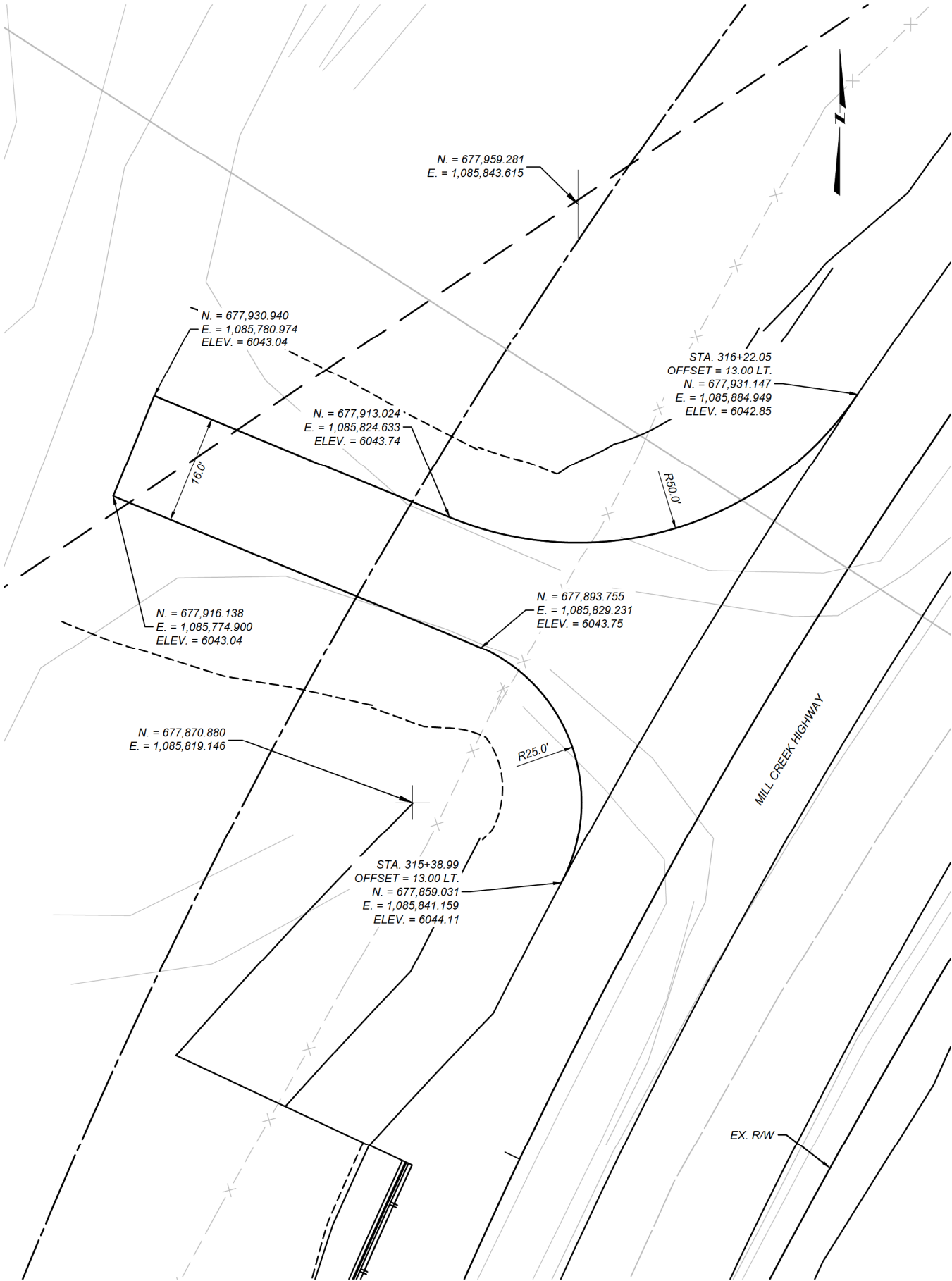
 $1''=20$ 

281+26 RT. APPROACH DETAIL

 $1''=30$ 

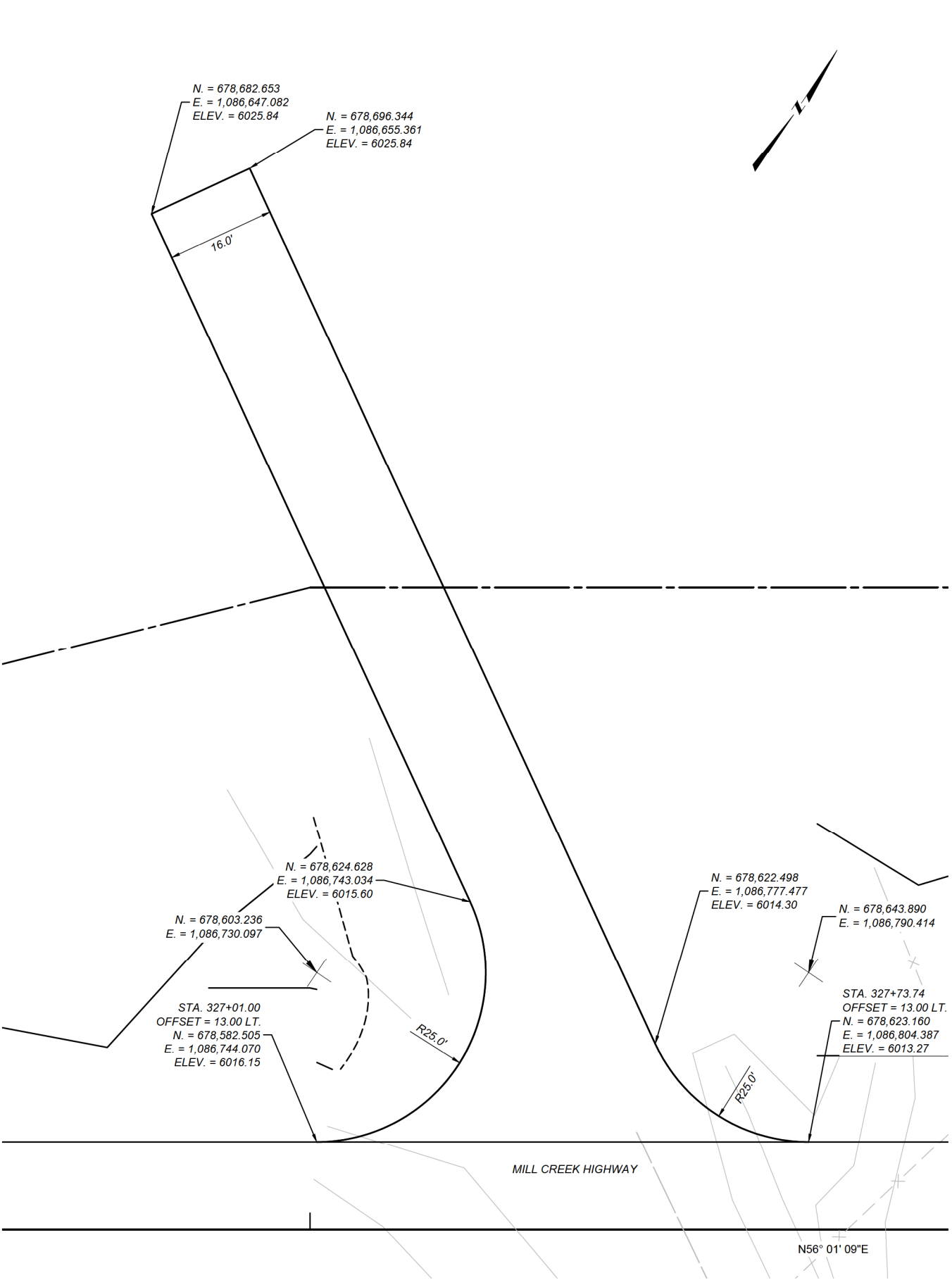
315+72 LT. APPROACH DETAIL

1"=20'



327+49 LT. APPROACH DETAIL

1"=20'



SHEET NO.

29

APPROACH & TURNAROUND DETAILS

PROJECT NAME MILL CREEK HIGHWAY

COUNTY

DEER LODGE

PROJECT ID

SSS 569-1(11)6

UPN

10473000

DESIGNED BY B. MARTISHIUS

02/2025

REVIEWED BY N. PAVIA

06/2025

CHECKED BY J. SPRINGER

06/2025

10473000RDDTZ02.DWG

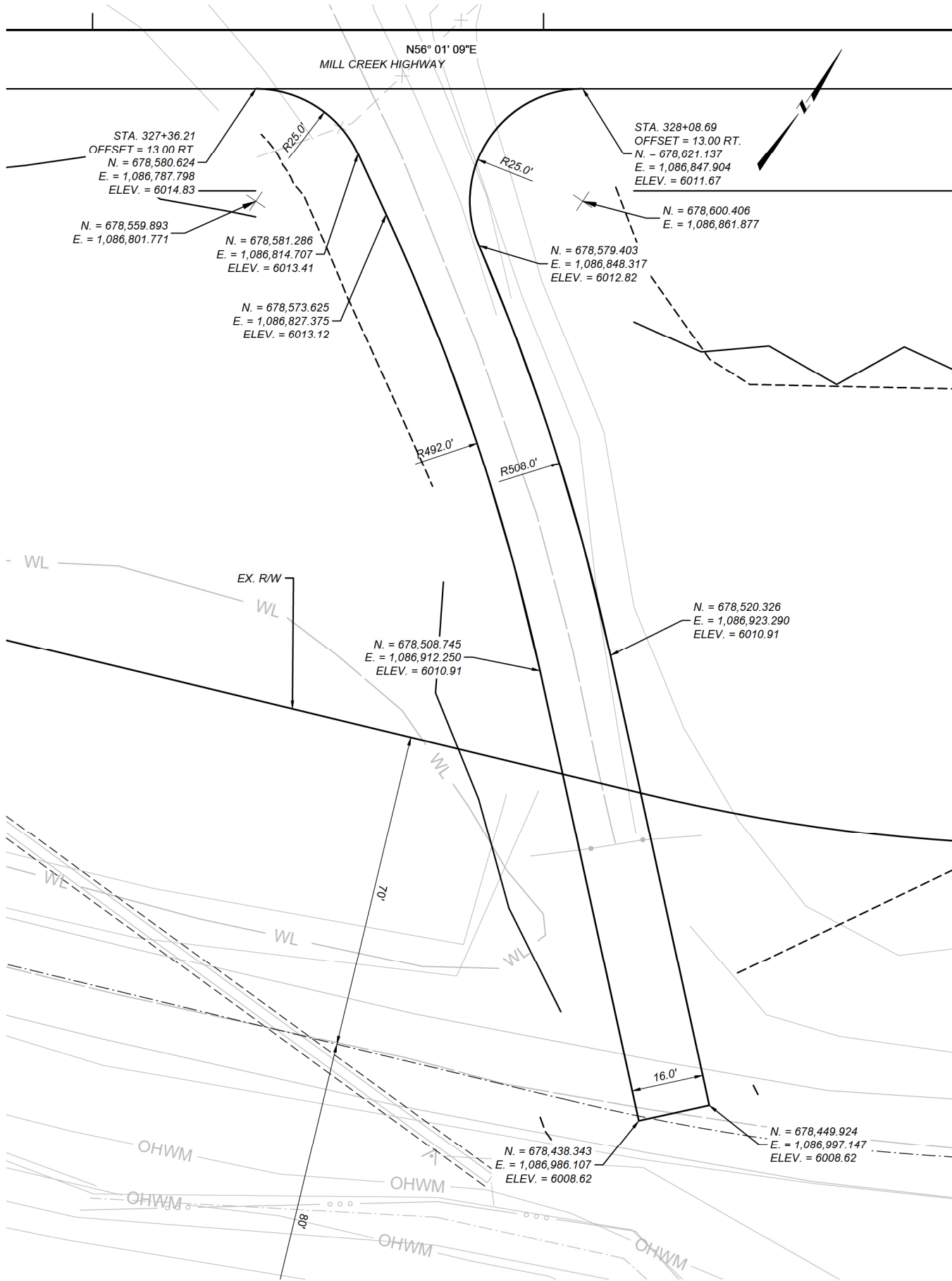


ROAD PLANS

6/17/2025 4:13 PM

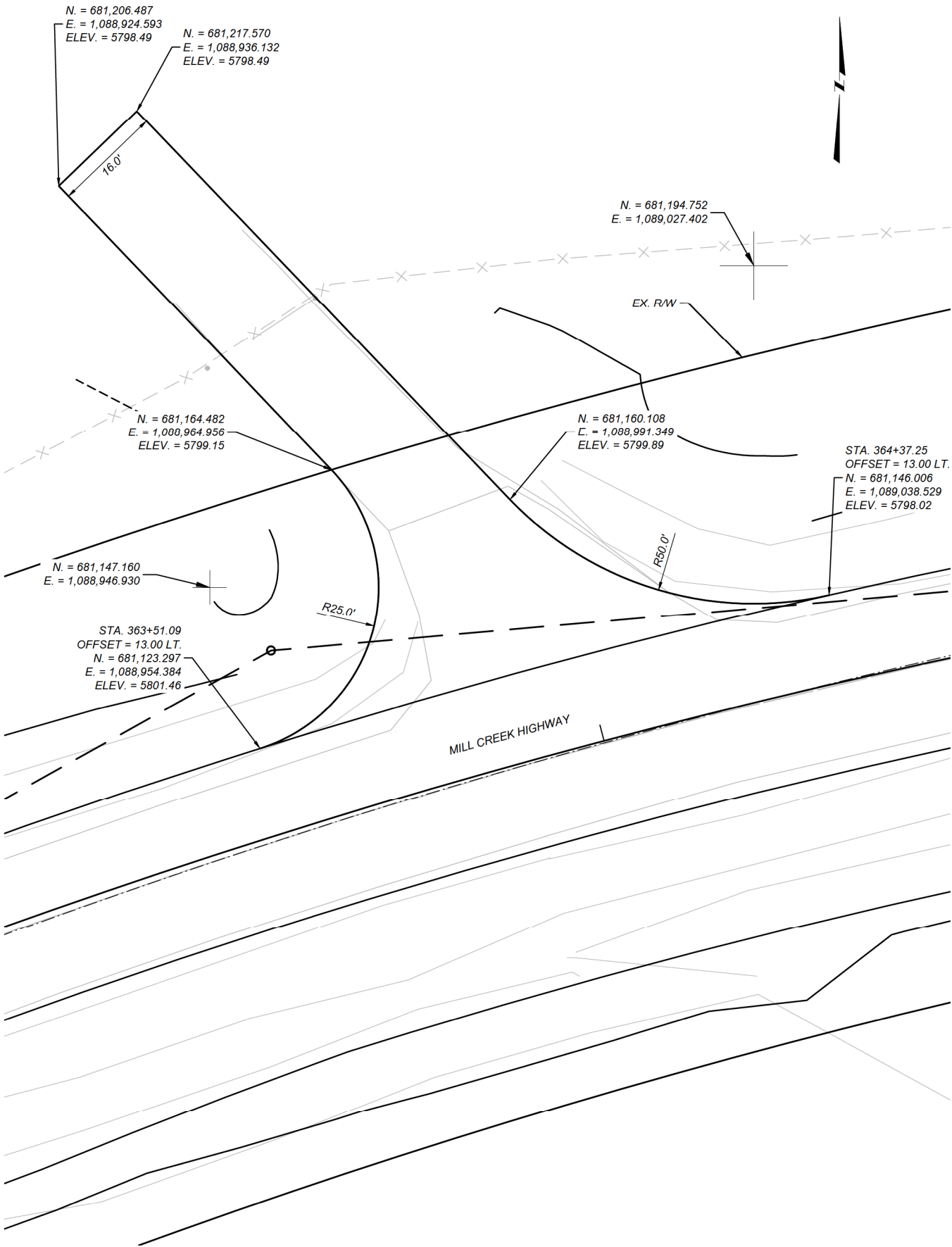
327+61 RT. APPROACH DETAIL

1"=30'



363+94 LT. APPROACH DETAIL

1"=20'



SHEET NO.

30

APPROACH &
TURNAROUND DETAILS

PROJECT NAME
MILL CREEK HIGHWAY

COUNTY

DEER LODGE

PROJECT ID

SSS 569-1(11)6

UPN

10473000

DESIGNED BY

B. MARTISHIUS

REVIEWED BY

N. PAVIA

CHECKED BY

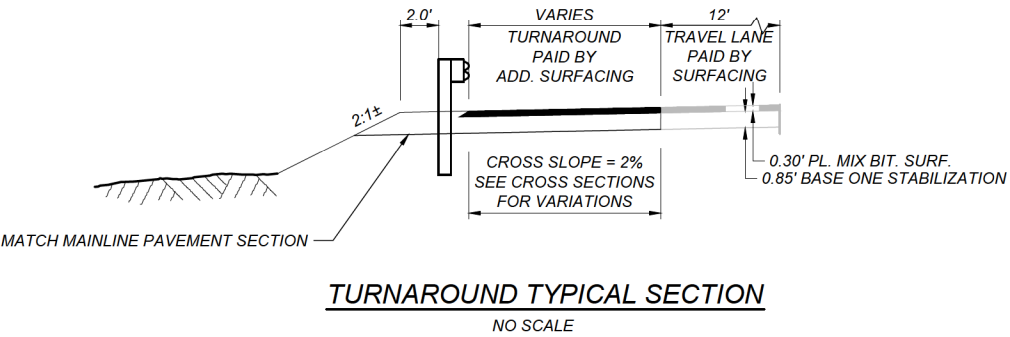
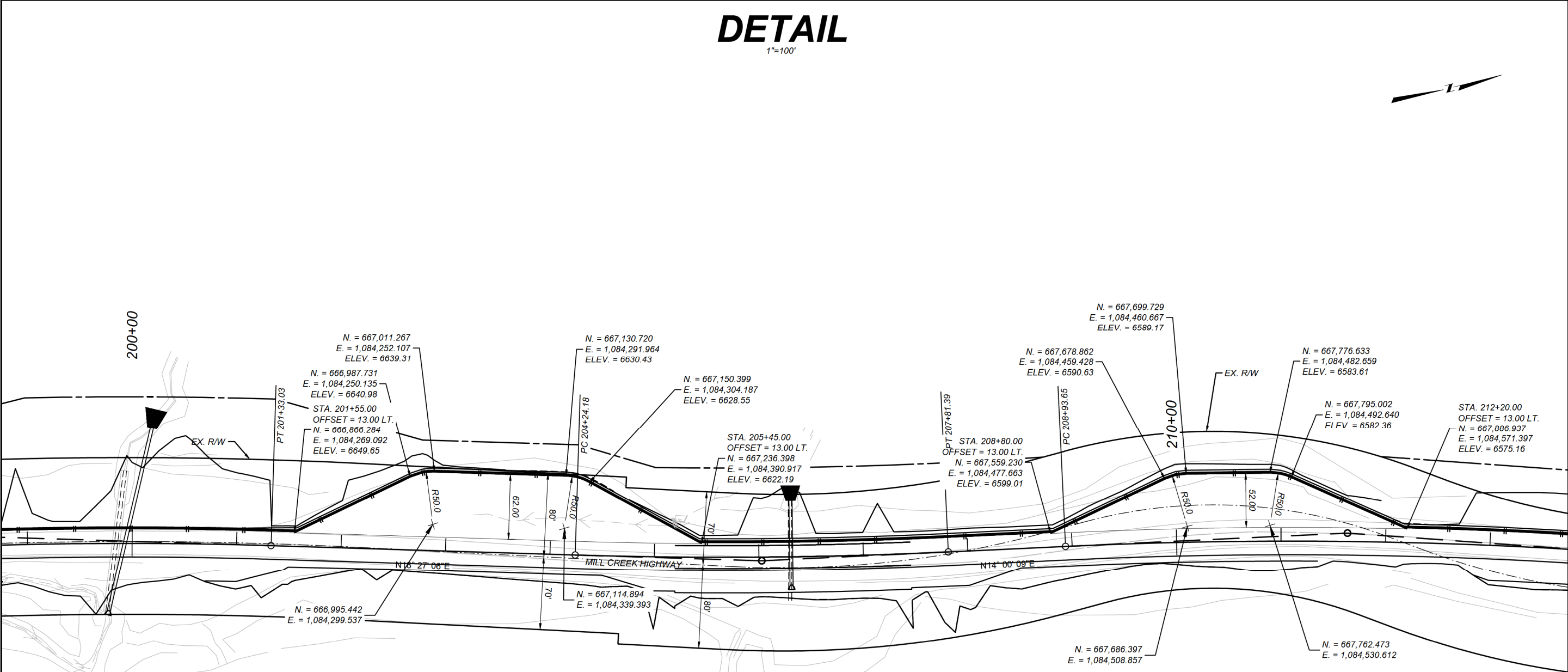
J. SPRINGER

10473000RDDTZ02.DWG



ROAD PLANS

6/17/2025 4:13 PM



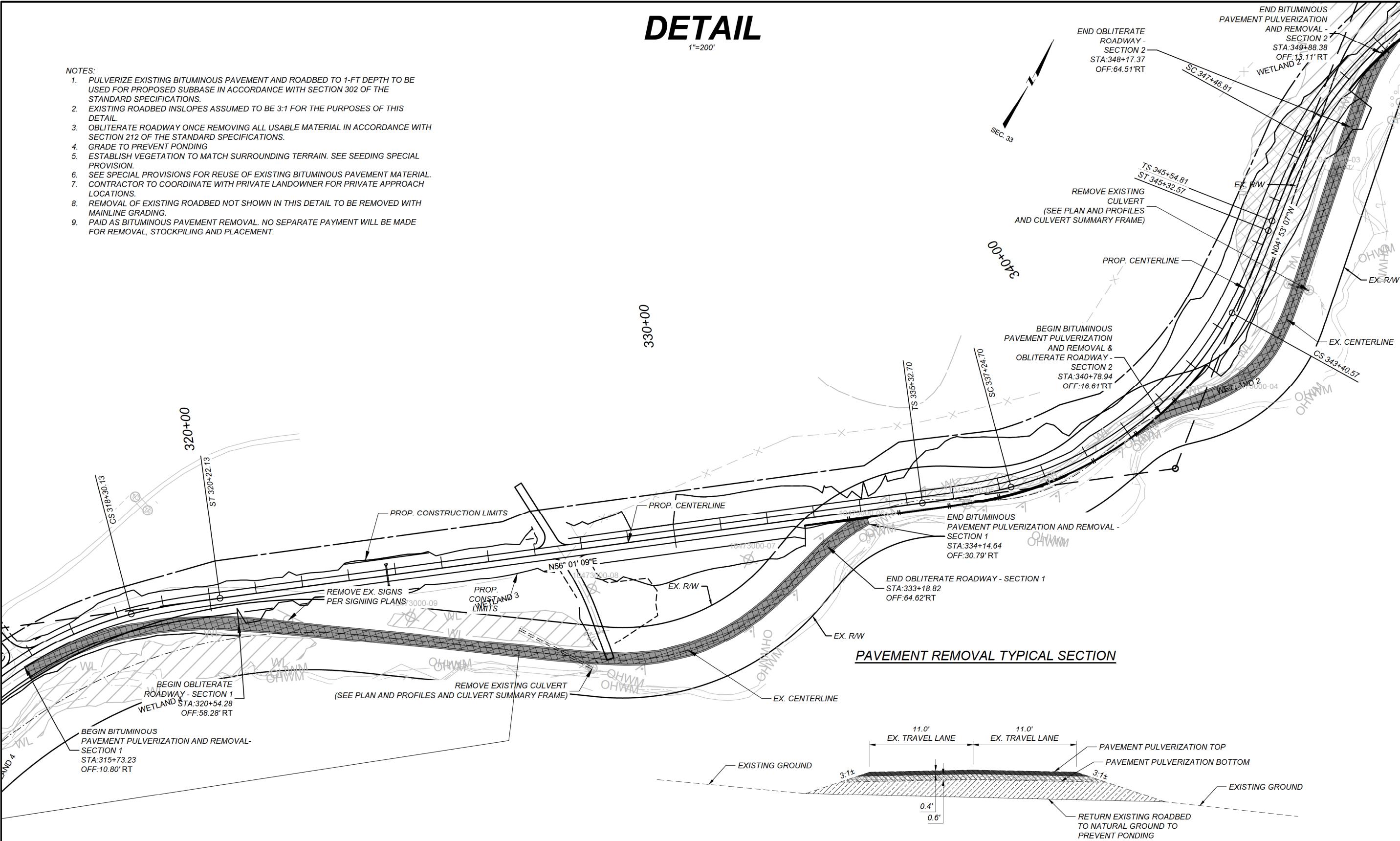
SHEET NO.		31	
APPROACH & TURNAROUND DETAILS			
	PROJECT NAME	MILL CREEK HIGHWAY	
	COUNTY	DEER LODGE	
	PROJECT ID	SSS 569-1(11)6	
	UPN	10473000	
DESIGNED BY	02/2025	REVIEWED BY	06/2025
B. MARTISHIUS		N. PAVIA	
CHECKED BY	06/2025		
J. SPRINGER			
ROAD PLANS		10473000RDDTZ02.DWG	
6/17/2025 4:13 PM			

DETAIL

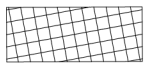
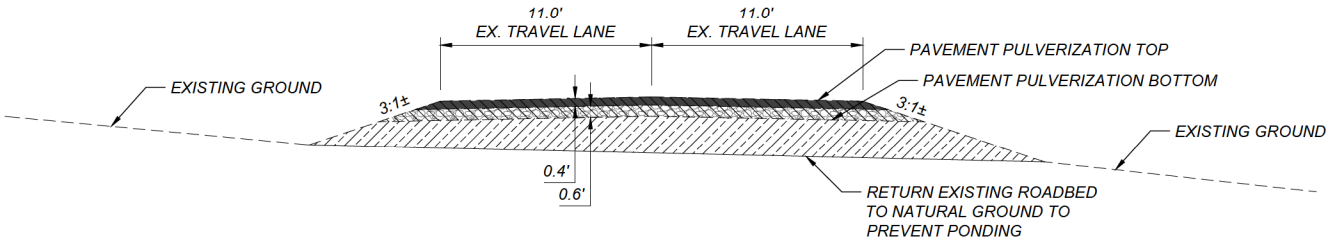
1"=200'

NOTES:

- PULVERIZE EXISTING BITUMINOUS PAVEMENT AND ROADBED TO 1-FT DEPTH TO BE USED FOR PROPOSED SUBBASE IN ACCORDANCE WITH SECTION 302 OF THE STANDARD SPECIFICATIONS.
- EXISTING ROADBED INSLOPES ASSUMED TO BE 3:1 FOR THE PURPOSES OF THIS DETAIL.
- OBLITERATE ROADWAY ONCE REMOVING ALL USABLE MATERIAL IN ACCORDANCE WITH SECTION 212 OF THE STANDARD SPECIFICATIONS.
- GRADE TO PREVENT PONDING
- ESTABLISH VEGETATION TO MATCH SURROUNDING TERRAIN. SEE SEEDING SPECIAL PROVISION.
- SEE SPECIAL PROVISIONS FOR REUSE OF EXISTING BITUMINOUS PAVEMENT MATERIAL.
- CONTRACTOR TO COORDINATE WITH PRIVATE LANDOWNER FOR PRIVATE APPROACH LOCATIONS.
- REMOVAL OF EXISTING ROADBED NOT SHOWN IN THIS DETAIL TO BE REMOVED WITH MAINLINE GRADING.
- PAID AS BITUMINOUS PAVEMENT REMOVAL. NO SEPARATE PAYMENT WILL BE MADE FOR REMOVAL, STOCKPILING AND PLACEMENT.



PAVEMENT REMOVAL TYPICAL SECTION



BITUMINOUS PAVEMENT PULVERIZATION & REMOVAL TOP (APPROX. 5,240 SY)



BITUMINOUS PAVEMENT PULVERIZATION & REMOVAL BOTTOM (APPROX. 6,660 SY)

LEGEND



ASSUMED EXISTING BIT. SURFACING



ASSUMED EXISTING CRUSHED AGGREGATE COURSE



BITUMINOUS PAVEMENT PULVERIZATION



OBLITERATE ROADWAY

SHEET NO.

32

PAVEMENT REMOVAL
DETAIL

PROJECT NAME
MILL CREEK HIGHWAY

COUNTY
DEER LODGE

PROJECT ID
SSS 569-1(11)6

UPN
10473000

DESIGNED BY
B. MARTISHIUS

REVIEWED BY
N. PAVIA

CHECKED BY
J. SPRINGER

10473000RDEDTZ03.DWG

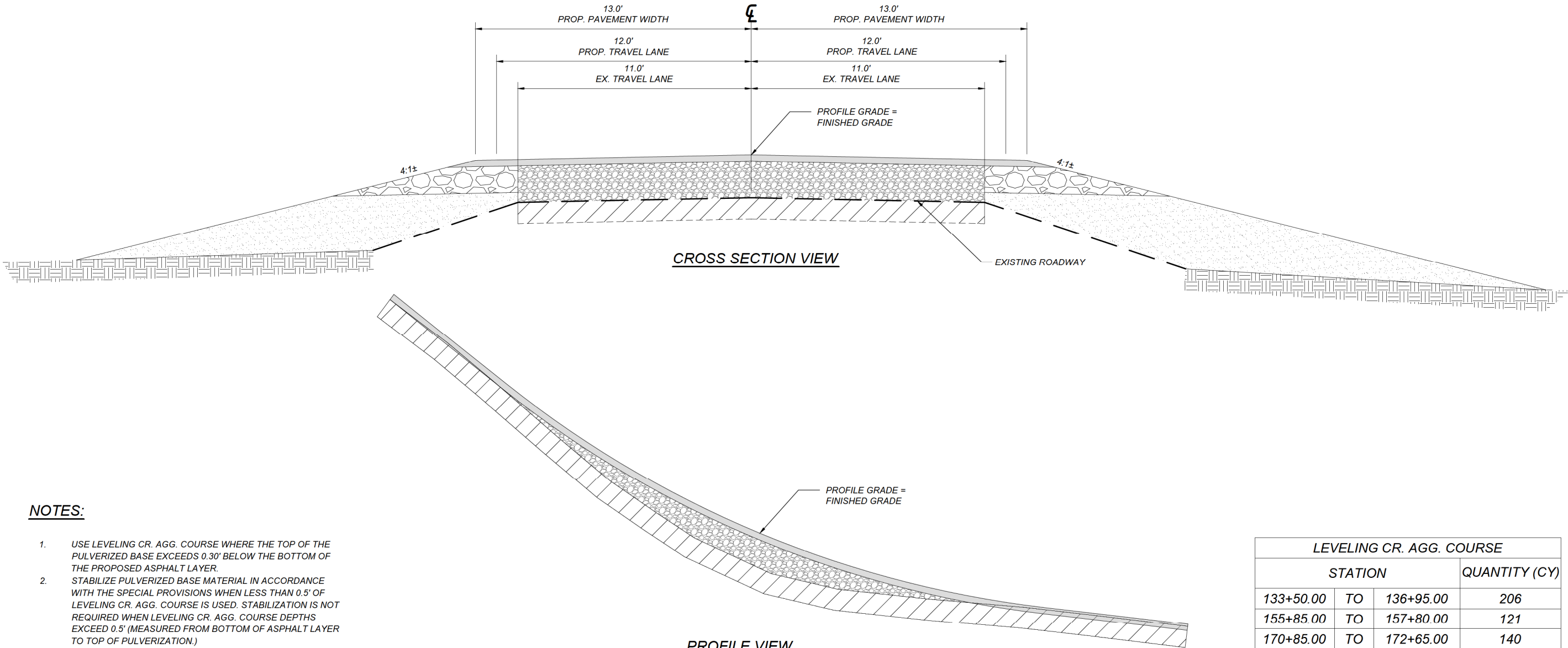


ROAD PLANS

6/17/2025 4:14 PM

DETAIL

NO SCALE



NOTES:

- USE LEVELING CR. AGG. COURSE WHERE THE TOP OF THE PULVERIZED BASE EXCEEDS 0.30' BELOW THE BOTTOM OF THE PROPOSED ASPHALT LAYER.
- STABILIZE PULVERIZED BASE MATERIAL IN ACCORDANCE WITH THE SPECIAL PROVISIONS WHEN LESS THAN 0.5' OF LEVELING CR. AGG. COURSE IS USED. STABILIZATION IS NOT REQUIRED WHEN LEVELING CR. AGG. COURSE DEPTHS EXCEED 0.5' (MEASURED FROM BOTTOM OF ASPHALT LAYER TO TOP OF PULVERIZATION.)
- FINISH LEVELING CR. AGG. COURSE TO TOP OF PULVERIZED BASE GRADE. (0.30' BELOW PROPOSED FINISHED GRADE)
- SEE SURFACING FRAME FOR LEVELING CR. AGG. COURSE QUANTITIES.

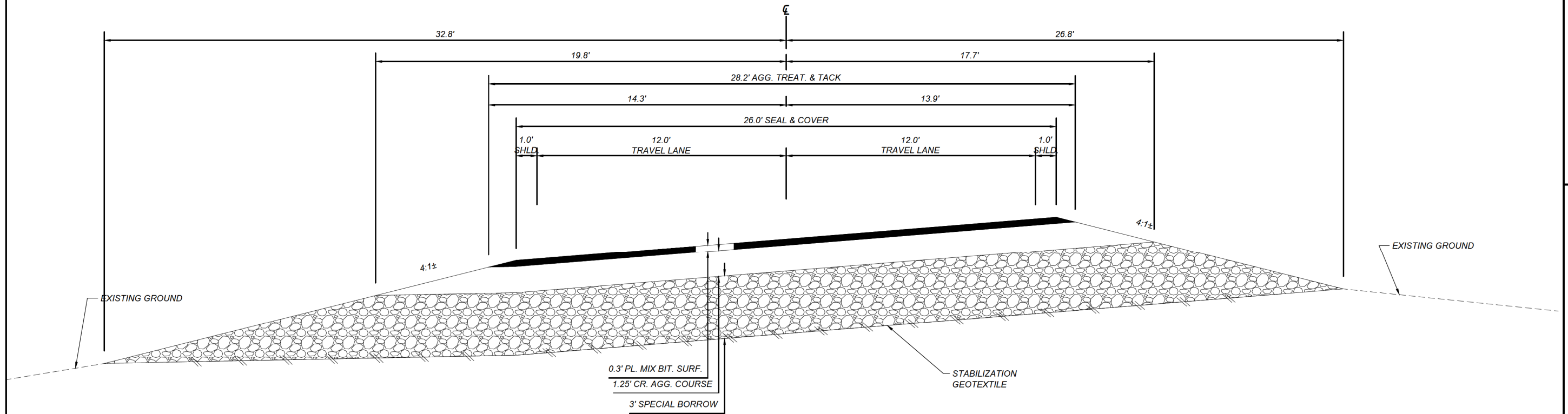
LEGEND

- 0.3' PLANT MIX SURFACING - SEE TYPICAL SECTIONS
- 1.25' CRUSHED AGG. COURSE - SEE TYPICAL SECTIONS
- 1.0' BITUMINOUS PAVEMENT PULVERIZATION
- LEVELING CRUSHED AGG. COURSE (EXCESS PULV. MATERIAL)
- NATIVE MATERIAL - EARTHWORK

LEVELING CR. AGG. COURSE			
STATION			QUANTITY (CY)
133+50.00	TO	136+95.00	206
155+85.00	TO	157+80.00	121
170+85.00	TO	172+65.00	140
188+10.00	TO	194+10.00	319
205+20.00	TO	207+45.00	84
222+30.00	TO	225+30.00	165
228+66.04	TO	231+00.00	148
247+05.00	TO	250+50.00	209
261+32.20	TO	262+50.00	121
277+79.54	TO	280+20.00	203
289+65.07	TO	294+00.00	237

DETAIL

NO SCALE



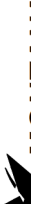
QUANTITIES	
UNIT	AGGREGATE
	SPECIAL BORROW
AREA square feet	145.65
cubic yards PER STATION	539.4
tons PER STATION	
square yards PER STATION	

SPECIAL BORROW			
STA.	TO	STA.	QUANTITY (CY)
262+50.00	TO	269+32.00	3679

NOTES:

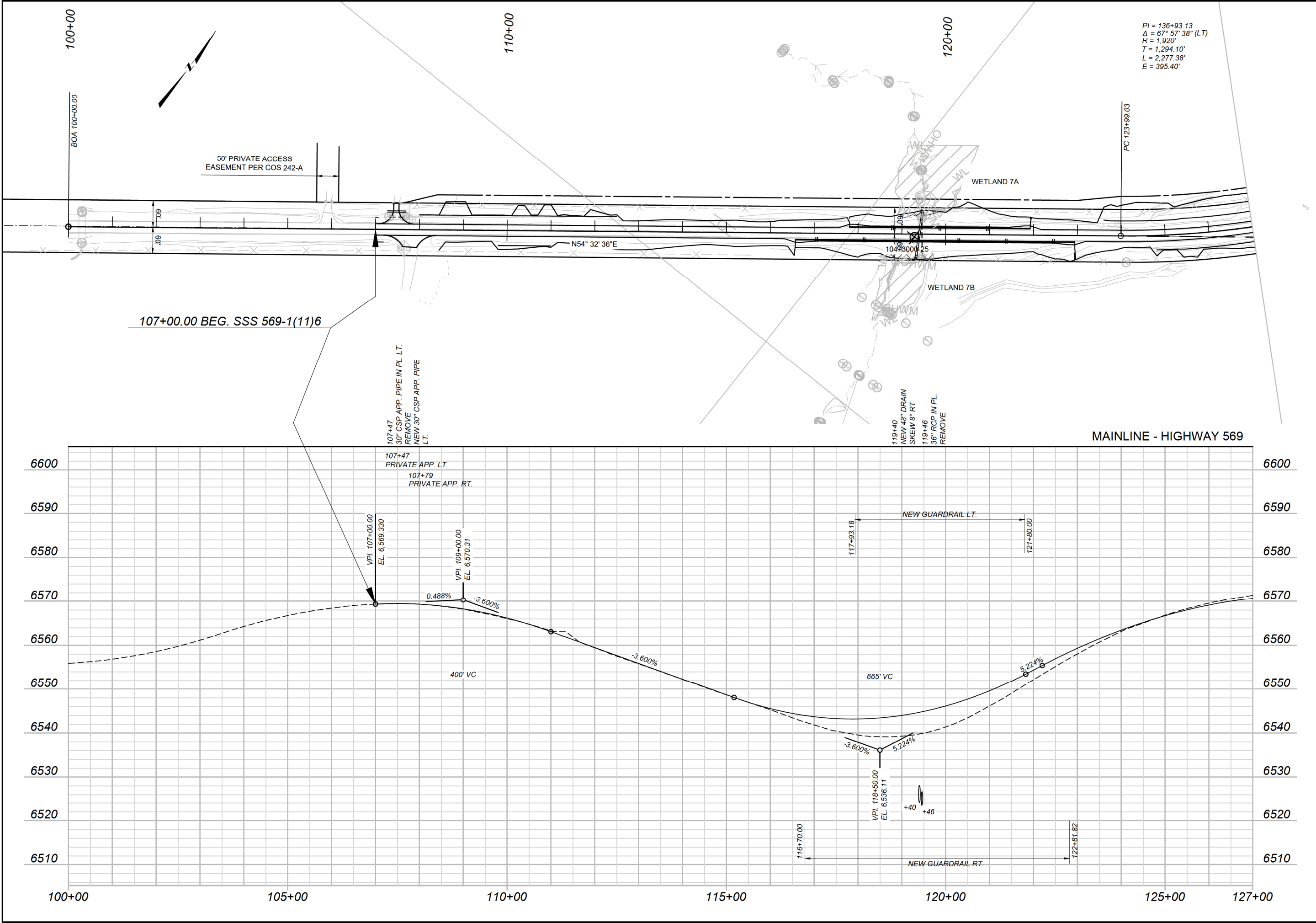
1. PROVIDE SPECIAL BORROW IN ACCORDANCE WITH STANDARD SPECIFICATIONS.
2. SPECIAL BORROW SECTION PROPOSED TO ALLOW NATURAL SPRING TO DRAIN.
3. FINAL LIMITS TO BE DETERMINED BY PROJECT MANAGER.
4. SEE TYPICAL SECTIONS AND SURFACING SUMMARY FRAME FOR PAVEMENT AND CR. AGG. COURSE QUANTITIES.
5. SEE SPECIAL BORROW SPECIAL PROVISION.


SPECIAL BORROW DETAIL

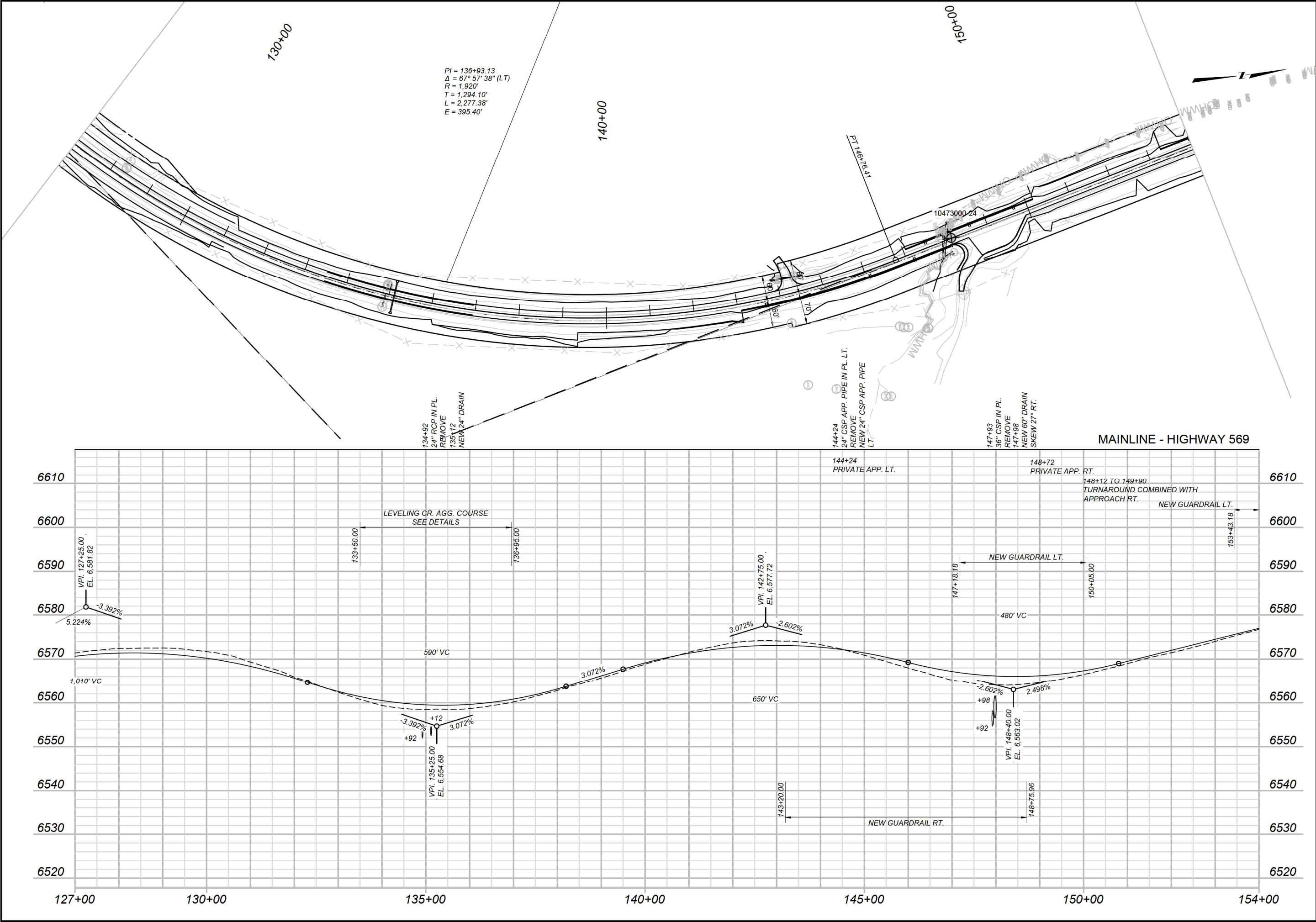
<div><div><div>MONTANA</div><div>Department of Transportation</div></div></div>	DESIGNED BY		02/2025	PROJECT NAME MILL CREEK HIGHWAY
	B. MARTISHIUS			
	REVIEWED BY		06/2025	COUNTY DEER LODGE
	N. PAVIA			
	CHECKED BY		06/2025	PROJECT ID SSS 569-1(11)6
ROAD PLANS	J. SPRINGER			UPN 10473000
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FOR PRELIMINARY

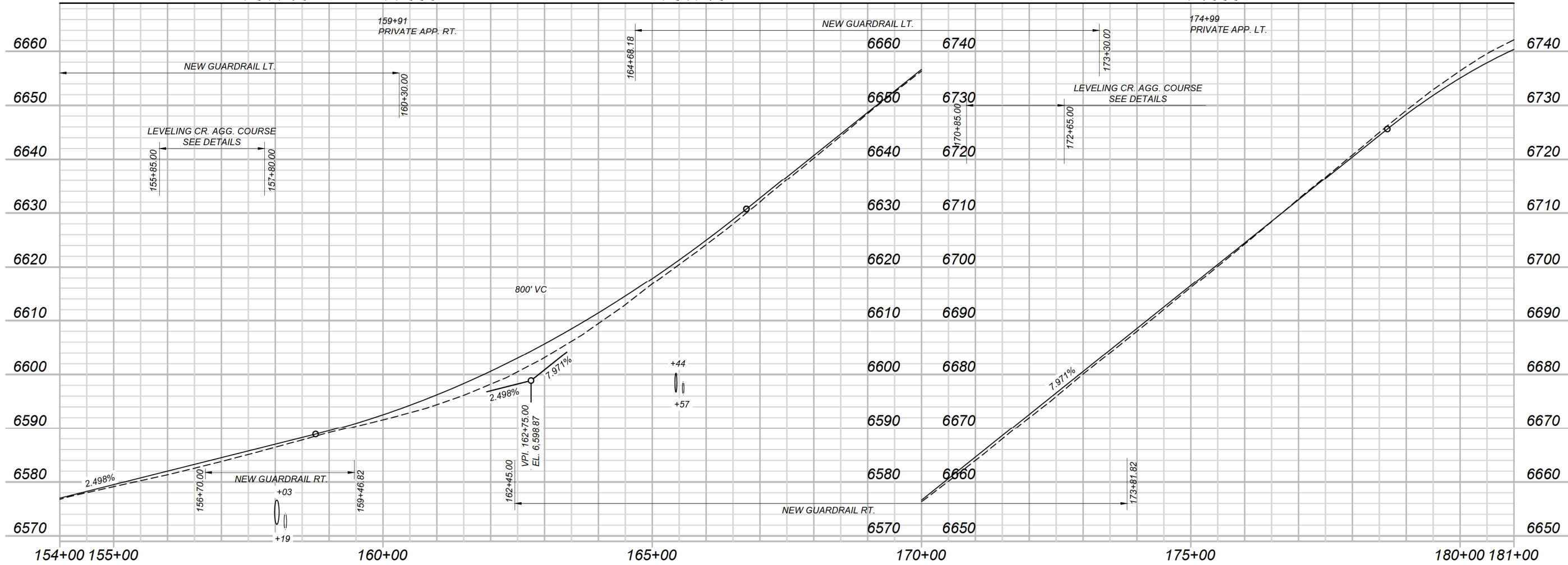
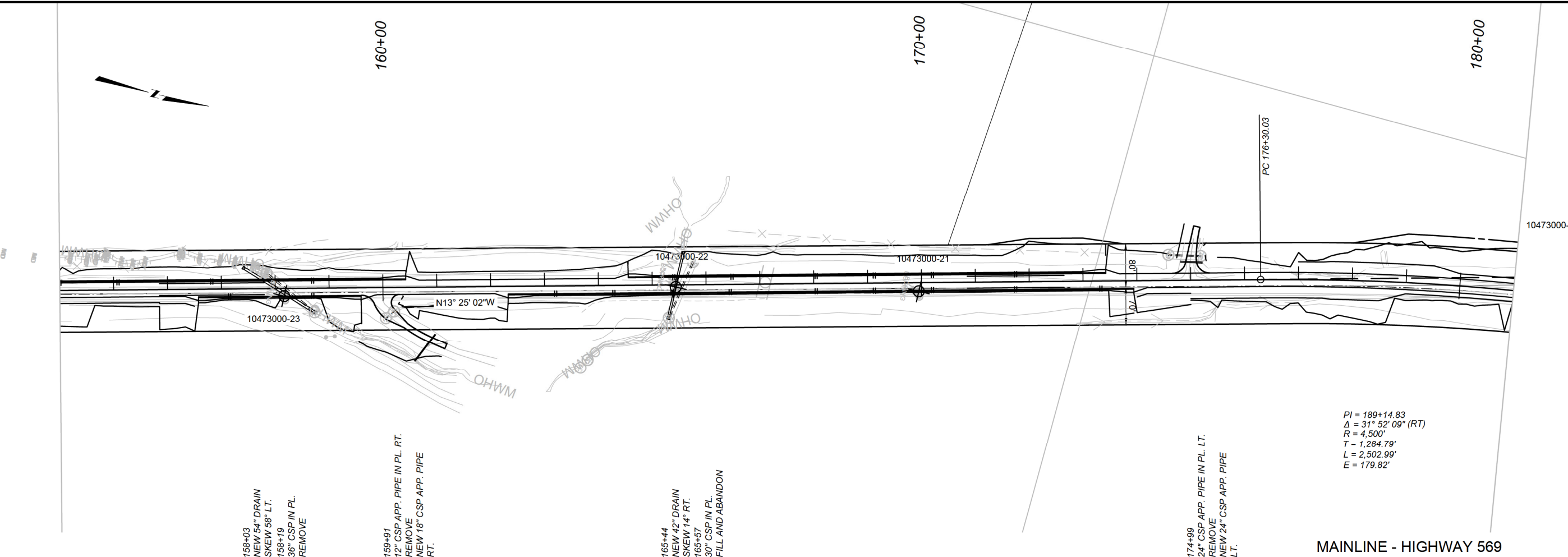
AGR



SHEET NO.		35	
<div><div>MONTANA Department of Transportation</div></div> <div>ROAD PLANS</div>		PROJECT NAME	
		MILL CREEK HIGHWAY	
		COUNTY	
		DEER LODGE	
		PROJECT ID	
SSS 569-1(11)6			
UPN		10473000	
DESIGNED BY		02/2025	
B. MARTISHIUS			
REVIEWED BY		06/2025	
N. PAVIA			
CHECKED BY		06/2025	
J. SPRINGER			
6/17/2025 4:15 PM		10473000RDPLPZ01.DWG	



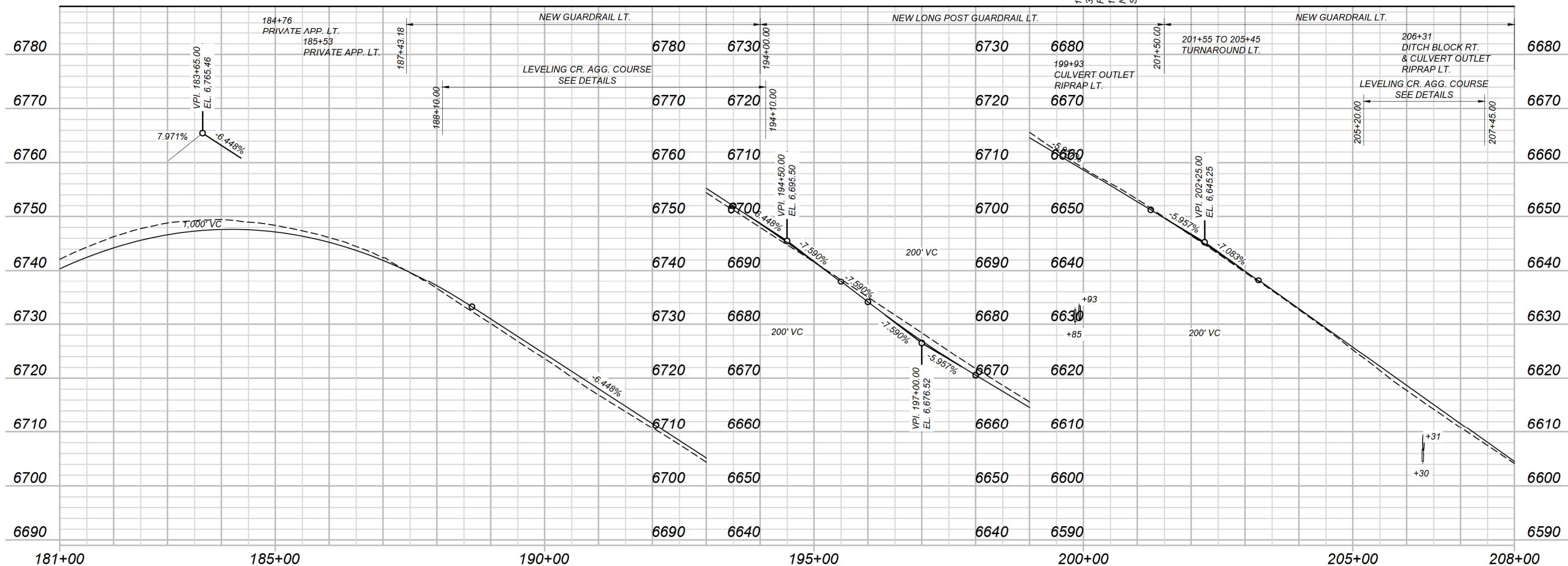
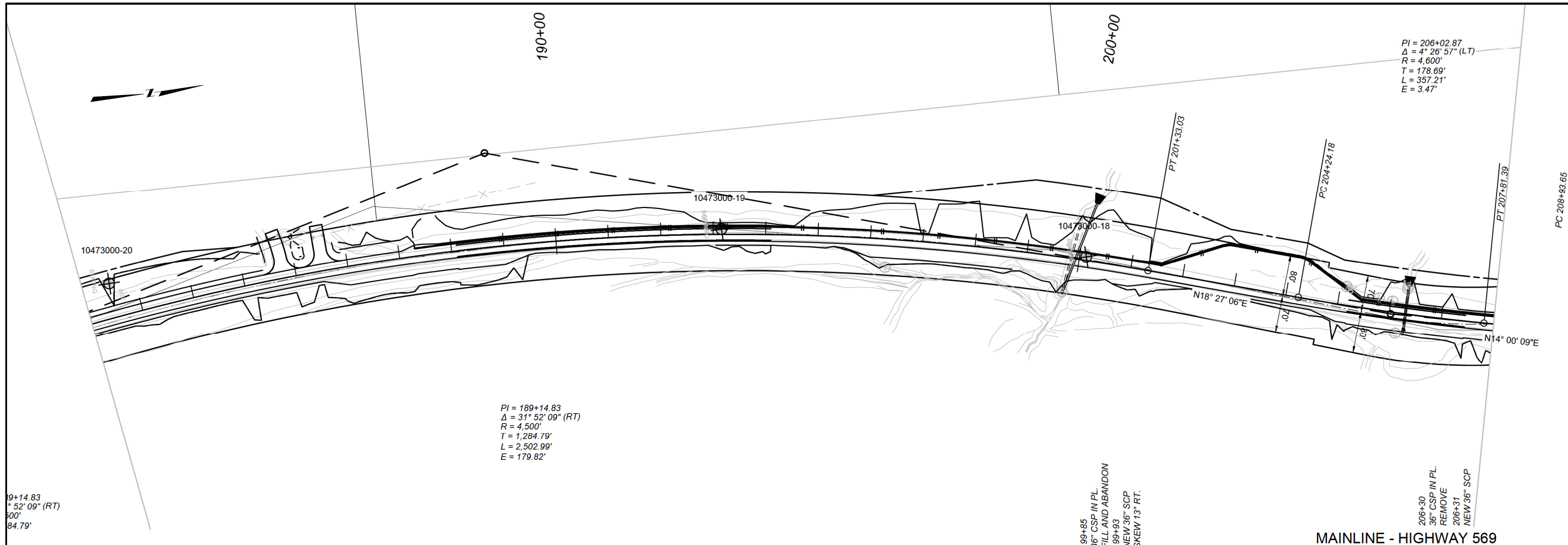
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PROJECT NAME		MILL CREEK HIGHWAY	
COUNTY		DEER LODGE	
PROJECT ID		SSS 569-1(11)6	
UPN		10473000	
DESIGNED BY	02/2025	MONTANA Department of Transportation	
REVIEWED BY	06/2025		
CHECKED BY	06/2025		
ROAD PLANS		6/17/2025 4:15 PM	



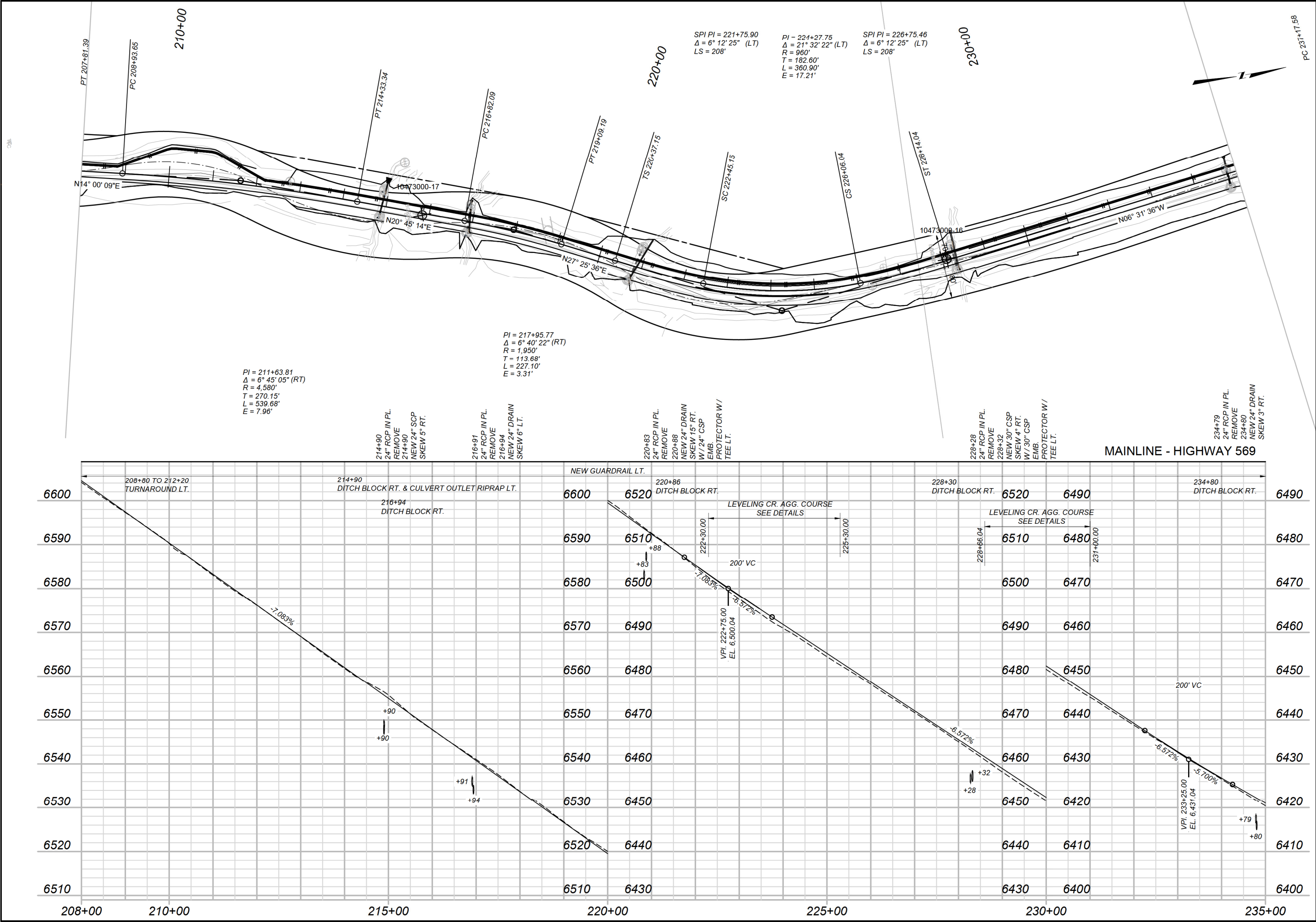
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PROJECT NAME		MILL CREEK HIGHWAY	
COUNTY		DEER LODGE	
PROJECT ID		SSS 569-1(11)6	
UPN		10473000	
DESIGNED BY	02/2025	REVIEWED BY	06/2025
B. MARTISHIUS		N. PAVIA	
CHECKED BY	06/2025	ROAD PLANS	
J. SPRINGER		6/17/2025 4:15 PM	
MONTANA Department of Transportation		10473000RDLPLZ01.DWG	

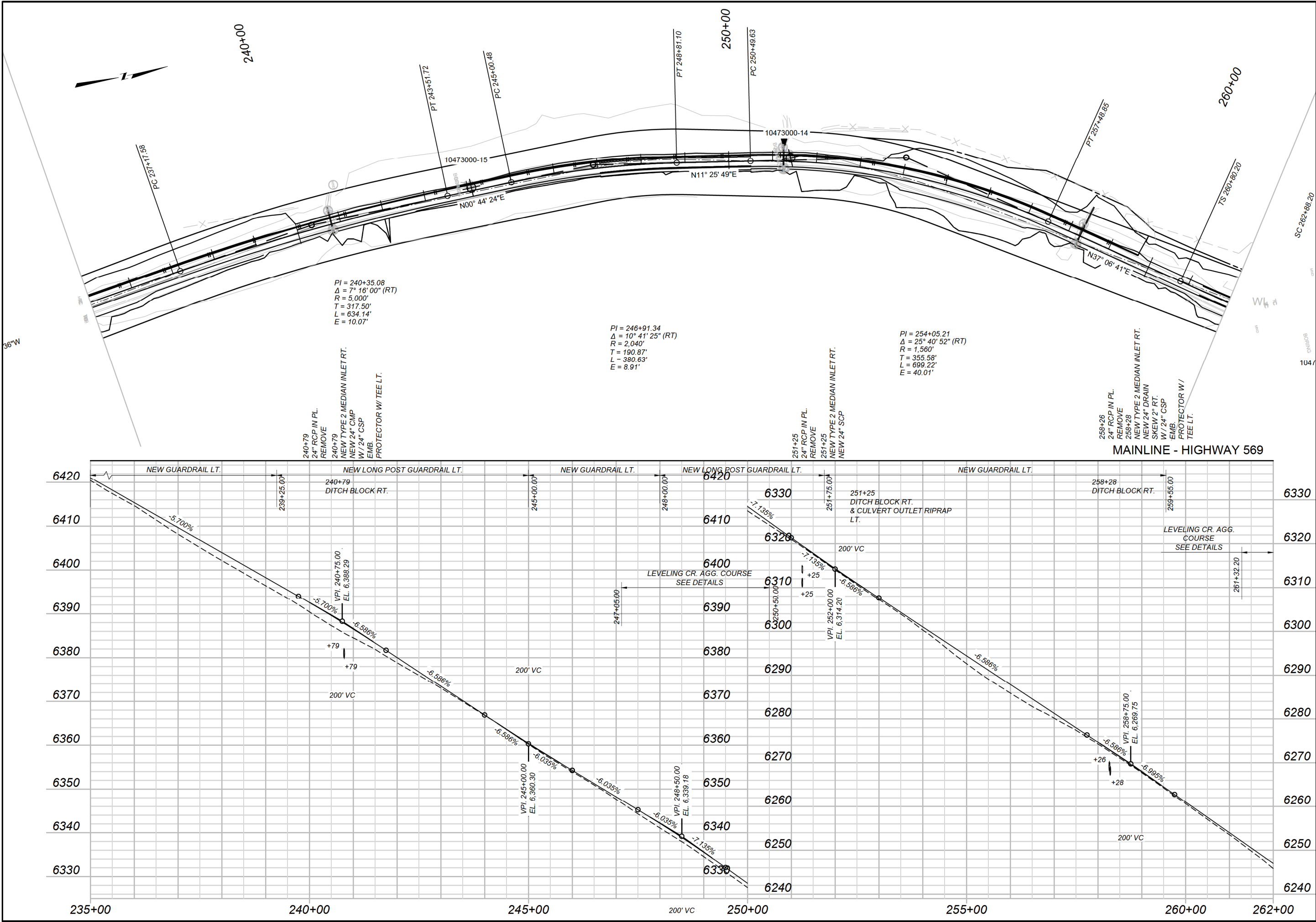
FOR PRELIMINARY

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 MONTANA Department of Transportation	DESIGNED BY		PROJECT NAME		MAINLINE PLAN AND PROFILE	SHEET NO. 38
	B. MARTISHIUS		MILL CREEK HIGHWAY			
	REVIEWED BY		COUNTY			
	N. PAVIA		DEER LODGE			
	06/2025		PROJECT ID			
		CHECKED BY		SSS 569-1(11)6		
		J. SPRINGER		UPN		
				10473000		
				10473000RDPLP201.DWG		
				6/17/2025 4:15 PM		
				ROAD PLANS		

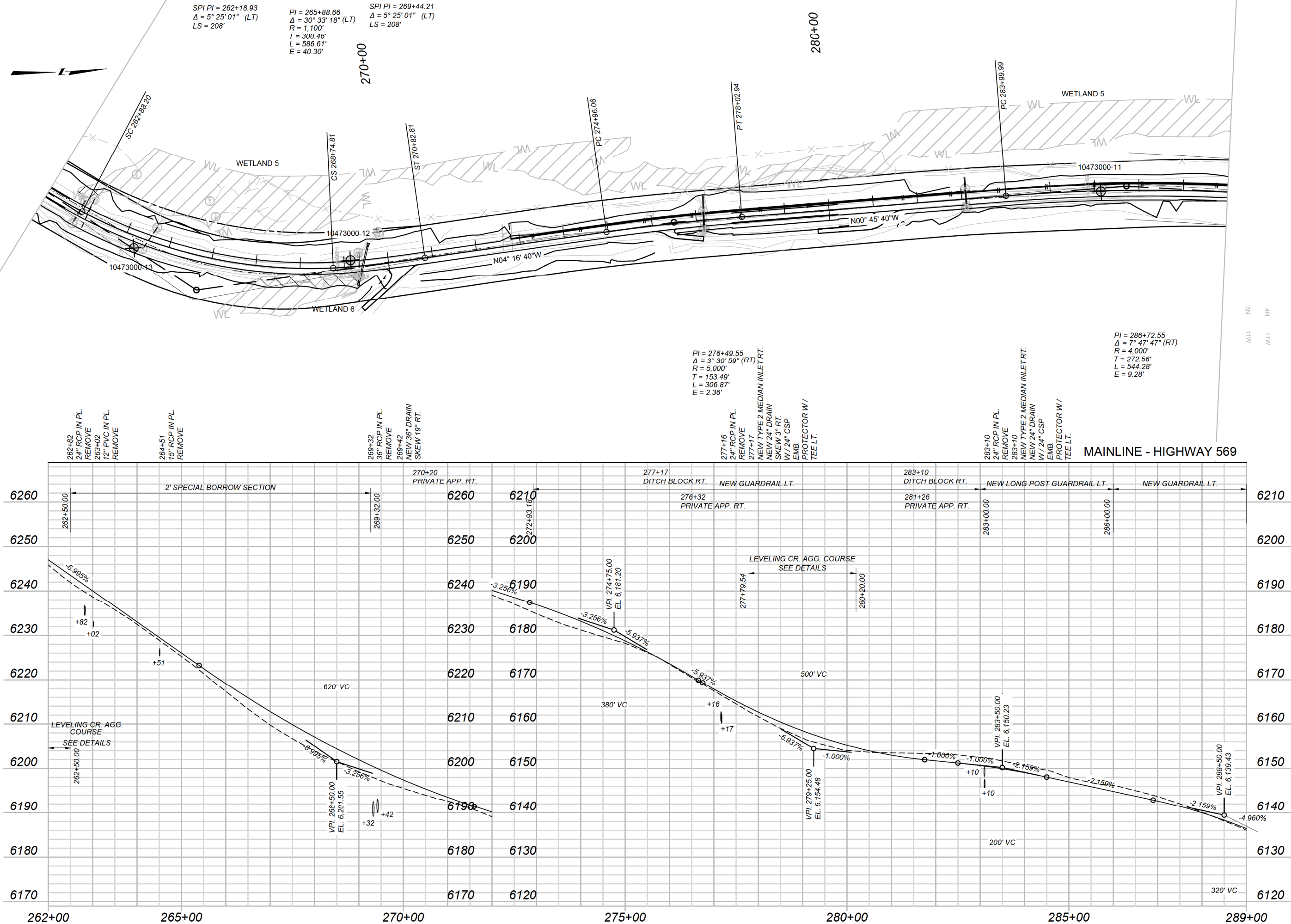




SHEET NO.		40
MAINLINE PLAN AND PROFILE		
PROJECT NAME		MILL CREEK HIGHWAY
COUNTY		DEER LODGE
PROJECT ID		SSS 569-1(11)6
UPN		10473000
DESIGNED BY	B. MARTISHIUS	02/2025
REVIEWED BY	N. PAVIA	06/2025
CHECKED BY	J. SPRINGER	06/2025
MONTANA Department of Transportation		
ROAD PLANS		
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FOR PRELIMINARY

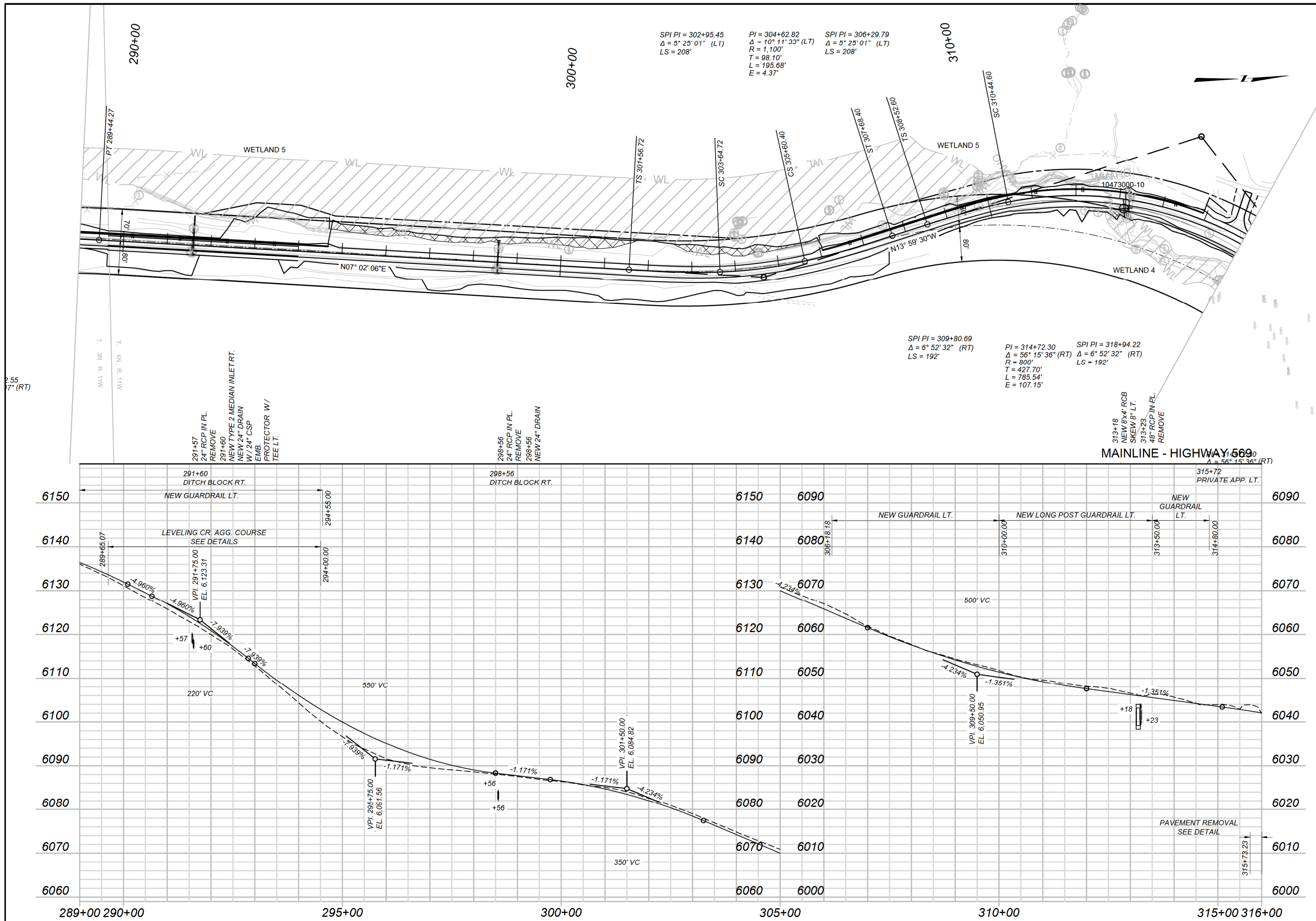
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SHEET NO.		41	
PROJECT NAME		MILL CREEK HIGHWAY	
COUNTY		DEER LODGE	
PROJECT ID		SSS 569-1(11)6	
UPN		10473000	
DESIGNED BY	02/2025	REVIEWED BY	06/2025
B. MARTISHIUS		N. PAVIA	
CHECKED BY	06/2025	ROAD PLANS	
J. SPRINGER		6/17/2025 4:15 PM	

FOR PRELIMINARY

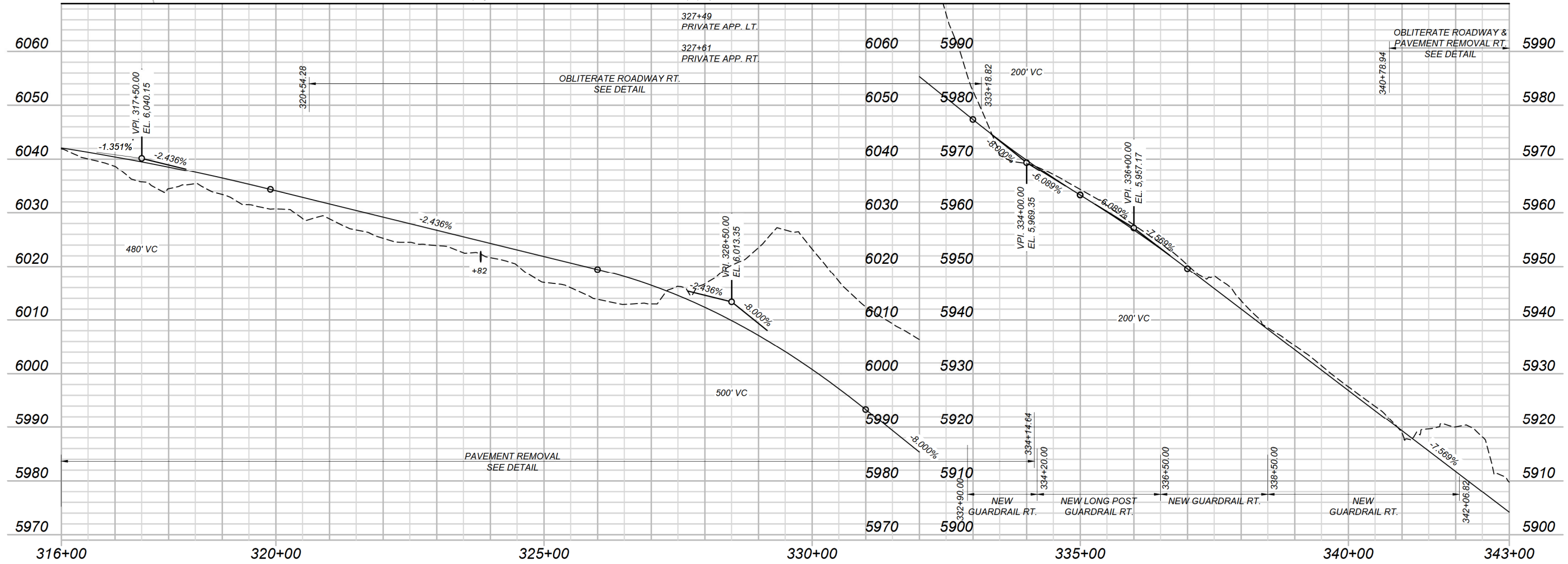
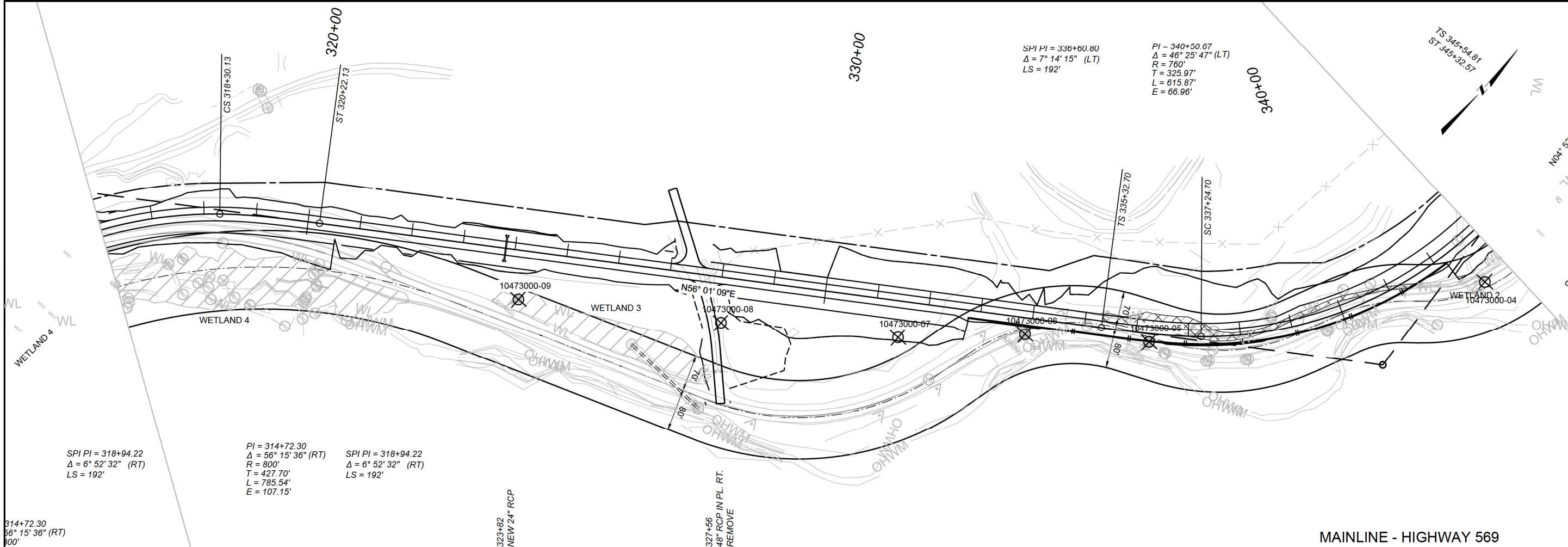
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 MONTANA Department of Transportation	DESIGNED BY	PROJECT NAME		
	B. MARTISHIUS	MILL CREEK HIGHWAY		
	02/2025	COUNTY	DEER LODGE	
	REVIEWED BY	PROJECT ID		
	N. PAVIA	SSS 569-1(1)6		
ROAD PLANS	CHECKED BY	UPN		
	J. SPRINGER	10473000		
	10473000RDLPLP201.DWG			
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FOR PRELIMINARY

AGR



SHEET NO.

43

MAINLINE PLAN AND PROFILE

PROJECT NAME

MILL CREEK HIGHWAY

COUNTY

DEER LODGE

PROJECT ID

SSS 569-1(11)6

UPN

10473000

DESIGNED BY

B. MARTISHIUS

02/2025

REVIEWED BY

N. PAVIA

06/2025

CHECKED BY

J. SPRINGER

06/2025

MONTANA

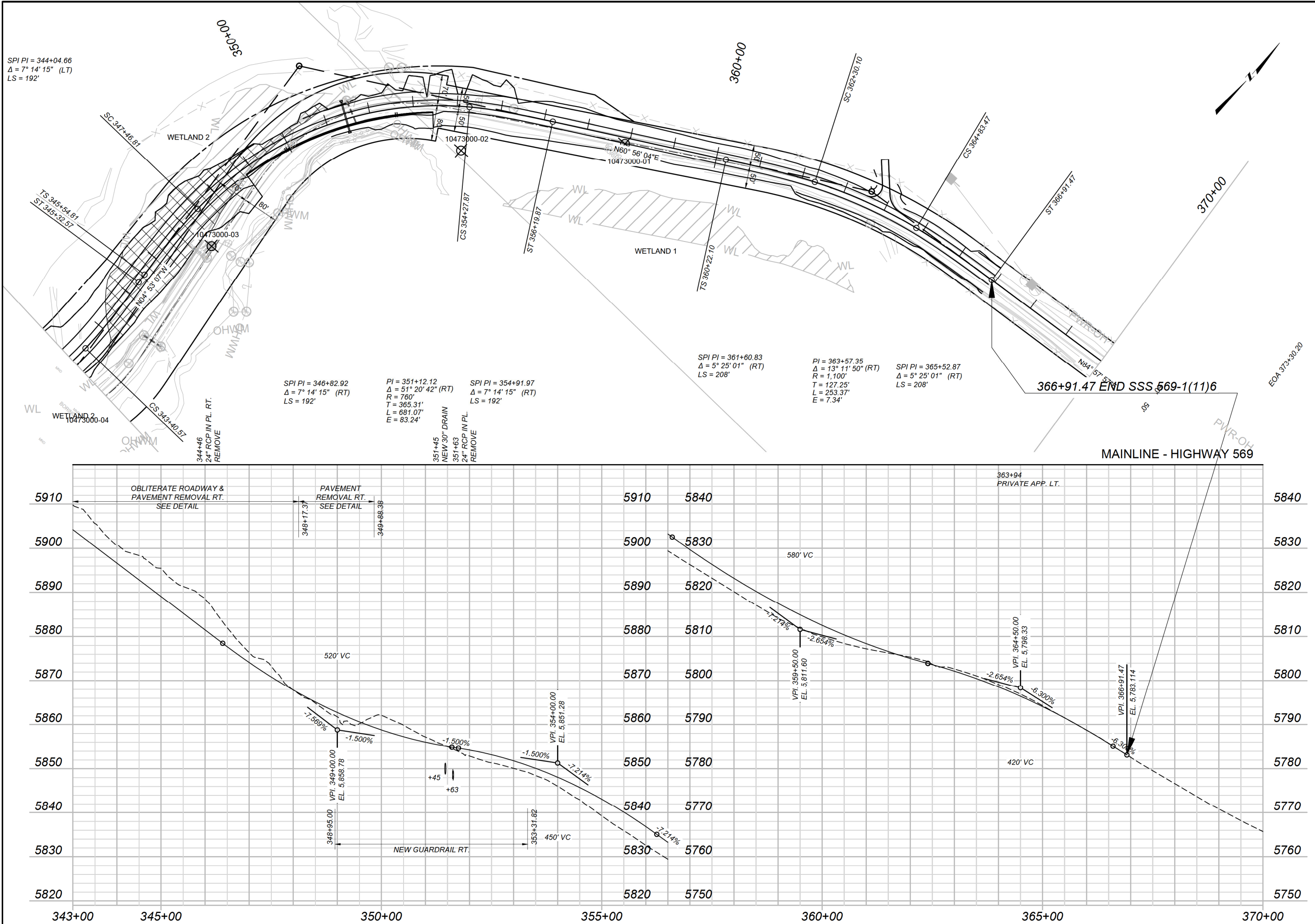
Department of Transportation

ROAD PLANS

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FOR PRELIMINARY

AGR



SHEET NO.

4

MAINLINE PLAN AND PROFILE

MILL CREEK HIGHWAY

COUNTY

DEER LODGE

SSS 569-1(11)6

1

DESIGNED BY	02/2025
B. MARTISHIUS	
REVIEWED BY	

REVIEWED BY	N PAVIA	06/2025
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CHECKED BY		06/2025
/ SPRINGER		

10473000RDPLPZ01.DWG

MONTANA
Department of Transportation

ROAD PLANS

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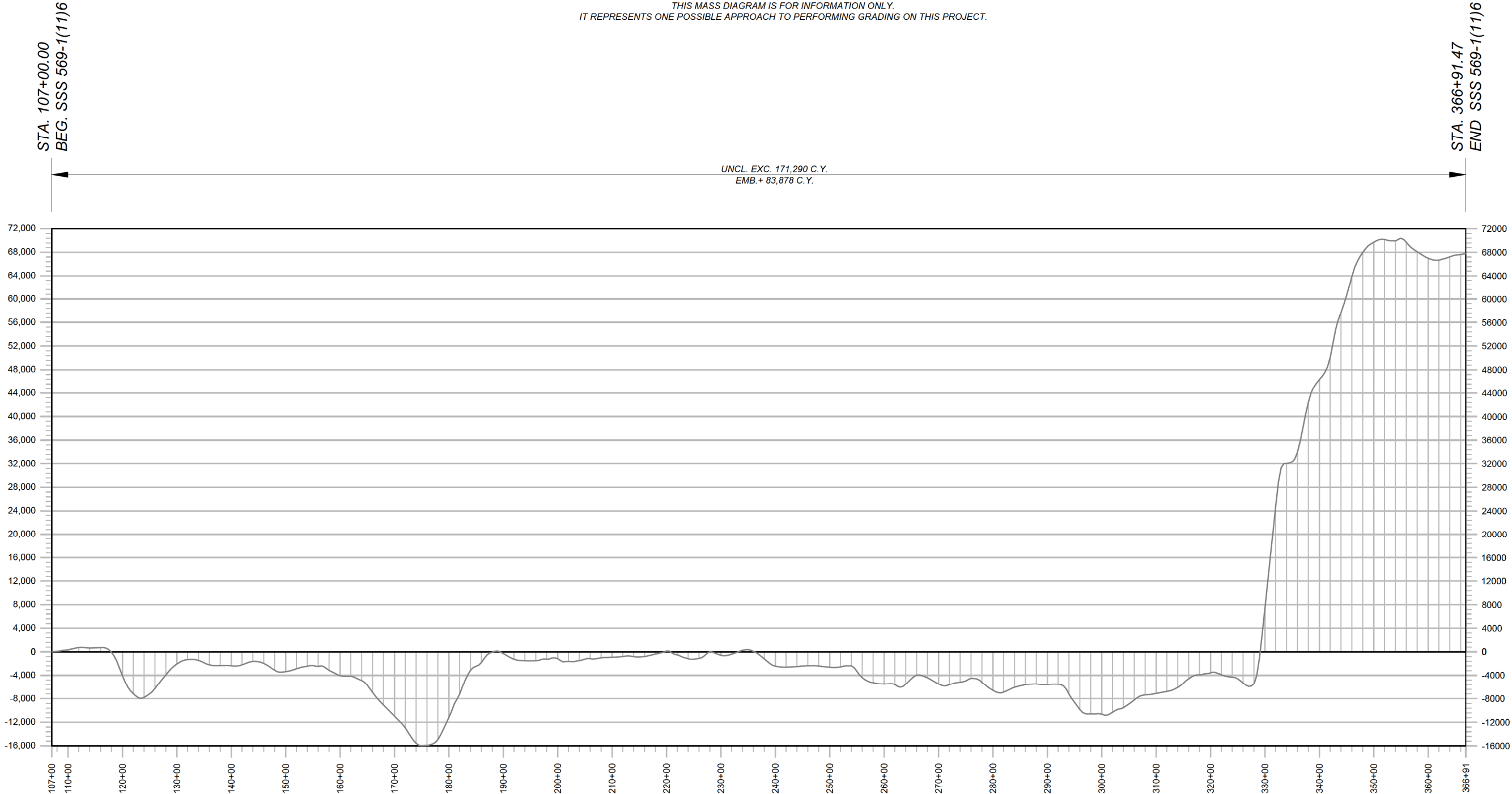


PRELIMINARY

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MASS DIAGRAM


THIS MASS DIAGRAM IS FOR INFORMATION ONLY.
IT REPRESENTS ONE POSSIBLE APPROACH TO PERFORMING GRADING ON THIS PROJECT.



SCALE:
1" = 2000'
SHRINK FACTOR 15%

SHEET NO.
MASS DIAGRAM

MASS DIAGRAM

<div><div><div>MONTANA</div><div>Department of Transportation</div></div></div>		DESIGNED BY		PROJECT NAME	
		B. MARTISHIUS		MILL CREEK HIGHWAY	
		REVIEWED BY		COUNTY	
		N. PAVIA		DEER LODGE	
		CHECKED BY		PROJECT ID	
		J. SPRINGER		SSS 569-1(11)6	
		06/2025		UPN	
ROAD PLANS		10473000RDMASZ01.DWG		10473000	
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