

February 3, 2025

ADDENDUM NO. 1

RE: Item #3, February 12, 2025 Letting - P-PH 0028(36)355, PCN 04HM, Deuel, Hamlin County - Grading, Interim Surfacing, Replace Structure's (2-9x8 CIP or Precast RCBC, 2-10x9 CIP RCBC), Approach Slab

TO WHOM IT MAY CONCERN:

The following addenda to the plans shall be inserted and made a part of your proposal for the referenced project.

SPECIAL PROVISIONS: NO CHANGE

SDEBS BID PROPOSAL: NO CHANGE

PLANS: Please destroy sheets B4, B5, B6, B12, B13, B76, B77, and X114 and replace with the enclosed sheets, dated 1/30/25.

Sheet B4: Total Excavation quantity in the TABLE OF EXCAVATION QUANTITIES BY BALANCES was revised.

Sheet B5: Average Option Borrow Haul calculation was revised.

Sheet B6: SALVAGE AND STOCKPILE ASPHALT MIX AND GRANULAR BASE MATERIAL note was revised.

Sheets B12 & B13: PIPE QUANTITIES table was revised.

Sheets B76, B77 & X114: Entrance at 568+00 R was added.

Sincerely,

Sam Weisgram
Engineering Supervisor

SW/cj

CC: Mark Peterson, Aberdeen Region Engineer
Matt Brey, Watertown Area Engineer

SHRINKAGE FACTOR: Embankment +35% to +40%

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P-PH 0028(36)355	B4	B99

Plotting Date: 01/30/2025 Revised 01/30/25 PCN

TABLE OF EXCAVATION QUANTITIES BY BALANCES

Station to	Station	Excavation (CuYd)	* Undercut (CuYd)	* Muck Exc. (CuYd)	* Option Borrow Exc. (CuYd)	Total Excavation (CuYd)	** Waste (CuYd)	** Haul (CuYdSta)	** Option Borrow Haul (CuYdSta)	** Dead Haul (CuYdSta)
11+12	100+06	15019	30674	155	7224	53072	155	1200	470000	805900
127+71	238+00	146729	29802	2237	65703	244471	2237	1337900	134100	2165800
238+00	335+10	43520	27832	3606	60689	135647	3606	1031200	201900	4235200
369+89	473+00	26990	25823	1702	72362	126877	1702	67800	1978900	16706900
473+00	568+42	17277	22508	0	71913	111698	0	28900	1714300	3773900
Totals:		249535	136639	7700	277891	671765	7700	2467000	4499200	27687700

* The quantities for these items are in the Estimate of Quantities under their respective contract items.

** The quantities for these items are for information only.

TABLE OF UNCLASSIFIED EXCAVATION

Excavation	(CuYd)	249535
Undercut		136639
Topsoil		91427
Exc. for RCBC Installation		5217
Exc. for Deep Pipe & RCBC Removal		18704
Added Traffic Diversion Excavation		0
Salvaged Asphalt Mix and Granular Base Material (from cut sections)		61067
Salvaged Asphalt Mix and Granular Base Material (from fill sections)		20356
Salvaged Asphalt Mix and Granular Base Material (from off-alignment roadways or from obliterated roads)		0
Total		582945

Plot Scale - 1:200

Plotted From - TRSF12142

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PROCEDURES FOR DETERMINING UNCLASSIFIED EXCAVATION QUANTITY

When plan quantities are used for payment, the Unclassified Excavation quantity will be used for final payment and the plans quantity of Topsoil and salvaged surfacing items listed in the Table of Unclassified Excavation will not be adjusted according to field measurements.

The following paragraphs are general earthwork information and information in regard to computing the Unclassified Excavation quantity when final cross sections are taken in the field:

The Unstable Material Excavation quantity is included in the Excavation quantity listed in the Table of Unclassified Excavation. When finaling a project, the Unstable Material Excavation quantity will be added to the Excavation quantity to compute the Unclassified Excavation quantity.

The Topsoil quantity in the Table of Unclassified Excavation is an estimate. When finaling a project, the total quantity of field measured Topsoil will be used in place of the estimated Topsoil quantity. The quantity of Topsoil from the cuts will be paid for twice as Unclassified Excavation, as it will be in both the Excavation and Topsoil quantities. This will be full compensation for Excavation, which includes necessary undercutting to provide space for placement of topsoil.

The Excavation quantities from individual balances and the Table of Unclassified Excavation have been reduced by the volume of in place surfacing that will be removed and/or salvaged.

Salvaged Asphalt Mix and Granular Base Material will be paid for at the contract unit price per ton and is also included in and paid for once as Unclassified Excavation. As shown in the Table of Unclassified Excavation, the estimated quantity of 20356 cubic yards of Salvaged Asphalt Mix and Granular Base Material from fill sections and 0 cubic yards of Salvaged Asphalt Mix and Granular Base Material from off-alignment roadways or obliterated old roads will be added to the Excavation quantity to determine the Unclassified Excavation quantity. When finaling a project, the quantities of Salvaged Asphalt Mix and Granular Base Material from fill sections and off-alignment roadways or obliterated old roads will not be adjusted according to field measurements. The quantity of Salvaged Asphalt Mix and Granular Base Material from cut sections will not be added to the Excavation quantity as it is already in the cuts on the final cross sections.

TABLE OF OPTION BORROW EXCAVATION

Site	Option Borrow Exc (CY)	Topsoil (CY)	Total (CY)
1	187978	23045	211023
2	89913	13665	103578
Total:	277891	36710	314601

HAUL

Included in the Table of Excavation Quantities by Balances are Haul, Dead Haul, and Option Borrow Haul. They are not pay items and are for informational purposes only..

Haul: Estimated quantity (CuYdSta) for moving unclassified excavation material to the locations where it is needed throughout the earthwork balance.

Dead Haul: Estimated quantity (CuYdSta) for moving borrow excavation material or option borrow excavation material from the borrow or option borrow site to the centerline mainline station listed in the Table of Borrow Pits.

Borrow Haul: Estimated quantity (CuYdSta) for moving borrow excavation material from the centerline mainline station listed in the Table of Borrow Pits to the locations where it is needed throughout the earthwork balance.

Option Borrow Haul: Estimated quantity (CuYdSta) for moving option borrow excavation material from the centerline mainline station listed in the Table of Borrow Pits to the locations where it is needed throughout the earthwork balance.

For Purpose of Extra Haul Computations:

Average Haul = (Haul + Out-of-Balance Haul)/Unclassified Excavation = (2467000+0)/249535 = 9.9 Sta.

Average Option Borrow Haul = (Option Borrow Haul + Dead Haul)/Total Option Borrow Excavation = (4499200+27687700)/277891= 115.8 Sta.

UNDERCUTTING

In all cut sections the earthen subgrade will be undercut 2 feet below the earthen subgrade surface. The undercut material or other suitable material, as directed by the Engineer, will then be replaced and compacted to the density specified for the section being constructed.

Shallow embankment sections, fills less than 2 feet in height measured at the finished subgrade shoulders, will be undercut to ensure a minimum 2-foot height of earth embankment for the entire width of roadbed. The upper 6 inches of undercut material that consists of topsoil with a high humus content will be used as topsoil placed in the fill slopes outside the shoulders of the earthen subgrade or placed in the lower portion (below 4-foot depth) in fills which are greater than 4 feet in height. The remaining undercut soil and soil obtained from adjacent excavation (excluding the upper 6 inches) will then be replaced and compacted to the density specified to the section being constructed.

Intersecting roads will be undercut to the same depth as the Mainline roadway out to the limits of asphalt concrete placement on the intersecting road unless specified otherwise. Quantities are included in the "Table of Undercutting".

The plan shown quantity will be the basis of payment. However, if there are additional areas of undercut other than what is shown in the plans, the Engineer will direct removal of these areas and the additional areas will be measured according to the Engineer.

GENERAL GEOLOGY

The project alignment traverses glacial terrain typical of eastern South Dakota. Included within this terrain may be areas of loess, shale, sand, gravel, glacial till and boulder till. As is the case with most glacial terrain, the materials throughout the project can vary greatly in a short distance.

TABLE OF UNDERCUTTING LOCATIONS

Station	to	Station
11+00		100+05
128+00		142+00
153+00		167+00
182+00		197+00
207+00		235+00
252+00		265+00
279+00		335+00
370+00		437+00
447+00		456+00
480+00		500+00
510+00		536+00
549+00		568+00

MUCK EXCAVATION

The areas of muck excavation are drawn on the cross sections with a normal depth of 3 feet. The estimated quantity of 7700 cubic yards of muck excavation will be paid for at the contract unit price per cubic yard for "Muck Excavation".

Muck excavation consists of the removal of highly organic and/or highly saturated material from the designated areas shown on the cross sections. Highly organic muck material will not be used in the embankment but may be used as topsoil. Non-organic muck material may be used as embankment outside of the fill subgrade shoulder if it is properly handled and dried prior to placement in the embankment.

Field measurement of muck excavation will not be made unless the Engineer orders additional excavation, or when the Engineer determines, in accordance with Section 120.3 A.1 of the Specifications, that the classification of excavation be changed.

If the areas designated as muck excavation can be removed with similar equipment and procedures as used for unclassified excavation, the material will be measured and paid for as "Unclassified Excavation".

TABLE OF MUCK EXCAVATION

Station	to	Station	L/R	Depth (Ft)	Quantity (CuYd)
22+75		24+50	L	3	155
133+00		135+75	L	3	679
176+50		177+50	R	3	480
177+00		178+50	L	3	359
214+00		217+00	R	3	719
238+00		243+50	L	3	2191
244+50		248+00	L	3	1415
460+00		462+00	L&R	3	1154
468+00		469+50	R	3	467
469+00		469+50	L	3	81
Total:					7700

UNSTABLE MATERIAL EXCAVATION

The areas of unstable material excavation are drawn on the cross sections with a normal depth of 2 feet. The estimated quantity of 18047 cubic yards of unstable material excavation will be paid for at the contract unit price per cubic yard for "Unclassified Excavation".

All areas designated as Unstable will be excavated. The unstable material excavated on this project will be placed outside the subgrade shoulder in fill sections or stockpiled and used as topsoil.

Field measurement of unstable material excavation will not be made. However, if there are additional areas of unstable material excavation other than what is shown in the plans, the Engineer will direct removal of these areas and the additional areas will be measured according to the Engineer.

TABLE OF UNSTABLE MATERIAL EXCAVATION

Station	to Station	L/R	Depth (Ft)	Quantity (CuYd)
12+75	14+00	R	2	72
13+00	15+75	L	2	146
16+00	22+25	L	2	387
22+75	28+00	R	2	120
27+00	32+00	L	2	363
58+00	62+00	L	2	443
132+00	136+00	R	2	819
143+00	149+00	R	2	1733
147+00	149+00	L	2	417
152+50	154+50	R	2	234
166+25	172+00	L&R	2	2399
174+00	176+50	R	2	751
201+00	203+00	L&R	2	1132
214+50	217+00	L	2	377
234+50	238+00	L	2	593
238+00	243+50	R	2	1122
248+00	250+00	L&R	2	1004
286+00	290+00	L&R	2	637
440+50	444+00	R	2	873
457+75	460+00	L&R	2	913
462+00	469+00	L	2	1202
462+00	468+00	R	2	
538+50	543+75	R	2	1119
541+00	543+75	L	2	728
545+00	548+00	L	2	463
Total:				18047

SALVAGE AND STOCKPILE ASPHALT MIX AND GRANULAR BASE MATERIAL

The Los Angeles Abrasion Loss value on the aggregate used for the in-place asphalt concrete was 23. This value was obtained from testing during construction of the in-place asphalt concrete.

An estimated 153,889.5 tons (81,423 Cubic Yards) of asphalt mix and granular base material will be salvaged from the existing highway according to the in-place surfacing typical sections and stockpiled at a site furnished by the Contractor and satisfactory to the Engineer.

An estimated 140,589.5 tons (74,386 Cubic Yards) of asphalt mix and granular base material will be used as Base Course, Salvaged on this project.

An estimated 900 tons (476 Cubic Yards) of asphalt mix and granular base material may be used as Temporary Gravel Surfacing on this project as directed by the Engineer. See Section C, Traffic Control Plans, for details on where and when to place Temporary Gravel Surfacing.

Salvaged material will be processed to meet the requirements of Section 884.2 D.7 prior to stockpiling. The Contractor will ensure that no vegetation, topsoil, subgrade, or other foreign material is incorporated into the salvaged asphalt mix and granular base material.

The quantity of salvaged asphalt mix and granular base material may vary from the plans.

The quantity of salvageable material is estimated from the in-place surfacing typical sections. This estimated quantity was included in the unclassified excavation quantities.

The following table is furnished for information only.

Test holes were drilled to check the depth of in-place surfacing. A log of the test holes is shown below for information only.

Station	Centerline Offset (ft.)	Thickness (in.)	
		AC	Base Course
15+00	9.0 LT	8.0	10.0
40+00	7.8 LT	8.0	11.0
65+00	7.2 RT	9.0	9.0
90+00	7.0 RT	8.0	10.0
187+00	6.0 RT	8.0	9.0
192+00	7.6 LT	9.0	8.0
225+00	7.8 RT	9.0	9.0
231+00	7.0 RT	9.0	10.0
258+00	6.4 RT	8.0	10.0
300+00	7.6 LT	9.0	10.0
312+00	6.6 RT	8.0	9.0
333+00	7.0 LT	8.0	10.0
380+00	8.0 LT	8.0	11.0
413+00	7.0 RT	9.0	8.0
422+00	7.6 LT	9.0	10.0
453+00	7.6 RT	10.0	7.0
485+00	7.0 RT	9.0	8.0
513+00	7.4 RT	9.0	9.0
530+00	7.0 LT	10.0	9.0
554+00	7.0 RT	10.0	10.0

SALVAGE AND STOCKPILE ASPHALT MIX MATERIAL

The Los Angeles Abrasion Loss value on the aggregate used for the in-place asphalt concrete was 23. This value was obtained from testing during construction of the in-place asphalt concrete.

An estimated 12,400 tons (6,560.8 Cubic Yards) of asphalt mix material will be salvaged from the existing highway and stockpiled at a Contractor furnished location according to the Stockpile Site for Salvaged Asphalt Mix Material plan note to be used as RAP in the asphalt concrete for PCN 05Q7.

All costs for salvaging the remaining asphalt concrete material will be incidental to the contract unit price per ton for Salvage and Stockpile Asphalt Mix and Granular Base Material.

The quantity of salvageable material is estimated from the in-place surfacing typical sections. This estimated quantity was included in the unclassified excavation quantities.

OPTION BORROW EXCAVATION

The borrow material required for the locations identified in the plans will be obtained from the Option Borrow sites in accordance with the State of South Dakota Agreement to Sell Materials and the Borrow Design sheets provided in the plans. All costs associated with the borrow material will be incidental to the contract unit price per Cubic Yard for Option Borrow Excavation.

The Contractor's operations will be performed in a manner to prevent any disturbance to the existing wetland features located adjacent to the borrow sites – specifically the meandering wetlands which are located adjacent to the perimeter of the Gorder Borrow Site. Low Flow Silt Fence will be installed in locations that are deemed necessary by the Engineer.

The Contractor's material transport operations on 474th Avenue will be performed in a manner to provide for a routine level of Dust Control that is deemed acceptable to the Engineer and to the occupants of the residence located to the southwest of the Rhody Borrow Site.

To assist with safely entering/exiting the northwest portion of the Rhody Borrow Site onto 474th Avenue, the Contractor will coordinate with the Landowner to install a temporary opening and/or gate within the existing fence and to the satisfaction of the Landowner and Engineer. Traffic Control signing will be installed in locations deemed necessary by the Engineer. Upon completion of work at the borrow site, the existing fence will be replaced or returned to a condition acceptable to the Landowner.

Prior to beginning material excavation at the borrow sites, Type 1A Temporary Fence will be installed in locations requested by the Landowner for the purpose of re-establishing grass growth and grazing cattle in the portions of the parcel that are not affected by material removal and/or transport operations. The Contractor will install and maintain the temporary fence to the satisfaction of the Landowner and Engineer. The temporary fence will become the Landowner's ownership upon completion of work at the site. Initial discussions with the Landowners identified the below fence quantities and locations.

- At the Gorder Borrow Site, approximately 1,400 feet of Type 1A Temporary Fence will be installed in a location south of the borrow site as requested by the Landowner. The temporary fence will be installed in an east/west orientation between the existing alfalfa field on the east side to the property boundary on the west side. Gates will be installed near the east and west ends of the temporary fence in locations requested by the Landowner.

1:200 Plot Scale

Plotted From: TRSF12142

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550+94-51' R
Install 18" - 66' CMP
& 2 Safety Ends

554+51
Take Out 8' x 6' - 159' RCBC
(Incidental Work, Grading)

554+51 (2.13 sq. miles)
Install 12"x6'-120' RCBC
(See Section E)

555+65
Take Out 24"-68' RCP
2 End Sections
(Incidental Work, Grading)

562+20-51' R
Install 18" - 70' CMP
& 2 Safety Ends

564+88 -56' L
Install 24" - 58' CMP
& 2 Safety Ends

564+17
Take Out 24" - 78' RCP
(Incidental Work, Grading)

564+17 (27 ac)
Install 24" - 86' RCP
& 2 Sloped Ends

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P-PH 0028(36)355	B76	B99

Plotting Date: 01/30/2025 Revised 01/16/25 PCN

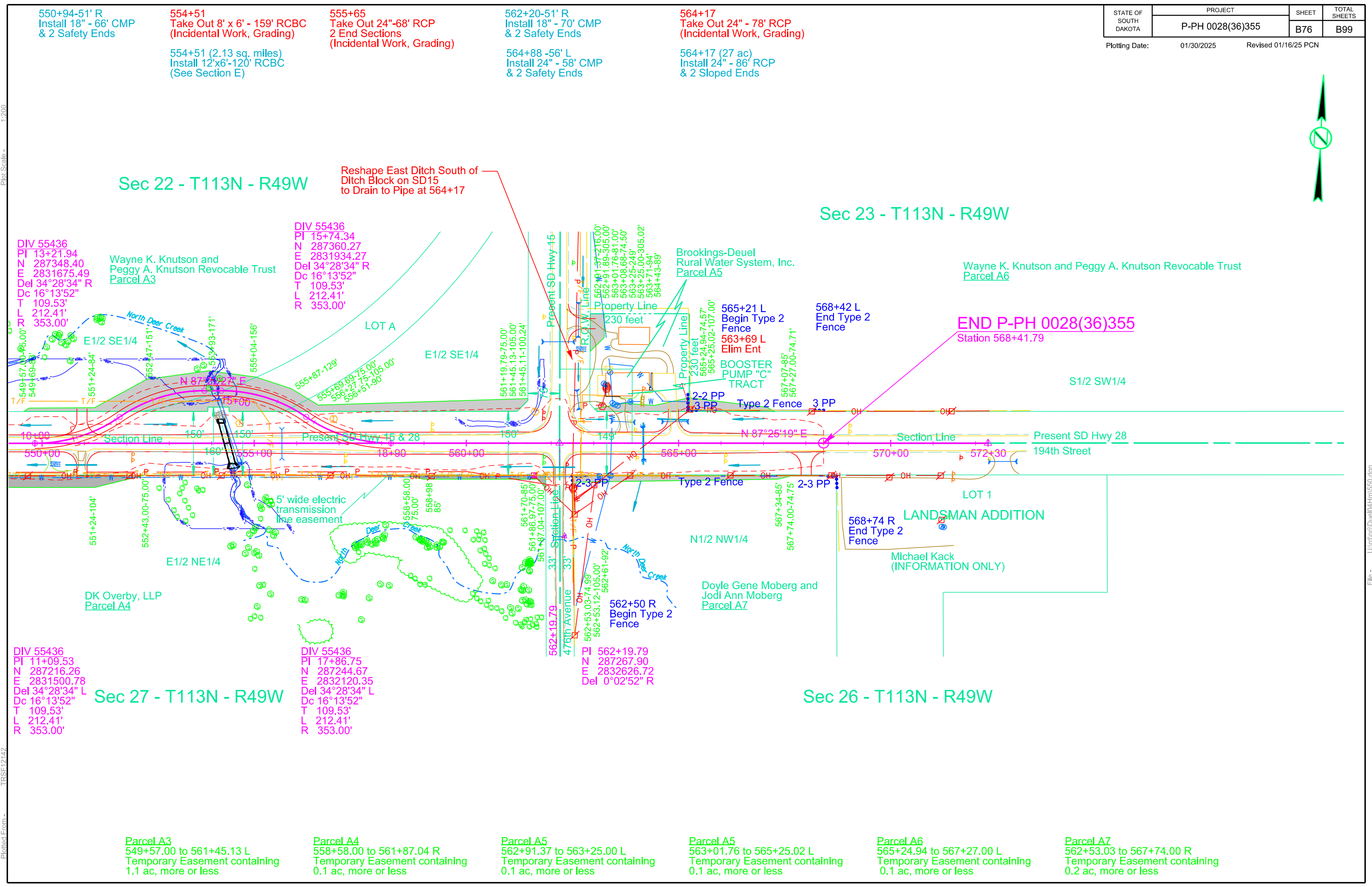


Sec 22 - T113N - R49W

Sec 23 - T113N - R49W

Sec 27 - T113N - R49W

Sec 26 - T113N - R49W



Plot Scale - 1:200

Plotted From - TRSE12142

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DIV 55436
PI 15+74.34
N 287360.27
E 2831934.27
Del 34°28'34" R
Dc 16°13'52"
T 109.53'
L 212.41'
R 353.00'

Wayne K. Knutson and Peggy A. Knutson Revocable Trust Parcel A3

LOT A

E1/2 SE1/4

555+87-129'
555+69-69-75.00'
556+27-75-105.00'
556+51-30'

551+24-84'
552-47-151'
553+93-171'
555+04-156'

549+57-00-65.00'
549-69-88'

551+24-104'
552+43-00-75.00'

5' wide electric transmission line easement

DK Overby, LLP Parcel A4

DIV 55436
PI 11+09.53
N 287216.26
E 2831500.78
Del 34°28'34" L
Dc 16°13'52"
T 109.53'
L 212.41'
R 353.00'

DIV 55436
PI 17+86.75
N 287244.67
E 2832120.35
Del 34°28'34" L
Dc 16°13'52"
T 109.53'
L 212.41'
R 353.00'

562+19.79
N 287267.90
E 2832626.72
Del 0°02'52" R

476th Avenue

Present SD Hwy 15-45'

Property Line

230 feet

Brookings-Deuel Rural Water System, Inc. Parcel A5

Wayne K. Knutson and Peggy A. Knutson Revocable Trust Parcel A6

562+91.37-216.00'
562+91.89-305.00'
563+01.76-81.00'
563+08.68-74.50'
563+25-249'
563+25.00-305.02'
563+71-94'
564+43-89'

565+21 L Begin Type 2 Fence
563+69 L Elim Ent

BOOSTER PUMP "C" TRACT

565+24.94-74.57'
565+25.02-107.00'

568+42 L End Type 2 Fence

567+07-85'
567+27.00-74.71'

2-2 PP Type 2 Fence
2-3 PP Type 2 Fence
3 PP

568+74 R End Type 2 Fence

567+34-85'
567+74.00-74.75'

2-3 PP

562+50 R Begin Type 2 Fence

562+53.03-74.99'
562+53.12-105.00'
562+61-92'

Doyle Gene Moberg and Jodi Ann Moberg Parcel A7

LANDSMAN ADDITION

Michael Kack (INFORMATION ONLY)

Present SD Hwy 28 194th Street

Section Line

N 87°25'19" E

570+00

572+30

S1/2 SW1/4

LOT 1

Parcel A3
549+57.00 to 561+45.13 L
Temporary Easement containing 1.1 ac, more or less

Parcel A4
558+58.00 to 561+87.04 R
Temporary Easement containing 0.1 ac, more or less

Parcel A5
562+91.37 to 563+25.00 L
Temporary Easement containing 0.1 ac, more or less

Parcel A5
563+01.76 to 565+25.02 L
Temporary Easement containing 0.1 ac, more or less

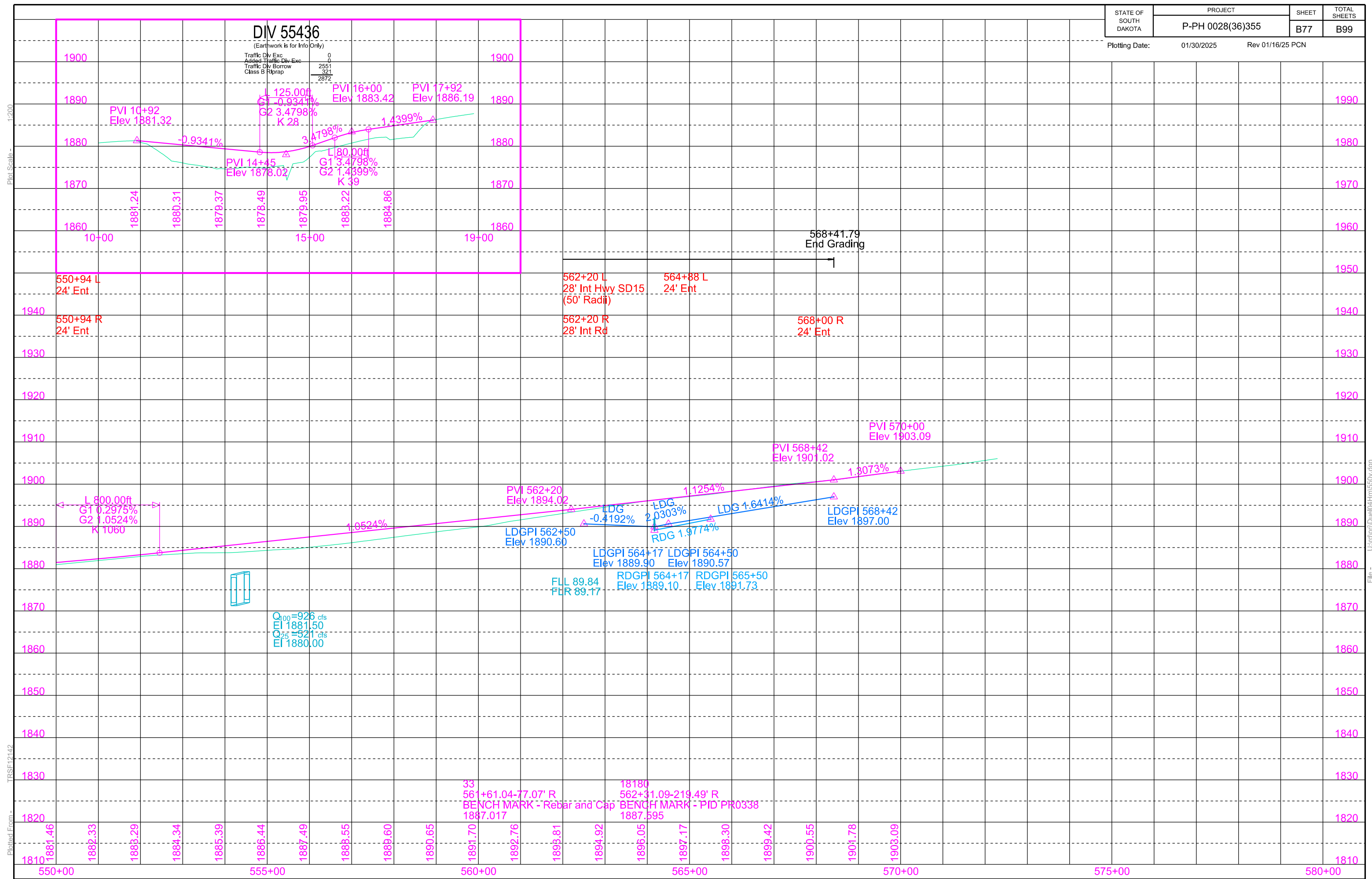
Parcel A6
565+24.94 to 567+27.00 L
Temporary Easement containing 0.1 ac, more or less

Parcel A7
562+53.03 to 567+74.00 R
Temporary Easement containing 0.2 ac, more or less

END P-PH 0028(36)355
Station 568+41.79

DIV 55436

(Earthwork is for Info Only)
 Traffic Div Exc 0
 Added Traffic Div Exc 2551
 Traffic Div Borrow 321
 Class B R/trap 2872



Plot Scale - 1:200

Plotted From - TRSF12142

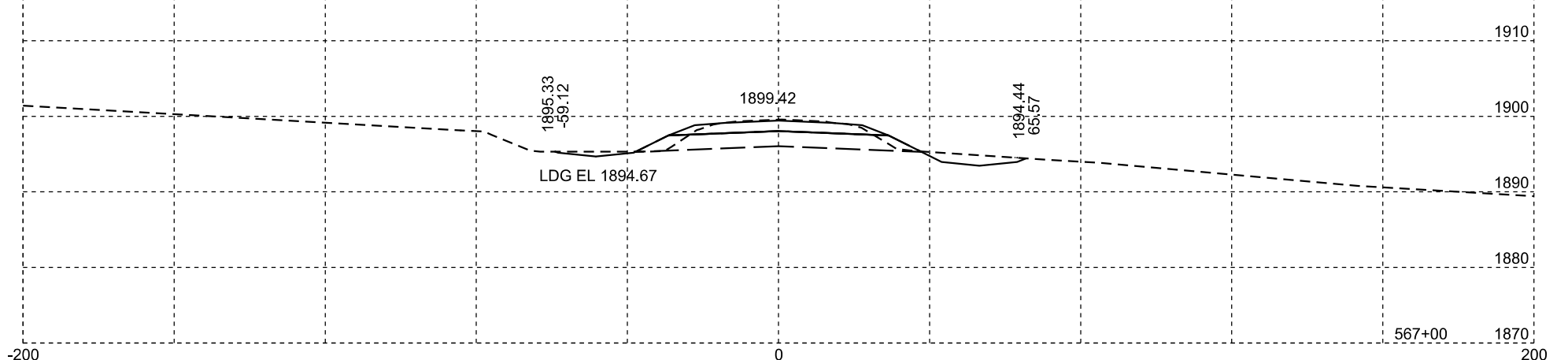
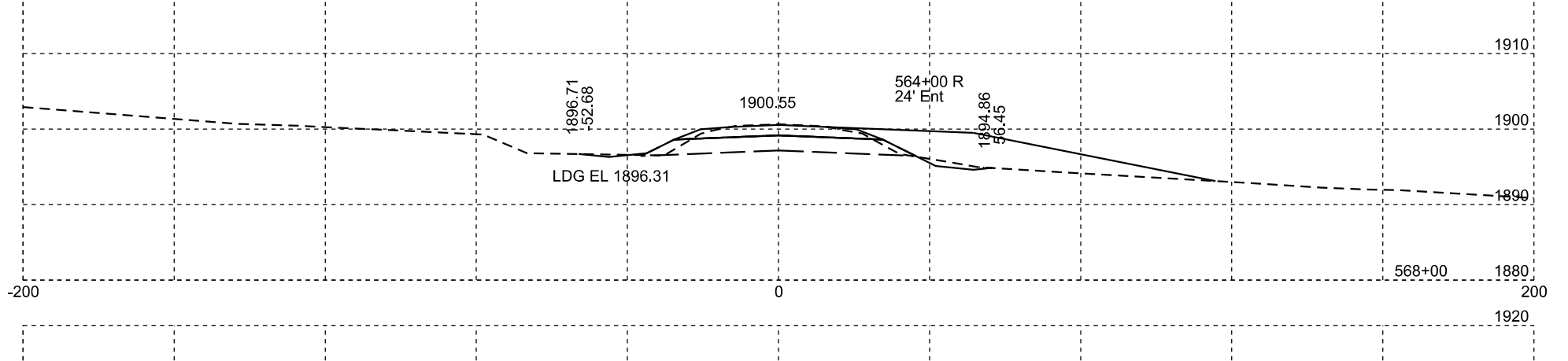
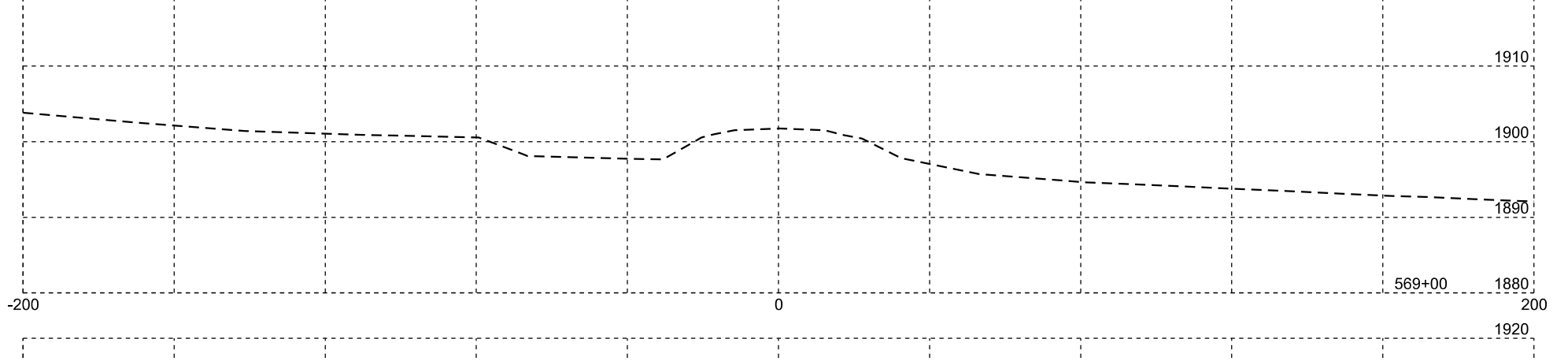
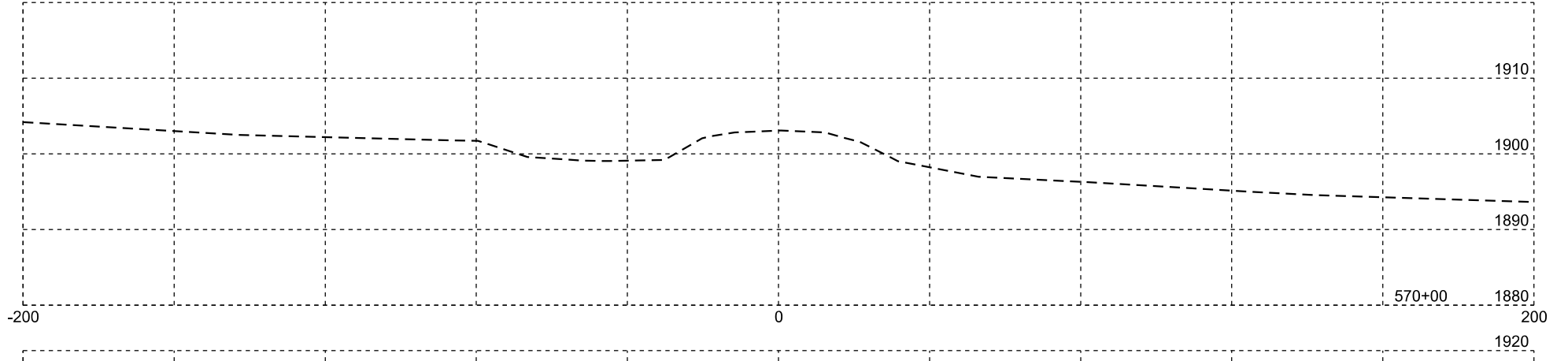
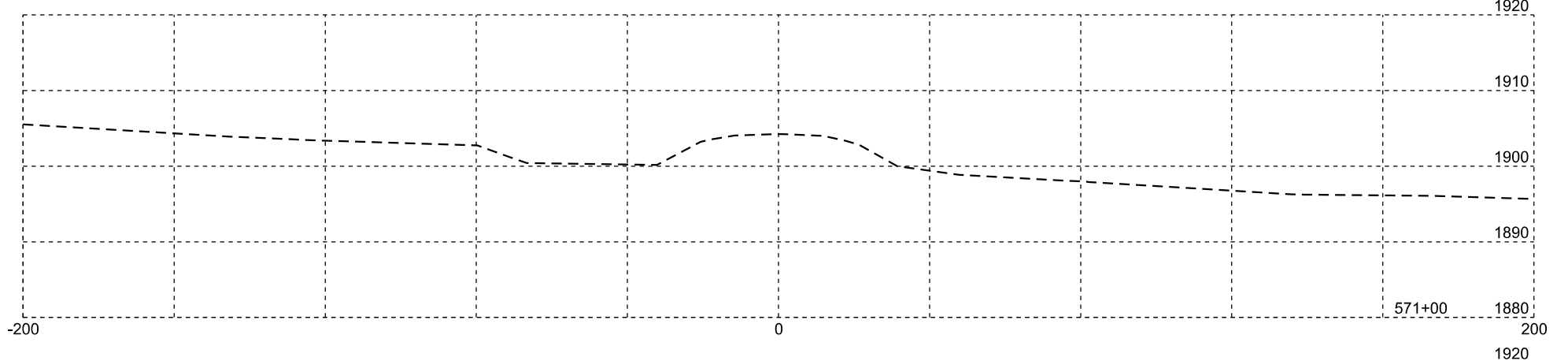
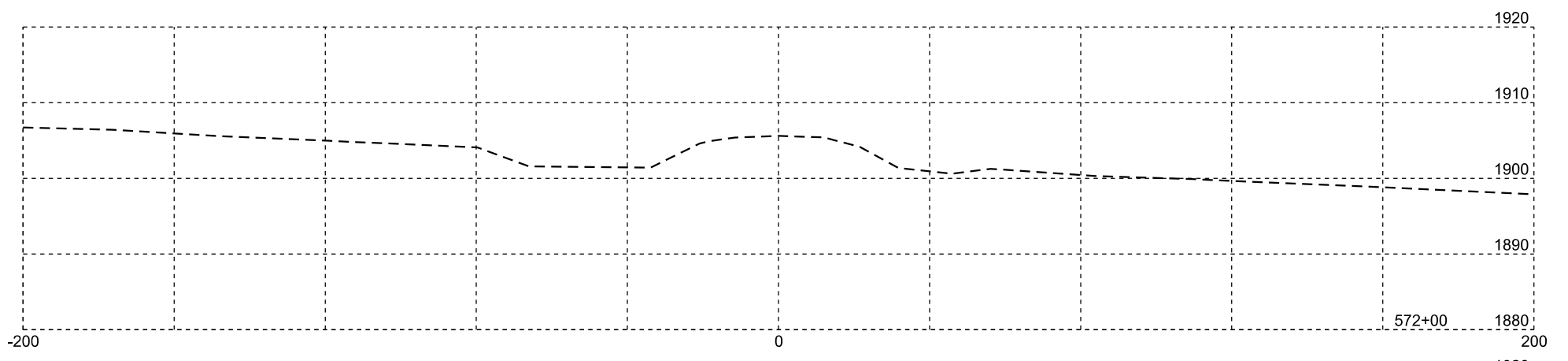
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$Q_{100} = 926$ cfs
 EI 1881.50
 $Q_{25} = 521$ cfs
 EI 1880.00

33
 561+61.04-77.07' R
 BENCH MARK - Rebar and Cap
 1887.017

18180
 562+31.09-219.49' R
 BENCH MARK - PID PR0338
 1887.595

550+00 555+00 560+00 565+00 570+00 575+00 580+00



Rev 01/30/25 PCN

Plotting Date: 01/31/2025

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 0028(36)355	X114	X134