

OFF Loc.
 $\Delta = 13^{\circ}14'$ Lt.
 $D = 3'00'$
 $R = 1910.08'$
 $T = 221.57'$
 $L = 441.1'$

Surv. ϕ
 $\Delta = 13^{\circ}14'$ Lt.
 $D = 3'00'$
 $R = 1910.08'$
 $T = 221.57'$
 $L = 441.1'$



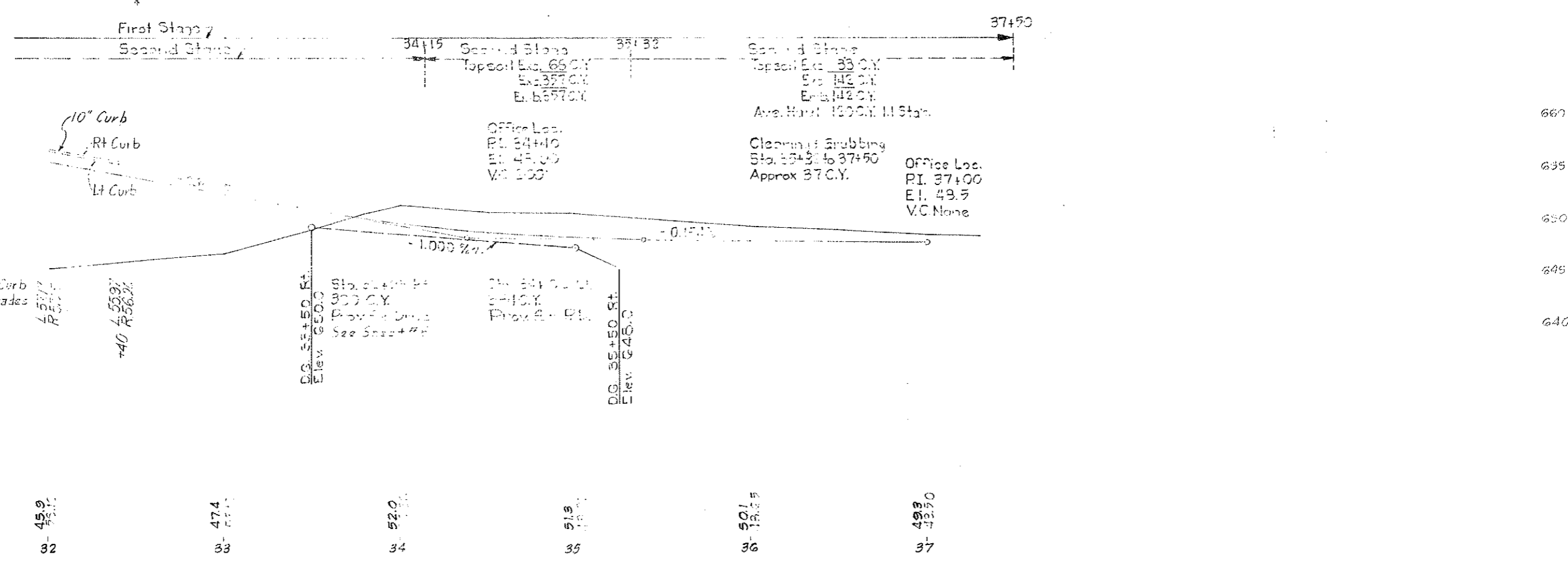
End Proj. 35+00 to 35+100
 Cts 35+72.5 OFF Loc. =
 35+74.1 Surv. = Cts 35+100
 on Proj. 35+100

DATE	NO.	REVISION
	11	PRELIMINARY

INSTALL CURB & GUTTER TYPE #1
 32+00 Lt. to 32+100 Lt. OFF Loc. 40' Lt.
 32+00 Lt. to 32+100 Lt. OFF Loc. 40' Lt.

INSTALL CONCRETE SIDEWALK
 32+00 Rt. to 32+100 Rt. OFF Loc. 37' Lt.

INSTALL SODDING
 32+00 Lt. to 32+100 Lt. OFF Loc. 11' Lt.
 32+00 Rt. to 32+100 Rt. OFF Loc. 11' Lt.



First Stage
 Second Stage

34+15 Second Stage
 Topsoil Exc. 65 C.Y.
 Exc. 357 C.Y.
 Emb. 657 C.Y.

35+32 Second Stage
 Topsoil Exc. 33 C.Y.
 Exc. 142 C.Y.
 Emb. 142 C.Y.
 Ave. Hand. 130 C.Y. in Stage.

37+50

Office Loc.
 Pt. 34+10
 El. 49.00
 V.C. None

Cleaning & Grubbing
 Sta. 35+32 to 37+50
 Approx 37 C.Y.

Office Loc.
 Pt. 37+00
 El. 49.5
 V.C. None

Curb Grades
 Lt. 5.53%
 Rt. 5.53%

+40 Lt. 5.53%
 Rt. 5.53%

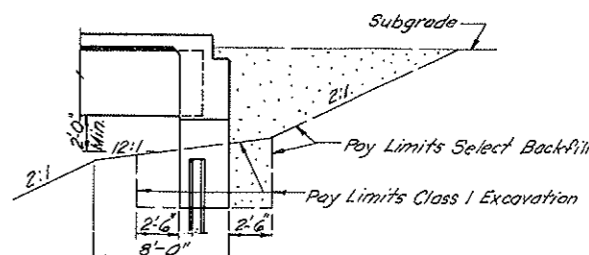
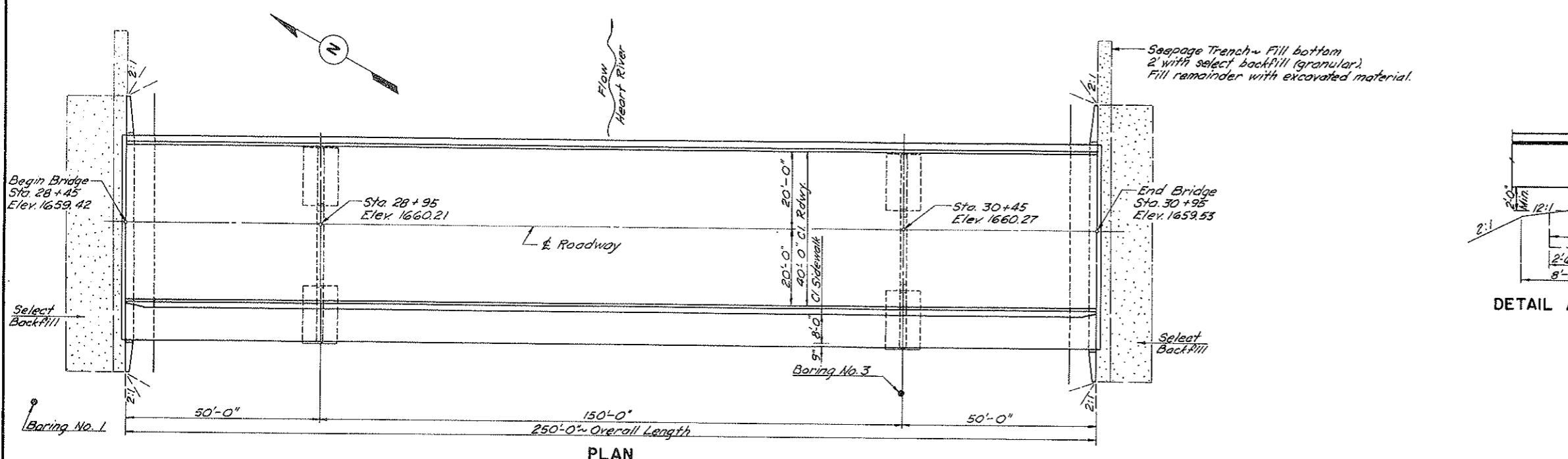
D.G. 33+50 Rt.
 Elev. 650.0

Sta. 34+00 to 35+32
 300 C.Y.
 Paved to Drive
 See Sheet #7

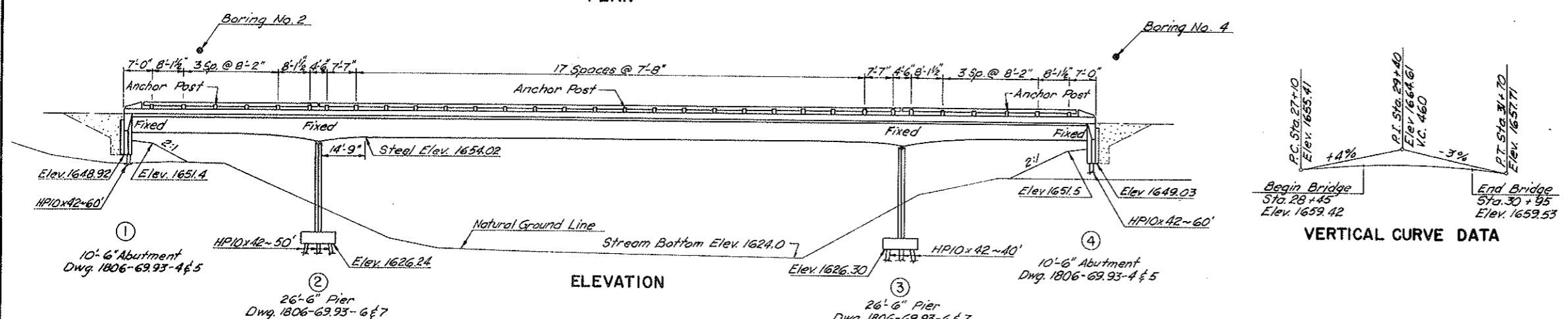
D.G. 35+50 Rt.
 Elev. 646.0

32 45.9
 33 47.4
 34 52.0
 35 51.3
 36 50.1
 37 49.9

BRIDGE CODE	FED. ROAD DIST. NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
X-071	8	N. D.	BRS-1-806(05)069	12	

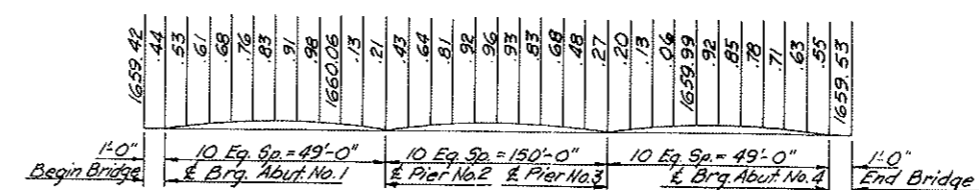
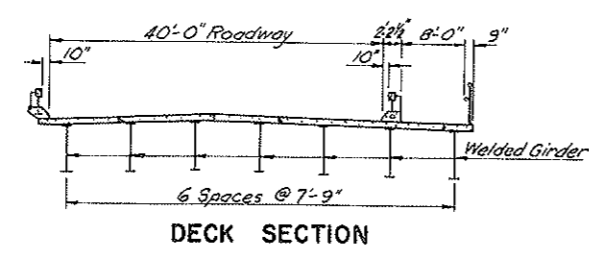


DETAIL AT ABUTMENTS



VERTICAL CURVE DATA

DESIGN STRENGTHS:
 $f'_c = 3000$ psi - Class AE-1 Concrete
 $f'_c = 4000$ psi - Class AAE-3 Concrete
 $f_y = 50,000$ psi - Structural Steel A572
 $f_y = 36,000$ psi - Structural Steel A36
 $f_y = 60,000$ psi - Reinforcing Steel
 Design by Load Factor



SCREED ELEVATION
 Elevations shown are to top of finished concrete.

See Drawing 1806-69.93-3 for General Notes.

SPECIAL PROVISIONS			
NO.	NAME		
SP100	STRUCTURAL STEEL		
SP135	QUICK SETTING ANCHOR GROUT		
	CHEMICAL ADMIXTURES FOR CONCRETE		

ESTIMATE OF QUANTITIES			
SPEC. NO.	CODE NO.	BID ITEM	L. SUM.
202	0105	REMOVAL OF STRUCTURE	
208	0100	CLASS 1 EXCAVATION	170 CU. YD.
208	0110	CLASS 2 EXCAVATION	385 CU. YD.
228	0000	SELECT BACKFILL	300 CU. YD.
610	1112	CLASS AE-1 CONCRETE - SUB-STRUCTURES	260.2 CU. YD.
610	0134	CLASS AAE-3 CONCRETE - I-BEAM SUPERSTRUCTURE	423.4 CU. YD.
610	0138	CLASS AAE-3 CONCRETE - RAILING B POSTS	16.08 CU. YD.
612	0115	REINFORCING STEEL - GRADE 60	124,319 LB.
616	0382	STRUCTURAL STEEL A36 WELDED GIRDER	205,300 LB.
616	5722	STRUCTURAL STEEL A572 WELDED GIRDER - GRADE 50	180,694 LB.
622	0020	STEEL PILING HP10x42	2670 LIN. FT.
622	0440	STEEL TEST PILE HP10x42 @ 60 FT.	2 EA.
622	0460	STEEL TEST PILE HP10x42 @ 70 FT.	2 EA.
624	0125	PEDESTRIAN RAILING	249.25 LIN. FT.
750	0100	LINSEED OIL TREATMENT	23 GAL.
3000		BRIDGE BENCH MARKS	1 SET

STRUCTURAL DRAWINGS

GENERAL DRAWING THIS SHEET, 1806-69.93-1, 2 & 3
 SUBSTRUCTURE 1806-69.93-4, 5, 6 & 7, H-0401, H-0402
 SUPERSTRUCTURE 1806-69.93-8, 9, 10, 11, 12, 13 & 14, D-300-1

DESIGN LOADING: HS20 (1944) SCALE: 1 INCH = 15 FEET

NORTH DAKOTA
 STATE HIGHWAY DEPARTMENT
HEART RIVER BRIDGE
 BRIDGE LAYOUT
 PROJECT BRS-1-806(05)069 STA. 29+70.0
 MORTON COUNTY

APPROVED: _____
 DATE: _____
 BRIDGE ENGINEER

BENCH MARKS			PILE LOADING							
NO.	DESCRIPTION	LOCATION	LOCATION	DEAD LOAD	LIVE LOAD	EARTH LOAD	EMBAKMENT SETTLEMENT	TEMP.	DESIGN LOAD	MAXIMUM REQUIRED BEARING
	Fire Hydrant	22+07 ~ 50' RT.		18.0T	22.0T				55.0T	55.0T
	Manhole	24+17 ~ 52' RT.	Abutments	28.0T	8.0T	3.5T	15.0T	15.5T	55.0T	55.0T
			Piers							