

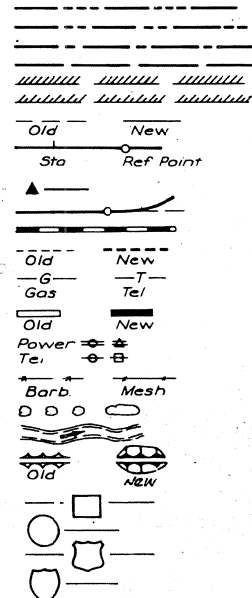
BRIDGES
FFD-561-1(2)--2N-82

SCOTT COUNTY

CONVENTIONAL SIGNS

State Line
Co. Line
Twp. Line
Sec. Line
Corp. Line
Urban Bdry.
R.O.W. Lines
Survey Line

Sec. Corner
Profile Grade
Railroad
Field Tile
Underground Lines
Culverts
Utility Poles
Fences
Trees Or Brush
Stream
Dike
County Road No.
Primary Road No.
U. S. Road No.
Interstate Road No.



IOWA
DEPARTMENT OF TRANSPORTATION
Highway Division
PLANS OF PROPOSED IMPROVEMENT ON THE
PRIMARY ROAD SYSTEM
SCOTT COUNTY
BRIDGES

U.S. 561 FROM I-80 N. 4.5 MILES

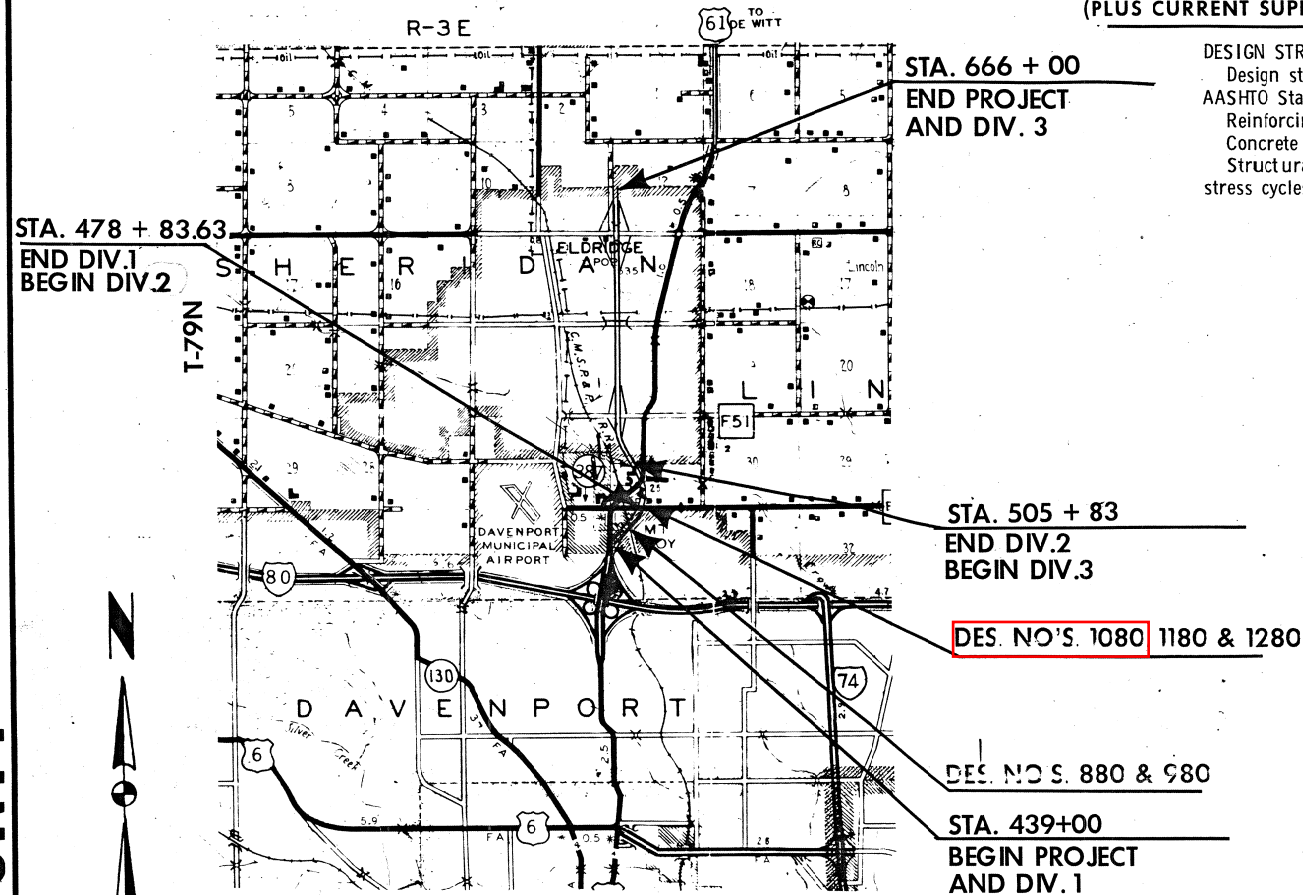
SCALES: AS NOTED

THE STANDARD SPECIFICATIONS, SERIES OF 1977
OF THE IOWA DEPARTMENT OF TRANSPORTATION, ^{DID}
SHALL APPLY TO CONSTRUCTION WORK ON THIS PROJECT

(PLUS CURRENT SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS)

DESIGN STRESSES:

Design stresses for the following materials are in accordance with the
AASHTO Standard Specifications for Highway Bridges, Series of 1977.
Reinforcing Steel in accordance with Section 1.5, Grade 40 and Grade 60.
Concrete in accordance with Section 1.5, f'c = 3,500 psi.
Structural Steel in accordance with Section 1.7. ASTM A-36. Fatigue
stress cycles based on Case II.



DESIGN DATA

RURAL				URBAN			
1979 AADT	14,250	V.P.D.		1979 AADT	14,250	V.P.D.	
1999 AADT	29,910	V.P.D.		1999 AADT	29,910	V.P.D.	
1999 DHV	3,424	V.P.H.		1999 DHV	3,424	V.P.H.	
DIRECTIONAL		%		DIRECTIONAL		%	
TRUCKS	11	%		TRUCKS	11	%	
DESIGN V		M.P.H.		DESIGN V		M.P.H.	
CLASS 1	ACCESS CONTROL			CLASS 1	ACCESS CONTROL		

LOCATION MAP



MILEAGE SUMMARY

105.1

DIV.	LOCATION	LIN. FT.	MILES
1	URBAN: (City of Davenport) Sta. 439+00.00 to Sta. 478+83.63 Bridges at Sta. 462+20.68 Bridges at Sta. 478+83.54 (South Half) Total Length of Roadway - Div. 1 Total Length of Bridges - Div. 1 Total Length of Div. 1	3,983.63 345.20 132.30 3,506.13 477.50 3,983.63	0.664 0.090 0.754
2	RURAL: (Scott Co.) Sta. 478+83.63 to Sta. 505+83.00 Bridges at Sta. 478+83.54 (North Half) Bridges at Sta. 505+96.00 (South Half) Total Length of Roadway - Div. 2 Total Length of Bridges - Div. 2 Total Length of Div. 2	2,699.37 132.30 61.60 2,505.47 193.90 2,699.37	0.474 0.097 0.511
3	URBAN: (City of Eldridge) Sta. 505+83.00 to Sta. 666+00.00 Bridges at Sta. 505+96.00 (North Half) Bridge at Sta. 545+86.00 (R.C.B.) Equation: Sta. 547+32.19 = Sta. 547+20.63 (Lengthens Line) Bridges at Sta. 640+66.91 Total Length of Roadway - Div. 3 Total Length of Bridges - Div. 3 Total Length of Div. 3	16,017.00 61.60 26.51 11.56 171.00 15,769.45 259.11 16,028.56	2.987 0.049 3.036
Total Length of Roadway in Project		21,781.05	4.125
Total Length of Bridges in Project		930.51	0.176
Total Length of Project		22,711.56	4.301

REV
* 45 *

REVISED

SEE FOLLOWING SHEET 1A

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED
UNDER MY SUPERVISION AND THAT ENGINEERING
DECISIONS WITH REGARD TO THE DESIGN WERE
MADE BY ME OR BY OTHER DULY REGISTERED
PROFESSIONAL ENGINEERS UNDER THE LAWS OF
THE STATE OF IOWA.
See Design Sheet 1 of each
Design
IOWA REGISTRATION NUMBER DATE

STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
IOWA	1		1	125
PROJECT NUMBER				
FFD-561-1(2)--2N-82				
R.O.W. PROJECT NUMBER				
F-561-1(3)--20-82				
PRELIMINARY ENGINEER NUMBER				
F-561-1(900)--20-82				

INDEX OF SHEETS

NO.	DESCRIPTION
1	TITLE SHEET
1A	REVISION SHEET
2-3	ESTIMATE SHEET
4-32	BRIDGE DESIGN NO. 880
33-61	BRIDGE DESIGN NO. 980
62-84	BRIDGE DESIGN NO. 1080
85-108	BRIDGE DESIGN NO. 1180
109-125	BRIDGE DESIGN NO. 1280

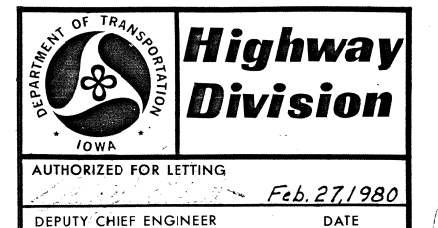
CONSTRUCTION PLANS SHOWING PROJECT AS BUILT

Plan Preparation Supervised By: Bruce Kuehl
Resident Construction Engineer
Date: 1-16-86 Iowa Reg. No. 8371
REVIEWED AND FORWARDED TO AMES
Date: _____
District Construction Engineer
One 50% Reduced and Four Full-Size Prints To Be Made and Returned To
R. C. Henely
District Engineer

AFTER MICROFILMING RETURN ORIGINAL
TO DISTRICT NO. 6DEPARTMENT OF TRANSPORTATION, HIGHWAY DIVISION
STANDARDS REQUIRED (Available at Bridge Design Services)

STANDARD ISSUED REVISED

YEAR	WORK	CONTRACTOR	PROJ. INSPECTOR
1981	Bridge 880	Lunda	F. Springer
1981	Bridge 980	Lunda	F. Springer
1981	Bridge 1080	Lunda	M. Jackson
1981	Bridge 1180	Lunda	M. Jackson
1981	Bridge 1280	Lunda	M. Jackson



U.S. DEPT. TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED
DIVISION ENGINEER DATE

LETTING DATE APRIL 22, 1980

STATE CONTROL SECTION NUMBER 82-2500

FILE NO. 25588

SCOTT COUNTY

PROJECT NO. FFD-561-1(2)--2N-82

SHEET NO. 1 OF 125

LISTING OF PROJECT REVISIONS

DATE	SHEET NUMBER	DESCRIPTION OF REVISIONS	DATE	SHEET NUMBER	DESCRIPTION OF REVISIONS															
3-6-81		Designs 880, 980, 1080 & 1180																		
	1A of 125 130	This sheet added to project (Revision Sheet).																		
		Design 880																		
	5 of 125 130	Reinforcing Steel and Epoxy Coated Reinforcing Steel quantities changed and/or corrected.																		
	9 of 125 130	Pier Column Reinforcing changed.																		
	10 of 125 130	Re-bar number and weight changed for Pier No. 1 and Pier No. 2																		
	13 of 125 130	"Tabulation of Epoxy Coated Re-bars" corrected.																		
	16 of 125 130	"Reinforcing Steel" list and "Total Estimated Quantities" list correcte.																		
	24 of 125 130	Epoxy Coated re-bar list and Estimated Qtynty list corrected.																		
		Design 980																		
	34 35 of 125 130	Reinforcing Steel and Epoxy Coated Reinforcing Steel quantittes changed and/or corrected.																		
	38 39 of 125 130	Pier Column reinforcing changed.																		
	39 40 of 125 130	Reinforcing Bar list--Pier No. 2 changed. Total Estimated Quantities changed.																		
	42 43 of 125 130	Weight corrected in tabulation of Epoxy Coated Re-bars.																		
	43 44 of 125 130	Reinforcing Steel list and Total Estimated Quantities list corrected.																		
		Design 1080																		
	63 64 of 125 130	Superstructure quantity for Epoxy Coated Reinforcing Steel corrected.																		
	75 76 of 125 130	Number and Weight of 5d1 reinforcing bars corrected.																		
		Design 1180																		
	86 87 of 125 130	Pier quantity for Reinforcing Steel corrected.																		
	93 94 of 125 130	Number and weight of 5c2 & 5c3 cap hoops corrected.																		
	97 98 of 125 130	Number and weight of 4e1 column hoops corrected.																		
	2 of 125 130	Designs 880 & 980---Reinforcing Steel weights changed and/or corrected.																		
	3 of 125 130	Design 1080--Epoxy Coated Reinforcing Steel weight corrected.																		
		Design 1180--Reinforcing Steel weight corrected.																		
	1 of 125 130	Sheet 1A added to "Index of Sheets."																		
		REASON: On Designs 880 & 980 there was a design omission concerning the effects of cap shrinkage in designing the Piers. The redesign shows a need for additional reinforcing in the exterior columns of Piers No. 2 in both designs. All other corrections were due to plan errors.																		
		<table><tr><td></td><td>Reinforcing Steel</td><td>Epoxy Coated Reinforcing Steel</td></tr><tr><td>Design 880</td><td>+217</td><td>-57</td></tr><tr><td>Design 980</td><td>+1060</td><td>+4</td></tr><tr><td>Design 1080</td><td></td><td>+57</td></tr><tr><td>Design 1180</td><td>-64</td><td></td></tr></table>		Reinforcing Steel	Epoxy Coated Reinforcing Steel	Design 880	+217	-57	Design 980	+1060	+4	Design 1080		+57	Design 1180	-64				
	Reinforcing Steel	Epoxy Coated Reinforcing Steel																		
Design 880	+217	-57																		
Design 980	+1060	+4																		
Design 1080		+57																		
Design 1180	-64																			

REVISION SHEET

REVISION SHEET

FILE NO. 25588

SCOTT COUNTY

PROJECT NUMBER

FFD-561-1(2) -2N-82

STATE

IOWA

FED. ROAD DIST. NO.

5

FISCAL YEAR

SHEET NO.

1-A

TOTAL SHEETS

125

DESIGN NO. 1080
SCOTT COUNTY

OVER MT. JOY ROAD

STA. 478+93.08 (C N.B.
LANE U.S. 561)

SECTION 25 & 36

T-79N R-3E

SHERIDAN TWP.

DESIGN FOR 12° 04' 33.30" SKEW

260' X 40' WELDED PLATE GIRDER BRIDGE

ESTIMATE OF QUANTITIES

NO.	ITEM	UNIT	TOTAL
31	Structural Concrete	Cu. Yds.	585.6
32	Structural Steel	Lbs.	322,361
33	Reinforcing Steel	Lbs.	79,619
34	Reinforcing Steel-Epoxy Coated	Lbs.	61,821
5	HP10 x 42 Steel	Furnish	1,870
6	Bearing Piling	Drive	1,870
7	Cresotated Piling	Lin. Ft.	2,400
8	Subdrain	Lin. Ft.	168
9	Concrete Slope Protection	Sq. Yds.	976
10	Granular Backfill	Cu. Yds.	176
11	Class 20 Excavation	Cu. Yds.	473
12	2" Rigid Steel Conduit	Lin. Ft.	306
13	1" Rigid Steel Conduit	Lin. Ft.	262
14	Pre-Bored Holes, as per plan	Lin. Ft.	288
15	Bridge Seat Sealer	Sq. Ft.	365
16	Concrete Barrier Rail	Lin. Ft.	609.9
800	Field Slope	Sq. Yds.	17
801	Retarder	Cu. Yds.	2.4

ESTIMATE REFERENCE INFORMATION		100.4
Data listed below is for informational purposes only and shall not constitute a basis for any extra work orders.		
ITEM NO.	DESCRIPTION	
31.	Includes 301.2 Cu. Yds. of Structural Concrete, Class "C" and 395.2 Cu. Yds. of Structural Concrete, Class "D".	
32.	Includes 147 Lbs. for Lubricated Bronze Plates and 385 Lbs. for Lead Plates.	

IN LETTING OF April 1, 1980

DESIGN NO. 1180		OVER MT. JOY ROAD		STA. 478+73.99 (C S.B.	
SCOTT COUNTY				LANE U.S. NO. 561)	
SECTION 25 & 36		T-79N R-3E		SHERIDAN TWP.	
SCOTT COUNTY				SHERIDAN TWP.	
DESIGN FOR 12°18'42.77" SKEW					
260' X VARI. WELDED PLATE GIRDER BRIDGE					
FINAL ESTIMATE OF QUANTITIES					
NO.	ITEM			UNIT	TOTAL
1 46	Structural Concrete			Cu. Yds.	768.1
2 49	Structural Steel			Lbs.	447,932
3 50	Reinforcing Steel			Lbs.	110,826
4 51	Reinforcing Steel-Epoxy Coated			Lbs.	84,291
5 54	HP10X42 Steel	Furnish	Lin. Ft.	2,525	
6 55	Bearing Piling	Drive	Lin. Ft.	2,525	
7 56	Cresotated Piling		Lin. Ft.	3,200	
8 57	Subdrain		Lin. Ft.	208	
9 58	Concrete Slope Protection		Sq. Yds.	388	
10 59	Granular Backfill		Cu. Yds.	242	
11 60	Class 20 Excavation		Cu. Yds.	557	
12 61	2" Rigid Steel Conduit		Lin. Ft.	386	
13 62	1" Rigid Steel Conduit		Lin. Ft.	269	
14 63	Pre-Bored Holes, as per plan		Lin. Ft.	425	
15 64	Bridge Seat Sealer		Sq. Ft.	486	
16 65	Concrete Barrier Rail		Lin. Ft.	608.7	
800	Field Slope		Sq. Yds.	17	
801	Retarder		Cu. Yds.	2.4	

ESTIMATE REFERENCE INFORMATION		100.4
Data listed below is for informational purposes only and shall not constitute a basis for any extra work orders.		
ITEM NO.	DESCRIPTION	
2 48	Includes 387.7 Cu. Yds. of Structural Concrete, Class "C" and 380.4 Cu. Yds. of Structural Concrete, Class "D".	
2 49	Includes 206 Lbs. for Lubricated Bronze Plates and 535 Lbs. for Lead Plates.	

IN LETTING OF April 6, 1980

DESIGN NO. 1280		OVER LOCAL ROAD		STA: 8579+29.76	
SCOTT COUNTY				LOOP H	
SECTION 36		T-79N R-3E		SHERIDAN TWP.	
DESIGN FOR 17°26'14.1" SKEW 266'-0" X 28' CONTINUOUS WELDED PLATE GIRDER BRIDGE					
FINAL ESTIMATE OF QUANTITIES					
NO.	ITEM	UNIT	TOTAL		
1 65	Structural Concrete	Cu. Yds.	445.4		
2 66	Structural Steel	Lbs.	261,260		
3 67	Reinforcing Steel	Lbs.	60,641		
4 68	Reinforcing Steel - Epoxy Coated	Lbs.	48,317		
5 69	Creosoted Piling	Lin. Ft.	3310		
6 70	Prebored Holes	Lin. Ft.	319		
7 71	Subdrain	Lin. Ft.	156		
8 72	Concrete Slope Protection	Sq. Yds.	425		
9 73	Bridge Seat Sealer	Sq. Ft.	270		
10 74	Granular Backfill	Cu. Yds.	114		
11 75	Class 20 Excavation	Cu. Yds.	341		
12 76	2" Rigid Steel Conduit	Lin. Ft.	312		
13 77	1" Rigid Steel Conduit	Lin. Ft.	310		
14 78	Concrete Barrier Rail	Lin. Ft.	621.5		
800	Retarder	Cu. Yds.	2.4		

ESTIMATE REFERENCE INFORMATION		100.4
Data listed below is for informational purposes only and shall not constitute a basis for any extra work orders.		
ITEM NO.	DESCRIPTION	
2 65	Includes 217.4 Cu. Yds. of Structural Concrete, Class "C" and 228.0 Cu. Yds. of Structural Concrete Class "D".	
2 66	Includes 118 Lbs. for Lubridated Bronze Plates and 206 Lbs. for Lead Plates.	

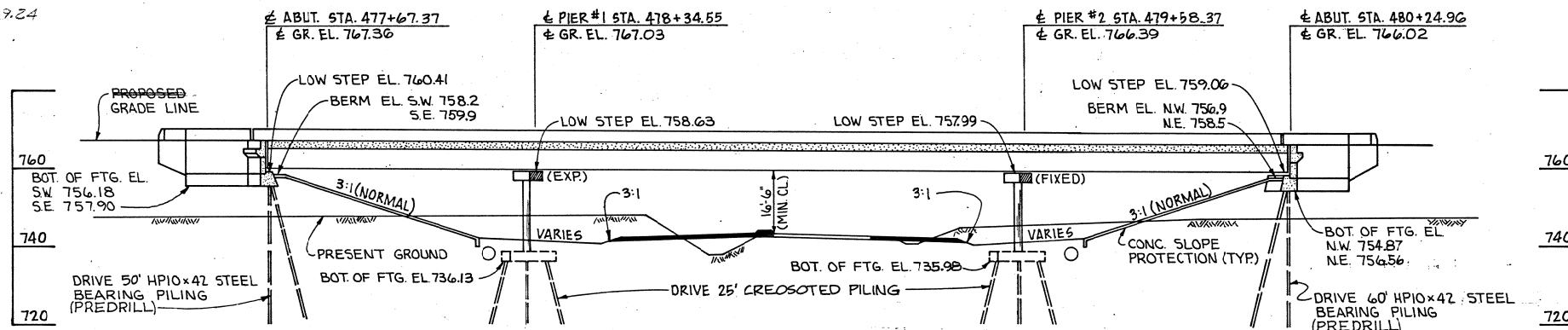
Revision 03-06-91: Design 1080-Epoxy Coated Reinforcing Steel weight corrected.
Design 1180-Reinforcing Steel weight corrected.

QUANTITIES
ESTIMATE SHEET

CORRECTED PLANS

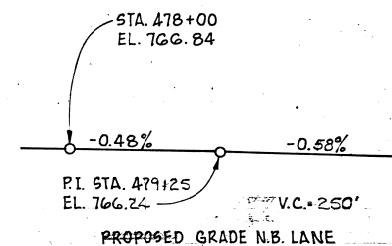
Sta. 480+27 I-26M Top Barrier Rail N.E. Cor. 47' Rt. 4 Elev. 769.62
Sta. 477+62 I-26M Top Barrier Rail S.W. Cor. 24.5' Rt. 4 Elev. 769.24

BENCH MARK NO. 55 STA. 479+57 90' RT. R.R. SPK. N.W. SIDE PO. POLE EL. 748.26



YEAR	WORK	CONTRACTOR	PROJ. INSPECTOR
1981	Bridge	Lunda	M. Jackson

LONGITUDINAL SECTION ALONG N.B. LANE



TRAFFIC COUNT
A.D.T. = 12,655 V.P.D. (1999)

LOCATION
T-79N R-3E
SHERIDAN TWP.
SEC. 25 & 36
SCOTT COUNTY

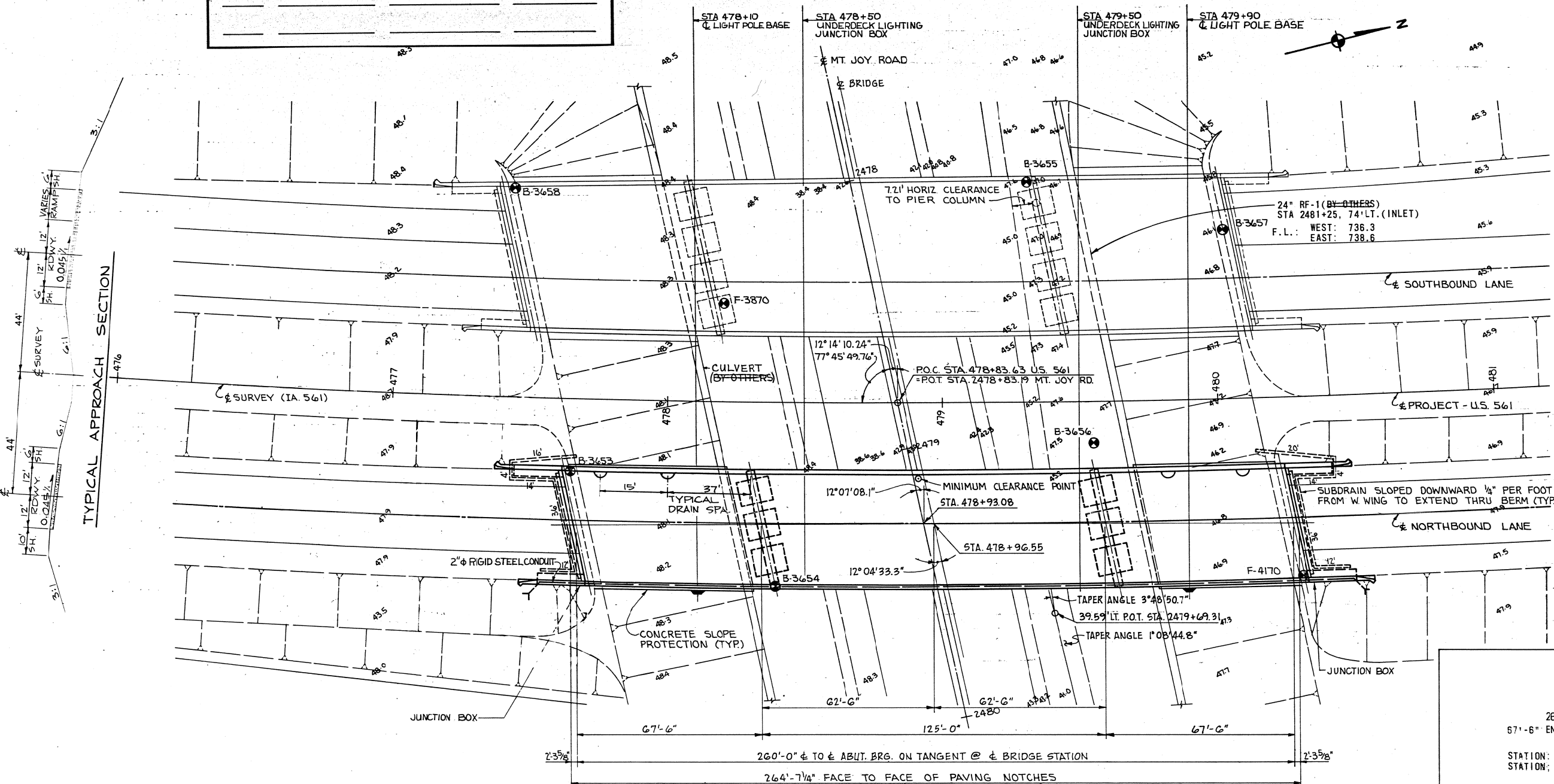
MAIN LINE CURVE DATA	
$\Delta = 44^\circ 29' 24''$	$\Delta = 42^\circ 56' 20''$
$Q_c = 0^\circ 46' 32''$	$D = 1^\circ 14' 27''$
$L_s = 125.0'$	$T = 1816.05'$
$T_s = 1951.17'$	$L = 3460.49'$
$E_s = 371.50'$	$E = 344.28'$
$P = 14'$	$e = 0.045'$
$K = 62.50'$	$S = 215'$
$X_c = 125.00'$	
$Y_c = 0.58'$	
$L_t = 33.33'$	
$S_t = 41.67'$	
$L_c = 125.00'$	



I HEREBY CERTIFY THAT THESE PLANS AND SPECIFICATIONS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA

Richard E. Witter

DATE NOV. 21, 1978 REGIST. NO. 3810



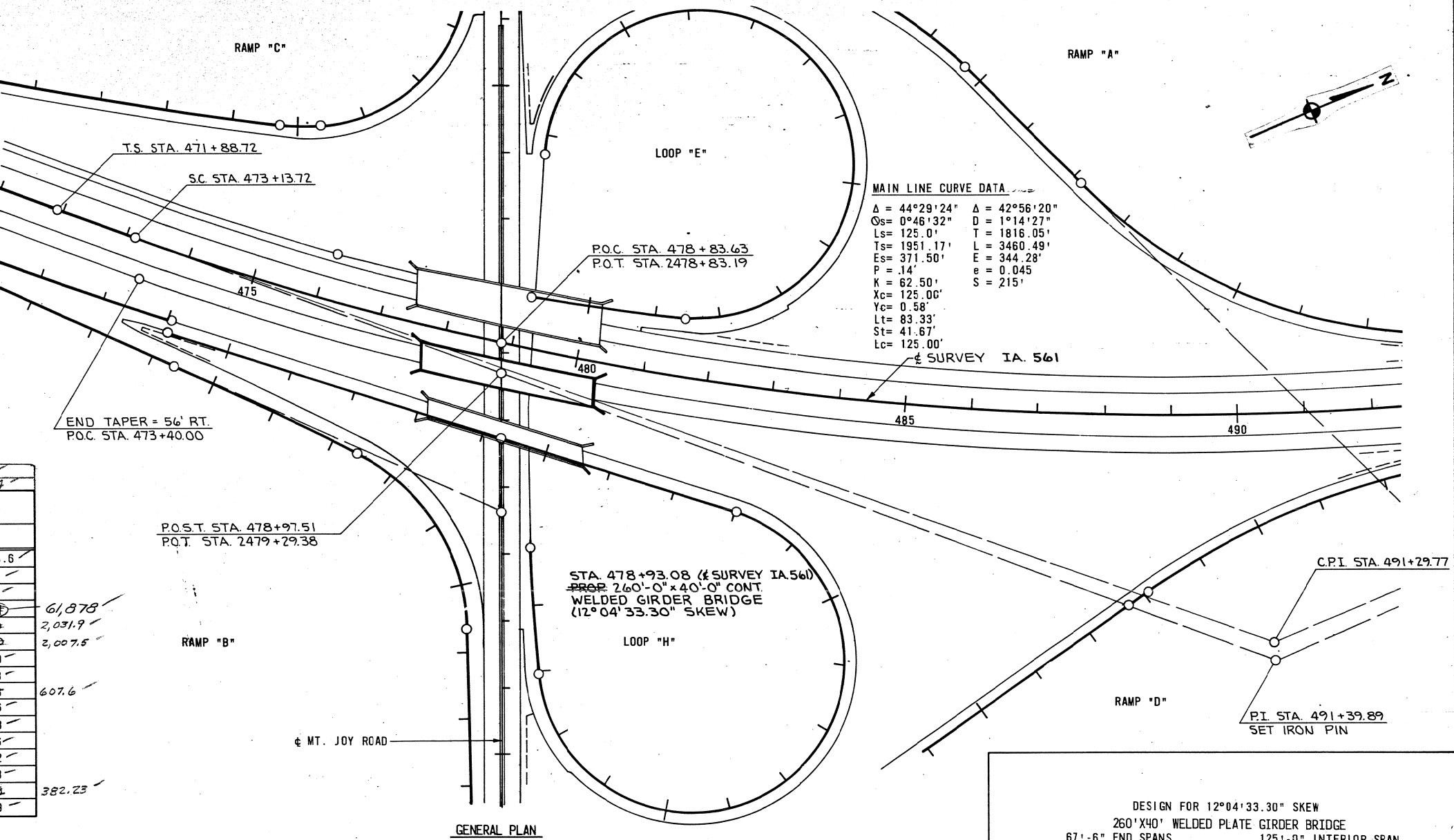
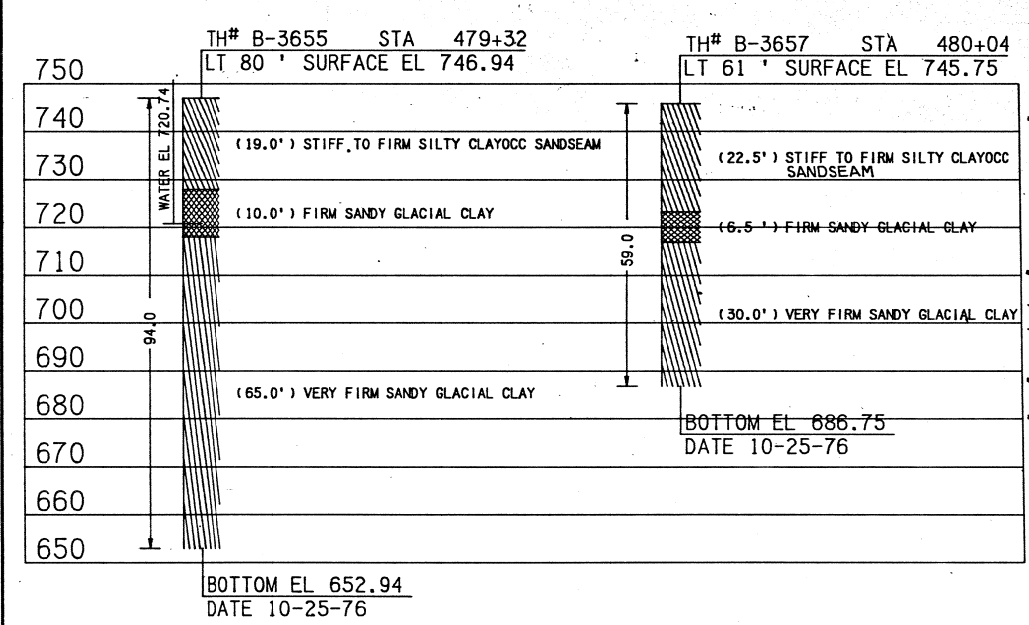
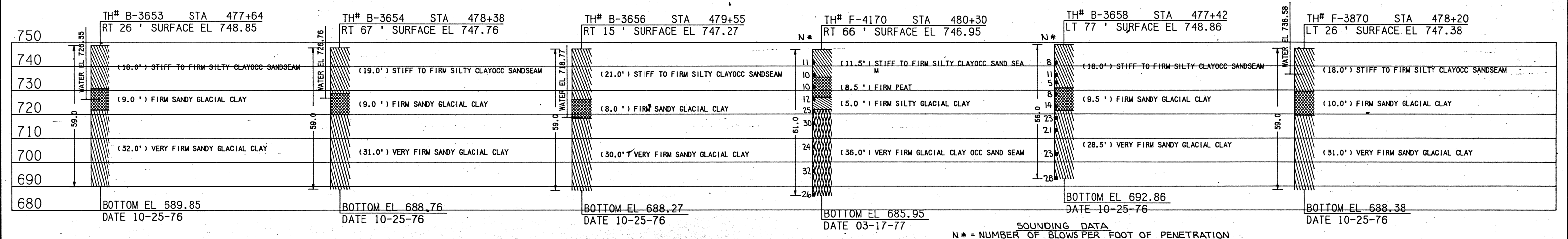
DESIGN FOR 12°04'33.30" SKEW
260'x40' WELDED PLATE GIRDER BRIDGE
67'-6" END SPANS 125'-0" INTERIOR SPAN
SITUATION PLAN
STATION: 478+83.05 @ N.B. LANE US NO. 561 JUNE, 1978
STATION: 2478+28.20 @ MT. JOY ROAD & N.B. LANE
SCOTT COUNTY
IOWA DEPARTMENT OF TRANSPORTATION-HIGHWAY DIVISION
DESIGN SHEET NO. 1 OF 23 FILE NO. 25588 DESIGN NO. 1080

STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
IOWA	5		62	185

PROJECT NUMBER
FED-561-1(2)-2N-82

W EYER

7087-102 130



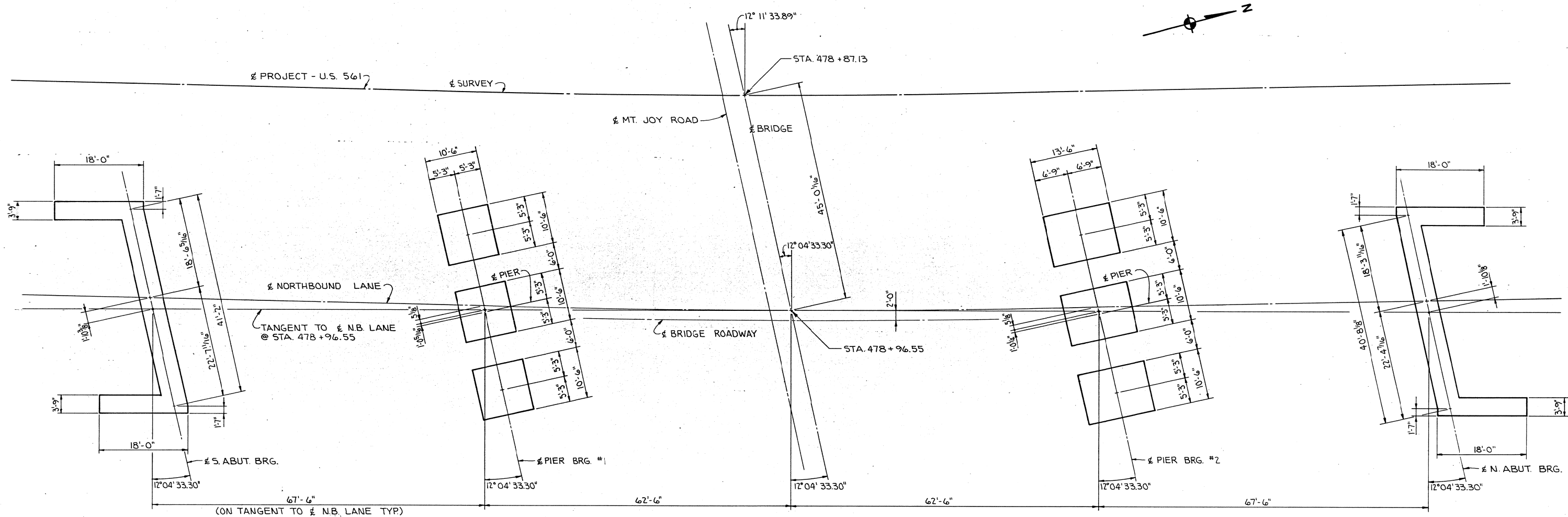
8001 Field Splices	Ea.	34
8002 Retarder	Cu.Yds.	284.4

TOTAL ESTIMATED BRIDGE QUANTITIES						
ITEM NO.	ITEM	UNITS	2 PIERS	2 ABUTS.	1 SUPERSTR.	TOTAL
1	STRUCTURAL CONCRETE	CU. YDS.	157.3	143.9	284.4	585.6
2	STRUCTURAL STEEL	LBS.	-	-	322,361	322,361
3	REINFORCING STEEL	LBS.	25,732	9,630	44,257	79,619
4	REINFORCING STEEL-EPOXY COATED	LBS.	-	4,764	57,114	61,878
5	HP10 X 42 STEEL FURNISH	LIN. FT.	-	1870	-	1870
5	BEARING PILING DRIVE	LIN. FT.	-	1870	-	1870
6	CRESOTED PILING	LIN. FT.	2400	-	-	2400
7	SUBDRAIN	LIN. FT.	-	168	-	168
8	CONCRETE SLOPE PROTECTION	SQ. YDS.	-	576	-	576
9	GRANULAR BACKFILL	CU. YDS.	-	176	-	176
10	CLASS 20 EXCAVATION	CU. YDS.	280	193	-	473
11	2" RIGID STEEL CONDUIT	LIN. FT.	-	-	-	306
12	1" RIGID STEEL CONDUIT	LIN. FT.	-	-	-	262
13	PRE-BORED HOLES, AS PER PLAN	LIN. FT.	-	288	-	288
14	BRIDGE SEAT SEALER	SQ. FT.	-	365	-	365
15	CONCRETE BARRIER RAIL	LIN. FT.	-	-	609.9	609.9

ESTIMATE REFERENCE INFORMATION:
ITEM NO. 1: INCLUDES 301.2 CU. YDS. OF STRUCTURAL CONCRETE, CLASS "C" AND 395.2 CU. YDS. OF STRUCTURAL CONCRETE, CLASS "D"
ITEM NO. 2: INCLUDES 147 LBS. FOR LUBRICATED BRONZE PLATES AND 385 LBS. FOR LEAD PLATES.

Revision 03-06-81: Superstructure quantity for Epoxy Coated Reinforcing Steel corrected.

DESIGN FOR 12°04'33.30" SKEW
260'X40' WELDED PLATE GIRDER BRIDGE
67'-6" END SPANS 125'-0" INTERIOR SPAN
SOUNDING DATA
STATION: 478+93.08 (N.B. LANE US NO. 561) JUNE, 1978
STATION: 2479+28.20 (MT. JOY ROAD & N.B. LANE)
SCOTT COUNTY
IOWA DEPARTMENT OF TRANSPORTATION-HIGHWAY DIVISION
DESIGN SHEET NO. 2 OF 23 FILE NO. 25588 DESIGN NO. 1080



STAKING DIAGRAM

GENERAL NOTES:

THESE BRIDGES ARE DESIGNED FOR HS20-44 LOADING, PLUS 20 LBS. PER SQUARE FOOT OF ROADWAY FOR FUTURE WEARING SURFACE.

THE BRIDGE CONTRACTOR ^{DID} IS TO INSTALL SUBDRAIN BEHIND EACH ABUTMENT AS DETAILED. THE SUBDRAIN ^{IS} MAY BE EITHER DRAIN TILE OR PERFORATED PLASTIC PIPE WITH A MINIMUM NOMINAL DIAMETER OF 4" AND A MAXIMUM NOMINAL DIAMETER OF 6". THE PRICE BID FOR "SUBDRAIN" IS TO INCLUDE THE EXCAVATION NECESSARY FOR THE INSTALLATION.

THE APPROACH FILLS AS SHOWN ^{WERE} ARE NOT A PART OF THIS CONTRACT, BUT ARE TO BE IN PLACE BEFORE ABUTMENT PILES ARE DRIVEN. THE BRIDGE CONTRACTOR IS TO DID LEVEL OFF AND SHAPE THE BERMS TO THE ELEVATIONS, AND DIMENSIONS SHOWN. DRESSING OF SLOPES OUTSIDE THE BRIDGE AREA NOT DISTURBED BY THE BRIDGE CONTRACTOR SHALL BE PAID FOR AS EXTRA WORK.

ABUTMENT PILES ARE TO BE DRIVEN IN OVERSIZE HOLES DRILLED THROUGH THE FILL TO EL. 748.85 SOUTH ABUT. AND EL. 746.95 NORTH ABUT. THE MINIMUM DIAMETER OF THE DRILLED HOLES IS TO BE 18 INCHES. THESE DRILLED HOLES ARE TO BE MAINTAINED OPEN DURING DRIVING OF THE PILES TO THE EXTENT THAT CASING OR DRILLING MUD MAY BE REQUIRED FOR COLLAPSING SOILS IMMEDIATELY AFTER DRIVING A PILE. THE VOID AROUND THE PILE IS TO BE FILLED WITH LOOSE DRY SAND. ANY DRILLING MUD USED SHALL BE REMOVED FROM THE HOLE PRIOR TO PLACING THE SAND.

PIER EXCAVATION IS BASED ON THE ASSUMPTION THAT THE APPROACH FILLS ~~WILL HAVE BEEN~~ COMPLETED PRIOR TO STARTING CONSTRUCTION OF THE PIERS.

BRIDGE SEAT SEALER ~~IS TO BE~~ APPLIED TO ALL EXPOSED BRIDGE SEAT SURFACE AT THE ABUTMENTS. THE BRIDGE SEAT SURFACE ~~IS TO~~ INCLUDE ALL SURFACES OF THE BRIDGE SEAT STEPS, THE WASH BETWEEN STEPS AND THE EDGE FILLETS. THE SEALER ~~IS TO~~ EXTEND SIX INCHES UP THE FRONT FACE OF THE BACKWALL. THE SEALER ~~IS~~ ALSO TO BE APPLIED TO THE TOP OF THE BACKWALL. THE BRIDGE SEAT PROTECTIVE COATING ~~SHALL BE~~ AN APPROVED SEALER PER MATERIALS I.M. 491.12 AND APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

GUARD RAIL ~~WILL BE~~ PLACED BY OTHERS.

SPECIFICATIONS:

DESIGN: A.A.S.H.T.O. SERIES OF 1977

CONSTRUCTION: IOWA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, SERIES OF 1977, WITH CURRENT SPECIAL PROVISIONS AND SUPPLEMENTAL SPECIFICATIONS.

DESIGN STRESSES:

DESIGN STRESSES FOR THE FOLLOWING MATERIALS ARE IN ACCORDANCE WITH A.A.S.H.T.O. STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, SERIES OF 1977.

CONCRETE IN ACCORDANCE WITH SECTION 1.5, $F_c = 3,500$ P.S.I.

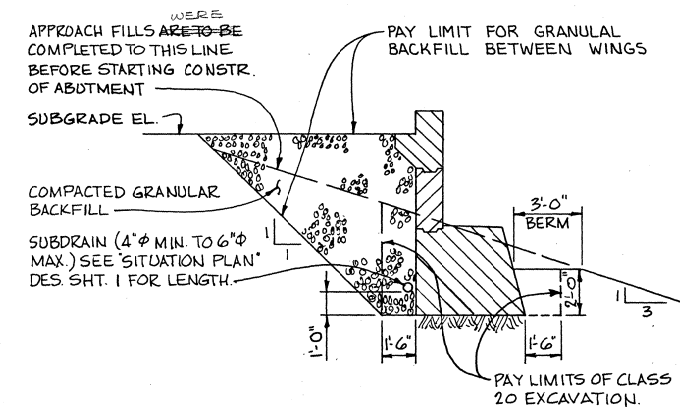
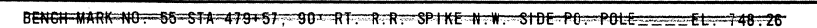
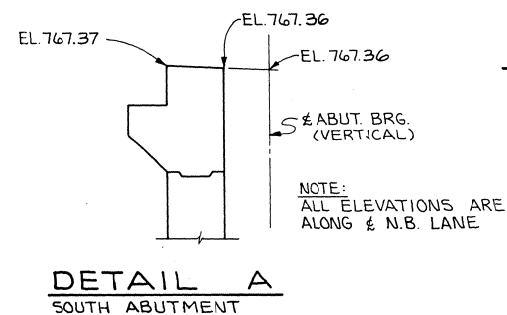
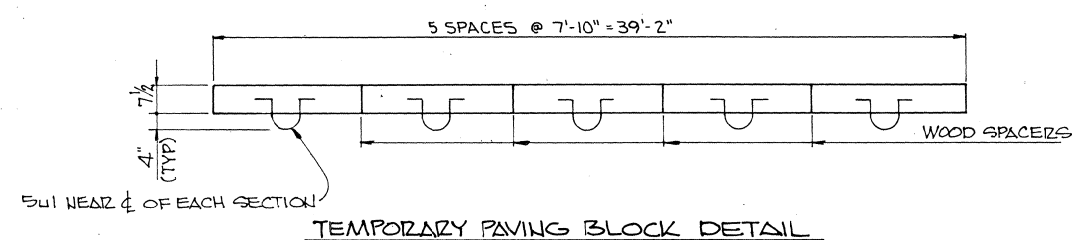
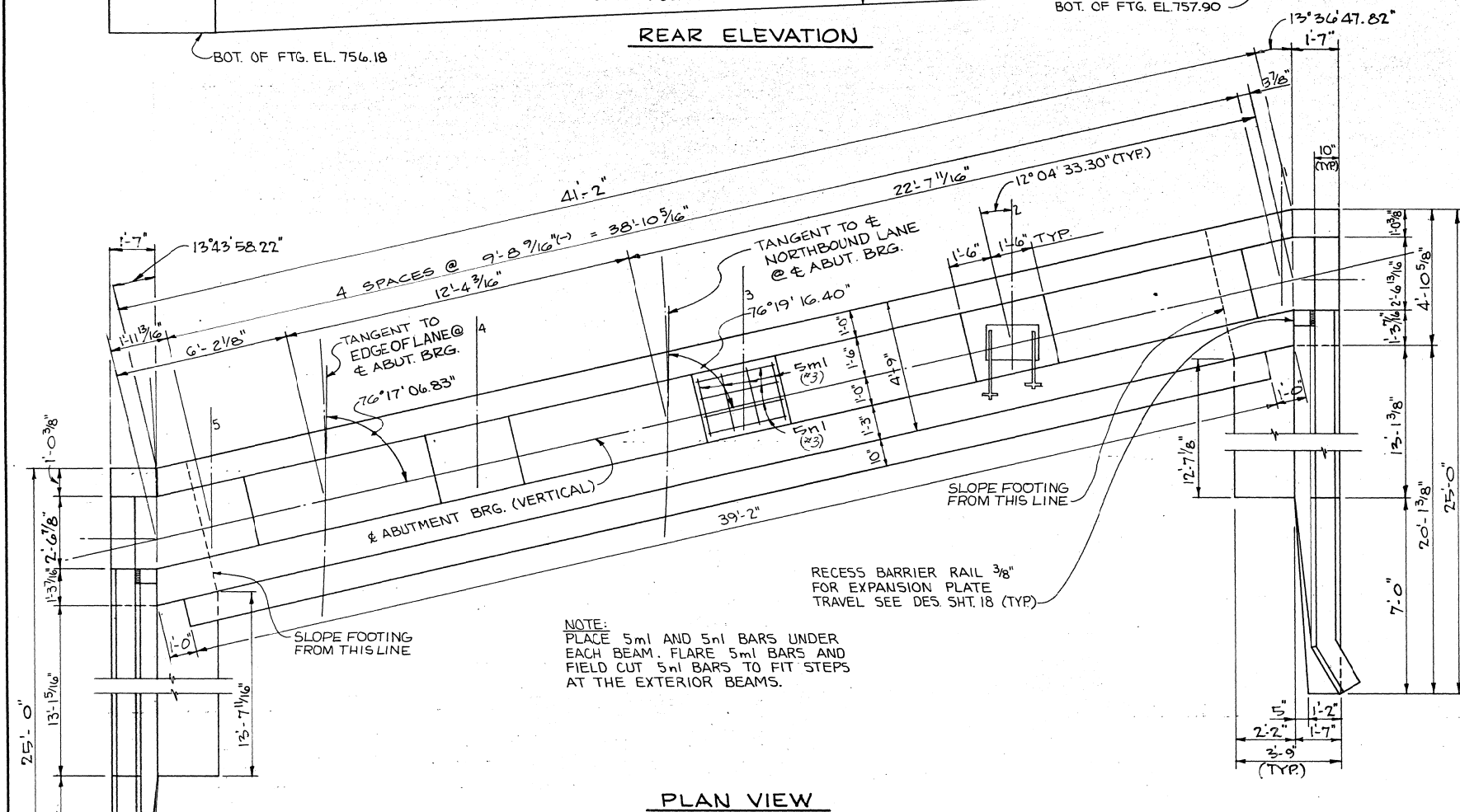
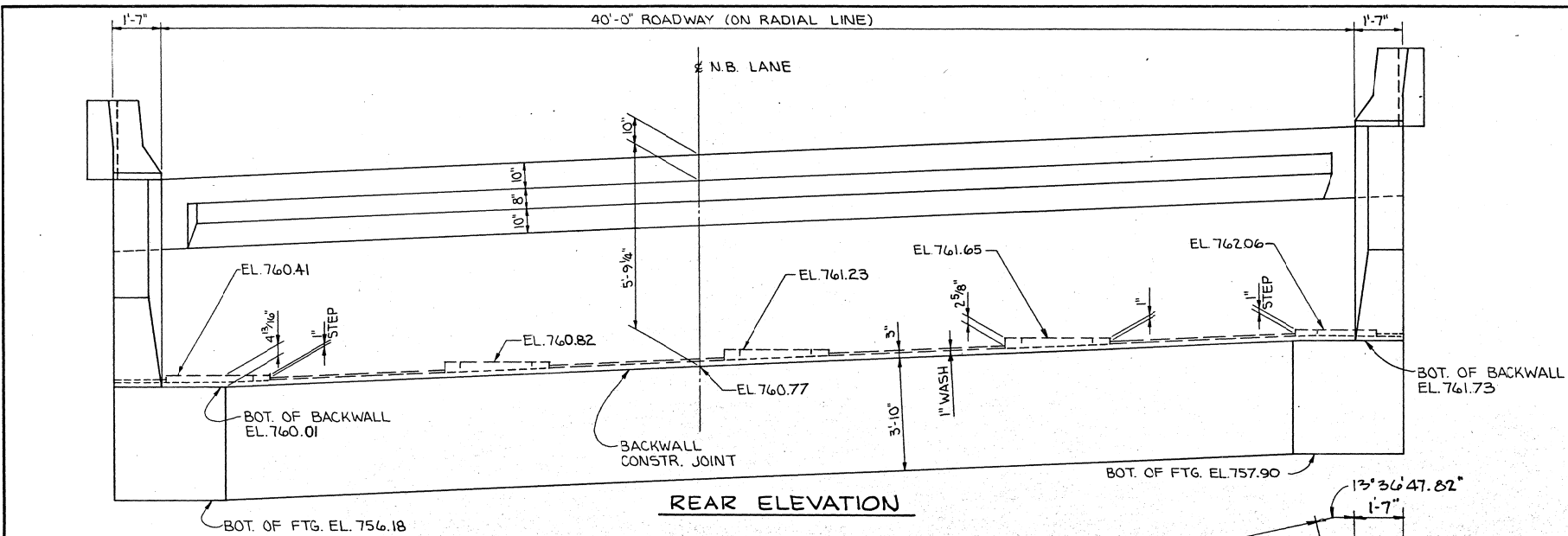
REINFORCING STEEL IN ACCORDANCE WITH SECTION 1.5, Grade 40 and Grade 60.

STRUCTURAL STEEL IN ACCORDANCE WITH SECTION 1.7, A.S.T.M. A-36, Fatigue stress cycles based on Case II.

DESIGN FOR 12°04'33.30" SKEW
260'X40' WELDED PLATE GIRDER BRIDGE
67'-6" END SPANS 125'-0" INTERIOR SPAN
STAKING DIAGRAM
STATION: 478+93.08(± N.B. LANE US NO. 561) JUNE, 1978
STATION: 2479+28.20(± MT. JOY ROAD & N.B. LANE)
SCOTT COUNTY
IOWA DEPARTMENT OF TRANSPORTATION-HIGHWAY DIVISION
DESIGN SHEET NO. 3 OF 23 FILE NO. 25588 DESIGN NO. 1080

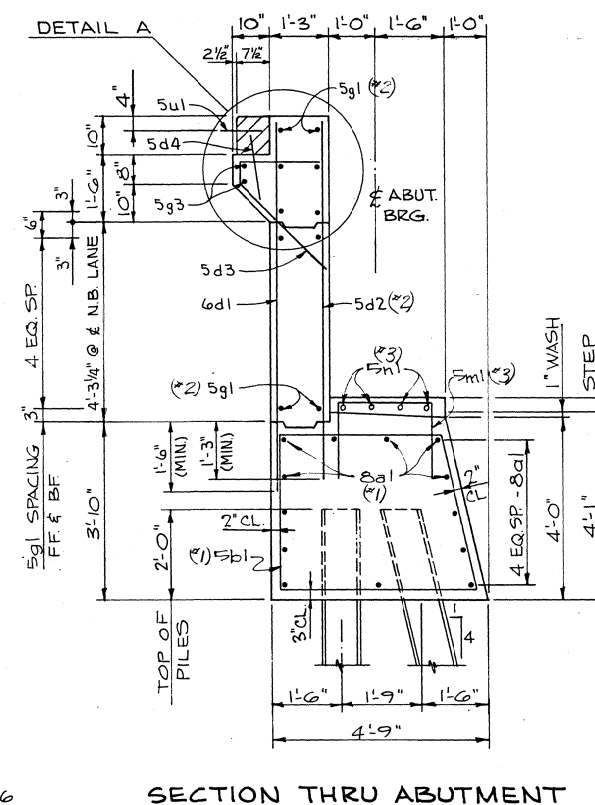
SCOTT COUNTY

STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
IOWA	5		64	125

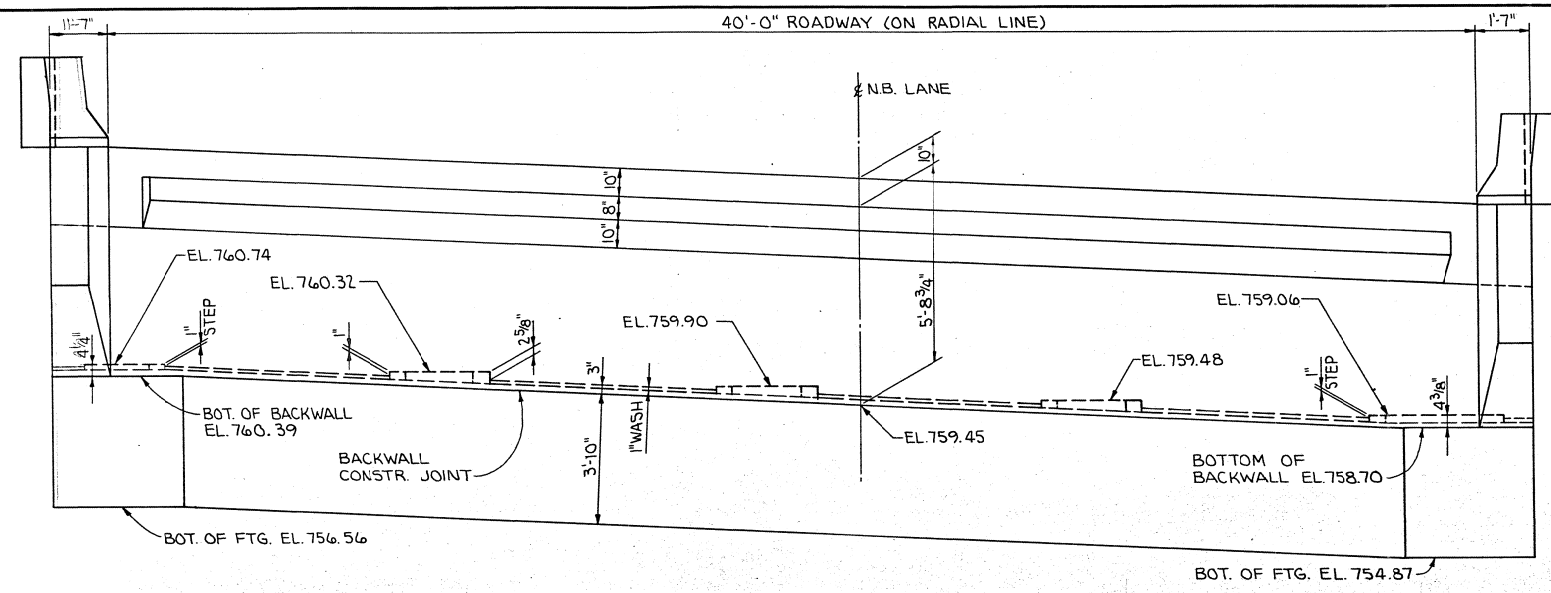


EPOXY COATING NOTE:

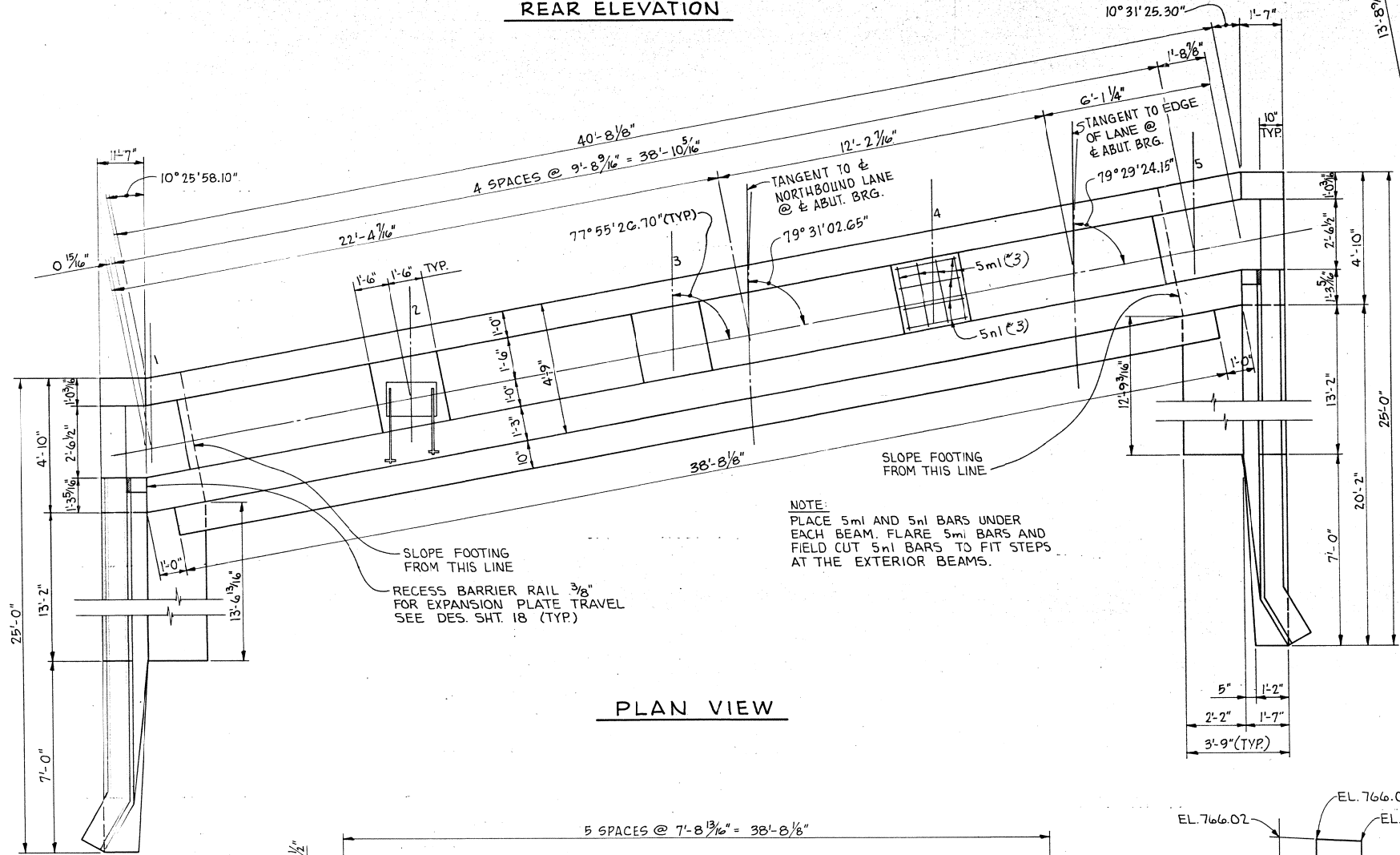
Certain reinforcing bars are to be epoxy coated. Parenthetical numbers associated with re-bar designations are reference keys to notes on Design Sheet 7.



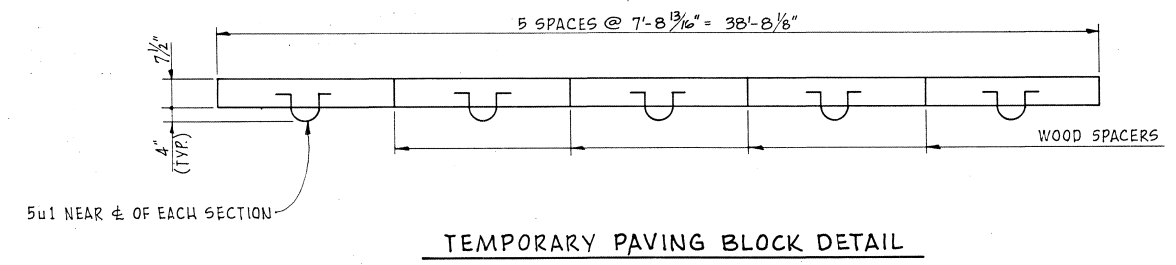
DESIGN FOR 12°04'33.30" SKEW
260'X40' WELDED PLATE GIRDER BRIDGE
67'-6" END SPANS 125'-0" INTERIOR SPAN
SOUTH ABUTMENT
STATION: 478+93.08 (¢ N.B. LANE US NO. 561) JUNE, 1978
STATION: 2479+28.20 (¢ MT. JOY ROAD & N.B. LANE)
- SCOTT COUNTY
IOWA DEPARTMENT OF TRANSPORTATION-HIGHWAY DIVISION
DESIGN SHEET NO. 4 OF 23 FILE NO. 25588 DESIGN NO. 1080



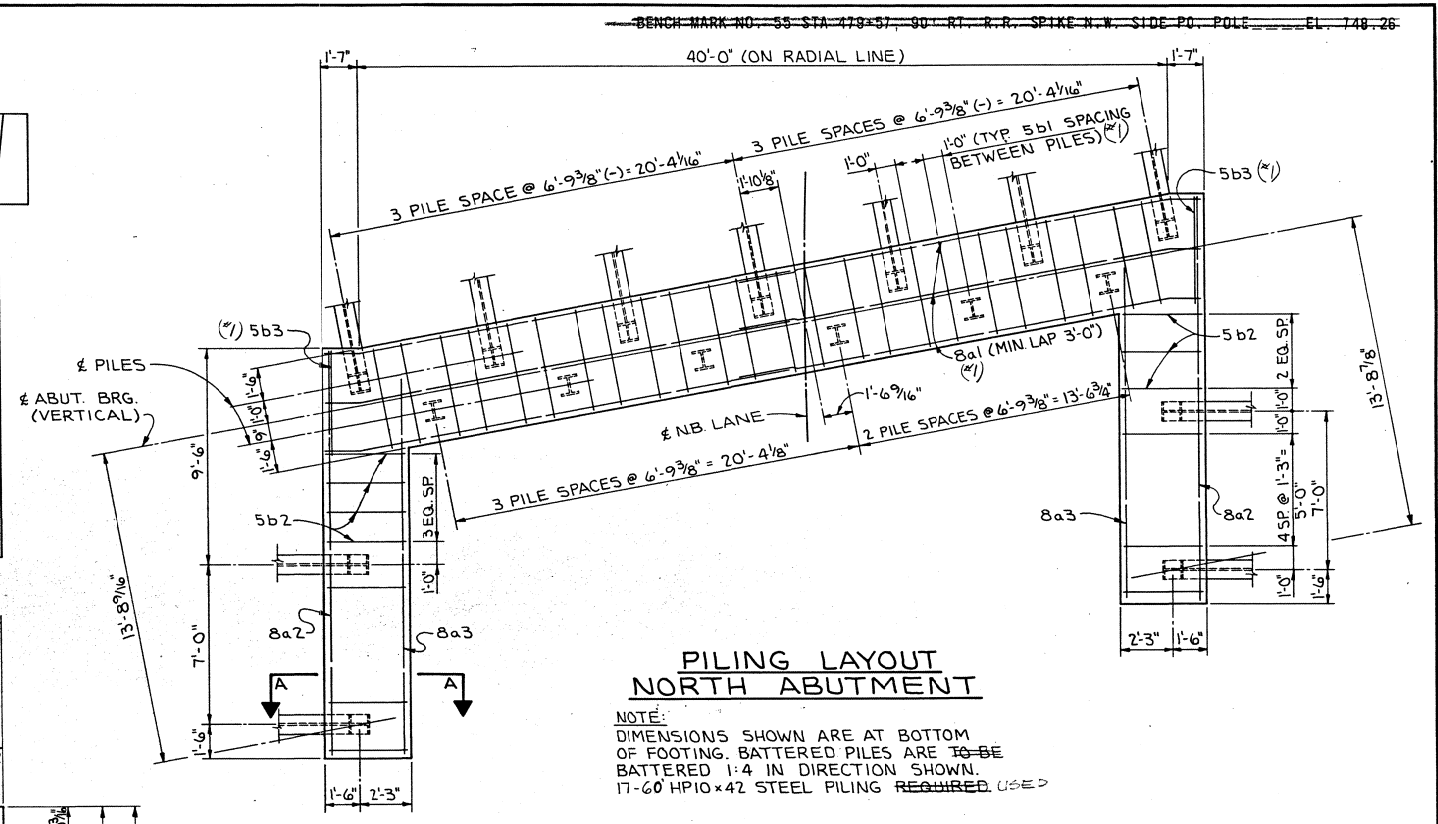
REAR ELEVATION



PLAN VIEW



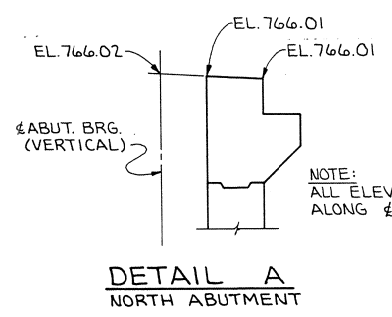
TEMPORARY PAVING BLOCK DETAIL



PILING LAYOUT NORTH ABUTMENT

NOTE:
DIMENSIONS SHOWN ARE AT BOTTOM OF FOOTING. BATTERED PILES ARE TO BE BATTERED 1:4 IN DIRECTION SHOWN. 17-60 HP10x42 STEEL PILING REQUIRED (USE)

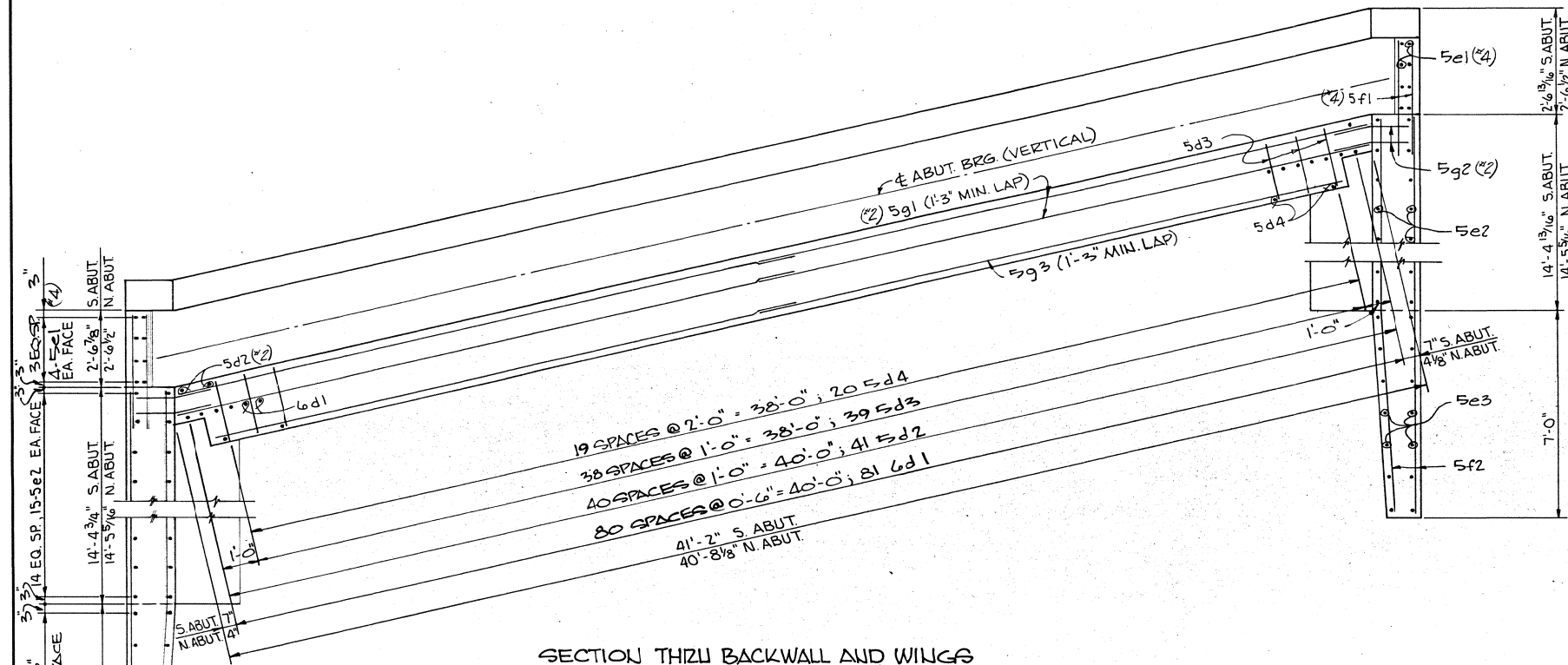
EPOXY COATING NOTE:
Certain reinforcing bars are to be epoxy coated. Parenthetical numbers associated with re-bar designations are reference keys to notes on Design Sheet 7.



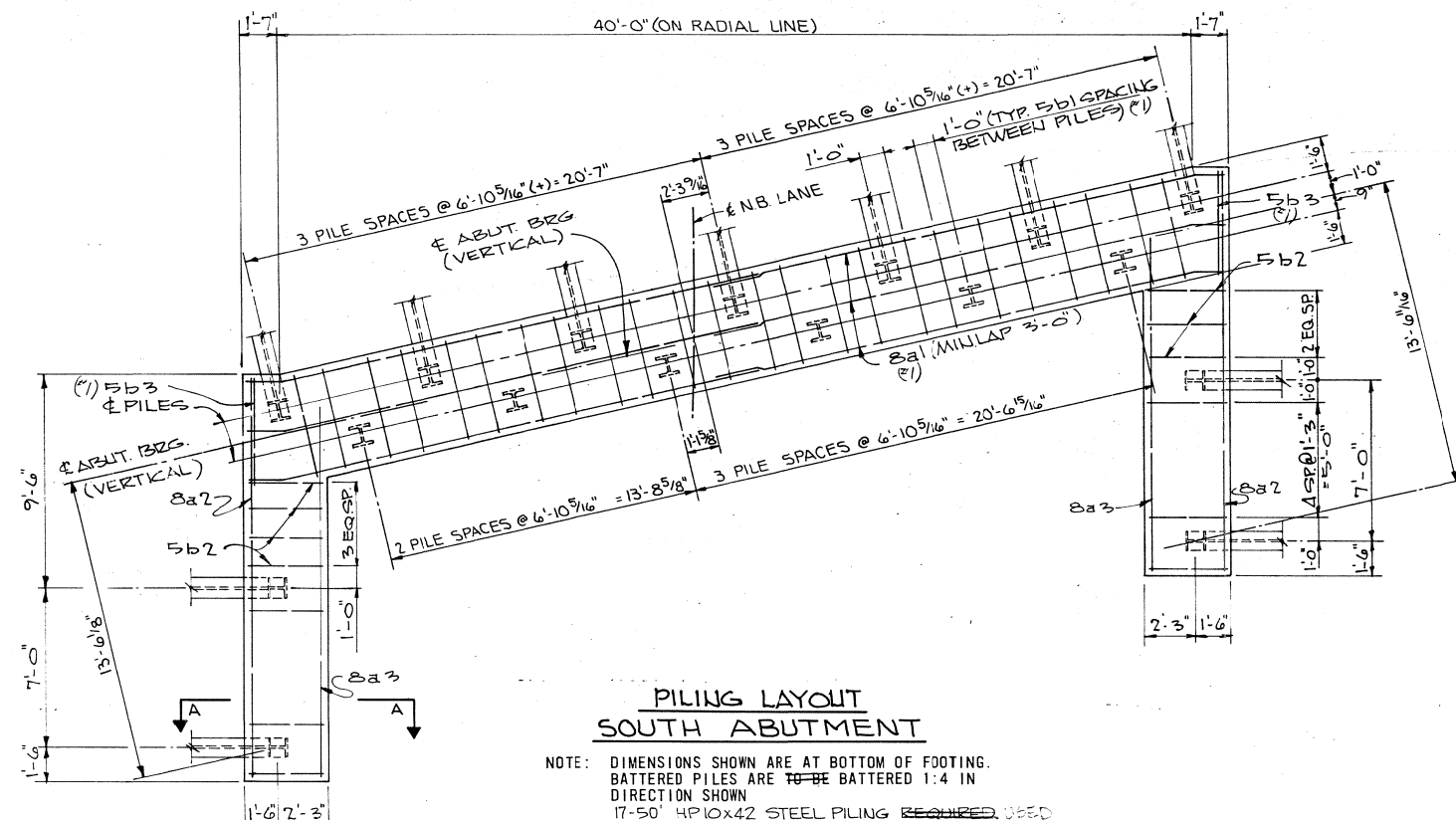
DETAIL A NORTH ABUTMENT

DESIGN FOR 12°04'33.30" SKEW
260'x40' WELDED PLATE GIRDER BRIDGE
67'-6" END SPANS 125'-0" INTERIOR SPAN
NORTH ABUTMENT
STATION: 478+93.08 (± N.B. LANE US NO. 561) JUNE, 1978
STATION: 2479+28.20 (± MT. JOY ROAD & N.B. LANE)
SCOTT COUNTY
IOWA DEPARTMENT OF TRANSPORTATION-HIGHWAY DIVISION
DESIGN SHEET NO. 5 OF 23 FILE NO. 25588 DESIGN NO. 1080

SCOTT	COUNTY	PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
			IOWA	5		66	125

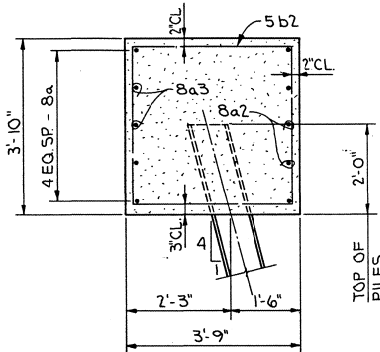


SECTION THRU BACKWALL AND WINGS



PILING LAYOUT
SOUTH ABUTMENT

NOTE: DIMENSIONS SHOWN ARE AT BOTTOM OF FOOTING.
BATTERED PILES ARE TO BE BATTERED 1:4 IN
DIRECTION SHOWN
17'-50\"/>



SECTION A-A

EPOXY COATING NOTE:
Certain reinforcing bars are to be epoxy coated. Parenthetical numbers associated with re-bar designations are reference keys to notes on Design Sheet 7.

ABUTMENT NOTES:
ALL EXPOSED CORNERS OF 90° OR SHARPER ~~WERE~~ ^{WERE} FILLETED WITH A 3/4\"/>

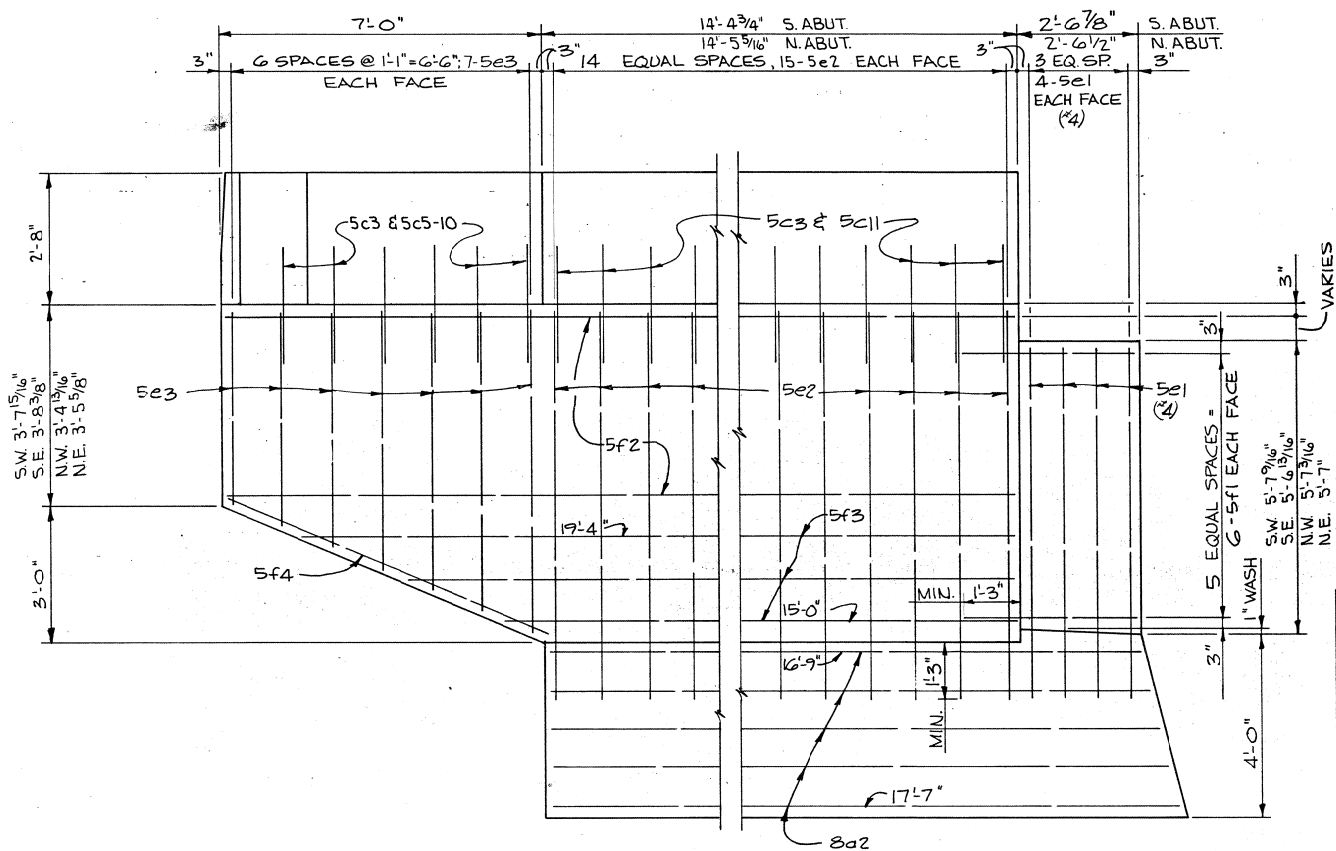
CONCRETE PLACEMENT QUANTITIES		
LOCATION	S. ABUT.	N. ABUT.
FOOTING & STEPS	42.0	41.7
BACKWALL BELOW CONSTRUCTION JOINT	8.1	8.0
BACKWALL ABOVE CONSTRUCTION JOINT	5.8	5.7
EAST WING & WINGWALL	7.4	7.3
WEST WING & WINGWALL	7.4	7.2
* PAVING BLOCK	.8	.7
MASKWALL	.9	.9
TOTAL (CU. YDS.)	72.4	71.5

*MAY BE CLASS "C" OR CLASS "B"

FINAL TOTAL ESTIMATED QUANTITIES				
ITEM	UNITS	S. ABUT.	N. ABUT.	TOTAL
STRUCTURAL CONCRETE, CLASS "C"	CU. YDS.	72.4	71.5	143.9
REINFORCING STEEL	LBS.	4,829	4,801	9,630
HP 10X42 STEEL	FURNISH **	10,140	10,179	20,319
BEARING PILING	DRIVE **	995.9	1,011.6	2,007.5
BRIDGE SEAT SEALER	SQ. FT.	183	182	365
SUBDRAIN	LIN. FT.	82	86	168
CLASS 20 EXCAVATION	CU. YDS.	97	96	193
GRANULAR BACKFILL	CU. YDS.	88	88	176
PREBORED HOLES	LIN. FT.	139	149	288
REINFORCING STEEL, EPOXY COATED	LBS.	2,384	2,380	4,764

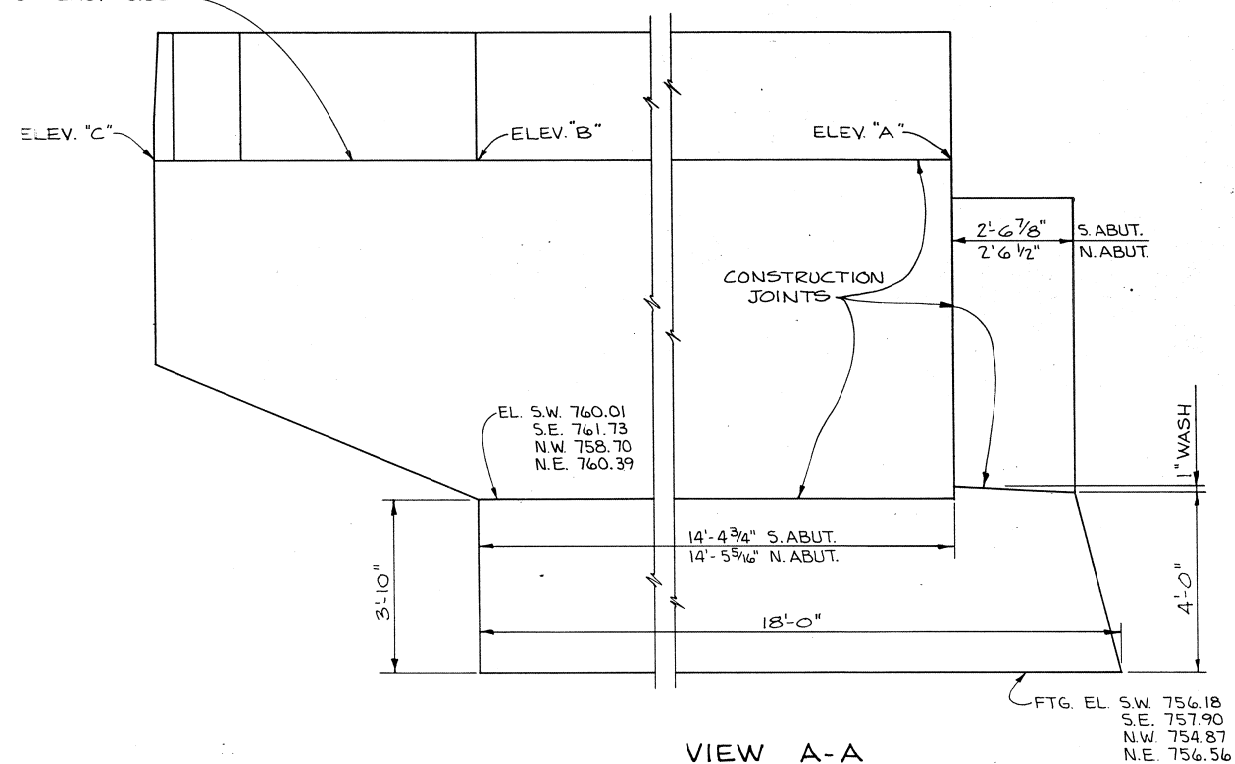
** 17 @ 50': SOUTH ABUTMENT
17 @ 60': NORTH ABUTMENT

DESIGN FOR 12°04'33.30" SKEW
260'X40' WELDED PLATE GIRDER BRIDGE
67'-6" END SPANS 125'-9" INTERIOR SPAN
ABUTMENT DETAILS
STATION: 478+93.08(± N.B. LANE US NO. 561) JUNE, 1978
STATION: 2479+28.20(± MT. JOY ROAD & N.B. LANE)
SCOTT COUNTY
IOWA DEPARTMENT OF TRANSPORTATION-HIGHWAY DIVISION
DESIGN SHEET NO. 6 OF 23 FILE NO. 25588 DESIGN NO. 1080



VIEW A-A
SHOWING REINFORCING

THIS SURFACE IS TO BE PARALLEL TO
AND 3/4" BELOW PROFILE GRADE ON WEST
SIDE AND 1'-6 3/8" ABOVE PROFILE GRADE
ON EAST SIDE



VIEW A-A
SHOWING ELEVATIONS

	WING ELEVATIONS			
	SOUTH ABUTMENT		NORTH ABUTMENT	
	WEST WING	EAST WING	WEST WING	EAST WING
ELEV. A	766.57	768.33	765.22	766.98
ELEV. B	766.64	768.39	765.14	766.90
ELEV. C	766.67	768.43	765.10	766.86

EPOXY COATING NOTE

The following portions of each abutment shall have epoxy coated reinforcing steel:

1. Top surface under bridge seat and batter face of main footing.
2. Front face of backwall.
3. Steps under masonry plates.
4. Maskwalls.

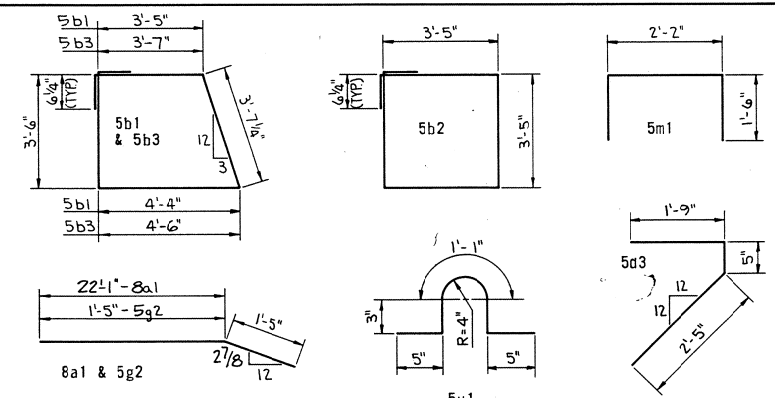
Parenthetical numbers associated with reinforcing bar designations are reference keys to notes above. See this Sheet for tabulation of bars to be epoxy coated.

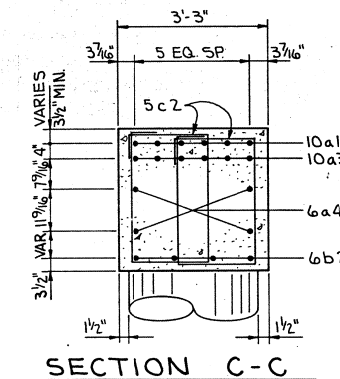
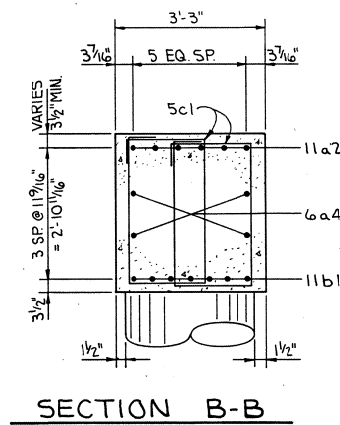
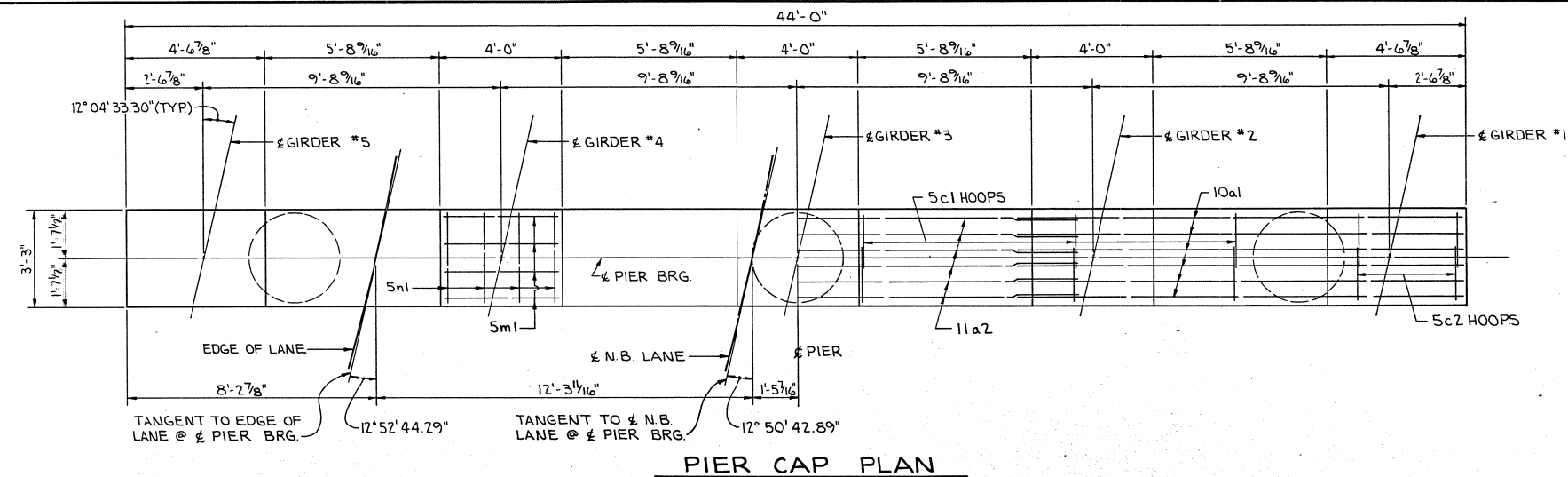
TABULATION OF EPOXY COATED RE-BARS (SEE NOTE)					
Bar	Location	South Abut		North Abut	
		N ^o	Weight	N ^o	Weight
8a1(1)	Footing, Longitudinal	14	878	14	878
5b1(1)	Footing, Hoops	24	382	24	382
5b3(1)	Footing, Hoops	2	32	2	32
5a2(2)	Backwall, FFV	41	328	41	328
5a1(4)	Maskwall, Vertical	16	113	16	113
5f1(4)	Maskwall, Horizontal	24	92	24	92
5g1(2)	Backwall, Horizontal	16	352	16	348
5g2(2)	Backwall, Dowels	16	47	16	47
5m1(3)	Beam Steps, Transverse	20	104	20	104
5m1(3)	Beam Steps, Longitudinal	20	56	20	56
Total (Lbs)			2384		2380



















REINFORCING STEEL

BAR	LOCATION	SHAPE	SOUTH ABUTMENT			NORTH ABUTMENT		
			NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT
8a1(1)	FOOTING - LONGITUDINAL	—	26	23'-6"	1631	26	23'-6"	1631
8a2	WING FOOTING - LONGITUDINAL	—	10	VARIES	458	10	VARIES	458
8a3	WING FOOTING - LONGITUDINAL	—	10	16'-0"	427	10	16'-0"	427
5b1(1)	FOOTING HOOPS	—	24	15'-3"	382	24	15'-3"	382
5b2	WING FOOTING HOOPS	—	19	14'-2"	281	19	14'-2"	281
5b3(1)	FOOTING HOOPS	—	2	15'-6"	32	2	15'-6"	32
6d1	BACKWALL, BFV	—	81	7'-11"	963	81	7'-11"	963
5d2(2)	BACKWALL, F.F.V.	—	41	7'-8"	328	41	7'-8"	328
5d3	PAVING NOTCH, TRANSVERSE	—	39	4'-8"	183	39	4'-8"	183
5d4	PAVING DOWELS	—	20	2'-0"	42	20	2'-0"	42
5e1(4)	MASKWALL, VERTICAL	—	16	6'-9"	113	16	6'-9"	113
5e2	WINGWALL, VERTICAL	—	60	7'-10"	490	60	7'-7"	475
5e3	WING, VERTICAL	—	28	VARIES	141	28	VARIES	134
5f1(4)	MASKWALL, HORIZONTAL	—	24	3'-8"	92	24	3'-8"	92
5f2	WING & WINGWALL, HORIZONTAL	—	16	21'-0"	350	16	21'-0"	350
5f3	WING & WINGWALL, HORIZONTAL	—	12	VARIES	215	12	VARIES	215
5f4	WING SLOPE	—	4	7'-4"	31	4	7'-4"	31
5g1(2)	BACKWALL, HORIZONTAL	—	32	21'-1"	704	32	20'-10"	695
5g2(2)	BACKWALL, DOWELS	—	32	2'-10"	95	32	2'-10"	95
5g3	PAVING NOTCH, LONGITUDINAL	—	4	20'-0"	83	4	19'-9"	82
5m1(3)	BEAM STEPS, TRANSVERSE	—	20	5'-0"	104	20	5'-0"	104
5m1(3)	BEAM STEPS, LONGITUDINAL	—	20	2'-8"	56	20	2'-8"	56
5u1	PAVING BLOCK, LOOPS	—	5	2'-3"	12	5	2'-3"	12
*** TOTAL (LBS.)					7,213			7,181

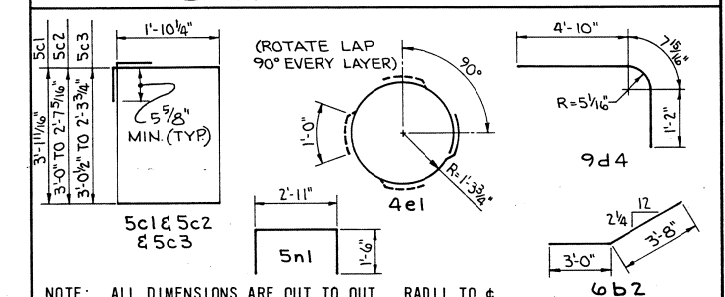
BENT BAR DETAILS





REINFORCING BAR LIST - PIER #1					
BAR	LOCATION	SHAPE	NO	LENGTH	WEIGHT
10a1	CAP LONGITUDINAL - TOP		12	15'-6"	800
11a2	CAP LONGITUDINAL - TOP		6	20'-3"	646
10a3	CAP LONGITUDINAL - TOP		12	11'-4"	585
6a4	CAP LONGITUDINAL - SIDES		4	43'-8"	262
11b1	CAP LONGITUDINAL - BOTTOM		7	36'-0"	1339
6b2	CAP LONGITUDINAL-BOTTOM-CANTILEVER		8	6'-8"	80
5c1	CAP HOOPS		60	10'-5"	652
5c2	CAP HOOPS - CANTILEVER		14	VARIES	142
5c3	CAP HOOPS - CANTILEVER		14	VARIES	138
9d1	COLUMN #1 - VERTICAL		14	18'-3"	869
9d2	COLUMN #2 - VERTICAL		14	18'-11"	900
9d3	COLUMN #3 - VERTICAL		14	19'-8"	936
9d4	COLUMN TO FOOTINGS - DOWELS		42	6'-8"	952
4e1	COLUMN HOOPS		50	9'-3"	309
8f1	FOOTINGS - LONGITUDINAL		45	10'-2"	1222
8f2	FOOTINGS - TRANSVERSE		45	10'-2"	1222
5m1	STEPS - LONGITUDINAL		20	3'-8"	76
5n1	STEPS - TRANSVERSE		20	5'-9"	120
TOTAL (LBS.)					11,250

BENT BAR DETAILS



NOTE: ALL DIMENSIONS ARE OUT TO OUT. RADII TO ϕ .

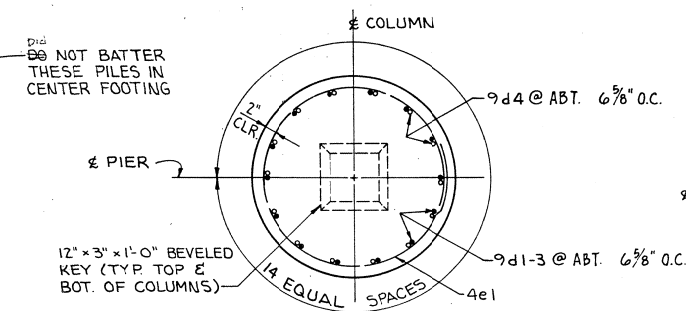
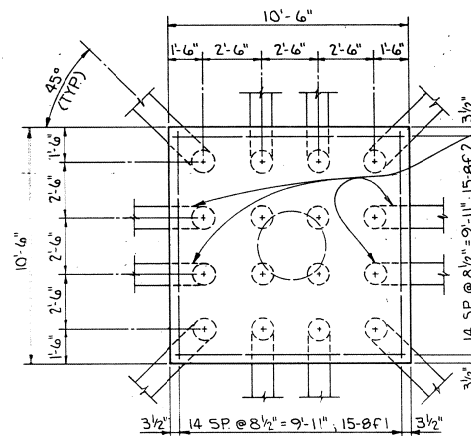
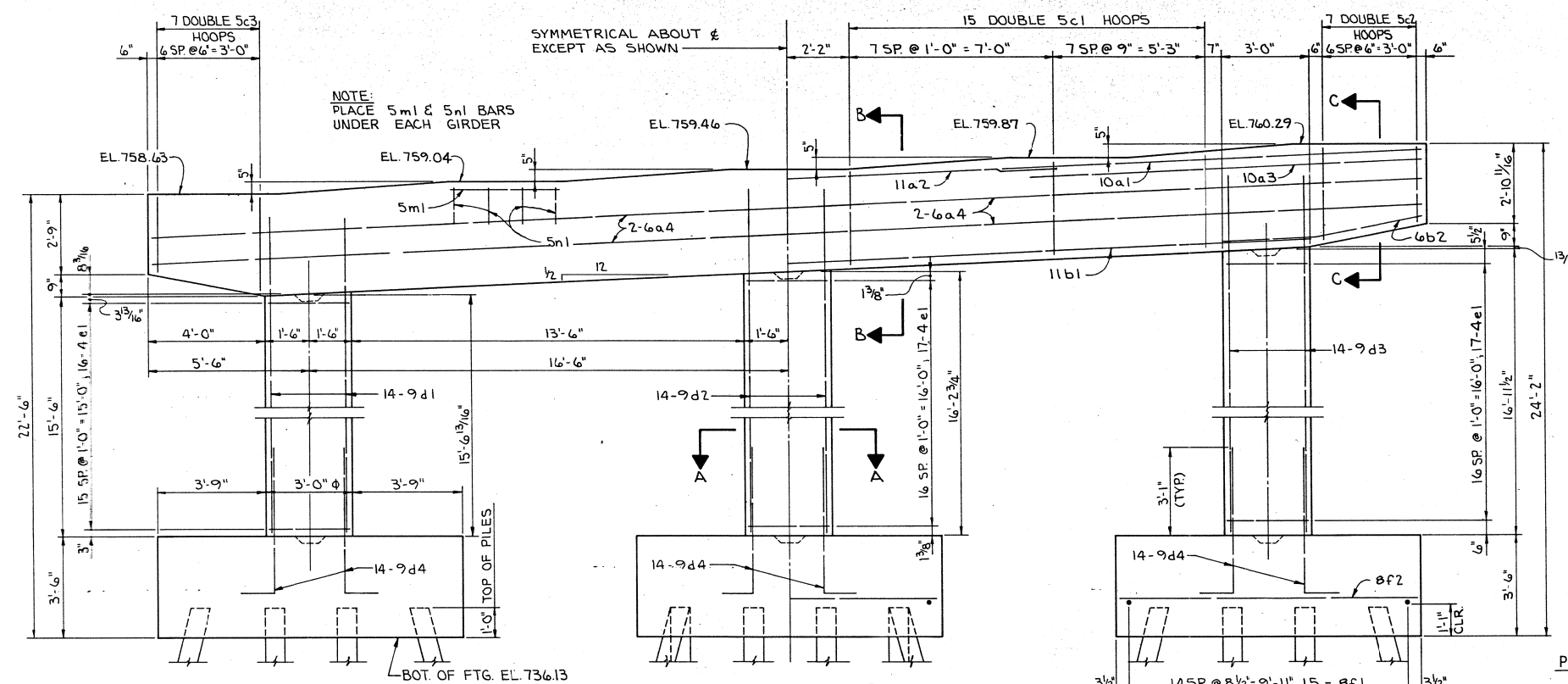
CONCRETE PLACEMENT QUANTITIES-PIER #1	
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LOCATION	UNIT	QUANTITY
CAP	CU. YD	18.5
COLUMN #1	CU. YD	4.1
COLUMN #2	CU. YD	4.3
COLUMN #3	CU. YD	4.4
FOOTINGS 3 @ 13.8	CU. YD	41.4

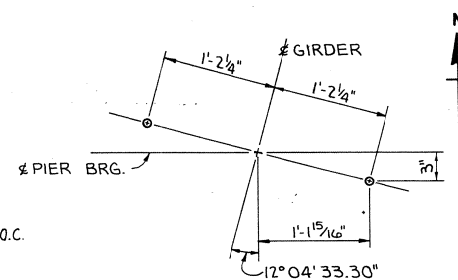
FINAL	TOTAL (CY.YD.)	72.7
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~~TOTAL ESTIMATED QUANTITIES - PIER #1~~

ITEM	UNIT	QUANTITY
STRUCTURAL CONCRETE CLASS "C"	CU. YD	72.7
REINFORCING STEEL	LBS.	11,250
CREOSOTED PILING 48 @ 25'	L.F.	1,200
CLASS 20 EXCAVATION	CU. YD	123



NOTE: ALL DIMENSIONS ARE AT BOTTOM OF FOOTING. BATTER
PILES 1:4 IN DIRECTION INDICATED EXCEPT AS NOTED OR SHOWN.
16 CREOSOTED PILING REQUIRED FOR EACH FOOTING.



ANCHOR BOLT LOCATION

(EXPANSION)
1½" Φ x 2'-0" SWEDGE ANCHOR BOLTS
PROJECTION = 5½"

PIER NOTES:

PIER NOTES:

ALL EXPOSED CORNERS OF 90° OR SHARPER ^{WERE} ~~ARE TO BE~~ FILLETED WITH A 3/4" DRESSED AND BEVELED STRIP. MINIMUM CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR IS ~~TO BE~~ 2" UNLESS OTHERWISE NOTED OR SHOWN.

REINFORCING STEEL ^{WAS} ~~IS TO BE~~ SECURELY WIRED IN PLACE
BEFORE CONCRETE ^{IS} ~~IS~~ PLACED.

PILES ARE ~~TO BE~~^{WFC} DRIVEN TO FULL PENETRATION IF PRACTICABLE, BUT TO NOT LESS THAN 20 TONS NOR MORE THAN 40 TONS BEARING VALUE.

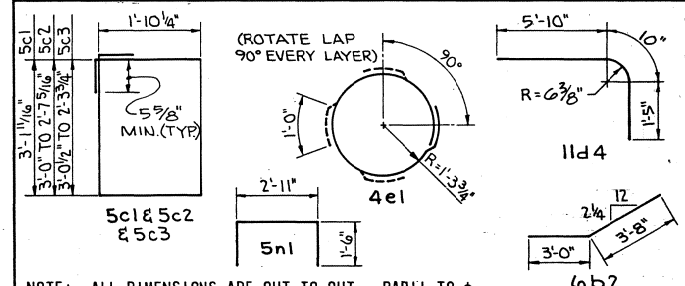
ANCHOR BOLTS ARE TO BE PRESET IN PIER CAP IN ACCORDANCE WITH STANDARD SPECIFICATIONS. WEIGHT OF ANCHOR BOLTS IS INCLUDED IN STRUCTURAL STEEL QUANTITY. REINFORCING MAY BE SHIFTED SLIGHTLY TO CLEAR ANCHOR BOLTS.

DESIGN FOR 12°04'33.30" SKEW
260'X40' WELDED PLATE GIRDER BRIDGE
67'-6" END SPANS 125'-0" INTERIOR SPAN
PIER NO. 1
JUNE, 1978
STATION: 478+93.08(± N.B. LANE US NO. 561)
STATION: 2479+28.2C(± MT. JOY ROAD & N.B. LANE)
SCOTT COUNTY
IOWA DEPARTMENT OF TRANSPORTATION-HIGHWAY DIVISION
DESIGN SHEET NO. 8 OF 23 FILE NO. 25588 DESIGN NO. 1080

REINFORCING BAR LIST - PIER #2

BAR	LOCATION	SHAPE	NO	LENGTH	WEIGHT
10a1	CAP LONGITUDINAL - TOP		12	15'-6"	800
11a2	CAP LONGITUDINAL - TOP		6	20'-3"	646
10a3	CAP LONGITUDINAL - TOP		12	11'-4"	585
6a4	CAP LONGITUDINAL - SIDES		4	43'-8"	262
11b1	CAP LONGITUDINAL - BOTTOM		7	36'-0"	1339
6b2	CAP LONGITUDINAL - BOTTOM - CANTILEVER		8	6'-8"	80
5c1	CAP HOOPS		60	10'-5"	652
5c2	CAP HOOPS - CANTILEVER		14	VARIES	142
5c3	CAP HOOPS - CANTILEVER		14	VARIES	138
11d1	COLUMN #1 - VERTICAL		14	17'-9"	1320
11d2	COLUMN #2 - VERTICAL		14	18'-5"	1370
11d3	COLUMN #3 - VERTICAL		14	19'-1"	1419
11d4	COLUMN TO FOOTINGS - DOWELS		42	8'-1"	1804
4e1	COLUMN HOOPS		48	9'-3"	297
10f1	FOOTINGS - LONGITUDINAL		39	13'-2"	2210
8f2	FOOTINGS - TRANSVERSE		45	10'-2"	1222
5m1	STEP - LONGITUDINAL		20	3'-8"	76
5n1	STEP - TRANSVERSE		20	5'-9"	120
TOTAL (LBS.)					14,482

BENT BAR DETAILS

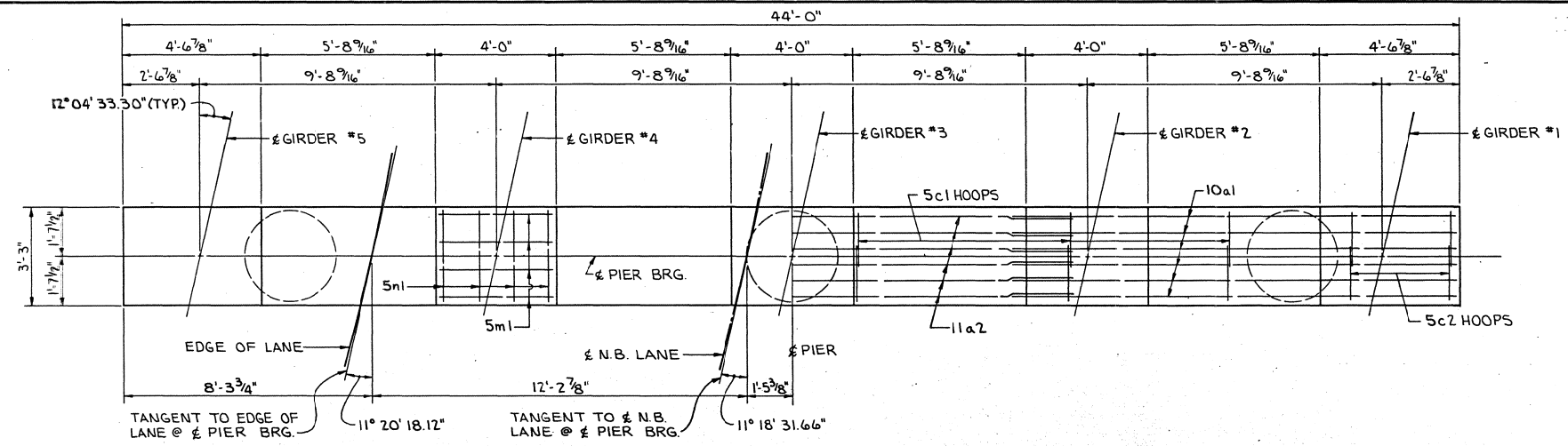


CONCRETE PLACEMENT QUANTITIES - PIER #2

LOCATION	UNIT	QUANTITY
CAP	CU. YD.	18.5
COLUMN #1	CU. YD.	4.0
COLUMN #2	CU. YD.	4.1
COLUMN #3	CU. YD.	4.3
FOOTINGS	CU. YD.	53.7
TOTAL (CU. YD.)		84.6

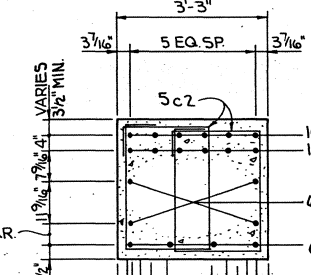
TOTAL ESTIMATED QUANTITIES - PIER #2

ITEM	UNIT	QUANTITY
STRUCTURAL CONCRETE CLASS "C"	CU. YD.	84.6
REINFORCING STEEL	LBS.	14,482
CREOSOTED PILING	L.F.	1,200
CLASS 20 EXCAVATION	CU. YD.	157

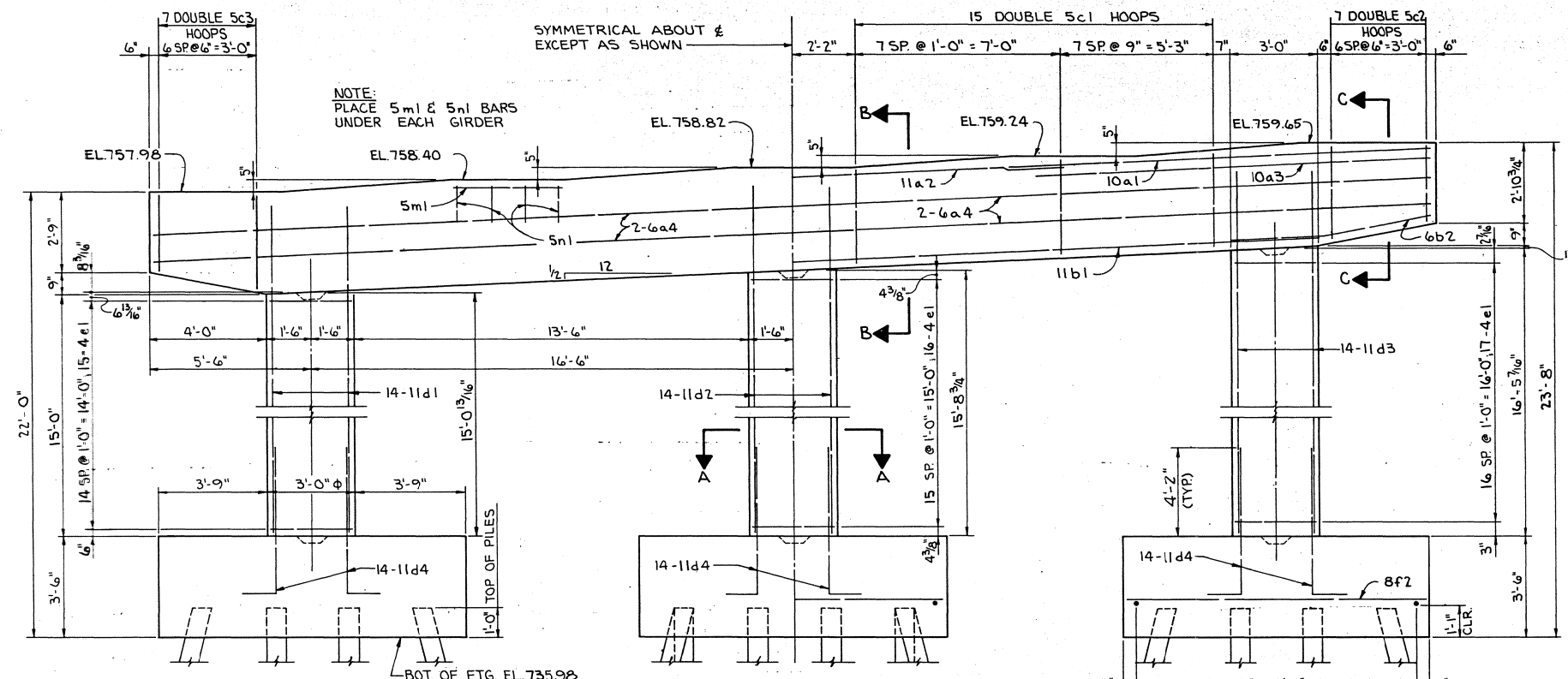


PIER CAP PLAN

SECTION B-B



SECTION C-C



PIER ELEVATION

PIER NOTES:

ALL EXPOSED CORNERS OF 90° OR SHARPER ARE TO BE FILLETED WITH A 3/4" DRESSED AND BEVELED STRIP. MINIMUM CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR IS TO BE 2" UNLESS OTHERWISE NOTED OR SHOWN.

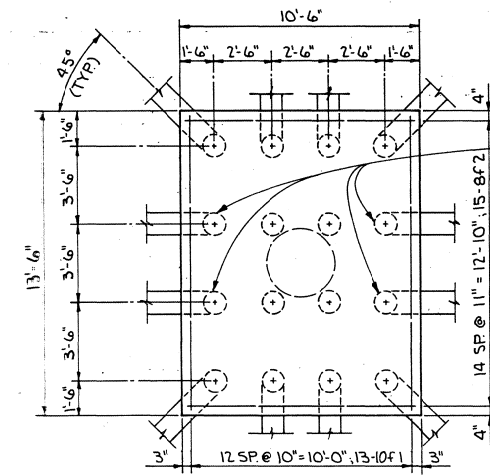
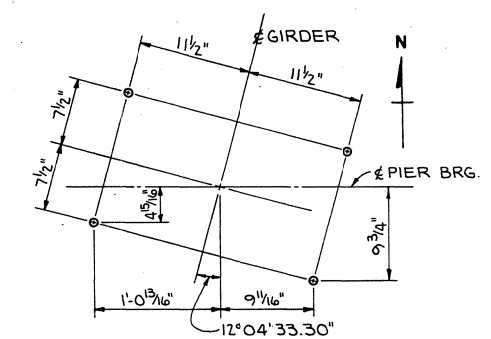
REINFORCING STEEL IS TO BE SECURELY WIRED IN PLACE BEFORE CONCRETE IS PLACED.

PILES ARE TO BE DRIVEN TO FULL PENETRATION IF PRACTICABLE, BUT TO NOT LESS THAN 20 TONS NOR MORE THAN 40 TONS BEARING VALUE.

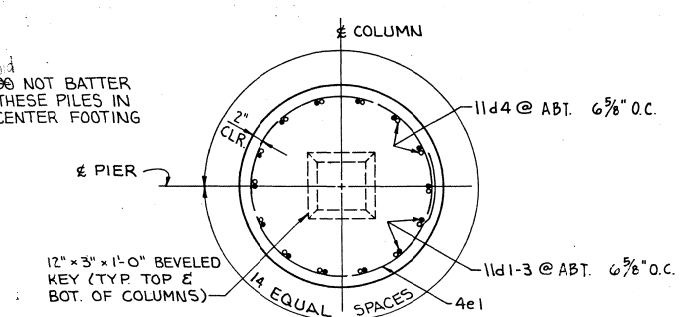
ANCHOR BOLTS ARE TO BE PRESET IN PIER CAP IN ACCORDANCE WITH STANDARD SPECIFICATIONS. WEIGHT OF ANCHOR BOLTS IS INCLUDED IN STRUCTURAL STEEL QUANTITY. REINFORCING MAY BE SHIFTED SLIGHTLY TO CLEAR ANCHOR BOLTS.

ANCHOR BOLT LOCATION

(FIXED)
1 1/2" Ø x 2'-0" SWEDGE ANCHOR BOLTS
PROJECTION = 5"



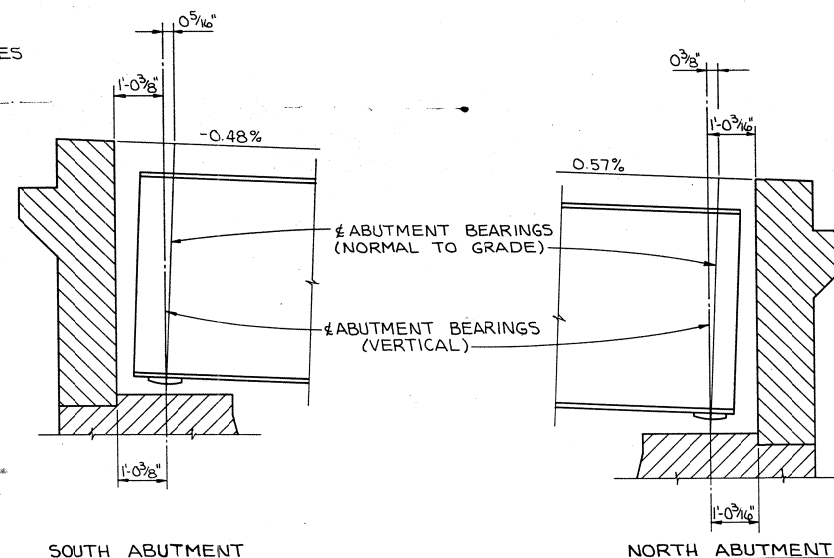
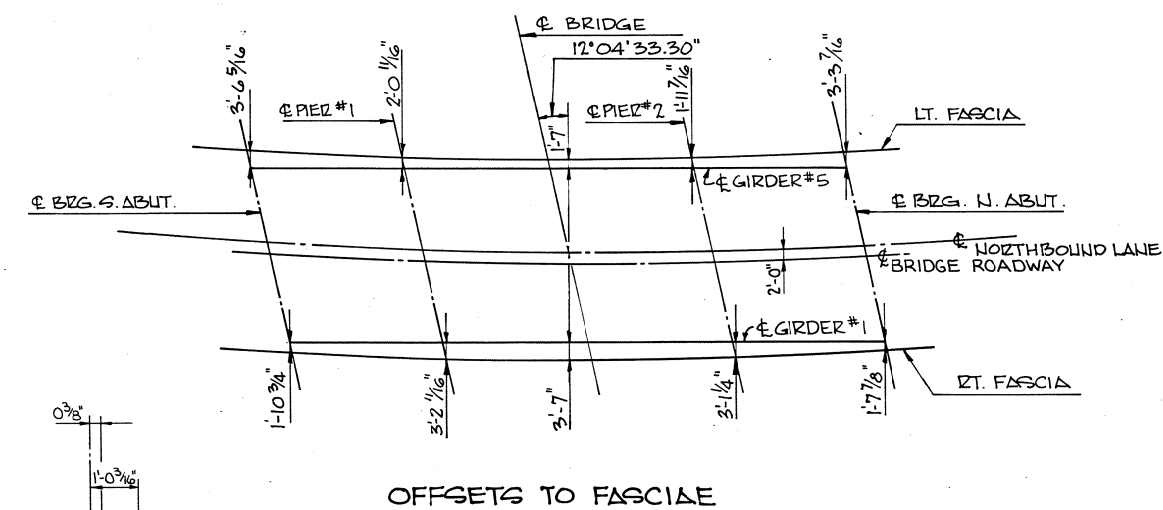
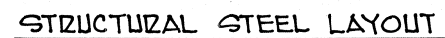
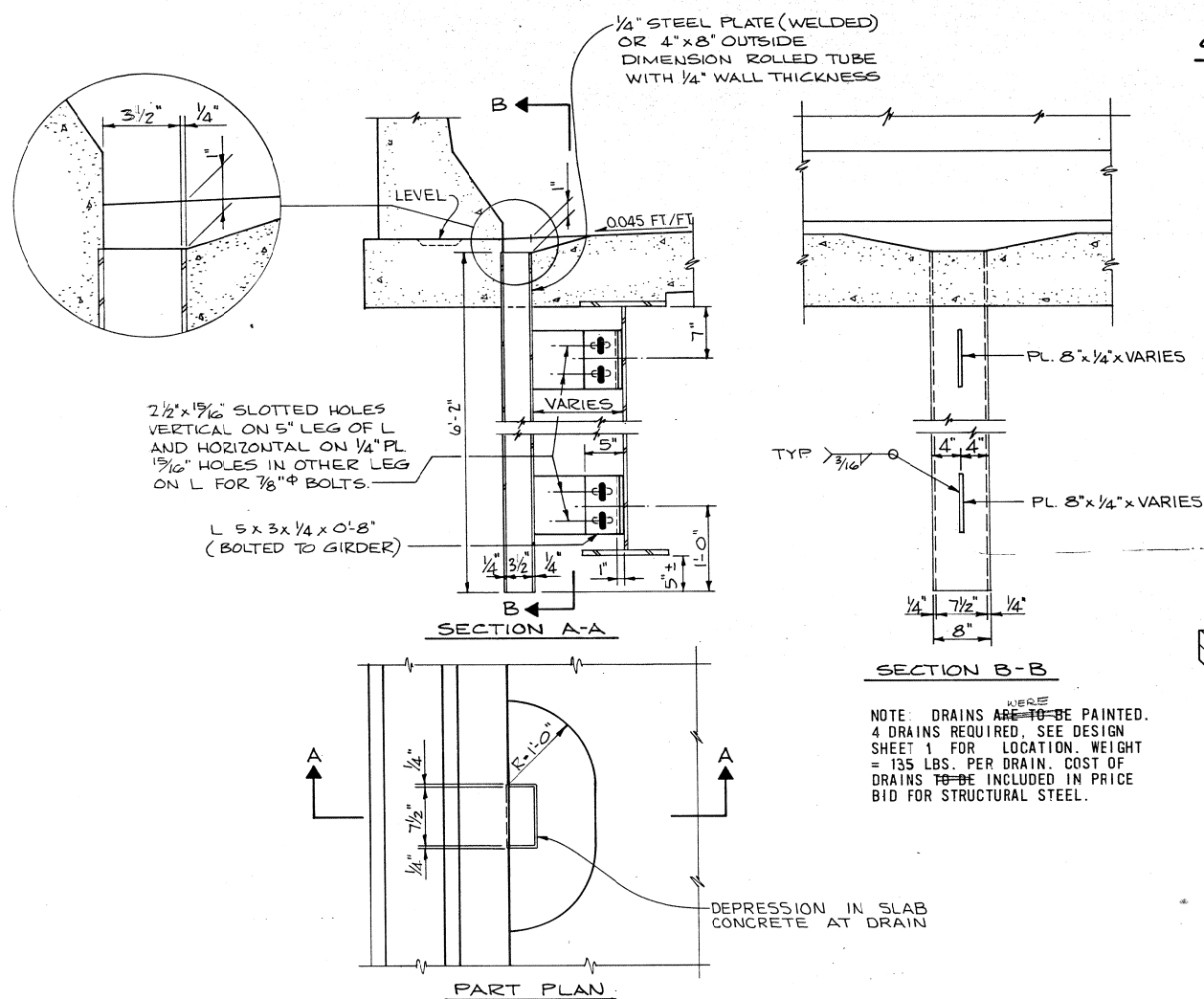
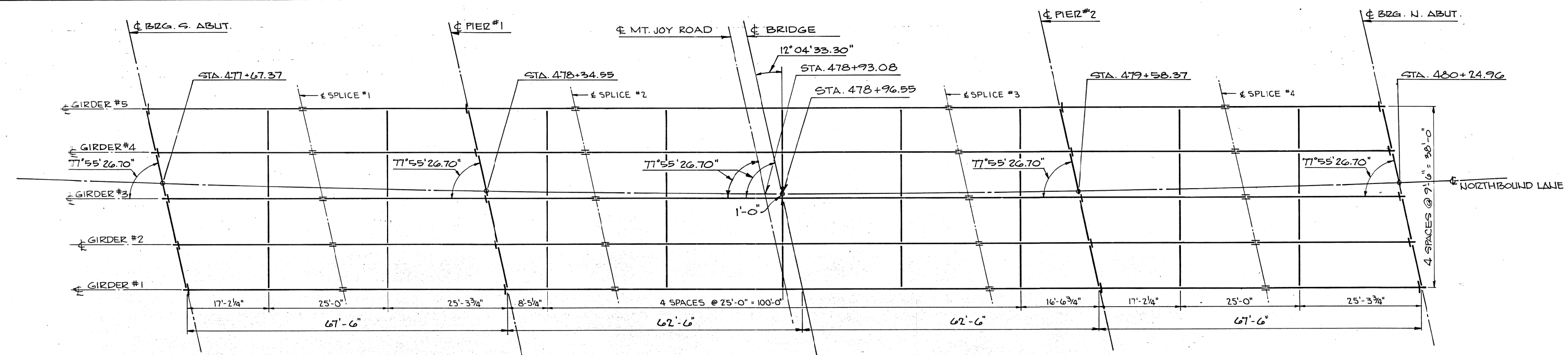
FOOTING PLAN



SECTION A-A

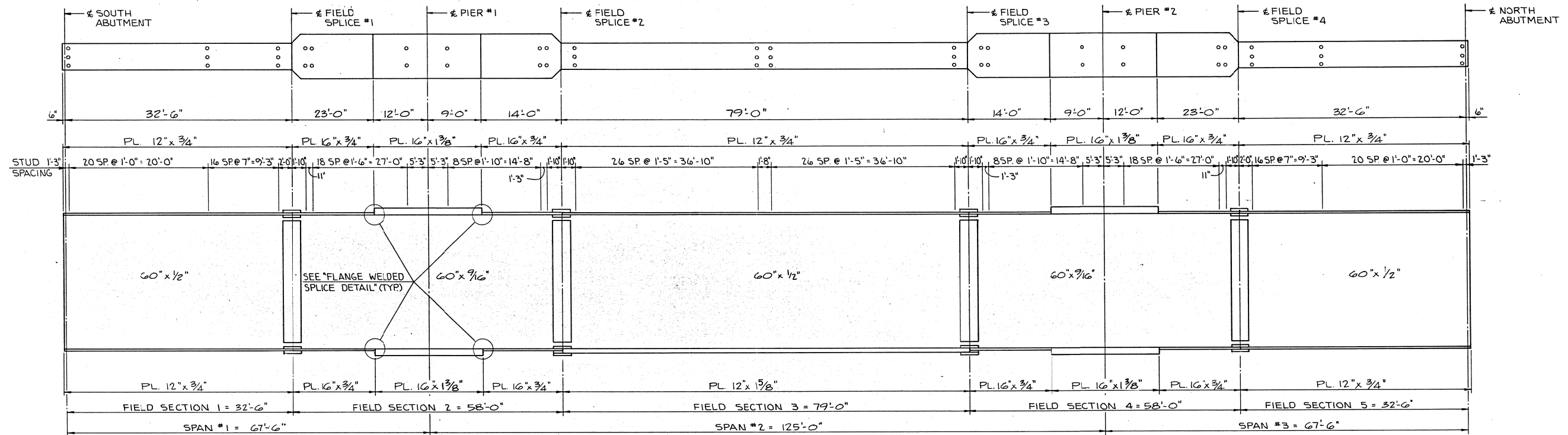
NOTE: ALL DIMENSIONS ARE AT BOTTOM OF FOOTING. BATTER PILES 1:4 IN DIRECTION INDICATED EXCEPT AS NOTED OR SHOWN. 16 CREOSOTED PILING REQUIRED FOR EACH FOOTING.

DESIGN FOR 12°04'33.30" SKEW
260'X40' WELDED PLATE GIRDER BRIDGE
67'-6" END SPANS 125'-0" INTERIOR SPAN
PIER NO. 2
STATION: 478+93.08 (N.B. LANE US NO. 561)
STATION: 2479+28.20 (MT. JOY ROAD & N.B. LANE)
SCOTT COUNTY
IOWA DEPARTMENT OF TRANSPORTATION-HIGHWAY DIVISION
DESIGN SHEET NO. 9 OF 23 FILE NO. 25588 DESIGN NO. 1080

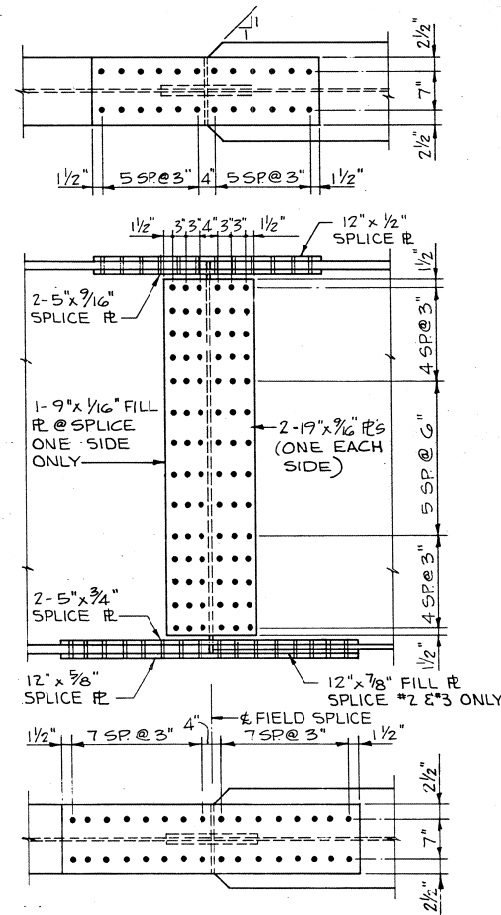


DESIGN FOR 12°04'33.30" SKEW
260'X40' WELDED PLATE GIRDER BRIDGE
61'-6" END SPANS 125'-0" INTERIOR SPAN
SUPERSTRUCTURE DETAILS JUNE, 1978
STATION: 478+93.08(± N.B. LANE US NO. 561)
STATION: 2475+28.20(± W.T. JOY ROAD & N.B. LANE)
SCOTT COUNTY
IOWA DEPARTMENT OF TRANSPORTATION-HIGHWAY DIVISION
DESIGN SHEET NO. 10 OF 23 FILE NO. 25588 DESIGN NO. 1080

PROJECT NUMBER		STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
SCOTT COUNTY		IOWA	5		71	125

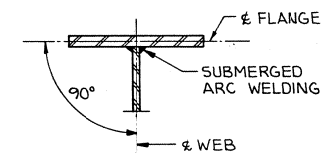


GIRDER DETAILS

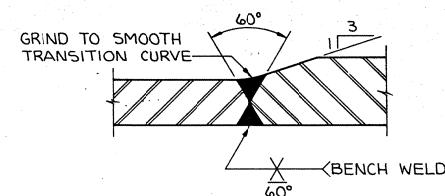


GIRDER SPLICE DETAILS

FLANGE TO WEB WELD SIZE	
FILLET WELD	FLANGE THICKNESS
1/4"	3/4"
5/16"	1 3/8"
3/8"	1 5/8"

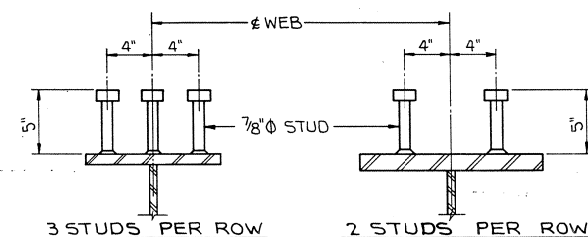


FLANGE TO WEB DETAILS



FLANGE WELDED SPLICE PLATE

NOTE: ALL FLANGE BUTT-WELDED JOINTS WERE ARE TO BE RADIOGRAPHED FULL WIDTH.



SHEAR STUD DETAILS

		MOMENT AND REACTION TABLE									
		LOAD		POSITIVE MOMENT END SPANS		NEGATIVE MOMENT PIERS 1 & 2		POSITIVE MOMENT CENTER SPAN		ABUTMENT REACTION	
		EXT.	INT.	EXT.	INT.	EXT.	INT.	EXT.	INT.	EXT.	INT.
DL #1		0.963	1.184	118	147	1111	1369	745	916	14.6	18.2
DL #2 *		0.320	0.320	66	66	317	317	333	333	6.5	6.5
LL (TRUCK)+IMPACT		-	-	719	833	-	-	1256	1456	60.2	69.8
LL (LANE)+IMPACT		-	-	-	-	820	950	-	-	-	-
TOTAL		-	-	-	-	2248	2636	-	-	81.3	94.5

* INCLUDES BARRIER CURB AND FUTURE WEARING SURFACE DISTRIBUTED EQUALLY AMONG ALL GIRDERS.

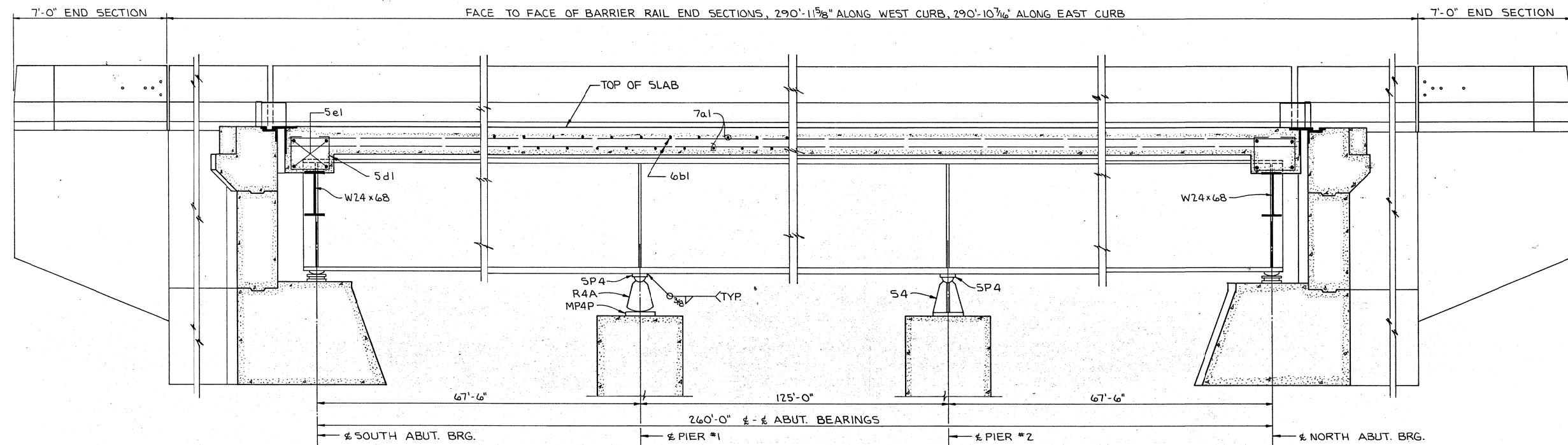
		ROCKER AND EXPANSION PLATE SETTINGS				
		SOUTH ABUTMENT	PIER #1	PIER #2	NORTH ABUTMENT	
TEMP. @ TIME OF SETTING (F)		(NORMAL)	(NORMAL)	(NORMAL)	(NORMAL)	(NORMAL)
10°		3 1/8	-5/8	-3/8	0	-3/16
50°		2 1/2	0	0	0	2 1/2
90°		1 7/8	+5/8	+3/8	0	+3/16

DESIGN FOR 12°04'33.30" SKEW
260'X40' WELDED PLATE GIRDER BRIDGE
67'-6" END SPANS 125'-0" INTERIOR SPAN
SUPERSTRUCTURE DETAILS
STATION: 478+93.08 (E N.B. LANE U.S. NO. 561) JUNE, 1978
STATION: 2479+28.20 (MT. JOY ROAD & N.B. LANE)
SCOTT COUNTY
IOWA DEPARTMENT OF TRANSPORTATION-HIGHWAY DIVISION
DESIGN SHEET NO. 11 OF 23 FILE NO. 25588 DESIGN NO. 1080

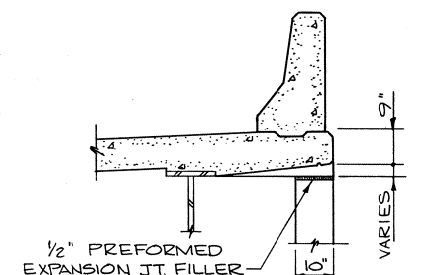
SCOTT COUNTY

PROJECT NUMBER

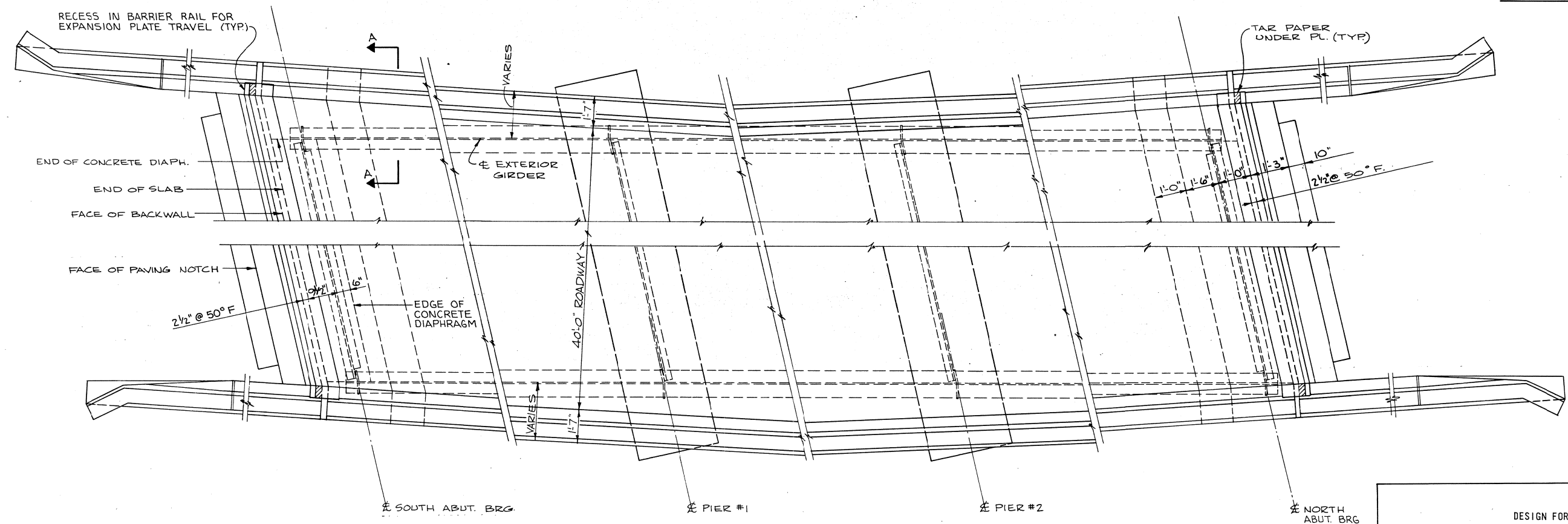
STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
IOWA	5		72	125



PART LONGITUDINAL SECTION NEAR EXTERIOR GIRDER



SECTION A-A



PART PLAN

DESIGN FOR 12°04'33.30" SKEW
 260'X40' WELDED PLATE GIRDER BRIDGE
 67'-6" END SPANS 125'-0" INTERIOR SPAN
 SUPERSTRUCTURE DETAILS
 STATION: 478+93.08 (E N.B. LANE US NO. 561) JUNE, 1978
 STATION: 2478+28.20 (E MT. JOY ROAD & N.B. LANE)
 SCOTT COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION-HIGHWAY DIVISION
 DESIGN SHEET NO. 12 OF 23 FILE NO. 25588 DESIGN NO. 1080

SCOTT COUNTY

PROJECT NUMBER

STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
IOWA	5		73	125

SUPERSTRUCTURE NOTES:

THIS BRIDGE IS DESIGNED FOR HS20-44 LOADING, PLUS 20 LB. PER SQUARE FOOT OF ROADWAY FOR FUTURE WEARING SURFACE.

MINIMUM CLEAR DISTANCE FROM EDGE OF BAR TO FACE OF CONCRETE IS TO BE 2" UNLESS OTHERWISE NOTED OR SHOWN.

THE FLOOR SLAB AS SHOWN INCLUDES 1/2" OF WEARING SURFACE.

ALL FIELD CONNECTIONS ARE TO BE BOLTED USING "HIGH TENSILE STRENGTH BOLTS", UNLESS OTHERWISE NOTED. ALL OPEN HOLES ARE TO BE 15/16" Ø AND ALL BOLTS ARE TO BE 7/8" Ø.

BOTTOM FLANGES ARE TO BE PERPENDICULAR TO WEBS AT THE REACTION JOINTS.

ALL PAINT IS TO BE OMITTED ON TOPS OF TOP FLANGES AND ON OTHER STEEL SURFACES IN CONTACT WITH CONCRETE. PARTS INACCESSIBLE AFTER ERECTION ARE TO BE GIVEN THE FULL PAINT SYSTEM IN THE SHOP.

FORMS FOR THE SLAB AND BARRIER RAIL ARE TO BE SUPPORTED BY THE GIRDERS.

FILL THICKNESS SHOWN ON PLANS ARE BASED ON NOMINAL BEAM OR GIRDER DIMENSIONS. THESE THICKNESSES ARE TO BE VERIFIED OR ADJUSTED DURING FABRICATION TO SECURE A CLOSE FIT. EACH FILL PLATE SHALL FIT TO THE NEAREST 1/16" IN THICKNESS AND SINGLE PLATES ARE REQUIRED AT ANY FILL LOCATION. BEAMS OR GIRDERS ARE TO BE TRULY SQUARE AT SPLICE POINTS WITH FLANGES PERPENDICULAR TO WEBS.

THE DESIGN DRAWINGS INDICATE AWS PREQUALIFIED WELDED JOINTS, AND UNLESS OTHERWISE NOTED THE DESIGN JOINT DETAILS ARE FOR MANUAL SHIELDED METAL-ARC WELDING. ALTERNATE JOINT DETAILS MAY BE SUBMITTED FOR APPROVAL.

MAGNETIC PARTICLE INSPECTION OF WELDS, IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, WILL BE REQUIRED FOR THE WEB TO FLANGE WELDS AND THE BEARING STIFFENER WELDS OF THE GIRDERS.

STUD SHEAR CONNECTORS ARE TO BE WELDED IN THE SHOP OR IN THE FIELD AT THE LOCATIONS SHOWN ON THE DESIGN PLANS OR THE APPROVED SHOP DRAWINGS.

FAYING SURFACES AT DIAPHRAGM CONNECTIONS ARE TO BE GIVEN THE SHOP COAT OF PAINT.

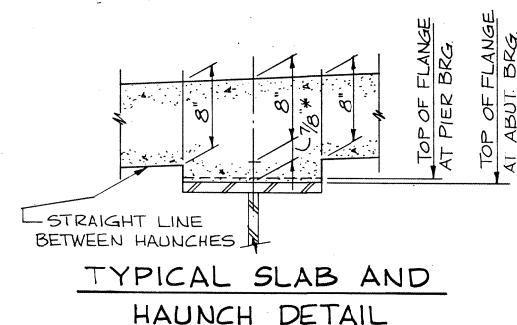
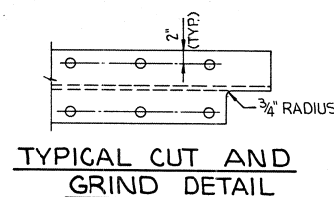
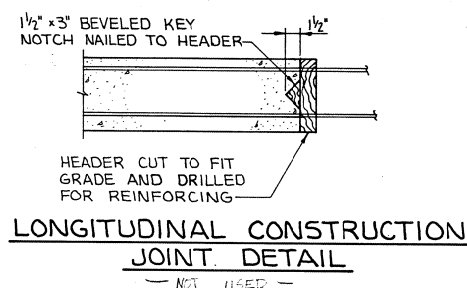
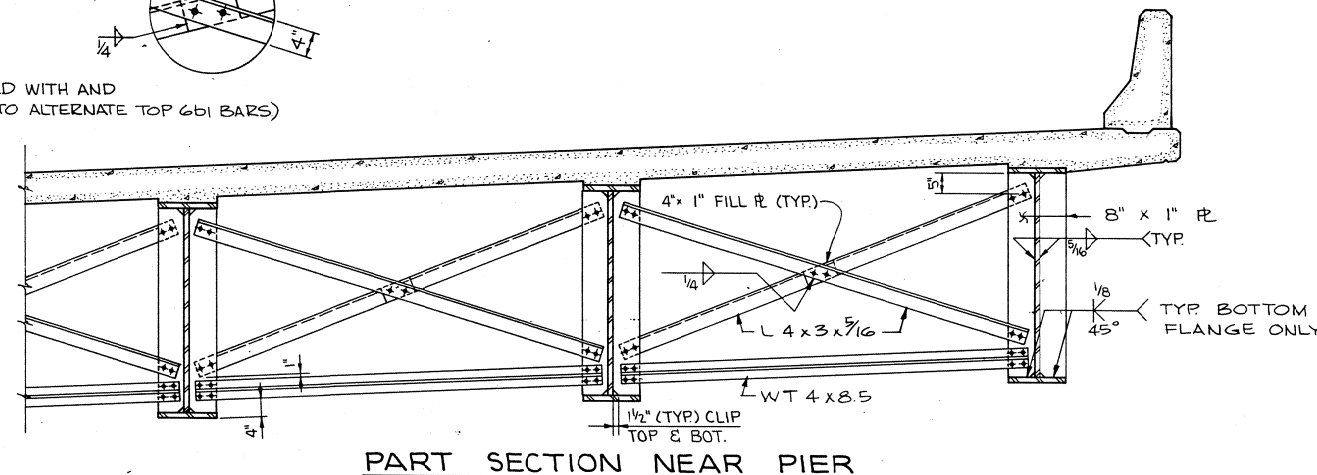
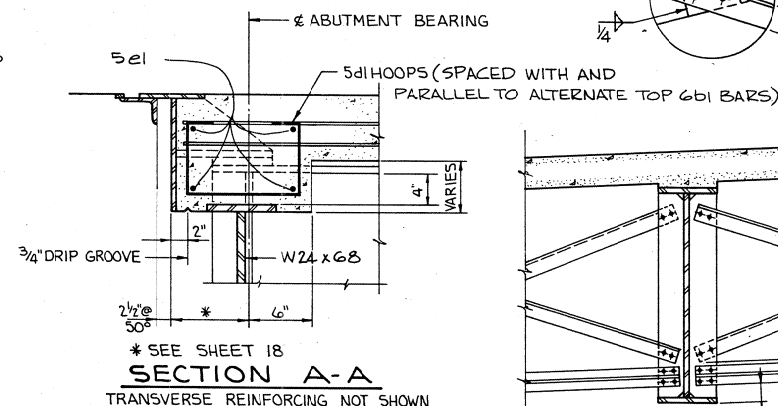
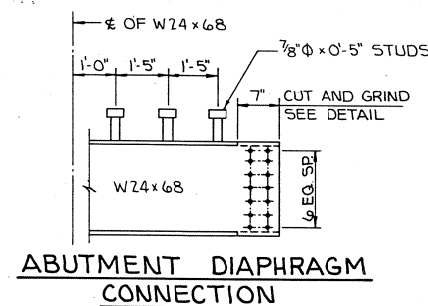
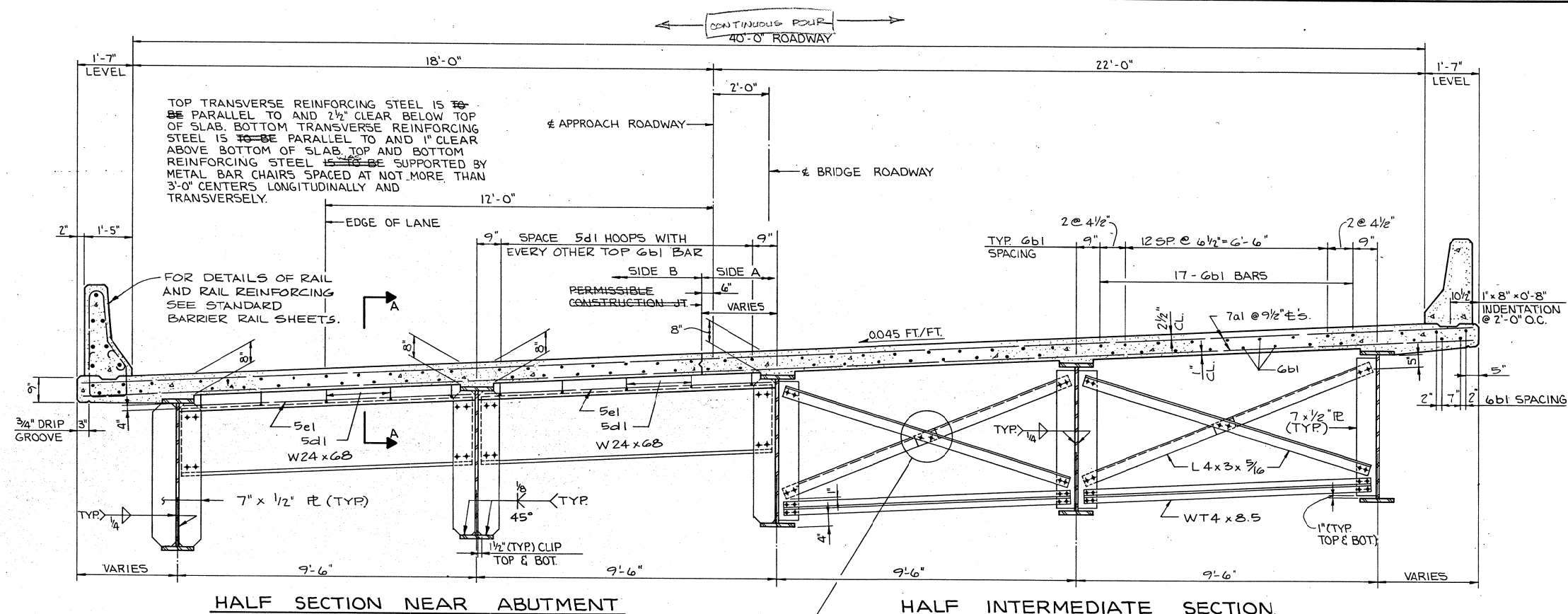
THE SLAB TRANSVERSE AND LONGITUDINAL REINFORCING, 7a AND 6b BARS, ARE TO BE GRADE 60 REINFORCING. ALL OTHER REINFORCING MAY BE GRADE 40.

THE TOP LAYER OF SLAB TRANSVERSE AND LONGITUDINAL REINFORCING, 7a AND 6b BARS ARE TO BE EPOXY-COATED. THE EPOXY COATING SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS OF THE IOWA D.O.T., SERIES OF 1977.

TRANSVERSE SLAB REINFORCING MAY BE SPLICED WITH ONE LAP LOCATED AS FOLLOWS:

TOP BARS - LAP MIDWAY BETWEEN GIRDERS
BOTTOM BARS - LAP OVER GIRDERS

PAYMENT FOR REINFORCING BARS SHALL BE BASED ON NO SPLICES, AND NO ALLOWANCE SHALL BE MADE FOR THE ADDITIONAL LENGTH OF BAR REQUIRED FOR THE USE OF SPLICES.



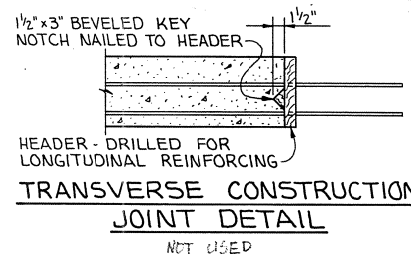
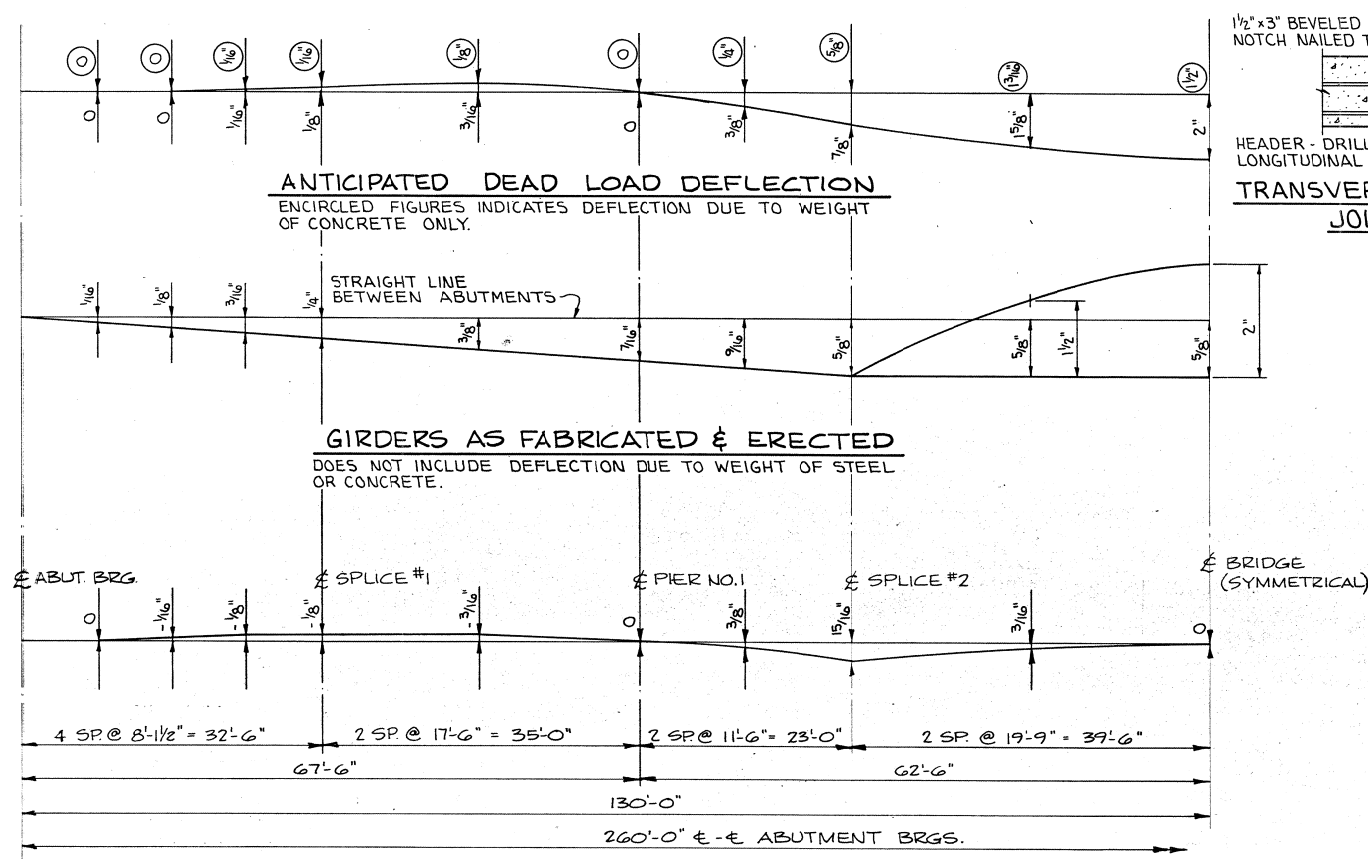
* THE HAUNCH DIMENSION SHOWN IS THE NOMINAL HAUNCH DIMENSION NEAR THE ABUTMENT BEARINGS. FOR THE SLAB THICKNESS OVER THE BEAM AT ANY LOCATION THE NOMINAL HAUNCH DIMENSION IS TO BE DECREASED BY THE ADDITIONAL FLANGE THICKNESS AT THAT POINT AND INCREASED BY THE AMOUNT INDICATED ON THE "HAUNCH THICKENING DIAGRAM" SHOWN ON SHEET 14, AND MAY BE INCREASED OR DECREASED TO COMPENSATE FOR CONSTRUCTION INACCURACIES. THE MAXIMUM HAUNCH ALLOWED IS 2 INCHES AND THE MINIMUM HAUNCH ALLOWED IS 0 INCHES.

DESIGN FOR 12° 04' 33.30" SKEW
260'x40' WELDED PLATE GIRDER BRIDGE
67'-6" END SPANS 125'-0" INTERIOR SPAN
SUPERSTRUCTURE DETAILS
STATION: 478+93.08 (N.B. LANE US NO. 561) JUNE, 1978
STATION: 2479+28.20 (MT. JOY ROAD & N.B. LANE)
SCOTT COUNTY
IOWA DEPARTMENT OF TRANSPORTATION-HIGHWAY DIVISION
DESIGN SHEET NO. 13 OF 23 FILE NO. 25588 DESIGN NO. 1080

SCOTT COUNTY

PROJECT NUMBER

STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
IOWA	5		74	125



CONCRETE PLACEMENT QUANTITIES		
LOCATION	SIDE A	SIDE B
SECTION 1	22.1	17.5
SECTION 2	22.1	17.5
SECTION 3	44.5	35.3
SECTION 4	35.1	27.3
SECTION 5	34.8	27.7
LIGHTING POLE BASE	.5	-
TOTAL (CU. YD.)	159.1	125.3

FINAL ESTIMATED QUANTITIES		
ITEM	UNIT	QUANTITY
STRUCTURAL CONCRETE, CLASS "D"	CU. YD.	284.4
REINFORCING STEEL	LBS.	44,257
REINFORCING STEEL - EPOXY COATED	LBS.	57,114
STRUCTURAL STEEL - A36	LBS.	322,361

INCLUDES QUANTITIES FOR THE BARRIER RAIL INCLUDING THE END SECTIONS (SEE DES. SHT. 20 & 21) AND THE LIGHTING POLE BASE (SEE DES. SHT. 22)

INCLUDES 147 LBS. OF LUBRICATED BRONZE R, 540 LBS. OF DRAINS AND 385 LBS. OF LEAD PLATE.

EPOXY-COATING NOTES:

ALL TOP OF SLAB REINFORCING STEEL, BOTH LONGITUDINAL AND TRANSVERSE BARS, SHALL BE EPOXY-COATED IN ACCORDANCE WITH CURRENT SPECIAL PROVISIONS AND SUPPLEMENTAL SPECIFICATIONS OF THE IOWA D.O.T. HIGHWAY DIVISION

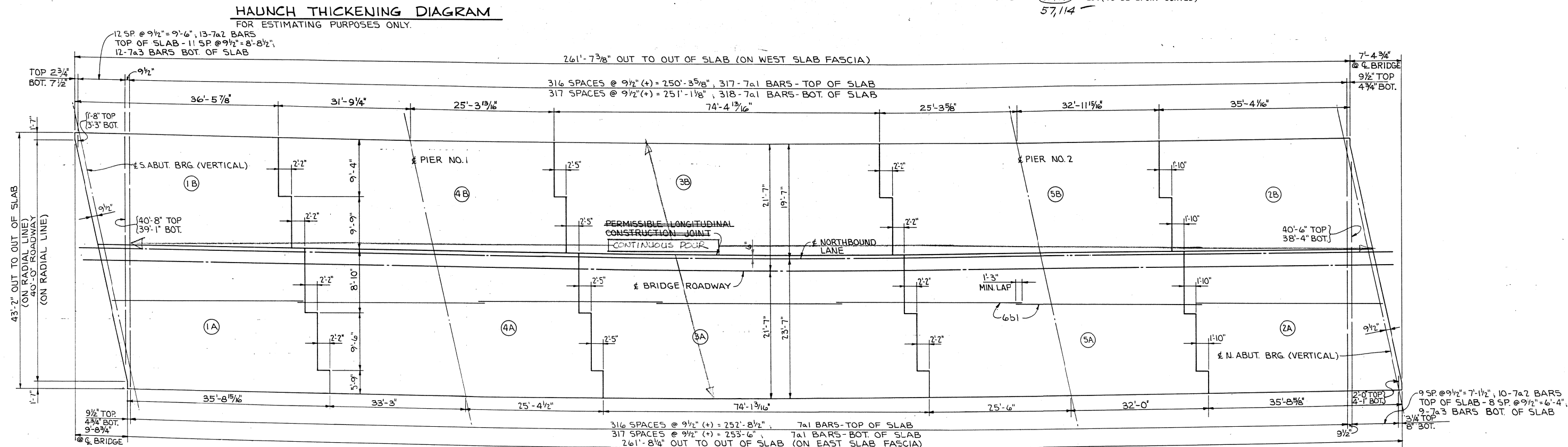
FROM THE REINFORCING BAR LIST SHOWN ON THIS SHEET, THE BARS SHALL BE EPOXY-COATED:

317 OF THE 7a1 =	27,754
ALL OF THE 7a2 =	997
274 OF THE 6d1 =	16,964
ALL OF THE 5d1 =	5,114
16 OF THE 5e1 =	159
BARRIER RAIL	10,928
LIGHTING POLE BASE =	198
TOTAL =	57,114

LBS. (TO BE EPOXY-COATED)

REINFORCING STEEL					
BAR	LOCATION	SHAPE	NO.	LENGTH	WEIGHT
7a1	SLAB TRANSVERSE - TOP AND BOTTOM		635	42'-10"	55,595
7a2	SLAB TRANSVERSE - TOP - ENDS		23	VARIES	997
7a3	SLAB TRANSVERSE - BOTTOM - ENDS		21	VARIES	909
6d1	SLAB LONGITUDINAL - TOP AND BOTTOM		560	38'-5"	32,313
5d1	SLAB HOOPS @ ABUTMENT DIAPHRAGMS		40	2'-9"	114
5e1	SLAB TRANSVERSE @ ABUTMENT DIAPHRAGMS		32	9'-6"	317
	BARRIER RAIL (SEE DES. SHT. 20 & 21)				10,928
	LIGHTING POLE BASE (SEE DES. SHT. 22)				198
SEE EPOXY COATING NOTES ON THIS SHEET					TOTAL (LBS.)
					101,371

BENT BAR DETAILS	
	<p>NOTE: ALL DIMENSIONS ARE OUT TO OUT.</p>



CONCRETE PLACEMENT DIAGRAM AND REINFORCING LAYOUT

NOTE: ROADWAY SLAB SHALL BE PLACED IN SECTIONS AND IN SEQUENCE INDICATED BY ENCIRCLED NUMBERS ON PLACEMENT DIAGRAM AND PREFERRED AT INTERVALS NOT EXCEEDING 24 HOURS. ALL SLAB REINFORCING IS TO BE IN PLACE BEFORE ANY SECTION IS POURED. ALTERNATE PROCEDURES FOR PLACING CONCRETE MAY BE SUBMITTED FOR APPROVAL, TOGETHER WITH A STATEMENT OF THE PROPOSED METHOD AND EVIDENCE THAT THE CONTRACTOR POSSESSES THE NECESSARY EQUIPMENT AND FACILITIES TO ACCOMPLISH THE REQUIRED RESULT. ANY ALTERNATE PROCEDURE HOWEVER MUST PROVIDE FOR PLACING OF THE END SPANS BEFORE PLACING THE CENTER SPAN.

Revision 03-06-81: Number and weight of 5d1 reinforcing bars corrected.

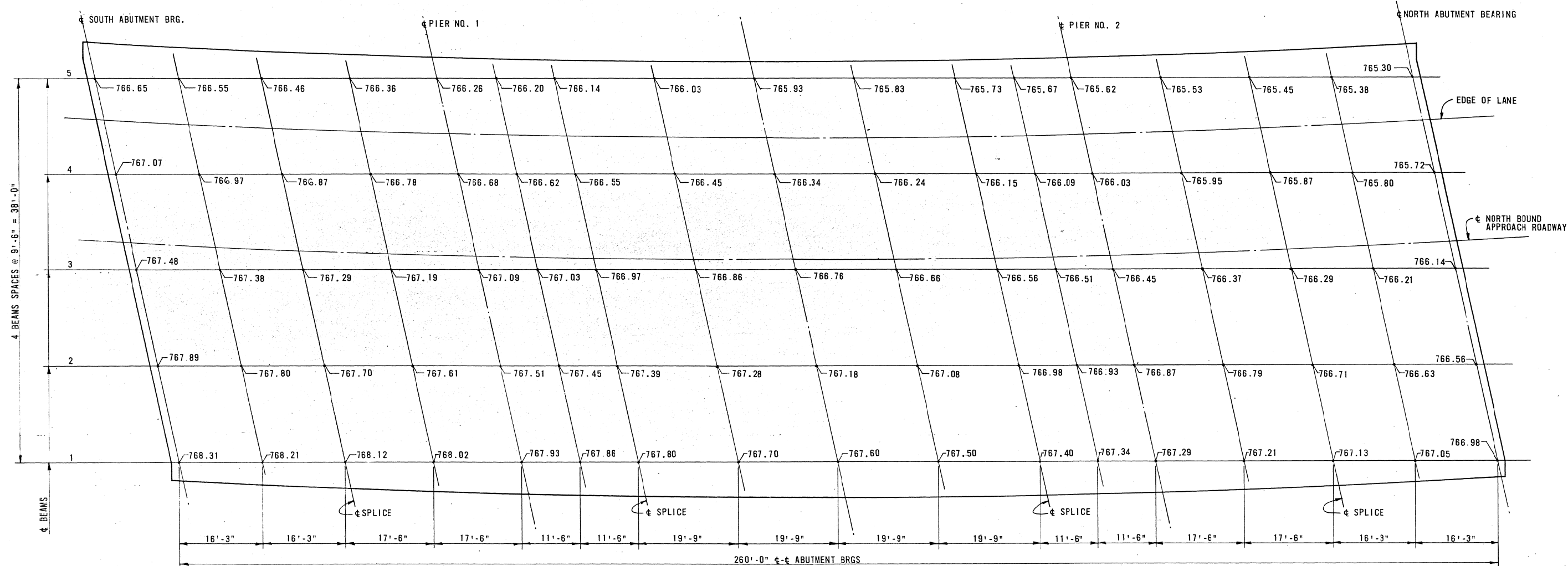
SCOTT COUNTY

PROJECT NUMBER

DESIGN FOR 12°04'33.30" SKEW
260'x40' WELDED PLATE GIRDER BRIDGE
67'-6" END SPAN 125'-0" INTERIOR SPAN
SUPERSTRUCTURE DETAILS JUNE, 1978
STATION: 478+93.08 (N.B. LANE US NO. 561)
STATION: 2479+28.20 (E.M.T. JOY ROAD & N.B. LANE)
SCOTT COUNTY
IOWA DEPARTMENT OF TRANSPORTATION-HIGHWAY DIVISION
DESIGN SHEET NO. 14 OF 23 FILE NO. 25588 DESIGN NO. 1080

STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
IOWA	5	75	75	125

7/7 1087-115

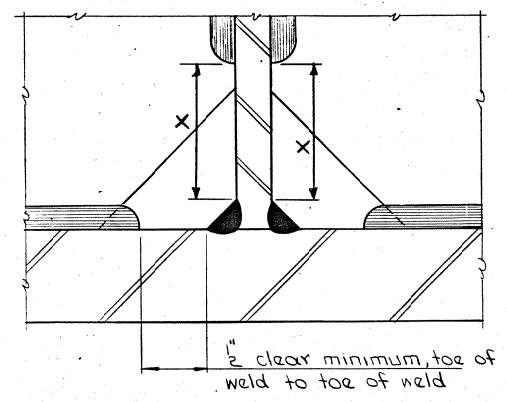
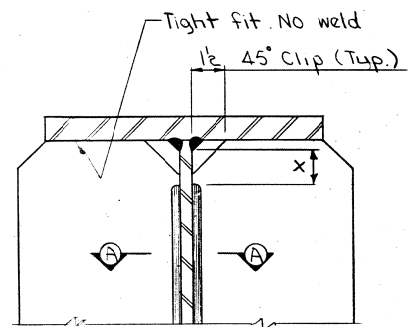


DESIGN FOR 12°04'33.30" SKEW
 260'X40' WELDED PLATE GIRDER BRIDGE
 67'-6" END SPANS 125'-0" INTERIOR SPAN
 SUPERSTRUCTURE DETAILS JUNE, 1978
 STATION: 478+93.08(\pm N.B. LANE US NO. 561)
 STATION: 2479+28.20(\pm MT. JOY ROAD & N.B. LANE)
 SCOTT COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION-HIGHWAY DIVISION
 DESIGN SHEET NO. 15 OF 23 FILE NO. 25588 DESIGN NO. 1080

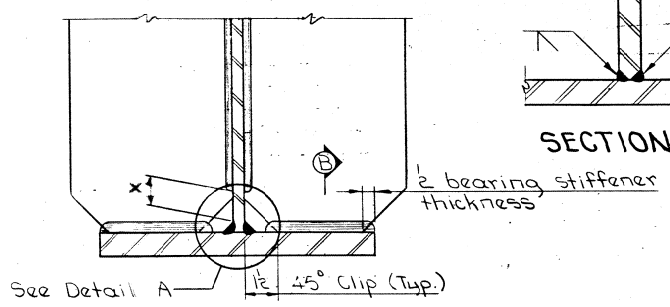
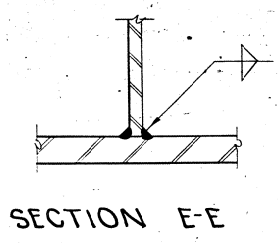
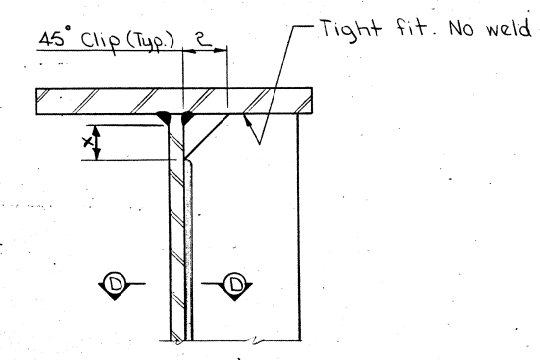
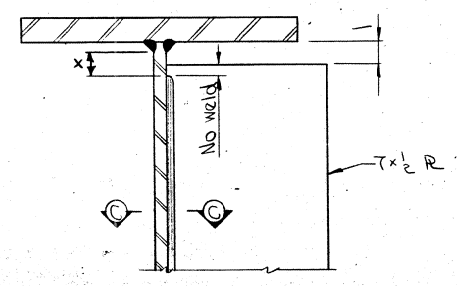
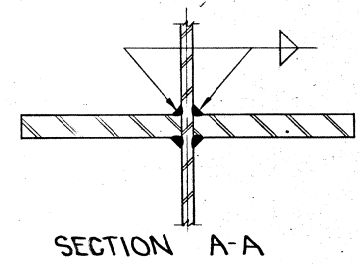
SCOTT COUNTY

PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	IOWA	5		76	135

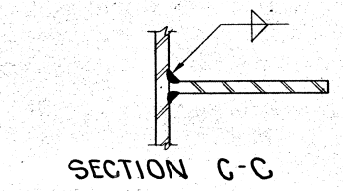
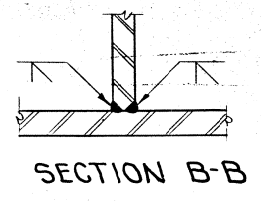
130



DETAIL A

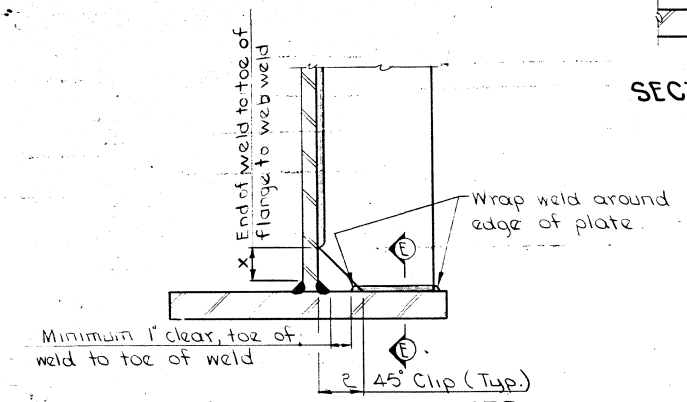


BEARING STIFFENER



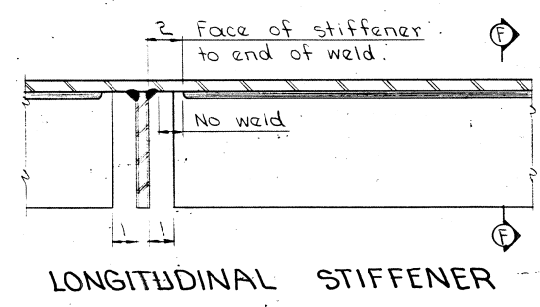
DIAPHRAGM STIFFENER

Note: Used where no intermediate stiffeners are required. If intermediate stiffeners are required the diaphragm stiffener is to be welded the same, as the intermediate stiffeners.

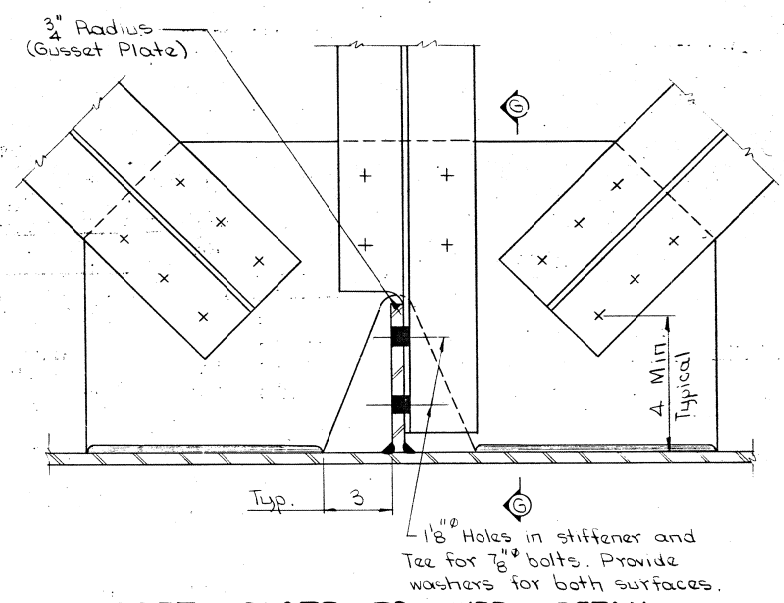


INTERMEDIATE STIFFENER

NOTE:
This sheet is primarily for the use of fabricator's workmen and Iowa Department of Transportation inspectors in interpreting plan details. It covers the locations of weld termini that are not specified by typical weld symbols.
The acceptability and use of the weld treatment shown on this sheet for any specific project is the responsibility of the designing engineer.

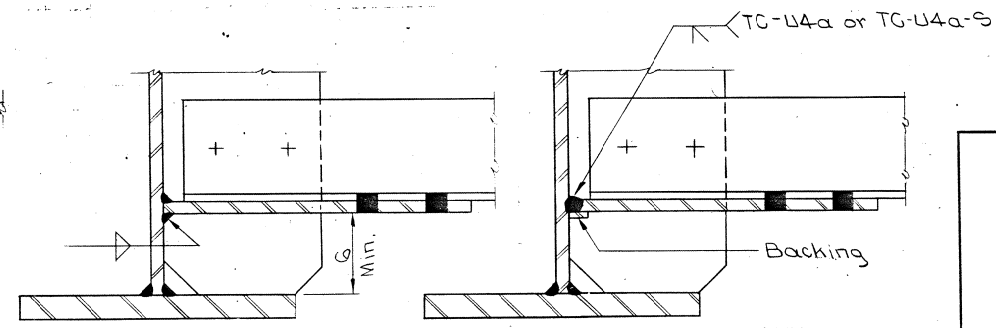


LONGITUDINAL STIFFENER



GUSSET PLATE TO WEB DETAIL

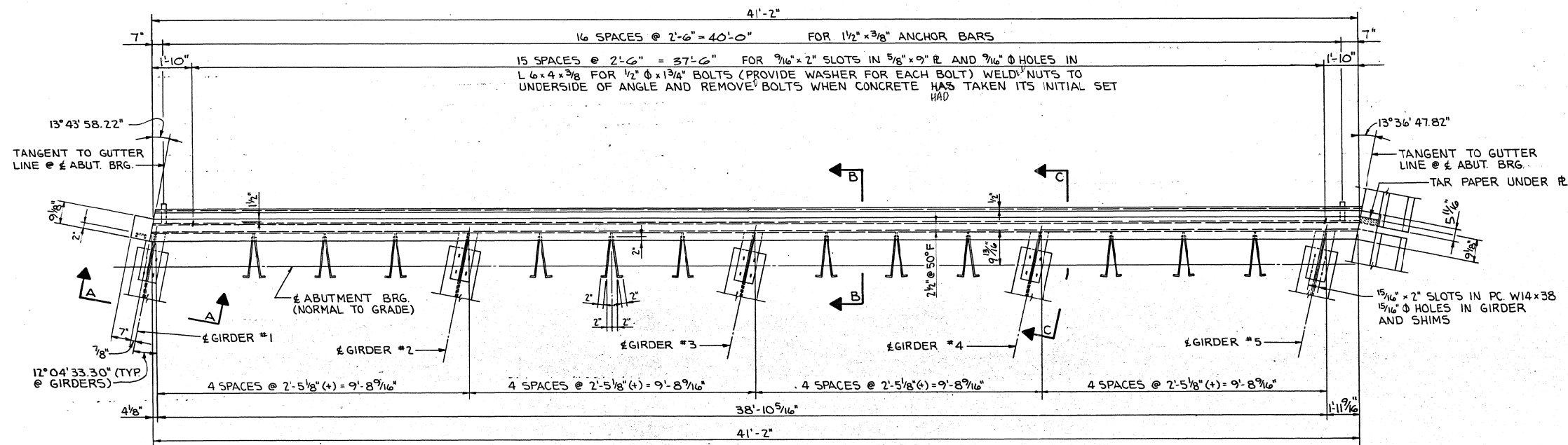
Web Thickness	X = 5t
3/8	1 1/8
7/16	2 3/16
1/2	2 1/2
5/8	2 11/16
3/4	3 1/8
7/8	3 7/8
1	4 1/4



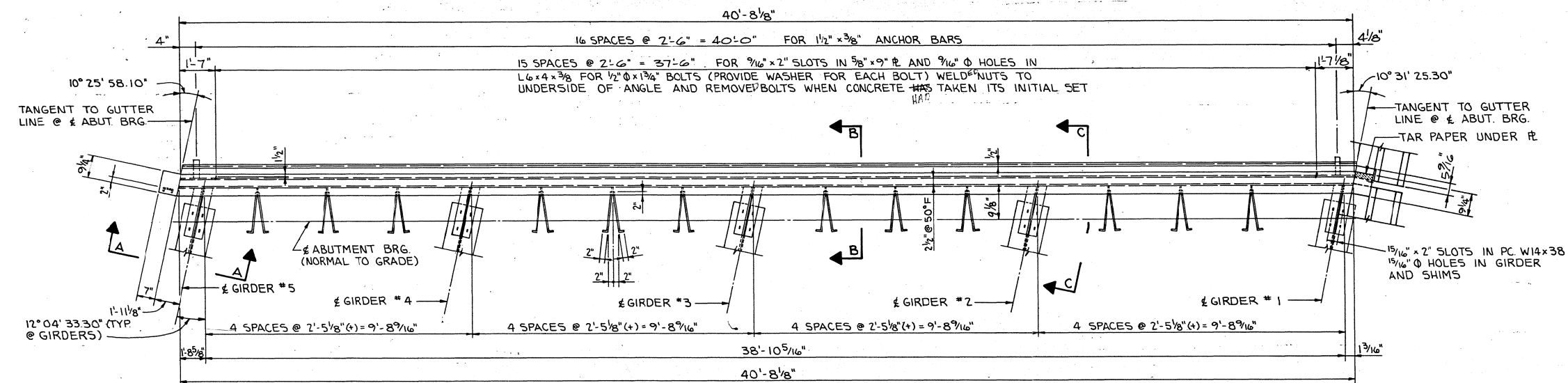
ALTERNATE SECTIONS G-G

DESIGN FOR 12°04'33.30" SKEW
260'X40' WELDED PLATE GIRDER BRIDGE
67'-6" END SPANS 125'-0" INTERIOR SPAN
WELDING DETAILS
STATION: 478+93.08 (± N.B. LANE US NO. 561) JUNE, 1978
STATION: 2479+28.20 (± MT. JOY ROAD & N.B. LANE)
SCOTT COUNTY
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
Design Sheet No.: 17 Of 23 File No.: 25588 Design No.: 1080

Revised 8-1-77: Stiffener weld gap changed.
Revised 5-2-77: Gusset plate to Web Details changed.
Issued 1-1-78



SOUTH ABUTMENT EXPANSION PLATE DETAILS



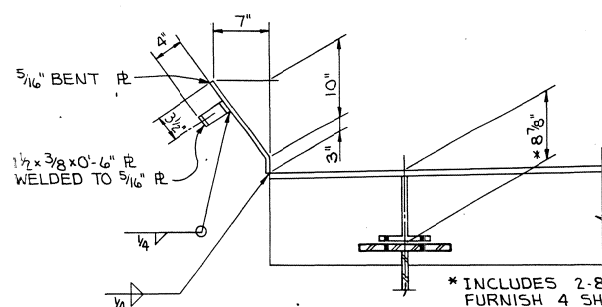
NORTH ABUTMENT EXPANSION PLATE DETAILS

NOTES:

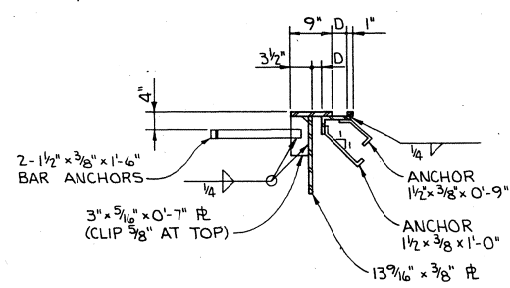
DIMENSION "D" IS 2 1/2" FOR A TEMPERATURE OF 50°F. SEE "ROCKER AND EXPANSION PLATE SETTING DIAGRAM" ON DESIGN SHEET 11 FOR SETTINGS FOR 10°F AND 90°F.

9/16" X 2" SLOTS IN 9" X 5/8" PLATE FOR 1/2" BOLTS ARE TO BE PLACED PARALLEL TO ROADWAY.

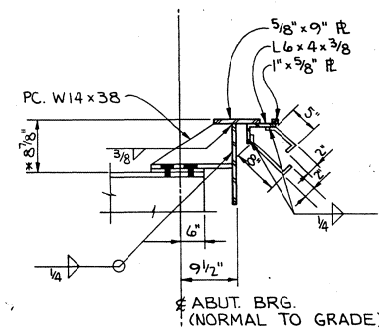
ONE PERMISSIBLE SHOP SPLICE MAY BE MADE IN ANY EXPANSION PLATE PROVIDING THE PIECES ARE JOINED WITH A PREQUALIFIED SINGLE GROOVE WELD AND ALL SURFACES NOT IN CONTACT WITH CONCRETE ARE GROUND FLUSH.



VIEW A-A



SECTION B-B



SECTION C-C

DESIGN FOR 12°04'33.30" SKEW
260'X40' WELDED PLATE GIRDER BRIDGE
67'-6" END SPANS 125'-0" INTERIOR SPAN
EXPANSION PLATE DETAILS JUNE, 1978
STATION: 478+93.08 (N.B. LANE US NO. 561)
STATION: 2479+28.20 (MT. JOY ROAD & N.B. LANE)
SCOTT COUNTY
IOWA DEPARTMENT OF TRANSPORTATION-HIGHWAY DIVISION
DESIGN SHEET NO. 18 OF 23 FILE NO. 25588 DESIGN NO. 1080

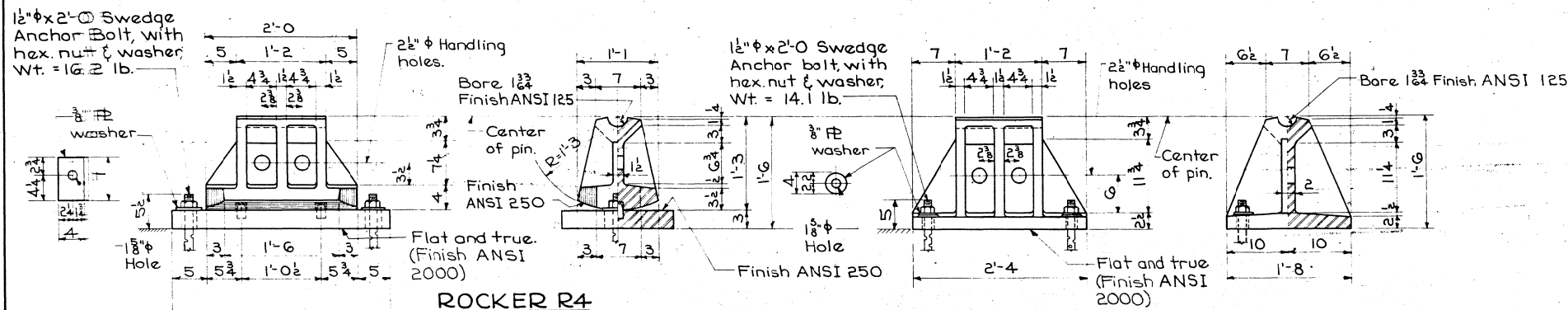
SCOTT

COUNTY

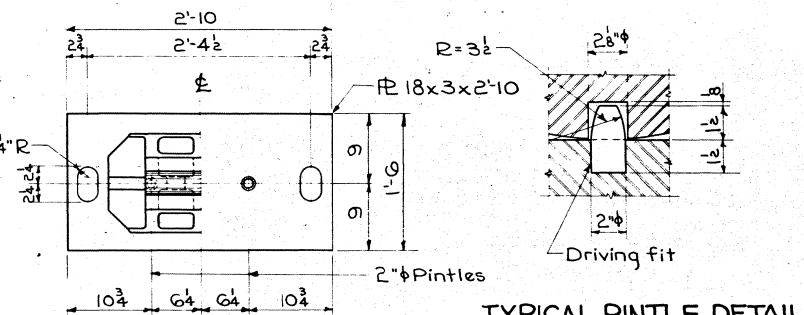
PROJECT NUMBER

STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
IOWA	5		24	130

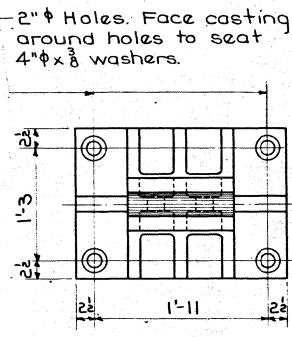
Revision (12-12-62) Pintle size changed
Revision (7-6-64) Finish on shoes and piers, all in contact with concrete added.
Revision (5-27-65) Weights for MP4P, MP5Pa and MP5Pb changed.
Revision (6-20-66) Nodular Iron Casting ASTM number and grade changed.
Revision (3-28-70) ASA changed to ANSI.
Revision (11-22-72) Note concerning finishing changed.
Revision (7-11-73) Material for Rockers, Shoes and Piers changed.
Revision (8-29-77) Notes concerning material to fill slots and seating of bearings changed.



ROCKER R4
Wt. = 464 lb.

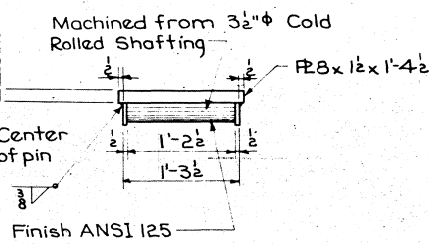


PIER MASONRY PLATE MP4P
Wt. = 462 lb.

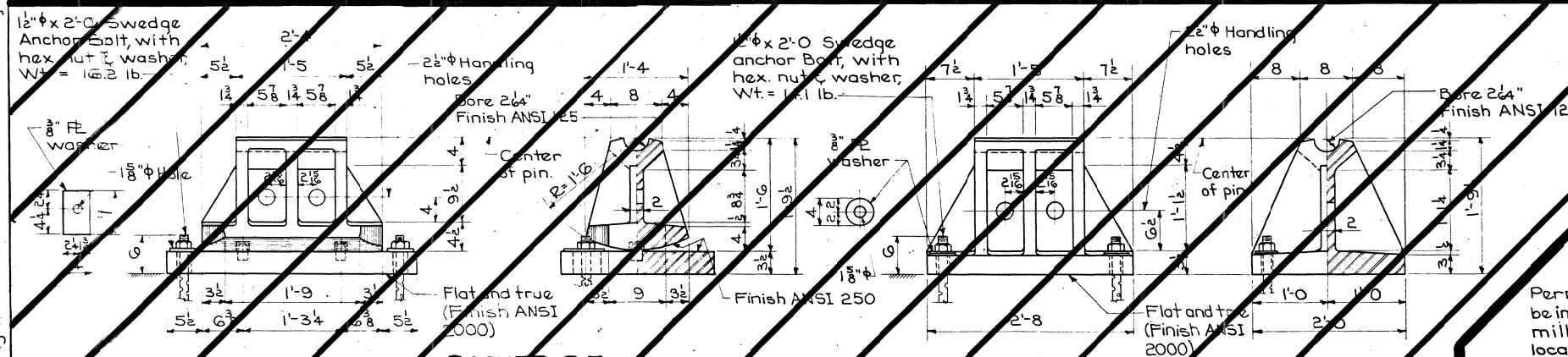


TYPICAL PINTLE DETAIL

FIXED SHOE S4
Wt. = 735 lb.



SOLE PLATES SP4
FOR R4 & S4
Wt. = 85 lb.



ROCKER R5
Wt. = 776 lb.

PIER MASONRY PLATE MP5Pa FOR SPAN LENGTH GREATER THAN 150'
Wt. = 808 lb.

PIER MASONRY PLATE MP5Pb FOR SPAN LENGTH 101' TO 150'
Wt. = 825 lb.

FIXED SHOE S5
Wt. = 1274 lb.

SOLE PLATES SP5 FOR R5 & S5
Wt. = 159 lb.

BEARING NOTES:

Castings R4 and S4 shall be Nodular Iron Castings complying with Article 4153.04 of the Standard Specifications. Masonry plates MP4P shall be either Nodular Iron Castings complying with Article 4153.04 or structural steel complying with ASTM A-588, except that the supplementary requirement S, (Impact Properties) of AASHTO M 222 shall not apply.

All plates and bars shall comply with ASTM A-36. Pins shall comply with Article 4153.02 of the Standard Specifications and with ASTM A-108.

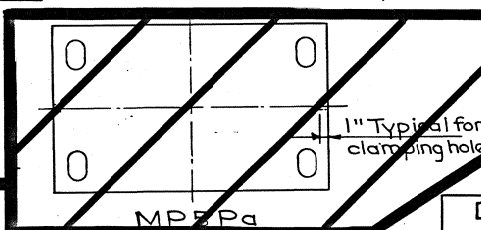
Anchor bolts shall be set in accordance with Article 2408.47 of the Standard Specifications.

All bearings are to be set on a 1/8" lead sheet in accordance with Article 2408.38 of the Specifications.

The weight of bearings shown does not include the weight of paint.

As soon as the surfacing process is done, the surfaces finished with an ANSI 125 finish shall be shop coated with an application of waterproof National Lubricating Grease Institute No. 3 multipurpose grease. Just before the erection of the structural steel in the field, the shop coated surfaces are to be wiped clean and a field coat of N.L.G.I. No. 3 grease is to be applied.

After masonry plates, rockers and shoes are in correct location, fill slotted holes around anchor bolts with a sulphur-based compound or epoxy resin adhesive in accordance with Article 2408.47 of the Standard Specifications.



MP5Pa

DISTANCE FROM TOP OF SOLE PLATE TO BRIDGE SEAT

Rockers & Fixed Shoes	* D	
R4 & S4		1'-8 5/8"
R5 & S5		2'-0 7/8"

* Including 1/8" lead sheet.

Permissible cored hole (1 1/4" x 1" deep) may be introduced to facilitate clamping to the milling table. The cored hole should be located at mid depth of plate.

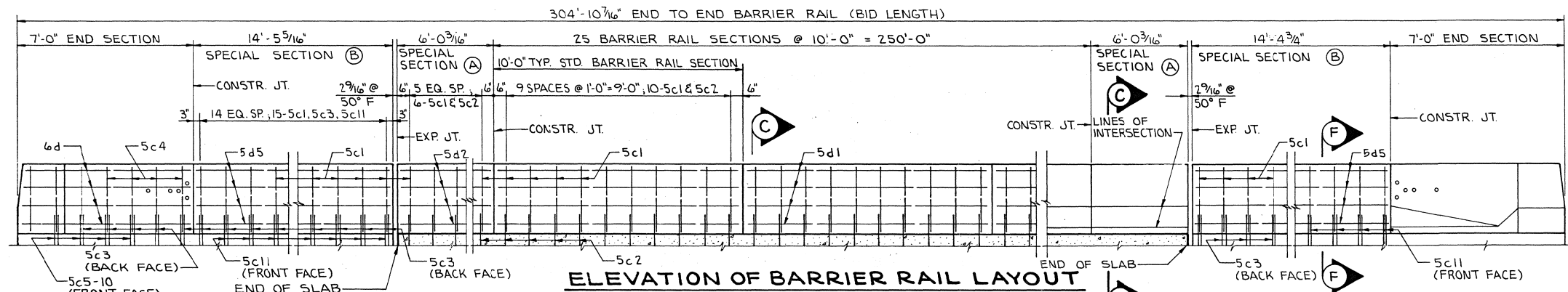
PERMISSIBLE CLAMPING HOLES

MAXIMUM REACTION (In Kips)

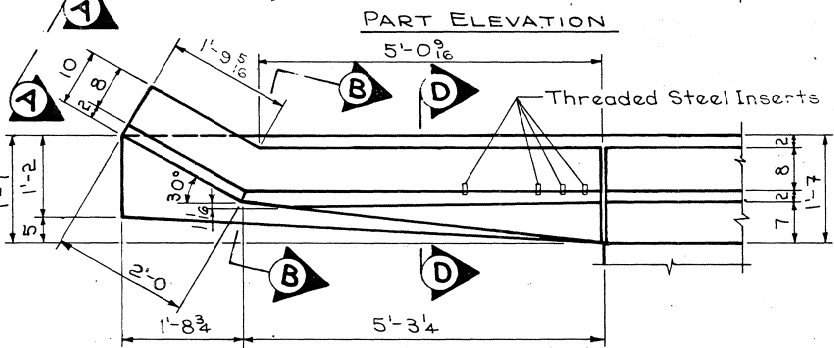
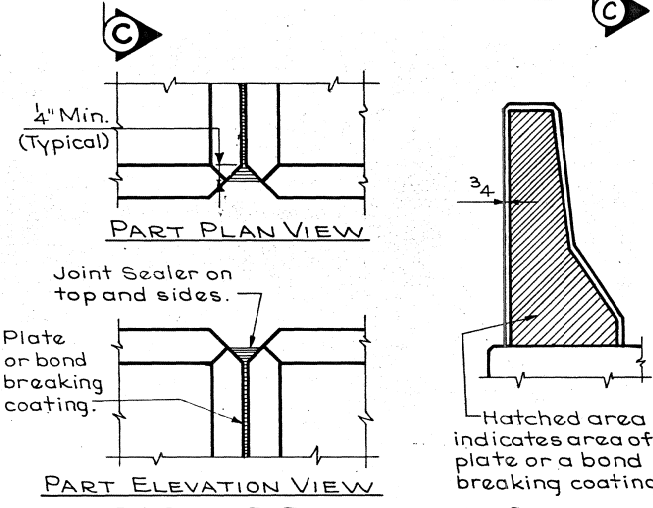
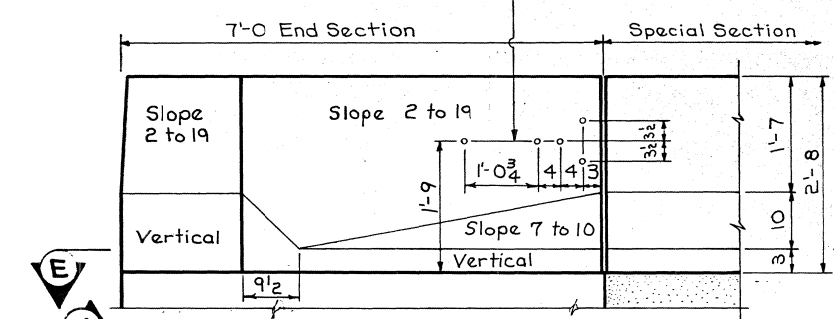
R4 S4	R5 S5
475	660

DESIGN FOR 12°04'33.30" SKEW
260'x40' WELDED PLATE GIRDER BRIDGE
67'-6" END SPANS 125'-0" INTERIOR SPAN
PIER BEARING DETAILS
STATION: 478+93.08 (4 N.B. LANE US NO. 561) JUNE, 1978
STATION: 2479+28.20 (4 MT. JOY ROAD & N.B. LANE)
SCOTT COUNTY
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
Design Sheet No. 19 of 23 File No. 25588 Design No. 1080

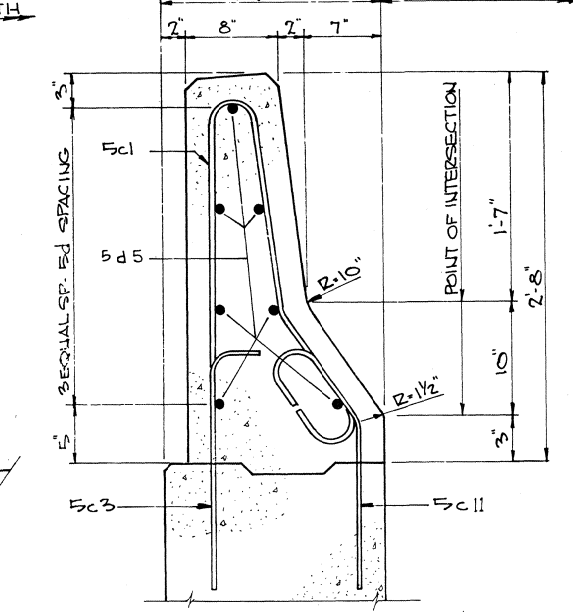
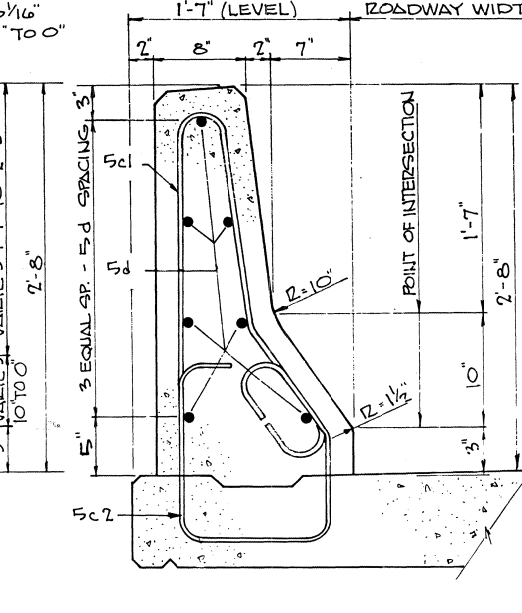
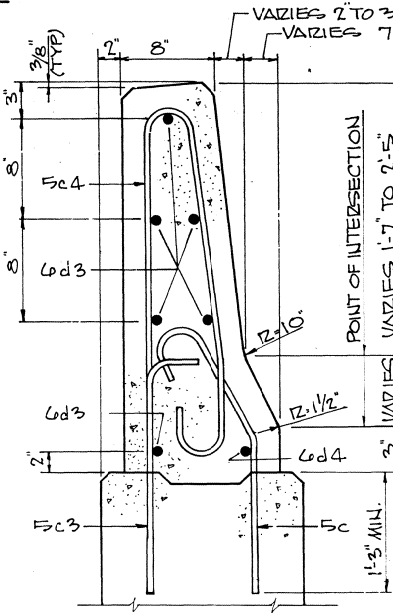
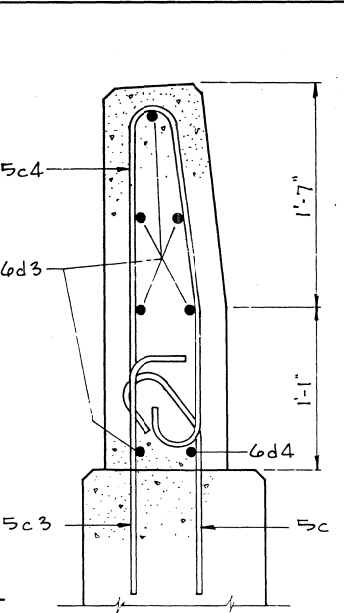
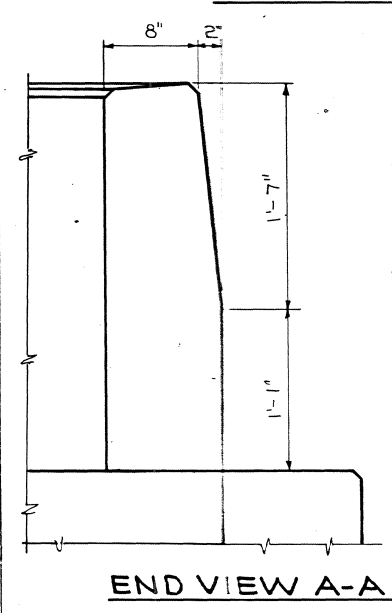
Revised 5-31-77: Reinforcing bars to be epoxy coated after bending, size of d bars changed.
Revised 12-27-76: Joint bond breakers changed. Joint sealer specification added.
Revised 9-1-76: Shape of end section changed. Bid item changed. Note added. End section reinforcing bars changed.
Issued 8-1-76



Provide five threaded steel inserts with solid bottom to fit 7/8 x 2 galvanized cap screws with galvanized round washers. Cost of inserts to be included in price bid for "Structural Concrete". Screws and washers are not a part of this contract.



DETAILS OF END SECTION



BARRIER RAIL NOTES:

Minimum clear distance from face of concrete to near reinforcing bar is ~~to be~~ 2" unless otherwise noted or shown.

All exposed corners 90° or sharper ~~are to be~~ filled with a 3/4" dressed and beveled strip.

Top of the barrier rail is ~~to be~~ parallel to the theoretical grade.

The barrier rail ~~may be~~ placed in sections ~~or~~ continuously. When it is placed continuously a joint sealer, or plexiglass shall be placed at the joints to separate the sections. When the barrier rail is placed in sections the end of the section to be poured against is to be coated with paraffin or other bond breaker approved by the Engineer and the plate separator may be omitted.

The joint sealer shall conform to Fed. Spec. TT-S00230 or TT-S00227 for Type II, Class A or B.

Cost of the joint sealer and bond breaker shall be considered incidental to other construction.

The concrete barrier rail is ~~to be~~ bid on a lineal foot basis measured from end to end of rail. The number of lineal feet of barrier rail installed ~~will be~~ paid for at the contract price per lineal foot based on plan quantities. Price bid for Concrete Barrier Rail shall be full compensation for furnishing all material, excluding reinforcing steel, and all of the equipment and labor required to erect the rail in accordance with these plans and current specifications. All barrier rail reinforcing steel is ~~to be~~ included with the superstructure reinforcing steel.

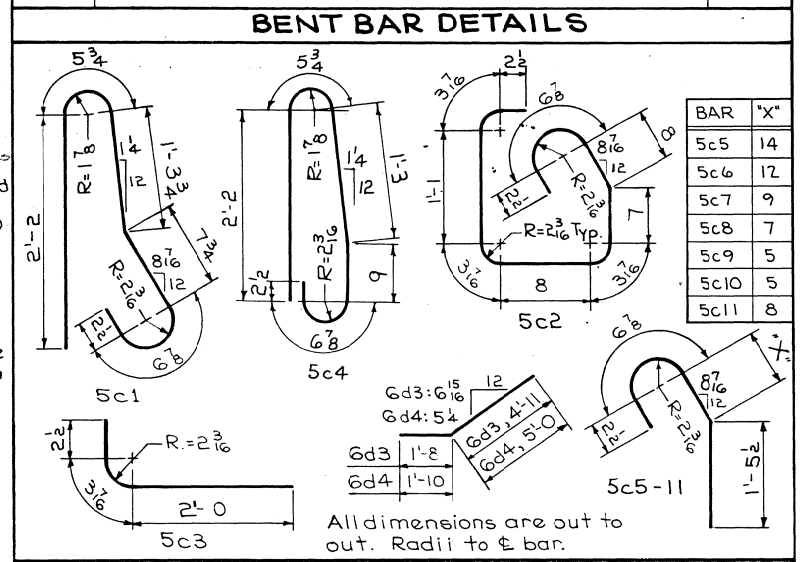
All barrier rail concrete is ~~to be~~ Class D.

All barrier rail reinforcing steel is ~~to be~~ epoxy-coated.

NOTE:

Cross Sectional Area of the Special Section and Standard Section of the Barrier Rail = 2.47 square feet.

REINFORCING STEEL - ONE SECTION						
Section	Bar	Location	Shape	Nº	Length	Weight
10' STANDARD SECTION	5c1	VERTICAL	D	10	5'-5"	56
	5c2	VERTICAL		10	4'-10"	50
	5d1	LONGITUDINAL	E	7	9'-8"	71
	TOTAL FOR ONE SECTION			TOTAL (LB.)		177 ✓
7'-0" END SECTION	5c3	VERTICAL	D	6	2'-6"	16
	5c4	VERTICAL		7	5'-5"	40
	5c5-10	VERTICAL	E	6	VARIES	18
	6d3	LONGITUDINAL		6	6'-7"	59
	6d4	LONGITUDINAL	E	1	6'-10"	10
	TOTAL FOR ONE SECTION			TOTAL (LB.)		143 ✓
SPECIAL SECTIONS (ALL REINFORCING REQUIRED)	5c1	VERTICAL	D	42	5'-5"	237
	5c2	VERTICAL		12	4'-10"	60
	5c3	VERTICAL	E	30	2'-6"	78
	5c11	VERTICAL		30	2'-11"	91
	5d2	LONGIT-SPECIAL SECTIONS (A)	E	14	5'-8"	83
	5d5	LONGIT-SPECIAL SECTIONS (B)		14	14'-0"	204
TOTAL LBS. FOR ALL SPECIAL SECTIONS				TOTAL (LB.)		753 ✓

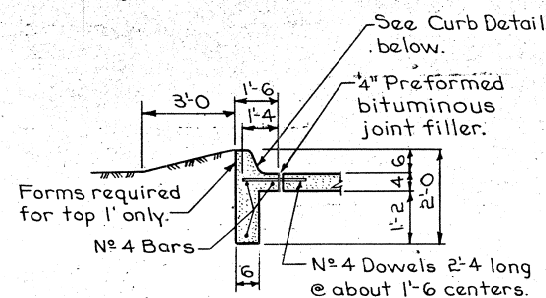
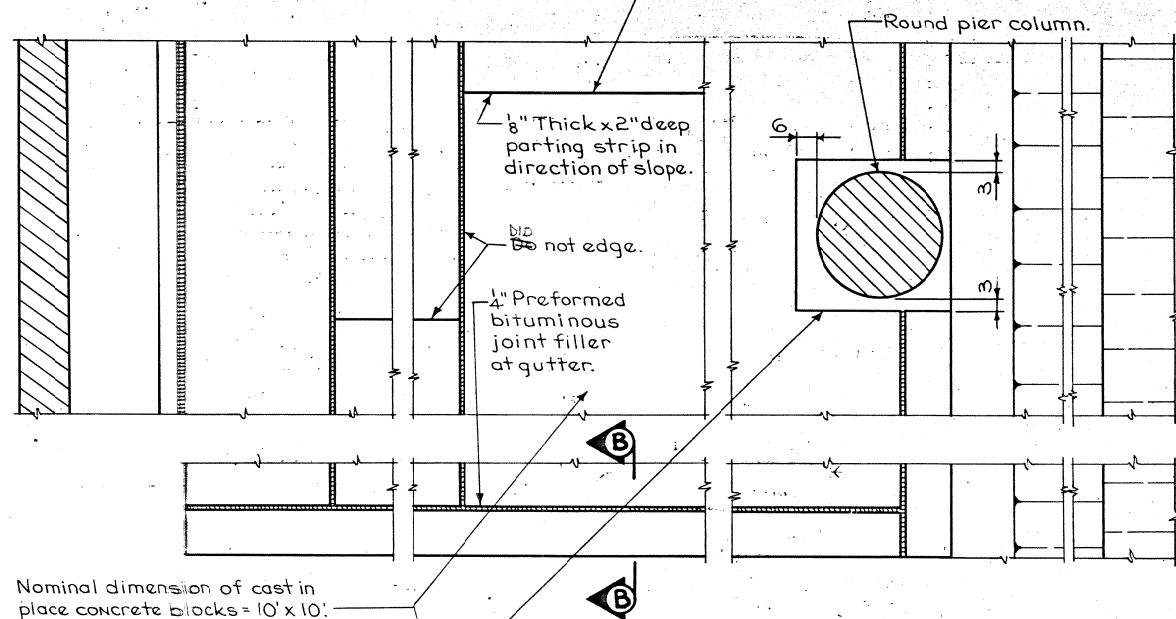
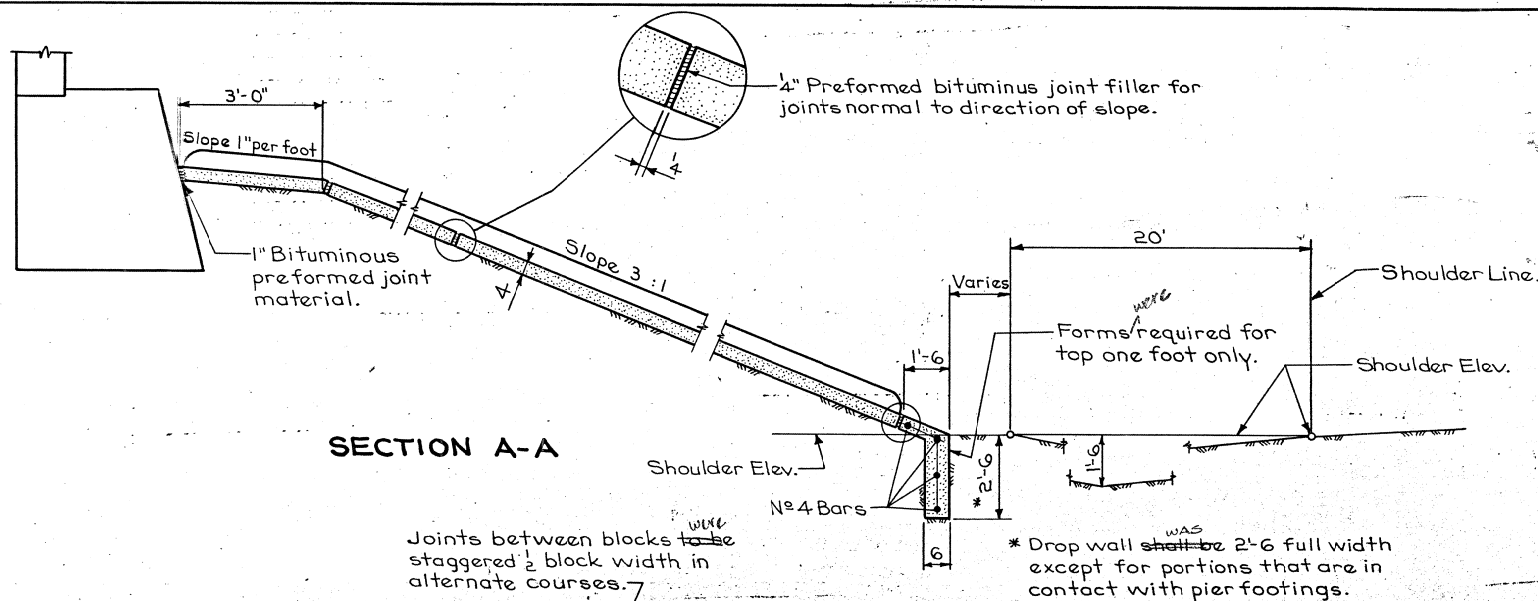


EPOXY REINFORCING SUMMARY			
Section	Number of Sections	Reinforcing Per Section	Total
Standard	25	177	4425
End	2	143	286
Special	4		753
(Include with Superstructure Reinforcing)			Total (lb.) 5464

CONCRETE PLACEMENT SUMMARY			
Section	Number of Sections	Concrete Per Section	Total
Standard	25	.91	22.8
End	2	.58	1.2
Special (A)	2	.55	1.1
Special (B)	2	1.32	2.6
			Total (c.y.) 27.7

CONCRETE BARRIER RAIL QUANTITIES		
Item	Unit	Quantity
EAST CONCRETE BARRIER RAIL	L.F.	3049

DESIGN FOR 12°04'33.30" SKEW
260' X 40' WELDED PLATE GIRDER BRIDGE
67'-6" END SPANS 125'-0" INTERIOR SPAN
EAST CURB BARRIER RAIL DETAILS
STATION: 478+93.08 (N.B. LANE US NO. 561) JUNE, 1978
STATION: 2479+28.20 (E.M.T. JOY ROAD & N.E. LANE)
SCOTT COUNTY
IOWA DEPARTMENT OF TRANSPORTATION-HIGHWAY DIVISION
DESIGN SHEET NO. 20 OF 23 FILE NO. 25588 DESIGN NO. 1080



CURB DETAIL

GENERAL NOTES:

This sheet shows details for placing portland cement concrete slope protection under overhead structures. The standard specifications of the Iowa Department of Transportation shall apply with modifications or additions listed below:

Concrete - Class C, Structural.

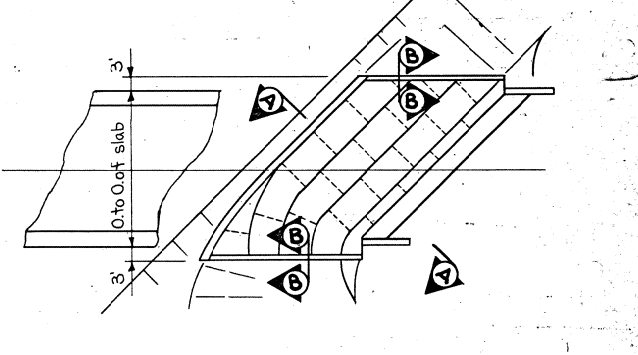
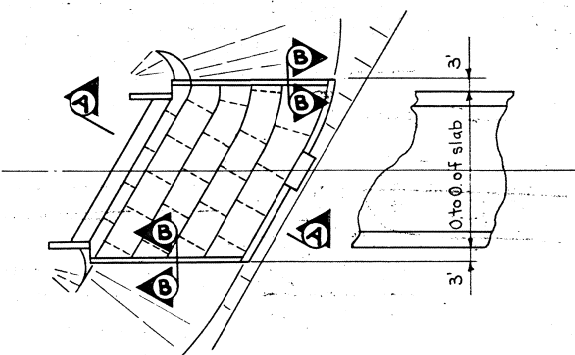
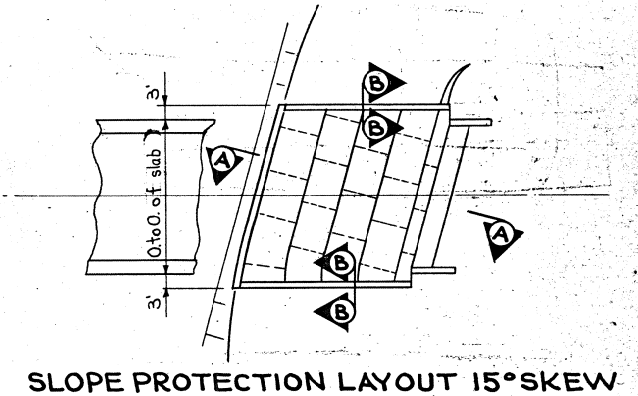
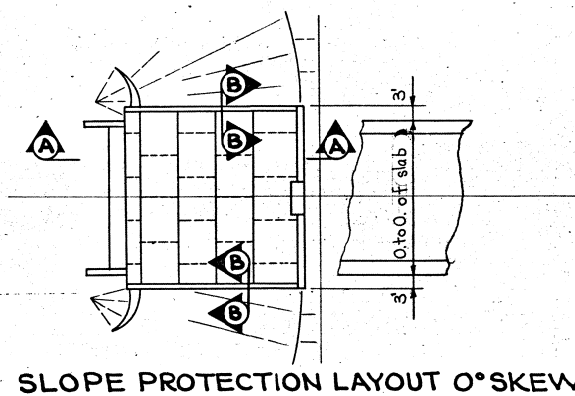
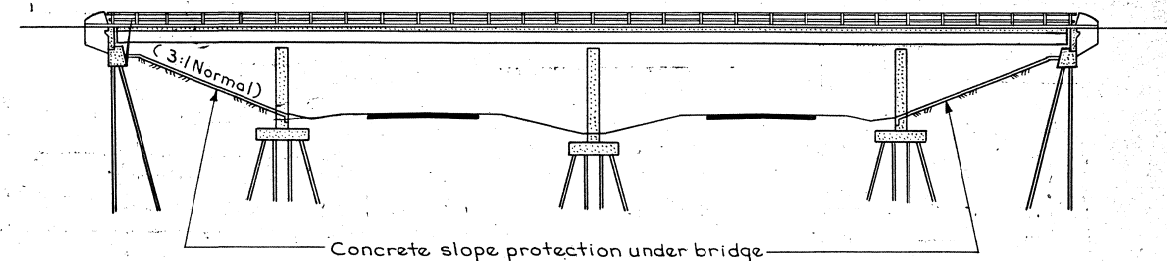
Finish - Class 1, Floated Surface Finish.

Cure - Cure as per current Specifications.

Subgrade Preparation - The subgrade shall be shaped and compacted so that finished slope protection will be similar to examples shown on this sheet. The subgrade shall be firm when concrete is placed. Sprinkling required shall be done early enough so that concrete is not placed on a muddy subgrade. No subgrade paper will be required.

The cast in place concrete is to be poured in approximately 10' wide courses, but all courses on one slope shall have approximately equal widths. Adjacent courses shall not be poured within 15 hours of one another. The joints in the direction of the slope are to be staggered about 1/2 block width.

Basis of payment: Payment will be made on a square yard basis for slope protection constructed. The unit price bid per square yard is to include costs of all materials and labor required to construct this protection as shown or intended by these plans. The subgrade preparation including any necessary



SLOPE PROTECTION LAYOUT 30° SKEW

excavation or filling required to shape the slope to the lines shown on the plans and disposal of excess earth excavated as directed by the Engineer, shall be considered incidental to placing the concrete slope protection.

Pay quantities are to be based on field measured out to out dimensions.

Where erosion control work is completed the Contractor shall be responsible for any plant materials destroyed adjacent to slope protection area. The Contractor shall replant, reseed and mulch areas in accordance with Section 2601 of the Standard Specifications, Series of 1977, at his expense.

CONCRETE SLOPE PROTECTION			
BRIDGE	S. ABUT.	N. ABUT.	TOTAL
NORTH BOUND	340	266	606
	306.6	301	607.6
Total (SQ. YDS.)			607.6

DESIGN FOR 12°04'33.30" SKEW
260'X40' WELDED PLATE GIRDER BRIDGE
67'-6" END SPANS 125'-0" INTERIOR SPAN
CONCRETE SLOPE PROTECTION
STATION: 478+93.08 (± N.B. LANE US NO. 561) JUNE, 1978
STATION: 2479+28.20 (± W.T. JOY ROAD & N.B. LANE)
SCOTT COUNTY
IOWA DEPARTMENT OF TRANSPORTATION-HIGHWAY DIVISION
Design Sheet No.: 23 Of 23 File No.: 25588 Design No.: 1080

DESIGNED BY: _____ TRACED BY: _____
DETAILED BY: _____ CHECKED BY: _____

CONCRETE SLOPE PROTECTION

STANDARD SHEET 1006

SCOTT COUNTY

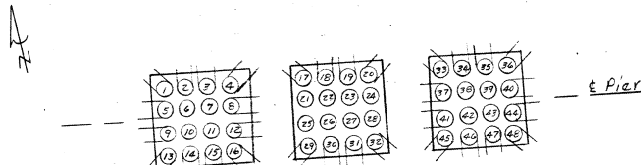
PROJECT NUMBER


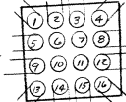
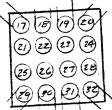
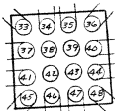
STATE: IOWA FED. ROAD DIST. NO. 5 FISCAL YEAR: 1978 SHEET NO. 23 TOTAL SHEETS: 130

86 7087-124

FOUNDATION NUMBER			PILING LOG	KIND OF PILING				
South Abutment				HP10x42 Steel Bearing				
PILE NO.	LENGTH IN STRUCTURE	BEARING (in Tons)	PILE NO.	LENGTH IN STRUCTURE	BEARING (in Tons)	PILE NO.	LENGTH IN STRUCTURE	BEARING (in Tons)
1	52.3	36.9						
2	52.2	50.8						
3	52.9	36.9						
4	59.7	32.5						
5	59.5	40.6						
6	59.8	32.8						
7	59.5	36.9						
8	60.6	32.5						
9	59.3	38.7						
10	59.1	32.5						
11	59.3	36.9						
12	59.3	32.8						
13	59.1	35.3						
14	53.8	Ref.						
15	58.9	40.6						
16	53.9	Ref.						
17	59.3	36.9						

FOUNDATION NUMBER			PILING LOG	KIND OF PILING				
North Abutment				HP10x42 Steel Bearing				
<p>The diagram shows a plan view of the North Abutment piling. It consists of 17 piles arranged in a single row, numbered 1 through 17 from left to right. The piles are represented by vertical lines with cross-ticks at the top and bottom. Above the row, there are labels I 4, I 6, I 8, I 10, I 12, I 14, and I 15. Below the row, there are labels I 3, I 5, I 7, I 9, I 11, I 13, and I 15. To the left of the first pile (pile 1), there are labels H 1 and H 2. To the right of the last pile (pile 17), there are labels 17H and 16H. A north arrow is located to the right of the diagram, pointing towards the top right. The word 'Abut.' is written at the bottom right of the diagram.</p>								
PILE NO.	LENGTH IN STRUCTURE	BEARING (in Tons)	PILE NO.	LENGTH IN STRUCTURE	BEARING (in Tons)	PILE NO.	LENGTH IN STRUCTURE	BEARING (in Tons)
1	59.1	38.2						
2	58.7	42.4						
3	60.0	34.7						
4	60.0	36.4						
5	58.5	54.6						
6	60.0	33.2						
7	58.9	40.2						
8	58.8	36.4						
9	60.0	44.9						
10	59.1	33.2						
11	60.0	47.8						
12	59.4	33.2						
13	60.0	54.6						
14	59.7	33.2						
15	59.8	50.9						
16	59.8	44.9						
17	59.8	47.8						

FOUNDATION NUMBER			PILING LOG		KIND OF PILING			
Pier #1					Creosoted			
<div><div></div></div>								
PILE NO.	LENGTH IN STRUCTURE	BEARING (in Tons)	PILE NO.	LENGTH IN STRUCTURE	BEARING (in Tons)	PILE NO.	LENGTH IN STRUCTURE	BEARING (in Tons)
1	25.0	39.9	17	25.0	38.3	33	25.0	38.3
2	23.8	Ref.	18	25.0	39.9	34	25.0	35.3
3	24.1	Ref.	19	25.0	36.3	35	25.0	39.9
4	24.9	Ref.	20	25.0	39.9	36	24.0	Ref.
5	25.0	38.3	21	25.0	28.7	37	25.0	32.8
6	25.0	28.7	22	25.0	38.3	38	25.0	20.9
7	25.0	38.3	23	25.0	38.3	39	25.0	35.3
8	24.2	Ref.	24	25.0	27.8	40	25.0	38.3
9	25.0	Ref.	25	25.0	28.7	41	25.0	39.9
10	25.0	25.5	26	25.0	35.3	42	25.0	35.3
11	25.0	30.6	27	25.0	25.5	43	25.0	39.9
12	24.2	Ref.	28	25.0	30.6	44	25.0	38.3
13	25.0	39.9	29	25.0	39.9	45	25.0	39.9
14	25.0	30.6	30	25.0	38.3	46	25.0	32.8
15	23.8	Ref.	31	25.0	38.3	47	25.0	36.7
16	24.2	Ref.	32	23.5	Ref.	48	25.0	38.3

FOUNDATION NUMBER			PILING LOG		KIND OF PILING			
Pier #2					Creosoted			
<div><div></div><div></div><div></div><div></div><div><p>— E Pier</p></div></div>								
PILE NO.	LENGTH IN STRUCTURE	BEARING (in Tons)	PILE NO.	LENGTH IN STRUCTURE	BEARING (in Tons)	PILE NO.	LENGTH IN STRUCTURE	BEARING (in Tons)
1	24.7	35.8	17	24.8	29.5	33	25.0	29.5
2	23.6	34.6	18	24.5	31.3	34	25.0	31.3
3	24.7	31.3	19	24.4	30.4	35	25.0	31.3
4	24.8	33.4	20	25.0	33.4	36	25.0	26.4
5	25.0	31.3	21	25.0	25.7	37	24.6	32.3
6	25.0	27.1	22	25.0	26.4	38	24.7	25.1
7	25.0	30.4	23	24.7	26.4	39	24.7	26.4
8	24.8	31.3	24	24.3	29.5	40	24.4	26.4
9	24.6	29.5	25	25.0	26.4	41	24.3	31.3
10	24.6	27.8	26	25.0	25.1	42	24.2	31.3
11	24.5	25.1	27	24.8	25.1	43	25.0	27.8
12	25.0	33.4	28	25.0	26.4	44	25.0	31.3
13	25.0	33.4	29	24.7	29.5	45	25.0	31.3
14	24.7	34.6	30	25.0	31.3	46	25.0	29.5
15	24.8	35.8	31	25.0	27.8	47	25.0	29.5
16	24.7	31.3	32	25.0	28.6	48	25.0	26.4
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