

FEDERAL REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	IM-80-1(143)4	1998	1	79

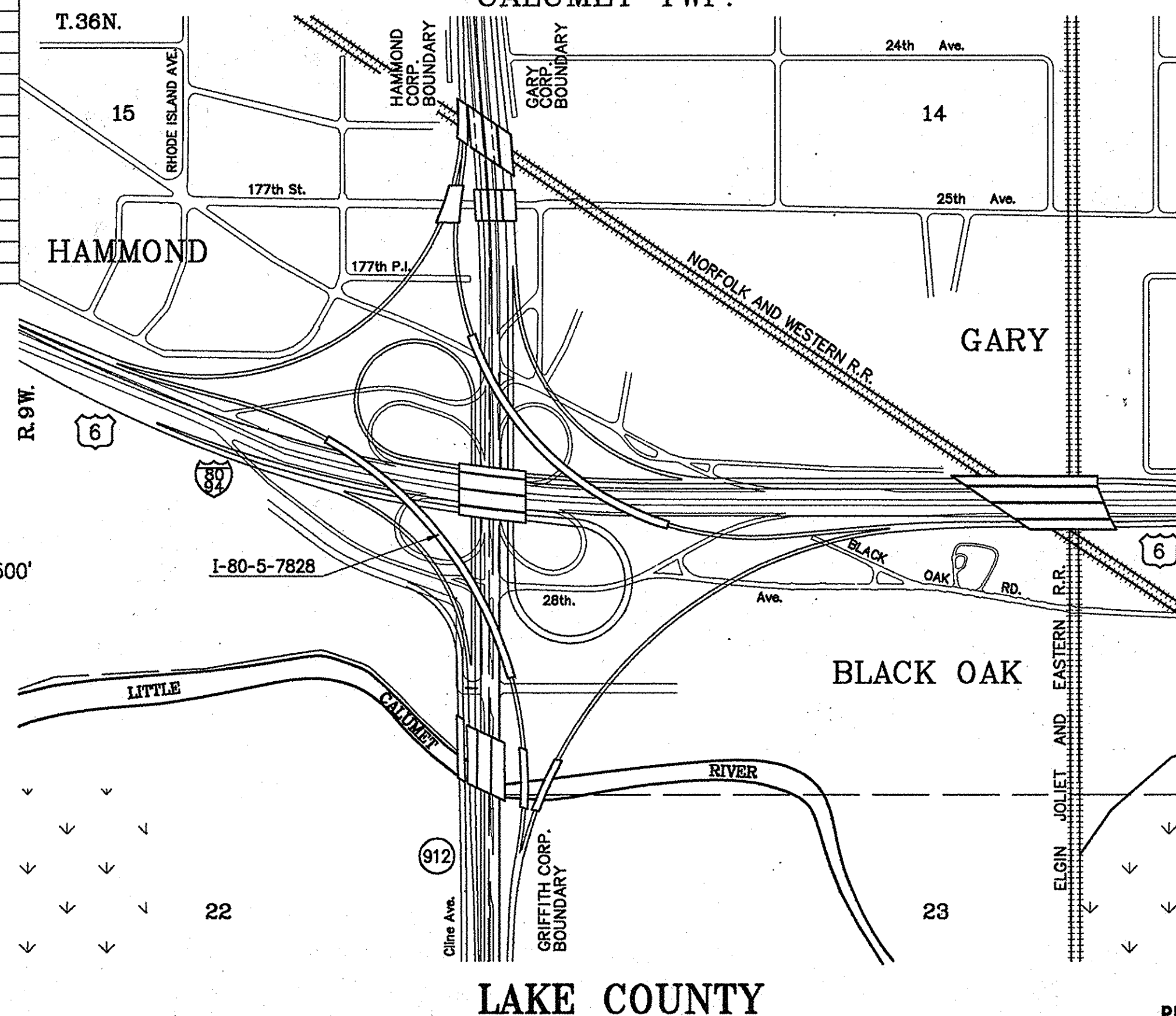
INDIANA
DEPARTMENT OF
TRANSPORTATION

BRIDGE PLANS
FOR SPANS OVER 20 FEET
ON
I-80/94 AND S.R.912
INTERCHANGE MODIFICATION

PROJECT NO. MM-220-1(029) P.E.
NH-080-1(026)4 R/W
IM-80-1(143)4 CONST.

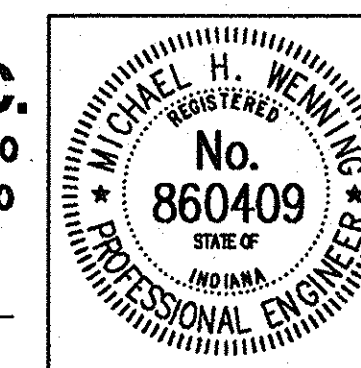
I-80/94, S.R. 912 @ R.P. 10 + 41

CALUMET TWP.



Scale: 1"=500'

PLANS PREPARED BY:
AMERICAN CONSULTING ENGINEERS, INC.
4165 MILLERSVILLE ROAD
INDIANAPOLIS, INDIANA 46205-2998
TEL 317-547-5580
FAX 317-543-0270



APPROVED FOR LETTING 6/10/98
Philip W. Klides
CHIEF, DIVISION OF DESIGN

FEDERAL HIGHWAY ADMINISTRATION
DEPARTMENT OF TRANSPORTATION

APPROVED: _____
DIVISION ADMINISTRATOR DATE

BRIDGE FILE: - I-80-5-7828

INDEX

PROJECT	STRUCTURE	TYPE	SPAN	OVER	STATION
IM-80-1(143)4	I-80-5-7828	CONTINUOUS COMPOSITE WELDED PLATE GIRDER BRIDGE	229'-1 3/4", 140'-10 3/16", 187'-10 3/16", 178'-10 3/16", 185'-10 3/16", 148'-2 7/8", 241'-8 5/8"	S.R.912 AND I-80/94	819+96.0 "NW"

SHEET NO.	SHEET DESIGNATION	SUBJECT	F. H. W. A. APPROVAL
1	One Sheet	Index And Title Sheet	
2	Road Plan Sheet No.5	Typical Sections I-80	
3-4	Road Plan Sheets No.7 & 8	Typical Sections S.R. 912	
5	Road Plan Sheet No.9	Typical Sections Ramps	
6-7	Road Plan Sheets No.10 & 11	Road Plan And Profile I-80	
8	Road Plan Sheet No.14	Road Plan And Profile S.R. 912	
9	One Sheet	R.C. Bridge Approach Details	
10	One Sheet	Notes and Details	
11-15C	Five Sheets Eight Sheets	Soil Borings	
16-17	S1, S2	Layout	
18-19	S3, S4	General Plan	
20	S5	Tie-Up Diagram	
21-23	S6-S8	Bent No.1 Details	
24-25	S9, S10	Pier No.2 Details	
26-27	S11, S12	Pier No.3 Details	
28-29	S13, S14	Pier No.4 Details	
30-31	S15, S16	Pier No.5 Details	
32-33	S17, S18	Pier No.6 Details	
34-35	S19, S20	Pier No.7 Details	
36-38	S21-S23	Bent No.8 Details	
39	S24	Framing Plan - Unit "A"	
40-44A	S25-S29A	Structural Steel Details - Unit "A"	
45	S30	Framing Plan - Unit "B"	
46-50A	S31-S35A	Structural Steel Details - Unit "B"	
51	S36	Elastomeric Bearing Assembly Details	
52-58	S37-S43	Floor Details - Unit "A"	
59-65	S44-S50	Floor Details - Unit "B"	
66	S51	Modular Expansion Joint Details	
67	S52	Bridge Drainage Details - Unit "B"	
68	One Sheet	Bridge Summary	

R-23808 part 8 of 9

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STANDARD DRAWINGS

SHEET NO.	SHEET DESIGNATION	SUBJECT	F. H. W. A. APPROVAL	ADOPTED "A" REVISION "R"
	BRIDGE STD. BR1	CONCRETE BRIDGE RAILING TRANSITION TYPE TGB		
	BRIDGE STD. BR1A	CONCRETE BRIDGE RAILING TRANSITION TYPE TGB		
	BRIDGE STD. BR2	CONCRETE BRIDGE RAILING TRANSITION TYPE WGB		
	BRIDGE STD. BR2A	CONCRETE BRIDGE RAILING TRANSITION TYPE WGB		
69	BRIDGE STD. C1	MISCELLANEOUS DETAILS	9-01-97	R 9-01-97
	BRIDGE STD. C2	MISCELLANEOUS DETAILS		
70	BRIDGE STD. C3	MISCELLANEOUS DETAILS	1-26-95	R 1-03-95
	BRIDGE STD. C4	PRESTRESSED CONCRETE PILES		
	BRIDGE STD. C5	PRECAST DECK PANEL DETAILS		
71	BRIDGE STD. D	CASTING DETAILS, ROADWAY DRAINS	1-11-89	R 9-01-88
	BRIDGE STD. D1	ADJUSTING FRAME DETAILS FOR ROADWAY DRAINS		
	BRIDGE STD.			
	BRIDGE STD. PB	PRESTRESSED CONCRETE, TYPE I-BEAMS		
	BRIDGE STD. PB	PRESTRESSED CONCRETE, TYPE I-BEAMS		
	BRIDGE STD. PB6	PRESTRESSED BOX BEAMS		
	BRIDGE STD. PB	PRESTRESSED COMPOSITE BOX BEAMS, WIDE		
	BRIDGE STD. PB	PRESTRESSED COMPOSITE BOX BEAMS, WIDE		
	BRIDGE STD. PB10	TOLERANCES FOR FABRICATION OF PRESTRESSED BEAMS		
	BRIDGE STD. PB11	ELASTOMERIC BEARING PAD DETAILS		
	BRIDGE STD.			
72	BRIDGE STD. R2B	BRIDGE LIGHTING DETAILS	4-22-87	R-12-01-86
73	BRIDGE STD. S1	"B" BORROW PLACEMENT	1-22-87	R 12-01-86
74	BRIDGE STD. SBH1A	STRUCTURAL EXPANSION JOINTS CLASS SS, SHEET 1A	12-14-94	A 12-01-94
75	BRIDGE STD. SS-1B	STRUCTURAL EXPANSION JOINTS CLASS SS, SHEET 1B	12-14-94	A 12-01-94
	BRIDGE STD. SS2	STRUCTURAL EXPANSION JOINTS CLASS SS, SHEET 2	6-20-91	A April, 1991
	BRIDGE STD. TB	STANDARD TEMPORARY BRIDGE		
	BRIDGE STD.			
	BRIDGE STD.			
76	ROAD STD. SHEET CCP-1	STANDARD PAVEMENT JOINTS	1-31-96	R 9-01-95
77	ROAD STD. SHEET CCP-4	STANDARD PAVEMENT JOINTS	1-31-96	R 9-01-95
78	ROAD STD. SHEET RCBA-1	MISCELLANEOUS STANDARDS	1-31-96	R 10-02-95
79	ROAD STD. SHEET RCBA-2	MISCELLANEOUS STANDARDS	1-31-96	R 1-02-96
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
79A	ROAD STD. SHEET MB2	MISCELLANEOUS STANDARDS	5-21-82	R 4-1-82
79B	ROAD STD. SHEET MB4	MISCELLANEOUS STANDARDS	6-14-74	R 1-2-74
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MC2	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET ME	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MH	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MH1	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MH2	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MH2A	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
79C	GUARDRAIL SHEET G-1	W-BEAM GUARDRAIL COMPONENTS	2-5-96	R 1-2-96
79D	GUARDRAIL SHEET G-2	THREE-BEAM GUARDRAIL COMPONENTS		
	GUARDRAIL SHEET G-3	W-BEAM GUARDRAIL ASSEMBLIES	5-1-98	R 5-1-98
	GUARDRAIL SHEET B-1	TYPICAL BRIDGE APPROACH GUARDRAIL		
	GUARDRAIL SHEET E-1	GUARDRAIL END TREATMENT TYPE I		
79E	GUARDRAIL SHEET E-2	GUARDRAIL END TREATMENT TYPE OS	5-1-98	R 5-1-98
79F	GUARDRAIL SHEET E-3 E-5	GUARDRAIL END TREATMENT TYPE MS	2-5-96	A 1-2-96
79G	GUARDRAIL SHEET E-4 E-5A	CURVED W-BEAM GUARDRAIL SYSTEM	2-5-96	A 1-2-96
	GUARDRAIL SHEET T-1	GUARDRAIL TRANSITION TYPE TGB		
	GUARDRAIL SHEET T-1A	GUARDRAIL TRANSITION TYPE WGB		
	GUARDRAIL SHEET T-2	GUARDRAIL TRANSITION TYPE GP		
	GUARDRAIL SHEET T-3	GUARDRAIL TRANSITION TYPE VH		
	GUARDRAIL SHEET T-4	PIER CONNECTION DETAILS		
	GUARDRAIL SHEET P-1	PIER PROTECTION GUARDRAIL		
79H	ROAD STD. SHEET CB1 CB2	CONCRETE-MEDIAN-BARRIER- TEMPORARY CONCRETE BARRIER	1-2-98	R 1-2-98
79I	ROAD STD. SHEET CB2A	TEMPORARY CONCRETE BARRIER	1-2-94	A Nov 1998
	ROAD STD. SHEET 1 DETOURS	STANDARD DETOUR SIGNS		
	ROAD STD. SHEET 1A DETOURS	STANDARD DETOUR SIGNS		
	ROAD STD. SHEET 1B DETOURS	STANDARD DETOUR SIGNS		
	ROAD STD. SHEET 2 DETOURS	STANDARD DETOUR SIGNS		
	ROAD STD. SHEET 2A DETOURS	STANDARD DETOUR SIGNS		
	ROAD STD. SHEET 3 DETOURS	STANDARD DETOUR SIGNS		
	ROAD STD. SHEET 3A DETOURS	STANDARD DETOUR SIGNS		
	ROAD STD. SHEET 4 DETOURS	STANDARD DETOUR SIGNS		
	ROAD STD. SHEET 5 DETOURS	STANDARD DETOUR SIGNS		
	ROAD STD. SHEET 5A DETOURS	STANDARD DETOUR SIGNS		

	TRAFFIC DATA					
	RAMP "NW"		I-80/94		S.R.912	
A. D. T. (1987)	5,500	V.P.D.	124,700	V.P.D.	53,900	V.P.D.
A. D. T. (2007 PROJECTED)	8,250	V.P.D.	187,050	V.P.D.	80,850	V.P.D.
D. H. V. (2007 PROJECTED)	630	V.P.H.	14,310	V.P.H.	7,205	V.P.H.
DIRECTIONAL DISTRIBUTION	100	%	55	%	66	%
TRUCKS	D.H.V. 8%	A.D.T. 15%	D.H.V. 17%	A.D.T. 26%	D.H.V. 13%	A.D.T. 15%
DESIGN SPEED	50 M.P.H.		60 M.P.H.		60 M.P.H.	
PROJECT DESIGN CRITERIA	NEW CONSTRUCTION (FREEWAY)		COMPLETE RECONSTR. (FREEWAY)		COMPLETE RECONSTR. (FREEWAY)	
FUNCTIONAL CLASSIFICATION	URBAN INTERSTATE		URBAN INTERSTATE		URBAN OTHER FREEWAY/EXP.	
RURAL/URBAN	URBAN		URBAN		URBAN	
TERRAIN	LEVEL		LEVEL		LEVEL	
ACCESS CONTROL	FULL		FULL		FULL	

DATE	REVISIONS	SHEET NO.
July 9, 1998	Revised Sheets No. : 1, 2, 10, 11, 23-35, 38, and 40-68, 16-19	
	Added Sheets No. : 15A, 15B, 15C, 40A and 50A	
	Added Road Standard Sheets : MB2, MB4, B-1, E-3, E-2, E-5, E-5A, CB2 and CB2A	
Sept. 1, 1998	Revised Sheets No. : 11, 18, 19, 23, 38, 39, 41, 45, 47, 68	

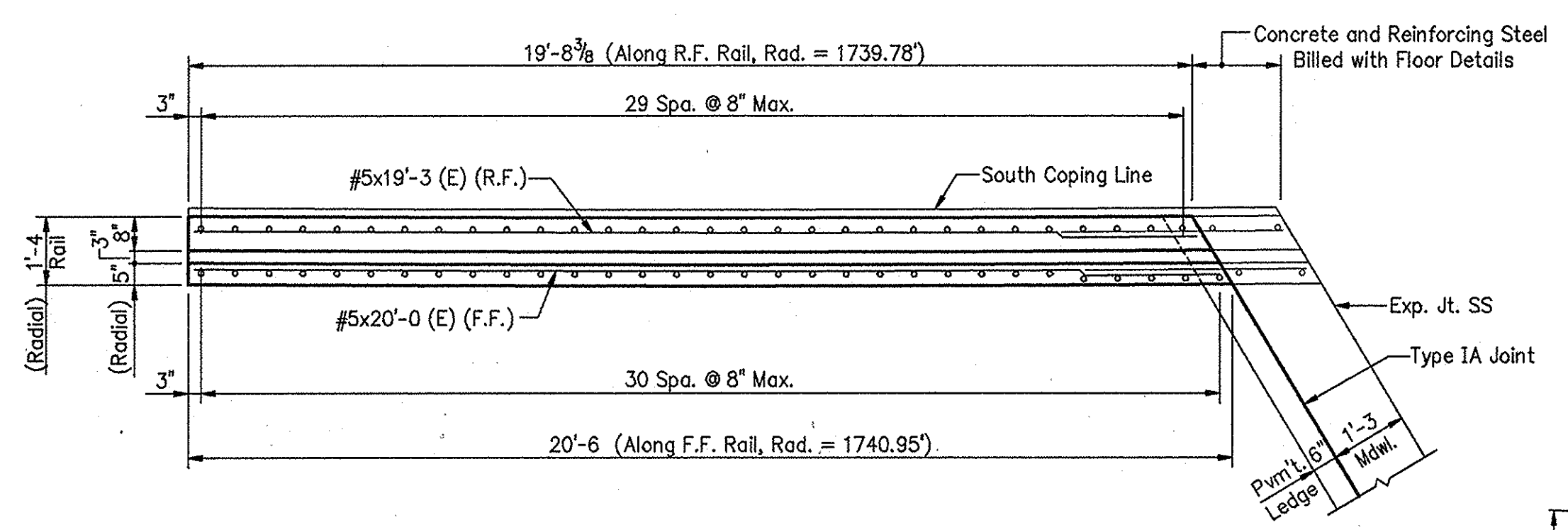
DATE	REVISIONS	SHEET NO.

INDIANA DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS DATED 1995
TO BE USED WITH THESE PLANS.
DES. NO. 920260R

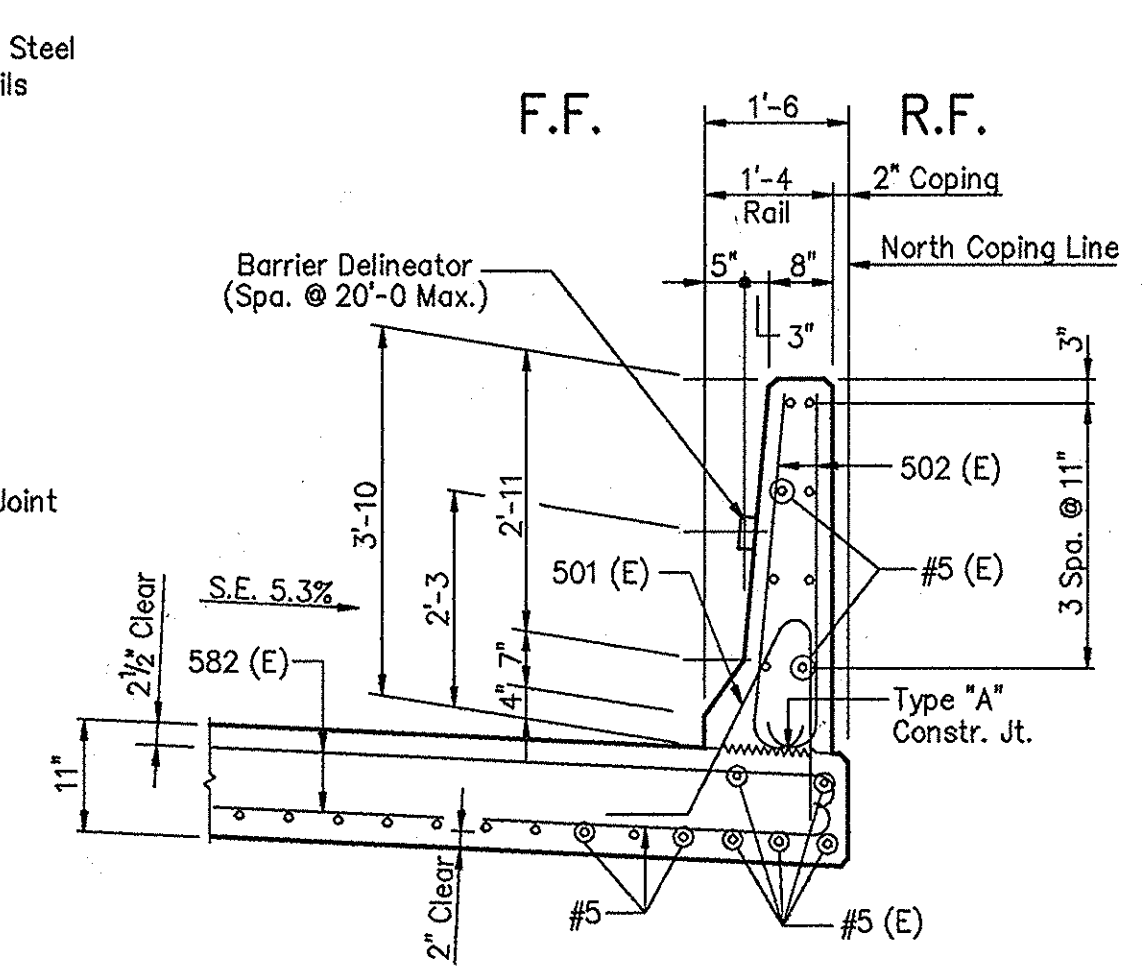
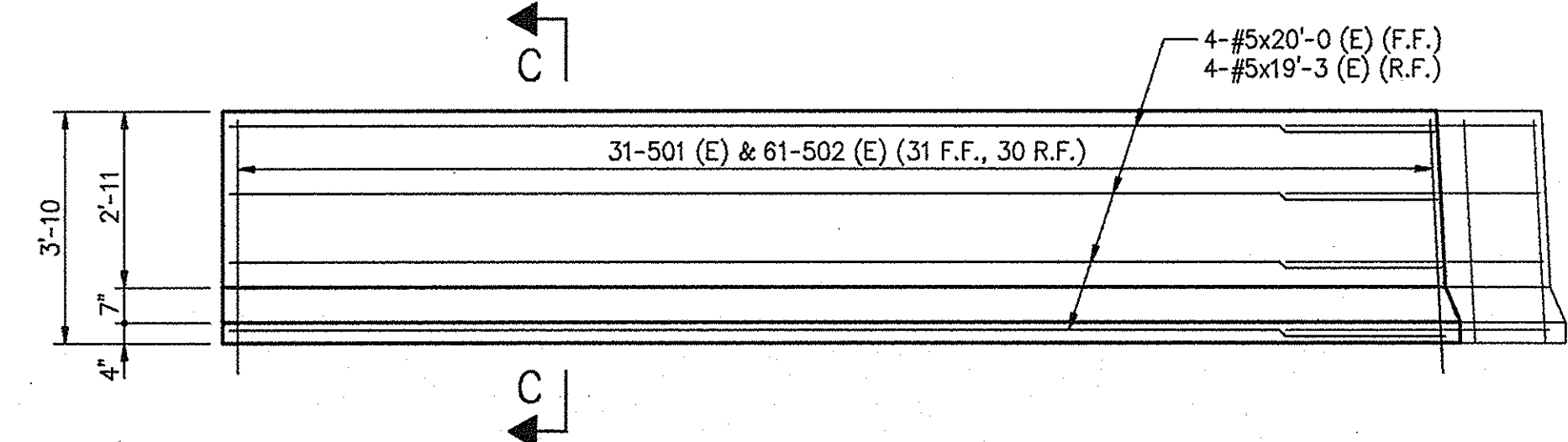
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SPELLCHK: 01/21/98
EDIT DATE: 06/01/98
EDITED BY: RJC - S128

**BILL OF MATERIALS
BENT NO.1
(BENT NO. 8 SAME)**

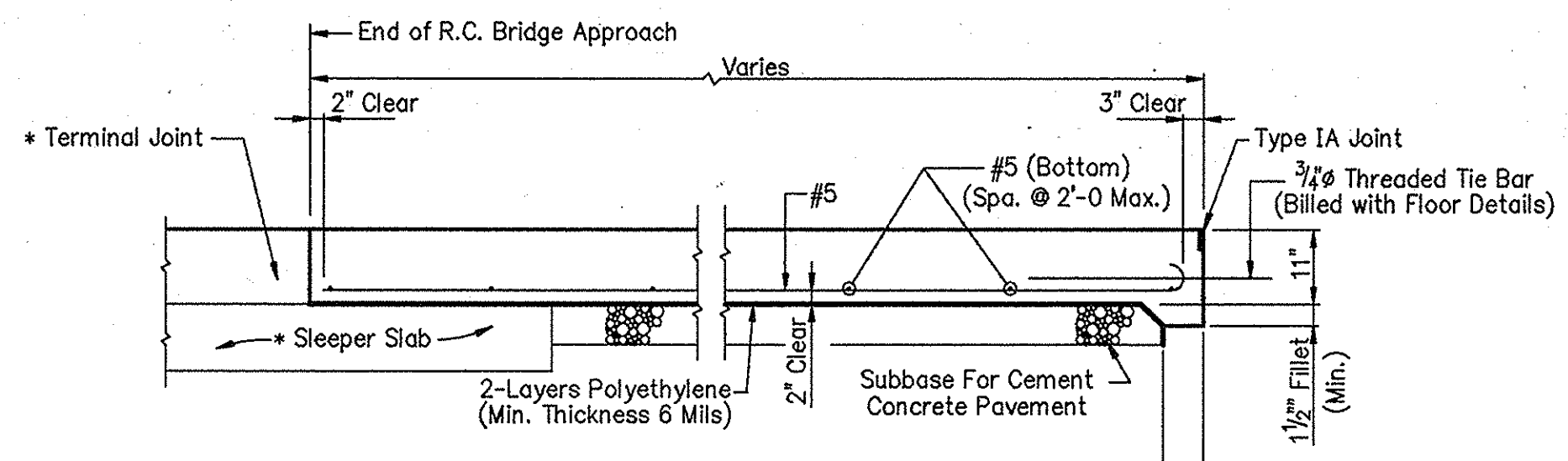
Epoxy Coated Reinforcing Steel			
Size And Mark	No. Of Bars	Length (Feet)	Weight (Lbs.)
501	91	5'-5	
502	182	4'-1	
582	150	6'-7	
591	5	20'-7	
592	5	19'-9	
#5	4	39'-9	
#5	4	39'-0	
#5	5	21'-6	
#5	4	20'-0	
#5	4	19'-3	
Total Epoxy Coated Reinforcing Steel			3,134
Plain Reinforcing Steel			
From Bridge Design Memorandum #42 Revised, November 2, 1992			
108.8 Sys. Pvm't. x 25.4 Lbs./Sys.			
Total Plain Reinforcing Steel			2,713
Concrete			
Class "C" Concrete Railing (3'-10)			
North Coping			5.6 Cys.
South Coping			2.6 Cys.
Total Class "C" Concrete Railing (3'-10)			8.2 Cys.
Cement, Conc, Pvm't., Reinf., 11 Inch			117 Sys.
Miscellaneous			
Subbase For Cement Concrete Pavement			20 Cys.
Surface Seal			510 Sft.
Barrier Delineator			5 Each
Masonry Coating			510 Sft.



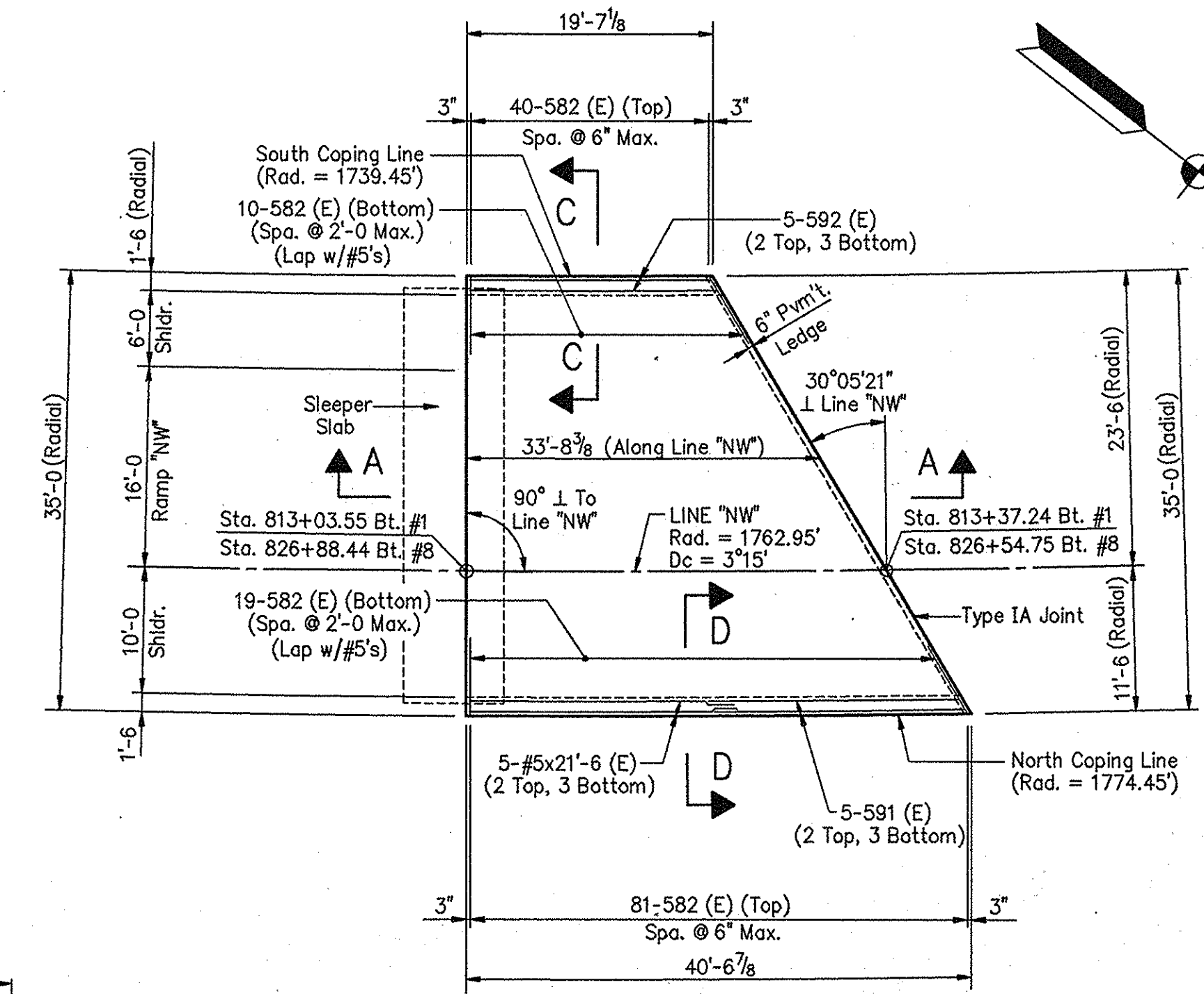
**RAILING DETAILS @ BENT NO.1
(RAILING @ BENT NO. 8 SAME BY OPPOSITE HAND)**
Scale: 3/8" = 1'-0"



SECTION C-C
Scale: 1/2" = 1'-0"

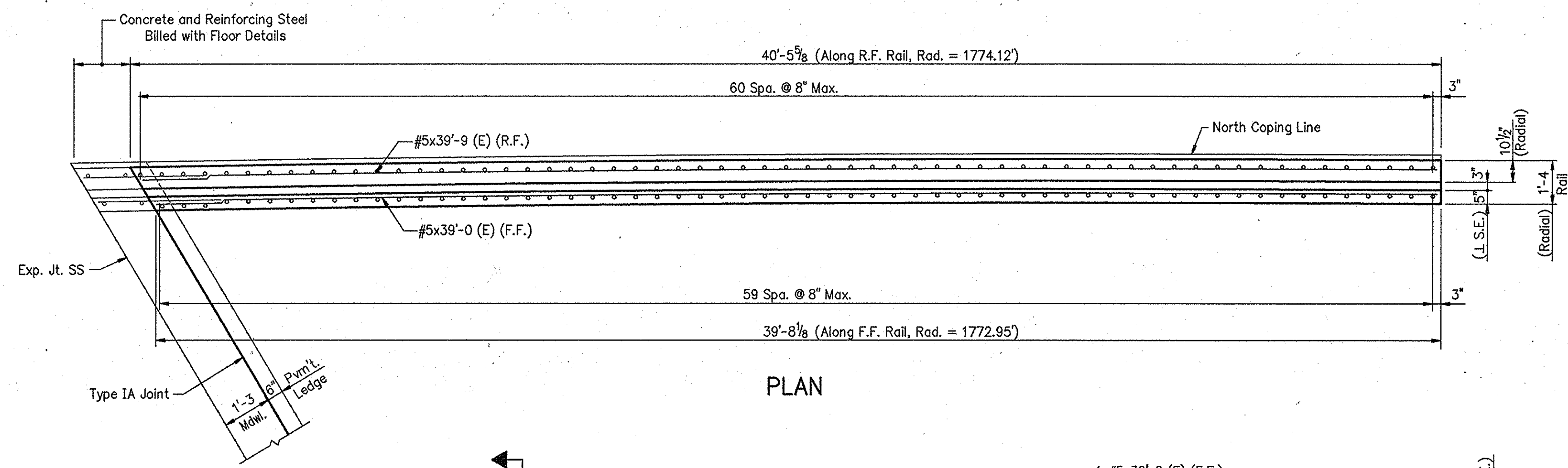
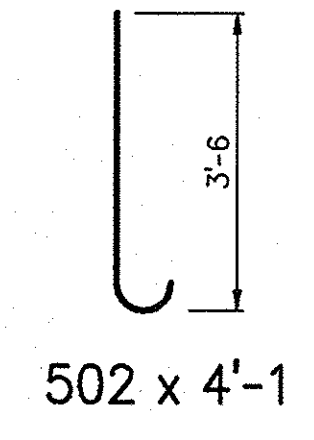
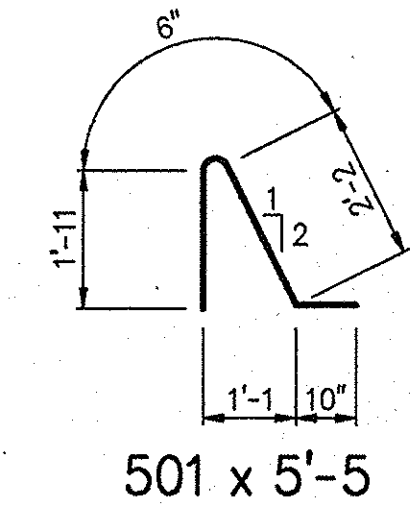


SECTION A-A
Scale: 1/2" = 1'-0"

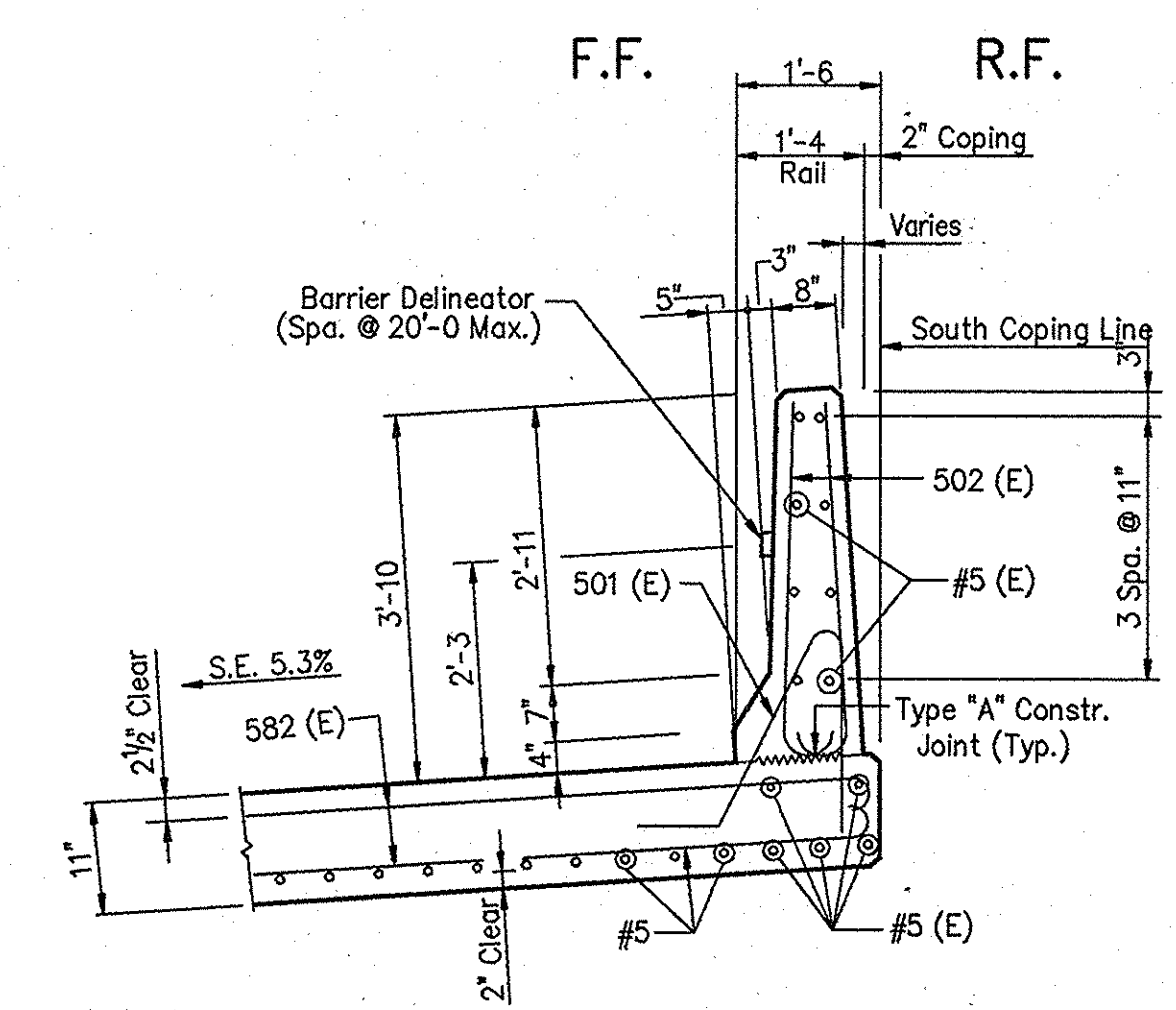
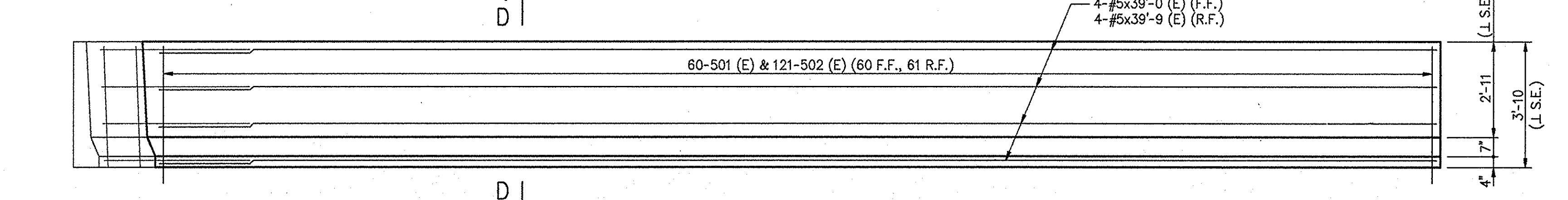


**PLAN @ BENT NO. 1
(BENT NO. 8 SAME BY OPPOSITE HAND, EXCEPT AS NOTED)**
Scale: 3/32" = 1'-0"

Mark	A	Length
591 (E)	20'-0	20'-7
592 (E)	19'-2	19'-9
582 (E)	6'-0	6'-7



**RAILING DETAILS @ BENT NO.1
(RAILING @ BENT NO. 8 SAME BY OPPOSITE HAND)**
Scale: 3/8" = 1'-0"

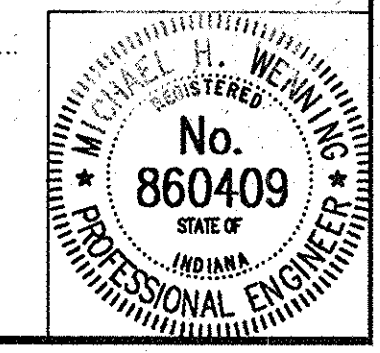


SECTION D-D
Scale: 1/2" = 1'-0"

NOTES:
(E) Indicates epoxy coated reinforcing steel.
Minimum lap for #5 Bar = 1'-9.
For reinforcing bar notes, see Bridge Standard C1.
For Type IA Joint installation details, see Bridge Standard C3.
For additional notes and details, see Road Standard Sheets RCBA-1 and RCBA-2.
* Indicates Road Item.

**R.C. BRIDGE APPROACH DETAILS
INDIANA DEPARTMENT OF TRANSPORTATION**

SCALE: - As Noted
DATE: - July 9, 1998
SUBMITTED FOR APPROVAL: *Michael H. J...*
DRAWING: - OF SHEET: - 9 OF 79
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7828

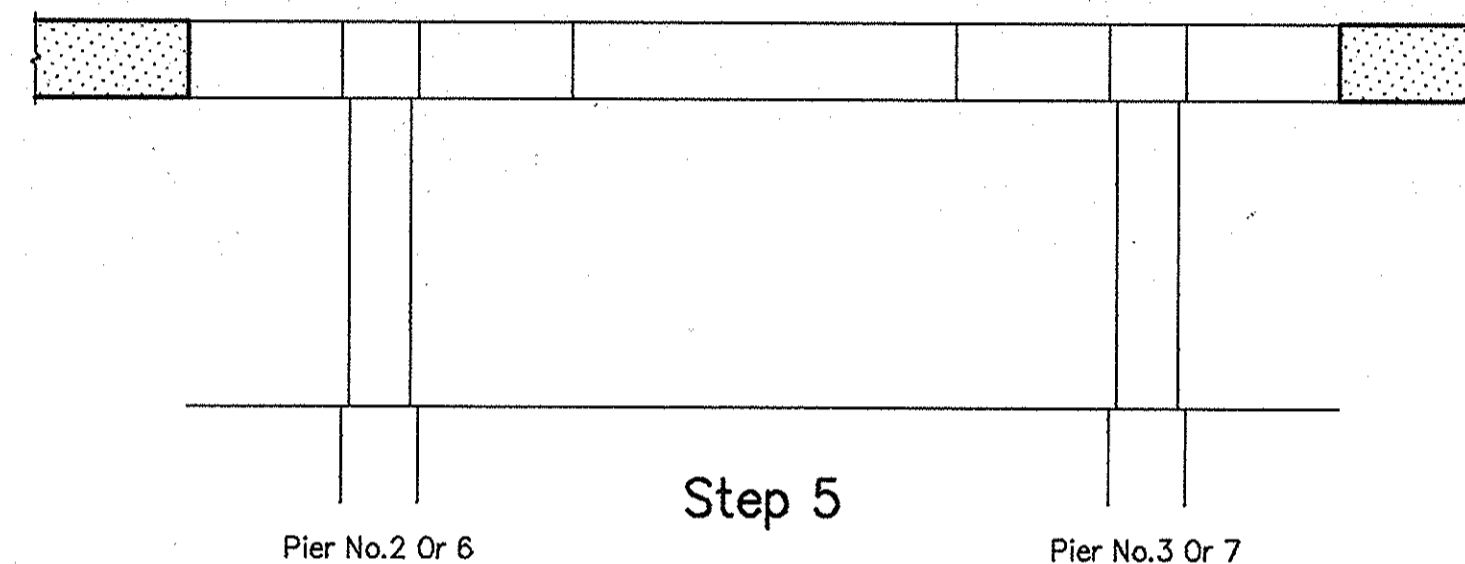
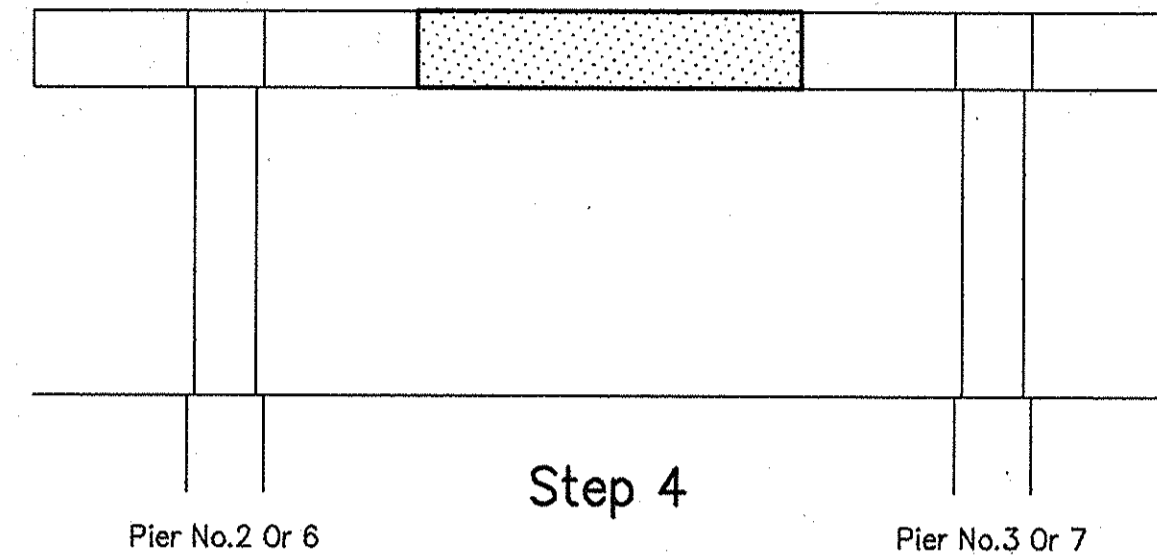
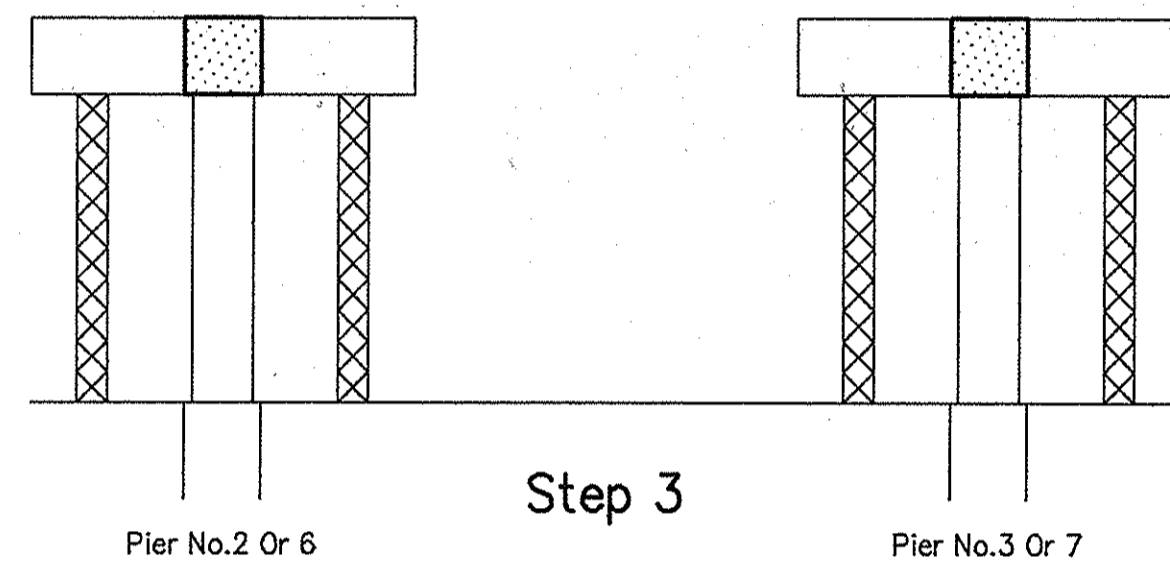
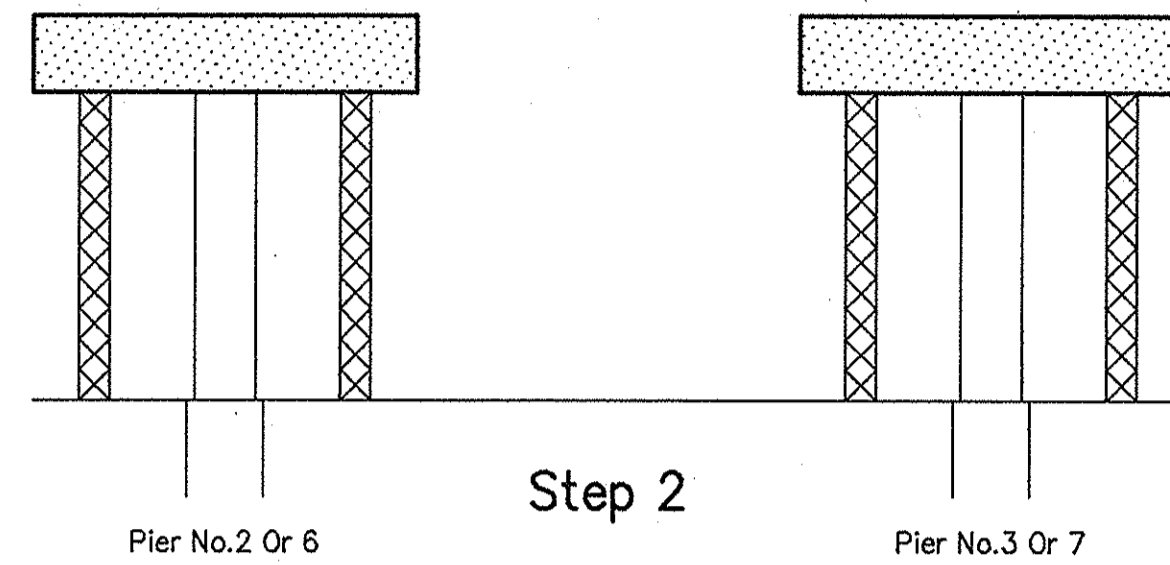
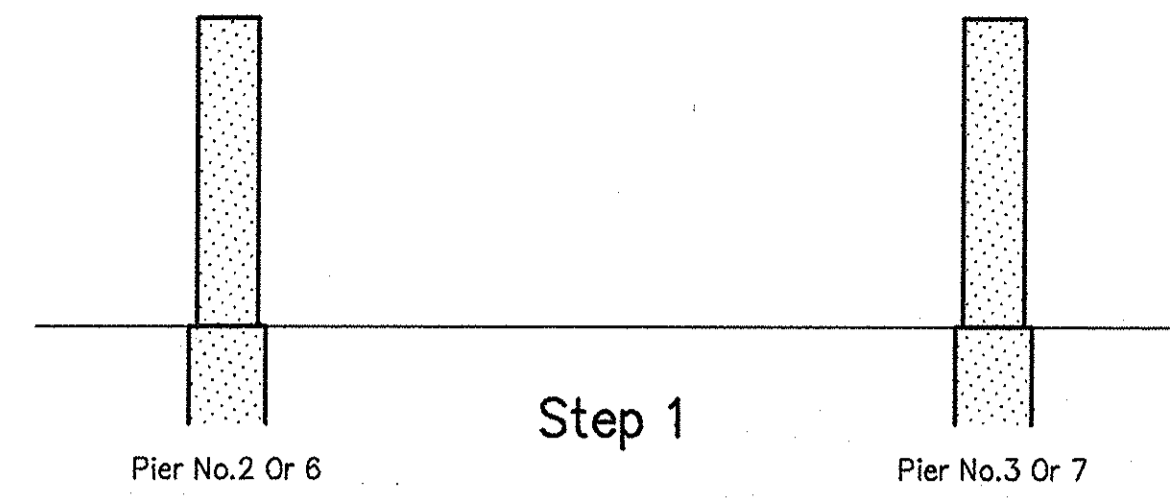


DESIGNED: C/K/D
DRAWN: CPM 8/13/93
TRACED: C/K/D

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PLOT ORIGIN: 0.00,0.00
SPELLING: C
EDIT DATE: 07/09/98 14:10:04
EDITED BY: CSM - 591

CONSTRUCTION PROCEDURE

- 1 Construct foundations and pier stems.
- 2 Erect temporary supports and structural steel at integral (fixed) piers.
- 3 Pour integral cap and apply Phase I post-tensioning.
- 4 Erect structural steel section between integral piers and remove temporary supports.
- 5 Erect remainder of structural steel, pour deck and apply Phase II post-tensioning.
- 6 Concrete deck shall be poured beginning at Pier 4.



UTILITY OWNERS

TELEPHONE: INDIANA BELL TELEPHONE
P.O. Box 6040 Ph.# 219-556-3560
Indianapolis, IN 46207

AMERICAN TELEPHONE AND TELEGRAPH COMPANY
8357 Indianapolis Blvd. Ph.# 219-838-1118
Highland, IN 46322

GAS AND ELECTRIC: NORTHERN INDIANA PUBLIC SERVICE COMPANY
5265 Hohman Ave. Ph.# 219-853-5200
Hammond, IN 46320

WATER: HAMMOND DEPARTMENT OF PUBLIC WORKS
Hammond, IN

PEOPLES WATER COMPANY
2129 Cline Avenue Ph.# 219-844-2706
Gary, IN 46406

NATURAL GAS AND PRODUCTS PIPELINES: WOLVERINE PIPELINE COMPANY
1595 W. Center st. Ph.# 219-844-2398
Kalamazoo, MI 49002

AMOCO PIPELINE COMPANY
1500 W. Main Ph.# 219-924-7425
Griffith, IN

MARATHON PIPELINE COMPANY
1900 W. Avenue H Ph.# 219-924-8577
Griffith, IN

DESIGN DATA

LIVE LOAD: HS20-44 loading with impact in accordance with 1992 AASHTO Specifications and Interim Specifications. Distribution computed using Influence Surface Method. Checked for Special Loading of 2-24,000 Lbs axles spaced at 4'-0 centers and Special Toll Road Loading shown on this drawing.

DEAD LOADS: Actual weight plus 35 psf (Composite) to provide for future wearing surface. 15 psf (Non-Composite) for permanent metal deck forms.

FLOOR SLAB: Designed for 16,000 Lbs. wheel load plus impact with a structural depth of 6 1/2".

UNIT STRESSES: Reinforcing Steel, $F_y = 60,000$ psi
Concrete Class B, $f_c = 3,000$ psi
Concrete Class A, $f_c = 3,500$ psi
Concrete Class C, $f_c = 4,000$ psi
Concrete Class C, Special $f_c = 5,500$ psi

ALLOWABLE STRESSES: In accordance with 1992 AASHTO Specifications and Interim Specifications using Load Factor Design Method and 1986 AASHTO Guide Specifications For Horizontally Curved Highway Bridges.

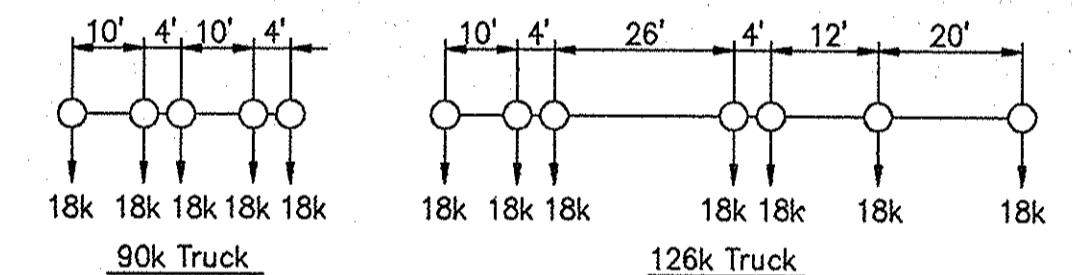
STANDARD DRAWINGS		
BRIDGE	ROAD	PURPOSE
C1		Reinforcing Bar Notes, Pile Shell
C3		Type IA Jt., Constr. Jt. Type A, Optional Railing Splice
D		Roadway Drain Type SQ-A
S-1		B' Borrow For Str. Backfill
SS-1A		Expansion Joint Class - SS
SS-1B		Expansion Joint Class - SS
SS-2		Expansion Joint Class - SS
RCBA-1		R.C. Br. Appr. Terminal Joint Details
RCBA-2		R.C. Br. Appr. Terminal Joint Details
CCPJ-1		Sawed Longitudinal Joint
CCPJ-4		Sawed Contraction Joint Seal
MB2		Concrete Slopewall
MB4		Slopewall Drainage
G-1		W-Beam Guardrail
G-3		W-Beam Guardrail
E-2		Guardrail End Treatment Type OS
E-5		Grading At Guardrail End Treatments
E-5A		Grading At Guardrail End Treatments
CB2		Temporary Concrete Barrier
CB2A		Temporary Concrete Barrier

GENERAL NOTES

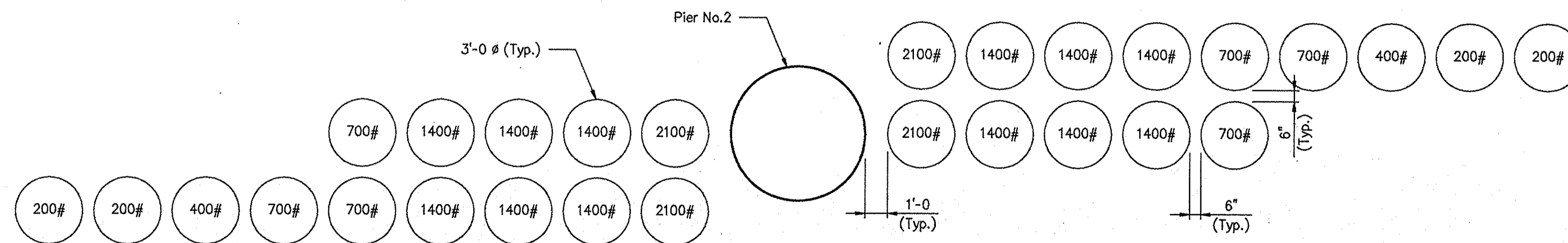
Reinforcing steel covering shall be 2 1/2" in the top and 1" min. in the bottom of the floor slabs, 3" in the footings except the bottom steel which shall be 4", 2" in columns, and 2" in all other parts, unless noted.

Only the top and vertical faces of pier caps, top of end bent caps, top and front face of midwalls, top and exposed vertical faces of wings, and superstructure as shown in detail plans to be sealed in accordance with Article 702.20 of the Specifications.

All structure railings to be masonry coated.



SPECIAL TOLL ROAD LOADING
No Scale



GRAVEL BARREL ARRAY DETAIL
Scale- 1/4" = 1'-0"

NOTES AND DETAILS

INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - NONE DATE: - July 9, 1998

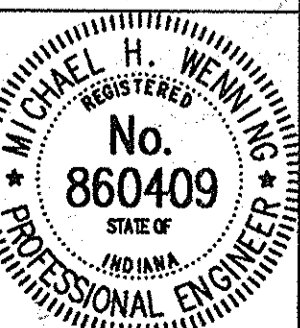
SUBMITTED FOR APPROVAL *Michael H. Wenzel*

DRAWING: - OF SHEET: - 10 OF 79

PROJECT: - IM-80-1(143)4

CONTRACT NO. R-23808

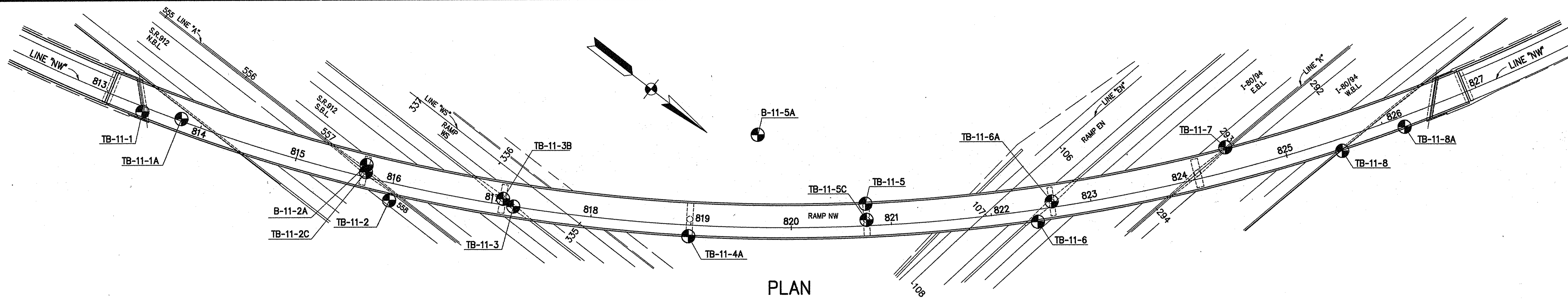
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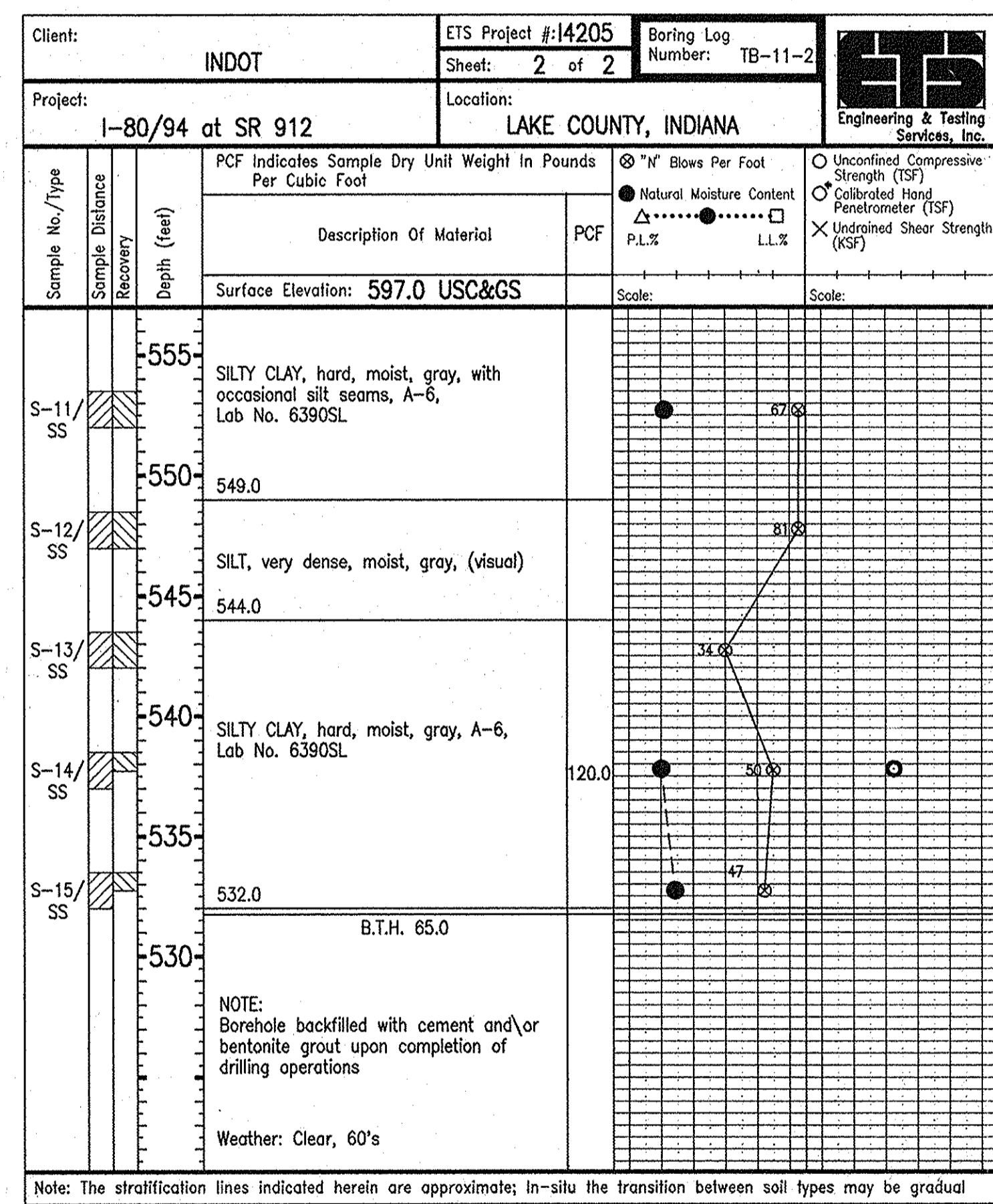
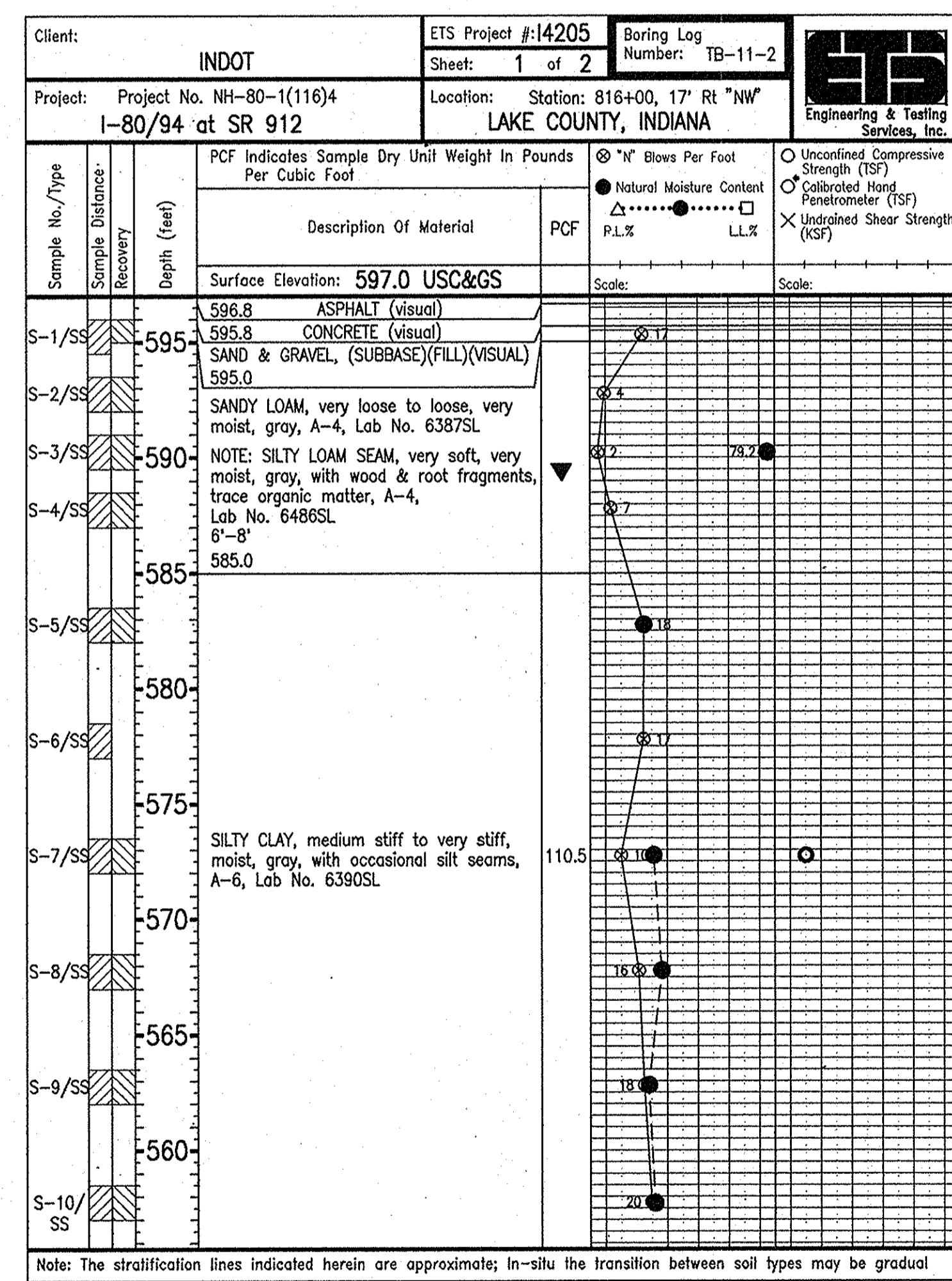
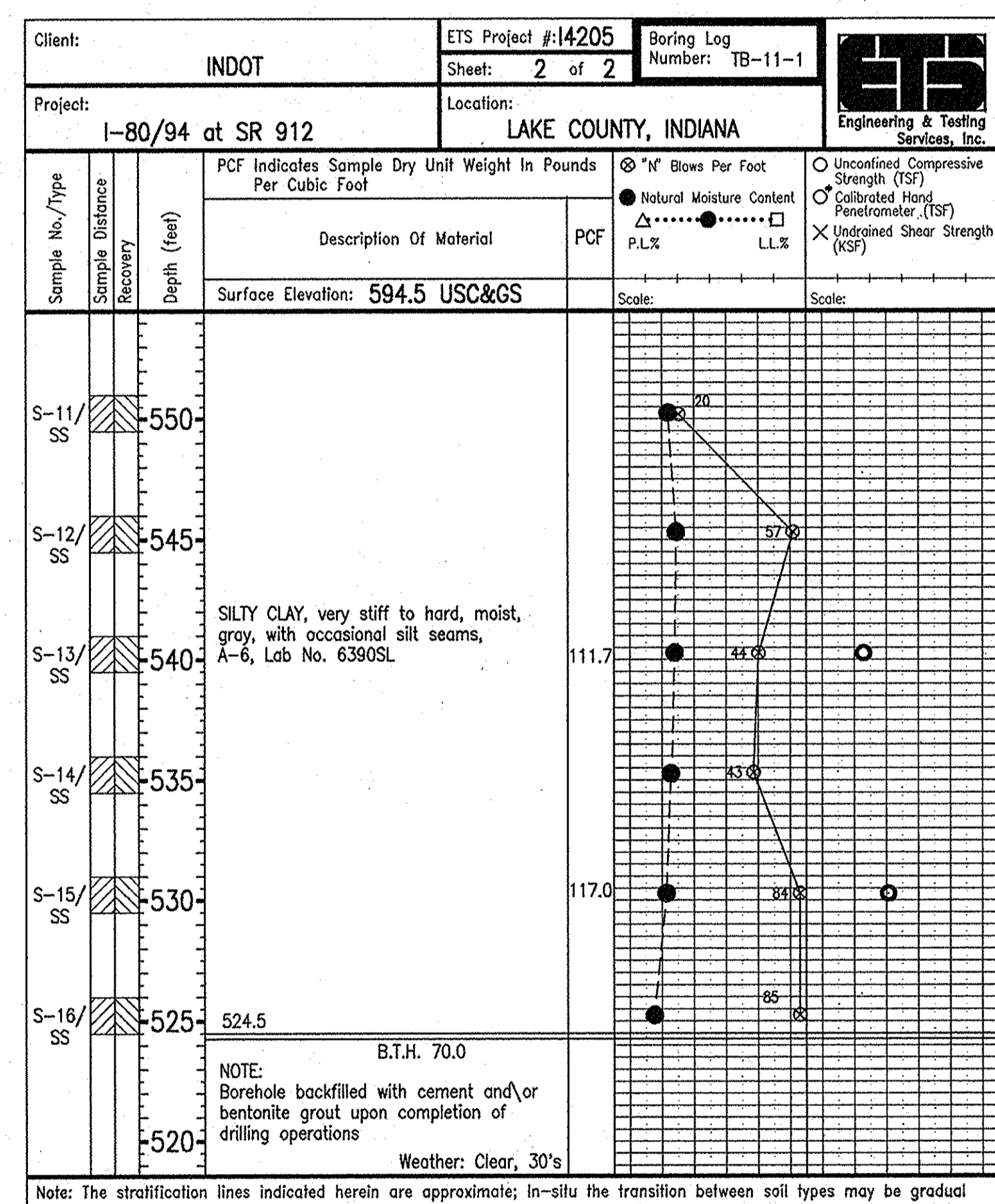
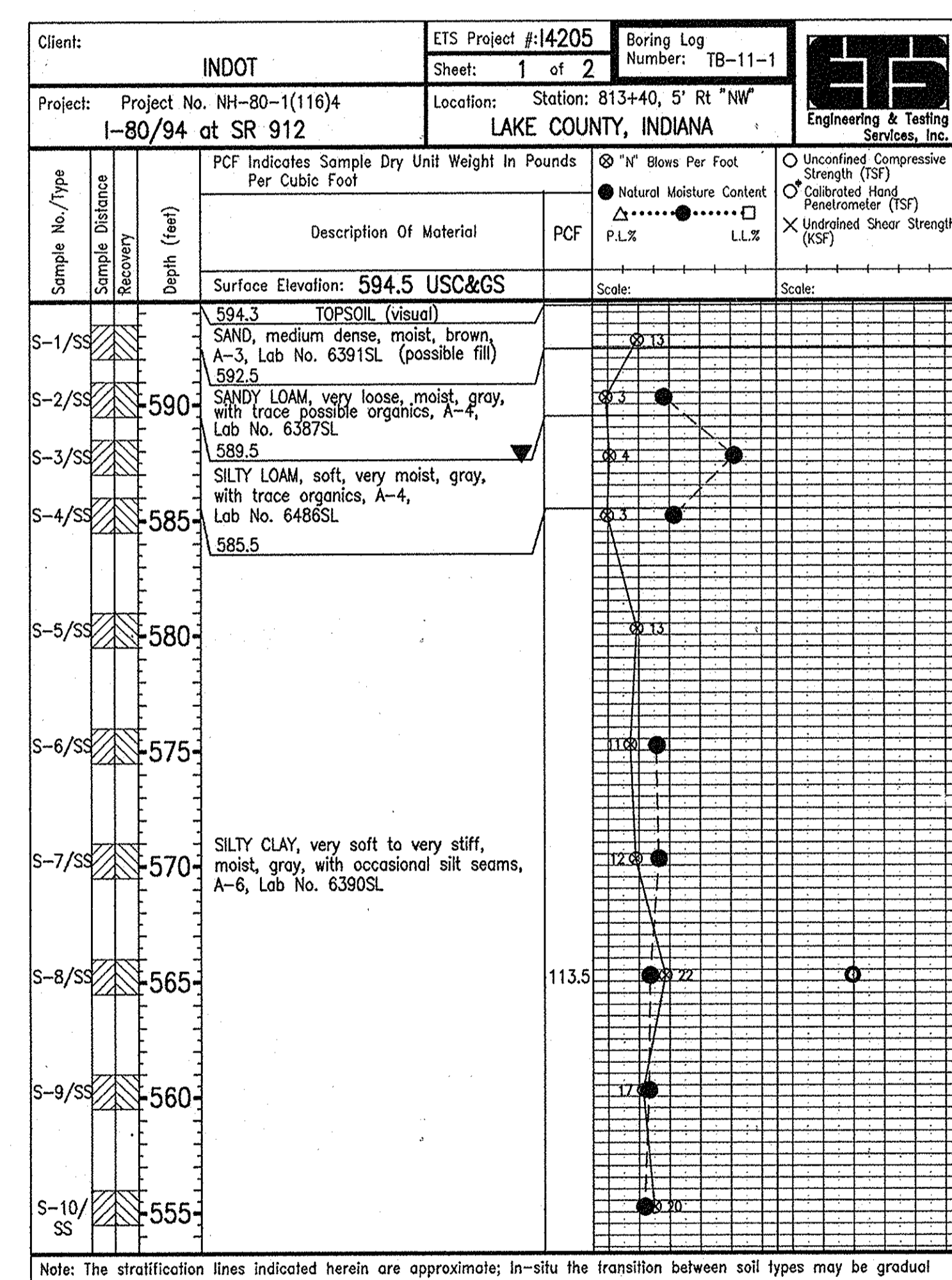
DESIGNED: _____	CHK'D: _____
DRAWN: <i>RJC 6/17/93</i>	CHK'D: <i>MHW 6/18/93</i>
TRACED: _____	CHK'D: _____

DWG FILE: D:\A\2119\2119013
PLOT SCALE: 1:1000
PLOT ORIGIN: 0.00,0.00

SPELLCHK: _____
EDIT DATE: 07/10/98 13:43:52
EDITED BY: TLH - S131



PLAN
Scale: 1" = 50'



	NO. 1	NO. 8
BENT	90 Tons	90 Tons
ALLOWABLE DESIGN LOAD	90 Tons	90 Tons
FACTOR OF SAFETY	2.5 ±0	2.5 ±0
FACTORED DESIGN LOAD	225 ±00 Tons	225 ±00 Tons
SCOUR ZONE FRICTION	0 Tons	0 Tons
DOWN DRAG FRICTION	50 ± Tons	56 ± Tons
ULTIMATE LOAD (BEARING)	275 ±00 Tons	281 ±00 Tons
TESTING METHOD	By Formula, Standard Specifications 701.06	

NOTES:

▼ Indicates Ground Water Level

N Indicates the number of blows required to drive a 1 3/8" I.D., 2" O.D. Split Spoon sampler 12" by means of a 140 lb. weight falling 30".

SOIL BORINGS INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - Horiz. 1"=40'
Vert. 1"=5'

DATE: - July 9, 1998

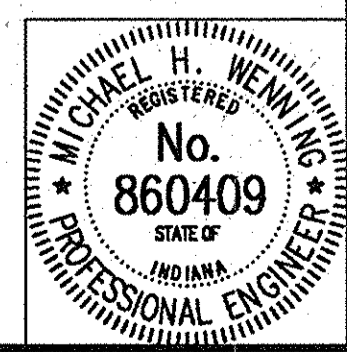
SUBMITTED FOR APPROVAL *Michael H. Wennig*

DRAWING: - OF SHEET: - 11 OF 79

PROJECT: - IM-80-1(143)4

CONTRACT NO. R-23808

BRIDGE FILE: - I-80-5-7828

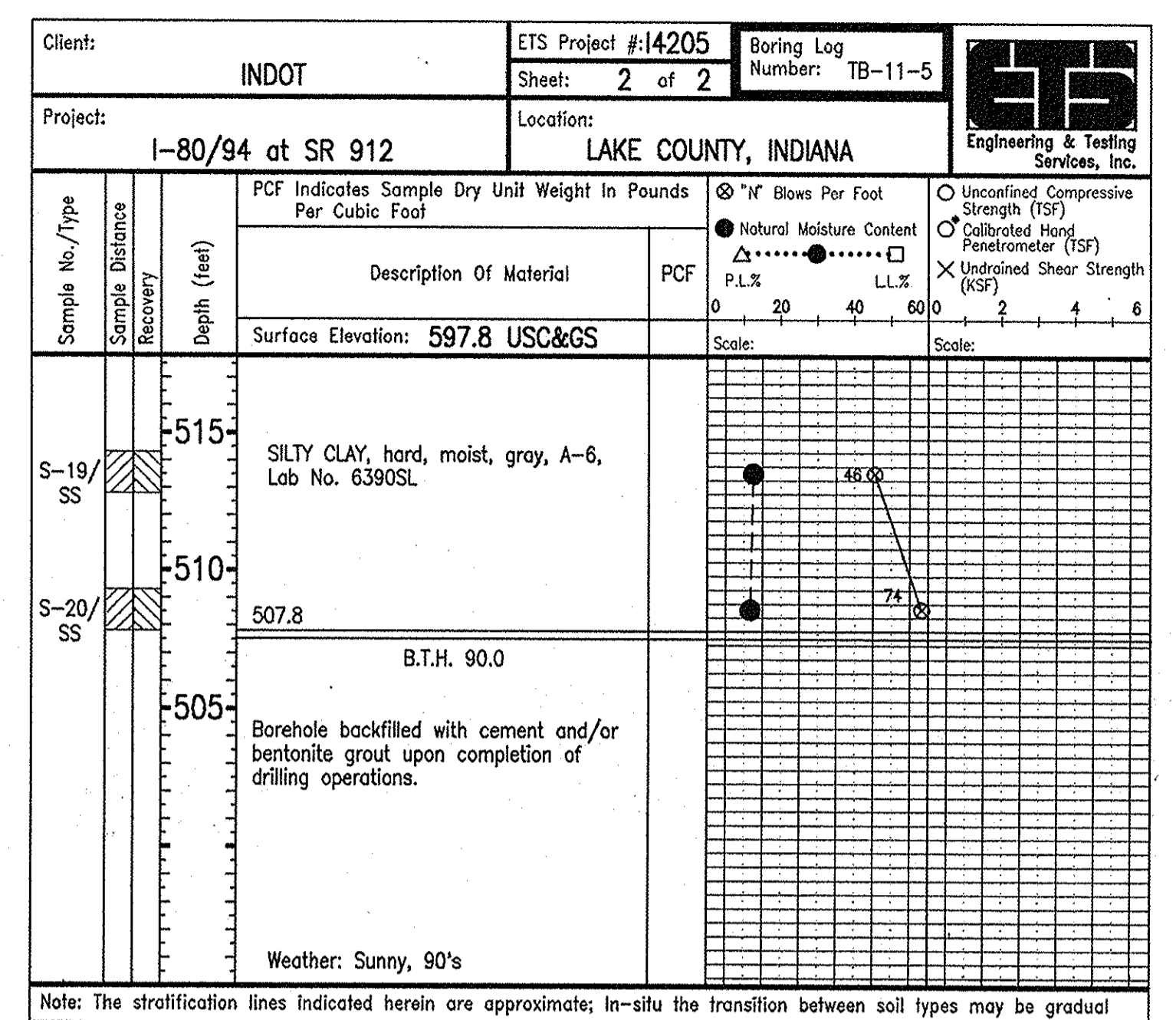
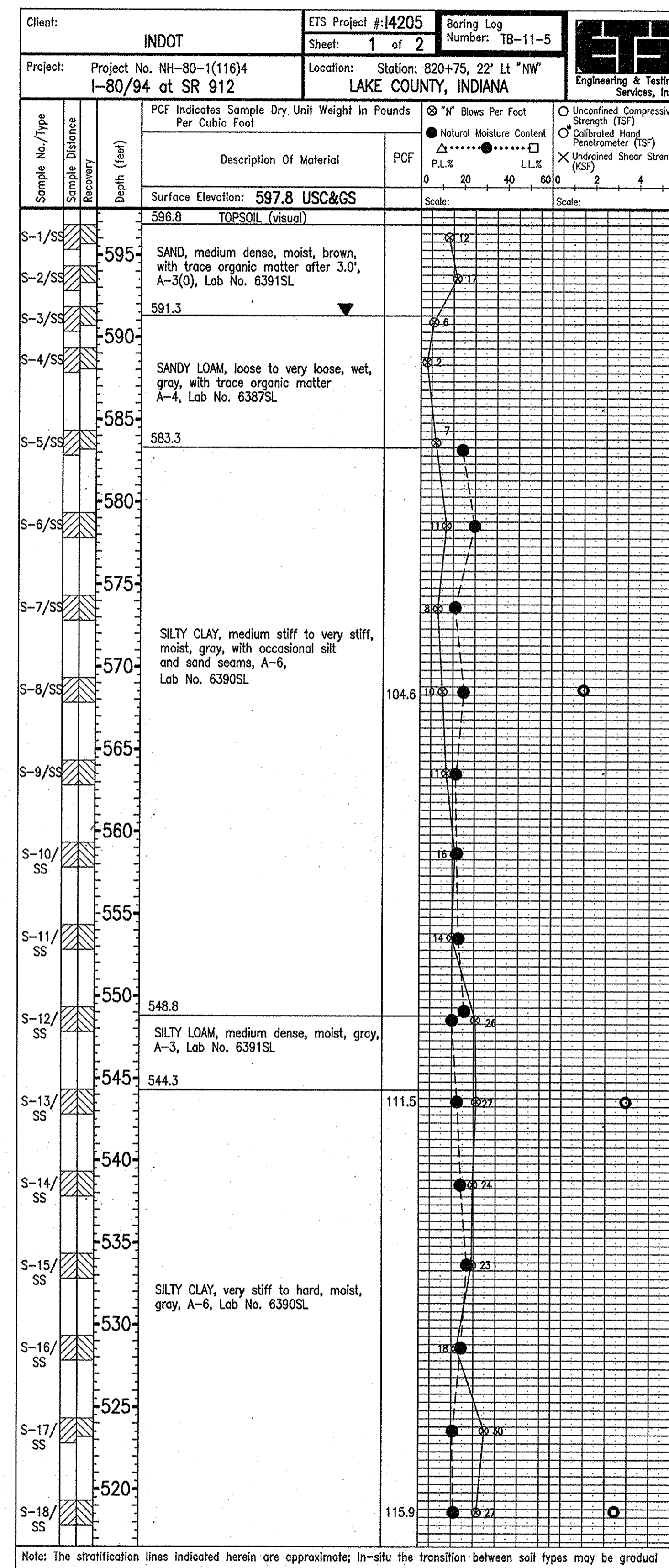
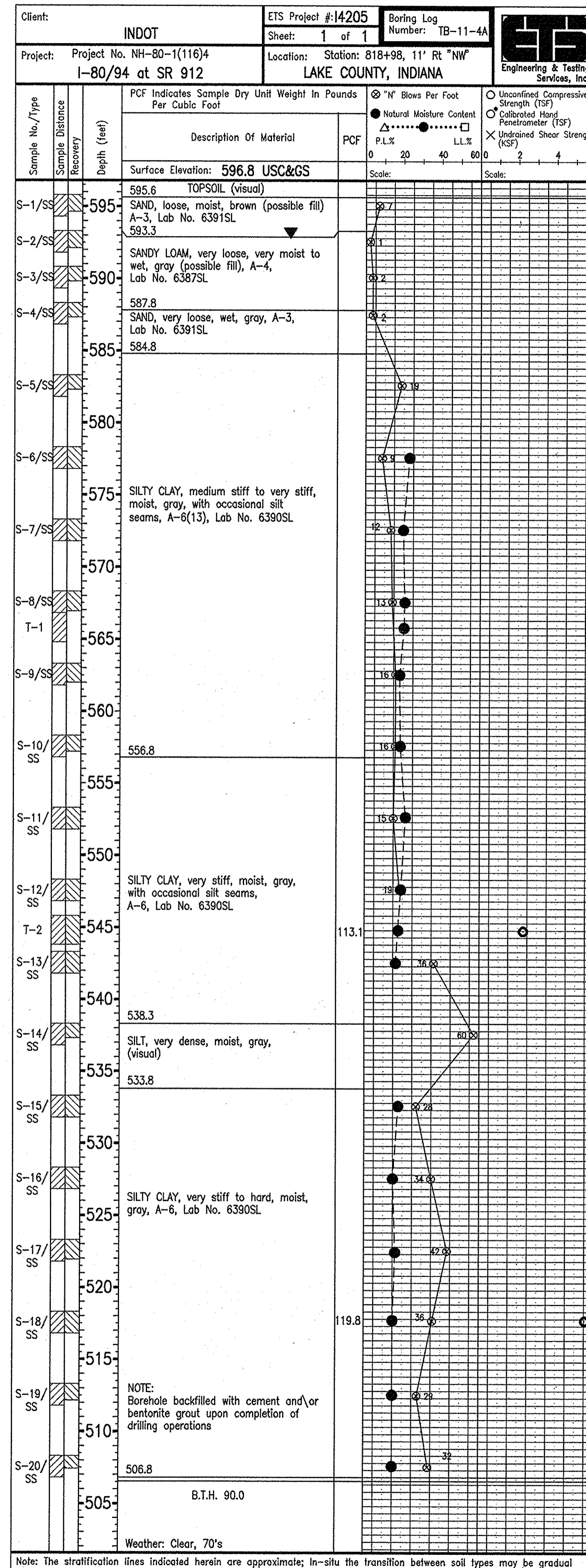
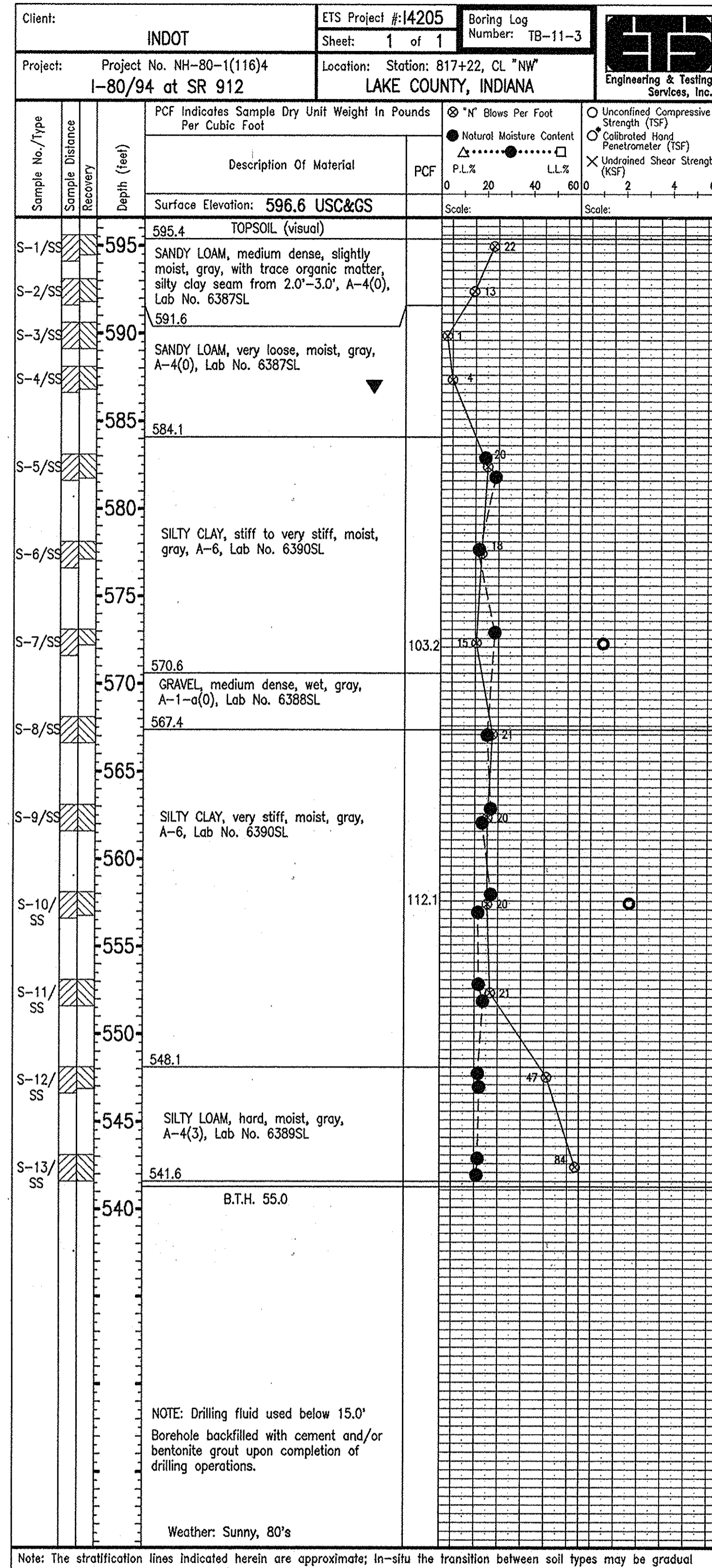


9-1-98: Revised Pile Loading

DESIGNED: C'KD
DRAWN: JDC 12/10/92 C'KD MHW 6/16/93
TRACED: C'KD

DWG FILE: C:\82\119\92119010
PLOT SCALE: 1:1000
PLOT ORIGIN: 0,0,0,0,0

SPELLING: 07/09/88 10:08:38
EDIT DATE: 07/09/88 10:08:38
EDITED BY: CSH - SBI



NOTES:

- ▼ Indicates Ground Water Level
- N Indicates the number of blows required to drive a 1 3/8" I.D., 2" O.D. Split Spoon sampler 12" by means of a 140 lb. weight falling 30'.

SOIL BORINGS INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - Horiz. 1"=40'
Vert. 1"=5'

DATE: - June 1, 1998

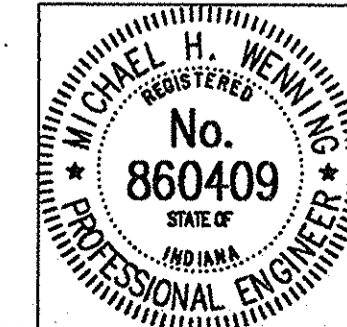
SUBMITTED FOR APPROVAL *Michael H. Wenzel*

DRAWING: - OF SHEET: - 12 OF 79

PROJECT: - IM-80-1(143)4

CONTRACT NO. R-23808

BRIDGE FILE: - I-80-5-7828

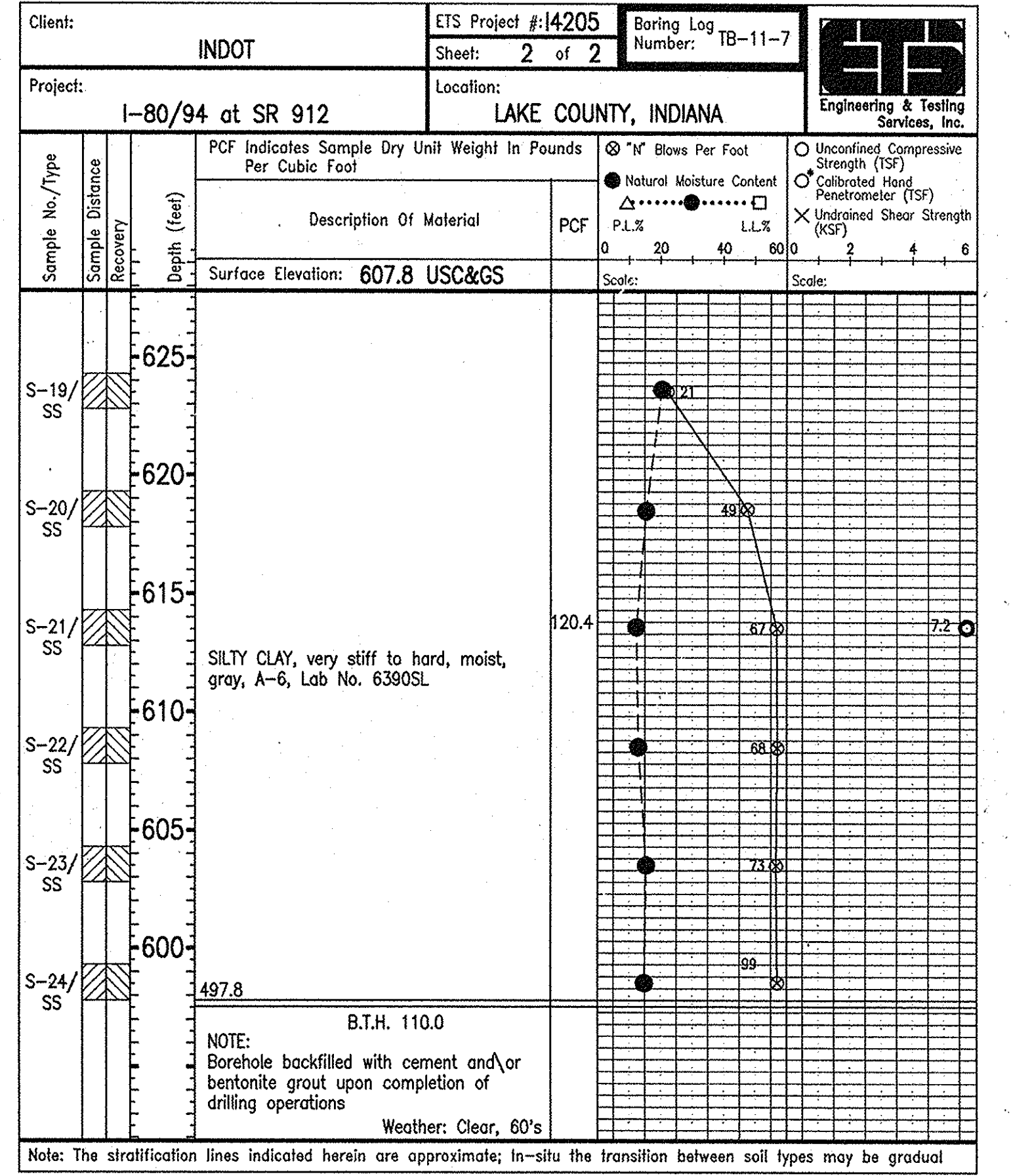
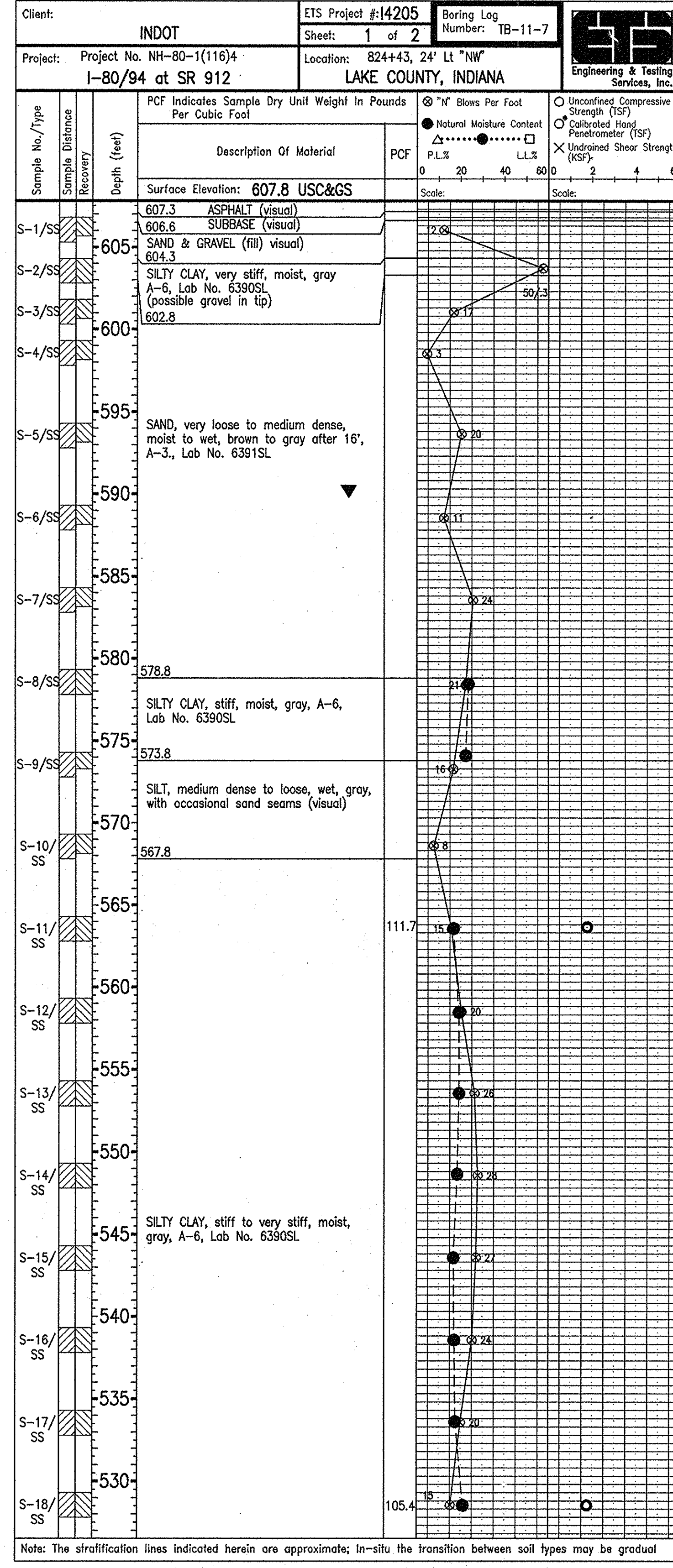
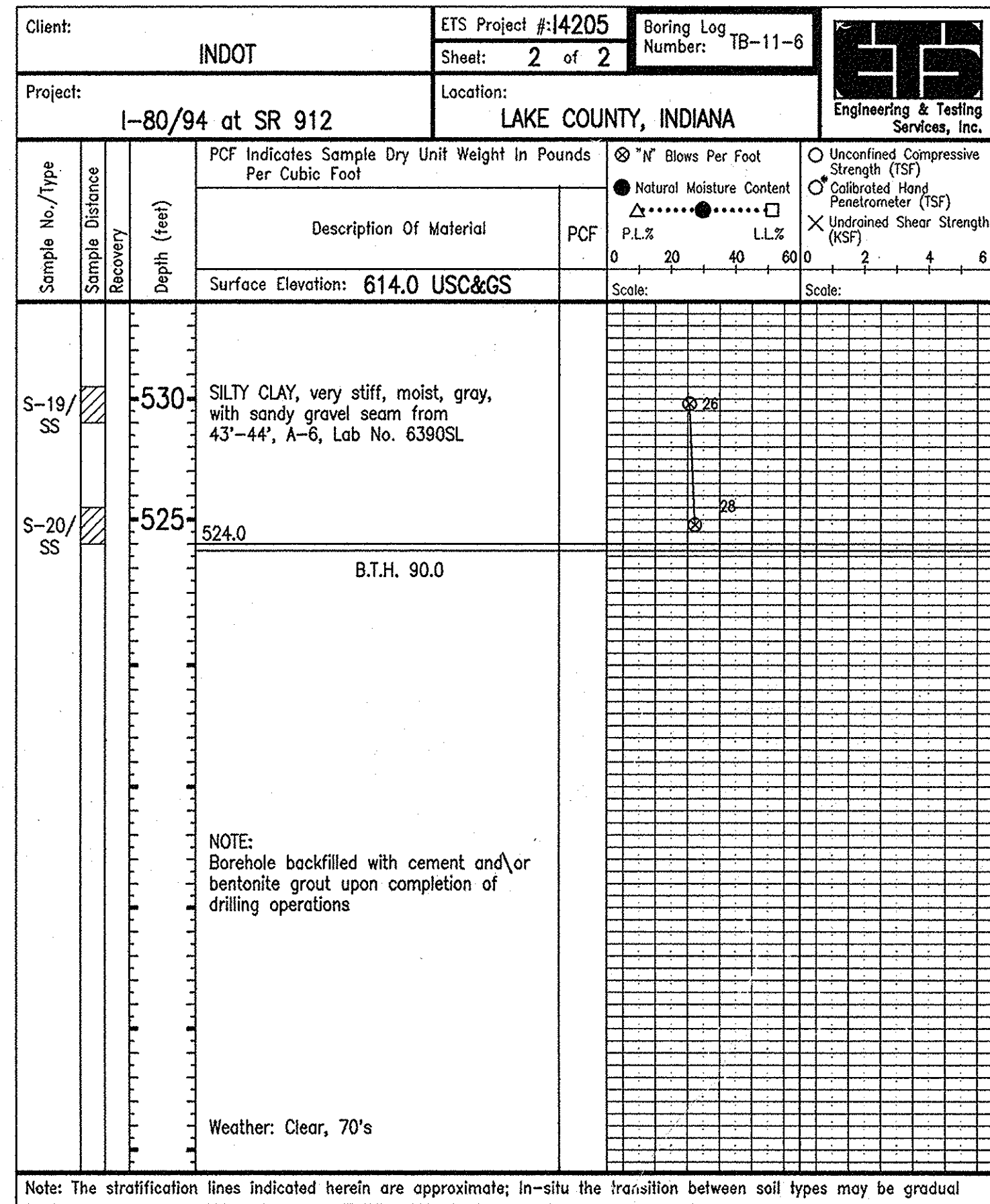
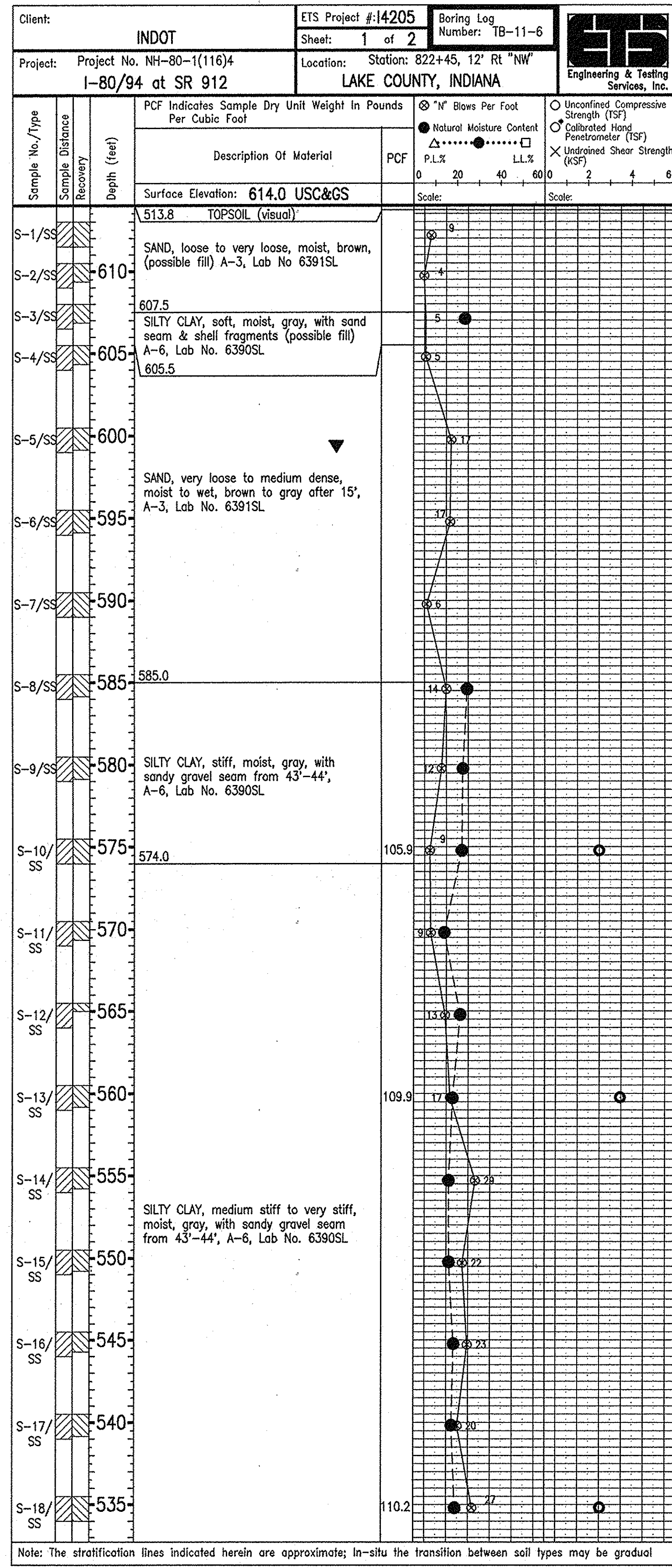


DESIGNED: C.K'D
DRAWN: JDC 12/10/92
TRACED: C.K'D

MHW 6/16/93

DWG FILE: C:\92\119\92119807
PLOT SCALE: 1:1,000
PLOT ORIGIN: 0.00,0.00

SPELCHK: C:\92\119\92119807
EDIT DATE: 06/01/98
EDITED BY: RJC - 3126



NOTES:

- ▼ Indicates Ground Water Level
- N Indicates the number of blows required to drive a 1 3/8" I.D., 2" O.D. Split Spoon sampler 12" by means of a 140 lb. weight falling 30".

SOIL BORINGS
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - Horiz. 1"=40'
Vert. 1"=5'

DATE: - June 1, 1998

SUBMITTED FOR APPROVAL

DRAWING: - OF SHEET: - 13 OF 79

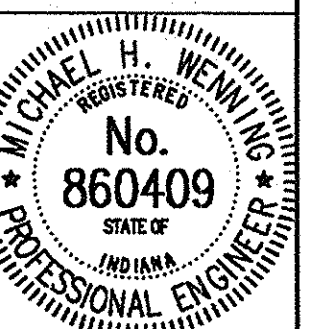
PROJECT: - IM-80-1(143)4

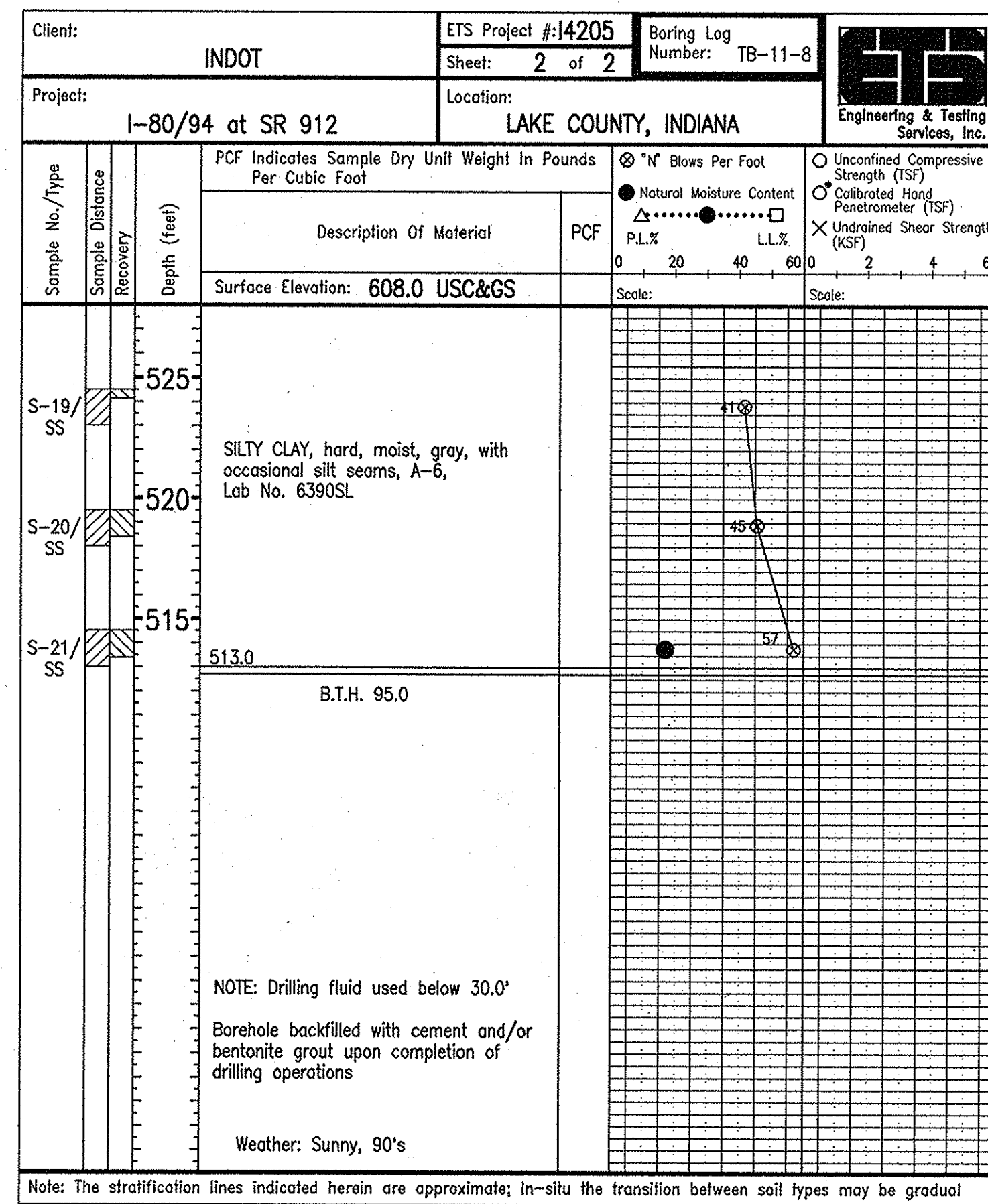
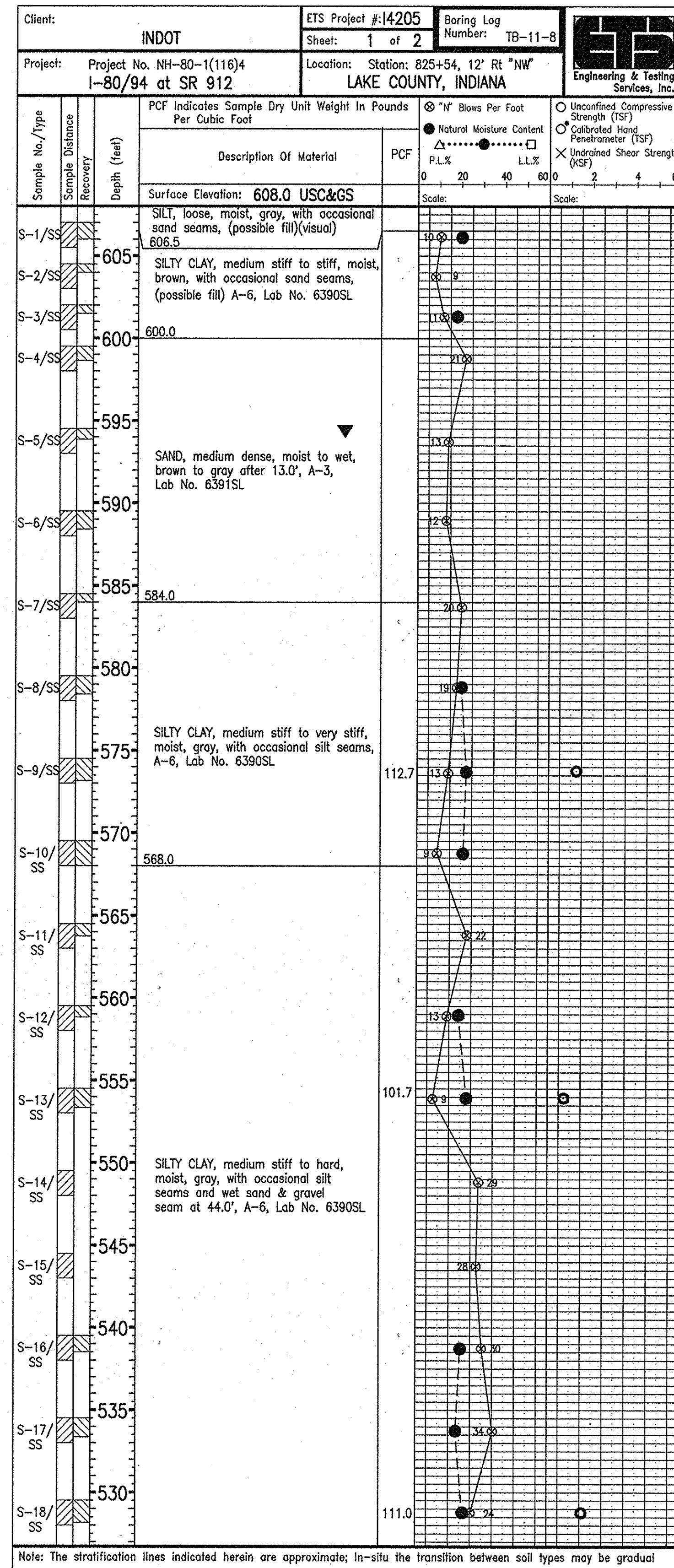
CONTRACT NO. R-23808

BRIDGE FILE: - I-80-5-7828

DESIGNED: CJK
DRAWN: JDC 12/10/92
TRACED: CJK

SP/ELC/HC
EDIT DATE: 06/01/88
EDITED BY: RUC - S128





NOTES:

- ▼ Indicates Ground Water Level
- N Indicates the number of blows required to drive a 1 3/8" I.D., 2" O.D. Split Spoon sampler 12" by means of a 140 lb. weight falling 30".

SOIL BORINGS
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - Horiz. 1"=40'
Vert. 1"=5'

DATE: - June 1, 1998

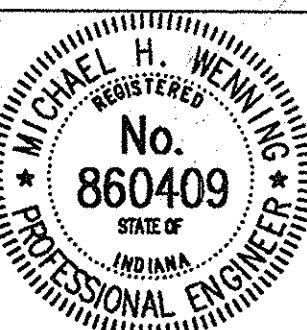
SUBMITTED FOR APPROVAL *Michael H. Wenning*

DRAWING: - OF SHEET: - 14 OF 79

PROJECT: - IM-80-1(143)4

CONTRACT NO. R-23808

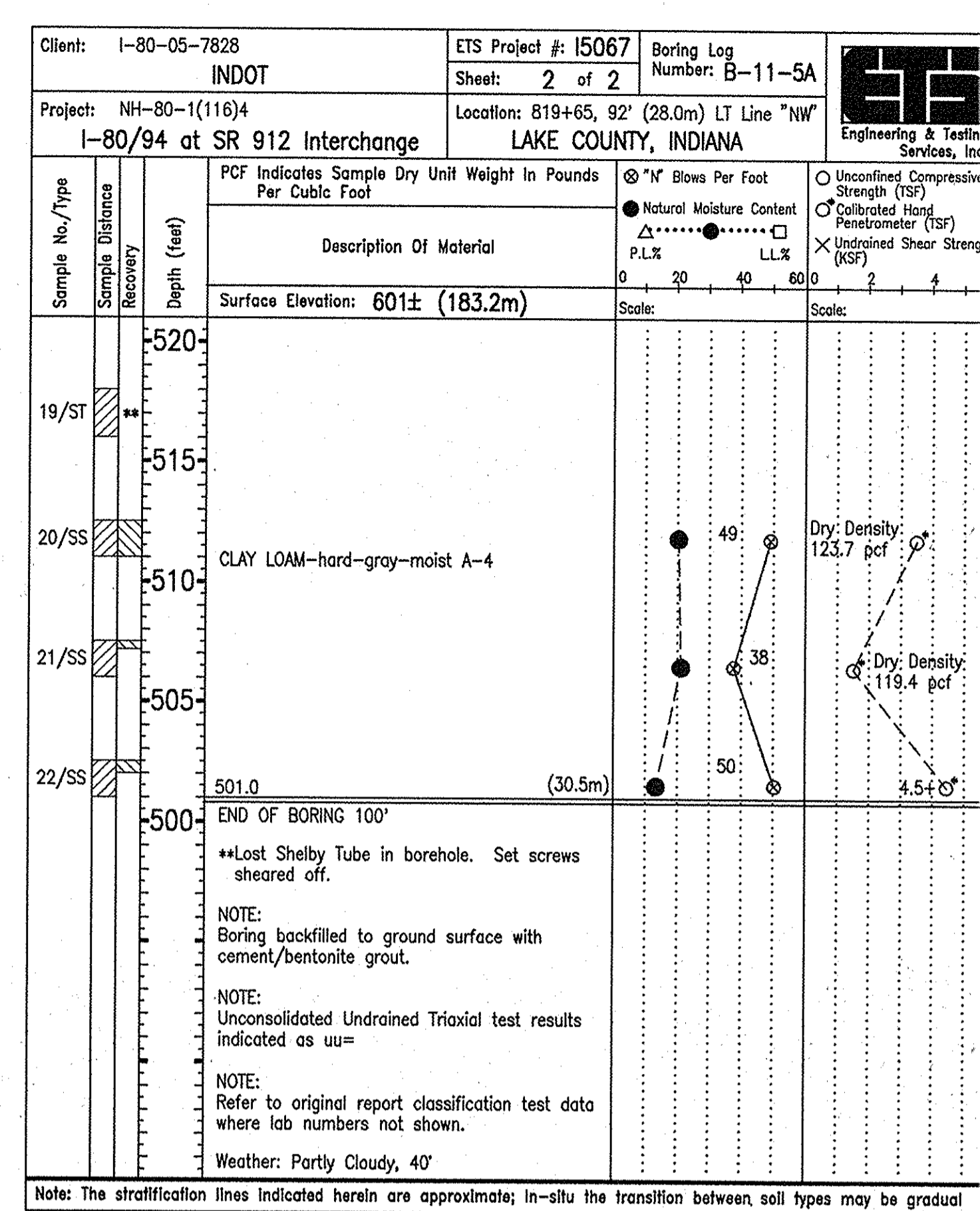
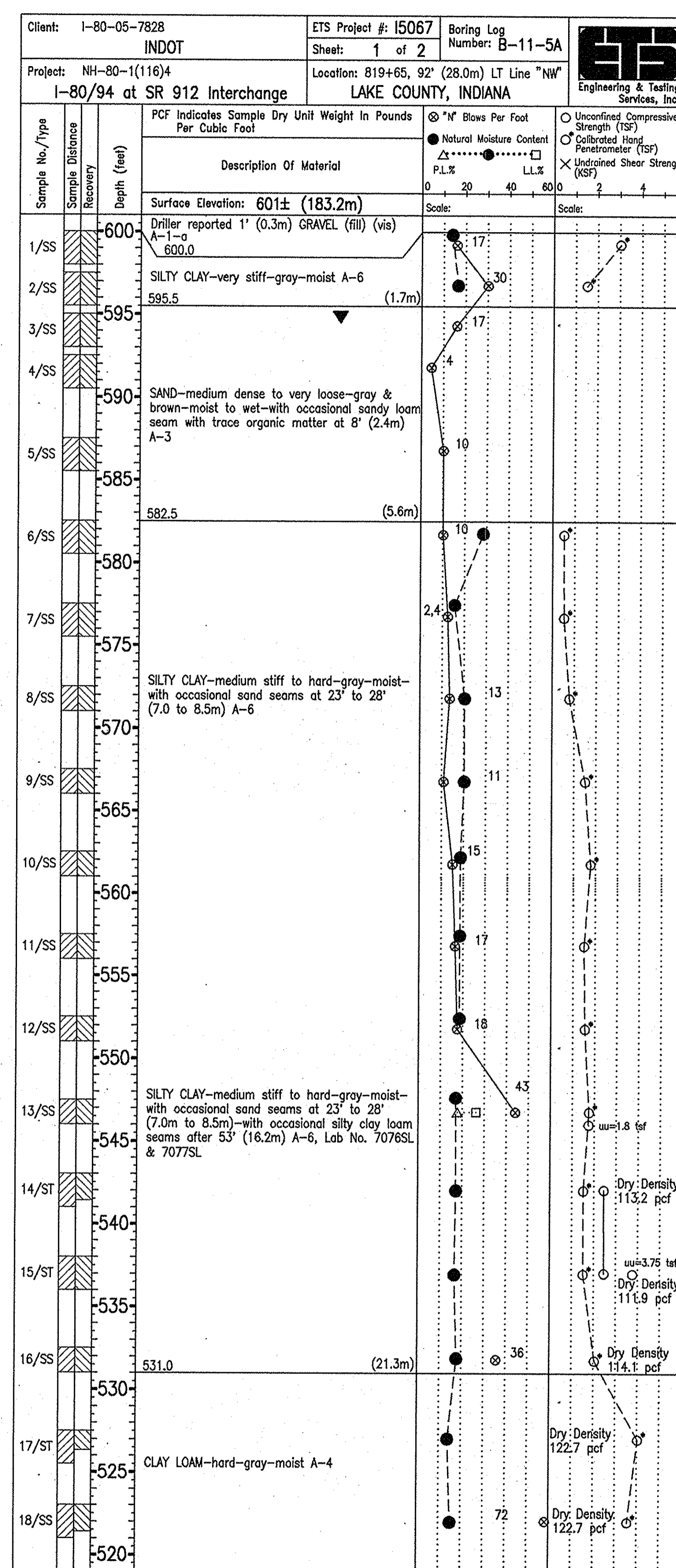
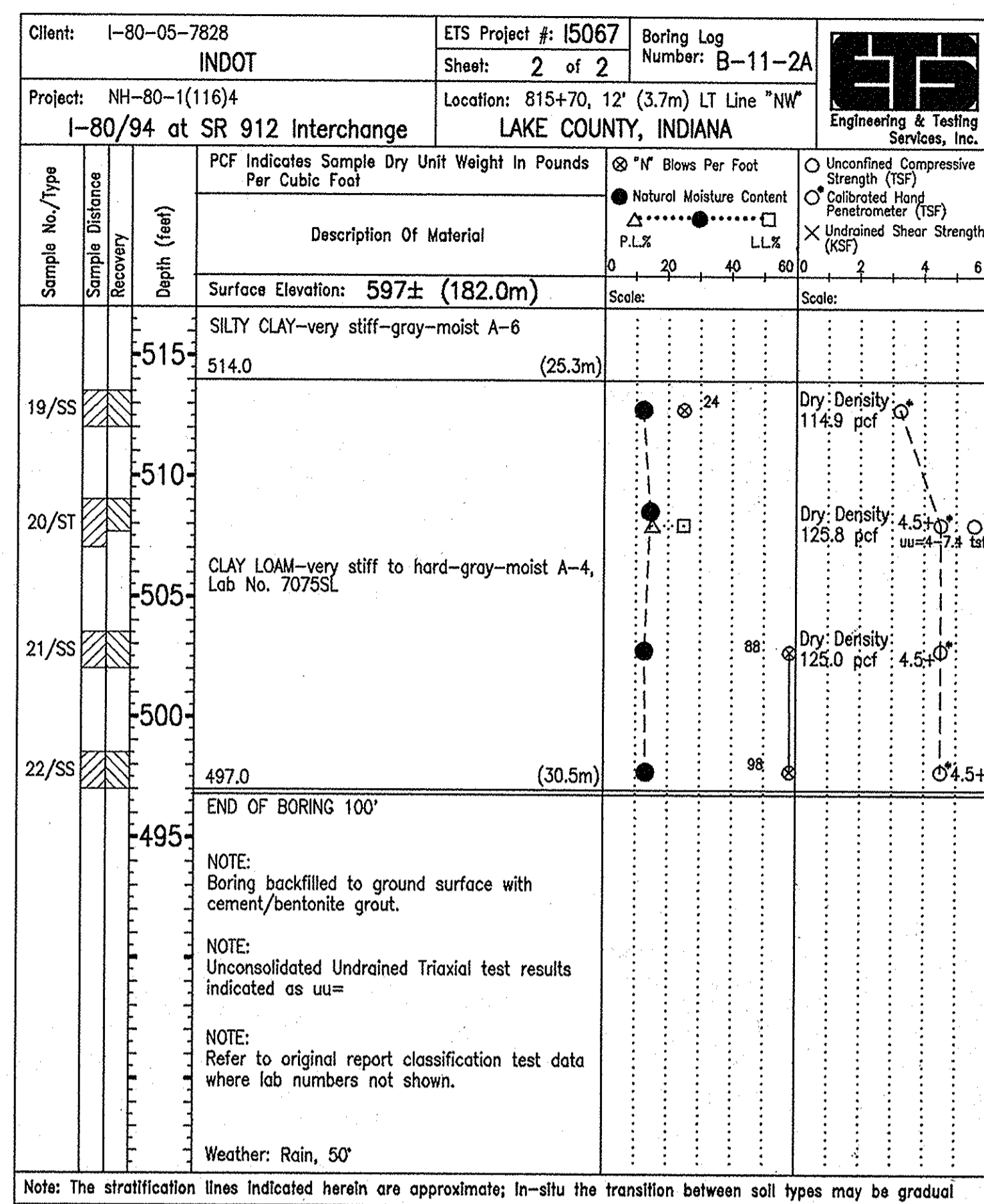
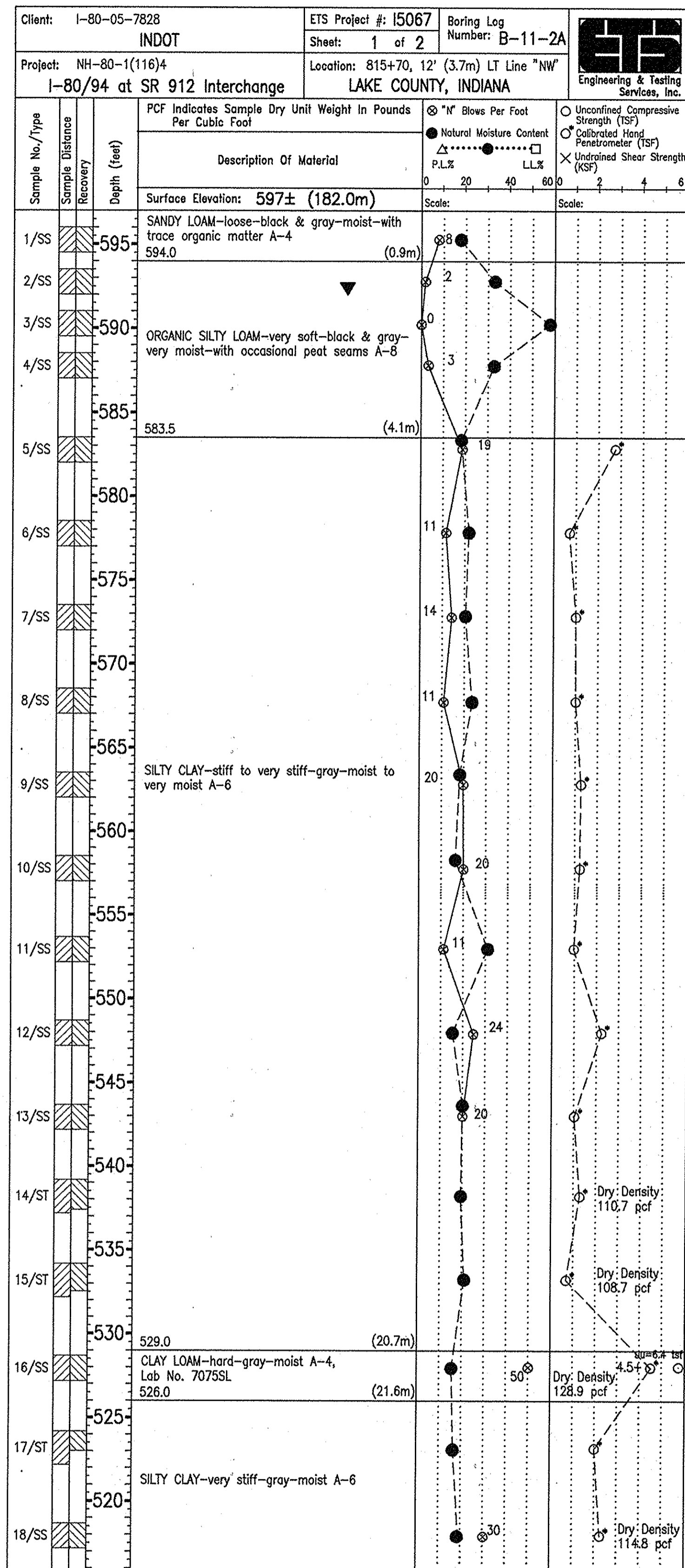
BRIDGE FILE: - I-80-5-7828



DESIGNED: - CK'D
DRAWN: JDC 12/10/92 CK'D MHW 6/16/93
TRACED: - CK'D

DWG FILE: C:\92\118\9211808
PLOT SCALE: 1:1000
PLOT ORIGIN: 0,0,0,0

SPELLCHK: 06/01/98
EDIT DATE: 06/01/98
EDITED BY: RJS - SJS



- NOTES:
- ▼ Indicates Ground Water Level
 - N Indicates the number of blows required to drive a 1 3/8" I.D., 2" O.D. Split Spoon sampler 12" by means of a 140 lb. weight falling 30".

SOIL BORINGS INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - Horiz. 1"=40'
Vert. 1"=5'

DATE: - June 1, 1998

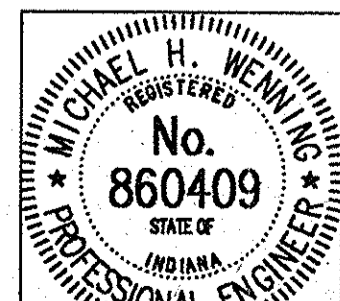
SUBMITTED FOR APPROVAL *Michael H. Wynn*

DRAWING: - OF SHEET: - 15 OF 79

PROJECT: - IM-80-1(143)4

CONTRACT NO. R-23808

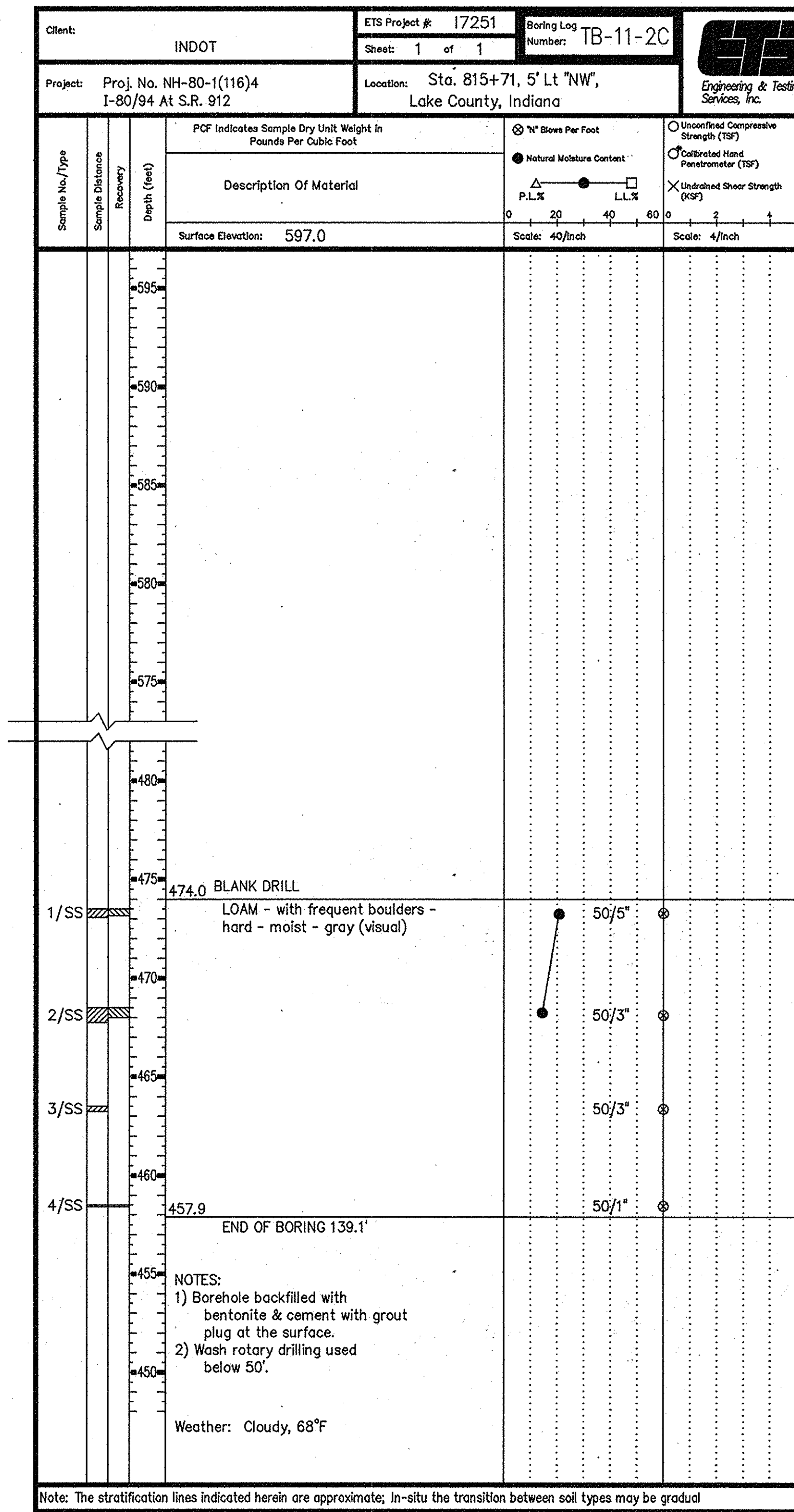
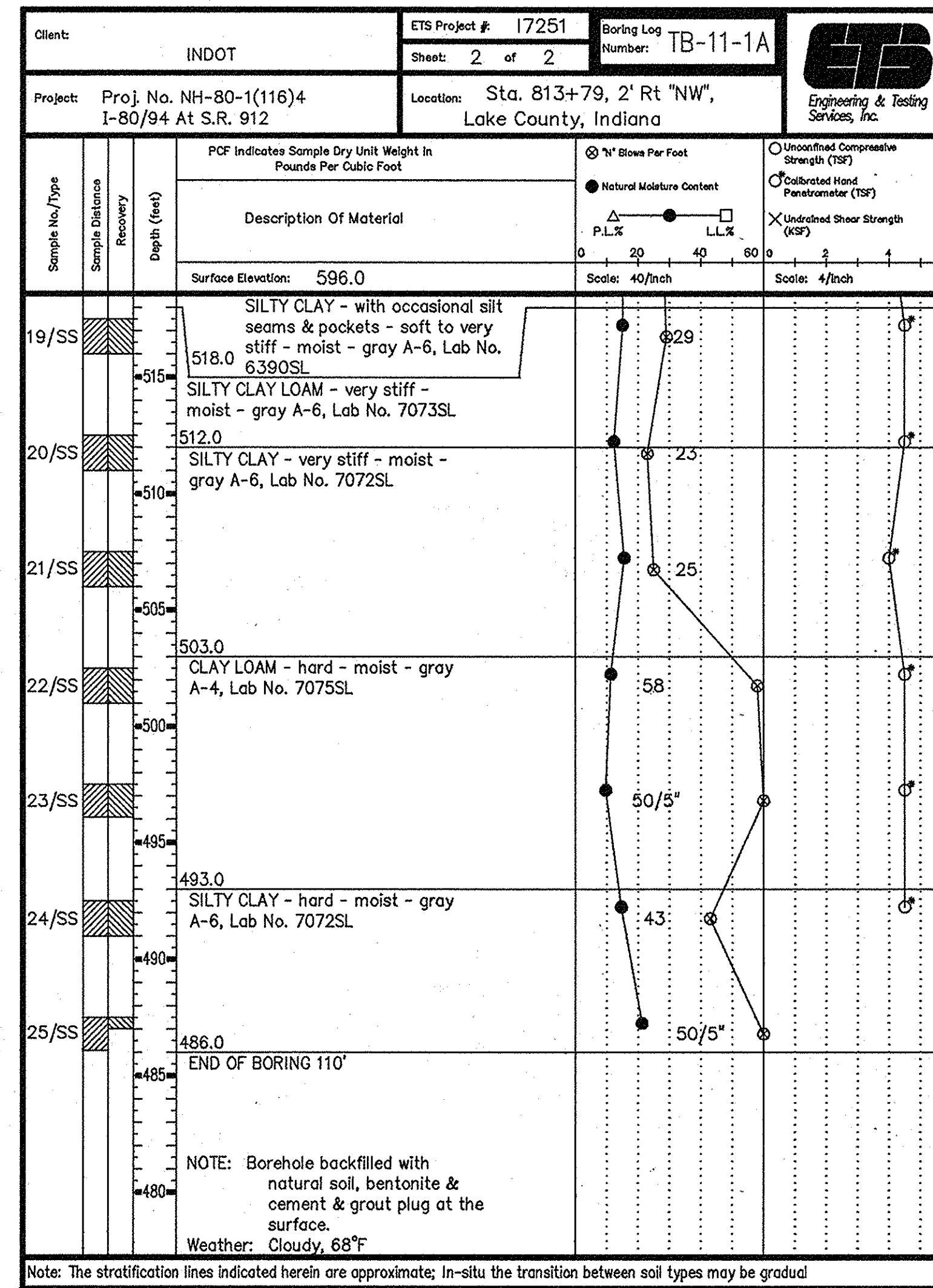
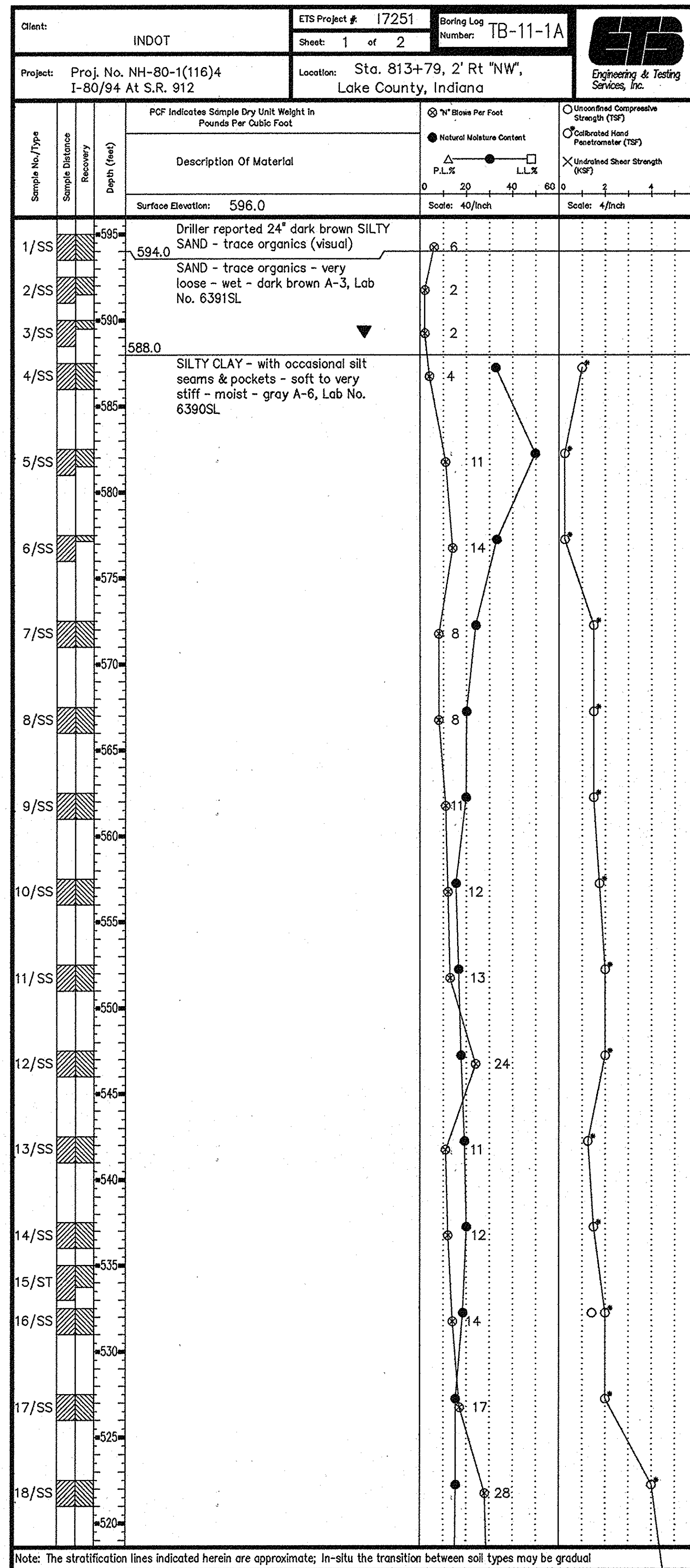
BRIDGE FILE: - I-80-5-7828



DESIGNED: C/KD
DRAWN: DDG 1/20/94 C/KD MHW 1/21/94
TRACED: C/KD

DWG FILE: 02/11/92/219912
PLOT SCALE: 1:1200
PLOT ORIGIN: 0.00,0.00

SHEET/DWG: 06/01/98
EDIT DATE: RJC - 5128



NOTES:

- ▼ Indicates Ground Water Level
- N Indicates the number of blows required to drive a 1 3/8" I.D., 2" O.D. Split Spoon sampler 12" by means of a 140 lb. weight falling 30".

SOIL BORINGS
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - Horiz. 1"=40'
Vert. 1"=5'

DATE: - July 9, 1998

SUBMITTED FOR APPROVAL

DRAWING: - OF SHEET: - 15A OF 79

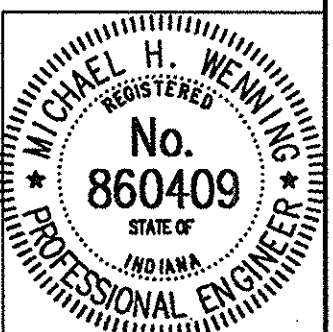
PROJECT: - IM-80-1(143)4

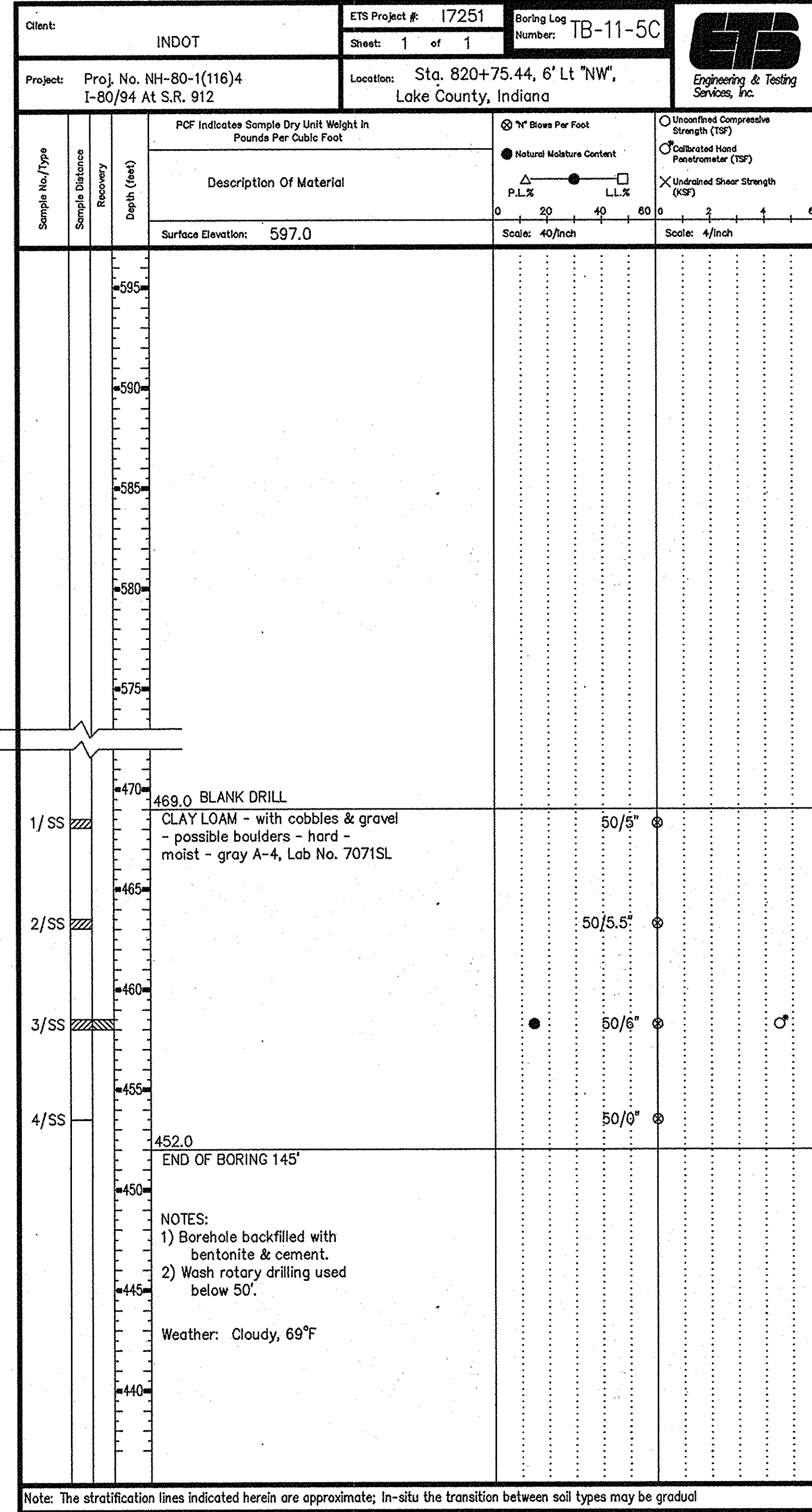
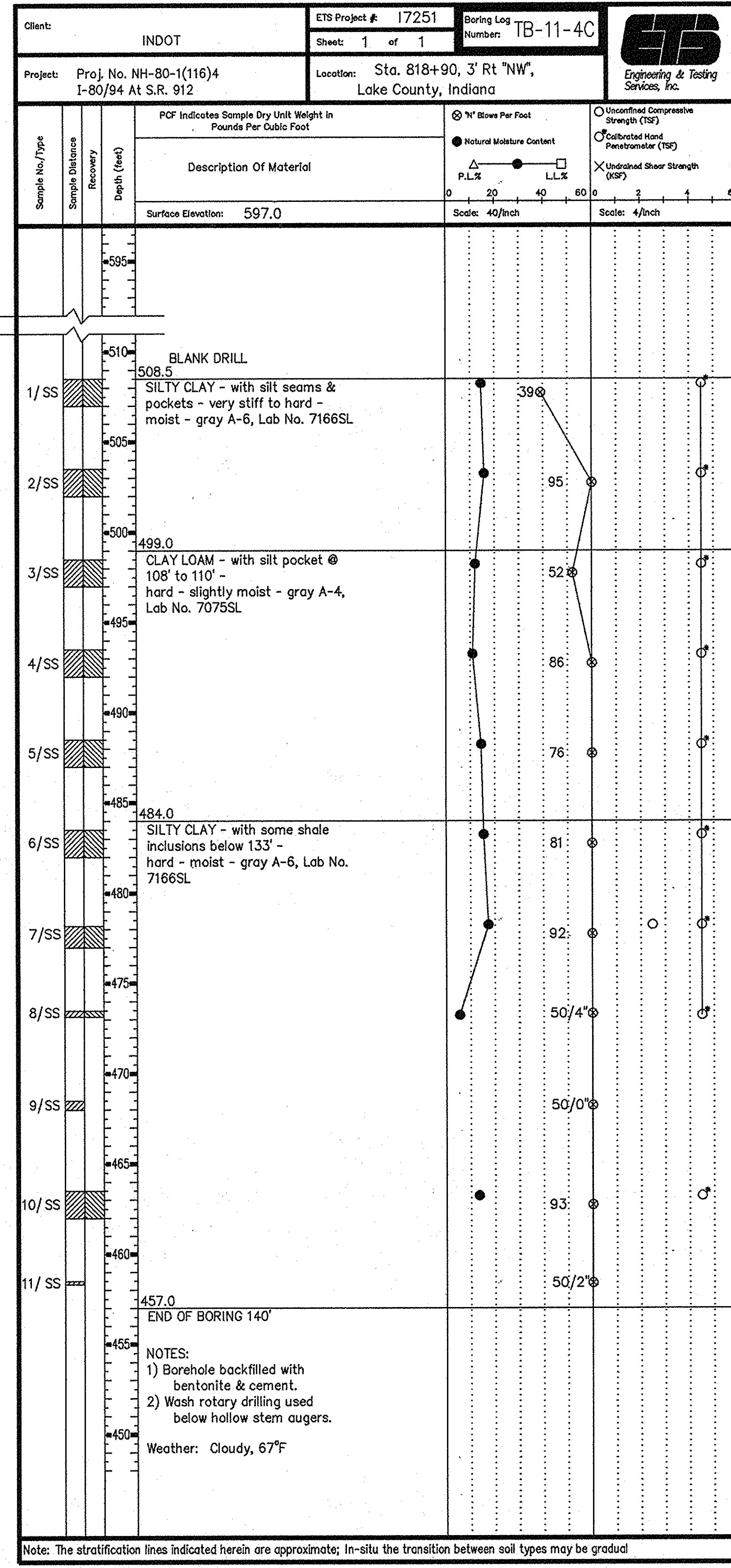
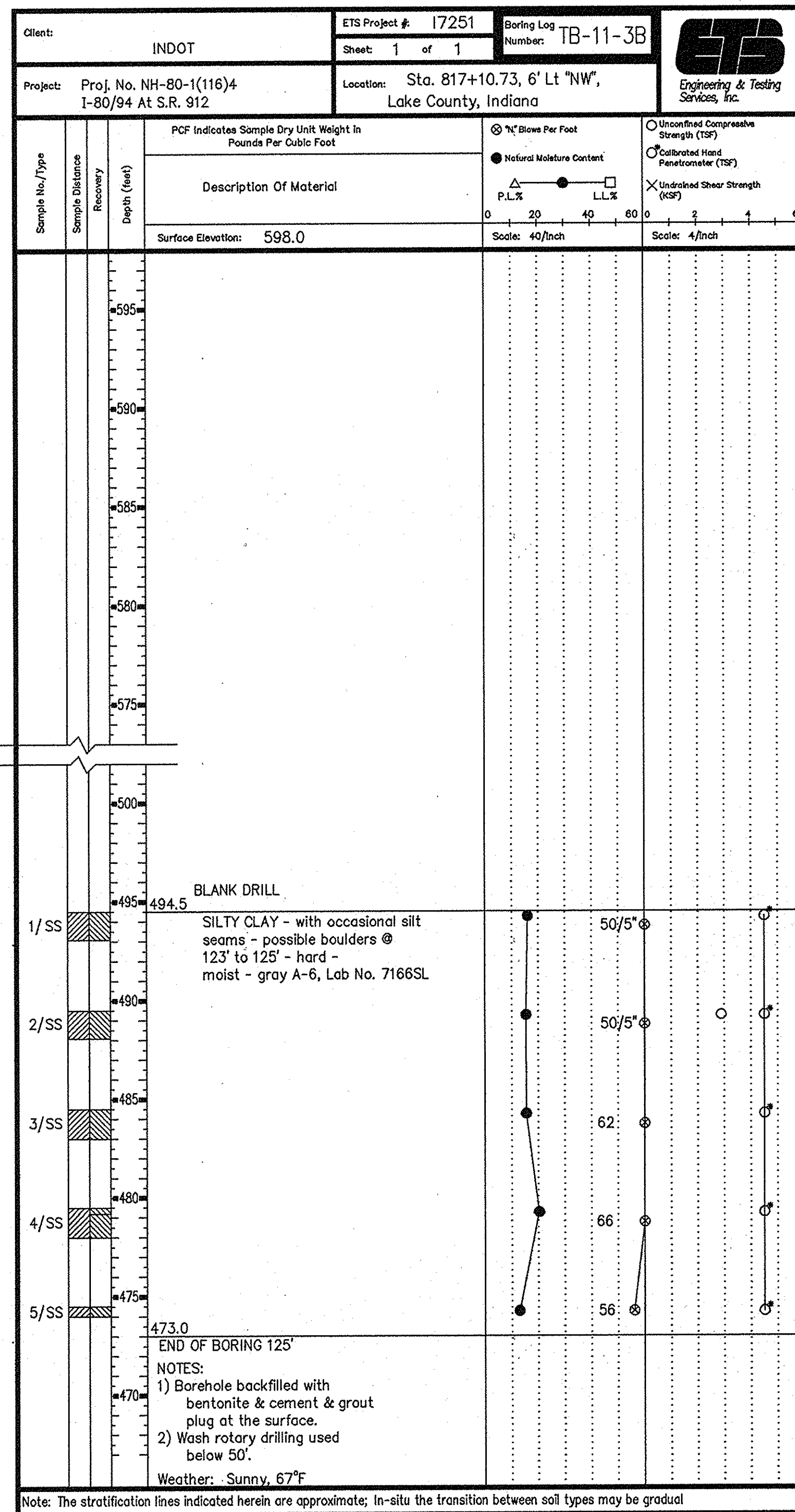
CONTRACT NO. R-23808

BRIDGE FILE: - I-80-5-7828

DESIGNED: C'KD
DRAWN: DSH 7/6/98
TRACED: C'KD

SPELLED: 07/08/98 10:11:48
EDIT DATE: DSH - 591





NOTES:

- ▼ Indicates Ground Water Level
- N Indicates the number of blows required to drive a 1 3/8" I.D., 2" O.D. Split Spoon sampler 12" by means of a 140 lb. weight falling 30".

SOIL BORINGS
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - Horiz. 1"=40'
Vert. 1"=5'

DATE: - July 9, 1998

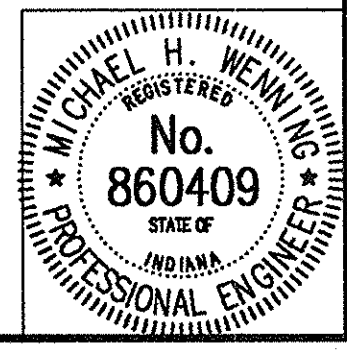
SUBMITTED FOR APPROVAL *Michael H. Weir*

DRAWING: - OF SHEET: - 158 OF 79

PROJECT: - IM-80-1 (143)4

CONTRACT NO. R-23808

BRIDGE FILE: - I-80-5-7828



DESIGNED: C.K.D.

DRAWN: DSH 7/6/98 C.K.D. MHW 7/8/98

TRACED: C.K.D.

DWG FILE: C:\V2\110\2119804

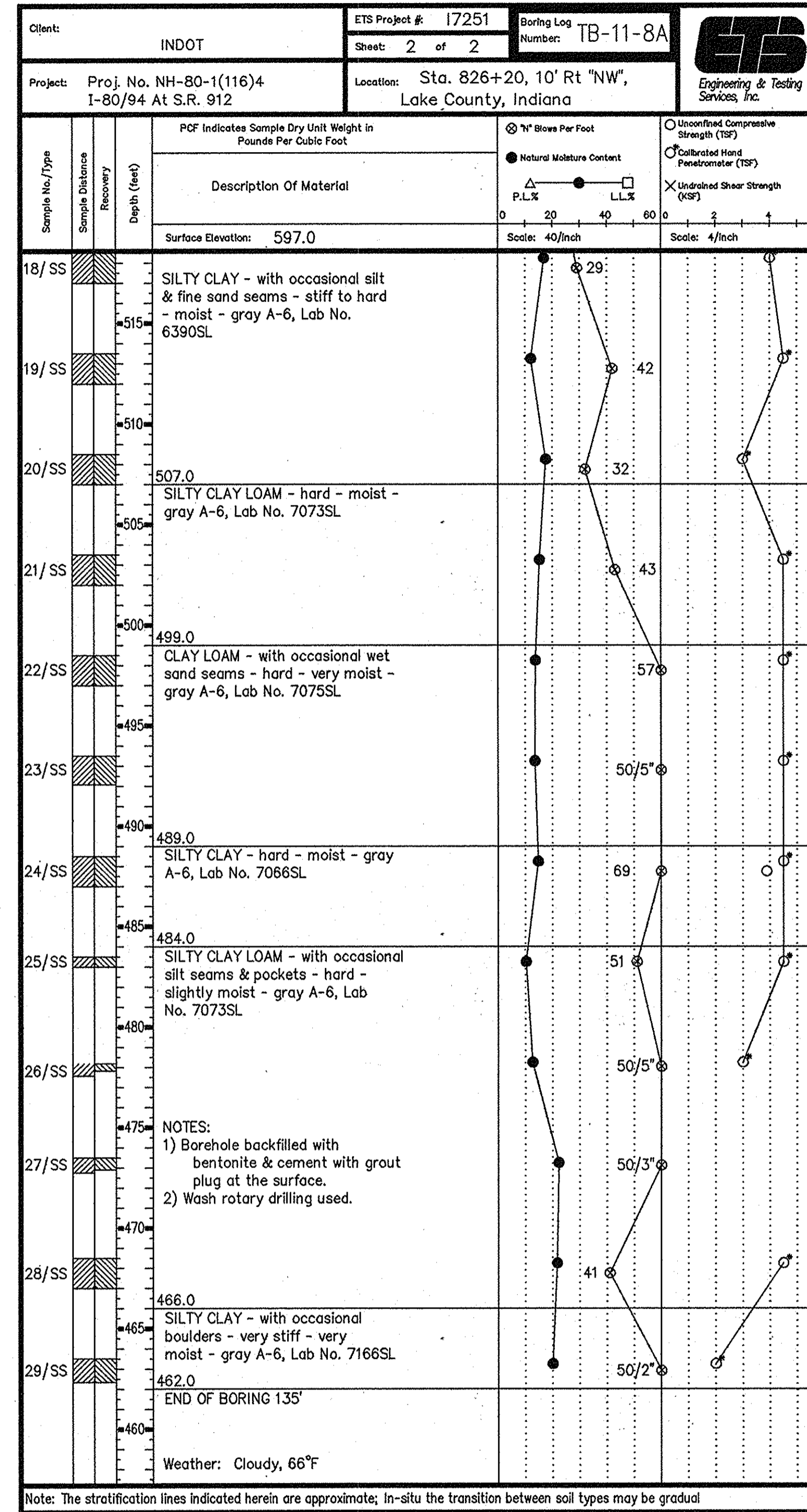
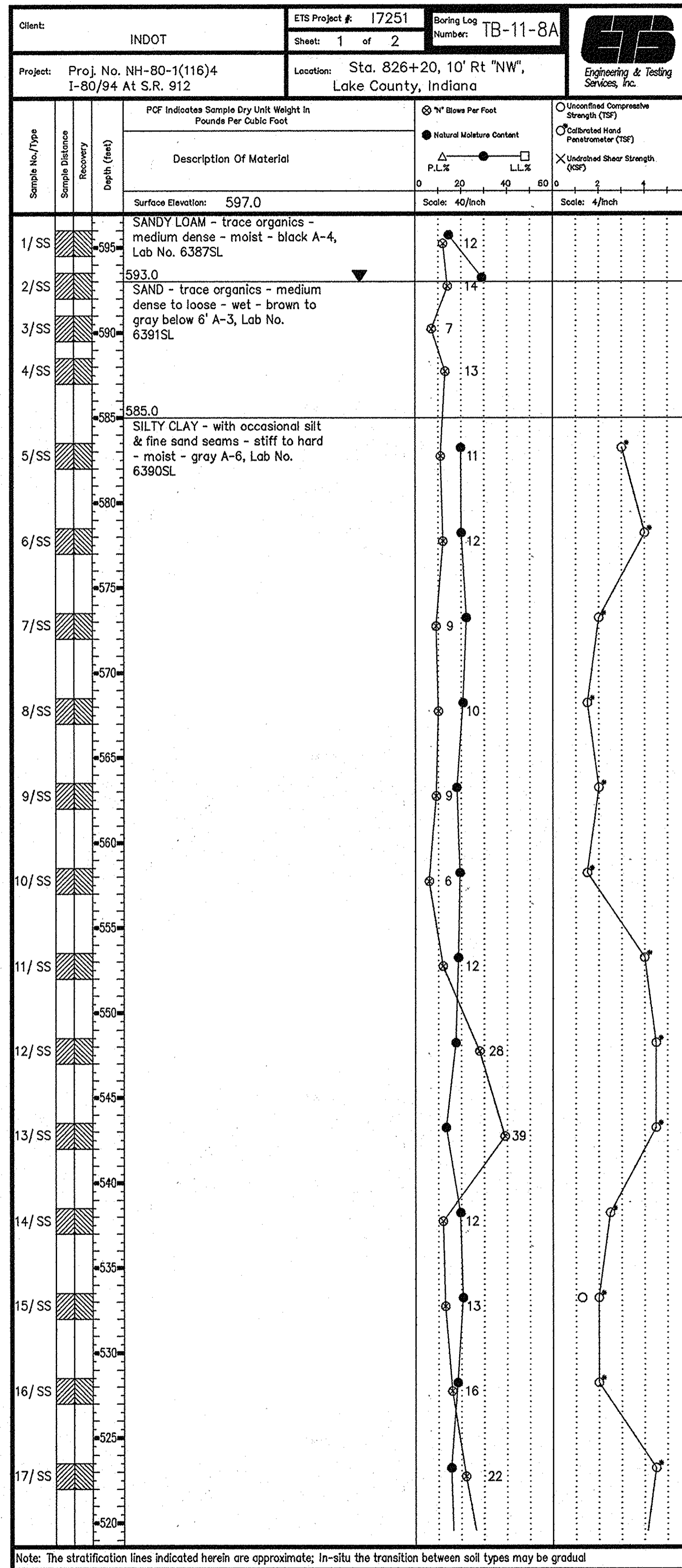
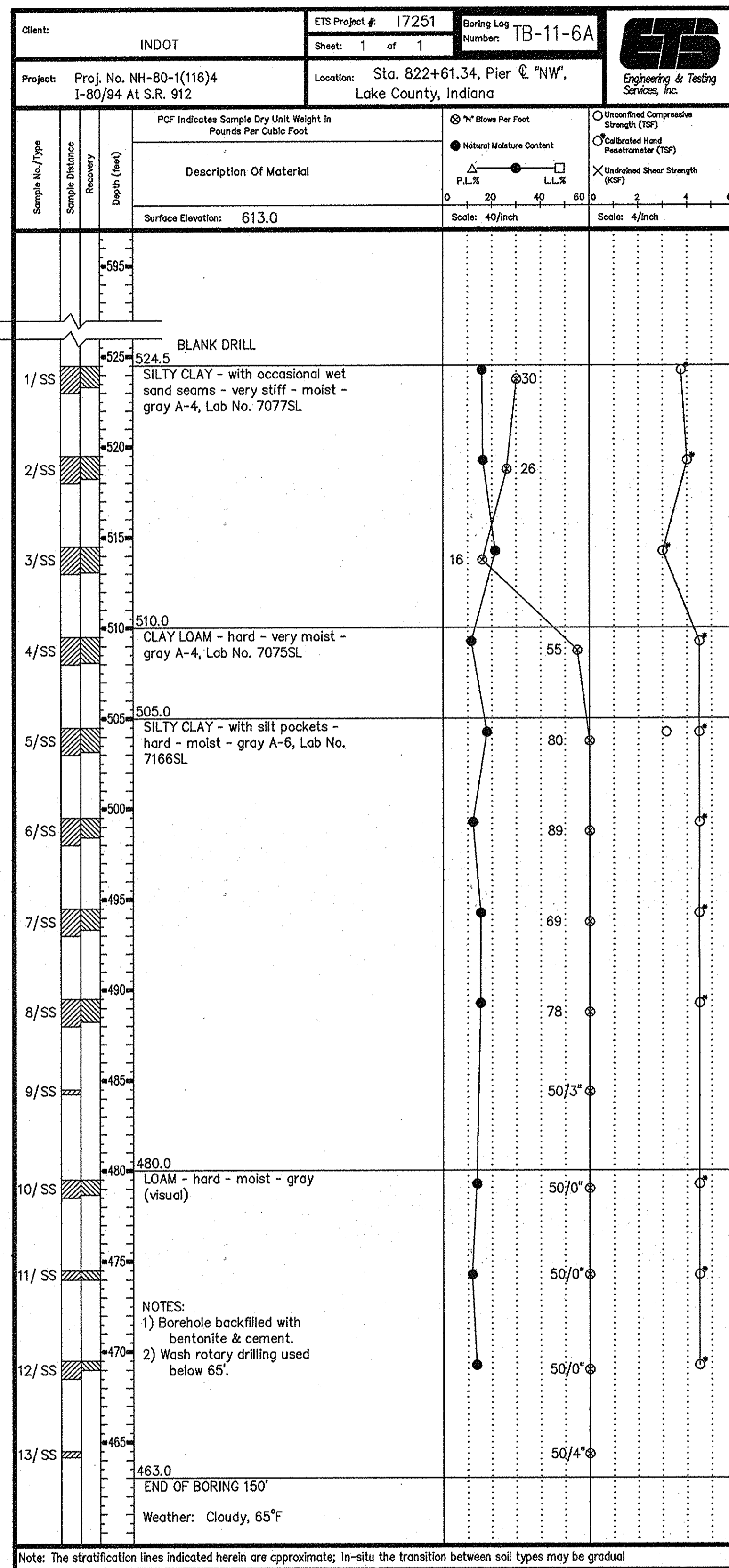
PLOT SCALE: 1:1000

PLOT ORIGIN: 0.00,0.00

SPELCHK: 07/08/98 10:13:13

EDIT DATE: 07/08/98 10:13:13

EDIT BY: DSH - SMI



NOTES:

- ▼ Indicates Ground Water Level
- N Indicates the number of blows required to drive a 1 3/8" I.D., 2" O.D. Split Spoon sampler 12" by means of a 140 lb. weight falling 30".

SOIL BORINGS
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - Horiz. 1"=40'
Vert. 1"=5'

DATE: - July 9, 1998

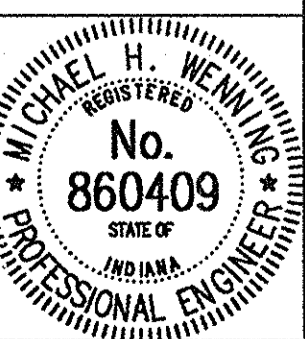
SUBMITTED FOR APPROVAL *Michael P. ...*

DRAWING: - OF SHEET: - 15C OF 79

PROJECT: - IM-80-1 (143)4

CONTRACT NO. R-23808

BRIDGE FILE: - I-80-5-7828



DESIGNED: C.K.D.

DRAWN: DSH 7/6/98 C.K.D. MHW 7/8/98

TRACED: C.K.D.

DWG FILE: C:\82\119\211985

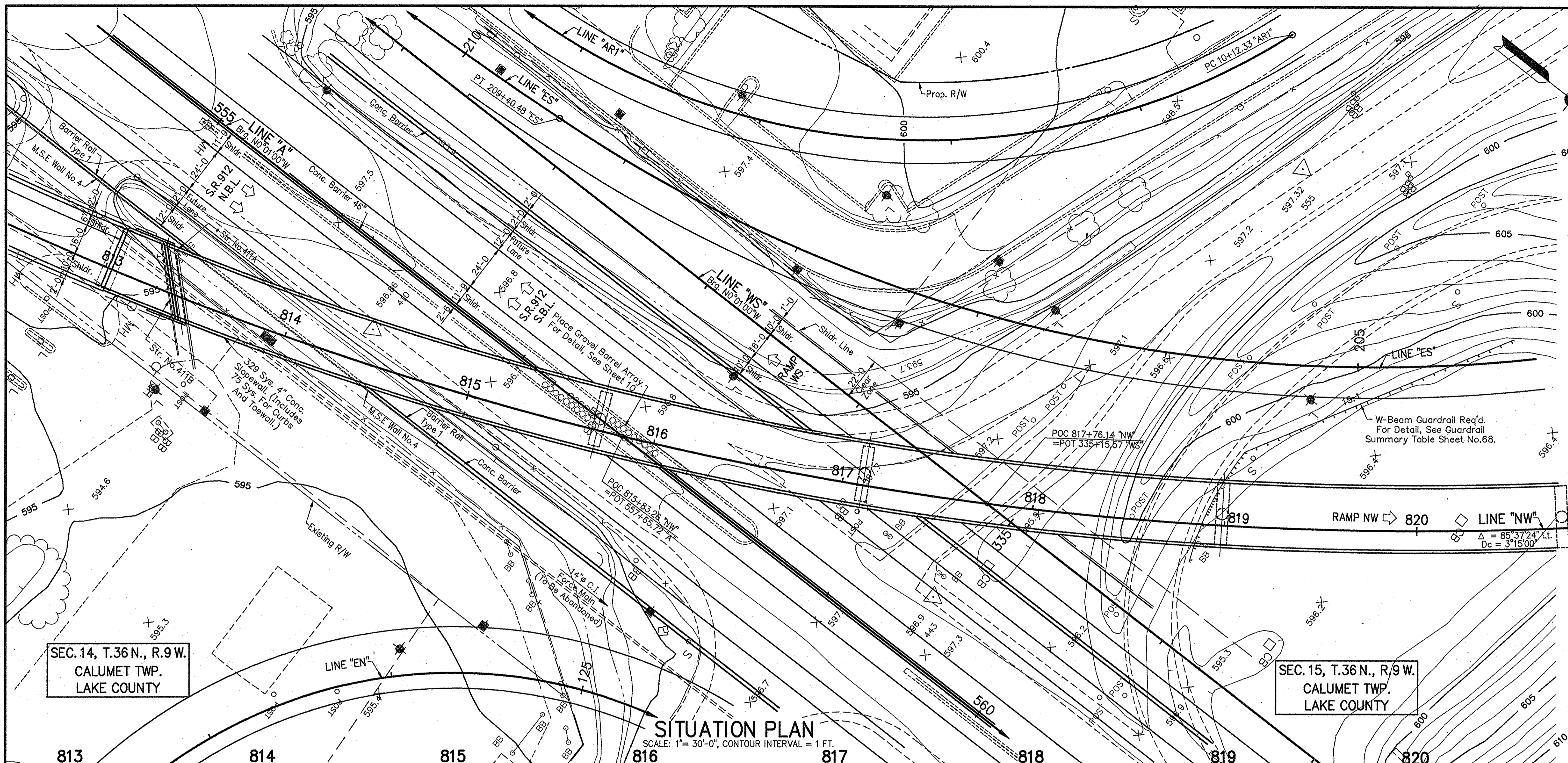
PLOT SCALE: 1:1000

PLOT ORIGIN: 0.00,0.00

SPELLING: 07/08/98 10:15:04

EDIT DATE: 07/08/98

EDIT BY: DSH - 591

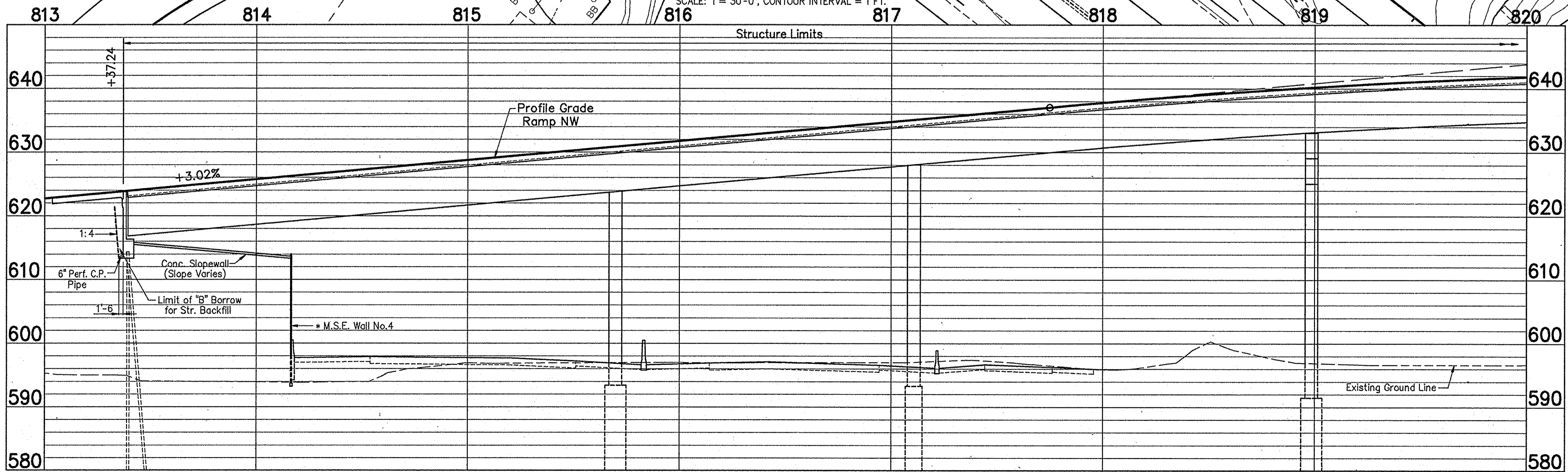


CURVE DATA
 P.I. 821+41.04 "NW"
 =O.P.O.T. 563+19.90 "A",
 427.08' Rt.
 $\Delta = 85^{\circ}37'24"$ LT.
 $D = 3^{\circ}15'00"$
 $R = 1762.95'$
 $T = 1633.17'$
 $L = 2634.56'$
 $E = 640.22'$
 $Se = 5.3\%$

SEC. 14, T.36 N., R.9 W.
 CALUMET TWP.
 LAKE COUNTY

SEC. 15, T.36 N., R.9 W.
 CALUMET TWP.
 LAKE COUNTY

SITUATION PLAN
 SCALE: 1" = 30'-0", CONTOUR INTERVAL = 1 FT.



P.V.I. STA. 822+50
 EL. = 651.40
 V.C. = 950'

NOTES:
 For Utility Owners, see Sheet No.10.
 For Alignment References, and Bench Marks See Road
 Plan And Profile Sheets No.6 - 8.
 * Indicates Road Item.

LAYOUT
 CONTINUOUS COMPOSITE WELDED PLATE GIRDER BRIDGE
 7 SPANS: 229'-1 3/4", 140'-10 3/16", 187'-10 3/16", 176'-10 3/16", 185'-10 1 3/16", 148'-2 7/8", 241'-8 5/8" SKEW: VARIES
 32'-0" CLEAR ROADWAY
 RAMP NW OVER S.R.912 AND I-80/94
INDIANA DEPARTMENT OF TRANSPORTATION
 LAKE COUNTY

SCALE: - As Noted DATE: - July 9, 1998
 SUBMITTED FOR APPROVAL *Michael J. ...*

DRAWING: - S1 OF S52 SHEET: - 16 OF 79
 PROJECT: - IM-80-1(143)4
 CONTRACT NO. R-23808
 BRIDGE FILE: - I-80-5-7828

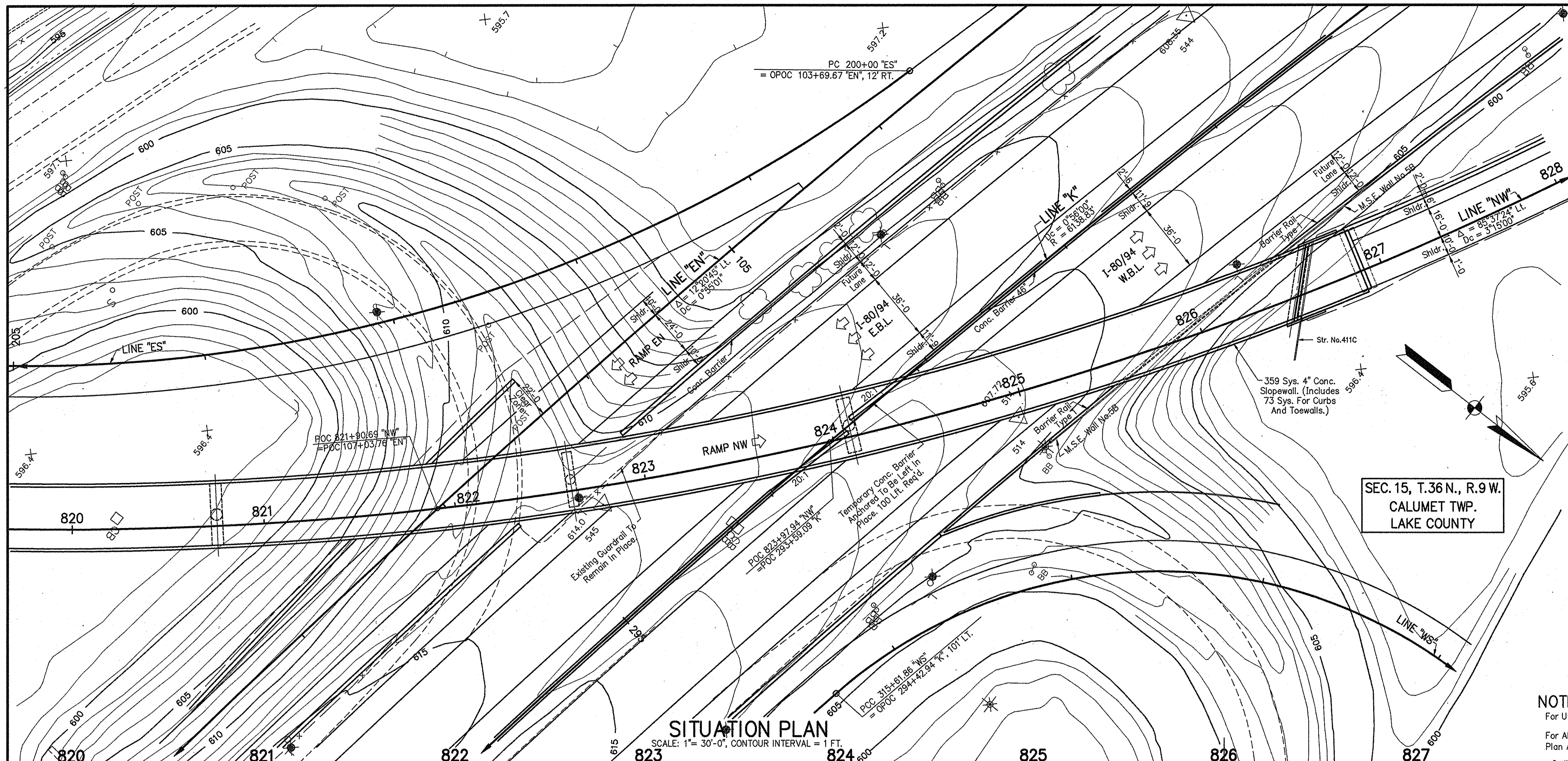


DESIGNED: C'KD
 DRAWN: RJC 6/29/93 C'KD MHW 7/01/93
 TRACED: C'KD

PROFILE LINE NW
 SCALES: 1" = 30'-0" Horizontal, 1" = 10'-0" Vertical

NOTE: FIELD NOTES, BOOK: 16215L1 & 16215T1

DWG FILE: D:\S2\119\9219803
 PLOT SCALE: 1:30,000
 PLOT ORIGIN: 13276.21, -74338.44
 SPELLCHK: 07/09/98 16:20:02
 EDIT DATE: 07/09/98 16:20:02
 EDITED BY: TLH - 5131

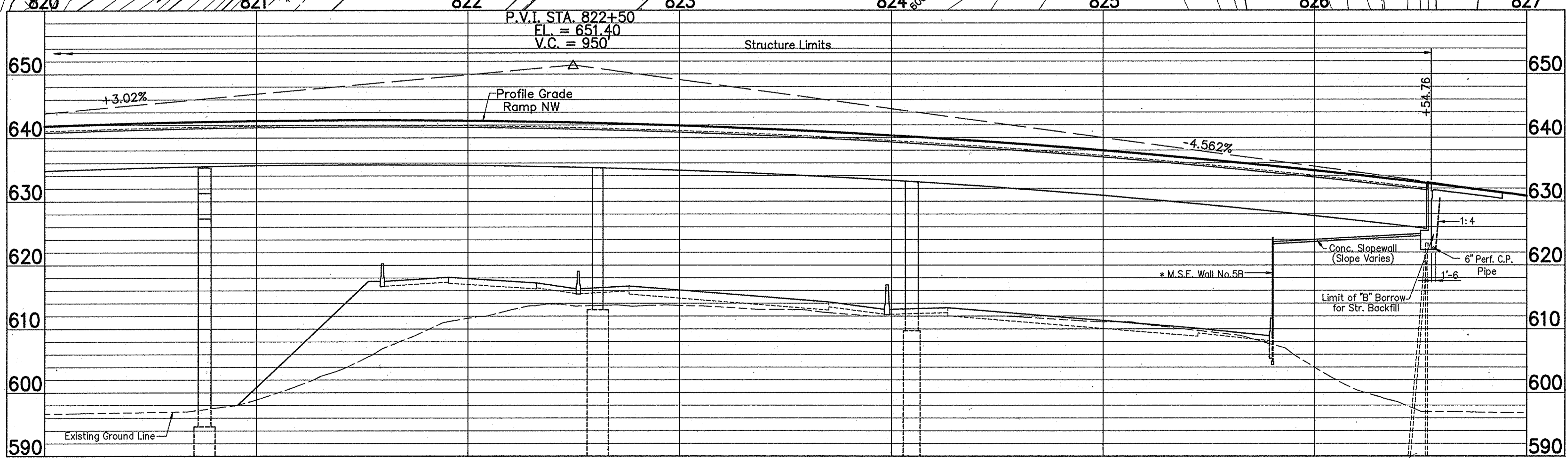


CURVE DATA		CURVE DATA	
P.I. 291+96.85 "K"	$\Delta = 26^{\circ}31'30"$ LT.	P.I. 107+07.10 "EN"	$\Delta = 0^{\circ}55'01"$ LT.
$\Delta = 26^{\circ}31'30"$ LT.	R = 6138.83'	$\Delta = 13^{\circ}03'27"$ LT.	R = 6247.83'
Dc = 0'56'00"	T = 1446.92'	$\Delta = 85^{\circ}37'24"$ LT.	R = 1762.95'
R = 6138.83'	L = 2841.96'	$\Delta = 85^{\circ}37'24"$ LT.	R = 1762.95'
T = 1446.92'	E = 168.21'	$\Delta = 85^{\circ}37'24"$ LT.	R = 1762.95'
L = 2841.96'	Se = 2.2%	$\Delta = 85^{\circ}37'24"$ LT.	R = 1762.95'
E = 168.21'		$\Delta = 85^{\circ}37'24"$ LT.	R = 1762.95'
Se = 2.2%		$\Delta = 85^{\circ}37'24"$ LT.	R = 1762.95'

CURVE DATA		CURVE DATA	
P.I. 309+98.49 "WS"	$\Delta = 10^{\circ}43'25"$ Rt.	P.I. 821+41.04 "NW"	$\Delta = 85^{\circ}37'24"$ LT.
$\Delta = 10^{\circ}43'25"$ Rt.	Dc = 0'56'56"	$\Delta = 85^{\circ}37'24"$ LT.	R = 1762.95'
Dc = 0'56'56"	R = 6037.83'	$\Delta = 85^{\circ}37'24"$ LT.	R = 1762.95'
R = 6037.83'	T = 586.68'	$\Delta = 85^{\circ}37'24"$ LT.	R = 1762.95'
T = 586.68'	L = 1130.06'	$\Delta = 85^{\circ}37'24"$ LT.	R = 1762.95'
L = 1130.06'	E = 26.53'	$\Delta = 85^{\circ}37'24"$ LT.	R = 1762.95'
E = 26.53'	se = 2%	$\Delta = 85^{\circ}37'24"$ LT.	R = 1762.95'
se = 2%		$\Delta = 85^{\circ}37'24"$ LT.	R = 1762.95'

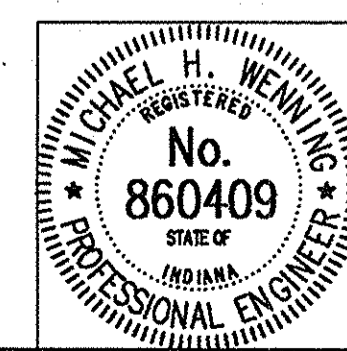
SEC. 15, T.36 N., R.9 W.
CALUMET TWP.
LAKE COUNTY

NOTES:
For Utility Owners, see Sheet No.10.
For Alignment References, and Bench Marks See Road Plan And Profile Sheets No. 6 - 8.
* Indicates Road Item.



LAYOUT
CONTINUOUS COMPOSITE WELDED PLATE GIRDER BRIDGE
7 SPANS: 229'-1 1/4", 140'-10 1/16", 187'-10 1/16", 176'-10 1/16", 185'-10 1/16", 148'-2 1/8", 241'-8 1/8" SKEW: VARIES
32'-0" CLEAR ROADWAY
RAMP NW OVER S.R.912 AND I-80/94
INDIANA DEPARTMENT OF TRANSPORTATION
LAKE COUNTY

SCALE: - As Noted DATE: - July 9, 1998
SUBMITTED FOR APPROVAL *[Signature]*
DRAWING: - S2 OF S52 SHEET: - 17 OF 79
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7828

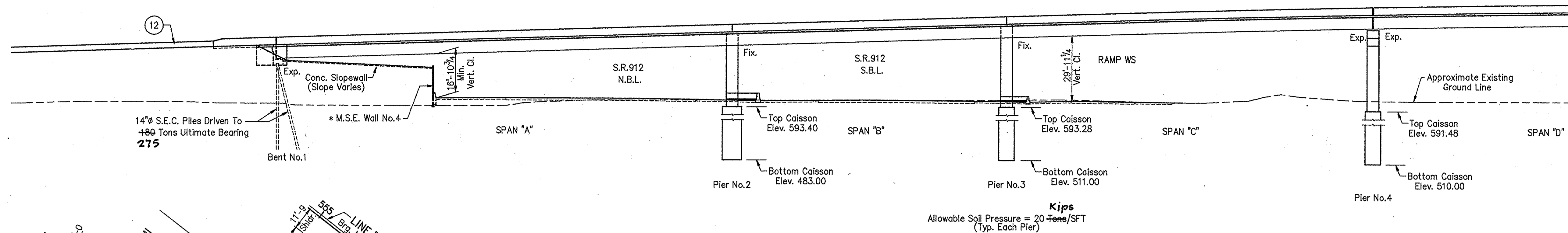


DESIGNED: RJC 6/30/93
DRAWN: RJC 6/30/93
TRACED: CKD
CHECKED: JSS 7/01/93
DATE: 07/09/98 16:28:27
EDITED BY: TLH - 5131

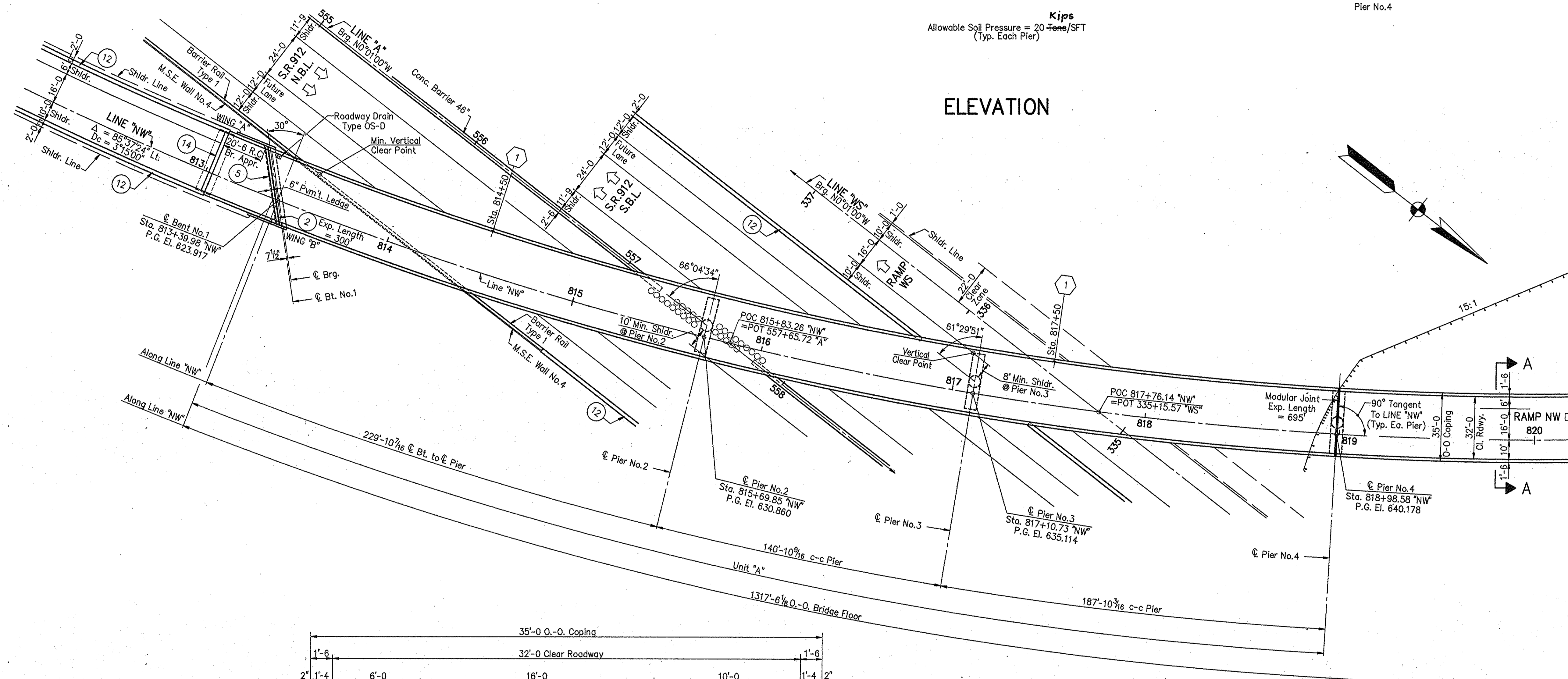
PROFILE LINE NW
SCALE: 1" = 30'-0" Horizontal, 1" = 10'-0" Vertical

NOTE: FIELD NOTES, BOOK: 16215L1 & 16215T1

THIS PORTION OF STRUCTURE (UNIT "A") TO BE BUILT TO A +3.02% GRADE AND A 950' VERTICAL CURVE

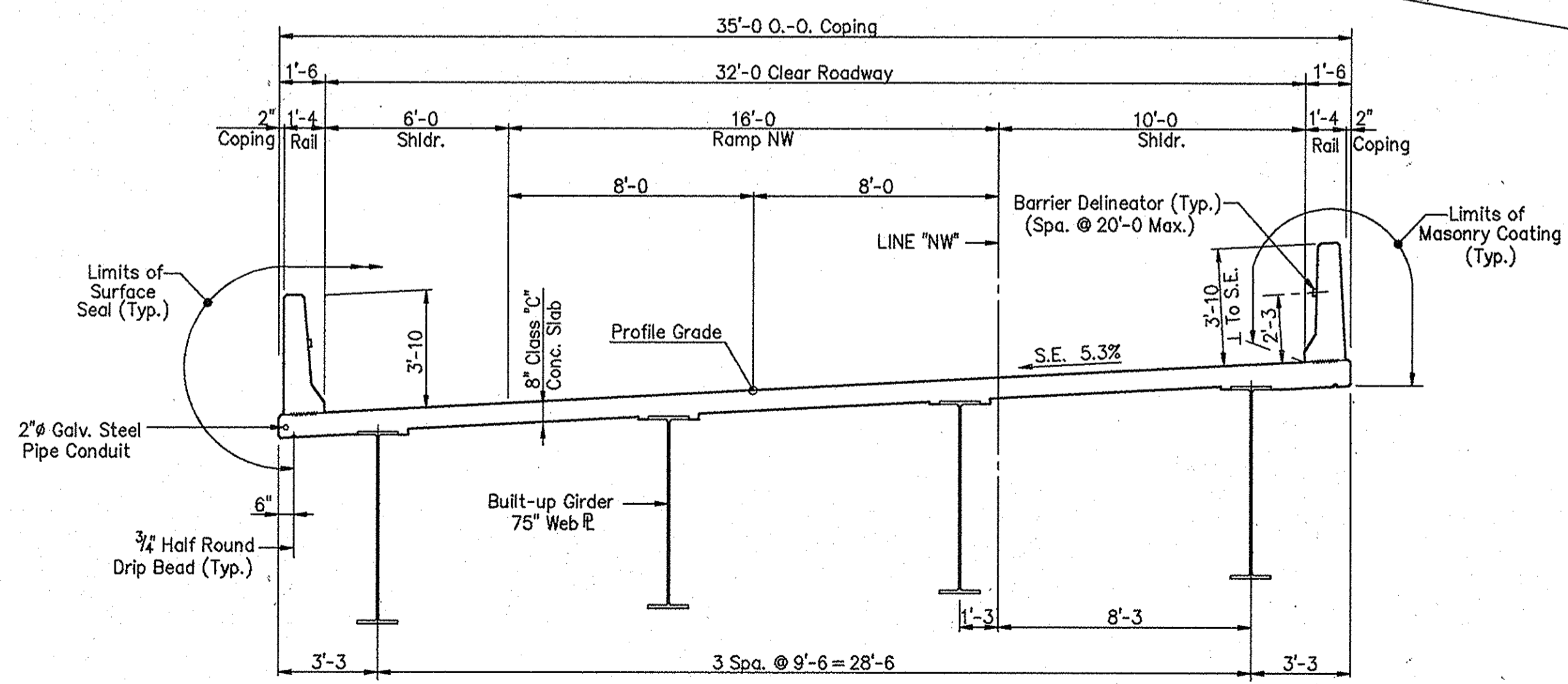


ELEVATION



PLAN

GENERAL PLAN



SECTION A-A
Scale: 1/4" = 1'-0"

CURVE DATA
P.I. 821+41.04 "NW"
Δ = 85°37'24" Lt.
Dc = 3'15'00"
R = 1762.95'
T = 1633.17'
L = 2834.56'
E = 640.22'
Se = 5.3%

- LEGEND
- (2) Expansion Joint SS
 - (5) Type IA Joint
 - (12) * Concrete Barrier
 - (14) * Terminal Joint
 - (1) Conduit Pull Box See Drawing S43 For Details.

CONTINUOUS COMPOSITE WELDED PLATE GIRDER BRIDGE
7 SPANS: 229'-1 3/4", 140'-10 1/8", 187'-10 1/8", 176'-10 1/8", 185'-10 1/8", 148'-2 1/8", 241'-8 5/8" SKEW: VARIES
32'-0" CLEAR ROADWAY
RAMP NW OVER S.R.912 AND I-80/94
INDIANA DEPARTMENT OF TRANSPORTATION
LAKE COUNTY

SCALE: - 1" = 30'-0", Unless Noted
DATE: - July 9, 1998
SUBMITTED FOR APPROVAL
DRAWING: - S3 OF S52 SHEET: - 18 OF 79
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7828



DESIGNED: RJC 6/29/93
DRAWN: RJC 6/29/93
TRACED: CKD

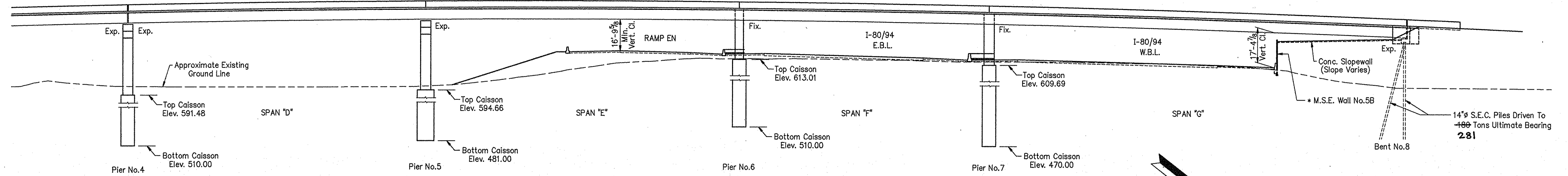
CKD MHW 7/01/93
CKD

DWG FILE: D:\921\110\92119801
PLOT SCALE: 1:30,000
PLOT ORIGIN: 13190.88, 74286.88

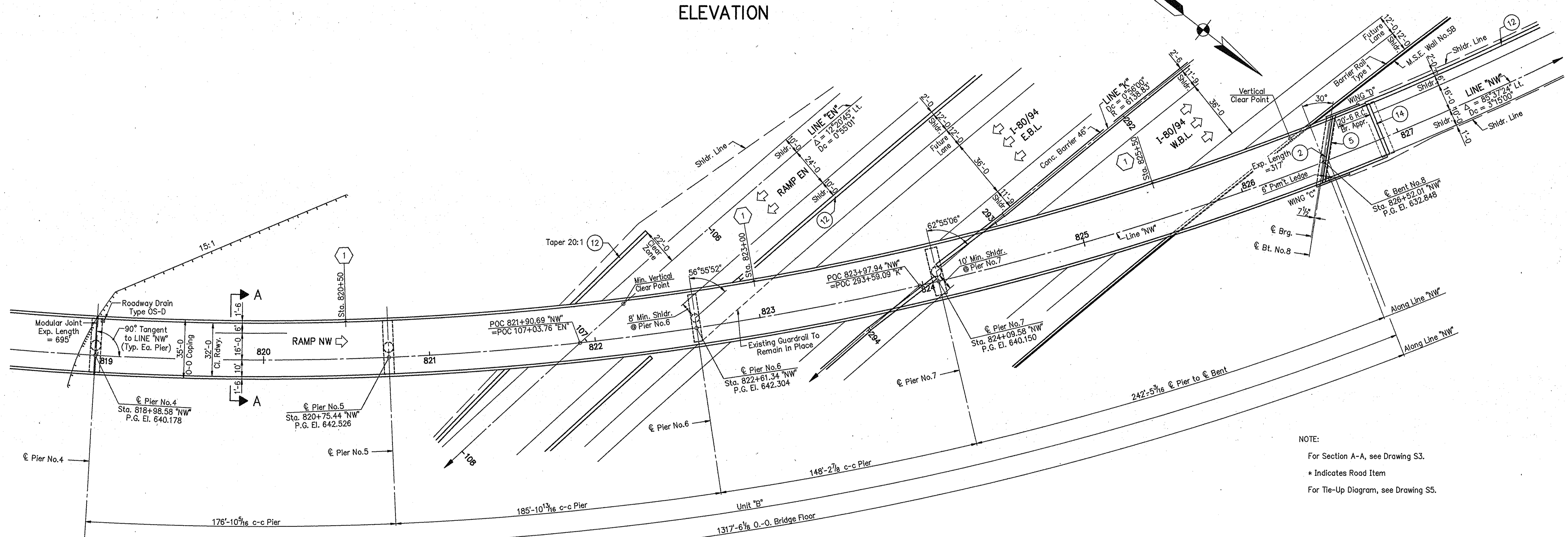
SPELLCHK: 01/21/94
EDIT DATE: 07/07/88 12:09:15
EDITED BY: TLI - 9131

9-1-98: Revised Pile and Soils Notes

THIS PORTION OF STRUCTURE (UNIT "B") TO BE BUILT TO A 950' VERTICAL CURVE



ELEVATION



PLAN

NOTE:
 For Section A-A, see Drawing S3.
 * Indicates Road Item
 For Tie-Up Diagram, see Drawing S5.

GENERAL PLAN

CONTINUOUS COMPOSITE WELDED PLATE GIRDER BRIDGE
 7 SPANS: 229'-17", 140'-10 1/8", 187'-10 3/8", 176'-10 3/8", 185'-10 1/8", 148'-2 7/8", 241'-8 5/8" SKEW: VARIES
 32'-0" CLEAR ROADWAY

RAMP NW OVER S.R.912 AND I-80/94
INDIANA DEPARTMENT OF TRANSPORTATION
 LAKE COUNTY

SCALE: - 1" = 30'-0", Unless Noted DATE: - July 9, 1998

SUBMITTED FOR APPROVAL *[Signature]*

DRAWING: - S4 OF S52 SHEET: - 19 OF 79

PROJECT: - IM-80-1(143)4

CONTRACT NO. R-23808

BRIDGE FILE: - I-80-5-7828

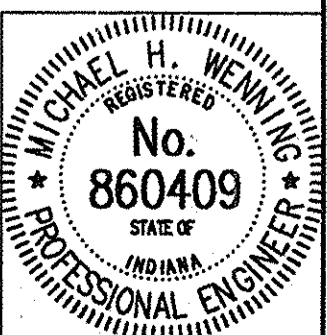
LEGEND

- (2) Expansion Joint SS
- (5) Type IA Joint
- (12) * Concrete Barrier
- (14) * Terminal Joint
- (1) Conduit Pull Box See Drawing S50 For Details.

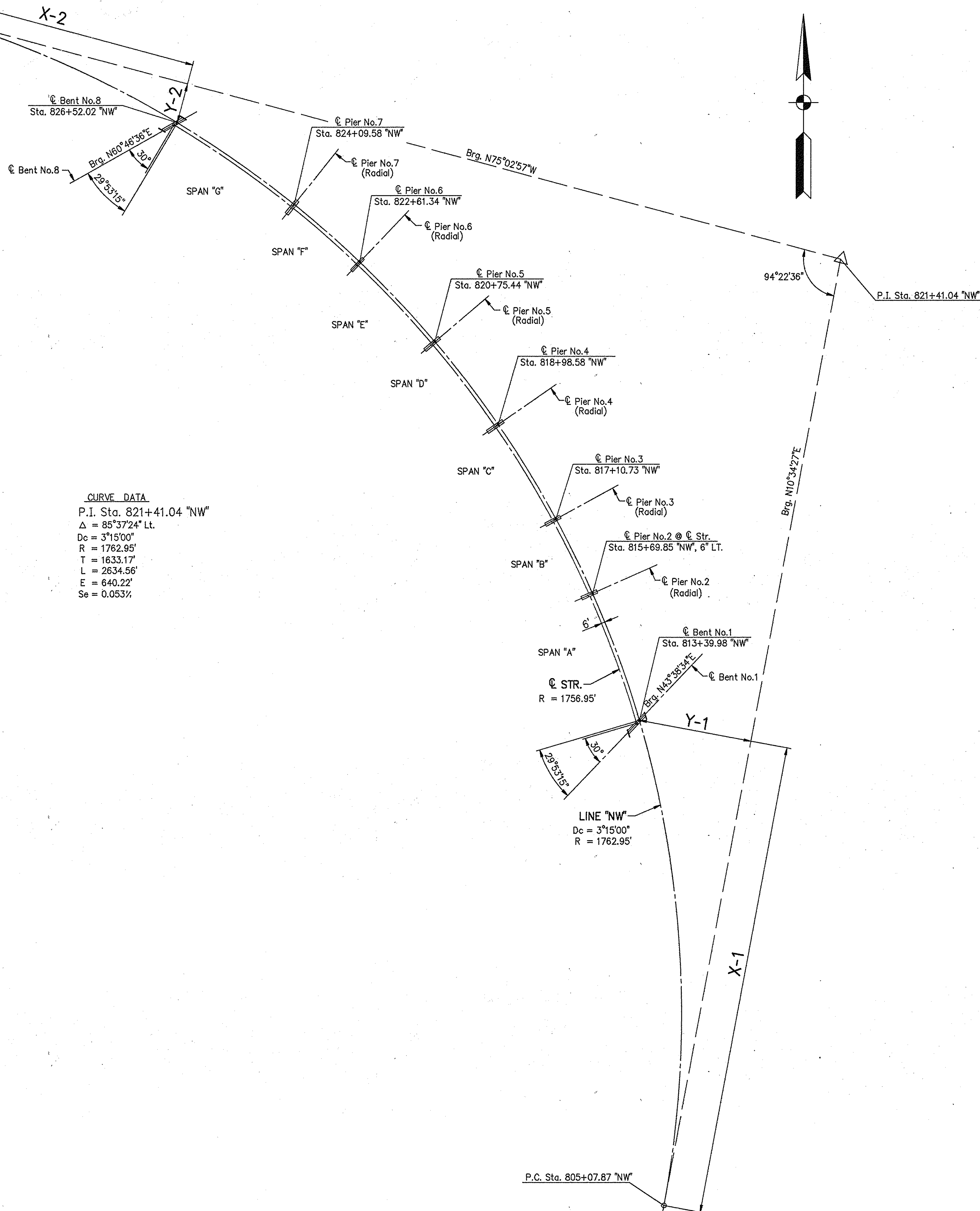
CURVE DATA	CURVE DATA	CURVE DATA
P.I. 291+96.85 "K"	P.I. 107+07.10 "EN"	P.I. 821+41.04 "NW"
$\Delta = 26^{\circ}31'30"$ LT.	$\Delta = 13^{\circ}03'27"$ Lt.	$\Delta = 85^{\circ}37'24"$ LT.
Dc = 0°56'00"	Dc = 0°55'01"	D = 3°15'00"
R = 6138.83'	R = 6247.83'	R = 1762.95'
T = 1446.92'	T = 715.03'	T = 1633.17'
L = 2841.96'	L = 1423.86'	L = 2634.56'
E = 168.21'	E = 40.78'	E = 640.22'
Se = 2.2%	Se = 2%	Se = 5.3%

DESIGNED: CK'D
 DRAWN: RJC 6/29/93 CK'D MHW 7/01/93
 TRACED: CK'D

DWG FILE: D:\82\119\9219802
 PLOT SCALE: 1:30,000
 PLOT ORIGIN: 13033.74, -74241.93
 SPELLCHK: 01/21/94
 EDIT DATE: 07/10/98 14:44:09
 EDITED BY: TJA - 3134



P.T. Sta. 831+42.43 "NW"



TIE-UP TABLE (IN FEET)						
LOCATION	X-1	Y-1	X-2	Y-2	NORTHING	EASTING
☉ Bent No. 1	801.5625	192.7624	1504.4353	843.8950	55893.3211	50085.1973
☉ Pier No. 2	998.9115	310.3087	1372.1713	656.0919	56108.8893	50005.8618
☉ Pier No. 3	1111.6832	394.6843	1279.4357	550.0882	56235.2293	49943.6133
☉ Pier No. 4	1250.8969	520.6753	1143.1882	420.8952	56395.1992	49845.3085
☉ Pier No. 5	1369.0262	652.2043	1003.0279	313.1479	56535.4588	49737.6905
☉ Pier No. 6	1478.3270	802.4619	844.8672	215.6327	56670.4767	49610.0418
☉ Pier No. 7	1553.7731	930.0176	711.9259	150.1409	56768.0489	49498.4970
☉ Pier No. 8	1653.2868	1150.8808	484.1125	67.7723	56906.4025	49299.6458
P.C. Sta. 805+07.87 "NW"	N/A	N/A	N/A	N/A	55069.9971	50127.5946
P.I. Sta. 821+41.04 "NW"	N/A	N/A	N/A	N/A	56675.4357	50427.2918
P.T. Sta. 831+42.43 "NW"	N/A	N/A	N/A	N/A	57096.7783	48849.4060

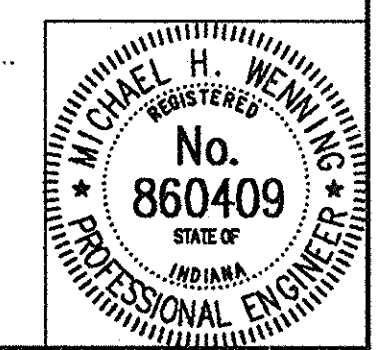
CURVE DATA
P.I. Sta. 821+41.04 "NW"
 $\Delta = 85^{\circ}37'24''$ Lt.
 $D_c = 3^{\circ}15'00''$
 $R = 1762.95'$
 $T = 1633.17'$
 $L = 2634.56'$
 $E = 640.22'$
 $S_e = 0.053\%$

TIE-UP DIAGRAM

RAMP NW OVER S.R.912 AND I-80/94
INDIANA DEPARTMENT OF TRANSPORTATION

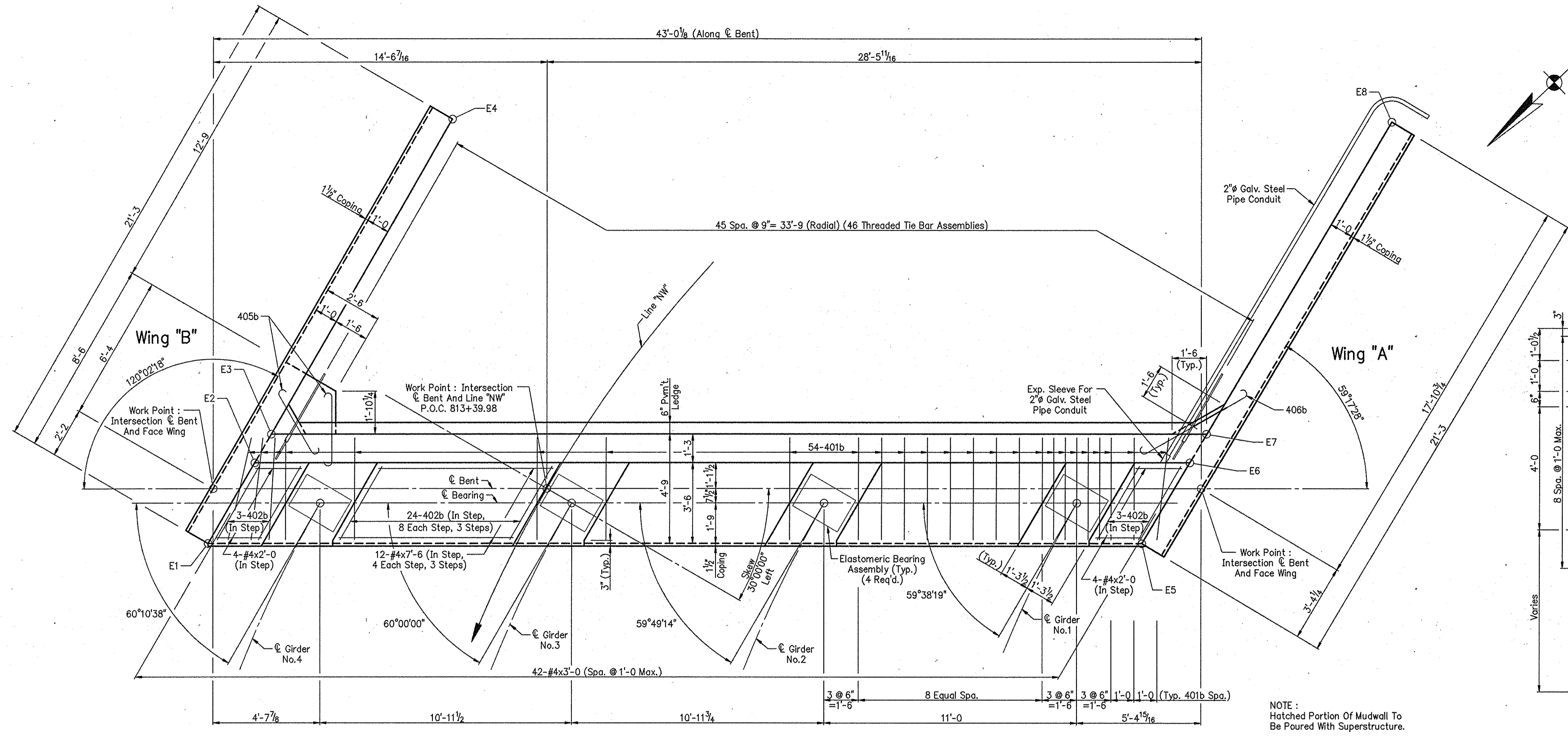
SCALE: - 1" = 100'
DATE: - June 1, 1998
SUBMITTED FOR APPROVAL *[Signature]*

DRAWING: - S5 OF S52 SHEET: - 20 OF 79
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7828

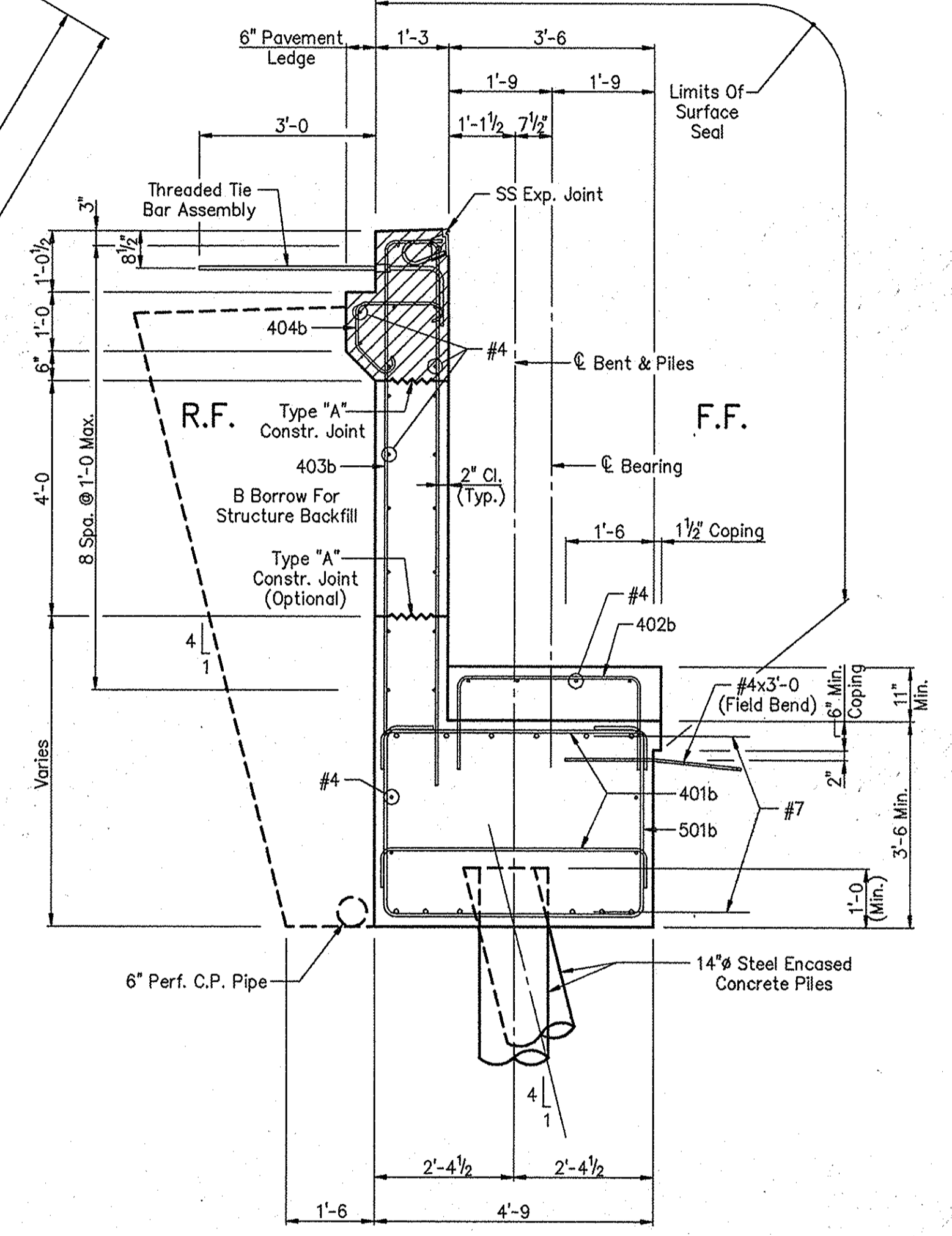


DESIGNED: CK'D
DRAWN: RJC 5/26/98 CK'D DAD 5/27/98
TRACED: CK'D

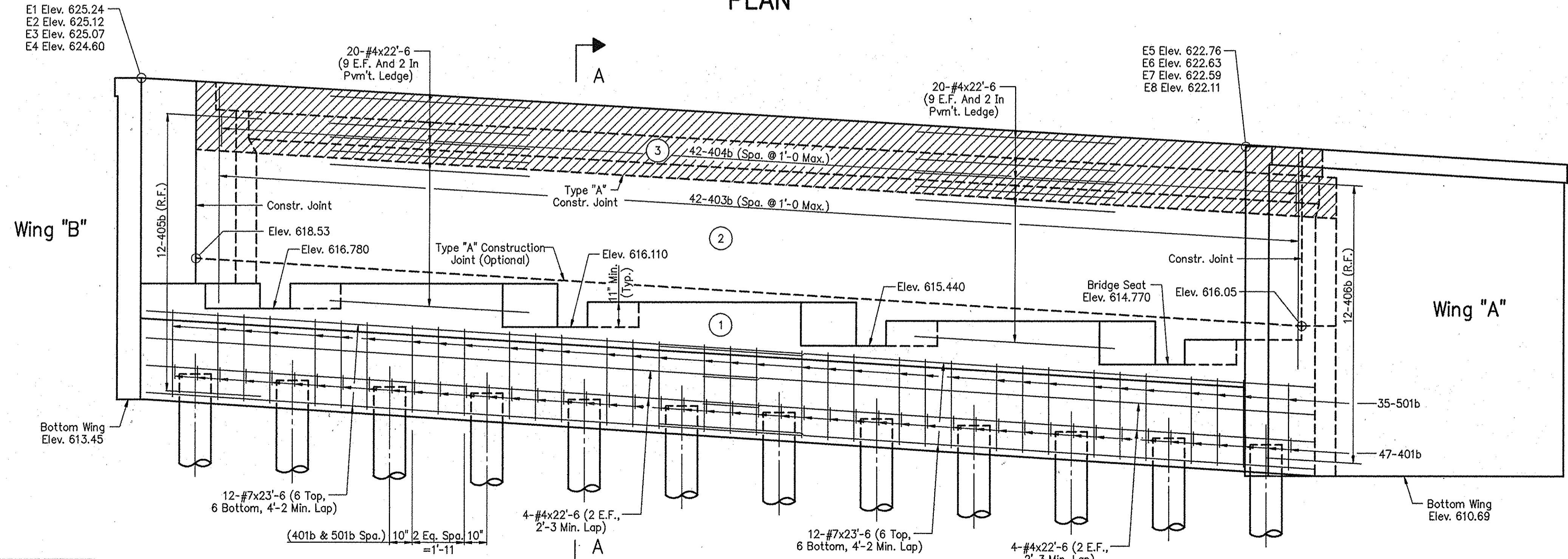
10/22/93
DWG FILE: C:\07\119\02119205
PLOT SCALE: 1:100,000
PLOT ORIGIN: 4842.45,55005.67
SPELLOK: 06/01/98
EDIT DATE: 06/01/98
EDITED BY: RJC - 5128



PLAN



SECTION A-A
Scale: 1/2" = 1'-0"

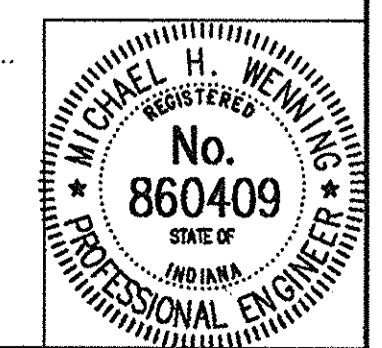


ELEVATION

NOTES:
 For reinforcing bar notes, see Bridge Standard C1.
 All reinforcing steel to be epoxy coated.
 For Wings "A" and "B" Details, see Drawing S8.
 For Bill of Materials, see Drawing S8.
 (X) Indicates Concrete Pour Number.
 Surface Seal and Masonry Coat exposed surfaces of wings.

BENT NO.1 DETAILS
INDIANA DEPARTMENT OF TRANSPORTATION

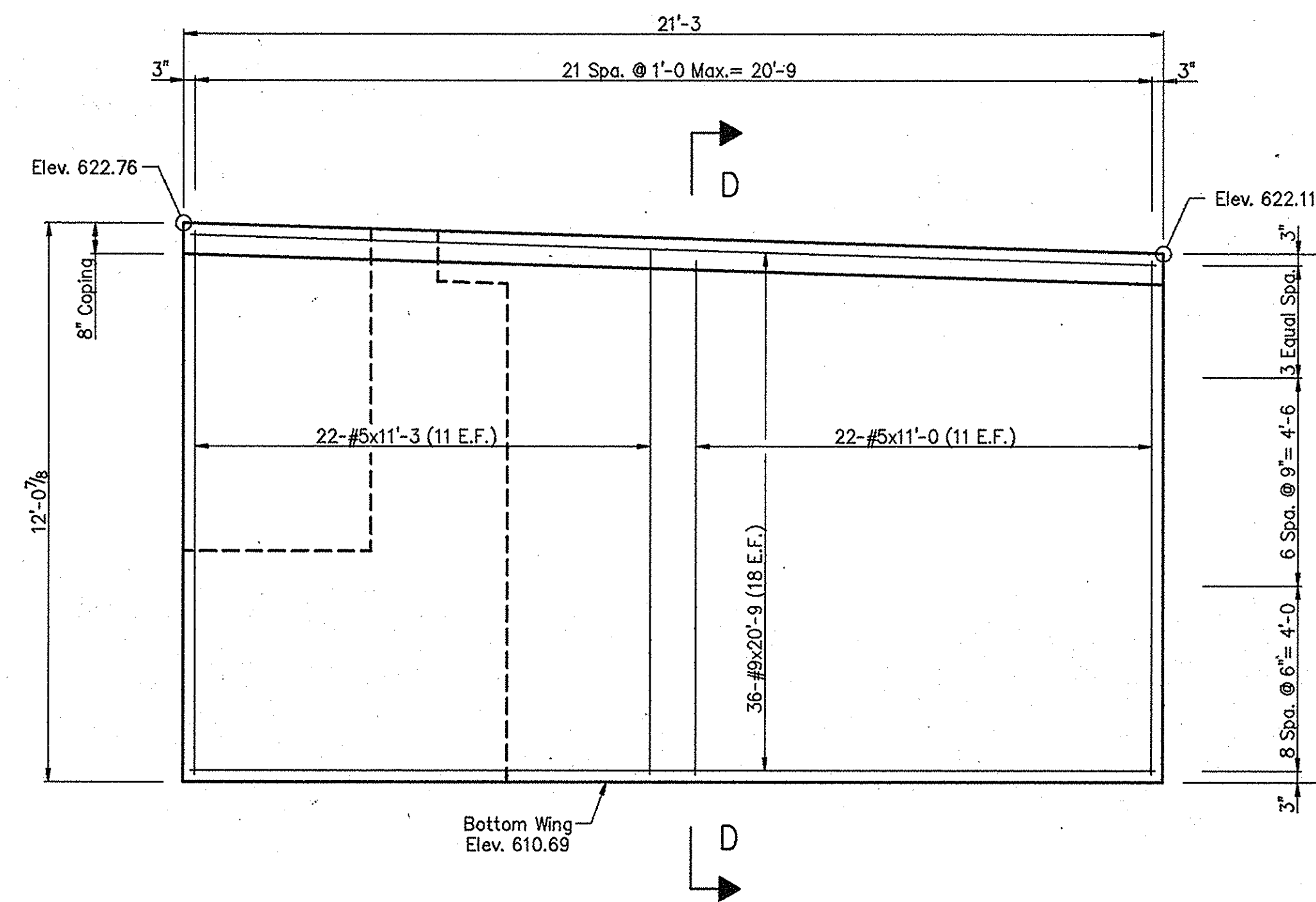
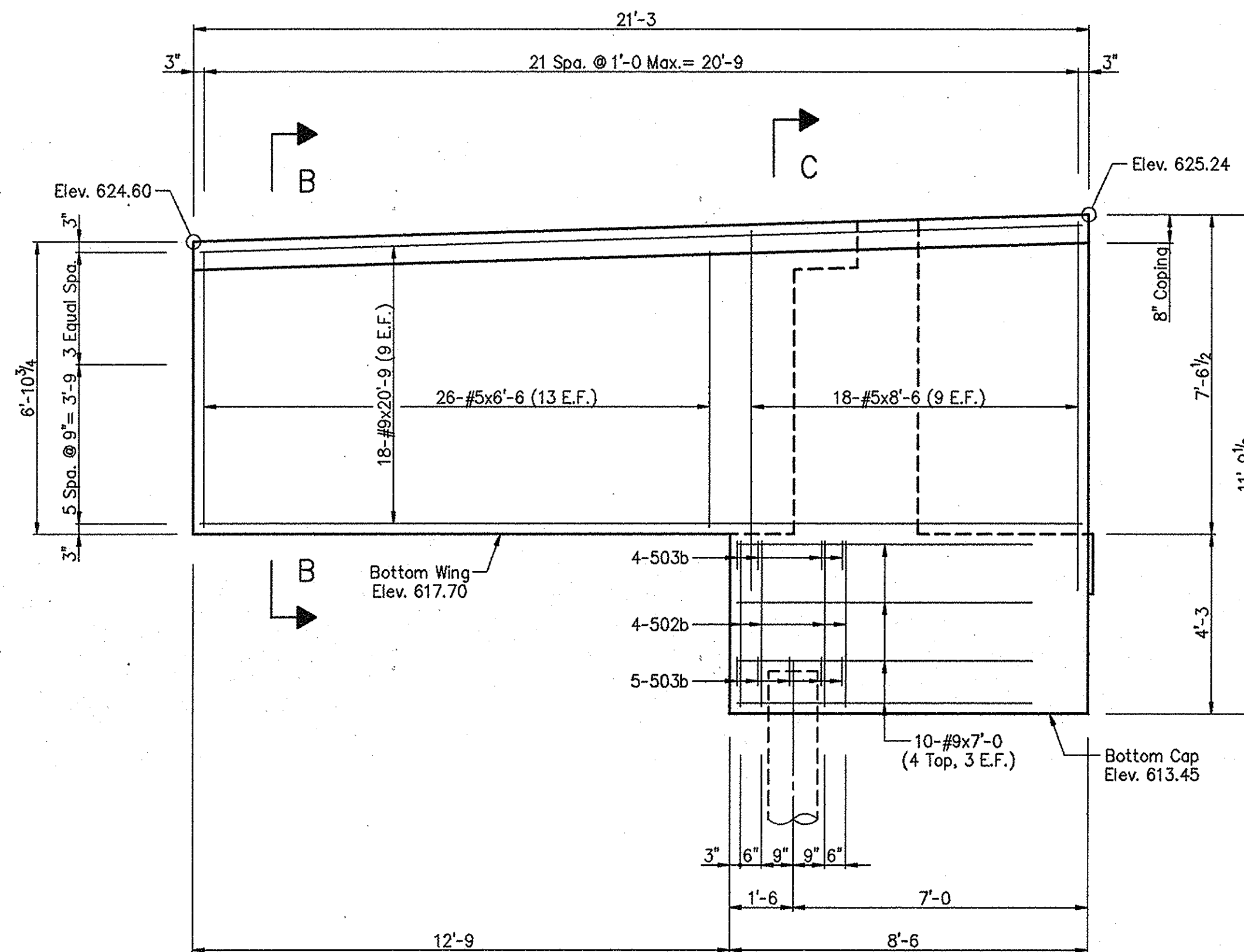
SCALE: - 3/8" = 1'-0, Unless Noted DATE: - June 1, 1998
 SUBMITTED FOR APPROVAL: *Michael H. Weir*
 DRAWING: - S6 OF S52 SHEET: - 21 OF 79
 PROJECT: - IM-80-1 (143) 4
 CONTRACT NO. - R-23808
 BRIDGE FILE: - I-80-5-7828



DESIGNED: MDR 12/23/96 MSP 1/29/97
 DRAWN: DSH 2/3/97 CKD MDR 4/23/98
 TRACED: CKD
 PLOT SCALE: 1:32,000 SPELLOK: 01/21/94
 PLOT ORIGIN: 0,00,0,00 EDIT DATE: 06/02/98
 EDITED BY: DSH - 501

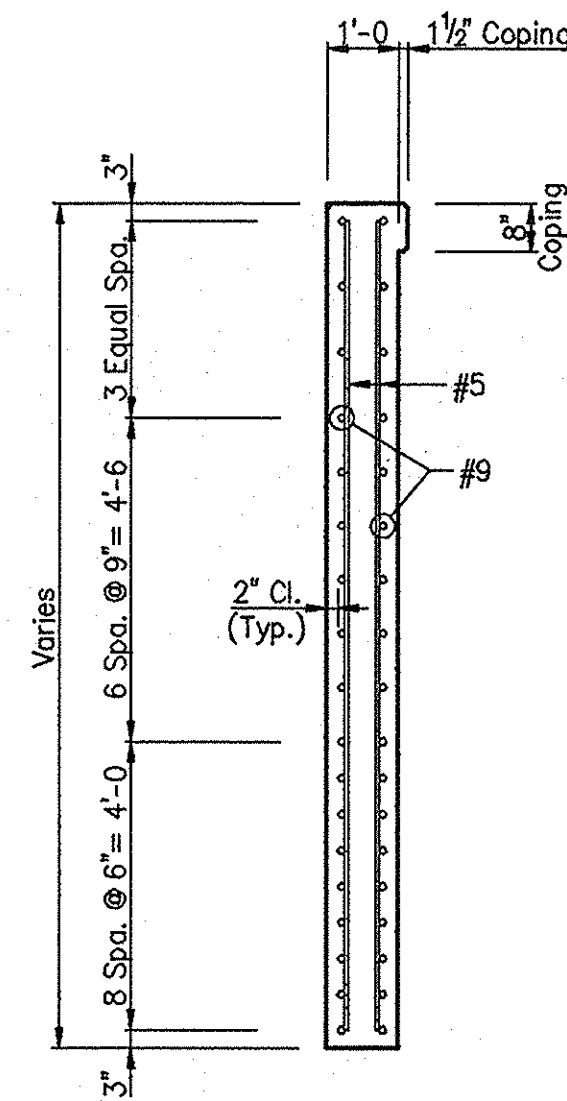
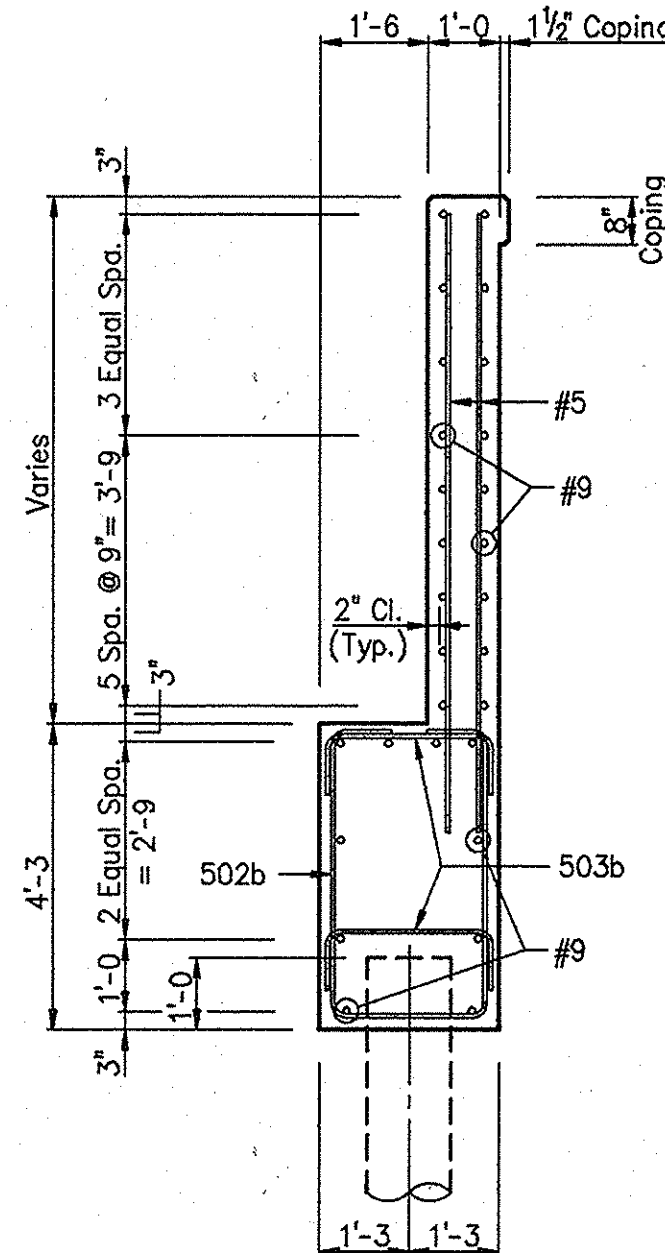
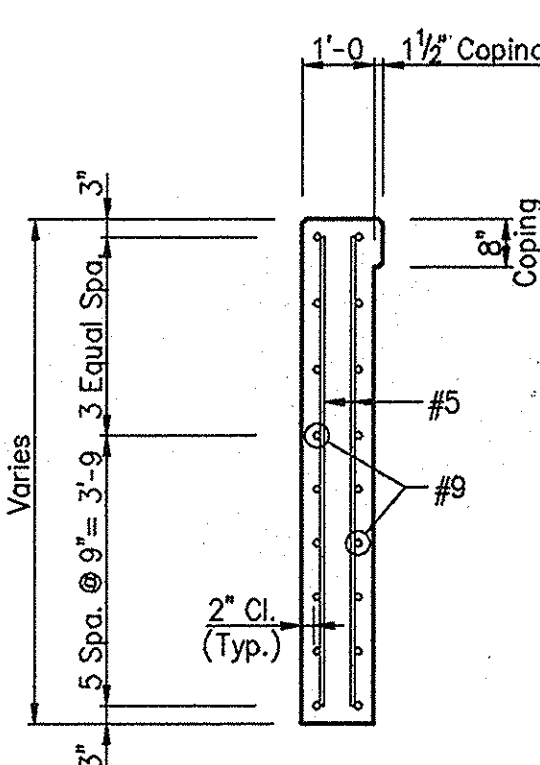
BENT NO.1 BILL OF MATERIALS

Epoxy Coated Reinforcing Steel			
Size And Mark	No. Of Bars	Length (Feet)	Weight (Lbs.)
#9	54	20'-9"	
#9	10	7'-0"	
Total No.9			4,048
#7	24	23'-6"	1,153
501b	35	12'-5"	
502b	4	11'-8"	
503b	9	3'-10"	
#5	22	11'-3"	
#5	22	11'-0"	
#5	18	8'-6"	
#5	26	6'-6"	
Total No.5			1,384
401b	101	5'-9"	
402b	30	8'-0"	
403b	42	18'-11"	
404b	42	3'-11"	
405b	12	4'-2"	
406b	12	6'-0"	
#4	48	22'-6"	
#4	12	7'-6"	
#4	42	3'-0"	
#4	8	2'-0"	
Total No.4			2,147
Total Epoxy Coated Reinforcing Steel			8,732
Concrete			
Class "A" In Substructure			
Pour No.1		50.4	Cys.
Pour No.2		7.9	Cys.
Total Class "A" In Substructure		58.3	Cys.
Class "C" In Superstructure			
Pour No.3		5.7	Cys.
Miscellaneous			
Surface Seal		900	Sft.
Masonry Coating		250	Sft.
13- Piles, Concrete, Steel Shell Encased,		1950	Lft.
0.375" Min. Thick, 14" x 14" Approx.		4,436	Lft.
Threaded Tie Bar Assembly		150-0	46 Each
2" Galvanized Steel Pipe Conduit		19	Lft.
6" Perf. C.P. Pipe		67	Lft.



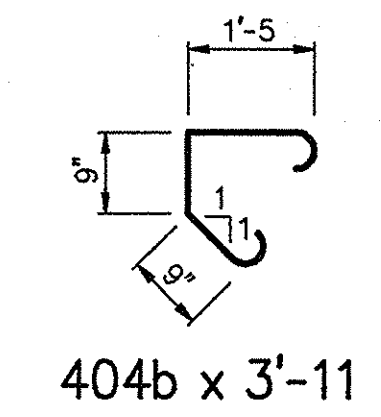
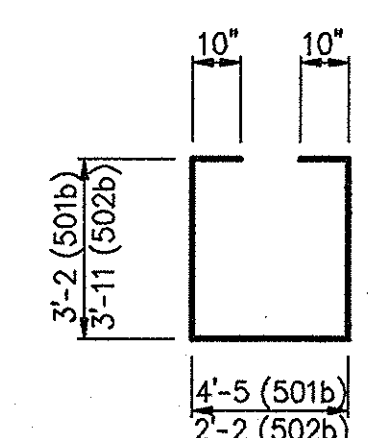
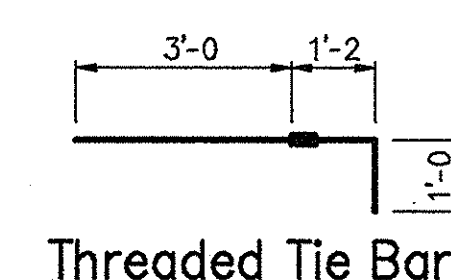
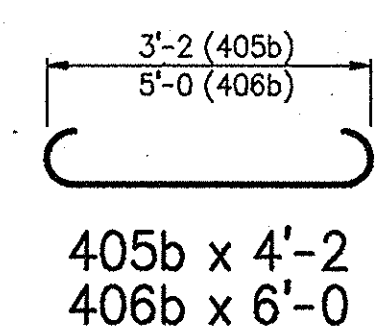
WING "B" ELEVATION

WING "A" ELEVATION



SECTION D-D

Mark	A	B	Length
503b	2'-2"	10"	3'-10"
401b	4'-5"	8"	5'-9"
402b	3'-8"	2'-2"	8'-0"
403b	11"	9'-0"	18'-11"



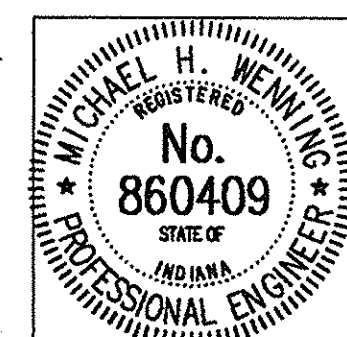
NOTES:
For reinforcing bar notes, see Bridge Standard C1.
All reinforcing steel to be epoxy coated.
Surface Seal and Masonry Coat exposed surfaces of wings.

BENT NO.1 DETAILS INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 3/8" = 1'-0", Unless Noted DATE: - July 9, 1998

SUBMITTED FOR APPROVAL *Michael H. ...*

DRAWING: - S8 OF S52 SHEET: - 23 OF 79
PROJECT: - IM-80-1 (143) +
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7828

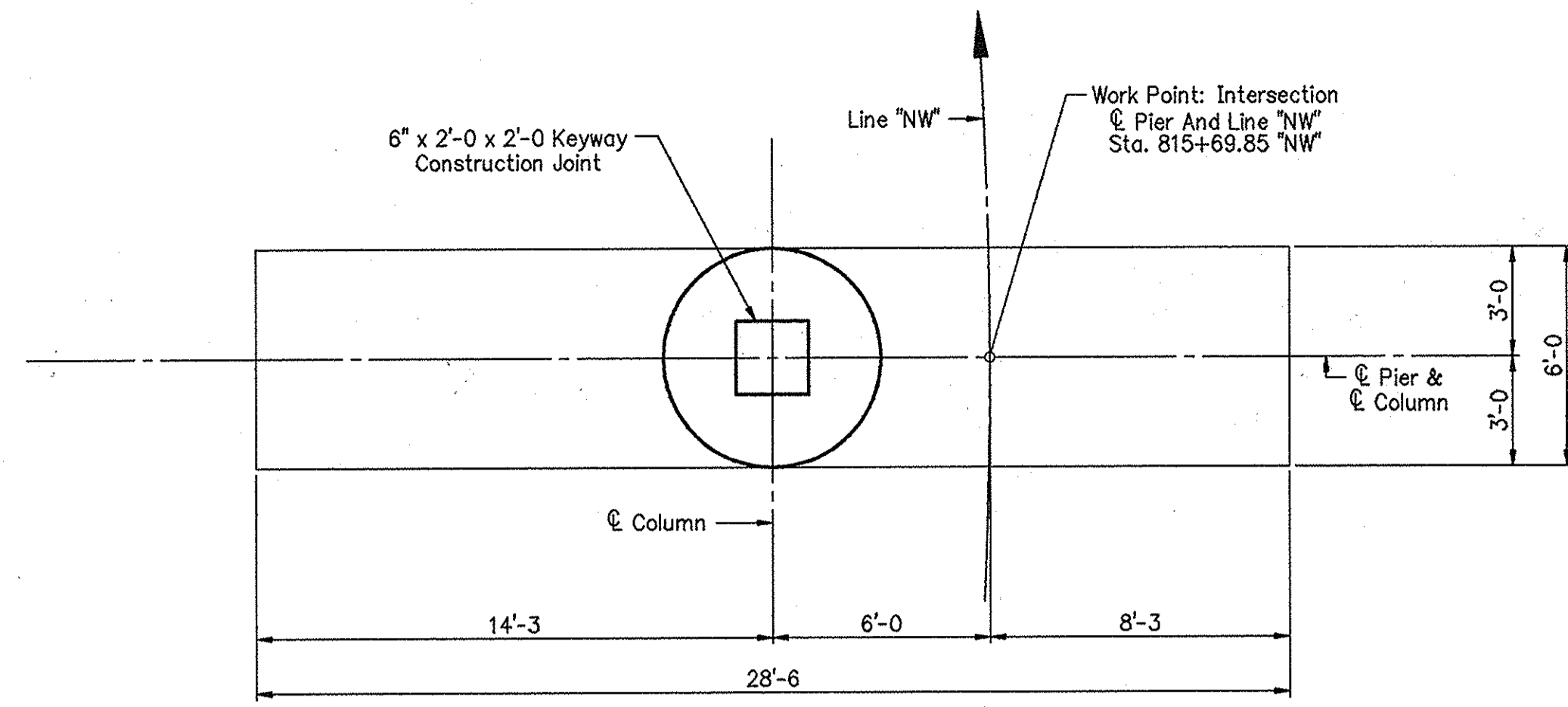


DESIGNED MDR 12/23/96 MSP 1/29/97
DRAWN DSH 2/7/97 CKD MDR 5/4/98
TRACED CKD

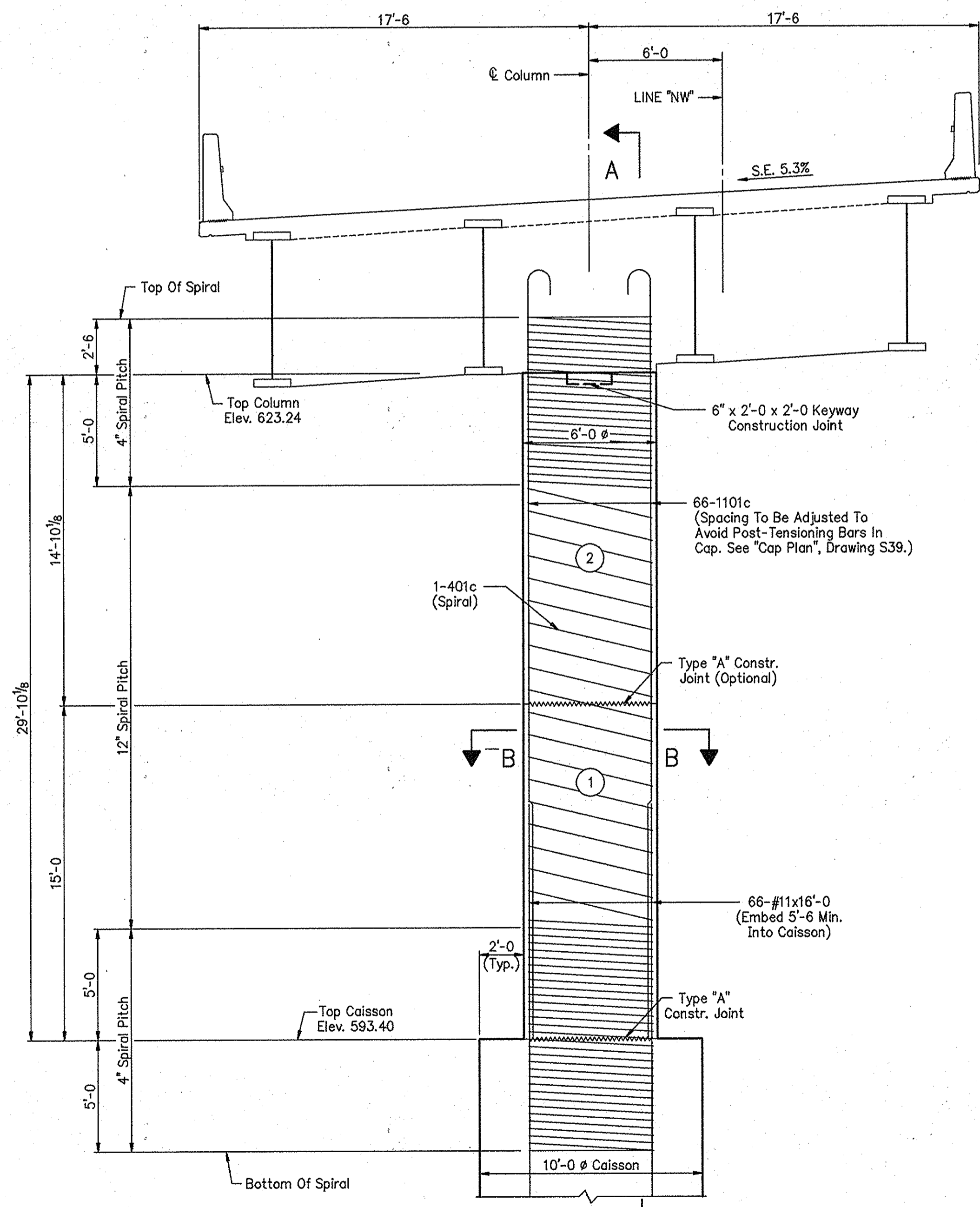
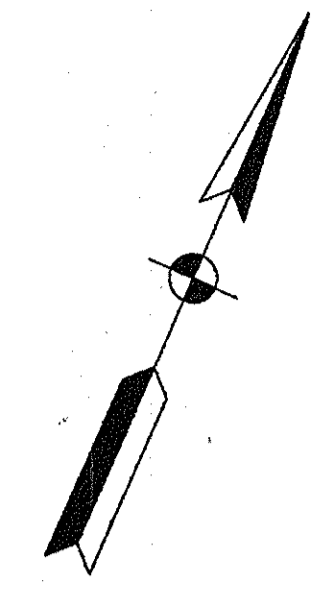
DWG FILE: C:\P1\19\2219831
PLOT SCALE: 1:32,000
PLOT ORIGIN: 0,0,0,0

SPELLCHK: 02/21/94
EDIT DATE: 02/19/98 10:35:40
EDIT BY: DSH - S81

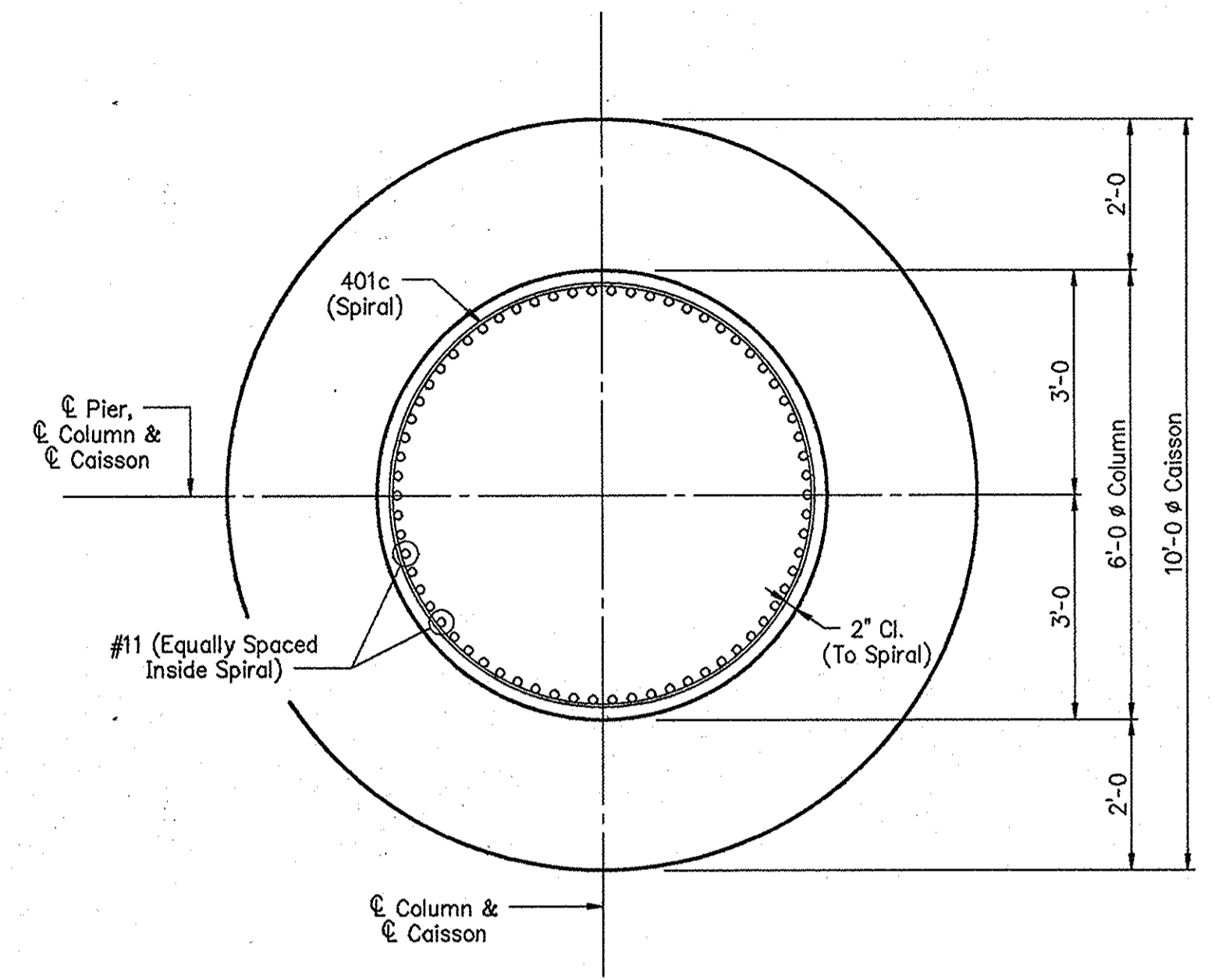
9-1-98: Revised Pile Length



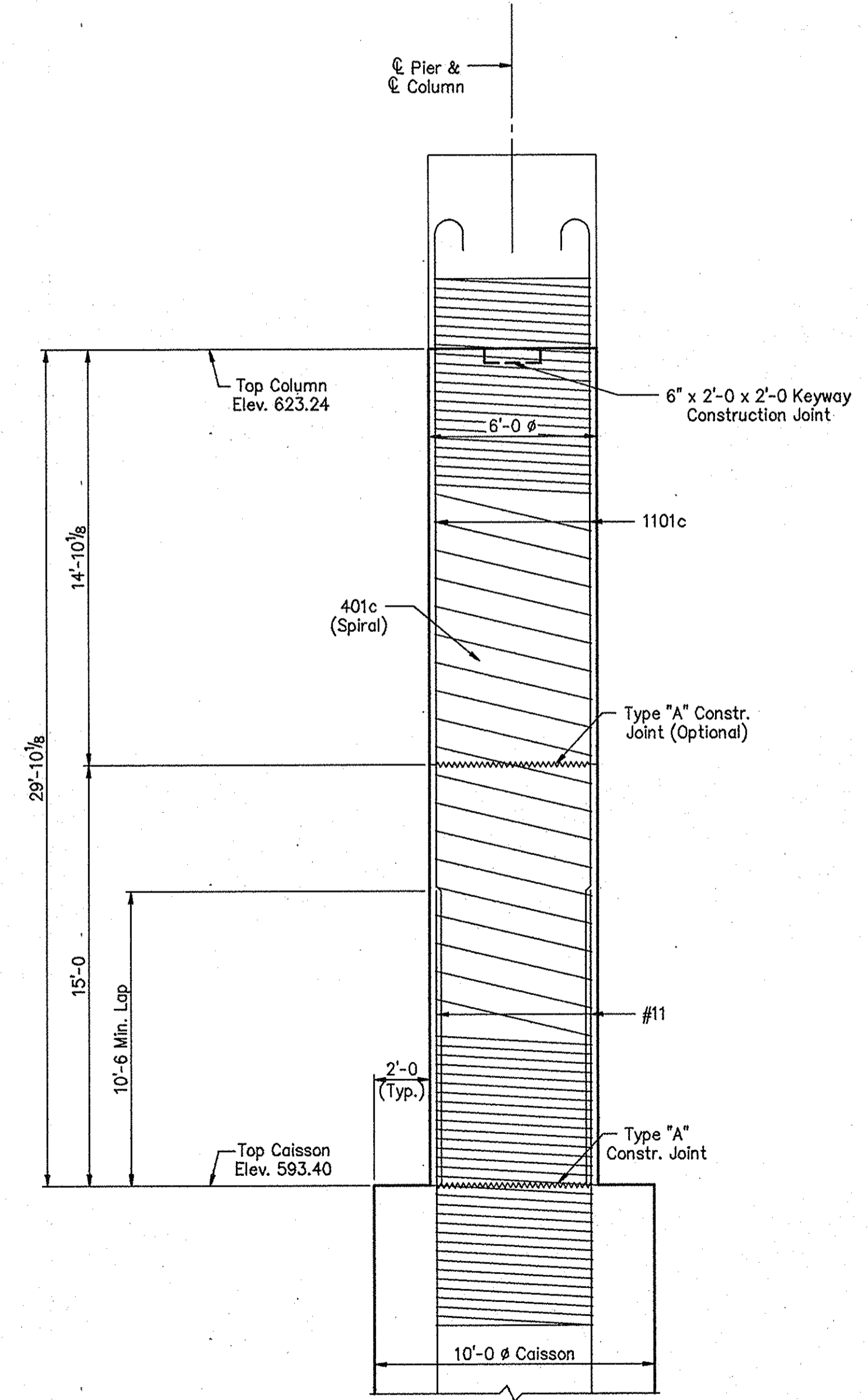
PLAN



ELEVATION



SECTION B-B
Scale: 1/2" = 1'-0"



SECTION A-A

NOTES:

For reinforcing bar notes, see Bridge Standard C1.

All reinforcing steel to be epoxy coated, unless noted.

For Cap details, see Drawing S39.

For Caisson details, additional details and Bill of Materials, see Drawing S10.

(X) Indicates concrete pour number.

PIER NO.2 DETAILS
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 1/4" = 1'-0, UNLESS NOTED DATE: - July 9, 1998

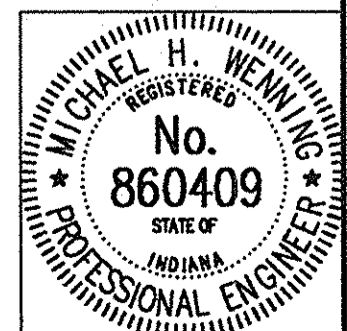
SUBMITTED FOR APPROVAL *Michael H. Weary*

DRAWING: - S9 OF S52 SHEET: - 24 OF 79

PROJECT: - IM-80-1(143)4

CONTRACT NO. R-23808

BRIDGE FILE: - I-80-5-7828



DESIGNED MDR 3/4/98 C.K.D. MSP 3/19/98

DRAWN TLH 4/6/98 C.K.D. MDR 4/13/98

TRACED C.K.D.

DWG FILE: C:\P2\119\2118840

PLOT SCALE: 1:80.000

PLOT ORIGIN: 0.00,0.00

SPELLOK:

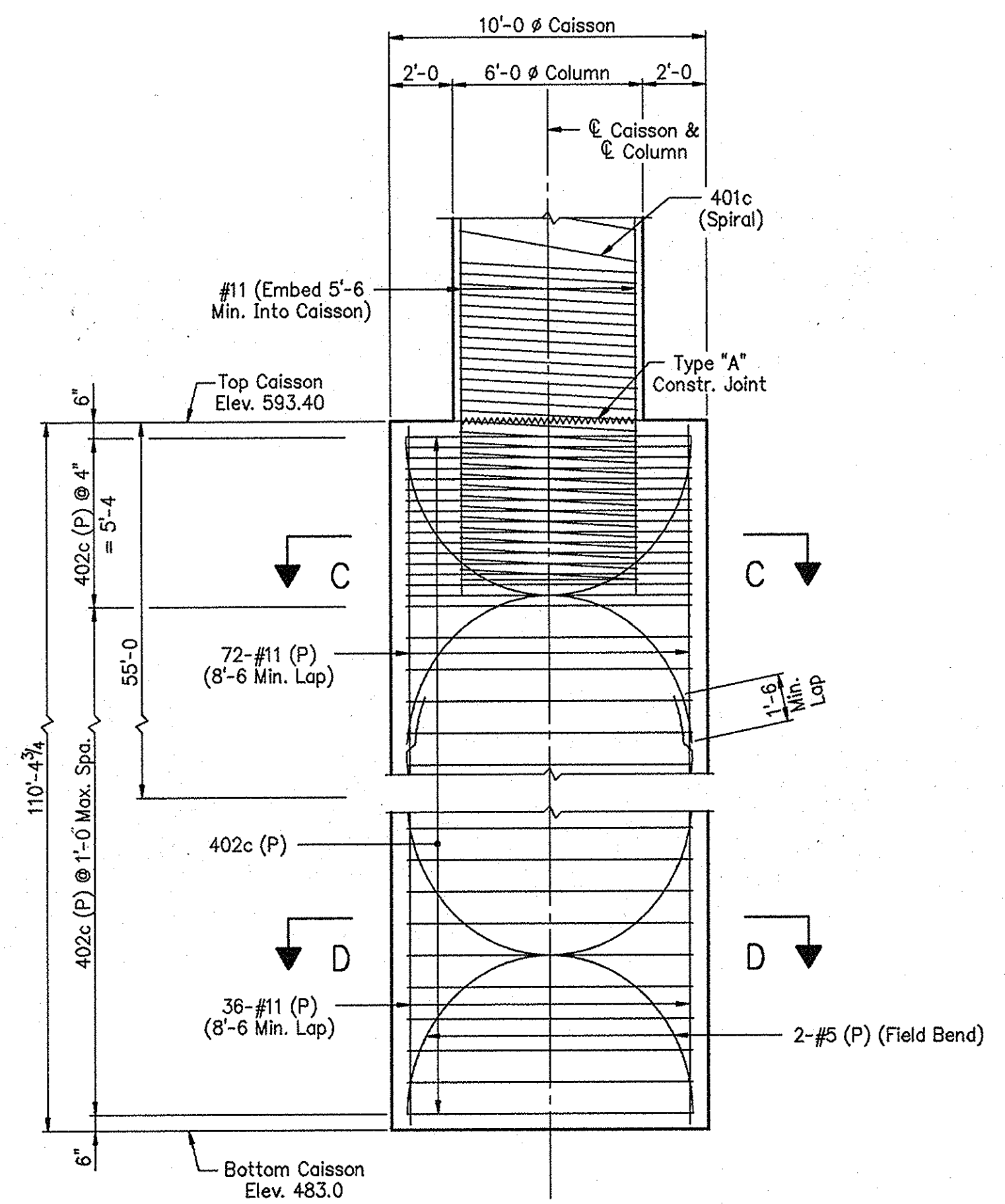
EDIT DATE: 07/09/98 15:15:49

EDIT BY: DSI - SP1

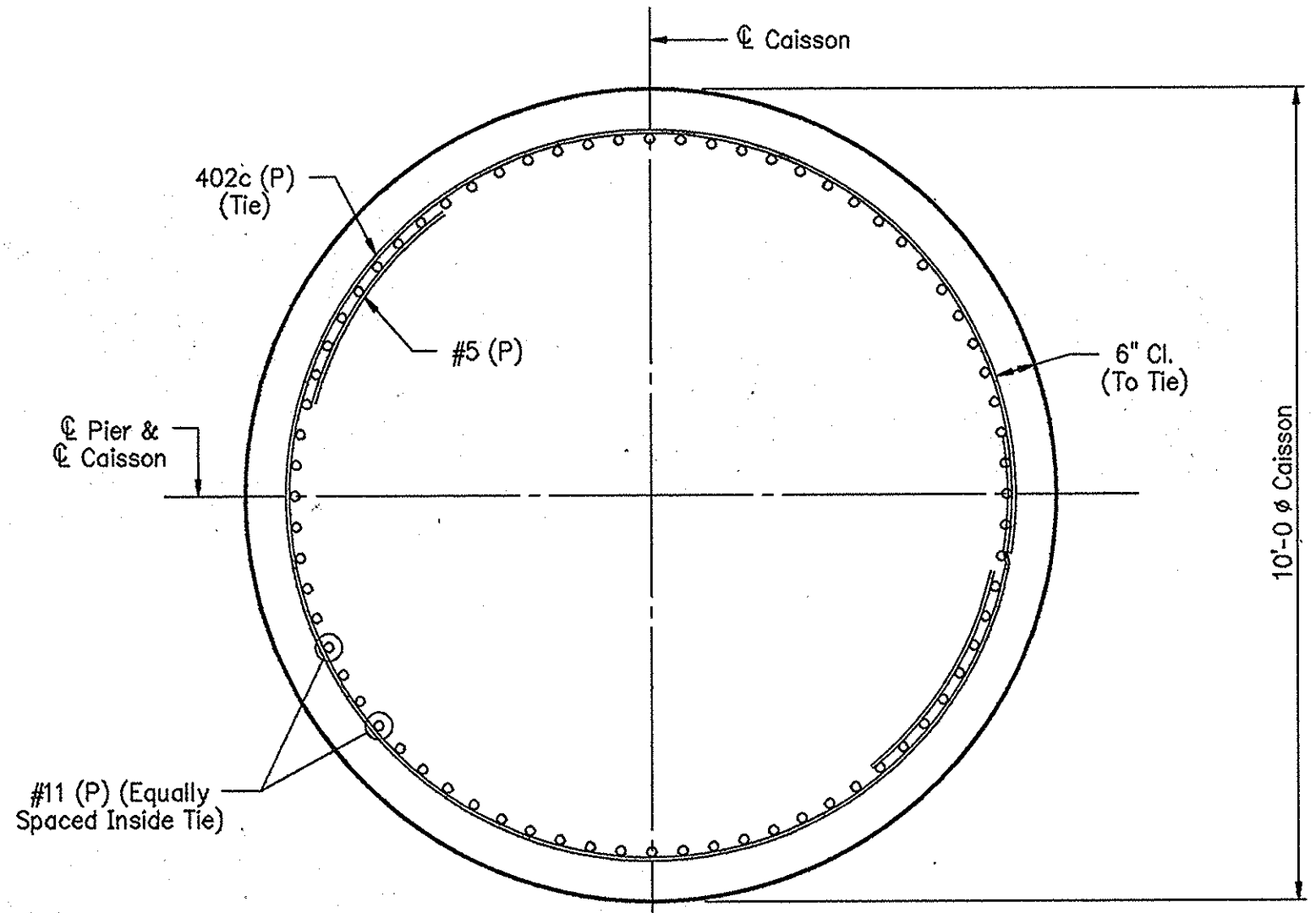
PIER No.2 BILL OF MATERIALS

Epoxy Coated Reinforcing Steel			
Size And Mark	No. Of Bars	Length (Feet)	Weight (Lbs.)
1101c	66	36'-0	
#11	66	16'-0	
Total No. 11			18,234
401c	1	1341'-4	896
Total Epoxy Coated Reinforcing Steel			19,130
Concrete			
Class "A" in Substructure			
Pour No.1			15.7 Cys.
Pour No.2			15.5 Cys.
Total Class "A" In Substructure			31.2 Cys.
Drilled Shaft Concrete *			321.1 Cys.

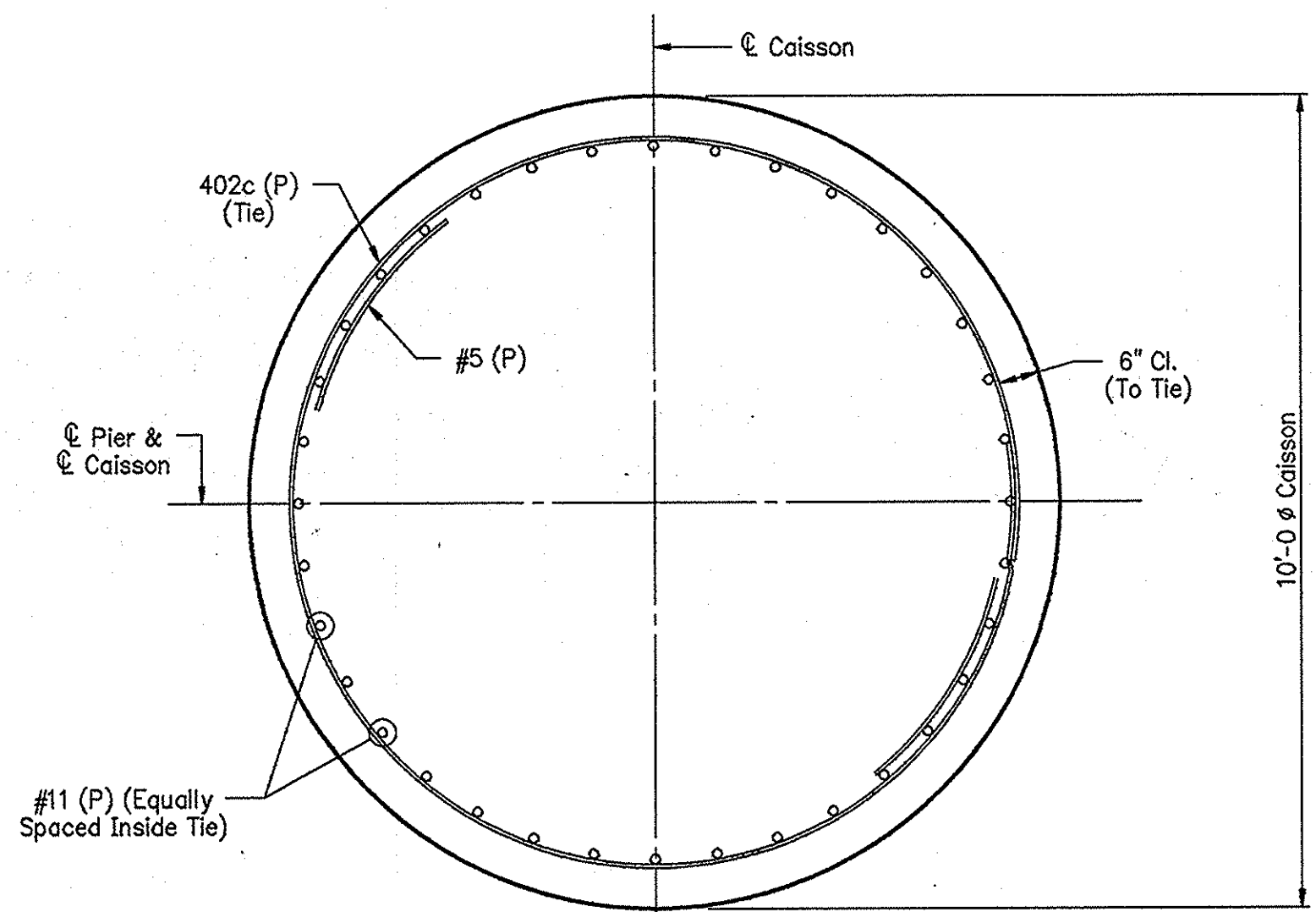
* Includes reinforcing steel, see Special Provisions.



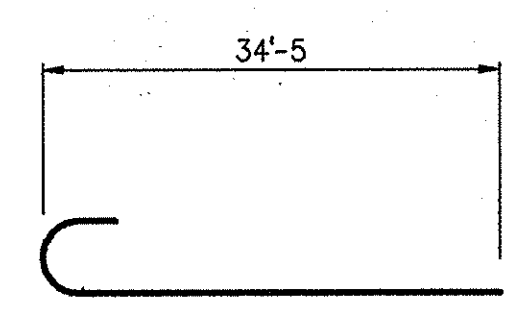
PARTIAL CAISSON ELEVATION



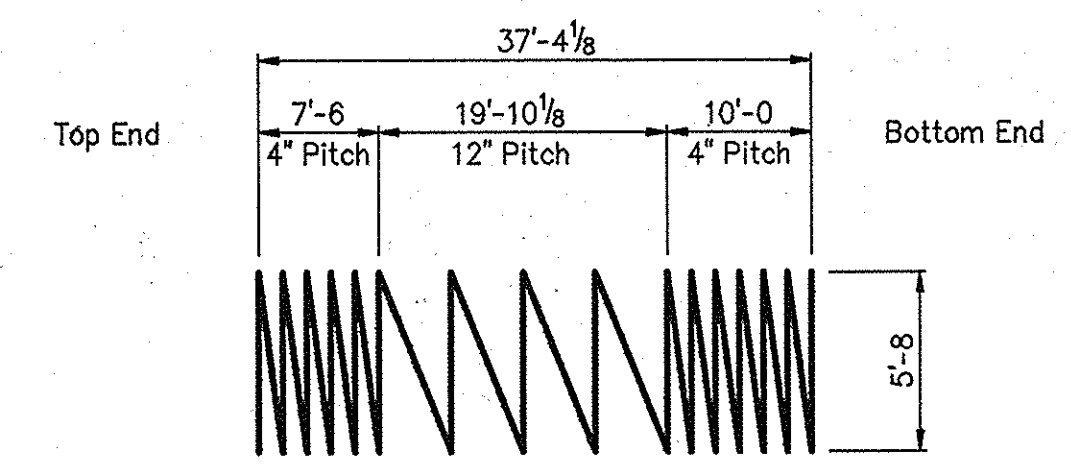
SECTION C-C
Scale: 1/2" = 1'-0"



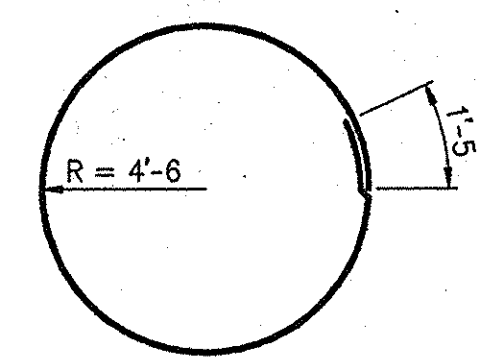
SECTION D-D
Scale: 1/2" = 1'-0"



1101c x 36'-0



401c x 1341'-4
Spiral Bars To Be Formed Of Cold Drawn Wire With A Yield Of 60,000 P.S.I.



402c x 29'-8 (P)

NOTES:
For reinforcing bar notes, see Bridge Standard C1.
All reinforcing steel to be epoxy coated, unless noted.
(P) Indicates plain reinforcing steel.

PIER NO.2 DETAILS INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 1/4" = 1'-0, UNLESS NOTED DATE: - July 9, 1998

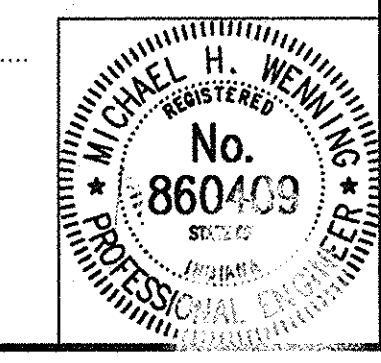
SUBMITTED FOR APPROVAL *Michael H. Weir*

DRAWING: - S10 OF S52 SHEET: - 25 OF 79

PROJECT: - IM-80-1(143)4

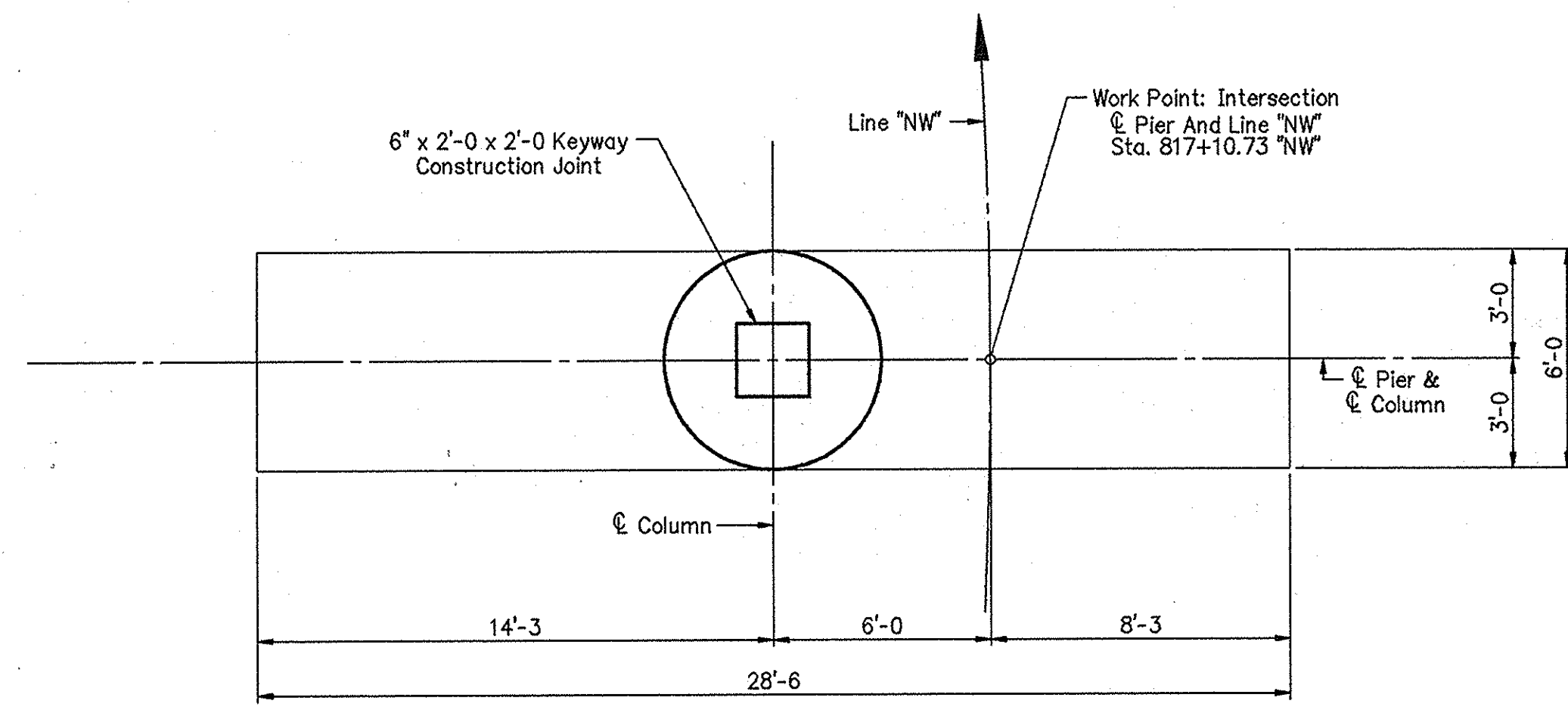
CONTRACT NO. R-23808

BRIDGE FILE: - I-80-5-7828

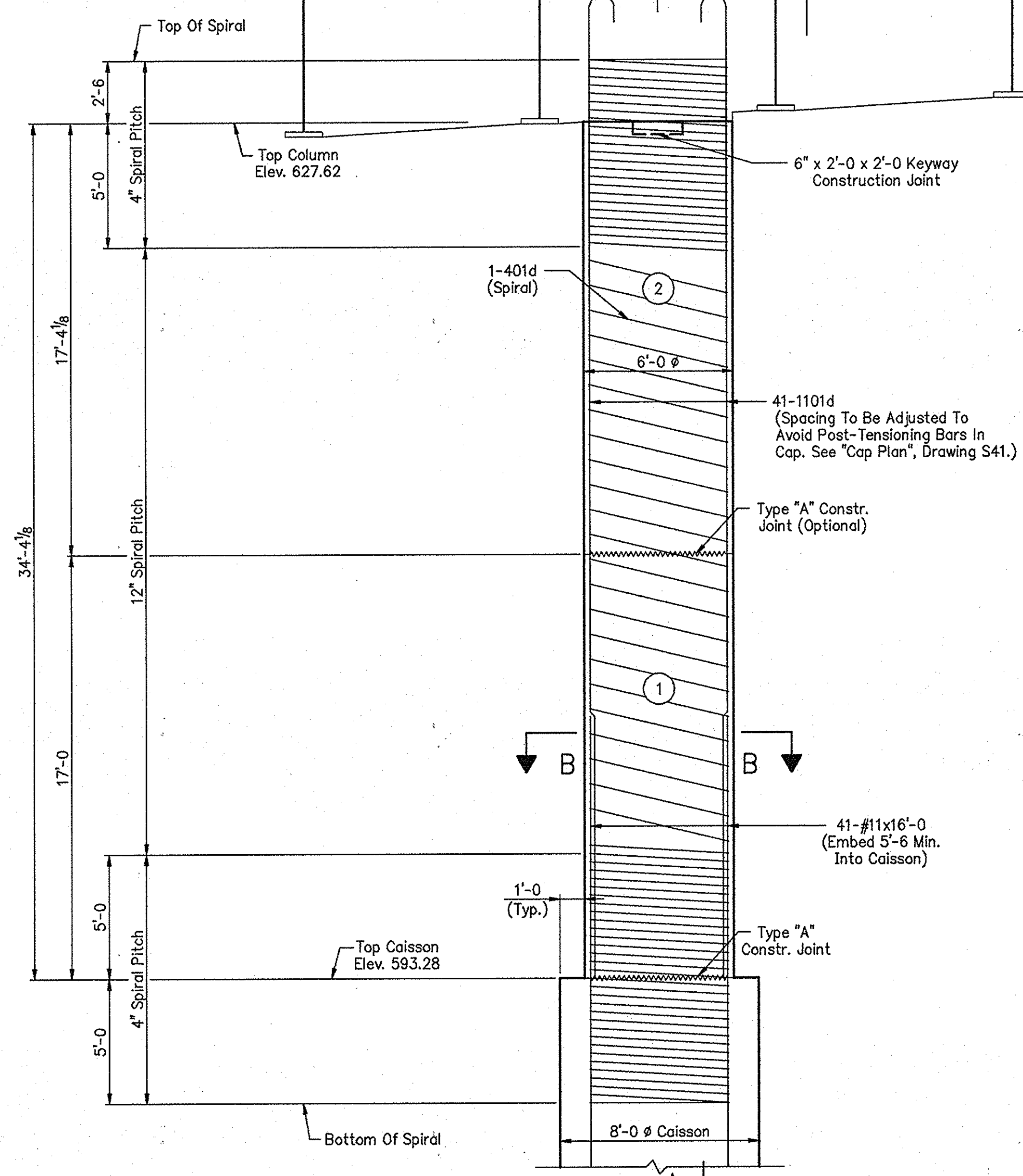
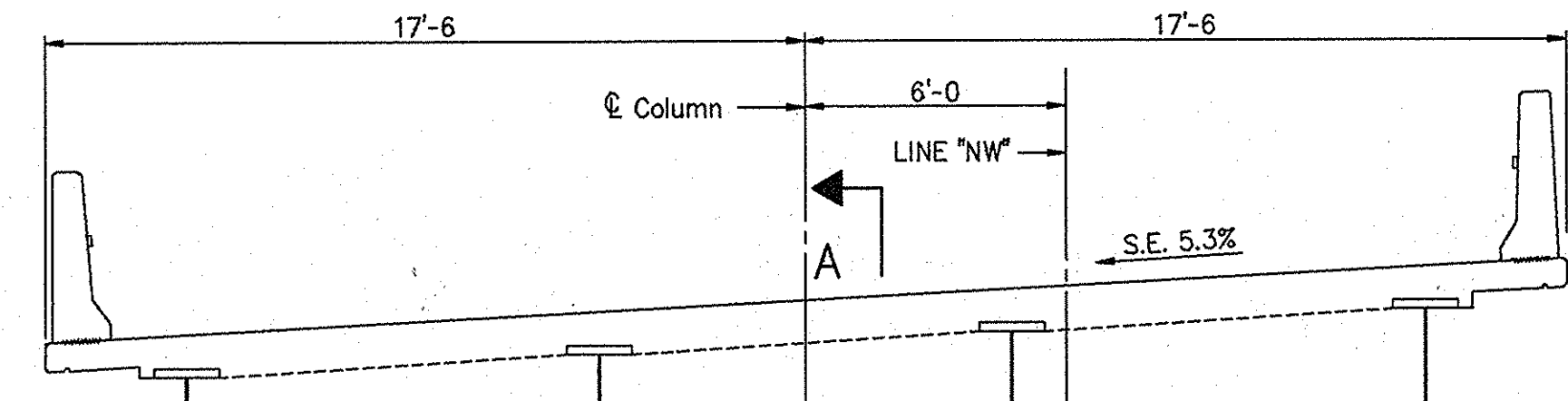
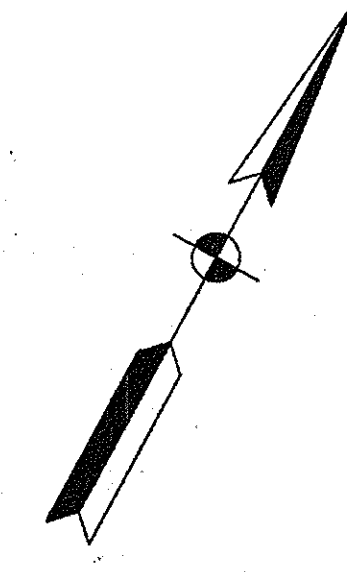


DESIGNED MDR 3/4/98 CK'D MSP 3/19/98
DRAWN TLH 4/6/98 CK'D MDR 4/13/98
TRACED _____ CK'D _____

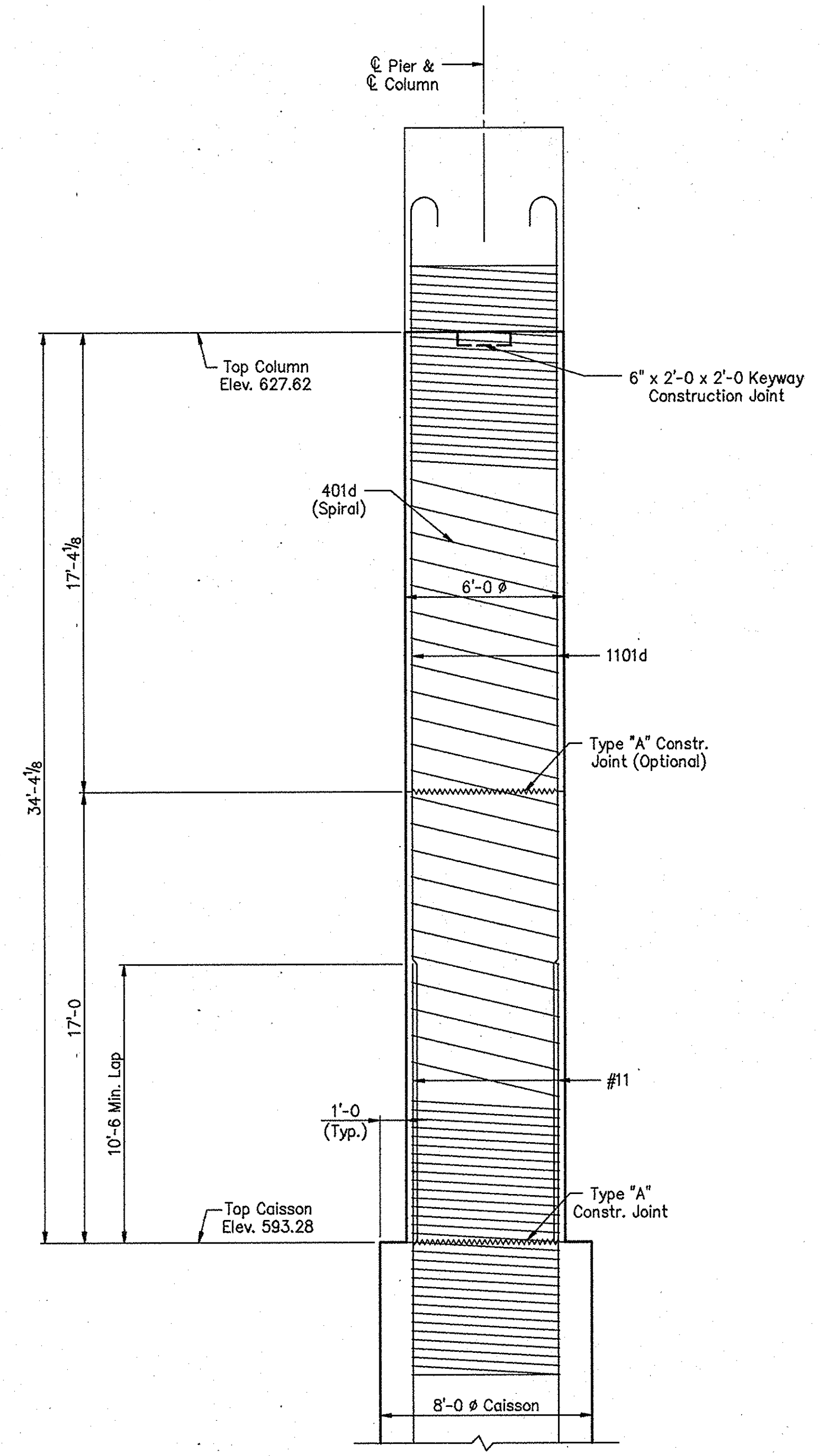
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PLOT ORIGIN: 0.00,0.00
SPELLOK: 07/09/98
EDIT DATE: 07/09/98
EDITED BY: TLH - 9131



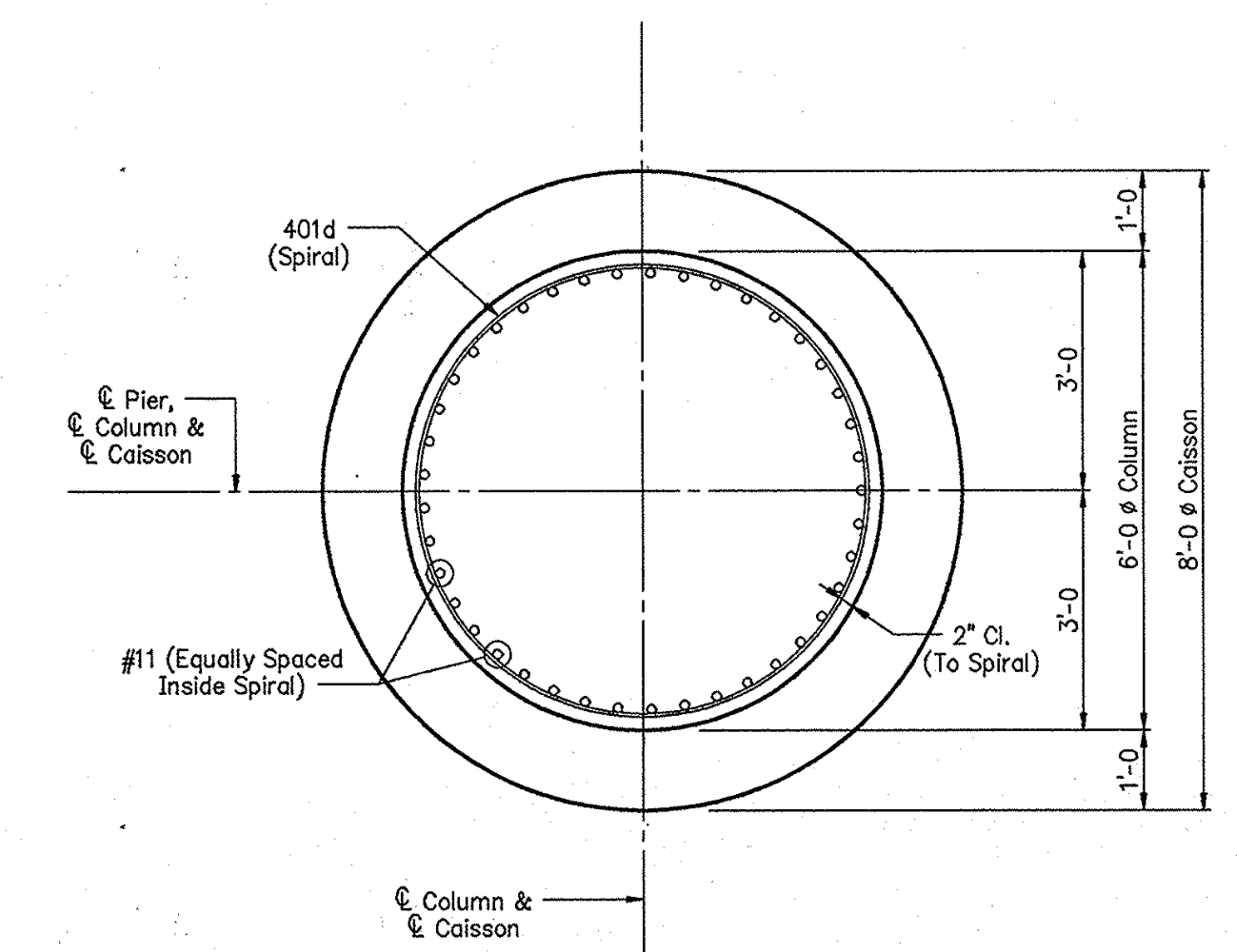
PLAN



ELEVATION



SECTION A-A



SECTION B-B
Scale: 1/2" = 1'-0"

NOTES :

For reinforcing bar notes, see Bridge Standard C1.

All reinforcing steel to be epoxy coated, unless noted.

For Cap details, see Drawing S41.

For Caisson details, additional details and Bill of Materials, see Drawing S12.

(X) Indicates concrete pour number.

PIER NO.3 DETAILS
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 1/4" = 1'-0, UNLESS NOTED DATE: - July 9, 1998

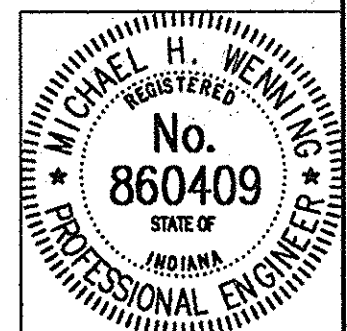
SUBMITTED FOR APPROVAL

DRAWING: - S11 OF S52 SHEET: - 26 OF 79

PROJECT: - IM-80-1(143)4

CONTRACT NO. R-23808

BRIDGE FILE: - I-80-5-7828



DESIGNED MDR 3/4/98 C/K'D MSP 3/26/98

DRAWN TLH 4/7/98 C/K'D MDR 4/13/98

TRACED C/K'D

DWG FILE: C:\A2\11\0211842

PLOT SCALE: 1:48.000

PLOT ORIGIN: 0.00,0.00

SPELLING: 07/09/98 12:57:40

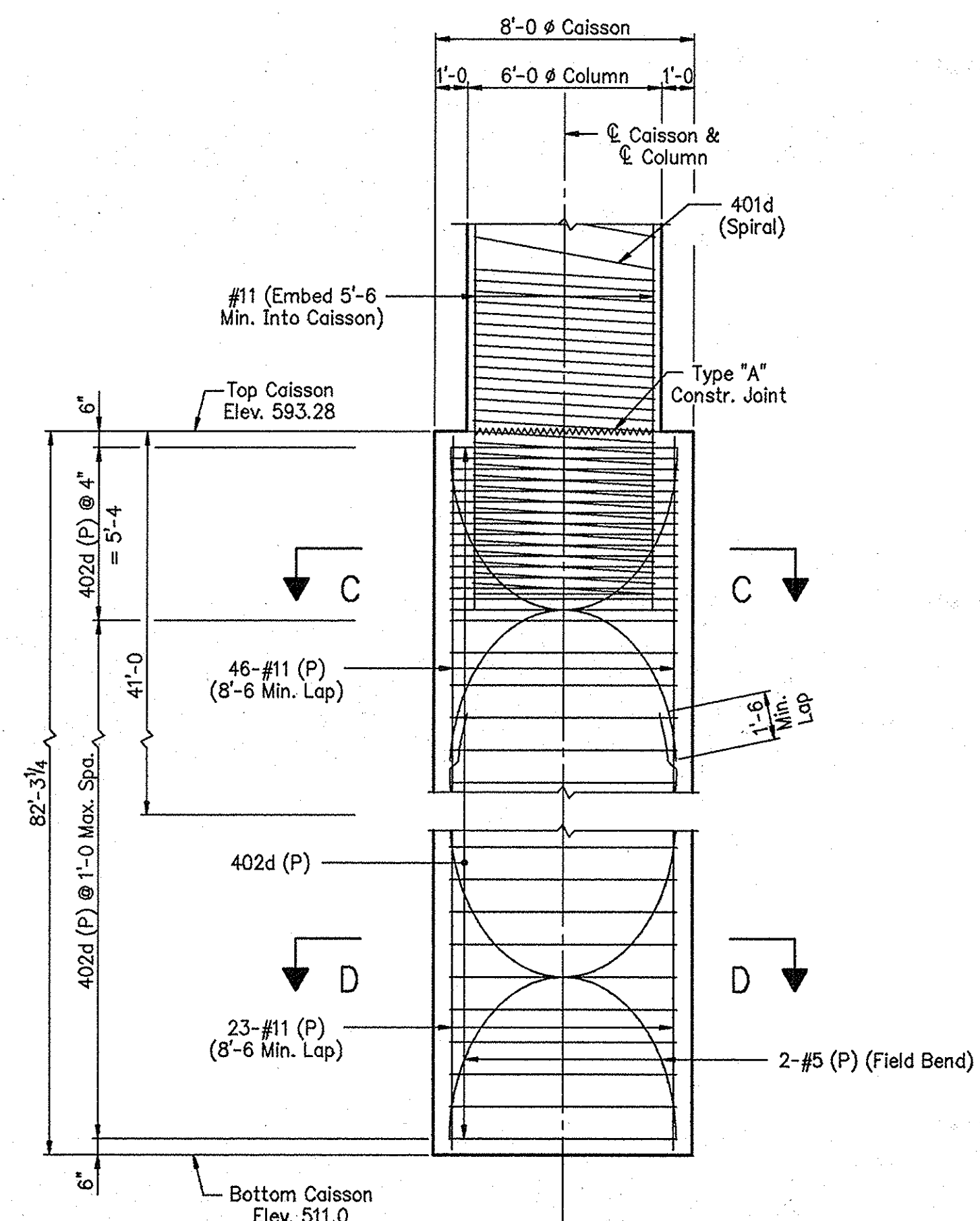
EDIT DATE: 07/09/98 12:57:40

EDITED BY: DSH - SBI

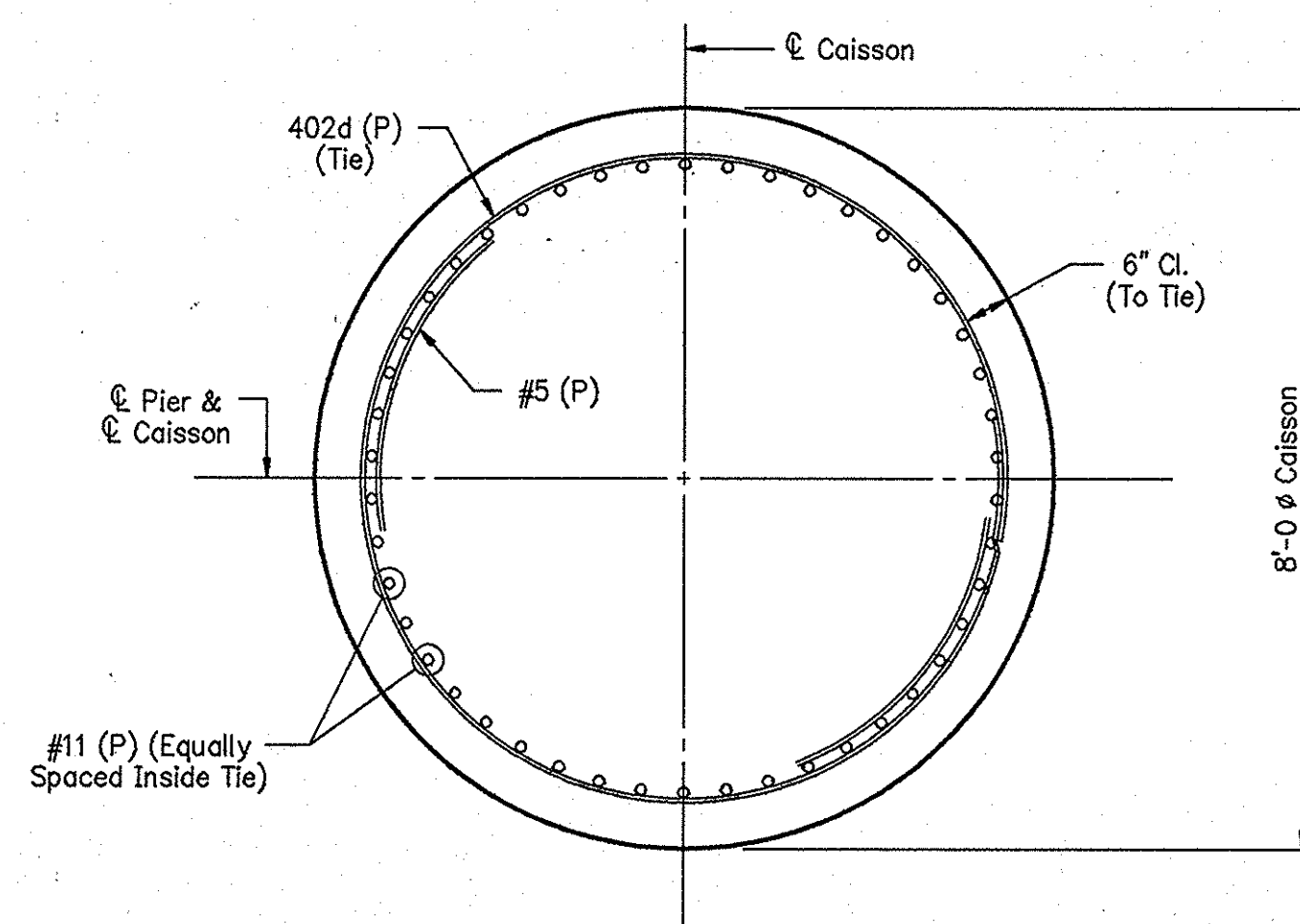
PIER No.3 BILL OF MATERIALS

Epoxy Coated Reinforcing Steel			
Size And Mark	No. Of Bars	Length (Feet)	Weight (Lbs.)
1101d	41	41'-0	
#11	41	16'-0	
Total No. 11			12,416
401d	1	1422'-4	950
Total Epoxy Coated Reinforcing Steel			13,366
Concrete			
Class "A" In Substructure			
Pour No.1			17.8 Cys.
Pour No.2			18.2 Cys.
Total Class "A" In Substructure			36.0 Cys.
Drilled Shaft Concrete *			153.2 Cys.

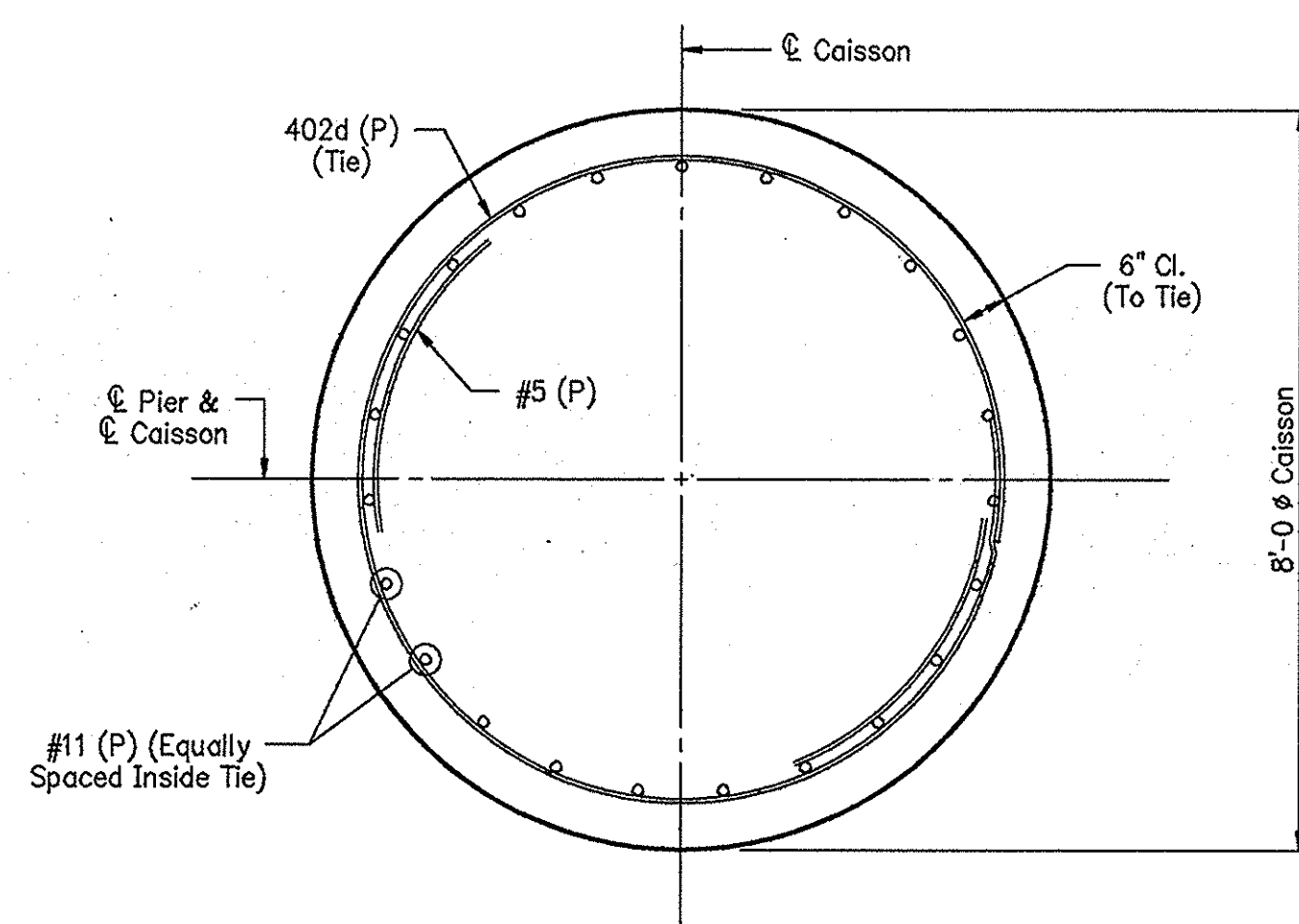
* Includes reinforcing steel, see Special Provisions.



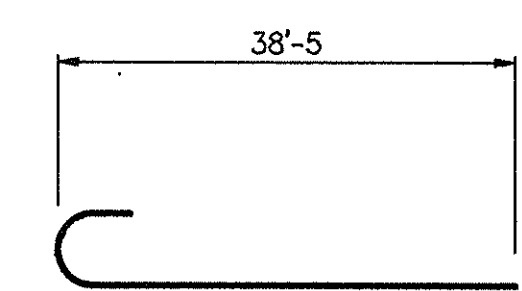
PARTIAL CAISSON ELEVATION



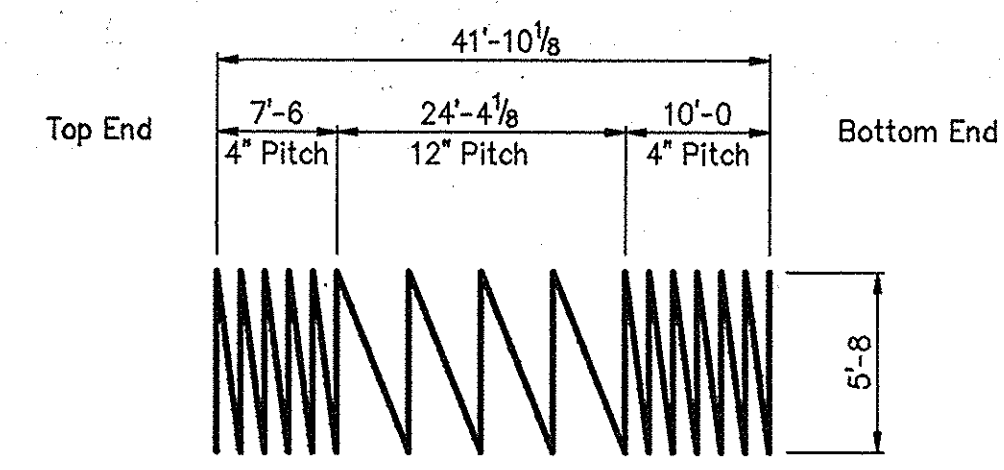
SECTION C-C
Scale: 1/2" = 1'-0"



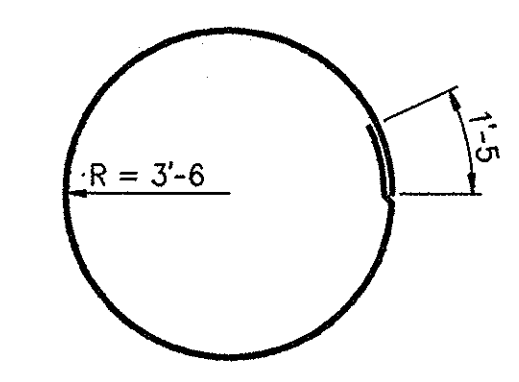
SECTION D-D
Scale: 1/2" = 1'-0"



1101d x 41'-0



401d x 1422'-4
Spiral Bars To Be Formed Of Cold Drawn Wire With A Yield Of 60,000 P.S.I.



402d x 23'-4 (P)

NOTES:
For reinforcing bar notes, see Bridge Standard C1.
All reinforcing steel to be epoxy coated, unless noted.
(P) Indicates plain reinforcing steel.

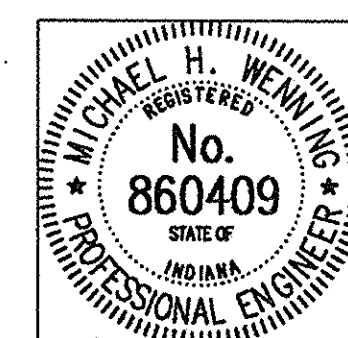
PIER NO.3 DETAILS

INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 1/4" = 1'-0, UNLESS NOTED DATE: - July 9, 1998

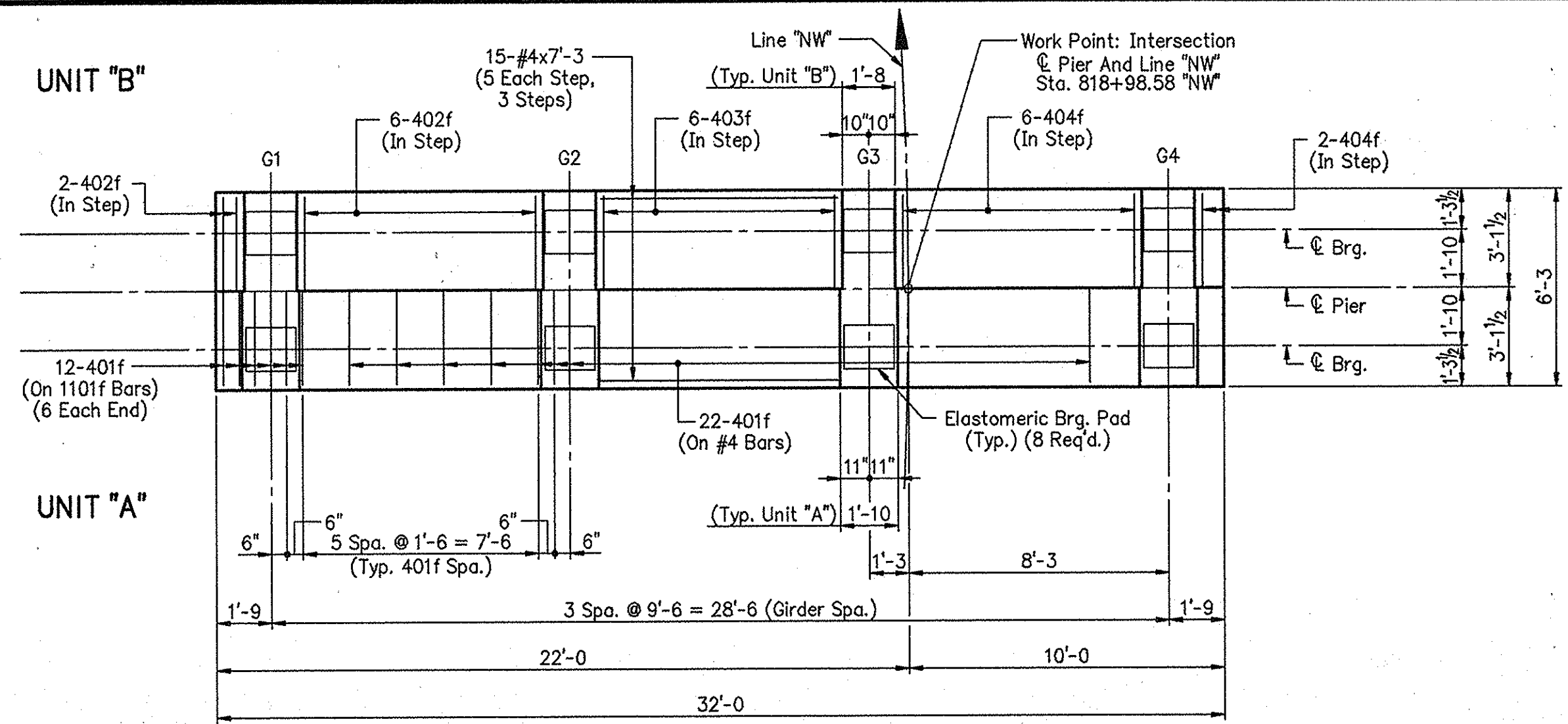
SUBMITTED FOR APPROVAL *[Signature]*

DRAWING: - S12 OF S52 SHEET: - 27 OF 79
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7828

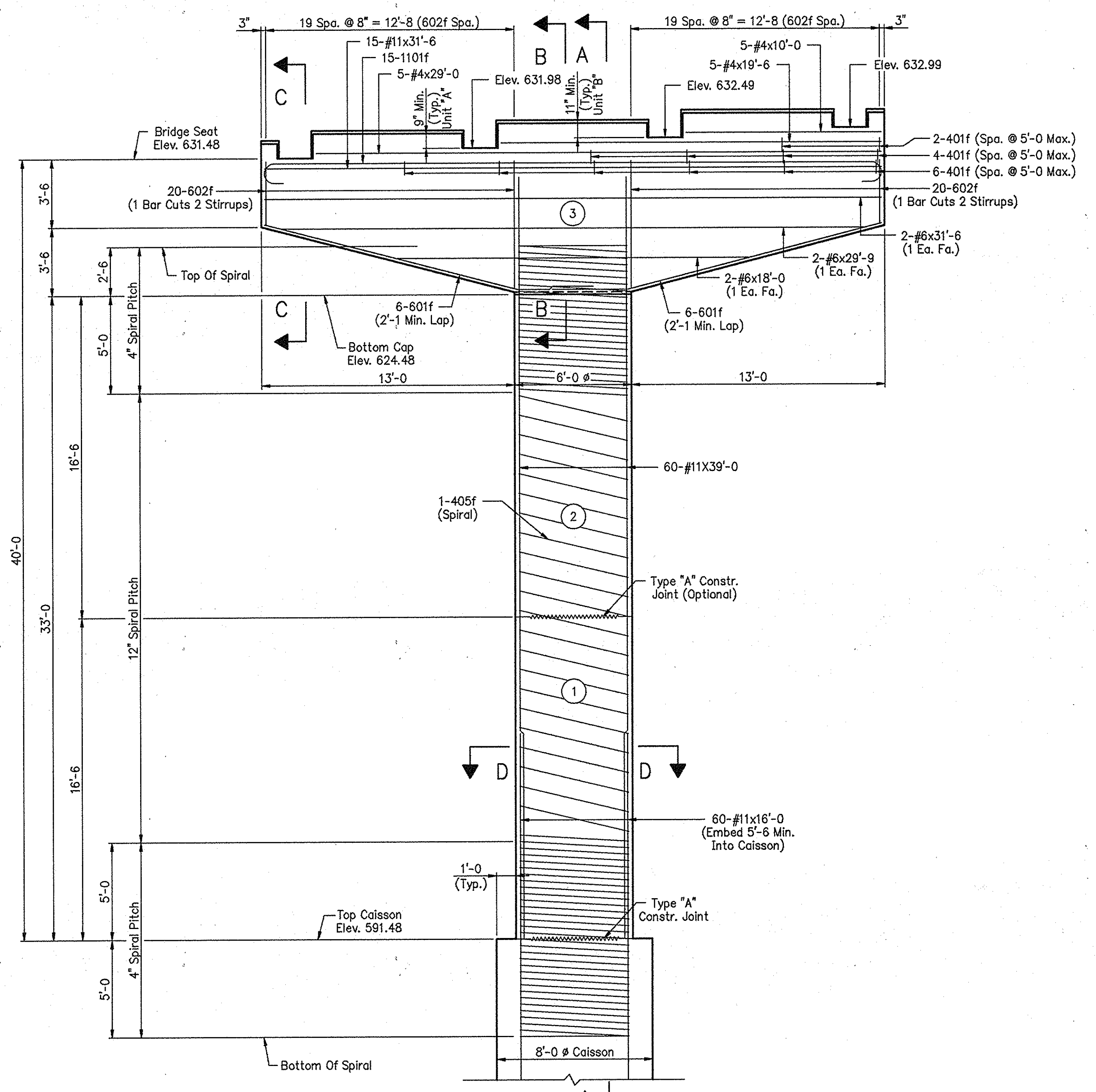


DESIGNED MDR 3/4/98 CKD MSP 3/26/98
DRAWN ILH 3/7/98 CKD MDR 4/13/98
TRACED _____ CKD _____

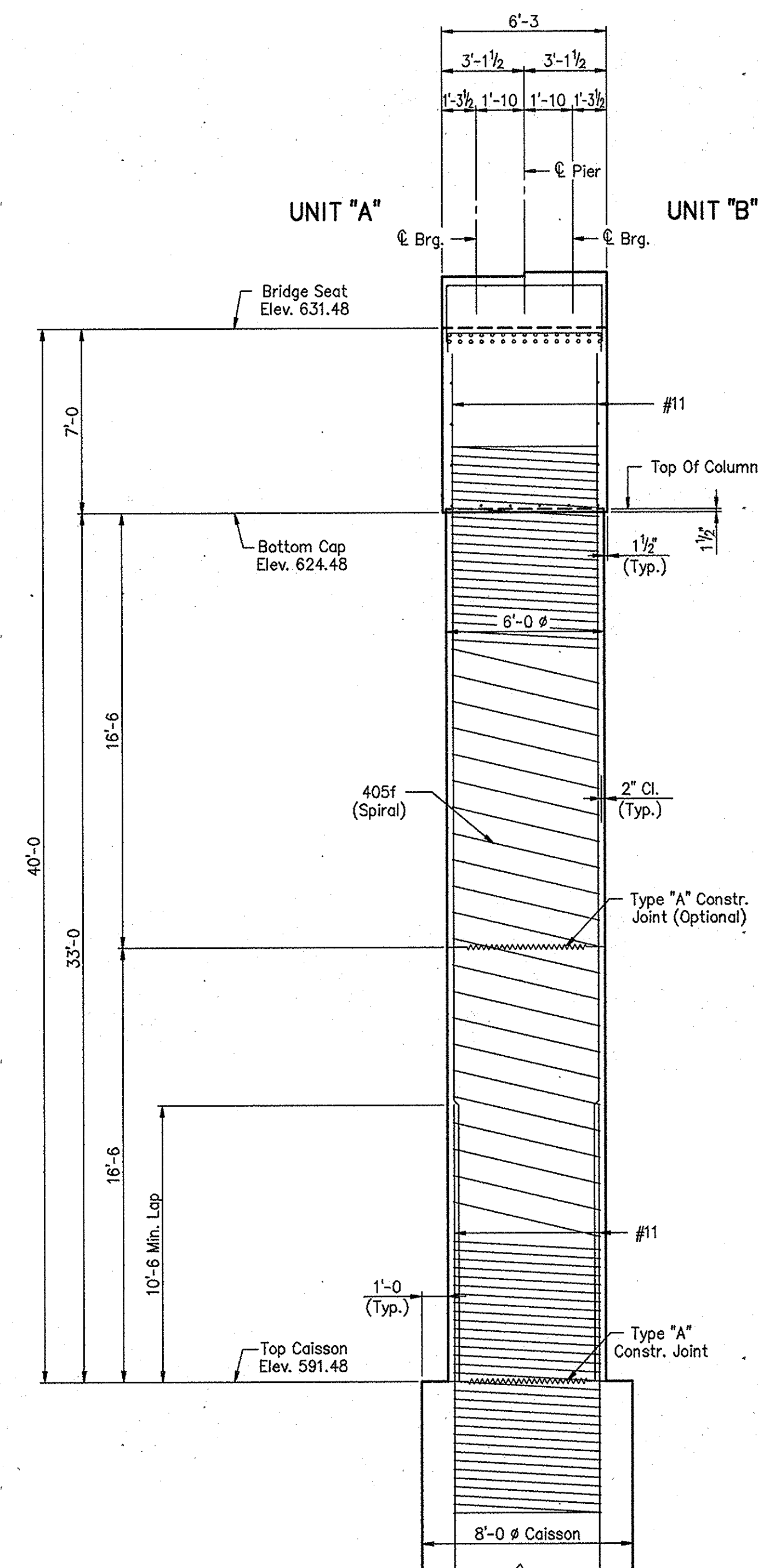
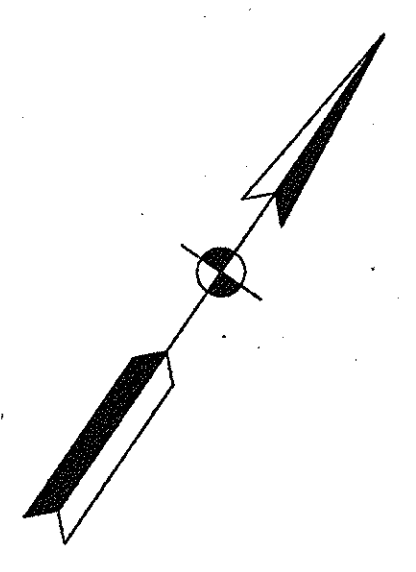
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SPELLOW: 07/09/98 13:14:58
EDIT DATE: 07/09/98 13:14:58
EDITED BY: DSH - SRI



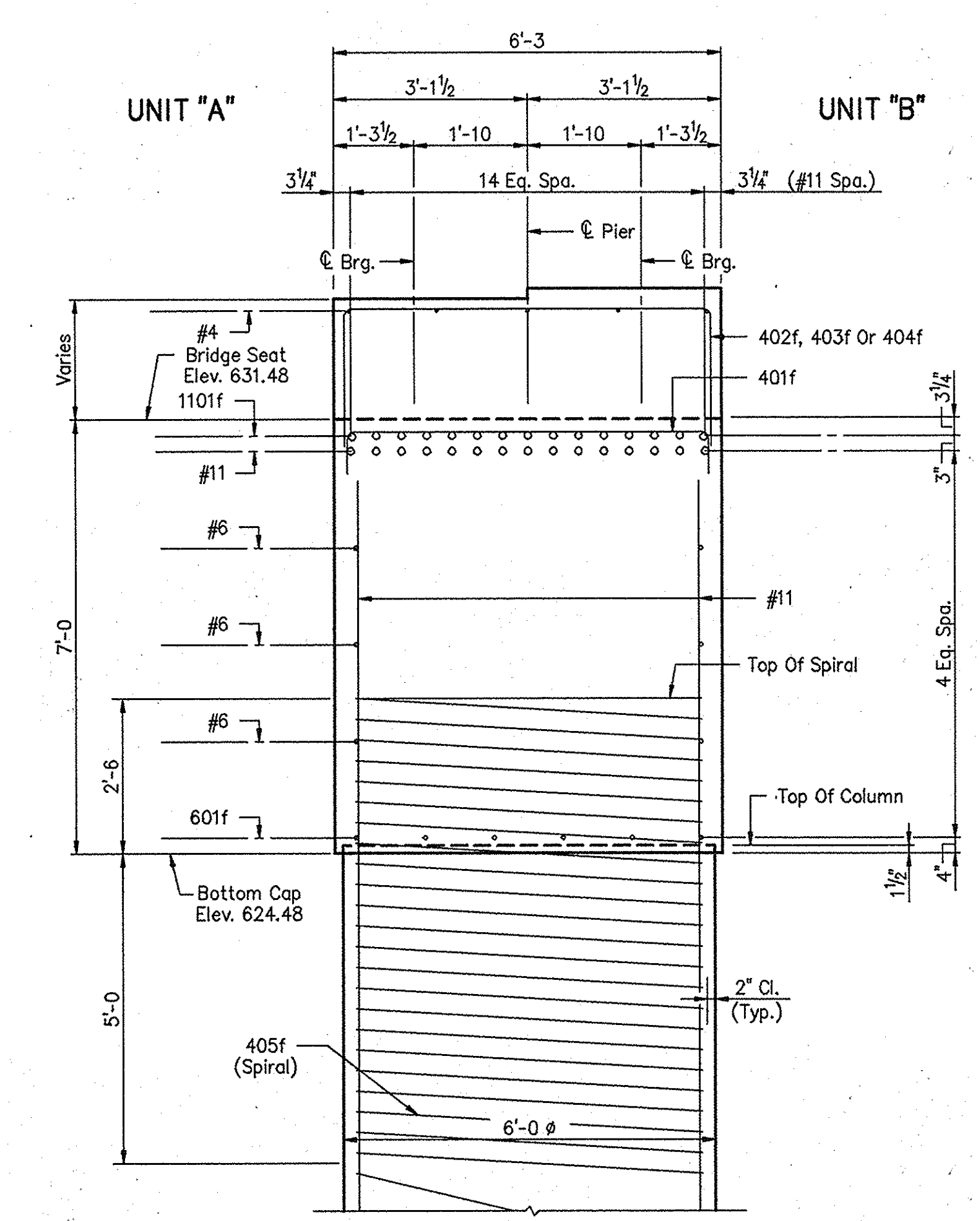
CAP PLAN



ELEVATION



SECTION A-A

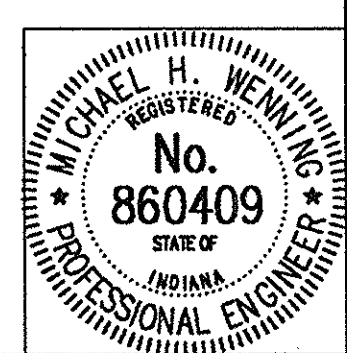


SECTION B-B
Scale: 1/2" = 1'-0"

NOTES:
 For reinforcing bar notes, see Bridge Standard C1.
 All reinforcing steel to be epoxy coated, unless noted.
 Surface seal top and vertical surfaces of cap and column.
 For Caisson details, Sections C-C and D-D, additional details and Bill of Materials, see Drawing S14.
 (X) Indicates concrete pour number.

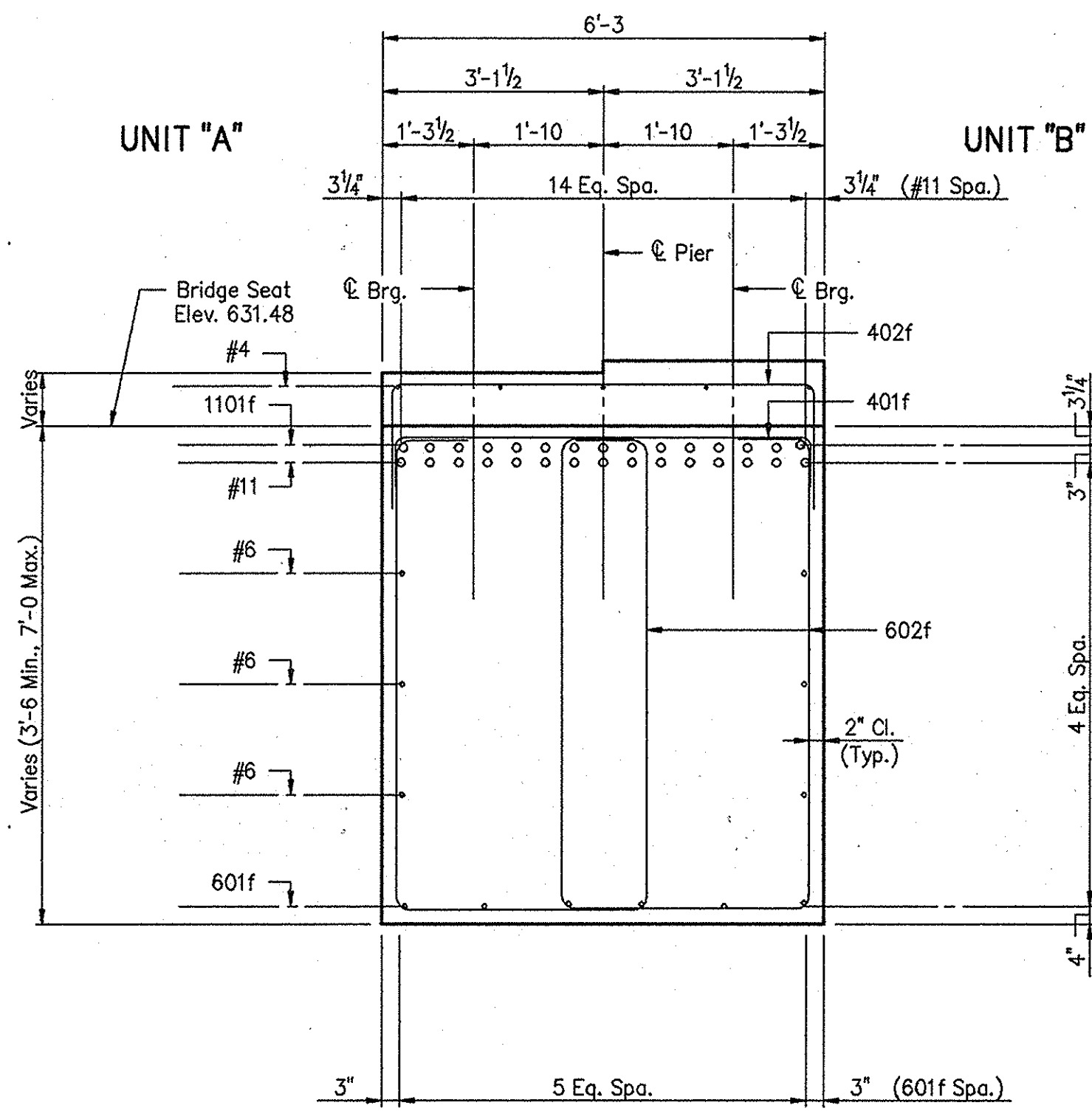
PIER NO.4 DETAILS
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 1/4" = 1'-0, UNLESS NOTED DATE: - July 9, 1998
 SUBMITTED FOR APPROVAL: *Michael H. Wenzel*
 DRAWING: - S13 OF S52 SHEET: - 28 OF 79
 PROJECT: - IM-80-1(143)4
 CONTRACT NO. R-23808
 BRIDGE FILE: - I-80-5-7828

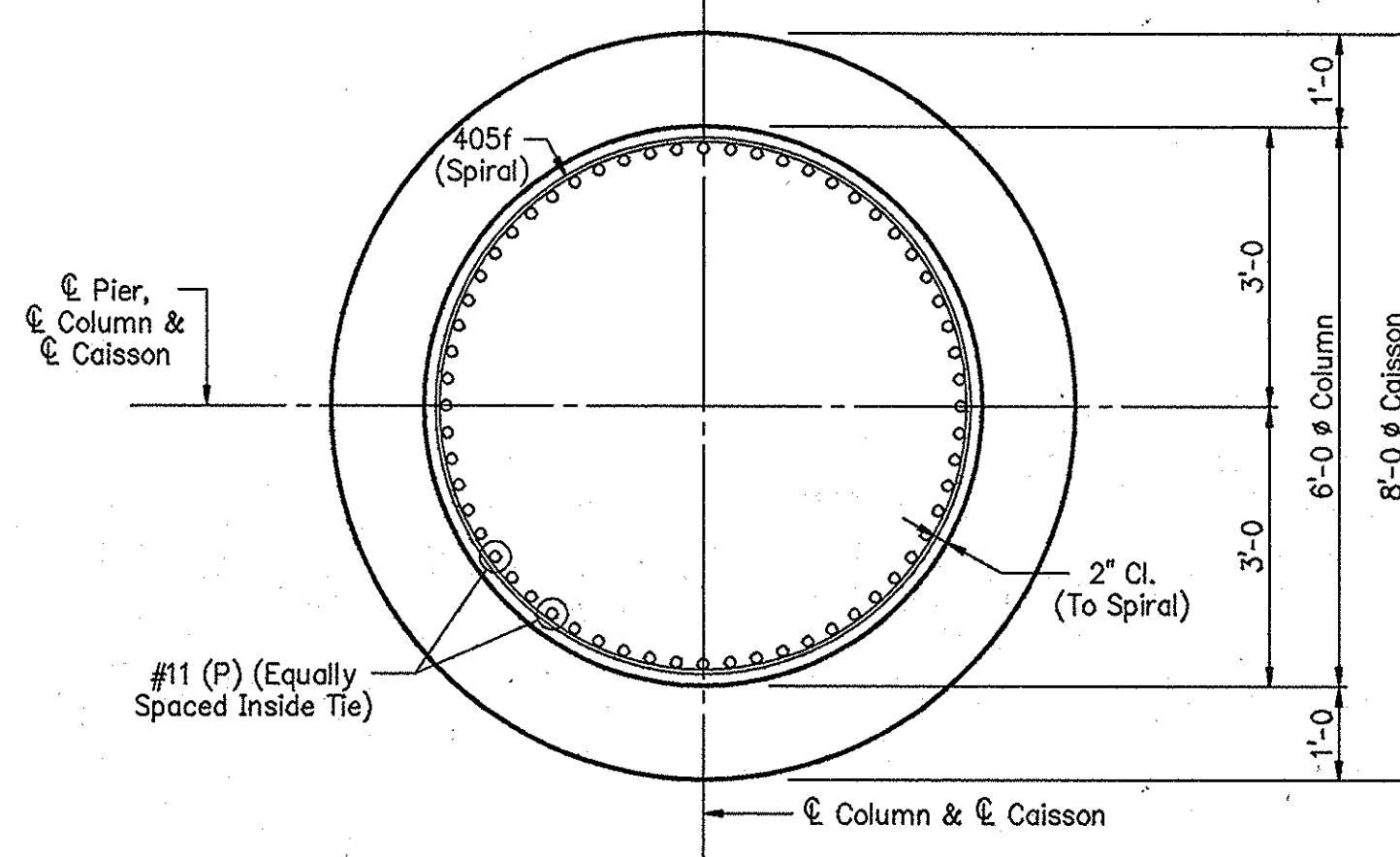


DESIGNED MDR 2/20/98 C.K.D. MSP 3/30/98
 DRAWN TLH 3/5/98 C.K.D. MDR 3/25/98
 TRACED _____ C.K.D.

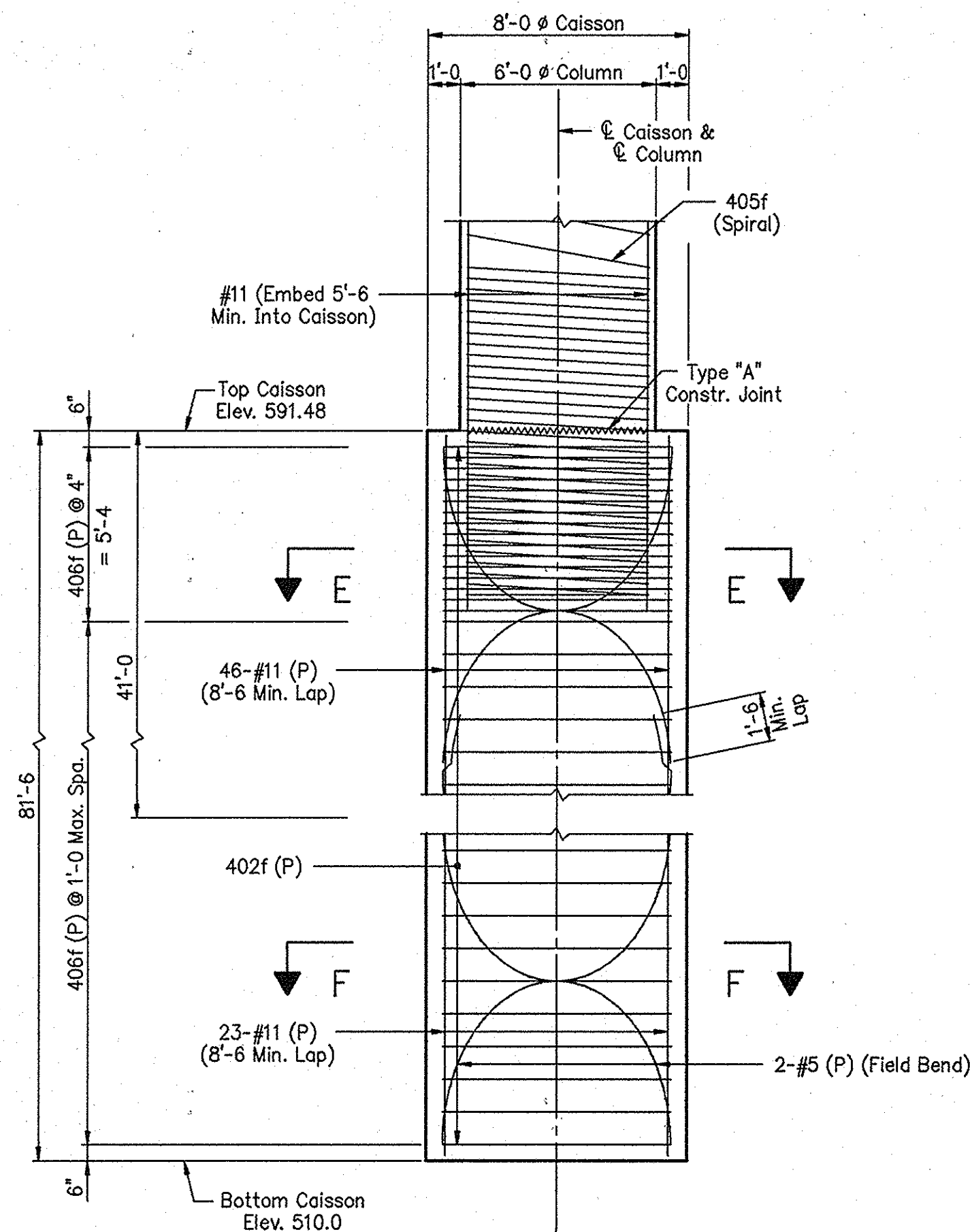
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 PLOT ORIGIN: 0.00,0.00



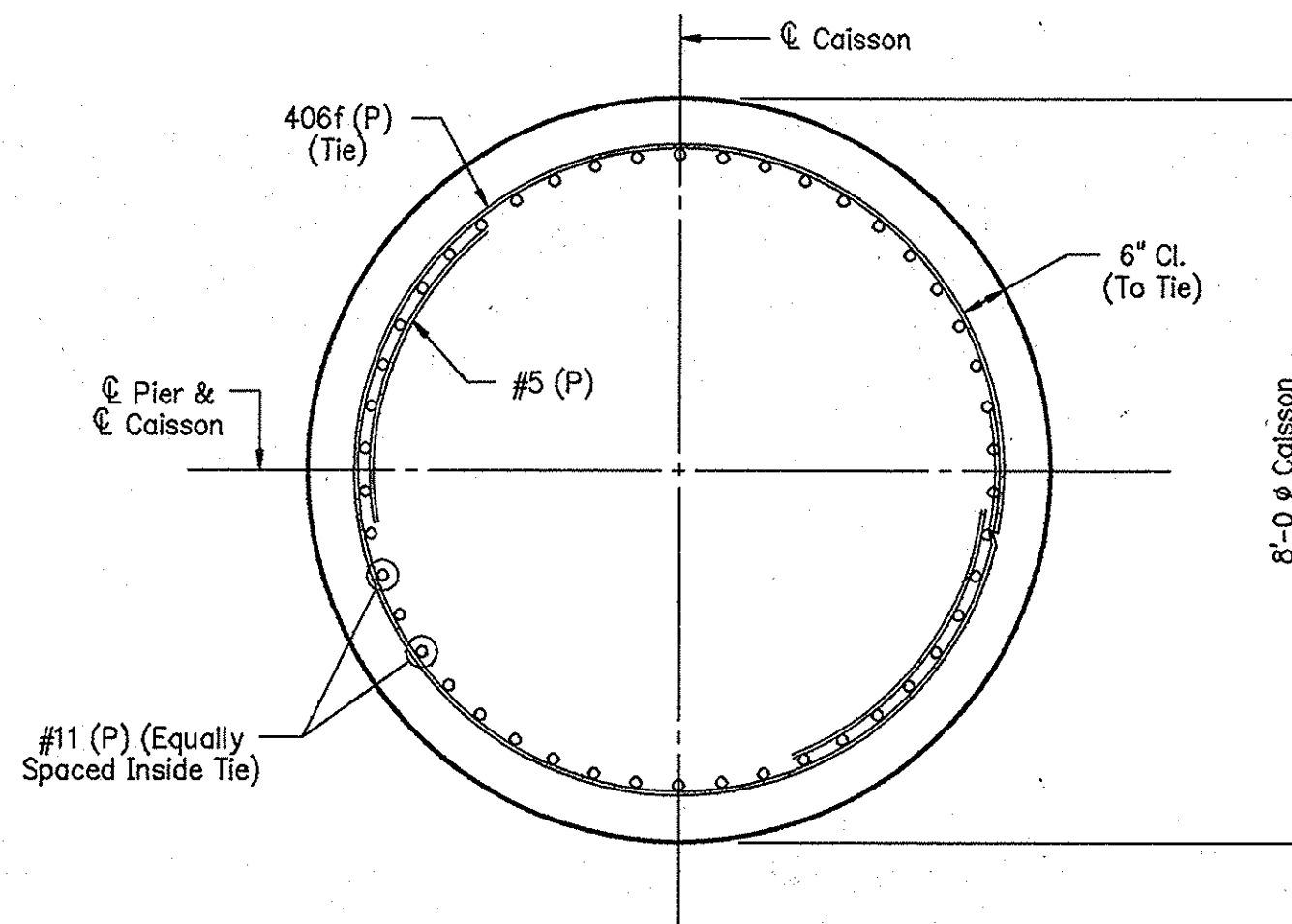
SECTION C-C
Scale: 1/2" = 1'-0"



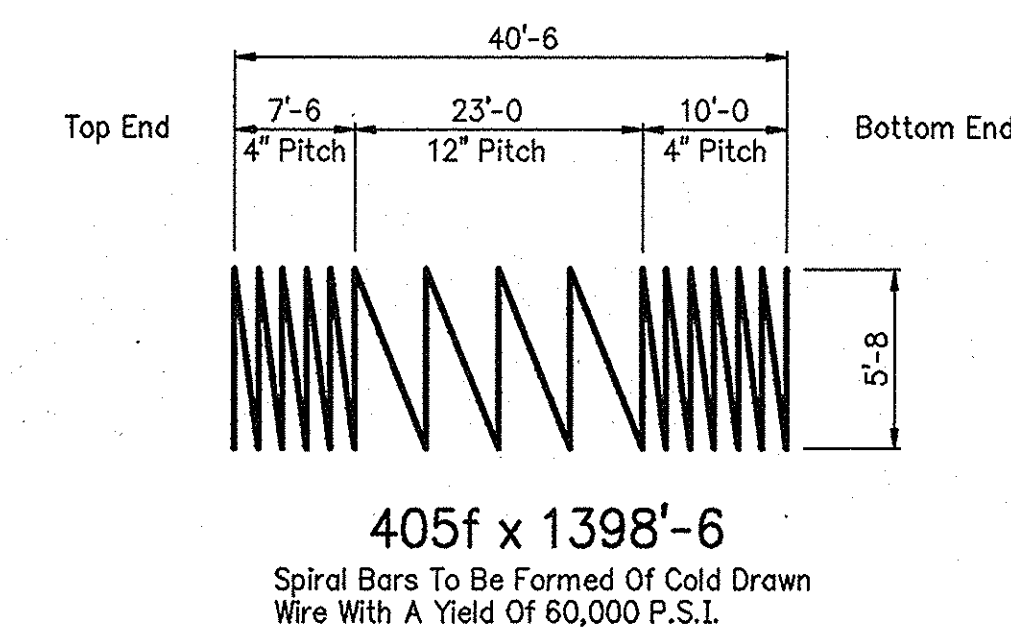
SECTION D-D
Scale: 1/2" = 1'-0"



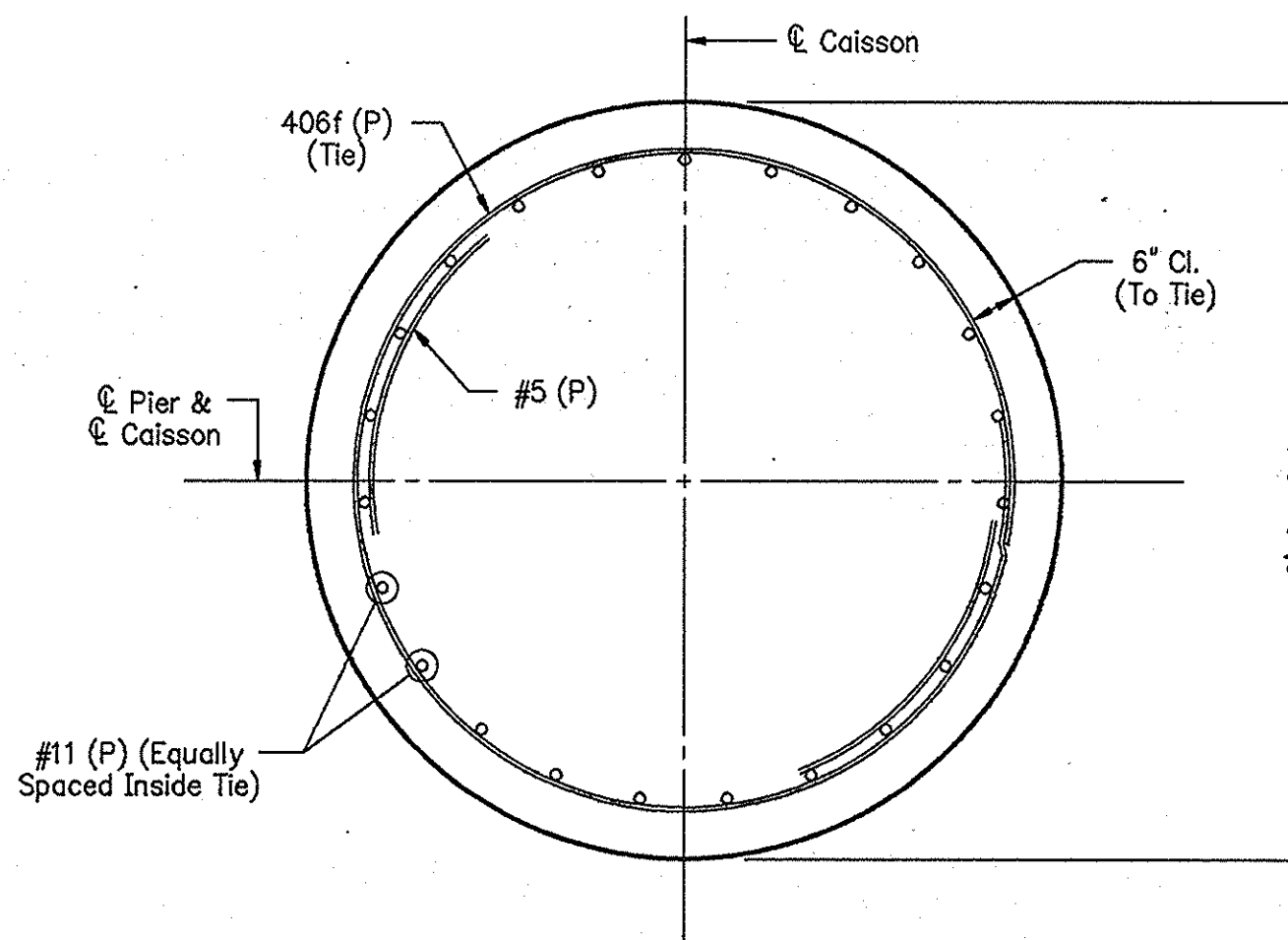
PARTIAL CAISSON ELEVATION



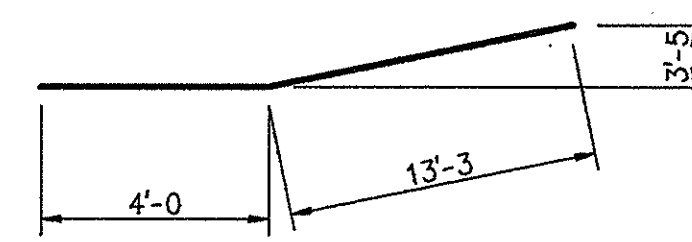
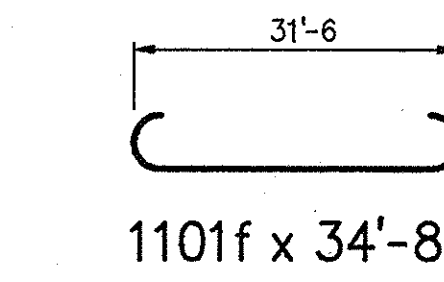
SECTION E-E
Scale: 1/2" = 1'-0"



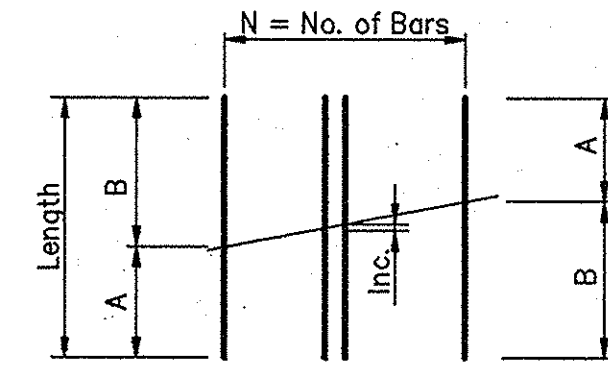
Bending Diagram
For 602f



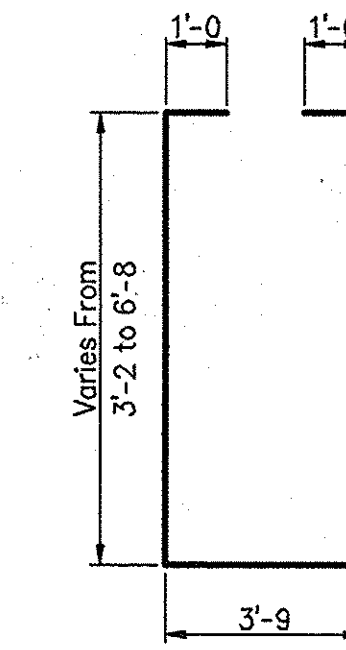
SECTION F-F
Scale: 1/2" = 1'-0"



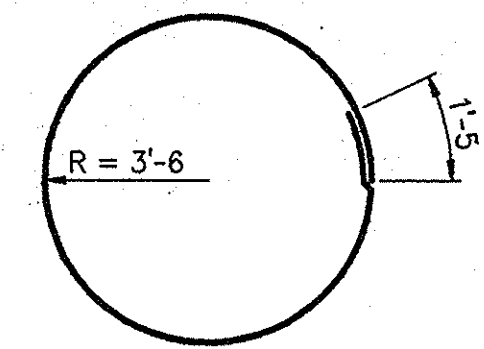
Mark	Length	A	B
401f	7'-3	5'-11	8"
402f	9'-5	5'-11	1'-9
403f	10'-5	5'-11	2'-3
404f	11'-7	5'-11	2'-10



Mark	Length	A	B	N	Inc.
602f	31'-2	12'-1	19'-1	20	4 1/16"



406f (P) x 23'-4



PIER No.4
BILL OF MATERIALS

Epoxy Coated Reinforcing Steel			
Size And Mark	No. Of Bars	Length (Feet)	Weight (Lbs.)
1101f	15	34'-8	
#11	60	39'-0	
#11	15	31'-6	
#11	60	18'-0	
Total No. 11			22,806
601f	12	17'-3	
602f	40	31'-2	
#6	2	31'-6	
#6	2	29'-9	
#6	2	18'-0	
Total No. 6			2421
401f	46	7'-3	
402f	8	9'-5	
403f	6	10'-5	
404f	8	11'-7	
405f	1	1388'-6	
#4	5	29'-0	
#4	5	19'-6	
#4	5	10'-0	
#4	15	7'-3	
Total No. 4			1579
Total Epoxy Coated Reinforcing Steel			24,385
Concrete			
Class "A" In Substructure			
Pour No.1			17.3 Cys.
Pour No.2			17.3 Cys.
Pour No.3			53.1 Cys.
Total Class "A" In Substructure			87.7 Cys.
Drilled Shaft Concrete *			151.7 Cys.
Miscellaneous			
Surface Seal			1410 Sft.

* Includes reinforcing steel, see Special Provisions.

NOTES:
For reinforcing bar notes, see Bridge Standard C1.
For location of Sections C-C and D-D, see Drawing S13.
All reinforcing steel to be epoxy coated, unless noted.
(P) Indicates plain reinforcing steel.

PIER NO.4 DETAILS

INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 1/4" = 1'-0, UNLESS NOTED DATE: - July 9, 1998

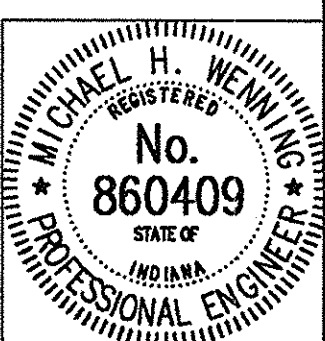
SUBMITTED FOR APPROVAL

DRAWING: - S14 OF S52 SHEET: - 29 OF 79

PROJECT: - IM-80-1(143)4

CONTRACT NO. R-23808

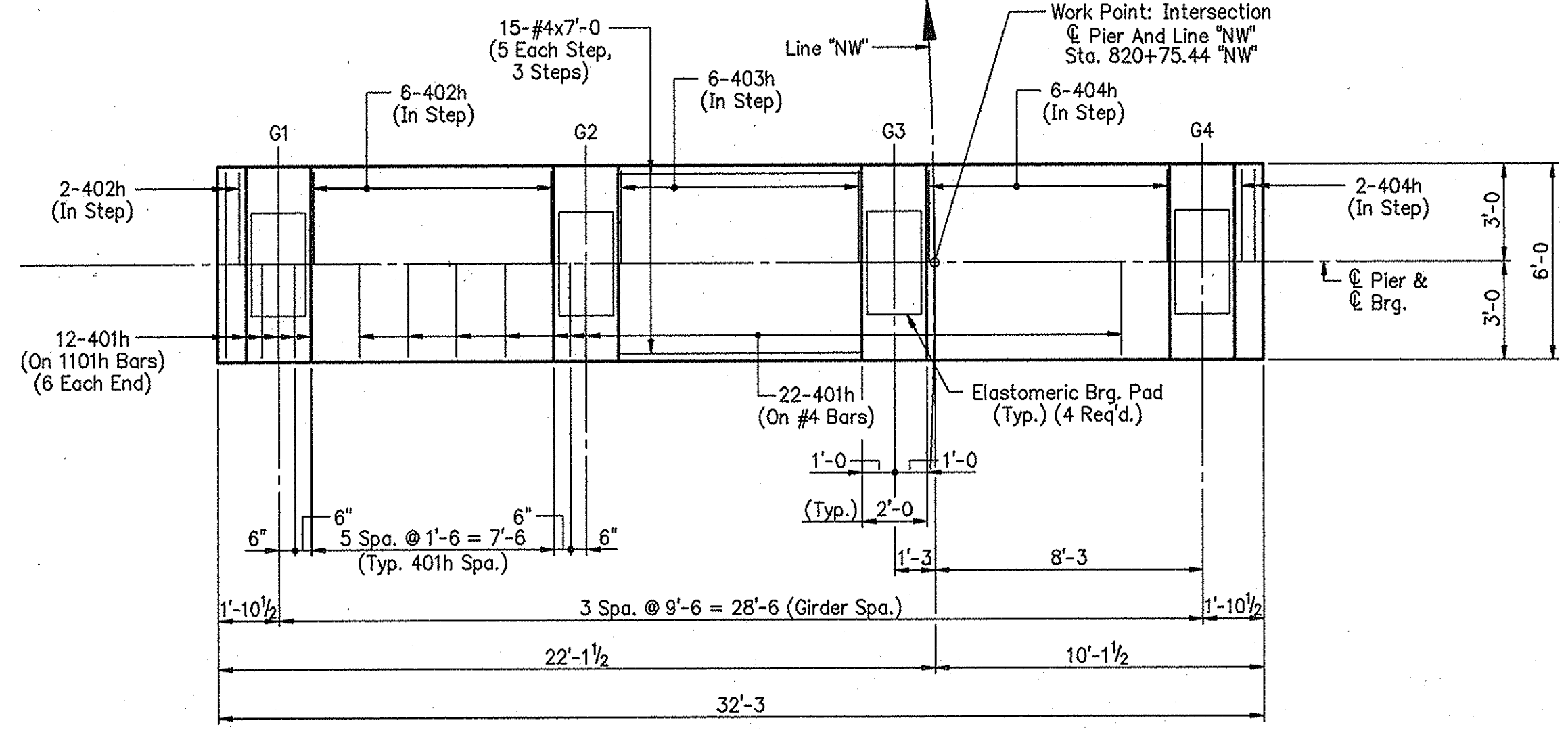
BRIDGE FILE: - I-80-5-7828



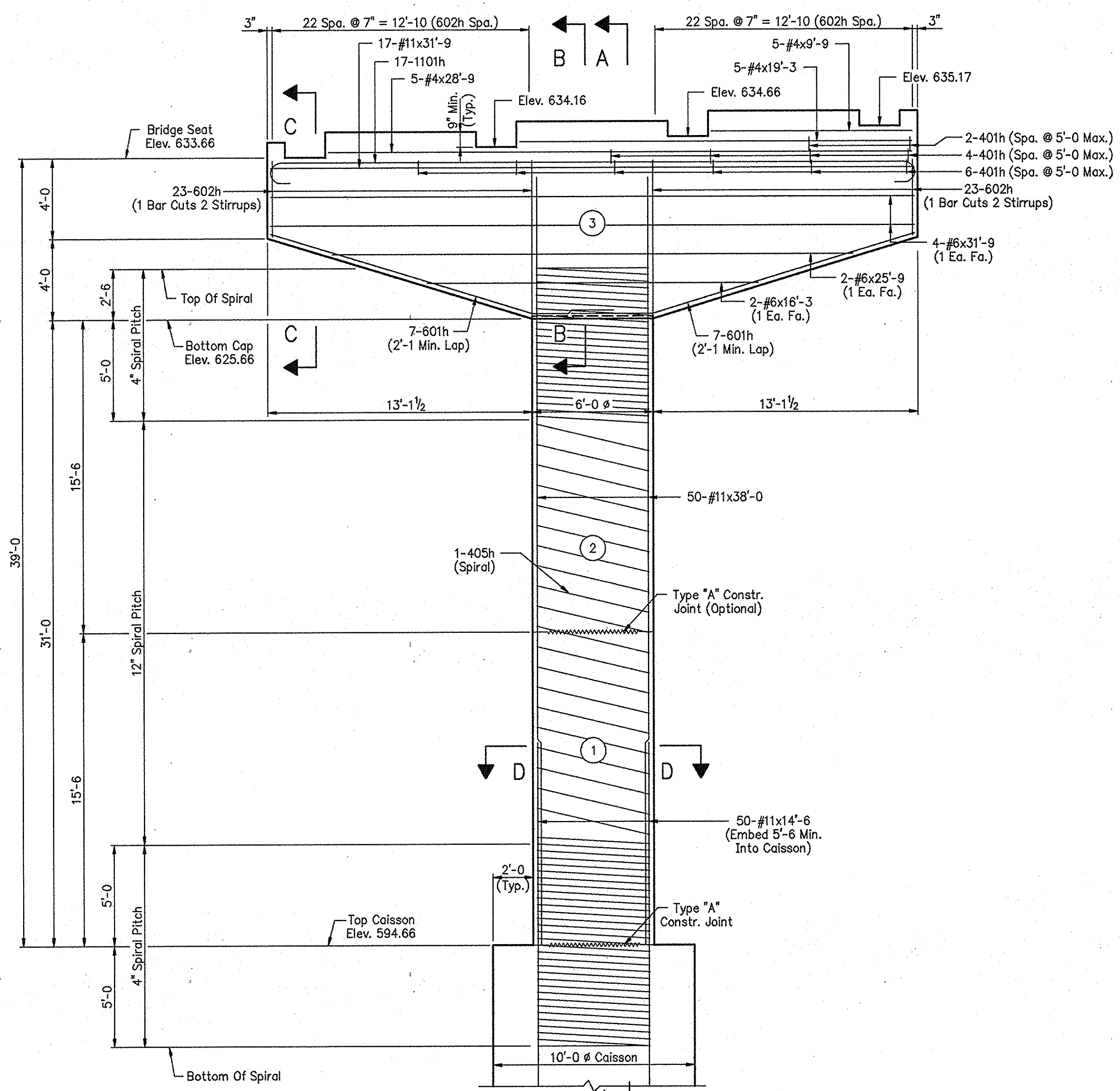
DESIGNED MDR 2/20/98 MSP 3/30/98
DRAWN ILH 3/6/98 CKD MDR 3/25/98
TRACED CKD

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SP5LLOK: 07/09/98 13:21:23
EDIT DATE: 07/09/98 13:21:23
EDIT BY: DSH - SSI

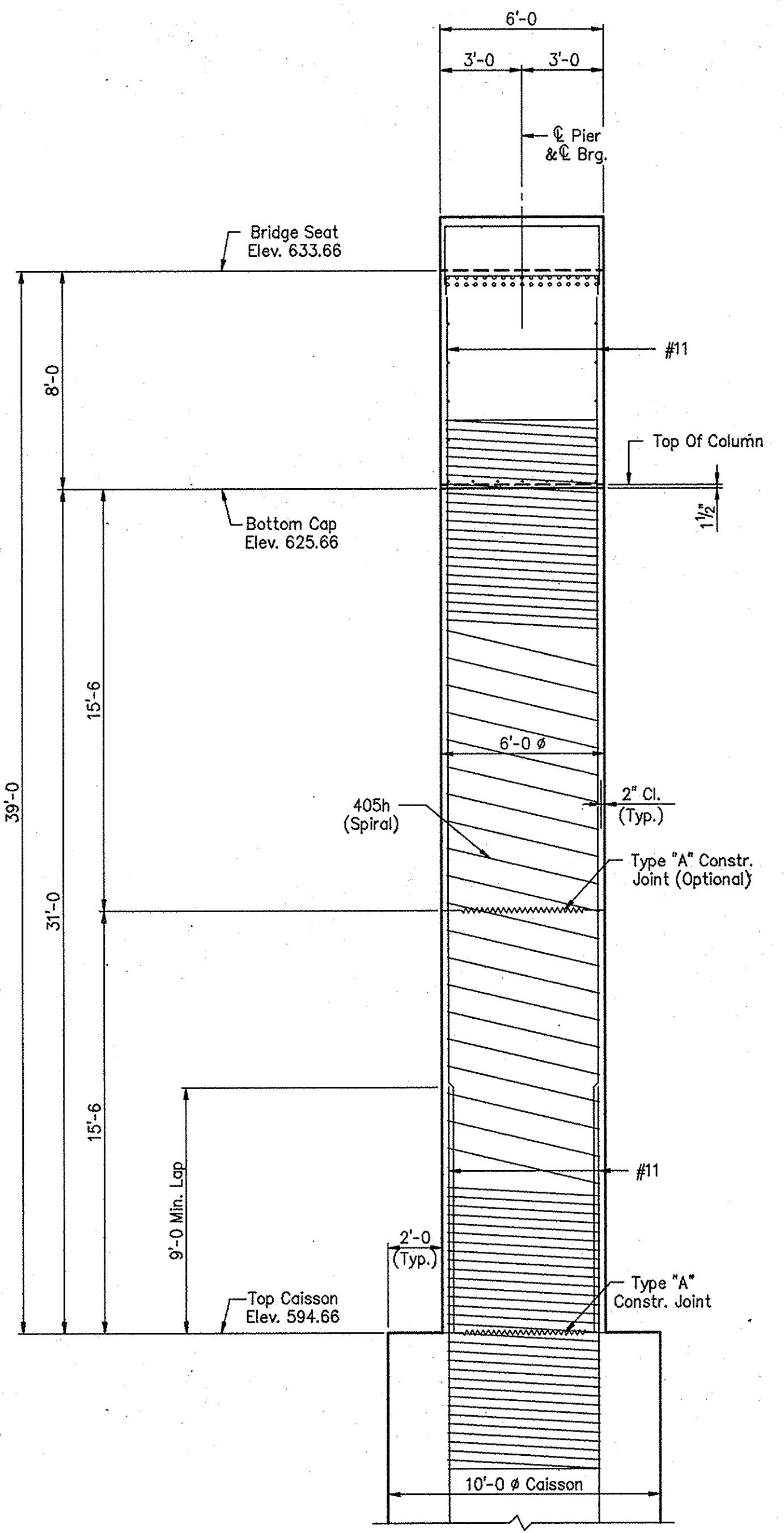
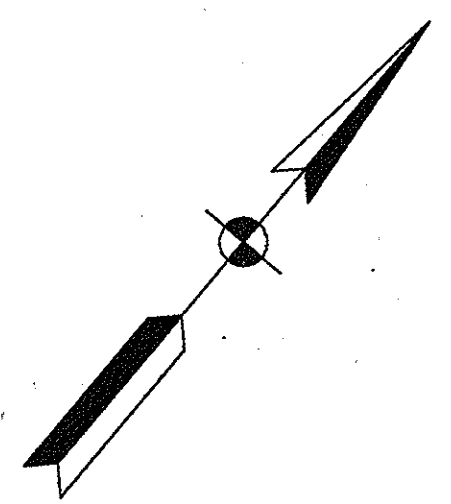
INVA.



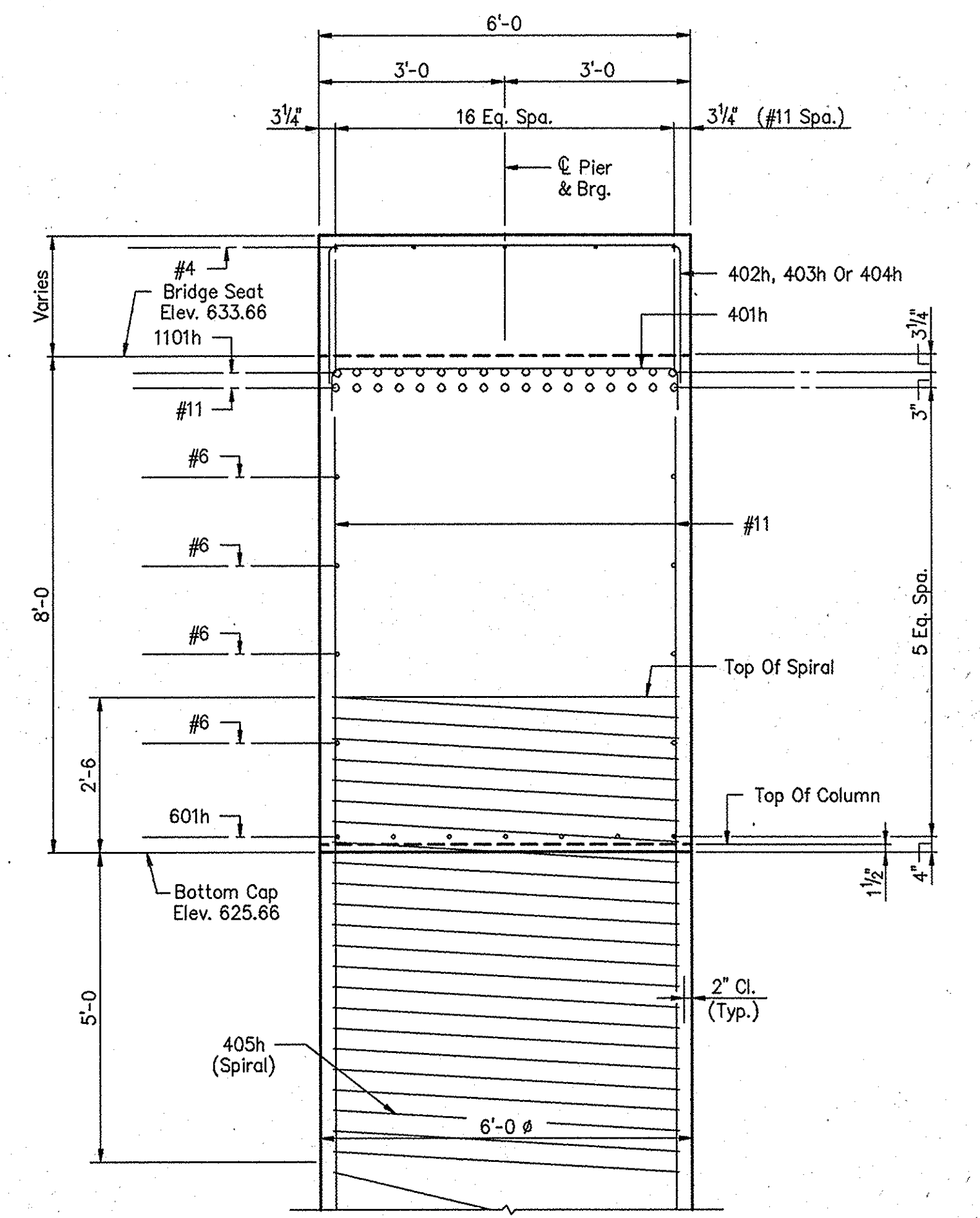
CAP PLAN



ELEVATION



SECTION A-A



SECTION B-B
Scale: 1/2" = 1'-0"

NOTES:
 For reinforcing bar notes, see Bridge Standard C1.
 All reinforcing steel to be plain.
 Surface seal top and vertical surfaces of cap.
 For Caisson details, Sections C-C and D-D, additional details and Bill of Materials, see Drawing S16.
 (X) Indicates concrete pour number.

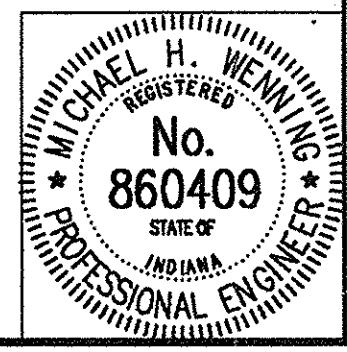
PIER NO.5 DETAILS

INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 1/4" = 1'-0, UNLESS NOTED DATE: - July 9, 1998

SUBMITTED FOR APPROVAL *[Signature]*

DRAWING: - S15 OF S52 SHEET: - 30 OF 79
 PROJECT: - IM-80-1(143)4
 CONTRACT NO. R-23808
 BRIDGE FILE: - I-80-5-7828



DESIGNED MDR 2/20/98 C/K'D MHW 3/10/98
 DRAWN TLH 3/7/98 C/K'D MDR 3/21/98
 TRACED _____ C/K'D _____

DWG FILE: C:\P2\110\02110038
 PLOT SCALE: 1:48.000
 PLOT ORIGIN: 0.00,0.00
 SPELLOK: _____
 EDIT DATE: 07/09/98 13:28:29
 EDITED BY: DSH - SMI

PIER No.5 BILL OF MATERIALS

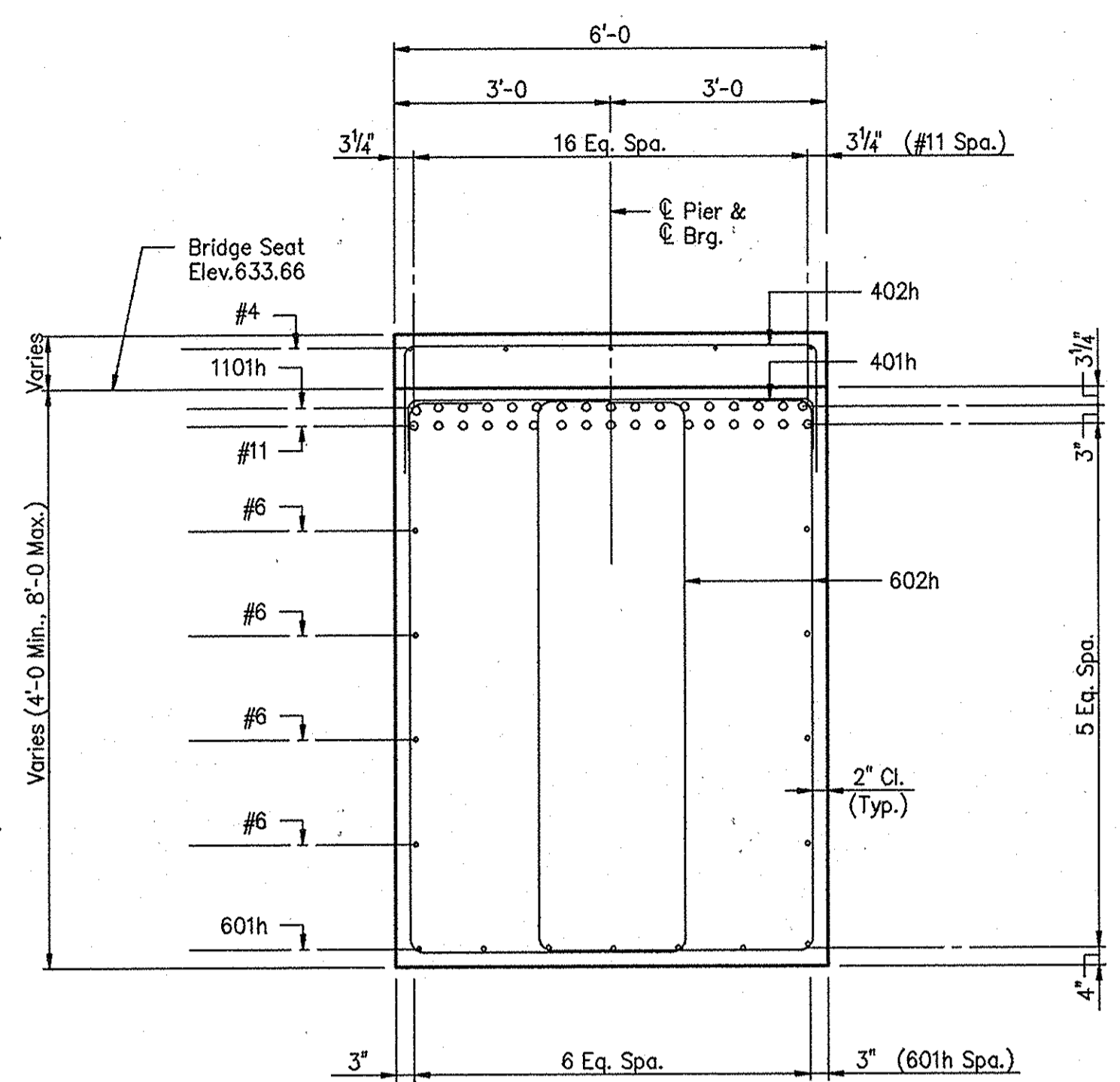
Size And Mark	No. Of Bars	Length (Feet)	Weight (Lbs.)
1101h	17	34'-11	
#11	50	38'-0	
#11	17	31'-9	
#11	50	14'-6	
Total No. 11			19,968

**Cutting Diagram
(1 Bar Cuts 2 Stirrups)**

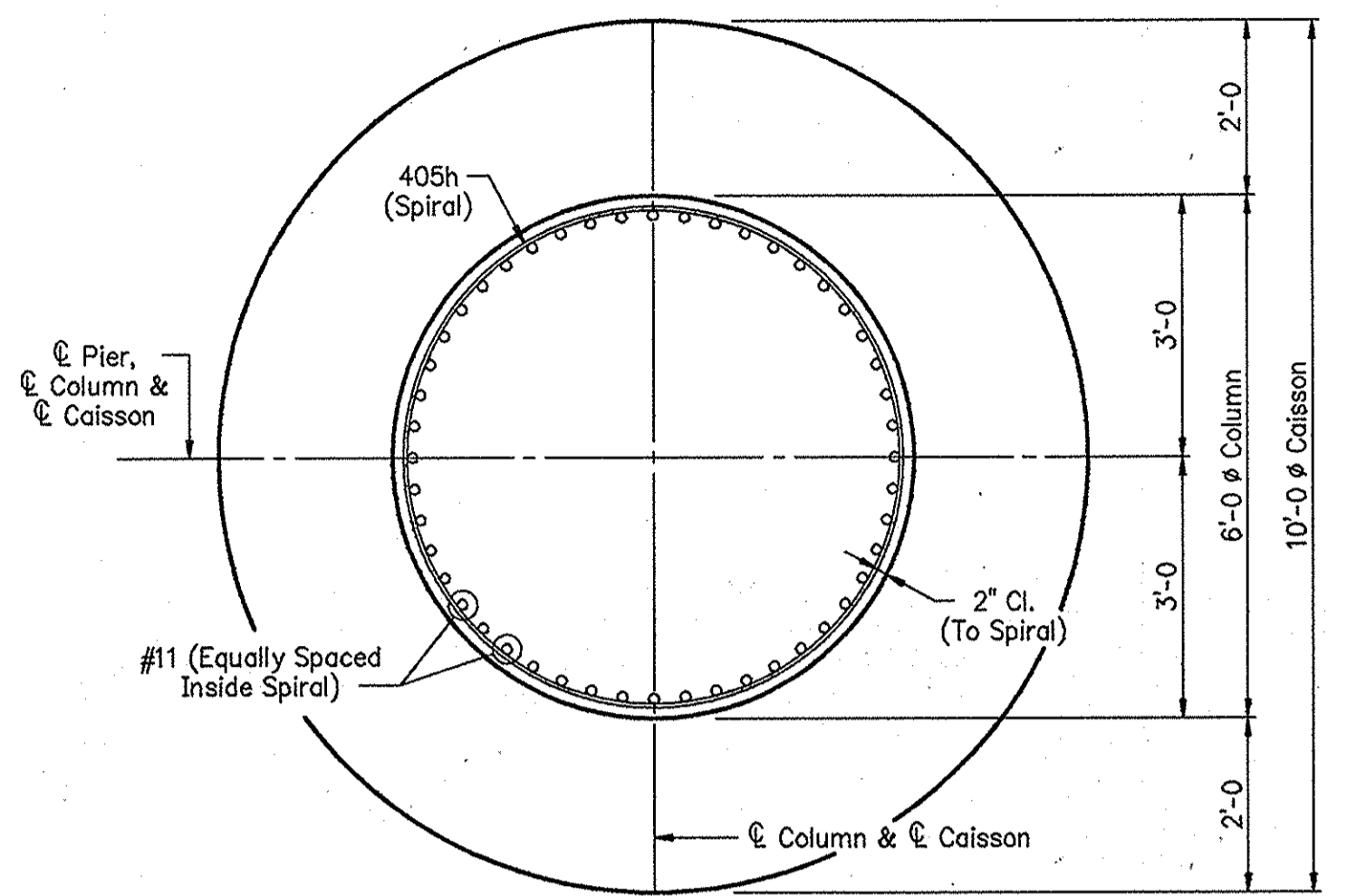
Mark	Length	A	B	N	Inc.
601h	14		17'-6		
602h	46	34'-4	21'-2	23	4 3/8"
#6	4		31'-9		
#6	2		25'-9		
#6	2		16'-3		
Total No. 6					3057

Concrete		
Class "A" In Substructure		
Pour No.1		16.2 Cys.
Pour No.2		16.2 Cys.
Pour No.3		56.4 Cys.
Total Class "A" In Substructure		88.8 Cys.
Drilled Shaft Concrete *		330.6 Cys.
Total No. 4		1538
Total Plain Reinforcing Steel		24,563

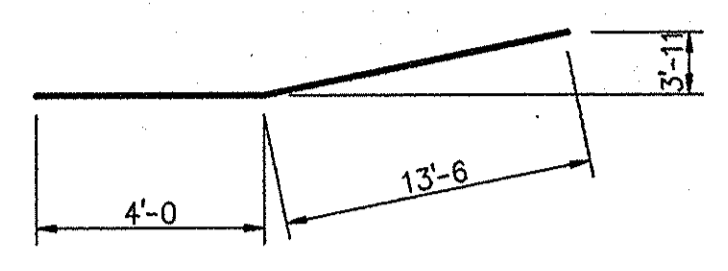
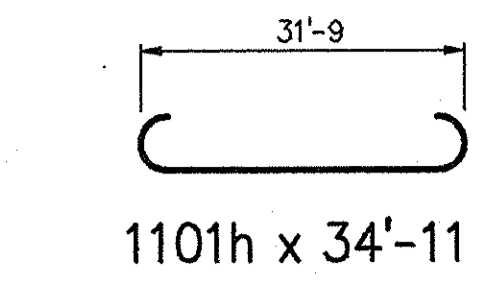
Miscellaneous		
Surface Seal		820 Sft.
* Includes reinforcing steel, see Special Provisions.		



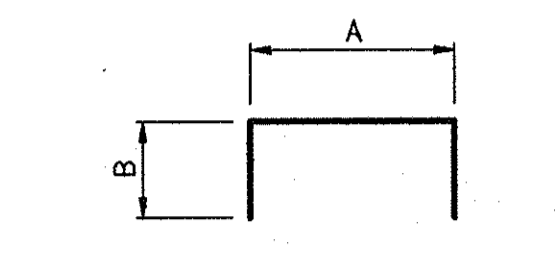
SECTION C-C
Scale: 1/2" = 1'-0"



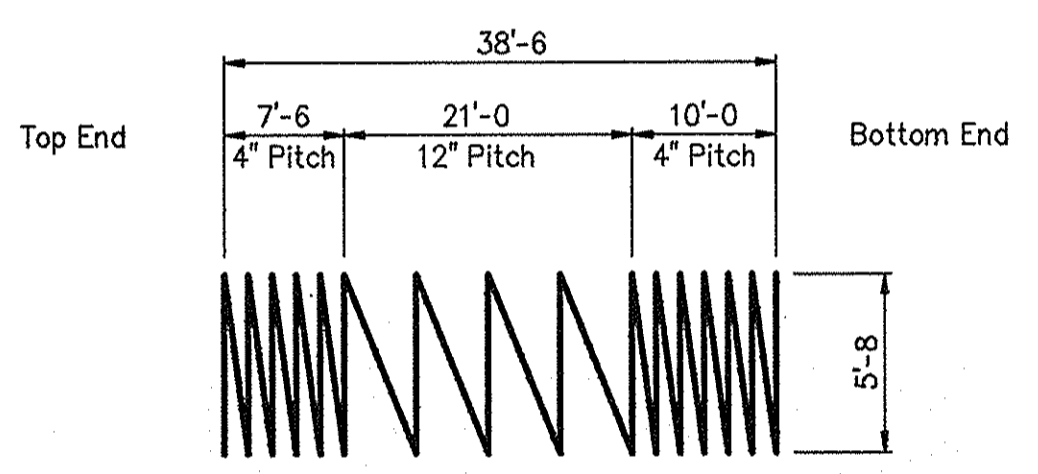
SECTION D-D
Scale: 1/2" = 1'-0"



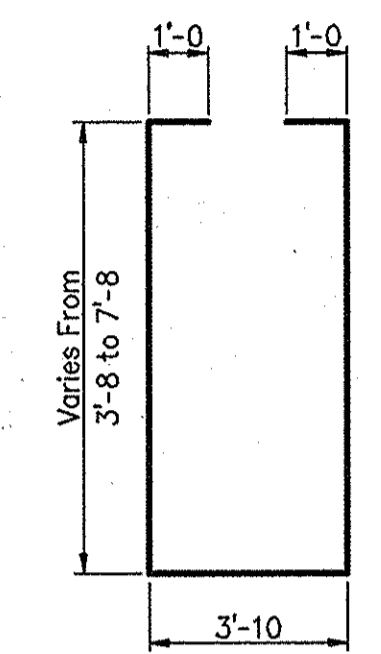
601h x 17'-6



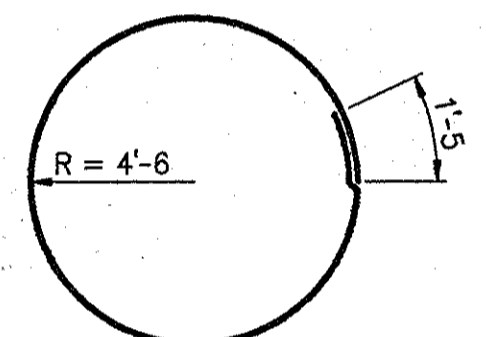
Mark	Length	A	B
401h	7'-0	5'-8	8"
402h	9'-2	5'-8	1'-9
403h	10'-2	5'-8	2'-3
404h	11'-4	5'-8	2'-10



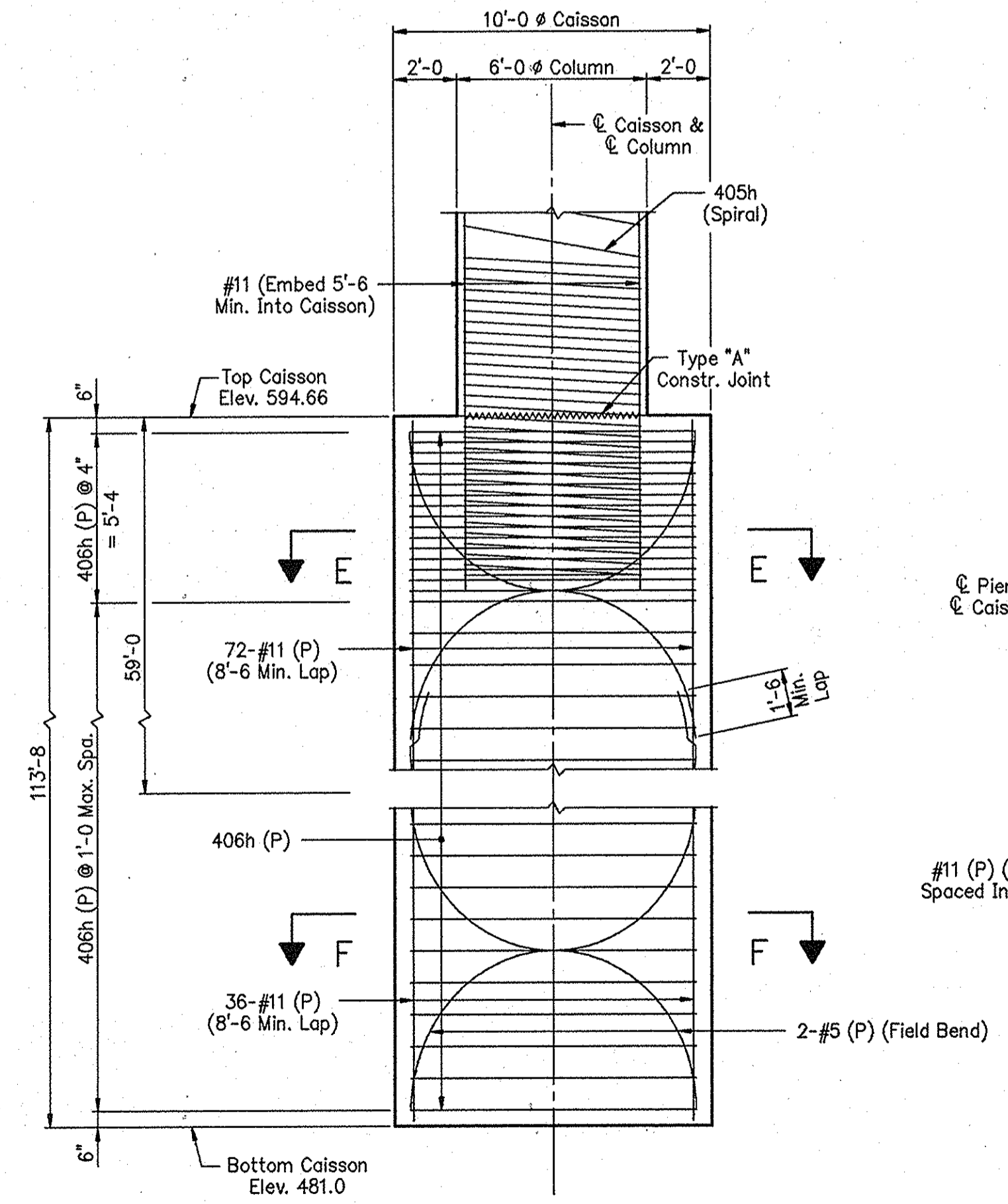
405h x 1362'-0
Spiral Bars To Be Formed Of Cold Drawn Wire With A Yield Of 60,000 P.S.I.



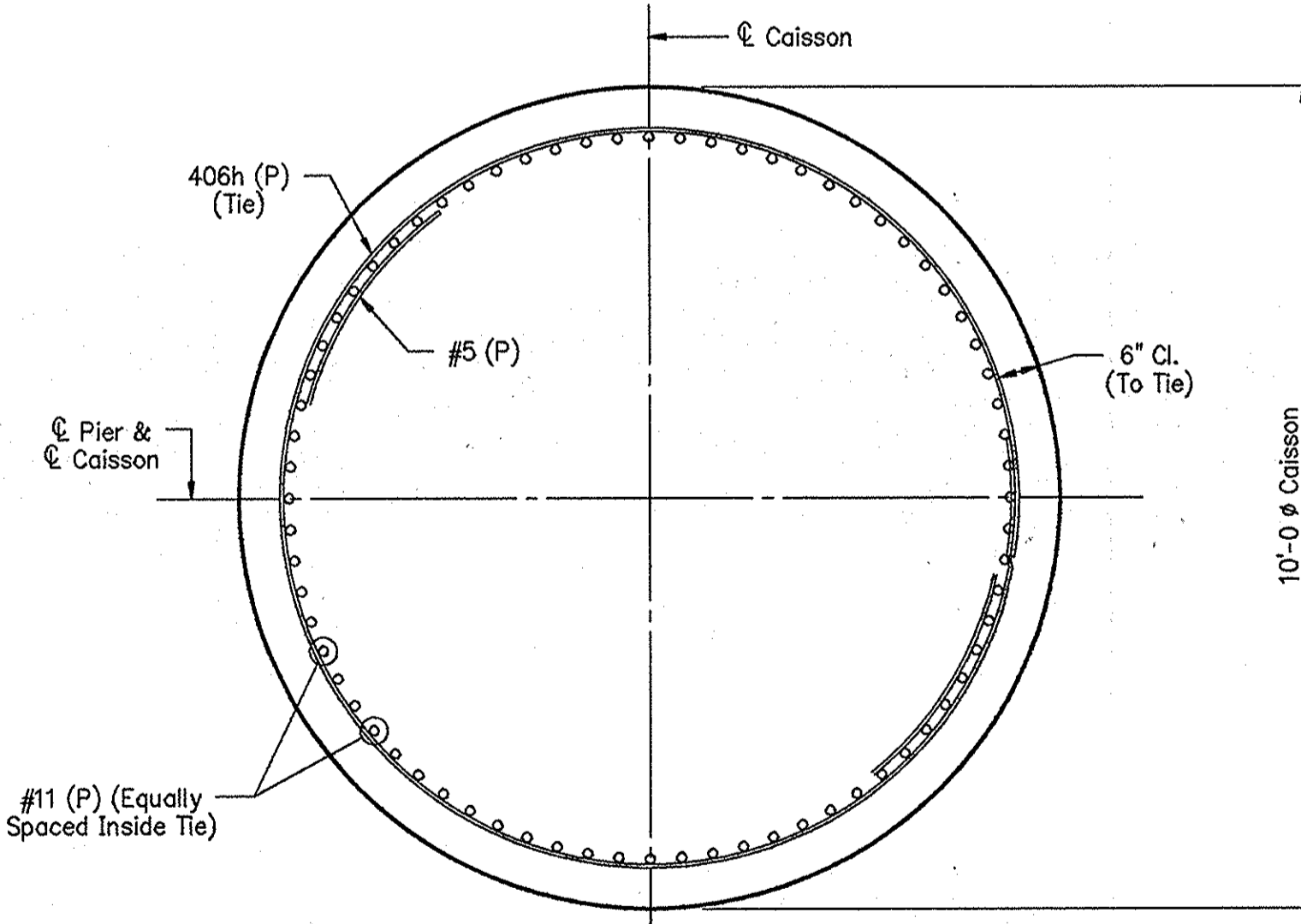
Bending Diagram For 602h



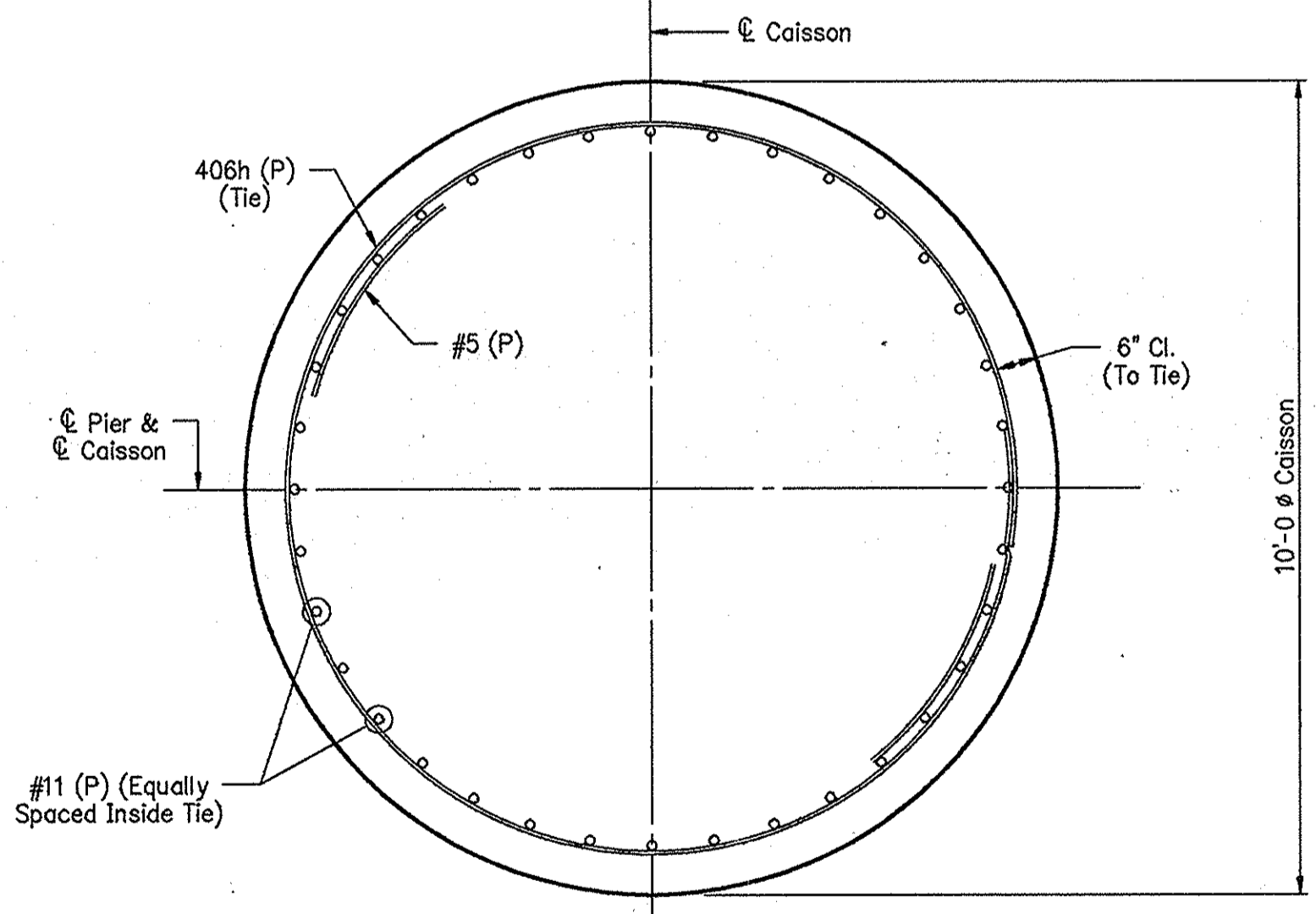
406h x 29'-8



PARTIAL CAISSON ELEVATION



SECTION E-E
Scale: 1/2" = 1'-0"



SECTION F-F
Scale: 1/2" = 1'-0"

NOTES:
For reinforcing bar notes, see Bridge Standard C1.
For location of Sections C-C and D-D, see Drawing S15.
All reinforcing steel to be plain.

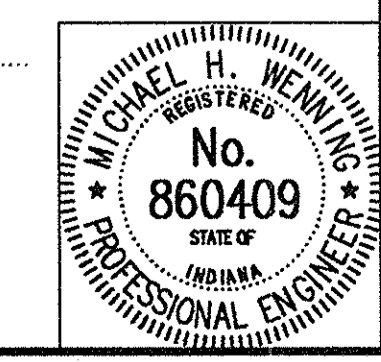
PIER NO.5 DETAILS

INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 1/4" = 1'-0, UNLESS NOTED DATE: - July 9, 1998

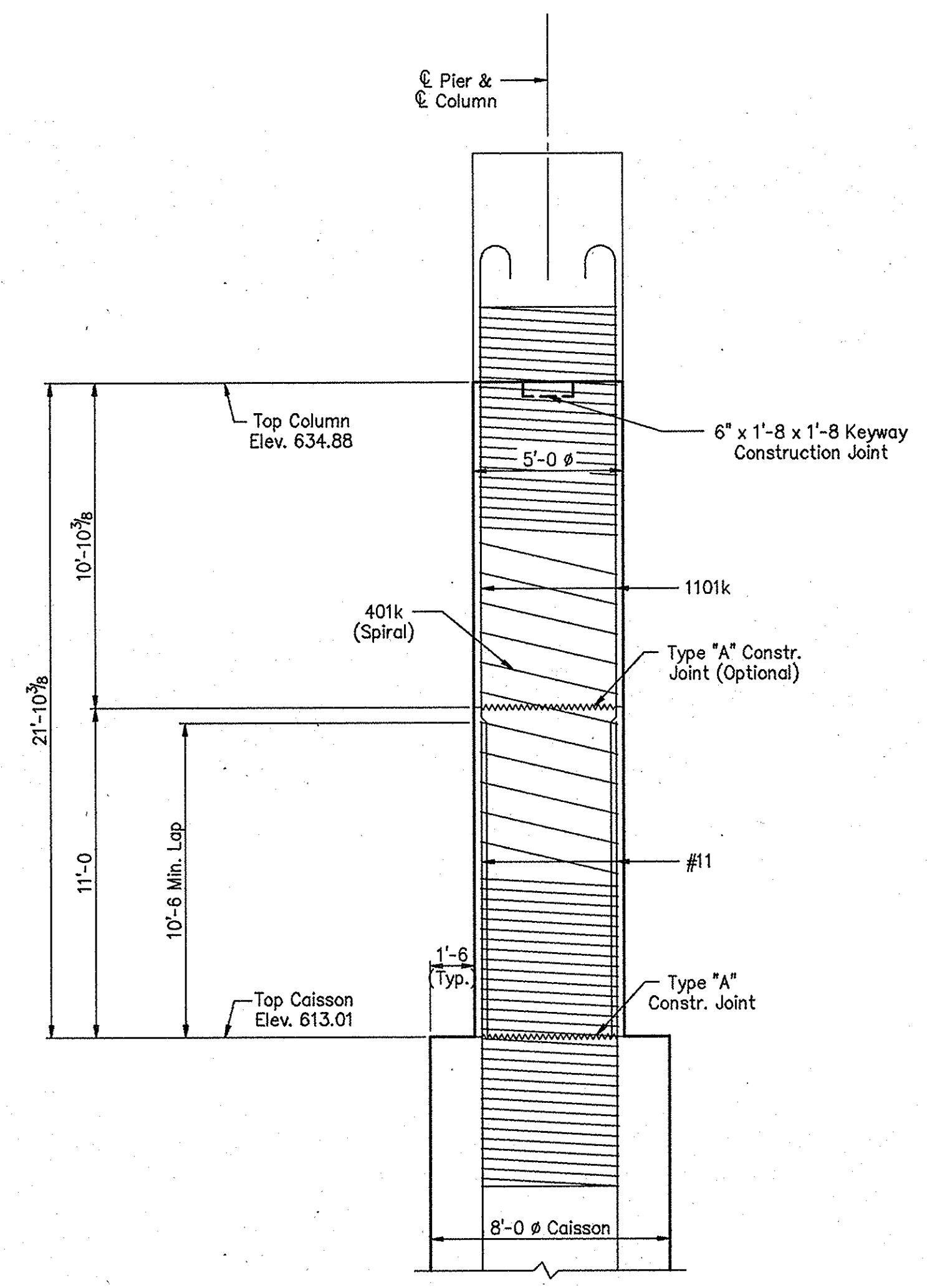
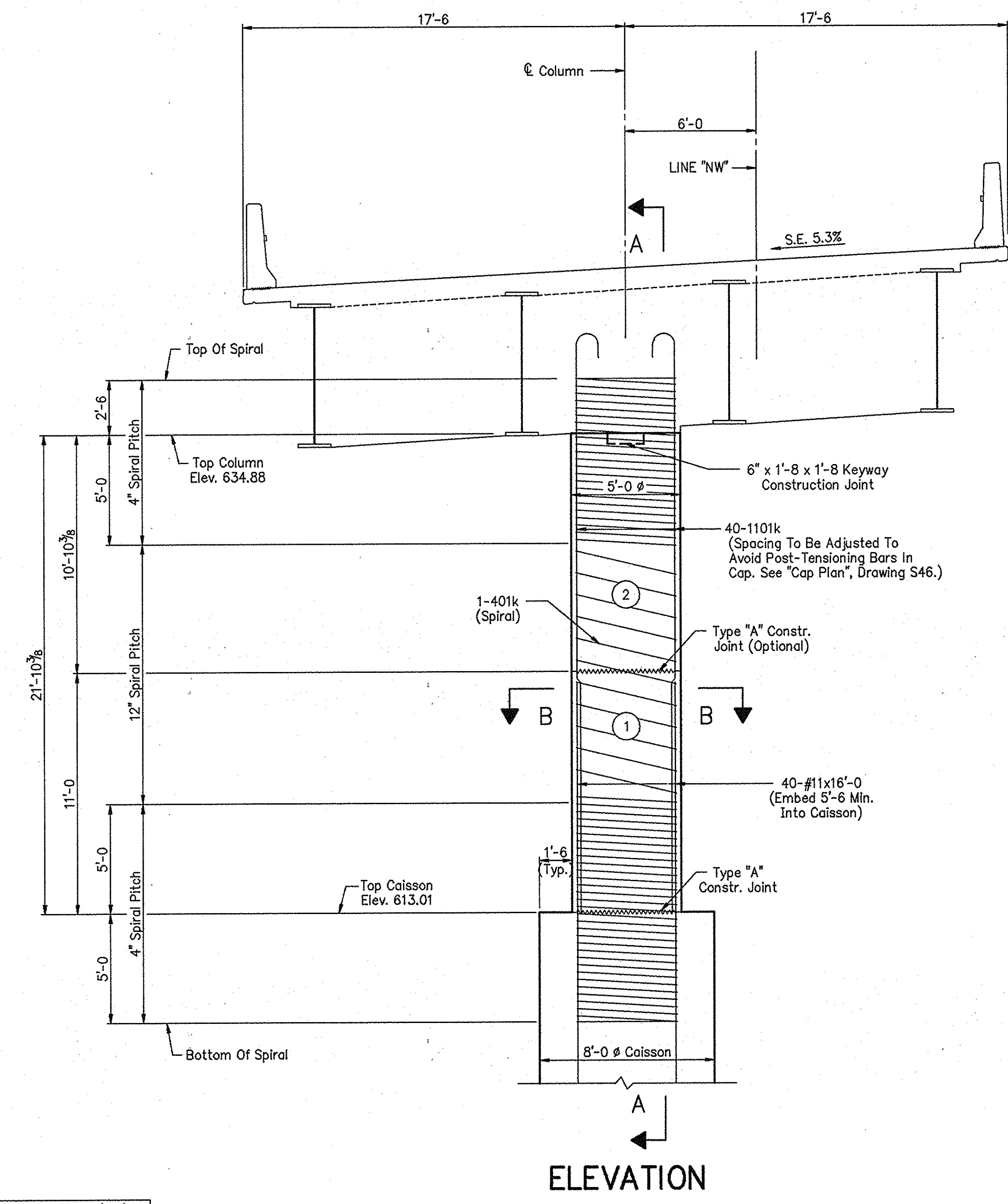
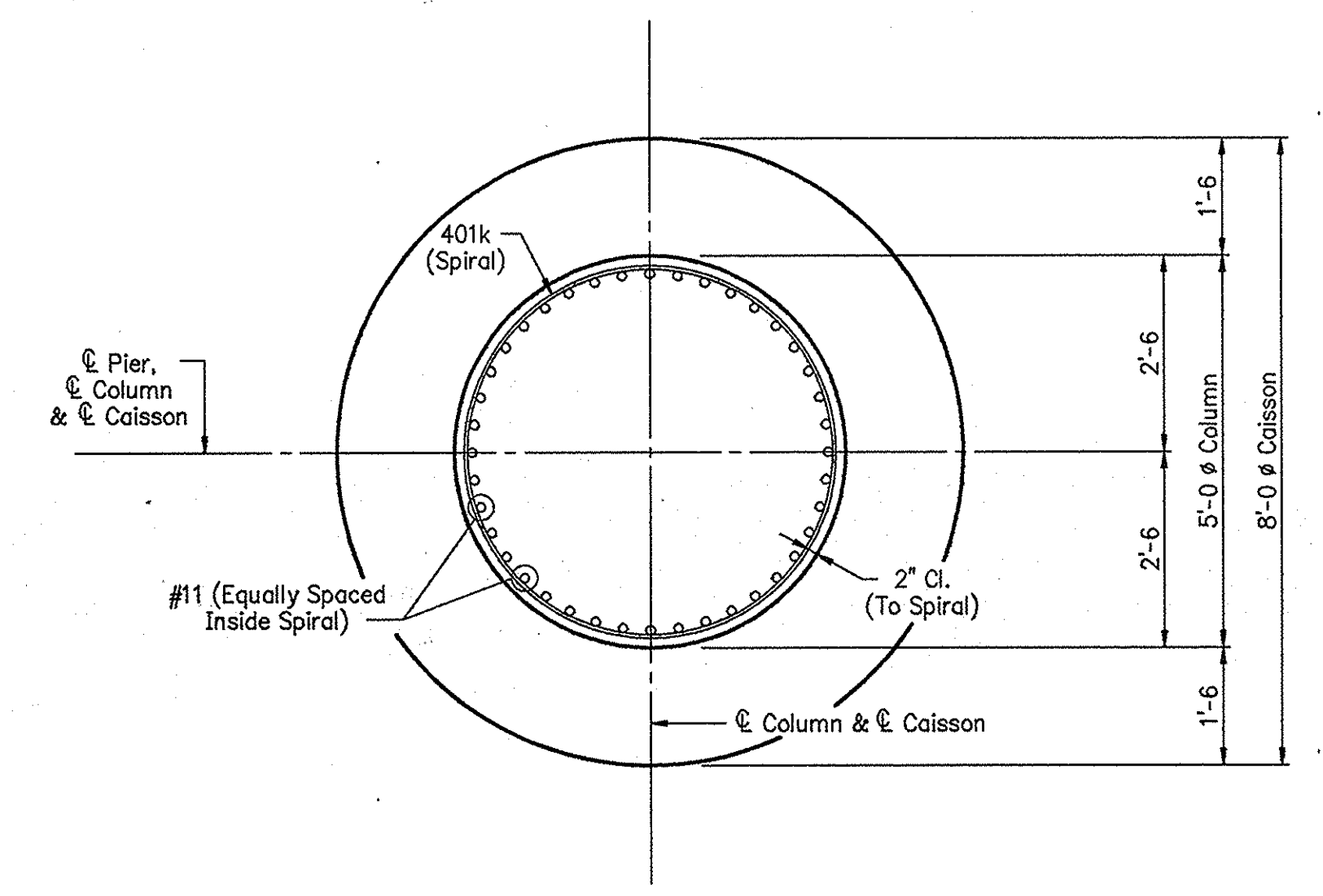
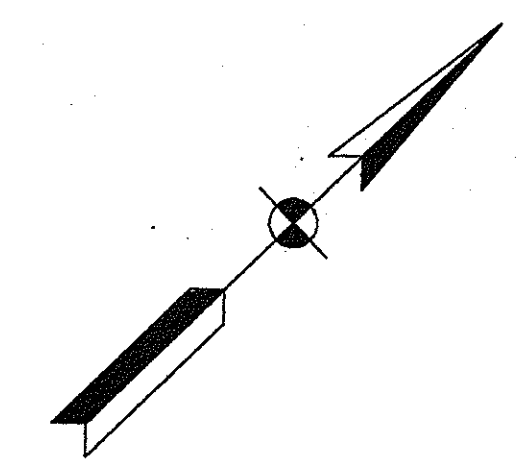
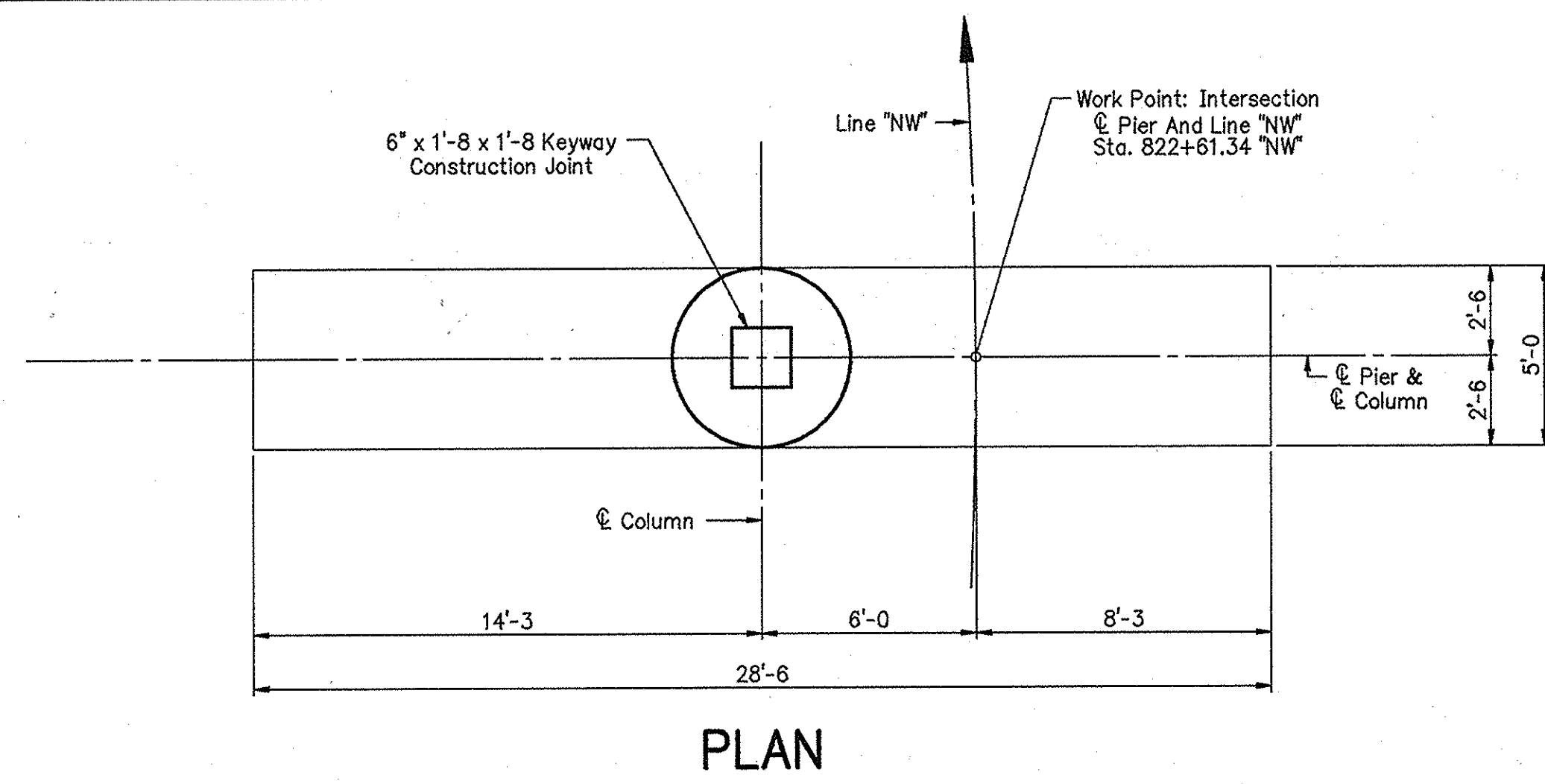
SUBMITTED FOR APPROVAL *Michael H. Weini*

DRAWING: - S16 OF S52 SHEET: - 31 OF 79
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7828



DESIGNED MDR 2/20/98 CKD MHW 3/10/98
DRAWN TLH 3/7/98 CKD MDR 3/21/98
TRACED _____ CKD _____

DWG FILE: C:\P2\119\02110929
PLOT SCALE: 1/4"=0'
PLOT ORIGIN: 0.00,0.00
SPELLOK: 07/09/98 13:31:17
EDIT DATE: 07/09/98 13:31:17
EDITED BY: DSH - 591



NOTES :

For reinforcing bar notes, see Bridge Standard C1.

All reinforcing steel to be epoxy coated, unless noted.

For Cap details, see Drawing S46.

For Caisson details, additional details and Bill of Materials, see Drawing S18.

(X) Indicates concrete pour number.

PIER NO.6 DETAILS

INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 1/4" = 1'-0, UNLESS NOTED DATE: - July 9, 1998

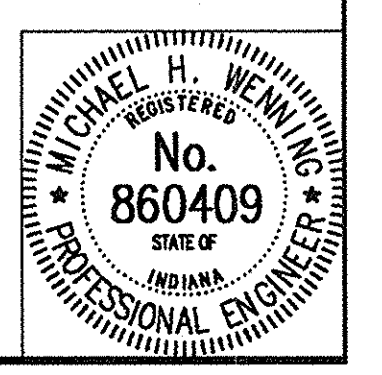
SUBMITTED FOR APPROVAL *Michael H. Wenzel*

DRAWING: - S17 OF S52 SHEET: - 32 OF 79

PROJECT: - IM-80-1(143)4

CONTRACT NO. R-23808

BRIDGE FILE: - I-80-5-7828



DESIGNED MDR 3/4/98 C.K'D MSP 3/30/98

DRAWN TLH 4/7/98 C.K'D MDR 4/13/98

TRACED _____ C.K'D _____

DWG FILE: C:\A2\119\02119044

PLOT SCALE: 1:48.000

PLOT ORIGIN: 0.00,0.00

SPRLLCHK: _____

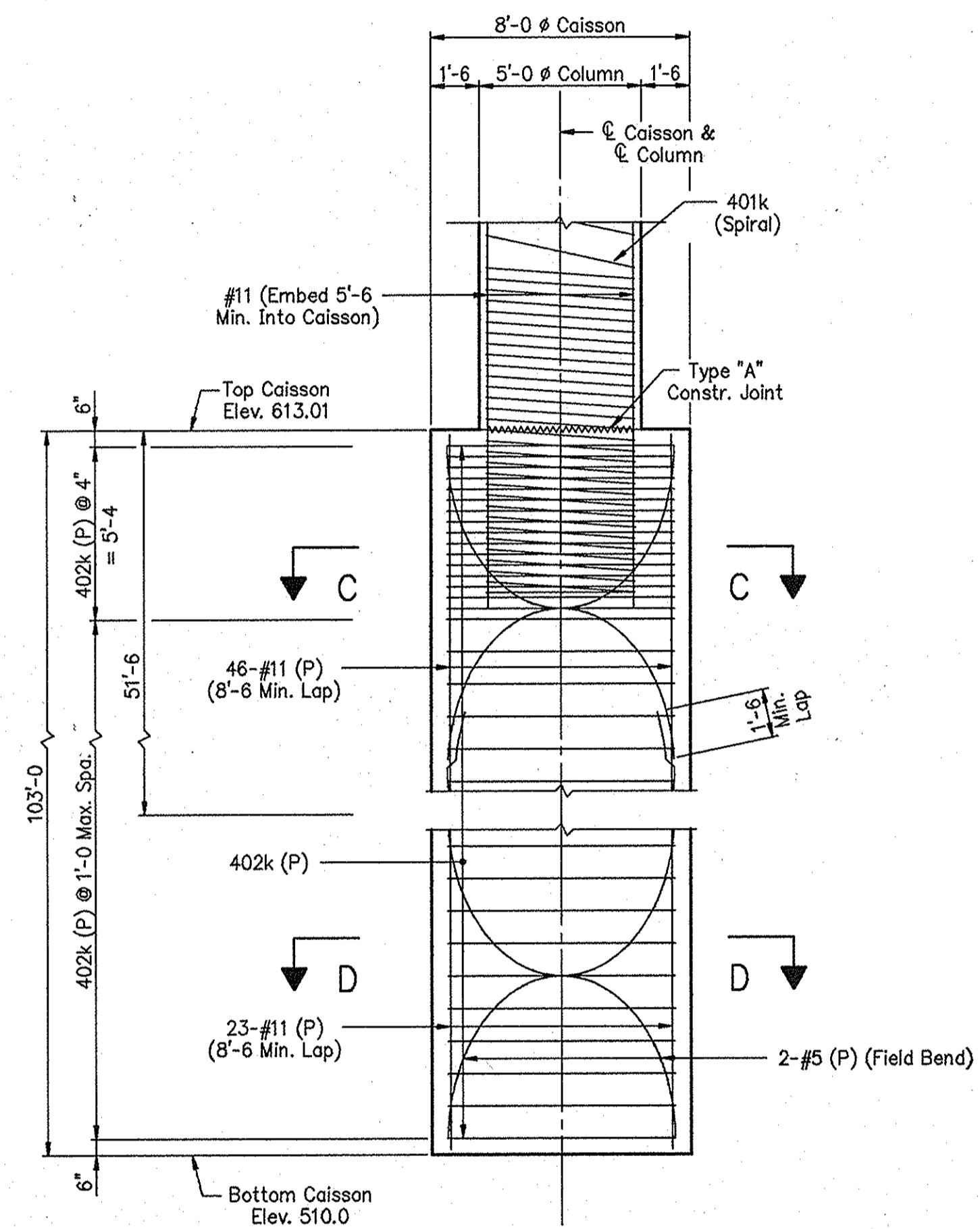
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EDITED BY: DSH - 591

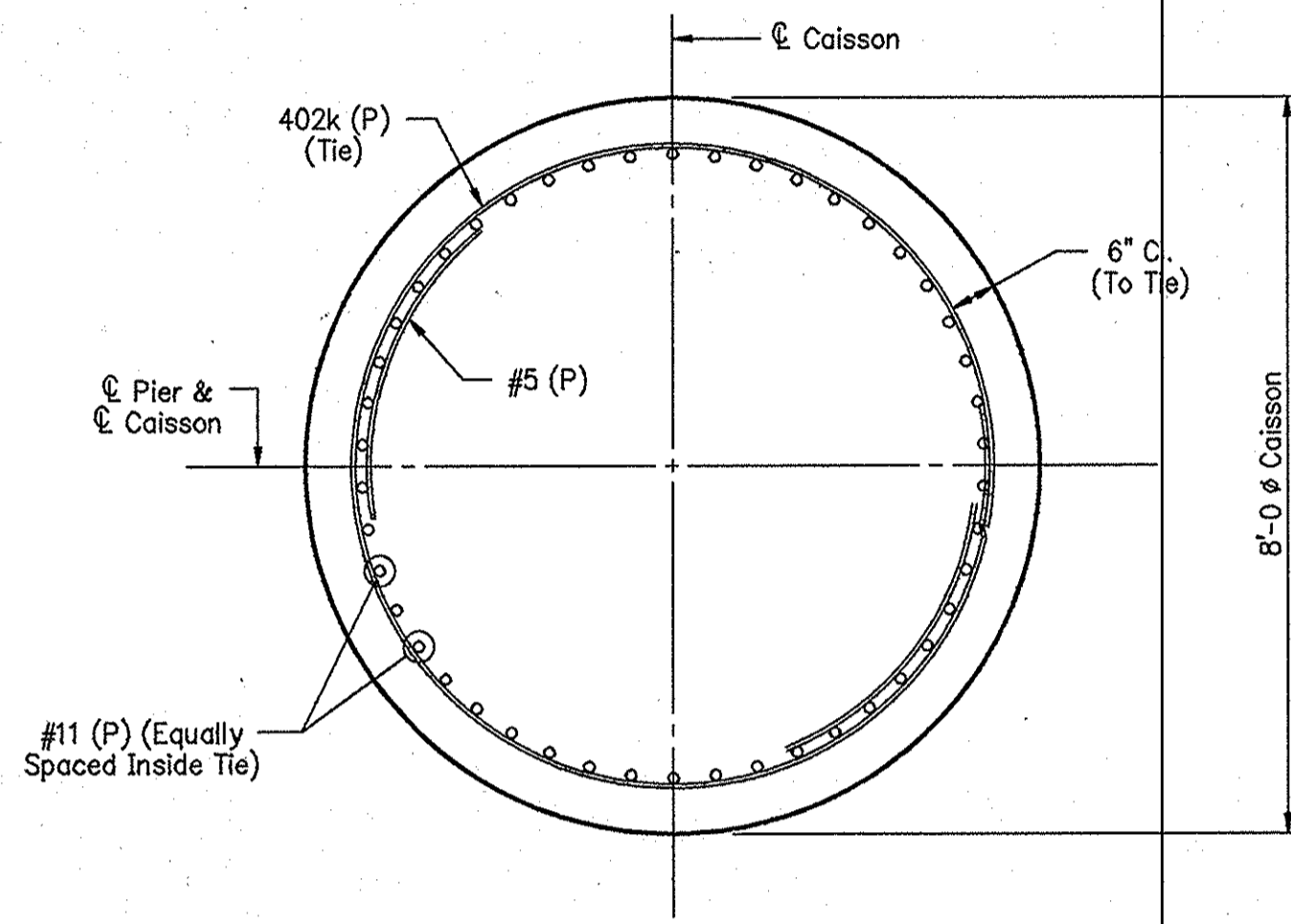
PIER No.6 BILL OF MATERIALS

Epoxy Coated Reinforcing Steel			
Size And Mark	No. Of Bars	Length (Feet)	Weight (Lbs.)
1101k	40	28'-0"	
#11	40	16'-0"	
Total No. 11			9351
401k	1	987'-9"	680
Total Epoxy Coated Reinforcing Steel			10,011
Concrete			
Class "A" In Substructure			
Pour No.1			8.0 Cys.
Pour No.2			7.9 Cys.
Total Class "A" In Substructure			15.9 Cys.
Drilled Shaft Concrete *			191.8 Cys.

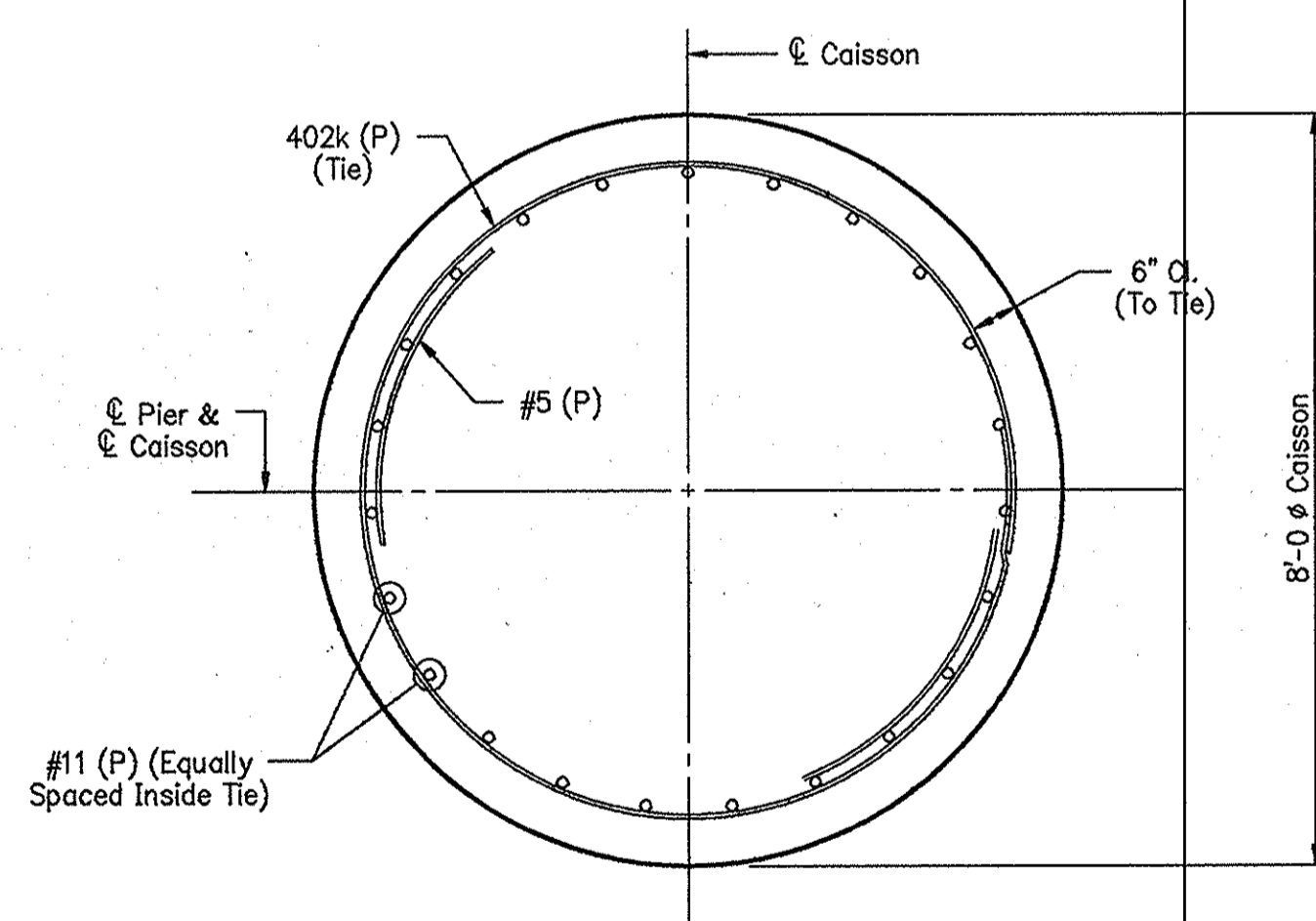
* Includes reinforcing steel, see Special Provisions.



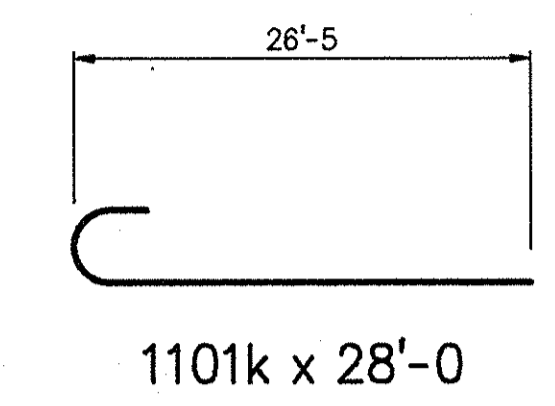
PARTIAL CAISSON ELEVATION



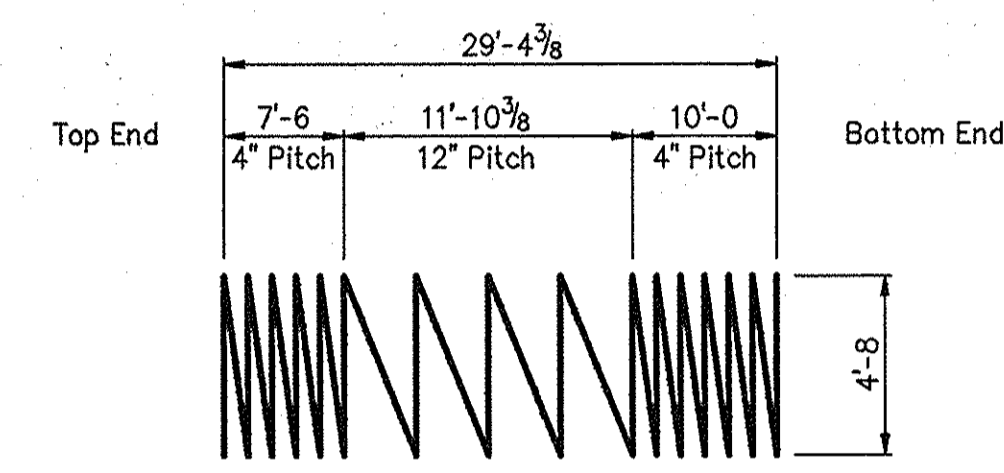
SECTION C-C
Scale: 1/2" = 1'-0"



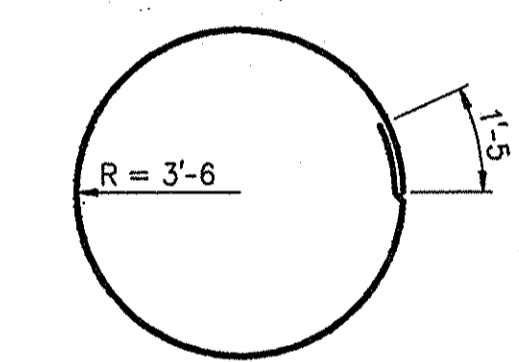
SECTION D-D
Scale: 1/2" = 1'-0"



1101k x 28'-0"



401k x 987'-9"
Spiral Bars To Be Formed Of Cold Drawn Wire With A Yield Of 60,000 P.S.I.



402k x 23'-4 (P)

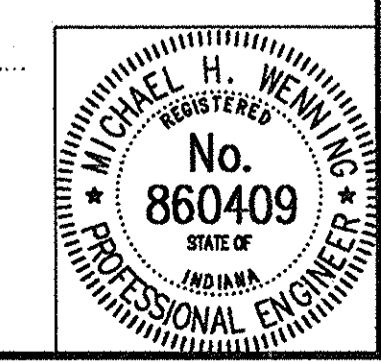
NOTES:
For reinforcing bar notes, see Bridge Standard C1.
All reinforcing steel to be epoxy coated, unless noted.
(P) Indicates plain reinforcing steel.

PIER NO.6 DETAILS INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 1/4" = 1'-0, UNLESS NOTED DATE: - July 9, 1998

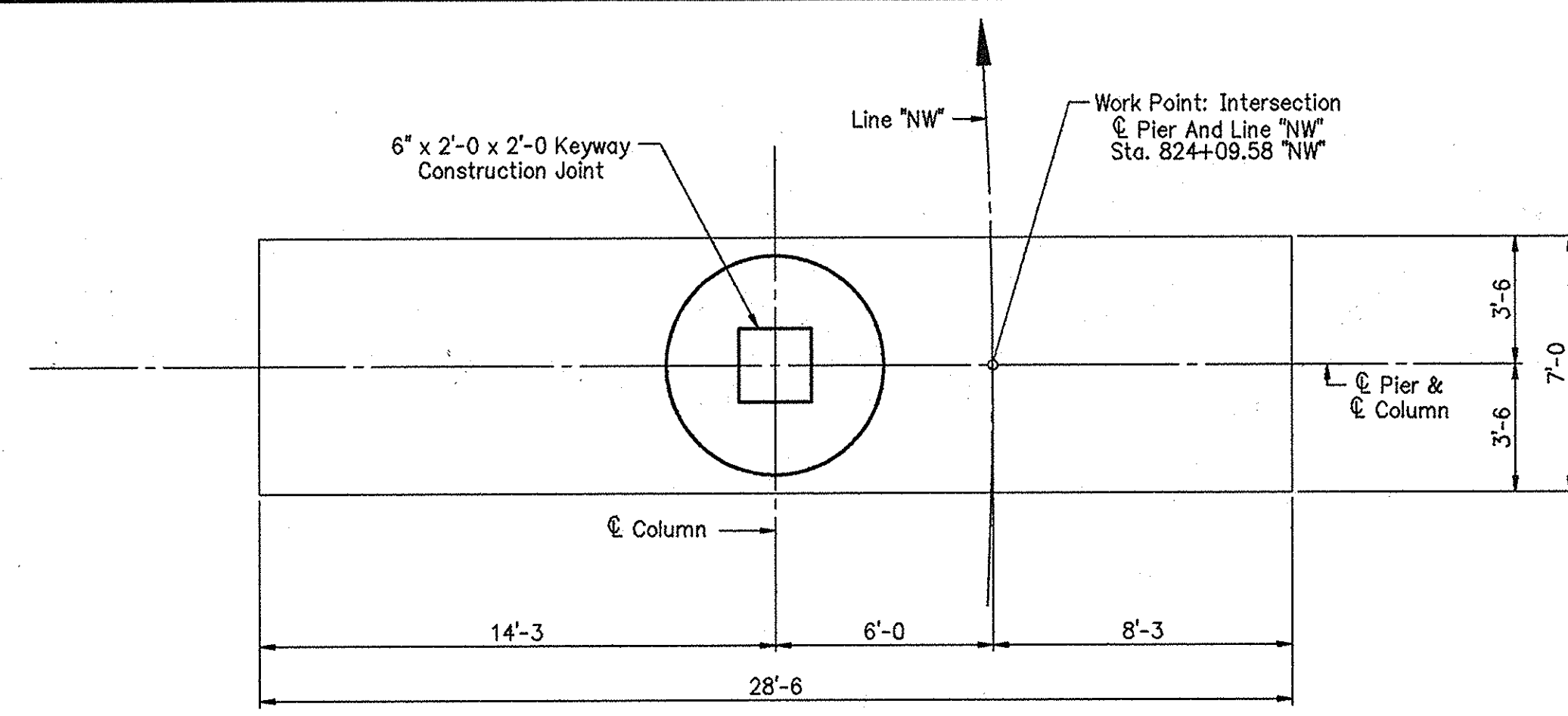
SUBMITTED FOR APPROVAL *Michael H. Wenny*

DRAWING: - S18 OF S52 SHEET: - 33 OF 79
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7828

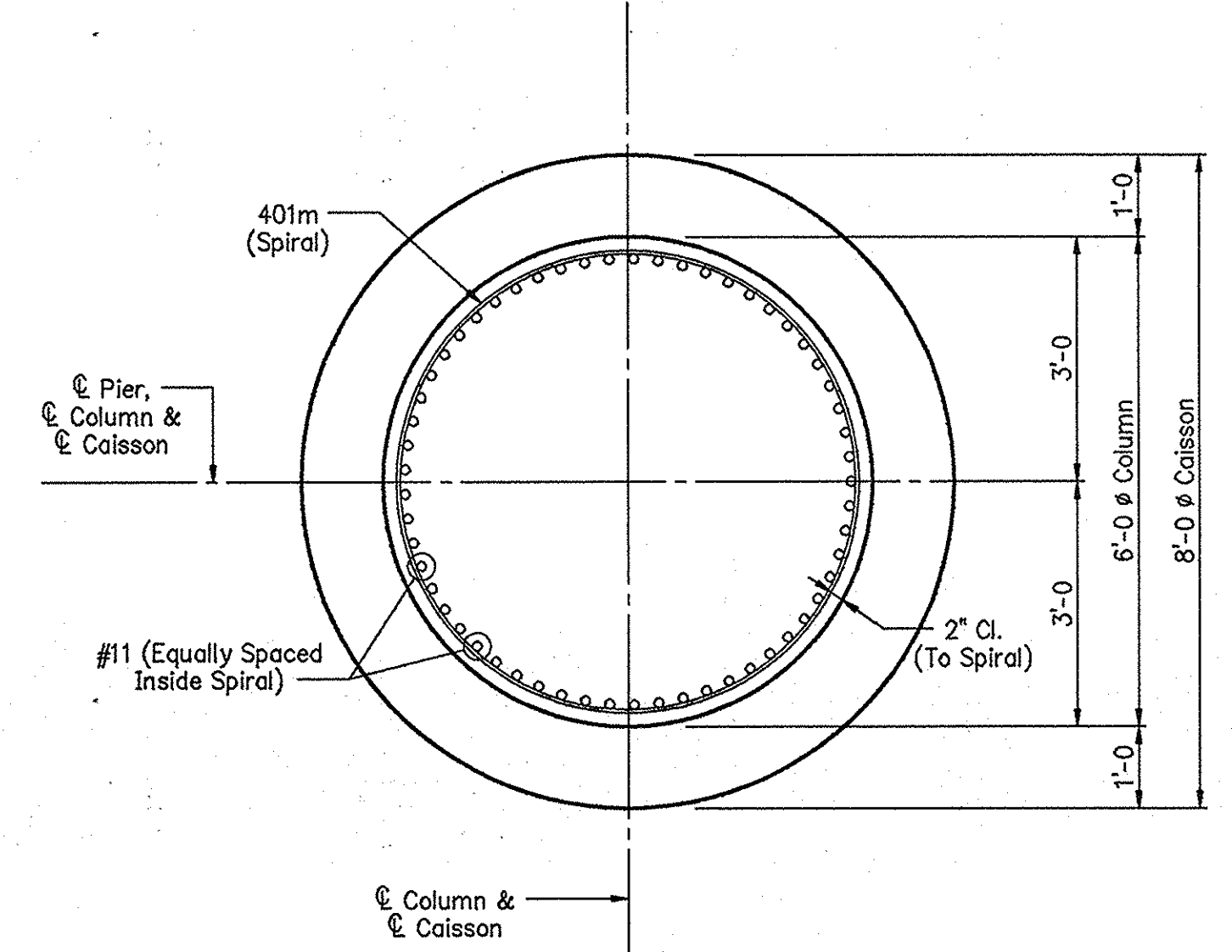
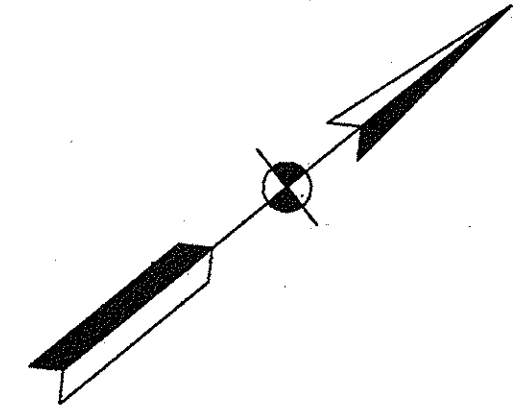


DESIGNED MDR 3/4/98 C.K.D. MSP 3/30/98
DRAWN TLH 4/7/98 C.K.D. MDR 4/13/98
TRACED _____ C.K.D.

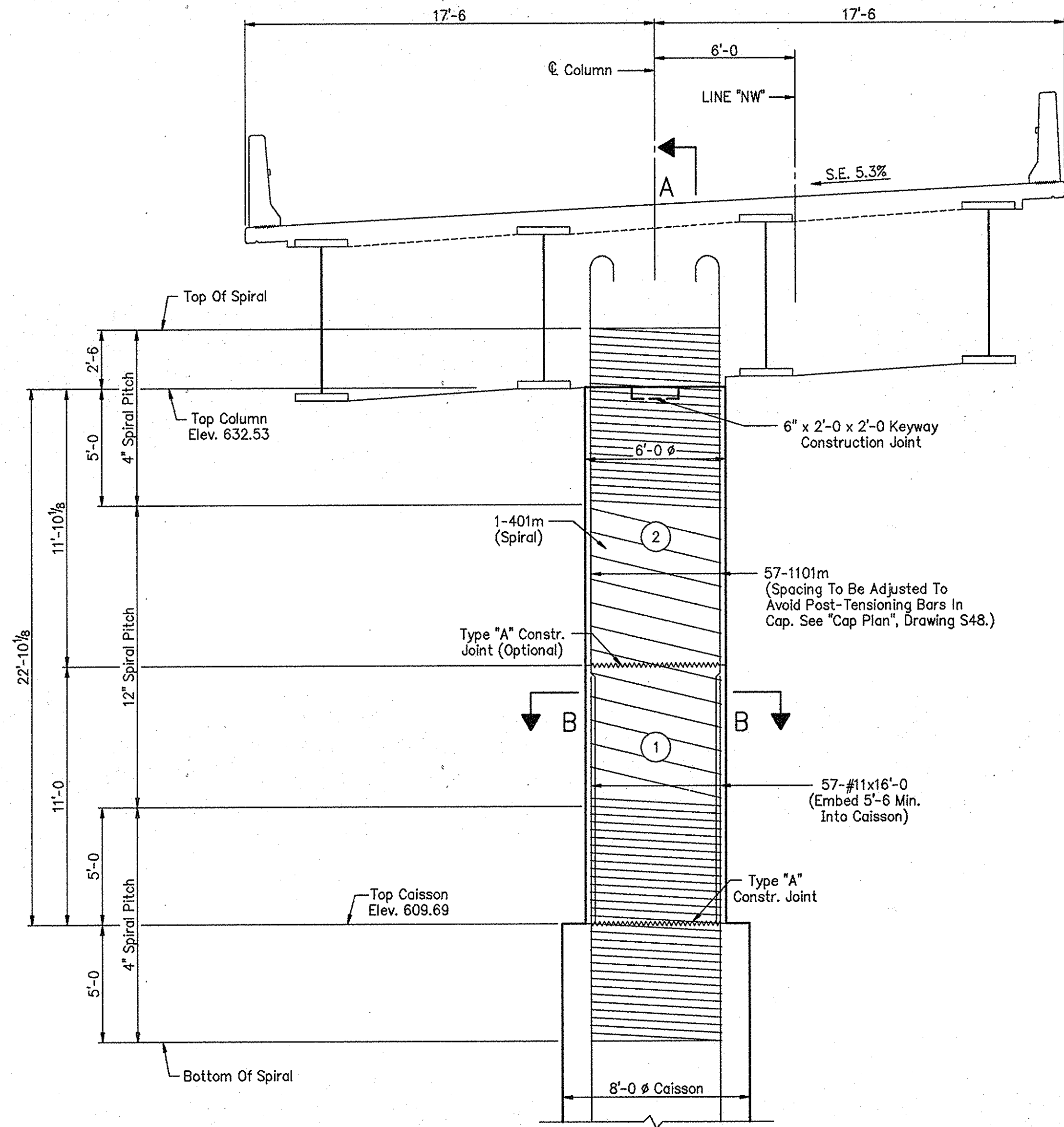
DWG FILE: C:\82\119\2119845
PLOT SCALE: 1:48,000
PLOT ORIGIN: 0.00,0.00
SHEET NO: 33
SHEET DATE: 07/09/98 13:38:20
EDITED BY: DSH - S91



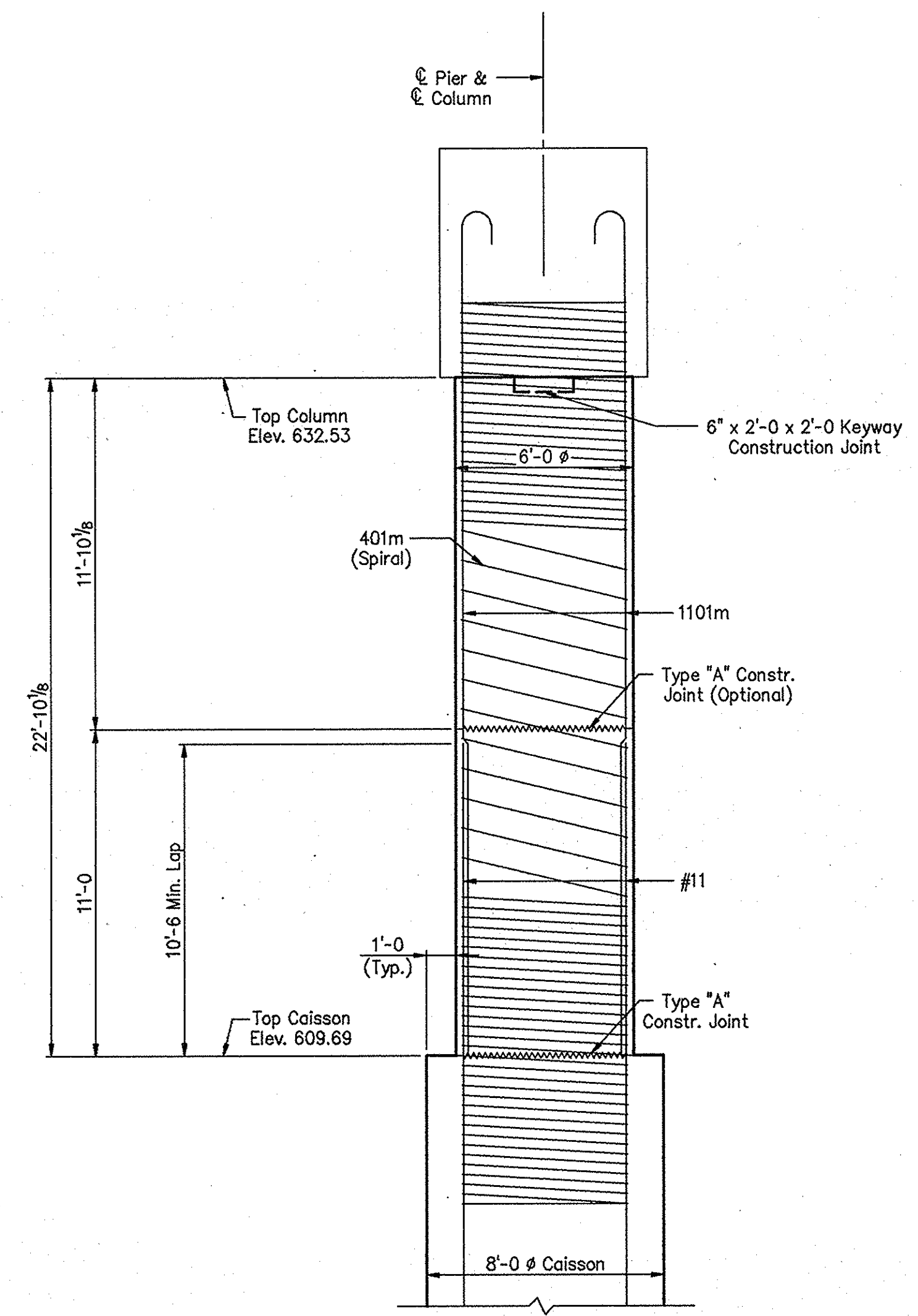
PLAN



SECTION B-B
Scale: 1/2" = 1'-0"



ELEVATION



SECTION A-A

NOTES:
 For reinforcing bar notes, see Bridge Standard C1.
 All reinforcing steel to be epoxy coated, unless noted.
 For Cap details, see Drawing S48.
 For Caisson details, additional details and Bill of Materials, see Drawing S20.
 (X) Indicates concrete pour number.

PIER NO.7 DETAILS
 INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 1/4" = 1'-0, UNLESS NOTED DATE: - July 9, 1998

SUBMITTED FOR APPROVAL *[Signature]*

DRAWING: - S19 OF S52 SHEET: - 34 OF 79
 PROJECT: - IM-80-1(143)+
 CONTRACT NO. R-23808
 BRIDGE FILE: - I-80-5-7828



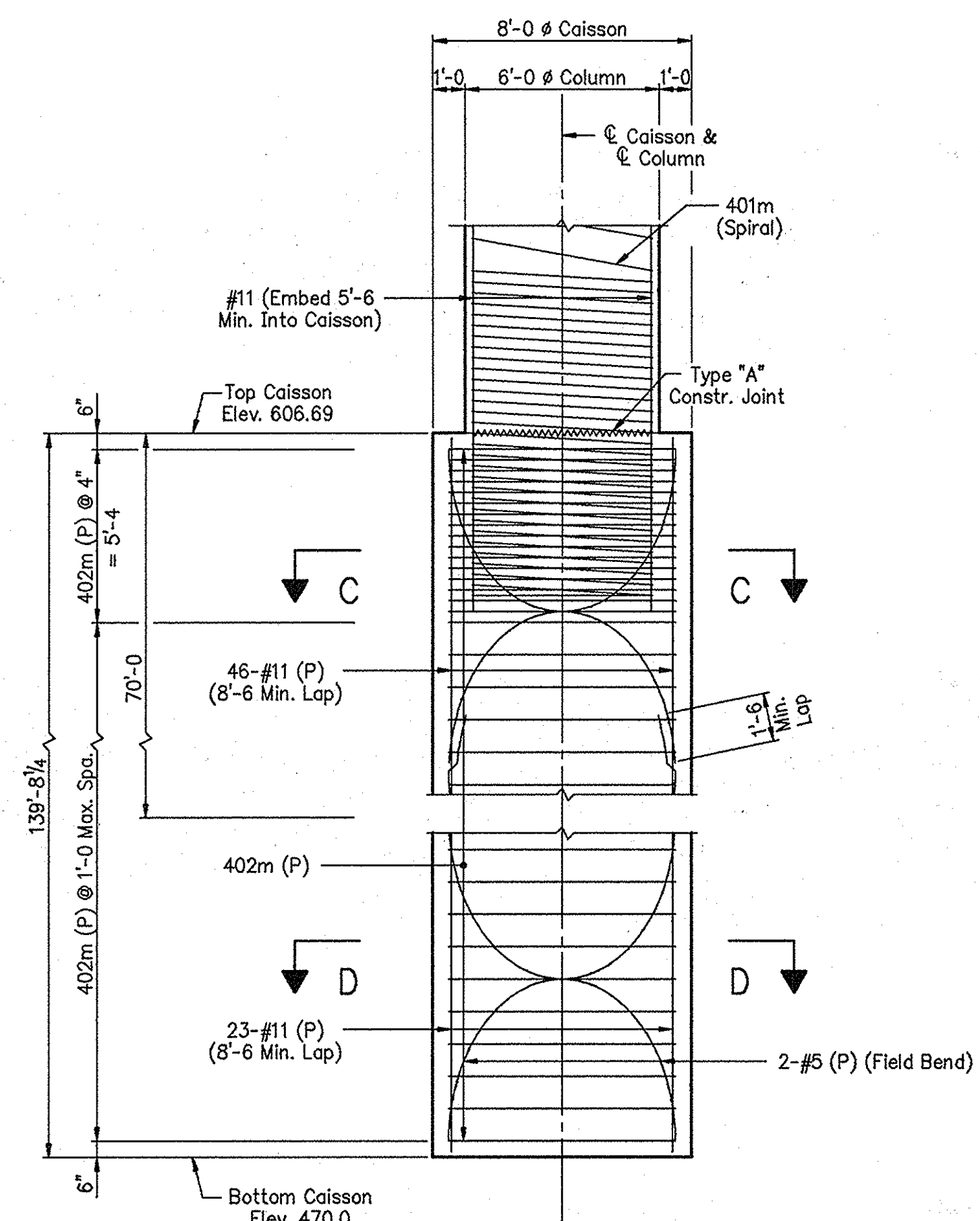
DESIGNED MDR 3/4/98 C.K.D. MSP 3/31/98
 DRAWN TLH 4/8/98 C.K.D. MDR 4/13/98
 TRACED _____ C.K.D.

DWG FILE: C:\P2\119\02118946
 PLOT SCALE: 1:80.000
 PLOT ORIGIN: 0.00,0.00
 SPELLOK: EDIT DATE: 07/09/98 15:21:03
 EDITED BY: DSH - 591

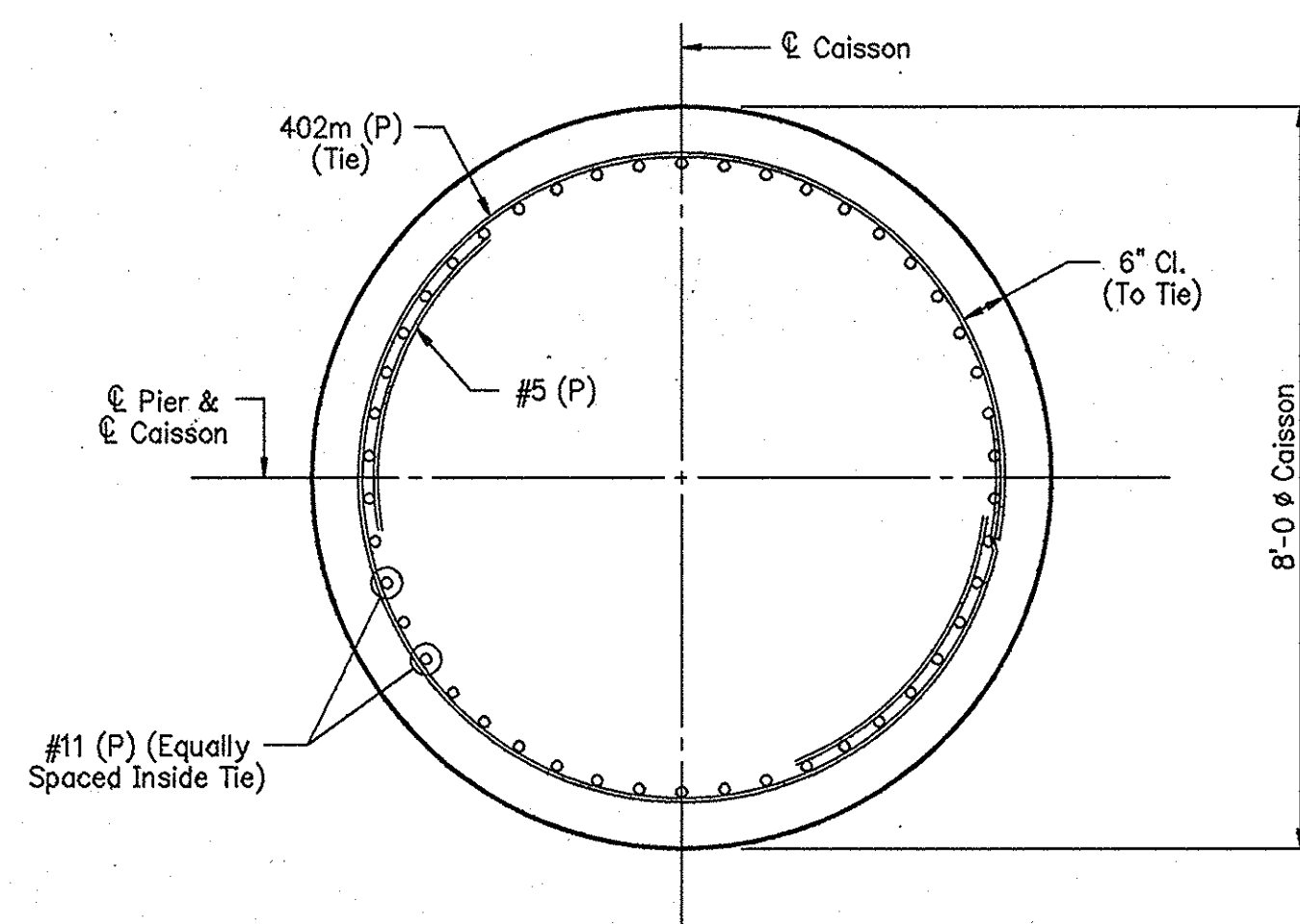
PIER No.7 BILL OF MATERIALS

Epoxy Coated Reinforcing Steel			
Size And Mark	No. Of Bars	Length (Feet)	Weight (Lbs.)
1101m	57	28'-0	
#11	57	16'-0	
Total No. 11			13,325
401m	1	1216'-9	813
Total Epoxy Coated Reinforcing Steel			14,138
Concrete			
Class "A" In Substructure			
Pour No.1			11.5 Cys.
Pour No.2			12.4 Cys.
Total Class "A" In Substructure			23.9 Cys.
Drilled Shaft Concrete *			260.1 Cys.

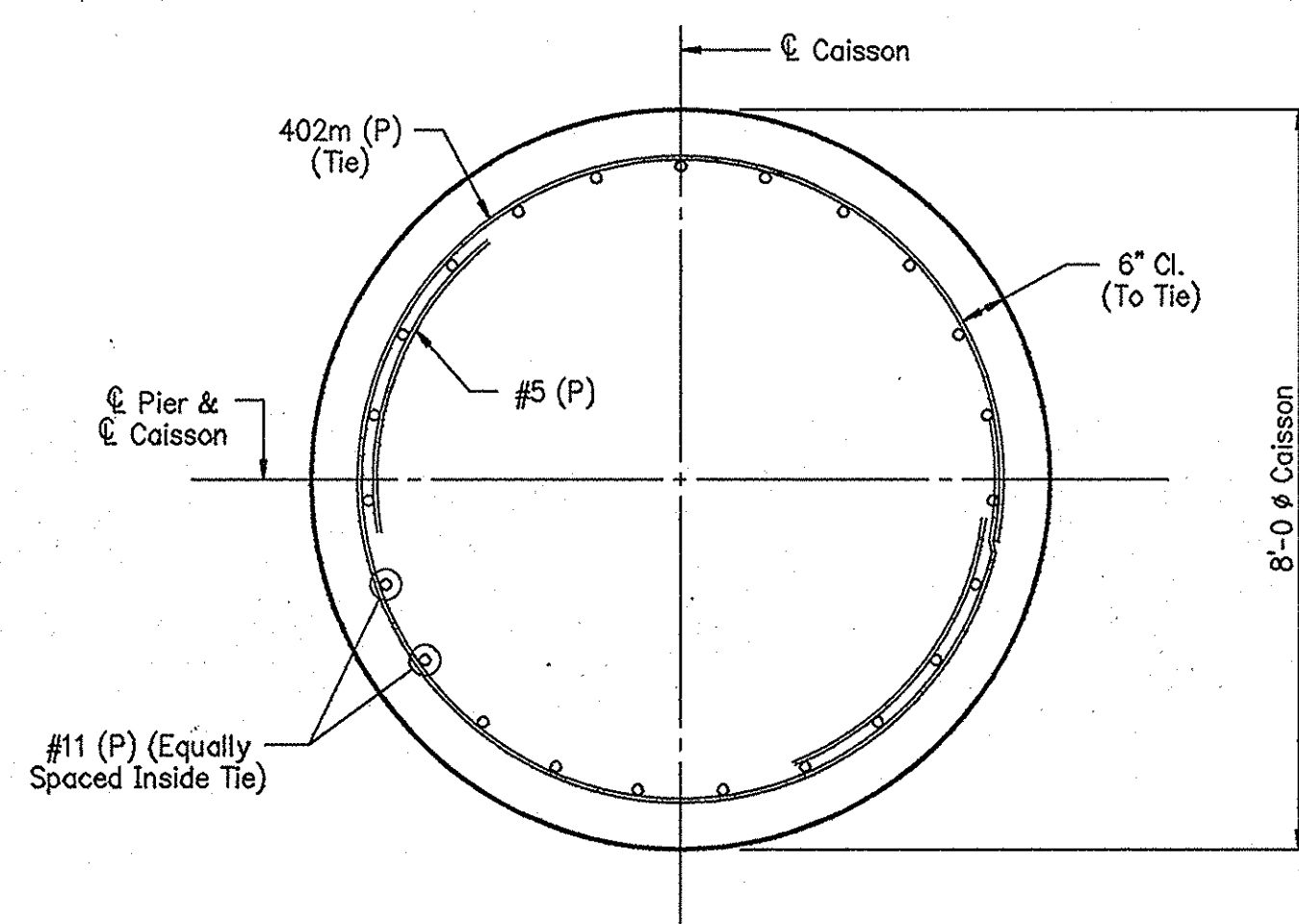
* Includes reinforcing steel, see Special Provisions.



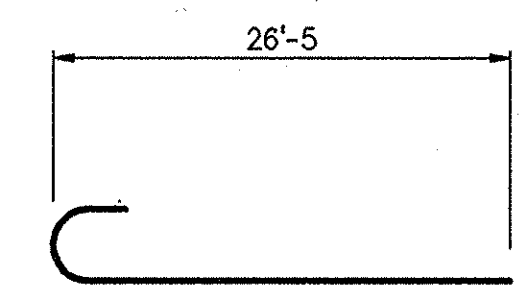
PARTIAL CAISSON ELEVATION



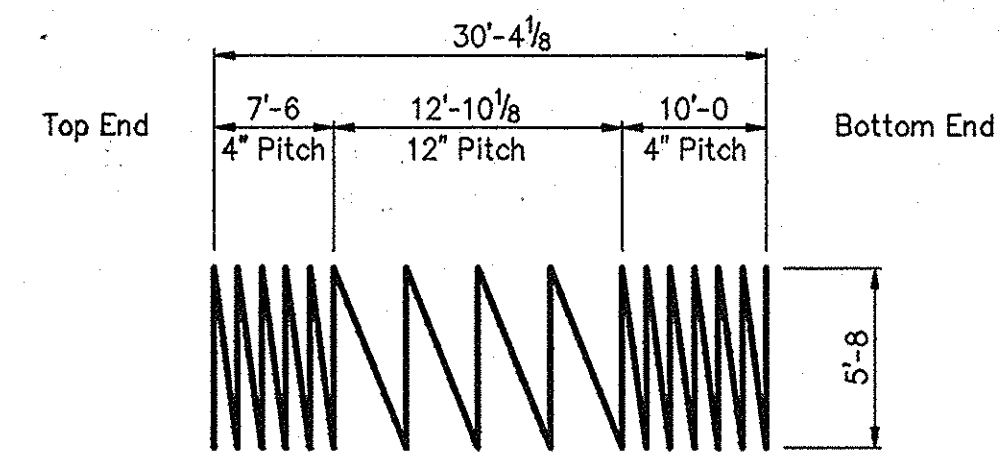
SECTION C-C
Scale: 1/2" = 1'-0"



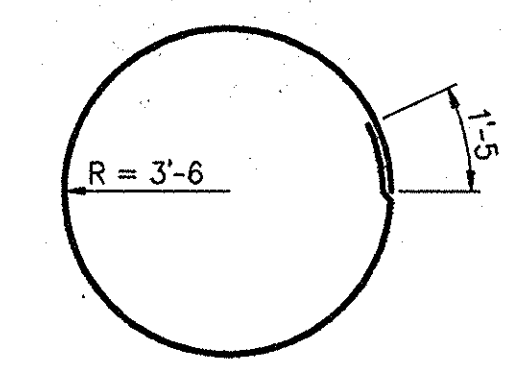
SECTION D-D
Scale: 1/2" = 1'-0"



1101m x 28'-0



401m x 1216'-9
Spiral Bars To Be Formed Of Cold Drawn Wire With A Yield Of 60,000 P.S.I.



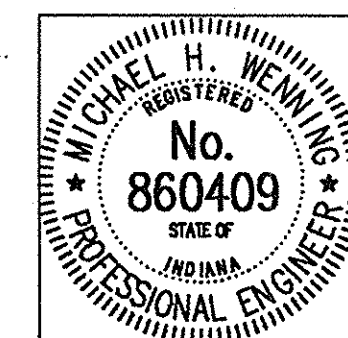
402m x 23'-4 (P)

NOTES:
For reinforcing bar notes, see Bridge Standard C1.
All reinforcing steel to be epoxy coated, unless noted.
(P) Indicates plain reinforcing steel.

PIER NO.7 DETAILS

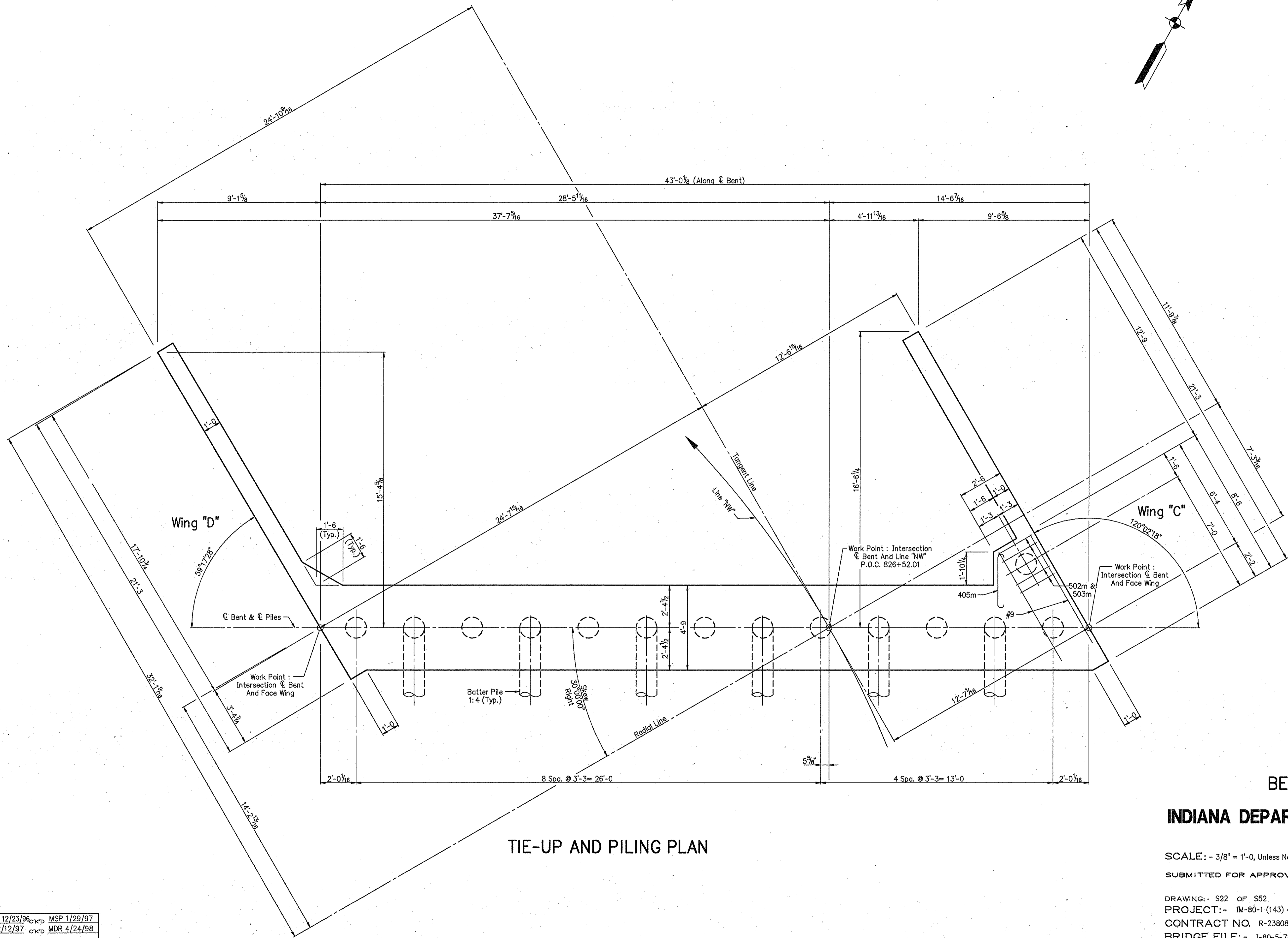
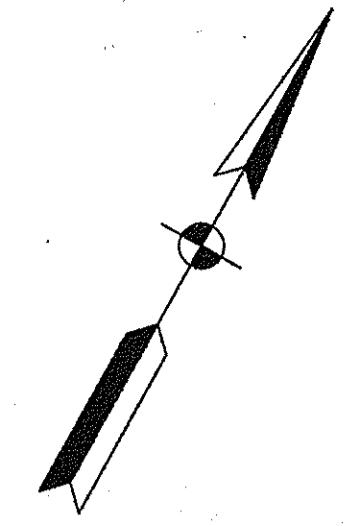
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 1/4" = 1'-0, UNLESS NOTED DATE: - July 9, 1998
 SUBMITTED FOR APPROVAL *Michael H. Wynn*
 DRAWING: - S20 OF S52 SHEET: - 35 OF 79
 PROJECT: - IM-80-1(143)4
 CONTRACT NO. R-23808
 BRIDGE FILE: - I-80-5-7828



DESIGNED MDR 3/4/98 CKD MSP 3/31/98
 DRAWN TLH 3/8/98 CKD MDR 4/13/98
 TRACED CKD

DATE FILE: 01/22/1998
 PLOT SCALE: 1:48,000
 PLOT ORIGIN: 0,00,0,00
 SPELLOK: 07/09/98 13:40:51
 EDIT DATE: 07/09/98 13:40:51
 EDITED BY: DSH - 591



NOTES :

- For reinforcing bar notes, see Bridge Standard C1.
- All reinforcing steel to be epoxy coated.
- For Wings "C" and "D" Details, see Drawing S23.
- For Bill Of Materials, see Drawing S23.
- Surface Seal and Masonry Coat exposed surfaces of wings.

TIE-UP AND PILING PLAN

BENT NO.8 DETAILS

INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 3/8" = 1'-0", Unless Noted DATE: - June 1, 1998

SUBMITTED FOR APPROVAL *Michael H. Jennings*

DRAWING: - S22 OF S52 SHEET: - 37 OF 79

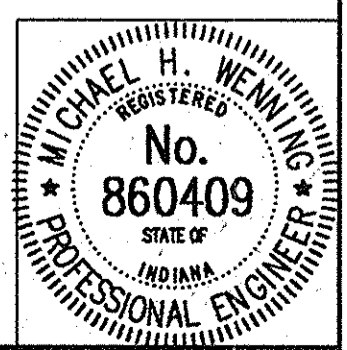
PROJECT: - IM-80-1 (143) 4

CONTRACT NO. R-23808

BRIDGE FILE: - I-80-5-7828

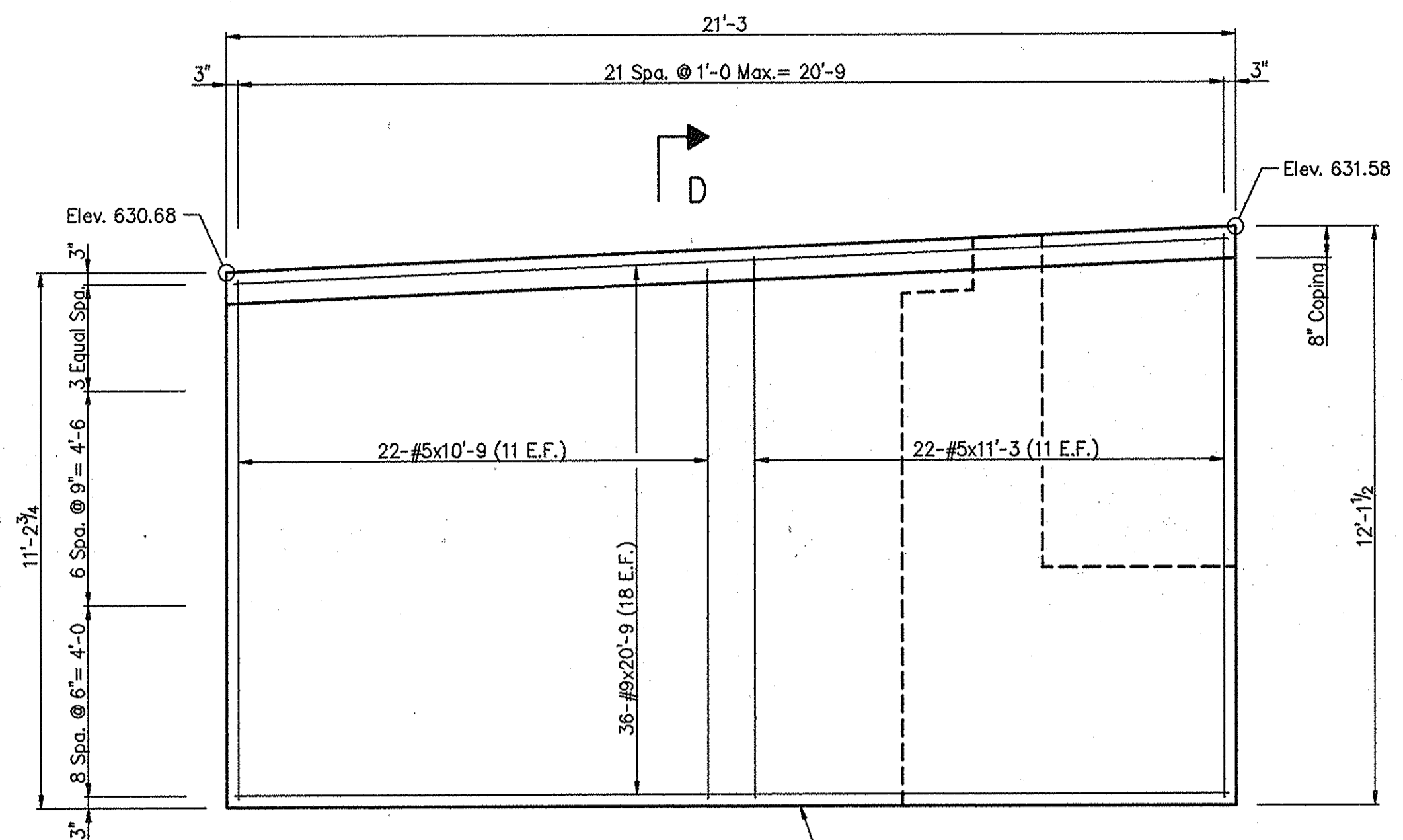
DESIGNED: MDR 12/23/96 MSP 1/29/97
 DRAWN: DSH 2/12/97 CKD MDR 4/24/98
 TRACED: CKD

DWG FILE: C:\92\119\02119833
 PLOT SCALE: 1:32,000
 PLOT ORIGIN: 0,00,000
 SPELLOK: 01/21/94
 EDIT DATE: 06/02/98
 EDITED BY: DSH - S91

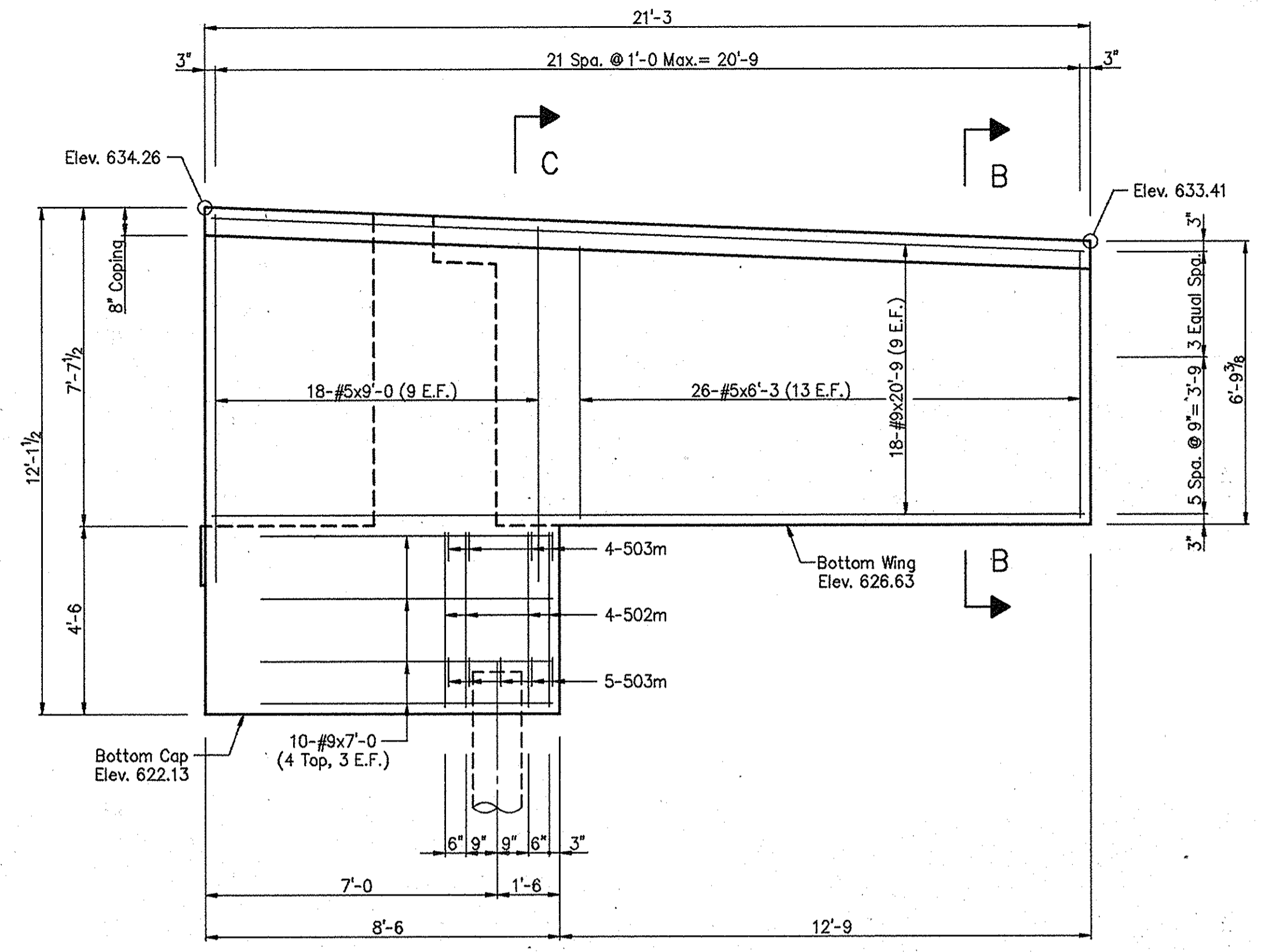


BENT NO.8 BILL OF MATERIALS

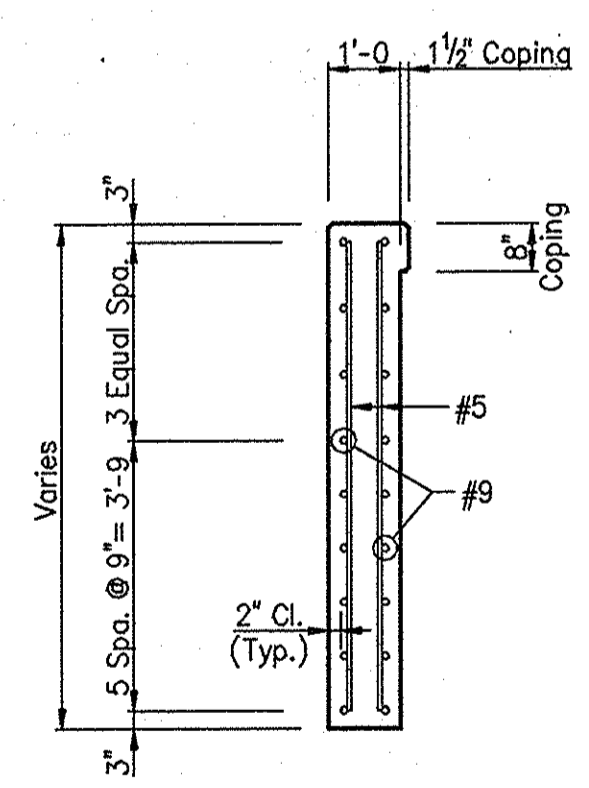
Epoxy Coated Reinforcing Steel			
Size And Mark	No. Of Bars	Length (Feet)	Weight (Lbs.)
#9	54	20'-9"	
#9	10	7'-0"	
Total No.9			4,048
#7	24	23'-6"	1,153
501m	38	12'-5"	
502m	4	12'-2"	
503m	9	3'-10"	
#5	22	11'-3"	
#5	22	10'-9"	
#5	18	8'-9"	
#5	26	6'-3"	
Total No.5			1,417
401m	105	5'-9"	
402m	30	8'-8"	
403m	42	18'-11"	
404m	42	3'-11"	
405m	12	4'-2"	
406m	12	6'-0"	
#4	48	22'-6"	
#4	12	7'-6"	
#4	42	3'-0"	
#4	8	2'-0"	
Total No.4			2,166
Total Epoxy Coated Reinforcing Steel			8,784
Concrete			
Class "A" In Substructure			
Pour No.1		50.9	Cys.
Pour No.2		7.9	Cys.
Total Class "A" In Substructure		58.8	Cys.
Class "C" In Superstructure			
Pour No.3		5.7	Cys.
Miscellaneous			
Surface Seal		910	Sft.
Masonry Coating		250	Sft.
14- Piles, Concrete, Steel Shell Encased,		4000	Lft.
0.375" Min. Thick., 14" x 14" Approx.		46	Each
Threaded Tie Bar Assembly		19	Lft.
2" Galvanized Steel Pipe Conduit		67	Lft.
6" Perf. C.P. Pipe			



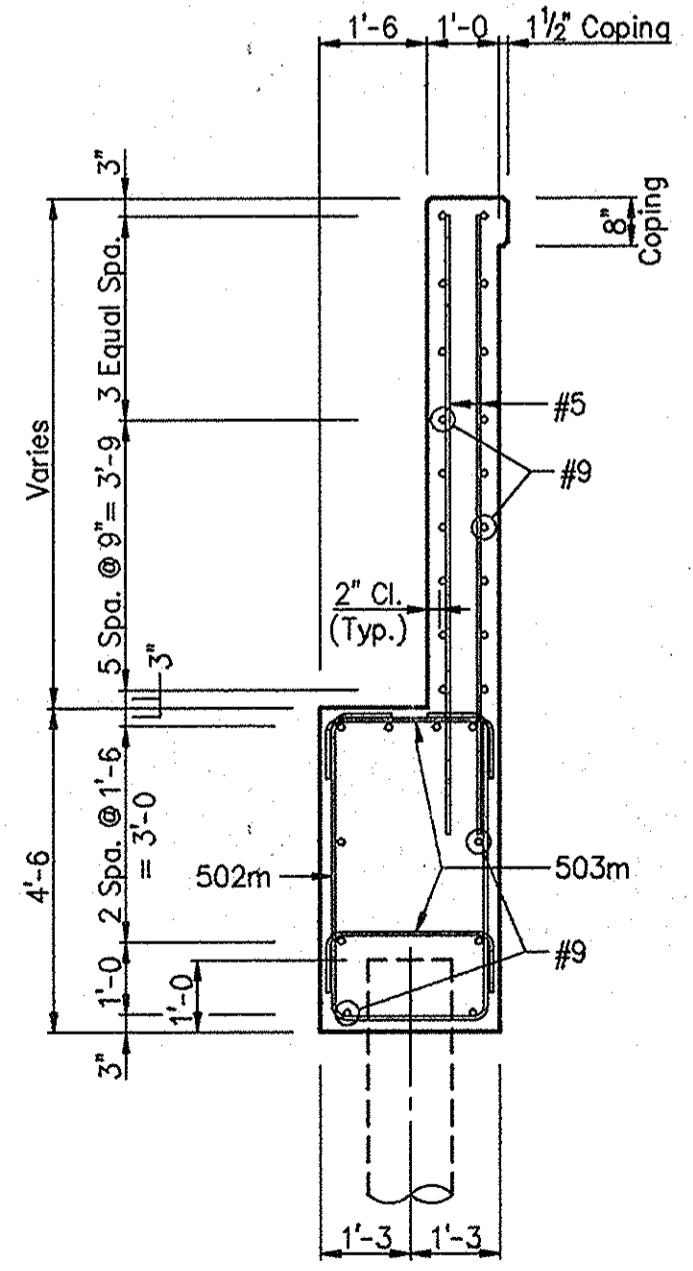
WING "D" ELEVATION



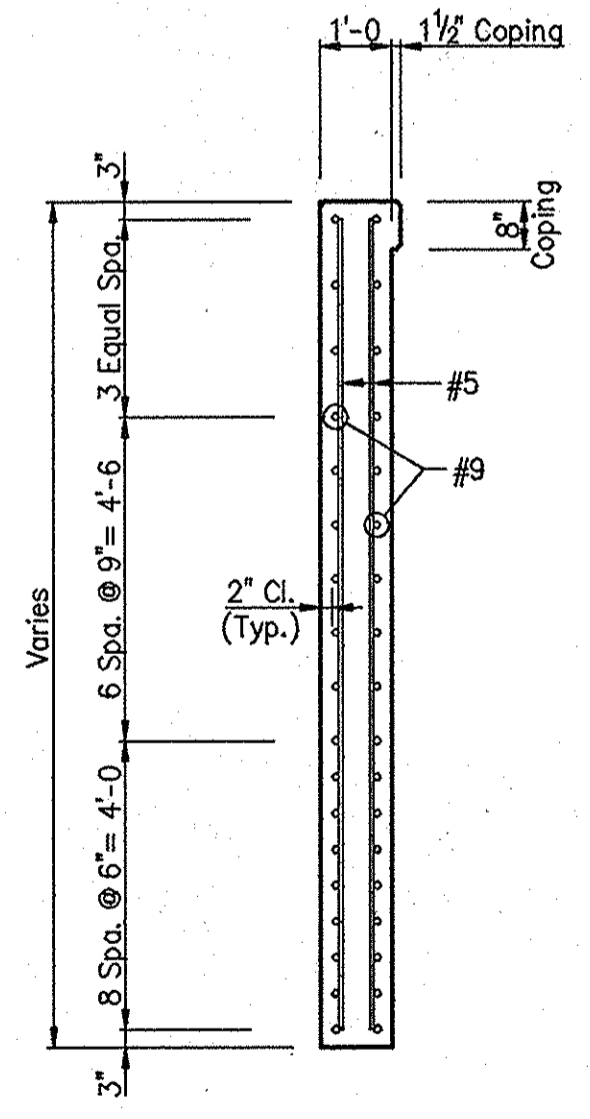
WING "C" ELEVATION



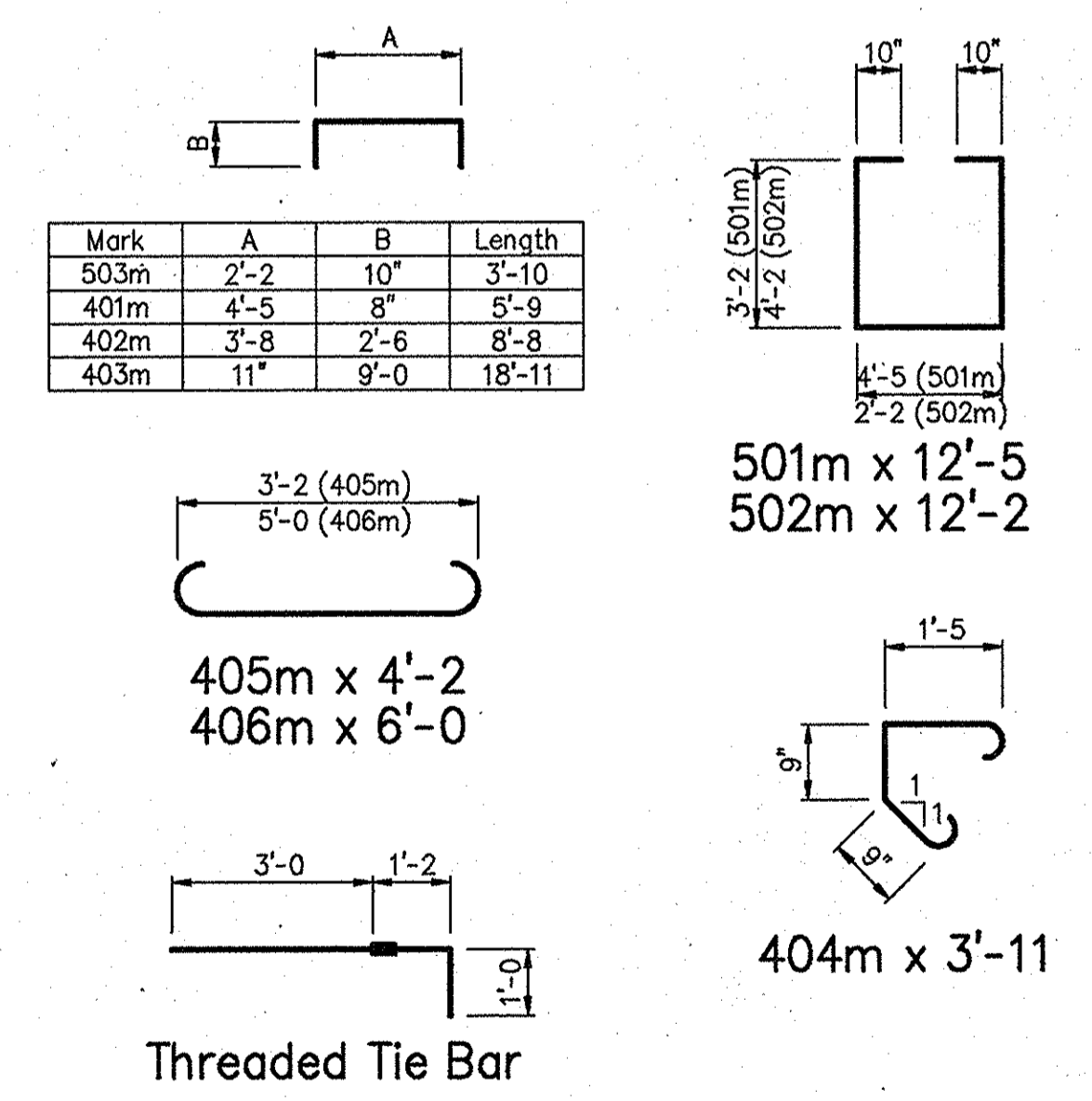
SECTION B-B



SECTION C-C



SECTION D-D



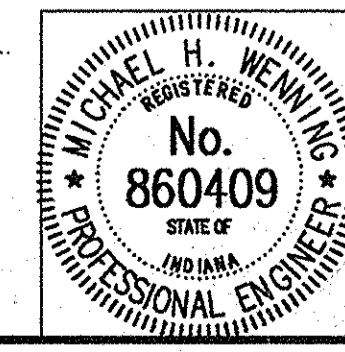
NOTES:

- For reinforcing bar notes, see Bridge Standard C1.
- All reinforcing steel to be epoxy coated.
- Surface Seal and Masonry Coat exposed surfaces of wings.

BENT NO.8 DETAILS INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 3/8" = 1'-0", Unless Noted DATE: - July 9, 1998
SUBMITTED FOR APPROVAL *Michael H. Wynn*

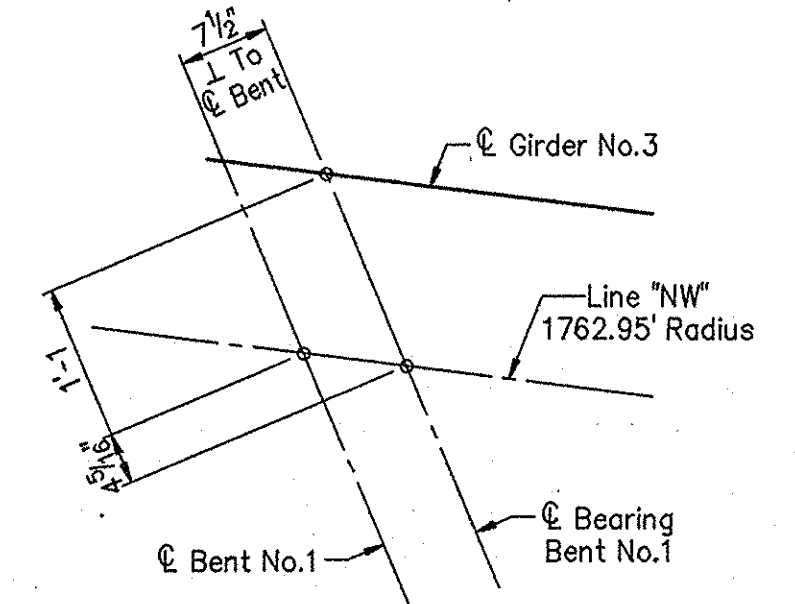
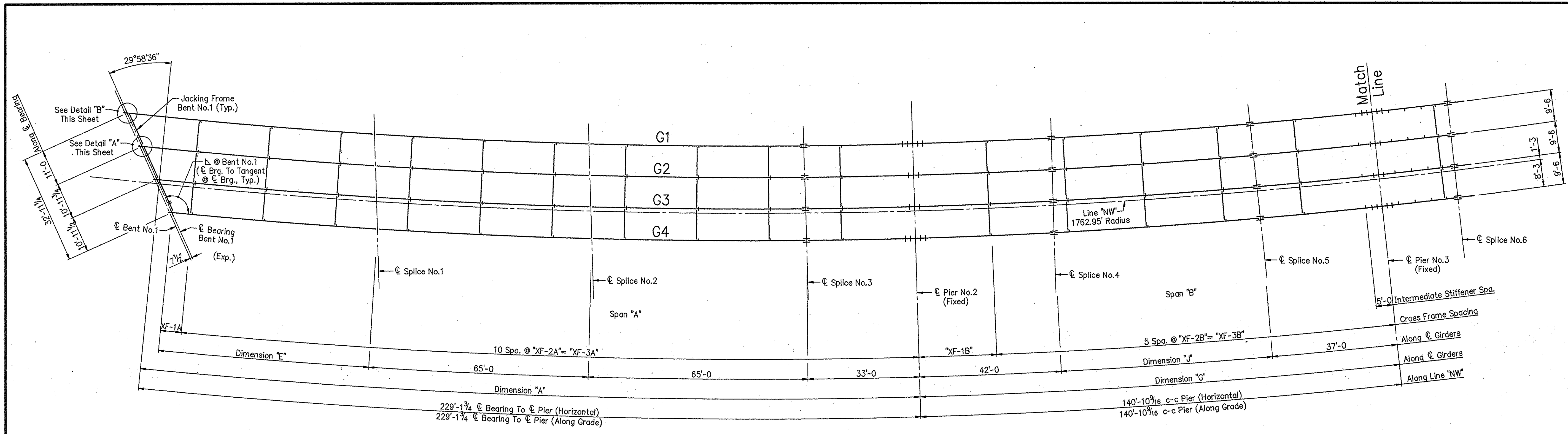
DRAWING: - S23 OF S52 SHEET: - 38 OF 79
PROJECT: - IM-80-1 (143) 4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7828



DESIGNED: MDR 12/23/96 CKD MSP 1/29/97
DRAWN: DSH 2/12/97 CKD MDR 5/5/98
TRACED: CKD

DWG FILE: C:\V1\10\02119834 SPELLECHK: 01/21/94
PLOT SCALE: 1:32,000 EDIT DATE: 02/10/98 10:36:50
PLOT ORIGIN: 0,000,000 EDITED BY: DSH - 591

9-1-98: Revised Pile Length



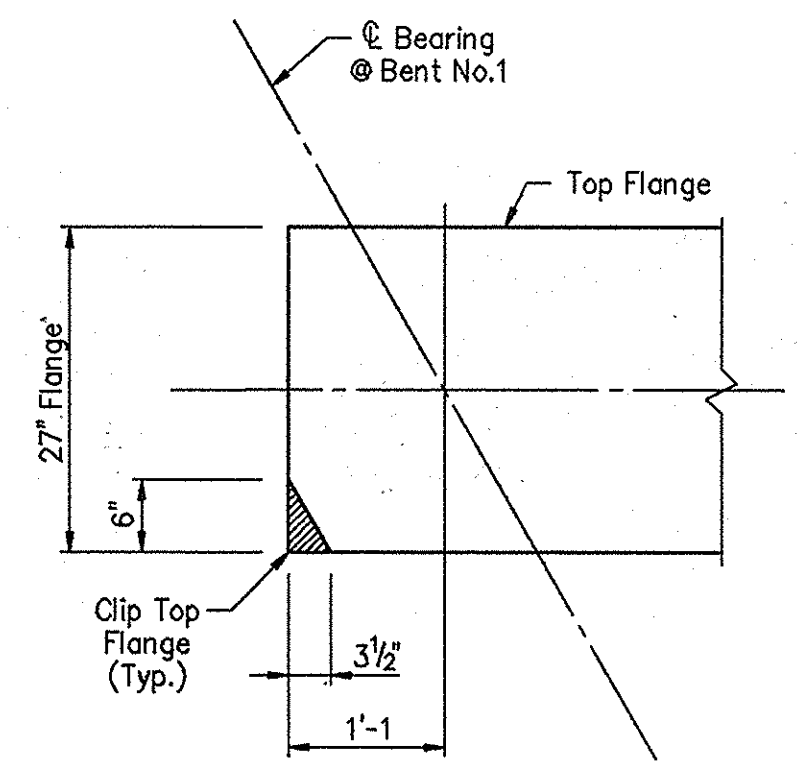
BENT NO.1 TIE-UP DETAIL
No Scale

TABLE OF JACKING FRAME ANGLES

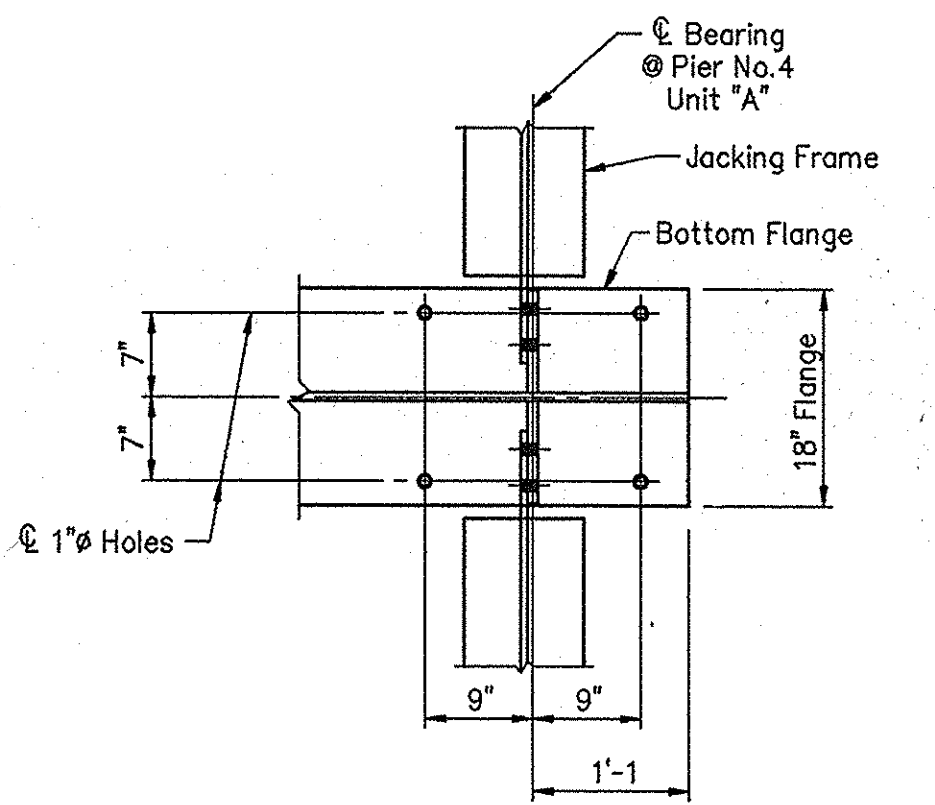
Girder No.	⊕ Bent No.1
G1	120°21'41"
G2	120°10'46"
G3	120°00'00"
G4	119°49'22"

TABLE OF SHIMS AND BEARINGS

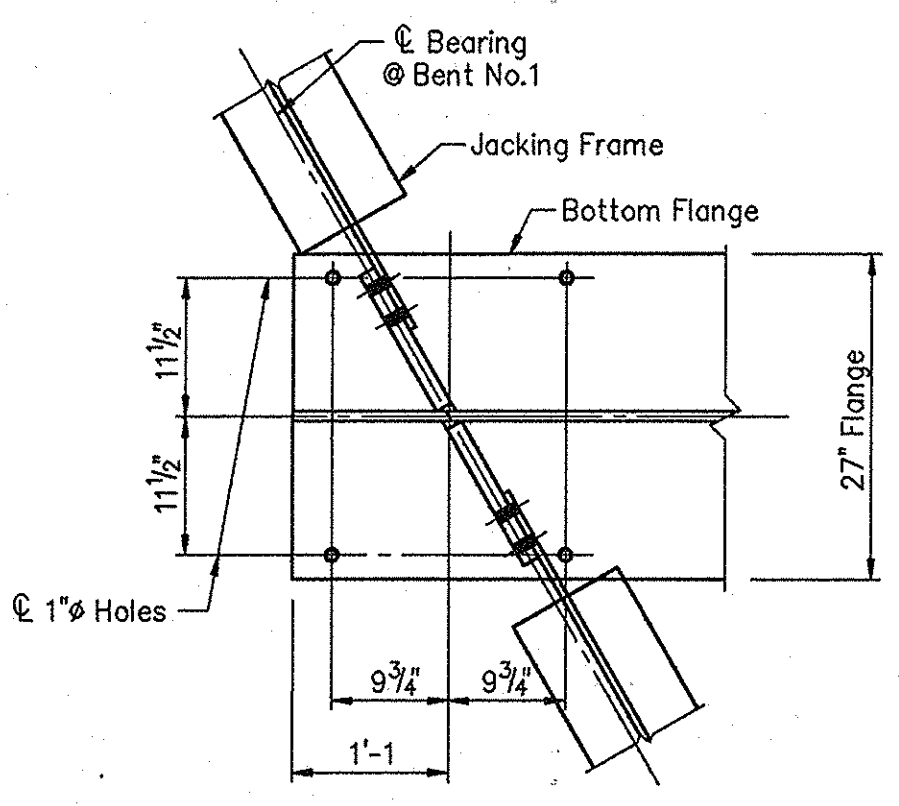
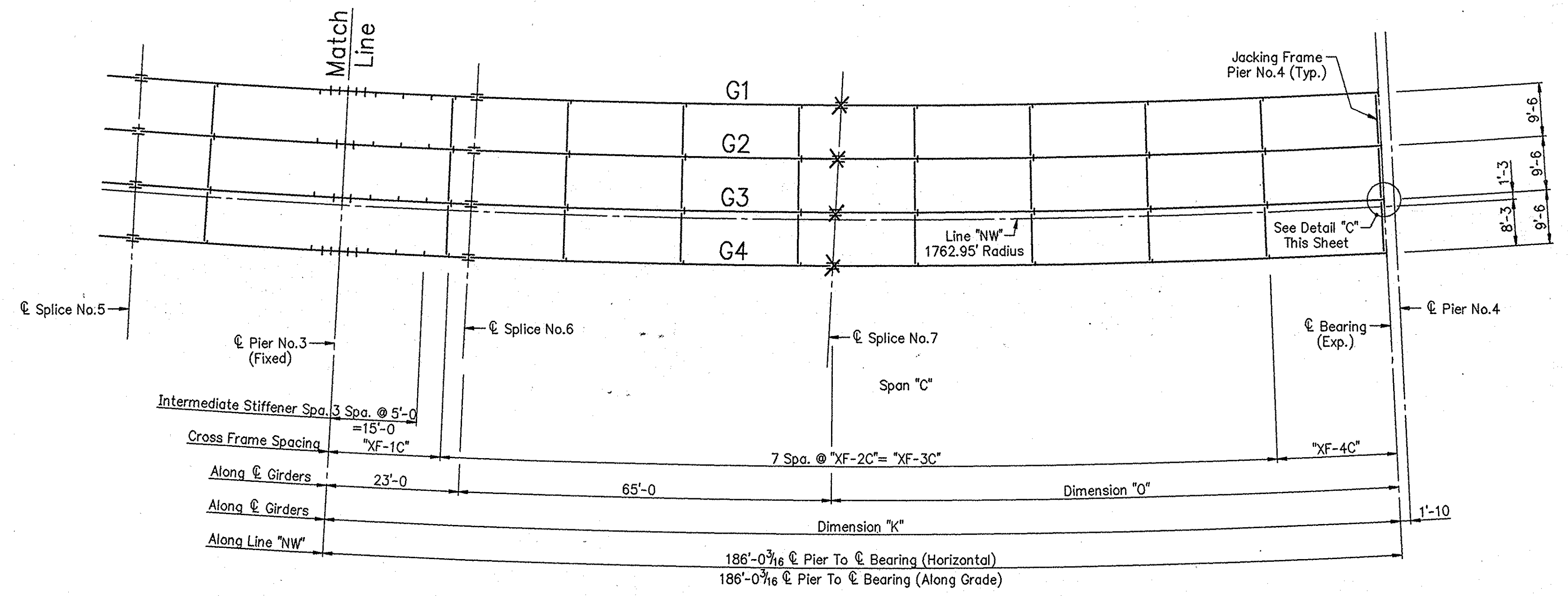
Location	Bearing Assembly	Bevelled Shim
Bent No.1	EBA-1	BS-1
Pier No.4	EBA-2	BS-2



DETAIL "B"
Scale- 3/4"=1'-0"



DETAIL "C"
Scale- 3/4"=1'-0"



DETAIL "A"
Scale- 3/4"=1'-0"

NOTES:

All structural steel shall conform to ASTM A709 Grade 50W, unpainted except as noted.

All dimensions shown are horizontal distances, unless otherwise noted.

All cross frames to be Type X-1 and constructed radially.

No shims to be placed at Piers No.2 or No.3.

FRAMING PLAN - UNIT "A"
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 1/16"= 1'-0, UNLESS NOTED DATE: - June 1, 1998

SUBMITTED FOR APPROVAL *Michael H. Weir*

DRAWING: - S24 OF S52 SHEET: - 39 OF 79
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7828



TABLE OF GIRDER DIMENSIONS

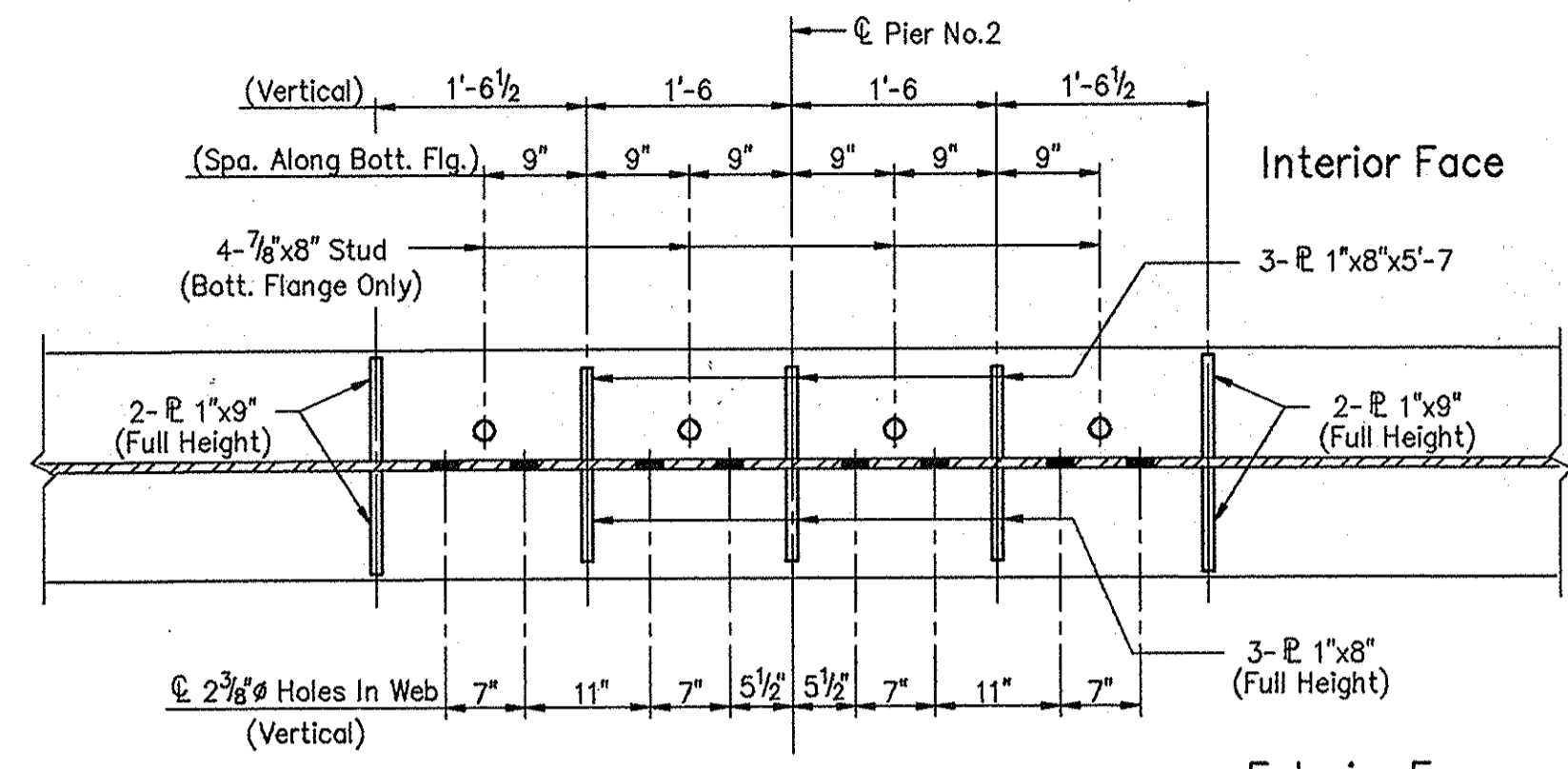
Girder No.	Radius	Span "A"		Span "B"			Span "C"	
		A	E	G	J	K	O	O
G1	1742.70'	238'-2 3/16"	75'-2 3/16"	139'-3 3/8"	60'-3 3/8"	183'-10 3/16"	95'-10 3/16"	
G2	1752.20'	233'-11 7/16"	70'-11 7/16"	140'-0 1/4"	61'-0 1/4"	184'-10 1/16"	96'-10 1/16"	
G3	1761.70'	229'-8 7/16"	66'-8 7/16"	140'-9 3/8"	61'-9 3/8"	185'-10 3/16"	97'-10 3/16"	
G4	1771.20'	225'-5 3/16"	62'-5 3/16"	141'-6 1/2"	62'-6 1/2"	186'-10 3/4"	98'-10 3/4"	

TABLE OF CROSS FRAME DIMENSIONS

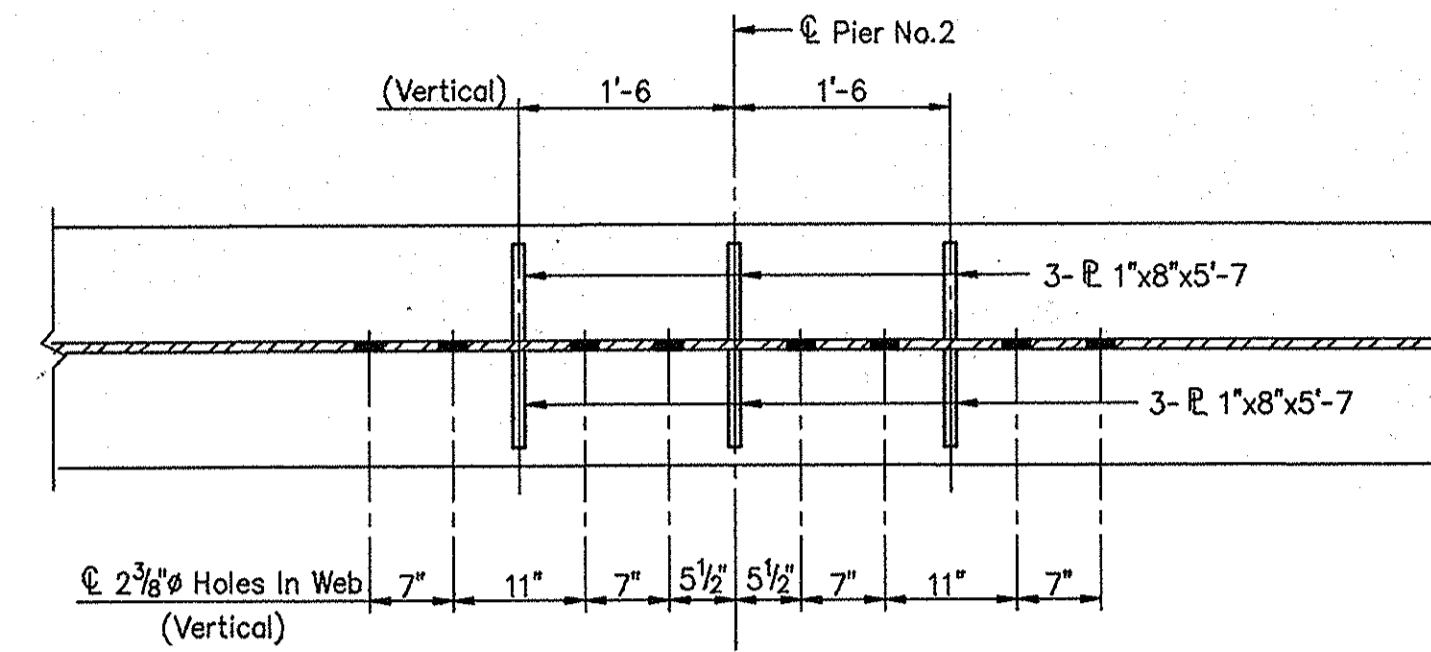
Span "A"			Span "B"			Span "C"			
XF-1A	XF-2A	XF-3A	XF-1B	XF-2B	XF-3B	XF-1C	XF-2C	XF-3C	XF-4C
22'-5 3/4"	21'-6 3/8" +	215'-8 1/16"	22'-8 3/16"	23'-3 1/16" +	116'-6 9/16"	19'-2 7/16"	20'-7 -	144'-0 7/8"	20'-7 -
17'-0 1/2"	21'-8 7/16" -	216'-10 1/16"	22'-10 1/16"	23'-5 1/4" -	117'-2 7/16"	19'-3 3/16"	20'-8 3/16" +	144'-10 1/16"	20'-8 7/16"
11'-7 7/8"	21'-9 1/16" +	218'-1 1/16"	22'-11 3/16"	23'-6 3/4" +	117'-9 1/16"	19'-5 1/16"	20'-9 1/16" -	145'-7 3/4"	20'-9 1/16"
6'-2 7/8"	21'-11 1/8" -	219'-3 3/16"	23'-1 1/16"	23'-8 5/16" -	118'-5 7/16"	19'-6 5/8"	20'-11 +	146'-5 7/8"	20'-11 -

DESIGNED: MDR 11/26/96 CK'D: DAD 1/15/98
DRAWN: DSH 1/6/97 CK'D: DAD 4/10/98
TRACED: CK'D

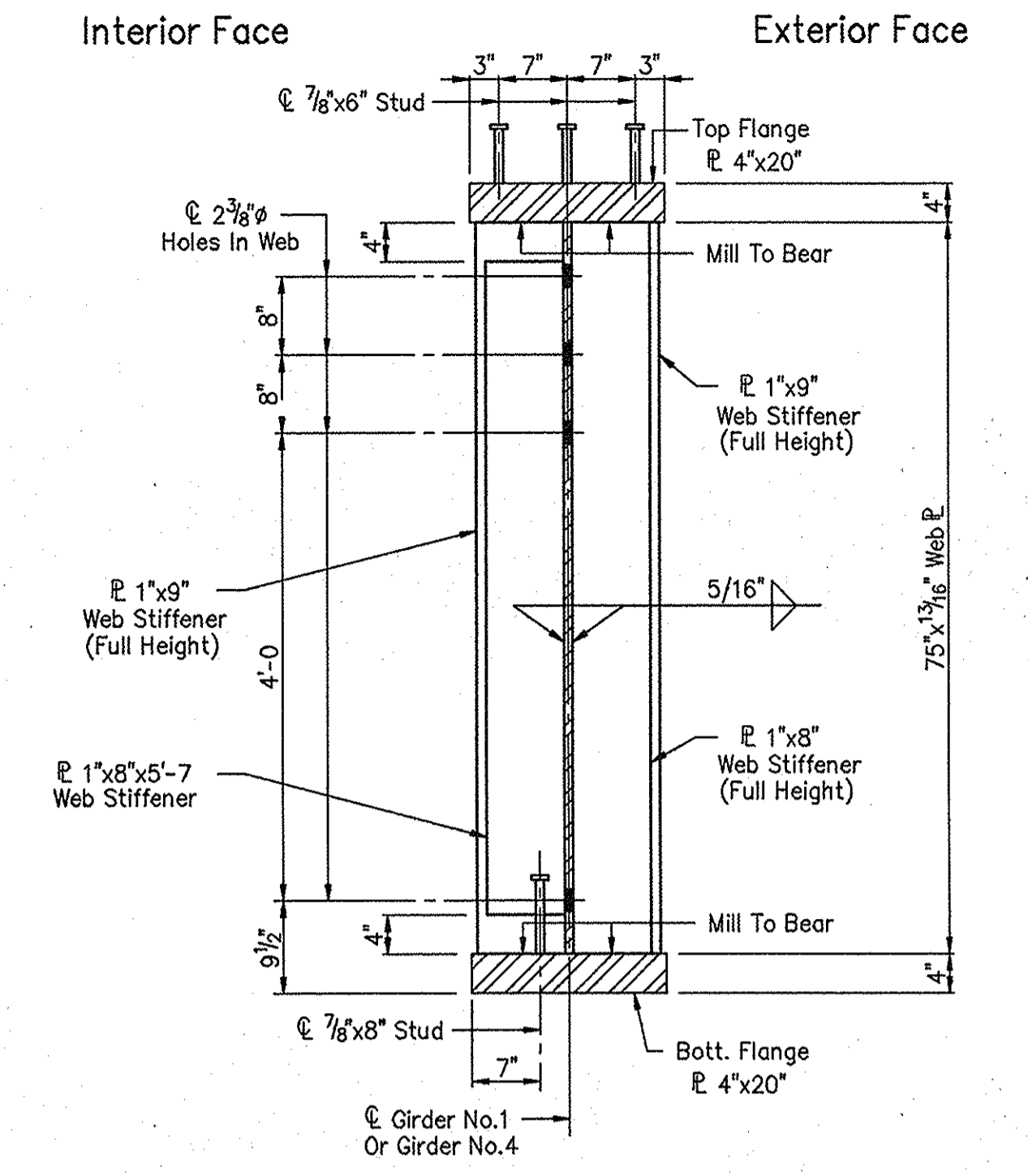
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PLOT ORIGIN: 0,0,0,0 EDIT BY: RJC - 5128



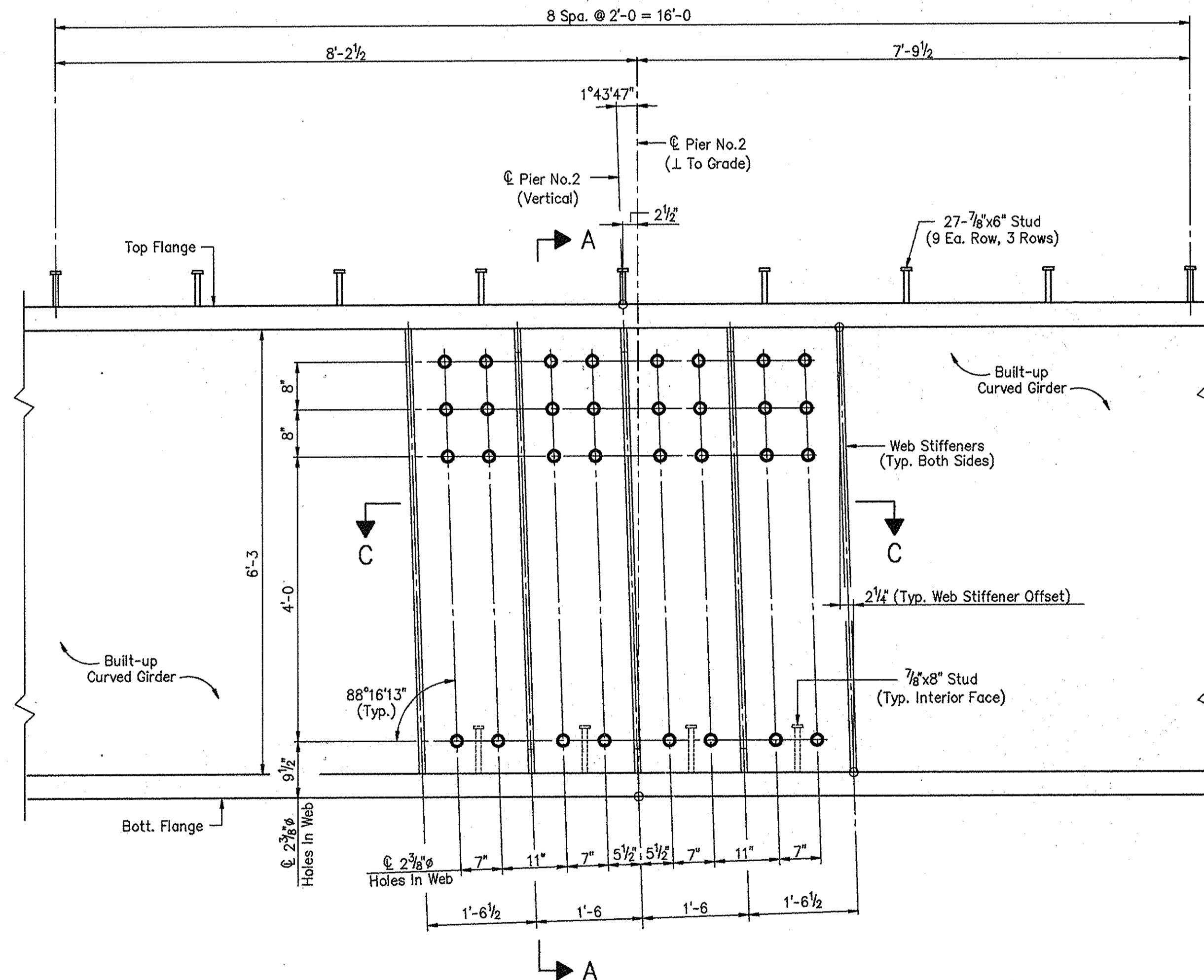
SECTION C-C



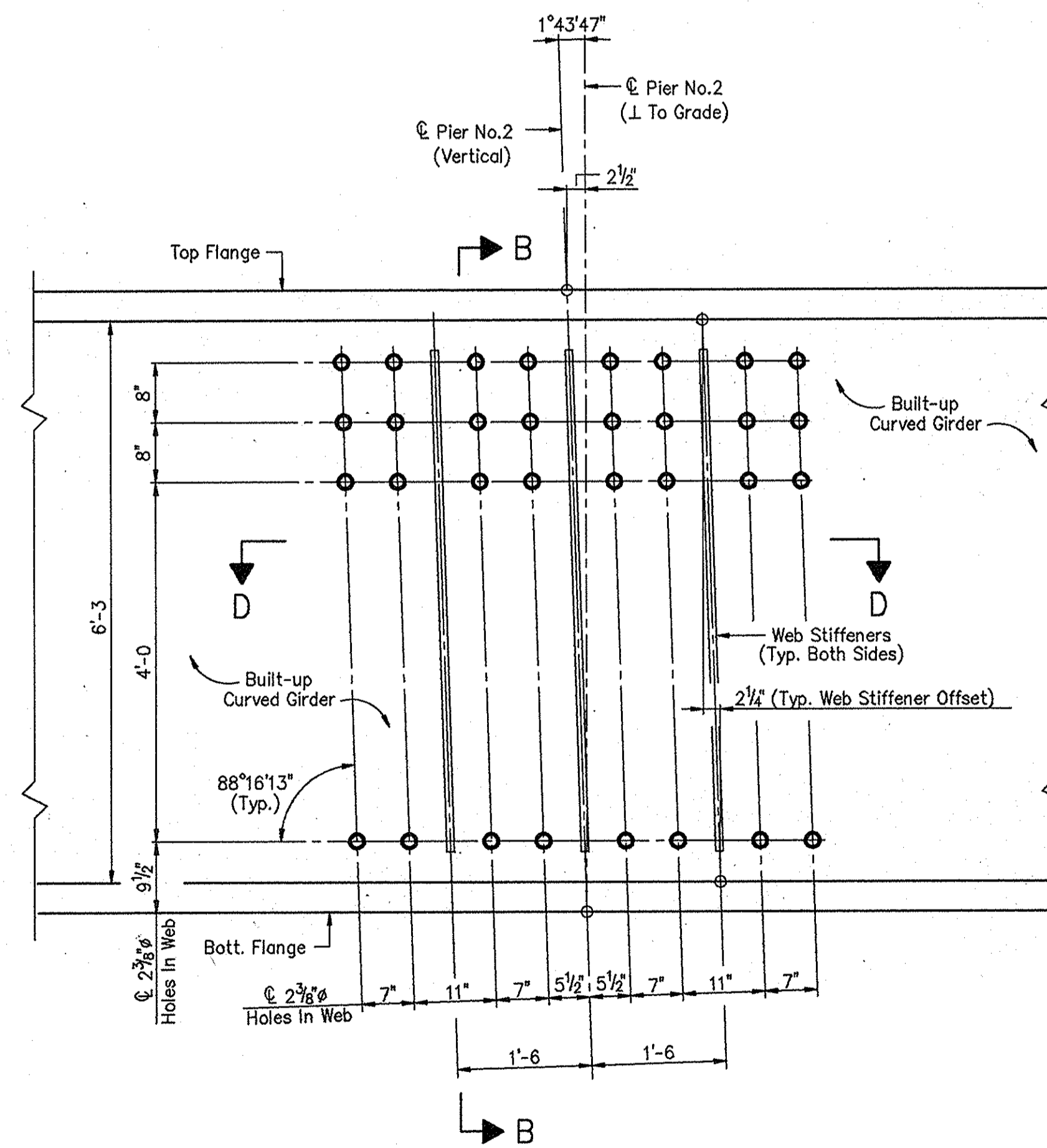
SECTION D-D



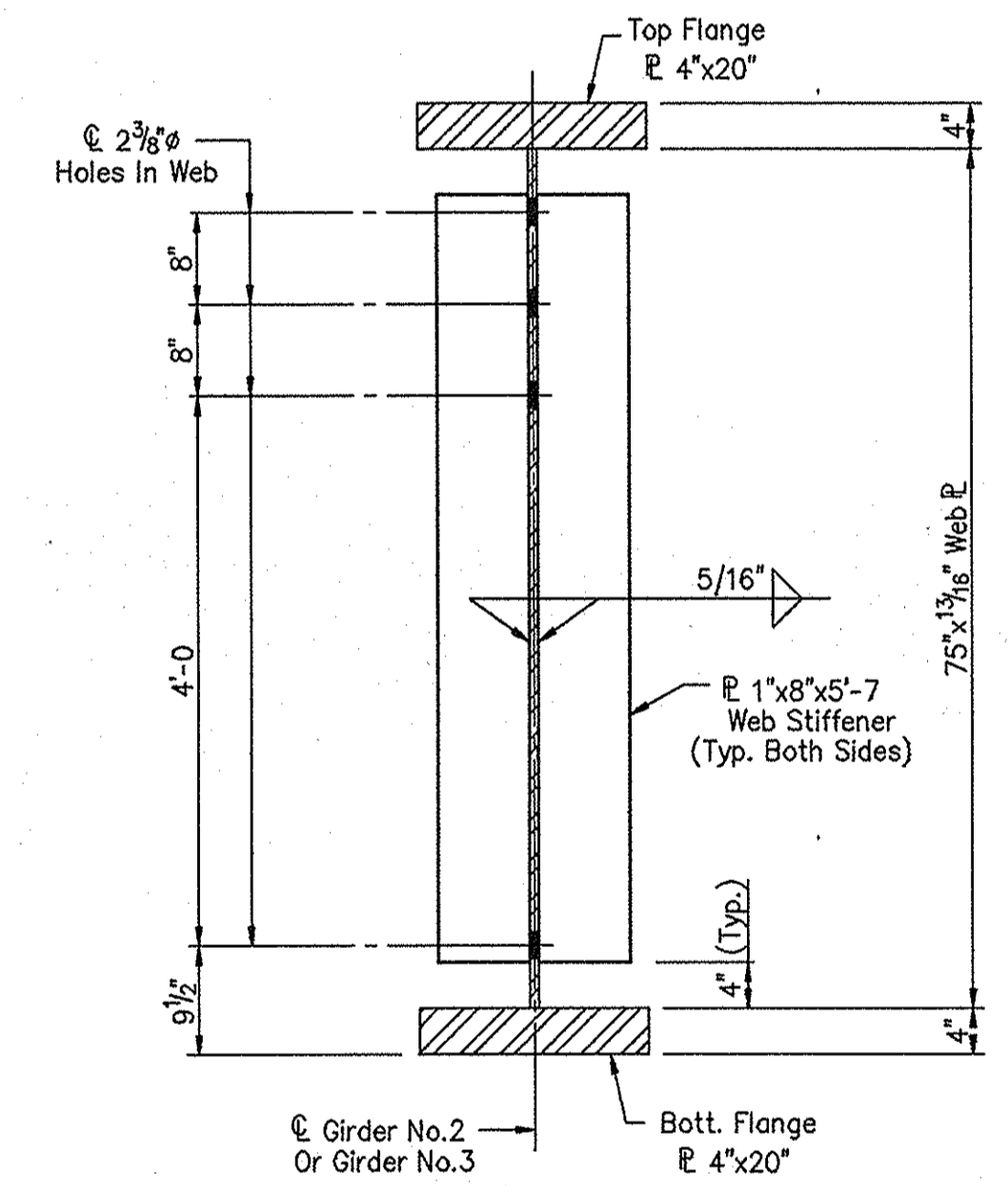
SECTION A-A



GIRDER NO.1 ELEVATION AT PIER NO.2
(Girder No.4 Similar By Opposite hand)



GIRDER NO.2 ELEVATION AT PIER NO.2
(Girder No.3 The Same)



SECTION B-B

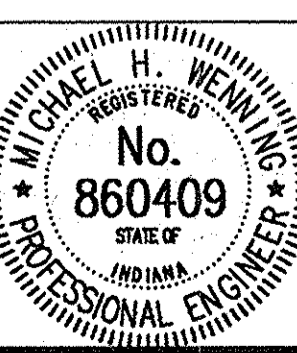
NOTES:
All structural steel shall conform to ASTM A709 Grade 50W.

STRUCTURAL STEEL DETAILS - UNIT "A"
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 3/4" = 1'-0", UNLESS NOTED DATE: - July 9, 1998

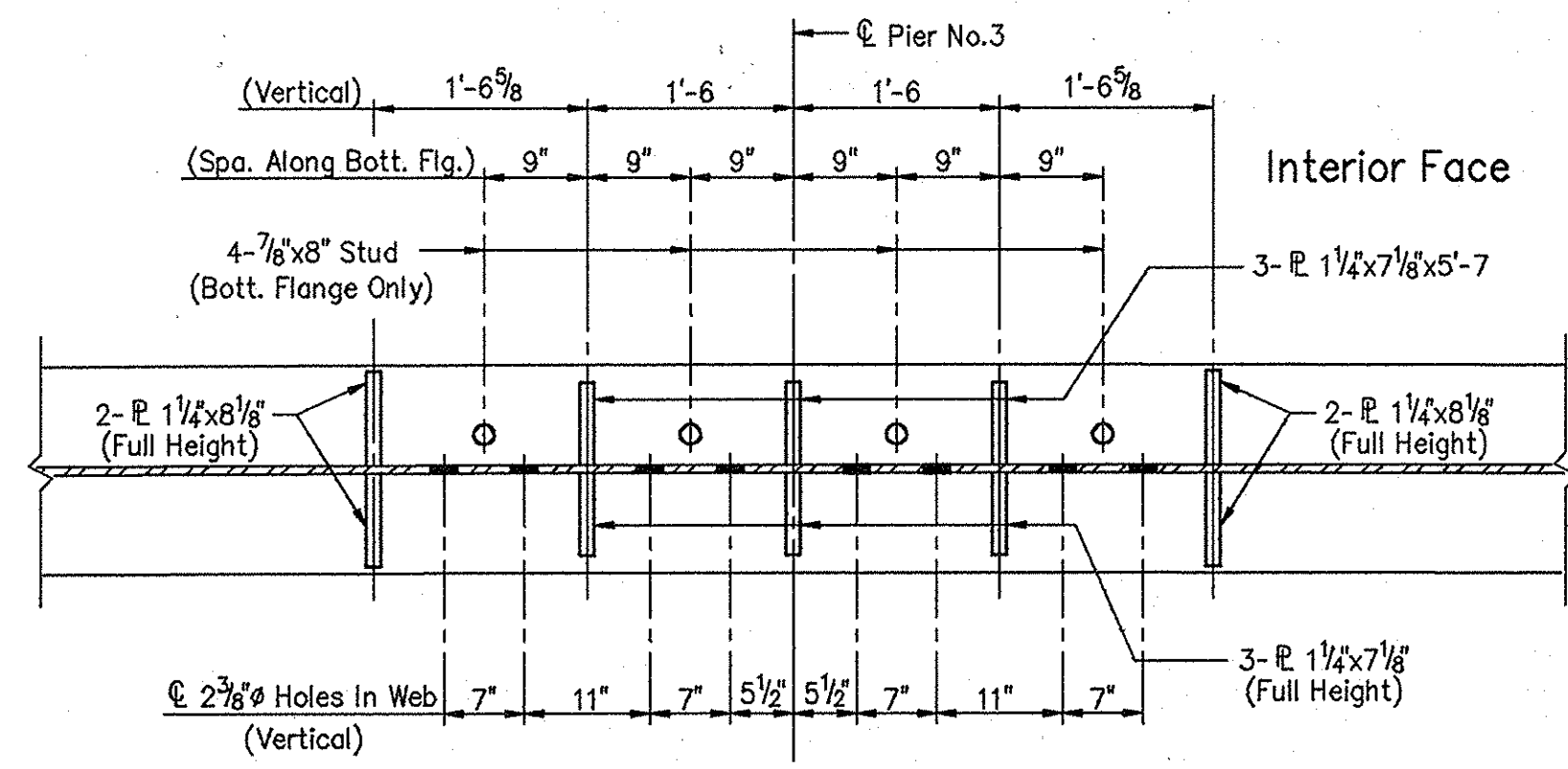
SUBMITTED FOR APPROVAL *Michael H. Wemyer*

DRAWING: - S27 OF S52 SHEET: - 42 OF 79
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7828

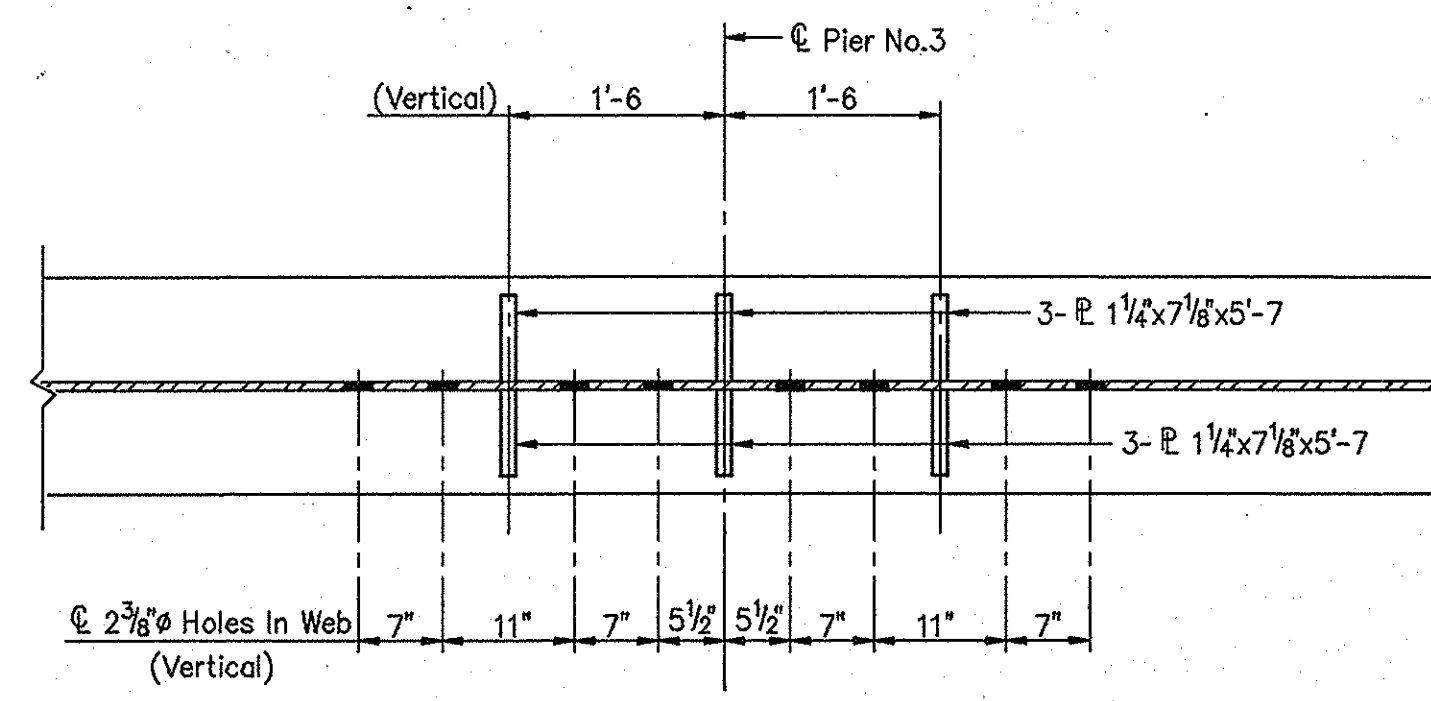


DESIGNED: MDR 3/04/98 C.K'D
DRAWN: RJC 4/23/98 C.K'D MDR 6/17/98
TRACED: C.K'D

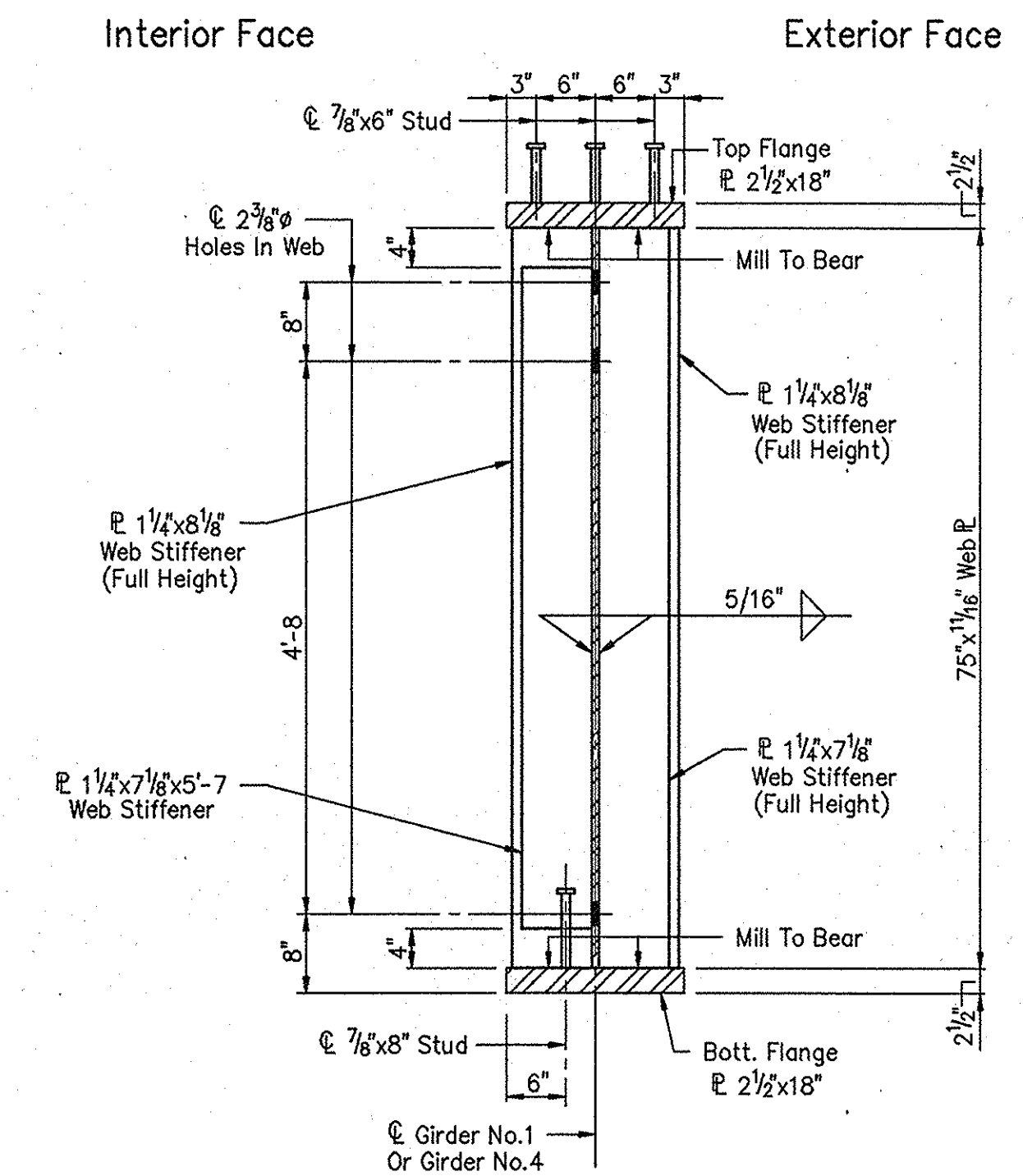
DWG FILE: C:\82\119\92119857
PLOT SCALE: 1:16,000
PLOT ORIGIN: 0.00,0.00
SPELLOK: 07/09/98 14:24:23
EDIT DATE: DSH - 991



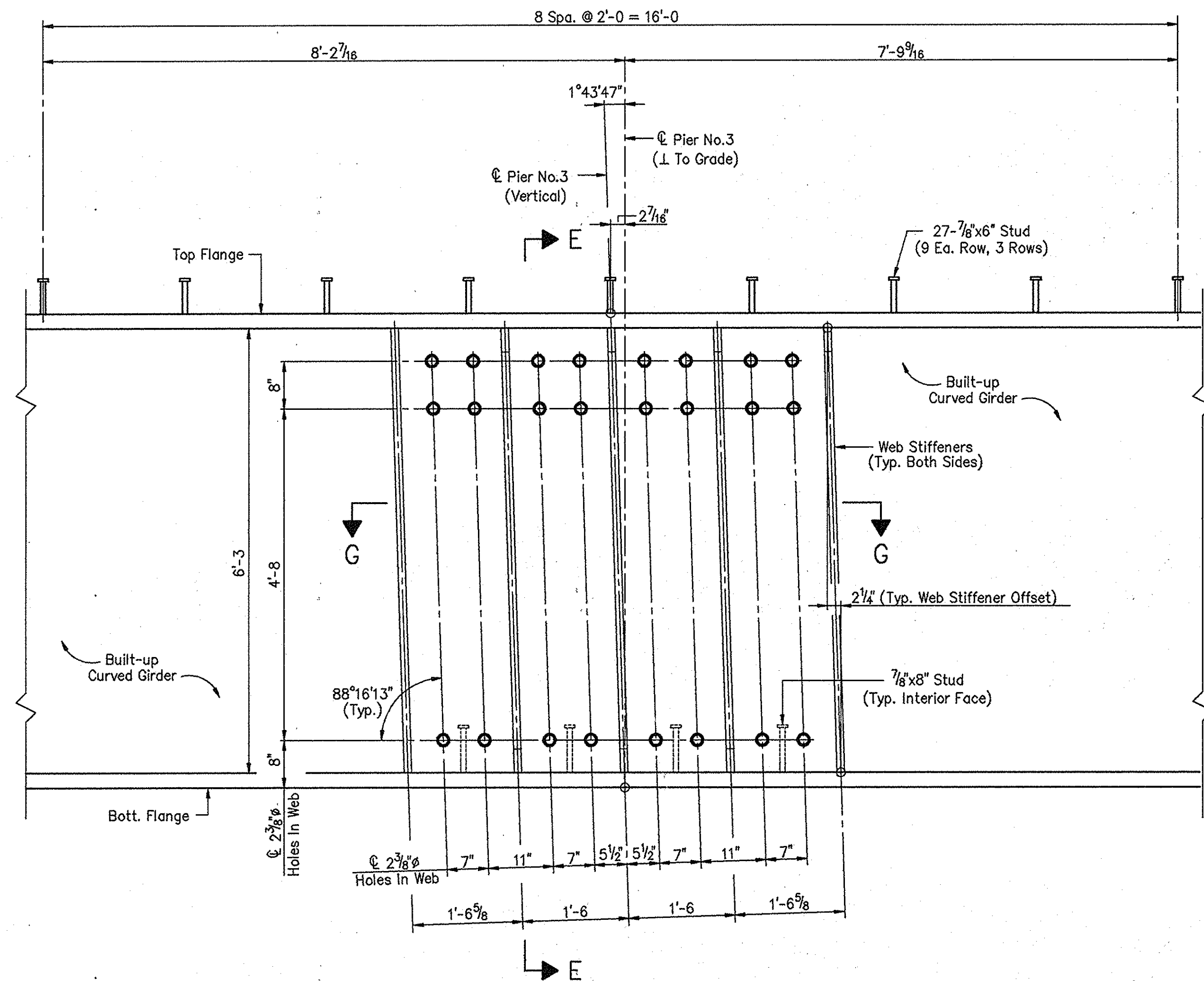
SECTION G-G



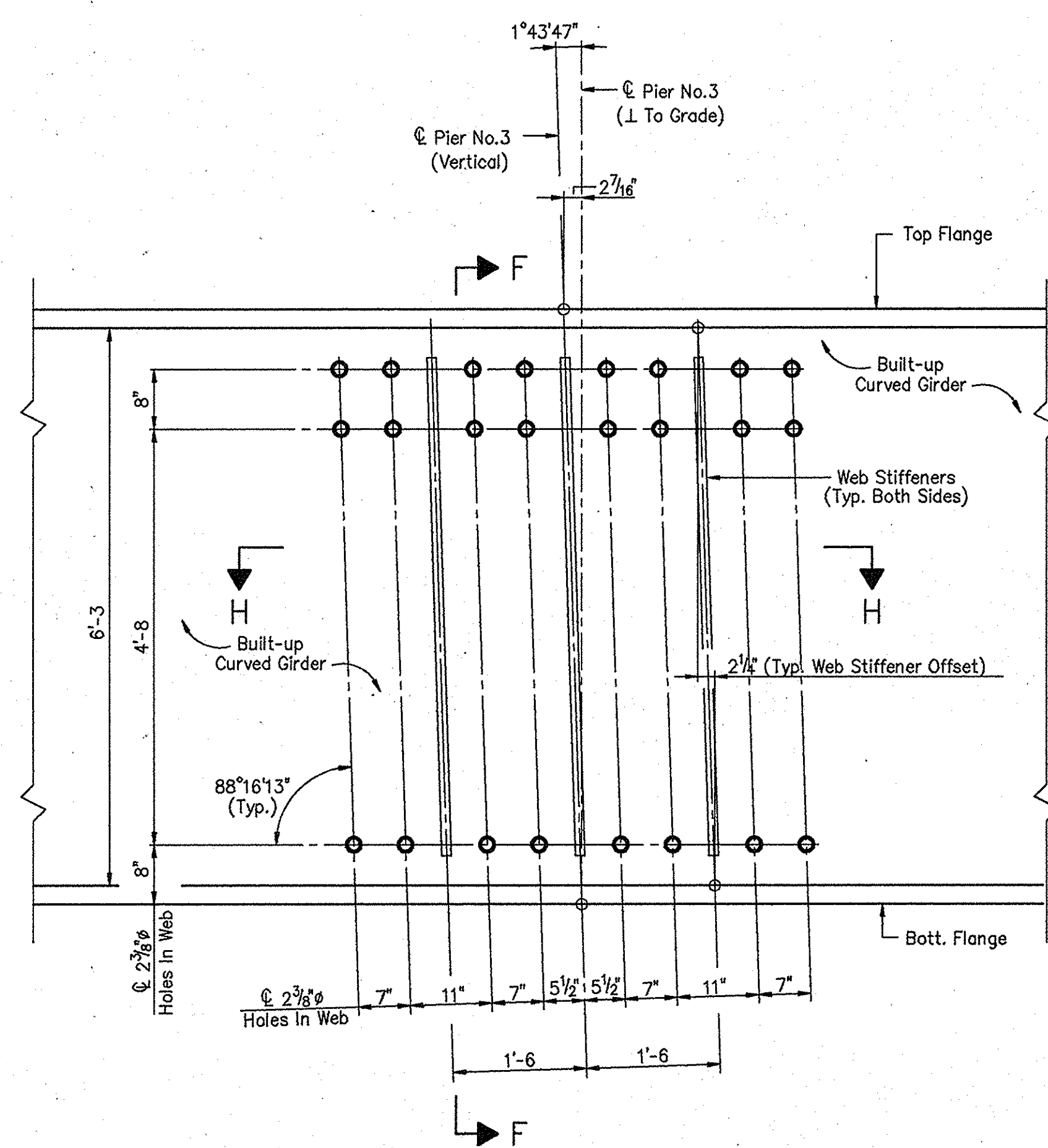
SECTION H-H



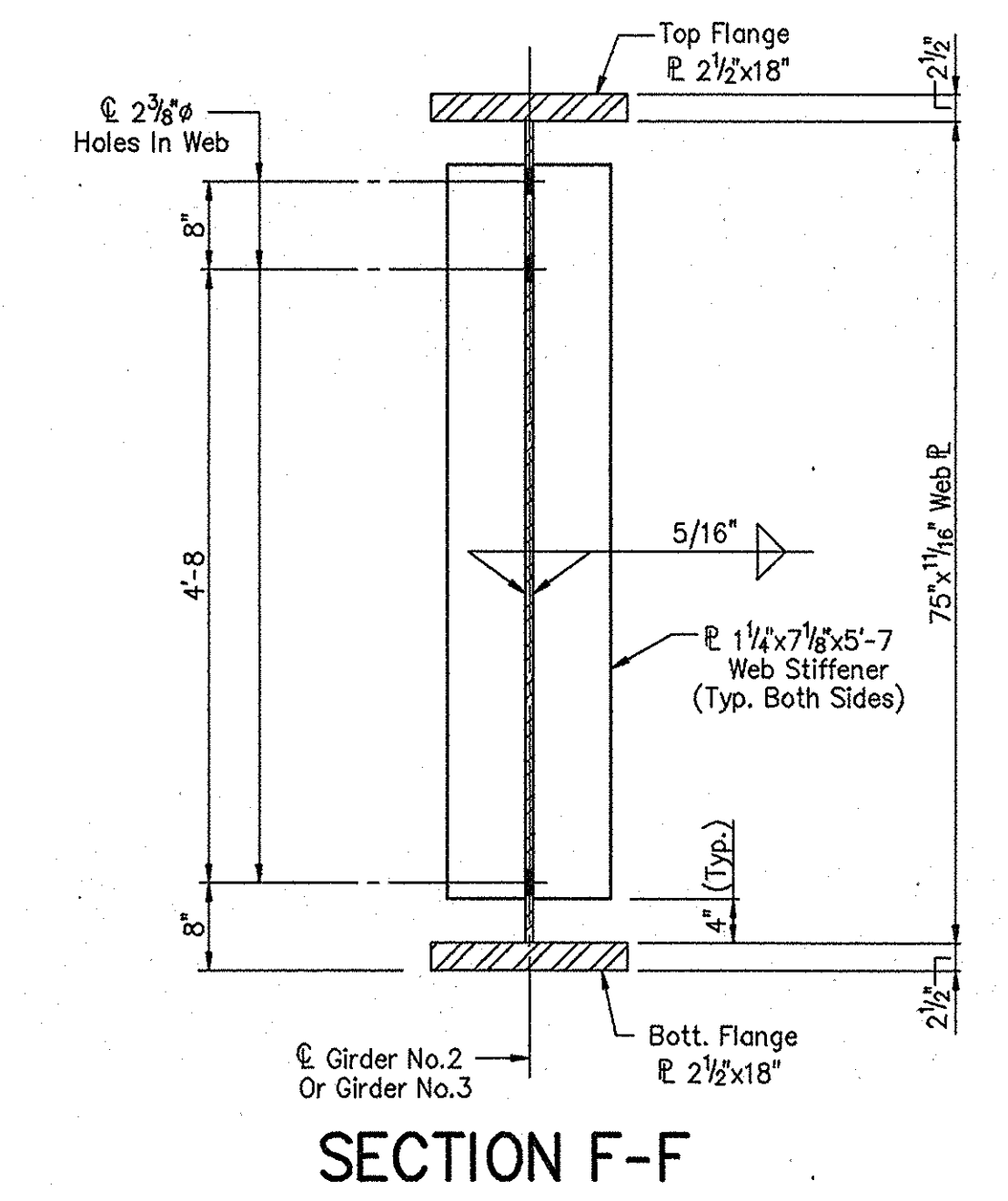
SECTION E-E



GIRDER NO.1 ELEVATION AT PIER NO.3
(Girder No.4 Similar By Opposite hand)



GIRDER NO.2 ELEVATION AT PIER NO.3
(Girder No.3 The Same)

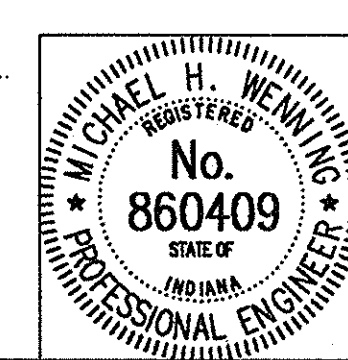


SECTION F-F

NOTES:
All structural steel shall conform to ASTM A709 Grade 50W.

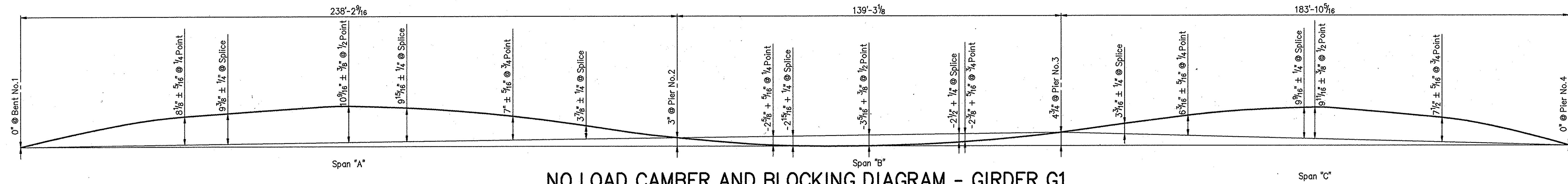
STRUCTURAL STEEL DETAILS - UNIT "A"
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 3/4" = 1'-0, UNLESS NOTED DATE: - July 9, 1998
SUBMITTED FOR APPROVAL [Signature]
DRAWING: - S28 OF S52 SHEET: - 43 OF 79
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7828

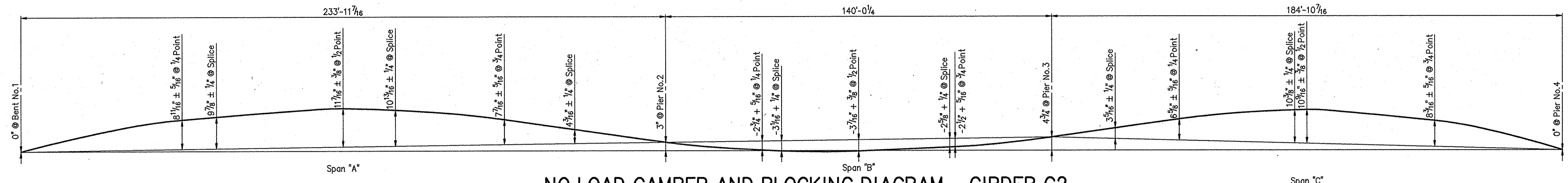


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DRAWN: RJC 4/24/98 CKD MDR 6/18/98
TRACED: CKD

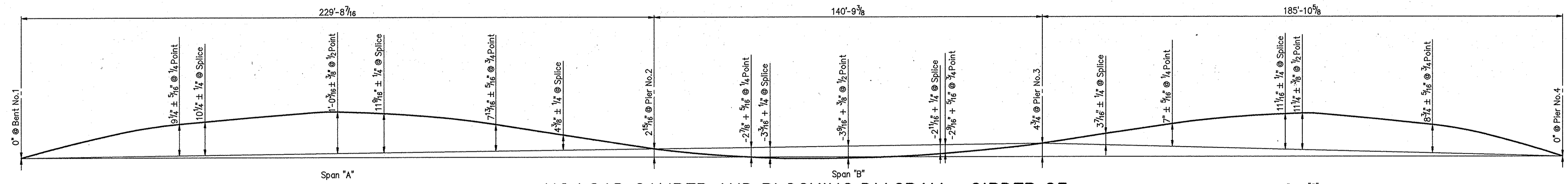
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SPELONK: 07/09/98 14:28:12
EDIT DATE: 07/09/98 14:28:12
EDIT BY: DSH - S91



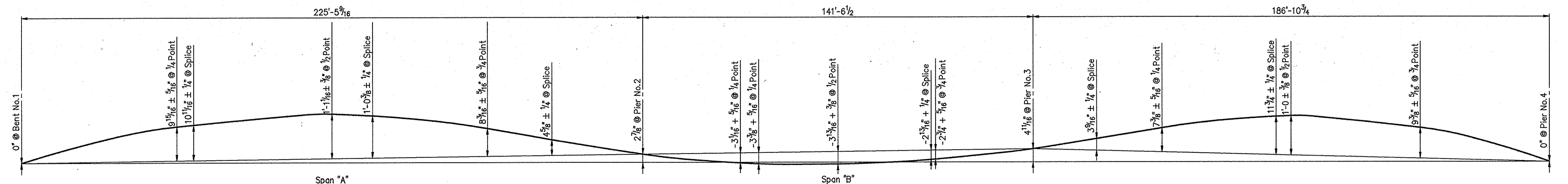
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NO LOAD CAMBER AND BLOCKING DIAGRAM - GIRDER G2



NO LOAD CAMBER AND BLOCKING DIAGRAM - GIRDER G3



NO LOAD CAMBER AND BLOCKING DIAGRAM - GIRDER G4

STRUCTURAL STEEL DETAILS - UNIT "A"
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - NONE DATE: - July 9, 1998

SUBMITTED FOR APPROVAL *[Signature]*

DRAWING: - S29 OF S52 SHEET: - 44 OF 79

PROJECT: - IM-80-1(143)4

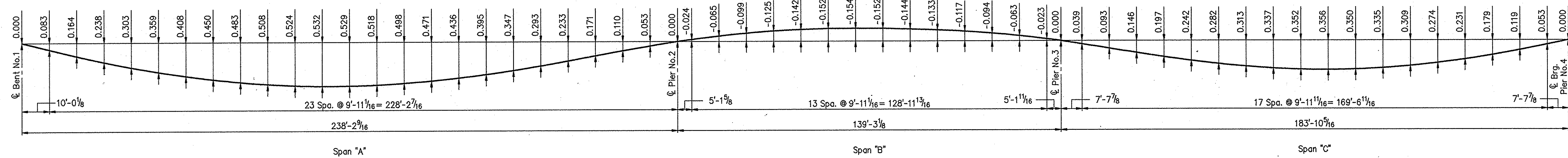
CONTRACT NO. R-23808

BRIDGE FILE: - 1-80-5-7828

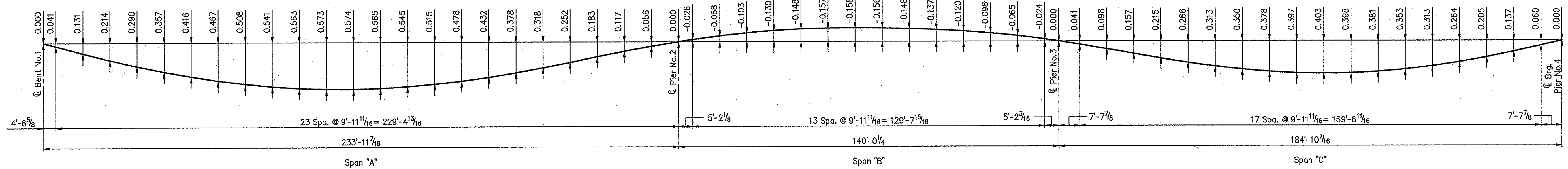
DESIGNED MSP 6/11/98 C.K.D. APE 6/15/98
DRAWN TLH 6/29/98 C.K.D. APE 7/1/98
TRACED C.K.D.

DWG FILE: C:\92\119\92119819
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SPELLOK:
EDIT DATE: 07/09/98 14:32:52
EDITED BY: DSH - 301

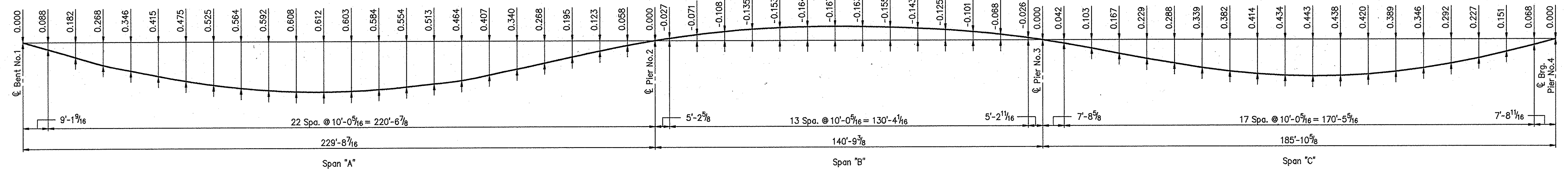




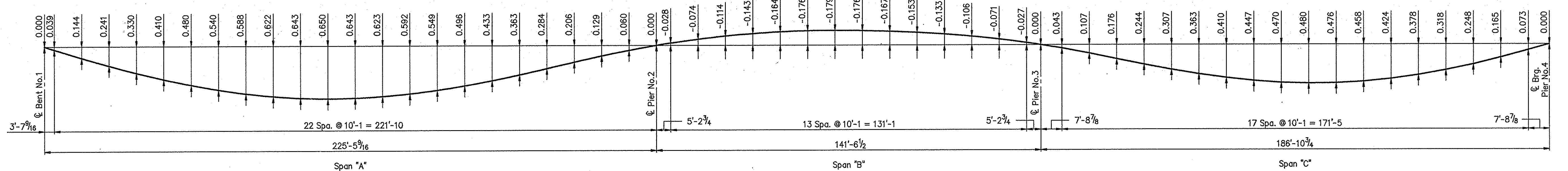
CONCRETE DEAD LOAD DEFLECTION DIAGRAM - GIRDER G1 (Feet)



CONCRETE DEAD LOAD DEFLECTION DIAGRAM - GIRDER G2 (Feet)



CONCRETE DEAD LOAD DEFLECTION DIAGRAM - GIRDER G3 (Feet)



CONCRETE DEAD LOAD DEFLECTION DIAGRAM - GIRDER G4 (Feet)

STRUCTURAL STEEL DETAILS - UNIT "A"
INDIANA DEPARTMENT OF TRANSPORTATION

Note:
Minus Sign Indicates Upward Deflection.

SCALE: - NONE

DATE: - July 9, 1998

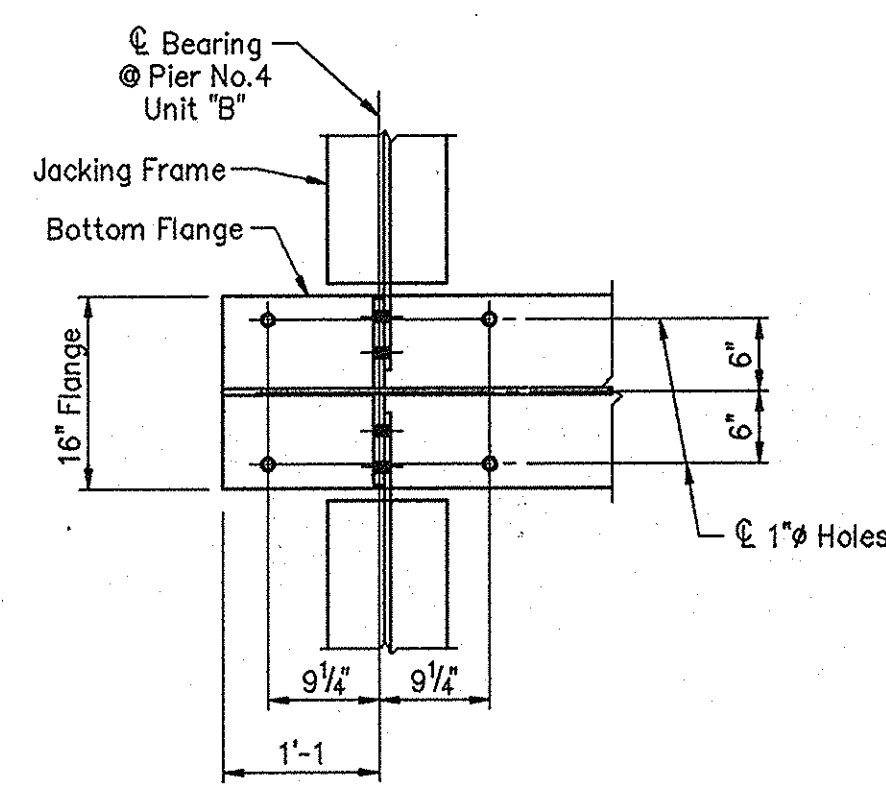
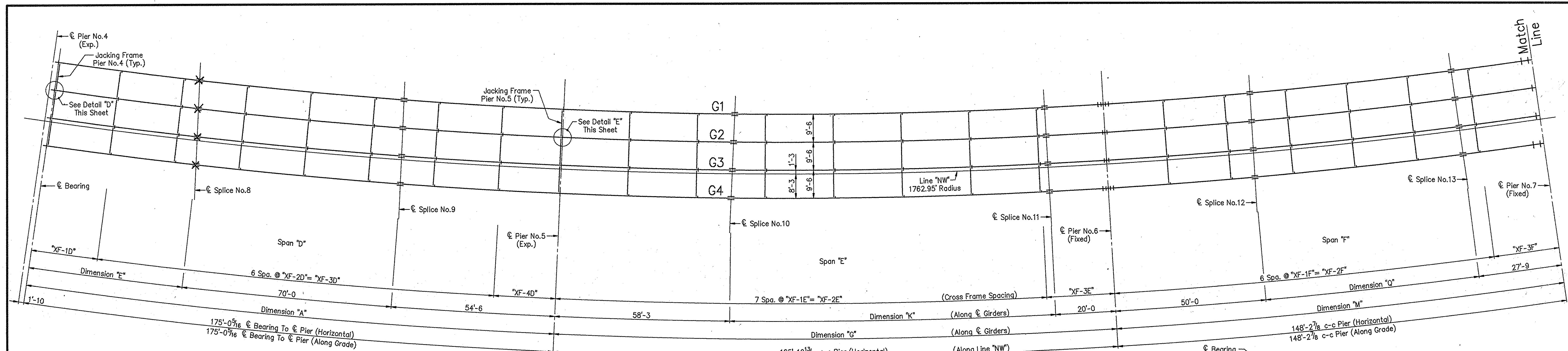
SUBMITTED FOR APPROVAL

DRAWING: - S29A OF S52 SHEET: - 44A OF 79
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7828

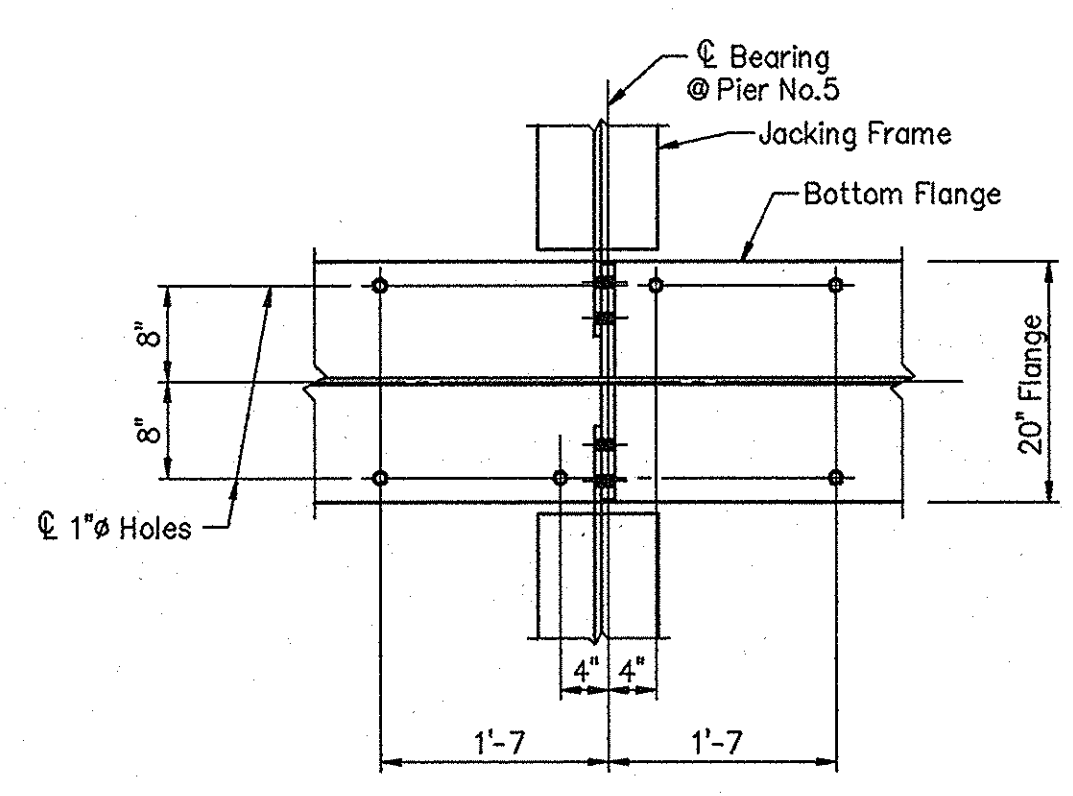


DESIGNED MDR 6/15/98 CK'D MSP 6/18/98
DRAWN TLH 6/25/98 CK'D APE 7/1/98
TRACED _____ CK'D _____

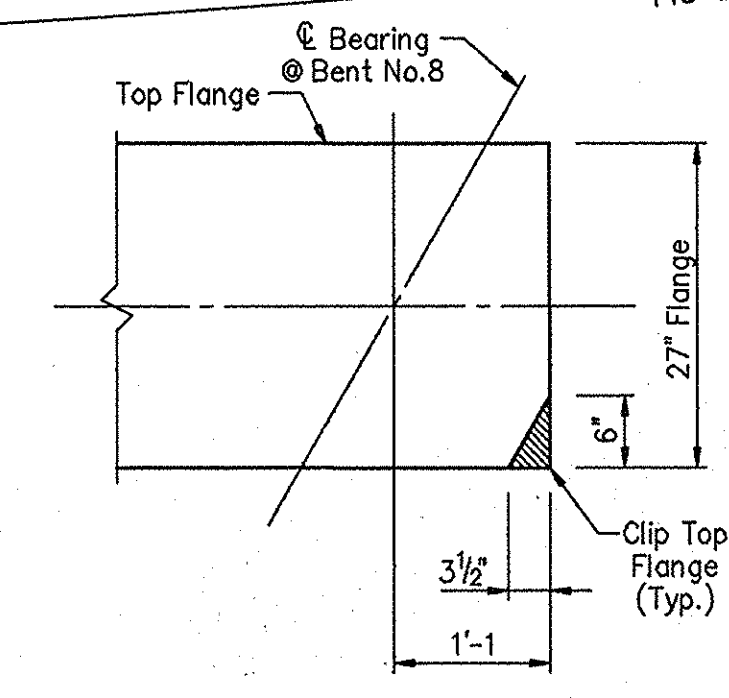
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EDIT DATE: DSH - 591



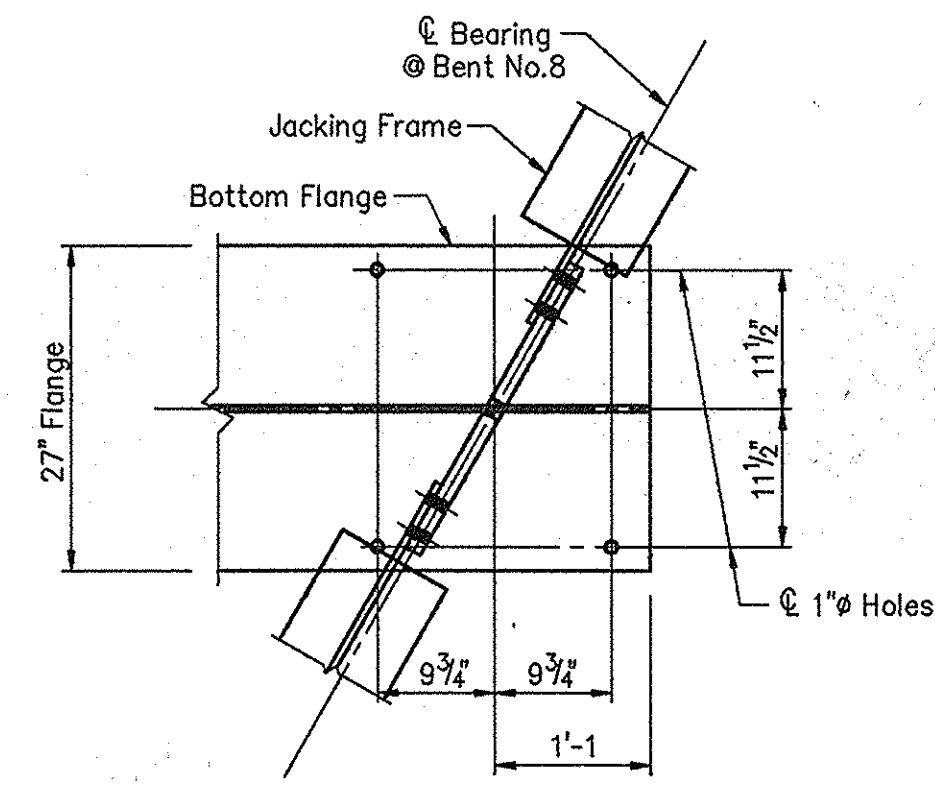
DETAIL "D"
Scale- 3/4"=1'-0"



DETAIL "E"
Scale- 3/4"=1'-0"

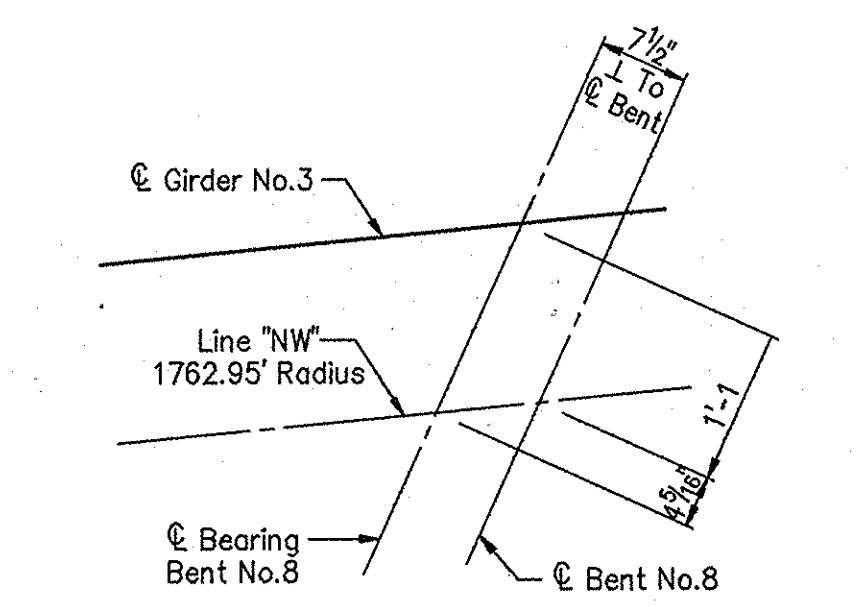


DETAIL "G"
Scale- 3/4"=1'-0"

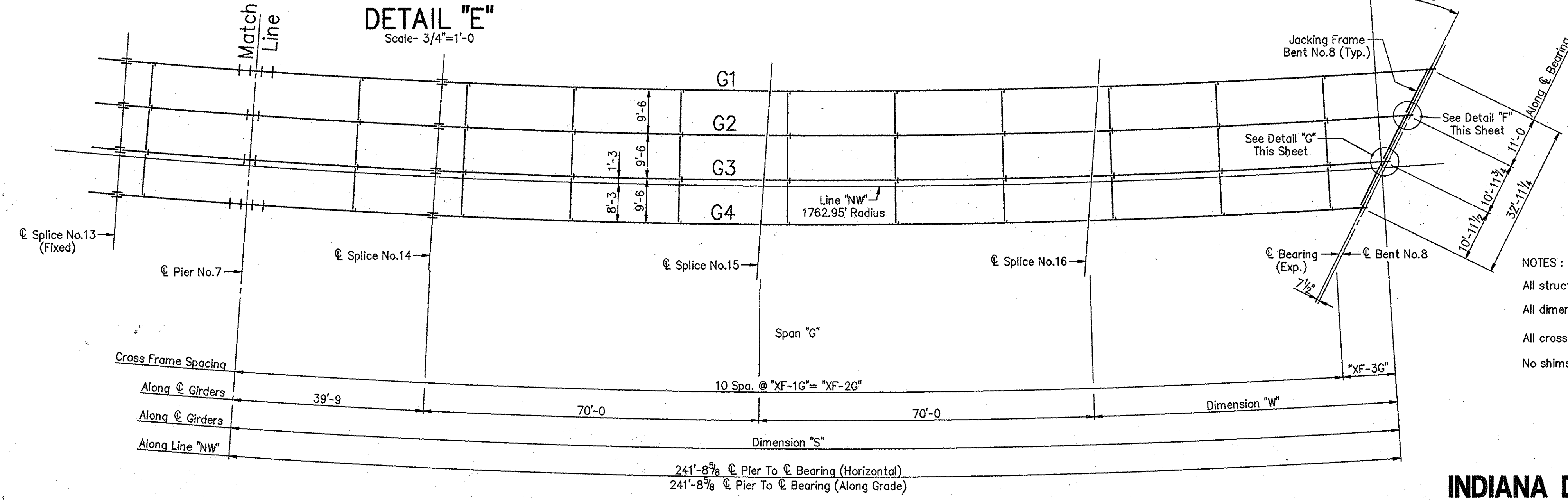


DETAIL "F"
Scale- 3/4"=1'-0"

TABLE OF SHIMS AND BEARINGS		
Location	Bearing Assembly	Bevelled Shim
Pier No. 4	EBA-3	BS-3
Pier No. 5	EBA-4	BS-4
Bent No. 8	EBA-1	BS-5



BENT NO. 8 TIE-UP DETAIL
No Scale



NOTES:
 All structural steel shall conform to ASTM A709 Grade 50W, unpainted except as noted.
 All dimensions shown are horizontal distances, unless otherwise noted.
 All cross frames to be Type X-1 and constructed radially.
 No shims to be placed at Piers No. 6 or No. 7.

TABLE OF JACKING FRAME ANGLES	
Girder No.	@ Bent No. 8
G1	120°21'41"
G2	120°10'46"
G3	120°00'00"
G4	119°49'22"

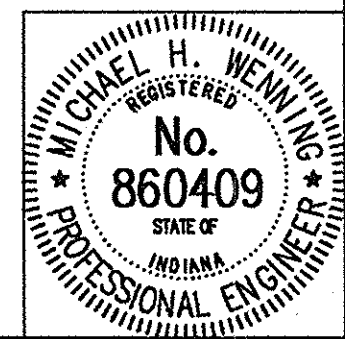
Girder No.	Radius	Span "D"		Span "E"		Span "F"		Span "G"	
		A	E	G	K	M	Q	S	W
G1	1742.70'	173'-0"	48'-6"	183'-9 1/8"	105'-6 1/8"	146'-6 7/8"	68'-9 7/8"	250'-7 11/16"	70'-10 11/16"
G2	1752.20'	173'-11 1/16"	49'-5 7/16"	184'-9 7/8"	106'-6 7/8"	147'-4 1/8"	69'-7 1/8"	246'-5 7/8"	68'-8 7/8"
G3	1761.70'	174'-10 7/8"	50'-4 7/8"	185'-9 7/8"	107'-6 7/8"	148'-1 7/8"	70'-4 7/8"	242'-3 7/8"	62'-6 7/8"
G4	1771.20'	175'-10 7/16"	51'-4 7/16"	186'-9 7/8"	108'-6 7/8"	148'-11 1/4"	71'-2 1/4"	238'-1 7/8"	58'-4 7/8"

Span "D"	Span "E"	Span "F"	Span "G"									
				XF-1D	XF-2D	XF-3D	XF-4D	XF-1E	XF-2E	XF-3E	XF-1F	XF-2F
21'-9 7/8"	21'-9 7/8"	130'-11 1/8"	20'-3"	23'-0 3/4"	161'-5 7/16"	22'-3 3/8"	20'-9 1/16"	124'-11 3/4"	21'-6 1/16"	22'-9 3/4"	228'-1 7/8"	22'-6 7/8"
21'-11 1/16"	21'-11 1/16"	131'-7 1/16"	20'-4 1/8"	23'-2 1/4"	162'-3 3/4"	22'-5 7/8"	20'-11 7/16"	125'-7 7/16"	21'-8 1/8"	22'-11 1/4"	229'-4 1/2"	17'-0 7/8"
22'-0 11/16"	22'-0 3/4"	132'-4 7/8"	20'-5 1/8"	23'-3 3/4"	163'-2 1/4"	22'-6 7/8"	21'-0 11/16"	126'-4 1/8"	21'-9 9/16"	23'-0 7/4"	230'-7 7/8"	11'-7 3/4"
22'-2 1/8"	22'-2 1/8"	133'-0 7/8"	20'-7 7/8"	23'-5 1/4"	164'-0 13/16"	22'-8 7/8"	21'-2 1/16"	127'-0 1/4"	21'-11"	23'-2 1/4"	231'-10 3/8"	6'-2 3/4"

FRAMING PLAN - UNIT "B"
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 1/16"= 1'-0, UNLESS NOTED DATE: - July 9, 1998
 SUBMITTED FOR APPROVAL *Michael H. Wynn*

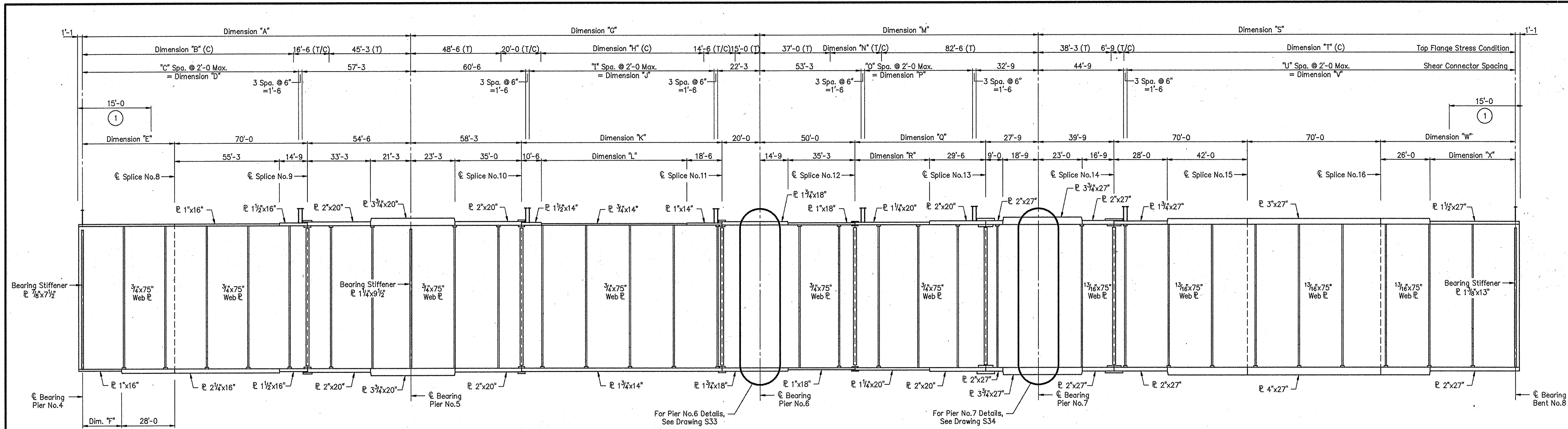
DRAWING: - S30 OF S52 SHEET: - 45 OF 79
 PROJECT: - IM-80-1(143)4
 CONTRACT NO. R-23808
 BRIDGE FILE: - I-80-5-7828



DESIGNED: MDR 11/26/96 CKD DAD 2/5/98
 DRAWN: DSH 1/6/97 CKD DAD 4/10/98
 TRACED: _____ CKD

DWG FILE: C:\P2\119\9211914
 PLOT SCALE: 1/16"=1'-0
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 EDIT DATE: 07/09/98
 EDITED BY: DSI - SSI

9-1-98: Revised Splice No. 8

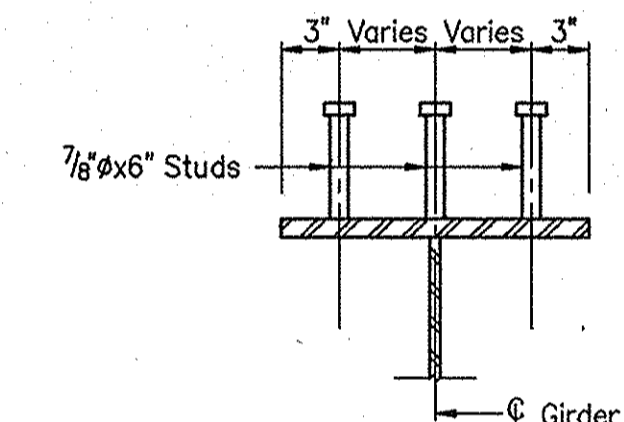


LEGEND

- C = Compression
- T/C = Tension/Compression
- T = Tension
- ① All Structural Steel in length indicated (except top beam flange) to be painted.

Base Metal Thickness Of Thicker Part Joined (In.)	Minimum Size Fillet Weld (In.)
3/8" To 3/4" Inclusive	1/4"
Over 3/4"	5/16"

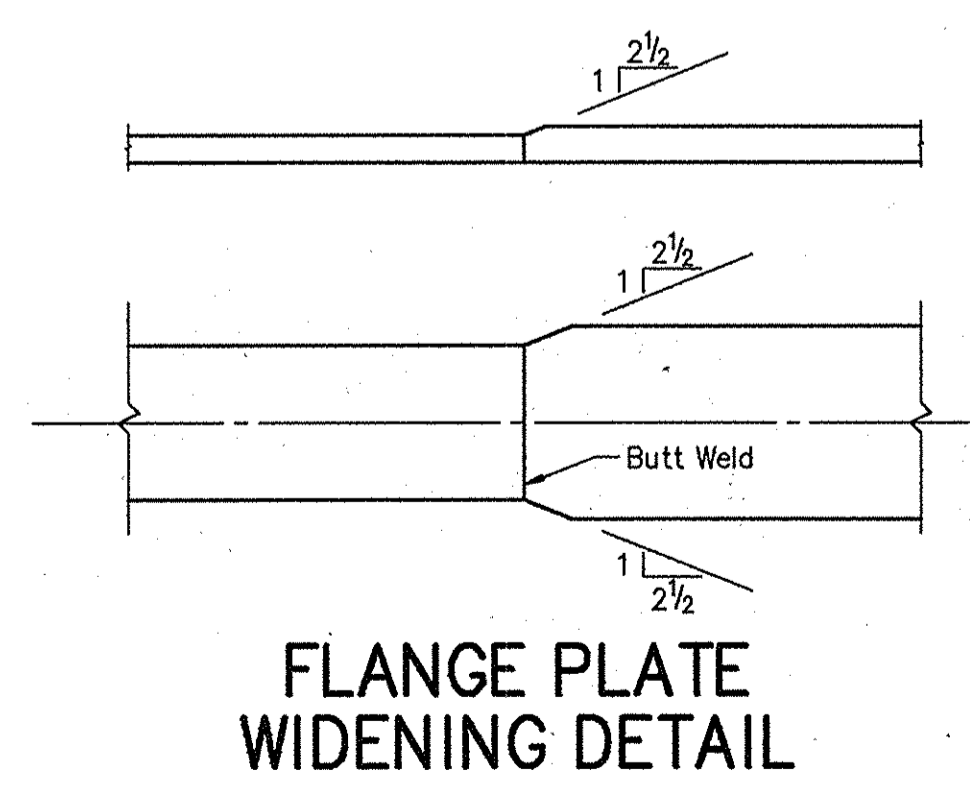
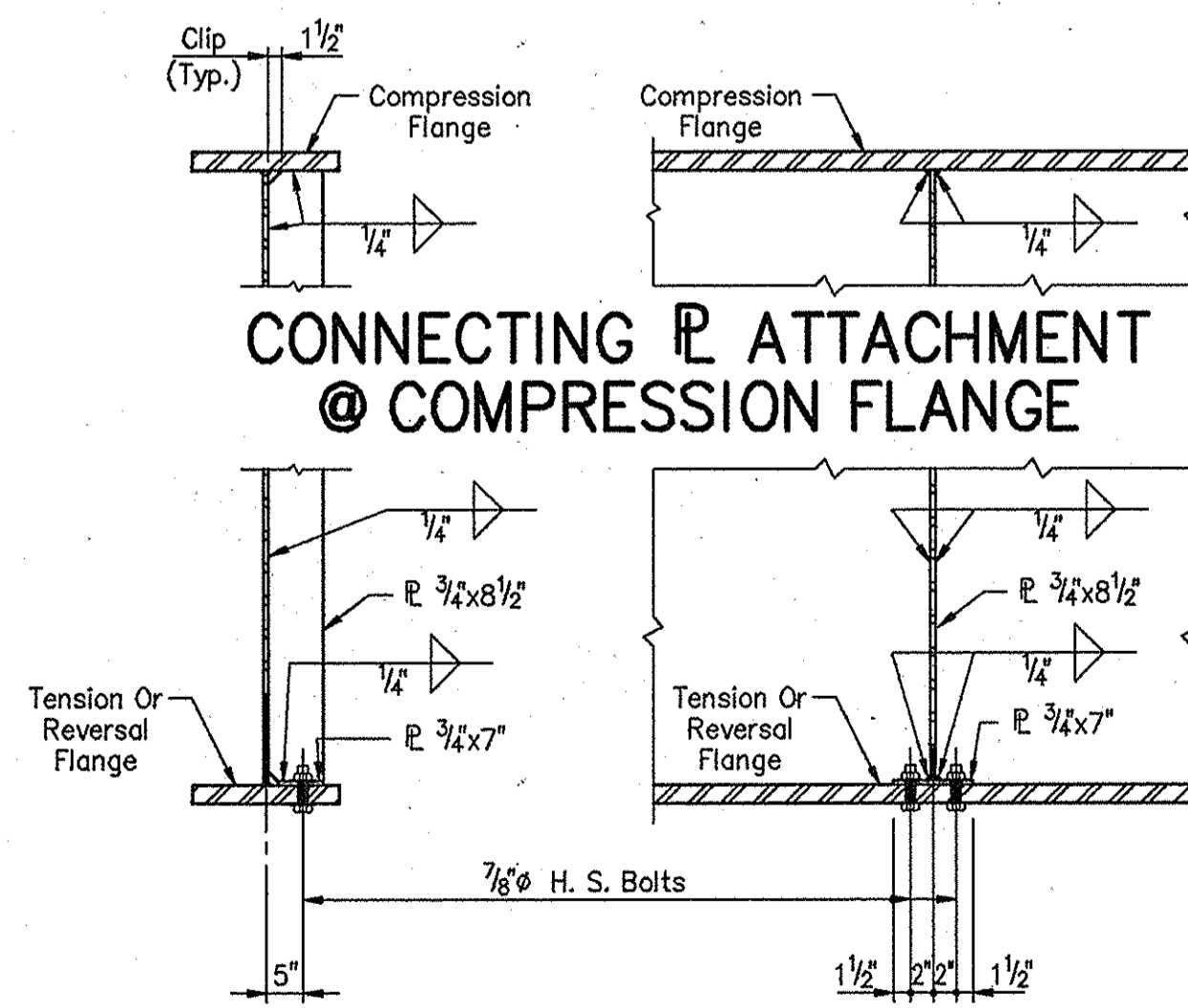
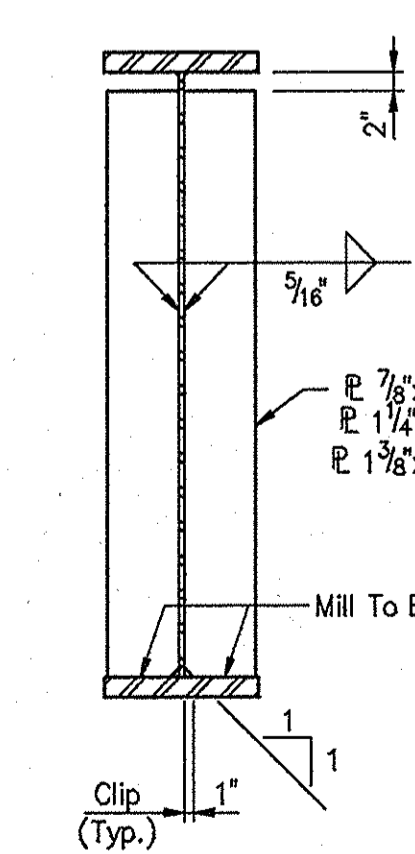
Girder No.	Radius	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
G1	1742.70'	173'-0"	111'-3"	58	114'-3"	48'-6"	20'-6"	183'-9 1/16"	85'-9 1/16"	50	98'-0 1/16"	105'-6 1/16"	76'-6 1/16"	146'-6 1/16"	27'-0 1/16"	29	57'-6 1/16"	68'-9 1/16"	39'-3 1/16"	250'-7 1/16"	205'-7 1/16"	103	204'-4 1/16"	70'-10 1/16"	44'-10 1/16"
G2	1752.20'	173'-11 7/16"	112'-2 7/16"	58	115'-2 7/16"	49'-5 7/16"	21'-5 7/16"	184'-9 1/16"	86'-9 1/16"	50	99'-0 1/16"	106'-6 1/16"	77'-6 1/16"	147'-4 1/16"	27'-10 1/16"	30	58'-4 1/16"	69'-7 1/16"	40'-1 1/16"	246'-5 7/16"	201'-5 7/16"	101	200'-2 3/8"	66'-8 3/8"	40'-8 3/8"
G3	1761.70'	174'-10 1/8"	113'-1 1/8"	59	116'-1 1/8"	50'-4 7/8"	22'-4 7/8"	185'-9 1/16"	87'-9 1/16"	51	100'-0 1/16"	107'-6 1/16"	78'-6 1/16"	148'-1 1/8"	28'-7 7/8"	30	59'-1 7/8"	70'-4 9/16"	40'-10 9/16"	242'-3 7/16"	197'-3 7/16"	99	196'-0 7/16"	62'-6 7/16"	36'-6 7/16"
G4	1771.20'	175'-10 5/16"	114'-1 5/16"	59	117'-1 5/16"	51'-4 5/16"	23'-4 5/16"	186'-9 1/16"	88'-9 1/16"	51	101'-0 1/16"	108'-6 1/16"	79'-6 1/16"	148'-11 1/4"	29'-5 1/4"	30	59'-11 1/4"	71'-2 1/4"	41'-8 1/4"	238'-1 1/8"	193'-1 1/8"	96	191'-10 1/8"	58'-4 1/8"	32'-4 1/8"



The contractor may use welded channels or 3/4" diameter welded studs as alternate shear connectors. If used they shall have equivalent shear value and the proposed size and spacing submitted for approval.

Estimated Weight Of Structural Steel :
1,720,700 Lbs.
(Includes 9,012 Lbs. for Floor Details, see Drawing S50)

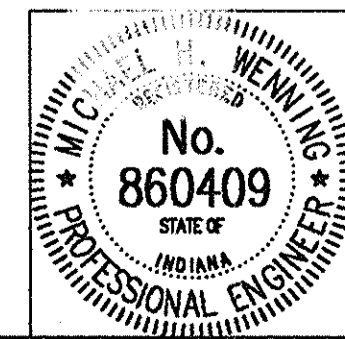
- NOTES:**
- All structural steel shall conform to ASTM A709 Grade 50W, unpainted except as noted.
 - The weight of high strength bolts is not included in the estimated weight of structural steel. The cost of these bolts shall be included in the cost of structural steel.
 - For Camber and Blocking Diagrams, see Drawing S35.
 - For Elastomeric Bearing Assembly Details, see Drawing S36.
 - For Splice Details and additional structural steel details, see Drawings S32, S33 and S34.



STRUCTURAL STEEL DETAILS - UNIT "B"
INDIANA DEPARTMENT OF TRANSPORTATION

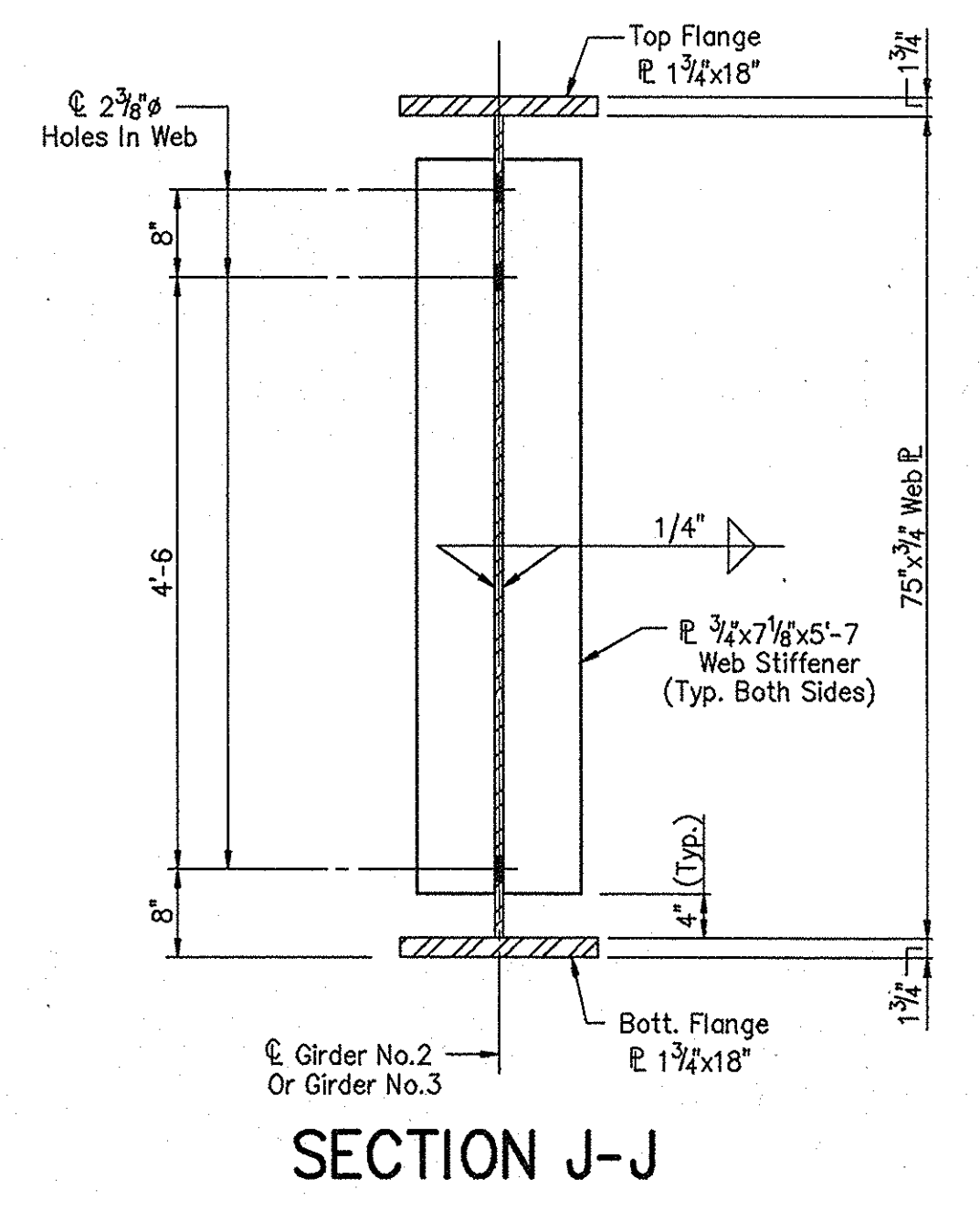
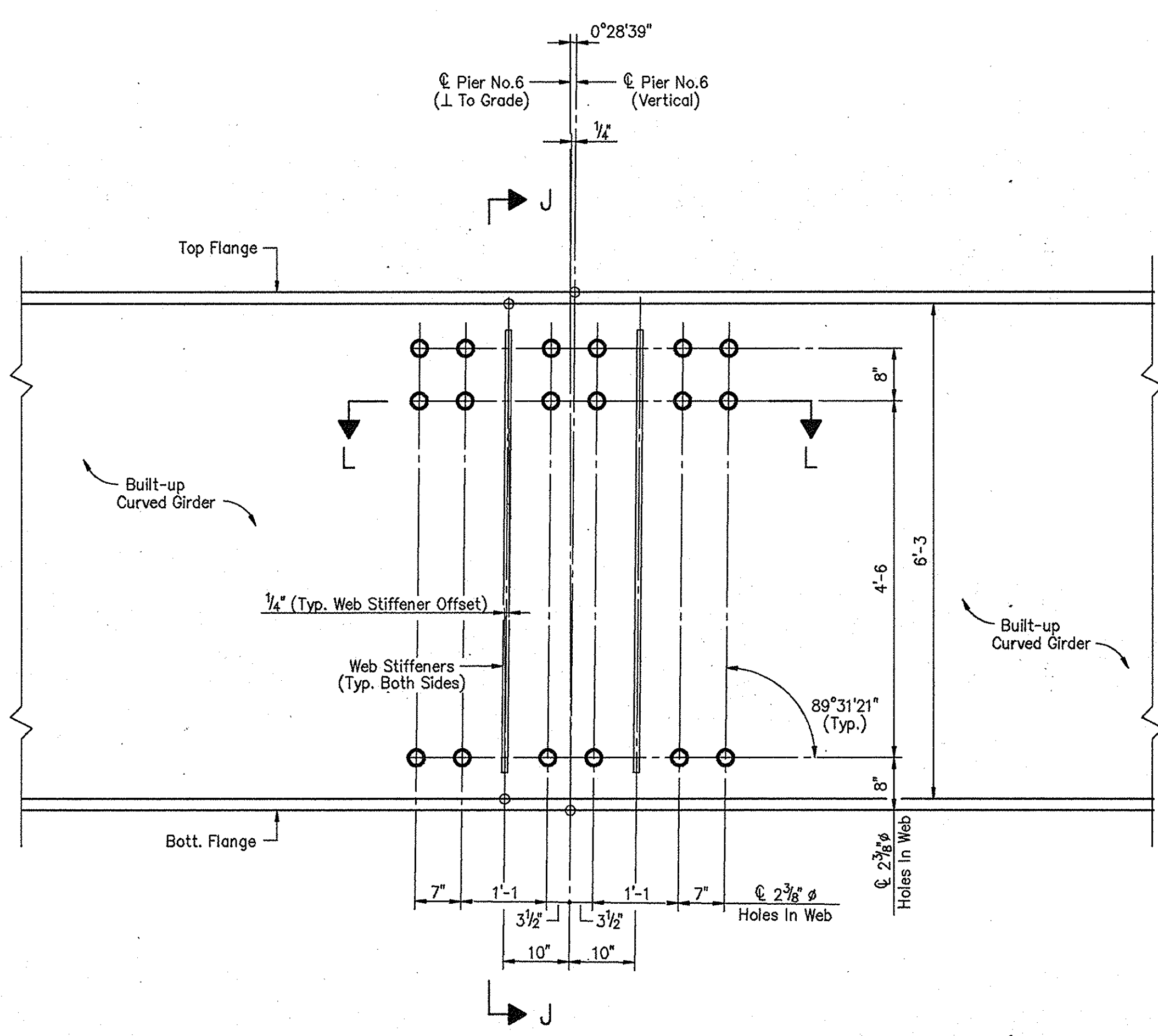
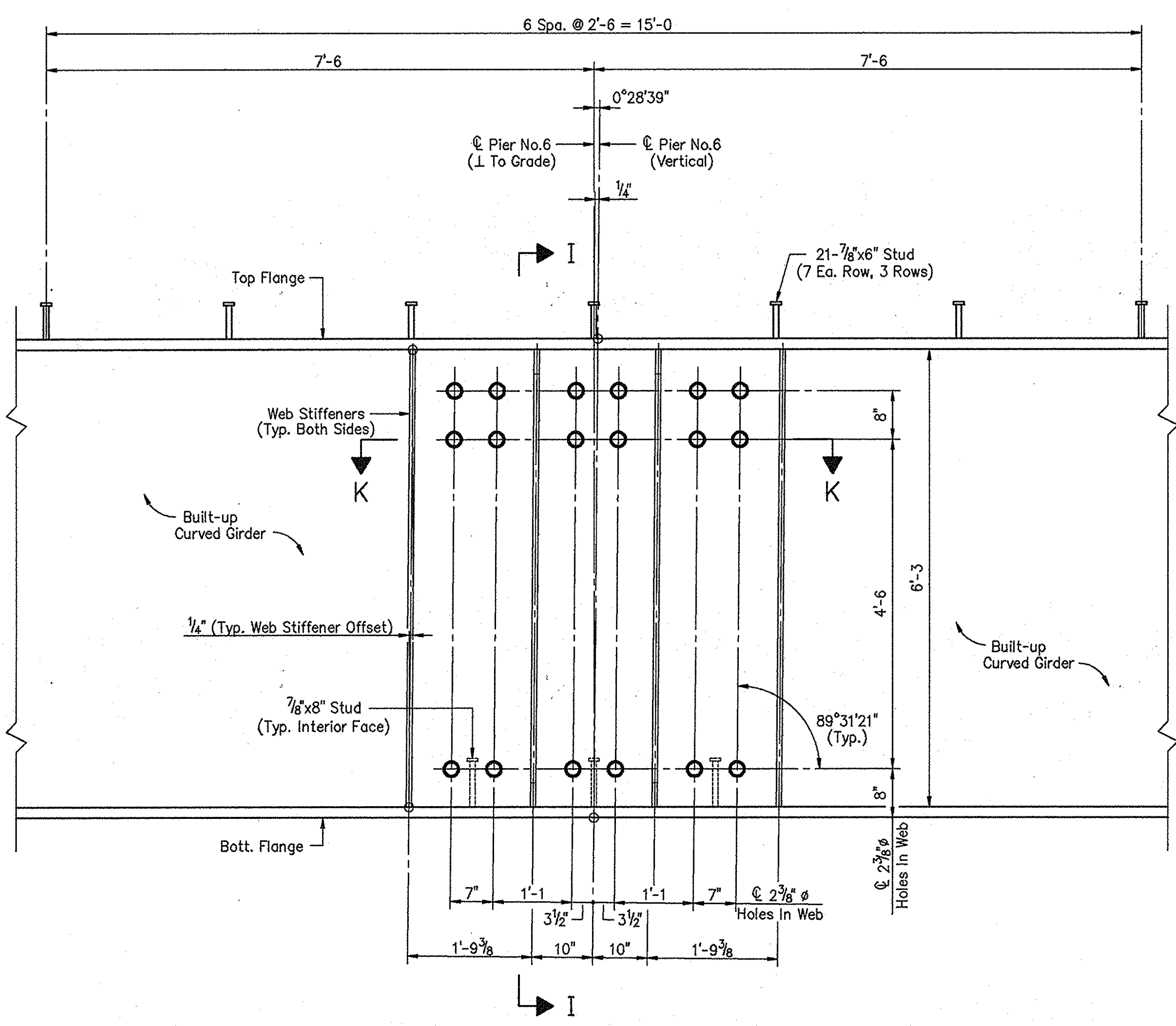
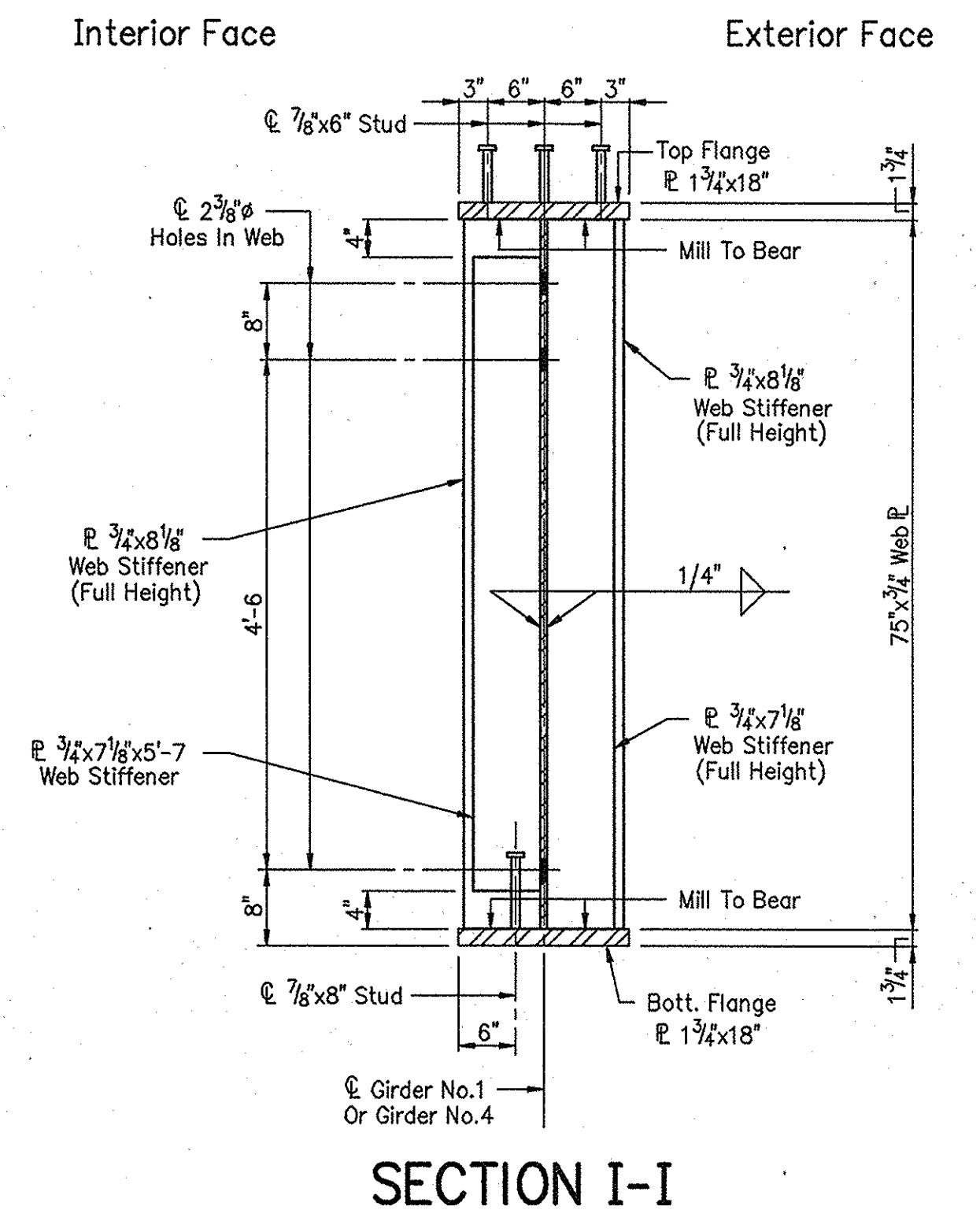
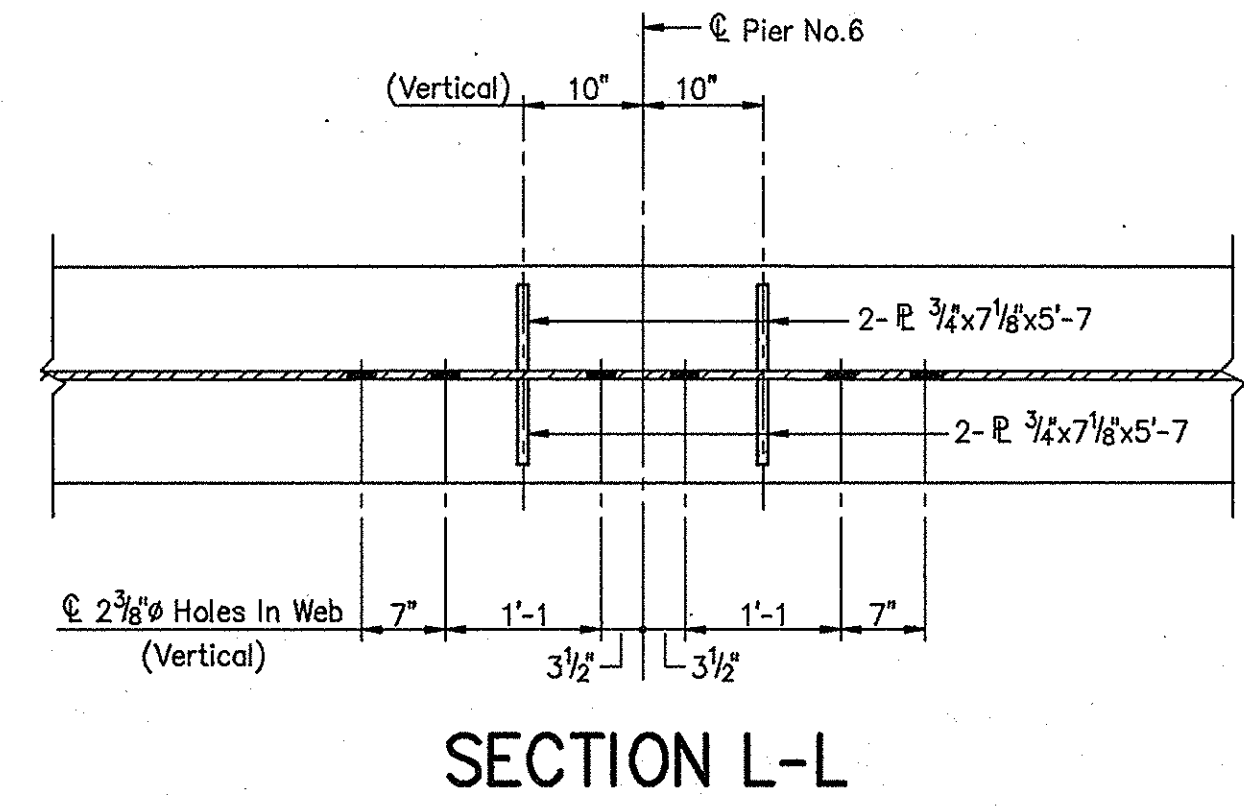
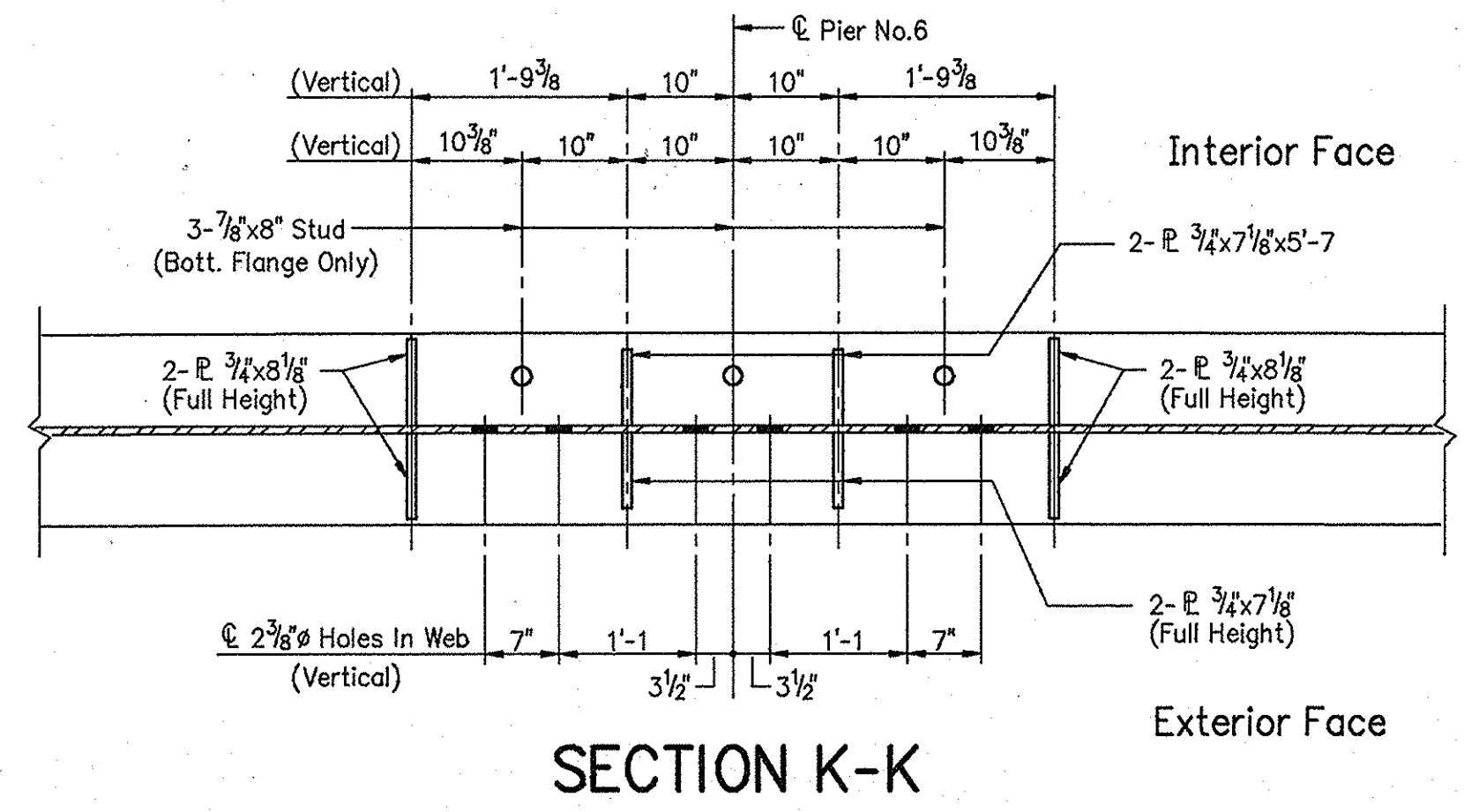
SCALE: - NONE DATE: - July 9, 1998
SUBMITTED FOR APPROVAL: *[Signature]*

DRAWING: - S31 OF S52 SHEET: - 46 OF 79
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7828



DESIGNED MDR 11/26/96 CJK/D DAD 2/12/98
DRAWN DSH 1/9/97 CJK/D DAD 4/11/98
TRACED _____ CJK/D

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EDIT DATE: 05/11/98



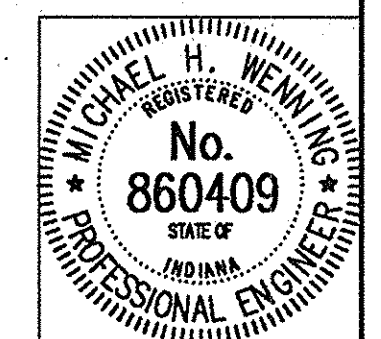
GIRDER NO.1 ELEVATION AT PIER NO.6
(Girder No.4 Similar By Opposite Hand)

GIRDER NO.2 ELEVATION AT PIER NO.6
(Girder No.3 The Same)

NOTES:
All structural steel shall conform to ASTM A709 Grade 50W.

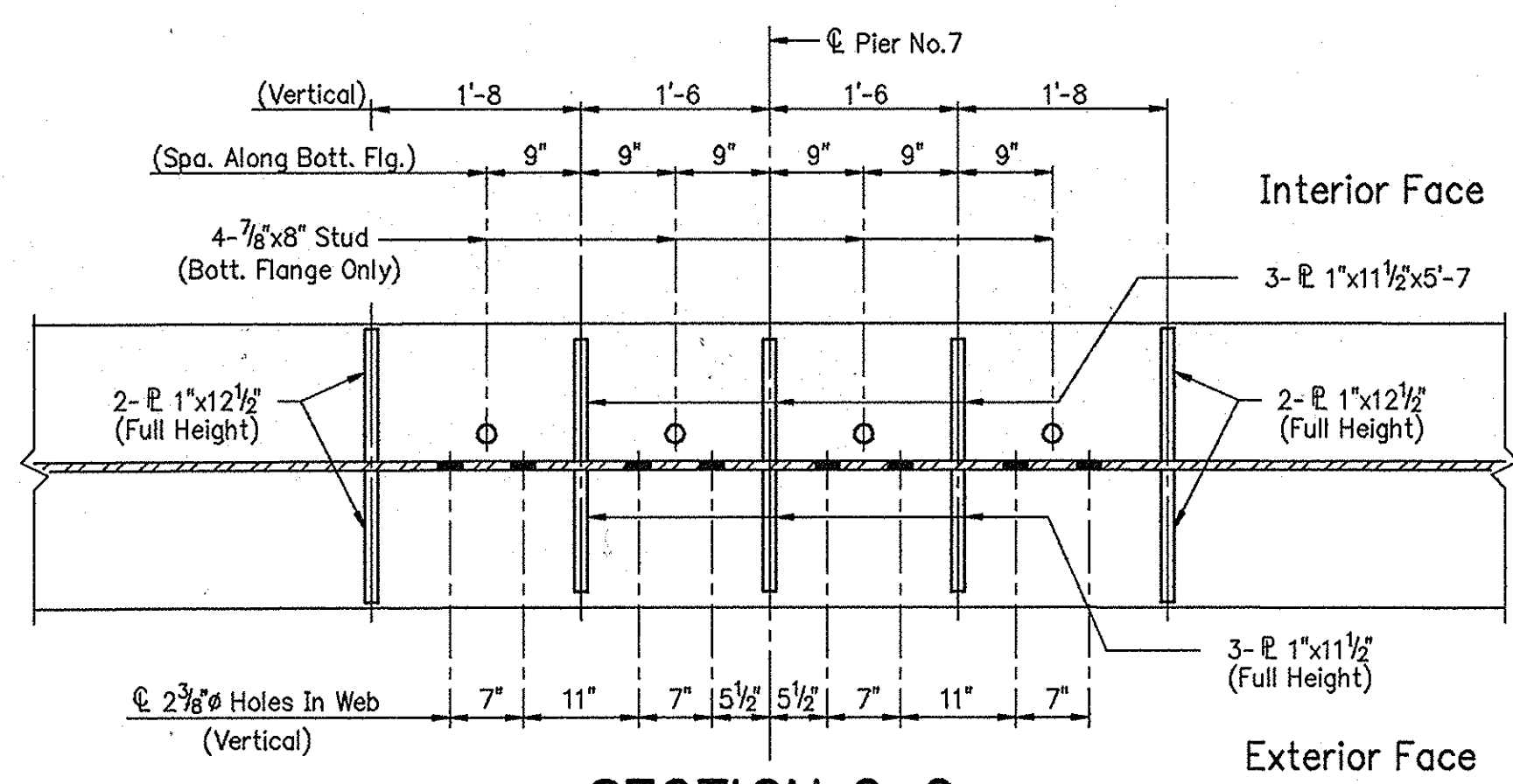
STRUCTURAL STEEL DETAILS - UNIT "B"
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 3/4" = 1'-0", UNLESS NOTED DATE: - July 9, 1998
SUBMITTED FOR APPROVAL: *Michael H. Wynn*
DRAWING: - S33 OF S52 SHEET: - 48 OF 79
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7828

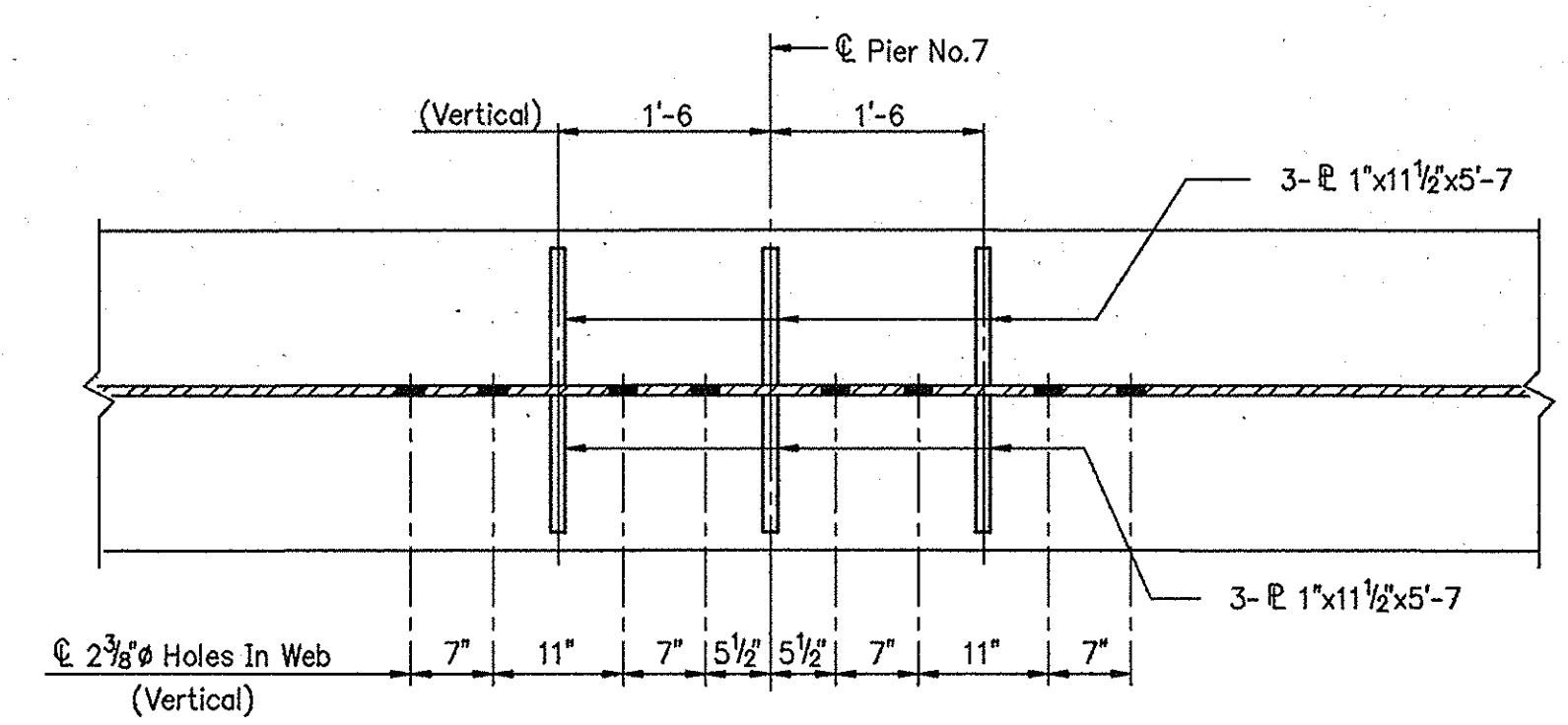


DESIGNED: MDR 3/4/98 CKD
DRAWN: TLH 4/27/98 CKD MDR 6/26/98
TRACED: CKD

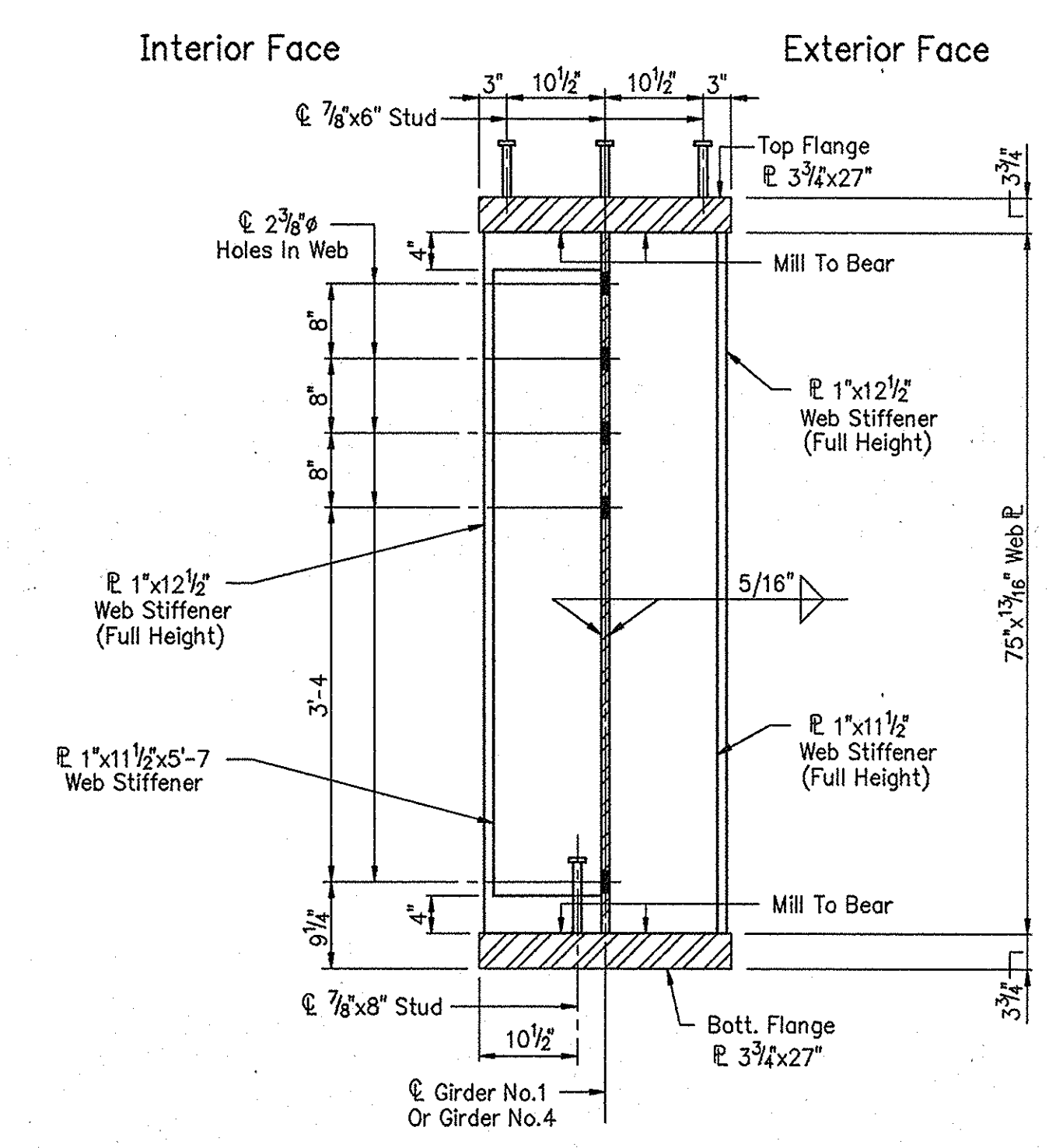
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EDIT DATE: 07/09/98 14:56:48
EDITED BY: DSH - SSI



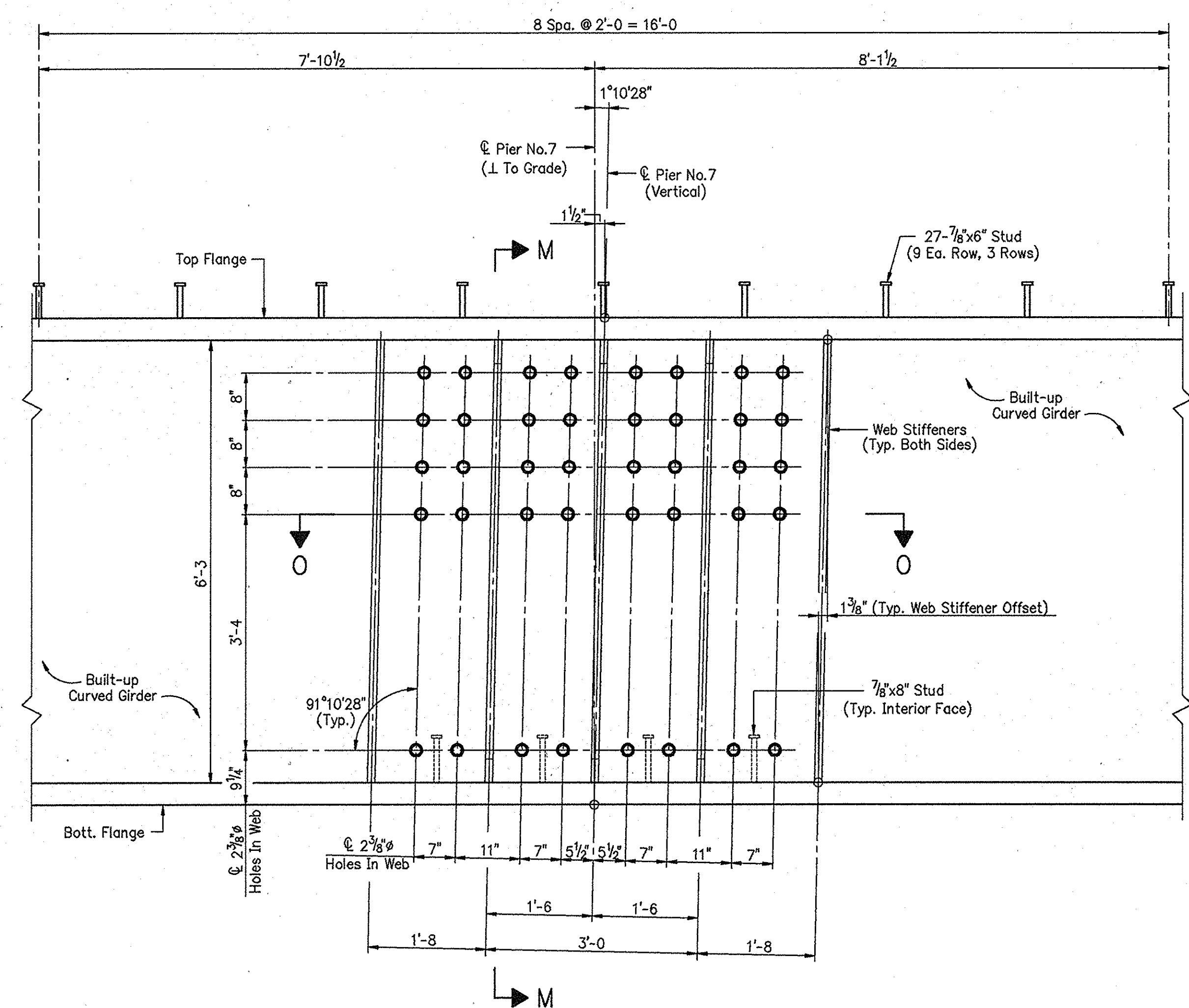
SECTION O-O



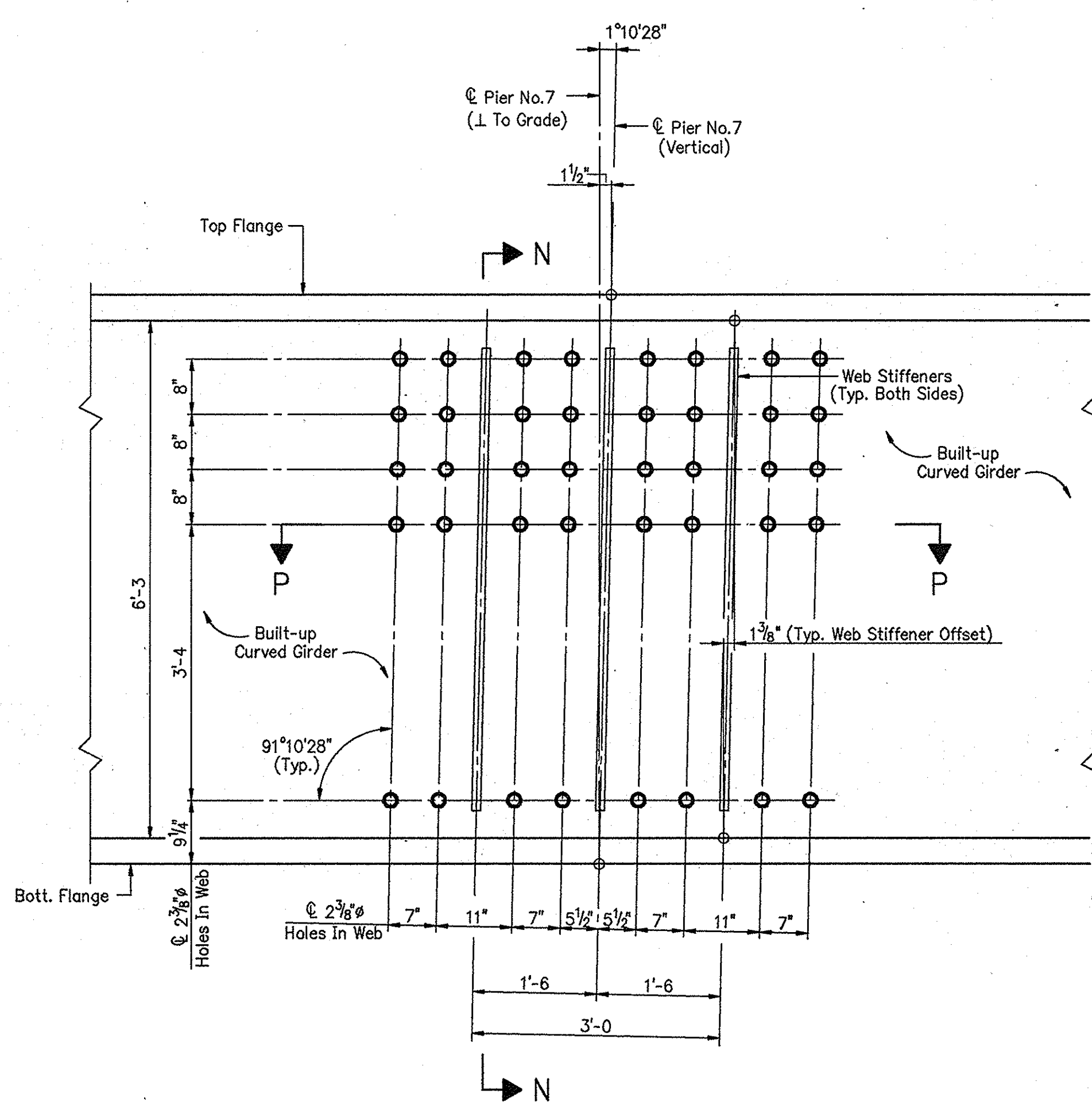
SECTION P-P



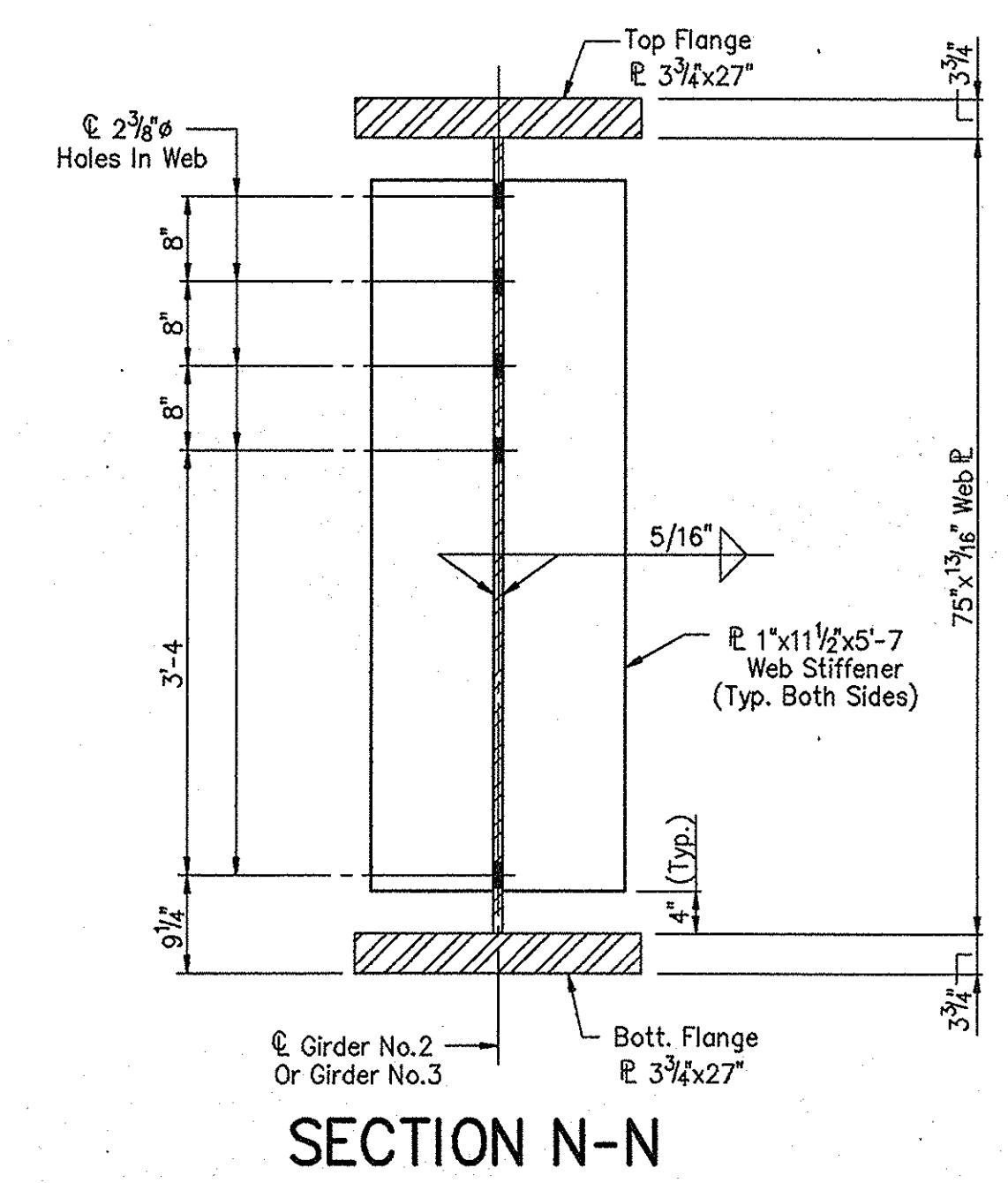
SECTION M-M



GIRDER NO.1 ELEVATION AT PIER NO.7
(Girder No.4 Similar By Opposite Hand)



GIRDER NO.2 ELEVATION AT PIER NO.7
(Girder No.3 The Same)



SECTION N-N

NOTES:
All structural steel shall conform to ASTM A709 Grade 50W.

STRUCTURAL STEEL DETAILS - UNIT "B"
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 3/4"=1'-0", UNLESS NOTED DATE: - July 9, 1998

SUBMITTED FOR APPROVAL *Michael H. Wenn*

DRAWING: - S34 OF S52 SHEET: - 49 OF 79

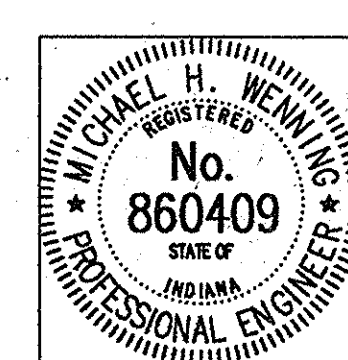
PROJECT: - IM-80-1(143)4

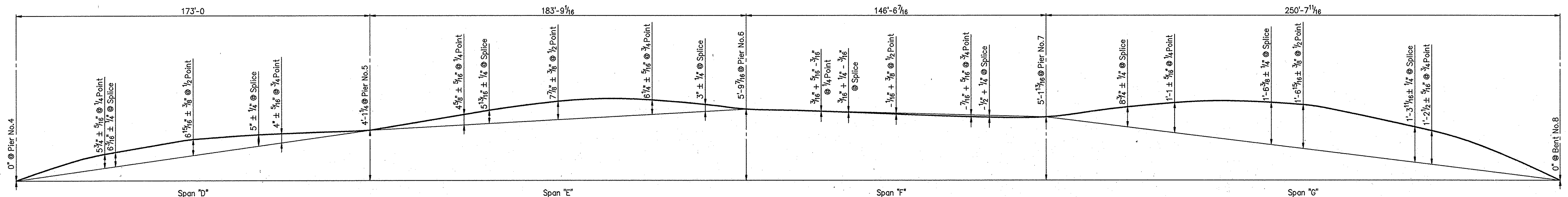
CONTRACT NO. R-23808

BRIDGE FILE: - I-80-5-7828

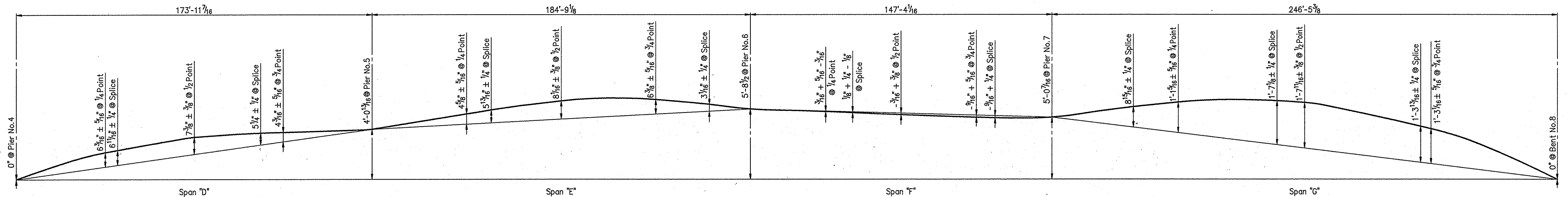
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DRAWN: RJC 5/01/98 CKD MDR 6/26/98
TRACED: CKD

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EDIT DATE: 07/09/98 15:08:01
EDITED BY: DSH - S91

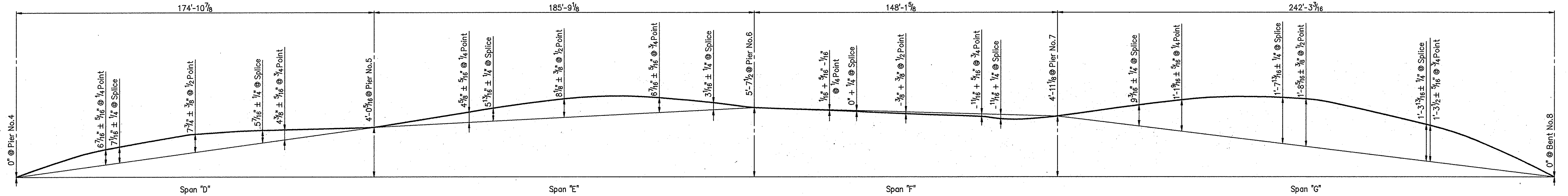




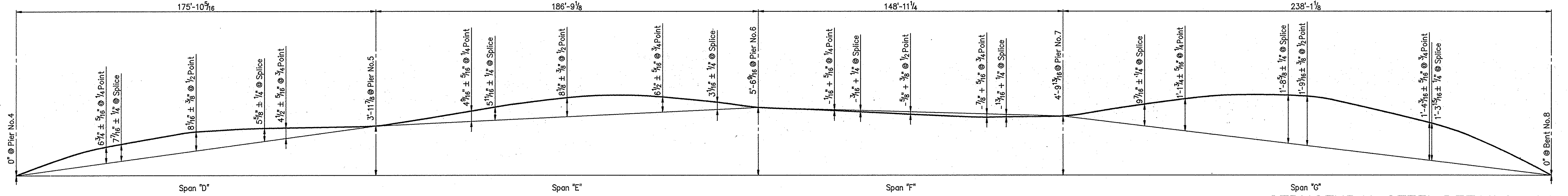
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NO LOAD CAMBER AND BLOCKING DIAGRAM - GIRDER G2



NO LOAD CAMBER AND BLOCKING DIAGRAM - GIRDER G3



NO LOAD CAMBER AND BLOCKING DIAGRAM - GIRDER G4

STRUCTURAL STEEL DETAILS - UNIT "B"
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - NONE DATE: - July 9, 1998

SUBMITTED FOR APPROVAL *Michael H. Wentz*

DRAWING: - S35 OF S52 SHEET: - 50 OF 79

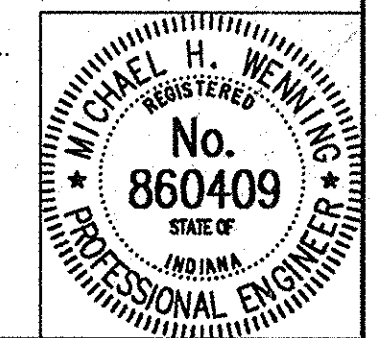
PROJECT: - IM-80-1(143)4

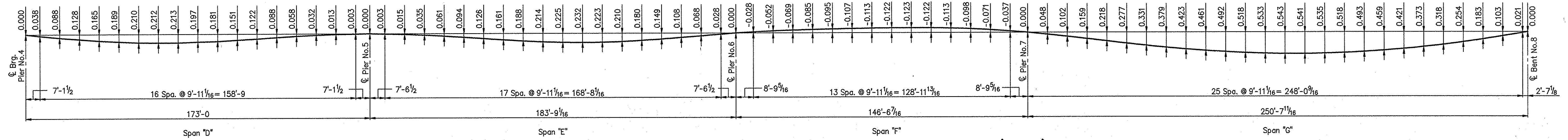
CONTRACT NO. R-23808

BRIDGE FILE: - I-80-5-7828

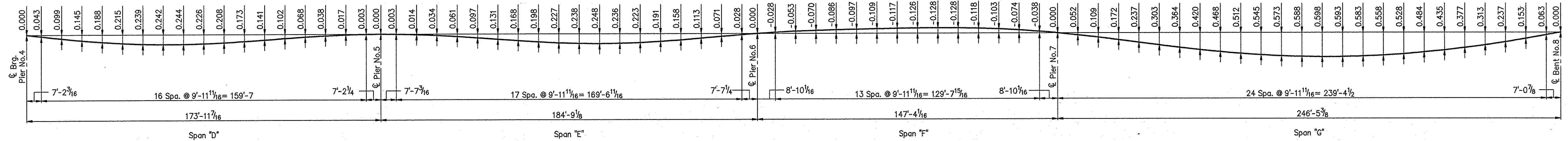
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DRAWN: JH 6/29/98 CKD APE 7/1/98
TRACED: CKD

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EDIT DATE: 07/09/98 15:25:57
EDITED BY: DSH - S91

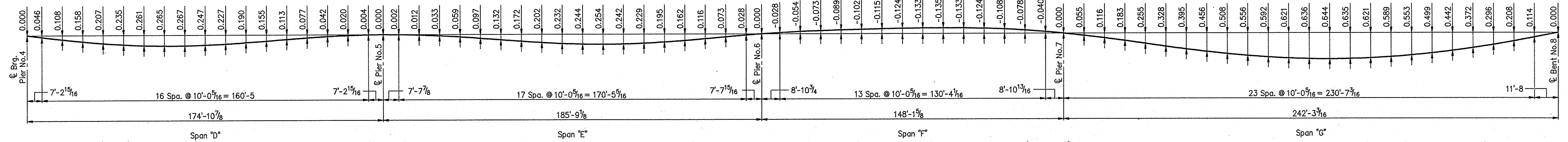




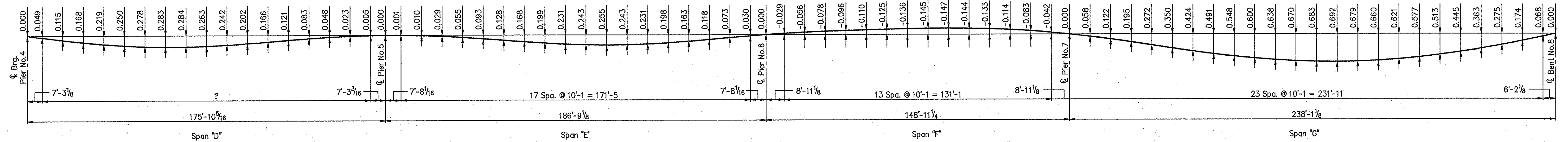
CONCRETE DEAD LOAD DEFLECTION DIAGRAM - GIRDER G1 (Feet)



CONCRETE DEAD LOAD DEFLECTION DIAGRAM - GIRDER G2 (Feet)



CONCRETE DEAD LOAD DEFLECTION DIAGRAM - GIRDER G3 (Feet)



CONCRETE DEAD LOAD DEFLECTION DIAGRAM - GIRDER G4 (Feet)

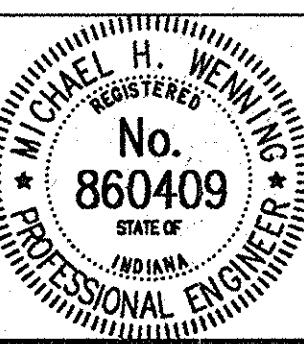
Note:
Minus Sign Indicates Upward Deflection.

STRUCTURAL STEEL DETAILS - UNIT "B"
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - NONE DATE: - July 9, 1998

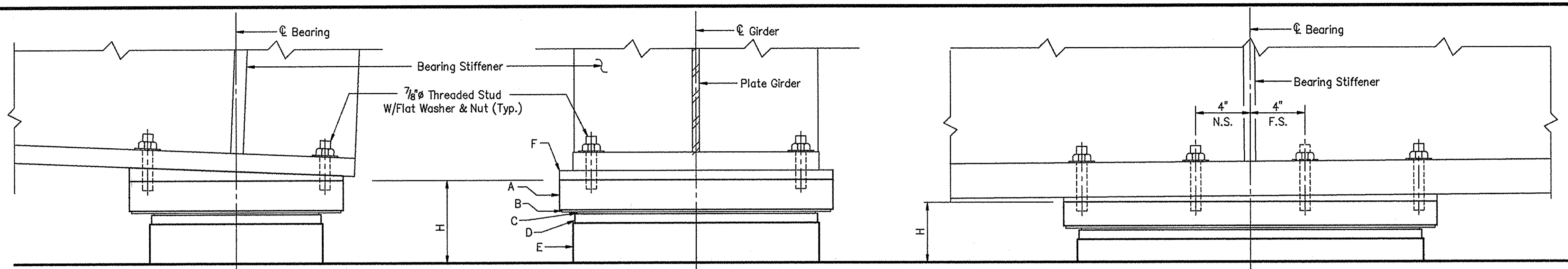
SUBMITTED FOR APPROVAL *[Signature]*

DRAWING: - S35A OF S52 SHEET: - 50A OF 79
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7828



DESIGNED MDR 6/16/98 CK'D MSP 6/17/98
DRAWN TLH 6/26/98 CK'D APE 7/1/98
TRACED _____ CK'D _____

DWG FILE: C:\P2\119\02119882
PLOT SCALE: 1:25.000
PLOT ORIGIN: 0.00,0.00
SPELLOK: 07/09/98 15:36:18
EDIT DATE: DSH - 591

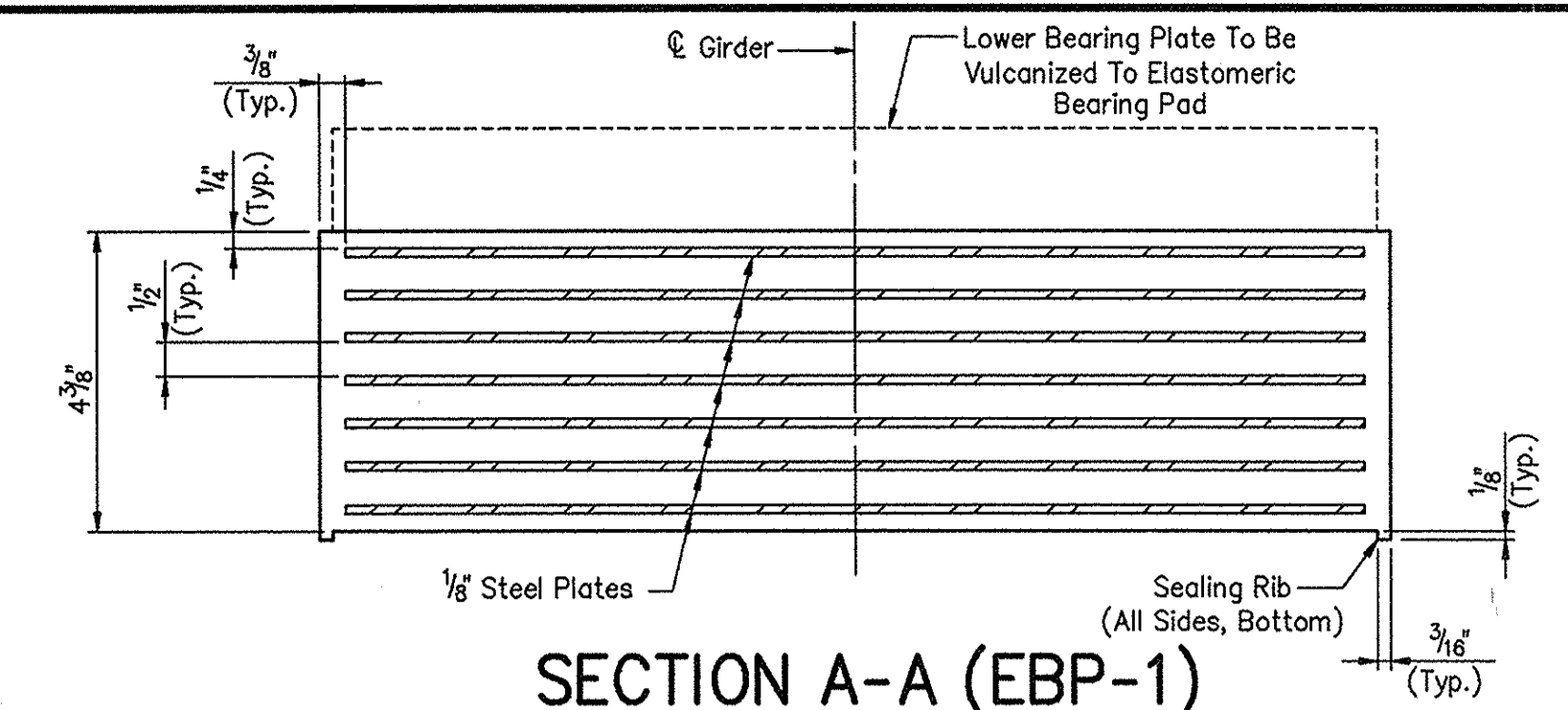


ELEVATION
(BENT NO.1 & PIER NO.4 - UNIT "A")
(PIER NO.4 & BENT NO.8 - UNIT "B")

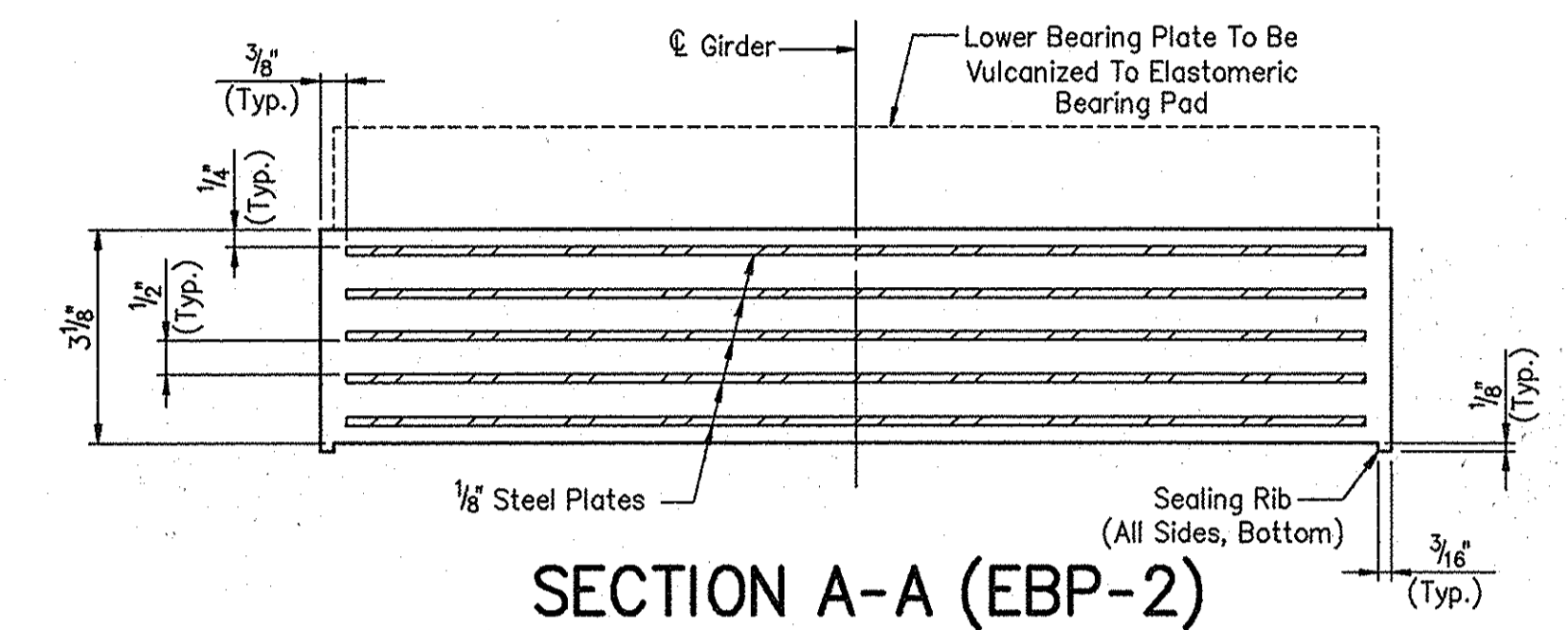
TYPICAL END SECTION
ELASTOMERIC BEARING ASSEMBLY

ASSEMBLY	QUANTITY	LOCATION								
		UNIT "A"	UNIT "B"	A	B	C	D	E	F	H
EBA-1	4 Each	Bent No.1	-	UBP-1	SSSP-1	TFE-1	LBP-1	EBP-1	BS-1	8 ¹¹ / ₁₆ "
EBA-2	4 Each	Pier No.4	-	UBP-2	SSSP-2	TFE-2	LBP-2	EBP-2	BS-2	6 ³ / ₁₆ "
EBA-3	4 Each	-	Pier No.4	UBP-3	SSSP-3	TFE-3	LBP-3	EBP-3	BS-3	8 ¹¹ / ₁₆ "
EBA-4	4 Each	-	Pier No.5	UBP-4	SSSP-4	TFE-4	LBP-4	EBP-4	BS-4	7 ⁹ / ₁₆ "
EBA-1	4 Each	-	Bent No.8	UBP-1	SSSP-1	TFE-1	LBP-1	EBP-1	BS-5	8 ³ / ₁₆ "

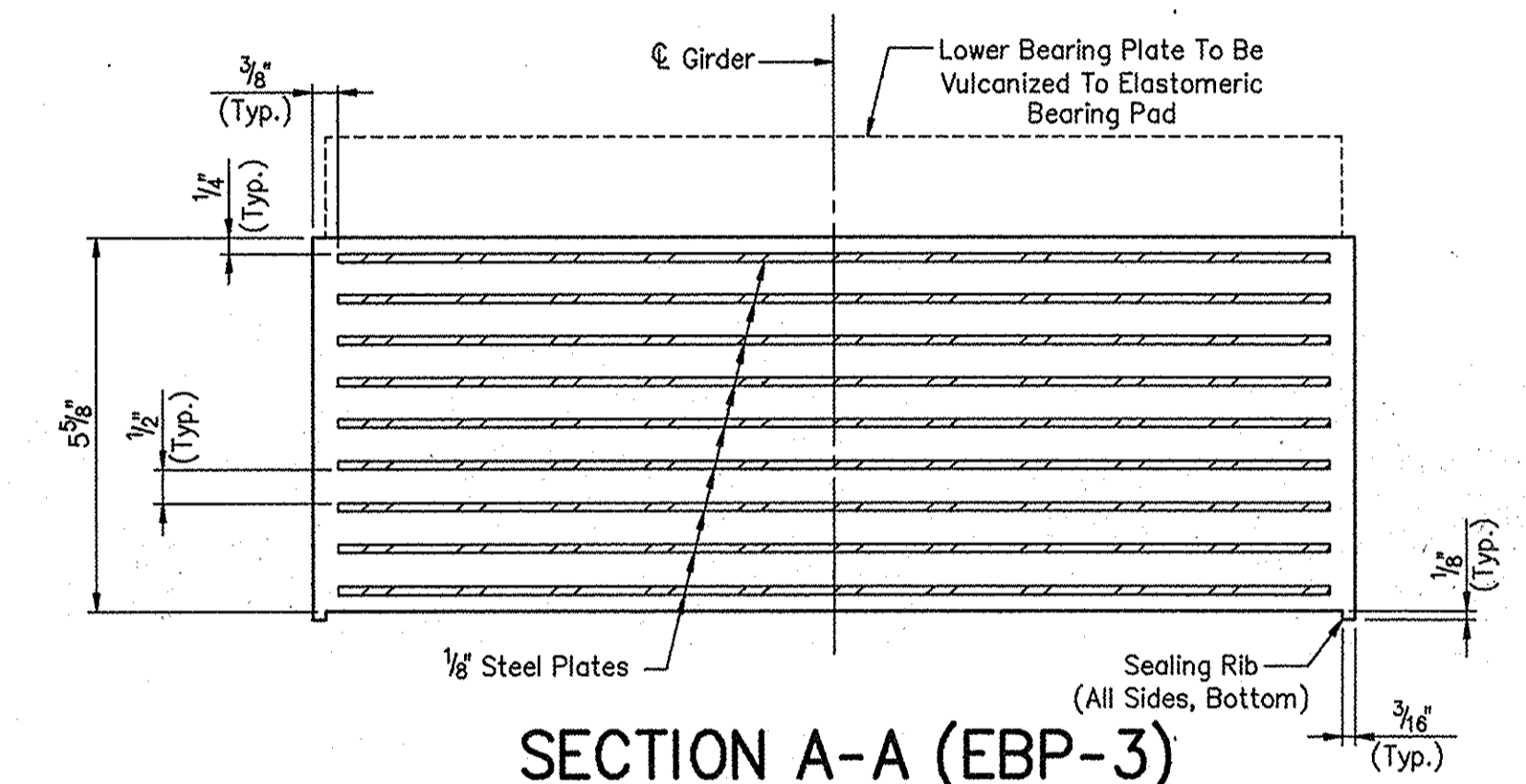
ELEVATION
(PIER NO.5 - UNIT "B")



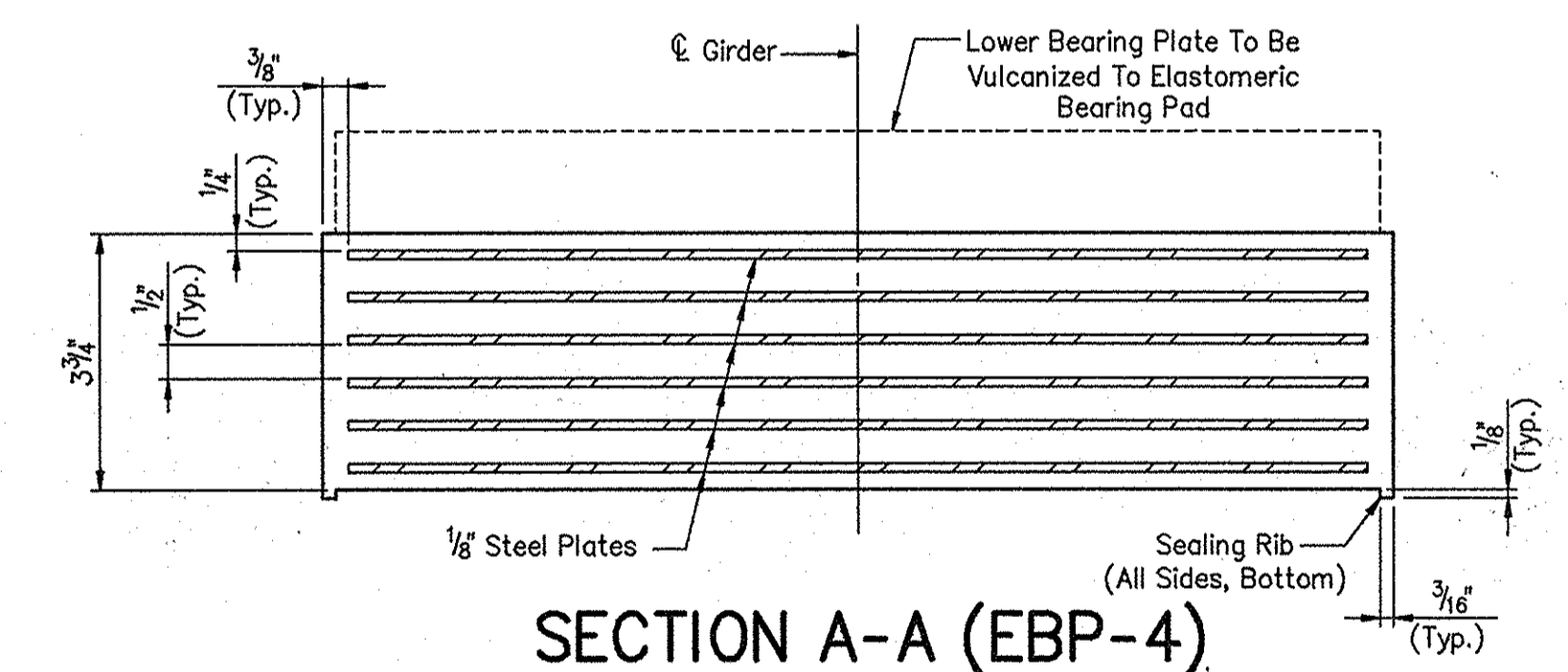
SECTION A-A (EBP-1)



SECTION A-A (EBP-2)



SECTION A-A (EBP-3)



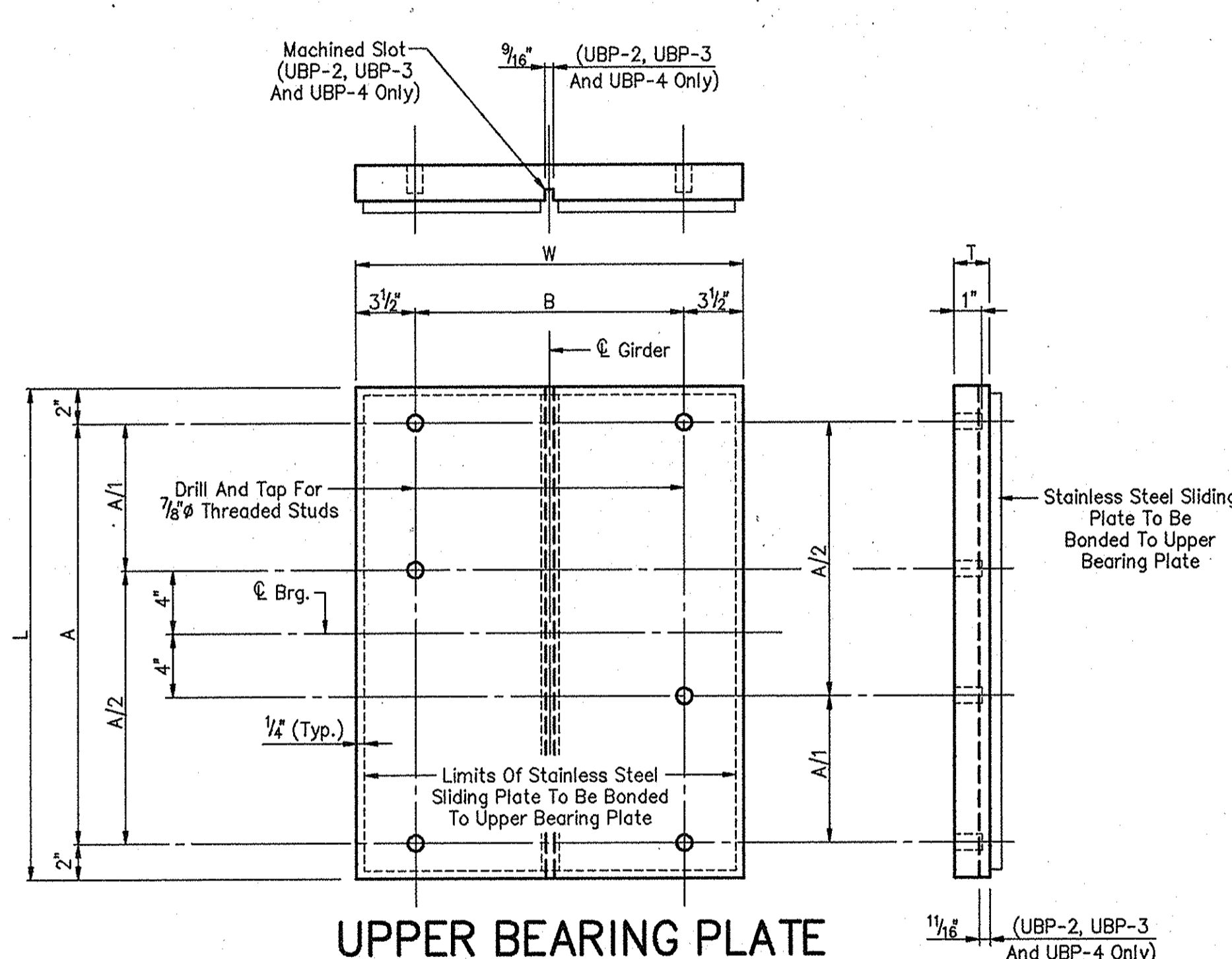
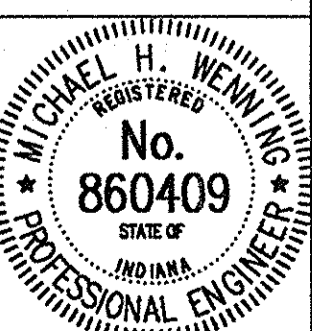
SECTION A-A (EBP-4)

NOTES:
Upper Bearing Plates, Stainless Steel Sliding Plates, TFE Plates, Lower Bearing Plates, Shims and Elastomeric Bearing Pads shall be furnished with and included in the cost of the pay item "Elastomeric Bearing Assemblies, Lump Sum". See the Special Provisions.
Material: 55 (±5) Durometer Elastomer

ELASTOMERIC BEARING ASSEMBLY DETAILS
INDIANA DEPARTMENT OF TRANSPORTATION

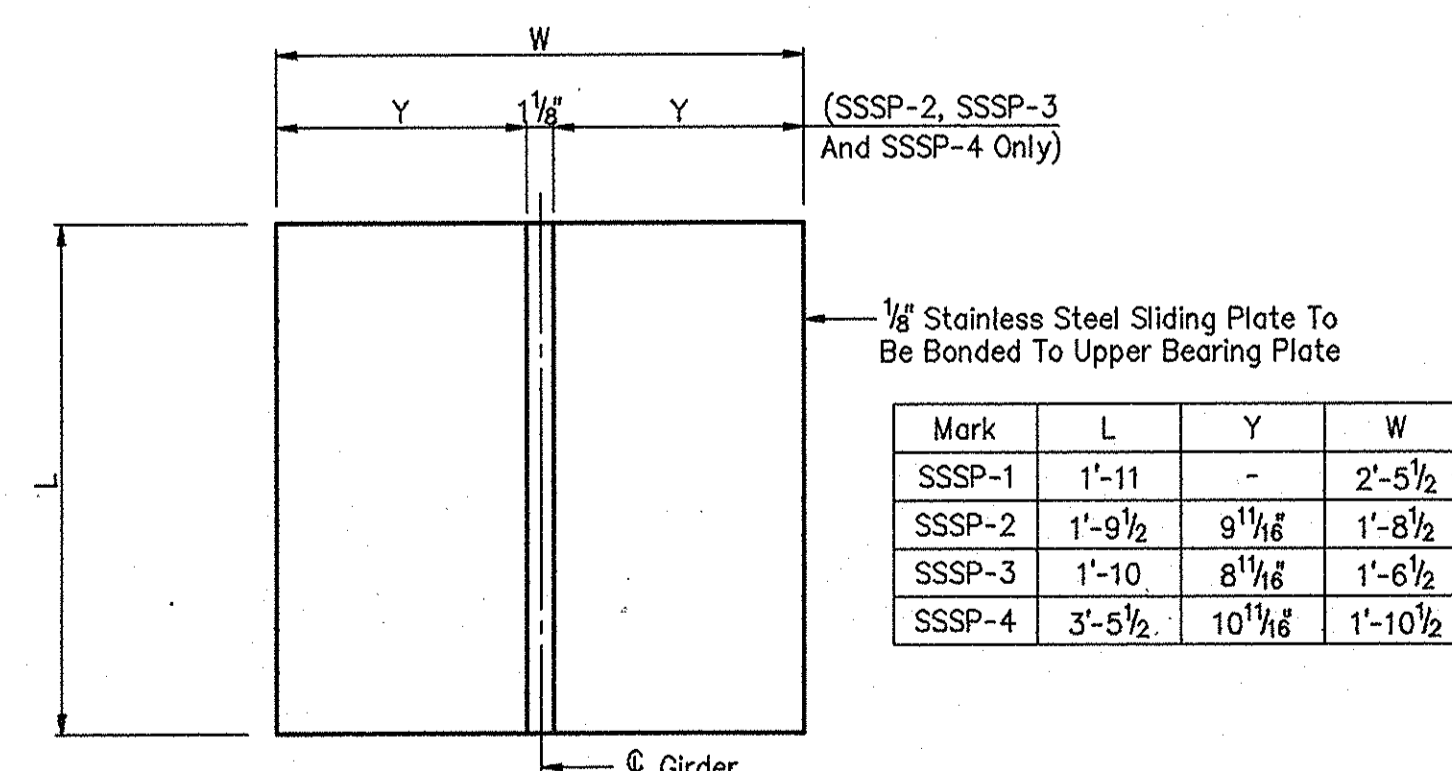
SCALE: - NONE DATE: - July 9, 1998
SUBMITTED FOR APPROVAL

DRAWING: - S36 OF S52 SHEET: - 51 OF 79
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7828



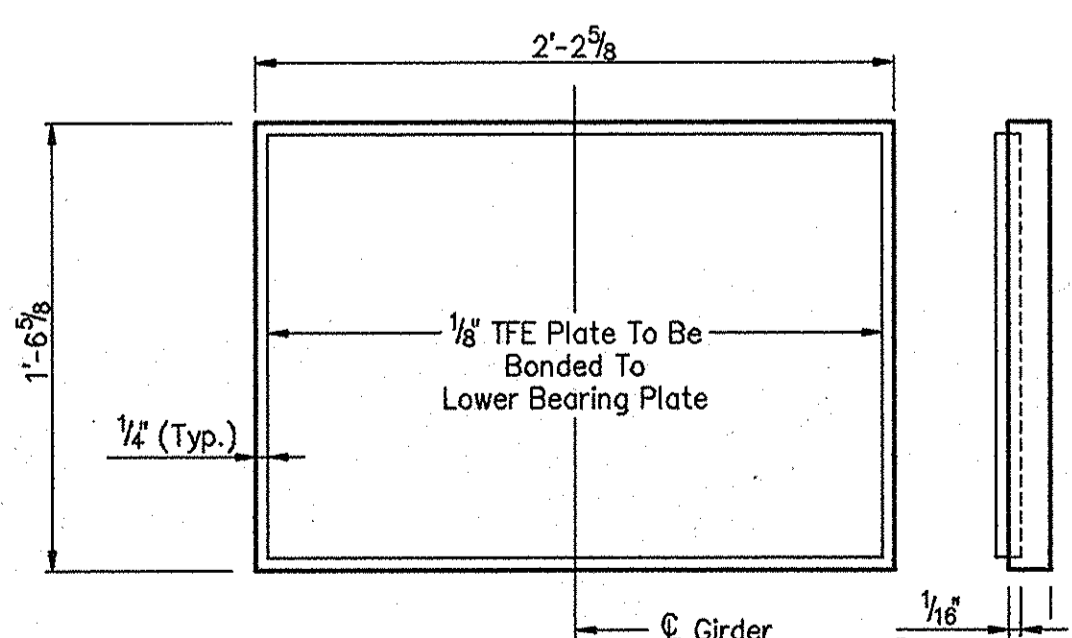
UPPER BEARING PLATE

Mark	L	W	A	A/1	A/2	B	B/2	T
UBP-1	1'-11 ¹ / ₂	2'-6	1'-7 ¹ / ₂	-	-	1'-11	-	3 ¹ / ₄ "
UBP-2	1'-10	1'-9	1'-6	-	-	1'-2	7"	2 ¹ / ₄ "
UBP-3	1'-10 ¹ / ₂	1'-7	1'-6 ¹ / ₂	-	-	1'-0	6"	1 ⁷ / ₈ "
UBP-4	3'-6	1'-11	3'-2	1'-3	1'-11	1'-4	8"	2 ⁵ / ₈ "



STAINLESS STEEL SLIDING PLATE

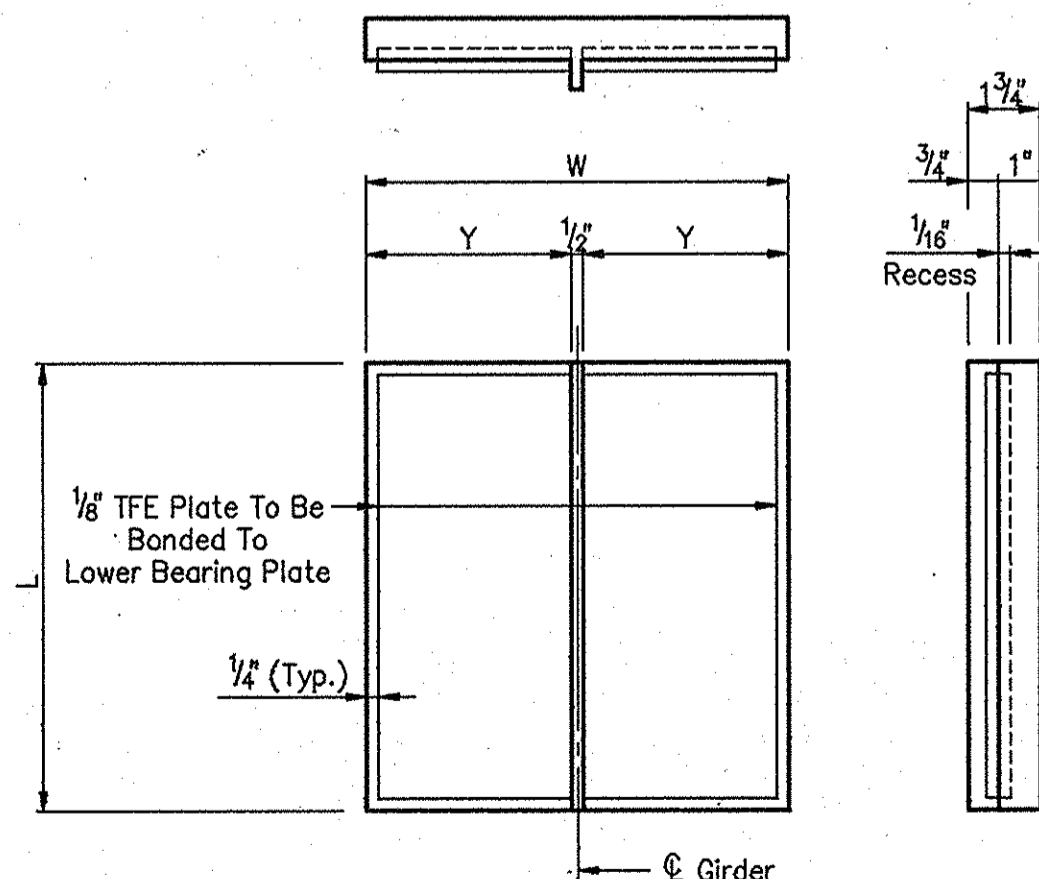
Mark	L	Y	W
SSSP-1	1'-11	-	2'-5 ¹ / ₂
SSSP-2	1'-9 ¹ / ₂	9 ¹ / ₁₆ "	1'-8 ¹ / ₂
SSSP-3	1'-10	8 ¹ / ₁₆ "	1'-6 ¹ / ₂
SSSP-4	3'-5 ¹ / ₂	10 ¹ / ₁₆ "	1'-10 ¹ / ₂



LOWER BEARING PLATE LBP-1

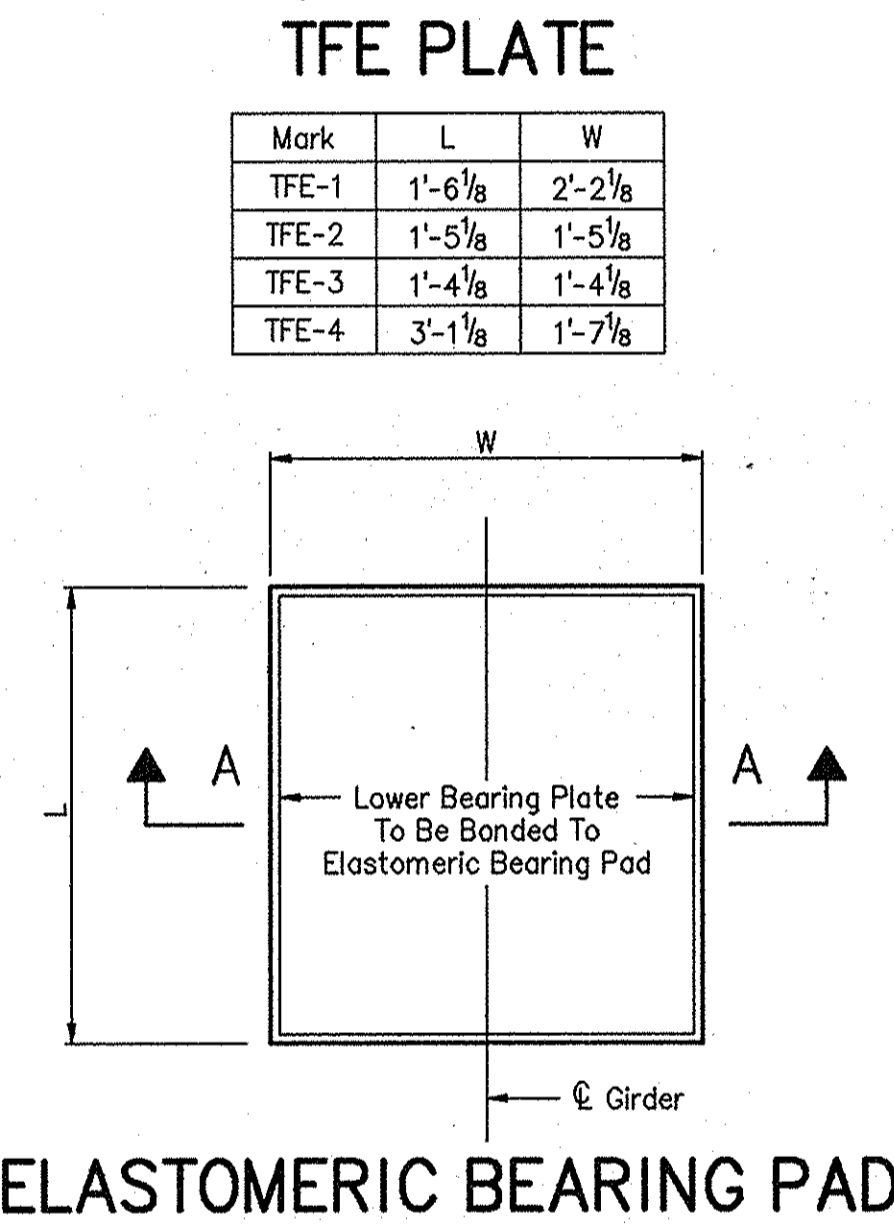
BEVELLED SHIM

Mark	L	W	A	A/1	A/2	B	X	T
BS-1	1'-11 ¹ / ₂	2'-6	1'-7 ¹ / ₂	-	-	1'-11	3 ¹ / ₄ "	1 ¹ / ₄ "
BS-2	1'-10	1'-9	1'-6	-	-	1'-2	1 ¹ / ₂ "	1"
BS-3	1'-10 ¹ / ₂	1'-7	1'-6 ¹ / ₂	-	-	1'-0	0"	5 ⁷ / ₈ "
BS-4	3'-6	1'-11	3'-2	1'-3	1'-11	1'-4	0"	1 ¹ / ₂ "
BS-5	1'-11 ¹ / ₂	2'-6	1'-7 ¹ / ₂	-	-	1'-11	1"	1 ¹ / ₂ "



LOWER BEARING PLATE

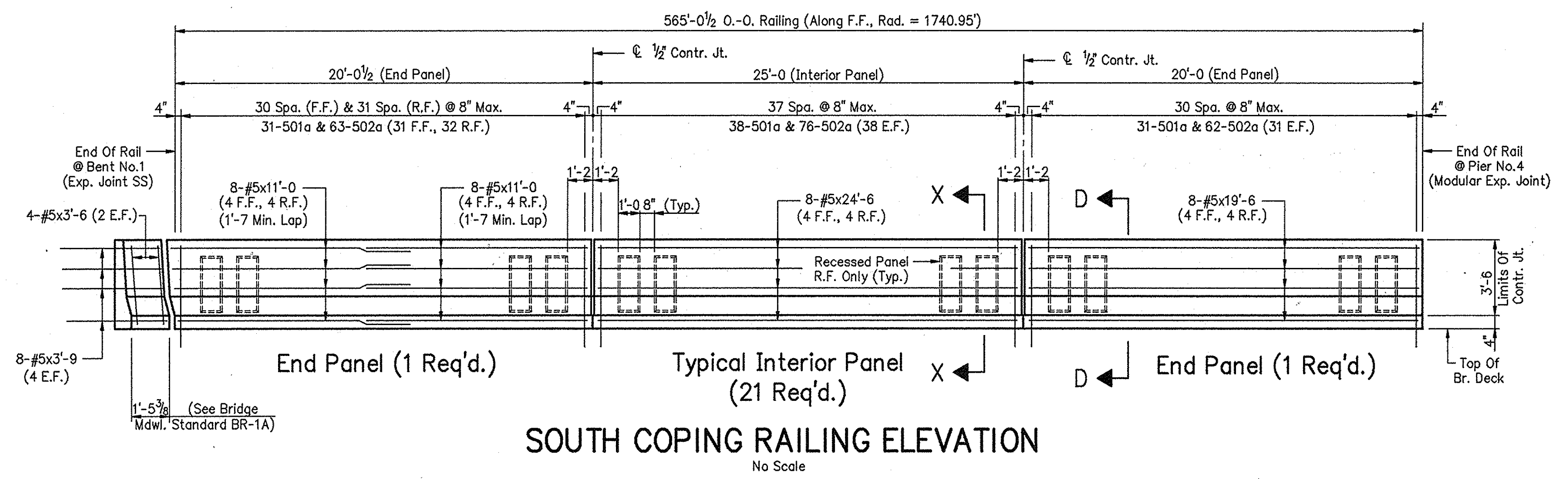
Mark	L	Y	W
LBP-2	1'-5 ⁵ / ₈	8 ⁹ / ₁₆ "	1'-5 ⁵ / ₈
LBP-3	1'-4 ⁵ / ₈	8 ¹ / ₁₆ "	1'-4 ⁵ / ₈
LBP-4	3'-1 ⁵ / ₈	9 ⁹ / ₁₆ "	1'-7 ⁵ / ₈



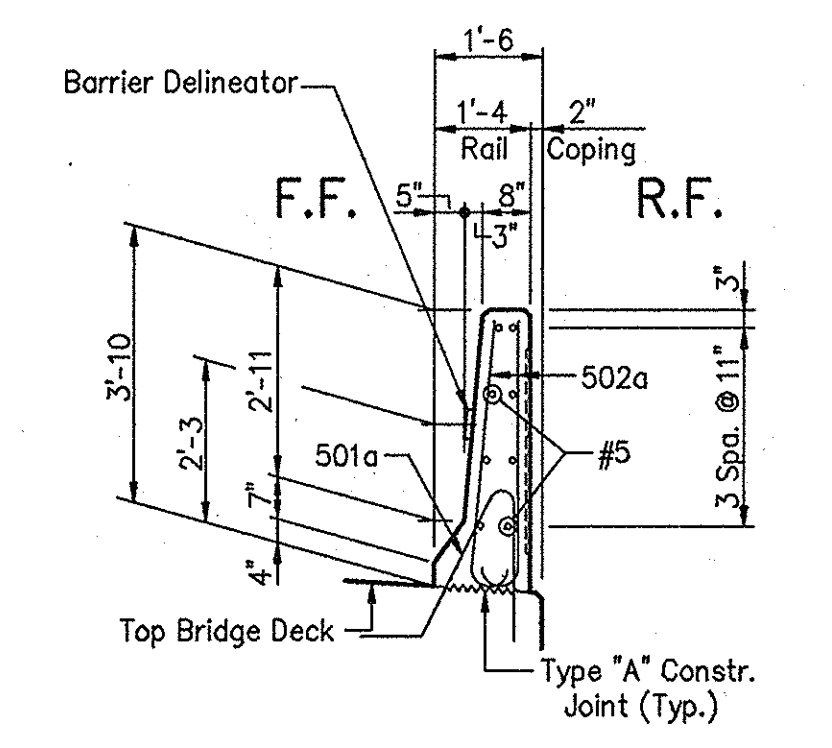
DESIGNED MDR 11/20/96 C.K.D.
DRAWN DSH 1/21/97 C.K.D.
TRACED C.K.D.

DWG FILE: C:\92\119\02119821
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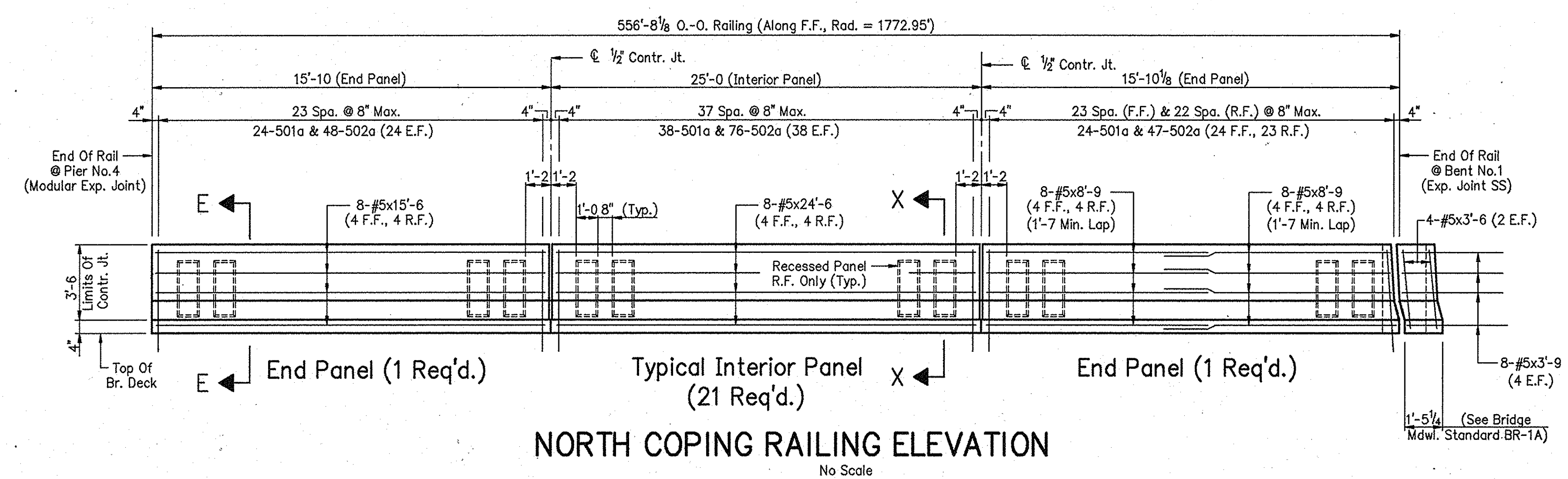
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EDIT DATE: 08/14/98
EDIT BY: DSH - 581



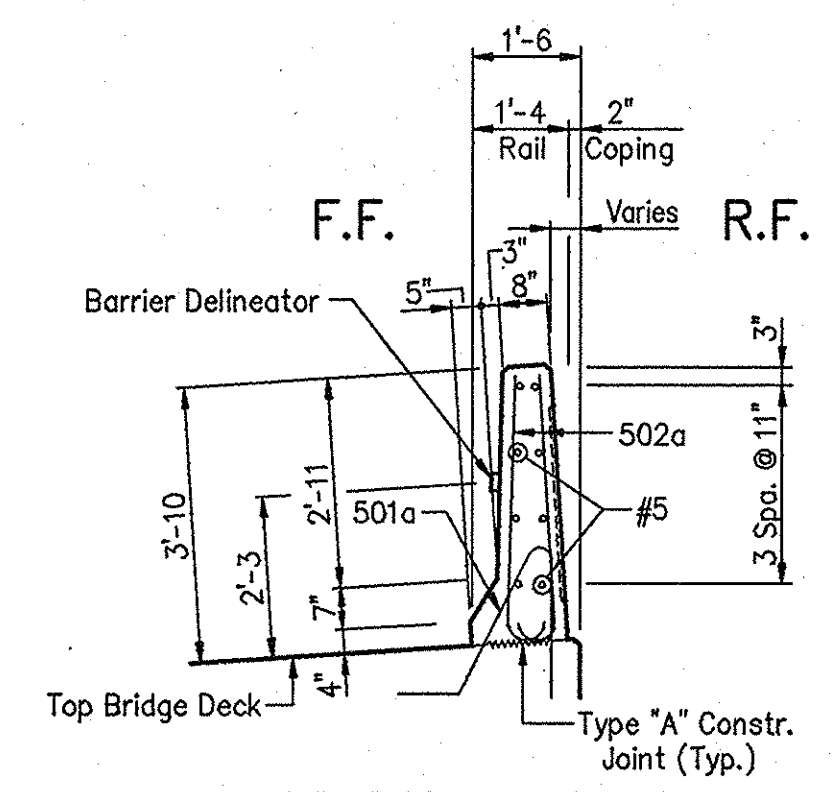
SOUTH COPING RAILING ELEVATION
No Scale



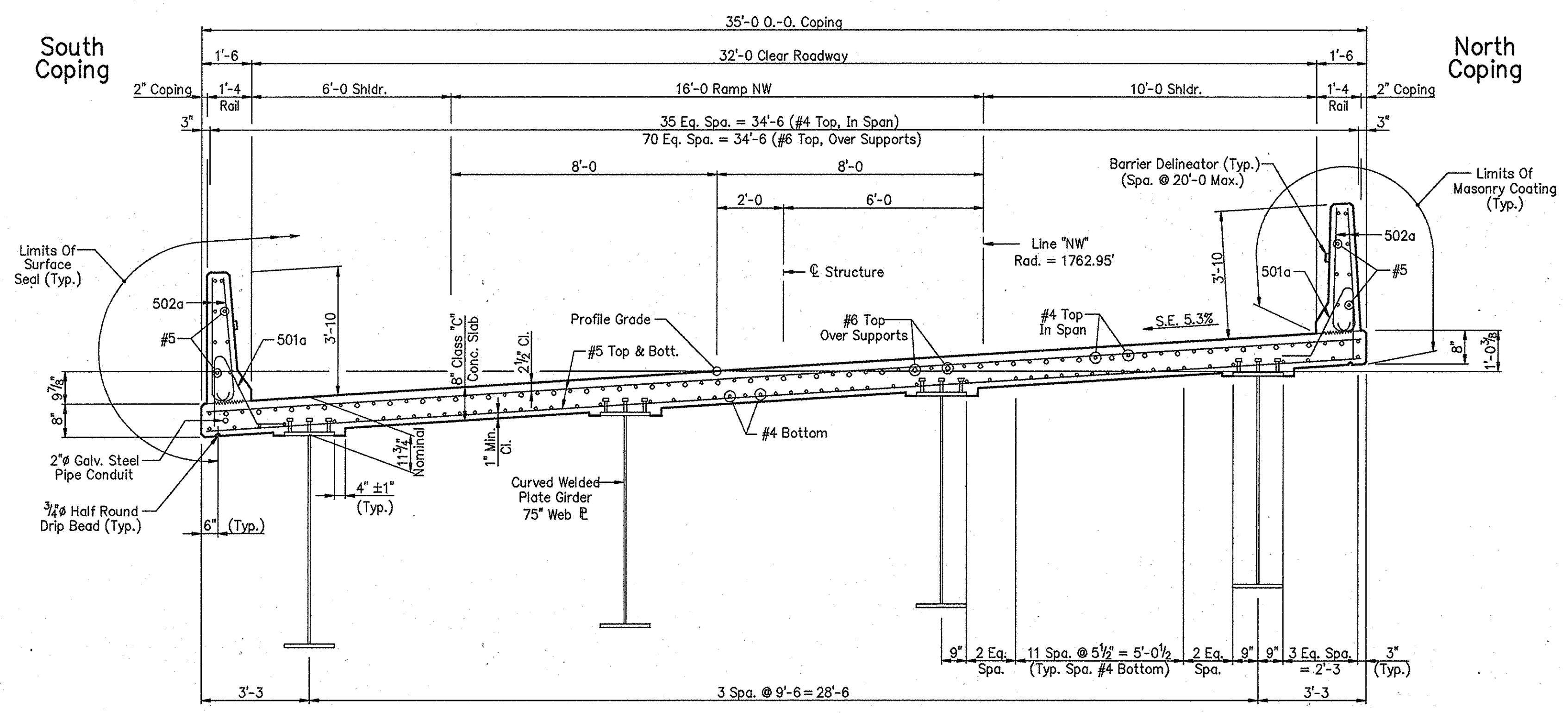
SECTION D-D



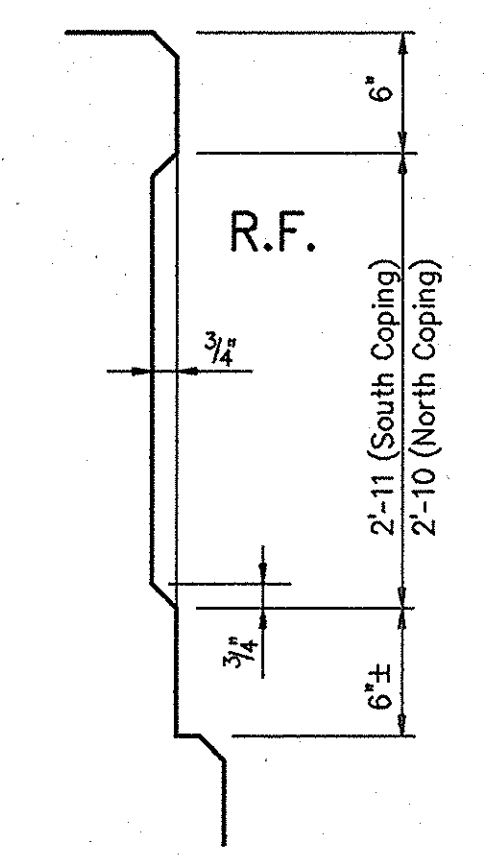
NORTH COPING RAILING ELEVATION
No Scale



SECTION E-E



SECTION A-A
No Scale



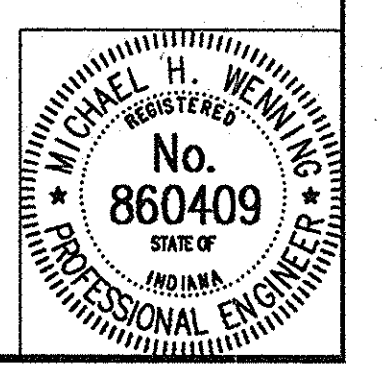
PARTIAL SECTION X-X
Showing Recessed Panel
No Scale

NOTES:
For reinforcing bar notes, see Bridge Standard C1.
All reinforcing steel to be epoxy coated.
For location of Section A-A, see Drawing S37.

FLOOR DETAILS - UNIT "A"
INDIANA DEPARTMENT OF TRANSPORTATION

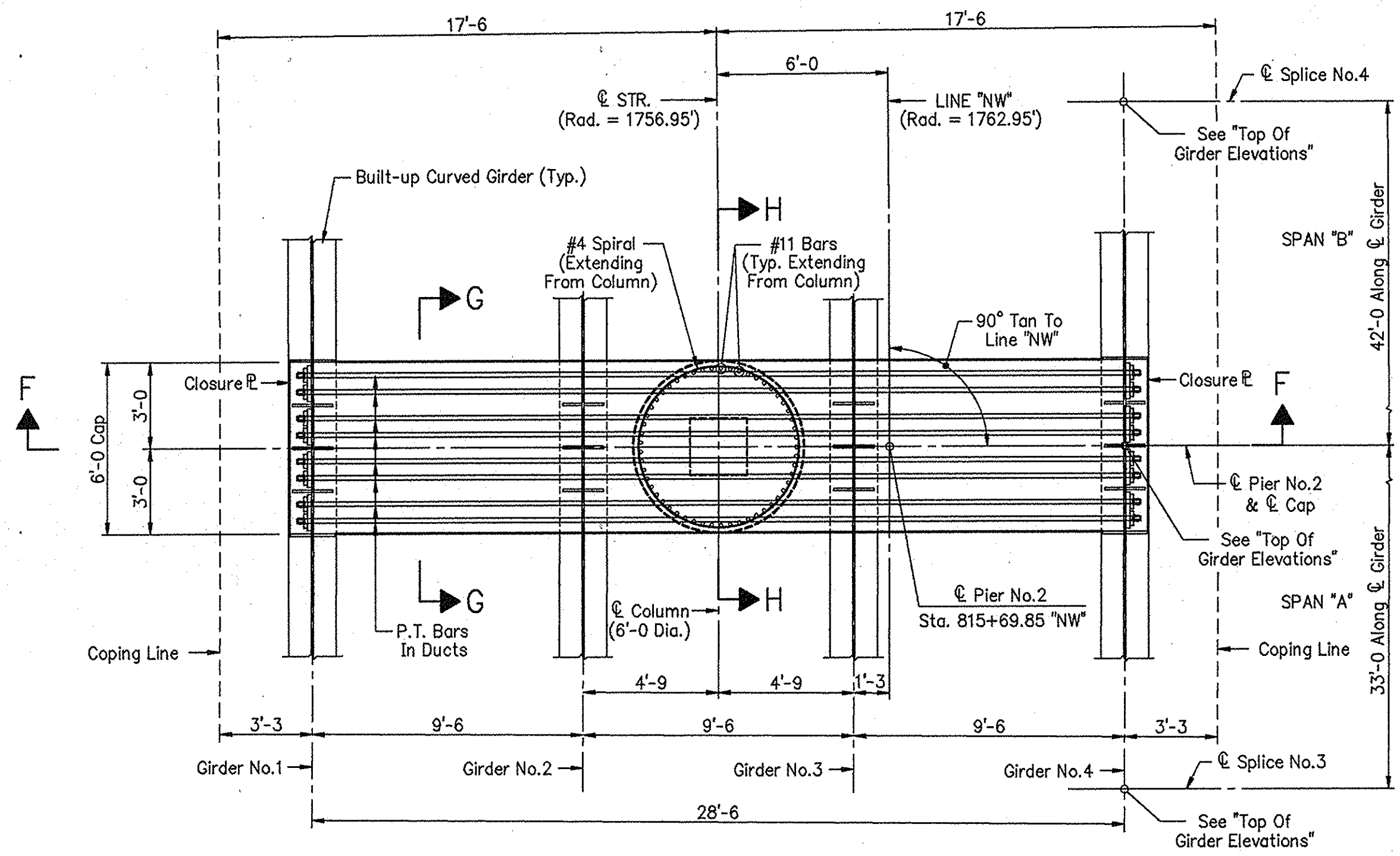
SCALE: - 3/8" = 1'-0", Unless Noted
DATE: - July 9, 1998
SUBMITTED FOR APPROVAL: *Michael H. Wenzling*

DRAWING: - S38 OF S52 SHEET: - 53 OF 79
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7828



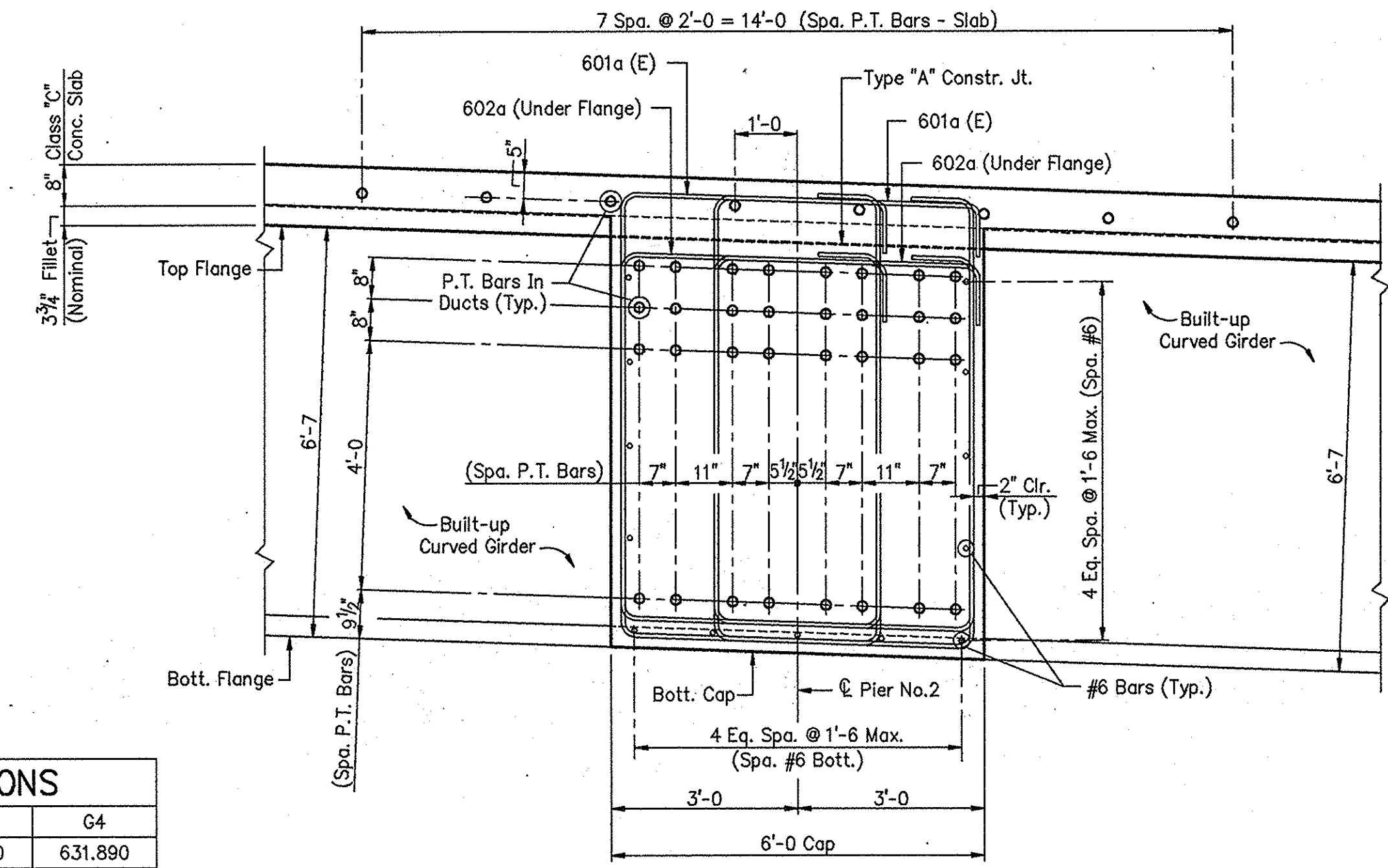
DESIGNED MDR 12/2/94 C.K.D. MSP 9/13/96
DRAWN DSH 1/28/97 C.K.D. MDR 7/4/98
TRACED C.K.D.

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EDIT DATE: 05/11/98

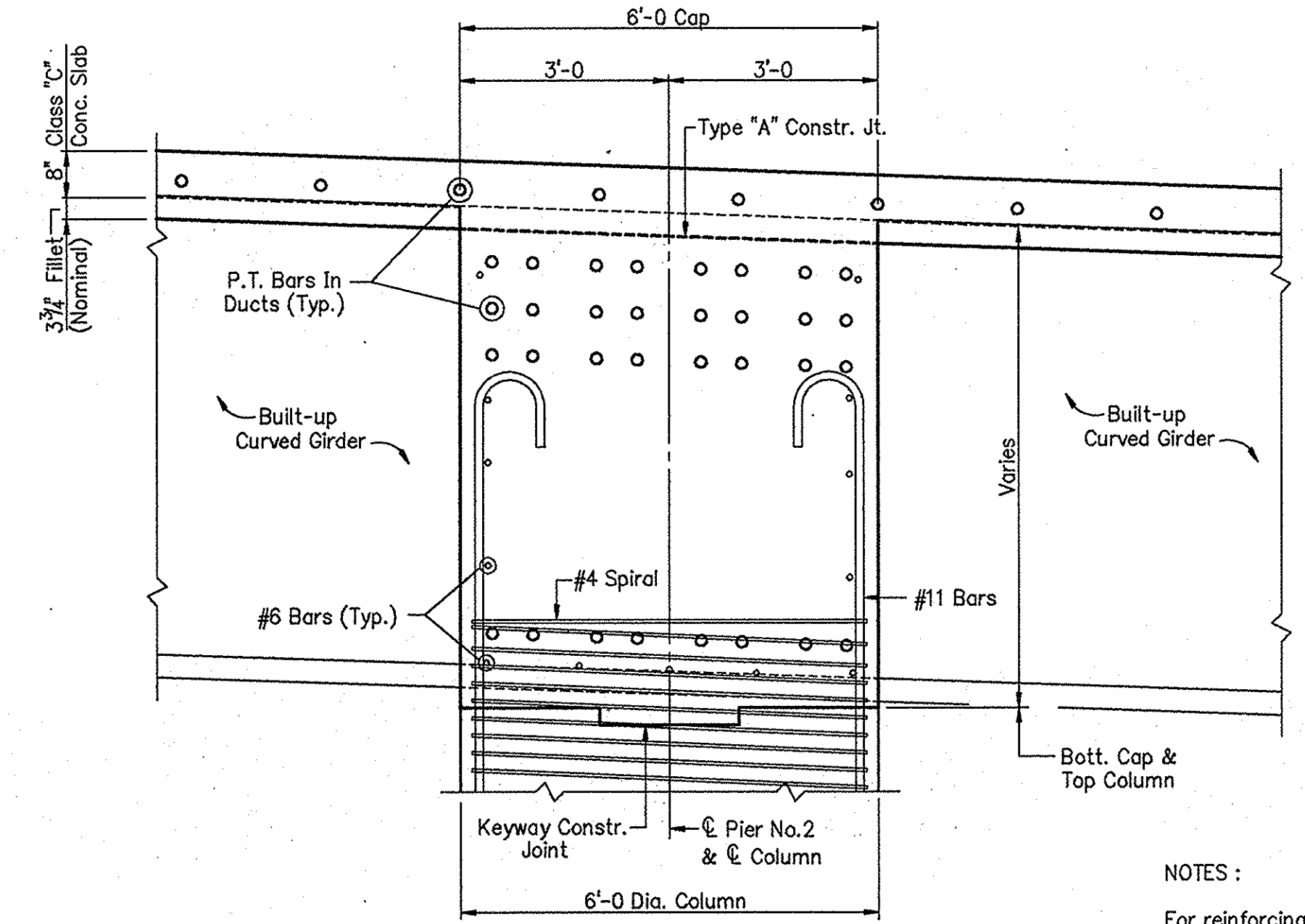


CAP PLAN AT PIER NO.2

TOP OF GIRDER ELEVATIONS				
Location	G1	G2	G3	G4
℄ Splice No.4	630.435	630.920	631.410	631.890
℄ Pier No.2	629.565	630.070	630.570	631.075
℄ Splice No.3	628.735	629.265	629.795	630.325

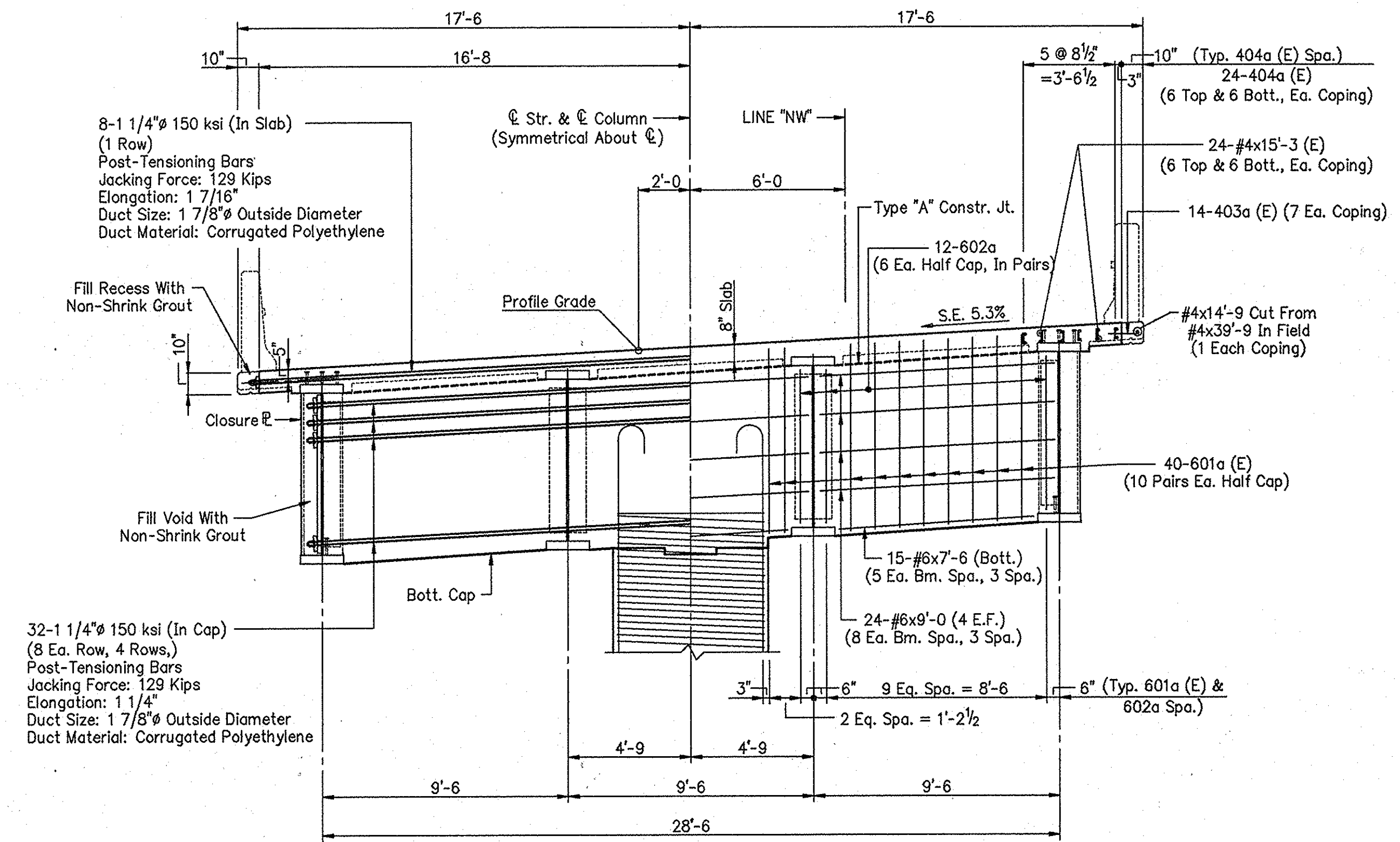


SECTION G-G
Scale: 1/2" = 1'-0"



SECTION H-H
Scale: 1/2" = 1'-0"

- NOTES:
- For reinforcing bar notes, see Bridge Standard C1.
 - (E) Indicates epoxy coated reinforcing steel.
 - For additional details, see Drawing S40.
 - For Bill Of Materials and bar bending details, see Drawing S43.
 - The Stressing Operation in slab and cap can be performed at either Girder No.1 or Girder No.4.



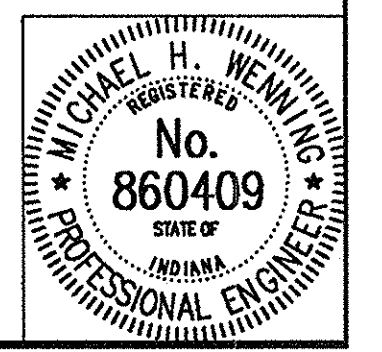
SECTION F-F

FLOOR DETAILS - UNIT "A"
INDIANAPOLIS DEPARTMENT OF TRANSPORTATION

SCALE: - 1/4" = 1'-0, UNLESS NOTED DATE: - July 9, 1998

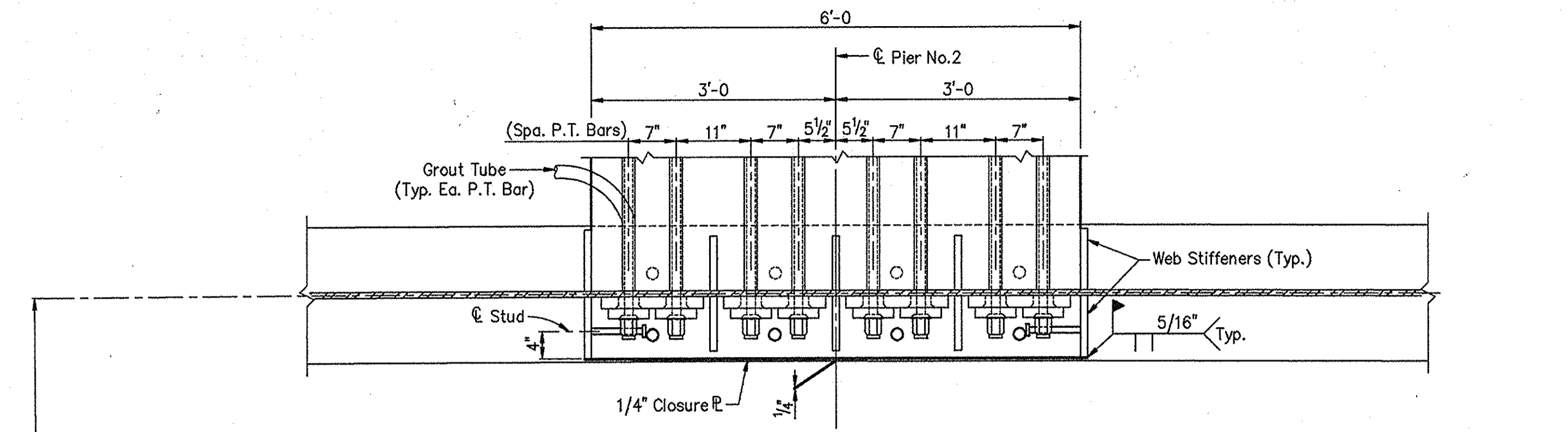
SUBMITTED FOR APPROVAL *Michael H. Wynn*

DRAWING: - S39 OF S52 SHEET: - 54 OF 79
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7828

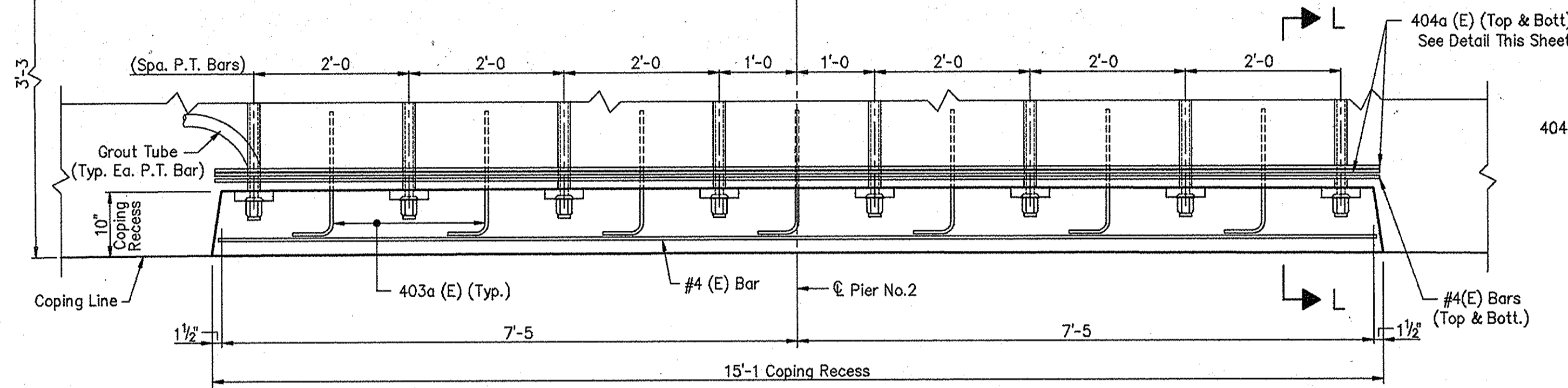


DESIGNED MDR 3/04/98 C.K.D.
DRAWN RJC 4/07/98 C.K.D. MDR 6/16/98
TRACED C.K.D.

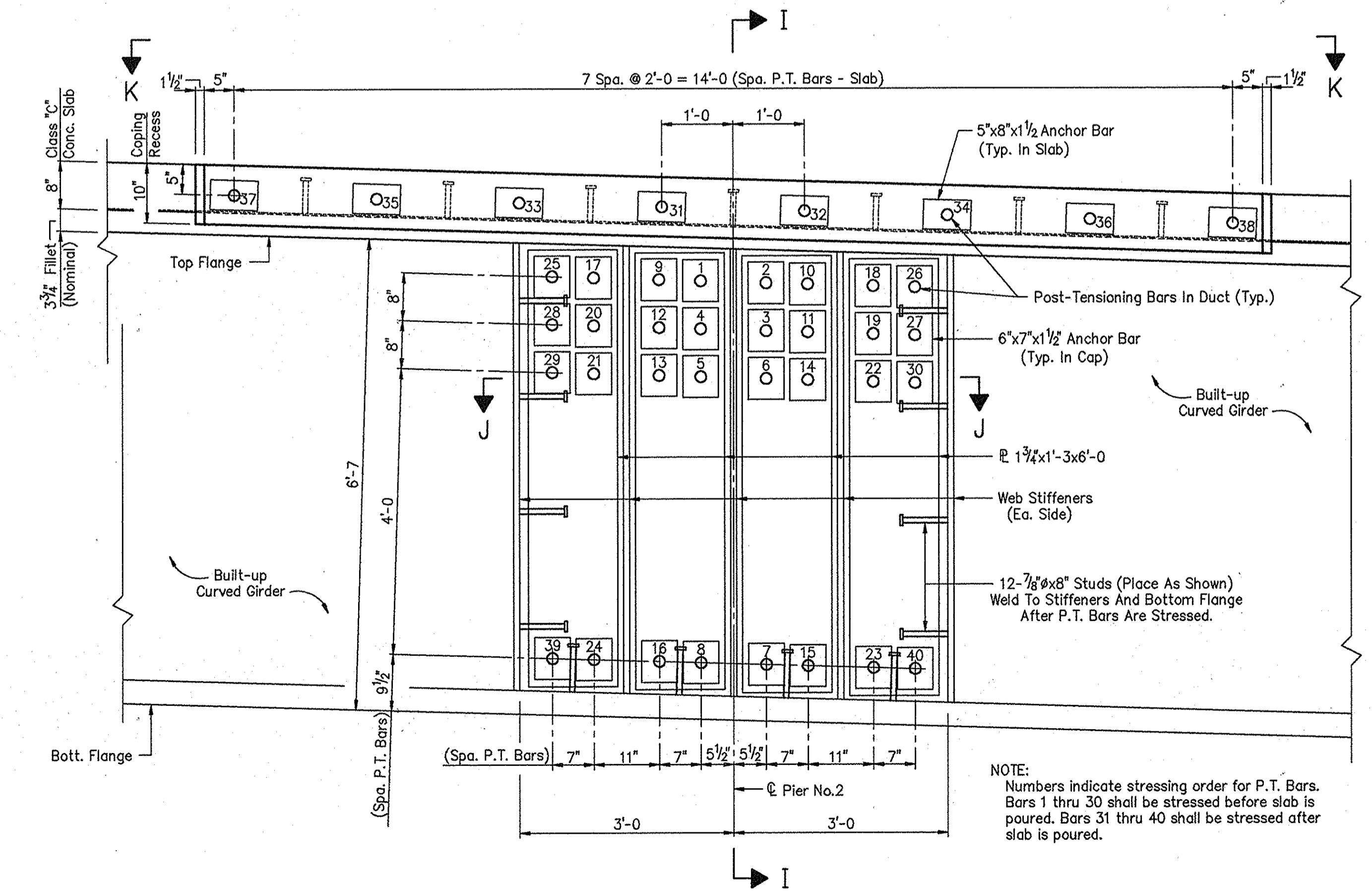
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SPELLCHK: 07/09/98 16:38:44
EDIT DATE: 08-1-98



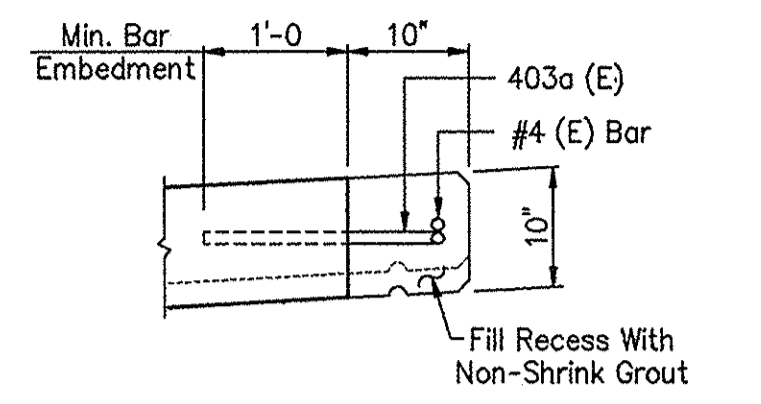
SECTION J-J



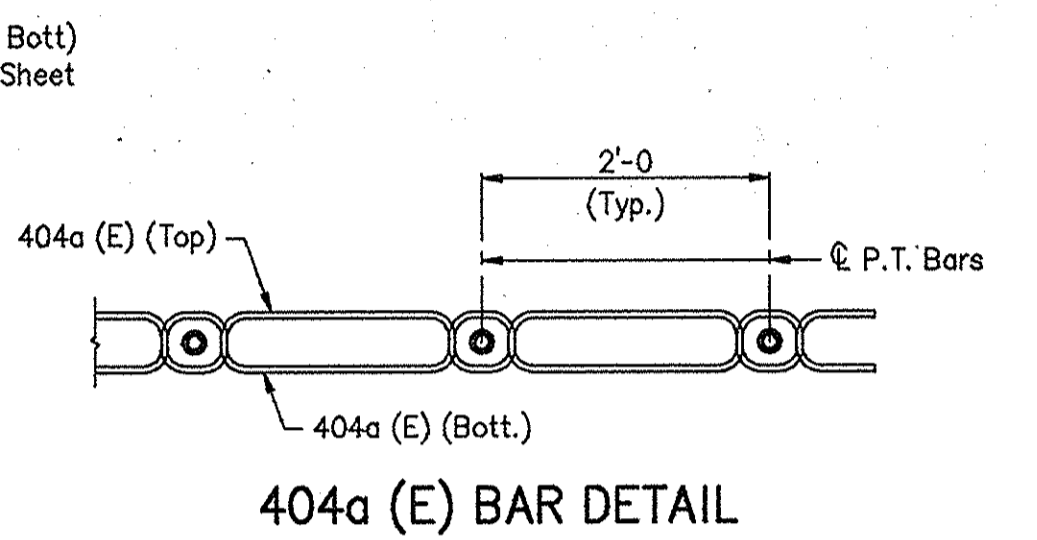
SECTION K-K



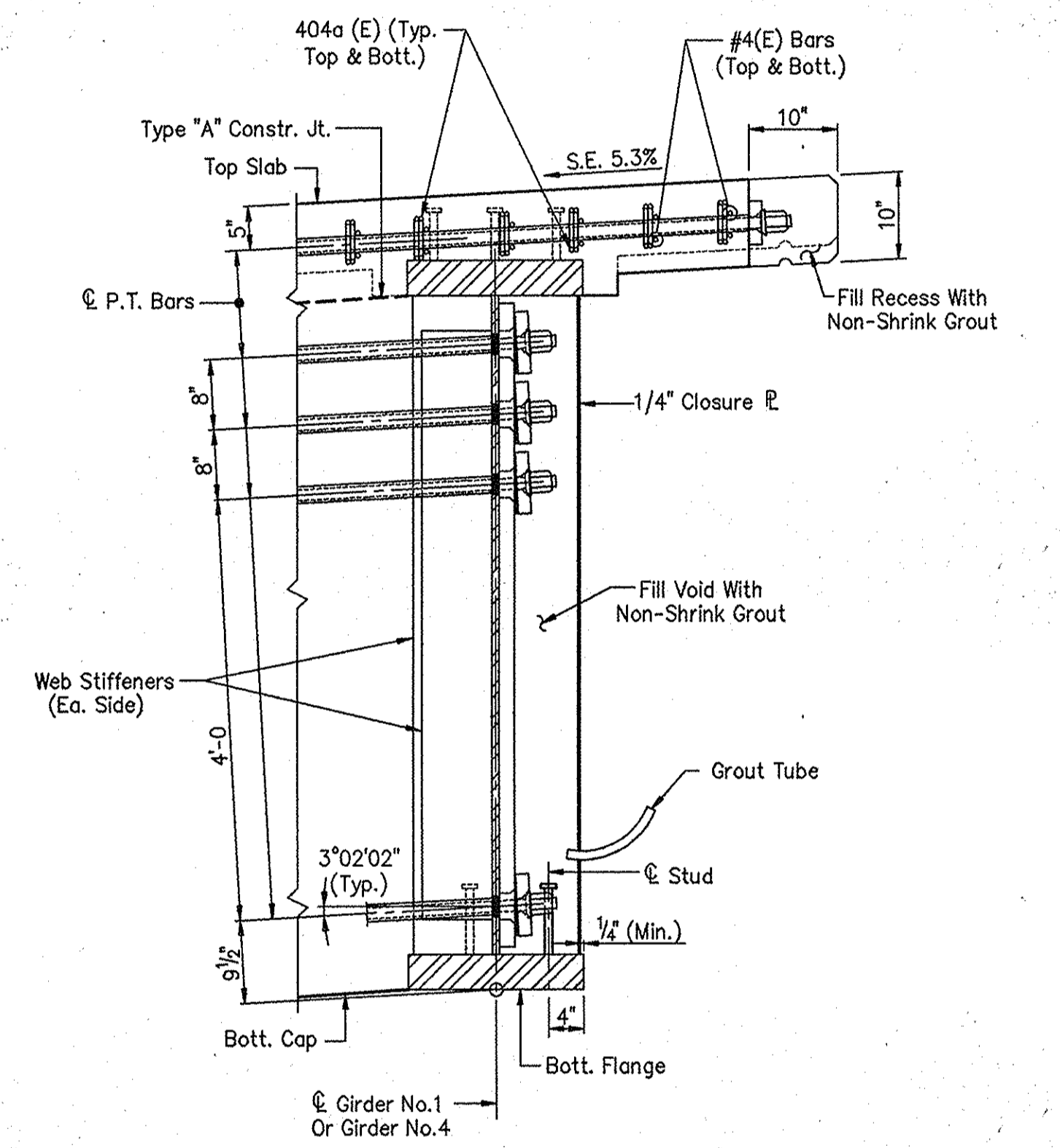
GIRDER NO.1 ELEVATION AT PIER NO.2
(Girder No.4 Similar By Opposite hand)



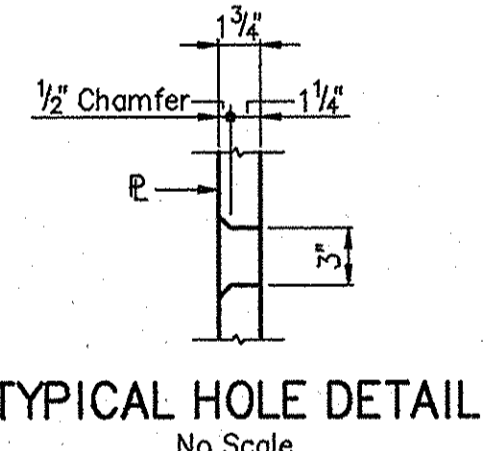
SECTION L-L



404a (E) BAR DETAIL



SECTION I-I



TYPICAL HOLE DETAIL
No Scale

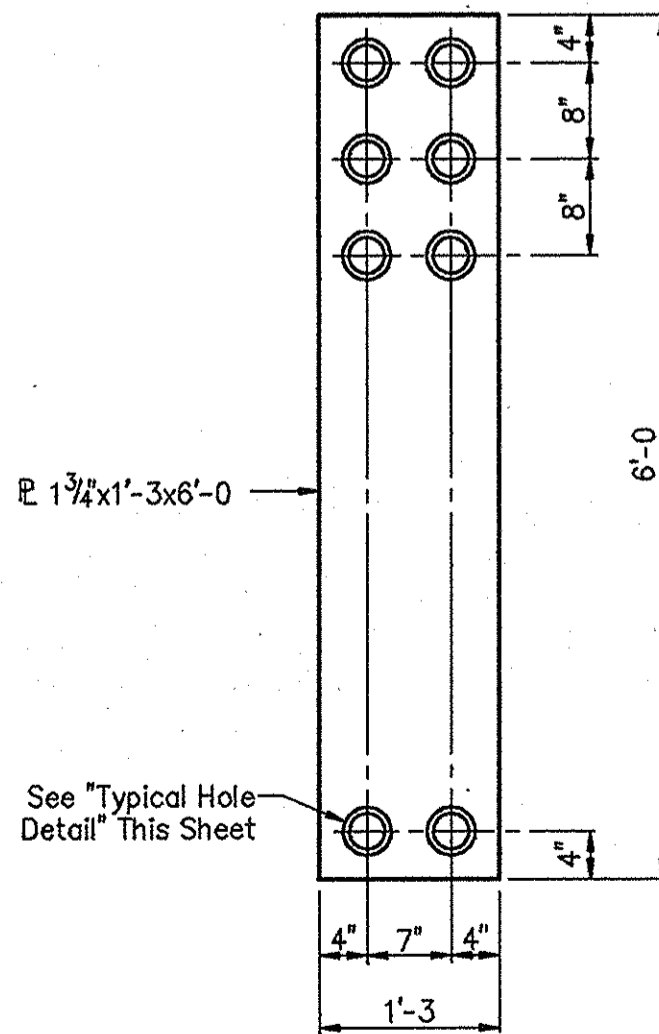
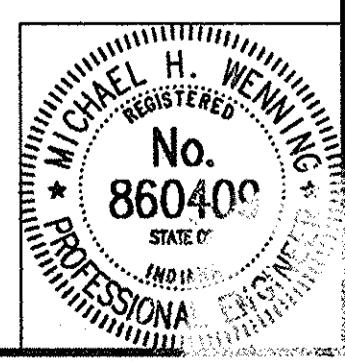


PLATE DETAIL

NOTES:
For reinforcing bar notes, see Bridge Standard C1.
(E) Indicates epoxy coated reinforcing steel.
For Bill of Materials and bar bending details, see Drawing S43.

FLOOR DETAILS - UNIT "A"
INDIANA DEPARTMENT OF TRANSPORTATION

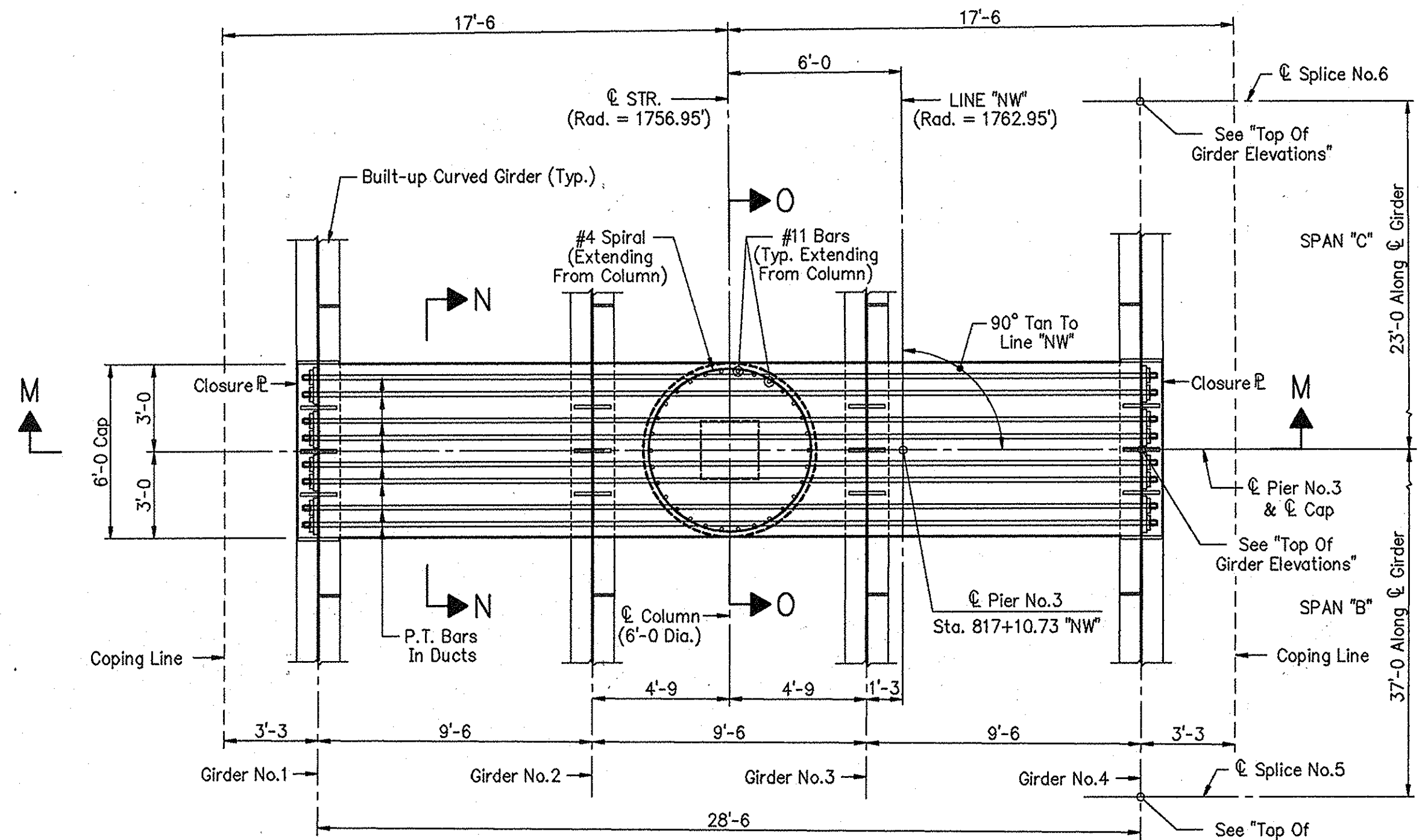
SCALE: - 3/4" = 1'-0", UNLESS NOTED DATE: - July 9, 1998
SUBMITTED FOR APPROVAL [Signature]
DRAWING: - S40 OF S52 SHEET: - 55 OF 79
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7828



DESIGNED: MDR 3/04/98
DRAWN: RJC 4/14/98
TRACED: [Blank]

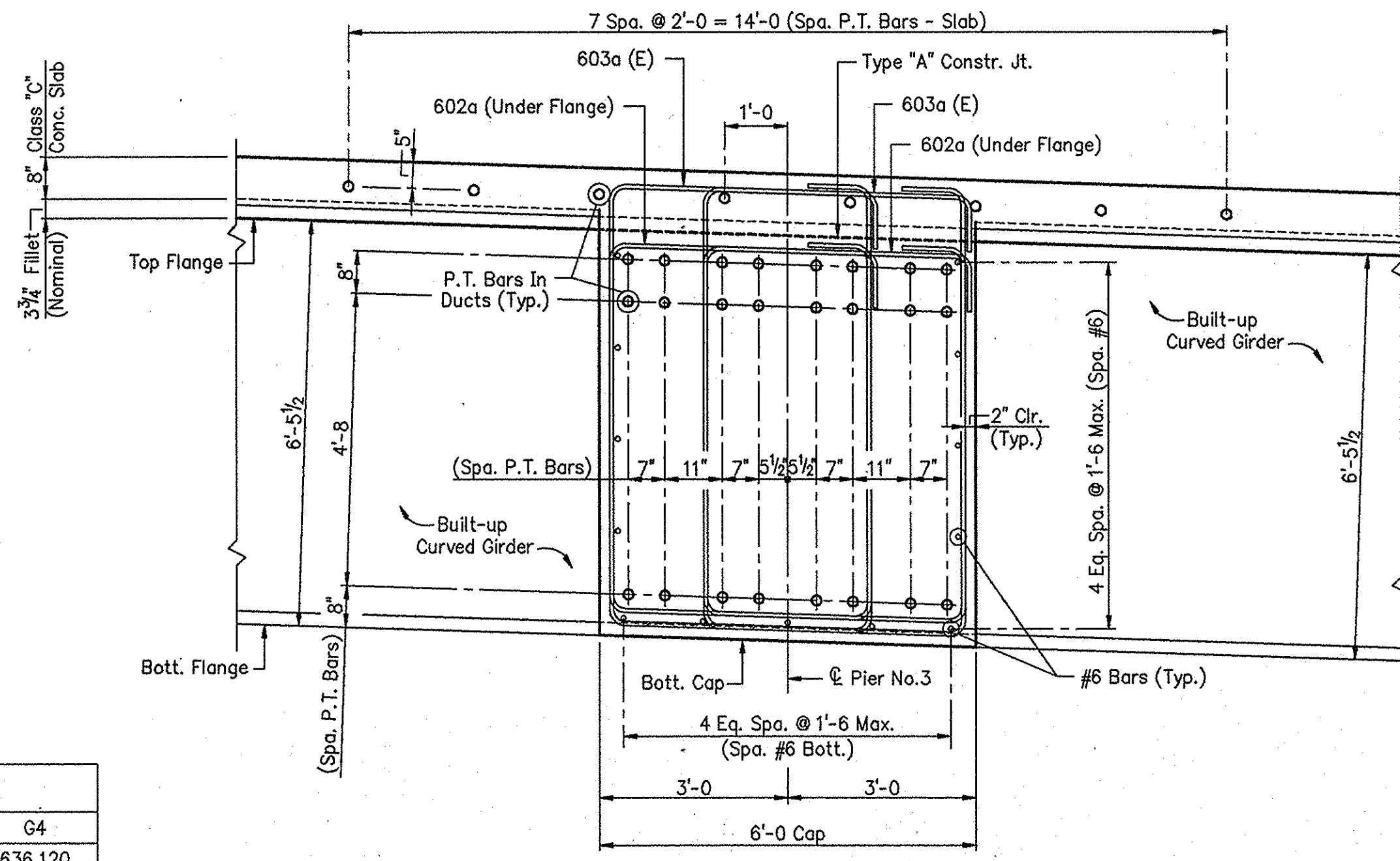
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SPELLOKS
EDIT DATE: 07/09/98 06:57:27
EDITED BY: DSH - 581

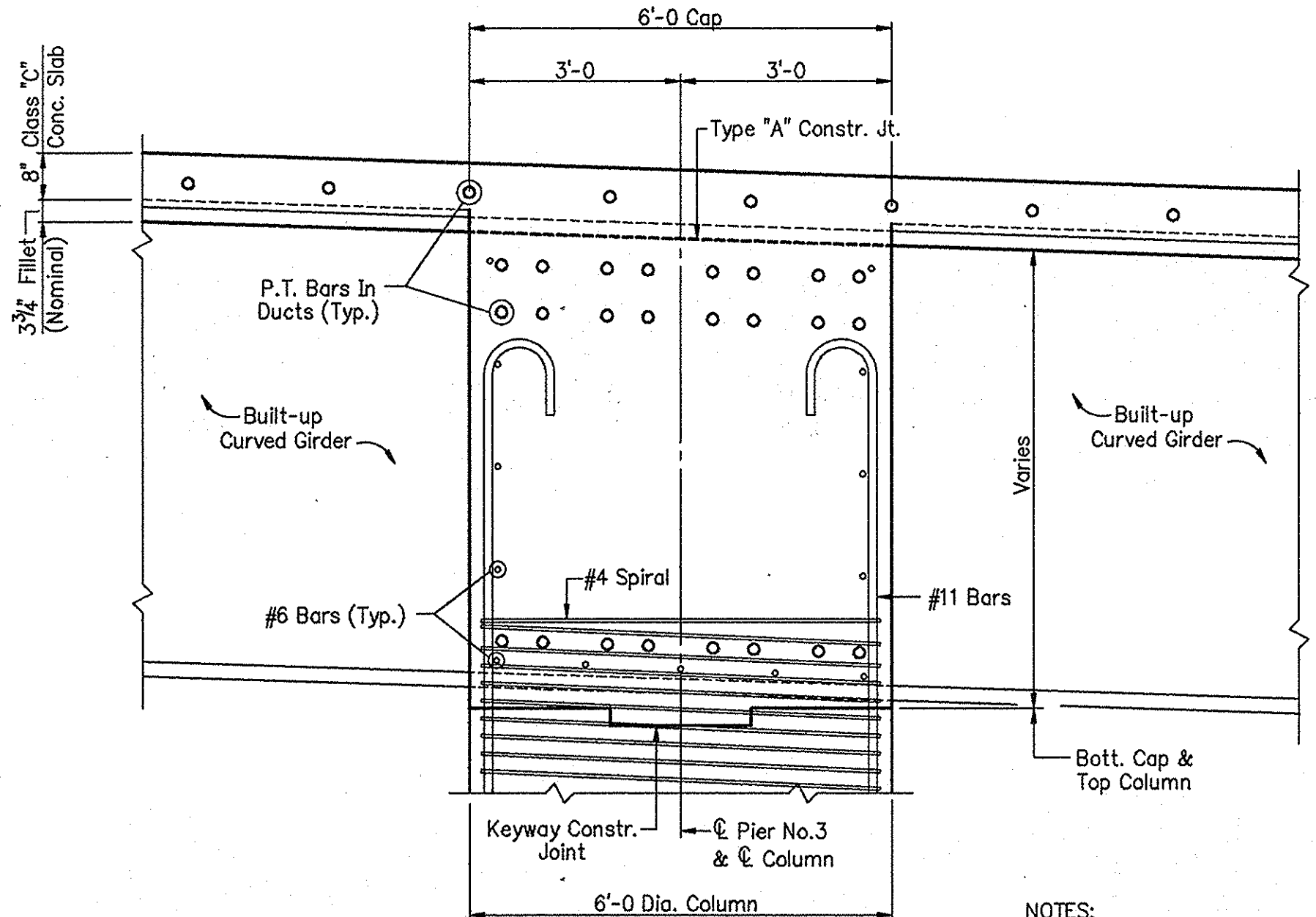


CAP PLAN AT PIER NO.3

TOP OF GIRDER ELEVATIONS				
Location	G1	G2	G3	G4
℄ Splice No.6	634.590	635.100	635.610	636.120
℄ Pier No.3	633.695	634.195	634.700	635.205
℄ Splice No.5	632.250	632.755	633.255	633.755

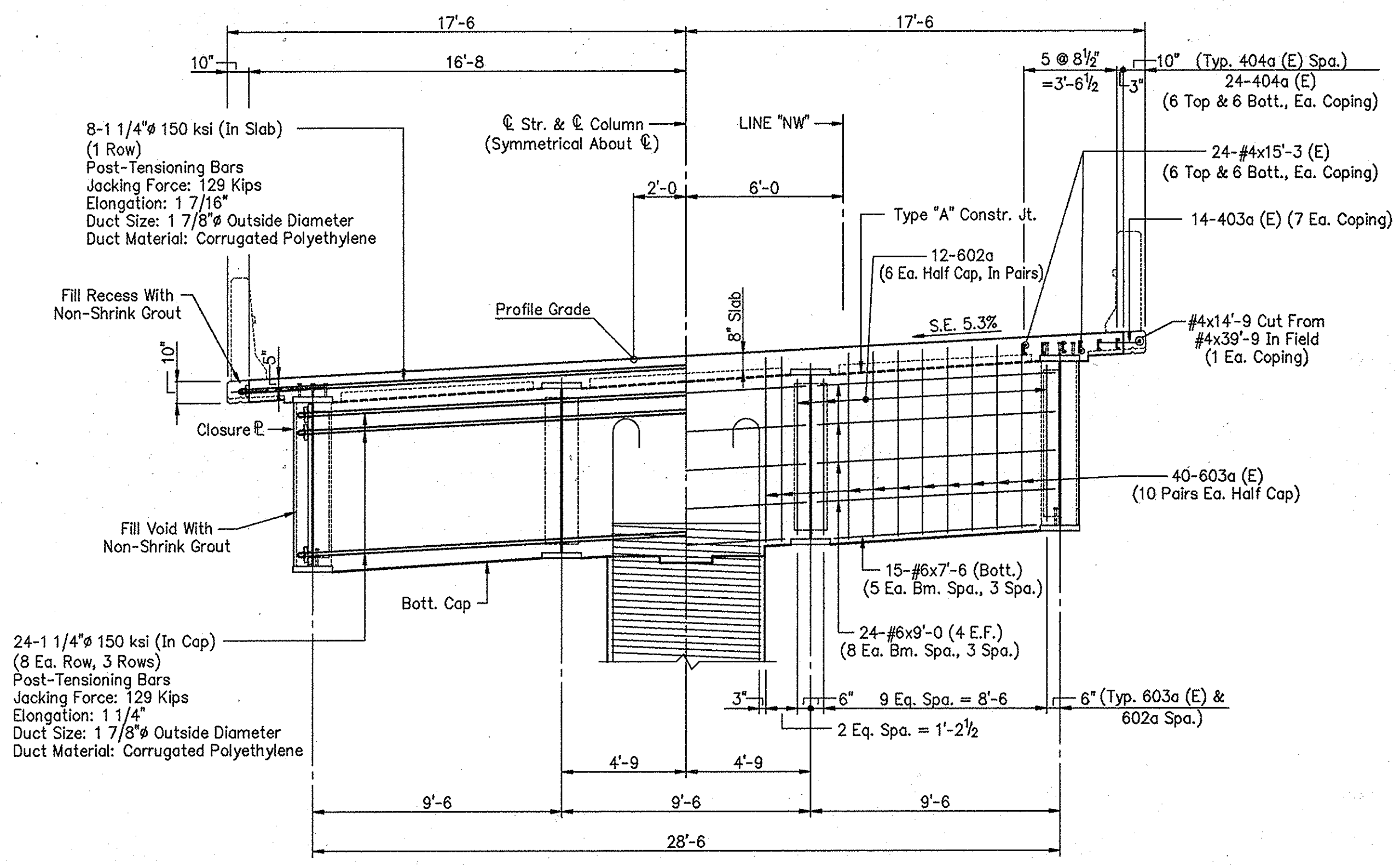


SECTION N-N
Scale: 1/2" = 1'-0"



SECTION O-O
Scale: 1/2" = 1'-0"

NOTES:
 For reinforcing bar notes, see Bridge Standard C1.
 (E) Indicates epoxy coated reinforcing steel.
 For additional details, see Drawing S42.
 For Bill of Materials and bar bending details, see Drawing S43.
 The Stressing Operation in slab and cap can be performed at either Girder No.1 or Girder No.4.

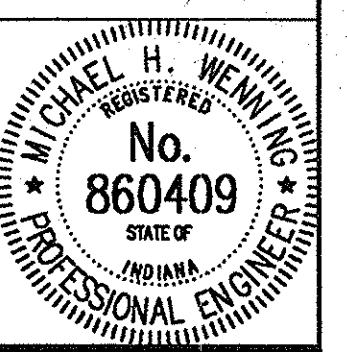


SECTION M-M

FLOOR DETAILS - UNIT "A"
 INDIANAPOLIS DEPARTMENT OF TRANSPORTATION

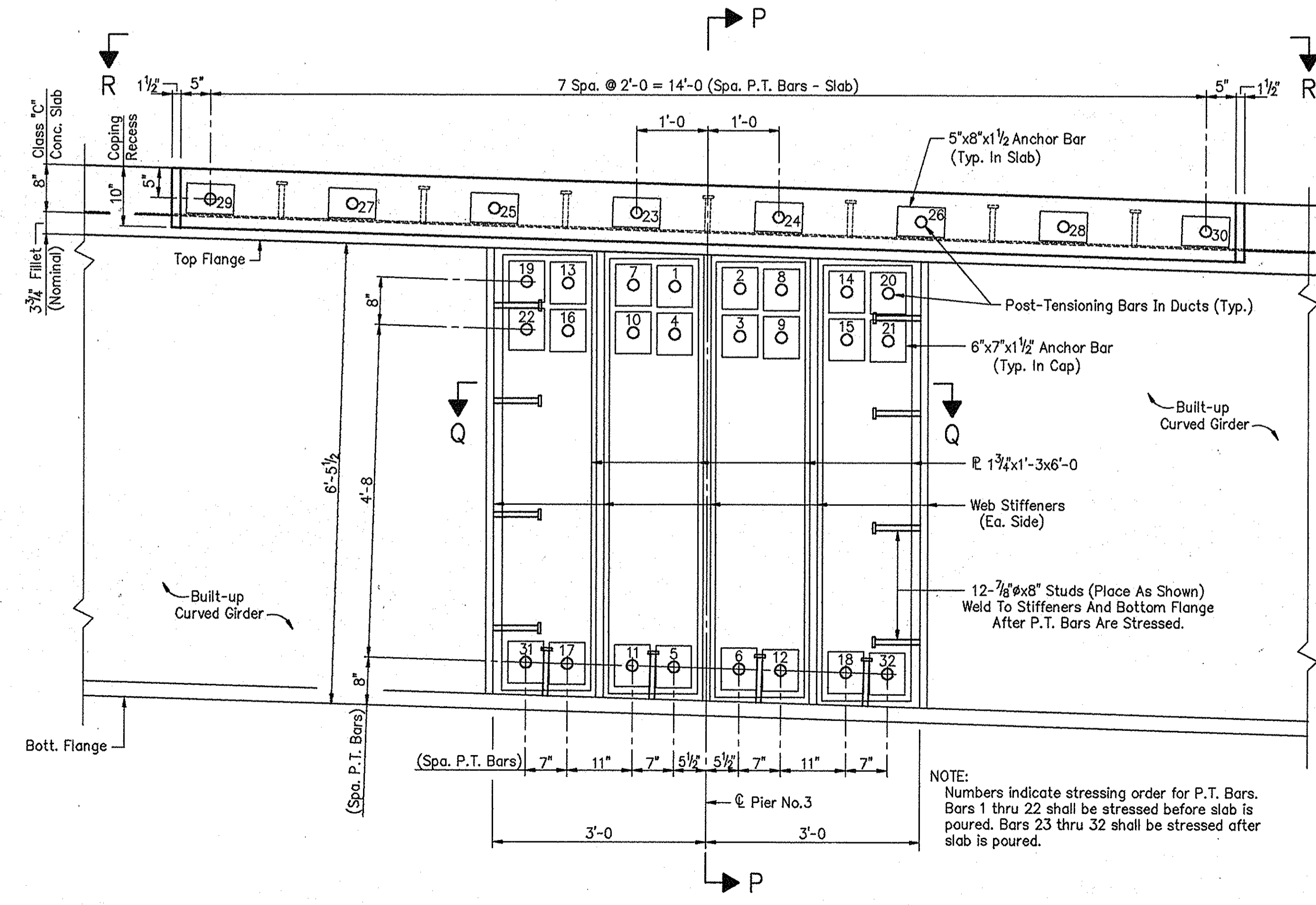
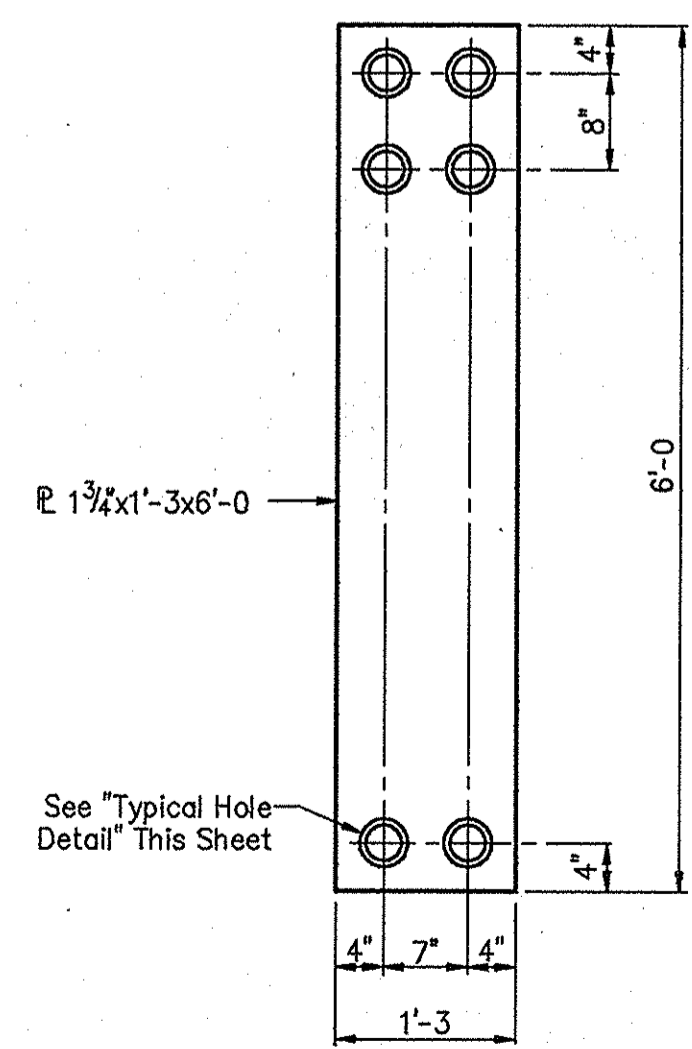
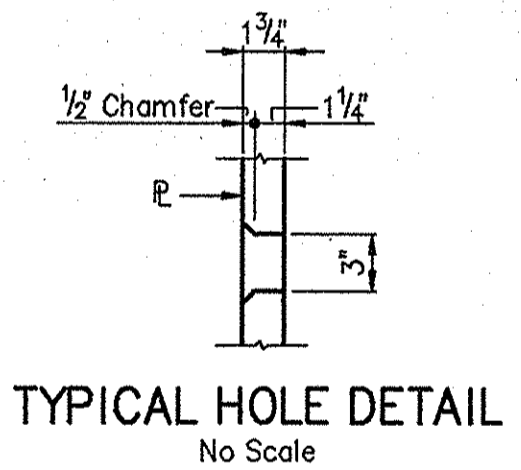
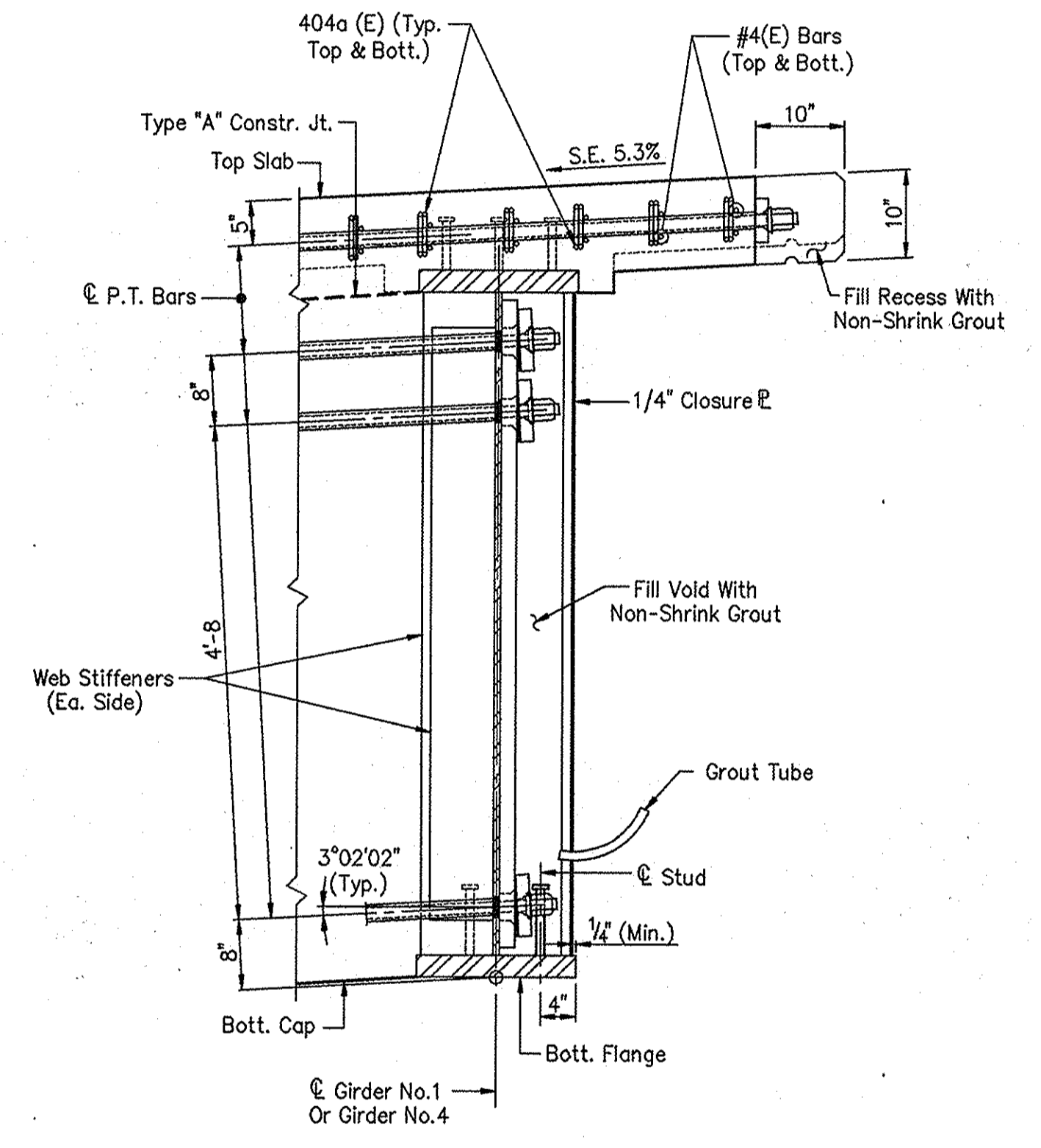
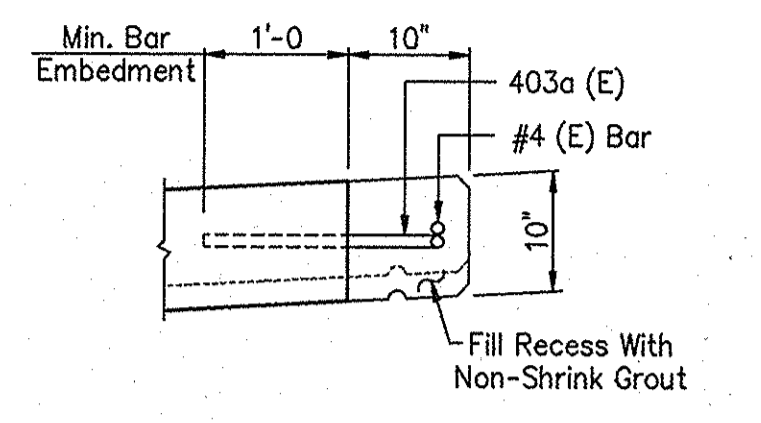
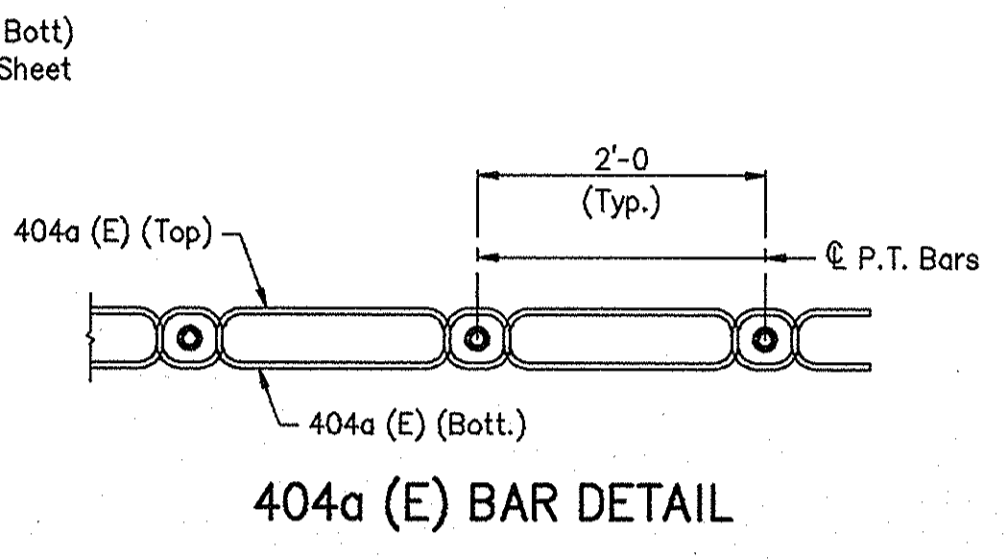
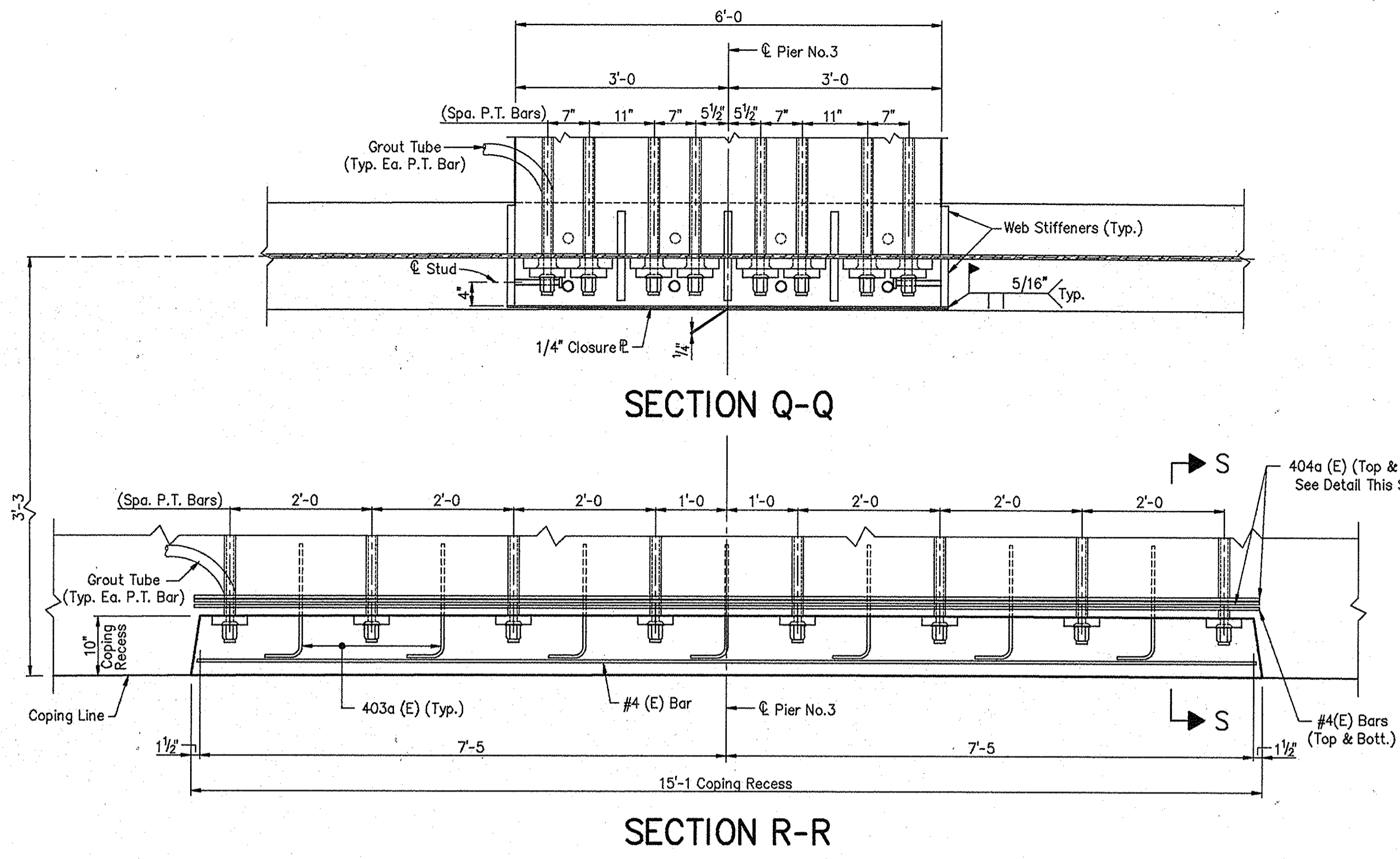
SCALE: - 1/4" = 1'-0, UNLESS NOTED DATE: - July 9, 1998
 SUBMITTED FOR APPROVAL

DRAWING: - S41 OF S52 SHEET: - 56 OF 79
 PROJECT: - IM-80-1(143)4
 CONTRACT NO. R-23808
 BRIDGE FILE: - I-80-5-7828



DESIGNED MDR 3/04/98 CK'D
 DRAWN RUC 4/08/98 CK'D MDR 6/17/98
 TRACED CK'D

DWG FILE: C:\92\119\92118849
 PLOT SCALE: 1/4"=1'-0
 PLOT ORIGIN: 0.00,0.00
 SPELLING: 07/09/98 15:51:49
 EDIT DATE: 07/09/98 15:51:49
 EDIT BY: DSH - 591



GIRDER NO.1 ELEVATION AT PIER NO.3
(Girder No.4 Similar By Opposite hand)

NOTES:
For reinforcing bar notes, see Bridge Standard C1.
(E) Indicates epoxy coated reinforcing steel.
For Bill of Materials and bar bending details, see Drawing S43.

FLOOR DETAILS - UNIT "A"
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 3/4" = 1'-0", UNLESS NOTED DATE: - July 9, 1998

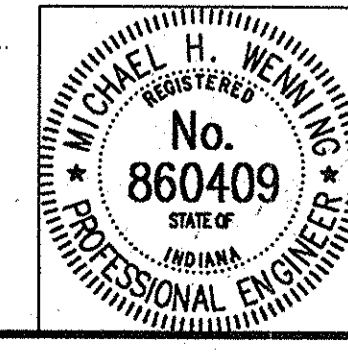
SUBMITTED FOR APPROVAL *Michael H. Weinning*

DRAWING: - S42 OF S52 SHEET: - 57 OF 79

PROJECT: - IM-80-1(143)4

CONTRACT NO. R-23808

BRIDGE FILE: - I-80-5-7828



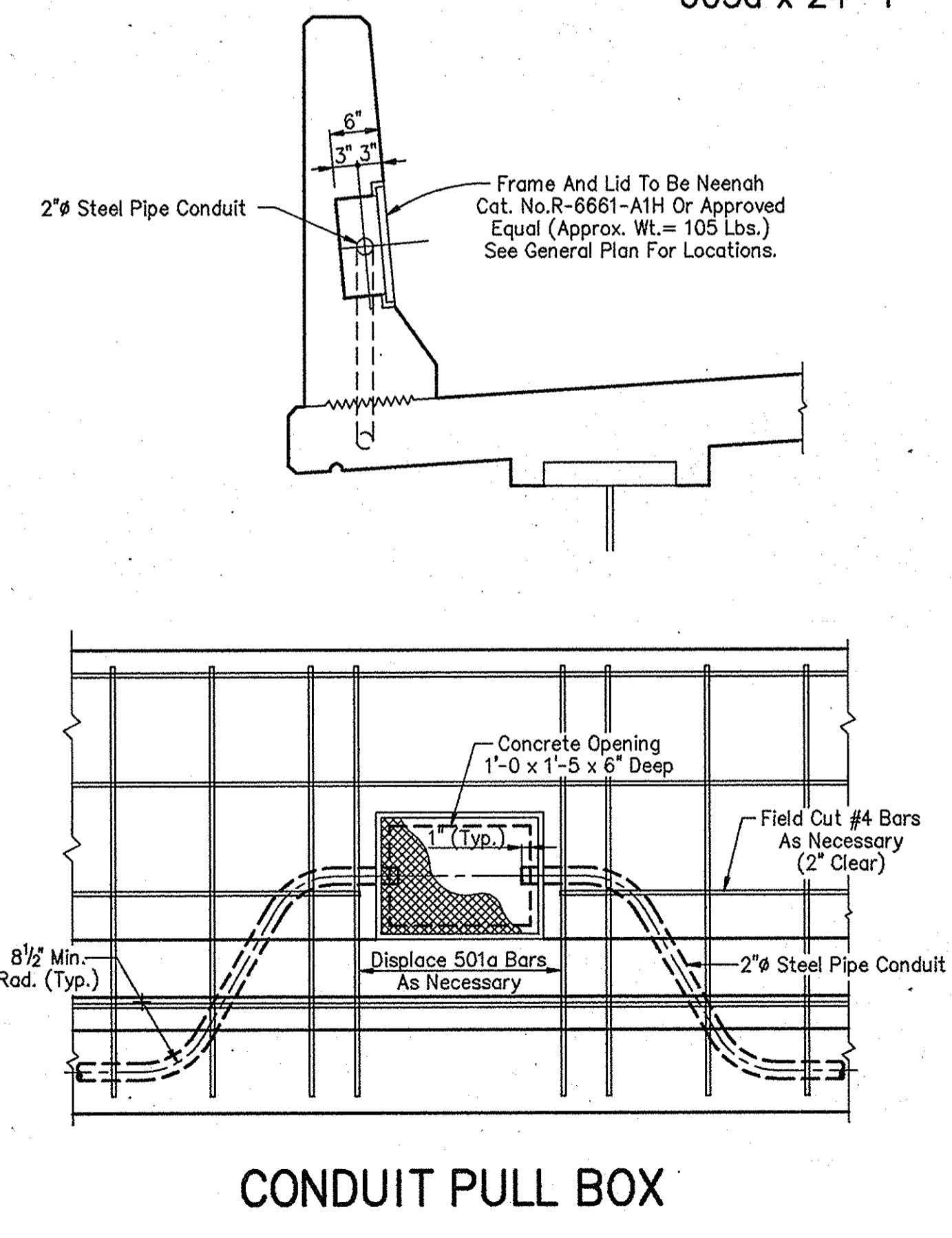
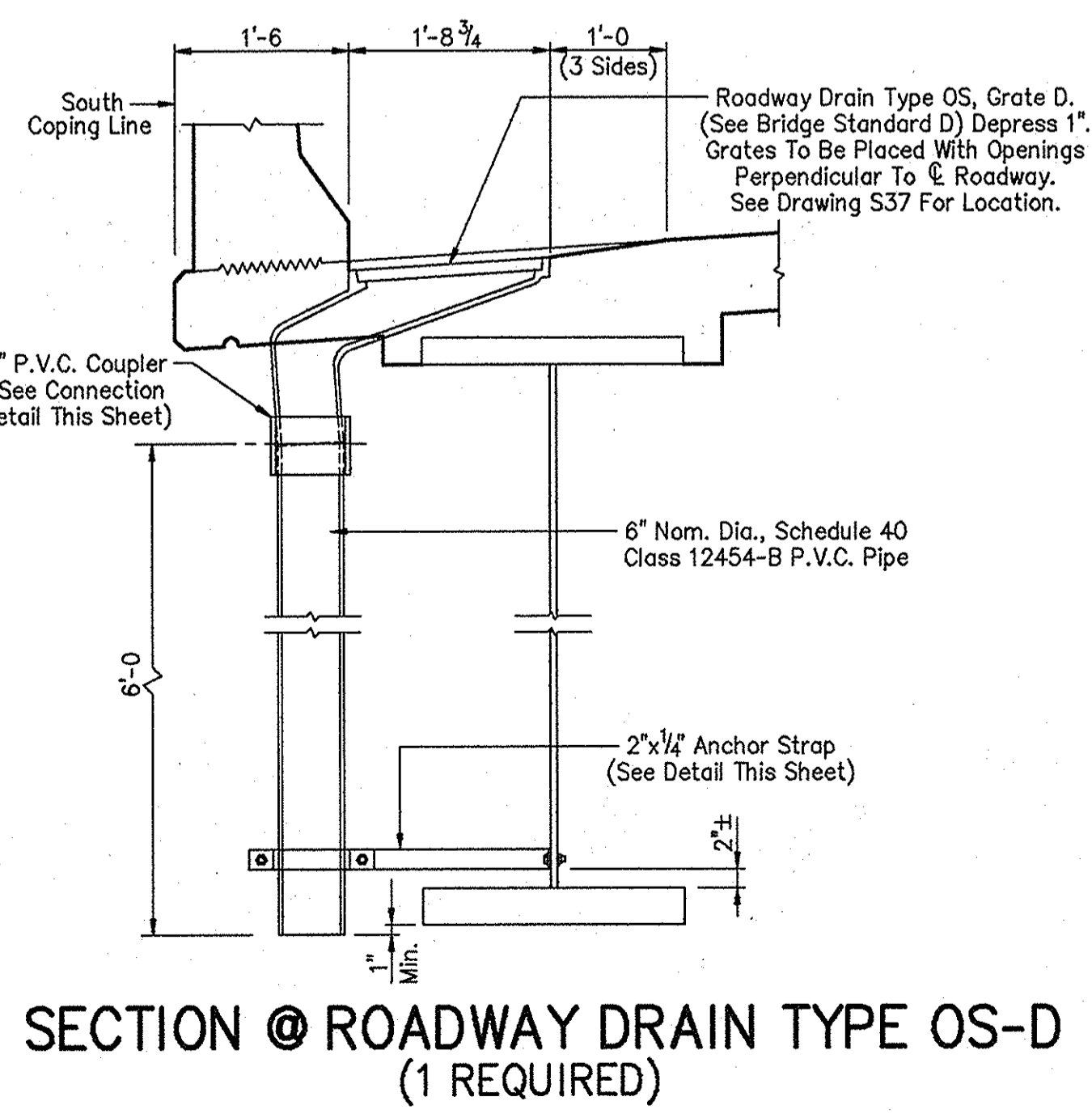
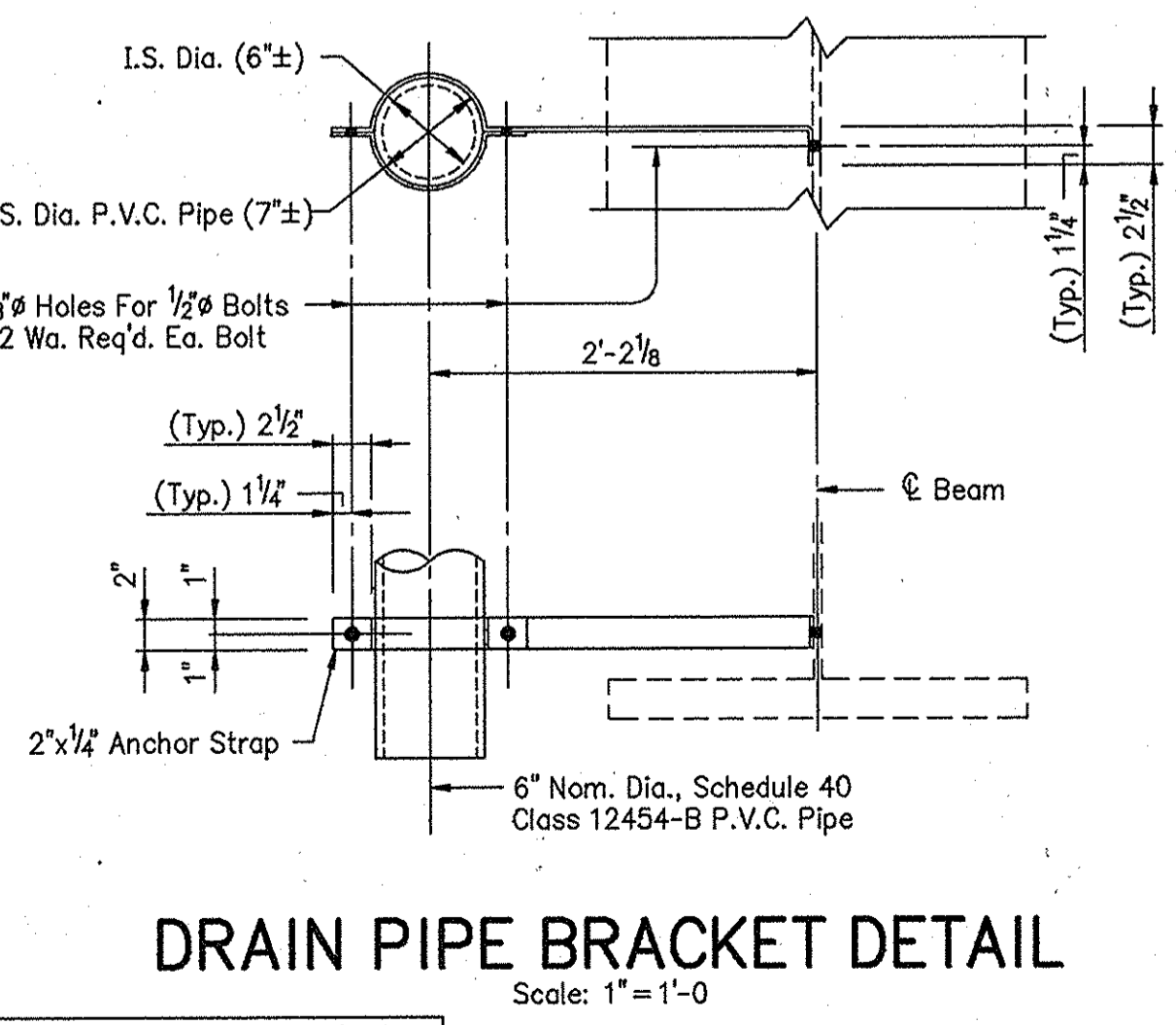
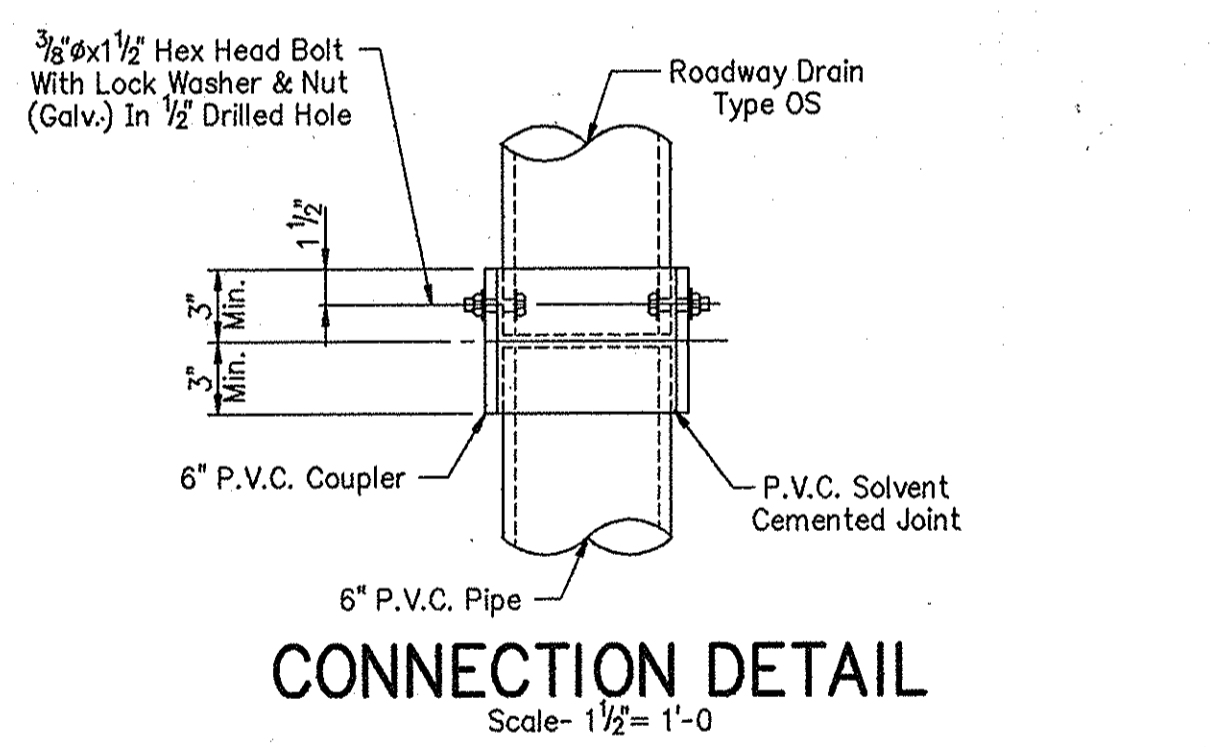
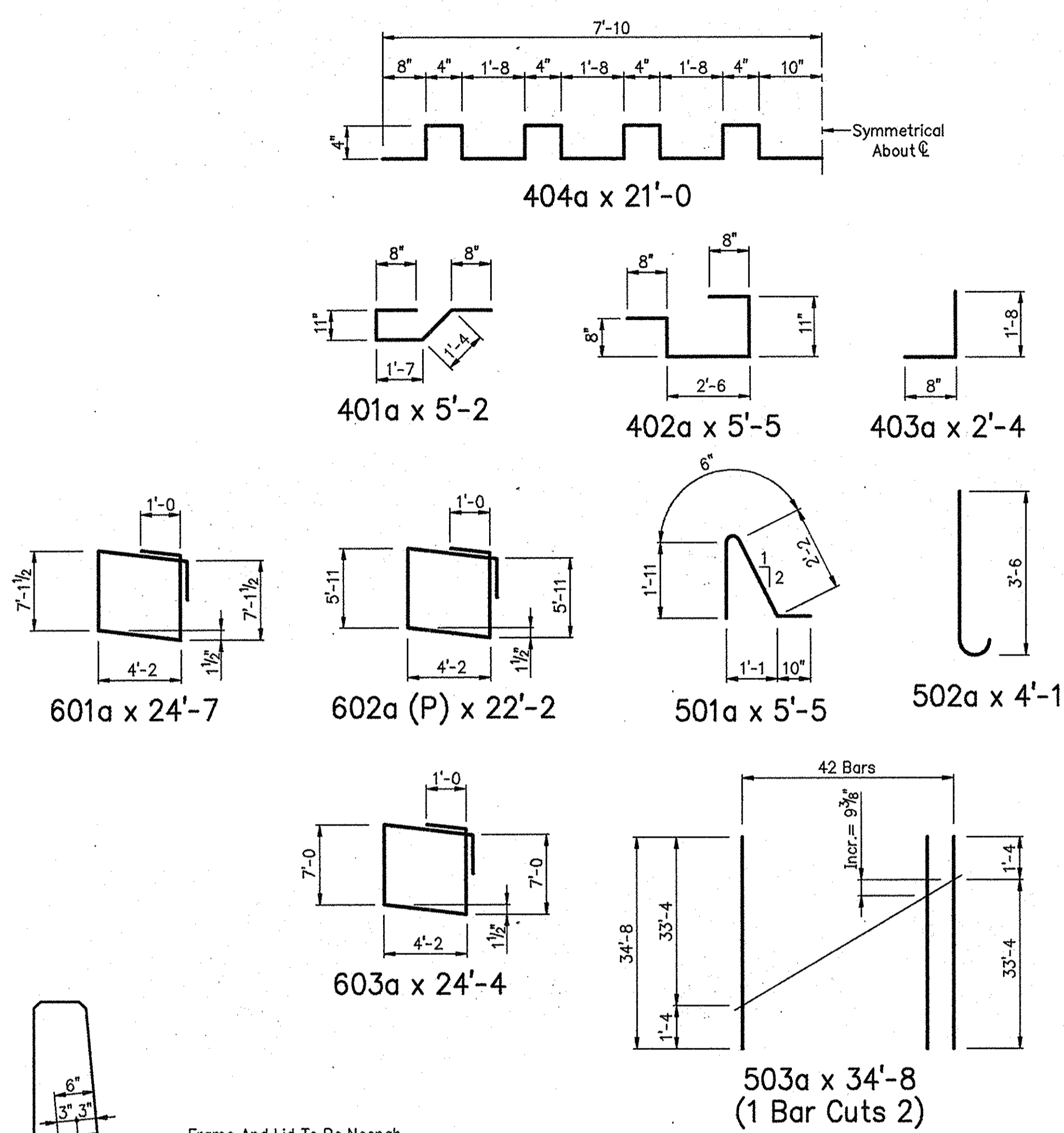
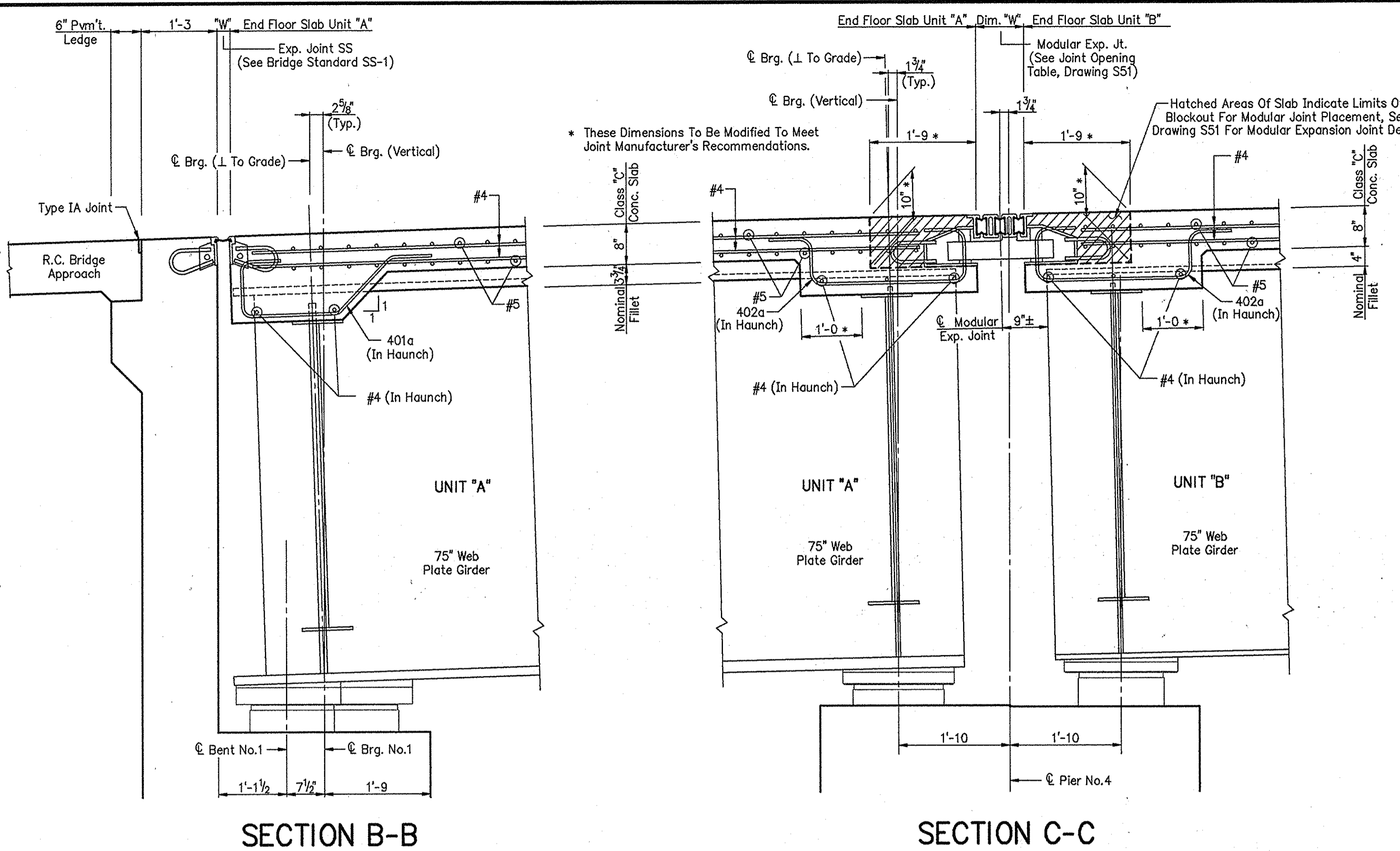
DESIGNED: MDR 3/04/98 CK'D
DRAWN: RJC 4/20/98 CK'D MDR 6/17/98
TRACED: CK'D

DWG FILE: C:\22\116\92119854
PLOT SCALE: 1:18,000
PLOT ORIGIN: 0,0,0,0
SP5LDRK: 07/09/98 15:52:17
EDIT DATE: 08/17/98
EDIT BY: DSH - 591

SUPERSTRUCTURE BILL OF MATERIALS

Epoxy Coated Reinforcing Steel			
Size And Mark	No. Of Bars	Length (Feet)	Weight (Lbs.)
601a	40	24'-7"	
603a	40	24'-4"	
#6	142	37'-6"	
#6	213	32'-0"	
Total No.6			21,175
501a	1706	5'-5"	
502a	3412	4'-1"	
503a	42	34'-8"	
#5	2	39'-6"	
#5	2296	34'-6"	
#5	130	33'-0"	
#5	336	24'-6"	
#5	8	19'-6"	
#5	8	15'-6"	
#5	16	11'-0"	
#5	16	8'-9"	
#5	16	3'-9"	
#5	8	3'-6"	
Total No.5			122,163
401a	27	5'-2"	
402a	27	5'-5"	
403a	28	2'-4"	
404a	48	21'-0"	
#4	840	39'-9"	
#4	216	35'-6"	
#4	180	34'-0"	
#4	72	28'-3"	
#4	48	15'-3"	
#4	15	7'-6"	
Total No.4			34,346
Total Epoxy Coated Reinforcing Steel			177,684
Plain Reinforcing Steel			
602a	24	22'-2"	
#6	48	9'-0"	
#6	30	7'-6"	
Total Plain Reinforcing Steel			1,786
Concrete			
Class "C" In Superstructure			529.7 Cys.
Concrete Railing Class "C"			
North Coping			70.3 Cys.
South Coping			72.3 Cys.
Total Concrete Railing Class "C"			142.6 Cys.
Special Class "C" Concrete			
Pier No.2 (In Cap & Slab)			41.8 Cys.
Pier No.3 (In Cap)			41.1 Cys.
Total Special Class "C" Concrete			82.9 Cys.
Miscellaneous			
Surface Seal			29,100 Sft.
Masonry Coating			10,600 Sft.
Barrier Delineators			57 Each
2" Galvanized Steel Pipe Conduit			571 Lft.
Cast Iron Grates, Basins And Fittings			
1- Standard Roadway Drain Type OS, Grate D			322 Lbs.
2- Conduit Pull Boxes @ 105 Lbs. Each			210 Lbs.
Total Cast Iron Grates, Basins And Fittings			532 Lbs.
Pipe, PVC, 6"			6 Lft.
Expansion Joint SS			39 Lft.
Modular Expansion Joint			35.0 Lft.
Post-Tensioning Bars, 1 1/4"			
Pier No.2 (In Cap & Slab)			5443 Lbs.
Pier No.3 (In Cap & Slab)			4385 Lbs.
Post-Tensioning Ducts, 1 5/8" I.D.			
Pier No.2 (In Cap & Slab)			1181 Lft.
Pier No.3 (In Cap & Slab)			952 Lft.
Anchor Bars, 6"x7"x1 1/2"			
Pier No.2 (In Cap)			64 Ea.
Pier No.3 (In Cap)			48 Ea.
Anchor Bars, 5"x8"x1 1/2"			
Pier No.2 (In Slab)			16 Ea.
Pier No.3 (In Slab)			16 Ea.
Structural Steel *			
Pier No.2 (In Cap)			5091 Lbs.
Pier No.3 (In Cap)			5091 Lbs.

* Included in Estimated Weight of Structural Steel, see Drawing S25.



NOTES:
 For reinforcing bar notes, see Bridge Standard C1.
 All reinforcing steel to be epoxy coated, except as noted.
 (P) Indicates plain reinforcing steel.
 For location of Sections B-B and C-C, see Drawing S37.
 For modular expansion joint details, see Drawing S51.
 The cost of couplers, straps, bolts and miscellaneous items to be included in the cost of PVC Pipe.

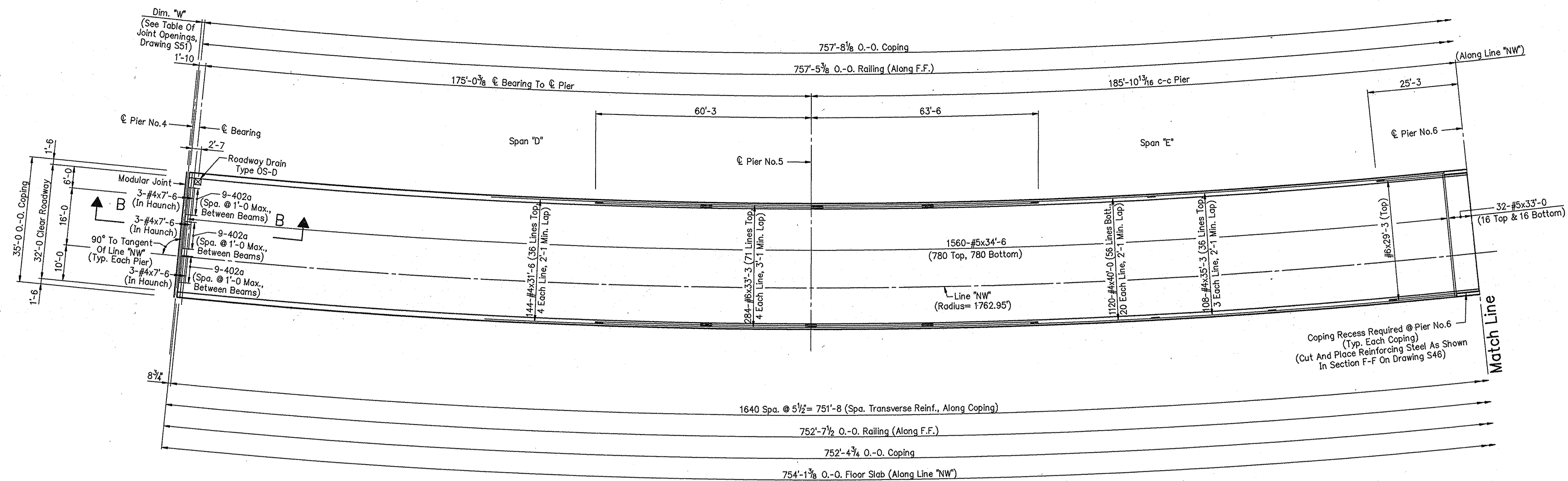
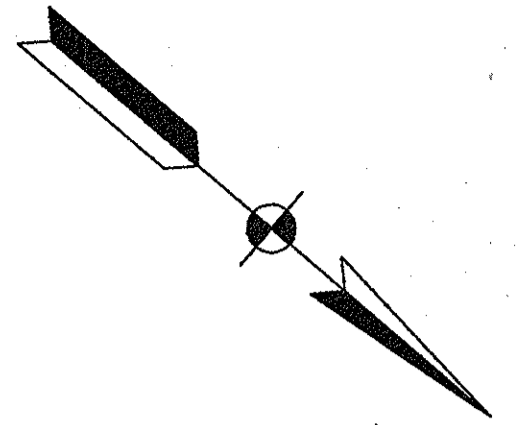
FLOOR DETAILS - UNIT "A" INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 3/4" = 1'-0, Unless Noted
 DATE: - July 9, 1998
 SUBMITTED FOR APPROVAL: *Michael H. Janney*
 DRAWING: - S43 OF S52 SHEET: - 58 OF 79
 PROJECT: - IM-80-1(143)4
 CONTRACT NO. R-23808
 BRIDGE FILE: - I-80-5-7828

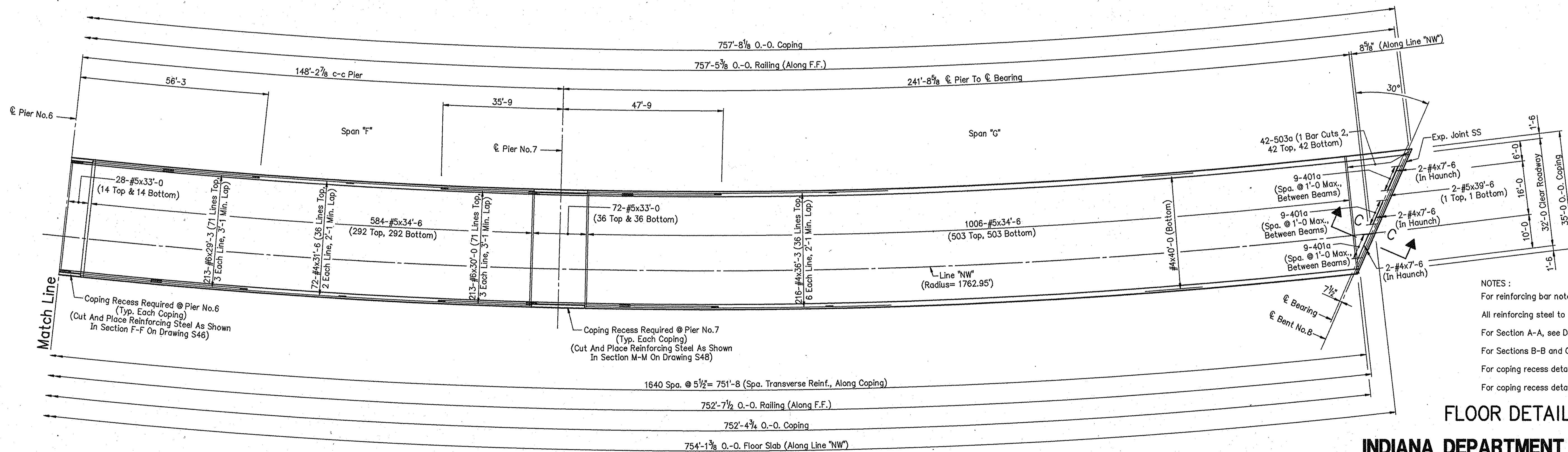


DESIGNED MDR 12/2/94 C.K'D MSP 9/13/96
 DRAWN DSH 1/28/97 C.K'D MDR 7/8/98
 TRACED C.K'D

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 PLOT SCALE: 1:16200
 PLOT ORIGIN: 0.000,0.000
 SHEET NO: 58
 EDIT DATE: 07/09/98 16:01:02
 EDITED BY: DSH - 591



PARTIAL PLAN - UNIT "B"



PARTIAL PLAN - UNIT "B"

- NOTES :
- For reinforcing bar notes, see Bridge Standard C1.
 - All reinforcing steel to be epoxy coated.
 - For Section A-A, see Drawing S45.
 - For Sections B-B and C-C, see Drawing S50.
 - For coping recess details at pier No.6, see Drawings S46 and S47.
 - For coping recess details at pier No.7, see Drawings S48 and S49.

FLOOR DETAILS - UNIT "B"

INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 1/16" = 1'-0", Unless Noted DATE: - July 9, 1998

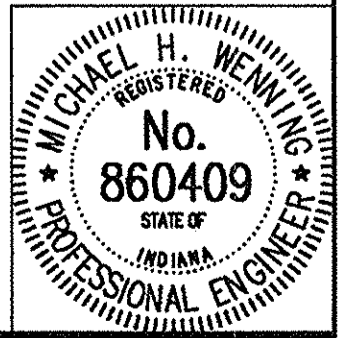
SUBMITTED FOR APPROVAL *[Signature]*

DRAWING: - S44 OF S52 SHEET: - 59 OF 79

PROJECT: - IM-80-1(143)4

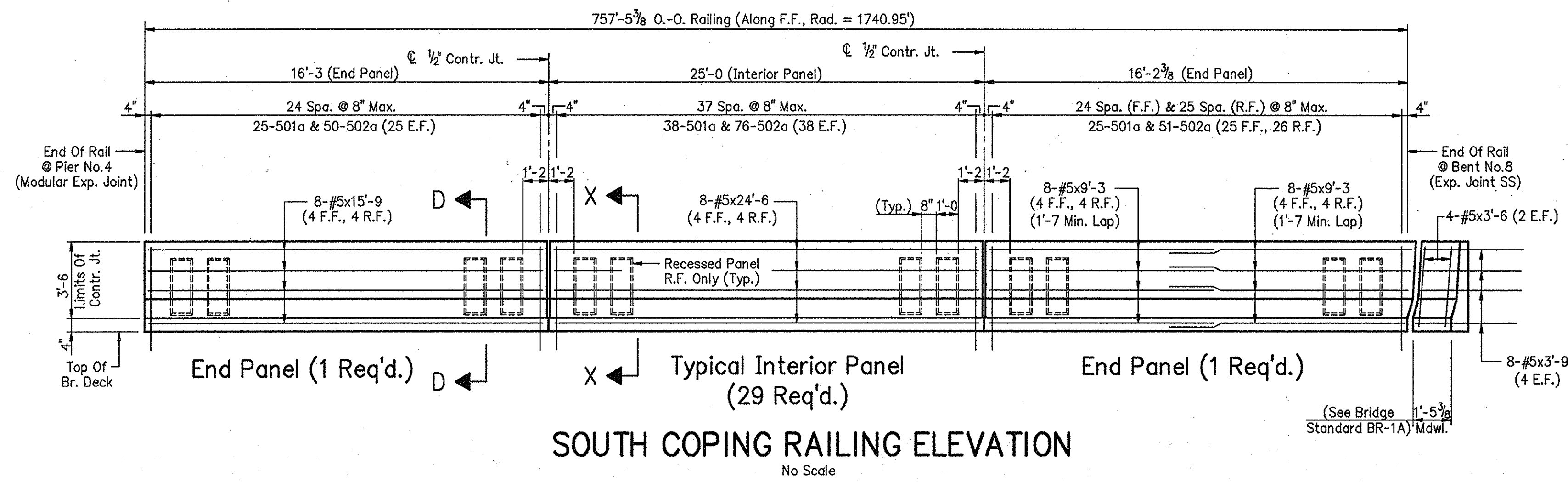
CONTRACT NO. R-23808

BRIDGE FILE: - I-80-5-7828

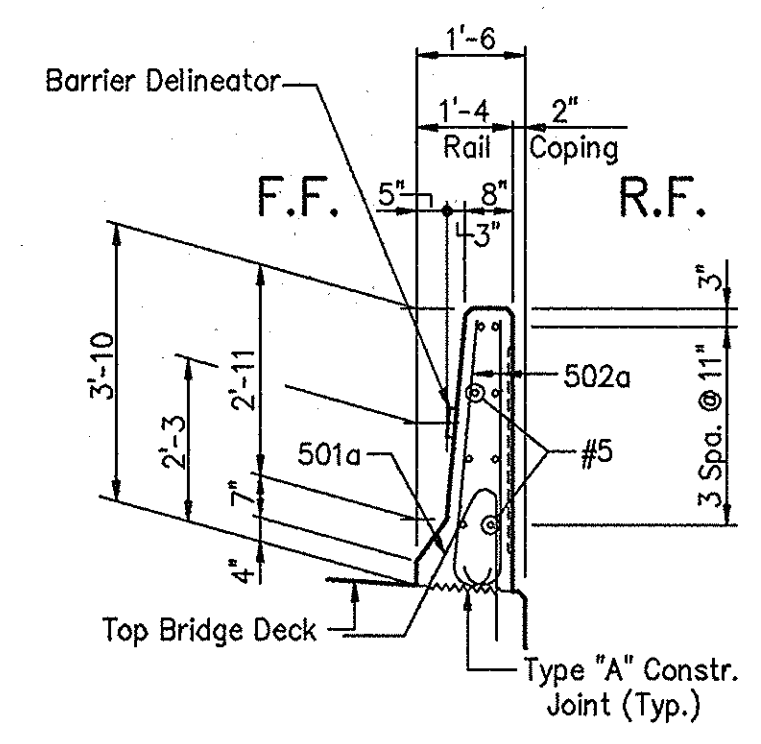


DESIGNED MDR 12/2/94 MSP 9/13/96
 DRAWN DSH 1/27/97 CK'D MDR 7/4/98
 TRACED CK'D

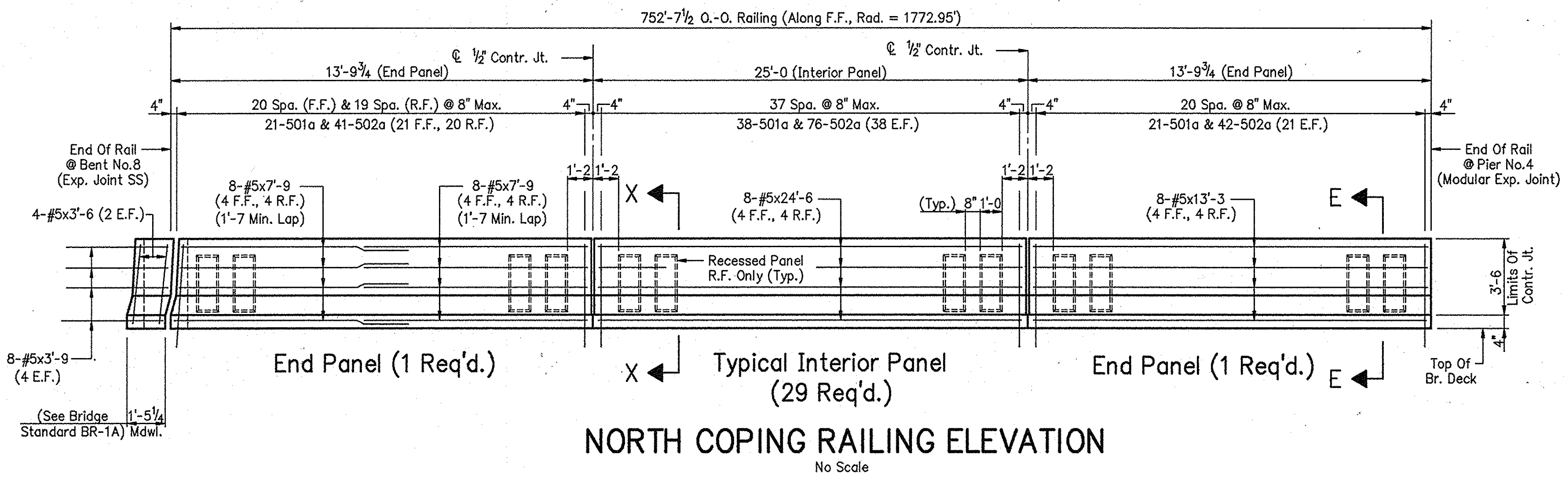
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 EDITED BY: DSH - 591



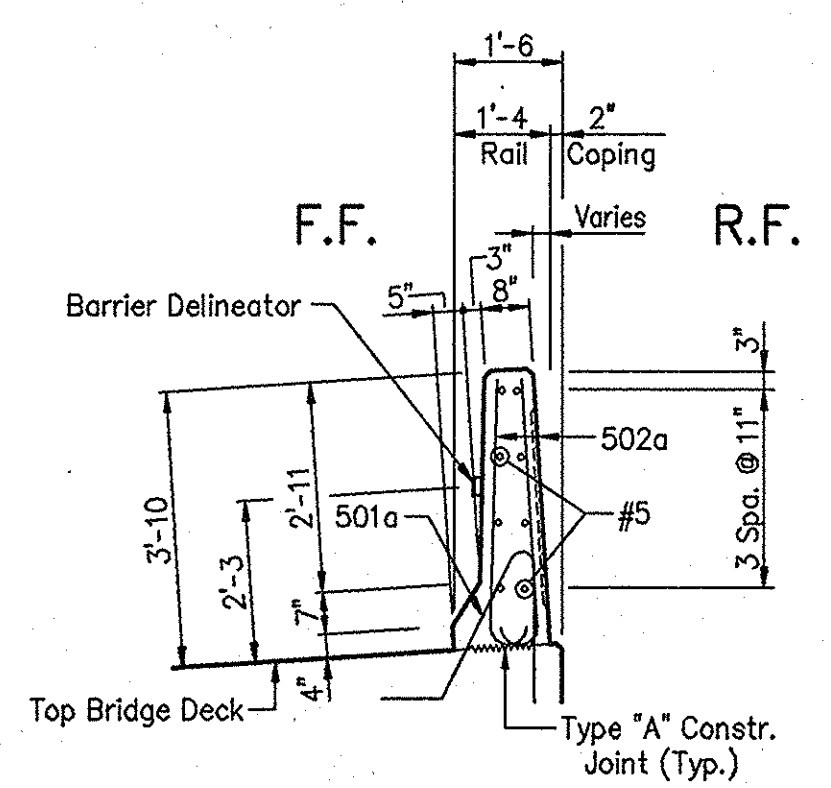
SOUTH COPING RAILING ELEVATION
No Scale



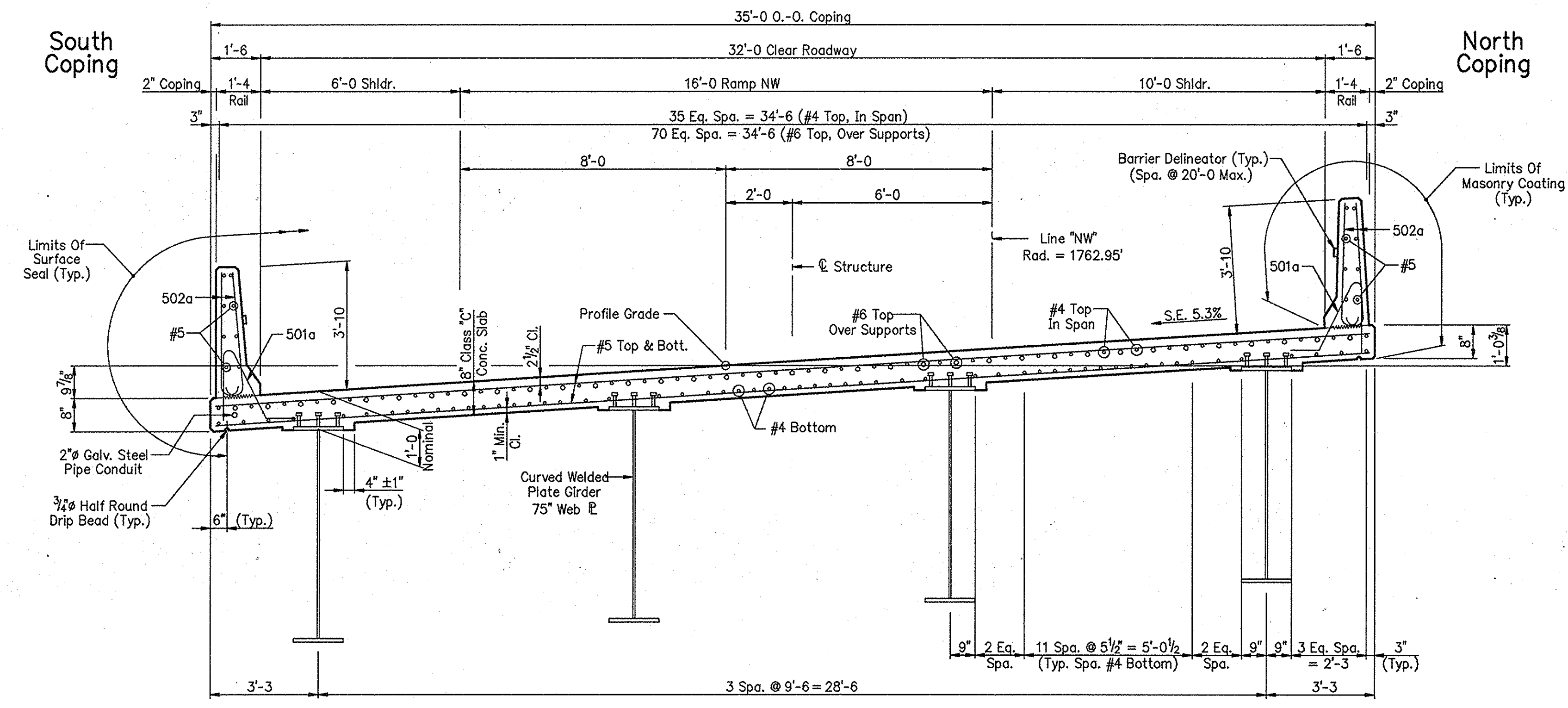
SECTION D-D



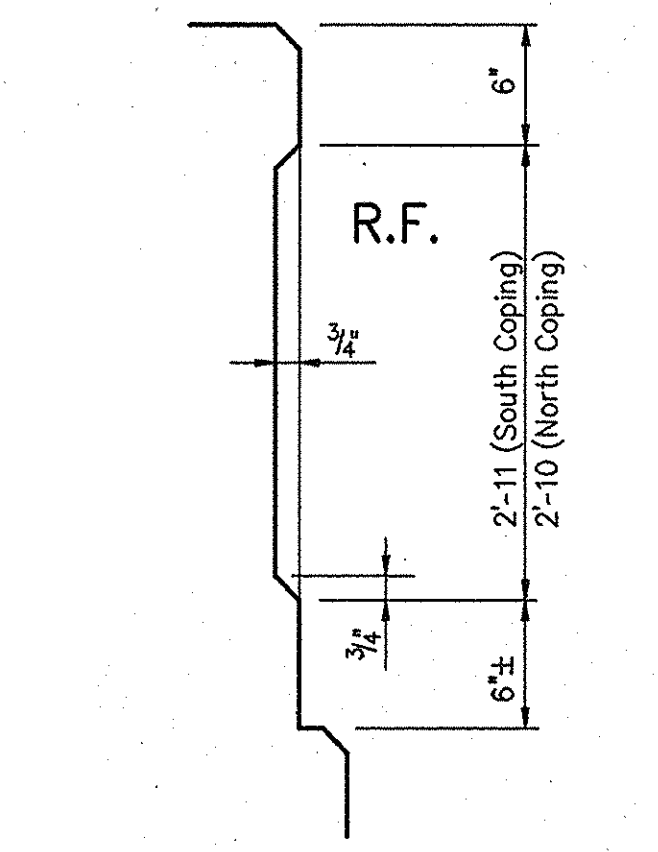
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No Scale



SECTION E-E



SECTION A-A
No Scale

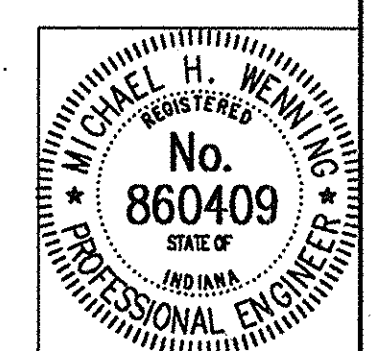


PARTIAL SECTION X-X
Showing Recessed Panel
No Scale

NOTES:
For reinforcing bar notes, see Bridge Standard C1.
All reinforcing steel to be epoxy coated.
For location of Section A-A, see Drawing S44.

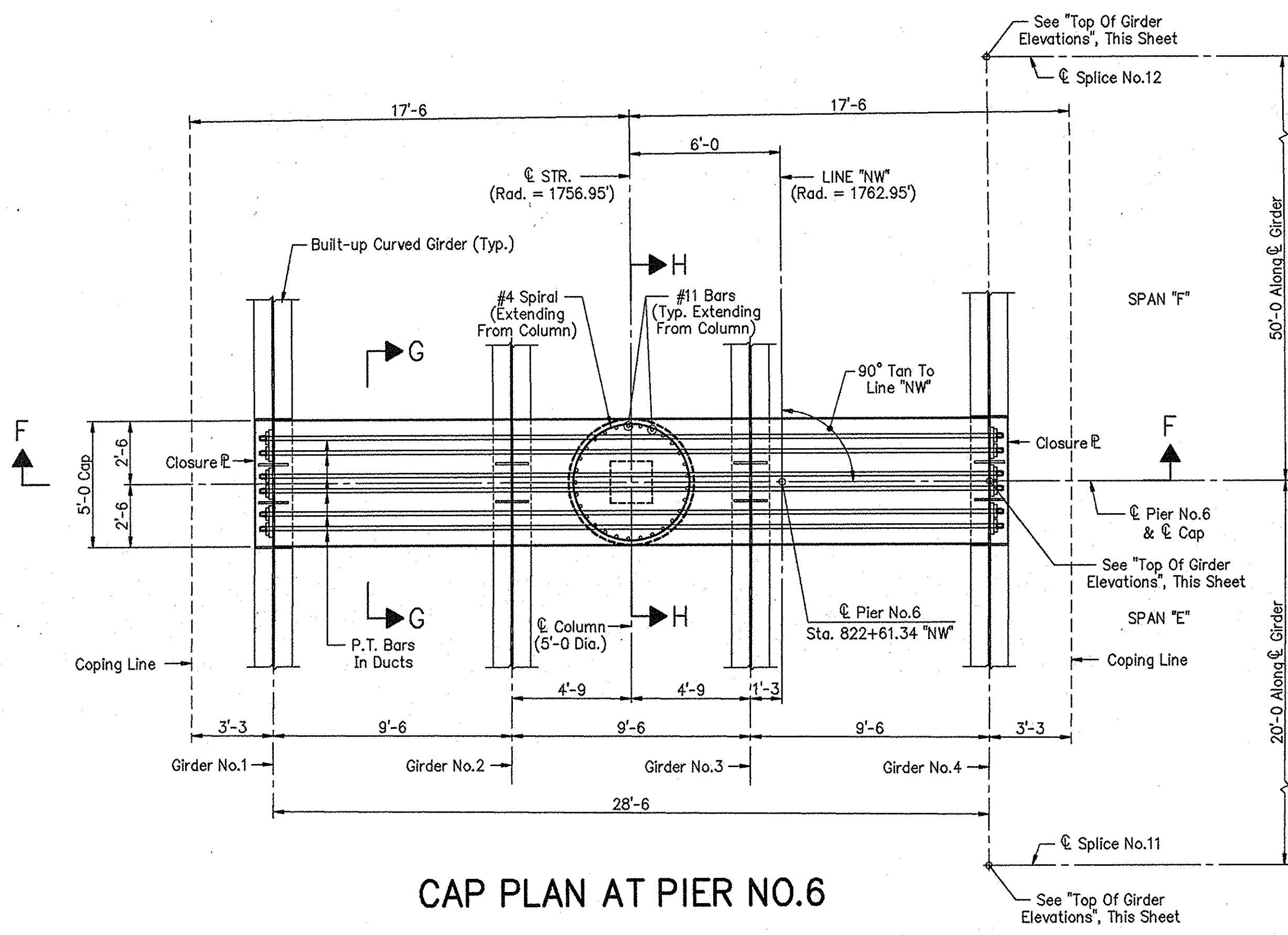
FLOOR DETAILS - UNIT "B"
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 3/8" = 1'-0", Unless Noted
DATE: - July 9, 1998
SUBMITTED FOR APPROVAL: *[Signature]*
DRAWING: - S45 OF S52 SHEET: - 60 OF 79
PROJECT: - IM-80-1(143)4
CONTRACT NO. - R-23808
BRIDGE FILE: - I-80-5-7828

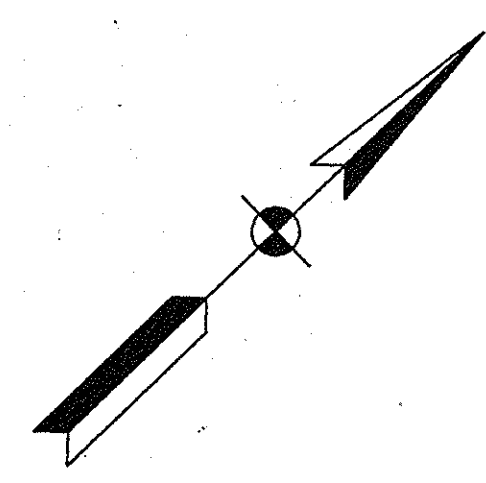


DESIGNED MDR 12/2/94 C.K.D. MSP 9/13/96
DRAWN DSH 1/28/97 C.K.D. MDR 7/4/98
TRACED C.K.D.

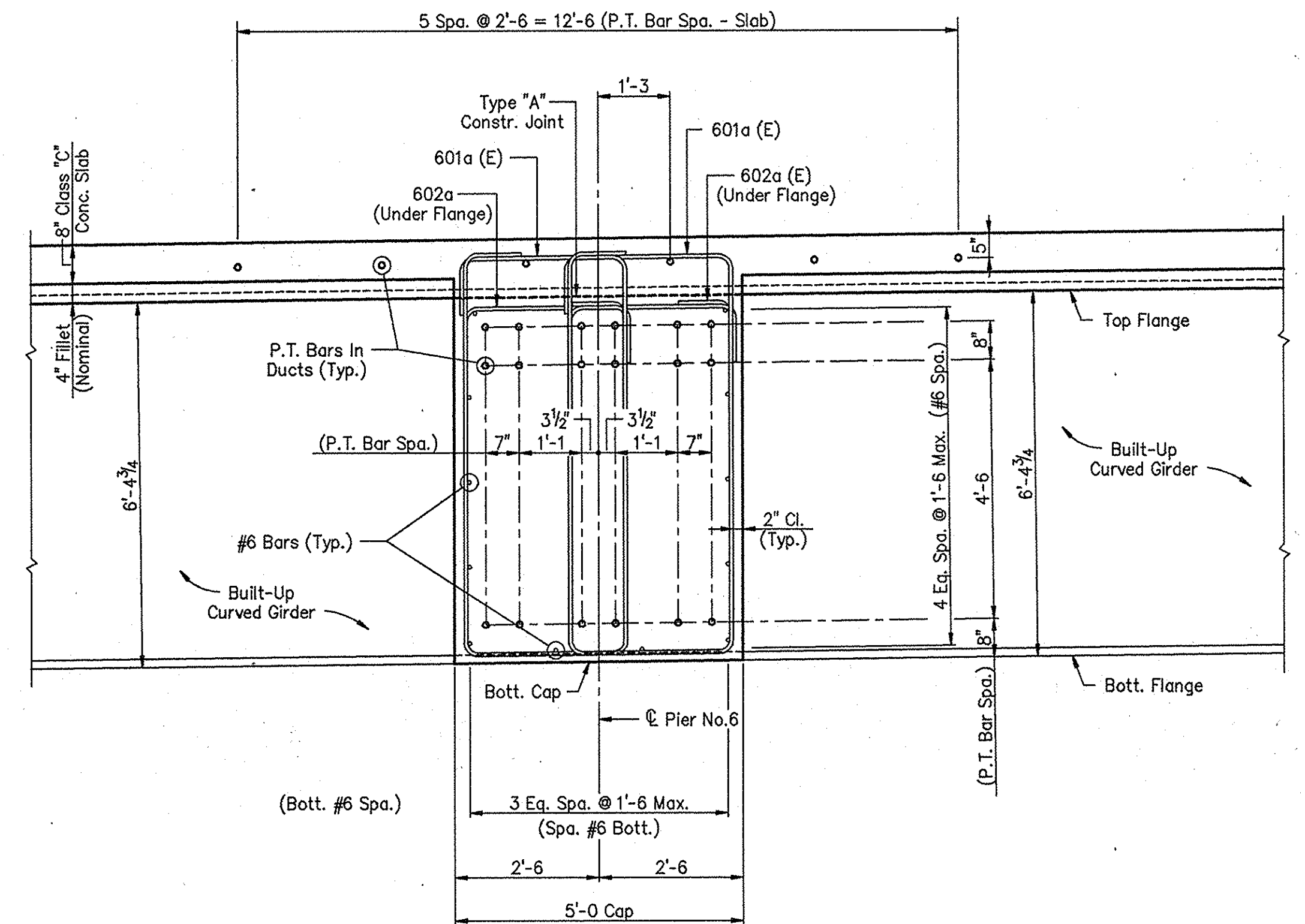
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EDITED BY: DSH - 591



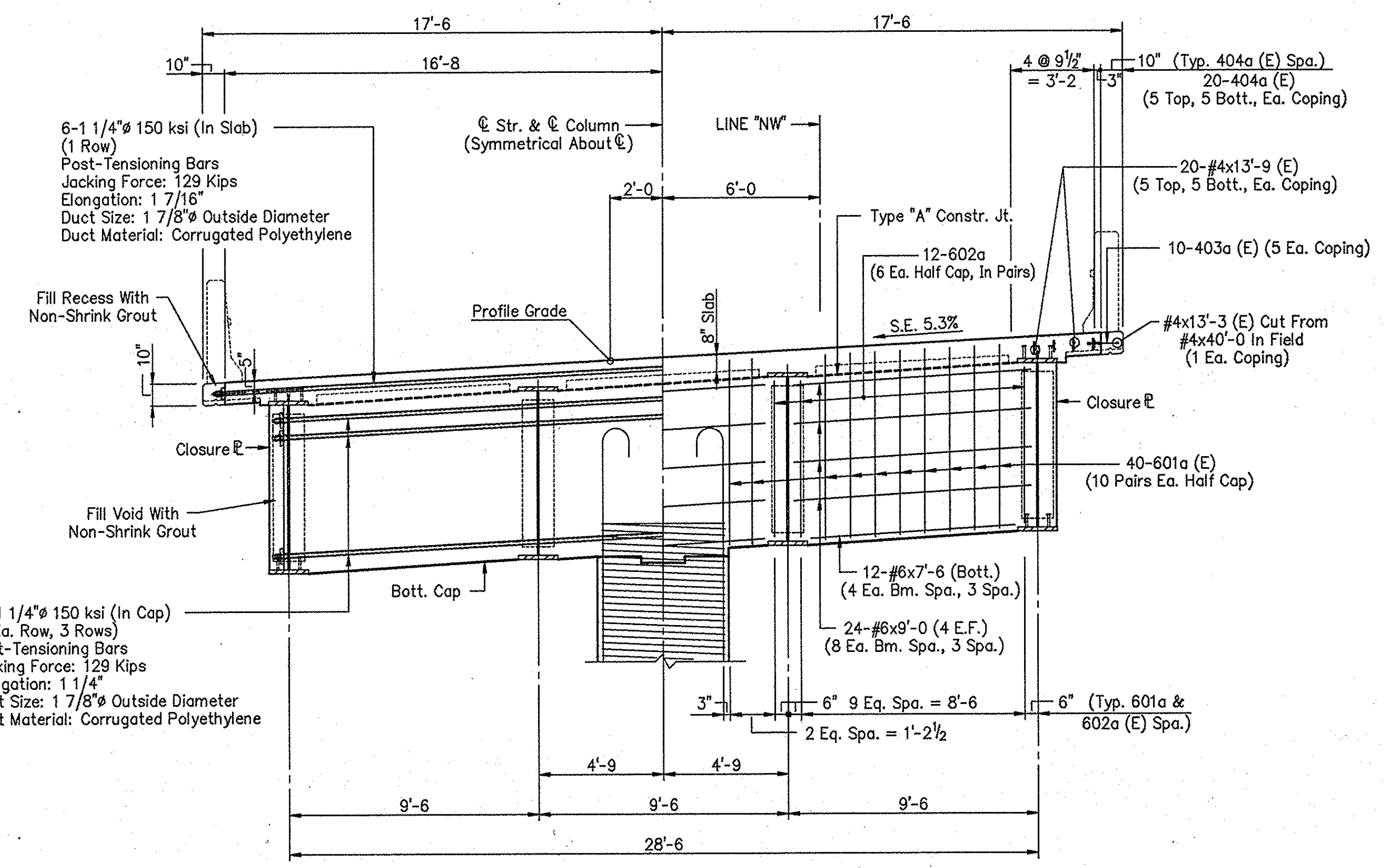
CAP PLAN AT PIER NO.6



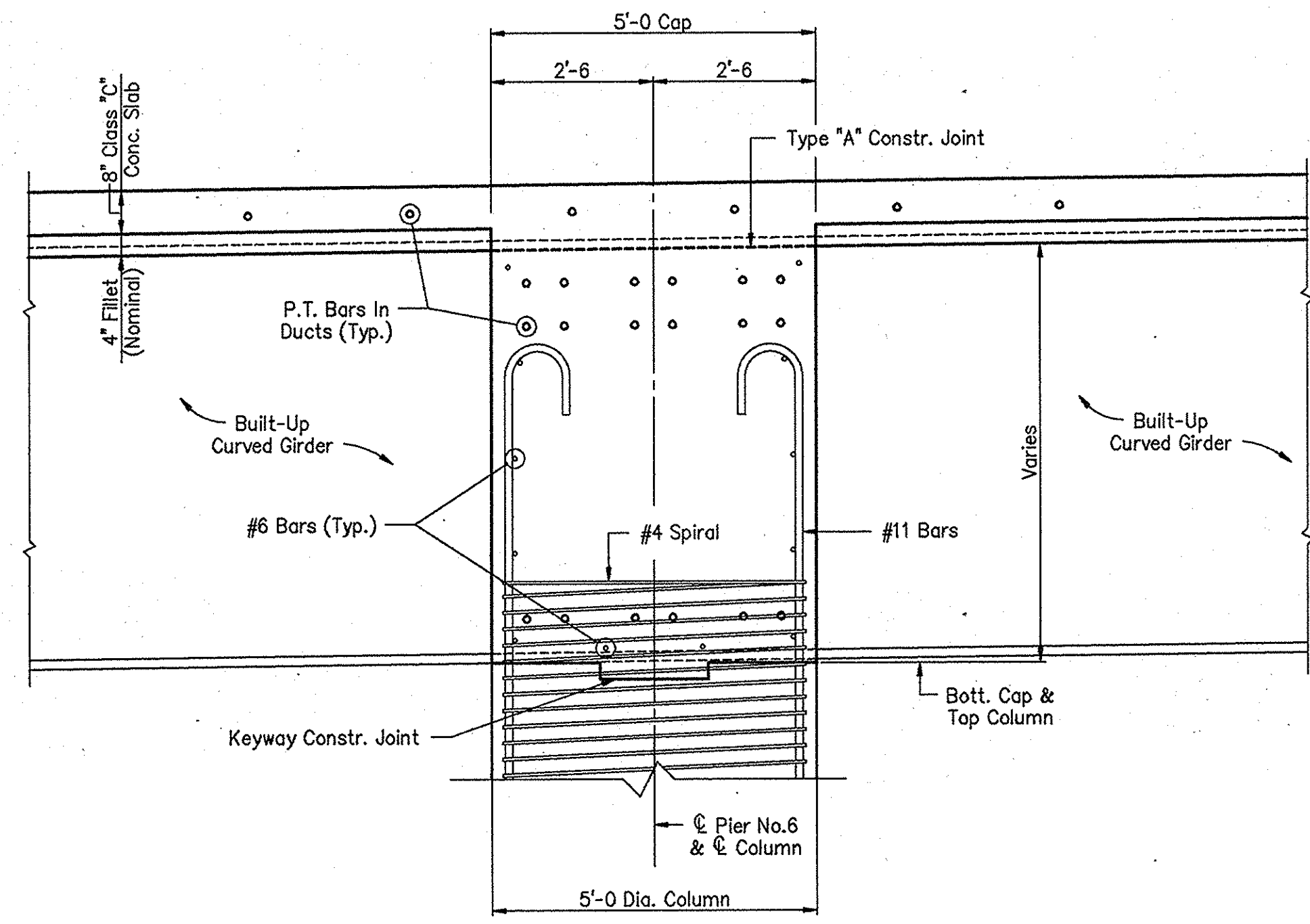
TOP OF GIRDER ELEVATIONS				
Location	G1	G2	G3	G4
☉ Splice No.12	640.040	640.540	641.040	641.530
☉ Pier No.6	640.800	641.305	641.810	642.310
☉ Splice No.11	641.075	641.585	642.090	642.595



SECTION G-G
Scale: 1/2" = 1'-0"



SECTION F-F



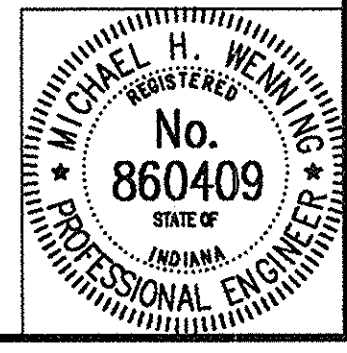
SECTION H-H
Scale: 1/2" = 1'-0"

NOTES:
 For reinforcing bar notes, see Bridge Standard C1.
 (E) indicates Epoxy Coated reinforcing steel.
 For additional details, see drawing S47.
 The Stressing Operation in slab and cap can be performed at either girder No.1 or girder No.4.
 For Bill Of Materials and bar bending details, see Drawing S9.

FLOOR DETAILS - UNIT "B"
 INDIANAPOLIS DEPARTMENT OF TRANSPORTATION

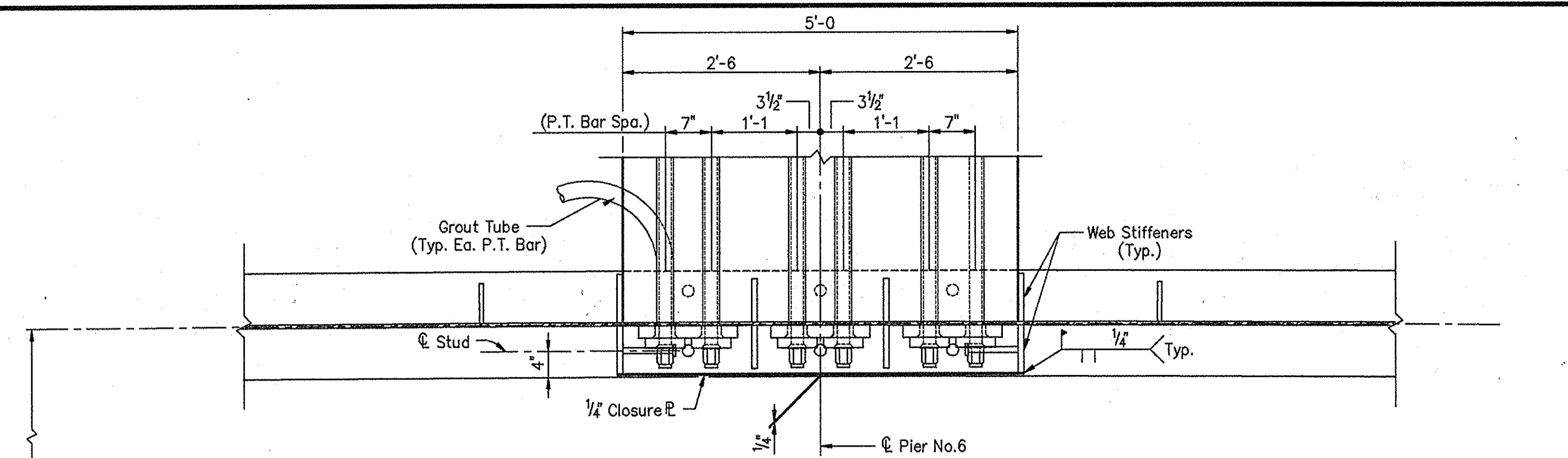
SCALE: - 1/4" = 1'-0, UNLESS NOTED DATE: - July 9, 1998
 SUBMITTED FOR APPROVAL

DRAWING: - S46 OF S52 SHEET: - 61 OF 79
 PROJECT: - IM-80-1(143)4
 CONTRACT NO. R-23808
 BRIDGE FILE: - I-80-5-7828

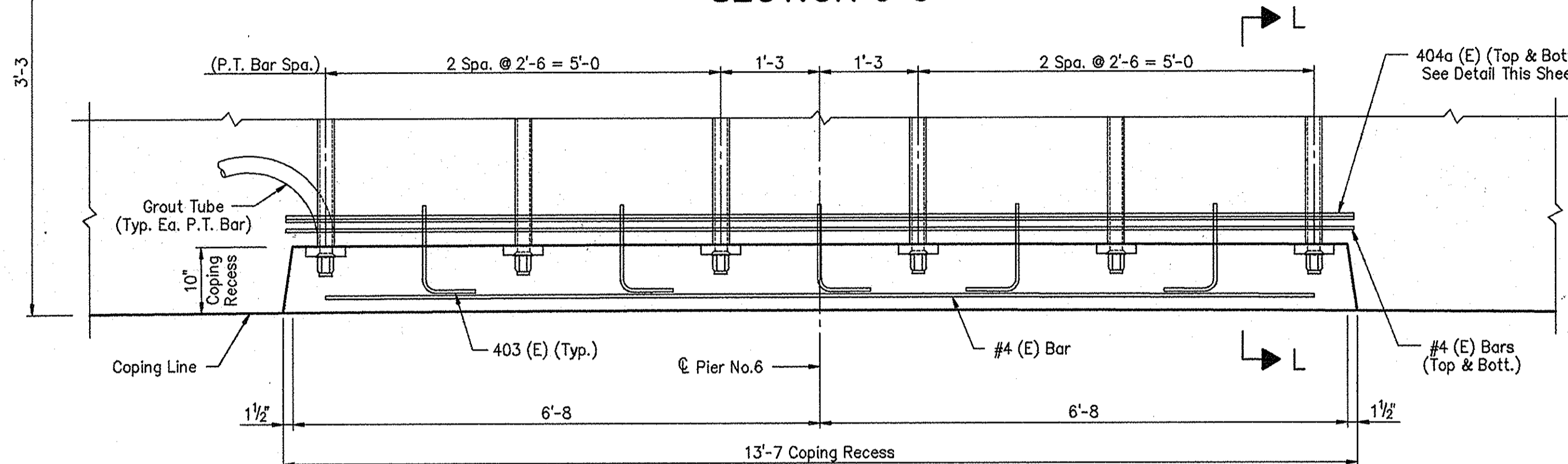


DESIGNED MDR 3/4/98
 DRAWN TLH 4/9/98
 TRACED

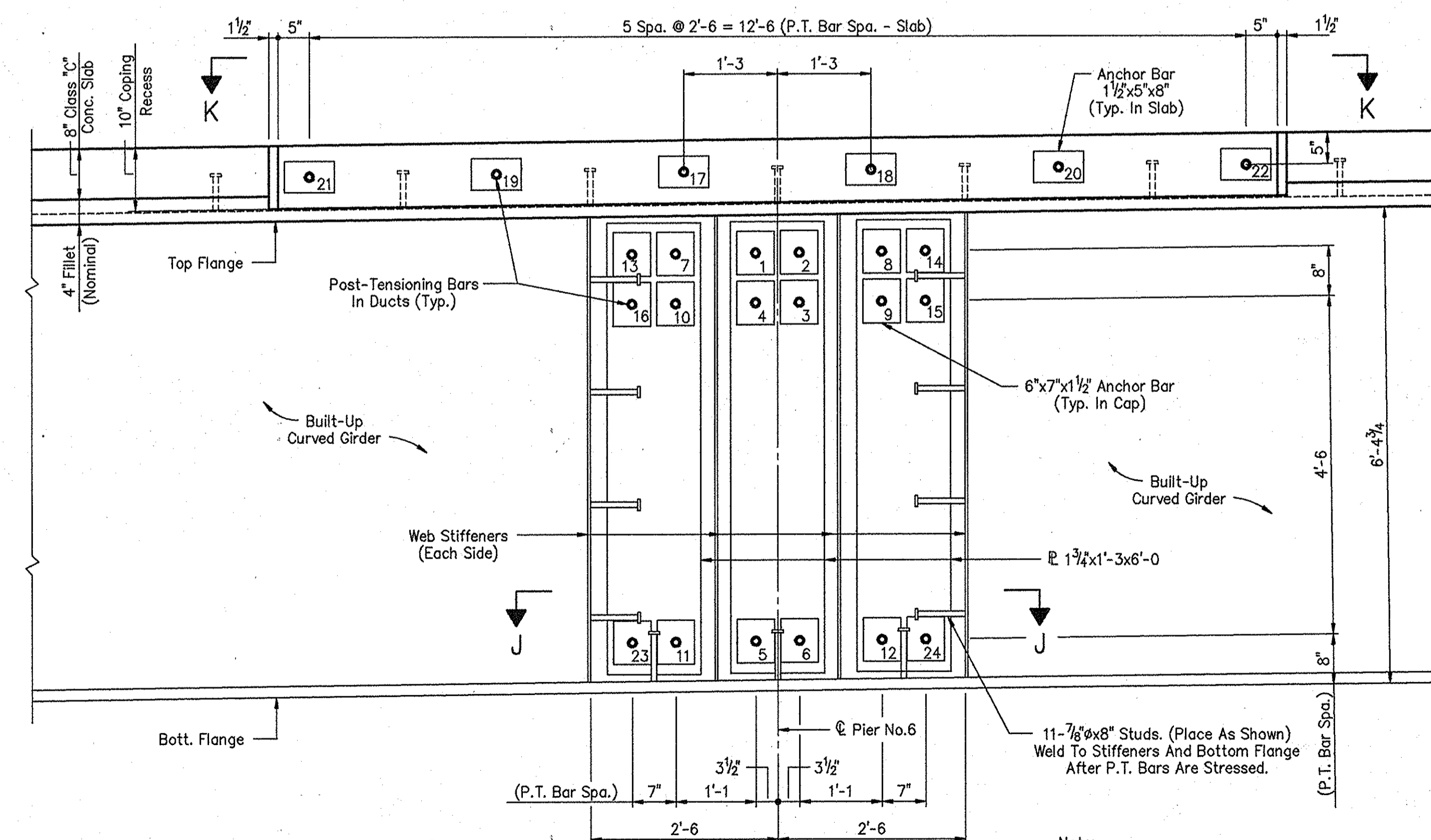
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 EDITED BY: DSH - SBI



SECTION J-J

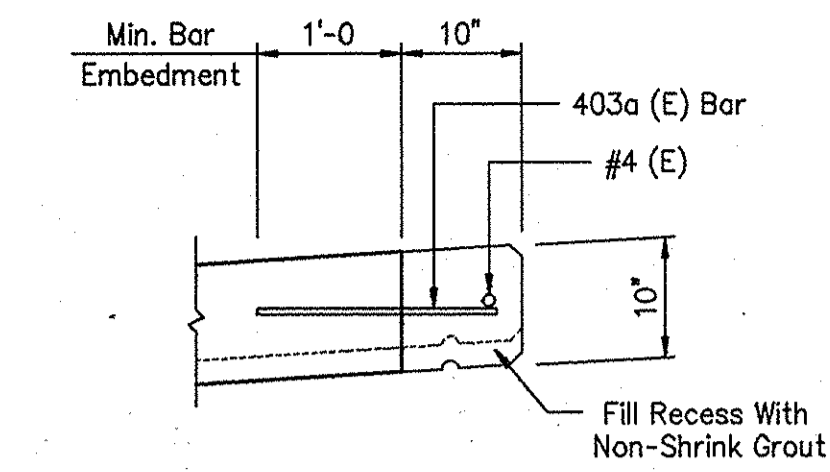


SECTION K-K

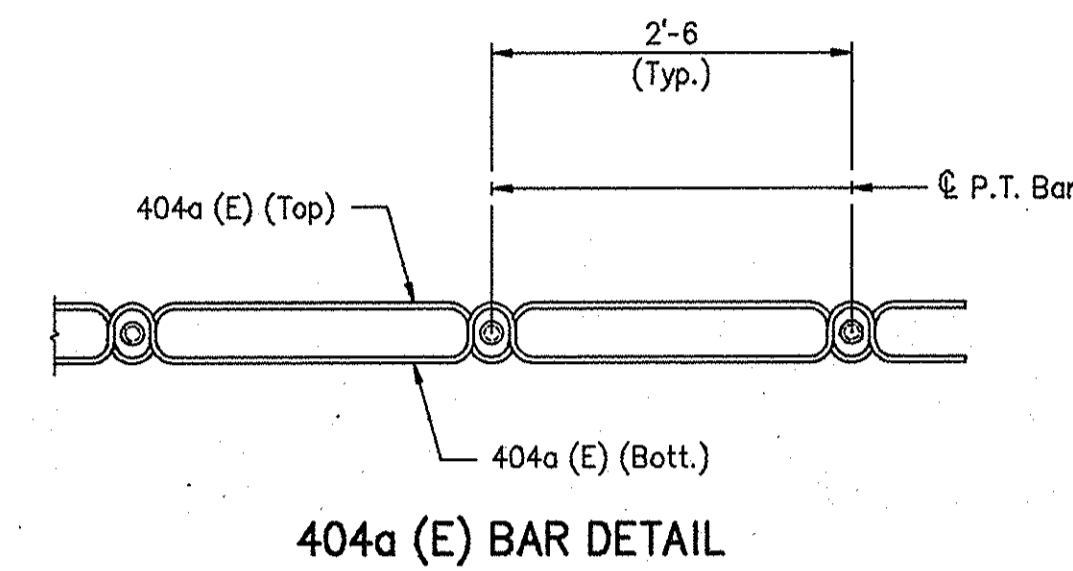


GIRDER NO.1 ELEVATION AT PIER NO.6
(Girder No.4 Similar By Opposite Hand)

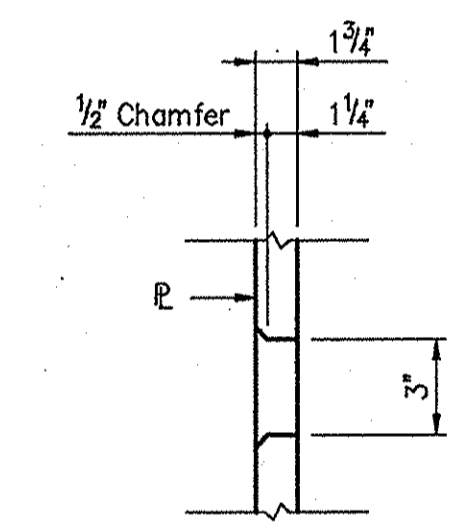
Note:
Numbers indicate stressing order for P.T. Bars.
Bars 1 thru 16 shall be stressed before slab is poured. Bars 17 thru 24 shall be stressed after slab is poured.



SECTION L-L



404a (E) BAR DETAIL



TYPICAL HOLE DETAIL
No Scale

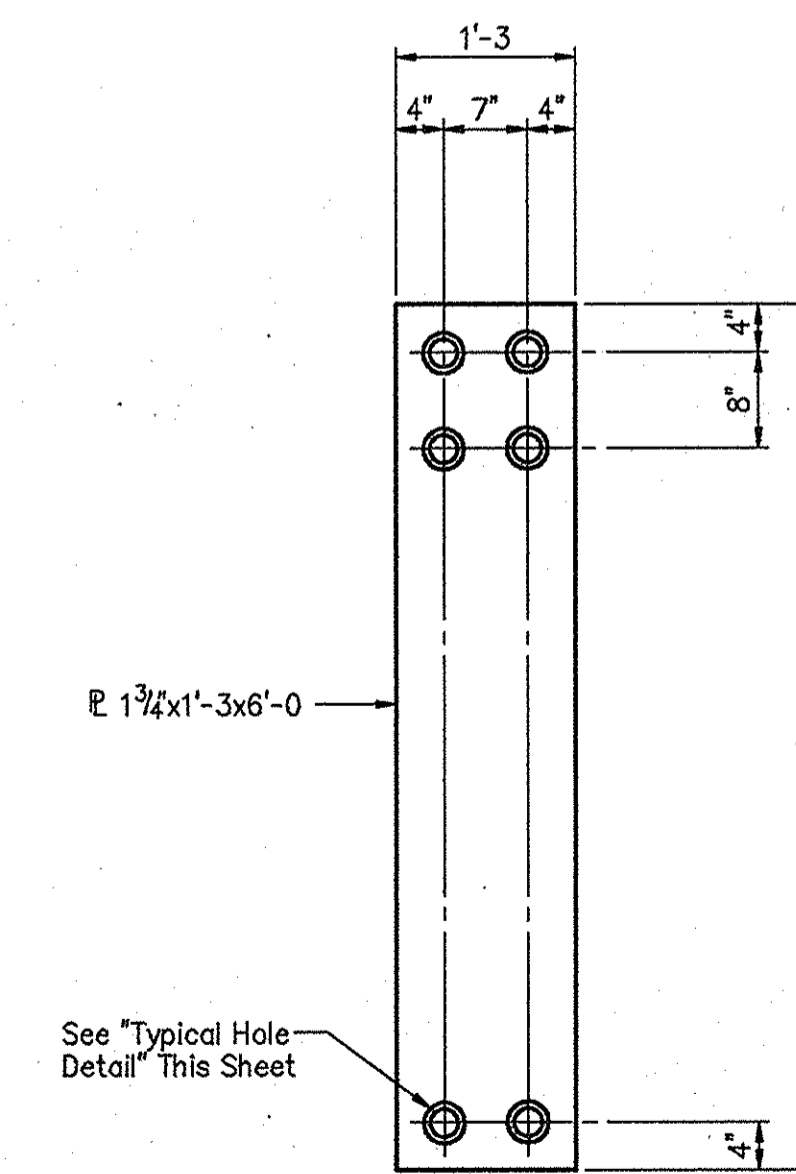
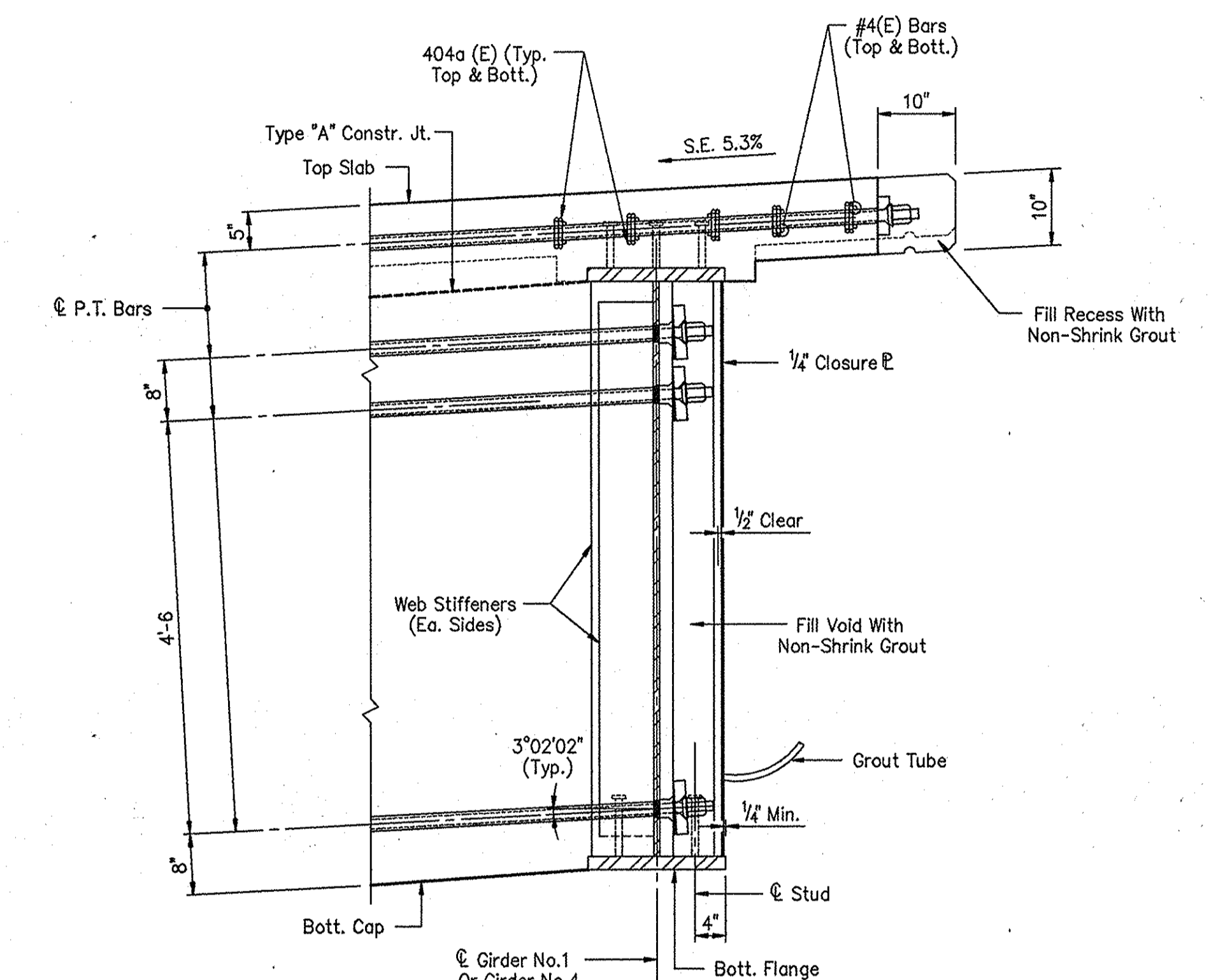


PLATE DETAIL



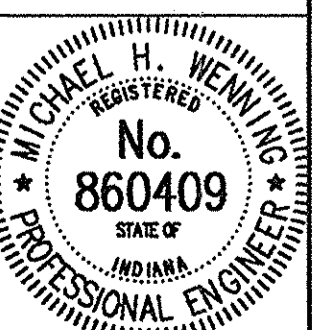
SECTION I-I

NOTES:
For reinforcing bar notes, see Bridge Standard C1.
(E) indicates Epoxy Coated reinforcing steel.
For Bill Of Materials and bar bending details, see Drawing S50.

FLOOR DETAILS - UNIT "B"
INDIANAPOLIS DEPARTMENT OF TRANSPORTATION

SCALE: - 3/4" = 1'-0", UNLESS NOTED DATE: - July 9, 1998
SUBMITTED FOR APPROVAL

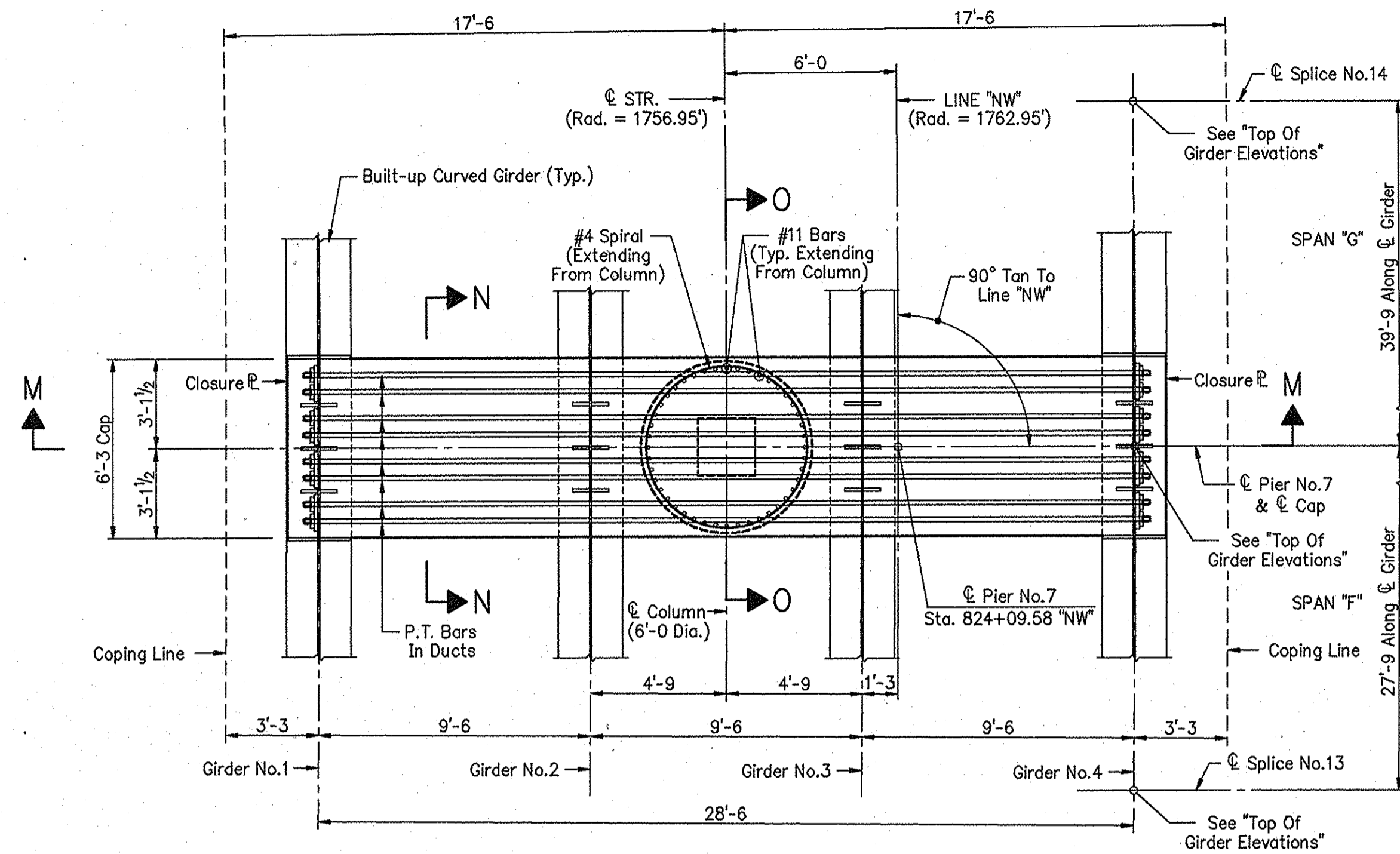
DRAWING: - S47 OF S52 SHEET: - 62 OF 79
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - 1-80-5-7828



DESIGNED MDR 3/4/98
DRAWN TLH 4/11/98
TRACED

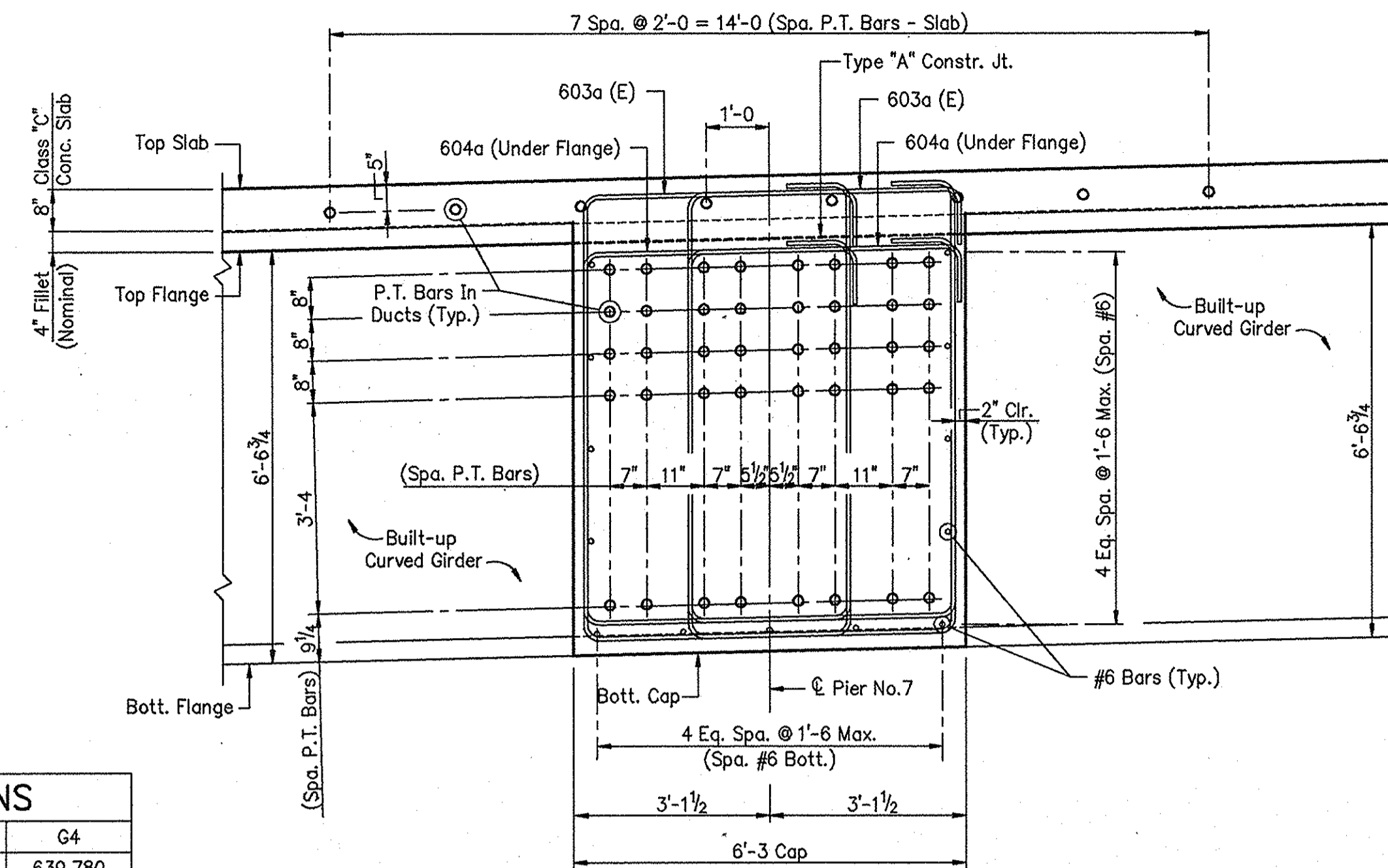
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EDIT DATE: 05/11/98
EDIT BY: DSH - SBI

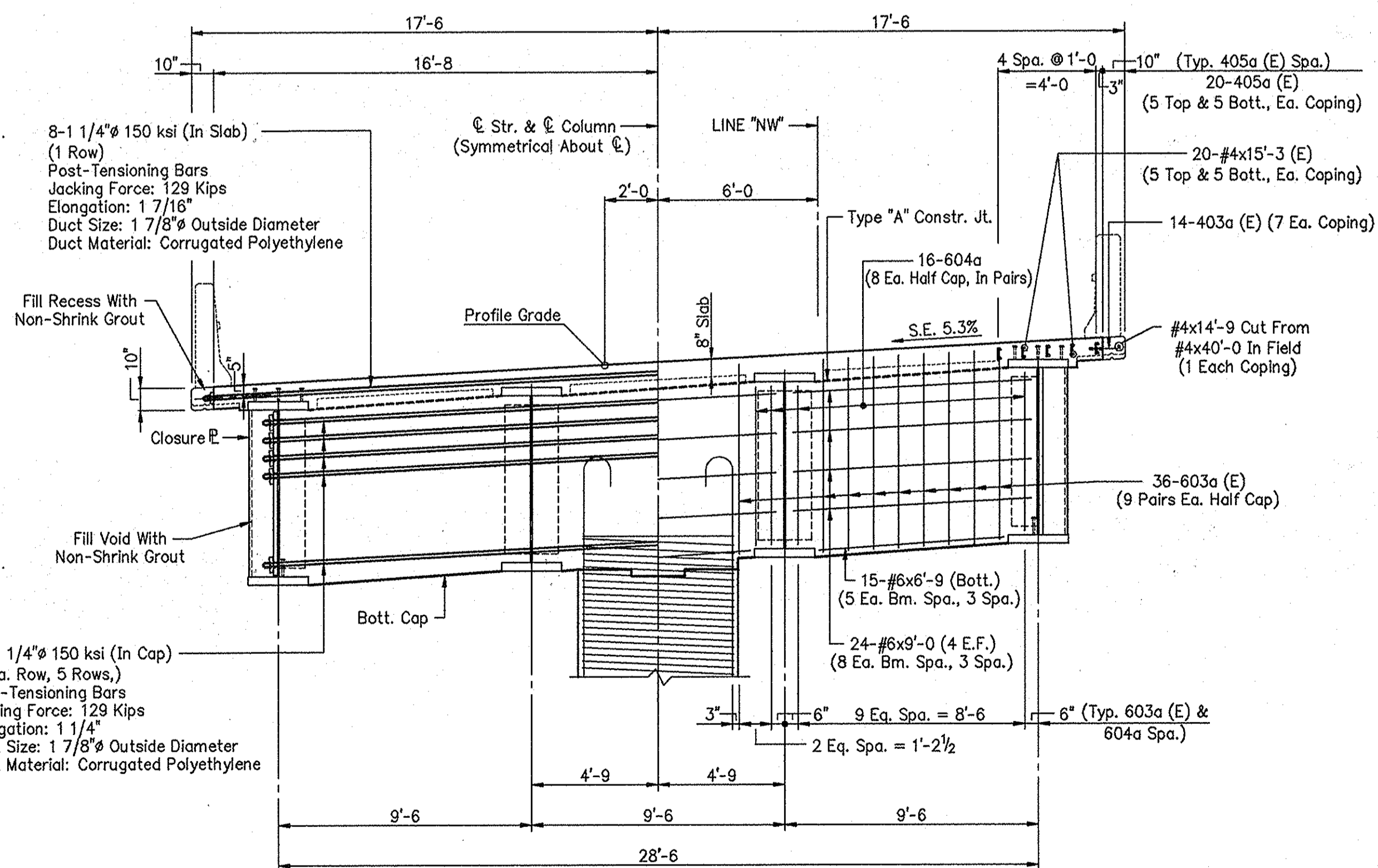


CAP PLAN AT PIER NO.7

TOP OF GIRDER ELEVATIONS				
Location	G1	G2	G3	G4
Splice No.14	638.165	638.705	639.240	639.780
Pier No.7	638.815	639.315	639.820	640.325
Splice No.13	639.035	639.530	640.020	640.510

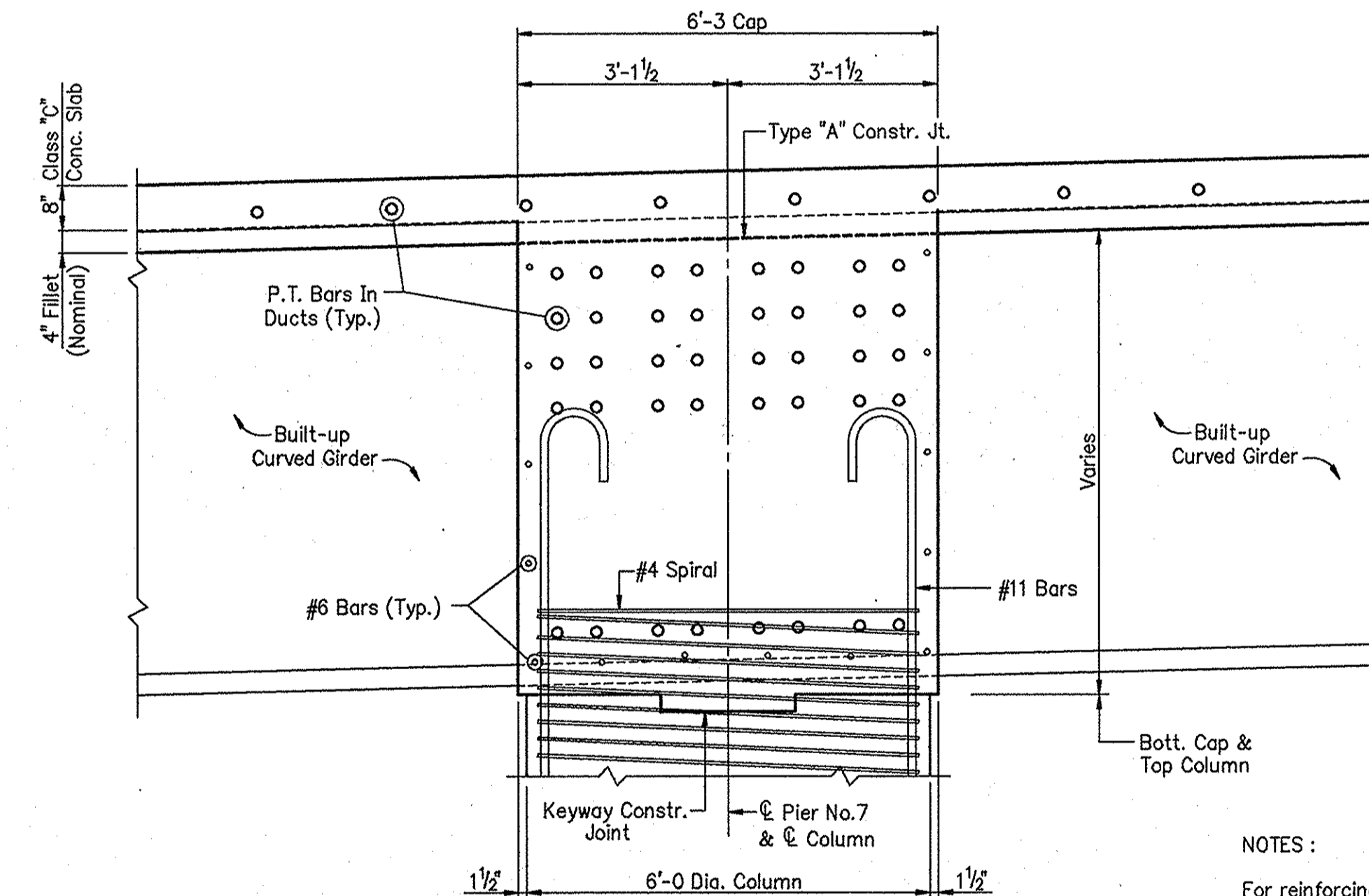


SECTION N-N
Scale: 1/2" = 1'-0"



Left Half Showing Post-Tensioning Bars
Right Half Showing Reinforcing Steel

SECTION M-M



SECTION O-O
Scale: 1/2" = 1'-0"

NOTES:
 For reinforcing bar notes, see Bridge Standard C1.
 (E) Indicates epoxy coated reinforcing steel.
 For additional details, see Drawing S49.
 For Bill Of Materials and bar bending details, see Drawing S50.
 The Stressing Operation in slab and cap can be performed at either Girder No.1 or Girder No.4.

FLOOR DETAILS - UNIT "B"
 INDIANAPOLIS DEPARTMENT OF TRANSPORTATION

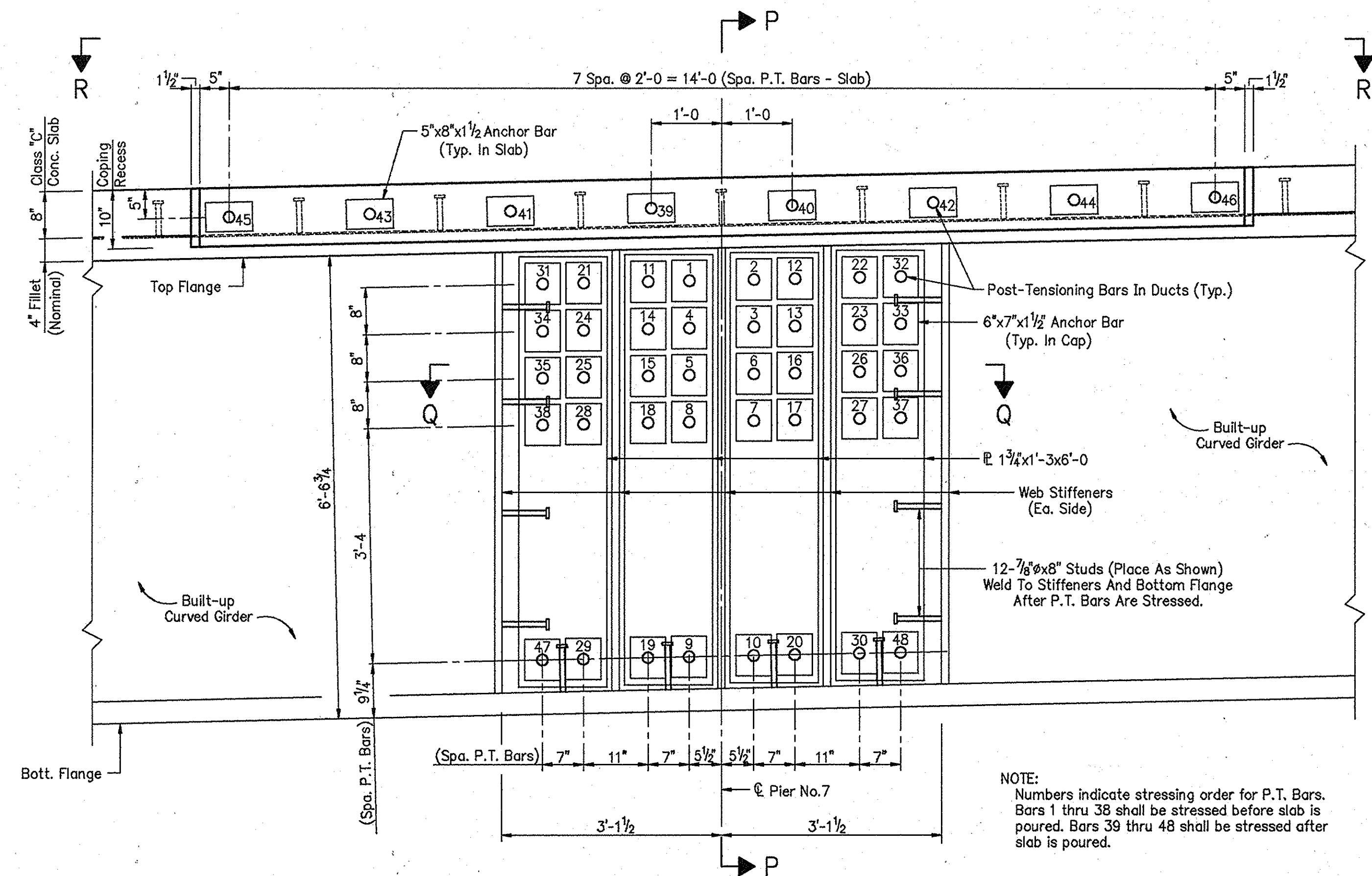
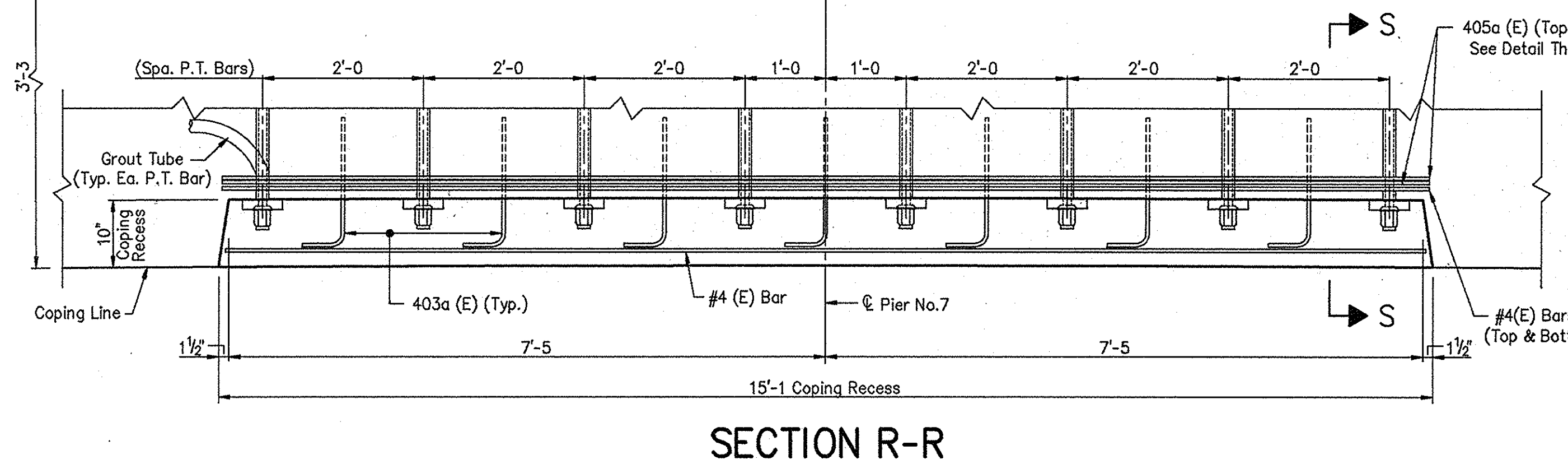
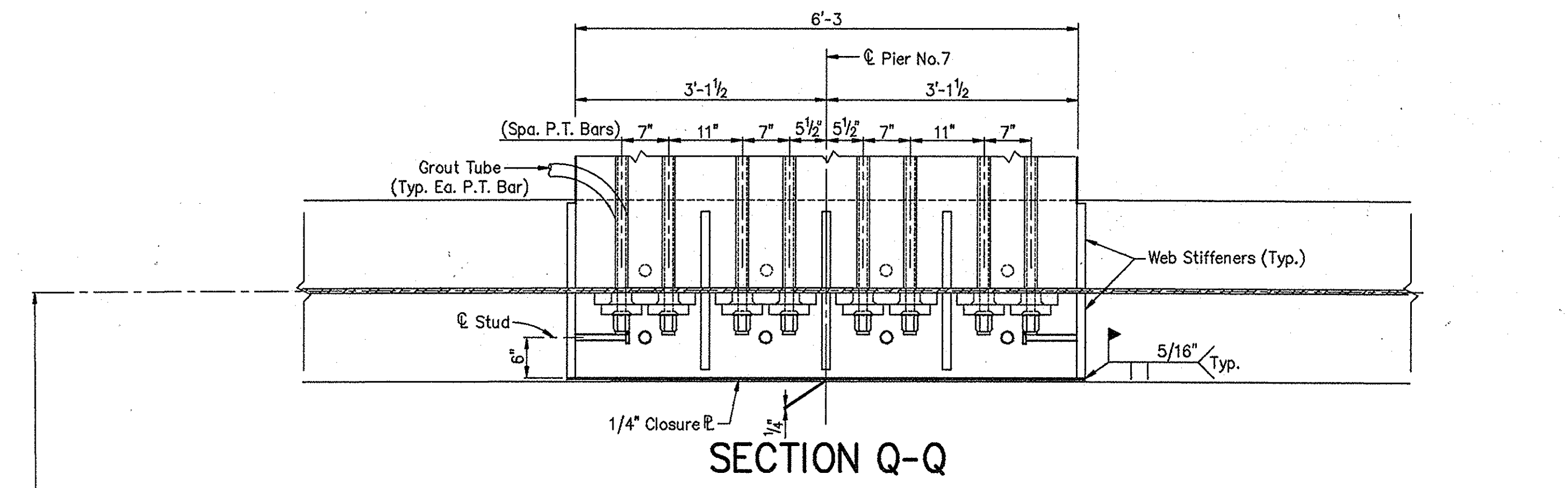
SCALE: - 1/4" = 1'-0, UNLESS NOTED DATE: - July 9, 1998
 SUBMITTED FOR APPROVAL *Michael H. Wenning*

DRAWING: - S48 OF S52 SHEET: - 63 OF 79
 PROJECT: - IM-80-1(143)4
 CONTRACT NO. R-23808
 BRIDGE FILE: - I-80-5-7828



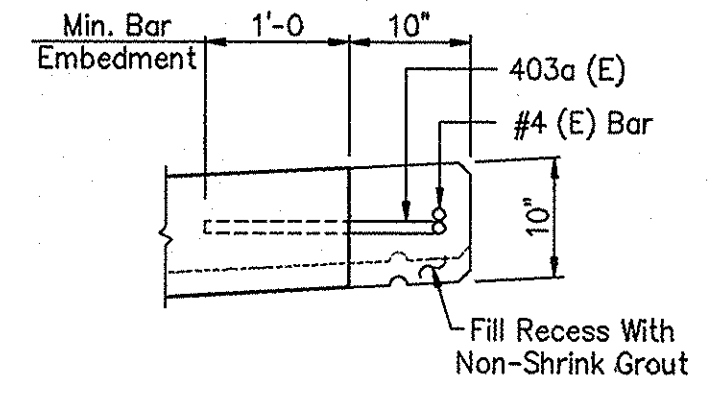
DESIGNED MDR 3/04/98 C/K/D
 DRAWN RJC 4/09/98 C/K/D MDR 6/30/98
 TRACED C/K/D

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 EDITED BY: 2561 - 501

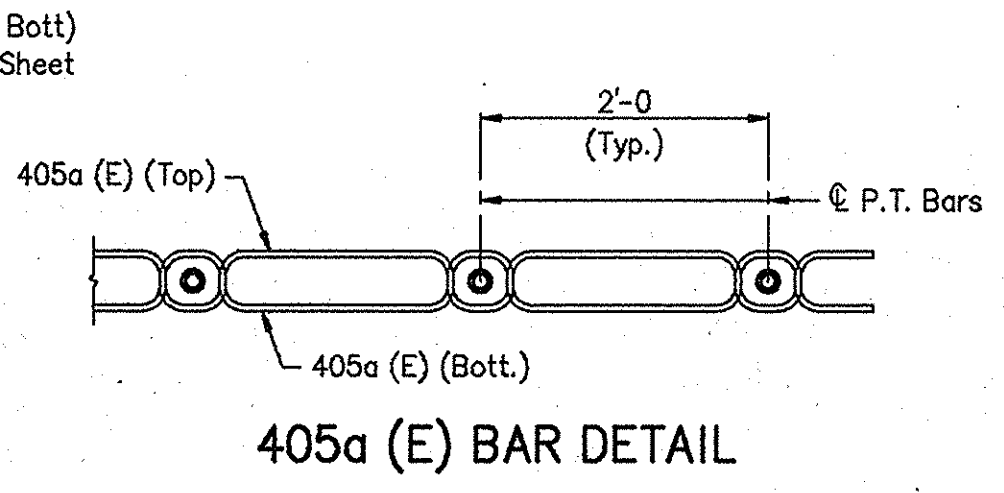


NOTE:
Numbers indicate stressing order for P.T. Bars.
Bars 1 thru 38 shall be stressed before slab is poured.
Bars 39 thru 48 shall be stressed after slab is poured.

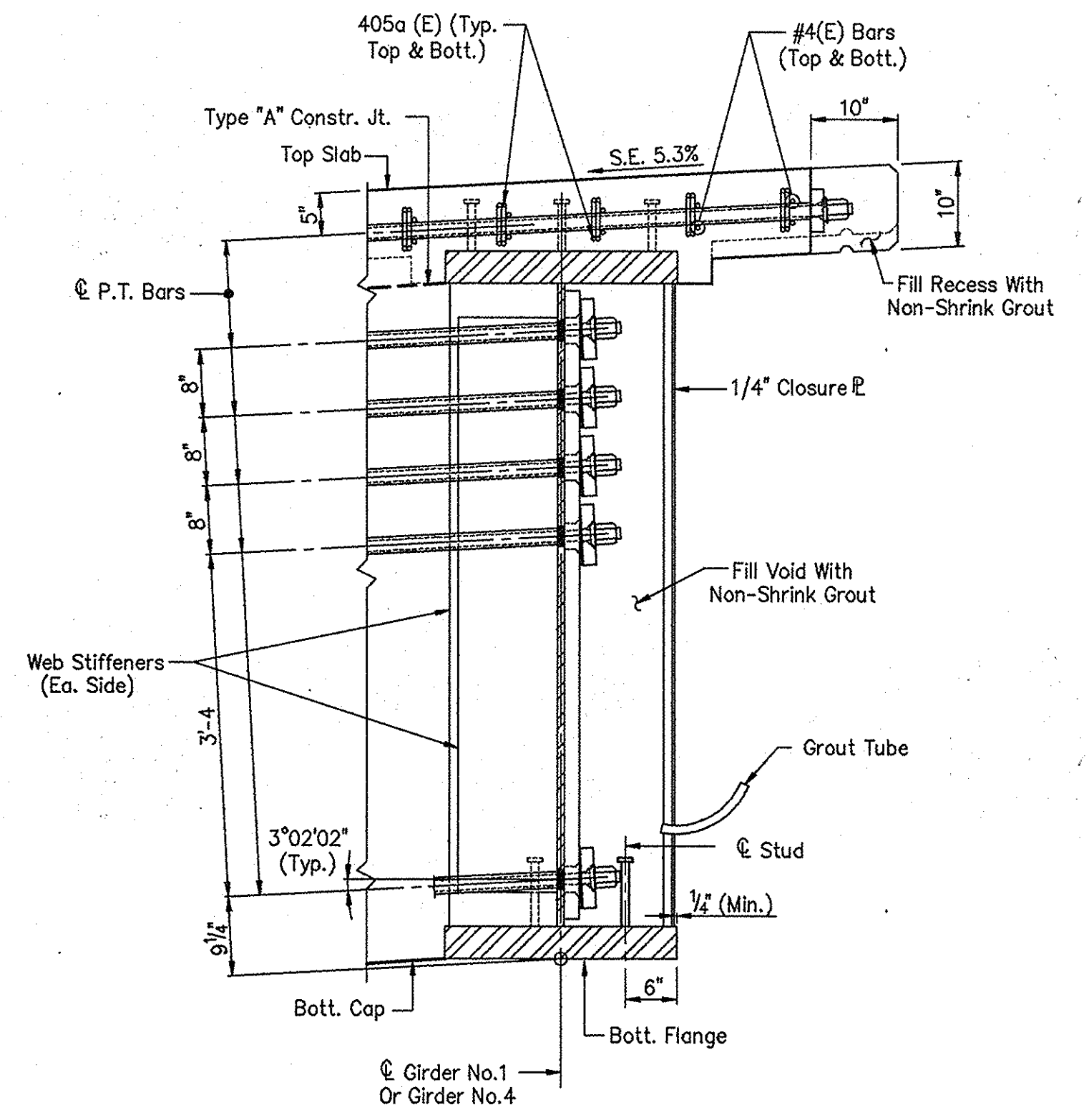
GIRDER NO.1 ELEVATION AT PIER NO.7
(Girder No.4 Similar By Opposite hand)



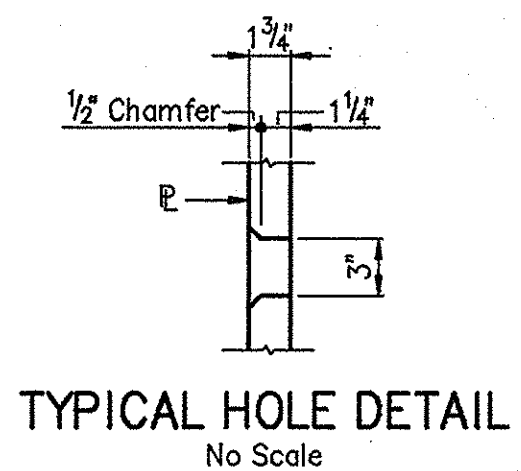
SECTION S-S



405a (E) BAR DETAIL



SECTION P-P



TYPICAL HOLE DETAIL
No Scale

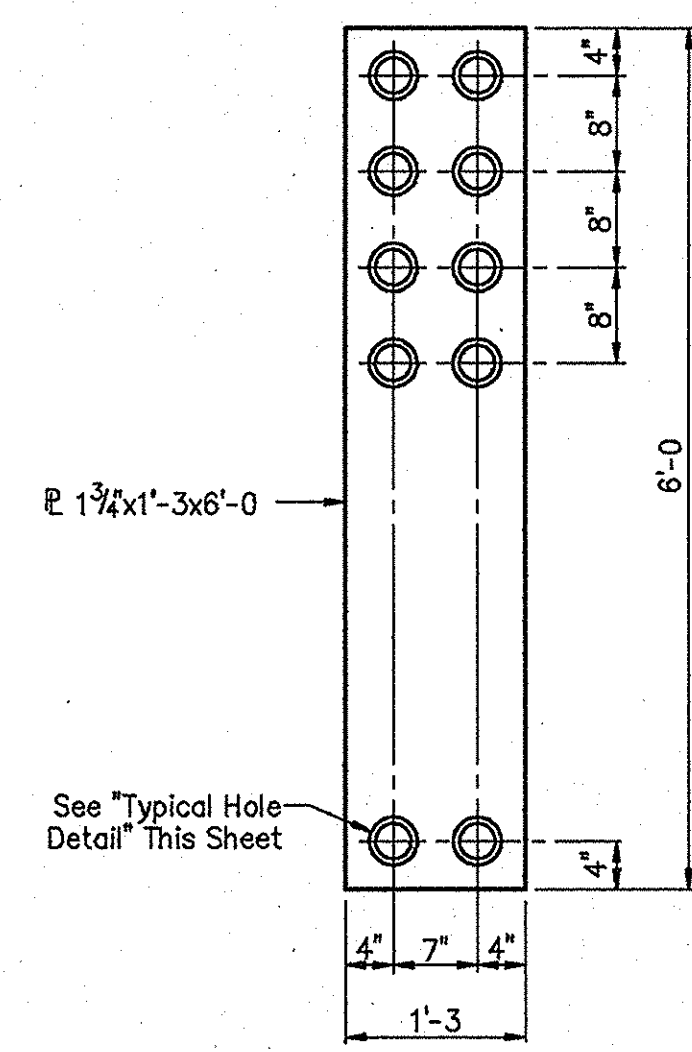


PLATE DETAIL

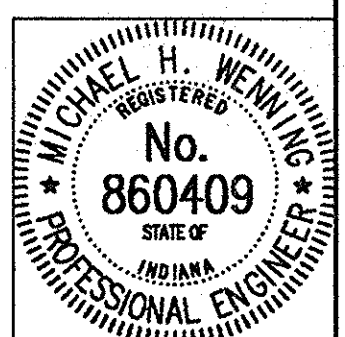
NOTES:
For reinforcing bar notes, see Bridge Standard C1.
(E) Indicates epoxy coated reinforcing steel.
For Bill Of Materials and bar bending details, see Drawing S50.

FLOOR DETAILS - UNIT "B"
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 3/4" = 1'-0", UNLESS NOTED DATE: - July 9, 1998

SUBMITTED FOR APPROVAL *[Signature]*

DRAWING: - S49 OF S52 SHEET: - 64 OF 79
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7828



DESIGNED: MDR 3/04/98 C.K.D.
DRAWN: RJC 5/02/98 C.K.D. MDR 6/30/98
TRACED: C.K.D.

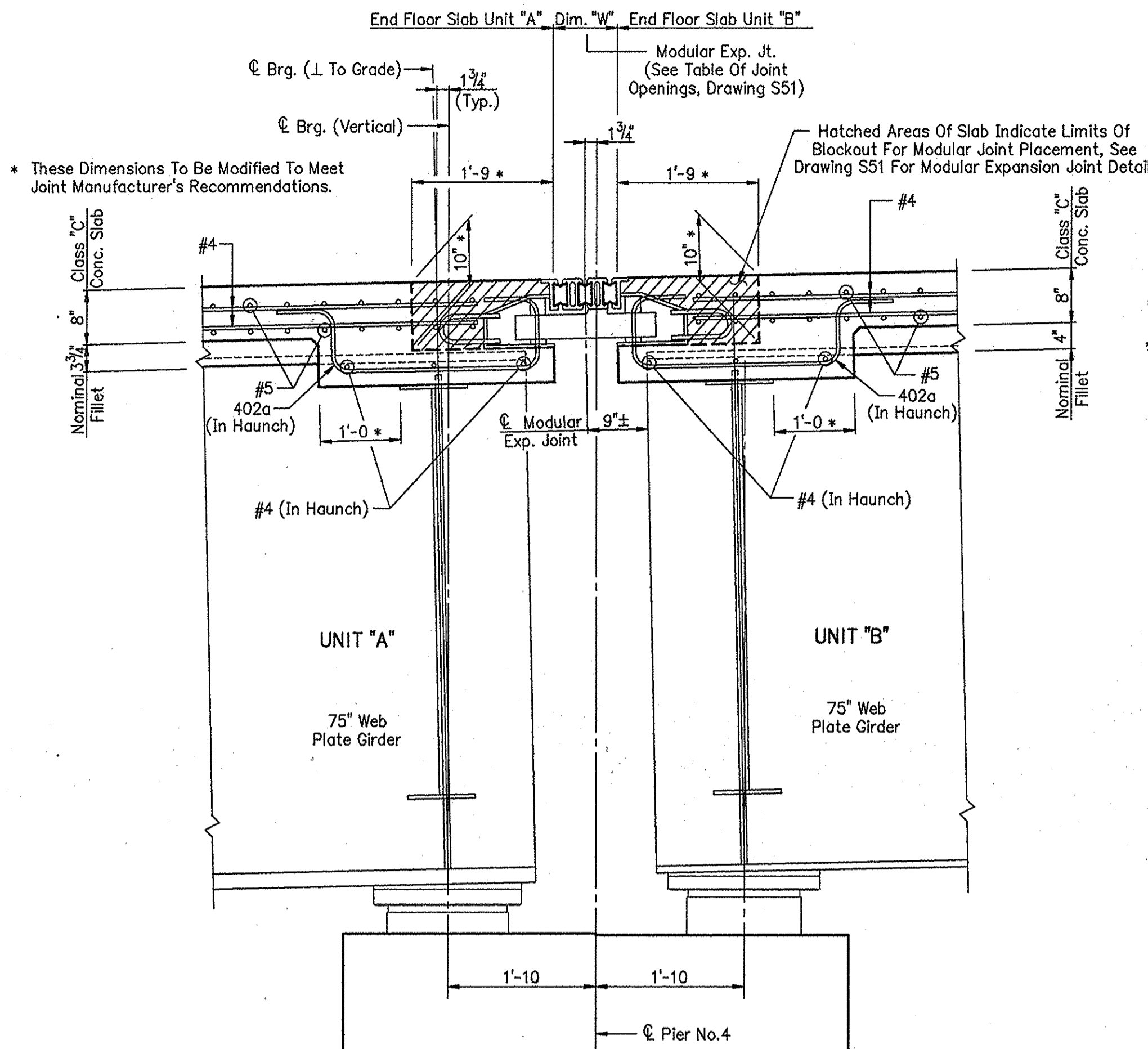
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PLOT ORIGIN: 0,000,000
SPELLCHK: 07/10/98 05:40:04
EDIT DATE: 07/10/98 05:40:04
EDITED BY: DSH - S91

SUPERSTRUCTURE BILL OF MATERIALS

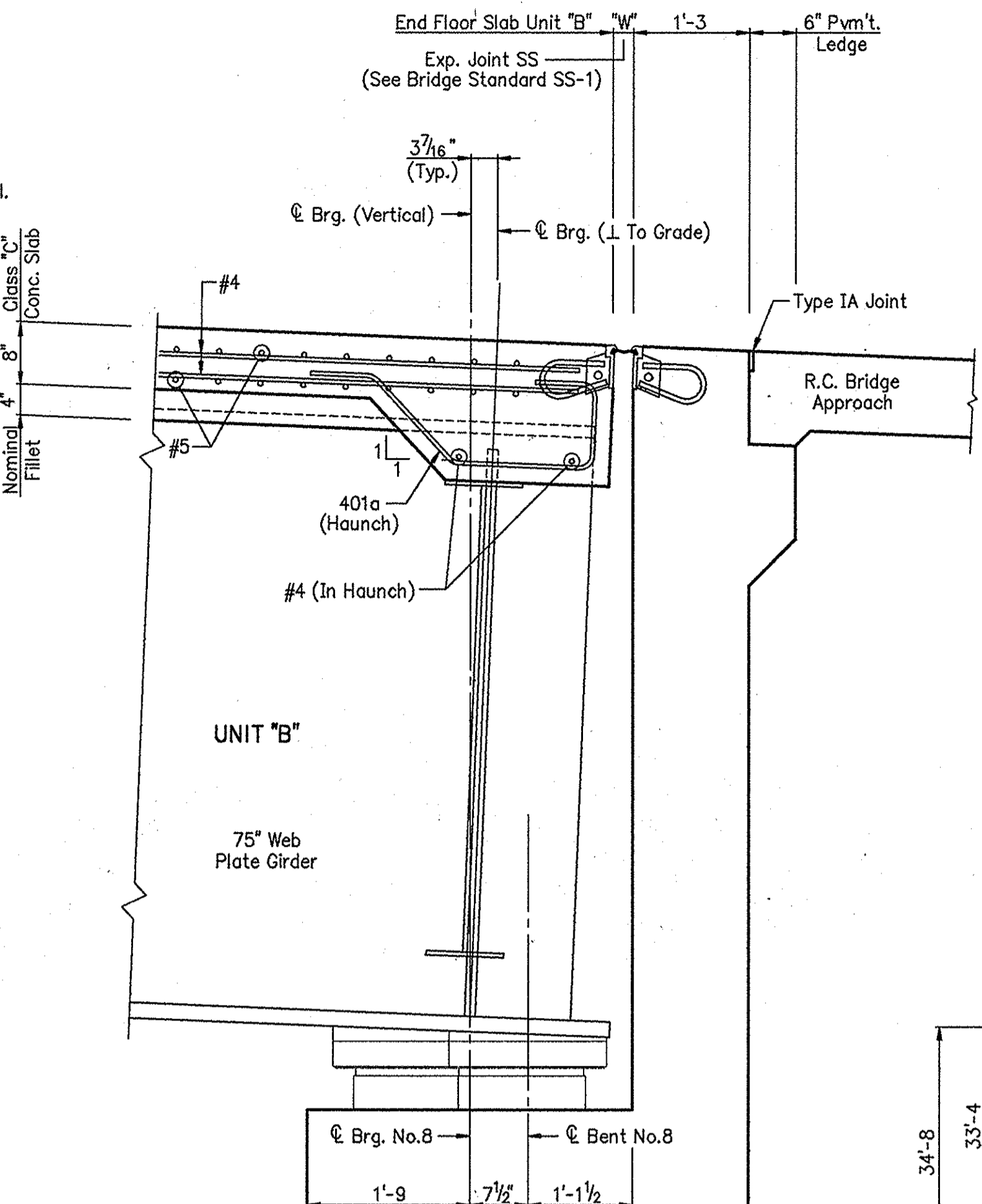
Bill of Materials Continued		
Miscellaneous		
Surface Seal		39,100 Sft.
Masonry Coating		14,200 Sft.
Barrier Delineators		76 Each
2" Galvanized Steel Pipe Conduit		767 Lft.
Cast Iron Grates, Basins And Fittings		
1- Standard Roadway Drain		
Type OS, Grate D		322 Lbs.
3- Conduit Pull Boxes @ 105 Lbs. Each		315 Lbs.
Total Cast Iron Grates, Basins And Fittings		637 Lbs.
Pipe, PVC, 6"		6 Lft.
Expansion Joint SS		39 Lft.
Post-Tensioning Bars, 1 1/4"		
Pier No.6 (In Cap & Slab)		3289 Lbs.
Pier No.7 (In Cap & Slab)		6501 Lbs.
Post-Tensioning Ducts, 1 5/8" I.D.		
Pier No.6 (In Cap & Slab)		781 Lft.
Pier No.7 (In Cap & Slab)		1409 Lft.
Anchor Bars, 6"x7"x1 1/2"		
Pier No.6 (In Cap)		36 Ea.
Pier No.7 (In Cap)		80 Ea.
Anchor Bars, 5"x8"x1 1/2"		
Pier No.6 (In Slab)		12 Ea.
Pier No.7 (In Slab)		16 Ea.
Structural Steel *		
Pier No.6 (In Cap)		3889 Lbs.
Pier No.7 (In Cap)		5123 Lbs.

* Included in Estimated Weight Of Structural Steel, see Drawing S31.

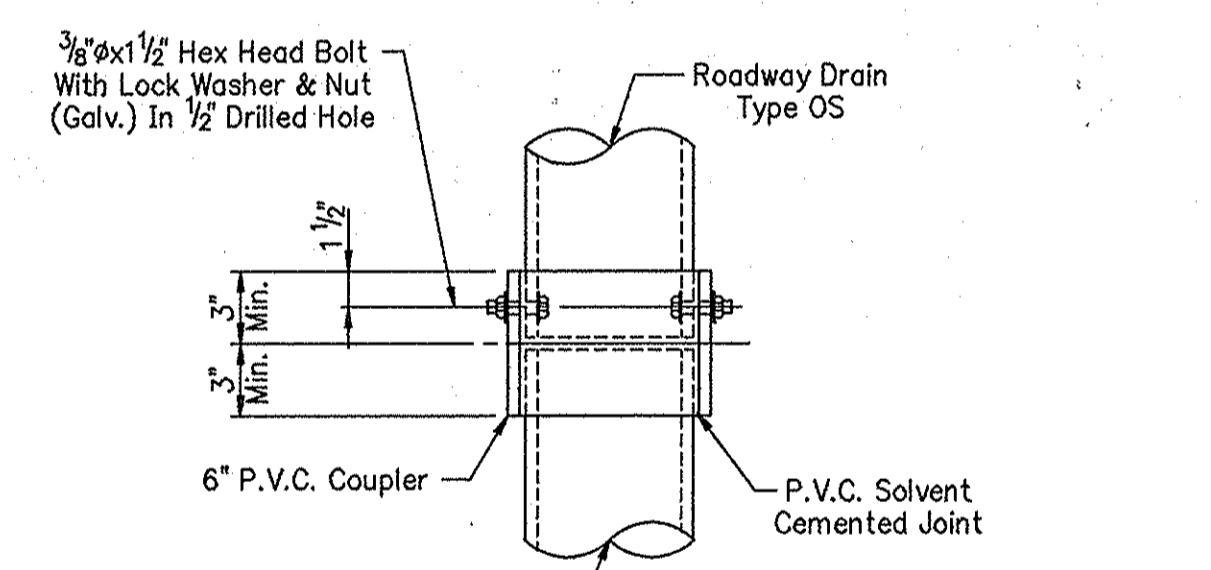
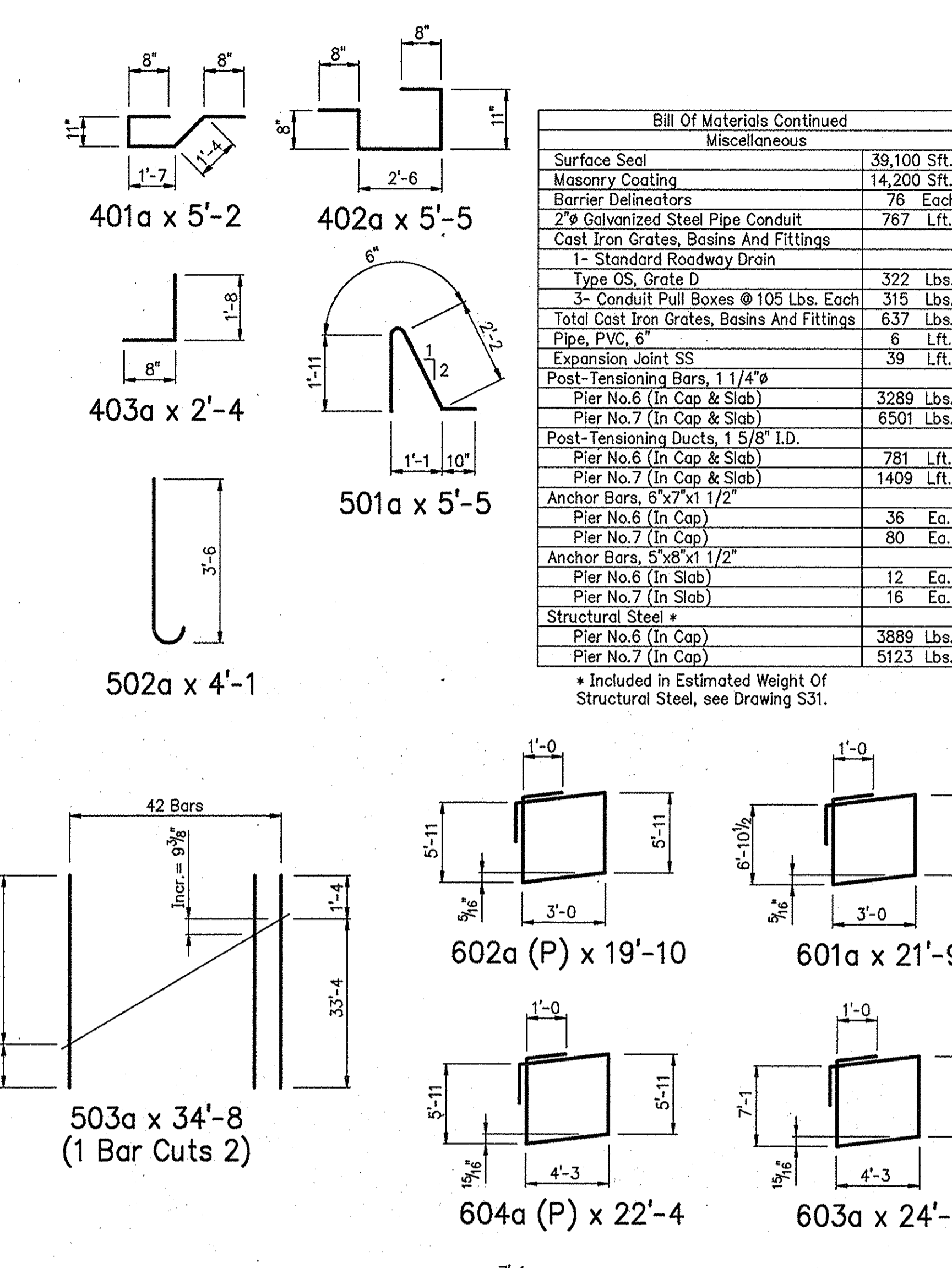
Epoxy Coated Reinforcing Steel			
Size And Mark	No. Of Bars	Length (Feet)	Weight (Lbs.)
601a	40	21'-9"	
603a	36	24'-8"	
#6	284	33'-3"	
#6	213	30'-0"	
#6	213	29'-3"	
Total No.6			35,780
501a	2296	5'-5"	
502a	4592	4'-1"	
503a	42	34'-8"	
#5	2	39'-6"	
#5	3150	34'-6"	
#5	132	33'-0"	
#5	464	24'-6"	
#5	8	15'-9"	
#5	8	13'-3"	
#5	16	9'-3"	
#5	16	7'-9"	
#5	16	3'-9"	
#5	8	3'-6"	
Total No.5			164,495
401a	27	5'-2"	
402a	27	5'-5"	
403a	24	2'-4"	
404a	20	18'-2"	
405a	20	21'-0"	
#4	1120	40'-0"	
#4	216	36'-3"	
#4	108	35'-3"	
#4	216	31'-6"	
#4	20	15'-3"	
#4	20	13'-9"	
#4	15	7'-6"	
Total No.4			43,459
Total Epoxy Coated Reinforcing Steel			243,734
Plain Reinforcing Steel			
602a	12	19'-10"	
604a	16	22'-4"	
#6	48	9'-0"	
#6	12	7'-6"	
#6	15	6'-9"	
Total No.6			1830
Total Plain Reinforcing Steel			1830
Concrete			
Class "C" In Superstructure			717.5 Cys.
Concrete Railing Class "C"			
North Coping			95.1 Cys.
South Coping			97.0 Cys.
Total Concrete Railing Class "C"			192.1 Cys.
Special Class "C" Concrete			
Pier No.6 (In Cap)			33.9 Cys.
Pier No.7 (In Cap)			43.7 Cys.
Total Special Class "C" Concrete			77.6 Cys.



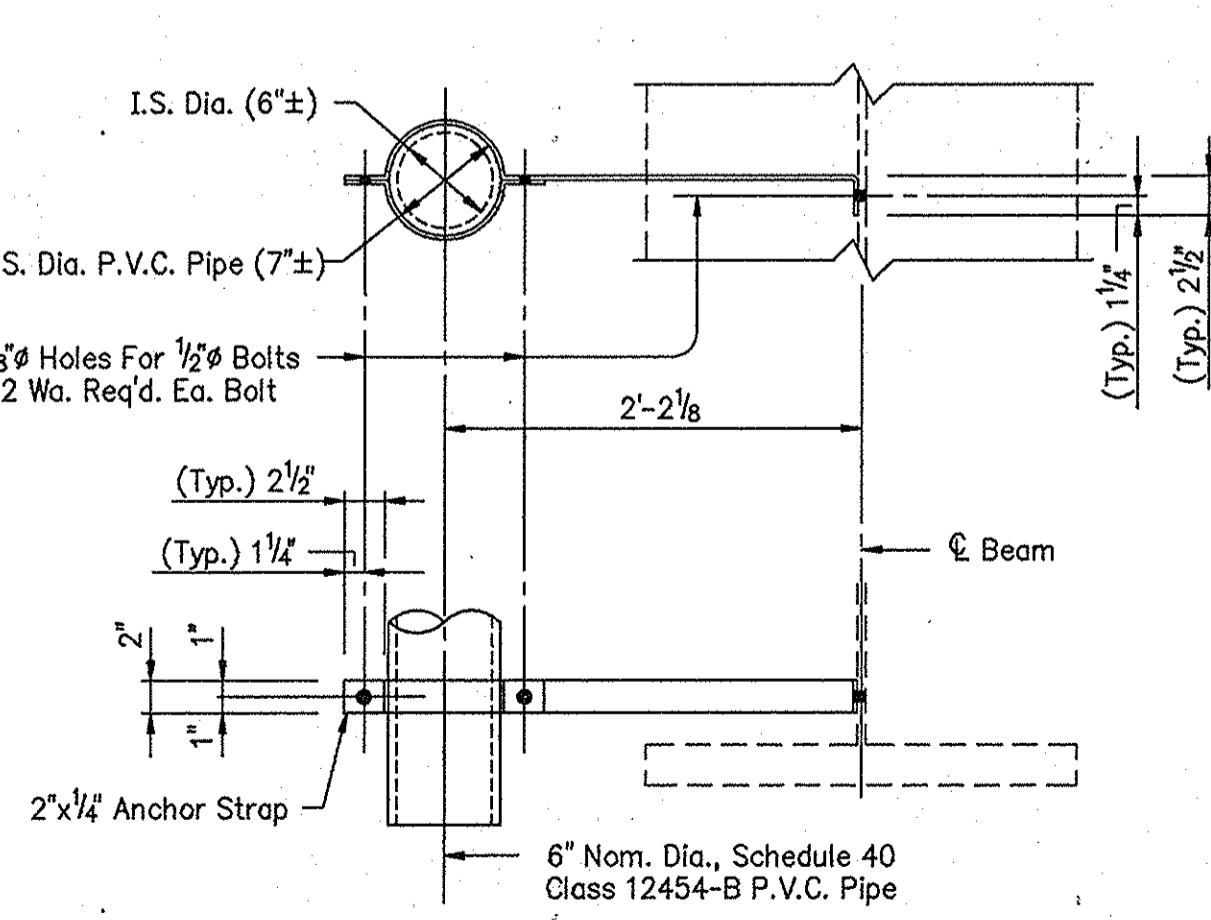
SECTION B-B



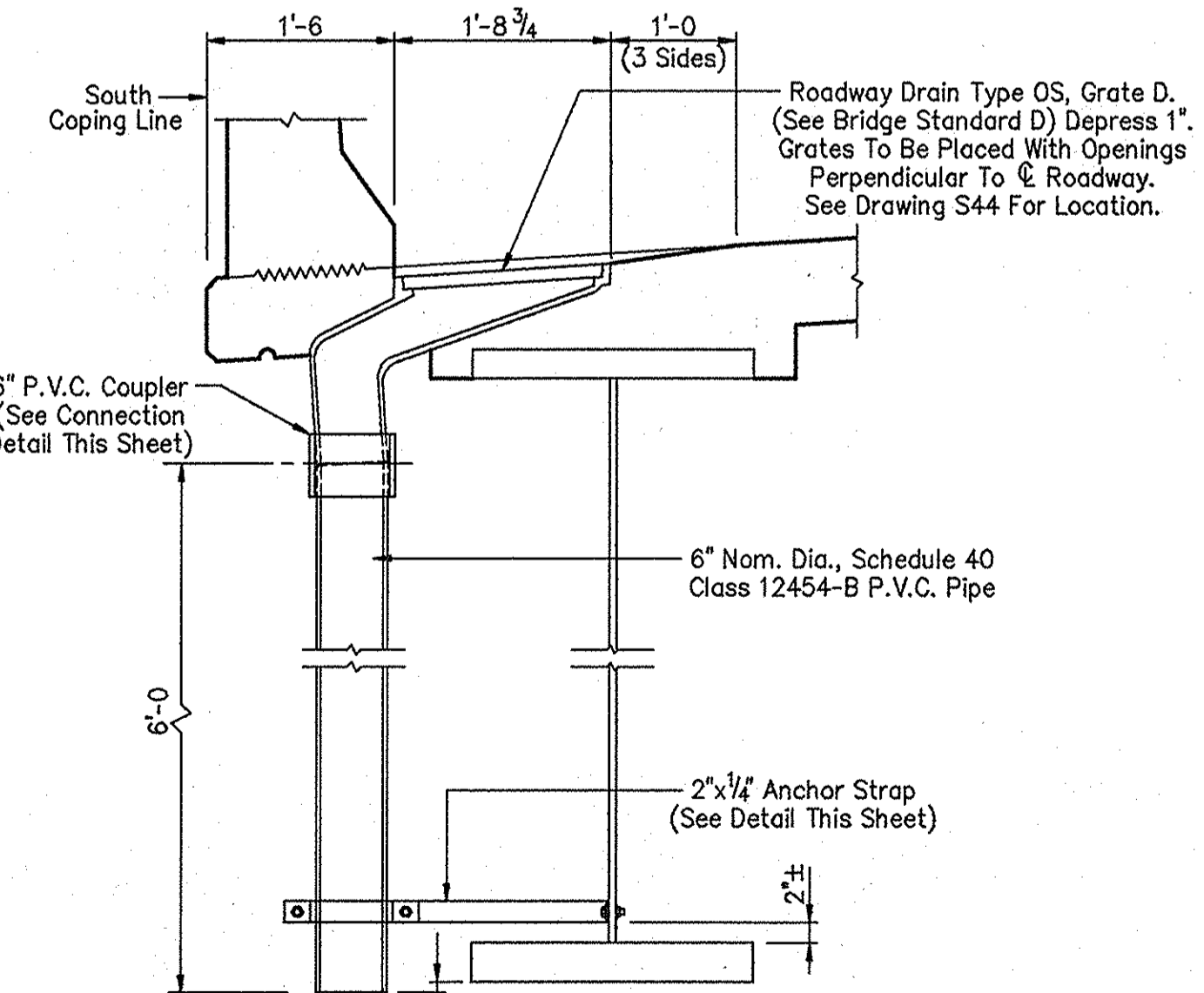
SECTION C-C



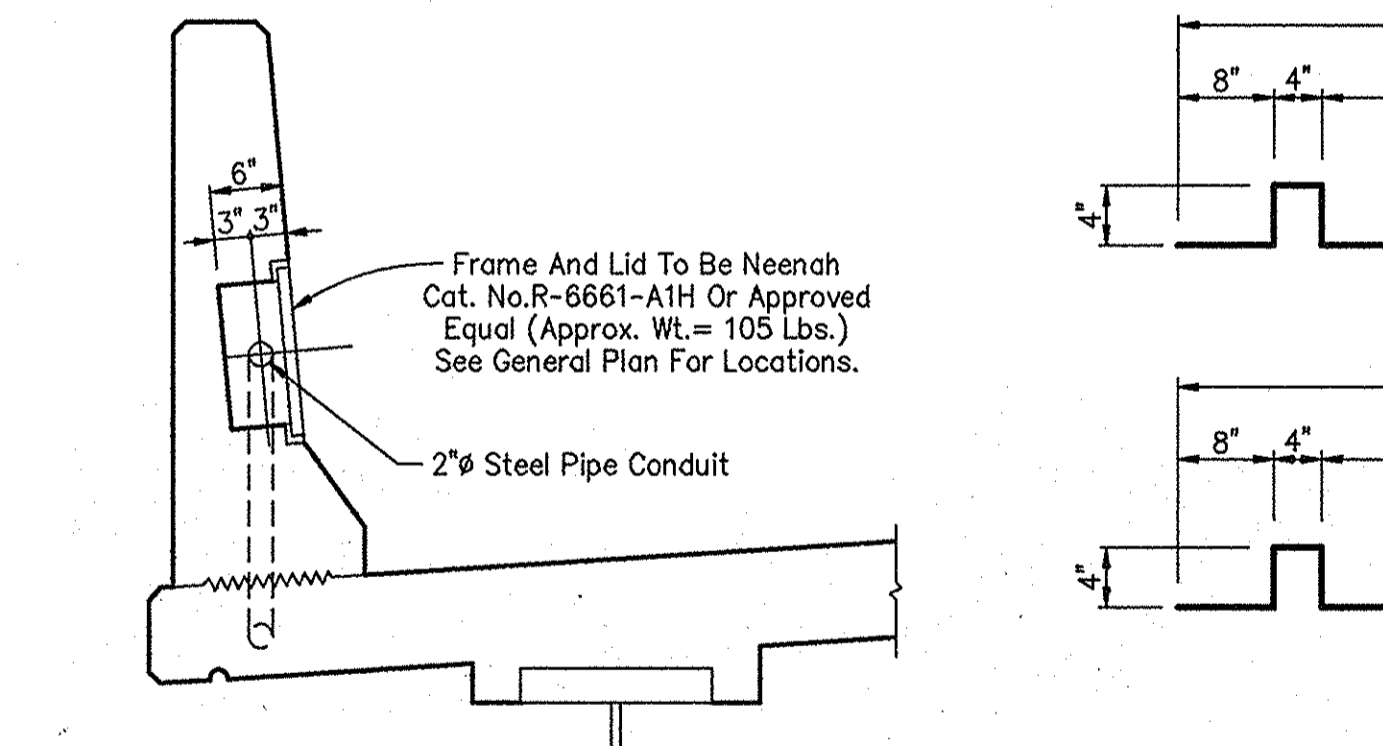
CONNECTION DETAIL



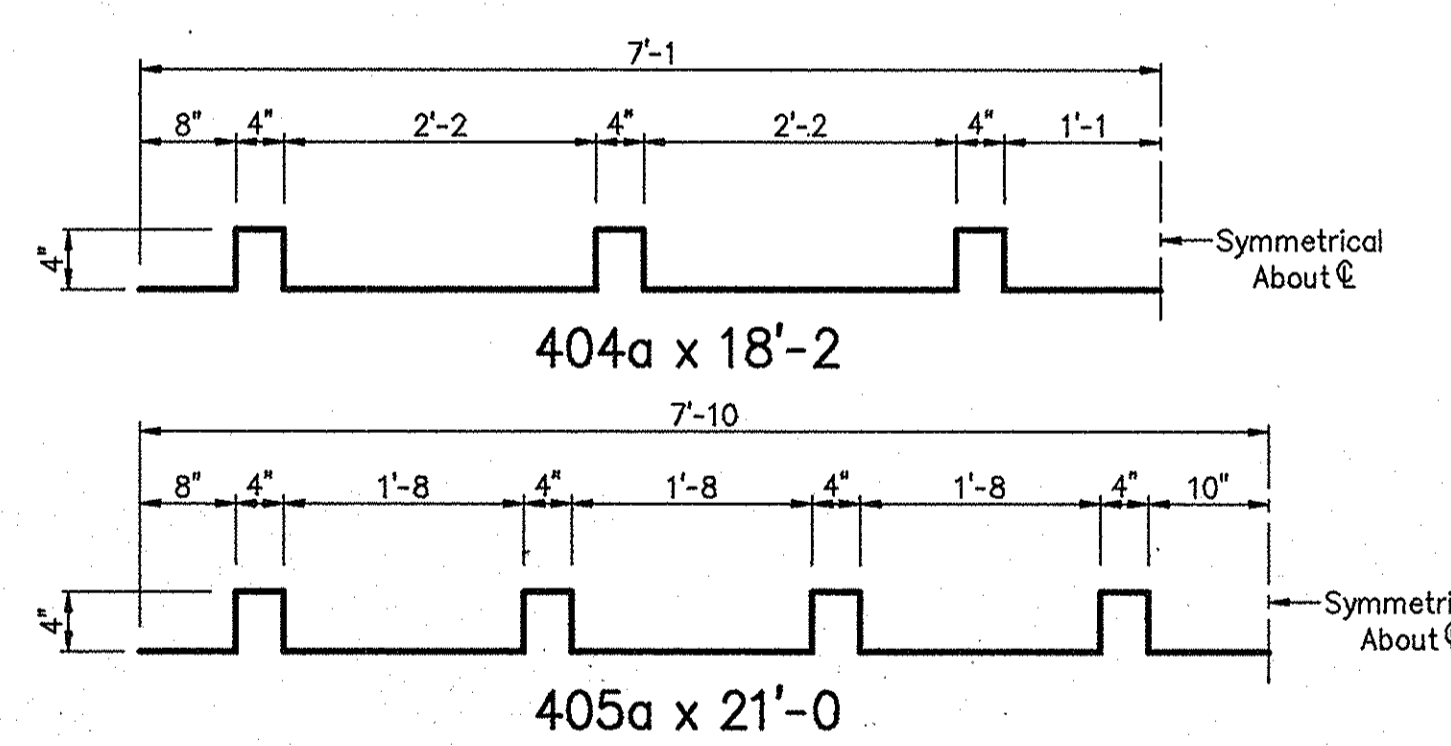
DRAIN PIPE BRACKET DETAIL



SECTION @ ROADWAY DRAIN TYPE OS-D (1 REQUIRED)



CONDUIT PULL BOX

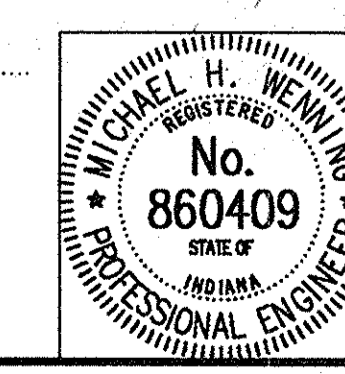


NOTES:
 For reinforcing bar notes, see Bridge Standard C1.
 All reinforcing steel to be epoxy coated, except as noted.
 (P) Indicates plain reinforcing steel.
 For location of Sections B-B and C-C, see Drawing S44.
 The cost of couplers, straps, bolts and miscellaneous items to be included in the cost of PVC Pipe.

FLOOR DETAILS - UNIT "B" INDIANA DEPARTMENT OF TRANSPORTATION

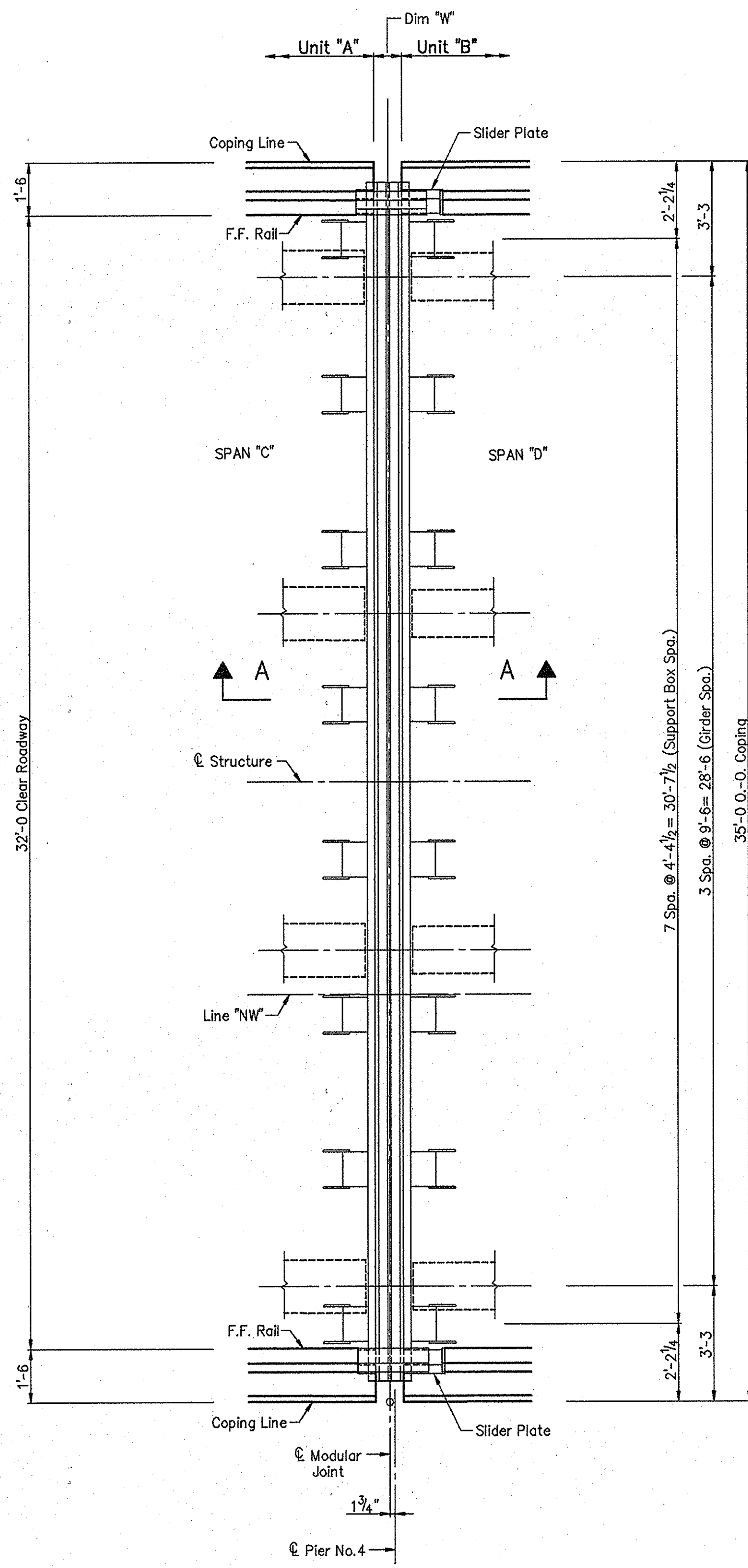
SCALE: - 3/4" = 1'-0", Unless Noted
 DATE: - July 9, 1998
 SUBMITTED FOR APPROVAL: *[Signature]*

DRAWING: - S50 OF S52 SHEET: - 65 OF 79
 PROJECT: - IM-80-1(143)4
 CONTRACT NO. R-23808
 BRIDGE FILE: - I-80-5-7828

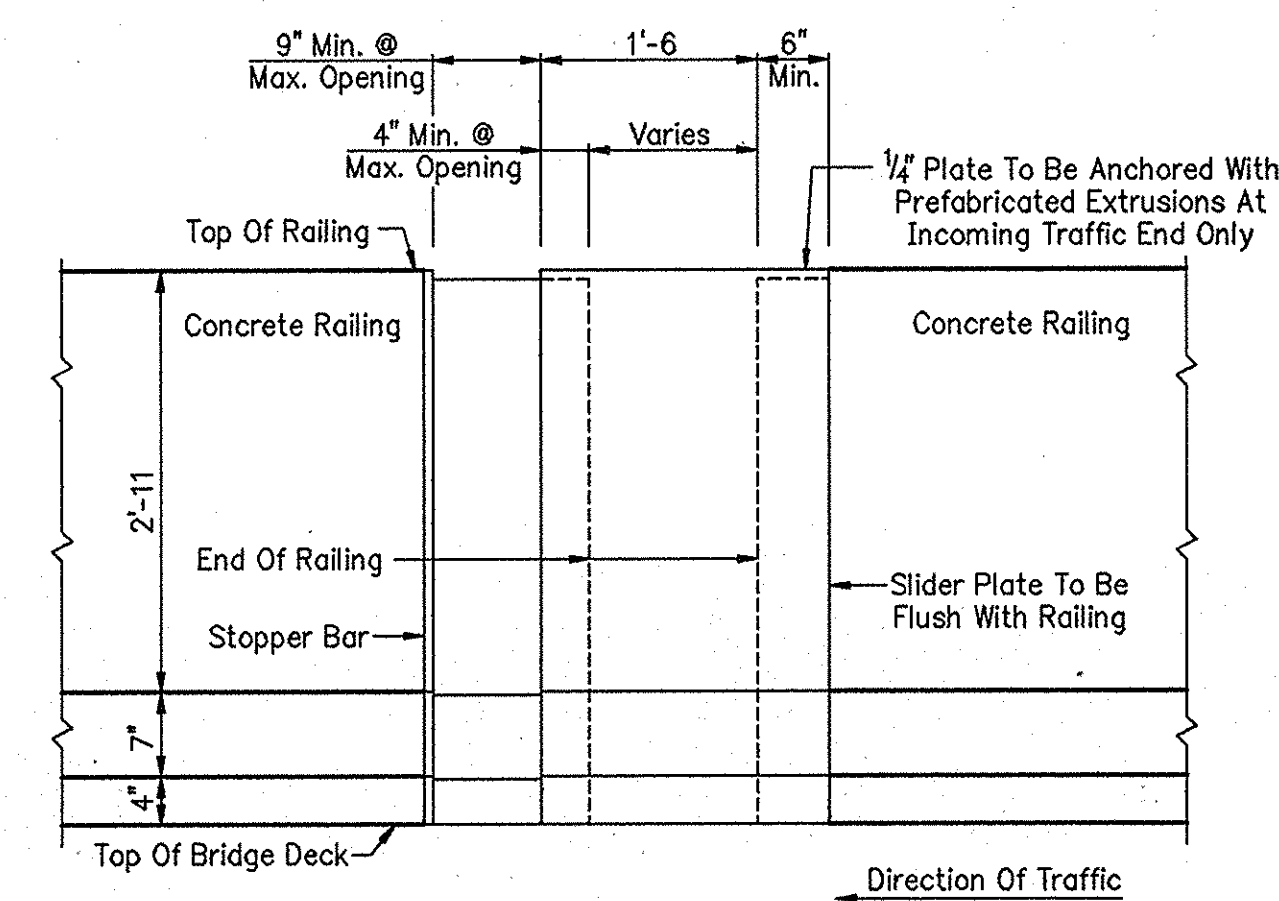


DESIGNED MDR 12/2/94 C.K.D. MSP 9/13/96
 DRAWN DSH 1/28/97 C.K.D. MDR 7/8/98
 TRACED C.K.D.

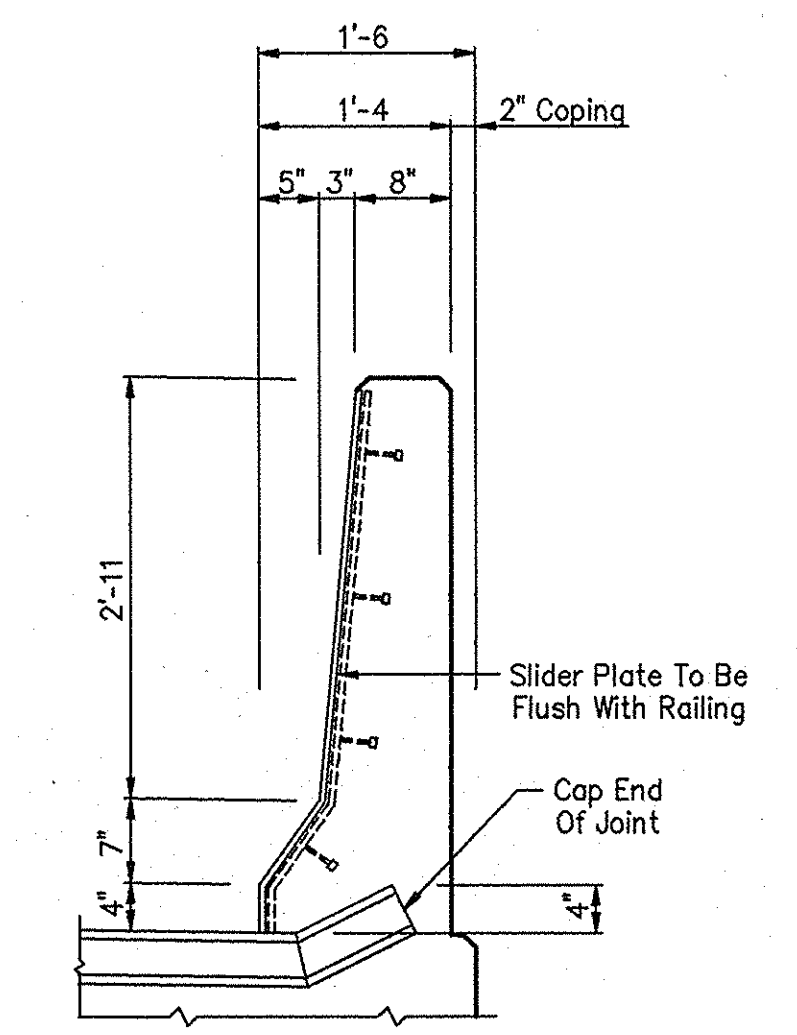
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 EDIT DATE: 07/10/98
 EDITED BY: DSH - 501



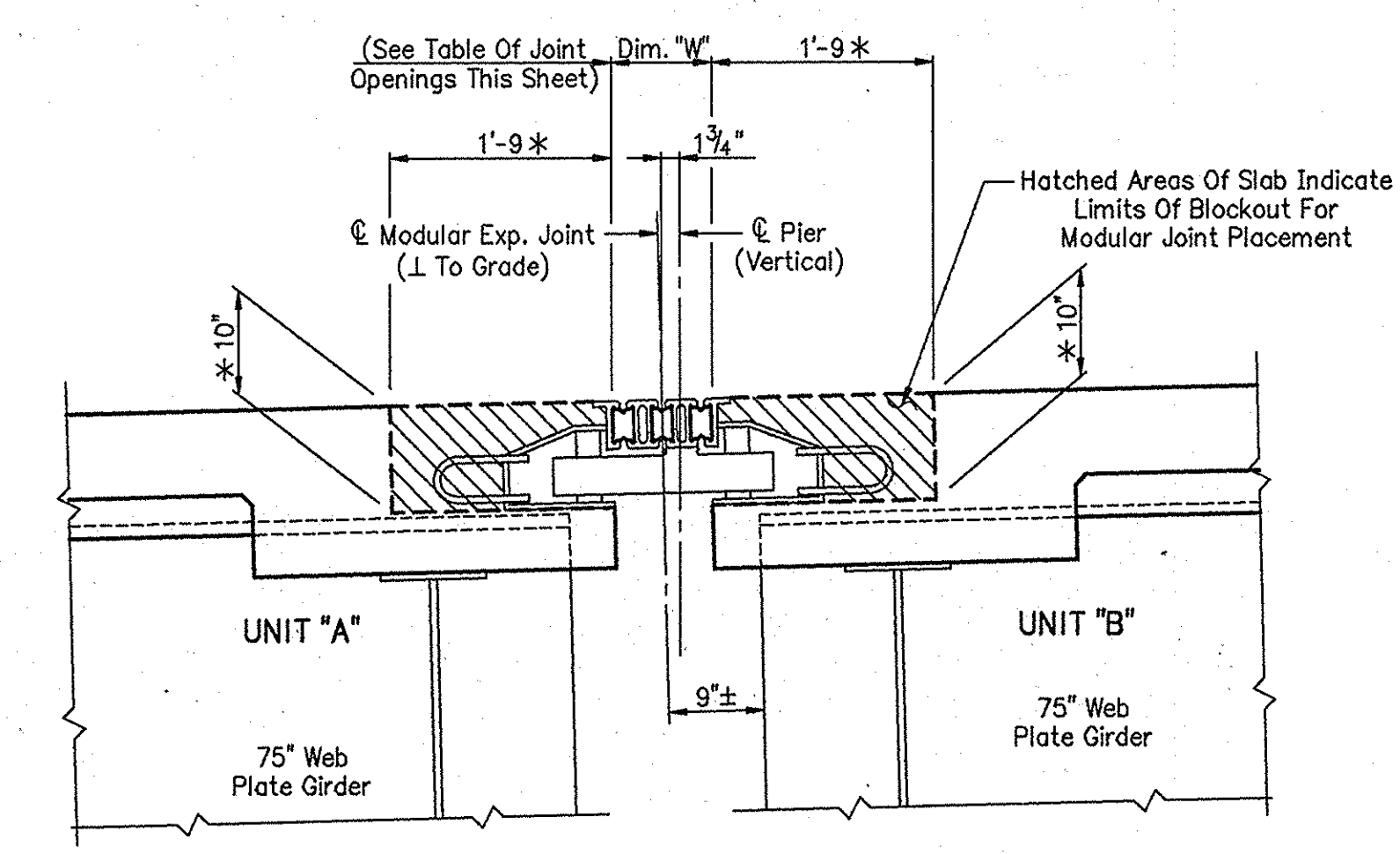
PLAN AT PIER NO. 4
Scale: 3/8" = 1'-0"



SLIDER PLATE ELEVATION



TYPICAL JOINT INSTALLATION AT COPING



NOTE:
* These dimensions to be modified to meet Modular Expansion Joint Manufacturer's recommendations.

SECTION A-A

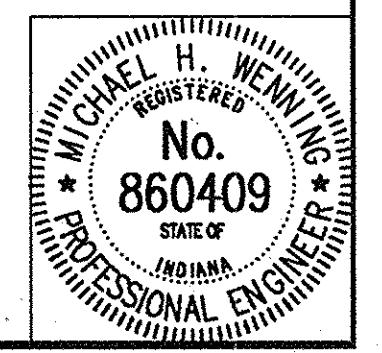
TABLE OF JOINT OPENINGS							
Temperature	0°	20°	40°	60°	80°	100°	120°
Dimension "W"	1'-2"	12 1/2"	11"	9 1/2"	8"	6 1/2"	5"

- NOTES:
- The profile of the expansion joint shall conform to the roadway cross section at the centerline of Pier No. 4.
 - Allow 3/8" for maximum movement due to live load, deflection, shrinkage and creep.
 - The joint opening is to be set in accordance with the table shown.
 - See the Special Provisions for material specifications.
 - The joint shall be installed in accordance with the manufacturer's specifications.
 - Slider plates to be included in the cost of the expansion joint and all dimensions to be determined by joint manufacturer.
 - Anchor assemblies shall be placed at 9" maximum between support beams.

**MODULAR EXPANSION JOINT DETAILS
AT PIER NO. 4
INDIANA DEPARTMENT OF TRANSPORTATION**

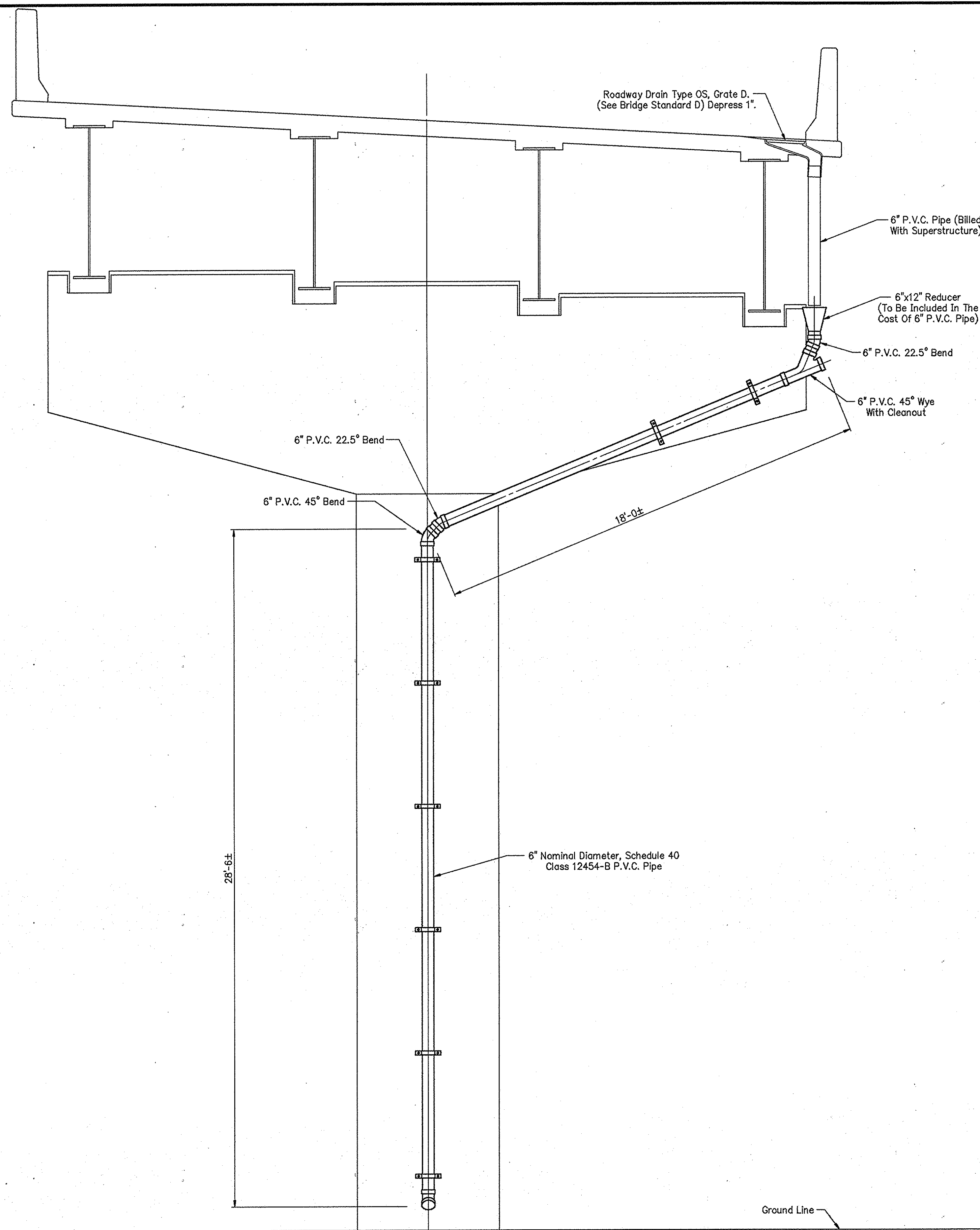
SCALE: - 3/4" = 1'-0, Unless Noted DATE: - July 9, 1998
SUBMITTED FOR APPROVAL: *Michael H. Weiny*

DRAWING: - S51 OF S52 SHEET: - 66 OF 79
PROJECT: - IM-80-1(143)4
CONTRACT NO. - R-23808
BRIDGE FILE: - I-80-5-7828

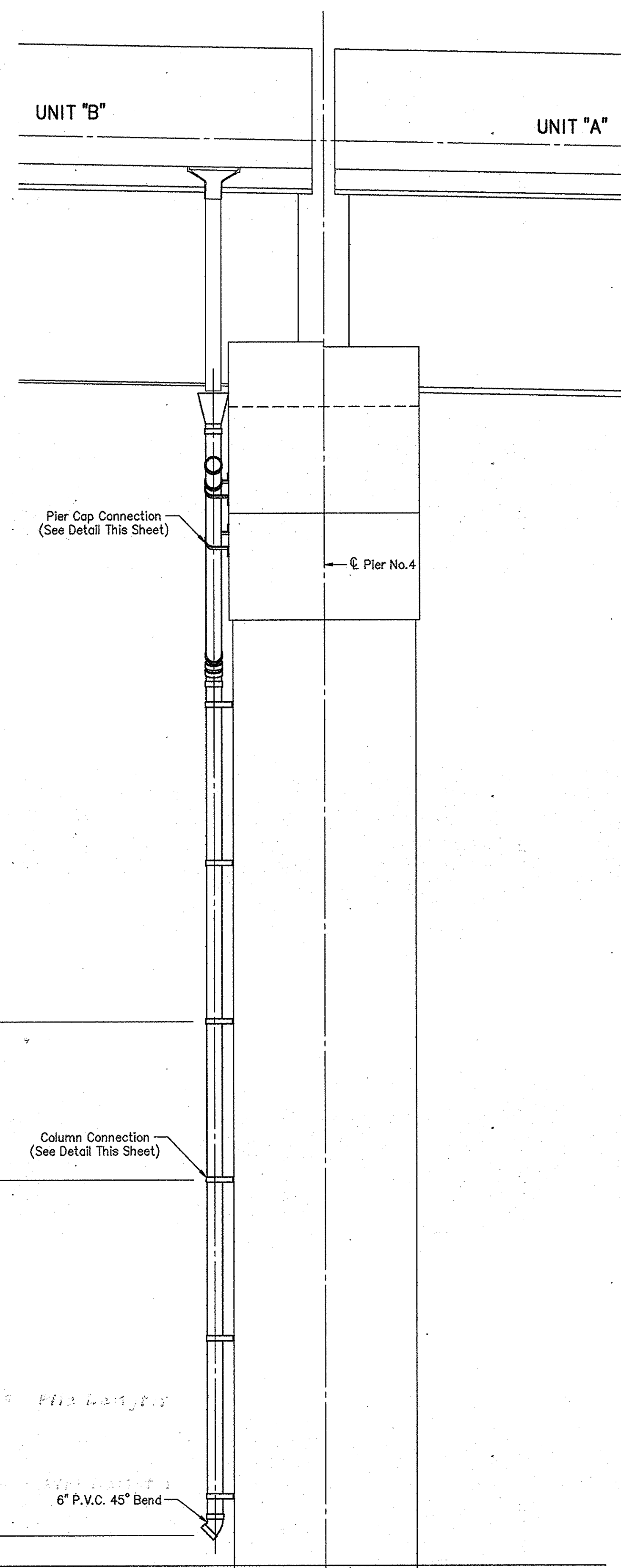


DESIGNED: CK'D
DRAWN: DSH 1/30/97 CK'D: MDR 7/5/98
TRACED: CK'D

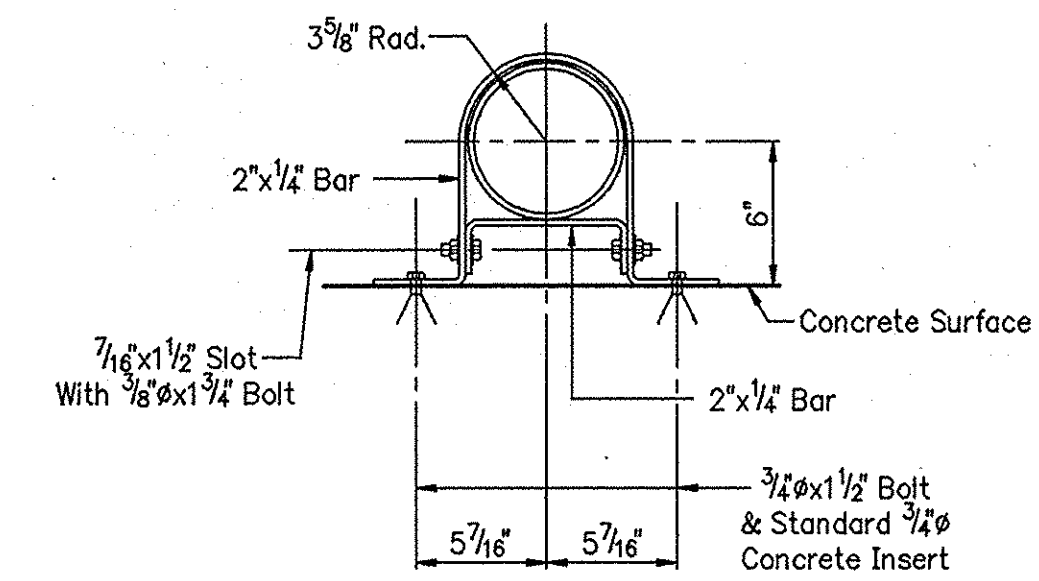
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EDIT DATE: 07/09/98 11:18:23
EDITED BY: DSH - S91



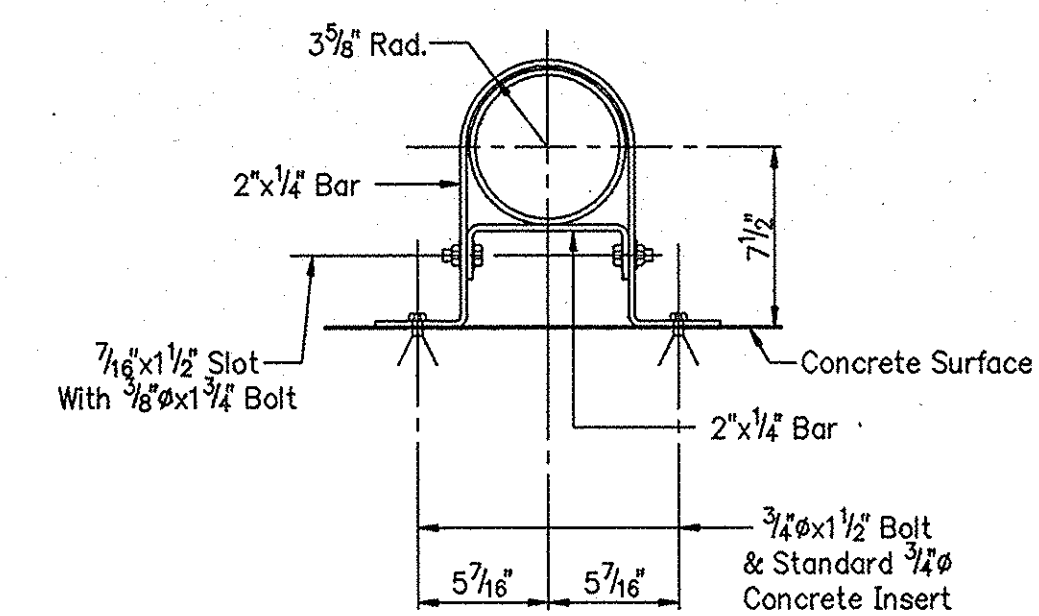
ELEVATION AT PIER NO.4
(Looking Back Stationing)



SIDE ELEVATION AT PIER NO.4



PIER CAP CONNECTION DETAIL
Scale- 1 1/2" = 1'-0"



COLUMN CONNECTION DETAIL
Scale- 1 1/2" = 1'-0"

PVC PIPE SUMMARY	
Material	Length
6" P.V.C. Pipe	40.0 Lft.
2- 45° Elbows @ 2.0 Lft.	4.0 Lft.
2- 22.5° Elbows @ 2.0 Lft.	4.0 Lft.
1- 45° Wye @ 5.0 Lft.	5.0 Lft.
1- Reducer @ 5.0 Lft.	5.0 Lft.
Total P.V.C. Pipe	58.0 Lft.

NOTES:
The cost of hangers, straps, bolts, concrete inserts, clean out covers and miscellaneous items to be included in the cost of P.V.C. pipe.

BRIDGE DRAINAGE DETAILS - UNIT "B"
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE: - 3/8" = 1'-0, UNLESS NOTED DATE: - July 9, 1998
SUBMITTED FOR APPROVAL *Michael H. Weening*

DRAWING: - S52 OF S52 SHEET: - 67 OF 79
PROJECT: - IM-80-1(143)4
CONTRACT NO. R-23808
BRIDGE FILE: - I-80-5-7828



DESIGNED: CJK'D
DRAWN: DSH 4/15/98 CJK'D MDR 7/5/98
TRACED: CJK'D

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EDITED BY: DSH - SP1

