

CONTRACT NO. *R-19482*

PROJECT	STRUCTURE	TYPE	SPAN	OVER
	1-465-123-4854B	& JC CONT. R.C. GIRDER	64'-3, 3 @ 90'-0 & 64'-3	FALL CREEK
	1-465-123-5267B	COMP. CONT. STL. BEAM	70'-6 & 62'-8	FALL CREEK ROAD
NHG-NH-465-4(256)119	1-465-124-5268B	COMP. CONT. STL. BEAM 2 @	58'-6	EAST 71ST. STREET
	1-465-125-5270B	& JB COMP. CONT. STL. BEAM 2 @	112'-6	1-69
	1-465-125-2377B	& JB COMP. CONT. STL. BEAM	NBL 44'-0.2 @ 61'-0 & 44'-0 SBL 44'-0.2 @ 55'-6 & 44'-0	1-69 RAMP & N&W RR

SHEET NO	SHEET DESIGNATION	SUBJECT	THW A APPROVAL
1	ONE SHEET	TITLE & INDEX SHEET	
2-12	R1-R14	TRAFFIC MAINTENANCE DETAILS	<i>(DELETED)</i>
		STRUCTURE NO. I-465-123-4864B & JC	
13	D1	LAYOUT	
14-15	D2-D3	GENERAL PLAN, SECTIONS, GENERAL NOTES	
16	D4	TEMPORARY SUPPORT DETAILS	
17-36	D5-D24	SUBSTRUCTURE DETAILS	
37-46	D25-D34	SUPERSTRUCTURE DETAILS	
47-49	D35-U37	R.C. BRIDGE APPROACH DETAILS	
50-51	D38-D39	CONCRETE RAILING DETAILS	
52	D40	TEMPORARY CONCRETE BARRIER DETAILS	<i>(DELETED)</i>
		STRUCTURE NO. I-465-123-5267B	
53	D41	LAYOUT	
54-55	D42-D43	GENERAL PLAN, SECTIONS, GENERAL NOTES	
56-62	D44-D50	SUBSTRUCTURE DETAILS	
63-70	D51-D58	SUPERSTRUCTURE DETAILS	
71-73	D59-D61	R.C. BRIDGE APPROACH DETAILS	
74-76	D62-D64	CONCRETE RAILING DETAILS	

		STRUCTURE NO. 1-465-124-5268B
77	D65	GENERAL PLAN, SECTIONS, GENERAL NOTES
78	D63	R.C. BRIDGE APPROACH DETAILS
79-80	D67-D68	CONCRETE RAILING DETAILS
81	D69	MISCELLANEOUS DETAILS
		STRUCTURE NO. 1-465-125-5270B & JB
82-83	D70-D71	GENERAL PLAN, SECTIONS, GENERAL NOTES
84-86	D72-D74	SUBSTRUCTURE DETAILS
87-88	D75-D76	R.C. BRIDGE APPROACH DETAILS
89-90	D77-D78	CONCRETE RAILING DETAILS
		STRUCTURE NO. 1-465-125-2377B & JB
91	D79	LAYOUT
92-94	D80-D82	GENERAL PLAN, SECTIONS, GENERAL NOTES
95-100	D83-D88	SUBSTRUCTURE DETAILS
101-107	D89-D95	SUBSTRUCTURE DETAILS
108-109	D96-D97	R.C. BRIDGE APPROACH DETAILS
110-116	D98-D104	CONCRETE RAILING DETAILS

117	ONE SHEET	BRIDGE SUMMARY
118	ONE SHEET	GUARD RAIL TRANSITION TYPE GP
120	ONE SHEET	PIER CONNECTION DETAILS FOR GUARD RAIL
123	ONE SHEET	GUARD RAIL END TREATMENT TYPE OS - ALTERNATES

TRAFFIC DATA	4864B&JC	5267B	5268B	5270B&JB	2377B&JB
A.D.T. (1988)	102,995	102,995	102,995	17,366	82,759
A.D.T. (19 PROJECTED)					
D.H.V. (19 PROJECTED)					
TRUCKS					
DESIGN SPEED					
ACCESS CONTROL					
FUNCTIONAL CLASSIFICATION					

THESE PLANS PREPARED BY:
FINK ROBERTS & PETRIE, INC.

CONSULTING ENGINEERS
3307 WEST 96TH STREET
INDIANAPOLIS, INDIANA 46268
TELEPHONE: (317) 872-8400
FAX: (317) 876-2408

DATE: August 14, 1991

CERTIFIED BY:

INDIANA DEPARTMENT OF HIGHWAYS
STANDARD SPECIFICATIONS DATED 1988
TO BE USED WITH THESE PLANS.

DES#17375, 17395, 17405, 17415, & 17425

INDIANA
DEPARTMENT OF
TRANSPORTATION

BRIDGE PLANS
FOR SPANS OVER 20 FEET
ON
INTERSTATE NO. 465
PROJECT NO. NHG-NH-465-4(266)119

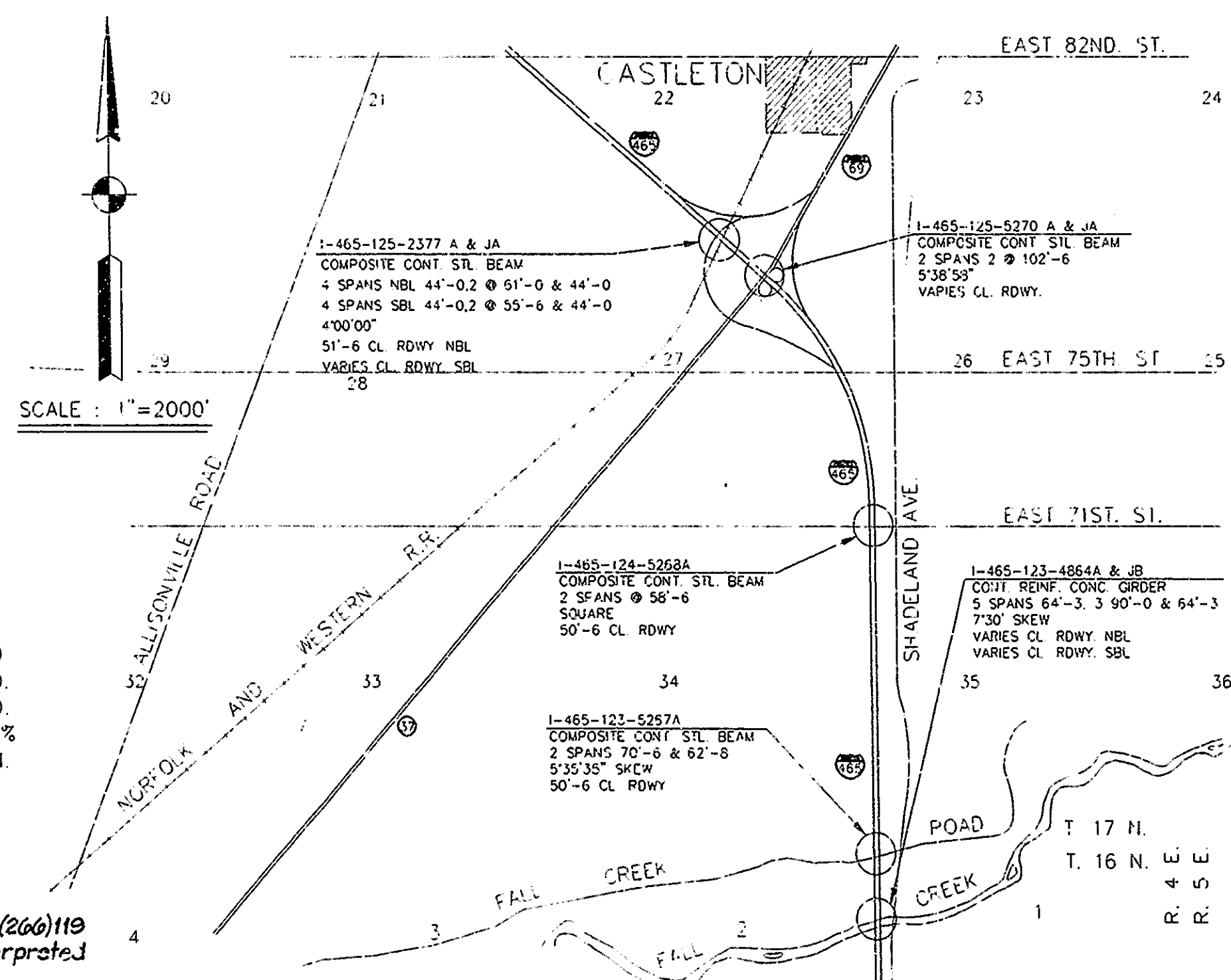
STRUCTURE NO. 1-465-123-4864B & JC, 1-465 OVER FALL CREEK IS LOCATED IN SECTION 2, TOWNSHIP 16 NORTH, RANGE 4 EAST IN LAWRENCE TOWNSHIP, MARION COUNTY.

STRUCTURE NO. 1--465-123-5267B, 1-465 OVER FALL CREEK ROAD IS LOCATED IN SECTION 2, TOWNSHIP 16 NORTH, RANGE 4 EAST IN LAWRENCE TOWNSHIP, MARION COUNTY.

STRUCTURE NO. 1-465-124- 5268B, 1-465 OVER EAST 71ST. STREET IS LOCATED IN SECTION 26 AND 35 TOWNSHIP 16 NORTH, RANGE 4 EAST IN LAWRENCE TOWNSHIP, MARION COUNTY.

STRUCTURE NO. 1-465-125-5270B & JB, 1-465 OVER 1-69 IS LOCATED IN SECTION 27,
TOWNSHIP 17 NORTH, RANGE 4 EAST IN LAWRENCE TOWNSHIP, MARION COUNTY

STRUCTURE NO. 1-465-125-2377B & JB, 1-465 OVER I-69 RAMP AND NORFOLK AND WESTERN RAILROAD IS LOCATED IN SECTION 27, TOWNSHIP 17 NORTH, RANGE 4 EAST IN LAWRENCE TOWNSHIP, MARION COUNTY



Wherever Project No. MAIR-IR-465-4(266)119 appears on the plans it shall be interpreted as NHS -NH-465-4(266)119.

DATE		SHEET NO.	
3	06 91	1, 13, 53, 54, 77, 91; DELETE 119, 121, 122, 124, 148, 149; ADD 148 A, B, C & D.	
4	12 92	Rev. 94, 111 1, 15, 54, 77, 83, 94, 117 - Deleted Bit. Mixture for Widening Quantity 15, 55 - Revised Temp. Conc. Barrier. Leave in Place Ref. Note 117 - Deleted Maintenance of Traffic Quantities	

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SHEET NO.	SHEET DESIGNATION	SUBJECT	FIELD APPROVAL	ADOPTED "A" REVISION "T"
	BRIDGE STD. BR1	ALUMINUM BRIDGE RAILING		
	BRIDGE STD. BR2	ALUMINUM BRIDGE RAILING DETAILS		
	BRIDGE STD. BR3	STEEL BRIDGE RAILING		
	BRIDGE STD. BR4	STEEL BRIDGE RAILING DETAILS		
	BRIDGE STD. BR5	RAILING CONNECTION DETAILS		
	BRIDGE STD.			
125	BRIDGE STD. C1	MISCELLANEOUS DETAILS	7-13-88	R 6-01-88
	BRIDGE STD. C2	MISCELLANEOUS DETAILS		
126	BRIDGE STD. C3	MISCELLANEOUS DETAILS	1-26-88	R 11-02-87
	BRIDGE STD. C4	MISCELLANEOUS DETAILS		
127	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.			
128	BRIDGE STD. PB 4	PRESTRESSED CONCRETE TYPE I-BEAMS	4-16-82	A JAN 1962
	BRIDGE STD. PB	PRESTRESSED CONCRETE TYPE I-BEAMS		
	BRIDGE STD. PB5	PRESTRESSED BOX BEAMS		
	BRIDGE STD. PB	PRESTRESSED COMPOSITE BOX BEAMS WIDE		
	BRIDGE STD. PB	PRESTRESSED COMPOSITE BOX BEAMS WIDE		
129	BRIDGE STD. PB10	TOLERANCES FOR FABRICATION OF PRESTRESSED BEAMS	8-14-63	A NOV 1962
130	BRIDGE STD. PB11	ELASTOMERIC BEARING PAD DETAILS	2-3-87	R 2-02-87
131	BRIDGE STD. SS-1	EXPANSION JOINT CLASS S-S JOINTS	*	A NOV 1990
131A	BRIDGE STD. SS-2	EXPANSION JOINT CLASS S-S JOINTS	*	A APR 1991
	BRIDGE STD. K2A	BRIDGE LIGHTING DETAILS		
	BRIDGE STD. R2B	BRIDGE LIGHTING DETAILS		
132	BRIDGE STD. S1	MISCELLANEOUS DETAILS	1-22-87	R 12-1-86
133	BRIDGE STD. SH1	STEEL SHOE DETAILS	2-1-85	R 10-29-84
	BRIDGE STD. T SHEET A	STANDARD TEMPORARY BRIDGE		
	BRIDGE STD. T SHEET B	STANDARD TEMPORARY BRIDGE		
	BRIDGE STD.			
	BRIDGE STD.			
	BRIDGE STD.			
	BRIDGE STD.			
	BRIDGE STD.			
	ROAD STD. SHEET A	STANDARD PAVEMENT JOINTS		
134	ROAD STD. SHEET B JOINTS	STANDARD PAVEMENT JOINTS	5-01-90	R 3-01-90
135	ROAD STD. SHEET MB 2	MISCELLANEOUS STANDARDS	5-21-82	R 4-01-82
136	ROAD STD. SHEET MB 4	MISCELLANEOUS STANDARDS	6-14-74	R 1-02-74
137	ROAD STD. SHEET MC	MISCELLANEOUS STANDARDS	1-11-88	R 9-1-88
138	ROAD STD. SHEET MC 2	MISCELLANEOUS STANDARDS	1-11-88	R 9-1-88
139	ROAD STD. SHEET MD	MISCELLANEOUS STANDARDS	12-27-82	R 10-1-82
140	ROAD STD. SHEET ME	MISCELLANEOUS STANDARDS	5-19-88	R 4-04-88
141	ROAD STD. SHEET ME 1	MISCELLANEOUS STANDARDS	4-7-87	A MAR 1987
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
142	ROAD STD. SHEET MN	MISCELLANEOUS STANDARDS	9-24-85	R 6-3-85
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
143	ROAD STD. SHEET MO	MISCELLANEOUS STANDARDS	4-10-84	R 2-1-84
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
144	ROAD STD. SHEET MS	MISCELLANEOUS STANDARDS	1-11-83	R 9-1-88
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
145	ROAD STD. SHEET MT 3	MISCELLANEOUS STANDARDS	8-5-88	R 8-01-88
146	ROAD STD. SHEET MT 18	MISCELLANEOUS STANDARDS	1-6-88	A NOV 1987
147	ROAD STD. SHEET MT 19	MISCELLANEOUS STANDARDS	1-6-88	A NOV 1987
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
148A	ROAD STD. SHEET G-1	W-BEAM GUARDRAIL COMPONENTS	*	A DEC 91
148B	ROAD STD. SHEET G-3	W-BEAM GUARDRAIL ASSEMBLIES	*	A DEC 91
148C	ROAD STD. SHEET E-1	GUARDRAIL END TREATMENT TYPE 1	*	A DEC 91
148D	ROAD STD. SHEET T-2	GUARDRAIL TRANSITION TYPE GP	*	A DEC 91
	ROAD STD. SHEET CR5	ALUMINUM GUARD RAIL DETAILS		
	ROAD STD. SHEET CR6	STEEL TUBE GUARD RAIL DETAILS		
	ROAD STD. SHEET	GUARD RAIL PIER CONNECTION DETAILS		
	ROAD STD. SHEET CR8	STEEL BEAM GUARD RAIL		
	ROAD STD. SHEET CR9	ALUMINUM BEAM GUARD RAIL		
	ROAD STD. SHEET CR10A	GUARD RAIL BREAKAWAY CABLE TERM.		
150	ROAD STD. SHEET CB1	CON. WED. BARRIER; INLET TYPE H; CONC. GLARE SCREEN; G.R.E.A.T. UNIT	1-11-89	R 9-1-88
151	ROAD STD. SHEET CB2	TEMPORARY CONCRETE BARRIER	1-11-89	R 9-01-88
	ROAD STD. SHEET 1 DETOURS	STANDARD DETOUR SIGNS	*	A SEPT 1988
	ROAD STD. SHEET 1A DETOURS	STANDARD DETOUR SIGNS	*	A SEPT 1988
153	ROAD STD. SHEET 1B DETOURS	STANDARD DETOUR SIGNS	*	A SEPT 1988
	ROAD STD. SHEET 2 DETOURS	STANDARD DETOUR SIGNS	*	A SEPT 1988
154	ROAD STD. SHEET 2A DETOURS	STANDARD DETOUR SIGNS	*	A SEPT 1988
155	ROAD STD. SHEET 3 DETOURS	STANDARD DETOUR SIGNS	*	R 5-01-88
156	ROAD STD. SHEET 3A DETOURS	STANDARD DETOUR SIGNS	*	R 9-01-88
157	ROAD STD. SHEET 4 DETOURS	STANDARD DETOUR SIGNS	1-11-89	R 9-01-88
158	ROAD STD. SHEET 5 DETOURS	STANDARD DETOUR SIGNS	*	R 5-01-88
159	ROAD STD. SHEET 5A DETOURS	STANDARD DETOUR SIGNS	*	R 9-01-88

* PENDING

RECOMMENDED FOR APPROVAL 10-1-91RECOMMENDED FOR APPROVAL 10-3-91

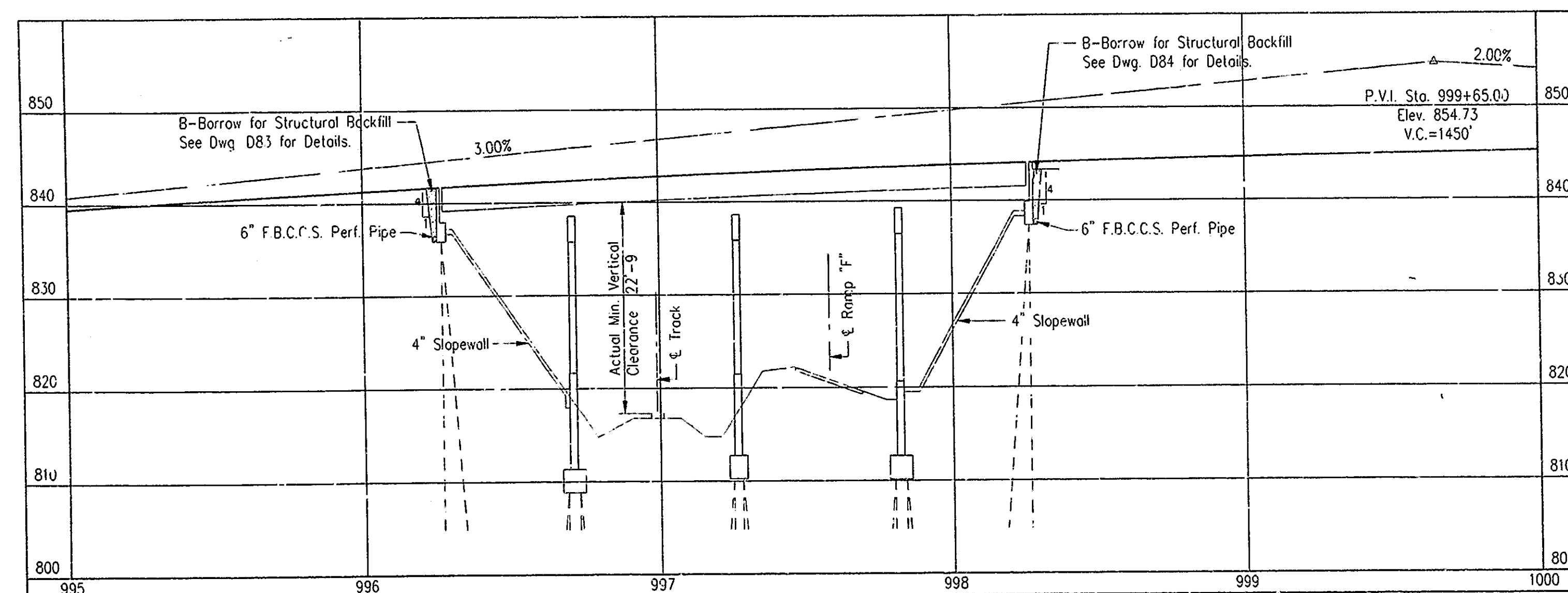
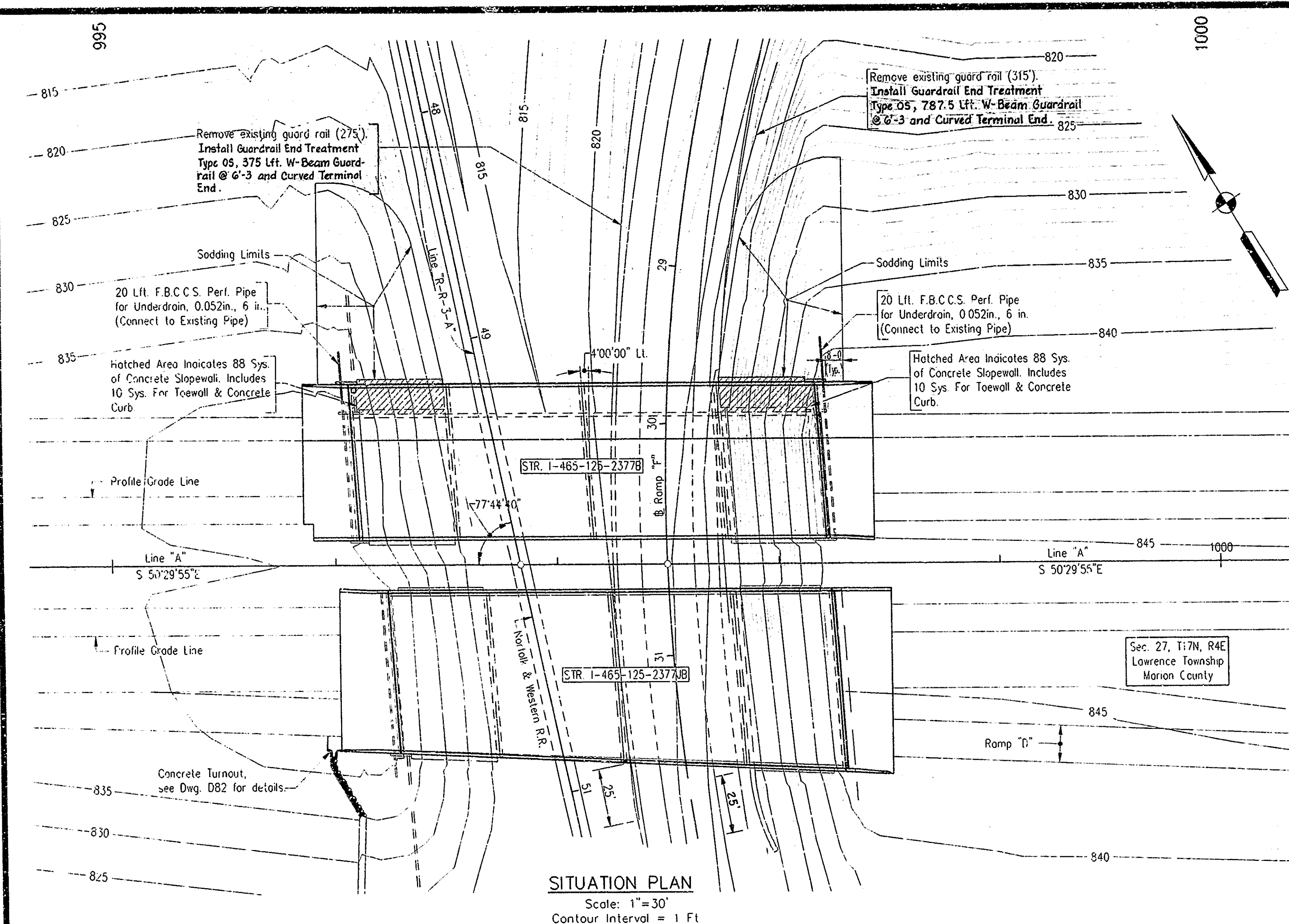
DESIGN CONSULTANT SERVICES MANAGER,
INDIANA DEPARTMENT OF HIGHWAYS

APPROVED 10-4-91
[Signature]
CHIEF, DIVISION OF DESIGN, INDIANA DEPARTMENT OF HIGHWAYS

FEDERAL HIGHWAY ADMINISTRATION

APPROVED: -
[] []
DIVISION ADMINISTRATOR DATE

BRIDGE FILE: -1-465-4864B & JC, 1-465-123-5267B,
1-465-124-5268B, 1-465-125-5270B & JB
1-465-125-2377B & JB



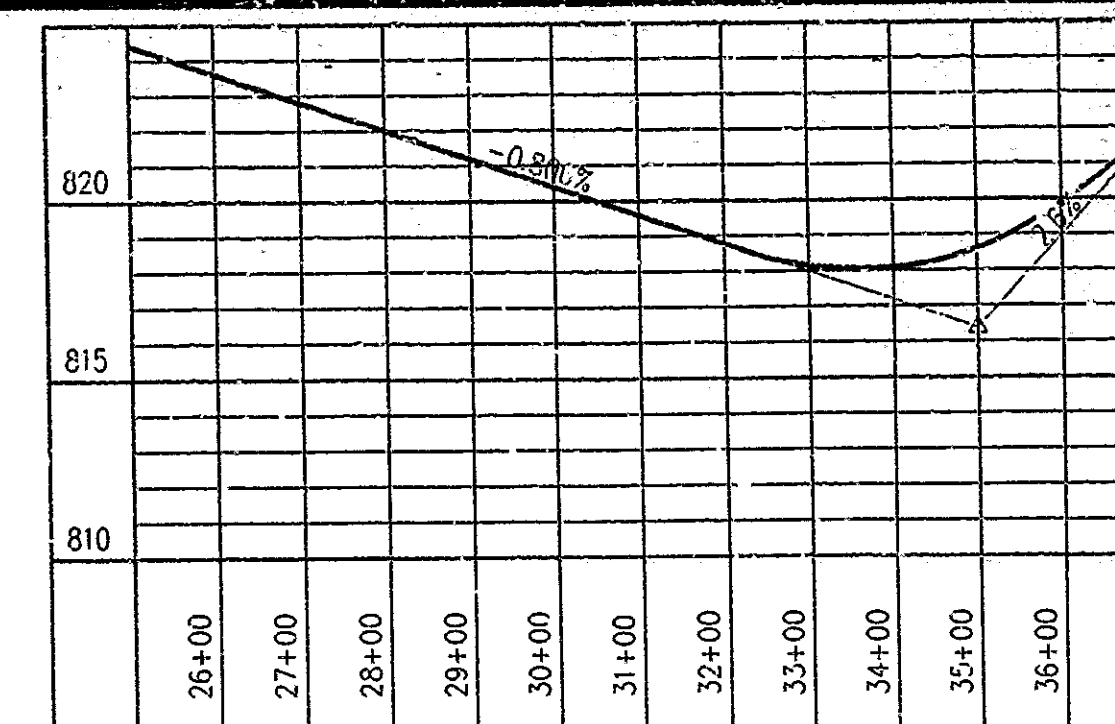
DESIGNED: DPJ
DRAWN: AMW
CHECKED: PEB
DATE: 8/10/91

PROFILE
Horiz. Scale: 1"=30'
Vert. Scale: 1"=10'

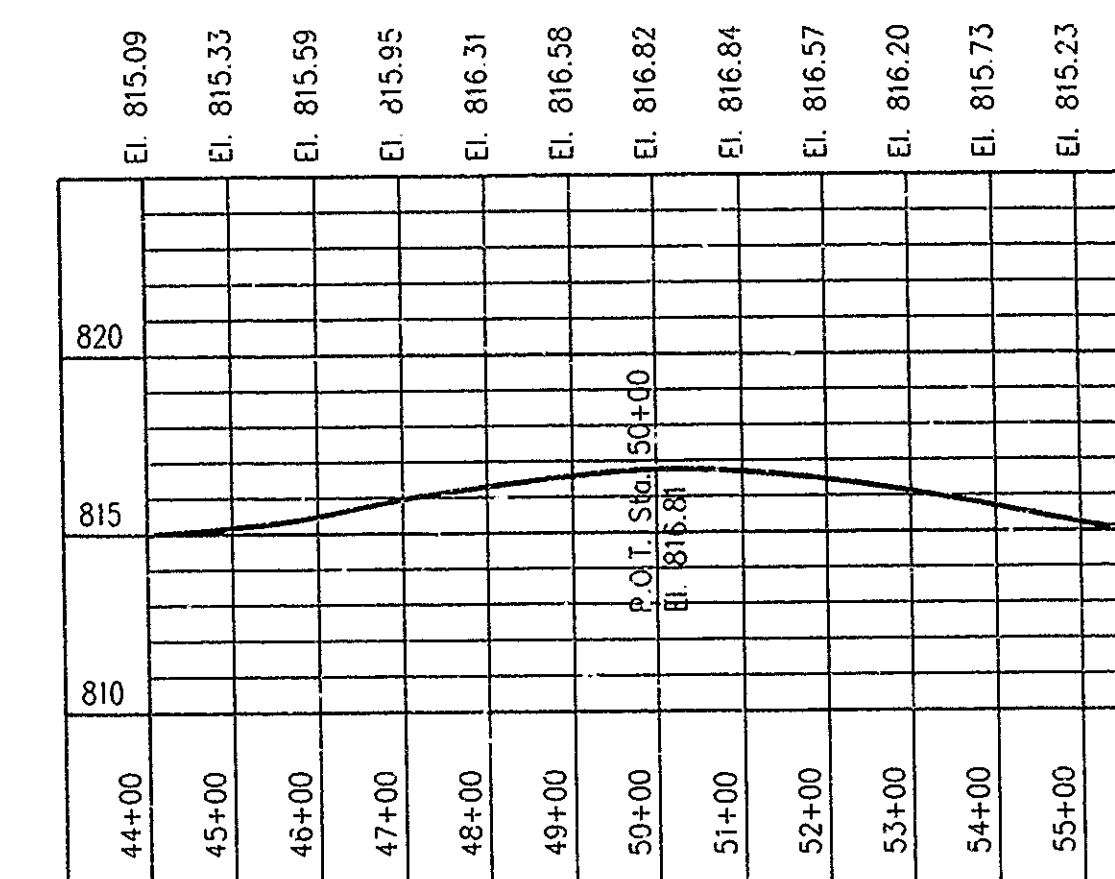
Rev.: 03-06-92; Guardrail

NOTE:
- Earthwork for spillover construction is to be in Road Plans.
- For Guard Rail Details, see sheets 118, 119, 120, 122, 123, 124.

SODDING QUANTITIES	
Northwest Corner	447 Sys.
Northeast Corner	508 Sys.
TOTAL SODDING	955 Sys.



PROFILE OF RAMP "F"
Scales: Horizontal 1"=200', Vertical 1"=5'



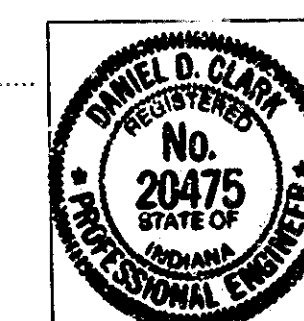
PROFILE OF LINE "R-R-3-A"
Scales: Horizontal 1"=200', Vertical 1"=5'

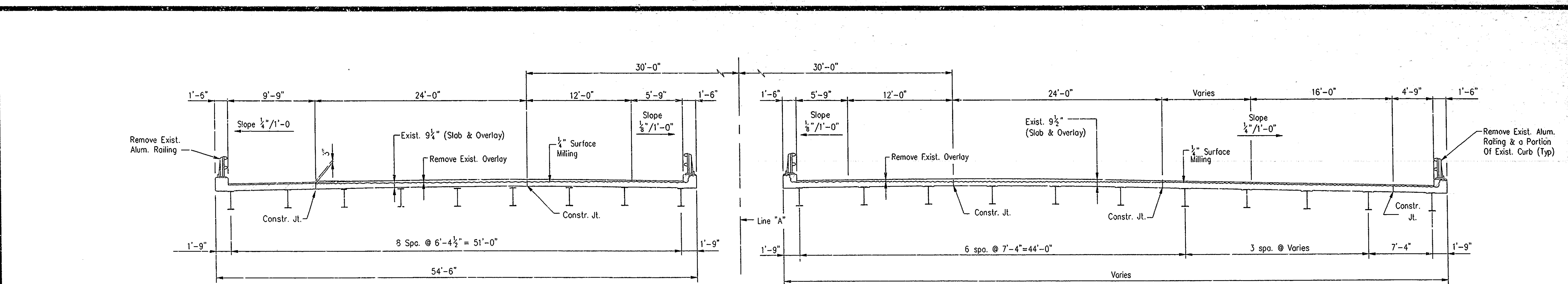
PRESENT STRUCTURES
Continuous Composite Steel Beam Bridge built in 1968. Plans are on file with the Bridge Department of the Indiana Department of Transportation as I-465-125-2377 & J and I-465-125-2377A & JA.

UTILITY OWNERS
Power Lines: Indianapolis Power & Light Company
25 Monument Circle
Indianapolis, Indiana 46204
Gas Lines: Citizens Gas & Coke Utility
2020 N. Meridian
Indianapolis, Indiana 46204
Water Lines: Lawrence Water Company
4450 McCoy
Lawrence, Indiana 46226
Telephone: Indiana Bell Telephone Company
240 N. Meridian
Indianapolis, Indiana 46204

LAYOUT
STR. I-465-125-2377 4 Spans: 44'-0", 61'-0", 61'-0", 44'-0" Skew 4'00" Lt.
51'-6" Roadway
STR. I-465-125-2377J 4 Spans: 44'-0", 55'-6", 55'-6", 44'-0", Skew 4'00" Lt.
Roadway Varies
Over Norfolk & Western R.R. and Ramp "F" on I-465
INDIANA DEPARTMENT OF HIGHWAYS
MARION COUNTY

SCALE: — As Noted
DATE: — August 14, 1991
DRAWING: — D79 OF D104 SHEET: — 91 OF 159
PROJECT: — MAIR-IR-465-1(266)119 STATION: —
BRIDGE CONTRACT NO. R-19482
BRIDGE FILE: — I-465-125-2377B & 2377J

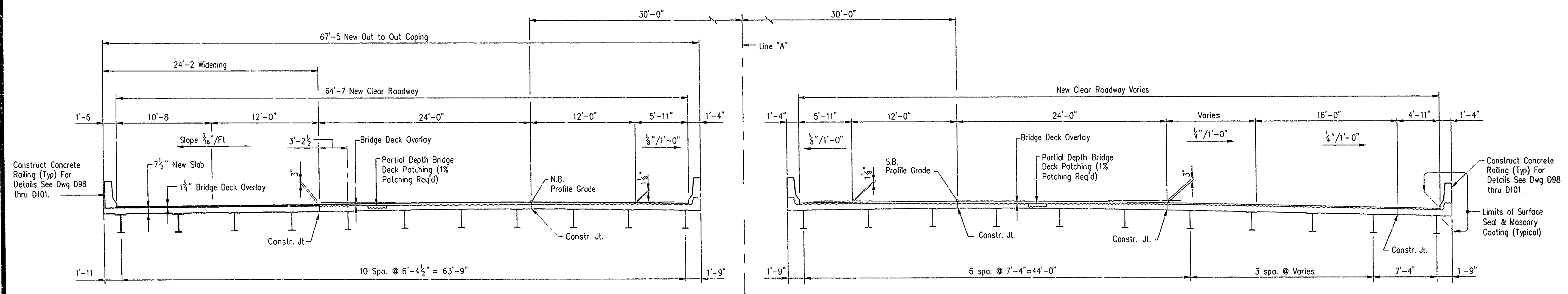




Indicates Limits of Removal

SECTION A-A

Scale: $\frac{3}{16}'' = 1'-0''$



SECTION A-A

Scale: $\frac{3}{16}'' = 1'-0''$

GENERAL PLAN

BRIDGE RECONSTRUCTION AND WIDENING
CONTINUOUS COMPOSITE STEEL BEAM BRIDGE

NORTHBOUND STRUCTURE: 4 SPANS @ 44'-0, 61'-0, 61'-0 AND 44'-0 ON 4° SKEW LEFT
SOUTHBOUND STRUCTURE: 4 SPANS @ 44'-0, 55'-6, 55'-6 AND 44'-0 ON 4° SKEW LEFT
CLEAR ROADWAY WIDTH VARIES (SEE PLANS) 2 CONCRETE BARRIER RAILS
I-465 OVER N. & W. RAILWAY AND RAMP "F" (I-69 S.B. TO I-465 S.B.)

INDIANA DEPARTMENT OF HIGHWAYS
MARION COUNTY

SCALE: - As Noted

DATE: - August 14,

Daniel D. Clark

1991

DRAWING: D81 OF D104 SHEET: 93 OF 159
PROJECT: - MAIR-IR-465-4(266)119 STATION: -
BRIDGE CONTRACT NO. *R-19482*
BRIDGE FILE: - I-465-125-23778 & JB



DESIGNED: TWL	CK'D: PCB
DRAWN: WFA	CK'D: PCB
TRACED: CK'D	

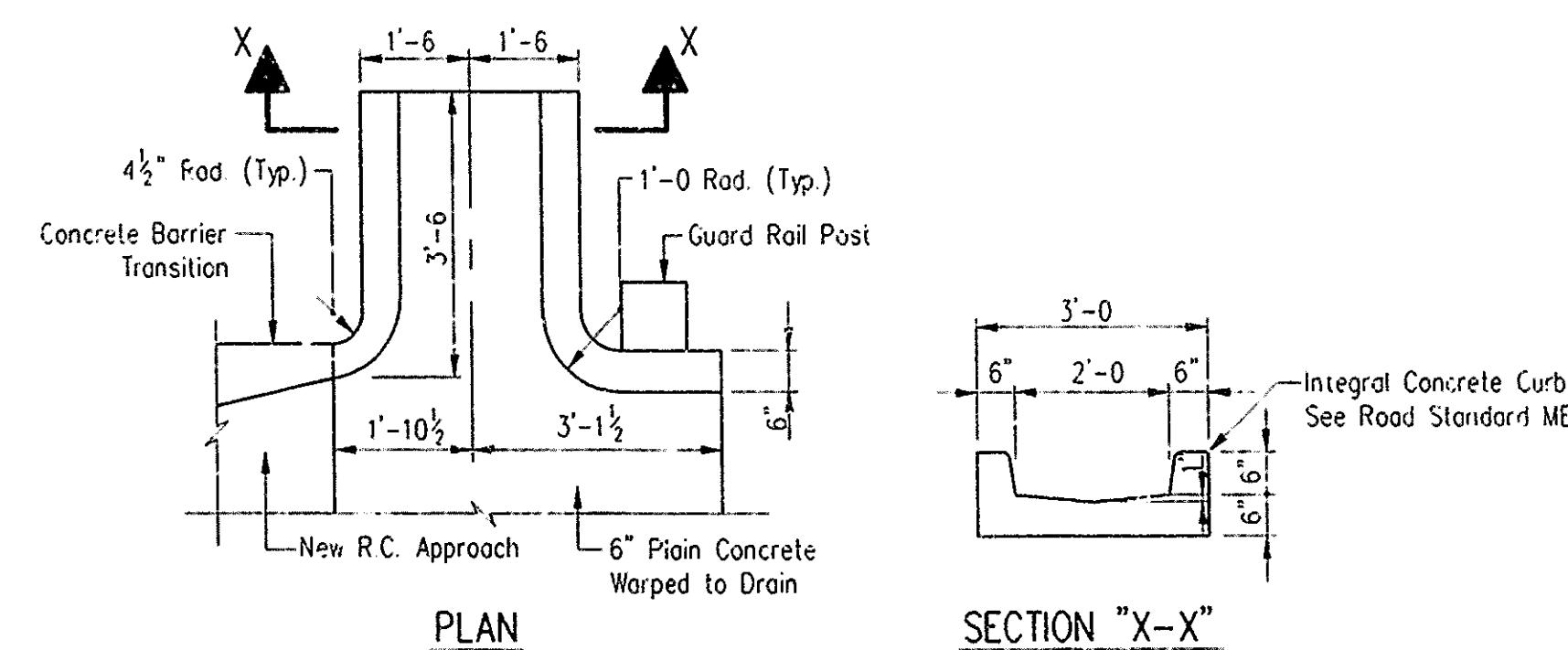
STANDARD DRAWING TABLE

Bridge Standards	Road Standards	Traffic Standards	Purpose
C1			Pile Encasement Details; Reinforcing Bar Notes; Bar Bending Details
C3			Joint Details
D			Roadway Drain Details
S1			Placing B-Borrow
SH1			Shoe Details
SS-1			Expansion Joint Class S-S Details
SS-2			Expansion Joint Class S-S Details
		MT3	Traffic Sign Details
		MT18	Snow Plowable Pavement Markers
		MT19	Snow Plowable Pavement Markers
G-1, G-3, E-1, T-2			Guard Rail
MB-2			Bridge Slopewall
MC			Type 6 Casting Details
MD			Type D Inlet Details
ME			Integral Concrete Curb
CB-2			Temporary Concrete Barrier, G.R.E.A.T. Unit c.z.
Sht 1B Detours			Continuous Lane Closures, Advance Signing
Sht 2A Detours			Barriercodes and Typical Sign Standards
Sht 3 Detours			Standard Detour Signs
Sht 3A Detours			Standard Detour Signs
Sht 4 Detours			Standard Detour Signs
Sht 5A Detours			Sign Design Details

MATERIAL NOTES

Bridge Deck Overlay: $1\frac{1}{2}$ " Modified Portland Cement Concrete.
Top of Overlay to be $1\frac{1}{2}$ " Above the Original Bridge Floor.

~~600 Tons Bituminous Widening~~
~~110 Lbs./Sqd. Bituminous Surface MW~~
~~440 Lbs./Sqd. Bituminous Base No. 1 MW~~
~~440 Lbs./Sqd. Bituminous Base Type 5B MW~~
~~(to be paid for as Bituminous Mixture for Approaches, MW)~~



CONCRETE TURNOUT DETAILS

Scale: $\frac{1}{2}$ " = 1'-0"

GENERAL NOTES

Two Lanes of thru traffic shall be maintained in each direction throughout the length of the project.

Plans of the existing structures are on file in the Bridge Department, Indiana Department of Transportation as Bridge No. I-465-125-2377 & J and I-465-125-2377A & JA.

Where new work is to be fitted to old work, the contractor shall check all dimensions and conditions in the field, and report any discrepancies or errors to the engineer and assume responsibility for their correctness and fit of the new part to the old.

Depth of footings to be extended if found necessary. See Article 206.11(c) of the Specifications.

Piles shall have minimum bearing value shown on detail drawings. Determine pile lengths by Article 701 of the Specifications.

Tolerance in position of pile head to be maximum 2".

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

Concrete in the superstructure and railings is to be Class C.

Concrete in the footings to be Class B.

Concrete in end bents, bent caps and columns to be Class A.

Continuous concrete pours shall be required between construction joints as shown on the detail plans.

Chamfer all exposed edges 1" unless noted.

Only the top of the end bent caps, exposed top surface of interior bent caps, front face and top of mudwalls, vertical faces and top of the railing, face of deck copings and the underside of bridge floor from coping to exterior beam are to be sealed in accordance with the Supplemental Specifications.

All removed bridge rail to remain property of INDOT.

All permanent striping to be placed by the Road, see Road Plans.

All bituminous items in this contract are to be included in the pay item "Bituminous Mixture for Approaches", Tons.

Masonry Coating (Color-Ivory Fed. No. 27778) is to be applied to front face, top face and coping face of barrier railing, the deck coping and the underside of the bridge floor from the coping to exterior beam. See Special Provisions.

GENERAL NOTES, MATERIAL NOTES,
STANDARD DRAWING TABLE

INDIANA DEPARTMENT OF HIGHWAYS

MARION COUNTY

SCALE: - None

DATE: - August 14,

1991

Daniel D. Clark

DRAWING: D82 OF D104 SHEET: 94 OF 150

PROJECT: MAIR-IR-465-4(266)119 STATION: -

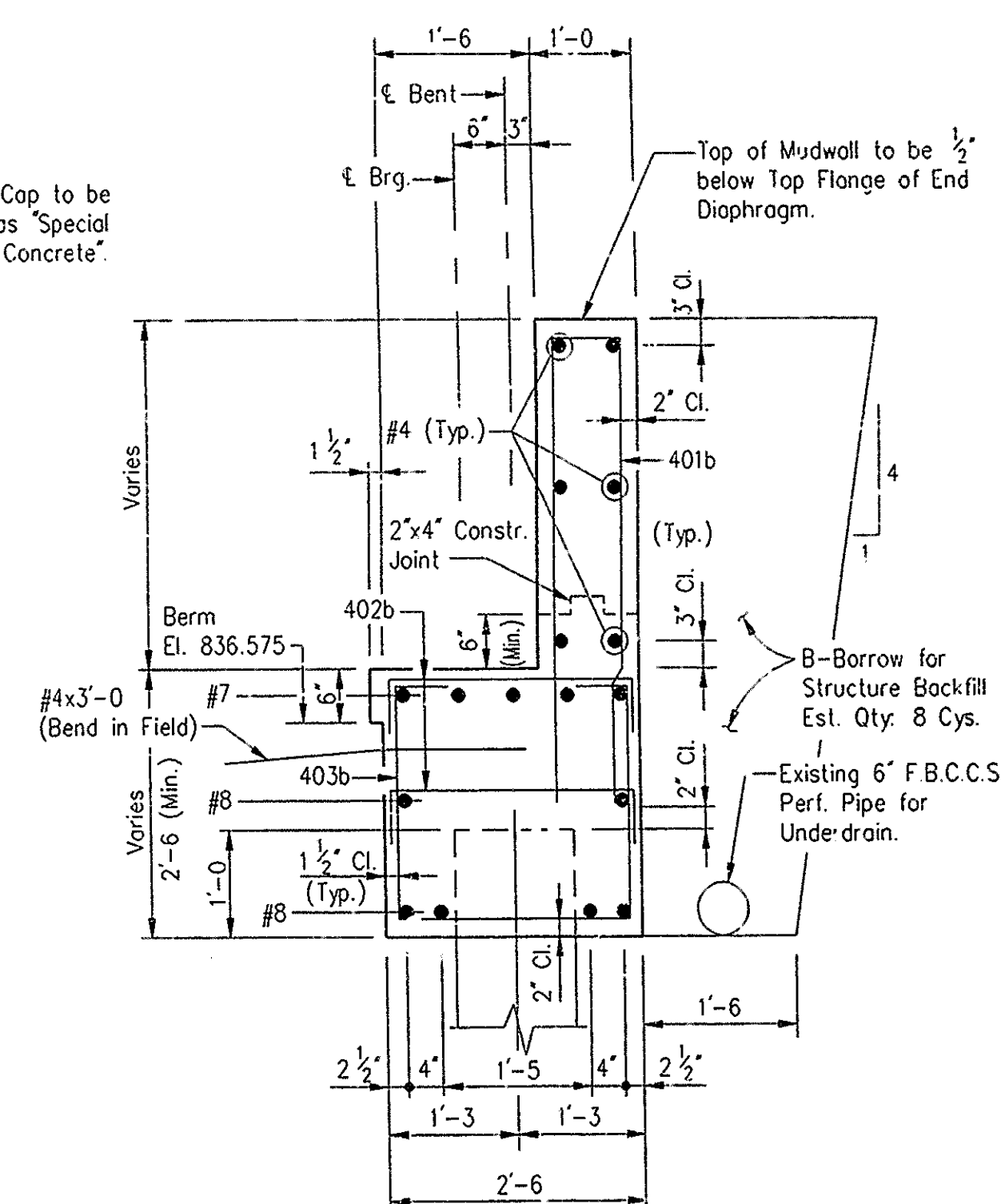
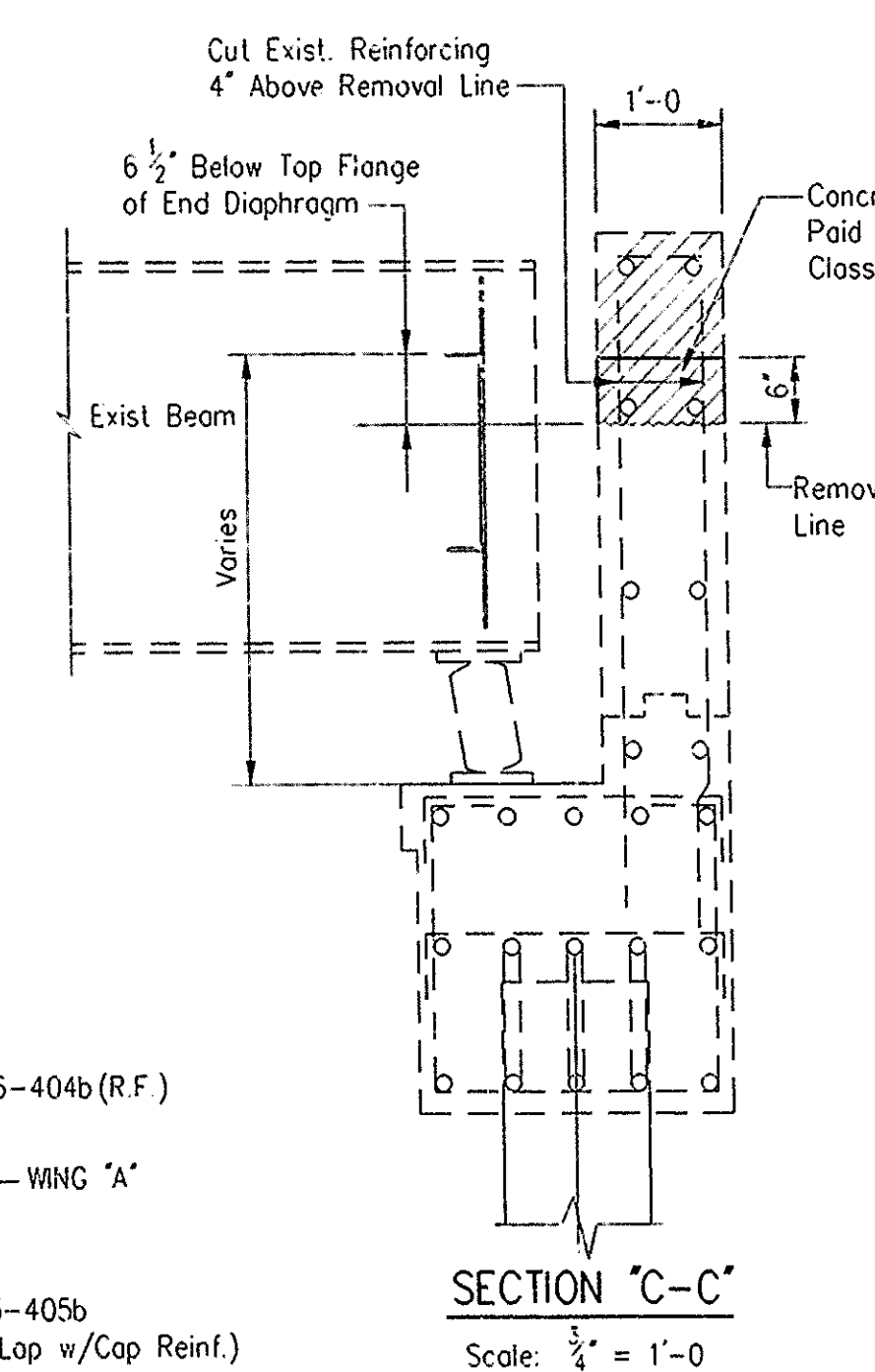
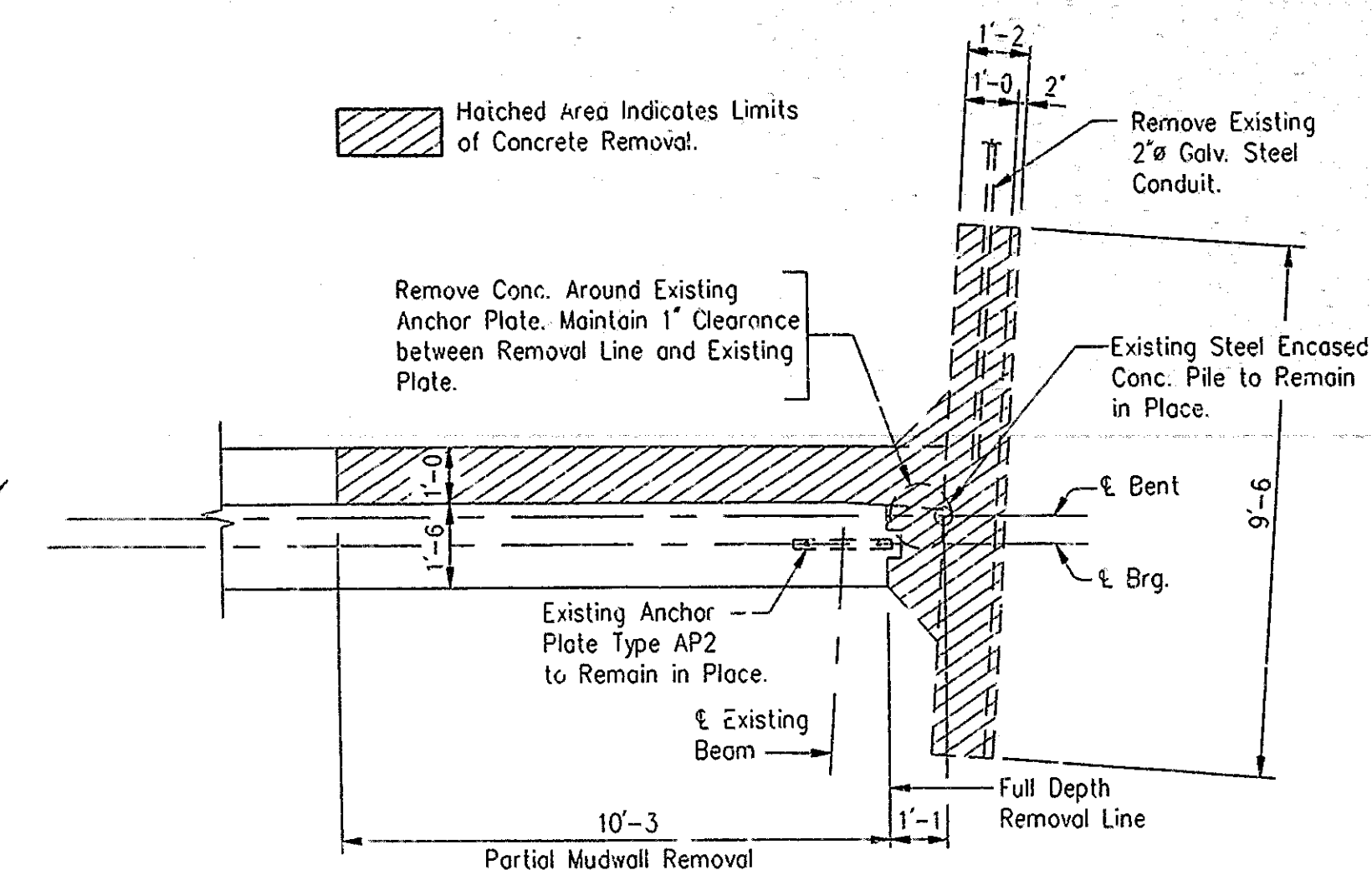
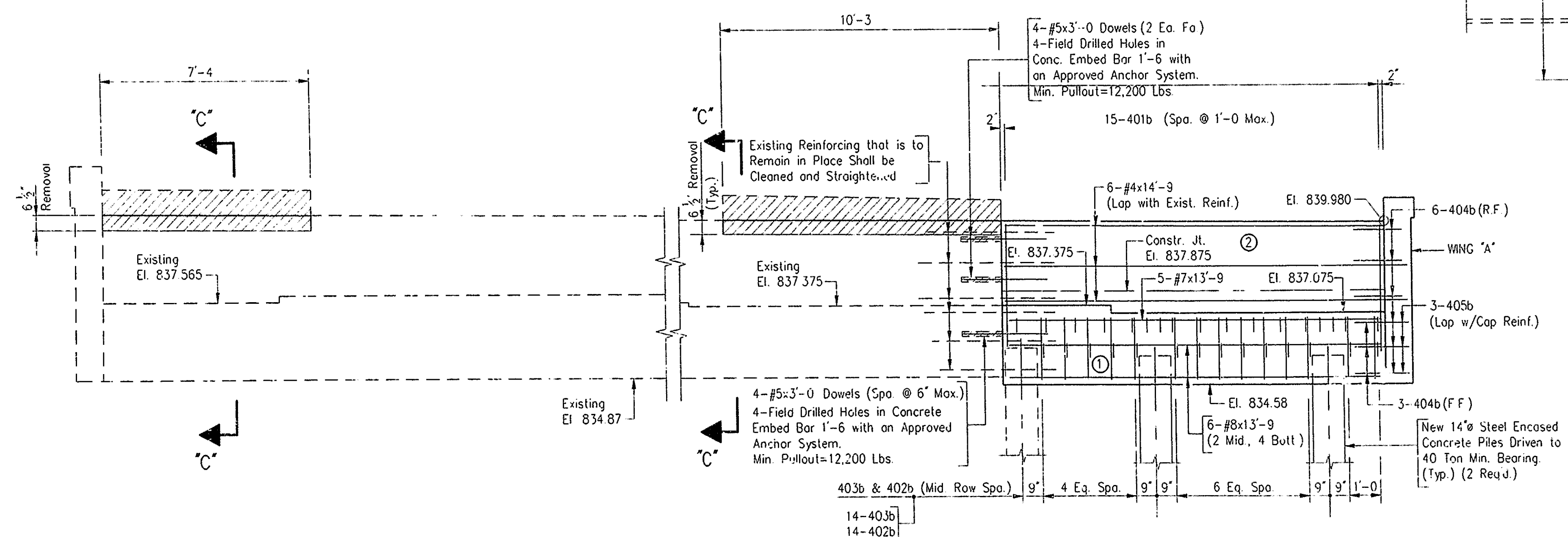
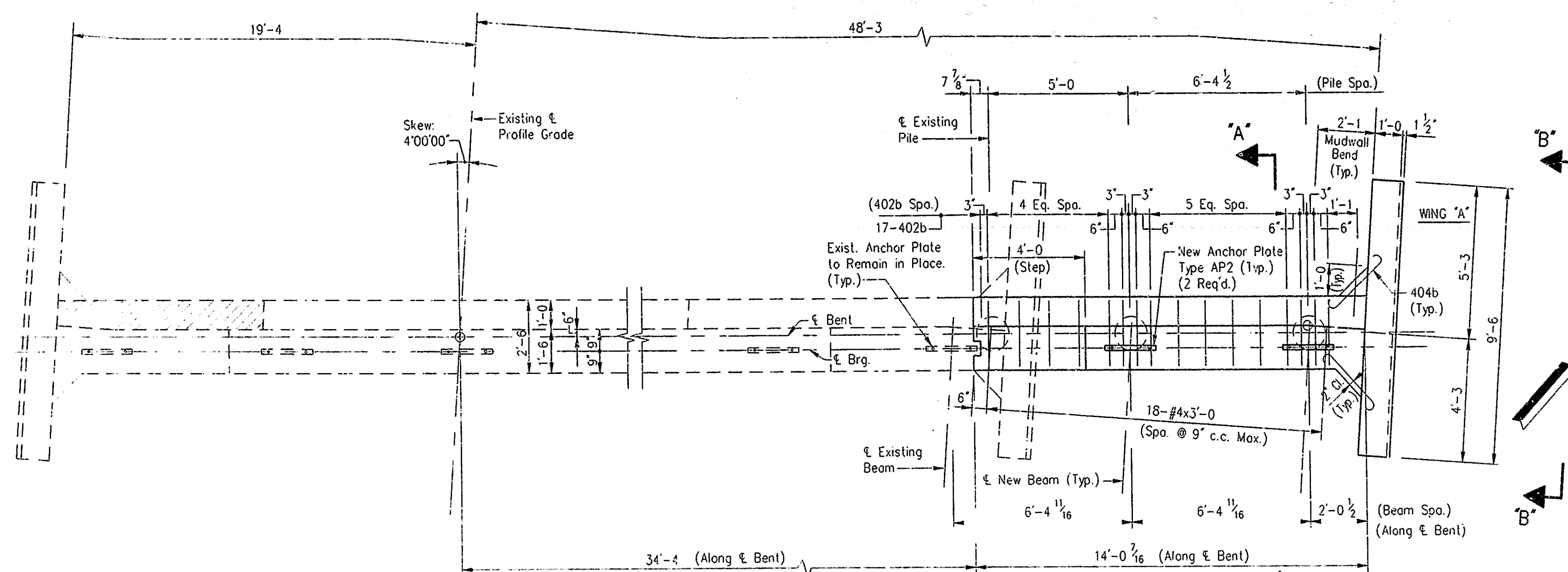
BRIDGE CONTRACT NO. R-19452

BRIDGE FILE: - I-465-125-2377B & JB



DESIGNED: TWL CWD PEB
 DRAWN: TWL CWD PEB
 TRACED: CWD

Rev 4-12-92 Deleted Bit Widening Quantity
 Rev: 03-06-92; Std. Drawg. (Guardrail)



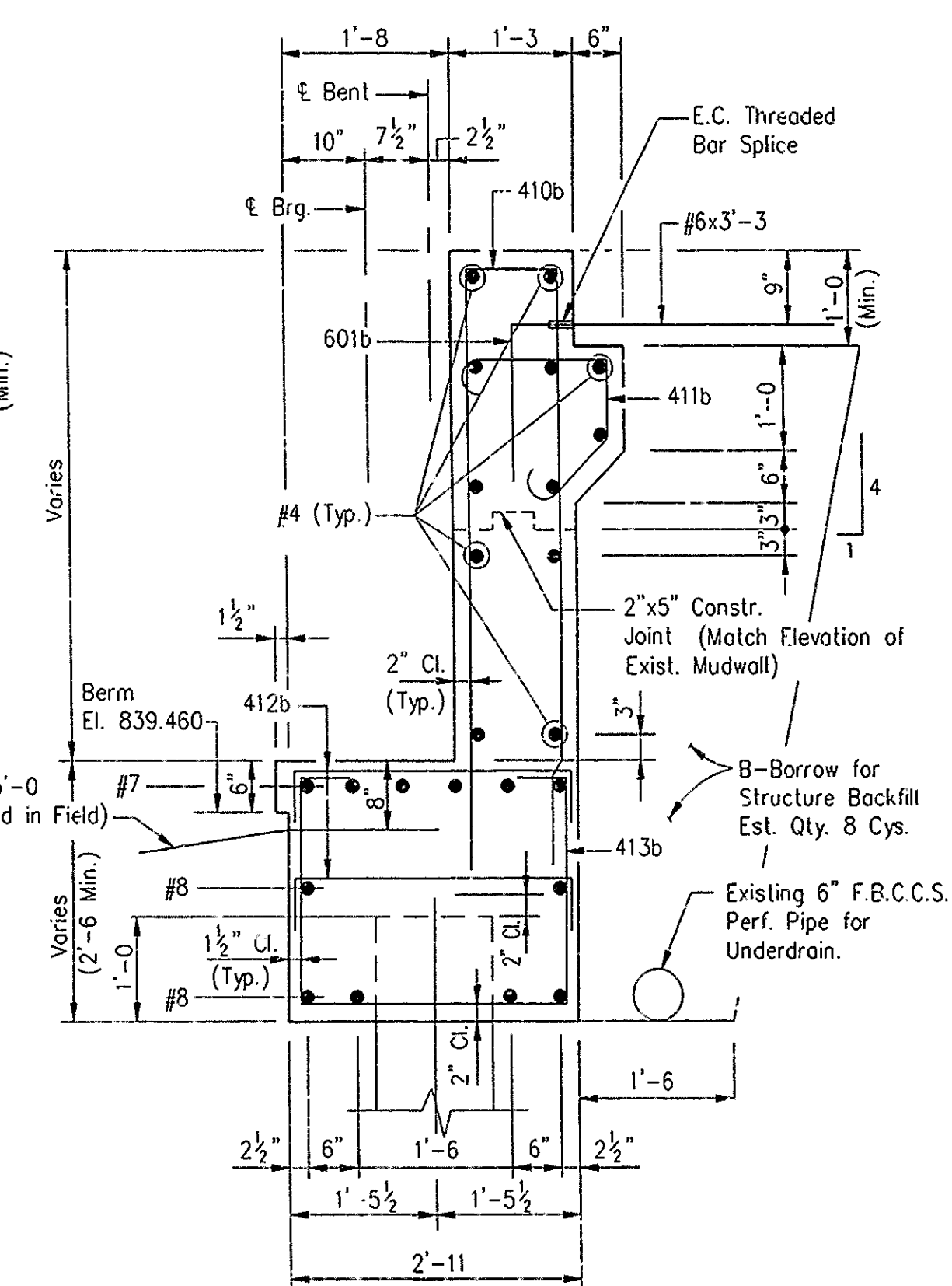
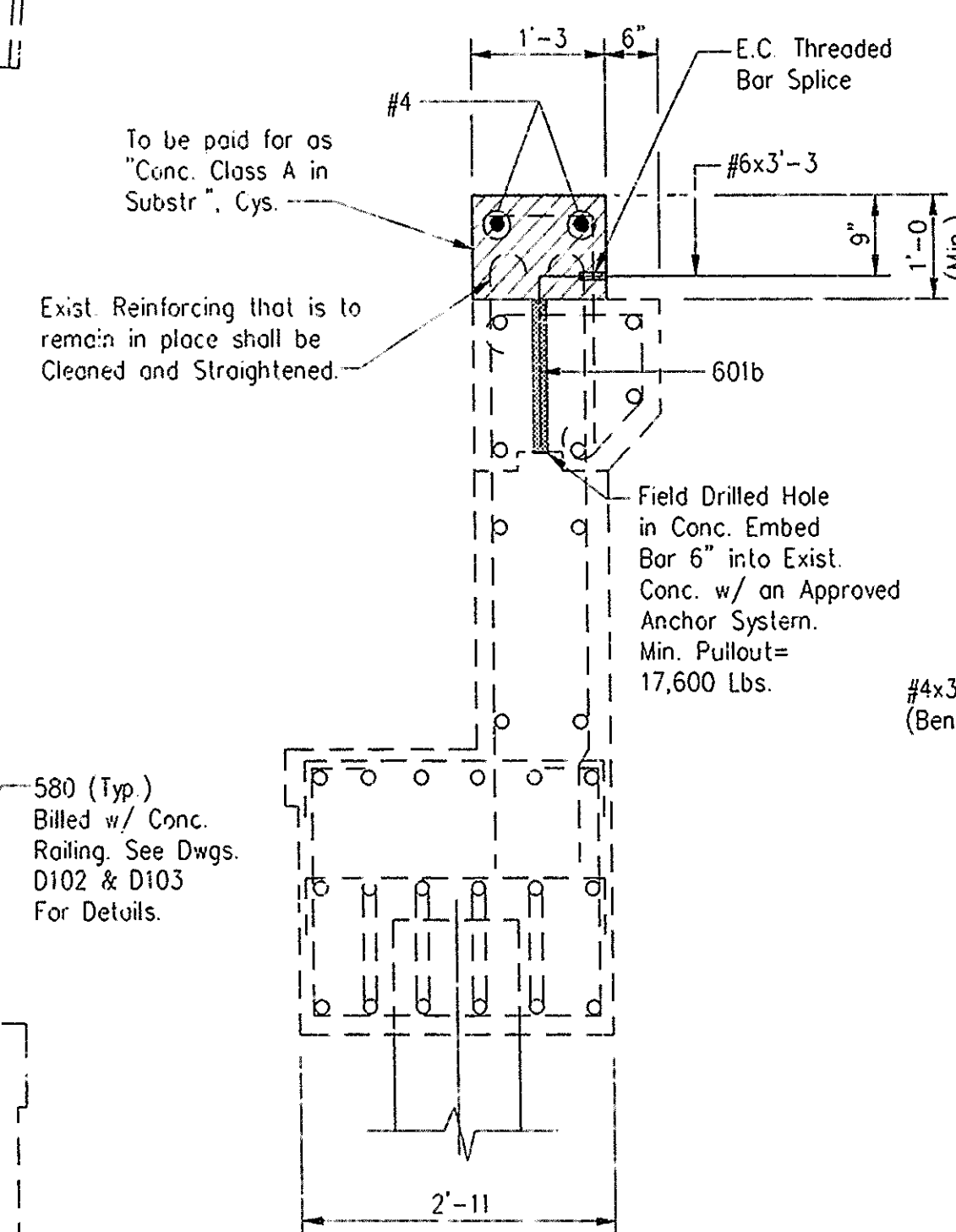
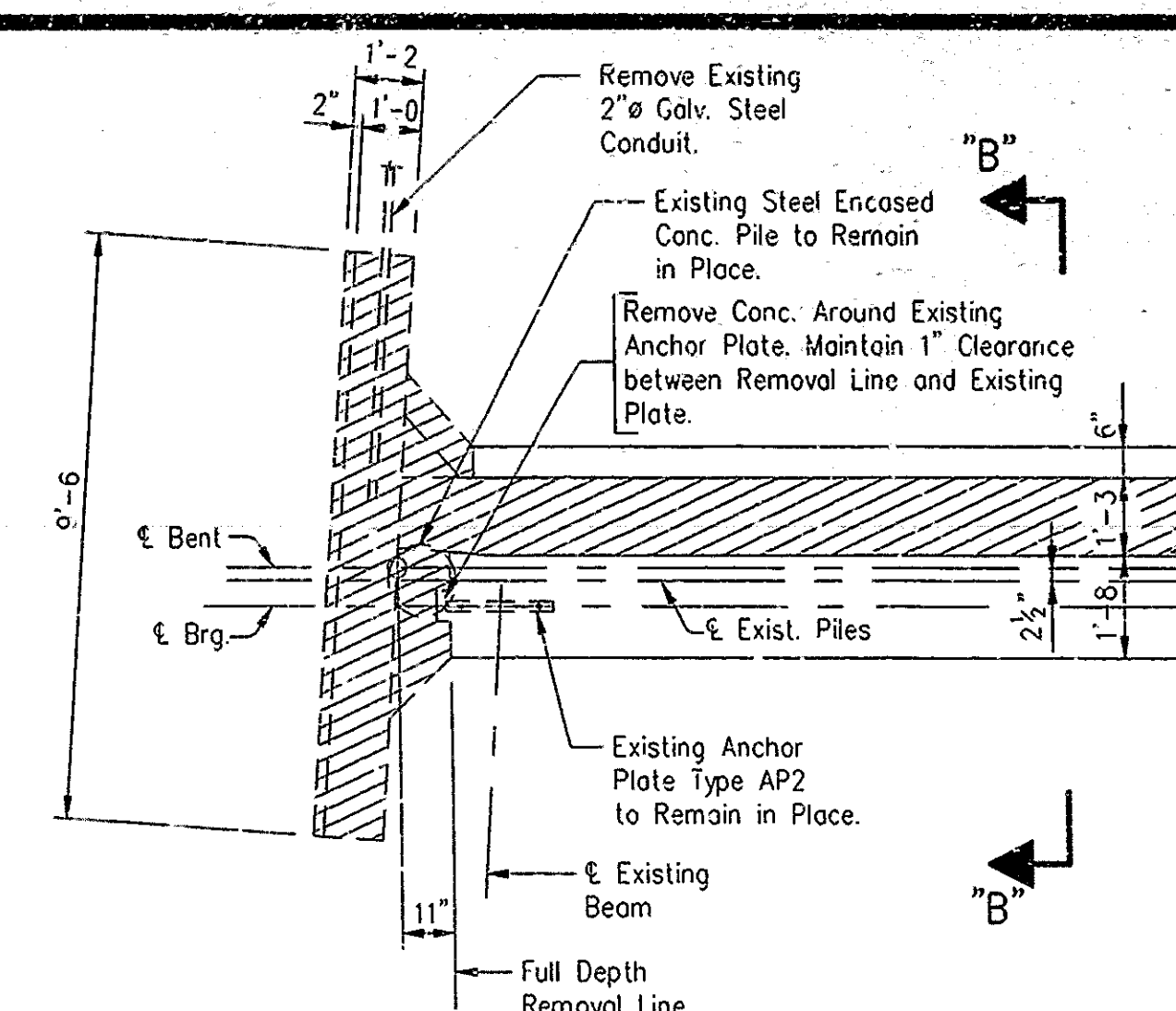
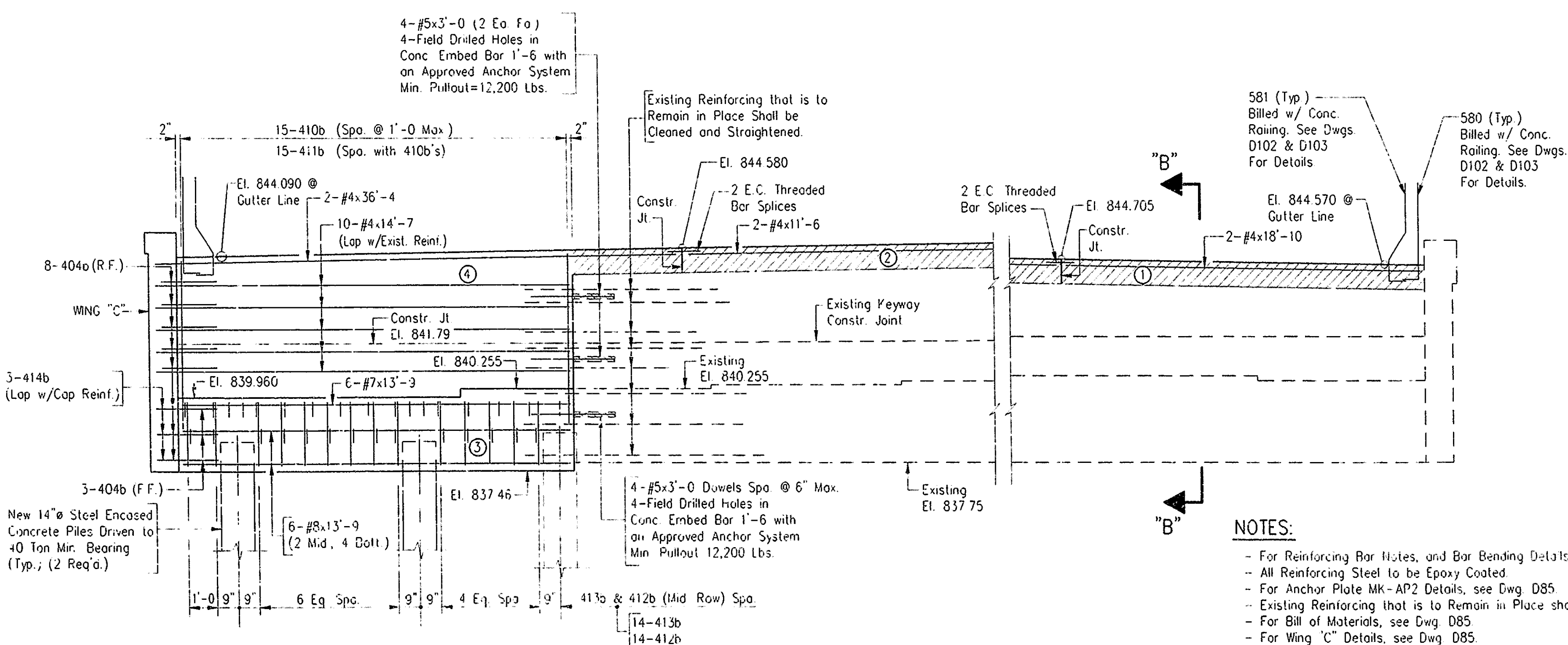
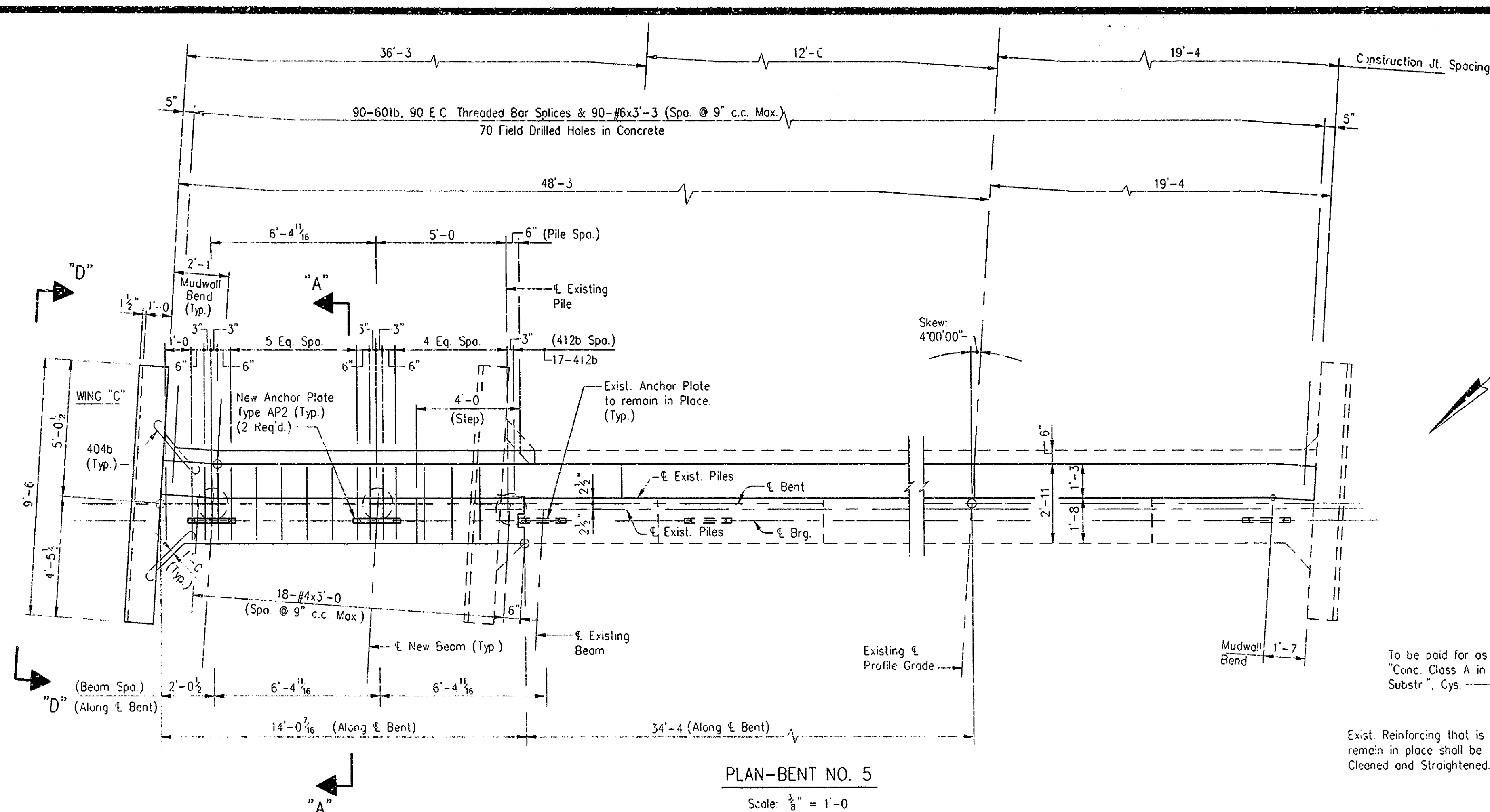
BENT NO. 1 DETAILS N.B. LANES
INDIANA DEPARTMENT OF HIGHWAYS
MARION COUNTY

SCALE: - $\frac{3}{8}" = 1'-0"$ Unless
Otherwise Noted.

DATE :- August 14,

1991

DRAWING: D83 OF D104 SHEET: 95 CF 159
PROJECT: - MAR-IR-465-4(266)119 STATION: -
BRIDGE CONTRACT NO. *R-19482*
BRIDGE FILE: - I-465-125-23778 & JB



NOTES:

- For Reinforcing Bar Notes, and Bar Bending Details, see Bridge Std. C1
- All Reinforcing Steel to be Epoxy Coated
- For Anchor Plate MK-AP2 Details, see Dwg. D85
- Existing Reinforcing that is to Remain in Place shall be Cleaned and Straightened.
- For Bill of Materials, see Dwg. D85
- For Wing "C" Details, see Dwg. D85
- For Elevation "D-D", see Dwg. D85

 Indicates Concrete Removal
 Indicates Concrete Pours

BENT NO. 5 DETAILS N.B. LANES **INDIANA DEPARTMENT OF HIGHWAYS**

MARION COUNTY

MARION COUNTY

SCALE: - $\frac{3}{8}" = 1'-0$ unless
otherwise noted.

DATE :- August 14,

1991

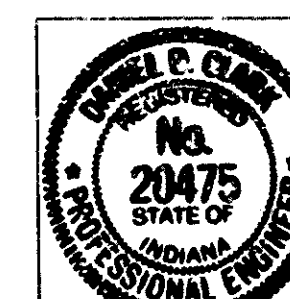
Daniel D. Clark

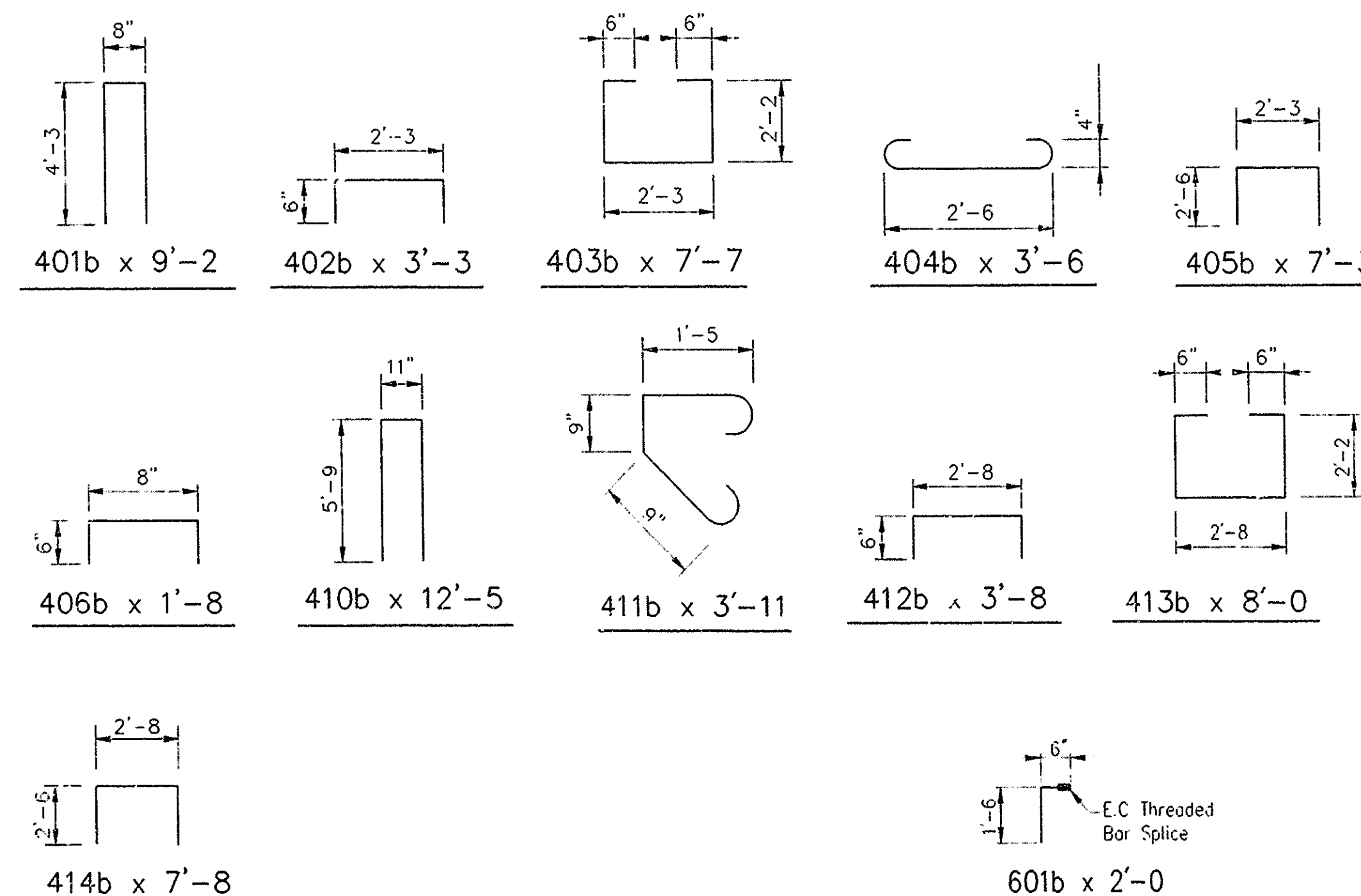
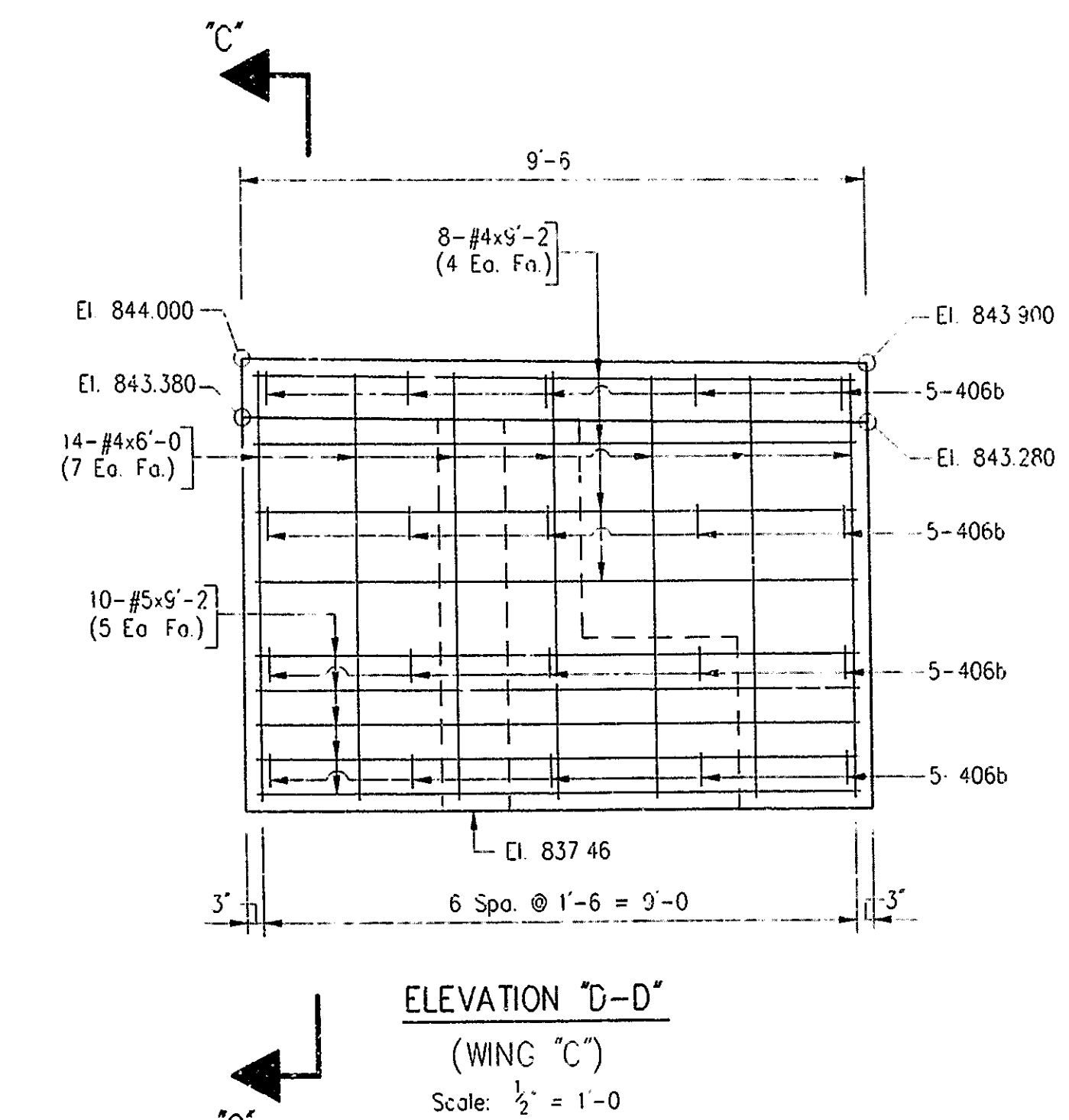
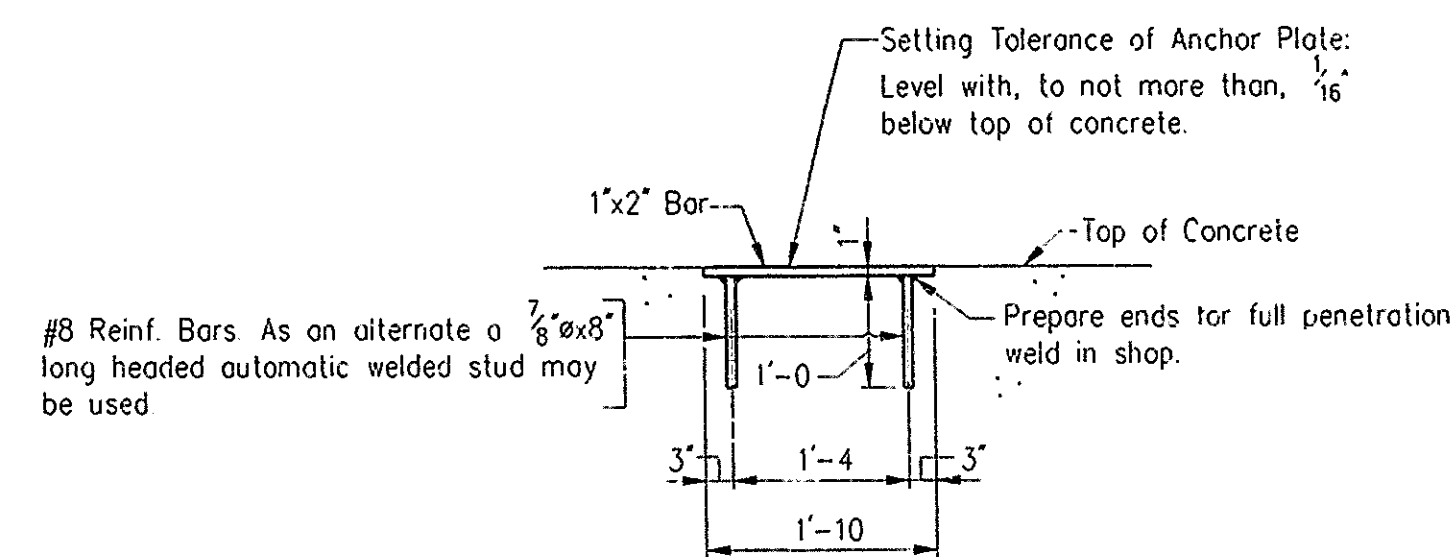
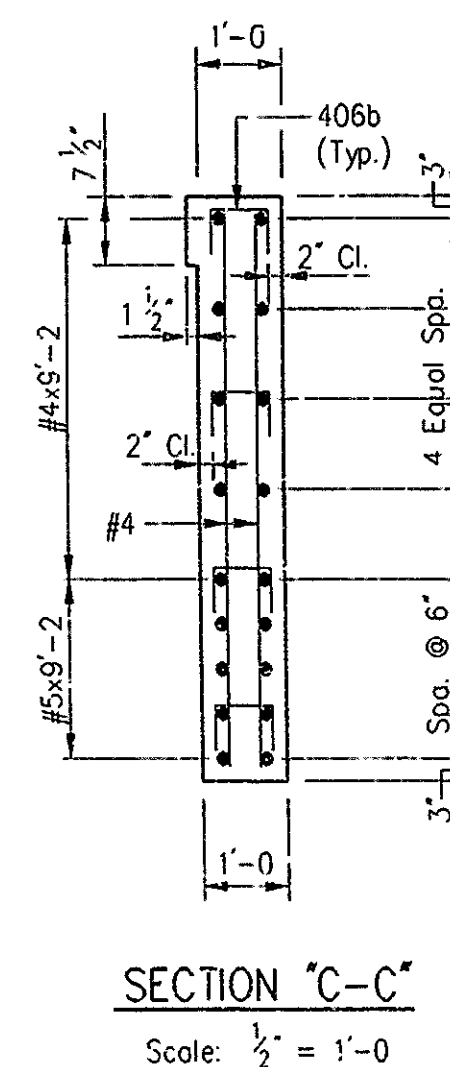
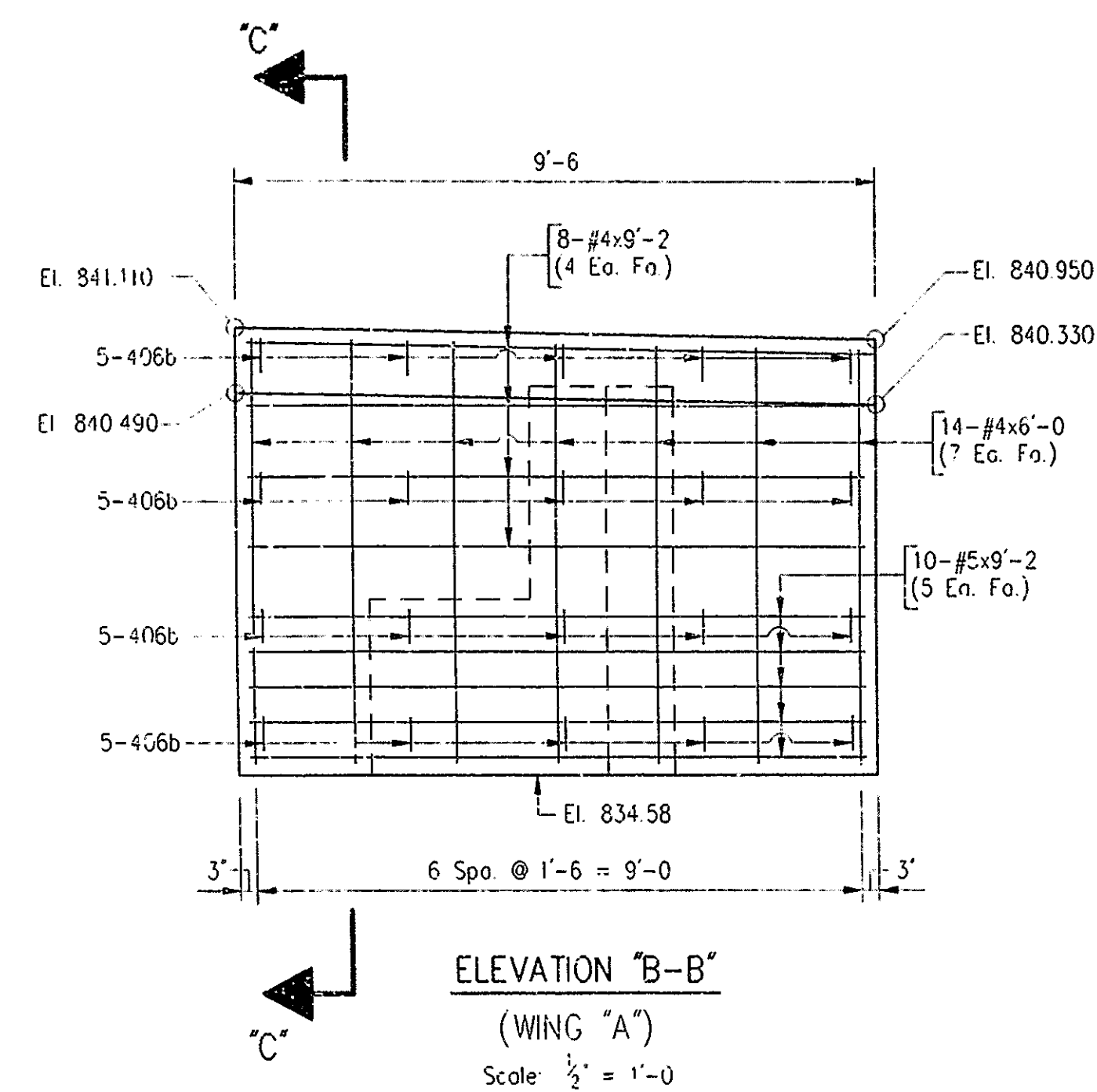
DRAWING: D84 OF D104 SHEET: 96 OF 159

PROJECT:- MAIR-IR-465-4(266)119 STATION:-

BRIDGE CONTRACT NO. *R-19482*

BRIDGE FILE:- I-465-125-2377B & JB





BENT NO. 1 N.B. BILL OF MATERIALS

REINFORCING STEEL			
SIZE & MARK	No. OF BARS	LENGTH	WEIGHT (LBS.)
EPOXY COATED REINFORCING			
#8	6	13'-9"	220
TOTAL #8 BARS			220
#7	5	13'-9"	141
TOTAL #7 BARS			141
#5	10	9'-2"	
#5	8	3'-0"	
TOTAL #5 BARS			121
406b	20	1'-8"	
405b	3	7'-3"	
404b	9	3'-6"	
403b	14	7'-7"	
402b	31	3'-3"	
401b	15	9'-2"	
#4	6	14'-9"	
#4	8	9'-2"	
#4	14	6'-0"	
#4	18	3'-0"	
TOTAL #4 BARS			488
TOTAL EPOXY COATED REINF.			970
CONCRETE			
CLASS "A" IN SUBSTRUCTURE			
POUR No. 1	3.9 Cys.		
POUR No. 2	1.3 Cys.		
WING "A"	2.3 Cys.		
TOTAL CL. "A" IN SUBSTR.			7.5 Cys.
MISCELLANEOUS			
Anchor Plate MK-AP2	2 Ea.		
Surface Seal	103 Sft.		
2-14" Steel Encased Conc. Piles x 65'	130 Lft.		
Field Drilled Holes in Conc.	8 Ea.		
Special Class "A" Conc.	18 Sft.		
"B" Borrow For Str. Backfill	8 Cys.		

BENT NO. 5 N.B. BILL OF MATERIALS

REINFORCING STEEL			
SIZE & MARK	No. OF BARS	LENGTH	WEIGHT (LBS.)
EPOXY COATED REINFORCING			
#8	6	13'-9"	220
TOTAL #8 BARS			220
#7	6	13'-9"	169
TOTAL #7 BARS			169
601b	90	2'-0"	
#6	90	3'-3"	
TOTAL #6 BARS			710
#5	10	9'-2"	
#5	8	3'-0"	
TOTAL #5 BARS			121
414b	3	7'-8"	
413b	14	8'-0"	
412b	31	3'-8"	
411b	15	3'-11"	
410b	15	12'-5"	
406b	20	1'-8"	
404b	11	3'-6"	
#4	2	36'-4"	
#4	2	18'-10"	
#4	10	14'-7"	
#4	2	11'-6"	
#4	8	9'-2"	
#4	14	6'-0"	
#4	18	3'-0"	
TOTAL #4 BARS			705
TOTAL EPOXY COATED REINF.			1925
CONCRETE			
CLASS "A" IN SUBSTRUCTURE			
POUR No. 1	0.9 Cys.		
POUR No. 2	0.6 Cys.		
POUR No. 3	5.2 Cys.		
POUR No. 4	2.9 Cys.		
WING "C"	2.3 Cys.		
TOTAL CL. "A" IN SUBSTR.			11.9 Cys.
MISCELLANEOUS			
Anchor Plate MK-AP2	2 Ea.		
Surface Seal	256 Sft.		
2-14" Steel Encased Conc. Piles x 70'	140 Lft.		
Field Drilled Holes in Conc.	78 Ea.		
E.C. Threaded Bar Splice	94 Ea.		
"B" Borrow For Str. Backfill	9 Cys.		

NOTES:

- For Location of Elevation "B-B", see Dwg. D83.
- For Location of Elevation "D-D", see Dwg. D84.
- All Reinforcing in Wings Shall be Epoxy Coated.

BENT NO. 1 & 5 DETAILS N.B. LANES & BILL OF MATERIALS

INDIANA DEPARTMENT OF HIGHWAYS

MARION COUNTY

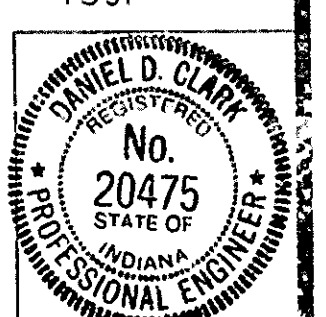
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DATE: August 14,

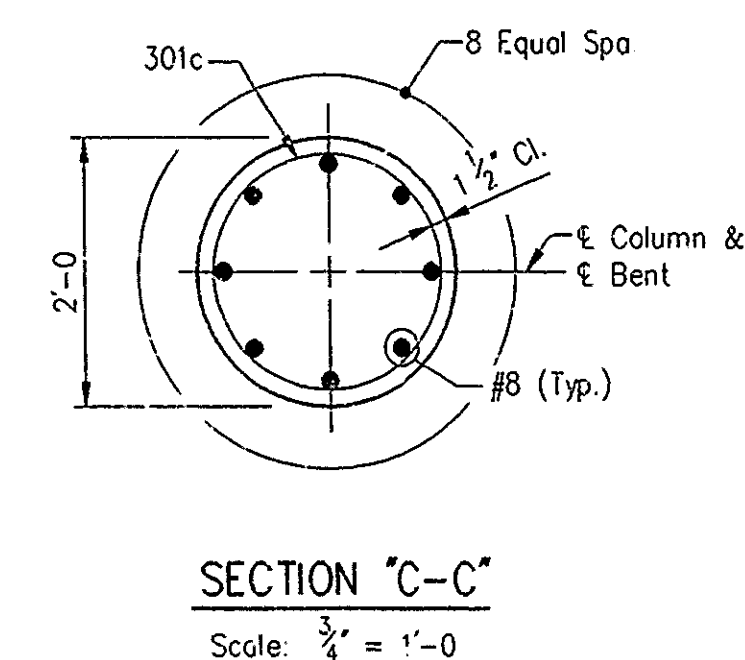
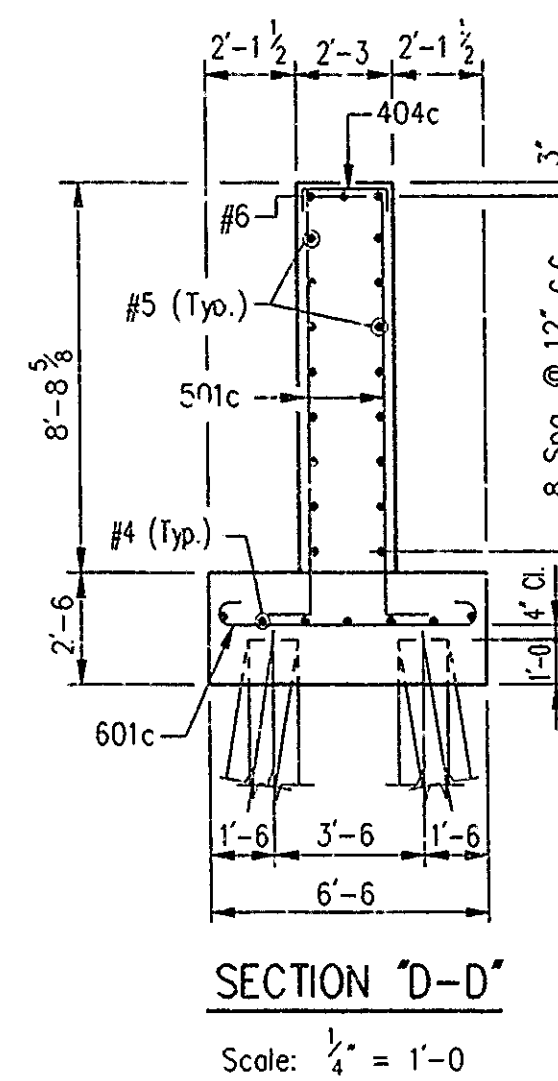
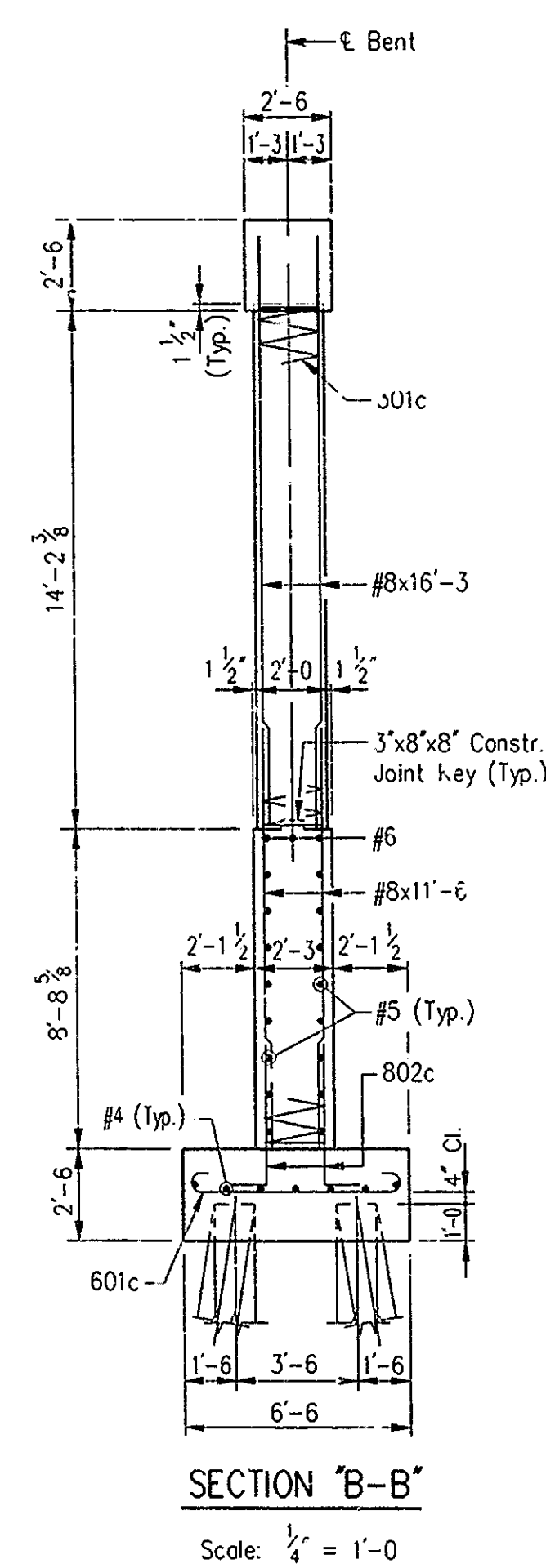
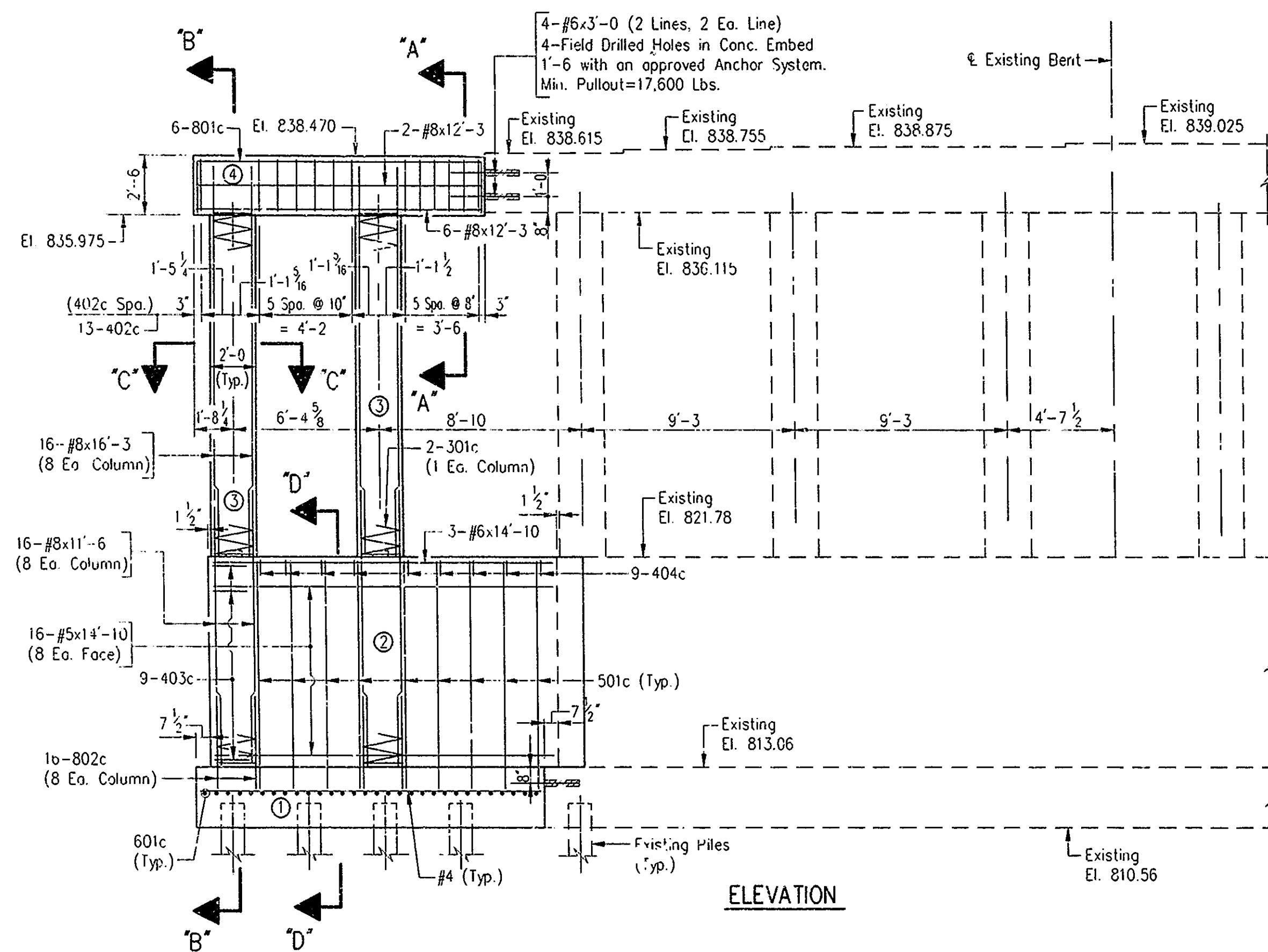
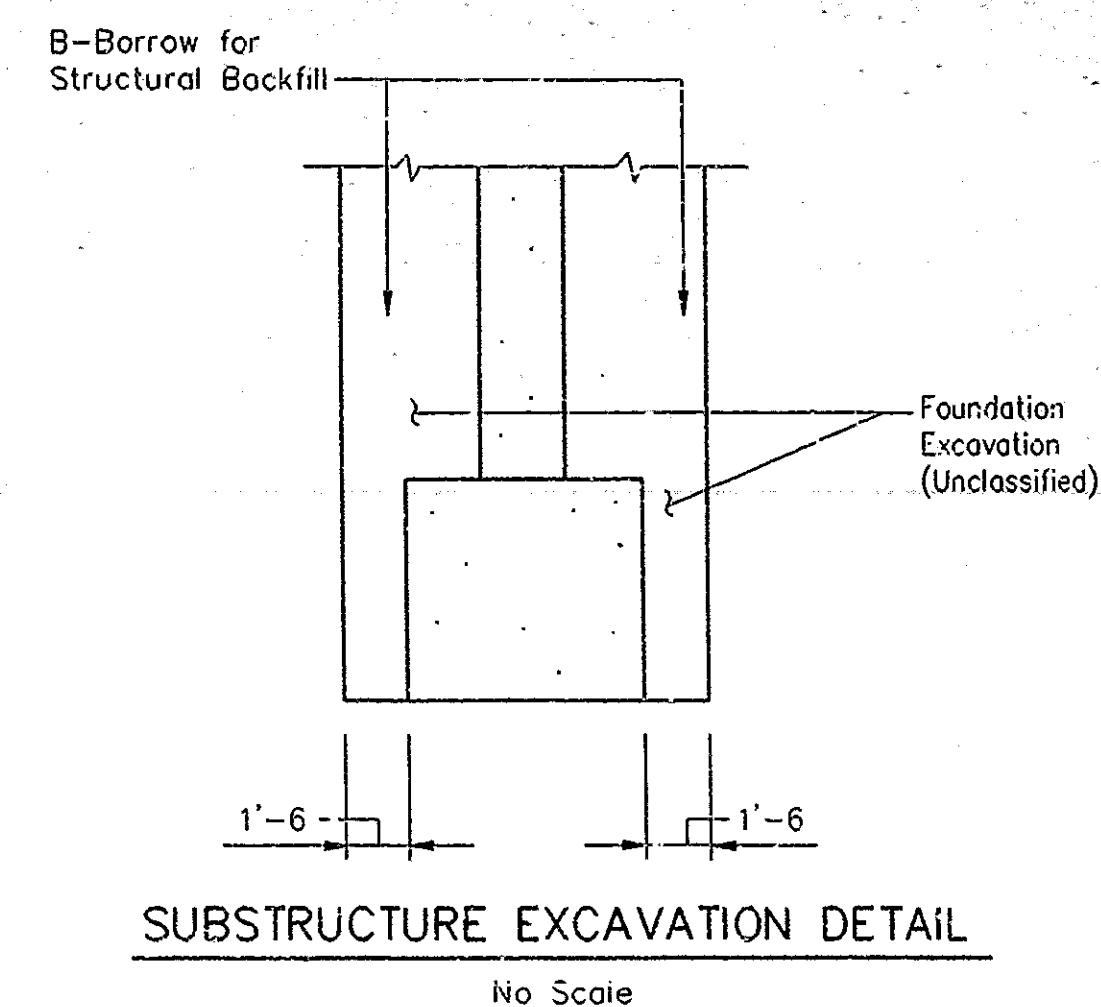
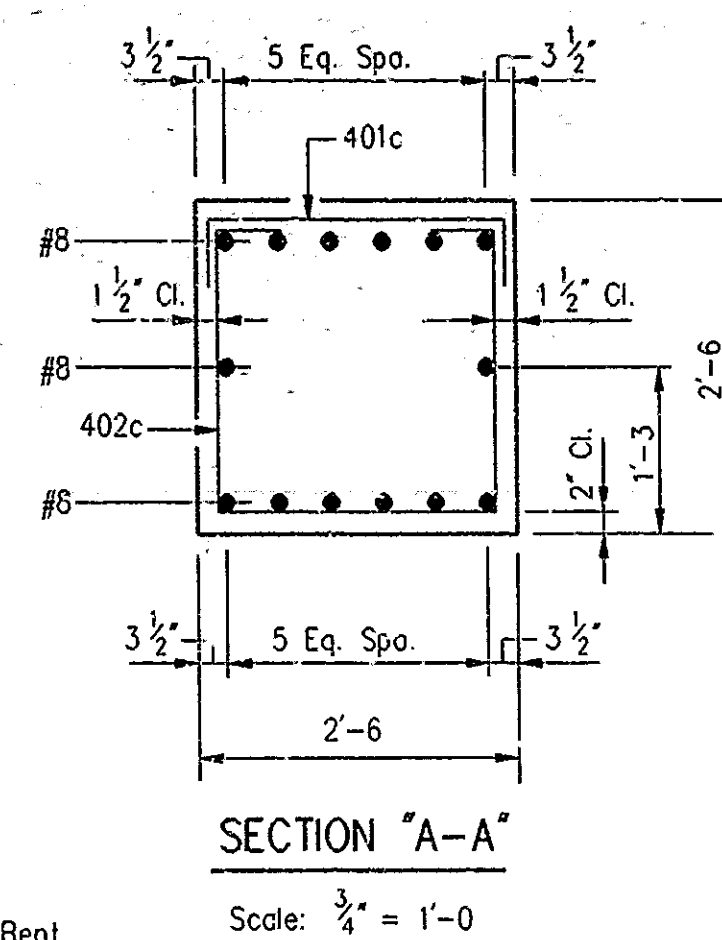
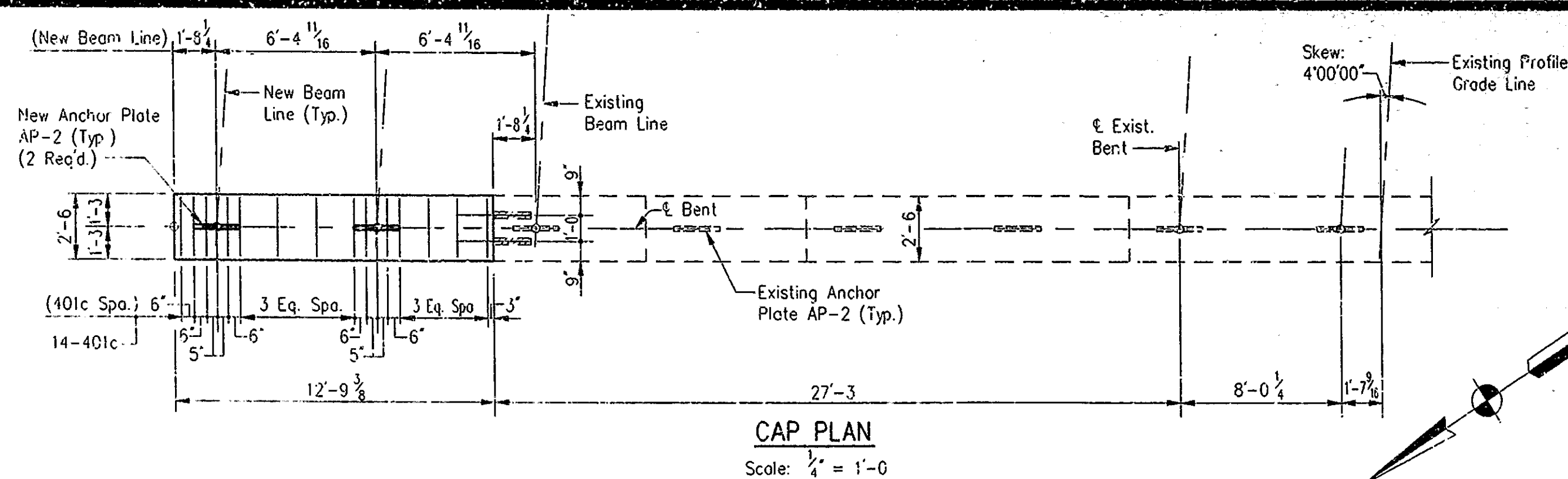
1991

Daniel D. Clark

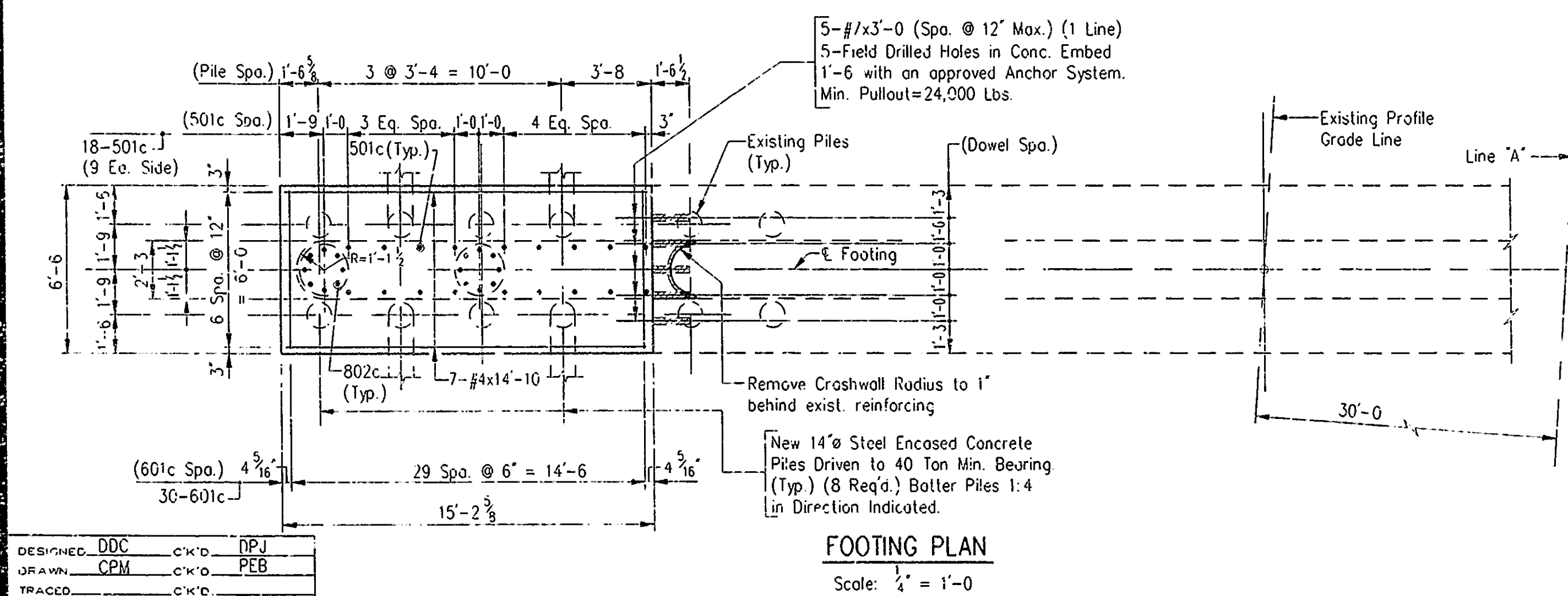
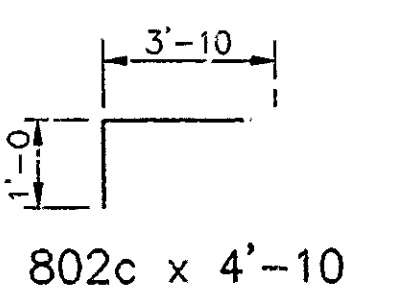
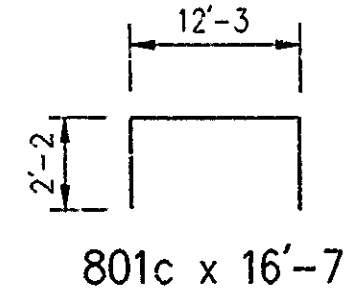
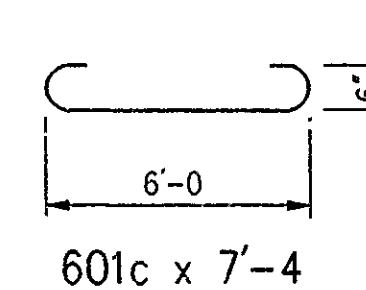
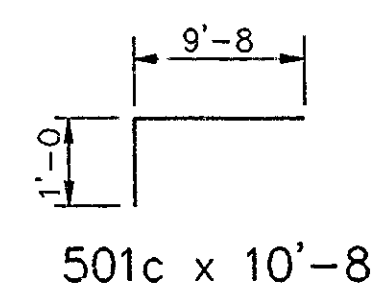
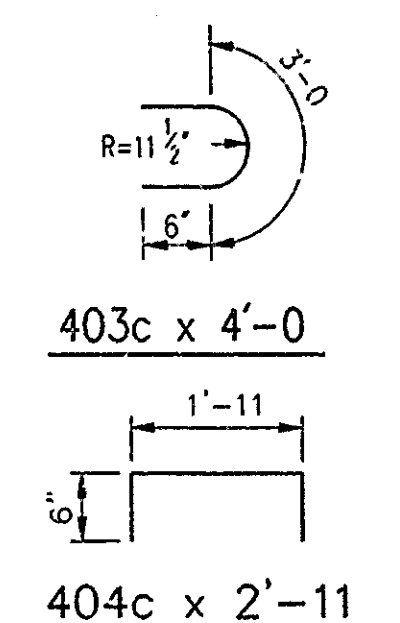
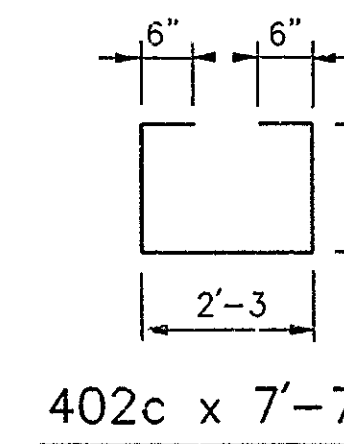
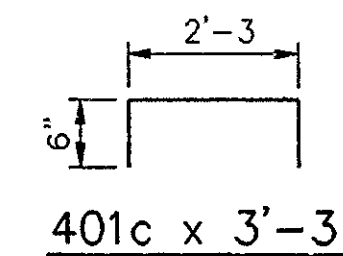
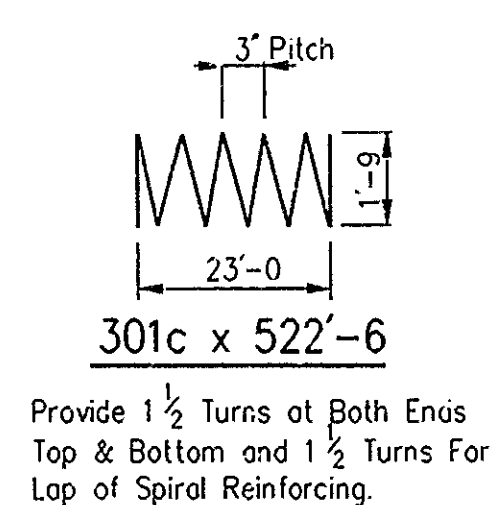
DRAWING: D85 OF D104 SHEET: 97 OF 159
PROJECT: MAIR-IR-465-4(266)119 STATION: -
BRIDGE CONTRACT NO. R-19482
BRIDGE FILE: 1-465-125-2377B & JB



DESIGNED: DDC C.K.D. DPJ
DRAWN: CPM C.K.D. PER
TRACED: C.K.D.



BILL OF MATERIALS			
REINFORCING STEEL			
SIZE & MARK	No. OF BARS	LENGTH	WEIGHT (LBS.)
PLAIN REINFORCING			
#02c	16	4'-10"	
#01c	6	16'-7"	
#8	16	16'-3"	
#8	8	12'-3"	
#8	16	11'-6"	
TOTAL #8 BARS			1919
#7	5	3'-0"	
TOTAL #7 BARS			31
#01c	30	7'-4"	
#8	3	14'-10"	
#6	4	3'-0"	
TOTAL #6 BARS			415
#01c	18	10'-8"	
#5	16	14'-10"	
TOTAL #5 BARS			448
#04c	9	2'-11"	
#03c	9	4'-0"	
#02c	13	7'-7"	
#01c	14	3'-3"	
#4	7	14'-10"	
TOTAL #4 BARS			207
#01c	2	522'-6"	
TOTAL #3 BARS			393
TOTAL PLAIN REINFORCING			3413
CONCRETE			
CLASS "B" IN FOOTING			
Pour No. 1	9.2 Cys.		
TOTAL CL. "B" IN FOOTING			9.2 Cys.
CLASS "B" ABOVE FOOTING			
Pour No. 2	11.8 Cys.		
TOTAL CL. "B" ABOVE FOOTING			11.8 Cys.
CLASS "A" IN SUBSTRUCTURE			
Pour No. 3	3.3 Cys.		
Pour No. 4	3.0 Cys.		
TOTAL CL. "A" IN SUBSTR.			6.3 Cys.
MISCELLANEOUS			
Anchor Plate MK-AP2			2 Ea.
Surface Seal			5 Sft.
8-14" Steel Encased Conc. Piles x 25'-0			200 Lft.
Field Drilled Holes in Concrete			9 Ea.
"B" Borrow For Sir. Backfill			33 Cys.
Foundation Excavation (Unclassified)			50 Cys.



NOTES:

- For Reinforcing Bar Notes, and Bar Bending Details, See Bridge Std. C1.
- For Anchor Plate MK-AP2 Details, See Dwg D85
- All Reinforcing Steel to be Plain
- ⊗ Indicates Pour Number.
-  Indicates Concrete Removal

BENT NO. 2 DETAILS N.B. LANES

INDIANA DEPARTMENT OF HIGHWAYS
MARION COUNTY

MARION COUNTY

SCALE: - $\frac{1}{4}'' = 1'-0$ Unless otherwise noted.

DATE:- August 14,

Daniel D. Clark

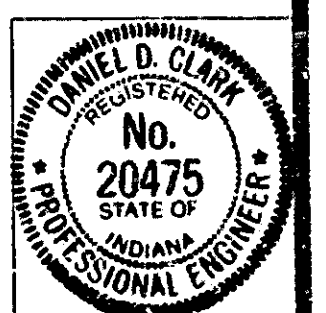
1991

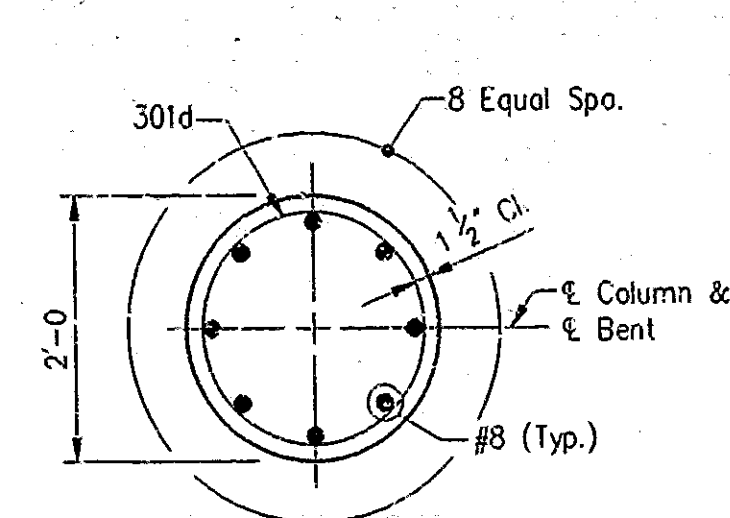
DRAWING - D86 OF D104 SHEET: 98 OF 159
PROJECT:- MAIR-IR-465-4(266)119 STATION:-
BRIDGE CONTRACT NO. *R-19482*
BRIDGE FILE:- I-465-125-2377B & JB

PROJECT:- MAIR-IR-465-4(266)119 STATION:-

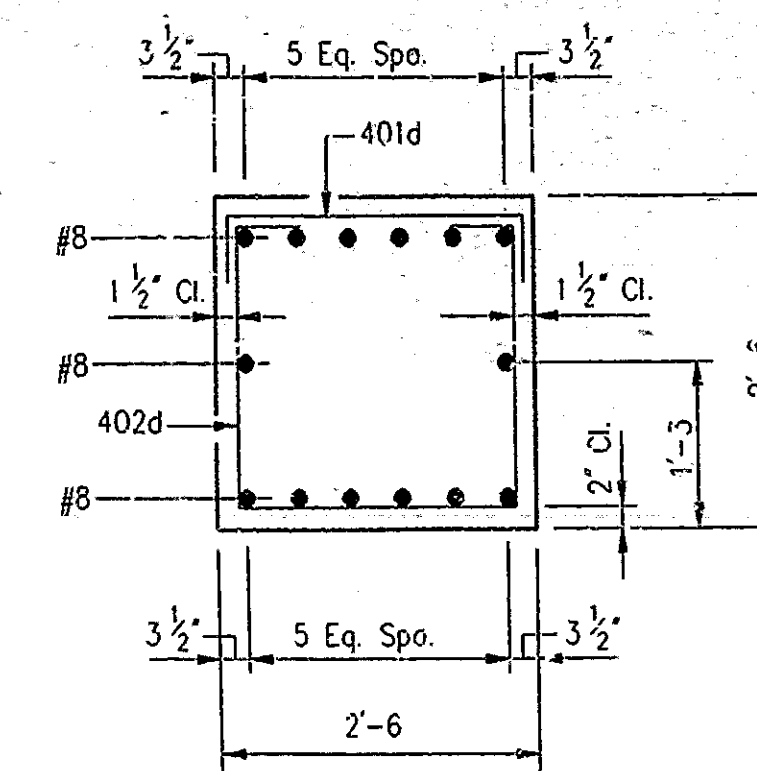
BRIDGE CONTRACT NO. R-19482

BRIDGE FILE:- 1-465-125-2377B & JB





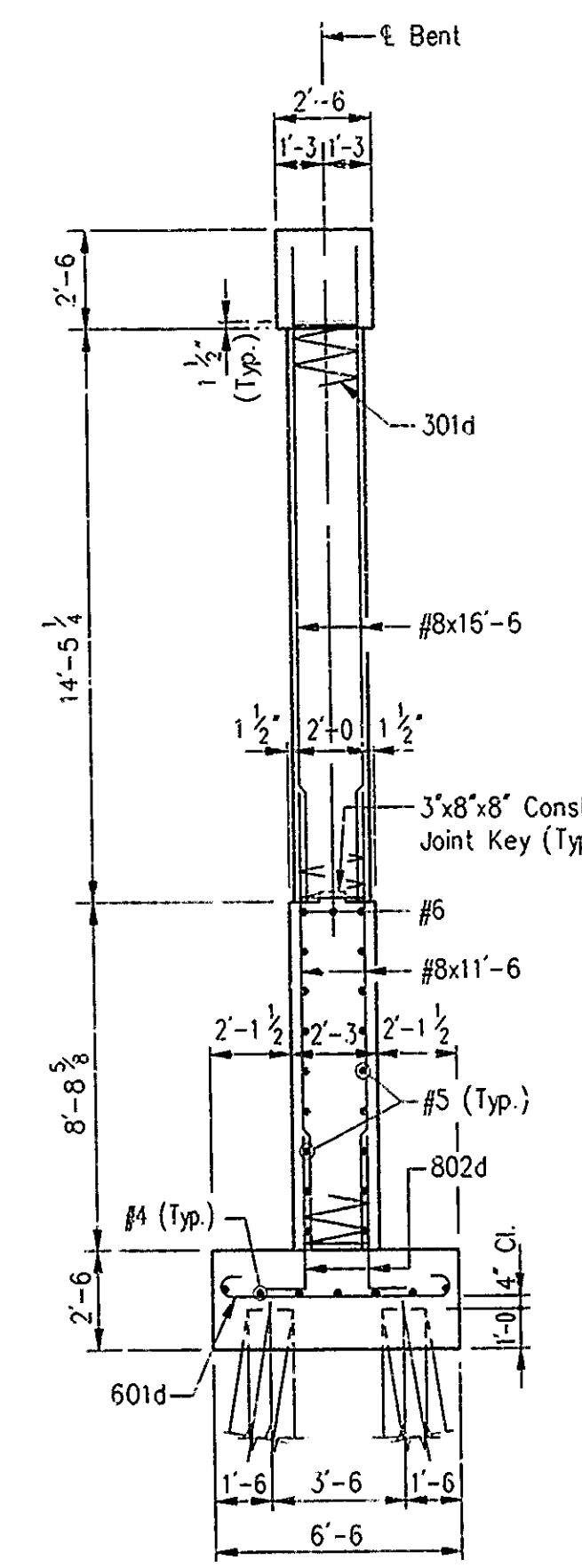
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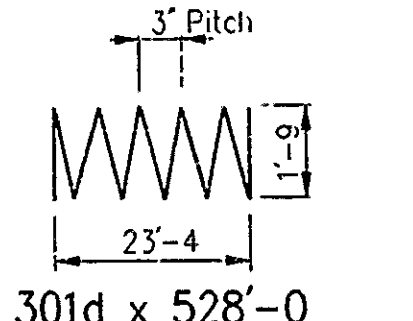
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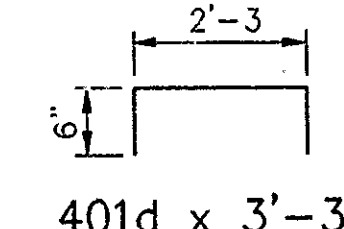
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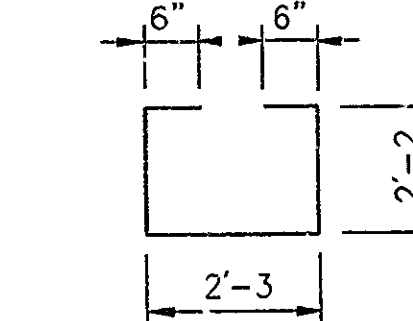
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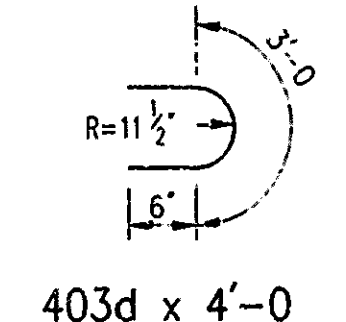
Provide $1\frac{1}{2}$ Turns at Both Ends
Top & Bottom and $1\frac{1}{2}$ Turns For
Lap of Spiral Reinforcing.



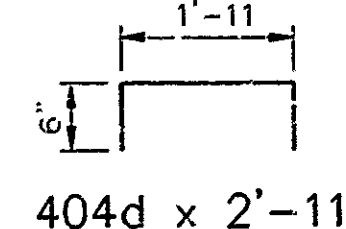
401d x 3'-3



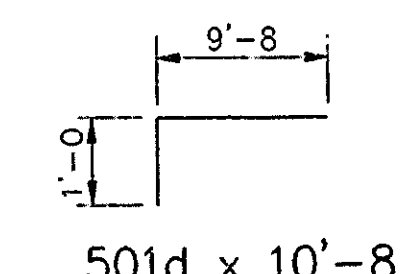
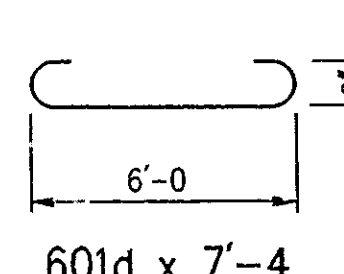
402d x 7'-7



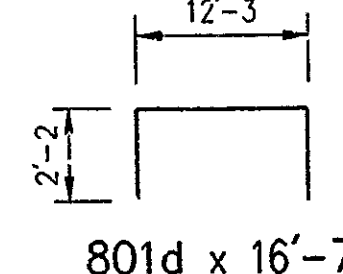
403d x 4'-0



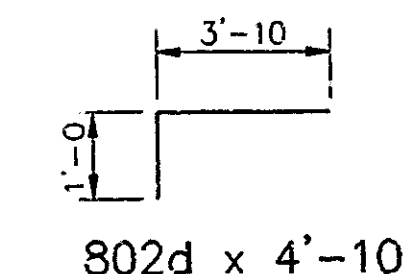
404d x 2'-11

 $501d \times 10^{-8}$ 

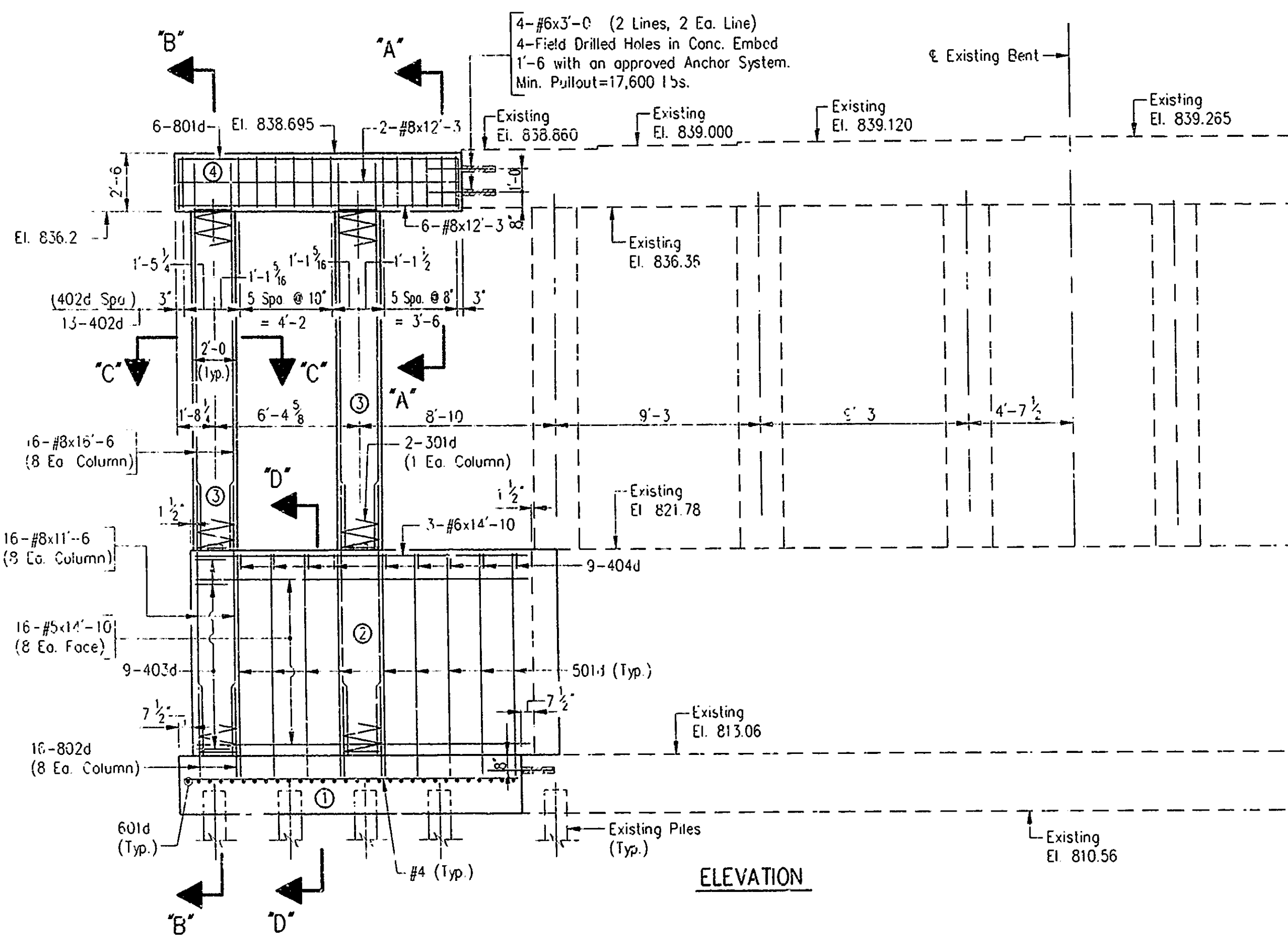
601d x 7'-4



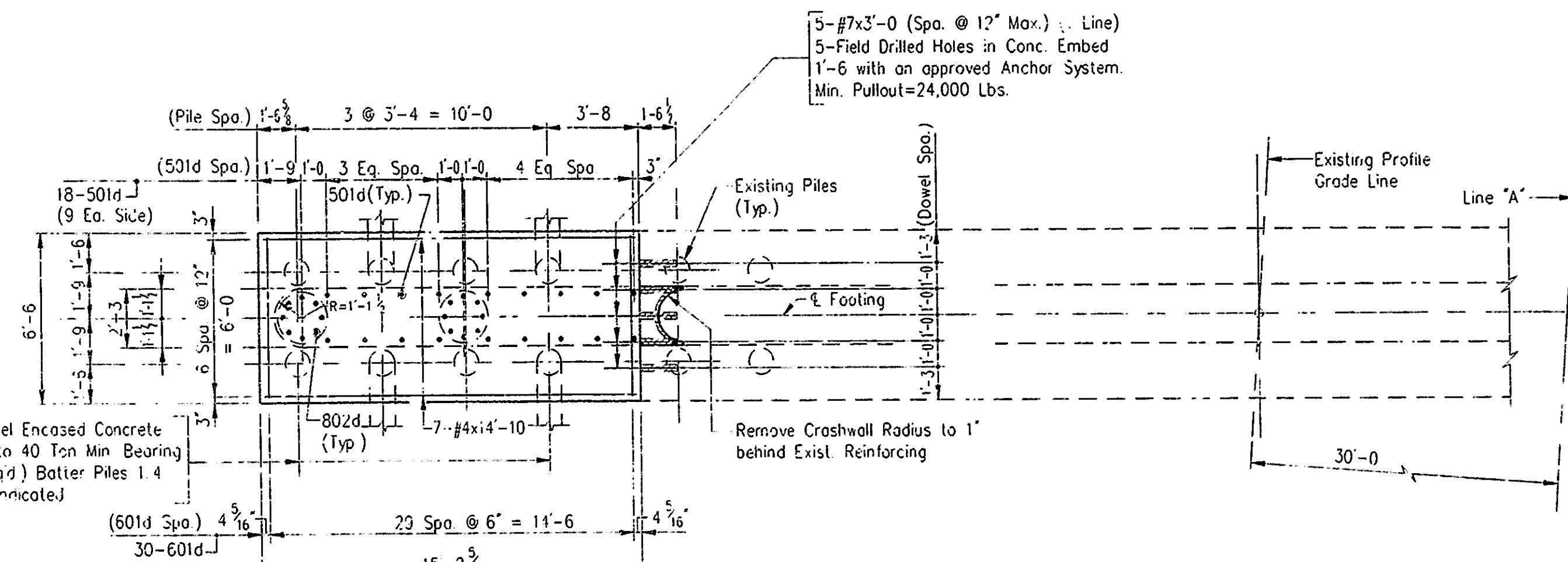
801d x 16'-7"



802d x 4'-10



ELEVATION



Scale: $\frac{1}{4}'' = 1'-0''$

DESIGNED: DOC CK'D DPJ
DRAWN: CPM CK'D PEB
TRACED: CK'D

- For Reinforcing Bar Notes, and Bar Bending Details, See Bridge Std. C1.
- For Anchor Plate MK-AP2 Details, See Dwg. D85
- All Reinforcing Steel to be Plain.
- For Substructure Excavation Detail, See Dwg. D86.

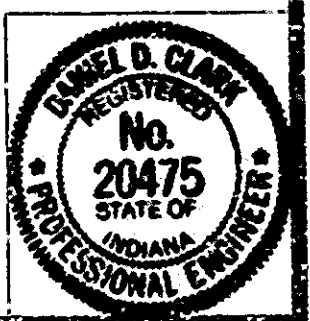
⊗ Indicates Pour Number
 Indicates Concrete Removal

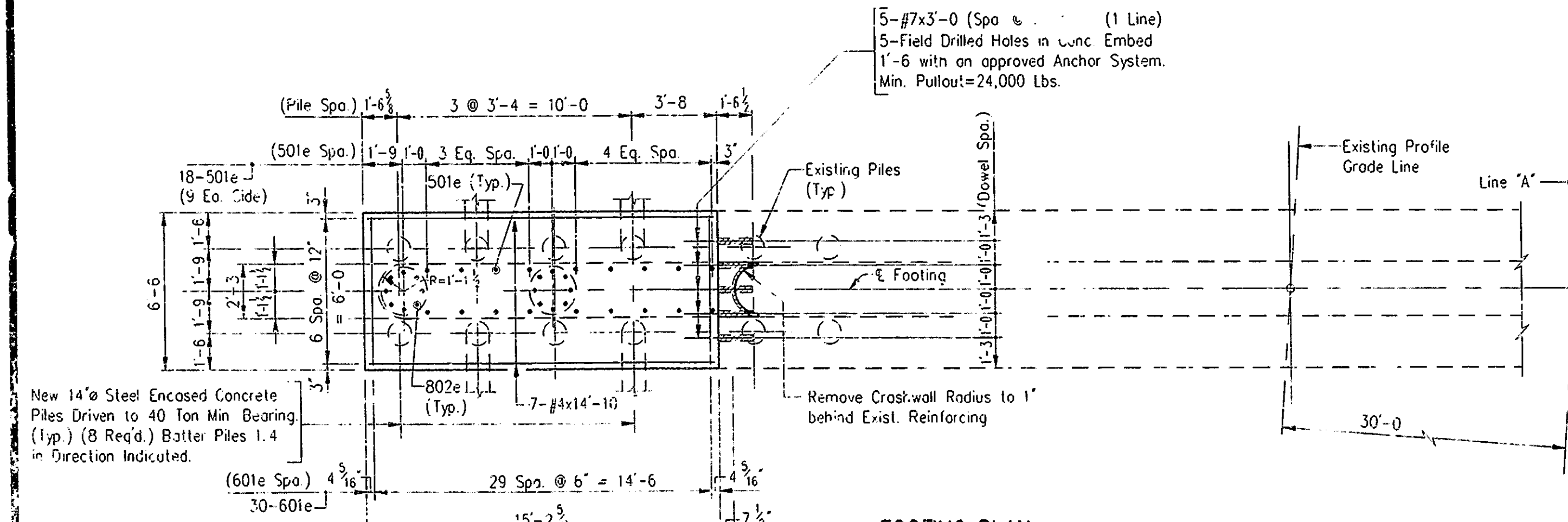
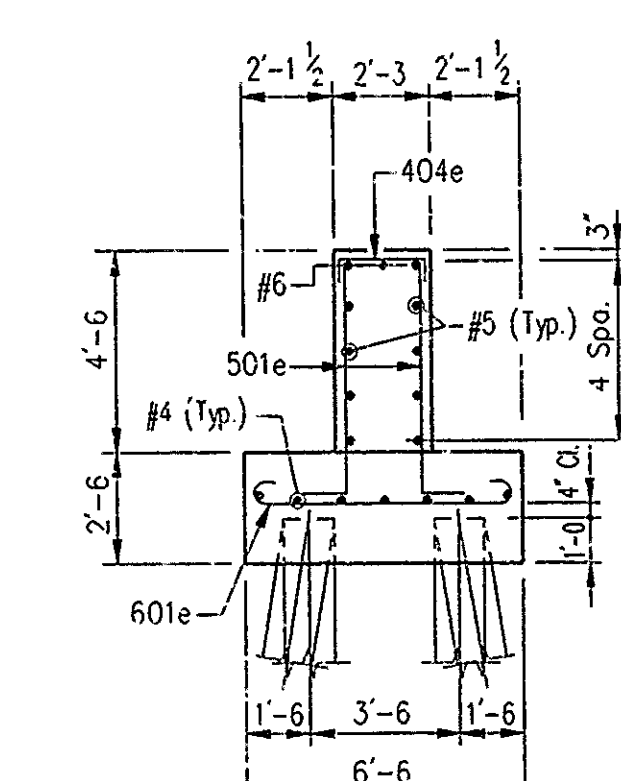
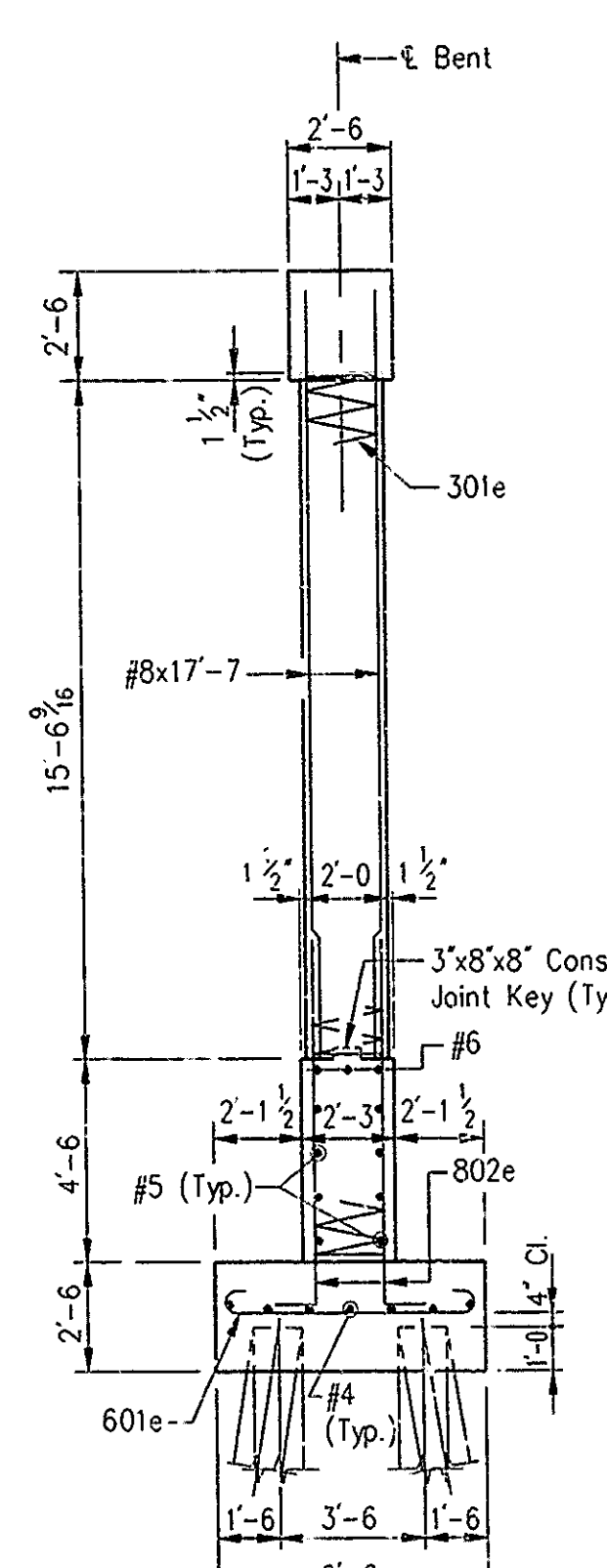
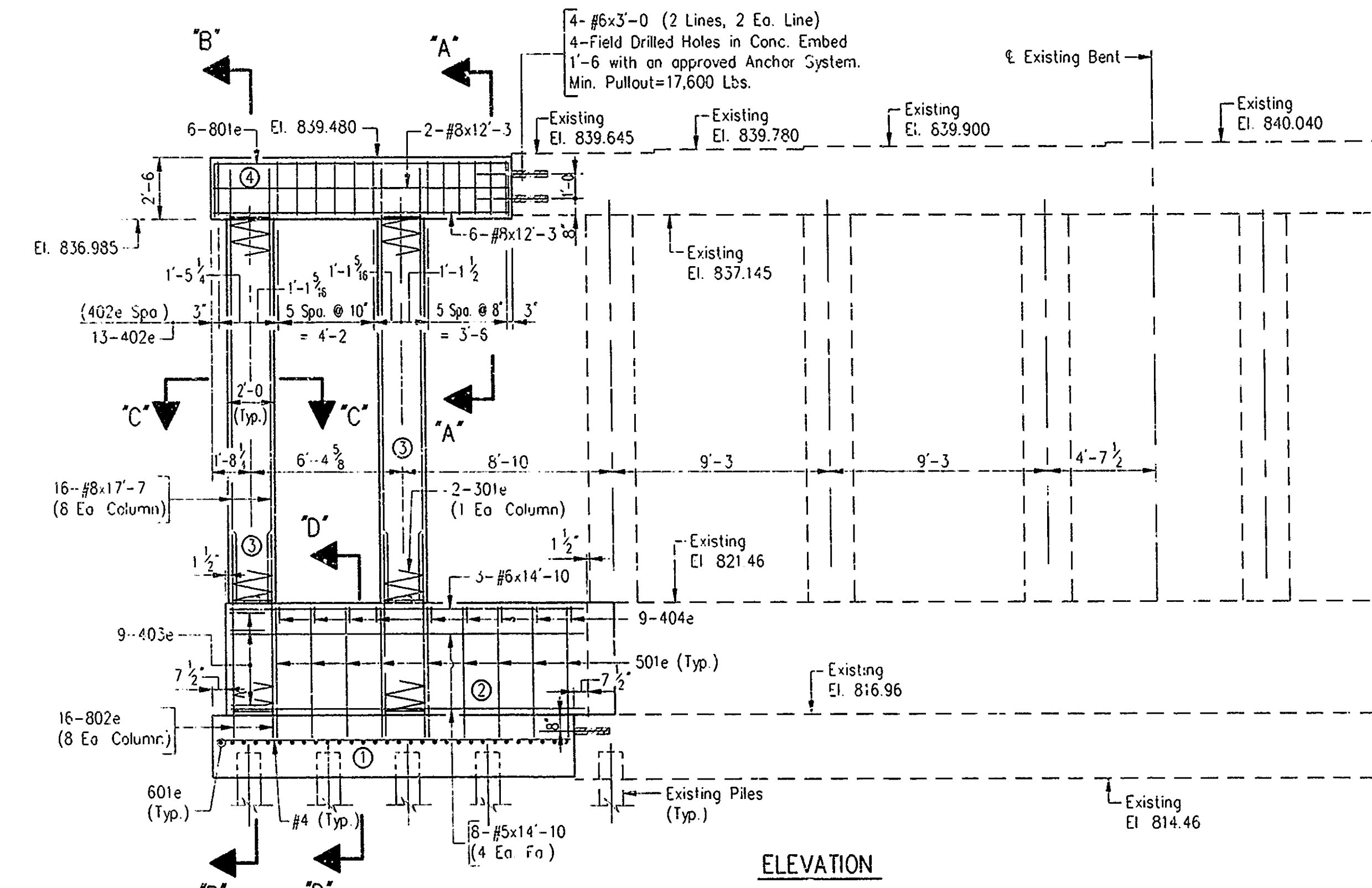
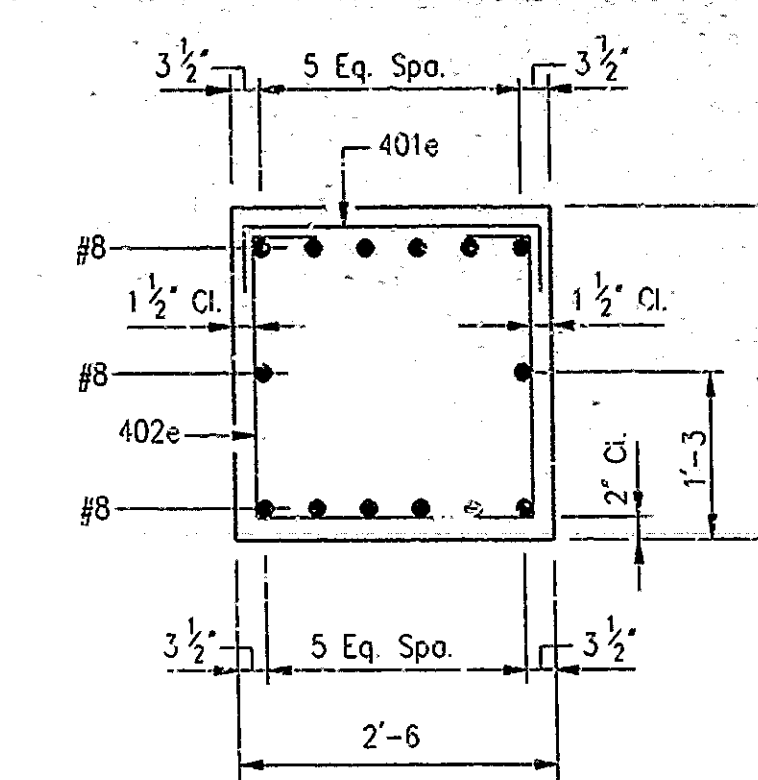
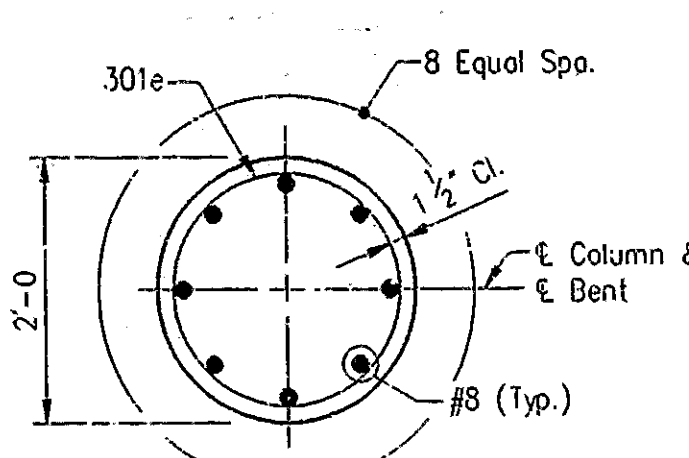
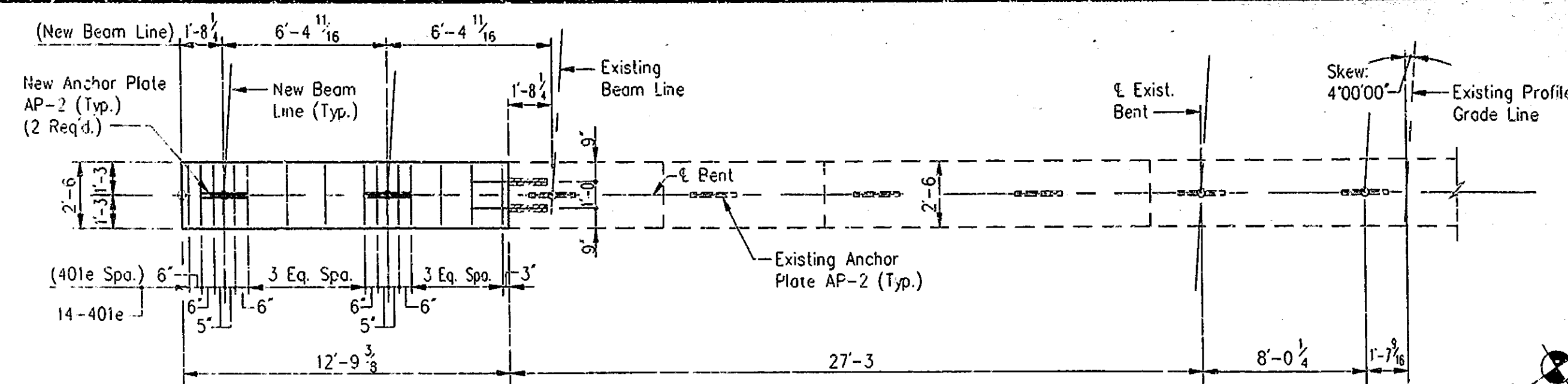
SCALE:- $\frac{1}{4}" = 1'-0"$ Unless
otherwise noted

DATE:- August 14,
Daniel D. Clark

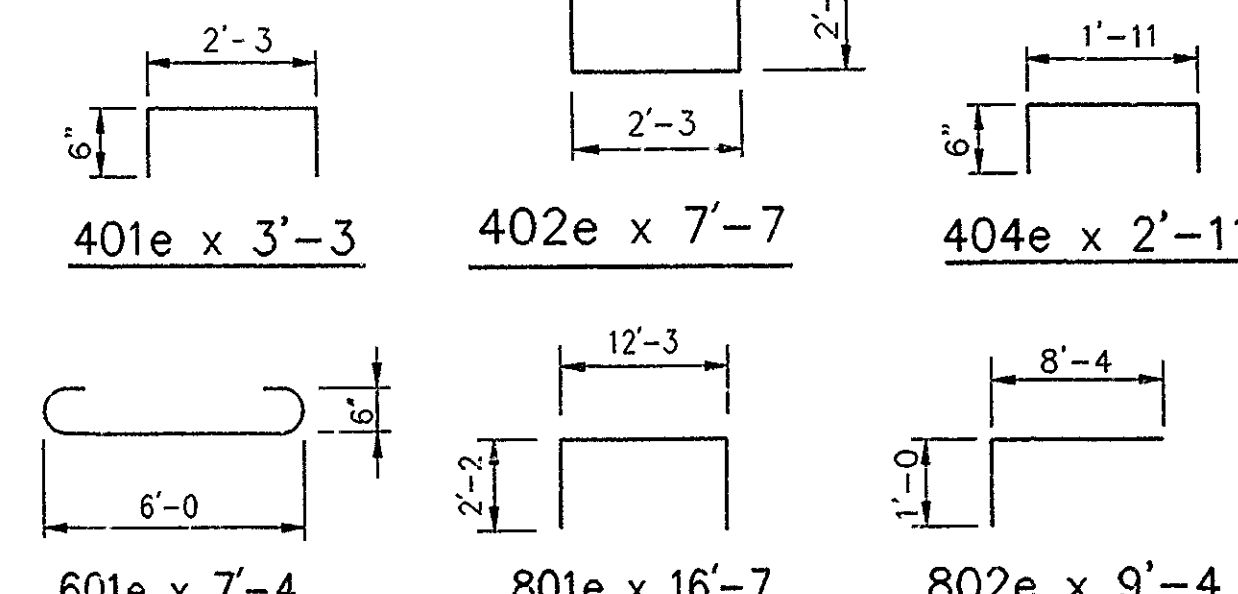
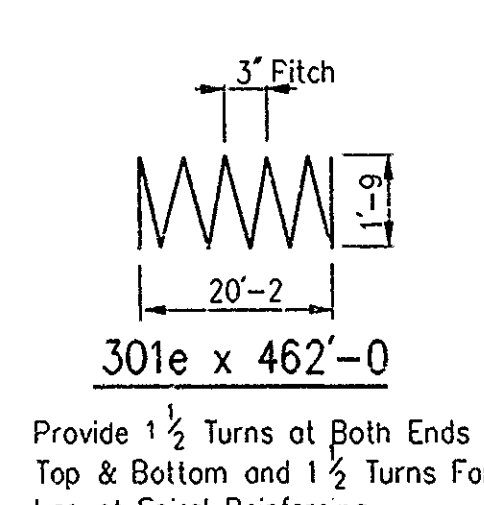
1991

DRAWING: D87 OF D104 SHEET: 99 OF 159
PROJECT: MAIR-IR-475-4(266)119 STATION: -
BRIDGE CONTRACT NO. *R-19482*
BRIDGE FILE: - 1-465-125-23778 & JB





BILL OF MATERIALS			
REINFORCING STEEL			
SIZE & MARK	No. OF BARS	LENGTH	WEIGHT (LBS.)
PLAIN REINFORCING			
802e	16	9'-4"	
801e	6	16'-7"	
#8	16	17'-7"	
#8	8	12'-3"	
TOTAL #8 BARS			1677
#7	5	3'-0"	
TOTAL #7 BARS			31
601e	30	7'-4"	
#6	3	14'-10"	
#6	4	3'-0"	
TOTAL #6 BARS			415
501e	18	6'-0"	
#5	8	14'-10"	
TOTAL #5 BARS			236
404e	9	2'-11"	
403e	9	4'-0"	
402e	13	7'-7"	
401e	14	3'-3"	
#4	7	14'-10"	
TOTAL #4 BARS			207
301e	2	462'-0"	
TOTAL #3 BARS			347
TOTAL PLAIN REINFORCING			2913
CONCRETE			
CLASS "B" IN FOOTING			
Pour No. 1		9.2 Cys.	
TOTAL CL. "B" IN FOOTING		9.2 Cys.	
CLASS "B" ABOVE FOOTING			
Pour No. 2		6.8 Cys.	
TOTAL CL. "B" ABOVE FOOTING		6.8 Cys.	
CLASS "A" IN SUBSTRUCTURE			
Pour No. 3		3.6 Cys.	
Pour No. 4		3.0 Cys.	
TOTAL CL. "A" IN SUBSTR.		6.6 Cys.	
MISCELLANEOUS			
Anchor Plate MK-AP2		2 Ea.	
Surface Seal		5 Sft.	
8-14" Steel Encased Conc. Piles x 35'-0"		280 Lft.	
Field Drilled Holes in Concrete		9 Ea.	
"B" Borrow For Str. Backfill		23 Cys.	
Foundation Excavation (Unclassified)		39 Cys.	



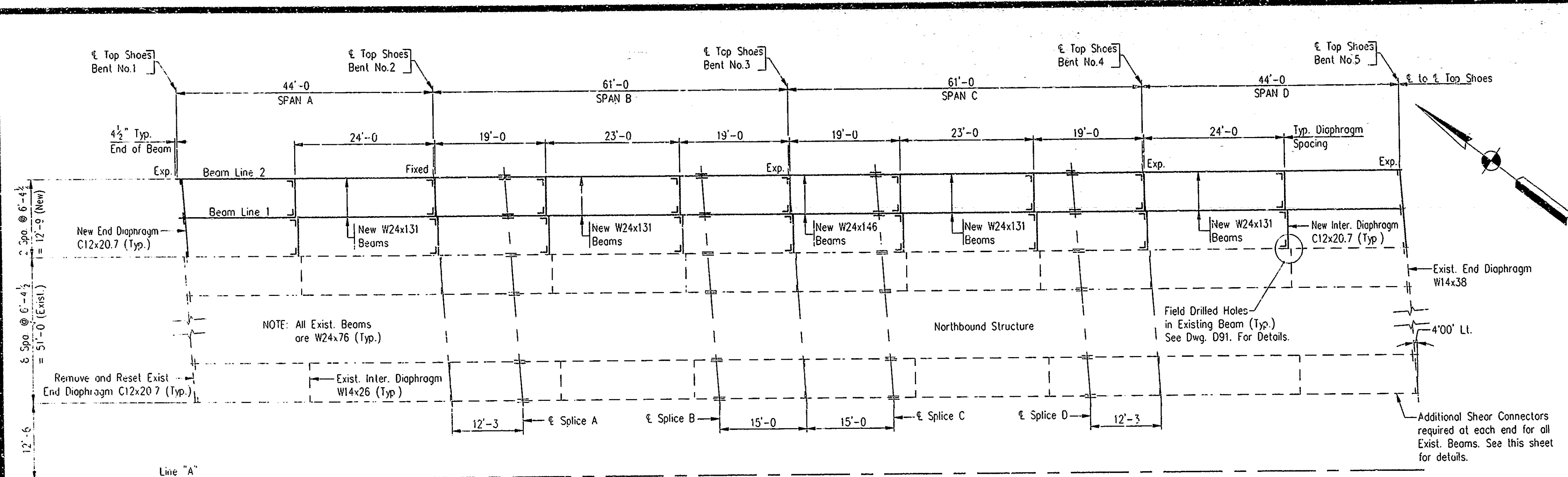
- NOTES:**
- For Reinforcing Bar Notes, and Bar Bending Details, See Bridge Std. C1.
 - For Anchor Plate MK-AP2 Details, See Dwg. D85.
 - All Reinforcing Steel to be Plain.
 - For Substructure Excavation Detail, See Dwg. U...
 - ⊗ Indicates Pour Number.
 - ▨ Indicates Concrete Removal.

BENT NO. 4 DETAILS N.B. LANES
INDIANA DEPARTMENT OF HIGHWAYS
MARION COUNTY

SCALE: $\frac{1}{4}'' = 1'-0''$ Unless otherwise noted.
DATE: August 14, 1991
DESIGNED: DDC CK'D: DPJ
DRAWN: CPM CK'D: PEB
TRACED: CK'D

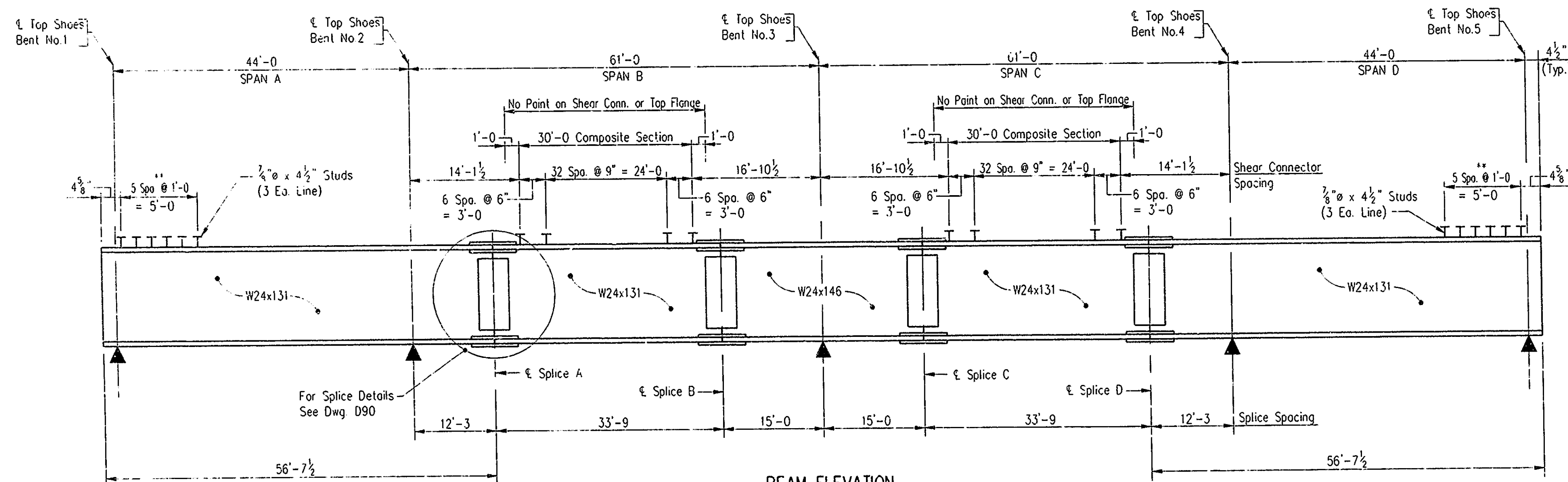
PROJECT: MAIR-IF-465-4(266)119 STATION: -
BRIDGE CONTRACT NO. R-19482
BRIDGE FILE: 1-465-125-23778 & JB

DRAWING: D88 OF D104 SHEET: 100 OF 159
No. 20475
STATE OF INDIANA
PROFESSIONAL ENGINEER



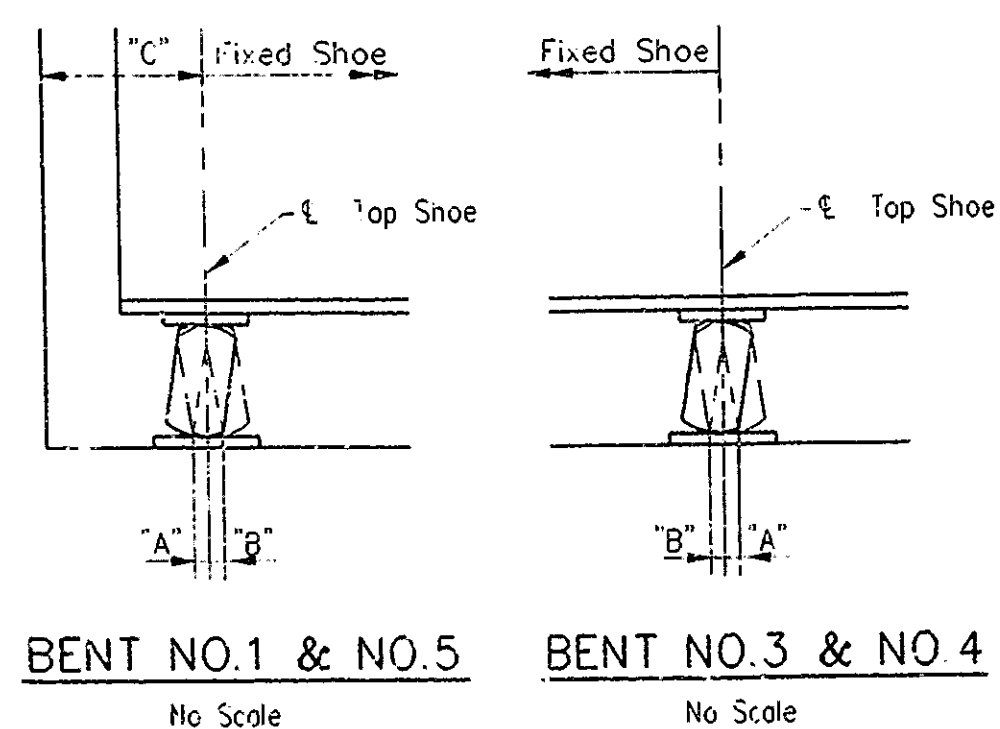
FRAMING PLAN - N.B. LANES

Scale: $\frac{1}{32}'' = 1'-0''$



BEAM ELEVATION

No Scale

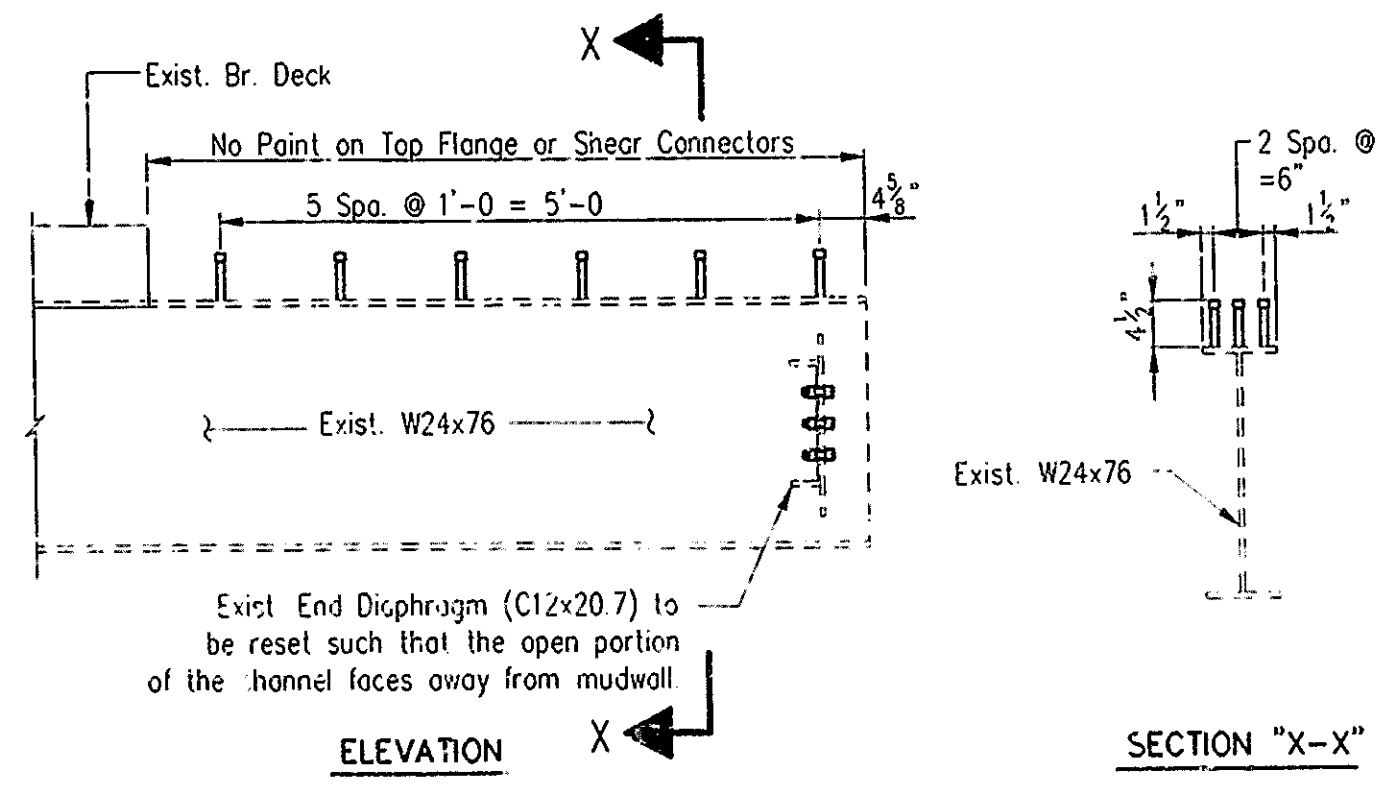


DESIGNED: DDC CMO DPJ
DRAWN: PCR CMO PEB
TRACED: CMO

TABLE OF SHIMS					
Beam Line	Bent No. 1	Bent No. 2	Bent No. 3	Bent No. 4	Bent No. 5
1	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"
2	1/2"	1/2"	1/2"	1/2"	1/2"

EXPANSION TABLE												
£ Top Shoe to £ Exp. P.	Dimension "A"						Dimension "B"					
	0"	20"	40"	60"	80"	100"	120"	80"	100"	120"		
Bent No. 1	1 1/16"	5/8"	9/16"	1/2"	7/16"	3/8"	3/16"	-	-	-	-	-
Bent No. 3	1/4"	3/16"	1/8"	0	-	-	-	1/8"	3/16"	1/2"	-	-
Bent No. 4	1/2"	3/8"	3/16"	0	-	-	-	1/8"	3/8"	1/2"	-	-
Bent No. 5	1 3/16"	1"	3/4"	1/2"	1/4"	0	-	-	0	3/16"	-	-

SHOE SETTING DATA



ADDITIONAL SHEAR CONNECTOR DETAIL

(EXISTING BEAMS BOTH NORTHBOUND & SOUTHBOUND)

No Scale

NOTES

- The removal and resetting of the Exist. End Diaphragms to be paid for as "Diaphragms, Reset", Each.
- The removal of exist. connection Bolts are to be paid for as "Bolts, Remove", Each.
- The cost of the high strength bolts are to be included in the cost of "Diaphragms, Reset".
- Clean and Paint End Diaphragms and Ends of Beams prior to reconnecting diaphragm.

ESTIMATED QUANTITIES

Shear Connectors	720 Each
Bolts, Remove	108 Each
Diaphragms, Reset	18 Each

GENERAL PROCEDURE

- After the new beams have been erected, install the diaphragms necessary to connect the new beams securely to each other.
- Adjust the new beams longitudinally so that dimension "C" from the centerline of top shoe to the face of the mudwall at Bent No. 1 and Bent No. 5 is the same as for the existing beams.
- Field drill the necessary holes in the existing outside beams and install the remaining diaphragms. Tighten all bolts.
- After the above operations are complete, weld the fixed shoes to the anchor plates at Bent No. 2.
- Adjust the expansion plate under each expansion shoe in accordance with Dimension "A" or "B" in Expansion Table for the prevailing temperature. Note that Dimension "A" is always the distance from a vertical line through the £ of top shoes in a direction away from the fixed shoe. Weld the expansion plates to the anchor plates at Bent No. 1, Bent No. 3, Bent No. 4 and Bent No. 5.
- Screed elevations shall be determined by adding the concrete dead load deflection given on Dwg. D90, to the required final concrete elevations at all screed points. Take elevations at all screed points on top of beams adjacent to the screed points. Subtract these elevations from the elevations corrected for deflection and use the resulting dimension as the height for setting the screed form above the top of the beam. These dimensions remain constant regardless of how much or in what order the concrete is poured. DO NOT SET SCREEDS BY LEVELING.
- No concrete in the floor is to be poured until the above operations are completed.
- Screed elevations will be furnished upon request.

DESIGN DATA

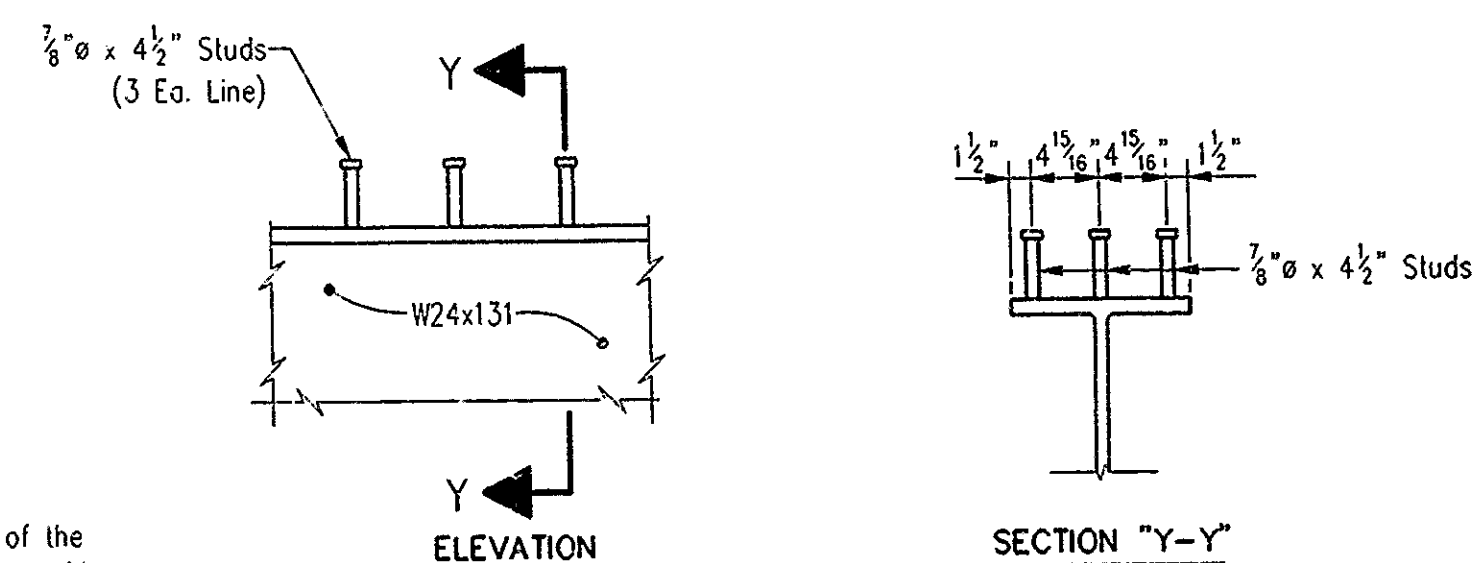
- Live Load: HS20-44 and Military Loading with impact and distribution of loads in accordance with 1989 AASHTO Specification and Interim Specifications.
- Dead Load: Actual weight (Includes Bridge Deck Overlay).
- Floor Slab: Designed for 16000 Lbs. Wheel Load plus impact.
- Stresses: In accordance with 1989 AASHTO Specifications and Interim Specifications.

ESTIMATED WEIGHT OF STRUCTURAL STEEL = 206,700 LBS.

Includes: A-572 (50) = 1978 Lbs.
Field Drilled Holes: 36 Each

NOTES

- The dimensions used for these details plans are based on the original plans for this structure. It is the contractor's responsibility to verify the controlling dimensions in the field prior to fabrication of the steel.
- 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 the structural steel.
- Structural Steel shall be paid for as "Lump Sum".
- New Interior Diaphragms are erected perpendicular to the beam lines.
- For Fabrication notes, see the Special Provisions.
- For additional Structural Steel Details, see Dwg. D90 & 91.
- All Structural Steel is to be ASTM A36, unless noted otherwise.



SHEAR CONNECTOR DETAIL

NEW BEAMS

No Scale

FRAMING PLAN AND STRUCTURAL STEEL DETAILS
INDIANA DEPARTMENT OF HIGHWAYS
MARION COUNTY

SCALE: $\frac{1}{32}'' = 1'-0''$, Unless Otherwise Noted

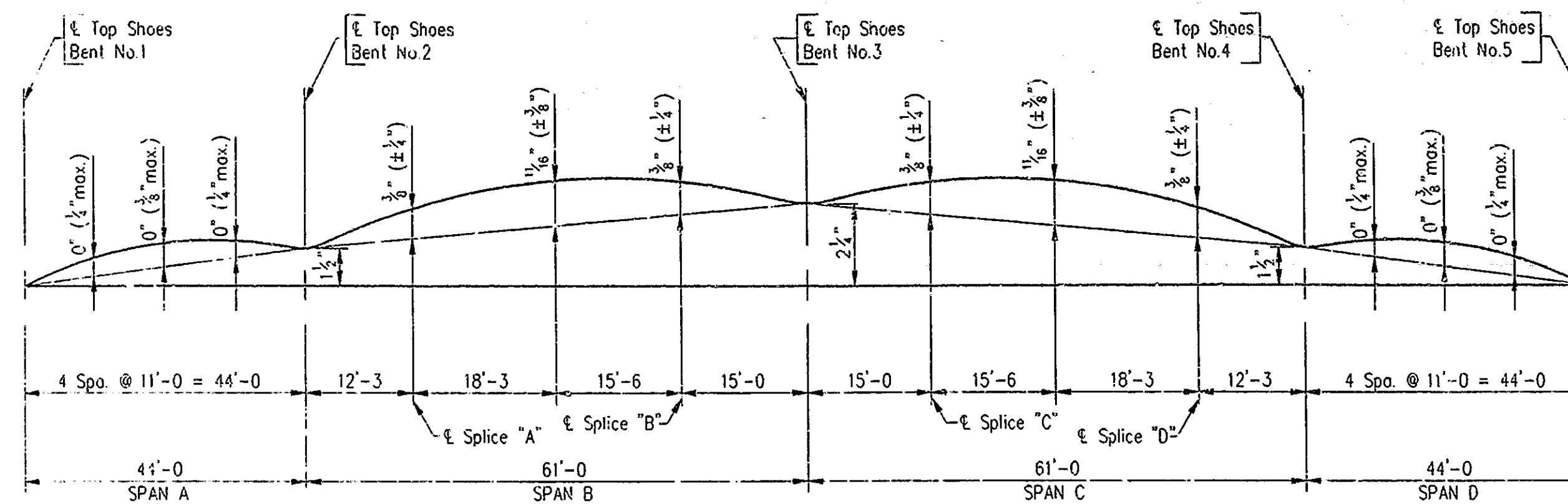
DATE: August 14,

Daniel D. Clark

1991

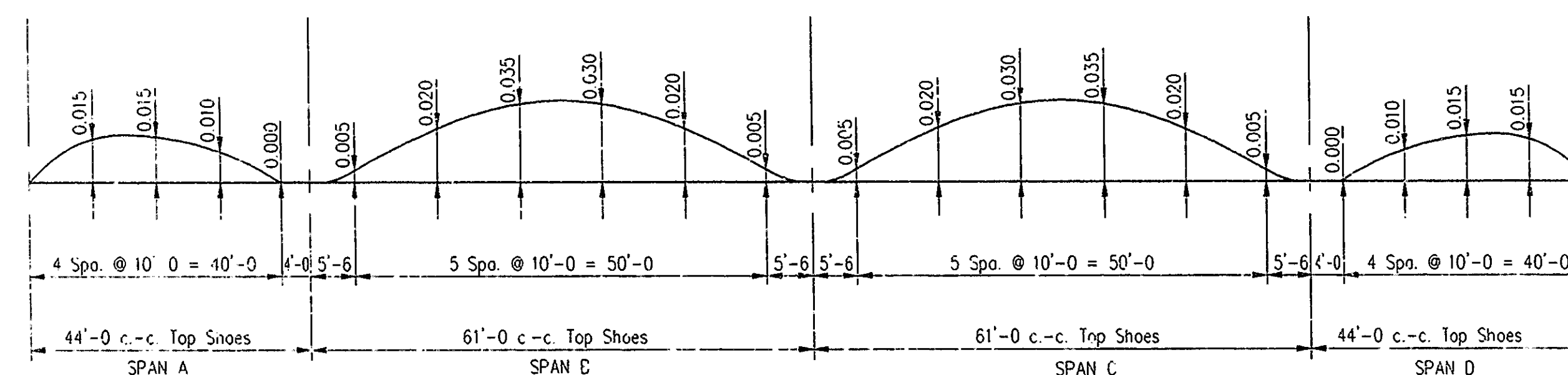
DRAWING: D89 OF D104 SHEET: 101 OF 159
PROJECT: MAIR-IR-465-4(266)119 STATION: -
BRIDGE CONTRACT NO. R-19452
BRIDGE FILE: I-465-125-23778 & JB





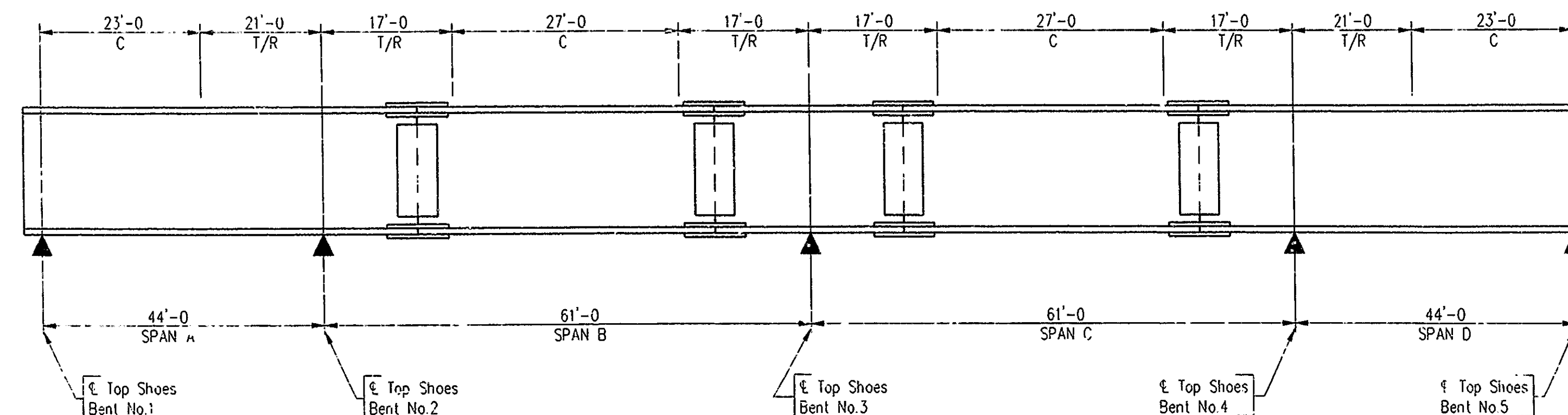
NO LOAD CAMBER AND REAMING DIAGRAM (INCHES)

No Scale



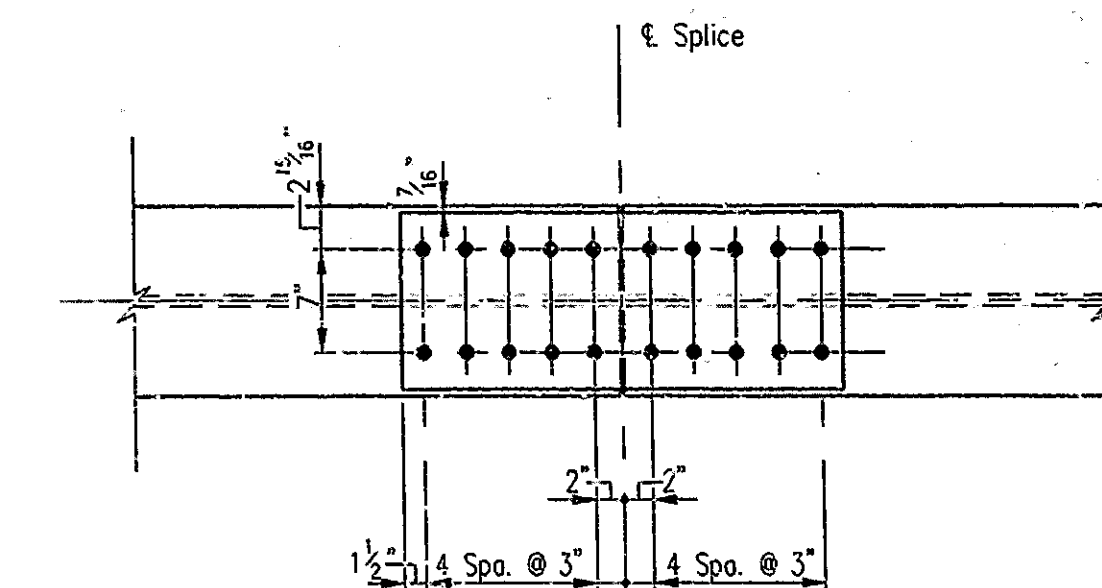
CONCRETE DEAD LOAD DEFLECTION DIAGRAM (FEET)

No Scale

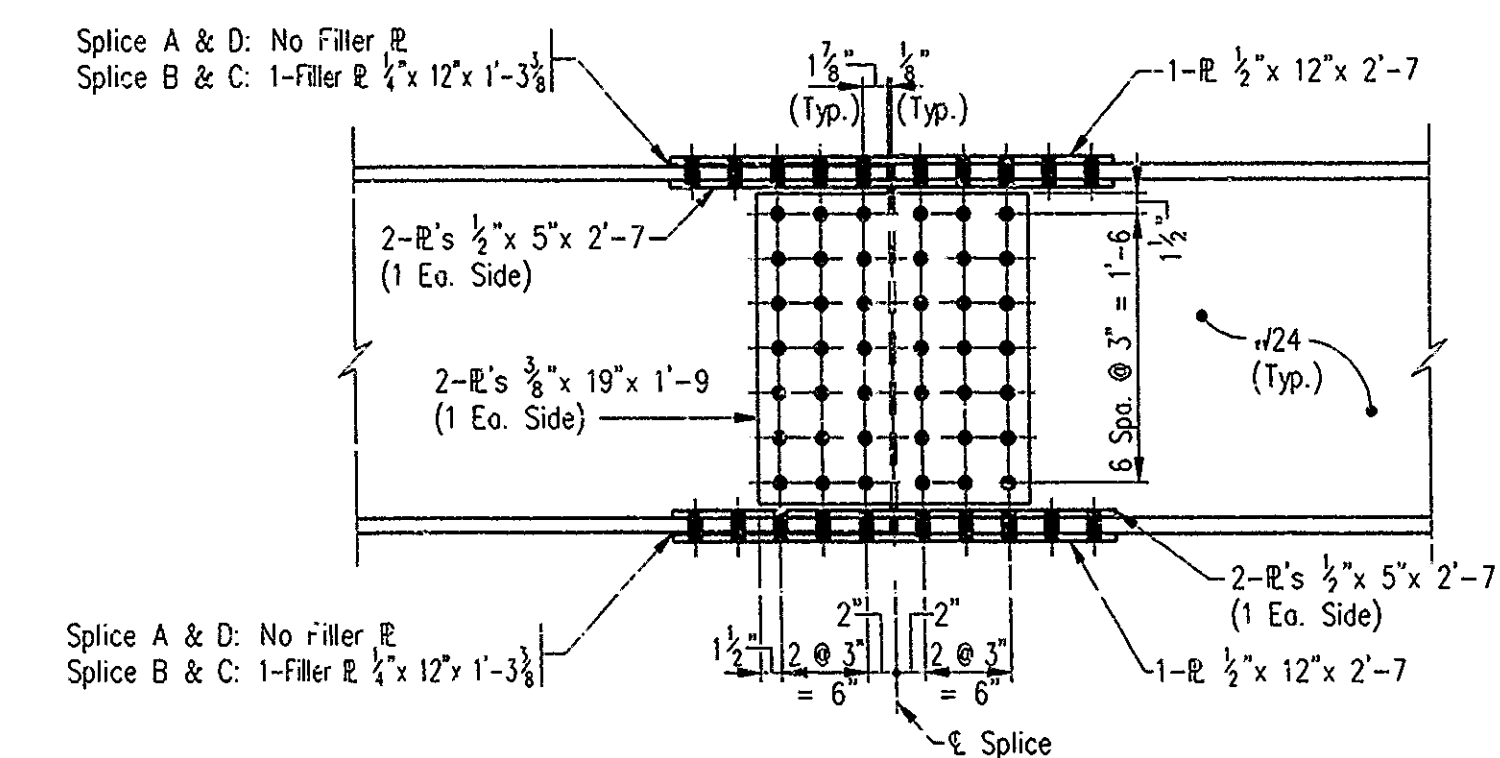


TENSION-COMPRESSION DIAGRAM

No Scale



TYPICAL PLAN



ELEVATION

TYPICAL BEAM SPLICE DETAIL

Scale: 1" = 1'-0"

SPICE	BEAM LINE	
	1	2
A	841.575	841.470
B	842.090	841.980
C	842.500	842.395
D	842.915	842.810

Note: For Additional Structural Steel
Details See Dwg. D89 & 91

STRUCTURAL STEEL DETAILS

INDIANA DEPARTMENT OF HIGHWAYS MARION COUNTY

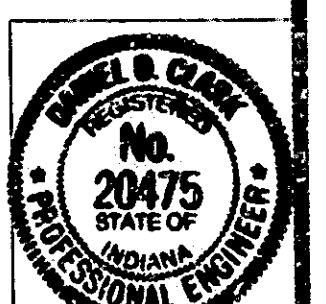
SCALE - As Noted

DATE - August 14,

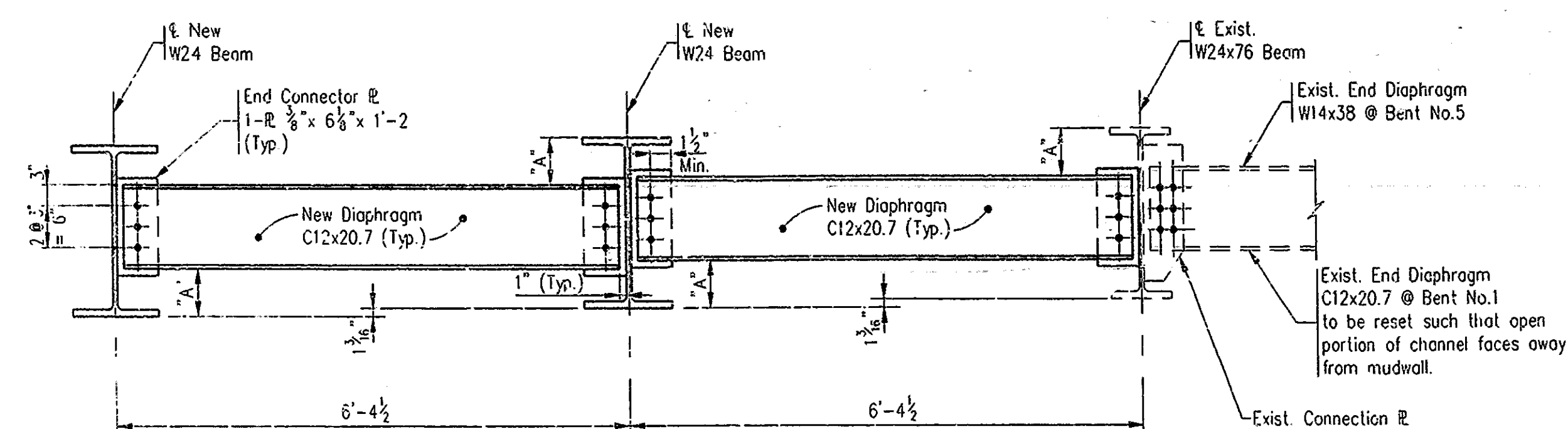
1991

Daniel D. Clark

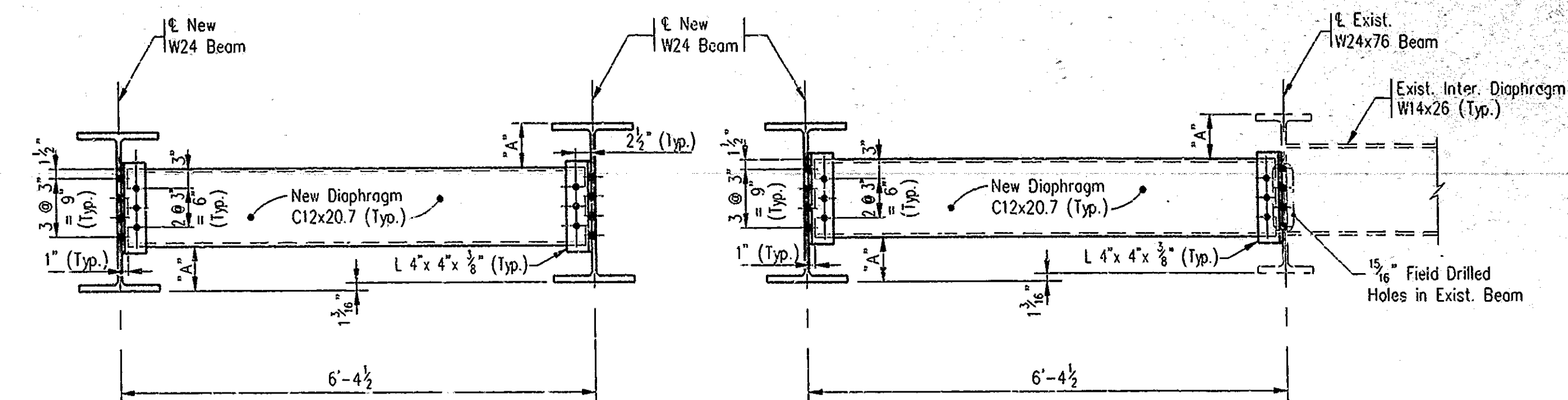
DRAWING: D90 OF D104 SHEET: 102 OF 159
PROJECT: MAIR-IR-465-4(266)119, STATION: -
BRIDGE CONTRACT NO. R-19482
BRIDGE FILE: - 1-465-125-23778 & JB



DESIGNED: DDC CKD DFJ
DRAWN: PCR CKD PEB
TRACED: CKD

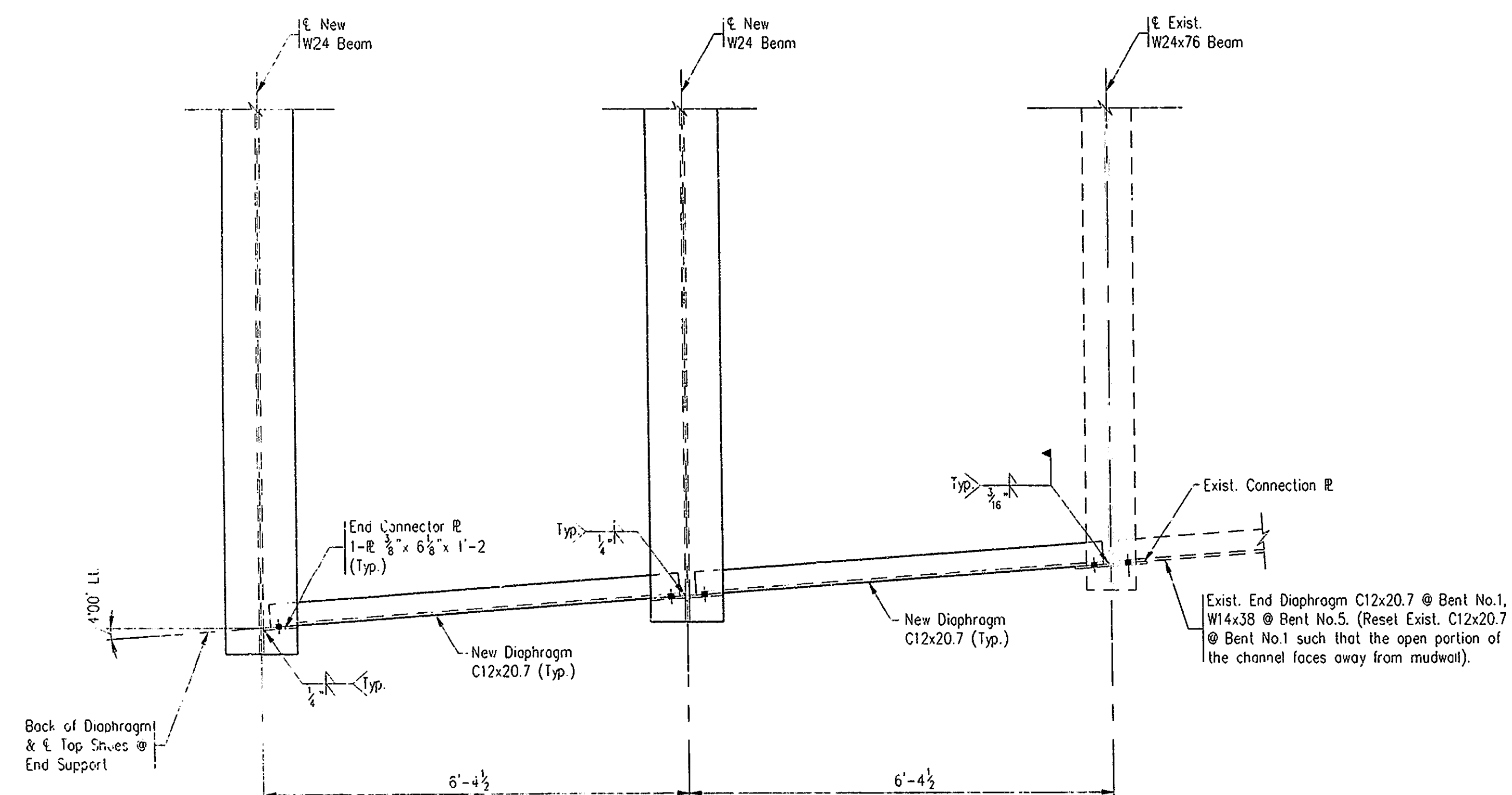


Dimensions "A" are
to be equal $\pm 1"$

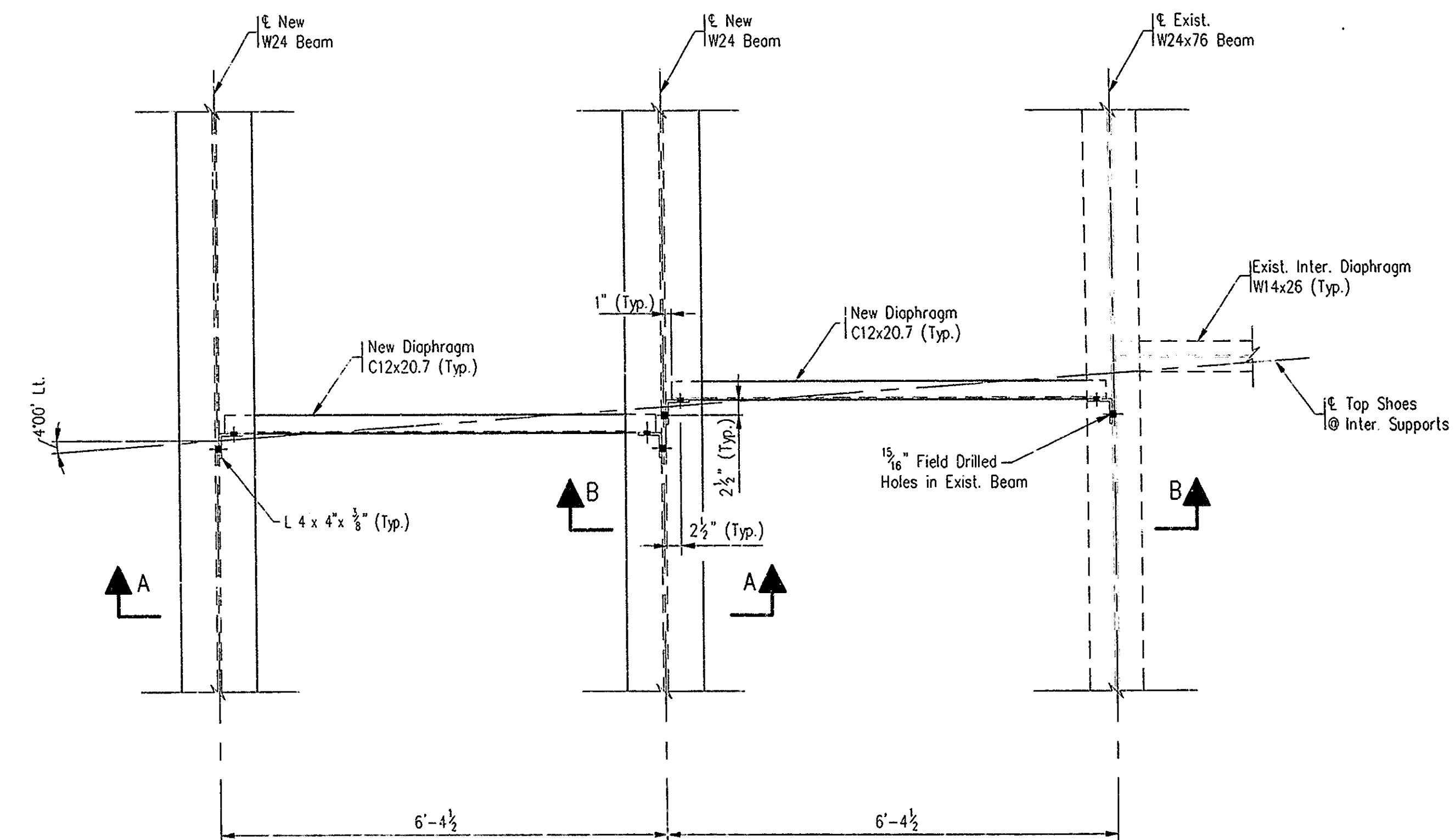


SECTION B-B

Dimensions "A" are
to be equal $\pm 1"$



PLAN AT END DIAPHRAGM



PLAN AT INTERIOR DIAPHRAGM

STRUCTURAL STEEL DETAILS

INDIANA DEPARTMENT OF HIGHWAYS
MARION COUNTY

MARION COUNTY

SCALE: - $\frac{3}{4}" = 1'-0$

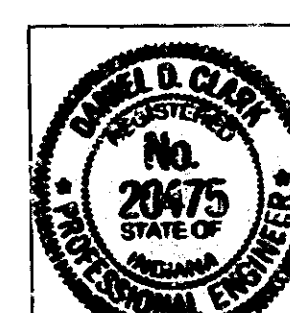
DATE:- August 14,

1991

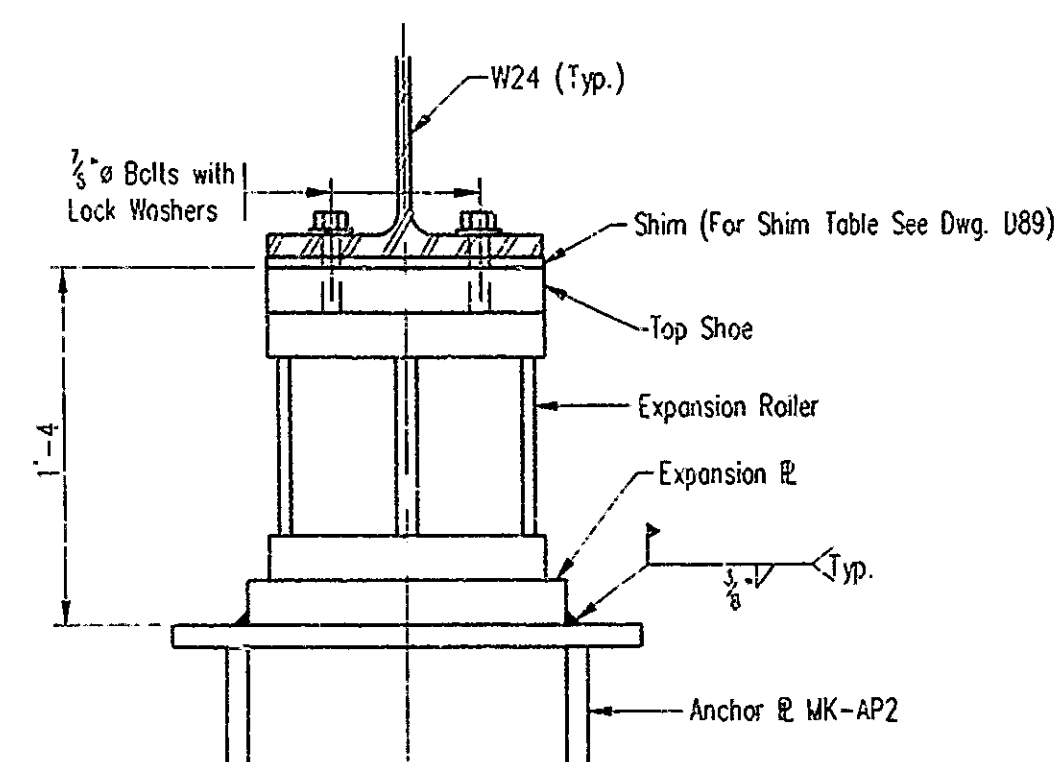
Note: For Additional Structural Steel
Details See Dwg. D89 & 90

Daniel D. Clark

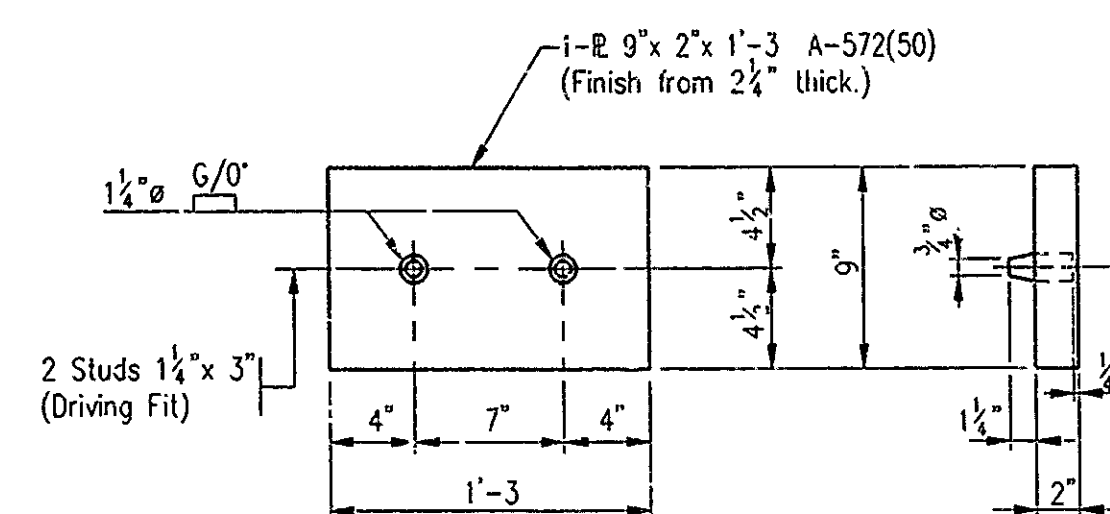
DRAWING:- D91 OF D104 SHEET:- 103 OF 159
PROJECT:- MAIR-IR-465-4(266)119 STATION:-
BRIDGE CONTRACT NO. *R-19482*
BRIDGE FILE:- I-465-125-2377B & JB



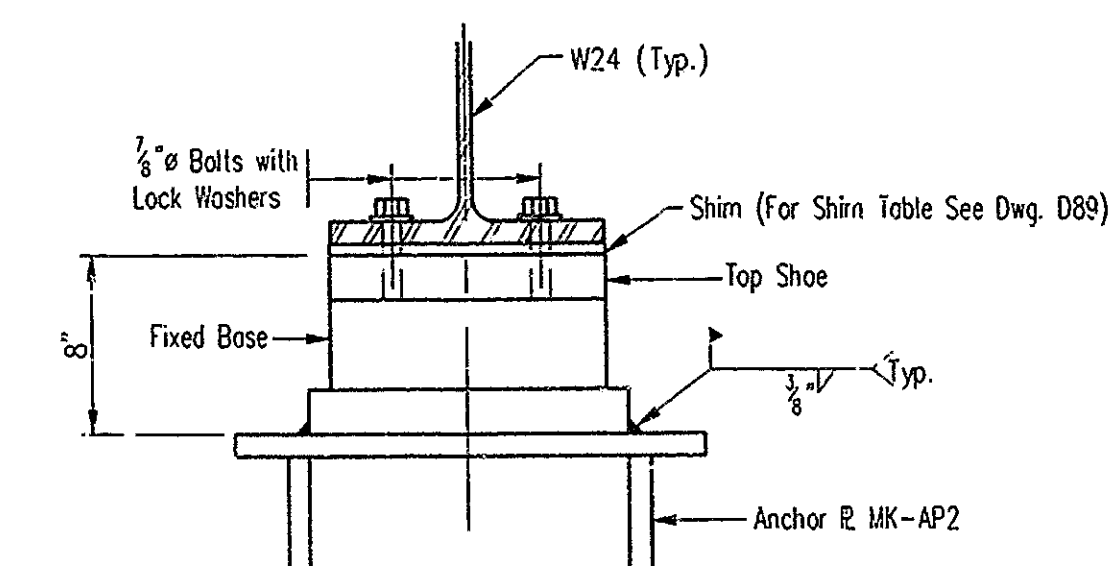
DESIGNED	SOC	C'K'D	DPJ
DRAWN	PCR	C'K'D	PEG
TRACED		C'K'D	



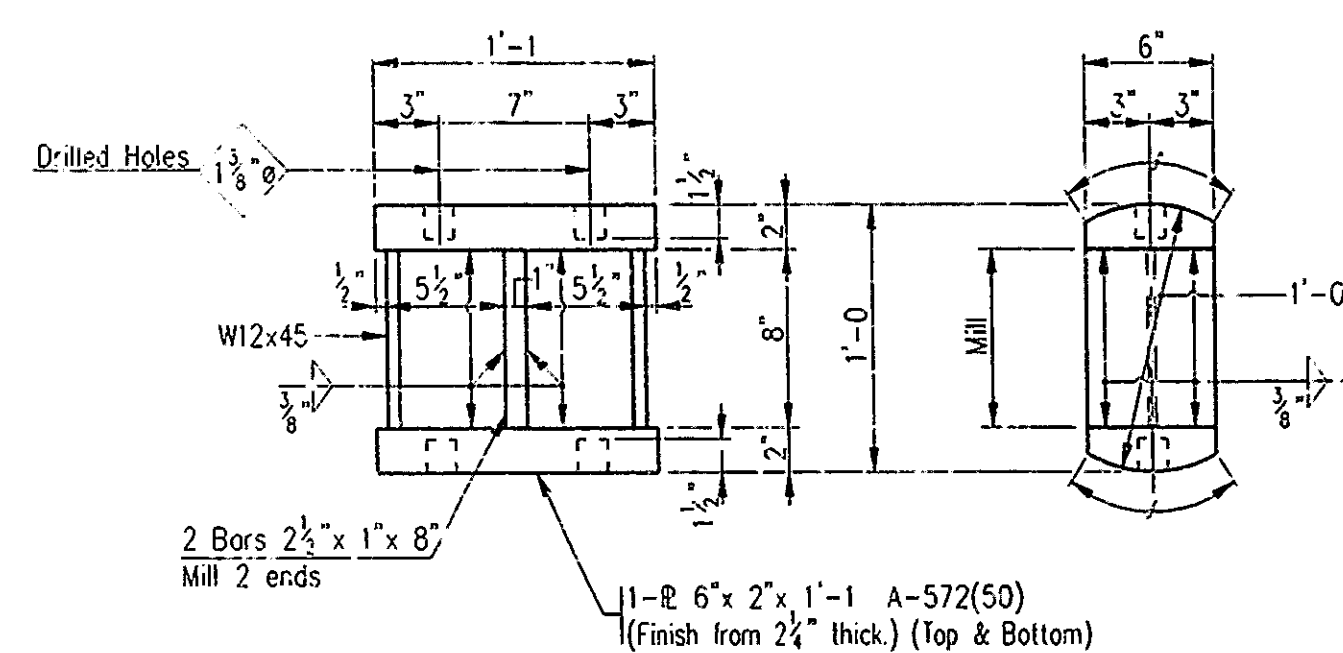
EXPANSION SHOE ASSEMBLY
(8 Req'd.)



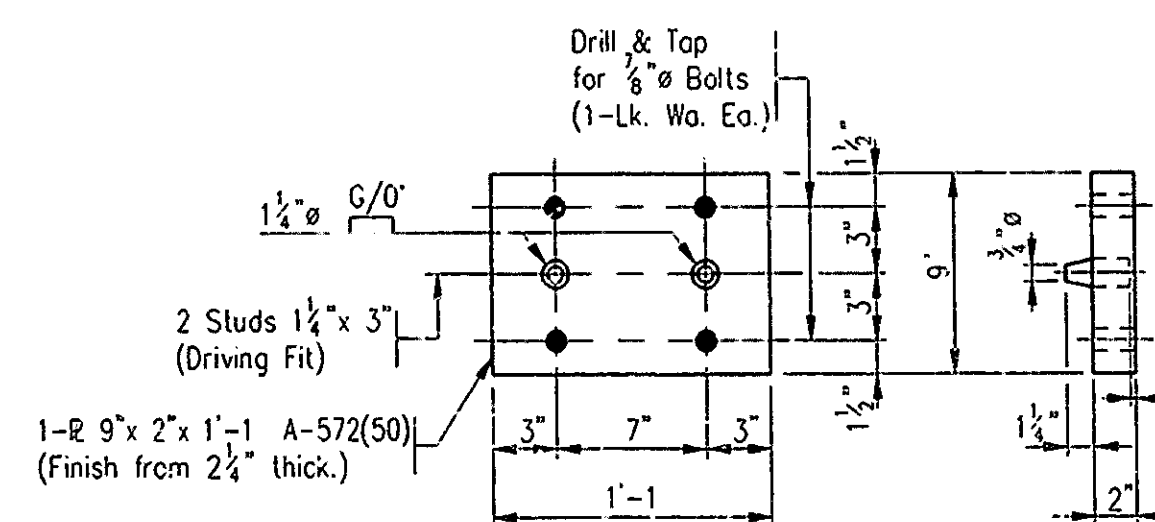
EXPANSION PLATE
(8 Req'd.)



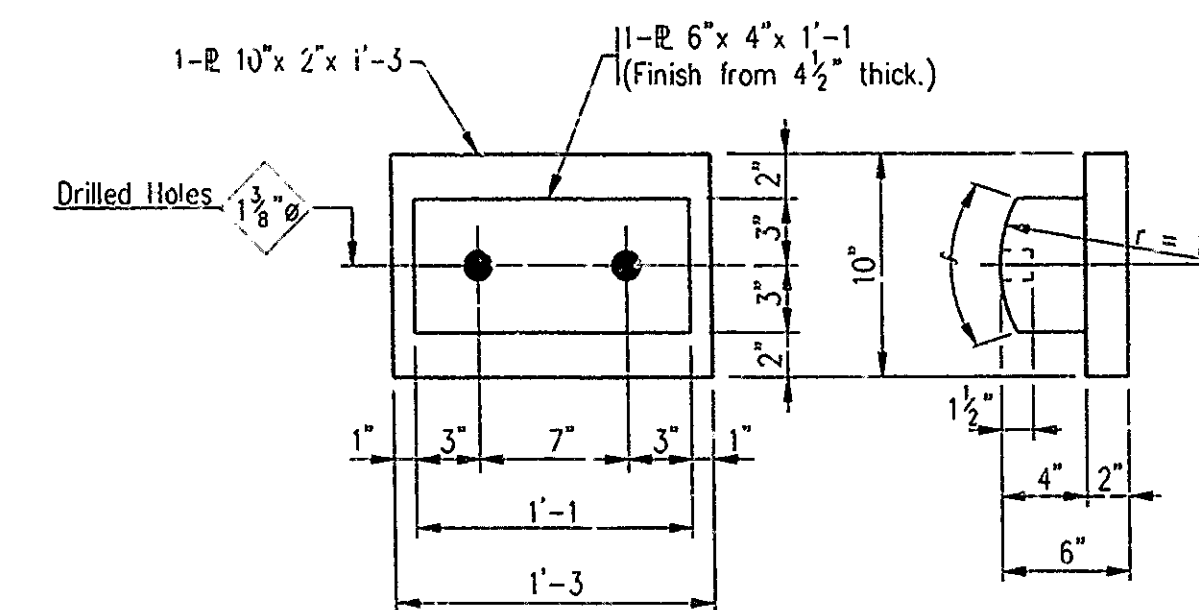
FIXED SHOE ASSEMBLY
(2 Req'd.)



EXPANSION ROLLER
(8 Req'd.)



TOP PLATE
(10 Req'd.)



FIXED SHOE
(2 Req'd.)

NOTES:

Curved surfaces of shoes to be machined after weldments have been completed.

At the contractors option the following substitutions of materials will be allowed at no increase in unit price of material.

1. A-588 steel may be used in lieu of A-36 steel.
2. A-514 steel may be used in lieu of A-588 or A-36 steels.

STEEL BEARING DETAILS

INDIANA DEPARTMENT OF HIGHWAYS
MARION COUNTY

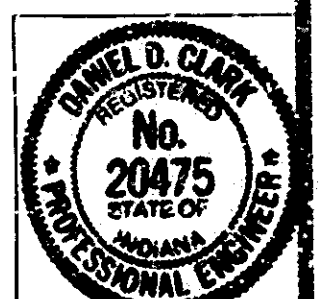
SCALE: - 1 1/2" = 1'-0" Unless Otherwise Noted

DATE: - August 14,

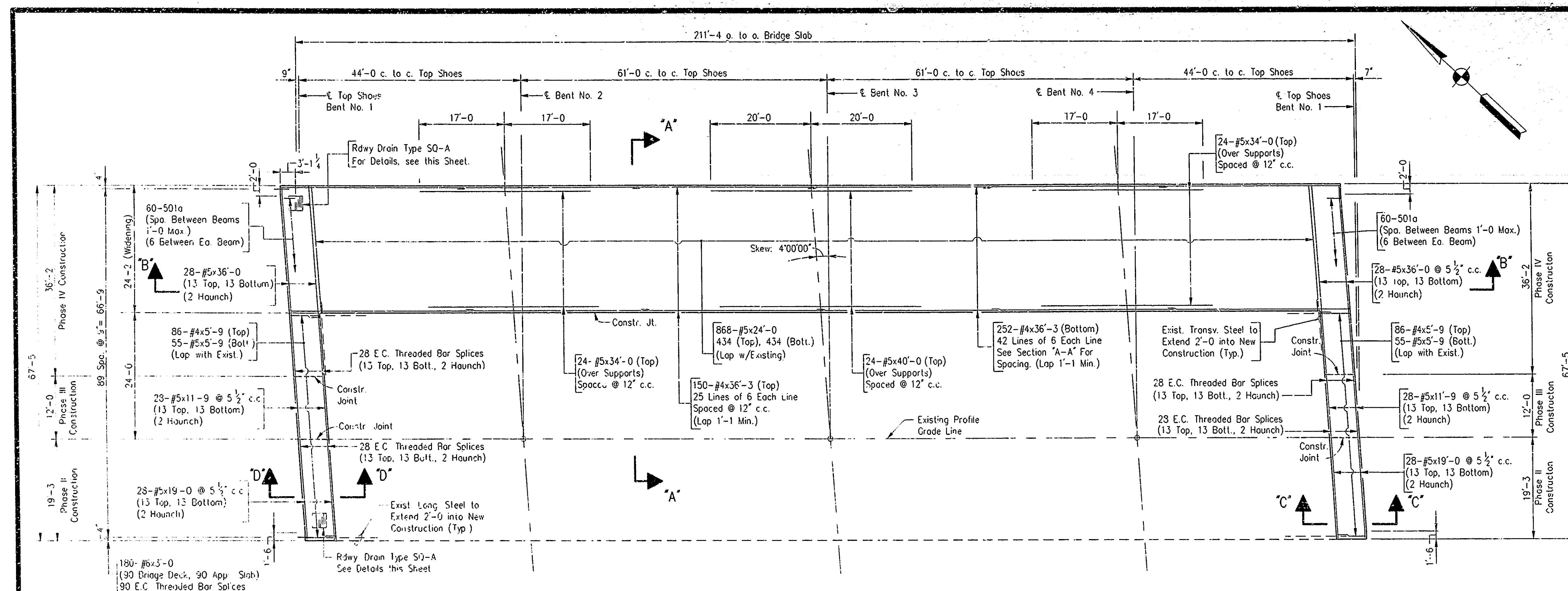
1991

Daniel D. Clark

DRAWING - D92 OF D104 SHEET - 104 OF 159
PROJECT: - MAIR-IR-465-4(266)119 STATION: -
BRIDGE CONTRACT NO. R-19452
BRIDGE FILE: - I-465-125-2377B & JB



DESIGNED: DDC CKD GPJ
DRAWN: PCR CKD PEB
TRACED: CKD



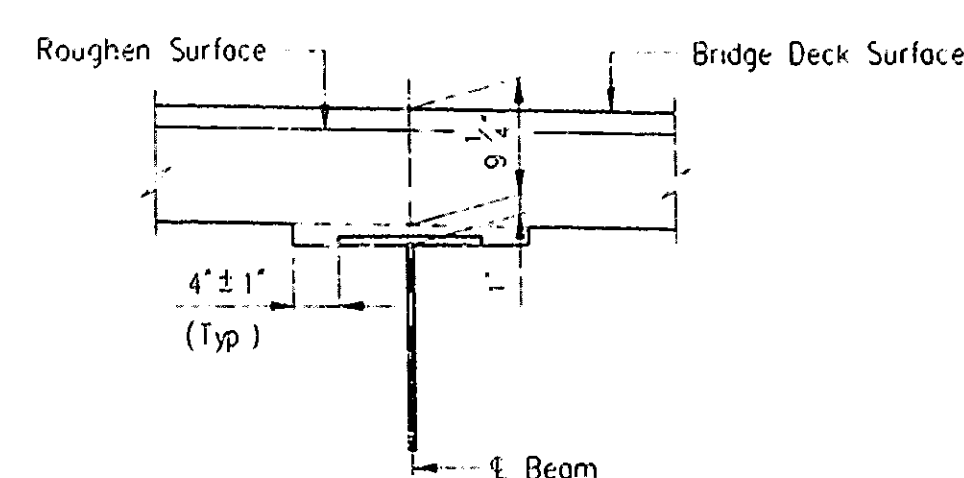
NORTHBOUND LANES BILL OF MATERIALS

REINFORCING STEEL			
SIZE & MARK	No. OF BARS	LENGTH	WEIGHT (LBS.)
EPOXY COATED REINFORCING			
#6	190	3'-0"	811
TOTAL #6 BARS			
#501a	120	3'-4"	
#5	24	40'-0"	
#5	56	36'-0"	
#5	48	34'-0"	
#5	868	24'-0"	
#5	56	19'-0"	
#5	56	11'-9"	
#5	110	5'-9"	
TOTAL #5 BARS			
#4	402	36'-3"	
#4	172	5'-9"	
#4	16	5'-0"	
TOTAL #4 BARS			
TOTAL EPOXY COATED REINF.			
CONCRETE			
Pour No. 1	3.1 Cys.		
Pour No. 2	1.9 Cys.		
Pour No. 1A	2.9 Cys.		
Pour No. 2A	1.8 Cys.		
Pour No. 3	37.9 Cys.		
Pour No. 4	35.8 Cys.		
Pour No. 5	34.1 Cys.		
Pour No. 6	15.4 Cys.		
Total C. C. Conc. in Superstr.			
MISCELLANEOUS			
Cast Iron Grates, Basins & Fittings	384 Lbs.		
Cast Iron Drain Pipe, 6"ø 2'-3 x 17.5#/Lft.	80 Lbs.		
Expansion Joint SS	68 LFT.		
E.C. Threaded Bar Splices	202 Ea.		

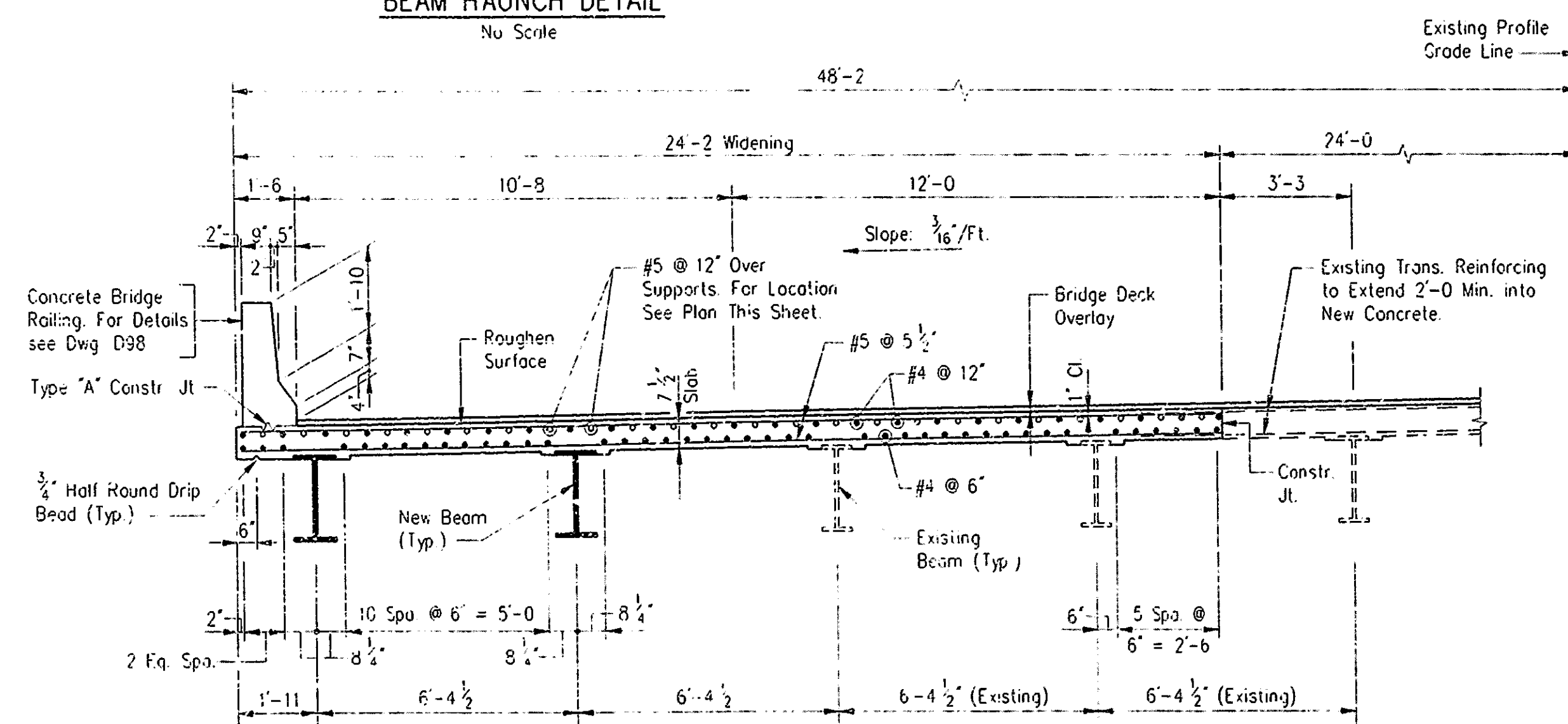
** For Location of these bars, see Roadway Drain Details this drawing.

FLOOR PLAN-NORTHBOUND LANES

Scale: 3/32" = 1'-0"

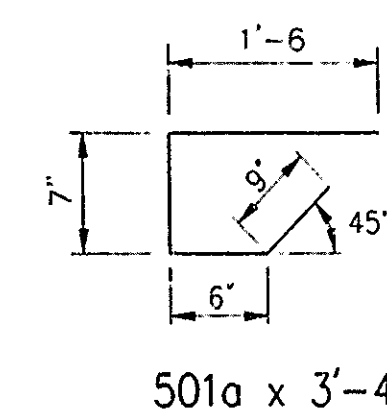


BEAM HAUNCH DETAIL
No Scale

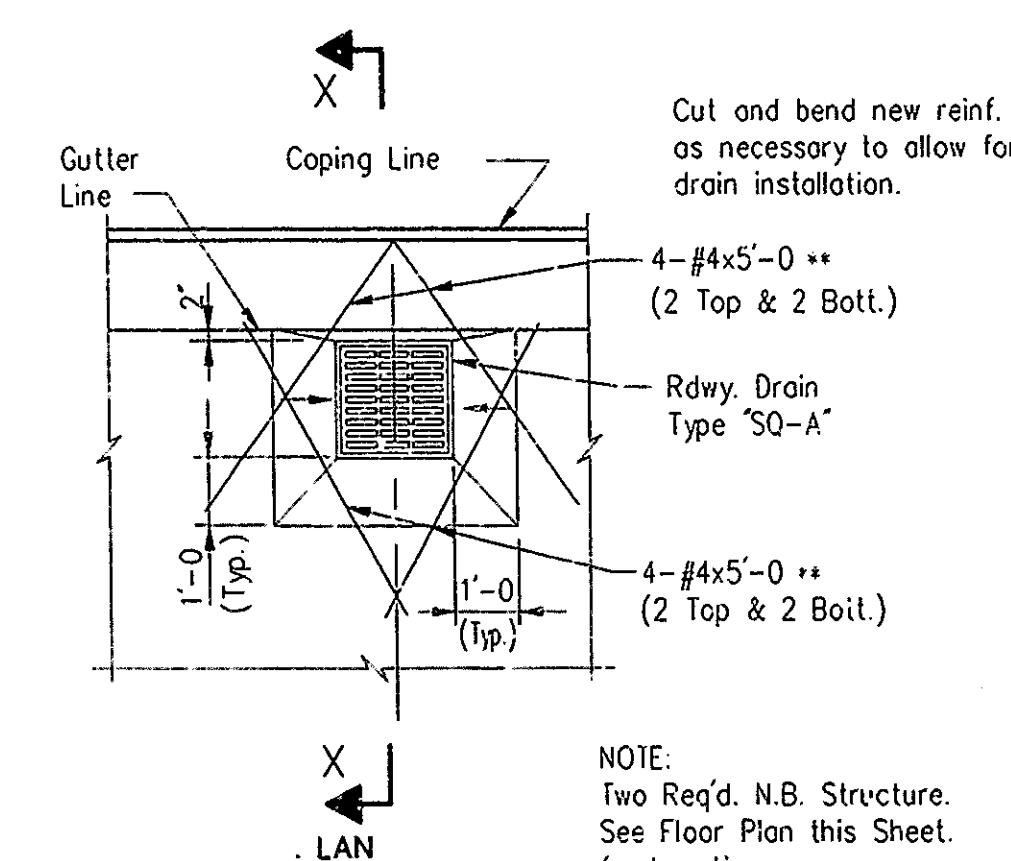


SECTION 'A-A'

Scale: 3/8" = 1'-0"



501a x 3'-4



ROADWAY DRAIN DETAILS

No Scale

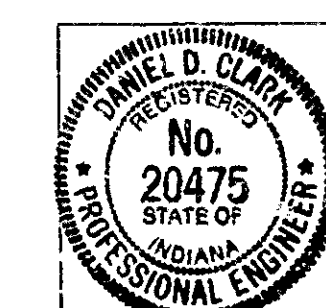
FLOOR DETAILS-NORTHBOUND LANES INDIANA DEPARTMENT OF HIGHWAYS

MARION COUNTY

SCALE: - 3/32" = 1'-0"

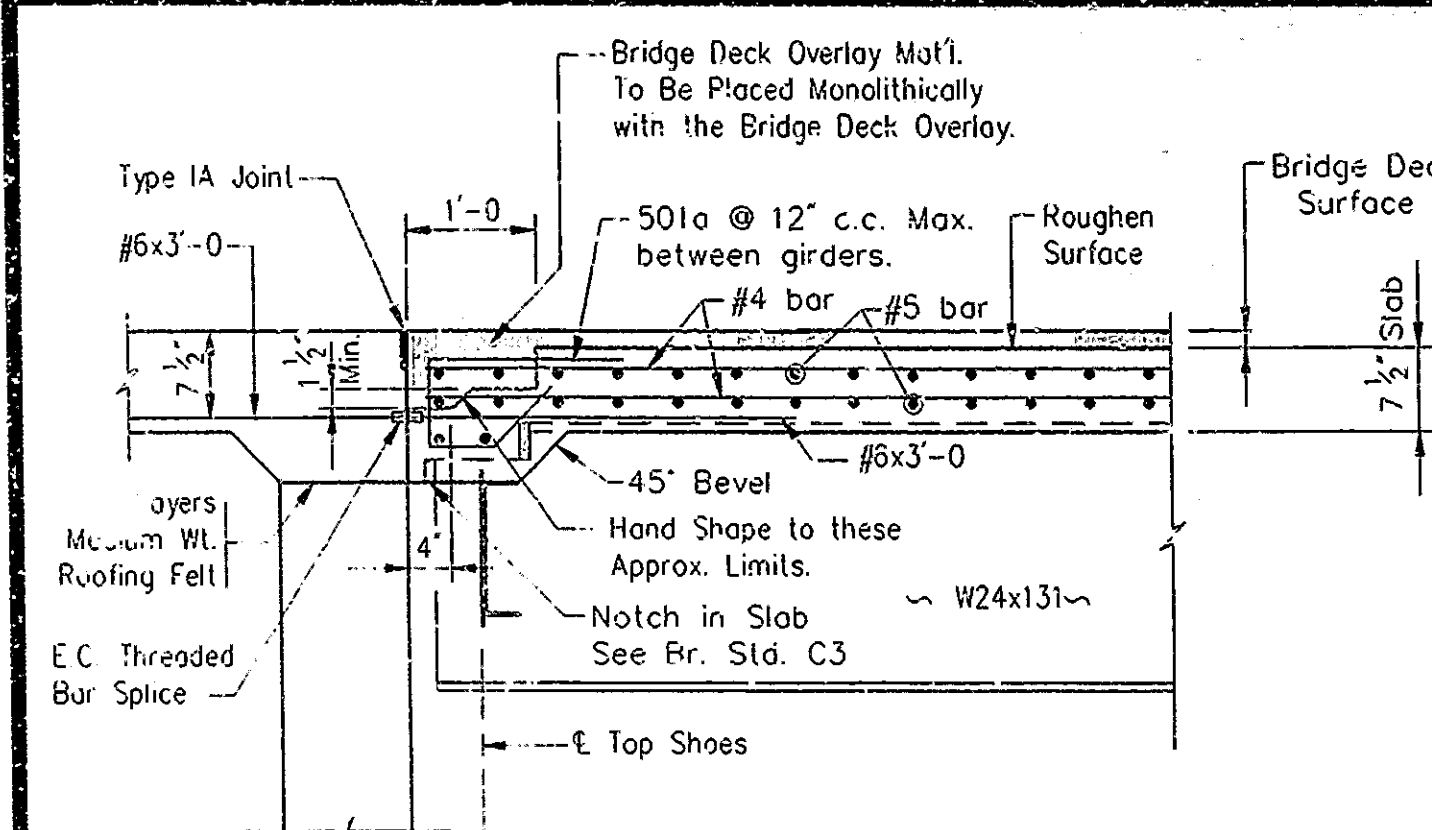
DATE: August 14, 1991
Daniel D. Clark

DRAWING: D93 OF D104 SHEET: 105 OF 159
PROJECT: MAIR-IR-465-4(266)119 STATION: -
BRIDGE CONTRACT NO. R-19482
BRIDGE FILE: I-465-125-23778 & JB

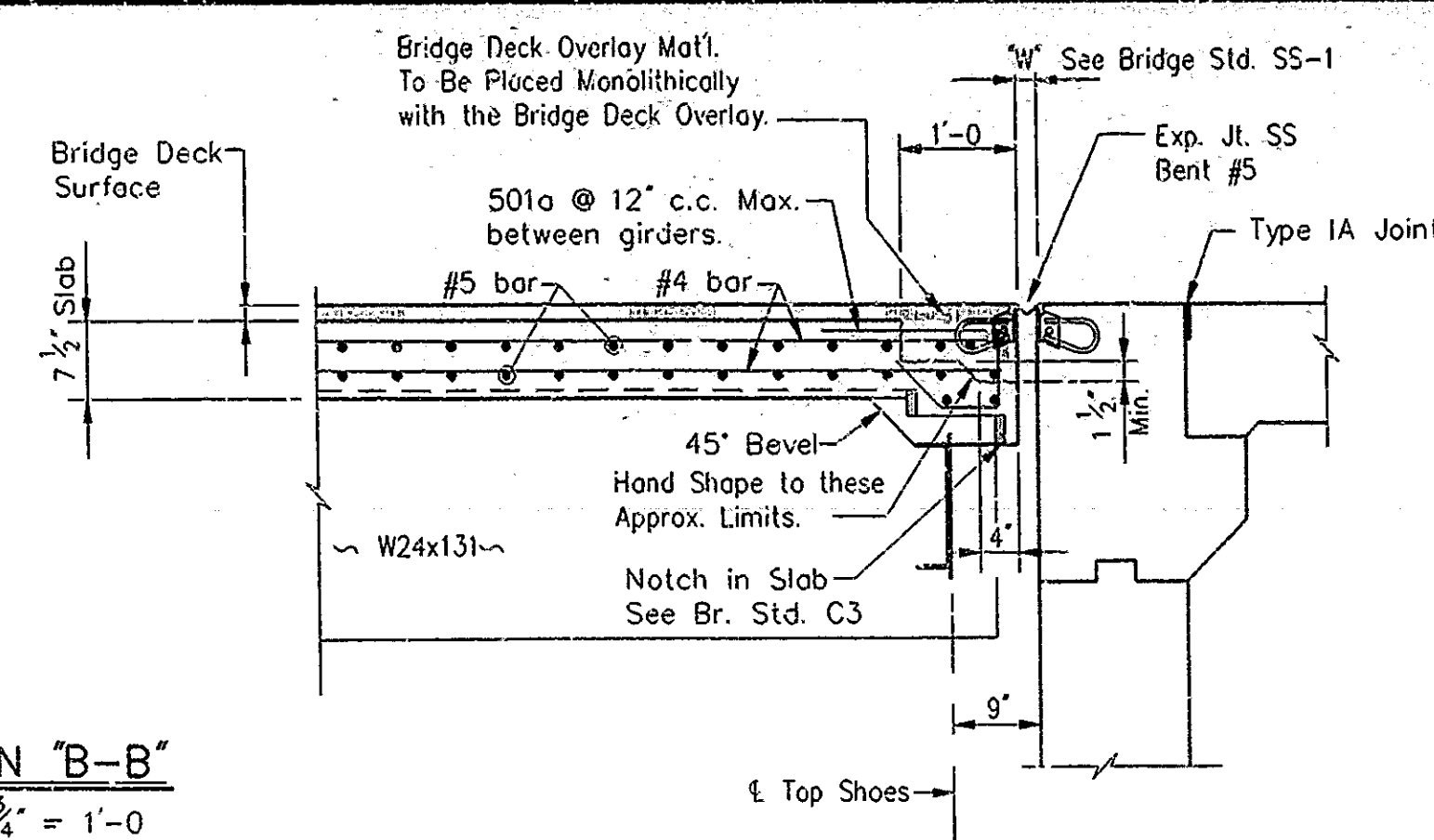


NOTES:

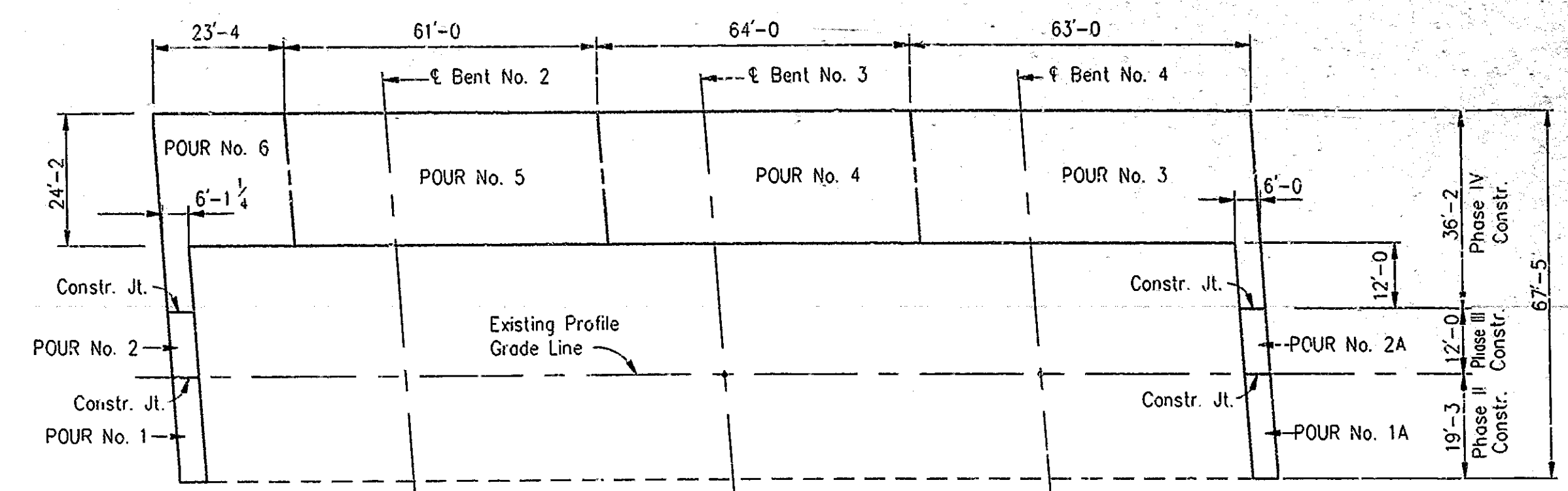
- For General Notes, see Dwg. D82.
- For Reinforcing Bar Notes and Bar Bending Details, see Bridge Standard C1.
- For Sections "B-B", "C-C" and "D-D", see Dwg. D94.
- For Concrete Barrier Railing Details, see Dwg. D98 & D99.
- For Joint Details, see Bridge Standard C3 & Bridge Standard SS-1.
- The top reinforcing in the floor shall be securely tied down to the deck forms and/or the beams to prevent lifting during concrete placement.
- The Contractor will have the option of using permanent metal forms in lieu of removable forms.
- Pours may be made continuous provided the pour terminates at a construction joint indicated on the plans. The Contractor may change the length of pours, sequence of pours, or the location of the construction joints subject to approval by the Engineer.
- Existing transverse reinforcing to remain in place shall be cleared and straightened.
- Construction depth based on original profile grade
- For Expansion Joint SS Details, see Dwg. D94 and Bridge Standard SS-1
- All Reinforcing Steel in Bridge Floor shall be Epoxy Coated
- Screeds available upon request.
- For Pour Diagram, see Dwg. D94.



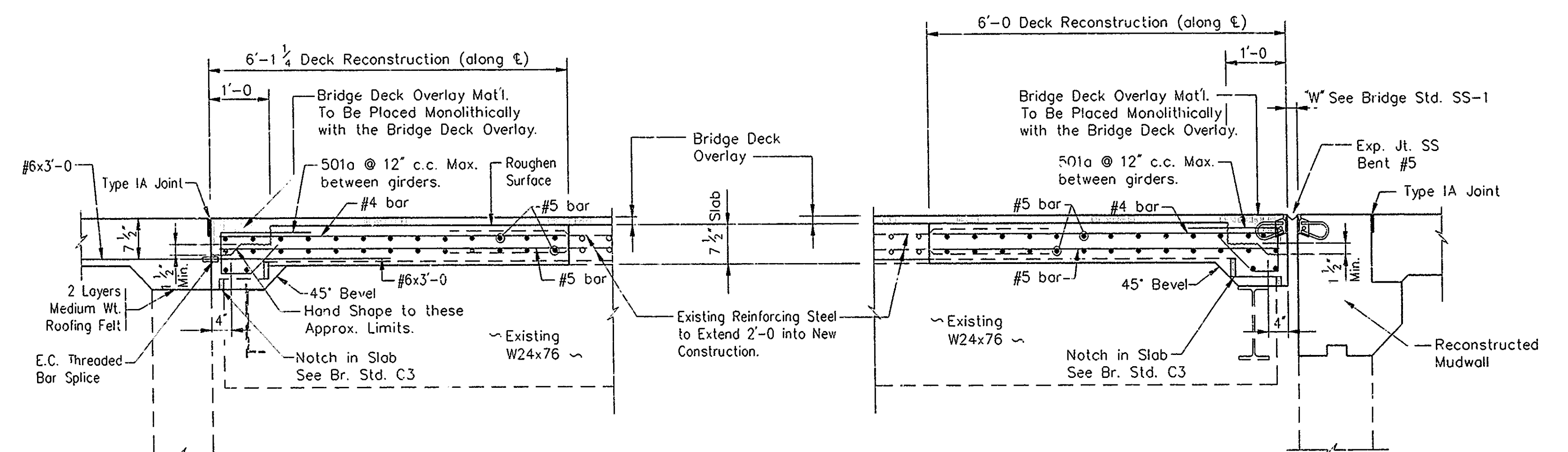
SECTION "B-B"
Scale: $\frac{3}{4}" = 1'-0"$



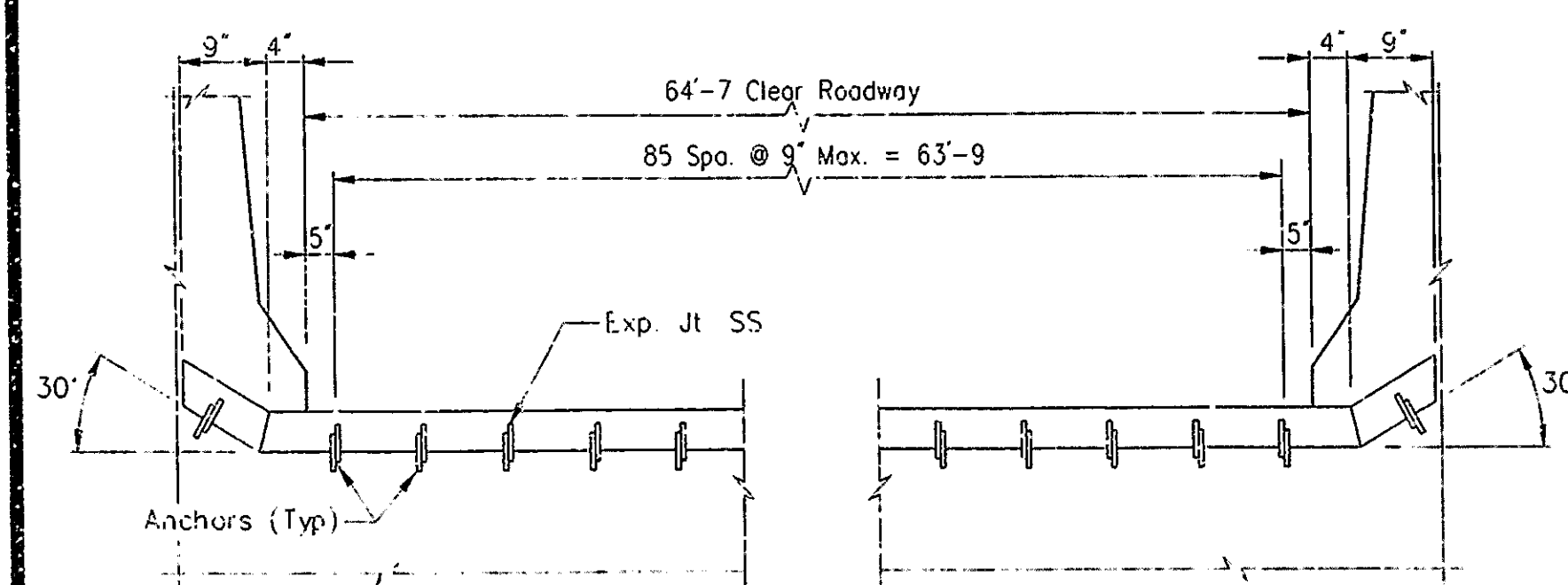
SECTION "D-D"
Scale: $\frac{3}{4}" = 1'-0"$



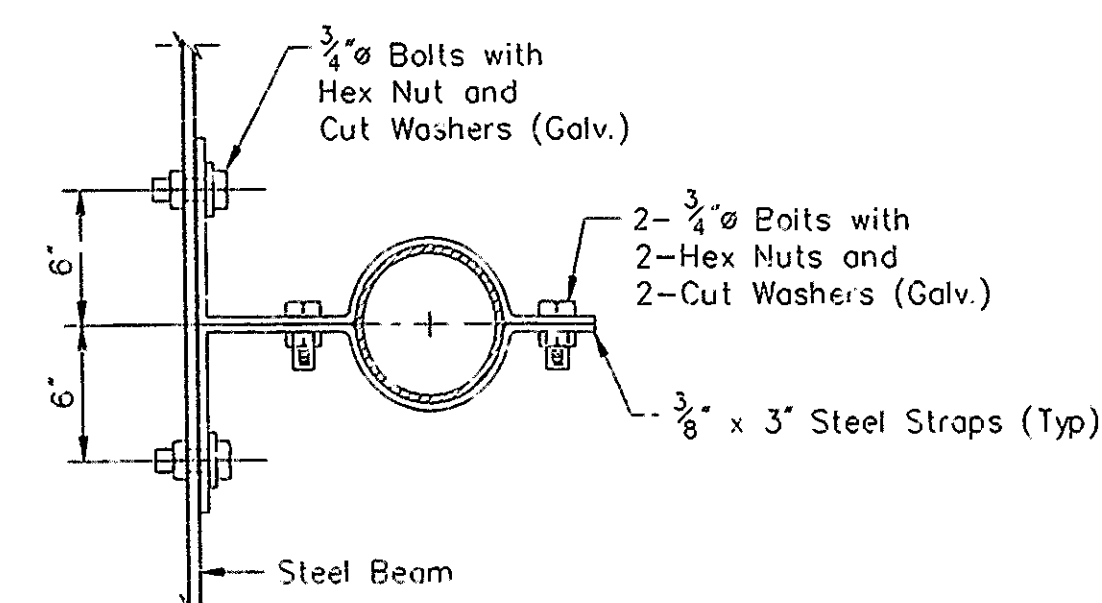
POUR DIAGRAM
No Scale



SECTION "C-C"
Scale: $\frac{3}{4}" = 1'-0"$



DETAIL SHOWING EXPANSION JOINT CLASS SS ANCHOR SPACING
No Scale

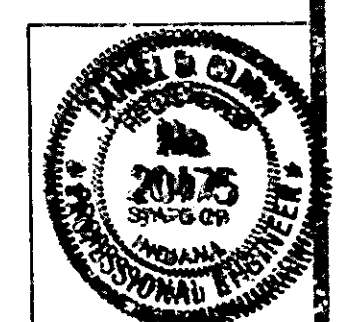


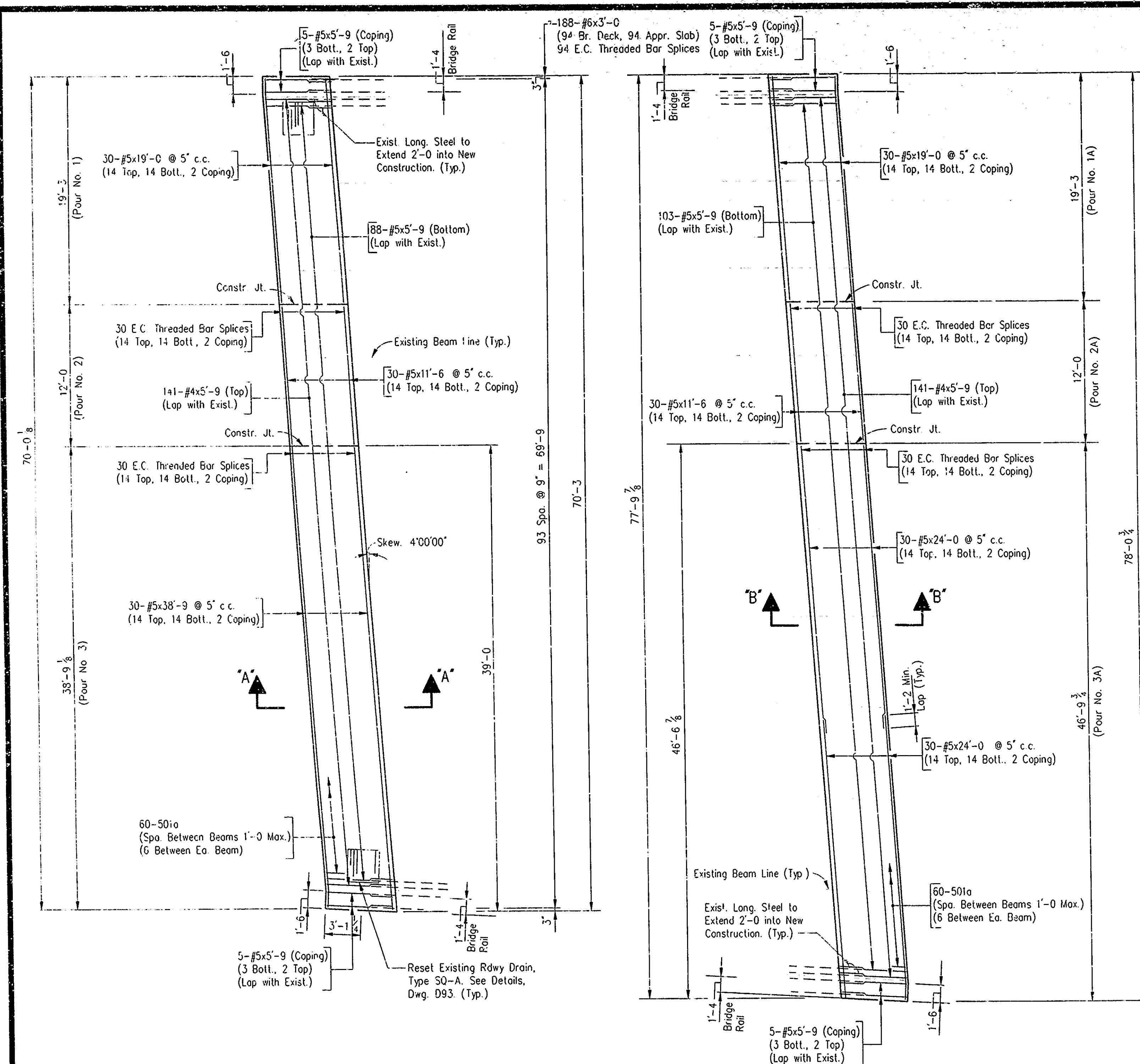
PIPE SUPPORT BRACKET DETAIL
No Scale

- NOTES:
- All Reinforcing Steel to be Epoxy Coated
 - For Expansion Jt. Details see Bridge Std. SS-1
 - For Sections "B-B", "C-C" & "D-D", see Dwg. D93.

FLOOR DETAILS - NORTHBOUND LANES
INDIANA DEPARTMENT OF HIGHWAYS
MARION COUNTY

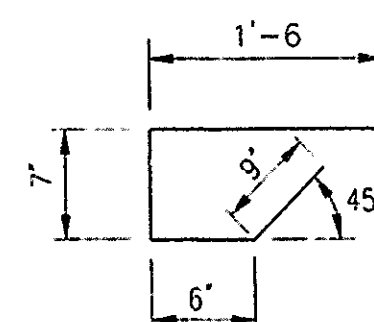
SCALE - As Noted
DATE - August 14, 1991
DRAWING: D94 OF D104 SHEET: 106 OF 159
PROJECT: MAIR-IR-465-4(266)119 STATION: -
BRIDGE CONTRACT NO. R-19482
BRIDGE FILE: - I-465-125-23778 & JB





FLOOR PLAN-SOUTHBOUND LANES

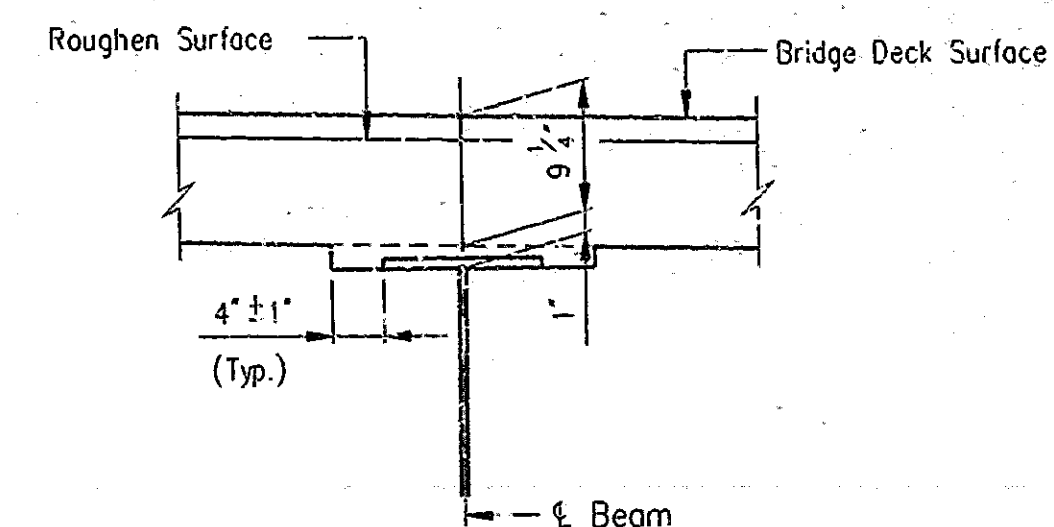
Scale: $\frac{3}{16}'' = 1'-0''$



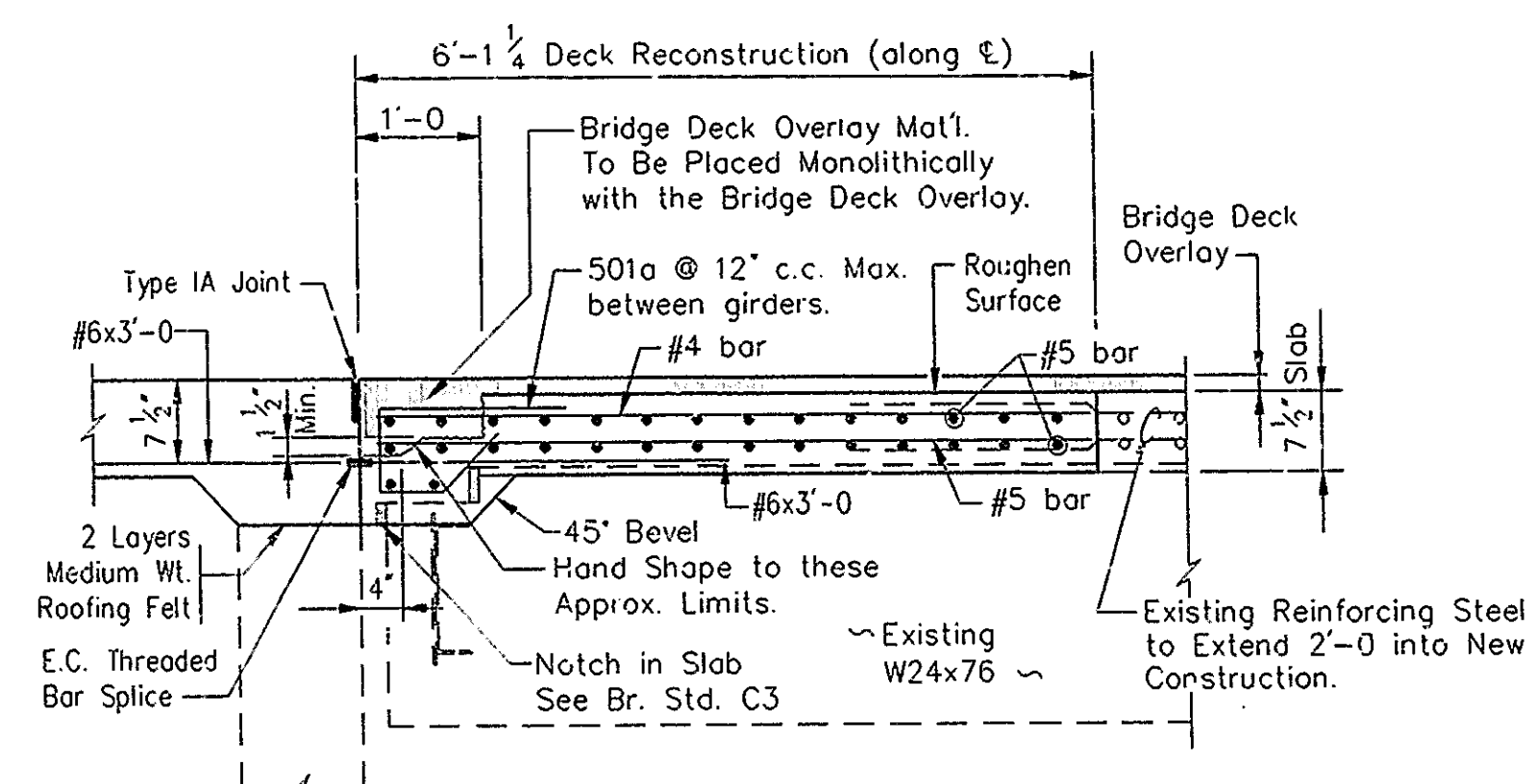
501a x 3'-4

NOTES:

- For General Notes, see Dwg. D82.
- For Reinforcing Bar Notes and Bar Bending Details, see Bridge Standard C1.
- For Concrete Barrier Railing Details, see Dwg. D100 & D101.
- For Joint Details, see Bridge Standard C1 and Bridge Standard SS-1.
- The Top Reinforcing in the floor shall be securely tied down to the deck forms and/or the beams to prevent lifting during concrete placement.
- The Contractor will have the option of using permanent metal forms in lieu of removable forms.
- Pours may be made continuous provided the pour terminates at a construction joint indicated on the plans. The Contractor may change the length of pours, sequence of pours, or the location of the construction joints subject to approval by the Engineer.
- Construction depth based on original profile grade.
- All Reinforcing Steel in Bridge Floor shall be Epoxy Coated.
- All Reinforcing steel to remain in place shall be cleaned and straightened.

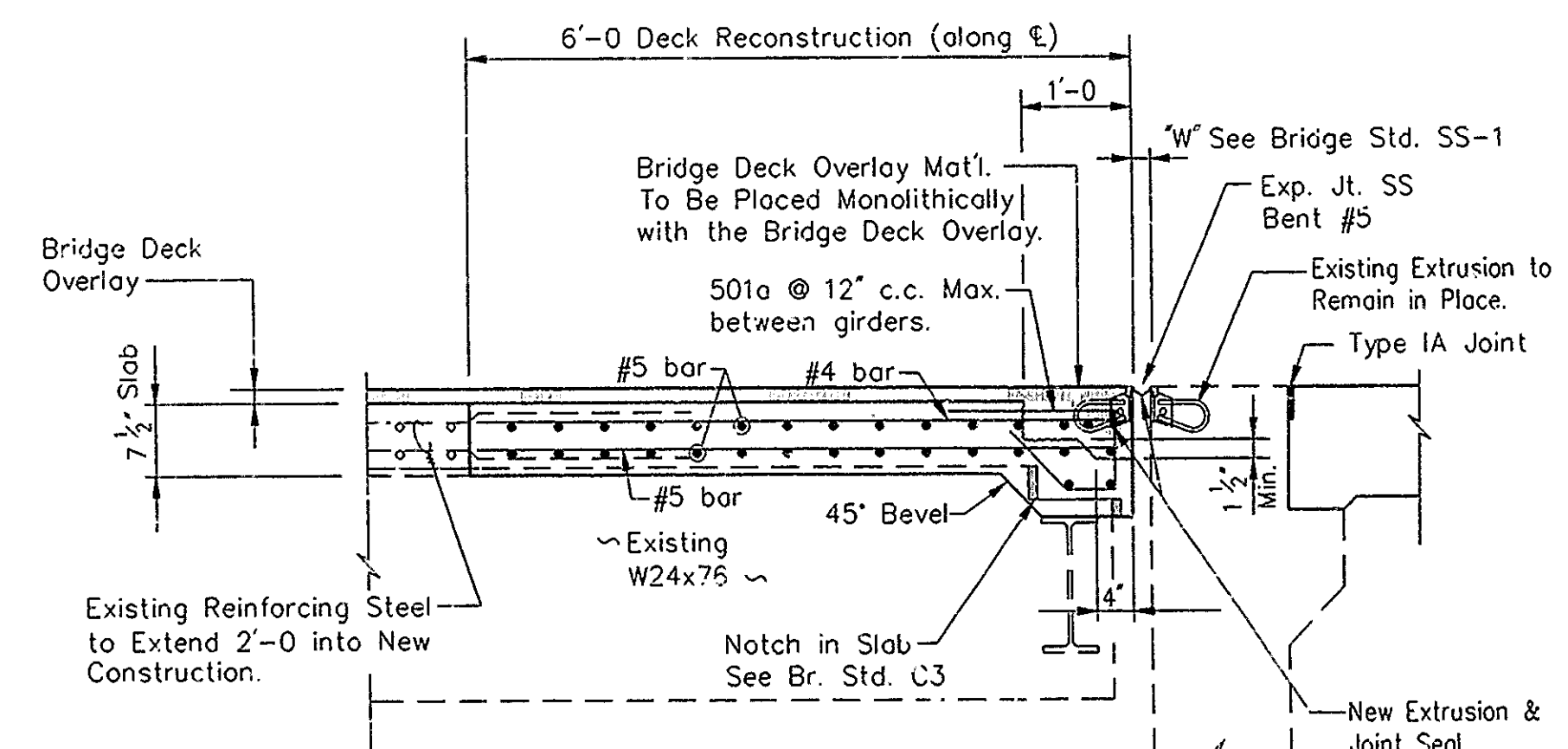


BEAM HAUNCH DETAIL
No Scale



SECTION "A-A"

Scale: $\frac{3}{4}'' = 1'-0''$



SECTION "B-B"

Scale: $\frac{3}{4}'' = 1'-0''$

BILL OF MATERIALS

SIZE & MARK	No. OF BARS	LENGTH	WEIGHT (LBS.)
EPOXY COATED REINFORCING			
#6	188	3'-0"	847
TOTAL #6 BARS			
501a	120	3'-4"	
#5	30	38'-9"	
#5	60	24'-0"	
#5	60	19'-0"	
#5	60	11'-6"	
#5	211	5'-9"	
TOTAL #5 BARS			
#4	282	5'-9"	
#4	16	5'-0"	
TOTAL #4 BARS			
TOTAL EPOXY COATED REINF.			
CONCRETE			

Class C Concrete in Superstructure			
Pour No. 1	3.1 Cys.		
Pour No. 2	1.9 Cys.		
Pour No. 3	6.3 Cys.		
Pour No. 1A	2.9 Cys.		
Pour No. 2A	1.8 Cys.		
Pour No. 3A	7.1 Cys.		
Total Cl. C Conc. in Superstr.			
23.1 Cys.			

Miscellaneous			
Cast Iron Gages, Basins & Fittings	384 Lbs.		
Cast Iron Drain Pipe, 6" 2'-3 x 17.5#/Lft.	80 Lbs.		
E.C. Threaded Bar Splices	214 Fts.		
Exp. Jt. SS Replacement Seal	79 Lft.		
Exp. Jt. SS Extrusion	79 Lft.		

* For Location of these bars, see Roadway Drain Details, Dwg. D93.

FLOOR DETAILS-SOUTHBOUND LANES
INDIANA DEPARTMENT OF HIGHWAYS
MARION COUNTY

SCALE: $\frac{3}{16}'' = 1'-0''$

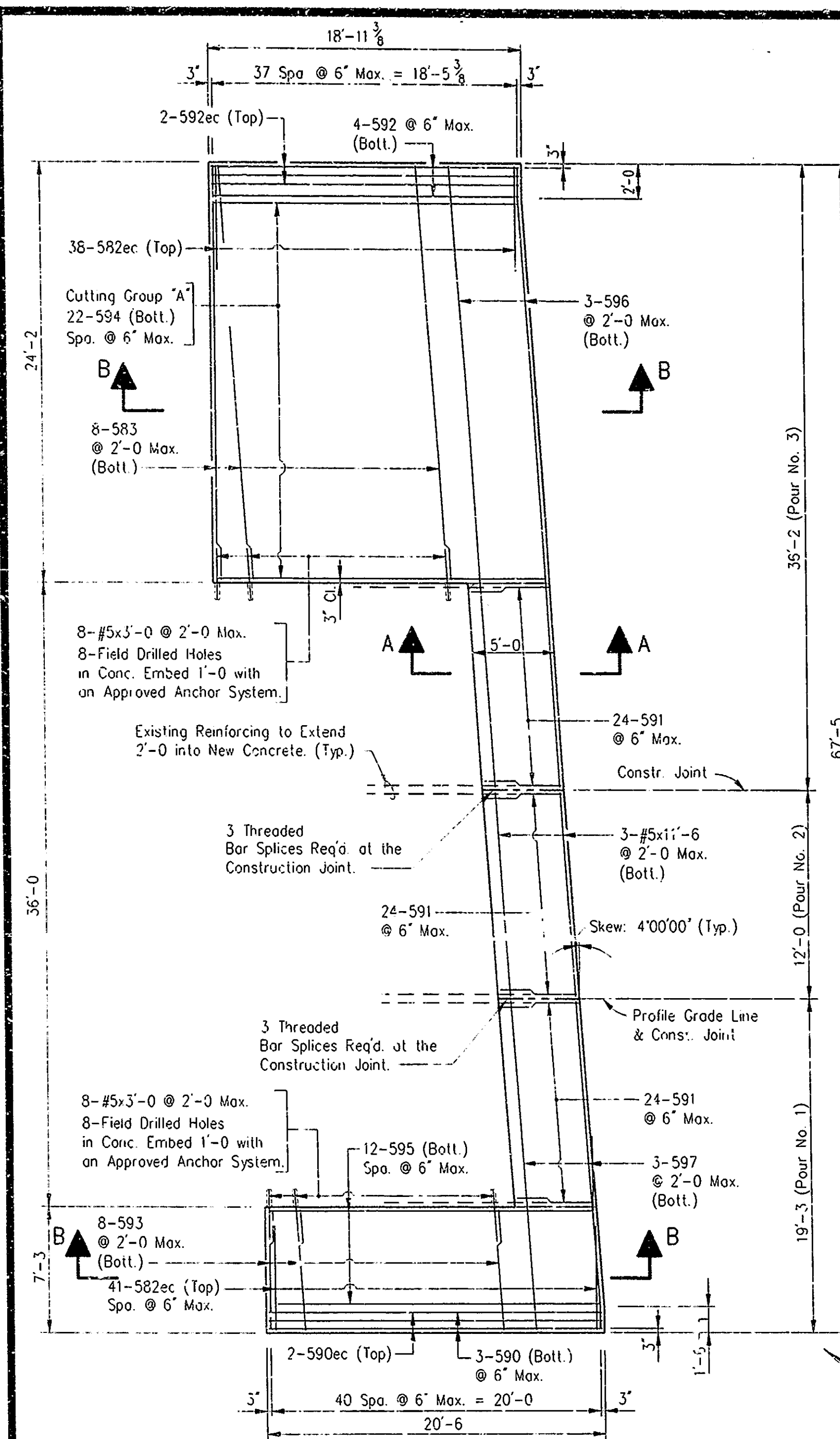
DATE: August 14, 1991

Daniel D. Clark

DRAWING: D95 OF D104 SHEET: 107 OF 159
PROJECT: MAIR-IR-465-4(266)119 STATION: -
BRIDGE CONTRACT NO. R-19482
BRIDGE FILE: - 1-455-125-2377B & JB

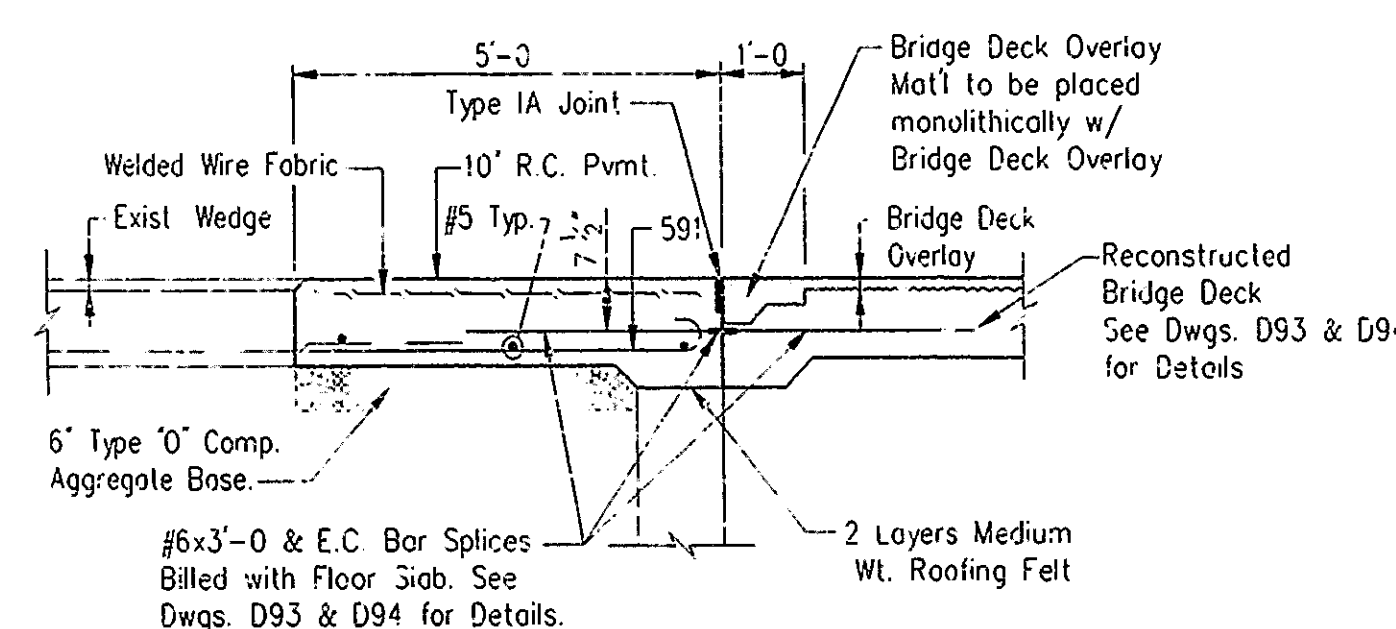


DESIGNED: CPM C.K.D. DPJ
DRAWN: CPM C.K.D. PEB
TRACED: C.K.D.



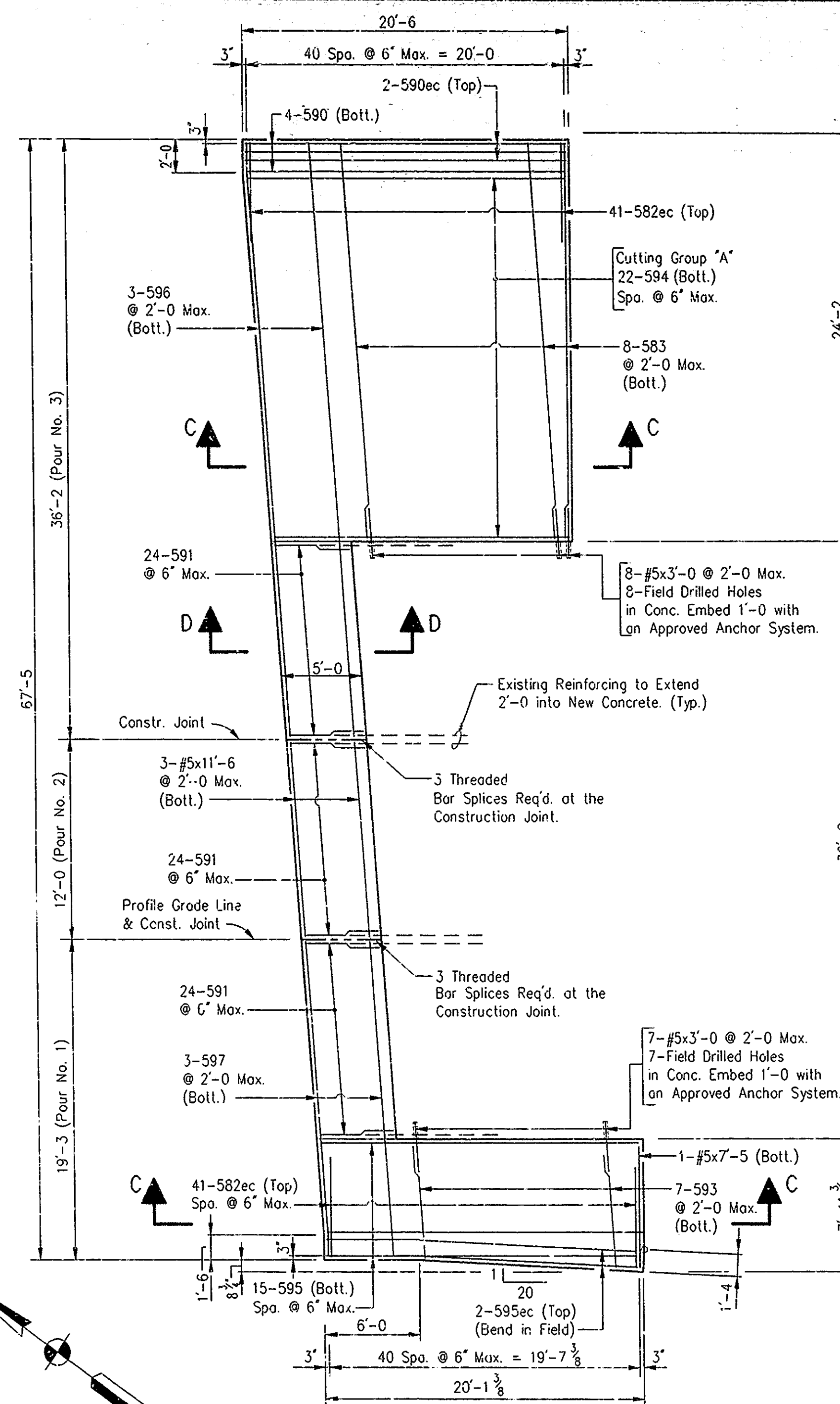
PLAN-NORTH APPROACH N.B. LANES

Scale: $\frac{3}{16}'' = 1'-0''$



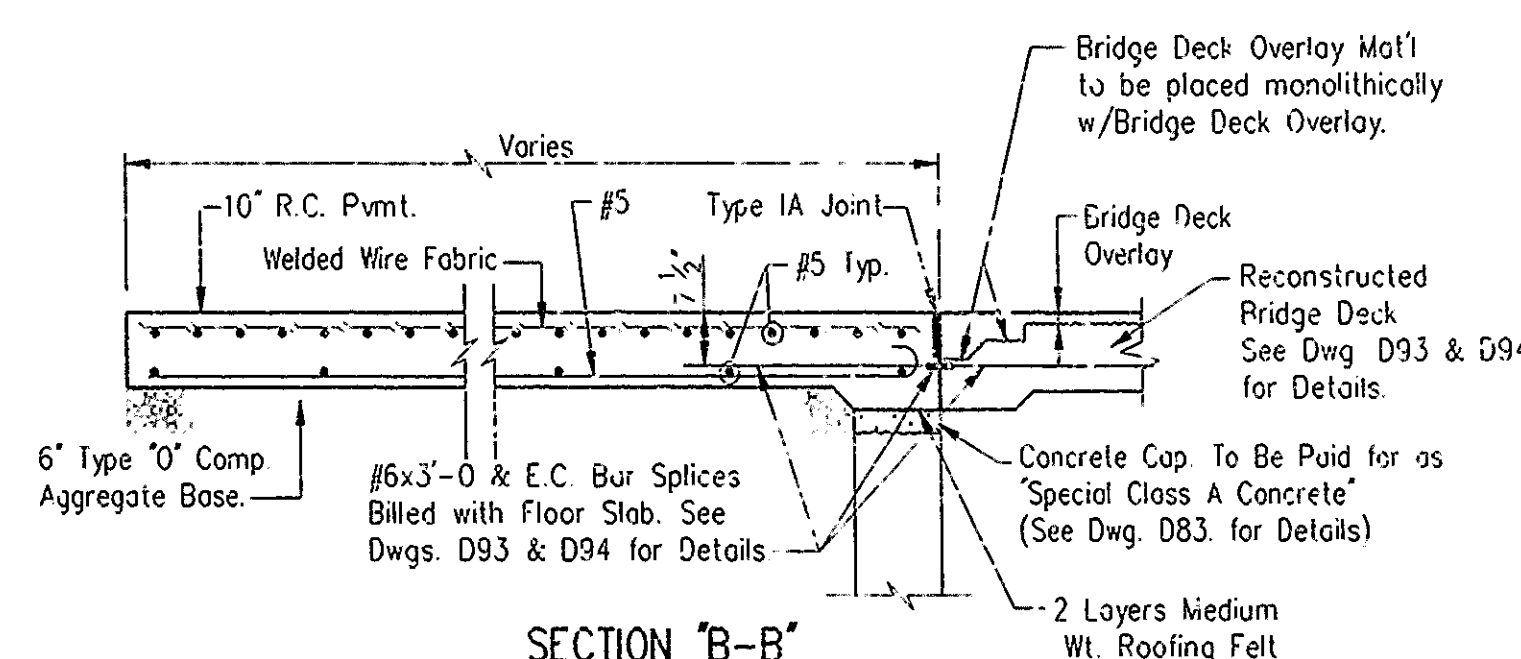
SECTION 'A-A'

Scale: $\frac{1}{2}'' = 1'-0''$



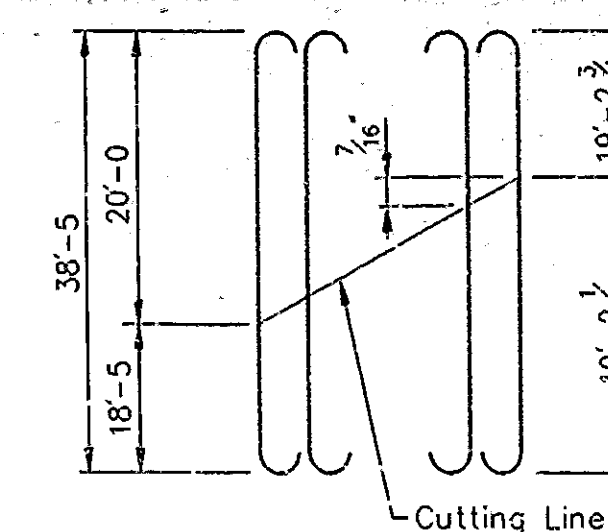
PLAN-SOUTH APPROACH N.B. LANES

Scale: $\frac{3}{16}'' = 1'-0''$



SECTION 'B-B'

Scale: $\frac{1}{2}'' = 1'-0''$



CUTTING GROUP 'A'

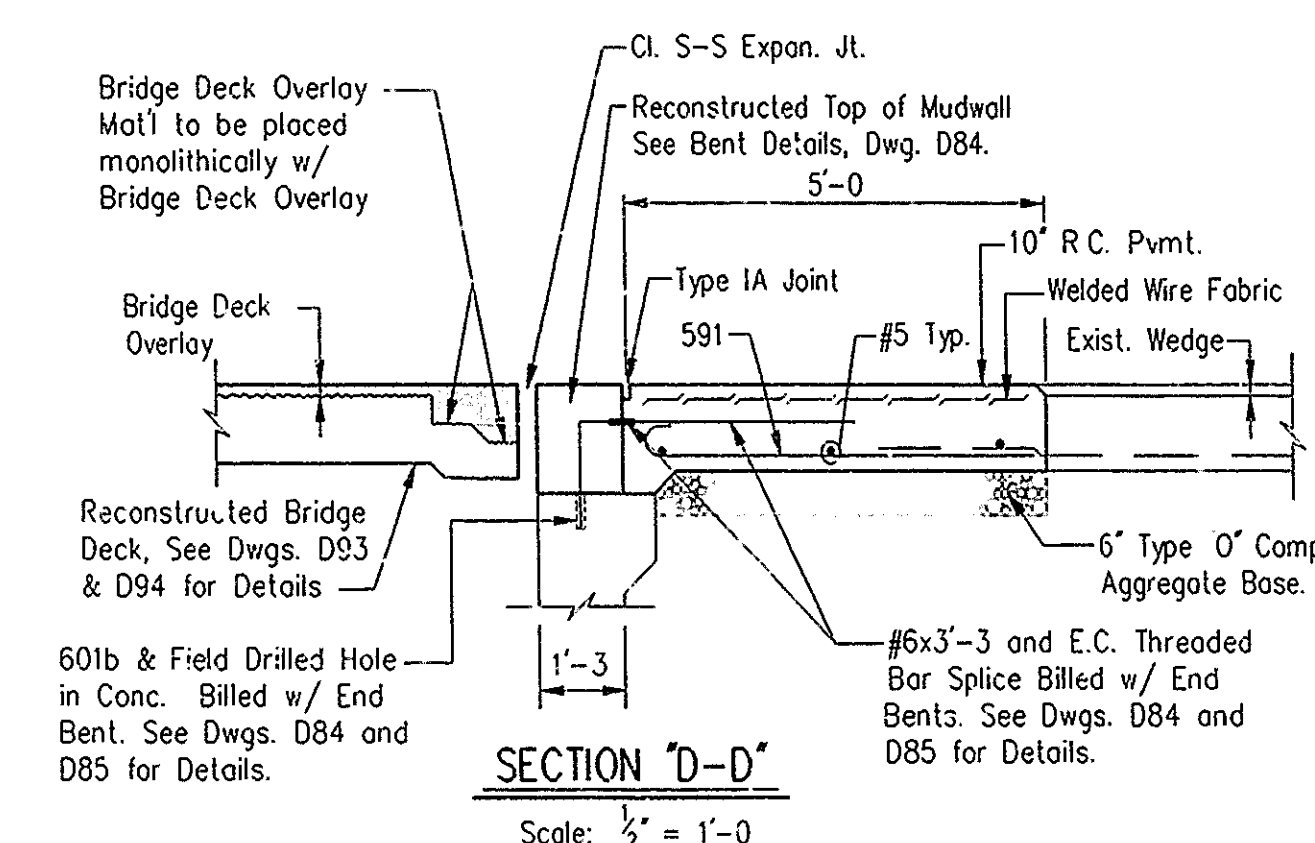
21 Spa. @ 6" Max. = 10'-6"
22-594

MARK	X	LENGTH
582	6'-0"	6'-7"
583	23'-8"	24'-3"
590	20'-0"	20'-7"
591	4'-6"	5'-1"
592	18'-6"	19'-1"
593	6'-9"	7'-4"
595	19'-7"	20'-2"
596	35'-9"	36'-4"
597	18'-9"	19'-4"

38'-5" 594
594 x 39'-7"

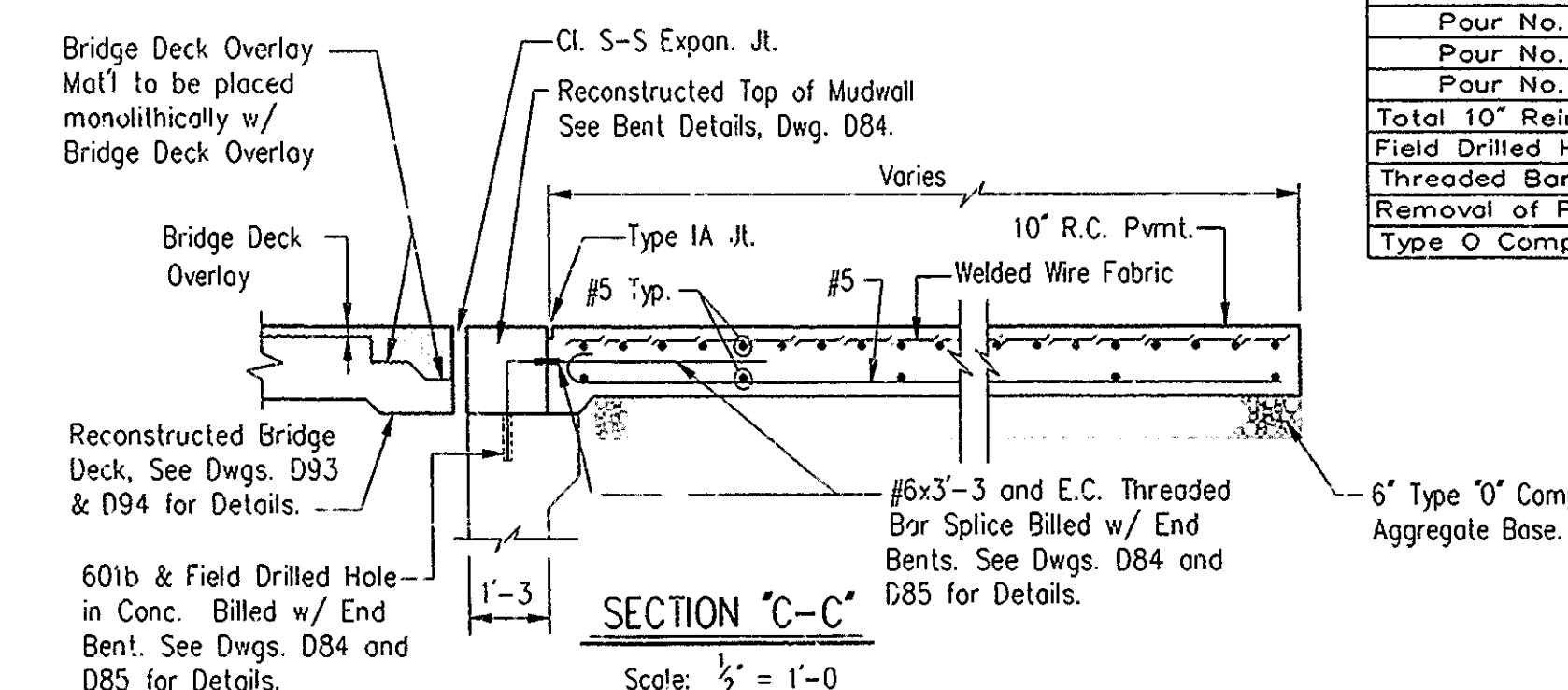
NOTES:

- All existing reinforcing steel which is to remain in place to be cleaned and straightened.
- For reinforcing notes and bar bending details, see Br. Std. C1.
- ec indicates epoxy coated reinforcing.
- Bars in field drilled holes in concrete to be embedded with an approved anchor system. Min. Pullout: #5 Bar = 12,000 Lbs. #6 Bar = 17,600 Lbs.



SECTION 'D-D'

Scale: $\frac{1}{2}'' = 1'-0''$



SECTION 'C-C'

Scale: $\frac{1}{2}'' = 1'-0''$

BILL OF MATERIALS

NORTH APPROACH - NORTHBOUND LANES

REINFORCING STEEL

SIZE & MARK	No. OF BARS	LENGTH	WEIGHT (LBS.)
EPOXY COATED REINFORCING			
592ec	2	19'-1"	
590ec	2	20'-7"	
582ec	79	6'-7"	
TOTAL #5 BARS			625
TOTAL EPOXY COATED REINF.			625

PLAIN REINFORCING

SIZE & MARK	No. OF BARS	LENGTH	WEIGHT (LBS.)
597	3	19'-4"	
596	3	36'-4"	
595	12	20'-2"	
594	22	39'-7"	
593	8	7'-4"	
592	4	19'-1"	
591	72	5'-1"	
590	3	20'-7"	
583	8	24'-3"	
#5	3	11'-6"	
#5	16	3'-0"	
TOTAL #5 BARS			2209
TOTAL PLAIN REINFORCING			2209

MISCELLANEOUS

ITEM	QUANTITY	UNIT
10" Reinforced Concrete Pavement		
Pour No. 1	20	Sys.
Pour No. 2	7	Sys.
Pour No. 3	60	Sys.
Total 10" Reinf. Conc. Pvmt.		87 Sys.
Field Drilled Holes in Concrete	16	Ea.
Threaded Bar Splices	6	Ea.
Removal of Pavement	20	Sys.
Type O Compacted Aggregate	29	Tons

BILL OF MATERIALS

SOUTH APPROACH - NORTHBOUND LANES

REINFORCING STEEL

SIZE & MARK	No. OF BARS	LENGTH	WEIGHT (LBS.)
EPOXY COATED REINFORCING			
595ec	2	20'-2"	
590ec	2	20'-7"	
582ec	82	6'-7"	
TOTAL #5 BARS			648
TOTAL EPOXY COATED REINF.			648

PLAIN REINFORCING

SIZE & MARK	No. OF BARS	LENGTH	WEIGHT (LBS.)
597	3	19'-4"	
596	3	36'-4"	
595	15	20'-2"	
594	22	39'-7"	
593	7	7'-4"	
591	72	5'-1"	
590	4	20'-7"	
583	8	24'-3"	
#5	3	11'-6"	
#5	15	3'-0"	
TOTAL #5 BARS			2213
TOTAL PLAIN REINFORCING			2213

MISCELLANEOUS

ITEM	QUANTITY	UNIT
10" Reinforced Concrete Pavement		
Pour No. 1	24	Sys.
Pour No. 2	7	Sys.
Pour No. 3	60	Sys.
Total 10" Reinf. Conc. Pvmt.		91 Sys.
Field Drilled Holes in Concrete	15	Ea.
Threaded Bar Splices	6	Ea.
Removal of Pavement	20	Sys.
Type O Compacted Aggregate	30	Tons

R.C. BRIDGE APPROACH SLAB DETAILS (NORTHBOUND LANES)

INDIANA DEPARTMENT OF HIGHWAYS

MARION COUNTY

SCALE: - As Noted

DATE: 14 August, 1991

Daniel D. Clark

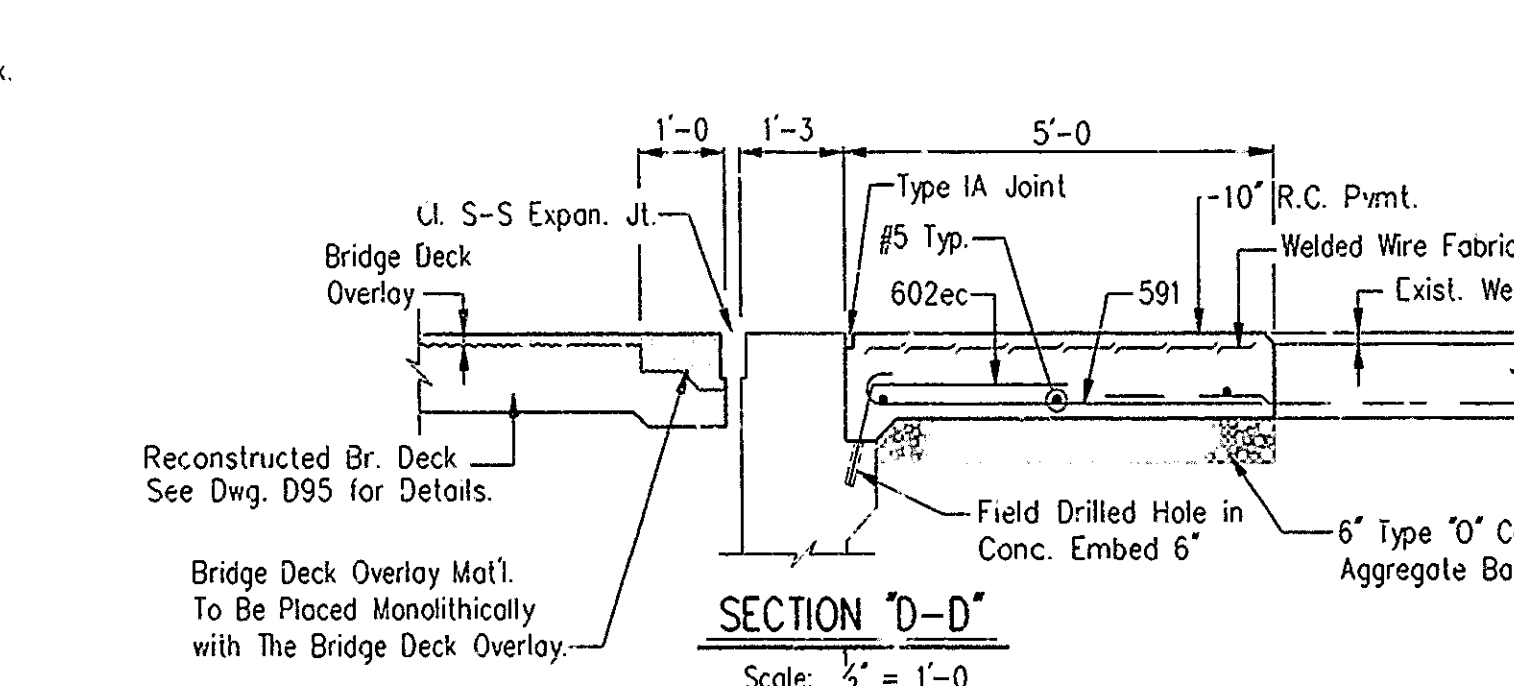
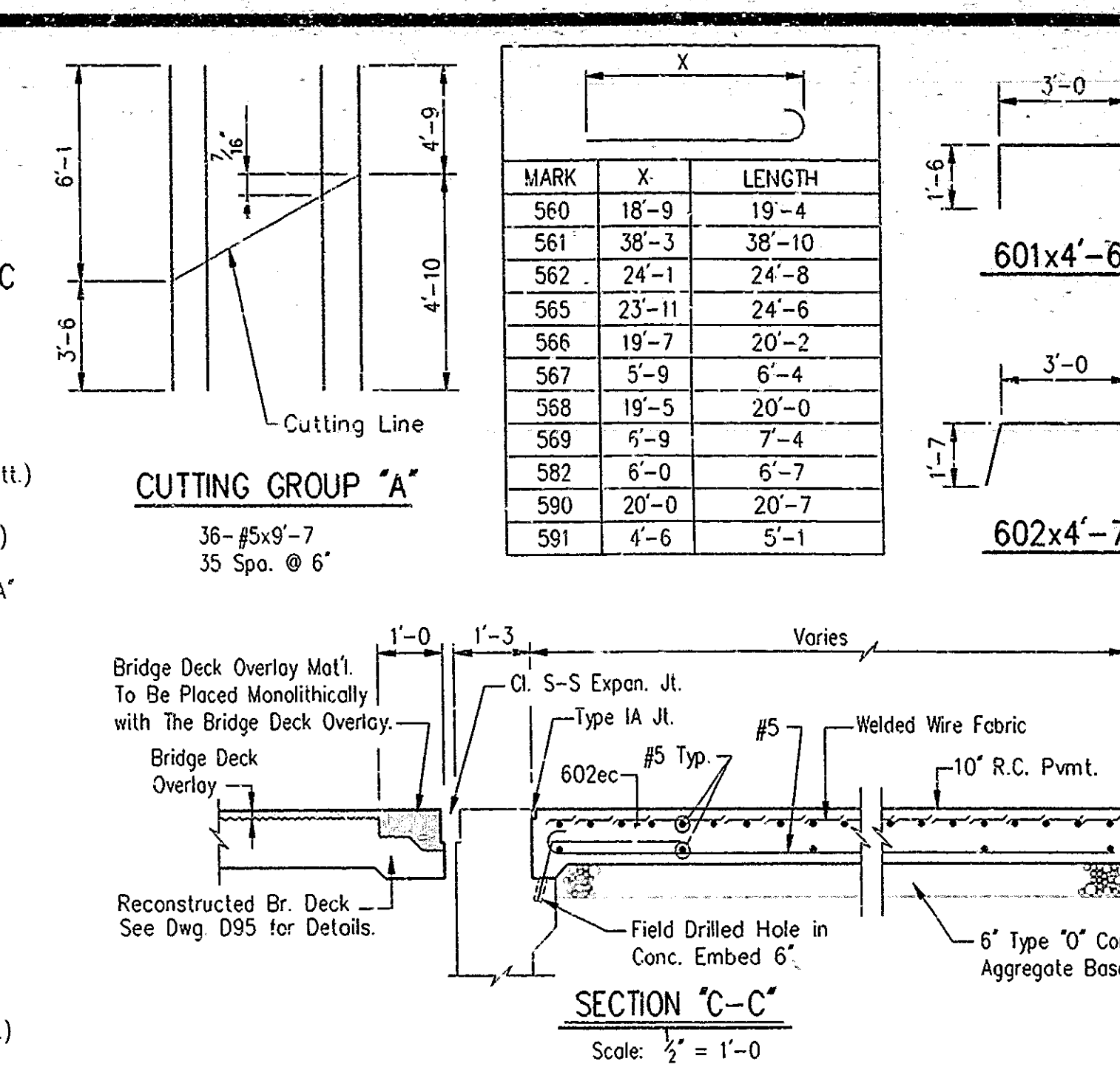
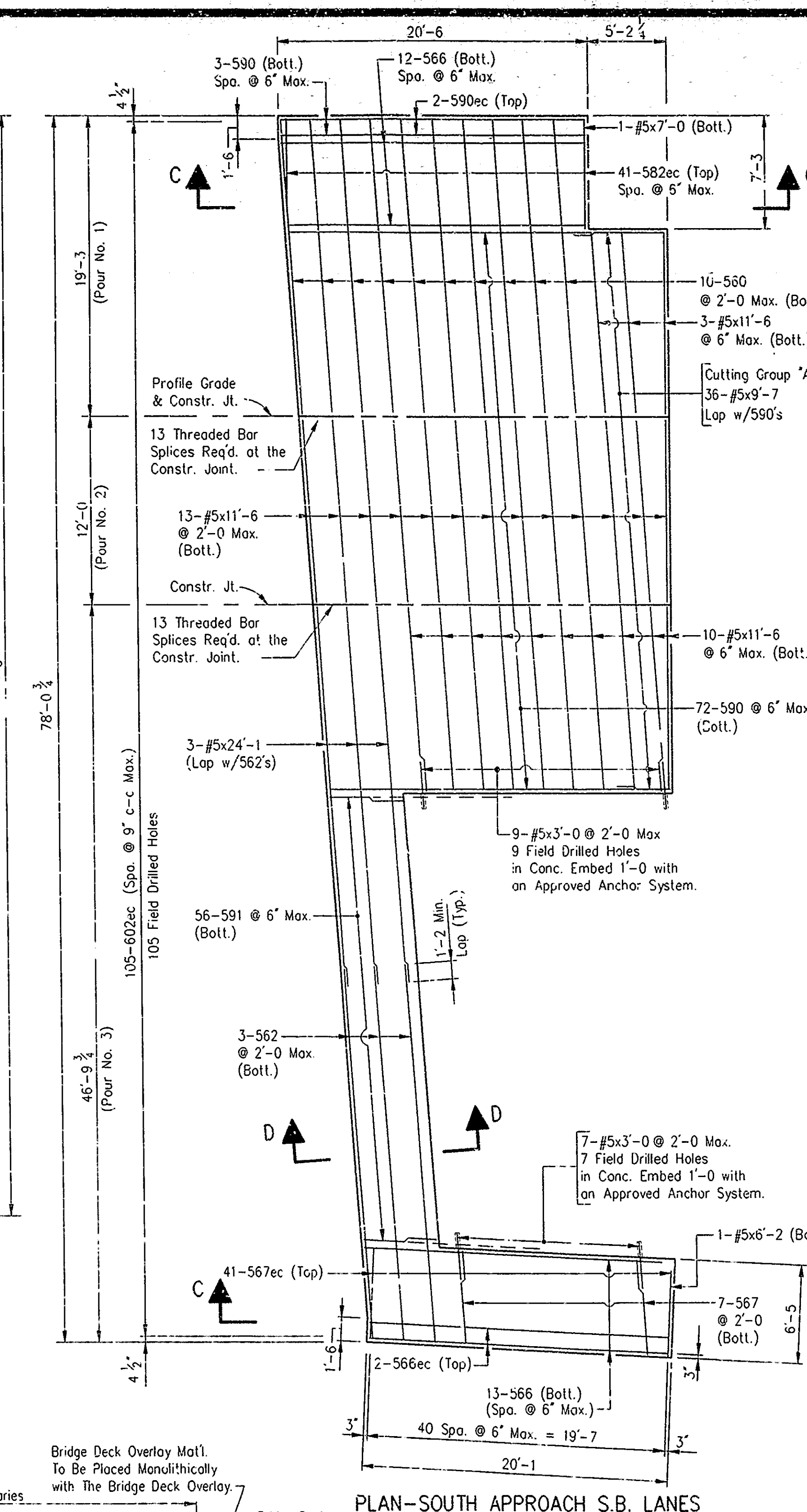
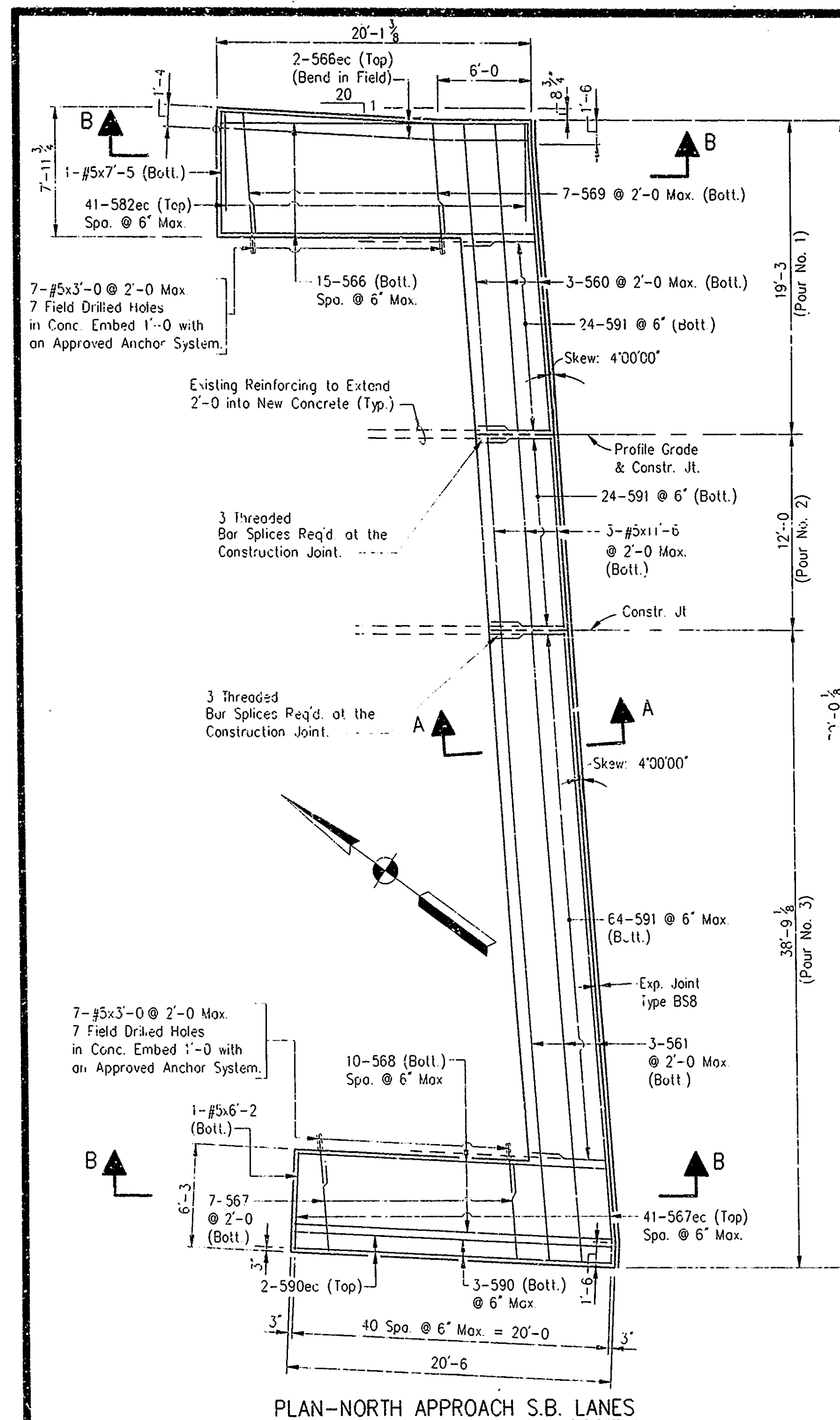
DRAWING: D96 OF D104 SHEET: 108 OF 159

PROJECT: MAIR-IR-465-4(266)119 STATION: -

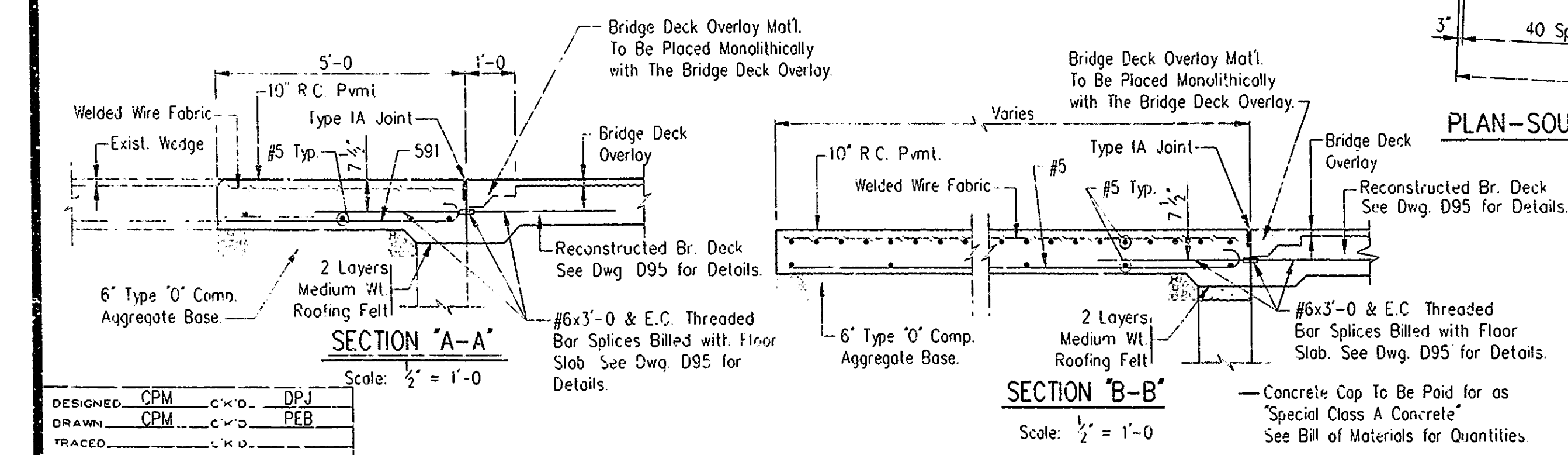
BRIDGE CONTRACT NO. R-19482

BRIDGE FILE: - I-465-125-2377B & JB





- NOTES:**
- All existing reinforcing steel which is to remain in place to be cleaned and straightened.
 - For reinforcing notes and bar bending details, see Br. Std. C1.
 - ec indicates epoxy coated reinforcing.
 - Bars in field drilled holes in concrete to be embedded with an approved anchor system. Min. Pullout: #5 Bar = 12,000 Lbs. #6 Bar = 17,600 Lbs.
 - For Transverse Sections Thru Appr. Slab, see Concrete Railing Details, on Pgs. D103 & D104.
 - Indicates Limits of Removal



BILL OF MATERIALS
NORTH APPROACH - SOUTHBOUND LANES

REINFORCING STEEL

SIZE & MARK	No. OF BARS	LENGTH	WEIGHT (LBS.)
EPOXY COATED REINFORCING			
590ec	2	20'-7"	
582ec	41	6'-7"	
567ec	41	6'-4"	
566ec	2	20'-2"	
TOTAL #5 BARS			637
TOTAL EPOXY COATED REINF.			637

PLAIN REINFORCING

SIZE & MARK	No. OF BARS	LENGTH	WEIGHT (LBS.)
591	112	5'-1"	
590	3	20'-7"	
569	7	7'-4"	
568	10	20'-0"	
567	7	6'-4"	
566	15	20'-2"	
561	3	38'-10"	
560	3	19'-4"	
#5	3	11'-6"	
#5	1	7'-5"	
#5	1	6'-2"	
#5	14	3'-0"	
TOTAL #5 BARS			1558
TOTAL PLAIN REINFORCING			1558

MISCELLANEOUS

ITEM	QUANTITY	UNIT
10" Reinforced Concrete Pavement		
Pour No. 1	24	Sys.
Pour No. 2	7	Sys.
Pour No. 3	32	Sys.
Total 10" Reinf. Conc. Pymt.	63	Sys.
Threaded Bar Splices	6	Ea.
Removal of Pavement	32	Sys.
Type O Compacted Aggregate	21	Tons
Field Drilled Holes in Concrete	14	Ea.
Special Class "A" Concrete	11	Sft.

BILL OF MATERIALS
SOUTH APPROACH - SOUTHBOUND LANES

REINFORCING STEEL

SIZE & MARK	No. OF BARS	LENGTH	WEIGHT (LBS.)
EPOXY COATED REINFORCING			
602ec	105	4'-7"	
TOTAL #6 BARS			723
PLAIN REINFORCING			
590ec	2	20'-7"	
582ec	41	6'-7"	
567ec	41	6'-4"	
566ec	2	20'-2"	
TOTAL #5 BARS			638
TOTAL EPOXY COATED REINF.			1091

MISCELLANEOUS

ITEM	QUANTITY	UNIT
10" Reinforced Concrete Pavement		
Pour No. 1	50	Sys.
Pour No. 2	32	Sys.
Pour No. 3	62	Sys.
Total 10" Reinf. Conc. Pymt.	144	Sys.
Threaded Bar Splices	26	Ea.
Removal of Pavement	114	Sys.
Type O Compacted Aggregate	48	Tons
Field Drilled Holes in Concrete	121	Ea.

R.C. BRIDGE APPROACH SLAB DETAILS (SOUTHBOUND LANES)
INDIANA DEPARTMENT OF HIGHWAYS
MARION COUNTY

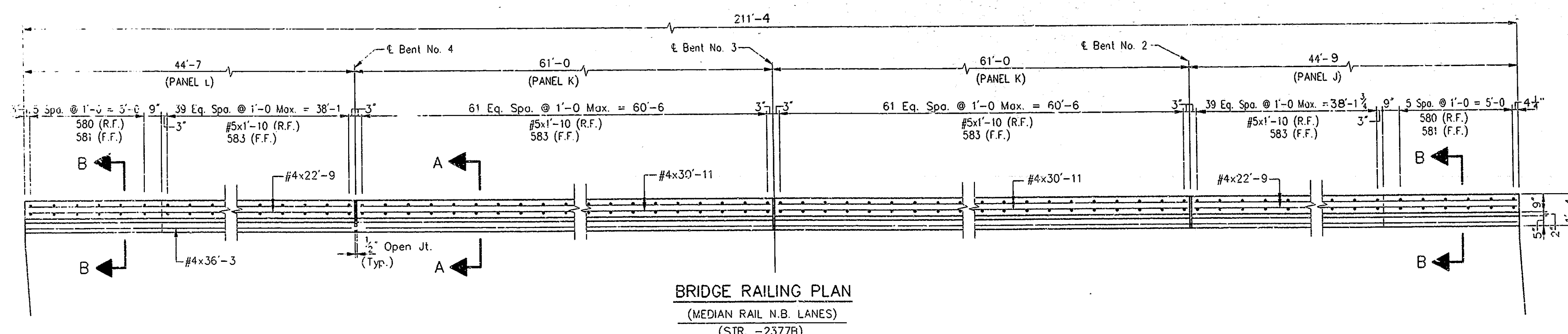
SCALE: - 3/16" = 1'-0" unless otherwise noted.

DATE: - August 14, 1991

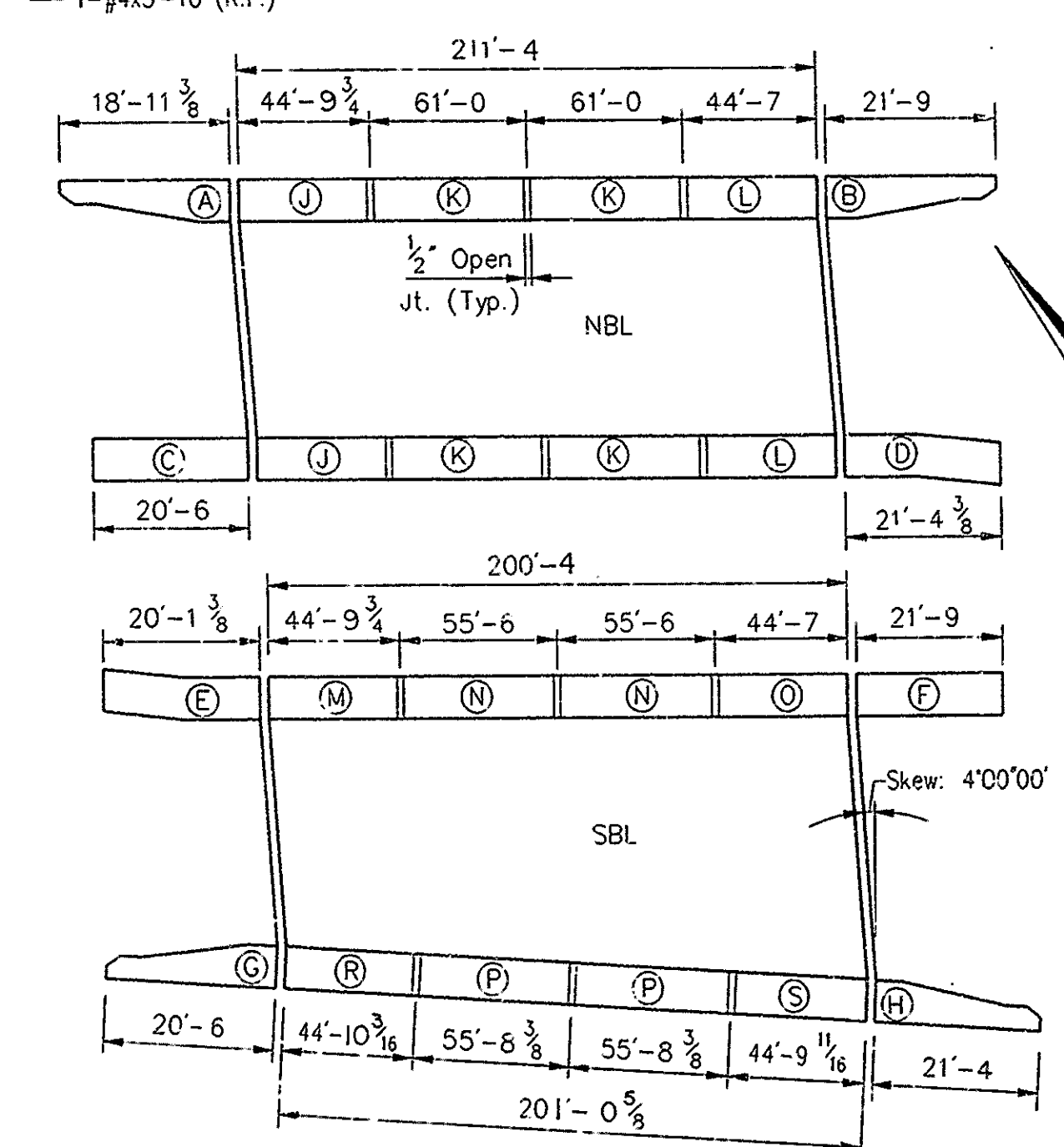
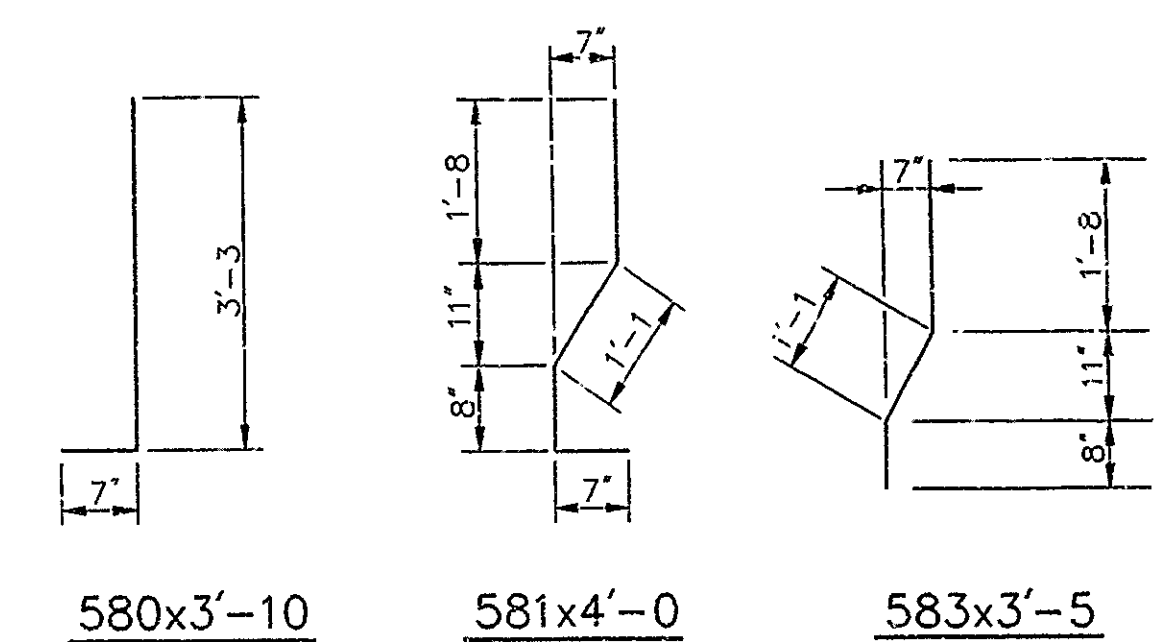
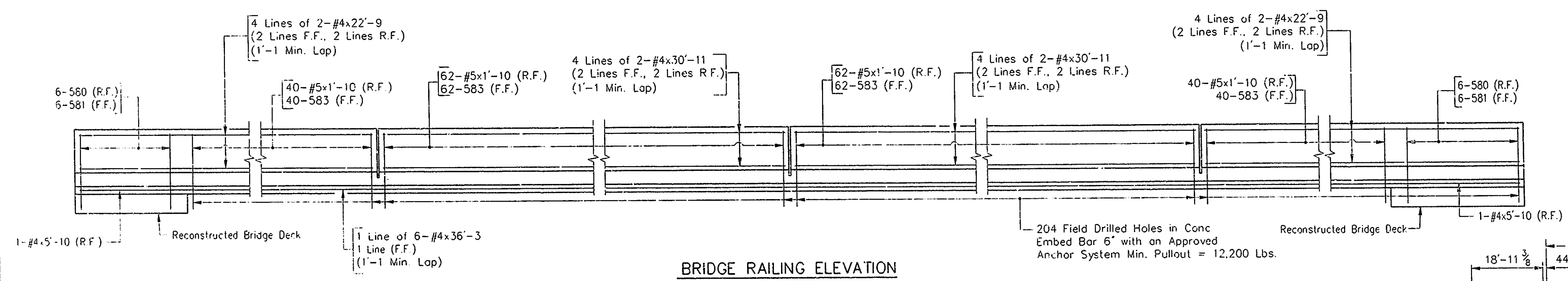
Daniel D. Clark

DRAWING: D97 OF D104 SHEET: 109 OF 159
PROJECT: - MAIR-IR-465-4(266)119 STATION: -
BRIDGE CONTRACT NO. R-19482
BRIDGE FILE: - 1-465-125-23778 & .IB

PROFESSIONAL ENGINEER
No. 20475
STATE OF INDIANA



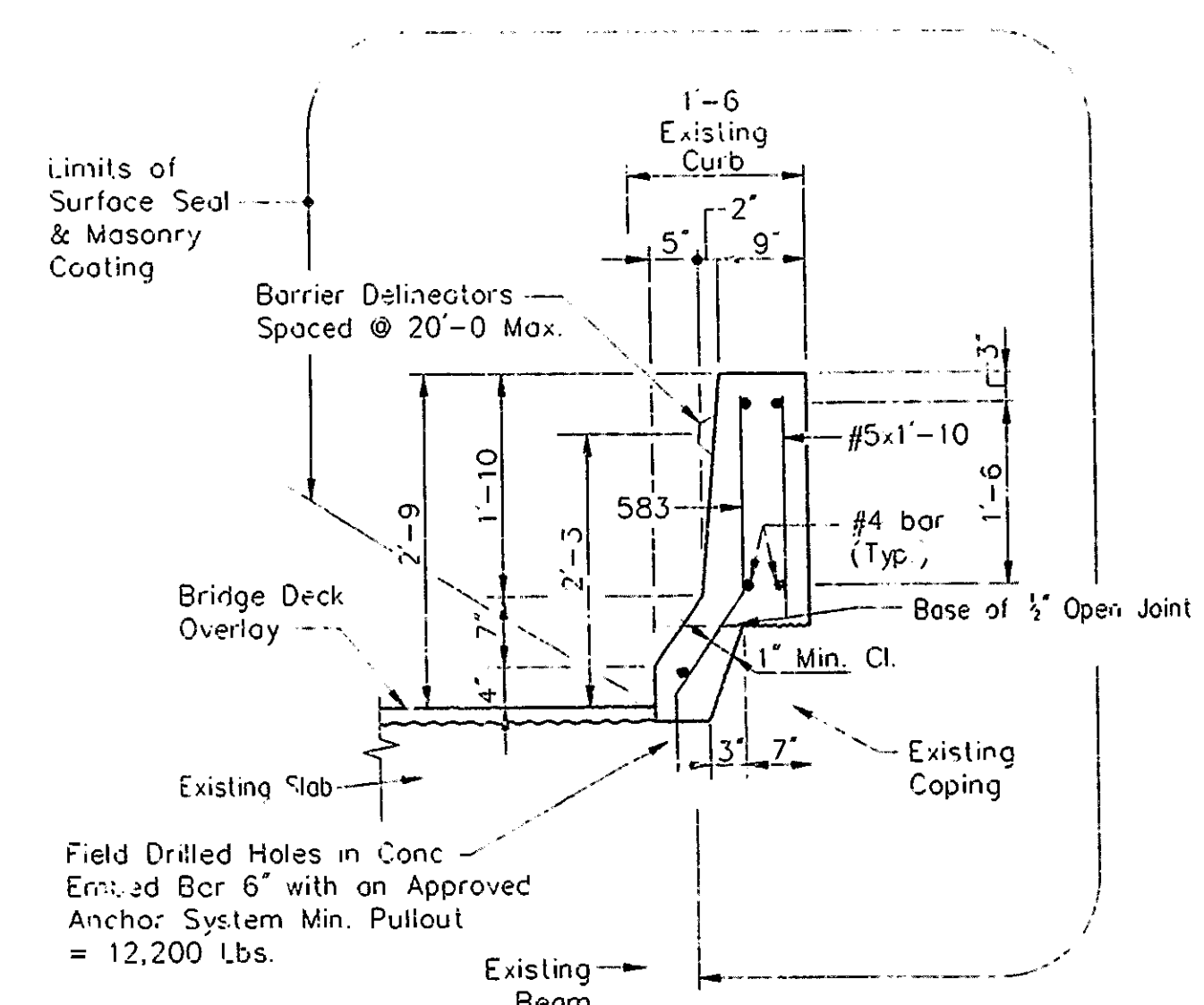
BILL OF MATERIALS			
REINFORCING STEEL			
SIZE & MARK	No. OF BARS	LENGTH	WEIGHT (LBS.)
EPOXY COATED REINFORCING			
#583	204	3'-5"	
#581	12	4'-0"	
#580	12	3'-10"	
#5	204	1'-10"	1215
TOTAL #5 BARS			
#4	6	36'-3"	
#4	16	30'-11"	
#4	16	22'-9"	
#4	2	5'-10"	
TOTAL #4 BARS			
TOTAL EPOXY COATED REINF.			
726			
1941			
MISCELLANEOUS			
Class "C" Concrete Rolling			212 Lft.
Field Drilled Holes in Conc.			204 Ea.
Barrier Delineators			12 Ea.
Surface Seal			1820 Sft.
Masonry Coating			1820 Sft.



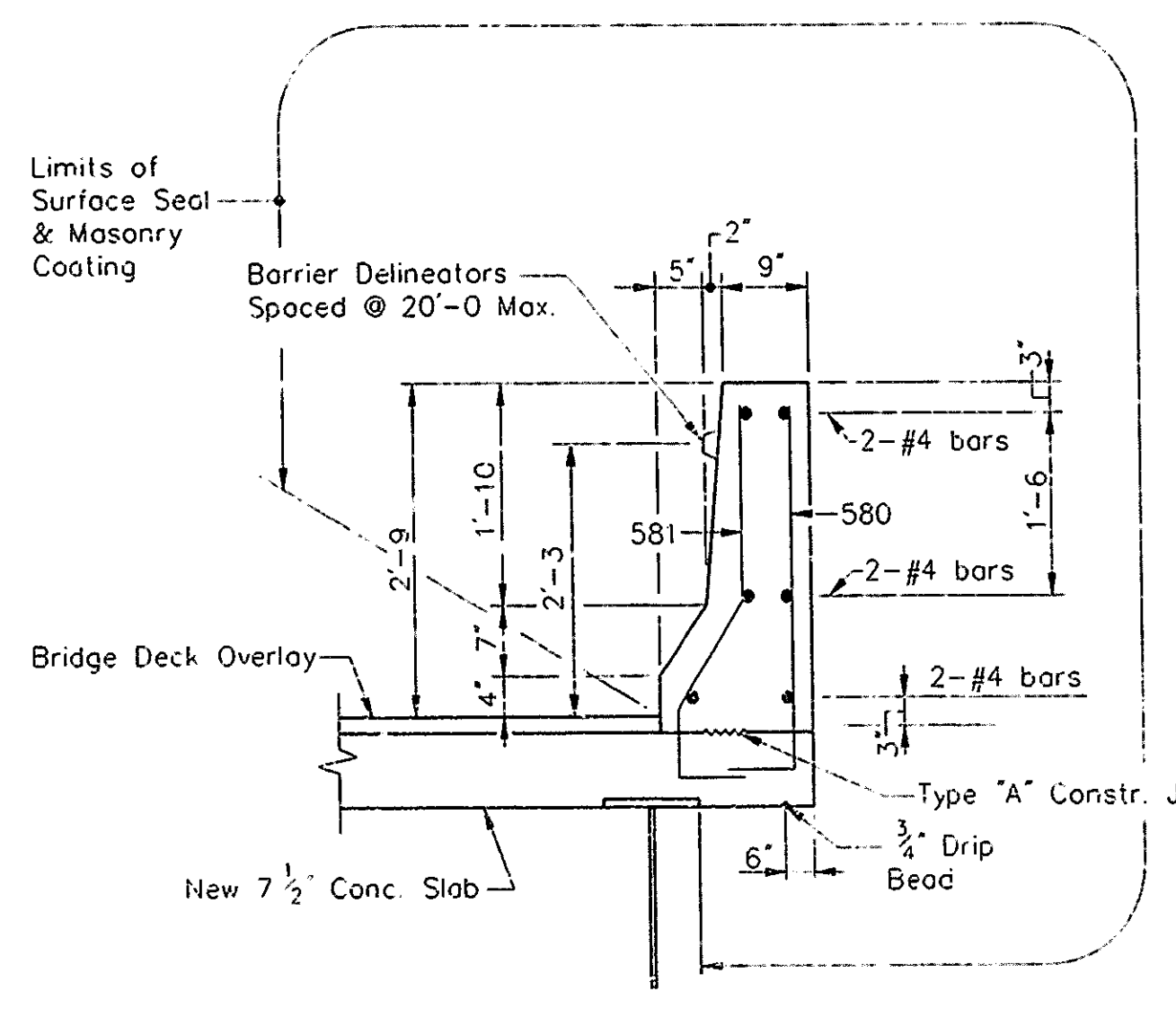
NOTES

- For Reinforcing Bar Notes & Bar Bending Details, See Br. Std. C1.
- Reinforcing Steel in Conc. Barrier Rail to be Epoxy Coated
- Concrete in Barrier Rail to be Class "C".
- Minimum Lap for #4 Bar is 1'-1.
- For Joint in Rail Details, see Dwg. D94.

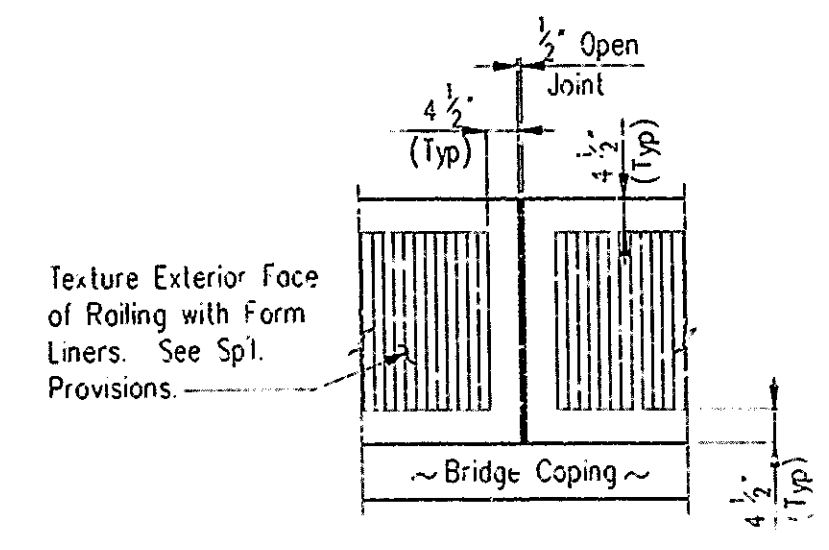
Limits of Concrete Removal



SECTION A-A
Scale: 3/4" = 1'-0



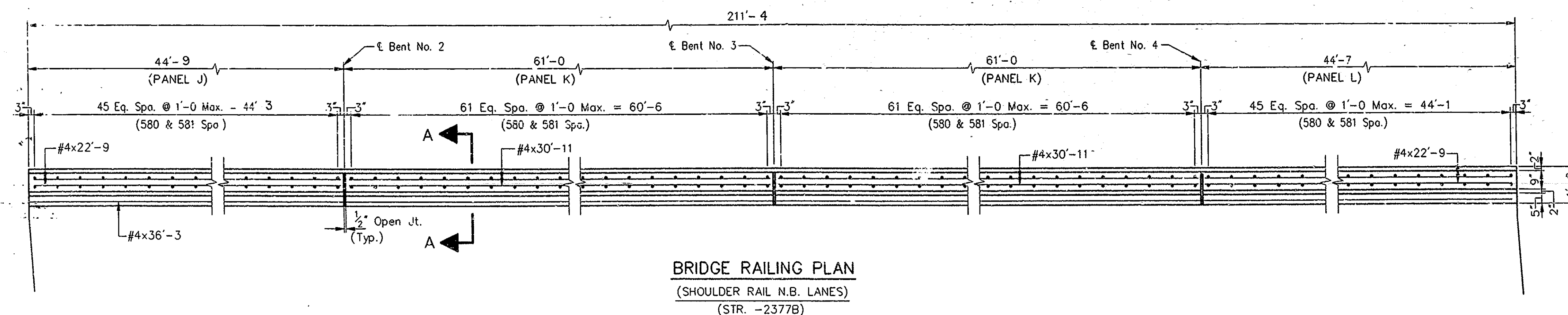
SECTION B-B
Scale: 3/4" = 1'-0



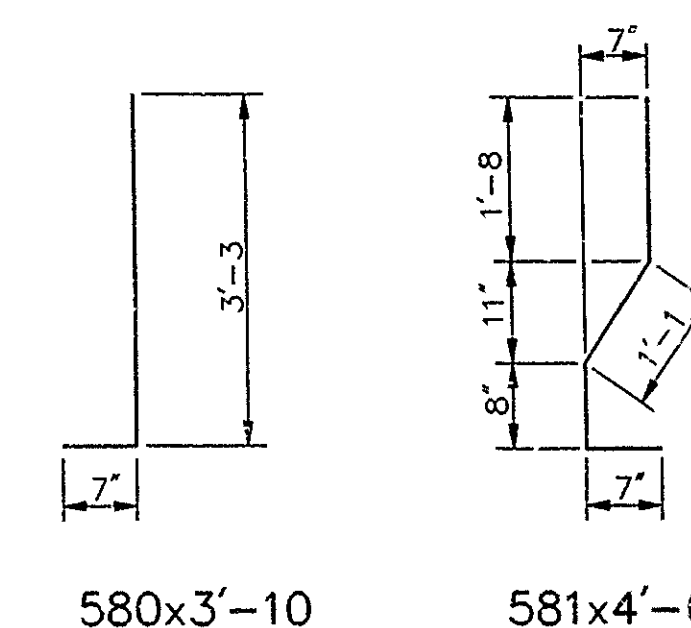
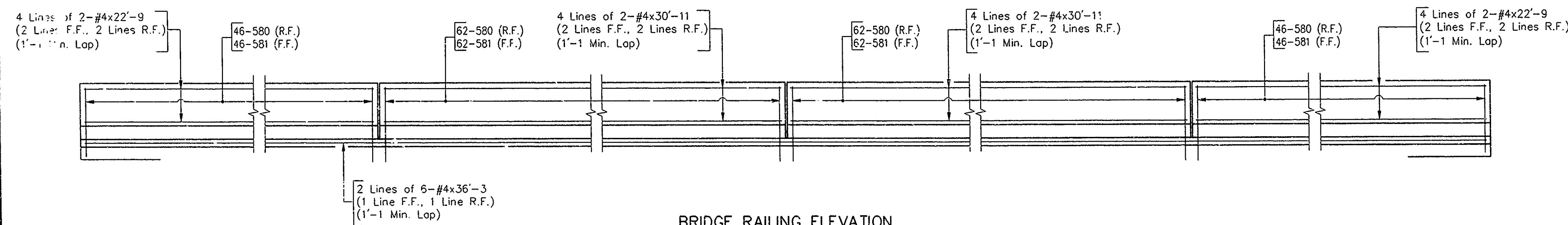
RAILING TEXTURE DETAIL
No Scale

BRIDGE RAIL DETAILS- MEDIAN RAIL N.B.L.
INDIANA DEPARTMENT OF HIGHWAYS
MARION COUNTY
SCALE: -- No Scale
DATE: August 14, 1991
DRAWING: D98 OF D104 SHEET: 110 OF 159
PROJECT: MAIR-IR-465-4(266)119 STATION: -
BRIDGE CONTRACT NO. R-19482
BRIDGE FILE: 1-465-125-2377B & JB



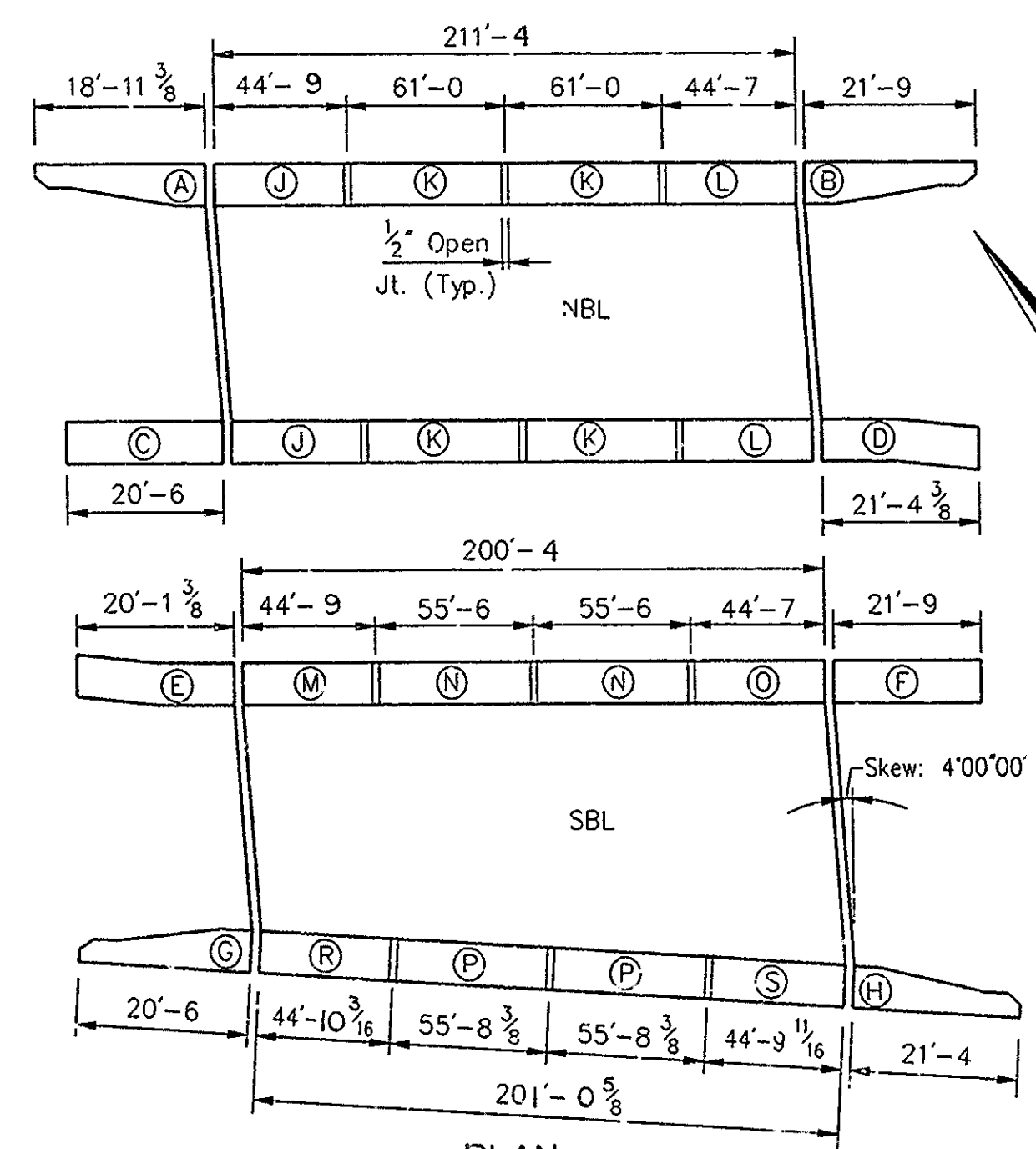
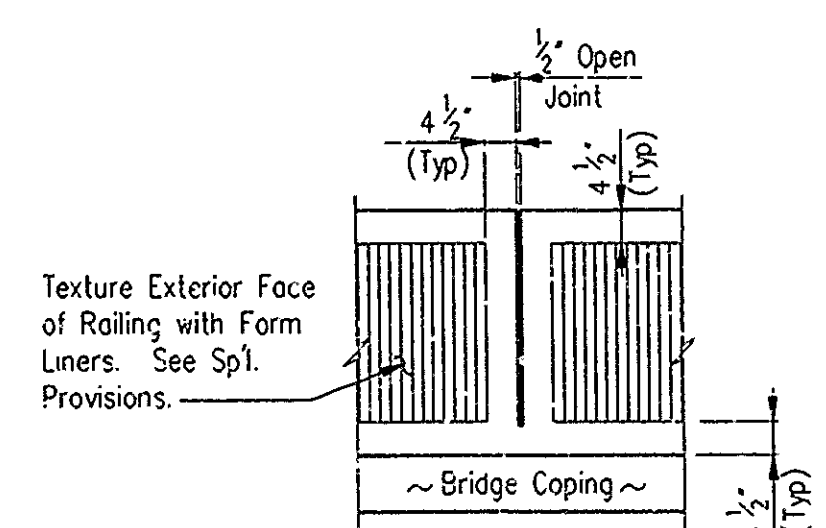
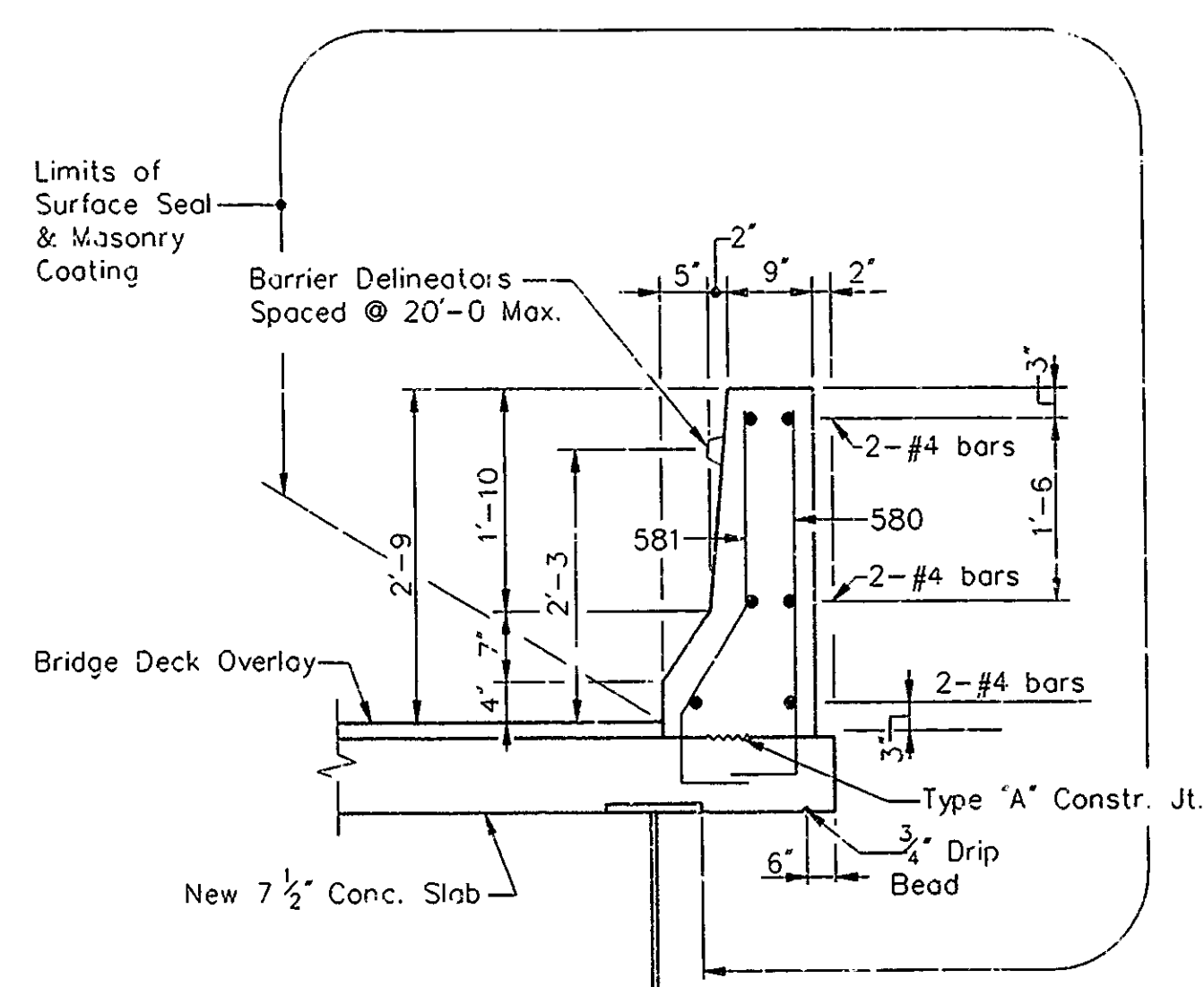


BILL OF MATERIALS			
REINFORCING STEEL			
SIZE & MARK	No. OF BARS	LENGTH	WEIGHT (LBS.)
EPOXY COATED REINFORCING			
#4	216	4'-0"	
#4	216	3'-10"	
TOTAL #4 BARS			1765
#4	12	36'-3"	
#4	16	30'-11"	
#4	16	22'-9"	
TOTAL #4 BARS			864
TOTAL EPOXY COATED REINF.			2629
MISCELLANEOUS			
Class "C" Concrete Railing			212 Lft.
Barrier Delineators			12 Ea.
Surface Seal			1891 Sft.
Masonry Coating			1891 Sft.



NOTES

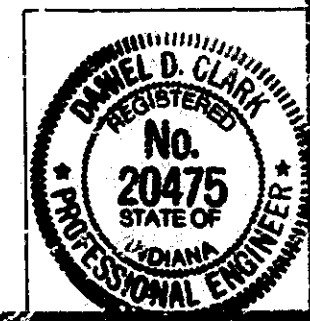
- For Reinforcing Bar Notes & Bar Bending Details, See Br. Std. C1.
- Reinforcing Steel in Conc. Barrier Rail to be Epoxy Coated
- Concrete in Barrier Rail to be Class "C".
- Minimum Lap for #4 Bar is 1'-1".
- For Joint in Rail Details, see Dwg. D94.

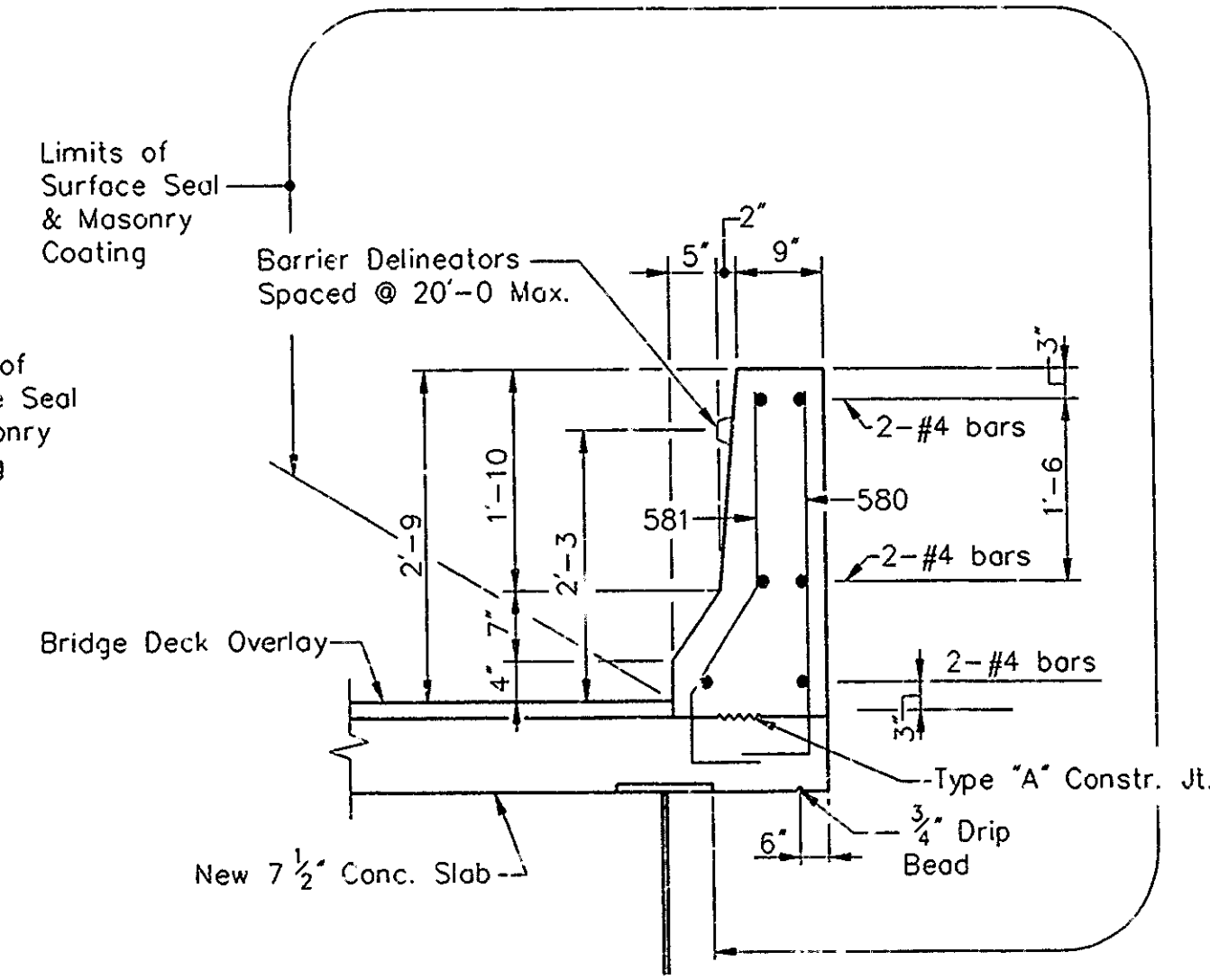
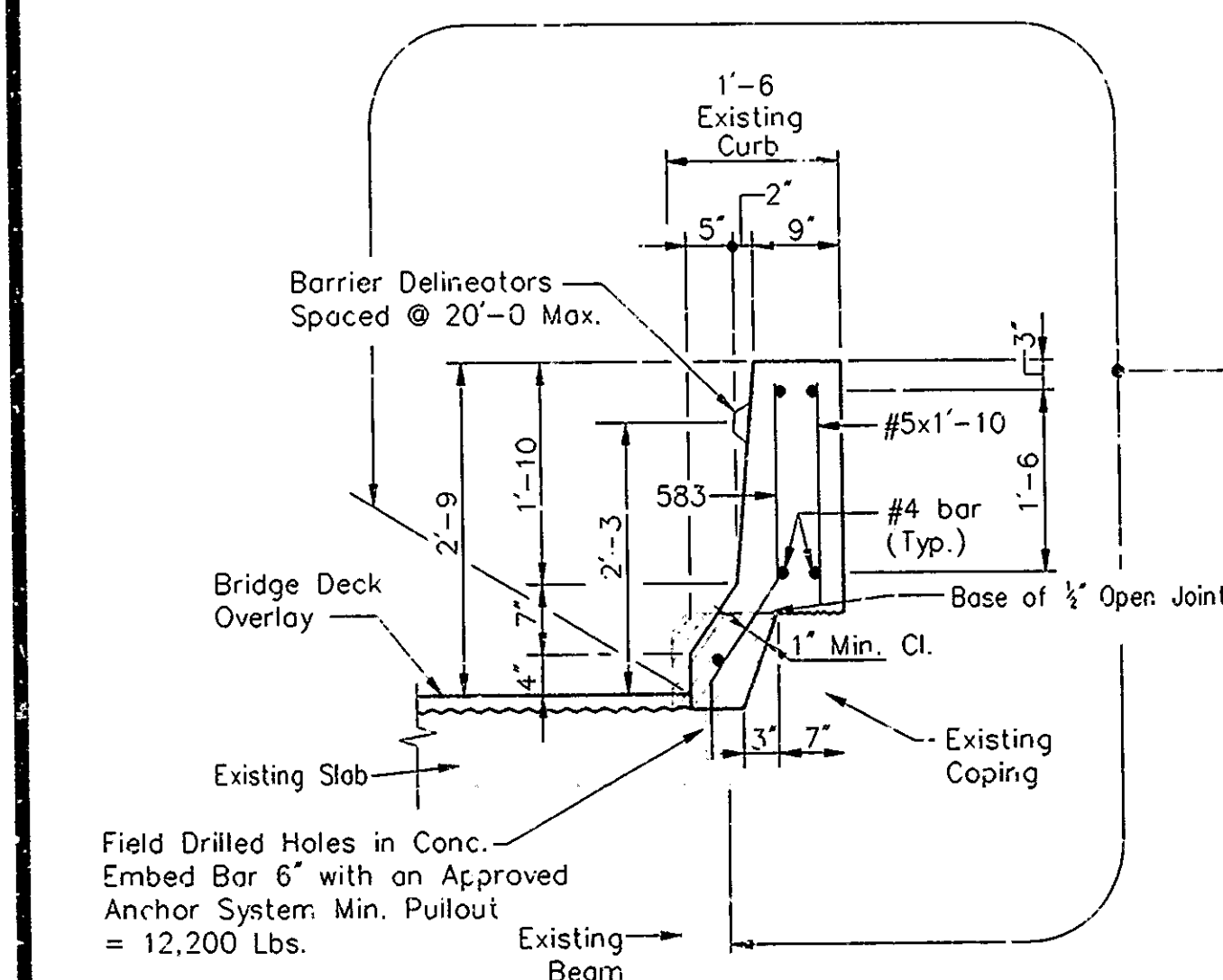
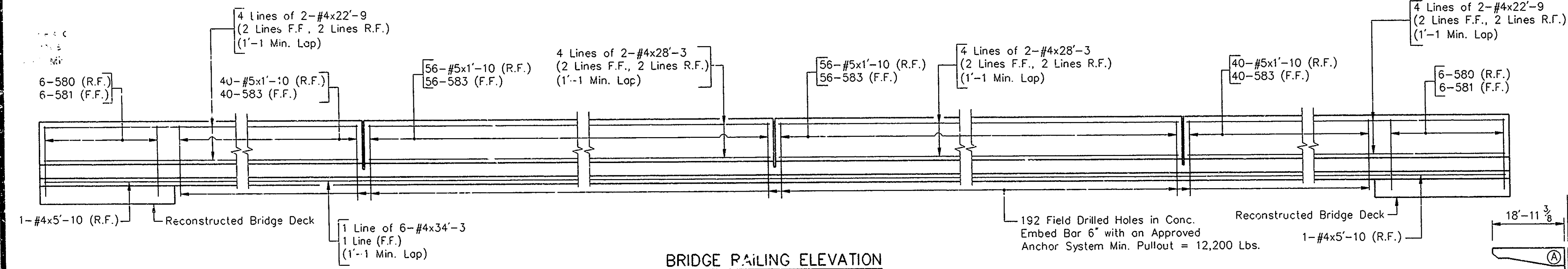
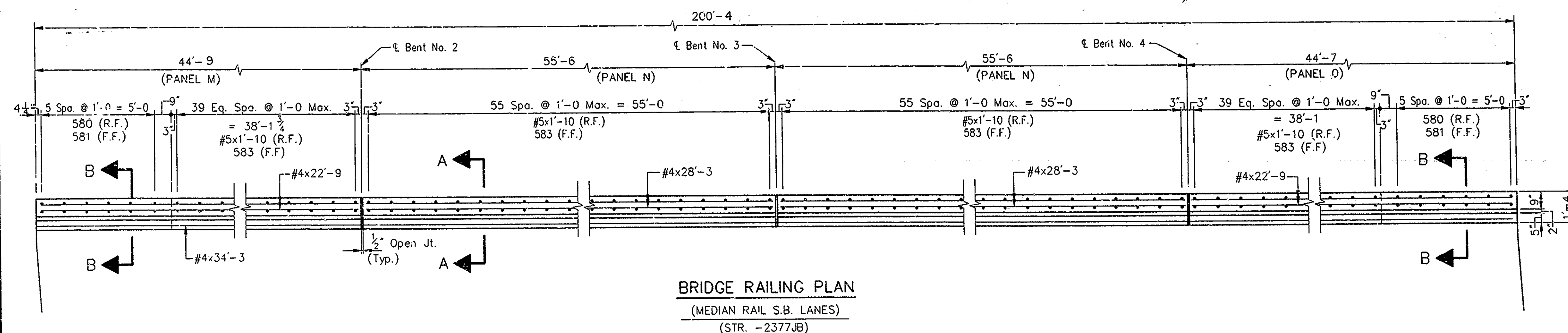


BRIDGE RAIL DETAILS - SHOULDER RAIL N.B.L.
INDIANA DEPARTMENT OF HIGHWAYS
MARION COUNTY

SCALE: - No Scale Unless Noted
DATE: - August 14, 1991
Daniel D. Clark

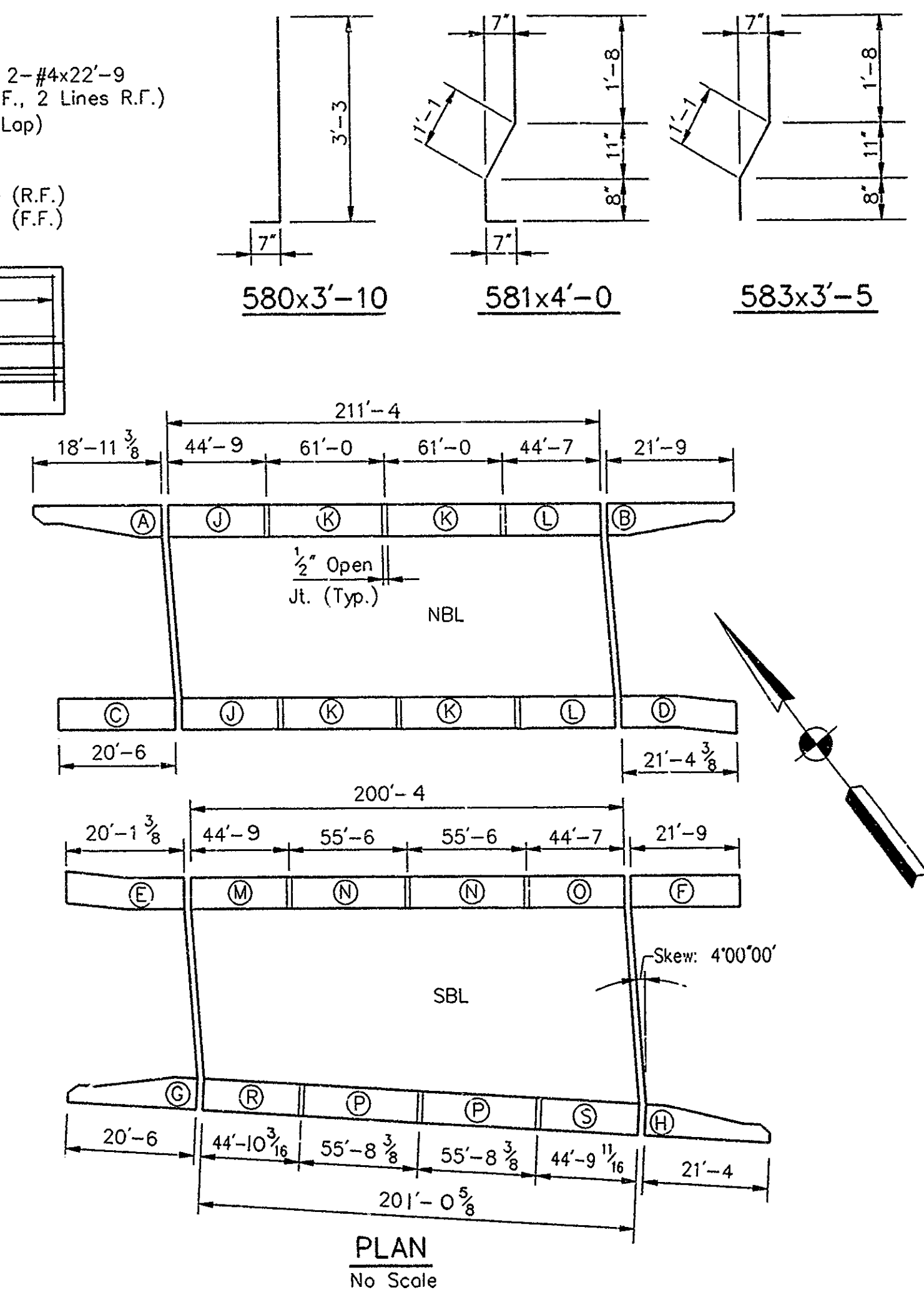
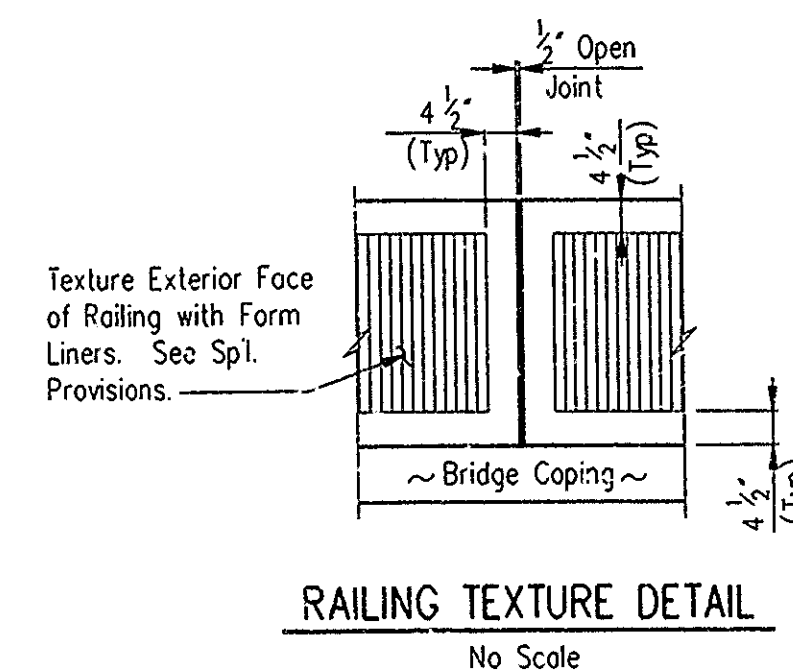
DRAWING: D99 OF D104 SHEET: 111 OF 159
PROJECT: - MAIR-IR-465-4(266)119 STATION: -
BRIDGE CONTRACT NO. R-19482
BRIDGE FILE: - I-465-125-2377B & JB





NOTES

- For Reinforcing Bar Notes & Bar Bending Details, See Br. Std. C1.
- Reinforcing Steel in Conc. Barrier Rail to be Epoxy Coated
- Concrete in Barrier Rail to be Class "C".
- Minimum Lap for #4 Bar is 1'-1.
- For Joint in Rail Details, see Dwg. D94.
- Limits of Concrete Removal



BRIDGE RAIL DETAILS- MEDIAN RAIL S.B.L.
INDIANA DEPARTMENT OF HIGHWAYS
MARION COUNTY

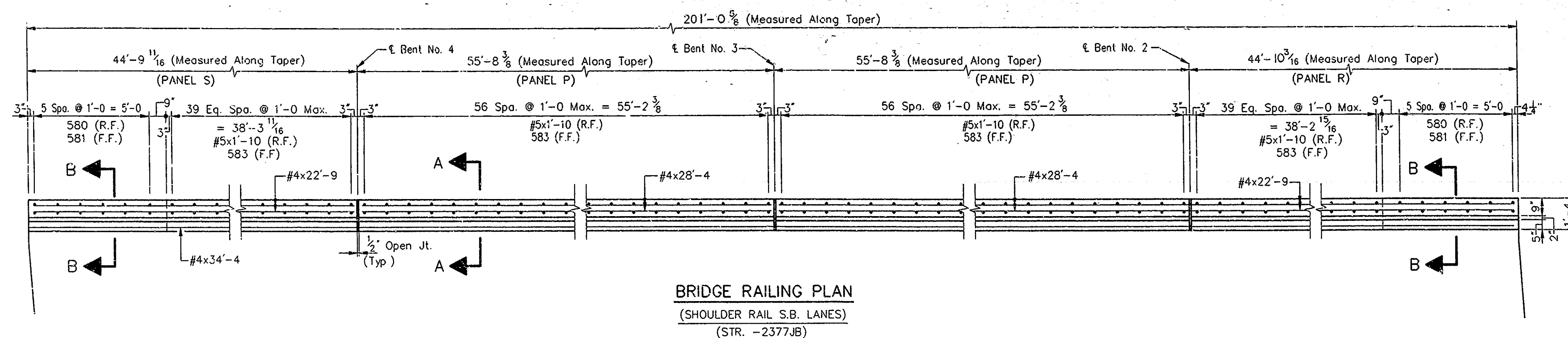
SCALE: - No Scale Unless Noted

DATE: - August 14, 1991
Daniel D. Clark

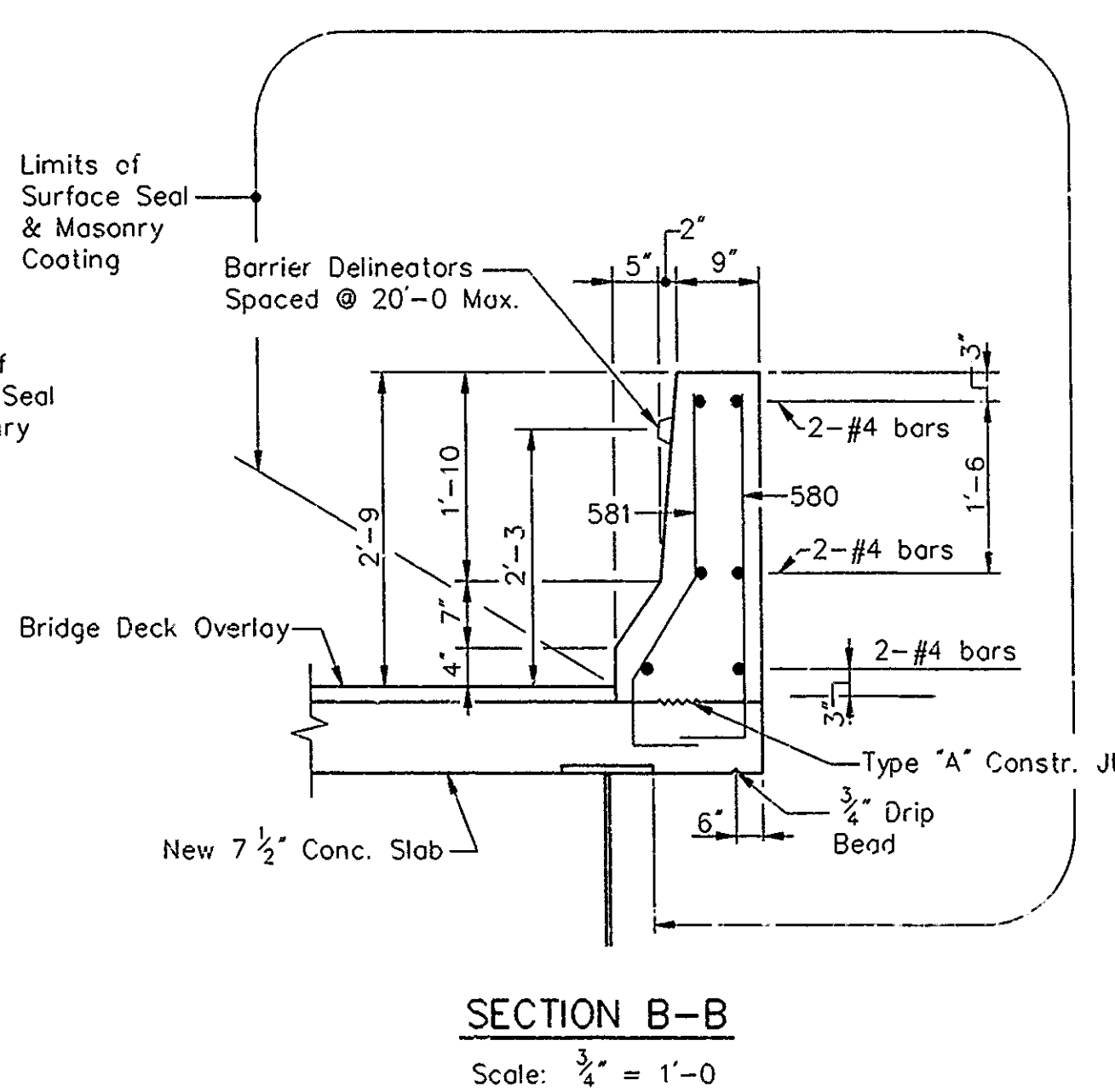
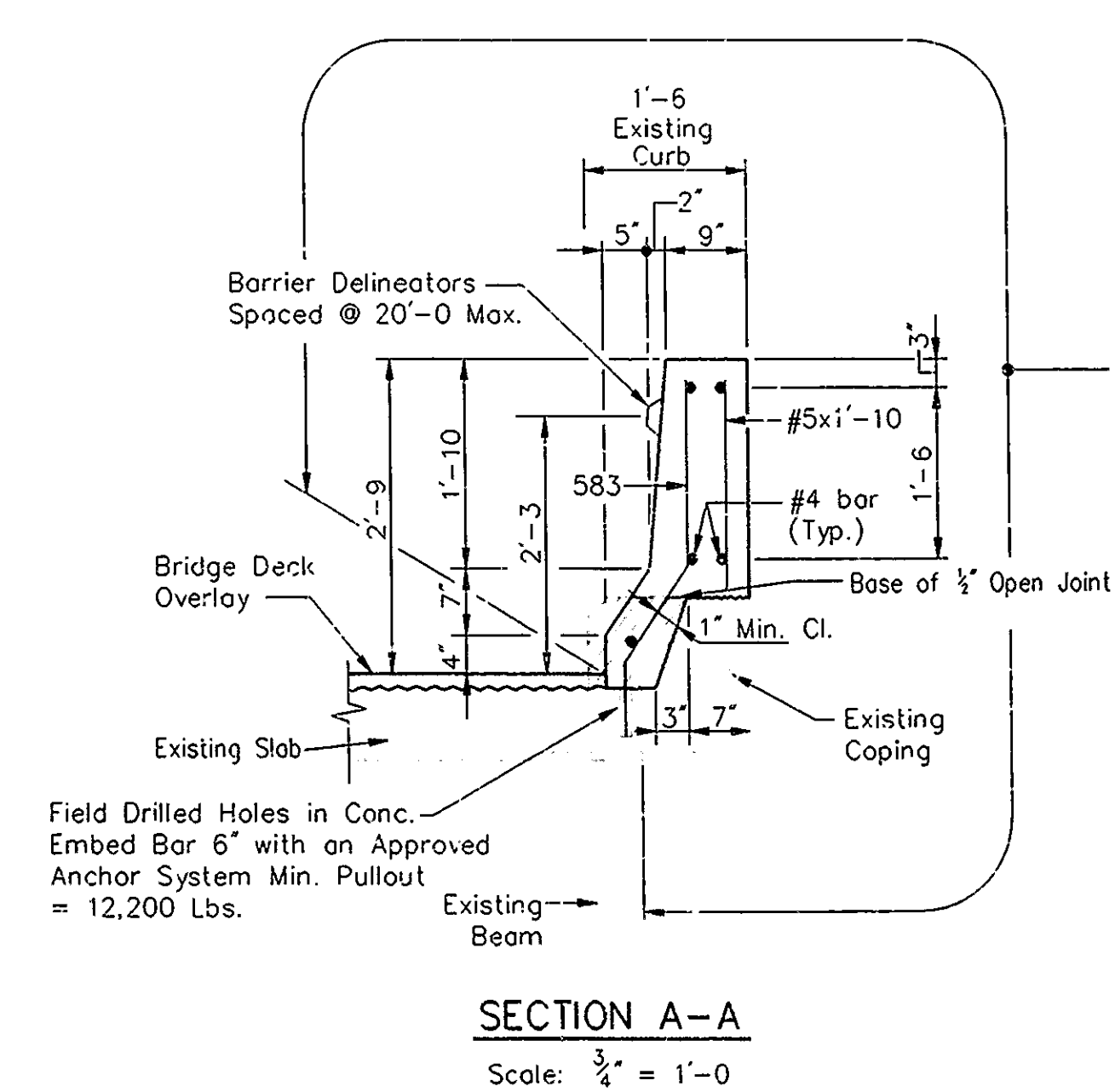
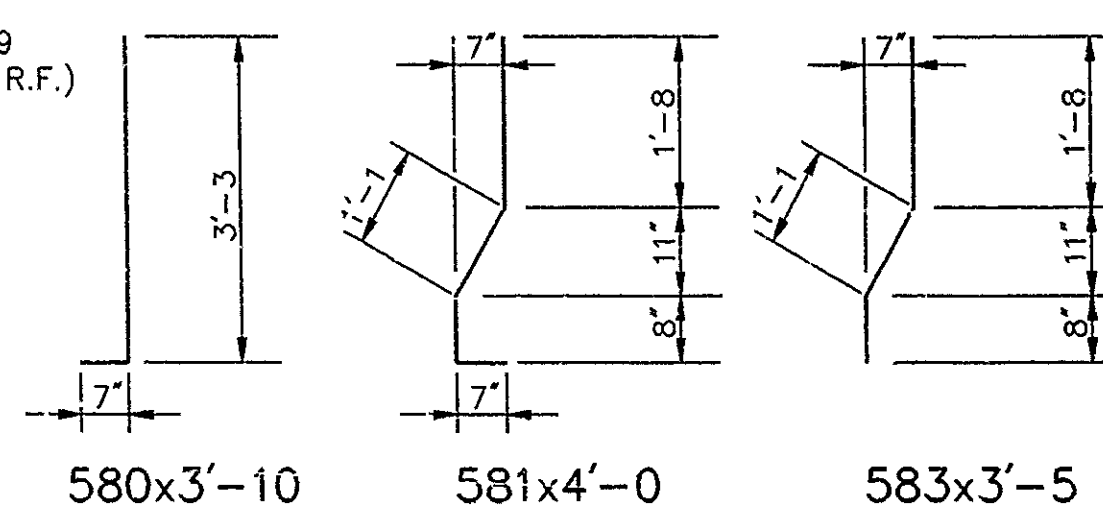
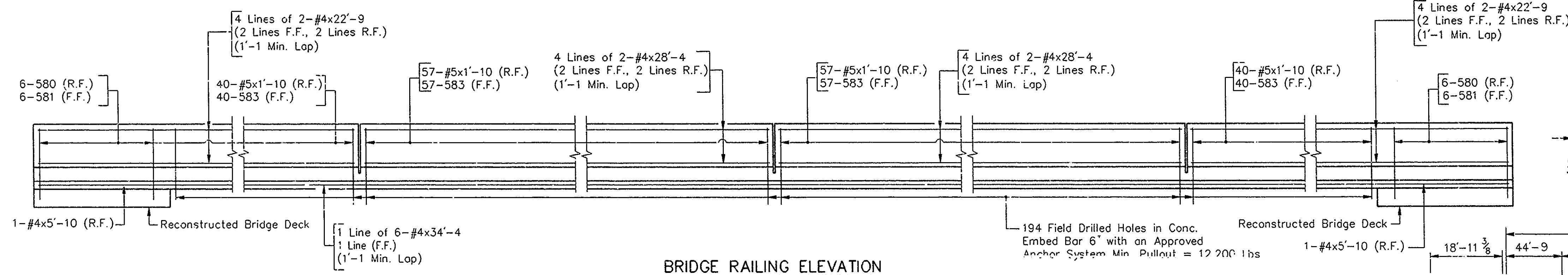
DRAWING: D100 OF D104 SHEET: 112 OF 159
PROJECT: MAIR-IR-465-4(266)119 STATION: -
BRIDGE CONTRACT NO. R-19482
BRIDGE FILE: - 1-465-125-2377B & JB



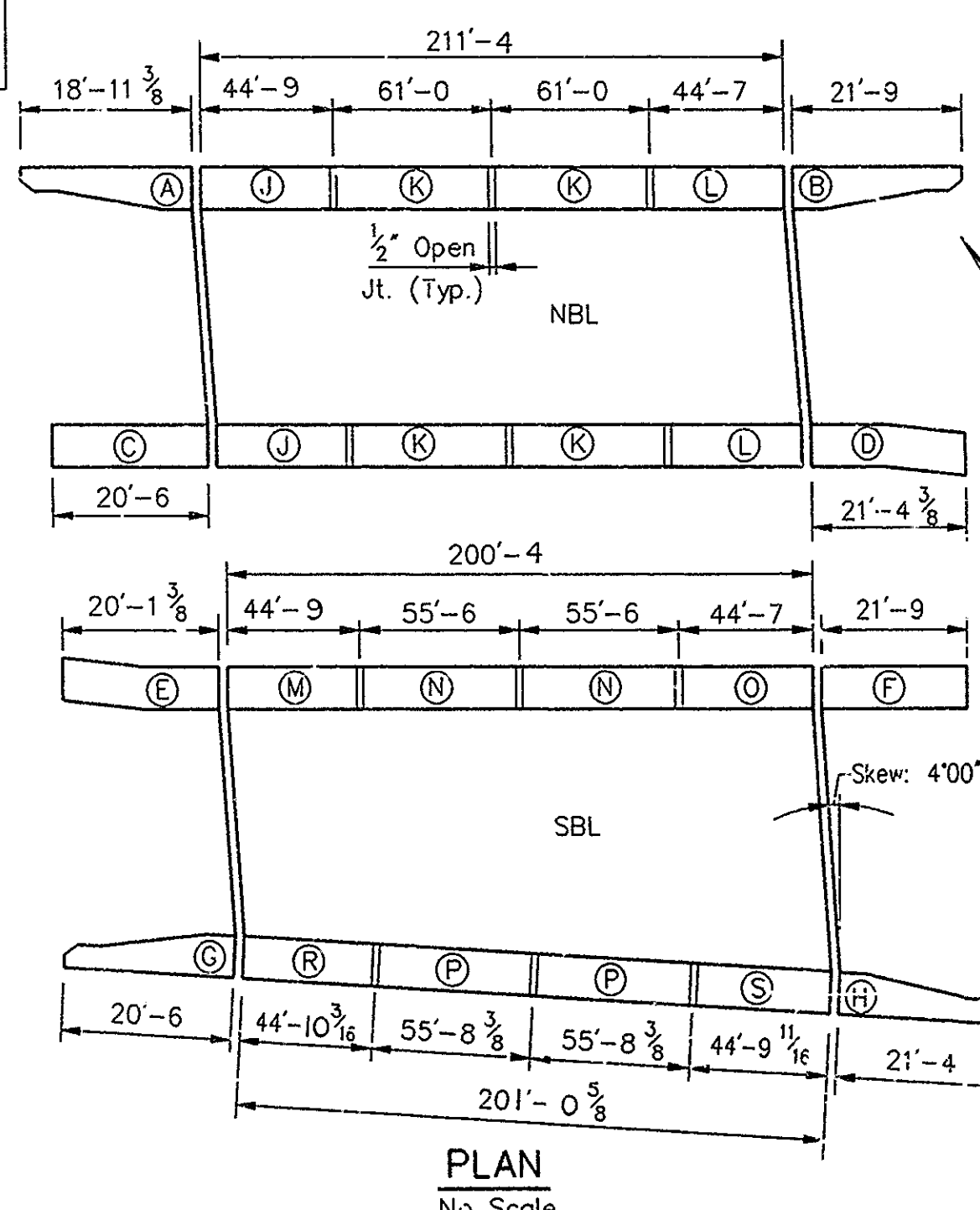
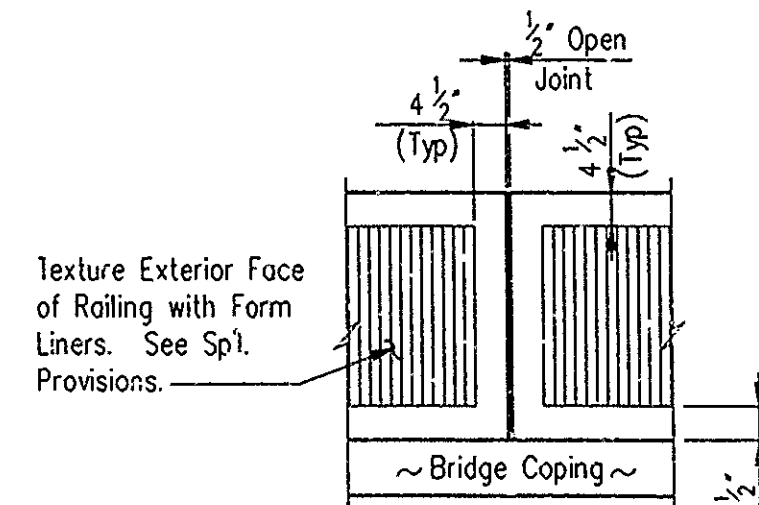
BILL OF MATERIALS			
REINFORCING STEEL			
SIZE & MARK	No. OF BARS	LENGTH	WEIGHT (LBS.)
EPOXY COATED REINFORCING			
583	192	3'-5"	
581	12	4'-0"	
580	12	3'-10"	
#5	192	1'-10"	
TOTAL #5 BARS			1149
#4	6	3'-3"	
#4	16	28'-3"	
#4	16	22'-9"	
#4	2	5'-10"	
TOTAL #4 BARS			690
TOTAL EPOXY COATED REINF.			1839
MISCELLANEOUS			
Class "C" Concrete Railing			201 Lft.
Field Drilled Holes in Conc.			192 Ea.
Barrier Delineators			11 Ea.
Surface Seal			1725 Sft.
Masonry Coating			1725 Sft.



BILL OF MATERIALS			
REINFORCING STEEL			
SIZE & MARK	NO. OF BARS	LENGTH	WEIGHT (LBS.)
EPOXY COATED REINFORCING			
#5	194	3'-5"	
#5	12	4'-0"	
#5	12	3'-10"	
#5	194	1'-10"	
TOTAL #5 BARS			1160
#4	6	34'-4"	
#4	16	28'-4"	
#4	16	22'-9"	
#4	2	5'-10"	
TOTAL #4 BARS			690
TOTAL EPOXY COATED REINF.			1850
MISCELLANEOUS			
Class "C" Concrete Railing			201 Lft.
Field Drilled Holes in Conc.			194 Ea.
Barrier Delineators			11 Ea.
Surface Seal			1725 Sft.
Masonry Coating			1725 Sft.



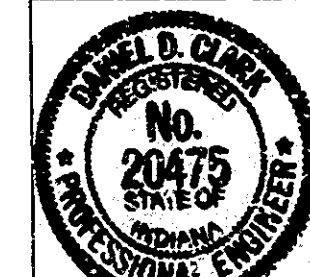
- NOTES**
- For Reinforcing Bar Notes & Bar Bending Details, See Br. Std. C1.
 - Reinforcing Steel in Conc. Barrier Rail to be Epoxy Coated
 - Concrete in Barrier Rail to be Class "C".
 - Minimum Lap for #4 Bar is 1'-1.
 - For Joint in Rail Details, see Dwg. D94.
 - Limits of Concrete Removal

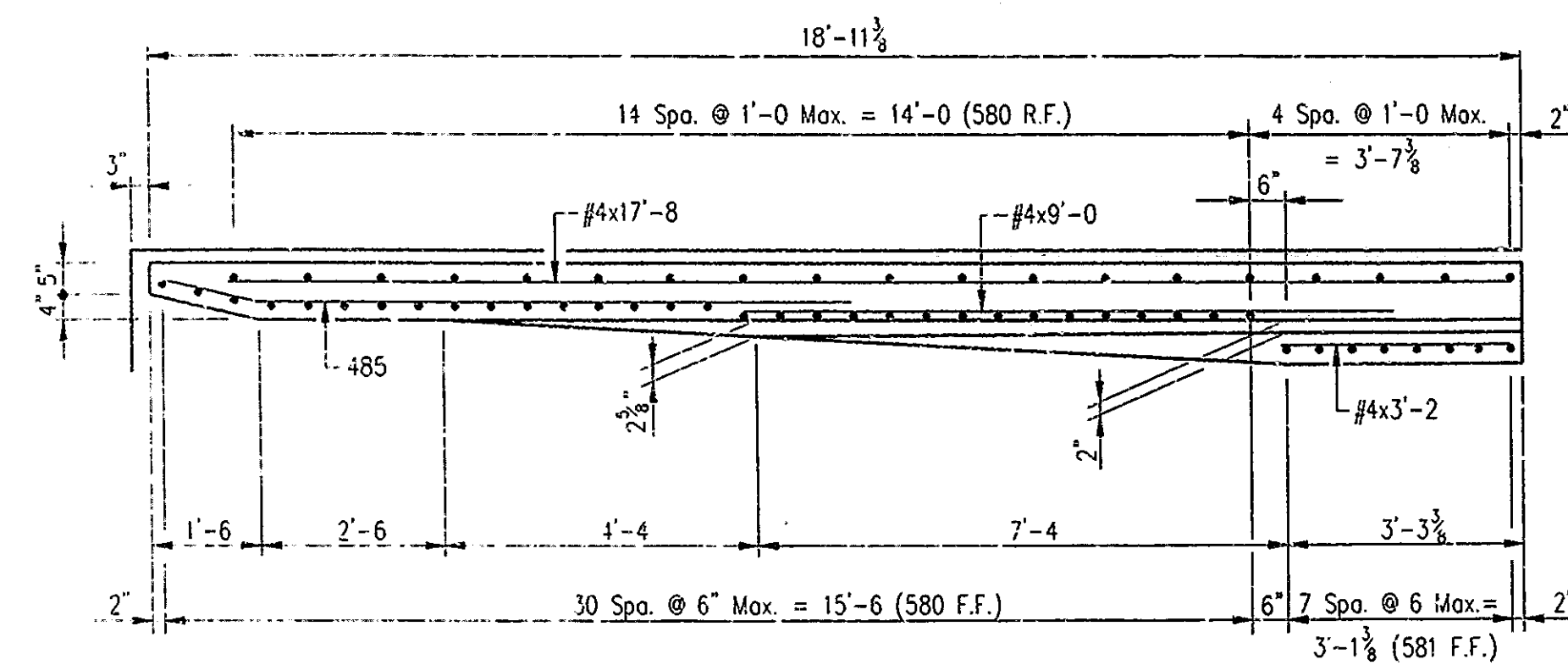


BRIDGE RAIL DETAILS- SHOULDER RAIL S.B.L.
INDIANA DEPARTMENT OF HIGHWAYS

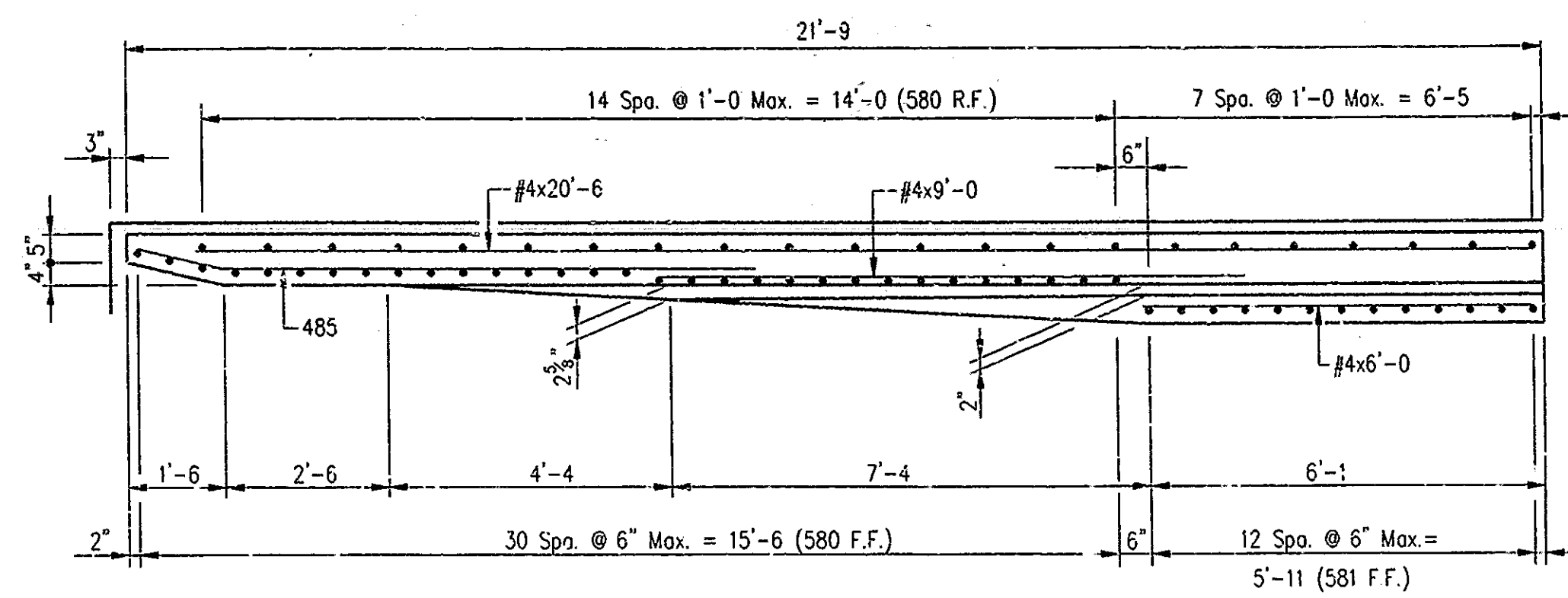
MARION COUNTY
SCALE: - No Scale
Unless Noted

DATE: August 14, 1991
DRAWING: D101 OF D104 SHEET: 113 OF 159
PROJECT: MAIR-IR-465-4(266)119 STATION: -
BRIDGE CONTRACT NO. R-19452
BRIDGE FILE: - I-465-125-2377B & JB

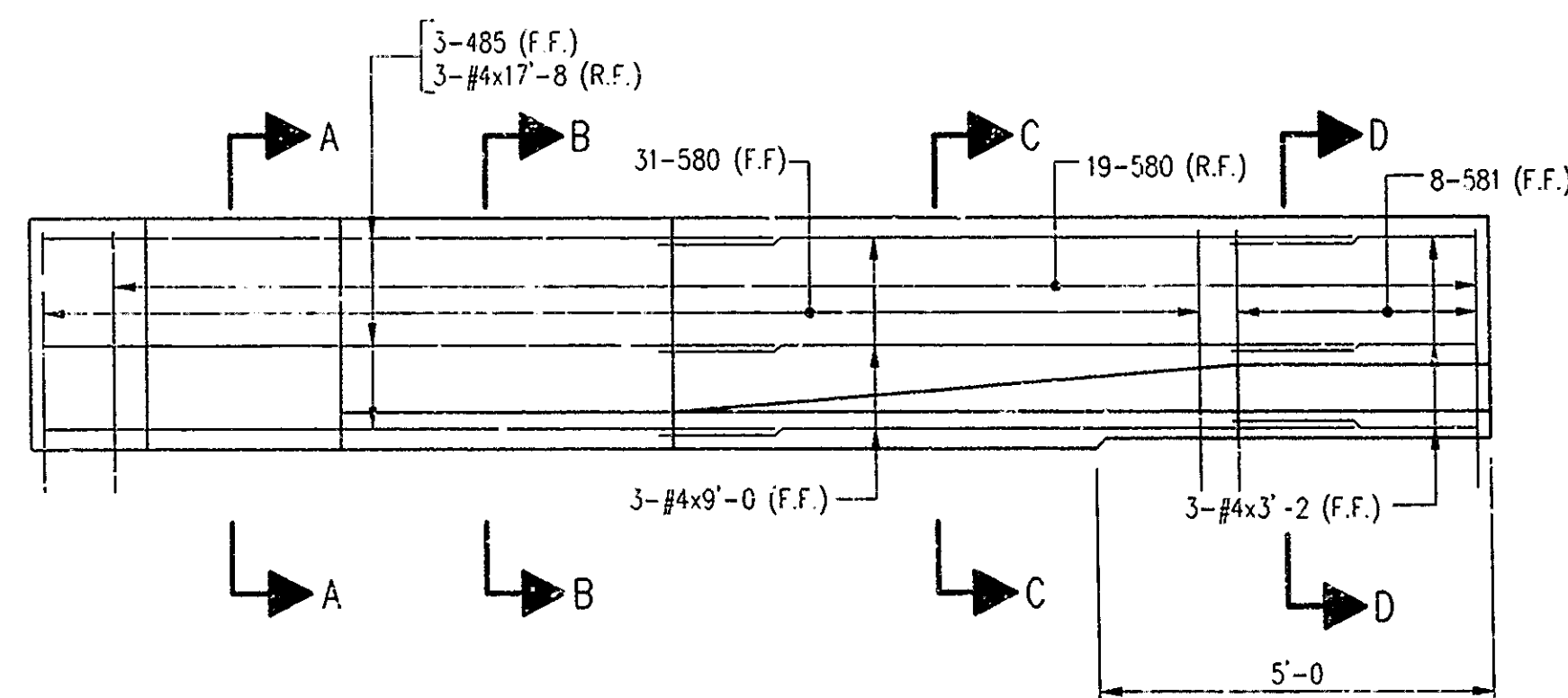




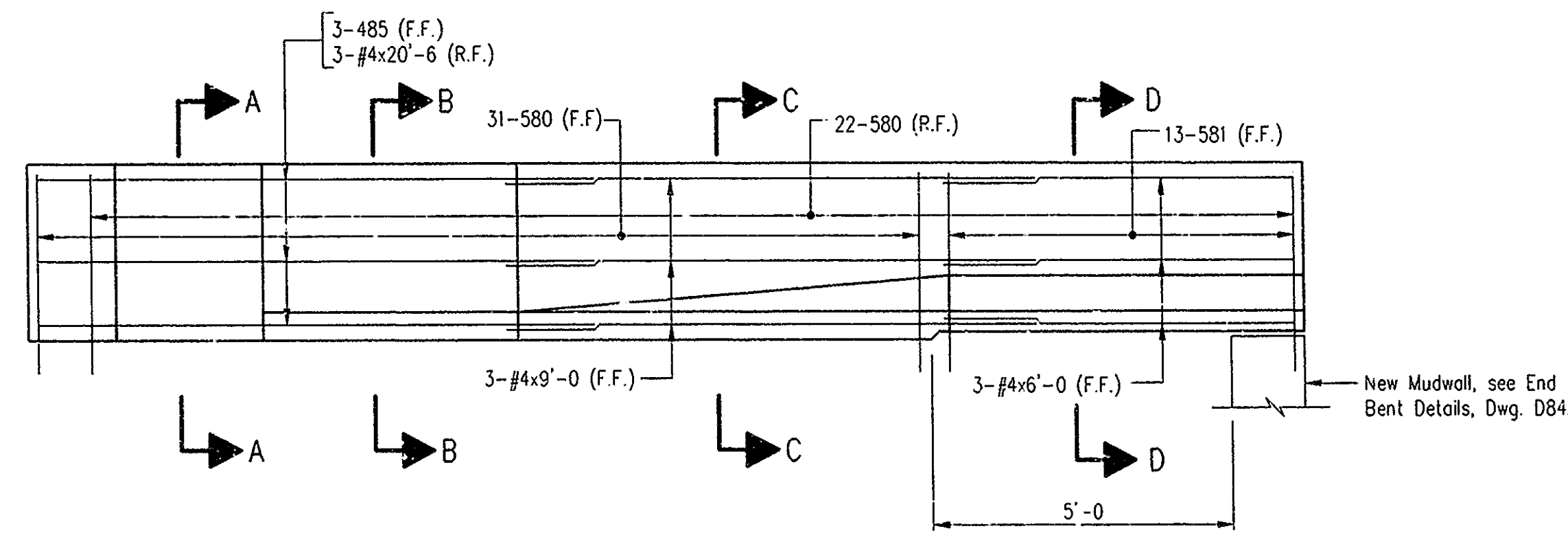
RAILING TRANSITION-PLAN PANEL A
Scale: $\frac{1}{2}" = 1'-0"$



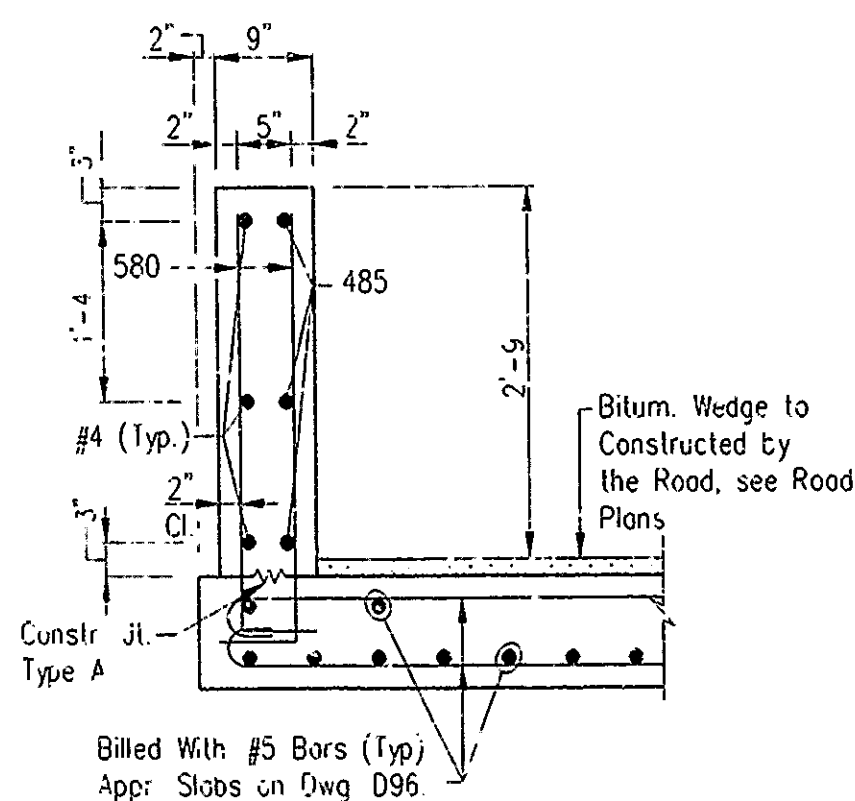
RAILING TRANSITION-PLAN PANEL B
Scale: $\frac{1}{2}" = 1'-0"$



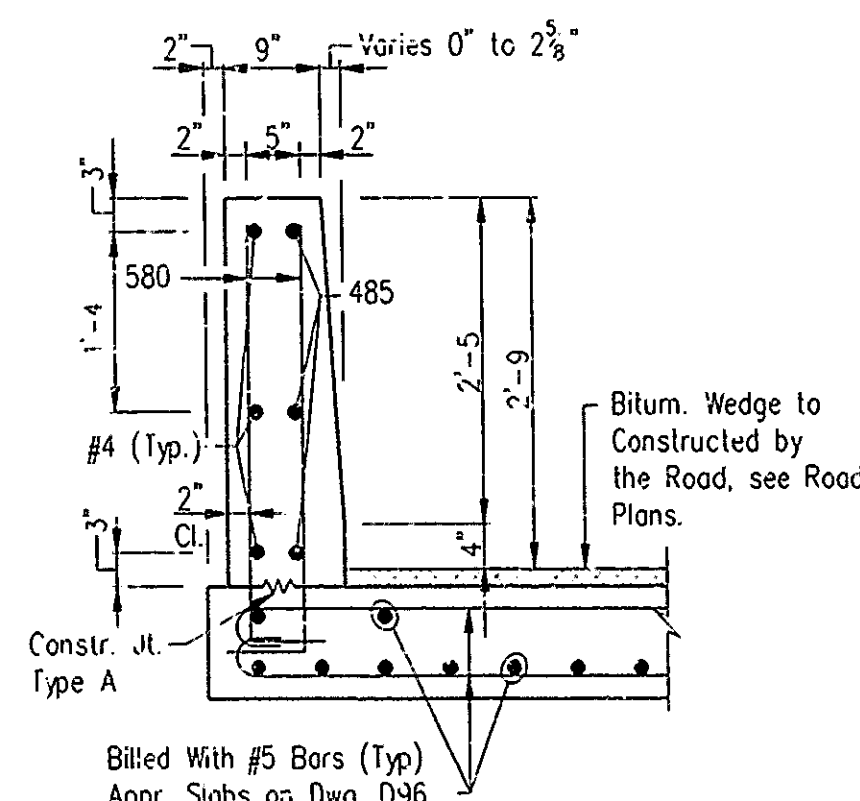
RAILING TRANSITION-ELEVATION PANEL A
Scale: $\frac{1}{2}" = 1'-0"$



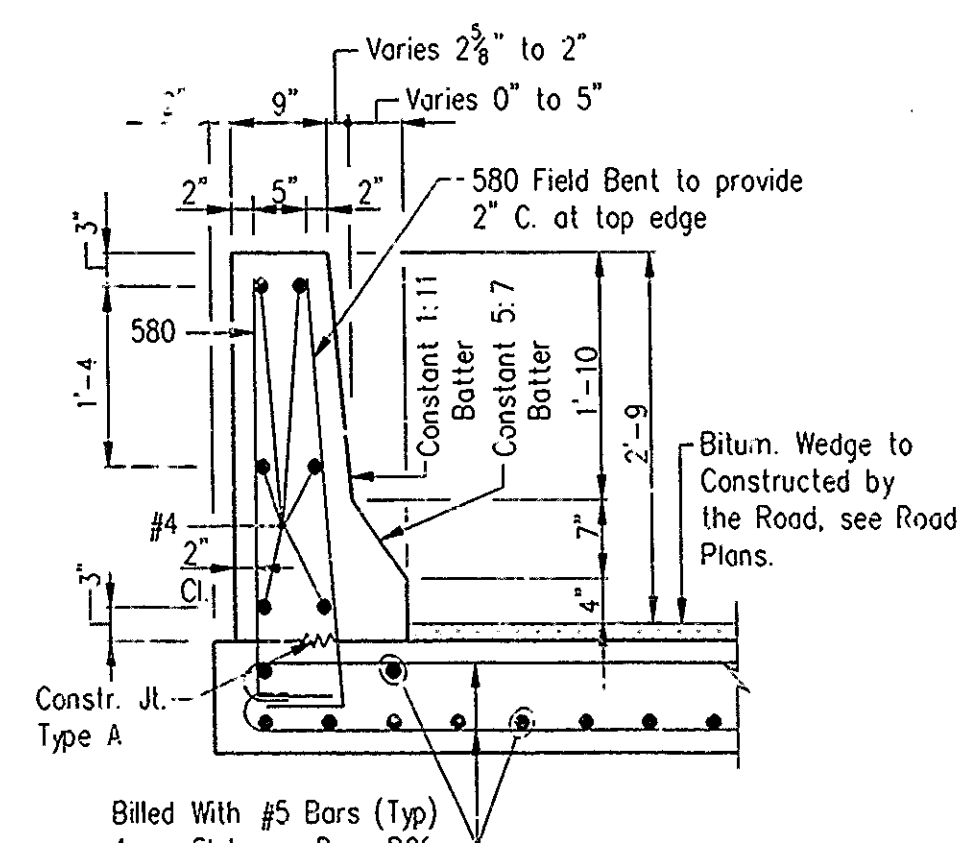
RAILING TRANSITION-ELEVATION PANEL B
Scale: $\frac{1}{2}" = 1'-0"$



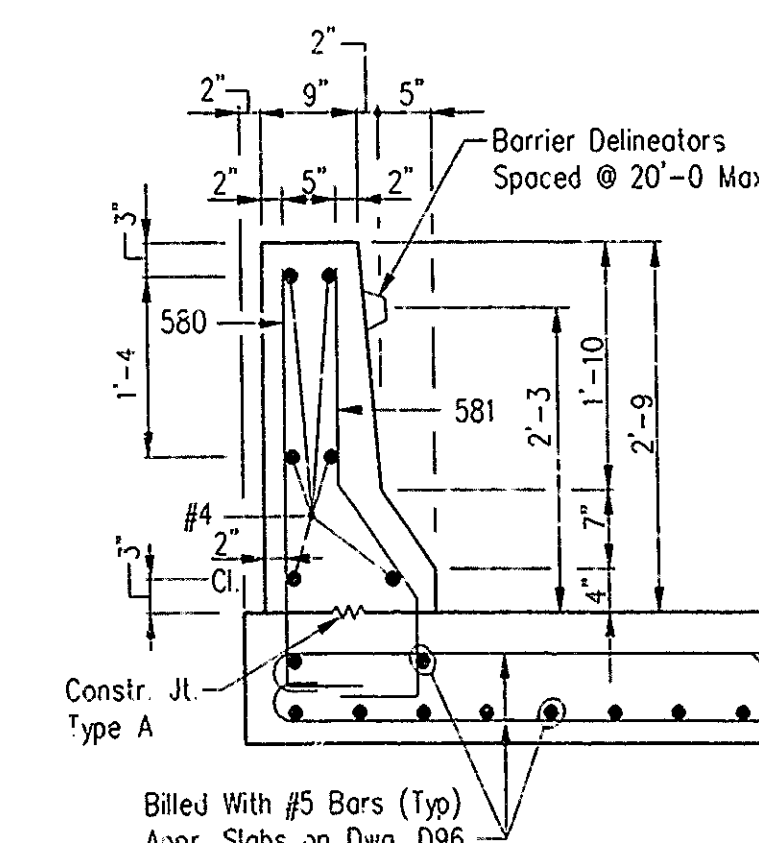
SECTION A-A
Scale: $\frac{1}{4}" = 1'-0"$



SECTION B-B
Scale: $\frac{1}{4}" = 1'-0"$



SECTION C-C
Scale: $\frac{1}{4}" = 1'-0"$



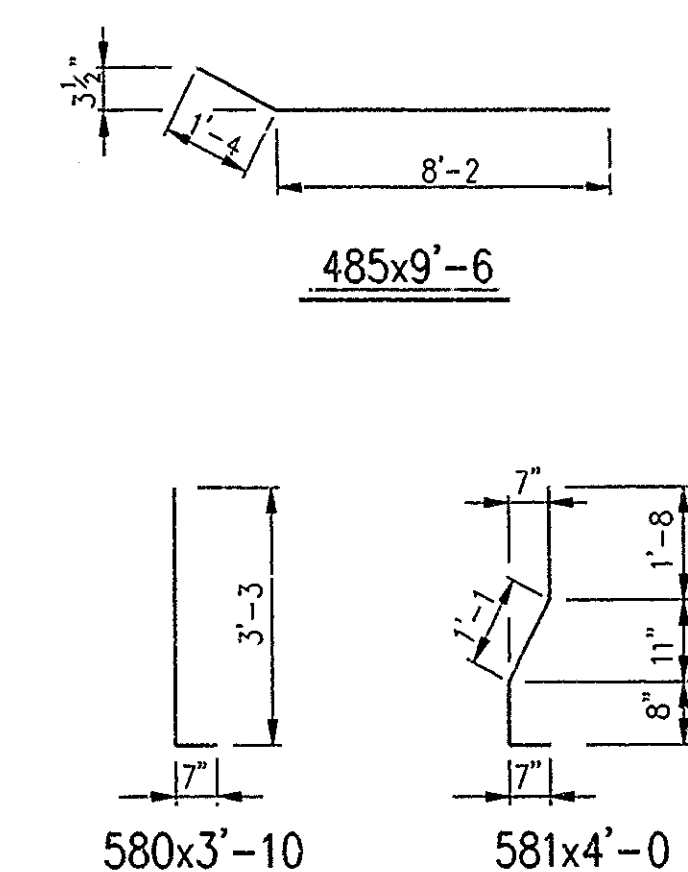
SECTION D-D
Scale: $\frac{1}{4}" = 1'-0"$

BILL OF MATERIALS
PANEL A

SIZE & MARK	No. OF BARS	LENGTH	WEIGHT (LBS.)
REINFORCING STEEL			
EPOXY COATED REINFORCING			
581	8	4'-0"	
580	50	3'-10"	
TOTAL #5 BARS			234
485	3	9'-6"	
#1	3	17'-8"	
#4	3	9'-0"	
#4	3	3'-2"	
TOTAL #4 BARS			79
TOTAL E.C. REINFORCING			313
MISCELLANEOUS			
Class "C" Concrete Railing		19 Lft.	
Barrier Delineators		1 Ea.	
Surface Seal		130 Sft.	
Masonry Coating		130 Sft.	

BILL OF MATERIALS
PANEL B

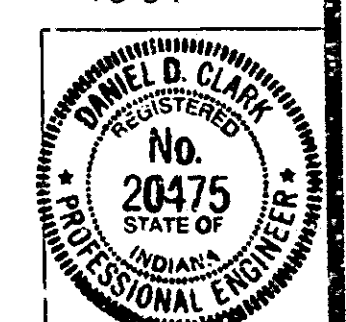
SIZE & MARK	No. OF BARS	LENGTH	WEIGHT (LBS.)
REINFORCING STEEL			
EPOXY COATED REINFORCING			
581	13	4'-0"	
580	53	3'-10"	
TOTAL #5 BARS			264
485	3	9'-6"	
#4	3	20'-6"	
#4	3	9'-0"	
#4	3	6'-0"	
TOTAL #4 BARS			90
TOTAL E.C. REINFORCING			354
MISCELLANEOUS			
Class "C" Concrete Railing		22 Lft.	
Barrier Delineators		1 Ea.	
Surface Seal		150 Sft.	
Masonry Coating		150 Sft.	

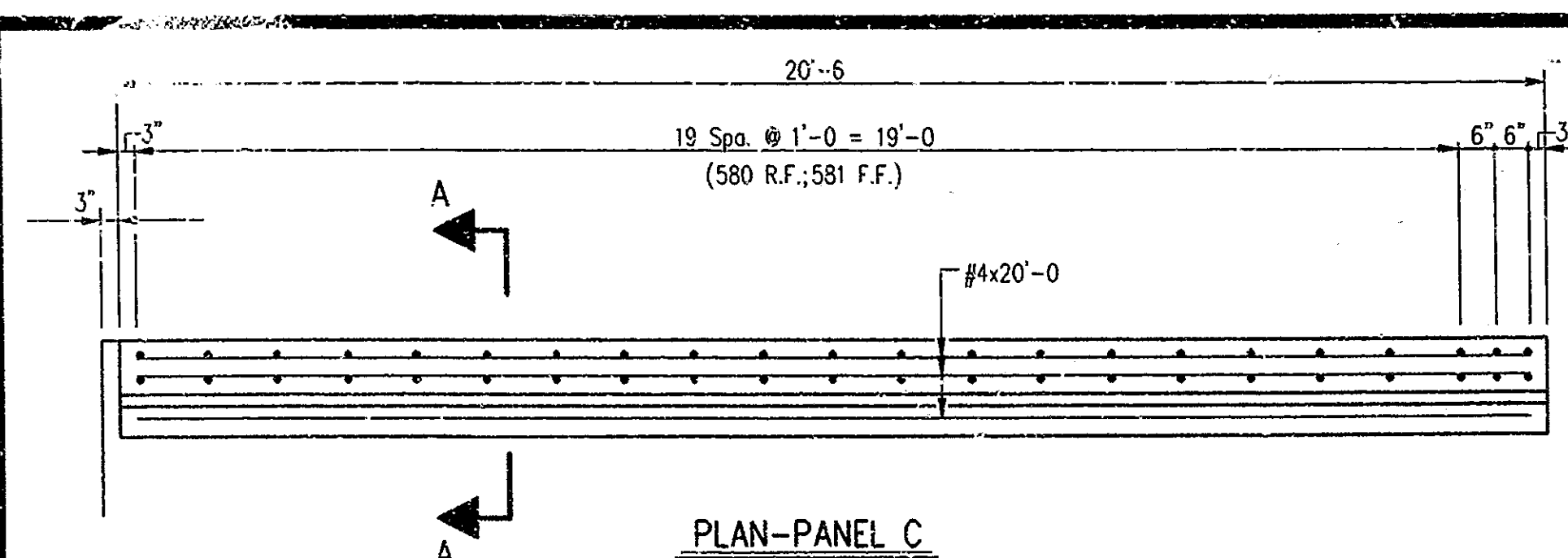


- NOTES**
- For Reinforcing Bar Notes & Bar Bending Details, See Br. Std. Ci.
 - Reinforcing Steel in Concrete Railing to be Epoxy Coated.
 - Concrete in Concrete Railing to be Class "C".
 - For Location of Panels "A" & "B" See Dwg. D99.
 - For Joint in Rail Details, see Dwg. D94.
 - For Railing Texture Detail, see Dwg. D99.
 - Limits of Concrete Removal. (To be Included in Removal of Present Structure Portions.)

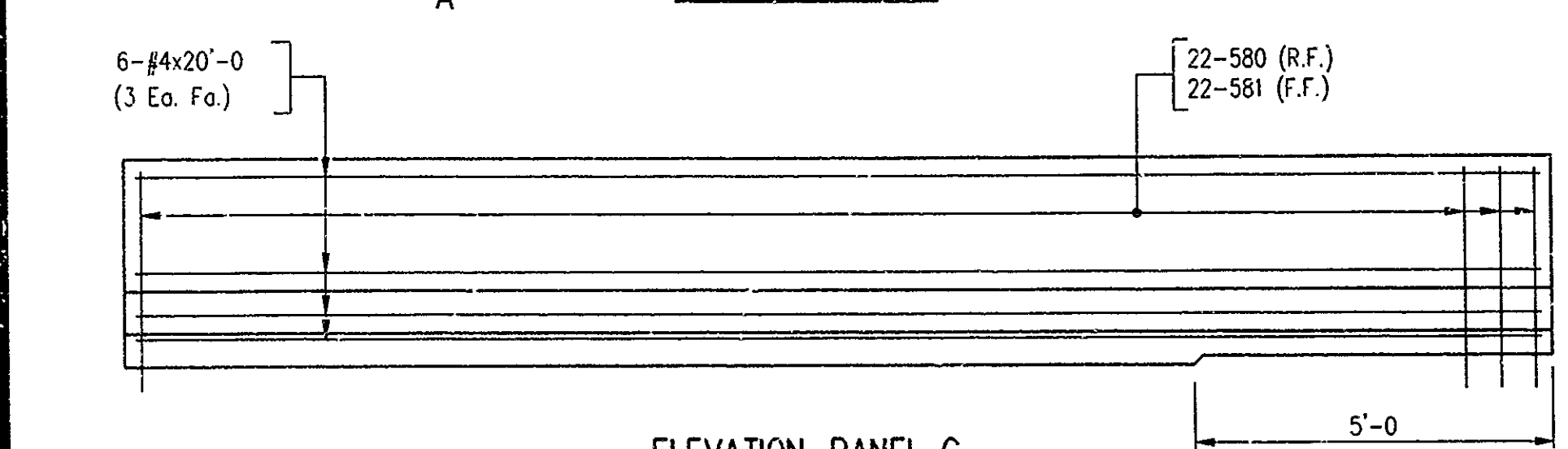
CONCRETE RAILING DETAILS
INDIANA DEPARTMENT OF HIGHWAYS
MARION COUNTY

SCALE: $\frac{1}{2}" = 1'-0"$ DATE: August 14, 1991
DRAWING: D102 OF D104 SHEET: 114 OF 159
PROJECT: MAIR-IR-465-4(266)119 STATION: -
BRIDGE CONTRACT NO. R-19452
BRIDGE FILE: - 1-465-125-2377B & JB

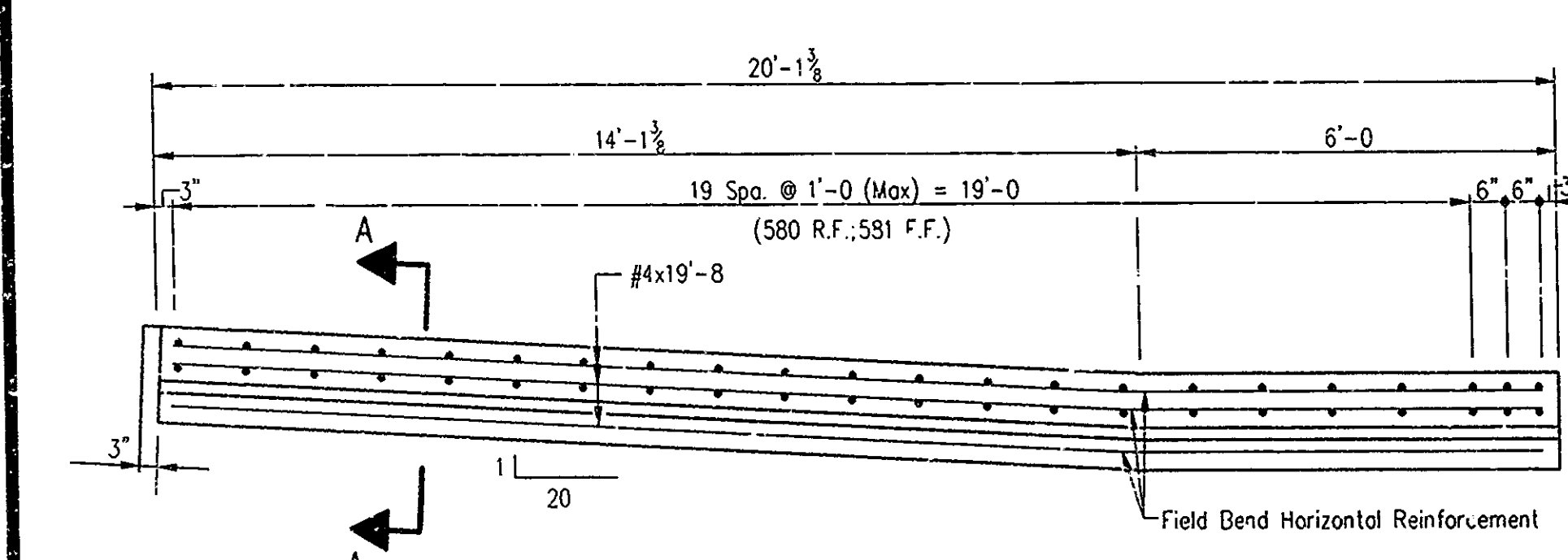




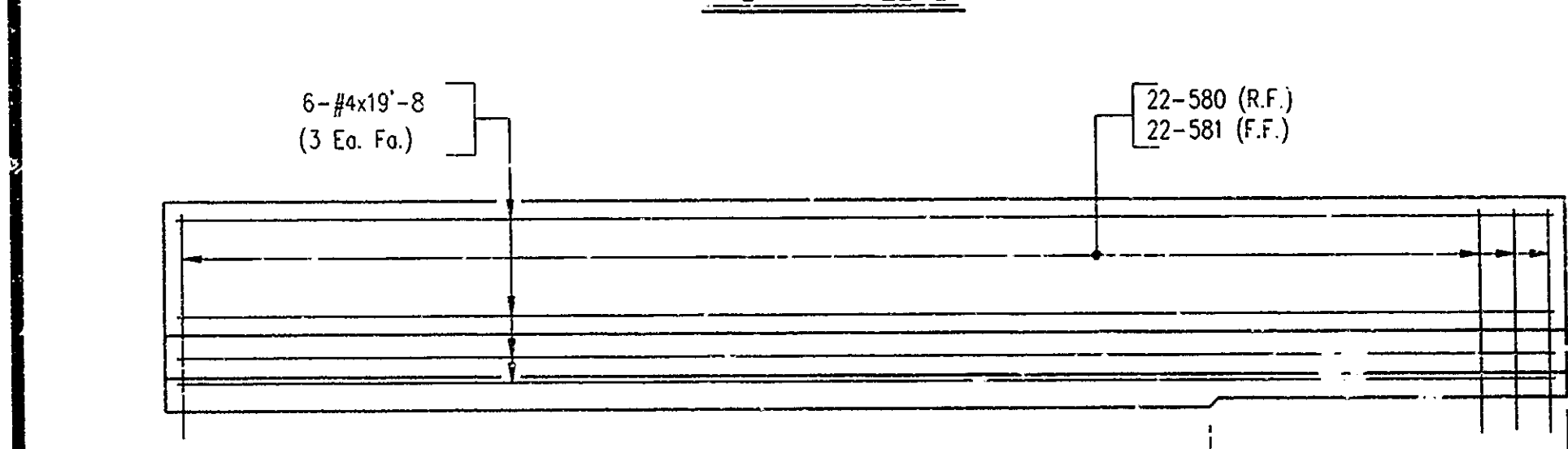
PLAN-PANEL C



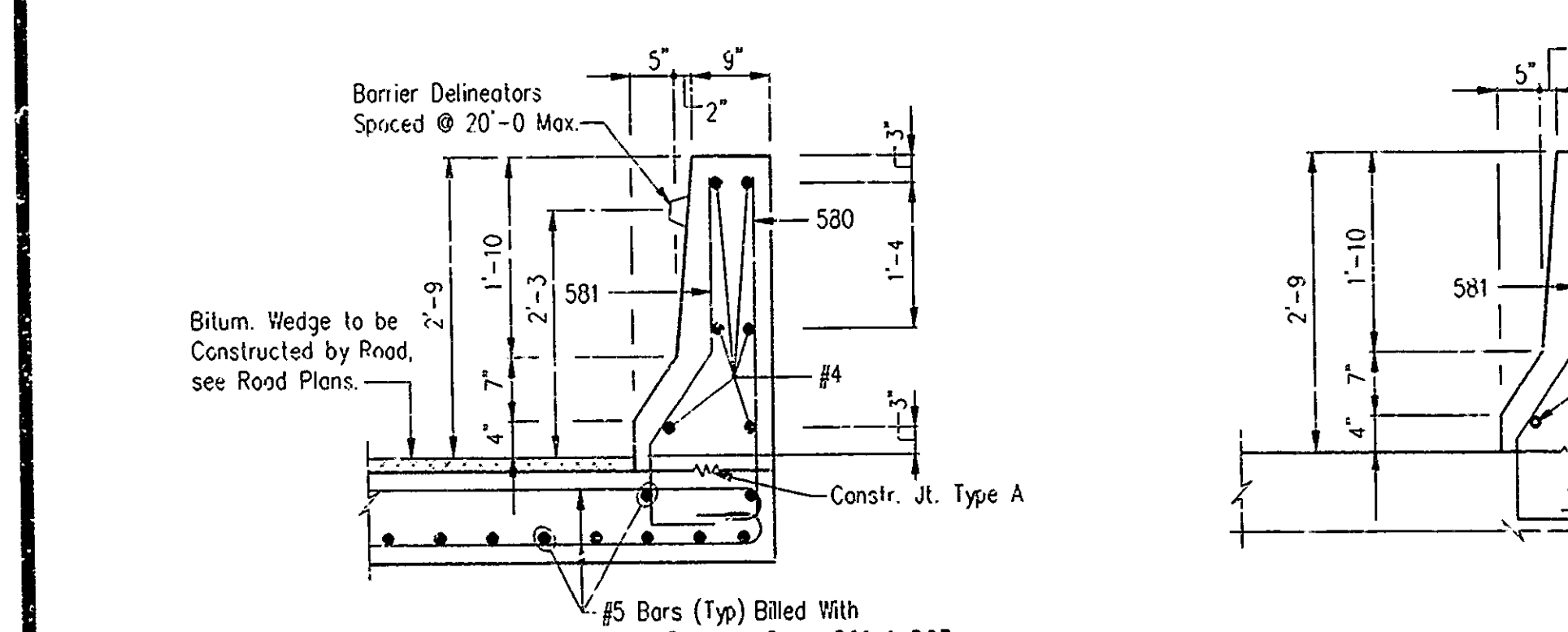
ELEVATION-PANEL C



PLAN-PANEL E



ELEVATION-PANEL E

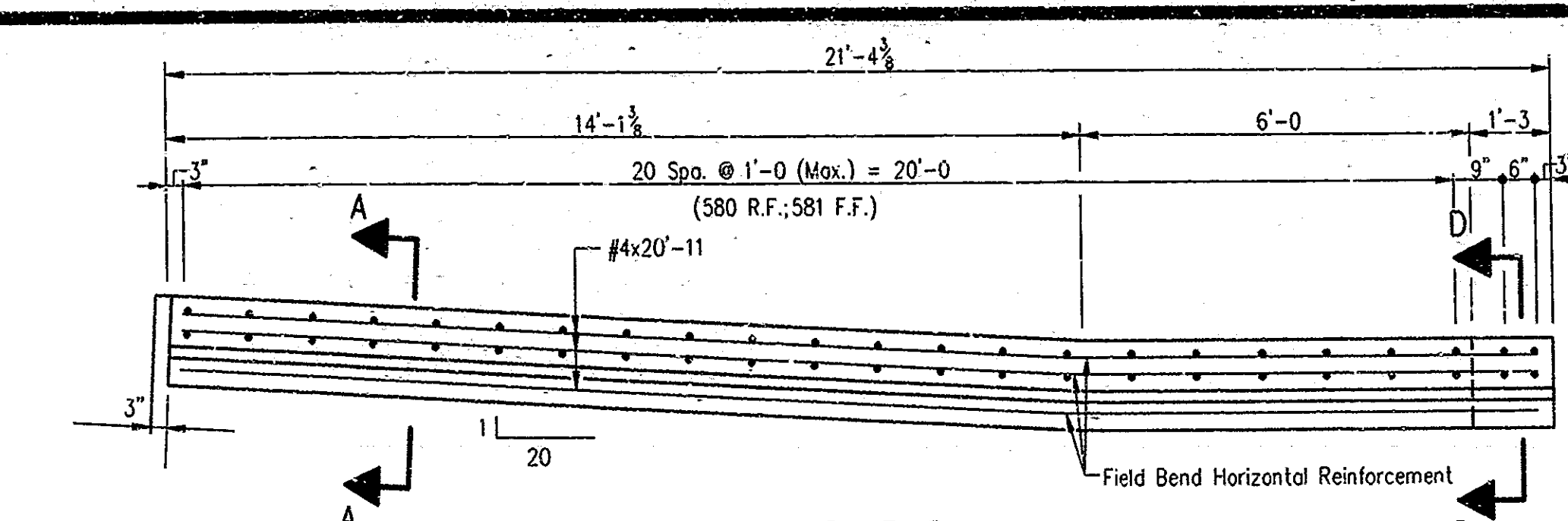


SECTION A-A

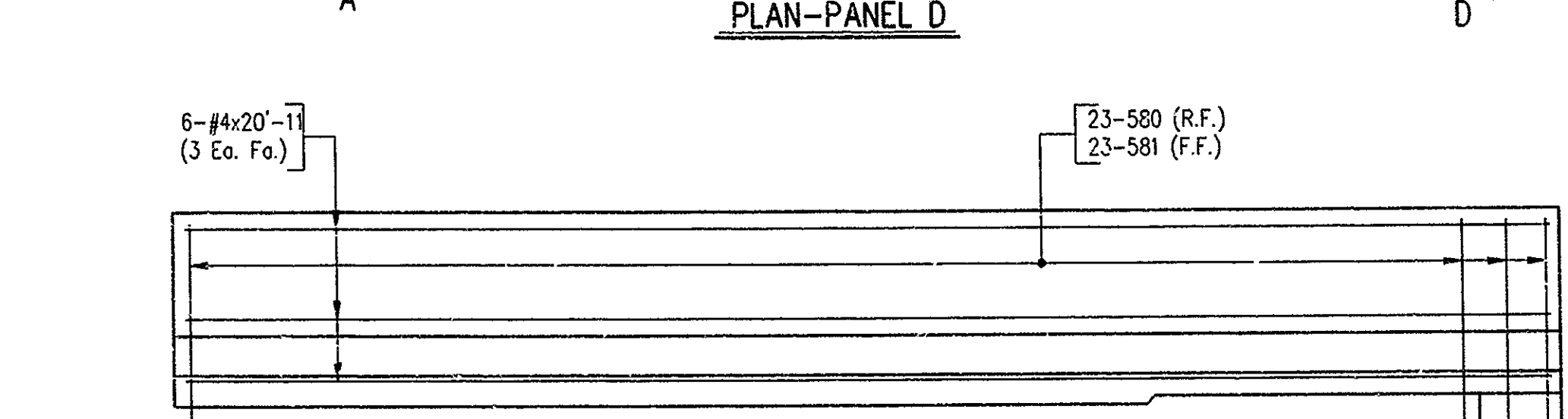
DESIGNED: TWL CWD PEB
DRAWN: TWL CWD PEB
TRACED: CWD

SECTION D-D

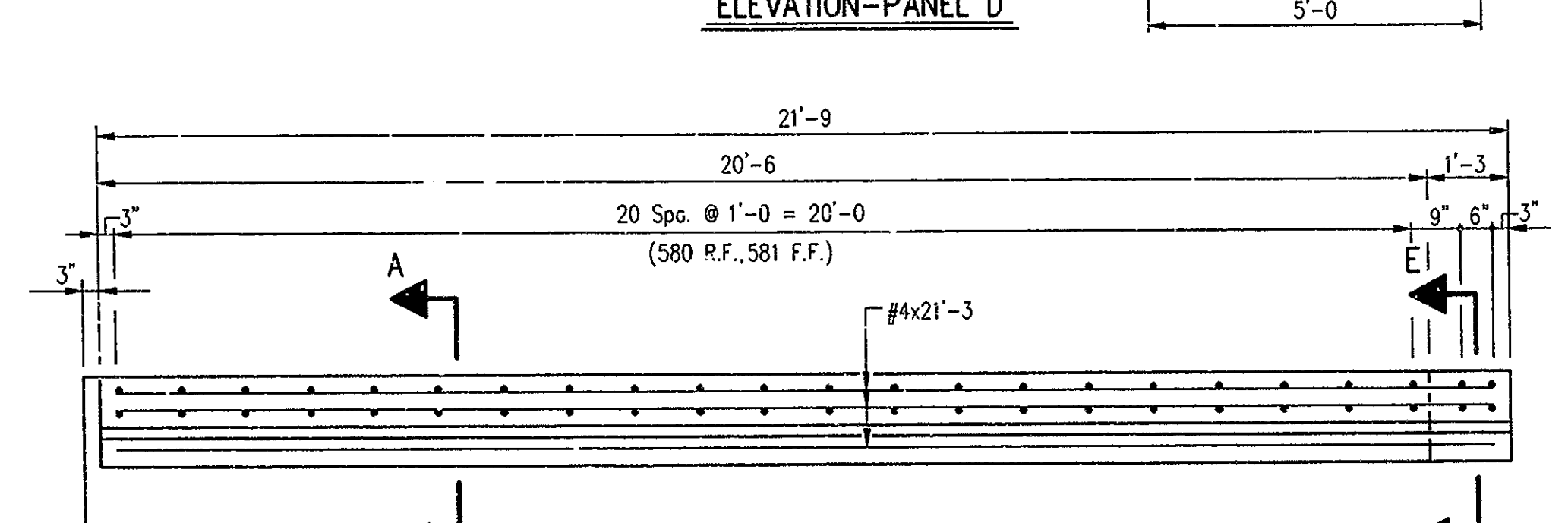
Scale: 3/4" = 1'-0"



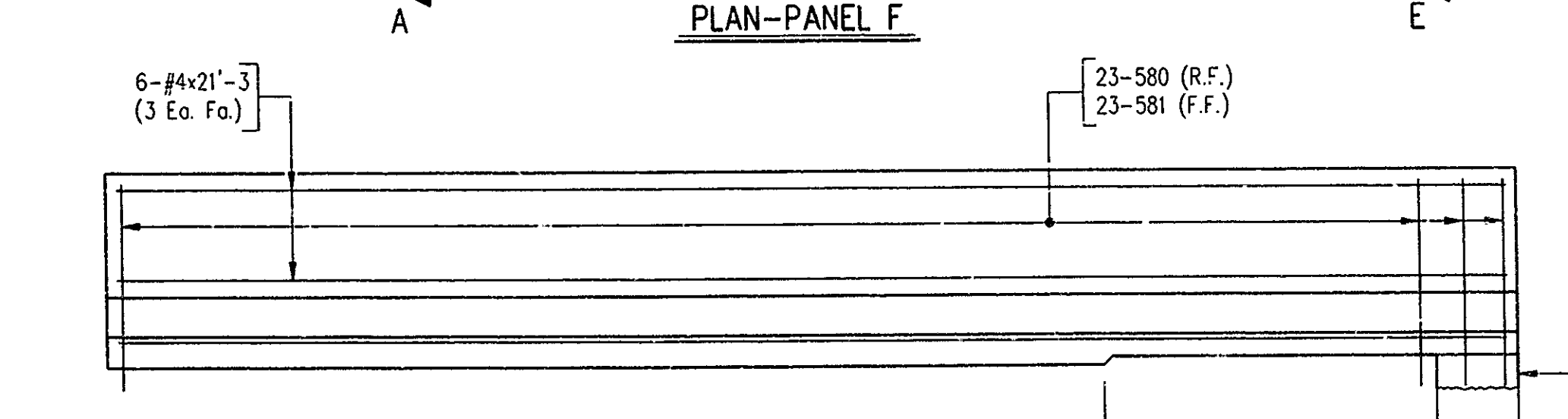
PLAN-PANEL D



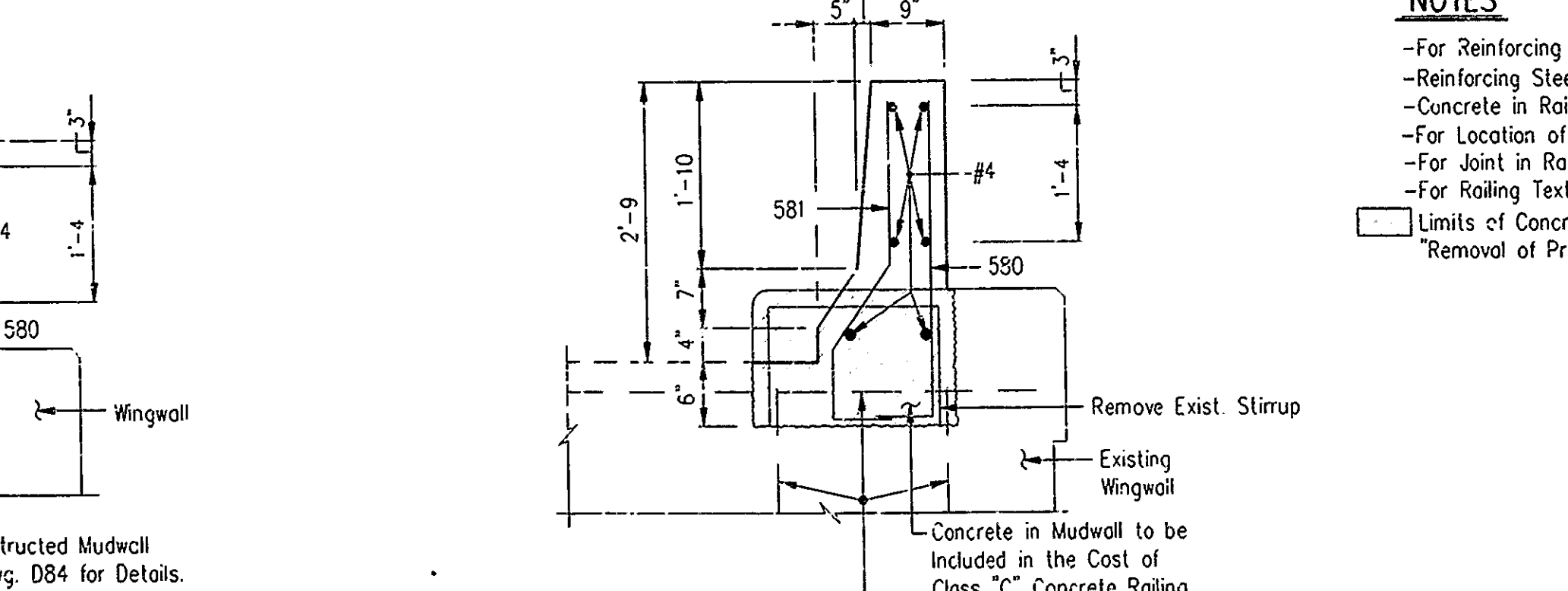
ELEVATION-PANEL D



PLAN-PANEL F



ELEVATION-PANEL F



SECTION E-E

Scale: 3/4" = 1'-0"

NOTES

- For Reinforcing Bar Notes & Bending Details, see Br. Std. C1
- Reinforcing Steel in Concrete Railing Shall be Epoxy Coated
- Concrete in Railing shall be Class "C" Concrete
- For Location of Panels C, D, E, & F, see Dwg. D98 & D100.
- For Joint in Rail Details, see Dwg. D94.
- For Railing Texture Detail, see Dwg. D98 & D100.
- Limits of Concrete Removal (To Be Included in the Cost of Removal of Present Structure, Portions)

BILL OF MATERIALS			
PANEL C			
REINFORCING STEEL			
SIZE & MARK	No. OF BARS	LENGTH	WEIGHT (LBS.)
EPOXY COATED REINFORCING			
581	22	4'-0"	
580	22	3'-10"	
TOTAL #5 BARS			180
#4	6	20'-0"	
TOTAL #4 BARS			80
TOTAL E.C. REINFORCING			260
MISCELLANEOUS			
Class "C" Concrete Railing			211 ft.
Barrier Delineators			1 Ea.
Surface Seal			146 Sft.
Masonry Coating			146 Sft.

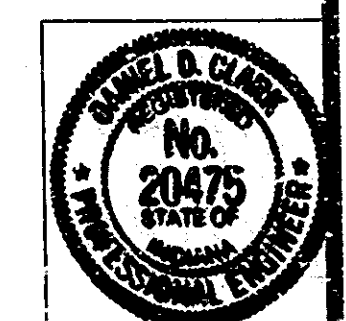
BILL OF MATERIALS			
PANEL D			
REINFORCING STEEL			
SIZE & MARK	No. OF BARS	LENGTH	WEIGHT (LBS.)
EPOXY COATED REINFORCING			
581	23	4'-0"	
580	23	3'-10"	
TOTAL #5 BARS			188
#4	6	20'-11"	
TOTAL #4 BARS			84
TOTAL E.C. REINFORCING			272
MISCELLANEOUS			
Class "C" Concrete Railing			221 ft.
Barrier Delineators			1 Ea.
Surface Seal			153 Sft.
Masonry Coating			153 Sft.

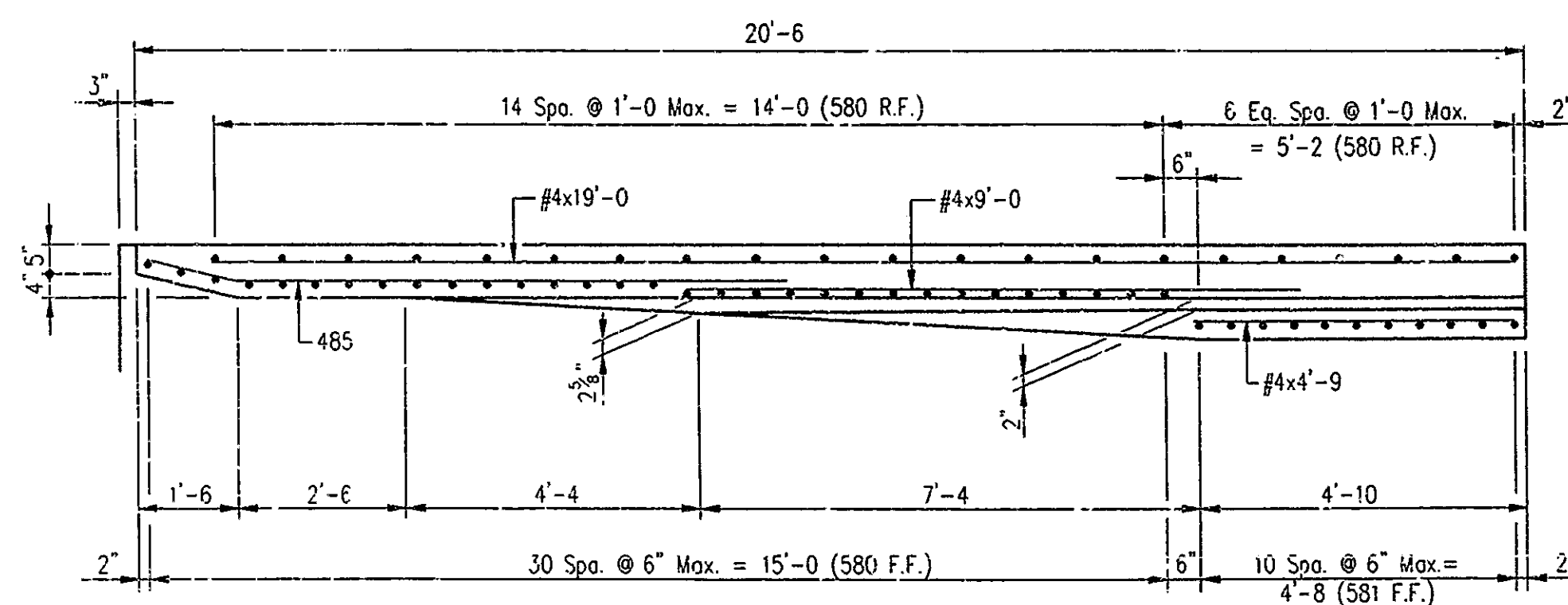
BILL OF MATERIALS			
PANEL E			
REINFORCING STEEL			
SIZE & MARK	No. OF BARS	LENGTH	WEIGHT (LBS.)
EPOXY COATED REINFORCING			
581	22	4'-0"	
580	22	3'-10"	
TOTAL #5 BARS			180
#4	6	19'-8"	
TOTAL #4 BARS			79
TOTAL E.C. REINFORCING			259
MISCELLANEOUS			
Class "C" Concrete Railing			211 ft.
Barrier Delineators			1 Ea.
Surface Seal			146 Sft.
Masonry Coating			146 Sft.

BILL OF MATERIALS			
PANEL F			
REINFORCING STEEL			
SIZE & MARK	No. OF BARS	LENGTH	WEIGHT (LBS.)
EPOXY COATED REINFORCING			
581	23	4'-0"	
580	23	3'-10"	
TOTAL #5 BARS			188
#4	6	21'-3"	
TOTAL #4 BARS			85
TOTAL E.C. REINFORCING			273
MISCELLANEOUS			
Class "C" Concrete Railing			221 ft.
Barrier Delineators			1 Ea.
Surface Seal			153 Sft.
Masonry Coating			153 Sft.

CONCRETE RAILING DETAILS
INDIANA DEPARTMENT OF HIGHWAYS
MARION COUNTY
SCALE: 1/2"=1'-0" Unless Noted Otherwise DATE: August 14, 1991

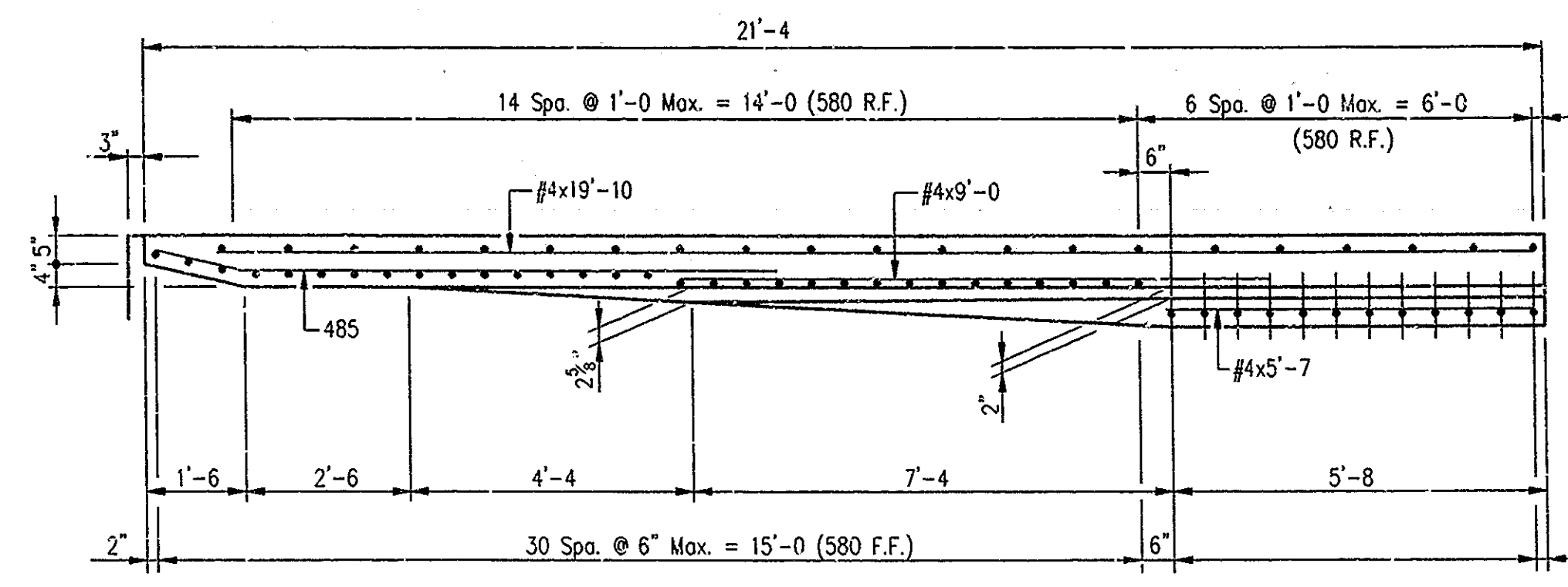
Daniel D. Clark
DRAWING: D103 OF D104 SHEET: 115 OF 159
PROJECT: MAIR-IR-465-4(266)119 STATION: -
BRIDGE CONTRACT NO. R-19482
BRIDGE FILE: I-465-125-2377B & JB





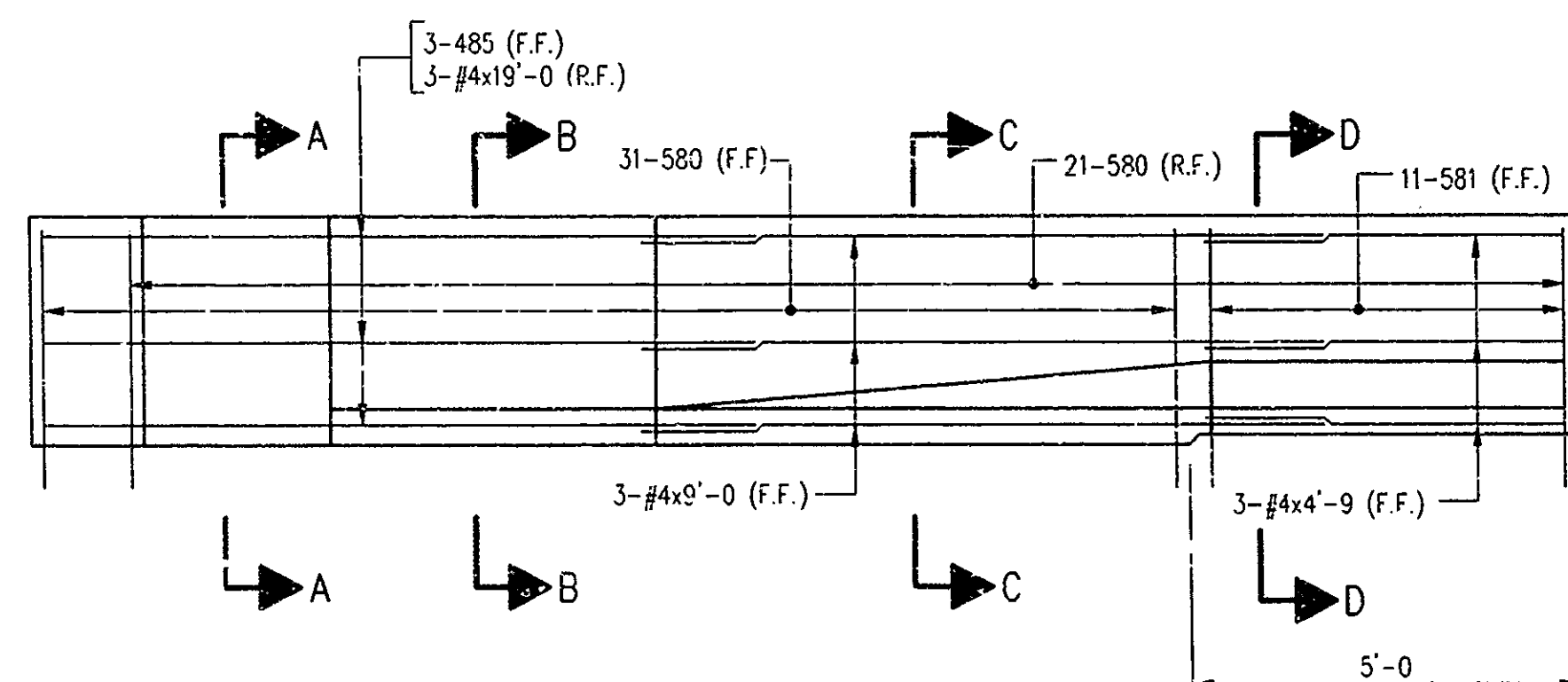
RAILING TRANSITION-PLAN PANEL G

Scale: $\frac{1}{2}" = 1'-0"$



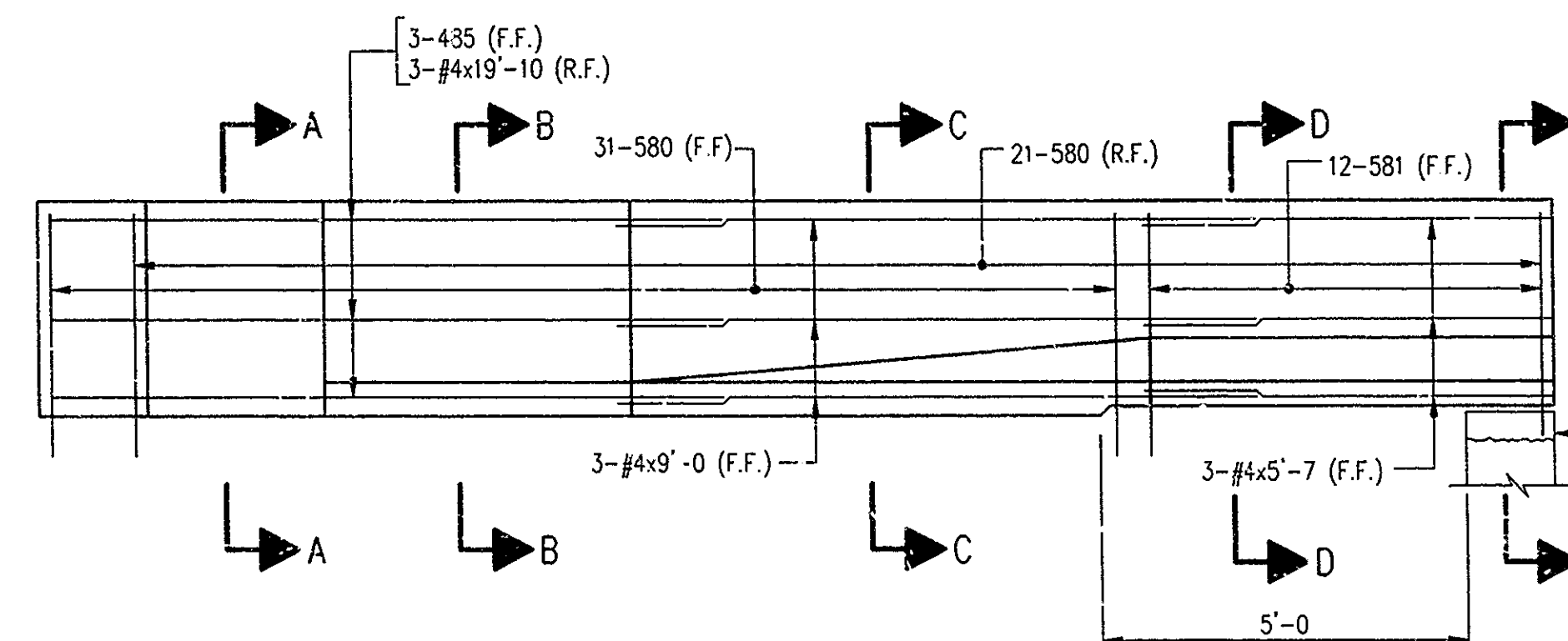
RAILING TRANSITION-PLAN PANEL H

Scale: $\frac{1}{2}" = 1'-0"$



RAILING TRANSITION-ELEVATION PANEL G

Scale: $\frac{1}{2}" = 1'-0"$



RAILING TRANSITION-ELEVATION PANEL H

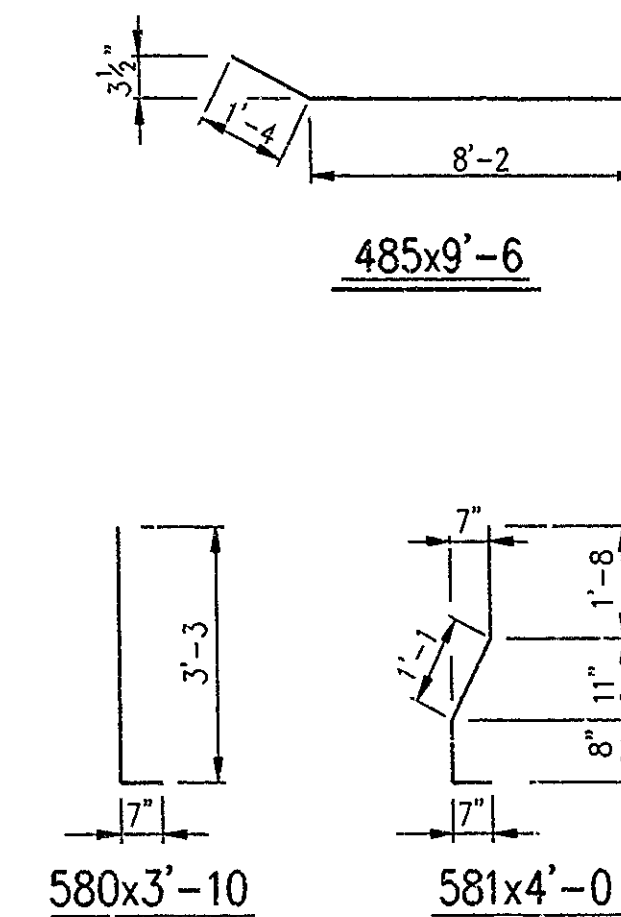
Scale: $\frac{1}{2}" = 1'-0"$

BILL OF MATERIALS
PANEL G

REINFORCING STEEL			
SIZE & MARK	No. OF BARS	LENGTH	WEIGHT (LBS.)
EPOXY COATED REINFORCING			
581	11	4'-0"	
580	52	3'-10"	
TOTAL #5 BARS			254
485	3	9'-6"	
#4	3	19'-0"	
#4	3	9'-0"	
#4	3	4'-9"	
TOTAL #4 BARS			85
TOTAL E.C. REINFORCING			339
MISCELLANEOUS			
Class "C" Concrete Railing		21 Lft.	
Barrier Delineators		1 Ea.	
Surface Seal		146 Sft.	
Masonry Coating		146 Sft.	

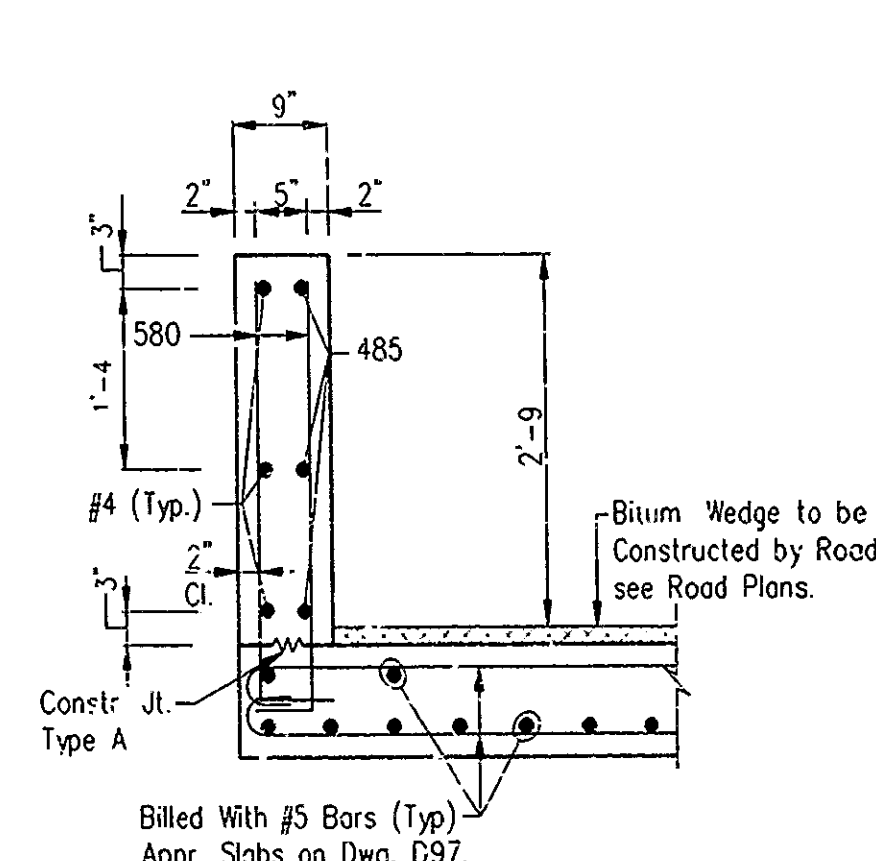
BILL OF MATERIALS
PANEL H

REINFORCING STEEL			
SIZE & MARK	No. OF BARS	LENGTH	WEIGHT (LBS.)
EPOXY COATED REINFORCING			
581	12	4'-0"	
580	52	3'-10"	
TOTAL #5 BARS			258
485	3	9'-6"	
#4	3	19'-10"	
#4	3	9'-0"	
#4	3	5'-7"	
TOTAL #4 BARS			88
TOTAL E.C. REINFORCING			346
MISCELLANEOUS			
Class "C" Concrete Railing		22 Lft.	
Barrier Delineators		1 Ea.	
Surface Seal		153 Sft.	
Masonry Coating		153 Sft.	



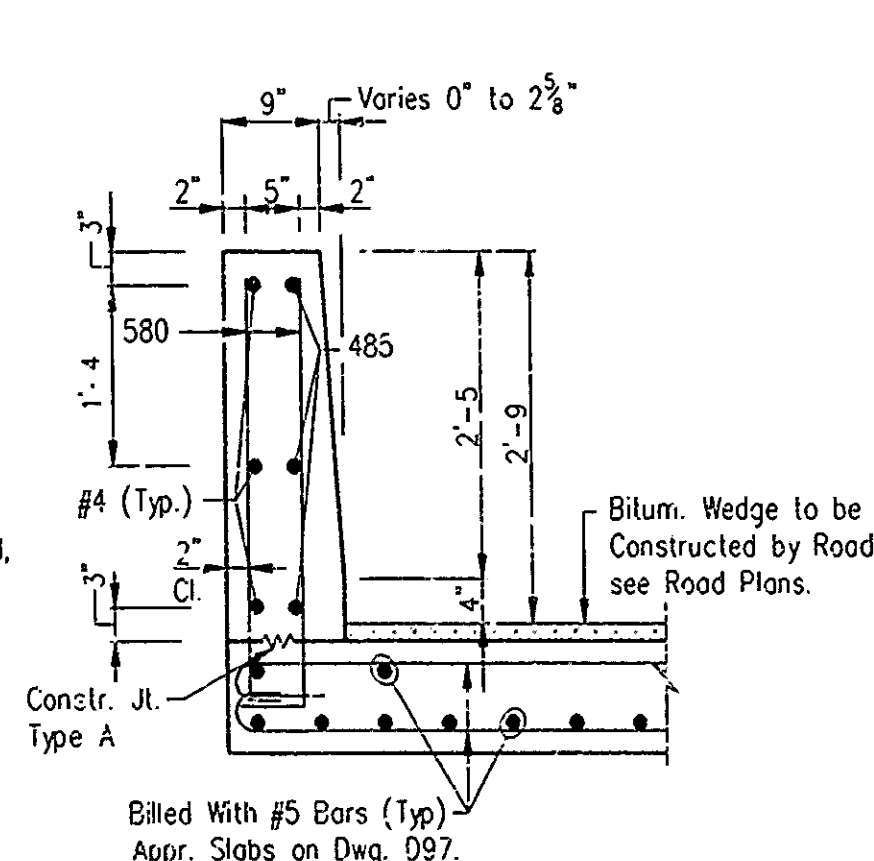
NOTES

- For Reinforcing Bar Notes & Bar Bending Details, See Br. Std. C1.
- Reinforcing Steel in Concrete Railing to be Epoxy Coated.
- Concrete in Concrete Railing to be Class "C".
- For Location of Panels "G" & "H" See Dwg. D101.
- For Joint in Rail Details, see Dwg. D94.
- For Guard Rail Connection Details, see Br. Std. B85.
- For Railing Texture Details, see Dwg. D101.
- Limits of Concrete Removal. (To be Included in Removal of Present Structure Portions.)



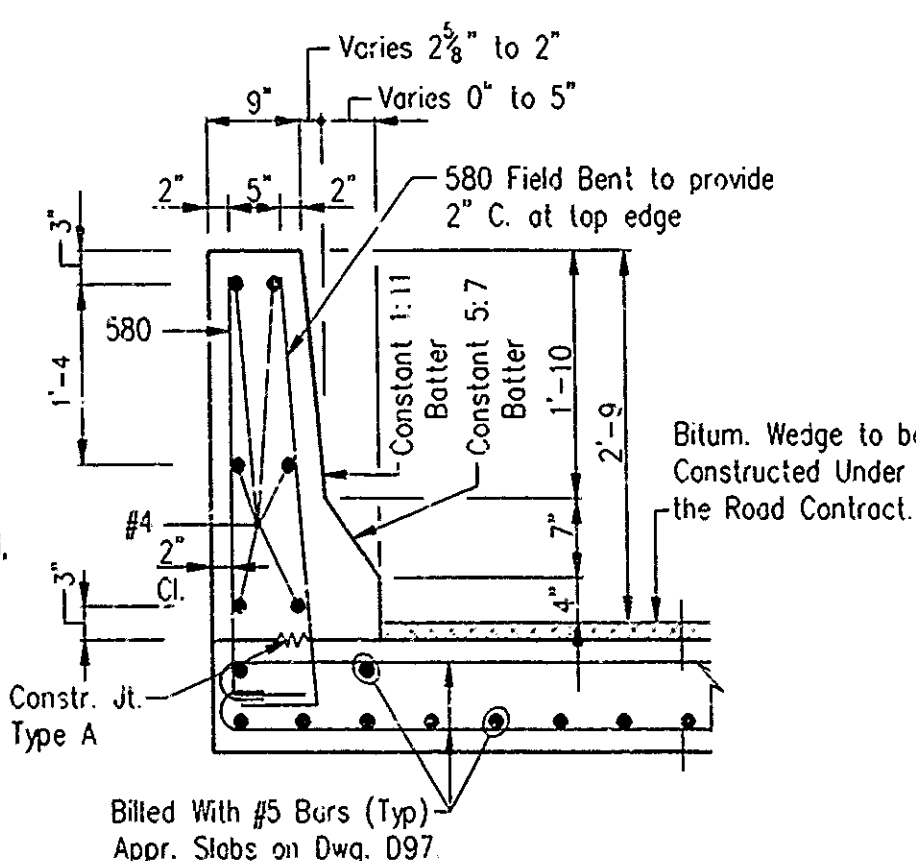
SECTION A-A

Scale: $\frac{3}{4}" = 1'-0"$



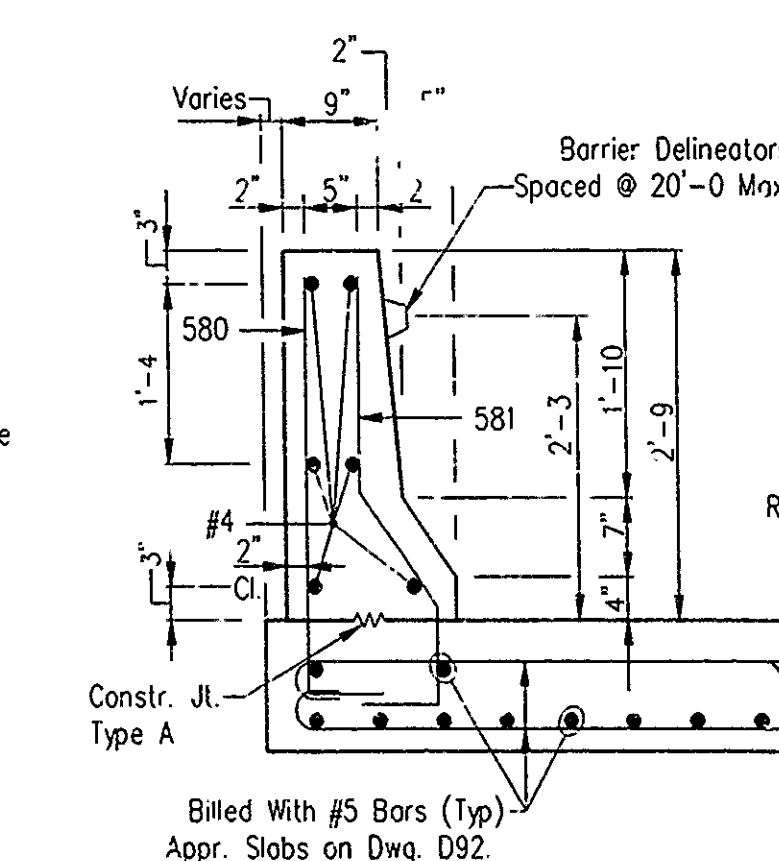
SECTION B-B

Scale: $\frac{3}{4}" = 1'-0"$



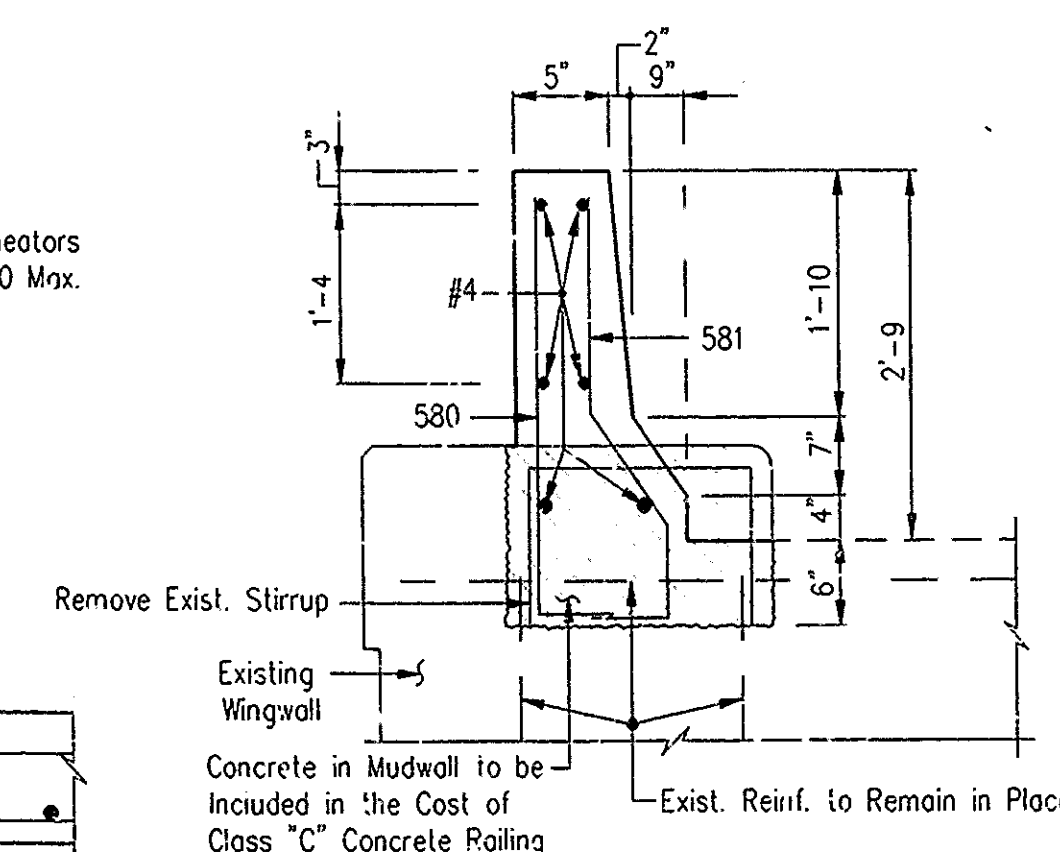
SECTION C-C

Scale: $\frac{3}{4}" = 1'-0"$



SECTION D-D

Scale: $\frac{3}{4}" = 1'-0"$



SECTION E-E

Scale: $\frac{3}{4}" = 1'-0"$

INDIANA DEPARTMENT OF HIGHWAYS
MARION COUNTY

SCALE: $\frac{1}{2}" = 1'-0"$

DATE: August 14,

Daniel D. Clark

1991

DRAWING: D104 OF D104 SHEET: 116 OF 159
PROJECT: MAIR-IR-465-4(266)119 STATION: -
BRIDGE CONTRACT NO. R-19452
BRIDGE FILE: 1-465-125-23778 & 19



DESIGNED	TWL	CKD	PEB
DRAWN	TWL	CKD	PEB
TRACED	CKD		

BRIDGE SUMMARY

-ITEM-	UNIT	(-4864)	(-5267)	(-5268)	(-5270)	(-2377)	TOTALS
Concrete Class "C" in Superstructure	Cys.	1,863.2	518.7		76.2	156.0	2614.1
Concrete Class "A" in Substructure	Cys.	518.6	95.8			38.7	653.1
Concrete Class "B" Above Footings	Cys.	602.5	17.3	49.5		30.4	699.7
Concrete Class "B" in Footings	Cys.	1259.6	24.4	5.0		27.6	1316.6
Concrete, A, Modified	Cys.		180	272	240	29	721
Repointing Masonry in Structures	Sft.	20					20
Concrete Structural Members (Str. No. 1)	LSum	1					1
Flowable Mortar	Cys.		4			4	8
Reinforcing Steel	Lbs.	210,210	43,651	10,636	6,146	19,303	289,946
Epoxy Coated Reinforcing Steel	Lbs.	928,788	186,130	11,220	40,927	65,526	1,232,591
Threaded Bar Splices	Each	102	53			44	199
E.C. Threaded Bar Splices	Each	3,920	138	24	504	416	6248
Structural Steel (Str. No. 2)	LSum		1				1
Structural Steel (Str. No. 5)	LSum					1	1
Shear Connectors	Each		2376		828	720	3924
Diaphragms, Reset	Each				42	18	60
Rolls, Remove	Each				420	109	528
Anchor Plates MK-AP2	Each		18			10	28
Cast Iron Grates, Basins & Fittings	Lbs.	18,032	768			768	19,568
Cast Iron Drain Pipe, 6"	Lbs.	4,592	315			160	5067
Inlet, D-6	Each					1	1
* Inlet, H-5	Each	2					2
* Inlet, P12A	Each	1					1
Inlet, U-A	Each		2				2
Inlet, W-A	Each		1				1
* Inlet, Remove	Each	1					1
Class "C" Concrete Railing	Lft.	1,658	637	644	953	996	4888
Concrete Median Barrier	Lft.	44	44				88
2" Galvanized Steel Conduit	Lft.				103		103
1/c No 4 CU	Lft.				609		609
* Linear Grading	Sta.	1.5					1.5
Expansion Joint BS9	Lft.		146				146
Expansion Joint BS11	Lft.		146		276		422
Expansion Joint "S-S"	Lft.	316				68	384
Expansion Joint, Class "S-S" Seal	Lft.					79	79
Expansion Joint "S-S" Extrusion	Lft.					79	79
Concrete Removal for Expansion Joint	Sft.			204			204
Clean & Paint Brq. Assemblies (Str. No. 1)	LSum	1					1
Clean & Paint Brq. Assemblies (Str. No. 2)	LSum		1				1
Clean & Paint Brq. Assemblies (Str. No. 4)	LSum				1		1
Clean & Paint Brq. Assemblies (Str. No. 5)	LSum					1	1
Pullution Control (Str. No. 1)	LSum	1					1
Pile Shcits Furnished and Driven, 14'	Lft.	3,240	1520			1070	5830
Steel H Piles Furnished and Driven HP12x53	Lft.	1,790					1790
Surface Seal (Str. No. 1) (Est. Qty. 85,256 Sft.)	LSum	1					1
Surface Seal (Str. No. 2) (Est. Qty. 26,433 Sft.)	LSum		1				1
Surface Seal (Str. No. 3) (Est. Qty. 5,353 Sft.)	LSum			1			1
Surface Seal (Str. No. 4) (Est. Qty. 8,416 Sft.)	LSum				1		1
Surface Seal (Str. No. 5) (Est. Qty. 8,712 Sft.)	LSum					1	1
Masonry Coating (Str. No. 1) (Est. Qty. 22,735 Sft.)	LSum	1					1
Masonry Coating (Str. No. 2) (Est. Qty. 6060 Sft.)	LSum		1				1
Masonry Coating (Str. No. 3) (Est. Qty. 5,124 Sft.)	LSum			1			1
Masonry Coating (Str. No. 4) (Est. Qty. 8,416 Sft.)	LSum				1		1
Masonry Coating (Str. No. 5) (Est. Qty. 8,338 Sft.)	LSum					1	1
Removal of Pres. Str. (Portions) (Str. No. 1)	LSum	1					1
Removal of Pres. Str. (Portions) (Str. No. 2)	LSum		1				1
Removal of Pres. Str. (Portions) (Str. No. 3)	LSum			1			1
Removal of Pres. Str. (Portions) (Str. No. 4)	LSum				1		1
Removal of Pres. Str. (Portions) (Str. No. 5)	LSum					1	1
Jack and Supporting Girders (Str. No. 1)	LSum	1					1
Removal of Signs & Brackets (Str. No. 4)	LSum				1		1
Concrete Slopewall, 4'	Sys.		258			176	434
Removal of Slopewall	Sys.		42			24	66
Inspection Holes	Each		2				2
Riprap	Tons	1,353		68	85	20	1526

(* For Pay Item Locations, See Maintenance of Traffic Plans, Sheet M34 of 55.)

-ITEM-	UNIT	(-4864)	(-5267)	(-5268)	(-5270)	(-2377)	TOTALS
Geotextiles	Sys.	1,353			10		1,363
Field Drilled Hole for Flowable Mortar	Each					2	2
Field Drilled Hole	Each		75			36	111
Field Drilled Holes in Concrete	Each	532	327	1,056	1,243	869	4,027
Bridge Deck Overlay	Sys.			1,363	3,112	3,105	7,580
Bridge Deck Overlay, Additional	Cys.			6.6	10.8	13.4	30.8
Bridge Deck Patching (Partial Depth)	Sft.			240	275	217	732
Bridge Deck Patching (Full Depth)	Sft.			40			40
Removal of Bridge Deck Overlay	Sys.			1,328	2,695	2,408	6,431
Surface Milling	Sys.			1,328	2,695	2,408	6,431
Foundation Excavation, Unclassified	Cys.	704	59	45		127	935
Wet Excavation	Cys.	2,957					2,957
Gabions, Remove	LSum	1					1
Borrow	Cys.	1,089					1,089
B-Borrow for Structure Backfill	Cys.	333	125	20		94	572
Pipe, FBCCS Perf. for Underdrains, 0.052 in., 6 in.	Lft.	168	100			40	308
* Pipe, FBCCS, 0.064 in., 12 in.	Lft.	190	30				220
Pipe, Corrugated Steel, 6.079 in., 54 in.	Lft.	56					56
Pipe, Remove	Lft.		12				12
Concrete, A in Structures	Cys.	1.4					1.4
Cement Concrete Pavement, Reinforced, 10 in.	Sys.	1,144	1,009	256	239	385	3033
Compacted Aggr. for Base, Type "O" (No. 53)	Tons	286	209	84	81	128	788
Removal of Pavement	Sys.	656	396	80	125	186	1443
Breaking Paved Side Ditch	Lft.		50	100	225	215	590
* Removal of Paved Side Ditch	Lft.	240	50				290
Removal of Drainage Turnout	Each	1	2	8	4	2	17
Removal of Bituminous Curb	Lft.	50					50
Sodding	Sys.	56	561			955	1572
Fence, Farm Field Type, 47'	Lft.	310					310
Fence, Farm Field Type, Remove	Lft.	210					210
Fence, Chain Link, Remove	Lft.	150					150
Cap Inlet	Each	1	5			2	8
Barrier Delineators	Each	234	40	36	64	54	428
Removal of Guard Rail	Lft.	1,195	105	391		590	2,281
Guard Rail End Treatment, Type I	Lft.		2	2			4
Guard Rail End Treatment, OS	Each					2	2
Guard Rail, W-Beam, 6'-3 Spa.	Lft.		100	131		663	894
Bituminous Mixture for Approaches, MV	Tons	2,114 40	1,506 44	450	815	608	5,493 92
Concrete Turnout	Each			4	2	1	7
Removal of Bituminous Surface	Sys	1,302	107	80	125	186	1800
Maintaining Traffic (Str. No. 1)	LSum	±					±
Maintaining Traffic (Str. No. 2)	LSum	±	±				±
Maintaining Traffic (Str. No. 3)	LSum			±			±
Maintaining Traffic (Str. No. 4)	LSum				±		±
Maintaining Traffic (Str. No. 5)	LSum					±	±
Temporary Concrete Barrier	Lft.	990	466	760	1,600	1,600	4,416
Temporary Concrete Barrier, Anchored	Lft.	2,530	1,100	4,690	2,710	1,210	12,240
Temporary Concrete Barrier, Leave in Place	Lft.	2,520					2,520
Temporary Concrete Barrier, Anchored w/Clare Screens	Lft.	600					600
Clare Screens	Lft.	910	1,431				2,341
Construction Sign, Type "A"	Each	24	±	±	±5	±5	±66
Construction Sign, Type "B"	Each	±			±		±
Standard Barricade, Type III B	Each				±		±
Changeable Message Sign	Each			±			±
Temporary Pavement Marking, Type I, 4", White	Lft.	15,470	9,832	10,524	9,784	8,043	53,712
Temporary Pavement Marking, Type I, 4", Yellow	Lft.	7,511	1,916	6,664	4,639	8,588	39,318
Temporary Pavement Marking, Type II, 4", White	Lft.	1,504	540	476	824	630	4,974
Temporary Pavement Marking, Type II, 4", Yellow	Lft.	802	270	476	824	630	3,902
Line, Remove	Lft.	6,548	4,830	3,595	5,467	3,705	24,064
CRCA-T Unit, cc, 6 Day	Each			±	±	±	±
Removal Snowplowable Raised Pavement Marker	Each		8	37	30		75
Snowplowable Raised Pavement Marker	Each	30	8	8	37	30	113
Prismatic Reflectors, Remove	Each	128	73	66	93	72	432
Guardrail, Transition Type GP	Each		2	2			4

BRIDGE SUMMARY

INDIANA DEPARTMENT OF HIGHWAYS

MARION COUNTY

SCALE: - None

DATE: - August 14

1991

Daniel D. Clark

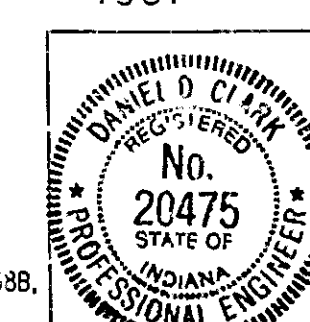
DRAWING: - OF SHEET: 117 OF 159

PROJECT: - MAIR-IR-465-4(266)119 STATION: -

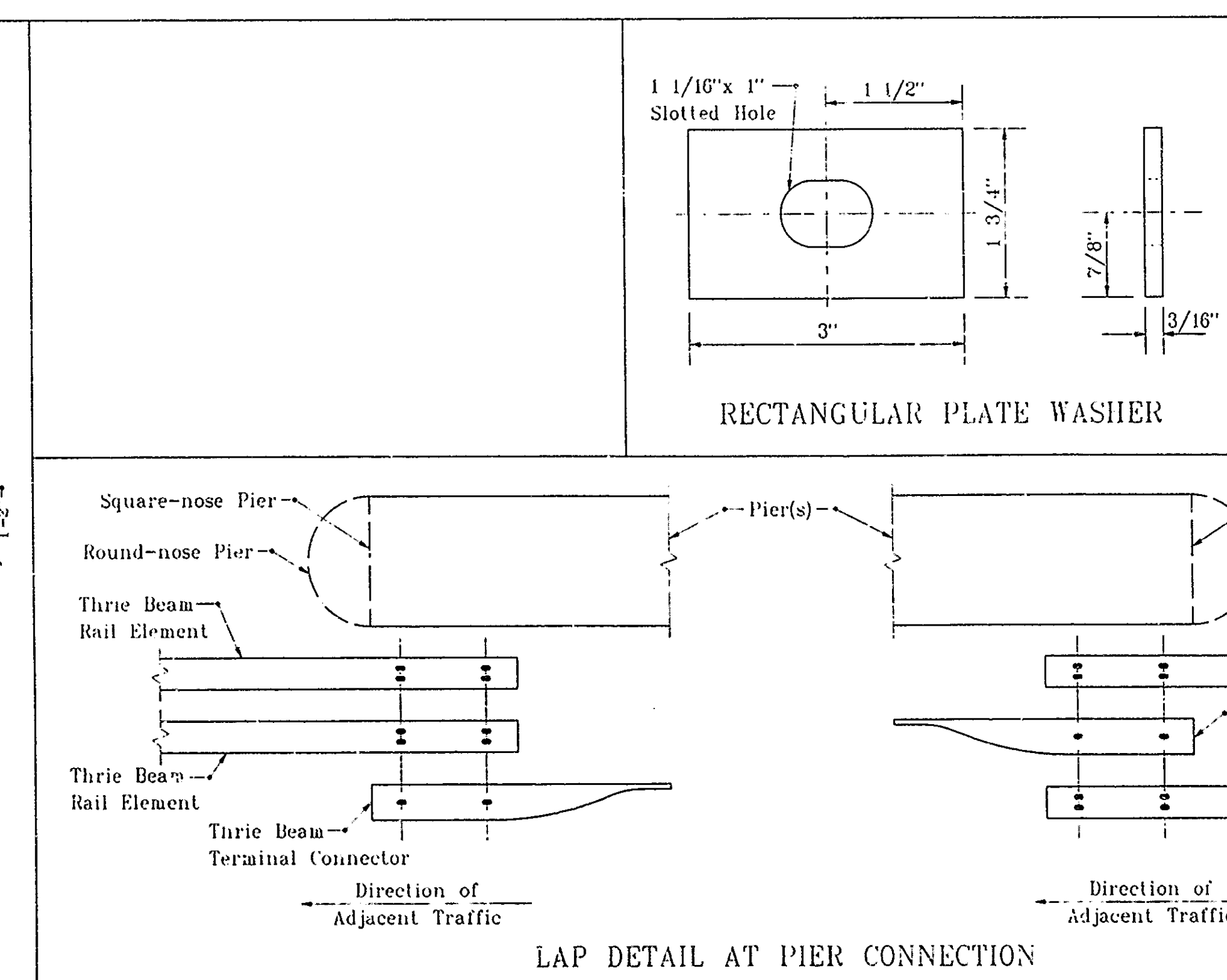
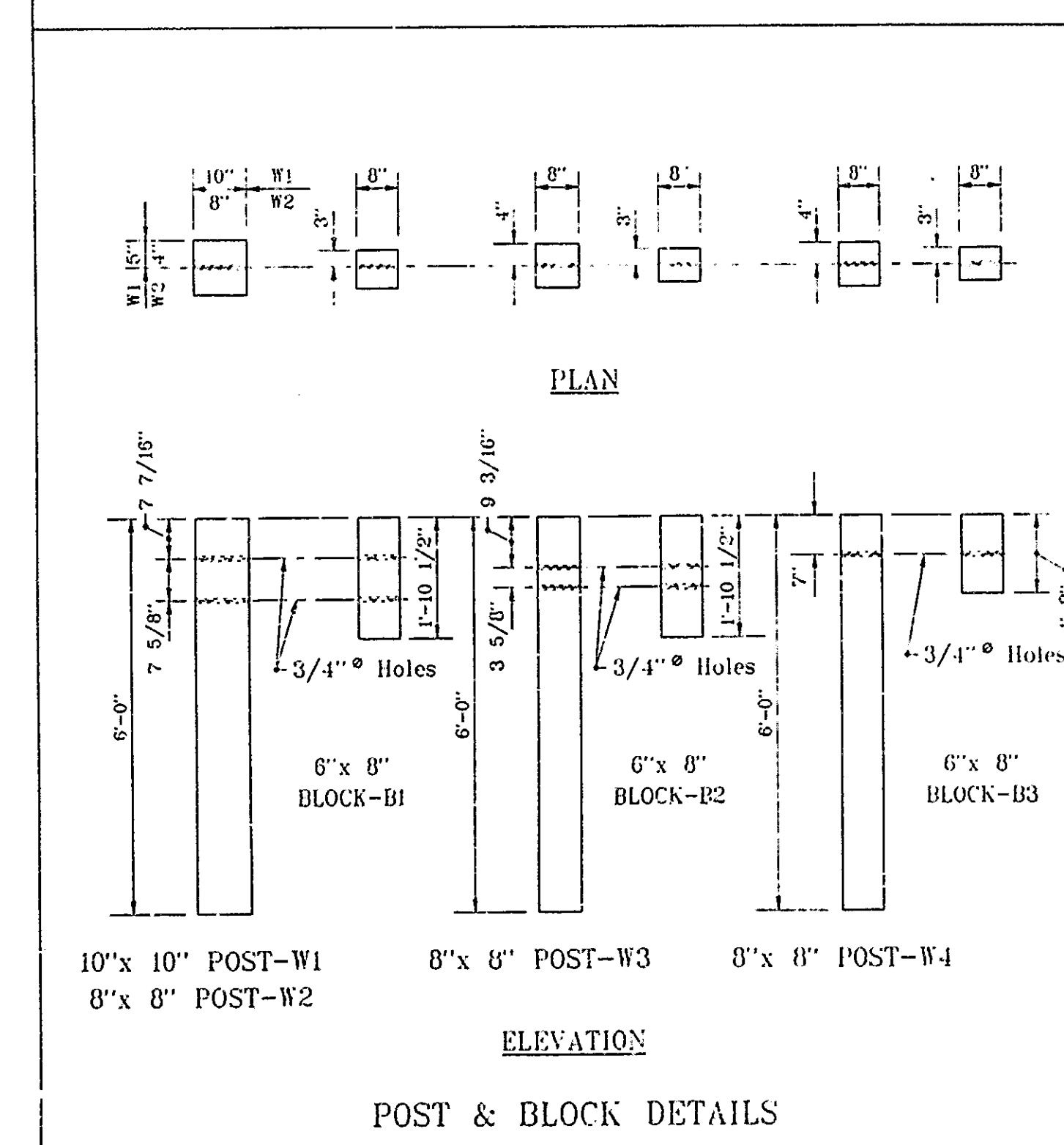
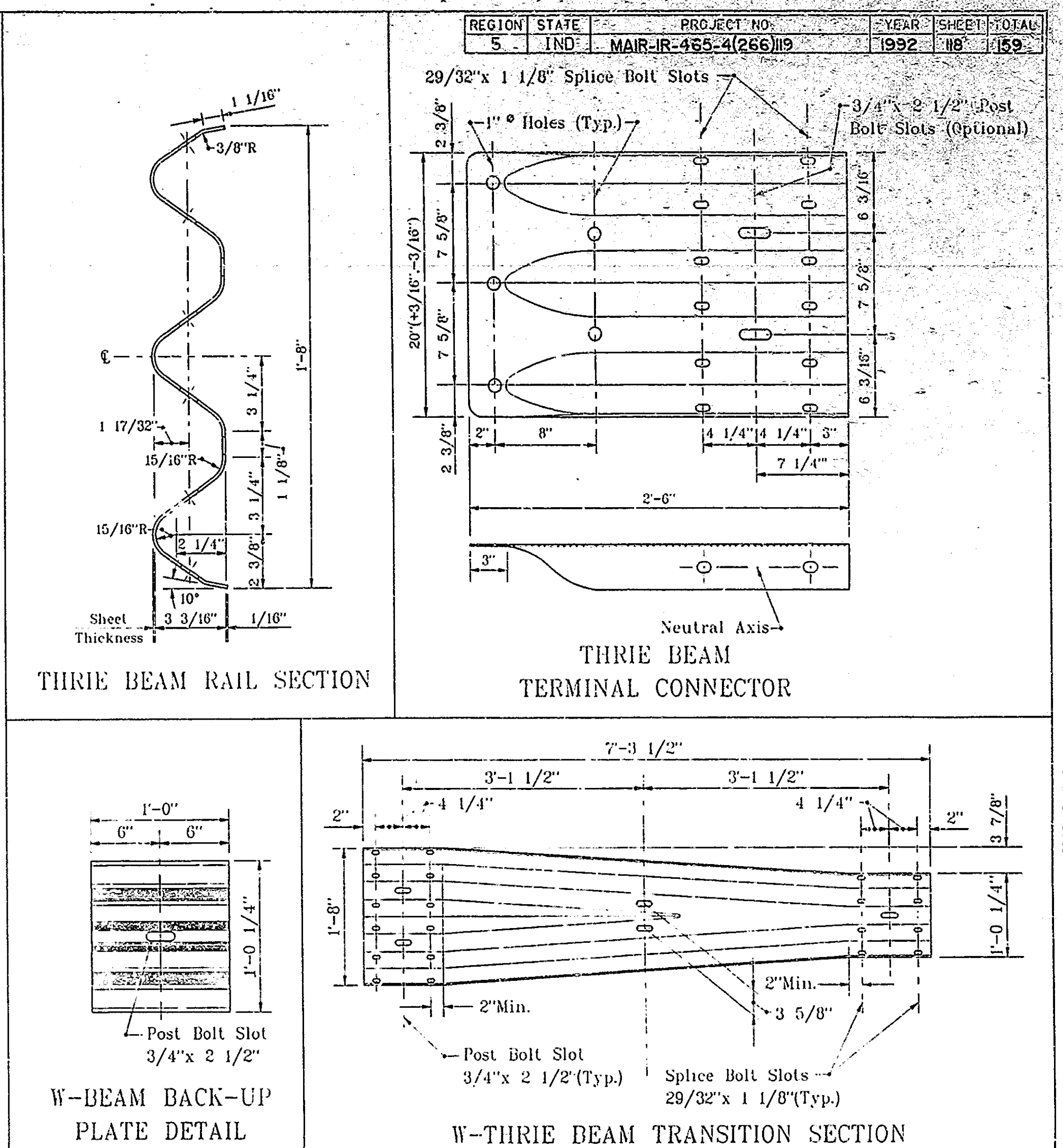
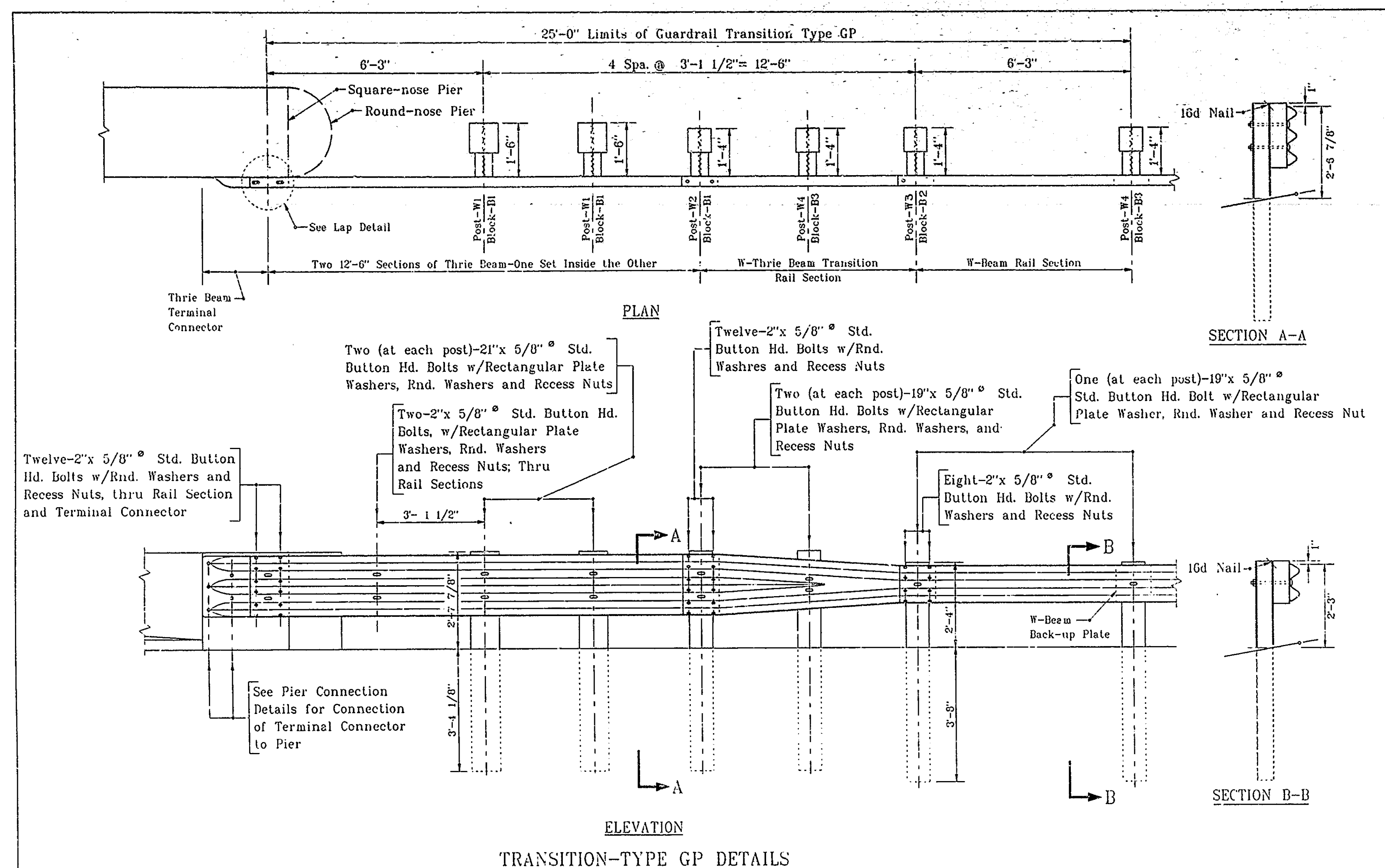
BRIDGE CONTRACT NO. R-19452

BRIDGE FILE: - I-465-123-4864B & JC, I-465-123-5267B, I-465-124-5268B, I-465-125-5270B & JB, I-465-125-2377B & JB

Rev: 4-12-92; Revised Maintenance of Traffic Quantities.
Rev: 03-06-92; Gabions (LSum); Guardrail



DESIGNED: RCS CKD
DRAWN: RCS CKD
CHECKED: AJW
TRACED: CKD



INDIANA DEPARTMENT OF TRANSPORTATION

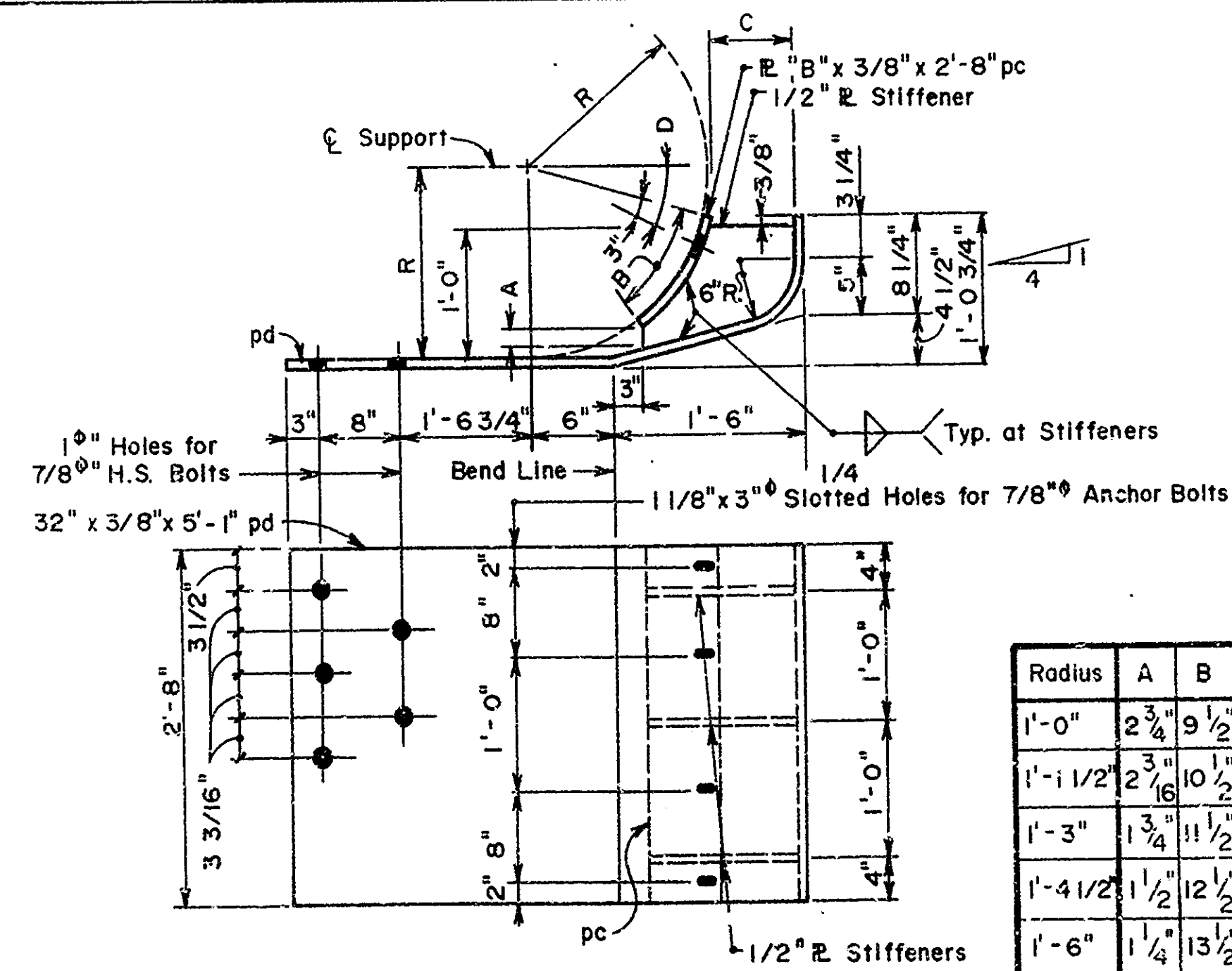
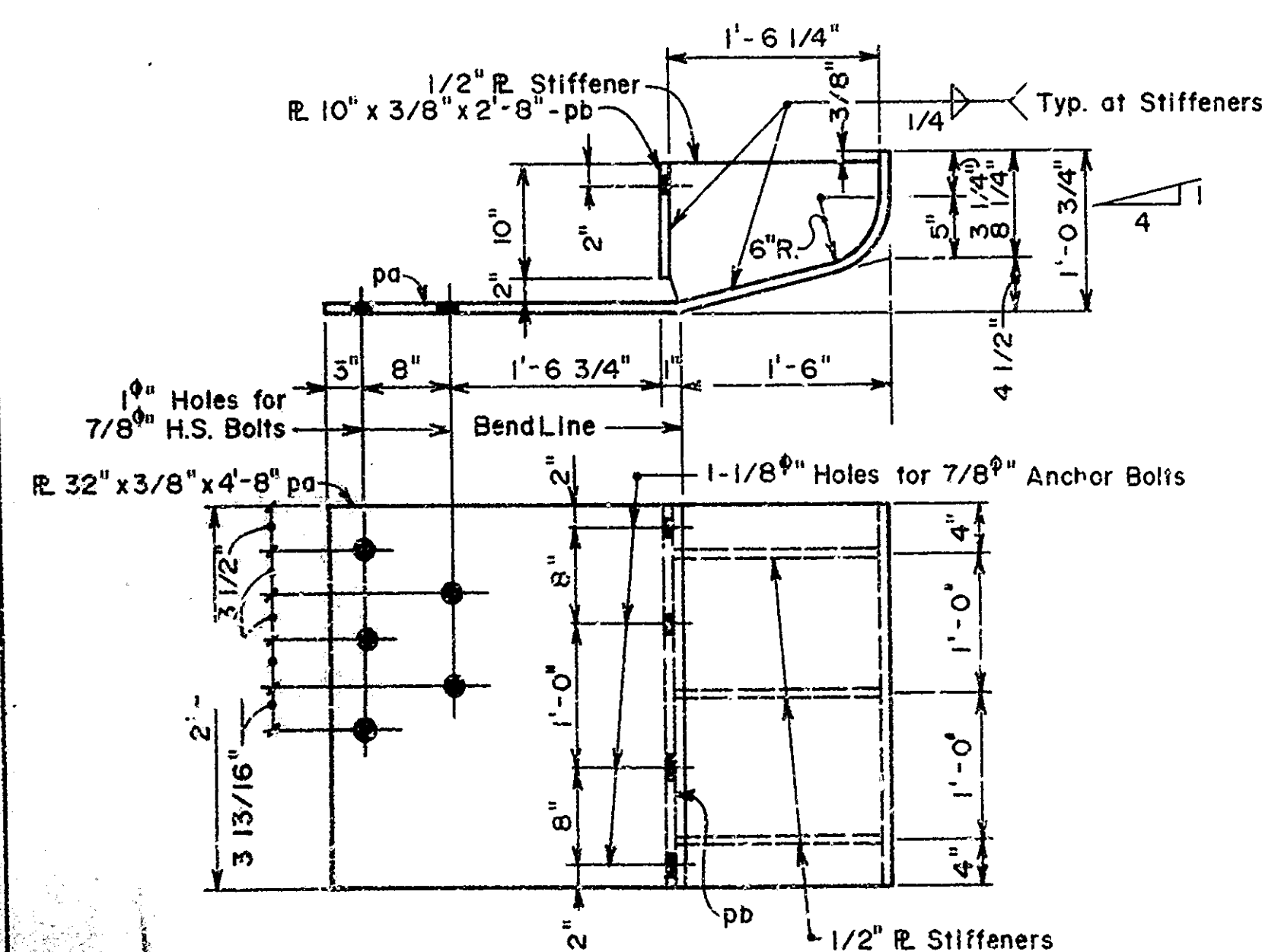
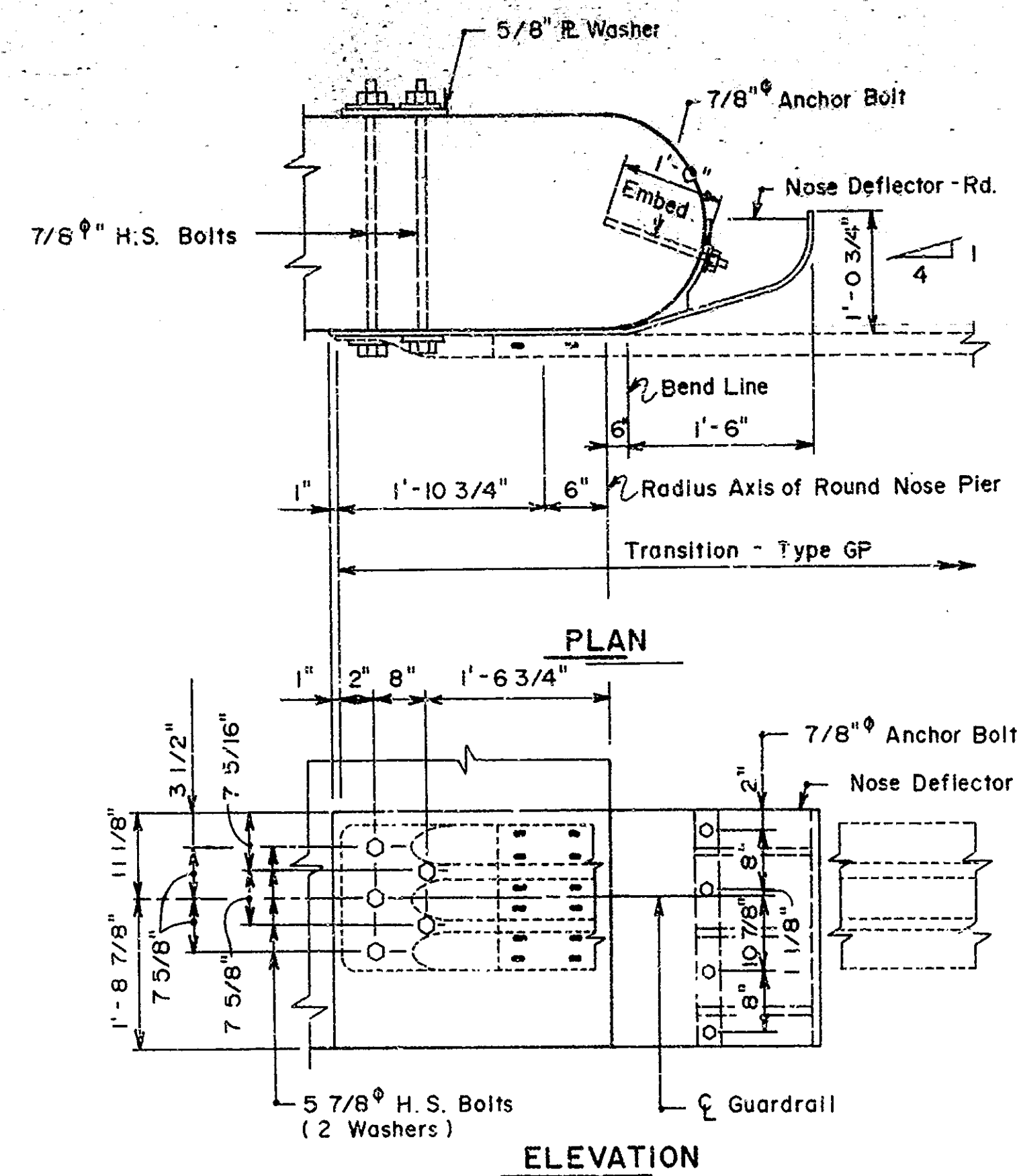
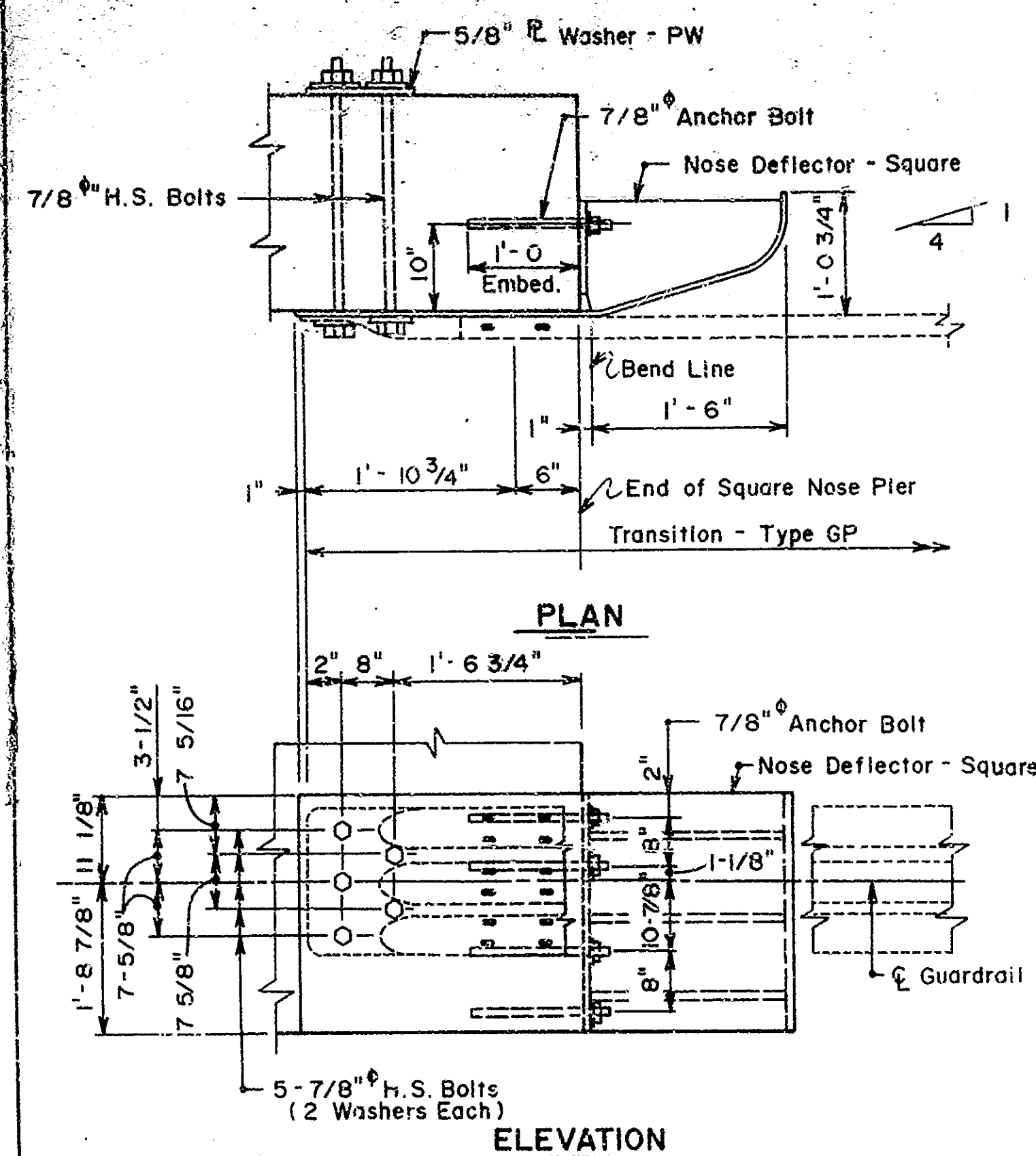
GUARDRAIL TRANSITION TYPE GP

RECOMMENDED FOR APPROVAL *Daniel D. Clark* 2/14/91
DESIGN ENGINEER DATE

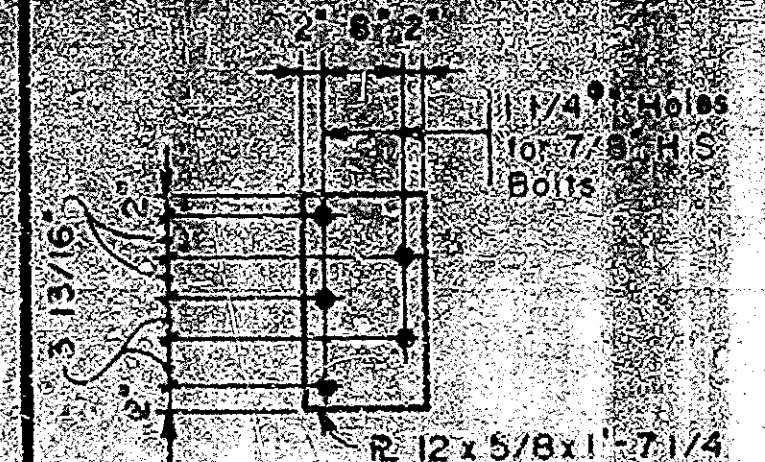
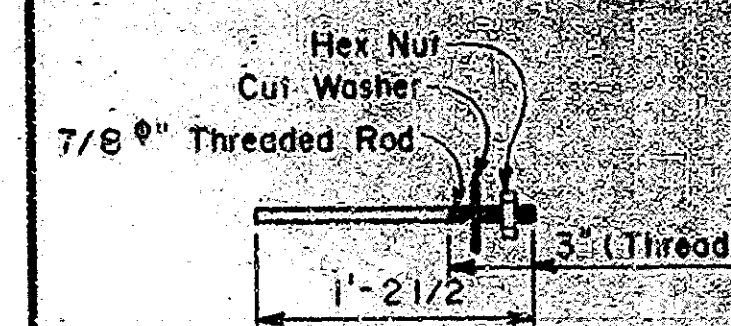
CONTRACT NO. *R-19482* STRUCTURE NO.

DES. NO. PROJECT NO. YEAR SHEET TOTAL
MAIR-IR-465-4(266)19 1992 118 159

Daniel D. Clark
REGISTERED PROFESSIONAL ENGINEER
No. 20475
STATE OF INDIANA



Radius	A	B	C	D
1'-0"	2 $\frac{3}{4}$ "	9 $\frac{1}{2}$ "	11 $\frac{1}{4}$ "	2 $\frac{3}{4}$ "
1'-1 1/2"	2 $\frac{3}{16}$ "	10 $\frac{1}{8}$ "	9 $\frac{13}{16}$ "	4 $\frac{3}{8}$ "
1'-3"	1 $\frac{3}{4}$ "	11 $\frac{1}{2}$ "	8 $\frac{9}{16}$ "	5 $\frac{7}{8}$ "
1'-4 1/2"	1 $\frac{1}{2}$ "	12 $\frac{1}{2}$ "	7 $\frac{3}{8}$ "	7 $\frac{7}{8}$ "
1'-6"	1 $\frac{1}{4}$ "	13 $\frac{1}{2}$ "	6 $\frac{1}{4}$ "	8 $\frac{3}{4}$ "



ANCHOR BOLT

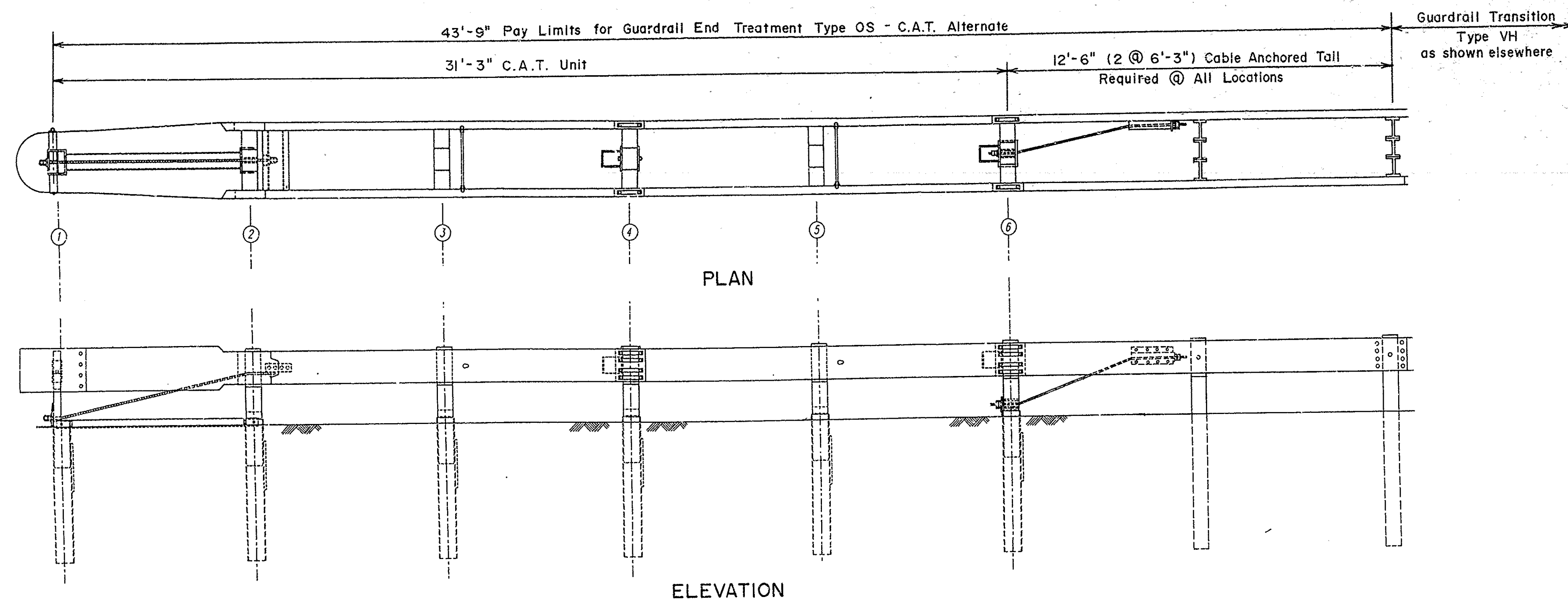
PLATE WASHER

ATTACHMENT AT SQUARE NOSE PIER

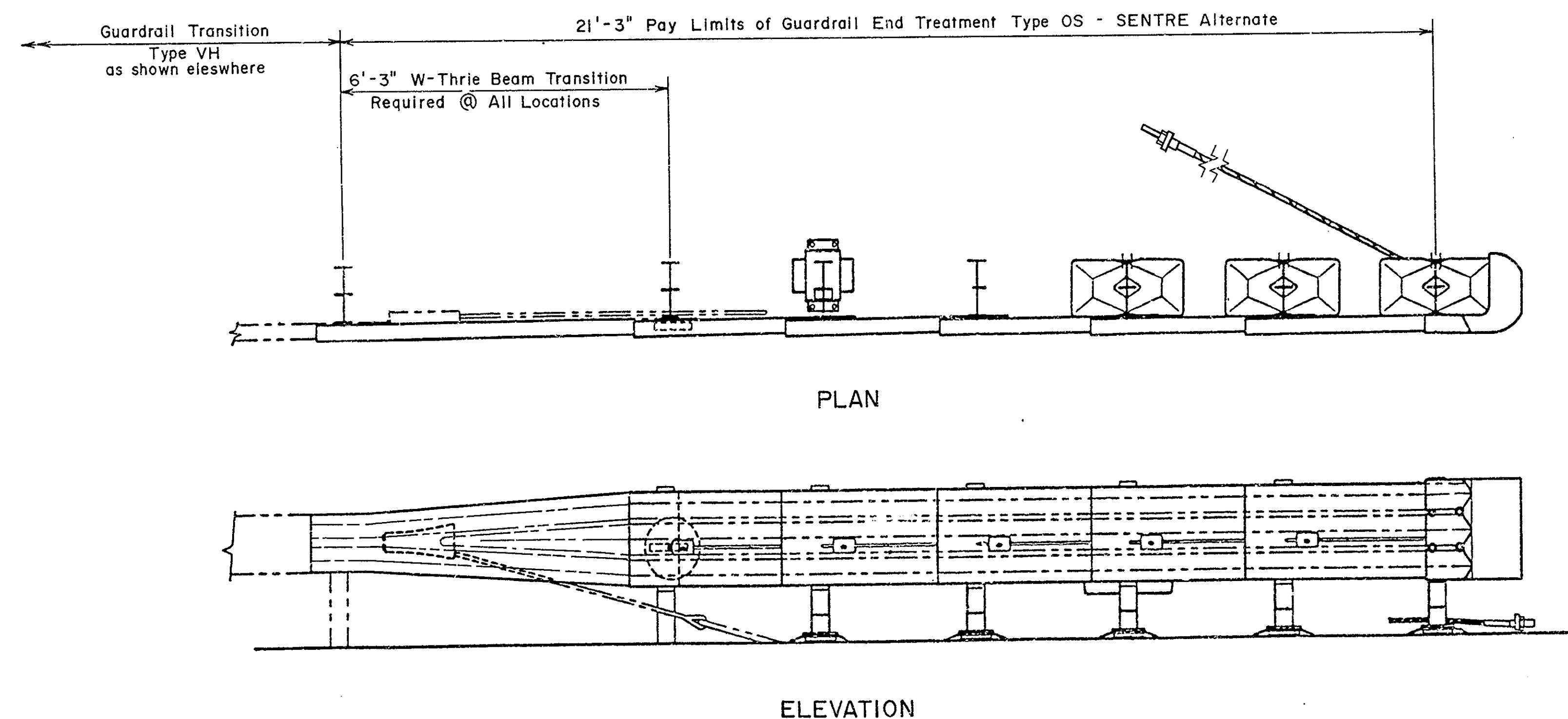
ATTACHMENT AT ROUND NOSE PIER

INDIANA DEPARTMENT OF TRANSPORTATION			
FILED Detail of <i>State</i> <i>Vehicle</i> No. <i>100</i>			
RECORDED FOR APPROVAL	<i>Charles H. H. H.</i> DESIGNATION		100 20475
CONTAINS	ISSUED	DATE	TOTAL
7-1-1964	7-1-1964	7-1-1964	100
100	100	100	100
MAILED 10-15-64 69109		100	

REGION	STATE	PROJECT NO.	YEAR	SHEET	TOTAL
5	IND	MAIR-IR-465-4(266)119	1992	123	159



C.A.T. ALTERNATE FOR GUARDRAIL END TREATMENT TYPE OS



SENTRE ALTERNATE FOR GUARDRAIL END TREATMENT TYPE OS

NOTE

The details on this sheet are only concept drawings of the C.A.T. and SENTRE alternates allowed for Guardrail End Treatment Type OS. This information is provided only for the pay limits and overall lengths of the two allowable alternates. The actual details of these alternates shall be as required in the Special Provisions.

GUARDRAIL END TREATMENT
TYPE OS - ALTERNATES

INDIANA DEPARTMENT OF TRANSPORTATION

RECOMMENDED FOR APPROVAL	<i>Daniel D. Clark</i> DESIGN ENGINEER	DATE 8/14/91		
CONTRACT NO. R-19482	STRUCTURE NO.			
DES. NO.	PROJECT NO. MAIR-IR-465-4(266)119	YEAR 1992	SHEET 123	TOTAL 159

REVISED:
BY: *JRS*

[Code-GRGTOS]