

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
**PLANS FOR PROPOSED
FEDERAL AID HIGHWAY**
F.A. ROUTE 49
SECTION 15-2 (F&E)
PROJECT EACF-49(37)
PEORIA-TAZEWELL COUNTIES
C-94-113-79

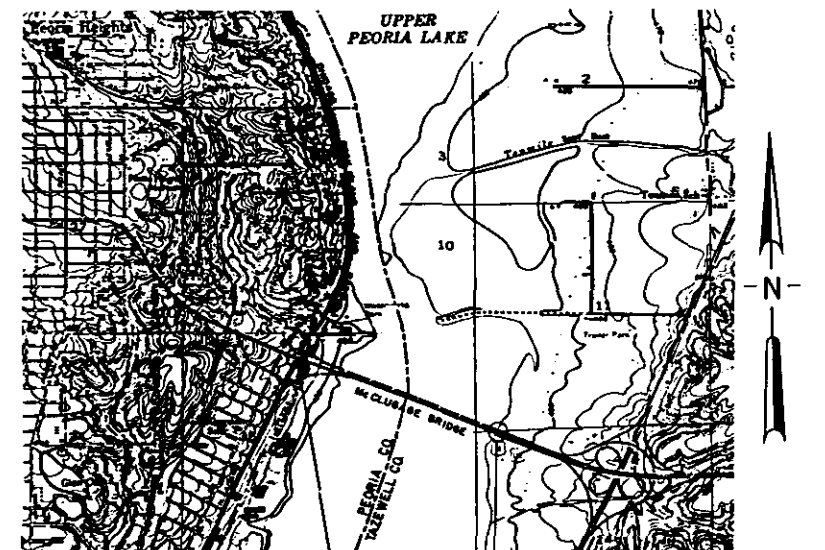
ROUTE NO.	SEC.	COUNTY	FEET	DATE
FA 49	15-2 (F&E)	PEORIA AND TAZEWELL	134	A
P-94-156-69				

SCHEDULE OF QUANTITIES TAZEWELL COUNTY		
QUANTITY	UNIT	ITEM
0.2	L. SUM.	FURNISHING & ERECTING STRUCTURAL
0.2	L. SUM.	MOBILIZATION
5	HOURS	TRAINEES
5	CAL. MO.	ENGINEERS FIELD OFFICE, TYPE A
5	VEH. MO.	FURNISHING & MAINTAINING AUTOMOTIVE VEH.
1	EACH	SAFETY CAGES

SCHEDULE OF QUANTITIES PEORIA COUNTY		
QUANTITY	UNIT	ITEM
0.8	L. SUM.	FURNISHING & ERECTING STRUCTURAL STEEL
1	L. SUM.	RAIL ALTERATIONS
2	EACH	FLOATING BEARINGS-PIER 4E (E. BRGS.)
4	EACH	FLOATING BEARINGS-PIER 4E (W. BRGS.)
4	EACH	FLOATING BEARINGS-S. ABUTMENT
4	EACH	FLOATING BEARINGS-N. ABUTMENT
4	EACH	FLOATING BEARINGS-PIER 4-RAMP F
4	EACH	FLOATING BEARINGS-PIER 2E
4	EACH	FLOATING BEARINGS-PIER 2F
4	EACH	FLOATING BEARINGS-PIER 3E
4	EACH	FLOATING BEARINGS-PIER 3-RAMP F
0.8	L. SUM.	MOBILIZATION
1000	HOURS	TRAINEES
22	CAL. MO.	ENGINEERS FIELD OFFICE, TYPE A
22	VEH. MO.	FURNISHING & MAINTAINING AUTOMOTIVE VEH.
4	EACH	SAFETY CAGES

SUMMARY OF QUANTITIES			
QUANTITY	UNIT	ITEM	CODE NO.
1	L. SUM.	FURNISHING & ERECTING STRUCTURAL STEEL	507001
1	L. SUM.	RAIL ALTERATIONS	X06887
2	EACH	FLOATING BEARINGS-PIER 4E (E. BRGS.)	X06888
4	EACH	FLOATING BEARINGS-PIER 4E (W. BRGS.)	X06889
4	EACH	FLOATING BEARINGS-S. ABUTMENT	X06890
4	EACH	FLOATING BEARINGS-N. ABUTMENT	X06891
4	EACH	FLOATING BEARINGS-PIER 4-RAMP F	X06892
4	EACH	FLOATING BEARINGS-PIER 2E	X06893
4	EACH	FLOATING BEARINGS-PIER 2F	X06894
4	EACH	FLOATING BEARINGS-PIER 3E	X06895
4	EACH	FLOATING BEARINGS-PIER 3-RAMP F	X06896
1	L. SUM.	MOBILIZATION	X04748
1000	HOURS	TRAINEES	Z10527
27	CAL. MO.	ENGINEERS FIELD OFFICE, TYPE A	646004
27	VEH. MO.	FURNISHING & MAINTAINING AUTOMOTIVE VEH.	Z10240
5	EACH	SAFETY CAGES	X06897

DESIGN DESIGNATION
3996 (94) MAJOR (PCC-20)
CONTRACT NO. 34179



PROPOSED PROJECT EACF-49(37)
BEGINS STA. 199+00.77

PROPOSED PROJECT EACF-49(37)
ENDS STA. 246+46.02

NET LENGTH OF PROPOSED IMPROVEMENT
4745.25 LIN. FT. = 0.90 MI.

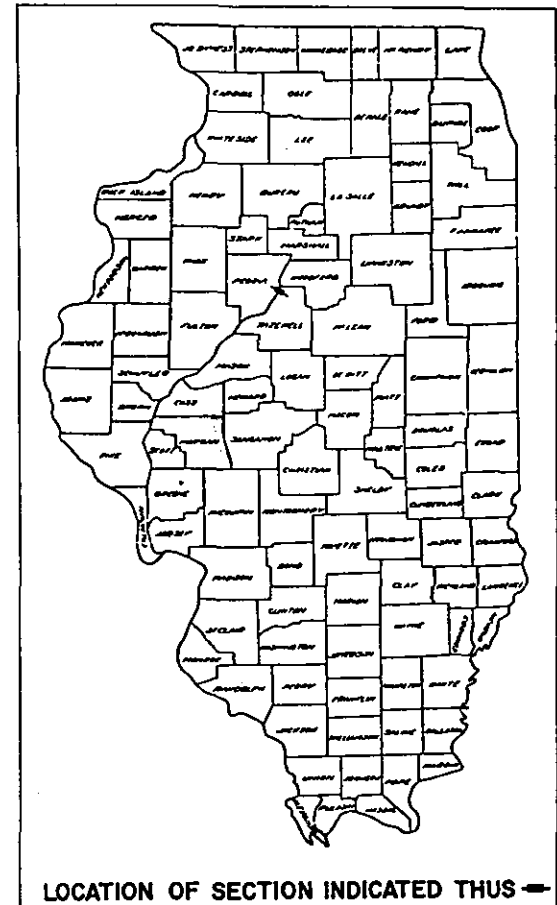
LAYOUT
SCALE = 1" = 2000'

THE PROPOSED IMPROVEMENT INCLUDES THE FABRICATION AND ERECTION OF THE STRUCTURAL STEEL FOR THE FOLLOWING SPANS OF THE McCLUGAGE BRIDGE:

SPANS 3 THRU 14 INCLUSIVE FROM STA. 199+03.24 TO STA. 230+52.77
SPANS 3F, 4F & 5F OF RAMP F FROM STA. 5+94.86 TO STA. 9+65.54
SPANS 3E THRU 10E INCLUSIVE OF RAMP E FROM STA. 8+58.5 TO STA. 24+35.39

THESE SPANS CONSIST OF PLATE GIRDERS, A 3 SPAN CANTILEVER TRUSS, FLOOR BEAMS, CROSS FRAMES, LATERAL BRACING, STEEL BEARINGS AND FLOATING BEARINGS.

THE IMPROVEMENT ALSO INCLUDES ALTERATIONS TO A PORTION OF THE RAIL ON THE EXISTING BRIDGE AND THE STRENGTHENING OF SOME PLATE GIRDER MEMBERS OF THE EXISTING BRIDGE AND THE ATTACHMENT OF RAMP E TO THE EXISTING BRIDGE.



STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS	
SUBMITTED <u>10-22-19</u> <u>1980</u> <i>J. A. Hurland</i> DISTRICT ENGINEER	
EXAMINED <u>1/10</u> <u>1980</u> <i>R. J. W. Hurland</i> ENGINEER OF PLANS AND CONTRACTS	
PASSED <u>1/10</u> <u>1980</u> <i>Thomas R. Bright</i> ENGINEER OF DESIGN	
APPROVED <u>1/10</u> <u>1980</u> <i>J. A. Hurland</i> DIRECTOR OF HIGHWAYS	
DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION	
APPROVED <u> </u> DIVISION ADMINISTRATOR	DATE <u> </u>

SUBMITTED <u>Sept 27, 1979</u> <i>J. A. Hurland</i> DIST. DESIGN ENGR.
EXAMINED <u>Sept 28, 1979</u> <i>J. A. Hurland</i> DIST. CONST. ENGR.
EXAMINED <u>October 2, 1979</u> <i>J. A. Hurland</i> DIST. MAINT. ENGR.
EXAMINED <u>Sept 28, 1979</u> <i>J. A. Hurland</i> DIST. TRAFFIC ENGR.
Entire section inspected and approved as to policy.
DATE <u>10-22-19</u> <u>1980</u> <i>J. A. Hurland</i>

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	134	SECTION	81
DATE	1/22/71	BY	DD

INDEX OF SHEETS

- A. TITLE SHEET
- B. INDEX OF SHEETS
- C. ACCESS ROAD, R.O.W. AND TEMPORARY EASEMENTS
1. GENERAL PLAN & ELEVATION
2. HORIZONTAL CONTROL BENCH MARKS & R.O.W.
3. STRUCTURAL STEEL SPAN 3
4. BEARINGS SPAN 3
5. STRUCTURAL STEEL SPANS 4 & 5
6. GIRDER SPLICE DETAILS SPANS 4 & 5
7. STRUCTURAL STEEL DETAILS SPANS 4 & 5
8. BEARINGS & CROSS FRAMES SPANS 4 & 5
9. STRUCTURAL STEEL PLAN SPANS 6-7-8
10. TRANSVERSE STIFFENER LOCATIONS, GIRDER 1 SPANS 6-7-8
11. TRANSVERSE STIFFENER LOCATIONS, GIRDER 2 SPANS 6-7-8
12. STRUCTURAL STEEL GIRDERS SPANS 6-7-8
13. BEARINGS & CAMBER DIAGRAM SPANS 6-7-8
14. BEARINGS, MOMENTS & REACTIONS SPANS 6-7-8
15. SPLICE DETAILS 2, 3, 4 & 5 GIRDER 1 & SPLICE DETAILS 2, 3 & 4 GIRDER 2
16. STRUCTURAL STEEL DETAILS SPANS 6-7-8
17. STRUCTURAL STEEL DETAILS SPANS 6-7-8
18. STRUCTURAL STEEL DETAILS SPANS 6-7-8
19. FLOOR BEAMS SPANS 6-7-8
20. STRUCTURAL STEEL PLAN SPANS 9-10-11
21. STRUCTURAL STEEL GIRDERS SPANS 9-10-11
22. STRUCTURAL STEEL GIRDERS SPANS 9-10-11
23. STRUCTURAL STEEL DETAILS SPANS 9-10-11
24. FLOOR BEAM DETAILS SPANS 9-10-11
25. GIRDER SPLICE DETAILS SPANS 9-10-11
26. BEARING DETAILS SPANS 9-10-11
27. MEMBER LAYOUT & FORCES L₀-L₁₀ TRUSS - SPANS 12-13-14
28. MEMBER LAYOUT & FORCES L₀-L₁₀ TRUSS - SPANS 12-13-14
29. MEMBER LAYOUT & FORCES L₀-L₁₀ TRUSS - SPANS 12-13-14
30. TRUSS LAYOUT SPANS 12-13-14
31. INTERIOR FLOOR BEAMS A & B TRUSS SPANS 12-13-14
32. END FLOOR BEAM TRUSS SPANS 12-13-14
33. FLOOR BEAM C TRUSS SPANS 12-13-14
34. TRUSS DETAILS L₀-L₁₀ SPANS 12-13-14
35. TRUSS DETAILS L₀-L₁₀ SPANS 12-13-14
36. TRUSS DETAILS L₀-L₁₀ SPANS 12-13-14
37. TRUSS DETAILS L₀-L₁₀ SPANS 12-13-14
38. TRUSS DETAILS L₀-L₁₀ SPANS 12-13-14
39. TRUSS DETAILS L₀-L₁₀ SPANS 12-13-14
40. TRUSS DETAILS L₀-L₁₀ SPANS 12-13-14
41. TRUSS DETAILS L₀-L₁₀ SPANS 12-13-14
42. DETAIL NAVIGATIONAL LIGHTS
43. TRUSS BEARING DETAILS SPANS 12-13-14
44. STRUCTURAL STEEL DETAILS TRUSS SPANS 12-13-14
45. FLOATING BEARINGS
46. FLOATING BEARINGS
47. STRUCTURAL STEEL FRAMING PLAN RAMP F SPAN 3F
48. STRUCTURAL STEEL FRAMING PLAN RAMP F SPAN 4F & 5F
49. RAMP F GIRDER DETAILS
50. RAMP F GIRDER DETAILS

51. RAMP F SPLICES, MOMENT & REACTION TABLES
52. RAMP F CAMBER DIAGRAMS
53. RAMP F CROSS FRAMES
54. RAMP E SPANS 3E-4E-5E STRUCTURAL STEEL FRAMING PLAN
55. GIRDER DETAILS RAMP E - SPANS 3E-4E-5E
56. GIRDER DETAILS RAMP E - SPANS 3E-4E-5E
57. STRUCTURAL STEEL DETAILS RAMP E SPANS 3E-4E-5E
58. RAMP E SPANS 3E-4E-5E CAMBER DIAGRAMS
59. CROSS FRAMES & BOTTOM LATERAL BRACING - RAMP E - SPANS 3E-4E-5E
60. STRUCTURAL STEEL FRAMING PLAN - RAMP E - SPANS 6E-7E-8E
61. GIRDER 1 DETAILS - RAMP E - SPANS 6E-7E-8E
62. GIRDER 2 DETAILS - RAMP E - SPANS 6E-7E-8E
63. GIRDERS 1 & 2 FLANGE DETAILS - RAMP E - SPANS 6E-7E-8E
64. STRUCTURAL STEEL DETAILS - RAMP E - SPANS 6E-7E-8E
65. STRUCTURAL STEEL DETAILS - RAMP E - SPANS 6E-7E-8E
66. STRUT DETAILS - GIRDERS 1 & 2 - RAMP E - SPANS 6E-7E-8E
67. FLOOR BEAM DETAILS - RAMP E - SPANS 6E-7E-8E
68. STRUCTURAL STEEL DETAILS - RAMP E - SPANS 6E-7E-8E
69. BEARING DETAILS - RAMP E - SPANS 6E-7E-8E
70. STRUCTURAL STEEL PLAN - RAMP E - SPANS 9E-10E
71. GIRDER 1 DETAILS - RAMP E - SPANS 9E
72. GIRDER 2 DETAILS - RAMP E - SPANS 9E-10E
73. GIRDER 2 DETAILS - RAMP E - SPANS 9E-10E
74. STRUCTURAL STEEL DETAILS - RAMP E - SPANS 9E-10E
75. STRUCTURAL STEEL DETAILS - RAMP E - SPANS 9E-10E
76. STRUT CONNECTIONS GIRDERS 1 & 2 RAMP E SPANS 9E-10E
77. STRUT DETAILS (GIRDER 1) - RAMP E - SPANS 9E
78. STRUT DETAILS (GIRDER 2) - RAMP E - SPANS 9E-10E
79. FLOOR BEAM DETAILS - RAMP E - SPANS 9E-10E
80. FLOOR BEAM SPLICE - TYPES A & B - RAMP E - SPANS 9E-10E
81. STRUCTURAL STEEL DETAILS - RAMP E - SPANS 9E-10E
82. BEARING DETAILS - RAMP E - SPANS 9E-10E
83. STRUCTURAL STEEL DETAILS - EXISTING SPAN 4
84. EXISTING RAIL ALTERATIONS
85. TOP OF SLAB ELEVATIONS SPANS 3-4-5
86. SUPERSTRUCTURE DETAILS SPANS 4 & 5
87. SUPERSTRUCTURE SPAN 3
88. SUPERSTRUCTURE SPANS 4 & 5
89. TOP OF SLAB ELEVATIONS SPANS 6-7-8
90. TOP OF SLAB ELEVATIONS SPANS 6-7-8
91. SUPERSTRUCTURE SPAN 6
92. SUPERSTRUCTURE SPAN 8
93. TOP OF SLAB ELEVATIONS SPANS 9-10-11
94. TOP OF SLAB ELEVATIONS SPANS 9-10-11
95. SUPERSTRUCTURE SPANS 9-10-11
96. TOP OF SLAB ELEVATIONS SPANS 12-13-14
97. TOP OF SLAB ELEVATIONS SPANS 12-13-14
98. CURB & PARAPET - TRUSS - SPANS 12-13-14
99. TOP OF SLAB ELEVATIONS RAMP F SPANS 3F-4F-5F
100. RAMP F SUPERSTRUCTURE SPANS 3F

101. RAMP F SUPERSTRUCTURE SPANS 4F
102. RAMP F SUPERSTRUCTURE SPANS 5F
103. TOP OF SLAB ELEVATIONS RAMP E SPANS 3E-4E-5E
104. SUPERSTRUCTURE RAMP E SPANS 3E-4E-5E
105. TOP OF SLAB ELEVATIONS RAMP E SPANS 6E-7E-8E
106. TOP OF SLAB ELEVATIONS RAMP E SPANS 6E-7E-8E
107. SUPERSTRUCTURE DETAILS RAMP E SPANS 6E-7E-8E
108. TOP OF SLAB ELEVATIONS RAMP E SPANS 9E-10E
109. TOP OF SLAB ELEVATIONS - EXISTING SPAN 4
110. SUPERSTRUCTURE - EXISTING SPANS 3A-4-5
111. WEST ABUTMENT
112. PIER 2
113. PIER 3
114. PIER 4
115. PIER 5
116. PIER 6
117. PIER 7
118. PIER 8
119. PIER 9
120. PIER 10
121. PIER 11
122. PIER 12
123. PIER 13
124. NORTH ABUTMENT
125. PIER 2F
126. SOUTH ABUTMENT
127. PIER 2E
128. PIER 3E
129. PIER 4E
130. PIER 5E
131. PIER 6E
132. PIER 7E
133. PIER 8E
134. PIER 9E

STANDARDS: 2298-4, 2299-7, 2300-1,
2302-3, 2307-4

NOTE: SHEETS 85 THRU 134 ARE INCLUDED FOR
INFORMATIONAL PURPOSES ONLY.

Includes sheets 31, 8A, 16A & 22A

INDEX OF SHEETS	
MCCLUGAGE BRIDGE OVER THE ILLINOIS RIVER F.A. ROUTE 49 SEC. 15-2 (FBE) PEORIA & TAZEWELL COUNTIES	
CRN	74001
SCQ	
U.S.D.	
CRN	N-2-79

GENERAL NOTES

Fasteners shall be high strength bolts. Bolts 3/4", open holes 1 1/16" unless otherwise noted. The basic lead silica chromate paint system shall be used for shop and spot painting of structural steel.

Structural steel noted on the plans as M-223 shall be Grade 50.

Field welding of construction accessories will not be permitted to the bottom flange of beams or girders nor to the top flange for a distance equal to one-fourth the span length each way from the pier supports. Field welding in other areas will be permitted only when approved by the Engineer.

Plan dimensions and details relative to the substructure and to the existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished or the unit price bid for the work.

The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the tension flanges, webs and all splice plate material of steel girders or wide flange beams, and the tension members, gusset plates and all splice plate material in the truss.

Certain components of main members and attachments thereto shall conform to the requirements for Fracture Critical Members set forth in the Special Provisions. Such members are designated on the plans by the letters "F.C.M.". The requirements for Fracture Critical Members shall apply to members so designated in place of the Supplemental Requirements for Notch Toughness.

Anchor bolts shall be set before bolting diaphragms or cross frames over support.

Bearing seal surfaces shall be adjusted to the designated elevations within a tolerance of .01". Adjustment shall be made by shimming the bearing. Two .01" adjusting shims of the dimensions of the bottom bearing plate shall be provided for each bearing in addition to all other plates or shims.

See Note A on sheet 2 of 134.

Note: All dimensions shown are measured horizontally.

TOTAL BILL OF MATERIAL

Furnishing & Erecting Structural Steel **

**Calculated Weight of Structural Steel:

M-183	8,069,030 Lbs.
M-222	1,852,960 Lbs.
M-223	5,641,020 Lbs.
M-169	1,040 Lbs.
Bearings	209,890 Lbs.

Lump Sum

Rail Alterations

- Floating Bearings - Pier 4E (E.Brgs.) 2 Each
- Floating Bearings - Pier 4E (W.Brgs.) 4 Each
- Floating Bearings - South Abutment 4 Each
- Floating Bearings - North Abutment 4 Each
- Floating Bearings - Pier 4 - Ramp F 4 Each
- Floating Bearings - Pier 2E 4 Each
- Floating Bearings - Pier 2F 4 Each
- Floating Bearings - Pier 3E 4 Each
- Floating Bearings - Pier 3 - Ramp F 4 Each

Safety Cages

Lump Sum

- 2 Each
- 4 Each
- 4 Each
- 4 Each
- 4 Each
- 4 Each
- 4 Each
- 4 Each
- 5 Each

DESIGN STRESSES

STRUCTURAL STEEL	M-183	M-223	M-222
THICKNESS OF PLATES	ALL	UP TO 2"	UP TO 4"
TENSILE	20,000 PSI	27,000 PSI	27,000 PSI
AXIAL COMPRESSION	14,500 - 55 (3%)	22,500 - 100 (3%)	22,500 - 100 (3%)
REINFORCEMENT BARS	M-183	Fy = 60,000 PSI	
CONCRETE	FC = 3,600 PSI		

LOADING HS 20-44 & Future Hoisting Surface of 25 lbs./sq. ft. A.A.S.H.T.O. SPECIFICATIONS 1973 & INTERIM 1974.

GENERAL PLAN & ELEVATION

M^CCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 **SEC. 15-2 (F&E)**
PEORIA & TAZEWELL COUNTIES

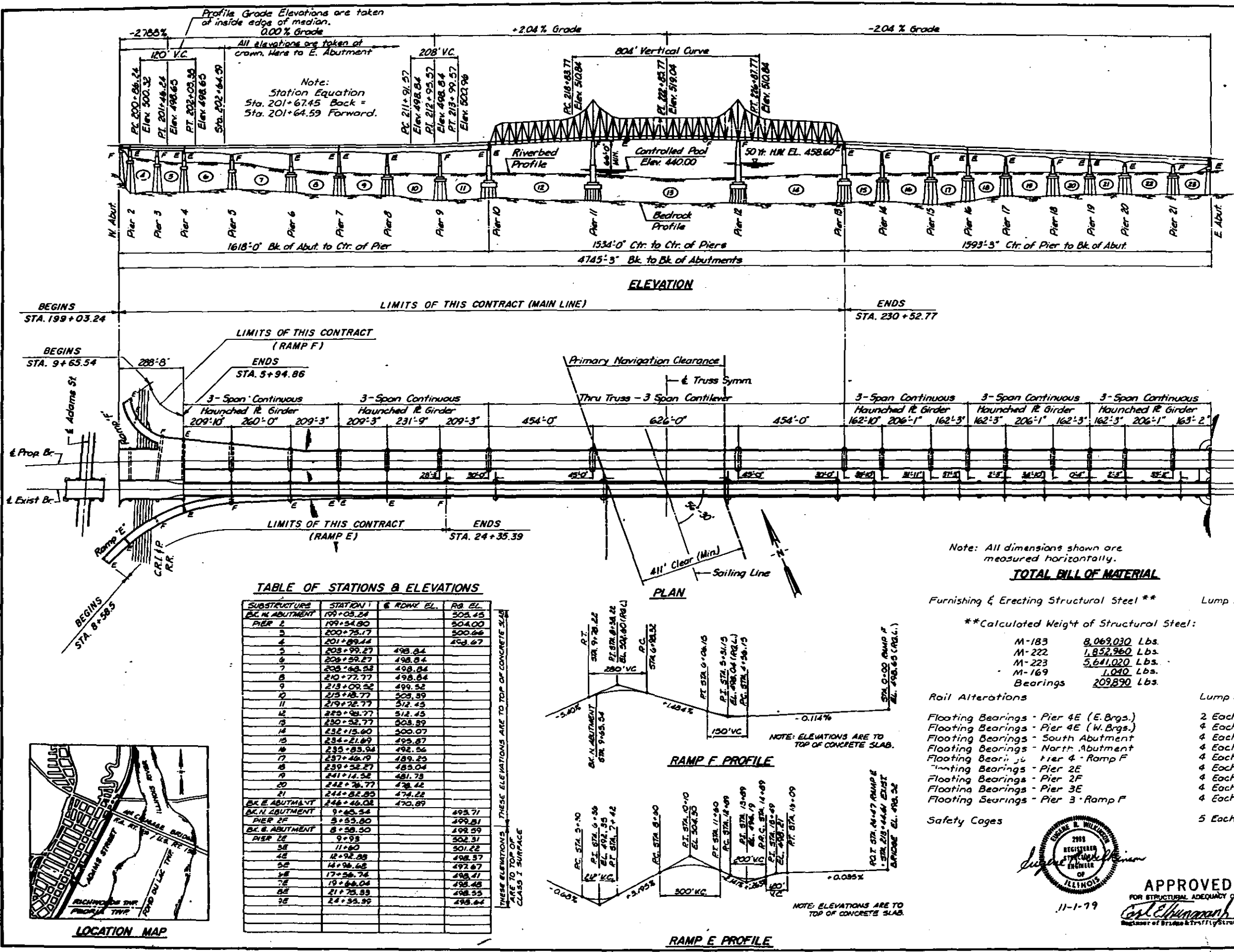


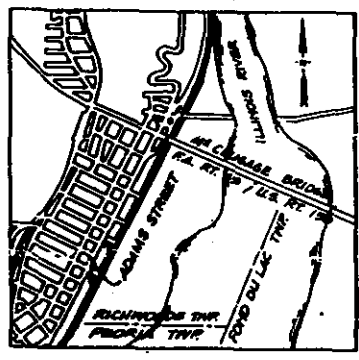
TABLE OF STATIONS & ELEVATIONS

SUBSTRUCTURE	STATION	E. ROWY EL.	R.B. EL.
W. ABUTMENT	199+03.24		505.45
PIER 2	199+54.80		504.00
3	200+75.17		500.46
4	201+89.44		493.67
5	203+99.27	498.84	
6	204+59.27	498.84	
7	205+63.58	498.84	
8	210+77.77	498.84	
9	213+09.52	499.52	
10	213+28.77	503.39	
11	219+72.77	512.45	
12	220+98.77	512.45	
13	230+53.77	508.89	
14	232+15.60	500.07	
15	234+21.89	495.87	
16	235+83.94	492.56	
17	237+48.19	485.25	
18	239+52.27	485.04	
19	241+14.52	481.73	
20	242+76.77	478.42	
21	244+82.85	474.22	
E. ABUTMENT	246+46.08	470.89	
PIER 2F	9+65.54		495.71
PIER 2E	5+65.80		499.81
PIER 2E	8+58.50		492.59
PIER 2E	9+93		502.31
3E	11+80		501.22
4E	12+92.88		498.37
5E	14+58.68		492.67
6E	17+56.74		498.41
7E	19+66.04		498.48
8E	21+75.39		498.55
9E	24+55.99		498.64

THESE ELEVATIONS ARE TO TOP OF CONCRETE SLAB ARE TO TOP OF CLASS 1 SURFACE

RAMP F PROFILE

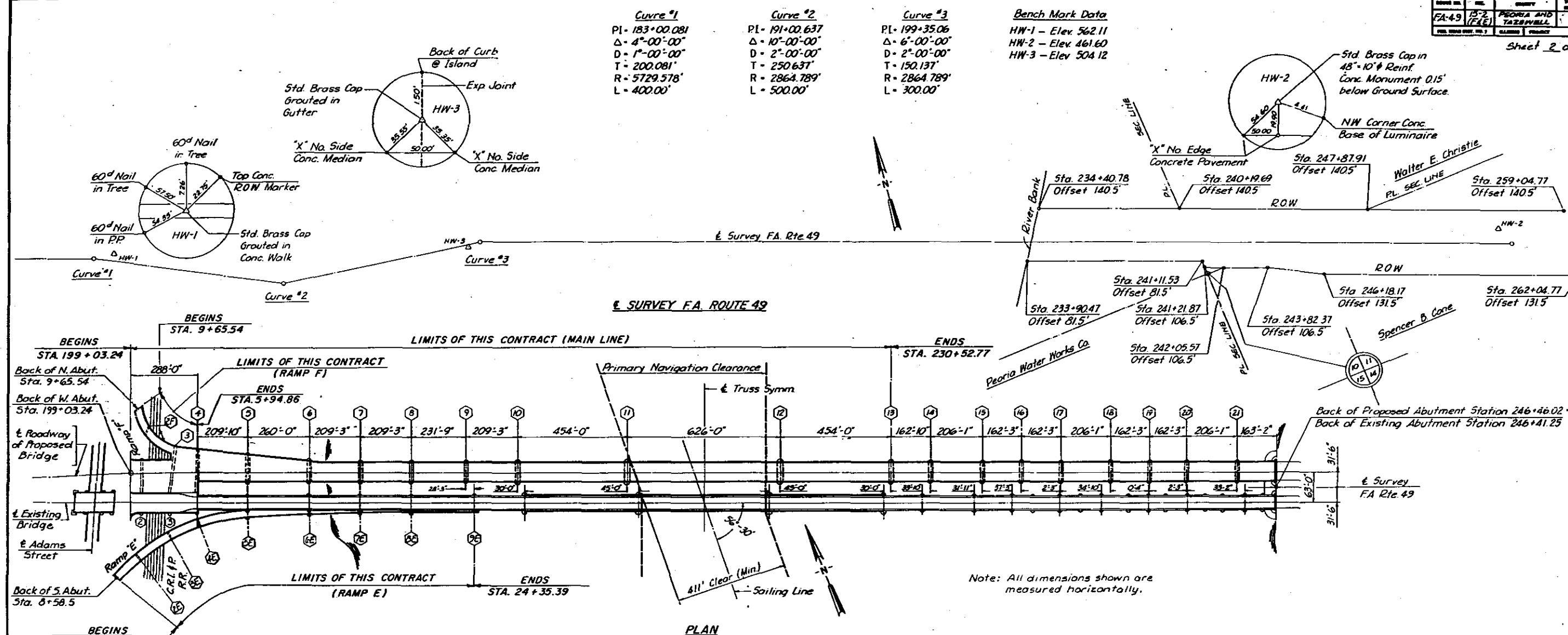
RAMP E PROFILE



LOCATION MAP

PROJECT NO.	DATE	DESIGNER	SCALE	SHEET NO.
FA-49	12-2-79	PEORIA AND TAZEWELL	1:34	2

Sheet 2 of 134



Note A: Optional bolted field splices are allowed in one (1) diagonal leg of the struts at Piers 5E, 6S, 8E and 9E shown on sheets 66, 77 and 78. The appropriate location and design details for the splices will be supplied by the designer upon request of the fabricator after the project has been awarded.

RAMP F CURVE DATA

PI = 8+74.623
Δ = 91'-59'-00.68"
D = 27'-56'-54.98"
T = 212.223'
R = 205.0'
L = 329.110'

RAMP E CURVE DATA

PI = 9+3.15
Δ = 53'-30'-58.01"
D = 12'-00'-00"
T = 240.746'
R = 477.465'
L = 445.968'

PI = 13+6.99
Δ = 29'-08'-50.90"
D = 7'-30'-00"
T = 198.619'
R = 763.944'
L = 388.633'

HORIZONTAL CONTROL, BENCH MARKS & ROW

McCLUGGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15-2 (F&E)
PEORIA & TAZEWELL COUNTIES

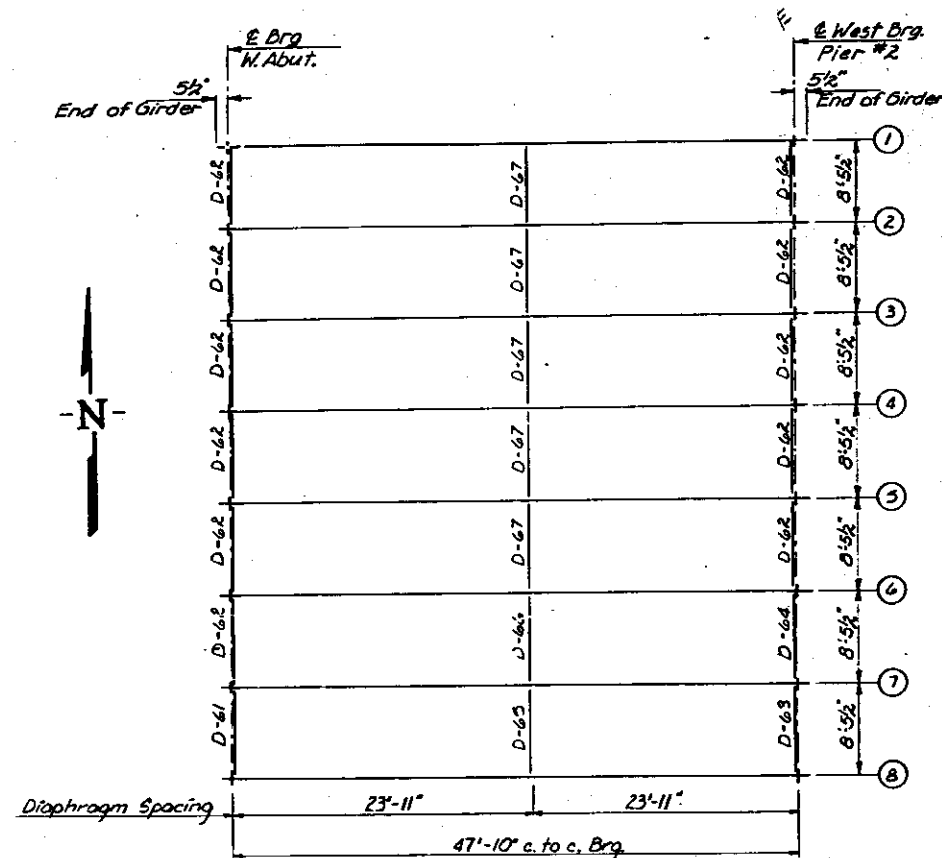
CRN	HANSON	7400
D.B.	ENGINEERS	
RAH		
CRN		11-2-79

Note: All dimensions shown are measured horizontally.

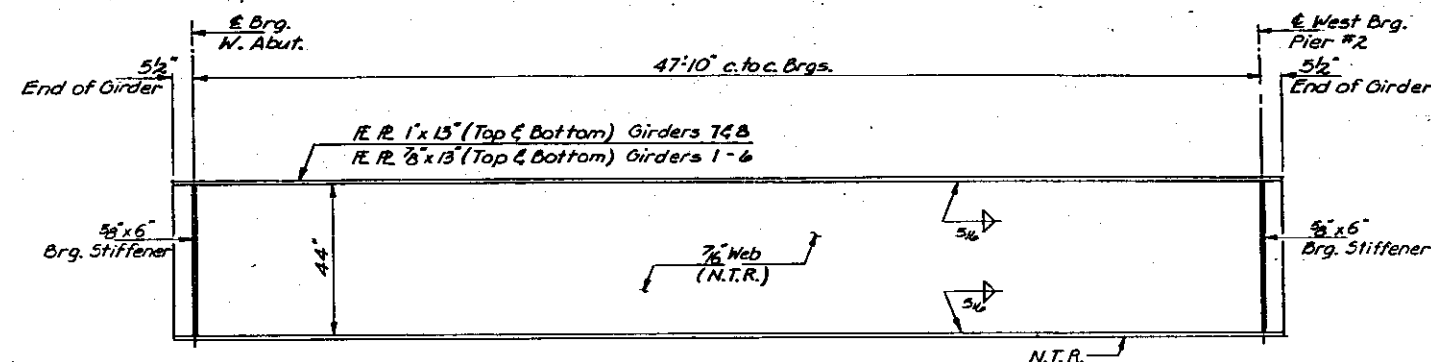
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Note: The designation "N.T.R." signifies main load carrying members that are subject to the Supplemental Requirements for Notch Toughness.

Sheet 15 of 15



FRAMING PLAN



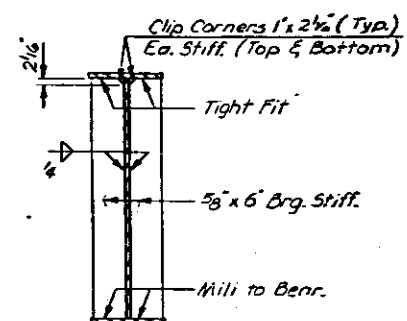
GIRDER ELEVATION

TOP OF WEB ELEVATIONS								
Girder Number	1	2	3	4	5	6	7	8
E Brg. - W. Abut.	506.353	506.063	505.763	505.463	505.173	504.883	504.584	503.135
E West Brg. - Pier 2	504.906	504.606	504.306	504.006	503.706	503.406	502.844	501.858

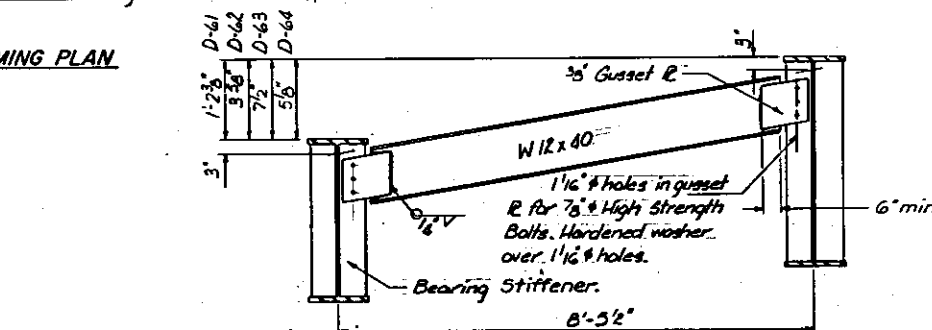
Note: For Deck Elevations and Cross Section see Sheets 85 & 87 of 134.

GIRDER 8 REACTION TABLE		
	West Abut.	Pier #2
R.E. (K)	36	56
R.L. (K)	46	46
Imp. (K)	13	13
R TOTAL (K)	95	95

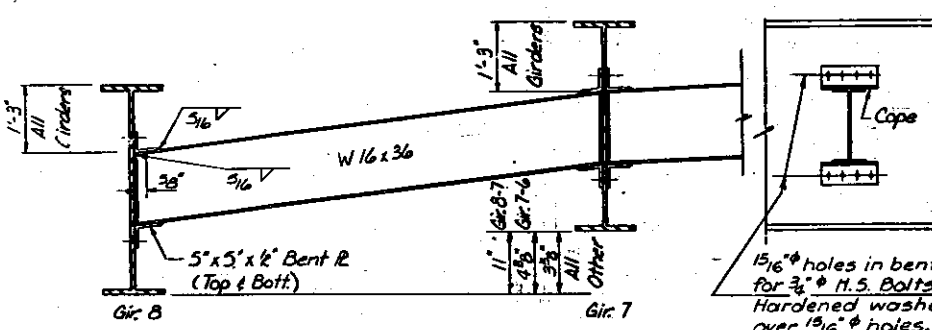
Note: Reaction Table for Girder 8 is based on a concrete Dead Load weight of 227 #/sq. ft. This includes both slab and a future median and weight of structural steel.



BEARING STIFFENER



DIAPHRAGMS D-61, D-62, D-63, & D-64



DIAPHRAGMS D-65, D-66, & D-67

MOMENT TABLE FOR GIRDERS 7 & 8	
	0.5 Point Span
I (in ⁴)	16270
Q (K/ft)	1.2
M ₀ (K)	432
M ₁ (K)	475
Imp. (K)	138
M TOTAL (K)	1045
f _s (KSI)	18

Note: Moment Table for Girders 7 & 8 is based on a Dead Load of 212 #/sq. ft. of Concrete Slab and future Concrete Median plus the weight of Structural Steel.

MOMENT TABLE FOR GIRDERS 1-6	
	0.5 Point Span
I (in ⁴)	14,561
Q (K/ft)	1.21
M ₀ (K)	346
M ₁ (K)	460
Imp. (K)	134
M TOTAL (K)	940
f _s (KSI)	17.5

Note: Moment Table for Girders 1 thru 6 is based on a Dead Load of 25 #/sq. ft. of future C.I. Surfacing and 94 #/sq. ft. of Concrete Slab plus weight of structural steel.

GIRDERS 1 THRU 7 REACTION TABLE		
	West Abut.	Pier #2
R.E. (K)	29	29
R.L. (K)	45	45
Imp. (K)	13	13
R TOTAL (K)	87	87

Note: Reaction Table for Girders 1 thru 7 is based on a Dead Load of 25 #/sq. ft. of future C.I. Surfacing & 94 #/sq. ft. of Concrete Slab plus weight of structural steel.

Steel Specifications this sheet:
Diaphragms - AASHTO M183
Diaphragm Bolts - AASHTO M164
Steel Plots - AASHTO M183

STRUCTURAL STEEL
SPAN: 3

M^o CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC 15-2 (E&E)
PEORIA & TAZEWELL COUNTIES

MANSON
IRONWORKS
INDIANAPOLIS, IN



Steel Specifications this sheet:
Bearing Plate Material - AASHTO M183

** Note: Lengths given along & of girder.

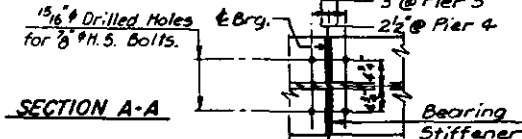
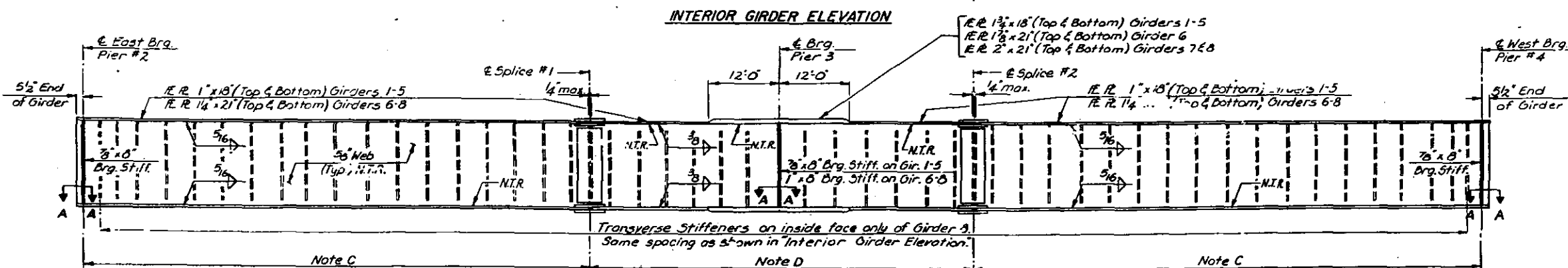
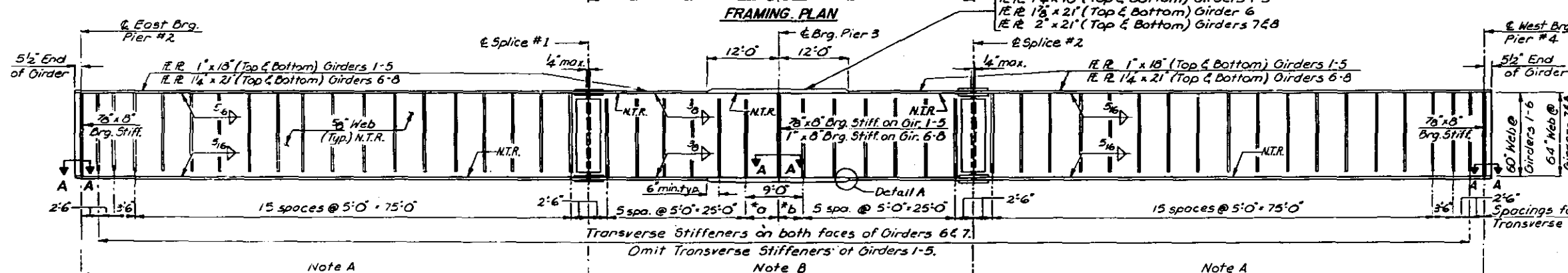
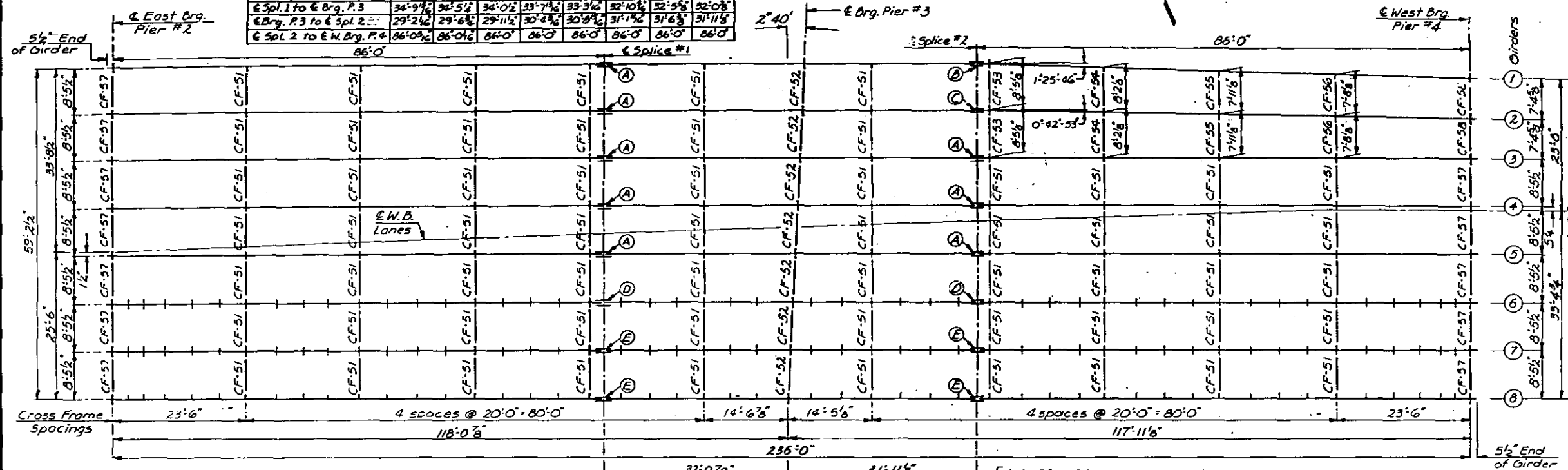
TABLE OF SPAN LENGTHS & SPLICE DISTANCES **

Girder No.	1	2	3	4	5	6	7	8
E.E. Brg. P.2 to E. Brg. P.3	120'-9"	120'-5"	120'-0"	119'-7"	119'-3"	118'-10"	118'-5"	118'-0"
E. Brg. P.3 to E.W. Brg. P.4	115'-2"	115'-6"	115'-11"	116'-4"	116'-8"	117'-1"	117'-6"	117'-11"
E.E. Brg. P.2 to E. Spl. 1	86'-0"	86'-0"	86'-0"	86'-0"	86'-0"	86'-0"	86'-0"	86'-0"
E. Spl. 1 to E. Brg. P.3	34'-9"	34'-5"	34'-0"	33'-7"	33'-3"	32'-10"	32'-5"	32'-0"
E. Brg. P.3 to E. Spl. 2	29'-2"	29'-6"	29'-11"	30'-4"	30'-8"	31'-1"	31'-6"	31'-11"
E. Spl. 2 to E.W. Brg. P.4	86'-0"	86'-0"	86'-0"	86'-0"	86'-0"	86'-0"	86'-0"	86'-0"

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Note: All dimensions shown are measured horizontally.

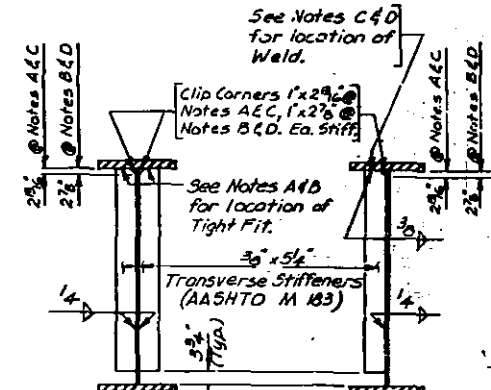
CA: 49	15-2	1507103	1072611	113	114
Sheet 5 of 134					



EXTERIOR GIRDER ELEVATION
* TABLE FOR DIMENSIONS a & b

Girder No.	1	2	3	4	5	6	7	8
a						5'-4"	4'-11"	4'-6"
b						3'-7"	4'-0"	4'-5"

DETAIL A



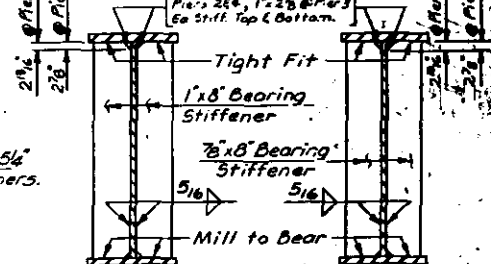
TRANSVERSE STIFFENERS

Note A: Transverse Stiffeners between Pier #2 & Splice #1 and between Splice #2 & Pier #4 shall be Tight Fit at the top & gapped 3/4" at the bottom.

Note B: Transverse Stiffeners between Splice #1 & Splice #2 shall be Tight Fit at the bottom and gapped 3/4" at the top.

Note C: Transverse Stiffeners between Pier #2 & Splice #1 and between Splice #2 & Pier #4 shall be Welded at the top & gapped 3/4" at the bottom.

Note D: Transverse Stiffeners between Splice #1 & Splice #2 shall be Welded at the bottom & gapped 3/4" at the top.



BEARING STIFFENERS

Note: All structural steel shall conform to AASHTO M223 unless otherwise noted.

STRUCTURAL STEEL SPANS 485

M^cCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
E. ROUTE 49 SEC. 15-2 (F&E)
PEORIA & TAZEWELL COUNTIES

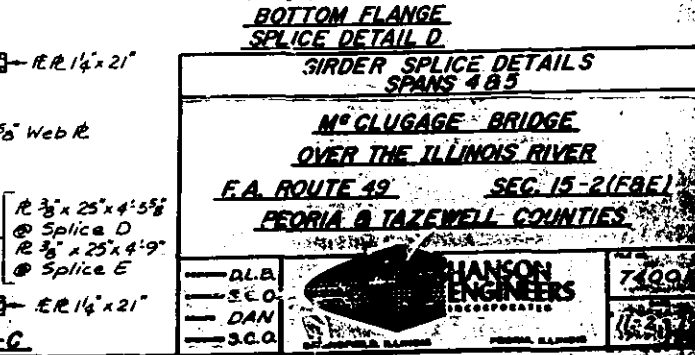
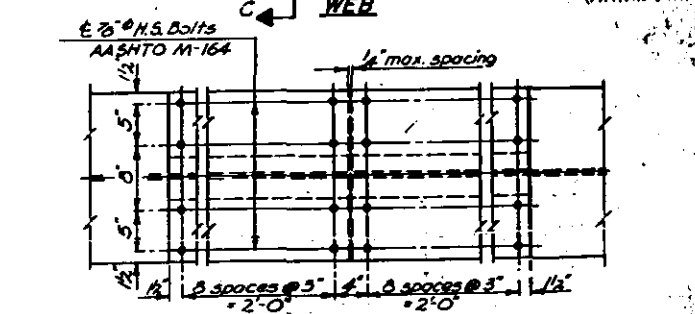
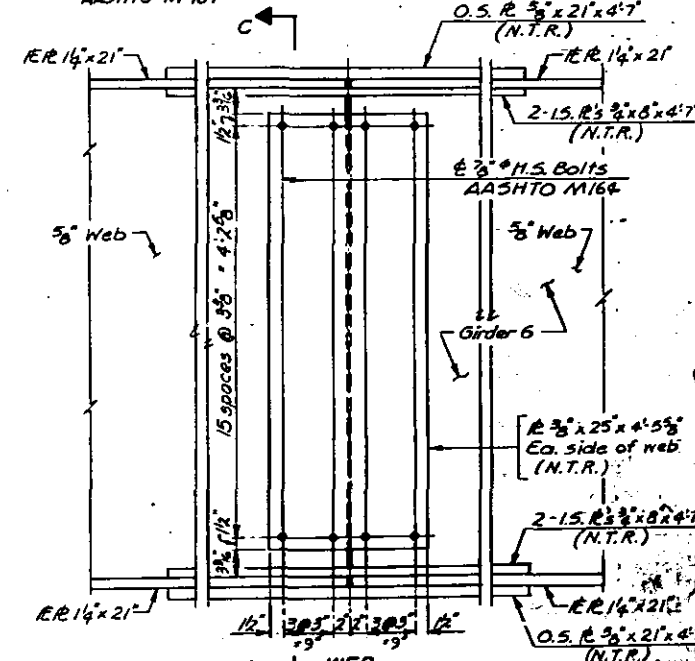
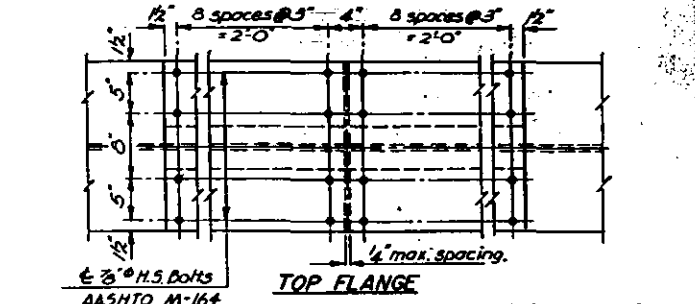
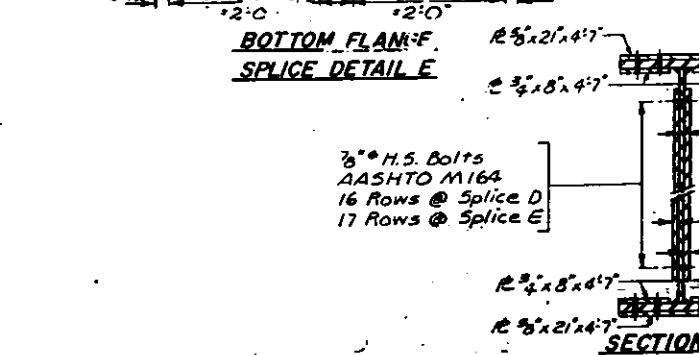
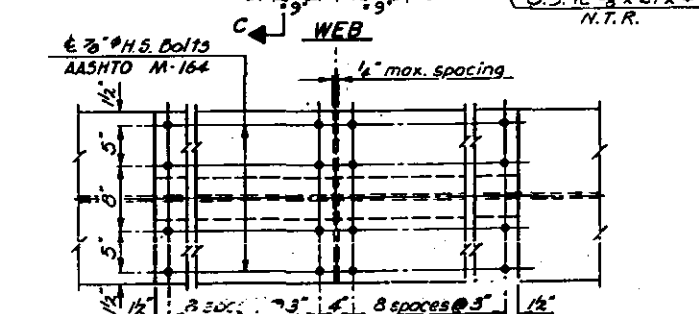
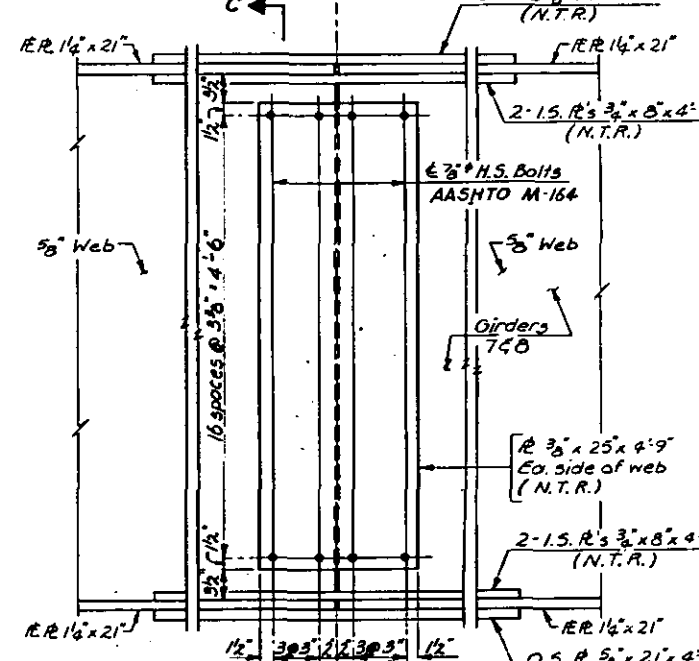
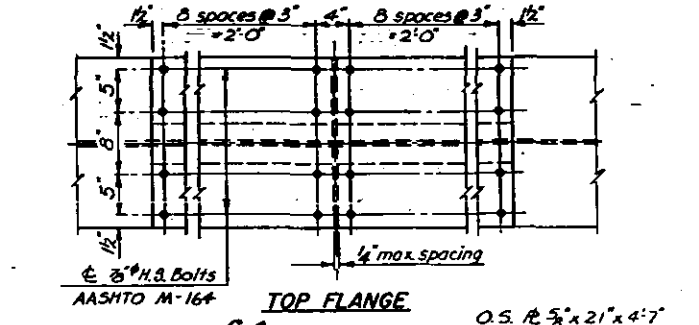
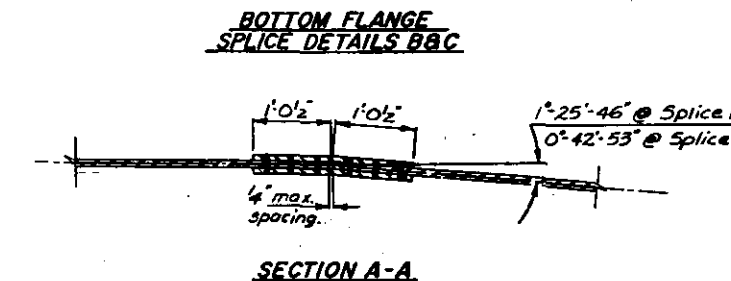
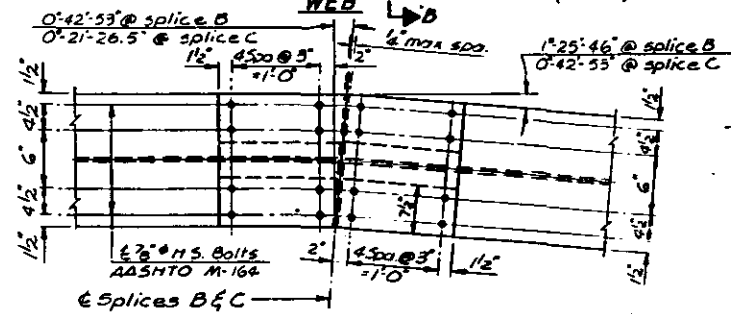
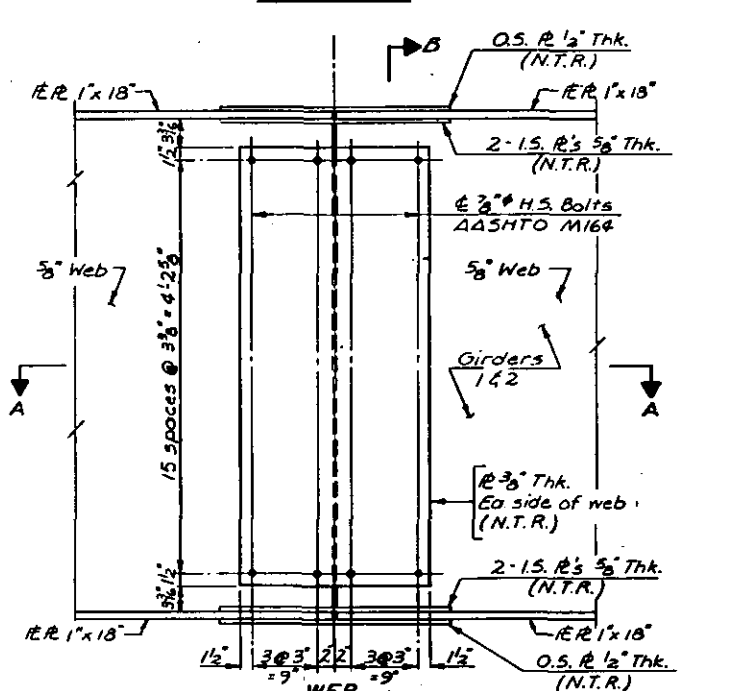
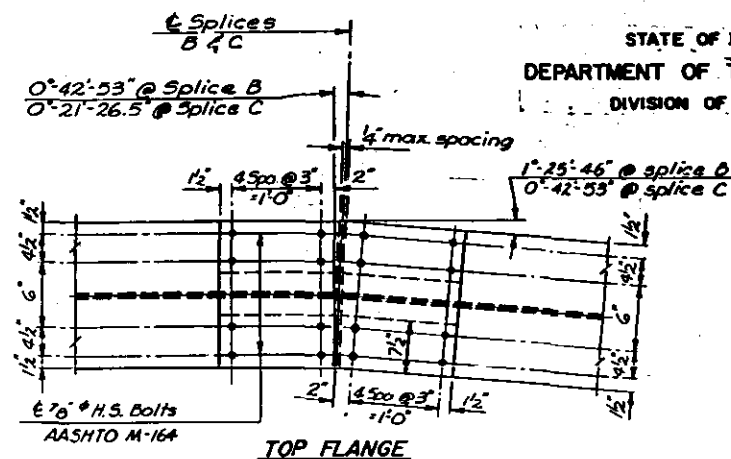
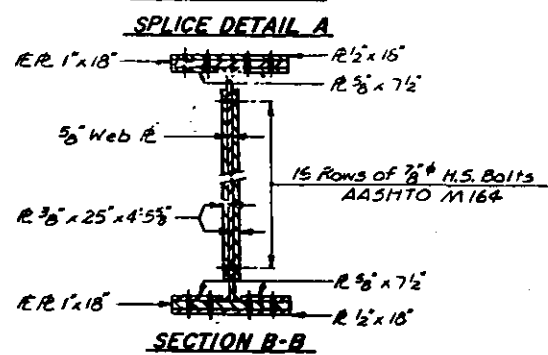
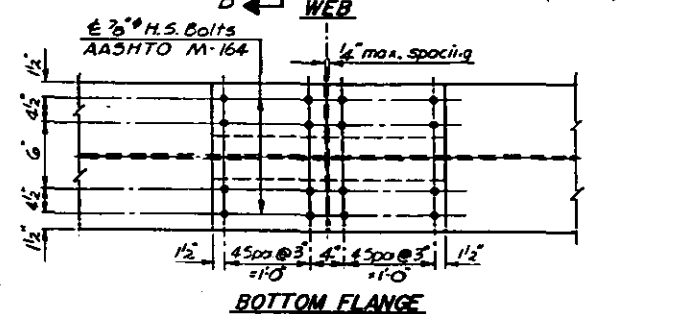
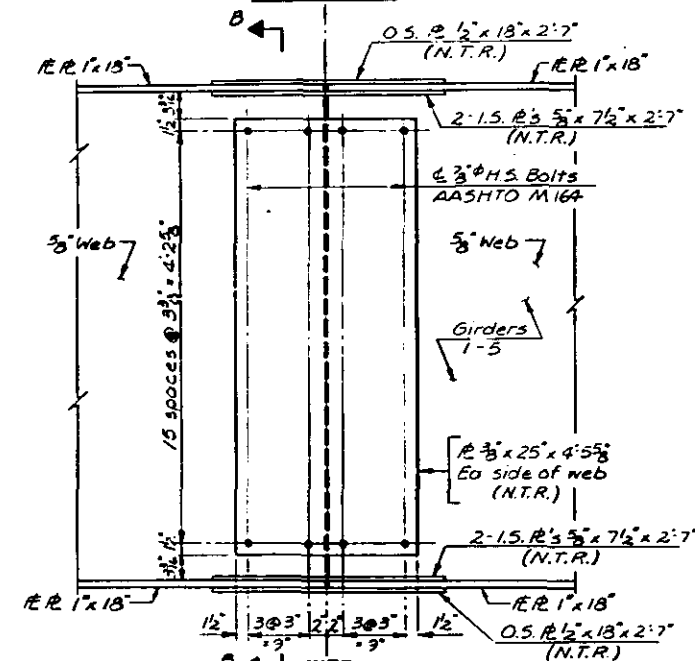
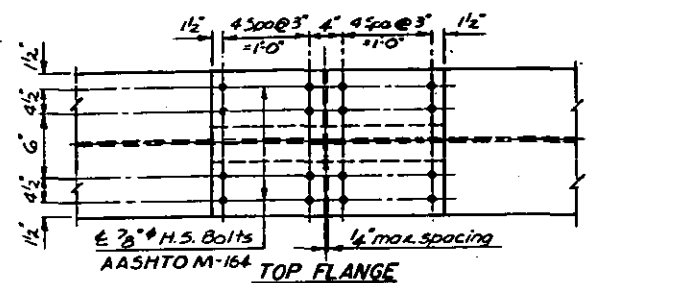
HANSON ENGINEERS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Notes:
The designation 'N.T.R.' signifies main load carrying members that are subject to the Supplemental Requirements for Notch Toughness.

All structural steel shall conform to AASHTO M223 unless otherwise noted.

Sheet 6 of 134
11/1/53



GIRDER SPLICE DETAILS
SPANS 4 & 5
M^o CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15-2 (E.B.E.)
PEORIA & TAZEWELL COUNTIES
DLB
S.C.O.
DAN
S.C.O.
HANSON ENGINEERS
7400
11/1/53

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Sheet 7 of 134

TOP OF WEB ELEVATIONS					
Girder No.	E East Brg. Pier 2	E Splice Span 4	E Brg. Pier 3	E Splice Span 5	E West Brg. Pier 4
1	504.787	502.339	501.044	500.340	498.546
2	504.487	501.990	500.924	500.171	498.390
3	504.188	501.674	500.627	499.857	498.247
4	503.890	501.367	500.328	499.547	498.097
5	503.590	501.061	500.031	499.236	497.926
6	503.291	500.691	499.681	498.861	497.735
7	502.993	500.327	499.326	498.906	497.567
8	501.666	500.843	499.762	499.040	498.297

Note: These elevations include camber for dead load deflections and are for fabrication only.

REACTION TABLE GIRDERS 1 THRU 5		
	Pier 2 or 4	Pier 3
R _Q (k)	57.5	15.2
R _L (k)	49.8	34.6
Imp. (k)	10.5	19.9
R _{TOTAL} (k)	117.8	329.7

REACTION TABLE GIRDER 6				
	Crossover Stage		Final Stage	
	Pier 2 or 4	Pier 3	Pier 2 or 4	Pier 3
R _Q (k)	80.6	293.0	60.5	223.2
R _L (k)	49.8	94.6	49.8	94.6
Imp. (k)	10.5	19.9	10.5	19.9
R _{TOTAL} (k)	140.9	407.5	120.8	337.7

REACTION TABLE GIRDERS 7 & 8				
	Crossover Stage		Final Stage	
	Pier 2 or 4	Pier 3	Pier 2 or 4	Pier 3
R _Q (k)	102.9	384.5	59.0	227.2
R _L (k)	52.7	94.6	49.7	94.6
Imp. (k)	10.4	19.9	10.4	19.9
R _{TOTAL} (k)	163.0	499.0	119.1	341.7

MOMENT TABLE GIRDERS 1 THRU 5		
	.4 pt. Span 4 or .6 pt. Span 5	Pier 3
I (in ³)	44,742	71,322
Q (k/ft)	1.314	1.421
M _Q (k)	1,257	2,800
M _L (k)	1,141	1,328
Imp. (k)	240	279
M _{TOTAL} (k)	2,638	4,407
f _s (ksi)	21.9	23.5

MOMENT TABLE GIRDER 6				
	Crossover Stage		Final Stage	
	.4 pt. Span 4 or .6 pt. Span 5	Pier 3	.4 pt. Span 4 or .6 pt. Span 5	Pier 3
I (in ³)	60,496	86,647	60,496	86,647
Q (k/ft)	1.845	1.934	1.385	1.474
M _Q (k)	1,765	3,812	1,325	2,905
M _L (k)	1,141	1,328	1,141	1,328
Imp. (k)	240	279	240	279
M _{TOTAL} (k)	3,146	5,419	2,706	4,512
f _s (ksi)	19.5	23.9	16.8	19.9

MOMENT TABLE GIRDERS 7 & 8				
	Crossover Stage		Final Stage	
	.4 pt. Span 4 or .6 pt. Span 5	Pier 3	.4 pt. Span 4 or .6 pt. Span 5	Pier 3
I (in ³)	69,541	105,157	69,541	105,157
Q (k/ft)	2.433	2.541	1.993	1.501
M _Q (k)	2,174	5,005	1,244	2,957
M _L (k)	1,116	1,328	1,116	1,328
Imp. (k)	234	279	234	279
M _{TOTAL} (k)	3,524	6,612	2,594	4,564
f _s (ksi)	20.2	25.7	14.9	17.7

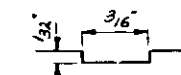
Note: Reaction and Moment Tables are based on a Dead Load of 2.5¹/sq. ft. of C.I. surfacing and 94¹/sq. ft. of concrete slab plus the weight of the structural steel.

STRUCTURAL STEEL DETAILS
SPANS 4 & 5

M^cCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15-2(F&E)
PEORIA & TAZEWELL COUNTIES

Girder No.	At Pier 2 Brg.			At Pier 4 Brg.		
	A	B	C	A	B	C
1 thru 7	7 $\frac{1}{2}$ "	4 $\frac{3}{4}$ "	3 $\frac{3}{4}$ "	1 $\frac{1}{2}$ "	4 $\frac{1}{2}$ "	3 $\frac{3}{4}$ "
8	6 $\frac{1}{2}$ "	4 $\frac{1}{2}$ "	3 $\frac{1}{2}$ "	7 $\frac{1}{4}$ "	4 $\frac{1}{4}$ "	3 $\frac{3}{4}$ "

Note: Cast steel shoes, rockers and bolsters shall meet requirements of AASHTO M-192 Class 90



GREASE GROOVE ON SADDLE

Note: Grease bearing assembly with molybdenum grease before installation.

NOTES FOR SETTING OF ANCHOR BOLTS
AT EXPANSION BEARINGS

- 3) D^* (Side of Bearing away from Fixed Bearing.)
 $D^* = \frac{1}{8}''$ per each 100° of contraction for every 15° fall
 below the Normal Temperature of $50^\circ F$.
- D^{**} (Side of Bearing toward Fixed Bearing.)
 $D^{**} = \frac{1}{8}''$ per each 100° of expansion for every 15° rise
 above the Normal Temperature of $50^\circ F$.

- 2 1/2" is total thickness required; use 1 1/2" x 9' x 2' 8" and 1" x 9' x 2' 8" plates.
- Measured along a line parallel to Girders 1 thru 8.
- 4 Spaces @ 21'-6" = 86'-0"
- After Girders have been erected and dimensions D* & D** determined, holes shall be drilled & anchor bolts shall be grouted in place. All fixed anchor bolts may be built into the masonry.
- 2 Equal 2 Equal
5 Spaces @ 17'-6" = 88'-0" 4 Spaces @ 21'-6" = 86'-0"

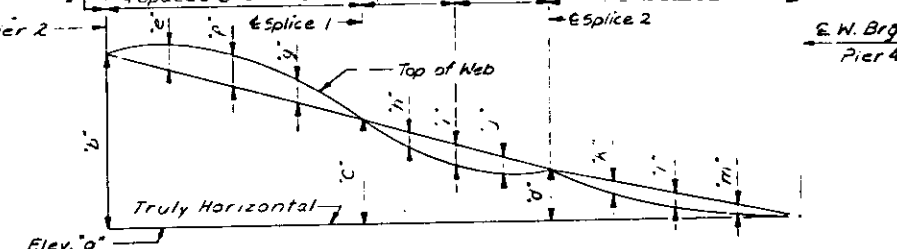


TABLE OF CAMBER DIMENSIONS

Dir. No.	"x"	"y"	Elev. "a"	"b"	"c"	"d"	"e"	"f"	"g"	"h"	"i"	"j"	"k"	"l"	"m"
1	34° 9' 16"	29° 21' 46"	498.546	6' 2' 28"	3' 9' 2"	1' 9' 2"	16"	15"	13 1/2"	34"	22"	12 1/2"	1"	1 1/2"	0"
2	34° 5' 14"	29° 6' 34"	498.590	6' 1' 8"	3' 7' 1/2"	1' 9' 3/4"	3 1/2"	1'	46"	23"	1'	23"	1"	1 1/2"	0"
3	34° 0' 2"	29° 11' 2"	498.247	5' 11' 3/4"	3' 5' 8"	1' 7' 23/4"	46"	1'	46"	23"	13 1/2"	23"	1"	1 1/2"	0"
4	33° 7' 13/4"	30° 4' 3 1/2"	498.087	5' 9' 8"	3' 3' 3/4"	1' 5' 1/2"	46"	1'	46"	23"	13 1/2"	23"	1"	1 1/2"	0"
5	33° 3' 1/2"	30° 8' 9 1/2"	497.926	5' 8"	3' 1' 3/4"	1' 3' 3/4"	46"	1'	46"	23"	13 1/2"	23"	1"	1 1/2"	0"
6	32° 10' 16"	31° 1' 11 1/2"	497.735	5' 6' 5/8"	2' 11' 1/2"	1' 1' 1/2"	1/2"	46"	1/2"	9 1/2"	23"	3 1/2"	1"	1 1/2"	0"
7	32° 5' 5 1/2"	31° 6' 3 3/8"	497.967	4' 8' 1/2"	2' 9' 8"	11 1/4"	-2 1/2"	-4 1/2"	-1' 3/8"	-3 1/2"	17 1/2"	1' 23/4"	5"	2"	0"
8	32° 0' 9"	31° 11' 1' 8"	498.297	3' 4' 1/2"	2' 6' 3/4"	8' 3/8"	23"	12"	1 1/2"	-1 1/2"	2' 1/2"	23"	2"	2 1/2"	0"

CAMBER DIAGRAM
GIRDERS 1 THRU 8

BEARINGS & CROSS RIMS
SPANS 4 & 5

MC CLUGAGE BA'DSE

OVER THE ILLINOIS RIVER

F.A. ROUTE 49 St C. 15-2(F&E)

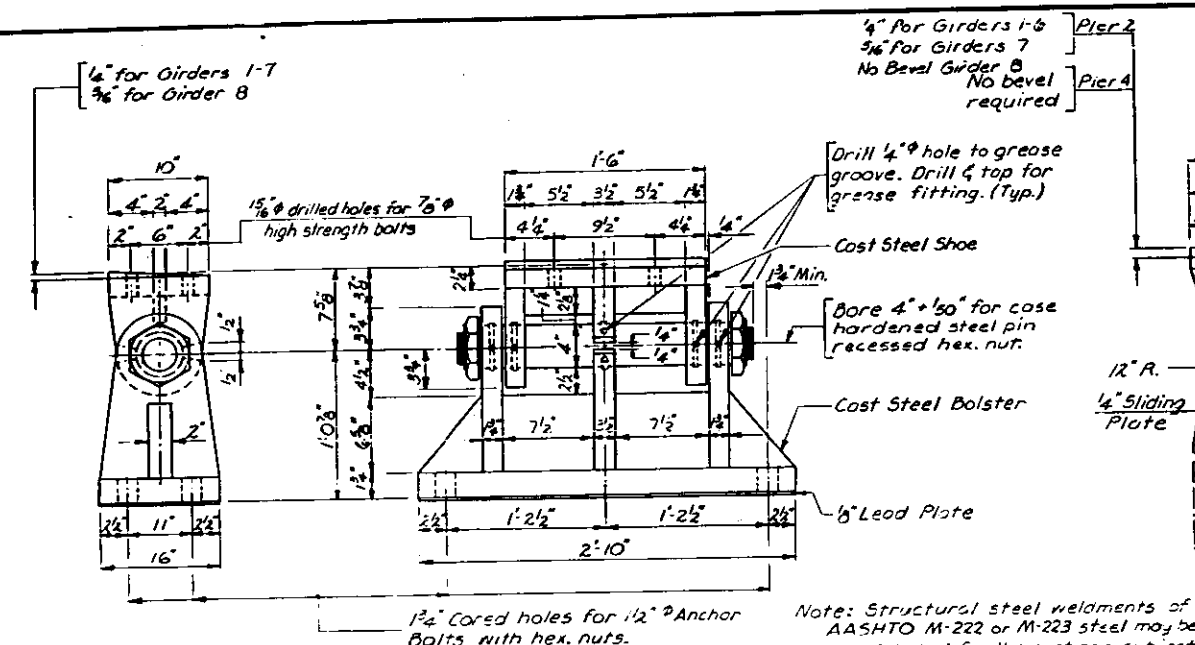
PEORIA & TAZEWELL COUNTIES

Steel Specifications This Sheet:
Bearing Plate Material-AASHTO M-222
Cross Frames & Diaphragms -
AASHTO M-183
Cross Frame & Diaphragm Bolts-
AASHTO M-164

WFL
SCL
DAN
FYE

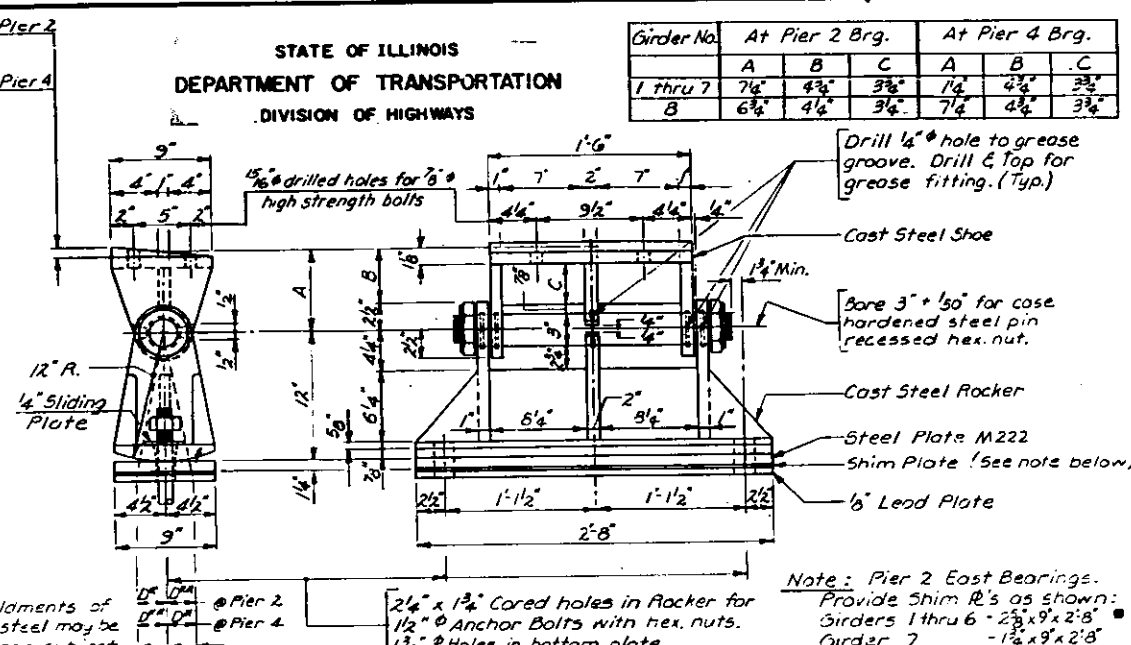
THANKS
FOR
ENGLISH
TEACHERS

11-2-7



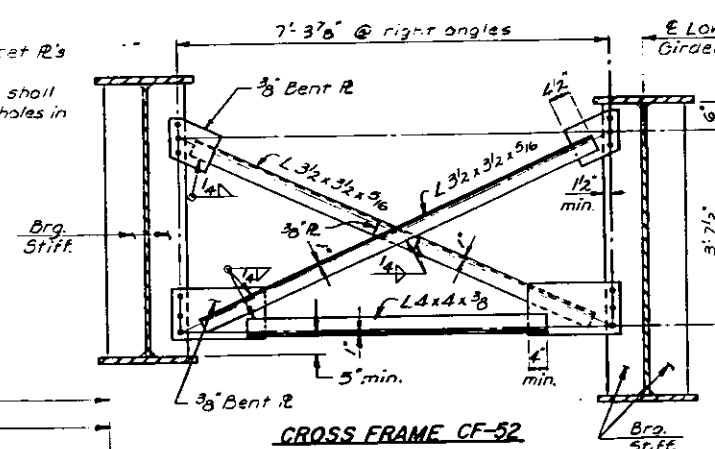
BEARING AT PIER 3

Note: Structural steel weldments of AASHTO M-222 or M-223 steel may be substituted for the castings subject to approval by the Engineer prior to fabrication. No additional compensation will be allowed for this substitution.

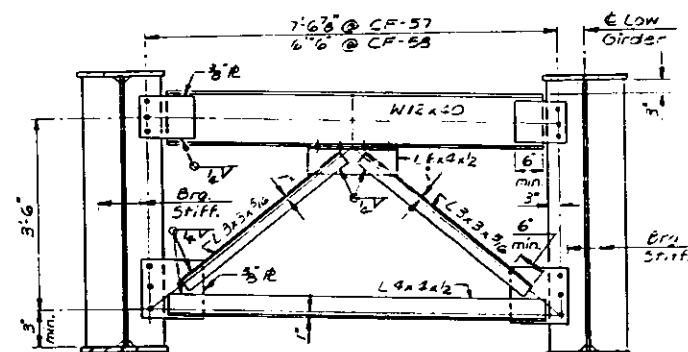


BEARING AT PIERS 28 & 4

Note: 15/16" Ø holes in gusset R's
for 3/4" Ø bolts.
Hardened washers shall
be required over holes in
gusset R's.



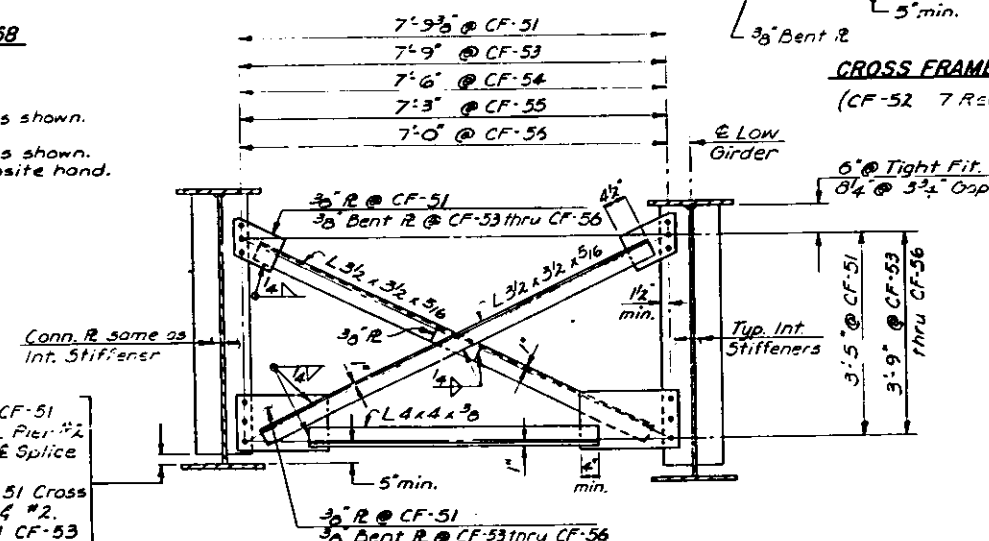
CROSS FRAME CF-52
(CF-52 7 Required)



CROSS FRAMES CF-57 & CF-58

(CF-57 12 Required)
(CF-59 2 Required)

Pier 2 W. Brg. Girders 1 thru 3 as shown.
Pier 4 E. Brg. Girders 1 thru 6 as shown.
Girders 7 & 8 opposite hand.



CROSS FRAMES CF-51 & CF-53 Thru CF-56

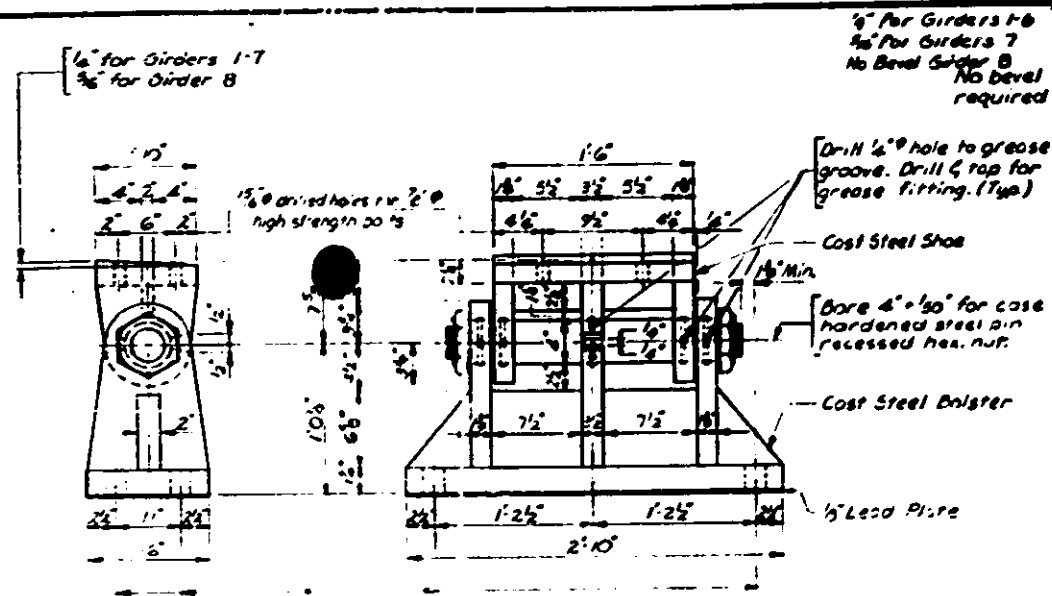
(CF-51 62 Required) (CF-55 2 Required)
(CF-53 2 Required) (CF-56 2 Required)
(CF-54 2 Required)

3 3/4" Gap @ Bottom for all CF-51
Cross Frames between E Brg. Pier #2
& E Splice #1 and between E Splice
#2 & E Brg. Pier #4.
3 3/4" Gap @ Top for all CF-51 Cross
Frames between Splices #1 & #2.
3 3/4" Gap @ Bottom for all CF-53
thru CF-56 Cross Frames.

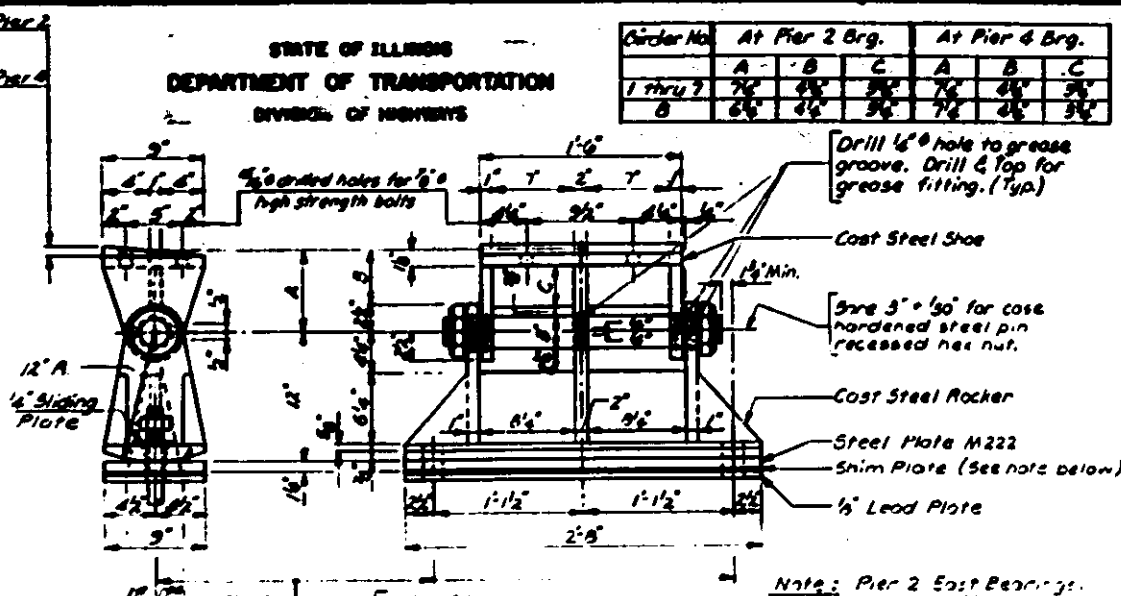
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Order No.	At Pier 2 Brg.			At Pier 4 Brg.		
	A	B	C	A	B	C
1 thru 7	7/8"	4/8"	3/8"	7/8"	4/8"	3/8"
8	6/8"	4/8"	3/8"	7/8"	4/8"	3/8"

Note: Cost steel shoes, rockers and bolsters shall meet requirements of AASHTO, M-192 Class 90



BEARING AT PIER 3



BEARING AT PIERS 2 & 4



NOTES FOR SETTING OF ANCHOR BOLTS AT EXPANSION BEARINGS

- D¹ (Side of Bearing away from Fixed Bearing.)
D¹ = 1/8" per each 100' of contraction for every 15° fall below the Normal Temperature of 50°F.
- D² (Side of Bearing toward Fixed Bearing.)
D² = 1/8" per each 100' of expansion for every 15° rise above the Normal Temperature of 50°F.
- After Girders have been erected and dimensions D¹ & D² determined, holes shall be drilled & anchor bolts shall be grouted in place. All fixed anchor bolts may be built into the masonry.

Note: Pier 2 East Bearings:
Provide Shim R's as shown:
Girders 1 thru 6 - 2 1/2" x 9" x 2 1/2"
Girder 7 - 1 1/2" x 9" x 2 1/2"
Girder 8 - No Shim R. Req'd.
2 1/2" is total thickness required;
use 1 1/2" x 9" x 2 1/2" and 1" x 9" x 2 1/2" plates.

Measured along line parallel to Girders 1 thru 8
E Brg. Pier 2

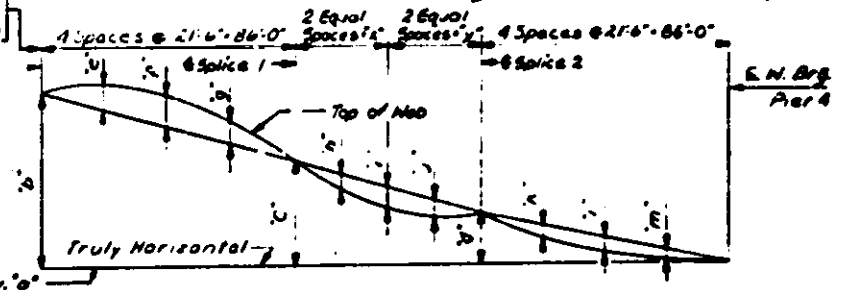
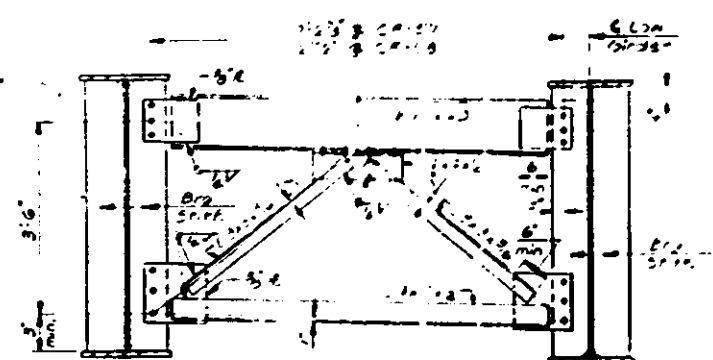


TABLE OF CAMBER DIMENSIONS

Gir. No.	"A"	"Y"	Elev. "a"	"b"	"c"	"d"	"e"	"f"	"g"	"h"	"i"	"j"	"k"	"l"	"m"
1	34'-9 1/2"	29'-2 1/2"	498.246	6'-2 3/8"	3'-9 1/2"	1'-9 1/2"	16"	15"	15"	4"	2 1/2"	1 1/2"	0"	5"	0"
2	34'-8 1/2"	29'-6 1/2"	498.200	6'-1 1/8"	3'-7 1/8"	1'-9 1/2"	8"	1"	5"	5"	1"	8"	8"	16"	8"
3	34'-0 1/2"	29'-11 1/2"	498.247	5'-11 1/8"	3'-5 1/8"	1'-7 1/8"	5"	1"	5"	5"	5"	8"	8"	16"	8"
4	33'-7 1/2"	30'-6 1/2"	498.087	5'-9 1/8"	3'-3 1/8"	1'-5 1/8"	5"	1"	5"	5"	5"	8"	8"	16"	8"
5	33'-5 1/2"	30'-8 1/2"	497.986	5'-8"	3'-1 1/8"	1'-3 1/8"	5"	1"	5"	5"	5"	8"	8"	16"	8"
6	32'-10 1/2"	31'-1 1/2"	497.750	5'-6 1/8"	2'-11 1/8"	1'-1 1/8"	5"	5"	5"	5"	8"	8"	16"	16"	8"
7	32'-8 1/2"	31'-6 1/2"	497.967	5'-5 1/8"	2'-9 1/8"	11"	-2 1/2"	-10"	-7 1/2"	-5"	15"	15"	16"	16"	8"
8	32'-0 1/2"	31'-11 1/2"	498.297	3'-4 1/8"	2'-6 1/8"	8"	5"	15"	15"	-7 1/2"	2 1/2"	2 1/2"	8"	8"	8"

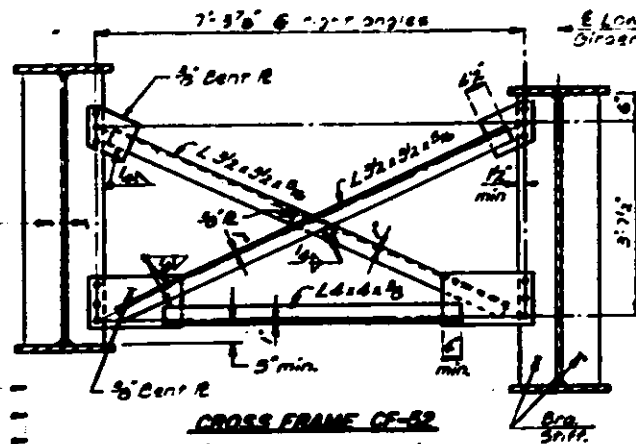
CAMBER DIAGRAM
SECTIONS 1 THRU 8



CROSS FRAMES CF-57 & CF-58
(CF-57 12 Required)
(CF-58 2 Required)

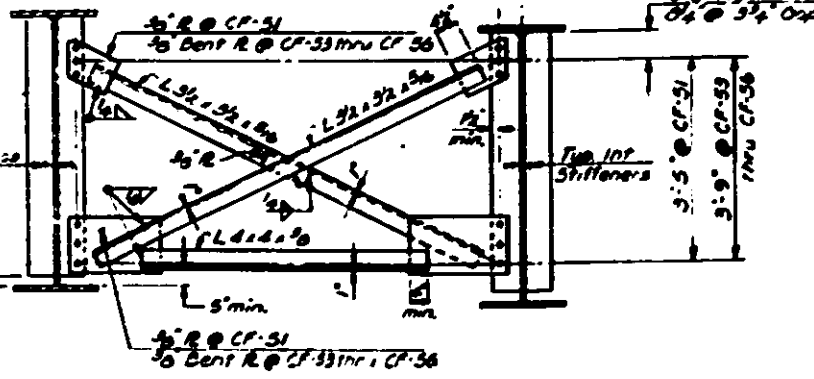
Pier 2 W. Brg. Girders 1 thru 8 as shown
Pier 4 E. Brg. Girders 1 thru 8 as shown.
Girders 7 & 8 opposite hand.

Note: 1 1/2" holes in girder flanges for 1 1/2" bolts. Spliced members shall be required over holes in girder flanges.



CROSS FRAME CF-52
(CF-52 7 Required)

7'-9 3/4" @ CF-51
7'-9" @ CF-53
7'-6" @ CF-56
7'-8" @ CF-55
7'-0" @ CF-56



CROSS FRAMES CF-51 & CF-53 THRU CF-56
(CF-51 62 Required) (CF-53 2 Required)
(CF-55 4 Required) (CF-56 2 Required)
(CF-54 2 Required)

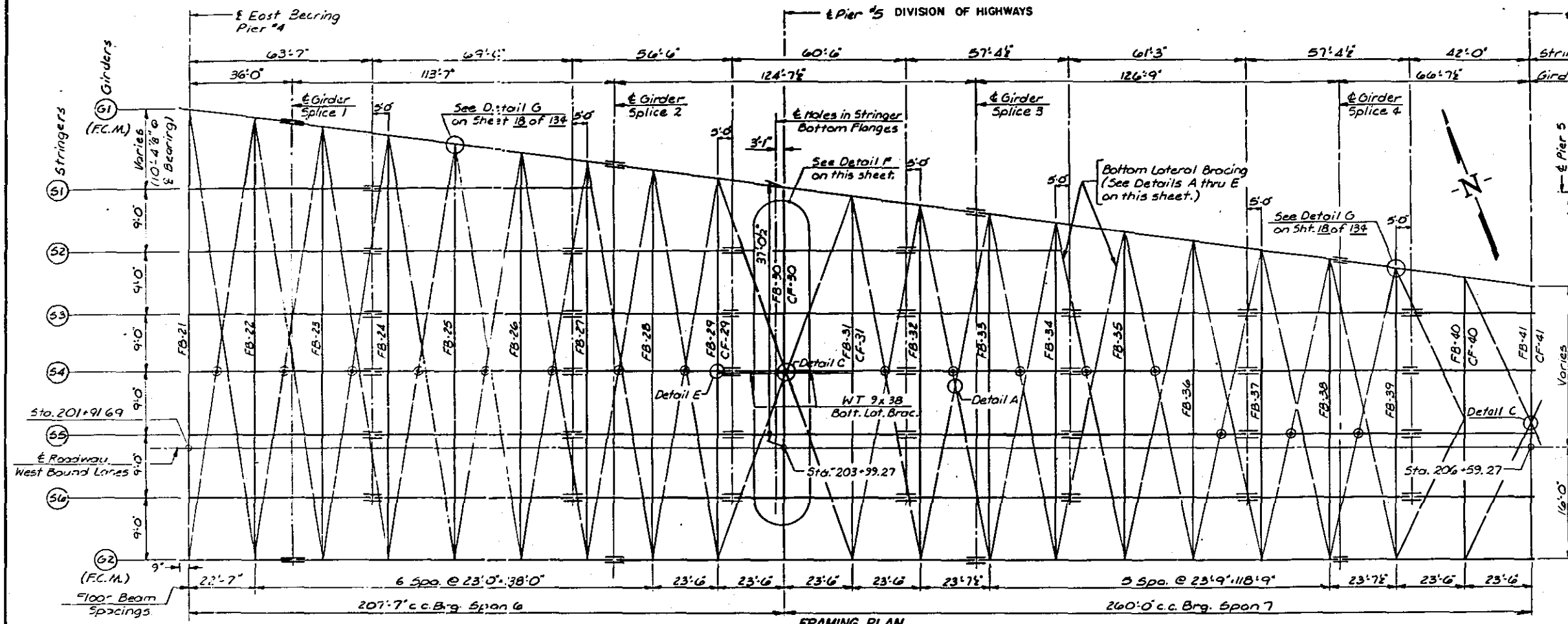
3/4" Gap @ Bottom for all CF-51 Cross Frames between E Brg. Pier #2 & Splice #1 and between E Splice #2 & Brg. Pier #4
3/4" Gap @ Top for all CF-51 Cross Frames between Splices #1 & #2.
2" Gap @ Bottom for all CF-53 thru CF-56 Cross Frames.

Steel Specifications This Sheet:
Bearing Plate Material-AASHTO M-222
Cross Frames & Diaphragms -
AASHTO M-183
Cross Frame & Diaphragm Bolts -
AASHTO M-164

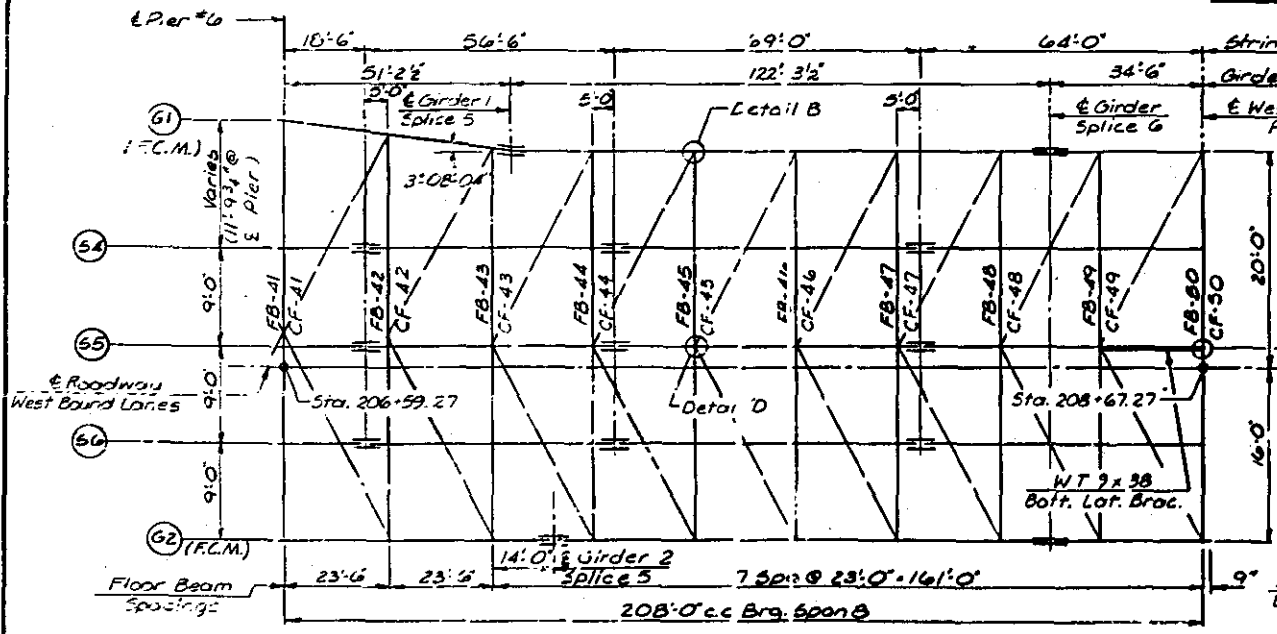
DESIGNED & CHECKED
BY: [Signature]
DATE: [Date]
E.A. BOWEN, JR. INC. - ST. LOUIS, MO.
[Signature]
[Signature]

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Sheet 9 of 134

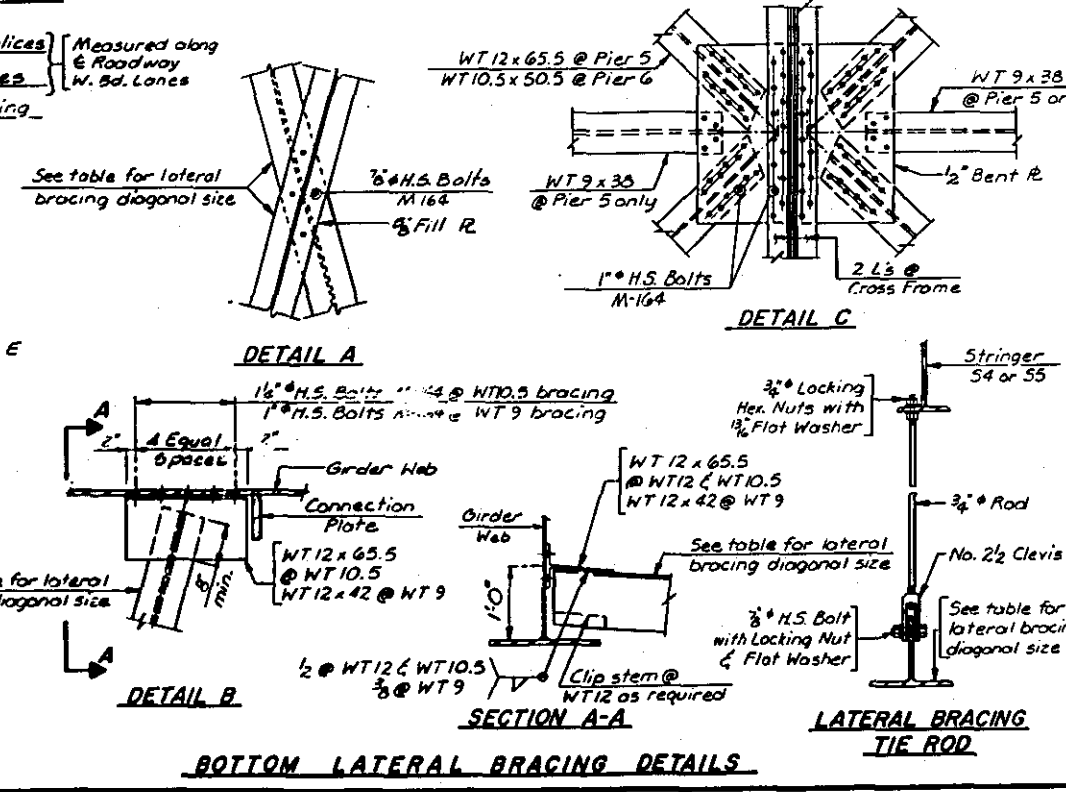


FRAMING PLAN

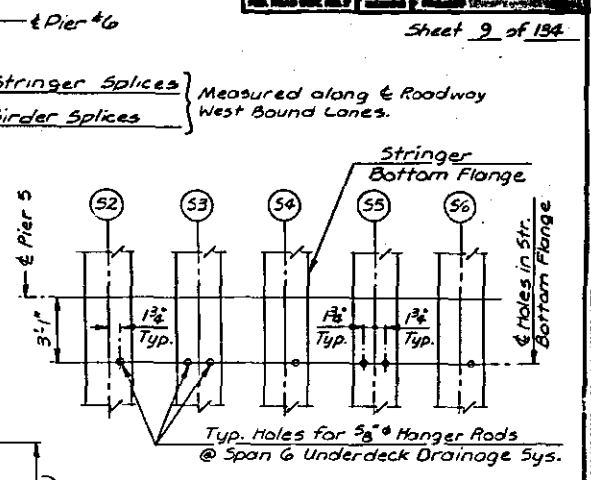


FRAMING PLAN

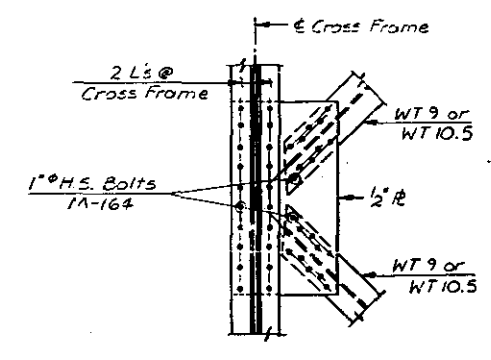
Location	Bottom Lateral Bracing Diagonal
FB 21 thru FB 31	WT 12 x 65.5
FB 31 thru FB 39	WT 9 x 38
FB 39 thru FB 44	WT 10.5 x 50.5
FB 44 thru FB 50	WT 9 x 38



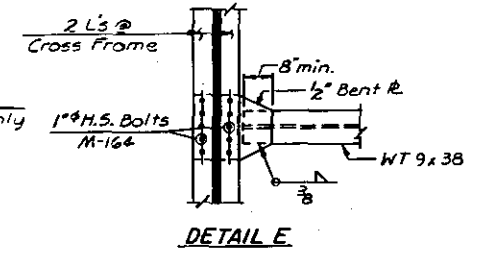
BOTTOM LATERAL BRACING DETAILS



DETAIL F



DETAIL D



DETAIL E

Notes:
Structural steel for bottom lateral bracing shall meet the requirements for AASHTO M-183 unless otherwise noted.
On the framing plan indicates the general location of the tie rod hanger between the stringer & lateral bracing system.
All dimensions shown in framing plan are measured horizontally.
For cross section see sheets 91 & 92 of 134.

STRUCTURAL STEEL PLAN SPANS 6, 7 & 8

McCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15-2 (F&E)
PEORIA & TAZEWELL COUNTIES

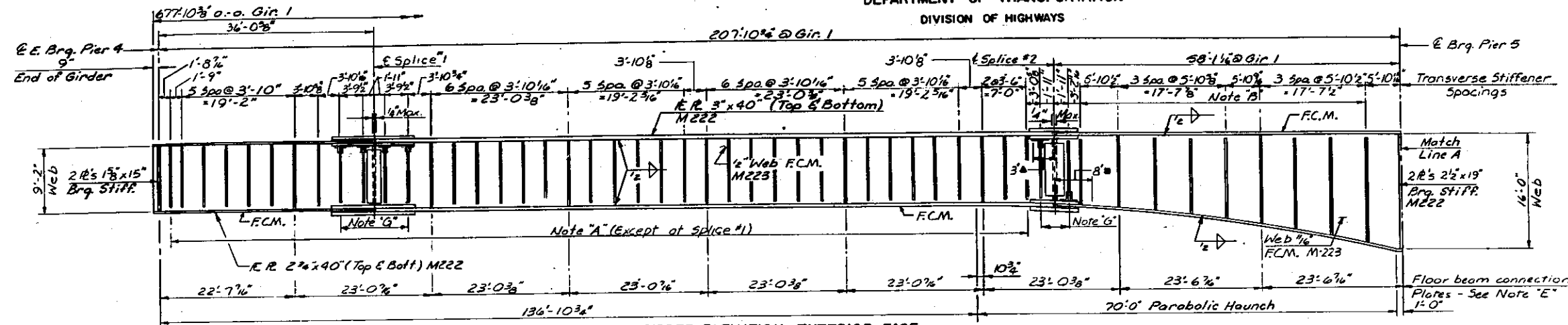
SCA
WAL
PM
WAL

HANSON ENGINEERS
INCORPORATED
PEORIA, ILLINOIS

74001
11-2-79

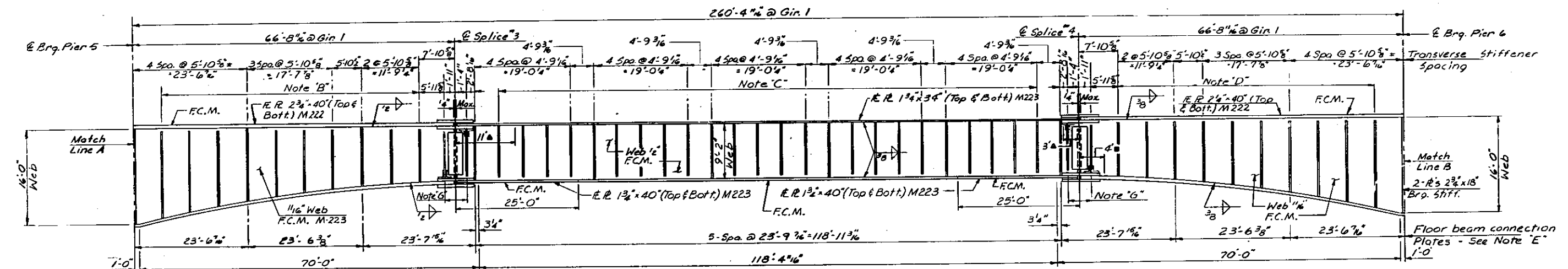
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Sheet 10 of 134



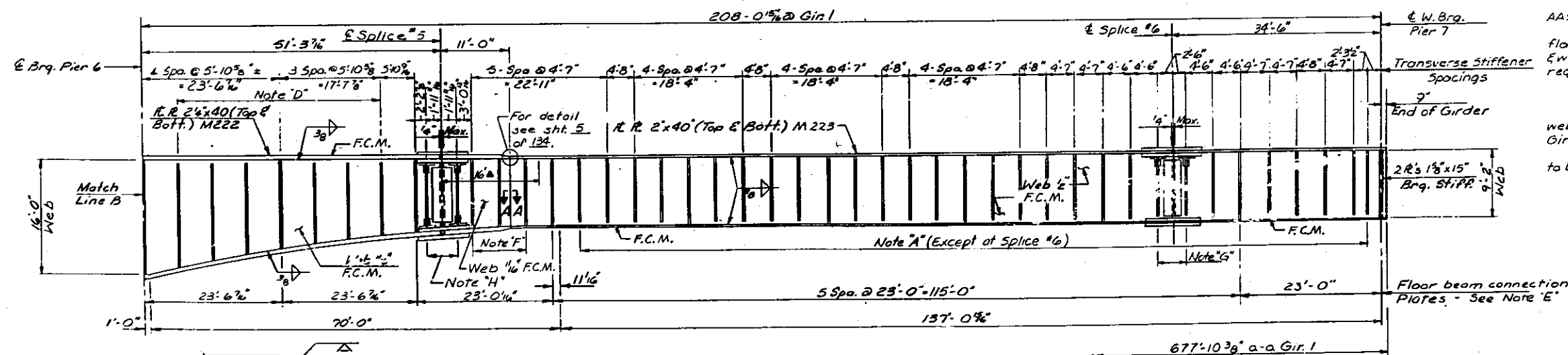
- Note A: 3/8" x 10" Transverse Stiffeners with 1/2" or 3/4" fillet welds at top flange & 3" gap at bottom flange.
- Note B: 1/2" x 11" Transverse Stiffeners with 1/2" fillet welds at bottom flange & 4 1/2" gap at top flange.
- Note C: 9/16" x 8 1/2" Transverse Stiffeners with 3/8" fillet welds at top flange & 3" gap at bottom flange.
- Note D: 3/8" x 10" Transverse Stiffeners with 3/8" fillet welds at bottom flange & 4 1/2" gap at top flange.
- Note E: 1 1/2" x 10" Floor beam connection plates (M-223) on each side of web. Groove weld to web & both flanges.
- Note F: 1 1/2" x 18" Transverse Stiffeners on each side of web with fillet welds to both flanges & web.
- Note G: 7/8" x 10" Transverse Stiffeners with fillet weld to web & bolted connection to flanges. See Splice Details for R details.
- Note H: 1 1/2" x 18" Transverse Stiffeners with fillet weld to web & bolted connection to both flanges. See Splice 5 Details.

GIRDER ELEVATION-INTERIOR FACE
SPAN 6

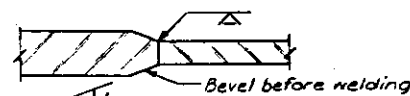


GIRDER ELEVATION-INTERIOR FACE
SPAN 7

- Notes:
- All dimensions shown are measured horizontally and along & of Girder.
- All structural steel shown on this sheet shall be AASHTO M-183 unless otherwise noted.
- F.C.M. denotes Fracture Critical Member. Girder flanges as shown, webs, bearing stiffeners, & flange & web splice plates for Spans 6, 7 & 8 shall meet the requirements for fracture critical members.
- F.C.M. @ lower girder flange this region.
- ▲ F.C.M. @ upper girder flange this region.
- Inside face for Girder 1 shown on this sheet. For web haunch details & stiffeners on outside face of Girder 1 see Sheet 12 of 134.
- The inside connecting plates @ floor beams are to be welded normal to & Roadway. See Sht. 16 of 134.



GIRDER ELEVATION-INTERIOR FACE
SPAN 8



SECTION A-A

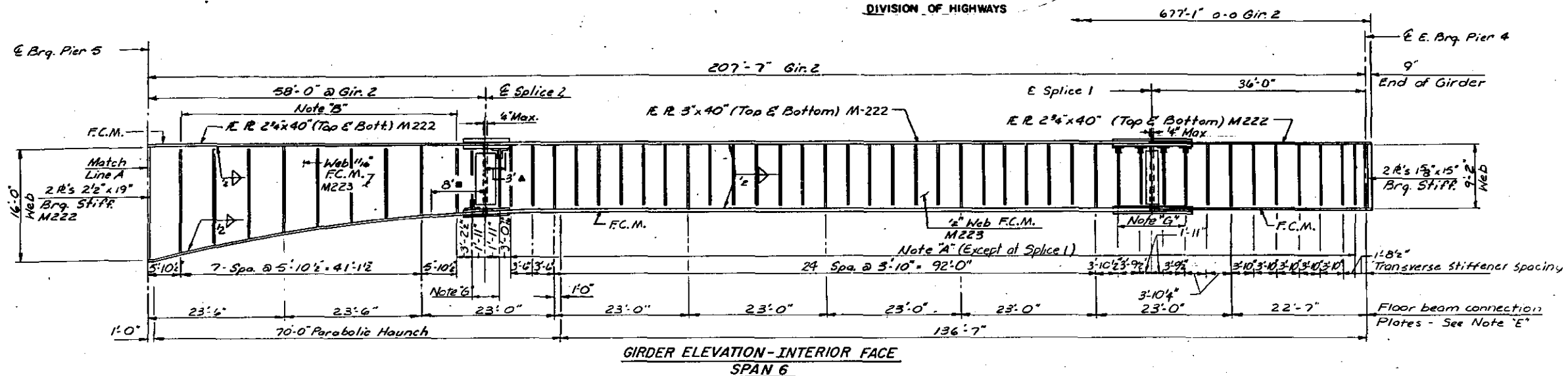
TRANSVERSE STIFFENER LOCATIONS
GIRDER 1 - SPANS 6, 7, & 8

M^C CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15-2 (F&E)
PEORIA & TAZEWELL COUNTIES

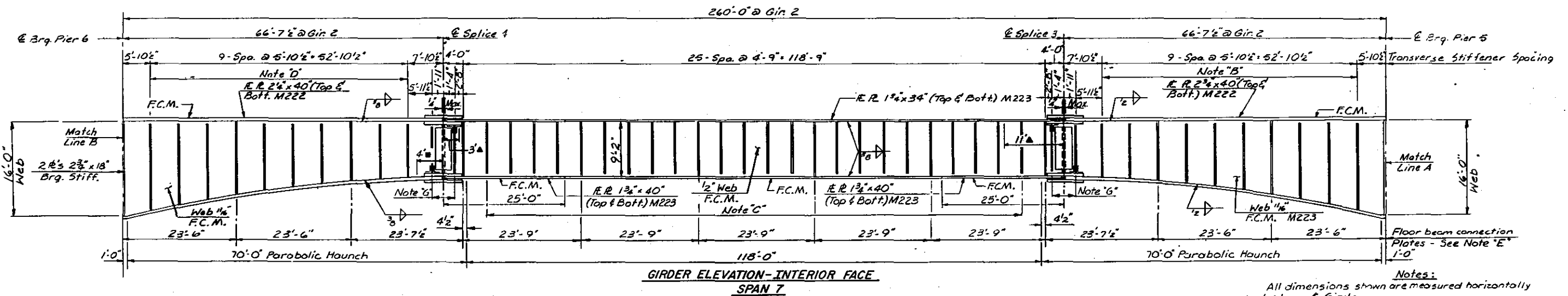
HANSON ENGINEERS
INCORPORATED
PEORIA, ILLINOIS
74007
11-2-79

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Sheet 11 of 134



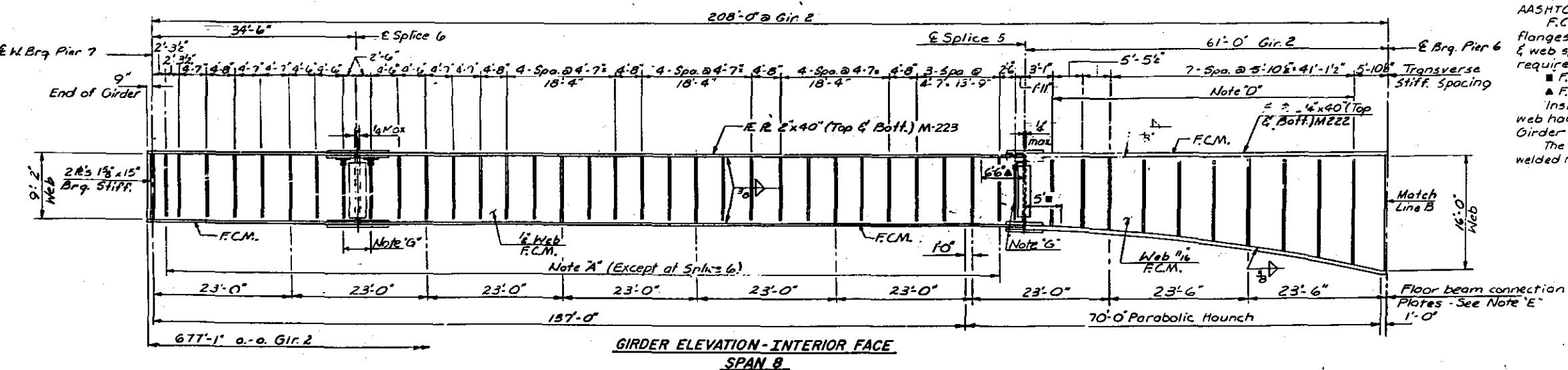
- Notes:**
- Note A: 4" x 10" Transverse Stiffeners with 1/2" Fillet Welds at top Flange & 3" Gap at bottom flange.
 - Note B: 4" x 11" Transverse Stiffeners with 1/2" Fillet Welds at bottom & 4" Gap at top flange.
 - Note C: 4" x 8" Transverse Stiffeners with 1/2" Fillet Welds at top Flange & 3" Gap at bottom flange.
 - Note D: 4" x 10" Transverse Stiffeners with 1/2" Fillet Welds at bottom & 4" Gap at top flange.
 - Note E: 1 1/2" x 10" Floor beam connection (M-223) on each side of web. Groove weld to web & both flanges.
 - Note G: 2" x 10" Transverse Stiffeners with fillet welds to web & bolted connection to flanges. See Splice Details.



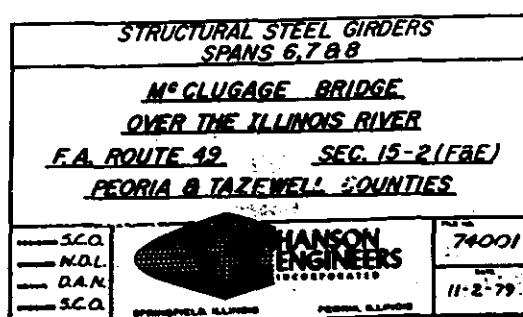
- Notes:**
- All dimensions shown are measured horizontally and along E Girder.
 - All structural steel shown on this sheet shall be AASHTO M-183 unless otherwise noted.
 - F.C.M. denotes Fracture Critical Member. Girder flanges as shown, webs, bearing stiffeners, & flange & web splice plates for Spans 6, 7, & 8 shall meet the requirements for fracture critical members.
 - F.C.M. @ lower girder flange this region.
 - F.C.M. @ upper girder flange this region.
 - Inside face of Girder 2 shown on this sheet. For web haunch details & stiffeners on outside face of Girder 2 see Sheet 12 of 134.
 - The inside connecting plates @ floor beams are to be welded normal to E Roadway. See Sheet 16 of 134.

**TRANSVERSE STIFFENER LOCATIONS
GIRDER 2 - SPANS 6, 7, & 8**

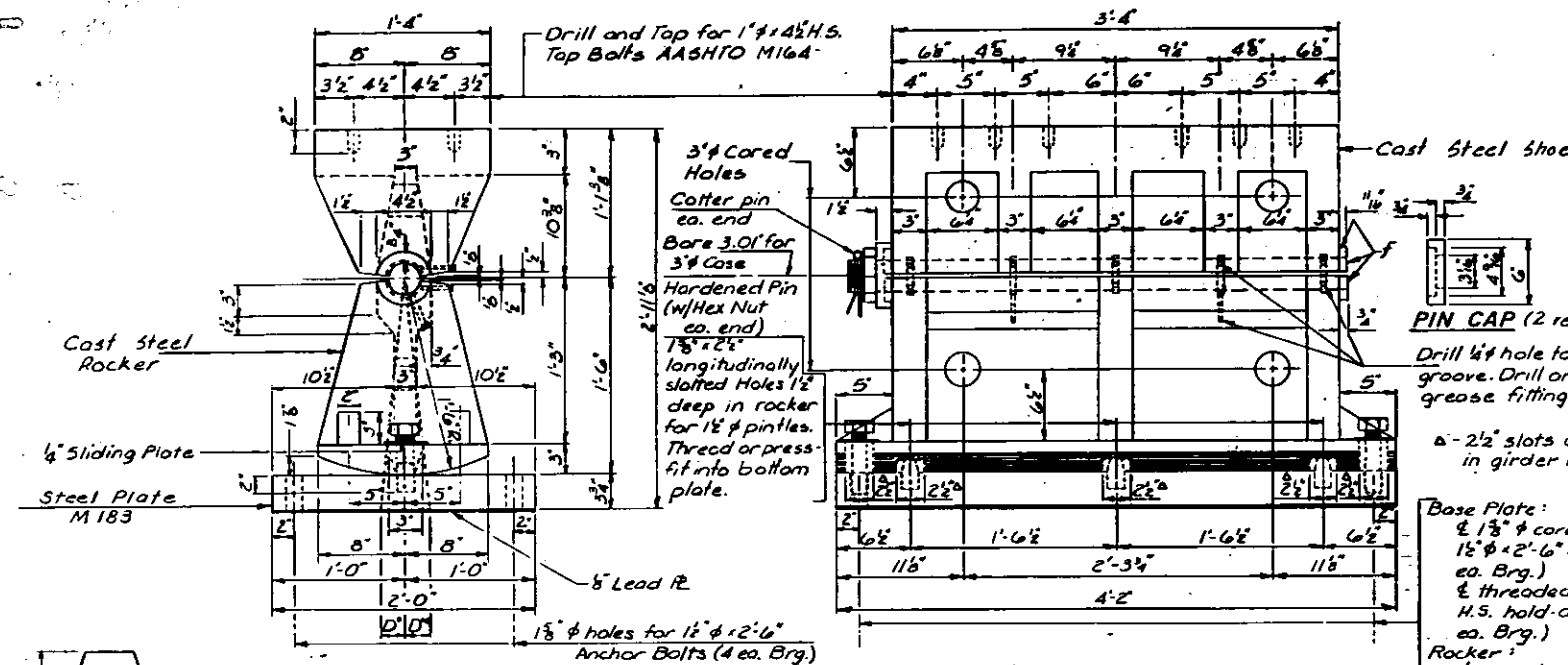
**M^o CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15-21(F&E)
PEORIA & TAZEWELL COUNTIES**



DETAIL D

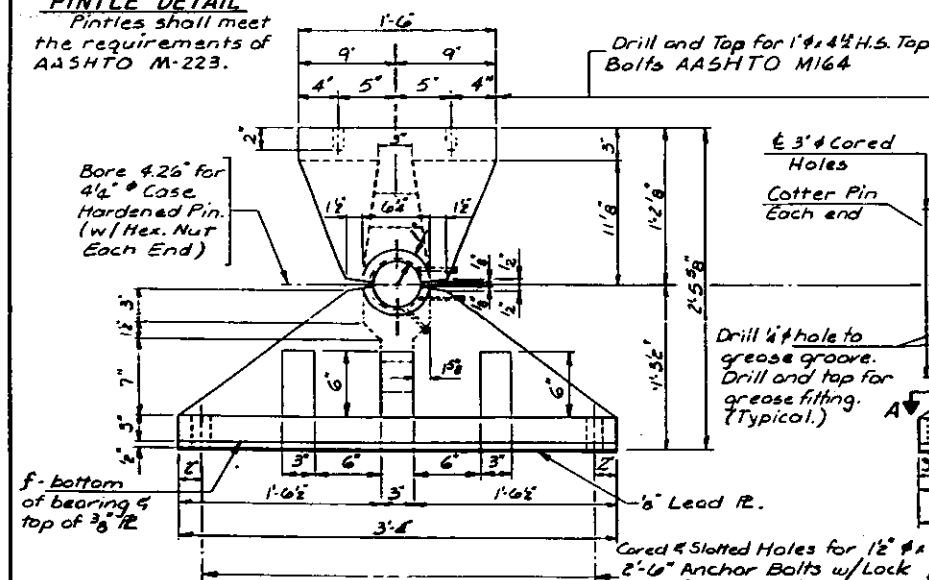


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS



EXPANSION BEARING AT PIER 4
Cast steel shoes, rockers, & bolsters shall meet the requirements of AASHTO M192 Class 90. See general note for substitution of weldments.

PINTLE DETAIL
Pintles shall meet the requirements of AASHTO M-223.



FIXED BEARING AT PIER 5

into contact w/ bottom bearing R, but do not tighten. After nut is in contact, engage locking device.

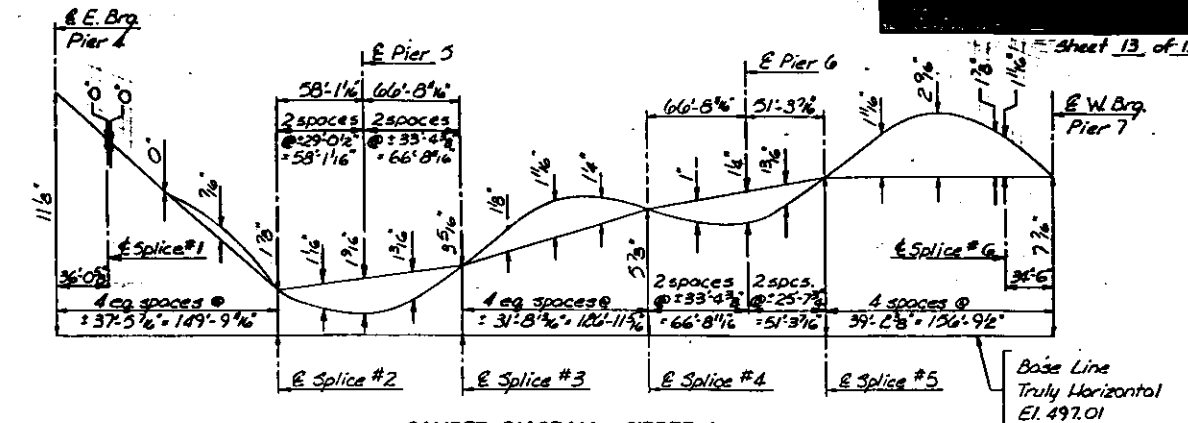
1" cored, slotted holes for 1 1/2" x 2" Anchor Bolts

Note: Detail A applies to girder 1 only.

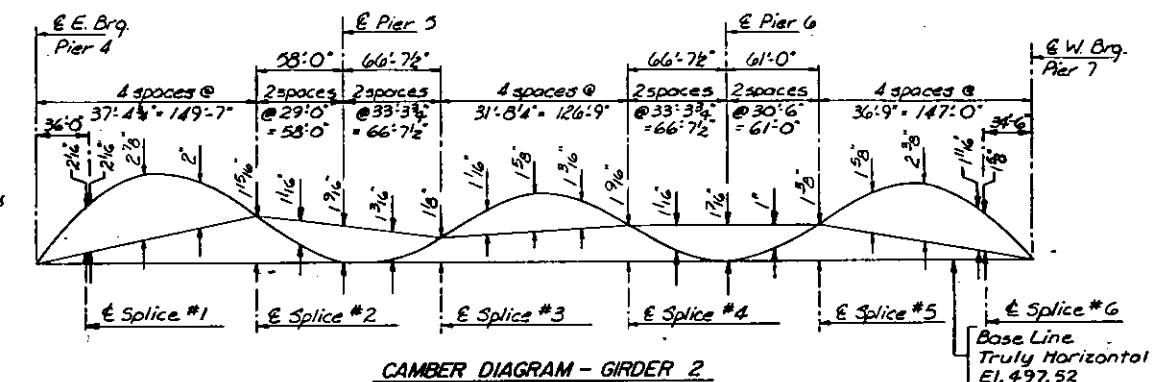
DETAIL A

GREASE GROOVE ON SADDLE

Grease bearing assembly with molybdenum grease before installation.



CAMBER DIAGRAM - GIRDER 1



CAMBER DIAGRAM - GIRDER 2

NOTES:

Cast steel shoes, rockers, & bolsters shall meet requirements of AASHTO M192 Class 90 unless noted otherwise. Structural steel weldments of M222 or M223 may be substituted for the castings subject to approval by the Engineer prior to fabrication. No extra compensation will be allowed for the substitution. Hold down bolts, Pier 4, shall be high strength meeting the requirements of AASHTO M-164.

TOP OF WEB ELEVATIONS

Location	Girder 1	Girder 2
Pier 4, E. Brg.	497.94	497.52
Splice #1	497.75	497.56
Splice #2	497.17	497.68
Pier 5 Brg.	497.09	497.52
Splice #3	497.29	497.61
Splice #4	497.50	497.65
Pier 6 Brg.	497.45	497.52
Splice #5	497.60	497.63
Splice #6	497.62	497.55
Pier 7, W. Brg.	497.63	497.52

Note: Elevations include camber for dead load deflection and are for fabrication only.

NOTES FOR SETTING OF ANCHOR BOLTS AT EXPANSION BEARINGS

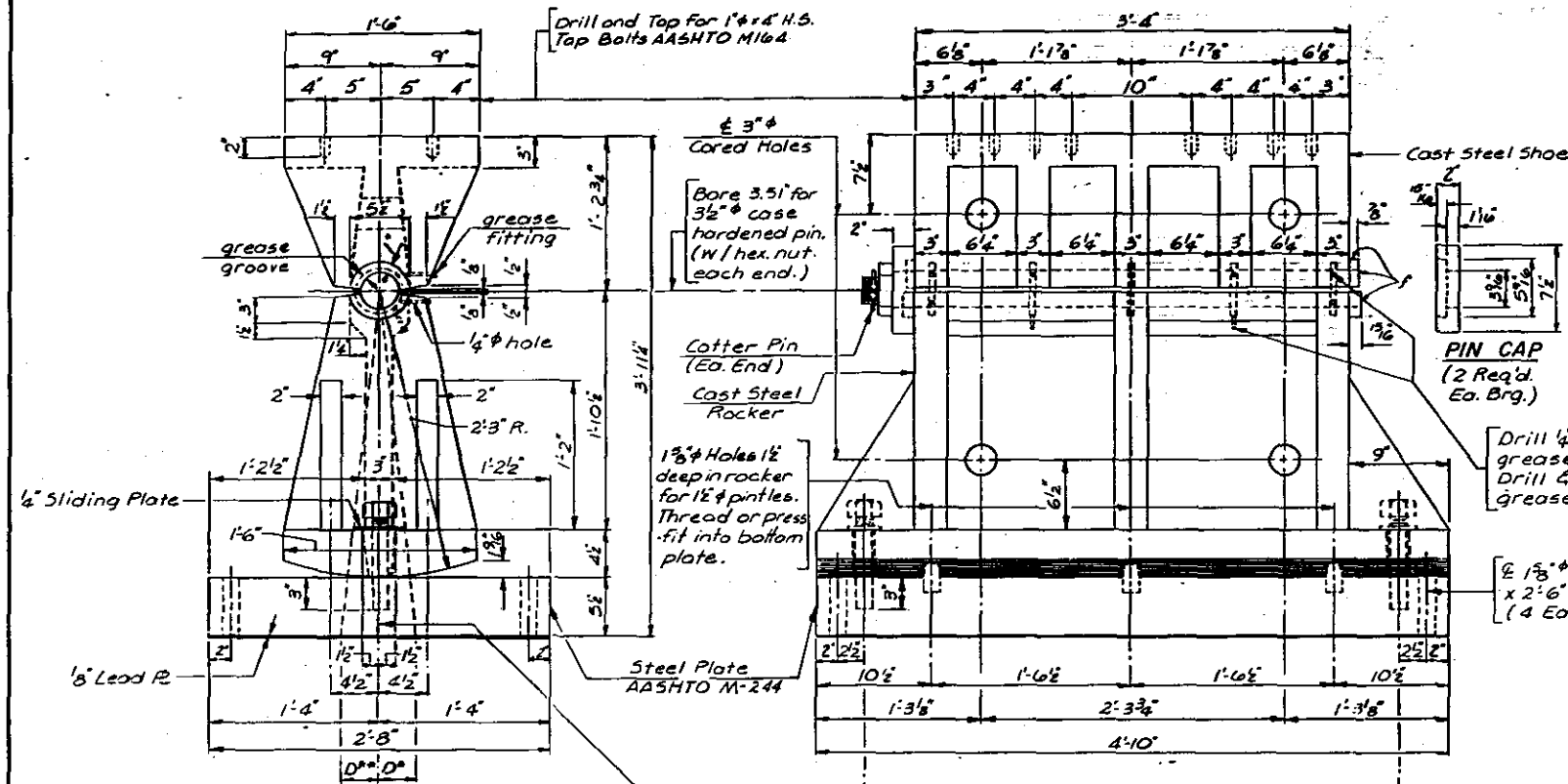
- Side of Bearing away from fixed Bearing) D' = 1/8" per each 100' of expansion for every 15° fall below the Normal Temperature of 50°F.
 - Side of Bearing toward Fixed Bearing) D'' = 1/8" per each 100' of expansion for every 15° rise above the Normal Temperature of 50°F.
- B) After Girders have been erected and dimensions D' and D'' determined, holes shall be drilled and anchor bolts shall be grouted in place. All fixed anchor bolts may be built into the masonry.

BEARINGS & CAMBER DIAGRAMS SPANS 6, 7 & 8

M'CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15-2 (F&E)
PEORIA & TAZEWELL COUNTIES

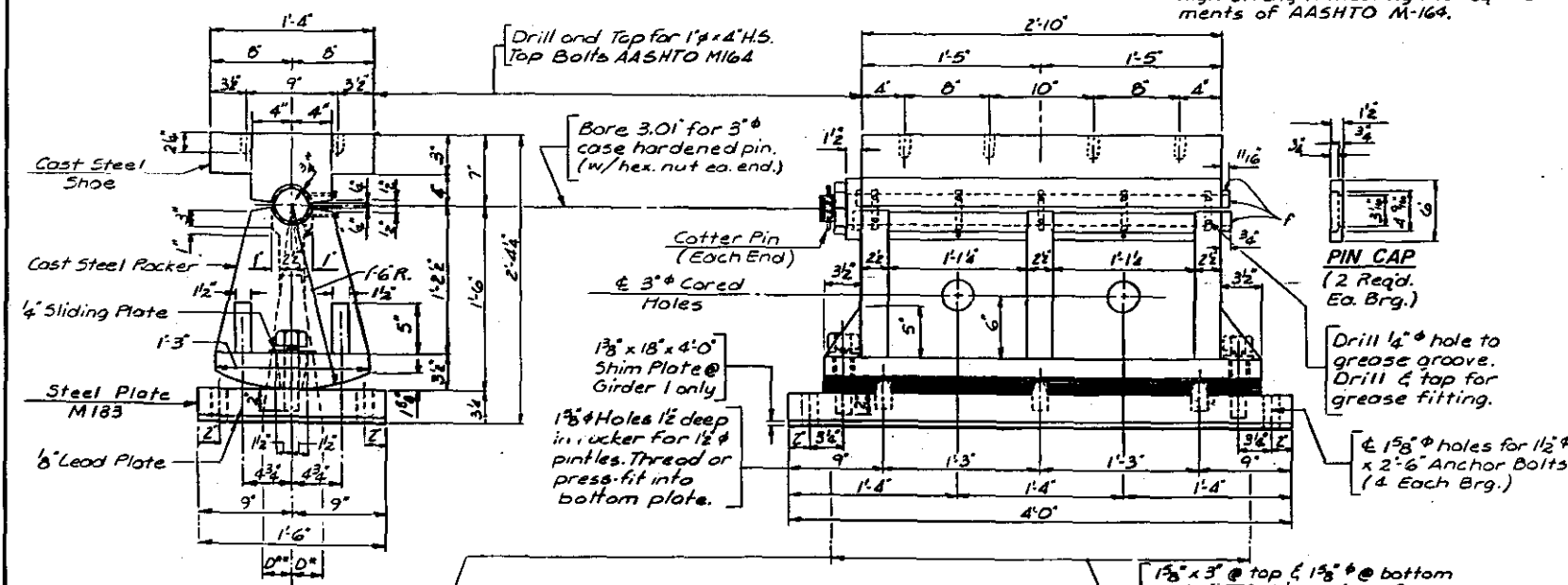
SGS
W.D.L.
P.M.
W.D.L.
HANSON ENGINEERS
74001

SECTION A-A



Note: Cast steel shoes, rockers & bolsters shall meet requirements of AASHTO M192 Class 90 unless noted otherwise. Structural steel weldments of M222 or M223 may be substituted for the castings, subject to approval by the Engineer prior to fabrication. No extra compensation will be allowed for this substitution.

EXPANSION BEARING AT PIER 6



Note: See Sheet 13 of 134 for notes pertaining to bearings.

EXPANSION BEARING AT PIER 7

FLOOR BEAM MOMENT TABLE									
0.5 point Floor Beam									
Fl. Bm. No.	Aspl. Fl. Bm. (in.)	P (k)	W (k/ft)	M _Q (ft.k)	M _L (ft.k)	Imp. (ft.k)	M _{TOTAL} (ft.k)	f _s (ksi)	
21	53,360	10.4	.23	701	1,500	450	2,652	19.3	
22	85,193	30.0	.31	1,783	1,916	575	4,274	21.5	
23	81,067	25.2	.31	1,469	1,846	554	3,869	20.0	
24	89,217	25.8	.32	1,449	1,777	533	3,759	18.4	
25	91,683	25.5	.32	1,380	1,708	512	3,600	17.4	
26	71,835	25.2	.27	1,291	1,652	496	3,439	21.0	
27	72,080	24.3	.27	1,178	1,568	471	3,217	19.6	
28	71,613	28.4	.27	1,416	1,499	450	3,365	20.6	
29	71,170	27.7	.27	1,281	1,430	429	3,140	19.2	
30	58,445	26.6	.26	1,130	1,360	408	2,898	19.8	
31	58,032	26.2	.26	1,060	1,316	395	2,771	19.0	
32	57,875	25.6	.26	984	1,273	382	2,639	18.2	
33	57,464	25.6	.26	930	1,230	369	2,529	17.5	
34	46,609	25.4	.22	837	1,146	344	2,327	19.6	
35	46,075	30.5	.22	931	1,122	337	2,390	20.3	
36	45,946	29.1	.22	849	1,099	330	2,278	19.4	
37	45,209	27.7	.22	772	1,056	317	2,145	18.3	
38	35,087	26.3	.21	697	1,012	304	2,013	19.9	
39	34,800	25.7	.21	646	971	291	1,908	19.0	
40	34,514	25.1	.21	597	930	279	1,806	18.0	
41	25,515	24.7	.20	532	869	261	1,662	19.6	
42	20,450	31.1	.19	616	848	254	1,718	22.9	
43	20,450	29.0	.19	556	807	242	1,605	21.4	
44-48	19,459	26.9	.19	515	766	230	1,511	20.7	
49	19,459	30.5	.19	580	766	230	1,576	21.6	
50	26,854	10.6	.20	223	579	174	976	11.2	

Note: P designates concentrated load at each stringer.
W designates uniform load due to weight of floor beam.

FLOOR BEAM SHEAR & REACTION TABLE									
At Girder 1					At Girder 2				
Fl. Bm. No.	V _Q or R _Q (k)	V _L or R _L (k)	Imp. (k)	V or R _{TOTAL} (k)	V _Q or R _Q (k)	V _L or R _L (k)	Imp. (k)	V or R _{TOTAL} (k)	
21	37.9	102.2	30.7	170.8	39.3	102.2	30.7	172.2	
22	99.6	133.6	40.1	273.3	100.0	133.6	40.1	273.7	
23	86.5	132.2	39.7	258.4	83.9	132.2	39.7	255.8	
24	90.1	130.6	39.2	259.9	84.1	130.6	39.2	253.9	
25	90.6	129.0	38.7	258.3	81.4	129.0	38.7	249.1	
26	89.8	127.4	38.2	255.4	77.1	127.4	38.2	242.7	
27	75.2	116.0	34.8	226.0	72.0	116.0	34.8	222.8	
28	76.4	114.9	34.5	225.8	80.6	114.9	34.5	230.0	
29	75.6	113.7	34.1	223.4	76.5	113.7	34.1	224.3	
30	74.6	112.6	33.8	221.0	72.7	112.6	33.8	218.6	
31	75.3	111.2	33.7	219.9	69.5	111.2	33.4	214.1	
32	109.9	109.9	33.0	212.9	66.8	109.9	33.0	209.7	
33	108.5	108.5	32.6	211.6	64.1	108.5	32.6	205.2	
34	62.8	105.9	32.1	201.8	59.8	105.9	32.1	197.8	
35	64.0	105.3	31.6	200.9	68.2	105.3	31.6	205.1	
36	62.8	109.6	32.9	205.3	63.6	109.6	32.9	206.1	
37	61.5	108.4	32.5	202.4	59.0	108.4	32.5	199.9	
38	61.0	107.3	32.2	200.5	55.2	107.3	32.2	194.7	
39	60.8	106.1	31.8	198.7	51.8	106.1	31.8	189.7	
40	60.6	104.7	31.4	196.7	48.3	104.7	31.4	184.4	
41	47.9	103.2	31.0	182.1	44.4	103.2	31.0	178.6	
42	48.3	101.8	30.5	180.6	52.1	101.8	30.5	184.4	
43	46.6	100.0	30.0	176.6	47.2	100.0	30.0	177.2	
44-48	43.8	99.7	29.9	173.4	43.8	99.7	29.9	173.4	
49	49.2	99.7	29.9	178.8	49.2	99.7	29.9	178.8	
50	19.5	75.5	22.6	117.6	19.5	75.5	22.6	117.6	

GIRDER MOMENT TABLE						
	0.4 point Span 6	Pier 5	0.5 point Span 7	Pier 6	0.6 point Span 8	
I (in ⁴)	521,778	2,491,658	427,008	2,103,568	557,271	
Q (k/ft)	6.46	6.26	4.97	4.85	4.26	
M _Q (ft.k)	17,291	38,290	7,704	29,688	10,548	
M _L (ft.k)	7,349	100,64	4,954	9,743	5,739	
Imp (ft.k)	1,102	1,510	743	1,461	861	
M _{TOTAL} (ft.k)	25,742	49,864	13,401	40,892	17,148	
f _s (ksi)	21.8	24.2 A	21.4	23.3 B	21.0	

A - Includes .5 ksi additional stress due to haunch.
B - Includes .4 ksi additional stress due to haunch.

GIRDER REACTION TABLE				
	E.E. Brg. Pier 4	E. Brg. Pier 5	E. Brg. Pier 6	E.W. Brg. Pier 7
R _Q (k)	435.0	1,467.0	1,152.6	282.2
R _L (k)	174.6	372.8	345.7	142.4
Imp (k)	26.2	55.9	51.8	21.4
R _{TOTAL} (k)	635.8	1,895.7	1,550.1	446.0

STRINGER MOMENT TABLE				
	0.4 point End Spans	0.5 point All Int. Spans	1st Int. Floor Beam	All Other Int. Floor Beams
I (in ⁴)	1,350	1,350	1,350	1,350
Q (k/ft)	1.15	1.15	1.15	1.15
M _Q (ft.k)	50	22	68	55
M _L (ft.k)	126	95	113	106
Imp (ft.k)	38	29	34	32
M _{TOTAL} (ft.k)	214	146	215	193
f _s (ksi)	22.5	15.4	22.6	20.3

STRINGER SHEAR & REACTION TABLE						
	End Floor Beam	First Interior Floor Beam	All Other Floor Beams			
	V _R	R	V _L	R	V _L	R
R _Q (k)	10.7	10.7	16.5	14.3	30.8	13.6
R _L (k)	34.5	34.5	39.7	37.1	45.3	37.3
Imp (k)	10.4	11.9	11.1	13.6	11.2	12.7
R _{TOTAL} (k)	55.6	55.6	68.1	62.5	89.7	62.1

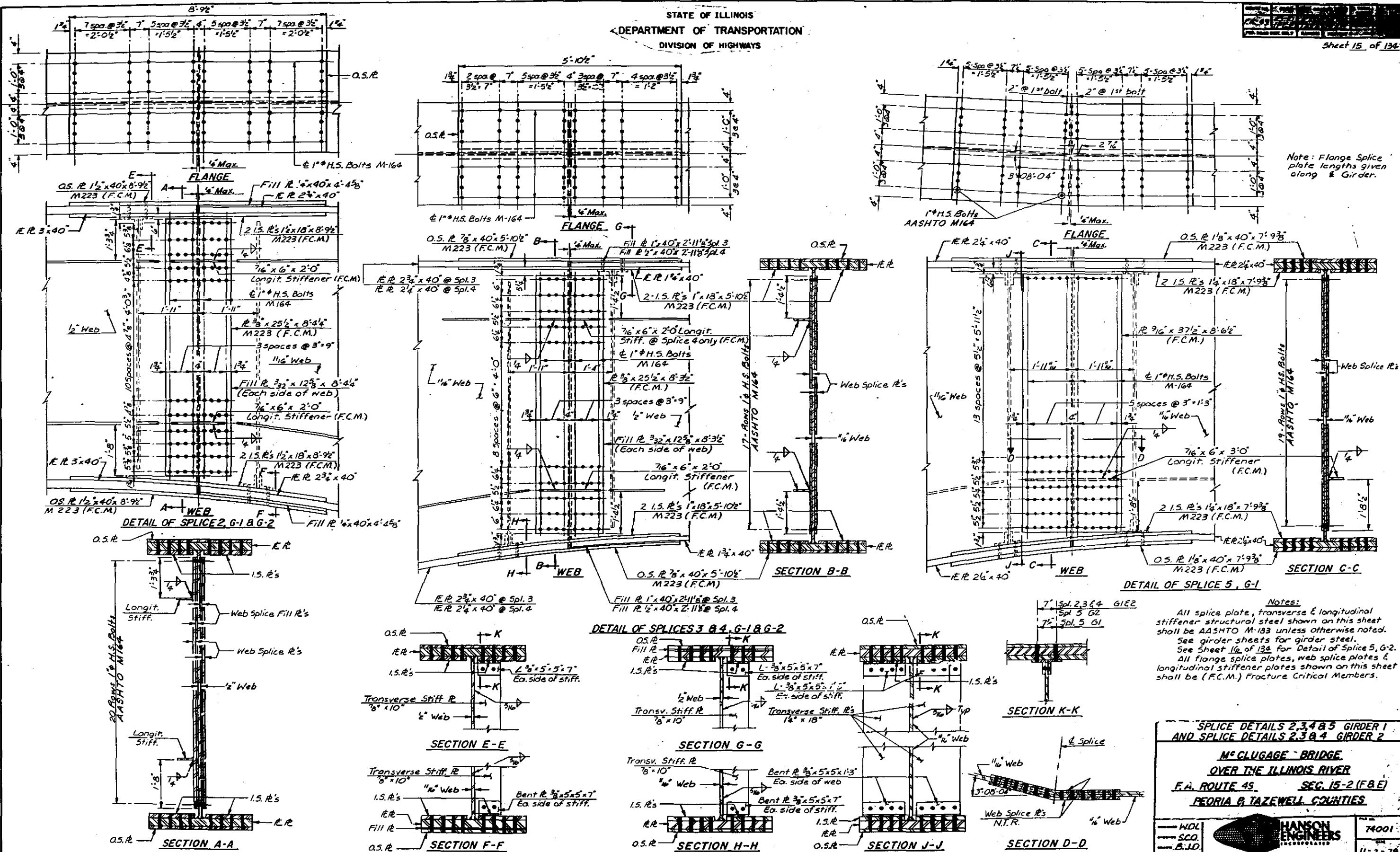
V_R - denotes shear to right of support.
V_L - denotes shear to left of support.
R - denotes reaction.

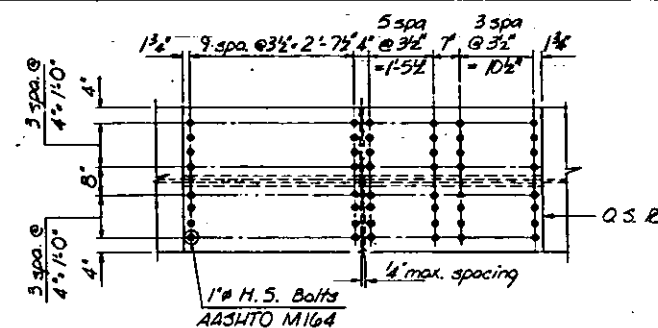
BEARINGS, MOMENTS & REACTIONS
SPANS 6, 7 & 8

N^o CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.I. ROUTE 49 SEC. 15-2 (F&E)
PEORIA & TAZEWELL COUNTIES

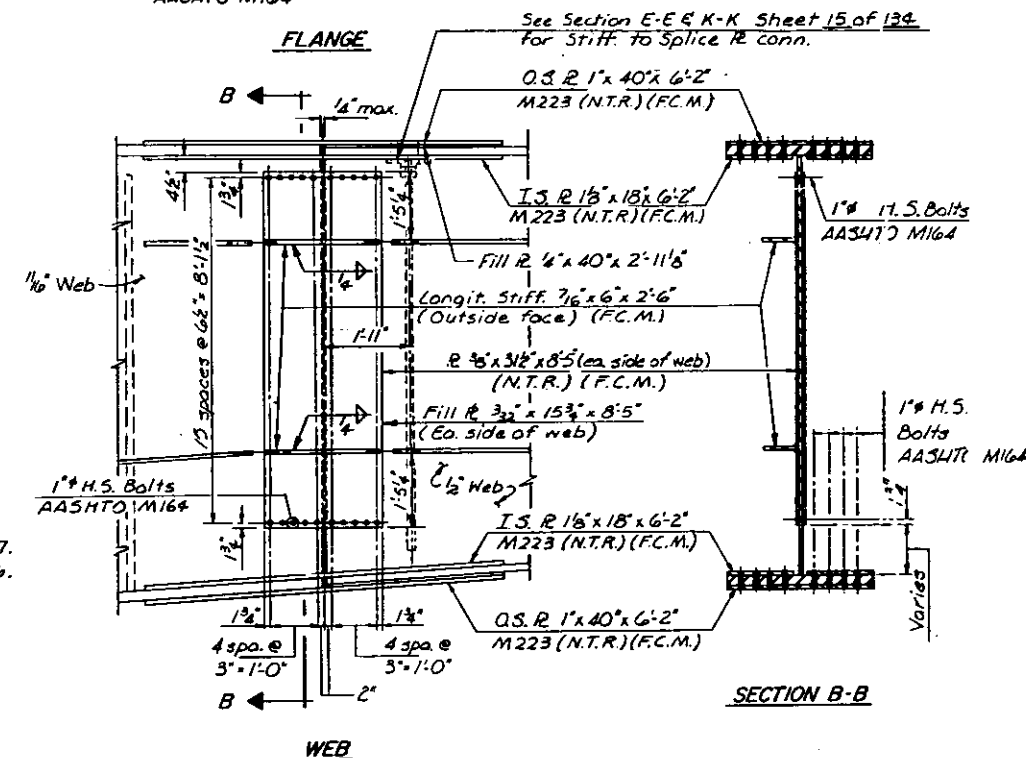
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Sheet 15 of 134





FLANGE



SECTION B-B



FLANGE



GIRDER 1
TRANSVERSE STIFFENERS
FB-43 to FB-44

Notes
NTR denotes material that shall conform to the Supplemental Requirements for Notch Toughness.
All Steel shall be AASHTO M103 unless otherwise noted.

STRUCTURAL STEEL DETAILS
SPANS 6, 7 & 8

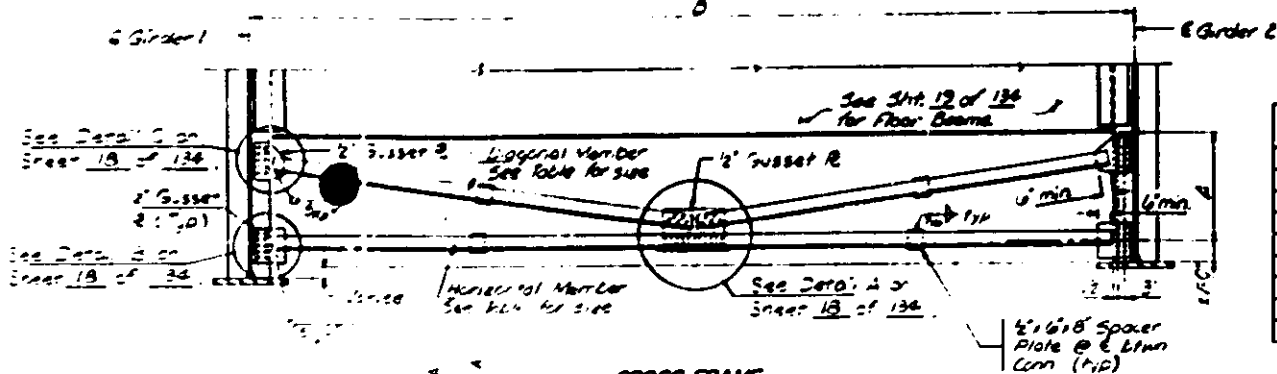
M^C CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER?
E. A. ROUTE 49 SEC. 15-2(F&E)
PEORIA & TAZEWELL COUNTIES

HANSON ENGINEERS

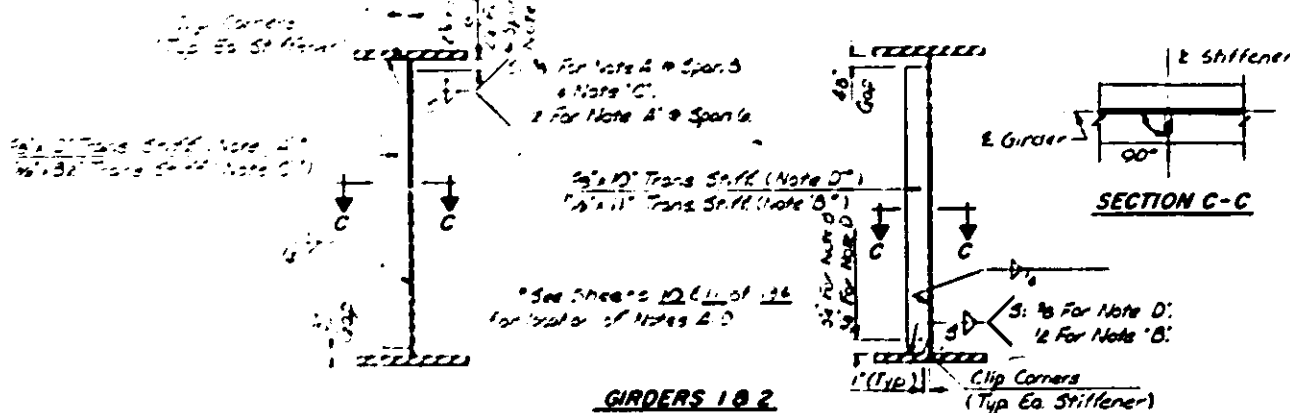
71000

11 2 -

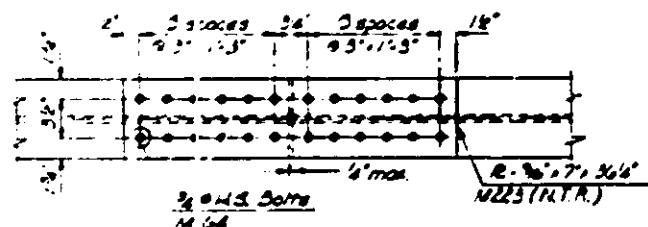
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS



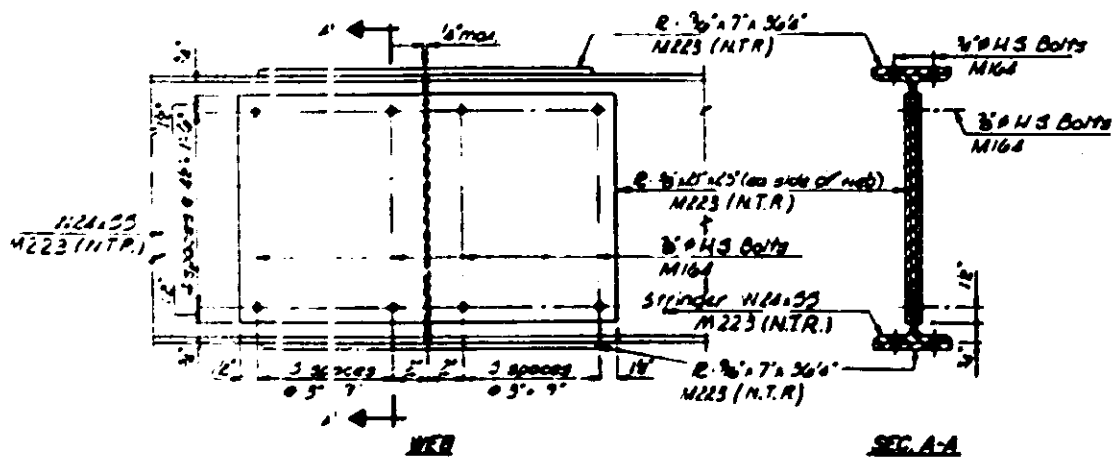
CROSS FRAME
(CF-29,30,31,40-49, & 50)
(1 EACH)



GIRDERS 102
TRANSVERSE STIFFENERS



FLANGE

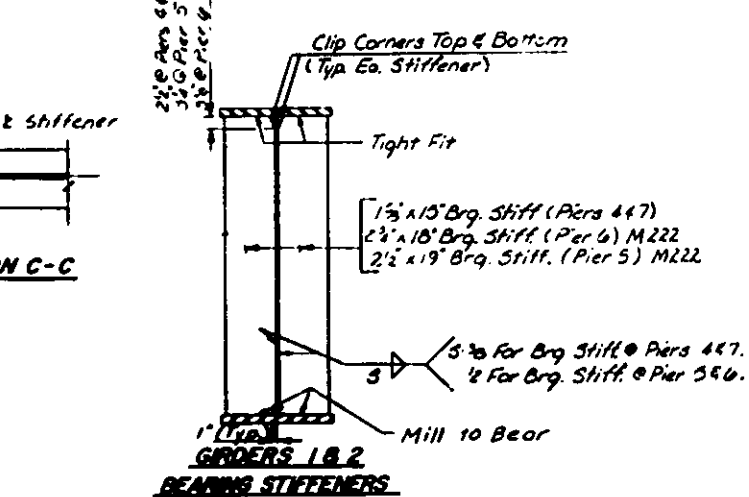


SI RINGER SPICE CANAL

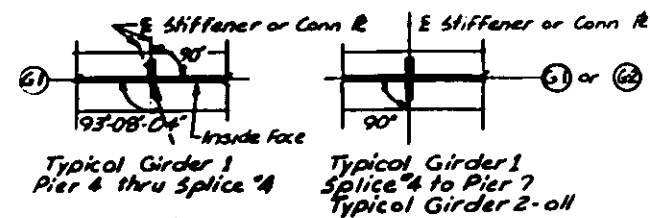
CROSS-FRAME DIMENSIONS

C.F. NO.	DIM. 'A'	DIM. 'B'	SIZE - 2 ANGLES *	
			DIAGONAL	HORIZONTAL
29	3'-3"	34'-3"	0'-6'-2"	0'-6'-2"
30	8'-0"	33'-0"	0'-6'-1"	0'-6'-1"
31	8'-3"	31'-6"	0'-6'-2"	0'-6'-2"
40	3'-2"	40'-15"	0'-6'-2"	0'-6'-2"
41	9'-3"	38'-3"	0'-6'-2"	0'-6'-2"
42	0'-0"	37'-6"	0'-6'-2"	0'-6'-2"
43	3'-9"	36'-2 1/2"	0'-6'-2"	0'-6'-2"
44-49	3'-0"	36'-0"	0'-6'-2 1/2"	0'-6'-2 1/2"
50	8'-2"	36'-0"	0'-6'-2"	0'-6'-2"

* Long legs back to dock

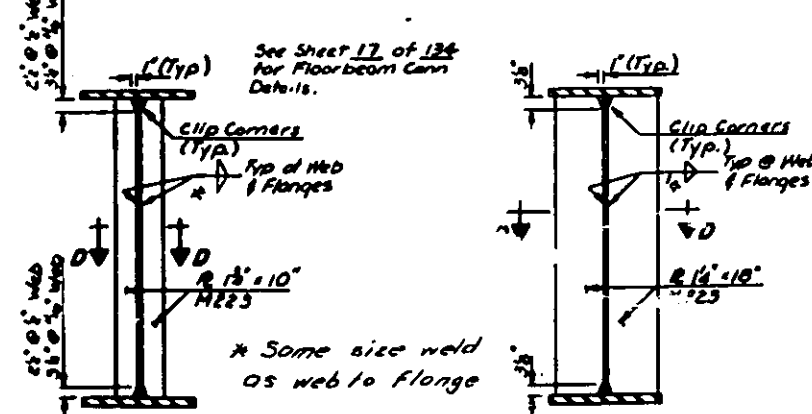


BEARING STIFFENERS



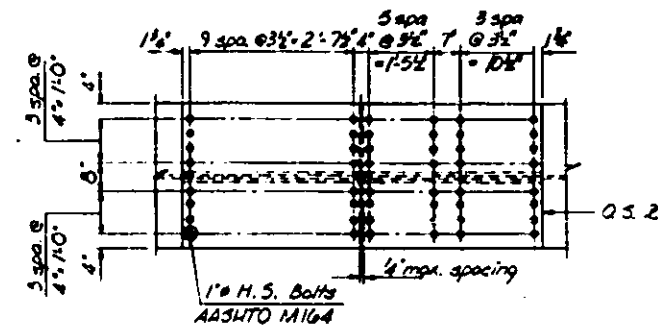
Typical Girder 1
Pier 4 thru Splice "A"

SECTION D-D

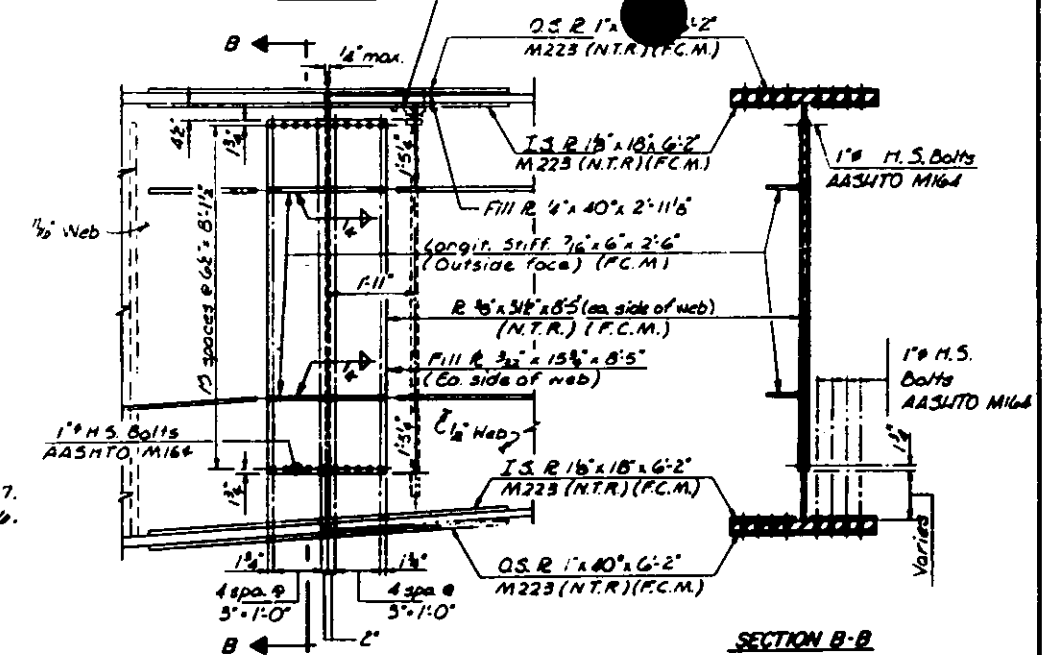


GIRDERS I.B.R.
FLOOR BEAM CONNECTION C.S.

ORDER 1
TRANSVERSE STIFFENERS
FD-43 to FD-44



FLANGE



SECTION B-B

WEB

DETAIL OF SPLICE 5.G-2

Notes
NTR denotes material that shall conform to the Supplemental Requirements for Notch Toughness.

All Steel shall be AASHTO M183
unless otherwise noted.

STRUCTURAL STEEL DETAILS
 STAIRS 6.7 & 8
 1/2" CLINCHER BOLDS
 2" x 4" x 1/2" ALUMINUM RODS
 E.A. ROUTE 40 SEC. 16-24-20
 FEDERAL & NATIONAL COMPANIES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Note: N.T.R. denotes material that shall conform to the Supplemental Requirements for Notch Toughness.

All steel shall be A.A.S.H.T.O. M183 unless otherwise noted.
All bolts shall be A.A.S.H.T.O. H.S. M164

FLOOR BEAM CONNECTIONS

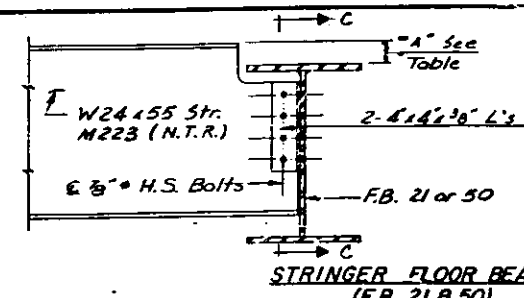
Floor Beam No.	E	Plate Size & No. of Bolts
		Girder 1 & 2
21	0'-5 1/2"	3/8" x 12 1/2" x 4'-5" 12 rows x 4-48
22	1'-11"	3/8" x 12 1/2" x 4'-9 1/2" 12 rows x 4-52
23	1'-11"	1'-9 1/2"
24	2'-1 1/4"	1'-9 1/2"
25	2'-1 1/4"	1'-9 1/2"
26	1'-11 1/2"	1'-9 1/2"
27	1'-11 1/2"	1'-9 1/2"
28	1'-10 1/2"	1'-9 1/2"
29	1'-10 1/2"	1'-9 1/2"
30	1'-10 1/2"	3/8" x 12 1/2" x 4'-5" 12 rows x 4-48
31	1'-10 1/2"	1'-9 1/2"
32	1'-10 1/2"	1'-9 1/2"
33	1'-10 1/2"	1'-9 1/2"
34	1'-10 1/2"	1'-9 1/2"
35	1'-10 1/2"	1'-9 1/2"
36	1'-10 1/2"	1'-9 1/2"
37	1'-10 1/2"	1'-9 1/2"
38	1'-10 1/2"	3/8" x 12 1/2" x 3'-8" 10 rows x 4-40
39	1'-10 1/2"	1'-9 1/2"
40	1'-10 1/2"	1'-9 1/2"
41	1'-10 1/2"	3/8" x 12 1/2" x 2'-11" 8 rows x 4-32
42	1'-8 1/2"	1'-8 1/2"
43	1'-8 1/2"	1'-8 1/2"
44	1'-8 1/2"	1'-8 1/2"
45	1'-9"	1'-8 1/2"
46	1'-9 1/2"	1'-8 1/2"
47	1'-9 1/2"	1'-8 1/2"
48	1'-9 1/2"	1'-8 1/2"
49	1'-9 1/2"	1'-8 1/2"
50	0'-5 1/2"	0'-5 1/2"

SHIM PLATE DIMENSIONS

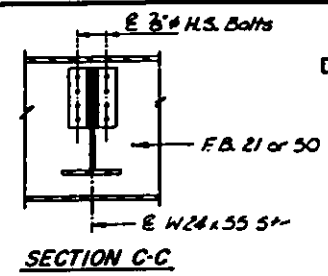
Floor Beam No.	DET	Str. 1	Str. 2	Str. 3	Str. 4	Str. 5	Str. 6	C	D
21, 50		Not Appl.							
22	D	4"	1 1/2"	4"	4"	4"	—	1'-5"	1'-1 1/2"
23	D	4"	1 1/2"	1 1/2"	5"	—	—	1'-5"	1'-1 1/2"
24	C	1 1/2"	2 1/2"	1 1/2"	4"	—	—	1'-5"	1'-1 1/2"
25	C	1 1/2"	1 1/2"	1 1/2"	4"	—	—	1'-5"	1'-1 1/2"
26	C	4"	4"	4"	4"	—	—	1'-5"	0'-11 1/2"
27	C	4"	4"	4"	4"	—	—	1'-5"	0'-11 1/2"
28-33	C	—	4"	4"	4"	—	—	1'-5"	0'-11 1/2"
34	C	—	4"	4"	4"	—	—	1'-2"	0'-10 1/2"
35-41	C	—	4"	4"	4"	—	—	1'-2"	0'-10 1/2"
42-49	F	—	—	—	—	1 1/2"	3 1/2"	1'-2"	0'-10 1/2"

STRUCTURAL STEEL DETAILS SPANS 6.7.8

M^o CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 43 SEC. 15-21 (F&E)
PEORIA & TAZEWELL COUNTIES

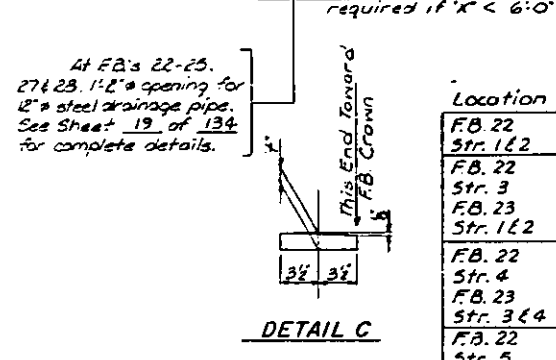
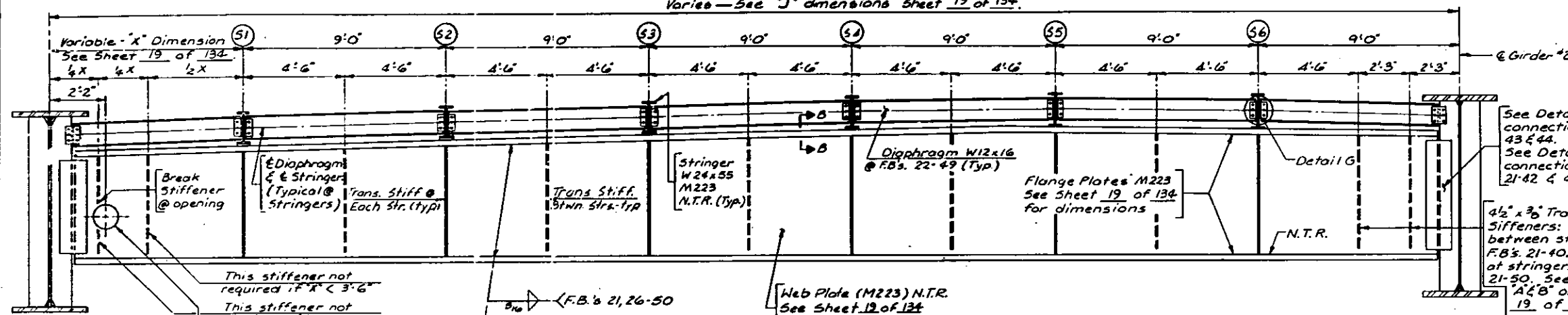


F.E. No.	STR. No.	4\"/>
----------	----------	-------

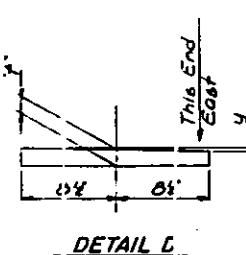


SECTION C-C

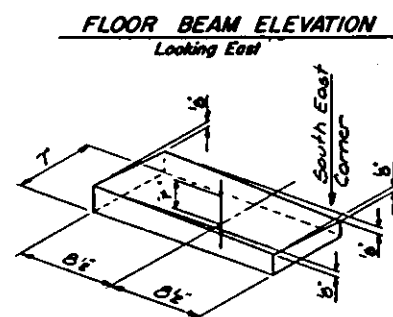
Varies—See "J" dimensions Sheet 19 of 134.



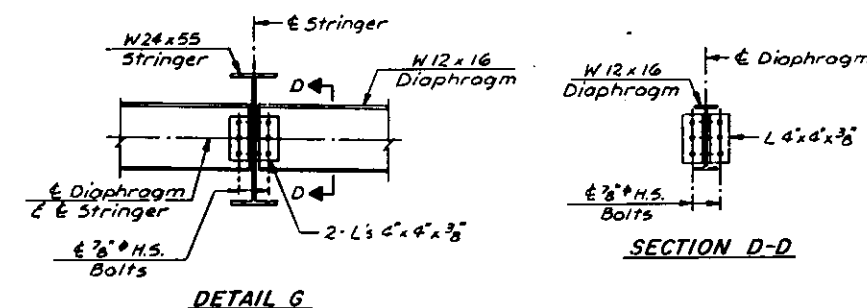
Location	y
FB 22 Str. 1 & 2	1'
FB 22 Str. 3	3'
FB 23 Str. 1 & 2	3'
FB 22 Str. 4	1'
FB 23 Str. 3 & 4	1'
FB 22 Str. 5	0'



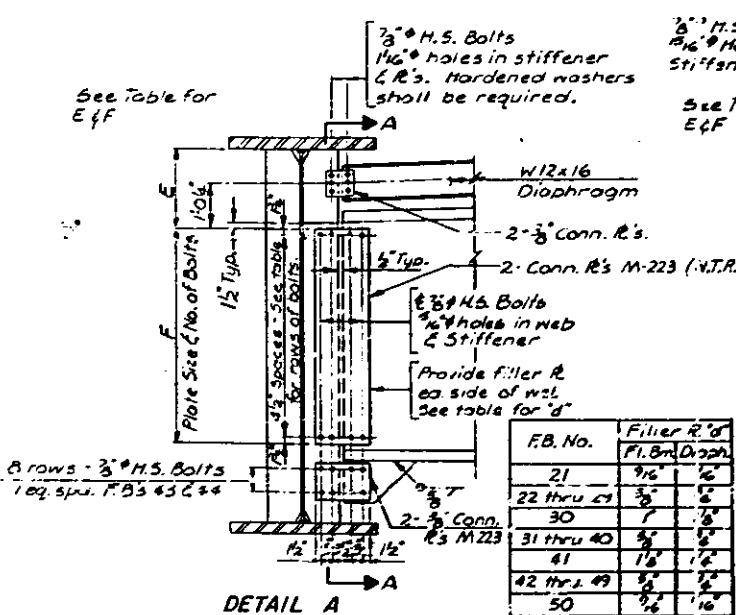
DETAIL D



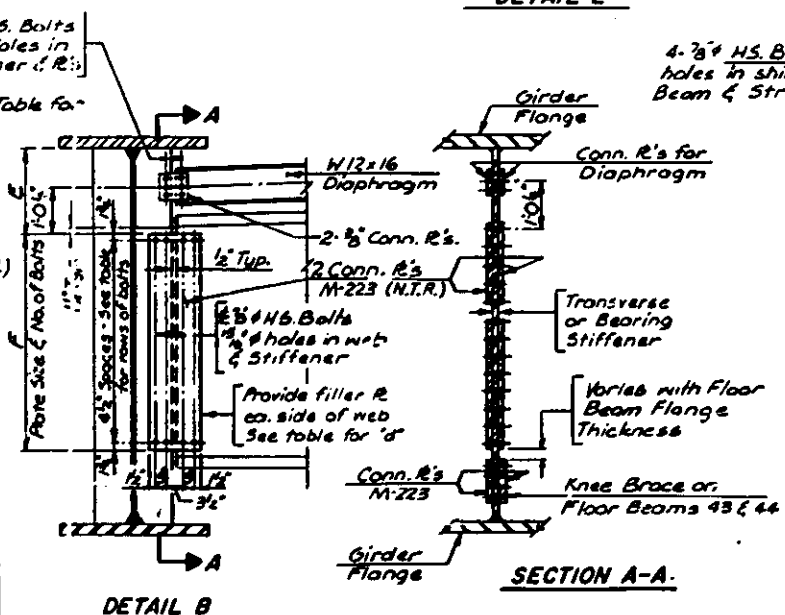
DETAIL E



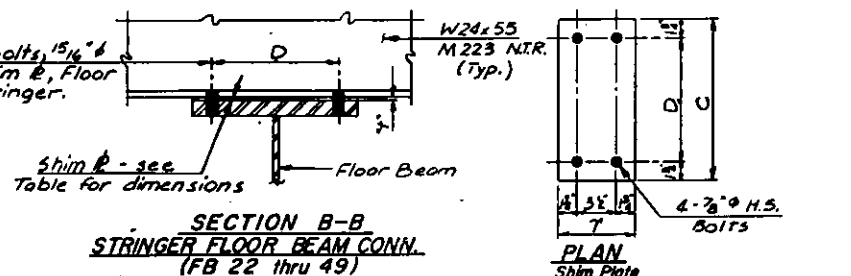
SECTION D-D



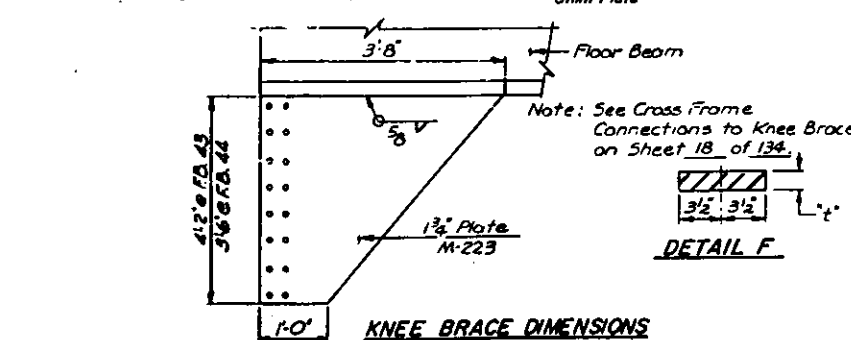
DETAIL A



DETAIL B



SECTION B-B
STRINGER FLOOR BEAM CONN.
(FB 22 thru 49)



KNEE BRACE DIMENSIONS
(For Floor Beams 43 & 44)

STRUCTURAL STEEL DETAILS SPANS 6.7.8

M^o CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 43 SEC. 15-21 (F&E)
PEORIA & TAZEWELL COUNTIES

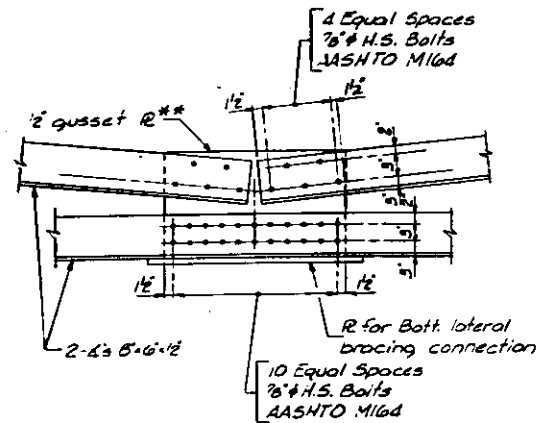
SCG
MDL
F&E
MDL

HANSON ENGINEERS, INC.
74001
11-2-13

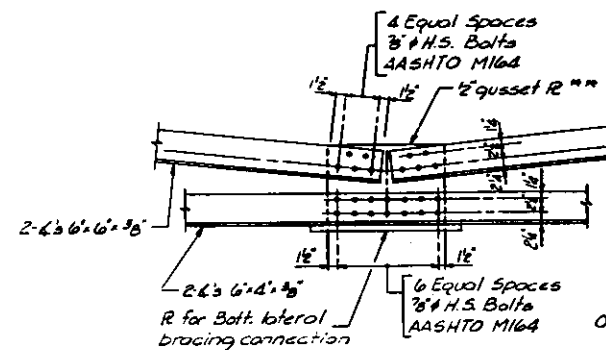
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

DATE	BY	CHECKED	APPROVED
10-2-79	F.A.9	PEORIA & TAZEWELL	
FILE NO.	15-2	SEC. 15-2(F&E)	
PROJECT	PEORIA & TAZEWELL		

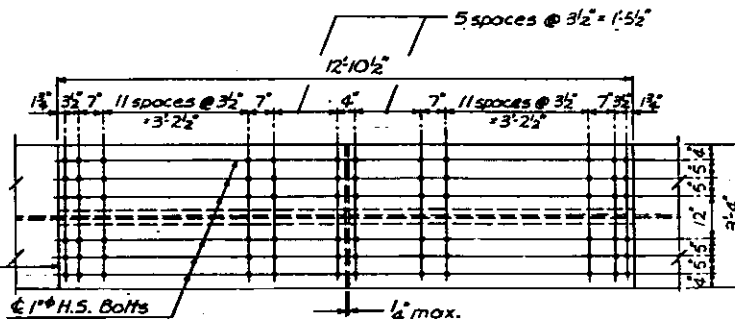
Sheet 18 of 134



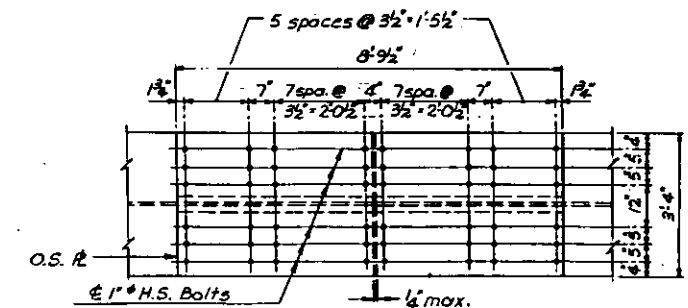
CROSS FRAMES 29 THRU 31 & 41



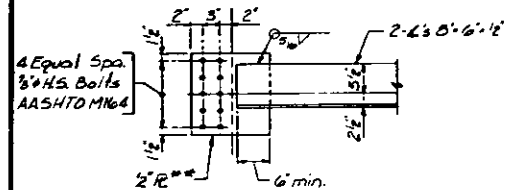
CROSS FRAMES 40, 42 THRU 50



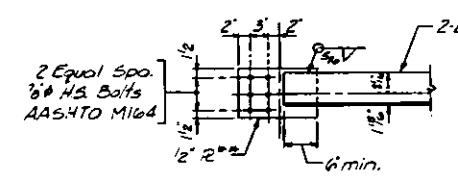
TOP & BOTTOM FLANGES



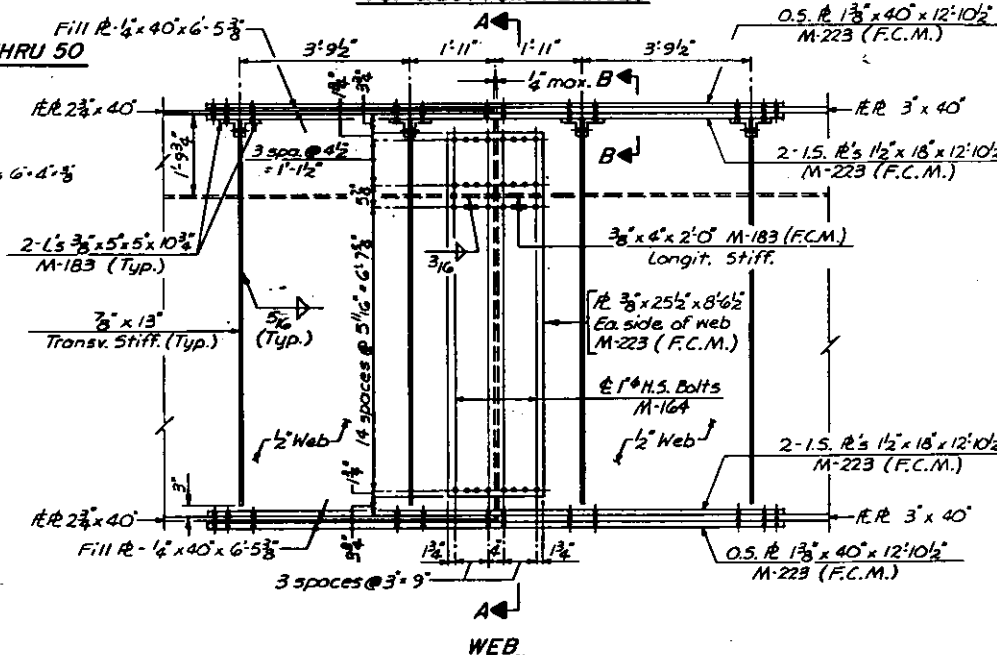
TOP & BOTTOM FLANGES



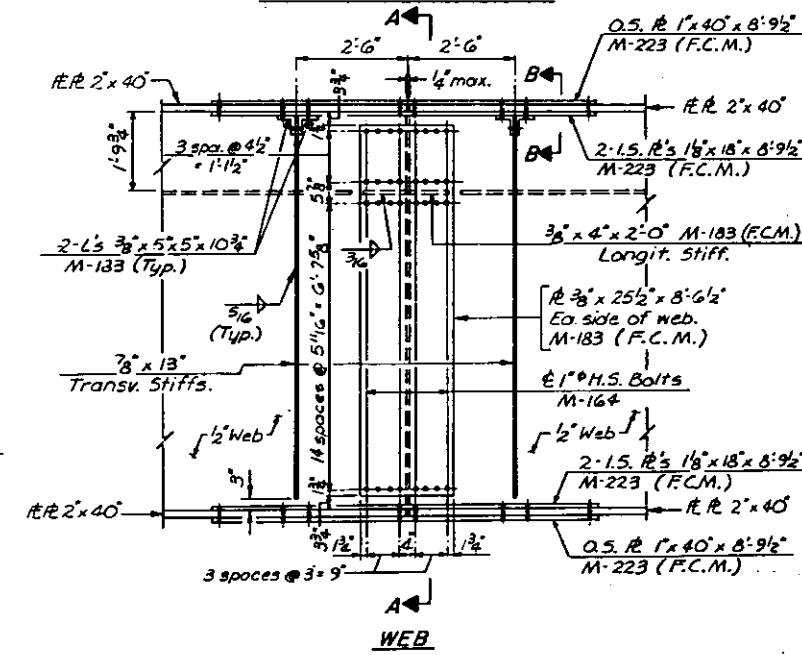
CROSS FRAMES 29 THRU 31 & 41



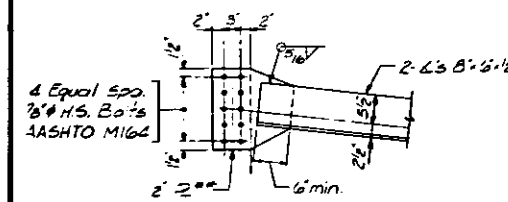
CROSS FRAMES 40, 42 THRU 50



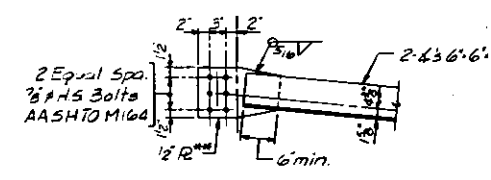
DETAIL OF SPLICE 1, G1 & G2



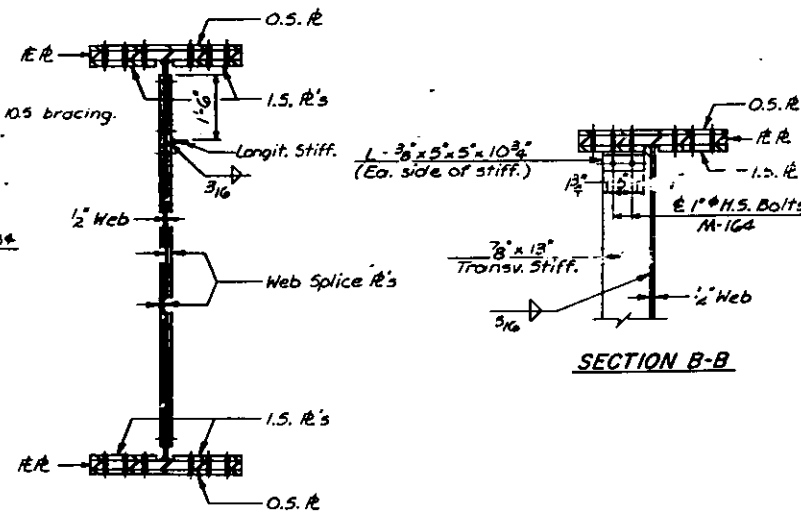
DETAIL OF SPLICE 6, G1 & G2



CROSS FRAMES 29 THRU 31 & 41

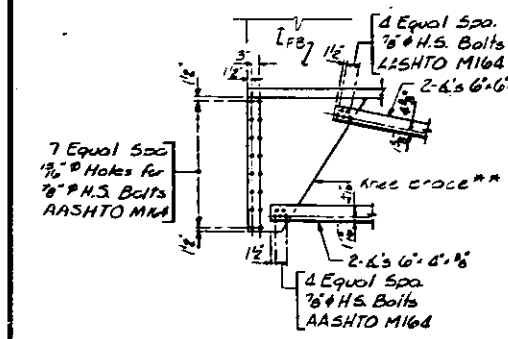


CROSS FRAMES 40, 42 THRU 50

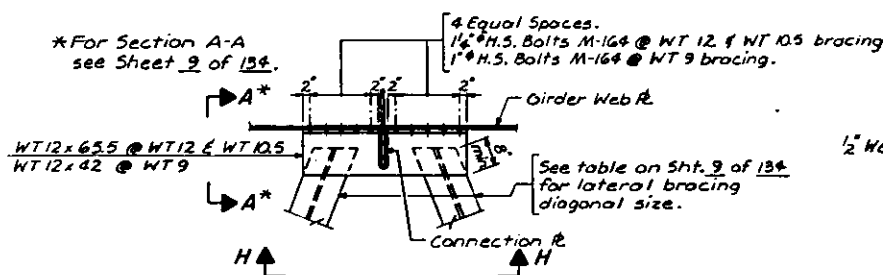


SECTION A-A

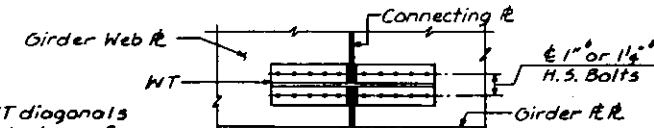
SECTION B-B



CROSS FRAMES 43 & 44



DETAIL G
(From Sheet 9 of 134)



SECTION H-H

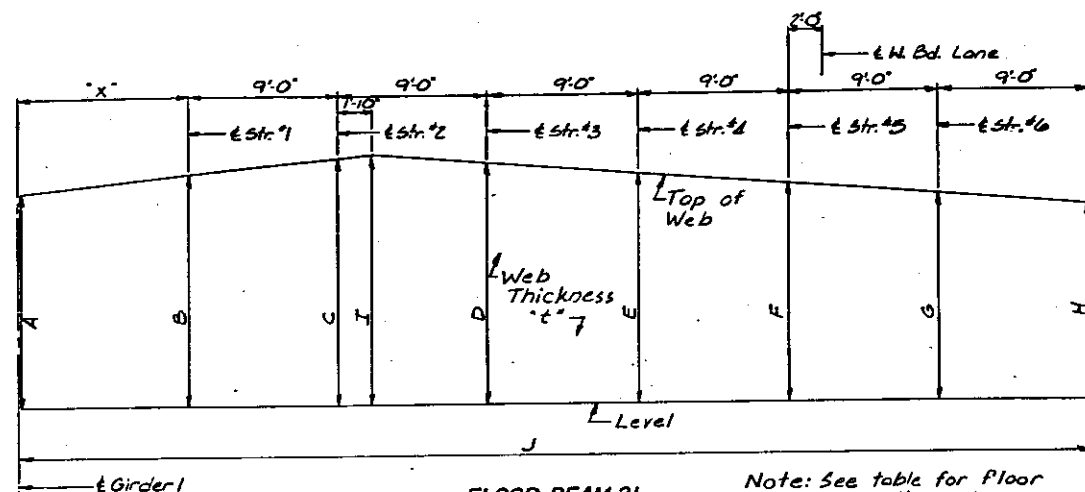
Note: WT diagonals not shown for clarity of section.

Note: All splice plate and stiffener steel shown on this sheet shall be AASHTO M-183 unless otherwise noted. See girder sheets for girder steel. ** 1/4" holes in gusset plates and knee brace (at angle conn.'s only). Hardened washers req'd.

STRUCTURAL STEEL DETAILS
SPANS 6, 7 & 8

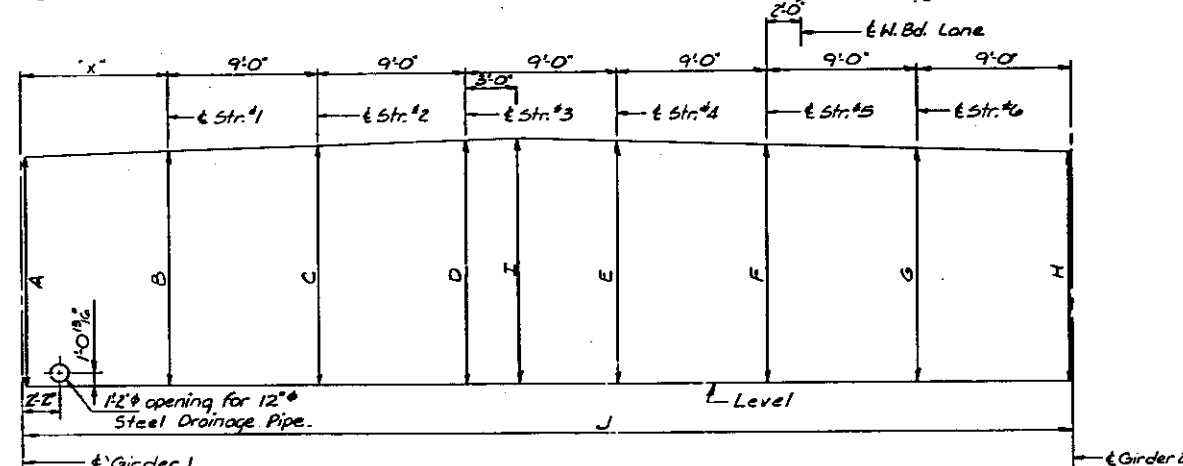
McCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15-2(F&E)
PEORIA & TAZEWELL COUNTIES

HDL	3.C.O.	P.M.E.	D.A.K.	HDL
74001	11-2-79			

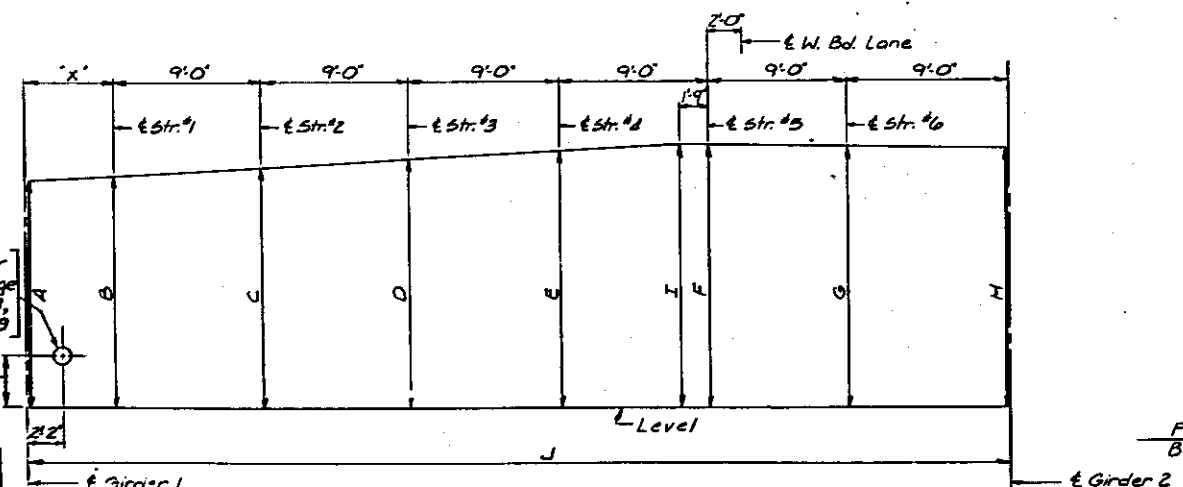


FLOOR BEAM 21

Note: See table for Floor beam web dimensions & Flange Sizes.

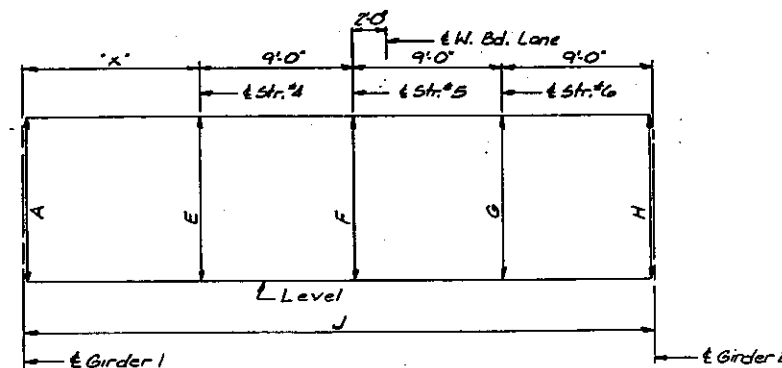


FLOOR BEAM 22

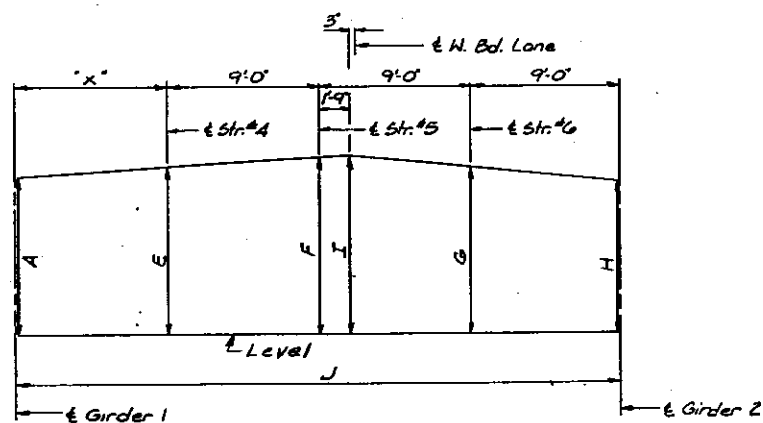


FLOOR BEAM 23-41

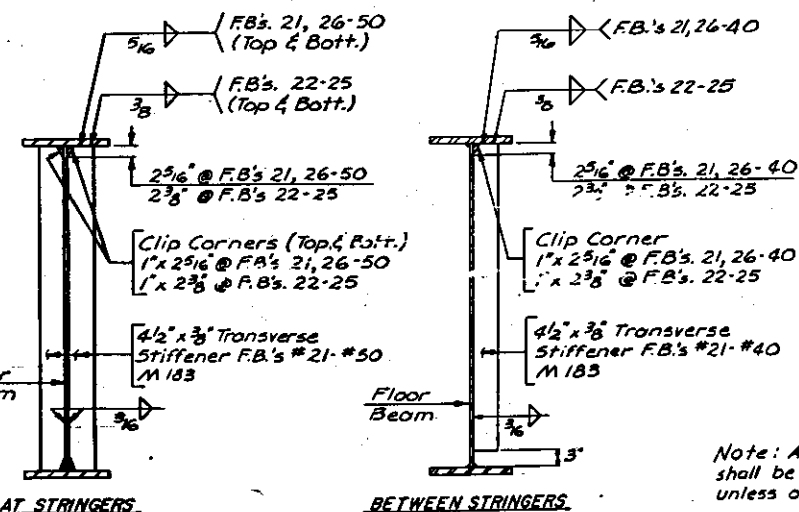
F.B.	"K"
23	2'-1 1/2"
24	3'-5"
25	4'-5 1/2"
27	6'-2 1/2"
28	3'-1 1/2"
29	2'-7 1/2"



FLOOR BEAM 42-49



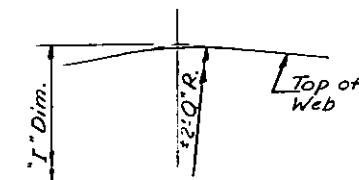
FLOOR BEAM 50



DETAIL A
FLOOR BEAM
TRANSVERSE STIFFENERS

FLOOR BEAM WEB DIMENSIONS
CAMBERED FOR CROWN AND DEAD LOAD DEFLECTIONS

Floor Beam No.	A	B	C	D	E	F	G	H	I	J	"x"
21	59 1/2	64 1/2	65 1/2	66 1/2	67 1/2	68 1/2	69 1/2	70 1/2	71 1/2	72 1/2	10'-4 1/2"
22	63 1/2	65 1/2	66 1/2	67 1/2	68 1/2	69 1/2	70 1/2	71 1/2	72 1/2	73 1/2	9'-2 1/2"
23	62 1/2	63 1/2	64 1/2	65 1/2	66 1/2	67 1/2	68 1/2	69 1/2	70 1/2	71 1/2	7'-11"
24	62 1/2	64 1/2	66 1/2	68 1/2	70 1/2	71 1/2	72 1/2	73 1/2	74 1/2	75 1/2	6'-7 1/2"
25	62 1/2	64 1/2	66 1/2	68 1/2	70 1/2	71 1/2	72 1/2	73 1/2	74 1/2	75 1/2	5'-4 1/2"
26	62 1/2	64 1/2	66 1/2	68 1/2	70 1/2	71 1/2	72 1/2	73 1/2	74 1/2	75 1/2	4'-1 1/2"
27	62 1/2	64 1/2	66 1/2	68 1/2	70 1/2	71 1/2	72 1/2	73 1/2	74 1/2	75 1/2	2'-10 1/2"
28	62 1/2	64 1/2	66 1/2	68 1/2	70 1/2	71 1/2	72 1/2	73 1/2	74 1/2	75 1/2	10'-7 1/2"
29	62 1/2	64 1/2	66 1/2	68 1/2	70 1/2	71 1/2	72 1/2	73 1/2	74 1/2	75 1/2	9'-4"
30	57	58 1/2	60 1/2	62 1/2	64 1/2	66 1/2	68 1/2	70 1/2	72 1/2	74 1/2	8'-0 1/2"
31	56 1/2	58 1/2	60 1/2	62 1/2	64 1/2	66 1/2	68 1/2	70 1/2	72 1/2	74 1/2	6'-9 1/2"
32	56 1/2	58 1/2	60 1/2	62 1/2	64 1/2	66 1/2	68 1/2	70 1/2	72 1/2	74 1/2	5'-5 1/2"
33	56 1/2	58 1/2	60 1/2	62 1/2	64 1/2	66 1/2	68 1/2	70 1/2	72 1/2	74 1/2	4'-2 1/2"
34	56 1/2	58 1/2	60 1/2	62 1/2	64 1/2	66 1/2	68 1/2	70 1/2	72 1/2	74 1/2	2'-10 1/2"
35	56 1/2	58 1/2	60 1/2	62 1/2	64 1/2	66 1/2	68 1/2	70 1/2	72 1/2	74 1/2	10'-6 1/2"
36	56 1/2	58 1/2	60 1/2	62 1/2	64 1/2	66 1/2	68 1/2	70 1/2	72 1/2	74 1/2	9'-3 1/2"
37	56 1/2	58 1/2	60 1/2	62 1/2	64 1/2	66 1/2	68 1/2	70 1/2	72 1/2	74 1/2	7'-11 1/2"
38	49 1/2	51 1/2	53 1/2	55 1/2	57 1/2	59 1/2	61 1/2	63 1/2	65 1/2	67 1/2	6'-8 1/2"
39	49 1/2	51 1/2	53 1/2	55 1/2	57 1/2	59 1/2	61 1/2	63 1/2	65 1/2	67 1/2	5'-4 1/2"
40	49 1/2	51 1/2	53 1/2	55 1/2	57 1/2	59 1/2	61 1/2	63 1/2	65 1/2	67 1/2	4'-1 1/2"
41	45	46 1/2	48 1/2	50 1/2	52 1/2	54 1/2	56 1/2	58 1/2	60 1/2	62 1/2	2'-9 1/2"
42	43	43	43	43	43	43	43	43	43	43	10'-6 1/2"
43	43	43	43	43	43	43	43	43	43	43	9'-2 1/2"
44-49	42	42	42	42	42	42	42	42	42	42	9'-0"
50	43 1/2	46 1/2	48 1/2	50 1/2	52 1/2	54 1/2	56 1/2	58 1/2	60 1/2	62 1/2	9'-0"



OPTIONAL WEB CONFIGURATION
AT CROWN

FLOOR BEAM FLANGE SIZES

Floor Beam No.	Flange R Size
21	15" x 1 1/2" - Top & Bott.
22-25	17" x 1 1/2" - Top & Bott.
26-33	18" x 1 1/2" - Top & Bott.
34-50	14" x 1 1/2" - Top & Bott.

FLOOR BEAMS - SPANS 6, 7, 8

M^oCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
E.A. ROUTE 49 SEC. 15-2 (F&E)
PEORIA & TAZEWELL COUNTIES

SCC
M.D.L.
P.M.
M.D.L.

HANSON
ENGINEERS

7400
112-233

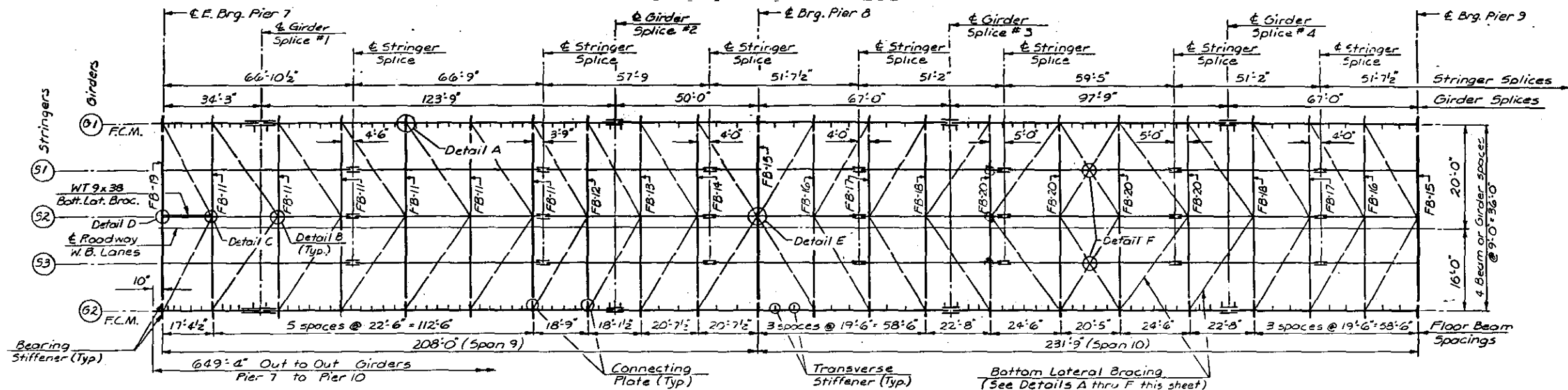
Note: All Steel this sheet shall be AASHTO M 223 unless otherwise shown.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

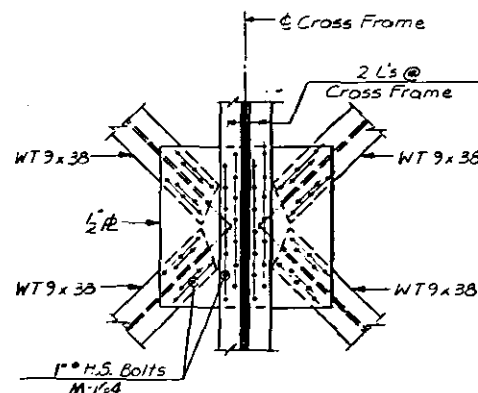
Note: Floor beam designation shown below also indicates cross frames. See sheet 24 of 134 for details.

FA-49	15-2	Peoria & Tazewell
15-2	(F&E)	Tazewell
15-2	(F&E)	Tazewell

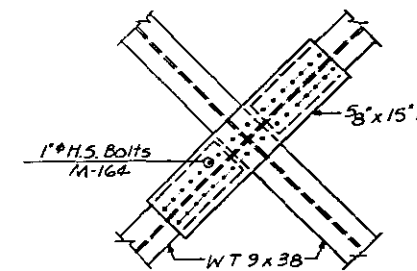
Sheet 20 of 134



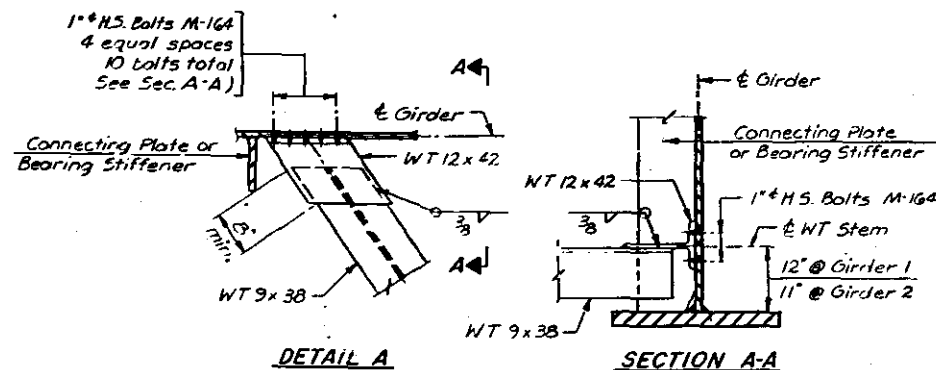
FRAMING PLAN



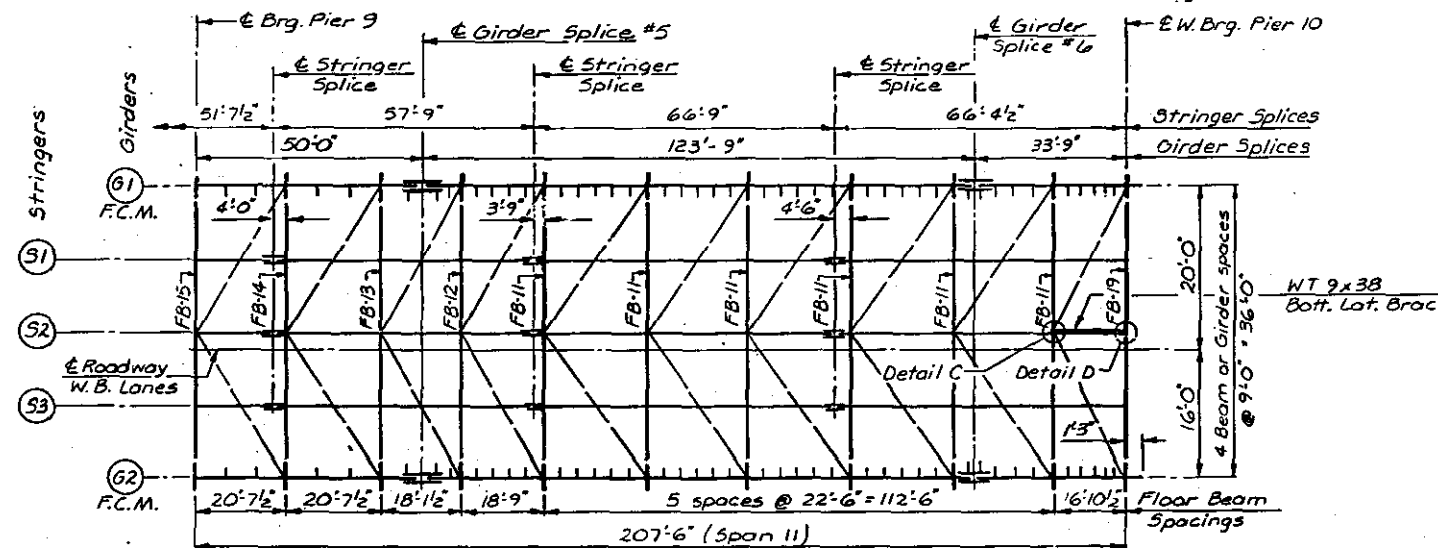
DETAIL E



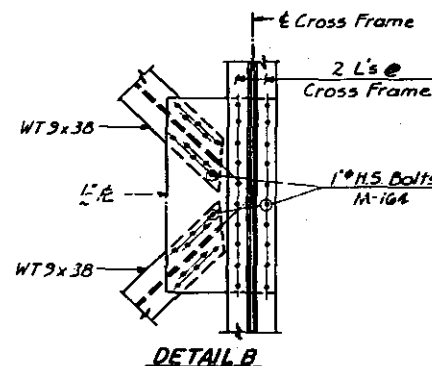
DETAIL F



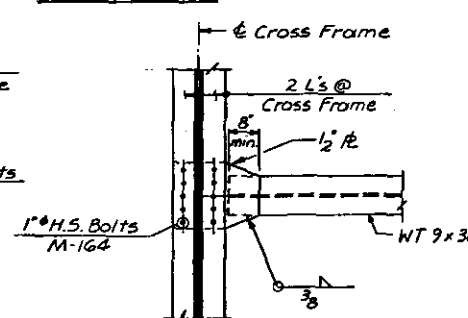
BOTTOM LATERAL BRACING DETAILS



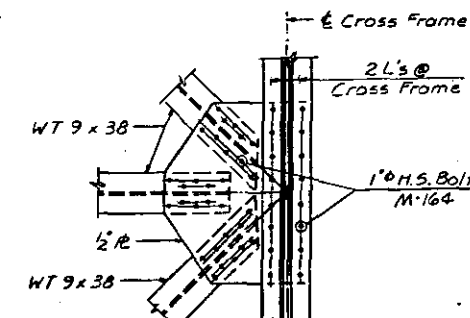
FRAMING PLAN



DETAIL B



DETAIL D



DETAIL C

Notes:
Structural steel for bottom lateral bracing shall meet the requirements for AASHTO M-183, unless otherwise noted.
All dimensions shown are measured horizontally.
F.C.M. denotes Fracture Critical Member. See note on sheet 21 of 134.
For cross section see sheet 95 of 134.

STRUCTURAL STEEL PLAN
SPANS 9, 10 & 11

MCCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15-2 (F&E)
PEORIA & TAZEWELL COUNTIES

S.C.O.	HANSON ENGINEERS	74001
N.D.L.		
D.A.N.		
C.N.N.		

Note: All transverse stiffeners gapped at top are $1\frac{1}{2} \times 10\frac{1}{4}$ & all transverse stiffeners gapped at bottom are $2 \times 7\frac{1}{2}$ unless otherwise shown.

Note: All girder tension flanges, webs, longitudinal stiffeners in tension, flange splice plates and web splice plates for Spans 9, 10 & 11 shall meet the requirements for Fracture Critical Members.

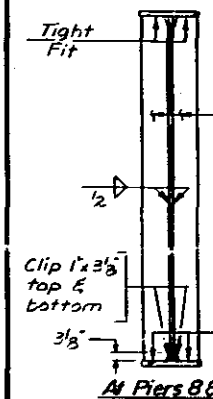
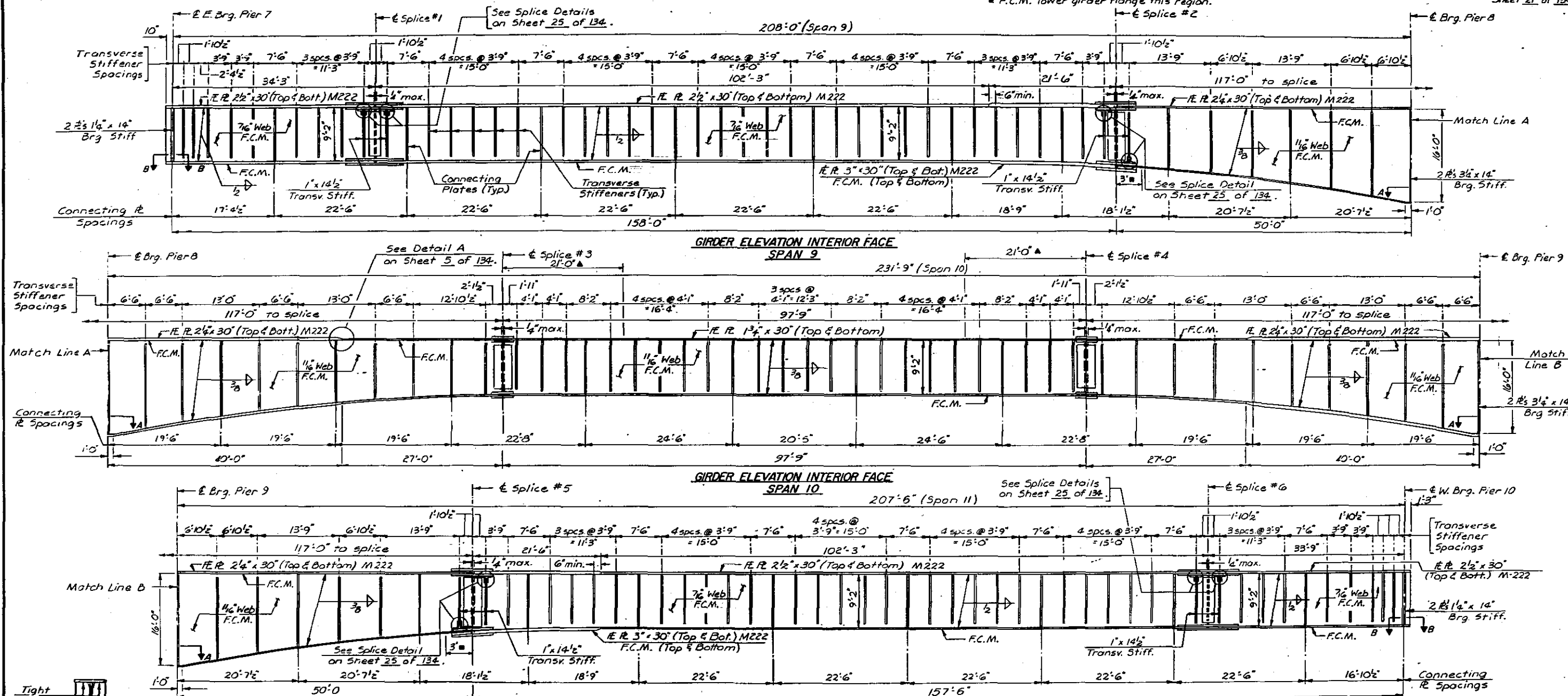
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Note: All dimensions shown on this sheet are measured horizontally & along & girder.

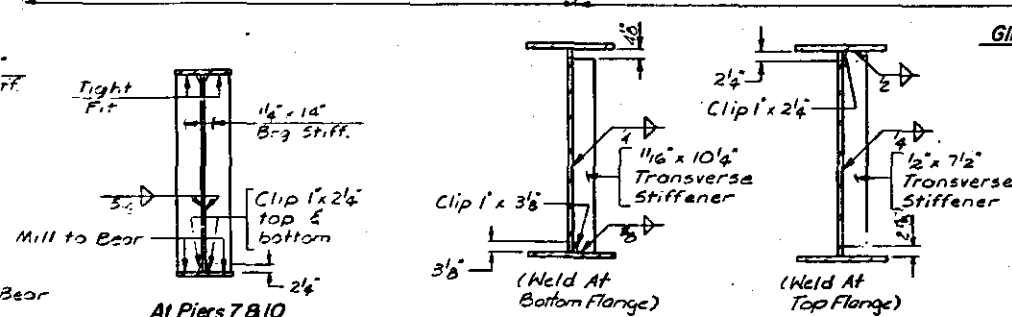
Note: F.C.M. upper girder flange this region.
F.C.M. lower girder flange this region.

DATE	BY	CHECKED	APPROVED
FA 49	15-2	PEORIA & TAZEWELL	
REVISED	DATE	BY	REASON

Sheet 21 of 134

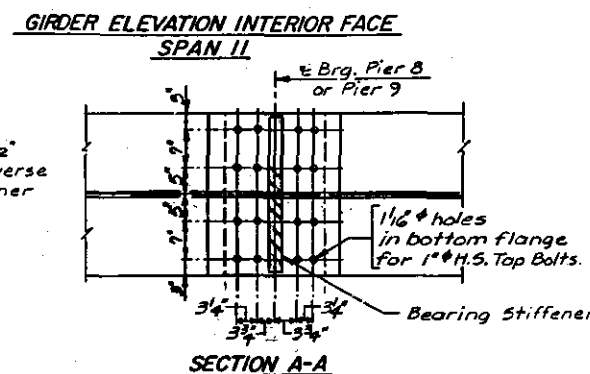


BEARING STIFFENERS

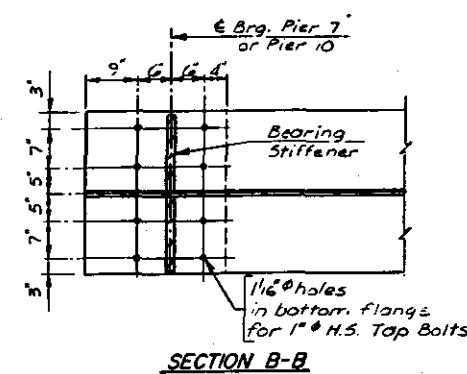


Note: See Sheet 23 of 134 for details of connecting plate.

TRANSVERSE STIFFENERS



SECTION A-A



SECTION B-B

Note: All structural steel shall conform to AASHTO M 183 unless otherwise noted.

STRUCTURAL STEEL GIRDERS
SPANS 9, 10 & 11

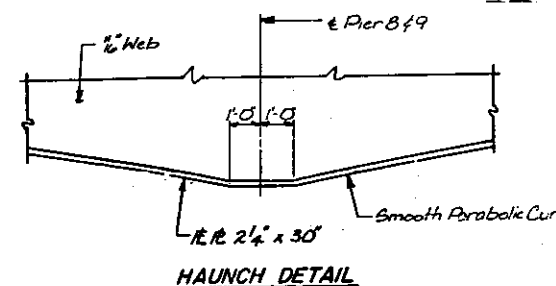
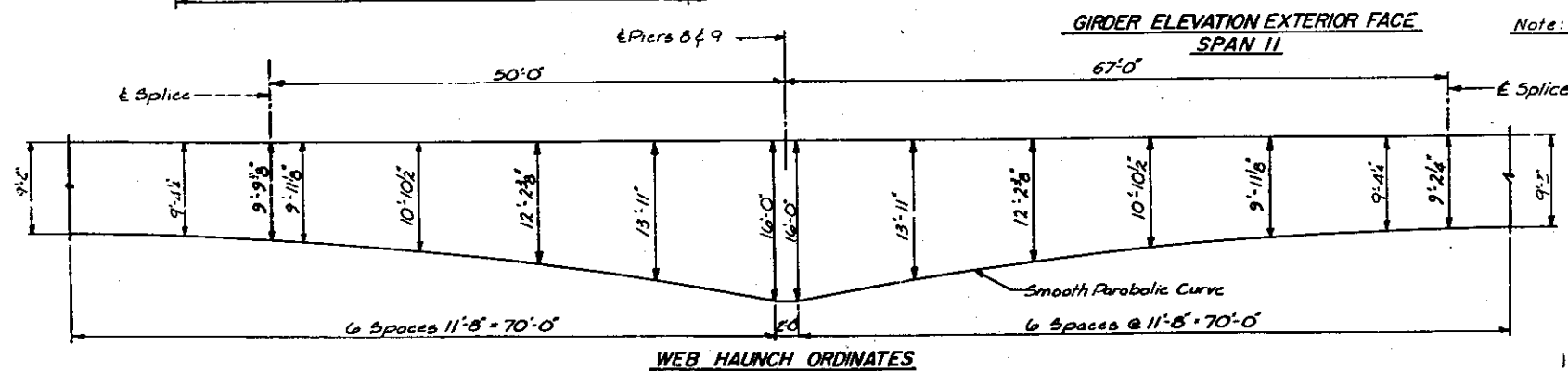
M^C CLUGAGE BRIDGE

OVER THE ILLINOIS RIVER

F.A. ROUTE 49 SEC. 15-2 (F&E)
PEORIA & TAZEWELL COUNTIES

7400E

11-2-77



STRUCTURAL STEEL GIRDERS
SPANS 9, 10 & 11

M^CCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER

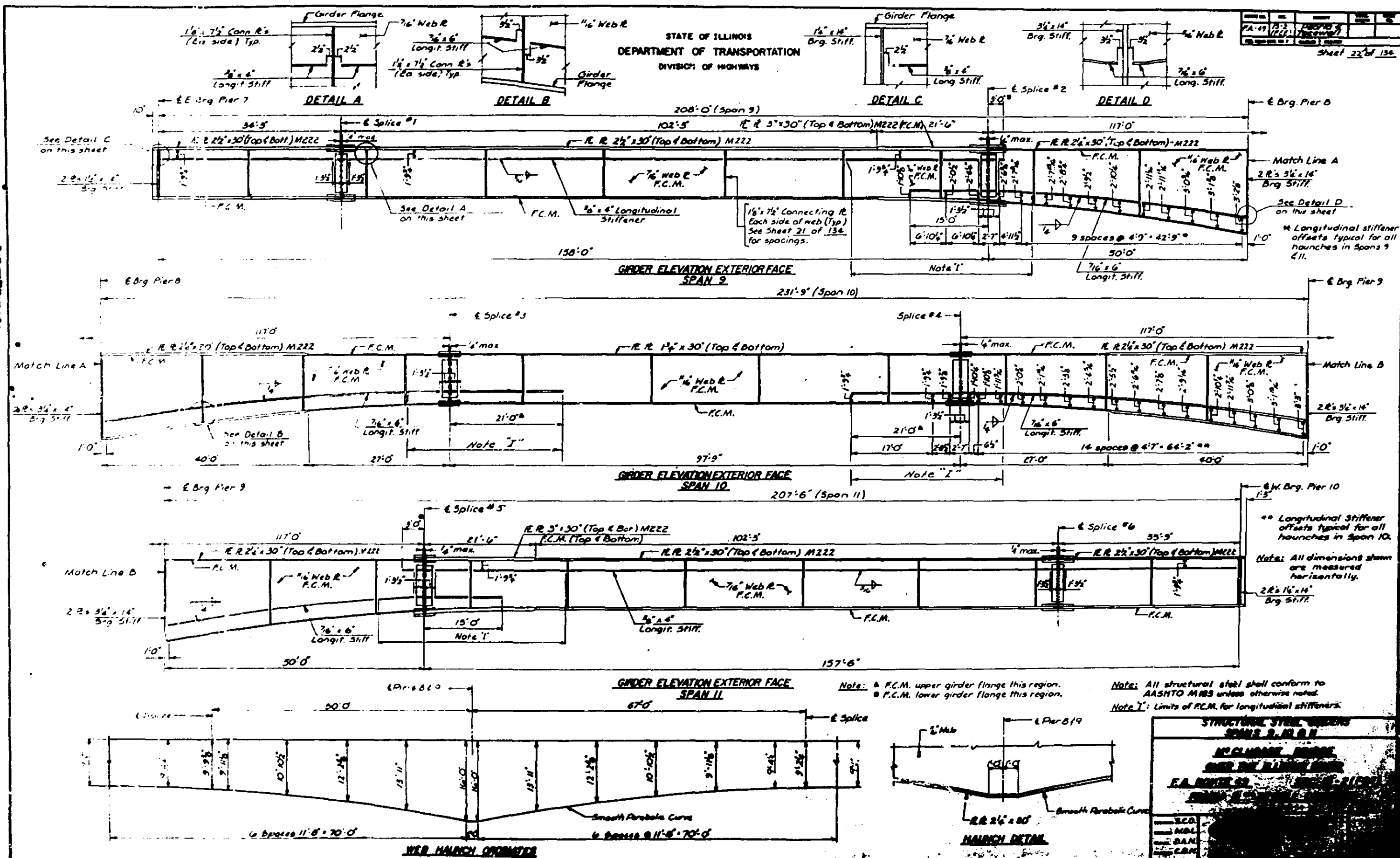
F.A. ROUTE 49 SEC. 15-2 (F&E)
PEORIA & TAZEWELL COUNTIES

RECORDED	S.C.O.	 HANSON ENGINEERS INC. INCORPORATED	FILE NO.	74-101
INDEXED	W.D.L.			
SEARCHED	D.A.N.			
SERIALIZED	C.R.N.			
			PER: RIA, ELMOHS 11-2-79	

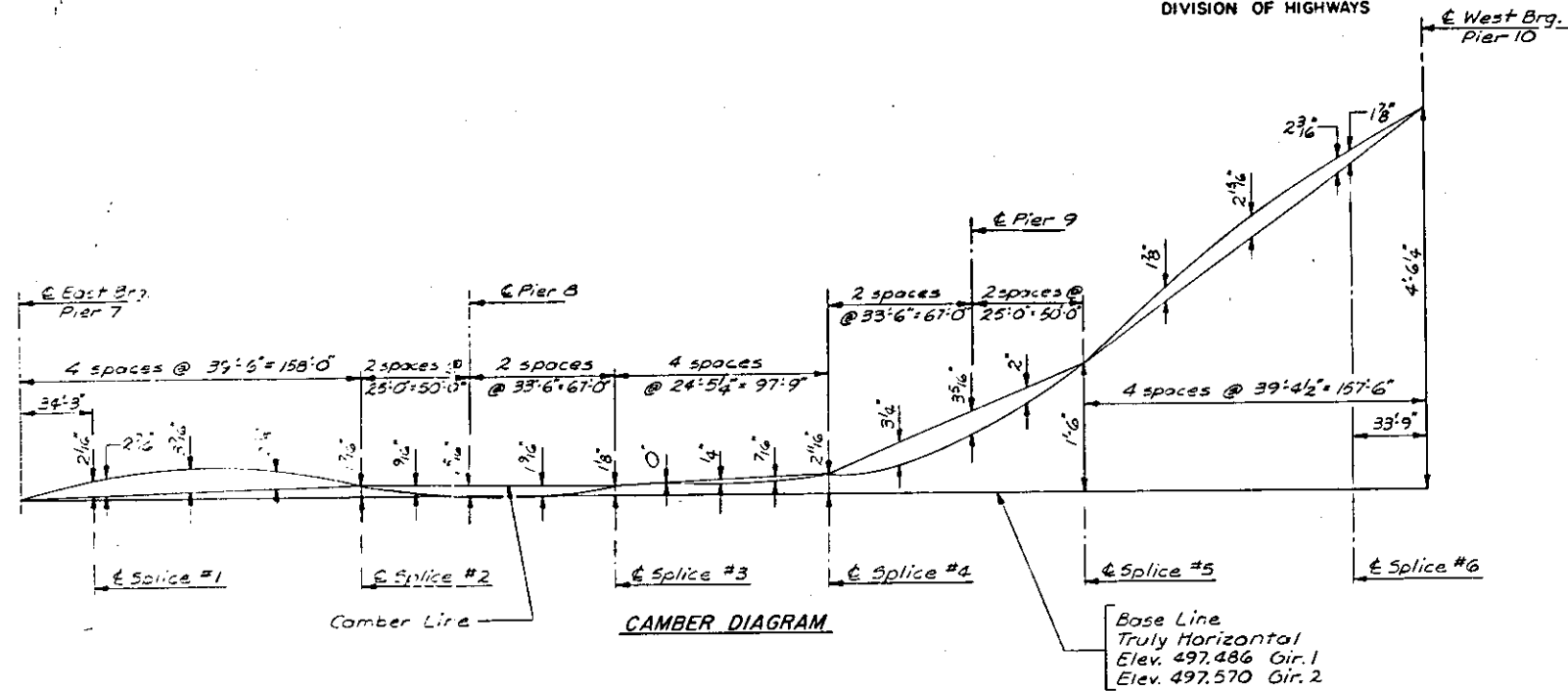
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PA-49	1/22	1/22	1/22	1/22	1/22
1/22	1/22	1/22	1/22	1/22	1/22
1/22	1/22	1/22	1/22	1/22	1/22
1/22	1/22	1/22	1/22	1/22	1/22

Sheet 22 of 134



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS



FLOOR BEAM MOMENT TABLE								
	I (in. ⁴)	P(k)	0.5 point					
			W(k/ft)	M ₁ (ft-k)	M ₂ (ft-k)	M ₃ (ft-k)	M ₄ (ft-k)	f _s (ksi)
End Fl.	19,459	11.2	0.21	235	579	174	988	13.6
Typ. Int. Fl.	19,459	28.2	0.21	543	704	211	1,458	20.0
W. Int. Fl.	19,459	32.0	0.21	611	758	227	1,596	21.9

Note: P designates concentrated load at each stringer.
W designates uniform load due to weight of floor beam.

STRINGER SHEAR & REACTION TABLE								
I (in ⁴)	End Floor Beam		First Interior Floor Beam			All Other Floor Beams		
	V _L	R	V _L	V _R	R	V _L	V _R	R
R & (k)	9.4	9.4	16.1	16.3	32.5	20.3	20.3	39.0
R & (k)	29.7	29.7	32.6	32.3	40.7	39.4	39.4	44.5
Imp. (k)	8.9	8.9	9.8	10.9	12.2	11.8	11.8	13.4
R _{total} (k)	48.0	48.0	58.5	63.5	85.4	71.5	71.5	96.9

V_R - denotes shear to right of support.
V_L - denotes shear to left of support.
R - denotes reaction.

STRINGER MOMENT TABLE				
I (in ⁴)	0.4 point	0.5 point	1st Int. Floor Beam	Other Int. Floor Beams
	End Spans	Int. Spans	1350	1350
E (k/ft)	1.41	1.47	1.47	1.47
M ₁ (ft-k)	30	35	59	70
M ₂ (ft-k)	95	111	94	110
Imp. (ft-k)	28	33	28	33
M _{total} (ft-k)	153	179	121	113
F ₂ (ksi)	46	18.4	17	22.4

FLOOR BEAM REACTION TABLE			
I (in ⁴)	End FL Bm.	1st Int. FL Bm.	Typ. Int. FL Bm.
	20.5	51.8	46.2
R & (k)	20.5	89.7	83.4
R & (k)	20.5	26.9	25.0
R _{total} (k)	109.3	168.4	154.6

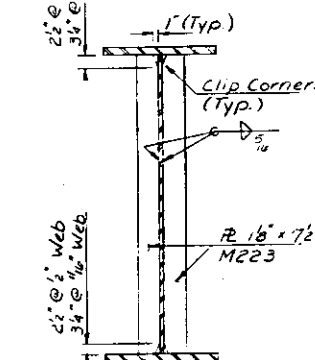
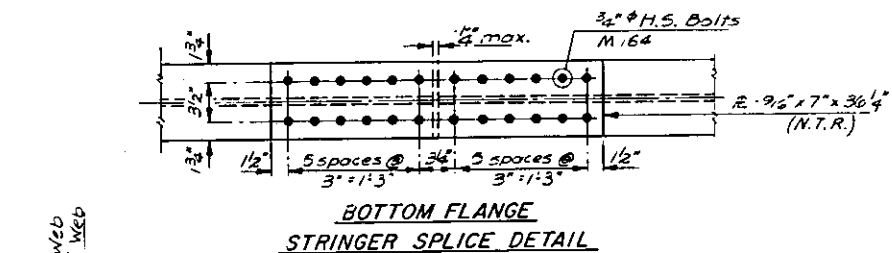
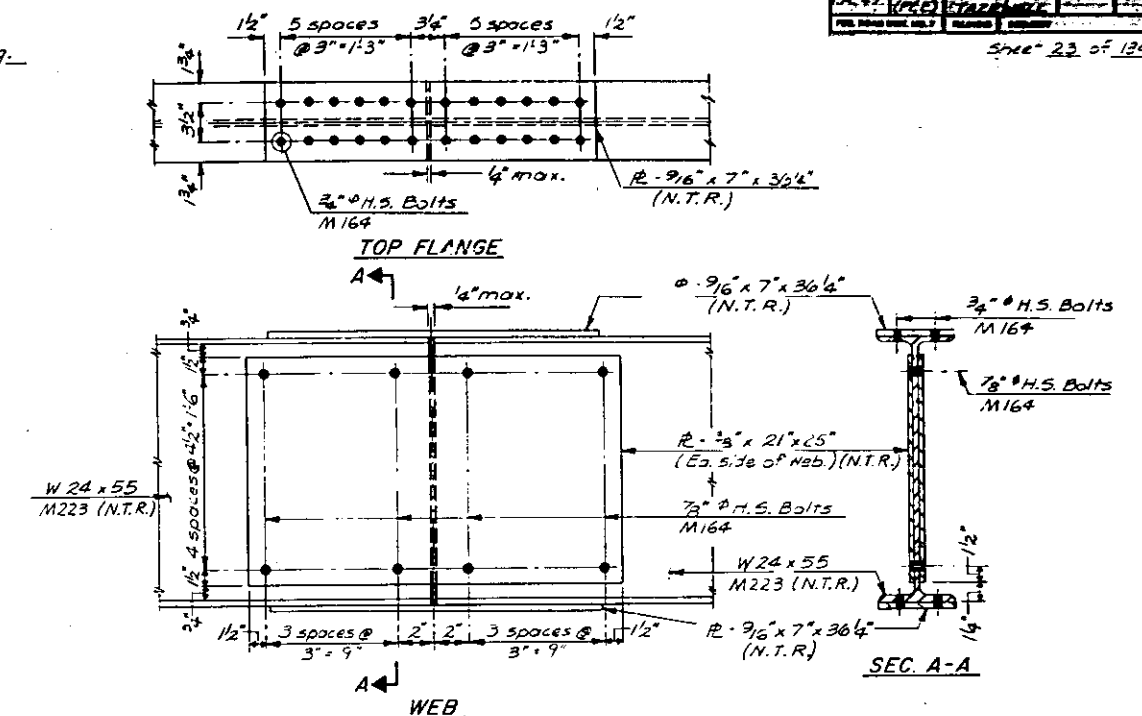
TOP OF WEB ELEVATIONS		
Location	Girder 1	Girder 2
Pier 7, E. Brg.	497.486	497.570
Splice #1	497.684	497.768
Splice #2	497.606	497.690
Pier 8, Brg.	497.486	497.570
Splice #3	497.580	497.664
Splice #4	497.710	497.794
Pier 9, Brg.	498.165	498.249
Splice #5	498.986	499.070
Splice #6	501.509	501.593
Pier 10, W. Brg.	502.007	502.091

Elevations include camber for dead load deflections and are for fabrication only.

GIRDER REACTION TABLE		
	E.E. Brg. Pier 7	E.W. Brg. Pier 10
R & (k)	321.5	1,037.7
R & (k)	135.5	315.7
Imp. (k)	20.3	45.8
R _{total} (k)	477.3	1,399.2

GIRDER MOMENT TABLE			
I (in ⁴)	0.4 Point Spans 94'11"	Pier 8 or 9	0.5 Point Span 10
	525,213	1,679,052	404,094
E (k/ft)	4.18	4.18	4.18
M ₁ (ft-k)	12,221	23,904	4,312
M ₂ (ft-k)	5,543	8,375	4,116
Imp. (ft-k)	832	1,214	576
M _{total} (ft-k)	18,596	33,493	9,004
F ₂ (ksi)	24.5	23.5	15.2

NOTE: Reaction & Moment Tables are based on a Dead Load of 25 #/sq. ft. for Class I surfacing and 94 #/sq. ft. of concrete slab plus the weight of the structural steel.



Notes:
The designation LTR signifies main load carrying members that are subject to the Supplemental Requirements for Noren Toughness.

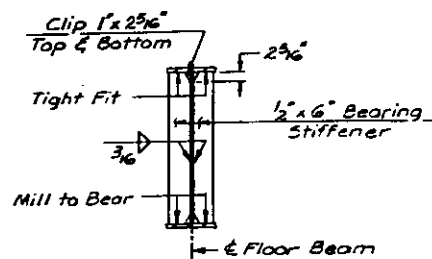
Splice Plate Material shall conform to AASHTO M223

STRUCTURAL STEEL DETAILS
SPANS 9, 10 & 11
M^CCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15-2 (F&E)
PEORIA & TAZEWELL COUNTIES

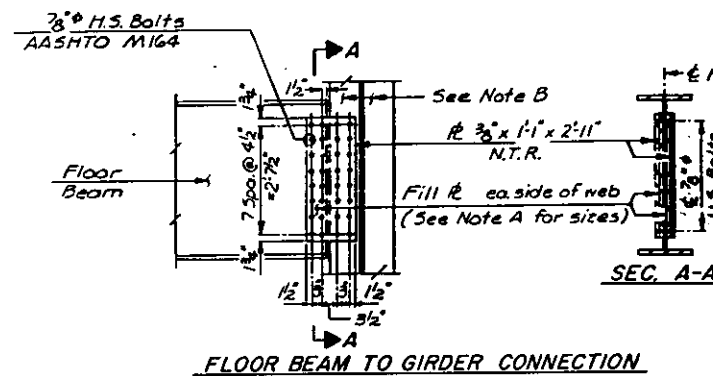
W.C.L.	HANSON ENGINEERS	74001
C.R.A.	INCORPORATED	11-2-78
D.A.A.		
S.C.O.		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Sheet 24 of 134

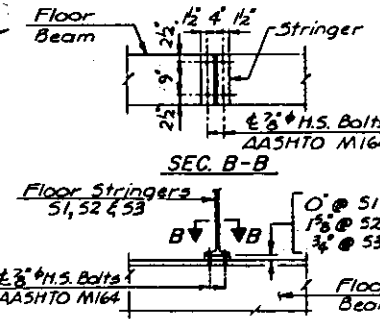


INTERIOR FLOOR BEAM
BEARING STIFFENER

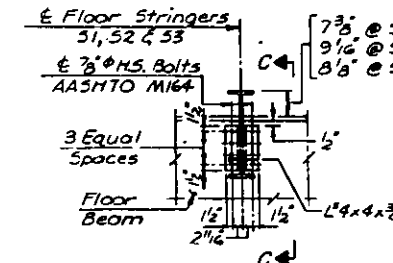


FLOOR BEAM TO GIRDER CONNECTION

Note A:
2- 3/8" x 6" x 2 1/2" Fill R's @ F.B.-19
2- 1 1/2" x 6" x 2 1/2" Fill R's @ F.B.-15
2- 3/4" x 6" x 2 1/2" Fill R's @ F.B's. 11,
12, 13, 14, 16, 17, 18 & 20
Note B:
1 1/2" x 14" Brg. Stiff. @ F.B.-19
3/4" x 14" Brg. Stiff. @ F.B.-15
1 1/2" x 7 1/2" Conn. R. @ F.B's. 11,
12, 13, 14, 16, 17, 18 & 20

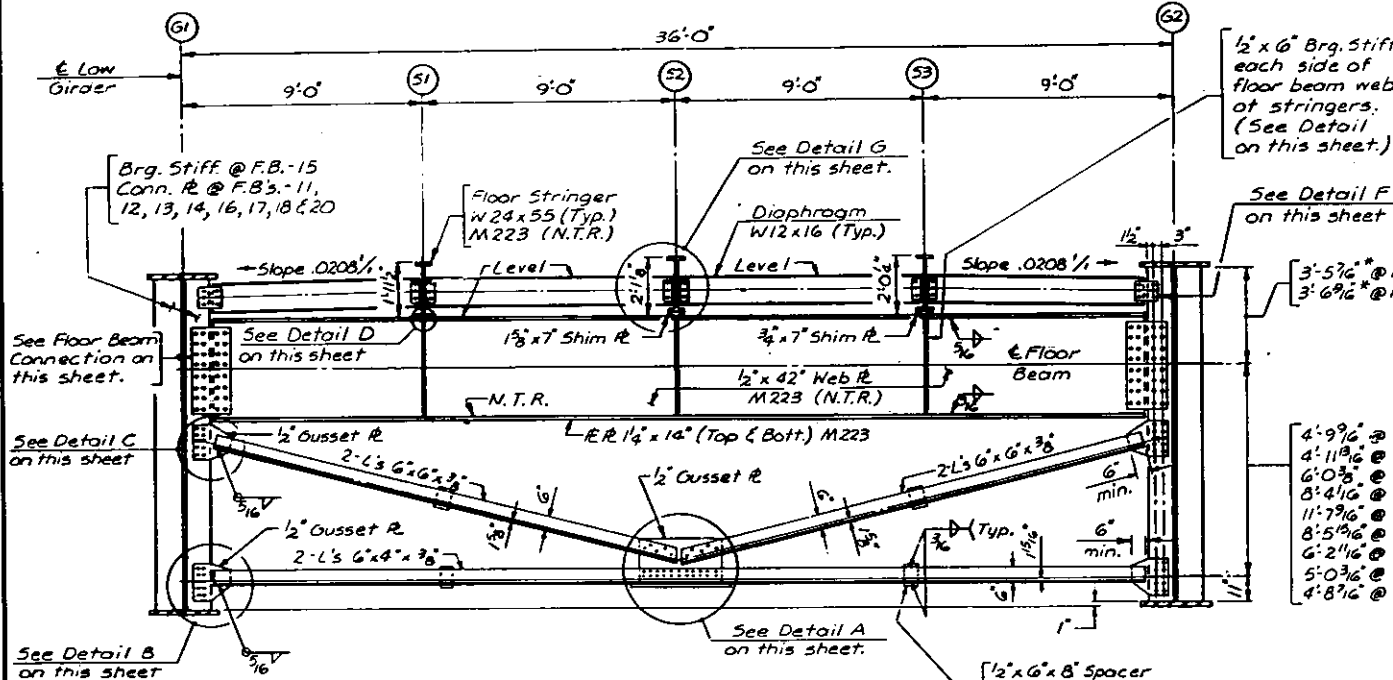


DETAIL D
(AT INTERIOR FLOOR BEAM)



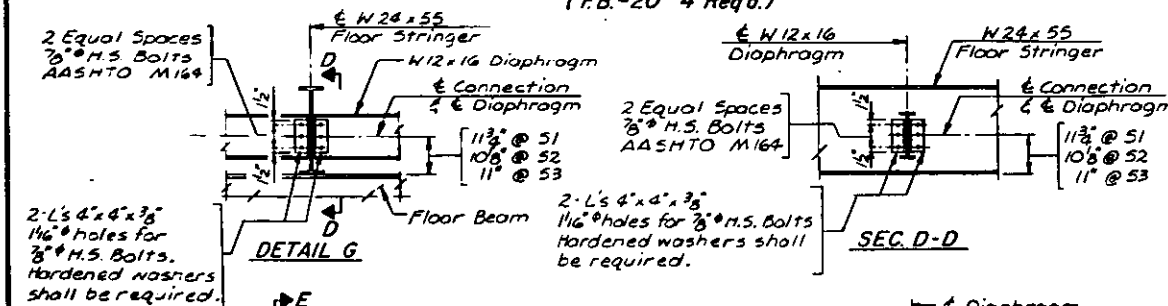
DETAIL E
(AT END FLOOR BEAM)

STRINGER TO FLOOR BEAM CONNECTIONS

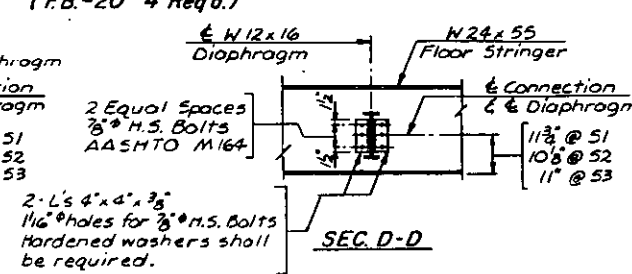


INTERIOR FLOOR BEAM

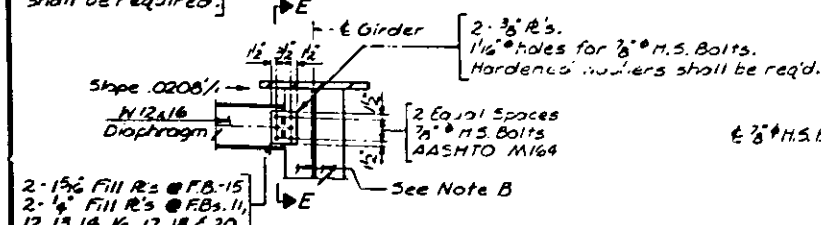
(F.B.-11 12 Req'd.) (F.B.-15 2 Req'd.)
(F.B.-12 2 Req'd.) (F.B.-16 2 Req'd.)
(F.B.-13 2 Req'd.) (F.B.-17 2 Req'd.)
(F.B.-14 2 Req'd.) (F.B.-18 2 Req'd.)
(F.B.-20 4 Req'd.)



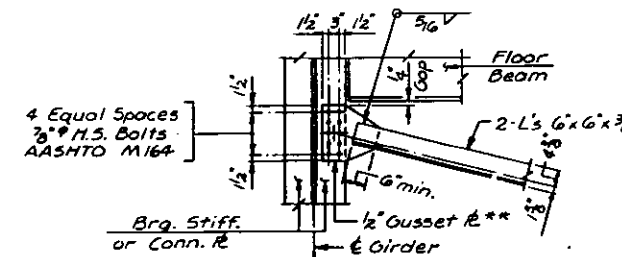
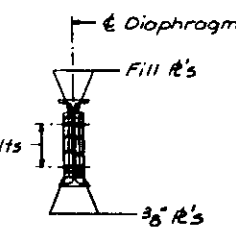
DETAIL G



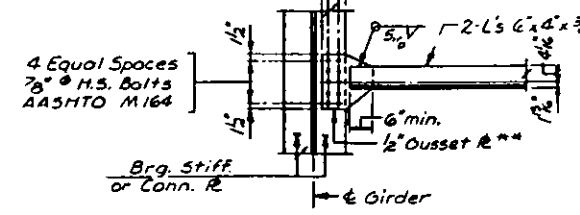
SEC. D-D



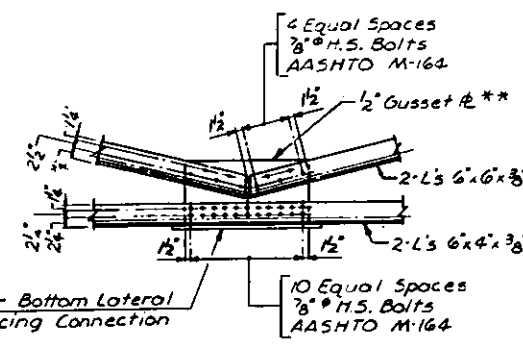
DETAIL F



DETAIL C



DETAIL B



Notes:

N.T.R. denotes material that shall conform to the Supplemental Requirements for Notch Toughness.
Structural steel for cross frames shall meet the requirements of AASHTO M163 unless otherwise noted.
* * 1" less for girder I.
* * 1 1/2" holes in gusset plate for 7/8" H.S. Bolts. Hardened washers shall be required.

FLOOR BEAM DETAILS
SPANS 9, 10 & 11

M. J. GAGNEY BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 257 SEC. 15-2 (F&E)
PEORIA & TAZEWELL COUNTIES

MANSON ENGINEERS
7400
11-2-78

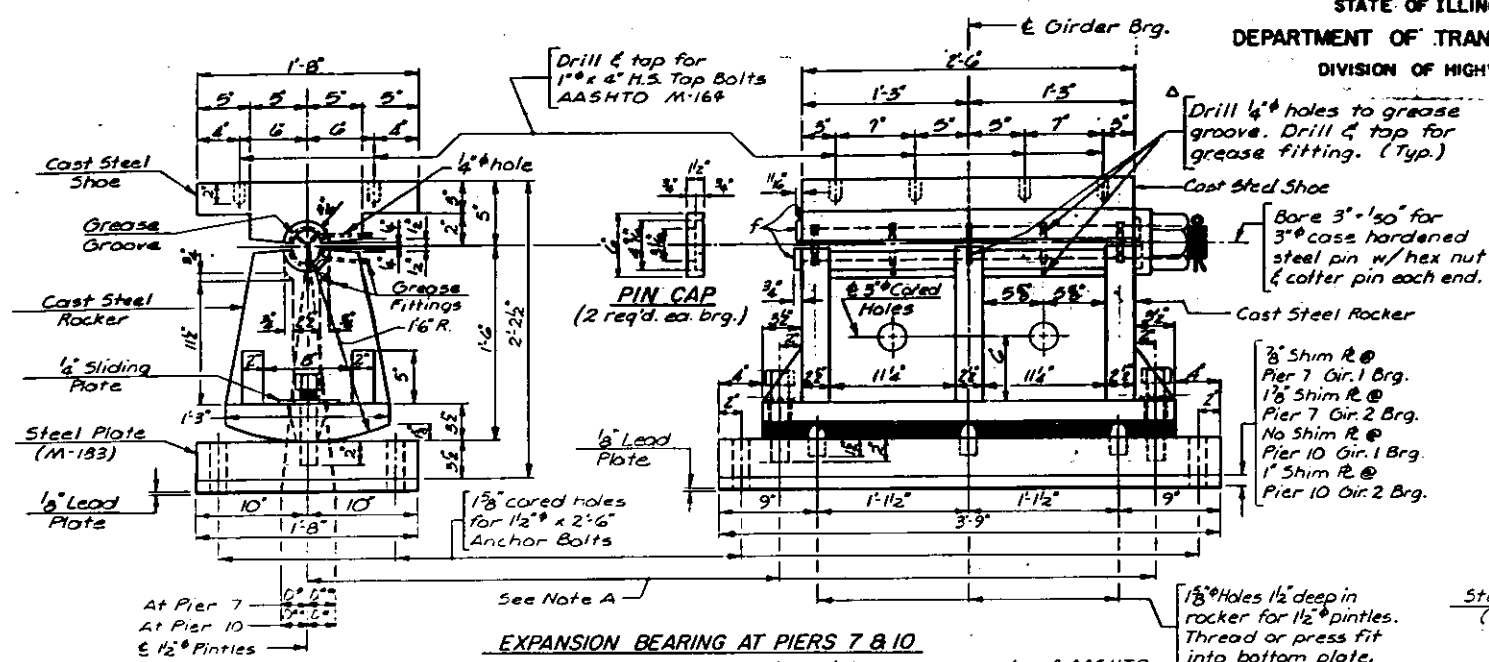
ROUTE NO.	SEC.	CITY	TOTAL PAGES	SHEET NO.
FA-49	15-2 (FEE)	Pearia & Tazewell		
FED. ROAD DIST. NO. *	CLASS	PROJECT		

11-2-79

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

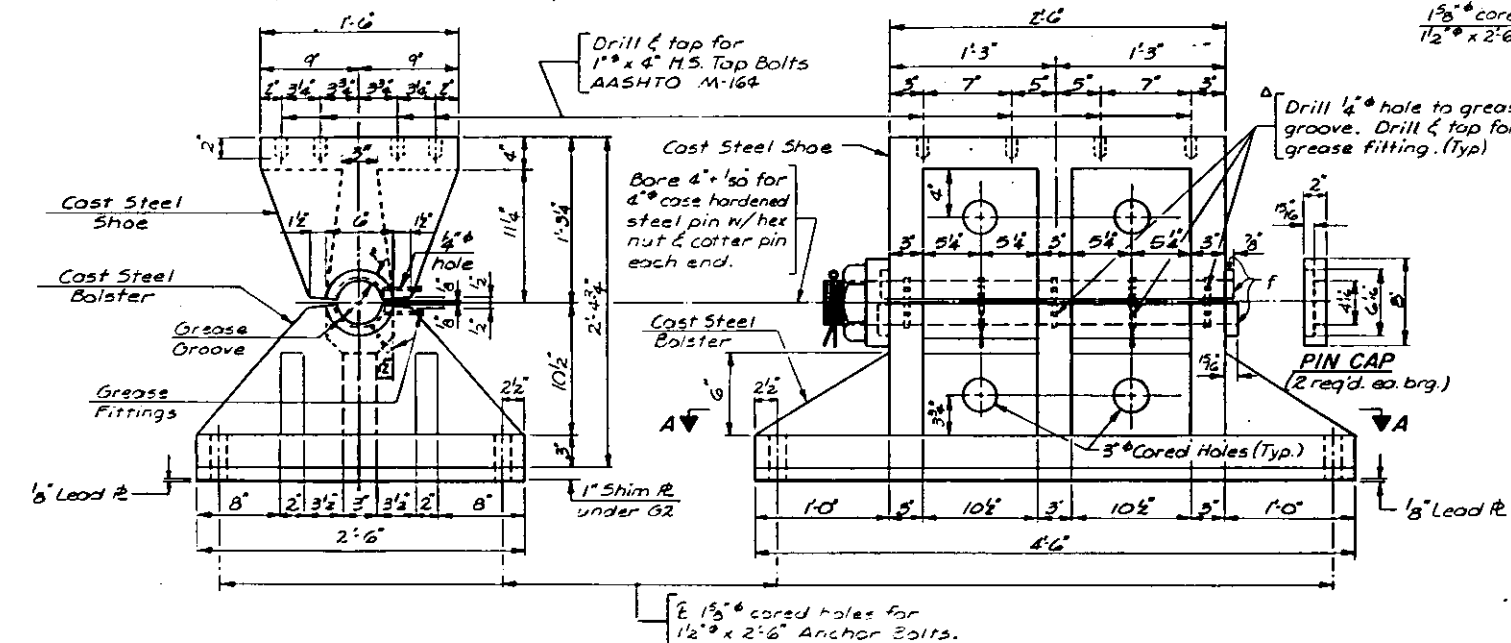
PROJECT NO.	DATE	DESIGNED BY	CHECKED BY	IN CHARGE
FA 49	12-2	PEORIA & TAZEWELL		

Sheet 26 of 134



EXPANSION BEARING AT PIERS 7 & 10

Cast steel shoes, rockers, and bolsters shall meet the requirements of AASHTO M192 Class 90. Structural steel weldments meeting the requirements of AASHTO M222 or M223 may be substituted for the castings, subject to approval by the Engineer prior to fabrication. No extra compensation will be allowed for the substitution.



EXPANSION BEARING AT PIER 8

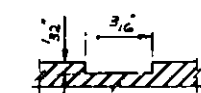
Cast steel shoes, rockers and bolsters shall meet the requirements of AASHTO M-192 Class 90 unless otherwise noted. Structural steel weldments meeting the requirements of AASHTO M-222 or M-223 may be substituted for the castings, subject to approval by the Engineer prior to fabrication. No extra compensation will be allowed for the substitution.

NOTES FOR SETTING OF ANCHOR BOLTS
AT EXPANSION BEARINGS

- D^* (Side of bearing away from fixed bearing)
 $D^* = \frac{1}{8}$ " per each 100' of expansion for every 15° fall below the normal temperature of 50°F.
- D^{**} (Side of bearing toward fixed bearing.)
 $D^{**} = \frac{1}{8}$ " per each 100' of expansion for every 15° rise above the normal temperature of 50°F.
- After girders have been erected and dimensions D^* & D^{**} determined, holes shall be drilled & anchor bolts shall be grouted in place. All fixed anchor bolts may be built into the masonry.

PINTLE DETAIL

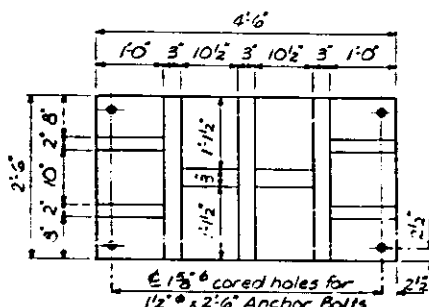
Steel for pintles shall meet the requirements of AASHTO M-223



GREASE GROOVE ON SADDLE

Note: Grease bearing assembly with molybdenum grease before installation.

Note A: 1 1/2" x 3 1/2" Cored holes in Rocker for 1/2" H.S. Bolts (AASHTO M-164)
Threaded holes in bottom plate for 1/2" H.S. Bolts (AASHTO M-164)



FIXED BEARING AT PIER 9

Cast steel shoes, rockers, and bolsters shall meet the requirements of AASHTO M192 Class 90. Structural steel weldments meeting the requirements of AASHTO M-222 or M-223 may be substituted for the castings, subject to approval by the Engineer prior to fabrication. No extra compensation will be allowed for the substitution.

SECTION A-A

BEARING DETAILS
SPANS 9, 10, & 11

M^CCLUGAGE BRIDGE

OVER THE ILLINOIS RIVER

F.A. ROUTE 49 SEC. 15-2 (F&E)

PEORIA & TAZEWELL COUNTIES

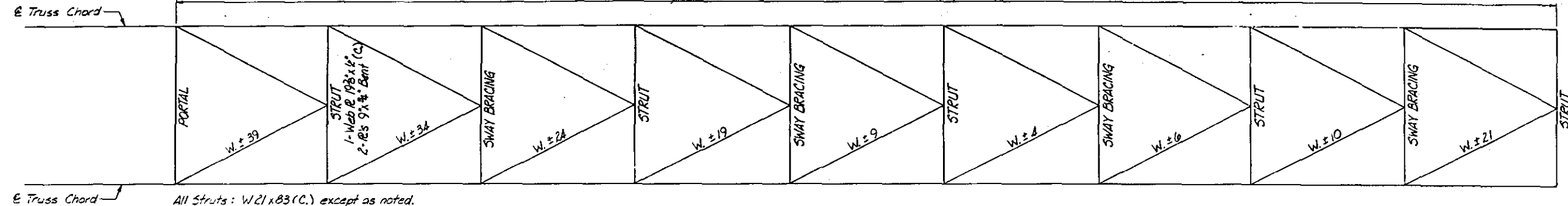


MOON
2-79

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

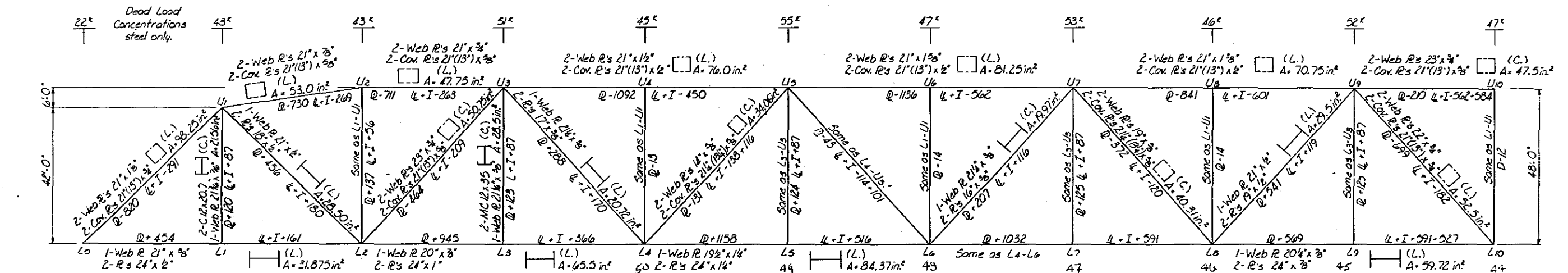
Sheet 27 of 134

Top Laterals: $\text{I } 2\text{-C } 10 \times 15.3 \text{ \& } 1\text{-R } 11\frac{1}{2} \times 8 \text{ (C.)}$



All Struts: $\text{W } 21 \times 83 \text{ (C.)}$ except as noted.

TOP LATERALS



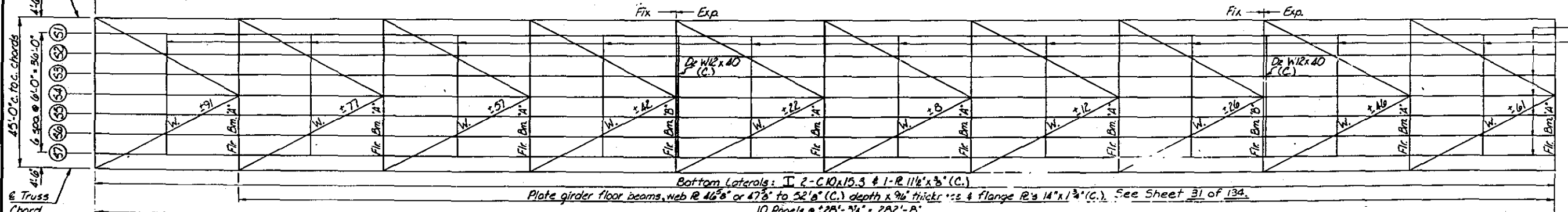
Reaction:
Q 744k
L-I 286k

Wind 226k

Note: Areas of Tension Members
are gross areas.

TRUSS ELEVATION

End floor br. R girder web R 45" or 46" to 50"
Depth x 8". Flange R's 12" x 12" (C.) See Sheet 32 of 134.



Bottom Laterals: $\text{I } 2\text{-C } 10 \times 15.3 \text{ \& } 1\text{-R } 11\frac{1}{2} \times 8 \text{ (C.)}$
Plate girder floor beams, web R 45" or 46" to 52" (C.) depth x 9" thick r/s & flange R's 14" x 14" (C.) See Sheet 31 of 134.
10 Panels @ 28'-3 1/4" = 282'-8"

BOTTOM FRAMING PLAN L0 TO L10

Notes:

Dead load, live load and wind forces are
given in kips.
Steel on this sheet noted (C.) shall be
Carbon M-183.
Steel on this sheet noted (L.) shall be
Low alloy M-223.
For cross section see sheet 38 of 134.
For truss members to be designated
N.T.R. see truss detail sheets 34 thru 41.

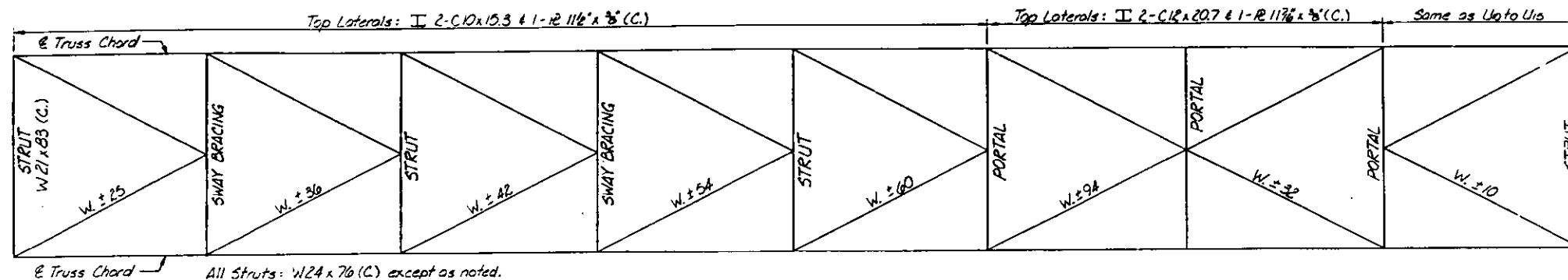
MEMBER LAYOUT & FORCES L0 - L10
TRUSS - SPANS 12, 13, & 14

M^C CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15-2 (F&E)
PEORIA & TAZEWELL COUNTIES

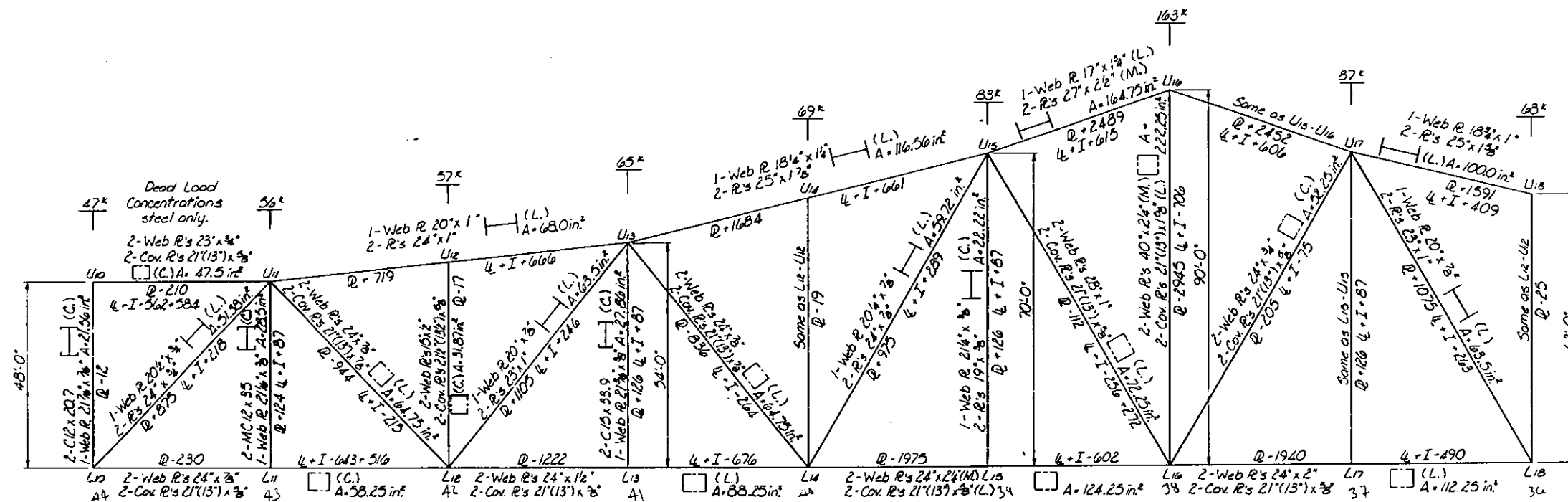
HANSON
ENGINEERS
INCORPORATED
74001
11-2-79

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

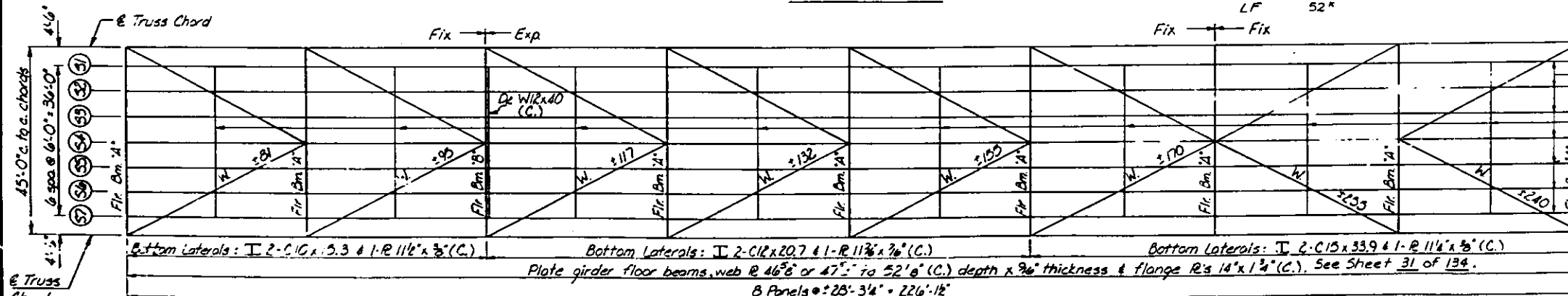
Sheet 28 of 134



TOP LATERALS



TRUSS ELEVATION

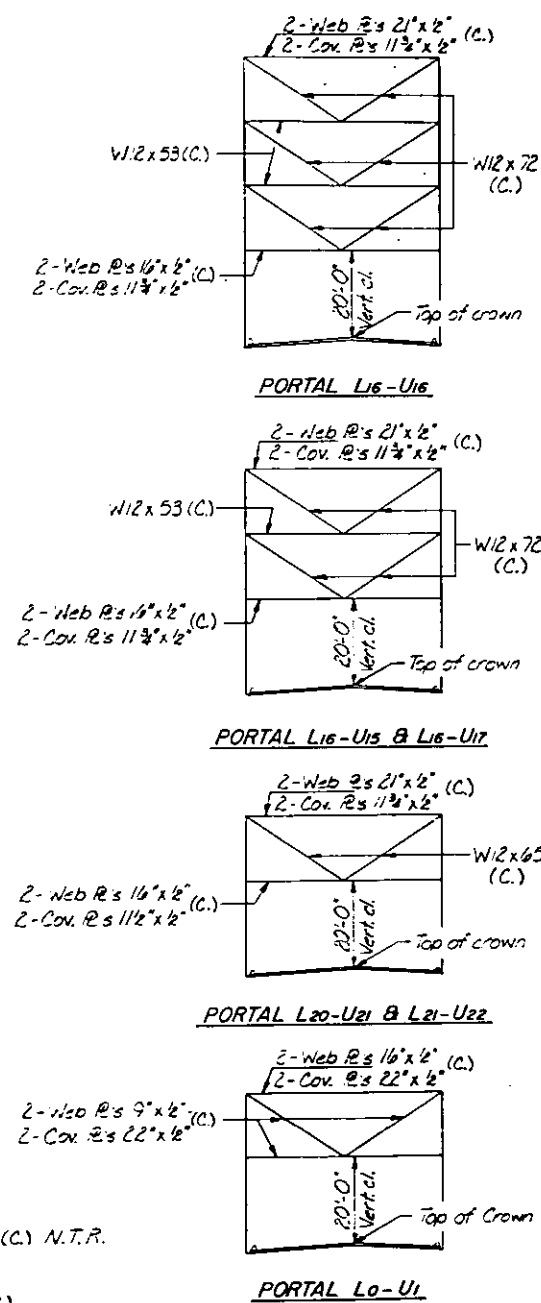


BOTTOM FRAMING PLAN L0 TO L18

For truss members, to be designated "N.T.R." see truss detail sheets 34 thru 41.

Dead Load, live load and wind forces are given in kips.

Steel shown on this sheet noted (C.) shall be Carbon M103.
Steel noted (L) shall be Low alloy M223.
Steel noted (M) shall be Low alloy M222.



MEMBER LAYOUT & FORCES L0-L18
TRUSS - SPANS 12, 13, 814

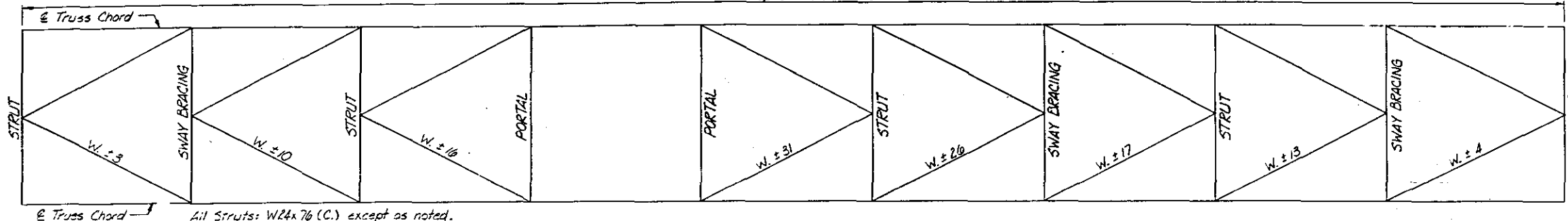
M^CCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15-2 (F&E)
PEORIA & TAZEWELL COUNTIES

HANSON ENGINEERS
74001
11-2-79

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

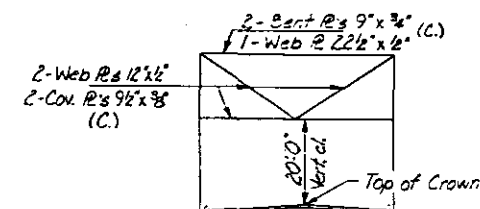
Sheet 22 of 134

Top Laterals: $\text{I } 2\text{-C10} \times 15.3 + 1\text{-R } 11\frac{1}{2} \times 8 \text{ (C.)}$

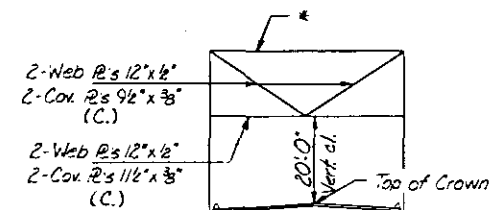


All Struts: $\text{W}24 \times 76 \text{ (C.)}$ except as noted.

TOP LATERALS

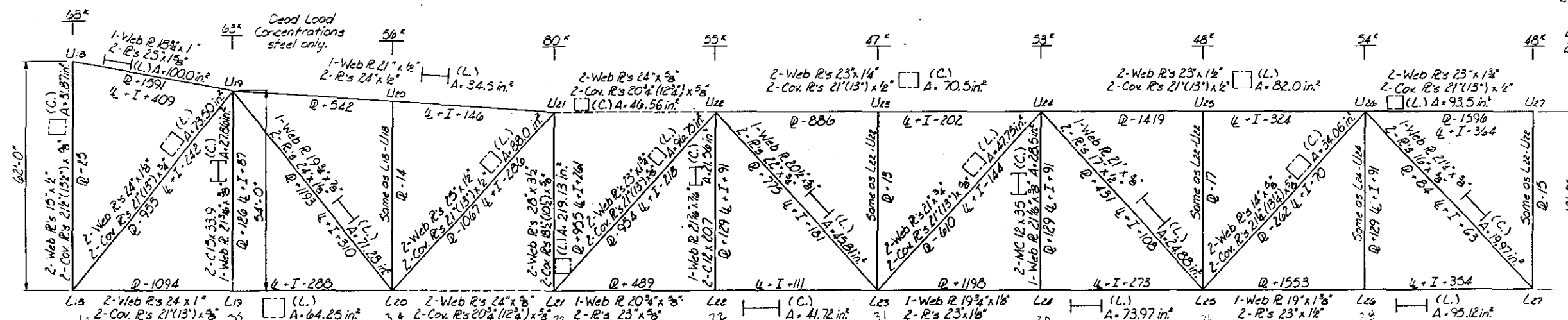


SWAY BRACING U_{13} & U_{19}



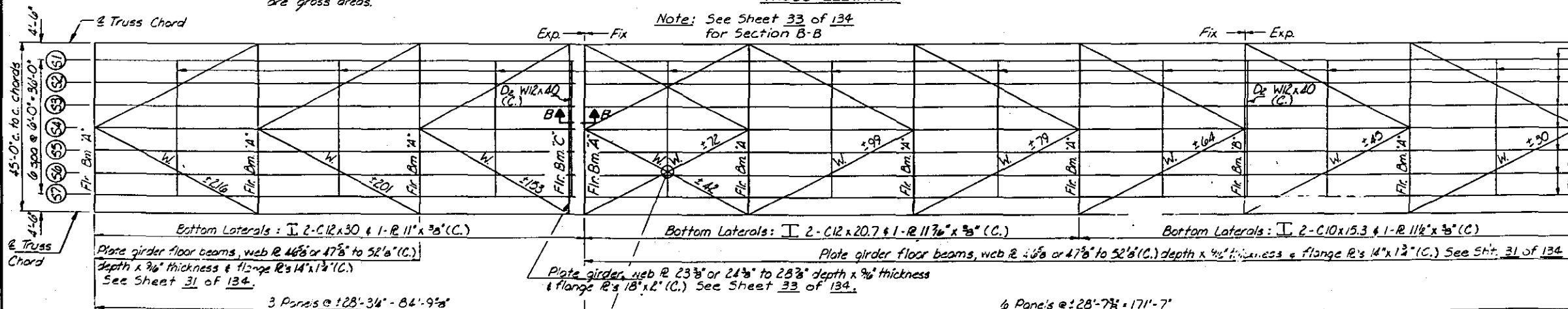
SWAY BRACING $U_3, U_5, U_7, U_9, U_{11}, U_{24}$ & U_{26}

* $\text{W}24 \times 83$ @ U_3, U_5, U_7, U_9
 $\text{W}24 \times 76$ @ U_{11} & U_{26}
2-R's 9×8 Bent
Web @ $22\frac{1}{2} \times 12$ @ U_{13}



TRUSS ELEVATION

Note: See Sheet 33 of 134 for Section B-B



BOTTOM FRAMING PLAN L_{10} TO L_{27}

All Stringers $\text{W}24 \times 76 \text{ (C.)}$ N.T.R.
Diaphragms $\text{W}12 \times 16 \text{ (C.)}$

MEMBER LAYOUT & FORCES L_{10} - L_{27}
TRUSS - SPANS R_{13}, B_{14}

M^C CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15-2 (F&E)
PEORIA & TAZEWELL COUNTIES

For truss members
to be designated "N.T.R." see truss
detail sheets 34 thru 41.

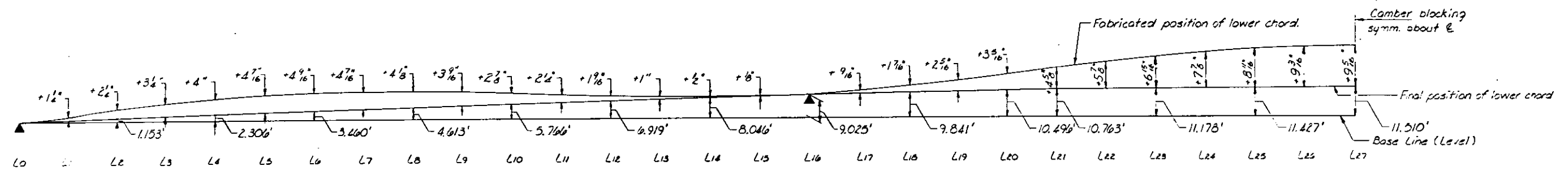
Dead Load, live load and wind forces
are given in kips.

Note:
Steel shown on this sheet noted (C.) shall be Carbon M153
Steel noted (L.) shall be Low-alloy M223

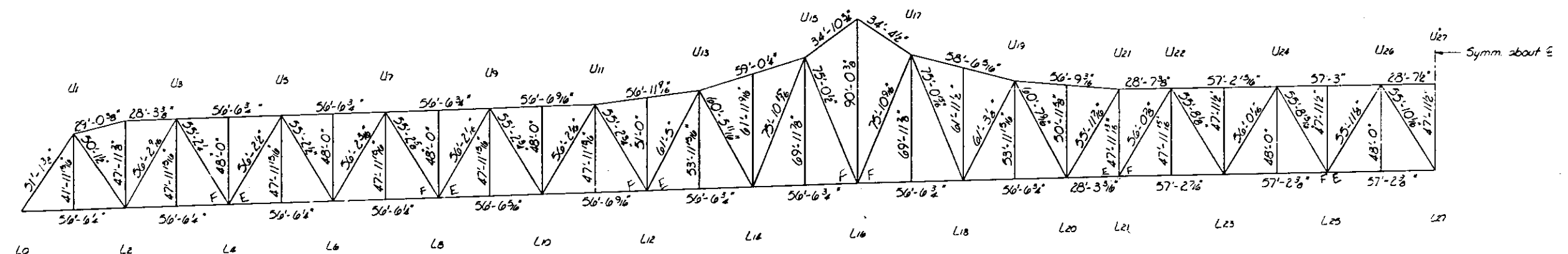
HANSON
ENGINEERS
74001
11-2-79

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Sheet 30 of 134



CAMBER BLOCKING ORDINATES
& BOTTOM CHORD OFFSETS



FABRICATED LENGTHS

TRUSS LAYOUT
SPANS 12, 13, & 14

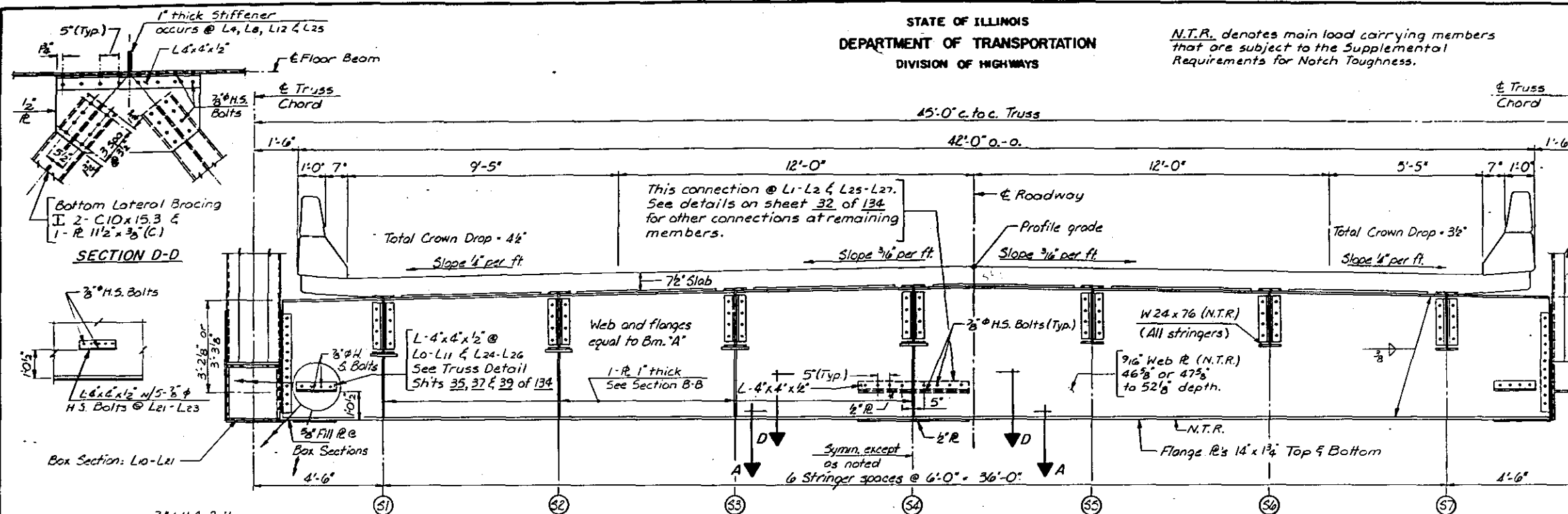
M^c CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15-2 (F&E)
PEORIA & TAZEWELL COUNTIES

HANSON ENGINEERS
74001
11-2-79

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

N.T.R. denotes main load carrying members that are subject to the Supplemental Requirements for Notch Toughness.

Sheet 31 of 134

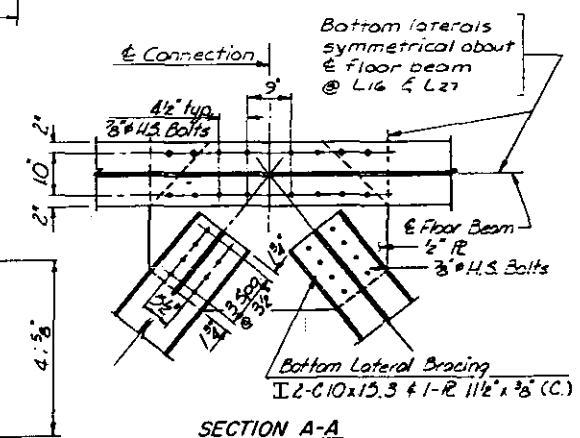
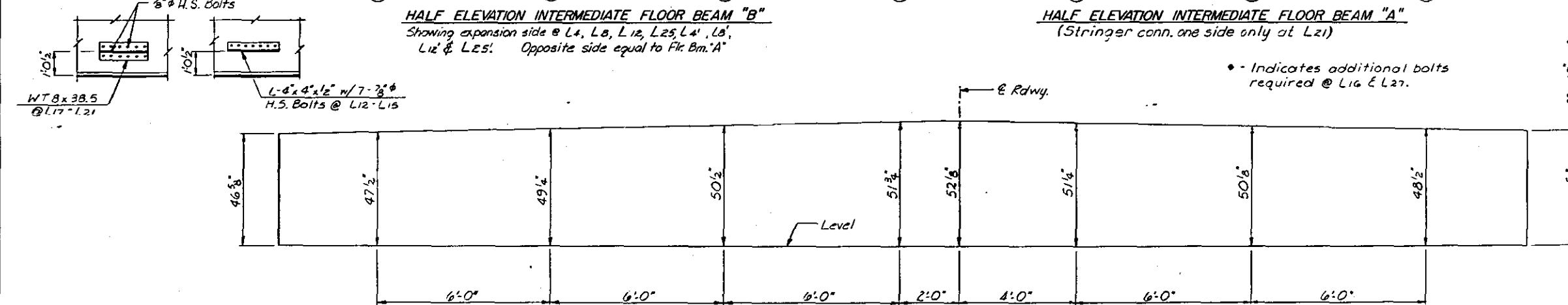


FLOOR BEAM MOMENT TABLE AT .5 PT.

I (in ⁴)	Dead Load k/ft.	M _D (ft.-k)	M _L (ft.-k)	Imp (ft.-k)	M _T (ft.-k)	f _s (ksi)
41,559	.26	26.7	1,108	932	280	2,320

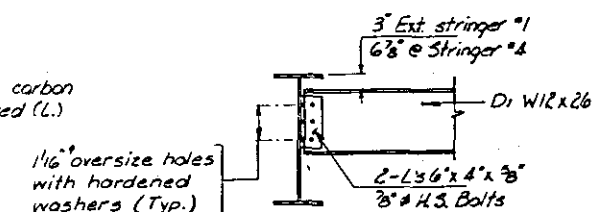
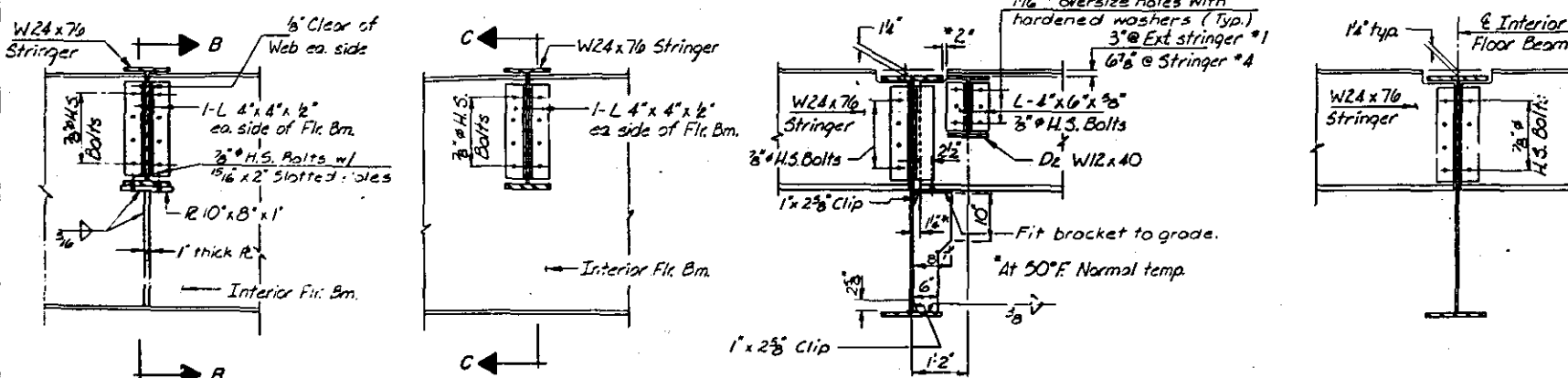
FLOOR BEAM REACTION TABLE

R _D (k)	R _L (k)	Imp (k)	R _{TOTAL}
99	81	24.3	204.3



WEB PLATE OFFSETS CAMBERED FOR CROWN & DEAD LOAD DEFLECTIONS

Note: All steel shown on this sheet shall be carbon steel M183 except as noted. Steel noted (L.) shall be Low-alloy M225.



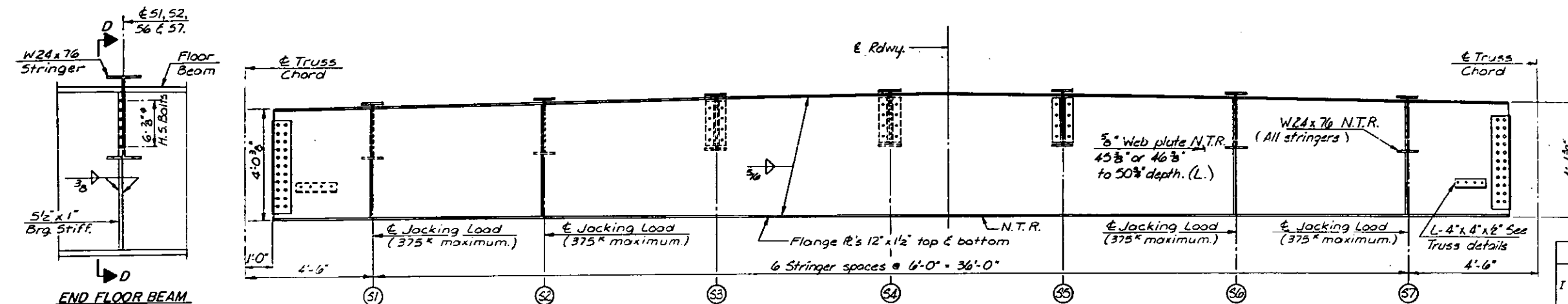
DIAPHRAGM D1

INTERIOR FLOOR BEAMS A & B
TRUSS - SPANS 12, 13, & 14

M^C CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.3 ROUTE 49 SEC. 15-2 (F&E)
PEORIA & TAZEWELL COUNTIES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Sheet 32 of 134



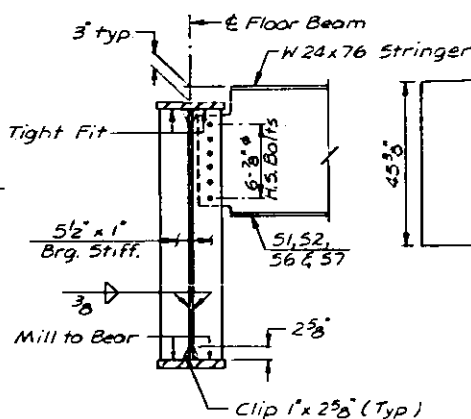
END FLOOR BEAM STRINGER CONNECTION
(At Location of Jacking Load)

HALF ELEVATION - END FLOOR BEAM
Showing approach span side.

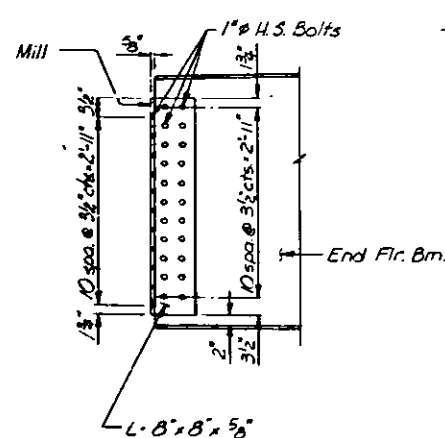
HALF ELEVATION - END FLOOR BEAM
Showing truss span side.

FLOOR BEAM REACTION TABLE			
R _g (k)	R _h (k)	Imp (k)	R _{TOTAL}
51	73	22	146

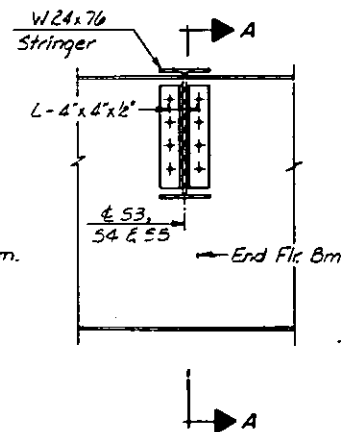
FLOOR BEAM MOMENT TABLE AT .5 PT.						
I (in ⁴)	Dead Load k/ft. (Eq. 51)	M _g (ft.-k)	M _h (ft.-k)	Imp (ft.-k)	M _T (ft.-k)	f _s (ksi)
30,711	.22	13.4	585	864	259	1,703



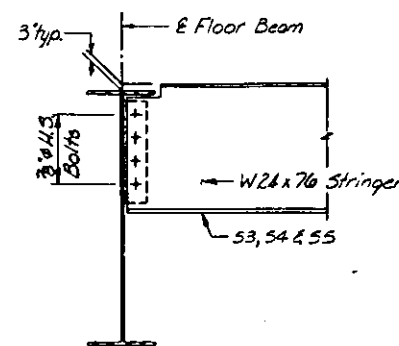
SECTION D-D



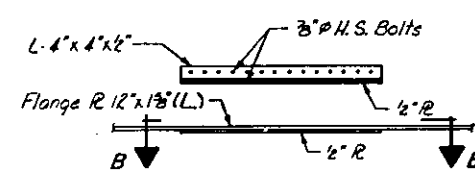
END FLOOR BEAM CONNECTION DETAIL



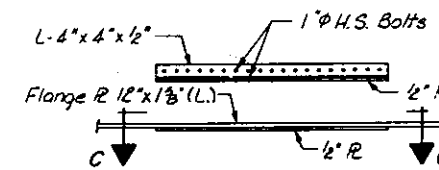
END FLOOR BEAM STRINGER CONNECTION



SECTION A-A

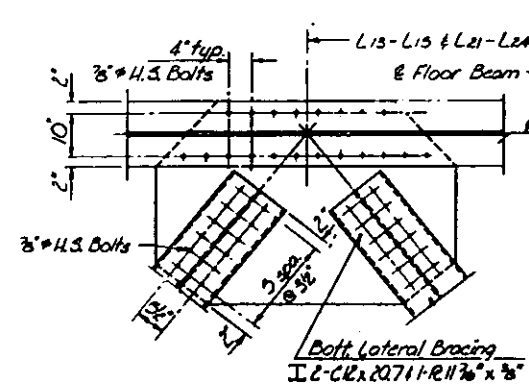


DETAIL I

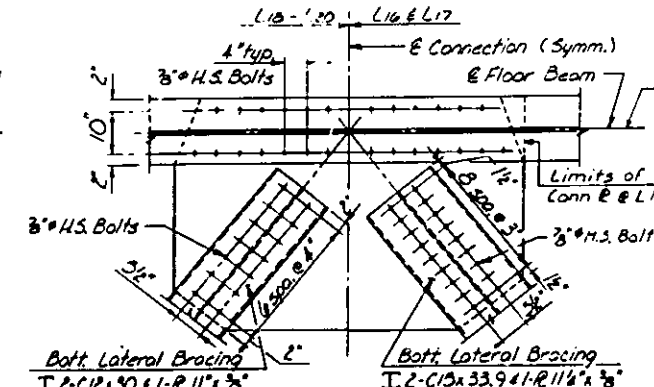


DETAIL II

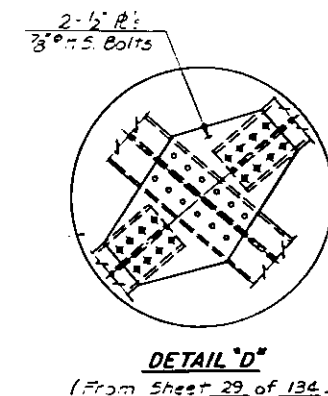
BOTTOM LATERAL BRACING CONNECTION DETAILS
(At center of Floor Beam)



SECTION B-B



SECTION C-C



DETAIL D
(From Sheet 29 of 134.)

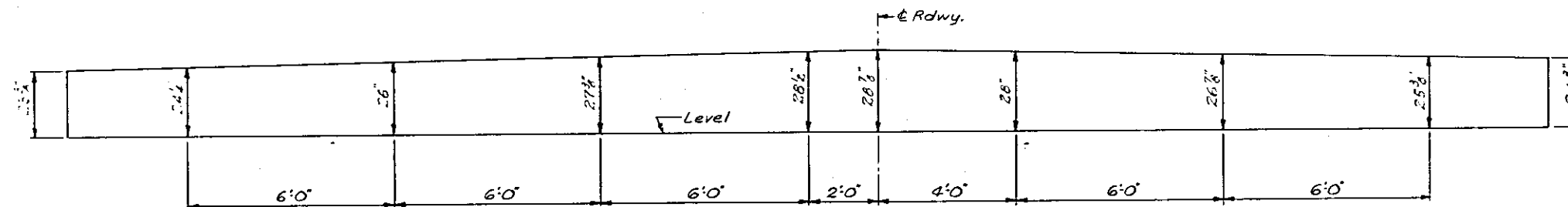
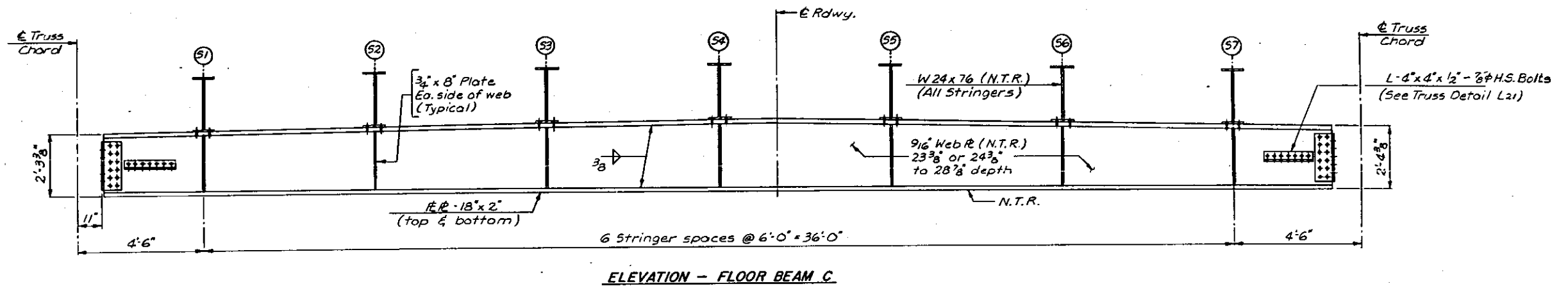
Note: All steel shown on this sheet shall be Carbon M183 except as noted. Steel noted (L.) shall be Low-alloy M223

N.T.R. denotes main load carrying members that are subject to the Supplemental Requirements for Notch Toughness.

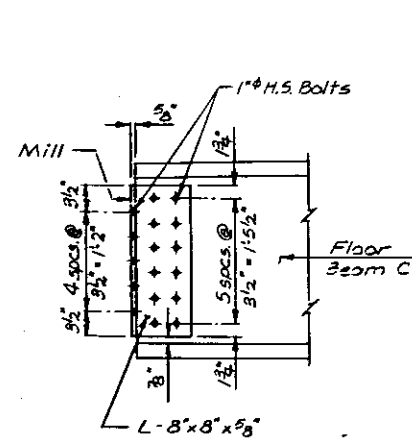
END FLOOR BEAM TRUSS - SPANS 12, 13, & 14

M^C CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15-2 (FBE)
PEORIA & TAZEWELL COUNTIES

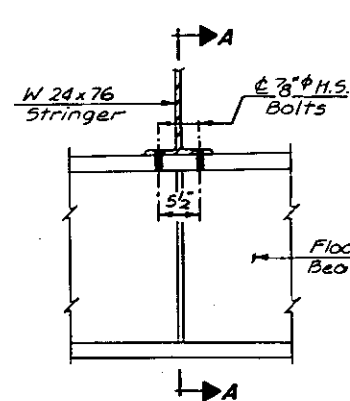
DESIGNED BY	HANSON ENGINEERS	DATE	7/4/01
CHECKED BY		DATE	11-2-79
APPROVED BY			



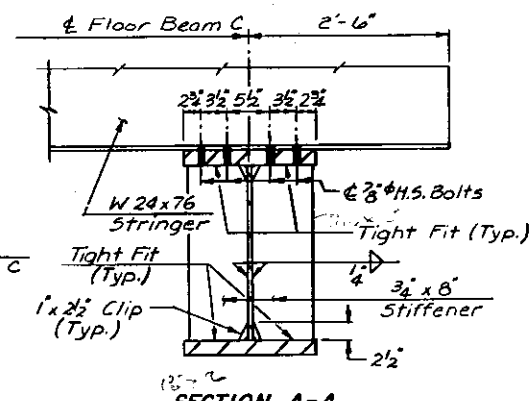
WEB PLATE OFFSETS CAMBERED FOR CROWN & DEAD LOAD DEFLECTIONS



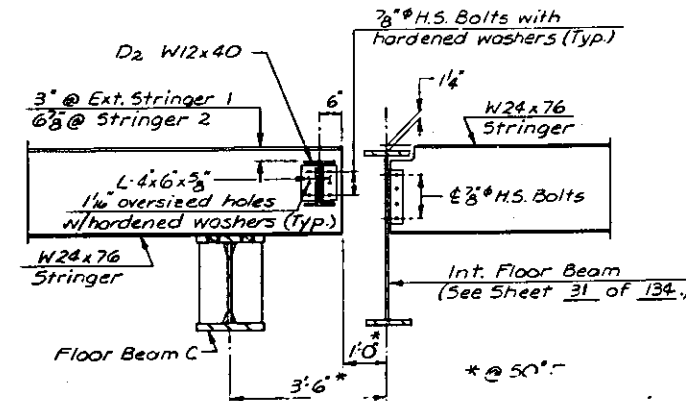
FLOOR BEAM C
CONNECTION DETAIL



FLOOR BEAM C
STRINGER CONNECTION



SECTION A-A



SECTION B-B
(From Sheet 29 of 134.)

Notes:

All steel shown on this sheet shall be
Carbon M183

N.T.R. denotes main load carrying members that are subject to the Supplemental Requirements for Notch Toughness.

FLOOR BEAM C
TRUSS - SPANS 12, 13 & 14

M^cCLUGAGE BRIDGE

OVER THE ILLINOIS RIVER

F.A. ROUTE 49 SEC. 15-2 (FBE)

PEORIA & TAZEWELL COUNTIES

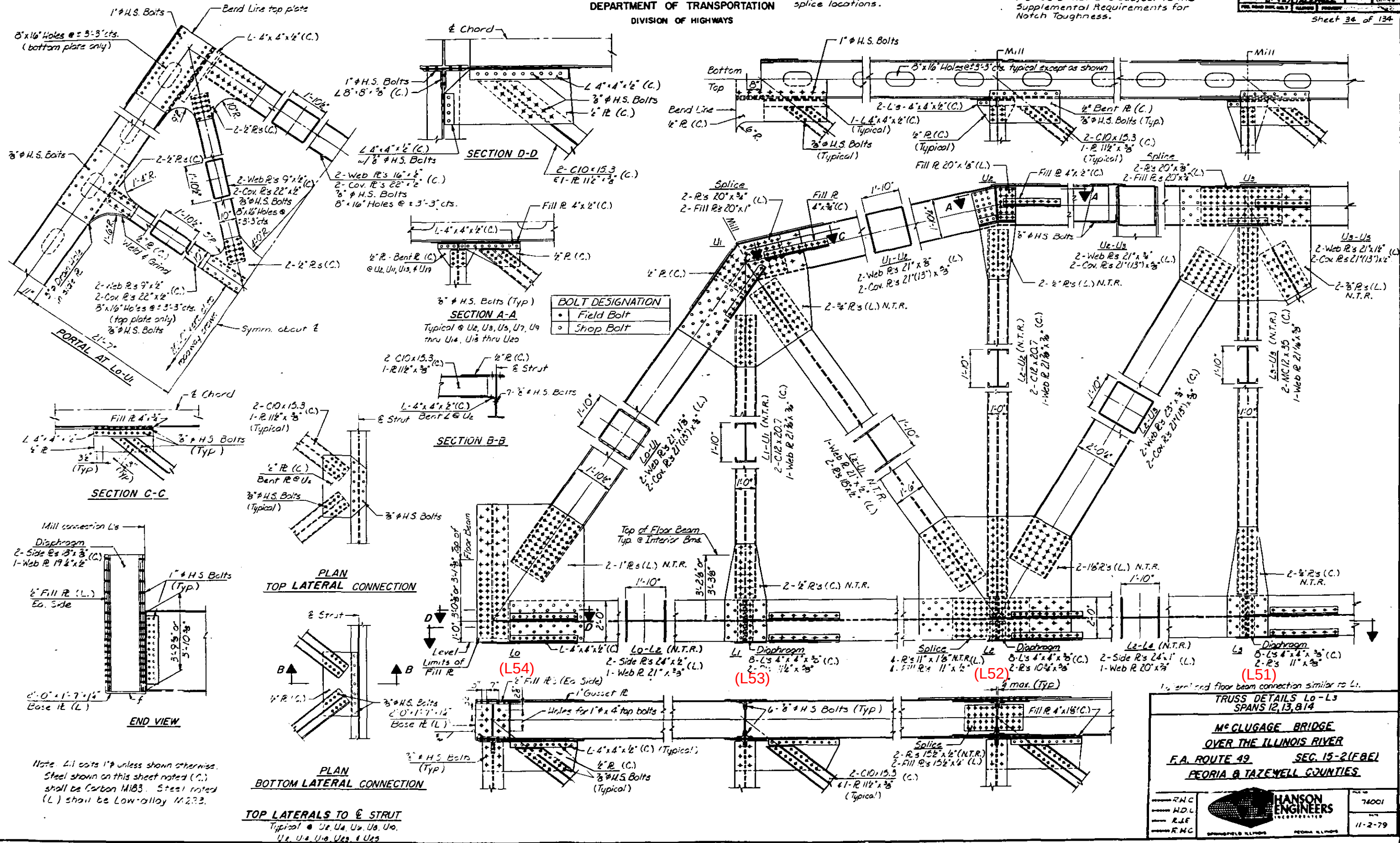
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

See Detail "C" on sheet 44 of 134
for typical detail of Handhole or
splice locations.

N.T.R. denotes main load carrying
members that are subject to the
Supplemental Requirements for
Notch Toughness.

DATE	BY	CHKD	APP'D
EA-49	12-15	12-15	12-15
1954	12-15	12-15	12-15

Sheet 34 of 134

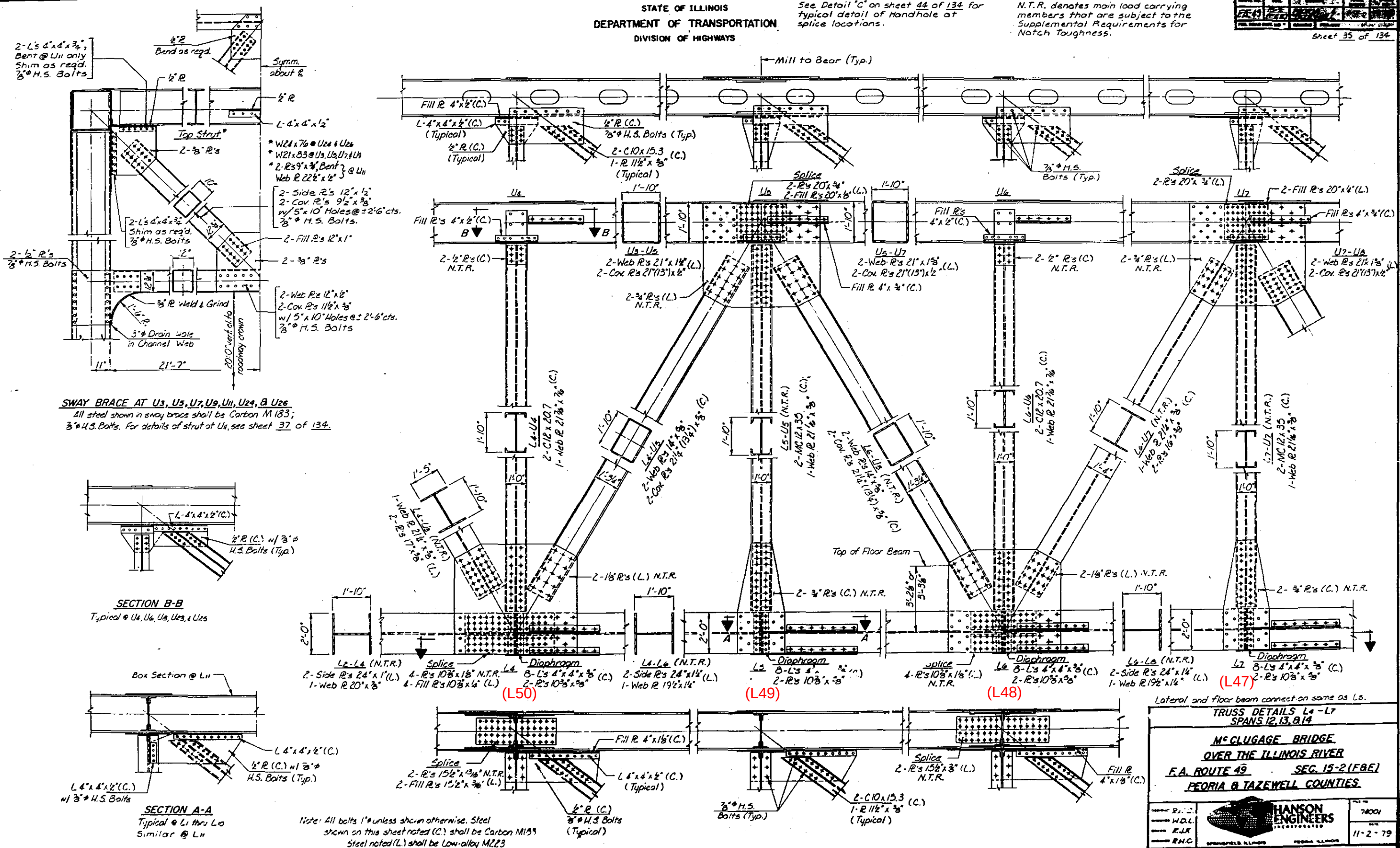


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

See Detail "C" on sheet 44 of 134 for typical detail of Handhole at splice locations.

N.T.R. denotes main load carrying members that are subject to the Supplemental Requirements for Notch Toughness.

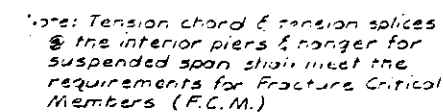
Sheet 35 of 134



See Detail "C" on sheet 44 of 134
for typical detail of Handhole at
splice locations.

GROUP 1	IND.	SEX	AGE	DOB	POB
FA-49	1-2	1-2	1-2	1-2	1-2
1-4	1-4	1-4	1-4	1-4	1-4
FOR. BORN	DOB	IND.	SEX	AGE	POB

Sheet 36 of 134



Note: All bolts 1" unless shown otherwise.
Steel shown on this sheet noted (C.)
shall be Carbon A.B.3. Steel noted
(L) shall be Low-alloy M223.

TRUSS DETAILS L₈ - L₁₁
SPANS 12, 13, & 14

M^C CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15-2(F&E)
PEORIA & TAZEWELL COUNTIES



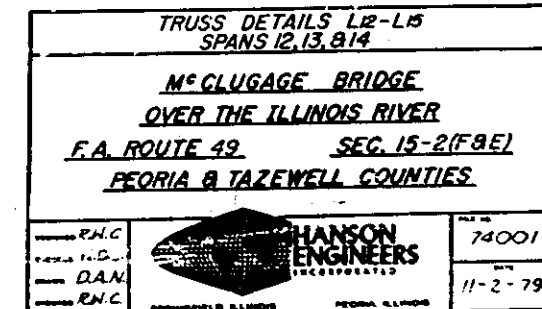
718

11.3.

Revisions 4-14-80 S.C.O.

REPORT NO.	DATE	PROJECT NO.	PROJECT NAME	PROJECT LOCATION
PA-67	11-2-67	11-2-67	11-2-67	11-2-67
FOR. ROAD DIST. NO. 7	SECTION	PROPERTY OF FOR. ROAD DIST. NO. 7		

sheet 37 of 134

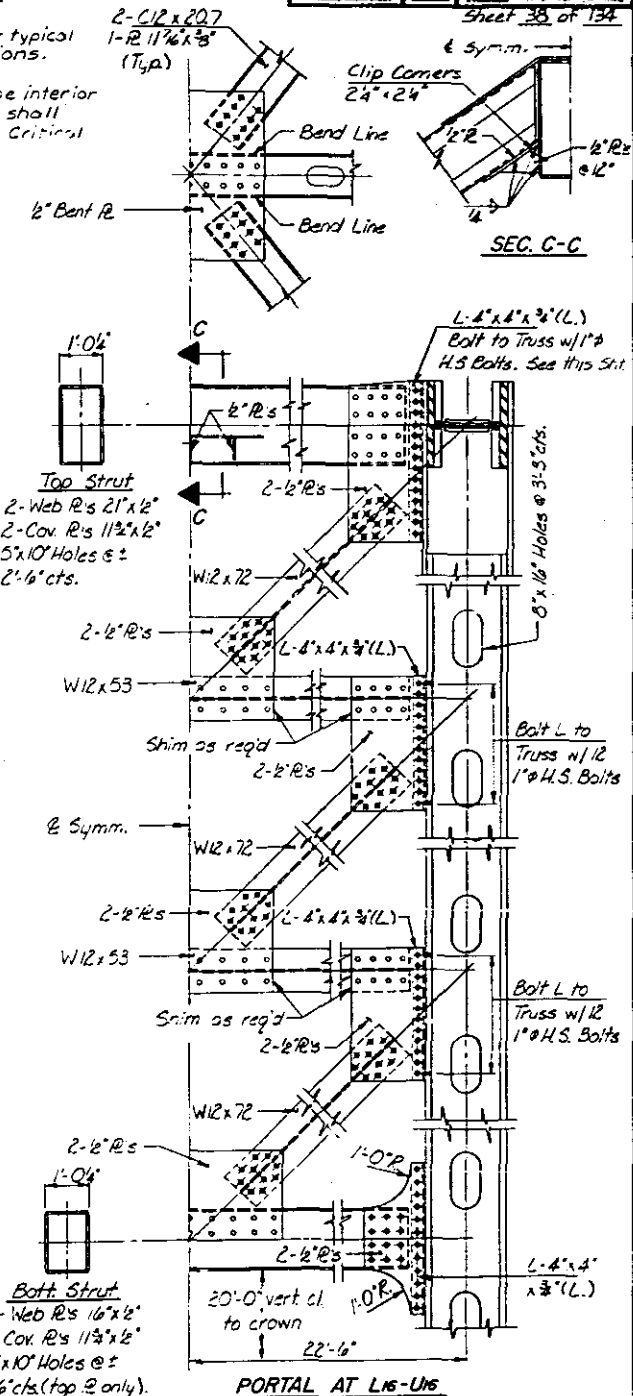


Revisions 4-14-90 S.C.O.

Technical drawing of a bridge pier cross-section, showing reinforcement details, dimensions, and material specifications. The drawing includes the following elements:

- Top Section:** Shows the connection to the bridge deck with "Match Lines" and "1" ϕ H.S. Bolts (Typ.)". The reinforcement includes "Solice 4 Side R's $26' \times 22' (M.)$ F.C.M." and "2-Web R's $10' \times 2' (L.)$ F.C.M."
- Upper Pier Section:** Features "2- $4' \times 4' \times 2' (L.)$ " and "14" ϕ H.S. Bolts (Typ.)". The reinforcement includes "1-Web $17' \times 13' (L.)$ " and "2- $2' \times 2' \times 2' (M.)$ " N.T.R.
- Lower Pier Section:** Shows a central core with "2-Web R's $40' \times 24' (M.)$ " and "2-Cor R's $21' (13' \times 13') \times 13' (L.)$ ". The core is surrounded by "8" ϕ Holes @ $5' - 3' cts.$ ". The reinforcement includes "1-Web $17' \times 13' (L.)$ " and "2- $2' \times 2' \times 2' (M.)$ " N.T.R.
- Base Section:** Shows the foundation with "3' $\times$ 3' Stiffener R w/ $3/16"$ c.f.w. (typ.)" and "1" ϕ H.S. Bolts". The reinforcement includes "1- $4' \times 4' \times 2' (L.)$ (Eq. Side)" and "3' $\times$ 3' Stiffener R w/ $3/16"$ c.f.w. (typ.)". The base is labeled "3' $\times$ 3' Base R (L.)" and "Finish".
- Dimensions:** The overall height is "1-10'". The width of the pier is "3' $\times$ 3'". The base is "3' $\times$ 3'". The top section is "1' $\times$ 1'". The bottom section is "3' $\times$ 3'".
- Material Specifications:** The drawing specifies "F.C.M." (Fiberglass Concrete Mortar) and "N.T.R." (Not To Reinforce).
- Other Details:** The drawing includes "Top of Floor Beam" and "Level" markers.

Tension chord & tension splices at the interior piers & hanger for suspended span shall meet the requirements for Fracture Critical Members. (F.C.M.)



PORTAL AT L16-U16

TRUSS DETAILS L16

Mc CLUGAGE BRIDGE

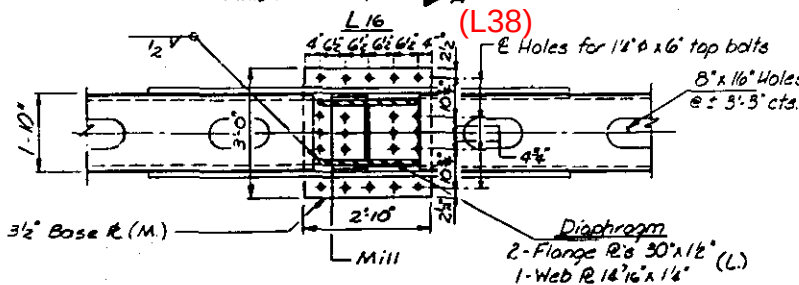
FA. ROUTE 49 SEC. 15-2(FBE)

PEORIA & TAZEWELL COUNTIES



- 2 - 79

SECTION A-A

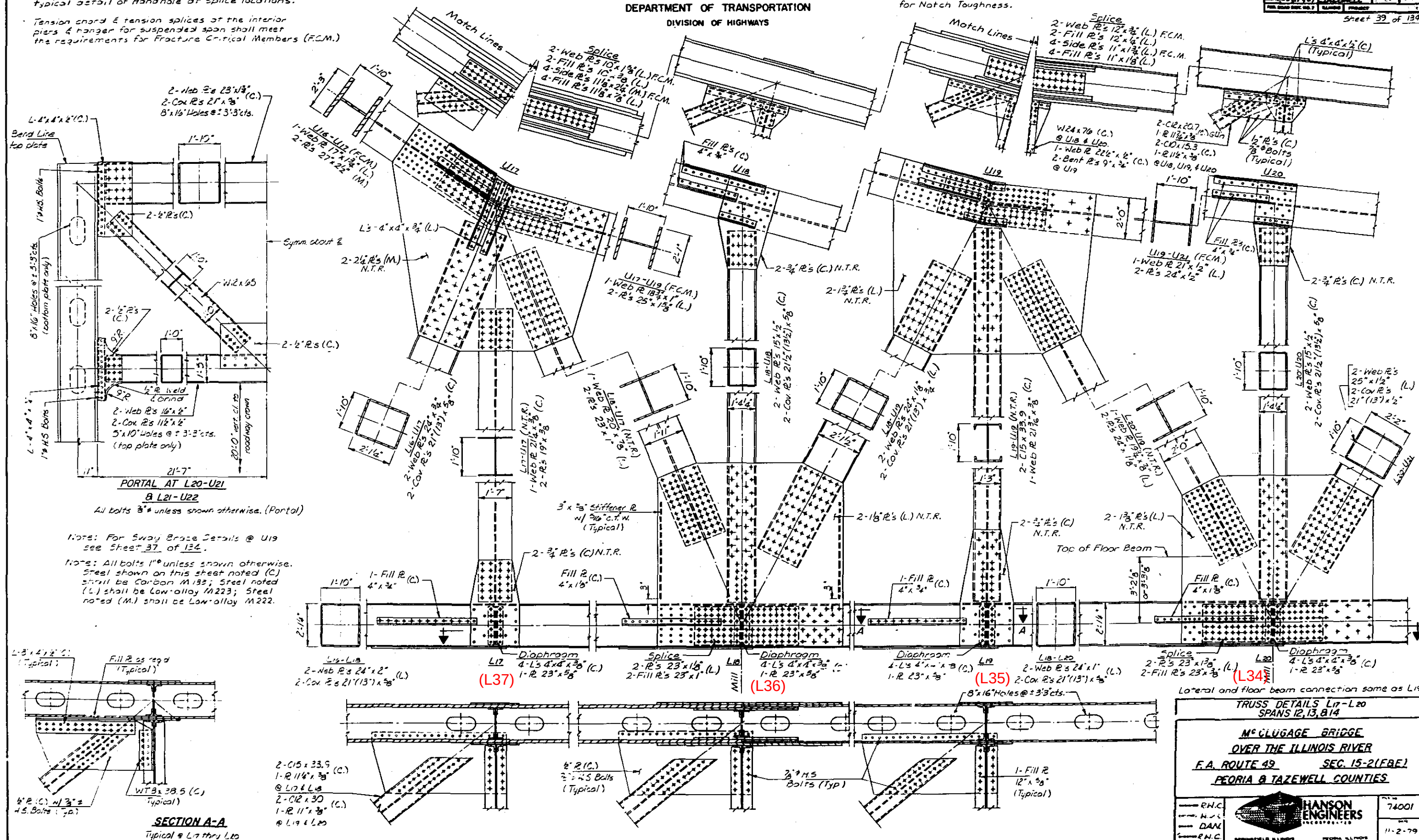


Tension chord & tension splices at the interior piers & hanger for suspended span shall meet the requirements for Fracture Critical Members (FCM.)

N.T.R. denotes main load carrying members that are subject to the Supplemental Requirements for Notch Toughness.

ROUTE NO.	LINE	PROPERTY	TOTAL FEET	DATE NO.
FA-09	15-E (P18)	PEOPLE'S STATION		
FED. ROAD DIST. NO. 7		LAND	PROJECT	

Sheet 39 of 134



Lateral and floor beam connection same as L19

TRUSS DETAILS L17-L20
SPANS 12, 13, 8 & 14

Mc CLUGAGE BRIDGE

OVER THE ILLINOIS RIVER

F.A. ROUTE 49 SEC. 15-2(FBE)

PEORIA & TAZEWELL COUNTIES



7400

11-2-7

Revisions 4-14-80 S.C.O

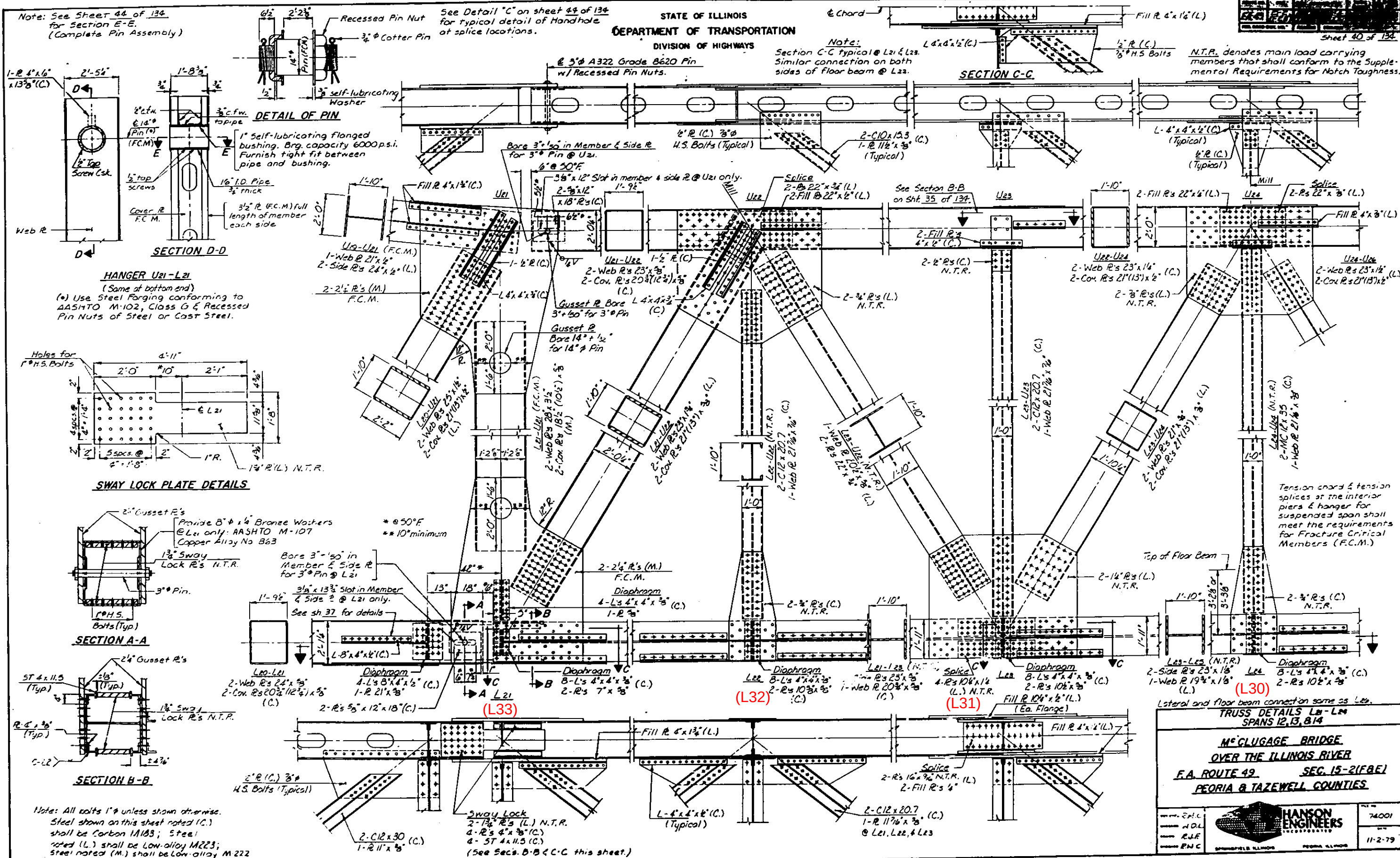
Note: See Sheet 44 of 134 for Section E-E. (Complete Pin Assembly)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Sheet 40 of 134

Note: Section C-C Typical @ L21 & L23. Similar connection on both sides of floor beam @ L22.

N.T.R. denotes main load carrying members that shall conform to the Supplemental Requirements for Notch Toughness.



TRUSS DETAILS L21-L24
SPANS 12, 13, & 14

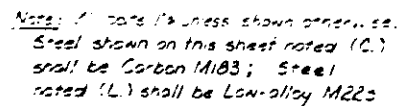
M^oCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15-2(F&E)
PEORIA & TAZEWELL COUNTIES

HANSON ENGINEERS
INCORPORATED
SPRINGFIELD, ILLINOIS
PEORIA, ILLINOIS

74001
11-2-79

Revisions 4-14-80 S.C.D.

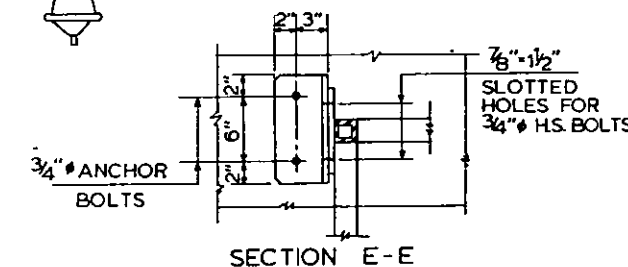
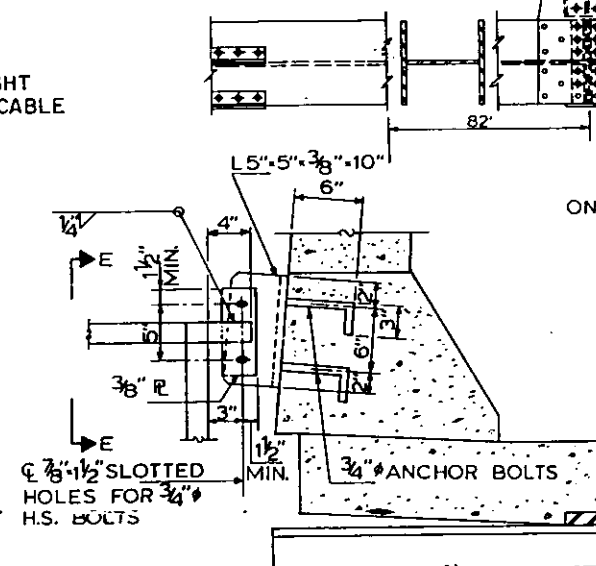
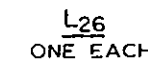
Sheet 41 of 134



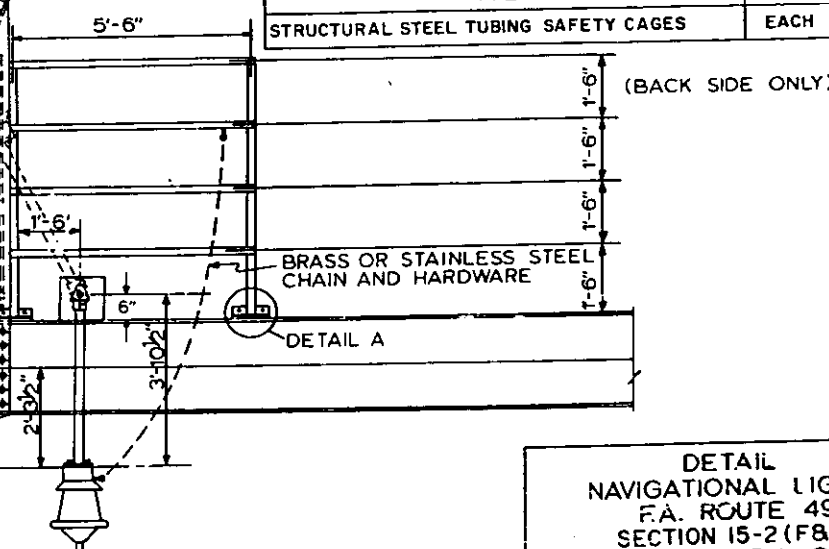
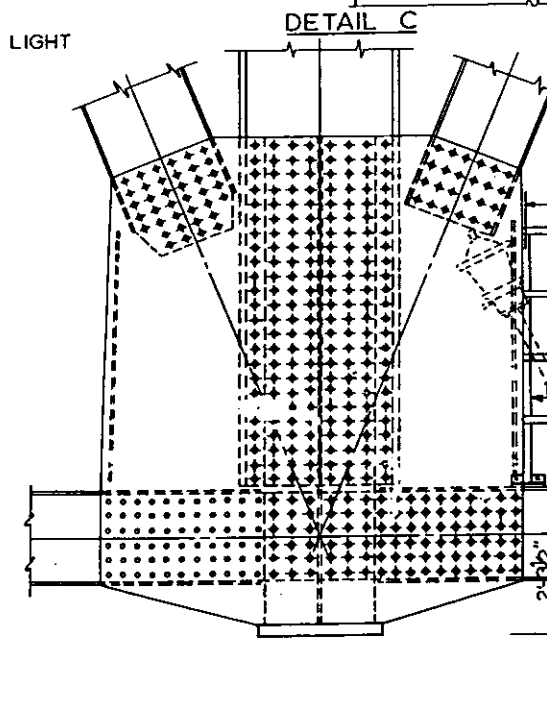
Revisions 4-14-80 S.C.O.

REPORT NO.	FILE	QUARTY	DATE	TIME
FA. 49	15-2 (F&E)	PEORIA & TAEWELL		
FUEL ROAD DIST. NO. 7		CLASS	PROPERTY	

SHEET 42 OF 134

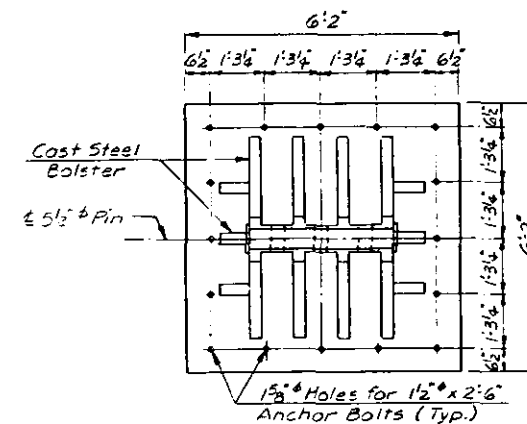
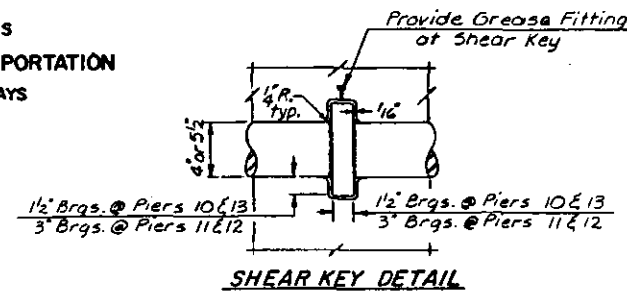


BILL OF MATERIAL		
ITEM	UNIT	NO.
STRUCTURAL STEEL TUBING SAFETY CAGES	EACH	5



DETAIL
NAVIGATIONAL LIGHTS
F.A. ROUTE 49
SECTION 15-2 (F&E)
PEORIA & TAZEWELL COUNTIES
11-2-79

Sheet 43 of 134

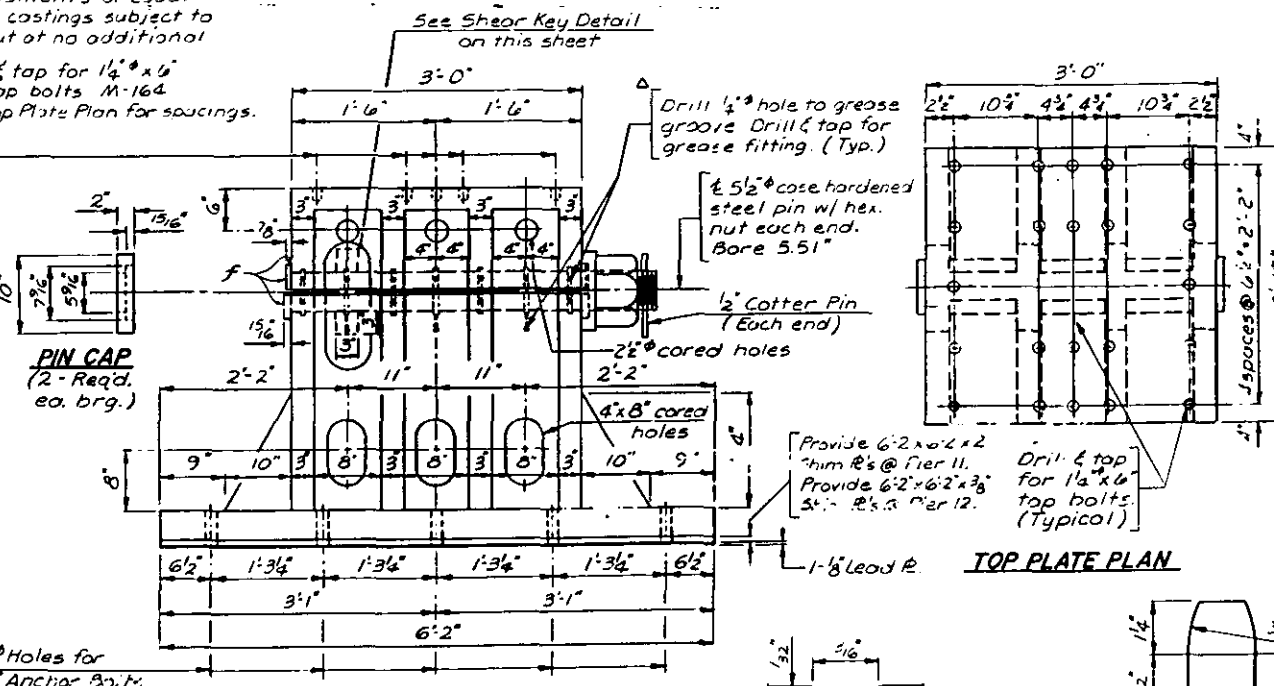


NOTES FOR SETTING OF ANCHOR BOLTS
AT EXPANSION BEARINGS

- Notes:

The surface finish of parts in contact shall meet the following ANSI Surface Roughness Requirements (As defined in ANSI B46.1, Part I.):

- a) Top surface of top shoe = ANSI 500
- b) Bottom of rocker and
Top of masonry plate = ANSI 250
- c) Cylindrical surface of pins,
all surfaces in contact with
cylindrical surface of pins.
Pintel, pintel socket in rocker = ANSI 125



GREASE GROOVE ON SADDLE
 ▲ Note: Grease bearing assembly with molybdenum grease before installation.



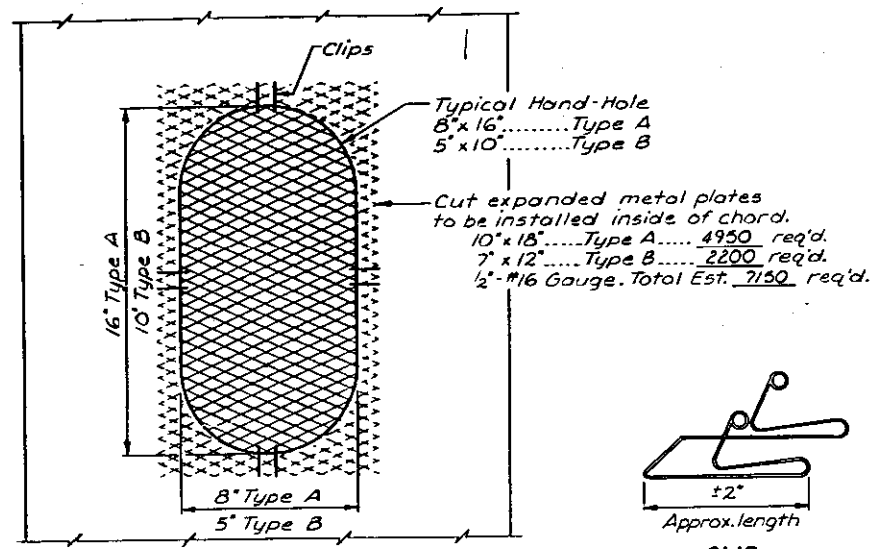
F.L. ROUTE 49 SEC. 15-2(F&E)
PEORIA & TAZEWELL COUNTIES

R.W.C. CRN DAN RWC	 HANSON ENGINEERS INCORPORATED	74001 11-2-79
-----------------------------	---	------------------

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

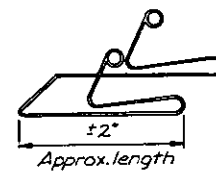
Sheet 44 of 134

Note: Handhole screens & clips are not to be included with this contract.



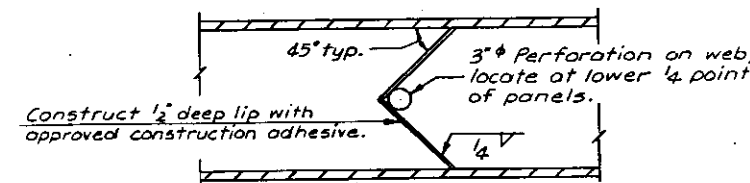
PLAN - HANDHOLE SCREEN

Clips must attach securely to steel plates, varying from 3/8" to 1/2".



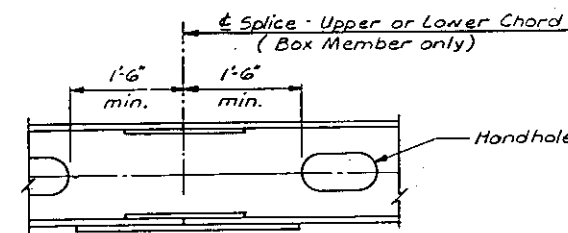
CLIP

Number required = 23600
Cost incidental to hand-hole screens.



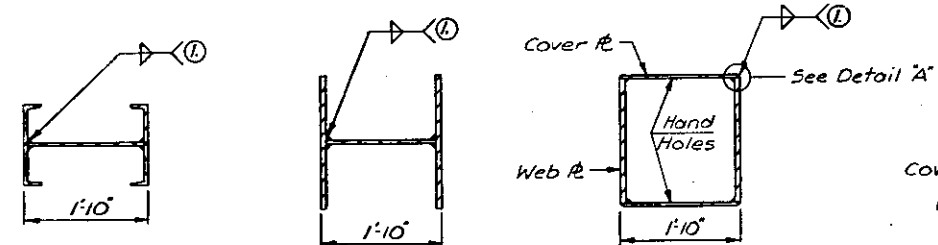
DRAIN DETAIL

Typical @ Chord Members
U11-U21, L0-L10 & L21-L27

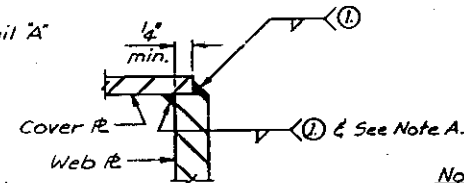


DETAIL C

(Typical detail for all upper or lower chord box member splices.)

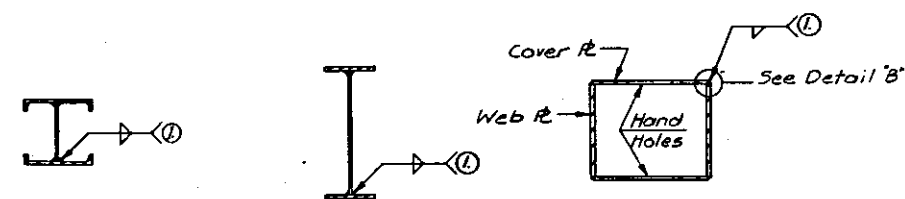


TOP CHORDS, BOTTOM CHORDS, DIAGONALS & VERTICAL TRUSS MEMBERS

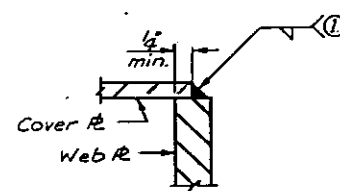


DETAIL 'A'

Note A
The inside fillet weld shall be the same size as the outside weld and extend from the end of the member to 1'-0" beyond the edge of the gusset plate.



LATERALS, STRUTS, SWAY & PORTALS

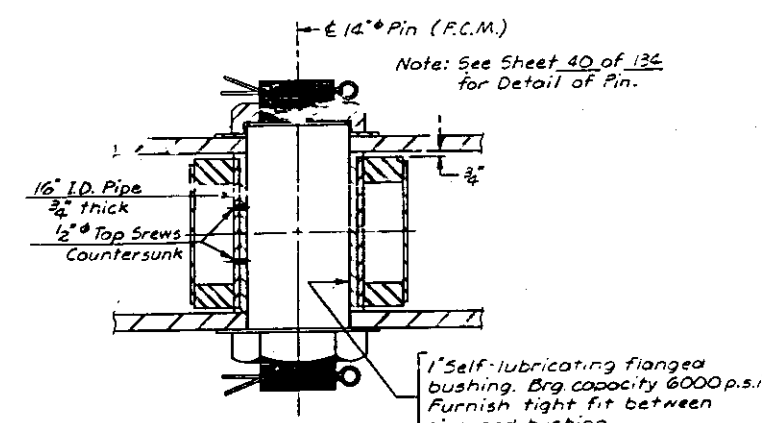


DETAIL 'B'

FILLET WELD SIZES OF MAIN TRUSS MEMBERS

Material Thickness of Thicker Part Joined (in.)	Size of Fillet Weld (in.)
To 3/4 incl.	1/4
Over 3/4 to 1 1/2	5/16
Over 1 1/2 to 2 1/4	3/8
Over 2 1/4	1/2

WELDING DETAILS



SECTION E-E
(From Sheet 40 of 134.)
Hanger U21-L21

16" I.D. pipe shall meet the requirements of ANSI / ASTM A-501 for round structural steel tubing.

14" pin shall meet the requirements for Fracture Critical Members (F.C.M.) and shall be made of steel forging conforming to AASHTO M-102, Class G.

STRUCTURAL STEEL DETAILS
TRUSS - SPANS 12, 13 & 14

M^o CLUGAGE BRIDGE

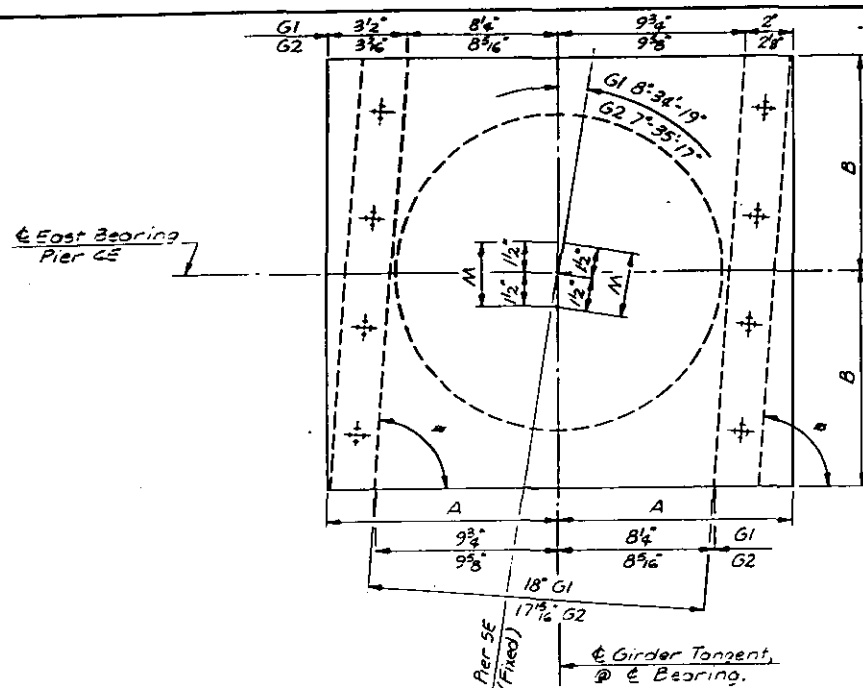
OVER THE ILLINOIS RIVER

F.A. ROUTE 49 SEC. 15-2 (F&E)
PEORIA & TAZEWELL COUNTIES



74001
11-2-79

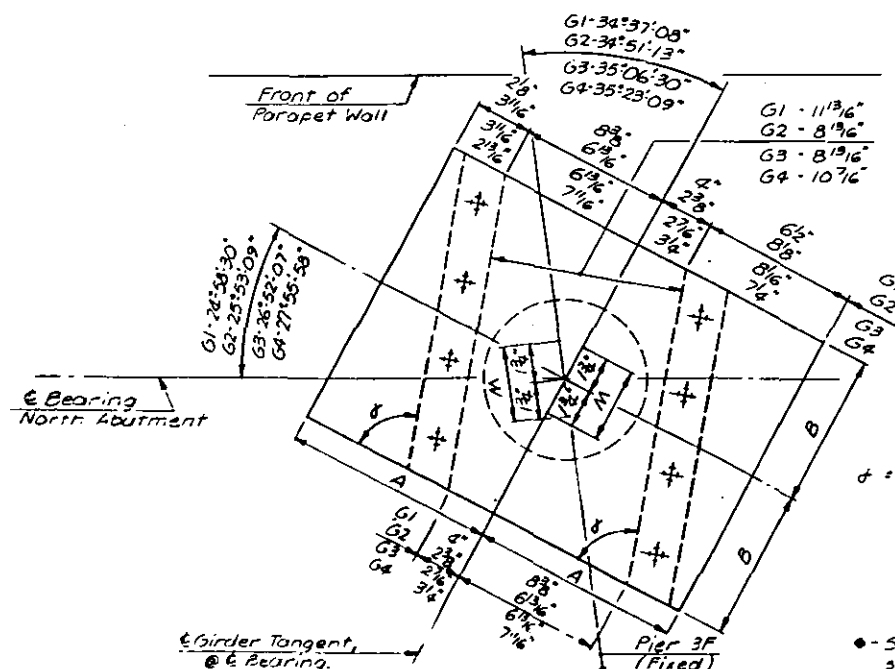
Revisions 4-14-83 S.C.O.



$\phi = 85^{\circ}42'50'' - G1$
 $86^{\circ}12'22'' - G2$

**PLAN VIEW TOP PLATE
 AT PIER 4E EAST BEARINGS**

GUIDED EXPANSION FLOATING BEARING TABLE OF DIMENSIONS AT PIER 4E E. BRGS.														
Capacity (Tons)	Location	Support	Girder	Soil	Level	Dimensions					Spreader R.		Top Bolts**	
						A	B	H	J	L	M	I.D.	t*	w*
300	E. Brg.	1	3/8"	11 1/2"	10"	5 1/4"	1"	8 3/4"	3"	14 1/2"	4 1/2"	17 1/2"	4 1/2"	9 1/2"
300	Pier 4E	2	3/8"	11 1/2"	10"	5 1/4"	1"	8 3/4"	3"	14 1/2"	4 1/2"	17 1/2"	4 1/2"	9 1/2"



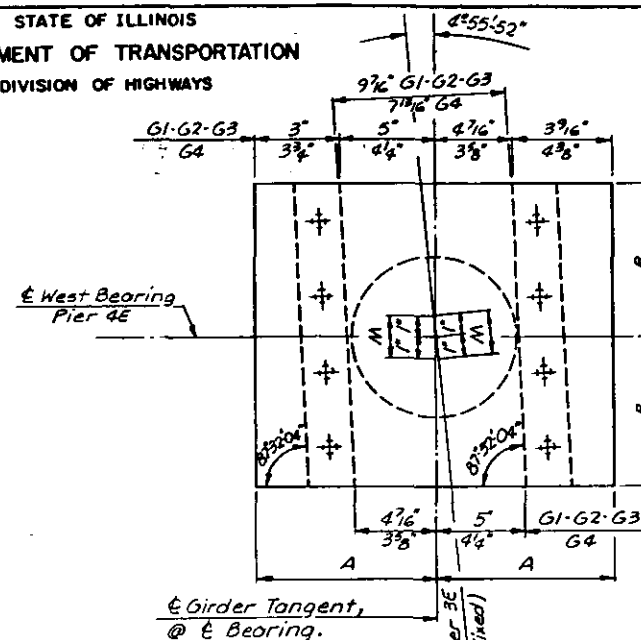
$\phi = 72^{\circ}41'26'' - G1$
 $72^{\circ}34'24'' - G2$
 $72^{\circ}26'45'' - G3$
 $72^{\circ}18'26'' - G4$

**PLAN VIEW TOP PLATE
 AT NORTH ABUTMENT**

GUIDED EXPANSION FLOATING BEARING TABLE OF DIMENSIONS AT N. ABUT.														
Capacity (Tons)	Location	Support	Girder	Soil	Level	Dimensions					Spreader R.		Top Bolts**	
						A	B	H	J	L	M	I.D.	t*	w*
100	N. Abut.	1	1 1/2"	10 1/2"	7"	3 1/4"	3 1/4"	5 1/4"	3 1/2"	8 1/2"	3 1/2"	11"	3 3/4"	3 1/4"
50	N. Abut.	2	1 1/2"	10 1/2"	7"	3 1/4"	3 1/4"	5 1/4"	3 1/2"	8 1/2"	3 1/2"	11"	3 3/4"	3 1/4"
50	N. Abut.	3	1 1/2"	10 1/2"	7"	3 1/4"	3 1/4"	5 1/4"	3 1/2"	8 1/2"	3 1/2"	11"	3 3/4"	3 1/4"
75	N. Abut.	4	1 1/2"	10 1/2"	7"	3 1/4"	3 1/4"	5 1/4"	3 1/2"	8 1/2"	3 1/2"	11"	3 3/4"	3 1/4"

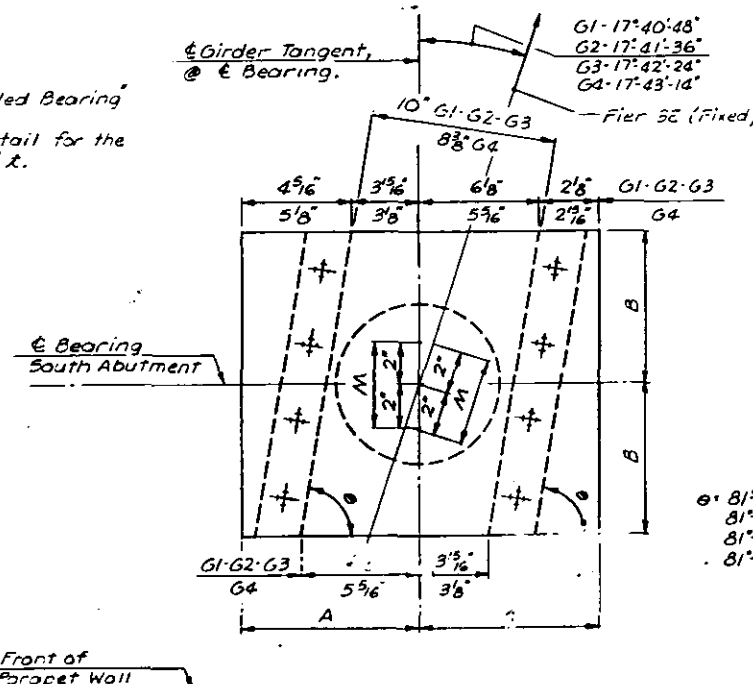
* Shim plate wide & length same as sole plate dimensions. See Plan View of Top Plate at North Abutment.

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS



**PLAN VIEW TOP PLATE
 AT PIER 4E WEST BEARINGS**

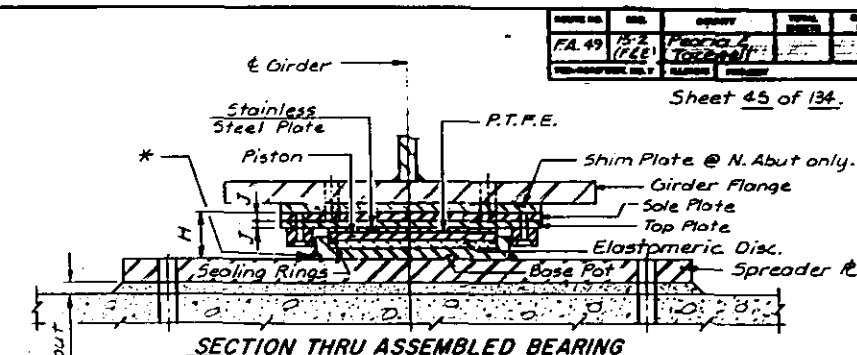
GUIDED EXPANSION FLOATING BEARING TABLE OF DIMENSIONS AT PIER 4E W. BRGS.														
Capacity (Tons)	Location	Support	Girder	Soil	Level	Dimensions					Spreader R.		Top Bolts**	
						A	B	H	J	L	M	I.D.	t*	w*
75	W. Brg.	1, 2, 3	3/8"	8"	7"	3 1/4"	3 1/4"	4 1/2"	2"	7 1/2"	2 1/2"	10"	2 1/2"	6 1/4"
50	Pier 4E	4	3/8"	8"	7"	3 1/4"	3 1/4"	4 1/2"	2"	7 1/2"	2 1/2"	10"	2 1/2"	6 1/4"



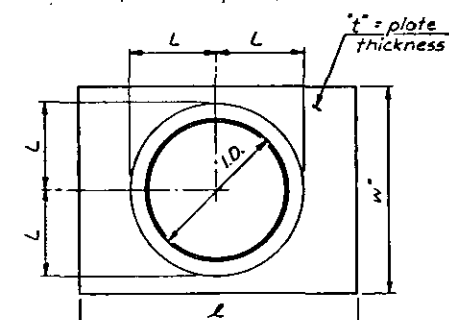
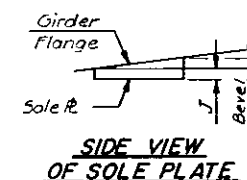
$\phi = 81^{\circ}09'36'' - G1$
 $81^{\circ}09'12'' - G2$
 $81^{\circ}08'48'' - G3$
 $81^{\circ}08'23'' - G4$

**PLAN VIEW TOP PLATE
 AT SOUTH ABUTMENT**

GUIDED EXPANSION FLOATING BEARING TABLE OF DIMENSIONS AT S. ABUT.														
Capacity (Tons)	Location	Support	Girder	Soil	Level	Dimensions					Spreader R.		Top Bolts**	
						A	B	H	J	L	M	I.D.	t*	w*
75	South	1, 2, 3	3/8"	8 1/4"	7"	3 1/4"	3 1/4"	4 1/2"	2"	7 1/2"	2 1/2"	10"	2 1/2"	6 1/4"
50	Abut.	4	3/8"	8 1/4"	7"	3 1/4"	3 1/4"	4 1/2"	2"	7 1/2"	2 1/2"	10"	2 1/2"	6 1/4"



See Sheet 46 of 134 for anchor bolt locations in spreader plate.



BASE POT & SPREADER PLATE

To be used at:
 North Abutment Girders 1-2-3-4.
 South Abutment Girders 1-2-3-4.
 Pier 4E - West Brg. Girders 1-2-3-4.
 Pier 4E - East Brg. Girders 1-2.

NOTES:

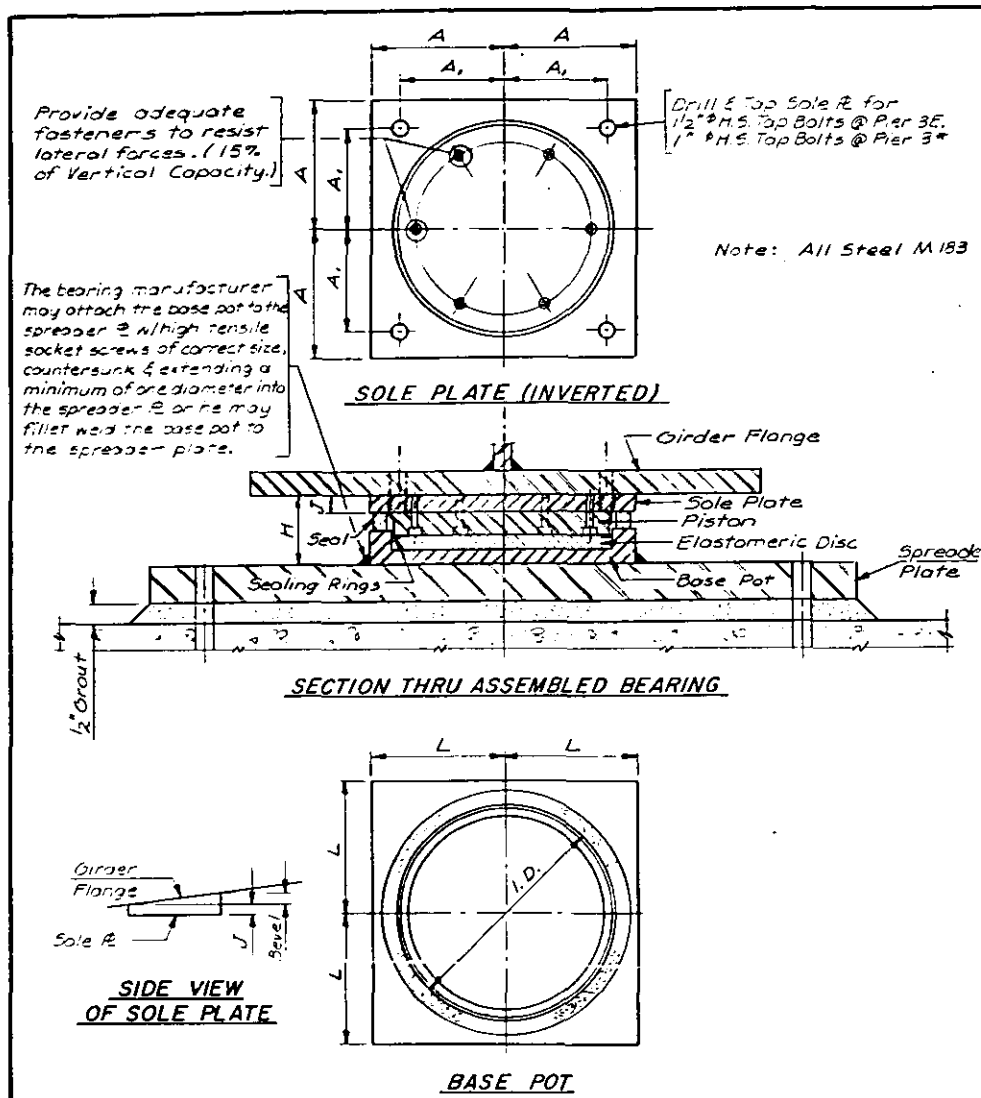
Bearing manufacturer to provide temporary tie downs to resist uplift (10% of vertical capacity) during construction. To be removed after steel has been erected.
 * Bearing manufacturer may attach the base pot to the spreader plate with high tensile socket screws of correct size, counter sunk and extending a minimum of one diameter into the spreader plate or he may fillet weld the base pot to the spreader plate.
 ** Top bolt hole locations on sole plate. See Sheet 46 of 134 for details.
 M = 1/2\" movement.
 The bearing manufacturer shall submit shop drawings to the Engineer for approval before proceeding with the fabrication of the bearings.
 Bearings shall be placed on a 1/2\" thick bed of epoxy quarte sand grout and carefully levelled. No load shall be placed on the bearing until the grout has set and developed a minimum of 80% strength.
 On the Guided Expansion Floating Bearings provide guide bars and fasteners capable of resisting 35% of vertical capacity at the N & S Abut. & 10% of vertical capacity at all other locations.

FLOATING BEARINGS

M^CCLUGAGE BRIDGE

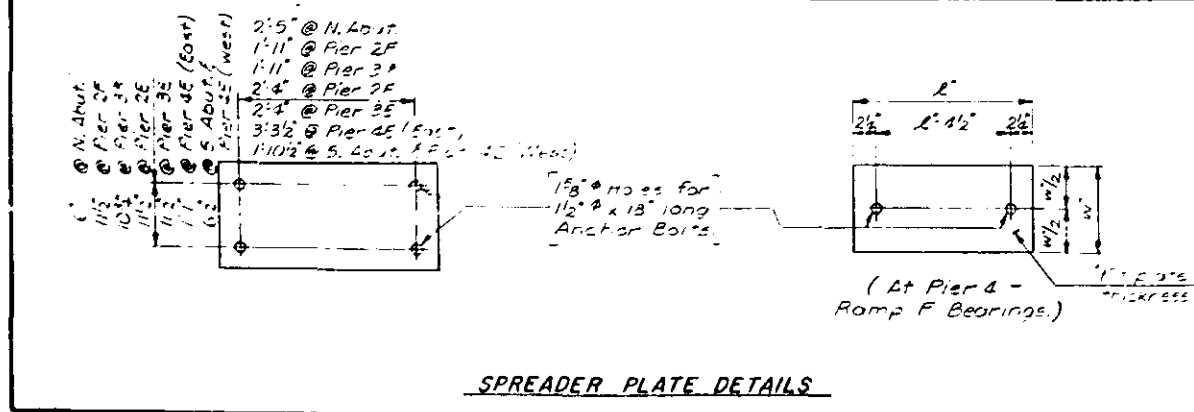
OVER THE ILLINOIS RIVER

F.A. ROUTE 49 SEC. 15-2(F&E)
PEORIA & TAZEWELL COUNTIES

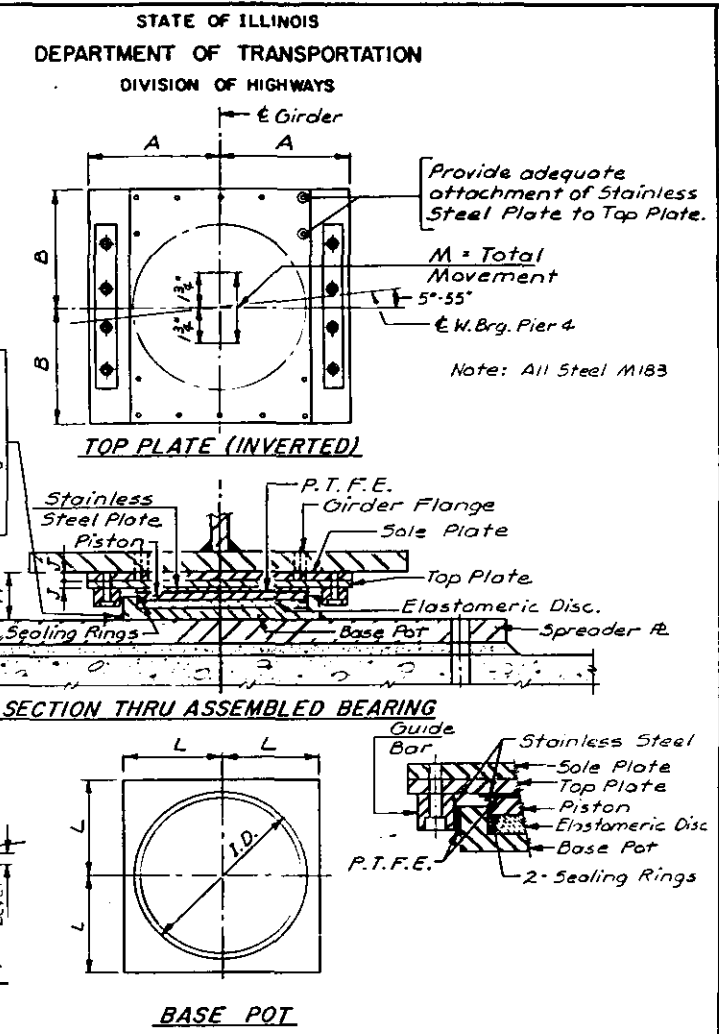


FIXED FLOATING BEARING TABLE OF DIMENSIONS																
Capacity (Tons)	Locs*107	Supports/Brgs*	Sae #	Bore	Dimensions						Spreader R			**		
					A	H	J	L	ID	E	w	L	A ₁			
100	Per 3*	1	1/4"	5/8"	3"	7 1/2"	5 1/4"	8 3/4"	2 3/4"	15 1/4"	27 1/2"	3 1/2"	16"	32 1/2"	5 3/4"	
150	Per 3*	4	5/8"	6 5/8"	3 3/4"	1"	6 5/8"	10 7/8"	2 3/4"	15 1/4"	27 1/2"	4 1/2"				
200	Per 3E	1, 2, 4	5/8"	7 1/4"	3 1/2"	1"	7 1/4"	12 1/4"	3"	15 1/4"	32 1/2"	5 1/2"				
225	Per 3E	2	5/8"	7 5/8"	3 3/4"	1"	7 5/8"	12 3/4"	3"	16"	32 1/2"	5 3/4"				
	Per 3*	2, 3	3/8"													

FIXED FLOATING BEARING



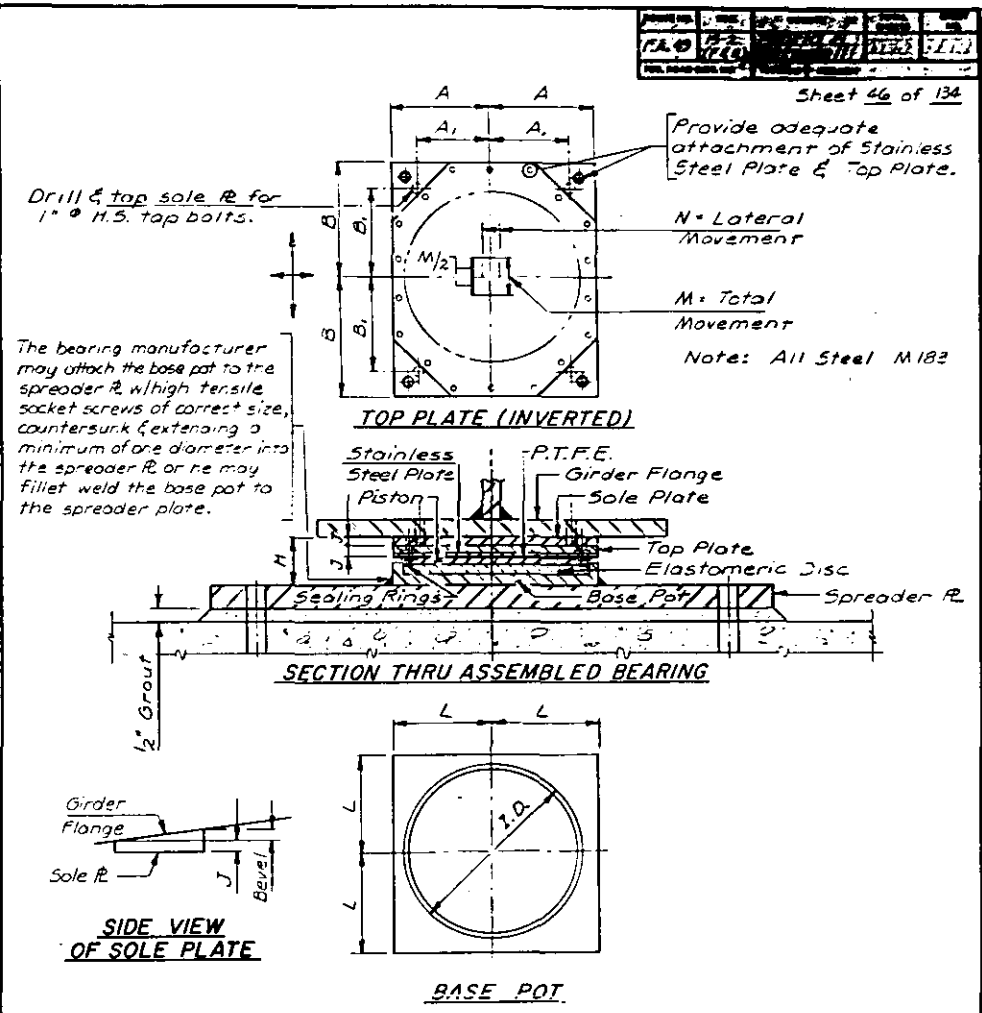
SPREADER PLATE DETAILS



GUIDED EXPANSION FLOATING BEARING TABLE OF DIMENSIONS																
Capacity (Tons)	Location Support Girder	Sole R Bevel	Dimensions								Spreader R			* *		
			A	B	H	J	L	M	ID	E	W	L	A ₁	B ₁		
50	Pier 4*	1, 2, 3, 4	3/8"	5 1/2"	5 1/4"	3"	5 1/4"	8 3/4"	3 1/2"	6"	2 1/2"	7 1/2"	23 1/2"	3 1/2"	3 1/4"	

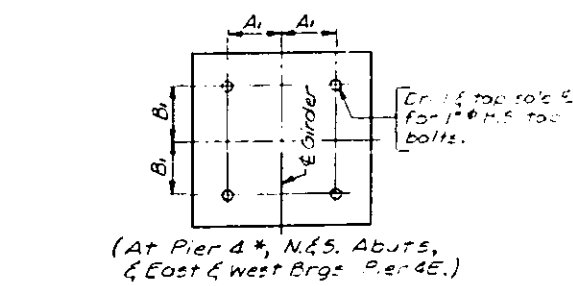
GUIDED EXPANSION FLOATING BEARING

Notes
Bearing manufacturer to provide temporary tie downs to resist uplift (10% of Vertical Capacity) during construction. To be removed after steel has been erected.
** Top bolt hole locations on sole plate.
The bearing manufacturer shall submit shop drawings to the Engineer for approval before proceeding with the fabrication of the bearings.
Bearings shall be placed on a 1/2" thick bed of epoxy quartz sand grout and carefully levelled. No load shall be placed on the bearing until the grout has set and developed a minimum of 80% strength.
* Applies only to Ramp F Bearings.
On the Guided Expansion Floating Bearings provide guide bars and fasteners capable of resisting 35% of vertical capacity at the No. 15a Abut. & 10% of vertical capacity at all other locations.



NON-GUIDED EXPANSION FLOATING BEARING TABLE OF DIMENSIONS																	
Capacity (Tons)	Location	Support	Size of Gravel	Sole # Bevel	Dimensions								Spreader #		* *		
					A	B	H	J	L	M	N	I.D.	L"	W"	L"	A1	B1
175	Per 2E	1	1/4"	5/8"	7 1/8"	7 3/8"	4 1/16"	3 1/4"	6 3/4"	2"	2"	11 1/4"	3"	16"	32 1/2"	5 3/4"	5 3/4"
	Per 2F	1	3/8"														
200	Per 2E	2 & 4	3/4"	3/8"	8"	8"	4 7/16"	7 3/8"	7 1/4"	2"	2"	12 1/16"	3"	16"	32 1/2"	6 1/4"	6 1/4"
	Per 2F	2 & 4	2 1/2"	1/8"													
225	Per 2E	2	1/2"	1/4"	8 3/8"	8 3/8"	4 5/8"	7 3/8"	7 5/8"	2"	2"	12 13/16"	3"	16"	32 1/2"	6 1/2"	6 1/2"
	Per 2F	3		3/8"													

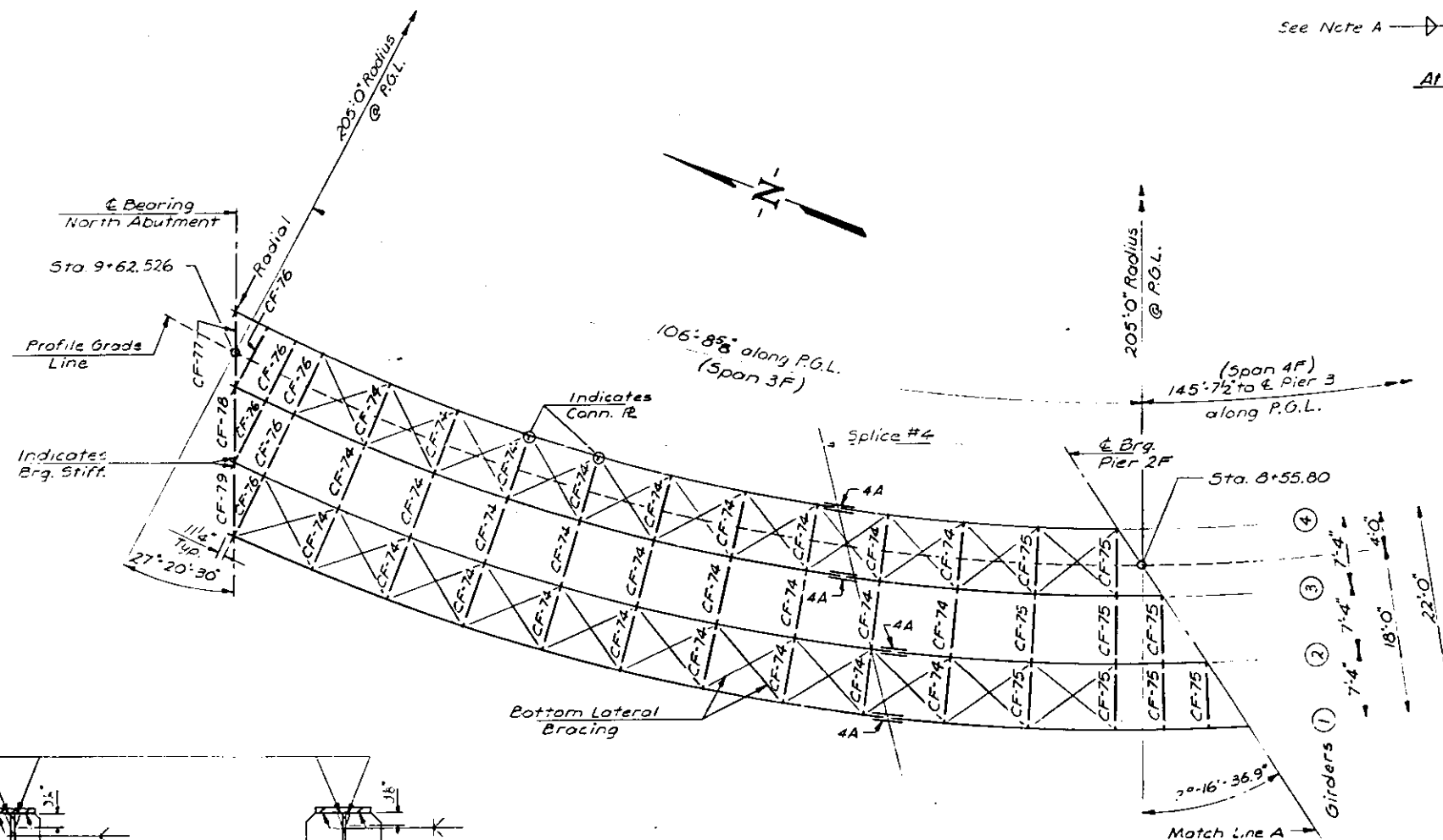
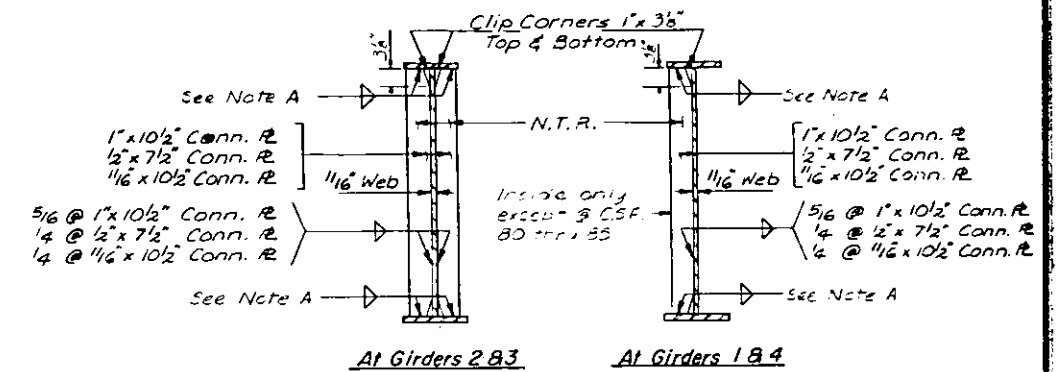
NON-GUIDED EXPANSION FLOATING BEARING



TAP BOLT HOLE LOCATIONS IN SOLE PLATE AT GUIDED EXPANSION FLOATING BEARING

FLOATING BEARINGS
M^cCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15-2(E&E)
PEORIA & TAZEWELL COUNTIES

HANSON ENGINEERS
74001
11-2-79



Note: All dimensions shown are measured horizontally.

Note: See Sheet 52 of 134 for X & Y coordinates for girder layout.

M^C CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.M. ROUTE 49 SEC. 15-2(F&E)
PEORIA & TAZEWELL COUNTIES

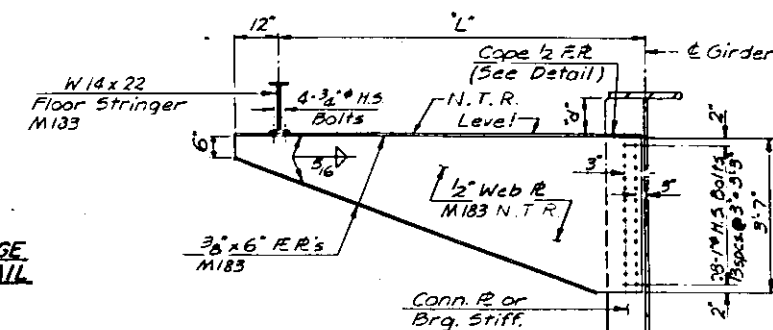
1-2-78 1-2-78 1-2-78 1-2-78	WDL CRN JAN CRN	 HANSON ENGINEERS INCORPORATED	74001 11-2-79
--------------------------------------	--------------------------	---	------------------

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

DESIGN NO.	15-2	PROJECT NO.	15-2
FA. 49	(F&E)	FEORIA & TAZEWELL	
Sheet 48 of 134			

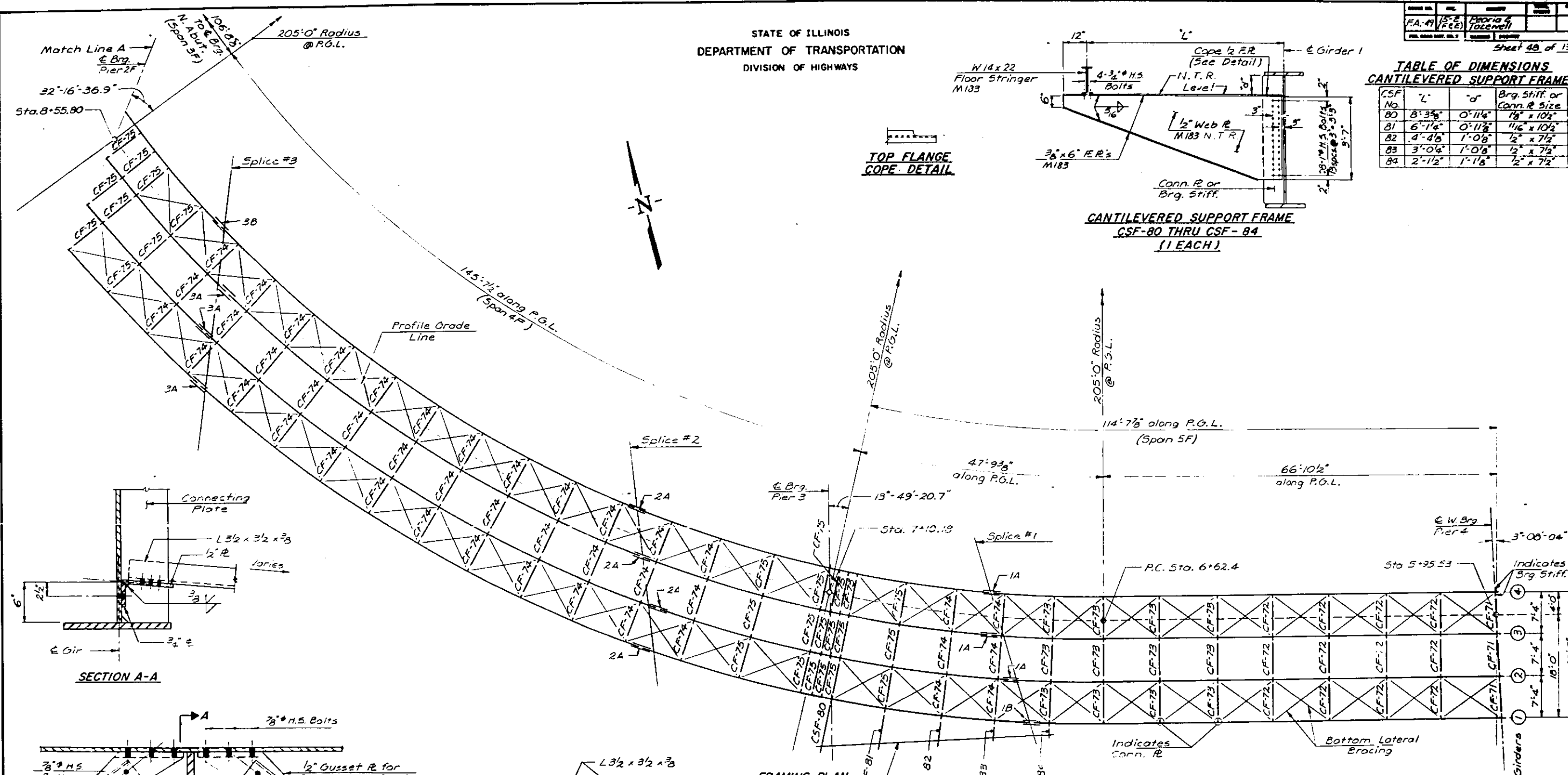
TABLE OF DIMENSIONS
CANTILEVERED SUPPORT FRAMES

CSF No.	L'	d	Brq. Stiff. or Conn. R. Size
80	8'-3 3/8"	0'-11 1/4"	1 1/2" x 10 1/2"
81	6'-11 1/4"	0'-11 1/4"	1 1/2" x 10 1/2"
82	4'-4 1/2"	1'-0 1/8"	1 1/2" x 7 1/2"
83	3'-0 1/4"	1'-0 1/8"	1 1/2" x 7 1/2"
84	2'-1 1/2"	1'-11 1/8"	1 1/2" x 7 1/2"

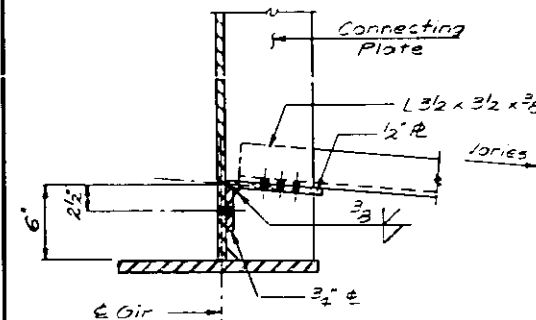


CANTILEVERED SUPPORT FRAME
CSF-80 THRU CSF-84
(1 EACH)

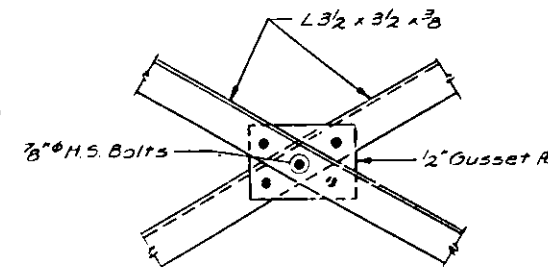
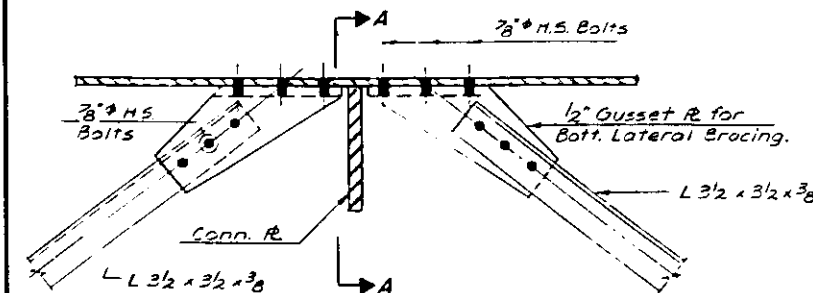
TOP FLANGE
COPE DETAIL



SECTION A-A



PLAN



AT INTERSECTION

Lateral Bracing Angles & Conn. Mat'l.
Shall be AASHTO M183 Steel

BOTTOM LATERAL BRACING DETAILS

FRAMING PLAN
(Spans 4F&5F)

Note: All dimensions shown are
measured horizontally.

Note: See Sheet 52 of 134 for X&Y
coordinates of girder layout.

STRUCTURAL STEEL FRAMING PLAN
RAMP F - SPANS 4F&5F

MCCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15-2 (F&E)
FEORIA & TAZEWELL COUNTIES

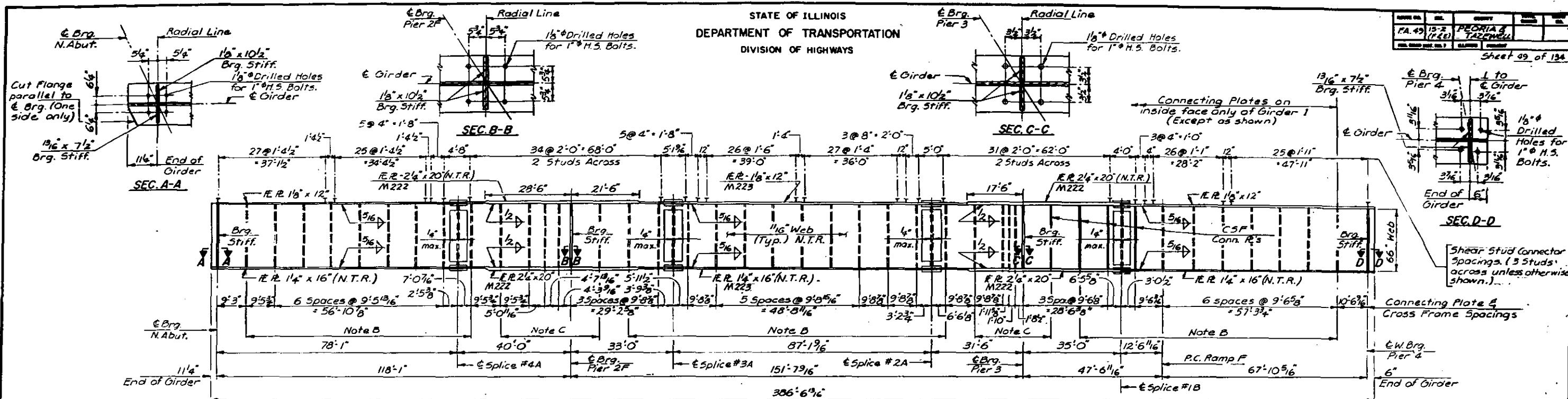
DESIGNED BY: CRM
CHECKED BY: D.A.V.
APPROVED BY: CRM

HANSON ENGINEERS
INCORPORATED
SPRINGFIELD, ILLINOIS

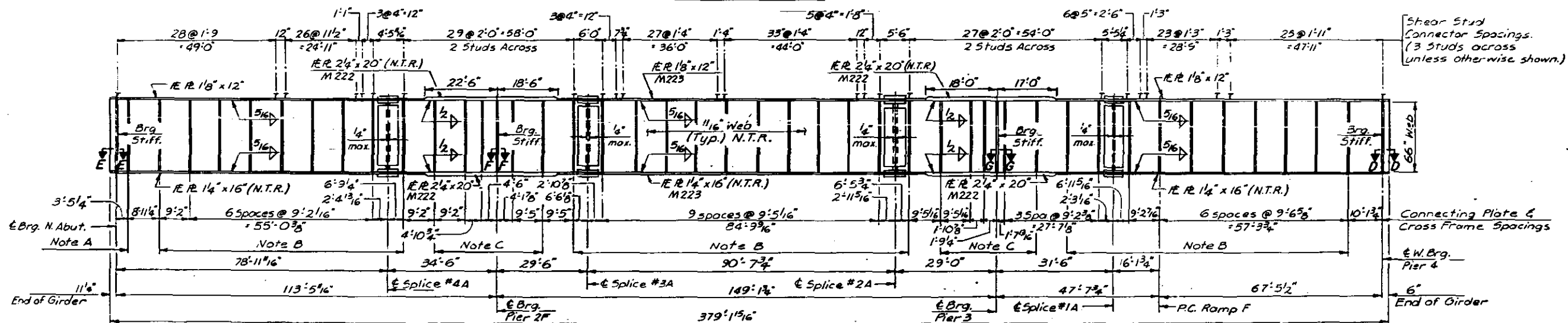
DATE: 11-2-79

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

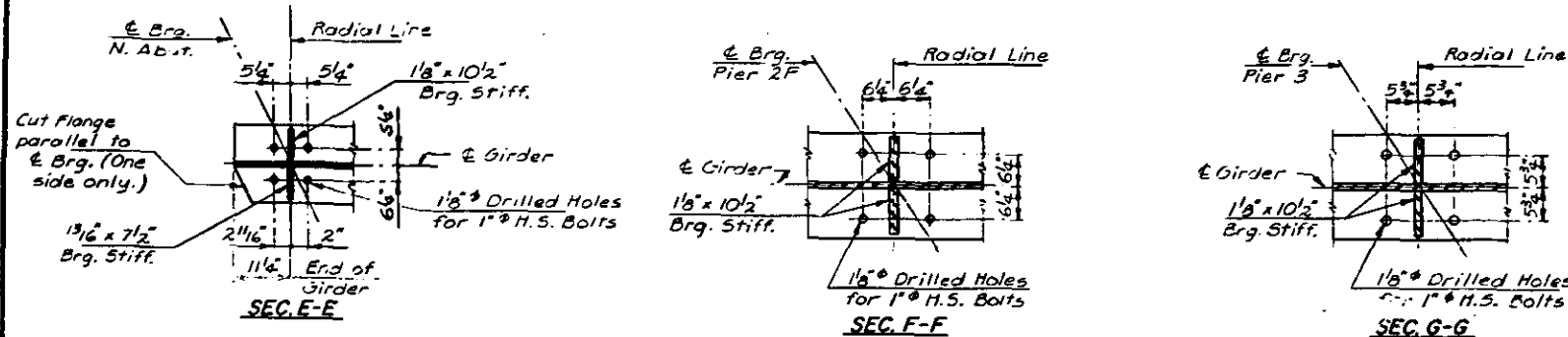
DATE	BY	CHKD	APP'D
FA. 49 (15-2)	PEORIA & TAZEWELL		
Sheet 49 of 134			



ELEVATION-GIRDER 1



ELEVATION-GIRDER 2



Notes

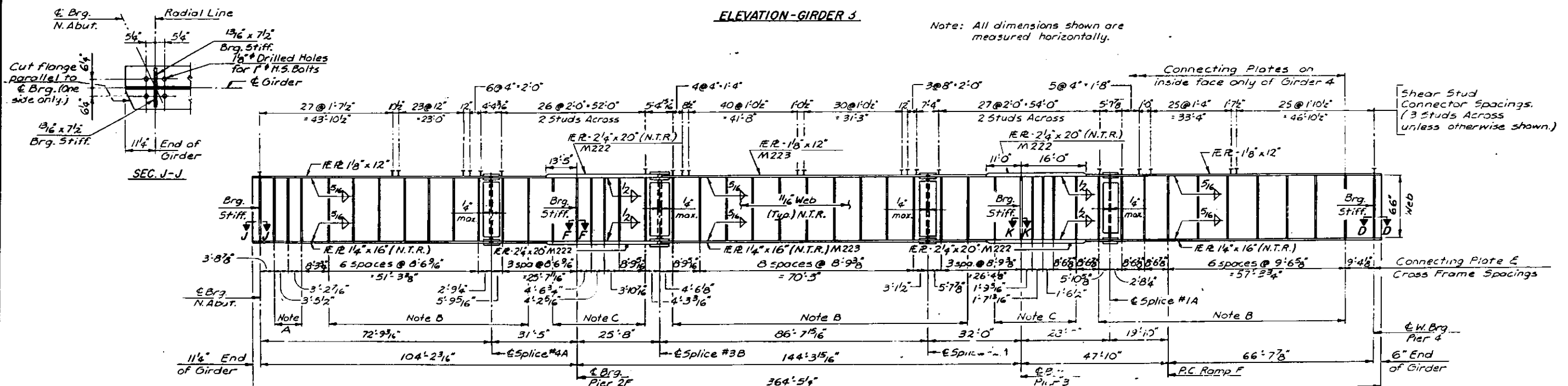
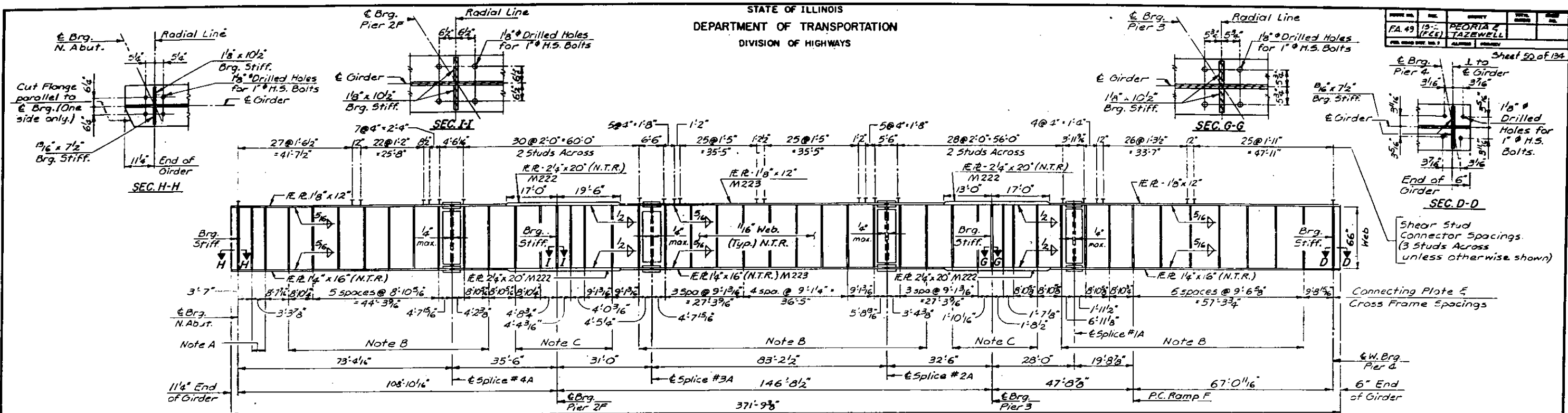
- All dimensions are measured along $\bar{G}$ Girder.
- N.T.R. refers to the Supplemental Requirements for Notch Toughness.
- Note A: $1'' \times 10\frac{1}{2}''$ Connecting Plates.
- Note B: $\frac{1}{2}'' \times 7\frac{1}{2}''$ Connecting Plates.
- Note C: $\frac{1}{16}'' \times 10\frac{1}{2}''$ Connecting Plates.
- Steel Specifications this sheet shall be AASHTO M183 Steel unless otherwise noted.
- All dimensions shown are measured horizontally.

CAMP F - GIRDER DETAILS

M^C CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15-2 (F&E)
PEORIA & TAZEWELL COUNTIES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	DATE	DESIGNED BY	CHECKED BY	DATE
FA 49	12-2	PEORIA & TAZEWELL		
FILE NO. 15-2		ALPINE		



Notes

All dimensions are measured along & Girder.

N.T.R. refers to the Supplemental Requirements for Notch Toughness.

Note A: 1" x 10 1/2" Connecting Plates.

Note B: 1/2" x 7 1/2" Connecting Plates.

Note C: 1/8" x 10 1/2" Connecting Plates.

Steel Specifications this sheet shall be AASHTO M183 Steel unless otherwise noted.

RAMP F - GIRDER DETAILS

M^cCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15-2 (F&E)
PEORIA & TAZEWELL COUNTIES

WDL
CRN
DAN
CRN

HANSON ENGINEERS
INCORPORATED
SPRINGFIELD, ILLINOIS

74001
11-2-79

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Sheet 51 of 134

GIRDER I MOMENT TABLE				
	0.4 Span 3F or Span 5F		Pier 2F or 3F	0.5 Span 4F
I_s (in. ⁴)	53,684		121,316	53,684
I_c N=30 (in. ⁴)	77,988			77,988
I_c N=10 (in. ⁴)	106,923			106,923
S_s (in. ³)	T.F.I. 1,455	B.F.I. 1,706	3,442	T.F.I. 1,455
S_c N=30 (in. ³)	2,657	1,999		2,657
S_c N=10 (in. ³)	5,245	2,228		5,424
Q (K/ft.)	1.06		1.27	1.06
$M Q$ (ft.K)	964	964	2,576	1,103
$f_s Q$ (KSI)	7.95	6.78	8.98	9.10
$f_w Q$ (KSI)	1.48	0.75	1.13	1.85
$S Q$ (K/ft.)	0.20		0.20	0.20
$M S Q$ (ft.K)	204	204	490	257
$f_s S Q$ (KSI)	0.92	1.22	1.71	1.16
$f_w S Q$ (KSI)	0	0.25	0.20	0.31
$M L$ (ft.K)	906	906	1,240	1,072
$M LMP$ (ft.K)	226	226	310	269
$M TOTAL$ (ft.K)	1,132	1,132	1,550	1,341
$f_s L$ (KSI)	2.59	6.10	5.40	3.07
$f_w L$ (KSI)	0	0.92	0.61	0.99
$f_s TOTAL$ (KSI)	11.86	14.1	16.09	13.33
$f_s + f_w TOTAL$ (KSI)	12.94	16.02	18.03	15.18
F_B allowable (KSI)	14.0	20.0	18.20	18.10
$F_B + F_w$ allow. (KSI)	20.0	20.0	26.50	25.9

3 Span (Composite in Positive Moment Areas only.)

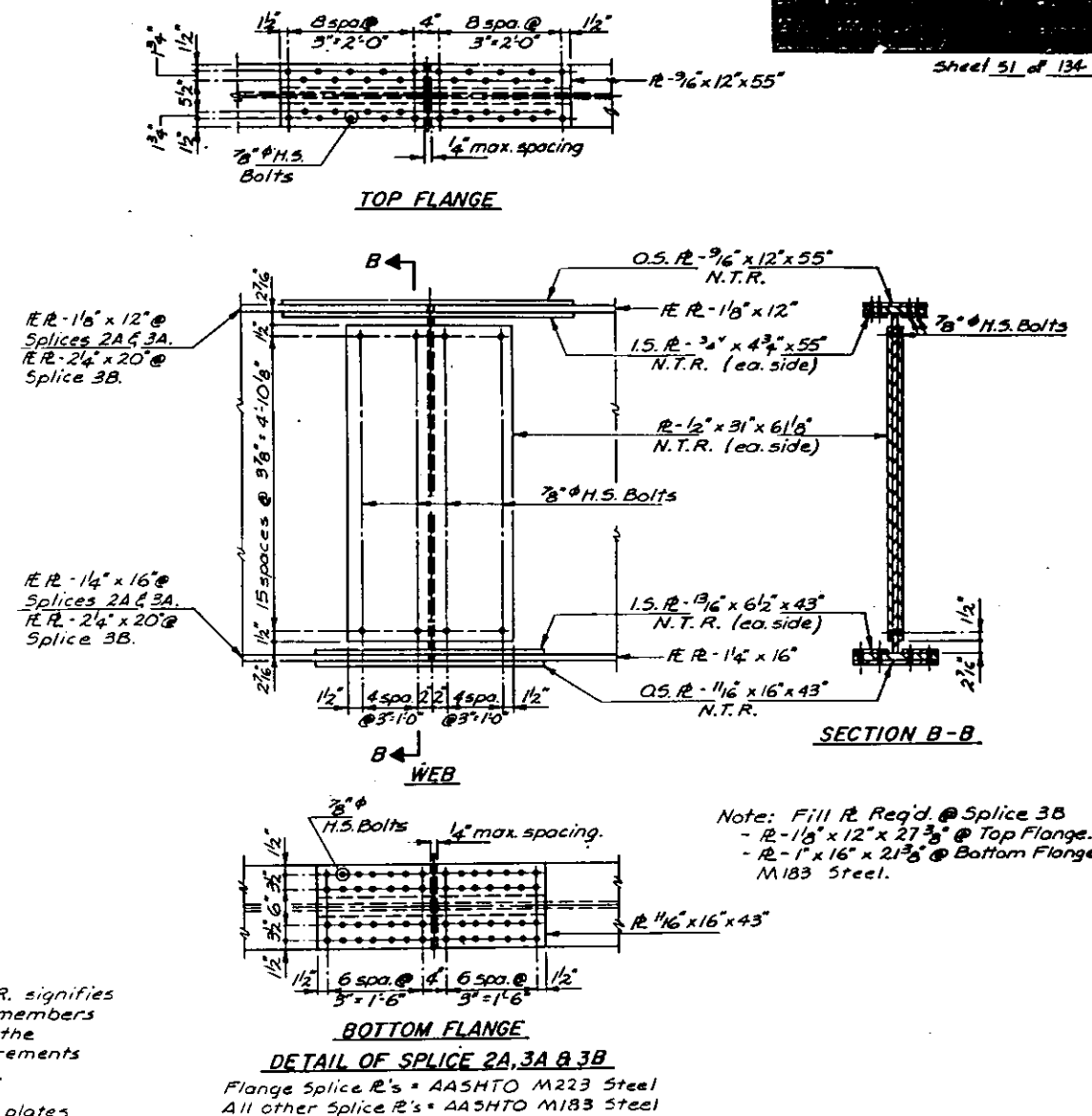
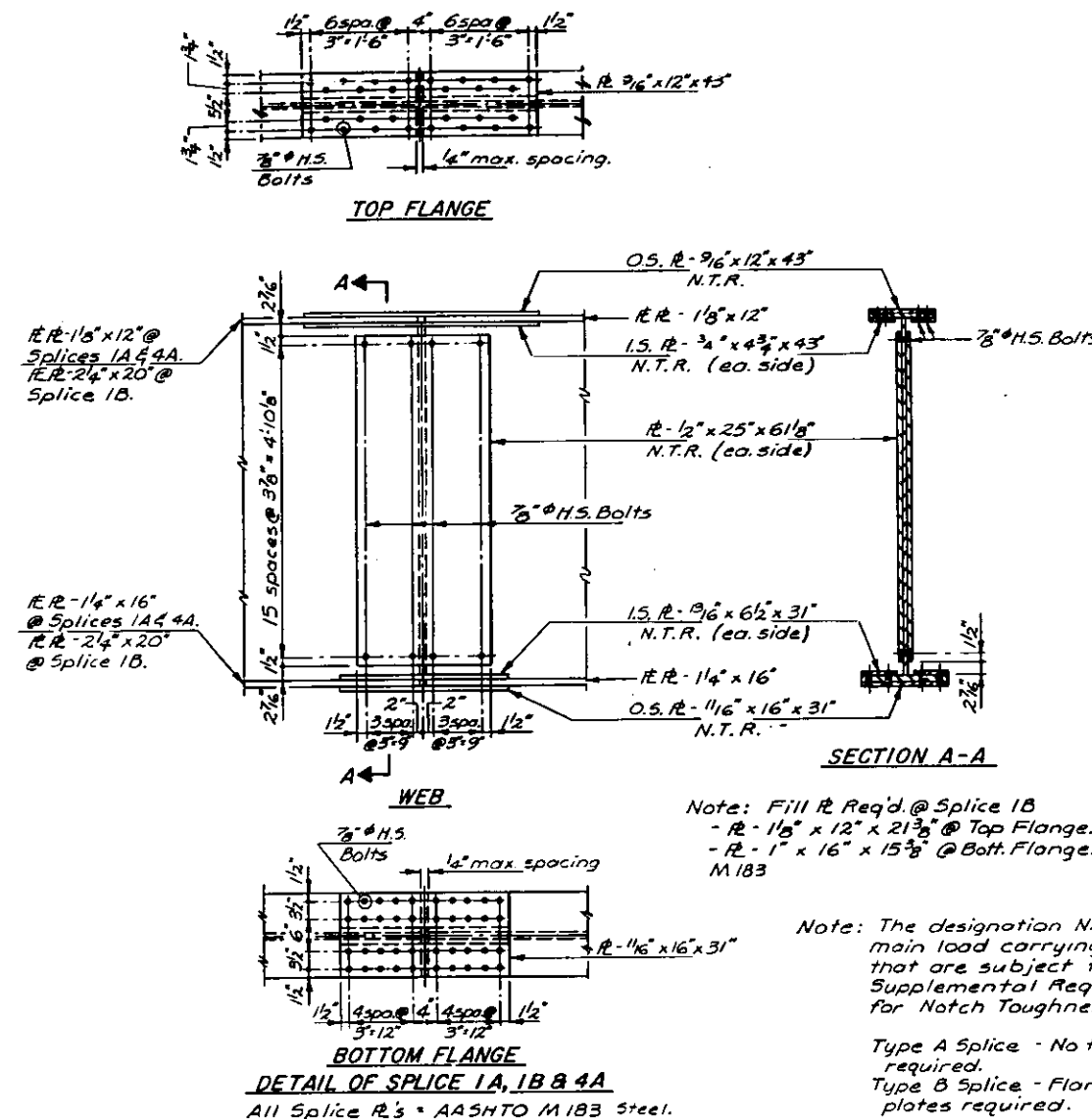
I_s & S_s are the moment of inertia and section modulus of the steel section.

I_c & S_c are the moment of inertia and section modulus of the composite section used in computing f_s , N=30 for Superimposed Q and N=10 for L.

f_w is Normal Stress due to Lateral Flange Bending.

Note: Girder I has largest Moments and is used for Table.

F_B is allowable stress due to bending alone.
 $F_B + F_w$ is allowable stress due to bending and nonuniform torsion (lateral flange bending).



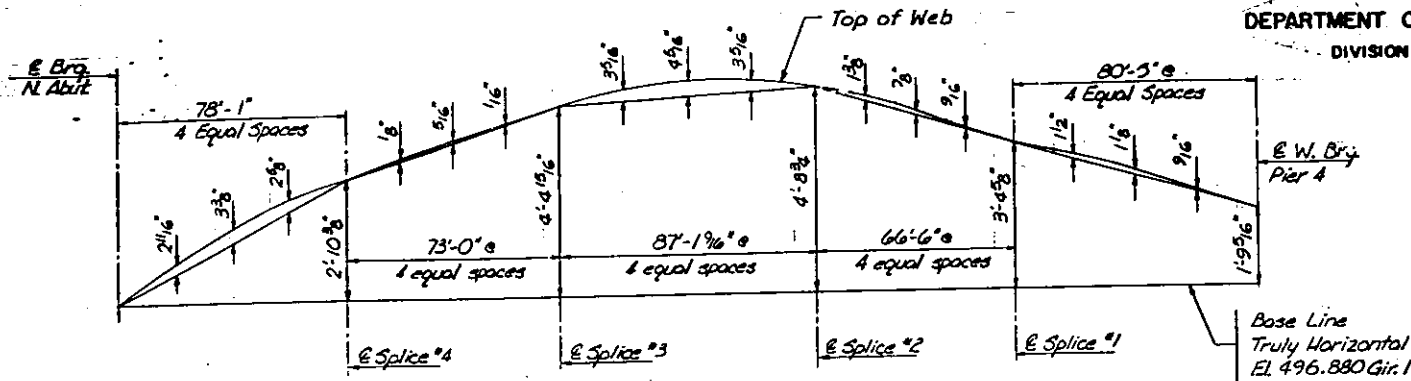
REACTION TABLE																
	N. Abut. Girders				Pier 2F Girders				Pier 3F Girders				Pier 4 (Ramp F Girders only.)			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
R Q (K)	75.3	20.4	15.9	47.2	119.2	178.1	204.4	169.6	64.5	225.5	220.1	156.5	40.1	41.3	43.0	45.5
R S Q (K)	14.5	5.1	3.7	8.6	26.1	29.9	33.6	31.5	12.9	42.9	40.8	25.9	7.9	8.3	8.3	9.2
R L (K)	65.3	23.5	21.8	35.3	138.5	122.2	122.4	142.2	65.1	114.5	109.5	75.6	32.7	31.5	30.1	27.8
R LMP (K)	19.6	7.0	6.5	10.6	41.6	36.6	36.7	42.7	19.5	34.4	32.8	22.7	9.8	9.4	9.0	8.4
R TOTAL (K)	174.7	56.0	47.9	101.7	325.4	366.8	397.1	386.0	162.0	417.3	403.2	280.7	90.5	90.5	90.6	90.9

Reaction and Moment tables are based on a
Load of 25 #/sq.ft. of future C.I.
Surfacing & 94 #/sq.ft. of concrete slab in addition
to the weight of the structural steel.

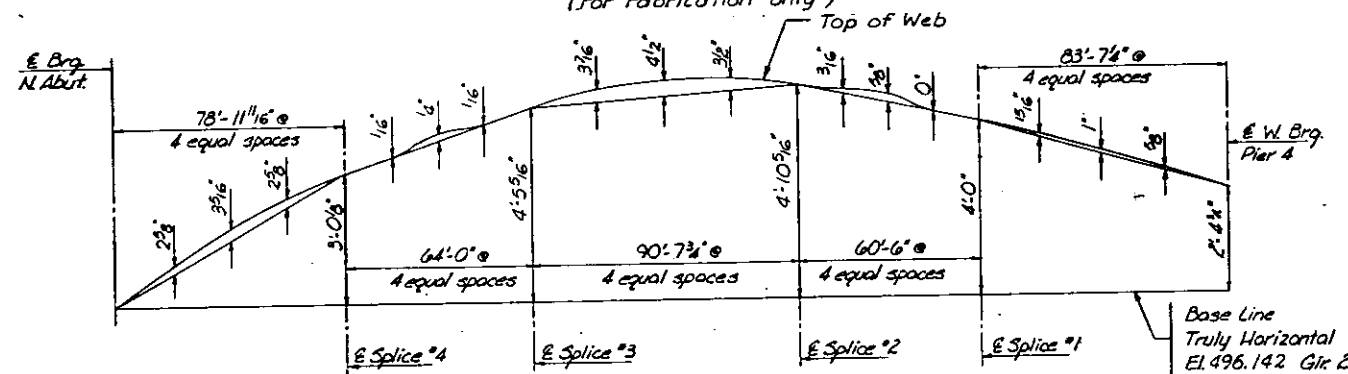
RAMP F
SPLICES, MOMENT & REACTION TABLES
M'CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15-2 (F&E)
PEORIA & TAZEWELL COUNTIES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

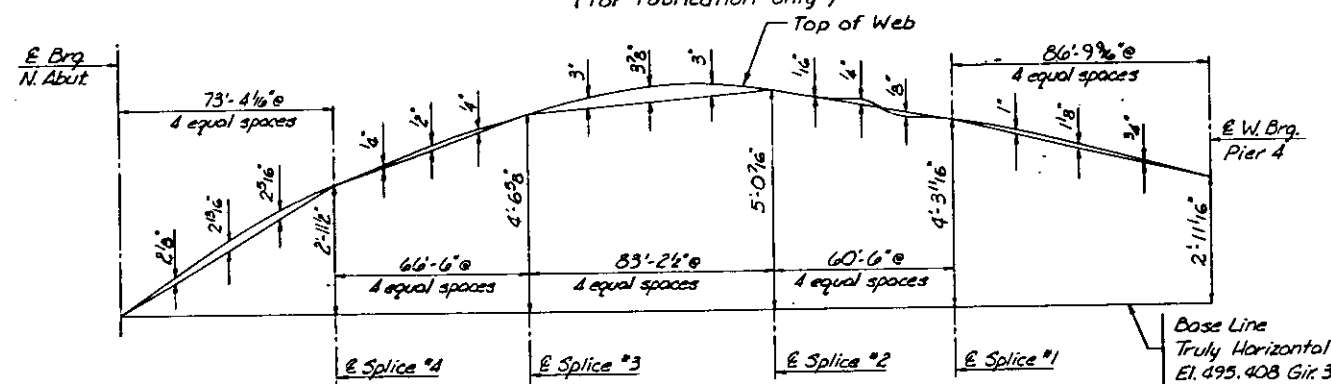
Sheet 52 of 134



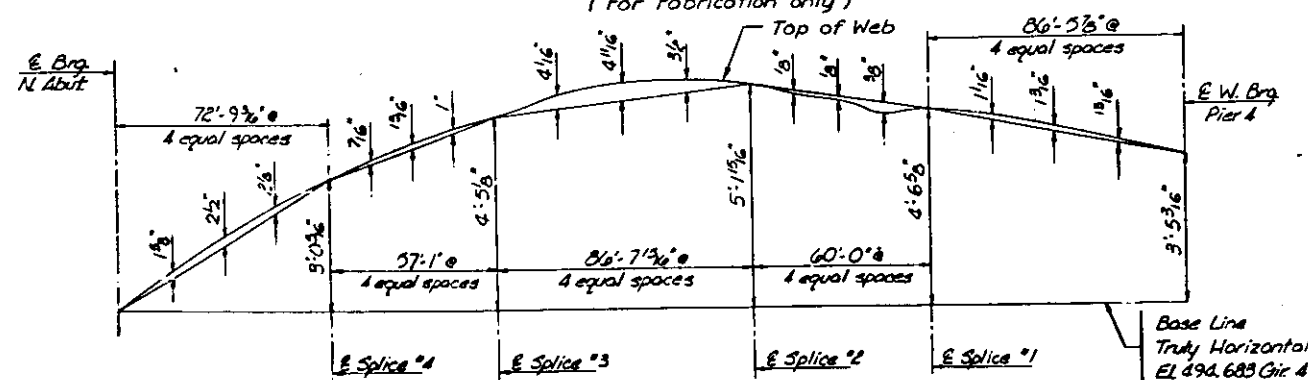
CAMBER DIAGRAM - GIRDER 1
(For Fabrication only)



CAMBER DIAGRAM - GIRDER 2
(For Fabrication only)



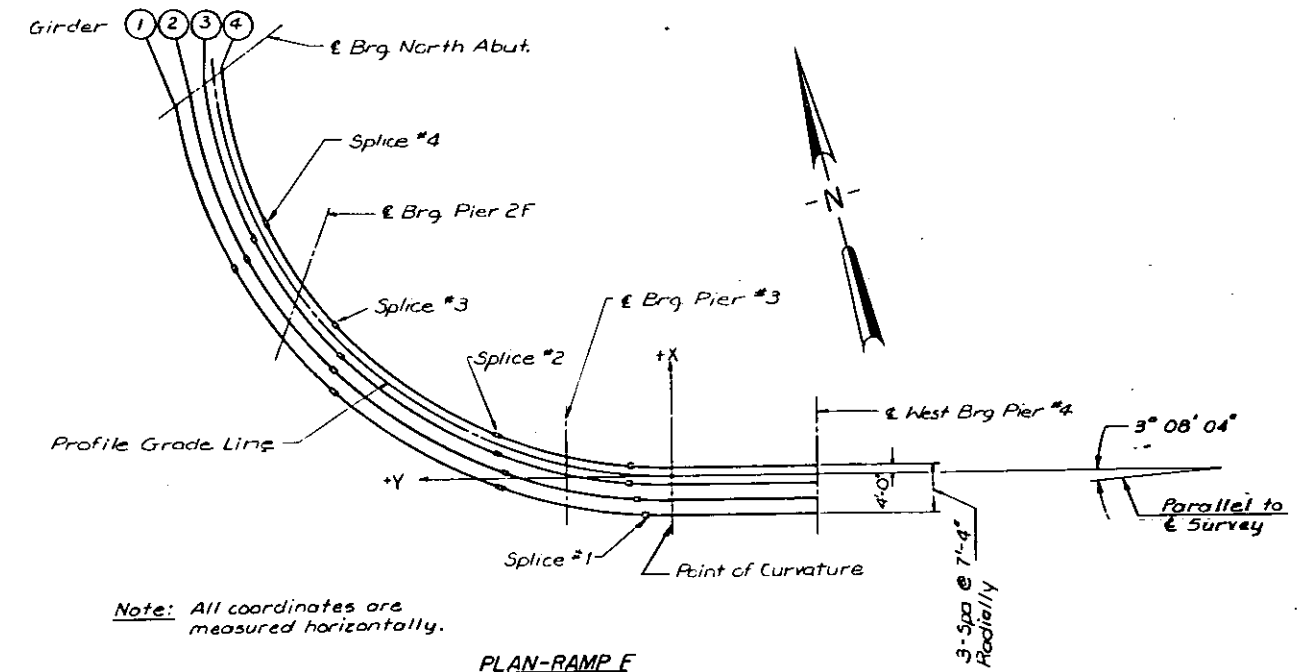
CAMBER DIAGRAM - GIRDER 3
(For Fabrication only)



CAMBER DIAGRAM - GIRDER 4
(For Fabrication only)

TOP OF WEB ELEVATIONS				
Location	Girder 1	Girder 2	Girder 3	Girder 4
N. Abut. Brg.	496.880	496.142	495.408	494.683
Splice #1	499.745	499.152	498.366	497.709
Pier 2F Brg.	500.610	499.937	499.253	498.555
Splice #3	501.292	500.585	499.960	499.110
Splice #2	501.609	501.001	500.445	499.845
Pier 3 Brg.	501.037	500.634	500.069	499.503
Splice #1	500.265	500.142	499.715	499.235
Pier 4, W. Brg.	498.656	498.537	498.328	498.116

Note: Elevations include camber for Dead Load deflection and are for fabrication only.



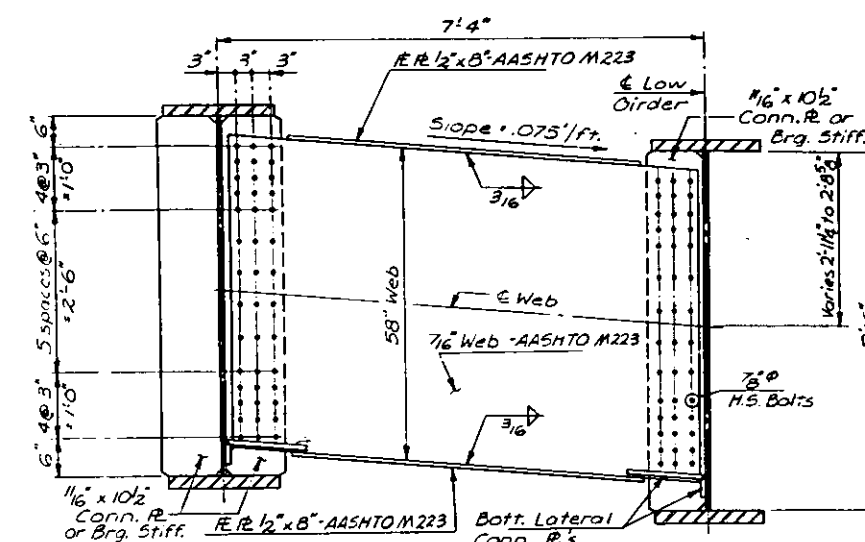
PLAN-RAMP F

TABLE OF COORDINATES								
Location	Girder 1		Girder 2		Girder 3		Girder 4	
	X	Y	X	Y	X	Y	X	Y
Pl. of Curvature	-18.000	0.000	-10.667	0.000	-3.333	0.000	1.000	0.000
Splice #1	-17.647	12.550	-10.063	16.130	-2.399	19.707	4.978	19.800
E Brg. Pier 3	-12.948	47.197	-5.425	47.259	2.112	47.320	9.665	47.382
Splice #2	-4.133	77.411	2.810	75.042	11.928	78.260	19.646	77.750
Splice #3	41.107	151.224	51.027	151.011	57.560	147.187	69.104	148.099
E Brg. Pier 2F	65.197	173.334	3.357	170.596	81.010	167.419	89.070	164.199
Splice #4	98.237	115.091	101.915	109.435	111.196	186.020	116.044	180.244
E Brg. N. Abut.	72.074	220.559	17.2571	213.785	101.084	206.956	185.438	200.065

RAMP F - CAMBER DIAGRAMS

M⁴ CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49
PEORIA & TAZEWELL COUNTIES

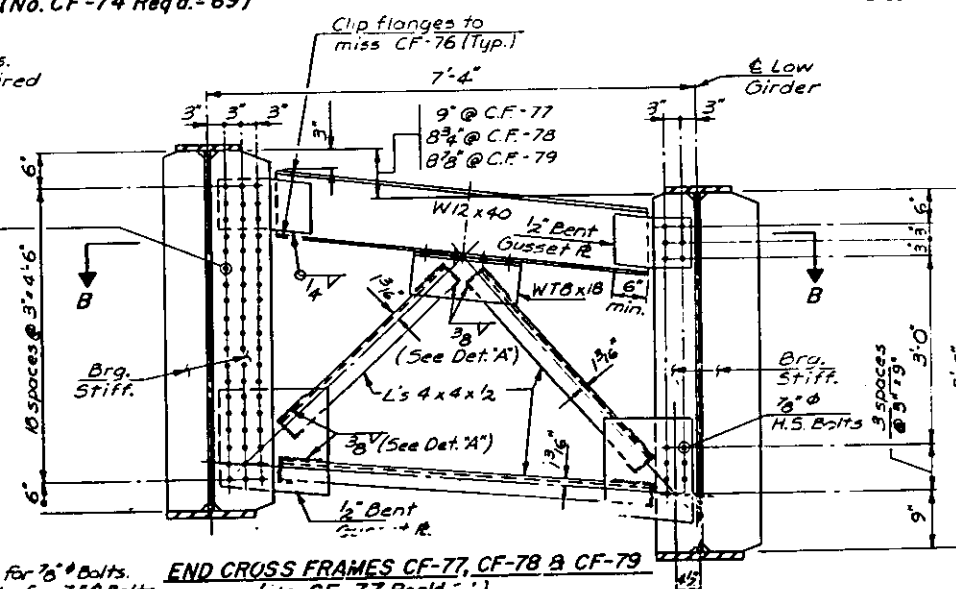




INTERIOR CROSS FRAME CF-75
(No. Req'd. = 36)

Note: 1" ϕ Holes in R Gir. Web for 7/8" ϕ Bolts.
1 1/16" ϕ Holes in Conn. R's for 7/8" ϕ Bolts.
Hardened washers shall be required over
holes in conn. R's.

Clip flanges to
miss CF-76 (Typ.)



Note: See sheets 47 & 48 of 134 for location of Bottom Lateral Bracing & the connection details.

Again Sta. 5+74.4 (.02'/ft.) to Sta. 7+06.40
(.08'/ft.)
Fill Sta. 7+06.40 to Sta. 9+47.51 (.08'/ft.)
Remove Sta. 9+47.51 (.03'/ft.) to Sta. 10+79.51
(.02'/ft.)

Cross Frames - AA5HTO M183
Bolts - AA5HTO M164
(Unless otherwise noted)

(No. CF-79 Req'd.=1)

- 33'-0" @ C.F.-77
- 24'-5" @ C.F.-70
- 19'-4" @ C.F.-79
- 6'-0" @ C.F.-77
- 6'-7" @ C.F.-70
- 6'-6" @ C.F.-79
- Back of L or W12 web
- 1/2" Bent Gusset P.
- W.P.
- Brg. Striff.
- High Girder
- C.F. Spacing
- Air Web
- Conn. R.
- 11"
- SECTION B-B**

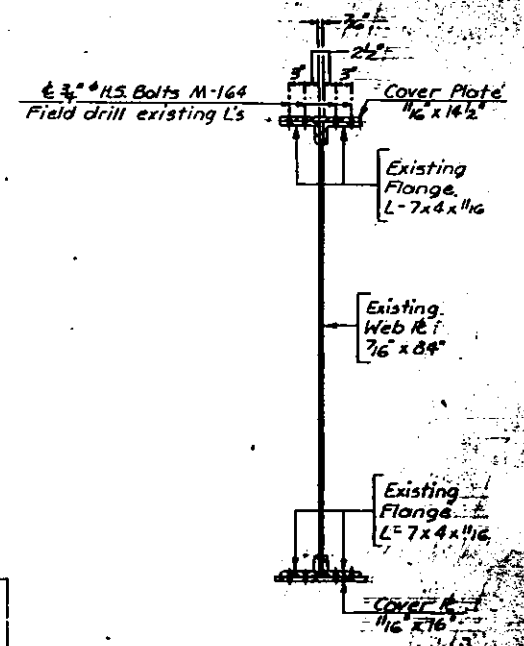
M^cCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15-2 (FBE)
PEORIA & TAZEWELL COUNTIES



7400

REPORT NO.	REV.	DATE	BY
DC-49	1-2	1-2-68	1-2-68
FED. BUREAU OF INVESTIGATION		U.S. DEPARTMENT OF JUSTICE	

Sheet 03 of 194



SECTION A-A
TYPICAL - SPAN 4 - GIRDERS 1203

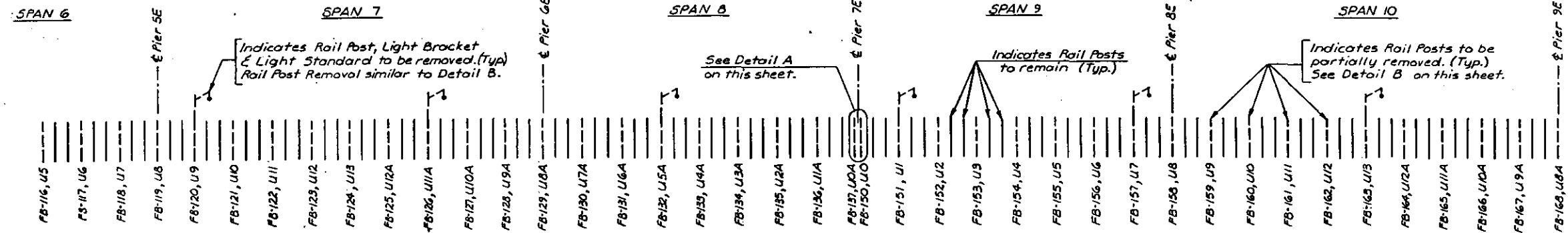
THIS SHEET IS NOT INCLUDED IN THIS CONTRACT.

M^cCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15-21(F&E)
PEORIA & TAZEWELL COUNTIES

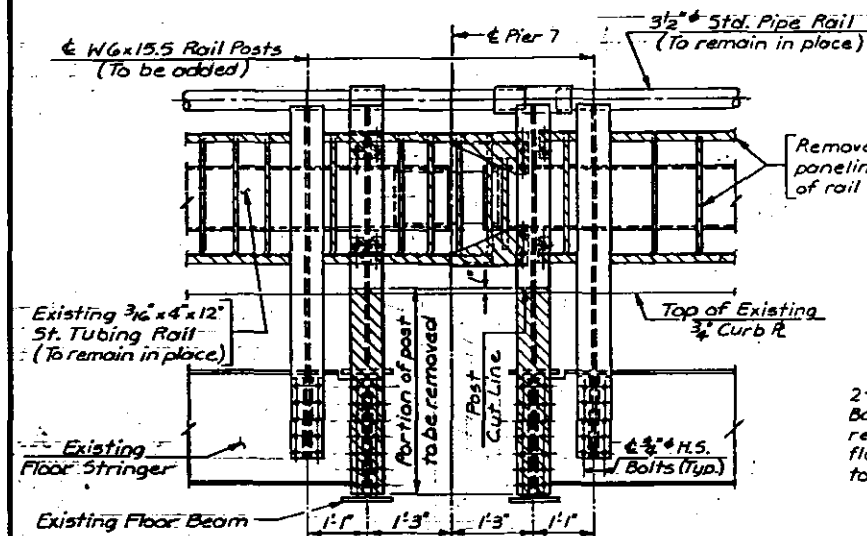
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	FA-49	FILE NO.	15-2	DATE	11-2-59
CONTRACT NO.	15-2	SECTION	15-2(F&E)	DATE	11-2-59
DESIGNED BY	CRN	CHECKED BY	SCD	DATE	11-2-59
APPROVED BY	CRN	DATE	11-2-59		

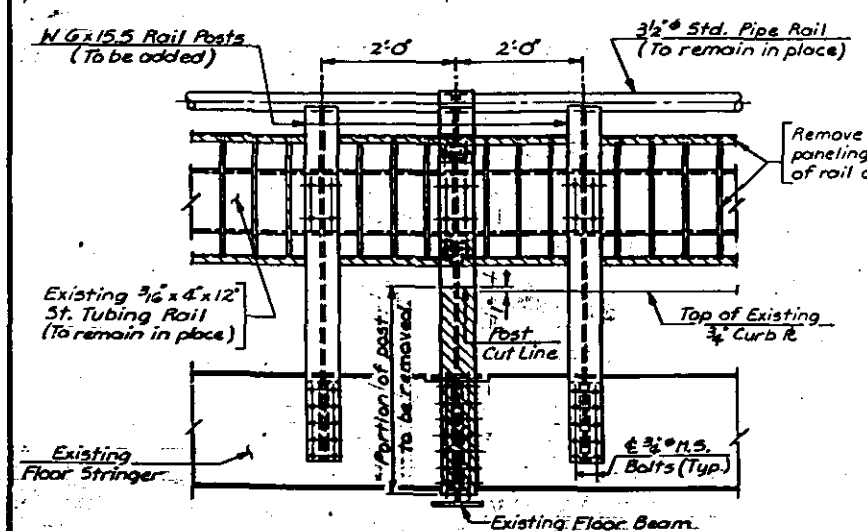
Sheet 84 of 194



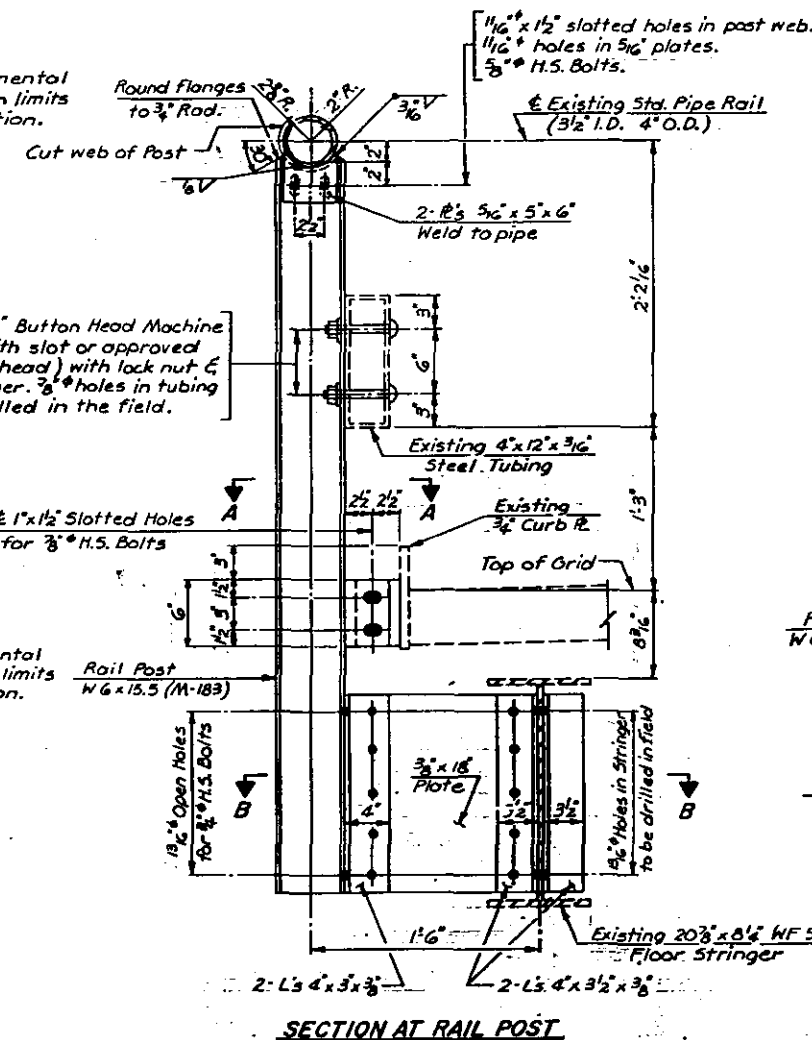
SCHEMATIC OF EXISTING RAIL TO BE ALTERED



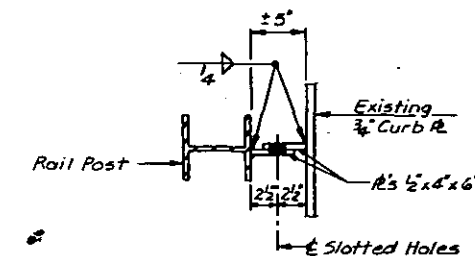
DETAIL A



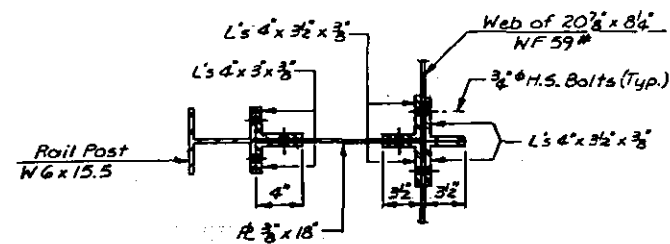
DETAIL B



SECTION AT RAIL POST



SECTION A-A



SECTION B-B

REPLACEMENT HANDRAIL POST CONNECTION

RAIL ALTERATION

- 117 - Ornamental Rail Panels 8'-6" long to be removed.
- 1 - Ornamental Rail Panel 2'-6" long to be removed.
- 35 - Rail Posts to be partially removed.
- 6 - Combination Rail Posts, Light Standard Brackets & Light Standards to be removed.
- 80 - New Rail Posts to be added.

EXISTING RAIL ALTERATIONS

McCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15-2(F&E)
PEORIA & TAZEWELL COUNTIES

CRN	SCD	DATE	11-2-59
CRN	SCD	DATE	11-2-59
CRN	SCD	DATE	11-2-59

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FA-49	15-D	PEORIA & TAZEWELL		
FOR ROAD DIST. NO. 1	ALABAMA	PROJECT		

Sheet 85 of 134

	STATION	GIRDER 1 ELEV. A	ELEV. B	STATION	GIRDER 2 ELEV. A	ELEV. B	STATION	GIRDER 3 ELEV. A	ELEV. B	STATION	GIRDER 4 ELEV. A	ELEV. B
E Bearing West Abutment	199+09.005	507.125	507.125	199+08.250	506.830	506.830	199+07.492	506.535	506.535	199+06.728	506.240	506.240
q	199+18.838	506.817	506.829	199+18.112	506.522	506.534	199+17.382	506.226	506.238	199+16.647	505.938	505.942
d	199+28.677	506.511	506.531	199+27.980	506.215	506.235	199+27.278	505.918	505.938	199+26.572	505.622	505.642
c	199+38.522	506.206	506.224	199+37.853	505.909	505.927	199+37.180	505.611	505.629	199+36.503	505.314	505.332
West Bearing Pier 2	199+48.372	505.902	505.912	199+47.732	505.604	505.614	199+47.087	505.316	505.336	199+46.440	505.007	505.017
	199+56.092	505.665	505.665	199+55.474	505.366	505.366	199+54.852	505.067	505.067	199+54.227	504.768	504.768

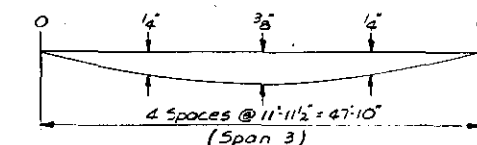
	STATION	GIRDER 1 ELEV. A	ELEV. B	STATION	GIRDER 2 ELEV. A	ELEV. B	STATION	GIRDER 3 ELEV. A	ELEV. B	STATION	GIRDER 4 ELEV. A	ELEV. B
E East Bearing Pier 2	199+57.896	505.610	505.610	199+57.283	505.310	505.310	199+56.667	505.011	505.011	199+56.047	504.713	504.713
e	199+67.756	505.308	505.359	199+67.172	505.008	505.039	199+66.585	504.709	504.739	199+65.994	504.408	504.439
f	199+77.621	505.007	505.104	199+77.066	504.707	504.766	199+76.507	504.405	504.464	199+75.945	504.105	504.164
g	199+87.491	504.708	504.840	199+86.964	504.407	504.484	199+86.434	504.105	504.184	199+85.901	503.803	503.882
h	200+07.242	504.410	504.566	199+96.866	504.108	504.200	199+96.366	503.805	503.897	199+95.862	503.502	503.594
i	200+17.124	504.113	504.278	200+06.773	503.809	503.903	200+06.301	503.506	503.600	200+05.826	503.203	503.297
j	200+27.009	503.817	503.977	200+16.684	503.513	503.601	200+16.241	503.209	503.297	200+15.795	502.904	502.992
k	200+36.898	503.522	503.665	200+26.598	503.218	503.293	200+26.184	502.912	502.987	200+25.743	502.607	502.682
l	200+46.789	503.230	503.345	200+36.515	502.923	502.978	200+36.130	502.617	502.672	200+35.745	502.311	502.366
m	200+56.684	502.937	503.018	200+46.436	502.630	502.684	200+46.080	502.323	502.357	200+45.722	502.016	502.050
n	200+66.581	502.646	502.692	200+56.359	502.333	502.353	200+56.032	502.030	502.045	200+55.704	501.722	501.737
o		502.215	502.232	200+66.285	502.047	502.050	200+65.988	501.739	501.742	200+65.688	501.430	501.433
E Bearing Pier 3	200+77.308	501.867	501.867	200+76.575	501.747	501.747	200+75.915	501.450	501.450	200+75.252	501.151	501.151
p	200+87.135	501.607	501.595	200+86.506	501.459	501.464	200+85.875	501.165	501.165	200+85.241	500.862	500.867
q	200+97.039	501.362	501.348	200+96.438	501.185	501.203	200+95.837	500.883	500.901	200+95.232	500.582	500.600
r	201+06.944	501.140	501.134	201+06.373	500.934	500.972	201+05.801	500.631	500.669	201+05.225	500.327	500.365
s	201+16.844	500.927	500.934	201+16.306	500.703	500.763	201+15.766	500.402	500.462	201+15.220	500.096	500.156
t	201+26.746	500.687	500.708	201+26.241	500.431	500.509	201+25.732	500.154	500.232	201+25.215	499.866	499.944
u	201+36.651	500.451	500.484	201+36.178	500.177	500.267	201+35.700	499.922	500.012	201+35.212	499.653	499.743
v	201+46.559	500.229	500.269	201+46.116	499.947	500.042	201+45.668	499.715	499.810	201+45.210	499.466	499.561
w	201+56.469	500.022	500.064	201+56.056	499.744	499.834	201+55.636	499.532	499.622	201+55.208	499.303	499.393
x	201+66.381	499.825	499.863	201+65.997	499.563	499.639	201+65.606	499.374	499.450	201+65.206	499.163	499.239
y	201+73.508	499.637	499.665	201+73.131	499.409	499.463	201+72.740	499.239	499.293	201+72.346	499.049	499.103
z	201+83.505	499.459	499.472	201+83.150	499.279	499.304	201+82.740	499.127	499.152	201+82.346	498.957	498.982
West Bearing Pier 4	201+88.770	499.369	499.369	201+88.770	499.213	499.213	201+88.770	499.070	499.070	201+88.770	498.910	498.910

	STATION	GIRDER 5 ELEV. A	ELEV. B	STATION	GIRDER 6 ELEV. A	ELEV. B	STATION	GIRDER 7 ELEV. A	ELEV. B	STATION	GIRDER 8 ELEV. A	ELEV. B
E Bearing West Abutment	199+05.961	505.946	505.946	199+05.188	505.652	505.652	199+04.412	505.358	505.358	199+03.630	505.009	505.009
a	199+15.908	505.635	505.647	199+15.165	505.340	505.352	199+12.418	505.045	505.056	199+13.666	503.621	503.632
b	199+25.862	505.325	505.345	199+25.148	505.029	505.049	199+24.430	504.738	504.758	199+23.708	503.341	503.359
c	199+35.822	505.017	505.035	199+35.137	504.720	504.738	199+34.449	504.421	504.439	199+33.756	503.067	503.084
West Bearing Pier 2	199+45.788	504.709	504.719	199+45.132	504.411	504.421	199+44.473	504.105	504.115	199+43.809	503.797	503.806
	199+55.598	504.468	504.468	199+52.965	504.171	504.171	199+52.329	503.823	503.823	199+51.688	503.588	503.588

	STATION	GIRDER 5 ELEV. A	ELEV. B	STATION	GIRDER 6 ELEV. A	ELEV. B	STATION	GIRDER 7 ELEV. A	ELEV. B	STATION	GIRDER 8 ELEV. A	ELEV. B
E East Bearing Pier 2	199+55.423	504.413	504.413	199+54.796	504.115	504.115	199+54.165	503.811	503.811	199+53.530	503.520	503.520
e	199+65.399	504.108	504.139	199+64.801	503.809	503.831	199+64.200	503.515	503.537	199+63.594	503.239	503.261
f	199+75.380	503.804	503.863	199+74.811	503.504	503.545	199+74.239	503.210	503.251	199+73.664	502.944	502.985
g	199+85.365	503.501	503.580	199+84.826	503.199	503.254	199+84.283	502.905	502.960	199+83.738	502.639	502.694
h	199+95.355	503.200	503.292	199+94.845	502.897	502.961	199+94.332	502.610	502.675	199+93.816	502.374	502.439
i	200+05.349	502.993	503.086	200+04.868	502.596	502.662	200+04.385	502.300	502.365	200+03.899	502.079	502.144
j	200+15.347	502.699	502.792	200+14.896	502.296	502.358	200+14.442	502.000	502.062	200+13.986	501.784	501.846
k	200+25.348	502.402	502.495	200+24.927	501.996	502.058	200+24.505	501.710	501.772	200+24.077	501.516	501.578
l	200+35.354	502.105	502.198	200+34.962	501.699	501.761	200+34.568	501.428	501.490	200+34.171	501.220	501.282
m	200+45.362	501.810	501.903	200+45.000	501.403	501.465	200+44.636	501.137	501.200	200+44.269	500.957	501.019
n	200+55.373	501.514	501.607	200+55.041	501.105	501.167	200+54.706	500.841	500.903	200+54.370	500.667	500.729
o	200+65.387	501.221	501.314	200+65.084	500.812	500.874	200+64.780	500.527	500.589	200+64.473	500.252	500.314
E Bearing Pier 3	200+74.584	500.924	500.986	200+73.913	500.552	500.614	200+73.238	500.261	500.323	200+72.558	500.000	500.062
p	200+84.603	500.631	500.693	200+83.961	500.260	500.322	200+83.316	500.000	500.062	200+82.666	500.237	500.299
q	200+94.624	500.338	500.399	200+94.012	499.977	500.039	200+93.396	499.715	499.777	200+92.776	500.065	500.127
r	201+04.646	500.044	500.106	201+04.064	499.718	499.780	201+03.478	499.453	499.515	201+02.888	499.190	499.252
s	201+14.670	499.751	499.813	201+14.117	499.485	499.547	201+13.561	499.219	499.281	201+13.002	498.967	499.029
t	201+24.695	499.457	499.519	201+24.172	499.281	499.343	201+23.646	499.000	499.062	201+23.117	498.733	498.795
u	201+34.722	499.162	499.224	201+34.228	499.007	499.069	201+33.732	498.733	498.795	201+33.233	498.467	498.529
v	201+44.749	498.867	498.929	201+44.285	498.712	498.774	201+43.819	498.447	498.509	201+43.350	498.181	498.243
w	201+54.776	498.572	498.634	201+54.343	498.417	498.479	201+53.906	498.152	498.214	201+53.467	497.915	497.977
x	201+64.804	498.277	498.339	201+64.400	498.122	498.184	201+63.994	497.887	497.949	201+63.585	497.648	497.710
y	201+74.832	497.982	498.044	201+74.358	497.827	497.889	201+73.954	497.592	497.654	201+73.545	497.357	497.419
z	201+84.860	497.687	497.749	201+84.386	497.532	497.594	201+83.984	497.297	497.359	201+83.575	497.062	497.124
West Bearing Pier 4	201+88.770	498.415	498.415	201+88.770	498.213	498.213	201+88.770	498.021	498.021	201+88.770	497.829	497.829

ELEVATIONS - TOP OF CONCRETE

ELEV A - THEORETICAL GRADE ELEVATIONS
ELEV B - THEORETICAL GRADE ELEVATIONS ADJUSTED
FOR DEAD LOAD DEFLECTION



DEAD LOAD DEFLECTION DIAGRAM
(SPAN 3)

(Includes weight of concrete slab)

Note: The above deflections are not to be used in the field if the Engineer is working from the grade elevations adjusted for dead load deflection (Elev. B) as shown in "Elevations - Top of Concrete" table.

NOTES:

See Sheet B of for Dead Load Deflection Diagrams for Spans 4 & 5.

See Sheet B of for Diagrammatic Plan of Top of Slab Elevations for Spans 3, 4 & 5.

See Sheet 68 of for Method of Determining Fillet Heights.

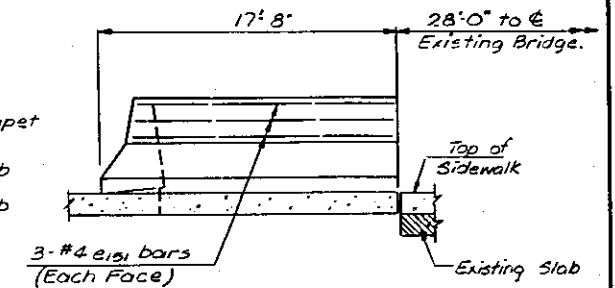
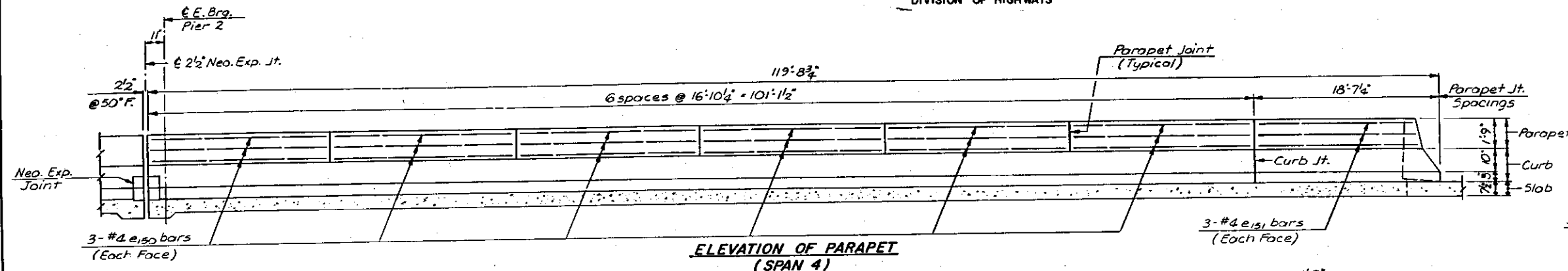
TOP OF SLAB ELEVATIONS
SPANS 3, 4 & 5

M^cCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15-D
PEORIA & TAZEWELL COUNTIES

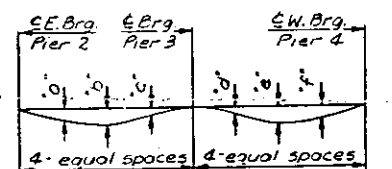
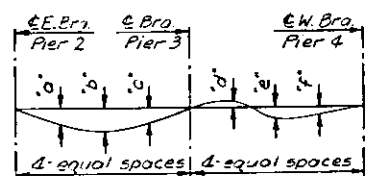
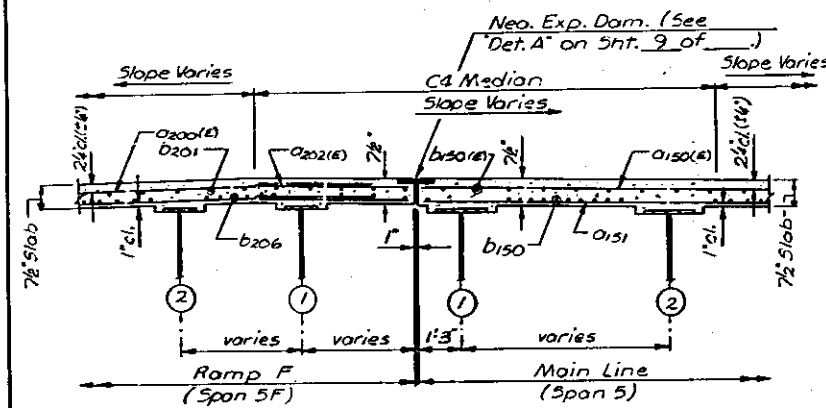
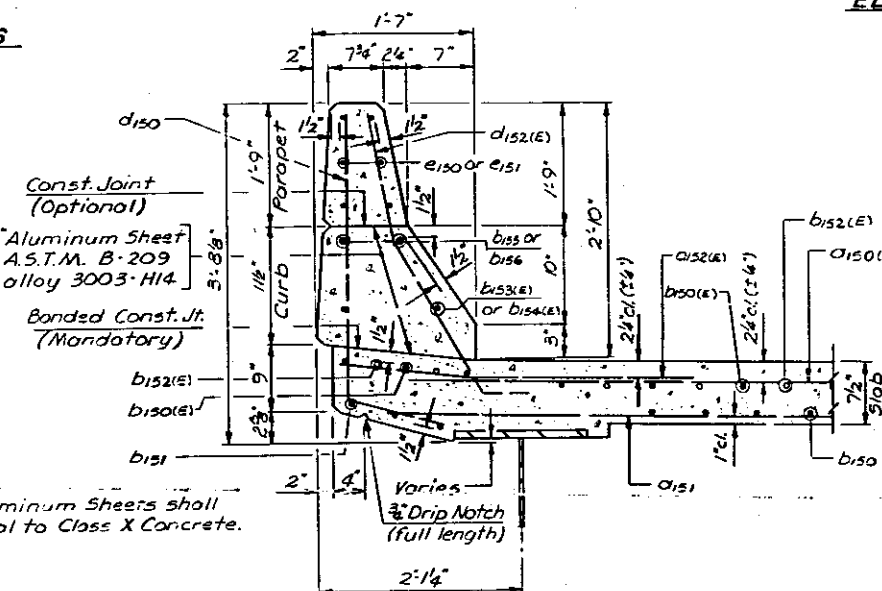
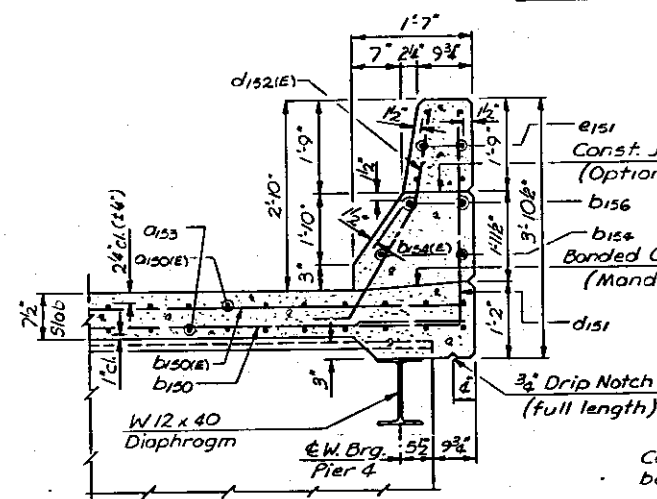
DESIGNED BY S.C.Q.	CHECKED BY W.D.L.	DATE 11-2-79
DESIGNED BY D.A.N.	CHECKED BY W.D.L.	DATE 11-2-79
HANSON ENGINEERS INCORPORATED SPRINGFIELD, ILLINOIS		74001

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

ROUTE NO. 49
SEC. 15-D
COUNTY PEORIA & TAZEWELL
SHEET NO. 86 OF 134



PARAPET DETAILS

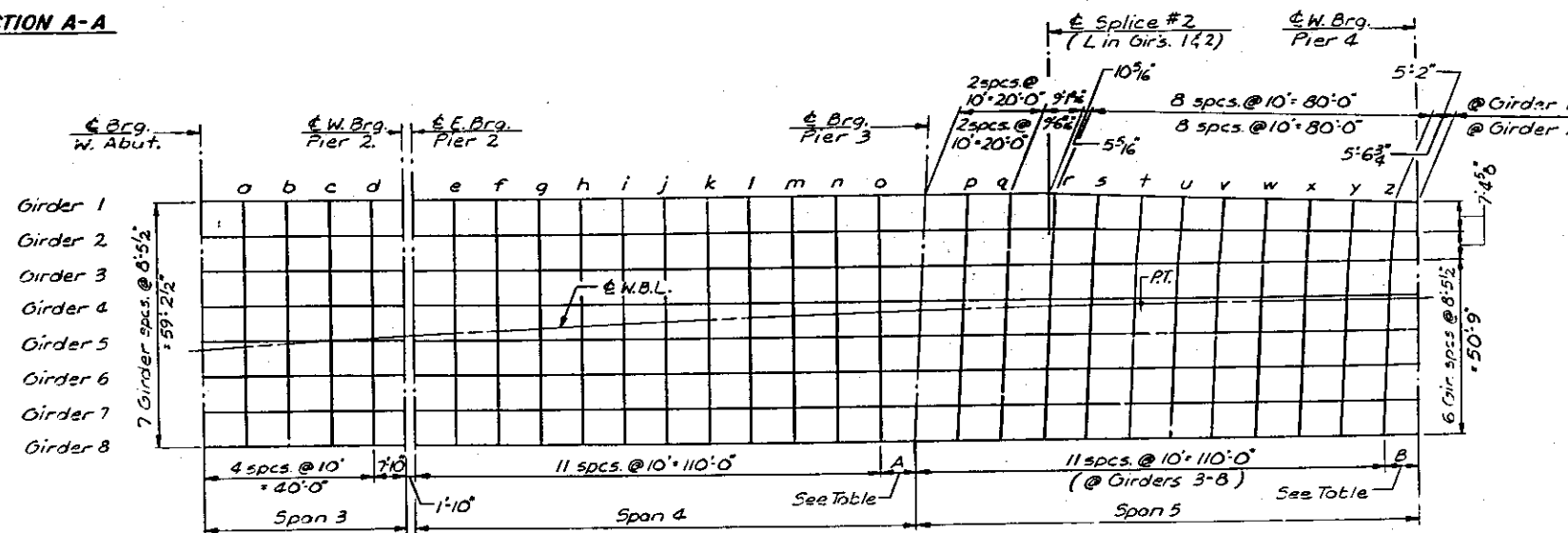


DEAD LOAD DEFLECTION DIAGRAMS
(Includes weight of Concrete only.)

TABLE OF DEAD LOAD DEFLECTIONS						
Girder No.	Deflections					
	0'	1'	2'	3'	4'	5'
1	1 1/2"	1 1/2"	1"	1 1/4"	5 3/4"	7 1/2"
2	1 1/2"	1 1/2"	1"	1 1/4"	1 1/2"	1 1/2"
3	"	"	"	"	"	"
4	"	"	"	"	"	"
5	"	"	"	"	"	"
6	1 1/2"	1 1/2"	1"	1 1/4"	5 3/4"	7 1/2"
7	9 1/2"	1 1/2"	5 3/4"	5 3/4"	1 1/2"	9 1/2"
8	1"	1"	1"	1"	1"	1"

Note: See Sheet 11 of 13 for Span 3 Girder Dead Load Deflection Diagram.

TABLE FOR DIMENSIONS A & B		
Gir. No.	A	B
1	10' 10"	
2	10' 5 1/2"	
3	10' 0 1/2"	5' 11 1/2"
4	9' 7 1/2"	6' 4 3/4"
5	9' 3 1/2"	6' 8 3/4"
6	8' 10 3/4"	7' 1 3/4"
7	8' 5 1/2"	7' 6 3/4"
8	8' 0 1/2"	7' 11 1/8"



DIAGRAMMATIC PLAN - TOP OF SLAB ELEVATIONS

Note: All dimensions shown in plan are measured horizontally.

SUPERSTRUCTURE DETAILS
SPANS 4 & 5

M^cCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15-D
PEORIA & TAZEWELL COUNTIES

DESIGNED S.C.O.
CHECKED W.D.L.
DRAWN D.A.N.
CHECKED W.D.L.

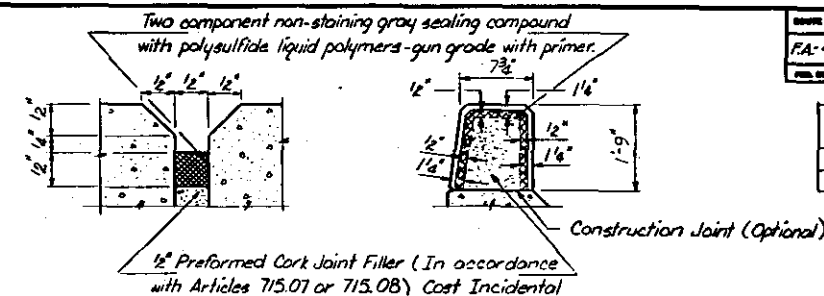
HANSON ENGINEERS
INCORPORATED
SPRINGFIELD, ILLINOIS PEORIA, ILLINOIS

74001
11-2-79

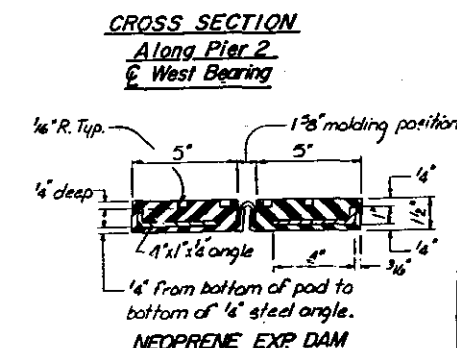
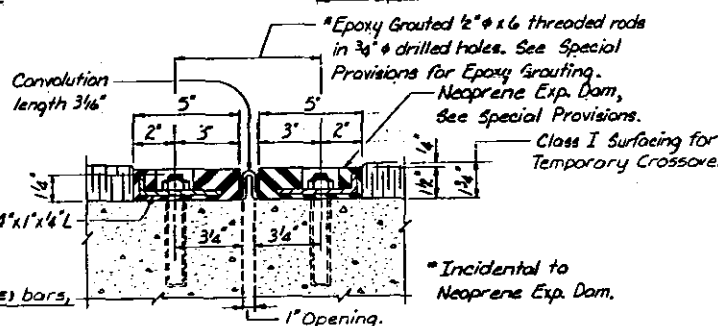
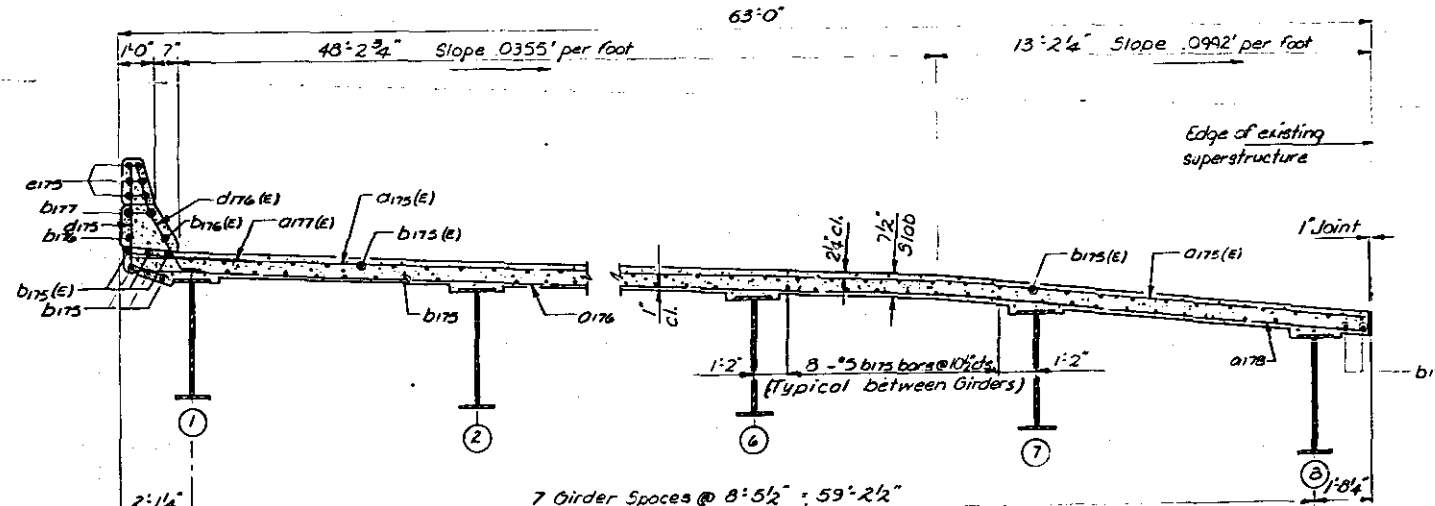
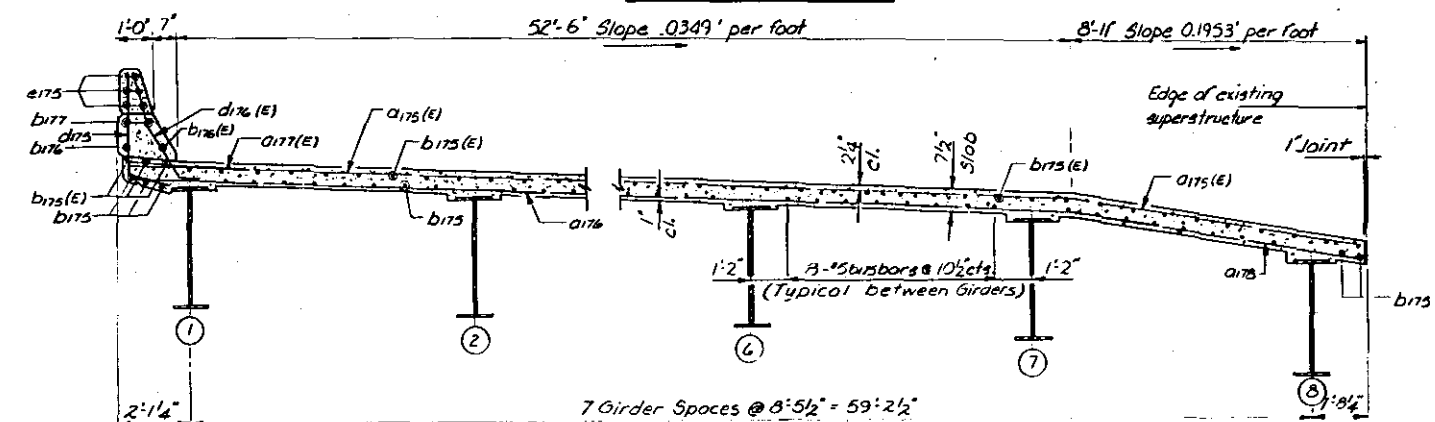
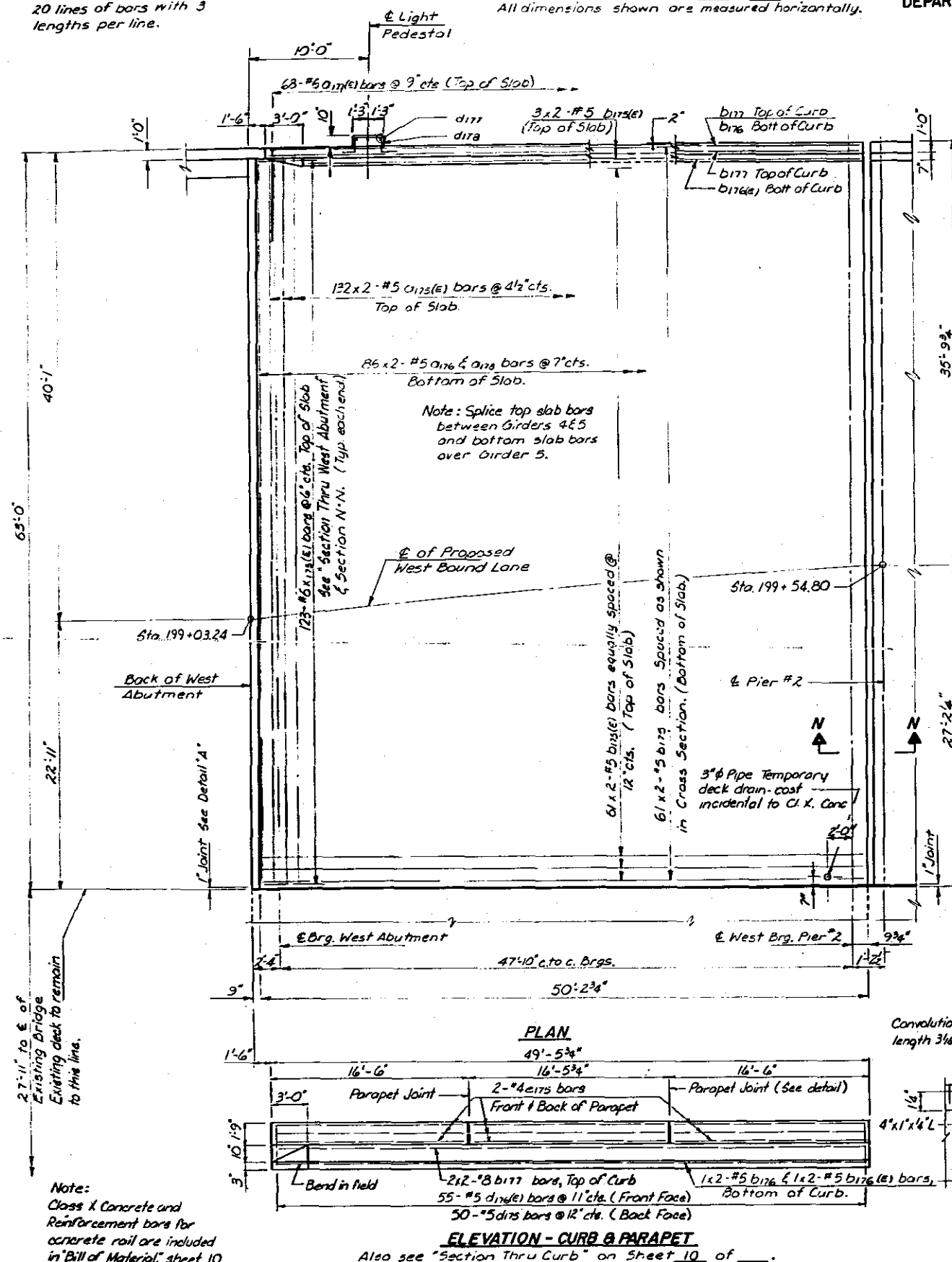
Note: Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.

Notes:
For Light Pedestal Details see Sheet 3 of ____
For Section N-N see Sheet 10 of ____
All dimensions shown are measured horizontally.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS



DATE	NO.	REV.	BY	CHK.
FA-49	15-D		PEORIA & TAZEWELL	
Sheet 87 of 134				
Bar Size	Minimum Lap Distance			
#4, #5, #6	1'-6"			
#8	2'-4"			



SUPERSTRUCTURE - SPAN 3

M^C CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15-D
PEORIA & TAZEWELL COUNTIES

CEA
SCQ
DAN
C.R.A.

HANSON ENGINEERS
INCORPORATED
SPRINGFIELD, ILLINOIS PEORIA, ILLINOIS

74001
11-2-75

Note: Bars indicated thus 20 x 3 - #5, etc. indicates 20 lines of bars with 3 lengths per line.

Bar Size	Minimum Lap Distance
#4, #5, #6	1'-6"
#8	2'-4"

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Notes: For Section N-N see sheet 10 of ____.
For Section G-G see sheet 24 of ____.
For Sections A-A & B-B see sheet 8 of ____.
For Sections C-C, D-D & E-E see sheet 18 of ____.
For Drainage Scupper Details see Sheet 151 of ____.
* For Reinforcement & configuration of slab at Drainage Scupper see sheet ____ of ____.

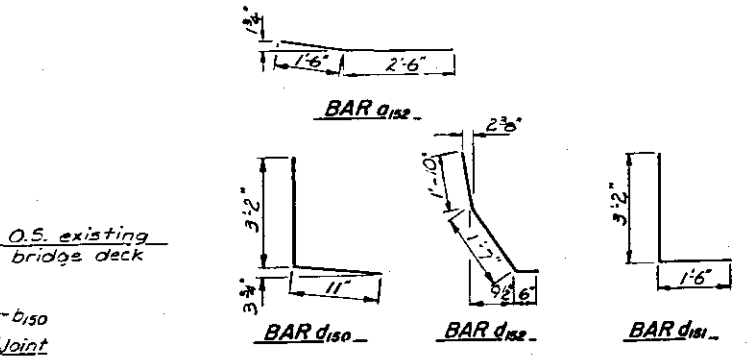
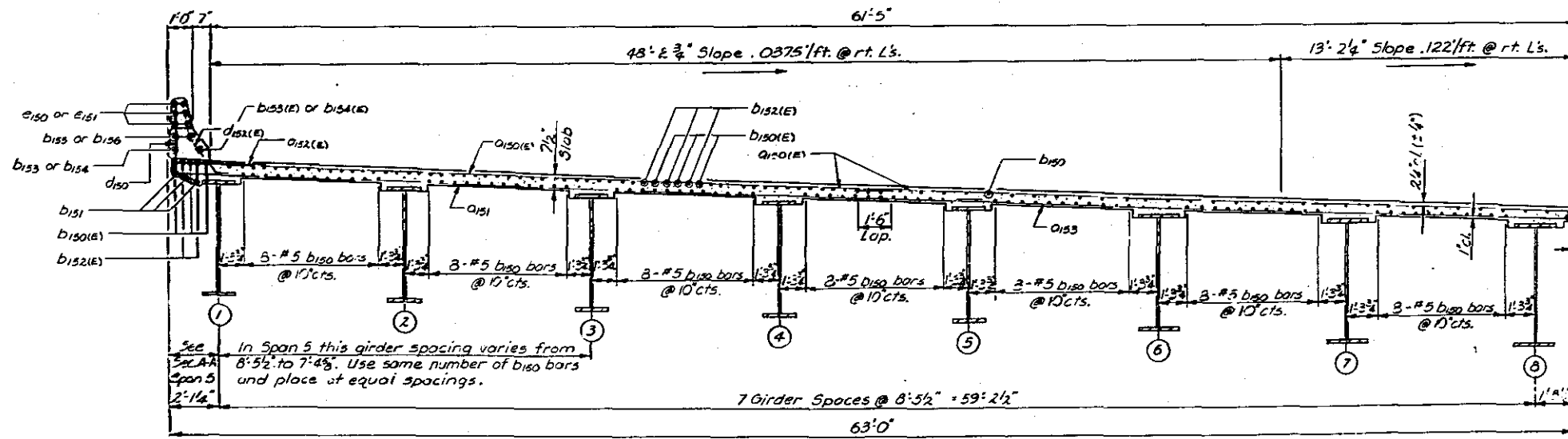
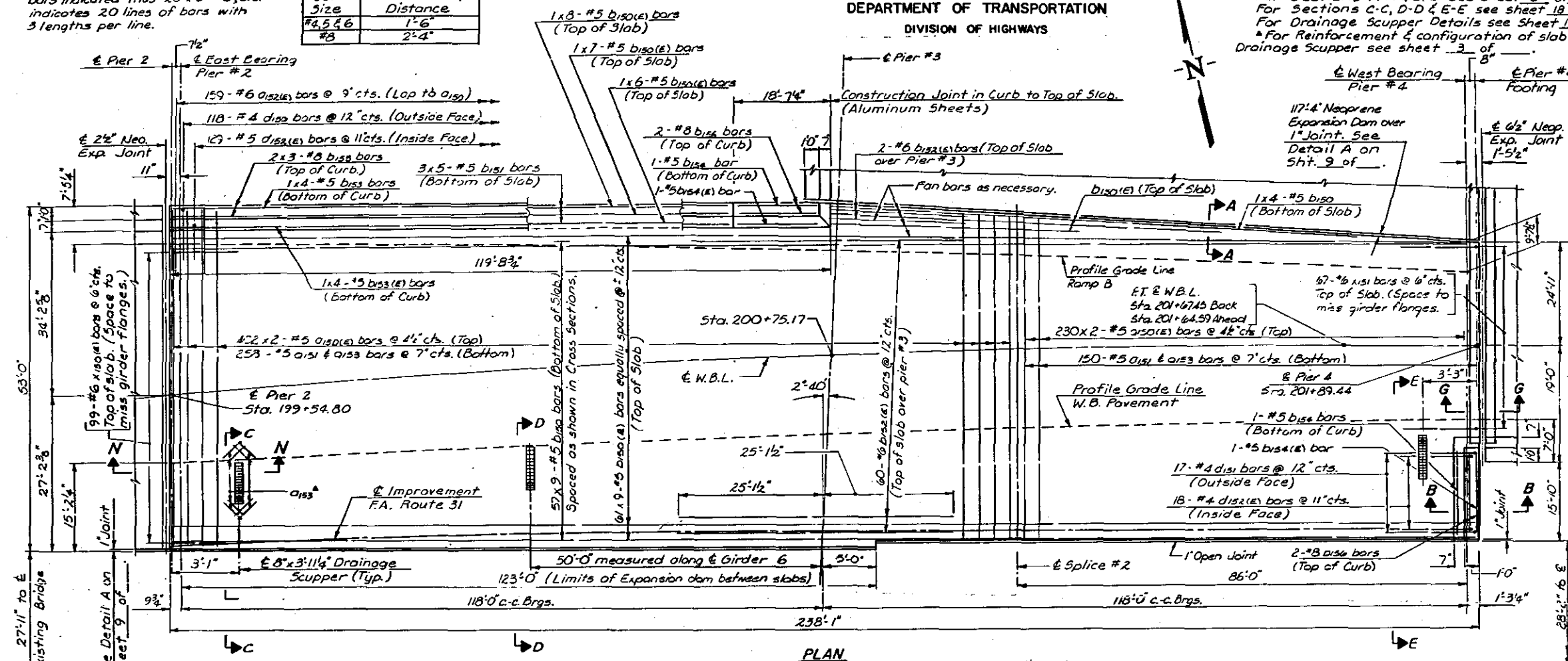
Sheet No.	Scale	Project	Sheet No.
FA-49	1/8" = 1'-0"	Peoria & Tazewell	Sheet 88 of 134

SPANS 4 & 5
BILL OF MATERIAL

Bar	No.	Bar	No.	Size	Length	Shape
Q150(E)	1264			#5	31'-8"	
Q150(E)	159			#5	36'-0"	
		Q153	408	#5	27'-6"	
Q150(E)	570	Q150	517	#5	27'-5"	
		Q151	15	#5	24'-7"	
Q150(E)	62			#6	50'-3"	
Q150(E)	4	Q153	4	#5	26'-2"	
Q150(E)	2	Q154	2	#5	17'-3"	
		Q155	6	#8	34'-9"	
		Q156	4	#8	16'-10"	
		Q150	118	#4	4'-1"	
		Q151	17	#4	4'-8"	
Q150(E)	147			#5	3'-11"	
		Q150	36	#4	17'-3"	
		Q151	12	#4	16'-8"	
Q150(E)	99			#6	4'-6"	
Q150(E)	67			#6	5'-0"	
Drainage System Complete						Lump Sum
Scuppers						Each 3
Neoprene Expansion Dam						Lin. Ft. 260'-4"
Reinforcement Bars						Pounds 43,970
Class A Concrete						Cu. Yds. 377.6
Neoprene Expansion Joint (6")						Lin. Ft. 69'-0"
Reinforcement Bars (Epoxy Coated)						Lbs. 65,610
Structural Steel						Lump Sum

* Includes 7.1 Cu Yds for parapet concrete.

Estimated Weight Structural Steel:
M223 (A-572) 548,600 lbs
M183 (A-36) 33,234 lbs
Bearings 14,709 lbs



SUPERSTRUCTURE
SPANS 4 & 5
M^cCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15-D
PEORIA & TAZEWELL COUNTIES

DLB
CRN
DAN
CRN

HANSON ENGINEERS
INCORPORATED
SPRINGFIELD, ILLINOIS
PEORIA, ILLINOIS

74001
11-2-79

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.	SECTION	TOTAL SHEETS	DATE
FA-49	15-D	FEORIA & TAZEWELL		
SHEET 89 OF 136				

	GRIDER 1			STRINGER 1			STRINGER 2			STRINGER 3			NORTH LONGITUDINAL BONDED CONSTRUCTION JOINT		
	STATION	ELEV. A	ELEV. B	STATION	ELEV. A	ELEV. B	STATION	ELEV. A	ELEV. B	STATION	ELEV. A	ELEV. B	STATION	ELEV. A	ELEV. B
E East Bearing Pier 4 a b c d e f g h i j k l m n o p q r s	20191.690	498.858	498.858	20191.690	499.156	499.168	20191.690	499.407	499.429	20191.690	499.261	499.288	20191.690	499.129	499.155
	20201.273	498.746	498.784	20201.273	498.985	499.037	20201.273	499.144	499.207	20201.273	499.135	499.203	20201.273	499.064	499.132
	20211.273	498.643	498.719	20211.273	498.838	498.929	20211.273	499.024	499.127	20211.273	499.020	499.129	20211.273	498.939	499.048
	20221.273	498.536	498.643	20221.273	498.718	498.840	20221.273	498.906	499.039	20221.273	498.932	499.071	20221.273	498.823	498.962
	20231.273	498.438	498.576	20231.273	498.610	498.760	20231.273	498.797	498.958	20231.273	498.850	499.017	20231.273	498.753	498.920
	20241.273	498.352	498.511	20241.273	498.512	498.682	20241.273	498.699	498.880	20241.273	498.773	498.960	20241.273	498.787	498.974
	20251.273	498.276	498.455	20251.273	498.425	498.614	20251.273	498.612	498.811	20251.273	498.704	498.909	20251.273	498.725	498.930
	20261.273	498.211	498.400	20261.273	498.348	498.546	20261.273	498.535	498.743	20261.273	498.640	498.853	20261.273	498.664	498.877
	20271.273	498.156	498.351	20271.273	498.282	498.485	20271.273	498.469	498.682	20271.273	498.596	498.814	20271.273	498.638	498.857
	20281.273	498.113	498.305	20281.273	498.227	498.427	20281.273	498.414	498.624	20281.273	498.564	498.779	20281.273	498.630	498.845
	20291.273	498.079	498.265	20291.273	498.182	498.374	20291.273	498.370	498.573	20291.273	498.536	498.745	20291.273	498.623	498.833
	20301.273	498.057	498.230	20301.273	498.149	498.328	20301.273	498.336	498.527	20301.273	498.513	498.711	20301.273	498.615	498.818
	20311.273	498.045	498.202	20311.273	498.125	498.287	20311.273	498.313	498.487	20311.273	498.496	498.678	20311.273	498.611	498.797
	20321.273	498.044	498.181	20321.273	498.113	498.255	20321.273	498.300	498.454	20321.273	498.487	498.648	20321.273	498.611	498.774
	20331.273	498.054	498.168				20331.273	499.299	499.429	20331.273	498.486	498.623	20331.273	498.611	498.750
	20341.273	498.065	498.156				20341.273	498.299	498.405	20341.273	498.486	498.599	20341.273	498.611	498.726
	20351.273	498.077	498.144				20351.273	498.299	498.380	20351.273	498.486	498.575	20351.273	498.611	498.702
	20361.273	498.088	498.134				20361.273	498.299	498.358	20361.273	498.486	498.553	20361.273	498.611	498.680
	20371.273	498.100	498.129				20371.273	498.299	498.341	20371.273	498.486	498.535	20371.273	498.611	498.662
	20381.273	498.111	498.126				20381.273	498.299	498.326	20381.273	498.486	498.520	20381.273	498.611	498.647
	20391.273	498.122	498.128				20391.273	498.299	498.317	20391.273	498.486	498.513	20391.273	498.611	498.640
E Bearing Pier 5 u v w x y z aa ab ac ad ae af ag ah ai aj ak al am an ao ap aq ar as	20399.273	498.132	498.132	20399.273	498.299	498.310	20399.273	498.299	498.310	20399.273	498.486	498.507	20399.273	498.611	498.634
	20409.273	498.143	498.146	20409.273	498.299	498.313	20409.273	498.299	498.313	20409.273	498.486	498.509	20409.273	498.611	498.636
	20419.273	498.154	498.161	20419.273	498.299	498.315	20419.273	498.299	498.315	20419.273	498.486	498.511	20419.273	498.611	498.639
	20429.273	498.166	498.181	20429.273	498.299	498.322	20429.273	498.299	498.322	20429.273	498.486	498.518	20429.273	498.611	498.646
	20439.273	498.177	498.208	20439.273	498.299	498.337	20439.273	498.299	498.337	20439.273	498.486	498.533	20439.273	498.611	498.661
	20449.273	498.189	498.236	20449.273	498.299	498.352	20449.273	498.299	498.352	20449.273	498.486	498.547	20449.273	498.611	498.675
	20459.273	498.200	498.269	20459.273	498.299	498.373	20459.273	498.299	498.373	20459.273	498.486	498.569	20459.273	498.611	498.697
	20469.273	498.211	498.303	20469.273	498.299	498.396	20469.273	498.299	498.396	20469.273	498.486	498.591	20469.273	498.611	498.719
	20479.273	498.223	498.339	20479.273	498.299	498.420	20479.273	498.299	498.420	20479.273	498.486	498.615	20479.273	498.611	498.744
	20489.273	498.234	498.371	20489.273	498.299	498.441	20489.273	498.299	498.441	20489.273	498.486	498.638	20489.273	498.611	498.767
	20499.273	498.246	498.405							20499.273	498.486	498.660	20499.273	498.611	498.789
	20509.273	498.257	498.431							20509.273	498.486	498.674	20509.273	498.611	498.803
	20519.273	498.268	498.452							20519.273	498.486	498.683	20519.273	498.611	498.812
	20529.273	498.280	498.474							20529.273	498.486	498.692	20529.273	498.611	498.821
	20539.273	498.291	498.480							20539.273	498.486	498.686	20539.273	498.611	498.815
	20549.273	498.303	498.486							20549.273	498.486	498.679	20549.273	498.611	498.808
	20559.273	498.314	498.487							20559.273	498.486	498.667	20559.273	498.611	498.795
	20569.273	498.325	498.479							20569.273	498.486	498.657	20569.273	498.611	498.776
	20579.273	498.337	498.472							20579.273	498.486	498.647	20579.273	498.611	498.758
	20589.273	498.348	498.460							20589.273	498.486	498.638	20589.273	498.611	498.735
	20599.273	498.360	498.448							20599.273	498.486	498.628	20599.273	498.611	498.711
	20609.273	498.371	498.436							20609.273	498.486	498.618	20609.273	498.611	498.687
	20619.273	498.382	498.429							20619.273	498.486	498.608	20619.273	498.611	498.668
	20629.273	498.394	498.422							20629.273	498.486	498.598	20629.273	498.611	498.648
	20639.273	498.405	498.421							20639.273	498.486	498.586	20639.273	498.611	498.636
	20649.273	498.417	498.425							20649.273	498.486	498.578	20649.273	498.611	498.628
E Bearing Pier 6 t u v w x y z aa ab ac ad ae af ag ah ai aj ak al am an ao ap aq ar as	20659.273	498.428	498.428	20659.273	498.428	498.428	20659.273	498.428	498.428	20659.273	498.486	498.490	20659.273	498.611	498.621
	20669.273	498.439	498.441	20669.273	498.439	498.441	20669.273	498.439	498.441	20669.273	498.486	498.501	20669.273	498.611	498.621
	20679.273	498.451	498.456	20679.273	498.451	498.456	20679.273	498.451	498.456	20679.273	498.486	498.511	20679.273	498.611	498.623
	20689.273	498.463	498.472	20689.273	498.463	498.472	20689.273	498.463	498.472	20689.273	498.486	498.522	20689.273	498.611	498.633
	20699.273	498.473	498.501	20699.273	498.473	498.501	20699.273	498.473	498.501	20699.273	498.486	498.533	20699.273	498.611	498.645
	20709.273	498.485	498.530	20709.273	498.485	498.530	20709.273	498.485	498.530	20709.273	498.486	498.544	20709.273	498.611	498.657
	20719.273	498.496	498.549	20719.273	498.496	498.549	20719.273	498.496	498.549	20719.273	498.486	498.556	20719.273	498.611	498.669
	20729.273	498.508	498.570	20729.273	498.508	498.570	20729.273	498.508	498.570	20729.273	498.486	498.566	20729.273	498.611	498.690
	20739.273	498.519	498.591	20739.273	498.519	498.591	20739.273	498.519	498.591	20739.273	498.486	498.576	20739.273	498.611	498.701
	20749.273	498.530	498.608	20749.273	498.530	498.608	20749.273	498.530	498.608	20749.273	498.486	498.586	20749.273.		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

ROUTE NO.	SEC.	PROJECT	TOTAL STATION	DATE
FA-49	15-D	PEORIA & TAZEWELL		
NEW ROAD DIST. NO. 1				

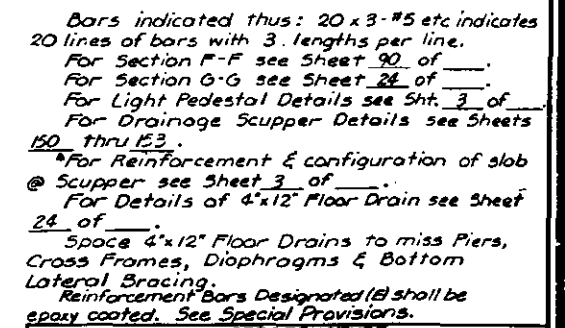
Sheet 20 of 136

STRINGER 4			STRINGER 5			STRINGER 6			SOUTH LONGITUDINAL BONDED CONSTRUCTION JOINT			GIRDER 2			
	STATION	ELEV. A	ELEV. B	STATION	ELEV. A	ELEV. B	STATION	ELEV. A	ELEV. B	STATION	ELEV. A	ELEV. B	STATION	ELEV. A	ELEV. B
East Bearing Pier 4 a b c d e f g h i j k l m n o p q r s	20191.690	499.091	499.117	20191.690	498.926	498.947	20191.690	498.761	498.772	20191.690	498.670	498.675	20191.690	498.596	498.596
	20201.273	499.017	499.084	20201.273	498.875	498.937	20201.273	498.732	498.783	20201.273	498.653	498.697	20201.273	498.590	498.628
	20211.273	498.961	499.070	20211.273	498.861	498.965	20211.273	498.731	498.821	20211.273	498.652	498.734	20211.273	498.569	498.645
	20221.273	498.906	499.045	20221.273	498.852	498.985	20221.273	498.731	498.853	20221.273	498.652	498.765	20221.273	498.569	498.670
	20231.273	498.851	499.018	20231.273	498.842	499.004	20231.273	498.731	498.882	20231.273	498.652	498.796	20231.273	498.569	498.707
	20241.273	498.796	498.983	20241.273	498.832	499.014	20241.273	498.731	498.903	20241.273	498.652	498.817	20241.273	498.569	498.726
	20251.273	498.741	498.940	20251.273	498.822	499.023	20251.273	498.731	498.922	20251.273	498.652	498.837	20251.273	498.569	498.748
	20261.273	498.686	498.900	20261.273	498.812	499.022	20261.273	498.731	498.932	20261.273	498.652	498.846	20261.273	498.569	498.758
	20271.273	498.668	498.887	20271.273	498.809	499.024	20271.273	498.731	498.938	20271.273	498.652	498.852	20271.273	498.569	498.764
	20281.273	498.668	498.884	20281.273	498.809	499.021	20281.273	498.731	498.934	20281.273	498.652	498.849	20281.273	498.569	498.761
	20291.273	498.668	498.879	20291.273	498.809	499.015	20291.273	498.731	498.928	20291.273	498.652	498.843	20291.273	498.569	498.755
	20301.273	498.668	498.868	20301.273	498.809	499.004	20301.273	498.731	498.917	20301.273	498.652	498.831	20301.273	498.569	498.742
	20311.273	498.668	498.852	20311.273	498.809	498.988	20311.273	498.731	498.901	20311.273	498.652	498.814	20311.273	498.569	498.720
	20321.273	498.668	498.832	20321.273	498.809	498.967	20321.273	498.731	498.880	20321.273	498.652	498.794	20321.273	498.569	498.706
	20331.273	498.668	498.808	20331.273	498.809	498.944	20331.273	498.731	498.857	20331.273	498.652	498.771	20331.273	498.569	498.683
	20341.273	498.668	498.784	20341.273	498.809	498.921	20341.273	498.731	498.834	20341.273	498.652	498.748	20341.273	498.569	498.660
	20351.273	498.668	498.760	20351.273	498.809	498.897	20351.273	498.731	498.810	20351.273	498.652	498.724	20351.273	498.569	498.636
	20361.273	498.668	498.738	20361.273	498.809	498.875	20361.273	498.731	498.789	20361.273	498.652	498.703	20361.273	498.569	498.615
	20371.273	498.668	498.720	20371.273	498.809	498.858	20371.273	498.731	498.772	20371.273	498.652	498.687	20371.273	498.569	498.596
	20381.273	498.668	498.705	20381.273	498.809	498.843	20381.273	498.731	498.758	20381.273	498.652	498.672	20381.273	498.569	498.584
	20391.273	498.668	498.698	20391.273	498.809	498.836	20391.273	498.731	498.749	20391.273	498.652	498.664	20391.273	498.569	498.575
Bearing Pier 5 u v w x y z aa ab ac ad ae af ag ah ai aj ak al am an ao ap aq ar as	20399.273	498.668	498.692	20399.273	498.809	498.830	20399.273	498.731	498.743	20399.273	498.652	498.657	20399.273	498.569	498.569
	20409.273	498.668	498.695	20409.273	498.809	498.833	20409.273	498.731	498.746	20409.273	498.652	498.661	20409.273	498.569	498.572
	20419.273	498.668	498.697	20419.273	498.809	498.836	20419.273	498.731	498.750	20419.273	498.652	498.664	20419.273	498.569	498.576
	20429.273	498.668	498.708	20429.273	498.809	498.844	20429.273	498.731	498.758	20429.273	498.652	498.672	20429.273	498.569	498.584
	20439.273	498.668	498.719	20439.273	498.809	498.859	20439.273	498.731	498.773	20439.273	498.652	498.688	20439.273	498.569	498.600
	20449.273	498.668	498.734	20449.273	498.809	498.873	20449.273	498.731	498.788	20449.273	498.652	498.703	20449.273	498.569	498.616
	20459.273	498.668	498.755	20459.273	498.809	498.895	20459.273	498.731	498.810	20459.273	498.652	498.725	20459.273	498.569	498.638
	20469.273	498.668	498.778	20469.273	498.809	498.917	20469.273	498.731	498.833	20469.273	498.652	498.748	20469.273	498.569	498.659
	20479.273	498.668	498.803	20479.273	498.809	498.942	20479.273	498.731	498.857	20479.273	498.652	498.772	20479.273	498.569	498.685
	20489.273	498.668	498.826	20489.273	498.809	498.966	20489.273	498.731	498.880	20489.273	498.652	498.794	20489.273	498.569	498.706
	20499.273	498.668	498.848	20499.273	498.809	498.988	20499.273	498.731	498.902	20499.273	498.652	498.817	20499.273	498.569	498.728
	20509.273	498.668	498.862	20509.273	498.809	499.012	20509.273	498.731	498.917	20509.273	498.652	498.831	20509.273	498.569	498.743
	20519.273	498.668	498.871	20519.273	498.809	499.021	20519.273	498.731	498.927	20519.273	498.652	498.841	20519.273	498.569	498.753
	20529.273	498.668	498.880	20529.273	498.809	499.029	20529.273	498.731	498.936	20529.273	498.652	498.851	20529.273	498.569	498.763
	20539.273	498.668	498.874	20539.273	498.809	499.014	20539.273	498.731	498.930	20539.273	498.652	498.845	20539.273	498.569	498.758
	20549.273	498.668	498.867	20549.273	498.809	499.007	20549.273	498.731	498.924	20549.273	498.652	498.839	20549.273	498.569	498.752
	20559.273	498.668	498.855	20559.273	498.809	498.995	20559.273	498.731	498.912	20559.273	498.652	498.824	20559.273	498.569	498.742
	20569.273	498.668	498.843	20569.273	498.809	498.987	20569.273	498.731	498.893	20569.273	498.652	498.809	20569.273	498.569	498.723
	20579.273	498.668	498.835	20579.273	498.809	498.979	20579.273	498.731	498.885	20579.273	498.652	498.791	20579.273	498.569	498.704
	20589.273	498.668	498.826	20589.273	498.809	498.970	20589.273	498.731	498.876	20589.273	498.652	498.782	20589.273	498.569	498.688
	20599.273	498.668	498.817	20599.273	498.809	498.961	20599.273	498.731	498.867	20599.273	498.652	498.773	20599.273	498.569	498.671
Bearing Pier 6 t u v w x y z aa ab ac ad ae af ag ah ai aj ak al am an ao ap aq ar as	20609.273	498.668	498.808	20609.273	498.809	498.952	20609.273	498.731	498.888	20609.273	498.652	498.744	20609.273	498.569	498.657
	20619.273	498.668	498.827	20619.273	498.809	498.961	20619.273	498.731	498.897	20619.273	498.652	498.759	20619.273	498.569	498.677
	20629.273	498.668	498.846	20629.273	498.809	498.970	20629.273	498.731	498.906	20629.273	498.652	498.778	20629.273	498.569	498.696
	20639.273	498.668	498.865	20639.273	498.809	498.979	20639.273	498.731	498.915	20639.273	498.652	498.787	20639.273	498.569	498.715
	20649.273	498.668	498.884	20649.273	498.809	498.988	20649.273	498.731	498.924	20649.273	498.652	498.796	20649.273	498.569	498.734
	20659.273	498.668	498.903	20659.273	498.809	499.007	20659.273	498.731	498.943	20659.273	498.652	498.815	20659.273	498.569	498.753
	20669.273	498.668	498.922	20669.273	498.809	499.026	20669.273	498.731	498.962	20669.273	498.652	498.834	20669.273	498.569	498.772
	20679.273	498.668	498.941	20679.273	498.809	499.045	20679.273	498.731	498.981	20679.273	498.652	498.853	20679.273	498.569	498.791
	20689.273	498.668	498.960	20689.273	498.809	499.064	20689.273	498.731	499.000	20689.273	498.652	498.872	20689.273	498.569	498.810
	20699.273	498.668	498.979	20699.273	498.809	499.083	20699.273	498.731	499.019	20699.273					

Sheet 91 of 134



38:53" to 40:0"



PEORIA & TAZEWELL COUNTIES

@ E. Brq.
 Pier 4
 @ Pier 5

Note: All dimensions shown are measured horizontally.

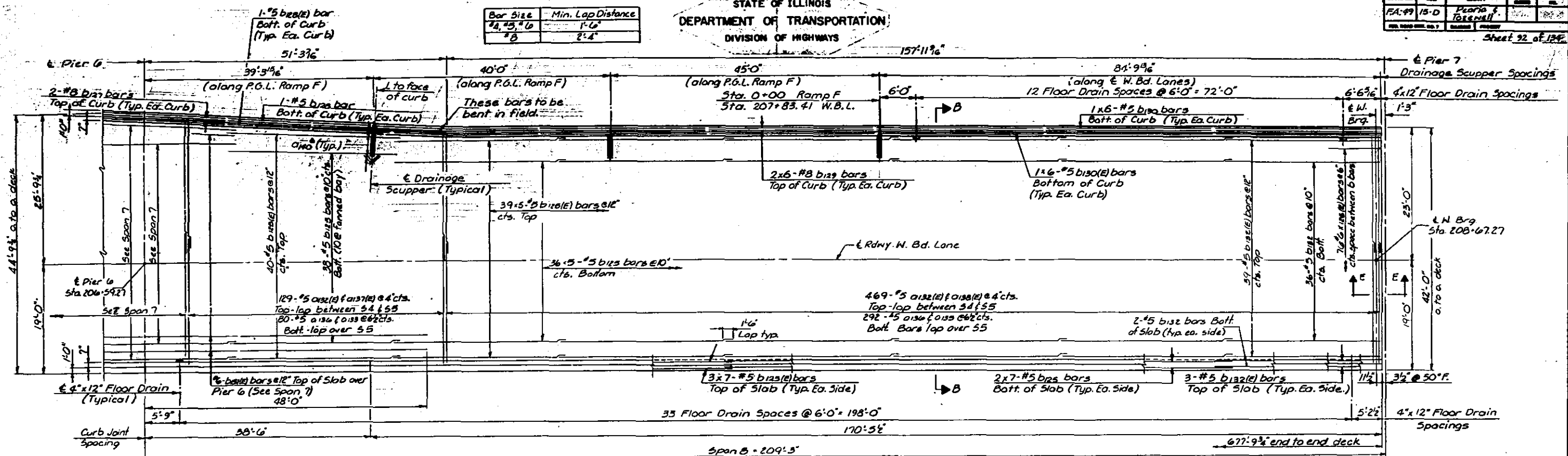
FOR INFORMATIONAL PURPOSES ONLY - (CROSS SECTION A-A)

OWNER	W.D.L.	 HANSON ENGINEERS INCORPORATED	FILE NO.	74001
DESIGN	S.C.D.		DATE	11-2-79
DRAWN	PA'			
CHECKED	W.D.L.			

SPRINGFIELD, ILLINOIS
PEORIA, ILLINOIS

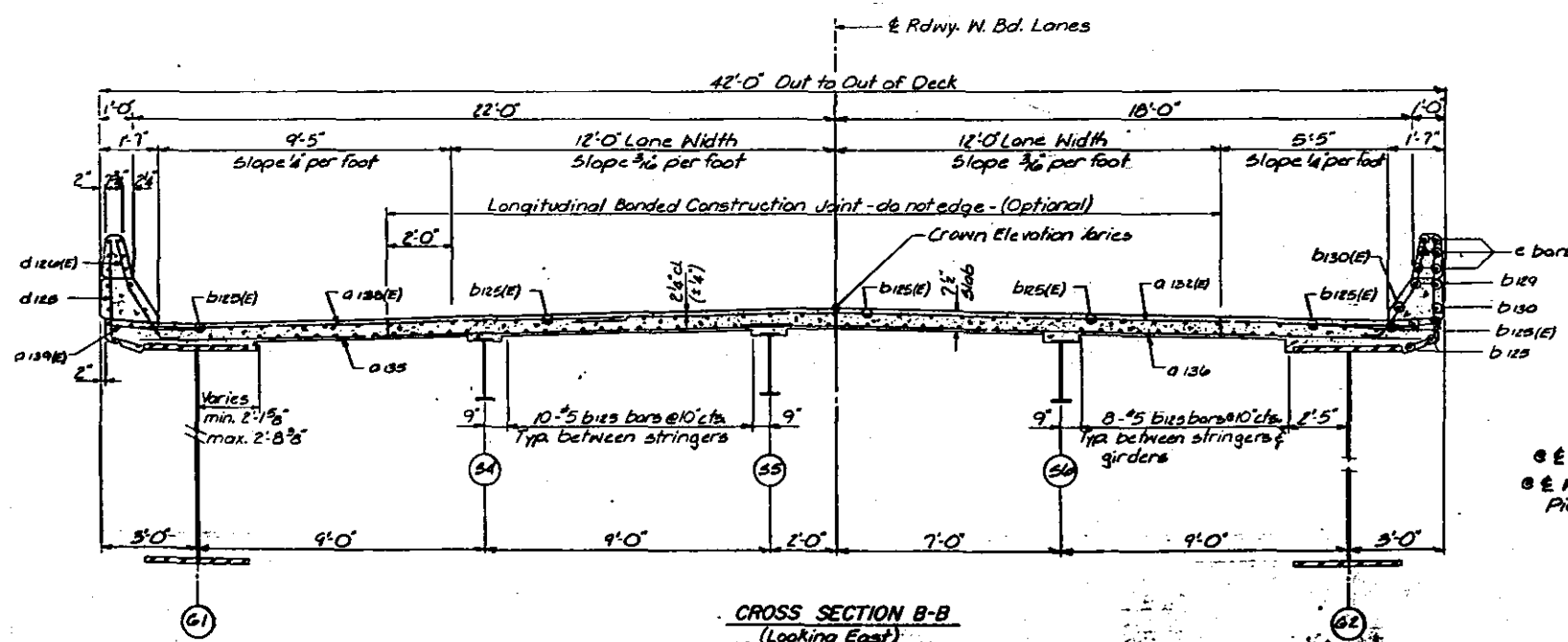
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.	SECTION	DATE
FA-49	15-D	MECLAUGE BRIDGE OVER THE ILLINOIS RIVER	11-2-73



PLAN-SPAN 8

Notes:
Bars indicated thus: 20 x 3-#5, etc. indicates 20 lines of bars with 3 lengths per line.
For Section E-E see Sheet 39 of _____.
All dimensions shown are measured horizontally.
For Drainage Scupper Details see Sheets 150, thru 153.
For Reinforcement & configuration of slab @ Scupper see Sheet 3 of _____.
For Details of 4'x12" Floor Drain see Sheet 24 of _____.
Space 4'x12" Floor Drains to miss Piers, Cross Frames, Diaphragms & Bottom Lateral Bracing.
Reinforcement Bars Designated (E) shall be Epoxy Coated. See Special Provisions.



CROSS SECTION B-B
(Looking East)

TOTAL CROWN DROP		
	North of & Rdwy.	South of & Rdwy.
@ Pier 6	5'	3'
@ N. Brg. Pier 7	4'	3'

SUPERSTRUCTURE
SPAN 8

MECLAUGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15-D
PEORIA & TAZEWELL COUNTIES

W.D.L.	SC.Q.	PM.	W.U.L.	HANSON ENGINEERS	74001
				INCORPORATED	11-2-73

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

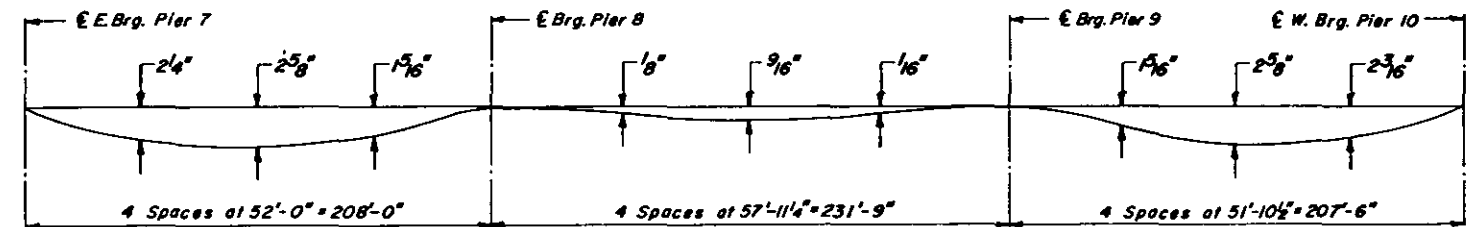
ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FA-49	15-0	PEORIA & TAZEWELL		
SHEET 93 OF 134				

GIRDER 1				STRINGER 1				STRINGER 2				STRINGER 3				GIRDER 2			
		STATION	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION			STATION	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION			STATION	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION			STATION	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION
E East Bearing Pier 7		208+69.770	498.486	498.486	208+69.770	498.668	498.668	498.668	208+69.770	498.809	498.809	208+69.770	498.731	498.731	208+69.770	498.569	498.569	208+69.770	498.569
		208+79.770	498.486	498.523	208+79.770	498.668	498.705	498.705	208+79.770	498.809	498.845	208+79.770	498.731	498.767	208+79.770	498.569	498.569	208+79.770	498.569
		208+89.770	498.486	498.559	208+89.770	498.668	498.742	498.742	208+89.770	498.809	498.881	208+89.770	498.731	498.804	208+89.770	498.569	498.569	208+89.770	498.569
		208+99.770	498.486	498.539	208+99.770	498.668	498.778	498.778	208+99.770	498.809	498.916	208+99.770	498.731	498.841	208+99.770	498.569	498.569	208+99.770	498.569
		209+09.770	498.486	498.539	209+09.770	498.668	498.815	498.815	209+09.770	498.809	498.956	209+09.770	498.731	498.877	209+09.770	498.569	498.569	209+09.770	498.569
		209+19.770	498.486	498.669	209+19.770	498.668	498.852	498.852	209+19.770	498.809	498.992	209+19.770	498.731	498.914	209+19.770	498.569	498.569	209+19.770	498.569
		209+29.770	498.486	498.682	209+29.770	498.668	498.864	498.864	209+29.770	498.809	498.003	209+29.770	498.731	498.927	209+29.770	498.569	498.569	209+29.770	498.569
		209+39.770	498.486	498.689	209+39.770	498.668	498.871	498.871	209+39.770	498.809	498.012	209+39.770	498.731	498.934	209+39.770	498.569	498.569	209+39.770	498.569
		209+49.770	498.486	498.696	209+49.770	498.668	498.878	498.878	209+49.770	498.809	498.019	209+49.770	498.731	498.941	209+49.770	498.569	498.569	209+49.770	498.569
		209+59.770	498.486	498.703	209+59.770	498.668	498.885	498.885	209+59.770	498.809	498.026	209+59.770	498.731	498.948	209+59.770	498.569	498.569	209+59.770	498.569
		209+69.770	498.486	498.710	209+69.770	498.668	498.892	498.892	209+69.770	498.809	498.033	209+69.770	498.731	498.955	209+69.770	498.569	498.569	209+69.770	498.569
		209+79.770	498.486	498.699	209+79.770	498.668	498.881	498.881	209+79.770	498.809	498.022	209+79.770	498.731	498.944	209+79.770	498.569	498.569	209+79.770	498.569
		209+89.770	498.486	498.677	209+89.770	498.668	498.859	498.859	209+89.770	498.809	498.000	209+89.770	498.731	498.922	209+89.770	498.569	498.569	209+89.770	498.569
		209+99.770	498.486	498.655	209+99.770	498.668	498.837	498.837	209+99.770	498.809	498.978	209+99.770	498.731	498.899	209+99.770	498.569	498.569	209+99.770	498.569
		210+09.770	498.486	498.632	210+09.770	498.668	498.815	498.815	210+09.770	498.809	498.955	210+09.770	498.731	498.877	210+09.770	498.569	498.569	210+09.770	498.569
		210+19.770	498.486	498.610	210+19.770	498.668	498.792	498.792	210+19.770	498.809	498.933	210+19.770	498.731	498.855	210+19.770	498.569	498.569	210+19.770	498.569
		210+29.770	498.486	498.588	210+29.770	498.668	498.770	498.770	210+29.770	498.809	498.911	210+29.770	498.731	498.833	210+29.770	498.569	498.569	210+29.770	498.569
		210+39.770	498.486	498.567	210+39.770	498.668	498.749	498.749	210+39.770	498.809	498.890	210+39.770	498.731	498.812	210+39.770	498.569	498.569	210+39.770	498.569
		210+49.770	498.486	498.545	210+49.770	498.668	498.728	498.728	210+49.770	498.809	498.868	210+49.770	498.731	498.790	210+49.770	498.569	498.569	210+49.770	498.569
		210+59.770	498.486	498.524	210+59.770	498.668	498.706	498.706	210+59.770	498.809	498.847	210+59.770	498.731	498.769	210+59.770	498.569	498.569	210+59.770	498.569
		210+69.770	498.486	498.503	210+69.770	498.668	498.685	498.685	210+69.770	498.809	498.826	210+69.770	498.731	498.748	210+69.770	498.569	498.569	210+69.770	498.569
E Bearing Pier 8		210+77.770	498.486	498.486	210+77.770	498.668	498.668	498.668	210+77.770	498.809	498.809	210+77.770	498.731	498.731	210+77.770	498.569	498.569	210+77.770	498.569
		210+87.770	498.486	498.486	210+87.770	498.668	498.668	498.668	210+87.770	498.809	498.809	210+87.770	498.731	498.731	210+87.770	498.569	498.569	210+87.770	498.569
		210+97.770	498.486	498.486	210+97.770	498.668	498.668	498.668	210+97.770	498.809	498.809	210+97.770	498.731	498.731	210+97.770	498.569	498.569	210+97.770	498.569
		211+07.770	498.486	498.486	211+07.770	498.668	498.668	498.668	211+07.770	498.809	498.810	211+07.770	498.731	498.731	211+07.770	498.569	498.569	211+07.770	498.569
		211+17.770	498.486	498.487	211+17.770	498.668	498.669	498.669	211+17.770	498.809	498.810	211+17.770	498.731	498.732	211+17.770	498.569	498.569	211+17.770	498.569
		211+27.770	498.486	498.487	211+27.770	498.668	498.670	498.670	211+27.770	498.809	498.810	211+27.770	498.731	498.732	211+27.770	498.569	498.569	211+27.770	498.569
		211+37.770	498.486	498.489	211+37.770	498.668	498.671	498.671	211+37.770	498.809	498.812	211+37.770	498.731	498.734	211+37.770	498.569	498.569	211+37.770	498.569
		211+47.770	498.486	498.496	211+47.770	498.668	498.679	498.679	211+47.770	498.809	498.819	211+47.770	498.731	498.741	211+47.770	498.569	498.569	211+47.770	498.569
		211+57.770	498.486	498.504	211+57.770	498.668	498.686	498.686	211+57.770	498.809	498.827	211+57.770	498.731	498.748	211+57.770	498.569	498.569	211+57.770	498.569
		211+67.770	498.486	498.511	211+67.770	498.668	498.693	498.693	211+67.770	498.809	498.834	211+67.770	498.731	498.756	211+67.770	498.569	498.569	211+67.770	498.569
		211+77.770	498.486	498.518	211+77.770	498.668	498.701	498.701	211+77.770	498.809	498.841	211+77.770	498.731	498.763	211+77.770	498.569	498.569	211+77.770	498.569
		211+87.770	498.486	498.526	211+87.770	498.668	498.708	498.708	211+87.770	498.809	498.849	211+87.770	498.731	498.770	211+87.770	498.569	498.569	211+87.770	498.569
		211+97.770	498.486	498.527	211+97.770	498.668	498.709	498.709	211+97.770	498.809	498.850	211+97.770	498.731	498.772	211+97.770	498.569	498.569	211+97.770	498.569
		212+07.770	498.499	498.533	212+07.770	498.681	498.715	498.715	212+07.770	498.822	498.855	212+07.770	498.743	498.777	212+07.770	498.582	498.582	212+07.770	498.582
		212+17.770	498.519	498.546	212+17.770	498.702	498.728	498.728	212+17.770	498.842	498.869	212+17.770	498.764	498.791	212+17.770	498.603	498.603	212+17.770	498.603
		212+27.770	498.530	498.569	212+27.770	498.732	498.752	498.752	212+27.770	498.873	498.892	212+27.770	498.785	498.814	212+27.770	498.633	498.633	212+27.770	498.633
		212+37.770	498.551	498.591	212+37.770	498.773	498.785	498.785	212+37.770	498.913	498.925	212+37.770	498.825	498.847	212+37.770	498.674	498.674	212+37.770	498.674
		212+47.770	498.571	498.611	212+47.770	498.813	498.825	498.825	212+47.770	498.953	498.968	212+47.770	498.865	498.884	212+47.770	498.724	498.724	212+47.770	498.724
		212+57.770	498.701	498.702	212+57.770	498.883	498.885	498.885	212+57.770	499.024	499.025	212+57.770	499.046	499.047	212+57.770	498.784	498.784	212+57.770	498.784
		212+67.770	498.771	498.772	212+67.770	498.953	498.954	498.954	212+67.770	499.093	499.095	212+67.770	499.117	499.117	212+67.770	498.854	498.854	212+67.770	498.854
		212+77.770	498.850	498.851	212+77.770	499.033	499.033	499.033	212+77.770	499.173	499.174	212+77.770	499.195	499.195	212+77.770	498.934	498.934	212+77.770	498.934
		212+87.770	498.940	498.940	212+87.770	499.122	499.123	499.123	212+87.770	499.263	499.263	212+87.770	499.285	499.285	212+87.770	499.023	499.023	212+87.770	499.023
		212+97.770	499.039	499.039	212+97.770	499.221	499.222	499.222	212+97.770	499.362	499.362	212+97.770	499.384	499.384	212+97.770	499.122	499.122	212+97.770	499.122
E Bearing Pier 9		213+09.520	499.164	499.168	213+09.520	499.350	499.350	499.350	213+09.520	499.491	499.491	213+09.520	499.413	499.413	213+09.520	499.251	499.251	213+09.520	499.251
		213+19.520	499.289	499.310	213+19.520	499.471	499.492	499.492	213+19.520	499.612	499.612	213+19.520	499.533	499.555	213+19.520	499.372	499.372	213+19.520	499.372
		213+29.520	499.419	499.461	213+29.520	499.591	499.633	499.633	213+29.520	499.752	499.783	213+29.520	499.654	499.696	213+29.520	499.502	499.502	213+29.520	499.502
		213+39.520	499.559	499.623	213+39.520	499.671	499.742	499.742	213+39.520	499.882	499.966	213+39.520	499.776	499.868	213+39.520	499.643	499.643	213+39.520	499.643
		213+49.520	499.794	499.897	213+49.520	499.792	499.922	499.922	213+49.520	500.032	500.117	213+49.520	499.954	500.039	213+49.520	499.793	499.793	213+49.520	499.793
		213+59.520	499.869	499.975	21														

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SECTION	COUNTY	DATE	BY	CHKD.
FA-49	15-D	PEORIA & TAZEWELL			
SHEET 34 OF 134					

NORTH LONGITUDINAL BONDED CONSTRUCTION JOINT				SOUTH LONGITUDINAL BONDED CONSTRUCTION JOINT			
	STATION	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION		STATION	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION
East Bearing Pier 7	208+69.770	498.611	498.611	208+69.770	498.652	498.652	498.652
	208+79.770	498.611	498.611		208+79.770	498.652	498.652
	208+89.770	498.611	498.611		208+89.770	498.652	498.652
	208+99.770	498.611	498.611		208+99.770	498.652	498.652
	209+09.770	498.611	498.611		209+09.770	498.652	498.652
	209+19.770	498.611	498.611		209+19.770	498.652	498.652
	209+29.770	498.611	498.611		209+29.770	498.652	498.652
	209+39.770	498.611	498.611		209+39.770	498.652	498.652
	209+49.770	498.611	498.611		209+49.770	498.652	498.652
	209+59.770	498.611	498.611		209+59.770	498.652	498.652
	209+69.770	498.611	498.611		209+69.770	498.652	498.652
	209+79.770	498.611	498.611		209+79.770	498.652	498.652
	209+89.770	498.611	498.611		209+89.770	498.652	498.652
	209+99.770	498.611	498.611		209+99.770	498.652	498.652
	210+09.770	498.611	498.611		210+09.770	498.652	498.652
	210+19.770	498.611	498.611		210+19.770	498.652	498.652
	210+29.770	498.611	498.611		210+29.770	498.652	498.652
Bearing Pier 8	210+39.770	498.611	498.611	210+39.770	498.652	498.652	498.652
	210+49.770	498.611	498.611		210+49.770	498.652	498.652
	210+59.770	498.611	498.611		210+59.770	498.652	498.652
	210+69.770	498.611	498.611		210+69.770	498.652	498.652
	210+79.770	498.611	498.611		210+79.770	498.652	498.652
	210+89.770	498.611	498.611		210+89.770	498.652	498.652
	210+99.770	498.611	498.611		210+99.770	498.652	498.652
	211+09.770	498.611	498.611		211+09.770	498.652	498.652
	211+19.770	498.611	498.611		211+19.770	498.652	498.652
	211+29.770	498.611	498.611		211+29.770	498.652	498.652
	211+39.770	498.611	498.611		211+39.770	498.652	498.652
	211+49.770	498.611	498.611		211+49.770	498.652	498.652
	211+59.770	498.611	498.611		211+59.770	498.652	498.652
	211+69.770	498.611	498.611		211+69.770	498.652	498.652
	211+79.770	498.611	498.611		211+79.770	498.652	498.652
	211+89.770	498.611	498.611		211+89.770	498.652	498.652
Bearing Pier 9	211+99.770	498.611	498.611	211+99.770	498.652	498.652	498.652
	212+09.770	498.611	498.611		212+09.770	498.652	498.652
	212+19.770	498.611	498.611		212+19.770	498.652	498.652
	212+29.770	498.611	498.611		212+29.770	498.652	498.652
	212+39.770	498.611	498.611		212+39.770	498.652	498.652
	212+49.770	498.611	498.611		212+49.770	498.652	498.652
	212+59.770	498.611	498.611		212+59.770	498.652	498.652
	212+69.770	498.611	498.611		212+69.770	498.652	498.652
	212+79.770	498.611	498.611		212+79.770	498.652	498.652
	212+89.770	498.611	498.611		212+89.770	498.652	498.652
	212+99.770	498.611	498.611		212+99.770	498.652	498.652
	213+09.770	498.611	498.611		213+09.770	498.652	498.652
	213+19.770	498.611	498.611		213+19.770	498.652	498.652
	213+29.770	498.611	498.611		213+29.770	498.652	498.652
	213+39.770	498.611	498.611		213+39.770	498.652	498.652
	213+49.770	498.611	498.611		213+49.770	498.652	498.652
West Bearing Pier 10	213+59.770	498.611	498.611	213+59.770	498.652	498.652	498.652
	213+69.770	498.611	498.611		213+69.770	498.652	498.652
	213+79.770	498.611	498.611		213+79.770	498.652	498.652
	213+89.770	498.611	498.611		213+89.770	498.652	498.652
	213+99.770	498.611	498.611		213+99.770	498.652	498.652
	214+09.770	498.611	498.611		214+09.770	498.652	498.652
	214+19.770	498.611	498.611		214+19.770	498.652	498.652
	214+29.770	498.611	498.611		214+29.770	498.652	498.652
	214+39.770	498.611	498.611		214+39.770	498.652	498.652
	214+49.770	498.611	498.611		214+49.770	498.652	498.652
	214+59.770	498.611	498.611		214+59.770	498.652	498.652
	214+69.770	498.611	498.611		214+69.770	498.652	498.652
	214+79.770	498.611	498.611		214+79.770	498.652	498.652
	214+89.770	498.611	498.611		214+89.770	498.652	498.652
	214+99.770	498.611	498.611		214+99.770	498.652	498.652
	215+09.770	498.611	498.611		215+09.770	498.652	498.652

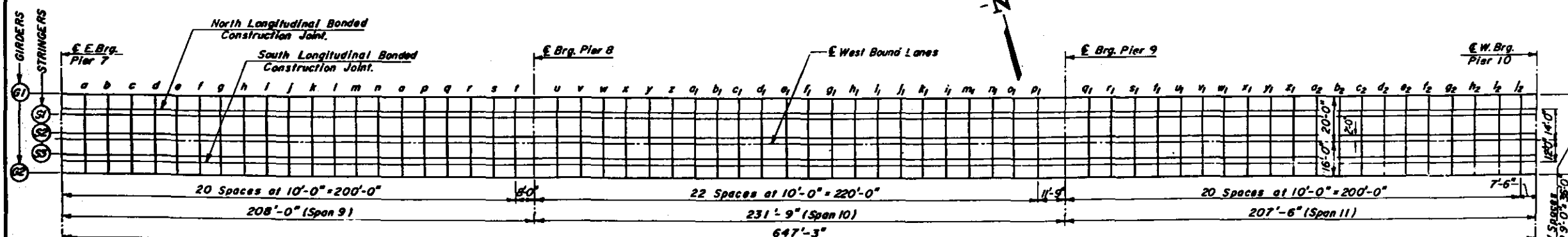


DEAD LOAD DEFLECTION DIAGRAM
(Includes Weight of Concrete Slab)

Note: The above deflections are not to be used in the field if the Engineer is working from the grade elevations adjusted for dead load deflections as shown in "Elevations-Top of Concrete" tables.

Note: For notes on method of determining fillet heights "f" see sheet 68 of 134.

ELEVATIONS-TOP OF CONCRETE

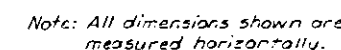


DIAGRAMMATIC PLAN - TOP OF CONCRETE ELEVATIONS

Note: All dimensions shown in plan are measured horizontally.

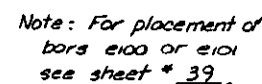
FOR INFORMATIONAL PURPOSES ONLY.

TOP OF SLAB ELEVATIONS SPANS 9, 10 & 11	
M ^C CLUGAGE BRIDGE OVER THE ILLINOIS RIVER	
F.A. ROUTE 49 SEC. 15-D	
PEORIA & TAZEWELL COUNTIES	
WDL CRN DAX SCA	HANSON ENGINEERS INCORPORATED SPRINGFIELD, ILLINOIS PEORIA, ILLINOIS
74001	11-2-79



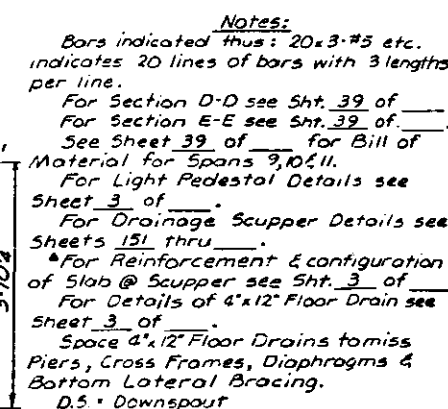
£ Rdwy. W. Bd. Lanes -

31'-6" to E. FA. Route 3.



Bonded Construct
Joint (Optional)
1/8" Aluminum Sheet
A 5 T M : B 2 0 9
alloy 3003-H14

Bonded Construction Joint (Mandatory)



CURB SECTION
Cost of Aluminum Sheets
shall be incidental to Class X Concrete

CURB SECTION

Cost of Aluminum Sheets
shall be incidental to Class X Concrete

SUPERSTRUCTURE
SPANS 9, 10, 8, 11

M^c CLUGAGE BRIDGE

F.A. ROUTE 49 SEC. 15-D

PEORIA & TAZEWELL COUNTIES

SC. L.
N. 2.
D. A.
C. R.



**HANSON
ENGINEERS**
INCORPORATED

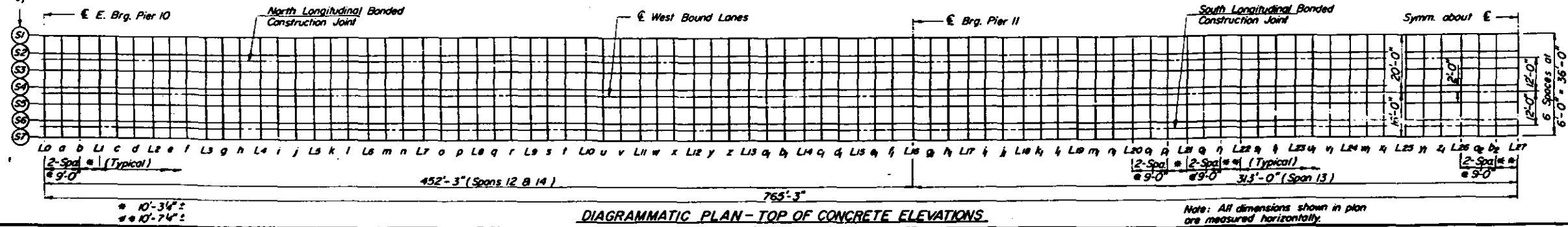
FILE NO.
74001
DATE
11-2-79

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FA-49	15-D	PEORIA & TAZEWELL		
Sheet 96 of 134				

STRINGER 1			STRINGER 2			NORTH LONGITUDINAL BONDED CONSTRUCTION JOINT			STRINGER 3			STRINGER 4		
STATION	ELEV. A	ELEV. B	STATION	ELEV. A	ELEV. B	STATION	ELEV. A	ELEV. B	STATION	ELEV. A	ELEV. B	STATION	ELEV. A	ELEV. B
21520.520	503.076	503.083	21520.520	503.201	503.219	21520.520	503.282	503.263	21520.520	503.305	503.331	21520.520	503.399	503.427
21529.520	503.259	503.301	21529.520	503.384	503.437	21529.520	503.425	503.481	21529.520	503.488	503.549	21529.520	503.582	503.645
21538.520	503.443	503.511	21538.520	503.568	503.643	21538.520	503.609	503.687	21538.520	503.672	503.755	21538.520	503.756	503.851
21548.786	503.552	503.724	21548.786	503.777	503.860	21548.786	503.818	503.904	21548.786	503.881	503.972	21548.786	503.975	504.068
21557.786	503.636	503.939	21557.786	503.961	504.075	21557.786	504.002	504.119	21557.786	504.065	504.187	21557.786	504.159	504.283
21566.786	504.020	504.142	21566.786	504.145	504.278	21566.786	504.186	504.322	21566.786	504.249	504.390	21566.786	504.343	504.466
21577.051	504.229	504.355	21577.051	504.354	504.491	21577.051	504.395	504.535	21577.051	504.458	504.603	21577.051	504.552	504.699
21586.051	504.413	504.568	21586.051	504.538	504.704	21586.051	504.579	504.748	21586.051	504.642	504.816	21586.051	504.736	504.912
21595.051	504.596	504.770	21595.051	504.721	504.906	21595.051	504.762	504.950	21595.051	504.825	505.018	21595.051	504.919	505.114
21605.317	504.806	504.982	21605.317	504.931	505.118	21605.317	504.972	505.162	21605.317	505.035	505.230	21605.317	505.129	505.326
21614.317	505.173	505.389	21614.317	505.114	505.327	21614.317	505.155	505.371	21614.317	505.218	505.439	21614.317	505.312	505.535
21623.317	505.382	505.596	21623.317	505.298	505.525	21623.317	505.339	505.569	21623.317	505.402	505.637	21623.317	505.496	505.733
21633.582	505.582	505.803	21633.582	505.507	505.732	21633.582	505.548	505.776	21633.582	505.611	505.844	21633.582	505.705	505.940
21642.582	505.749	505.997	21642.582	505.691	505.939	21642.582	505.732	505.983	21642.582	505.795	506.051	21642.582	505.889	506.147
21651.582	505.959	506.201	21651.582	505.874	506.133	21651.582	505.915	506.177	21651.582	505.978	506.245	21651.582	506.072	506.341
21661.848	506.142	506.400	21661.848	506.084	506.337	21661.848	506.125	506.381	21661.848	506.188	506.449	21661.848	506.282	506.545
21670.848	506.326	506.588	21670.848	506.267	506.536	21670.848	506.308	506.580	21670.848	506.371	506.648	21670.848	506.465	506.744
21679.848	506.511	506.773	21679.848	506.451	506.724	21679.848	506.492	506.768	21679.848	506.555	506.836	21679.848	506.649	506.932
21689.114	506.695	506.957	21689.114	506.634	506.899	21689.114	506.675	506.963	21689.114	506.738	507.031	21689.114	506.832	507.127
21699.114	506.879	507.141	21699.114	506.818	507.116	21699.114	506.859	507.160	21699.114	506.922	507.228	21699.114	507.016	507.324
21708.114	507.063	507.325	21708.114	507.002	507.268	21708.114	507.043	507.304	21708.114	507.106	507.372	21708.114	507.200	507.404
21718.379	507.247	507.509	21718.379	507.186	507.451	21718.379	507.227	507.492	21718.379	507.290	507.558	21718.379	507.384	507.700
21727.379	507.431	507.693	21727.379	507.370	507.635	21727.379	507.411	507.672	21727.379	507.474	507.742	21727.379	507.568	507.894
21736.379	507.615	507.877	21736.379	507.554	507.817	21736.379	507.595	507.850	21736.379	507.658	507.926	21736.379	507.752	508.004
21746.645	507.799	508.061	21746.645	507.738	507.999	21746.645	507.779	508.030	21746.645	507.842	508.108	21746.645	507.896	508.174
21755.645	507.983	508.245	21755.645	507.922	508.183	21755.645	507.963	508.214	21755.645	507.926	508.192	21755.645	507.980	508.246
21764.645	508.167	508.429	21764.645	508.106	508.367	21764.645	508.147	508.398	21764.645	508.210	508.276	21764.645	508.032	508.336
21774.910	508.351	508.613	21774.910	508.289	508.551	21774.910	508.330	508.592	21774.910	508.393	508.659	21774.910	508.116	508.376
21783.910	508.535	508.797	21783.910	508.468	508.730	21783.910	508.509	508.750	21783.910	508.472	508.738	21783.910	508.200	508.460
21792.910	508.719	508.981	21792.910	508.652	508.914	21792.910	508.693	508.954	21792.910	508.536	508.802	21792.910	508.284	508.544
21803.176	508.903	509.165	21803.176	508.836	509.097	21803.176	508.877	509.138	21803.176	508.700	508.946	21803.176	508.368	508.612
21812.176	509.087	509.349	21812.176	509.020	509.281	21812.176	509.061	509.322	21812.176	508.884	509.130	21812.176	508.452	508.698
21821.176	509.271	509.533	21821.176	509.204	509.465	21821.176	509.245	509.506	21821.176	509.067	509.313	21821.176	508.536	508.782
21831.442	509.455	509.717	21831.442	509.388	509.649	21831.442	509.429	509.690	21831.442	509.150	509.396	21831.442	508.620	508.866
21840.442	509.639	509.901	21840.442	509.572	509.833	21840.442	509.613	509.874	21840.442	509.234	509.480	21840.442	508.704	508.950
21849.442	509.823	510.085	21849.442	509.756	510.017	21849.442	509.797	510.058	21849.442	509.417	509.663	21849.442	508.788	509.034
21859.707	510.007	510.269	21859.707	509.940	510.201	21859.707	509.981	510.242	21859.707	509.599	509.845	21859.707	508.872	509.118
21868.707	510.191	510.453	21868.707	510.124	510.385	21868.707	510.165	510.426	21868.707	509.781	510.027	21868.707	508.956	509.202
21877.707	510.375	510.637	21877.707	510.308	510.569	21877.707	510.349	510.590	21877.707	510.000	510.246	21877.707	509.040	509.286
21887.973	510.559	510.821	21887.973	510.492	510.751	21887.973	510.533	510.772	21887.973	510.182	510.428	21887.973	509.124	509.370
21896.973	510.743	511.005	21896.973	510.676	510.935	21896.973	510.717	510.956	21896.973	510.364	510.610	21896.973	509.208	509.454
21905.973	510.927	511.189	21905.973	510.860	511.117	21905.973	510.901	511.142	21905.973	510.546	510.792	21905.973	509.292	509.538
21916.238	511.111	511.373	21916.238	511.044	511.305	21916.238	511.085	511.326	21916.238	510.728	510.974	21916.238	509.376	509.622
21925.238	511.295	511.557	21925.238	511.228	511.489	21925.238	511.269	511.510	21925.238	510.912	511.158	21925.238	509.460	509.706
21934.238	511.479	511.741	21934.238	511.412	511.671	21934.238	511.453	511.692	21934.238	511.100	511.346	21934.238	509.544	509.790
21944.504	511.663	511.925	21944.504	511.596	511.853	21944.504	511.637	511.874	21944.504	511.284	511.530	21944.504	509.628	509.874
21953.504	511.847	521.109	21953.504	511.779	512.037	21953.504	511.820	512.061	21953.504	511.468	511.714	21953.504	509.712	509.958
21962.504	512.031	512.293	21962.504	511.962	512.224	21962.504	512.001	512.242	21962.504	511.656	511.902	21962.504	509.796	510.042

STRINGERS



ELEVATIONS - TOP OF CONCRETE

FIG. A - THEORETICAL GRADE ELEVATIONS
FIG. B - THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION

TOP OF SLAB ELEVATIONS
SPANS 12, 13 & 14
M'CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15-D
PEORIA & TAZEWELL COUNTIES

WDL
RWC
RUE
WDL

HANSON ENGINEERS
INCORPORATED
SPRINGFIELD, ILLINOIS
PEORIA, ILLINOIS

74001
11-2-79

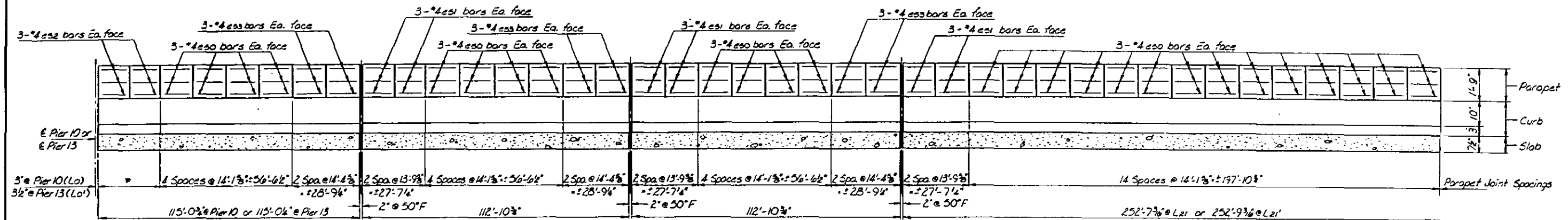
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FA-49	15-D	PEORIA & TAZEWELL		97 of 134
FED. ROAD DIST. NO. 1				

STRINGER 5				STRINGER 6				SOUTH LONGITUDINAL BONDED CONSTRUCTION JOINT				STRINGER 7			
	STATION	ELEV. A	ELEV. B		STATION	ELEV. A	ELEV. B		STATION	ELEV. A	ELEV. B		STATION	ELEV. A	ELEV. B
E East Bearing Pier 10 L0 L1 L2 L3 L4 L5 L6 L7 L8 L9 L10 L11 L12 L13 L14 L15 L16 L17 L18 L19 L20 L21 L22 L23 L24 L25 L26 L27	21520.520	503.368	503.394		21520.520	503.274	503.292		21520.520	503.242	503.256		21520.520	503.159	503.166
	21529.520	503.551	503.612		21529.520	503.457	503.510		21529.520	503.425	503.474		21529.520	503.342	503.384
	21538.520	503.735	503.818		21538.520	503.641	503.716		21538.520	503.609	503.680		21538.520	503.526	503.590
	21548.786	503.944	504.035		21548.786	503.850	503.933		21548.786	503.818	503.897		21548.786	503.735	503.807
	21557.786	504.128	504.250		21557.786	504.034	504.148		21557.786	504.002	504.112		21557.786	503.919	504.022
	21566.786	504.312	504.453		21566.786	504.218	504.351		21566.786	504.186	504.315		21566.786	504.103	504.225
	21577.051	504.521	504.666		21577.051	504.427	504.564		21577.051	504.395	504.528		21577.051	504.312	504.438
	21586.051	504.705	504.879		21586.051	504.611	504.777		21586.051	504.579	504.741		21586.051	504.496	504.651
	21595.051	504.888	505.081		21595.051	504.794	504.979		21595.051	504.762	504.943		21595.051	504.679	504.853
	21605.317	505.098	505.293		21605.317	505.004	505.191		21605.317	504.972	505.155		21605.317	504.889	505.065
	21614.317	505.281	505.502		21614.317	505.187	505.400		21614.317	505.155	505.364		21614.317	505.072	505.274
	21623.317	505.465	505.700		21623.317	505.371	505.598		21623.317	505.339	505.562		21623.317	505.256	505.472
	21633.582	505.674	505.907		21633.582	505.580	505.805		21633.582	505.548	505.769		21633.582	505.465	505.679
	21642.582	505.858	506.114		21642.582	505.764	506.012		21642.582	505.732	505.976		21642.582	505.649	505.886
	21651.582	506.041	506.308		21651.582	505.947	506.206		21651.582	505.915	506.170		21651.582	505.832	506.080
	21661.848	506.251	506.512		21661.848	506.157	506.410		21661.848	506.125	506.374		21661.848	506.042	506.254
	21670.848	506.434	506.711		21670.848	506.340	506.609		21670.848	506.308	506.573		21670.848	506.225	506.433
	21679.848	506.618	506.899		21679.848	506.524	506.797		21679.848	506.492	506.761		21679.848	506.409	506.671
	21690.114	506.827	507.094		21690.114	506.733	507.000		21690.114	506.701	506.956		21690.114	506.618	506.856
	21699.114	507.011	507.291		21699.114	506.917	507.189		21699.114	506.885	507.153		21699.114	506.802	507.063
	21708.114	507.195	507.475		21708.114	507.101	507.373		21708.114	507.069	507.337		21708.114	506.986	507.247
	21718.379	507.404	507.667		21718.379	507.310	507.565		21718.379	507.278	507.529		21718.379	507.195	507.439
	21727.379	507.588	507.860		21727.379	507.494	507.758		21727.379	507.462	507.722		21727.379	507.379	507.632
	21736.379	507.771	508.040		21736.379	507.677	507.938		21736.379	507.645	507.902		21736.379	507.562	507.812
	21746.645	507.981	508.228		21746.645	507.887	508.126		21746.645	507.855	508.090		21746.645	507.772	508.000
	21755.645	508.164	508.417		21755.645	508.070	508.315		21755.645	508.038	508.279		21755.645	507.955	508.189
	21764.645	508.348	508.594		21764.645	508.254	508.492		21764.645	508.222	508.456		21764.645	508.139	508.366
	21774.910	508.557	508.777		21774.910	508.463	508.675		21774.910	508.431	508.639		21774.910	508.348	508.549
21783.910	508.741	508.964		21783.910	508.647	508.862		21783.910	508.615	508.826		21783.910	508.532	508.736	
21792.910	508.924	509.139		21792.910	508.830	509.037		21792.910	508.798	509.001		21792.910	508.715	508.911	
21803.176	509.134	509.320		21803.176	509.040	509.218		21803.176	509.008	509.182		21803.176	508.925	509.092	
21812.176	509.317	509.507		21812.176	509.223	509.405		21812.176	509.191	509.369		21812.176	509.108	509.279	
21821.176	509.501	509.681		21821.176	509.407	509.579		21821.176	509.375	509.543		21821.176	509.292	509.463	
21831.442	509.711	509.863		21831.442	509.617	509.761		21831.442	509.585	509.725		21831.442	509.502	509.635	
21840.442	509.894	510.042		21840.442	509.800	509.946		21840.442	509.768	509.910		21840.442	509.685	509.820	
21850.707	510.078	510.222		21850.707	509.984	510.120		21850.707	509.952	510.084		21850.707	509.869	509.994	
21859.707	510.257	510.402		21859.707	510.133	510.264		21859.707	510.101	510.232		21859.707	510.078	510.174	
21868.707	510.441	510.590		21868.707	510.317	510.468		21868.707	510.285	510.432		21868.707	510.262	510.362	
21877.707	510.624	510.766		21877.707	510.500	510.644		21877.707	510.468	510.612		21877.707	510.445	510.538	
21887.973	510.803	510.947		21887.973	510.684	510.828		21887.973	510.652	510.796		21887.973	510.629	510.719	
21896.973	511.043	511.187		21896.973	510.867	511.011		21896.973	510.835	510.979		21896.973	510.812	510.905	
21905.973	511.218	511.362		21905.973	511.050	511.194		21905.973	511.018	511.162		21905.973	511.009	511.074	
21916.238	511.414	511.558		21916.238	511.232	511.376		21916.238	511.200	511.344		21916.238	511.187	511.284	
21925.238	511.580	511.724		21925.238	511.416	511.560		21925.238	511.384	511.528		21925.238	511.371	511.477	
21934.238	511.743	511.887		21934.238	511.599	511.743		21934.238	511.567	511.711		21934.238	511.554	511.651	
21944.504	511.923	512.067		21944.504	511.783	511.927		21944.504	511.751	511.895		21944.504	511.738	511.835	
21953.504	512.077	512.221		21953.504	511.967	512.111		21953.504	511.935	512.079		21953.504	511.922	512.065	
21962.504	512.227	512.371		21962.504	512.133	512.277		21962.504	512.101	512.245		21962.504	512.018	512.045	
E Bearing Pier 11 L16 L17 L18 L19 L20 L21 L22 L23 L24 L25 L26 L27	21972.770	512.393	512.419		21972.770	512.299	512.317		21972.770	512.267	512.281		21972.770	512.184	512.191
	21981.770	512.534	512.581		21981.770	512.440	512.479		21981.770	512.408	512.443		21981.770	512.325	512.353
	21990.770	512.670	512.728		21990.770	512.576	512.626		21990.770	512.544	512.590		21990.770	512.461	512.500
	22001.036	512.821	512.871		22001.036	512.727	512.769		22001.036	512.695	512.733		22001.036	512.612	512.643
	22010.036	512.949	513.024		22010.036	512.855	512.922		22010.036	512.823	512.886		22010.036	512.740	512.795
	22019.036	513.073	513.160		22019.036	512.979	513.058		22019.036	512.947	513.022		22019.036	512.864	512.924
	22029.301	513.209	513.292		22029.301	513.115	513.190		22029.301	513.083	513.154		22029.301	513.000	513.064
	22038.301	513.325	513.434		22038.301	513.231	513.332		22038.301	513.199	513.296		22038.301	513.116	513.206
	22047.301	513.435	513.560		22047.301	513.341	513.458		22047.301	513.309	513.422		22047.301	513.226	513.332
	22057.567	513.557	513.680		22057.567	513.463	513.578		22057.567	513.431	513.542		22057.567	513.348	513.452
	22066.567	513.667	513.810		22066.567	513.565	513.708		22066.567	513.533	513.672		22066.567	513.450	513.562
	22075.567	513.757	513.924		22075.567	513.663	513.822		22075.567	513.631	513.785		22075.567	513.548	513.696
	22085.832	513.864	514.030		22085.832	513.770	513.928		22085.832	513.738	513.892		22085.832	513.655	513.802
	22094.832	513													

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

ROUTE NO. 49, SEC. 15-D, PEORIA & TAZEWELL COUNTIES
SHEET 98 OF 134

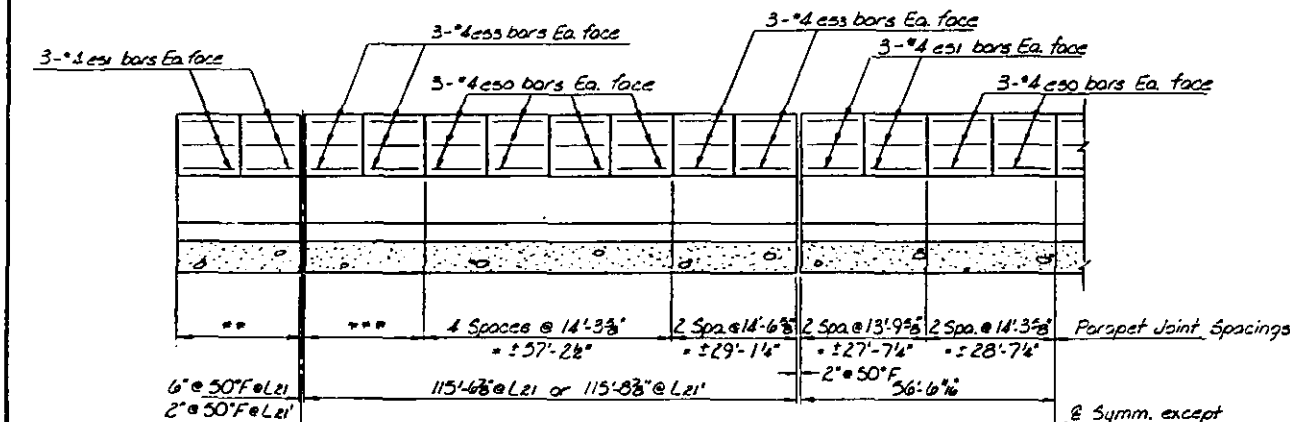


ELEVATION - CURB & PARAPET
L0 to L20

DRAINAGE SCUPPER SPACING TABLE

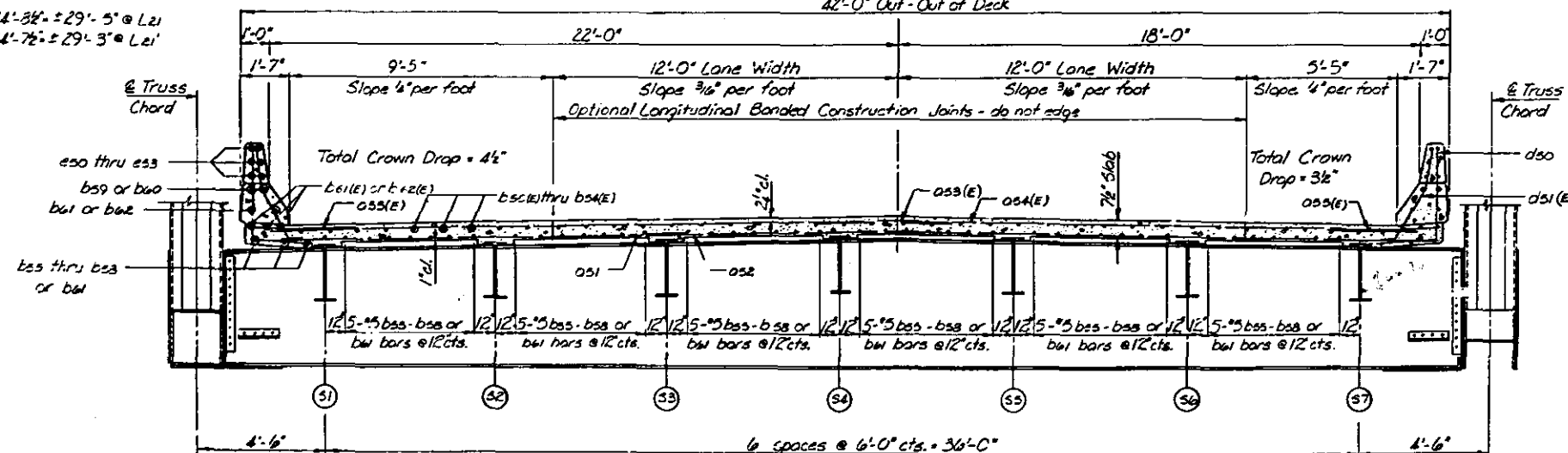
NORTH GUTTER	SOUTH GUTTER
Sta. 215+25	Sta. 216+15
216+60	217+85
217+95	219+65
219+30	221+15
220+80	221+95
221+45	223+75
222+10	224+55
223+60	226+05
224+25	227+85
224+90	229+55
226+20	
227+75	
229+10	
230+45	

Note: Drains shall be located clear of all diaphragms, floorbeams & lateral bracing.



ELEVATION - CURB & PARAPET
L20 to L27

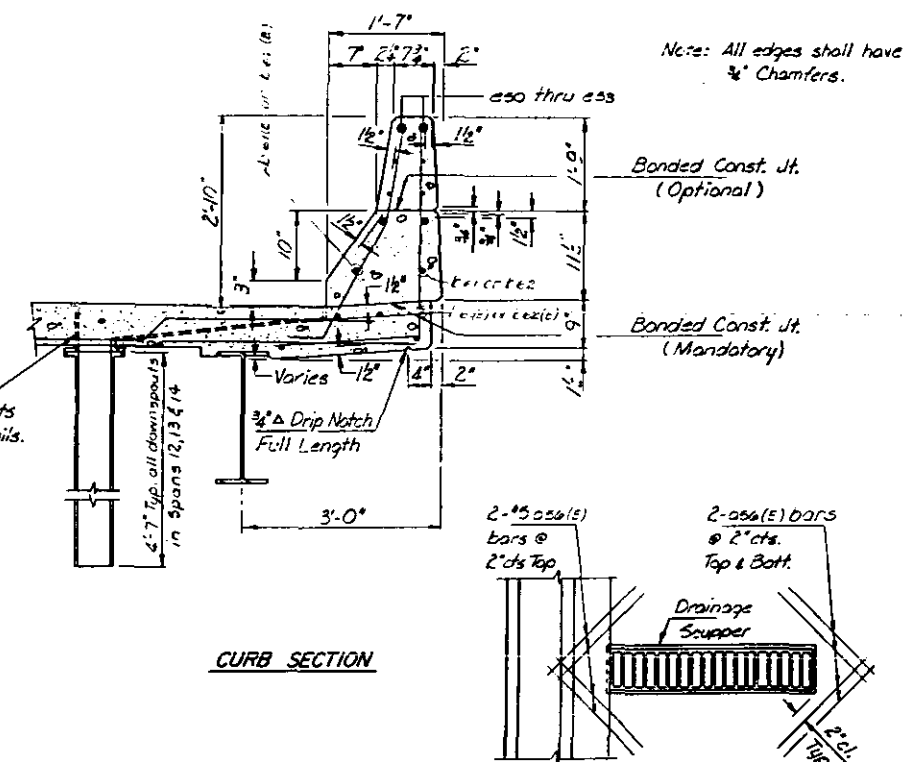
** 2 Spa @ 13'-7 3/8" ± 27'-3 1/4" @ L21
2 Spa @ 13'-6 3/8" ± 27'-1 1/4" @ L21
*** 2 Spa @ 14'-3 1/8" ± 29'-5" @ L21
2 Spa @ 14'-7 1/8" ± 29'-3" @ L21



AT BOTTOM CHORD COMPRESSION MEMBER

AT BOTTOM CHORD TENSION MEMBER

CROSS SECTION
(Looking East)



CURB SECTION

PLAN
REIN AT DRAINAGE SCUPPERS

CURB & PARAPET
TRUSS - SPANS 12, 13, & 14
M^o CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15-D
PEORIA & TAZEWELL COUNTIES

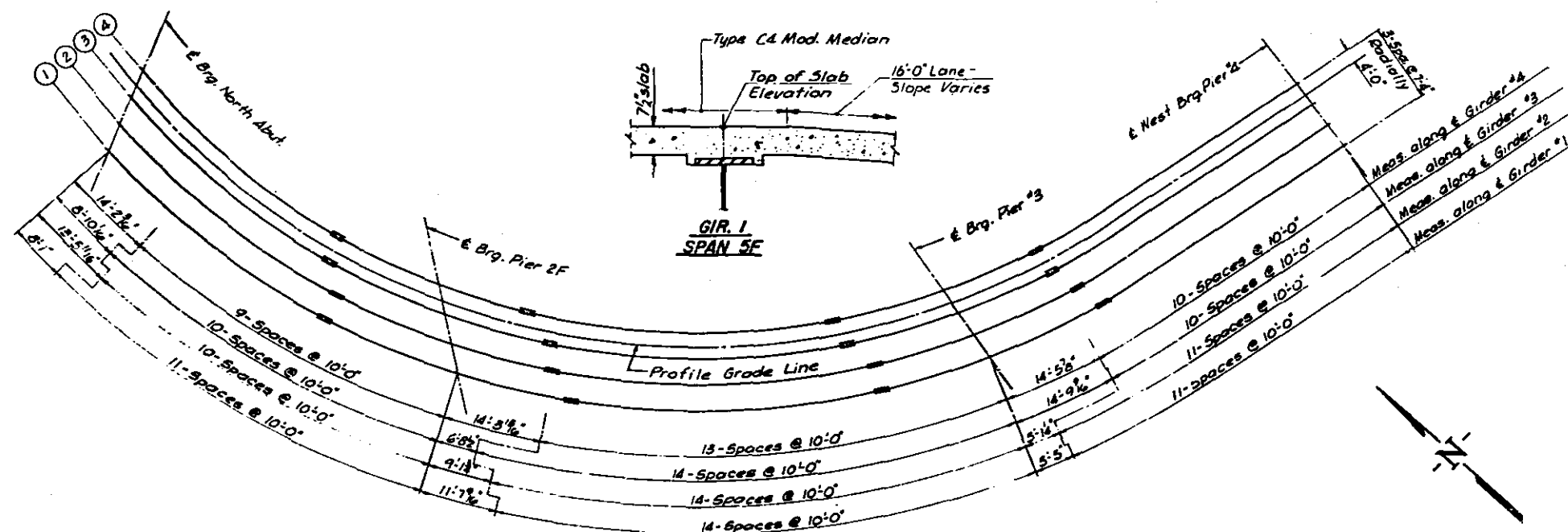
DESIGNED BY RNC
CHECKED BY HGL
DRAWN BY RJE
DATE 11-2-79
HANSON ENGINEERS
INCORPORATED
74001
SPRINGFIELD, ILLINOIS
PEORIA, ILLINOIS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

ROUTE NO. SEC. COUNTY TOTAL SHEETS SHEET NO.
FA-49 15-D PEORIA AND TAZEWELL 11 99 of 134
FED. ROAD DIST. NO. 7 ALABAMA PROJECT

GIRDER 1			GIRDER 2			GIRDER 3			GIRDER 4		
STATION	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION	STATION	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION	STATION	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION	STATION	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION
W. Brg. Pier 4	5+94.544	499.432	5+94.946	499.313	499.313	5+95.347	499.104	499.104	5+95.749	498.892	498.892
	6+04.544	499.625	6+04.946	499.503	499.503	6+05.347	499.262	499.262	6+05.749	499.017	499.017
	6+14.544	499.835	6+14.946	499.701	499.701	6+15.347	499.425	499.425	6+15.749	499.147	499.147
	6+24.544	500.049	6+24.946	499.897	499.897	6+25.347	499.589	499.589	6+25.749	499.278	499.278
	6+34.544	500.267	6+34.946	500.094	500.094	6+35.347	499.752	499.752	6+35.749	499.407	499.407
	6+44.544	500.490	6+44.946	500.291	500.291	6+45.347	499.916	499.916	6+45.749	499.538	499.538
Spaces @ 10'-0" cts Along E Girder	6+54.544	500.716	6+54.946	500.488	500.488	6+55.347	500.079	500.079	6+55.749	499.668	499.668
	6+64.544	500.943	6+64.946	500.683	500.683	6+65.347	500.242	500.242	6+65.749	499.799	499.799
	6+75.544	501.158	6+75.946	500.870	500.870	6+75.347	500.403	500.403	6+75.749	499.932	499.932
	6+82.757	501.372	6+83.831	501.057	501.057	6+84.980	500.564	500.564	6+85.214	500.065	500.065
	6+91.950	501.588	6+93.356	501.244	501.244	6+94.820	500.725	500.725	6+96.413	500.198	500.198
	7+01.142	501.803	7+02.842	501.428	501.428						
Brg. Pier 3	7+06.118	501.912	7+07.689	501.509	501.509	7+09.373	500.944	500.944	7+11.184	500.378	500.378
	7+15.311	502.184	7+17.194	501.617	501.617	7+19.213	501.051	501.051	7+21.383	500.484	500.484
	7+24.504	502.271	7+26.700	501.702	501.702	7+29.053	501.154	501.154	7+31.582	500.565	500.565
	7+35.687	502.358	7+38.205	501.766	501.766	7+38.893	501.194	501.194	7+41.781	500.619	500.619
	7+42.890	502.384	7+45.711	501.807	501.807	7+48.733	501.229	501.229	7+51.980	500.649	500.649
	7+52.083	502.430	7+55.216	501.826	501.826	7+58.573	501.226	501.226	7+62.179	500.653	500.653
	7+61.275	502.413	7+64.721	501.823	501.823	7+68.413	501.229	501.229	7+72.378	500.631	500.631
Spaces @ 10'-0" cts Along E Girder	7+70.468	502.397	7+74.227	501.797	501.797	7+78.253	501.194	501.194	7+82.577	500.583	500.583
	7+79.661	502.360	7+83.732	501.749	501.749	7+88.093	501.134	501.134	7+92.776	500.510	500.510
	7+88.854	502.302	7+93.238	501.680	501.680	7+97.933	501.051	501.051	8+02.975	500.412	500.412
	7+98.047	502.223	8+02.743	501.587	501.587	8+07.773	500.944	500.944	8+15.174	500.288	500.288
	8+07.239	502.123	8+12.248	501.473	501.473	8+17.613	500.813	500.813	8+23.373	500.138	500.138
	8+16.432	502.003	8+21.754	501.337	501.337	8+27.453	500.658	500.658	8+33.572	499.963	499.963
	8+25.625	501.862	8+31.259	501.178	501.178	8+37.293	500.480	500.480	8+43.771	499.762	499.762
	8+34.818	501.700	8+40.765	500.997	500.997	8+47.133	500.277	500.277			
Brg. Pier 2F	8+45.508	501.485	8+49.457	500.812	500.812	8+53.735	500.128	500.128	8+58.387	499.430	499.430
	8+54.700	501.278	8+58.962	500.588	500.588	8+63.575	499.886	499.886	8+68.585	499.167	499.167
	8+63.893	501.051	8+68.468	500.343	500.343	8+73.415	499.620	499.620	8+78.785	498.878	498.878
	8+73.086	500.802	8+77.973	500.075	500.075	8+83.255	499.330	499.330	8+88.984	498.564	498.564
	8+82.279	500.533	8+87.479	499.785	499.785	8+93.095	499.017	499.017	8+99.183	498.224	498.224
Spaces @ 10'-0" cts Along E Girder	8+91.472	500.243	8+96.984	499.472	499.472	9+02.935	498.679	498.679	9+09.382	497.859	497.859
	9+00.664	499.933	9+06.489	499.138	499.138	9+12.775	498.318	498.318	9+19.581	497.468	497.468
	9+09.857	499.601	9+15.995	498.781	498.781	9+22.615	497.933	497.933	9+29.780	497.051	497.051
	9+19.050	499.249	9+25.500	498.402	498.402	9+32.455	497.525	497.525	9+39.979	496.609	496.609
	9+28.243	498.955	9+35.006	498.001	498.001	9+42.295	497.092	497.092	9+50.178	496.147	496.147
	9+37.436	498.627	9+44.511	497.578	497.578	9+52.135	496.629	496.629			
Brg. No. Abut.	9+54.059	497.664	9+57.318	496.925	496.925	9+60.834	496.192	496.192	9+64.642	495.465	495.465

ELEVATIONS - TOP OF CONCRETE

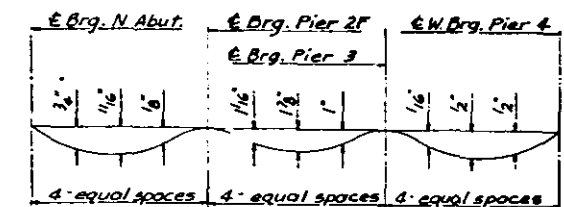


Note: All dimensions shown in plan are measured horizontally.

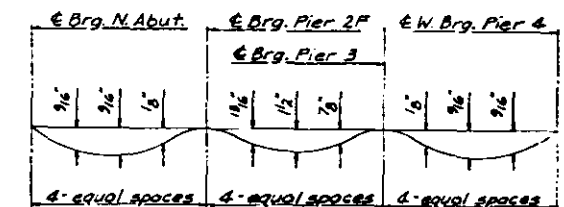
DIAGRAMMATIC PLAN - TOP OF SLAB ELEVATIONS

Note: For notes on method of determining fillet heights "r" see Sheet of

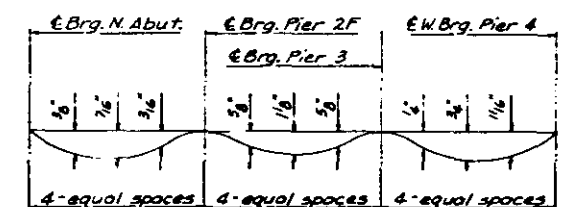
Note: All dimensions shown are measured horizontally.



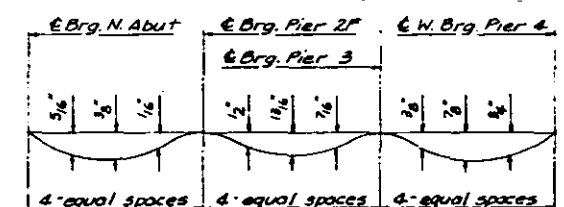
GIRDER 1



GIRDER 2



GIRDER 3



GIRDER 4

DEAD LOAD DEFLECTION DIAGRAMS

Note: The above are not to be used in the field if the engineer is working from the slab elevations adjusted for dead load deflection shown in table above.

TOP OF SLAB ELEVATIONS
RAMP F - SPANS 3F, 4F, 5F
M^CCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15-D
PEORIA & TAZEWELL COUNTIES

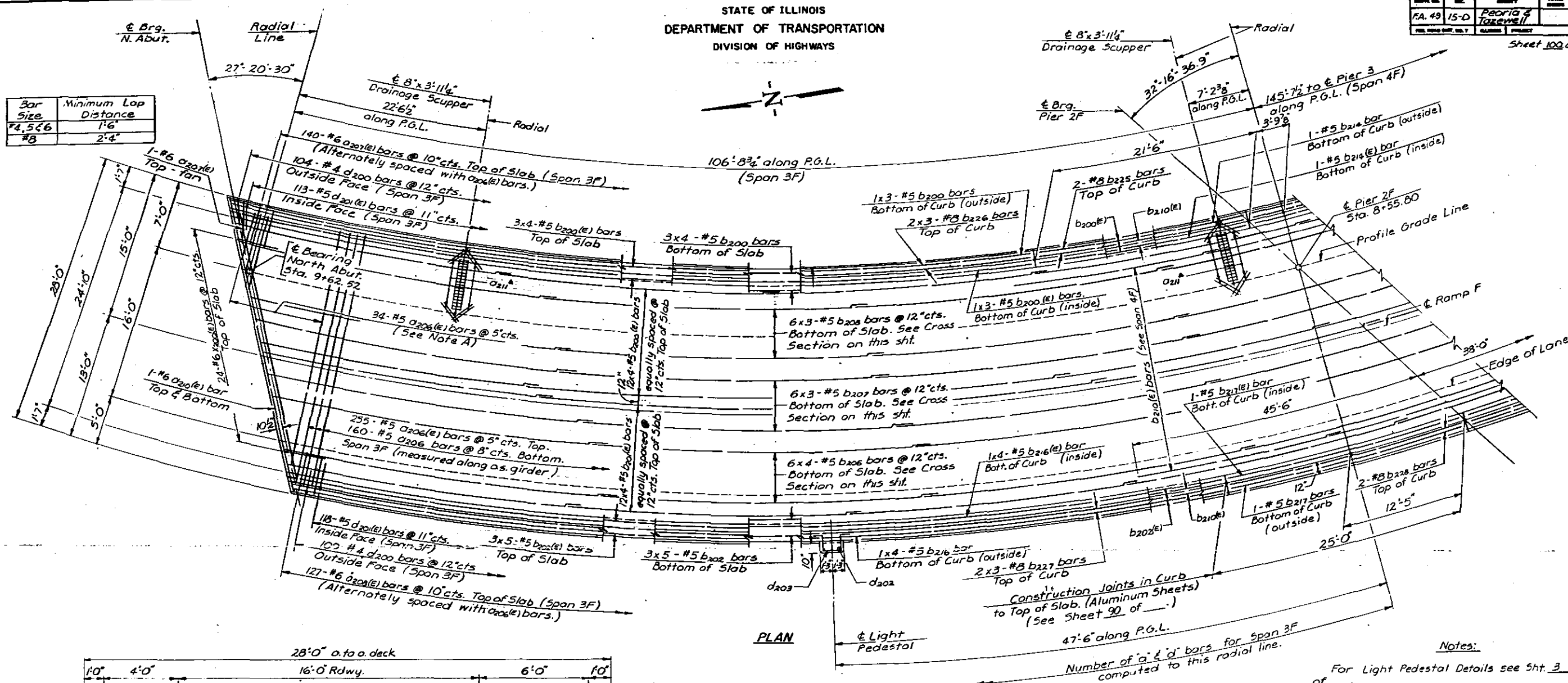
WDL
RAH
RAH
DAN
WDL
HANSON ENGINEERS
74001
11-2-79

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

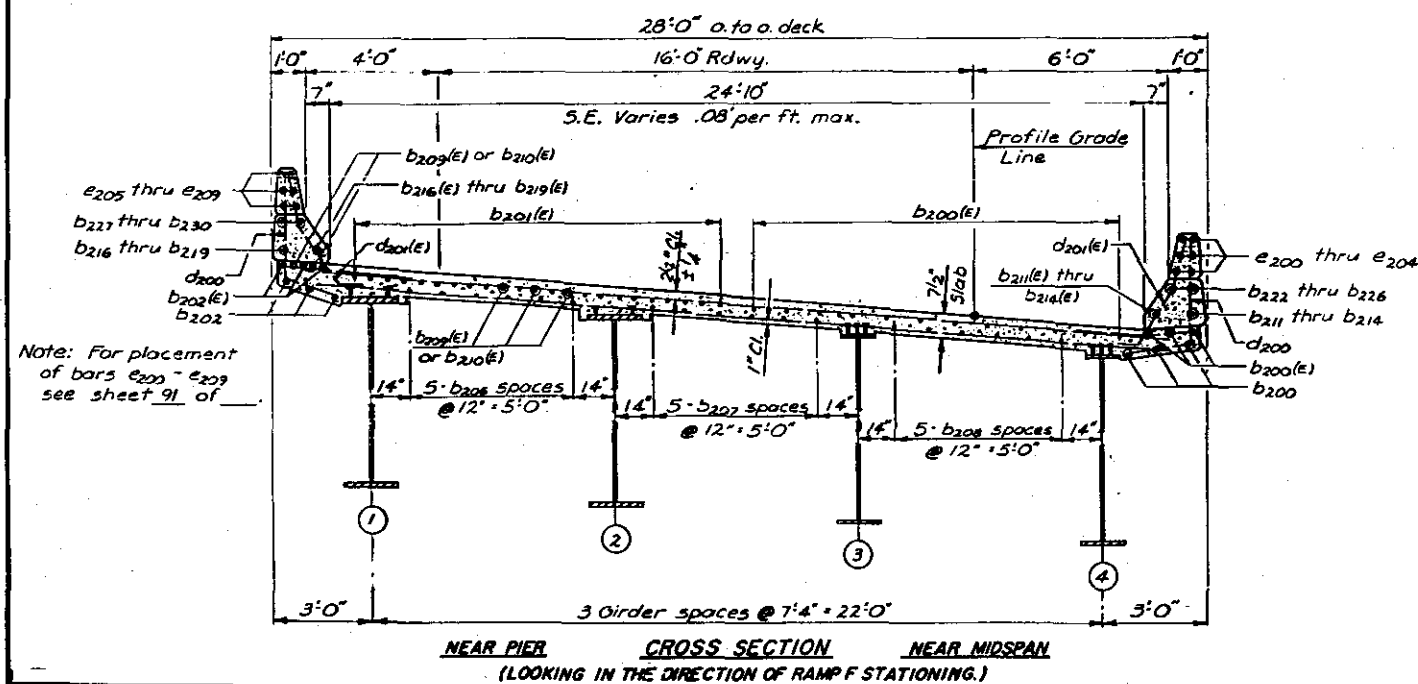
DATE	BY	CHKD	APP'D	REV
FA. 49	IS-D	Peoria & Tazewell		
FILE NO.	DATE	BY	CHKD	APP'D

Sheet 100 of 134

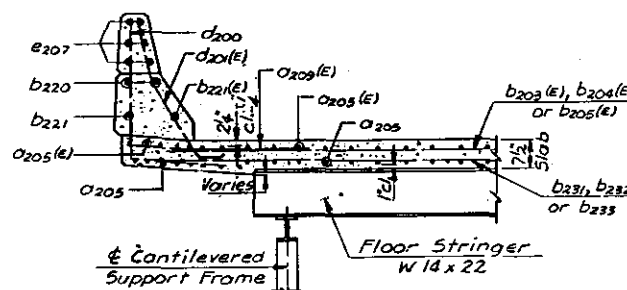
Bar Size	Minimum Lap Distance
#4, #5, #6	1'-6"
#8	2'-4"



PLAN



CROSS SECTION C-C
(LOOKING IN THE DIRECTION OF RAMP F STATIONING.)



SECTION C-C
(From Sheet 89 of 134)

Notes:

- For Light Pedestal Details see Sht. 3 of 134.
- For Drainage Scupper Details see Sht. 150 thru 153.
- For Reinforcement & configuration of slab at Scupper see Sheet 3 of 134.
- Bars indicated thus: 20x3-#5, etc. indicates 20 lines of bars with 3 lengths per line.
- Note A: Order #5 bars full length, cut bars in field to fit skew and use remainder of bars in bottom of slab. See Special Provisions for the procedure for epoxy coating of cut reinforcement bars.
- All dimensions shown are measured horizontally.

RAMP F SUPERSTRUCTURE
SPAN 3F

McCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
FA. ROUTE 49 SEC. 15-D
PEORIA & TAZEWELL COUNTIES

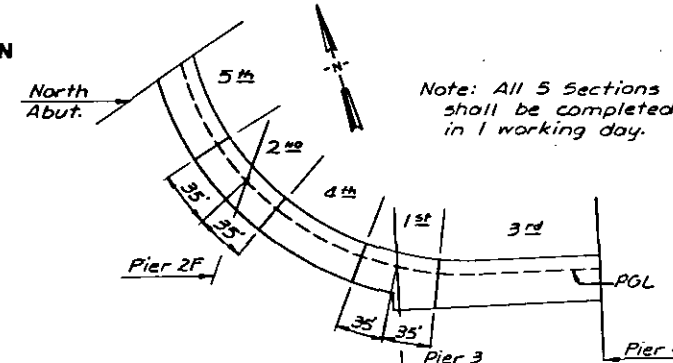
DAN	HANSON ENGINEERS	74001
WDL	INCORPORATED	
DAN		
C.R.N.		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

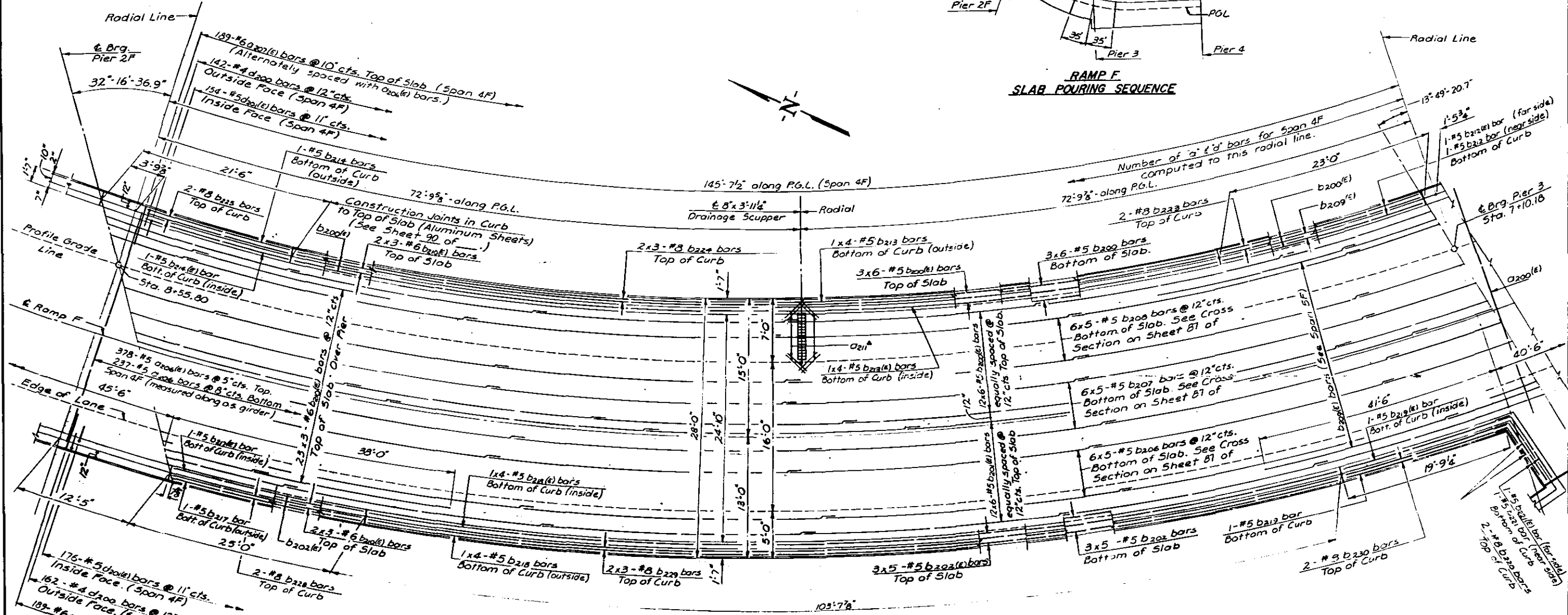
PROJECT NO. 15-D
SHEET 101 OF 134

Note:
Bars indicated thus: 20 x 3 - #5, etc.
indicates 20 lines of bars with
3 lengths per line.

Bar Size	Minimum Lap Distance
#4, #5, #6	1'-6"
#8	2'-4"



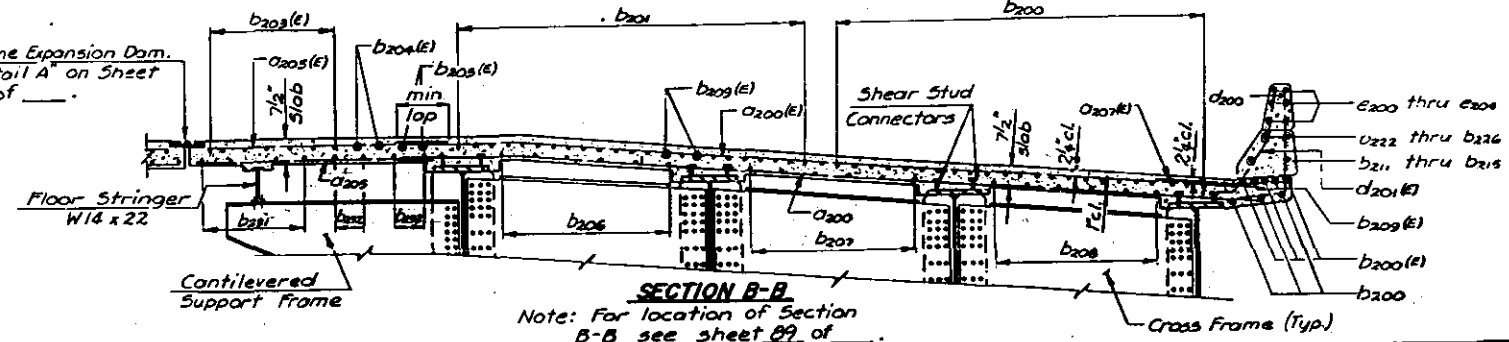
RAMP F
SLAB POURING SEQUENCE



PLAN

Notes:
For Drainage Scupper Details see Sht. 150
thru 152.
For Reinforcement & configuration of slab
at Scupper see Sheet 3 of
All dimensions shown are measured horizontally.

Neoprene Expansion Dam.
See Detail A on Sheet
9 of ____.



SECTION B-B

Note: For location of Section
B-B see sheet 99 of ____.

RAMP F SUPERSTRUCTURE
SPAN 4F

M^C CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15-D
PEORIA & TAZEWELL COUNTIES

DAN WDL DAN CRN

HANSON ENGINEERS
INCORPORATED

74001
11-2 579

FOR INFORMATIONAL PURPOSES ONLY - (SECTION B-B)



Note: All dimensions shown are measured horizontally.



Notes:
Bars indicated thus: $20 \times 3 - \#5$, etc. indicates
20 lines of bars with 3 lengths per line.
For Light Pedestal Details see Sheet 3
of ____.
For Section A-A see Sheet 8 of ____.
For Section B-B see Sheet 28 of ____.
For Section C-C see Sheet 27 of ____.
For Section F-F see Sheet 90 of ____.
For Scupper Details see Sheet 150 thru 153.
* For Reinforcement & configuration of slab at
Scupper see Sheet 3 of ____.

M^C CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15-D
PEORIA & TAZEWELL COUNTIES

———— D.A.M.
 ———— W.D.L.
 ———— D.A.M.
 ———— C.R.M.


**HANSON
ENGINEERS**
 INCORPORATED

CONSTRUCTION & ENGINEERING PEORIA, ILLINOIS

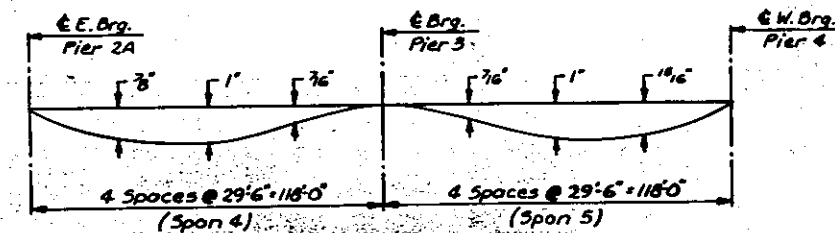
FOR INFORMATIONAL PURPOSES ONLY-(LOCATION OF SECTION B-B)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PA-19 15-D 10-10-11
SHEET 105 OF 115

GIRDER 1			GIRDER 2		
STATION	ELEV. A	ELEV. B	STATION	ELEV. A	ELEV. B
East Bearing Pier 2A	199+48.000	502.523	199+48.000	502.713	502.713
a	199+58.000	502.481	199+58.000	502.713	502.742
b	199+68.000	502.441	199+68.000	502.711	502.765
c	199+78.000	502.375	199+78.000	502.635	502.768
d	199+88.000	502.284	199+88.000	502.512	502.597
e	199+98.000	502.192	199+98.000	502.354	502.336
f	200+08.000	502.085	200+08.000	502.090	502.160
g	200+18.000	501.957	200+18.000	501.913	501.965
h	200+28.000	501.828	200+28.000	501.635	501.667
i	200+38.000	501.658	200+38.000	501.288	501.302
j	200+48.000	501.457	200+48.000	501.961	500.964
k	200+58.000	501.193	200+58.000		
Bearing Pier 3	200+66.000	500.806	200+66.000	500.735	500.735
l	200+71.000	500.303	200+71.000	500.378	500.379

<u>GIRDER 3</u>			
	STATION	ELEV. A	ELEV. B
East Bearing Pier 2A	199+48.000	502.892	502.892
a	199+58.000	502.931	502.960
b	199+68.000	502.965	503.019
c	199+78.000	502.872	502.945
d	199+88.000	502.681	502.766
e	199+98.000	502.489	502.576
f	200+08.000	502.225	502.307
g	200+18.000	501.882	501.952
h	200+24.500	501.428	501.483



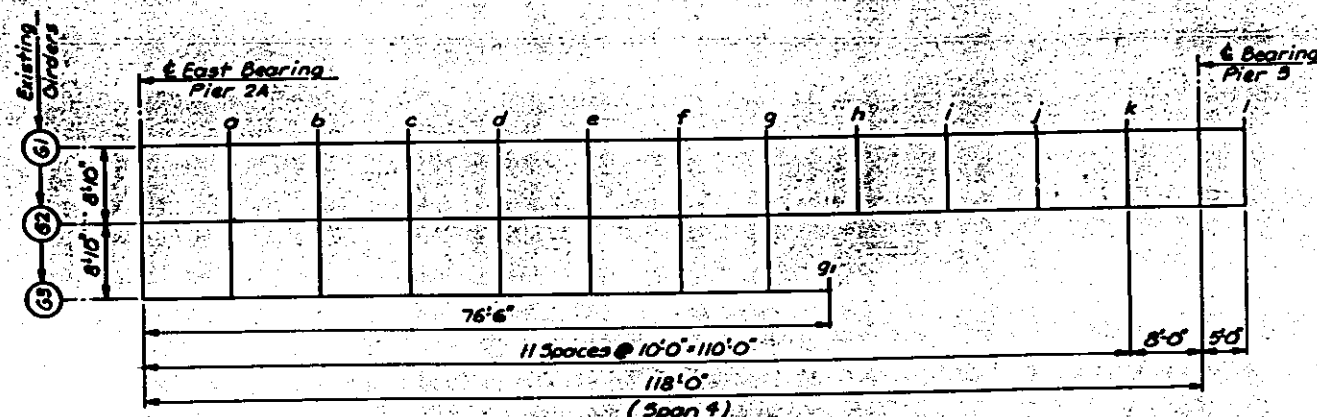
DEAD LOAD DEFLECTION DIAGRAM
(Includes Weight of Concrete Slab & C.I.)

Note: The above deflections are not to be used in the field if the Engineer is working from the Grade Elevations Adjusted for Dead Load Deflections (Elev. B) as shown in table of Top of Concrete Elevations.

Note: Stations used above are existing bridge stations.

TOP OF CONCRETE ELEVATIONS

- ELEV. A - THEORETICAL GRADE ELEVATIONS
- ELEV. B - THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION



DIAGRAMMATIC PLAN

See Sheet 68 for Method of Determining Fillet Heights.

TOP OF SLAB ELEVATIONS EXISTING SPAN 4
M. CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 19 SEC. 15-D
PEORIA & TAZEWELL COUNTIES

SCD
C.B.N.
D.A.M.
SCD

HANSON ENGINEERS
INCORPORATED
PEORIA, ILLINOIS

7400
11-2-73

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

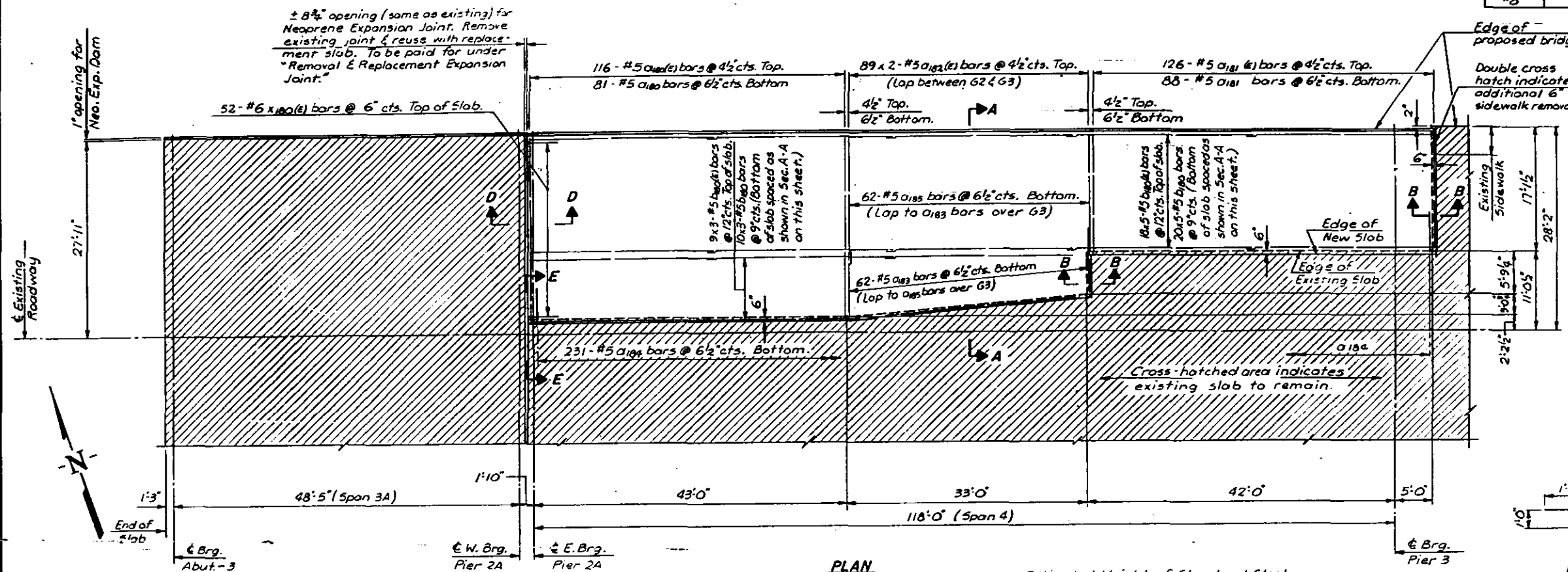
Bar Size	Minimum Lap Distance
#4, #5, #6	1'-6"
#8	2'-4"

Bar No.	Bar Size	Length	Shape
116	#5	25'-10"	
126	#5	17'-0"	
178	#5	13'-8"	
62	#5	7'-9"	
231	#5	4'-11"	
62	#5	19'-8"	
117	#5	26'-2"	
20	#5	23'-10"	
6	#5	23'-2"	
35	#5	6'-0"	
31	#5	5'-0"	
132	#5	7'-2"	
74	#5	6'-2"	
52	#6	4'-2"	

BILL OF MATERIAL
EXISTING SPANS 3A, 4B5

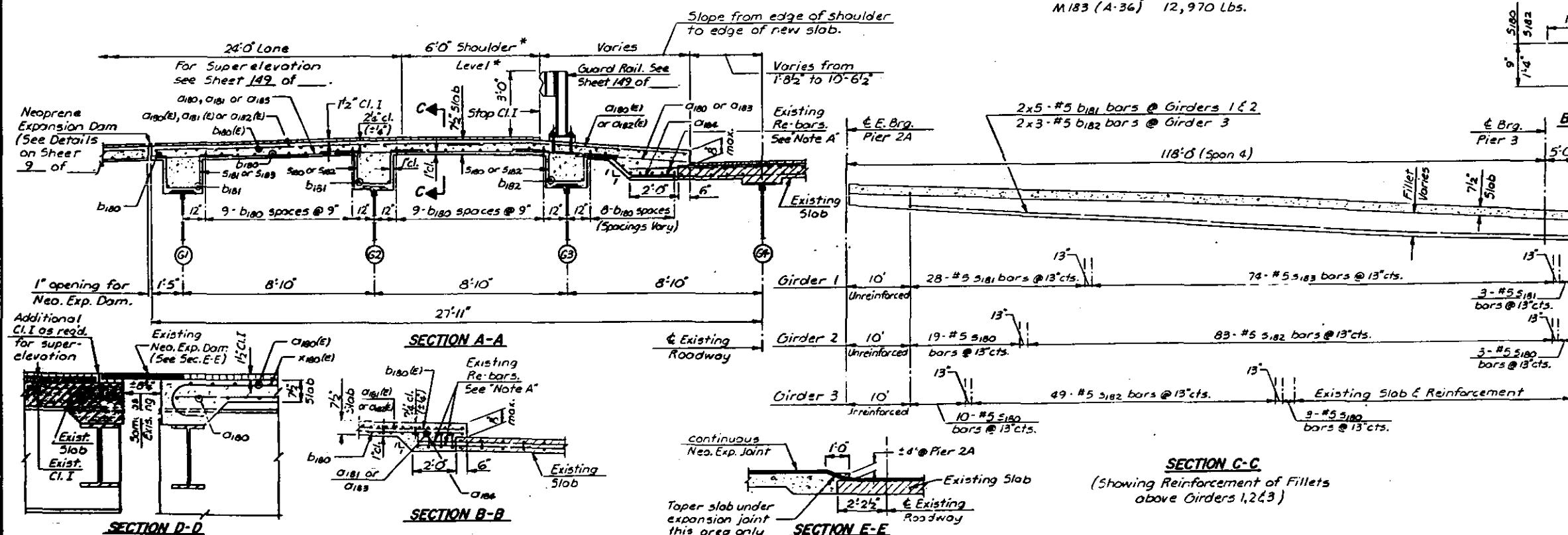
BAR NO.	NO.	SIZE	LENGTH	SHAPE
116	81	#5	25'-10"	
126	88	#5	17'-0"	
178		#5	13'-8"	
62	62	#5	7'-9"	
231	231	#5	4'-11"	
62	62	#5	19'-8"	
117	130	#5	26'-2"	
20	20	#5	23'-10"	
6	6	#5	23'-2"	
35	35	#5	6'-0"	
31	31	#5	5'-0"	
132	132	#5	7'-2"	
74	74	#5	6'-2"	
52		#6	4'-2"	

Class X Concrete	Cu. Yds.	96.0
Reinforcement Bars	Lbs.	12,733.8
Reinforcement Bars (Epoxy Coated)	Lbs.	11,415.5
Neoprene Expansion Joint - Dam	Lin. Ft.	175.0
Rem. & Repl. Expan. Jt.	Lin. Ft.	27.0
Structural Steel	Lump Sum	
Concrete Removal	Cu. Yds.	79.7
Blast Plate Removal	Lump Sum	



PLAN

Estimated Weight of Structural Steel:
M183 (A-36) 12,970 Lbs.



Notes:
Bars indicated thus 20 x 5 #5 etc. indicates 20 lines of bars with 5 lengths per line.
Reinforcement bars designated (E) shall be epoxy coated. See Special Provisions.
* - For limits of shoulder transition & for shoulder superelevation see Sheet 149 of
Note A: Leave 1'-10" extension length on existing reinforcement bars and clean for rebedment.

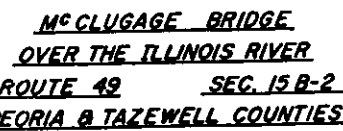
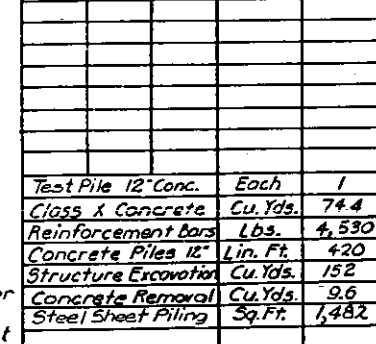
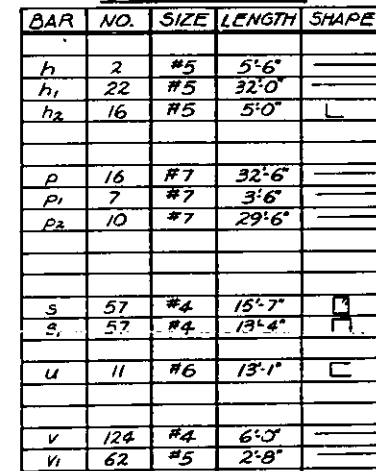
SUPERSTRUCTURE
EXISTING SPANS 3A, 4B5
M^o CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15-D
PEORIA & TAZEWELL COUNTIES



DIVISION OF HIGHWAYS
62 - # 4 v bars @ 12" cts. (Front & Back of Wall.)

DIVISION OF HIGHWAYS
62 - # 4 v bars @ 12" cts. (Front & Back of Wall.)

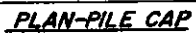
62-#5 V₁ bars @ 12" cts. (Back Wall)
57-#4 s₂ bars @ 12" cts. (See Sec. B-B)



PILE DATA

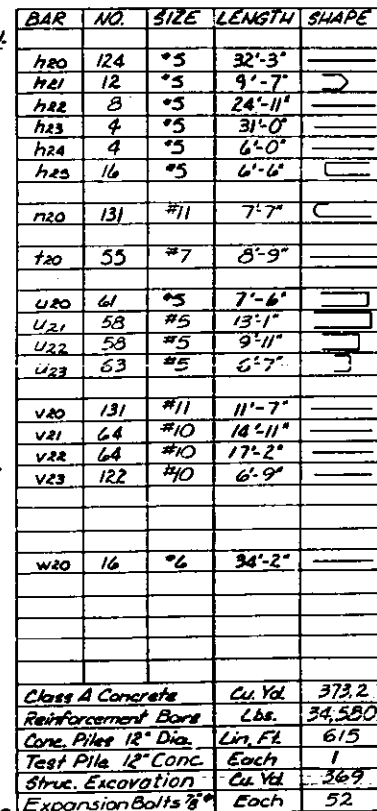
Type: 12" Concrete Piles
Capacity: 45 Tons
Est. Length: 30 Ft.
No. Required: 15*

*Includes one Test Pile
driven in a permanent
location.



FOR INFORMATIONAL PURPOSES ONLY. NOT INCLUDED IN THIS CONTRACT.

DIVISION OF HIGHWAYS



M^cCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
ROUTE 49 SEC. 15B-2
FORIA & TAZEWELL COUNTIES



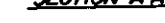
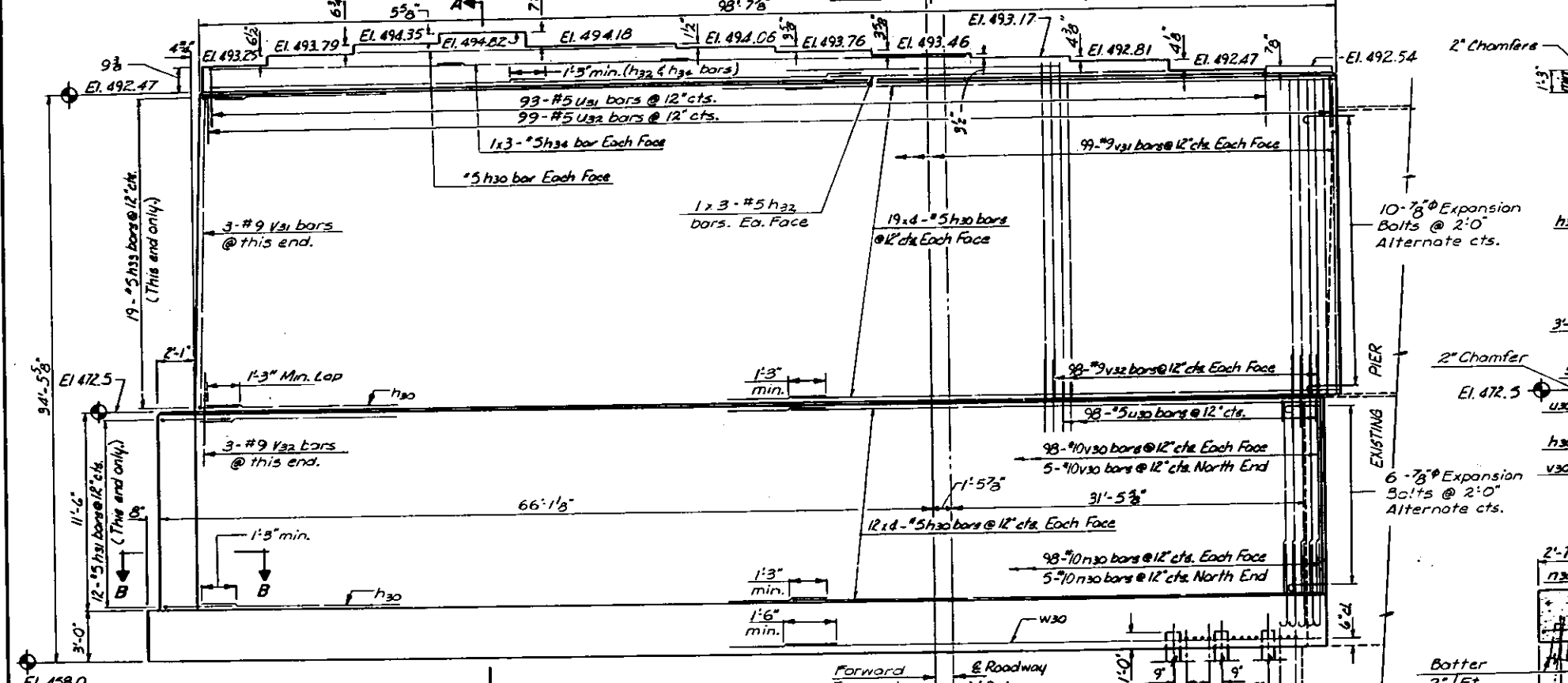
**HANSON
ENGINEERS**
INCORPORATED

SPRINGFIELD, ILLINOIS PEORIA, ILLINOIS

FILE NO.	74001
DATE	6-22-76

FOR INFORMATIONAL PURPOSES ONLY. NOT INCLUDED IN THIS CONTRACT.

DIVISION OF HIGHWAYS



Expansion costs of	2000	100
--------------------	------	-----

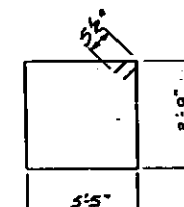
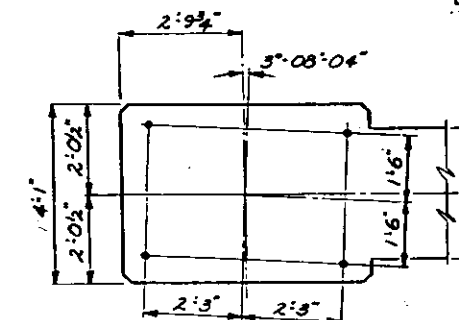
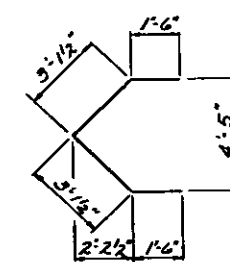
M^e CLUGAGE BRIDGE

TORIA & TAZEWELL COUNTIES

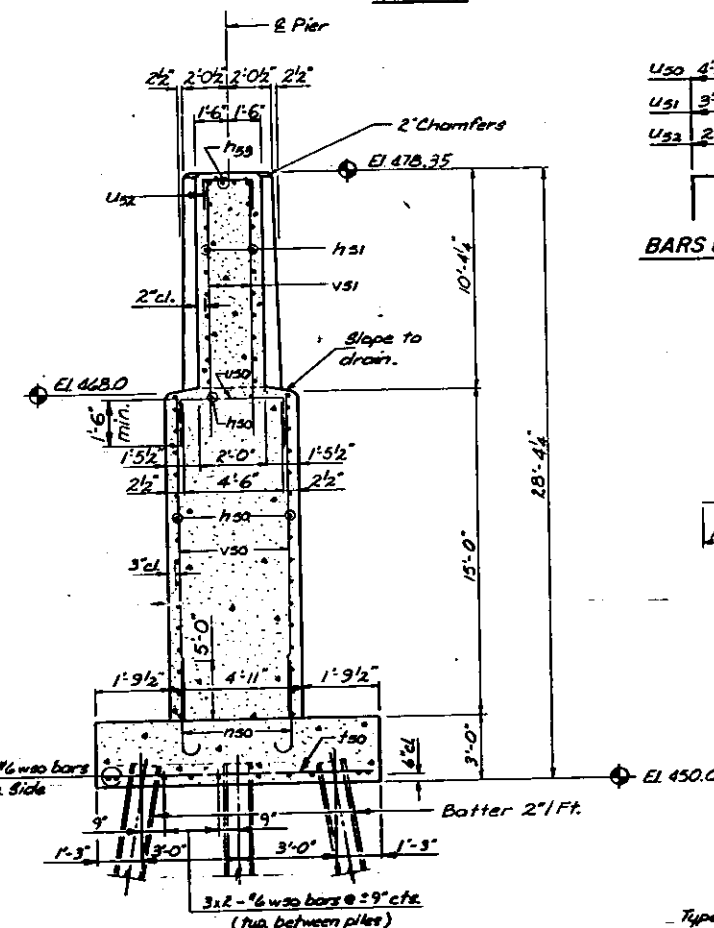
ENGINEERS

FOR INFORMATIONAL PURPOSES ONLY. NOT INCLUDED IN THIS CONTRACT.

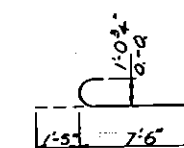


**BAR 530**

TOP PLAN

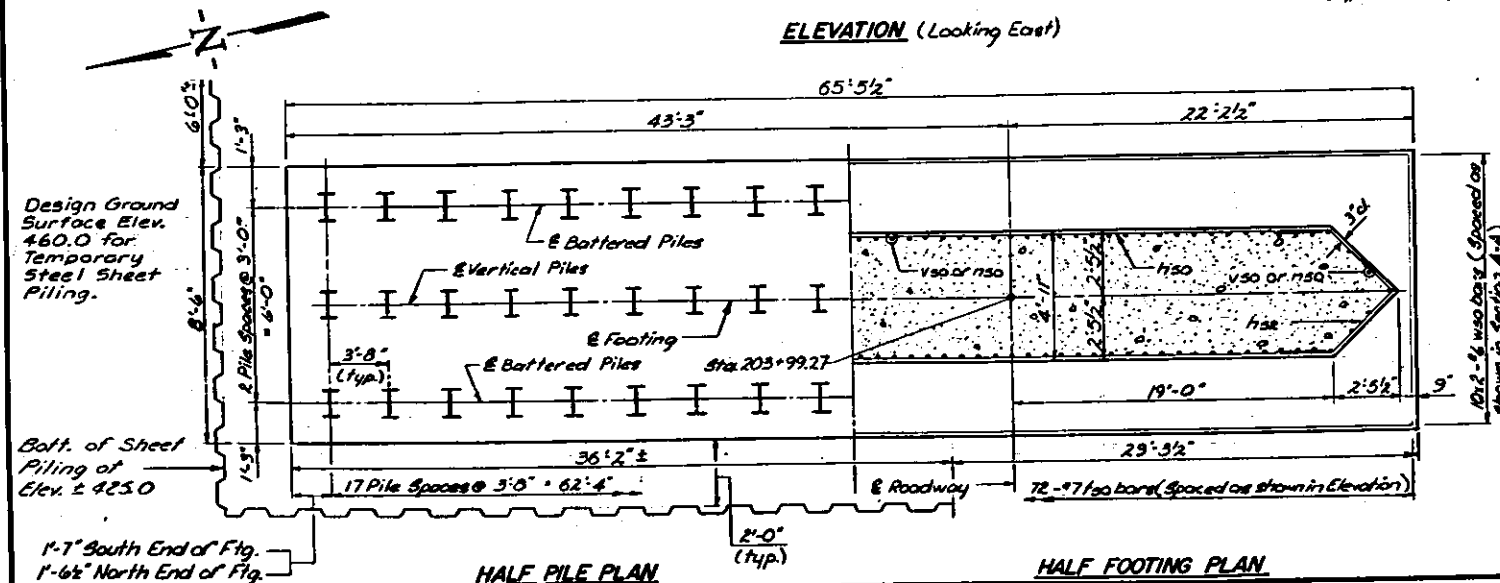


SECTION A-A



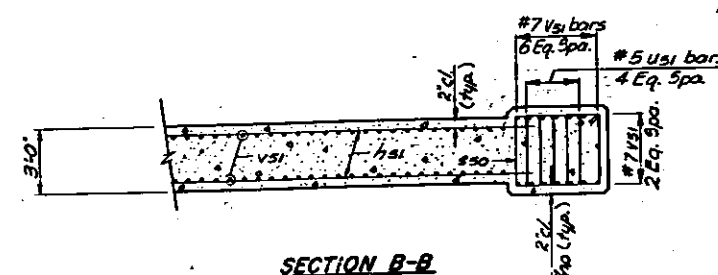
RAR no.

ELEVATION (Looking East)



HALF PILE PLAN

HALF FOOTING PLAN



SECTION B-B

PILE DATA

Type	HP 12 x 53
Capacity	Drive to Refusal
Est. Length	58'
No. Required	34*

* Includes one test pile driven in a permanent location.

<u>PIER 5</u>				
<u>BILL OF MATERIAL</u>				
BAR	NQ	SIZE	LENGTH	SHAPE
H50	68	#5	30'-2"	—
H51	40	#5	25'-9"	—
H52	32	#5	9'-3"	C
H53	4	#9	53'-0"	—
H50	130	#10	8'-11"	C
S50	22	#5	19'-5"	□
T50	72	#7	8'-2"	—
U50	48	#5	7'-3"	—
U51	10	#5	7'-5"	—
U52	47	#5	5'-8"	—
V50	130	#10	18'-9"	—
V51	144	#7	12'-0"	—
W50	20	#6	33'-5"	—
Close A Concrete			Cu Yds.	302.6
Reinforcement Bars			Lbs.	24,360
Steel Pile HP12 x 53			Lbs. Ft.	3,074
Test Pile HP12 x 53			Each	1
Struct Exc.			Cu Yds.	273.1
Temporary Steel Sheet Piling.			Sq. Ft.	7,950

PIER 5

M^C CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 158-2
PEORIA & TAZEWELL COUNTIES



3400

2000

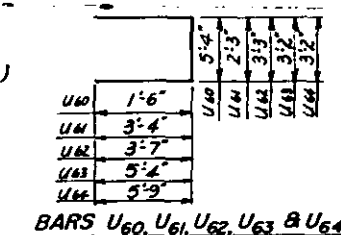
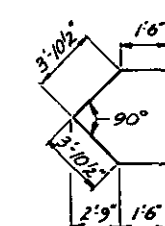
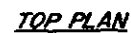
6-22-7

1990

FOR INFORMATIONAL PURPOSES ONLY. NOT INCLUDED IN THIS CONTRACT.

REPORT NO.	REV.	COUNTY	POL. DIST.	PRECED. NO.
FA 49	158-2	Peoria & Tazewell		
POL. ROAD DIST. NO. 7		DANGER	PRIORITY	

Sheet 116 of 134



PIER 6				
BILL OF MATERIAL				
BAR	NO.	SIZE	LENGTH	SHAPE
n60	60	#6	25'-5"	—
n61	32	#6	10'-9"	C
n62	24	#7	19'-0"	—
n63	8	#7	11'-0"	—
n64	6	#9	45'-4"	—
n60	182	#9	6'-3"	C
p60	4	#11	48'-8"	—
p61	4	#11	45'-4"	—
p62	8	#11	14'-0"	7
r60	64	#9	10'-6"	—
u60	34	#6	8'-4"	—
u61	96	#5	8'-11"	—
u62	192	#5	10'-5"	—
u63	56	#6	13'-10"	—
u64	20	#6	14'-8"	—
v60	182	#9	15'-3"	—
v61	56	#11	27'-0"	—
w60	24	#6	27'-0"	—
Class A Concrete			Cu. Yds.	313.1
Reinforcement Bars			Lbs.	37,130
Steel Piles HP 10x57			Lin. Ft.	1,568
Test Pile HP 10x57			Each	1
Cofferdam Excav.			Cu. Yds.	189
Cofferdam			Each	One

Type Steel HP 10 x 57
Capacity Drive to refusal.
Est. Length 49'-0"
No. Required 33 *

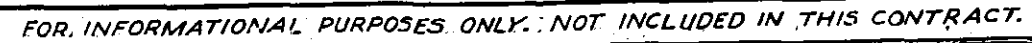
** Includes one test pile driven
in a permanent position.*

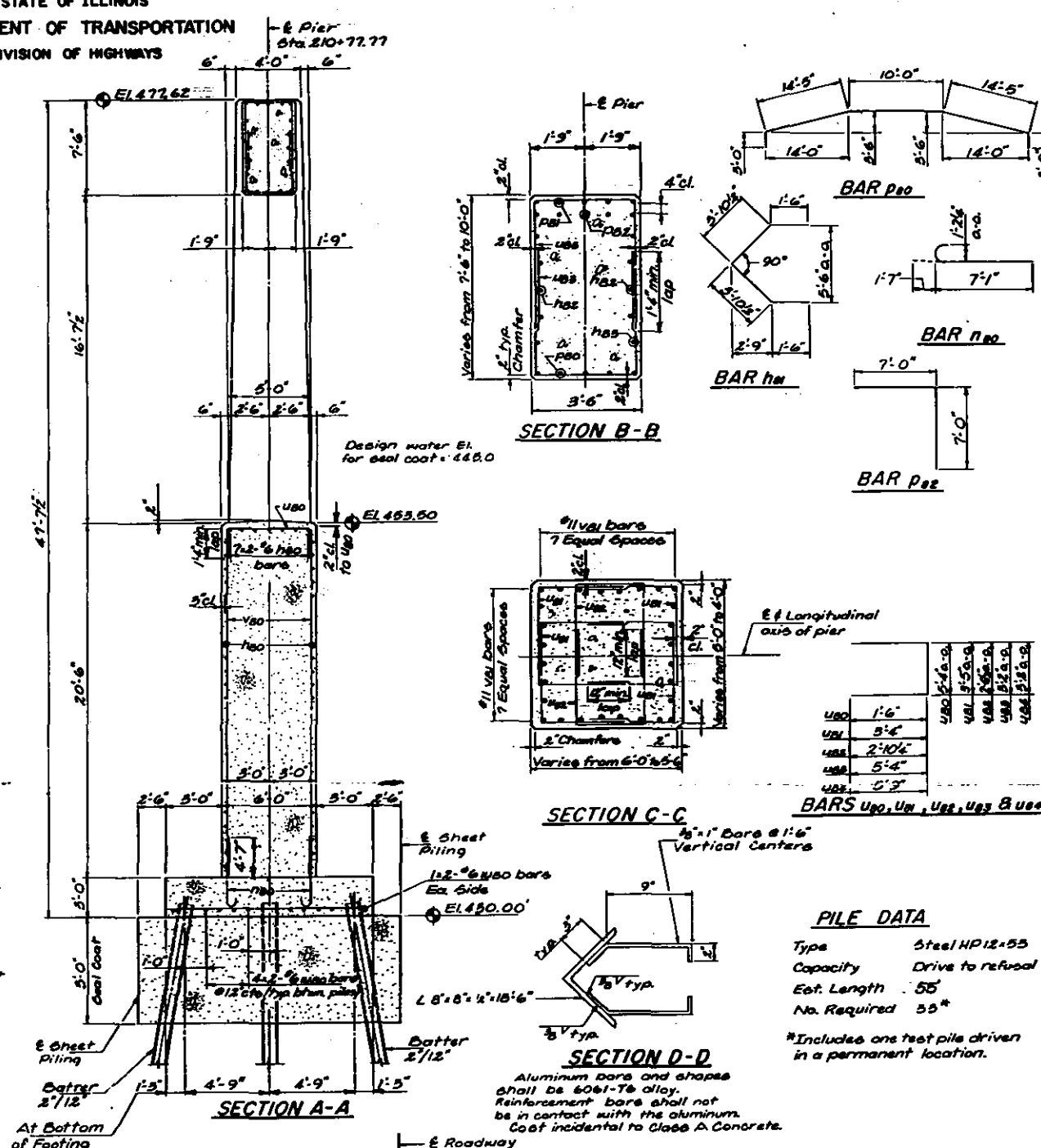
PIER 6

M^CCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15B-2
PEORIA & TAZEWELL COUNTIES

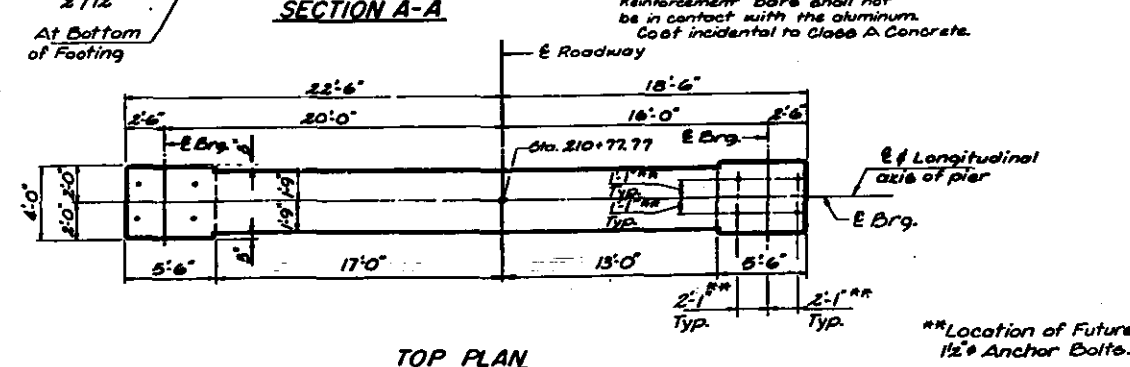
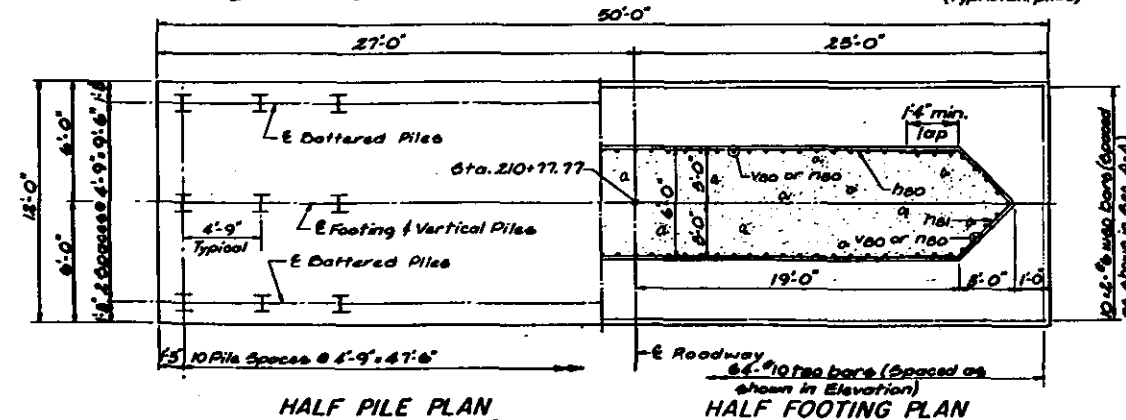
500 WEB DAN CRN	 HANSON ENGINEERS INCORPORATED	FILE NO 7400N DATE 6-22-77
--------------------------	---	---

FOR INFORMATIONAL PURPOSES ONLY. NOT INCLUDED IN THIS CONTRACT.





PIER 8				
BILL OF MATERIAL				
BAR	NO.	SIZE	LENGTH	SHAPE
#80	94	#6	21'-9"	—
#81	42	#6	10'-9"	C
#82	24	#6	17'-2"	—
#83	8	#6	10'-0"	—
#80	100	#11	8'-8"	C
#80	5	#11	44'-10"	U
#81	5	#11	40'-0"	—
#82	10	#11	14'-0"	7
#80	44	#10	11'-6"	—
#80	51	#6	6'-4"	C
#81	192	#6	10'-1"	—
#82	96	#6	8'-3"	—
#83	56	#6	16'-6"	—
#84	8	#6	17'-2"	—
#80	100	#11	20'-5"	—
#81	56	#11	27'-3"	—
#80	20	#6	26'-6"	—
Class A Concrete			Cu Yds.	353.7
Reinforcement Bars			Lbs.	39,220
Best Coat Concrete			Cu Yds.	102.0
Steel Piles HP 12x53			Lin. Ft.	1,760-
Best Pile HP 12x53			Each	1
Cofferdam Excavation			Cu Yds.	915
Cofferdam			Each	1

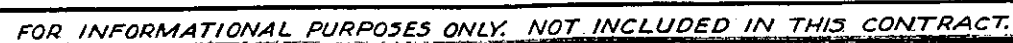


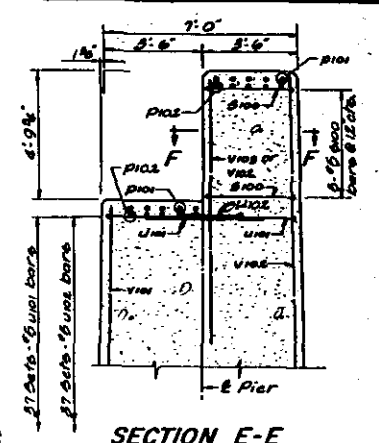
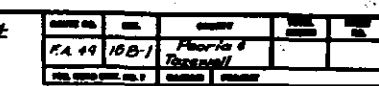
***Location of Future
1 1/2" Anchor Bolts.

PIER 8

M^cCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15 B-2
PEORIA & TAZEWELL COUNTIES

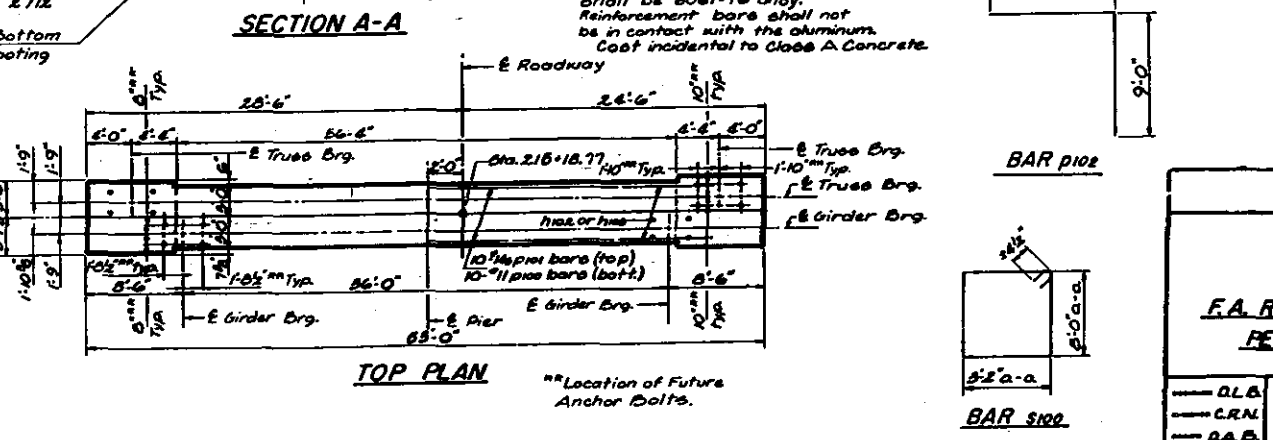
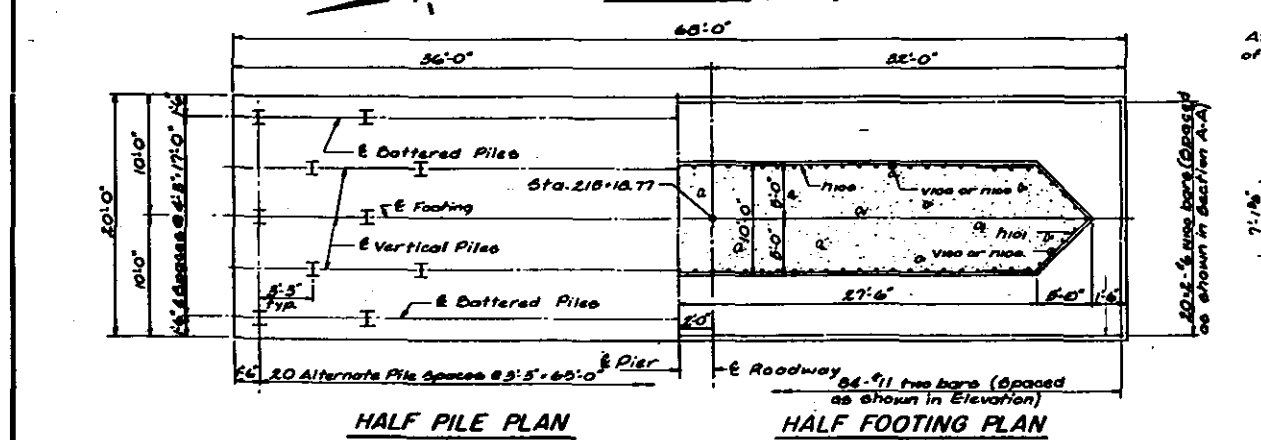
CRN WEB DAB CRN	 HANSON ENGINEERS INCORPORATED	PAGE NO. 14001 DATE 6-22-76
CONNORFIELD, BLISS PEORIA, ILLINOIS		





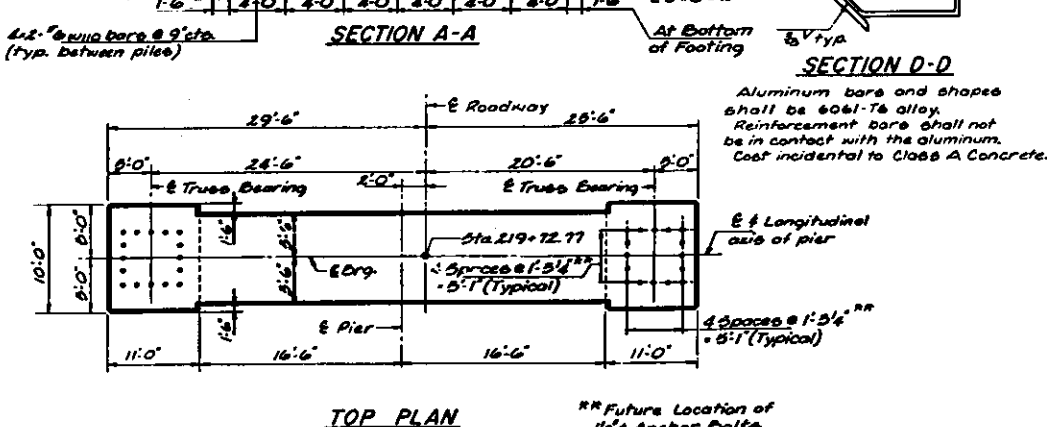
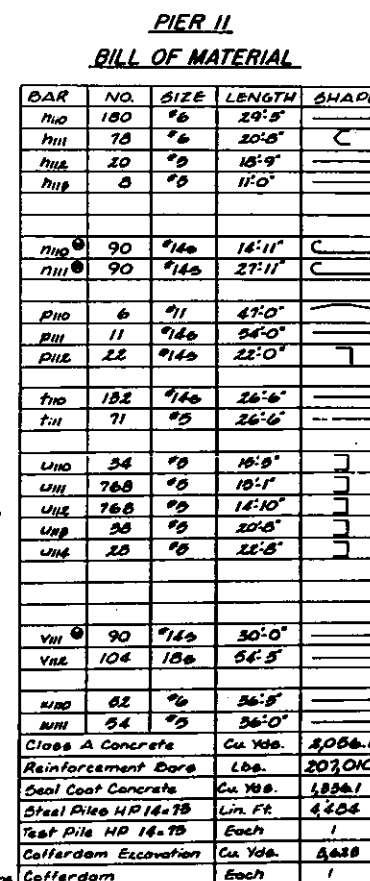
PIER 10
L OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
#100	100	#6	28'-0"	—
#101	70	#6	16'-8"	C
#102	60	#8	20'-6"	—
#103	0	#8	12'-0"	—
#100	100	#11	8'-7"	C
#100	10	#11	35'-7"	()
#101	10	#14	38'-0"	()
#102	20	#14	18'-0"	L
#100	66	#11	10'-6"	—
#100	10	#8	29'-1"	□
#100	57	#5	12'-5"	—
#101	592	#9	18'-8"	—
#102	592	#9	12'-7"	—
#103	46	#9	19'-8"	—
#104	57	#9	16'-2"	—
#105	20	#6	21'-8"	—
#100	130	#11	56'-2"	—
#101	60	#16	45'-4"	—
#102	52	#16	46'-2"	—
#103	24	#11	10'-0"	—
#100	40	#6	26'-6"	—
Class A Concrete			Cu Yds.	1,262.7
Reinforcement Bars			Lbs.	110,000
Geal Coat Concrete			Cu Yds.	559.5
Steel Pile HP 14-75			Lin. Ft.	1,820
Test Pile HP 14-75			Each	1
Cofferdam Excavation			Cu Yds.	2,690
Cofferdam			Each	1



PIER 10

M^CCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15 B-1
PEORIA & TAZEWELL COUNTIES



PILE DATA

Type	Steel HP 14 x 73
Capacity	Drive to Refusal
Est. Length	85'
No. Required	119*

*Includes one test pile driven
in a permanent location.

② Bore n10, n11 & n12 shall be
drive 60 Steel Reinforcement Bore

Note:
Lap optics for #140 & 185 bars will not be permitted.

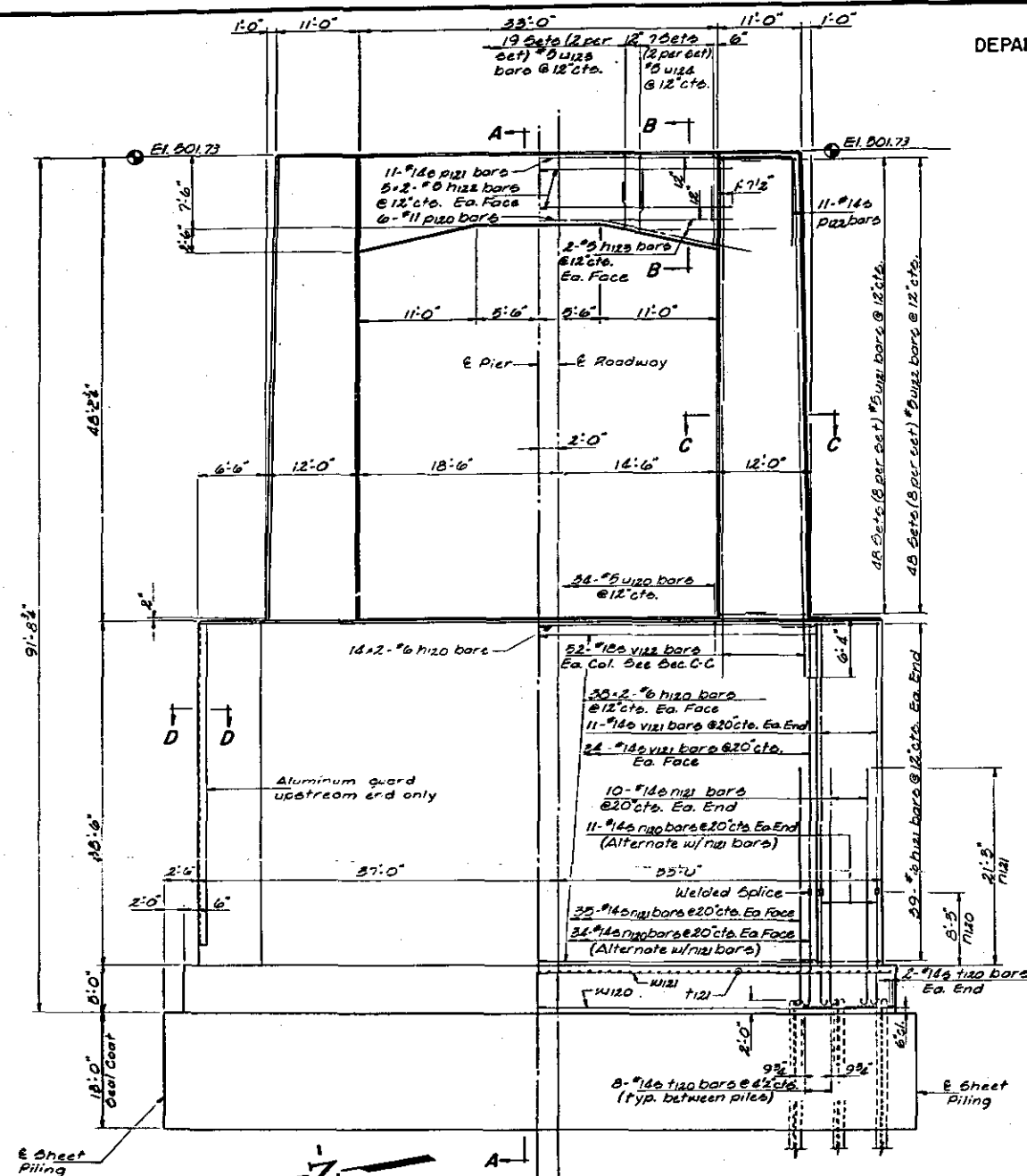
PIER 11

McCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15 B-1
PEORIA & TAZEWELL COUNTIES

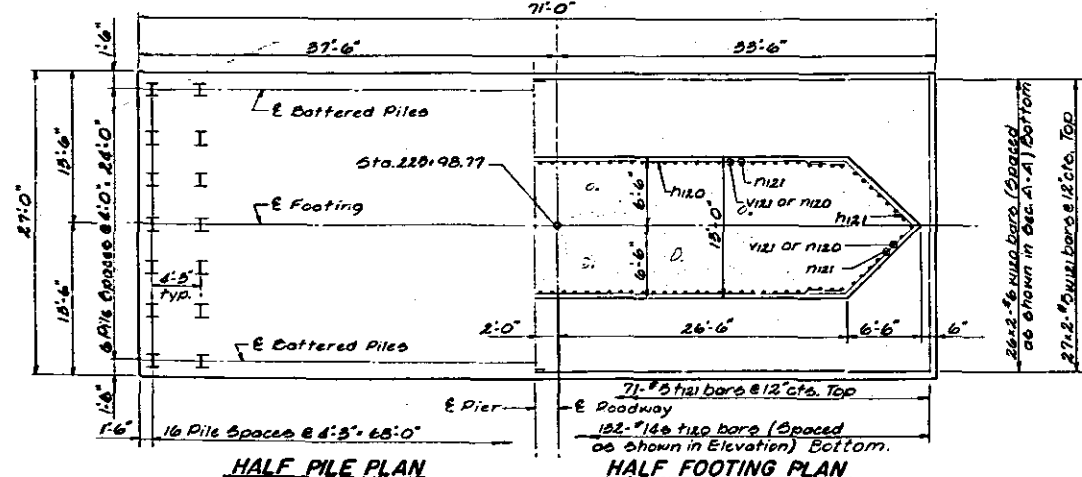
12-000000 GR.N. 12-000000 D.L.B. 12-000000 Q.A.B. 12-000000 GR.N.		HANSON ENGINEERS INCORPORATED	Page 10 74001 Date 12-31-74
SPRINGFIELD, ILLINOIS		PEORIA, ILLINOIS	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO. FA 49 (15B-1) PEORIA & TAZEWELL COUNTIES
SHEET 122 OF 124

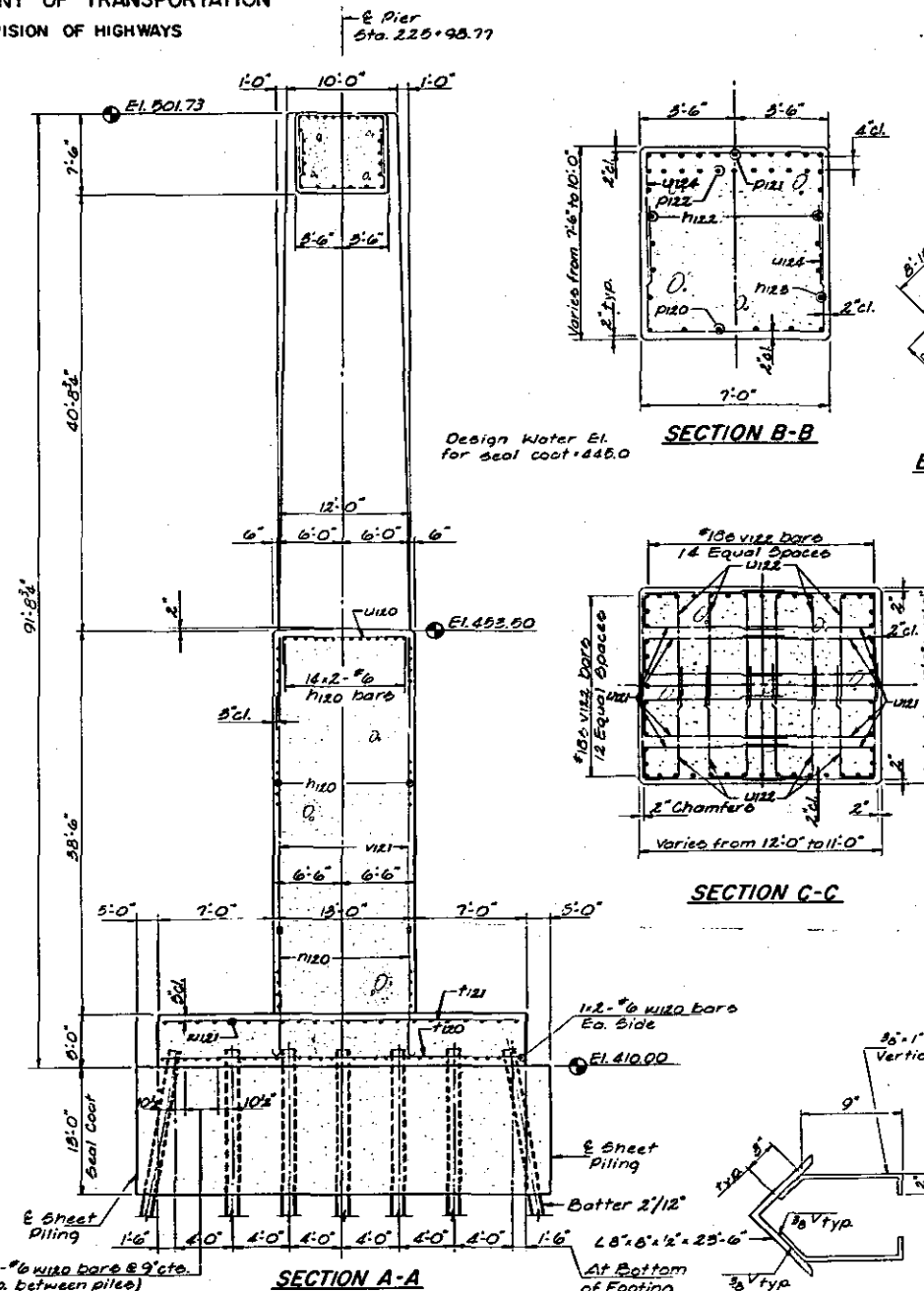


ELEVATION (Looking East)



HALF PILE PLAN

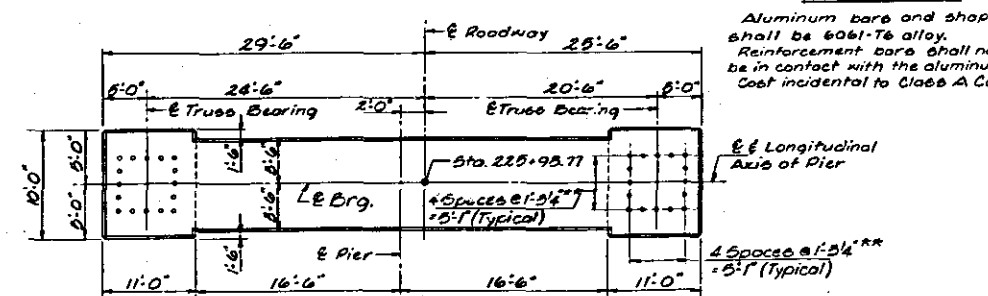
HALF FOOTING PLAN



SECTION A-A

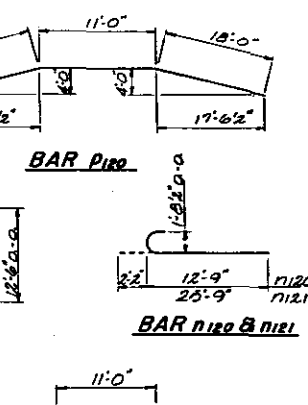
SECTION C-C

SECTION D-D



TOP PLAN

** Future Location of 1/2" Anchor Bolts



PIER 12
BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
P100	180	#6	29'-5"	
P101	78	#6	20'-5"	C
P102	20	#6	18'-9"	
P103	8	#6	11'-0"	
P104	90	#14	14'-11"	C
P105	90	#14	27'-11"	C
P106	6	#11	47'-0"	
P107	11	#14	24'-0"	
P108	22	#14	22'-0"	
P109	132	#14	26'-6"	
P110	71	#5	26'-6"	
P111	34	#5	15'-5"	
P112	76B	#5	15'-1"	
P113	76B	#5	14'-10"	
P114	38	#5	20'-8"	
P115	28	#5	22'-8"	
P116	90	#14	30'-0"	
P117	104	#18	54'-5"	
P118	52	#6	36'-5"	
P119	54	#5	36'-0"	
P120	52	#6	36'-5"	
P121	54	#5	36'-0"	
P122	52	#6	36'-5"	
P123	54	#5	36'-0"	
P124	52	#6	36'-5"	
P125	54	#5	36'-0"	
P126	52	#6	36'-5"	
P127	54	#5	36'-0"	
P128	52	#6	36'-5"	
P129	54	#5	36'-0"	
P130	52	#6	36'-5"	
P131	54	#5	36'-0"	
P132	52	#6	36'-5"	
P133	54	#5	36'-0"	
P134	52	#6	36'-5"	
P135	54	#5	36'-0"	
P136	52	#6	36'-5"	
P137	54	#5	36'-0"	
P138	52	#6	36'-5"	
P139	54	#5	36'-0"	
P140	52	#6	36'-5"	
P141	54	#5	36'-0"	
P142	52	#6	36'-5"	
P143	54	#5	36'-0"	
P144	52	#6	36'-5"	
P145	54	#5	36'-0"	
P146	52	#6	36'-5"	
P147	54	#5	36'-0"	
P148	52	#6	36'-5"	
P149	54	#5	36'-0"	
P150	52	#6	36'-5"	
P151	54	#5	36'-0"	
P152	52	#6	36'-5"	
P153	54	#5	36'-0"	
P154	52	#6	36'-5"	
P155	54	#5	36'-0"	
P156	52	#6	36'-5"	
P157	54	#5	36'-0"	
P158	52	#6	36'-5"	
P159	54	#5	36'-0"	
P160	52	#6	36'-5"	
P161	54	#5	36'-0"	
P162	52	#6	36'-5"	
P163	54	#5	36'-0"	
P164	52	#6	36'-5"	
P165	54	#5	36'-0"	
P166	52	#6	36'-5"	
P167	54	#5	36'-0"	
P168	52	#6	36'-5"	
P169	54	#5	36'-0"	
P170	52	#6	36'-5"	
P171	54	#5	36'-0"	
P172	52	#6	36'-5"	
P173	54	#5	36'-0"	
P174	52	#6	36'-5"	
P175	54	#5	36'-0"	
P176	52	#6	36'-5"	
P177	54	#5	36'-0"	
P178	52	#6	36'-5"	
P179	54	#5	36'-0"	
P180	52	#6	36'-5"	
P181	54	#5	36'-0"	
P182	52	#6	36'-5"	
P183	54	#5	36'-0"	
P184	52	#6	36'-5"	
P185	54	#5	36'-0"	
P186	52	#6	36'-5"	
P187	54	#5	36'-0"	
P188	52	#6	36'-5"	
P189	54	#5	36'-0"	
P190	52	#6	36'-5"	
P191	54	#5	36'-0"	
P192	52	#6	36'-5"	
P193	54	#5	36'-0"	
P194	52	#6	36'-5"	
P195	54	#5	36'-0"	
P196	52	#6	36'-5"	
P197	54	#5	36'-0"	
P198	52	#6	36'-5"	
P199	54	#5	36'-0"	
P200	52	#6	36'-5"	

PILE DATA

Type: Steel HP 14x75
Capacity: Drive to Refusal
Est. Length: 45'
No. Required: 119*

*Includes one test pile driven in a permanent location.
*Bore piles, U10, U11 & U12 shall be Grade 60 Steel Reinforcement Bars.

Note: Lap Splices for #14 & #18 bars will not be permitted.

PIER 12
M^o CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15B-1
PEORIA & TAZEWELL COUNTIES



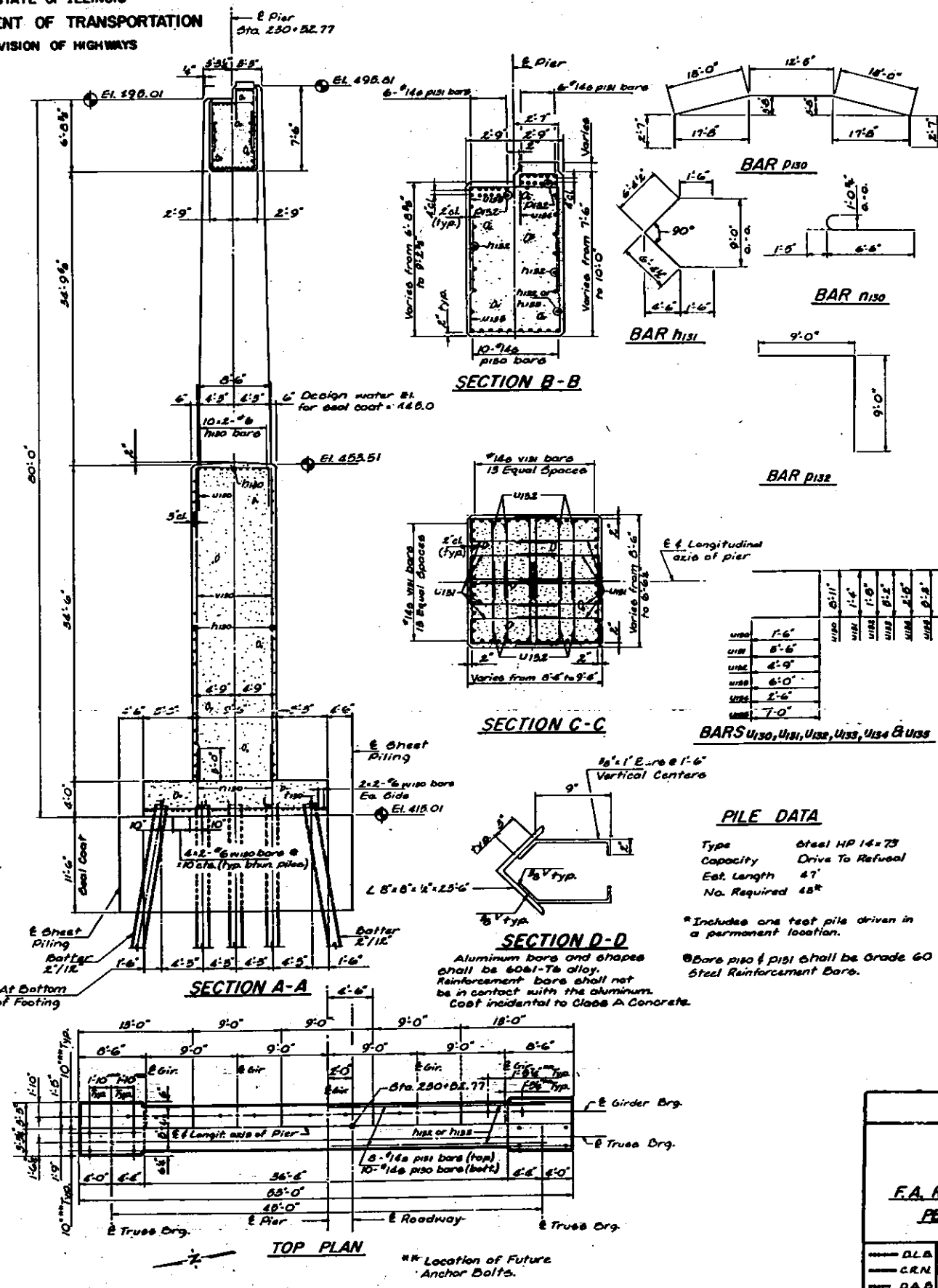
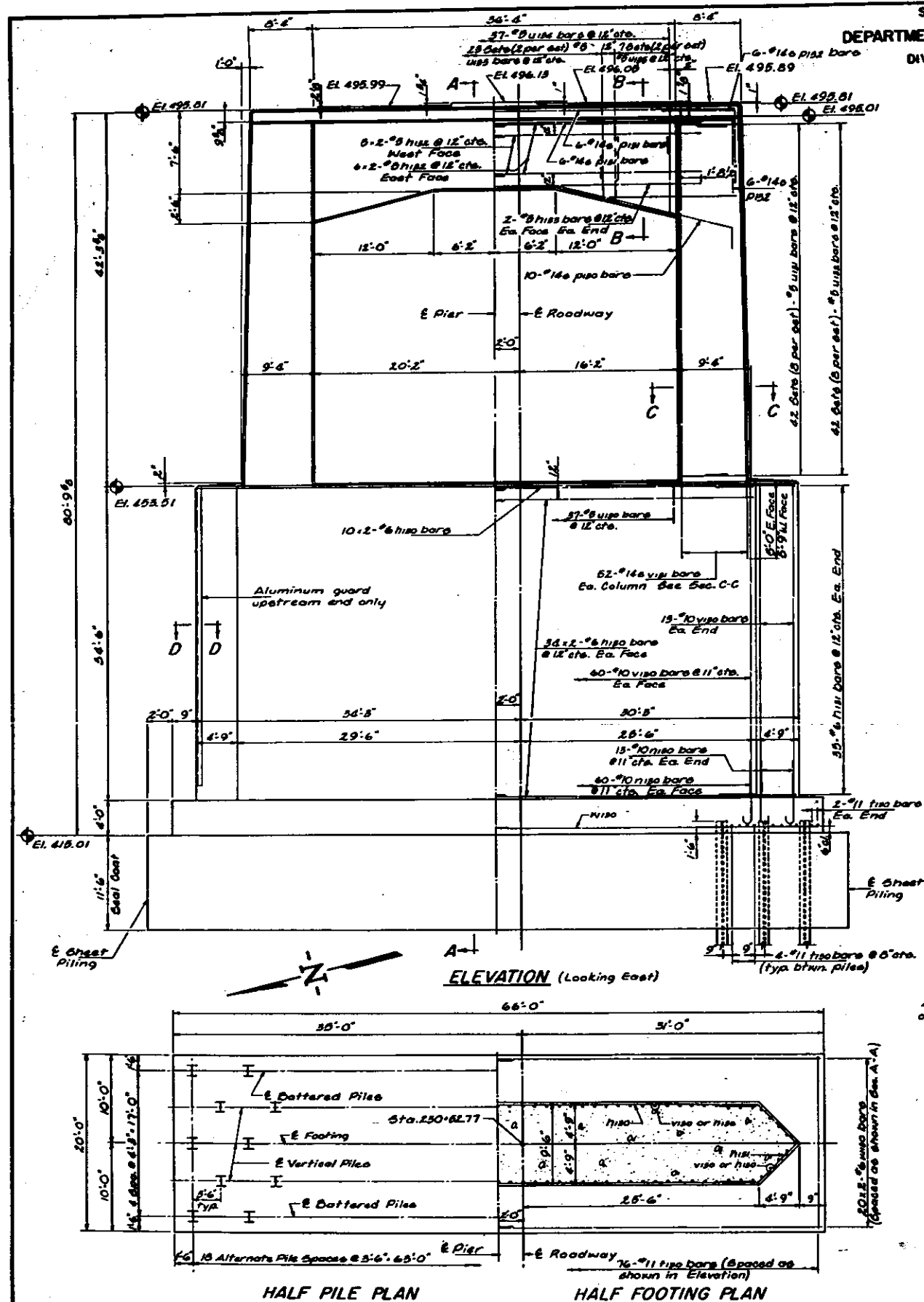
DESIGNED: G.R.N.
CHECKED: D.L.B.
DRAWN: D.A.E.
CHECKED: G.R.N.

FILE NO. 74001
DATE 12-31-74

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

DATE	BY	CHECKED	SCALE	SHEET
FA.49	158-1	158-1	25'	16

Sheet 123 of 134



PIER 13

BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
1180	186	#6	28'-0"	
1181	70	#6	18'-9"	C
1182	22	#6	20'-6"	
1183	8	#5	12'-0"	
1184	146	#10	7'-11"	C
1185	10	#14	53'-7"	
1186	12	#14	52'-0"	
1187	24	#14	10'-0"	
1188	76	#11	19'-6"	
1189	57	#5	11'-11"	
1190	672	#5	12'-6"	
1191	672	#5	10'-11"	
1192	46	#5	17'-2"	
1193	37	#5	7'-6"	
1194	28	#5	19'-2"	
1195	146	#10	54'-5"	
1196	104	#14	69'-0"	
1197	40	#6	53'-6"	
Close A Concrete	Cu Yds.		1,187.8	
Reinforcement Bars	Lbs.		115,170	
Coal Coat Concrete	Cu Yds.		564.6	
Steel Pile HP 14x75	Lvs. Ft.		2,209	
Test Pile HP 14x75	Each		1	
Cofferdam Excavation	Cu Yds.		2,286	
Cofferdam	Each		1	

PILE DATA

Type: Steel HP 14x75
Capacity: Drive To Refusal
Est. Length: 47'
No. Required: 48*

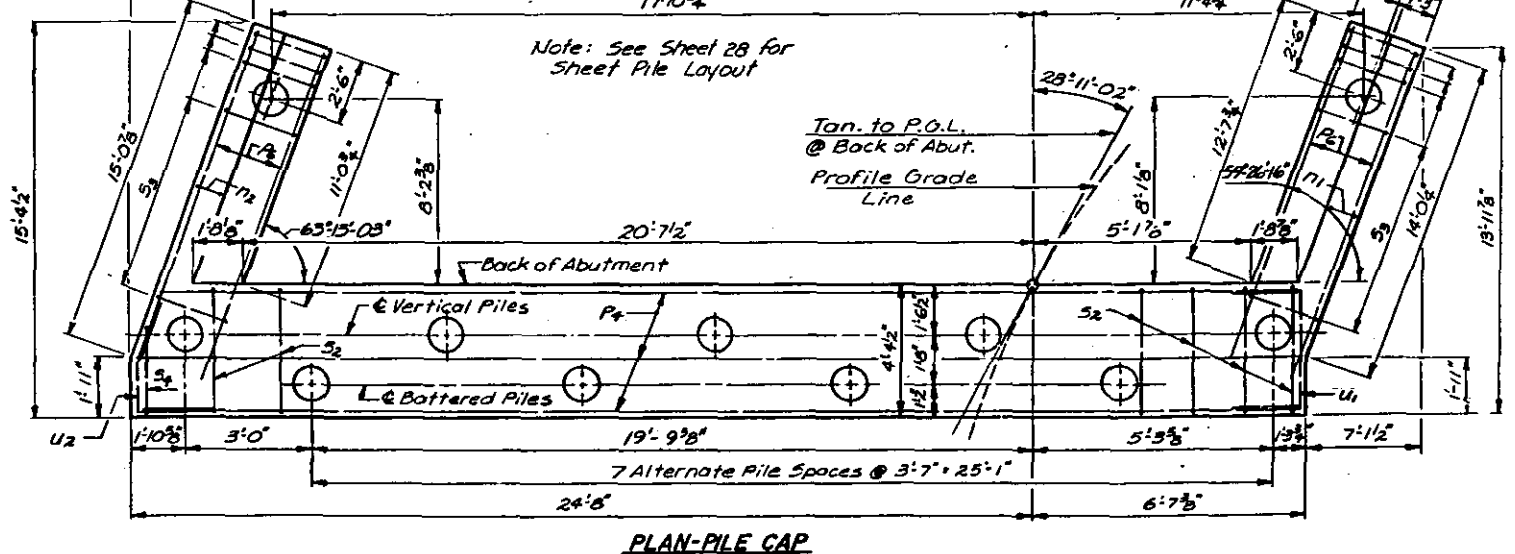
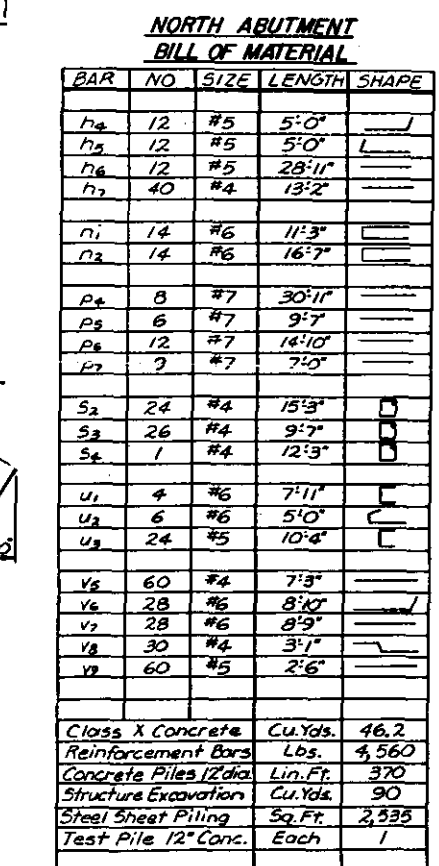
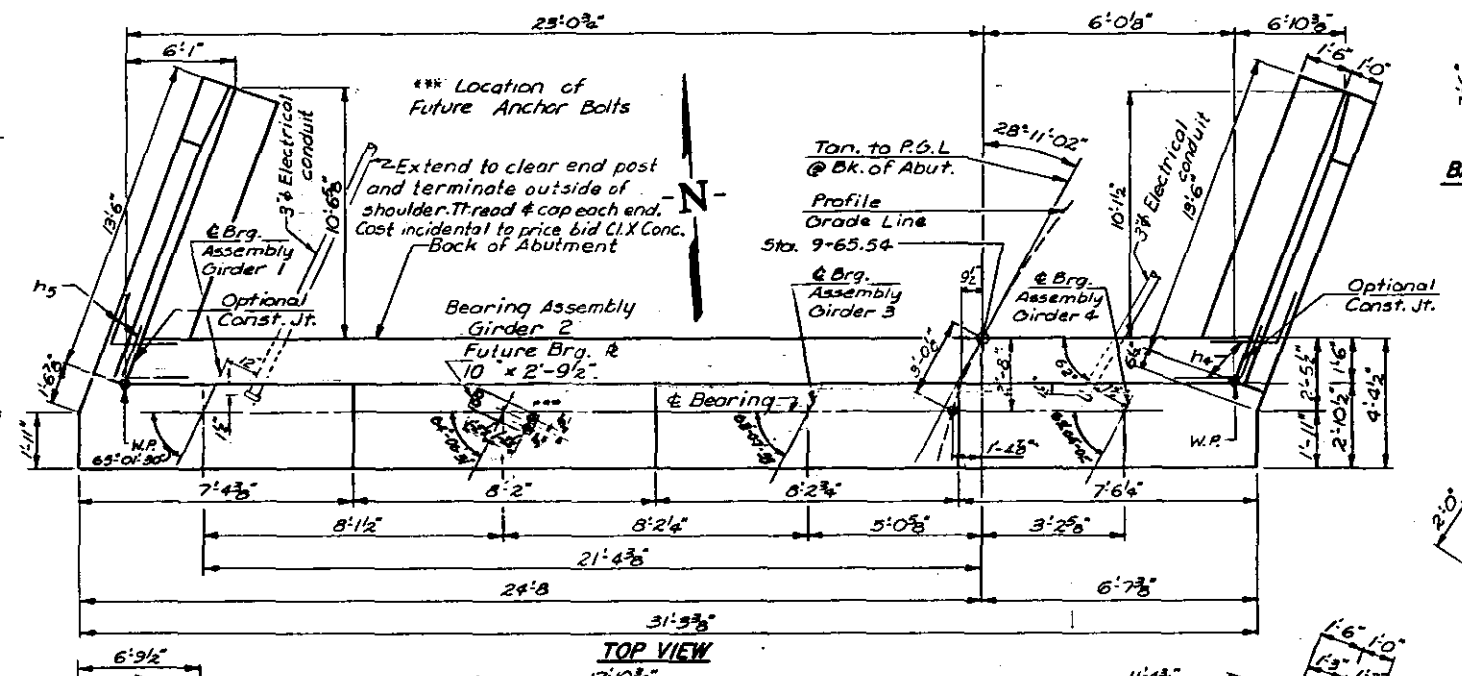
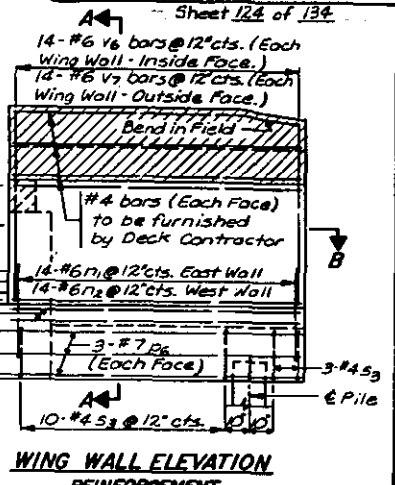
*Includes one test pile driven in a permanent location.
*Bars p10 & p11 shall be Grade 60 Steel Reinforcement Bars.

PIER 13

M^cCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15 B-1
PEORIA & TAZEWELL COUNTIES

HANSON ENGINEERS
INCORPORATED
SPRINGFIELD, ILLINOIS
PEORIA, ILLINOIS

14001
12-24-74



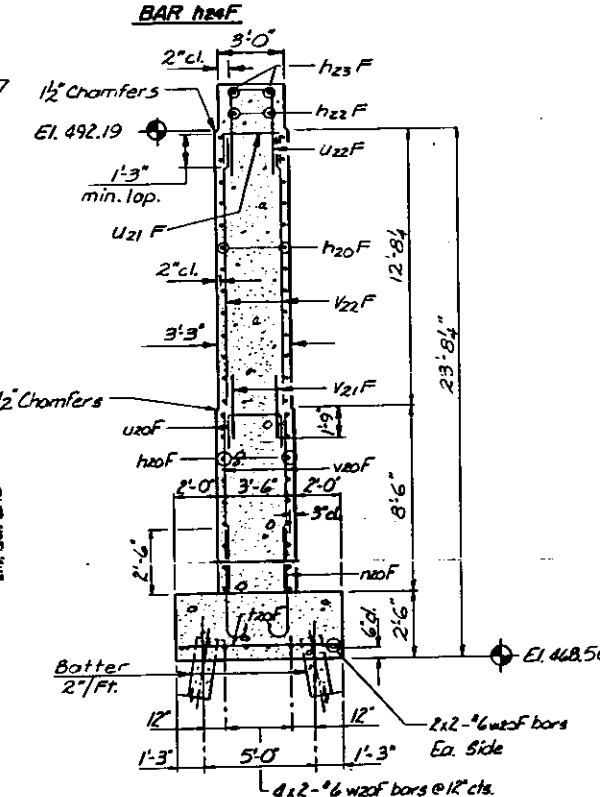
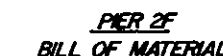
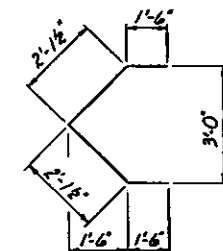
NORTH ABUTMENT

M^CCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
ROUTE 49 SEC. 15B-2
VIRGINIA & TAZEWELL COUNTIES

 **HANSON
ENGINEERS**
INCORPORATED

742 00
74001
DATE
6-22-76

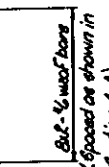
MEMPHIS, TENNESSEE
CHICAGO, ILLINOIS



Class A Concrete	Cu. Yd.	113.3
Reinforcement Bars	Lbs.	7,670
Conc. Piles 12" Dia.	Lin. Ft.	575
Test Pile 12" Dia. Conc.	Each	1
Strut. Esc.	Cu. Yd.	143

PILE DATA

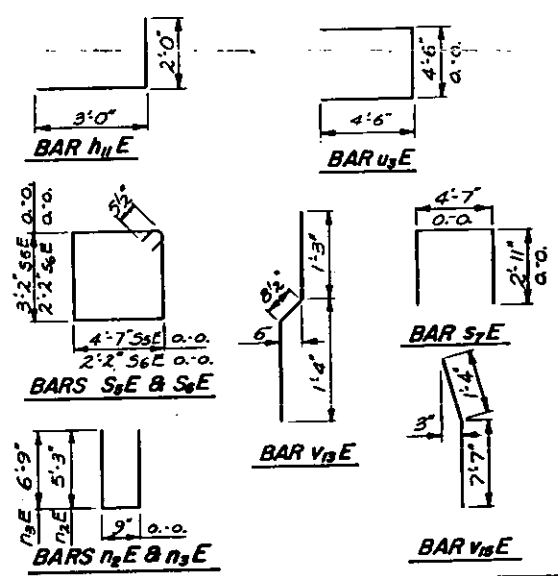
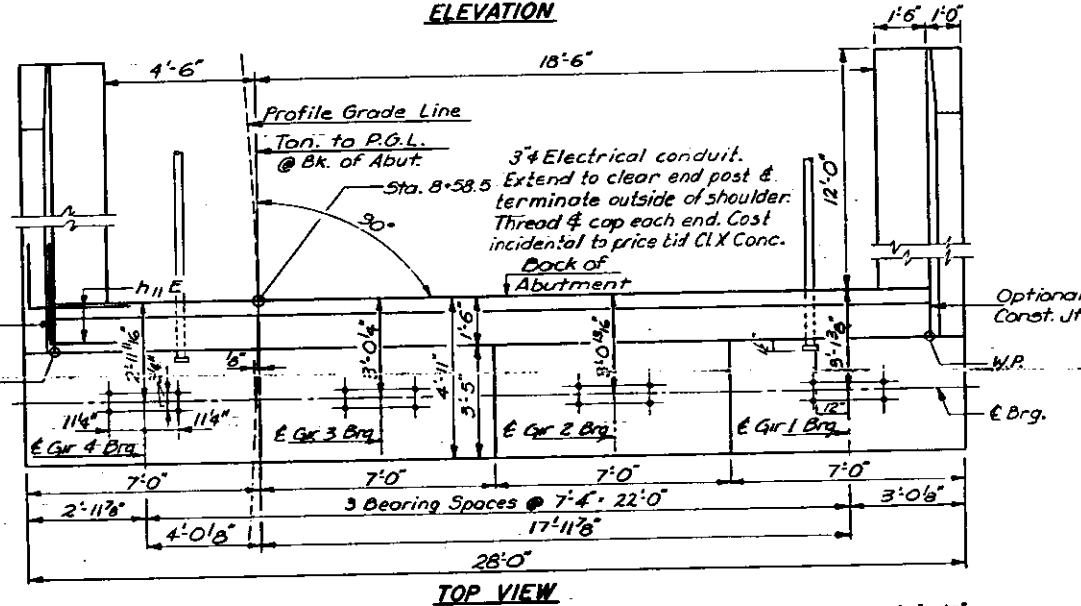
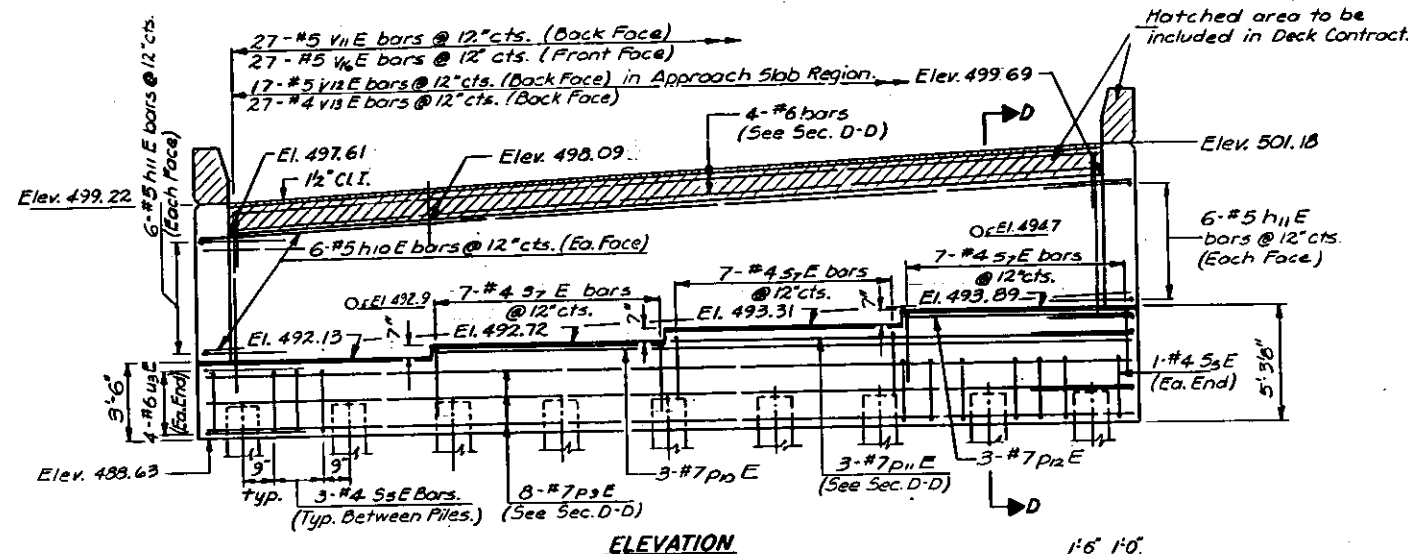
Type	Conc. 12" dia.
Capacity	45 ton
Est. Length	25'
No. Required	24 *
* Includes one test pile driven in a permanent location.	



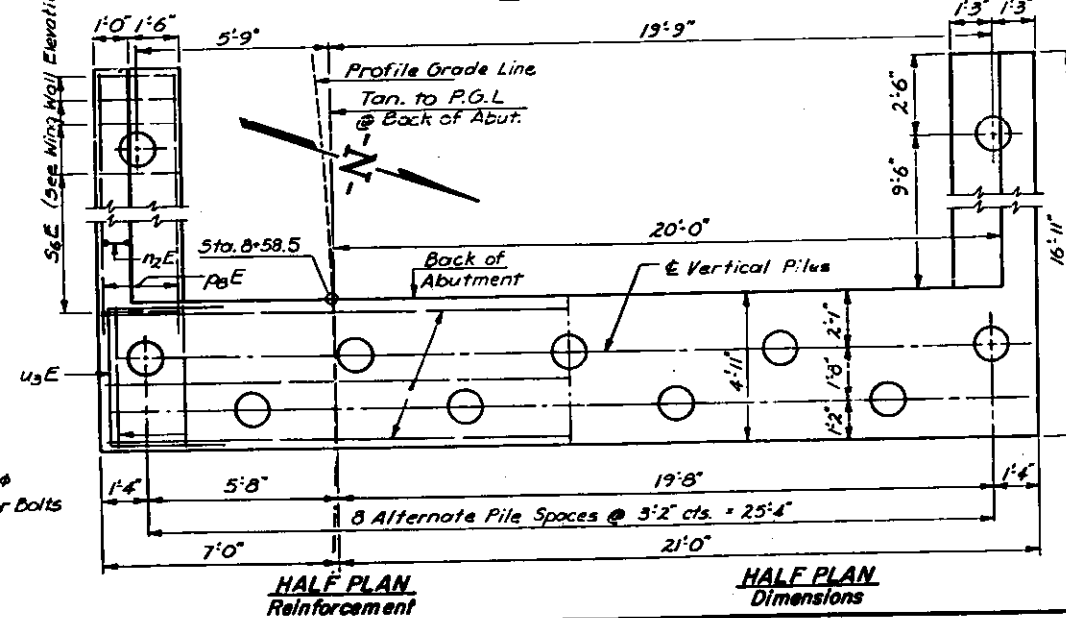
<u>PIER 2F</u>		
<u>M^cCLUGAGE BRIDGE</u> <u>OVER THE ILLINOIS RIVER</u> <u>F.A. ROUTE 49</u> <u>SEC. 15B-2</u> <u>PEORIA & TAZEWELL COUNTIES</u>		
REVISION REVISION REVISION REVISION	S.C.O. W.E.B. R.J.F. W.E.B.	FILE NO. 74001 DATE 6-22-76
 HANSON ENGINEERS INCORPORATED SPRINGFIELD, ILLINOIS PEORIA, ILLINOIS		

REPORT NO.	SEC.	COUNTY	TOWNSHIP	SHEET NO.
FA 49	15B-2	PEORIA & TAZENELL		
FED. ROAD DIST. NO. 7		BLANKS	PROJECT	

(Inside Edge) Sheet 126 of 134



Bar	No.	Size	Length	Shape
h10E	12	#5	27'-6"	—
h11E	24	#5	5'-0"	—
h12E	40	#4	13'-3"	—
h2E	28	#6	11'-3"	U
h3E	28	#6	14'-3"	U
p2E	12	#7	14'-0"	—
p9E	8	#7	27'-6"	—
p10E	3	#7	20'-8"	—
p11E	3	#7	13'-8"	—
p12E	3	#7	6'-8"	—
s5E	26	#4	16'-3"	□
s6E	28	#4	9'-5"	□
s7E	21	#4	10'-5"	□
u9E	8	#6	13'-6"	—
v11E	27	#4	7'-4"	—
v12E	17	#5	2'-7"	—
v13E	27	#4	2'-10"	—
v14E	28	#6	8'-11"	—
v15E	28	#6	8'-11"	—
v16E	27	#4	8'-8"	—
Class X Concrete			Cu. Yds.	44.6
Reinforcement Bars			Lbs.	4,840
Conc. Piles 12" Dia.			Lin. Ft.	180
Test Piles 12" Conc.			Ea.	1
Struct. Excavation			Cu. Yds.	137



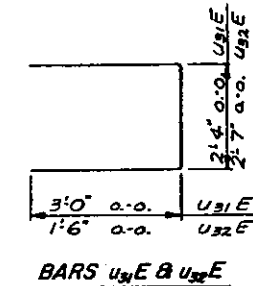
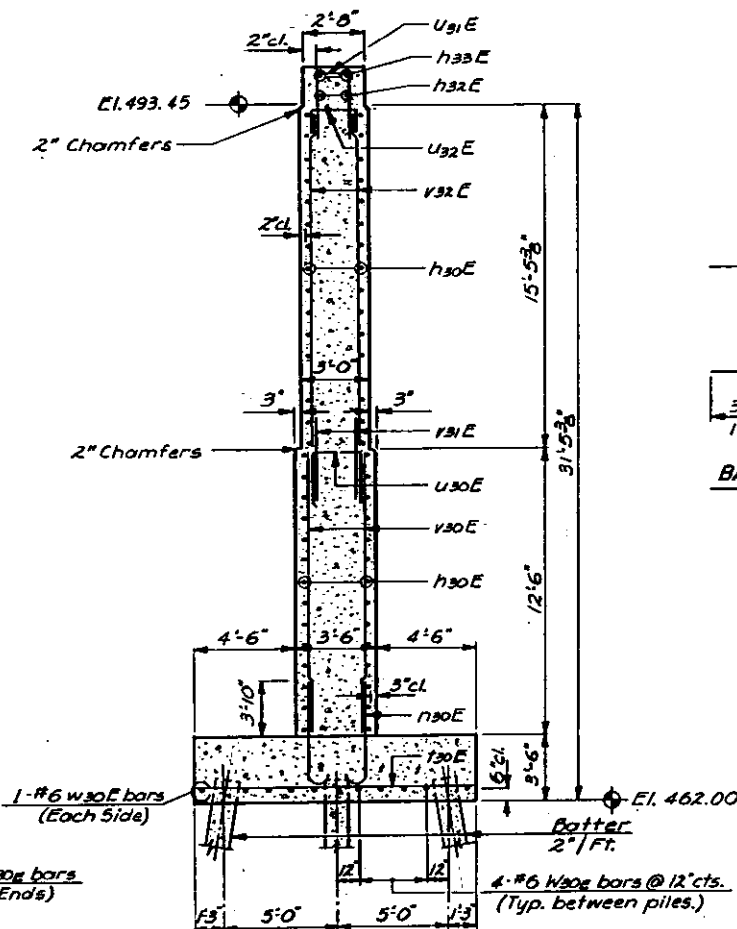
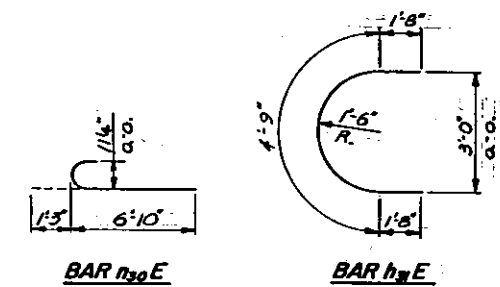
PILE DATA

Type:	12" Conc. Piles
Capacity:	45 Ton.
Est. Length:	18'
No Required:	11***

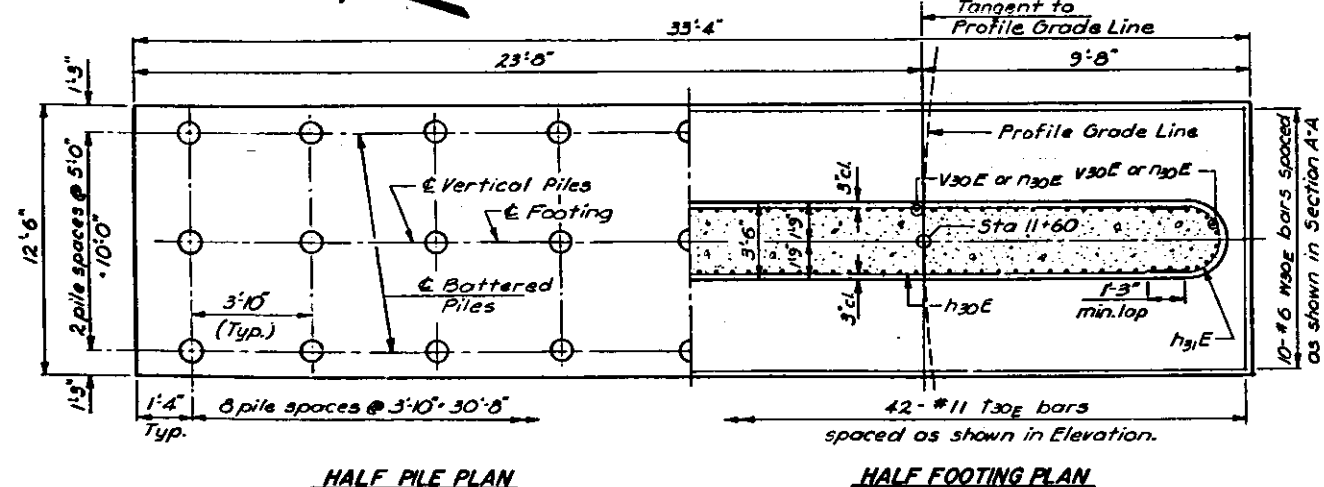
*** Includes one test pile driven in a permanent location.

SOUTH ABUTMENT
M^C CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15B-2
PEORIA & TAZEWELL COUNTIES

NAME	WGL		HANSON ENGINEERS INCORPORATED	FILE NO.	74001
COMPANY	S.C.O.			DATE	6-22-76
DESIGNER	DAN				
CHECKED	S.C.O.				
SPRINGFIELD, ILLINOIS			PEORIA, ILLINOIS		

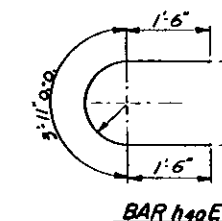


PIER 3E				
BILL OF MATERIAL				
BAR	NO.	SIZE	LENGTH	SHAPE
H30E	116	#5	14'-6"	—
H31E	26	#5	8'-1"	C
H32E	2	#5	20'-8"	—
H33E	2	#5	6'-0"	—
H34E	32	#5	5'-8"	C
H30E	132	#9	8'-1"	C
T30E	42	#11	12'-0"	—
U30E	29	#5	5'-10"	C
U31E	22	#5	8'-4"	C
U32E	28	#5	5'-7"	C
V30E	132	#9	12'-3"	—
V31E	56	#9	7'-8"	—
V32E	56	#9	15'-2"	—
W30E	10	#6	32'-10"	—
Class A Concrete			Cu. Yd.	154.0
Reinforcement Bars			Lbs.	19,390
Conc. Piles 12" Dia.			Lin. Ft.	936
Test Pile 12" Conc.			Each	1
Struct. Exc.			Cu. Yd.	91

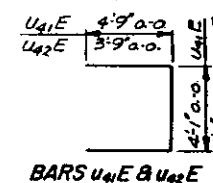


PIER 3E
M^C CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15B-2
PEORIA & TAZEWELL COUNTIES

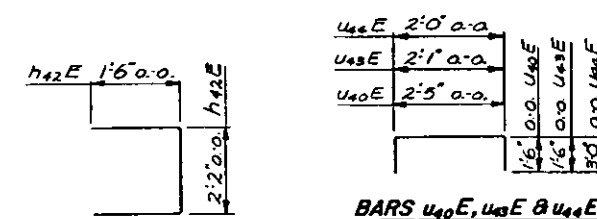
Diagram of Section B-B of a reinforced concrete wall. The wall has a total height of 3'6" and a thickness of 12". It is subjected to a horizontal load $U_{41} E$ and a vertical load $V_{44} E$ or $n_{41} E$. The reinforcement includes 2 #10 $V_{44} E$ or $n_{41} E$ bars on each side, 2 #8 $V_{42} E$ or $V_{41} E$ bars on each end, and 2 #4 E bars on each side. The wall is supported by a foundation with a height $h_{43} E$ and a width $h_{42} E$. The wall is labeled "SECTION B-B".



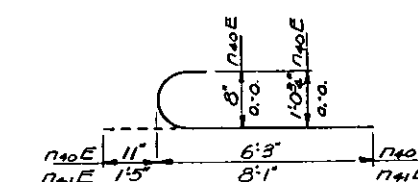
BAR h40E



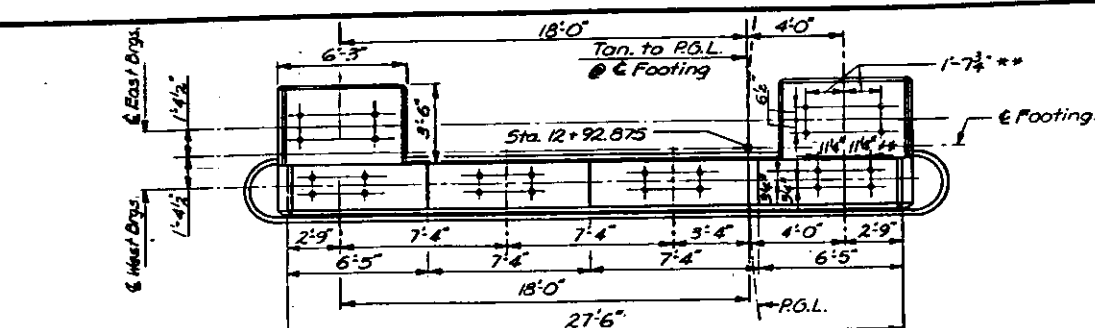
BARS $u_{41}E$ & $u_{42}E$



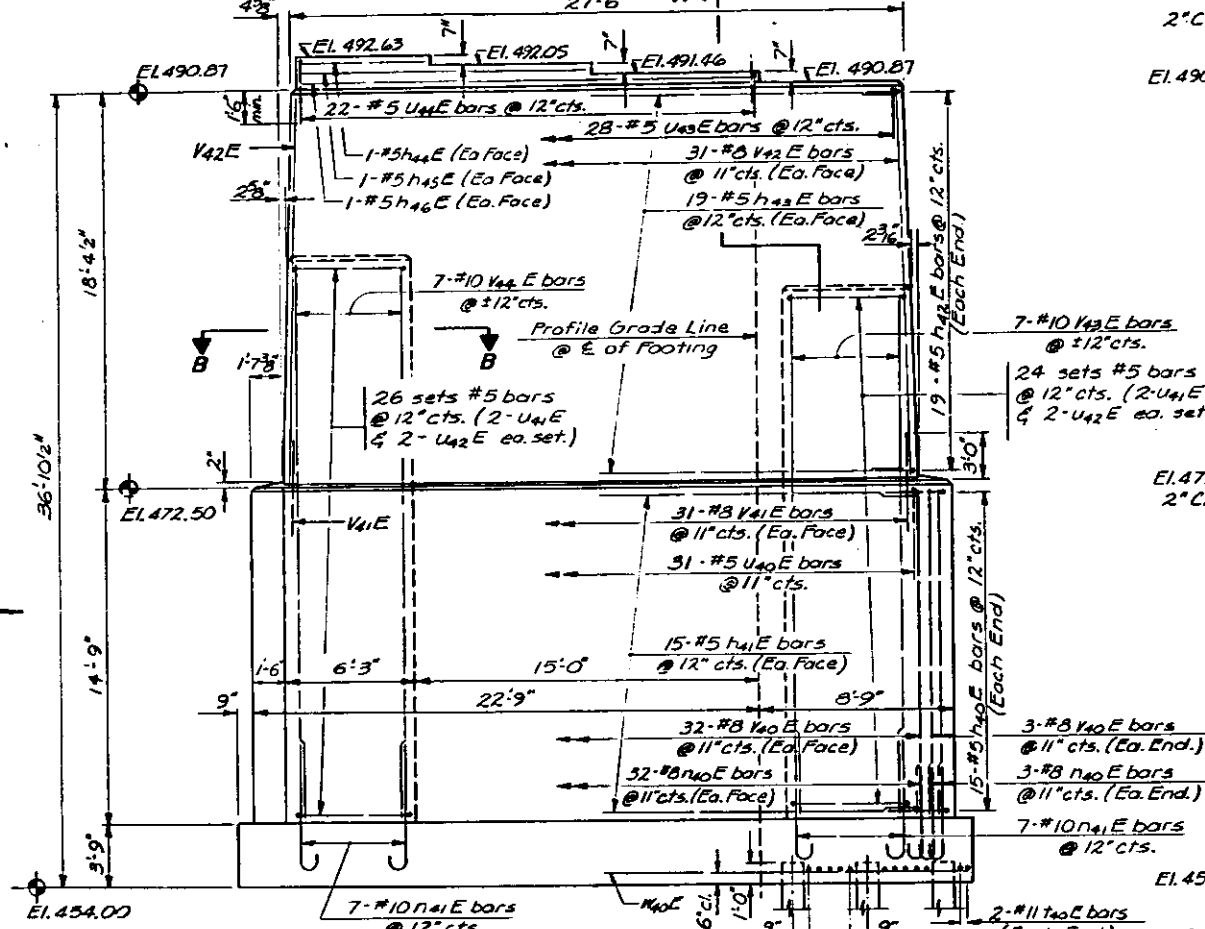
BARS $u_{40}E, u_{43}E$ & $u_{44}E$



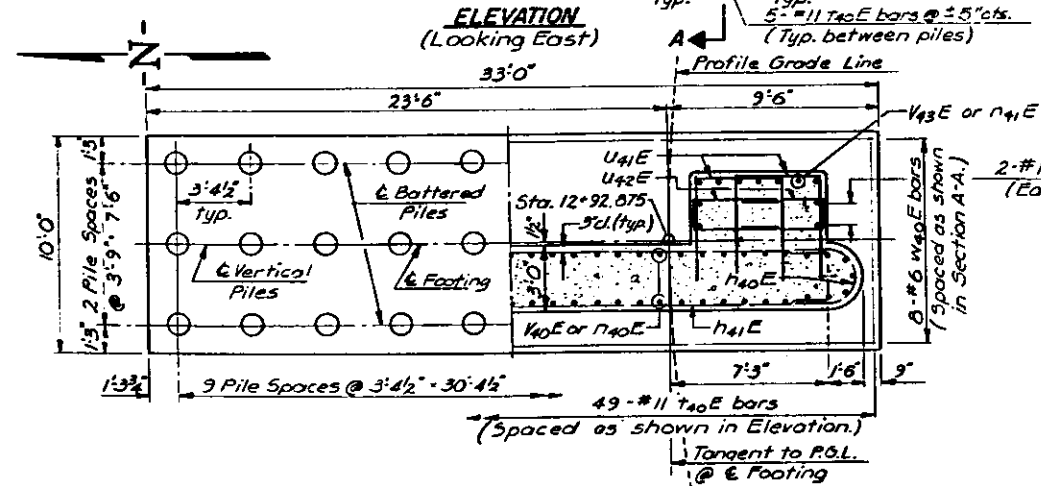
BARS $n_{40}E$ & $n_{41}E$



TOP PLAN
27'-6"

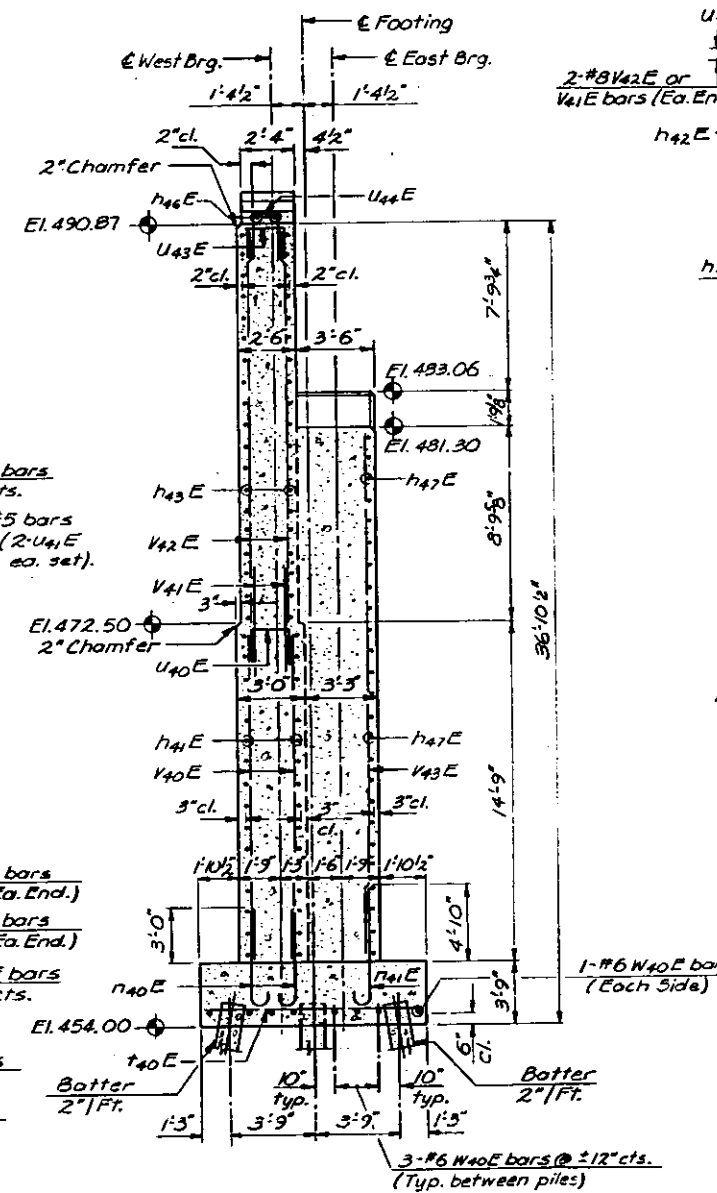


ELEVATION
(Looking East)



HALF PILE PLAN

HALF FOOTING PLAN



SECTION A-A

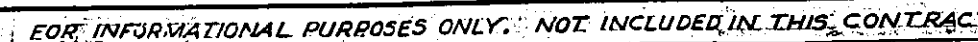
PILE DATA
Type: Concrete, 12" dia.
Capacity: 45 Ton
Est. Length: 36'
No. Required: 30*
* Includes one Test Pile
driven in a permanent
location.

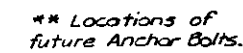
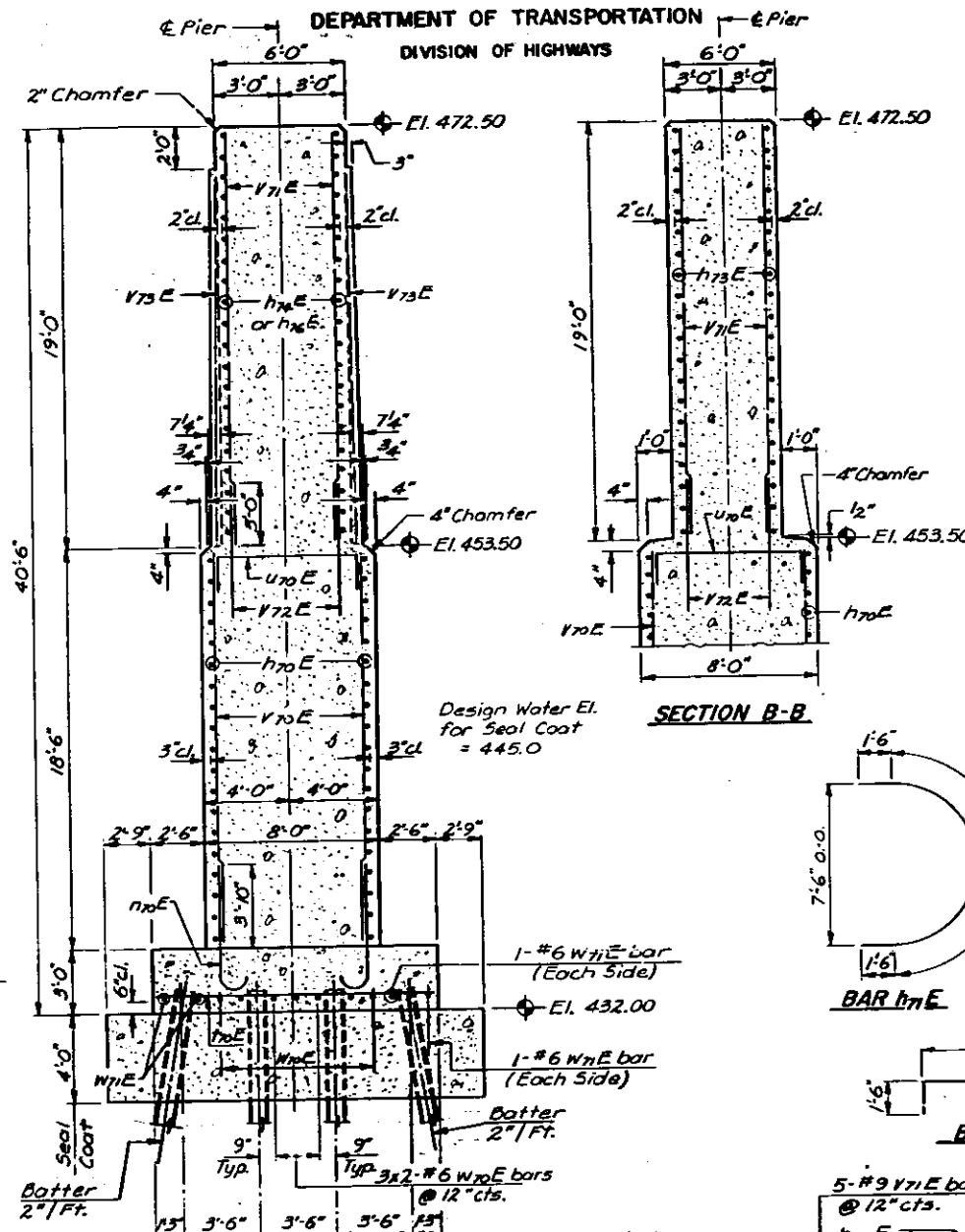
PIER 4E				
BILL OF MATERIAL				
BAR	NO.	SIZE	LENGTH	SHAPE
H20E	30	#5	6'11"	C
H21E	30	#5	28'-6"	
H22E	38	#5	5'-2"	U
H23E	33	#5	27'-2"	—
H24E	2	#5	5'-11"	—
H25E	2	#5	13'-3"	—
H26E	2	#5	20'-7"	—
H40E	70	#8	7'-2"	C
H41E	22	#10	9'-6"	C
T40E	49	#11	9'-6"	—
U20E	31	#5	5'-5"	□
U21E	100	#5	13'-7"	□
U22E	100	#5	8'-7"	□
U23E	28	#5	5'-1"	□
U24E	22	#5	8'-0"	□
V40E	70	#8	14'-6"	—
V41E	66	#8	6'-0"	—
V42E	66	#8	17'-11"	—
V43E	11	#10	23'-3"	—
V44E	11	#10	25'-0"	—
W40E	8	#6	32'-6"	—
Class A Concrete			Cu.Yds.	182.7
Reinforcement Bars			Lbs.	19,600
Conc. Piles 12"			Lin.Ft.	1044
Test File .12"Cap			Each	1
Structure Excavation			Cu.Yds.	96

PIER 4E

M^C CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15B-2
PEORIA & TAZEWELL COUNTIES

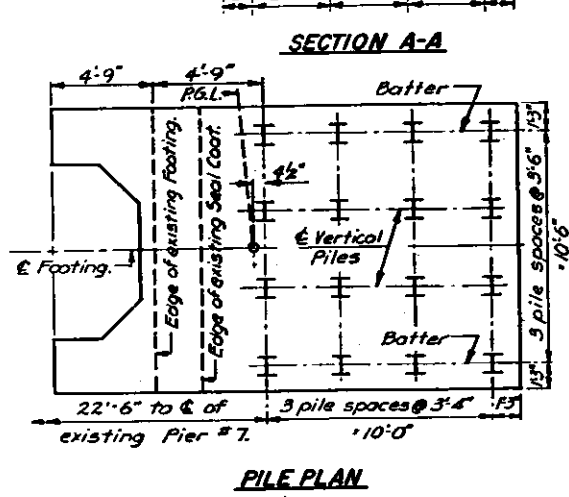
DESIGNED WDL CHECKED CRN DRAWN DAM ENGINEER WDL	 HANSON ENGINEERS INCORPORATED	FILE NO. 74001 DATE 6-22-78
SPRINGFIELD, ILLINOIS		PEORIA, ILLINOIS



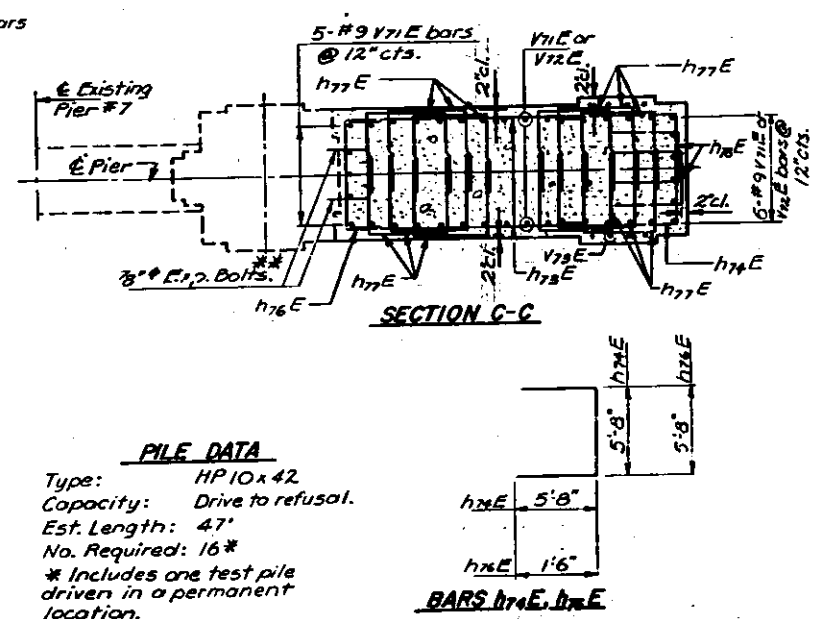


5. BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
H70E	38	#5	13'-7"	—
H71E	19	#5	14'-9"	3
H72E	19	#5	9'-0"	3
H75E	40	#5	11'-1"	—
H76E	22	#5	17'-0"	□
H76E	22	#5	8'-8"	□
H77E	264	#5	9'-10"	□
H78E	44	#5	8'-1"	□
H70E	48	#10	7'-11"	C
T70E	19	#9	12'-6"	—
U70E	12	#5	10'-4"	□
V70E	48	#10	18'-0"	—
V71E	39	#9	18'-3"	—
V72E	30	#9	6'-0"	—
V73E	8	#6	16'-8"	—
W70E	14	#6	9'-6"	—
W71E	4	#6	20'-3"	—
Class A Concrete			Cu.Yd.	180.7
Reinforcement Bars			Lbs.	15,040
Seal Coat Concrete			Cu.Yd.	56
Steel Piles HP10x42			Lin. Ft.	703
Test Pile HP10x42			Each	1
Cofferdam Excavation			Cu.Yd.	151
Cofferdam			Each	1
Expansion Bolts 3/8"			Each	78



PILE PLAN



SECTION C-C

PILE DATA

Type: HP 10x42
Capacity: Drive to refusal.
Est. Length: 47'
No. Required: 16*
* Includes one test pile
driven in a permanent
location.

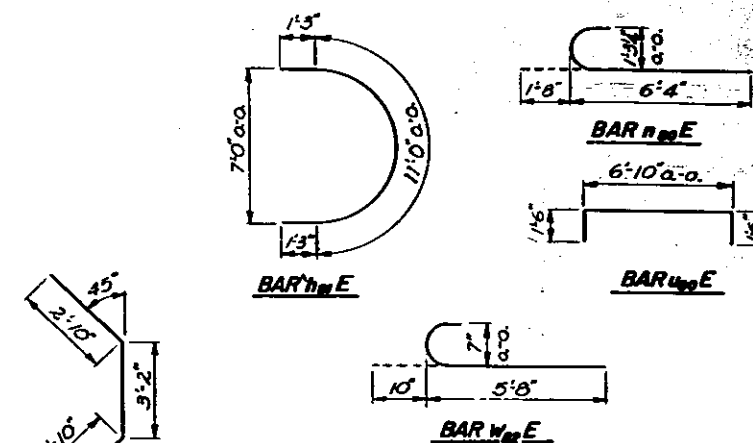
PIER 7E

M^c CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15B-2
PEORIA & TAZEWELL COUNTIES

STATION W.D.L.		HANSON ENGINEERS INCORPORATED	FILE NO.	74001
CONTACT C.R.N.			DATE	6-22-76
CHARGE DAN.				
DESTINATION C.R.N.			SPRINGFIELD, ILLINOIS	PEORIA, ILLINOIS

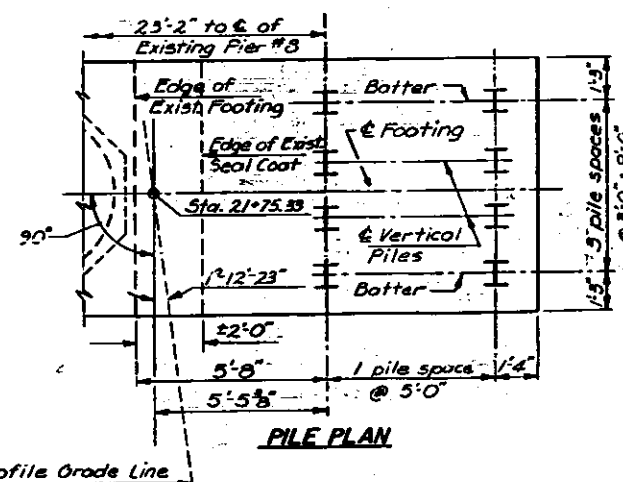
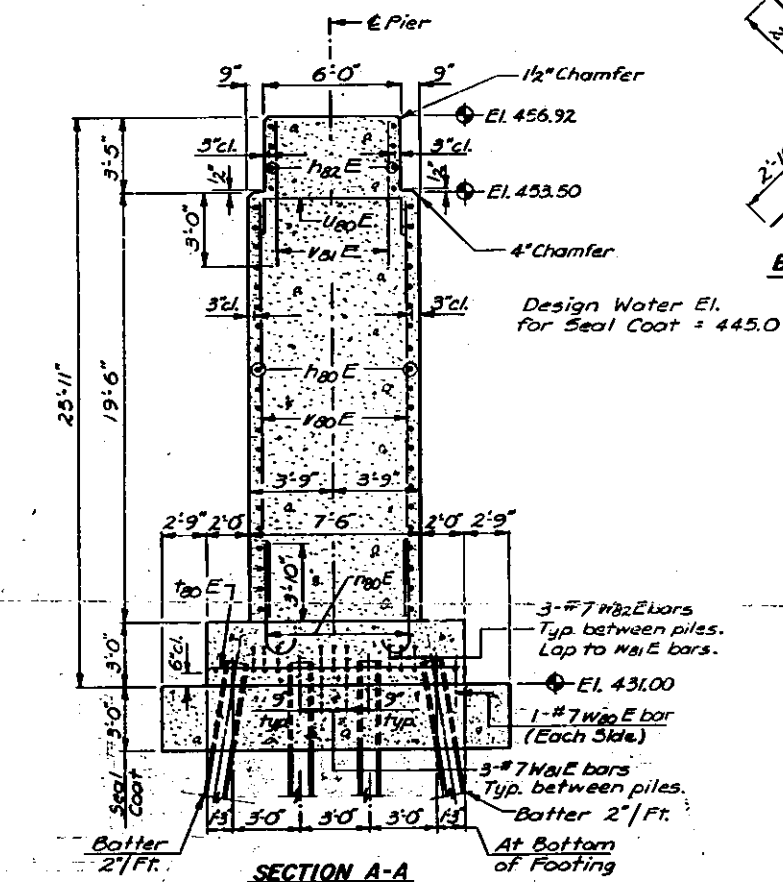
REPORT NO.	NO.	DATE	TIME	BY
FA-49	158-2	PEORIA & TAEZEWELL		
FED. BUREAU OF INVEST.	LABORATORY			

Sheet 153 of 134



PILE DATA

Type: HP 14 x 73
Capacity: Drive to refusal.
Est. Length: 56'
No. Required: 8**
** Includes one test pile
driven in a permanent
location.

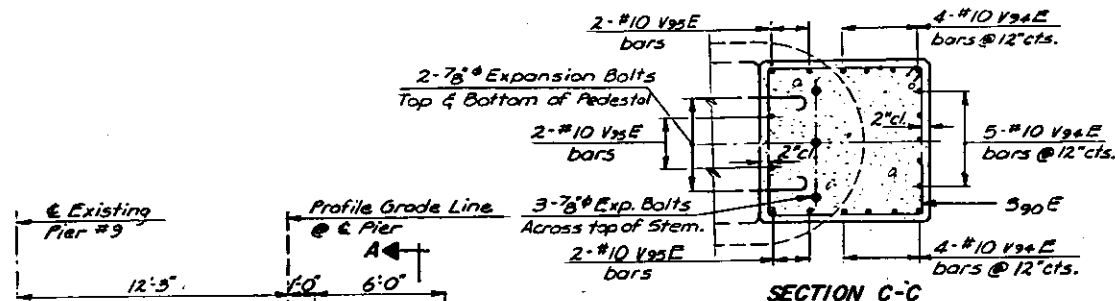


FOR INFORMATIONAL PURPOSES ONLY. NOT INCLUDED IN THIS CONTRACT

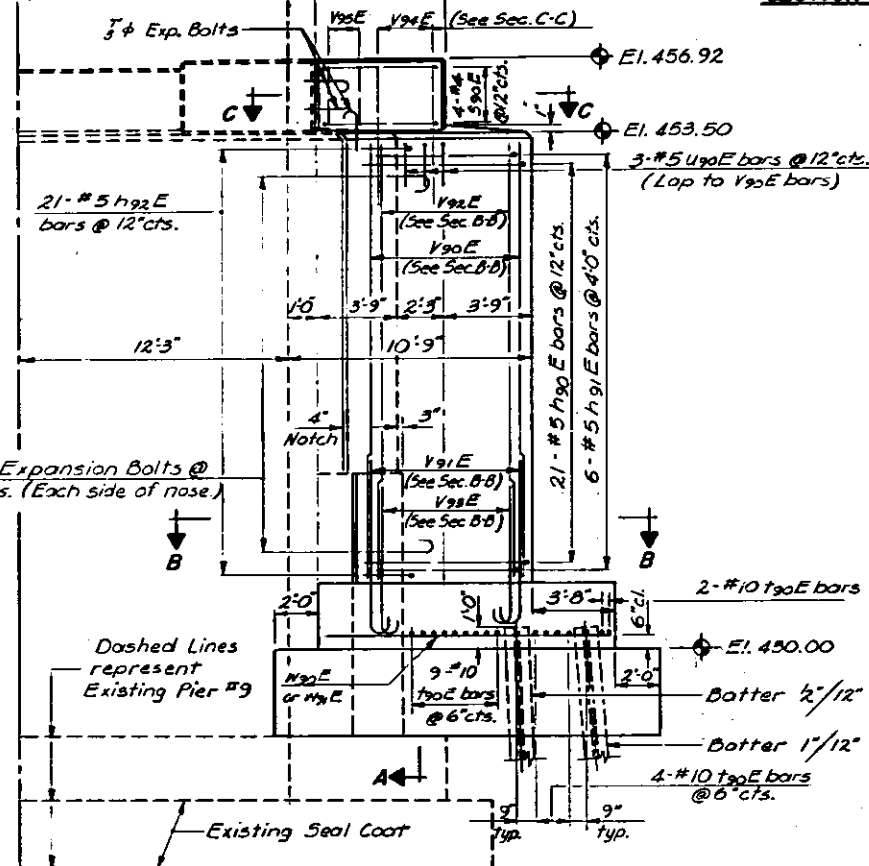
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.	PROJECT NAME	DATE
FA. 49 15B-2	134	PEORIA & TAZEWELL	

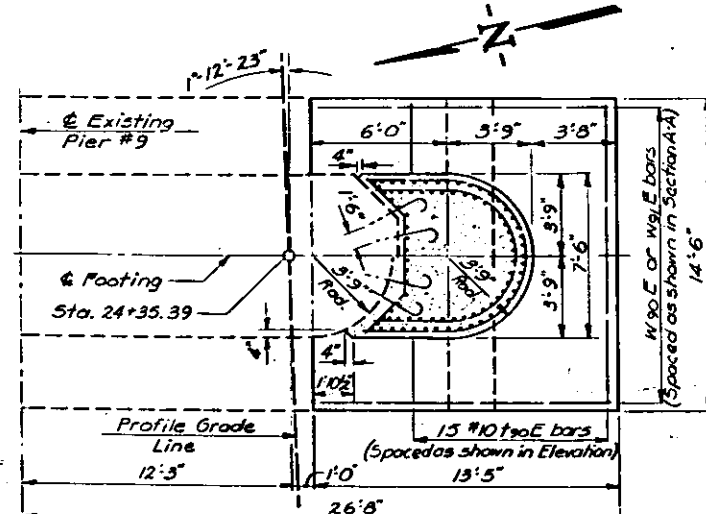
Sheet 134 of 134



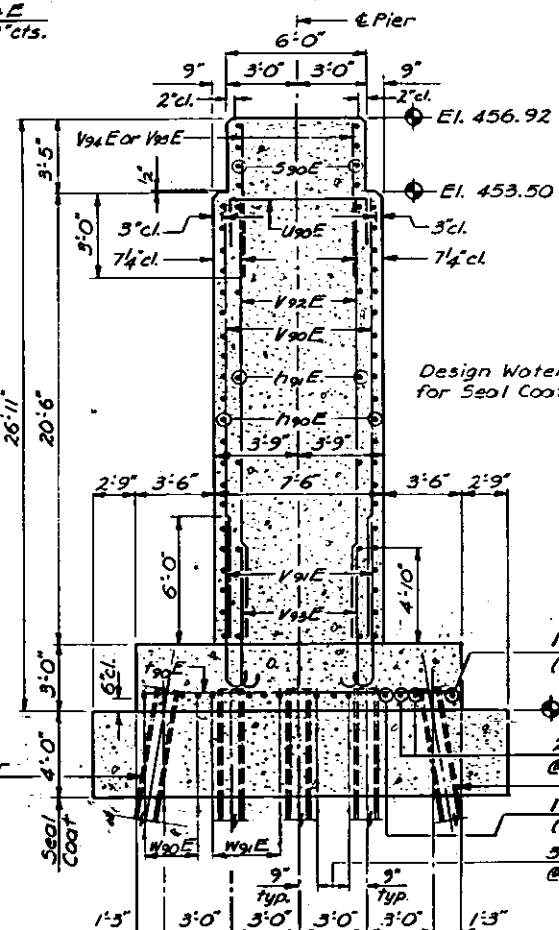
SECTION C-C



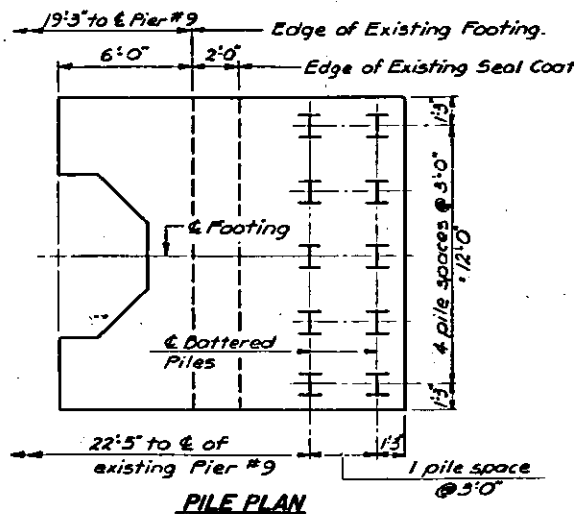
ELEVATION (Looking East)



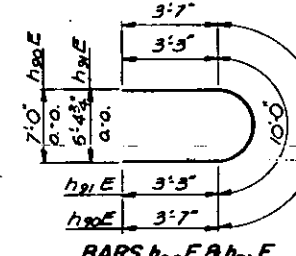
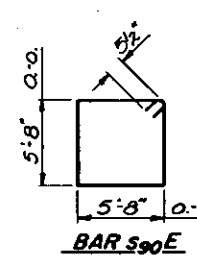
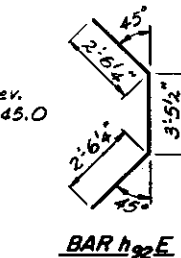
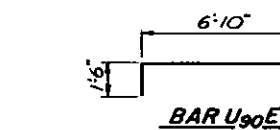
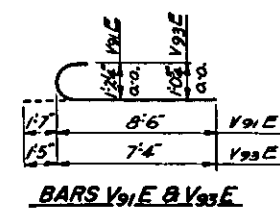
FOOTING PLAN



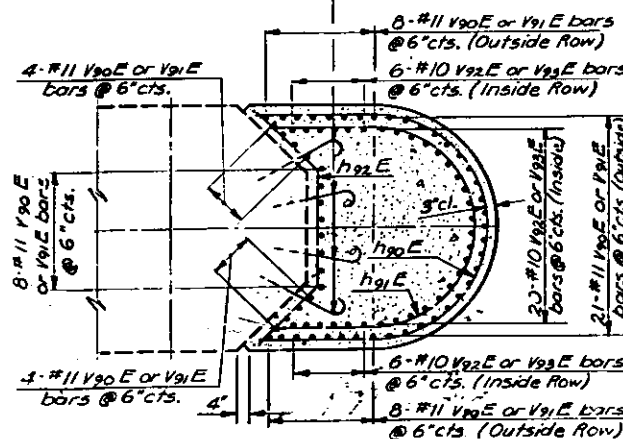
SECTION A-A



PILE PLAN



BARS h90E & h91E



SECTION B-B

PILE DATA
Type: HP 14 x 73
Capacity: Drive to refusal.
Est. Length: 57'
No. Required: 10*
* Includes one Test Pile driven in a permanent location.

* Bars t90E shall be Grade 60 Steel Reinforcement Bars.

PIER 9E
BILL OF MATERIAL

BAR NO.	SIZE	LENGTH	SHAPE
h90E 21	#3	18'2"	U
h91E 6	#3	16'6"	U
h92E 21	#3	8'6"	U
S90E 4	#4	23'7"	U
h90E 15	#10	14'0"	U
U90E 3	#5	9'10"	U
V90E 53	#11	20'0"	U
V91E 53	#11	10'1"	U
V92E 32	#10	20'0"	U
V93E 32	#10	8'9"	U
V94E 13	#10	6'3"	U
V95E 6	#10	3'3"	U
W90E 6	#9	12'11"	U
W91E 8	#9	8'11"	U
Class A Concrete	Cu.Yd.	36.9	
Reinforcement Bars	Lbs.	15,060	
Seal Coat Concrete	Cu.Yd.	45.7	
Steel Piles HP 14 x 73	Lin.Ft.	513	
Test Pile HP 14 x 73	Each	1	
Cofferdam Excavation	Cu.Yd.	114	
Cofferdam	Each	1	
Expansion Bolts 3/8"	Each	49	

PIER 9E

**McCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 49 SEC. 15B-2
PEORIA & TAZEWELL COUNTIES**

CRN	HANSON ENGINEERS	74001
S.C.O.	INCORPORATED	
D.A.N.		
M.D.C.		