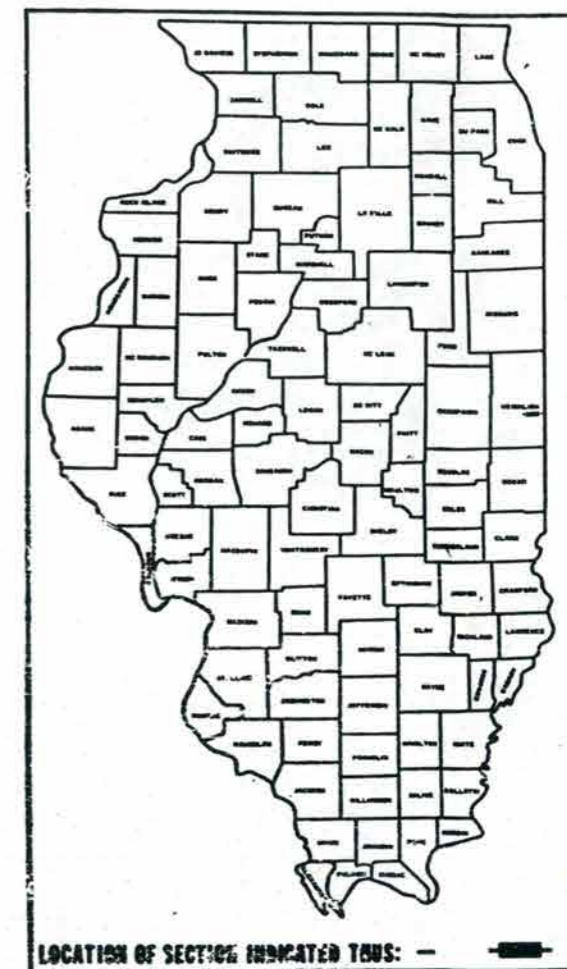


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED
FEDERAL AID HIGHWAY

F.A. RTE.	SECTION	COUNTY	ROYAL SHEET NO.	SHEET NO.
11	36BR	VERMILION	25	1

P-95-131-70

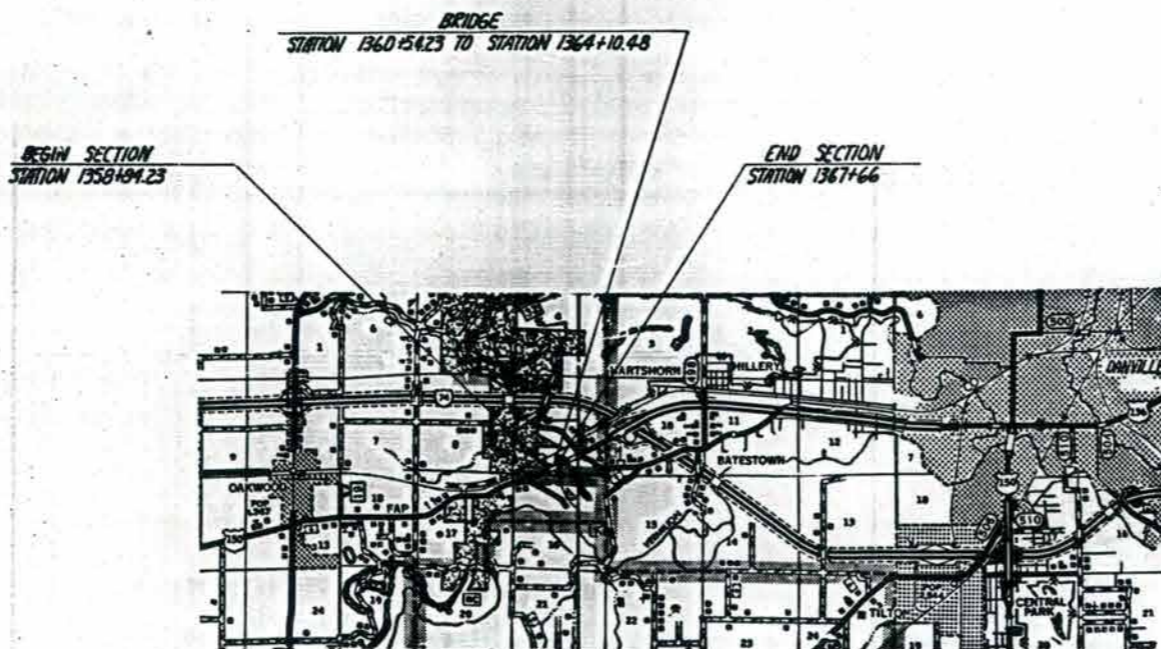


LOCATION OF SECTION INDICATED THUS: —

SCALES { PLAN 1"=50'
 PROFILE HOR. 1"=50'
 PROFILE VERT. 1"=10'
 CROSS-SECTIONS 1"=5' HORIZ.
 1"=10' VERT.

F. A. ROUTE 11
SECTION 36BR
VERMILION COUNTY
 C-95-201-76
BRIDGE RECONSTRUCTION

BRIDGE INFORMATION
 3 SPAN CONTINUOUS FLAT CONCRETE ON R.C. PILES
 BUILT UP PILES AND BRIDGEPIERS
 SPANS: 1 @ 157'-0"; 2 @ 130'-3"
 LENGTH: 357'-3" BE. TO BE. OF ABUTMENTS
 FINISH: 30'-6"
 SKEW: 0°
 STA. 1362+37.35



*612
 24 Francis*



STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS	
DESIGNED	March 19 1976 <i>Robert E. K. ...</i> DISTRICT ENGINEER
EXAMINED	April 20 1976 <i>[Signature]</i> ENGINEER OF PLANS AND CONTRACTS
PASSED	April 20 1976 <i>Thomas R. Byatt</i> ENGINEER OF DESIGN
APPROVED	April 20 1976 <i>[Signature]</i> CHIEF ENGINEER OF DIVISION

DESIGN DESIGNATION
700 (96) COLLECTOR

TOTAL LENGTH OF SECTION 36BR = 881.77 FEET = 0.167 MILES
 NET LENGTH OF SECTION 36JK = 881.77 FEET = 0.167 MILES

092-0050
 CONTRACT NO. 32204

REVISED SET 7-6-76



5-99

092-0050

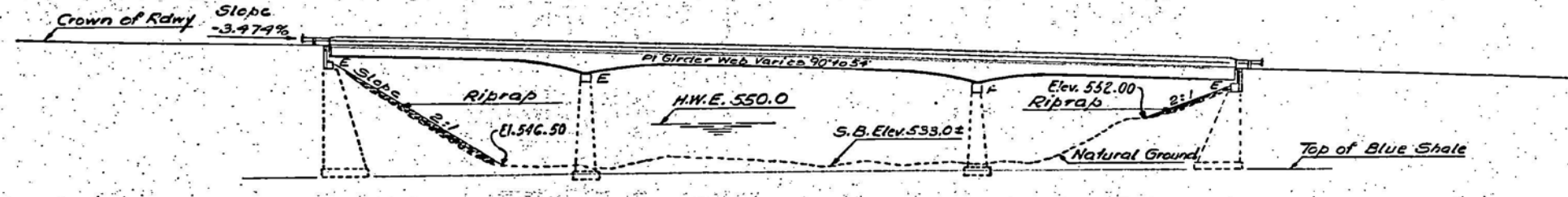
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DATE	SECTION	QUANTITY	TOTAL	UNIT	SHEET NO. /
12/11	36 BR	VECM110-3	23	6	13 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

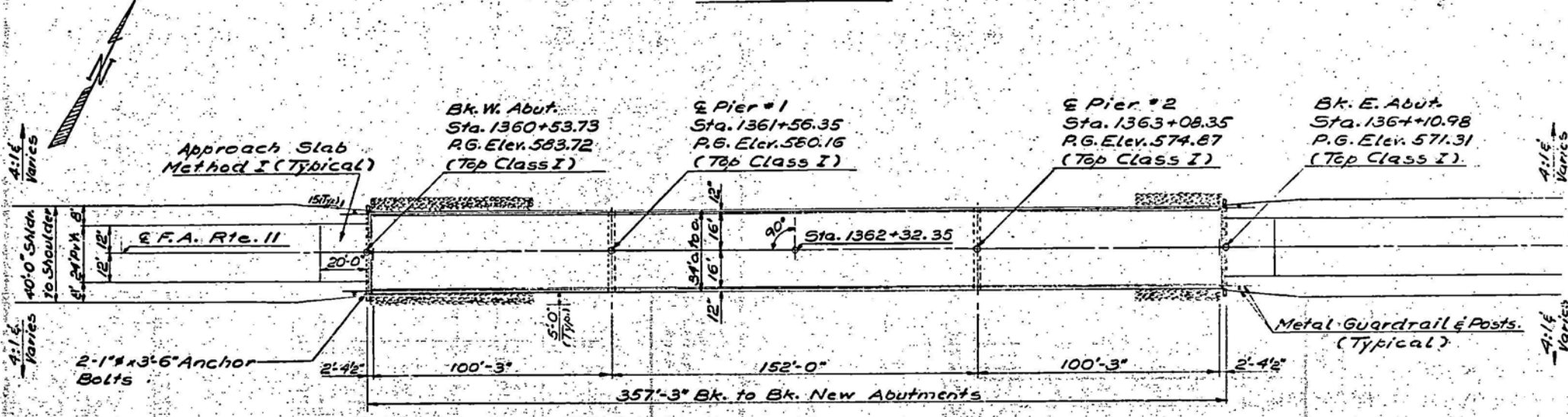
B.M.: 110' Rt. Sta. 1376+90 on S. end of Culvert in top of S.E. Wing near Hdwl. Standard tablet stamped 12M 1929 Reset 1953 Elev. 561.104.
The existing superstructure with three span steel trusses shall be removed. The existing P.C.C. piers and Spill-Through abutts shall be rebuilt to accommodate a new widened Plate Girder with concrete deck superstructure. Traffic shall be detoured during reconstruction. Existing Structure: No. 092-0050; Built as S.B.I. Rte. 10, Sec. 36 B & C, at Sta. 201+00 in 1927. No salvage.

GENERAL NOTES

Fasteners shall be high strength bolts. Bolts $\frac{3}{4}$ " dia, open holes $\frac{1}{8}$ " dia, unless otherwise noted.
Calculated weight of Structural Steel = 362,270 Lbs.
All structural steel shall be AASHTO M 222 unpainted except expansion joint angles and attached bars which shall be AASHTO M 183 and shop painted with two coats of basic lead silice chromate paint.
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.
Anchor bolts shall be set before bolting cross frames over supports. It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to construction and ordering of materials.
Protective coat shall not be applied to surfaces to which Waterproofing Membrane System is applied.
Expansion bolts shall consist of self drilling expansion anchors and $\frac{3}{4}$ " x 12" hooked bolts.
Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\frac{1}{8}$ ". Adjustment shall be made either by grinding the surface or by shimming the bearing. Two $\frac{1}{8}$ " adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims.
Any structure excavation required shall be incidental to Concrete Removal.



ELEVATION



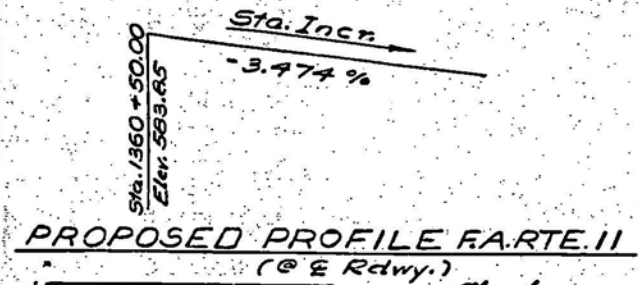
PLAN

STATION 1362+32.35
REBUILT BY
STATE OF ILLINOIS
FA-RT. II SEC. 36 BR
LOADING HS 20

NAME PLATE
(See Std. 2113)

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Bituminous Concrete Surface Class I	Tons	67		67
Removal of Existing Superstructures	Each		1	1
Concrete Removal	Cu. Yds.		153	153
Class I Concrete	Cu. Yds.	976.4	123.0	499.4
Reinforcement Bars	Lbs.	98480	17,600	116,080
Structural Steel	L.S.	L.S.		L.S.
Expansion Bolts (3/4")	Each		72	72
Name Plates	Each		1	1
Preformed Joint Sealer (4")	Lin. Ft.	34		34
Neoprene Exp. Joint (4")	Lin. Ft.	33		33
Shear Stud Connectors	Each	2385		2385
Protective Coat	Sq. Yds.	285		285
Waterproofing Membrane System	Sq. Yds.	1199		1199
Stone Riprap	Sq. Yds.		454	454



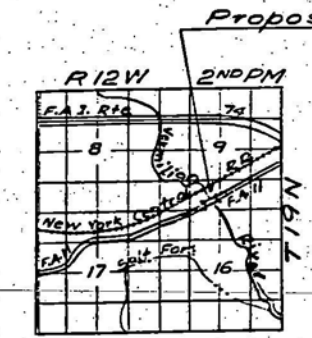
WATERWAY INFORMATION

Drainage Area 447 Sq. Mi.
Required Opening 2500 Sq. Ft.
Proposed Opening 2500 Sq. Ft.
H.W.E. (150) 550 ft.
 $\Delta H(150) = .1'$
 $Q(150) = 15,750$ cfs
H.W.E. (100) 550.3'
 $\Delta H(100) = .13'$
 $Q(100) = 18,150$ cfs

DESIGN STRESSES

$f_c = 1400$ psi (Sub. Curb & Parapet)
 $f_c = 1200$ psi (Deck Slab)
 $f_s = 20000$ psi (Reinf.)
 $f_s = 20000$ psi (Struct.) (M183)
 $f_s = 27000$ psi (Struct.) (M222)
 $n = 8.5$

Loading: HS 20-44
Allow 25 %/p' for fut. W.S.
Design Specifications: 1973 AASHTO, 1974 and 1975 Interim Specifications.

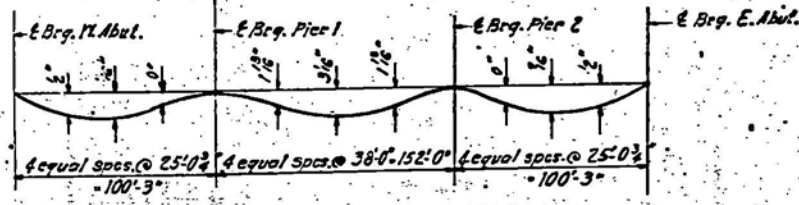


LOCATION SKETCH

GENERAL PLAN & ELEVATION
F.A. RTE. II OVER MIDDLE FORK
OF VERMILION RIVER
F.A. RTE. II SECTION 36 BR
VERMILION COUNTY
STA 1362+32.35

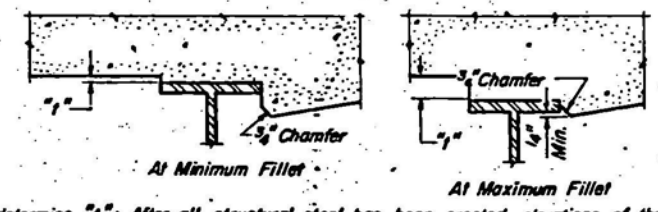
DESIGNED	R. K. MATHIAS	EXAMINED	March 5 1976 Paul S. Thompson
CHECKED	James P. Pura	PASSED	
DRAWN	V. H. I. O.	APPROVED	
CHECKED	JNP		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only)
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 below.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown below, minus slab thickness, equals the fillet height "t" above top flange of beams.

FILLET HEIGHTS

GIRDER #1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. West Abut.	136053.730	-14.000	583.344	583.344
E Brg. W. Abut.	136056.105	-14.000	583.284	583.284
A	136066.105	-14.000	582.934	582.934
B	136076.105	-14.000	582.584	582.629
C	136086.105	-14.000	582.234	582.289
D	136096.105	-14.000	581.884	581.939
E	136106.105	-14.000	581.534	581.589
F	136116.105	-14.000	581.184	581.239
G	136126.105	-14.000	580.834	580.889
H	136136.105	-14.000	580.484	580.539
I	136146.105	-14.000	580.134	580.189
J	136156.105	-14.000	579.784	579.839
E Brg. Pier #1	136156.355	-14.000	579.801	579.801
K	136166.355	-14.000	579.454	579.499
L	136176.355	-14.000	579.104	579.149
M	136186.355	-14.000	578.754	578.799
N	136196.355	-14.000	578.404	578.449
O	136206.355	-14.000	578.054	578.099
P	136216.355	-14.000	577.704	577.749
Q	136226.355	-14.000	577.354	577.399
R	136236.355	-14.000	577.004	577.049
S	136246.355	-14.000	576.654	576.699
T	136256.355	-14.000	576.304	576.349
U	136266.355	-14.000	575.954	575.999
V	136276.355	-14.000	575.604	575.649
W	136286.355	-14.000	575.254	575.299
X	136296.355	-14.000	574.904	574.949
Y	136306.355	-14.000	574.554	574.599
E Brg. Pier #2	136308.355	-14.000	574.571	574.571
Z	136318.355	-14.000	574.224	574.269
AA	136328.355	-14.000	573.874	573.919
BB	136338.355	-14.000	573.524	573.569
CC	136348.355	-14.000	573.174	573.219
DD	136358.355	-14.000	572.824	572.869
EE	136368.355	-14.000	572.474	572.519
FF	136378.355	-14.000	572.124	572.169
GG	136388.355	-14.000	571.774	571.819
HH	136398.355	-14.000	571.424	571.469
II	136408.355	-14.000	571.074	571.119
E Brg. E. Abut.	136408.605	-14.000	571.098	571.098
Bk. East Abut.	136410.980	-14.000	570.932	570.932

NORTH LONGITUDINAL BONDED CONST. JT.

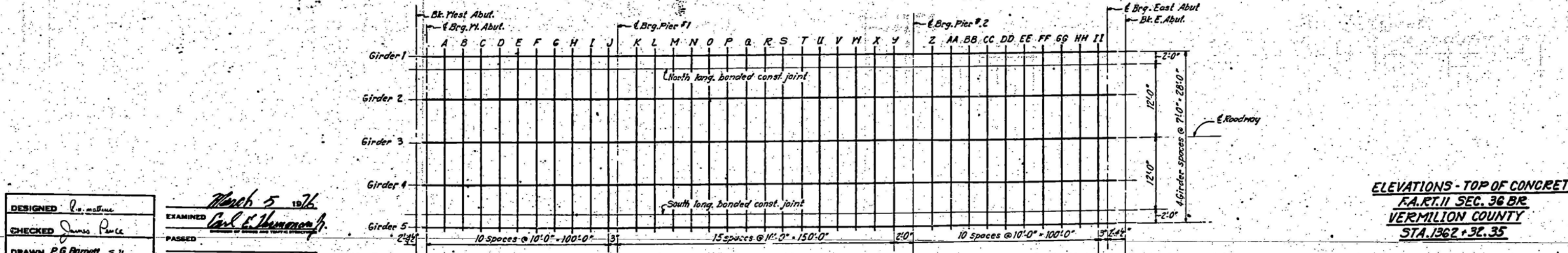
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. West Abut.	136053.730	-12.000	583.408	583.408
E Brg. W. Abut.	136056.105	-12.000	583.325	583.325
A	136066.105	-12.000	582.978	582.999
B	136076.105	-12.000	582.631	582.645
C	136086.105	-12.000	582.284	582.325
D	136096.105	-12.000	581.937	581.975
E	136106.105	-12.000	581.590	581.625
F	136116.105	-12.000	581.243	581.275
G	136126.105	-12.000	580.896	580.925
H	136136.105	-12.000	580.549	580.575
I	136146.105	-12.000	580.202	580.225
J	136156.105	-12.000	579.855	579.875
E Brg. Pier #1	136156.355	-12.000	579.863	579.863
K	136166.355	-12.000	579.495	579.535
L	136176.355	-12.000	579.127	579.227
M	136186.355	-12.000	578.759	578.919
N	136196.355	-12.000	578.391	578.609
O	136206.355	-12.000	578.023	578.289
P	136216.355	-12.000	577.655	577.969
Q	136226.355	-12.000	577.287	577.649
R	136236.355	-12.000	576.919	577.307
S	136246.355	-12.000	576.551	576.982
T	136256.355	-12.000	576.183	576.657
U	136266.355	-12.000	575.815	576.332
V	136276.355	-12.000	575.447	576.007
W	136286.355	-12.000	575.079	575.682
X	136296.355	-12.000	574.711	575.357
Y	136306.355	-12.000	574.343	575.032
E Brg. Pier #2	136308.355	-12.000	574.362	574.362
Z	136318.355	-12.000	574.215	574.215
AA	136328.355	-12.000	574.067	574.067
BB	136338.355	-12.000	573.920	573.927
CC	136348.355	-12.000	573.773	573.799
DD	136358.355	-12.000	573.625	573.661
EE	136368.355	-12.000	573.478	573.517
FF	136378.355	-12.000	573.330	573.172
GG	136388.355	-12.000	573.183	573.018
HH	136398.355	-12.000	573.035	572.863
II	136408.355	-12.000	572.888	572.709
E Brg. E. Abut.	136408.605	-12.000	571.080	571.080
Bk. East Abut.	136410.980	-12.000	570.997	570.997

GIRDER #2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. West Abut.	136053.730	-7.000	583.484	583.486
E Brg. W. Abut.	136056.105	-7.000	583.404	583.409
A	136066.105	-7.000	583.056	583.073
B	136076.105	-7.000	582.709	582.743
C	136086.105	-7.000	582.361	582.402
D	136096.105	-7.000	582.014	582.053
E	136106.105	-7.000	581.667	581.703
F	136116.105	-7.000	581.319	581.341
G	136126.105	-7.000	580.972	580.979
H	136136.105	-7.000	580.624	580.624
I	136146.105	-7.000	580.277	580.277
J	136156.105	-7.000	579.930	579.930
E Brg. Pier #1	136156.355	-7.000	579.921	579.921
K	136166.355	-7.000	579.573	579.613
L	136176.355	-7.000	579.226	579.305
M	136186.355	-7.000	578.879	578.997
N	136196.355	-7.000	578.531	578.687
O	136206.355	-7.000	578.184	578.367
P	136216.355	-7.000	577.836	578.047
Q	136226.355	-7.000	577.489	577.727
R	136236.355	-7.000	577.142	577.385
S	136246.355	-7.000	576.794	577.010
T	136256.355	-7.000	576.447	576.634
U	136266.355	-7.000	576.099	576.261
V	136276.355	-7.000	575.752	575.879
W	136286.355	-7.000	575.405	575.502
X	136296.355	-7.000	575.057	575.125
Y	136306.355	-7.000	574.710	574.718
E Brg. Pier #2	136308.355	-7.000	574.640	574.640
Z	136318.355	-7.000	574.293	574.293
AA	136328.355	-7.000	573.946	573.946
BB	136338.355	-7.000	573.599	573.605
CC	136348.355	-7.000	573.251	573.272
DD	136358.355	-7.000	572.903	572.939
EE	136368.355	-7.000	572.556	572.592
FF	136378.355	-7.000	572.209	572.251
GG	136388.355	-7.000	571.861	571.906
HH	136398.355	-7.000	571.514	571.532
II	136408.355	-7.000	571.166	571.187
E Brg. E. Abut.	136408.605	-7.000	571.158	571.158
Bk. East Abut.	136410.980	-7.000	571.075	571.075

GIRDER #3 OR E RDTTY

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. West Abut.	136053.730	0.0	583.595	583.595
E Brg. W. Abut.	136056.105	0.0	583.513	583.513
A	136066.105	0.0	583.166	583.181
B	136076.105	0.0	582.818	582.851
C	136086.105	0.0	582.471	582.513
D	136096.105	0.0	582.123	582.162
E	136106.105	0.0	581.776	581.812
F	136116.105	0.0	581.429	581.458
G	136126.105	0.0	581.081	581.099
H	136136.105	0.0	580.734	580.734
I	136146.105	0.0	580.386	580.386
J	136156.105	0.0	580.039	580.039
E Brg. Pier #1	136156.355	0.0	580.030	580.030
K	136166.355	0.0	579.683	579.722
L	136176.355	0.0	579.335	579.415
M	136186.355	0.0	578.988	579.107
N	136196.355	0.0	578.641	578.797
O	136206.355	0.0	578.293	578.478
P	136216.355	0.0	577.946	578.158
Q	136226.355	0.0	577.598	577.838
R	136236.355	0.0	577.251	577.498
S	136246.355	0.0	576.904	577.158
T	136256.355	0.0	576.556	576.795
U	136266.355	0.0	576.209	576.430
V	136276.355	0.0	575.861	575.988
W	136286.355	0.0	575.514	575.601
X	136296.355	0.0	575.167	575.214
Y	136306.355	0.0	574.819	574.827
E Brg. Pier #2	136308.355	0.0	574.750	574.750
Z	136318.355	0.0	574.402	574.402
AA	136328.355	0.0	574.055	574.055
BB	136338.355	0.0	573.708	573.715
CC	136348.355	0.0	573.360	573.382
DD	136358.355	0.0	573.013	573.049
EE	136368.355	0.0	572.665	572.705
FF	136378.355	0.0	572.318	572.360
GG	136388.355	0.0	571.971	572.006
HH	136398.355	0.0	571.623	571.641
II	136408.355	0.0	571.276	571.276
E Brg. E. Abut.	136408.605	0.0	571.267	571.267
Bk. East Abut.	136410.980	0.0	571.185	571.185



ELEVATIONS - TOP OF CONCRETE
F.A.R.T. II SEC. 36 BR
VERMILION COUNTY
STA. 1362 + 32.35

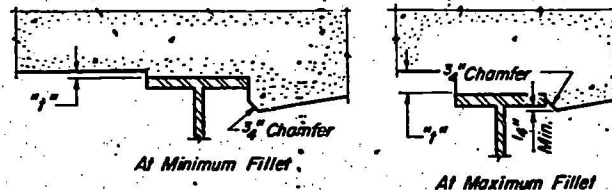
DESIGNED *l. s. matine*
CHECKED *James Parke*
DRAWN *P.G. Barnett s.u.*
CHECKED *JNP*

EXAMINED *March 5 1976*
Carl E. Hummer
PASSED
APPROVED

E-5 8-1-65

ELEVATION LOCATION DIAGRAM

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PROJECT NO.	SECTION	SHEET	TOTAL SHEETS	DATE
136-111	3-62	VERMILION	23	8
DES. DRAW. ENG. NO. 7	SCALE	PER. AND PROJECT		

SHEET NO. 3
13 SHEETS

To determine "f": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown below, minus slab thickness, equals the fillet heights "f" above top flange of beams.

FILLET HEIGHTS

GIRDER #4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. West Abut.	136053.730	7.000	583.488	583.488
€ Brg. W. Abut.	136054.105	7.000	583.404	583.404
A	136064.105	7.000	583.056	583.073
B	136074.105	7.000	582.708	582.743
C	136084.105	7.000	582.361	582.403
D	136094.105	7.000	582.014	582.053
E	136104.105	7.000	581.667	581.703
F	136114.105	7.000	581.319	581.361
G	136124.105	7.000	580.972	580.979
H	136134.105	7.000	580.624	580.624
I	136144.105	7.000	580.277	580.277
J	136154.105	7.000	579.930	579.930
€ Brg. Pier #1	136156.355	7.000	579.821	579.821
K	136166.355	7.000	579.573	579.613
L	136176.355	7.000	579.325	579.365
M	136186.355	7.000	579.077	579.117
N	136196.355	7.000	578.829	578.869
O	136206.355	7.000	578.581	578.621
P	136216.355	7.000	578.333	578.373
Q	136226.355	7.000	578.085	578.125
R	136236.355	7.000	577.837	577.877
S	136246.355	7.000	577.589	577.629
T	136256.355	7.000	577.341	577.381
U	136266.355	7.000	577.093	577.133
V	136276.355	7.000	576.845	576.885
W	136286.355	7.000	576.597	576.637
X	136296.355	7.000	576.349	576.389
Y	136306.355	7.000	576.101	576.141
€ Brg. Pier #2	136308.355	7.000	576.640	576.640
Z	136318.355	7.000	576.293	576.293
AA	136328.355	7.000	575.946	575.946
BB	136338.355	7.000	575.599	575.603
CC	136348.355	7.000	575.252	575.272
DD	136358.355	7.000	574.905	574.933
EE	136368.355	7.000	574.558	574.585
FF	136378.355	7.000	574.211	574.231
GG	136388.355	7.000	573.864	573.884
HH	136398.355	7.000	573.517	573.532
II	136408.355	7.000	573.170	573.167
€ Brg. E. Abut.	136408.605	7.000	573.158	573.158
Bk. East Abut.	136410.980	7.000	573.075	573.875

SOUTH LONGITUDINAL BONDED CONST. JT.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. West Abut.	136053.730	12.000	583.488	583.488
€ Brg. W. Abut.	136054.105	12.000	583.325	583.325
A	136064.105	12.000	582.978	582.995
B	136074.105	12.000	582.631	582.648
C	136084.105	12.000	582.284	582.325
D	136094.105	12.000	581.937	581.978
E	136104.105	12.000	581.590	581.625
F	136114.105	12.000	581.243	581.263
G	136124.105	12.000	580.896	580.901
H	136134.105	12.000	580.549	580.548
I	136144.105	12.000	580.202	580.192
J	136154.105	12.000	579.855	579.851
€ Brg. Pier #1	136156.355	12.000	579.843	579.843
K	136166.355	12.000	579.496	579.535
L	136176.355	12.000	579.149	579.227
M	136186.355	12.000	578.802	578.919
N	136196.355	12.000	578.455	578.609
O	136206.355	12.000	578.108	578.289
P	136216.355	12.000	577.761	577.969
Q	136226.355	12.000	577.414	577.649
R	136236.355	12.000	577.067	577.387
S	136246.355	12.000	576.720	577.122
T	136256.355	12.000	576.373	576.857
U	136266.355	12.000	576.026	576.583
V	136276.355	12.000	575.679	576.309
W	136286.355	12.000	575.332	576.035
X	136296.355	12.000	574.985	575.761
Y	136306.355	12.000	574.638	575.487
€ Brg. Pier #2	136308.355	12.000	574.562	574.562
Z	136318.355	12.000	574.215	574.215
AA	136328.355	12.000	573.868	573.867
BB	136338.355	12.000	573.521	573.527
CC	136348.355	12.000	573.174	573.194
DD	136358.355	12.000	572.827	572.861
EE	136368.355	12.000	572.480	572.517
FF	136378.355	12.000	572.133	572.172
GG	136388.355	12.000	571.786	571.818
HH	136398.355	12.000	571.439	571.453
II	136408.355	12.000	571.092	571.089
€ Brg. E. Abut.	136408.605	12.000	571.080	571.080
Bk. East Abut.	136410.980	12.000	570.997	570.997

GIRDER #5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. West Abut.	136053.730	14.000	583.366	583.366
€ Brg. W. Abut.	136054.105	14.000	583.284	583.284
A	136064.105	14.000	582.936	582.954
B	136074.105	14.000	582.589	582.629
C	136084.105	14.000	582.242	582.284
D	136094.105	14.000	581.894	581.938
E	136104.105	14.000	581.547	581.583
F	136114.105	14.000	581.199	581.221
G	136124.105	14.000	580.852	580.859
H	136134.105	14.000	580.505	580.505
I	136144.105	14.000	580.157	580.157
J	136154.105	14.000	579.810	579.810
€ Brg. Pier #1	136156.355	14.000	579.801	579.801
K	136166.355	14.000	579.454	579.493
L	136176.355	14.000	579.107	579.185
M	136186.355	14.000	578.760	578.878
N	136196.355	14.000	578.413	578.567
O	136206.355	14.000	578.066	578.267
P	136216.355	14.000	577.719	577.927
Q	136226.355	14.000	577.372	577.607
R	136236.355	14.000	577.025	577.263
S	136246.355	14.000	576.678	576.891
T	136256.355	14.000	576.331	576.514
U	136266.355	14.000	575.984	576.141
V	136276.355	14.000	575.637	575.759
W	136286.355	14.000	575.290	575.372
X	136296.355	14.000	574.943	574.985
Y	136306.355	14.000	574.596	574.598
€ Brg. Pier #2	136308.355	14.000	574.521	574.521
Z	136318.355	14.000	574.174	574.173
AA	136328.355	14.000	573.827	573.826
BB	136338.355	14.000	573.480	573.486
CC	136348.355	14.000	573.133	573.153
DD	136358.355	14.000	572.786	572.820
EE	136368.355	14.000	572.439	572.473
FF	136378.355	14.000	572.092	572.121
GG	136388.355	14.000	571.745	571.777
HH	136398.355	14.000	571.398	571.412
II	136408.355	14.000	571.051	571.047
€ Brg. E. Abut.	136408.605	14.000	571.038	571.038
Bk. East Abut.	136410.980	14.000	570.955	570.955

DESIGNED	R. S. Matsum
CHECKED	James P. Hill
DRAWN	P. G. Barnoff S. J.
CHECKED	J. N. P.

EXAMINED	March 5 1976 Carl E. Johnson
PASSED	
APPROVED	

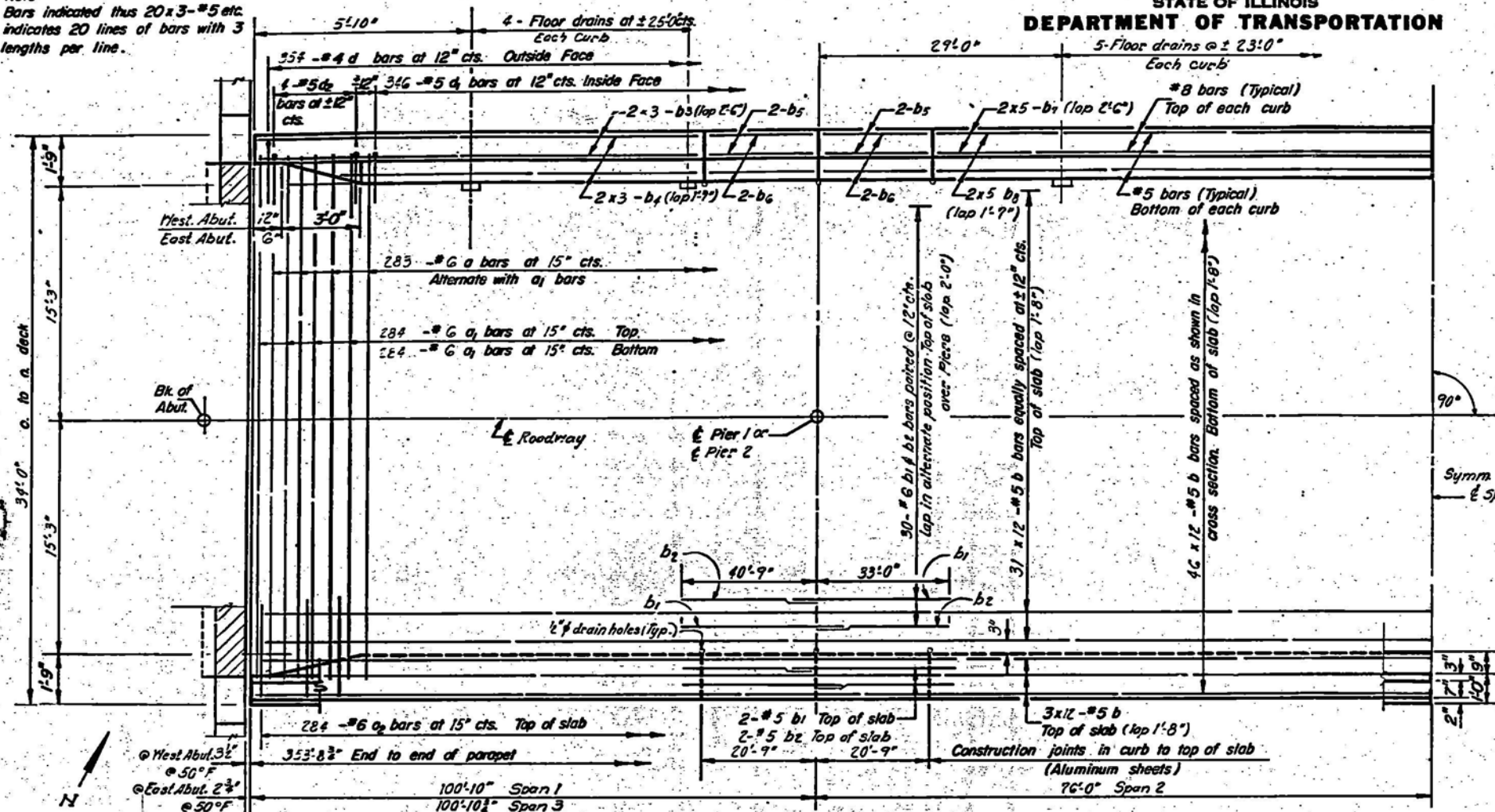
ELEVATIONS-TOP OF CONCRETE
F.A. RT. 11 SEC. 36 BR.
VERMILION COUNTY
STA. 1362+32.35

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

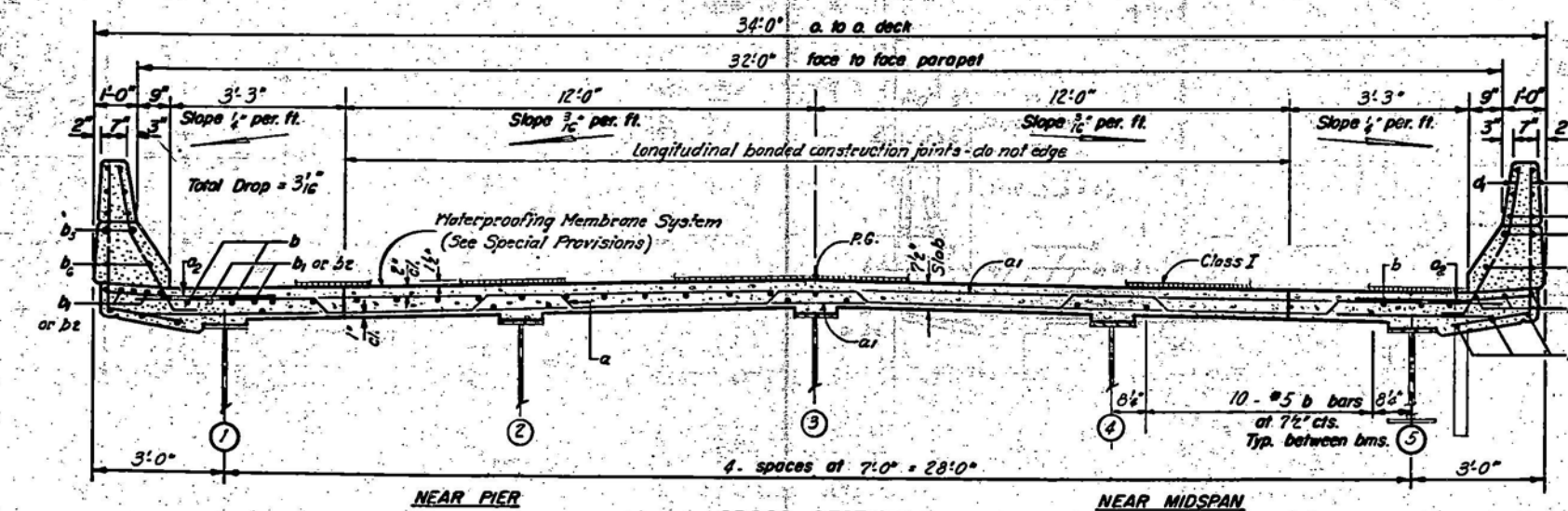
SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
36BR	VERMILION	23	9

13 SHEETS

Note: Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.



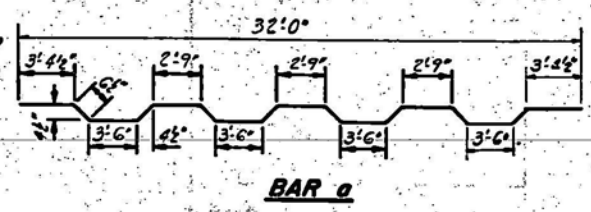
HALF PLAN



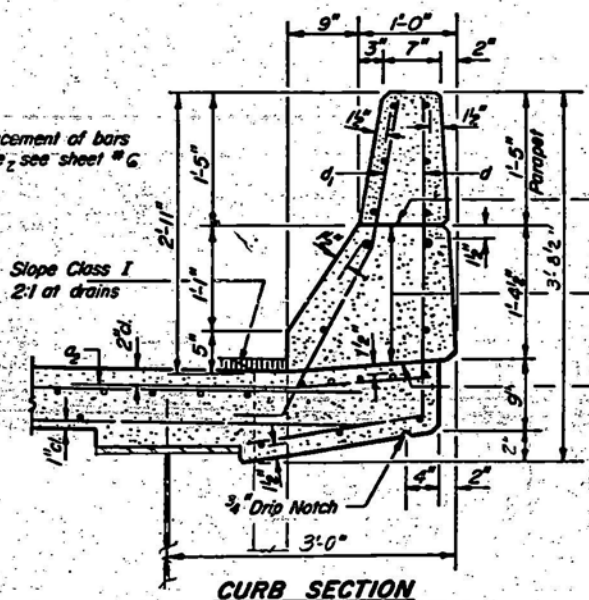
CROSS SECTION
LOOKING EAST

DESIGNED	R. E. Wallace
CHECKED	Jamie Pence
DRAWN	Lincoln Kistner
CHECKED	JNV

March 5 1976
Examined
Paul E. Hummer
APPROVED
DIRECTOR OF HIGHWAYS

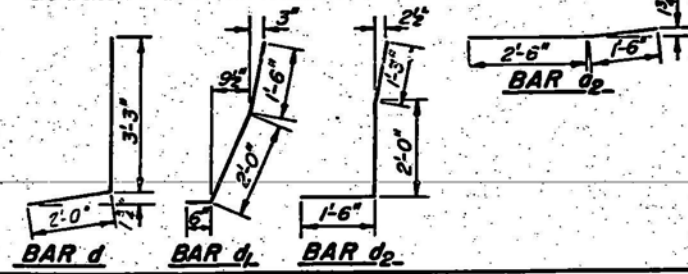


BAR a

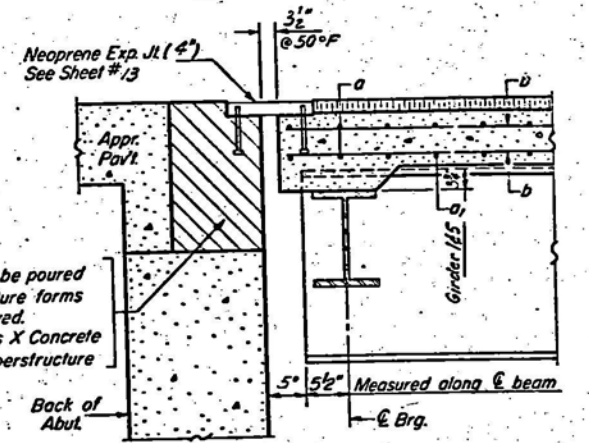


CURB SECTION

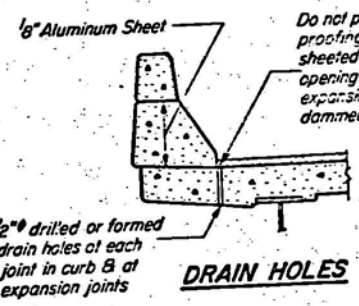
Note: For placement of bars e thru e2 see sheet #6
Note: For Drain details see sheet #5



BAR d, BAR d1, BAR d2



SEC. AT WEST ABUT.



DRAIN HOLES

Note: For Sec. of East Abut. see sheet #5
Hatched area to be poured after superstructure forms have been removed. Quantity of Class X Concrete included with superstructure

BILL OF MATERIAL

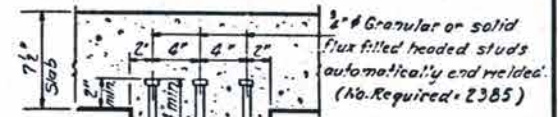
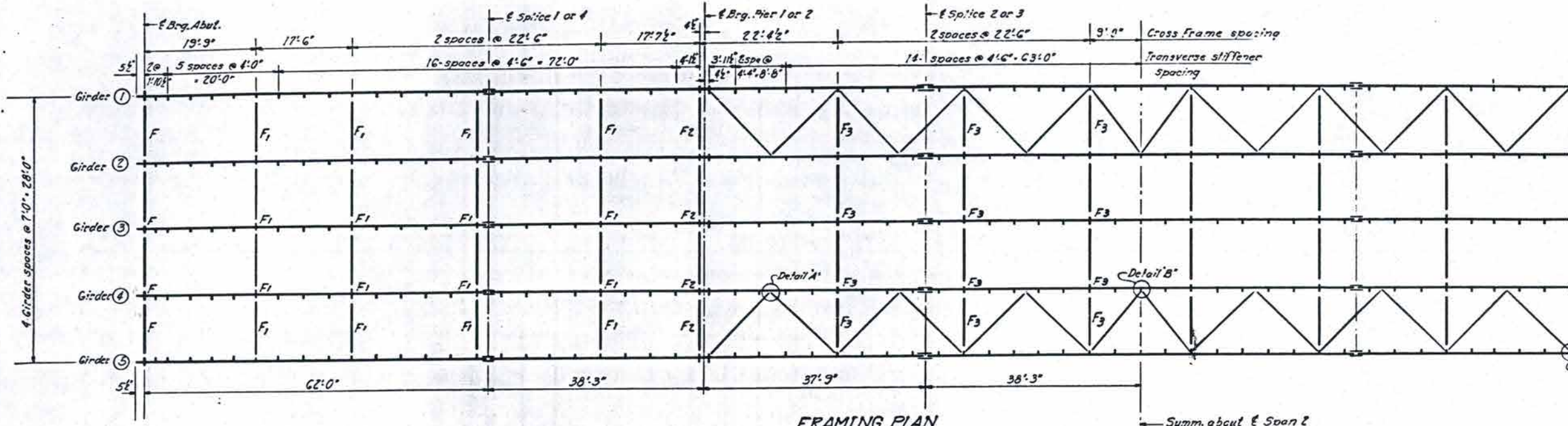
Bar	No.	Size	Length	Shape	
a	283	#6	33'-4"	~	
a1	568	#6	32'-0"	~	
a2	568	#6	4'-0"	~	
b	996	#5	30'-11"	~	
b1	68	#6	45'-0"	~	
b2	68	#6	30'-9"	~	
b3	24	#8	28'-4"	~	
b4	24	#5	27'-9"	~	
b5	16	#8	20'-6"	~	
b6	16	#5	20'-6"	~	
b7	20	#8	24'-2"	~	
b8	20	#5	23'-4"	~	
d	708	#4	5'-3"	J	
d1	692	#5	4'-0"	J	
d2	16	#5	4'-9"	J	
Reinforcement Bars				Lbs.	75,670
Class X Concrete				Cu. Yds.	318.6

Parapet reinforcement and Class X Concrete are billed on sheet #6.

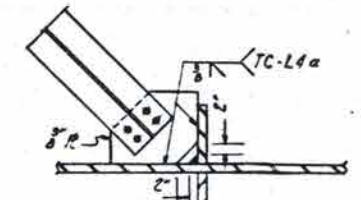
SUPERSTRUCTURE
F.A.R.T. II SEC. 36BR
VERMILION CO.
STA. 1362+32.35

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

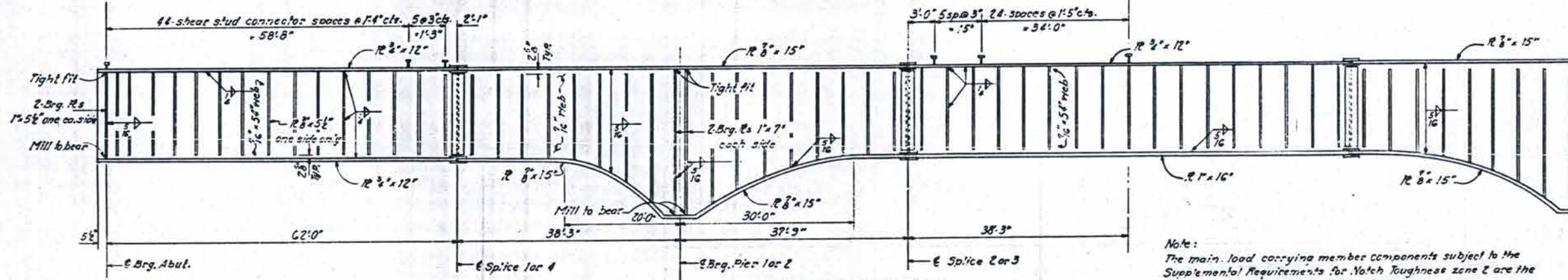
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
34 BR	VERMILION	23	12	13 SHEETS
DESIGNED BY	CHECKED BY	DRAWN BY	DATE	
ILLINOIS	ILLINOIS	ILLINOIS	ILLINOIS	



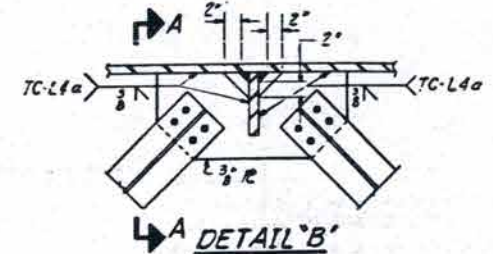
SHEAR STUDS



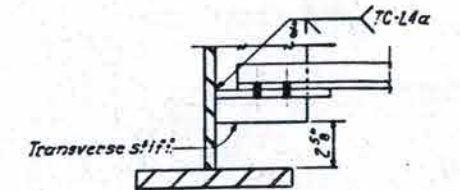
DETAIL "C"



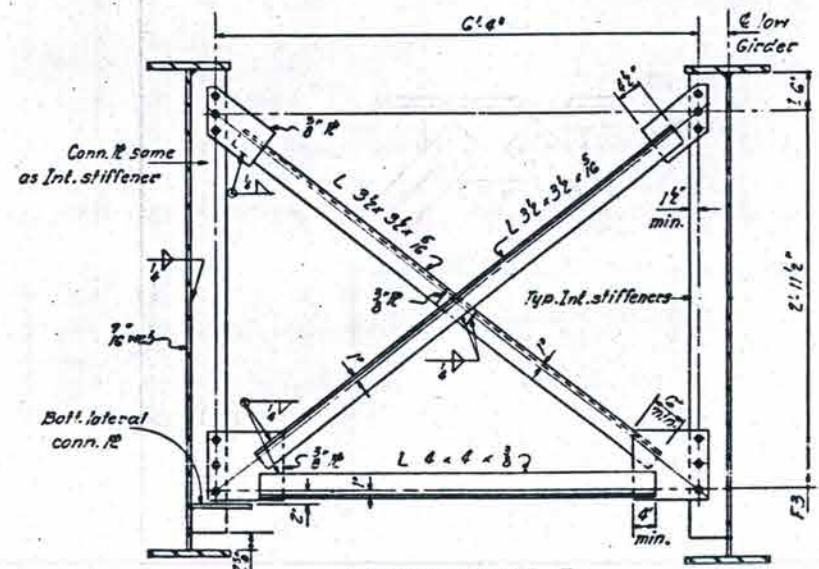
Note: The main load carrying member components subject to the Supplemental Requirements for Notch Toughness zone 2 are the flanges, webs, and splice plates of the steel girders.



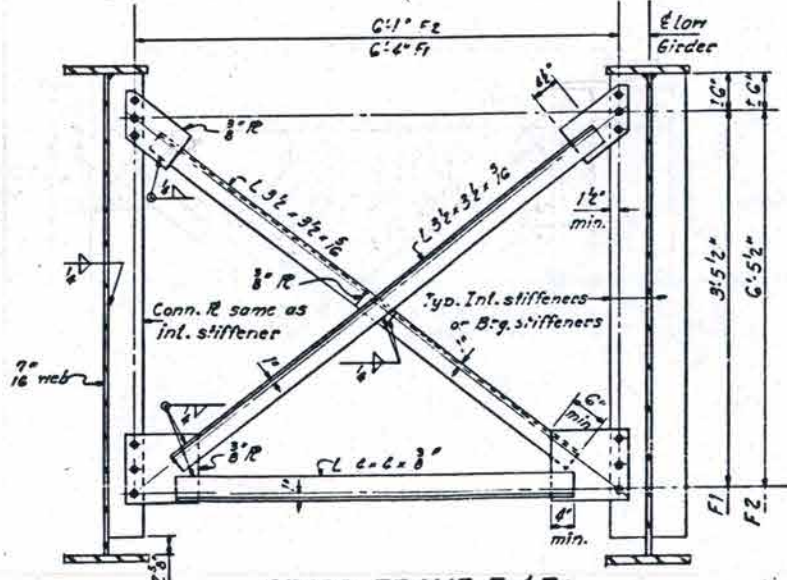
DETAIL "B"



Note: Use 1/4" holes in gusset Rs for 3/4" bolts for Cross Frames. Hardened meshers shall be required over holes in Cross Frame gusset Rs.



Required: F3 - 24



Required: F1 - 32
F2 - 8

DESIGNED	W. J. Wallace
CHECKED	James Price
DRAWN	James Price
CHECKED	JWP

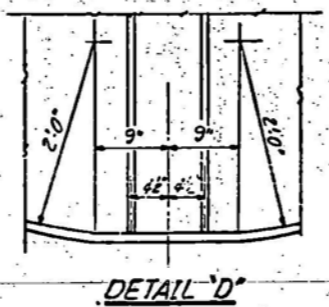
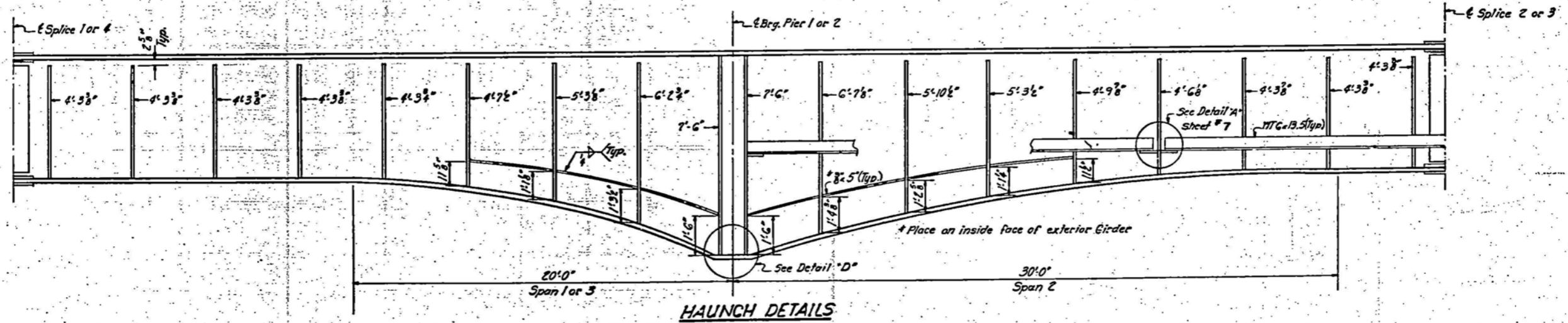
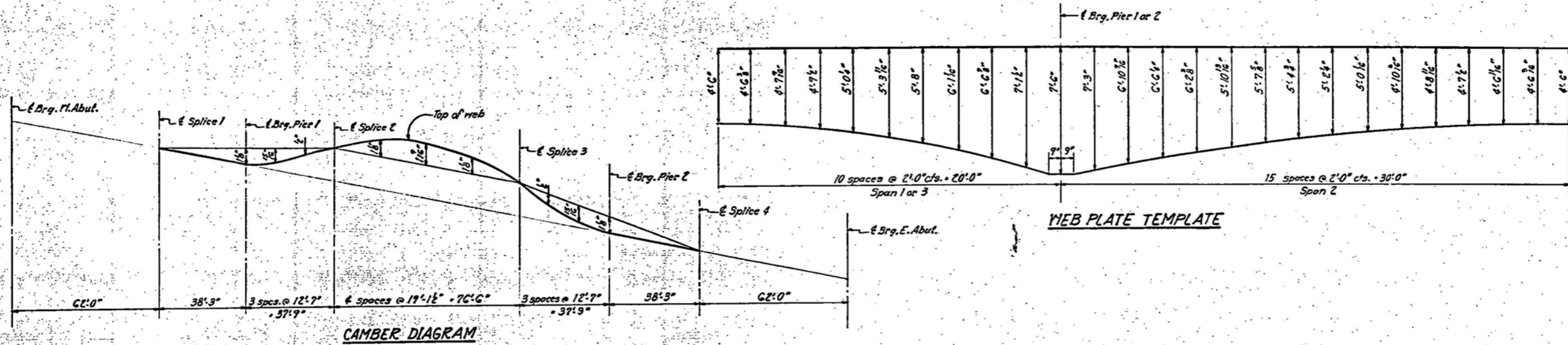
March 5 1976
EXAMINED
APPROVED

STRUCTURAL STEEL
F.A.R.T. II SEC. 36 BR
VERMILION COUNTY
STA. 1362+32.35

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.A. 11	36 BR.	VERMILION	13	13
SHEET TITLE		SHEET AND PROJECT		

SHEET NO. 8
13 SHEETS



DESIGNED	R. E. WATSON
CHECKED	James Ponce
DRAWN	Lawrence H. Ponce
CHECKED	JUP

March 5 1976
 EXAMINED *Carl S. Sherman Jr.*
 PASSED
 APPROVED

STRUCTURAL STEEL-DETAILS
 F.A.R.T. II SEC. 36 BR.
 VERMILION COUNTY
 STA. 1362+32.35

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	DISTRICT	COUNTY	TOTAL SHEETS	SHEET NO.
A.R.T. II	3602	VERMILION	23	14
FED. ROAD DIST. NO. 7		PLAN NO.	PROJECT	

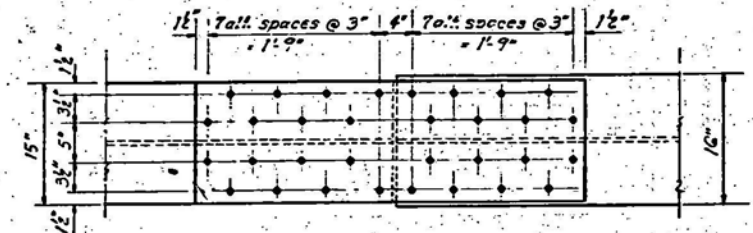
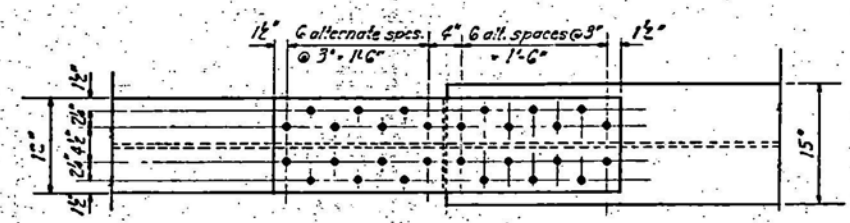
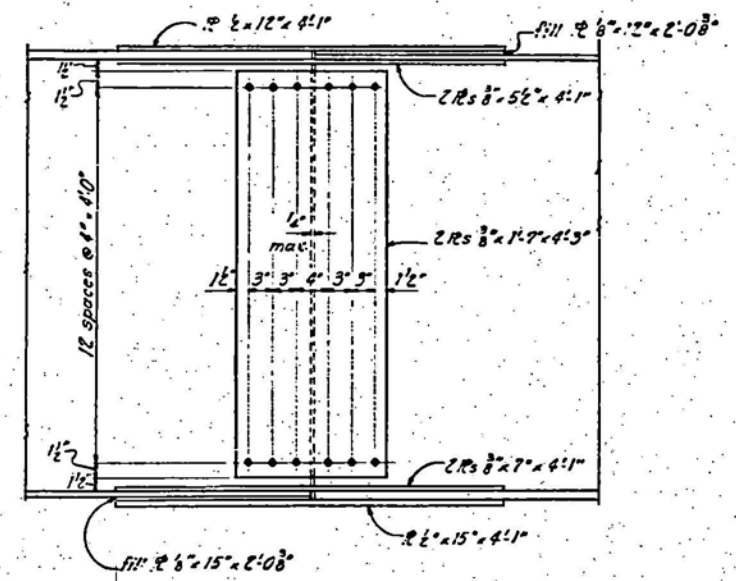
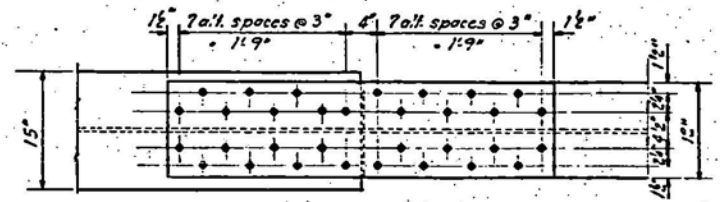
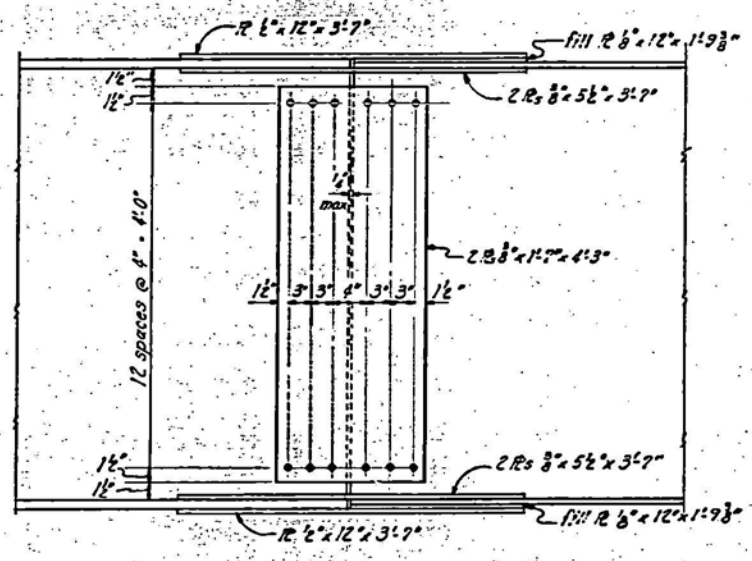
TOP OF WEB ELEVATIONS

Girder Loc.	1	2	3	4	5
E. Bra. N. Abut.	582.554	582.674	582.783	572.674	582.554
E. Splice 1	580.348	580.468	580.577	580.468	580.348
E. Bra. Pier 1	579.066	579.186	579.295	579.186	579.066
E. Splice 2	577.900	578.020	578.029	578.020	577.900
E. Splice 3	575.237	575.357	575.466	575.357	575.237
E. Bra. Pier 2	573.776	573.896	574.005	573.896	573.776
E. Splice 4	572.411	572.531	572.640	572.531	572.411
E. Bra. E. Abut.	570.309	570.429	570.538	570.429	570.309

INTERIOR GIRDER MOMENT TABLE			
	0.4 Sp. 1	Pier	0.5 Sp. 2
I_s (in ⁴)	19229	80668	53813
I_c (in ⁴)	46022	—	60604
S_s (in ³)	693	1758	991
S_c (in ³)	960	—	1338
Q (k/ft)	0.873	1.366	0.873
M_Q (k)	372	2493	820
B_Q (ksi)	6.4	17.0	9.9
S_Q (k/ft)	0.493	—	0.493
M_{sQ} (k)	278	—	632
M_{cQ} (k)	788	966	1081
M_{imp} (k)	175	192	196
Total (k)	1241	1158	1909
B_{sQ} (ksi)	15.5	7.9	17.1
B_{cQ} (ksi)	21.9	24.9	27.0
VR (k)	58	—	49.7

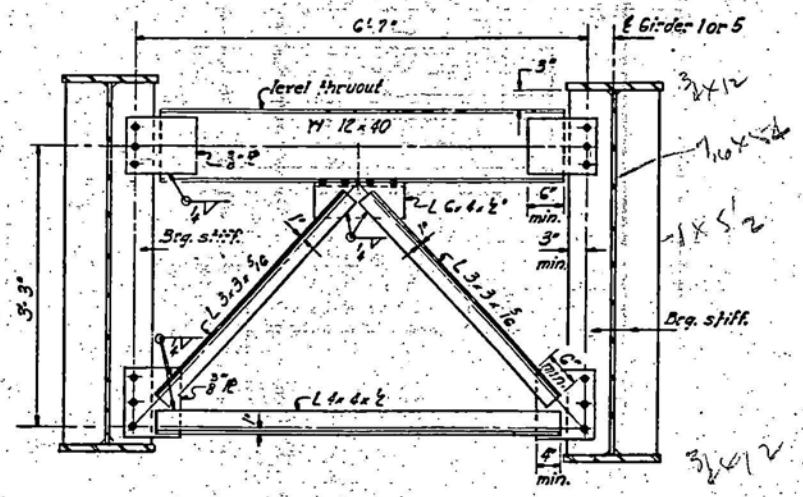
INTERIOR GIRDER REACTION TABLE		
	Abut.	Pier
R_Q (k)	43.6	197.2
R_c (k)	40.6	77.2
$Imp.$ (k)	9.0	15.4
R_{TOTAL} (k)	93.2	289.8

I_s and S_s are the moment of inertia and section modulus of the steel section.
 I_c and S_c are the moment of inertia and section modulus of the composite section used in computing I_s .
 VR is the maximum \pm impact shear range.



SPLICE 1 & 4
8" H.S. Bolts

SPLICE 2 & 3
8" H.S. Bolts



END CROSS FRAME-F

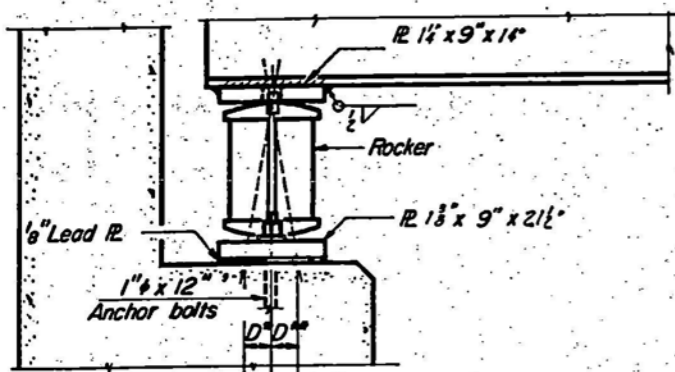
B-Required

Note: Use 7/8" ϕ holes in gusset Rs for 3/4" bolts
 Hardened washers shall be required over holes in gusset Rs.

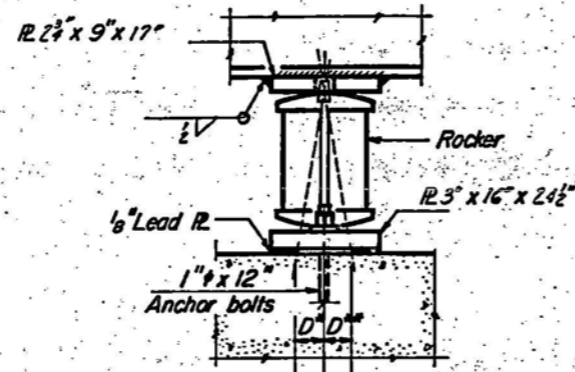
DESIGNED	<i>R. S. Mathis</i>
CHECKED	<i>James Pence</i>
DRAWN	<i>James Hatanik</i>
CHECKED	<i>JWP</i>

EXAMINED	<i>March 5 1976</i> <i>Carl E. Thompson</i>
PASSED	
APPROVED	

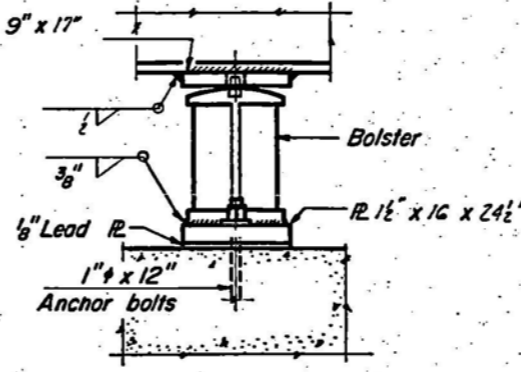
STRUCTURAL STEEL DETAILS
 F.A.R.T. II SEC. 36 BR
 VERMILION COUNTY
 STA. 1362+32.35



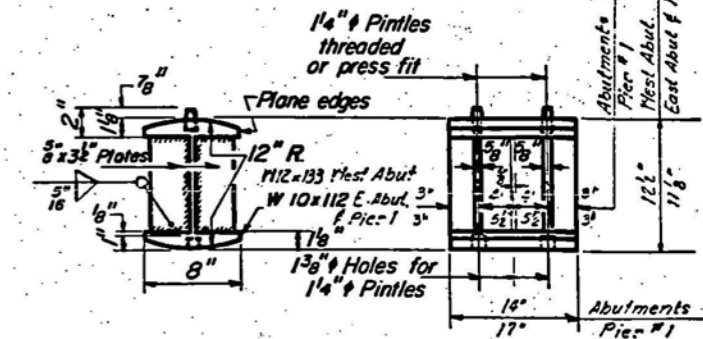
SECTION AT ABUTMENTS



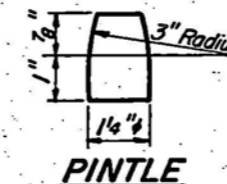
ELEVATION-PIER 1



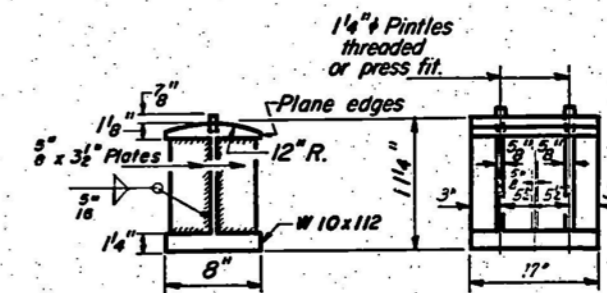
ELEVATION-PIER 2



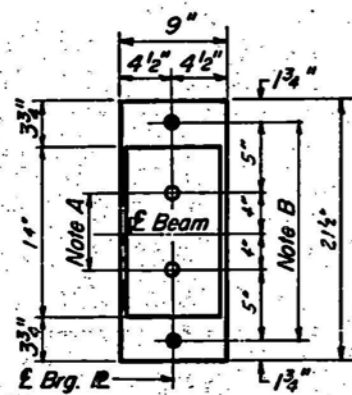
ROCKER



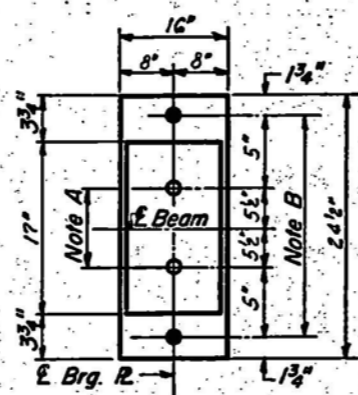
PINTLE



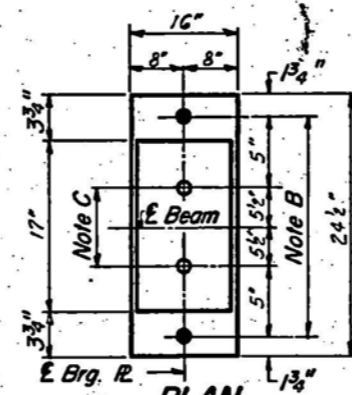
BOLSTER



PLAN AT ABUTMENTS



PLAN AT PIER # 1



PLAN AT PIER # 2

NOTE A
1 3/8" Holes - 1" deep in top R. for pintles. Thread or press fit pintles into bottom R.

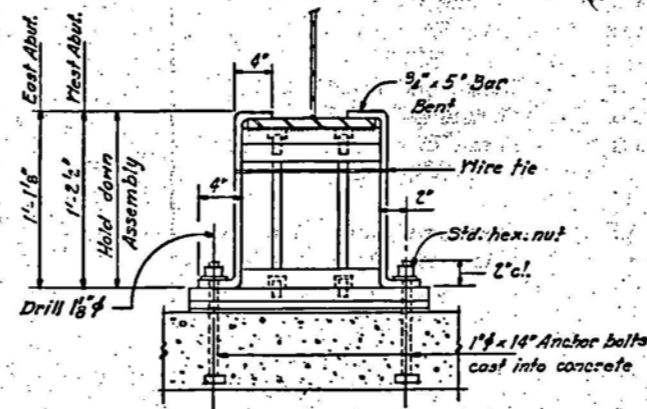
NOTE B
1 1/2" Holes for 1" anchor bolts. 16 x 2 1/2 x 2 1/2 R. Washers under nut.

NOTE C
1 3/8" Holes 1" deep in top R. only for 1 1/4" pintles.

BEARING ASSEMBLY DETAILS

NOTES ON SETTING OF ANCHOR BOLTS AT EXP. BRGS.

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



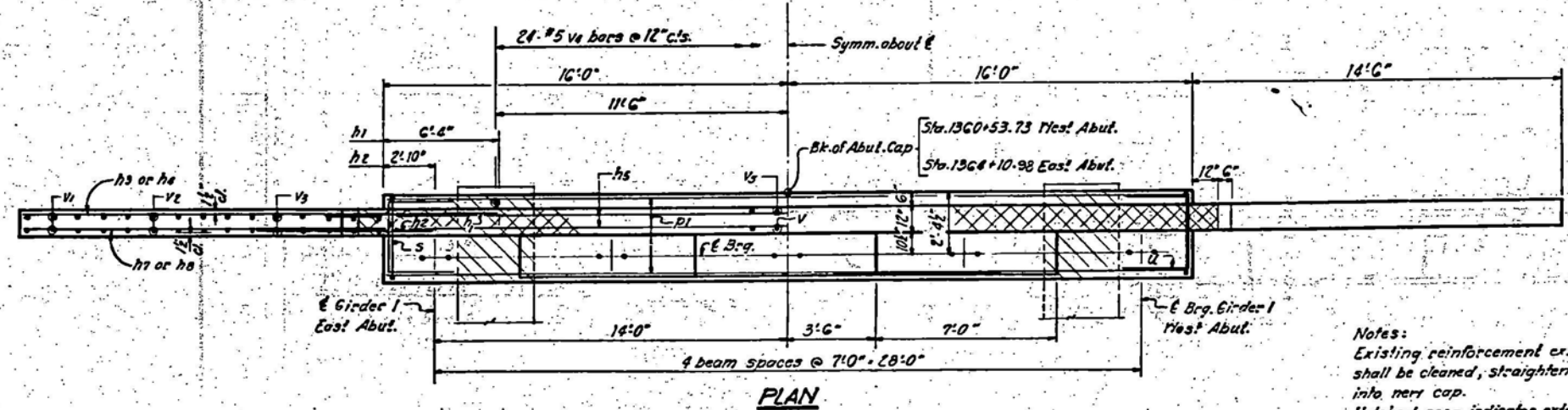
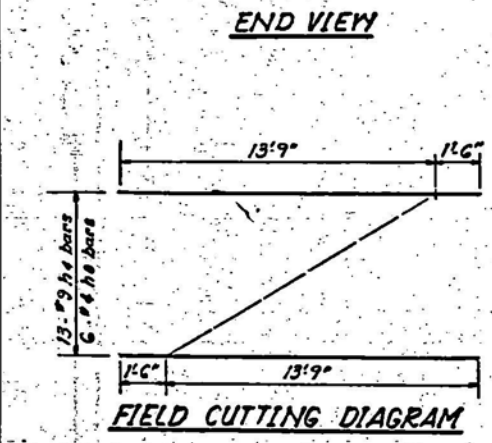
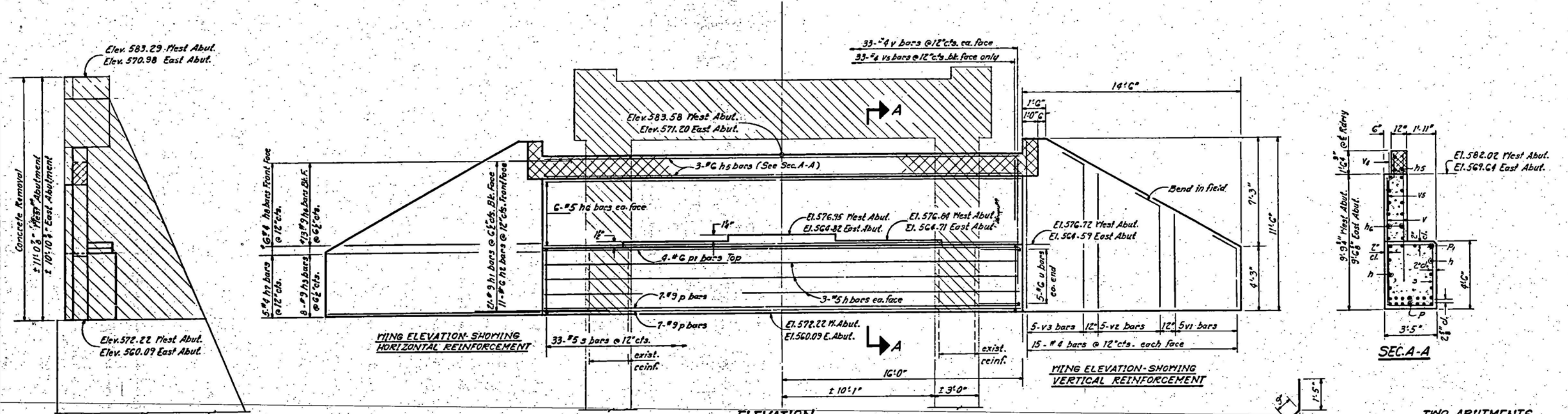
BEAM HOLD DOWN DETAIL

Note:
Beams shall be held down at the Abutment on the opposite end of Bridge from which the deck pour is commenced. After pouring is completed the Hold Down Assembly shall be removed and Nuts placed on Anchor Bolts. Cost of Hold Down Assembly, incidental to Class X Concrete.

DESIGNED	<i>R. C. Sullivan</i>	EXAMINED	<i>March 5 1976</i>
CHECKED	<i>James Pease</i>	PASSED	<i>Paul E. Thompson</i>
DRAWN	<i>P.G. Barnett</i>	APPROVED	
CHECKED	<i>JWP</i>		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	DISTRICT	COUNTY	TOTAL SHEETS	SHEET NO.
36BR	VERMILION	23	16	13
SHEET NO. 11				
13 SHEETS				



TWO ABUTMENTS
BILL OF MATERIAL

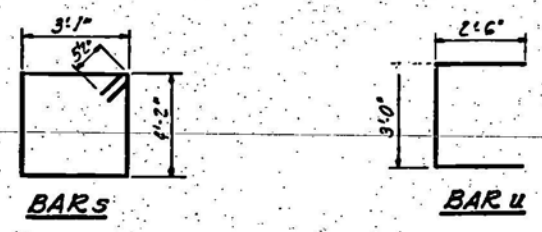
Bar	No.	Size	Length	Shape
h	12	#5	31'-9"	—
h1	64	#9	12'-8"	—
h2	44	#6	5'-8"	—
h3	32	#9	14'-3"	—
h4	26	#9	15'-3"	—
h5	6	#6	31'-9"	—
h6	24	#5	31'-9"	—
h7	20	#4	14'-3"	—
h8	12	#4	15'-3"	—
b	28	#9	31'-9"	—
pl	8	#6	31'-9"	—
s	66	#5	15'-5"	□
u	20	#6	8'-0"	□
v	132	#4	9'-3"	—
v1	20	#6	6'-3"	—
v2	40	#4	8'-9"	—
v3	40	#4	11'-3"	—
v4	48	#5	2'-6"	—
vs	66	#6	3'-7"	—
Concrete Removal		Cu. Yds.	37	
Class X Concrete		Cu. Yds.	72.8	
Reinforcement Bars		Lbs.	15,190	

Notes:
Existing reinforcement extending into new concrete shall be cleaned, straightened and incorporated into new cap.
Hatched area indicates extent of concrete removal.
Cross-hatched area shall be poured after superstructure forms have been removed and be filled with superstructure concrete.

DESIGNED *R. A. Mathews*
CHECKED *James P. ...*
DRAWN *John ...*
CHECKED *JWP*

EXAMINED *Carl E. ...*
PASSED
APPROVED

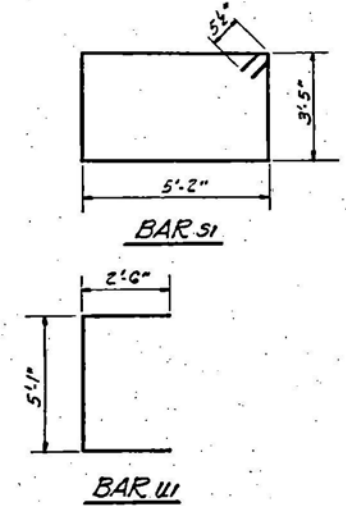
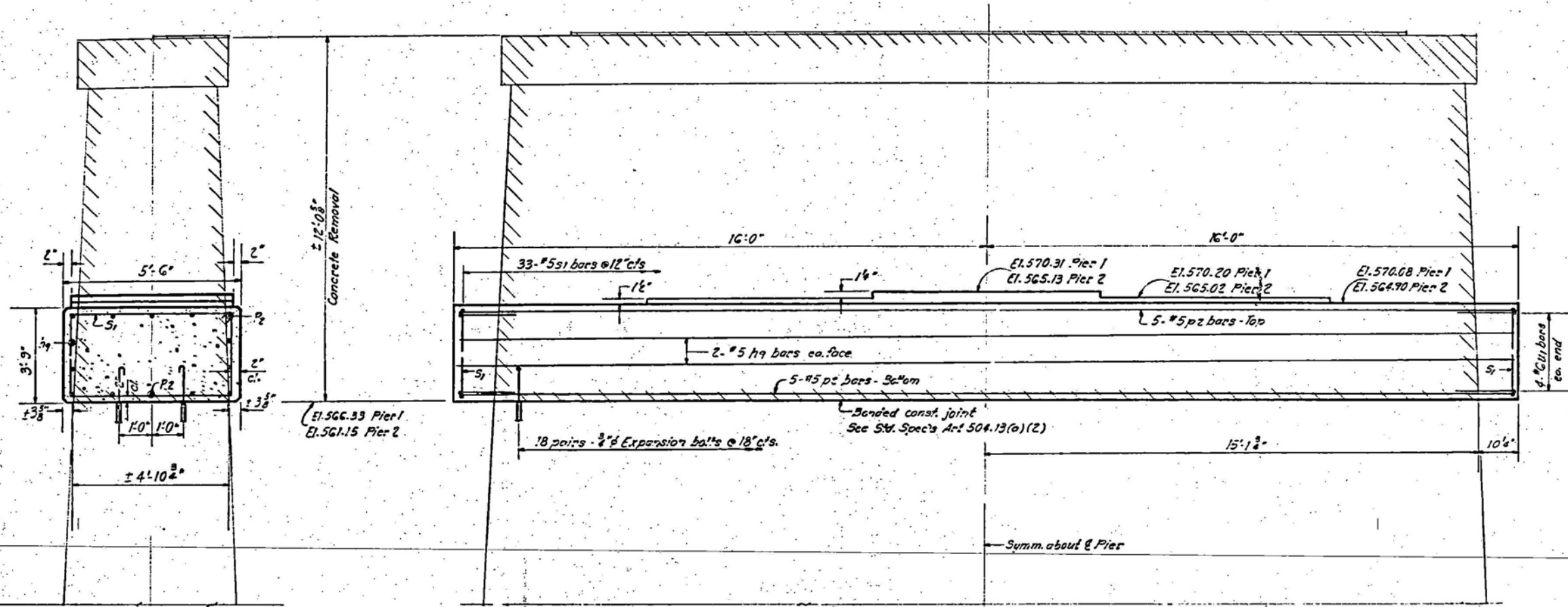
March 5 1976



ABUTMENTS
FA-RT. II SEC. 36 BR
VERMILION COUNTY
STA. 1362+32.35

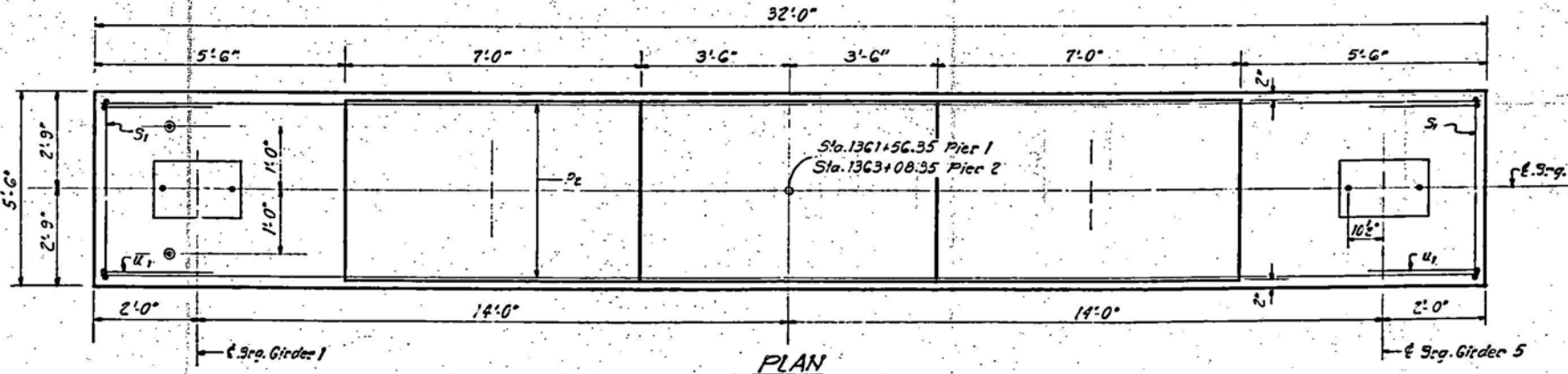
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 12 13 SHEETS
S.R.L. P.A. 11	36ER	VERMILION	23	17	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			



END VIEW

ELEVATION



PLAN

TYPO PIERS
BILL OF MATERIAL

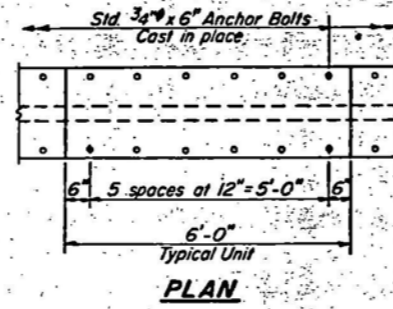
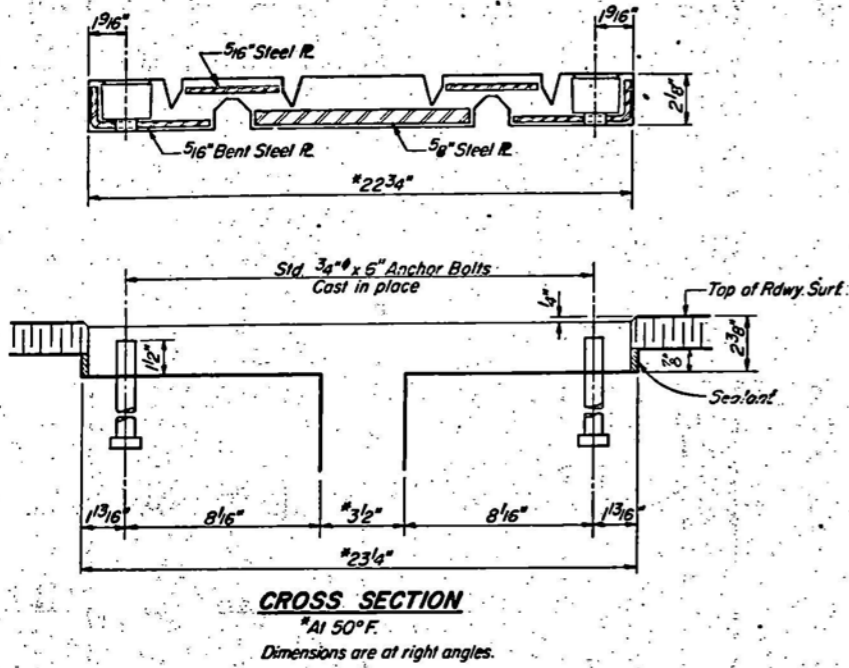
Bar	No.	Size	Length	Shape	
h9	8	#5	31'9"	—	
p2	20	#5	31'9"	—	
s1	66	#5	18'1"	□	
u1	16	#6	10'1"	□	
Concrete Removal				Cu. Yds.	116
Class X Concrete				Cu. Yds.	50.2
Reinforcement Bars				Lbs.	2,470
Expansion Bolts (3/4")				Ea.	72

Notes:
Hatched area indicates concrete removal.
Expansion bolts shall be anchored in sound concrete.
All edges shall have standard 3/4" chamfers.

PIERS
F.A.R.T. II SEC. 36 BR
VERMILION COUNTY
STA. 1362+32.35

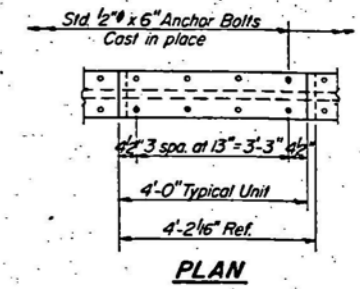
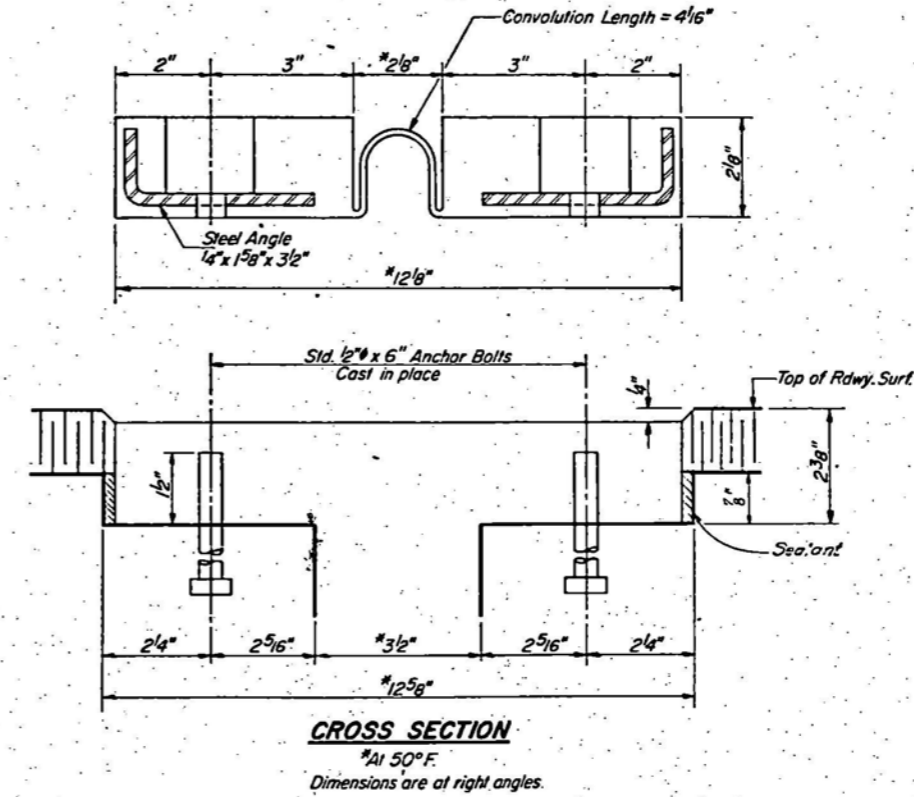
DESIGNED	<i>R. E. ...</i>
CHECKED	<i>James Paine</i>
DRAWN	<i>James Paine</i>
CHECKED	JNP

EXAMINED *March 5 1976*
Paul E. ...
PASSED
APPROVED



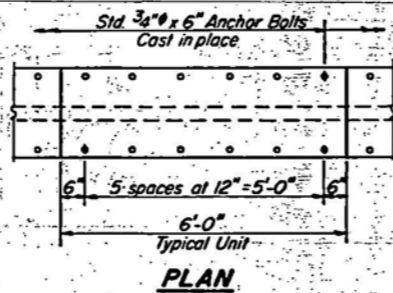
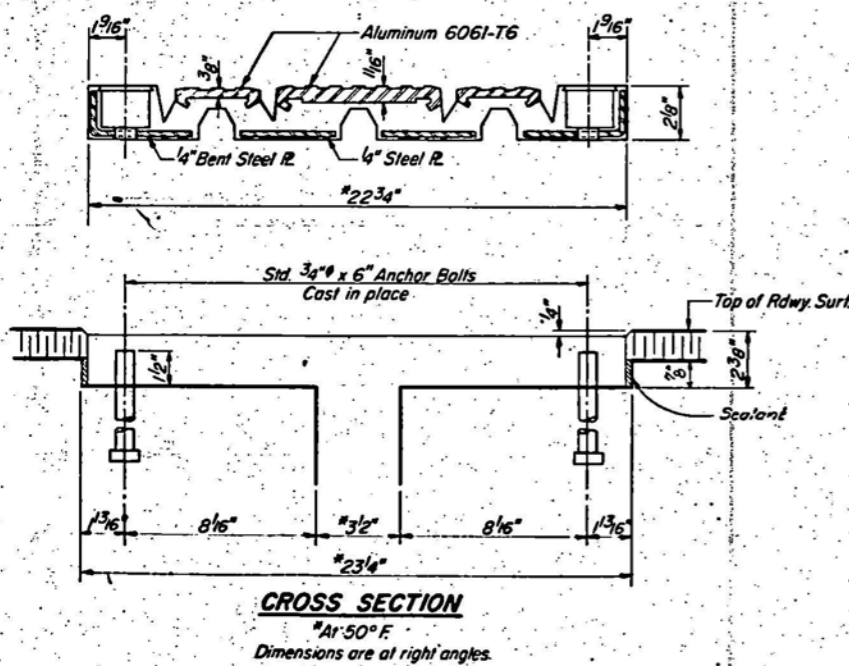
Note: Anchor bolts require a clipped washer, lockwasher and hex nut.

TRANSFLEX MODEL 400A
(Structural Rubber Products Co.)



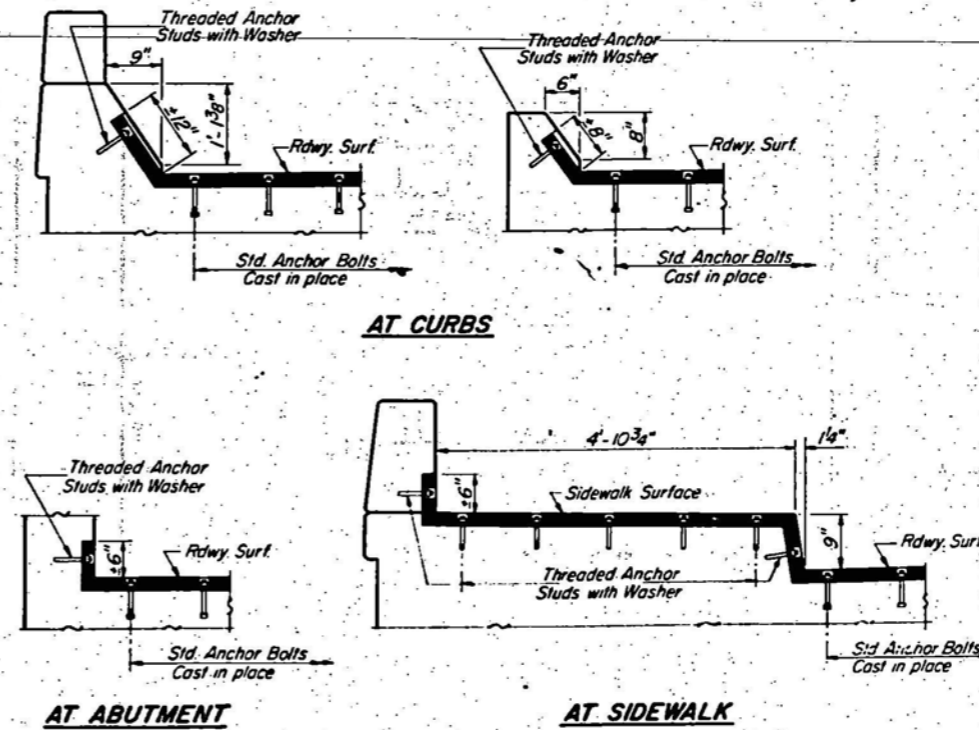
Note: Anchor bolts require a flat washer and locknut.

FEL-SPAN MODEL T-40
(Fel-Pro Building Products Inc.)



Note: Anchor bolts require a clipped washer, lockwasher and hex nut.

WABOFLEX MODEL SR 4
(Watson-Bowman Associates Inc.)



NOTE:
Joint openings shall be adjusted in accordance with Article 503.07(c) of the Std. Specs when the deck is poured at an ambient temperature other than 50°F.

*Max. Expansion Length for the Fel-Span Model T-40 = 300 ft.

NEOPRENE EXPANSION JOINTS (4")
FOR EXPANSION LENGTH OF DECK = 200 ft. to 320 ft.

F.A. RT. 11 SEC. 3C BR
VERMILION COUNTY
STA. 1362 + 32.35

DESIGNED *P. ...*
CHECKED *James Pence*
DRAWN *Lion ...*
CHECKED *...*

EXAMINED *Mark 5 10 76*
Carl E. ...
PASSED
APPROVED

DIRECTOR OF HIGHWAYS

INDEX TO SHEETS

- Sheet No. 1 - Title Page
- 2 - Standard Cross Sections No. 1209, 1206
- 3 - Plan and Profile - Sta. 147+77 to Sta. 178+00
- 4 - Sta. 178+00 to Sta. 198+00
- 5 - Sta. 198+00 to Sta. 218+99.6
- 6-21 Inclusive - Cross Sections
- 22 - Standard Culvert Design No. 618-3, 628-1, 1111-7
- 22 - Special Culvert Design Sta. 183+50
- 23 - Special Bridge Design Sta. 186+00 (Sheet 1 of 5 sheets)
- 24 - Sta. 186+00 (Sheet 2 of 5 sheets)
- 25 - Sta. 186+00 (Sheet 3 of 5 sheets)
- 26 - Sta. 186+00 (Sheet 4 of 5 sheets)
- 27 - Sta. 186+00 (Sheet 5 of 5 sheets)
- 28 - Special Bridge Design Sta. 201+00 (Sheet 1 of 4 sheets)
- 29 - Sta. 201+00 (Sheet 2 of 4 sheets)
- 30 - Sta. 201+00 (Sheet 3 of 4 sheets)
- 31 - Sta. 201+00 (Sheet 4 of 4 sheets)
- 32 - Standards No. 1167, 1178.

SUMMARY OF QUANTITIES

- *** SECTION 36-A INCLUDES ***
- 65155 - Cu. Yds. Class A Excavation
 - 1000 - Cu. Yds. Class B Excavation
 - 500 - Cu. Yds. Class C Excavation
 - 25.5 - Cu. Yds. Class A Concrete
 - 740 - Pounds Reinforcing Steel
 - 57 - Each Right of Way Markers

- *** SECTION 36-B INCLUDES ***
- 682.1 - Cu. Yds. Class A Concrete
 - 787.8 - Cu. Yds. Class B Concrete
 - 17.7 - Cu. Yds. Class X Concrete
 - 66340 - Pounds Reinforcing Steel
 - 279 - Sq. Yds. 4" R.C.C. Pavement
 - 3400 - Pounds Rockers & Plates
 - 1210 - Pounds Structural Steel (Exp.)
 - 1 - Each Name Plate

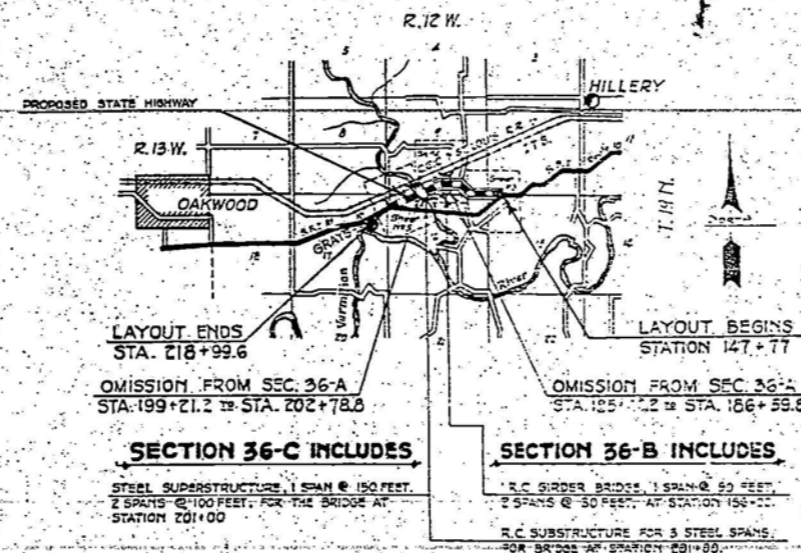
- *** SECTION 36-C INCLUDES ***
- 152.8 - Cu. Yds. Class X Concrete
 - 19220 - Pounds Reinforcing Steel
 - 335170 - Pounds Structural Steel
 - 1 - Each Name Plate

SUMMARY OF CONCRETE

SECTION 36-A		CLASS A	CLASS B	CLASS X
Standard Culvert Design No. 618-3		7.3		
	No. 628-1-3	1.4		
	No. 1111-7-5	5.6		
Special Culvert Design Station 183+50		10.7		
Total		25.5		
SECTION 36-B		CLASS A	CLASS B	CLASS X
Special Bridge Design Sta. 186+00		252.7	187.8	17.7
	Sta. 201+00	279.4	600.0	
TOTALS		632.1	787.8	17.7

ROUTE 10, SEC'S. 36^{A,B}, VERMILION CO.

From a point near the N.E. corner of the N.W. 1/4 of the N.W. 1/4 of Section 15, T.14 N., R. 12 W. of the 2nd P.M. to a point near the N.W. corner of Section 16, T.14 N., R. 12 W. of the 2nd P.M.



*** LAYOUT ***
 APPROXIMATE SCALE = 1 INCH = 1 MILE.
 NET LENGTH OF LAYOUT = 7122.6 FEET = 1.349 MILES.

*** SUMMARY ***

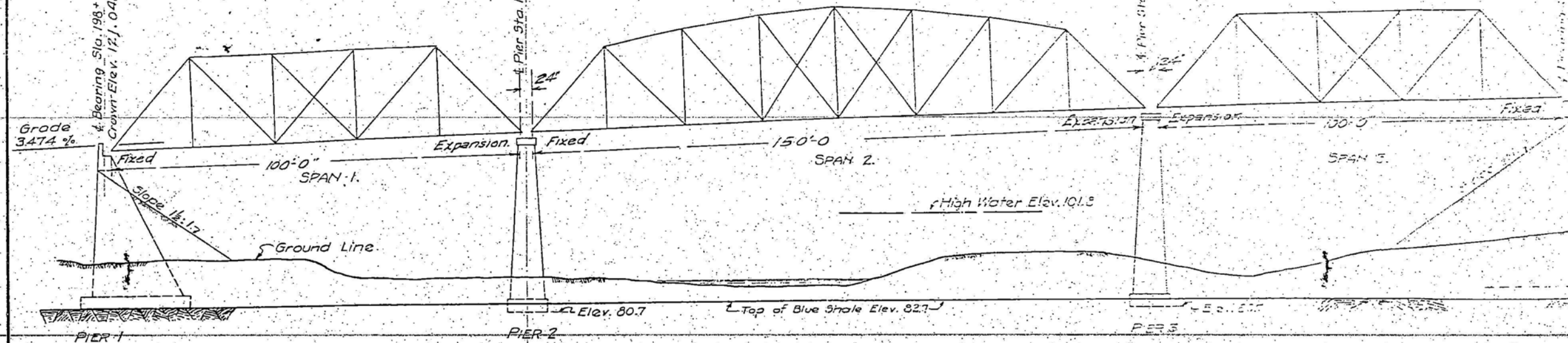
Station to Station	Width of Roadway	Gross Length Along Transit Line	Correction for Curves		Corrections for Relocations		Net Length of Layout Along Final Center Line	Omissions	Net Length to be Improved in Feet			Roadway Over Bridges			Sq. Yds. of Roadway			
			Sta. of P.I.	Feet	Sta. = Sta.	Feet			Sta. to Sta.	Feet	30 Ft.	32 Ft.	Total	Sta.	Feet	30 Ft.	32 Ft.	Total
147+77	170+50	32	2273				2273										5081.8	5081.8
170+50	182+80	30	1230				1230										420	420
182+80	189+10	32	630				630										1514.2	1514.2
189+10	193+25	30	415				415										1373.3	1373.3
193+25	203+00	32	975				975										2105.5	2105.5
203+00	217+20	30	1420				1420										4732.2	4732.2
217+20	218+99.6	32	179.6				179.6										632.2	632.2
TOTALS			7122.6				7122.6										12730.3	12730.3

58

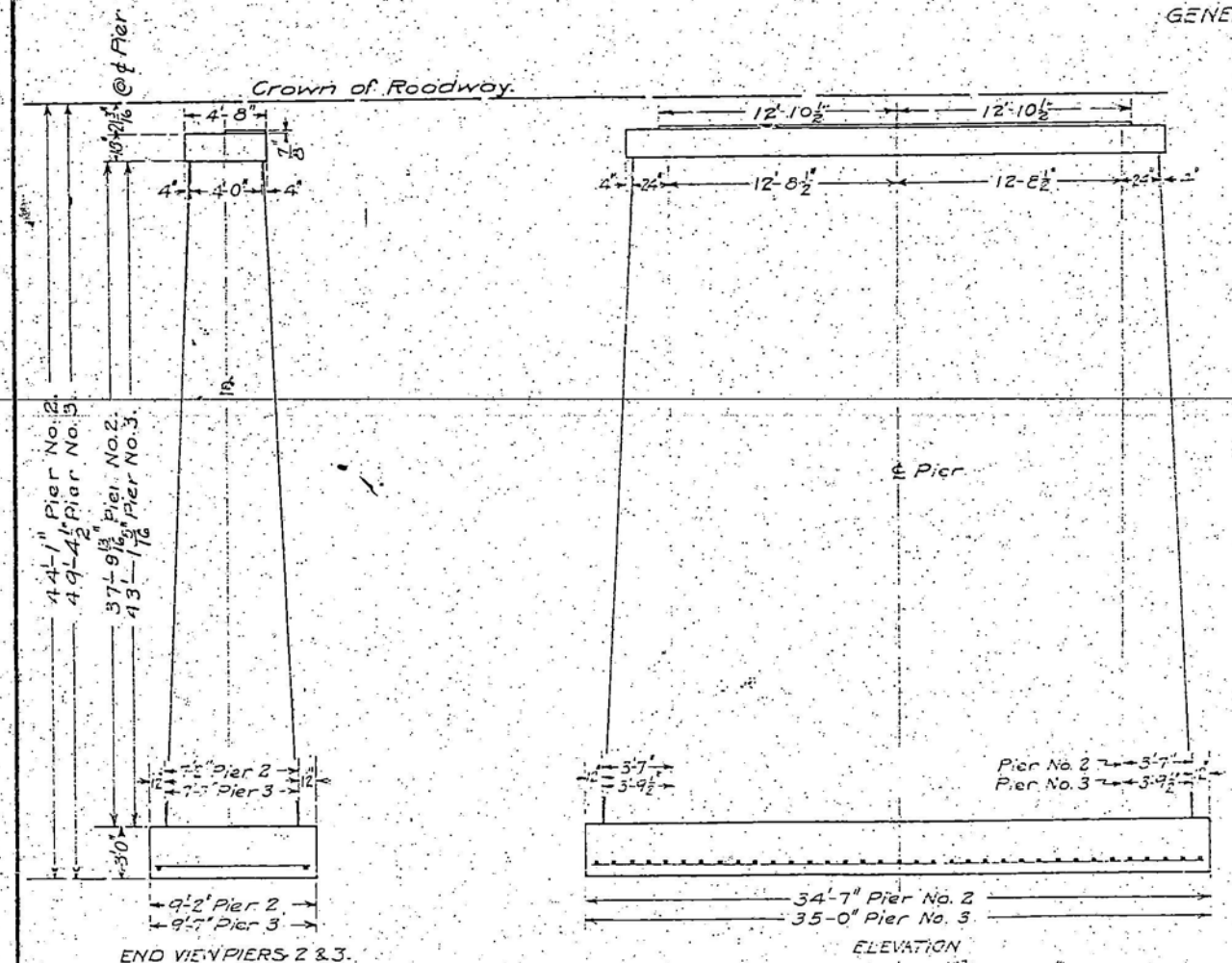
DEPARTMENT OF HIGHWAYS
 DIVISION OF PLANNING AND DESIGN
 DATE: April 2, 1955
 BY: C.H. Apple
 CHECKED: _____
 APPROVED: _____
 DATE: October 4, 1955
 DATE: October 4, 1955
 DATE: October 4, 1955

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

B.M. N & W. 15' Elm, 50' Lt. Sta. 202+20,
Elev. 99.68.
B.M. N & W in 24' Elm, 45' Lt. Sta. 196+25,
Elev. 95.74.
No Existing Structure.

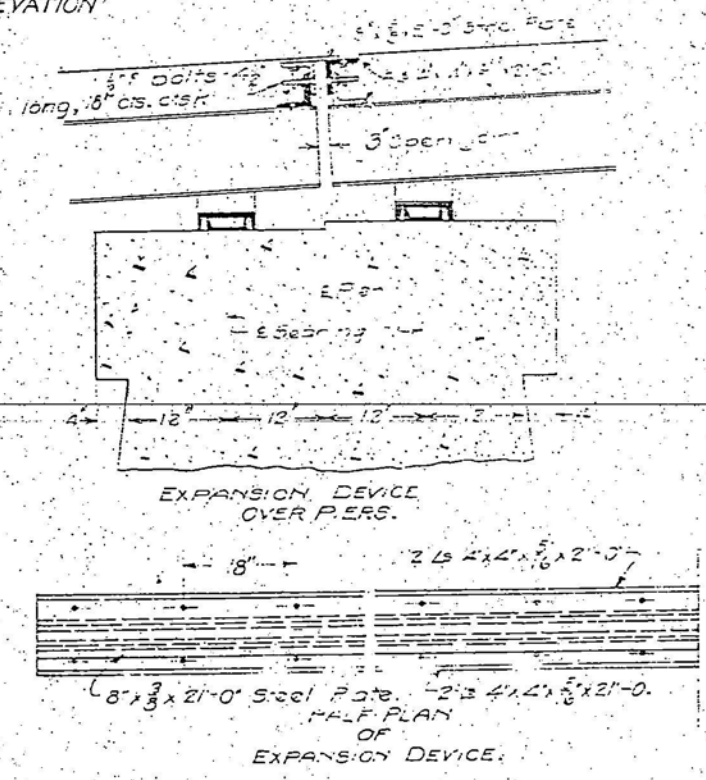


GENERAL ELEVATION



END VIEW PIERS 2 & 3.

ELEVATION



EXPANSION DEVICE OVER PIERS.

HALF PLAN OF EXPANSION DEVICE.

BILL OF MATERIALS

Bars	No.	Size	Length
	35	1 1/2"	8'-9"
	4	2"	8'-0"
Reinforcing Steel	Lbs.	250	
Concrete	Cu. Yds.	274.8	

PIER 3

Bars	No.	Size	Length
	36	1 1/2"	9'-0"
	4	2"	18'-6"
Reinforcing Steel	Lbs.	278	
Concrete	Cu. Yds.	323.2	

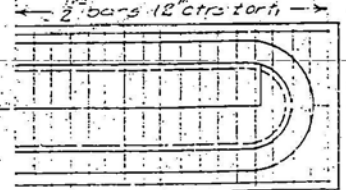
Class B concrete should be used in Piers 2 & 3. Proportions: 1:3:5.

TOTAL BILL OF MATERIAL

Item	Spec.	Piers	Totals
Structural Steel	Lbs.	333270	333270
Concrete Class A	Cu. Yds.	52.8	152.8
Reinforcing Steel	Lbs.	15220	15220
Expansion Device	Lbs.	1900	1900
Name Plate		1	1
Concrete Class A	Cu. Yds.	222.2	222.2
Concrete Class B	Cu. Yds.	200.0	200.0
Reinforcing Steel	Lbs.	12660	12660

COMPUTED	— Mad William 15 1922
CHECKED	— R.P. Turner
DRAWN	— N.W.
CHECKED	— V.P. Ry
ASSEMBLED	—
CHECKED	—

EXAMINED June 15 1925
R. P. Turner
 CIVIL ENGINEER
 PASSED
Mad William
 ENGINEER OF DESIGN
 APPROVED
Paul T. Smith
 CHIEF HIGHWAY ENGINEER



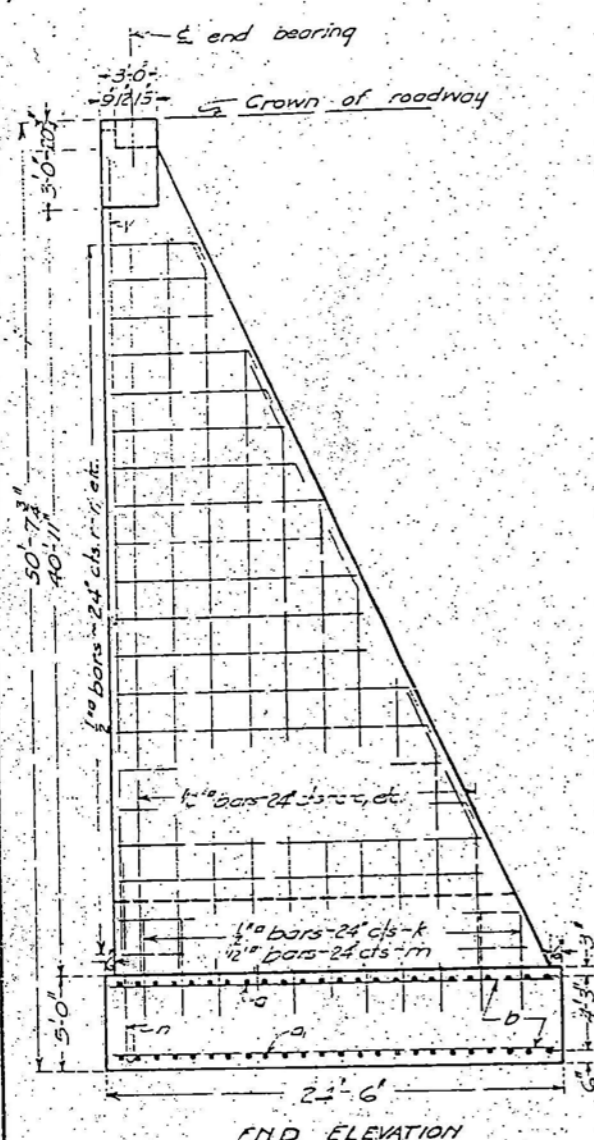
GENERAL ELEVATION
 STA 20+00
 STATE ROAD 150.5
 SEC. 36 T. 15 N. R. 10 E.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

NO. 1000 COUNTY 100 DIST. 100
DATE 10-10-27

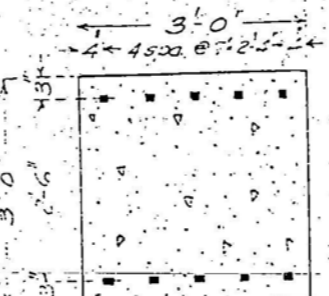
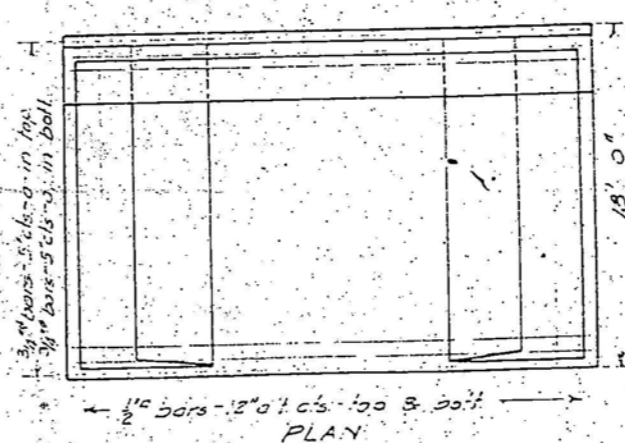
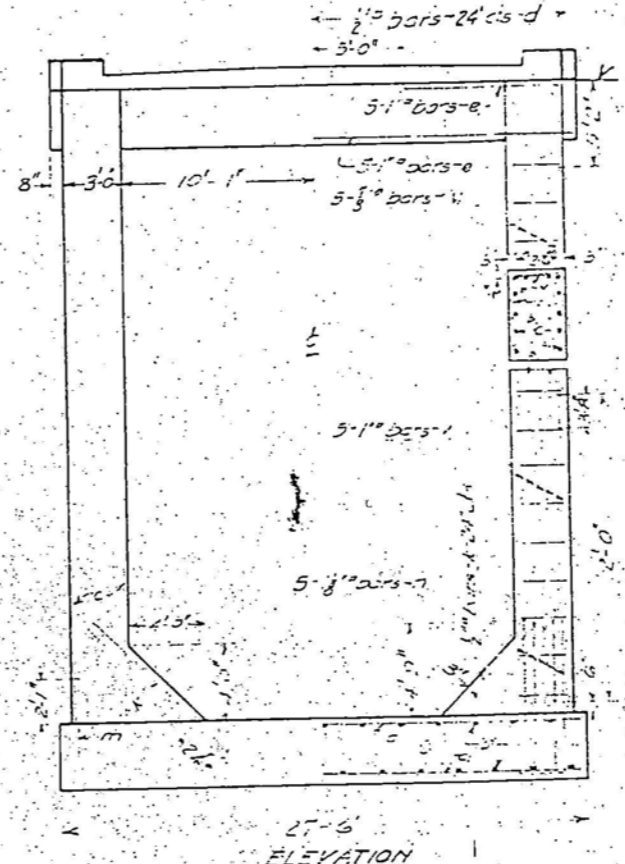
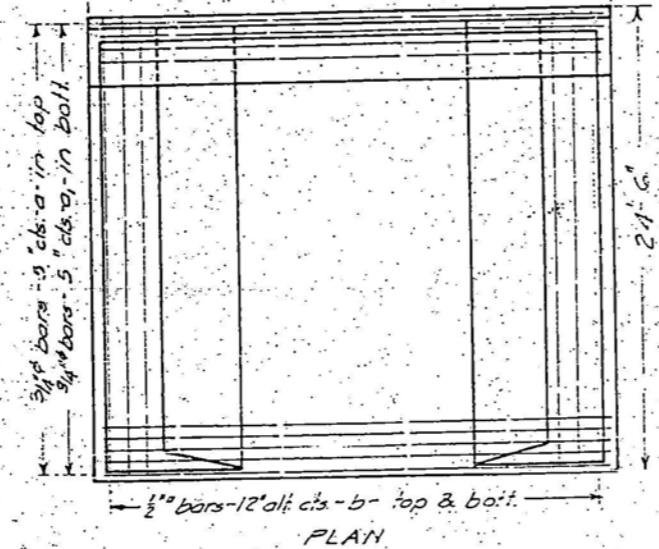
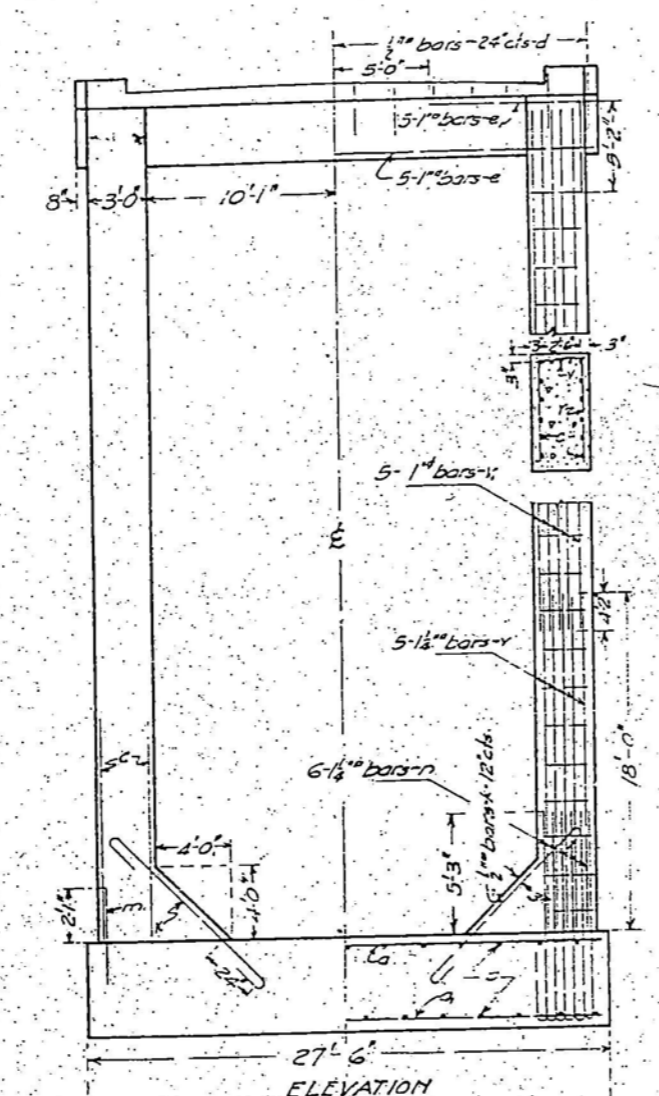
B.M. N. & W. 15' Elm 50' Lt Sta. 202+20
Elev. 99.68
B.M. N. & W. 24' Elm 45' Lt Sta. 196+25
Elev. 95.74

Retaining wall to be built
of class X concrete above
this line by superstructure
contractor.

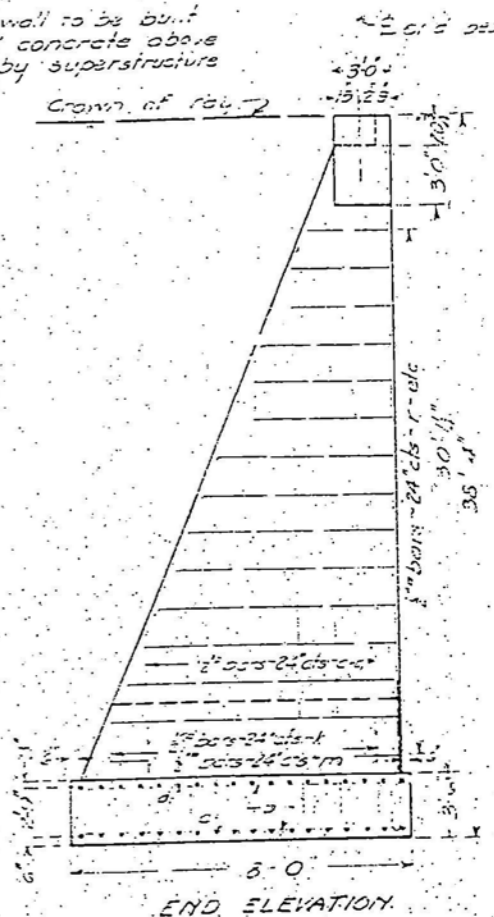


BILL OF MATERIAL PIER 4

Bar No	Size	Length	Bar No	Size	Length	
a	5/8"	27'-3"	r	8	1/2"	24'-6"
a	5/8"	27'-3"	r	12	"	22'-6"
b	29	24'-3"	r ₂	12	"	20'-6"
c	24	20'-6"	r ₃	12	"	16'-6"
c ₁	16	17'-6"	r ₄	6	"	25'-0"
c ₂	8	25'-0"	r ₅	6	"	21'-6"
c ₃	8	15'-0"	r ₆	6	"	13'-6"
c ₄	4	10'-0"	v	10	1/2"	13'-0"
			v	10	1/4"	23'-0"
d	14	3'-0"				
e	3	1"				
e	10	13'-0"				
x	22	12'-0"				
m	22	1/2"	Reinforcing St.-Lbs 11,100			
n	12	1/2"	Concrete-Cu.Yds 214.8			



Class A concrete shall
be used throughout
Proportions 1:2:4
All reinforcing steel
shall be wired securely
in place before concrete
is poured.

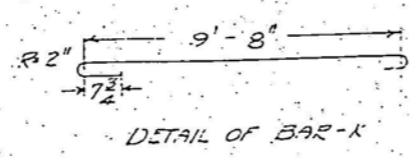


BILL OF MATERIAL PIER 1

Bar No	Size	Length
a	23	27'-5"
b	43	27'-3"
b	23	17'-9"
c	12	29'-0"
c	3	22'-0"
c ₁		12'-6"
c	14	3'-0"
e	5	27'-0"
e	10	13'-0"
x	13	12'-0"
x	13	4'-3"
n	10	9'-6"
r	12	13'-0"
r	12	16'-0"
r ₂	6	24'-6"
r ₃	6	17'-6"
r ₄	6	13'-6"
v	10	12'-0"
v	10	23'-6"
Reinforcing St.-Lbs 7560		
Concrete-Cu.Yds 194.6		

COMPUTED - P.P. Patterson
CHECKED - W. J. ...
DRAWN - P.P.P.
CHECKED - P. ...
ASSEMBLED

EXAMINED Oct 10 1927
PASSED
APPROVED



PIERS 1 & 4
STA 201+00
STATE BOND ISSUE RT. 10
MERRILL CO.