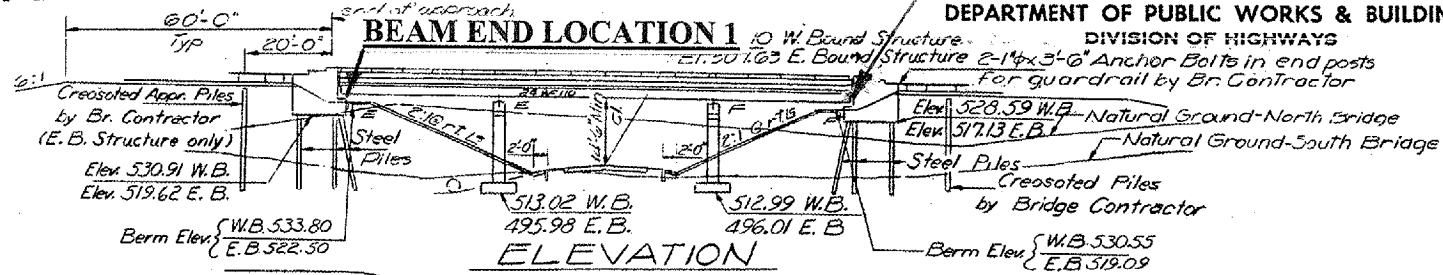


B.M. #20 R.R. Spike in 15" Oak
140' Lt. Eastbound Lane
Sta. 259+57 E.L. 518.63
No existing structure.

BEAM END LOCATION 2

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



Notes:
Deck shall be poured commencing at the West Abutments and shall continue to the East Abutments.

All reinfo diameters & Rivets 3/4", open holes 1/8", unless otherwise noted.

Diaphragm connections may be adapted to shop welding subject to approval by the Engineer. The basic Lead Silico Chromate paint system shall be used for shop and field painting of structural steel.

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 riveting diaphragms over supports.

Slope wall shall be reinforced with welded wire fabric 6"x6" mesh, weighing 58# per 100 sq. ft. Layout of slope walls may be varied in the field to suit ground conditions as directed by the Engineer. The Contractor shall drive 1 steel test pile each in permanent locations at west abutment carrying west bound lanes and at the east abutment carrying east bound lanes as directed by the Engineer before ordering the remainder of piles.

Class A Excavation for structures includes excavation for slope wall. The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments. The concrete rail section above the mandatory construction joint at the top of the slab shall be constructed of Class X Conc. except the aggregates shall conform to the requirements of **BILL OF MATERIAL**

STATION 620+29.36 BUILT BY STATE OF ILLINOIS F.A.I. RT. 24 SEC. 44-6HB-1 LOADING HS20-44 & ALT.	STATION 258+93.67 BUILT BY STATE OF ILLINOIS F.A.I. RT. 24 SEC. 44-6HB-1 LOADING HS20-44 & ALT.
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NAME PLATES

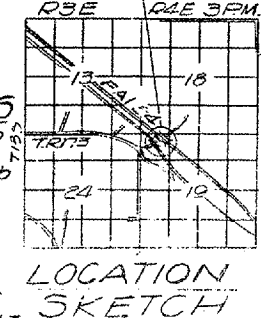
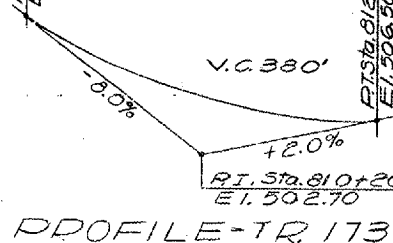
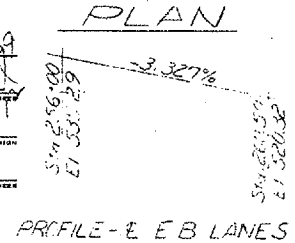
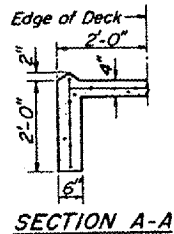
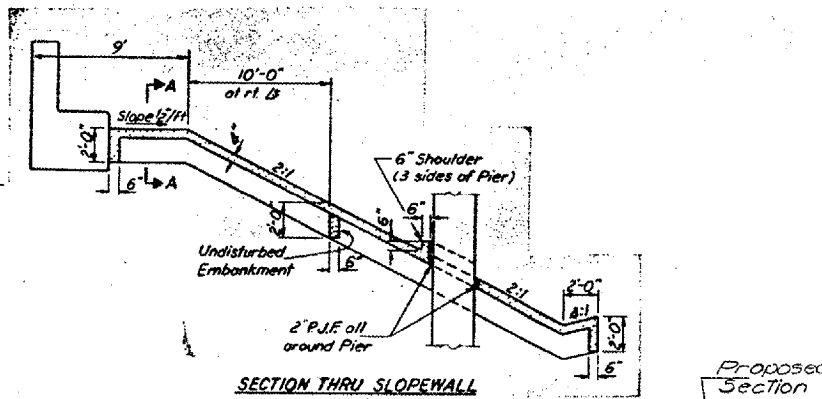
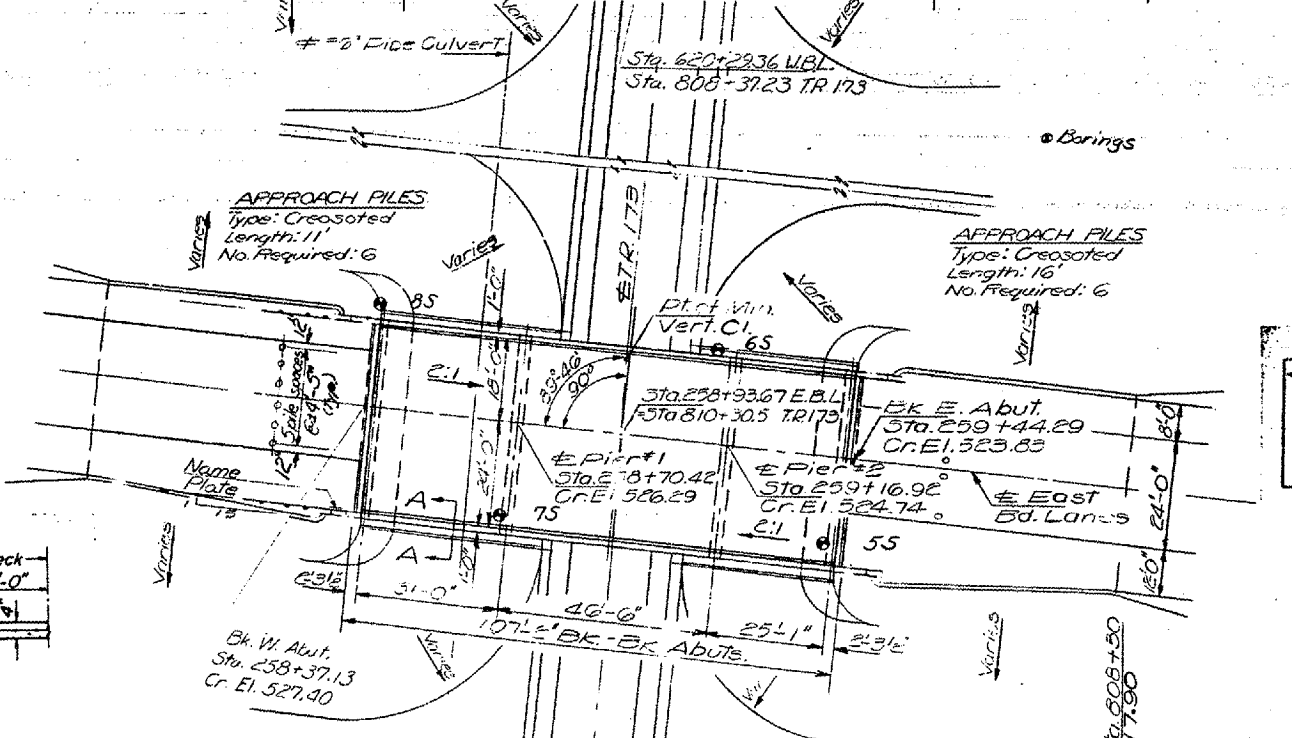
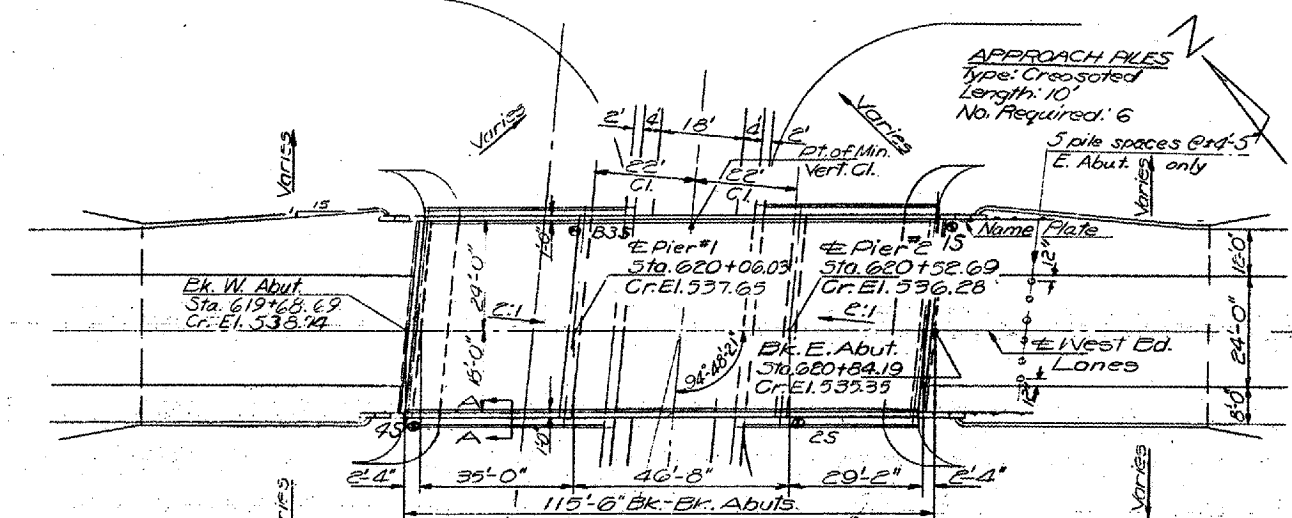
STRESS TABLE - W. BOUND STRUCTURE

	Moments (Ft. Kips)				Reactions (Kips)				
	4.Sp.1	Pier 1	5.Sp.2	Pier 2	4.Sp.3	W. Abut.	Pier 1	Pier 2	E. Abut.
D.L.	93.9	-218.8	131.7	-190.0	50.0	15.36	57.30	52.72	11.49
L.L.	215.2	-175.8	228.5	-173.8	178.1	34.66	45.41	45.92	32.31
Imp.	64.5	-52.8	68.5	-52.1	53.4	10.39	13.62	13.78	9.69
Total	373.6	-447.4	428.7	-415.9	281.5	60.41	116.33	112.42	53.49

STRESS TABLE - E. BOUND STRUCTURE

	Moments (Ft. Kips)				Reactions (Kips)				
	4.Sp.1	5.Sp.2	Pier 2	4.Sp.3	W. Abut.	Pier 1	Pier 2	E. Abut.	
D.L.	60.7	-204.2	139.4	-184.5	19.4	12.55	54.87	51.13	8.13
L.L.	189.3	-164.3	220.8	-180.4	151.2	33.15	44.84	46.15	32.31
Imp.	56.8	-49.3	66.3	-54.1	45.8	9.95	13.45	13.85	9.34
Total	306.8	-417.8	426.5	-419.0	216.0	55.65	113.16	111.13	49.80

Item	Unit	Sub	Super	Total
Class A Excavation for Structures	Cu. Yds.	830		830
Rock Excavation for Structures	Cu. Yds.	80		80
Protective Coat	Sq. Yds.		1,160	1,160
Class X Concrete	Cu. Yds.	446.7	309.2	755.9
Aluminum Railing	Lin. Ft.		435	435
Reinforcement Bars	Pounds	32,230	76,290	108,520
Steel Piles (8 BP36)	Lin. Ft.	1,062		1,062
Test Piles Steel (8BP36)	Each	2		2
Name Plates	Each	2		2
Creosoted Piles (up to 20')	Lin. Ft.	222		222
Slope Wall 4"	Sq. Yds.	1,000		1,000
Structural Steel	L. Sum		1	1
Preformed Joint Sealer	Lin. Ft.		84	84



DESIGN STRESSES
 $f_c = 1200$ psi. Deck Slab
 $f_c = 1400$ psi. Curb
 $f_s = 20,000$ psi. Parapet, Sub
 $f_s = 20,000$ psi. Reinf.
 $f_s = 20,000$ psi. Struct.
 $f_c = 75$ psi. Ftgs.
 $n = 10$
 Allowable F_u in S. 25%
 Allowable F_u in L. 15%
 Allowable F_u in C. 10%
 Allowable F_u in R. 10%
 Allowable F_u in T. 10%

BRIDGE NO. 3
S.N. 044-0049
FOR INFORMATION ONLY

GENERAL PLAN & ELEVATION
F.A.I. RT. 24 OVER TR. 173
SECTION 44-6HB-1
JOHNSON COUNTY
STATION 620+29.36 W.B.L.
STATION 258+93.67 E.B.L.

DESIGNED: Kuriam, O. O. & S. P.	EXAMINED: [Signature] 1964
CHECKED: J. L. Patel	PASSED: [Signature]
DRAWN: J. Sutherland	APPROVED: [Signature]
CHECKED:	