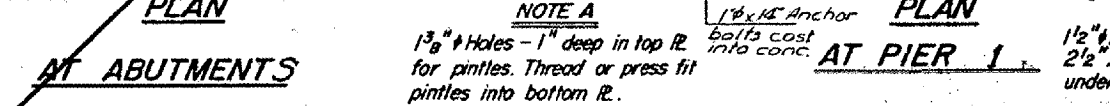
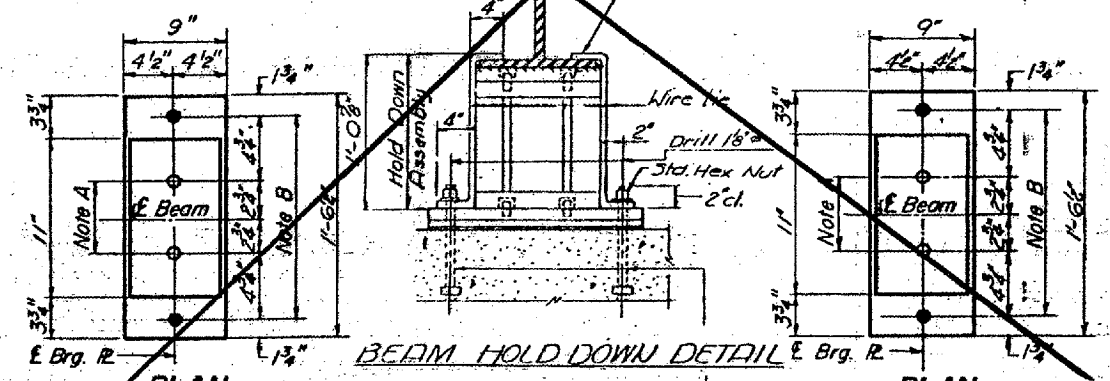
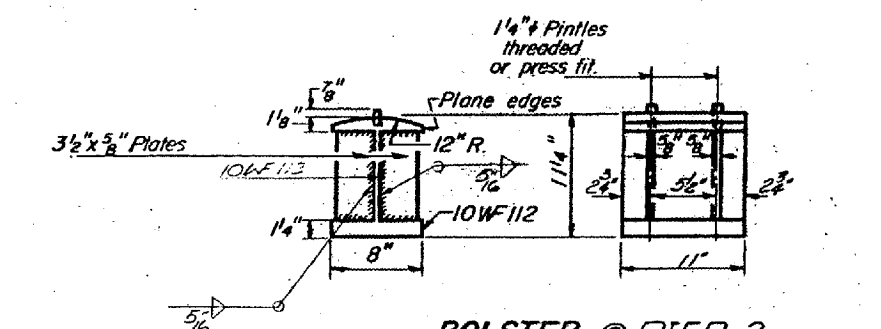
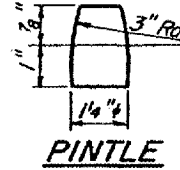
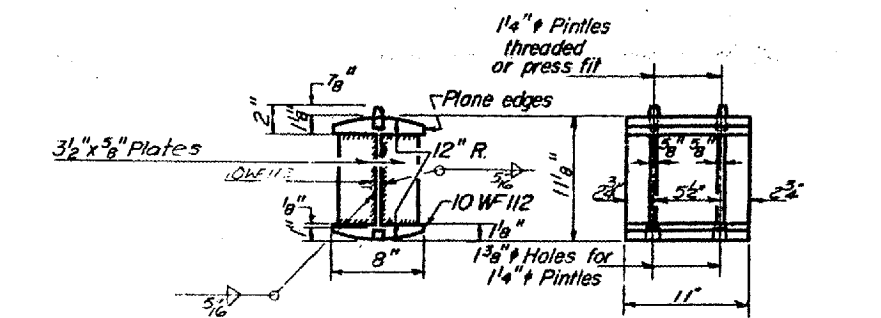
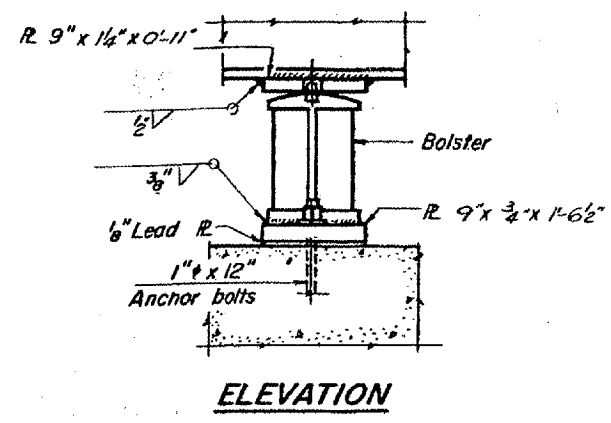
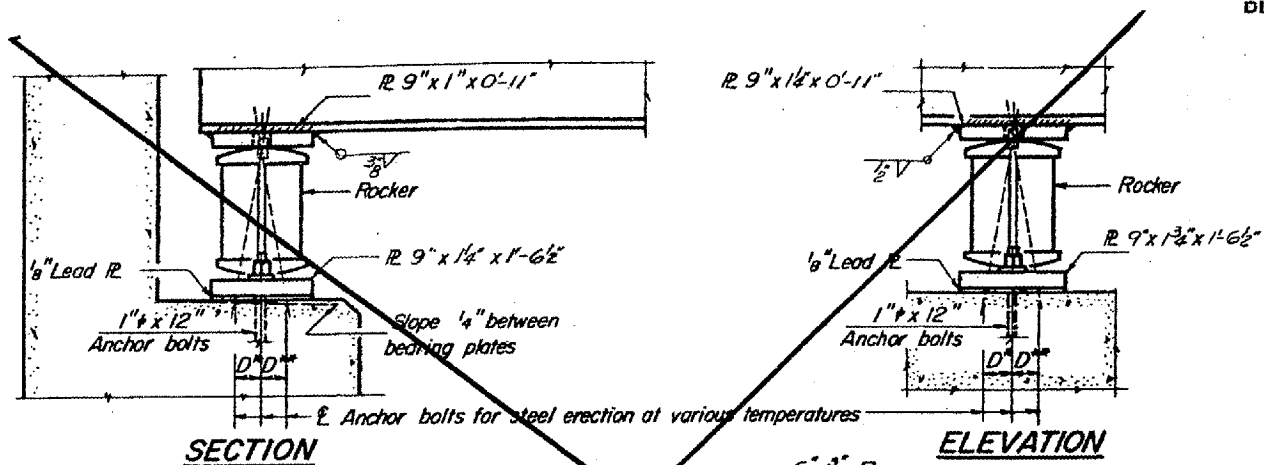


STATE OF ILLINOIS
 DEPARTMENT OF PUBLIC WORKS & BUILDINGS
 DIVISION OF HIGHWAYS

SECTION NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	348	MASSAC	44	24
SHEET NO. 12				
19 SHEETS				



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

NOTE B
 1 1/2 inch holes for 1 inch anchor bolts. 2 1/2 inch x 2 1/2 inch x 5/16 inch R. Washers under nut.

NOTE C
 1 3/8 inch holes 1 inch deep in top R only for 1 1/4 inch pintles.

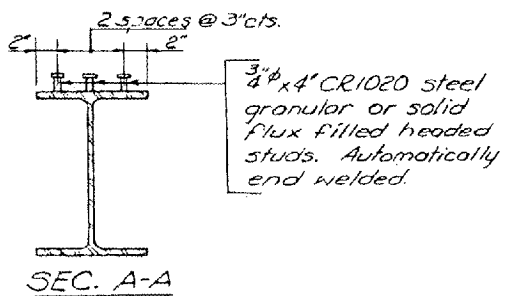
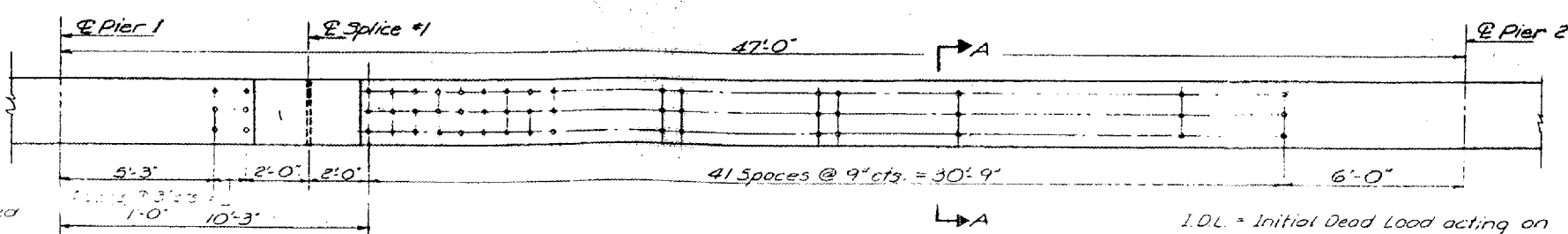
Note:
 Beams shall be held down at the Abutment on the opposite end of Bridge from which the deck pour is commenced. After pouring is completed the Hold Down Assembly shall be removed and Nuts placed on Anchor Bolts.
 Cost of Hold Down Assembly, incidental to Class X Concrete.

NOTES ON SETTING OF ANCHOR BOLTS AT EXP. BRGS.

- a) D* (Side of brg. away from fixed brg.)
 $D^* = \frac{1}{8}$ inch per each 100' of expansion for every 15° fall below the normal temp. of 50°F.
- D** (Side of brg. toward fixed brg.)
 $D^{**} = \frac{1}{8}$ inch 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, except as noted. All fixed anchor bolts may be built into the masonry.

BEARING ASSEMBLY DETAILS



SHEAR STUD SPACING
 Typical for all beams in Span 2

STRESS TABLE - INTERIOR BMS

	Moments (FT-Kips)					Reactions (Kips)			
	A Span	Pier 1	Span 2	Pier 2	Span 3	N. Abut	Pier 1	Pier 2	S. Abut
I.D.L.	26.8	138.4	100.4	152.1	51.3	7.4	37.9	40.3	9.8
S.D.L.	15.2	43.6	50.6	50.4	24.9	3.3	14.4	15.6	4.1
L.L.	142.0	130.0	286.0	141.9	177.6	31.4	44.5	44.5	35.4
Imp	42.9	32.1	82.4	42.6	53.3	9.4	13.4	13.3	10.6
Total	226.9	351.1	519.4	387.0	306.6	51.5	110.2	117.7	59.9

- I.D.L. = Initial Dead Load acting on steel section
- S.D.L. = Superimposed Dead Load acting on composite section
- L.L. = Live Load
- I = Impact
- Is = Moment of inertia steel section
- Sts = Sec. Mod. top steel section
- Ses = Sec. Mod. batt steel s
- Ic = Moment of inertia con.
- Stc = Sec. Mod. top comp. sec.
- Sac = Sec. Mod. batt comp. sec.

PROPERTIES

Steel Section	
Is	3266.7 in ⁴
Ses	242.8 in ³
Composite Section	
Ic	9356.0 in ⁴
Stc	1172.0 in ³
Sac	365.8 in ³

DESIGNED	EXAMINED
CHECKED	PASSED
DRAWN	APPROVED
CHECKED	

JAN 22 1969

FOR INFORMATION ONLY:
 BRIDGE NO. 9 STRUCTURE 064-0030
 BRIDGE NO. 10 STRUCTURE 064-0031