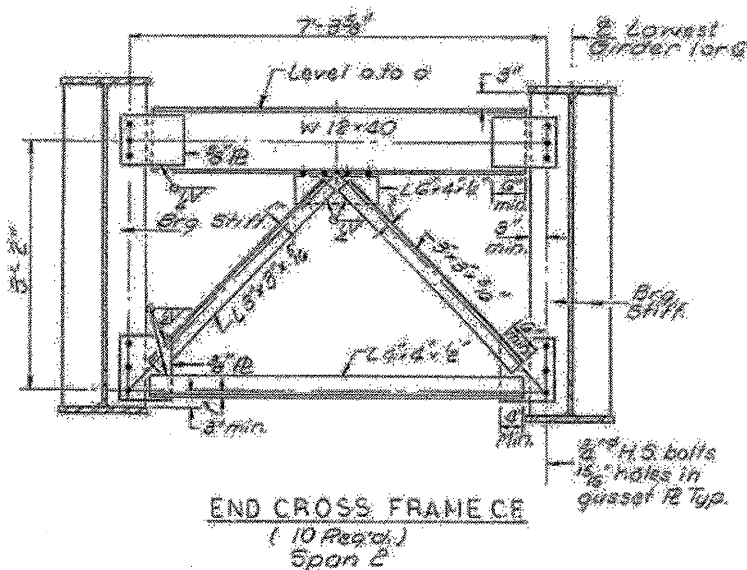
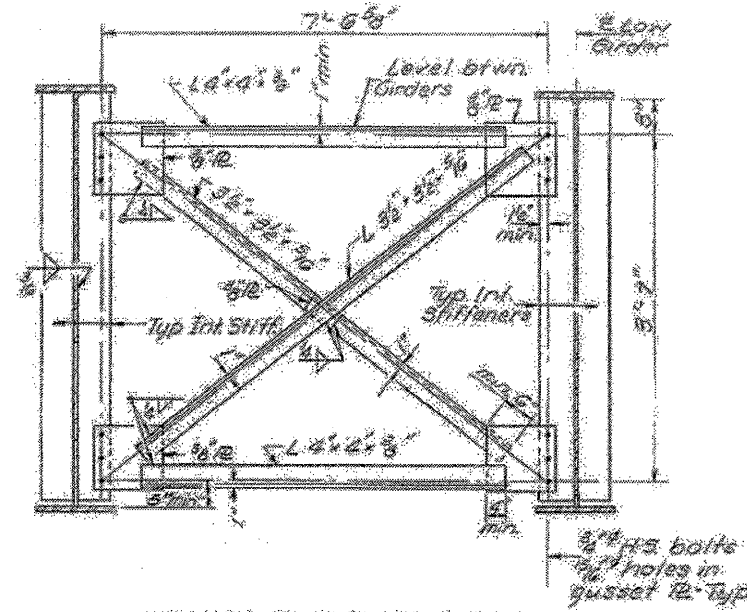
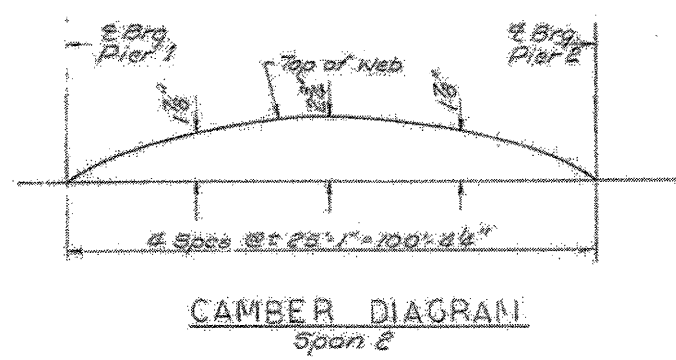
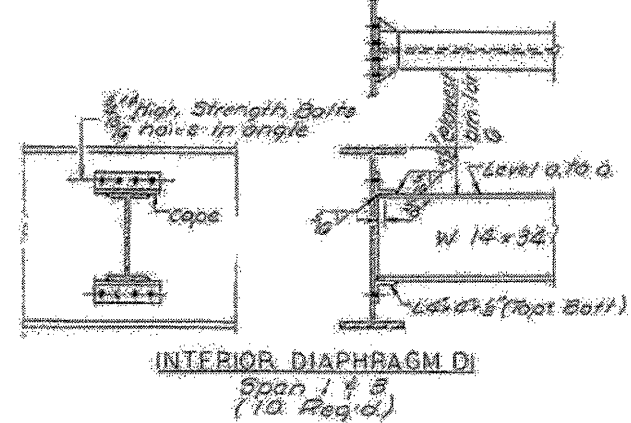
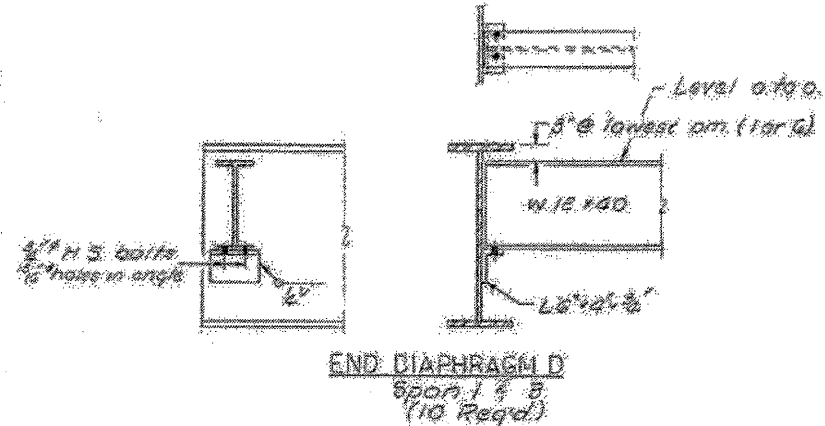


FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	SHEET NO.	TOTAL SHEETS	SHEET NO.
110	BC-2	25	18	12 SHEETS



MOMENT TABLE

INTERIOR GIRDER OR BEAM	
D.S.S. 10305.56 E	
I_x (in ⁴)	2000.0
I_c (in ⁴)	1171.1
S_x (in ³)	270.0
S_c (in ³)	416.7
J (in ⁴)	339
$M.D.$ (in ²)	199.7
R_S (ksi)	8.88
S_D (in ³)	426
R_D (ksi)	92.9
$M.E.$ (in)	343.3
Normal Depth	103.0
Total (in)	521.2
I_g (in ⁴)	15.61
I_g Total (in ⁴)	24.89
V_R (k)	52.66

REACTION TABLE

INTERIOR GIRDER OR BEAM	
Abutment 1 & 2 - Piers 2	
R_1 (k)	28.57
R_2 (k)	40.91
R_3 (k)	12.15
R Total (k)	81.23

Note:

I_x and S_x 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 f_b .
 V_R is the maximum f_v impact shear range in span used to determine shear connector spacing.

* TOP OF BEAM ELEVATIONS (SPANS 1&2)

	Span 1 & 5	Span 2 & 3	Span 3 & 4
2 Brg. Piers	417.00	417.17	417.29
2 Brg. Pier 1	417.00	417.17	417.29
2 Brg. Pier 2	417.00	417.17	417.29
2 Brg. W. Abut	417.00	417.17	417.29

* TOP OF WEB ELEVATIONS (SPAN 2)

	Girder 1 & 5	Girder 2 & 3	Girder 3 & 4
2 Brg. Pier 1	416.94	417.11	417.23
2 Brg. Pier 2	416.94	417.11	417.23

* For fabrication only.

Note: Hardened washers shall be required over 1/2 inch holes in angles & gusset plates.

DESIGNED	J. Y. Khayat	EXAMINED	[Signature]
CHECKED	G.E. Ozunt	PASSED	[Signature]
DRAWN	F. Mercado	APPROVED	[Signature]
CHECKED	G.E.O.		

STRUCTURAL STEEL DETAILS

F.A.R.T. 14 SEC. 110 BC-2

RANDOLPH COUNTY

STA. 932+00.00

DESIGNED - J. Uehle	EXAMINED - [Signature]	DATE - April 27, 2012
CHECKED - B. Williams	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - J. Uehle	PASSED - [Signature]	REVISED -
CHECKED - B. Williams	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FOR INFORMATION ONLY - STEEL DETAILS
SN 079-0007

SHEET NO. 7 OF 8 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
861	110BR-1	RANDOLPH	14	13
CONTRACT NO. 76F07			ILLINOIS FED. AID PROJECT	