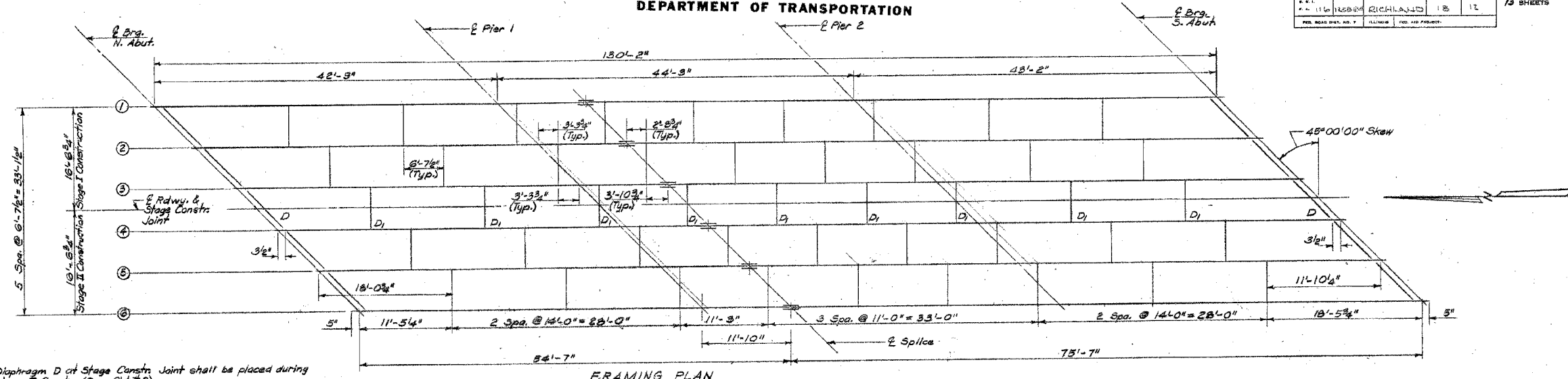


ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 16	*	RICHLAND	31	16
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

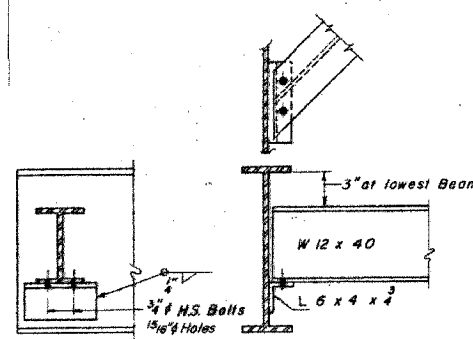
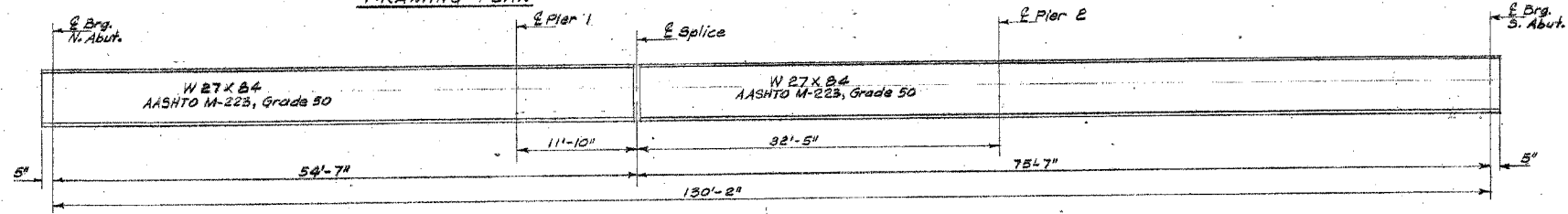
\* D-7 Joint Repairs 2006-3

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 16	*	RICHLAND	31	16
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

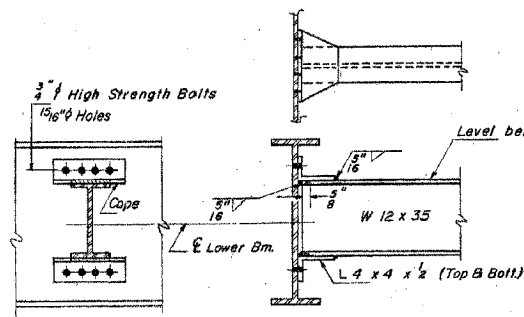


Diaphragm D of Stage Constr. Joint shall be placed during Stage II Constr. (See Sht. # 2)

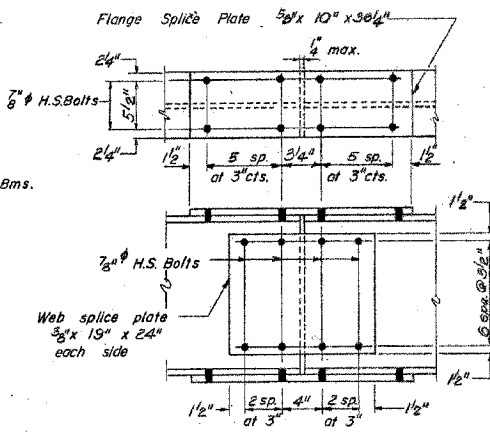


DIAPHRAGM D  
10 Required

Note: Two hardened washers shall be required over all 1 5/16" holes. All contact surfaces of joints shall be free of paint or lacquer.



DIAPHRAGM D1  
45 Required



SPlice  
A.A.S.H.T.O. M-223, Grade 50

All structural steel shall be AASHTO M-163 except as noted.

\* INTERIOR BEAM MOMENT TABLE

	0.4 Span 1	Pier 1	0.5 Span 2	Pier 2	0.6 Span 3
$I_s$ (in <sup>4</sup> )	2850	2850	2850	2850	2850
$S_x$ (in <sup>3</sup> )	213	213	213	213	213
$Q$ (K/ft)	1.045	1.045	1.045	1.045	1.045
MIPMSR (K)	196	258	75	280	200
M <sub>1/4</sub> (K)	513	562	423	371	519
M <sub>IMP</sub> (K)	154	111	123	111	156
M <sub>TOTAL</sub> (K)	863	735	633	742	875
$f_s$ (KSI)	48.6	41.4	35.7	41.8	43.5

\* INTERIOR BEAM REACTION TABLE

	N. Abut.	Pier 1	Pier 2	S. Abut.
R <sub>R</sub> (K)	17.7	50.0	50.4	17.9
R <sub>L</sub> (K)	32.0	40.2	40.3	32.0
Imp. (K)	9.6	12.1	12.1	9.6
R <sub>TOTAL</sub> (K)	59.3	102.3	102.8	59.5

\* - The Load Factor (1.3) [R + Imp] is used in computing moments and stresses.  
\*\* - Values given in Table are based upon service loads.

TOP OF FLANGE ELEVATIONS  
(FOR FABRICATION ONLY)

	2 Brg. N. Abut.	2 Pier 1	2 Splice	2 Pier 2	2 Brg. S. Abut.
Beam 1	438.10	438.10	438.10	438.10	438.10
Beam 2	438.23	438.23	438.23	438.23	438.23
Beam 3	438.33	438.33	438.33	438.33	438.33
Beam 4	438.33	438.33	438.33	438.33	438.33
Beam 5	438.23	438.23	438.23	438.23	438.23
Beam 6	438.10	438.10	438.10	438.10	438.10

DESIGNED Steven K. Orland  
CHECKED David Bardick  
DRAWN E. V. Taylor  
CHECKED SKD D.B.

EXAMINED January 25, 2003  
PASSED  
APPROVED

I-2-D 8-30-80

STRUCTURAL STEEL  
F.A. RTE. 116 SEC. 123 BR-3  
RICHLAND COUNTY  
STA. 897+00.00