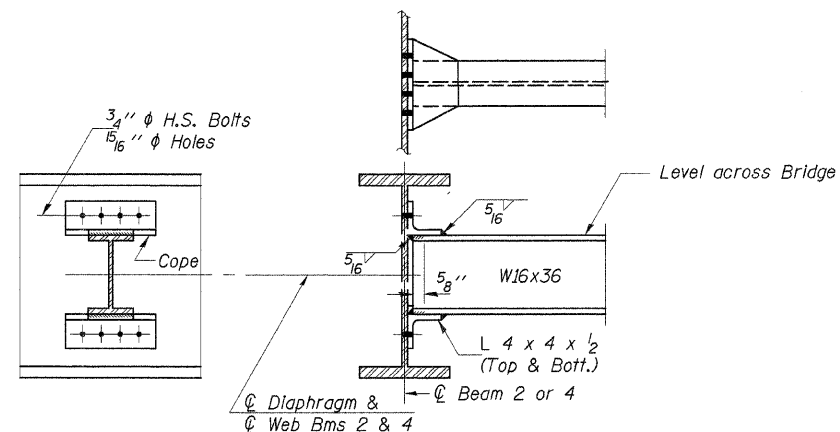


		0.4 Span 1 or 0.6 Span 3	Pier 1 or Pier 2	0.5 Span 2
I_s	(in ⁴)	9,040	13,200	9,040
I_c	(in ⁴)	22,082		22,082
I_c	(3n)	16,127		16,127
S_s	(in ³)	504	719	504
S_c	(in ³)	714		714
S_c	(3n)	643		643
\bar{D}	(k/ft.)	1.043	1.283	1.043
$M\bar{D}$	('k)	336	1,218	507
$s\bar{D}$	(k/ft.)	0.240		0.240
$M_s\bar{D}$	('k)	89		145
$M\bar{k}$	('k)	553	454	668
M	('k)	137	136	182
$S_3[M\bar{k} + M(\text{Imp})]$	('k)	1,150	983	1,417
M_a	('k)	2,048	2,861	2,689
M_u	('k)	2,973		2,973
$f_s\bar{D}$ non-comp	(k.s.i.)	8.0	20.3	12.1
$f_s\bar{D}$ comp	(k.s.i.)	1.7		2.7
$f_s S_3(\bar{k} + \text{Imp})$	(k.s.i.)	19.3	16.4	23.8
f_s (Overload)	(k.s.i.)	29.0	36.7	38.6
f_s (Total)	(k.s.i.)		47.7	
VR	(k)	52.1		49.9

*Compact Braced Section
**Non-Compact Section

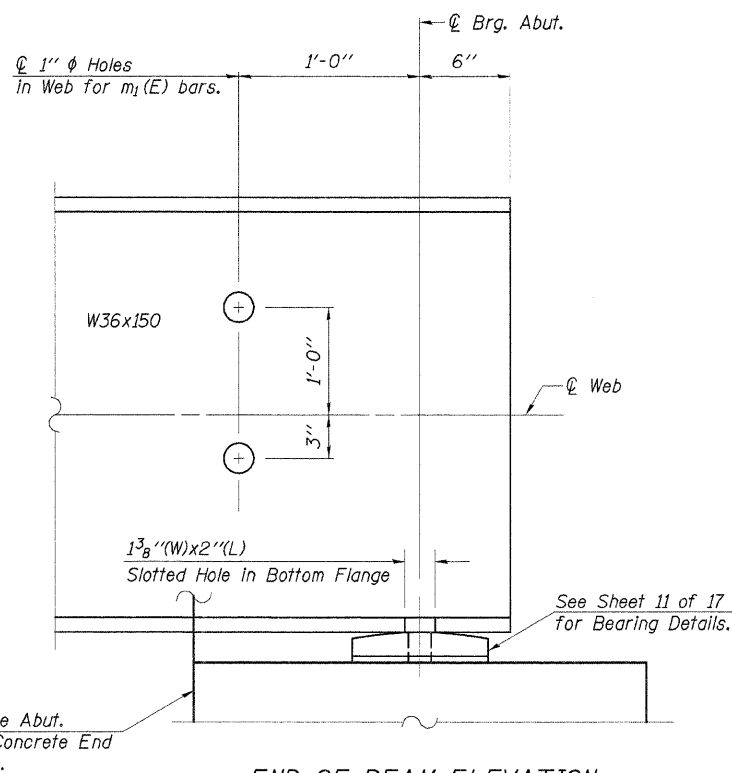
		Abutment	Pier
$R\bar{D}$	(k)	33.6	134.5
$R\bar{k}$	(k)	37.5	56.8
Imp.	(k)	9.3	13.0
R (Total)	(k)	80.4	204.3

I_s and S_s are the moment of inertia and section modulus of the steel section used in computing f_s (Total & Overload).
 $I_c(n)$ and $S_c(n)$ are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.
 $I_c(3n)$ and $S_c(3n)$ are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads.
 VR is the maximum Live Load + Impact shear range in the composite portion of the span.
 M_a (Applied Moment) = $1.3[M\bar{D} + M_s\bar{D} + S_3(M\bar{k} + M_{\text{Imp}})]$.
 The plastic moment capacity (M_u) is computed according to AASHTO 10.48.1 and 10.50.1.1
 f_s (Overload) is the sum of the stresses due to $M\bar{D} + M_s\bar{D} + S_3(M\bar{k} + M_{\text{Imp}})$.
 f_s (Total) (Non-compact section) is the sum of the stresses due to $1.3[M\bar{D} + M_s\bar{D} + S_3(M\bar{k} + M_{\text{Imp}})]$.



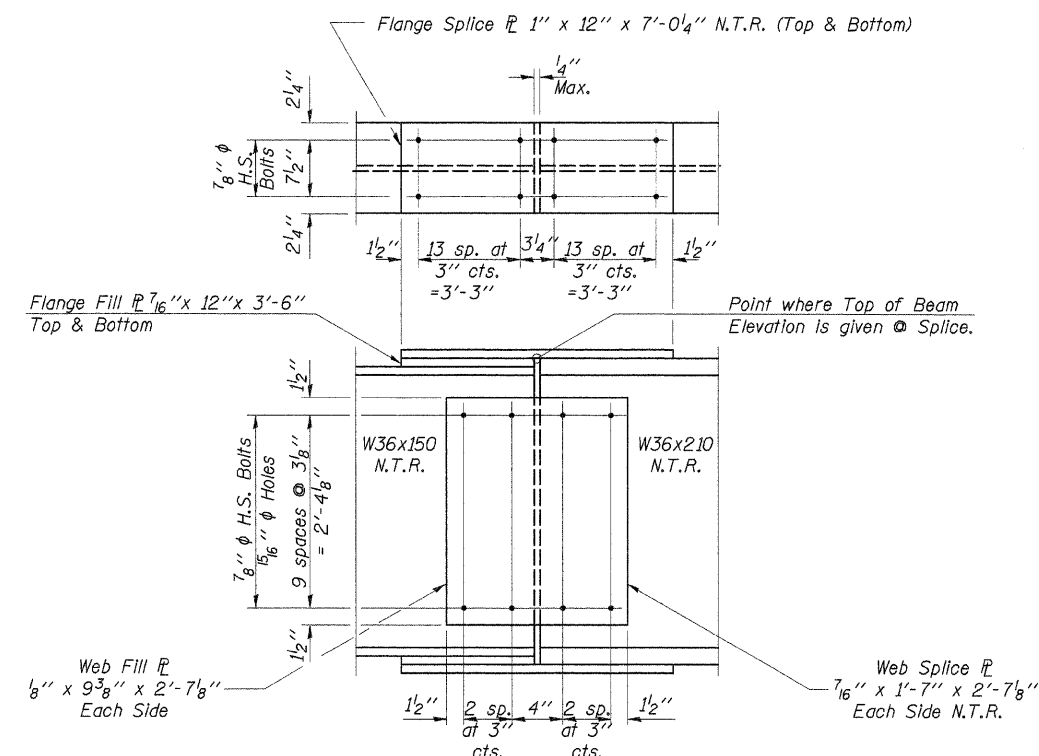
DIAPHRAGM D
52 Required

Note:
Two hardened washers shall be required over all oversize holes for diaphragms.



END OF BEAM ELEVATION

(Typical)



SPLICE

Looking North - Splice #1 or #3
Looking South - Splice #2 or #4

DESIGNED	A.R.K.
CHECKED	F.J.S. & S.F.M.
DRAWN	S.A.P.
CHECKED	A.R.K. & F.J.S.

I-2-D 2-26-93

Work this Sheet with Sheets 9 & 11 of 17.

STRUCTURAL STEEL
SECTION 03-00147-01-BR
COUNTY HIGHWAY 7
STARK COUNTY
STATION 155+75

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ENGINEERING AND SCIENCE CONSULTANTS
FREEPORT, IL, ROCKFORD, IL, ROCKFORD, IL, SPRINGFIELD, IL

JOB NO.: 46808
FILE: 46808STEEL2.DGN
DATE: 07/17/06