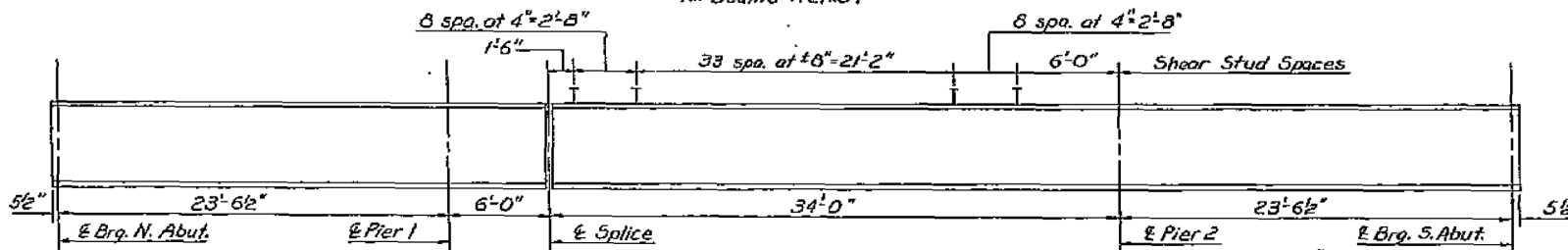


INTERIOR BEAM MOMENT TABLE

	0.3 Sp.1 or 3	Pier 1 or 2	0.5 Sp.2
I_s (in ⁴)	1170	1170	1170
I_e (in ⁴)			4214.1
S_x (in ³)	111	111	111
S_y (in ³)			191.7
Z (in ³)			
ρ (%)	.708	.708	.708
M_E (K)	16.7	81.6	60.0
S_E (K)	.374	.374	.374
M_{SE} (K)	12.1	32.2	42.6
M_E (K)	94.6	94.8	205.6
M_{E+I} (K)	28.3	28.4	61.7
$S_3(M_E+I)$ (K)	204.8	205.3	445.5
M_o (K)	303.7	414.8	712.5
* M_u (K)			1173.9
f_s non-comp (ksi)	1.81	8.82	6.49
f_s comp (ksi)			2.67
f_s (E+I) (ksi)	22.14	22.19	27.89
f_s (overload) (ksi)	23.95	31.01	37.03
** f_s (total) (ksi)	31.14	40.31	
VR (K)			36.1

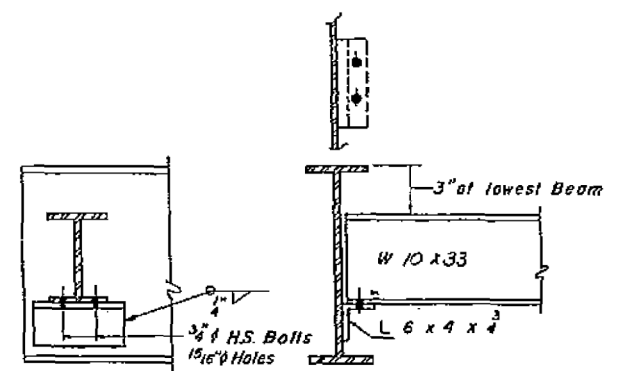
*** Diaphragms D at Abutments, between Stage I and Stage II Construction, shall be spliced. See Details on sht. #B.

* M_u = Full Plastic Moment Capacity for Compact, Braced Section.
 ** Non-compact section
 M_o (Applied Moment) = $1.3[M_E + M_{SE} + S_3(M_E + I)]$
 I_s and S_x are the moment of inertia and section modulus of the steel section used in computing f_s (Total and Overload).
 I_e and S_y are the moment of inertia and section modulus of the composite section used in computing f_s (Total and Overload).
 Z is the plastic section modulus used to determine the Fully Plastic Moments in the non-composite areas.
 The Fully Plastic Moment capacity (M_u) is computed according to AASHTO 1.7.59(A) & 1.7.62(A).
 f_s (Total) is the sum of the stresses due to $1.3[M_E + S_3(M_E + I)]$
 f_s (Overload) is the sum of the stresses due to $M_E + S_3(M_E + I)$

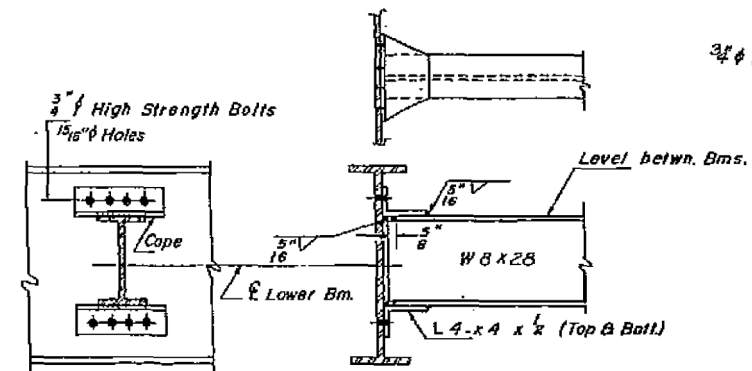


INTERIOR BEAM REACTION TABLE

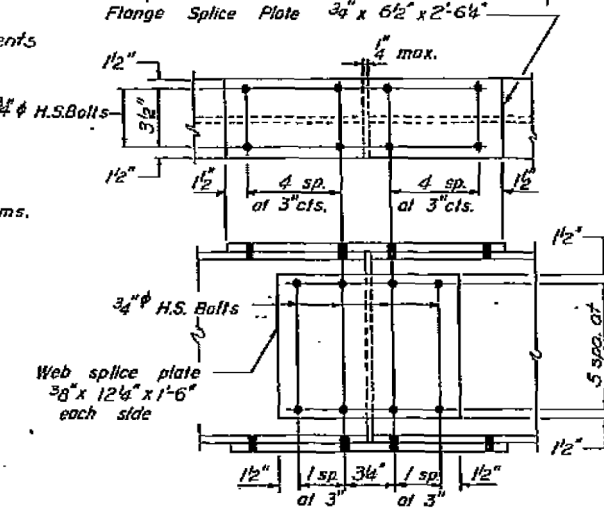
	Abutts.	Piers
R_D	7.91	39.21
R_t	25.52	37.82
R_{imp}	7.66	11.35
R_{total}	41.09	88.38



DIAPHRAGM D
(8 Required)



DIAPHRAGM D1
(20 Required)

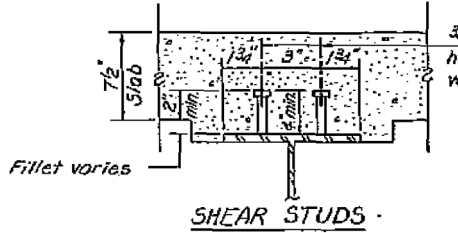


SPLICE
(for W21x57)

TOP OF FLANGE ELEVATIONS TABLE
 *** (Before any deflection)

Location	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5
E Brg. N. Abut.	381.35	381.47	381.57	381.47	381.35
E Brg. Pier 1	381.31	381.43	381.53	381.43	381.31
E Splice	381.30	381.42	381.52	381.42	381.30
E Brg. Pier 2	381.33	381.45	381.55	381.45	381.33
E Brg. S. Abut.	381.35	381.47	381.57	381.47	381.35

**** For fabrication only.



SHEAR STUDS

Note: All diaphragms, connecting angles and diaphragm splice plates shall be AASHTO M-222 Steel.
 All beams and beam splice plates shall be AASHTO M-222 Steel.

DESIGNED Rick Brunette
 CHECKED M. Bloxdorf
 DRAWN Rick Brunette
 CHECKED M. Bloxdorf

EXAMINED
 PASSED
 APPROVED
 DIRECTOR OF HIGHWAYS

I-2-D 8-30-80

FOR INFORMATION ONLY

STRUCTURAL STEEL
 F.A.S. RT. 1907 SEC. 17B-2
 ALEXANDER COUNTY
 STATION 460+90.00