

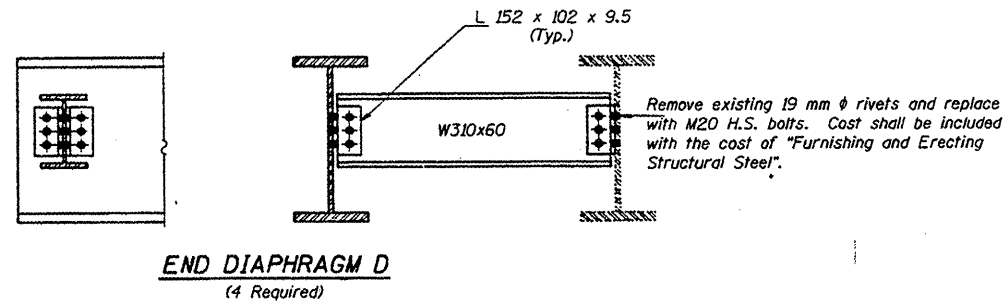
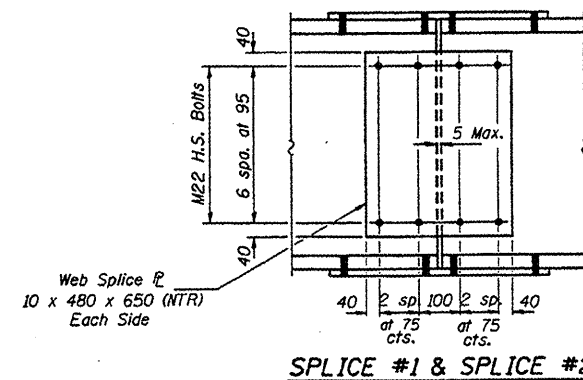
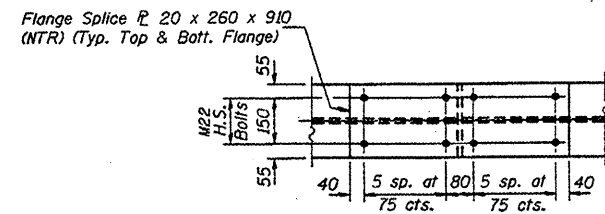
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	TOTAL	SHEET NO. 13
F.A.P. RTE.	17-B-3	WAYNE	32	18	23 SHEETS
FURNISHING AND ERECTING		FURNISHING AND ERECTING		FURNISHING AND ERECTING	

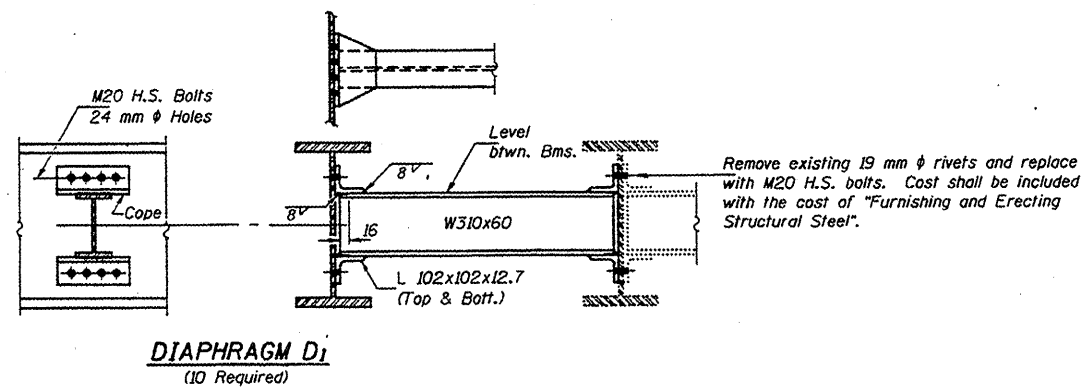
	0.4 Sp. 1	0.6 Sp. 3	0.5 Sp. 2	Piers 1 & 2
I_s (10^6 mm^4)	1860	1860	1860	—
I_c (n) (10^6 mm^4)	5280	5280	5280	—
I_c (3n) (10^6 mm^4)	3880	3880	3880	—
S_s (10^3 mm^3)	4910	4910	4910	—
S_c (n) (10^3 mm^3)	7480	7480	7480	—
S_c (3n) (10^3 mm^3)	6740	6740	6740	—
Q (kN/m)	10.64	10.64	14.39	—
M^D ($\text{kN}\cdot\text{m}$)	140	102	289	—
f_s @ non-comp (MPa)	28.5	20.8	58.9	—
s^D (kN/m)	3.75	3.75	—	—
M_s^D ($\text{kN}\cdot\text{m}$)	57	55	—	—
f_s^D (comp) (MPa)	8.5	8.2	—	—
M_t^* ($\text{kN}\cdot\text{m}$)	342	353	177	—
M (Imp) ($\text{kN}\cdot\text{m}$)	101	100	51	—
f_s ($M_t^* + M$) (MPa)	59.2	60.6	46.4	—
f_s (Total) (MPa)	96.2	89.6	105.3	—
VR (kN)	193	159	—	—

	Abut.	Piers 1 & 2
R^D (kN)	161*	232
R_t (kN)	137	165
Imp. (kN)	41	40
R (Total) (kN)	339	445

I_s and S_s are the moment of inertia and section modulus of the steel section used in computing f_s (Total).
 I_c and S_c 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. (see AASHTO 10.38)
 VR is the maximum Live Load + Impact shear range in span.
 *Includes 86 kN reaction due to diaphragm and approach pavement.



Note:
Two hardened washers shall be required over all oversized holes for diaphragms.
All dimensions are in millimeters (mm) except as noted.



DESIGNED	January 21, 1997
CHECKED	
DRAWN	
CHECKED	

EXAMINED
PASSED

STRUCTURAL STEEL DETAILS
F.A.P. RTE. 821 - SEC. 17-B-3
WAYNE COUNTY
STATION 28+164.434

LOCATION 1

SA 0-16
74529