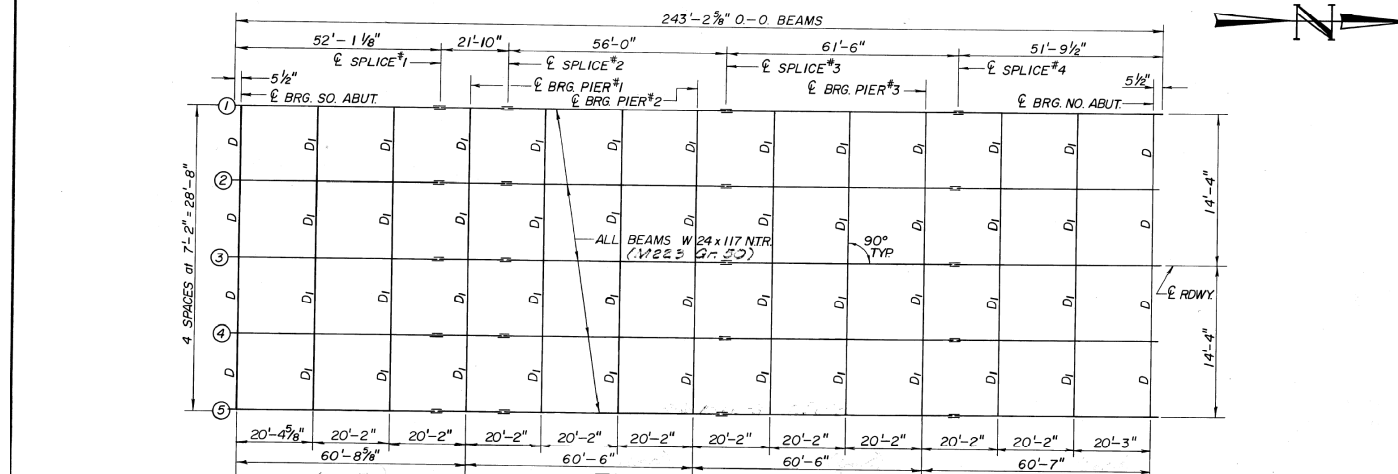


EXISTING STRUCTURAL STEEL DETAILS

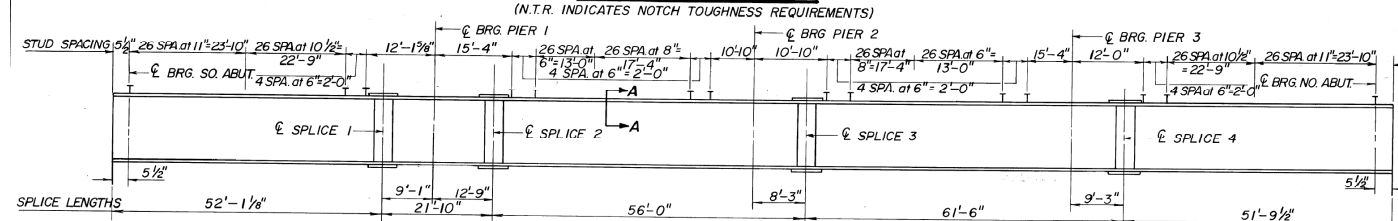
S.N. 057-0110

(FOR INFORMATION ONLY)

A.S. ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
2484	126 BR	MCLEAN	78	11



FRAMING PLAN



BEAM ELEVATION

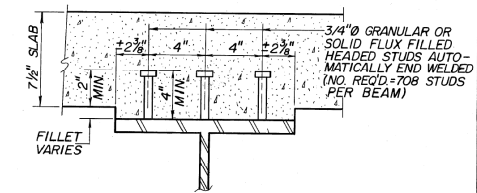
MOMENT TABLE

(COMPOSITE IN POSITIVE MOMENT AREAS ONLY)

	INTERIOR BEAM MOMENT TABLE			
	0.4 SP 1 & 4	PIER 1 & 3	0.5 SP 2 & 3	PIER 2
I_s (in ⁴)	3540	3540	3540	3540
I_c (in ⁴)	10306		10306	
S_s (in ³)	291	291	291	291
S_c (in ³)	452		452	
Q (k/ft)	0.820	1.184	0.820	1.184
$M \ell$ (YK)	234	427	107	295
$S \ell$ (k/ft)	0.364		0.364	
$M_s \ell$ (YK)	119		73	
M_{LL} (YK)	459	225	382	225
M_{IMP} (YK)	124	61	103	61
$S_3(M_{LL} + I)$ (YK)	972	477	808	477
M_o (YK)	1722	1175	1285	1003
M_u (YK)				
$f_s \ell$ (non-comp)(ksi)	9.6	176	4.4	12.2
$f_s \ell$ (comp)(ksi)	3.5		2.2	
$f_s S_3(\ell + I)$ (ksi)	25.8	197	21.5	19.7
f_s (Overload)(ksi)	38.9	37.3	28.1	31.9
f_s (Total)(ksi)	50.0	48.5	36.5	41.4
VR (K)	40.3		39.6	

LOCATION	TOPO OF TOP FLANGE ELEVATION *				
	1	2	3	4	5
BRG. SOUTH ABUT.	737.69	737.82	737.94	737.82	737.69
SPLICE NO. 1	737.72	737.85	737.97	737.85	737.72
BRG. PIER NO. 1	737.73	737.86	737.97	737.86	737.73
SPLICE NO. 2	737.74	737.87	737.98	737.87	737.74
BRG. PIER NO. 2	737.77	737.90	738.01	737.90	737.77
SPLICE NO. 3	737.77	737.90	738.01	737.90	737.77
BRG. PIER NO. 3	737.80	737.93	738.04	737.93	737.80
SPLICE NO. 4	737.81	737.94	738.05	737.94	737.81
BRG. NORTH ABUT.	737.84	737.97	738.08	737.97	737.84

* PRIOR TO Q DEFLECTION - FOR FABRICATION ONLY



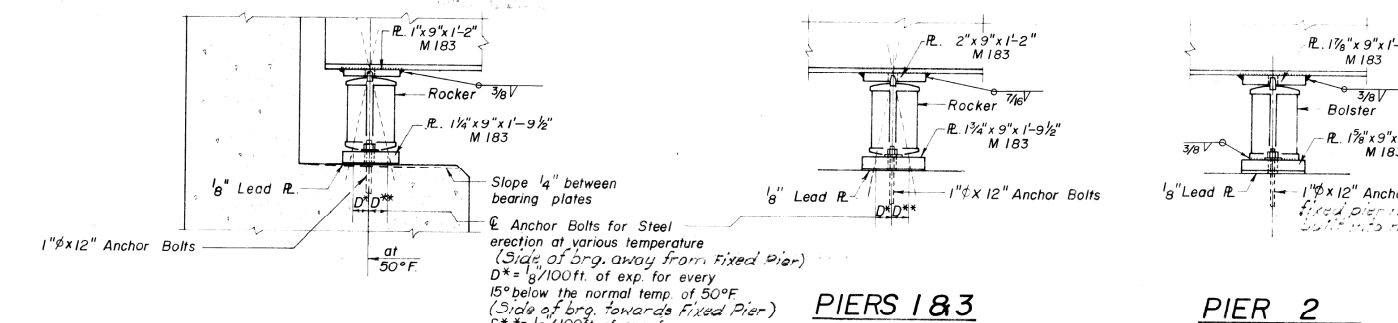
SEC. A-A

M_a = (Applied Moment) = $1.3[M \ell + M_o \ell + 5_3(M \ell + I)]$
 I_s and S_s are the moment of inertia and section modulus of the steel section used in computing f_s (Total and Overload).
 I_c and S_c are the moment of inertia and section modulus of the composite section used in computing f_s (Total and Overload).
 VR is the maximum ℓ impact shear range in span.

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 $M \ell + 5_3(M \ell + I)$.
 f (Overload) is the sum of the stresses due to $M \ell + 5_3(M \ell + I)$.

NOTE: HARDENED WASHERS SHALL BE REQUIRED OVER ALL 15/16" HOLES FOR DIAPHRAGMS.

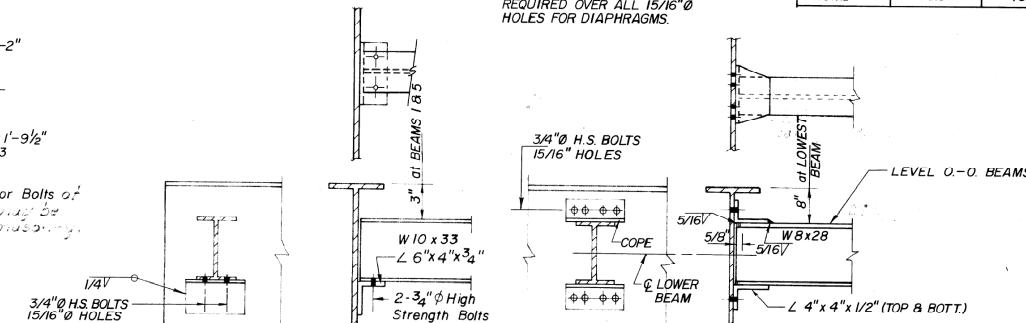
	ABUT.	PIER #1, #3	PIER #2
R_{DL} (k)	28.9	81.0	67.2
R_{LL} (k)	38.7	48.5	46.9
IMP (k)	10.4	9.9	9.6
R_{TOTAL} (k)	78.0	139.4	123.7



SECTION AT ABUTMENT

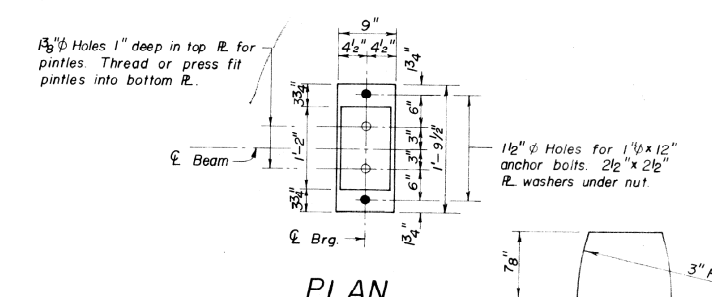
PIERS 1 & 3

PIER 2



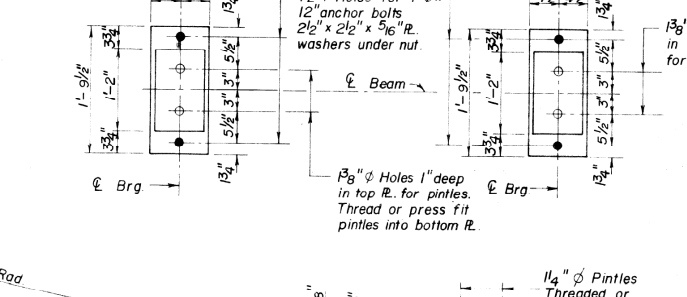
DIAPHRAGM D

DIAPHRAGM D1

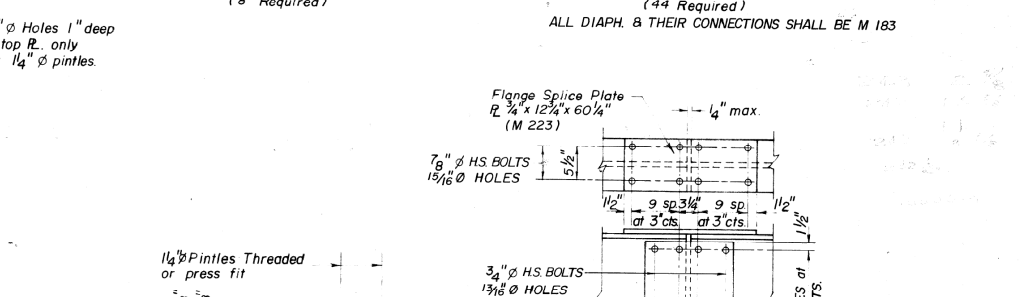


PLAN

DETAIL OF PINTLE



DETAIL OF ROCKER AT ABUTS & DETAIL OF ROCKER AT PIERS 1 & 3 (M183)



DETAIL OF BOLSTER AT PIER 2 (M183)

DETAIL OF SPLICE

Note: After beams have been erected and dimensions D^* or D^{**} determined, holes shall be drilled and anchor bolts installed as shown on sheet #13.

STRUCTURAL STEEL DETAILS
F.A.S. ROUTE 2484
SECTION 126 BR
MCLEAN COUNTY
STATION 826 + 78