

**INTERIOR BEAM MOMENT TABLE \*\***

	0.4 Sp. 1 or 0.6 Sp. 4	Pier 1, 3, 4 or 6	0.5 Sp. 2 or 0.5 Sp. 3	Pier 2 or 5
I (10 <sup>6</sup> mm <sup>4</sup> )	2230	2230	2230	2230
Q (kN/m)	10.4	10.4	10.4	10.4
M <sub>D</sub> (kN-m)	139	254	135	262
M <sub>L</sub> (kN-m)	217	179	228	192
M (Imp.) (kN-m)	64	52	63	53
M (Total) (kN-m)	420	485	426	507
f <sub>s</sub> (Total) (MPa)	72	83	73	87

**INTERIOR GIRDER REACTION TABLE \*\***

	Abuts.	Pier 1, 3, 4 or 6	Pier 2 or 5
R <sub>D</sub> (kN)	54	181	182
R <sub>L</sub> (kN)	88	109	109
R (Imp.) (kN)	26	31	30
R (Total) (kN)	168	321	321

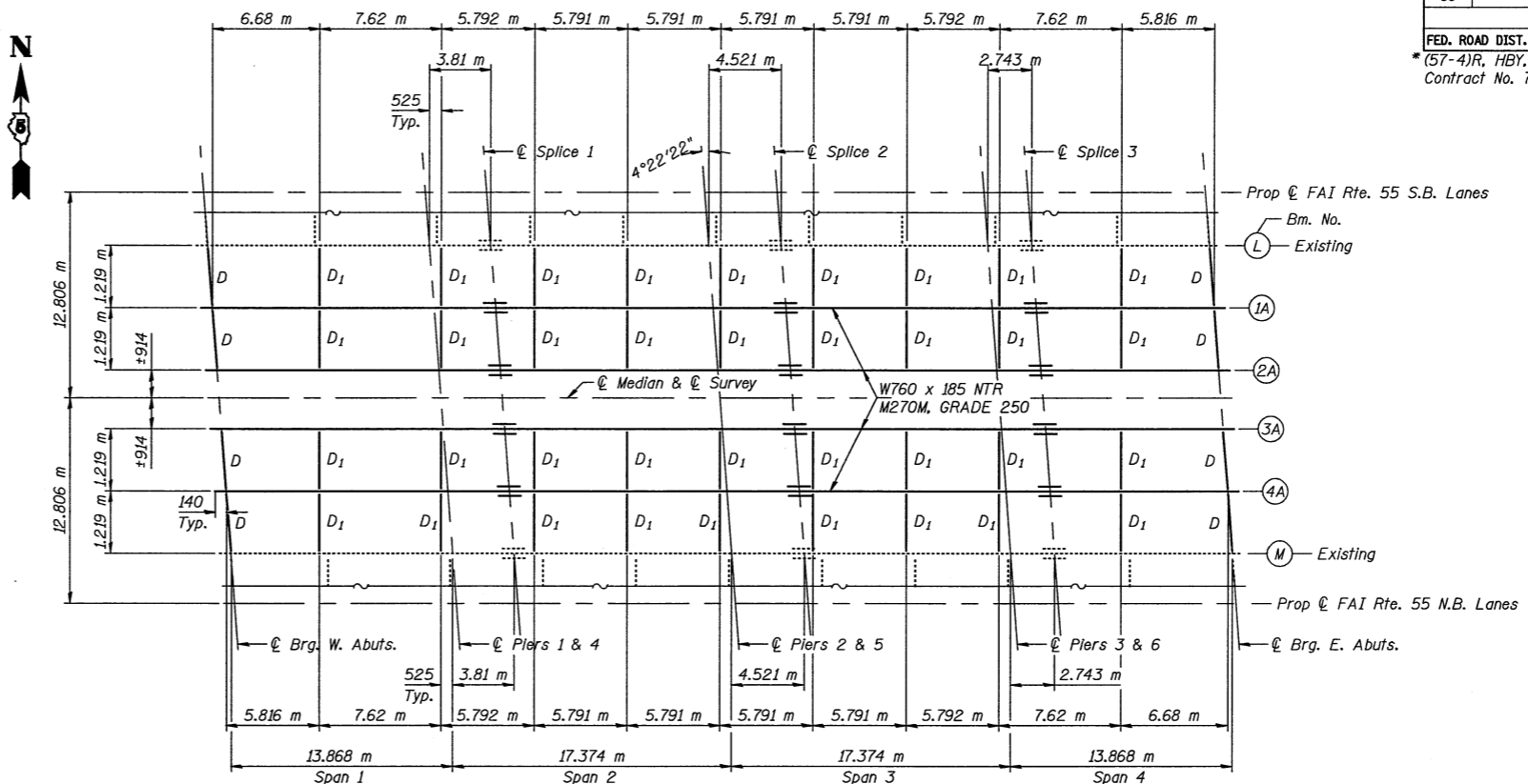
M<sub>D</sub> - Moment due to dead load on non-composite section.  
 M<sub>L</sub> - Moment due to live load on non-composite section.  
 M (Imp.) - Moment due to live load impact on non-composite section.

\*\* New Beams Only.

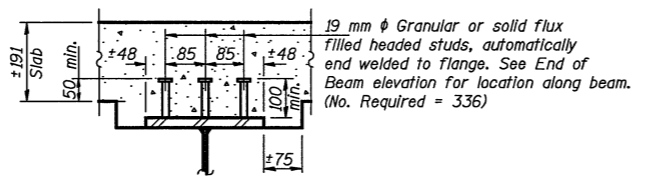
**TOP OF BEAM ELEVATIONS**

	1A	2A	3A	4A
© Brg. W. Abuts.	266.241	266.216	266.217	266.242
© Brg. Pier 1 or 4	266.265	266.240	266.241	266.266
© Splice 1	266.271	266.246	266.247	266.272
© Brg. Pier 2 or 5	266.295	266.269	266.270	266.295
© Splice 2	266.303	266.277	266.278	266.303
© Brg. Pier 3 or 6	266.309	266.283	266.283	266.309
© Splice 3	266.310	266.284	266.284	266.310
© Brg. E. Abuts.	266.329	266.303	266.303	266.328

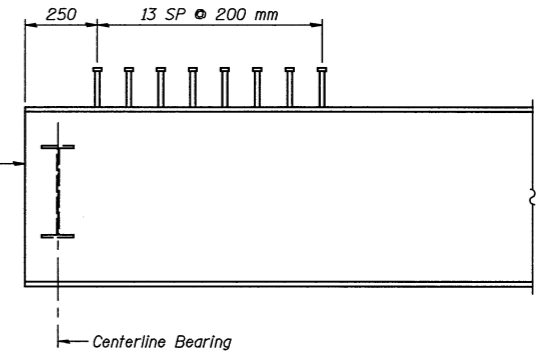
For Fabrication Only



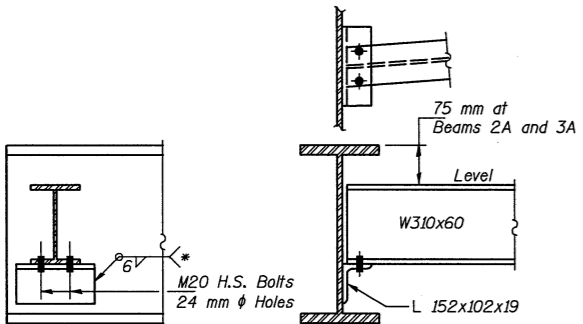
**FRAMING PLAN**



**SECTION AT BEAM END**

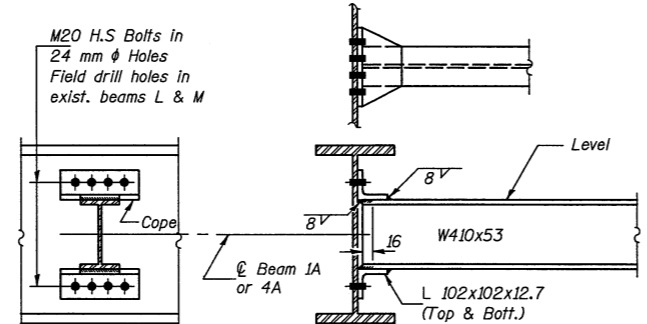


**END OF BEAM ELEVATION**  
(Showing Shear Studs)



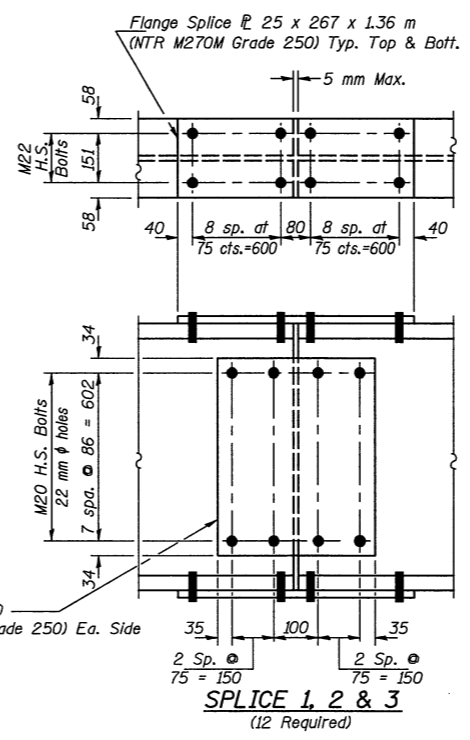
**DIAPHRAGM D**  
(8 Required)

\* Field weld at existing beams L and M



**DIAPHRAGM D1**  
(36 Required)

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



**SPlice 1, 2 & 3**  
(12 Required)

Notes:  
 All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.  
 Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

ILLINOIS DEPARTMENT OF TRANSPORTATION	
SHEET TITLE	
<b>STRUCTURAL STEEL</b>	
PROJECT	PROJECT NO.
F.A.I. 55 OVER BUSINESS U.S. 51	08049-5
SECTION 57-4HBR-4 STATION 37+474.206	SCALE
McLEAN COUNTY	07/15/2009
STRUCTURE NO. 057-0024 (N.B.) & 057-0025 (S.B.)	DRAWN BY
	TFG/CFC
	CHECKED BY
	CME/MCB
<b>COMBE-BLOXDORF P.C.</b>	
Engineers / Land Surveyors	
Springfield, Illinois	
Design Firm License No. 184-002703	
DRAWING NO.	14
OF 24 SHTS	