

0 SKEW DIAPHRAGM WEIGHTS (WEIGHT IN LBS. INCLUDES DIAPHRAGM, NUTS, BOLTS, CONNECTION PLATES AND WELDS)										
DIAPHRAGM	BRIDGE LENGTH									
	160'-0	180'-0	200'-0	220'-0	240'-0	260'-0	280'-0	300'-0	320'-0	340'-0
ROLLED CHANNEL	13,980	15,407	15,706	18,756	24,093	24,410	26,210	26,212	29,803	32,190
BENT PLATE	12,697	13,929	14,228	15,698	19,925	20,242	21,672	21,673	24,525	26,541

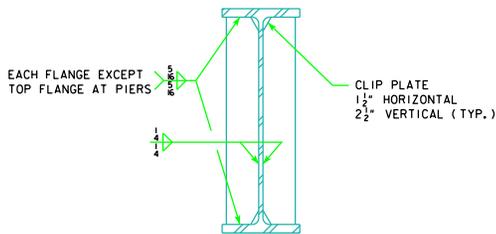
10 SKEW DIAPHRAGM WEIGHTS (WEIGHT IN LBS. INCLUDES DIAPHRAGM, NUTS, BOLTS, CONNECTION PLATES AND WELDS)										
DIAPHRAGM	BRIDGE LENGTH									
	160'-0	180'-0	200'-0	220'-0	240'-0	260'-0	280'-0	300'-0	320'-0	340'-0
ROLLED CHANNEL	14,040	15,467	15,765	18,825	24,163	24,480	26,280	26,281	29,872	32,259
BENT PLATE	12,755	13,987	14,286	15,760	19,988	20,304	21,734	21,736	24,587	26,604

20 SKEW DIAPHRAGM WEIGHTS (WEIGHT IN LBS. INCLUDES DIAPHRAGM, NUTS, BOLTS, CONNECTION PLATES AND WELDS)										
DIAPHRAGM	BRIDGE LENGTH									
	160'-0	180'-0	200'-0	220'-0	240'-0	260'-0	280'-0	300'-0	320'-0	340'-0
ROLLED CHANNEL	14,228	15,655	15,953	19,043	24,381	24,698	26,498	26,499	30,091	32,477
BENT PLATE	12,937	14,170	14,468	15,956	20,183	20,500	21,930	21,931	24,783	26,799

30 SKEW DIAPHRAGM WEIGHTS (WEIGHT IN LBS. INCLUDES DIAPHRAGM, NUTS, BOLTS, CONNECTION PLATES AND WELDS)										
DIAPHRAGM	BRIDGE LENGTH									
	160'-0	180'-0	200'-0	220'-0	240'-0	260'-0	280'-0	300'-0	320'-0	340'-0
ROLLED CHANNEL	14,578	16,005	16,304	19,450	24,784	25,105	26,905	26,906	30,493	32,884
BENT PLATE	13,277	14,509	14,808	16,320	20,544	20,865	22,294	22,296	25,142	27,164

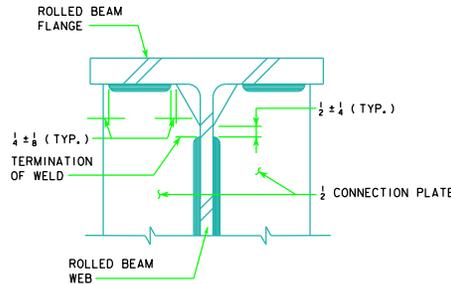
45 SKEW DIAPHRAGM WEIGHTS (WEIGHT IN LBS. INCLUDES DIAPHRAGM, NUTS, BOLTS, CONNECTION PLATES AND WELDS)										
DIAPHRAGM	BRIDGE LENGTH									
	160'-0	180'-0	200'-0	220'-0	240'-0	260'-0	280'-0	300'-0	320'-0	340'-0
ROLLED CHANNEL	15,284	16,711	17,029	20,220	23,778	24,690	27,691	31,291	33,083	33,696
BENT PLATE	14,036	15,269	15,587	17,127	19,945	23,117	23,118	25,978	27,399	28,012

PAYMENT FOR STRUCTURAL STEEL WILL BE BASED ON WEIGHT FOR BENT PLATE DIAPHRAGMS. WEIGHTS FOR CHANNEL DIAPHRAGMS OPTION ARE PROVIDED FOR INFORMATION ONLY.

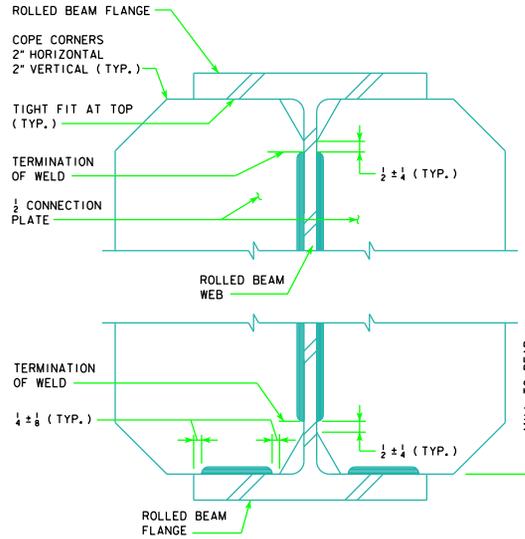


CONNECTION PLATE DETAIL

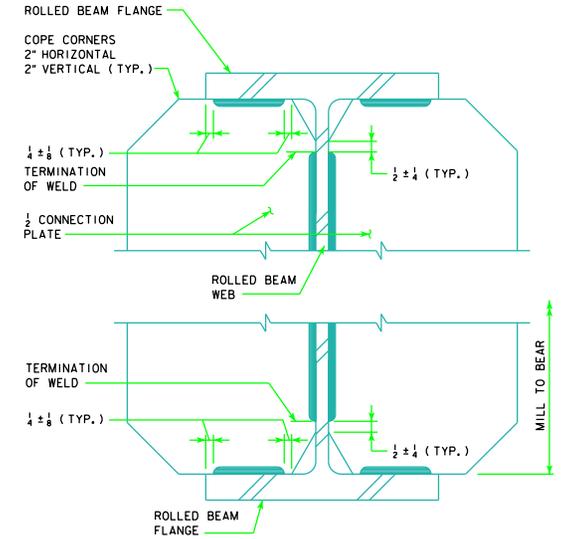
NOTE:
EXTERIOR BEAMS REQUIRE A CONNECTION PLATE ON THE INTERIOR SIDE OF THE WEB ONLY.



CONNECTION PLATE WELD TERMINATION DETAIL (ABUTMENT & INTERMEDIATE DIAPHRAGM)



CONNECTION PLATE WELD TERMINATION DETAIL (PIER DIAPHRAGM, 0° to 30° SKEW)



CONNECTION PLATE WELD TERMINATION DETAIL (PIER DIAPHRAGM, 45° SKEW)

NOTE:
WEIGHTS TABULATED ON THIS SHEET ARE ALREADY INCLUDED IN TOTAL WEIGHT OF STRUCTURAL STEEL GIVEN ELSEWHERE IN THESE STANDARDS.

LATEST REVISION DATE	<i>Thomas E. Mc Donald</i> APPROVED BY BRIDGE ENGINEER	 Iowa Department of Transportation Highway Division	
		STANDARD DESIGN - 40' ROADWAY, 3 SPAN BRIDGES ROLLED STEEL BEAM BRIDGES	
		JUNE, 2010	
		DIAPHRAGM DETAILS SHEET 2	RS40-082-10