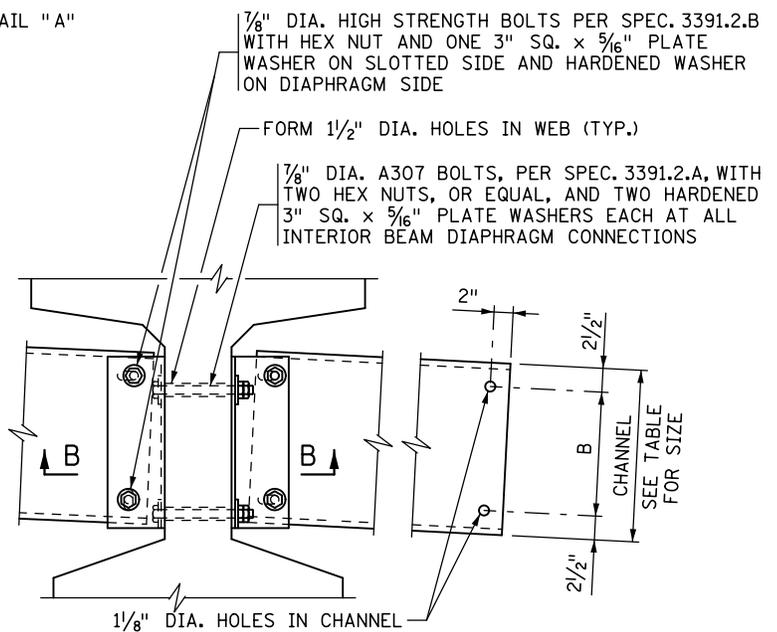
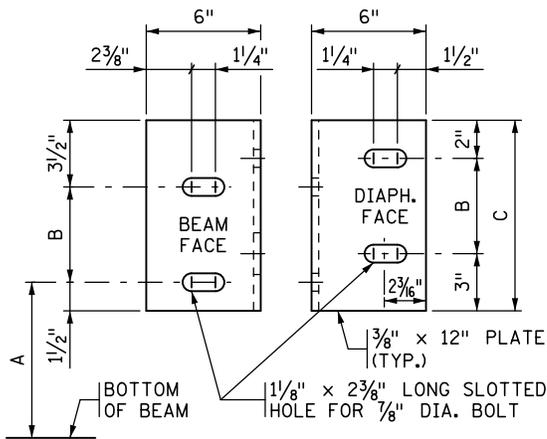


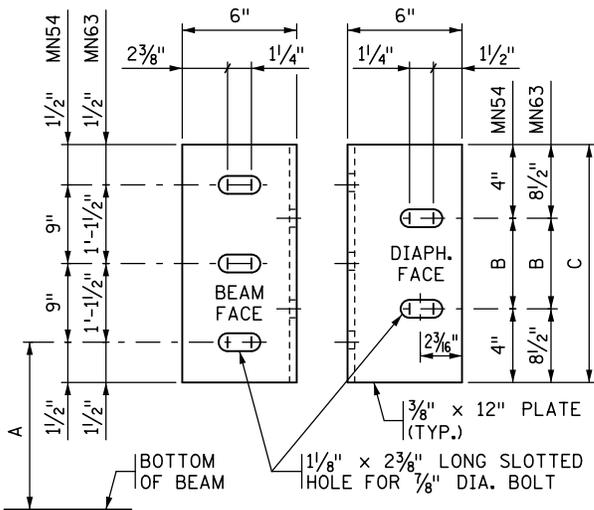
PART TRANSVERSE SECTION AT DIAPHRAGM



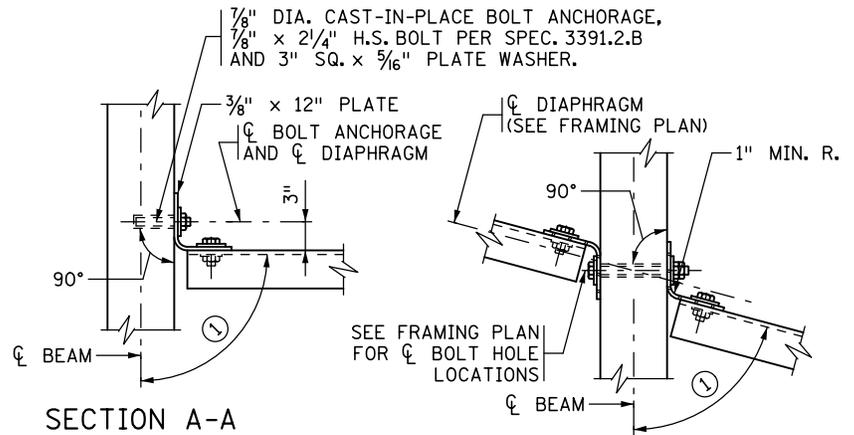
DETAIL "A"
INTERIOR BEAM WITH CONTINUOUS LINE OF DIAPHRAGMS



DIAPHRAGM CONNECTION
FOR 36M, AND MN45 BEAMS



DIAPHRAGM CONNECTION
FOR MN54 AND MN63 BEAMS



SECTION A-A
TYPICAL SECTION AT ALL FASCIA BEAMS

SECTION B-B
TYPICAL SECTION AT INTERIOR BEAM WITH CONTINUOUS OR STAGGERED INTERMEDIATE DIAPHRAGMS

NOTES:

- PROVIDE STEEL PER SPEC. 3306.
- INSTALL PER SPEC. 2405.3.K.
- TORQUE ALL BOLTS, INCLUDING ANCHOR BOLTS TO 80 FT.-LBS.
- SHOP BEND THE LEG OF THE 12" PLATE TO CONFORM TO THE DIAPHRAGM. A 3/8" x 6" x 6" ANGLE MAY BE USED FOR DIAPHRAGMS PERPENDICULAR TO BEAMS.
- INCLUDE ALL STRUCTURAL STEEL SHOWN ON THIS DETAIL, INCLUDING BOLTS AND WASHERS, IN UNIT PRICE BID FOR DIAPHRAGMS FOR PRESTRESSED BEAMS.
- BENT PLATES MAY BE USED IN PLACE OF CHANNELS IF THE BENT PLATES HAVE THE SAME HEIGHT AS THE CHANNELS THEY REPLACE, ARE 5/16" IN THICKNESS, AND HAVE LEGS 5" LONG.
- GALVANIZE STEEL PLATES AND SHAPES PER SPEC. 3394.
- GALVANIZE BOLTS, NUTS AND WASHERS PER SPEC. 3392.
- ① FOR SKEW ANGLES UNDER 20°, USE 90° LESS THE SKEW ANGLE. FOR SKEW ANGLES OVER 20°, USE 90°.

BEAM HEIGHT	DISTANCE			CHANNEL SIZE
	A	B	C	
36M	1'-3"	7"	1'-0"	C12x20.7
MN45	1'-7 3/4"	7"	1'-0"	C12x20.7
MN54	1'-7 3/4"	1'-1"	1'-9"	MC18x42.7
MN63	1'-7 3/4"	1'-1"	2'-6"	MC18x42.7

APPROVED: NOVEMBER 03, 2015

Kevin A. J. Sanchez
STATE BRIDGE ENGINEER

STATE OF MINNESOTA
DEPARTMENT OF TRANSPORTATION

STEEL INTERMEDIATE DIAPHRAGM
(FOR 36M, MN45 - MN63 PRESTRESSED CONCRETE BEAMS)

REVISION
01-05-2017

DETAIL NO.

B403