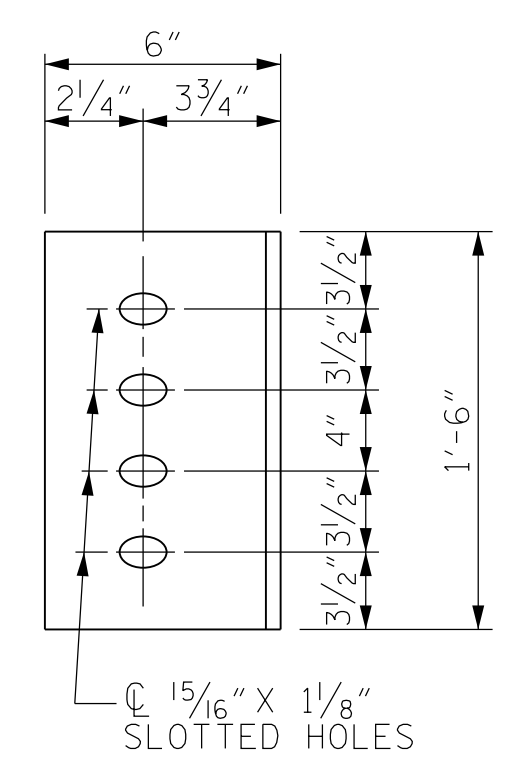
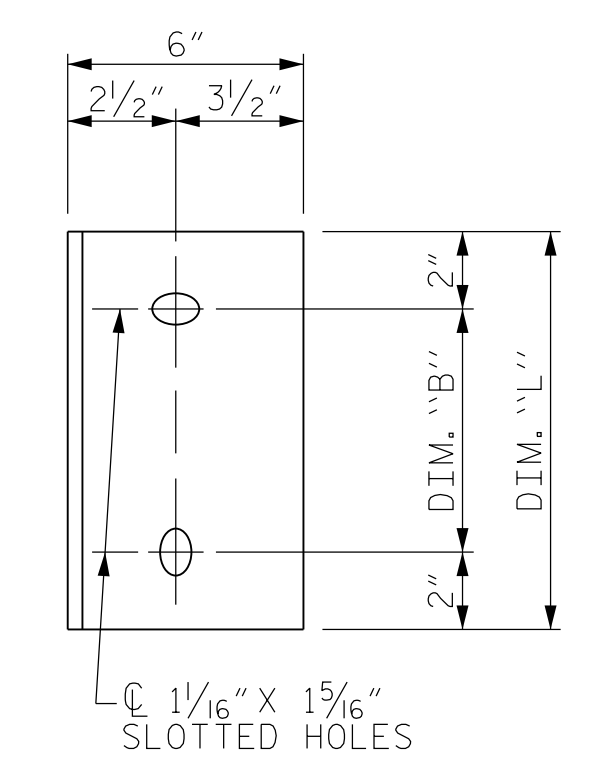


EXTERIOR GIRDER INTERIOR GIRDER

PART SECTION AT INTERMEDIATE DIAPHRAGM  
(TYPE III OR TYPE IV GIRDER SHOWN)



DIAPHRAGM FACE  
(TYPE III OR TYPE IV GDR.)



WEB FACE

CONNECTOR PLATE DETAILS

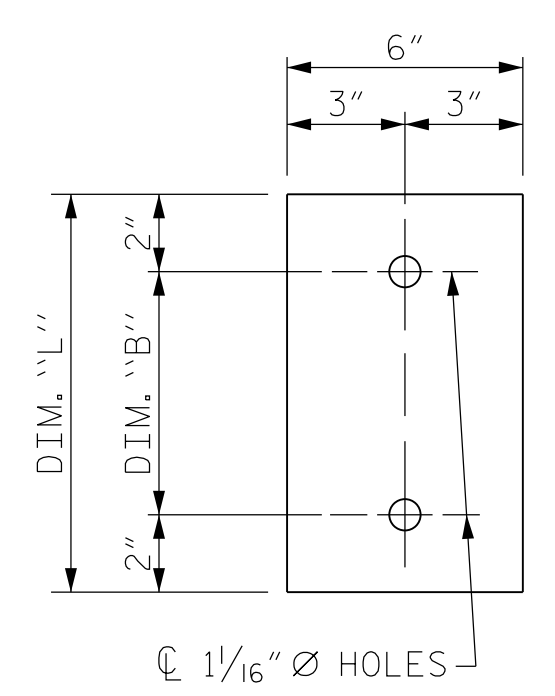
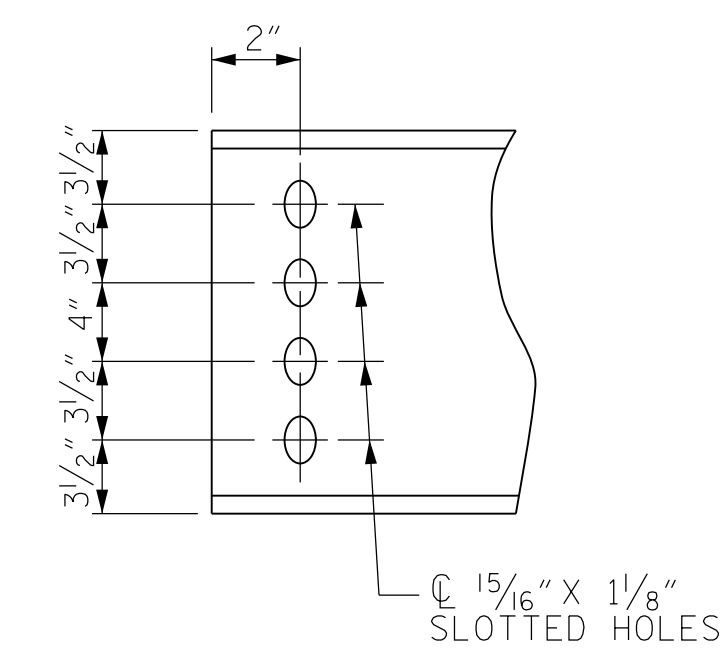
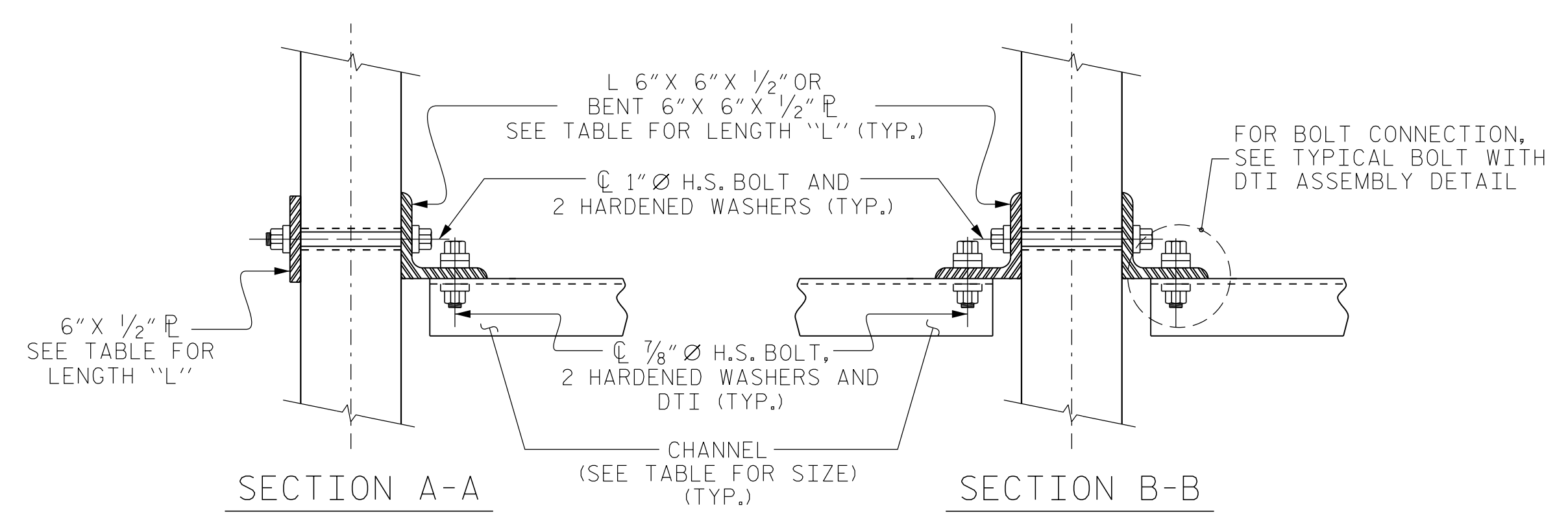


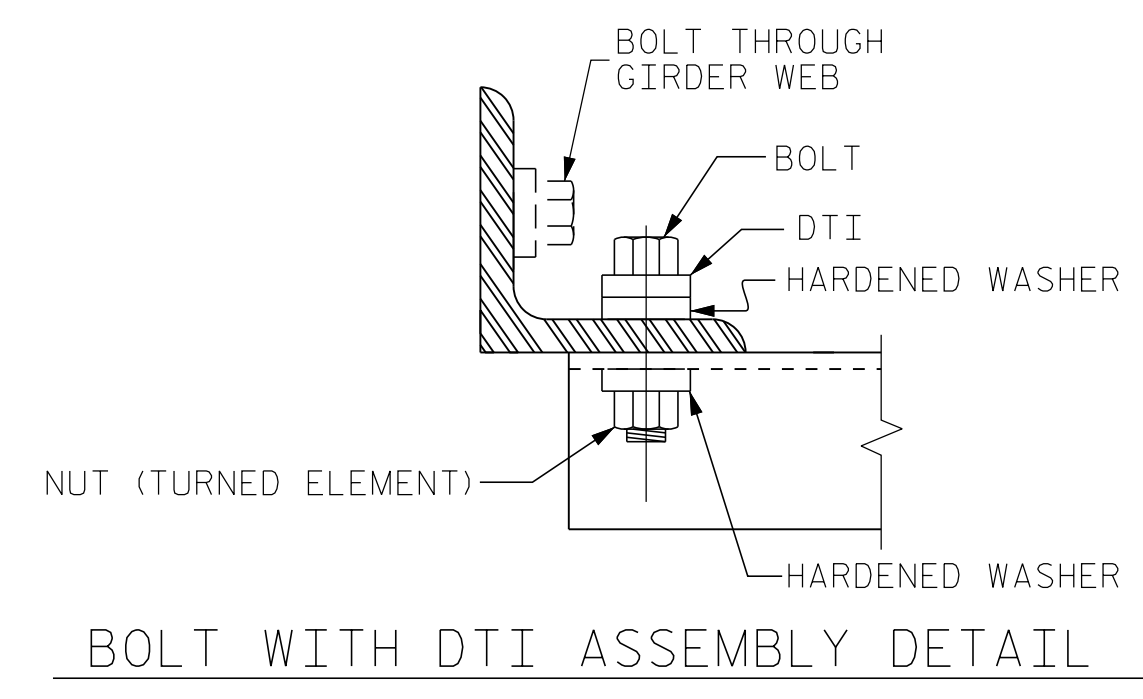
PLATE DETAILS



CHANNEL END  
(TYPE III OR TYPE IV GDR.)



CONNECTION DETAILS



STRUCTURAL STEEL NOTES

ALL INTERMEDIATE DIAPHRAGM STEEL AND CONNECTOR PLATES SHALL BE  
 AASHTO M270 GRADE 50 OR APPROVED EQUAL.  
 TENSION ON THE ASTM A325 BOLTS THROUGH THE CHANNEL MEMBER  
 SHALL BE CALIBRATED USING DIRECT TENSION INDICATOR WASHERS IN  
 ACCORDANCE WITH THE STANDARD SPECIFICATIONS.  
 TENSION ON THE ASTM A449 BOLTS THROUGH THE GIRDER WEB SHALL  
 BE SNUG TIGHTENED FOLLOWED BY AN ADDITIONAL  $\frac{1}{4}$  TURN.  
 THE PLATES, BENT PLATES, CHANNELS, AND ANGLES SHALL BE GALVANIZED  
 OR METALLIZED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.  
 FOR THERMAL SPRAYED COATINGS (METALLIZATION), SEE SPECIAL  
 PROVISIONS.  
 FOR METALLIZATION, APPLY AN 8 MIL THICK 99.99 PERCENT ZINC (W-Zn-1)  
 THERMAL SPRAYED COATING WITH A 0.5 MIL THICK SEAL COAT TO ALL  
 STEEL DIAPHRAGM SURFACES IN ACCORDANCE WITH THE THERMAL SPRAYED  
 COATINGS SPECIAL PROVISION AND SECTION 442 OF THE STANDARD  
 SPECIFICATIONS.  
 GALVANIZE THE HIGH STRENGTH BOLTS, NUTS, WASHERS AND DIRECT TENSION  
 INDICATORS IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.  
 USE AN ASTM F436 HARDENED WASHER WITH STANDARD AND SLOTTED HOLES  
 UNDER EACH BOLT HEAD AND NUT.  
 FOR BOLTS THROUGH THE GIRDER WEB, PROVIDE SUFFICIENT LENGTH OF  
 THREADS ON ALL BOLTS TO ACCOMMODATE WASHERS AND THE THICKNESS  
 OF CONNECTING MEMBER PLUS AT LEAST  $\frac{1}{4}$ " PROJECTION BEYOND THE NUT.  
 INTERMEDIATE DIAPHRAGM ASSEMBLY SHALL COMPLY WITH SECTION 1072  
 OF THE STANDARD SPECIFICATIONS.  
 SUBMIT TWO SETS OF WORKING DRAWINGS FOR THE INTERMEDIATE  
 DIAPHRAGM ASSEMBLY FOR REVIEW, COMMENTS AND ACCEPTANCE.  
 AFTER REVIEW, COMMENTS, AND ACCEPTANCE, SUBMIT SEVEN SETS  
 FOR DISTRIBUTION.  
 IN THE EXTERIOR BAYS, PLACE TEMPORARY STRUTS BETWEEN PRESTRESSED  
 GIRDERS ADJACENT TO THE STEEL DIAPHRAGMS. STRUTS SHALL REMAIN  
 IN PLACE 3 DAYS AFTER CONCRETE IS PLACED.  
 THE COST OF THE STEEL DIAPHRAGMS AND ASSEMBLIES SHALL BE  
 INCLUDED IN THE UNIT PRICE BID FOR PRESTRESSED CONCRETE  
 GIRDERS.

TABLE

GIRDER TYPE	CHANNEL SIZE	DIM "A"	DIM "B"	DIM "L"
II	MC 12 x 31	1'-2 1/2"	10"	1'-2"
III	MC 18 x 42.7	1'-5"	1'-2"	1'-6"
IV	MC 18 x 42.7	1'-9 1/2"	1'-2"	1'-6"

PROJECT NO. R-5605  
 TRANSYLVANIA COUNTY  
 STATION: 50+83.00 -L-

ASSEMBLED BY : PFC	DATE : 8/15
CHECKED BY : CMT	DATE : 8/15
DRAWN BY : TLA 6/05	ADDED 10/21/05
CHECKED BY : VC 6/05	REV. 5/1/06RRR KMM/GM
	REV. 10/1/11 MAA/GM

\*\*\*\*\*SYSTEM\*\*\*\*\*  
 \*\*\*\*\*DCN\*\*\*\*\*  
 \*\*\*\*\*USERNAME\*\*\*\*\*

Prepared in the  
 Office of:  
  
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 (828) 254-2201 • FAX (828) 254-4562

DocuSigned by:  
  
 Steven A. Campbell 12/21/2015

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH  
 STANDARD  
 INTERMEDIATE  
 STEEL DIAPHRAGMS  
 FOR TYPE II, III, & IV  
 PRESTRESSED CONCRETE  
 GIRDERS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-34
1			3			TOTAL SHEETS
2			4			51