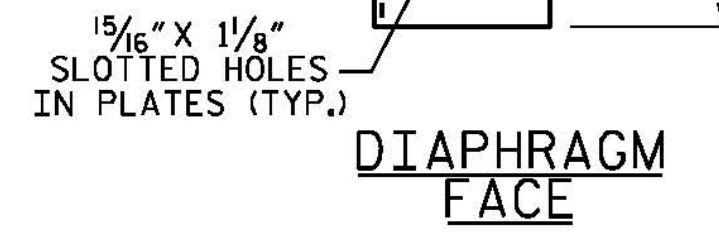
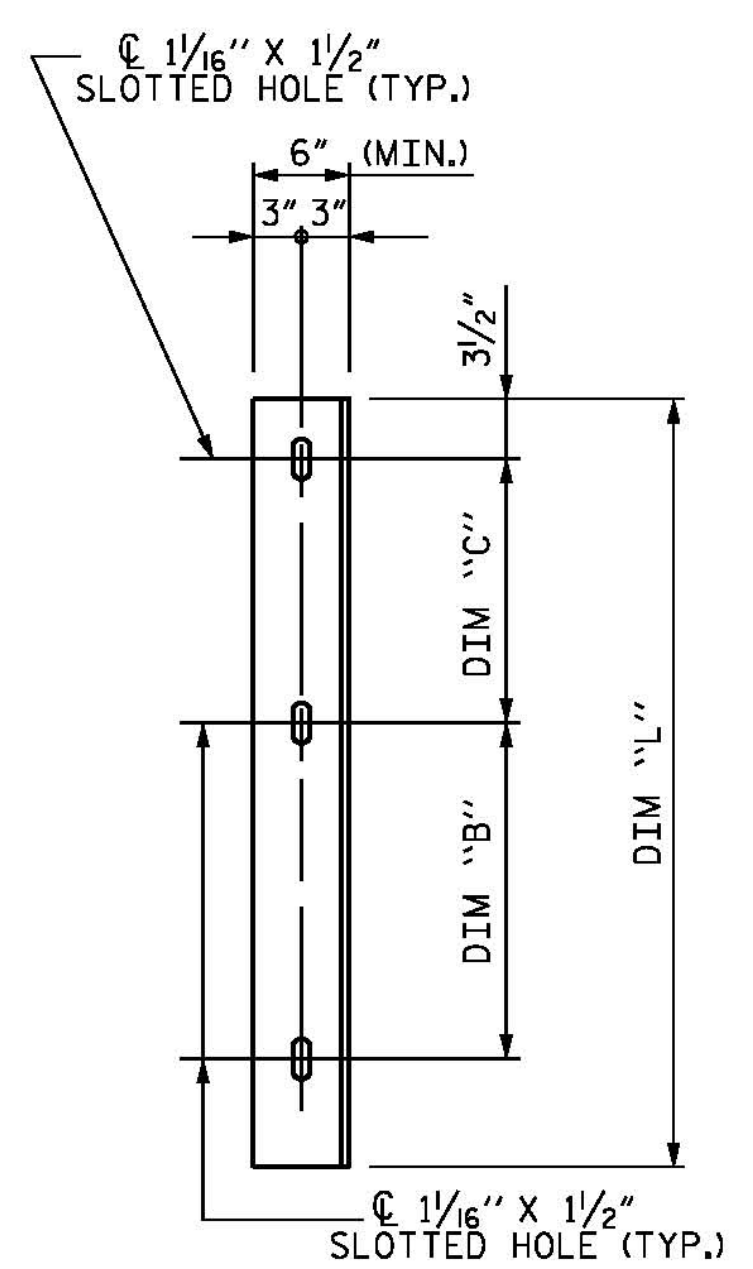


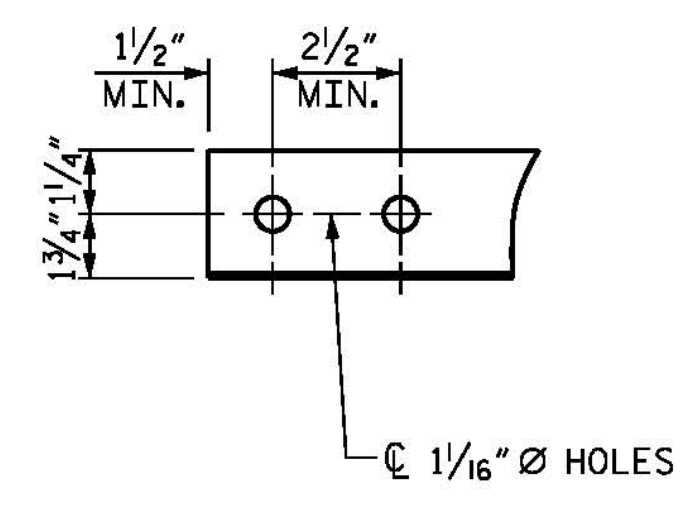
PART SECTION AT INTERMEDIATE DIAPHRAGM



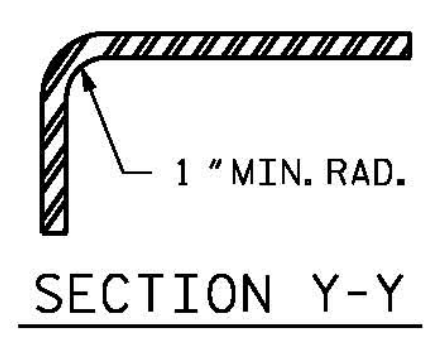
DIAPHRAGM FACE



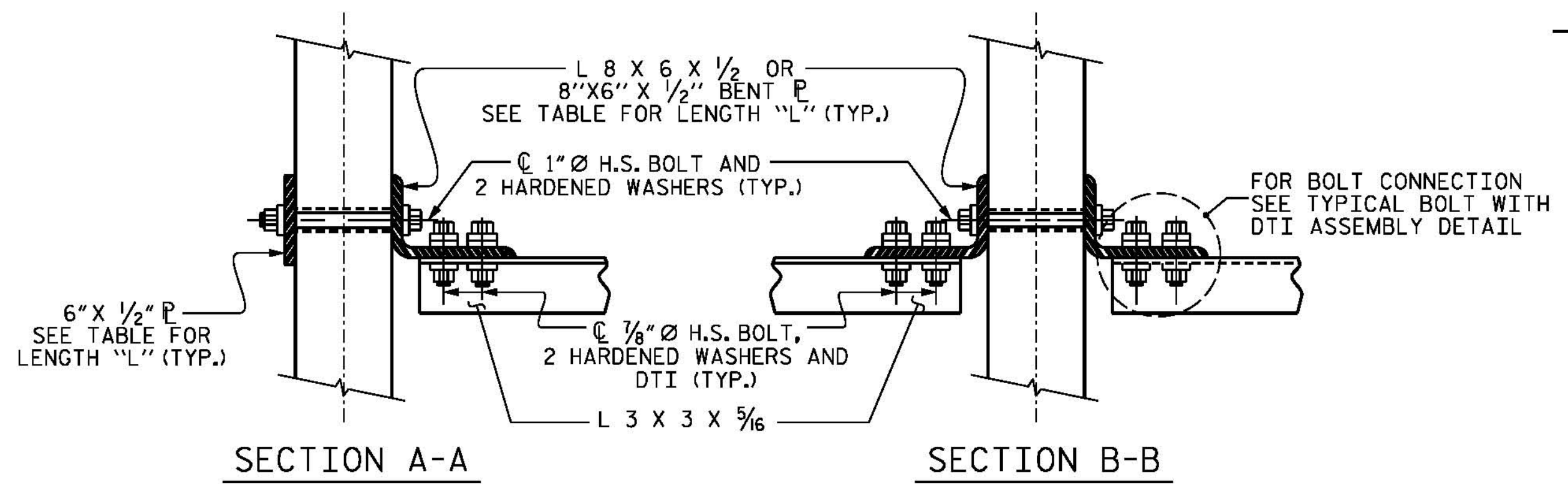
WEB FACE



ANGLE END  
(L 3 X 3 X 5/16)



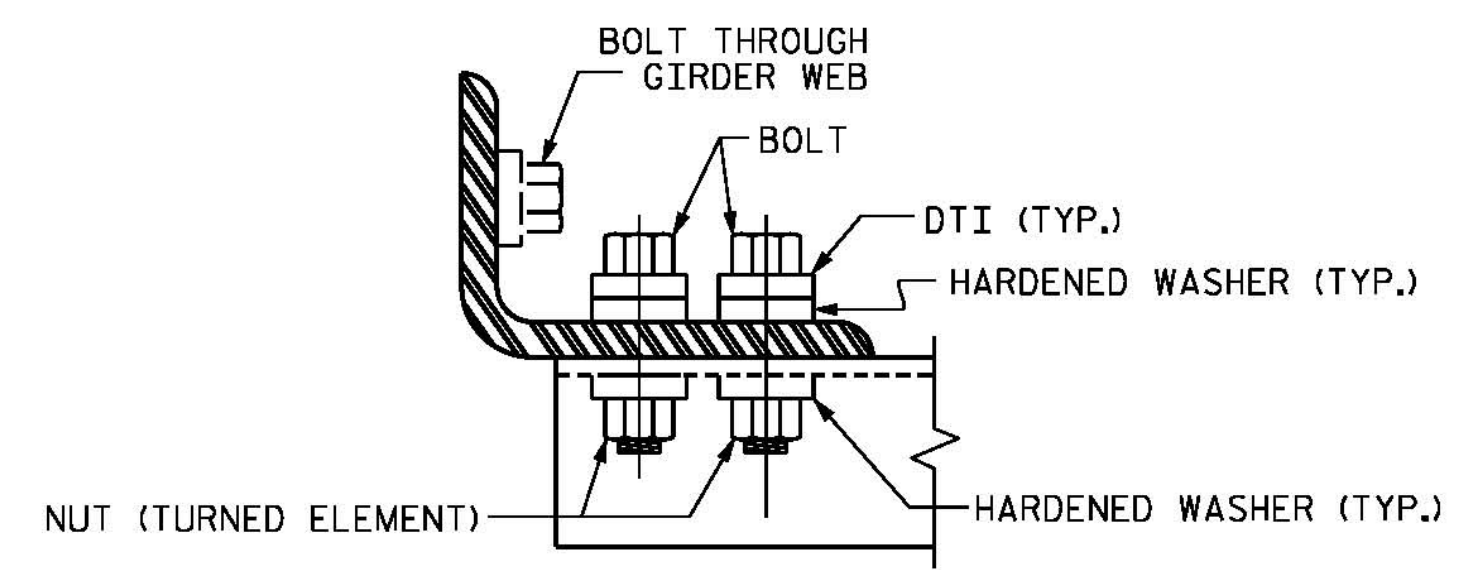
SECTION Y-Y



CONNECTION DETAILS

FOR LOCATIONS WHERE DIAPHRAGM IS NOT 90°00' 00" TO C OF GIRDER, USE 8" X 6" X 1/2" BENT PLATE

CONNECTOR PLATE DETAIL



BOLT WITH DTI ASSEMBLY DETAIL

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 ANGLE 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 1/4 TURN.

THE PLATES, BENT PLATES, AND ANGLES SHALL BE 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 ALUMINIUM (W-AL-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 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.

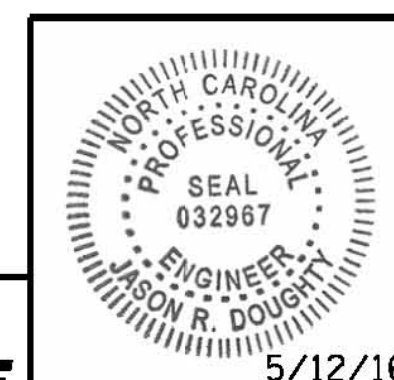
THE COST OF THE STEEL DIAPHRAGMS AND ASSEMBLIES SHALL BE INCLUDED IN THE UNIT PRICE BID FOR PRESTRESSED CONCRETE GIRDERS.

APPLY 1 COAT EACH OF 1080-12 GREEN AND 1080-12 GRAY PAINT ON THE EDGES AND THE WEB FACE OF THE CONNECTOR PLATE WHICH COMES IN CONTACT WITH THE CONCRETE GIRDER IN ACCORDANCE WITH SECTION 442 OF THE STANDARD SPECIFICATIONS.

TABLE

GIRDER TYPE	DIM "A"	DIM "B"	DIM "C"	DIM "L"
72" FIB	2'-4"	1'-3"	1'-3"	3'-1"
78" FIB	2'-6"	1'-6"	1'-3"	3'-6"

PROJECT NO. B-4929  
PENDER COUNTY  
 STATION: 38+13.81 -L2-



DocuSigned by:  
 Jason R. Doughty  
 00F1C86448274F7...

**PARSONS BRINCKERHOFF**  
 434 FAYETTEVILLE STREET  
 SUITE 1500  
 RALEIGH, NC 27601  
 LICENSE NO. F-0165

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH  
 SUPERSTRUCTURE  
 INTERMEDIATE  
 STEEL DIAPHRAGMS  
 FOR F.I.B. PRESTRESSED  
 CONCRETE GIRDERS

REVISIONS						SHEET NO. S-105
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS 278
2			4			

**DOCUMENT NOT CONSIDERED FINAL  
 UNLESS ALL SIGNATURES COMPLETED**

5/10/2016 400\_207\_B4929\_SMU\_PCGD1.dgn

DESIGNED BY: BJL/JDB DATE: OCT 2015  
 DRAWN BY: K. WHITE DATE: OCT 2015  
 CHECKED BY: J. SHERMAN DATE: MAR 2016  
 DESIGN ENGINEER OF RECORD: J. DOUGHTY DATE: MAY 2016