

6"X ½"₽— SEE TABLE FOR

LENGTH "L" (TYP.)

SECTION A-A

BOLT THROUGH -DTI (TYP.) - HARDENED WASHER (TYP.) -HARDENED WASHER (TYP.) NUT (TURNED ELEMENT)

BOLT WITH DTI ASSEMBLY DETAIL

CONNECTOR PLATE DETAIL L 8 X 6 X $\frac{1}{2}$ OR $\frac{1}{2}$ SEE TABLE FOR LENGTH "L" (TYP.) −Ç 1″∅ H.S.BOLT AND 2 HARDENED WASHERS (TYP.)

CONNECTION DETAILS

-Ĺ 1/8″Ø H.S. BOLT, ─

2 HARDENED WASHERS AND DTI (TYP.)

 $-L 3 X 3 X \frac{5}{16}$

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 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	DIM "A"	DIM "B"	DIM "C"	DIM "L"
72" BULB TEE	2'-2"	1'-43/8"	1'-43/8"	4'-2''

R-5605 PROJECT NO._ TRANSYLVANIA COUNTY STATION: 36+73.00 -L-

14309 BY:

FOR BOLT CONNECTION
-SEE TYPICAL BOLT WITH

DTI ASSEMBLY DETAIL

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION STANDARD INTERMEDIATE STEEL DIAPHRAGMS FOR 63'' & 72'' MODIFIED BULB TEE PRESTRESSED CONCRETE GIRDERS

SHEET NO REVISIONS S-9 NO. BY: DATE: DATE: TOTAL SHEETS

Mattern & Craig FIRM LICENSE No. C-1154 12 BROAD STREET ASHEVILLE, NORTH CAROLINA 28801 (828) 254-2201 - FAX (828) 254-4562 Steven A. Campbell 12/21/2015

SECTION B-B

CHECKED BY: CMT DATE: 8/15 ADDED II/23/09R DRAWN BY: RWW II/09 MAA/GM REV. IO/I/II CHECKED BY : GM II/09

ASSEMBLED BY: PFC

DATE: 8/15