GENERAL NOTES

CONSTRUCTION SPECIFICATIONS

1. ALL MATERIAL AND CONSTRUCTION TO BE IN ACCORDANCE WITH THE 2011 STATE OF VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION WITH ITS LATEST REVISIONS, AND THE 2012 AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS WITH 2013 REVISIONS.

MATERIAL SPECIFICATIONS

1. ALL STRUCTURAL STEEL TO BE AASHTO M270 (ASTM A709) GRADE 50, UNLESS NOTED.

2. MATERIAL NOTED "T2" ON DETAIL DRAWINGS SHALL BE CHARPY V-NOTCH TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF VERMONT STANDARD SPECIFICATIONS SECTION 714.01.

3. HIGH STRENGTH BOLTS SHALL BE 7/8" DIAMETER, ASTM A325 (TYPE 1) MECHANICALLY GALVANIZED, IN 15/16" DIAMETER HOLES. NUTS SHALL BE A563 (TYPE 1) GRADE C3 MECHANICALLY GALVANIZED, WASHERS SHALL BE F436 (TYPE 1) MECHANICALLY GALVANIZED AND DIRECT TENSION INDICATORS (DTI) SHALL BE ASTM F959 (TYPE 1) MECHANICALLY GALVANIZED.

   BOLTS, NUTS & WASHERS SHALL BE ROTATIONAL CAPACITY TESTED. DO NOT MIX BOLTS & NUTS FROM DIFFERENT CONTAINERS UNLESS ALL BOLTS & NUTS HAVE THE SAME LOT NUMBER.

FABRICATION

1. ALL HOLES SHALL BE DRILLED FULL SIZE, UNLESS NOTED.

WELDING

1. THE CONFIGURATION OF THE WELD JOINTS AND ALL WELDING PROCEDURES SHALL BE IN ACCORDANCE WITH AASHTO/AWS D1.5-10 BRIDGE WELDING CODE; IN ADDITION TO THE PROVISIONS OF VERMONT STANDARD SPECIFICATIONS SECTION 506.10. ALL WELDING WILL BE DETAILED TO PRE-QUALIFIED JOINTS, UNLESS PROHIBITED BY THE DESIGNER.
2. WELDING OF MAIN LOAD CARRYING MEMBERS AND ATTACHMENTS SHALL BE PERFORMED USING THE AUTOMATIC SUBMERGED ARC & SHIELDED METAL ARC PROCESSES. SUBMERGED ARC WELDS, WHERE USED, ARE SUBJECT TO TESTING REQUIREMENTS OF AWS D1.5, SECTION 5. ALL WELDS ARE CONTINUOUS, UNLESS NOTED.
3. NON-DESTRUCTIVE TESTING OF WELDS SHALL BE IN ACCORDANCE WITH THE REFERENCED SPECIFICATION.
4. SEE DETAIL "WS1" FOR THE WELD TERMINATION DETAIL.
2. 5. SHOP APPLIED STUDS SHALL BE AUTO END WELDED. SEE DETAIL "SS1".

FIELD CONNECTIONS

1. ALL FIELD CONNECTIONS SHALL BE MADE WITH 7/8" DIAMETER HIGH STRENGTH A325 BOLTS, INSTALLED PER SECTION 506.19(b). BOLTED CONNECTIONS SHALL BE INSTALLED USING THE TURN OF NUT METHOD. REFER TO SECTION 506.19 OF THE 2011 GENERAL SPECIAL PROVISIONS.
2. 2. BOLTS SHALL HAVE A HEAVY HEX HEAD, HEAVY HEX NUT, AT LEAST ONE HARD FLAT WASHER EACH AND DIRECT TENSION INDICATOR (DTI). WASHER TO BE PLACED UNDER THE TURNED ELEMENT.
3. PIECE MARKS WILL BE LOCATED AS SHOWN ON SHEET E1.
2. 4. DTI WASHERS SHALL BE USED IN ALL FIELD BOLTS. DTI SHALL BE POSITIONED IN ACCORDANCE WITH ASTM F959 SPECIFICATIONS. SEE DETAILS "DT1-DT4" THIS SHEET.

CLEANING

1. ALL STEEL SHALL BE BLAST CLEANED IN ACCORDANCE WITH SSPC=VIS 1 (SSPC-SP5)..

METALLIZING:

CLEANING STRUCTURAL STEEL PRIOR TO METALLIZING:

1) ALL CORNERS EXPOSED IN THE ASSEMBLED PRODUCT SHALL BE ROUNDED TO APPROXIMATELY A 3/32 INCH RADIUS PRIOR TO ABRASIVE BLAST CLEANING. A SERIES OF TANGENTS THAT APPROXIMATE A RADIUS MAY BE CONSIDERED AS A ROUNDED EDGE IF THERE ARE NO SHARP BREAKS.

2) SURFACE PREPARATION PRIOR TO METALLIZING SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE REQUIREMENTS OF SSPC-SP5 "WHITE METAL BLAST CLEANING".

3) THE BLAST OPERATION SHALL RESULT IN AN ANCHOR PROFILE OF 3.5-4.5 MILS.

4) SILICA SAND OR STEEL SHOT AND OTHER ABRASIVES PRODUCING ROUNDED SURFACE PROFILES SHALL NOT BE USED TO PRODUCE THE ANCHOR PROFILE.

5) THE AVERAGE SURFACE PROFILE WILL BE DETERMINED AT THE BEGINNING OF THE WORK AS REQUIRED BY THE ENGINEER OR ENGINEER'S REPRESENTATIVE, USING PROFILE DEPTH TAPE AND A MICROMETER. SINGLE MEASUREMENTS LESS THAN 3.5 MILS OR GREATER THAN SPECIFIED MAXIMUM FOR THE METALLIZING SYSTEM USED WILL BE CONSIDERED UNACCEPTABLE.

6) PROFILE TAPE AND MEASUREMENTS SHALL BE SUBMITTED TO THE ENGINEER FOR RECORD.

7) ALL METALLIZING SHALL OCCUR WITHIN 6 HOURS OF COMPLETION OF BLAST CLEANING.

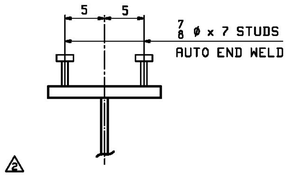
APPLICATION AND MATERIALS:

1) ALL STRUCTURAL STEEL, EXCEPT AS NOTED SHALL BE METALIZED AND SEAL COATED PER SECTION NUMBERS 94-106 OF THE SPECIAL PROVISION "METALLIZING OF STRUCTURAL STEEL" AND THE FABRICATOR APPROVED METALLIZING PROCEDURE. 1

WELD PROCEDURE

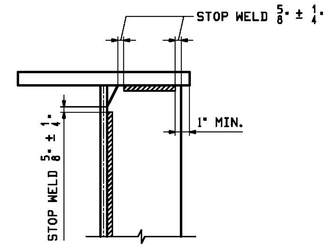
THE FOLLOWING CASCO WELDING PROCEDURES SHALL BE USED:

WELD DESCRIPTION	MAT'L GRADE	WP	CASCO WELD PROC.
GIRDER FLANGE TO WEB FILLET WELDING	M270 GR50	WP1	201
GIRDER STIFFENER TO WEB FILLET WELDING	M270 GR50	WP2	250
GIRDER STIFFENER TO FLANGE FILLET WELDING	M270 GR50	WP3	470 or 480
ALL OTHER FILLET WELDS	M270 GR50	WP4	470 or 610



DETAIL "SS1"

STUD SPACING AND WELDING



DETAIL "WS1"

STIFF. WELD TERMINATION

NOTE TO ENGINEER:
THESE NOTES ARE NOT INTENDED TO BE ALL INCLUSIVE AND COMPLIANCE WITH RELEVANT SPECIFICATIONS REMAIN UNCHANGED.

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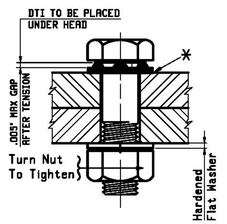
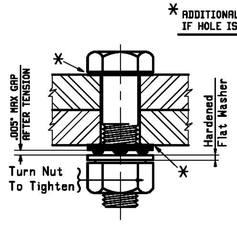
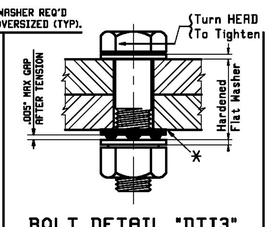
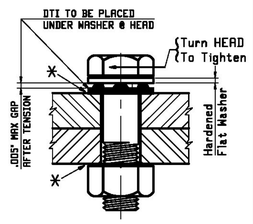
DETAILS FOR POSITIONING DTI (LIW) WASHERS (PER ASTM F-959)

DTI UNDER HEAD - TURN NUT	DTI UNDER NUT - TURN NUT	DTI UNDER NUT - TURN HEAD	DTI UNDER HEAD - TURN HEAD
			
BOLT DETAIL "DTI1"	**BOLT DETAIL "DTI2"**	**BOLT DETAIL "DTI3"**	**BOLT DETAIL "DTI4"**
THIS IS THE PREFERED METHOD.	DTI UNDER NUT FOR VISIBILITY.	DTI UNDER NUT FOR VISIBILITY. 2 HARD FLAT WASHERS ARE REQ'D	DTI UNDER HEAD FOR VISIBILITY.

REV.	DATE	REMARKS	DWN	CHK	APVL	SHOP
2	1/20/2016	APPROVAL COMMENTS	LWD	WJL		
1	12/9	APPROVAL COMMENTS	LWD	WJL		
0						

MATERIAL:	SURFACE PREP. & PRINT:	HOLES:	SHOP BOLTS:

DESCRIPTION: GENERAL NOTES

CASCO BAY STEEL STRUCTURES, INC.
1 WALLACE AVE. PHONE (207) 780-6722
SOUTH PORTLAND, ME 04106 FAX. (207) 780-6726

TENSOR 3354

STRUCTURE:	DRAWN:	DATE:
TH-2 (RIVER ROAD) BRIDGE #10 COUNTY OF ADDISON	LWD	10/20
	CHKD: WJL	DATE: 10/27
LOCATION: TOWN OF NEW HAVEN, VT	JOB NO.	DWG NO.
PROJ NO. BRF 0183 (1)	645	GN1
CUSTOMER: CCS CONSTRUCTORS, INC.		REV. 2

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WJL