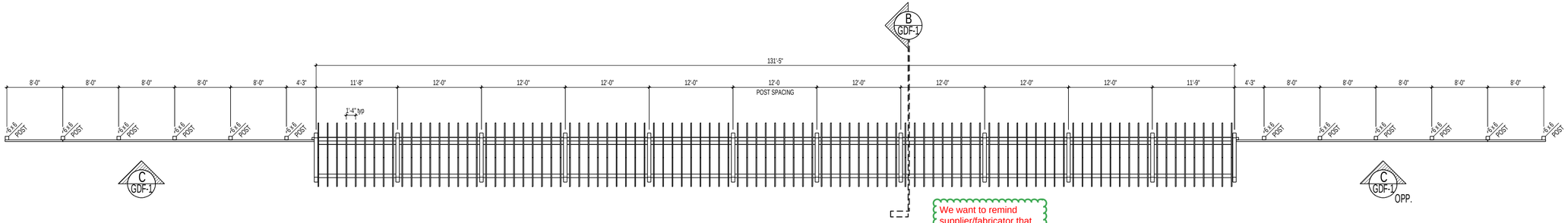


We want to remind supplier/fabricator that All steel brackets, angles, and hardware needs to meet Vtrans certification requirements and the requirements of buy america.

A BRIDGE FRAMING PLAN
SCALE: 1/8" = 1'-0"

IMPORTANT DRYING NOTE:
DRYING WOOD TO 19% MOISTURE CONTENT WILL CAUSE SHRINKAGE AND CHECKING. DRAWINGS SHOW SIZES 1/4" SMALLER THAN NOMINAL SIZE. THIS SIZE IS AN ASSUMED SHRINKAGE AND MAY VARY SLIGHTLY.

Vermont Agency of Transportation

RECEIVED

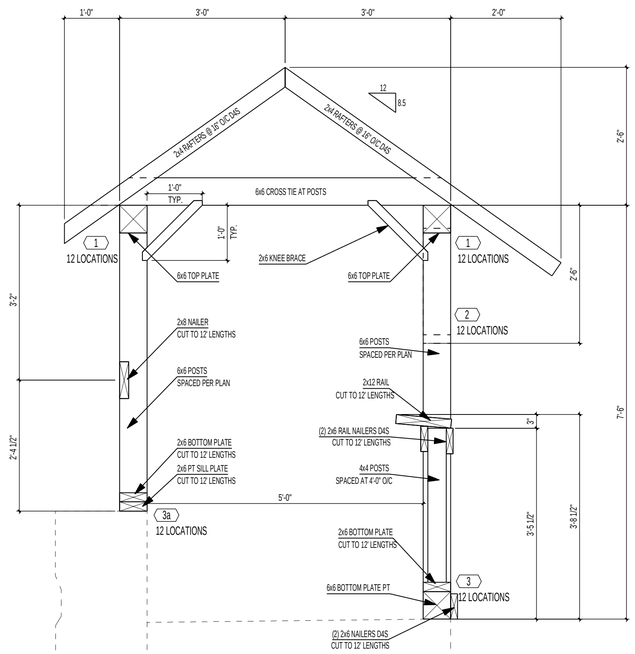
1415-032-U Spruce Peak Bridge for Approval #2_resubmit.pdf

CK'D BY C. BURRALL **OK'D BY** D. PETERSON

March 5, 2015

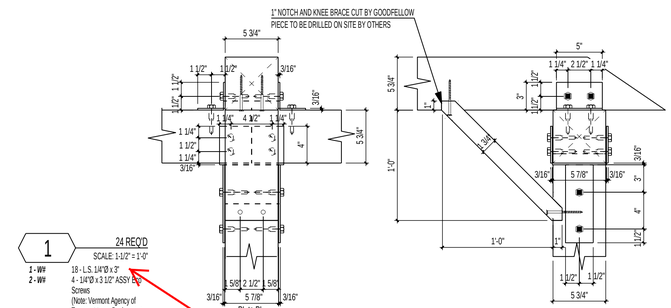
RESUBMIT NO **Approved AsNoted**

BY C. CARLSON **DATE** 03/09/2015



B BRIDGE FRAMING SECTION
SCALE: 3/4" = 1'-0"

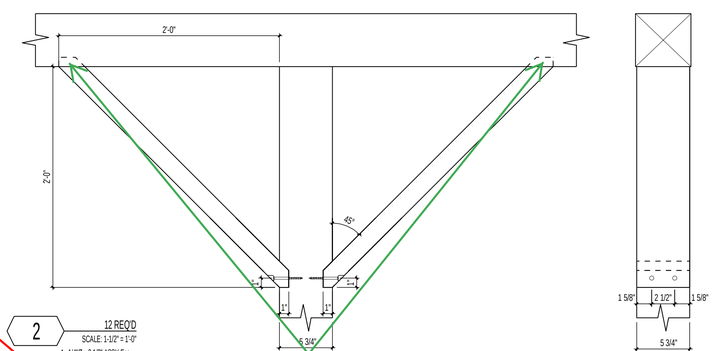
NOTE:
Rafter connections to be as shown on sheets 34 and 35 of Vermont Agency of Transportation drawings. Goodfellow to 2x4 supply rafters without fabrication. Fasteners (nails, screws etc.) are the responsibility of others.



1 — 24 REQ'D
SCALE: 1-1/2" = 1'-0"
2 - W# 18 - L.S. 1/4"Ø x 3"
4 - 1/4"Ø x 3 1/2" ASSY Eco Screws
(Note: Vermont Agency of Transport to confirm/approve size and type.)

Please verify 18 bolts. It seems like there should be 20.

Please provide more information regarding screws like cut sheets showing the material, coating, and whether it meets Buy America.



2 — 12 REQ'D
SCALE: 1-1/2" = 1'-0"
4 - 1/4"Ø x 3 1/2" ASSY Eco Screws
(Note: Vermont Agency of Transport to confirm/approve size and type.)

There should be 2 screws at each of knee brace resulting 4 total screws per knee brace. Therefore for this detail there should be a grand total of 8 screws

SYMBOL:

DETAIL NUMBER
#A = OPPOSITE
POSITION IN PLAN
<L> LOW / <H>HIGH

COLUMN DIMENSION
DETAIL NUMBER
W x t
12c-E
IDENTIFICATION
STRESS GRADE

DIRECTION OF ANCHOR BOLTS

LEGEND:

M.B.-	MACHINE BOLT	T.RD -	THREADED ROD
L.S.-	LAG SCREW	N.S.-	NEAR SIDE
T.R.-	TIMBER RIVET	F.S.-	FAR SIDE
D.R.-	DRIFT PIN	B.S.-	BOTH SIDE
S.R.-	SPLIT RING	W-	WELDED CONNECTION
SH.PL.-	SHEAR PLATE	PL.-	PLATE
C.W.-	CUT WASHER	CHFR.-	CHAMFER
PL.W.-	PLATE WASHER	C.B.-	COUNTERBORE
L-	ANGLE	T.B.-	TURNBUCKLE

CONTRACTOR, JOBSITE AND OWNER **NOTES:**

1) UNLOADING OF THE MATERIAL: ALL MATERIALS TO BE UNLOADED BY OTHERS (STEEL, HARDWARE, DECKING, GOODLAM MEMBERS OR OTHER RELATED MATERIALS). THE CONTENTS OF THE TRUCK(S) IS THE RESPONSIBILITY OF THE ON-SITE PERSONNEL. THEREFORE, SUFFICIENT MANPOWER AND PROPER EQUIPMENT MUST BE AVAILABLE ON SITE AT THE TIME OF ARRIVAL OF THE TRUCK(S). DO NOT DROP OR DRAG THE LAMINATED MATERIALS. USE CARE IN HANDLING TO PREVENT DAMAGE TO FINISHED SURFACES; SOFTNERS UNDER CHAINS OR CABLES OR WIDE WEB SLINGS ARE STRONGLY RECOMMENDED TO PREVENT DAMAGES TO THE MATERIAL BEING DELIVERED. GOODFELLOW INC. WILL NOT BE RESPONSIBLE FOR DAMAGES THAT OCCUR AT THE TIME OF UNLOADING.

2) STORAGE OF THE MATERIAL: THE GENERAL CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF THE MATERIALS AT ALL TIMES AFTER RECEPTION OF THE SAID MATERIALS. PREVENT EXCESSIVE DRYING OR WETTING AT ALL TIMES. AVOID AT ALL TIMES OVERLOADING THE STRUCTURE BY STORING MATERIALS ON THE FLOOR AND/OR ROOF STRUCTURE (SUCH AS DECKING, SHEATING OR OTHER MATERIALS).

TO PREVENT WETTING:

A. PROTECT FROM FREE WATER SUCH AS RAIN, SNOW, DEW, SURFACE-PONDED WATER AND/OR ICE.
B. KEEP AWAY FROM MOISTURE SOURCES (EXPOSED GROUND, CONCRETE OR MASONARY FLOORS, AND FRESHLY PLASTERED SURFACES).
C. MAINTAIN ORIGINAL WRAPPINGS, BUT SLIT THE UNDERSIDE TO PREVENT CONDENSATION BUILD-UP.
D. PROMOTE GOOD VENTILATION BY KEEPING PILES ADEQUATELY SEPARATED.

TO PREVENT DRYING:

A. PROTECT FROM EXCESSIVE WARM, DRY AIR CURRENTS.
B. PROTECT FROM DIRECT SUNLIGHT AND ARTIFICIAL HEAT SOURCES (PROPANE OR ELECTRIC HEATERS).
C. KEEPING ORIGINAL WRAPPINGS SEALED, EXCEPT ON THE UNDERSIDE.

WHEN THE LAMINATED OR TIMBER MATERIAL MUST BE STORED AT THE JOBSITE, USE THE SAME CARE AS WITH THE OTHER MILLWORK. PLACE BLOCKS AT LEAST 8" (203mm) OFF THE GROUND AT 4'-0" C/C (1200mm). COVER TOP AND ALL SIDES OF THE BUNDLES WITH WEATHERPROOF COVERING.

3) ERECTION: BEFORE BEGINNING ERECTION, VERIFY ALL FIELD ELEVATIONS, ANCHOR BOLT PLACEMENT, AND DIMENSIONS OF SPANS AND SPACING WITH THE ERECTION PLANS. CUTS, ABRASIONS AND BRUISES CAN BE SUSTAINED DURING ERECTION HOWEVER THESE CAN WEAKEN AND DISFIGURE THE LAMINATED OR HEAVY TIMBER MEMBERS. USE PADDED OR NON-MARRING WEB SLINGS AND PROTECT CORNERS WITH WOOD BLOCKING. LEAVE PROTECTIVE WRAPPING ON THE MEMBERS UNTIL THE DECKING OR SHEATHING IS INSTALLED. IF THE WRAPPING IS REMOVED TEMPORARILY AT CONNECTIONS, REPLACE THEM SECURELY. AFTER MEMBERS ARE ERECTED, THE WRAPPING SHOULD BE SLIT AT POINTS ALONG THE LENGTH AND AT THE SOFFIT END TO PREVENT ACCUMULATION OF RAIN WATER OR ENTRAPPED CONDENSATION. MEMBERS HAVE BEEN DESIGNED AND FABRICATED TO FIT TOGETHER PROPERLY, WITHOUT CUTTING, TRIMMING OR ANY UNAUTHORIZED MODIFICATIONS. DISCREPENCIES MUST BE REPORTED TO THE PROJECT ENGINEER AND/OR ARCHITECT BEFORE ANY MODIFICATIONS ARE MADE. INCLUDED ARE SPECIAL PROCEDURES FOR THE EXPECTED ASSEMBLY PROCESSES WHICH WILL BE USED IN THESE SHOP DRAWINGS.

A. WOOD DECKING: MAKE SURE THAT THE INSTALLATION PATTERN IS RESPECTED. THE QUANTITY OF DECKING SUPPLIED IS BASED ON CALCULATIONS WHICH ARE DESIGNED WITH THE INSTALLATION METHOD DESCRIBED. REFER TO THE INSTALLATION INSTRUCTION ON THE SHOP DRAWINGS.

B. MACHINE BOLTS; THE LENGTHS ARE CALCULATED EXACTLY TO FIT THE APPLICATION. USE THE PROPER MACHINE BOLT DESCRIBED IN THE DETAILS SHOWN IN THE SHOP DRAWINGS. DO NOT OVER TIGHTEN THE BOLTS, THEY SHOULD BE INSTALLED AS A "TIGHT FIT". DO NOT USE ELECTRIC OR AIR IMPACT WRENCHES. AVOID COMPRESSING THE WOOD FIBERS WITH THE STEEL PLATES OR METAL WASHERS. THIS WILL DAMAGE THE WOOD MEMBERS AND CAN AFFECT THE STRUCTURAL STRENGTH OF THESE MEMBERS.

C. LAG SCREWS; THE LAG SCREWS MUST BE INSTALLED WITH A HAND HELD WRENCH, NOT WITH AN ELECTRIC OR AIR IMPACT WRENCH. SOAP OR NON-PETROLEUM-BASED LUBRICANT MAY BE USED TO EASE THE LAG SCREW INSERTION. THE INSTALLATION INSTRUCTION MUST BE STRICTLY FOLLOWED, OR THE LOAD-CARRYING CAPACITY OF THE LAG SCREW WILL BE COMPROMISED.

D. TIMBER RIVETS; TIMBER RIVETS ARE DRIVEN WITH A HAMMER OR SMALL SLEDGEHAMMER UNTIL THE TAPERED HEAD IS FIRMLY SEATED IN THE PRE-DRILLED HOLES IN THE STEEL SIDE PLATES WHILE MAINTAINING A MINIMUM 1/8" (2mm) HEAD PROJECTION ABOVE THE PLATE (SEE THE INSTALLATION PROCEDURE SHOWN IN THESE SHOP DRAWINGS). CARE SHOULD BE TAKEN TO ENSURE THAT THE CONNECTIONS IS CORRECTLY PLACED, AS A COMPLETED CONNECTION IS EXTREMELY DIFFICULT TO REMOVE. DRIVE THE RIVETS IN A SPIRAL CLOCKWISE METHOD. SAFETY GLASSES SHOULD BE WORN TO GUARD FROM PARTICLES OF THE GALVANIZING COATING AND BECAUSE THE HARDENED RIVET CAN BREAK IF STRUCK THE WRONG WAY.

E. IN THE CASE OF UNFAMILIAR CONNECTION METHODS, CONTACT THE ENGINEERING DEPARTMENT OF GOODFELLOW INC. FOR INSTALLATION PROCEDURES.

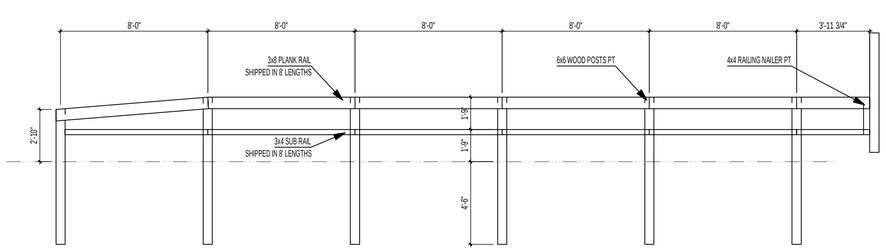
4) PROBLEMS; IN CASE OF FABRICATION ERRORS OR MATERIAL DEFECT, IMMEDIATELY NOTIFY OUR NEAREST SALES OFFICE. GOODFELLOW INC. RESERVES THE RIGHT TO INVESTIGATE AND CORRECT ALLEDGE ERRORS AND/OR DEFECTS. IN THE CASE OF JOBSITE CONSTRUCTION ERRORS, CONTACT THE ENGINEERING DEPARTMENT OF GOODFELLOW.

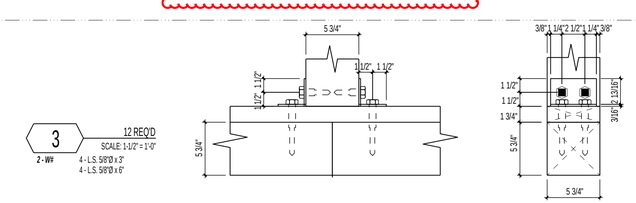
5) MINOR MISFITS AND/OR CORRECTIONS; CORRECTION OF MINOR MISFITS AND A REASONABLE AMOUNT OF DRILLING, CUTTING, REAMING OR RE-ALIGNMENT OF DRIFT PINS, BOLTS OR LAG SCREWS WILL BE CONSIDERED A REGULAR PART OF ERECTION AT NO ADDITIONAL COST TO GOODFELLOW INC. IF ANY CORRECTION IS NEEDED LARGER THAN THE INDUSTRY STANDARD, CONTACT YOUR CLOSEST SALES OFFICE OR THE ENGINEERING DEPARTMENT OF GOODFELLOW INC.

6) SPECIAL CONSIDERATION SHOULD BE MADE TO ALLOW FOR NORMAL DEFLECTION OF THE STRUCTURE. USE SLIP JOINTS WHERE GLASS FRAMING IS CLOSE TO THE WOOD STRUCTURE. VERIFY THAT THE DEFLECTION CRITERIAS REFLECT THE APPLICATION OF THE SURROUNDING MATERIALS.

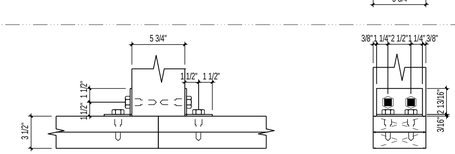
7) REFER TO THE ARCHITECTURAL/ENGINEERING DRAWINGS AND SPECIFICATIONS FOR ANY ADDITIONAL OR OVERRIDING INSTRUCTIONS TO THE PRECEDING INFORMATION.

8) GOODFELLOW INC. IS NOT RESPONSIBLE FOR THE DESIGN OR SUPPLY OF THE TEMPORARY SHORING AND/OR TEMPORARY BRACING OF THE STRUCTURE DURING ERECTION. THE CONTRACTOR OR ERECTOR IS RESPONSIBLE FOR THE SAFE AND PROPER DESIGN AND INSTALLATION OF THE TEMPORARY SHORING AND/OR BRACING. THE STRUCTRAL MEMBERS SHOWN IN THESE SHOP DRAWINGS ARE NOT SELF BRACING AND MUST BE CONSIDERED UNSTABLE UNTIL THE ENTIRE COMPLETED STRUCTURE IS ERECTED WITH ALL THE MEMBERS AND DECKING OR SHEATHING. GOODFELLOW INC. WILL NOT BE HELD RESPONSIBLE FOR DAMAGES OR INCIDENTS THAT OCCUR DURING THE ERECTION OF THE STRUCTURE. ACCEPTANCE OF THESE SHOP DRAWINGS IS THE PROOF THAT THE CONTRACTOR ACCEPTS ALL THE ABOVE MENTIONED ITEMS.





3 — 12 REQ'D
SCALE: 1-1/2" = 1'-0"
2 - W# 4 - L.S. 5/8"Ø x 3"
4 - L.S. 5/8"Ø x 6"



3a — 12 REQ'D
SCALE: 1-1/2" = 1'-0"
2 - W# 8 - L.S. 5/8"Ø x 3"

FOR APPROVAL
NOT FOR CONSTRUCTION

This drawing is the property of GOODFELLOW and must not be used or copied without their written permission.
WARNING: GOODFELLOW is not responsible for the design check of the components shown on this drawing with respect to the application of erection forces.

HEAVY TIMBER SPECIFICATION

SPECIES: EASTERN SPRUCE (TREATED CCA WHERE INDICATED)	
STRESS GRADE: NO.1 AND BETTER	
APPEARENCE GRADE: ROUGH U.N.O.	
SPECIAL NOTE #1: TIMBER SURFACE DRIED TO 19% (SEE DRYING NOTE)	
BUNDLE WRAPPED	NO SHOP APPLIED STAIN

CONNECTING STEEL SPECIFICATION

CONNECTION SPEC.:	A36 (CSA G40.21M - 300W) (meets or exceeds ASTM A36-36)
WELDING IN ACCORDANCE WITH AWS D1.1	
CONNECTING HARDWARE SPEC.:	ASTM-A-307 U.N.O.
COATING: GALVANIZED	

REV.#	DESCRIPTION	DATE	BY
#3	**********	**********	
#2	FOR REVIEW & APPROVAL	4 March 2015	JR
#1	FOR REVIEW & APPROVAL	10 February 2015	JR

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Fax: (450) 635-8304
ISO 9001:2008
ISO 9001:2008; BS EN ISO 9001:2008; ANSI/ASQ Q9001:2008

CLIENT:
CCS Constructors
PROJECT NAME:
Spruce Peak Bridge
DRAWING TITLE
ERECTION DRAWINGS - PLANS

Drawn By: JR | Verified By: AC
Project no.: 1415-032-U // G-40856
GDF-1