

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

Vermont Agency of Transportation  
**RECEIVED**  
CK'D BY M. LONGSTREET OK'D BY D. PETERSON  
February 13, 2015  
RESUBMIT YES Rejected  
BY C. CARLSON DATE 02/25/2015

SEE ATTACHED SHEETS FOR REVISED FRAMING. (BASED ON CONTRACTOR PROPOSAL TO USE DOUBLE SILL PLATES.)

DID NOT SEE ANY DETAIL FOR RAFTER CONNECTIONS.

TWO BOLTS/ SCREWS AT ALL KNEE BRACE CONNECTIONS

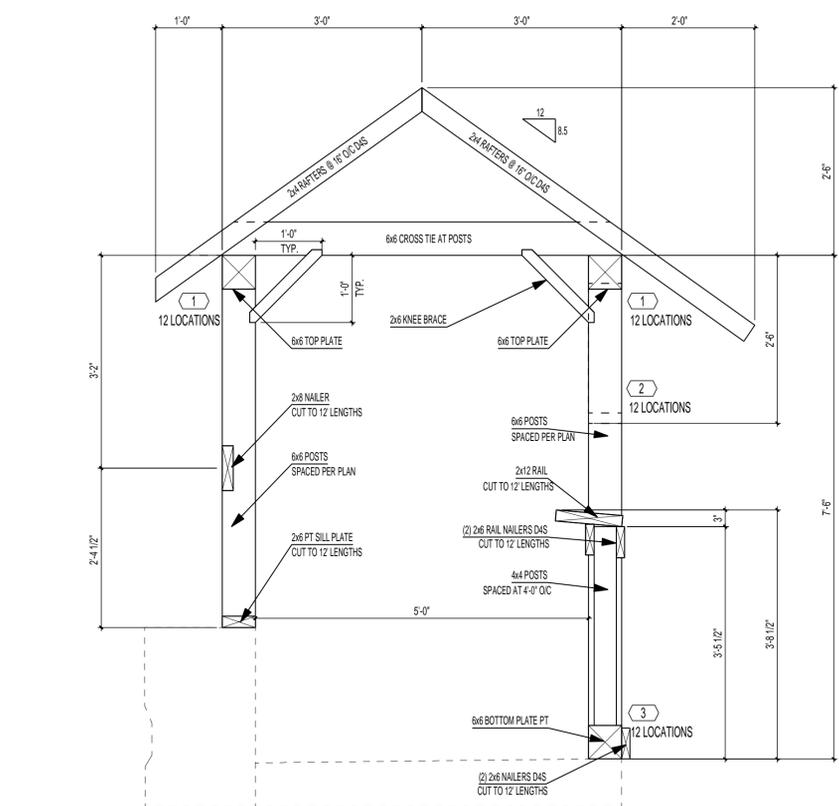
THERE MAY BE ISSUES WITH CURRENT BRACE DESIGN OVER TIME

Not sure how to improve, are they seeing a sizing issue or a connection issue? Full sawn 2x6 should have enough girth for the 1x1' brace if the bracing distance if increased to 1.5x1.5' there would be increased bracing capacity but we loose some head room.

15) ALL 1/4" LAG BOLTS SHALL BE ZINC PLATED, HEX HEAD LAG SCREWS WITH A 3/4" WASHER, OR EQUIVALENT STRUCTURAL WOOD SCREW.

WOOD SCREWS WOULD BE EASIER FOR INSTALLATION  
WOOD SCREWS ACCEPTABLE BUT USE 2 AT EACH END.

ADD ANGLES TO BARRIER WALL SIDE COLUMNS TOO. 24 TOTAL LOCATIONS. FOR BARRIER SIDE USE 5/8" X 3" LAG BOLTS. ON FASCIA SIDE USE 5/8" X 6" LAG BOLTS.



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

**CONTRACTOR, JOBSITE AND OWNER NOTES:**

1) UNLOADING OF THE MATERIAL: ALL MATERIALS TO BE UNLOADED BY OTHERS (STEEL, HARDWARE, DECKING, GOODLUM 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: SOFTENERS 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, SHEATHING 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 MASONRY 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" (1219mm) INTERVALS. 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 DISPIRE THE LAMINATED OR HEAVY TIMBER MEMBERS. USE PADDED OR NON-ABRASIVE WEB SLINGS AND PROTECT CORNERS WITH WOOD BLOCKING. LEAVE PROTECTIVE WRAPPINGS 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. DISCREPANCIES 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.

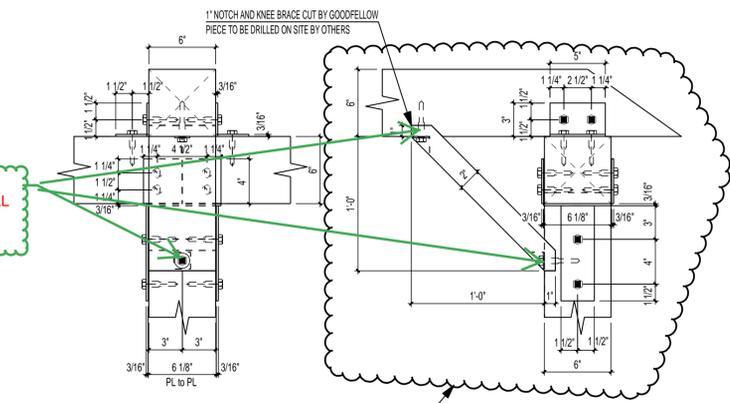
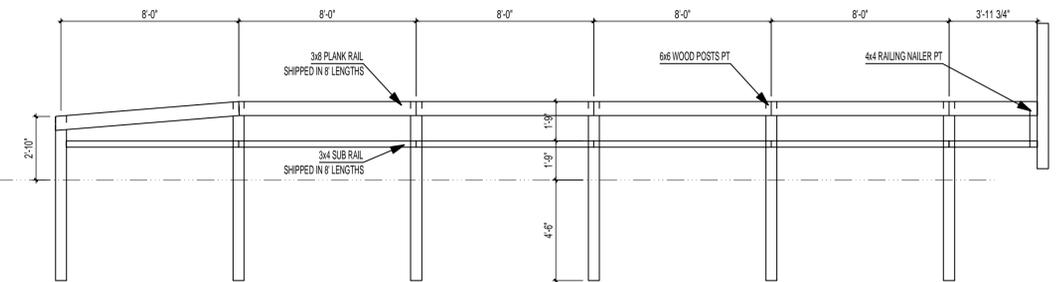
4) PROBLEMS: IN CASE OF FABRICATION ERRORS OR MATERIAL DEFECT, IMMEDIATELY NOTIFY OUR NEAREST SALES OFFICE. GOODFELLOW INC. RESERVES THE RIGHT TO INVESTIGATE AND CORRECT ALLEGE ERRORS AND/OR DEFECTS. IN THE CASE OF JOBSITE CONSTRUCTION ERRORS, CONTACT THE ENGINEERING DEPARTMENT OF GOODFELLOW.

5) MINOR MISFITS AND/OR CORRECTIONS: CORRECTION OF MINOR MISFITS AND A REASONABLE AMOUNT OF DRILLING, CUTTING, REAMING OR REALIGNMENT 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.

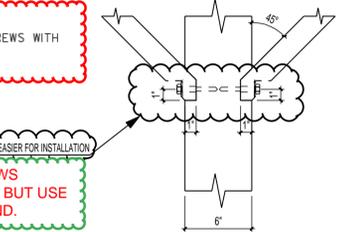
6) SPECIAL CONSIDERATION SHOULD BE MADE TO ALLOW FOR NORMAL DEFLECTION OF THE STRUCTURE. USE SLIP JOINTS WHERE GLASS FRAMING IS CLOSE TO THE WOOD STRUCTURE. VERIFY THAT THE DEFLECTION CRITERIA REFLECT THE APPLICATION OF THE SURROUNDING MATERIALS.

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

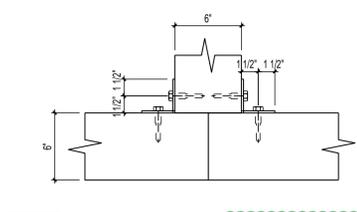
8) GOODFELLOW INC. IS NOT RESPONSIBLE FOR THE DESIGN OR SUPPLY OF THE TEMPORARY SHORING AND/OR TEMPORARY BRACING OF THE STRUCTURE DURING ERECTION. THE CONTRACTOR OR ERECTOR IS RESPONSIBLE FOR THE SAFE AND PROPER DESIGN AND INSTALLATION OF THE TEMPORARY SHORING AND/OR BRACING. THE STRUCTURAL MEMBERS SHOWN 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.



**1**  
SCALE: 1/12" = 1'-0"  
24 REQ  
1-# 18-LS 1/4"Ø x 3"  
2-# 2-LS 1/4"Ø x 3 1/2"  
2-CW 1/4"Ø



**2**  
SCALE: 1/12" = 1'-0"  
12 REQ  
2-LS 1/4"Ø x 3 1/2"  
2-CW 1/4"Ø



**3**  
SCALE: 1/12" = 1'-0"  
12 REQ  
2-# 8-LS 1/4"Ø x 3"

**SYMBOL:**

DETAIL NUMBER  
#A = OPPOSITE  
POSITION IN PLAN  
-L- LOW / -H- HIGH  
COLUMN DIMENSION  
DETAIL NUMBER  
IDENTIFICATION  
STRESS GRADE  
DIRECTION OF ANCHOR BOLTS

**LEGEND:**

M.B.	MACHINE BOLT	T.R.D.	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

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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

APPEARANCE GRADE: ROUGH U.N.O.

SPECIAL NOTE #1: GREEN TIMBERS (M.C. OF 19% +)

BUNDLE WRAPPED NO SHOP APPLIED STAIN

**CONNECTING STEEL SPECIFICATION**

A36 (CSA G40.21M - 300M)  
(meets or exceeds ASTM A36-96)

WELDING IN ACCORDANCE WITH AWS D1.1

CONNECTING HARDWARE SPEC.: ASTM-A307 U.N.O.

COATING: GALVANIZED

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

**GOODFELLOW**  
THE WOOD SPECIALIST  
www.goodfellowinc.com

GOODLAM  
ISO 9001:2008

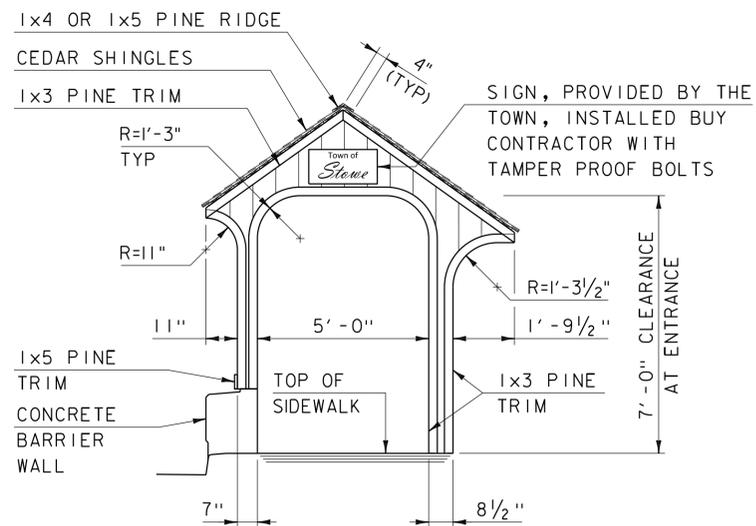
225 Rue Goodfellow  
Delson, Quebec  
Tel.: (450) 635-6511  
Fax: (450) 635-8304

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

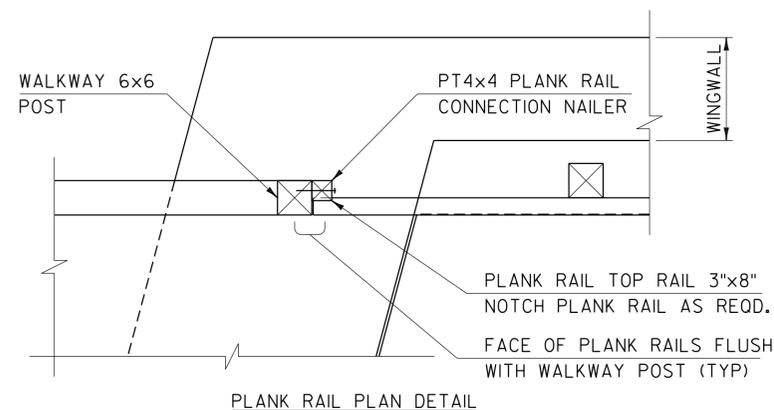
**GDF-1**

**FOR APPROVAL  
NOT FOR CONSTRUCTION**

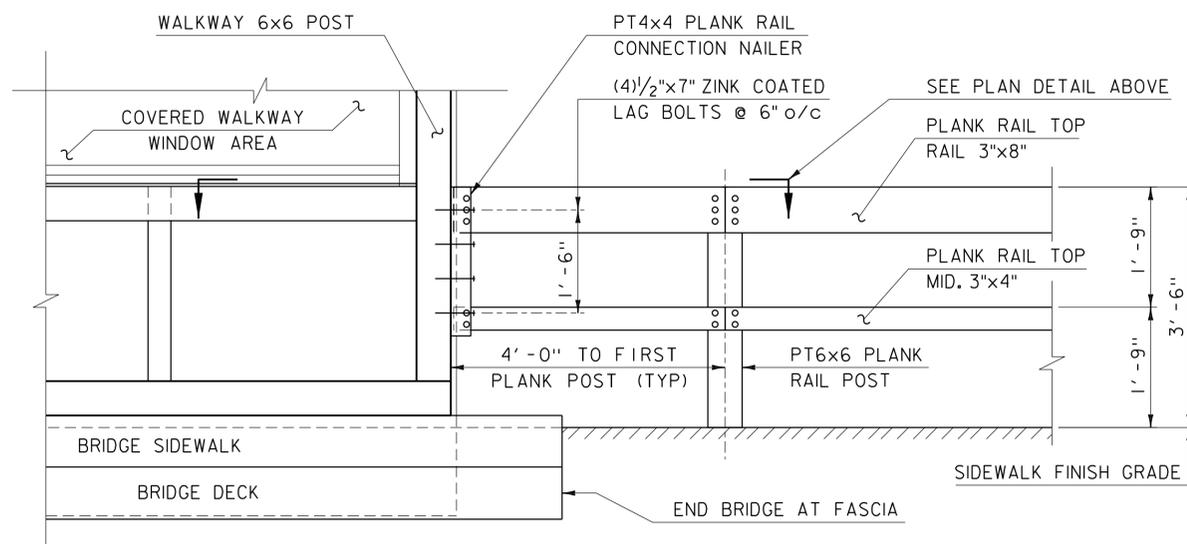


**ELEVATION A-A**

SCALE: 3/8" = 1'-0"



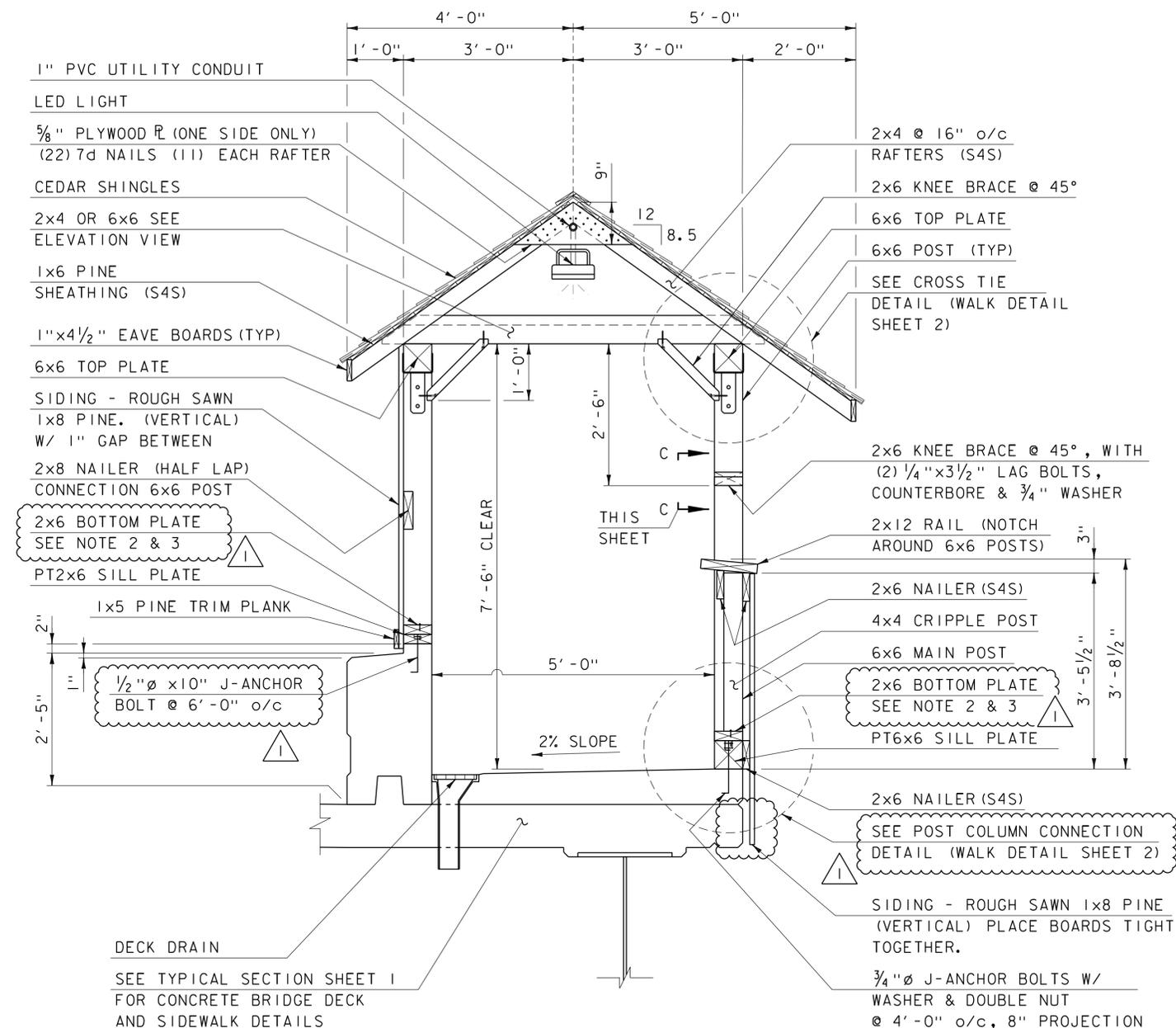
PLANK RAIL PLAN DETAIL



**PLANK RAIL CONNECTION DETAIL**

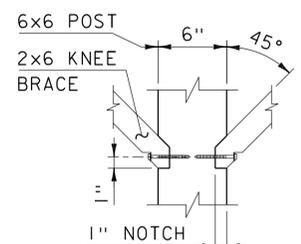
SCALE: 3/4" = 1'-0"

- 1) PLANK RAIL WILL BE PAID FOR UNDER CONTRACT ITEM 621J5.
- 2) THE PT4x4 AND (4) 1/2x7" LAG BOLTS WILL BE INCLUDED IN THE COVERED WALKWAY SPECIAL PROVISION ITEM.



**SECTION B-B**

SCALE: 3/4" = 1'-0"



**SECTION C-C**

SCALE: 1 1/2" = 1'-0"

- 1) SEE WALK FRAMING PLAN & ELEVATIONS SHEET FOR ADDITIONAL NOTES AND CONNECTIONS REQUIREMENTS.
- 2) ATTACH 2x6 BOTTOM PLATE TO PT2x6 AND PT6x6 SILL PLATE(S) WITH (2) 3" LONG STRUCTURAL WOOD SCREWS AT 16" o/c (TYP)
- 3) COLUMN TO SILL PLATE ANGLE CONNECTOR SHALL BE STRONG-TIE DOUBLE STUD PLATE (DSP), 18-GUAGE, HOT-DIP GALVANIZED (PER ASTM A653), OR EQUIVALENT CONNECTOR. USE FASTENERS PER MFR RECOMENDATIONS. SEE "POST COLUMN CONNECTION DETAIL" ON "WALK DETAIL SHEET 2" FOR LOCATIONS AND DETAILS.

REVISION	DATE	DESCRIPTION	BY
1	02-20-2015	USE DOUBLE SILL BOTTOM PLATE ADD SILL CONNECTORS PLATE	MCL

NOTE: DIMENSION IN INCHES UNLESS OTHERWISE NOTED.

PROJECT NAME:	STOWE	PLOT DATE:	20-FEB-2015	
PROJECT NUMBER:	BRF 0235 (II)	DRAWN BY:	M. LONGSTREET	
FILE NAME:	s87e052walk.dgn	DESIGNED BY:	D. PETERSON	
PROJECT LEADER:	C. CARLSON	WALK DETAIL SHEET 1	CHECKED BY:	J. LACROIX
		SHEET 34 OF 64		

