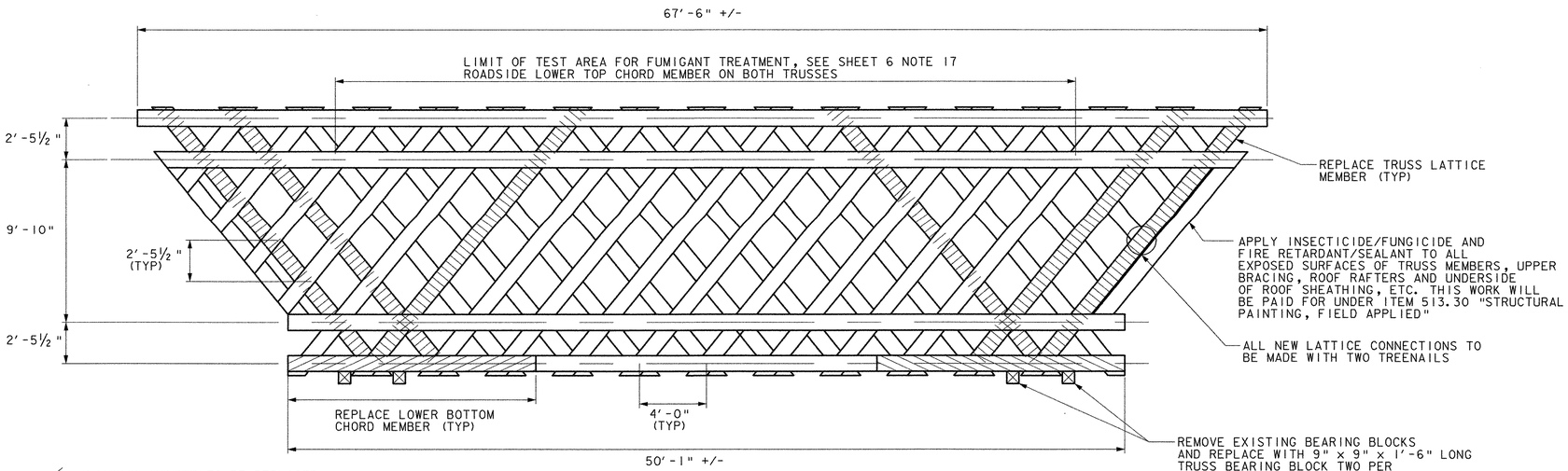


TYPICAL ELEVATION

SCALE: ¼" = 1'

TRUSS REHABILITATION NOTES:

1. THE CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS TO ENSURE THAT THE TRUSSES REMAIN STABLE AND THAT NO MEMBER IS SUBJECT TO LOADS BEYOND THOSE NORMALLY EXPECTED UNDER DEAD LOAD. THE WORK AND MATERIALS REQUIRED TO SATISFY THIS REQUIREMENT SHALL NOT BE PAID FOR AS A SEPARATE ITEM BUT SHALL BE CONSIDERED SUBSIDIARY TO THE TO THE ITEMS BELOW.

2. REMOVE ENTIRE LOWER BOTTOM CHORD FROM ONE TRUSS. INSTALL THE FLOORBEAMS WITH TEMPORARY SUPPORT AS NEEDED. REPLACE END SECTIONS OF BOTH TRUSSES AS DETAILED ON THIS SHEET AND REINSTALL LOWER CHORD MEMBER. THE WORK TO REMOVE AND REINSTALL THE LOWER BOTTOM CHORD MEMBER WILL BE PAID FOR UNDER ITEM 522.20 "STRUCTURAL LUMBER - UNTREATED BOTTOM CHORD." EXISTING TREENAILS SHALL BE REMOVED IN A MANNER THAT DOES NOT DAMAGE THE SURROUNDING MATERIAL. ALL CHORD CONNECTIONS WILL BE REMADE WITH FOUR TREENAILS AS ARRANGED IN THE ORIGINAL STRUCTURE. THE WORK AND MATERIALS TO REMAKE THE TREENAIL CONNECTIONS WILL BE PAID FOR UNDER ITEM 507.19 "MECHANICAL BAR CONNECTOR (MODIFIED)" (EA). SEE SPECIAL PROVISIONS.

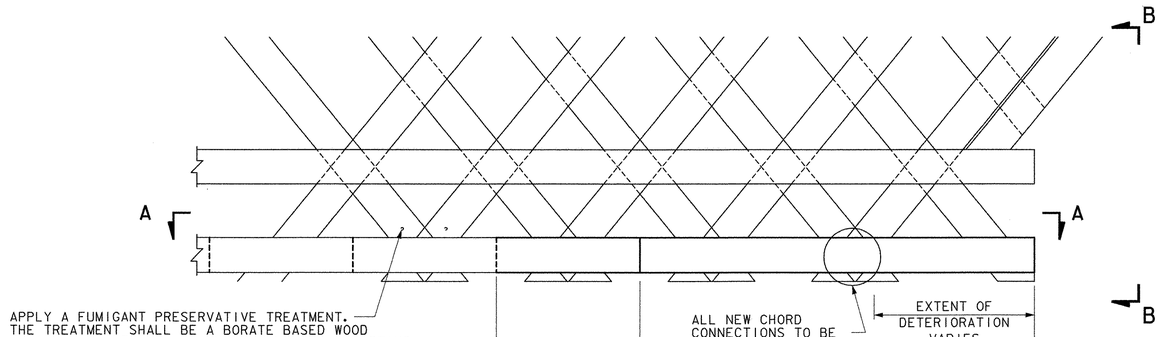
3. REMOVE AND REPLACE 6 LATTICE MEMBERS ON EACH TRUSS (12 TOTAL). WORK AND MATERIAL TO ACCOMPLISH LATTICE REPLACEMENT SHALL BE PAID UNDER ITEM 522.20 "STRUCTURAL LUMBER AND TIMBER - UNTREATED LATTICE." NO MODIFICATIONS OF THE EXISTING TRUSS MEMBERS WILL BE MADE TO FACILITATE THE PLACEMENT OF NEW MEMBERS. A PORTION OF THE ROOF MAY BE TEMPORARILY REMOVED TO FACILITATE MEMBER REPLACEMENT. QUANTITIES FOR THIS PROCEDURE HAVE BEEN INCLUDED IN THE ITEMS AS DESCRIBED IN GENERAL NOTES 12 AND 13 (SEE SHEET 6). ALL NEW CONNECTIONS WILL BE REMADE WITH TREENAILS AS ARRANGED IN THE ORIGINAL STRUCTURE. THE WORK AND MATERIALS TO REMAKE THE TREENAIL CONNECTIONS WILL BE PAID FOR UNDER ITEM 507.19 "MECHANICAL BAR CONNECTOR (MODIFIED)" (EA). SEE SPECIAL PROVISIONS.

4. EXISTING SISTER MEMBERS AND SPLICED MEMBERS SHALL REMAIN. BOLTS AND/OR TREENAILS IN THESE MEMBERS SHALL NOT BE REMOVED.

5. COMPLETE THE FUMIGANT PRESERVATIVE TREATMENT AT ENDS OF THE TRUSS MEMBERS. THE WORK AND MATERIAL FOR THIS WILL BE PAID UNDER ITEM 513.30 "STRUCTURAL PAINTING - FIELD APPLIED." SEE SPECIAL PROVISIONS.

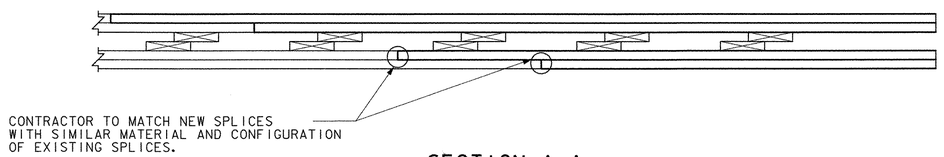
6. APPLY INSECTICIDE/FUNGICIDE TO ALL EXPOSED SURFACES OF THE TRUSSES TOP CHORD BRACING, THE RAFTERS, ROOF SHEATHING, ETC. COATING A OR B (SEE SPECIAL PROVISIONS) SHALL BE USED FOR THIS COAT. APPLICATION RATE SHALL BE AS SPECIFIED IN MANUFACTURER'S SPECIFICATIONS. AFTER PROPER CURING TIME A FIRE RETARDANT/SEALER SHALL BE APPLIED TO THE SAME SURFACES. THIS COAT SHALL BE COATING #1 OR #2 (SEE SPECIAL PROVISIONS). THE WORK AND MATERIALS FOR THIS SHALL BE PAID FOR UNDER ITEM 513.30 "STRUCTURAL PAINTING - FIELD APPLIED." THE ENGINEER MAY REQUEST, AT THE TIME OF APPLICATION, THAT EITHER OF THE ABOVE COATINGS BE REAPPLIED TO AREAS WHERE APPROPRIATE COVERAGE WAS NOT ACHIEVED IN THE INITIAL APPLICATION.

7. ITEM 502.10 "SHORING SUPERSTRUCTURE (MODIFIED)" SHALL BE USED TO STRAIGHTEN THE TRUSSES. SEE SPECIAL PROVISIONS. THE CALCULATIONS AND DETAILS SHALL INCLUDE INFORMATION AND METHODS FOR REPAIRING/STRENGTHENING THE EXISTING BRACING ('A' BRACE, UPPER SWAY BRACING, KNEE BRACE) CONNECTIONS. THE CONTRACTOR SHALL NOT REPLACE OR MODIFY ANY MEMBER OR ELEMENT THAT HAS NOT BEEN SPECIFIED IN THESE PLANS UNLESS FIRST APPROVED BY THE ENGINEER. CONNECTIONS, MEMBERS OR ELEMENTS OF THE BRACING MAY BE TEMPORARILY REMOVED PROVIDED THEY ARE REINSTALLED AT THE SAME LOCATION AND CONNECTIONS REMADE IN THE MANNER OF THE EXISTING CONNECTION. SEE TRUSS MISALIGNMENT DETAIL SHEET 9.



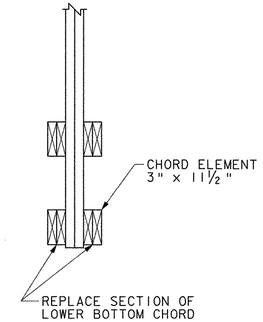
TYPICAL BOTTOM CHORD REPAIRS

SCALE: ½" = 1'



SECTION A-A

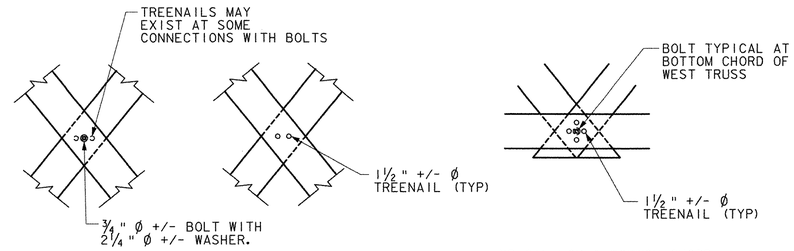
SCALE: ½" = 1'



SECTION B-B

SCALE: ½" = 1'

THE EXTENT OF THE DETERIORATION OF THE LOWER BOTTOM CHORD ELEMENTS IS UNKNOWN. THIS REPAIR DETAIL SHALL BE USED AT THE FOUR CORNERS OF THE BRIDGE. THE DETAILS SHOWN INDICATE MINIMUM LENGTHS FOR REPLACEMENT. SPLICE LOCATIONS AT OPPOSITE ENDS TO BE VARIED TO PROVIDE REQUIRED MINIMUM LENGTH OF EXISTING MEMBER. AT THE DIRECTION OF THE ENGINEER, THE LENGTHS MAY BE EXTENDED SHOULD THE DETERIORATION BE GREATER THAN ESTIMATED. SHOULD DETERIORATION BE FOUND ON OTHER CHORD MEMBERS THIS DETAIL SHALL BE USED AS A BASIS FOR THE REPAIR. THE ENGINEER SHALL DETERMINE WHETHER OR NOT THE DETERIORATION REQUIRES REPLACEMENT OF A PORTION OF THE MEMBER. THE MINIMUM LENGTH OF ANY REPLACED ELEMENT (3" x 11½") IS 8'. THE MINIMUM LENGTH OF ANY CHORD ELEMENT TO REMAIN IS 8'.
ALL NEW CONNECTIONS WILL BE MADE WITH TREENAILS



TYPICAL LATTICE CONNECTIONS

TYPICAL TOP & BOTTOM CHORD

ALL NEW CONNECTIONS FOR INSTALLING OR REPLACING TRUSS MEMBERS WILL BE MADE WITH TREENAILS. INSTALLATION SHALL BE DONE IN SUCH A MANNER SO AS TO NOT DAMAGE THE SURROUNDING MATERIAL. THE TREENAILS SHALL BE WHITE OAK. EXISTING TREENAILS REMOVED FOR ANY REASON SHALL NOT BE REUSED BUT SHALL BE REPLACED WITH NEW TREENAILS. ANY OPEN HOLE DUE TO THE REMOVAL OF A BOLT AT A CONNECTION SHALL BE FILLED WITH A DOWEL OF OF THE SAME DIAMETER AS THE HOLE. ALL BOLTS REMOVED DURING DISASSEMBLY AND REPLACEMENT OF THE CHORD AND LATTICE MEMBERS SHALL NOT BE REINSTALLED BUT SHALL BE REPLACED BY TREENAILS.

TYPICAL CONNECTIONS

SCALE: ½" = 1'

Lichtenstein
Consulting Engineers

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of PITTSFORD, VT	Bridge No. 31
	Log Sta.
Highway No. ELM STREET (TH13)	Surv. Sta.
COOLEY COVERED BRIDGE REHABILITATION	
TRUSS REPAIR DETAILS	
Designed By J. MESSIER	Drawn By J. MESSIER
Checked By Date E. ALLEN RANDALL 01/03/03	Bridge Design Supervisor Date
PROJECT PITTSFORD	PROJECT NO. BHO 1443(36)
I.G.C. Info.	
Bridge Sheet No.	Sheet 8 of 15

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