

# GENERAL NOTES

## GENERAL

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO STATE OF VERMONT, AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, DATED 2006 AND ITS REVISIONS AND THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 17TH EDITION DATED 2002 AND ITS LATEST REVISIONS. WOOD CONSTRUCTION SHALL ALSO CONFORM TO THE NATIONAL DESIGN SPECIFICATION (NDS) AND SUPPLEMENT FOR WOOD CONSTRUCTION AND THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION MANUAL (AITC).
2. DESIGN OF THE REHABILITATED STRUCTURE IS FOR A 12,500 POUND TWO AXLE TRUCK.
3. BRIDGE 66 WILL BE CLOSED TO ALL PEDESTRIAN AND VEHICULAR TRAFFIC DURING CONSTRUCTION. OFF PROJECT DETOUR SIGNING SHALL BE THE RESPONSIBILITY OF THE TOWN OF WEATHERSFIELD.
4. THE COSTS OF INSTALLING, MAINTAINING AND REMOVING ALL TEMPORARY CONSTRUCTION SIGNS AND BARRICADES WILL BE PAID FOR UNDER ITEM 641.10 TRAFFIC CONTROL.
5. ALL DIMENSIONS ARE HORIZONTAL OR VERTICAL AND ARE GIVEN AT 68 DEGREES FAHRENHEIT UNLESS OTHERWISE NOTED.
6. ANY EXISTING SIGNS TO BE REMOVED SHALL BECOME THE PROPERTY OF THE TOWN OF WEATHERSFIELD. THESE SIGNS SHALL BE STOCK PILED ON THE PROJECT AND THEN LOADED ON A TRUCK SUPPLIED BY THE TOWN. CONTACT ROAD FOREMAN WESTLEY HAZELTINE AT (802) 263-5272.
7. THE CONTRACTOR SHALL AVOID UNNECESSARY DISASSEMBLY OF THE TOWN LATTICE TRUSSES. ONLY THE JOINTS THAT MUST BE DISASSEMBLED TO EFFECT REPAIRS SHALL BE DISASSEMBLED. AT NO POINT DURING CONSTRUCTION SHALL THE TRUSSES BE DISASSEMBLED TO THE EXTENT THAT THE EXISTING GEOMETRY AND MEMBER LOCATION IS LOST. THE COST OF ANY WORK REQUIRED TO RESTORE EXISTING GEOMETRY OR LOCATION OF INDIVIDUAL MEMBERS DUE TO DISASSEMBLY OF THE BRIDGE WILL BE INCIDENTAL TO THE ITEM "PARTIAL REMOVAL OF STRUCTURE".
8. ALL DIMENSIONS SHOWN ON THE PLANS SHALL BE CHECKED IN THE FIELD PRIOR TO COMMENCING THE WORK. ACTUAL WORK WILL MATCH FIELD CONDITIONS.
9. IF THE CONTRACTOR REHABILITATES THE BRIDGE IN ITS CURRENT LOCATION BY JACKING AND SHORING WITH A TEMPORARY FALSEWORK SYSTEM, THE CONTRACTOR SHALL SUBMIT PLANS AND DESIGN CALCULATIONS FOR THE PROPOSED TEMPORARY STRUCTURE TO THE ENGINEER FOR APPROVAL. APPROVAL IS REQUIRED BEFORE COMMENCEMENT OF WORK. THIS WORK SHALL BE PAID UNDER ITEM 502.10 SHORING SUPERSTRUCTURE.
10. IF THE CONTRACTOR MOVES THE BRIDGE FROM ITS CURRENT LOCATION TO A STAGING AREA FOR REHABILITATING, ALL COSTS INVOLVED IN MOVING TO AND SHORING IN A TEMPORARY LOCATION AND REINSTALLING IN ITS FINAL LOCATION WILL BE CONSIDERED INCIDENTAL TO ITEM 502.10 SHORING SUPERSTRUCTURE. THE CONTRACTOR SHALL SUBMIT PLANS AND SEQUENCE OF WORK FOR APPROVAL PRIOR TO COMMENCEMENT OF WORK.
11. THE EXISTING COVERED BRIDGE SHALL BE STRAIGHTENED AND REALIGNED SO AS NOT TO BE RACKED OR TIPPING. A POSITIVE RESIDUAL CAMBER IS DESIRED ONCE THE BRIDGE IS COMPLETED UP TO A MAXIMUM CAMBER OF THREE INCHES. THIS WORK SHALL BE INCIDENTAL TO ITEM 502.10 SHORING SUPERSTRUCTURE.
12. ALL BRIDGE MEMBERS AND CONNECTORS NOT PREDETERMINED FOR REPLACEMENT AS SHOWN IN THE PLANS SHALL BE CHECKED IN THE FIELD FOR DAMAGE AND DECAY. IF ADDITIONAL MEMBERS ARE TARGETED TO BE REPLACED BY THE ENGINEER, THE PROJECT MANAGER AND HISTORIC PRESERVATION OFFICER WILL REVIEW THE ADDITIONAL CHANGES, PRIOR TO THE WORK BEING PERFORMED. THE ESTIMATED QUANTITIES FOR THE WOOD ITEMS HAVE BEEN INCREASED BY 10% TO REFLECT THE POSSIBILITY OF ADDITIONAL MEMBERS NEEDING TO BE REPLACED.
13. THE ENTRY AND EXIT PORTALS OF THE COVERED BRIDGE WILL BE PHOTOGRAPHED, MEASURED AND DETAILED. ALL PORTAL FRAMING, ROOF RETURNS, CORNICES AND OTHER ORNAMENTAL DETAIL WILL BE REPLICATED. COST OF THIS WORK WILL BE INCIDENTAL TO ITEM 522.30 "NONSTRUCTURAL LUMBER, UNTREATED".
14. NOT USED
15. COST OF MATERIALS AND INSTALLATION OF A NEW MATTE BLACK STANDING SEAM METAL ROOF SHALL BE PAID FOR UNDER ITEM 900.670 SPECIAL PROVISION (METAL ROOFING) (FPQ).

## EARTHWORK AND RELATED ITEMS

16. CARE SHALL BE TAKEN WHEN EXCAVATING THE TOP PORTIONS OF BOTH ABUTMENTS AND AROUND THE BASE OF ABUTMENT ONE DURING PLACEMENT OF STONE FILL. ANY DAMAGE OR MOVEMENT OF THE EXISTING ABUTMENTS TO BE RETAINED WILL BE REPAIRED AT THE CONTRACTORS EXPENSE.

17. ITEM 529.20 "PARTIAL REMOVAL OF STRUCTURE" SHALL INCLUDE THE REMOVAL AND DISPOSAL OF EXISTING WOOD DECK, FLOOR BEAMS, LOWER CROSS BRACING, LOWER BOTTOM CHORD, BOLSTER BEAMS, BEARING BLOCKS, SIDING, SIDING NAILERS, ROOF RIDGE BEAM, ROOF SHEATHING, METAL ROOF, UNDERLYING SHINGLES AND SELECTED MEMBERS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER FOR REPLACEMENT. THESE INCLUDE COMPONENTS OF THE TIE BEAMS, UPPER CROSS BRACING, TOP CHORD, KNEE BRACES, LATTICES AND UPPER BOTTOM CHORD. "PARTIAL REMOVAL OF STRUCTURE" SHALL ALSO INCLUDE THE SALVAGE, STOCKPILING AND REINSTALLING OF BRIDGE COMPONENTS THAT ARE TO BE RETAINED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

## STRUCTURAL AND NON-STRUCTURAL LUMBER AND TIMBER

18. ALL WOOD SIZES SHOWN ON THE PLANS SHALL BE VERIFIED IN THE FIELD PRIOR TO INSTALLATION OF NEW MEMBERS. MEMBERS WILL MATCH THE EXISTING SIZE OF THE MEMBER IT IS REPLACING. ALL COSTS OF CUTTING AND PLANING OF NOMINAL WOOD SIZES TO MATCH EXISTING SIZES WILL BE INCIDENTAL TO THE APPROPRIATE LUMBER AND TIMBER PAY ITEM.
19. ALL EXISTING WOOD TRUNNELS THAT ARE REMOVED IN THE REHABILITATION PROCESS ARE TO BE REPLACED WITH NEW WOOD TRUNNELS. EXISTING TRUNNELS THAT HAVE DAMAGE OR DECAY WILL ALSO BE REPLACED WITH NEW WOOD TRUNNELS AS DEEMED NECESSARY BY THE ENGINEER. THE MOISTURE CONTENT OF THE TRUNNELS WILL NOT EXCEED 8 PERCENT WHEN INSTALLED. TRUNNELS MAY BE DIPPED IN BOILED LINSEED OIL PRIOR TO DRIVING.
20. ALL SIDING, NAILERS AND DECK EDGE BOARDS WILL BE ATTACHED WITH 2 INCH TO 3 INCH LONG NO. 8 GALVANIZED SCREWS.
21. THE NEW ROOF SHEATHING SHALL HAVE UNSAWN NARROW EDGES IN ORDER TO REPLICATE THE EXISTING ROOF SHEATHING. SEE SHEET 31.
22. ITEM 522.20 "STRUCTURAL LUMBER AND TIMBER, UNTREATED" SHALL INCLUDE THE FOLLOWING MEMBERS, SPECIES AND GRADE:
  - RIDGE BEAM, ROOF SHEATHING, RAFTERS, TIE BEAM, TIE BEAM BLOCKING, UPPER LATERAL CROSS BRACING, SOFFIT BOARDS, UPPER AND LOWER TOP CHORD, PORTAL FRAMING, KNEE BRACES AND LATTICES (SPRUCE-PINE-FIR, GRADE NO. 1)
  - TRUNNELS, SHIMS AND LOWER CROSS BRACING DOWELS (WHITE OAK OR WHITE ASH, FREE OF DEFECTS AND KNOTS)
23. ITEM 522.25 "STRUCTURAL LUMBER AND TIMBER, TREATED" SHALL BE TREATED WITH PRESERVATION TREATMENT TYPE III AND SHALL INCLUDE THE FOLLOWING MEMBERS, SPECIES AND GRADE:
  - UPPER BOTTOM CHORD, DECK EDGE BOARDS, FLOOR BEAM BLOCKING, LOWER LATERAL CROSS BRACING AND CONNECTION BLOCKING (SPRUCE-PINE-FIR, GRADE NO. 1)
  - CURBS, CURB BLOCKING, LOWER BOTTOM CHORD, FLOOR BEAMS, BEDDING TIMBERS, BOLSTER BEAMS AND BOLSTER BEAM BLOCKING (SOUTHERN YELLOW PINE, GRADE NO. 1)
24. ITEM 522.30 "NONSTRUCTURAL LUMBER, UNTREATED" SHALL INCLUDE THE FOLLOWING MEMBERS, SPECIES AND GRADE:
  - SIDING, SIDING NAILERS, ROOF RETURNS AND CORNICES (EASTERN HEMLOCK, GRADE NO. 2)
25. ITEM 522.40 "STRUCTURAL GLUED LAMINATED TIMBER" SHALL BE TREATED WITH PRESERVATION TREATMENT TYPE III PRIOR TO GLUING. THE DECK PANELS SHALL BE SOUTHERN YELLOW PINE WITH A STRESS CLASS OF 16F-1.3E SP/SP THAT MEETS A MINIMUM BENDING STRESS ABOUT THE "Y-Y" AXIS (F<sub>by</sub>) OF 1450 PSI.
26. TO HELP FACILITATE CONNECTING THE GLUED LAMINATED DECK PANELS TO THE FLOOR BEAM, THE LEAD HOLES FOR THE LAG SCREWS WILL BE DRILLED IN THE FIELD. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING SURE THAT THE END PANEL CONNECTION JOINTS WILL OCCUR AT THE CENTERLINE OF THE FLOOR BEAMS.
27. THE DECK PANEL END JOINTS WILL BE STAGGERED AS SHOWN IN THE PLANS. THE ALUMINUM DECK BRACKETS SHALL CONFORM TO MANUFACTURER'S SPECIFICATIONS. THE LAG SCREWS CONNECTING THE DECK TO THE FLOOR BEAMS SHALL BE RECESSED INTO THE DECK AND PLUGGED AND SEALED. COST AND MATERIALS FOR THIS WORK SHALL BE INCIDENTAL TO ITEM 522.40 "STRUCTURAL GLUED LAMINATED TIMBER".
28. TRUNNEL HOLES THAT ARE EXPOSED DURING REQUIRED DISASSEMBLY IN EXISTING MEMBERS THAT ARE TO BE RETAINED, WILL BE PLUGGED AND DRILLED IF; THE EDGE DISTANCE BETWEEN THE HOLE AND EDGE OF THE MEMBER IS LESS THAN ONE INCH OR THE EDGE DISTANCES BETWEEN HOLES IS LESS THAN 2 1/2 INCHES. THE HOLES WILL BE PLUGGED WITH WHITE OAK OR WHITE ASH USING A POLYURETHANE WOOD GLUE. PAYMENT FOR MATERIALS AND WORK WILL BE INCIDENTAL TO THE APPROPRIATE WOOD ITEM THAT IS BEING CONNECTED. SEE TRUNNEL DETAILS ON SHEET 32 FOR NEW HOLE LOCATIONS.
29. NOT USED

## CONCRETE AND REINFORCING STEEL

30. ALL REINFORCING STEEL WILL BE EPOXY COATED.

31. REINFORCING STEEL PLACEMENT TOLERANCES SHALL BE:
  - SPACING +/- 1"
  - CLEARANCE +/- 1/4"
32. ALL CONCRETE WILL BE "CONCRETE, HIGH PERFORMANCE CLASS B".
33. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1" BY 1"
34. WATER REPELLENT, SILANE SHALL BE APPLIED TO ALL NEW AND EXISTING CONCRETE SURFACES.
35. CONSTRUCTION JOINTS WILL HAVE A MECHANICALLY ROUGHENED SURFACE TO AN AMPLITUDE OF ONE-HALF INCH.
36. ITEMS 580.14 "REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS II" AND 580.15 "REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS III" SHALL BE USED TO REPAIR THE CONCRETE FACING OF ABUTMENT TWO. CARE SHALL BE TAKEN TO NOT OVER EXCAVATE WHEN REMOVING UNSOUND CONCRETE AND TO NOT DISTURB THE LAID UP STONE ABUTMENT BEHIND THE FACING. ANY DAMAGE OR MOVEMENT OF THE EXISTING ABUTMENT WILL BE REPAIRED AT THE CONTRACTORS EXPENSE. THE CONTRACTOR MAY PROPOSE ALTERNATE METHODS OF REPAIR AS SPECIFIED IN SUBSECTION 580.06(c) OF THE 2006 STANDARD SPECIFICATIONS FOR CONSTRUCTION. SURFACES TO BE REPAIRED OR OVERLAID SHALL BE CHIPPED BACK TO A DEPTH AS DIRECTED BY THE RESIDENT ENGINEER USING APPROVED HAND OR MECHANICAL METHODS.

## STRUCTURAL STEEL AND BEARINGS

37. ITEM 506.60 "STRUCTURAL STEEL" WILL BE USED TO PAY FOR THE TIE RODS AND ASSOCIATED TURNBUCKLES, NUTS AND OGEE WASHERS. THE RODS, NUTS AND WASHERS FOR THE TIE ROD ASSEMBLIES SHALL MEET ASTM F844. THE TURNBUCKLES SHALL MEET MINIMUM STRENGTH SPECIFICATIONS FOR TURNBUCKLES IN THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION MANUAL (AISC).
38. NOT USED
39. ALL HARDWARE NOT PAID FOR ITEM 506.60 "STRUCTURAL STEEL" AND ITEM 900.620 "SPECIAL PROVISION (BEARING DEVICE ASSEMBLY COVERED BRIDGE)" SHALL BE INCIDENTAL TO THE ITEM TO WHICH IT IS ATTACHED.
40. ALL STRUCTURAL STEEL AND HARDWARE SHALL BE GALVANIZED

PROJECT NAME:	WEATHERSFIELD		
PROJECT NUMBER:	BHO 1442(29)		
FILE NAME:	s96j234gen.xls	PLOT DATE:	3/14/2007
PROJECT LEADER:	W. SYMONDS	DRAWN BY:	R.PELLETT
DESIGNED BY:	T. SUMNER	CHECKED BY:	J. LACROIX
GENERAL NOTES		SHEET	30 OF 60