

GENERAL NOTES

- ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO STATE OF VERMONT, AGENCY OF TRANSPORTATION, 2006 STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, AND ITS LATEST REVISIONS AND THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DATED 2002, AND ITS LATEST REVISIONS.
- ALL WORK ON THIS PROJECT SHALL BE PERFORMED WITHIN THE EXISTING RIGHT-OF-WAY LIMITS. NO ADDITIONAL R.O.W. RIGHTS ARE ANTICIPATED FOR THIS PROJECT.
- THE DESIGN LOAD FOR THE REHABILITATED TRUSSES AND THE NEW PREFABRICATED TRUSS IS AN INVENTORY LOAD OF H-10 OR AN 85 PSF PEDESTRIAN LOADING PER AASHTO "GUIDE SPECIFICATION FOR DESIGN OF PEDESTRIAN BRIDGES", WHICHEVER GOVERNS.
- THE CONTRACTOR SHALL DETERMINE, PRIOR TO CONSTRUCTION, THE LOCATION OF ALL UTILITIES AND SHALL BE RESPONSIBLE FOR PROTECTING AND MAINTAINING ALL UTILITIES WITHIN THE PROJECT AREA. THE CONTRACTOR SHALL COORDINATE ACTIVITIES WITH INDIVIDUAL UTILITY COMPANY REPRESENTATIVES. THE CONTRACTOR SHALL ACCURATELY LOCATE ALL UNDERGROUND UTILITIES IN AREAS WHERE PROPOSED CONSTRUCTION MAY CONFLICT WITH THEM (I.E. GUARD RAIL INSTALLATION) AND SHALL BE RESPONSIBLE FOR ALL DAMAGES.
- THERE ARE NO RECORD PLANS FOR THE HISTORICAL TRUSS STRUCTURE. DIMENSIONS OF THE EXISTING TRUSS STRUCTURE SHOWN ON THESE PLANS ARE FOR GENERAL REFERENCE ONLY AND ARE NOT GUARANTEED. THESE DIMENSIONS WERE DERIVED FROM PREVIOUS REHABILITATION PLANS AND LIMITED FIELD MEASUREMENTS. THE CONTRACTOR SHALL TAKE ALL FIELD MEASUREMENTS NECESSARY TO ENSURE PROPER FIT OF THE FINISHED WORK AND SHALL ASSUME FULL RESPONSIBILITY FOR THEIR ACCURACY. WHEN WORKING DRAWINGS BASED ON FIELD MEASUREMENTS ARE SUBMITTED FOR APPROVAL, FIELD MEASUREMENTS SHALL ALSO BE SUBMITTED FOR REFERENCE BY THE REVIEWER. THERE SHALL BE NO CLAIM MADE BY THE CONTRACTOR FOR WORK PERTAINING TO SUCH MODIFICATIONS AS MAY BE REQUIRED DUE TO MINOR DIFFERENCES BETWEEN ACTUAL FIELD CONDITIONS AND THOSE SHOWN BY THE DETAILS AND DIMENSIONS ON THE PLANS.
- THE STRUCTURAL STEEL ON THE HISTORIC TRUSSES IS PAINTED WITH A MATERIAL THAT MAY CONTAIN LEAD. ALL STRUCTURAL STEEL THAT IS NOT TO BE RE-USED, SHALL BECOME THE PROPERTY OF THE CONTRACTOR. THE CONTRACTOR SHALL INDEMNIFY AND HOLD THE STATE, ITS OFFICERS AND EMPLOYEES HARMLESS CONCERNING THE CONTRACTOR'S USE OR DISPOSITION OF THE STRUCTURAL STEEL.
- ALL DIMENSIONS ARE HORIZONTAL OR VERTICAL AND ARE GIVEN AT 68 DEGREES F., UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL TAKE SPECIAL CARE AND PRECAUTIONS TO ENSURE THAT NO DEBRIS FALLS INTO THE MISSISSQUOIRIVER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR GUARDING AND PROTECTING ALL OPEN EXCAVATIONS.
- ABBREVIATIONS AND SYMBOLS USED ON THE PLANS FOLLOW INDUSTRY AND VERMONT AGENCY OF TRANSPORTATION (VTRANS) STANDARD PRACTICES, UNLESS OTHERWISE NOTED.
- ADDITIONAL NOTES MAY BE FOUND ON OTHER DRAWINGS. SUCH NOTES, WHILE PERTAINING TO THE SPECIFIC DRAWING THEY ARE PLACED ON, ALSO SUPPLEMENT THE GENERAL NOTES LISTED HEREIN.
- THE PERMITS THAT HAVE BEEN OBTAINED FOR THIS PROJECT HAVE BEEN INCORPORATED INTO THE CONTRACT DOCUMENTS. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT THAT AN ARMY CORP OF ENGINEERS GENERAL PERMIT FOR THIS PROJECT HAS NOT BEEN OBTAINED. THE CONTRACTOR WILL BE REQUIRED TO COMPLY WITH ALL APPLICABLE CONDITIONS OF THE PERMITS FOR THE PROJECT. IF THE CONTRACTOR PROPOSES ACTIVITIES WHICH REQUIRE MODIFICATIONS TO THE PERMITS OR ADDITIONAL PERMITS, THE CONTRACTOR WILL BE RESPONSIBLE FOR AMENDING EXISTING PERMITS OR OBTAINING NEW PERMITS AS REQUIRED. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING OF HIS PROPOSED CONSTRUCTION ACTIVITIES THAT REQUIRE AMENDING PERMITS OR OBTAINING NEW PERMITS PRIOR TO SUBMITTAL TO THE PERMITTING AGENCY.

EARTHWORK AND RELATED ITEMS

- REMOVAL OF CONCRETE OR MASONRY UNITS SHALL BE PAID FOR UNDER ITEM 529.25 "REMOVAL OF CONCRETE OR MASONRY". REMOVAL AND DISPOSAL OF THE STRUCTURAL STEEL BEING REPLACED SHALL BE PAID FOR UNDER ITEM 529.20 "PARTIAL REMOVAL OF STRUCTURE".
- BACKFILLING BEHIND ABUTMENTS SHALL NOT BEGIN UNTIL THE ABUTMENT CONSTRUCTION IS COMPLETE AND THE CURING PERIOD IS UP. BACKFILL BEHIND ABUTMENTS SHALL BE PLACED AND COMPACTED ACCORDING TO SECTION 204 OF THE STANDARD SPECIFICATIONS.

CONCRETE AND REINFORCING STEEL

- ALL CONCRETE SHALL CONFORM TO SECTION 501 FOR CONCRETE, HIGH PERFORMANCE CLASS B UNLESS OTHERWISE NOTED.
- REINFORCING STEEL SHALL CONFORM TO SECTION 507.
- THE MINIMUM COVER FOR REINFORCING STEEL IN THE SUBSTRUCTURES SHALL BE 2" INCHES ALONG WALL FACES AGAINST EARTH, AND 3" INCHES ELSEWHERE, UNLESS DETAILED OTHERWISE.
- REINFORCING STEEL PLACEMENT TOLERANCES SHALL BE AS FOLLOWS:
SPACING +/- 1"
CLEARANCE +/- 1/4"
- ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1"x1". UNLESS OTHERWISE NOTED.
- THE KEY IN CONCRETE CONSTRUCTION JOINTS SHALL BE MONOLITHIC AND CONTINUOUS FOR THE FULL LENGTH OF THE JOINT.
- WHENEVER NEW CONCRETE IS BEING PLACED AGAINST EXISTING CONCRETE, THE SURFACE OF THE EXISTING CONCRETE SHALL BE CLEANED AND PREWETTED IN ACCORDANCE WITH SUBSECTION 501.13 (b).

- WATER REPELLENT, SILANE, SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES. EXISTING CONCRETE SURFACES SHALL BE PRESSURE WASHED SEVERAL DAYS PRIOR TO APPLICATION OF SILANE. PAYMENT FOR PROVIDING ACCESS TO AND WASHING SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 514.10 "WATER REPELLANT, SILANE".
- ITEM 507.16 DRILLING AND GROUTING DOWELS SHALL BE USED ON THE PIERS. THE CONTRACTOR IS TO DRILL INTO THE EXISTING MASONRY AND GROUT DOWELS THAT WILL PROVIDE ANCHORAGE BETWEEN THE NEW CONCRETE AND THE MASONRY CAP.

STRUCTURAL STEEL

- ALL NEW STRUCTURAL STEEL INCLUDING THE NEW PREFABRICATED TRUSS SHALL CONFORM TO SUBSECTION 714.02, UNLESS OTHERWISE NOTED. GRADE 50 STEEL MAY BE USED AS AN ACCEPTABLE ALTERNATE.
- ALL BOLTS USED FOR STEEL CONNECTIONS SHALL CONFORM TO SUBSECTION 714.05. HIGH STRENGTH BOLTS UNLESS NOTED OTHERWISE IN THE PLANS. ALL HIGH STRENGTH BOLTS SHALL BE TIGHTENED PER SUBSECTION 506.19.
- ALL HOLES FOR BOLTS SHALL BE 1/16" LARGER THAN THE BOLT UNLESS NOTED OTHERWISE ON THE PLANS.
- ALL NEW FLOORBEAMS WILL BE PAID FOR UNDER CONTRACT ITEM 506.50 "STRUCTURAL STEEL, ROLLED BEAM." ALL OTHER NEW STRUCTURAL STEEL COMPONENTS SUCH AS LATERAL BRACING, CONNECTION ANGLES, AND TRUSS REPLACEMENT MEMBERS SHALL BE PAID FOR AND INCLUDED UNDER THE ITEM 506.60 "STRUCTURAL STEEL".
- ALL RIVETS REMOVED FROM THE TRUSS SHALL BE REPLACED WITH EQUIVALENT DIAMETER HIGH STRENGTH BOLTS MEETING THE REQUIREMENT OF SUBSECTION 714.05. ANY MISSING RIVET OR BOLT HOLES NOT OTHERWISE REPLACED SHALL BE FILLED WITH A HIGH STRENGTH BOLT.
- ALL STRUCTURAL CONNECTIONS ON THE TRUSS ARE BELIEVED TO BE 3/4" INCH DIAMETER RIVETS IN 1/8" INCH DIAMETER HOLES. ALL LACING BARS AND SPACER PLATE CONNECTIONS ON CHORD MEMBERS ARE BELIEVED TO BE 5/8" INCH DIAMETER RIVETS IN 1/8" INCH DIAMETER HOLES. THE CONTRACTOR SHALL VERIFY DIAMETER OF ACTUAL RIVETS OR BOLT SIZE BEFORE ORDERING REPLACEMENTS.
- WHENEVER HOLES IN EXISTING STEEL ARE USED AS A TEMPLATE FOR NEW HOLES TO BE DRILLED, A HOUGHAN OR JANCY BIT, OR APPROVED EQUAL, SHALL BE UTILIZED TO DRILL THE HOLES.
- ALL HARDWARE (BOLTS, WASHERS, NUTS, ETC.) FOR PEDESTRIAN RAILS SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M 232M/M232 (ASTM A153) UNLESS NOTED OTHERWISE IN THE PLANS.
- ENDS OF MEMBERS OF THE EXISTING TRUSSES THAT ARE CUT FOR REPAIR SHALL BE GROUND SMOOTH AND FREE OF BURRS.
- BOLT LENGTHS SHALL BE FIELD VERIFIED BY THE CONTRACTOR TO ALLOW 1/2" INCH MAXIMUM PROJECTION BEYOND THE NUT IN SNUG POSITION, AND HAVE SUFFICIENT THREAD LENGTH TO TIGHTEN AS MUCH AS NECESSARY. EVERY EFFORT SHALL BE MADE TO FACE BOLT HEADS OUTWARD AND KEEP NUTS HIDDEN SO AS TO BEST VISUALLY BLEND WITH THE ORIGINAL RIVETED CONSTRUCTION.
- ALL MEMBERS AND CONNECTIONS OF THE EXISTING TRUSSES SHALL BE INSPECTED AFTER BEING CLEANED PER SECTION 513. IF A MEMBER EXHIBITS A CROSS SECTIONAL LOSS OF MORE THAN AN AVERAGE OF 1/16" ACROSS THE ENTIRE CROSS SECTION OR IF PITTING EXTENDS DEEPER THAN ONE HALF THE MEMBER THICKNESS AS DETERMINED BY THE ENGINEER, THE PROJECT MANAGER SHALL BE NOTIFIED FOR FURTHER DIRECTION. INSPECTION OF THE EXISTING MEMBERS SHALL BE CONSIDERED INCIDENTAL TO ALL WORK.
- ANY RIVETS THAT DO NOT MEET THE CRITERIA AS OUTLINED IN THE MISCELLANEOUS STEEL DETAILS SHALL BE REPLACED. RIVET REPLACEMENT SHALL BE PAID FOR UNDER THE ITEM 900.620 SPECIAL PROVISION (THROUGH TRUSS RIVET REPLACEMENT).
- UNDER A SEPARATE CONTRACT, THE HISTORICAL TRUSSES WERE REMOVED FROM THE SITE AND STORED AT "SWANTON LIMESTONE CORPORATION", OFF BLAKE STREET IN THE TOWN OF SWANTON, VERMONT. THE CONTRACTOR SHALL CONTACT SUE SCRIBNER OF VTRANS AT 802-828-3615 TO COORDINATE ACCESS TO THESE MATERIALS. PAYMENT WILL BE CONSIDERED INCIDENTAL TO CONTRACT ITEM 900.645 "SPECIAL PROVISION (INCORPORATING SALVAGED BRIDGE COMPONENTS)".
- FOR TRUSS MEMBERS THAT ARE DETAILED TO BE REPAIRED, OR IF ADDITIONAL TRUSS MEMBERS REQUIRE REPAIR BUT ARE NOT IDENTIFIED AS SUCH ON THE PLANS, THEIR CONNECTIONS WILL BE INCLUDED AS PART OF THE STRUCTURAL STEEL ITEM, NOT UNDER THE RIVET REPLACEMENT ITEM.

TIMBER

- ALL GLUED LAMINATED TIMBER MEMBERS SHALL BE DESIGNED IN ACCORDANCE WITH AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES DATED 2002, AND ITS LATEST REVISIONS USING THE WORKING STRESS DESIGN (WSD) METHOD.
- ALL HARDWARE (BOLTS, WASHERS, NUTS, ETC.) FOR FASTENING WOOD MEMBERS SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M 232M/M232 (ASTM A153) UNLESS NOTED OTHERWISE IN THE PLANS. ALL STEEL PLATES AND SHAPES USED FOR FASTENING WOOD MEMBERS SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH AASHTO M 111M/M111 (ASTM A123) UNLESS OTHERWISE NOTED.
- STRUCTURAL GLUED LAMINATED TIMBER SHALL BE FABRICATED IN ACCORDANCE WITH THE AMERICAN NATIONAL STANDARDS INSTITUTE ANSI/AITC A190.1 AND THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION AITC A117.

- THE FABRICATION, DELIVERY AND INSTALLATION OF ALL FASTENERS, DECK BRACKETS, STEEL SHAPES AND ANY INCIDENTALS WILL NOT BE CONSIDERED DIRECTLY FOR PAYMENT, BUT WILL BE CONSIDERED INCIDENTAL TO ITEM 522.40 "STRUCTURAL GLUED LAMINATED TIMBER".
- ALL TIMBER SHALL BE PRESSURE TREATED WITH A TYPE V PRESERVATIVE IN CONFORMANCE WITH SECTION 726.
- ALL BOLTS AND LAG SCREWS IN THE TIMBER DECK SHALL BE ASTM A-307 GALVANIZED BOLTS. BOLTS SHALL BE TIGHTENED TO THE FULL EFFORT OF A WORKER WITH A WRENCH, BUT NOT SO TIGHT AS TO CRUSH THE WOOD.
- ALL TIMBER SHALL BE CUT TO SHAPE BEFORE BEING TREATED.
- ALL HOLES OR CUTS MADE IN THE FIELD ON ANY TREATED TIMBER SHALL BE TREATED WITH A COMPATIBLE LIQUID PRESERVATIVE TREATMENT.

PAINTING

- ALL STRUCTURAL STEEL (NEW AND EXISTING), EXCEPT THAT SPECIFIED TO BE EITHER GALVANIZED OR METALIZED, SHALL BE PAINTED IN ACCORDANCE WITH SECTION 513. PAINT COLOR SHALL BE CHROME SILVER AND SHALL CONFORM TO FEDERAL STANDARD NO. 595B, COLOR CHIP NO. 37178.
- ALL EXISTING STRUCTURAL STEEL THAT IS TO REMAIN SHALL BE THOROUGHLY CLEANED PER SECTION 513.
- THE CONTRACTOR WILL PROVIDE THE HISTORIC PRESERVATION COORDINATOR WITH COLOR SAMPLES AT THE PRE-CONSTRUCTION MEETING.

PREFABRICATED MULTI-MODAL BRIDGE NOTES

- THE PREFABRICATED TRUSS, TO BE PROVIDED UNDER ITEM 545.20 "PREFABRICATED MULTI-MODE BRIDGE" SHALL BE DESIGNED, DETAILED, FABRICATED, TRANSPORTED TO THE SITE, AND ERECTED BY THE MANUFACTURER/CONTRACTOR.

THE NEW STRUCTURE SHALL BE A SINGLE SPAN TRUSS MEETING THE FOLLOWING GEOMETRIC CRITERIA:
a. MUST BE A PONY TYPE TRUSS, I.E. NO CONNECTION BETWEEN THE TOP CHORD OF THE TWO TRUSSES.
b. MUST CONFORM TO THE LINE, GRADE, PLAN, AND WIDTH AS SHOWN ON THE PLANS.
c. FLOOR SYSTEM MUST NOT EXTEND BELOW THE BOTTOM CHORD.
d. LOWEST ELEVATION OF STRUCTURE (EXCLUDING BEARINGS) SHALL BE AT OR ABOVE EL. 127.50.
e. MUST HAVE END FLOOR BEAM.
f. TRUSSES MUST BE CAMBERED FOR FULL DEAD LOAD.
- ALL STEEL IN THE NEW TRUSS SHALL CONFORM TO AASHTO M 270M/M270 GRADE 50. GALVANIZED PER SECTION 506.15(a). HIGH STRENGTH BOLTS, NUTS, AND CIRCULAR WASHERS SHALL CONFORM TO M 164M (ASTM A325), TYPE I, GALVANIZED. GALVANIZING SHALL BE PAID UNDER ITEM 545.20. ANY SURFACES DAMAGED BEFORE ACCEPTANCE OF WORK SHALL BE REPAIRED AS REQUIRED BY THE SPECIFICATIONS.
- FABRICATION DRAWING, DESIGN CALCULATIONS, AND WELD PROCEDURE MUST BE PROVIDED (6 WEEKS PRIOR TO FABRICATION OF THE TRUSS) TO THE STRUCTURE ENGINEER FOR HIS INFORMATION AND REVIEW. THE DESIGN CALCULATIONS FOR THE TRUSS, BEARINGS, BEAM PROFILES, DECK, SHALL BE STAMPED AND SIGNED BY A LICENSED PROFESSIONAL ENGINEER (STRUCTURAL OR CIVIL). THE FABRICATION DRAWINGS SHALL INCLUDE ALL TRUSS DEAD LOAD DEFLECTION AND CAMBER INFORMATION AND SHALL BE STAMPED WITH THE CONTRACTOR'S DESIGN ENGINEER'S SHOP DRAWING APPROVAL STAMP OR SHALL BEAR THE ENGINEER'S STAMP AND SIGNATURE.
- THE DECK SHALL BE DESIGNED AND DETAILED BY THE MANUFACTURER/CONTRACTOR.
- THE BEARINGS FOR THE NEW TRUSS SHALL BE SELECTED, DESIGNED, AND INSTALLED BY THE CONTRACTOR. BEARING DEVICES SHALL CONFORM TO THE APPLICABLE SUBSECTION OF 531 AND 731. EXPANSION BEARINGS SHALL BE ADJUSTED FOR TEMPERATURE AS SHOWN ON THE FABRICATION DRAWINGS. BEARING DEVICES SHALL BE INCIDENTAL TO ITEM 545.20.
- ANY LOAD PLATES USED IN THE BEARING DEVICES SHALL BE A MINIMUM OF 1 IN THICK.
- DETAILS REQUIRED FOR THE ATTACHMENT OF THE EXPANSION JOINT BRACKET PLATES TO THE TRUSS FLOOR SYSTEM AT THE EXPANSION END OF THE BRIDGE SHALL BE SUPPLIED BY THE MANUFACTURER.
- THE CONTRACTOR/MANUFACTURER SHALL FURNISH FINAL CONCRETE PEDESTAL ELEVATIONS ON THE FABRICATION DRAWING FOR EACH PIER BASED ON THE ACTUAL THICKNESS OF THE BRIDGE AND HEIGHT OF THE BEARINGS.

STATE OF VERMONT AGENCY OF TRANSPORTATION

Town Of	SWANTON	Bridge No.	18
Highway No.		Log Sta.	-----
		Surv. Sta.	-----
RAIL TRAIL OVER MISSISSQUOI RIVER			
GENERAL NOTES			
Designed By	R. SACCHI	Drawn By	A. ZAWILNSKI
Checked By	Date	Bridge Design Supervisor	
H. BUI	1/23/08	R. SACCHI	Date 1/23/08
PROJECT	SWANTON	PROJECT NO.	STP ST MHTB(1)
I.G.C. Info.	ZD0246Nlr.dgn		2/21/2008
Bridge Sheet No.	BR3	Sheet	20 of 63