

GENERAL NOTES

- ALL MATERIAL AND CONSTRUCTION SHALL CONFORM TO THE STATE OF VERMONT AGENCY OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION", 2001 AND ITS LATEST REVISIONS AND AASHTO "STANDARD SPECIFICATION FOR HIGHWAY BRIDGES", 17TH EDITION AND ITS LATEST REVISIONS.
- ALL DIMENSIONS ARE HORIZONTAL OR VERTICAL UNLESS OTHERWISE NOTED.
- THERE ARE NO PLANS AVAILABLE OF THE EXISTING BRIDGE.
- THE EXISTING BRIDGE SHALL BE SAVED FOR POTENTIAL ADAPTIVE REUSE. THE CONTRACTOR SHALL CAREFULLY DISMANTLE THE TRUSS (INCLUDING ALL TRUSS MEMBERS, UPPER CHORD BRACING AND PORTALS, PINS, AND ORIGINAL FLOOR BEAM HANGERS) AND TRANSPORT THEM TO THE TOWN MAINTENANCE YARD. THE CONTRACTOR SHALL UNLOAD THE PIECES AT THE YARD AND STACK THEM FOR STORAGE AS DIRECTED. CONTACT THE TOWN MANAGER, RICHARD SVEC AT 802-226-7292 TO COORDINATE STORAGE AT THE TOWN MAINTENANCE YARD. PRIOR TO DISASSEMBLY, THE CONTRACTOR SHALL PROVIDE A DETAILED ERECTION PLAN OF THE EXISTING TRUSS AND SUBMIT IT TO THE ENGINEER FOR APPROVAL. THE PLAN SHALL CONTAIN THE NECESSARY SKETCHES, MEMBER MARKINGS, AND NOTES THAT WOULD ALLOW FUTURE REASSEMBLY OF THE COMPLETE TRUSS. THE REMAINING PIECES OF THE EXISTING BRIDGE INCLUDING THE FLOOR BEAMS, STRINGERS, LOWER LATERAL BRACING, DECKING, RAILS, AND SUPPLEMENTAL GIRDER AND FLOOR BEAMS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE. PAYMENT FOR REMOVAL, TRANSPORT, UNLOADING, ERECTION PLAN, AND OTHER ITEMS ASSOCIATED WITH BRIDGE REMOVAL SHALL BE INCIDENTAL TO ITEM 529.15, REMOVAL OF STRUCTURE.

THE EXISTING ABUTMENT STONES AND WALL STONES SHALL REMAIN THE PROPERTY OF THE TOWN. THE CONTRACTOR SHALL REMOVE THE STONES AND LOAD THEM ONTO TOWN SUPPLIED TRUCKS AT THE SITE. CONTACT THE TOWN MANAGER, RICHARD SVEC AT 802-226-7292 TO COORDINATE TRUCKING. PAYMENT FOR REMOVAL OF THE STONES IS INCLUDED IN ITEM 203.27, UNCLASSIFIED CHANNEL EXCAVATION. PAYMENT FOR STOCKPILING AND LOADING WILL BE INCIDENTAL TO ITEM 203.27.

- DESIGN SPECIFICATIONS: STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 17TH EDITION AND ITS LATEST REVISIONS BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO).
- DESIGN LIVE LOAD: AASHTO MS 22.5 TRUCK
- THE CONTRACTOR SHALL TAKE PRECAUTIONS TO PREVENT DEBRIS FROM FALLING INTO THE RIVER DURING CONSTRUCTION.
- TRAFFIC DURING CONSTRUCTION SHALL BE MAINTAINED ON THE EXISTING ONE LANE BRIDGE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEM 527.10 MAINTENANCE OF TRAFFIC FOR BRIDGE PROJECTS (MOD.).
- TEMPORARY PROTECTIVE FENCING SHALL BE PLACED ON RIGHT-OF-WAY LINES AT FIELD DRIVE OPENING AT STA 20+030 RT TO 20+033 RT. COST INCLUDED IN ITEM 620.70 (MOD. - ARCH).

CONCRETE NOTES

- THE MINIMUM COVER FOR REINFORCING STEEL SHALL BE AS FOLLOWS:

FOOTINGS	80 mm
BACK FACE OF ABUTMENTS AND WINGWALLS	50 mm
OTHER SUBSTRUCTURE LOCATIONS (UNLESS NOTED)	75 mm
CURBS	75 mm
TOP OF CONCRETE DECK	65 mm
BOTTOM OF CONCRETE DECK	40 mm
OTHER SUPERSTRUCTURE LOCATIONS (UNLESS NOTED)	75 mm
- REINFORCING PLACING TOLERANCES SHALL BE:

SPACING	+/- 25
CLEARANCE	+/- 5
- THE KEY IN CONCRETE CONSTRUCTION JOINTS SHALL BE MONOLITHIC AND CONTINUOUS FOR THE FULL LENGTH OF THE JOINT.
- JOINTS AND SCOREMARKS IN THE CONCRETE SHALL BE CONSTRUCTED AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
- ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 25 mm x 25 mm.
- CONCRETE CLASSES ARE AS FOLLOWS:

CLASS	LOCATION
HPC - A	DECK AND CURBS
HPC - B	ALL OTHER CONCRETE
- THE TOP SURFACES OF BRIDGE SEAT PEDESTALS UNDER THE BEARING DEVICES SHALL BE LEVEL. OTHER BRIDGE SEAT AREAS SHALL BE SLOPED AS SHOWN IN THE PLANS. THE ENTIRE BRIDGE SEAT SURFACE SHALL BE SMOOTH WITH A MAGNESIUM FLOAT FINISH.
- WATER REPELLENT (MOD. - SILANE) SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES EXCEPT THE UNDERSIDE OF THE DECK BETWEEN DRIP NOTCHES.

CONCRETE NOTES CONTINUED:

- BOTTOM OF DECK SLAB (OR TOP OF FORM) ELEVATIONS, ALONG EACH STRINGER AT ONE METER INTERVALS, SHALL BE COMPUTED BY THE TRUSS MANUFACTURER AND SHOWN ON THE FABRICATION DRAWINGS. ELEVATIONS SHALL BE PROVIDED AT EACH FLOORBEAM AND MUST CONSIDER TRUSS DEFLECTIONS DUE TO THE FULL DEAD LOAD.
- THE CONTRACTOR MAY USE PERMANENT CORRUGATED METAL (STAY-IN-PLACE) FORMS FOR THE BRIDGE DECK IF THE CONTRACTORS DESIGN ENGINEER ALLOWS. STAY-IN-PLACE FORMS SHALL CONFORM TO THE LATEST SPECIFICATIONS OF ASTM A653/A653M, GRADES A THRU E, COATING DESIGNATION G165. FABRICATION SHALL CONFORM TO ASTM A924/A924M.

PREFABRICATED TRUSS BRIDGE NOTES

- THE PREFABRICATED STEEL TRUSS, TO BE PROVIDED UNDER ITEM 506.75, STRUCTURAL STEEL (PREFABRICATED TRUSS), SHALL BE DESIGNED, DETAILED, FABRICATED, TRANSPORTED TO THE SITE, AND ERECTED BY THE MANUFACTURER/CONTRACTOR.
- THE NEW BRIDGE SHALL BE A SINGLE SPAN TRUSS MEETING THE FOLLOWING GEOMETRIC CRITERIA:
 - MUST BE A PONY TYPE TRUSS, I.E. NO CONNECTION BETWEEN THE TOP CHORDS OF THE TWO TRUSSES.
 - MUST CONFORM TO THE LINE, GRADE, SPAN, AND WIDTH AS SHOWN ON THE PLANS
 - FLOOR-SYSTEM MUST NOT EXTEND BELOW THE BOTTOM CHORD.
 - LOWEST STEEL ELEVATION OF STRUCTURE (EXCLUDING BEARINGS) SHALL BE AT OR ABOVE EL. 218.8.
 - MUST HAVE END FLOOR BEAMS AND THE END FLOOR BEAM BOTTOM FLANGE WIDTH SHALL BE LESS THAN OR EQUAL TO 250 mm.
 - TRUSSES MUST BE CAMBERED FOR FULL DEAD LOAD WITH A RESIDUAL CAMBER OF APPROXIMATELY 30 mm.
 - MAXIMUM CENTER TO CENTER TRUSS SPACING OF 6500 mm
- ALL STEEL IN THE NEW TRUSS SHALL CONFORM TO AASHTO M 270M/M270 GRADE 345, 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 506.75. ANY SURFACES DAMAGED BEFORE ACCEPTANCE OF THE WORK SHALL BE REPAIRED AS REQUIRED BY THE SPECIFICATIONS.
- FABRICATION DRAWINGS, DESIGN CALCULATIONS, AND WELD PROCEDURES MUST BE PROVIDED (6 WEEKS PRIOR TO FABRICATION OF THE TRUSS) TO THE STRUCTURES ENGINEER FOR HIS INFORMATION AND REVIEW. THE DESIGN CALCULATIONS FOR THE TRUSS, BEARINGS, BEAM PROFILES, DECK SLAB, AND STAY-IN-PLACE FORMS 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 SLAB SHALL BE DESIGNED AND DETAILED BY THE MANUFACTURER/CONTRACTOR. THE MINIMUM SLAB THICKNESS SHALL BE 220 mm AND THE MINIMUM REINFORCEMENT SHALL BE #16 @ 300 mm IN EACH DIRECTION. ADDITIONAL REINFORCING BARS SHALL BE PROVIDED FOR DECK ENDS, CURBS, AND AT RAIL POST LOCATIONS AS SHOWN ON THE PLANS. COST FOR DECK SLAB AND CURBS SHALL BE PAID UNDER ITEM 501.33, "CONCRETE, HIGH PERFORMANCE CLASS A." ALL REINFORCING STEEL IN THE DECK SLAB AND CURBS SHALL BE EPOXY COATED AND PAID UNDER ITEM 507.17, "EPOXY COATED REINFORCING STEEL." HOWEVER, FINAL QUANTITIES AND PAYMENT WILL BE BASED ON THE ESTIMATED QUANTITY SHOWN IN THE PLANS. NO MEASUREMENT OR PAYMENT WILL BE MADE FOR ADDITIONAL EPOXY COATED REINFORCING STEEL.
- THE BEARINGS FOR THE NEW TRUSS SHALL BE SELECTED, DESIGNED, AND INSTALLED BY THE CONTRACTOR. BEARING DEVICES SHALL CONFORM TO THE APPLICABLE SUBSECTIONS OF 531 AND 731. EXPANSION BEARINGS SHALL BE ADJUSTED FOR TEMPERATURE AS SHOWN ON THE FABRICATION DRAWINGS. BEARING DEVICES SHALL BE INCIDENTAL TO ITEM 506.75.
- ANY LOAD PLATES USED IN THE BEARING DEVICES SHALL BE A MINIMUM OF 25 mm THICK.
- DETAILS REQUIRED FOR THE ATTACHMENT OF THE EXPANSION JOINT BRACKET PLATES TO THE TRUSS FLOORSYSTEM 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 DRAWINGS FOR EACH ABUTMENT BASED ON THE ACTUAL THICKNESS OF THE BRIDGE AND HEIGHT OF THE BEARINGS.
- THE CONTRACTOR'S DESIGN ENGINEER SHALL PROVIDE STAMPED LOAD RATING CALCULATIONS AND SHALL COMPLETE THE "LOAD FACTOR RATING (METRIC TONNES)" TABLE ON SHEET 2. CONTACT THE STRUCTURES SECTION PROJECT MANAGER, MARTHA EVANS-MONGEON, AT (802) 828 - 0514, FOR INFORMATION ON TRUCK CONFIGURATIONS.
- THE CONTRACTOR SHALL ADHERE TO ALL INSTRUCTIONS FROM THE TRUSS SUPPLIER REGARDING ERECTION AND FIELD CONNECTIONS.
- TRANSVERSE FLOORBEAMS SHALL HAVE 19 mm X 150 mm STUD SHEAR CONNECTORS WELDED TO TOP FLANGES AT 100 mm ON CENTERS AS A MINIMUM. COST SHALL BE INCIDENTAL TO THE PREFABRICATED TRUSS ITEM.

EXPANSION JOINT NOTES:

- THE ITEM "BRIDGE EXPANSION JOINT (VERMONT)" SHALL INCLUDE THE FABRICATION AND ERECTION OF THE COMPLETE JOINT ASSEMBLY INCLUDING ALL PLATES, BRACKETS, ANGLES, WELDED STUDS, RODS, PREFORMED FABRIC DRAIN TROUGH, BUTYL RUBBER TAPE, HOT POURED JOINT SEALANT, AND ANY OTHER MISCELLANEOUS MATERIALS NECESSARY TO COMPLETE THE WORK.
- THE FINAL FINISH OF THE EXPANSION DEVICE SHALL BE COVERED DURING THE PLACEMENT OF THE DECK CONCRETE.
- THE 203 X 102 SUPPORT ANGLES SHALL BE FURNISHED IN ONE CONTINUOUS PIECE EACH SIDE OF THE JOINT. THE 30 X 140 TRANSVERSE JOINT BARS SHALL BE PROVIDED IN TWO EQUAL LENGTHS EACH SIDE OF THE BRIDGE CENTERLINE.
- FILL COUNTERBORED HOLES IN JOINT BARS WITH HOT POURED JOINT SEALER AFTER BOLT INSTALLATION. JOINT SEALER SHALL CONFORM TO SUBSECTION 707.04(d).
- A DRIP BEAD OF POLYURETHANE JOINT SEALER SHALL BE APPLIED TO THE BOTTOM OF THE FABRIC AS SHOWN IN THE PLANS. THE DRIP BEAD SHALL BE APPLIED COMPLETELY AROUND THE CIRCUMFERENCE OF THE HOLE (AT THE CENTER OF THE TROUGH ABOVE THE HOPPER) AT A DISTANCE OF 25 mm BACK FROM THE EDGE OF THE HOLE.
- FABRIC TROUGH ASSEMBLY SHALL BE THOROUGHLY CLEANED AND FLUSHED AFTER PAVING OPERATIONS.

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

Town Of CAVENDISH	Bridge No. 45
Highway No. TH 29	Log Sta.
	Surv. Sta.

TH 29 OVER BLACK RIVER

GENERAL CONSTRUCTION NOTES

Designed By S.M. HODGDON	Drawn By N.J. HOYT
Checked By S.W. JOHNSON	Bridge Design Supervisor C.D. BAKER
Date 5/06	Date 5/06

PROJECT CAVENDISH	PROJECT NO. BRO 1442(23)
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I.G.C. Info. Bridge Sheet No. 50499GCN	Sheet 21 of 47
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