

**STRUCTURAL STEEL AND PREFABRICATED TRUSS BRIDGE NOTES:**

1. ALL STRUCTURAL STEEL USED IN THE TRUSS BRIDGE SHALL MEET THE REQUIREMENTS OF AASHTO M 270M/M 270, GRADE 50.
2. THE PREFABRICATED STEEL TRUSS BRIDGE FOR THIS PROJECT SHALL MEET THE SPECIFICATION REQUIREMENTS FOR ITEM 900.645 SPECIAL PROVISION (PREFABRICATED TRUSS BRIDGE). THE TRUSS SHALL BE DESIGNED, DETAILED, FABRICATED, AND TRANSPORTED TO THE SITE AND ERECTED BY THE FABRICATOR/CONTRACTOR.
3. THE TRUSS BRIDGE TO BE PROVIDED BY THE FABRICATOR/CONTRACTOR SHALL BE SIMILAR IN GENERAL APPEARANCE AND CONFIGURATION TO THE EXISTING TRUSS BRIDGE AND THAT SHOWN IN THESE PLANS (SEE SHEET 65).
4. THE TRUSS MUST BE A PONY TRUSS WITH NO CONNECTIONS BETWEEN THE TOP CHORDS OF THE NORTH AND SOUTH TRUSSES.
5. FLOORBEAMS, STRINGERS, AND LATERAL BRACING SHALL NOT EXTEND BELOW THE BOTTOM CHORDS.
6. ADDITIONAL INFORMATION REGARDING THE GENERAL APPEARANCE AND CONFIGURATION OF THE TRUSS TO BE PROVIDED IS GIVEN THROUGHOUT THESE PLANS.
7. THE FABRICATOR SHALL IDENTIFY ALL TENSILE STRUCTURAL STEEL MEMBERS AND PLATES REQUIRING A CHARPY V-NOTCH TEST ON THE FABRICATION DRAWINGS BY THE INITIALS "CVN". STRUCTURAL STEEL MEMBERS DESIGNATED "CVN" IN THE FABRICATION DRAWINGS SHALL BE CHARPY V-NOTCH TESTED IN ACCORDANCE WITH SUBSECTION 714.01 OF THE STANDARD SPECIFICATIONS.
  - ALL FRACTURE CRITICAL MEMBERS SHALL BE FABRICATED ACCORDING TO SECTION 12 OF THE AASHTO/AWS D1.5M/D1.5 BRIDGE WELDING CODE.
  - ALL FRACTURE CRITICAL MEMBERS SHALL BE FABRICATED IN A PLANT HAVING AN AISC FRACTURE CRITICAL ENDORSEMENT OR THE FABRICATOR SHALL PROVIDE TO THE STRUCTURES ENGINEER AN ACCEPTABLE FRACTURE CONTROL PLAN MEETING THE REQUIREMENTS OF AASHTO/AWS D1.5 PRIOR TO FABRICATION.
  - ALL FRACTURE CRITICAL MEMBERS SHALL BE IMPACT TESTED TO THE FRACTURE CRITICAL REQUIREMENTS AS SPECIFIED IN AASHTO M 270M/M 270.
8. ALL WELDING SHALL CONFORM TO THE PROVISIONS OF SUBSECTION 506.10.
9. ALL FASTENERS UNLESS OTHERWISE NOTED SHALL BE MADE WITH 7/8" DIAMETER ASTM DESIGNATION A-325 TYPE I (AASHTO M 164) BOLTS IN 1/8" DIAMETER HOLES.
10. THE FABRICATOR/CONTRACTOR SHALL USE DIRECT TENSION INDICATOR METHOD AS SPECIFIED IN SUBSECTION 506.19 FOR PRETENSIONING OF ALL BOLTED TRUSS CONNECTIONS. NO OTHER BOLT TENSIONING METHOD SHALL BE PERMITTED ON THE BOLTED TRUSS CONNECTIONS.
11. AFTER THE SUPERSTRUCTURE HAS BEEN ERECTED, BUT PRIOR TO DECK CONSTRUCTION, ELEVATIONS SHALL BE TAKEN ALONG THE TOP OF THE FLOORBEAMS AND STRINGERS, AS DIRECTED BY THE ENGINEER, FOR USE IN DETERMINING THE FINISHED GRADE.
12. ALL STEEL SHALL BE GALVANIZED ACCORDING TO SUBSECTION 726.08 OF THE STANDARD SPECIFICATIONS. PRIOR TO GALVANIZATION ALL SURFACES SHALL BE PREPARED ACCORDING TO SUBSECTION 506.14 OF THE STANDARD SPECIFICATIONS. GALVANIZING SHALL BE PAID FOR UNDER ITEM 900.645 SPECIAL PROVISION (PREFABRICATED TRUSS BRIDGE).
13. A CAST-IN-PLACE CONCRETE DECK IS ASSUMED IN THESE PLANS. IF THIS TYPE OF DECK IS PROPOSED BY THE CONTRACTOR IT SHALL BE DESIGNED COMPOSITE WITH THE FLOOR SYSTEM.
14. IF SHEAR STUDS ARE REQUIRED THEY SHALL BE APPLIED BEFORE THE TRUSS MEMBERS ARE GALVANIZED. THE COST FOR THE SHEAR STUDS SHALL BE INCIDENTAL TO ITEM 900.645 SPECIAL PROVISION (PREFABRICATED TRUSS BRIDGE).
15. ANY DAMAGE CAUSED TO GALVANIZING BEFORE ACCEPTANCE OF THE WORK SHALL BE REPAIRED AS REQUIRED BY THE SPECIFICATIONS AND THE COST SHALL BE INCIDENTAL TO ITEM 900.645 SPECIAL PROVISION (PREFABRICATED TRUSS BRIDGE).
16. THE BEARING DEVICES SHALL BE DESIGNED, DETAILED, FABRICATED, AND TRANSPORTED TO THE SITE BY THE FABRICATOR. THE BEARING DEVICES SHALL CONFORM TO THE APPLICABLE SUBSECTIONS OF SECTION 531 AND 731. EXPANSION BEARINGS SHALL BE ADJUSTED FOR TEMPERATURE AS SHOWN ON THE FABRICATION DRAWINGS. THE COSTS OF THE BEARINGS SHALL BE INCLUDED IN THE BID PRICE FOR ITEM 900.645 SPECIAL PROVISION (PREFABRICATED TRUSS BRIDGE).
17. FABRICATION DRAWINGS, DESIGN CALCULATIONS, AND WELD PROCEDURES MUST BE SUBMITTED IN ACCORDANCE WITH SUBSECTION 105.03(b) (6 WEEKS PRIOR TO BEGINNING FABRICATION OF THE TRUSS) TO THE STRUCTURES ENGINEER TO BE REVIEWED FOR CONFORMANCE. THE DESIGN CALCULATIONS FOR THE TRUSS, BEARINGS, FLOORBEAM AND STRINGER PROFILES, AND DECK SLAB SHALL BE STAMPED AND SIGNED BY A PROFESSIONAL ENGINEER. THE FABRICATION DRAWINGS SHALL INCLUDE ALL TRUSS DEAD LOAD DEFLECTION AND CAMBER INFORMATION (INCLUDING VERTICAL CURVE PROFILE FOR THE ROADWAY) INFORMATION AND SHALL BE STAMPED WITH THE DESIGN ENTITY'S FABRICATION DRAWING APPROVAL STAMP OR STAMPED AND SIGNED BY A PROFESSIONAL ENGINEER. COST INCLUDED WITH ITEM 900.645 SPECIAL PROVISION (PREFABRICATED TRUSS BRIDGE).
18. THE FABRICATOR WILL BE RESPONSIBLE FOR SUPPLYING LOAD RATING CALCULATIONS STAMPED AND SIGNED BY A PROFESSIONAL ENGINEER FOR THE NEW BRIDGE AND COMPLETING THE LOAD RATING TABLE SHOWN ON THE PRELIMINARY INFORMATION SHEET OF THE PLANS. THIS LOAD RATING MUST BE SUBMITTED WITH THE FABRICATION DRAWINGS; TRUCK CONFIGURATIONS TO BE USED IN COMPLETING THE LOAD RATING SHALL BE AS LISTED IN THE 2010 VTRANS STRUCTURES DESIGN MANUAL SECTION 15.

19. UPON SUBSTANTIAL COMPLETION OF CONSTRUCTION AND BEFORE FINAL PAYMENT FOR CONSTRUCTION THE FABRICATOR WILL PROVIDE REVISED LOAD RATING CALCULATIONS BASED ON AS-BUILT CONDITIONS STAMPED AND SIGNED BY A PROFESSIONAL ENGINEER. THE REVISED LOAD RATING SHALL FOLLOW ALL THE REQUIREMENTS GIVEN IN THE PRECEDING NOTE. COST INCLUDED WITH ITEM 900.645 SPECIAL PROVISION (PREFABRICATED TRUSS BRIDGE).
20. THE CONTRACTOR SHALL ADHERE TO ALL INSTRUCTION FROM THE TRUSS SUPPLIER REGARDING ERECTION AND FIELD CONNECTIONS.
21. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE DETAILING OF THE HOPPER AND HOPPER DOWNSPOUTS FOR THE EXPANSION JOINT. COORDINATION WILL BE REQUIRED TO ENSURE AN ADEQUATE FIT OF THE HOPPER WITH THE BRIDGE EXPANSION JOINT, TRUSS BRIDGE, AND SUBSTRUCTURE BRIDGE SEAT(S). DETAILING, FABRICATION, TRANSPORTATION TO THE SITE AND INSTALLATION OF THE HOPPER AND DOWNSPOUT SHALL BE INCIDENTAL TO ITEM 516.11 BRIDGE EXPANSION JOINT, VERMONT. THE DOWNSPOUT SHALL EXTEND A MINIMUM OF 1 FT AND NOT MORE THAN 2 FT BELOW THE BRIDGE SEAT.
22. BOLT HOLES SHALL BE CLEANED OF GALVANIZATION TO RE-ESTABLISH A 1/16" HOLE.

**DECK AND SIDEWALK DESIGN AND CONCRETE NOTES:**

1. THE COST FOR THE DECK AND SIDEWALK SLAB CONCRETE AND DECK AND SIDEWALK SLAB REINFORCING STEEL SHALL BE PAID FOR UNDER ITEM 900.645 SPECIAL PROVISION (PREFABRICATED TRUSS BRIDGE). THE FOLLOWING NOTES SHALL APPLY TO THE DECK AND/OR SIDEWALK.
  - CONCRETE SHALL BE HIGH PERFORMANCE CLASS A CONCRETE AND SHALL MEET THE REQUIREMENTS OF SECTION 501 OF THE STANDARD SPECIFICATIONS.
  - REINFORCING STEEL SHALL BE LEVEL II AND SHALL MEET THE REQUIREMENTS OF SECTION 507 OF THE STANDARD SPECIFICATIONS.
  - SLAB THICKNESS SHALL BE 9 INCHES.
  - THE MINIMUM REINFORCING STEEL SHALL BE #5 BARS SPACED 12 INCHES CENTER TO CENTER IN EACH DIRECTION AND ON EACH FACE.
  - MINIMUM COVER FOR REINFORCING STEEL SHALL BE 2.5 INCHES FOR THE TOP OF CONCRETE DECK, 3 INCHES FOR CURB, AND 1.5 INCHES FOR BOTTOM OF THE CONCRETE DECK.
2. THE FABRICATOR/CONTRACTOR SHALL DESIGN AND DETAIL THE DECK SLAB TO MEET THE FOLLOWING DESIGN CRITERIA (DESIGN COST SHALL BE INCIDENTAL TO ITEM 900.645 SPECIAL PROVISION (PREFABRICATED TRUSS BRIDGE)):
  - CONCRETE BRIDGE CURB SHALL BE CAST-IN-PLACE HIGH PERFORMANCE CLASS A CONCRETE AS SHOWN ON THE PLANS AND PAID FOR UNDER ITEM 501.33 CONCRETE, HIGH PERFORMANCE CLASS A. THE REINFORCING STEEL FOR CONCRETE BRIDGE CURB SHALL BE LEVEL II REINFORCING STEEL, PLACED AS SHOWN ON THE PLANS AND PAID FOR UNDER ITEM 507.12 REINFORCING STEEL, LEVEL II.
3. THE CONTRACTOR HAS THE OPTION TO PROVIDE AN ALTERNATE DECK TYPE THAN THAT MENTIONED ABOVE WITH PRIOR APPROVAL FROM THE ENGINEER AND VTRANS SHO. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR COORDINATING DECK TYPE WITH THE TRUSS FABRICATOR. THE PAYMENT FOR ALTERNATE DECK WILL BE INCLUDED UNDER ITEM 900.645 SPECIAL PROVISION (PREFABRICATED TRUSS BRIDGE).
4. THE CONCRETE BRIDGE CURB SHALL BE CAST-IN-PLACE HIGH PERFORMANCE CLASS A CONCRETE AS SHOWN ON THE PLANS AND PAID FOR UNDER ITEM 501.33 CONCRETE, HIGH PERFORMANCE CLASS A. THE REINFORCING STEEL FOR CONCRETE BRIDGE CURB SHALL BE LEVEL II REINFORCING STEEL, PLACED AS SHOWN ON THE PLANS AND PAID FOR UNDER ITEM 507.12 REINFORCING STEEL, LEVEL II.
5. THE FABRICATOR/CONTRACTOR SHALL PROVIDE FINAL CONCRETE BRIDGE SEAT ELEVATIONS ON THE FABRICATION DRAWINGS FOR EACH ABUTMENT BASED ON THE ACTUAL DEPTH OF THE BRIDGE AND THE HEIGHT OF THE BEARINGS.
6. CONCRETE PORTIONS OF THE ABUTMENT AND WINGWALLS ABOVE THE TOP OF FOOTING SHALL NOT BE PLACED UNTIL THE ENGINEER HAS APPROVED THE FINAL BRIDGE SEAT ELEVATIONS FOR THE TRUSS AND RELATED BRIDGE COMPONENTS.
7. NO CONCRETE IN ABUTMENTS OR WINGWALLS SHALL BE PLACED ABOVE THE BRIDGE SEAT ELEVATIONS UNTIL THE STRINGERS, FLOORBEAMS, AND SIDEWALK STRINGERS HAVE BEEN PROFILED AND THE FINISHED GRADE OF THE DECK AND SIDEWALK HAS BEEN DETERMINED.
8. THE BAR LIST AND BENDING SCHEDULES SHALL BE PREPARED BY THE VENDOR AS SPECIFIED IN SUBSECTION 507.09. PAYMENT FOR THIS WORK SHALL BE INCIDENTAL TO ITEMS 507.11 REINFORCING STEEL, LEVEL I AND 507.12 REINFORCING STEEL LEVEL II.
9. ALL SUBSTRUCTURE REINFORCING STEEL ABOVE THE BRIDGE SEAT ELEVATION, INCLUDING REINFORCING STEEL THAT EXTENDS ABOVE THE BRIDGE SEAT, SHALL BE LEVEL II REINFORCING STEEL MEETING THE REQUIREMENTS OF SECTION 507.
10. ALL SUBSTRUCTURE AND APPROACH SLAB CONCRETE SHALL BE HIGH PERFORMANCE, CLASS B.
11. CONCRETE FOR CURB ON BRIDGE SHALL BE HIGH PERFORMANCE, CLASS A.
12. ALL REINFORCING ABOVE THE BRIDGE SEAT (MARK SUFFIX .2) SHALL HAVE LEVEL II CORROSION PROTECTION AND SHALL BE PAID FOR UNDER ITEM 507.12 REINFORCING STEEL, LEVEL II. ALL OTHER SUBSTRUCTURE REINFORCING SHALL BE PLAIN AND SHALL BE PAID FOR UNDER ITEM 507.11 REINFORCING STEEL, LEVEL I.

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