

GENERAL

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO STATE OF VERMONT, AGENCY OF TRANSPORTATION, 2011 STANDARD SPECIFICATIONS AND ITS LATEST REVISIONS, AND THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, DATED 2012, AND ITS LATEST REVISIONS.
2. THE BRIDGE IS DESIGNED FOR HL93 LIVE LOAD.
3. ALL DIMENSIONS SHOWN IN THE PLANS ARE HORIZONTAL OR VERTICAL AND ARE GIVEN AT 68 DEGREES FAHRENHEIT, UNLESS NOTED OTHERWISE.

EARTHWORK & REMOVAL OF BRIDGE

4. ITEM 529.15 "REMOVAL OF STRUCTURE" IS FOR THE REMOVAL OF THE EXISTING STRUCTURE INCLUDING THE SUPERSTRUCTURE, ABANDONED COMMUNICATIONS UTILITIES AND APPURTENANCES, PIERS AND ABUTMENTS INCLUDING THE FOOTING AND ANY PORTION OF THE SUBSTRUCTURE OUTSIDE THE LIMITS OF STRUCTURE EXCAVATION OR UNCLASSIFIED CHANNEL EXCAVATION. VOIDS CREATED BY REMOVAL OF STRUCTURE THAT ARE OUTSIDE THE LIMITS OF STRUCTURE EXCAVATION OR UNCLASSIFIED EXCAVATION SHALL BE BACKFILLED WITH GRANULAR BACKFILL FOR STRUCTURES AND WILL BE PAID FOR UNDER ITEM 204.30, GRANULAR BACKFILL FOR STRUCTURES.
5. THE AREA DISTURBED BY THE TEMPORARY DETOUR OUTSIDE THE LIMITS OF THE PERMANENT CONSTRUCTION SHALL BE SEEDED AND MULCHED AFTER ALL THE FILL IS REMOVED TO THE ORIGINAL GROUND SURFACE. THE COST OF THE SEED, FERTILIZER, AND MULCH WILL BE PAID FOR UNDER THEIR RESPECTIVE ITEMS.
6. ITEM 613.12 STONE FILL, TYPE III SHALL BE PLACED IN FRONT OF THE ABUTMENTS BEFORE THE STRUCTURAL STEEL HAS BEEN SET.

CONCRETE

7. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1 INCH BY 1 INCH, UNLESS OTHERWISE NOTED.
8. JOINTS AND SCORE MARKS IN CONCRETE SHALL BE CONSTRUCTED AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
9. ITEM 900.608 SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, CLASS PCD) SHALL BE USED FOR THE DECK, BRIDGE RAIL CONCRETE, INTEGRAL ABUTMENT CURTAIN WALL AND WINGWALLS ABOVE THE PILE CAP CONSTRUCTION JOINT. ITEM 900.608 SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, CLASS PCS) SHALL BE USED BELOW THE PILE CAP CONSTRUCTION JOINT AND FOR THE APPROACH SLABS.
10. RECOMMENDED DECK POUR SEQUENCE: THE MAIN PORTION OF THE DECK BETWEEN THE CONSTRUCTION JOINTS SHALL BE PLACED PRIOR TO PLACING THE BRIDGE ENDS (ENDS OF DECK AND INTEGRAL CURTAIN WALLS). THERE SHALL BE A MINIMUM OF 96 HOURS BETWEEN COMPLETION OF THE MAIN PORTION OF THE DECK AND THE BRIDGE ENDS. THIS POUR SEQUENCE IS RECOMMENDED TO ALLOW ROTATION OF THE GIRDER ENDS WITHOUT IMPOSING ROTATION FORCES ON THE ABUTMENTS. ALTERNATE POUR SEQUENCES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
11. THE COST OF INSTALLING PVC WATERSTOPS, AS SHOWN IN THE PLANS, WILL BE CONSIDERED INCIDENTAL TO ITEM 900.608 SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, CLASS PCS). THE TYPE OF PVC WATERSTOP TO BE USED SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEER FOR APPROVAL.
12. ITEM 514.10 "WATER REPELLENT, SILANE" SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES EXCEPT THE UNDERSIDE OF THE DECK BETWEEN THE DRIP NOTCHES. PAYMENT FOR WATER REPELLENT, SILANE WILL BE MADE UNDER ITEM 514.10, WATER REPELLENT, SILANE.
13. CLEAR COVER ON REINFORCING STEEL SHALL BE PER THE FOLLOWING TABLE UNLESS NOTED OTHERWISE.

LOCATION	CLEAR COVER (INCHES)
UNDERSIDE OF BRIDGE DECK	1.5
EXPOSED TO EARTH OR WEATHER	2
TOP OF PAVED BRIDGE DECK	2.5
DIRECT EXPOSURE TO DEICING SALTS (CURBS, SIDEWALK AND RAILING)	3
CAST AGAINST EARTH	3

14. ALL REINFORCING STEEL SHALL BE DETAILED AND FABRICATED USING PROCEDURES AND TOLERANCES IN ACCORDANCE WITH APPLICABLE PUBLICATIONS OF THE "CONCRETE REINFORCING STEEL INSTITUTE".
  15. ALL REINFORCING STEEL SHALL MEET THE REQUIREMENTS FOR LEVEL II CORROSION RESISTANCE REINFORCING STEEL IN ACCORDANCE WITH SECTION 507.
  16. IN ACCORDANCE WITH SUBSECTION 506.23 (A) OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL TAKE MEASURES NECESSARY TO PROTECT ALL SUBSTRUCTURE CONCRETE FROM STAINING DUE TO OXIDE FORMATION ON THE STRUCTURAL STEEL PRIOR TO PLACEMENT OF THE DECK. THESE MEASURES WILL NOT BE PAID FOR SEPARATELY BUT WILL BE CONSIDERED INCIDENTAL TO ITEM 900.608 SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, CLASS PCS). ANY SUCH STAINING THAT OCCURS PRIOR TO DECK PLACEMENT SHALL BE REMOVED AT NO ADDITIONAL COST TO THE STATE.
- STRUCTURAL STEEL
17. ALL STRUCTURAL STEEL SHALL CONFORM TO AASHTO M 270M/M270, GRADE 50W.
  18. ALL WELDING SHALL CONFORM TO THE PROVISIONS OF SUBSECTION 506.10.
  19. BEAM WEBS SHALL BE PLUMB IN FINAL POSITION.
  20. CHARPY V-NOTCH TEST: TEST STRUCTURAL STEEL MEMBERS DESIGNATED "CVN" IN THE PLANS IN ACCORDANCE WITH SUBSECTION 714.01.
  21. BOLTS FOR ALL BOLTED FIELD CONNECTIONS SHALL BE 7/8 INCH DIAMETER HIGH STRENGTH BOLTS IN 1/6 INCH DIAMETER HOLES UNLESS OTHERWISE NOTED.
  22. CONNECTIONS NOT SHOWN IN THE PLANS SHALL BE DETAILED BY THE FABRICATOR IN THE FABRICATION DRAWINGS AND SUBMITTED TO THE ENGINEER FOR APPROVAL.
  23. AFTER THE SUPERSTRUCTURE STEEL HAS BEEN ERECTED, ELEVATIONS ALONG THE TOP OF GIRDERS SHALL BE TAKEN UNDER DIRECTION OF THE ENGINEER FOR USE IN DETERMINING THE FINAL GRADE AND HAUNCH DEPTHS.
  24. HOLES IN WEB: FILL ANY BOLT HOLES IN THE WEBS OF THE BEAMS NOT OTHERWISE FILLED WITH BUTTON HEAD OR HEX HEAD BOLTS MEETING AASHTO M164 TYPE III. TIGHTEN THE BOLTS IN ACCORDANCE WITH SUBSECTION 506.19.

PILE NOTES

25. FOR ESTIMATING PURPOSES, THE PILE TIP ELEVATIONS WERE ASSUMED AND ARE SHOWN ON THE BORING LOGS. THE ACTUAL IN PLACE LENGTHS MAY VARY, BUT SHALL HAVE A MINIMUM EMBEDMENT DEPTH OF 30' BELOW THE BOTTOM OF THE PILE CAPS.
26. THE PILE SHALL BE HP14 x 89, GRADE 50.
27. PILE SHOES SHALL BE REQUIRED AND SHALL CONFORM TO SECTION 505.
28. THE REQUIRED NOMINAL AXIAL DRIVING RESISTANCE (RNDR) FOR THE PILES IS 692 KIPS PER PILE BASED ON AN APPLIED FACTORED AXIAL LOAD OF 450 KIPS PER PILE AND A DYNAMIC RESISTANCE FACTOR (ODYN) OF 0.65. TO ENSURE THAT THE NOMINAL RESISTANCE HAS BEEN ATTAINED AND TO PREVENT THE OVERSTRESSING OF THE PILES DURING DRIVING OPERATIONS, DYNAMIC TESTING SHALL BE PERFORMED IN ACCORDANCE WITH SUBSECTION 505.04, PAYMENT FOR PILE TESTING SHALL BE MADE UNDER ITEM 505.45 "DYNAMIC PILE LOADING TEST". A MINIMUM OF ONE DYNAMIC TEST SHALL BE CONDUCTED ON THE FIRST PILE DRIVEN FOR EACH ABUTMENT FOR A TOTAL OF TWO TESTS. MORE TESTS MAY BE REQUIRED BY THE ENGINEER.

TEMPORARY BRIDGE AND APPROACHES

29. TRAFFIC WILL BE MAINTAINED ON A ONE-WAY TEMPORARY BRIDGE. THE BRIDGE SHALL HAVE A SIDEWALK FOR PEDESTRIAN TRAFFIC.
30. THE DETOUR CURVES SHALL BE DESIGNED FOR A MINIMUM OF 25 MPH. ADVISORY SIGNS SHALL BE POSTED IN ACCORDANCE WITH THE MOST RECENT VERSION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). THIS WORK WILL BE CONSIDERED INCIDENTAL TO ITEM 528.10 "ONE-WAY TEMPORARY BRIDGE".

WATER MAIN RELOCATION

31. WATER MAIN RELOCATION WORK SHALL CONSIST OF THE CONSTRUCTION AND RELOCATION OF THE EXISTING 10" DUCTILE IRON (DI) WATER MAIN WITH A NEW PERMANENT 10" DI WATER MAIN SUPPORTED UNDER THE NEW BRIDGE.

THE RELOCATION WORK SHALL INCLUDE, BUT IS NOT LIMITED TO, INSTALLATION OF TWO (2) NEW PERMANENT TAPPING SLEEVES WITH TAPPING VALVES, NEW TEMPORARY UNDERGROUND 10" DI WATER MAIN, NEW TEMPORARY BLOW-OFF, AND NEW TEMPORARY 10" DI WATER MAIN SUSPENDED UNDER THE NEW TEMPORARY BRIDGE, FOLLOWED BY CONSTRUCTION OF NEW 10" DI UNDERGROUND WATER MAIN PIPING CONNECTED TO NEW 10" DI WATER MAIN SUPPORTED UNDER THE NEW BRIDGE.

ANCILLARY WORK INCLUDES INSTALLATION OF TWO (2) NEW IN-LINE GATE VALVES, RELOCATION OF EXISTING FIRE HYDRANT, WATER SERVICE CONNECTION TO EXISTING PROPERTY, MAINTAINING AND TRANSFERRING THE EXISTING SYSTEM PIPING TO THE NEW WATER SYSTEM PIPING, AND REMOVAL OF ALL ASSOCIATED EXISTING AND TEMPORARY WATER MAIN PIPING.

SEE WATER PROFILE, TEMPORARY UTILITY PLAN, UTILITY PLAN AND WATER DETAIL SHEETS FOR ADDITIONAL DETAILS.

PAYMENT FOR NEW 10" DI TEMPORARY WATER MAIN AND ALL APPURTENANCES, INCLUDING REMOVAL OF EXISTING 10" DI WATER MAIN, ABANDONED 8" WATER MAIN, AND TEMPORARY 10" WATER MAIN, WILL BE INCLUDED UNDER ITEM 629.42, TRANSFER TO NEW SYSTEM, WATER SYSTEM.

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FILE NAME: z12j164brg_n.ts.dgn	PLOT DATE: 9/30/2016
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PROJECT NOTES	SHEET 5 OF 76

