

GENERAL

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO STATE OF VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2011, WITH ITS LATEST REVISIONS, AND THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 6TH EDITION WITH INTERIMS THROUGH 2012.
2. THE BRIDGE IS DESIGNED FOR HL-93 LIVE LOADING.
3. ALL DIMENSIONS ARE HORIZONTAL OR VERTICAL AND ARE BASED ON 68° F OR AS NOTED OTHERWISE.
4. THE CONTRACTOR IS RESPONSIBLE FOR FIELD CHECKING ANY AND ALL DIMENSIONS AND ELEVATIONS APPLICABLE TO THIS WORK PRIOR TO COMMENCING WORK OR ORDERING MATERIAL.
5. ALL WORK SHALL TAKE PLACE WITHIN THE EXISTING RIGHT-OF-WAY. NO PROVISIONS HAVE BEEN MADE FOR THE CONTRACTOR TO PERFORM WORK OR SET UP STAGING OUTSIDE THE EXISTING RIGHT-OF-WAY.
6. THE TOWN WILL MAINTAIN RESPONSIBILITY FOR SNOW REMOVAL ON THE EXISTING BRIDGE THROUGHOUT THE DURATION OF THE PROJECT.
7. EXISTING FIBER OPTIC CABLE SHALL BE REMOVED AND PERMANENTLY RELOCATED BY OTHERS. CONTRACTOR SHALL COORDINATE ALL BRIDGE REPLACEMENT, CONDUIT INSTALLATION, AND APPROACH RECONSTRUCTION WORK WITH UTILITY RELOCATION WORK AS REQUIRED. SEE UTILITY SPECIAL PROVISIONS AND SHEETS 67-70 FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

EARTHWORK AND RELATED ITEMS

8. ITEM 613.10 "STONE FILL, TYPE I", UNDER THE BRIDGE, AT THE ABUTMENTS AS SHOWN IN THE PLANS SHALL BE PLACED BEFORE THE NEW GIRDERS ARE SET.
9. ITEM 613.10, "STONE FILL, TYPE I" SHALL BE USED TO REPAIR AREAS OF EMBANKMENT AND SLOPE EROSION AS ORDERED BY THE ENGINEER AND TO CONSTRUCT STONE PADS (SEE EPSC SITE PLAN SHEET).
10. TEMPORARY CONSTRUCTION FILLS USED FOR ANY PURPOSE WITHIN THE WATERCOURSE SHALL CONSIST OF CLEAN STONE FILL ONLY. NO OTHER FILLING IN THE STREAM SHALL OCCUR WITHOUT THE APPROVAL OF THE STREAM ALTERATION ENGINEER.
11. DESIGN OF COFFERDAMS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 208. PAYMENT WILL BE MADE UNDER THE SECTION 208 ITEMS IN THE CONTRACT.

CONCRETE

12. ALL PORTIONS OF THE SUPERSTRUCTURE, AND THE PORTION OF THE ABUTMENT ABOVE THE HORIZONTAL CONSTRUCTION JOINT LOCATED BELOW THE GIRDERS, SHALL BE "CONCRETE, HIGH PERFORMANCE CLASS A" ($f'_c=4000$ PSI).
13. THE ABUTMENT STEMS, PIER PEDESTALS, AND APPROACH SLABS SHALL BE "CONCRETE, HIGH PERFORMANCE CLASS B" ($f'_c=3500$ PSI).
14. ALL REINFORCING STEEL AND MECHANICAL CONNECTORS IN THE DECK, ABUTMENTS AND PIERS SHALL BE LEVEL II IN ACCORDANCE WITH SECTION 507 AND WILL BE PAID FOR UNDER CONTRACT ITEM 507.12. APPROACH SLAB REINFORCING STEEL SHALL BE LEVEL I IN ACCORDANCE WITH SECTION 507 AND WILL BE PAID FOR UNDER CONTRACT ITEM 507.11.
15. WATER REPELLENT, SILANE, SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES, INCLUDING EXISTING PIERS, EXCEPT THE UNDERSIDE OF THE DECK BETWEEN DRIP NOTCHES.
16. REINFORCEMENT PLACEMENT TOLERANCES SHALL BE AS FOLLOWS:
 - SPACING +/- 1"
 - CLEARANCE +/- ¼"

17. MINIMUM CLEAR COVER FOR REINFORCING STEEL SHALL BE AS FOLLOWS:
 - ALONG TOP SURFACE OF DECK SLAB 2.5 INCH
 - ALONG BOTTOM SURFACE OF DECK SLAB 1.5 INCH
 - SURFACES CAST AGAINST EARTH 3.0 INCH
 - CURBS AND SIDEWALKS 3.0 INCH
 - ELSEWHERE UNLESS NOTED OTHERWISE 2.0 INCH
18. WHEN POURING THE DECK, THE CONCRETE SHALL BE DEPOSITED PARALLEL TO THE CENTERLINE OF BEARING SO AS TO LOAD THE GIRDERS EQUALLY.
19. THE BRIDGE DECK CONCRETE FOR EACH PHASE SHALL BE PLACED IN ONE CONTINUOUS POUR AND REMAIN PLASTIC THROUGHOUT THE ENTIRE POUR.
20. THE KEY-IN CONSTRUCTION JOINTS SHALL BE MONOLITHIC AND CONTINUOUS FOR THE FULL LENGTH OF THE JOINTS.
21. REINFORCING STEEL SHALL CONFORM TO AASHTO M 31, GRADE 420 (GRADE 60) AND SHALL BE DETAILED AND FABRICATED USING PROCEDURES AND TOLERANCES IN ACCORDANCE WITH APPLICABLE PUBLICATIONS OF THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI).
22. PIER CONCRETE REPAIRS SHALL BE PERFORMED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. A THOROUGH INSPECTION BY THE ENGINEER WILL BE MADE OF ALL PIER SUBSTRUCTURE AREAS PRIOR TO COMMENCING ANY WORK. THOSE AREAS FOUND TO HAVE SPALLED, DELAMINATED, OR UNSOUND CONCRETE WILL BE REPAIRED. THE CONTRACTOR SHALL SUPPLY ANY STAGING REQUIRED FOR THIS INSPECTION, THE COST FOR WHICH SHALL BE INCIDENTAL TO ALL OTHER ITEMS IN THE CONTRACT.
23. ALL REINFORCING STEEL LAP LENGTHS WERE DESIGNED ASSUMING DUAL-COATED STEEL.

PILE FOUNDATIONS

24. THE PILES SHALL BE HP 12 X 84. ESTIMATED PILE LENGTH IS 24 FT PER PILE AT ABUTMENT 1 AND 29 FT PER PILE AT ABUTMENT 2.
25. PILE SHOES ARE REQUIRED AND SHALL CONFORM TO SUBSECTION 505.04(F) OF THE STANDARD SPECIFICATIONS.
26. THE TOPS OF PILES AFTER DRIVING SHALL NOT VARY FROM THE PLAN POSITION BY MORE THAN 3 INCHES. THE PILE ORIENTATION SHALL NOT VARY BY MORE THAN 5 DEGREES. PRIOR TO BEGINNING DRIVING OPERATIONS, THE CONTRACTOR SHALL DEMONSTRATE TO THE SATISFACTION OF THE ENGINEER HOW THE TOLERANCES WILL BE MET REGARDLESS OF INSTALLATION METHOD.
27. THE PILES SHALL BE DRIVEN TO A NOMINAL RESISTANCE OF 365 KIPS AS DETERMINED BY THE RESULTS OF DYNAMIC TESTING, AS INTERPRETED BY THE ENGINEER.
28. FOR ESTIMATING PURPOSES, THE PILE TIP ELEVATIONS WERE ASSUMED AS SHOWN ON THE BORING LOGS. THE ACTUAL LENGTHS MAY VARY.
29. 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(d)-2 OF THE STANDARD SPECIFICATIONS. A PILE TEST SHALL BE CONDUCTED ON THE FIRST PILE DRIVEN AT EACH ABUTMENT. MORE TESTS MAY BE REQUIRED BY THE ENGINEER. PAY ITEM FOR THESE TESTS IS 505.45 "DYNAMIC PILE LOAD TEST."
30. DUE TO THE PRESENCE OF COBBLES AND BOULDERS, THE CONTRACTOR IS REQUIRED TO PRE-EXCAVATE MATERIAL TO BEDROCK PRIOR TO DRIVING PILES.
31. PAYMENT FOR PRE-EXCAVATION FOR PILES SHALL BE UNDER ITEM 900.640 "SPECIAL PROVISION (PRE-EXCAVATION OF INTEGRAL ABUTMENT PILES)".

REMOVAL OF EXISTING STRUCTURE

32. PARTIAL REMOVAL OF THE EXISTING STRUCTURE SHALL BE UNDER ITEM 529.20, "PARTIAL REMOVAL OF STRUCTURE". THIS WORK SHALL INCLUDE REMOVAL OF THE SUPERSTRUCTURE, ABUTMENT DIAPHRAGM, WINGWALLS DOWN TO THE EXISTING BRIDGE SEAT ELEVATION, AND PARTIAL REMOVAL OF THE EXISTING PIERS. THE CONTRACTOR'S METHODS FOR PARTIAL REMOVAL OF THE EXISTING STRUCTURE SHALL BE APPROVED BY THE ENGINEER PRIOR TO ANY REMOVAL WORK.
33. THE EXISTING STRUCTURAL STEEL AND BEARINGS TO BE REMOVED ON THIS PROJECT ARE PAINTED WITH A MATERIAL WHICH MAY CONTAIN LEAD. THE EXISTING STEEL IS TO BECOME THE PROPERTY OF THE CONTRACTOR AND THE CONTRACTOR MAY DISPOSE OF IT OR RETAIN IT FOR FUTURE USE. THE CONTRACTOR WILL INFORM THE ENGINEER OF THEIR PLANS TO DISPOSE OF OR RETAIN THE STEEL PRIOR TO ITS REMOVAL. THE CONTRACTOR SHALL FOLLOW ALL APPLICABLE REGULATIONS WHEN HANDLING AND WORKING WITH THIS STEEL. THE CONTRACTOR SHALL INDEMNIFY AND HOLD THE STATE, ITS OFFICERS, AND ITS EMPLOYEES HARMLESS CONCERNING THE CONTRACTOR'S USE OR DISPOSITION OF THE REMOVED STRUCTURAL STEEL.
34. PAYMENT FOR MAINTAINING PORTIONS OF THE EXISTING STRUCTURE AND ROADWAY FOR ACCEPTABLE USE DURING PHASED CONSTRUCTION WILL BE MADE UNDER CONTRACT ITEM 527.10 "MAINTENANCE OF STRUCTURES AND APPROACHES."

STRUCTURAL STEEL

35. ALL STRUCTURAL STEEL SHALL BE PAID FOR UNDER ITEM 506.55 "STRUCTURAL STEEL, PLATE GIRDER" AND SHALL CONFORM TO AASHTO M-270 GRADE 50W (UNPAINTED) UNLESS OTHERWISE NOTED IN THE PLANS.
36. THE WEB, TOP FLANGE, BOTTOM FLANGE, AND FIELD SPLICE PLATES OF THE GIRDERS SHALL BE CHARPY V-NOTCH TESTED IN ACCORDANCE WITH SUBSECTION 714.01.
37. BOLTS USED IN FIELD CONNECTIONS SHALL BE TYPE 3, 7/8" DIA., AND MEET THE REQUIREMENTS OF SUBSECTION 714.05. HOLE DIAMETERS SHALL BE 15/16". ANY CONNECTIONS NOT DESIGNED SHALL BE DETAILED BY THE FABRICATOR AND SUBMITTED TO THE STRUCTURES ENGINEER FOR APPROVAL.
38. AFTER SUPERSTRUCTURE STEEL HAS BEEN ERECTED, ELEVATIONS ALONG THE TOP OF THE GIRDERS SHALL BE TAKEN AS DIRECTED BY THE ENGINEER FOR USE IN DETERMINING FINISHED GRADES.
39. FLEMING BRACKETS OR SIMILAR FALSEWORK SHALL BE SPACED AS REQUIRED BY DESIGN, BUT SHALL BE LIMITED TO A MAXIMUM SPACING OF 4' 0". THE DESIGN OF FALSEWORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
40. ANY BOLT HOLES IN THE WEBS OF FASCIA GIRDERS NOT OTHERWISE FILLED SHALL BE FILLED WITH BUTTON HEAD OR HEX HEAD TYPE 3 BOLTS. THE BOLTS SHALL BE TIGHTENED IN ACCORDANCE WITH SUBSECTION 506.19 OF THE STANDARD SPECIFICATIONS.
41. ENDS OF GIRDERS SHALL BE VERTICAL IN THEIR FINAL POSITION.
42. DUE TO STABILITY CONCERNS AT THE ABUTMENTS DURING THE ERECTION OF THE SUPERSTRUCTURE, THE CONTRACTOR SHALL SUBMIT THE ERECTION PLAN A MINIMUM OF 30 WORKING DAYS PRIOR TO ERECTING THE SUPERSTRUCTURE.

ELASTOMERIC BEARINGS

43. ELASTOMER COMPOUND SHALL HAVE A NOMINAL HARDNESS OF 60 ON THE SHORE A SCALE, AND SHALL CONFORM TO SUBSECTION 731.03.
44. STEEL REINFORCEMENT FOR THE ELASTOMERIC BEARING PADS SHALL CONFORM TO SECTION 506 FOR GRADE 50 STEEL.
45. BEARINGS SHOULD BE INSTALLED AT TEMPERATURES BETWEEN 20 DEGREES F AND 70 DEGREES F. INSTALLATION TEMPERATURES OUTSIDE THIS RANGE WILL REQUIRE ADJUSTMENT.

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PROJECT LEADER: R. HEBERT	DRAWN BY: D. MYERS
DESIGNED BY: D. MYERS	CHECKED BY: R. HEBERT
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