

GENERAL

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE STATE OF VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2011, AND ITS LATEST REVISIONS, AND THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 4TH EDITION, DATED 2008 AND ITS LATEST REVISIONS.
2. THE BRIDGE IS DESIGNED FOR HL-93 LIVE LOAD WITH NO ALLOWANCE FOR ADDITIONAL FUTURE PAVEMENT.
3. ALL DIMENSIONS ARE HORIZONTAL OR VERTICAL AND ARE GIVEN AT 20 DEGREES CELSIUS UNLESS NOTED OTHERWISE.
4. THE DETAILS AND DIMENSIONS ON THE PROJECT SPECIFIC PLAN AND DETAIL SHEETS SHALL TAKE PRECEDENCE OVER THE MORE GENERAL "STRUCTURES DETAIL SHEETS" PROVIDED AT THE END OF THIS PLAN SET.
5. THE CONTRACTOR MAY SUBSTITUTE SUBBASE MATERIAL FOR THE SAND BORROW SHOWN IN THE PLANS. THE SUBBASE MATERIAL SHALL BE THE TYPE SPECIFIED, AND IT SHALL BE PLACED AS REQUIRED FOR THAT TYPE OF MATERIAL. IF THIS SUBSTITUTION IS MADE, A GEOTEXTILE MEETING THE REQUIREMENTS OF SECTION 649 FOR GEOTEXTILE FOR ROADBED SEPARATOR SHALL BE PLACED BETWEEN THE SUBGRADE AND THE SUBBASE MATERIAL. THE SUBSTITUTED SUBBASE WILL BE PAID FOR AT THE UNIT PRICE BID FOR 203.31, SAND BORROW AND THE COST OF THE GEOTEXTILE FABRIC SHALL BE INCIDENTAL TO THE ITEM 203.31, SAND BORROW.
6. ITEM 529.15 REMOVAL OF STRUCTURE IS FOR THE REMOVAL AND DISPOSAL OF THE EXISTING STRUCTURE, INCLUDING THE SUPERSTRUCTURE FOR BOTH SPANS AND THOSE PARTS OF THE SUBSTRUCTURE ABOVE THE ELEVATIONS SHOWN ON THE PLANS AND PERMITS, WHICH ARE OUTSIDE THE LIMITS FOR OTHER EXCAVATION ITEMS.
7. THE COST FOR THE PLACEMENT AND REMOVAL OF ANY TEMPORARY FILLS THAT MAY BE NEEDED TO CONSTRUCT ANY PARTS OF THE TEMPORARY SHALL BE CONSIDERED INCIDENTAL TO ITEM 528.11, TEMPORARY BRIDGE.

TRAFFIC MAINTENANCE DURING CONSTRUCTION

8. TRAFFIC WILL BE MAINTAINED ON A TWO-WAY TEMPORARY BRIDGE.
9. THE DETOUR ALIGNMENT SHALL BE DESIGNED FOR A MINIMUM DESIGN SPEED OF 25 MPH. ALL WORK ASSOCIATED WITH THE INSTALLATION AND REMOVAL OF THE TEMPORARY BRIDGE AND ITS APPROACHES, INCLUDING TEMPORARY TRAFFIC BARRIER, PAVEMENT, AND PAVEMENT MARKINGS WILL BE INCLUDED IN THE UNIT PRICE BID FOR CONTRACT ITEM 528.11. ADVISORY SIGNS SHALL BE POSTED IN ACCORDANCE WITH VAOT STANDARD E-107. PAYMENT FOR ALL ON AND OFF PROJECT SIGNING AND TRAFFIC CONTROL DEVICES, INCLUDING DRUMS AND BARRICADES WILL BE PAID FOR UNDER CONTRACT ITEM 641.10 TRAFFIC CONTROL.
10. LIMITS OF THE TEMPORARY DETOUR MUST BE WITHIN THE RIGHT-OF-WAY ACQUIRED FOR THIS PURPOSE. ALL WORK NECESSARY TO MEET THIS CONDITION WILL BE INCIDENTAL TO ITEM 528.11 "TWO-WAY TEMPORARY BRIDGE". SEE ROW SHEETS.
11. THE AREA DISTURBED BY THE TEMPORARY DETOUR SHALL BE SEEDED AND MULCHED AFTER ALL THE FILL IS REMOVED TO THE FINAL GROUND ELEVATION. THE COST OF THE SEED, FERTILIZER AND MULCH WILL BE PAID UNDER THEIR RESPECTIVE ITEMS.

PILES - ABUT #2

12. THE PILES SHALL BE HP 310 X 125.
13. THE PILES SHALL BE DRIVEN TO A NOMINAL RESISTANCE OF 2135 KN AND SHALL BE EMBEDDED IN THE GROUND A MINIMUM OF 6.6 M. TO PREVENT DAMAGE TO THE PILES, PILE SHOES SHALL BE REQUIRED AND SHALL CONFORM TO SECTION 505.
14. A MINIMUM OF ONE DYNAMIC PILE TEST SHALL BE CONDUCTED. MORE TESTS MAY BE REQUIRED BY THE RESIDENT ENGINEER.
15. FOR ESTIMATING PURPOSES, THE PILE TIP ELEVATIONS WERE ASSUMED TO COINCIDE WITH THE TOP OF BEDROCK ELEVATIONS SHOWN ON THE BORING LOGS. THE ACTUAL IN-PLACE LENGTHS MAY VARY.

BED ROCK

16. FOOTING OR SUBFOOTINGS FOR SUBSTRUCTURES ON BEDROCK SHALL BE PLACED ON CLEAN, COMPETENT ROCK. ALL LOOSE ROCK AND DEBRIS SHALL BE REMOVED.
17. UPON COMPLETION OF EXCAVATION, AND PRIOR TO PLACING OF FORMWORK, FOR SUBSTRUCTURES FOUNDED ON BEDROCK, THE RESIDENT ENGINEER SHALL CONTACT THE PROJECT MANAGER AND THE SOILS AND FOUNDATIONS ENGINEER. THE SOILS AND FOUNDATIONS ENGINEER

SHALL DETERMINE IF THE BEDROCK IS COMPETENT TO OBTAIN THE NOMINAL BEARING RESISTANCE OF ROCK SHOWN ON THE PLANS. A MINIMUM OF FIVE (5) WORKING DAYS, FROM THE DATE OF NOTIFICATION, SHALL BE ALLOWED, TO MAKE THE INSPECTION AND DETERMINATION OF THE COMPETENCY OF THE BEDROCK.

18. SHOULD COMPETENT BEDROCK BE ENCOUNTERED ABOVE THE DESIGN BOTTOM OF FOOTING ELEVATION, IT SHALL BE REMOVED, AND PAID USING APPLICABLE CONTRACT PAY ITEMS, OR THE CONTRACTOR MAY PROVIDE A BEDROCK PROFILE TO THE PROJECT MANAGER, SO THAT THE PROJECT MANAGER CAN DETERMINE WHETHER THE DESIGN BOTTOM OF FOOTING ELEVATION CAN BE RAISED. THREE (3) WORKING DAYS FROM THE RECEIPT OF THE BEDROCK PROFILE SHALL BE ALLOWED FOR DETERMINATION OF THE FINAL BOTTOM OF FOOTING ELEVATION. NO ADJUSTMENTS OF THE FOOTING ELEVATION SHALL BE MADE WITHOUT APPROVAL OF THE PROJECT MANAGER.
19. ANY BEDROCK THAT NEEDS TO BE REMOVED SHALL BE PAID FOR UNDER THE APPLICABLE EXCAVATION ITEM. OVERBREAKAGE BEYOND THE MAXIMUM ALLOWANCE SPECIFIED IN SUBSECTION 204.09(B) WILL BE AT THE CONTRACTOR'S EXPENSE.
20. IF BEDROCK IS ENCOUNTERED MORE THAN 600 MM BELOW THE INDICATED BOTTOM OF FOOTING ELEVATIONS FOR PIER #1 OR FOR ABUTMENT #1, AS SHOWN ON THE PLANS, THE PROJECT MANAGER SHALL BE CONTACTED. PROFILES OF THE BEDROCK MAY BE REQUIRED TO ADJUST THE FOOTING ELEVATIONS AND SIZE. THREE (3) WORKING DAYS FROM THE RECEIPT OF THE BEDROCK PROFILE SHALL BE ALLOWED FOR DETERMINATION OF THE FINAL BOTTOM OF FOOTING ELEVATION. NO FURTHER WORK SHALL BE DONE ON THE FOOTINGS UNTIL A REPLY IS RECEIVED FROM THE STRUCTURE SECTION.
21. ALL OVERBREAKAGE BELOW INDICATED BOTTOM OF FOOTING SHALL BE REPLACED WITH HPC CONCRETE, CLASS B. A MAXIMUM OF 150 MM OF AVERAGE DEPTH SHALL BE PAID FOR AS HPC CONCRETE, CLASS B AND ANY ADDITIONAL CONCRETE REQUIRED SHALL BE PLACED AT THE CONTRACTOR'S EXPENSE.
22. IF A SUB-FOOTING IS REQUIRED, THE LIMITS OF THE SUB-FOOTING SHALL BE 300 MM OUTSIDE THE LIMITS OF THE FOOTING. #25 DOWELS SHALL BE DRILLED AND GROUTED INTO THE BEDROCK UNDER THE SUB-FOOTING AT 600 MM SPACING EACH WAY AS SHOWN ON THESE PLANS. THIS WORK SHALL BE PAID FOR UNDER ITEM 507.16 "DRILLING AND GROUTING DOWELS." THE CONCRETE IN THE SUBFOOTING SHALL BE CONCRETE, HIGH PERFORMANCE CLASS B.

CONCRETE

23. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 25 MM BY 25 MM.
24. JOINTS AND SCORE MARKS IN CONCRETE SHALL BE CONSTRUCTED AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
25. REINFORCING PLACEMENT TOLERANCES SHALL BE:
SPACING ± 25 MM
CLEARANCE ± 6 MM
26. THE DECK, BRIDGE CURBS, PIER HEADS AND ABUTMENT #2 (INCLUDING ITS WINGWALLS), AND THE PORTIONS OF ABUTMENT #1 ABOVE THE CONSTRUCTION JOINT IN THE BACKWALL (SEE EXPANSION JOINT DETAILS), SHALL BE CONCRETE, HIGH PERFORMANCE CLASS A. REFER TO THE SPECIAL PROVISIONS FOR SPECIFICATIONS FOR THE CONCRETE TO BE USED IN THE DRILLED SHAFTS. ALL OTHER SUBSTRUCTURE CONCRETE SHALL BE CONCRETE, HIGH PERFORMANCE CLASS B.
27. FOR BRIDGE DECK PLACEMENT, THE MAXIMUM TIME LIMIT FOR ANY COMBINATION OF PLACEMENTS DONE IN ANY ONE DAY SHALL BE EIGHT HOURS. THERE SHALL BE A MINIMUM OF 96 HOURS BETWEEN THE COMPLETION OF ONE DAY'S PLACEMENT AND THE BEGINNING OF OTHER ADJACENT PLACEMENT. ALL INDIVIDUAL DECK PLACEMENTS SHALL START FROM THE LOW END OF THE SECTION BEING PLACED.
28. NO CONCRETE IN THE ABUTMENTS OR WINGWALLS SHALL BE PLACED ABOVE THE BRIDGE SEAT CONSTRUCTION JOINT UNTIL THE GIRDERS HAVE BEEN PROFILED AND THE FINISHED GRADE OF THE DECK HAS BEEN DETERMINED.
29. SURFACES OF BRIDGE SEATS UNDER BEARING DEVICES SHALL BE LEVEL. ALL OTHER AREAS OF THE BRIDGE SEATS SHALL BE SLOPED AWAY FROM THE BEARING DEVICES AT A RATE OF 80 MM PER METER. THE ENTIRE BRIDGE SEAT SURFACE SHALL BE GIVEN A MAGNESIUM FLOAT FINISH.
30. WATER REPELLENT, SILANE SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES EXCEPT THE UNDERSIDE OF THE DECK BETWEEN THE DRIP NOTCHES.
31. ALL REINFORCING STEEL SHALL BE ITEM 507.11, REINFORCING STEEL, LEVEL I. ALL BARS WHOSE MARK CONTAINS AN "E", ON THE REINFORCING STEEL SCHEDULE, SHALL BE EPOXY COATED. ALL OTHER REINFORCING SHALL BE PLAIN REINFORCING.
32. PAYMENT FOR THE REINFORCING STEEL IN THE DRILLED SHAFT IS INCLUDED IN THE PAY ITEMS SPECIAL PROVISION (DRILLED SHAFT IN EARTH) (1.15M) AND SPECIAL PROVISION (DRILLED SHAFT

IN ROCK) (1.0M). THE REINFORCING BARS HAVE BEEN INCLUDED IN THE REINFORCING STEEL SCHEDULE, FOR THE CONTRACTOR'S CONVENIENCE.

33. CONCRETE FORMWORK AND SUPPORTS.
 - A. FLEMING BRACKETS OR SIMILAR FALSE WORK SHALL BE PLACED AT A MAXIMUM SPACING OF 4'-0". THE BRACKETS SHALL BEAR NEAR THE BOTTOM FLANGE AND IN NO CASE SHALL THEY BEAR ABOVE THE BOTTOM QUARTER OF THE WEB DEPTH.
 - B. PER SUBSECTION 501.09, THE CONTRACTOR SHALL SUBMIT A CONCRETE FORMWORK DESIGN FOR THE PIER.

STRUCTURAL STEEL

34. THE EXISTING STRUCTURAL STEEL IS PAINTED WITH A MATERIAL THAT MAY CONTAIN LEAD. THE CONTRACTOR SHALL FOLLOW ALL APPLICABLE REGULATIONS WHEN HANDLING AND WORKING WITH THIS STEEL. THE REMOVED STRUCTURAL STEEL SHALL BECOME THE PROPERTY OF THE CONTRACTOR. THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE STATE, ITS OFFICERS AND EMPLOYEES CONCERNING THE CONTRACTOR'S USE OR DISPOSITION OF THE REMOVED STRUCTURAL STEEL.
35. UNLESS OTHERWISE NOTED, ALL NEW STRUCTURAL STEEL SHALL CONFORM TO AASHTO M270/M270M GRADE 50W AND SHALL BE PAID FOR UNDER ITEM 506.56, STRUCTURAL STEEL, CURVED PLATE GIRDER. THE STRUCTURAL STEEL FOR THE DOWNSPOUT AND HARDWARE SHALL BE AS SPECIFIED ON DOWNSPOUT DETAILS SHEET AND SHALL BE PAID FOR UNDER ITEM 506.60, STRUCTURAL STEEL.
36. THE SOUTHERN ENDS OF ALL FOUR GIRDERS SHALL BE PAINTED FOR A DISTANCE OF 3.0 METERS FROM THE CENTERLINE OF BEARING AT ABUTMENT 1. ALL CROSS-FRAMES, DIAPHRAGMS AND CONNECTION OR STIFFENER PLATES IN THIS AREA SHALL ALSO BE PAINTED. THE FINAL COLOR SHALL BE BROWN IN CONFORMANCE WITH SUBSECTION 708.03 OF THE STANDARD SPECIFICATIONS. BROWN GREASE, CONFORMING TO SECTION 708.04 SHALL BE APPLIED TO ALL PAINTED AREAS. PAYMENT WILL BE MADE UNDER CONTRACT ITEM 900.645 SPECIAL PROVISION (QC/QA CLEANING AND PAINTING STRUCTURAL COMPONENTS).

STONE FILL

37. THE STONE FILL, TYPE IV SHALL BE PLACED IN FRONT OF THE ABUTMENTS AND PIERS BEFORE THE STRUCTURAL STEEL HAS BEEN SET.

BACKFILL

38. HEIGHT OF FILL BEHIND THE ABUTMENTS WILL BE LIMITED TO THE BRIDGE SEAT ELEVATION UNTIL THE DECK HAS BEEN PLACED AND THE CURING PERIOD IS COMPLETE.

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FILE NAME:	s78f163br1dgeeexcel.dgn
PROJECT LEADER:	M. EVANS-MONGEON
DESIGNED BY:	T. FILLBACH
PROJECT NOTES	
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