H-PILES

46. TO PREVENT DAMAGE TO THE PILES, PILE SHOES ARE REQUIRED AND SHALL CONFORM TO SUBSECTION 505.04 (f).

47. ABUTMENT PILES
    A. THE PILES SHALL BE HP 12x63.
    B. THE PILES SHALL BE DRIVEN TO NOMINAL PILE DRIVING RESISTANCE (RNDR) OF 288 KIPS, PROVIDED A MINIMUM PENETRATION OF 25 FEET BELOW THE BOTTOM OF PILE CAP HAS BEEN ACHIEVED.

48. A MINIMUM OF THREE DYNAMIC TESTS ARE REQUIRED DURING PILES INSTALLATION. NO LESS THAN ONE DYNAMIC PILE TEST SHALL BE CONDUCTED AT EACH ABUTMENT. PAYMENT WILL BE MADE UNDER ITEM 505.45, "DYNAMIC PILE LOADING TEST".

49. THE TOPS OF THE PILES AFTER DRIVING SHALL NOT VARY FROM THE POSITION SHOWN ON THE PLANS BY MORE THAN 3 INCHES. THE PILE ORIENTATION SHALL NOT VARY BY MORE THAN 5 DEGREES. THE CONTRACTOR SHALL DEMONSTRATE TO THE SATISFACTION OF THE ENGINEER HOW THE TOLERANCES WILL BE MET. THESE MEASURES SHALL BE DEMONSTRATED IN A SUBMITTAL TO BE ACCEPTED BEFORE PILE DRIVING COMMENCES.

50. FOR ESTIMATING PURPOSES, THE PILE TIP ELEVATIONS WERE ASSUMED AS SHOWN ON THE BORING LOGS. THE ACTUAL IN PLACE LENGTHS MAY VARY.

ABUTMENT CLOSURE/END DIAPHRAGM

51. THE ABUTMENT CLOSURE POUR SHALL BE MADE WITH HPC RAPID SET CONCRETE. PAYMENT WILL BE MADE UNDER ITEM 900.608, "SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET)(FPQ)."

52. AFTER THE CONCRETE HAS BEEN PLACED AND THE FINISHING OPERATIONS CONCLUDED, IT SHALL NOT BE WALKED ON OR DISTURBED IN ANY MANNER, INCLUDING THE REMOVAL OF FORMS FOR 12 HOURS.

53. THE CONCRETE SHALL OBTAIN A STRENGTH OF 4000 PSI PRIOR TO ANY VEHICULAR LOADING.

APPROACH SLABS

54. PRECAST CONCRETE COMPRESSIVE STRENGTH: f'c = 4,000 PSI.

55. SLAB EDGES IN CONTACT WITH HPC RAPID SET CONCRETE SHALL BE TREATED WITH CONCRETE SURFACE RETARDER, OR SIMILAR, TO PROVIDE A ROUGHENED SURFACE; AND SHALL BE POWER WASHED WITH WATER PRIOR TO INSTALLATION.

56. FILL CLOSURE POURS WITH HPC RAPID SET CONCRETE IN ACCORDANCE WITH ITEM 900.608, "SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET)(FPQ)".

57. THE APPROACH SLABS ARE TO BE SET AT THE GIVEN ELEVATIONS IN ORDER TO ACCOMMODATE THE ROADWAY GEOMETRY. THE PAVEMENT OVER THE APPROACH SLAB WILL VARY TO ACCOUNT FOR THE DIFFERENCE BETWEEN THE TOP OF SLAB ELEVATIONS AND THE FINISH GRADE. A MINIMUM OF 3" PAVEMENT SHALL BE MAINTAINED OVER THE APPROACH SLABS.

SHEET PILING

58. ALL STEEL SHEET PILING SHALL HAVE A MINIMUM SECTION MODULUS OF 31.0 IN^3/FT AND SHALL CONFORM TO AASHTO M202, GRADE 50.

59. THE STEEL SHEET PILING SHALL HAVE A MINIMUM EMBEDMENT DEPTH OF 20 FEET AND A TOTAL LENGTH OF 30.5 FEET.

60. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER INFORMATION ON THE TYPE OF EQUIPMENT PROPOSED TO BE USED, METHODS OF OPERATION, SEQUENCE OF SHEET PILE DRIVING, AND DETAILS OF ALL PILE DRIVING EQUIPMENT AND ACCESSORIES.

61. THE PERMANENT STEEL SHEET PILING SHALL BE INSTALLED BEFORE THE NEW PRECAST ABUTMENTS ARE SET ONTO THE STEEL H-PILES.

RAILROAD

62. ALL CONTRACTOR DESIGN, CONSTRUCTION AND FABRICATION SHALL CONFORM TO THE "AMERICAN RAILWAY ENGINEERING & MAINTENANCE OF WAY ASSOCIATION (AREMA) MANUAL FOR RAILWAY ENGINEERING, 2009" AND THE "STATE OF VERMONT AGENCY OF TRANSPORTATION (VTRANS) STANDARD SPECIFICATIONS FOR CONSTRUCTION, 2011" AND ITS LATEST REVISIONS.

63. THE CONTRACTOR'S ATTENTION IS CALLED TO THE FACT THAT CONTINUOUS COORDINATION WITH THE OPERATOR, CLARENDON AND PITTSFORD RAILROAD, CO (CLP), WILL BE REQUIRED THROUGHOUT CONSTRUCTION. CLP WILL PROVIDE THE CONTRACTOR WITH FLAGGERS FOR PROTECTION OF RAILROAD TRAFFIC WHILE WORK IS BEING PERFORMED WITHIN THE RAILROAD RIGHT OF WAY (R.O.W.). THE CONTRACTOR SHALL NOT ENTER THE R.O.W. AT ANY TIME WITHOUT CLP AUTHORIZATION. ALL COSTS FOR RAILROAD FLAGGER PROTECTION AND RAILROAD COORDINATION SHALL BE INCLUDED UNDER ITEM 900.650, "SPECIAL PROVISION (MAINTENANCE OF RAILROAD TRAFFIC)(N.A.B.I.)". SEE THE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

64. ALL WORK WITHIN THE RAILROAD R.O.W. SHALL BE PERFORMED DURING THE TIME SEGMENTS IN THE CONTRACT DOCUMENTS. SEE THE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

65. THE RAILROAD R.O.W. WIDTH IS DELINEATED ON THE LAYOUT SHEET. CONSTRUCTION AND ACCESS SHALL BE WITHIN THE R.O.W. UNLESS OTHERWISE APPROVED BY THE PROPERTY OWNER(S) AND VTRANS ENVIRONMENTAL PERMITTING. THE CONTRACTOR SHALL COORDINATE DIRECTLY WITH THE PROPERTY OWNER(S) TO OBTAIN WRITTEN APPROVAL OF LAND USE OUTSIDE THE R.O.W. THE CONTRACTOR SHALL SUBMIT COPIES OF WRITTEN PROPERTY AGREEMENTS TO THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR ANY ADDITIONAL PERMITTING REQUIRED FOR OUTSIDE THE R.O.W. LAND USE AT NO ADDITIONAL COST TO THE STATE.

66. THE CONTRACTOR IS ALLOWED A SINGLE TEMPORARY RAILROAD CROSSING. THE CONTRACTOR SHALL COORDINATE THIS LOCATION WITH THE CLP. THE TEMPORARY CROSSING SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CLP'S REQUIREMENTS. RUBBER TIRES SHALL BE PLACED ON THE RAILS WHENEVER TRACKED VEHICLES UTILIZE THE TEMPORARY CROSSING.

67. WITH THE EXCEPTION OF THE FIBER OPTIC CABLE AND THE TOWN SEWER LINE, THERE IS NO RECORD OF ANY UNDERGROUND UTILITIES THAT WOULD BE IMPACTED BY LOWERING OF THE TRACK AS DETAILED IN THE PROJECT PLANS. FIBER OPTIC UTILITY WILL BE LOWERED BY OTHERS PRIOR TO THE START OF CONSTRUCTION. THE SEWER LINE SHALL BE PROTECTED AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR IS ADVISED THAT EXPLORATORY EXCAVATION TO LOCATE EXISTING UNDERGROUND FACILITIES MAY BE NECESSARY TO PROTECT THESE FACILITIES FROM DAMAGE. SEE THE UTILITY SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS. THE CONTRACTOR SHALL CONTACT DIG-SAFE, CLP, FIRST LIGHT, AND THE TOWN OF CASTLETON TO DETERMINE THE PRESENCE AND LOCATION OF ANY UTILITIES WHETHER IN SERVICE OR OUT OF SERVICE, PRIOR TO ANY CONSTRUCTION AT THE SITE. THE UTILITY COMPANY SHALL BE RESPONSIBLE FOR LOWERING THE EXISTING FIBER OPTIC CABLE.

68. DAMAGE AS A RESULT OF THE WORK TO EXISTING COMPONENTS TO REMAIN, INCLUDING THE SEWER LINE IN THE TOWN OF CASTLETON, SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AS DIRECTED AND APPROVED BY THE ENGINEER AT NO ADDITIONAL EXPENSE TO THE BRIDGE OWNER (VTRANS), THE RAILROAD OPERATOR (CLP), OR THE SEWER OPERATOR (TOWN OF CASTLETON).

69. THE CONTRACTOR SHALL FIELD VERIFY EXISTING TOP OF RAIL ELEVATIONS AT THE HIGH RAIL AND SHALL VERIFY DESIRED FINAL TOP OF RAIL ELEVATIONS WITH CLP BEFORE STARTING THE WORK. TEMPORARY CHANGES TO TOP OF RAIL ELEVATIONS DURING THE WORK MUST BE APPROVED BY THE ENGINEER AND CLP BEFORE ADVANCING THE WORK.

70. THE CONDITION OF THE CROSS TIES WITHIN THE LIMITS OF THE RAIL LOWERING SHALL BE REVIEWED BY THE CONTRACTOR, ENGINEER, AND THE CLP FOR REMOVAL AND REPLACEMENT. FOR ESTIMATING PURPOSES IT WAS ASSUMED THAT 50% OF THE TIES WILL BE REMOVED AND REPLACED. NO TIES SHALL BE REMOVED AND REPLACED WITHOUT THE APPROVAL OF THE ENGINEER. PAYMENT FOR REMOVING, REPLACING AS DIRECTED BY THE ENGINEER, AND RESETTING EXISTING TIMBER CROSS TIES WILL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 900.640 (REMOVE AND RESET RAILROAD TRACKS).

71. THE EXISTING RAIL SHALL BE REMOVED AND RESET AS REQUIRED FOR THE LOWERING OF THE TRACKS. EXISTING RAILS AND JOINT BARS SHALL BE REUSED. THE CONTRACTOR SHALL PROVIDE ALL NEW RAIL ANCHORS, TRACK BOLTS, WASHERS, AND NUTS FOR JOINT BARS AND ALL NEW TRACK SPIKES AND TIE PLATES WHERE THE CROSS TIES ARE TO BE REMOVED AND REPLACED. PAYMENT WILL BE MADE UNDER CONTRACT ITEM 900.640, "SPECIAL PROVISION (REMOVE AND RESET RAILROAD TRACKS)".

72. NEW TRACK BOLTS FOR THE EXISTING 6-HOLE RAIL JOINT BARS SHALL BE 7/8" DIAMETER x 5 ½" LONG. NEW TRACK SPIKES FOR THE NEW 4-HOLE TIE PLATES SHALL BE 6" TRACK CUT SPIKES. SEE THE SPECIAL PROVISIONS FOR ADDITIONAL MATERIAL REQUIREMENTS.

73. TIE PLATE PADS WILL NOT BE USED UNDER TIE PLATES ON ANY OF THE NEW CROSS TIES.

74. NEW BALLAST AND TIMBER CROSS TIES SHALL BE PLACED AS REQUIRED FOR THE LOWERING OF THE TRACKS. THE CONTRACTOR SHALL PROVIDE THE CROSS TIES AND BALLAST. SEE THE SPECIAL PROVISIONS FOR MATERIAL REQUIREMENTS.

75. PRIOR TO REMOVING THE EXISTING RAIL, THE CONTRACTOR SHALL SURVEY THE EXISTING RAIL AND SUPERELEVATION OF THE EXISTING RAIL AND ESTABLISH SUFFICIENT SURVEY CONTROL TO ACCURATELY RESET THE RAIL TO THE ELEVATIONS SHOWN ON THE RAIL PROFILE, TO PROVIDE 21'-2¼" VERTICAL CLEARANCE BETWEEN THE LOWERED RAIL AND THE NEW BRIDGE LOW CHORD, AND TO RESET THE EXISTING SUPERELEVATION. PAYMENT FOR THIS WORK WILL BE INCLUDED IN THE UNIT PRICE BID FOR CONTRACT ITEM 900.640, "SPECIAL PROVISION REMOVE AND RESET RAILROAD TRACKS)".

MISCELLANEOUS

76. ITEM 520.10, "SHEET MEMBRANE WATERPROOFING, SPRAY APPLIED" SHALL BE APPLIED TO THE BRIDGE DECK AS PER THE MANUFACTURER'S INSTRUCTIONS AND EXTEND ONTO THE APPROACH SLAB 2'-0" BEYOND THE BEGIN BRIDGE/END OF BRIDGE.

REV.	DESCRIPTION	DATE
1	PZ SHAPE REMOVED FROM NOTE & CONTRACTOR-FABRICATED PRECAST	12/01/2014

PROJECT NAME: CASTLETON
PROJECT NUMBER: BRF 015-2(10)

FILE NAME: z12b138pn.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: E.A. FIALA
PROJECT NOTES (2 OF 2)

PLOT DATE: 12/1/2014
DRAWN BY: M.C. SCOTT
CHECKED BY: S.E. BURBANK
SHEET 8 OF 82

VHB Vanasse Hangen Brustlin, Inc.