Metric

GENERAL

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO STATE OF VERMONT, AGENCY OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR CONSTRUCTION, DATED 2006, AND ITS LATEST REVISIONS; AND THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 5TH EDITION AND ITS LATEST REVISIONS.

2. ALL DIMENSIONS ARE HORIZONTAL OR VERTICAL, AND ARE GIVEN AT 20 DEGREES CELSIUS, UNLESS NOTED OTHERWISE.

EARTHWORK

3. ITEM 529.20 "PARTIAL REMOVAL OF STRUCTURE" SHALL INCLUDE THE REMOVAL OF THE EXISTING SUPERSTRUCTURE AND ANY PORTION OF THE EXISTING ABUTMENTS AND PIER NOT REMOVED UNDER STRUCTURE EXCAVATION OR UNCLASSIFIED CHANNEL EXCAVATION. THE PIER SHALL BE REMOVED TO ELEVATION 192.00 (APPROXIMATELY 0.5 METERS BELOW STREAMBED).

4. ITEM 529.20 "PARTIAL REMOVAL OF STRUCTURE" SHALL INCLUDE THE REMOVAL OF THE PRIVATE SEWER LINE FROM THE EXISTING BRIDGE BETWEEN THE LIMITS OF STONE FILL AT ABUTMENT 1 AND THE EXISTING CONCRETE WALL AT ABUTMENT 2. THE CONTRACTOR SHALL SEAL THE REMAINING ENDS OF THE SEWER LINE WITH A PIPE FITTING SUITABLE FOR RECONNECTING THE LINE AND APPROVED BY THE ENGINEER. THIS WORK WILL BE INCIDENTAL TO ITEM 529.20, "PARTIAL REMOVAL OF STRUCTURE".

5. THE CONTRACTOR MAY SUBSTITUTE SUBBASE OF DENSE GRADED CRUSHED STONE FOR THE SAND BORROW SHOWN ON THE PLANS. IF PLACEMENT OF SUBBASE IS IN LIEU OF SAND BORROW, PLACE A GEOTEXTILE MEETING THE REQUIREMENTS OF SECTION 649 FOR "GEOTEXTILE FOR ROAD BED SEPARATOR" BETWEEN THE SUBGRADE AND THE SUBBASE MATERIAL. ANY SUBSTITUTED MATERIAL WILL BE PAID UNDER ITEM 203.31, "SAND BORROW". ALL COSTS ASSOCIATED WITH THE INSTALLATION OF THE GEOTEXTILE FOR ROADBED SEPARATOR SHALL BE INCIDENTAL TO ITEM 203.31, "SAND BORROW".

6. ABUTMENT STONE FILL: PLACE STONE FILL UNDER THE BRIDGE BEFORE SETTING THE STRUCTURAL STEEL.

CONCRETE

7. ITEM 514.10, "WATER REPELLENT, SILANE, SHALL BE APPLIED TO ALL EXPOSED CONCRETE ON THE BRIDGE SUPERSTRUCTURE AND SUBSTRUCTURE, WITH THE EXCEPTION OF THE BOTTOM OF THE DECK BETWEEN THE DRIP NOTCHES.

8. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 25 BY 25, UNLESS OTHERWISE NOTED. A 12 RADIUS SHALL BE USED ON THE TOP INSIDE CORNER OF THE CURBS.

9. JOINTS AND SCORE MARKS IN CONCRETE SHALL BE CONSTRUCTED AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

10. ALL SUPERSTRUCTURE CONCRETE (INCLUDING CONCRETE PARAPET FOR BRIDGE RAILING) AND CONCRETE PLACED INTEGRALLY WITH THE SUPERSTRUCTURE SHALL BE ITEM 900.608, "SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, CLASS A LOW CEMENT". ALL SUBSTRUCTURE AND APPROACH SLAB CONCRETE SHALL BE ITEM 501.34, "CONCRETE, HIGH PERFORMANCE CLASS B."

11. ALL REINFORCING STEEL SHALL BE DETAILED AND FABRICATED USING PROCEDURES AND TOLERANCES IN ACCORDANCE WITH APPLICABLE PUBLICATIONS OF THE "CONCRETE REINFORCING STEEL INSTITUTE".

12. ALL EPOXY REINFORCING STEEL TO BE CUT IN THE FIELD SHALL BE SAW CUT AND THE EXPOSED ENDS TREATED WITH AN APPROVED TWO-PART EPOXY REPAIR MATERIAL.

13. MINIMUM CLEAR COVER FOR REINFORCING STEEL SHALL BE AS FOLLOWS:

ALONG BACK FACES OF WALLS AGAINST EARTH	50
ALONG TOP SURFACE OF DECK SLAB:	60
ALONG BOTTOM SURFACE OF DECK SLAB:	40
ELSEWHERE UNLESS OTHERWISE INDICATED:	80

REINFORCEMENT STEEL PLACEMENT TOLERANCES SHALL BE:

SPACING = +/- 25
CLEARANCE = +/- 6

STRUCTURAL STEEL

14. THE EXISTING STRUCTURAL STEEL ON THIS PROJECT WAS PAINTED WITH A MATERIAL WHICH MAY CONTAIN LEAD. THE REMOVED STRUCTURAL STEEL IS TO BECOME THE PROPERTY OF THE CONTRACTOR. THE CONTRACTOR SHALL INDEMNIFY AND HOLD THE STATE, ITS OFFICERS AND EMPLOYEES HARMLESS CONCERNING THE CONTRACTOR'S USE OR DISPOSITION OF THE STRUCTURAL STEEL.

15. CHARPY V-NOTCH TEST: TEST STRUCTURAL STEEL MEMBERS DESIGNATED "CVN" IN THE PLANS IN ACCORDANCE WITH SUBSECTION 714.01 OF THE STANDARD SPECIFICATIONS.

16. BOLTS FOR ALL BOLTED FIELD CONNECTIONS SHALL BE 22 DIAMETER HIGH STRENGTH BOLTS IN 24 DIAMETER HOLES UNLESS OTHERWISE NOTED.

17. CONNECTIONS NOT SHOWN IN THE PLANS SHALL BE DETAILED BY THE FABRICATOR AND SUBMITTED TO THE RESIDENT ENGINEER FOR APPROVAL.

18. AFTER THE SUPERSTRUCTURE STEEL HAS BEEN ERECTED, ELEVATIONS ALONG THE TOP OF BEAMS SHALL BE TAKEN UNDER DIRECTION OF THE RESIDENT ENGINEER FOR USE IN DETERMINING THE FINAL GRADE AND HAUNCH DEPTHS.

19. FLEMING BRACKETS OR SIMILAR FALSEWORK: SPACE FLEMING BRACKETS OR SIMILAR FALSEWORK AS REQUIRED BY DESIGN WITH A MAXIMUM SPACING OF 1200 MM. THE DESIGN OF FALSEWORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

20. HOLES IN WEB: FILL ANY BOLT HOLES IN THE WEBS OF THE BEAMS NOT OTHERWISE FILLED WITH BUTTON HEADS OR HEX HEAD BOLTS MEETING AASHTO M 164M TYPE I. TIGHTEN THE BOLTS IN ACCORDANCE WITH SUBSECTION 506.19 OF THE STANDARD SPECIFICATIONS.

H-PILES

21. ITEM 505.26 "STEEL PILING FOR INTEGRAL ABUTMENTS, HP 310 X 110". REINFORCE THE DRIVING TIP ACCORDING TO SUBSECTION 505.04(E) OF THE STANDARD SPECIFICATIONS.

22. ITEM 505.45 "DYNAMIC PILE LOADING TEST". THE PILE SHALL BE DRIVEN TO A NOMINAL RESISTANCE OF 2605 KN.

23. THE ESTIMATED PILE LENGTH TO ACHIEVE THE REQUIRED NOMINAL RESISTANCE IS EQUAL TO 6 METERS.

TRAFFIC CONTROL

24. TRAFFIC SHALL BE MAINTAINED DURING CONSTRUCTION ON A ONE-WAY TEMPORARY BRIDGE WITH TEMPORARY TRAFFIC LIGHTS AND PAVED APPROACHES CONSTRUCTED DOWNSTREAM OF THE EXISTING STRUCTURE. THE ONE-WAY TEMPORARY BRIDGE WILL BE PAID FOR UNDER ITEM 528.10 "ONE-WAY TEMPORARY BRIDGE" AND THE LIGHTS WILL BE PAID FOR UNDER ITEM 678.40 "TEMPORARY TRAFFIC SIGNAL SYSTEM".

25. MAINTAIN FULL ACCESS TO ALL SIDE ROADS AND DRIVES WITHIN THE PROJECT LIMITS AT ALL TIMES. IF THE CONTRACTOR MUST RESTRICT ACCESS, THEY MUST NOTIFY THE PROPERTY OWNERS IN ADVANCE. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO ITEM 641.10, "TRAFFIC CONTROL",

MISCELLANEOUS

26. FREDERIC LAWRENCE OWNS A WELL AT STA 1+080 LT AND LEACH FIELD AT STA 1+090 LT. THE WELL AND LEACH FIELD ARE OUTSIDE OF THE PROJECT LIMITS. IF THERE IS DAMAGE TO EITHER THE WELL AND/OR LEACH FIELD, DUE TO THE CONTRACTORS OPERATIONS, THE CONTRACTOR WILL BE RESPONSIBLE FOR THE REPAIR. PLACE ADDITIONAL PDF FENCING AROUND THE LEACH FIELD AREA. PAYMENT SHALL BE MADE UNDER ITEM 653.55, "PROJECT DEMARCATION FENCING".

ABUTMENT NO. 2 (LEDGE)

27. FOOTINGS OR SUBFOOTINGS FOR SUBSTRUCTURES FOUNDED ON BEDROCK SHALL BE PLACED ON CLEAN COMPETENT ROCK. ALL LOOSE ROCK AND DEBRIS SHALL BE REMOVED.

28. UPON COMPLETION OF THE EXCAVATION FOR SUBSTRUCTURE FOUNDED ON BEDROCK AND PRIOR TO PLACING FORMWORK, THE RESIDENT ENGINEER SHALL NOTIFY THE PROJECT MANAGER AND THE VTRANS SOILS AND FOUNDATION ENGINEER. THE SOILS AND FOUNDATION ENGINEER WILL DETERMINE IF THE BEDROCK IS COMPETENT. FIVE (5) WORKING DAYS FROM NOTIFICATION SHWLL BE ALLOWED TO MAKE THE INSPECTION AND DETEMINIATION FOR THE COMPETENCY OF THE BEDROCK.

29. WHERE COMPETENT BEDROCK IS ABOVE THE DESIGN BOTTOM OF FOOTING ELEVATION, IT SHALL BE REMOVED WITH CONTRACT PAY ITEMS OR THE CONTRACTOR SHALL PROVIDE A BEDROCK PROFILE TO THE PROJECT MANAGER TO DETERMINE WHETHER THE DESIGN BOTTOM OF FOOTING ELEVATION MAY BE RAISED. THREE (3) WORKING DAYS FROM RECEIPT OF THE BEDROCK PROFILE SHALL BE ALLOWED TO MAKE THE DETERMINATION FOR FOOTING REPLACEMENT. FOOTING ELEVATIONS SHALL NOT BE ADJUSTED WITHOUT APPROVAL OF THE PROJECT MANAGER.

30. OVERBREAKAGE AND REPLACEMENT WITH THE FOOTING CONCRETE BEYOND THE AVERAGE MAXIMUM ALLOWANCE SPECIFIED IN SUBSECTION 204.09(B) (1) WILL BE AT THE CONTRACTOR'S EXPENSE.

31. DOWELS SHALL BE DRILLED AND GROUTED INTO BEDROCK WHEN SHOWN ON THE PLANS OR AS ORDERED BY THE ENGINEER. THE DOWELS SHALL HAVE A 2'-0" MINIMUM EMBEDMENT IN THE BEDROCK AND SHALL EXTEND IN THE FOOTING OR SUBFOOTING A MINIMUM OF 1'-6", UNLESS NOTED OTHERWISE. SEE SECTION 507.06 FOR GROUTING MATERIAL.

BRIDGE RAILING NOTES

32. ALL WORK ASSOCIATED WITH THE BRIDGE RAILING SHALL BE PAID FOR UNDER ITEM 900.640 "SPECIAL PROVISION (BRIDGE RAILING, GALVANIZED METAL HAND RAILING/CONCRETE PARAPET COMBINATION)

PROJECT NAME:	NEWFANE
PROJECT NUMBER:	BRF 0106 (3)S
FILE NAME: s95j280gen.dgn	PLOT DATE: 29-JUL-2011
PROJECT LEADER: C. CARLSON	DRAWN BY: STR 3
DESIGNED BY: T. LACKEY	CHECKED BY: G. SWEENY
PROJECT NOTES	SHEET 3 OF 70