GENERAL NOTES

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO STATE OF VERMONT, AGENCY OF TRANSPORTATION, 2001 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND ITS LATEST REVISIONS, AND THE 2002 AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 17TH EDITION, AND ITS LATEST INTERIMS.

2. DESIGN IS FOR HS–25 LOADING WITH NO ALLOWANCE FOR FUTURE PAVEMENT. SUPERSTRUCTURE DESIGN IS BY THE LOAD FACTOR METHOD. SUBSTRUCTURE DESIGN IS BY THE SERVICE LOAD DESIGN METHOD.

3. DESIGN SOIL UNIT WEIGHT = 140 PCF

4. ALL DIMENSIONS ARE HORIZONTAL OR VERTICAL, AND ARE GIVEN AT 68 DEGREES F UNLESS OTHERWISE NOTED.

5. ALL WELDING AND FABRICATION SHALL BE PERFORMED IN CONFORMANCE WITH THE ANSI/AASHTO/AWS D1.5–02 BRIDGE WELDING CODE AND VTRANS STANDARD SPECIFICATIONS FOR CONSTRUCTION

6. THE PAINTING OF THE NEW STEEL WILL BE PAID FOR UNDER THE ITEM 513.25 "STRUCTURAL PAINTING, SHOP APPLIED". SEE SPECIAL PROVISIONS FOR THE SPECIFICATIONS PERTAINING TO THE PAINTING OF STRUCTURAL STEEL. SHOP APPLIED PROTECTIVE COATINGS FOR USE ON THIS STRUCTURE SHALL BE ONE OF THE APPROVED SYSTEMS ON THE QUALIFIED PRODUCT LIST MAINTAINED AT THE AGENCY'S MATERIALS LABORATORY. THE COLOR OF THE FINAL TOPCOAT SHALL CONFORM WITH FEDERAL STANDARD NO. 595: COLOR CHIP NO. 20059 (BROWN).

7. ALL FIELD CONNECTIONS SHALL BE MADE WITH GALVANIZED, ⅞" DIAMETER, TYPE I BOLTS MEETING THE REQUIREMENTS OF AASHTO M164 (ASTM A325) HOLES SHALL BE $^{15}/_{16}$" DIAMETER. CONNECTIONS NOT DESIGNATED SHALL BE DETAILED BY THE FABRICATOR AND SUBMITTED TO THE STATE FOR APPROVAL.

8. MECHANICALLY GALVANIZED AND PAINTED TYPE I BOLTS ARE TO BE USED FOR PAINTED M270 GRADE 50 AND PAINTED M270 GRADE 36 STRUCTURAL STEEL CONNECTIONS. FIELD PAINTING OF BOLTS TO INCLUDE INTERMEDIATE AND FINAL COATING SYSTEMS AFTER CONNECTION APPROVAL.

9. ALL WELDING SHALL CONFORM WITH THE PROVISIONS OF SUBSECTION 506.10 OF THE 2001 STANDARD SPECIFICATIONS.

10. ANY HOLES IN FASCIA BEAMS OR FASCIA GIRDER WEBS NOT OTHERWISE FILLED SHALL BE FILLED WITH ASTM A325 BOLTS. SEE STANDARD SPECIFICATION SECTION 506.19 FOR BOLT TENSIONING REQUIREMENTS.

11. AFTER SUPERSTRUCTURE STEEL HAS BEEN ERECTED, ELEVATIONS ALONG THE TOP OF THE BEAMS SHALL BE TAKEN AS DIRECTED BY THE ENGINEER FOR USE IN DETERMINING FINAL GRADE.

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

13. MINIMUM COVER FOR REINFORCING STEEL SHALL BE AS FOLLOWS: SUBSTRUCTURE: TWO (2) INCHES ALONG BACK FACES OF WALLS AGAINST EARTH, AND THREE (3) INCHES ELSEWHERE. FOR BRIDGE DECK: 2½" MIN. COVER FOR TOP REINFORCING, AND 1½" MIN. COVER FOR BOTTOM REINFORCING.

14. REINFORCING PLACEMENT TOLERANCES SHALL BE: SPACING +/– 1" CLEARANCE +/–¼" OR AS SHOWN ON THE PLANS.

15. DECK CONCRETE AND CONCRETE BRIDGE SIDEWALKS SHALL BE CONCRETE, HIGH PERFORMANCE CLASS A. CONCRETE ROADWAY SIDEWALKS AND ALL OTHER CONCRETE SHALL BE CONCRETE, HIGH PERFORMANCE CLASS B UNLESS OTHERWISE NOTED. SEE STAY–IN–PLACE CORRUGATED METAL FORMS NOTES FOR ALTERNATIVE TO ABOVE NOTE.

16. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1" BY 1".

17. SURFACES OF BRIDGE SEATS UNDER BEARING DEVICES SHALL BE LEVEL. OTHER BRIDGE SEAT AREAS SHALL BE SLOPED ½" PER FOOT. ABUTMENT SEATS SHALL BE SLOPED FULL WIDTH TOWARD CENTER SPAN. THE ENTIRE BRIDGE SEAT SURFACE SHALL BE MAGNESIUM FLOAT FINISHED.

18. FOR EACH CONSTRUCTION PHASE, THE DECK SHALL BE PLACED IN A SINGLE OPERATION WITHIN AN 8 HOUR PERIOD. IF THIS CAN NOT BE ACCOMPLISHED DUE TO CIRCUMSTANCES BEYOND THE CONTRACTOR'S CONTROL, A NEAT (DAMMED) CONSTRUCTION JOINT SHALL BE USED, SEE SHEET 54 FOR TRANSVERSE JOINT DETAILS. A NINETY–SIX HOUR DELAY BETWEEN PLACEMENTS SHALL BE OBSERVED.

19. WATER REPELLENT SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES EXCEPT THE UNDERSIDE OF DECK BETWEEN DRIP BEADS.

20. TRAFFIC SHALL BE ALLOWED ON THE NEW BRIDGE ONLY AFTER THE SPECIFIED CURE PERIOD HAS EXPIRED AND 28 DAY DESIGN STRENGTH HAS BEEN ATTAINED AS EVIDENCED BY TEST CYLINDERS CURED UNDER FIELD CONDITIONS. TRAFFIC WILL ALSO NOT BE ALLOWED ON THE NEW BRIDGE WITHOUT PAVEMENT IN PLACE.

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

22. THE KEY IN CONCRETE CONSTRUCTION JOINTS SHALL BE MONOLITHIC AND CONTINUOUS FOR THE FULL LENGTH OF THE JOINT. ANY UPWARD KEY SHALL BE PLACED INTEGRALLY WITH THE CONCRETE BELOW THE JOINT.

23. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND SPACING OF FASCIA OVERHANG BRACKETS; HOWEVER, SPACING SHALL NOT EXCEED FOUR (4) FEET.

24. NO CONCRETE ABOVE THE BRIDGE SEATS SHALL BE PLACED UNTIL THE FINAL FINISHED GRADE OF THE DECK HAS BEEN ESTABLISHED, OR AS OTHERWISE PERMITTED BY THE ENGINEER.

25. ALL PILES SHALL BE ASTM A36 HP14X73 BEARING PILES DRIVEN TO REFUSAL ON BEDROCK. THE ULTIMATE CAPACITY IS 530 Kips PER PILE.

26. ALL PILES SHALL BE FURNISHED WITH A REINFORCED PILE TIP OF PREFABRICATED CAST STEEL MEETING THE REQUIREMENTS OF ASTM A–27. SEE STANDARD SPECIFICATION SECTION 505.04 (E).

27. ALL NECESSARY COFFERDAM CONSTRUCTION INCLUDING ANY PHASED INSTALLATION AND REMOVAL NECESSARY FOR EACH PHASE OF CONSTRUCTION AT EACH ABUTMENT SHALL BE PAID AS ITEM 208.40, COFFERDAM, LUMP SUM, AT EACH ABUTMENT.

28. FOR EACH CONSTRUCTION PHASE, THE STONE FILL TYPE IV SHALL BE PLACED IN FRONT OF THE ABUTMENTS PRIOR TO ERECTING THE STRUCTURAL STEEL.

29. THE EXISTING BRIDGE TO BE REMOVED IS BELIEVED TO BE FOUNDED ON TIMBER PILES. ALSO, AS SHOWN ON THE BORING LOGS FOR BORINGS B–6 AND B–7, WOOD CRIBBING IS PRESENT ABOVE THE PROPOSED BOTTOM OF FOOTING ELEVATIONS. PORTIONS OF THE SUBSTRUCTURE ARE TO BE REMOVED AS INDICATED ON THE CHANNEL SECTIONS.

30. IN–STREAM CONSTRUCTION SHALL BE PERFORMED BETWEEN JUNE 1 AND OCTOBER 1, UNLESS THE CONTRACTOR OBTAINS WRITTEN PERMISSION FROM THE AGENCY OF NATURAL RESOURCES TO PERFORM SUCH WORK OUTSIDE OF THAT TIME FRAME.

31. TEN CUBIC YARDS OF STONE FILL TYPE IV HAS BEEN INCLUDED IN THE PROJECT FOR CONSTRUCTION OF A FISH HABITAT BOULDER CLUSTER. THIS CLUSTER SHALL BE LOCATED IN A HIGH VELOCITY PORTION OF THE STREAM A MINIMUM OF 25 FEET DOWNSTREAM OF THE PROPOSED BRIDGE. FINAL LOCATION OF BOULDERS TO BE AS DIRECTED BY THE ENGINEER, BASED ON THE RECOMMENDATIONS OF THE DISTRICT FISHERIES BIOLOGIST AND/OR THE AGENCY OF NATURAL RESOURCES STREAM ALTERATION ENGINEER. CLUSTER SHALL CONSIST OF THREE (3) BOULDERS, EACH 5 FOOT TO 6 FOOT IN DIAMETER, SPACED AT 10 FEET TO 15 FEET AND BURIED ⅓ DIAMETER BELOW STREAMBED.

32. THE EXISTING STRUCTURE SHALL BE REMOVED IN PHASES TO ACCOMMODATE THE 4–PHASE PROPOSED BRIDGE CONSTRUCTION. ITEM 529.15, "REMOVAL OF STRUCTURE" SHALL INCLUDE REMOVAL OF ALL THE EXISTING SUPERSTRUCTURE AND PORTIONS OF THE SUBSTRUCTURE NOT REMOVED UNDER THE ITEMS "COFFERDAM" OR "UNCLASSIFIED CHANNEL EXCAVATION".

33. THE PROPOSED BRIDGE IS CONSTRUCTED IN 4 PHASES. TRAFFIC CONTROL PHASING SHALL BE AS DESCRIBED BELOW AND AS SHOWN ON THE TRAFFIC CONTROL PLANS AND THE BRIDGE PRELIMINARY INFORMATION SHEET.

    PHASE 1: TRAFFIC SHALL BE MAINTAINED ON THE EXISTING STRUCTURE DURING CONSTRUCTION OF PHASE 1. THE TEMPORARY BRIDGE SHALL BE CONSTRUCTED AT THE CONCLUSION OF PHASE 1. SEE THE BRIDGE PRELIMINARY INFORMATION SHEET FOR TEMPORARY BRIDGE INFORMATION. PHASE 1 INCLUDES REMOVAL OF THE EXISTING SIDEWALK AND PORTIONS OF THE EXISTING BRIDGE AS NECESSARY TO INSTALL THE TEMPORARY BRIDGE.

    PHASE 2: TWO–WAY TRAFFIC SHALL BE MAINTAINED ON THE TEMPORARY BRIDGE DURING CONSTRUCTION OF PHASE 2. PEDESTRIANS WILL USE THE NEW PHASE 1 SIDEWALK DURING CONSTRUCTION OF PHASE 2. THE TEMPORARY BRIDGE SHALL BE REMOVED AT THE CONCLUSION OF PHASE 2.

    PHASE 3: TWO–WAY TRAFFIC SHALL BE MAINTAINED ON THE NEW BRIDGE (PHASE 1 AND PHASE 2 LIMITS) DURING CONSTRUCTION OF PHASE 3.

    PHASE 4: TWO–WAY TRAFFIC SHALL BE MAINTAINED ON THE NEW BRIDGE (PHASE 2 AND PHASE 3 LIMITS) DURING CONSTRUCTION OF PHASE 4. PEDESTRIANS WILL USE PHASE 3 SIDEWALK DURING CONSTRUCTION OF PHASE 4. THE TEMPORARY PEDESTRIAN RAILING SHALL BE MAINTAINED UNTIL SUCH TIME AS PEDESTRIAN TRAFFIC HAS BEEN SHIFTED TO THE PHASE 3 SIDEWALK.

34. ALTERNATE PHASING SEQUENCES MAY BE ALLOWED PENDING APPROVAL OF THE ENGINEER. ANY ALTERNATIVE SHALL INCORPORATE: MAINTAINING PEDESTRIAN TRAFFIC OVER THE RIVER THROUGHOUT THE DURATION OF THE PROJECT (MIN. 4'–6" WALKWAY), MAINTAINING 2–WAY TRAFFIC, MAINTAIN TIME FRAMES FOR INSTALLATION OF PROPOSED UTILITIES IN FINAL LOCATIONS.

35. TEMPORARY FINGER TIGHT BOLTS MEETING THE REQUIREMENTS OF AASHTO M164 (ASTM A325) SHALL BE USED BETWEEN GIRDERS OF DIFFERENT PHASES. (G2 TO G3 AND G6 TO G7). ONCE THE DECK HAS BEEN PLACED AND HAS SET, THE TEMPORARY BOLTS SHALL BE REPLACED WITH PERMANENT BOLTS TIGHTENED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

36. THE EXISTING STRUCTURAL STEEL ON THIS PROJECT IS PAINTED WITH A MATERIAL WHICH MAY CONTAIN LEAD. THE EXISTING STRUCTURAL STEEL IS TO BECOME THE PROPERTY OF THE CONTRACTOR AND THE CONTRACTOR MAY DISPOSE OF OR RETAIN IT FOR FUTURE USE. THE CONTRACTOR WILL INFORM THE ENGINEER OF THEIR PLANS TO DISPOSE OF OR RETAIN THE STRUCTURAL STEEL PRIOR TO ITS REMOVAL.

37. TEMPORARY PEDESTRIAN RAILING SHALL MEET THE REQUIREMENTS OUTLINED IN SECTION 2.7.3 OF THE 2002 AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 17TH EDITION, WITH INTERIMS. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS SHOWING THE PROPOSED METHOD OF CONSTRUCTING THE TEMPORARY RAILING FOR APPROVAL BEFORE PERFORMING THIS WORK. PAYMENT FOR TEMPORARY RAILING TO BE INCLUDED IN ITEM 525.15, METAL HAND RAILING (MOD.–TEMPORARY PEDESTRIAN RAILING).

STAY–IN–PLACE CORRUGATED METAL FORMS

1. THE USE OF STAY–IN–PLACE CORRUGATED METAL FORMS IS ALLOWED ON THIS PROJECT AS AN ALTERNATIVE USING ITEM 501.33 "CONCRETE, HIGH PERFORMANCE, CLASS A (SIPCMF) (MOD.–FPQ)". SEE SPECIAL PROVISIONS FOR SPECIFICATIONS FOR THE FORMS.

2. THE CONTRACTOR MAY CHOOSE TO COMBINE STAY–IN–PLACE CORRUGATED METAL FORMS AND REMOVABLE FORMS AS ALLOWED IN THE SPECIAL PROVISIONS. IF ANY PORTION OF THE DECK IS TO BE FORMED WITH STAY–IN–PLACE CORRUGATED METAL FORMS, THE ENTIRE DECK PAYMENT SHALL BE UNDER THE "CONCRETE, HIGH PERFORMANCE, CLASS A (SIPCMF) (MOD. –FPQ) ITEM.

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STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of	JOHNSON	Bridge No.	37
		Log Sta.	
Highway No.	VT. ROUTE 15	Surv. Sta.	

VT. ROUTE 15 OVER GIHON RIVER
GENERAL NOTES

Designed By	R. RICARD	Drawn By	D. DUGAL/M. SMITH
Checked By	Date	Bridge Design Supervisor	
S. BEAUMONT	11/06	J. BYATT	Date 11/06
PROJECT	JOHNSON	PROJECT NO.	BRF 030–2(17)S
I.G.C. Info.			
Bridge Sheet No.		Sheet 46	Of 85

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