GENERAL

1. THE CONTRACTOR WILL BE ALLOWED TO CLOSE THE ROAD TO TRAFFIC FOR INSTALLATION OF THE NEW STRUCTURE. SEE THE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

2. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE STATE OF VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2011, AND ITS LATEST REVISIONS, THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS 2012, AND ITS LATEST REVISIONS, AND THE VTRANS STRUCTURES DESIGN MANUAL.

3. ALL PRECAST CONCRETE COMPONENTS INCLUDING THE FOOTINGS, PEDESTAL WALLS, RIGID FRAME OR ARCH, HEADWALLS, WINGWALLS AND ALL CONNECTIONS BETWEEN THESE COMPONENTS SHALL BE DESIGNED BY THE PRECAST FABRICATOR. THE DESIGN CRITERIA USED FOR THIS PROJECT IS INDICATED BELOW.

4. DESIGN CRITERIA:

DESIGN LIVE LOAD:	HL - 93
FILL OVER THE STRUCTURE:	6 INCHES MINIMUM
FOUNDATION SOIL PARAMETERS	
UNIT WEIGHT:	125 PCF
FRICTION ANGLE:	36 DEGREES
COEFFICIENT OF FRICTION	
FORMED CONCRETE AGAINST SOIL:	0.35
RETAINED SOIL PARAMETERS	
UNIT WEIGHT:	140 PCF
FRICTION ANGLE:	35 DEGREES
COEFFICIENT OF FRICTION	
CONCRETE CAST AGAINST SOIL:	0.55
FORMED AGAINST SOIL:	0.45
NOMINAL BEARING RESISTANCE:	10 KSF FOR FOOTING WIDTHS > 6 FT

5. ALL DIMENSIONS SHOWN IN THE PLANS ARE HORIZONTAL OR VERTICAL AND ARE GIVEN AT 68 DEGREES FAHRENHEIT, UNLESS NOTED OTHERWISE.

6. ITEM 529.15 “REMOVAL OF STRUCTURE” SHALL INCLUDE THE REMOVAL OF THE EXISTING SUPERSTRUCTURE AND ANY PORTION OF THE EXISTING ABUTMENTS NOT REMOVED UNDER STRUCTURE EXCAVATION OR UNCLASSIFIED CHANNEL EXCAVATION.

7. THE DESIGN SHALL INCLUDE THE EFFECTS OF ALL LOADS, INCLUDING BUT NOT LIMITED TO LIVE LOAD, EARTH SURCHARGE AND HYDROSTATIC PRESSURE.

8. THE FABRICATOR SHALL BE RESPONSIBLE FOR SUPPLYING THE STATE WITH THE LRFR LOAD RATING FACTORS TO COMPLETE THE CHART SHOWN ON THE PRELIMINARY INFORMATION SHEET.

CONCRETE AND REINFORCING STEEL

9. THE RIGID FRAME OR ARCH, HEADWALLS AND WINGWALLS SHALL BE PRECAST CONCRETE CONFORMING TO SECTION 540 AND WILL BE PAID FOR UNDER THE APPROPRIATE 540 CONTRACT ITEM.

10. ALL ELEMENTS OF THE PRECAST STRUCTURE(S) SHALL BE DESIGNED BY THE PRECAST SUPPLIER, INCLUDING THE ANCHORAGE AND CONNECTIONS BETWEEN ELEMENTS. ALL ELEMENTS SHALL BE INSTALLED IN ACCORDANCE WITH THE FABRICATOR’S RECOMMENDATIONS. THE CONTRACTOR SHALL SUBMIT FABRICATION DRAWINGS FOR THE PRECAST RIGID FRAME OR ARCH IN ACCORDANCE WITH SECTION 105. IN ADDITION TO FABRICATION DRAWINGS, THE FABRICATOR SHALL PROVIDE A LOAD RATING AND SUPPORTING CALCULATIONS IN ACCORDANCE WITH THE AASHTO SPECIFICATIONS REFERENCED IN GENERAL NOTE 1 AND THE VTRANS STRUCTURES DESIGN MANUAL, 2010. THE RATING AND SUPPORTING CALCULATIONS SHALL BE SIGNED, STAMPED AND DATED BY A PROFESSIONAL ENGINEER LICENSED TO PRACTICE ENGINEERING IN THE STATE OF VERMONT. NOTE THAT THE FABRICATOR ASSUMES ALL LIABILITY FOR THE ADEQUACY AND ACCURACY OF THE RIGID FRAME OR ARCH DESIGN AND LOAD RATING.

11. WATER REPELLENT, SILANE SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 514 AND SHALL BE SHOP APPLIED TO ALL EXPOSED CONCRETE SURFACES, EXCEPT THE UNDERSIDE OF THE STRUCTURE BETWEEN THE DRIP NOTCHES. ALL WORK IS INCIDENTAL TO THE APPROPRIATE 540 CONTRACT ITEM.

12. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1” x 1”.

13. REINFORCING STEEL PLACEMENT TOLERANCES SHALL BE:
    SPACING: +/- 1 INCH
    CLEARANCE: +/- 1/4 INCH

14. PRECAST TOLERANCES:
    HEIGHT/WIDTH: +/- 1/4 INCH
    LENGTH: +/- 1/2 INCH

15. ALL REINFORCING STEEL IN THE PRECAST PEDESTAL WALLS AND FOOTINGS SHALL MEET THE REQUIREMENTS OF SECTION 507 FOR LEVEL I REINFORCING.

16. ALL REINFORCING STEEL IN THE PRECAST RIGID FRAME OR ARCH, WINGWALLS AND HEADWALLS SHALL MEET THE REQUIREMENTS OF SECTION 507 FOR LEVEL II REINFORCING.

17. PAYMENT FOR REINFORCING STEEL WILL BE INCLUDED IN THE UNIT BID PRICE FOR THE APPROPRIATE SECTION 540 CONTRACT ITEM.

18. THE PROPOSED STRUCTURE SHALL BE A THREE-SIDED RIGID FRAME OR ARCH WITH A MINIMUM CLEAR SPAN OF 26’. THE LUMP SUM COST FOR ITEM 540.10 “PRECAST CONCRETE STRUCTURE (28’-0” x 6’-0” x 29’-0” FRAME OR ARCH TYPE) SHALL INCLUDE THE PRECAST RIGID FRAME OR ARCH AND MECHANICAL CONNECTIONS.

19. THE PRECAST STRUCTURE DETAILS ARE SHOWN FOR REFERENCE ONLY. THE ACTUAL DIMENSIONS AND CONFIGURATION WILL BE DEPENDENT ON THE FABRICATOR. THE INSIDE CLEAR DIMENSION SHALL BE 26’ - 0” AND THE RISE SHALL BE 6’ - 0”.

20. NO HOLES SHALL BE DRILLED IN THE RIGID FRAME OR ARCH WITHOUT THE APPROVAL OF THE FABRICATOR AND VTRANS.

21. THE USE OF EQUIPMENT AND THE METHOD OF BACKFILLING AROUND THE BURIED STRUCTURE SHALL BE IN ACCORDANCE WITH THE MANUFACTURER’S RECOMMENDATION. CARE SHALL BE TAKEN WHEN BACKFILLING AGAINST JOINT SEALING MATERIALS.

22. JOINTS BETWEEN ALL ABUTTING PRECAST UNITS SHALL BE WATERTIGHT AND MECHANICALLY CONNECTED.

TRAFFIC CONTROL

23. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF A SITE SPECIFIC TRAFFIC CONTROL PLAN FOR ALL STAGES OF CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT DETAILED TRAFFIC CONTROL PLANS TO THE RESIDENT ENGINEER FOR APPROVAL PER SUBSECTION 105.03. ALL COSTS SHALL BE INCLUDED IN ITEM 900.645 SPECIAL PROVISION (TRAFFIC CONTROL, ALL-INCLUSIVE).

24. THE TOWN SHALL BE RESPONSIBLE FOR SIGNING THE DETOUR; THE CONTRACTOR SHALL GIVE THE TOWN 21 DAYS NOTICE PRIOR TO ANY ROAD CLOSURE.

25. FOR MORE INFORMATION SEE THE SPECIAL PROVISIONS.

PROJECT NAME: RICHFORD
PROJECT NUMBER: BRF 0302(29)

FILE NAME: sl2jl58pnote.dgn
PROJECT LEADER: C. CARLSON
DESIGNED BY: H. SALLS
PROJECT NOTES

PLOT DATE: 12-JAN-2015
DRAWN BY: R. PELLETT
CHECKED BY: H. SALLS