

**INDEX OF SHEETS:**

- 1. TITLE SHEET
- 2. PRELIMINARY INFORMATION SHEET
- 3. TYPICAL SECTIONS
- 4-5. QUANTITY SHEET
- 6-7. SURVEY TIE INFORMATION
- 8-9. LAYOUT SHEETS
- 10-11. PROFILE SHEETS
- 12-13. TRAFFIC CONTROL SHEETS
- 14-15. TRAFFIC SIGN SUMMARY
- 16. DRAINAGE DETAIL SHEET
- 17-18. BORING LAYOUT
- 19. BORING LOGS
- 20. EROSION CONTROL SHEET
- 21. GUARD RAIL AND CURB LAYOUT
- 22. GENERAL NOTES
- 23. ABUTMENT #1 DETAILS
- 24. EXPANSION JOINT DETAILS
- 25. ABUTMENT #2 DETAILS
- 26. END OF BRIDGE DETAILS
- 27. ABUTMENT RETAINING STRUCTURE DETAILS
- 28. RAIL ATTACHMENT DETAIL
- 29. REINFORCING STEEL SCHEDULE
- 30-31. RIGHT-OF-WAY SHEETS
- 32-38. TEMPORARY DETOUR CROSS SECTIONS
- 39-40. TOWN HIGHWAY 5 CROSS SECTIONS
- 41-42. BETHEL MILLS DRIVE CROSS SECTIONS
- 43-47. CHANNEL CROSS SECTIONS

**INDEX OF STANDARDS:**

C-1M	01-03-00
C-2BM	01-03-00
C-3M	01-03-00
D-8M	01-03-00
D-9M	01-13-97
D-15M	01-13-97
E-100M	06-13-97
E-101M	06-13-97
E-102M	06-13-97
E-102AM	06-13-97
E-106M	06-13-97
E-107M	06-13-97
E-107AM	06-13-97
E-110M	06-13-97
E-121M	06-13-97
E-140M	06-13-97
E-143M	06-13-97
E-170M	06-13-97
E-171AM	06-13-97
E-171BM	06-13-97
E-171CM	06-13-97
E-172M	06-13-97
E-175M	06-13-97
F-2M	01-03-00
G-1M	06-13-97
G-1DM	06-13-97
SB-R6-82M	07-10-97
T-1M	06-13-97
T-2M	06-13-97

**FINAL HYDRAULICS REPORT C-1:**

Drainage Area: 352 sq.km

Peak Flow Data:

Q2.33 - 169.9 cms  
 Q10 - 283.2 cms  
 Q25 - 348.3 cms  
 Q50 - 396.4 cms  
 Q100 - 509.7 cms

Temporary Bridge:

Structure Type: Mabey Bailey Truss  
 Clear Span (Normal To Stream): 59m  
 Vertical Clearance Above Streambed: 12.3m  
 Waterway Area: 522 sq.m

Water Surface Elevations at:

Q2.33 = 170.9m Velocity = 1.7 m/s  
 Q10 = 171.9m Velocity = 2.2 m/s  
 Q25 = 172.1m Velocity = 2.6 m/s  
 Q50 = 172.4m Velocity = 2.7 m/s  
 Q100 = 173.1m Velocity = 3.1 m/s

Average Low Elevation of Superstructure: 179.3m

Vertical Clearance @ Q100 = 6.2m

Roadway Overtopping Elevation: 175.7m

Permit Information:

Average Daily Flow: 8 cms  
 Ordinary Low Water: 4 cms 168.3m (Top of Dam controls low flow elevations)  
 Ordinary High Water: 73 cms 169.8m

Required Channel Protection: Type II Stone Fill

**LOAD RATING TO BE PROVIDED BY MABEY UNIVERSAL BRIDGE SYSTEM**

DESIGN CRITERIA:

- 1. DESIGN LIVE LOAD AASHTO MS-18 \_\_\_\_\_
- 2. DESIGN SPAN 60.96 m
- 3. ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL 190 kPa ON LEDGE 476 kPa
- 4. ALLOWABLE LOAD FOR PILING N/A TYPE \_\_\_\_\_ ESTIMATED LENGTH \_\_\_\_\_
- 5. STRUCTURAL STEEL AASHTO GRADE N/A
- 6. REINFORCING STEEL GRADE 420
- 7. ~~CONCRETE CLASS A  $f_c = 30$  MPa~~  
 CONCRETE CLASS B  $f_c = 25$  MPa  
~~SILICA FUME CONCRETE  $f_c = 35$  MPa~~

TRAFFIC MAINTENANCE:

- 1. IS TRAFFIC TO BE MAINTAINED? YES IF YES, ON EXISTING STRUCTURE YES OR ON TEMPORARY BRIDGE N/A
- 2. TEMPORARY BRIDGE REQUIREMENTS: ONE OR TWO WAY N/A TRAFFIC CONTROL SIGNALS REQUIRED N/A  
 MINIMUM \_\_\_\_\_

ARE SIDEWALKS REQUIRED? N/A IF SO, ON WHAT SIDE? N/A

**STATE OF VERMONT  
 AGENCY OF TRANSPORTATION**

Town Of Bethel Bridge No. 31  
 Highway No. VT 12 Log Sta. \_\_\_\_\_  
 Surv. Sta. \_\_\_\_\_

**VT 12 Over White River and NECR  
 Preliminary Information for Contract 1**

YEAR	ADT	DHV	% D	% T	ADTT
2004	6,300	820	52	3	200
2024	8,400	1,000	52	1	130

Designed By K.M. HIGGINS Drawn By K.M. HIGGINS  
 Checked By \_\_\_\_\_ Date \_\_\_\_\_ Bridge Design Supervisor  
C.P. WILLIAMS 12/02 C.P. WILLIAMS Date 12/02

PROJECT Bethel PROJECT NO. BRF 0241 (33) - C1

20 year ESAL for flexible pavement from 2004 to 2024: 1,350,000  
 40 year ESAL for flexible pavement from 2004 to 2044: 3,148,000  
 Design speed: 40 km/h

I.G.C. Info. /96j250/s96j250pi-cl.dgn s96j250pi-cl.i  
 Bridge Sheet No. \_\_\_\_\_ Sheet 2 of 47