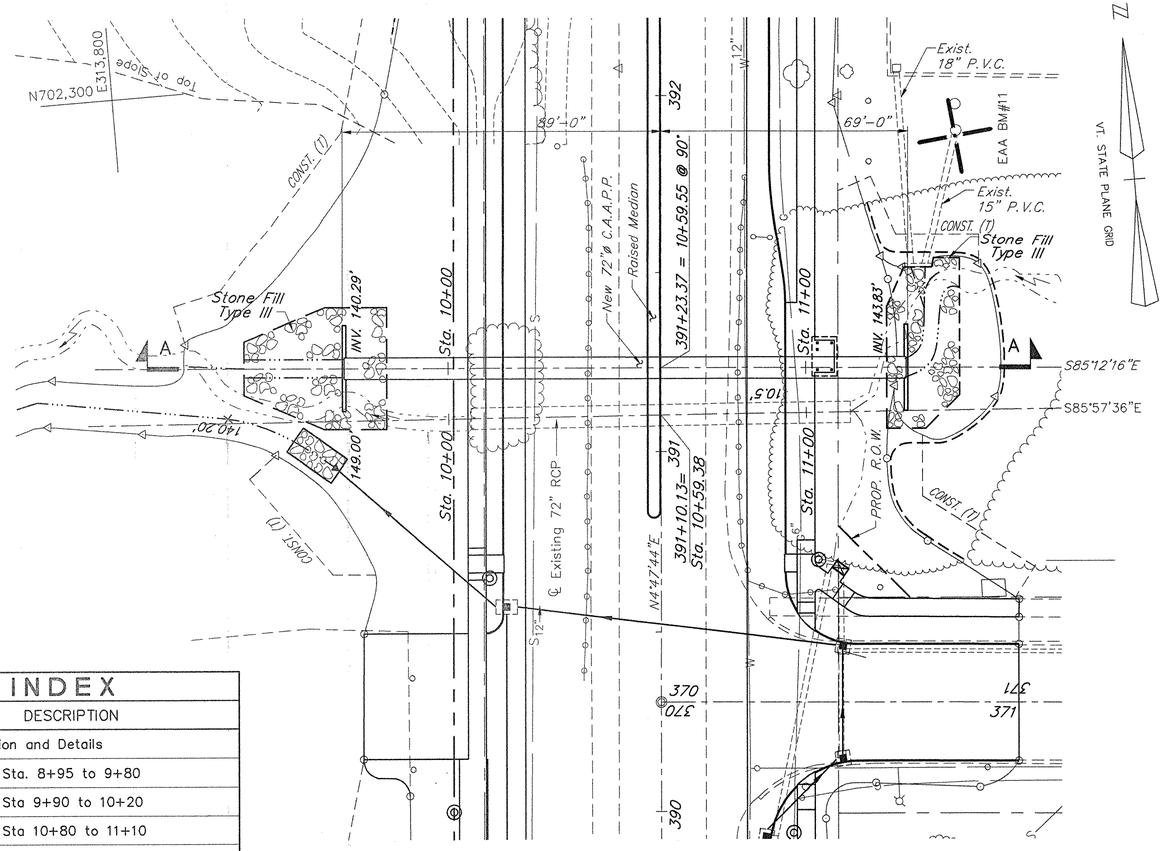
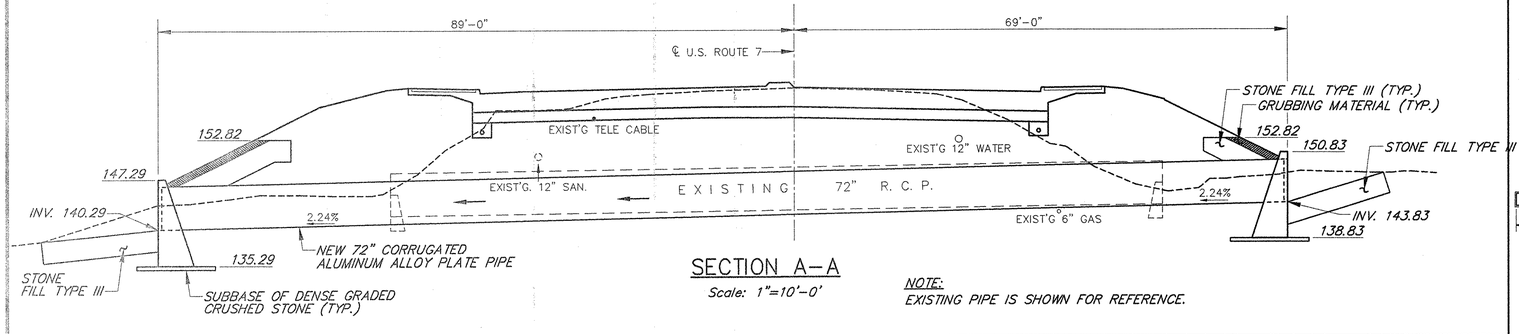


PROPOSED HIGHWAY PLAN AT BARTLETT BROOK

Scale: 1"=20'-0"

DRAWING INDEX

DWG. NO.	DESCRIPTION
PC1	Plan, Elevation and Details
PC2	X- Section Sta. 8+95 to 9+80
PC3	X- Section Sta 9+90 to 10+20
PC4	X- Section Sta 10+80 to 11+10
PC5	X- Section Sta 11+20 to 11+80



SECTION A-A

Scale: 1"=10'-0'

NOTE:
EXISTING PIPE IS SHOWN FOR REFERENCE.

~ HYDRAULIC DATA ~

DRAINAGE AREA 220 Acres 145.9 cfs	DESIGN OUTLET VELOCITY 5.88 ft/sec
DESIGN TAILWATER DEPTH 3.3'	ELEVATION 144.87
ORDINARY HIGH WATER DEPTH - DESIGN FLOW Q	
Q 10 FLOW 107.9 cfs	Q 10 HEADWATER ELEVATION 148.87
Q 25 FLOW -	Q 25 HEADWATER ELEVATION -
Q 50 FLOW 145.9 cfs	Q 50 HEADWATER ELEVATION 150.82
Q 100 FLOW -	Q 100 HEADWATER ELEVATION -
COMMENTS -	

DETAILS OF PIPE CULVERT

CORRUGATIONS	9"x2 1/2"
SIZE OF PIPE	72" Dia.
WATERWAY AREA	30 SF
PLATE THICKNESS (COATED)	0.125"
BOLT SIZE	3/4"
WEIGHT PER LINEAR FOOT	54 LBS/LF
TOTAL WEIGHT	8,532 LBS

REINFORCING STEEL SCHEDULE

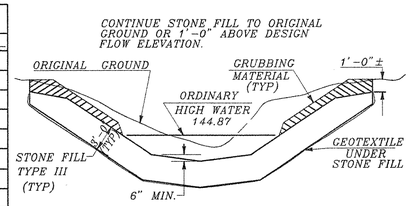
NO. PCS.	SIZE	LENGTH	MARK	TYPE
2	5	23-6	W501	STR
3	6	23-6	W601	STR

~ NOTES ~

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2001, AND THE LATEST A.A.S.H.T.O. STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES. DESIGN IS FOR HS-25 LIVE LOAD.
2. UNLESS OTHERWISE INDICATED, 5 1/3 BOLTS PER LINEAR FOOT ARE REQUIRED ALONG THE LONGITUDINAL SEAMS. ALL CONNECTIONS FOR STRUCTURAL PLATE SECTIONS SHALL BE MADE WITH BOLTS MEETING ASTM A-449 (GALVANIZED AFTER FABRICATION).
3. IN LONGITUDINAL JOINTS LOCATED WITHIN 20 DEGREES OF HORIZONTAL ON PIPE, THE BOLT NEAREST THE VISIBLE EDGE OF LAPPED JOINTS, AS VIEWED FROM INSIDE THE PIPE, SHALL BE PLACED IN THE VALLEY OF THE CORRUGATIONS.
4. WHEN NORMAL CONSTRUCTION OR REGULAR TRAFFIC IS MAINTAINED OVER THE PIPE, THE CONTRACTOR SHALL MAINTAIN A MINIMUM COVER OF THREE (3) FEET OF COMPACTED MATERIAL.
5. ALUMINUM PIPE WHICH IS TO BE IN CONTACT WITH CONCRETE SHALL HAVE CONTACT SURFACES THOROUGHLY COATED WITH ZINC CHROMATE OR BITUMINOUS OR ASPHALTIC PAINT.
6. PIPES SHALL BE FACTORY ELONGATED 5% VERTICALLY.
7. THE ENDS OF THE PIPE SHALL BE CUT SQUARE.
8. THE CONTRACTOR SHALL INCLUDE AT THE OUTLET END, A 10 FOOT PIECE OF 6" UNDERDRAIN EACH SIDE ON SAME GRADIENT AS CULVERT CONFORMING TO SUBSECTIONS 711.01. THE COST SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE CULVERT PIPE.
9. ALL WORK MUST BE DONE IN THE DRY AND THE ENTIRE PIPE SHALL BE INSTALLED BEFORE THE STREAM IS ALLOWED TO FLOW THROUGH IT. A TEMPORARY STREAM DIVERSION SYSTEM IS NECESSARY TO CARRY BARTLETT BROOK DURING CONSTRUCTION. THE CONTRACTOR SHALL PREPARE AND SUBMIT A TEMPORARY STREAM DIVERSION PLAN WHICH DEPICTS MEASURES PROPOSED TO PREVENT EROSION AND SEDIMENTATION AND MAINTAIN STREAM WATER QUALITY. AFTER WORK IS COMPLETED, EXISTING PIPE AND ANY TEMPORARY PIPES LOCATED OUTSIDE THE LIMITS OF THE NEW CULVERT SHALL EITHER BE REMOVED OR FILLED WITH FLOWABLE FILL AND CAPPED. THE COST OF STREAM DIVERSION, INCLUDING ANY TEMPORARY PIPES OR DEWATERING, SHALL BE SUBSIDIARY TO ALL OTHER ITEMS.

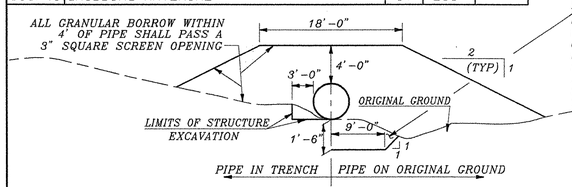
ESTIMATED QUANTITIES

NO.	ITEM	UNIT	TOTAL	FINAL
203.20	MUCK EXCAVATION	CY	456	
203.27	UNCLASSIFIED CHANNEL EXCAVATION	CY	1060	
203.32	GRANULAR BORROW	CY	1360	
204.25	STRUCTURE EXCAVATION	CY	610	
301.35	SUBBASE OF DENSE GRADED CRUSHED STONE	CY	12	
501.25	CONCRETE, CLASS B	CY	59	
507.15	REINFORCING STEEL	LB	310	
511.25	C.A.A.P.P. [72"ø, 158', 0.125" GAGE]	EA	1	
514.10	WATER REPELLENT	GAL	3	
613.12	STONE FILL, TYPE III	CY	230	
649.31	GEOTEXTILE UNDER STONE FILL	SY	470	
651.40	GRUBBING MATERIAL	SY	230	



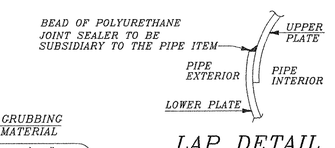
TYPICAL CHANNEL SECTION

N.T.S.



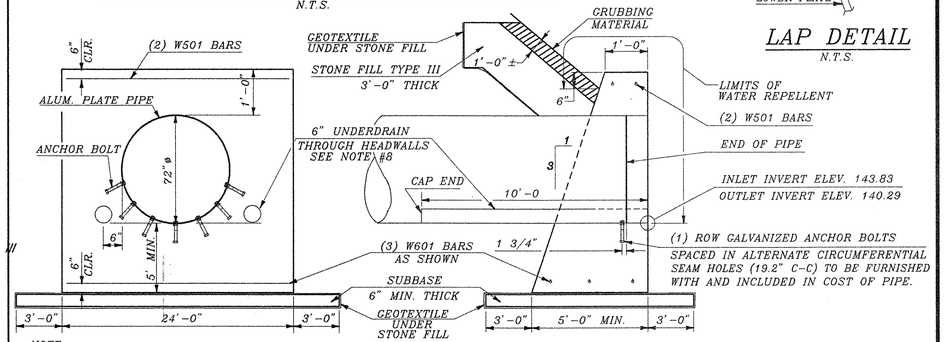
EXCAVATION AND BACKFILL DETAILS

N.T.S.



LAP DETAIL

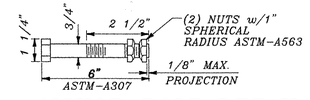
N.T.S.



NOTE:
PIPE CORRUGATIONS NOT SHOWN.

FULL HEADWALL DETAILS

N.T.S.



ANCHOR BOLT DETAIL

N.T.S.

ERDMAN ANTHONY
CONSULTING ENGINEERS
Rochester, New York Camp Hill, Pennsylvania
Boston, Massachusetts

STATE OF VERMONT
AGENCY OF TRANSPORTATION

City Of SOUTH BURLINGTON	Bridge No.
Highway No. U.S. ROUTE 7	Log Sta. / Surv. Sta.
U.S. ROUTE 7 OVER BARTLETT BROOK	
PLAN, ELEVATION, AND DETAILS	
Designed By L.Janik	Drawn By H.Ridge
Checked By W.Windus Date Jan. 2003	Bridge Design Supervisor W.Windus Date Jan. 2003
PROJECT SHELBURNE-BURLINGTON	PROJECT NO. F-EGC-019-4(28)
I.G.C. Info.	
Bridge Sheet No. PC1	Sheet 236 of 283