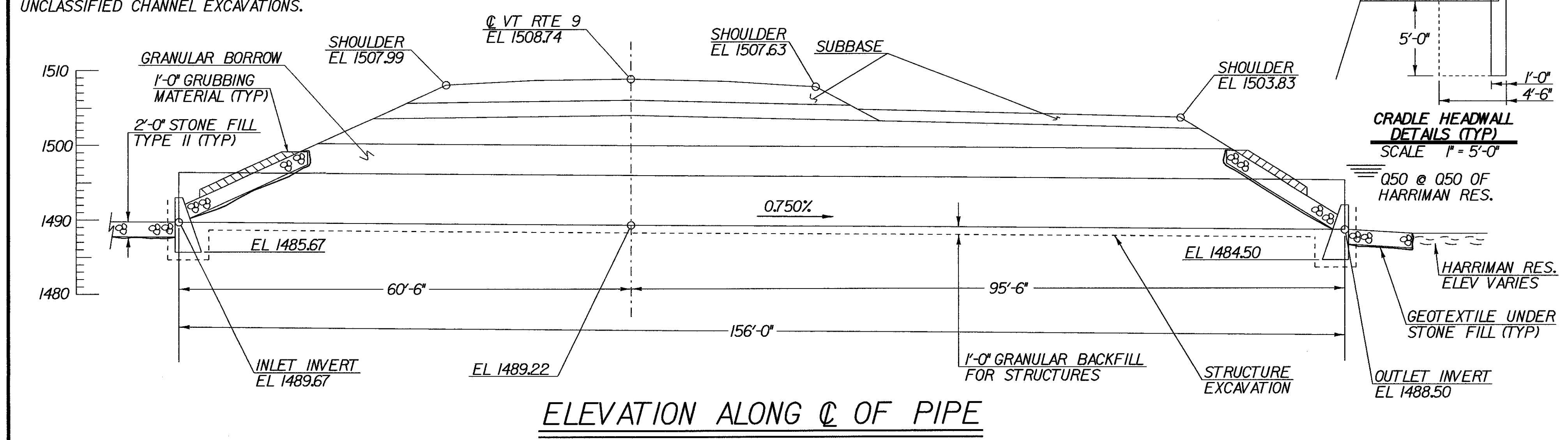


NOTES:  
 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR STAGED CONSTRUCTION OF THE CULVERT. THE CULVERT SHALL BE CONSTRUCTED IN THE DRY, WITH CHANNEL FLOW MAINTAINED DURING STAGED CONSTRUCTION.  
 2. INVERTS SHALL BE BURIED 6" BELOW STREAM GRADE.  
 3. IT IS EXPECTED THAT REMOVAL OF 5' X 5' CULVERT, @ STA 262+25 RT, WILL FALL WITHIN THE LIMITS OF STRUCTURE AND UNCLASSIFIED CHANNEL EXCAVATIONS. THUS REMOVAL OF SAID CULVERT WILL BE IN ACCORDANCE WITH ITEM 529J5, REMOVAL OF STRUCTURE, BUT SHALL BE PAID ENTIRELY UNDER ITEMS 204.25 AND 203.27, STRUCTURE AND UNCLASSIFIED CHANNEL EXCAVATIONS.

PLAN  
 SCALE 1" = 10'-0"



ELEVATION ALONG C OF PIPE  
 SCALE 1" = 10'-0"

~ HYDRAULIC DATA ~

DRAINAGE AREA 0.67 sq mi DESIGN FLOW Q 50 DESIGN OUTLET VELOCITY 8.7 fps (max.)  
 DESIGN TAILWATER DEPTH varies ELEVATION see comment below \* HARRIMAN RESERVOIR FLOW

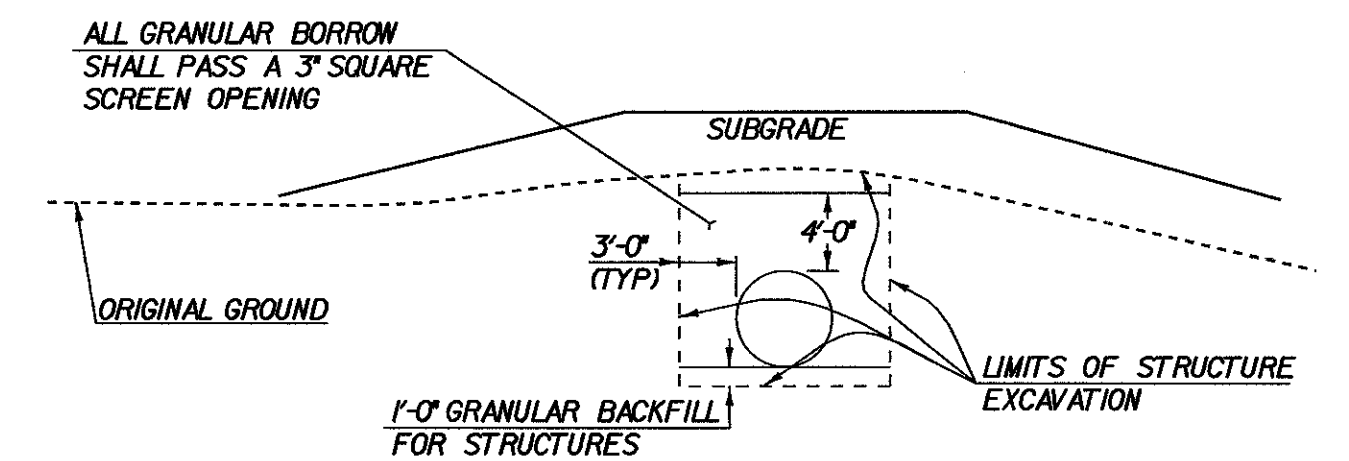
ORDINARY HIGH WATER DEPTH varies	Q1W*	Q2.33*	Q10*	Q25*	Q50*	Q100*
Q 10 FLOW 140 cfs HEADWATER ELEVATION	1493.6	1494.2	1495.0	1495.6	1496.6	1497.6
Q 25 FLOW 180 cfs HEADWATER ELEVATION	1494.2	1494.6	1495.3	1495.9	1496.9	1497.9
Q 50 FLOW 210 cfs HEADWATER ELEVATION	1494.6	1494.9	1495.5	1496.1	1497.1	1498.1
Q 100 FLOW 250 cfs HEADWATER ELEVATION	1495.2	1495.4	1495.9	1496.5	1497.5	1498.5
DESIGN TAILWATER ELEVATION	1492.0	1493.5	1494.5	1495.3	1496.2	1497.2

COMMENTS: WATER SURFACE ELEVATIONS ARE CONTROLLED BY HARRIMAN RESERVOIR

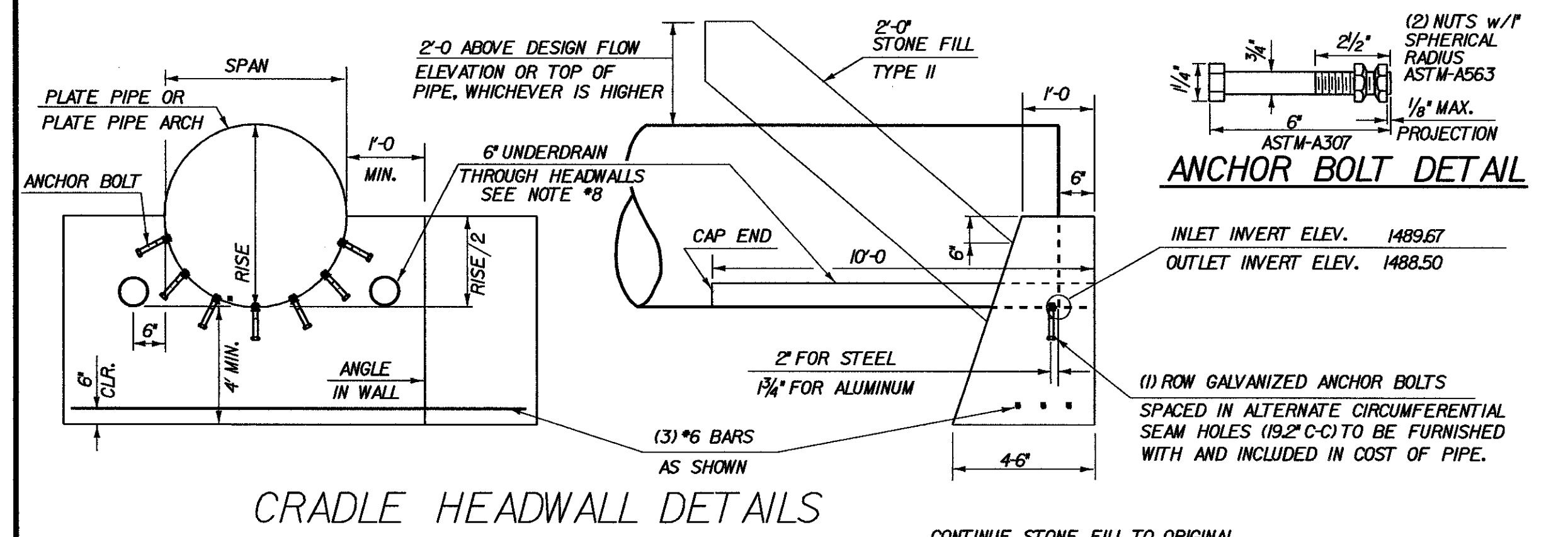
DETAILS OF STRUCTURAL PLATE PIPE CULVERTS

	STEEL	STEEL	ALUMINUM
CORRUGATIONS			9" X 2 1/2"
SIZE OF PIPE OR PIPE ARCH	NO		9'-11" X 6'-8"
WATERWAY AREA	STEEL		52.7 sqft
PLATE THICKNESS (COATED)	OPTION		0.125"
BOLT SIZE			3/4" Ø
WEIGHT PER LINEAR FOOT			76.6 lb
TOTAL WEIGHT			11950 lb

- ~ NOTES ~
- ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 1990, AND THE LATEST A.A.S.H.T.O. STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES. DESIGN IS FOR HS-25 LIVE LOAD.
  - UNLESS OTHERWISE INDICATED, 5 1/3 BOLTS PER LINEAR FOOT FOR ALUMINUM PLATES ARE REQUIRED ALONG THE LONGITUDINAL SEAMS. ALL CONNECTIONS FOR STRUCTURAL PLATE SECTIONS SHALL BE MADE WITH BOLTS MEETING ASTM A-449 (GALVANIZED AFTER FABRICATION).
  - 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.
  - ALUMINUM PIPE WHICH IS TO BE IN CONTACT WITH CONCRETE SHALL HAVE CONTACT SURFACES THOROUGHLY COATED WITH BITUMINOUS OR ASPHALTIC PAINT.
  - PIPES SHALL BE FACTORY ELONGATED 5% (PIPE ARCHES SHALL NOT BE ELONGATED).
  - THE ENDS OF THE PIPE SHALL BE CUT SQUARE.
  - 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 710.0. THE COST SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE CULVERT PIPE.



EXCAVATION AND BACKFILL DETAILS



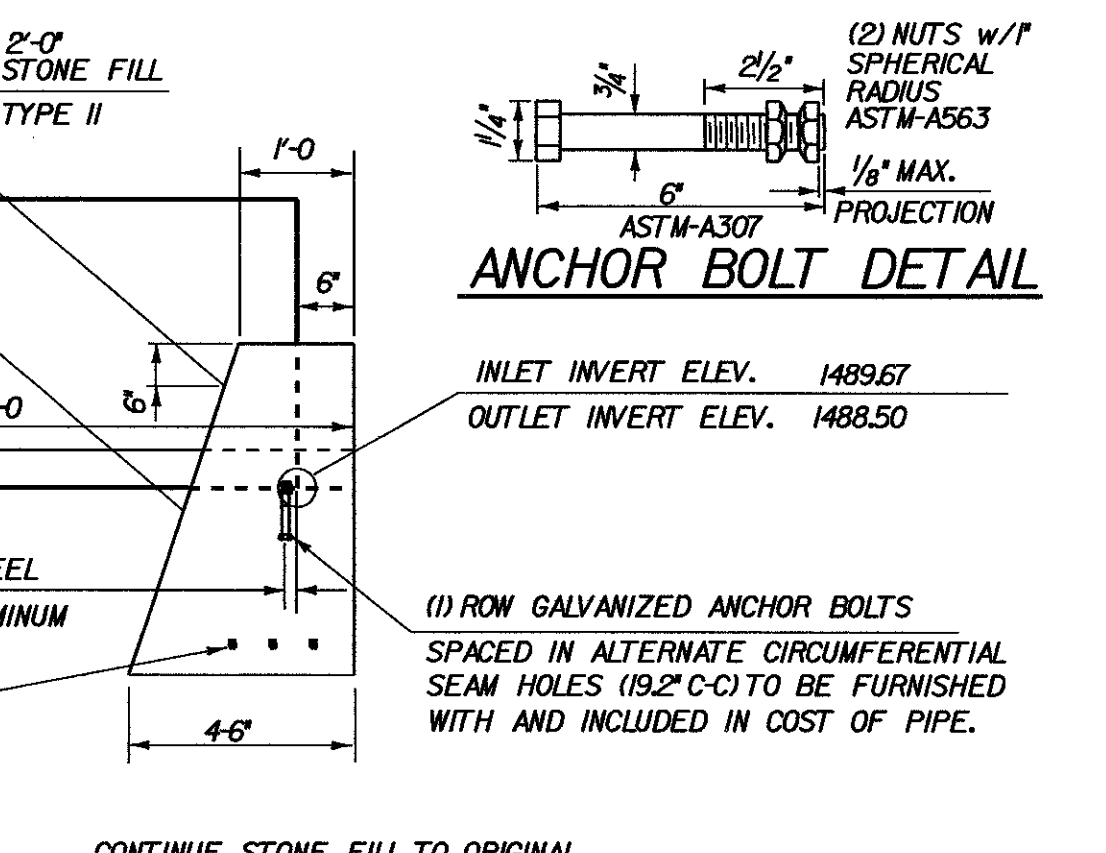
CRADLE HEADWALL DETAILS

REINFORCING STEEL SCHEDULE

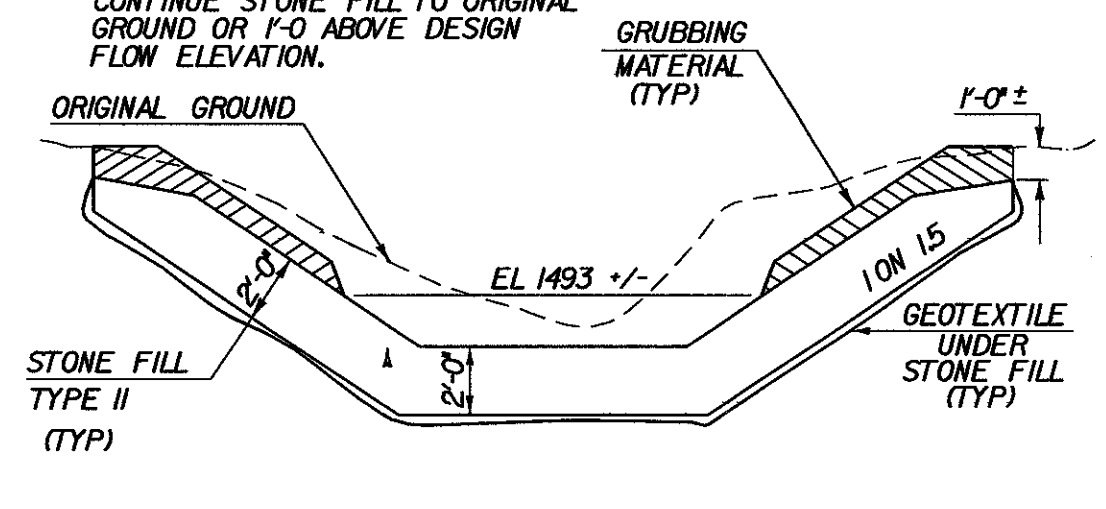
NO.	PCS.	SIZE	LENGTH	MARK	TYPE	A	B
6	6	20'-0"	2H60I	B	15'-9"	4'-3"	

ESTIMATED QUANTITIES

NO.	ITEM	UNIT	TOTAL	FINAL
203.27	Unclassified Channel Excavation	cy	390	
203.32	Granular Borrow	cy	560	
204.25	Structure Excavation	cy	925	
204.30	Granular Backfill for Structures	cy	118	
501.25	Concrete, Class B	cy	30	
507.15	Reinforcing Steel	lb	180	
511.30	CAAPPA - Sta 262+13	ea	1	
613.11	Stone Fill, Type II	cy	305	
649.31	Geotextile Under Stone Fill	sy	455	
651.40	Grubbling Material	sy	170	



ANCHOR BOLT DETAIL



TYPICAL CHANNEL SECTION

**STATE OF VERMONT AGENCY OF TRANSPORTATION**

Town Of **WILMINGTON** Bridge No. **27**

Highway No. **VT RTE 9** Log Sta.   
 Surv. Sta.

**CORR. ALUM. ALLOY PLATE PIPE ARCH**

**UNNAMED BROOK - STA 262+13**

Designed By **C WOODS** Drawn By **C WOODS**

Checked By **T SCHMELZENBACH** Date **1/94** Bridge Design Supervisor **J WEAVER** Date **1/94**

PROJECT **SEARSBURG** PROJECT NO. **FO10-K18**

I.G.C. Info. **N:\78d096\Structures\sd0961.dgn** sd096c621

Bridge Sheet No. **Sheet 238 of 435**