

STATE OF VERMONT
AGENCY OF TRANSPORTATION

EARTHWORKS



SUMMARY AND BALANCES

STATION TO STATION km + m km + m		TOTAL EXC. EARTH+ROCK m ³	ROCK EXCAVATION m ³	EMBANKMENT m ³	EXCESSES		ACCUMULATIVE EXCESSES	
					CUT	FILL	CUT	FILL
12+130.455	12+200	1800	830	70	2130		2130	
12+200	12+400	24610	17510	2510	30391		32521	
12+400	12+600	10630	6540	9160	3333		35854	
12+600	12+800	2840	0	29230		30775	5079	
12+800	13+000	47680	16010	18570	34249		39328	
13+000	13+200	242200	198440	5870	333677		373005	
13+200	13+400	140390	55590	5710	161341		534346	
13+400	13+600	13950	0	3900	9465		543811	
13+600	13+800	32090	27440	760	44799		588610	
13+800	14+000	6190	4140	73124	75853		512757	
14+000	14+200	0	0	76286	87729		425028	
14+200	14+400	8680	0	13550	6903		418125	
14+400	14+600	17010	0	1980	14733		432858	
14+600	14+800	400	0	37470	42691		390167	
14+800	15+000	70	0	68190	78349		311818	
15+000	15+200	60	0	71600	82280		229538	
15+200	15+400	0	0	68190	78419		151119	
15+400	15+600	450	0	49160	56084		95035	
15+600	15+800	1580	0	24160	26204		68831	
15+800	16+000	1000	0	18220	19953		48878	
16+000	16+200	3100	390	12610	11208		37670	
16+200	16+400	39160	19340	5730	42144		79814	
16+400	16+600	16010	7070	22300	6135		73679	
16+600	16+695	0	0	15560	17894		55785	
AESTHETIC FILL								
12+180	12+400	0	0	12730	14640		41145	
12+400	12+520	0	0	4970	5716		35429	
13+620	13+820	0	0	7960	9154		26275	
16+180	16+400	0	0	18240	20976		5299	
16+400	16+520	0	0	9000	10350		5051	

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					CUT	FILL	CUT	FILL
ROADSIDE DRAINAGE FEATURES								
12+116	16+680	15861	4433	0	18055		13004	
EROSION CONTROL SEDIMENT TRAPS								
12+610	16+055	16178	4900	479	18053		31057	
UNDERDRAIN TRENCH EXCAVATION								
		1535	130	0	1599		32656	
DRAINAGE TRENCH EXCAVATION								
		880	397	0	1076		33732	
UTILITY TRENCH EXCAVATION								
		112	0	0	112		33844	
MUCK EXCAVATION								
12+130	16+624	14000	0	0	14000		47844	
CHANNEL EXCAVATION								
		280	0	0	84		47928	
STRUCTURE EXCAVATION								
		6536	0	0	1961		49889	
* THE TOTAL EARTH BORROW VOLUME WAS CALCULATED ASSUMING THE CONTRACTOR WILL USE MATERIAL GENERATED FROM ON-SITE ROCK EXCAVATION FOR THE FOLLOWING USES:								
ITEM 613.10 STONE FILL, TYPE I								
ITEM 613.11 STONE FILL, TYPE II								
ITEM 613.12 STONE FILL, TYPE III								
ITEM 613.13 STONE FILL, TYPE IV								
ITEM 301.25 SUBBASE OF CRUSHED GRAVEL (COARSE GRADED)								
AS-BUILT NOTE: REFERENCE CHANGE OF DESIGN NUMBERS 2 & 3 FOR REVISED EARTHWORKS.								
RMT 2/1/06								

SUMMARY BY COLUMNS

SHEET NO.	COL. NO.	EXCAVATION		FILL m ³				
		TOTAL m ³	ROCK m ³					
EW-1	1	37040	24880	11740				
EW-1	2	50520	16010	47800				
EW-1	3	396540	254030	15480				
EW-1	4	38280	31580	73884				
EW-2	1	25690	0	91816				
EW-2	2	470	0	105660				
EW-2	3	510	0	188950				
EW-2	4	2580	0	42380				
EW-3	1	58270	26800	40640				
EW-3	2	0	0	33260				
EW-3	3	0	0	35200				
EW-3	4	34566	9860	479				
EW-4	1	14000	0	0				
EW-4	2	6816	0	0				
TOTAL		665282	363160	687289	(SEE NOTE BELOW)			
NOTE: REFERENCE FINALS BOOK FOR THE FOLLOWING ITEM QUANTITIES: ITEM 203.15 COMMON EXCAVATION - BOOK #1, PAGE 26 ITEM 203.16 SOLID ROCK EXCAVATION - BOOK #1, PAGE 34 RMT 2/1/06								
REMARKS								
EARTH AND ROCK EXCAVATION (SEE NOTE ABOVE) 665282 m ³								
SOLID ROCK EXCAVATION (SEE NOTE ABOVE) 363160 m ³								
LESS SOLID ROCK USED FOR STONE FILL & SUBBASE MATERIAL* 77805 m ³								
TOTAL SOLID ROCK AVAILABLE FOR FILL 285355 m ³								
EARTH EXCAVATION 302122 m ³								
PLANIMETERED FILL 687289 m ³								
SOLID ROCK FACTOR 1.30								
LESS FACTORED SOLID ROCK 370962 m ³								
LESS DISPLACEMENT OF ANY LARGE STRUCTURES 0								
NET PLANIMETERED FILL 316327 m ³								
FACTOR 1.15								
PLANIMETERED FILL INCLUDING FACTOR 363776 m ³								
MATERIALS AVAILABLE FOR FILLS								
ROADWAY/DRAINAGE/EROSION CONTROL EXCAVATION 279306 m ³								
CHANNEL EXCAVATION (280 x 0.30) 84 m ³								
TRENCH EXCAVATION (UNDERDRAIN/DRAINAGE/UTILITY) 2000 m ³								
MUCK EXCAVATION 14000 m ³								
STRUCTURE EXCAVATION (6536 x 0.30) 1961 m ³								
TOTAL MATERIAL AVAILABLE FOR FILL 297351 m ³								
TOTAL FILL INCLUDING FACTOR 363776 m ³								
TOTAL MATERIAL FOR FILL 297351 m ³								
EARTH BORROW SUBTOTAL 66425 m ³								
EARTH BORROW ROUNDING 75 m ³								
EARTH BORROW 66500 m ³								
EXCESS EXCAVATION 0 m ³								
PROJECT: BENNINGTON - HOOSICK					PROJECT NO.: D.P.I. 0146(II) C/3			
DESIGN FILE NAME: IPARM FILE NAME: PLOT DATE: 11/01								
SURVEYED BY: V.S.E. SURVEY DATE: 12/93								
SQUAD LEADER: T.P.K. DRAWN BY: E.C.D.								
DWG. NO. EW-5 SHEET 23 OF 473								

FILE NAME E:\1516\VAOT\CONTRACT3\EAARTHWK.DGN
DATE/TIME 10/11/2001
USER = 664