GRADING QUANTITIES SHEET

Computed By: T Snow
Checked By:
Route: SR 237

Sheet: 1 of 2
Project No.: 1116007
County: Montgomery

Stage 3 Traffic Control/Construction

Total Excav.	9510 CY		Unclass Embank.	430 CY
Topsoil Excav.	- 610 CY			
Unclass Excav.	8900 CY			

Factor(s): SHR. 15%

Balance Calculation: Unclass. Embank -(Unclass Excav./(1+SHR)
430-(8900/1.15) = -7309.13 CY (WASTE)

Excess Excav. Material: 7309.13 CY

GRADING QUANTITIES SHEET

Computed By: T Snow
Checked By:
Route: SR 237

Sheet: 2 of 2
Project No.: 1116007
County: Montgomery

Tabulation of Earthwork Volumes

Alignment	Excavation (CY)		Embank (CY)
	Earth	Topsoil	
SR 237 (ENTIRE PROJ)	26315	8117	42938
STAGE 1 CONSTRUCTION	766	1123	1851
STAGE 2 CONSTRUCTION	16788	6526	40807
SUBTOTAL FOR SR 237	8761	468	280
NEW ROAD	63	142	135
EPSC	36		
DRIVEWAYS	40		15
Totals	**8900**	**610**	**430**

7-14-14 T. SNOW
STAGE 3 CONST.
NEW ROAD

```
 Input  File: ewkprj.inp
 Output File: NEW RD EARTH.log
  1     1     1
  1     2     2
  1     3     3 Earthwork
  1     4     4
  1     5     5 tolerance = 0.010000
  1     6     6
  1     7     7 vertical search distance = 500.000000
  1     8     8
  1     9     9 xs dgn = H:\1116007\DGN\MTSR237NewRdXS.dgn
  1    10    10
  1    11    11     Proposed Finish Grade
  1    12    12         soil type = EARTH
  1    13    13         roadway exc mult factor = 1.000000
  1    14    14         subsoil exc mult factor = 1.000000
  1    15    15         fill mult factor = 1.000000
  1    16    16             type = line
  1    17    17             lvname = DESIGN - TYPICAL - Finished Grade and
Subgrade
  1    18    18             lc = 0
  1    19    19             wt = 4
  1    20    20
  1    21    21     Existing Ground Line
  1    22    22         soil type = EARTH
  1    23    23         roadway exc mult factor = 1.000000
  1    24    24         subsoil exc mult factor = 1.000000
  1    25    25         fill mult factor = 1.000000
  1    26    26             type = line_string
  1    27    27             lvname = SURVEY - GROUND - Top of Ground
  1    28    28             lc = 3
  1    29    29             wt = 2
  1    30    30             co = 0
  1    31    31
  1    32    32     Existing Unsuitable Material
  1    33    33         soil type = TOPSOIL
  1    34    34         roadway exc mult factor = 1.000000
  1    35    35         subsoil exc mult factor = 1.000000
  1    36    36         fill mult factor = 1.000000
  1    37    37             type = line
  1    38    38             lvname = SURVEY - GROUND - Bottom of Topsoil
Layer
  1    39    39             lc = 2
  1    40    40             wt = 2
  1    41    41             co = 2
  1    42    42
  1    43    43     Excavation Limit
  1    44    44             type = line
  1    45    45             lvname = DESIGN - EARTHWORK - Excavation Limit
Lines
  1    46    46             lc = 0
  1    47    47             wt = 0
  1    48    48             co = 0
  1    49    49
```

```
 1     50     50      Write Earthwork Shapes
 1     51     51          plot param
 1     52     52              lv = 347
 1     53     53              lvname = DESIGN - EARTHWORK - Shapes
 1     54     54              co = ByLevel
 1     55     55              wt = ByLevel
 1     56     56              lc = ByLevel
 1     57     57
 1     58     58      combine common exc + subgrade exc + subsoil exc
 1     59     59
 1     60     60      End Area Decimal Places = 0
 1     61     61
 1     62     62      write column base ascii file = NEW RD EARTH.TXT
 1     63     63
 1     64     64      column 1 formula = abs( ["EARTH", Common Exc, End
Area]  )
 1     65     65      column 1 number of decimal place = 0
 1     66     66      column 1 total length = 10
 1     67     67
 1     68     68      column 2 formula = abs( ["EARTH", Fill, End Area]  )
 1     69     69      column 2 number of decimal place = 0
 1     70     70      column 2 total length = 10
 1     71     71
 1     72     72      column 3 formula = abs( ["TOPSOIL", Subsoil Exc, End
Area]  )
 1     73     73      column 3 number of decimal place = 0
 1     74     74      column 3 total length = 10
 1     75     75
 1     76     76
 1     77     77      Process Earthwork for Baseline = NEW_RD
 1     78     78          job number = 098
 1     79     79
 1     80     80          beg sta = 50+50.00 R 1
 1     81     81          end sta = 51+80.00 R 1
 0      0     82 END_OF_FILE
COMPUTING EARTHWORKS FOR BASELINE = NEW_RD
COMPUTING EARTHWORKS FOR JOB = 098
FORMING LIST OF XSCELLS
BEGINNING EARTHWORKS COMPUTATION
```

Station Ordinate	Material Name	End Areas (sq. ft.)	Unadjusted Volumes (cu. yd.)	Adjusted Volumes (cu. yd.)	Mult Factor	Mass
50+50.00	EARTH					
	Excavation	59	0	0	1.00	
	Fill	1	0	0	1.00	0
	TOPSOIL					
	Excavation	35	0	0	1.00	
	Fill	0	0	0	1.00	0
	Mass ordinate for TOPSOIL = 0					
51+00.00	EARTH					
	Excavation	0	55	55	1.00	
	Fill	33	31	31	1.00	24
	TOPSOIL					
	Excavation	26	57	57	1.00	
	Fill	0	0	0	1.00	24
	Mass ordinate for TOPSOIL = 57					
51+50.00	EARTH					
	Excavation	1	1	1	1.00	
	Fill	40	68	68	1.00	-43
	TOPSOIL					
	Excavation	30	51	51	1.00	
	Fill	0	0	0	1.00	-43
	Mass ordinate for TOPSOIL = 108					
51+80.00	EARTH					
	Excavation	11	7	7	1.00	
	Fill	24	36	36	1.00	-72
	TOPSOIL					
	Excavation	30	34	34	1.00	
	Fill	0	0	0	1.00	-72
	Mass ordinate for TOPSOIL = 142					

G R A N D S U M M A R Y T O T A L S

Material Name		Unadjusted Volumes (cu. yd.)	Adjusted Volumes (cu. yd.)	Mult Factor
EARTH				
	Excavation	63	63	1.00
	Fill	135	135	1.00
TOPSOIL				
	Excavation	142	142	1.00
	Fill	0	0	1.00

		SPLIT SUMMARY XS Quant Unadjusted Volume (cu. yd.)	XS Quant Adjusted Volume (cu. yd.)	TOTALS Add/Sub Quant Unadjusted Volume (cu. yd.)	Add/Sub Quant Adjusted Volume (cu. yd.)	Mult Factor
EARTH						
	Excavation	63	63	0	0	1.00
	Fill	135	135	0	0	1.00
TOPSOIL						
	Excavation	142	142	0	0	1.00
	Fill	0	0	0	0	1.00

B A L A N C E P O I N T S U M M A R Y

Material Name		Cumulative Unadjusted Volumes (cu. yd.)	Adjusted Volumes (cu. yd.)	Incremental Unadjusted Volumes (cu. yd.)	Mult Adjusted Factor
Station = 51+17.91					
EARTH					
	Excavation	55	55	55	55 1.00
	Fill	55	55	55	55 1.00
TOPSOIL					
	Excavation	75	75	75	75 1.00
	Fill	0	0	0	0 1.00

T. SNOW
7-8-14
MAINLINE EARTHWORK
BASIC RUN

```
 Input  File: ewkprj.inp
 Output File: SR 237 TEST EARTH.log
  1     1     1
  1     2     2
  1     3     3 Earthwork
  1     4     4
  1     5     5 tolerance = 0.010000
  1     6     6
  1     7     7 vertical search distance = 500.000000
  1     8     8
  1     9     9 xs dgn = H:\1116007\DGN\MTSR237Mainline XS.dgn
  1    10    10
  1    11    11     Proposed Finish Grade
  1    12    12         soil type = EARTH
  1    13    13         roadway exc mult factor = 1.000000
  1    14    14         subsoil exc mult factor = 1.000000
  1    15    15         fill mult factor = 1.000000
  1    16    16             type = line
  1    17    17             lvname = DESIGN - TYPICAL - Finished Grade and
Subgrade
  1    18    18             lc = 0
  1    19    19             wt = 4
  1    20    20
  1    21    21     Existing Ground Line
  1    22    22         soil type = EARTH
  1    23    23         roadway exc mult factor = 1.000000
  1    24    24         subsoil exc mult factor = 1.000000
  1    25    25         fill mult factor = 1.000000
  1    26    26             type = line_string
  1    27    27             lvname = SURVEY - GROUND - Top of Ground
  1    28    28             lc = 3
  1    29    29             wt = 2
  1    30    30             co = 0
  1    31    31
  1    32    32     Existing Unsuitable Material
  1    33    33         soil type = TOPSOIL
  1    34    34         roadway exc mult factor = 1.000000
  1    35    35         subsoil exc mult factor = 1.000000
  1    36    36         fill mult factor = 1.000000
  1    37    37             type = line
  1    38    38             lvname = SURVEY - GROUND - Bottom of Topsoil
Layer
  1    39    39             lc = 2
  1    40    40             wt = 2
  1    41    41             co = 2
  1    42    42
  1    43    43     Excavation Limit
  1    44    44             type = line
  1    45    45             lvname = DESIGN - EARTHWORK - Excavation Limit
Lines
  1    46    46             lc = 0
  1    47    47             wt = 0
  1    48    48             co = 0
  1    49    49
```

```
 1     50     50      Skip Areas
 1     51     51         from 85+36.71 R 1 to 87+21.71 R 1
 1     52     52         from 91+78.42 R 1 to 93+62.42 R 1
 1     53     53
 1     54     54      Ignore Areas
 1     55     55         from 85+36.71 R 1 to 87+21.71 R 1
 1     56     56         from 91+78.42 R 1 to 93+62.42 R 1
 1     57     57
 1     58     58      Write Earthwork Shapes
 1     59     59          plot param
 1     60     60              lv = 347
 1     61     61              lvname = DESIGN - EARTHWORK - Shapes
 1     62     62              co = ByLevel
 1     63     63              wt = ByLevel
 1     64     64              lc = ByLevel
 1     65     65
 1     66     66      combine common exc + subgrade exc + subsoil exc
 1     67     67
 1     68     68      End Area Decimal Places = 0
 1     69     69
 1     70     70      write column base ascii file = SR237 EARTH.TXT
 1     71     71
 1     72     72      column 1 formula = abs( ["EARTH", Common Exc, End
Area]  )
 1     73     73      column 1 number of decimal place = 0
 1     74     74      column 1 total length = 10
 1     75     75
 1     76     76      column 2 formula = abs( ["EARTH", Fill, End Area]  )
 1     77     77      column 2 number of decimal place = 0
 1     78     78      column 2 total length = 10
 1     79     79
 1     80     80      column 3 formula = abs( ["TOPSOIL", Subsoil Exc, End
Area]  )
 1     81     81      column 3 number of decimal place = 0
 1     82     82      column 3 total length = 10
 1     83     83
 1     84     84
 1     85     85      Process Earthwork for Baseline = SR237
 1     86     86          job number = 098
 1     87     87
 1     88     88          beg sta = 70+00.00 R 1
 1     89     89          end sta = 124+50.00 R 1
 0      0     90 END_OF_FILE
COMPUTING EARTHWORKS FOR BASELINE = SR237
COMPUTING EARTHWORKS FOR JOB = 098
FORMING LIST OF XSCELLS
BEGINNING EARTHWORKS COMPUTATION
```

Station Ordinate	Material Name	End Areas (sq. ft.)	Unadjusted Volumes (cu. yd.)	Adjusted Volumes (cu. yd.)	Mult Factor	Mass
70+50.00	EARTH					
	Excavation	8	0	0	1.00	
	Fill	8	0	0	1.00	0
	TOPSOIL					
	Excavation	12	0	0	1.00	
	Fill	0	0	0	1.00	0
	Mass ordinate for TOPSOIL = 0					
71+00.00	EARTH					
	Excavation	8	15	15	1.00	
	Fill	13	19	19	1.00	-4
	TOPSOIL					
	Excavation	14	24	24	1.00	
	Fill	0	0	0	1.00	-4
	Mass ordinate for TOPSOIL = 24					
71+50.00	EARTH					
	Excavation	8	15	15	1.00	
	Fill	13	24	24	1.00	-13
	TOPSOIL					
	Excavation	16	28	28	1.00	
	Fill	0	0	0	1.00	-13
	Mass ordinate for TOPSOIL = 52					
72+00.00	EARTH					
	Excavation	8	15	15	1.00	
	Fill	16	27	27	1.00	-25
	TOPSOIL					
	Excavation	19	33	33	1.00	
	Fill	0	0	0	1.00	-25
	Mass ordinate for TOPSOIL = 85					
72+50.00	EARTH					
	Excavation	13	19	19	1.00	
	Fill	17	31	31	1.00	-37
	TOPSOIL					
	Excavation	22	38	38	1.00	
	Fill	0	0	0	1.00	-37
	Mass ordinate for TOPSOIL = 123					
73+00.00	EARTH					
	Excavation	28	38	38	1.00	
	Fill	7	22	22	1.00	-21
	TOPSOIL					
	Excavation	24	43	43	1.00	
	Fill	0	0	0	1.00	-21
	Mass ordinate for TOPSOIL = 166					

73+50.00	EARTH					
	Excavation	38	61	61	1.00	
	Fill	6	12	12	1.00	28
	TOPSOIL					
	Excavation	24	44	44	1.00	
	Fill	0	0	0	1.00	28
	Mass ordinate for TOPSOIL = 210					
74+00.00	EARTH					
	Excavation	42	74	74	1.00	
	Fill	31	34	34	1.00	68
	TOPSOIL					
	Excavation	26	46	46	1.00	
	Fill	0	0	0	1.00	68
	Mass ordinate for TOPSOIL = 256					
74+50.00	EARTH					
	Excavation	68	102	102	1.00	
	Fill	22	49	49	1.00	121
	TOPSOIL					
	Excavation	27	49	49	1.00	
	Fill	0	0	0	1.00	121
	Mass ordinate for TOPSOIL = 305					
75+00.00	EARTH					
	Excavation	68	126	126	1.00	
	Fill	42	59	59	1.00	188
	TOPSOIL					
	Excavation	28	51	51	1.00	
	Fill	0	0	0	1.00	188
	Mass ordinate for TOPSOIL = 356					
75+50.00	EARTH					
	Excavation	62	120	120	1.00	
	Fill	65	99	99	1.00	209
	TOPSOIL					
	Excavation	30	54	54	1.00	
	Fill	0	0	0	1.00	209
	Mass ordinate for TOPSOIL = 410					
76+00.00	EARTH					
	Excavation	44	98	98	1.00	
	Fill	72	127	127	1.00	180
	TOPSOIL					
	Excavation	29	54	54	1.00	
	Fill	0	0	0	1.00	180
	Mass ordinate for TOPSOIL = 464					
76+50.00	EARTH					
	Excavation	19	58	58	1.00	
	Fill	36	100	100	1.00	138
	TOPSOIL					
	Excavation	26	51	51	1.00	
	Fill	0	0	0	1.00	138

	Mass ordinate for TOPSOIL = 515					
77+00.00	EARTH					
	Excavation	113	122	122	1.00	
	Fill	59	88	88	1.00	172
	TOPSOIL					
	Excavation	44	65	65	1.00	
	Fill	0	0	0	1.00	172
	Mass ordinate for TOPSOIL = 580					
77+50.00	EARTH					
	Excavation	101	198	198	1.00	
	Fill	46	97	97	1.00	273
	TOPSOIL					
	Excavation	40	77	77	1.00	
	Fill	0	0	0	1.00	273
	Mass ordinate for TOPSOIL = 657					
78+00.00	EARTH					
	Excavation	117	202	202	1.00	
	Fill	36	76	76	1.00	399
	TOPSOIL					
	Excavation	38	72	72	1.00	
	Fill	0	0	0	1.00	399
	Mass ordinate for TOPSOIL = 729					
78+50.00	EARTH					
	Excavation	142	240	240	1.00	
	Fill	28	59	59	1.00	580
	TOPSOIL					
	Excavation	37	69	69	1.00	
	Fill	0	0	0	1.00	580
	Mass ordinate for TOPSOIL = 798					
79+00.00	EARTH					
	Excavation	218	333	333	1.00	
	Fill	20	44	44	1.00	869
	TOPSOIL					
	Excavation	40	71	71	1.00	
	Fill	0	0	0	1.00	869
	Mass ordinate for TOPSOIL = 869					
79+50.00	EARTH					
	Excavation	164	354	354	1.00	
	Fill	21	38	38	1.00	1185
	TOPSOIL					
	Excavation	42	75	75	1.00	
	Fill	0	0	0	1.00	1185
	Mass ordinate for TOPSOIL = 944					
80+00.00	EARTH					
	Excavation	135	277	277	1.00	
	Fill	18	36	36	1.00	1426
	TOPSOIL					

Excavation	38	74	74	1.00	
Fill	0	0	0	1.00	1426
Mass ordinate for TOPSOIL = 1018					
80+50.00 EARTH					
Excavation	140	255	255	1.00	
Fill	45	58	58	1.00	1623
TOPSOIL					
Excavation	42	74	74	1.00	
Fill	0	0	0	1.00	1623
Mass ordinate for TOPSOIL = 1092					
81+00.00 EARTH					
Excavation	108	230	230	1.00	
Fill	115	148	148	1.00	1705
TOPSOIL					
Excavation	48	83	83	1.00	
Fill	0	0	0	1.00	1705
Mass ordinate for TOPSOIL = 1175					
81+50.00 EARTH					
Excavation	100	193	193	1.00	
Fill	339	420	420	1.00	1478
TOPSOIL					
Excavation	58	98	98	1.00	
Fill	0	0	0	1.00	1478
Mass ordinate for TOPSOIL = 1273					
82+00.00 EARTH					
Excavation	122	206	206	1.00	
Fill	315	606	606	1.00	1078
TOPSOIL					
Excavation	50	100	100	1.00	
Fill	0	0	0	1.00	1078
Mass ordinate for TOPSOIL = 1373					
82+50.00 EARTH					
Excavation	159	260	260	1.00	
Fill	28	318	318	1.00	1020
TOPSOIL					
Excavation	18	63	63	1.00	
Fill	0	0	0	1.00	1020
Mass ordinate for TOPSOIL = 1436					
83+00.00 EARTH					
Excavation	37	181	181	1.00	
Fill	0	26	26	1.00	1175
TOPSOIL					
Excavation	23	38	38	1.00	
Fill	0	0	0	1.00	1175
Mass ordinate for TOPSOIL = 1474					
83+50.00 EARTH					
Excavation	32	64	64	1.00	

Fill	854	791	791	1.00	448
TOPSOIL					
Excavation	75	91	91	1.00	
Fill	0	0	0	1.00	448
Mass ordinate for TOPSOIL = 1565					
84+00.00 EARTH					
Excavation	13	42	42	1.00	
Fill	2060	2698	2698	1.00	-2208
TOPSOIL					
Excavation	103	165	165	1.00	
Fill	0	0	0	1.00	-2208
Mass ordinate for TOPSOIL = 1730					
84+50.00 EARTH					
Excavation	2	14	14	1.00	
Fill	2358	4091	4091	1.00	-6285
TOPSOIL					
Excavation	101	189	189	1.00	
Fill	0	0	0	1.00	-6285
Mass ordinate for TOPSOIL = 1919					
85+00.00 EARTH					
Excavation	0	2	2	1.00	
Fill	2271	4286	4286	1.00	-10569
TOPSOIL					
Excavation	103	189	189	1.00	
Fill	0	0	0	1.00	-10569
Mass ordinate for TOPSOIL = 2108					
SKIP STATION RANGE = 85+36.71 to 87+21.71					
87+50.00 EARTH					
Excavation	0	0	0	1.00	
Fill	2288	5488	5488	1.00	-16057
TOPSOIL					
Excavation	100	244	244	1.00	
Fill	0	0	0	1.00	-16057
Mass ordinate for TOPSOIL = 2352					
88+00.00 EARTH					
Excavation	0	0	0	1.00	
Fill	2127	4088	4088	1.00	-20145
TOPSOIL					
Excavation	105	190	190	1.00	
Fill	0	0	0	1.00	-20145
Mass ordinate for TOPSOIL = 2542					
88+50.00 EARTH					
Excavation	0	0	0	1.00	
Fill	1999	3820	3820	1.00	-23965
TOPSOIL					
Excavation	100	190	190	1.00	
Fill	0	0	0	1.00	-23965
Mass ordinate for TOPSOIL = 2732					

89+00.00	EARTH					
	Excavation	0	0	0	1.00	
	Fill	1669	3396	3396	1.00	-27361
	TOPSOIL					
	Excavation	93	179	179	1.00	
	Fill	0	0	0	1.00	-27361
	Mass ordinate for TOPSOIL = 2911					
89+50.00	EARTH					
	Excavation	0	0	0	1.00	
	Fill	1109	2572	2572	1.00	-29933
	TOPSOIL					
	Excavation	71	152	152	1.00	
	Fill	0	0	0	1.00	-29933
	Mass ordinate for TOPSOIL = 3063					
90+00.00	EARTH					
	Excavation	0	0	0	1.00	
	Fill	612	1594	1594	1.00	-31527
	TOPSOIL					
	Excavation	62	123	123	1.00	
	Fill	0	0	0	1.00	-31527
	Mass ordinate for TOPSOIL = 3186					
90+50.00	EARTH					
	Excavation	1	1	1	1.00	
	Fill	299	844	844	1.00	-32370
	TOPSOIL					
	Excavation	56	109	109	1.00	
	Fill	0	0	0	1.00	-32370
	Mass ordinate for TOPSOIL = 3295					
91+00.00	EARTH					
	Excavation	1	2	2	1.00	
	Fill	195	457	457	1.00	-32825
	TOPSOIL					
	Excavation	52	100	100	1.00	
	Fill	0	0	0	1.00	-32825
	Mass ordinate for TOPSOIL = 3395					
91+50.00	EARTH					
	Excavation	0	1	1	1.00	
	Fill	175	343	343	1.00	-33167
	TOPSOIL					
	Excavation	52	97	97	1.00	
	Fill	0	0	0	1.00	-33167
	Mass ordinate for TOPSOIL = 3492					
SKIP STATION RANGE = 91+78.42 to 93+62.42						
94+00.00	EARTH					
	Excavation	25	31	31	1.00	
	Fill	228	493	493	1.00	-33629
	TOPSOIL					

	Excavation	54	130	130	1.00	
	Fill	0	0	0	1.00	-33629
	Mass ordinate for TOPSOIL = 3622					
94+50.00	EARTH					
	Excavation	19	41	41	1.00	
	Fill	275	466	466	1.00	-34054
	TOPSOIL					
	Excavation	56	102	102	1.00	
	Fill	0	0	0	1.00	-34054
	Mass ordinate for TOPSOIL = 3724					
95+00.00	EARTH					
	Excavation	23	39	39	1.00	
	Fill	133	378	378	1.00	-34393
	TOPSOIL					
	Excavation	38	87	87	1.00	
	Fill	0	0	0	1.00	-34393
	Mass ordinate for TOPSOIL = 3811					
95+50.00	EARTH					
	Excavation	37	56	56	1.00	
	Fill	43	163	163	1.00	-34500
	TOPSOIL					
	Excavation	42	74	74	1.00	
	Fill	0	0	0	1.00	-34500
	Mass ordinate for TOPSOIL = 3885					
96+00.00	EARTH					
	Excavation	95	122	122	1.00	
	Fill	13	52	52	1.00	-34430
	TOPSOIL					
	Excavation	0	39	39	1.00	
	Fill	0	0	0	1.00	-34430
	Mass ordinate for TOPSOIL = 3924					
96+50.00	EARTH					
	Excavation	259	328	328	1.00	
	Fill	5	17	17	1.00	-34119
	TOPSOIL					
	Excavation	28	26	26	1.00	
	Fill	0	0	0	1.00	-34119
	Mass ordinate for TOPSOIL = 3950					
97+00.00	EARTH					
	Excavation	131	361	361	1.00	
	Fill	163	156	156	1.00	-33914
	TOPSOIL					
	Excavation	87	106	106	1.00	
	Fill	0	0	0	1.00	-33914
	Mass ordinate for TOPSOIL = 4056					
97+50.00	EARTH					
	Excavation	8	129	129	1.00	

	Fill	136	277	277	1.00	-34062
TOPSOIL						
	Excavation	54	130	130	1.00	
	Fill	0	0	0	1.00	-34062
	Mass ordinate for TOPSOIL = 4186					
98+00.00 EARTH						
	Excavation	15	21	21	1.00	
	Fill	128	244	244	1.00	-34285
TOPSOIL						
	Excavation	53	99	99	1.00	
	Fill	0	0	0	1.00	-34285
	Mass ordinate for TOPSOIL = 4285					
98+50.00 EARTH						
	Excavation	32	44	44	1.00	
	Fill	113	223	223	1.00	-34464
TOPSOIL						
	Excavation	51	97	97	1.00	
	Fill	0	0	0	1.00	-34464
	Mass ordinate for TOPSOIL = 4382					
99+00.00 EARTH						
	Excavation	48	74	74	1.00	
	Fill	102	199	199	1.00	-34589
TOPSOIL						
	Excavation	51	94	94	1.00	
	Fill	0	0	0	1.00	-34589
	Mass ordinate for TOPSOIL = 4476					
99+50.00 EARTH						
	Excavation	61	101	101	1.00	
	Fill	84	172	172	1.00	-34660
TOPSOIL						
	Excavation	46	89	89	1.00	
	Fill	0	0	0	1.00	-34660
	Mass ordinate for TOPSOIL = 4565					
100+00.00 EARTH						
	Excavation	77	128	128	1.00	
	Fill	72	144	144	1.00	-34676
TOPSOIL						
	Excavation	44	83	83	1.00	
	Fill	0	0	0	1.00	-34676
	Mass ordinate for TOPSOIL = 4648					
100+50.00 EARTH						
	Excavation	61	128	128	1.00	
	Fill	75	136	136	1.00	-34684
TOPSOIL						
	Excavation	43	80	80	1.00	
	Fill	0	0	0	1.00	-34684
	Mass ordinate for TOPSOIL = 4728					

100+88.68	EARTH					
	Excavation	18	57	57	1.00	
	Fill	236	223	223	1.00	-34850
	TOPSOIL					
	Excavation	46	64	64	1.00	
	Fill	0	0	0	1.00	-34850
	Mass ordinate for TOPSOIL = 4792					
101+00.00	EARTH					
	Excavation	18	8	8	1.00	
	Fill	154	82	82	1.00	-34924
	TOPSOIL					
	Excavation	48	20	20	1.00	
	Fill	0	0	0	1.00	-34924
	Mass ordinate for TOPSOIL = 4812					
101+35.67	EARTH					
	Excavation	17	23	23	1.00	
	Fill	111	175	175	1.00	-35076
	TOPSOIL					
	Excavation	43	60	60	1.00	
	Fill	0	0	0	1.00	-35076
	Mass ordinate for TOPSOIL = 4872					
101+50.00	EARTH					
	Excavation	74	24	24	1.00	
	Fill	78	50	50	1.00	-35102
	TOPSOIL					
	Excavation	43	23	23	1.00	
	Fill	0	0	0	1.00	-35102
	Mass ordinate for TOPSOIL = 4895					
102+00.00	EARTH					
	Excavation	207	260	260	1.00	
	Fill	20	91	91	1.00	-34933
	TOPSOIL					
	Excavation	44	80	80	1.00	
	Fill	0	0	0	1.00	-34933
	Mass ordinate for TOPSOIL = 4975					
102+50.00	EARTH					
	Excavation	255	428	428	1.00	
	Fill	13	31	31	1.00	-34536
	TOPSOIL					
	Excavation	45	82	82	1.00	
	Fill	0	0	0	1.00	-34536
	Mass ordinate for TOPSOIL = 5057					
103+00.00	EARTH					
	Excavation	253	470	470	1.00	
	Fill	11	22	22	1.00	-34088
	TOPSOIL					
	Excavation	44	83	83	1.00	
	Fill	0	0	0	1.00	-34088

	Mass ordinate for TOPSOIL = 5140					
103+50.00	EARTH					
	Excavation	209	428	428	1.00	
	Fill	10	19	19	1.00	-33679
	TOPSOIL					
	Excavation	44	82	82	1.00	
	Fill	0	0	0	1.00	-33679
	Mass ordinate for TOPSOIL = 5222					
104+00.00	EARTH					
	Excavation	124	308	308	1.00	
	Fill	9	18	18	1.00	-33389
	TOPSOIL					
	Excavation	42	79	79	1.00	
	Fill	0	0	0	1.00	-33389
	Mass ordinate for TOPSOIL = 5301					
104+50.00	EARTH					
	Excavation	61	171	171	1.00	
	Fill	15	22	22	1.00	-33240
	TOPSOIL					
	Excavation	39	75	75	1.00	
	Fill	0	0	0	1.00	-33240
	Mass ordinate for TOPSOIL = 5376					
105+00.00	EARTH					
	Excavation	55	107	107	1.00	
	Fill	49	59	59	1.00	-33192
	TOPSOIL					
	Excavation	39	72	72	1.00	
	Fill	0	0	0	1.00	-33192
	Mass ordinate for TOPSOIL = 5448					
105+50.00	EARTH					
	Excavation	111	154	154	1.00	
	Fill	3	48	48	1.00	-33086
	TOPSOIL					
	Excavation	40	73	73	1.00	
	Fill	0	0	0	1.00	-33086
	Mass ordinate for TOPSOIL = 5521					
106+00.00	EARTH					
	Excavation	182	271	271	1.00	
	Fill	1	4	4	1.00	-32819
	TOPSOIL					
	Excavation	42	76	76	1.00	
	Fill	0	0	0	1.00	-32819
	Mass ordinate for TOPSOIL = 5597					
106+50.00	EARTH					
	Excavation	256	406	406	1.00	
	Fill	1	2	2	1.00	-32415
	TOPSOIL					

	Excavation	44	80	80	1.00	
	Fill	0	0	0	1.00	-32415
	Mass ordinate for TOPSOIL = 5677					
107+00.00	EARTH					
	Excavation	333	545	545	1.00	
	Fill	1	2	2	1.00	-31872
	TOPSOIL					
	Excavation	45	83	83	1.00	
	Fill	0	0	0	1.00	-31872
	Mass ordinate for TOPSOIL = 5760					
107+50.00	EARTH					
	Excavation	388	668	668	1.00	
	Fill	1	2	2	1.00	-31206
	TOPSOIL					
	Excavation	47	85	85	1.00	
	Fill	0	0	0	1.00	-31206
	Mass ordinate for TOPSOIL = 5845					
107+75.09	EARTH					
	Excavation	592	455	455	1.00	
	Fill	1	1	1	1.00	-30752
	TOPSOIL					
	Excavation	58	49	49	1.00	
	Fill	0	0	0	1.00	-30752
	Mass ordinate for TOPSOIL = 5894					
108+00.00	EARTH					
	Excavation	664	579	579	1.00	
	Fill	1	1	1	1.00	-30174
	TOPSOIL					
	Excavation	60	55	55	1.00	
	Fill	0	0	0	1.00	-30174
	Mass ordinate for TOPSOIL = 5949					
108+24.92	EARTH					
	Excavation	741	648	648	1.00	
	Fill	1	1	1	1.00	-29527
	TOPSOIL					
	Excavation	61	56	56	1.00	
	Fill	0	0	0	1.00	-29527
	Mass ordinate for TOPSOIL = 6005					
108+50.00	EARTH					
	Excavation	604	625	625	1.00	
	Fill	1	1	1	1.00	-28903
	TOPSOIL					
	Excavation	50	52	52	1.00	
	Fill	0	0	0	1.00	-28903
	Mass ordinate for TOPSOIL = 6057					
109+00.00	EARTH					
	Excavation	751	1255	1255	1.00	

	Fill	1	2	2	1.00	-27650
TOPSOIL						
	Excavation	52	95	95	1.00	
	Fill	0	0	0	1.00	-27650
	Mass ordinate for TOPSOIL = 6152					
109+50.00 EARTH						
	Excavation	847	1480	1480	1.00	
	Fill	1	2	2	1.00	-26172
TOPSOIL						
	Excavation	52	96	96	1.00	
	Fill	0	0	0	1.00	-26172
	Mass ordinate for TOPSOIL = 6248					
110+00.00 EARTH						
	Excavation	798	1523	1523	1.00	
	Fill	0	1	1	1.00	-24650
TOPSOIL						
	Excavation	47	92	92	1.00	
	Fill	0	0	0	1.00	-24650
	Mass ordinate for TOPSOIL = 6340					
110+50.00 EARTH						
	Excavation	651	1342	1342	1.00	
	Fill	0	0	0	1.00	-23308
TOPSOIL						
	Excavation	42	82	82	1.00	
	Fill	0	0	0	1.00	-23308
	Mass ordinate for TOPSOIL = 6422					
111+00.00 EARTH						
	Excavation	516	1081	1081	1.00	
	Fill	0	0	0	1.00	-22227
TOPSOIL						
	Excavation	39	75	75	1.00	
	Fill	0	0	0	1.00	-22227
	Mass ordinate for TOPSOIL = 6497					
111+50.00 EARTH						
	Excavation	413	860	860	1.00	
	Fill	1	1	1	1.00	-21368
TOPSOIL						
	Excavation	38	71	71	1.00	
	Fill	0	0	0	1.00	-21368
	Mass ordinate for TOPSOIL = 6568					
112+00.00 EARTH						
	Excavation	328	686	686	1.00	
	Fill	0	1	1	1.00	-20683
TOPSOIL						
	Excavation	37	70	70	1.00	
	Fill	0	0	0	1.00	-20683
	Mass ordinate for TOPSOIL = 6638					

112+50.00	EARTH					
	Excavation	254	539	539	1.00	
	Fill	2	2	2	1.00	-20146
	TOPSOIL					
	Excavation	36	68	68	1.00	
	Fill	0	0	0	1.00	-20146
	Mass ordinate for TOPSOIL = 6706					
113+00.00	EARTH					
	Excavation	191	412	412	1.00	
	Fill	4	6	6	1.00	-19740
	TOPSOIL					
	Excavation	34	65	65	1.00	
	Fill	0	0	0	1.00	-19740
	Mass ordinate for TOPSOIL = 6771					
113+50.00	EARTH					
	Excavation	110	279	279	1.00	
	Fill	5	8	8	1.00	-19469
	TOPSOIL					
	Excavation	20	50	50	1.00	
	Fill	0	0	0	1.00	-19469
	Mass ordinate for TOPSOIL = 6821					
114+00.00	EARTH					
	Excavation	130	222	222	1.00	
	Fill	0	5	5	1.00	-19252
	TOPSOIL					
	Excavation	22	39	39	1.00	
	Fill	0	0	0	1.00	-19252
	Mass ordinate for TOPSOIL = 6860					
114+50.00	EARTH					
	Excavation	140	250	250	1.00	
	Fill	0	0	0	1.00	-19002
	TOPSOIL					
	Excavation	23	42	42	1.00	
	Fill	0	0	0	1.00	-19002
	Mass ordinate for TOPSOIL = 6902					
115+00.00	EARTH					
	Excavation	125	245	245	1.00	
	Fill	0	0	0	1.00	-18757
	TOPSOIL					
	Excavation	24	44	44	1.00	
	Fill	0	0	0	1.00	-18757
	Mass ordinate for TOPSOIL = 6946					
115+50.00	EARTH					
	Excavation	88	197	197	1.00	
	Fill	24	22	22	1.00	-18582
	TOPSOIL					
	Excavation	25	45	45	1.00	
	Fill	0	0	0	1.00	-18582

	Mass ordinate for TOPSOIL = 6991					
116+00.00	EARTH					
	Excavation	108	181	181	1.00	
	Fill	21	42	42	1.00	-18443
	TOPSOIL					
	Excavation	36	56	56	1.00	
	Fill	0	0	0	1.00	-18443
	Mass ordinate for TOPSOIL = 7047					
116+50.00	EARTH					
	Excavation	176	263	263	1.00	
	Fill	6	25	25	1.00	-18205
	TOPSOIL					
	Excavation	36	67	67	1.00	
	Fill	0	0	0	1.00	-18205
	Mass ordinate for TOPSOIL = 7114					
117+00.00	EARTH					
	Excavation	250	394	394	1.00	
	Fill	1	6	6	1.00	-17817
	TOPSOIL					
	Excavation	38	69	69	1.00	
	Fill	0	0	0	1.00	-17817
	Mass ordinate for TOPSOIL = 7183					
117+50.00	EARTH					
	Excavation	335	542	542	1.00	
	Fill	1	2	2	1.00	-17277
	TOPSOIL					
	Excavation	41	73	73	1.00	
	Fill	0	0	0	1.00	-17277
	Mass ordinate for TOPSOIL = 7256					
118+00.00	EARTH					
	Excavation	366	649	649	1.00	
	Fill	1	2	2	1.00	-16630
	TOPSOIL					
	Excavation	43	78	78	1.00	
	Fill	0	0	0	1.00	-16630
	Mass ordinate for TOPSOIL = 7334					
118+50.00	EARTH					
	Excavation	296	613	613	1.00	
	Fill	1	2	2	1.00	-16019
	TOPSOIL					
	Excavation	41	78	78	1.00	
	Fill	0	0	0	1.00	-16019
	Mass ordinate for TOPSOIL = 7412					
119+00.00	EARTH					
	Excavation	182	443	443	1.00	
	Fill	2	3	3	1.00	-15579
	TOPSOIL					

	Excavation	41	76	76	1.00	
	Fill	0	0	0	1.00	-15579
	Mass ordinate for TOPSOIL = 7488					
119+50.00	EARTH					
	Excavation	75	238	238	1.00	
	Fill	8	9	9	1.00	-15350
	TOPSOIL					
	Excavation	39	74	74	1.00	
	Fill	0	0	0	1.00	-15350
	Mass ordinate for TOPSOIL = 7562					
120+00.00	EARTH					
	Excavation	9	78	78	1.00	
	Fill	77	79	79	1.00	-15351
	TOPSOIL					
	Excavation	36	69	69	1.00	
	Fill	0	0	0	1.00	-15351
	Mass ordinate for TOPSOIL = 7631					
120+50.00	EARTH					
	Excavation	1	9	9	1.00	
	Fill	158	218	218	1.00	-15560
	TOPSOIL					
	Excavation	37	68	68	1.00	
	Fill	0	0	0	1.00	-15560
	Mass ordinate for TOPSOIL = 7699					
121+00.00	EARTH					
	Excavation	1	2	2	1.00	
	Fill	224	354	354	1.00	-15912
	TOPSOIL					
	Excavation	37	69	69	1.00	
	Fill	0	0	0	1.00	-15912
	Mass ordinate for TOPSOIL = 7768					
121+50.00	EARTH					
	Excavation	0	1	1	1.00	
	Fill	219	410	410	1.00	-16321
	TOPSOIL					
	Excavation	36	68	68	1.00	
	Fill	0	0	0	1.00	-16321
	Mass ordinate for TOPSOIL = 7836					
122+00.00	EARTH					
	Excavation	1	1	1	1.00	
	Fill	157	348	348	1.00	-16668
	TOPSOIL					
	Excavation	33	64	64	1.00	
	Fill	0	0	0	1.00	-16668
	Mass ordinate for TOPSOIL = 7900					
122+50.00	EARTH					
	Excavation	7	7	7	1.00	

	Fill	80	219	219	1.00	-16880
TOPSOIL						
	Excavation	27	55	55	1.00	
	Fill	0	0	0	1.00	-16880
	Mass ordinate for TOPSOIL = 7955					
123+00.00 EARTH						
	Excavation	31	35	35	1.00	
	Fill	15	88	88	1.00	-16933
TOPSOIL						
	Excavation	25	48	48	1.00	
	Fill	0	0	0	1.00	-16933
	Mass ordinate for TOPSOIL = 8003					
123+50.00 EARTH						
	Excavation	91	113	113	1.00	
	Fill	2	16	16	1.00	-16836
TOPSOIL						
	Excavation	24	45	45	1.00	
	Fill	0	0	0	1.00	-16836
	Mass ordinate for TOPSOIL = 8048					
124+00.00 EARTH						
	Excavation	68	147	147	1.00	
	Fill	1	3	3	1.00	-16692
TOPSOIL						
	Excavation	21	42	42	1.00	
	Fill	0	0	0	1.00	-16692
	Mass ordinate for TOPSOIL = 8090					
124+50.00 EARTH						
	Excavation	10	72	72	1.00	
	Fill	2	3	3	1.00	-16623
TOPSOIL						
	Excavation	8	27	27	1.00	
	Fill	0	0	0	1.00	-16623
	Mass ordinate for TOPSOIL = 8117					

G R A N D S U M M A R Y T O T A L S

Material Name		Unadjusted Volumes (cu. yd.)	Adjusted Volumes (cu. yd.)	Mult Factor
EARTH				
	Excavation	26315	26315	1.00
	Fill	42938	42938	1.00
TOPSOIL				
	Excavation	8117	8117	1.00
	Fill	0	0	1.00

		S P L I T	S U M M A R Y		T O T A L S
			XS Quant	XS Quant	Add/Sub Quant
Material Name			Unadjusted	Adjusted	Unadjusted
Mult Factor			Volume (cu. yd.)	Volume (cu. yd.)	Volume (cu. yd.)
EARTH					
	Excavation		26315	26315	0
1.00					0
	Fill		42938	42938	0
1.00					0
TOPSOIL					
	Excavation		8117	8117	0
1.00					0
	Fill		0	0	0
1.00					0

B A L A N C E P O I N T S U M M A R Y

Material Name		Cumulative Unadjusted Volumes (cu. yd.)	Adjusted Volumes (cu. yd.)	Incremental Unadjusted Volumes (cu. yd.)	Mult Adjusted Factor
Station = 73+21.43					
EARTH					
	Excavation	128	128	128	128 1.00
	Fill	128	128	128	128 1.00
TOPSOIL					
	Excavation	184	184	184	184 1.00
	Fill	0	0	0	0 1.00
Station = 83+58.43					
EARTH					
	Excavation	3863	3863	3735	3735 1.00
	Fill	3863	3863	3735	3735 1.00
TOPSOIL					
	Excavation	1593	1593	1409	1409 1.00
	Fill	0	0	0	0 1.00