TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO. ___

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-317(14)	4C
CONST.	2014	STP/NH-317(14)	4C

REV. 06-14-13: ADJUSTED DRAINAGE.

EARTHWORK QUANTITIES AND BALANCE

ROAD AND DRAINAGE EXCAVATION (UNCLASSIFIED) : 258,497 C.Y.
- INCLUDES
  - COMMON EXC. : 177,785 C.Y.
  - 16,535 C.Y. TOPSOIL FROM FILL
  - 8,040 C.Y. TOPSOIL FROM CUT
  - 28,797 C.Y. DRIVEWAYS
  - 7,943 C.Y. EPSC MEASURES
  - 191 C.Y. SINKHOLE
- SIDE ROADS EXC. : 19,206 C.Y.

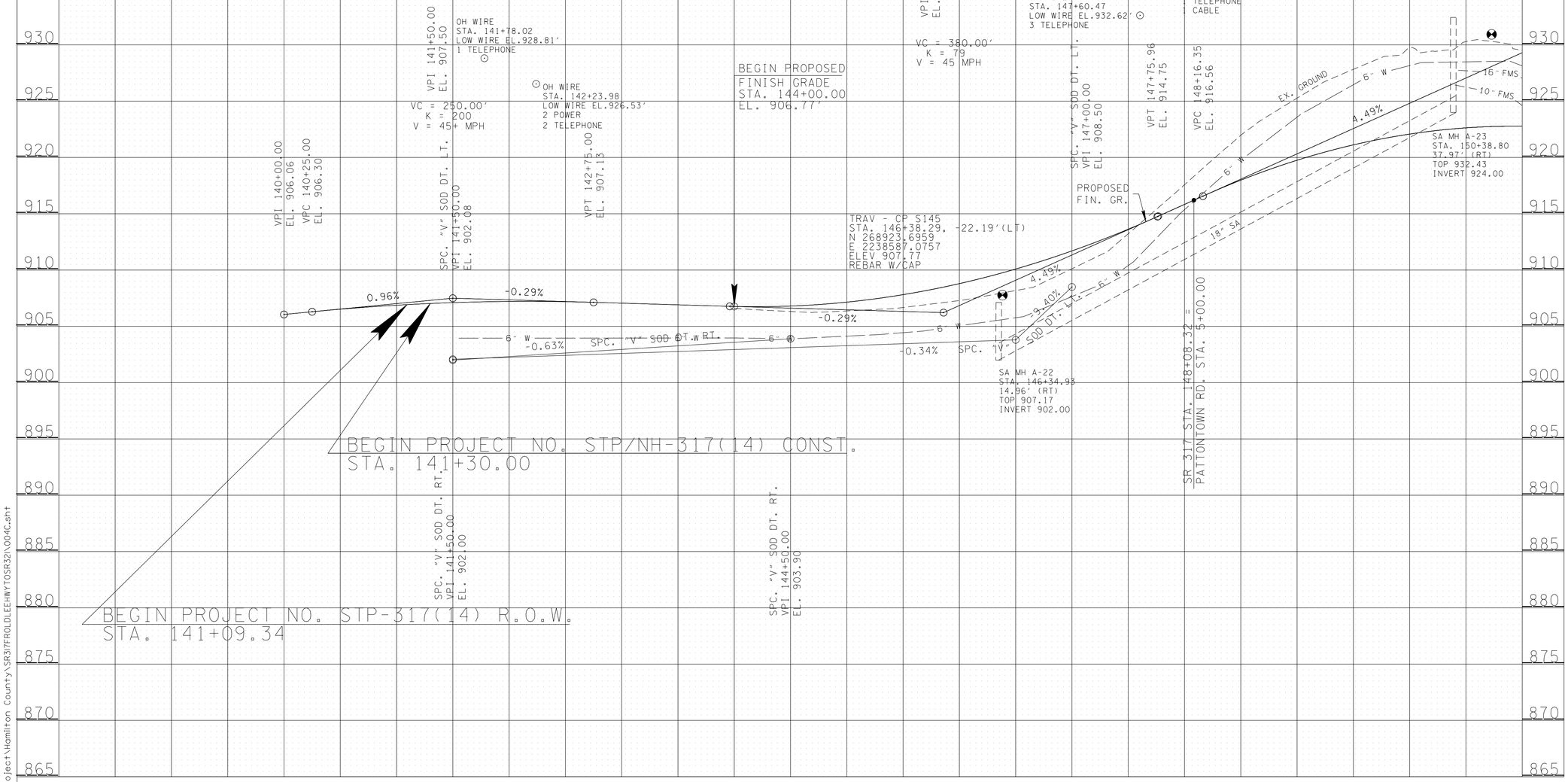
REQ'D EMBANKMENT : 77,738 C.Y.
- INCLUDES
  - EMBANKMENT. : 56,958 C.Y.
  - 3,196 C.Y. BORROW UNCL.-C.Y.
  - 103 C.Y. GRADED SOLID ROCK
  - 56 C.Y. MINERAL AGG. (SIZE 57)
  - 64 C.Y. COMPACTED CLAY
  - 2,610 C.Y. DRIVEWAYS
  - 9,465 C.Y. TO REPLACE STRIPPED TOPSOIL
- SIDE ROADS EMB. : 5,286 C.Y.

BALANCE : 258,497 C.Y. COMMON EXC.
- 16,535 C.Y. TOPSOIL FROM FILL
- 8,040 C.Y. TOPSOIL FROM CUT

233,922 C.Y. EXC. / 1.20 (20% SHRINKAGE FACTOR) = 77,738 C.Y. REQ'D EMB.

UNCLASS EXC. 194,935 C.Y. = 77,738 C.Y. REQ'D EMB.

PROJECT WASTE = 117,197 CU.YD.



SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

STA. 141+30 TO STA. 151+00
SCALE: 1"= 50' HORIZ.
1"= 5' VERT.

8/21/2014 2:23:51 PM
C:\Project\Hamilton County\SR317FROLDLEEHWYTOSR321\004C.sht

HAMILTON COUNTY

S.R. 317 (APISON PIKE) INTERSECTION AT OLD LEE HIGHWAY
TO S.R. 321 (OOLTEWAH-RINGGOLD ROAD)
STP/NH-317(14)

EARTH WORK
(GEOPAK OUTPUT)

FOR EARTH WORK BALANCE, PLEASE SEE SHEET 4C ON PLANS.

HAMILTON COUNTY

PROJECT NO. STP-317(14), PIN NO. 107637.03

S.R. 317 (APISON PIKE) FROM OLD LEE HIGHWAY TO S.R. 321 (OOLTEWAH - RINGGOLD ROAD)

```
Input  File: ewkprj.inp
Output File: HTSR317FinalEarthWork.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 = 250.000000
 1     8     8
 1     9     9 xs dgn = C:\Project\Hamilton
County\SR317FROLDLEEHWYTOSR321\HTSR317MainlineXsections.dgn
 1    10    10
 1    11    11     Proposed Finish Grade
 1    12    12         soil type = EARTH
 1    13    13         roadway exc mult factor = 0.800000
 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             lvname = DESIGN - TYPICAL - Warning Text
 1    19    19             lvname = DESIGN - EARTHWORK - Special Tie to Ground
 1    20    20             lc = 0
 1    21    21             wt = 0,2,4
 1    22    22             co = 0-2,6-8,13,18,161
 1    23    23
 1    24    24     Existing Ground Line
 1    25    25         soil type = EARTH
 1    26    26         roadway exc mult factor = 0.800000
 1    27    27         subsoil exc mult factor = 1.000000
 1    28    28         fill mult factor = 1.000000
 1    29    29             type = line
 1    30    30             lvname = SURVEY - GROUND - Top of Ground
 1    31    31             lc = 3
 1    32    32             wt = 2
 1    33    33             co = 0
 1    34    34
 1    35    35     Existing Unsuitable Material
 1    36    36         soil type = TOPSOIL
 1    37    37         roadway exc mult factor = 0.800000
 1    38    38         subsoil exc mult factor = 1.000000
 1    39    39         fill mult factor = 1.000000
 1    40    40             type = line
 1    41    41             lvname = SURVEY - GROUND - Bottom of Topsoil Layer
 1    42    42             lc = 2
 1    43    43             wt = 2
 1    44    44             co = 2
 1    45    45
 1    46    46     Excavation Limit
 1    47    47             type = line
 1    48    48             lvname = DESIGN - EARTHWORK - Excavation Limit Lines
 1    49    49             lc = 0
 1    50    50             wt = 0
```

```
 1    51    51              co = 0
 1    52    52
 1    53    53      Skip Areas
 1    54    54         from 142+36.21 R 1 to 142+36.21 R 1
 1    55    55         from 143+22.86 R 1 to 143+22.86 R 1
 1    56    56         from 148+79.38 R 1 to 148+79.38 R 1
 1    57    57         from 149+12.66 R 1 to 149+12.66 R 1
 1    58    58         from 178+27.44 R 1 to 178+27.44 R 1
 1    59    59
 1    60    60      Ignore Areas
 1    61    61         from 142+36.21 R 1 to 142+36.21 R 1
 1    62    62         from 143+22.86 R 1 to 143+22.86 R 1
 1    63    63         from 148+79.38 R 1 to 148+79.38 R 1
 1    64    64         from 149+12.66 R 1 to 149+12.66 R 1
 1    65    65         from 178+27.44 R 1 to 178+27.44 R 1
 1    66    66
 1    67    67      Write Earthwork Shapes
 1    68    68          plot param
 1    69    69              lv = 347
 1    70    70              lvname = DESIGN - EARTHWORK - Shapes
 1    71    71              co = 1
 1    72    72              wt = 0
 1    73    73              lc = 0
 1    74    74              Stratify Shape Color
 1    75    75
 1    76    76      combine common exc + subgrade exc + subsoil exc
 1    77    77
 1    78    78
 1    79    79      Add Accumulated Adjusted Volume Column
 1    80    80
 1    81    81      Add Accumulated Unadjusted Volume Column
 1    82    82
 1    83    83      End Area Decimal Places = 0
 1    84    84
 1    85    85      write column base ascii file = C:\Project\Hamilton
County\SR317FROLDLEEHWYTOSR321\HTSR317FinalEarthWork.txt
 1    86    86
 1    87    87      column 1 formula = abs( ["EARTH", Common Exc, End Area]  )
 1    88    88      column 1 number of decimal place = 0
 1    89    89      column 1 total length = 10
 1    90    90
 1    91    91      column 2 formula = abs( ["EARTH", Fill, End Area]  )
 1    92    92      column 2 number of decimal place = 0
 1    93    93      column 2 total length = 10
 1    94    94
 1    95    95      column 3 formula = abs( ["TOPSOIL", Common Exc, End Area]  )
 1    96    96      column 3 number of decimal place = 0
 1    97    97      column 3 total length = 10
 1    98    98
 1    99    99
 1   100   100      Process Earthwork for Baseline = MAINLINE_ALT
 1   101   101          job number = 2g4
 1   102   102
 1   103   103          beg sta = 140+00.00 R 1
 1   104   104          end sta = 263+50.00 R 1
 0     0   105 END_OF_FILE
COMPUTING EARTHWORKS FOR BASELINE = MAINLINE_ALT
COMPUTING EARTHWORKS FOR JOB = 2G4
FORMING LIST OF XSCELLS
BEGINNING EARTHWORKS COMPUTATION
♀
            Material Name    End Areas  Unadjusted Adjusted   Mult   Mass     Accum
     Accum
```

Station			Volumes (sq. ft.)	Volumes (cu. yd.)	Volumes (cu. yd.)	Factor	Ordinate	Unadj Vol (cu. yd.)	Adj Vol (cu. yd.)
141+50.00	EARTH								
		Excavation	23	64	51	0.80		64	51
		Fill	83	231	231	1.00	-180	231	231
	TOPSOIL								
		Excavation	35	97	87	0.80		97	87
		Fill	0	0	0	1.00	-180	0	0
		Mass ordinate for TOPSOIL = 87							
142+00.00	EARTH								
		Excavation	40	58	47	0.80		122	98
		Fill	43	117	117	1.00	-250	348	348
	TOPSOIL								
		Excavation	33	63	56	0.80		160	143
		Fill	0	0	0	1.00	-250	0	0
		Mass ordinate for TOPSOIL = 143							
142+50.00	EARTH								
		Excavation	42	76	61	0.80		198	159
		Fill	39	76	76	1.00	-265	424	424
	TOPSOIL								
		Excavation	37	65	56	0.80		225	199
		Fill	0	0	0	1.00	-265	0	0
		Mass ordinate for TOPSOIL = 199							
143+00.00	EARTH								
		Excavation	23	60	48	0.80		258	207
		Fill	56	88	88	1.00	-305	512	512
	TOPSOIL								
		Excavation	37	68	60	0.80		293	259
		Fill	0	0	0	1.00	-305	0	0
		Mass ordinate for TOPSOIL = 259							
143+50.00	EARTH								
		Excavation	17	37	30	0.80		295	237
		Fill	68	115	115	1.00	-390	627	627
	TOPSOIL								
		Excavation	39	70	63	0.80		363	

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     322
                Fill          0          0          0   1.00     -390          0
       0
            Mass ordinate for TOPSOIL = 322

144+00.00 EARTH
            Excavation        8         23         19   0.80                  318
     256
                Fill        104        159        159   1.00     -530        786
     786
        TOPSOIL
            Excavation       43         76         70   0.80                  439
     392
                Fill          0          0          0   1.00     -530          0
       0
            Mass ordinate for TOPSOIL = 392

144+50.00 EARTH
            Excavation       26         31         25   0.80                  349
     281
                Fill        123        210        210   1.00     -715        996
     996
        TOPSOIL
            Excavation       44         81         77   0.80                  520
     469
                Fill          0          0          0   1.00     -715          0
       0
            Mass ordinate for TOPSOIL = 469

145+00.00 EARTH
            Excavation       18         41         33   0.80                  390
     314
                Fill        167        269        269   1.00     -951       1265
    1265
        TOPSOIL
            Excavation       43         81         78   0.80                  601
     547
                Fill          0          0          0   1.00     -951          0
       0
            Mass ordinate for TOPSOIL = 547

145+50.00 EARTH
            Excavation        8         24         19   0.80                  414
     333
                Fill        212        351        351   1.00    -1283       1616
    1616
        TOPSOIL
            Excavation       45         81         80   0.80                  682
     627
                Fill          0          0          0   1.00    -1283          0
       0
            Mass ordinate for TOPSOIL = 627

146+00.00 EARTH
            Excavation        2          9          7   0.80                  423
     340
                Fill        233        412        412   1.00    -1688       2028
    2028
        TOPSOIL
            Excavation       47         86         85   0.80                  768
     712
                Fill          0          0          0   1.00    -1688          0
       0
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                Mass ordinate for TOPSOIL = 712

146+50.00 EARTH
                Excavation      24        24        19   0.80                447
     359
                     Fill      147       352       352   1.00     -2021     2380
    2380
          TOPSOIL
                Excavation      51        90        88   0.80                858
     800
                     Fill       0         0         0   1.00     -2021        0
       0
                Mass ordinate for TOPSOIL = 800

147+00.00 EARTH
                Excavation       1        23        19   0.80                470
     378
                     Fill      230       349       349   1.00     -2351     2729
    2729
          TOPSOIL
                Excavation      45        89        87   0.80                947
     887
                     Fill       0         0         0   1.00     -2351        0
       0
                Mass ordinate for TOPSOIL = 887

147+50.00 EARTH
                Excavation      59        56        44   0.80                526
     422
                     Fill       82       289       289   1.00     -2596     3018
    3018
          TOPSOIL
                Excavation      28        67        63   0.80               1014
     950
                     Fill       0         0         0   1.00     -2596        0
       0
                Mass ordinate for TOPSOIL = 950

148+00.00 EARTH
                Excavation     296       329       263   0.80                855
     685
                     Fill       27       101       101   1.00     -2434     3119
    3119
          TOPSOIL
                Excavation      48        71        60   0.80               1085
    1010
                     Fill       0         0         0   1.00     -2434        0
       0
                Mass ordinate for TOPSOIL = 1010

148+50.00 EARTH
                Excavation     699       921       737   0.80               1776
    1422
                     Fill       39        61        61   1.00     -1758     3180
    3180
          TOPSOIL
                Excavation      60       100        84   0.80               1185
    1094
                     Fill       0         0         0   1.00     -1758        0
       0
                Mass ordinate for TOPSOIL = 1094
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149+00.00 EARTH
              Excavation     1055       1624       1299   0.80                3400
    2721
                  Fill         10         45         45   1.00      -504      3225
    3225
          TOPSOIL
              Excavation       65        116         96   0.80                1301
    1190
                  Fill          0          0          0   1.00      -504         0
       0
              Mass ordinate for TOPSOIL = 1190

149+50.00 EARTH
              Excavation     1475       2343       1874   0.80                5743
    4595
                  Fill          1         10         10   1.00      1360      3235
    3235
          TOPSOIL
              Excavation       76        130        105   0.80                1431
    1295
                  Fill          0          0          0   1.00      1360         0
       0
              Mass ordinate for TOPSOIL = 1295

150+00.00 EARTH
              Excavation     1837       3067       2453   0.80                8810
    7048
                  Fill          1          2          2   1.00      3811      3237
    3237
          TOPSOIL
              Excavation       82        146        118   0.80                1577
    1413
                  Fill          0          0          0   1.00      3811         0
       0
              Mass ordinate for TOPSOIL = 1413

150+50.00 EARTH
              Excavation     1713       3287       2630   0.80               12097
    9678
                  Fill          1          2          2   1.00      6439      3239
    3239
          TOPSOIL
              Excavation       79        149        120   0.80                1726
    1533
                  Fill          0          0          0   1.00      6439         0
       0
              Mass ordinate for TOPSOIL = 1533

151+00.00 EARTH
              Excavation     1665       3128       2502   0.80               15225
   12180
                  Fill          1          2          2   1.00      8939      3241
    3241
          TOPSOIL
              Excavation       75        143        115   0.80                1869
    1648
                  Fill          0          0          0   1.00      8939         0
       0
              Mass ordinate for TOPSOIL = 1648

151+50.00 EARTH
              Excavation     1378       2818       2254   0.80               18043
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   14434
                Fill          1          2          2   1.00    11191        3243
    3243
           TOPSOIL
               Excavation    68        133        106   0.80                 2002
    1754
                Fill          0          0          0   1.00    11191           0
       0
               Mass ordinate for TOPSOIL = 1754

152+00.00 EARTH
               Excavation   988       2191       1753   0.80                20234
   16187
                Fill         12         12         12   1.00    12932        3255
    3255
           TOPSOIL
               Excavation    61        119         96   0.80                 2121
    1850
                Fill          0          0          0   1.00    12932           0
       0
               Mass ordinate for TOPSOIL = 1850

152+50.00 EARTH
               Excavation   625       1494       1195   0.80                21728
   17382
                Fill         96        100        100   1.00    14027        3355
    3355
           TOPSOIL
               Excavation    61        113         94   0.80                 2234
    1944
                Fill          0          0          0   1.00    14027           0
       0
               Mass ordinate for TOPSOIL = 1944

153+00.00 EARTH
               Excavation   291        848        679   0.80                22576
   18061
                Fill        123        203        203   1.00    14503        3558
    3558
           TOPSOIL
               Excavation    55        107         92   0.80                 2341
    2036
                Fill          0          0          0   1.00    14503           0
       0
               Mass ordinate for TOPSOIL = 2036

153+50.00 EARTH
               Excavation    73        337        270   0.80                22913
   18331
                Fill        131        235        235   1.00    14538        3793
    3793
           TOPSOIL
               Excavation    51         98         87   0.80                 2439
    2123
                Fill          0          0          0   1.00    14538           0
       0
               Mass ordinate for TOPSOIL = 2123

154+00.00 EARTH
               Excavation   106        166        133   0.80                23079
   18464
                Fill        157        267        267   1.00    14404        4060
    4060
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            TOPSOIL
                Excavation      54        98        87   0.80                2537
   2210
                    Fill         0         0         0   1.00    14404          0
      0
                Mass ordinate for TOPSOIL = 2210

154+50.00   EARTH
                Excavation     452       517       413   0.80               23596
  18877
                    Fill       137       272       272   1.00    14545       4332
   4332
            TOPSOIL
                Excavation      60       106        93   0.80                2643
   2303
                    Fill         0         0         0   1.00    14545          0
      0
                Mass ordinate for TOPSOIL = 2303

155+00.00   EARTH
                Excavation     720      1085       868   0.80               24681
  19745
                    Fill       180       294       294   1.00    15119       4626
   4626
            TOPSOIL
                Excavation      66       116       100   0.80                2759
   2403
                    Fill         0         0         0   1.00    15119          0
      0
                Mass ordinate for TOPSOIL = 2403

155+50.00   EARTH
                Excavation     790      1398      1119   0.80               26079
  20864
                    Fill       200       352       352   1.00    15886       4978
   4978
            TOPSOIL
                Excavation      69       125       107   0.80                2884
   2510
                    Fill         0         0         0   1.00    15886          0
      0
                Mass ordinate for TOPSOIL = 2510

156+00.00   EARTH
                Excavation     733      1410      1128   0.80               27489
  21992
                    Fill       201       371       371   1.00    16643       5349
   5349
            TOPSOIL
                Excavation      67       126       107   0.80                3010
   2617
                    Fill         0         0         0   1.00    16643          0
      0
                Mass ordinate for TOPSOIL = 2617

156+50.00   EARTH
                Excavation     649      1280      1024   0.80               28769
  23016
                    Fill       199       370       370   1.00    17297       5719
   5719
            TOPSOIL
                Excavation      64       121       103   0.80                3131
   2720
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                Fill          0          0          0   1.00    17297          0
       0
            Mass ordinate for TOPSOIL = 2720

157+00.00 EARTH
            Excavation      426        995        796   0.80                29764
   23812
                Fill        196        366        366   1.00    17727       6085
    6085
        TOPSOIL
            Excavation       57        112         95   0.80                 3243
    2815
                Fill          0          0          0   1.00    17727          0
       0
            Mass ordinate for TOPSOIL = 2815

157+50.00 EARTH
            Excavation      154        537        430   0.80                30301
   24242
                Fill        192        359        359   1.00    17798       6444
    6444
        TOPSOIL
            Excavation       51        100         87   0.80                 3343
    2902
                Fill          0          0          0   1.00    17798          0
       0
            Mass ordinate for TOPSOIL = 2902

158+00.00 EARTH
            Excavation        6        148        119   0.80                30449
   24361
                Fill        210        372        372   1.00    17545       6816
    6816
        TOPSOIL
            Excavation       45         89         82   0.80                 3432
    2984
                Fill          0          0          0   1.00    17545          0
       0
            Mass ordinate for TOPSOIL = 2984

158+50.00 EARTH
            Excavation       14         19         15   0.80                30468
   24376
                Fill        177        358        358   1.00    17202       7174
    7174
        TOPSOIL
            Excavation       46         84         82   0.80                 3516
    3066
                Fill          0          0          0   1.00    17202          0
       0
            Mass ordinate for TOPSOIL = 3066

159+00.00 EARTH
            Excavation       84         91         73   0.80                30559
   24449
                Fill         95        252        252   1.00    17023       7426
    7426
        TOPSOIL
            Excavation       50         88         85   0.80                 3604
    3151
                Fill          0          0          0   1.00    17023          0
       0
            Mass ordinate for TOPSOIL = 3151
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```
159+50.00 EARTH
              Excavation      134        202        161   0.80                30761
   24610
                  Fill         39        124        124   1.00    17060        7550
    7550
          TOPSOIL
              Excavation       53         95         85   0.80                 3699
    3236
                  Fill          0          0          0   1.00    17060           0
       0
              Mass ordinate for TOPSOIL = 3236

160+00.00 EARTH
              Excavation      172        283        227   0.80                31044
   24837
                  Fill         30         64         64   1.00    17223        7614
    7614
          TOPSOIL
              Excavation       55        100         85   0.80                 3799
    3321
                  Fill          0          0          0   1.00    17223           0
       0
              Mass ordinate for TOPSOIL = 3321

160+50.00 EARTH
              Excavation      231        373        299   0.80                31417
   25136
                  Fill         16         43         43   1.00    17479        7657
    7657
          TOPSOIL
              Excavation       56        103         86   0.80                 3902
    3407
                  Fill          0          0          0   1.00    17479           0
       0
              Mass ordinate for TOPSOIL = 3407

161+00.00 EARTH
              Excavation      232        429        343   0.80                31846
   25479
                  Fill         14         28         28   1.00    17794        7685
    7685
          TOPSOIL
              Excavation       57        105         86   0.80                 4007
    3493
                  Fill          0          0          0   1.00    17794           0
       0
              Mass ordinate for TOPSOIL = 3493

161+50.00 EARTH
              Excavation      291        484        387   0.80                32330
   25866
                  Fill         13         25         25   1.00    18156        7710
    7710
          TOPSOIL
              Excavation       63        111         91   0.80                 4118
    3584
                  Fill          0          0          0   1.00    18156           0
       0
              Mass ordinate for TOPSOIL = 3584

162+00.00 EARTH
              Excavation      462        697        558   0.80                33027
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   26424
                Fill          10          21          21   1.00    18693        7731
    7731
          TOPSOIL
            Excavation        73         126         103   0.80                 4244
    3687
                Fill           0           0           0   1.00    18693           0
       0
            Mass ordinate for TOPSOIL = 3687

162+50.00 EARTH
            Excavation       787        1156         925   0.80                34183
   27349
                Fill          11          19          19   1.00    19599        7750
    7750
          TOPSOIL
            Excavation        90         151         122   0.80                 4395
    3809
                Fill           0           0           0   1.00    19599           0
       0
            Mass ordinate for TOPSOIL = 3809

163+00.00 EARTH
            Excavation      1319        1950        1560   0.80                36133
   28909
                Fill           9          19          19   1.00    21140        7769
    7769
          TOPSOIL
            Excavation       109         184         149   0.80                 4579
    3958
                Fill           0           0           0   1.00    21140           0
       0
            Mass ordinate for TOPSOIL = 3958

163+50.00 EARTH
            Excavation      1927        3006        2404   0.80                39139
   31313
                Fill           8          16          16   1.00    23528        7785
    7785
          TOPSOIL
            Excavation       131         222         179   0.80                 4801
    4137
                Fill           0           0           0   1.00    23528           0
       0
            Mass ordinate for TOPSOIL = 4137

164+00.00 EARTH
            Excavation      1491        3165        2532   0.80                42304
   33845
                Fill          22          28          28   1.00    26032        7813
    7813
          TOPSOIL
            Excavation       112         225         183   0.80                 5026
    4320
                Fill           0           0           0   1.00    26032           0
       0
            Mass ordinate for TOPSOIL = 4320

164+50.00 EARTH
            Excavation      1301        2585        2068   0.80                44889
   35913
                Fill          28          46          46   1.00    28054        7859
    7859
```

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            TOPSOIL
                Excavation      104        200        164   0.80                5226
   4484
                    Fill          0          0          0   1.00    28054          0
      0
                Mass ordinate for TOPSOIL = 4484

165+00.00   EARTH
                Excavation     1012       2142       1713   0.80               47031
  37626
                    Fill         25         49         49   1.00    29718       7908
   7908
            TOPSOIL
                Excavation       95        184        151   0.80                5410
   4635
                    Fill          0          0          0   1.00    29718          0
      0
                Mass ordinate for TOPSOIL = 4635

165+50.00   EARTH
                Excavation      432       1337       1070   0.80               48368
  38696
                    Fill         34         55         55   1.00    30733       7963
   7963
            TOPSOIL
                Excavation       77        159        132   0.80                5569
   4767
                    Fill          0          0          0   1.00    30733          0
      0
                Mass ordinate for TOPSOIL = 4767

166+00.00   EARTH
                Excavation      293        671        537   0.80               49039
  39233
                    Fill         33         62         62   1.00    31208       8025
   8025
            TOPSOIL
                Excavation       67        133        112   0.80                5702
   4879
                    Fill          0          0          0   1.00    31208          0
      0
                Mass ordinate for TOPSOIL = 4879

166+50.00   EARTH
                Excavation      257        509        407   0.80               49548
  39640
                    Fill         29         57         57   1.00    31558       8082
   8082
            TOPSOIL
                Excavation       66        124        105   0.80                5826
   4984
                    Fill          0          0          0   1.00    31558          0
      0
                Mass ordinate for TOPSOIL = 4984

167+00.00   EARTH
                Excavation      501        702        561   0.80               50250
  40201
                    Fill          4         31         31   1.00    32088       8113
   8113
            TOPSOIL
                Excavation       84        139        115   0.80                5965
   5099
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                Fill          0          0          0   1.00    32088          0
      0
            Mass ordinate for TOPSOIL = 5099

167+50.00 EARTH
            Excavation      791       1196        957   0.80                51446
  41158
                Fill          2          6          6   1.00    33039       8119
   8119
        TOPSOIL
            Excavation       91        162        131   0.80                 6127
   5230
                Fill          0          0          0   1.00    33039          0
      0
            Mass ordinate for TOPSOIL = 5230

168+00.00 EARTH
            Excavation      751       1428       1142   0.80                52874
  42300
                Fill          2          4          4   1.00    34177       8123
   8123
        TOPSOIL
            Excavation       89        167        134   0.80                 6294
   5364
                Fill          0          0          0   1.00    34177          0
      0
            Mass ordinate for TOPSOIL = 5364

168+50.00 EARTH
            Excavation      817       1452       1161   0.80                54326
  43461
                Fill          3          5          5   1.00    35333       8128
   8128
        TOPSOIL
            Excavation       82        159        128   0.80                 6453
   5492
                Fill          0          0          0   1.00    35333          0
      0
            Mass ordinate for TOPSOIL = 5492

169+00.00 EARTH
            Excavation      601       1313       1050   0.80                55639
  44511
                Fill          1          4          4   1.00    36379       8132
   8132
        TOPSOIL
            Excavation       80        150        121   0.80                 6603
   5613
                Fill          0          0          0   1.00    36379          0
      0
            Mass ordinate for TOPSOIL = 5613

169+50.00 EARTH
            Excavation      475        996        797   0.80                56635
  45308
                Fill          7          7          7   1.00    37169       8139
   8139
        TOPSOIL
            Excavation       63        133        107   0.80                 6736
   5720
                Fill          0          0          0   1.00    37169          0
      0
            Mass ordinate for TOPSOIL = 5720
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```
170+00.00 EARTH
              Excavation      711       1098        879   0.80                57733
   46187
                   Fill         4         10         10   1.00    38038        8149
    8149
          TOPSOIL
              Excavation       69        122         99   0.80                 6858
    5819
                   Fill         0          0          0   1.00    38038           0
       0
              Mass ordinate for TOPSOIL = 5819

170+50.00 EARTH
              Excavation      629       1241        993   0.80                58974
   47180
                   Fill         4          7          7   1.00    39024        8156
    8156
          TOPSOIL
              Excavation       62        122         99   0.80                 6980
    5918
                   Fill         0          0          0   1.00    39024           0
       0
              Mass ordinate for TOPSOIL = 5918

171+00.00 EARTH
              Excavation      586       1125        900   0.80                60099
   48080
                   Fill        10         13         13   1.00    39911        8169
    8169
          TOPSOIL
              Excavation       61        113         92   0.80                 7093
    6010
                   Fill         0          0          0   1.00    39911           0
       0
              Mass ordinate for TOPSOIL = 6010

171+50.00 EARTH
              Excavation      763       1249        999   0.80                61348
   49079
                   Fill        18         26         26   1.00    40884        8195
    8195
          TOPSOIL
              Excavation       65        116         95   0.80                 7209
    6105
                   Fill         0          0          0   1.00    40884           0
       0
              Mass ordinate for TOPSOIL = 6105

172+00.00 EARTH
              Excavation     1437       2037       1630   0.80                63385
   50709
                   Fill        10         26         26   1.00    42488        8221
    8221
          TOPSOIL
              Excavation       76        130        106   0.80                 7339
    6211
                   Fill         0          0          0   1.00    42488           0
       0
              Mass ordinate for TOPSOIL = 6211

172+50.00 EARTH
              Excavation     1101       2350       1880   0.80                65735
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   52589
                Fill          9         18         18   1.00    44350       8239
    8239
           TOPSOIL
            Excavation       70        135        109   0.80                7474
    6320
                Fill          0          0          0   1.00    44350          0
       0
            Mass ordinate for TOPSOIL = 6320

173+00.00 EARTH
            Excavation     1731       2622       2098   0.80               68357
   54687
                Fill          6         14         14   1.00    46434       8253
    8253
           TOPSOIL
            Excavation       82        140        113   0.80                7614
    6433
                Fill          0          0          0   1.00    46434          0
       0
            Mass ordinate for TOPSOIL = 6433

173+50.00 EARTH
            Excavation     2273       3707       2966   0.80               72064
   57653
                Fill         12         17         17   1.00    49383       8270
    8270
           TOPSOIL
            Excavation       86        155        126   0.80                7769
    6559
                Fill          0          0          0   1.00    49383          0
       0
            Mass ordinate for TOPSOIL = 6559

174+00.00 EARTH
            Excavation     2185       4128       3302   0.80               76192
   60955
                Fill         16         26         26   1.00    52659       8296
    8296
           TOPSOIL
            Excavation       82        155        126   0.80                7924
    6685
                Fill          0          0          0   1.00    52659          0
       0
            Mass ordinate for TOPSOIL = 6685

174+50.00 EARTH
            Excavation     1660       3560       2848   0.80               79752
   63803
                Fill         27         40         40   1.00    55467       8336
    8336
           TOPSOIL
            Excavation       79        149        122   0.80                8073
    6807
                Fill          0          0          0   1.00    55467          0
       0
            Mass ordinate for TOPSOIL = 6807

175+00.00 EARTH
            Excavation     1150       2602       2081   0.80               82354
   65884
                Fill         40         62         62   1.00    57486       8398
    8398
```

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            TOPSOIL
                Excavation      74        142        118   0.80                8215
   6925
                    Fill         0          0          0   1.00    57486          0
      0
                Mass ordinate for TOPSOIL = 6925

175+50.00   EARTH
                Excavation     641       1658       1327   0.80                84012
  67211
                    Fill        45         79         79   1.00    58734       8477
   8477
            TOPSOIL
                Excavation      66        129        108   0.80                8344
   7033
                    Fill         0          0          0   1.00    58734          0
      0
                Mass ordinate for TOPSOIL = 7033

176+00.00   EARTH
                Excavation     350        918        734   0.80                84930
  67945
                    Fill        46         84         84   1.00    59384       8561
   8561
            TOPSOIL
                Excavation      63        119        100   0.80                8463
   7133
                    Fill         0          0          0   1.00    59384          0
      0
                Mass ordinate for TOPSOIL = 7133

176+50.00   EARTH
                Excavation     149        462        370   0.80                85392
  68315
                    Fill        75        112        112   1.00    59642       8673
   8673
            TOPSOIL
                Excavation      61        115         99   0.80                8578
   7232
                    Fill         0          0          0   1.00    59642          0
      0
                Mass ordinate for TOPSOIL = 7232

177+00.00   EARTH
                Excavation     152        279        223   0.80                85671
  68538
                    Fill       139        198        198   1.00    59667       8871
   8871
            TOPSOIL
                Excavation      63        114        103   0.80                8692
   7335
                    Fill         0          0          0   1.00    59667          0
      0
                Mass ordinate for TOPSOIL = 7335

177+50.00   EARTH
                Excavation     317        434        347   0.80                86105
  68885
                    Fill       100        221        221   1.00    59793       9092
   9092
            TOPSOIL
                Excavation      69        122        110   0.80                8814
   7445
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                Fill          0          0          0   1.00    59793          0
        0
            Mass ordinate for TOPSOIL = 7445

178+00.00 EARTH
            Excavation     1155       1363       1090   0.80                87468
    69975
                Fill         41        131        131   1.00    60752       9223
     9223
        TOPSOIL
            Excavation       94        151        129   0.80                 8965
     7574
                Fill          0          0          0   1.00    60752          0
        0
            Mass ordinate for TOPSOIL = 7574

178+50.00 EARTH
            Excavation     1577       2530       2024   0.80                89998
    71999
                Fill          3         41         41   1.00    62735       9264
     9264
        TOPSOIL
            Excavation       79        160        131   0.80                 9125
     7705
                Fill          0          0          0   1.00    62735          0
        0
            Mass ordinate for TOPSOIL = 7705

179+00.00 EARTH
            Excavation      505       1928       1542   0.80                91926
    73541
                Fill         16         18         18   1.00    64259       9282
     9282
        TOPSOIL
            Excavation       61        129        105   0.80                 9254
     7810
                Fill          0          0          0   1.00    64259          0
        0
            Mass ordinate for TOPSOIL = 7810

179+50.00 EARTH
            Excavation      241        691        553   0.80                92617
    74094
                Fill         31         44         44   1.00    64768       9326
     9326
        TOPSOIL
            Excavation       56        109         91   0.80                 9363
     7901
                Fill          0          0          0   1.00    64768          0
        0
            Mass ordinate for TOPSOIL = 7901

180+00.00 EARTH
            Excavation       73        291        233   0.80                92908
    74327
                Fill         89        111        111   1.00    64890       9437
     9437
        TOPSOIL
            Excavation       54        102         89   0.80                 9465
     7990
                Fill          0          0          0   1.00    64890          0
        0
            Mass ordinate for TOPSOIL = 7990
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180+50.00 EARTH
              Excavation        18          84          67   0.80                92992
   74394
                  Fill         187         256         256   1.00    64701       9693
    9693
          TOPSOIL
              Excavation        51          97          91   0.80                 9562
    8081
                  Fill          0           0           0   1.00    64701          0
       0
              Mass ordinate for TOPSOIL = 8081

181+00.00 EARTH
              Excavation        23          38          30   0.80                93030
   74424
                  Fill         187         346         346   1.00    64385      10039
   10039
          TOPSOIL
              Excavation        52          95          91   0.80                 9657
    8172
                  Fill          0           0           0   1.00    64385          0
       0
              Mass ordinate for TOPSOIL = 8172

181+50.00 EARTH
              Excavation        11          31          25   0.80                93061
   74449
                  Fill         204         362         362   1.00    64048      10401
   10401
          TOPSOIL
              Excavation        50          94          91   0.80                 9751
    8263
                  Fill          0           0           0   1.00    64048          0
       0
              Mass ordinate for TOPSOIL = 8263

182+00.00 EARTH
              Excavation         4          14          11   0.80                93075
   74460
                  Fill         294         461         461   1.00    63598      10862
   10862
          TOPSOIL
              Excavation        49          92          90   0.80                 9843
    8353
                  Fill          0           0           0   1.00    63598          0
       0
              Mass ordinate for TOPSOIL = 8353

182+50.00 EARTH
              Excavation         8          11           9   0.80                93086
   74469
                  Fill         374         619         619   1.00    62988      11481
   11481
          TOPSOIL
              Excavation        50          91          90   0.80                 9934
    8443
                  Fill          0           0           0   1.00    62988          0
       0
              Mass ordinate for TOPSOIL = 8443

183+00.00 EARTH
              Excavation         9          16          13   0.80                93102
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   74482
                    Fill        448        761        761   1.00    62240      12242
   12242
         TOPSOIL
                Excavation       52         94         93   0.80               10028
    8536
                    Fill          0          0          0   1.00    62240          0
       0
                Mass ordinate for TOPSOIL = 8536

183+50.00 EARTH
                Excavation        6         14         11   0.80               93116
   74493
                    Fill        505        882        882   1.00    61369      13124
   13124
         TOPSOIL
                Excavation       52         96         95   0.80               10124
    8631
                    Fill          0          0          0   1.00    61369          0
       0
                Mass ordinate for TOPSOIL = 8631

184+00.00 EARTH
                Excavation       10         15         12   0.80               93131
   74505
                    Fill        554        981        981   1.00    60400      14105
   14105
         TOPSOIL
                Excavation       53         97         96   0.80               10221
    8727
                    Fill          0          0          0   1.00    60400          0
       0
                Mass ordinate for TOPSOIL = 8727

184+50.00 EARTH
                Excavation        3         12         10   0.80               93143
   74515
                    Fill        583       1053       1053   1.00    59357      15158
   15158
         TOPSOIL
                Excavation       52         97         96   0.80               10318
    8823
                    Fill          0          0          0   1.00    59357          0
       0
                Mass ordinate for TOPSOIL = 8823

185+00.00 EARTH
                Excavation        6          8          7   0.80               93151
   74522
                    Fill        529       1030       1030   1.00    58334      16188
   16188
         TOPSOIL
                Excavation       52         96         95   0.80               10414
    8918
                    Fill          0          0          0   1.00    58334          0
       0
                Mass ordinate for TOPSOIL = 8918

185+50.00 EARTH
                Excavation        8         13         10   0.80               93164
   74532
                    Fill        543        993        993   1.00    57351      17181
   17181
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            TOPSOIL
                Excavation        51         95         94   0.80                10509
   9012
                    Fill           0          0          0   1.00    57351           0
      0
                Mass ordinate for TOPSOIL = 9012

186+00.00 EARTH
                Excavation         9         16         13   0.80                93180
  74545
                    Fill         538       1001       1001   1.00    56363       18182
  18182
            TOPSOIL
                Excavation        50         93         91   0.80                10602
   9103
                    Fill           0          0          0   1.00    56363           0
      0
                Mass ordinate for TOPSOIL = 9103

186+50.00 EARTH
                Excavation         0          8          7   0.80                93188
  74552
                    Fill         528        987        987   1.00    55383       19169
  19169
            TOPSOIL
                Excavation        46         89         87   0.80                10691
   9190
                    Fill           0          0          0   1.00    55383           0
      0
                Mass ordinate for TOPSOIL = 9190

187+00.00 EARTH
                Excavation         1          1          1   0.80                93189
  74553
                    Fill         446        902        902   1.00    54482       20071
  20071
            TOPSOIL
                Excavation        55         94         93   0.80                10785
   9283
                    Fill           0          0          0   1.00    54482           0
      0
                Mass ordinate for TOPSOIL = 9283

187+50.00 EARTH
                Excavation         1          2          1   0.80                93191
  74554
                    Fill         529        903        903   1.00    53580       20974
  20974
            TOPSOIL
                Excavation        49         97         96   0.80                10882
   9379
                    Fill           0          0          0   1.00    53580           0
      0
                Mass ordinate for TOPSOIL = 9379

188+00.00 EARTH
                Excavation         5          6          4   0.80                93197
  74558
                    Fill         478        932        932   1.00    52652       21906
  21906
            TOPSOIL
                Excavation        48         89         88   0.80                10971
   9467
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                Fill          0          0          0   1.00    52652          0
       0
            Mass ordinate for TOPSOIL = 9467

188+50.00 EARTH
            Excavation       10         14         11   0.80                93211
   74569
                Fill        392        806        806   1.00    51857      22712
   22712
        TOPSOIL
            Excavation       48         89         87   0.80                11060
    9554
                Fill          0          0          0   1.00    51857          0
       0
            Mass ordinate for TOPSOIL = 9554

189+00.00 EARTH
            Excavation       17         25         20   0.80                93236
   74589
                Fill        324        663        663   1.00    51214      23375
   23375
        TOPSOIL
            Excavation       47         88         86   0.80                11148
    9640
                Fill          0          0          0   1.00    51214          0
       0
            Mass ordinate for TOPSOIL = 9640

189+50.00 EARTH
            Excavation        7         22         18   0.80                93258
   74607
                Fill        326        602        602   1.00    50630      23977
   23977
        TOPSOIL
            Excavation       47         87         85   0.80                11235
    9725
                Fill          0          0          0   1.00    50630          0
       0
            Mass ordinate for TOPSOIL = 9725

190+00.00 EARTH
            Excavation        7         13         10   0.80                93271
   74617
                Fill        380        654        654   1.00    49986      24631
   24631
        TOPSOIL
            Excavation       49         88         87   0.80                11323
    9812
                Fill          0          0          0   1.00    49986          0
       0
            Mass ordinate for TOPSOIL = 9812

190+50.00 EARTH
            Excavation        0          6          5   0.80                93277
   74622
                Fill        479        795        795   1.00    49196      25426
   25426
        TOPSOIL
            Excavation       49         91         90   0.80                11414
    9902
                Fill          0          0          0   1.00    49196          0
       0
            Mass ordinate for TOPSOIL = 9902
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191+00.00 EARTH
              Excavation        3          3          2   0.80                93280
   74624
                   Fill      434        845        845   1.00    48353       26271
   26271
          TOPSOIL
              Excavation       51         93         92   0.80                11507
    9994
                   Fill        0          0          0   1.00    48353           0
       0
              Mass ordinate for TOPSOIL = 9994

191+50.00 EARTH
              Excavation       11         13         10   0.80                93293
   74634
                   Fill      397        769        769   1.00    47594       27040
   27040
          TOPSOIL
              Excavation       51         94         93   0.80                11601
   10087
                   Fill        0          0          0   1.00    47594           0
       0
              Mass ordinate for TOPSOIL = 10087

192+00.00 EARTH
              Excavation       28         36         29   0.80                93329
   74663
                   Fill      289        635        635   1.00    46988       27675
   27675
          TOPSOIL
              Excavation       54         98         94   0.80                11699
   10181
                   Fill        0          0          0   1.00    46988           0
       0
              Mass ordinate for TOPSOIL = 10181

192+50.00 EARTH
              Excavation       24         48         39   0.80                93377
   74702
                   Fill      401        639        639   1.00    46388       28314
   28314
          TOPSOIL
              Excavation       53         99         95   0.80                11798
   10276
                   Fill        0          0          0   1.00    46388           0
       0
              Mass ordinate for TOPSOIL = 10276

193+00.00 EARTH
              Excavation       26         46         37   0.80                93423
   74739
                   Fill      398        740        740   1.00    45685       29054
   29054
          TOPSOIL
              Excavation       53         98         95   0.80                11896
   10371
                   Fill        0          0          0   1.00    45685           0
       0
              Mass ordinate for TOPSOIL = 10371

193+50.00 EARTH
              Excavation       27         49         39   0.80                93472
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   74778
                    Fill        392        731        731   1.00    44993      29785
   29785
          TOPSOIL
              Excavation        53         98         95   0.80               11994
   10466
                    Fill         0          0          0   1.00    44993          0
       0
              Mass ordinate for TOPSOIL = 10466

194+00.00 EARTH
              Excavation        36         58         47   0.80               93530
   74825
                    Fill        353        690        690   1.00    44350      30475
   30475
          TOPSOIL
              Excavation        57        101         97   0.80               12095
   10563
                    Fill         0          0          0   1.00    44350          0
       0
              Mass ordinate for TOPSOIL = 10563

194+50.00 EARTH
              Excavation        27         58         47   0.80               93588
   74872
                    Fill        288        594        594   1.00    43803      31069
   31069
          TOPSOIL
              Excavation        54        103         99   0.80               12198
   10662
                    Fill         0          0          0   1.00    43803          0
       0
              Mass ordinate for TOPSOIL = 10662

195+00.00 EARTH
              Excavation        30         53         42   0.80               93641
   74914
                    Fill        261        508        508   1.00    43337      31577
   31577
          TOPSOIL
              Excavation        52         99         95   0.80               12297
   10757
                    Fill         0          0          0   1.00    43337          0
       0
              Mass ordinate for TOPSOIL = 10757

195+50.00 EARTH
              Excavation        13         40         32   0.80               93681
   74946
                    Fill        269        491        491   1.00    42878      32068
   32068
          TOPSOIL
              Excavation        50         95         92   0.80               12392
   10849
                    Fill         0          0          0   1.00    42878          0
       0
              Mass ordinate for TOPSOIL = 10849

196+00.00 EARTH
              Excavation        12         23         19   0.80               93704
   74965
                    Fill        215        448        448   1.00    42449      32516
   32516
```

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          TOPSOIL
              Excavation        50         93         90   0.80                12485
   10939
                  Fill           0          0          0   1.00    42449           0
       0
              Mass ordinate for TOPSOIL = 10939

196+50.00 EARTH
              Excavation         6         17         13   0.80                93721
   74978
                  Fill         177        363        363   1.00    42099       32879
   32879
          TOPSOIL
              Excavation        47         90         87   0.80                12575
   11026
                  Fill           0          0          0   1.00    42099           0
       0
              Mass ordinate for TOPSOIL = 11026

197+00.00 EARTH
              Excavation         6         11          9   0.80                93732
   74987
                  Fill         167        319        319   1.00    41789       33198
   33198
          TOPSOIL
              Excavation        49         89         87   0.80                12664
   11113
                  Fill           0          0          0   1.00    41789           0
       0
              Mass ordinate for TOPSOIL = 11113

197+50.00 EARTH
              Excavation        71         71         57   0.80                93803
   75044
                  Fill          92        240        240   1.00    41606       33438
   33438
          TOPSOIL
              Excavation        55         96         93   0.80                12760
   11206
                  Fill           0          0          0   1.00    41606           0
       0
              Mass ordinate for TOPSOIL = 11206

198+00.00 EARTH
              Excavation       244        292        233   0.80                94095
   75277
                  Fill         103        181        181   1.00    41658       33619
   33619
          TOPSOIL
              Excavation        60        107         98   0.80                12867
   11304
                  Fill           0          0          0   1.00    41658           0
       0
              Mass ordinate for TOPSOIL = 11304

198+50.00 EARTH
              Excavation       410        606        484   0.80                94701
   75761
                  Fill          99        187        187   1.00    41955       33806
   33806
          TOPSOIL
              Excavation        70        120        105   0.80                12987
   11409
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                Fill          0          0          0   1.00    41955          0
       0
            Mass ordinate for TOPSOIL = 11409

199+00.00 EARTH
            Excavation      449        795        636   0.80                95496
   76397
                Fill        132        214        214   1.00    42377       34020
   34020
        TOPSOIL
            Excavation       88        146        125   0.80                13133
   11534
                Fill          0          0          0   1.00    42377          0
       0
            Mass ordinate for TOPSOIL = 11534

199+50.00 EARTH
            Excavation      241        639        511   0.80                96135
   76908
                Fill         58        176        176   1.00    42712       34196
   34196
        TOPSOIL
            Excavation       73        149        130   0.80                13282
   11664
                Fill          0          0          0   1.00    42712          0
       0
            Mass ordinate for TOPSOIL = 11664

200+00.00 EARTH
            Excavation      473        661        529   0.80                96796
   77437
                Fill          3         56         56   1.00    43185       34252
   34252
        TOPSOIL
            Excavation       65        128        109   0.80                13410
   11773
                Fill          0          0          0   1.00    43185          0
       0
            Mass ordinate for TOPSOIL = 11773

200+50.00 EARTH
            Excavation      700       1086        869   0.80                97882
   78306
                Fill          0          3          3   1.00    44051       34255
   34255
        TOPSOIL
            Excavation       48        105         84   0.80                13515
   11857
                Fill          0          0          0   1.00    44051          0
       0
            Mass ordinate for TOPSOIL = 11857

201+00.00 EARTH
            Excavation     1273       1827       1461   0.80                99709
   79767
                Fill          0          0          0   1.00    45512       34255
   34255
        TOPSOIL
            Excavation       80        119         95   0.80                13634
   11952
                Fill          0          0          0   1.00    45512          0
       0
            Mass ordinate for TOPSOIL = 11952
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201+50.00 EARTH
              Excavation      1587        2648        2119    0.80                102357
   81886
                  Fill           1           1           1    1.00    47630       34256
   34256
          TOPSOIL
              Excavation        83         151         121    0.80                 13785
   12073
                  Fill           0           0           0    1.00    47630           0
       0
              Mass ordinate for TOPSOIL = 12073

202+00.00 EARTH
              Excavation      1739        3080        2464    0.80                105437
   84350
                  Fill           1           2           2    1.00    50092       34258
   34258
          TOPSOIL
              Excavation        82         153         123    0.80                 13938
   12196
                  Fill           0           0           0    1.00    50092           0
       0
              Mass ordinate for TOPSOIL = 12196

202+50.00 EARTH
              Excavation      1431        2935        2348    0.80                108372
   86698
                  Fill           3           4           4    1.00    52436       34262
   34262
          TOPSOIL
              Excavation        80         150         121    0.80                 14088
   12317
                  Fill           0           0           0    1.00    52436           0
       0
              Mass ordinate for TOPSOIL = 12317

203+00.00 EARTH
              Excavation      1095        2339        1871    0.80                110711
   88569
                  Fill          56          55          55    1.00    54252       34317
   34317
          TOPSOIL
              Excavation        82         150         124    0.80                 14238
   12441
                  Fill           0           0           0    1.00    54252           0
       0
              Mass ordinate for TOPSOIL = 12441

203+50.00 EARTH
              Excavation       121        1126         901    0.80                111837
   89470
                  Fill         252         285         285    1.00    54868       34602
   34602
          TOPSOIL
              Excavation        82         152         133    0.80                 14390
   12574
                  Fill           0           0           0    1.00    54868           0
       0
              Mass ordinate for TOPSOIL = 12574

204+00.00 EARTH
              Excavation       295         385         308    0.80                112222
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  89778
                Fill        323        532        532   1.00    54644      35134
  35134
        TOPSOIL
            Excavation       82        152        138   0.80               14542
  12712
                Fill          0          0          0   1.00    54644          0
      0
            Mass ordinate for TOPSOIL = 12712

204+50.00 EARTH
            Excavation      926       1131        904   0.80              113353
  90682
                Fill         74        368        368   1.00    55180      35502
  35502
        TOPSOIL
            Excavation       80        150        131   0.80               14692
  12843
                Fill          0          0          0   1.00    55180          0
      0
            Mass ordinate for TOPSOIL = 12843

205+00.00 EARTH
            Excavation     1053       1832       1466   0.80              115185
  92148
                Fill        320        365        365   1.00    56281      35867
  35867
        TOPSOIL
            Excavation       95        162        138   0.80               14854
  12981
                Fill          0          0          0   1.00    56281          0
      0
            Mass ordinate for TOPSOIL = 12981

205+50.00 EARTH
            Excavation     1465       2331       1865   0.80              117516
  94013
                Fill        380        648        648   1.00    57498      36515
  36515
        TOPSOIL
            Excavation       95        176        151   0.80               15030
  13132
                Fill          0          0          0   1.00    57498          0
      0
            Mass ordinate for TOPSOIL = 13132

206+00.00 EARTH
            Excavation     1736       2964       2371   0.80              120480
  96384
                Fill        394        717        717   1.00    59152      37232
  37232
        TOPSOIL
            Excavation       97        178        152   0.80               15208
  13284
                Fill          0          0          0   1.00    59152          0
      0
            Mass ordinate for TOPSOIL = 13284

206+50.00 EARTH
            Excavation     2036       3493       2794   0.80              123973
  99178
                Fill        280        624        624   1.00    61322      37856
  37856
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            TOPSOIL
                Excavation      98        180        153   0.80                15388
  13437
                    Fill         0          0          0   1.00    61322           0
      0
                Mass ordinate for TOPSOIL = 13437

207+00.00 EARTH
                Excavation    2342       4054       3243   0.80               128027
 102421
                    Fill        11        269        269   1.00    64296       38125
  38125
            TOPSOIL
                Excavation      83        168        140   0.80                15556
  13577
                    Fill         0          0          0   1.00    64296           0
      0
                Mass ordinate for TOPSOIL = 13577

207+50.00 EARTH
                Excavation    2709       4677       3741   0.80               132704
 106162
                    Fill         0         10         10   1.00    68027       38135
  38135
            TOPSOIL
                Excavation      84        155        125   0.80                15711
  13702
                    Fill         0          0          0   1.00    68027           0
      0
                Mass ordinate for TOPSOIL = 13702

208+00.00 EARTH
                Excavation    2776       5079       4063   0.80               137783
 110225
                    Fill         0          0          0   1.00    72090       38135
  38135
            TOPSOIL
                Excavation      85        156        125   0.80                15867
  13827
                    Fill         0          0          0   1.00    72090           0
      0
                Mass ordinate for TOPSOIL = 13827

208+50.00 EARTH
                Excavation    2786       5150       4120   0.80               142933
 114345
                    Fill         0          0          0   1.00    76210       38135
  38135
            TOPSOIL
                Excavation      83        156        124   0.80                16023
  13951
                    Fill         0          0          0   1.00    76210           0
      0
                Mass ordinate for TOPSOIL = 13951

209+00.00 EARTH
                Excavation    2598       4985       3988   0.80               147918
 118333
                    Fill         0          0          0   1.00    80198       38135
  38135
            TOPSOIL
                Excavation      79        150        120   0.80                16173
  14071
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                Fill          0          0          0   1.00    80198          0
        0
            Mass ordinate for TOPSOIL = 14071

209+50.00 EARTH
            Excavation     2169       4414       3531   0.80             152332
  121864
                Fill          1          1          1   1.00    83728      38136
   38136
        TOPSOIL
            Excavation       75        143        114   0.80              16316
   14185
                Fill          0          0          0   1.00    83728          0
        0
            Mass ordinate for TOPSOIL = 14185

210+00.00 EARTH
            Excavation     1669       3554       2843   0.80             155886
  124707
                Fill          0          1          1   1.00    86570      38137
   38137
        TOPSOIL
            Excavation       71        135        108   0.80              16451
   14293
                Fill          0          0          0   1.00    86570          0
        0
            Mass ordinate for TOPSOIL = 14293

210+50.00 EARTH
            Excavation     1158       2618       2094   0.80             158504
  126801
                Fill          2          2          2   1.00    88662      38139
   38139
        TOPSOIL
            Excavation       67        128        102   0.80              16579
   14395
                Fill          0          0          0   1.00    88662          0
        0
            Mass ordinate for TOPSOIL = 14395

211+00.00 EARTH
            Excavation      746       1763       1410   0.80             160267
  128211
                Fill         24         24         24   1.00    90048      38163
   38163
        TOPSOIL
            Excavation       64        122         98   0.80              16701
   14493
                Fill          0          0          0   1.00    90048          0
        0
            Mass ordinate for TOPSOIL = 14493

211+50.00 EARTH
            Excavation      247        919        736   0.80             161186
  128947
                Fill        101        116        116   1.00    90668      38279
   38279
        TOPSOIL
            Excavation       58        113         94   0.80              16814
   14587
                Fill          0          0          0   1.00    90668          0
        0
            Mass ordinate for TOPSOIL = 14587
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212+00.00 EARTH
              Excavation        24        251        201   0.80                161437
  129148
                    Fill       216        294        294   1.00     90575       38573
   38573
          TOPSOIL
              Excavation        51        100         89   0.80                 16914
   14676
                    Fill         0          0          0   1.00     90575           0
       0
              Mass ordinate for TOPSOIL = 14676

212+50.00 EARTH
              Excavation         0         22         18   0.80                161459
  129166
                    Fill       477        642        642   1.00     89951       39215
   39215
          TOPSOIL
              Excavation        45         89         86   0.80                 17003
   14762
                    Fill         0          0          0   1.00     89951           0
       0
              Mass ordinate for TOPSOIL = 14762

213+00.00 EARTH
              Excavation         0          0          0   0.80                161459
  129166
                    Fill       524        927        927   1.00     89024       40142
   40142
          TOPSOIL
              Excavation        44         82         82   0.80                 17085
   14844
                    Fill         0          0          0   1.00     89024           0
       0
              Mass ordinate for TOPSOIL = 14844

213+50.00 EARTH
              Excavation         0          0          0   0.80                161459
  129166
                    Fill       415        869        869   1.00     88155       41011
   41011
          TOPSOIL
              Excavation        43         81         81   0.80                 17166
   14925
                    Fill         0          0          0   1.00     88155           0
       0
              Mass ordinate for TOPSOIL = 14925

214+00.00 EARTH
              Excavation         0          0          0   0.80                161459
  129166
                    Fill       298        660        660   1.00     87495       41671
   41671
          TOPSOIL
              Excavation        40         77         77   0.80                 17243
   15002
                    Fill         0          0          0   1.00     87495           0
       0
              Mass ordinate for TOPSOIL = 15002

214+50.00 EARTH
              Excavation         2          2          1   0.80                161461
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 129167
                Fill        132        398        398   1.00    87098      42069
  42069
        TOPSOIL
            Excavation       38         72         72   0.80               17315
  15074
                Fill          0          0          0   1.00    87098          0
      0
            Mass ordinate for TOPSOIL = 15074

215+00.00 EARTH
            Excavation       57         55         44   0.80              161516
 129211
                Fill         34        154        154   1.00    86988      42223
  42223
        TOPSOIL
            Excavation       40         72         66   0.80               17387
  15140
                Fill          0          0          0   1.00    86988          0
      0
            Mass ordinate for TOPSOIL = 15140

215+50.00 EARTH
            Excavation      155        196        157   0.80              161712
 129368
                Fill         11         42         42   1.00    87103      42265
  42265
        TOPSOIL
            Excavation       43         77         65   0.80               17464
  15205
                Fill          0          0          0   1.00    87103          0
      0
            Mass ordinate for TOPSOIL = 15205

216+00.00 EARTH
            Excavation      154        286        229   0.80              161998
 129597
                Fill         14         23         23   1.00    87309      42288
  42288
        TOPSOIL
            Excavation       38         75         63   0.80               17539
  15268
                Fill          0          0          0   1.00    87309          0
      0
            Mass ordinate for TOPSOIL = 15268

216+50.00 EARTH
            Excavation      142        274        219   0.80              162272
 129816
                Fill          7         19         19   1.00    87509      42307
  42307
        TOPSOIL
            Excavation       38         70         58   0.80               17609
  15326
                Fill          0          0          0   1.00    87509          0
      0
            Mass ordinate for TOPSOIL = 15326

217+00.00 EARTH
            Excavation      137        258        207   0.80              162530
 130023
                Fill         14         19         19   1.00    87697      42326
  42326
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          TOPSOIL
              Excavation        46         78         65   0.80                17687
   15391
                  Fill           0          0          0   1.00    87697           0
       0
              Mass ordinate for TOPSOIL = 15391

217+50.00 EARTH
              Excavation       130        247        198   0.80               162777
  130221
                  Fill          22         33         33   1.00    87862       42359
   42359
          TOPSOIL
              Excavation        42         82         69   0.80                17769
   15460
                  Fill           0          0          0   1.00    87862           0
       0
              Mass ordinate for TOPSOIL = 15460

218+00.00 EARTH
              Excavation       160        269        215   0.80               163046
  130436
                  Fill          23         42         42   1.00    88035       42401
   42401
          TOPSOIL
              Excavation        48         83         70   0.80                17852
   15530
                  Fill           0          0          0   1.00    88035           0
       0
              Mass ordinate for TOPSOIL = 15530

218+50.00 EARTH
              Excavation       149        286        229   0.80               163332
  130665
                  Fill          26         45         45   1.00    88219       42446
   42446
          TOPSOIL
              Excavation        50         91         76   0.80                17943
   15606
                  Fill           0          0          0   1.00    88219           0
       0
              Mass ordinate for TOPSOIL = 15606

219+00.00 EARTH
              Excavation        53        187        150   0.80               163519
  130815
                  Fill          82        100        100   1.00    88269       42546
   42546
          TOPSOIL
              Excavation        52         94         80   0.80                18037
   15686
                  Fill           0          0          0   1.00    88269           0
       0
              Mass ordinate for TOPSOIL = 15686

219+50.00 EARTH
              Excavation        94        136        109   0.80               163655
  130924
                  Fill         165        229        229   1.00    88149       42775
   42775
          TOPSOIL
              Excavation        52         96         85   0.80                18133
   15771
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                Fill          0          0          0   1.00    88149          0
        0
            Mass ordinate for TOPSOIL = 15771

220+00.00 EARTH
            Excavation      103        182        146   0.80               163837
   131070
                Fill        194        332        332   1.00    87963     43107
    43107
        TOPSOIL
            Excavation       54         98         91   0.80               18231
    15862
                Fill          0          0          0   1.00    87963         0
        0
            Mass ordinate for TOPSOIL = 15862

220+50.00 EARTH
            Excavation       88        177        141   0.80               164014
   131211
                Fill        204        369        369   1.00    87735     43476
    43476
        TOPSOIL
            Excavation       56        102         95   0.80               18333
    15957
                Fill          0          0          0   1.00    87735         0
        0
            Mass ordinate for TOPSOIL = 15957

221+00.00 EARTH
            Excavation      104        178        142   0.80               164192
   131353
                Fill        109        290        290   1.00    87587     43766
    43766
        TOPSOIL
            Excavation       42         91         84   0.80               18424
    16041
                Fill          0          0          0   1.00    87587         0
        0
            Mass ordinate for TOPSOIL = 16041

221+50.00 EARTH
            Excavation      200        281        225   0.80               164473
   131578
                Fill        158        247        247   1.00    87565     44013
    44013
        TOPSOIL
            Excavation       62         97         88   0.80               18521
    16129
                Fill          0          0          0   1.00    87565         0
        0
            Mass ordinate for TOPSOIL = 16129

222+00.00 EARTH
            Excavation       80        259        207   0.80               164732
   131785
                Fill        148        283        283   1.00    87489     44296
    44296
        TOPSOIL
            Excavation       42         97         89   0.80               18618
    16218
                Fill          0          0          0   1.00    87489         0
        0
            Mass ordinate for TOPSOIL = 16218
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222+50.00 EARTH
              Excavation        74         143         114   0.80                 164875
  131899
                    Fill       147         273         273   1.00    87330        44569
   44569
          TOPSOIL
              Excavation        49          84          78   0.80                 18702
   16296
                    Fill         0           0           0   1.00    87330            0
       0
              Mass ordinate for TOPSOIL = 16296

223+00.00 EARTH
              Excavation        53         118          94   0.80                 164993
  131993
                    Fill       174         297         297   1.00    87127        44866
   44866
          TOPSOIL
              Excavation        48          90          85   0.80                 18792
   16381
                    Fill         0           0           0   1.00    87127            0
       0
              Mass ordinate for TOPSOIL = 16381

223+50.00 EARTH
              Excavation        15          63          50   0.80                 165056
  132043
                    Fill       181         329         329   1.00    86848        45195
   45195
          TOPSOIL
              Excavation        64         104          97   0.80                 18896
   16478
                    Fill         0           0           0   1.00    86848            0
       0
              Mass ordinate for TOPSOIL = 16478

224+00.00 EARTH
              Excavation        21          33          27   0.80                 165089
  132070
                    Fill       175         330         330   1.00    86545        45525
   45525
          TOPSOIL
              Excavation        42          98          92   0.80                 18994
   16570
                    Fill         0           0           0   1.00    86545            0
       0
              Mass ordinate for TOPSOIL = 16570

224+50.00 EARTH
              Excavation        20          38          30   0.80                 165127
  132100
                    Fill        95         250         250   1.00    86325        45775
   45775
          TOPSOIL
              Excavation        67         101          95   0.80                 19095
   16665
                    Fill         0           0           0   1.00    86325            0
       0
              Mass ordinate for TOPSOIL = 16665

225+00.00 EARTH
              Excavation        80          93          74   0.80                 165220
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 132174
                Fill        348        410        410   1.00    85989      46185
  46185
        TOPSOIL
            Excavation       60        118        111   0.80               19213
  16776
                Fill         0          0          0   1.00    85989          0
      0
            Mass ordinate for TOPSOIL = 16776

225+50.00 EARTH
            Excavation      113        179        143   0.80              165399
 132317
                Fill        463        751        751   1.00    85381      46936
  46936
        TOPSOIL
            Excavation       60        111        105   0.80               19324
  16881
                Fill         0          0          0   1.00    85381          0
      0
            Mass ordinate for TOPSOIL = 16881

226+00.00 EARTH
            Excavation      124        219        176   0.80              165618
 132493
                Fill        395        794        794   1.00    84763      47730
  47730
        TOPSOIL
            Excavation       59        110        103   0.80               19434
  16984
                Fill         0          0          0   1.00    84763          0
      0
            Mass ordinate for TOPSOIL = 16984

226+50.00 EARTH
            Excavation      123        229        183   0.80              165847
 132676
                Fill        358        697        697   1.00    84249      48427
  48427
        TOPSOIL
            Excavation       59        109        102   0.80               19543
  17086
                Fill         0          0          0   1.00    84249          0
      0
            Mass ordinate for TOPSOIL = 17086

227+00.00 EARTH
            Excavation      138        242        193   0.80              166089
 132869
                Fill        361        666        666   1.00    83776      49093
  49093
        TOPSOIL
            Excavation       60        110        103   0.80               19653
  17189
                Fill         0          0          0   1.00    83776          0
      0
            Mass ordinate for TOPSOIL = 17189

227+50.00 EARTH
            Excavation      156        272        218   0.80              166361
 133087
                Fill        317        628        628   1.00    83366      49721
  49721
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            TOPSOIL
                Excavation      59        110        104   0.80                19763
  17293
                    Fill         0          0          0   1.00    83366           0
      0
                Mass ordinate for TOPSOIL = 17293

228+00.00   EARTH
                Excavation     154        287        230   0.80               166648
 133317
                    Fill       232        508        508   1.00    83088       50229
  50229
            TOPSOIL
                Excavation      57        107        100   0.80                19870
  17393
                    Fill         0          0          0   1.00    83088           0
      0
                Mass ordinate for TOPSOIL = 17393

228+50.00   EARTH
                Excavation     155        286        229   0.80               166934
 133546
                    Fill       192        393        393   1.00    82924       50622
  50622
            TOPSOIL
                Excavation      54        103         95   0.80                19973
  17488
                    Fill         0          0          0   1.00    82924           0
      0
                Mass ordinate for TOPSOIL = 17488

229+00.00   EARTH
                Excavation     136        269        216   0.80               167203
 133762
                    Fill       143        310        310   1.00    82830       50932
  50932
            TOPSOIL
                Excavation      52         98         90   0.80                20071
  17578
                    Fill         0          0          0   1.00    82830           0
      0
                Mass ordinate for TOPSOIL = 17578

229+50.00   EARTH
                Excavation      92        211        169   0.80               167414
 133931
                    Fill       122        245        245   1.00    82754       51177
  51177
            TOPSOIL
                Excavation      47         92         84   0.80                20163
  17662
                    Fill         0          0          0   1.00    82754           0
      0
                Mass ordinate for TOPSOIL = 17662

230+00.00   EARTH
                Excavation      30        113         90   0.80               167527
 134021
                    Fill        82        189        189   1.00    82655       51366
  51366
            TOPSOIL
                Excavation      37         78         73   0.80                20241
  17735
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                Fill          0          0          0   1.00    82655          0
       0
            Mass ordinate for TOPSOIL = 17735

230+50.00 EARTH
            Excavation        9         36         29   0.80               167563
  134050
                Fill        151        216        216   1.00    82468       51582
   51582
          TOPSOIL
            Excavation       36         67         66   0.80               20308
   17801
                Fill          0          0          0   1.00    82468          0
       0
            Mass ordinate for TOPSOIL = 17801

231+00.00 EARTH
            Excavation        2         10          8   0.80               167573
  134058
                Fill        219        343        343   1.00    82133       51925
   51925
          TOPSOIL
            Excavation       38         69         69   0.80               20377
   17870
                Fill          0          0          0   1.00    82133          0
       0
            Mass ordinate for TOPSOIL = 17870

231+50.00 EARTH
            Excavation       10         11          9   0.80               167584
  134067
                Fill        196        384        384   1.00    81758       52309
   52309
          TOPSOIL
            Excavation       43         75         74   0.80               20452
   17944
                Fill          0          0          0   1.00    81758          0
       0
            Mass ordinate for TOPSOIL = 17944

232+00.00 EARTH
            Excavation       16         24         19   0.80               167608
  134086
                Fill        161        331        331   1.00    81446       52640
   52640
          TOPSOIL
            Excavation       35         72         71   0.80               20524
   18015
                Fill          0          0          0   1.00    81446          0
       0
            Mass ordinate for TOPSOIL = 18015

232+50.00 EARTH
            Excavation       40         52         41   0.80               167660
  134127
                Fill         94        236        236   1.00    81251       52876
   52876
          TOPSOIL
            Excavation       34         64         62   0.80               20588
   18077
                Fill          0          0          0   1.00    81251          0
       0
            Mass ordinate for TOPSOIL = 18077
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233+00.00 EARTH
              Excavation        68         100         80   0.80                167760
  134207
                   Fill         66         148        148   1.00    81183       53024
   53024
          TOPSOIL
              Excavation        33          62         58   0.80                20650
   18135
                   Fill         0           0          0   1.00    81183           0
       0
              Mass ordinate for TOPSOIL = 18135

233+50.00 EARTH
              Excavation        99         155        124   0.80                167915
  134331
                   Fill         52         109        109   1.00    81198       53133
   53133
          TOPSOIL
              Excavation        33          61         54   0.80                20711
   18189
                   Fill         0           0          0   1.00    81198           0
       0
              Mass ordinate for TOPSOIL = 18189

234+00.00 EARTH
              Excavation        97         181        145   0.80                168096
  134476
                   Fill         56         100        100   1.00    81243       53233
   53233
          TOPSOIL
              Excavation        34          62         55   0.80                20773
   18244
                   Fill         0           0          0   1.00    81243           0
       0
              Mass ordinate for TOPSOIL = 18244

234+50.00 EARTH
              Excavation        84         168        134   0.80                168264
  134610
                   Fill         61         108        108   1.00    81269       53341
   53341
          TOPSOIL
              Excavation        34          63         57   0.80                20836
   18301
                   Fill         0           0          0   1.00    81269           0
       0
              Mass ordinate for TOPSOIL = 18301

235+00.00 EARTH
              Excavation        71         144        115   0.80                168408
  134725
                   Fill         33          87         87   1.00    81297       53428
   53428
          TOPSOIL
              Excavation        24          54         47   0.80                20890
   18348
                   Fill         0           0          0   1.00    81297           0
       0
              Mass ordinate for TOPSOIL = 18348

235+50.00 EARTH
              Excavation        48         110         88   0.80                168518
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 134813
                Fill          35          63          63   1.00   81322      53491
  53491
          TOPSOIL
            Excavation        42          61          52   0.80              20951
  18400
                Fill           0           0           0   1.00   81322          0
      0
            Mass ordinate for TOPSOIL = 18400

236+00.00 EARTH
            Excavation        63         103          82   0.80             168621
 134895
                Fill          32          62          62   1.00   81342      53553
  53553
          TOPSOIL
            Excavation        24          61          52   0.80              21012
  18452
                Fill           0           0           0   1.00   81342          0
      0
            Mass ordinate for TOPSOIL = 18452

236+50.00 EARTH
            Excavation        67         120          96   0.80             168741
 134991
                Fill          69          94          94   1.00   81344      53647
  53647
          TOPSOIL
            Excavation        38          58          52   0.80              21070
  18504
                Fill           0           0           0   1.00   81344          0
      0
            Mass ordinate for TOPSOIL = 18504

237+00.00 EARTH
            Excavation        68         125         100   0.80             168866
 135091
                Fill          61         120         120   1.00   81324      53767
  53767
          TOPSOIL
            Excavation        38          70          63   0.80              21140
  18567
                Fill           0           0           0   1.00   81324          0
      0
            Mass ordinate for TOPSOIL = 18567

237+50.00 EARTH
            Excavation        66         124          99   0.80             168990
 135190
                Fill          60         112         112   1.00   81311      53879
  53879
          TOPSOIL
            Excavation        38          71          63   0.80              21211
  18630
                Fill           0           0           0   1.00   81311          0
      0
            Mass ordinate for TOPSOIL = 18630

238+00.00 EARTH
            Excavation        58         115          92   0.80             169105
 135282
                Fill          83         132         132   1.00   81271      54011
  54011
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          TOPSOIL
              Excavation        38         71         63   0.80                21282
   18693
                  Fill           0          0          0   1.00    81271           0
       0
              Mass ordinate for TOPSOIL = 18693

238+50.00 EARTH
              Excavation        61        110         88   0.80               169215
  135370
                  Fill         144        210        210   1.00    81149       54221
   54221
          TOPSOIL
              Excavation        38         70         62   0.80                21352
   18755
                  Fill           0          0          0   1.00    81149           0
       0
              Mass ordinate for TOPSOIL = 18755

239+00.00 EARTH
              Excavation        47        100         80   0.80               169315
  135450
                  Fill         179        299        299   1.00    80930       54520
   54520
          TOPSOIL
              Excavation        41         73         66   0.80                21425
   18821
                  Fill           0          0          0   1.00    80930           0
       0
              Mass ordinate for TOPSOIL = 18821

239+50.00 EARTH
              Excavation        33         74         59   0.80               169389
  135509
                  Fill         108        266        266   1.00    80723       54786
   54786
          TOPSOIL
              Excavation        38         73         67   0.80                21498
   18888
                  Fill           0          0          0   1.00    80723           0
       0
              Mass ordinate for TOPSOIL = 18888

240+00.00 EARTH
              Excavation        17         46         37   0.80               169435
  135546
                  Fill         105        197        197   1.00    80563       54983
   54983
          TOPSOIL
              Excavation        36         68         65   0.80                21566
   18953
                  Fill           0          0          0   1.00    80563           0
       0
              Mass ordinate for TOPSOIL = 18953

240+50.00 EARTH
              Excavation         7         22         18   0.80               169457
  135564
                  Fill          83        174        174   1.00    80407       55157
   55157
          TOPSOIL
              Excavation        36         67         65   0.80                21633
   19018
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                Fill          0          0          0   1.00    80407          0
        0
            Mass ordinate for TOPSOIL = 19018

241+00.00 EARTH
            Excavation       10         16         13   0.80               169473
   135577
                Fill         95        165        165   1.00    80255      55322
    55322
        TOPSOIL
            Excavation       37         68         65   0.80               21701
    19083
                Fill          0          0          0   1.00    80255          0
        0
            Mass ordinate for TOPSOIL = 19083

241+50.00 EARTH
            Excavation       28         35         28   0.80               169508
   135605
                Fill         77        159        159   1.00    80124      55481
    55481
        TOPSOIL
            Excavation       36         68         64   0.80               21769
    19147
                Fill          0          0          0   1.00    80124          0
        0
            Mass ordinate for TOPSOIL = 19147

242+00.00 EARTH
            Excavation       40         63         50   0.80               169571
   135655
                Fill         55        122        122   1.00    80052      55603
    55603
        TOPSOIL
            Excavation       36         67         62   0.80               21836
    19209
                Fill          0          0          0   1.00    80052          0
        0
            Mass ordinate for TOPSOIL = 19209

242+50.00 EARTH
            Excavation       55         88         70   0.80               169659
   135725
                Fill         35         83         83   1.00    80039      55686
    55686
        TOPSOIL
            Excavation       35         66         60   0.80               21902
    19269
                Fill          0          0          0   1.00    80039          0
        0
            Mass ordinate for TOPSOIL = 19269

243+00.00 EARTH
            Excavation       93        137        110   0.80               169796
   135835
                Fill         20         51         51   1.00    80098      55737
    55737
        TOPSOIL
            Excavation       41         71         62   0.80               21973
    19331
                Fill          0          0          0   1.00    80098          0
        0
            Mass ordinate for TOPSOIL = 19331
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243+50.00 EARTH
              Excavation      108        186        149   0.80              169982
  135984
                   Fill        11         29         29   1.00    80218      55766
   55766
          TOPSOIL
              Excavation       40         75         64   0.80              22048
   19395
                   Fill         0          0          0   1.00    80218          0
       0
              Mass ordinate for TOPSOIL = 19395

244+00.00 EARTH
              Excavation       95        188        150   0.80              170170
  136134
                   Fill        17         26         26   1.00    80342      55792
   55792
          TOPSOIL
              Excavation       41         75         63   0.80              22123
   19458
                   Fill         0          0          0   1.00    80342          0
       0
              Mass ordinate for TOPSOIL = 19458

244+50.00 EARTH
              Excavation       84        166        133   0.80              170336
  136267
                   Fill        19         33         33   1.00    80442      55825
   55825
          TOPSOIL
              Excavation       40         75         64   0.80              22198
   19522
                   Fill         0          0          0   1.00    80442          0
       0
              Mass ordinate for TOPSOIL = 19522

245+00.00 EARTH
              Excavation       48        122         98   0.80              170458
  136365
                   Fill        31         46         46   1.00    80494      55871
   55871
          TOPSOIL
              Excavation       58         90         76   0.80              22288
   19598
                   Fill         0          0          0   1.00    80494          0
       0
              Mass ordinate for TOPSOIL = 19598

245+50.00 EARTH
              Excavation       57         97         78   0.80              170555
  136443
                   Fill        38         64         64   1.00    80508      55935
   55935
          TOPSOIL
              Excavation       39         90         77   0.80              22378
   19675
                   Fill         0          0          0   1.00    80508          0
       0
              Mass ordinate for TOPSOIL = 19675

246+00.00 EARTH
              Excavation       49         98         79   0.80              170653
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  136522
                    Fill          50          81          81   1.00    80506      56016
   56016
          TOPSOIL
              Excavation        40          73          65   0.80               22451
   19740
                    Fill          0           0           0   1.00    80506          0
       0
              Mass ordinate for TOPSOIL = 19740

246+50.00 EARTH
              Excavation        51          93          74   0.80              170746
  136596
                    Fill          34          78          78   1.00    80502      56094
   56094
          TOPSOIL
              Excavation        41          75          67   0.80               22526
   19807
                    Fill          0           0           0   1.00    80502          0
       0
              Mass ordinate for TOPSOIL = 19807

247+00.00 EARTH
              Excavation        26          71          57   0.80              170817
  136653
                    Fill          27          56          56   1.00    80503      56150
   56150
          TOPSOIL
              Excavation        59          93          80   0.80               22619
   19887
                    Fill          0           0           0   1.00    80503          0
       0
              Mass ordinate for TOPSOIL = 19887

247+50.00 EARTH
              Excavation        51          71          57   0.80              170888
  136710
                    Fill          26          49          49   1.00    80511      56199
   56199
          TOPSOIL
              Excavation        41          93          79   0.80               22712
   19966
                    Fill          0           0           0   1.00    80511          0
       0
              Mass ordinate for TOPSOIL = 19966

248+00.00 EARTH
              Excavation        61         104          83   0.80              170992
  136793
                    Fill          20          43          43   1.00    80551      56242
   56242
          TOPSOIL
              Excavation        40          75          64   0.80               22787
   20030
                    Fill          0           0           0   1.00    80551          0
       0
              Mass ordinate for TOPSOIL = 20030

248+50.00 EARTH
              Excavation        48         101          81   0.80              171093
  136874
                    Fill          27          44          44   1.00    80588      56286
   56286
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          TOPSOIL
              Excavation       40         74         65   0.80                22861
   20095
                  Fill         0          0          0   1.00    80588           0
       0
              Mass ordinate for TOPSOIL = 20095

249+00.00 EARTH
              Excavation       35         77         61   0.80               171170
  136935
                  Fill        38         60         60   1.00    80589       56346
   56346
          TOPSOIL
              Excavation       69        101         87   0.80                22962
   20182
                  Fill         0          0          0   1.00    80589           0
       0
              Mass ordinate for TOPSOIL = 20182

249+50.00 EARTH
              Excavation      120        144        115   0.80               171314
  137050
                  Fill         7         42         42   1.00    80662       56388
   56388
          TOPSOIL
              Excavation       46        106         89   0.80                23068
   20271
                  Fill         0          0          0   1.00    80662           0
       0
              Mass ordinate for TOPSOIL = 20271

250+00.00 EARTH
              Excavation      288        378        302   0.80               171692
  137352
                  Fill         0          6          6   1.00    80958       56394
   56394
          TOPSOIL
              Excavation       34         75         61   0.80                23143
   20332
                  Fill         0          0          0   1.00    80958           0
       0
              Mass ordinate for TOPSOIL = 20332

250+50.00 EARTH
              Excavation      173        427        341   0.80               172119
  137693
                  Fill        12         11         11   1.00    81288       56405
   56405
          TOPSOIL
              Excavation       85        110         89   0.80                23253
   20421
                  Fill         0          0          0   1.00    81288           0
       0
              Mass ordinate for TOPSOIL = 20421

251+00.00 EARTH
              Excavation       61        217        173   0.80               172336
  137866
                  Fill        35         44         44   1.00    81417       56449
   56449
          TOPSOIL
              Excavation       37        113         97   0.80                23366
   20518
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                Fill          0          0          0   1.00    81417          0
        0
            Mass ordinate for TOPSOIL = 20518

251+50.00 EARTH
            Excavation       89        139        111   0.80               172475
  137977
                Fill         29         59         59   1.00    81469      56508
   56508
        TOPSOIL
            Excavation       44         75         68   0.80               23441
   20586
                Fill          0          0          0   1.00    81469          0
        0
            Mass ordinate for TOPSOIL = 20586

252+00.00 EARTH
            Excavation      112        186        149   0.80               172661
  138126
                Fill         17         43         43   1.00    81575      56551
   56551
        TOPSOIL
            Excavation       30         69         58   0.80               23510
   20644
                Fill          0          0          0   1.00    81575          0
        0
            Mass ordinate for TOPSOIL = 20644

252+50.00 EARTH
            Excavation      121        216        173   0.80               172877
  138299
                Fill         16         31         31   1.00    81717      56582
   56582
        TOPSOIL
            Excavation       31         56         45   0.80               23566
   20689
                Fill          0          0          0   1.00    81717          0
        0
            Mass ordinate for TOPSOIL = 20689

253+00.00 EARTH
            Excavation      121        224        179   0.80               173101
  138478
                Fill         43         55         55   1.00    81841      56637
   56637
        TOPSOIL
            Excavation       45         71         59   0.80               23637
   20748
                Fill          0          0          0   1.00    81841          0
        0
            Mass ordinate for TOPSOIL = 20748

253+50.00 EARTH
            Excavation      154        255        204   0.80               173356
  138682
                Fill         23         61         61   1.00    81984      56698
   56698
        TOPSOIL
            Excavation       44         83         71   0.80               23720
   20819
                Fill          0          0          0   1.00    81984          0
        0
            Mass ordinate for TOPSOIL = 20819
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254+00.00 EARTH
              Excavation      187        316        253   0.80                173672
  138935
                   Fill        19         39         39   1.00    82198       56737
   56737
          TOPSOIL
              Excavation       44         81         69   0.80                23801
   20888
                   Fill        0          0          0   1.00    82198           0
       0
              Mass ordinate for TOPSOIL = 20888

254+50.00 EARTH
              Excavation      227        383        307   0.80                174055
  139242
                   Fill        15         31         31   1.00    82474       56768
   56768
          TOPSOIL
              Excavation       41         79         67   0.80                23880
   20955
                   Fill        0          0          0   1.00    82474           0
       0
              Mass ordinate for TOPSOIL = 20955

255+00.00 EARTH
              Excavation      266        456        365   0.80                174511
  139607
                   Fill        23         35         35   1.00    82804       56803
   56803
          TOPSOIL
              Excavation       42         77         64   0.80                23957
   21019
                   Fill        0          0          0   1.00    82804           0
       0
              Mass ordinate for TOPSOIL = 21019

255+50.00 EARTH
              Excavation      307        531        424   0.80                175042
  140031
                   Fill         9         30         30   1.00    83198       56833
   56833
          TOPSOIL
              Excavation       43         79         65   0.80                24036
   21084
                   Fill        0          0          0   1.00    83198           0
       0
              Mass ordinate for TOPSOIL = 21084

256+00.00 EARTH
              Excavation      323        583        467   0.80                175625
  140498
                   Fill        10         18         18   1.00    83647       56851
   56851
          TOPSOIL
              Excavation       45         81         67   0.80                24117
   21151
                   Fill        0          0          0   1.00    83647           0
       0
              Mass ordinate for TOPSOIL = 21151

256+50.00 EARTH
              Excavation      320        595        476   0.80                176220
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 140974
                Fill          7          16          16   1.00    84107      56867
  56867
          TOPSOIL
              Excavation     45          83          69   0.80               24200
  21220
                Fill          0           0           0   1.00    84107          0
      0
              Mass ordinate for TOPSOIL = 21220

257+00.00 EARTH
              Excavation    303         577         461   0.80              176797
 141435
                Fill          6          12          12   1.00    84556      56879
  56879
          TOPSOIL
              Excavation     45          83          68   0.80               24283
  21288
                Fill          0           0           0   1.00    84556          0
      0
              Mass ordinate for TOPSOIL = 21288

257+50.00 EARTH
              Excavation    154         423         339   0.80              177220
 141774
                Fill          7          12          12   1.00    84883      56891
  56891
          TOPSOIL
              Excavation     36          75          62   0.80               24358
  21350
                Fill          0           0           0   1.00    84883          0
      0
              Mass ordinate for TOPSOIL = 21350

258+00.00 EARTH
              Excavation     93         229         183   0.80              177449
 141957
                Fill         12          18          18   1.00    85048      56909
  56909
          TOPSOIL
              Excavation     31          62          52   0.80               24420
  21402
                Fill          0           0           0   1.00    85048          0
      0
              Mass ordinate for TOPSOIL = 21402

258+50.00 EARTH
              Excavation     60         142         113   0.80              177591
 142070
                Fill          6          17          17   1.00    85144      56926
  56926
          TOPSOIL
              Excavation     26          53          44   0.80               24473
  21446
                Fill          0           0           0   1.00    85144          0
      0
              Mass ordinate for TOPSOIL = 21446

259+00.00 EARTH
              Excavation     47          99          79   0.80              177690
 142149
                Fill          2           7           7   1.00    85216      56933
  56933
```

```
            TOPSOIL
                Excavation        22          45          37   0.80                24518
    21483
                    Fill           0           0           0   1.00    85216           0
        0
                Mass ordinate for TOPSOIL = 21483

  259+50.00 EARTH
                Excavation        28          69          56   0.80               177759
   142205
                    Fill          12          13          13   1.00    85259       56946
    56946
            TOPSOIL
                Excavation        19          37          31   0.80                24555
    21514
                    Fill           0           0           0   1.00    85259           0
        0
                Mass ordinate for TOPSOIL = 21514

  259+97.74 EARTH
                Excavation         1          26          21   0.80               177785
   142226
                    Fill           2          12          12   1.00    85268       56958
    56958
            TOPSOIL
                Excavation         4          20          17   0.80                24575
    21531
                    Fill           0           0           0   1.00    85268           0
        0
                Mass ordinate for TOPSOIL = 21531

       EARTH
                        Excavation     177785     142226   0.80
                          Fill          56958      56958   1.00
       TOPSOIL
                        Excavation      24575      21531   0.80
                          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 Add/Sub
Quant
            Material Name           Unadjusted  Adjusted  Unadjusted    Adjusted
  Mult
                                    Volume      Volume    Volume        Volume
  Factor
                                    (cu. yd.)   (cu. yd.) (cu. yd.)     (cu. yd.)

       --------------------------- ---------- ---------- -------------
------------- ------
       EARTH
                        Excavation     177785     142226             0
0   0.80
                          Fill          56958      56958             0
0   1.00
       TOPSOIL
                        Excavation      24575      21531             0
0   0.80
                          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            Incremental
Mult
                                    Unadjusted Adjusted   Unadjusted Adjusted
```

HAMILTON COUNTY

S.R. 317 (APISON PIKE) INTERSECTION AT OLD LEE HIGHWAY
TO S.R. 321 (OOLTEWAH-RINGGOLD ROAD)
STP/NH-317(14)

EARTH WORK
(GEOPAK OUTPUT)

<u>Side Roads</u>

Pattontown Road
Unnamed Street
Branston Road
LaCollina Way
Pine Circle
Little Debbie Parkway
Swinyar Drive
S.R. 321 North
S.R. 321 South

```
Input  File: ewkprj.inp
Output File: PattonTownRoadEarthWorkFinal.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 = 250.000000
 1     8     8
 1     9     9 xs dgn = d:\PROJECTS\Hamilton
County\SR317FROLDLEEHWYTOSR321\HTSR317PATTONRDXSECTIONS.dgn
 1    10    10
 1    11    11     Proposed Finish Grade
 1    12    12         soil type = EARTH
 1    13    13         roadway exc mult factor = 0.900000
 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             lvname = SURVEY - GROUND - Existing Pavement Text
 1    19    19             lc = 0
 1    20    20             wt = 2,4
 1    21    21             co = 0-2,6-8,18,161
 1    22    22
 1    23    23     Existing Ground Line
 1    24    24         soil type = EARTH
 1    25    25         roadway exc mult factor = 0.900000
 1    26    26         subsoil exc mult factor = 1.000000
 1    27    27         fill mult factor = 1.000000
 1    28    28             type = line
 1    29    29             lvname = SURVEY - GROUND - Top of Ground
 1    30    30             lc = 3
 1    31    31             wt = 2
 1    32    32             co = 0
 1    33    33
 1    34    34     Existing Unsuitable Material
 1    35    35         soil type = TOPSOIL
 1    36    36         roadway exc mult factor = 0.900000
 1    37    37         subsoil exc mult factor = 1.000000
 1    38    38         fill mult factor = 1.000000
 1    39    39             type = line
 1    40    40             lvname = SURVEY - GROUND - Bottom of Topsoil Layer
 1    41    41             lc = 2
 1    42    42             wt = 2
 1    43    43             co = 2
 1    44    44
 1    45    45     Excavation Limit
 1    46    46             type = line
 1    47    47             lvname = DESIGN - EARTHWORK - Excavation Limit Lines
 1    48    48             lc = 0
 1    49    49             wt = 0
 1    50    50             co = 0
 1    51    51
 1    52    52     Write Earthwork Shapes
 1    53    53         plot param
 1    54    54             lv = 347
 1    55    55             lvname = DESIGN - EARTHWORK - Shapes
 1    56    56             co = 1
 1    57    57             wt = 0
 1    58    58             lc = 0
 1    59    59             Stratify Shape Color
 1    60    60
```

```
 1    61    61     combine common exc + subgrade exc + subsoil exc
 1    62    62
 1    63    63
 1    64    64     Add Accumulated Adjusted Volume Column
 1    65    65
 1    66    66     Add Accumulated Unadjusted Volume Column
 1    67    67
 1    68    68     End Area Decimal Places = 0
 1    69    69
 1    70    70     write column base ascii file =  PattonTownFinalEarthWork.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", Common 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 = PATTONWCL
 1    86    86         job number = 2g4
 1    87    87
 1    88    88         beg sta = 5+44.92 R 1
 1    89    89         end sta = 8+08.84 R 1
 0     0    90 END_OF_FILE
COMPUTING EARTHWORKS FOR BASELINE = PATTONWCL
COMPUTING EARTHWORKS FOR JOB = 2G4
FORMING LIST OF XSCELLS
BEGINNING EARTHWORKS COMPUTATION
♀
            Material Name    End Areas  Unadjusted Adjusted   Mult   Mass     Accum
     Accum
Station                                 Volumes    Volumes    Factor Ordinate Unadj
Vol   Adj Vol
                             (sq. ft.)  (cu. yd.)  (cu. yd.)                   (cu.
yd.)  (cu. yd.)
---------- ---------------- ---------- ---------- ---------- ------ --------
---------- ----------
    5+44.92 EARTH
                Excavation       49          0          0   0.90                   0
        0
                     Fill       270          0          0   1.00        0          0
        0
            TOPSOIL
                Excavation       49          0          0   0.90                   0
        0
                     Fill         0          0          0   1.00        0          0
        0
                Mass ordinate for TOPSOIL = 0

    5+50.00 EARTH
                Excavation       21          7          6   0.90                   7
        6
                     Fill       266         50         50   1.00      -44         50
       50
            TOPSOIL
                Excavation       45          9          9   0.90                   9
        9
```

```
                Fill          0          0          0   1.00      -44          0
     0
            Mass ordinate for TOPSOIL = 9

6+00.00 EARTH
            Excavation        1         20         18   0.90                  27
    24
                Fill         93        332        332   1.00     -358        382
   382
        TOPSOIL
            Excavation       18         58         56   0.90                  67
    65
                Fill          0          0          0   1.00     -358          0
     0
            Mass ordinate for TOPSOIL = 65

6+50.00 EARTH
            Excavation       12         12         11   0.90                  39
    35
                Fill         29        113        113   1.00     -460        495
   495
        TOPSOIL
            Excavation       14         29         28   0.90                  96
    93
                Fill          0          0          0   1.00     -460          0
     0
            Mass ordinate for TOPSOIL = 93

7+00.00 EARTH
            Excavation       52         59         53   0.90                  98
    88
                Fill         13         39         39   1.00     -446        534
   534
        TOPSOIL
            Excavation       19         30         29   0.90                 126
   122
                Fill          0          0          0   1.00     -446          0
     0
            Mass ordinate for TOPSOIL = 122

7+43.77 EARTH
            Excavation       77        104         94   0.90                 202
   182
                Fill         16         24         24   1.00     -376        558
   558
        TOPSOIL
            Excavation       23         34         31   0.90                 160
   153
                Fill          0          0          0   1.00     -376          0
     0
            Mass ordinate for TOPSOIL = 153
♀             G R A N D     S U M M A R Y     T O T A L S
           Material Name          Unadjusted Adjusted   Mult
                                  Volumes    Volumes    Factor
                                  (cu. yd.)  (cu. yd.)
     --------------------------- ---------- ---------- ------
     EARTH
                        Excavation        202        182   0.90
                          Fill            558        558   1.00
     TOPSOIL
                        Excavation        160        153   0.90
                          Fill              0          0   1.00
♀                         S P L I T     S U M M A R Y     T O T A L S
```

Quant Mult Factor	Material Name		XS Quant Unadjusted Volume (cu. yd.)	XS Quant Adjusted Volume (cu. yd.)	Add/Sub Quant Unadjusted Volume (cu. yd.)	Add/Sub Adjusted Volume (cu. yd.)
	EARTH					
0	0.90	Excavation	202	182	0	
0	1.00	Fill	558	558	0	
	TOPSOIL					
0	0.90	Excavation	160	153	0	
0	1.00	Fill	0	0	0	

```
Input  File: ewkprj.inp
Output File: UnnamedFinalEarthWork.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 = 250.000000
 1     8     8
 1     9     9 xs dgn = d:\PROJECTS\Hamilton
County\SR317FROLDLEEHWYTOSR321\HTSR317UnnamedStxsections.dgn
 1    10    10
 1    11    11     Proposed Finish Grade
 1    12    12         soil type = EARTH
 1    13    13         roadway exc mult factor = 0.900000
 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 = 2,4
 1    20    20             co = 1-2,6-8,18,161
 1    21    21
 1    22    22     Existing Ground Line
 1    23    23         soil type = EARTH
 1    24    24         roadway exc mult factor = 0.900000
 1    25    25         subsoil exc mult factor = 1.000000
 1    26    26         fill mult factor = 1.000000
 1    27    27             type = line
 1    28    28             lvname = SURVEY - GROUND - Top of Ground
 1    29    29             lc = 3
 1    30    30             wt = 2
 1    31    31             co = 0
 1    32    32
 1    33    33     Existing Unsuitable Material
 1    34    34         soil type = TOPSOIL
 1    35    35         roadway exc mult factor = 0.900000
 1    36    36         subsoil exc mult factor = 1.000000
 1    37    37         fill mult factor = 1.000000
 1    38    38             type = line
 1    39    39             lvname = SURVEY - GROUND - Bottom of Topsoil Layer
 1    40    40             lc = 2
 1    41    41             wt = 2
 1    42    42             co = 2
 1    43    43
 1    44    44     Excavation Limit
 1    45    45             type = line
 1    46    46             lvname = DESIGN - EARTHWORK - Excavation Limit Lines
 1    47    47             lc = 0
 1    48    48             wt = 0
 1    49    49             co = 0
 1    50    50
 1    51    51     Write Earthwork Shapes
 1    52    52         plot param
 1    53    53             lv = 347
 1    54    54             lvname = DESIGN - EARTHWORK - Shapes
 1    55    55             co = 1
 1    56    56             wt = 0
 1    57    57             lc = 0
 1    58    58             Stratify Shape Color
 1    59    59
 1    60    60     combine common exc + subgrade exc + subsoil exc
```

```
 1    61    61
 1    62    62
 1    63    63     Add Accumulated Adjusted Volume Column
 1    64    64
 1    65    65     Add Accumulated Unadjusted Volume Column
 1    66    66
 1    67    67     End Area Decimal Places = 0
 1    68    68
 1    69    69     write column base ascii file = UnnamedStreetFinalEarthWork.txt
 1    70    70
 1    71    71     column 1 formula = abs( ["EARTH", Common Exc, End Area]  )
 1    72    72     column 1 number of decimal place = 0
 1    73    73     column 1 total length = 10
 1    74    74
 1    75    75     column 2 formula = abs( ["EARTH", Fill, End Area]  )
 1    76    76     column 2 number of decimal place = 0
 1    77    77     column 2 total length = 10
 1    78    78
 1    79    79     column 3 formula = abs( ["TOPSOIL", Common Exc, End Area]  )
 1    80    80     column 3 number of decimal place = 0
 1    81    81     column 3 total length = 10
 1    82    82
 1    83    83
 1    84    84     Process Earthwork for Baseline = UNNAMEDSTCL
 1    85    85         job number = 2g4
 1    86    86
 1    87    87         beg sta = 10+45.05 R 1
 1    88    88         end sta = 14+00.00 R 1
 0     0    89 END_OF_FILE
COMPUTING EARTHWORKS FOR BASELINE = UNNAMEDSTCL
COMPUTING EARTHWORKS FOR JOB = 2G4
FORMING LIST OF XSCELLS
BEGINNING EARTHWORKS COMPUTATION
♀
            Material Name    End Areas  Unadjusted Adjusted   Mult   Mass     Accum
     Accum
Station                                 Volumes    Volumes    Factor Ordinate Unadj
Vol   Adj Vol
                             (sq. ft.)  (cu. yd.)  (cu. yd.)                   (cu.
yd.)  (cu. yd.)
----------- ---------------- ---------- ---------- ---------- ------ --------
----------- -----------
   10+45.05 EARTH
                Excavation       90          0          0   0.90                  0
        0
                    Fill          8          0          0   1.00       0          0
        0
            TOPSOIL
                Excavation       24          0          0   0.90                  0
        0
                    Fill          0          0          0   1.00       0          0
        0
                Mass ordinate for TOPSOIL = 0

   10+50.00 EARTH
                Excavation       62         14         13   0.90                 14
       13
                    Fill          6          1          1   1.00      12          1
        1
            TOPSOIL
                Excavation       24          4          4   0.90                  4
        4
                    Fill          0          0          0   1.00      12          0
```

```
      0
            Mass ordinate for TOPSOIL = 4

11+00.00 EARTH
            Excavation        79        131        117   0.90                145
    130
                Fill           1          6          6   1.00        123       7
      7
         TOPSOIL
            Excavation        18         39         35   0.90                 43
     39
                Fill           0          0          0   1.00        123       0
      0
            Mass ordinate for TOPSOIL = 39

11+50.00 EARTH
            Excavation       102        168        151   0.90                313
    281
                Fill           0          1          1   1.00        273       8
      8
         TOPSOIL
            Excavation        12         28         25   0.90                 71
     64
                Fill           0          0          0   1.00        273       0
      0
            Mass ordinate for TOPSOIL = 64

12+00.00 EARTH
            Excavation        72        161        145   0.90                474
    426
                Fill           0          1          1   1.00        417       9
      9
         TOPSOIL
            Excavation         6         17         15   0.90                 88
     79
                Fill           0          0          0   1.00        417       0
      0
            Mass ordinate for TOPSOIL = 79

12+50.00 EARTH
            Excavation        32         96         86   0.90                570
    512
                Fill           6          6          6   1.00        497      15
     15
         TOPSOIL
            Excavation        19         22         20   0.90                110
     99
                Fill           0          0          0   1.00        497       0
      0
            Mass ordinate for TOPSOIL = 99

13+00.00 EARTH
            Excavation        39         66         59   0.90                636
    571
                Fill           6         12         12   1.00        544      27
     27
         TOPSOIL
            Excavation         7         24         22   0.90                134
    121
                Fill           0          0          0   1.00        544       0
      0
            Mass ordinate for TOPSOIL = 121
```

```
13+23.00 EARTH
            Excavation        39         33         30   0.90                669
    601
                Fill           7          5          5   1.00      569        32
     32
        TOPSOIL
            Excavation         7          6          6   0.90                140
    127
                Fill           0          0          0   1.00      569         0
      0
            Mass ordinate for TOPSOIL = 127
♀             G R A N D    S U M M A R Y    T O T A L S
            Material Name          Unadjusted Adjusted   Mult
                                   Volumes    Volumes    Factor
                                   (cu. yd.)  (cu. yd.)
      --------------------------- ---------- ---------- ------
      EARTH
                        Excavation        669        601   0.90
                          Fill             32         32   1.00
      TOPSOIL
                        Excavation        140        127   0.90
                          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 Add/Sub
Quant
            Material Name          Unadjusted Adjusted  Unadjusted    Adjusted
  Mult
                                   Volume     Volume    Volume        Volume
  Factor
                                   (cu. yd.)  (cu. yd.) (cu. yd.)     (cu. yd.)

      --------------------------- ---------- ---------- -------------
------------- ------
      EARTH
                        Excavation        669        601             0
0   0.90
                          Fill             32         32             0
0   1.00
      TOPSOIL
                        Excavation        140        127             0
0   0.90
                          Fill              0          0             0
0   1.00
```

```
Input  File: ewkprj.inp
Output File: Branston Road.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 = 250.000000
 1     8     8
 1     9     9 xs dgn = C:\Project\Hamilton
County\SR317FROLDLEEHWYTOSR321\HTSR317BranstonXsections.dgn
 1    10    10
 1    11    11     Proposed Finish Grade
 1    12    12         soil type = EARTH
 1    13    13         roadway exc mult factor = 0.900000
 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             co = 1-2,6,8,161
 1    21    21
 1    22    22     Existing Ground Line
 1    23    23         soil type = EARTH
 1    24    24         roadway exc mult factor = 0.900000
 1    25    25         subsoil exc mult factor = 1.000000
 1    26    26         fill mult factor = 1.000000
 1    27    27             type = line
 1    28    28             lvname = SURVEY - GROUND - Top of Ground
 1    29    29             lc = 3
 1    30    30             wt = 2
 1    31    31             co = 0
 1    32    32
 1    33    33     Write Earthwork Shapes
 1    34    34         plot param
 1    35    35             lv = 347
 1    36    36             lvname = DESIGN - EARTHWORK - Shapes
 1    37    37             co = 1
 1    38    38             wt = 0
 1    39    39             lc = 0
 1    40    40             Stratify Shape Color
 1    41    41
 1    42    42     combine common exc + subgrade exc + subsoil exc
 1    43    43
 1    44    44
 1    45    45     Add Accumulated Adjusted Volume Column
 1    46    46
 1    47    47     Add Accumulated Unadjusted Volume Column
 1    48    48
 1    49    49     End Area Decimal Places = 0
 1    50    50
 1    51    51     write column base ascii file = C:\Project\Hamilton
County\SR317FROLDLEEHWYTOSR321\BranstonRoadEarthWorkFinal.txt
 1    52    52
 1    53    53     column 1 formula = abs( ["EARTH", Common Exc, End Area]  )
 1    54    54     column 1 number of decimal place = 0
 1    55    55     column 1 total length = 10
 1    56    56
 1    57    57     column 2 formula = abs( ["EARTH", Fill, End Area]  )
 1    58    58     column 2 number of decimal place = 0
 1    59    59     column 2 total length = 10
```

```
 1    60    60
 1    61    61
 1    62    62     Process Earthwork for Baseline = BRANSTONALTCL
 1    63    63         job number = 2g4
 1    64    64
 1    65    65         beg sta = 16+50.00 R 1
 1    66    66         end sta = 18+40.97 R 1
 0     0    67 END_OF_FILE
COMPUTING EARTHWORKS FOR BASELINE = BRANSTONALTCL
COMPUTING EARTHWORKS FOR JOB = 2G4
FORMING LIST OF XSCELLS
BEGINNING EARTHWORKS COMPUTATION
♀
```

Station	Material Name	End Areas (sq. ft.)	Unadjusted Volumes (cu. yd.)	Adjusted Volumes (cu. yd.)	Mult Factor	Mass Ordinate	Accum Unadj Vol (cu. yd.)	Accum Adj Vol (cu. yd.)
16+77.68	EARTH							
	Excavation	49	25	23	0.90		25	23
	Fill	0	0	0	1.00	23	0	0
17+00.00	EARTH							
	Excavation	42	38	34	0.90		63	57
	Fill	0	0	0	1.00	57	0	0
17+50.00	EARTH							
	Excavation	1	40	36	0.90		103	93
	Fill	18	17	17	1.00	76	17	17
18+00.00	EARTH							
	Excavation	0	1	1	0.90		104	94
	Fill	147	153	153	1.00	-76	170	170
18+26.92	EARTH							
	Excavation	0	0	0	0.90		104	94
	Fill	381	263	263	1.00	-339	433	433
18+40.97	EARTH							
	Excavation	0	0	0	0.90		104	94
	Fill	544	241	241	1.00	-580	674	674

♀ 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	104	94	0.90
Fill	674	674	1.00

♀

S P L I T S U M M A R Y T O T A L S

Quant Mult Factor	Material Name	XS Quant Unadjusted Volume (cu. yd.)	XS Quant Adjusted Volume (cu. yd.)	Add/Sub Quant Unadjusted Volume (cu. yd.)	Add/Sub Adjusted Volume (cu. yd.)
	EARTH				
0 0.90	Excavation	104	94	0	
0 1.00	Fill	674	674	0	

♀

```
Input  File: ewkprj.inp
Output File: LaCollinaWayEarthWorkFinal.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 = 250.000000
 1     8     8
 1     9     9 xs dgn = d:\PROJECTS\Hamilton
County\SR317FROLDLEEHWYTOSR321\HTSR317LACOLLINAWAYXSECTIONS.dgn
 1    10    10
 1    11    11     Proposed Finish Grade
 1    12    12         soil type = EARTH
 1    13    13         roadway exc mult factor = 0.900000
 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             lvname = DESIGN - TYPICAL - Warning Text
 1    19    19             lc = 0
 1    20    20             wt = 2,4
 1    21    21             co = 0-2,6-8,18,161
 1    22    22
 1    23    23     Existing Ground Line
 1    24    24         soil type = EARTH
 1    25    25         roadway exc mult factor = 0.900000
 1    26    26         subsoil exc mult factor = 1.000000
 1    27    27         fill mult factor = 1.000000
 1    28    28             type = line, line_string
 1    29    29             lvname = SURVEY - GROUND - Top of Ground
 1    30    30             lc = 3
 1    31    31             wt = 2
 1    32    32             co = 0
 1    33    33
 1    34    34     Existing Unsuitable Material
 1    35    35         soil type = Topsoil
 1    36    36         roadway exc mult factor = 0.900000
 1    37    37         subsoil exc mult factor = 1.000000
 1    38    38         fill mult factor = 1.000000
 1    39    39             type = line
 1    40    40             lvname = SURVEY - GROUND - Bottom of Topsoil Layer
 1    41    41             lc = 2
 1    42    42             wt = 2
 1    43    43             co = 2
 1    44    44
 1    45    45     Excavation Limit
 1    46    46             type = line
 1    47    47             lvname = DESIGN - EARTHWORK - Excavation Limit Lines
 1    48    48             lc = 0
 1    49    49             wt = 0
 1    50    50             co = 0
 1    51    51
 1    52    52     Write Earthwork Shapes
 1    53    53         plot param
 1    54    54             lv = 347
 1    55    55             lvname = DESIGN - EARTHWORK - Shapes
 1    56    56             co = 1
```

```
 1    57    57              wt = 0
 1    58    58              lc = 0
 1    59    59              Stratify Shape Color
 1    60    60
 1    61    61      combine common exc + subgrade exc + subsoil exc
 1    62    62
 1    63    63
 1    64    64      Add Accumulated Adjusted Volume Column
 1    65    65
 1    66    66      Add Accumulated Unadjusted Volume Column
 1    67    67
 1    68    68      End Area Decimal Places = 0
 1    69    69
 1    70    70      write column base ascii file = LaCollinaWayEarthWorkFinal.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", Common 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 = LACOLLINACL
 1    86    86          job number = 2g4
 1    87    87
 1    88    88          beg sta = 20+50.00 R 1
 1    89    89          end sta = 23+03.56 R 1
 0     0    90 END_OF_FILE
COMPUTING EARTHWORKS FOR BASELINE = LACOLLINACL
COMPUTING EARTHWORKS FOR JOB = 2G4
FORMING LIST OF XSCELLS
BEGINNING EARTHWORKS COMPUTATION
♀
            Material Name    End Areas  Unadjusted Adjusted   Mult   Mass     Accum
     Accum
Station                                 Volumes    Volumes    Factor Ordinate Unadj
Vol   Adj Vol
                             (sq. ft.)  (cu. yd.)  (cu. yd.)                  (cu.
yd.)  (cu. yd.)
----------- --------------- ---------- ---------- ---------- ------ --------
----------- -----------
   20+50.00 EARTH
                Excavation      178          0          0   0.90                   0
        0
                     Fill         0          0          0   1.00        0          0
        0
            TOPSOIL
                Excavation       45          0          0   0.90                   0
        0
                     Fill         0          0          0   1.00        0          0
        0
                Mass ordinate for TOPSOIL = 0

   21+00.00 EARTH
                Excavation      101        258        232   0.90                 258
      232
                     Fill         1          2          2   1.00      230          2
```

```
        2
           TOPSOIL
               Excavation        18          59          53   0.90                  59
       53
                   Fill           0           0           0   1.00      230          0
        0
               Mass ordinate for TOPSOIL = 53

  21+29.97 EARTH
               Excavation        66          92          83   0.90                 350
      315
                   Fill           0           1           1   1.00      312          3
        3
           TOPSOIL
               Excavation        10          16          14   0.90                  75
       67
                   Fill           0           0           0   1.00      312          0
        0
               Mass ordinate for TOPSOIL = 67
♀                G R A N D     S U M M A R Y     T O T A L S
              Material Name          Unadjusted Adjusted   Mult
                                     Volumes    Volumes    Factor
                                     (cu. yd.)  (cu. yd.)
        --------------------------- ---------- ---------- ------
        EARTH
                           Excavation        350        315   0.90
                             Fill              3          3   1.00
        TOPSOIL
                           Excavation         75         67   0.90
                             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 Add/Sub
Quant
              Material Name          Unadjusted Adjusted  Unadjusted    Adjusted
  Mult
                                     Volume     Volume    Volume        Volume
  Factor
                                     (cu. yd.)  (cu. yd.) (cu. yd.)     (cu. yd.)

        --------------------------- ---------- ---------- -------------
------------- ------
        EARTH
                           Excavation        350        315             0
0   0.90
                             Fill              3          3             0
0   1.00
        TOPSOIL
                           Excavation         75         67             0
0   0.90
                             Fill              0          0             0
0   1.00
```

```
Input  File: ewkprj.inp
Output File: PineCircleFinalEarthWork.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 = 250.000000
 1     8     8
 1     9     9 xs dgn = C:\Project\Hamilton
County\SR317FROLDLEEHWYTOSR321\HTSR317PineCircleXsections.dgn
 1    10    10
 1    11    11     Proposed Finish Grade
 1    12    12         soil type = EARTH
 1    13    13         roadway exc mult factor = 0.850000
 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 = 2,4
 1    20    20             co = 1-2,6-8,18,161
 1    21    21
 1    22    22     Existing Ground Line
 1    23    23         soil type = EARTH
 1    24    24         roadway exc mult factor = 0.850000
 1    25    25         subsoil exc mult factor = 1.000000
 1    26    26         fill mult factor = 1.000000
 1    27    27             type = line
 1    28    28             lvname = SURVEY - GROUND - Top of Ground
 1    29    29             lc = 3
 1    30    30             wt = 2
 1    31    31             co = 0
 1    32    32
 1    33    33     Existing Unsuitable Material
 1    34    34         soil type = Topsoil
 1    35    35         roadway exc mult factor = 0.850000
 1    36    36         subsoil exc mult factor = 1.000000
 1    37    37         fill mult factor = 1.000000
 1    38    38             type = line
 1    39    39             lvname = SURVEY - GROUND - Bottom of Topsoil Layer
 1    40    40             lc = 2
 1    41    41             wt = 2
 1    42    42             co = 2
 1    43    43
 1    44    44     Excavation Limit
 1    45    45             type = line
 1    46    46             lvname = DESIGN - EARTHWORK - Excavation Limit Lines
 1    47    47             lc = 0
 1    48    48             wt = 0
 1    49    49             co = 0
 1    50    50
 1    51    51     Write Earthwork Shapes
 1    52    52         plot param
 1    53    53             lv = 347
 1    54    54             lvname = DESIGN - EARTHWORK - Shapes
 1    55    55             co = 1
 1    56    56             wt = 0
 1    57    57             lc = 0
 1    58    58             Stratify Shape Color
 1    59    59
 1    60    60     combine common exc + subgrade exc + subsoil exc
```

```
 1    61    61
 1    62    62
 1    63    63     Add Accumulated Adjusted Volume Column
 1    64    64
 1    65    65     Add Accumulated Unadjusted Volume Column
 1    66    66
 1    67    67     End Area Decimal Places = 0
 1    68    68
 1    69    69     write column base ascii file = C:\Project\Hamilton
County\SR317FROLDLEEHWYTOSR321\PineCircleEarthWorkFinal.txt
 1    70    70
 1    71    71     column 1 formula = abs( ["EARTH", Common Exc, End Area]  )
 1    72    72     column 1 number of decimal place = 0
 1    73    73     column 1 total length = 10
 1    74    74
 1    75    75     column 2 formula = abs( ["EARTH", Fill, End Area]  )
 1    76    76     column 2 number of decimal place = 0
 1    77    77     column 2 total length = 10
 1    78    78
 1    79    79     column 3 formula = abs( ["Topsoil", Common Exc, End Area]  )
 1    80    80     column 3 number of decimal place = 0
 1    81    81     column 3 total length = 10
 1    82    82
 1    83    83
 1    84    84     Process Earthwork for Baseline = PINECIRCLECL
 1    85    85         job number = 2g4
 1    86    86
 1    87    87         beg sta = 40+00.00 R 1
 1    88    88         end sta = 46+39.27 R 1
 0     0    89 END_OF_FILE
COMPUTING EARTHWORKS FOR BASELINE = PINECIRCLECL
COMPUTING EARTHWORKS FOR JOB = 2G4
FORMING LIST OF XSCELLS
BEGINNING EARTHWORKS COMPUTATION
♀
            Material Name    End Areas  Unadjusted Adjusted   Mult   Mass     Accum
     Accum
Station                                 Volumes    Volumes    Factor Ordinate Unadj
Vol   Adj Vol
                             (sq. ft.)  (cu. yd.)  (cu. yd.)                  (cu.
yd.)  (cu. yd.)
----------- --------------- ---------- ---------- ---------- ------ --------
----------- -----------
   40+45.86 EARTH
                Excavation       27          0          0   0.85                   0
        0
                    Fill         30          0          0   1.00        0          0
        0
            TOPSOIL
                Excavation       50          0          0   0.85                   0
        0
                    Fill          0          0          0   1.00        0          0
        0
                Mass ordinate for TOPSOIL = 0

   40+50.00 EARTH
                Excavation       14          3          3   0.85                   3
        3
                    Fill         50          6          6   1.00       -3          6
        6
            TOPSOIL
                Excavation       40          7          6   0.85                   7
        6
```

```
                Fill          0          0          0   1.00         -3          0
      0
            Mass ordinate for TOPSOIL = 6

41+00.00 EARTH
            Excavation      731        690        586   0.85                    693
    589
                Fill          0         46         46   1.00        537         52
     52
        TOPSOIL
            Excavation       36         70         63   0.85                     77
     69
                Fill          0          0          0   1.00        537          0
      0
            Mass ordinate for TOPSOIL = 69

41+50.00 EARTH
            Excavation     1341       1919       1631   0.85                   2612
   2220
                Fill          0          0          0   1.00       2168         52
     52
        TOPSOIL
            Excavation       44         74         63   0.85                    151
    132
                Fill          0          0          0   1.00       2168          0
      0
            Mass ordinate for TOPSOIL = 132

42+00.00 EARTH
            Excavation     1626       2747       2335   0.85                   5359
   4555
                Fill          0          0          0   1.00       4503         52
     52
        TOPSOIL
            Excavation       44         81         69   0.85                    232
    201
                Fill          0          0          0   1.00       4503          0
      0
            Mass ordinate for TOPSOIL = 201

42+50.00 EARTH
            Excavation     1204       2620       2227   0.85                   7979
   6782
                Fill          0          0          0   1.00       6730         52
     52
        TOPSOIL
            Excavation       38         76         65   0.85                    308
    266
                Fill          0          0          0   1.00       6730          0
      0
            Mass ordinate for TOPSOIL = 266

43+00.00 EARTH
            Excavation      739       1799       1529   0.85                   9778
   8311
                Fill          1          1          1   1.00       8258         53
     53
        TOPSOIL
            Excavation       31         64         55   0.85                    372
    321
                Fill          0          0          0   1.00       8258          0
      0
            Mass ordinate for TOPSOIL = 321
```

```
43+50.00 EARTH
             Excavation      406       1060        901   0.85                10838
   9212
                 Fill          1          2          2   1.00     9157          55
     55
         TOPSOIL
             Excavation       25         52         44   0.85                  424
    365
                 Fill          0          0          0   1.00     9157           0
      0
             Mass ordinate for TOPSOIL = 365

44+00.00 EARTH
             Excavation      117        484        412   0.85                11322
   9624
                 Fill          1          2          2   1.00     9567          57
     57
         TOPSOIL
             Excavation        9         32         27   0.85                  456
    392
                 Fill          0          0          0   1.00     9567           0
      0
             Mass ordinate for TOPSOIL = 392

44+50.00 EARTH
             Excavation       35        141        120   0.85                11463
   9744
                 Fill          2          3          3   1.00     9684          60
     60
         TOPSOIL
             Excavation        2         10          9   0.85                  466
    401
                 Fill          0          0          0   1.00     9684           0
      0
             Mass ordinate for TOPSOIL = 401

45+00.00 EARTH
             Excavation       33         63         54   0.85                11526
   9798
                 Fill          2          4          4   1.00     9734          64
     64
         TOPSOIL
             Excavation        2          4          4   0.85                  470
    405
                 Fill          0          0          0   1.00     9734           0
      0
             Mass ordinate for TOPSOIL = 405

45+50.00 EARTH
             Excavation        0         31         26   0.85                11557
   9824
                 Fill          0          2          2   1.00     9758          66
     66
         TOPSOIL
             Excavation        0          2          2   0.85                  472
    407
                 Fill          0          0          0   1.00     9758           0
      0
             Mass ordinate for TOPSOIL = 407

♀              G R A N D     S U M M A R Y     T O T A L S
            Material Name          Unadjusted Adjusted   Mult
```

		Volumes (cu. yd.)	Volumes (cu. yd.)	Factor
EARTH				
	Excavation	11557	9824	0.85
	Fill	66	66	1.00
TOPSOIL				
	Excavation	472	407	0.85
	Fill	0	0	1.00

♀ S P L I T S U M M A R Y T O T A L S

Material Name		XS Quant Unadjusted Volume (cu. yd.)	XS Quant Adjusted Volume (cu. yd.)	Add/Sub Quant Unadjusted Volume (cu. yd.)	Add/Sub Quant Adjusted Volume (cu. yd.)	Mult Factor
EARTH						
	Excavation	11557	9824	0	0	0.85
	Fill	66	66	0	0	1.00
TOPSOIL						
	Excavation	472	407	0	0	0.85
	Fill	0	0	0	0	1.00

```
Input  File: ewkprj.inp
Output File: LittleDebbieFinalEarthWork.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 = C:\Project\Hamilton
County\SR317FROLDLEEHWYTOSR321\HTSR317LittleDebbieXsections.dgn
 1    10    10
 1    11    11     Proposed Finish Grade
 1    12    12         soil type = EARTH
 1    13    13         roadway exc mult factor = 0.900000
 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             co = 1-2,6-8,18,161
 1    21    21
 1    22    22     Existing Ground Line
 1    23    23         soil type = EARTH
 1    24    24         roadway exc mult factor = 0.900000
 1    25    25         subsoil exc mult factor = 1.000000
 1    26    26         fill mult factor = 1.000000
 1    27    27             type = line
 1    28    28             lvname = SURVEY - GROUND - Top of Ground
 1    29    29             lc = 3
 1    30    30             wt = 2
 1    31    31             co = 0
 1    32    32
 1    33    33     Existing Unsuitable Material
 1    34    34         soil type = TOPSOIL
 1    35    35         roadway exc mult factor = 0.900000
 1    36    36         subsoil exc mult factor = 1.000000
 1    37    37         fill mult factor = 1.000000
 1    38    38             type = line
 1    39    39             lvname = SURVEY - GROUND - Bottom of Topsoil Layer
 1    40    40             lc = 2
 1    41    41             wt = 2
 1    42    42             co = 2
 1    43    43
 1    44    44     Excavation Limit
 1    45    45             type = line
 1    46    46             lvname = DESIGN - EARTHWORK - Excavation Limit Lines
 1    47    47             lc = 0
 1    48    48             wt = 0
 1    49    49             co = 0
 1    50    50
 1    51    51     Write Earthwork Shapes
 1    52    52         plot param
 1    53    53             lv = 347
 1    54    54             lvname = DESIGN - EARTHWORK - Shapes
 1    55    55             co = 1
 1    56    56             wt = 0
 1    57    57             lc = 0
 1    58    58             Stratify Shape Color
 1    59    59
 1    60    60     combine common exc + subgrade exc + subsoil exc
```

```
 1    61    61
 1    62    62
 1    63    63     Add Accumulated Adjusted Volume Column
 1    64    64
 1    65    65     Add Accumulated Unadjusted Volume Column
 1    66    66
 1    67    67     End Area Decimal Places = 0
 1    68    68
 1    69    69     write column base ascii file = C:\Project\Hamilton
County\SR317FROLDLEEHWYTOSR321\LittleDebbieFinalEarthWork.txt
 1    70    70
 1    71    71     column 1 formula = abs( ["EARTH", Common Exc, End Area]  )
 1    72    72     column 1 number of decimal place = 0
 1    73    73     column 1 total length = 10
 1    74    74
 1    75    75     column 2 formula = abs( ["EARTH", Fill, End Area]  )
 1    76    76     column 2 number of decimal place = 0
 1    77    77     column 2 total length = 10
 1    78    78
 1    79    79     column 3 formula = abs( ["TOPSOIL", Common Exc, End Area]  )
 1    80    80     column 3 number of decimal place = 0
 1    81    81     column 3 total length = 10
 1    82    82
 1    83    83
 1    84    84     Process Earthwork for Baseline = LITTLEDEBBIECL
 1    85    85         job number = 2g4
 1    86    86
 1    87    87         beg sta = 24+47.31 R 1
 1    88    88         end sta = 30+00.00 R 1
 0     0    89 END_OF_FILE
COMPUTING EARTHWORKS FOR BASELINE = LITTLEDEBBIECL
COMPUTING EARTHWORKS FOR JOB = 2G4
FORMING LIST OF XSCELLS
BEGINNING EARTHWORKS COMPUTATION
♀
            Material Name    End Areas  Unadjusted Adjusted   Mult   Mass     Accum
     Accum
Station                                 Volumes    Volumes    Factor Ordinate Unadj
Vol   Adj Vol
                             (sq. ft.)  (cu. yd.)  (cu. yd.)                  (cu.
yd.)  (cu. yd.)
----------- ---------------- ---------- ---------- ---------- ------ --------
----------- -----------
   24+47.31 EARTH
                Excavation       35          0          0   0.90                 0
        0
                     Fill         1          0          0   1.00        0        0
        0
            TOPSOIL
                Excavation       16          0          0   0.90                 0
        0
                     Fill         0          0          0   1.00        0        0
        0
                Mass ordinate for TOPSOIL = 0

   24+50.00 EARTH
                Excavation       35          3          3   0.90                 3
        3
                     Fill         1          0          0   1.00        3        0
        0
            TOPSOIL
                Excavation       16          1          1   0.90                 1
        1
```

```
                Fill          0          0          0   1.00          3          0
      0
            Mass ordinate for TOPSOIL = 1

25+00.00 EARTH
            Excavation       44         73         66   0.90                    76
     69
                Fill          1          2          2   1.00         67          2
      2
         TOPSOIL
            Excavation       21         34         31   0.90                    35
     32
                Fill          0          0          0   1.00         67          0
      0
            Mass ordinate for TOPSOIL = 32

25+50.00 EARTH
            Excavation       41         79         71   0.90                   155
    140
                Fill         10         10         10   1.00        128         12
     12
         TOPSOIL
            Excavation       30         47         43   0.90                    82
     75
                Fill          0          0          0   1.00        128          0
      0
            Mass ordinate for TOPSOIL = 75

26+00.00 EARTH
            Excavation       36         71         64   0.90                   226
    204
                Fill         73         77         77   1.00        115         89
     89
         TOPSOIL
            Excavation       42         67         64   0.90                   149
    139
                Fill          0          0          0   1.00        115          0
      0
            Mass ordinate for TOPSOIL = 139

26+50.00 EARTH
            Excavation       43         73         66   0.90                   299
    270
                Fill        298        344        344   1.00       -163        433
    433
         TOPSOIL
            Excavation       40         75         72   0.90                   224
    211
                Fill          0          0          0   1.00       -163          0
      0
            Mass ordinate for TOPSOIL = 211

27+00.00 EARTH
            Excavation       49         85         77   0.90                   384
    347
                Fill         98        367        367   1.00       -453        800
    800
         TOPSOIL
            Excavation       43         77         74   0.90                   301
    285
                Fill          0          0          0   1.00       -453          0
      0
            Mass ordinate for TOPSOIL = 285
```

```
27+50.00 EARTH
            Excavation        46          88          79   0.90                 472
    426
                Fill         254         326         326   1.00      -700       1126
   1126
         TOPSOIL
            Excavation        47          83          80   0.90                 384
    365
                Fill          0           0           0   1.00      -700          0
      0
            Mass ordinate for TOPSOIL = 365

28+00.00 EARTH
            Excavation        28          69          62   0.90                 541
    488
                Fill         84         313         313   1.00      -951       1439
   1439
         TOPSOIL
            Excavation        43          83          80   0.90                 467
    445
                Fill          0           0           0   1.00      -951          0
      0
            Mass ordinate for TOPSOIL = 445

28+50.00 EARTH
            Excavation        12          37          33   0.90                 578
    521
                Fill         99         169         169   1.00     -1087       1608
   1608
         TOPSOIL
            Excavation        41          77          75   0.90                 544
    520
                Fill          0           0           0   1.00     -1087          0
      0
            Mass ordinate for TOPSOIL = 520

29+00.00 EARTH
            Excavation         0          11          10   0.90                 589
    531
                Fill        130         212         212   1.00     -1289       1820
   1820
         TOPSOIL
            Excavation        40          75          74   0.90                 619
    594
                Fill          0           0           0   1.00     -1289          0
      0
            Mass ordinate for TOPSOIL = 594

29+50.00 EARTH
            Excavation         0           0           0   0.90                 589
    531
                Fill        180         287         287   1.00     -1576       2107
   2107
         TOPSOIL
            Excavation        39          73          73   0.90                 692
    667
                Fill          0           0           0   1.00     -1576          0
      0
            Mass ordinate for TOPSOIL = 667

30+00.00 EARTH
            Excavation         0           0           0   0.90                 589
```

```
531
                Fill        553        679        679   1.00    -2255        2786
2786
          TOPSOIL
              Excavation     76        106        106   0.90                 798
773
                Fill          0          0          0   1.00    -2255           0
  0
            Mass ordinate for TOPSOIL = 773
♀             G R A N D    S U M M A R Y    T O T A L S
            Material Name          Unadjusted Adjusted   Mult
                                   Volumes    Volumes    Factor
                                   (cu. yd.)  (cu. yd.)
        --------------------------- ---------- ---------- ------
        EARTH
                          Excavation       589        531   0.90
                            Fill          2786       2786   1.00
        TOPSOIL
                          Excavation       798        773   0.90
                            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 Add/Sub
Quant
            Material Name          Unadjusted Adjusted  Unadjusted    Adjusted
  Mult
                                   Volume     Volume    Volume        Volume
  Factor
                                   (cu. yd.)  (cu. yd.) (cu. yd.)     (cu. yd.)

        --------------------------- ---------- ---------- -------------
------------- ------
        EARTH
                          Excavation       589        531             0
0   0.90
                            Fill          2786       2786             0
0   1.00
        TOPSOIL
                          Excavation       798        773             0
0   0.90
                            Fill             0          0             0
0   1.00
```

```
Input  File: ewkprj.inp
Output File: SwinyarDriveEarthWorkFinal.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 = 250.000000
 1     8     8
 1     9     9 xs dgn = C:\Project\Hamilton
County\SR317FROLDLEEHWYTOSR321\HTSR317SwinyarXsections.dgn
 1    10    10
 1    11    11     Proposed Finish Grade
 1    12    12         soil type = EARTH
 1    13    13         roadway exc mult factor = 0.900000
 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 = 2,4
 1    20    20             co = 1-2,6-8,161
 1    21    21
 1    22    22     Existing Ground Line
 1    23    23         soil type = EARTH
 1    24    24         roadway exc mult factor = 0.900000
 1    25    25         subsoil exc mult factor = 1.000000
 1    26    26         fill mult factor = 1.000000
 1    27    27             type = line
 1    28    28             lvname = DESIGN - CENTERLINE - Proposed
 1    29    29             lc = 3
 1    30    30             wt = 2
 1    31    31             co = 0
 1    32    32
 1    33    33     Write Earthwork Shapes
 1    34    34         plot param
 1    35    35             lv = 347
 1    36    36             lvname = DESIGN - EARTHWORK - Shapes
 1    37    37             co = 1
 1    38    38             wt = 0
 1    39    39             lc = 0
 1    40    40             Stratify Shape Color
 1    41    41
 1    42    42     combine common exc + subgrade exc + subsoil exc
 1    43    43
 1    44    44
 1    45    45     Add Accumulated Adjusted Volume Column
 1    46    46
 1    47    47     Add Accumulated Unadjusted Volume Column
 1    48    48
 1    49    49     End Area Decimal Places = 0
 1    50    50
 1    51    51     write column base ascii file = SwinyarDriveEarthWorkFinal.txt
 1    52    52
 1    53    53     column 1 formula = abs( ["EARTH", Common Exc, End Area]  )
 1    54    54     column 1 number of decimal place = 0
 1    55    55     column 1 total length = 10
 1    56    56
 1    57    57     column 2 formula = abs( ["EARTH", Fill, End Area]  )
 1    58    58     column 2 number of decimal place = 0
 1    59    59     column 2 total length = 10
 1    60    60
```

```
 1    61    61
 1    62    62     Process Earthwork for Baseline = SWINYARCL
 1    63    63         job number = 2g4
 1    64    64
 1    65    65         beg sta = 50+00.00 R 1
 1    66    66         end sta = 53+26.59 R 1
 0     0    67 END_OF_FILE
COMPUTING EARTHWORKS FOR BASELINE = SWINYARCL
COMPUTING EARTHWORKS FOR JOB = 2G4
FORMING LIST OF XSCELLS
BEGINNING EARTHWORKS COMPUTATION
♀
            Material Name    End Areas  Unadjusted Adjusted   Mult   Mass     Accum
     Accum
Station                                 Volumes    Volumes    Factor Ordinate Unadj
Vol   Adj Vol
                             (sq. ft.)  (cu. yd.)  (cu. yd.)                  (cu.
yd.)  (cu. yd.)
----------- ---------------- ---------- ---------- ---------- ------ --------
----------- -----------
   50+65.27 EARTH
                Excavation      167          0          0   0.90                 0
         0
                     Fill         1          0          0   1.00        0        0
         0

   51+00.00 EARTH
                Excavation       82        160        144   0.90               160
       144
                     Fill         0          1          1   1.00      143        1
         1

   51+16.18 EARTH
                Excavation       70         46         41   0.90               206
       185
                     Fill         0          0          0   1.00      184        1
         1
♀                G R A N D     S U M M A R Y     T O T A L S
               Material Name          Unadjusted Adjusted   Mult
                                      Volumes    Volumes    Factor
                                      (cu. yd.)  (cu. yd.)
        ---------------------------- ---------- ---------- ------
        EARTH
                           Excavation        206        185   0.90
                             Fill              1          1   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 Add/Sub
Quant
            Material Name             Unadjusted Adjusted  Unadjusted    Adjusted
  Mult
                                      Volume     Volume    Volume        Volume
  Factor
                                      (cu. yd.)  (cu. yd.) (cu. yd.)     (cu. yd.)

        ---------------------------- ---------- ---------- -------------
------------- ------
        EARTH
                           Excavation        206        185             0
0   0.90
                             Fill              1          1             0
0   1.00
```


206
167

```
Input  File: ewkprj.inp
Output File: HTSR321NorthEarthWorkFinal.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 = C:\Project\Hamilton
County\SR317FROLDLEEHWYTOSR321\HTSR321NgoldXsections.dgn
 1    10    10
 1    11    11     Proposed Finish Grade
 1    12    12         soil type = EARTH
 1    13    13         roadway exc mult factor = 0.900000
 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 = 2,4
 1    20    20             co = 1-2,6-8,161
 1    21    21
 1    22    22     Existing Ground Line
 1    23    23         soil type = EARTH
 1    24    24         roadway exc mult factor = 0.900000
 1    25    25         subsoil exc mult factor = 1.000000
 1    26    26         fill mult factor = 1.000000
 1    27    27             type = line
 1    28    28             lvname = SURVEY - GROUND - Top of Ground
 1    29    29             lc = 3
 1    30    30             wt = 2
 1    31    31             co = 0
 1    32    32
 1    33    33     Write Earthwork Shapes
 1    34    34         plot param
 1    35    35             lv = 347
 1    36    36             lvname = DESIGN - EARTHWORK - Shapes
 1    37    37             co = 1
 1    38    38             wt = 0
 1    39    39             lc = 0
 1    40    40             Stratify Shape Color
 1    41    41
 1    42    42     combine common exc + subgrade exc + subsoil exc
 1    43    43
 1    44    44
 1    45    45     Add Accumulated Adjusted Volume Column
 1    46    46
 1    47    47     Add Accumulated Unadjusted Volume Column
 1    48    48
 1    49    49     End Area Decimal Places = 0
 1    50    50
 1    51    51     write column base ascii file = HTSR321NorthEarthWorkFinal.txt
 1    52    52
 1    53    53     column 1 formula = abs( ["EARTH", Common Exc, End Area]  )
 1    54    54     column 1 number of decimal place = 0
 1    55    55     column 1 total length = 10
 1    56    56
 1    57    57     column 2 formula = abs( ["EARTH", Fill, End Area]  )
 1    58    58     column 2 number of decimal place = 0
 1    59    59     column 2 total length = 10
 1    60    60
```

```
 1    61    61
 1    62    62     Process Earthwork for Baseline = SR321NGOLDCL
 1    63    63         job number = 2g4
 1    64    64
 1    65    65         beg sta = 278+57.67 R 1
 1    66    66         end sta = 284+50.00 R 1
 0     0    67 END_OF_FILE
COMPUTING EARTHWORKS FOR BASELINE = SR321NGOLDCL
COMPUTING EARTHWORKS FOR JOB = 2G4
FORMING LIST OF XSCELLS
BEGINNING EARTHWORKS COMPUTATION
♀
```

Station	Material Name	End Areas (sq. ft.)	Unadjusted Volumes (cu. yd.)	Adjusted Volumes (cu. yd.)	Mult Factor	Mass Ordinate	Accum Unadj Vol (cu. yd.)	Accum Adj Vol (cu. yd.)
278+57.67	EARTH							
	Excavation	73	0	0	0.90		0	0
	Fill	0	0	0	1.00	0	0	0
279+00.00	EARTH							
	Excavation	86	125	112	0.90		125	112
	Fill	3	2	2	1.00	110	2	2
279+50.00	EARTH							
	Excavation	94	167	150	0.90		292	262
	Fill	9	11	11	1.00	249	13	13
280+00.00	EARTH							
	Excavation	111	190	171	0.90		482	433
	Fill	12	19	19	1.00	401	32	32
280+50.00	EARTH							
	Excavation	121	215	193	0.90		697	626
	Fill	11	21	21	1.00	573	53	53
281+00.00	EARTH							
	Excavation	132	234	211	0.90		931	837
	Fill	11	20	20	1.00	764	73	73
281+50.00	EARTH							
	Excavation	152	263	237	0.90		1194	1074
	Fill	4	14	14	1.00	987	87	87
282+00.00	EARTH							

```
                Excavation      138         269         242   0.90                1463
    1316
                    Fill          2           6           6   1.00      1223        93
      93

282+50.00 EARTH
                Excavation      172         287         258   0.90                1750
    1574
                    Fill          0           2           2   1.00      1479        95
      95

283+00.00 EARTH
                Excavation      164         311         280   0.90                2061
    1854
                    Fill          0           0           0   1.00      1759        95
      95

283+50.00 EARTH
                Excavation      188         326         293   0.90                2387
    2147
                    Fill          0           0           0   1.00      2052        95
      95

284+00.00 EARTH
                Excavation      148         311         280   0.90                2698
    2427
                    Fill          0           0           0   1.00      2332        95
      95

284+50.00 EARTH
                Excavation      197         319         287   0.90                3017
    2714
                    Fill          0           0           0   1.00      2619        95
      95
♀                G R A N D    S U M M A R Y    T O T A L S
              Material Name          Unadjusted Adjusted   Mult
                                     Volumes    Volumes    Factor
                                     (cu. yd.)  (cu. yd.)
        --------------------------- ---------- ---------- ------
        EARTH
                          Excavation       3017       2714   0.90
                            Fill             95         95   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 Add/Sub
Quant
              Material Name          Unadjusted Adjusted  Unadjusted    Adjusted
  Mult
                                     Volume     Volume    Volume        Volume
  Factor
                                     (cu. yd.)  (cu. yd.) (cu. yd.)     (cu. yd.)

        --------------------------- ---------- ---------- -------------
------------- ------
        EARTH
                          Excavation       3017       2714             0
0   0.90
                            Fill             95         95             0
0   1.00
```

```
Input  File: ewkprj.inp
Output File: HTSR321SouthEarthWorkFinal.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 = 250.000000
 1     8     8
 1     9     9 xs dgn = C:\Project\Hamilton
County\SR317FROLDLEEHWYTOSR321\HTSR321SRingoldXsections.dgn
 1    10    10
 1    11    11     Proposed Finish Grade
 1    12    12         soil type = EARTH
 1    13    13         roadway exc mult factor = 0.900000
 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 = 2,4
 1    20    20             co = 1-2,6-8,161
 1    21    21
 1    22    22     Existing Ground Line
 1    23    23         soil type = EARTH
 1    24    24         roadway exc mult factor = 0.900000
 1    25    25         subsoil exc mult factor = 1.000000
 1    26    26         fill mult factor = 1.000000
 1    27    27             type = line
 1    28    28             lvname = SURVEY - GROUND - Top of Ground
 1    29    29             lc = 3
 1    30    30             wt = 2
 1    31    31             co = 0
 1    32    32
 1    33    33     Existing Unsuitable Material
 1    34    34         soil type = TOPSOIL
 1    35    35         roadway exc mult factor = 0.900000
 1    36    36         subsoil exc mult factor = 1.000000
 1    37    37         fill mult factor = 1.000000
 1    38    38             type = line
 1    39    39             lvname = SURVEY - GROUND - Bottom of Topsoil Layer
 1    40    40             lc = 2
 1    41    41             wt = 2
 1    42    42             co = 2
 1    43    43
 1    44    44     Excavation Limit
 1    45    45             type = line
 1    46    46             lvname = DESIGN - EARTHWORK - Excavation Limit Lines
 1    47    47             lc = 0
 1    48    48             wt = 0
 1    49    49             co = 0
 1    50    50
 1    51    51     Write Earthwork Shapes
 1    52    52         plot param
 1    53    53             lv = 347
 1    54    54             lvname = DESIGN - EARTHWORK - Shapes
 1    55    55             co = 1
 1    56    56             wt = 0
 1    57    57             lc = 0
 1    58    58             Stratify Shape Color
 1    59    59
 1    60    60     combine common exc + subgrade exc + subsoil exc
```

```
1    61    61
1    62    62
1    63    63     Add Accumulated Adjusted Volume Column
1    64    64
1    65    65     Add Accumulated Unadjusted Volume Column
1    66    66
1    67    67     End Area Decimal Places = 0
1    68    68
1    69    69     write column base ascii file = HTSR321SouthEarthWorkFinal.txt
1    70    70
1    71    71     column 1 formula = abs( ["EARTH", Common Exc, End Area]  )
1    72    72     column 1 number of decimal place = 0
1    73    73     column 1 total length = 10
1    74    74
1    75    75     column 2 formula = abs( ["EARTH", Fill, End Area]  )
1    76    76     column 2 number of decimal place = 0
1    77    77     column 2 total length = 10
1    78    78
1    79    79     column 3 formula = abs( ["TOPSOIL", Common Exc, End Area]  )
1    80    80     column 3 number of decimal place = 0
1    81    81     column 3 total length = 10
1    82    82
1    83    83
1    84    84     Process Earthwork for Baseline = SR321SGOLDCL
1    85    85         job number = 2g4
1    86    86
1    87    87         beg sta = 51+00.00 R 1
1    88    88         end sta = 56+79.99 R 1
0     0    89 END_OF_FILE
COMPUTING EARTHWORKS FOR BASELINE = SR321SGOLDCL
COMPUTING EARTHWORKS FOR JOB = 2G4
FORMING LIST OF XSCELLS
BEGINNING EARTHWORKS COMPUTATION
♀
            Material Name    End Areas  Unadjusted Adjusted   Mult   Mass     Accum
     Accum
Station                                 Volumes    Volumes    Factor Ordinate Unadj
Vol   Adj Vol
                             (sq. ft.)  (cu. yd.)  (cu. yd.)                   (cu.
yd.)  (cu. yd.)
----------- ---------------- ---------- ---------- ---------- ------ --------
----------- -----------
   51+00.00 EARTH
                Excavation      154          0          0   0.90                   0
        0
                    Fill         45          0          0   1.00        0          0
        0
            TOPSOIL
                Excavation       60          0          0   0.90                   0
        0
                    Fill          0          0          0   1.00        0          0
        0
                Mass ordinate for TOPSOIL = 0

   51+50.00 EARTH
                Excavation      207        334        301   0.90                 334
      301
                    Fill          2         44         44   1.00      257         44
       44
            TOPSOIL
                Excavation       24         78         72   0.90                  78
       72
                    Fill          0          0          0   1.00      257          0
```

```
      0
            Mass ordinate for TOPSOIL = 72

52+00.00 EARTH
            Excavation      176        355        319   0.90                689
    620
                Fill          7          8          8   1.00       568       52
     52
         TOPSOIL
            Excavation       24         45         41   0.90                123
    113
                Fill          0          0          0   1.00       568        0
      0
            Mass ordinate for TOPSOIL = 113

52+50.00 EARTH
            Excavation      165        316        284   0.90               1005
    904
                Fill         17         22         22   1.00       830       74
     74
         TOPSOIL
            Excavation       31         51         47   0.90                174
    160
                Fill          0          0          0   1.00       830        0
      0
            Mass ordinate for TOPSOIL = 160

53+00.00 EARTH
            Excavation      129        272        245   0.90               1277
   1149
                Fill         17         31         31   1.00      1044      105
    105
         TOPSOIL
            Excavation       32         58         54   0.90                232
    214
                Fill          0          0          0   1.00      1044        0
      0
            Mass ordinate for TOPSOIL = 214

53+50.00 EARTH
            Excavation       85        198        178   0.90               1475
   1327
                Fill         19         33         33   1.00      1189      138
    138
         TOPSOIL
            Excavation       34         61         57   0.90                293
    271
                Fill          0          0          0   1.00      1189        0
      0
            Mass ordinate for TOPSOIL = 271

54+00.00 EARTH
            Excavation       97        169        152   0.90               1644
   1479
                Fill          8         25         25   1.00      1316      163
    163
         TOPSOIL
            Excavation       37         66         60   0.90                359
    331
                Fill          0          0          0   1.00      1316        0
      0
            Mass ordinate for TOPSOIL = 331
```

```
54+50.00 EARTH
             Excavation      112        194        174    0.90                1838
   1653
                 Fill          5         12         12    1.00      1478       175
    175
         TOPSOIL
             Excavation       35         66         60    0.90                 425
    391
                 Fill          0          0          0    1.00      1478         0
      0
             Mass ordinate for TOPSOIL = 391

55+00.00 EARTH
             Excavation      130        224        202    0.90                2062
   1855
                 Fill          3          7          7    1.00      1673       182
    182
         TOPSOIL
             Excavation       33         63         58    0.90                 488
    449
                 Fill          0          0          0    1.00      1673         0
      0
             Mass ordinate for TOPSOIL = 449

55+50.00 EARTH
             Excavation      100        213        192    0.90                2275
   2047
                 Fill          5          7          7    1.00      1858       189
    189
         TOPSOIL
             Excavation       30         59         54    0.90                 547
    503
                 Fill          0          0          0    1.00      1858         0
      0
             Mass ordinate for TOPSOIL = 503

55+85.68 EARTH
             Excavation       82        120        108    0.90                2395
   2155
                 Fill          6          7          7    1.00      1959       196
    196
         TOPSOIL
             Excavation       26         37         34    0.90                 584
    537
                 Fill          0          0          0    1.00      1959         0
      0
             Mass ordinate for TOPSOIL = 537

56+00.00 EARTH
             Excavation       69         40         36    0.90                2435
   2191
                 Fill          6          3          3    1.00      1992       199
    199
         TOPSOIL
             Excavation       23         13         12    0.90                 597
    549
                 Fill          0          0          0    1.00      1992         0
      0
             Mass ordinate for TOPSOIL = 549

56+50.00 EARTH
             Excavation       56        116        104    0.90                2551
   2295
```

```
                Fill          8          13          13   1.00     2083         212
212
     TOPSOIL
            Excavation       18          38          35   0.90                  635
584
                Fill          0           0           0   1.00     2083           0
  0
          Mass ordinate for TOPSOIL = 584
♀           G R A N D     S U M M A R Y     T O T A L S
          Material Name          Unadjusted Adjusted   Mult
                                 Volumes    Volumes    Factor
                                 (cu. yd.)  (cu. yd.)
     --------------------------- ---------- ---------- ------
     EARTH
                        Excavation      2551       2295   0.90
                          Fill           212        212   1.00
     TOPSOIL
                        Excavation       635        584   0.90
                          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 Add/Sub
Quant
          Material Name          Unadjusted Adjusted  Unadjusted    Adjusted
  Mult
                                 Volume     Volume    Volume        Volume
  Factor
                                 (cu. yd.)  (cu. yd.) (cu. yd.)     (cu. yd.)
     --------------------------- ---------- ---------- -------------
------------- ------
     EARTH
                        Excavation      2551       2295             0
0   0.90
                          Fill           212        212             0
0   1.00
     TOPSOIL
                        Excavation       635        584             0
0   0.90
                          Fill             0          0             0
0   1.00
```