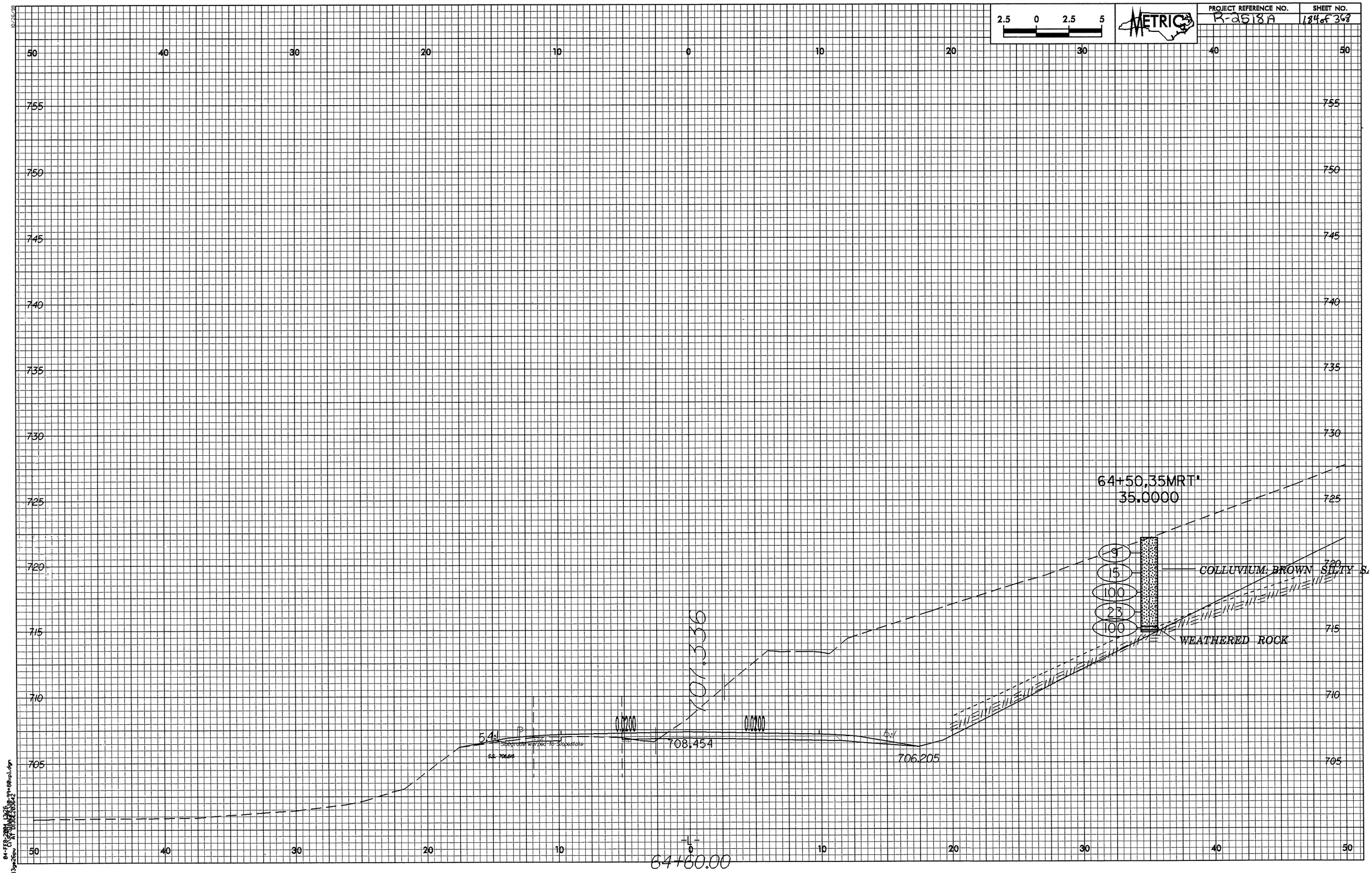
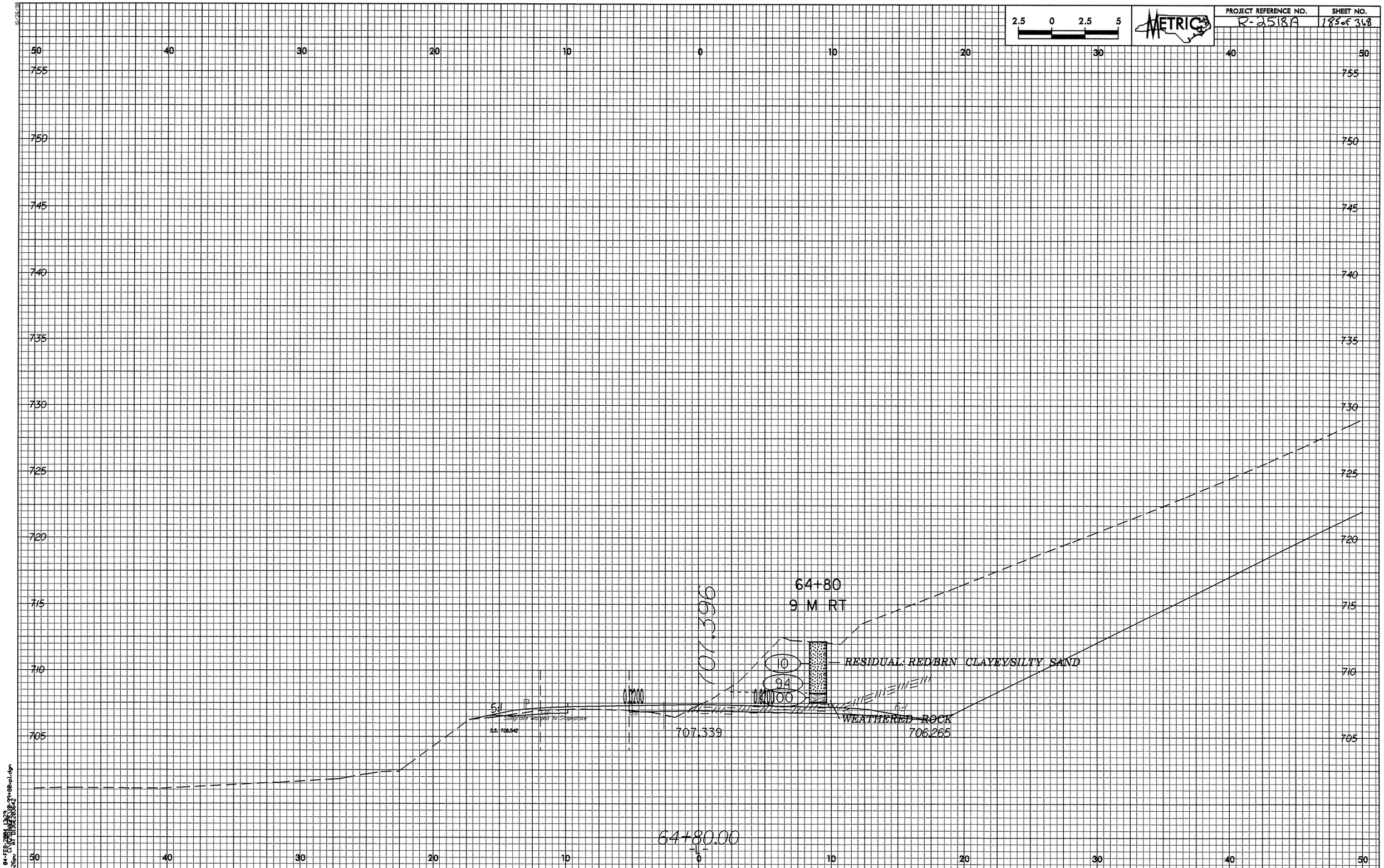
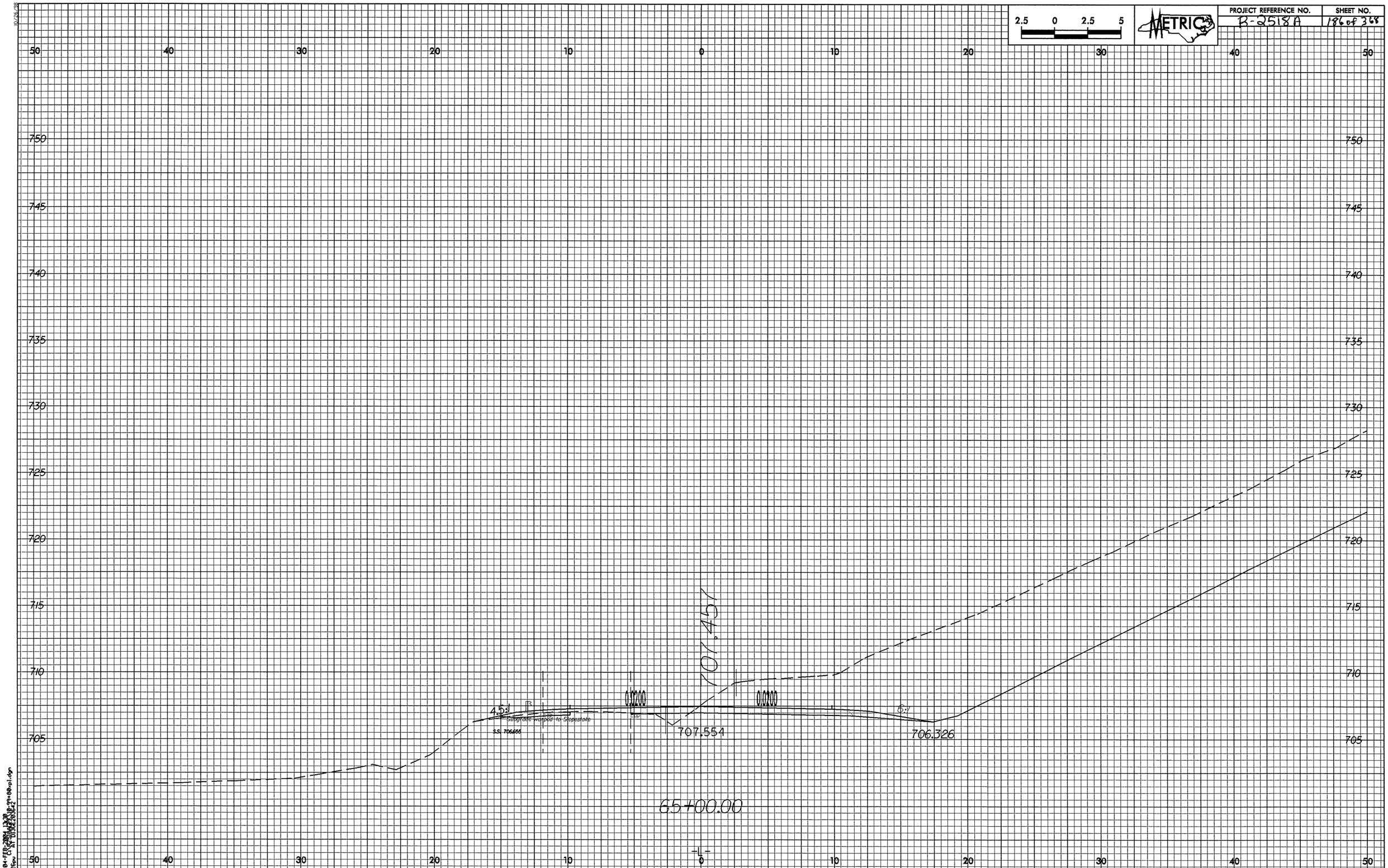


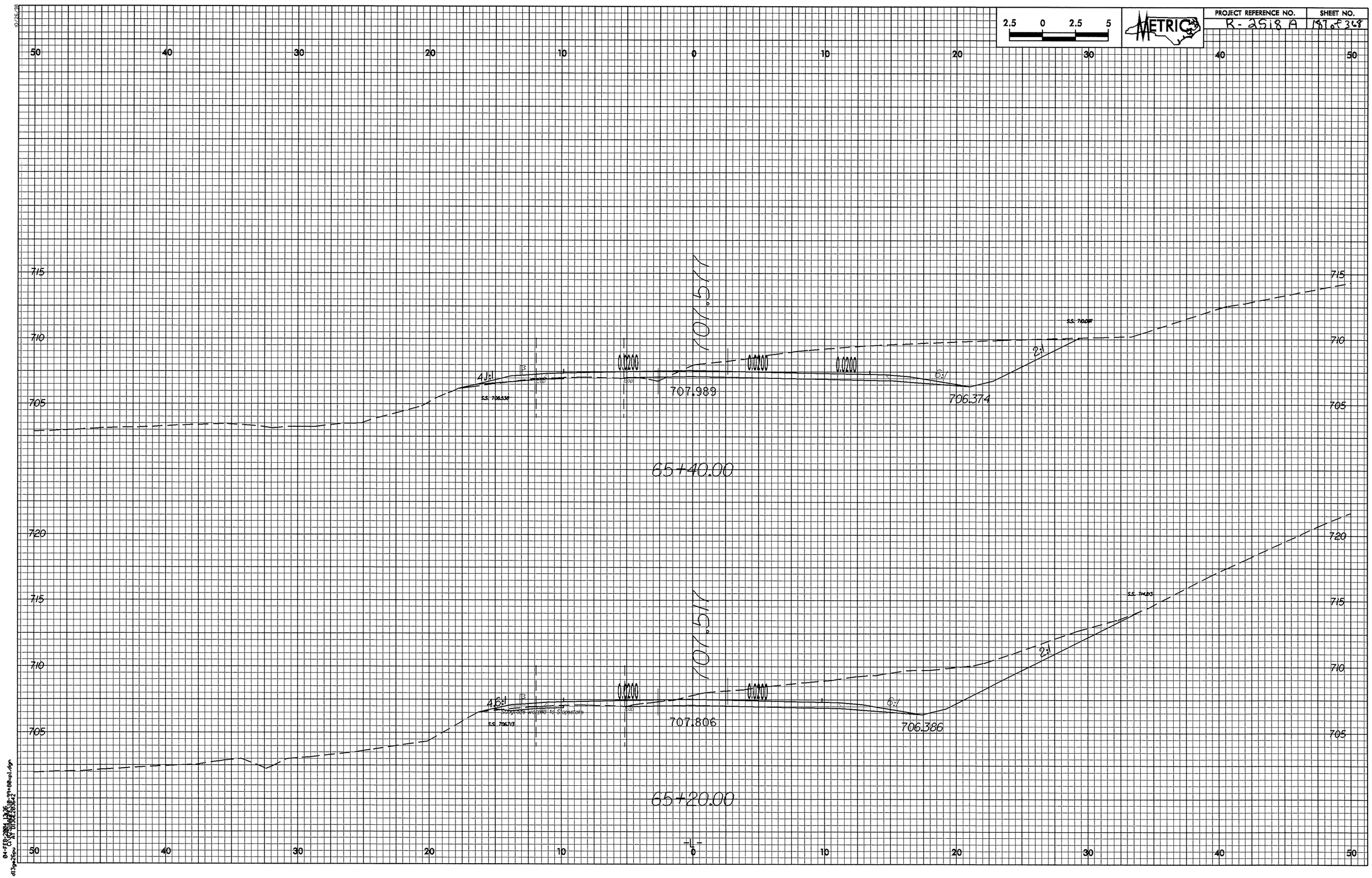
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
184 of 368
64+50,35MRT'
35.0000
9
15
100
23
100
COLLUVIUM: BROWN SILTY S
WEATHERED ROCK
707.336
0.0200
0.0200
708.454
706.205
5.4:1
Subgrade warped to Slopestake
S.S. 706.615
-L-
64+60.00



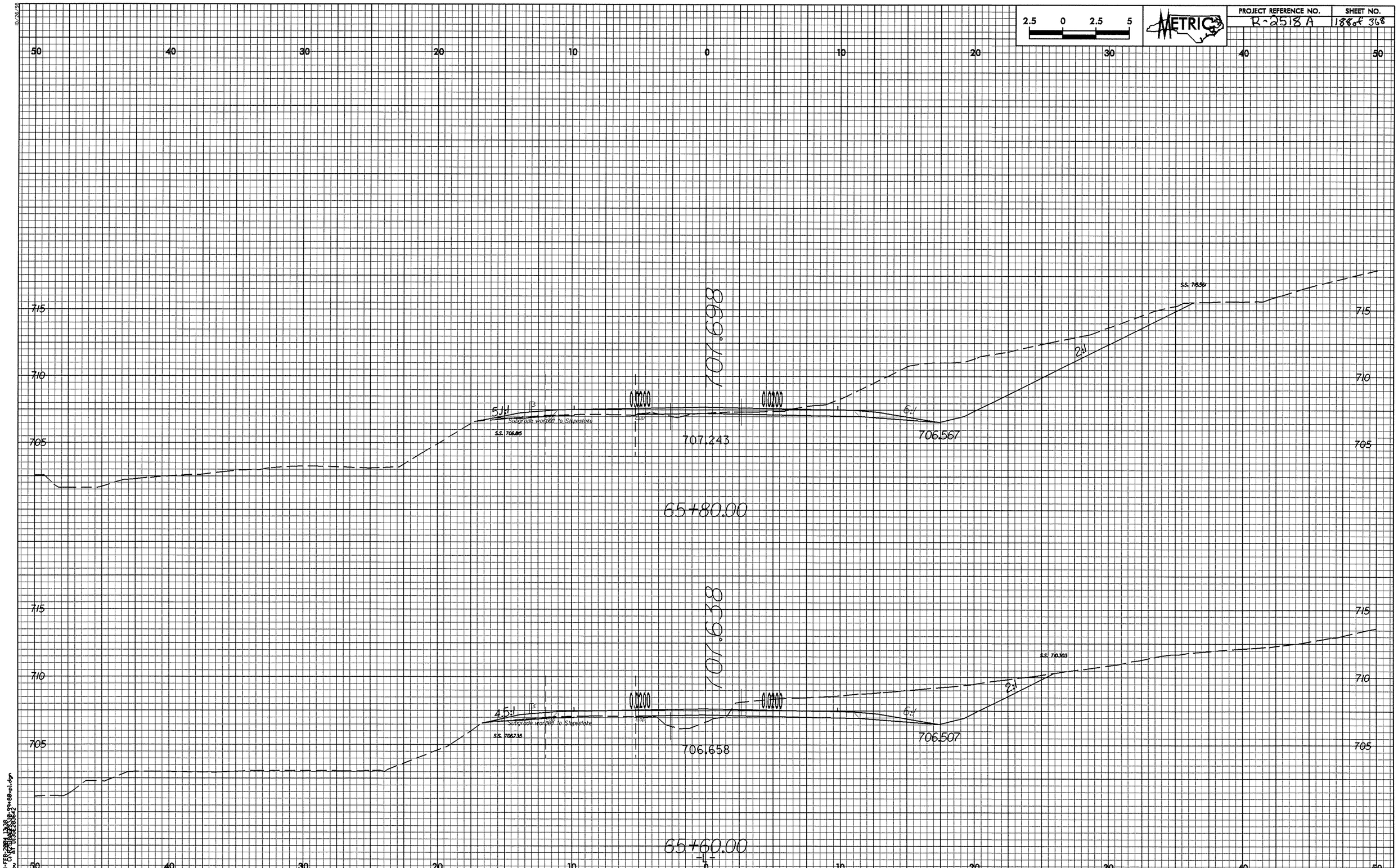
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
185 of 368
50 40 30 20 10 0 10 20 30 40 50
755 750 745 740 735 730 725 720 715 710 705
64+80
9 M RT
707.396
RESIDUAL: RED/BRN CLAYEY/SILTY SAND
10
94
00
0.0200
0.8200
5:1
6:1
Subgrade Warped to Slopestake
S.S. 706.542
707.339
WEATHERED ROCK
706.265
64+80.00
-L-



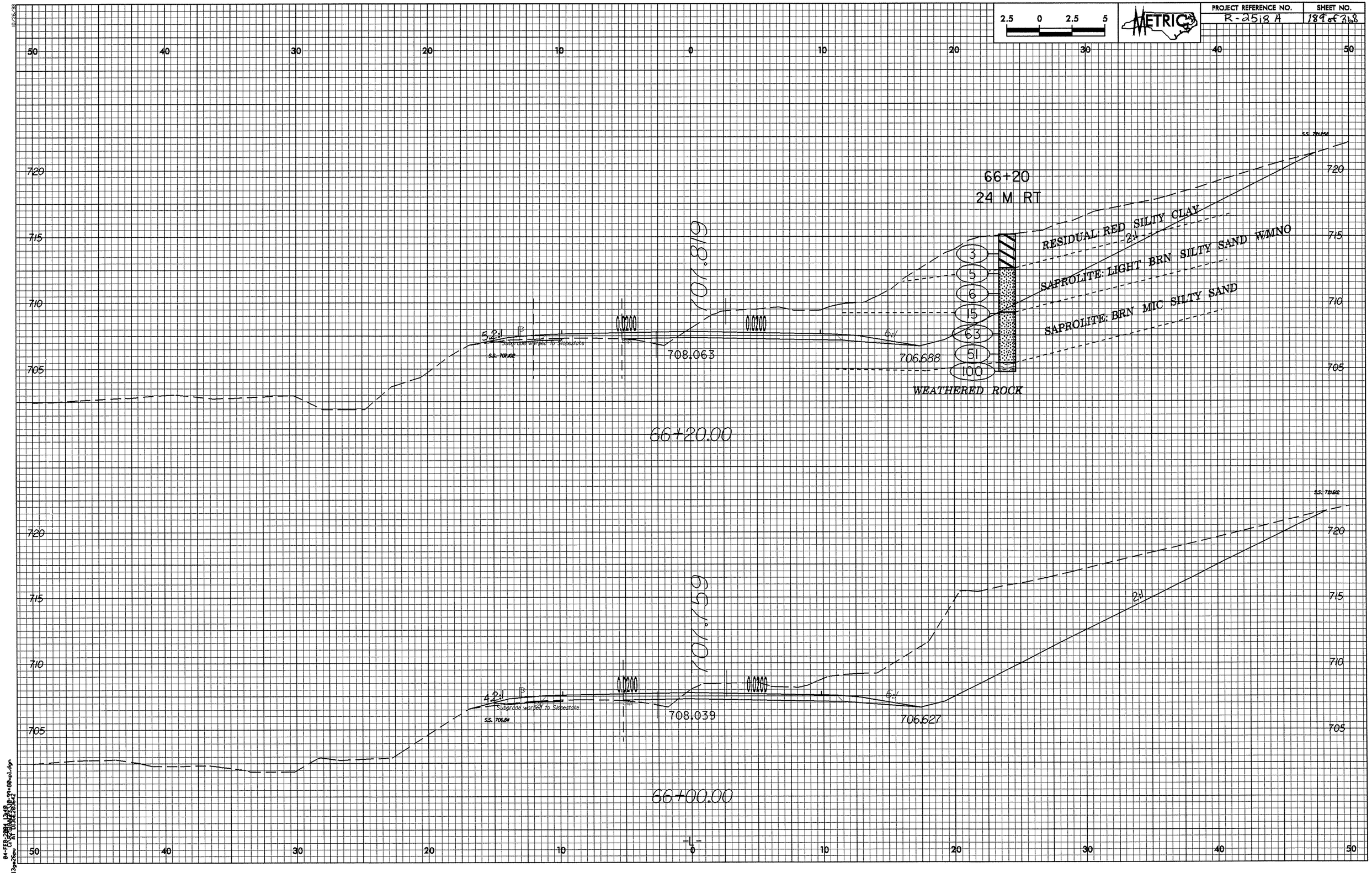
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
B-2518A
SHEET NO.
186 of 368
50 40 30 20 10 0 10 20 30 40 50
750 745 740 735 730 725 720 715 710 705
707.457
4.5:1
0.0200
0.0200
6:1
Subgrade warped to Slopestake
S.S. 706655
707.554
706.326
65+00.00
-L-



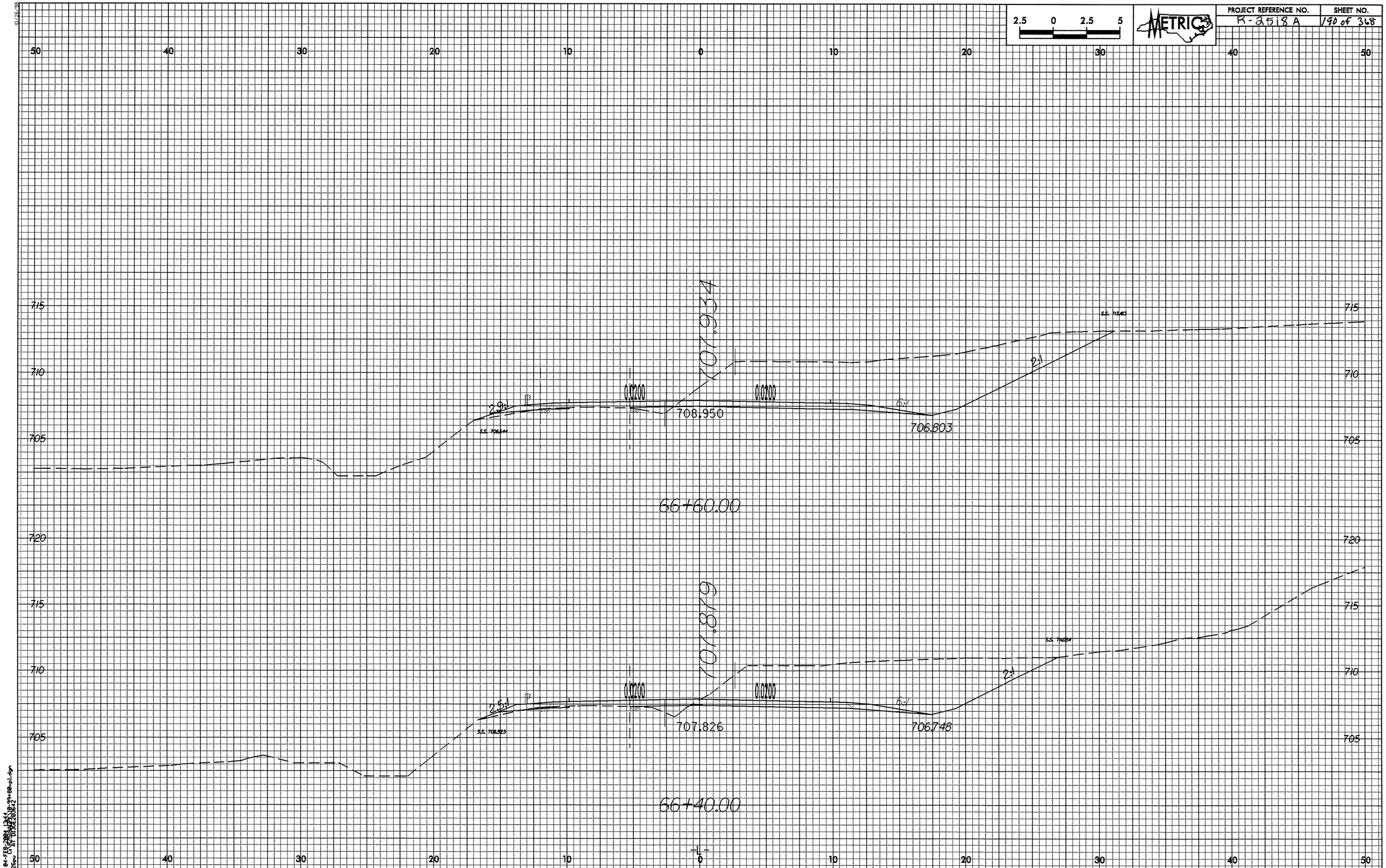
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
187 of 368
50 40 30 20 10 0 10 20 30 40 50
715
710
705
720
707.577
707.989
706.374
0.0200
0.0200
0.0200
4.1:1
6:1
2:1
S.S. 706.538
S.S. 710.077
65+40.00
707.517
707.806
706.386
4.6:1
6:1
2:1
Subgrade warped to Slopestake
S.S. 706.713
S.S. 714.213
65+20.00
-L-



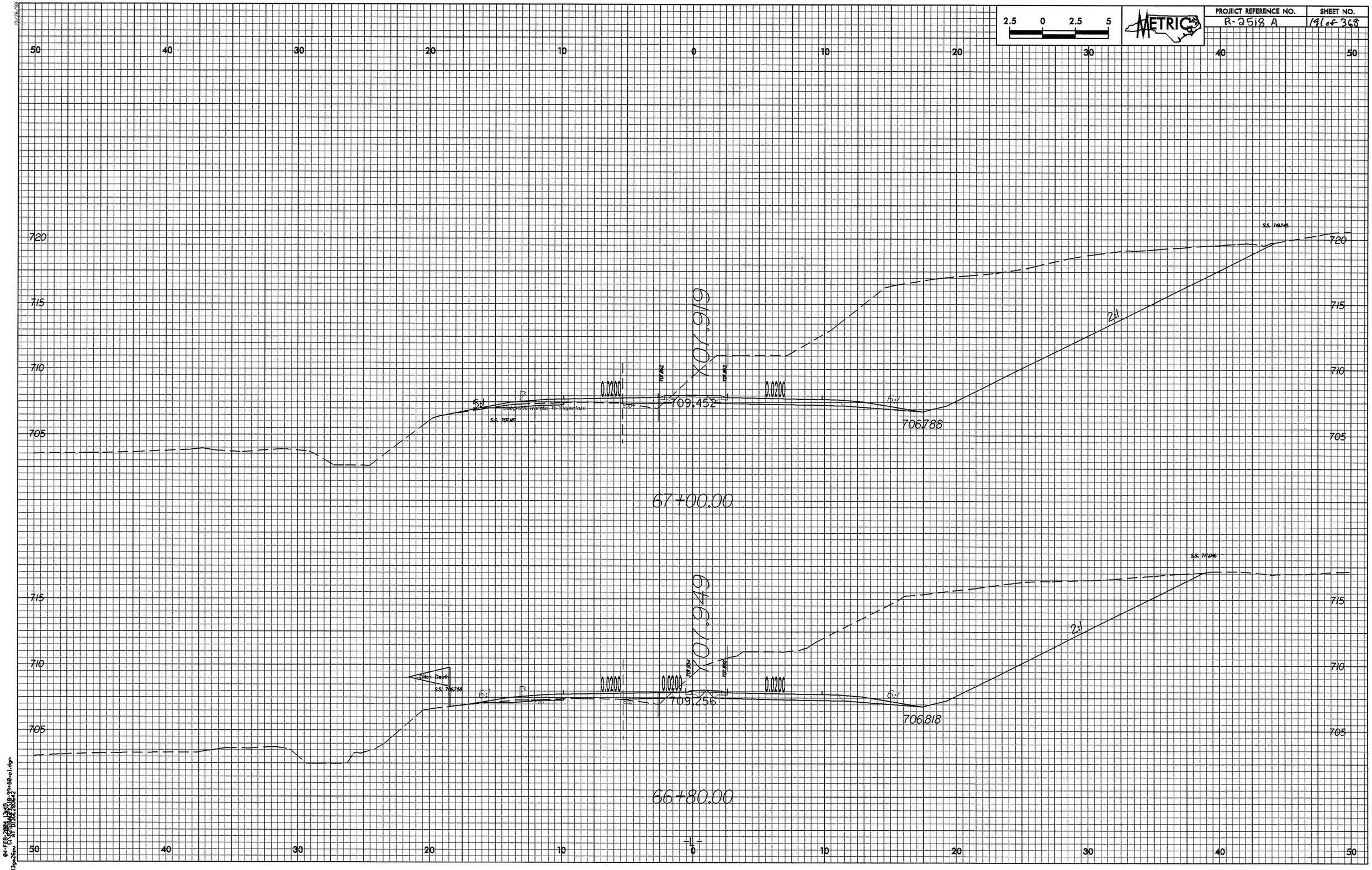
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
188 of 368
50 40 30 20 10 0 10 20 30 40 50
715
710
705
707.698
5.1:1
0.0200
0.0200
6:1
2:1
Subgrade warped to Slopestake
S.S. 706.815
707.243
706.567
65+80.00
707.638
4.5:1
0.0200
0.0200
6:1
2:1
Subgrade warped to Slopestake
S.S. 706.735
706.658
706.507
65+60.00



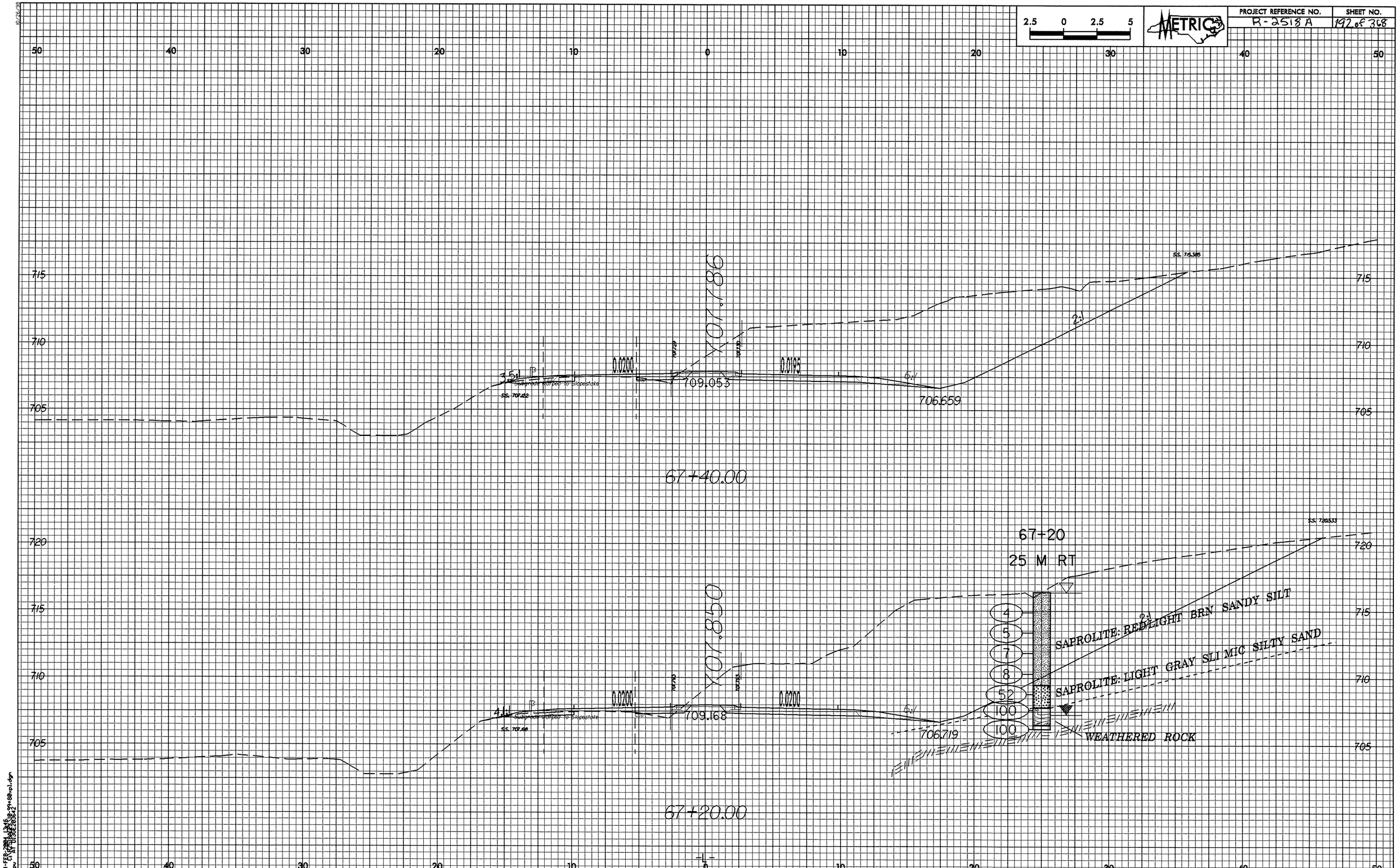
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
189 of 368
METRIC
2.5 0 2.5 5
66+20
24 M RT
RESIDUAL: RED SILTY CLAY
SAPROLITE: LIGHT BRN SILTY SAND WMNO
SAPROLITE: BRN MIC SILTY SAND
WEATHERED ROCK
3
5
6
15
63
51
100
707.819
708.063
706.688
0.0200
0.0200
5.2:1
Subgrade warped to Slopestake
66+20.00
707.759
708.039
706.627
4.2:1
Subgrade warped to Slopestake
66+00.00



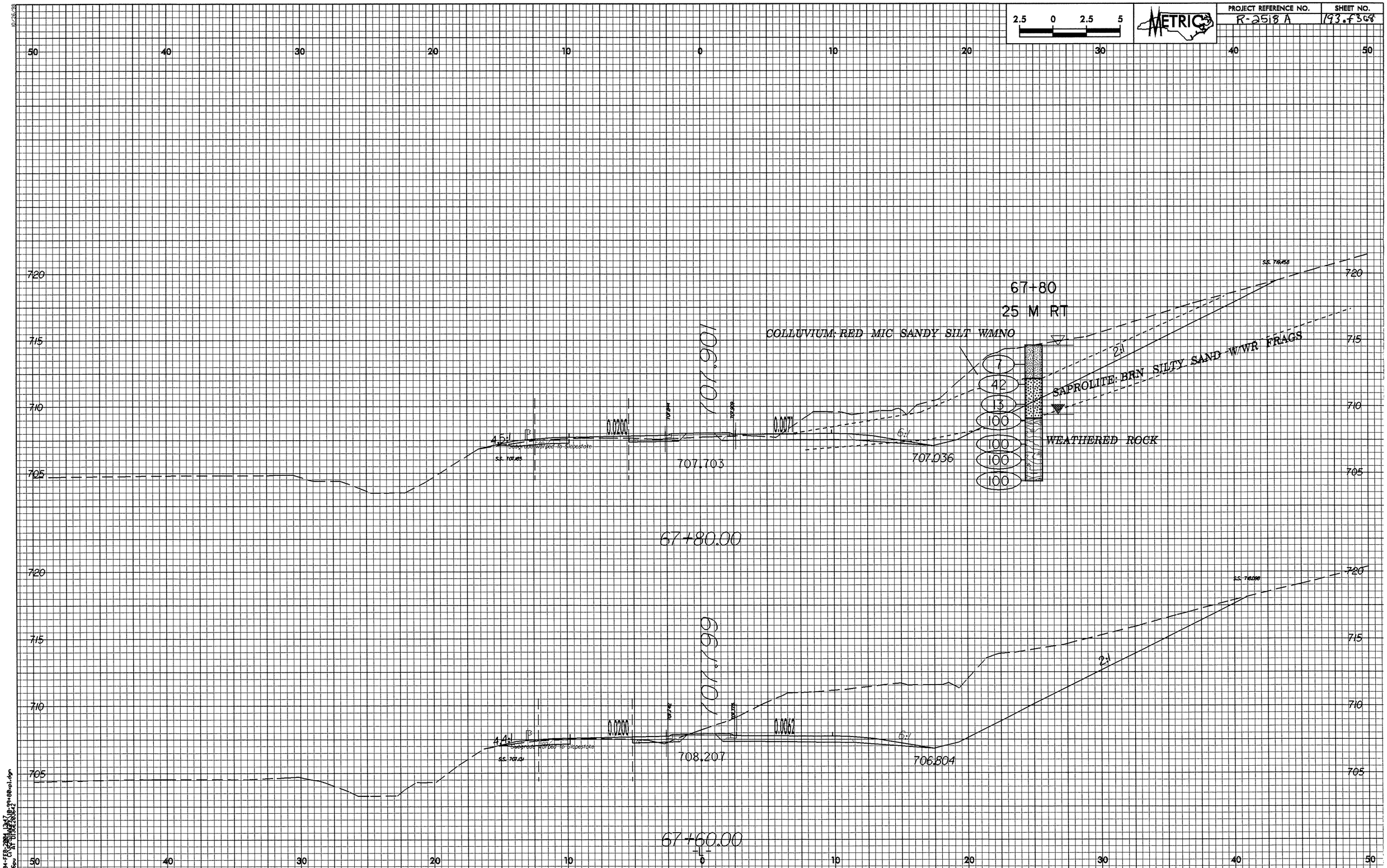
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
190 of 368
50 40 30 20 10 0 10 20 30 40 50
715
710
705
720
701.934
708.950
706.803
0.0200
0.0200
2:1
6:1
66+60.00
701.879
707.826
706.748
2.5:1
66+40.00
-L-



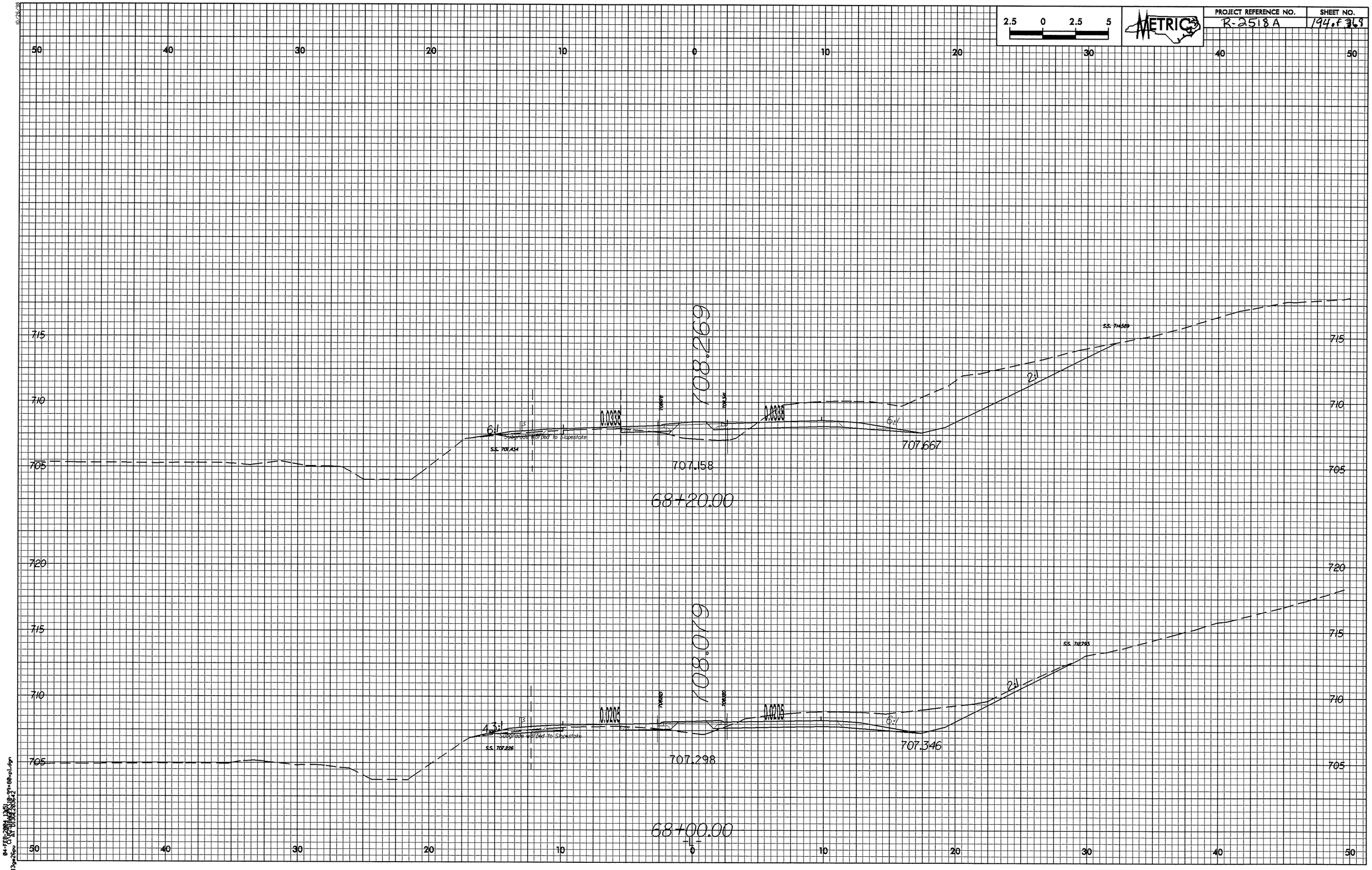
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
191 of 368
50 40 30 20 10 0 10 20 30 40 50
720
715
710
705
X07.919
0.0200
0.0200
709.452
706.788
5:1
6:1
2:1
67+00.00
X07.949
0.0200
0.0200
0.0200
709.256
706.818
Ditch Depth
66+80.00
-L-



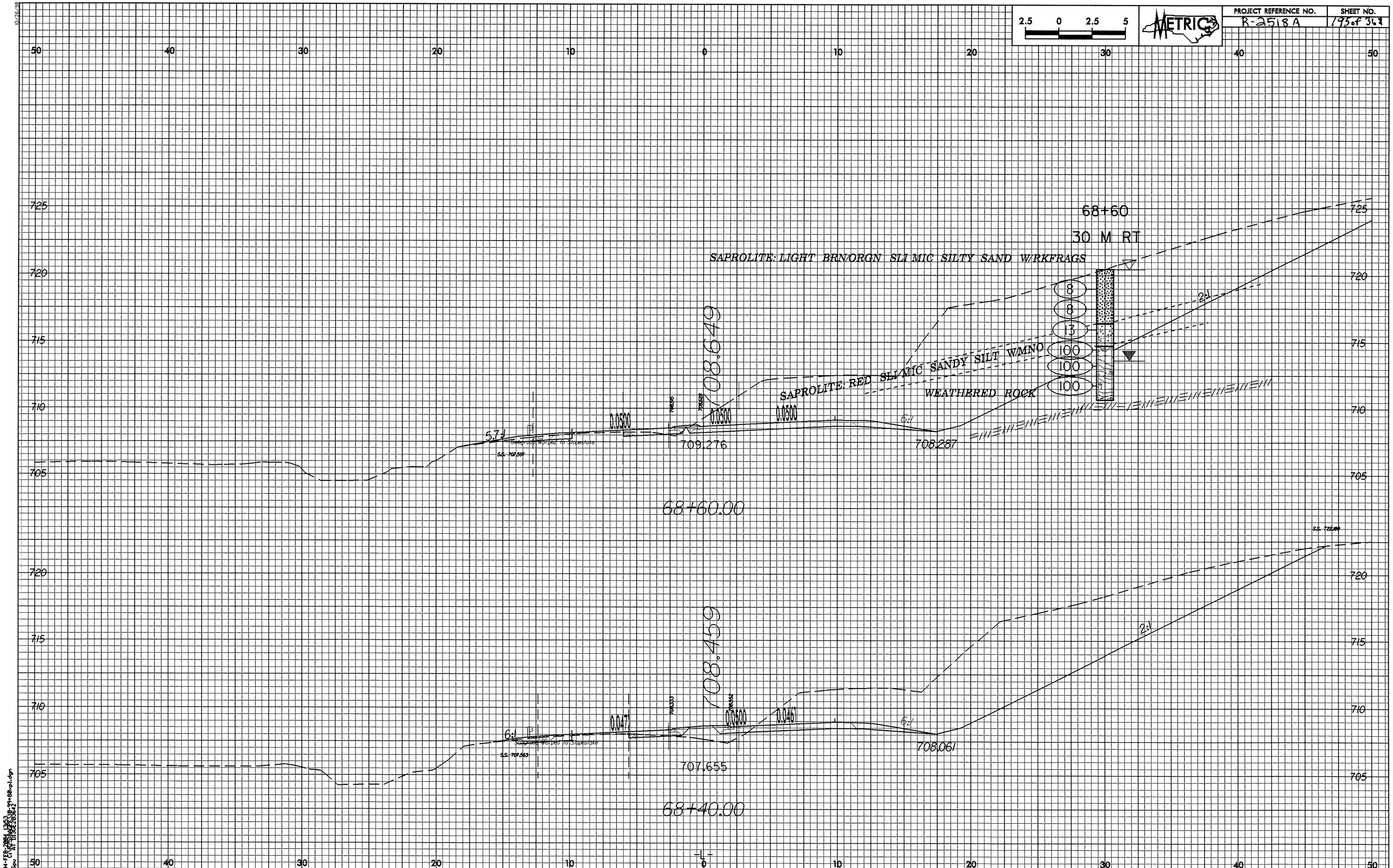
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
192 of 368
50 40 30 20 10 0 10 20 30 40 50
715
710
705
720
X07.186
X07.850
0.0200
0.0195
709.053
706.659
3.5:1
6:1
2:1
SS. 707.122
SS. 715.385
67+40.00
67+20
25 M RT
4
5
7
8
52
100
100
SAPROLITE: RED LIGHT BRN SANDY SILT
SAPROLITE: LIGHT GRAY SLI MIC SILTY SAND
WEATHERED ROCK
4.1:1
709.168
706.719
SS. 707.68
SS. 720.533
67+20.00
-L-



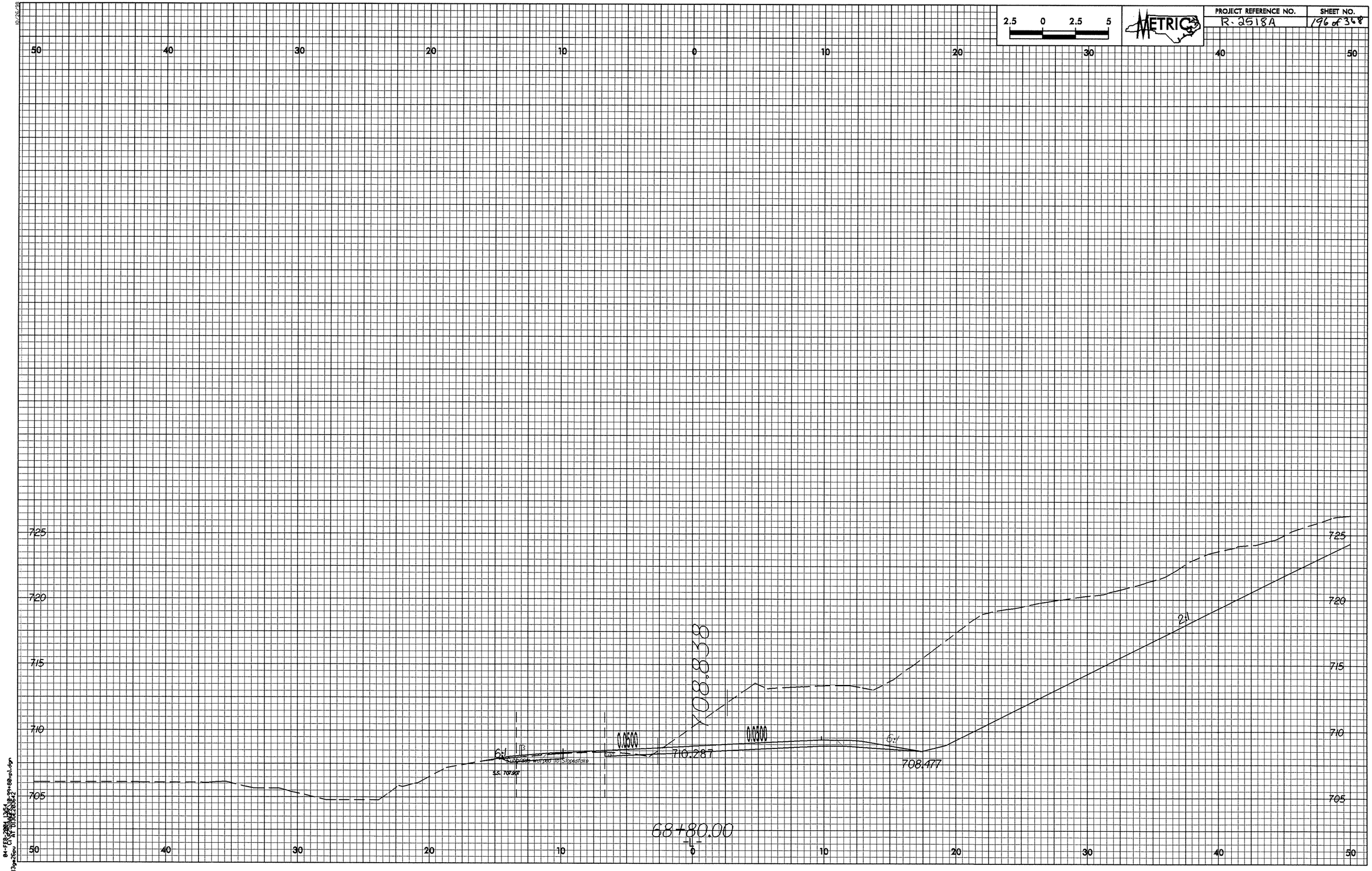
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
193.f368
67+80
25 M RT
COLLUVIUM: RED MIC SANDY SILT W/MNO
SAPROLITE: BRN SILTY SAND W/WR FRAGS
WEATHERED ROCK
7
42
13
100
100
100
100
707.901
707.703
707.036
0.0200
0.0071
4.5:1
6:1
2:1
67+80.00
707.799
708.207
706.804
0.0200
0.0062
4.4:1
6:1
2:1
67+60.00



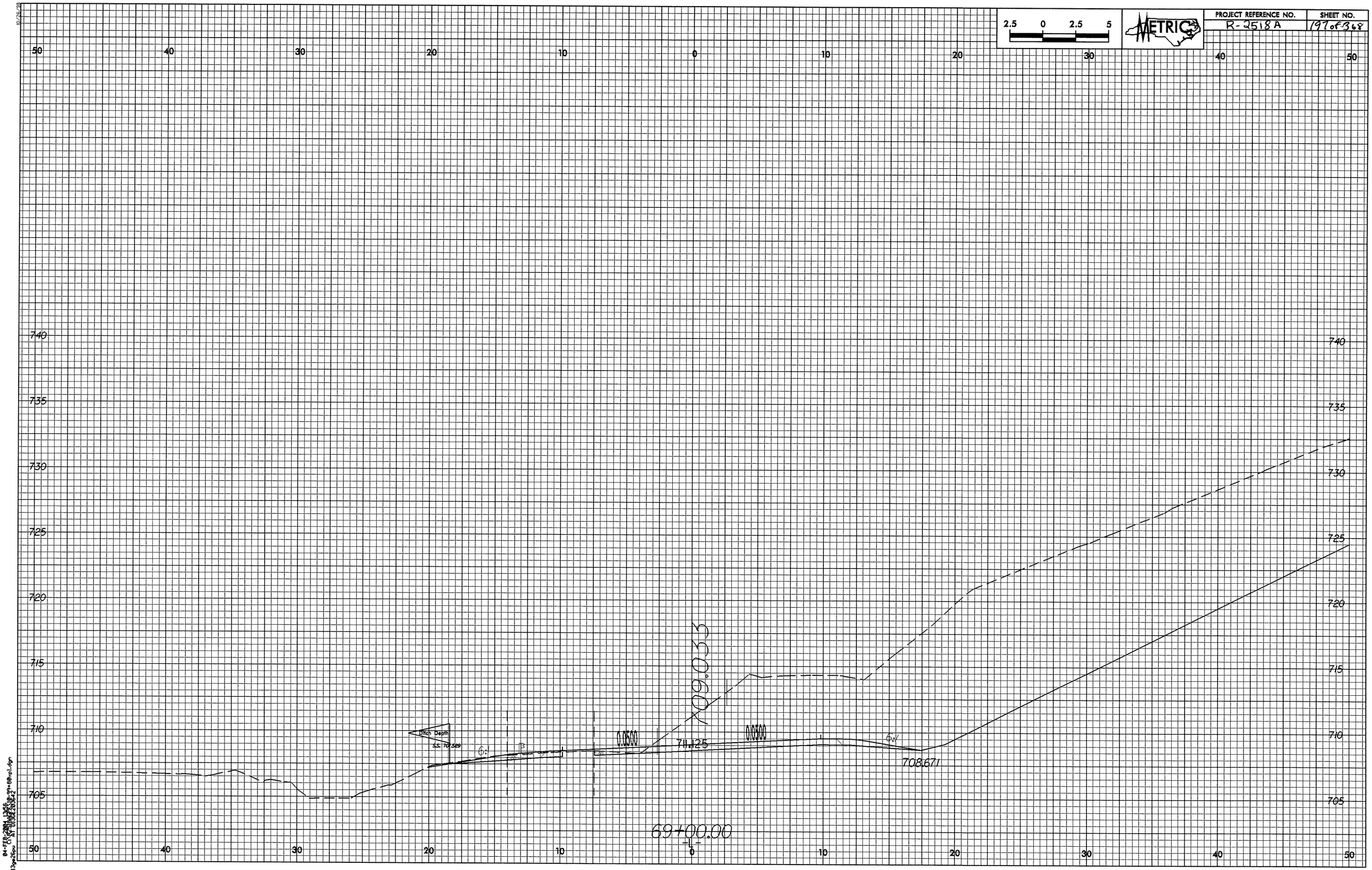
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
194 of 369
50 40 30 20 10 0 10 20 30 40 50
715
710
705
720
708.269
0.0338
0.0338
6:1
6:1
2:1
Subgrade Warped to Slopestake
S.S. 707.434
707.158
707.667
S.S. 714589
68+20.00
708.079
0.0205
0.0205
4.3:1
6:1
2:1
Subgrade Warped to Slopestake
S.S. 707.226
707.298
707.346
S.S. 712793
68+00.00



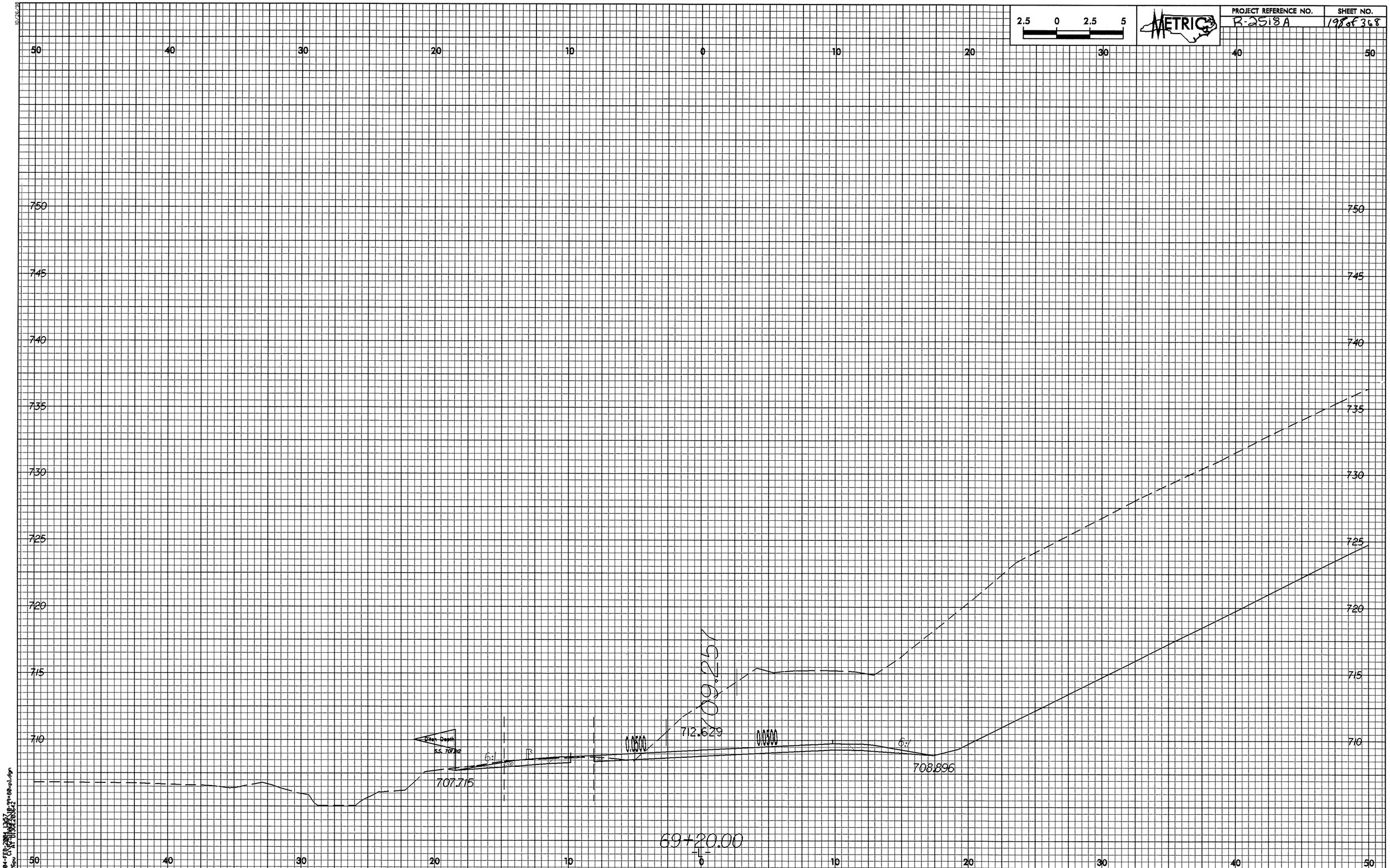
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
195 of 368
METRIC
2.5 0 2.5 5
68+60
30 M RT
SAPROLITE: LIGHT BRN/ORGN SLI MIC SILTY SAND W/RKFRAGS
SAPROLITE: RED SLI MIC SANDY SILT W/MNO
WEATHERED ROCK
8
8
13
100
100
100
708.649
0.0500
0.0500
0.0500
5.7:1
6:1
2:1
709.276
708.287
68+60.00
708.459
0.0471
0.0500
0.0461
6:1
2:1
708.061
707.655
68+40.00
-L-



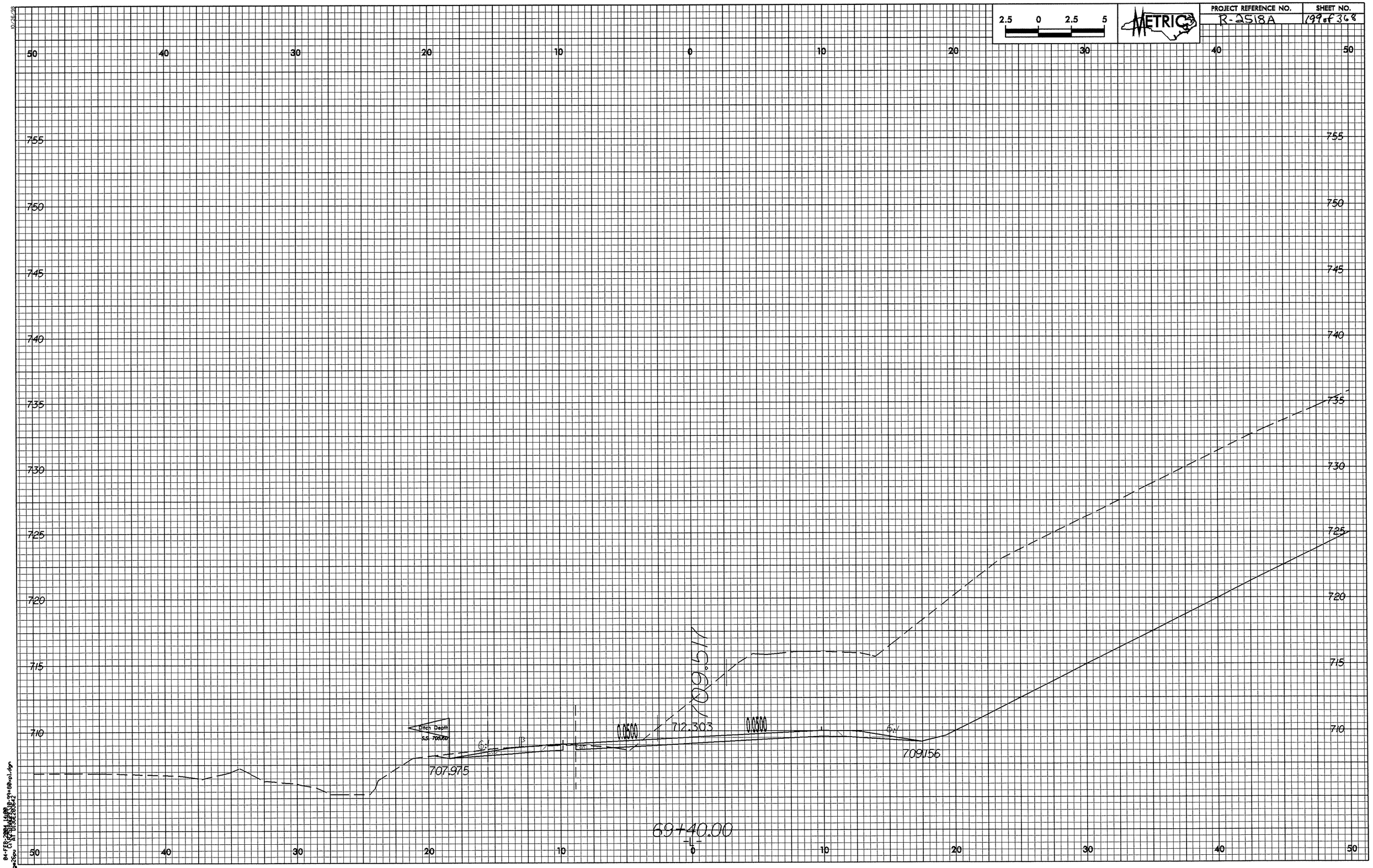
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
196 of 368
50 40 30 20 10 0 10 20 30 40 50
725
720
715
710
705
708.838
0.0500
0.0500
6:1
6:1
2:1
710.287
708.477
68+80.00
-L-



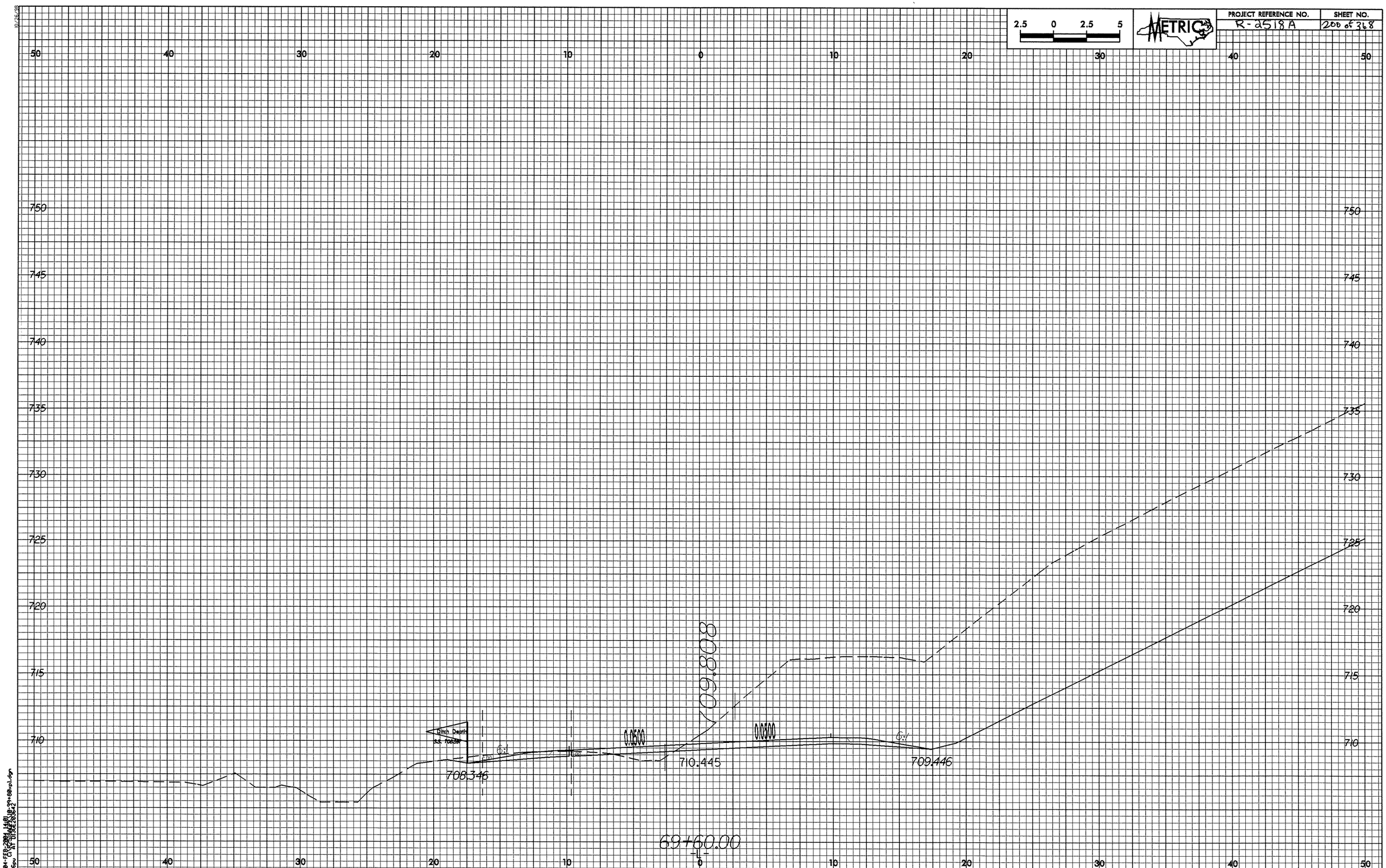
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
197 of 368
50 40 30 20 10 0 10 20 30 40 50
740 735 730 725 720 715 710 705
Ditch Depth
S.S. 707.529
6:1
0.0500
711.125
0.0500
6:1
708.671
709.033
69+00.00
-L-



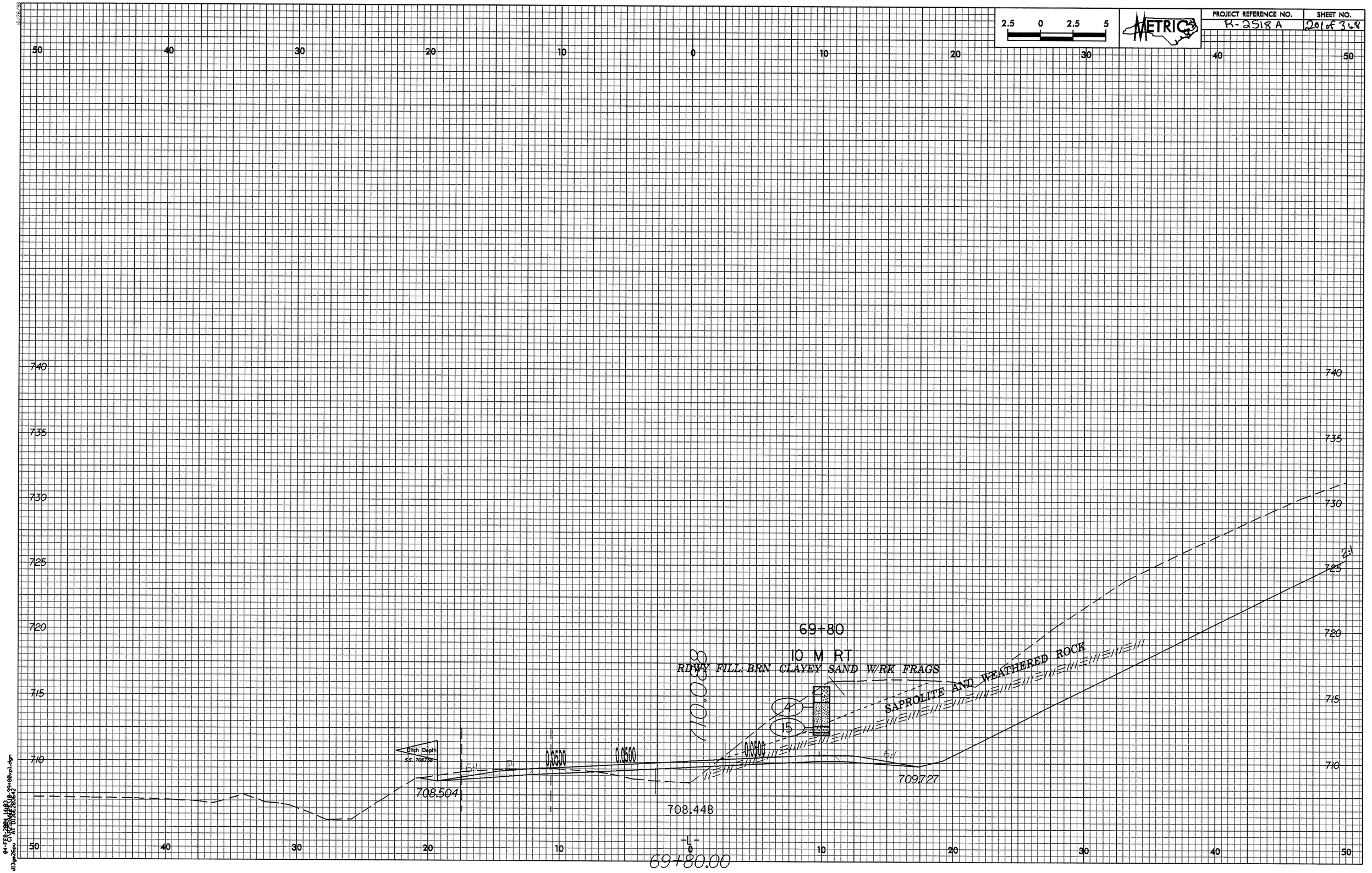
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
198 of 368
50 40 30 20 10 0 10 20 30 40 50
750 745 740 735 730 725 720 715 710
Ditch Depth
S.S. 707.82
6:1
707.715
0.0500
712.629
709.257
0.0500
6:1
708.896
69+20.00
-L-



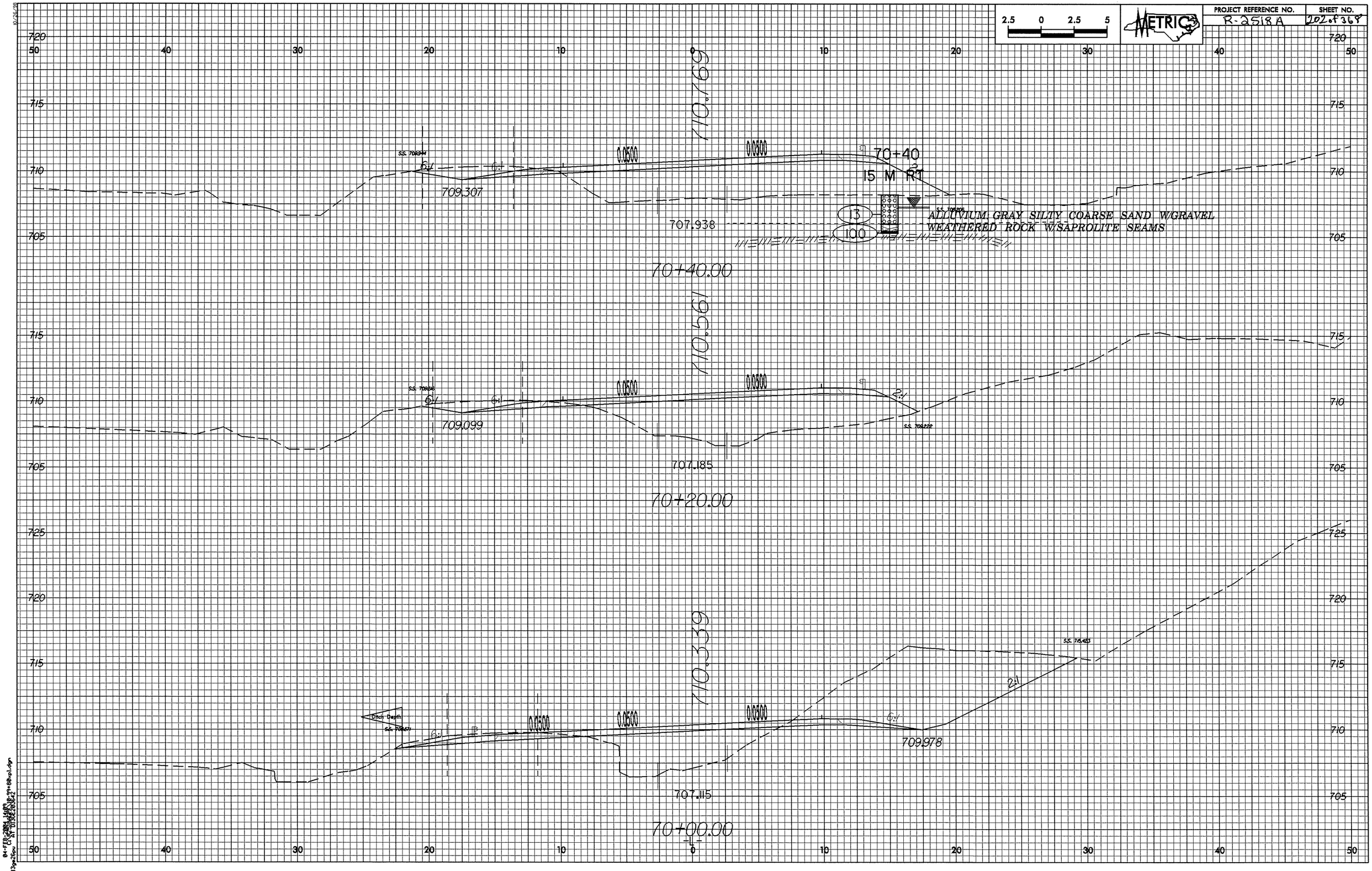
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
199 of 368
50 40 30 20 10 0 10 20 30 40 50
755
750
745
740
735
730
725
720
715
710
Ditch Depth
S.S. 708.60
6:1
0.0500
712.303
709.517
0.0500
6:1
707.975
709.156
69+40.00
-L-



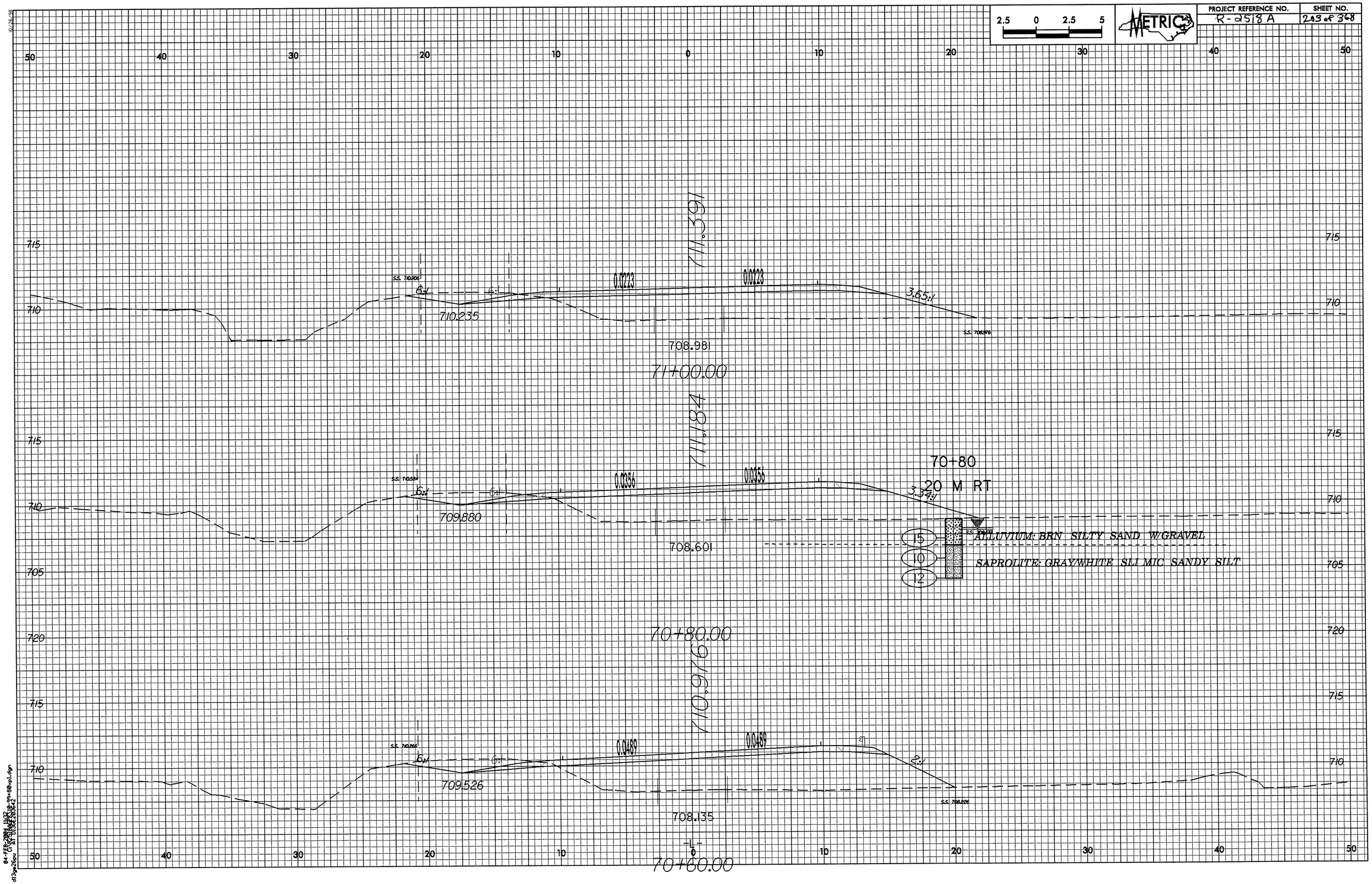
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
200 of 368
50 40 30 20 10 0 10 20 30 40 50
750 745 740 735 730 725 720 715 710
Ditch Depth
S.S. 708.591
6:1
0.0500
0.0500
6:1
709.808
708.346
710.445
709.446
69+60.00
-L-



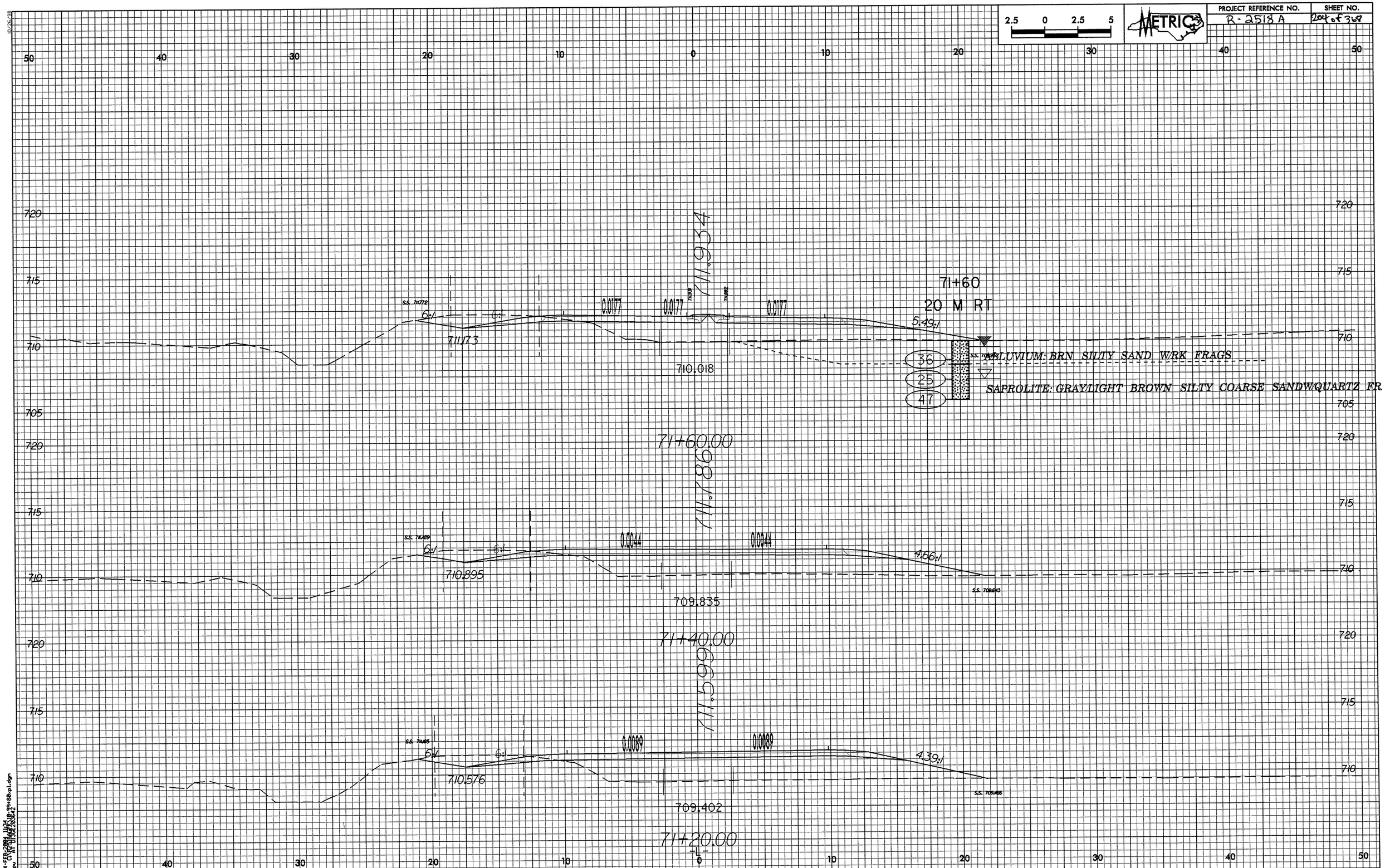
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
201 of 368
50 40 30 20 10 0 10 20 30 40 50
740
735
730
725
720
715
710
69+80
10 M RT
RDWY FILL: BRN CLAYEY SAND W/RK FRAGS
SAPROLITE AND WEATHERED ROCK
710.088
4
15
Ditch Depth
S.S. 708.738
6:1
0.0500
0.0500
0.0500
6:1
2:1
708.504
708.448
709.727
-L-
69+80.00



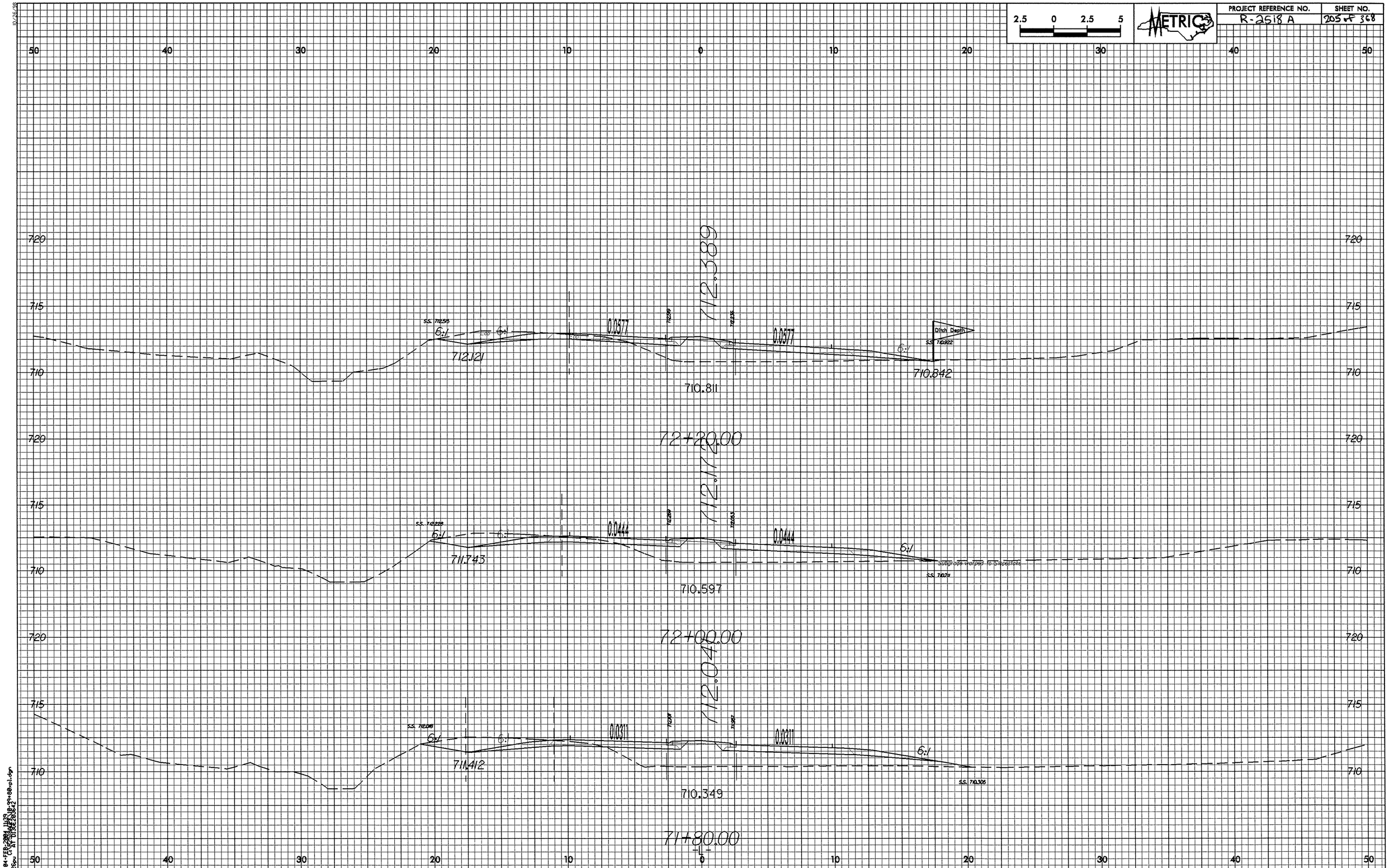
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
202 of 368
710.769
70+40
15 M RT
0.0500
0.0500
709.307
707.938
13
100
ALLUVIUM: GRAY SILTY COARSE SAND W/GRAVEL
WEATHERED ROCK W/SAPROLITE SEAMS
70+40.00
710.561
0.0500
0.0500
709.099
707.185
70+20.00
710.339
0.0500
0.0500
0.0500
709.978
707.115
70+00.00
-L-



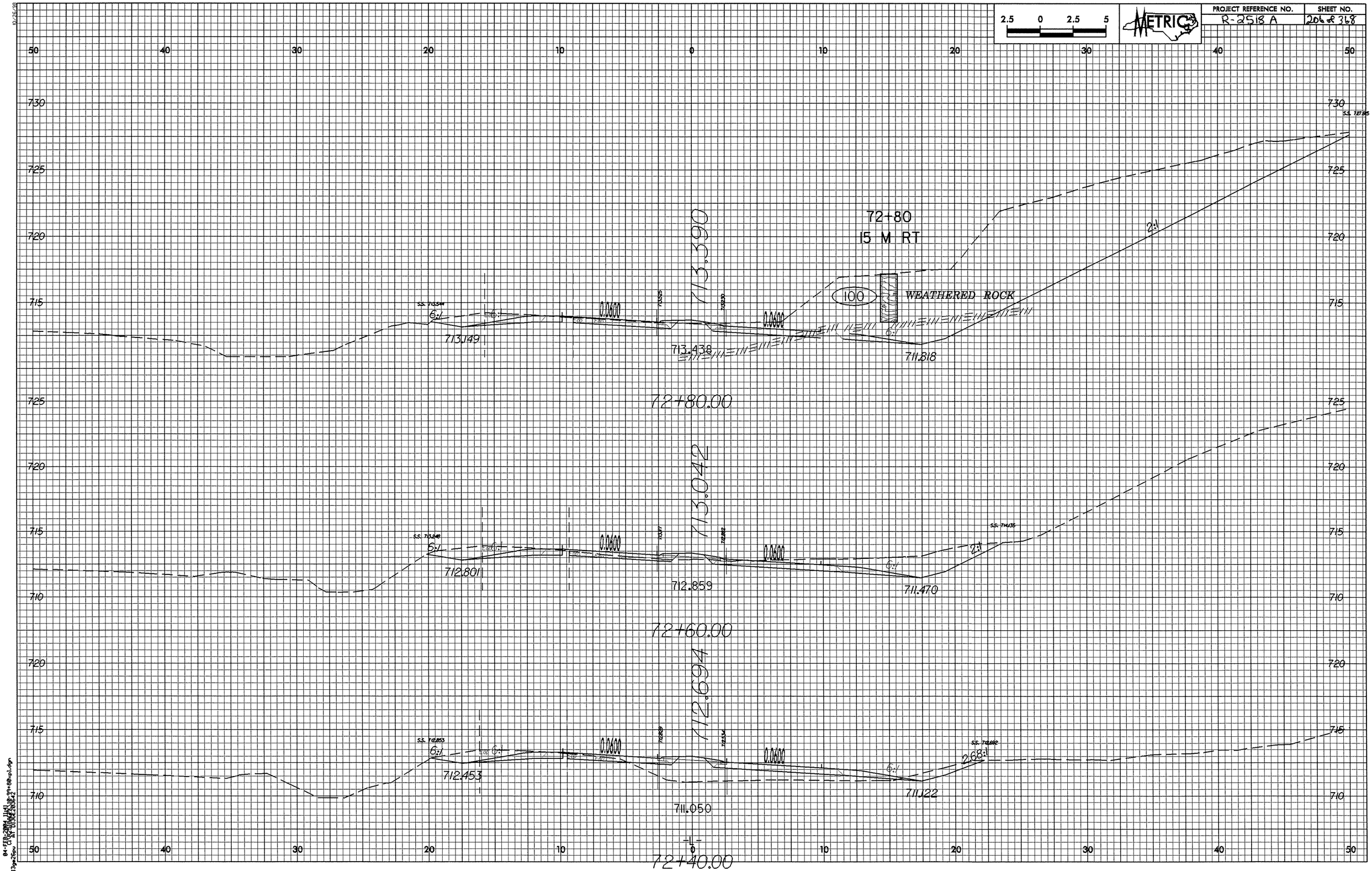
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
203 of 368
METRIC
2.5 0 2.5 5
711.391
0.0223
0.0223
6:1
6:1
3.65:1
710.235
708.981
71+00.00
711.184
70+80
20 M RT
0.0356
0.0356
3.34:1
709.880
708.601
15
10
12
ALLUVIUM: BRN SILTY SAND W/GRAVEL
SAPROLITE: GRAY/WHITE SLI MIC SANDY SILT
70+80.00
710.976
0.0489
0.0489
6:1
6:1
2:1
709.526
708.135
70+60.00



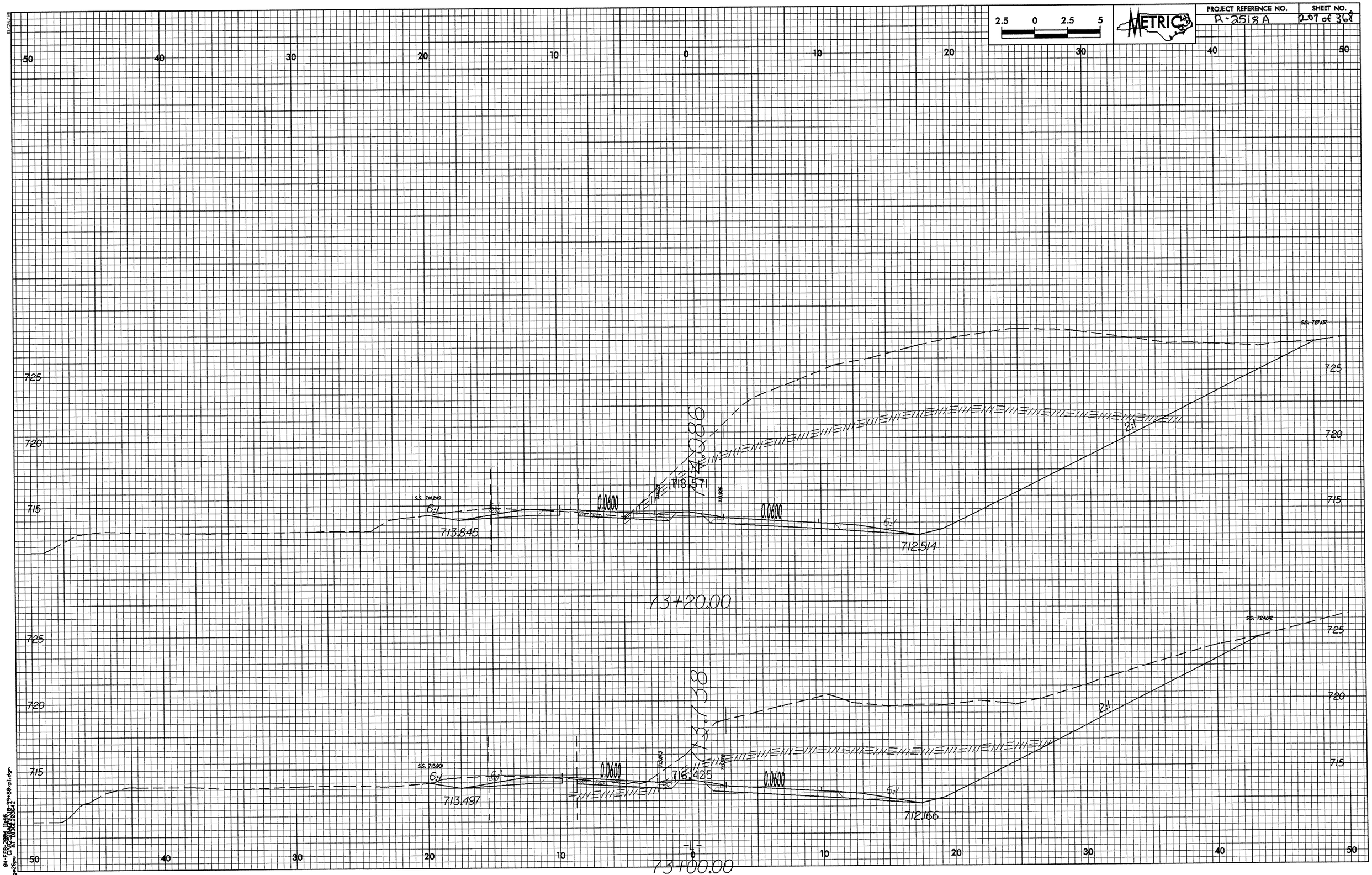
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
204 of 368
71+60
20 M RT
711.934
711.173
710.018
0.0177
0.0177
0.0177
5.49:1
36
25
47
ALLUVIUM: BRN SILTY SAND W/RK FRAGS
SAPROLITE: GRAY/LIGHT BROWN SILTY COARSE SANDW/QUARTZ FR.
71+60.00
711.786
710.895
709.835
0.0044
0.0044
4.66:1
71+40.00
711.599
710.576
709.402
0.0089
0.0089
4.39:1
71+20.00



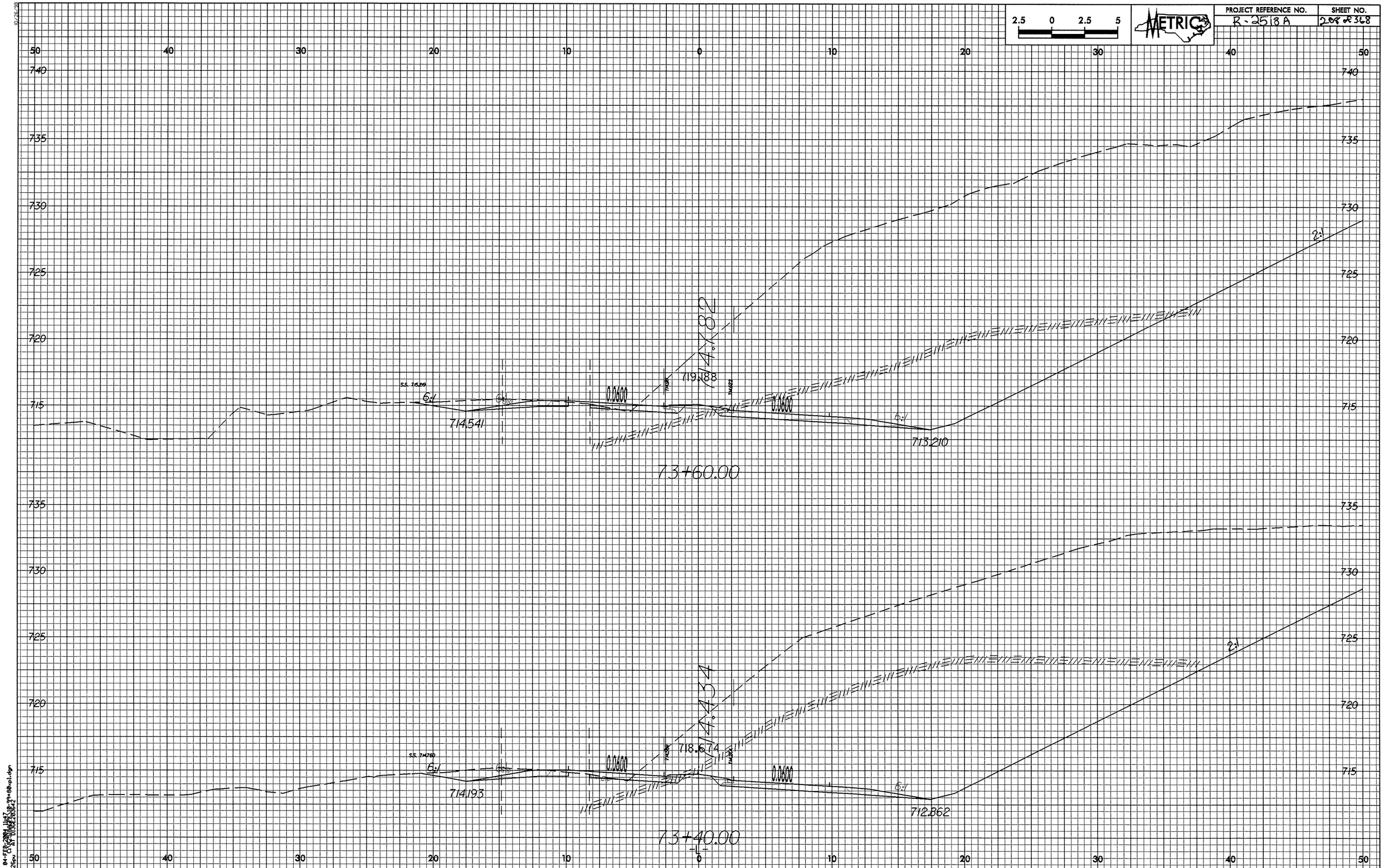
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
205 of 368
50 40 30 20 10 0 10 20 30 40 50
720
715
710
712.389
0.0577
0.0577
6:1
712.121
710.811
710.842
Ditch Depth
72+20.00
712.172
0.0444
0.0444
711.743
710.597
Subgrade warped to Slopestake
72+00.00
712.041
0.0311
0.0311
711.412
710.349
71+80.00



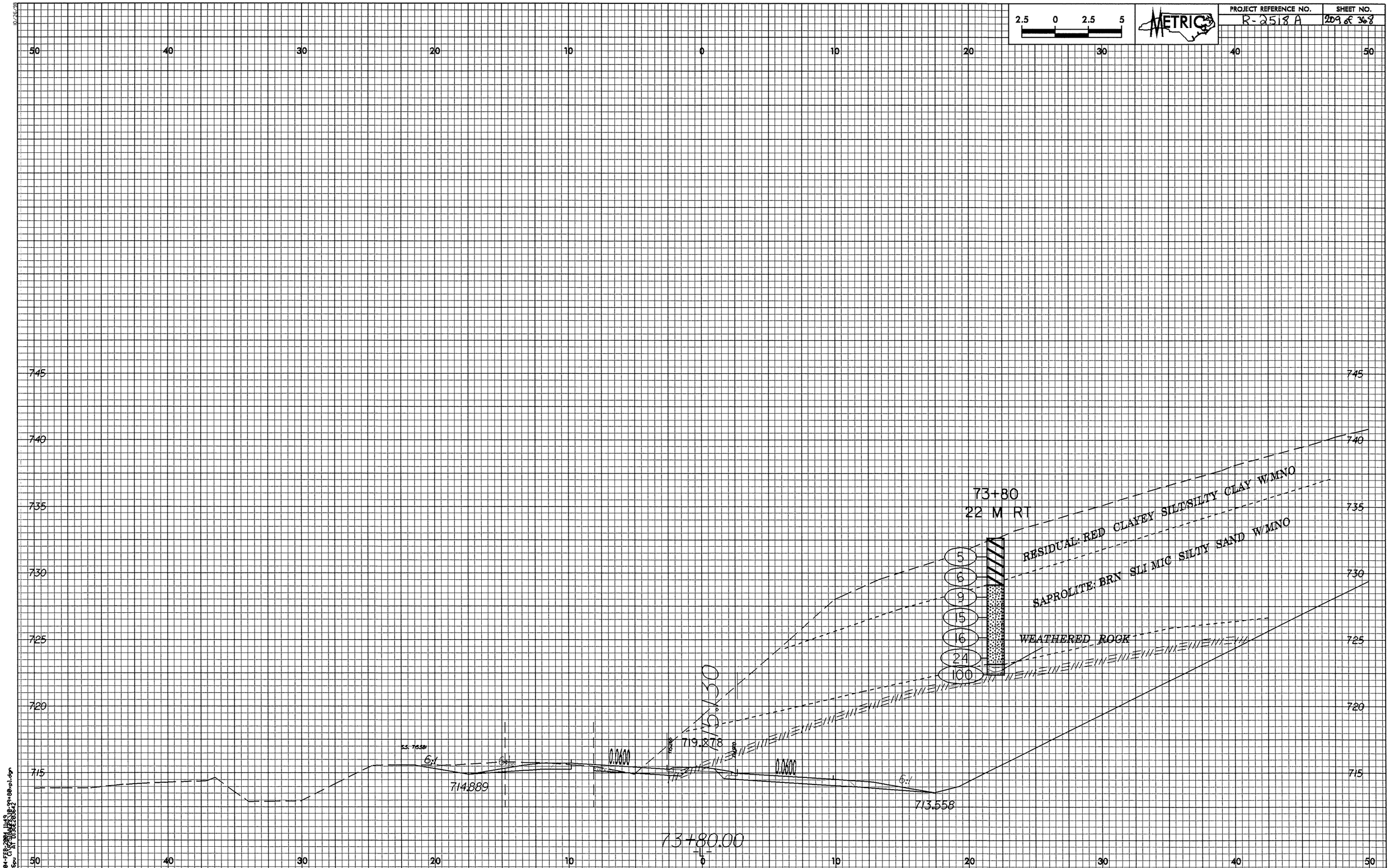
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
206 of 368
72+80
15 M RT
100
WEATHERED ROCK
713.390
713.149
713.438
711.818
0.0600
6:1
2:1
72+80.00
713.042
712.801
712.859
711.470
72+60.00
712.694
712.453
711.050
711.122
2.68:1
72+40.00



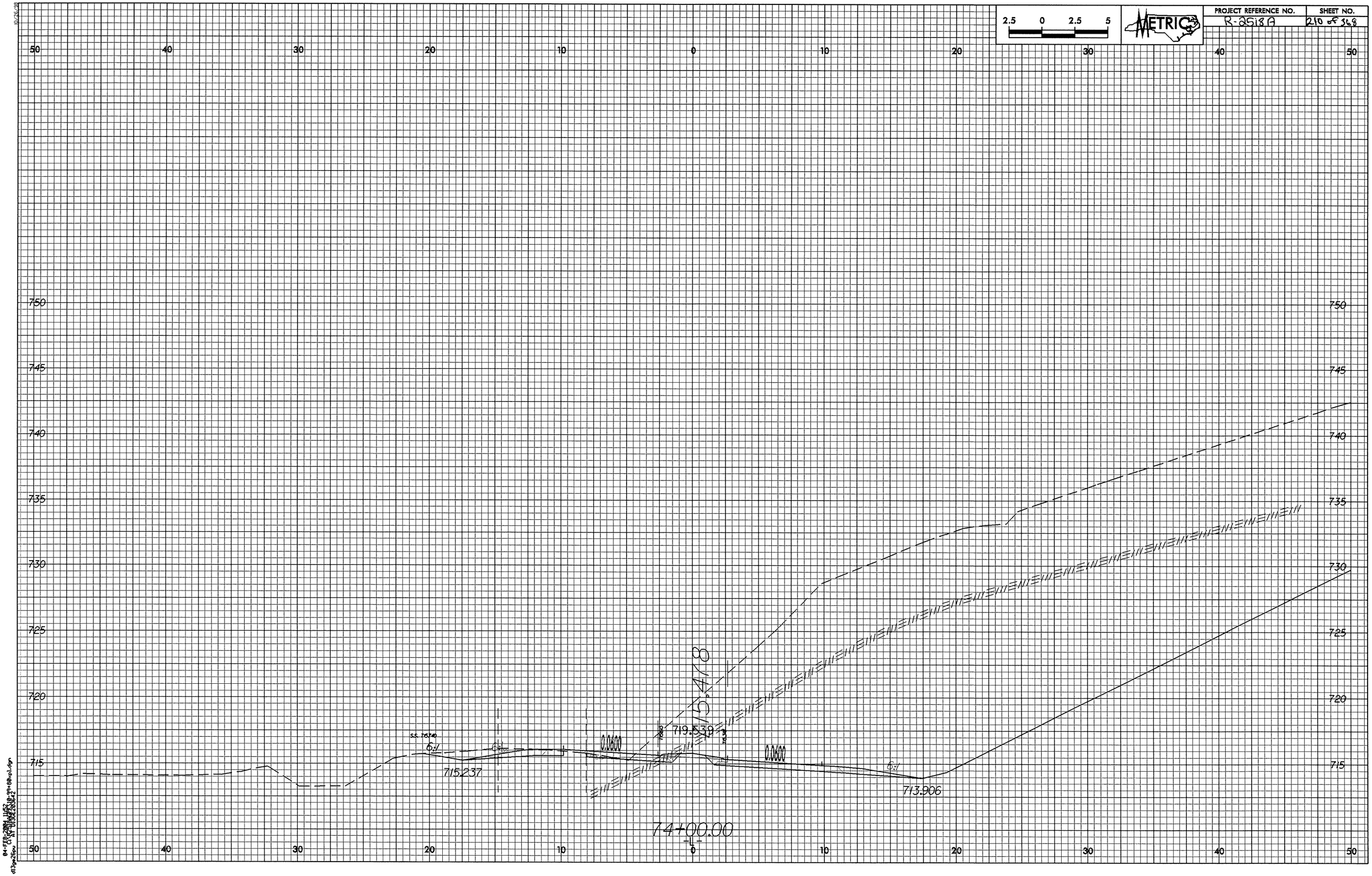
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
207 of 368
50 40 30 20 10 0 10 20 30 40 50
725
720
715
S.S. 714.249
6:1
713.845
0.0600
718.571
0.0600
6:1
712.514
2:1
73+20.00
S.S. 713.901
6:1
713.497
0.0600
716.425
0.0600
6:1
712.166
2:1
73+00.00



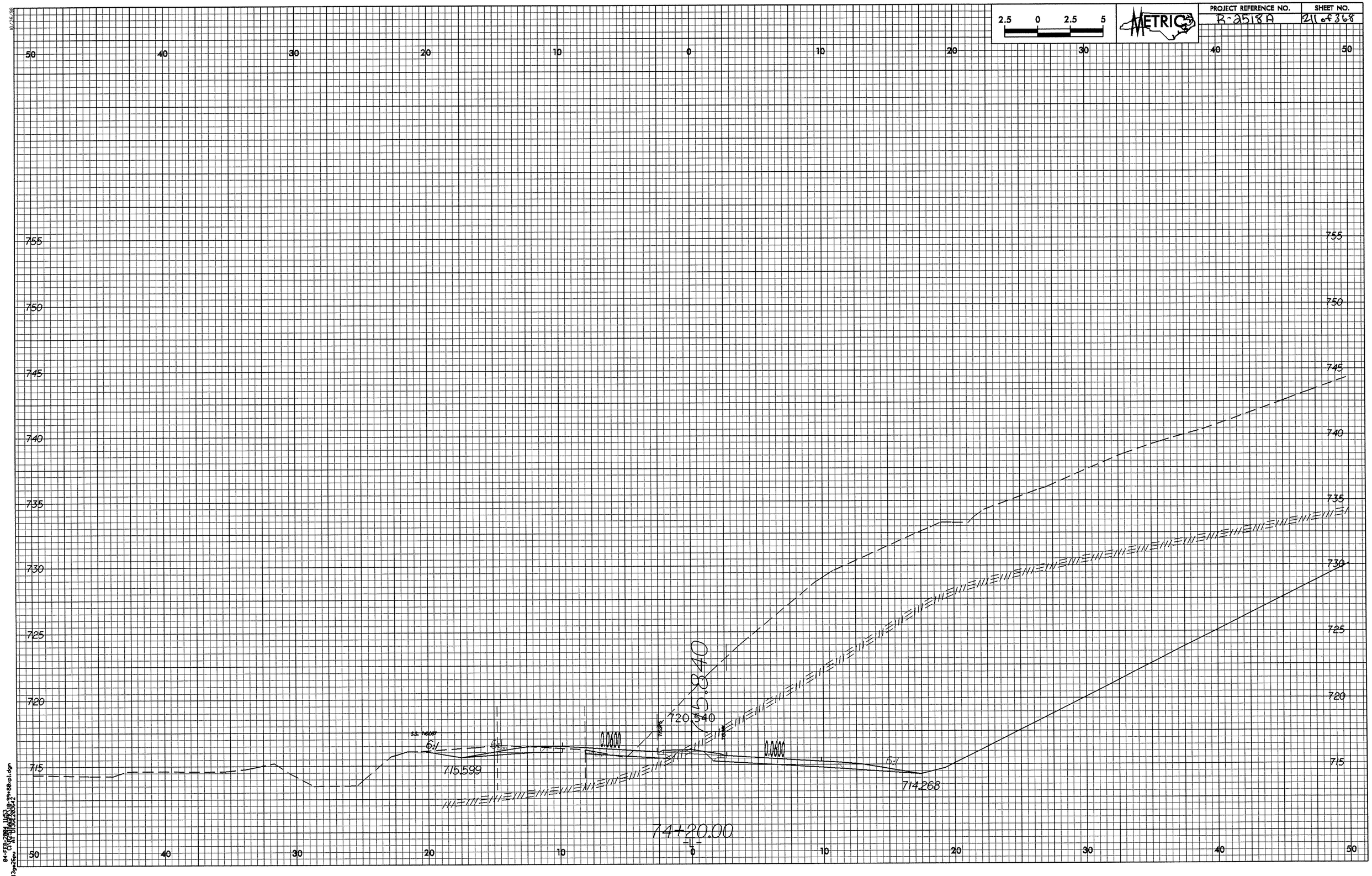
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
208 of 368
50 40 30 20 10 0 10 20 30 40 50
740 735 730 725 720 715
714.782
719.188
0.0600
714.541
713.210
6:1
2:1
73+60.00
714.434
718.674
714.193
712.862
73+40.00



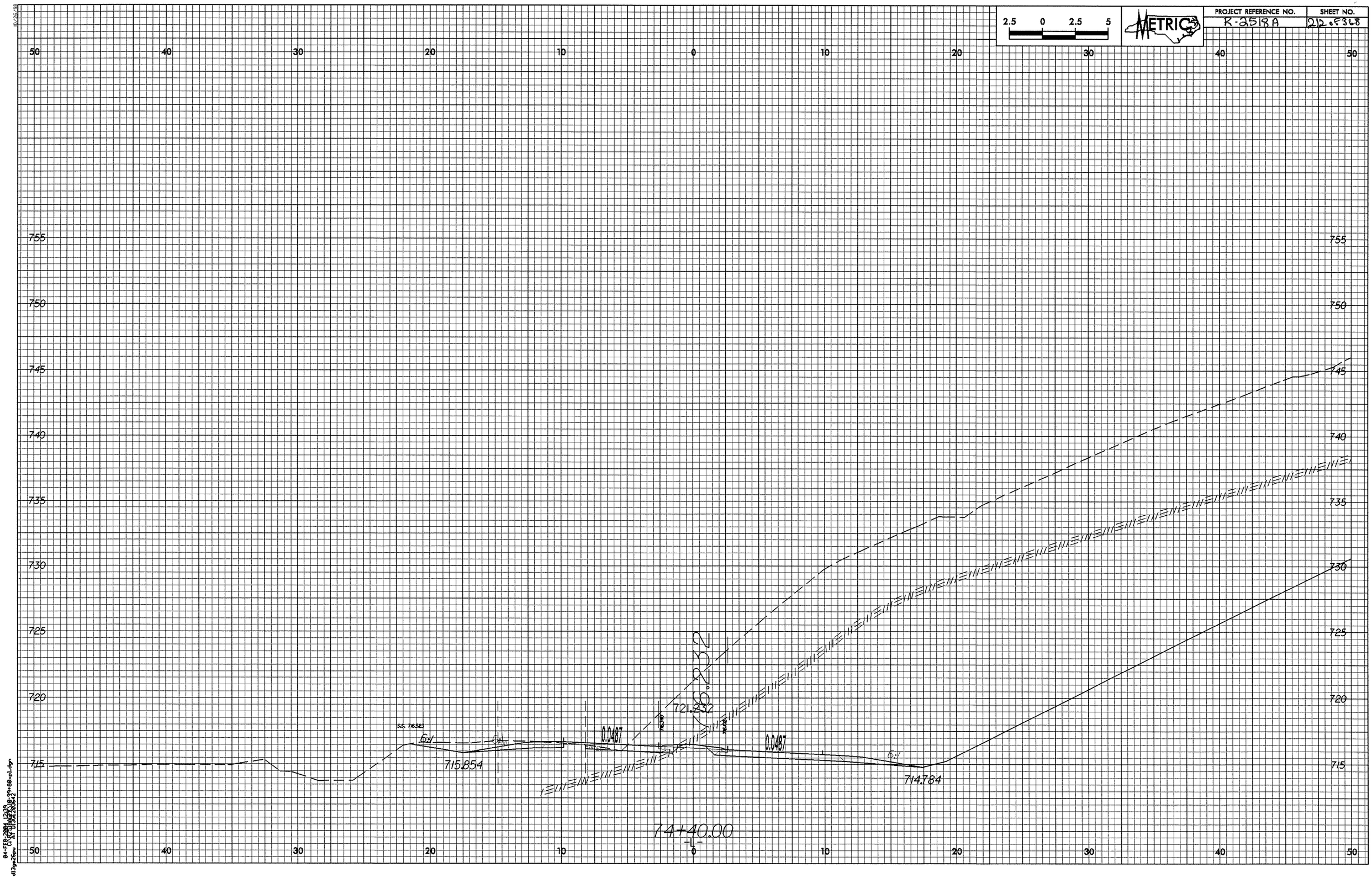
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
209 of 368
50 40 30 20 10 0 10 20 30 40 50
745
740
735
730
725
720
715
73+80
22 M RT
RESIDUAL: RED CLAYEY SILT/SILTY CLAY W/MNO
SAPROLITE: BRN SLI MIC SILTY SAND W/MNO
WEATHERED ROCK
5
6
9
15
16
24
100
719.278
0.0600
0.0600
6:1
6:1
714.889
713.558
73+80.00
-L-



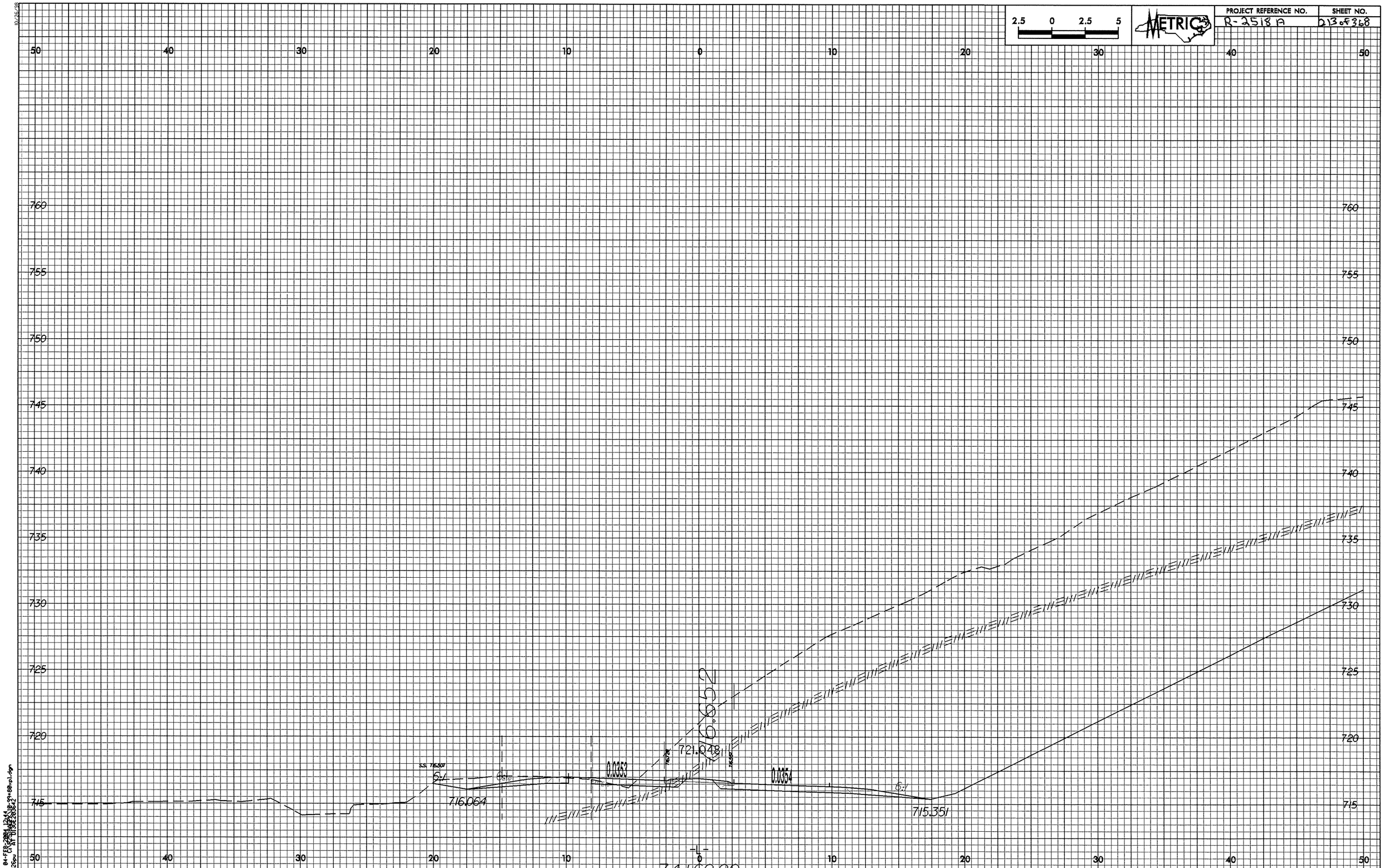
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
210 of 368
50 40 30 20 10 0 10 20 30 40 50
750 745 740 735 730 725 720 715
715.478
719.539
0.0600
0.0600
6:1
6:1
6:1
715.237
713.906
74+00.00
-L-



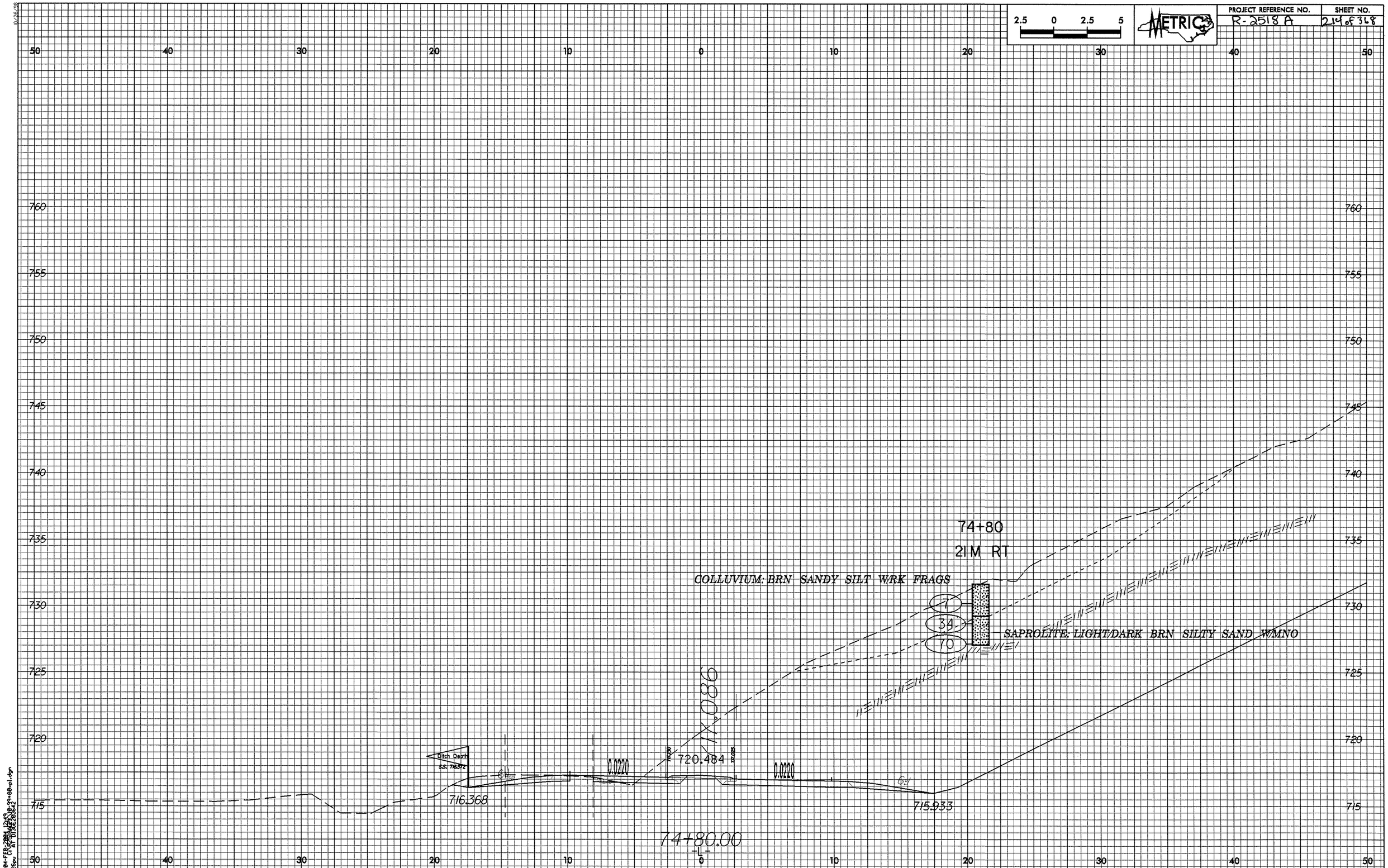
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
211 of 368
50 40 30 20 10 0 10 20 30 40 50
755
750
745
740
735
730
725
720
715
720.540
715.840
0.0600
0.0600
6:1
6:1
6:1
715.599
714.268
74+20.00
-L-



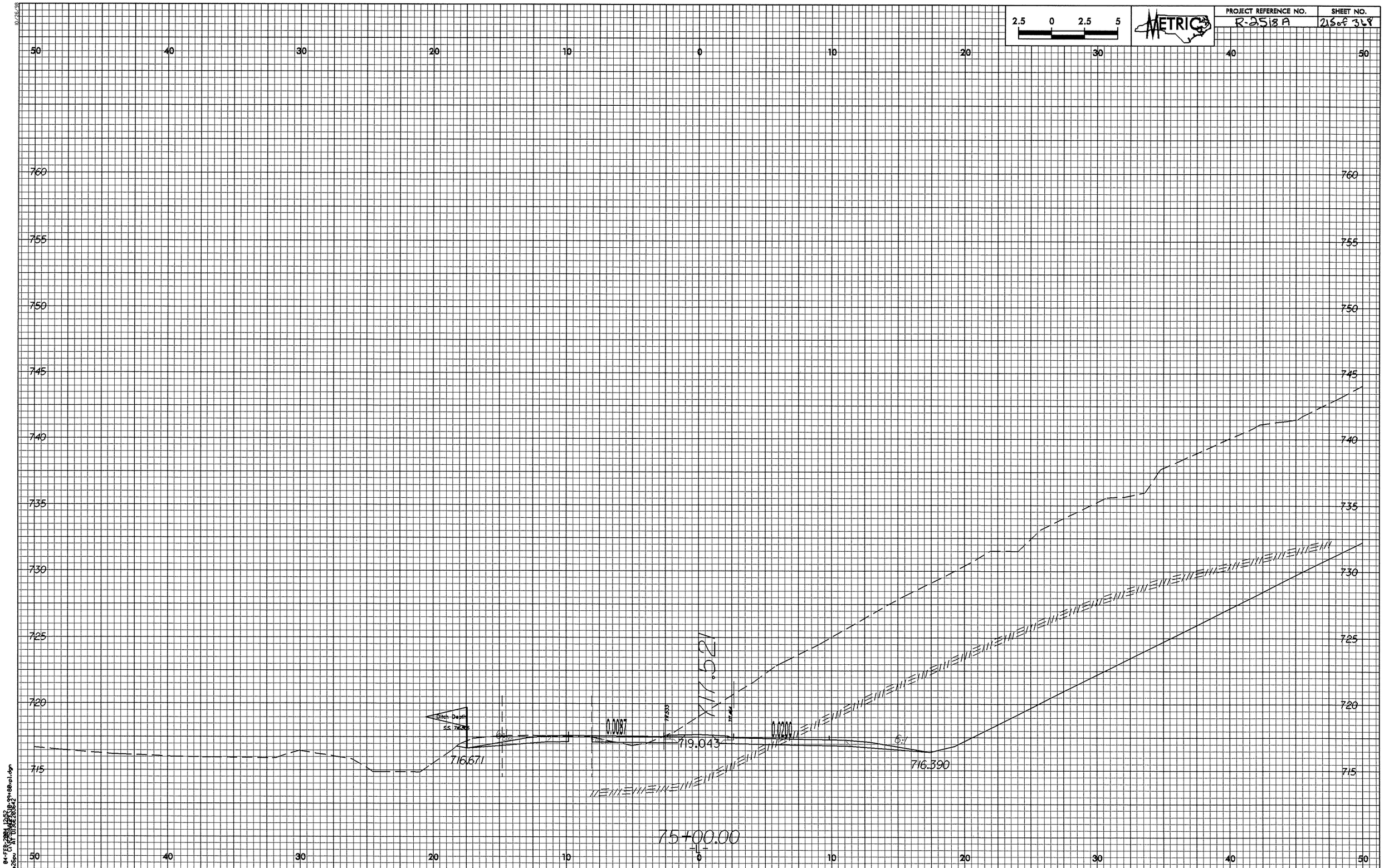
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
212 of 368
50 40 30 20 10 0 10 20 30 40 50
755 750 745 740 735 730 725 720 715
S.S. 716.523
6:1
715.854
0.0487
721.232
716.232
0.0487
6:1
714.784
74+40.00
-L-



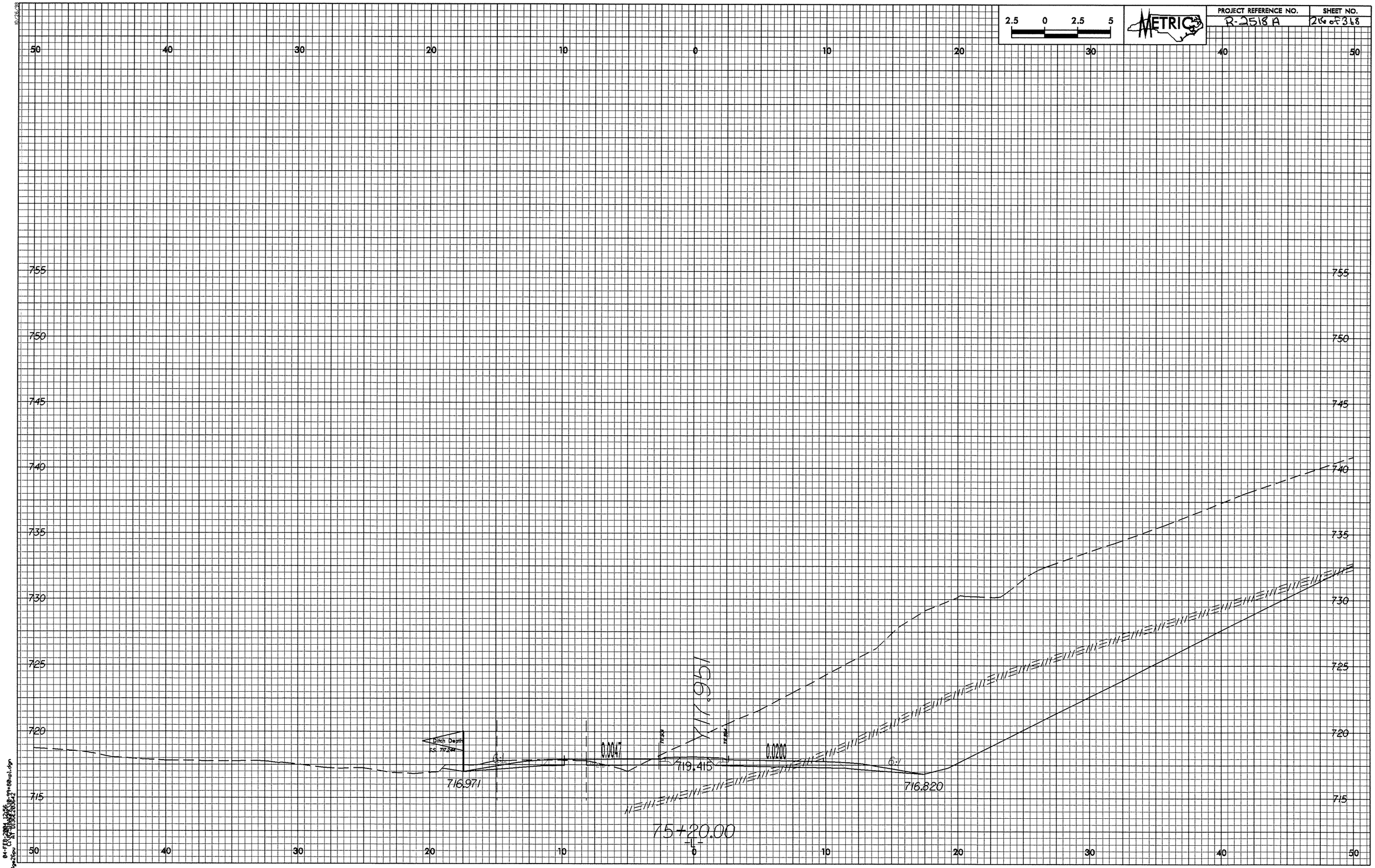
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
213 of 368
50 40 30 20 10 0 10 20 30 40 50
760 755 750 745 740 735 730 725 720 715
716.652
721.048
0.0353
0.0354
716.064
715.351
-L-
74+60.00



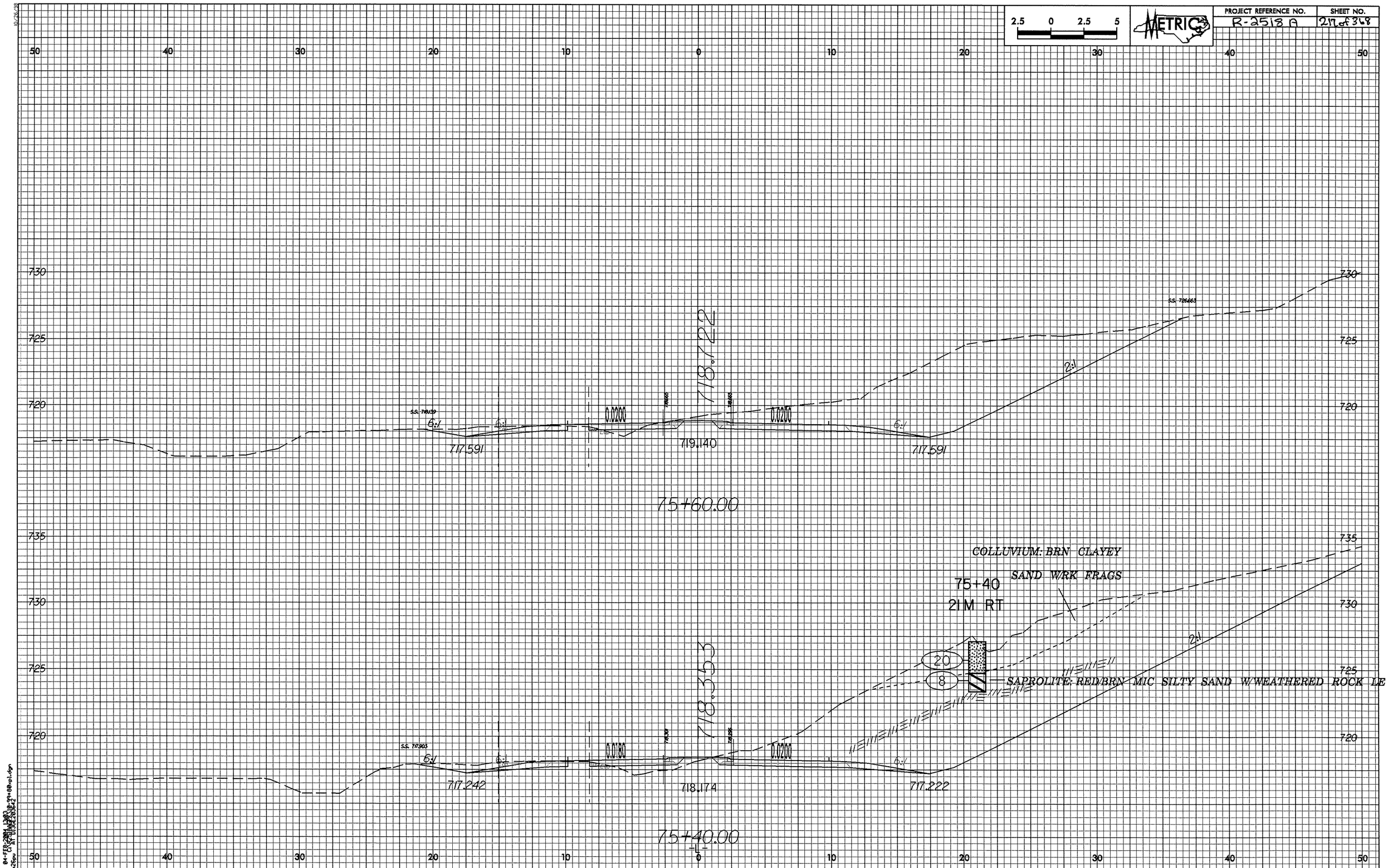
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
214 of 368
50 40 30 20 10 0 10 20 30 40 50
760 755 750 745 740 735 730 725 720 715
74+80
21M RT
COLLUVIUM: BRN SANDY SILT W/RK FRAGS
SAPROLITE: LIGHT/DARK BRN SILTY SAND W/MNO
7
34
70
717.086
720.484
0.0220
0.0220
Ditch Depth
716.368
715.933
74+80.00



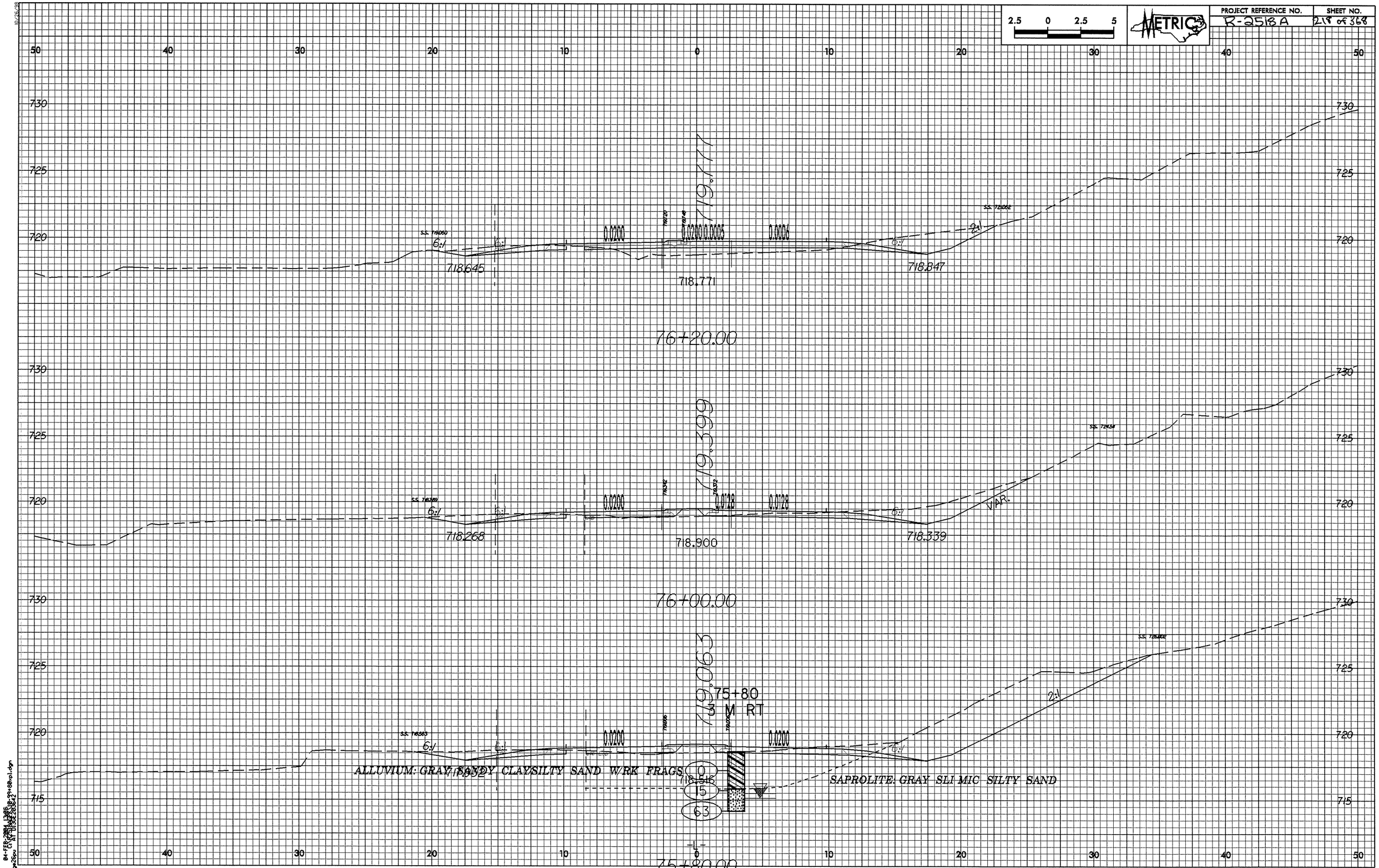
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
215 of 368
50 40 30 20 10 0 10 20 30 40 50
760 755 750 745 740 735 730 725 720 715
Ditch Depth
S.S. 716.806
0.0087
0.0200
719.043
716.671
716.390
6:1
717.521
75+00.00
-L-



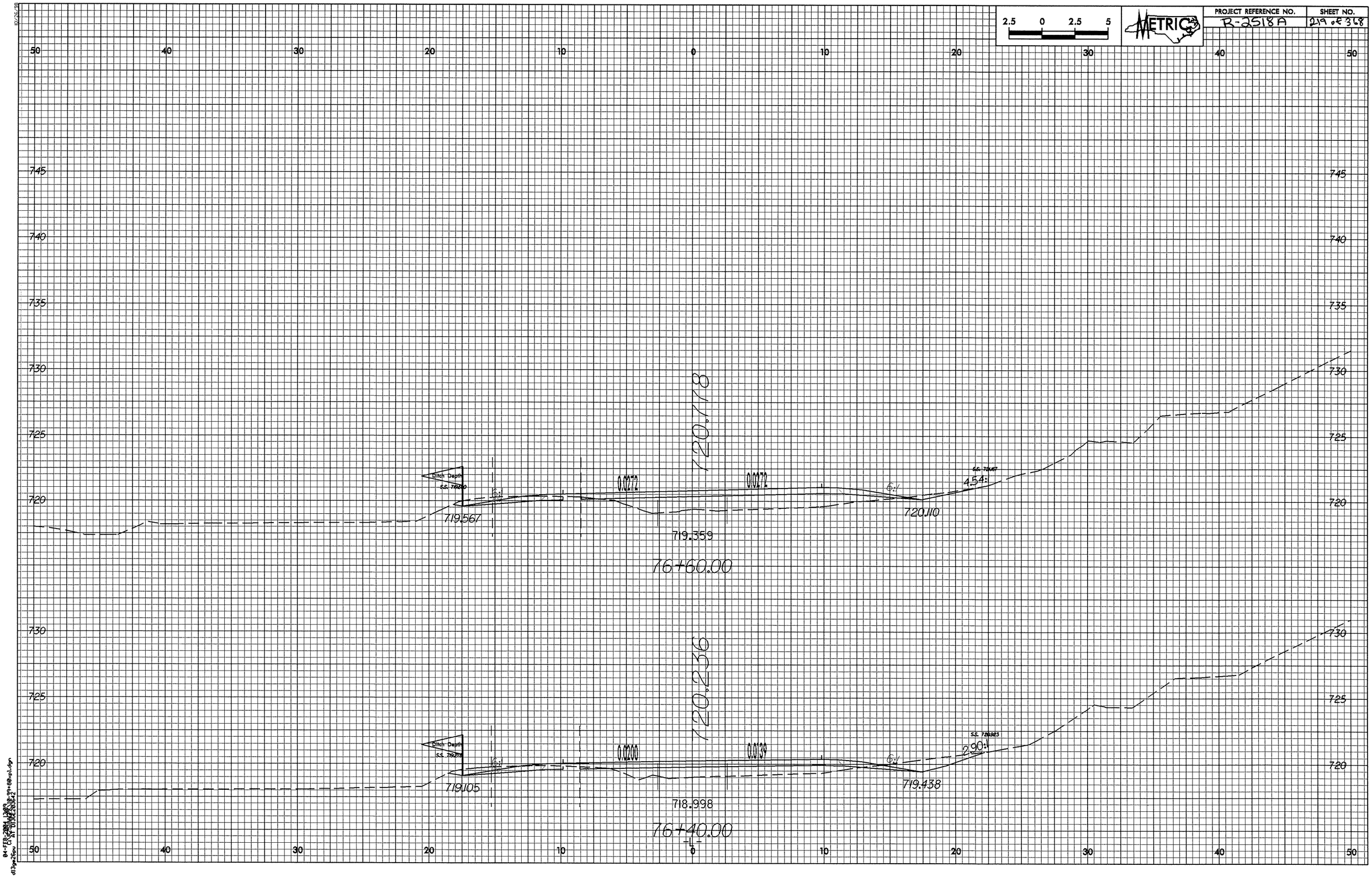
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
216 of 368
50 40 30 20 10 0 10 20 30 40 50
755 750 745 740 735 730 725 720 715
Ditch Depth
SS 717.244
0.0047
0.0200
717.951
719.415
716.971
716.820
75+20.00
-L-



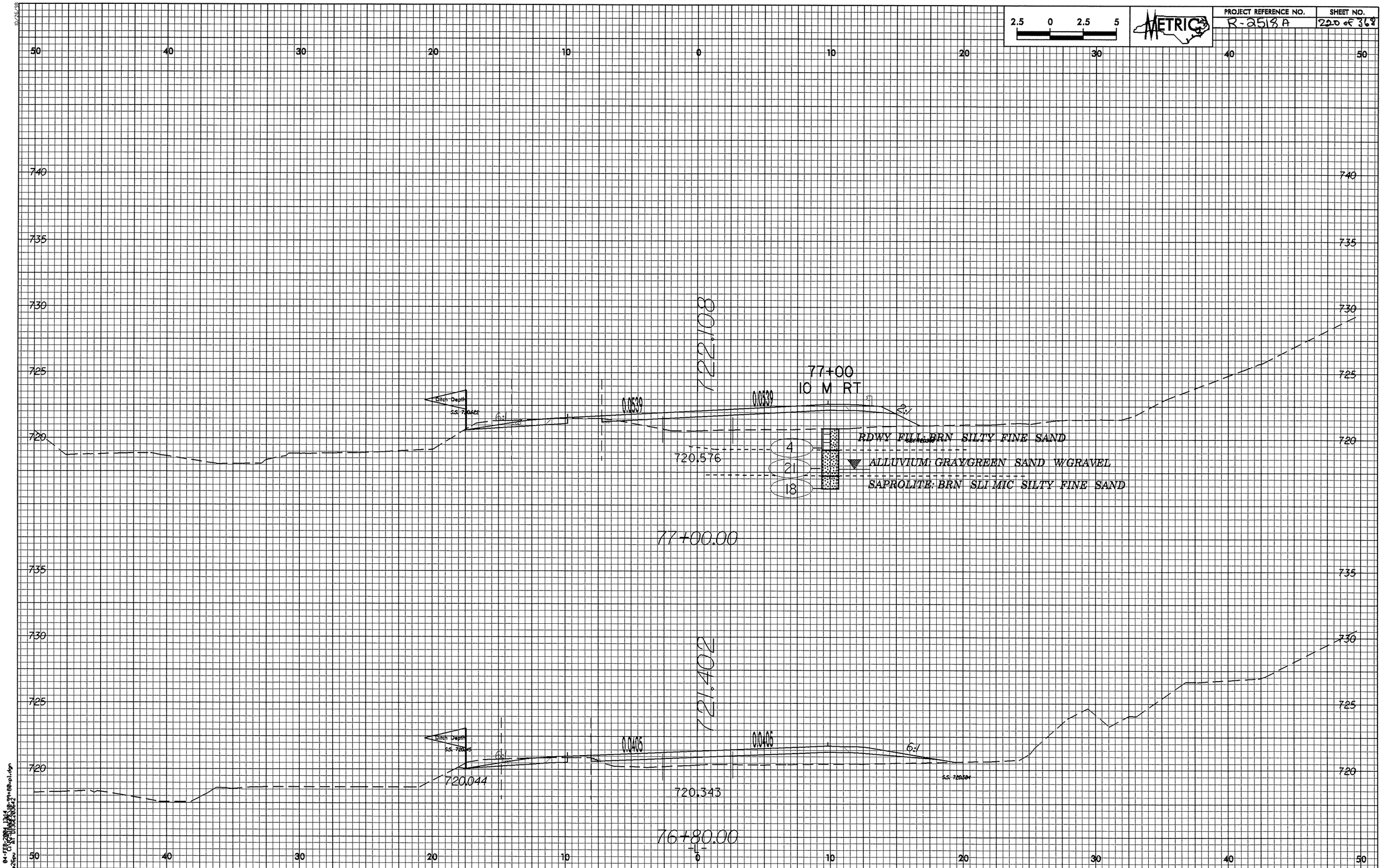
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
217 of 368
50 40 30 20 10 0 10 20 30 40 50
730
725
720
735
718.722
718.353
0.0200
0.0200
0.0180
0.0200
6:1
2:1
717.591
719.140
717.591
75+60.00
COLLUVIUM: BRN CLAYEY
SAND W/RK FRAGS
75+40
21M RT
20
8
SAPROLITE: RED/BRN MIC SILTY SAND W/WEATHERED ROCK LE
717.242
718.174
717.222
75+40.00



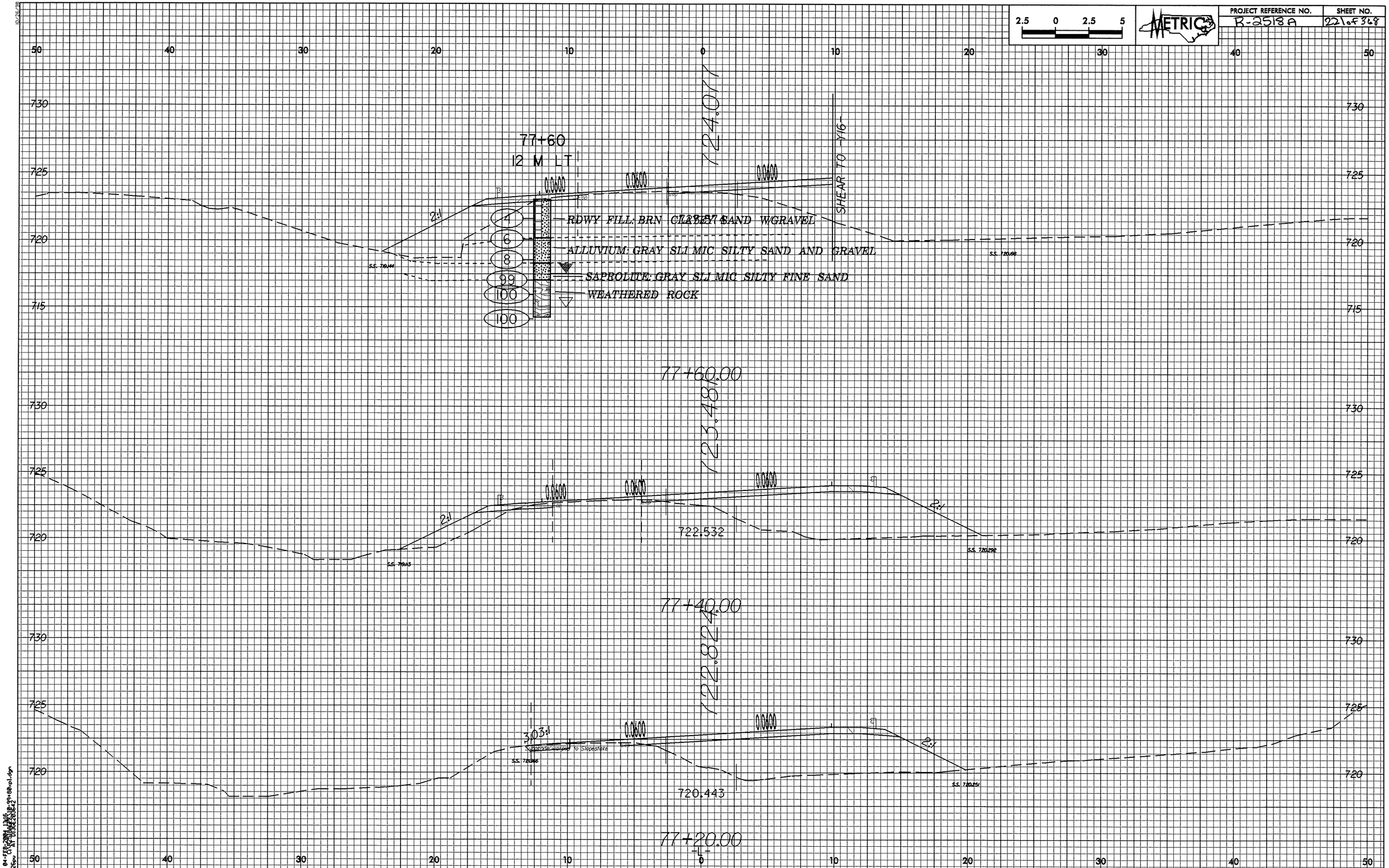
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
218 of 368
50 40 30 20 10 0 10 20 30 40 50
730
725
720
715
719.777
0.0200
0.0200 0.0005
0.0006
6:1
2:1
718.645
718.771
718.847
76+20.00
719.399
0.0200
0.0128
0.0128
718.268
718.900
718.339
VAR.
76+00.00
719.063
75+80
3 M RT
0.0200
0.0200
ALLUVIUM: GRAY SANDY CLAY/SILTY SAND W/RK FRAGS
SAPROLITE: GRAY SLI MIC SILTY SAND
0
15
63
-L-
75+80.00



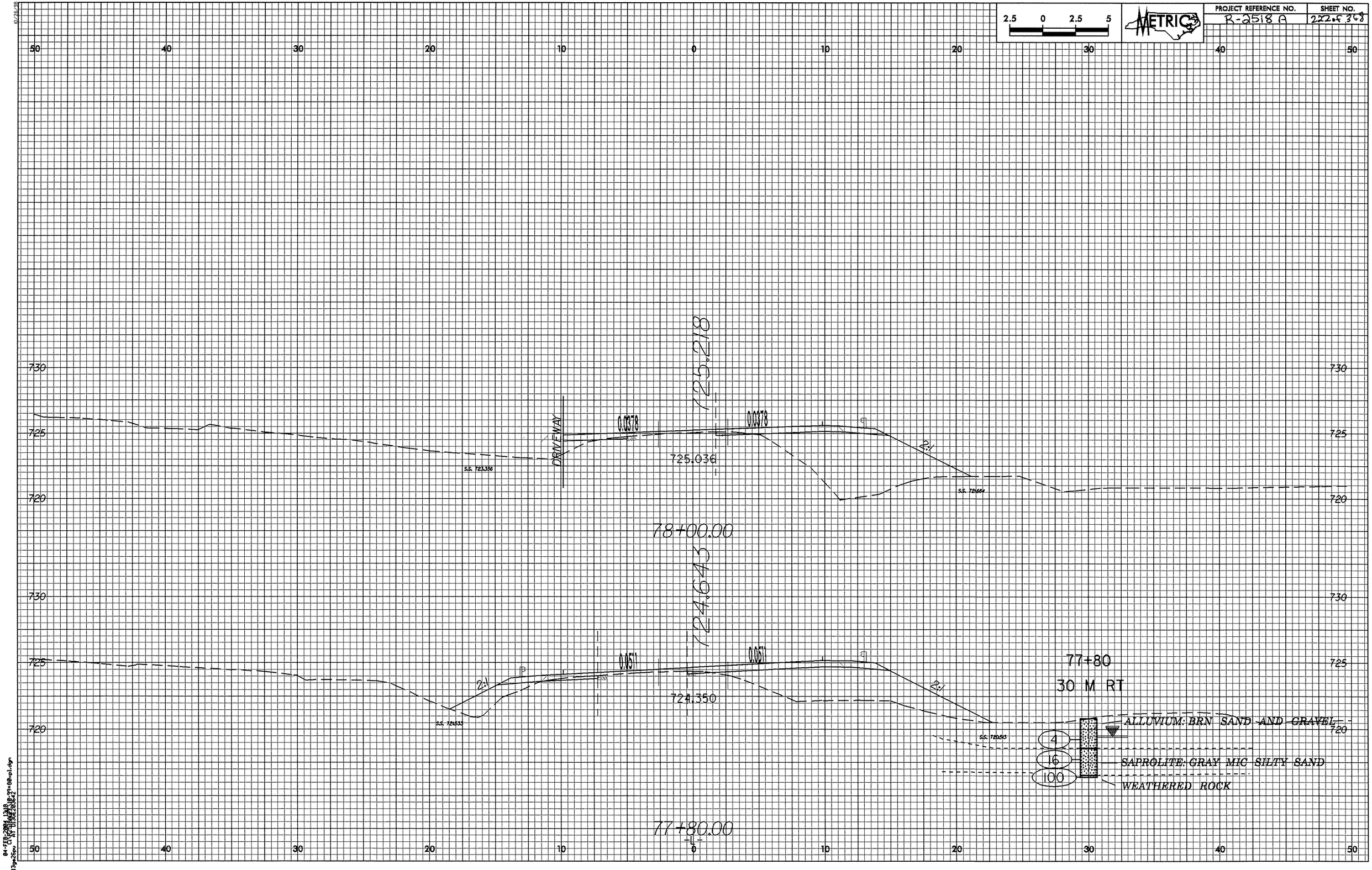
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
219 of 368
50 40 30 20 10 0 10 20 30 40 50
745
740
735
730
725
720
Ditch Depth
S.S. 719.210
0.0272
0.0272
6:1
6:1
4.54:1
719.567
720.110
719.359
76+60.00
720.178
720.236
Ditch Depth
S.S. 719.278
0.0200
0.0139
6:1
6:1
2.90:1
719.105
719.438
718.998
76+40.00
-L-



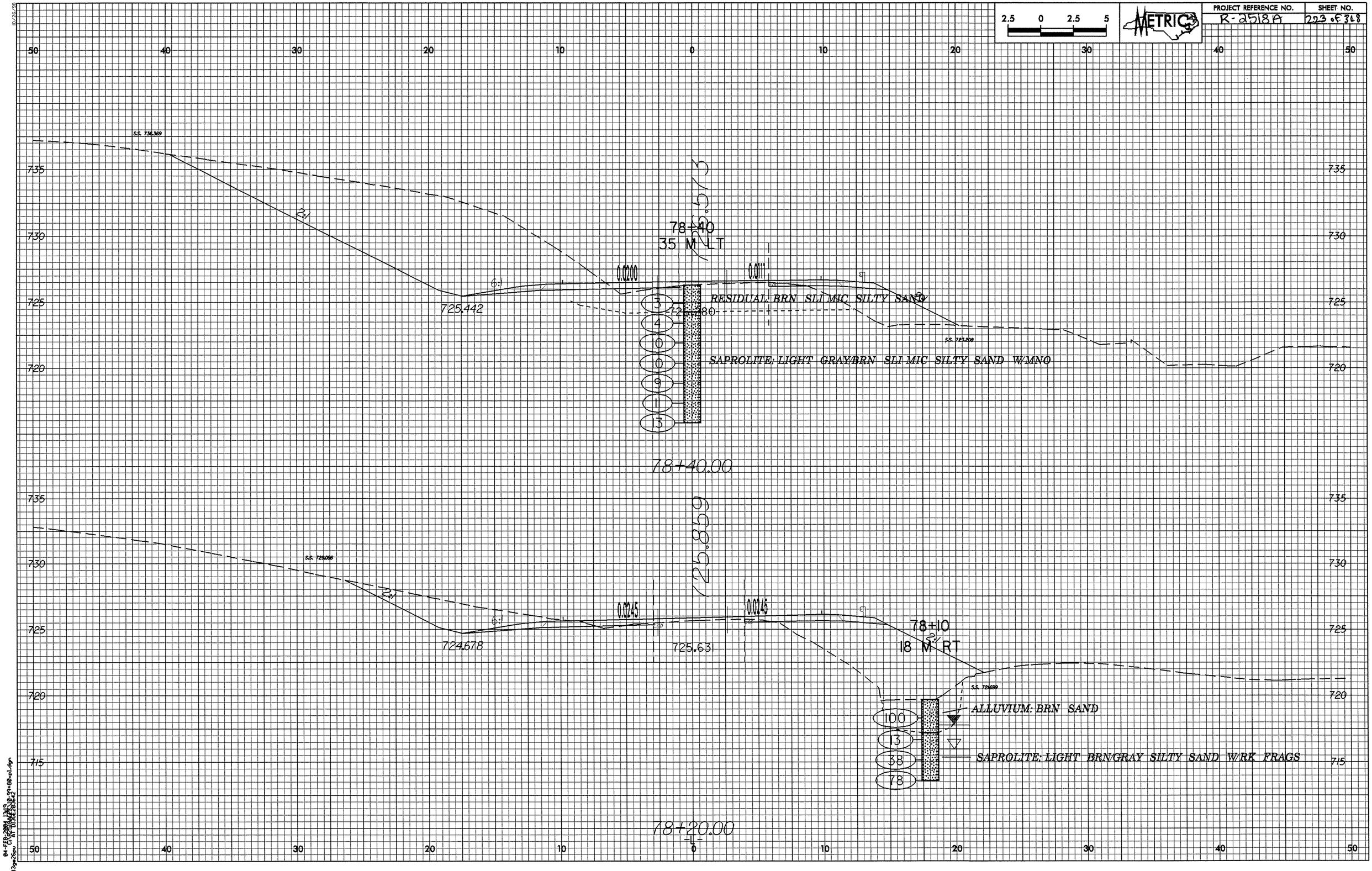
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
220 of 368
722.108
77+00
10 M RT
0.0539
0.0539
Ditch Depth
6:1
2:1
RDWY FILL: BRN SILTY FINE SAND
ALLUVIUM: GRAY/GREEN SAND W/GRAVEL
SAPROLITE: BRN SLI MIC SILTY FINE SAND
4
21
18
720.576
77+00.00
721.402
0.0405
0.0405
Ditch Depth
6:1
720.044
720.343
76+80.00
-L-



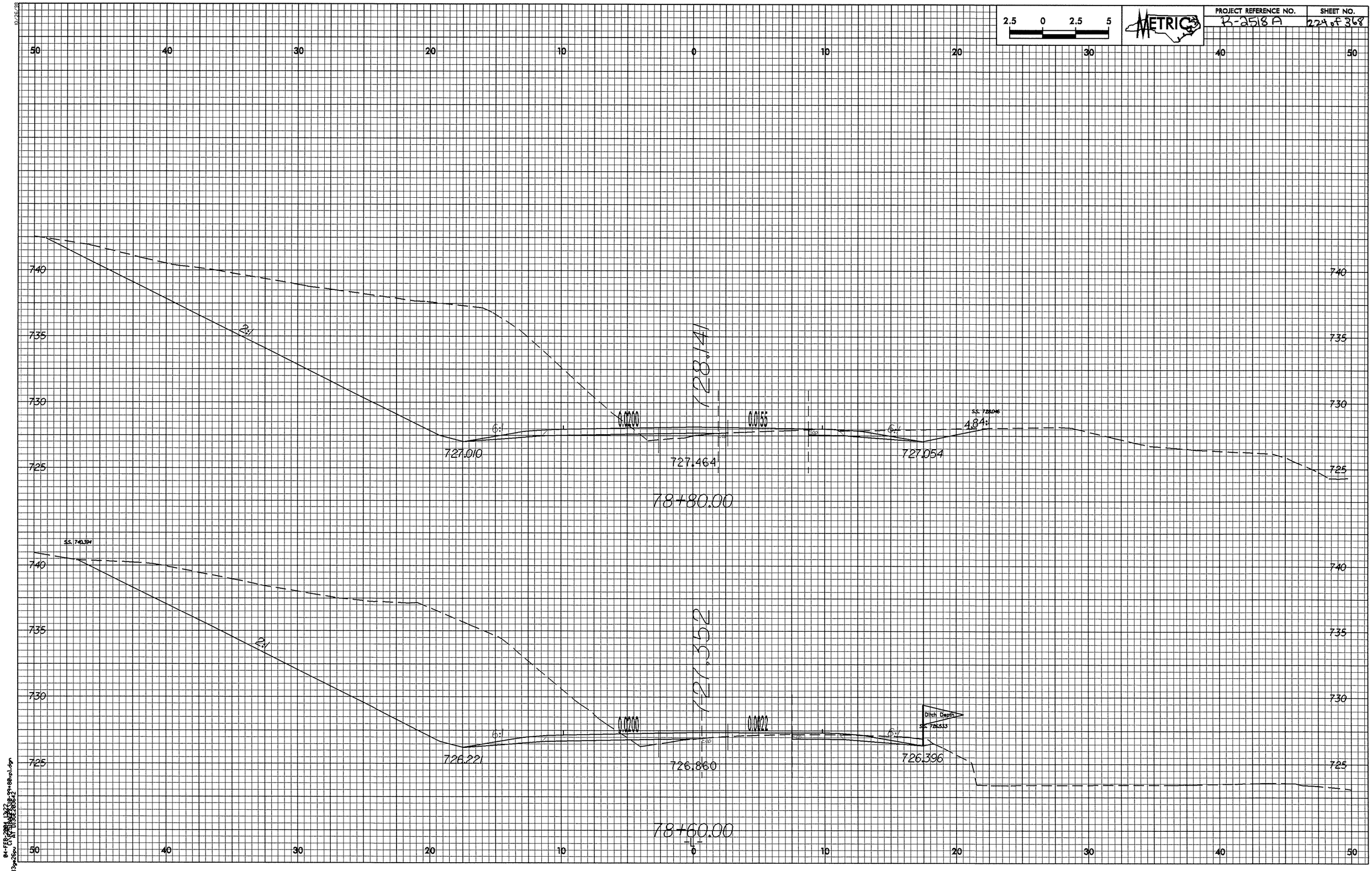
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
221 of 368
77+60
12 M LT
724.077
SHEAR TO -Y16-
RDWY FILL: BRN CLAYEY SAND W/GRAVEL
ALLUVIUM: GRAY SLI MIC SILTY SAND AND GRAVEL
SAPROLITE: GRAY SLI MIC SILTY FINE SAND
WEATHERED ROCK
4
6
8
99
100
100
77+60.00
723.481
722.532
77+40.00
722.824
720.443
77+20.00
-L-



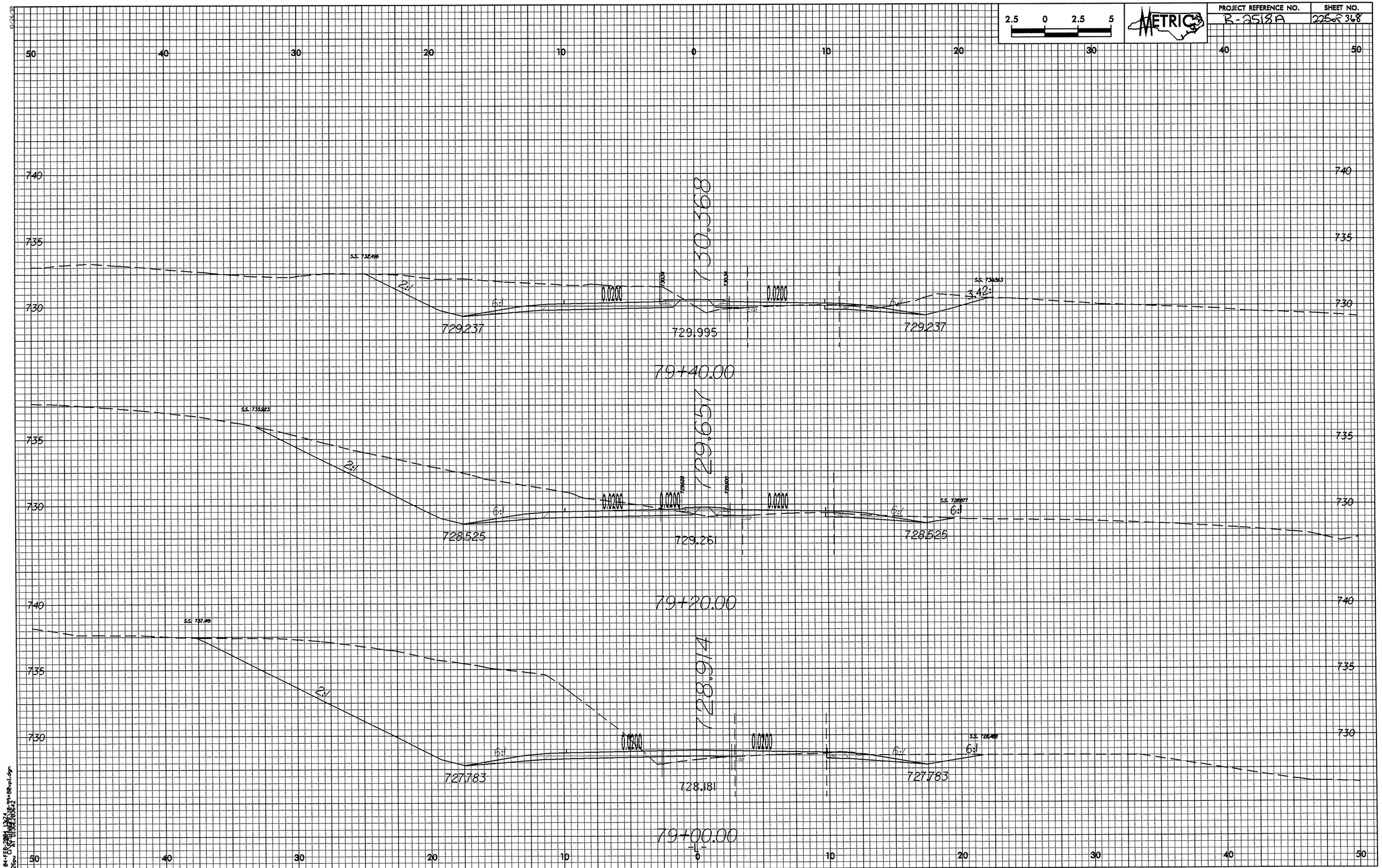
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
222 of 368
50 40 30 20 10 0 10 20 30 40 50
730
725
720
725.218
0.0378
0.0378
DRIVEWAY
725.036
2:1
S.S. 723.356
S.S. 721.684
78+00.00
724.643
0.0511
0.0511
724.350
2:1
2:1
S.S. 721.533
S.S. 720.513
77+80
30 M RT
ALLUVIUM: BRN SAND AND GRAVEL
4
16
100
SAPROLITE: GRAY MIC SILTY SAND
WEATHERED ROCK
77+80.00



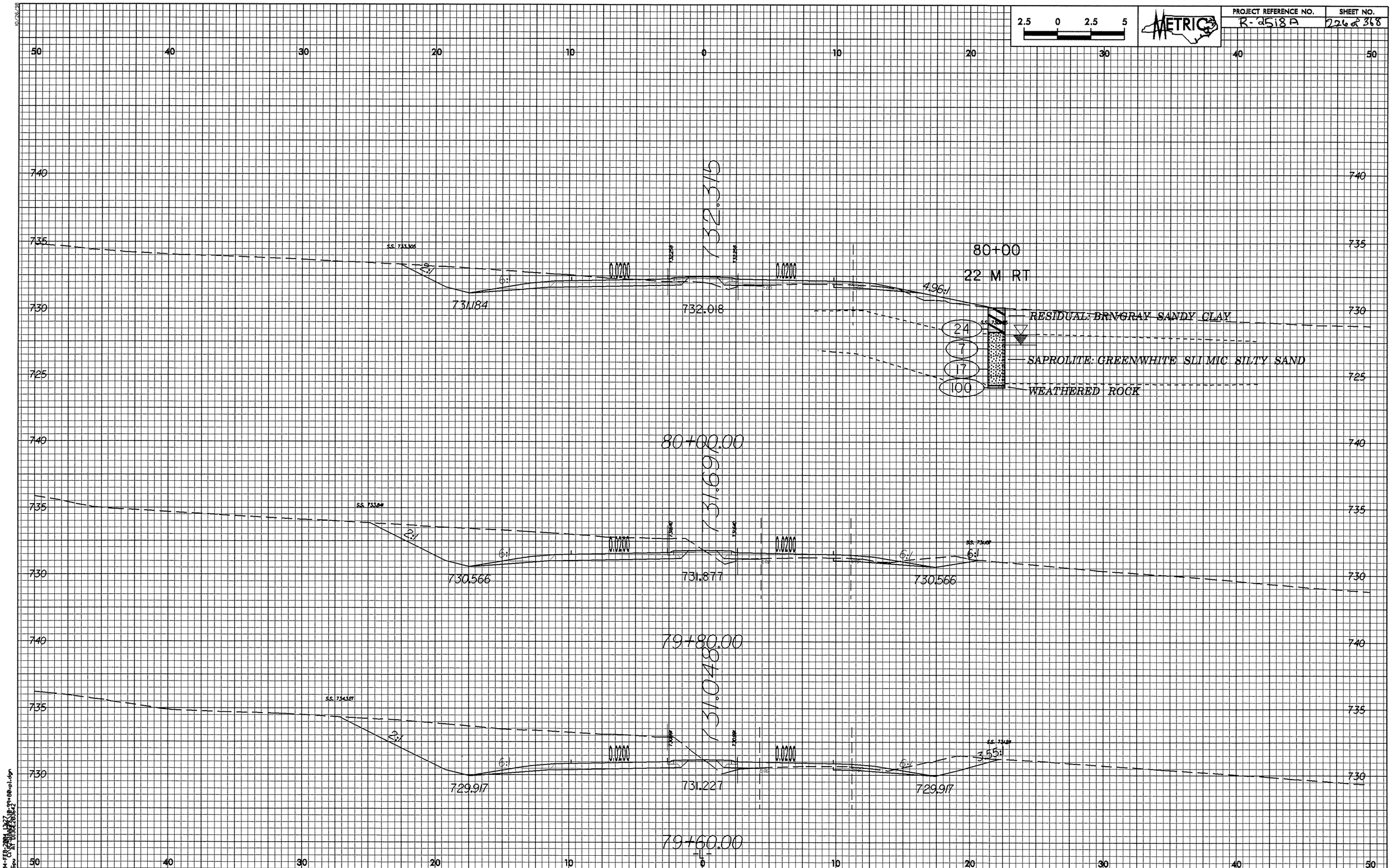
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
223 of 368
METRIC
2.5 0 2.5 5
78+40
35 M LT
0.0200
0.0111
725.442
RESIDUAL: BRN SLI MIC SILTY SAND
SAPROLITE: LIGHT GRAY/BRN SLI MIC SILTY SAND W/MNO
3
4
10
10
9
11
13
78+40.00
725.859
0.0245
0.0245
724.678
725.631
78+10
18 M RT
ALLUVIUM: BRN SAND
SAPROLITE: LIGHT BRN/GRAY SILTY SAND W/RK FRAGS
100
13
38
78
78+20.00



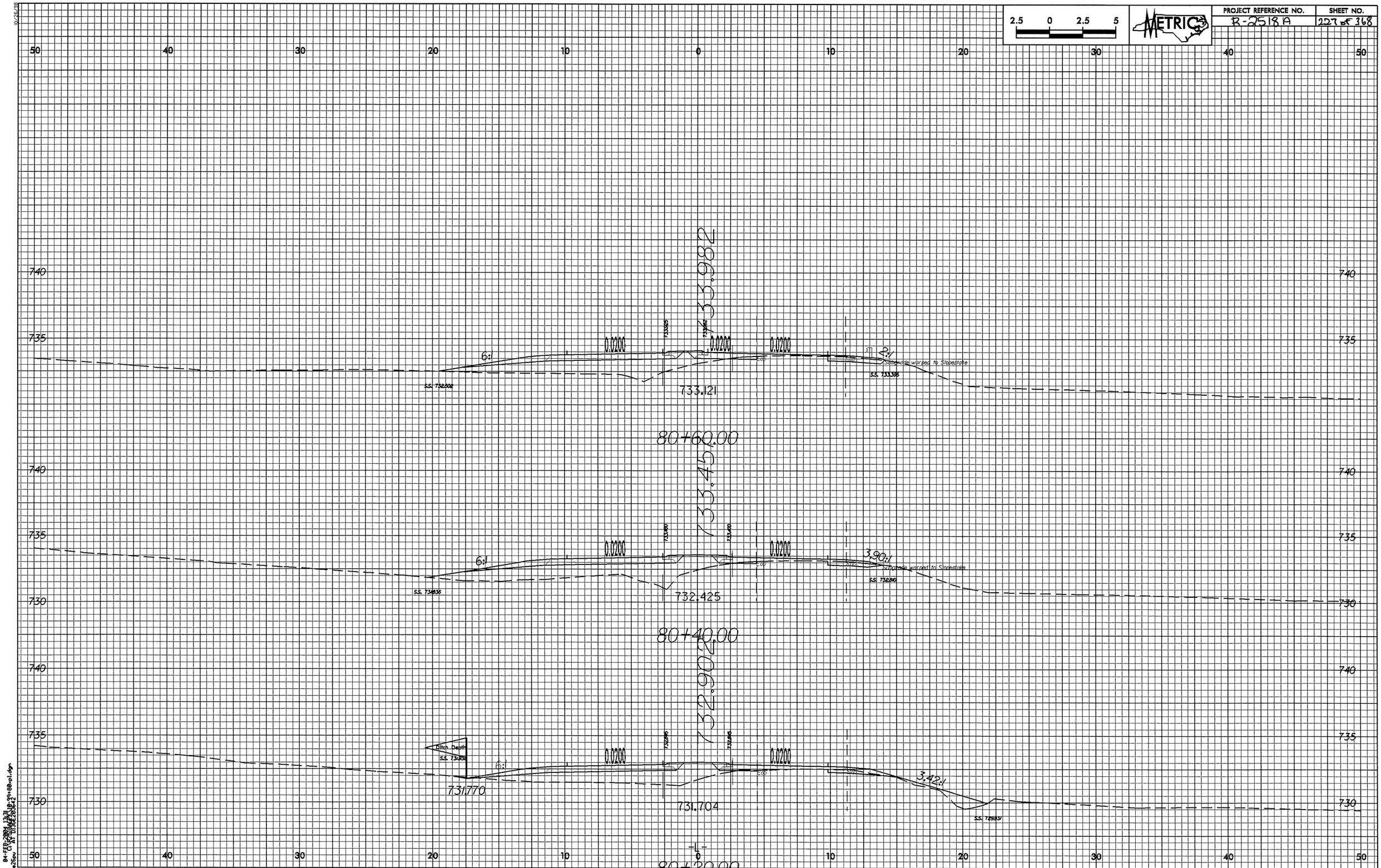
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
B-2518A
SHEET NO.
224 of 368
50 40 30 20 10 0 10 20 30 40 50
740
735
730
725
2:1
6:1
0.0200
0.0155
4.84:1
S.S. 726.046
727.010
727.464
727.054
728.141
78+80.00
S.S. 740.394
727.352
0.0200
0.0022
Ditch Depth
S.S. 726.533
726.221
726.860
726.396
78+60.00



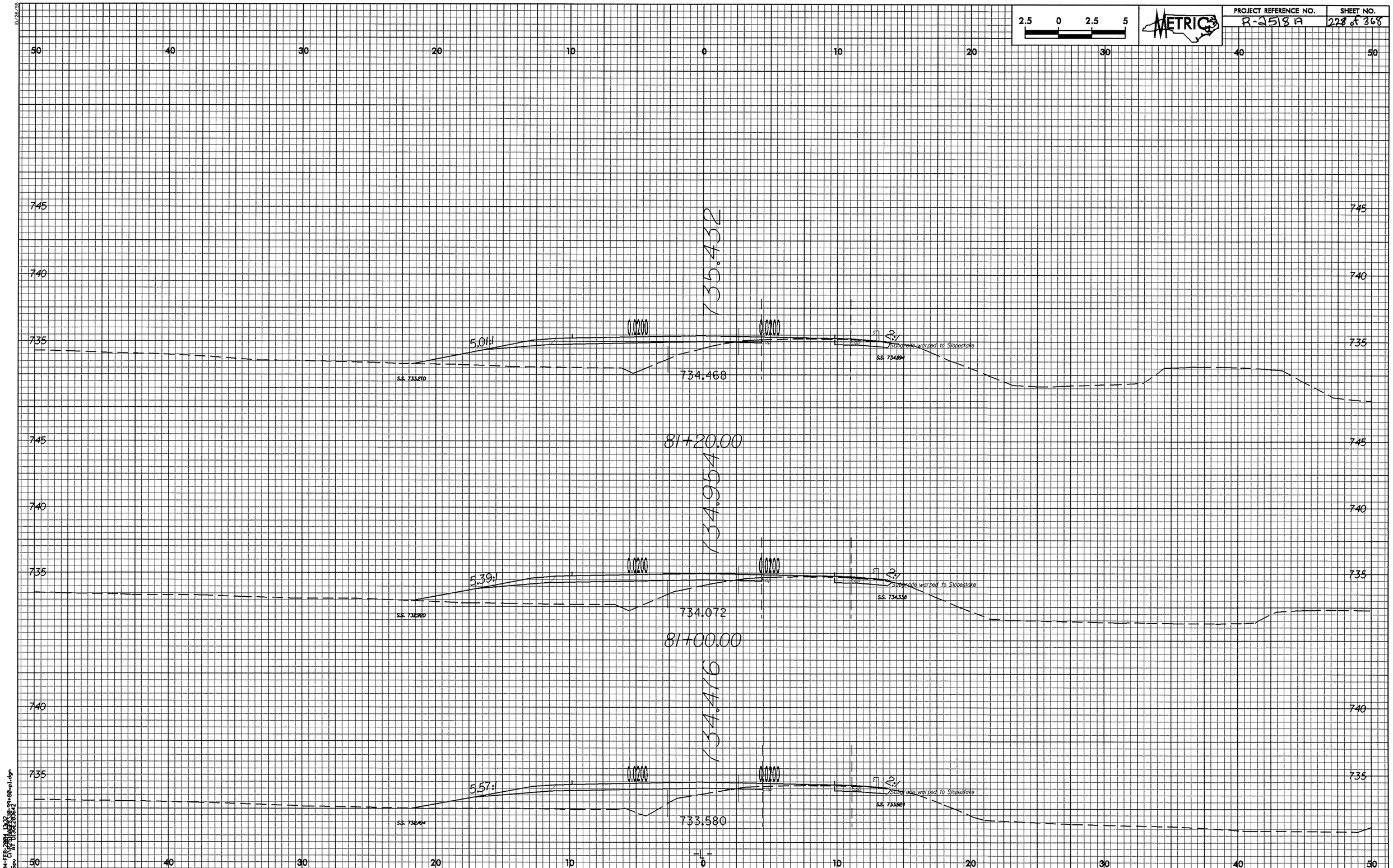
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
225 of 368
730.368
729.237
729.995
729.237
3.42:
0.0200
0.0200
79+40.00
729.657
728.525
729.261
728.525
0.0200
0.0200
0.0200
79+20.00
728.914
727.783
728.181
727.783
0.0200
0.0200
79+00.00
2:1
6:1



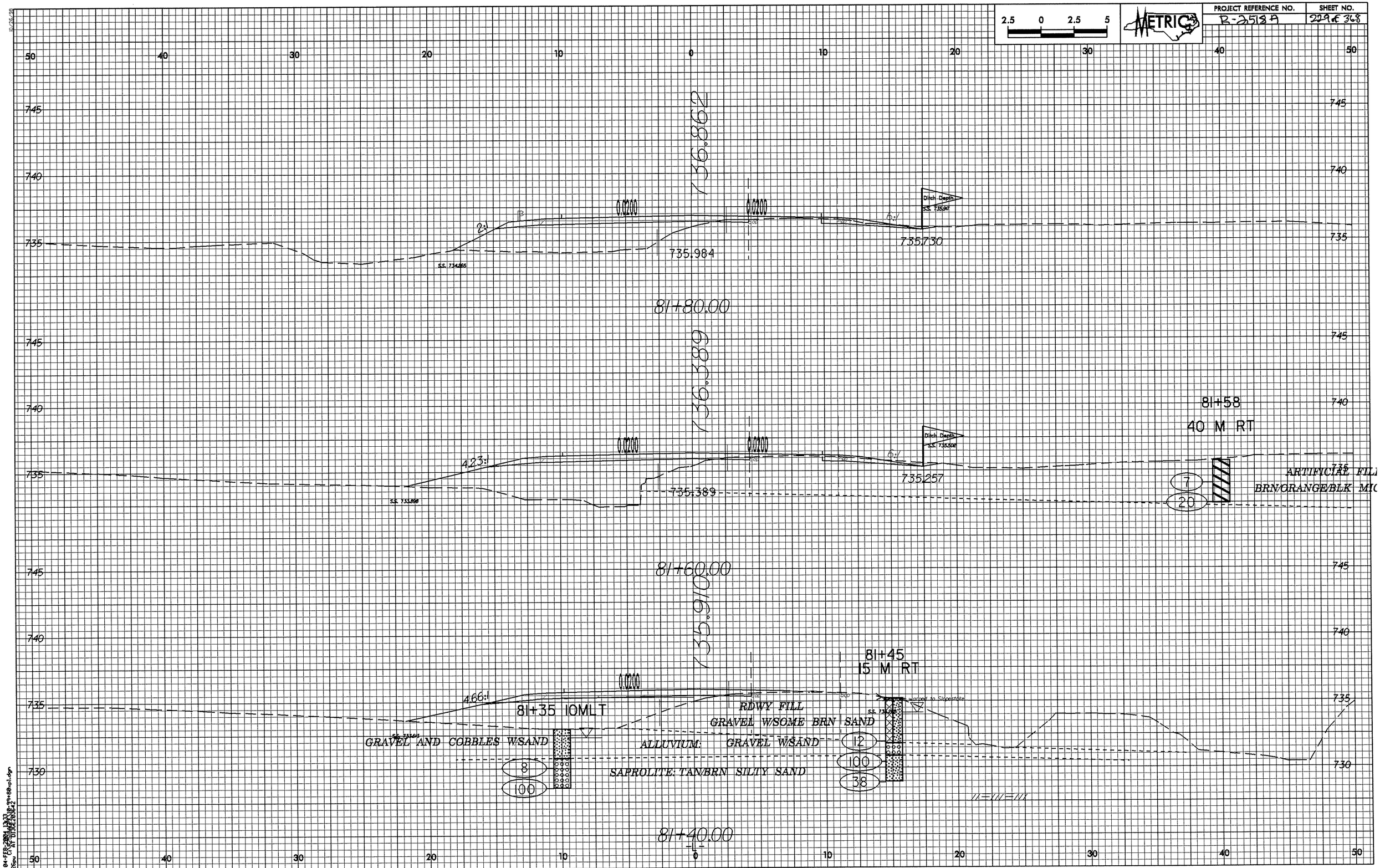
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
226 of 368
80+00
22 M RT
732.315
731.184
732.018
0.0200
0.0200
4.96:1
RESIDUAL: BRN/GRAY SANDY CLAY
SAPROLITE: GREEN/WHITE SLI MIC SILTY SAND
WEATHERED ROCK
24
7
17
100
80+00.00
731.691
730.566
731.877
730.566
79+80.00
731.048
729.917
731.227
729.917
3.55:1
79+60.00



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
227 of 368
50 40 30 20 10 0 10 20 30 40 50
740
735
730
733.982
0.0200
6:1
2:1
Subgrade warped to Slopestake
S.S. 732.502
733.121
80+60.00
733.451
3.90:1
732.425
80+40.00
732.902
Ditch Depth
731.770
731.704
3.42:1
-L-
80+20.00

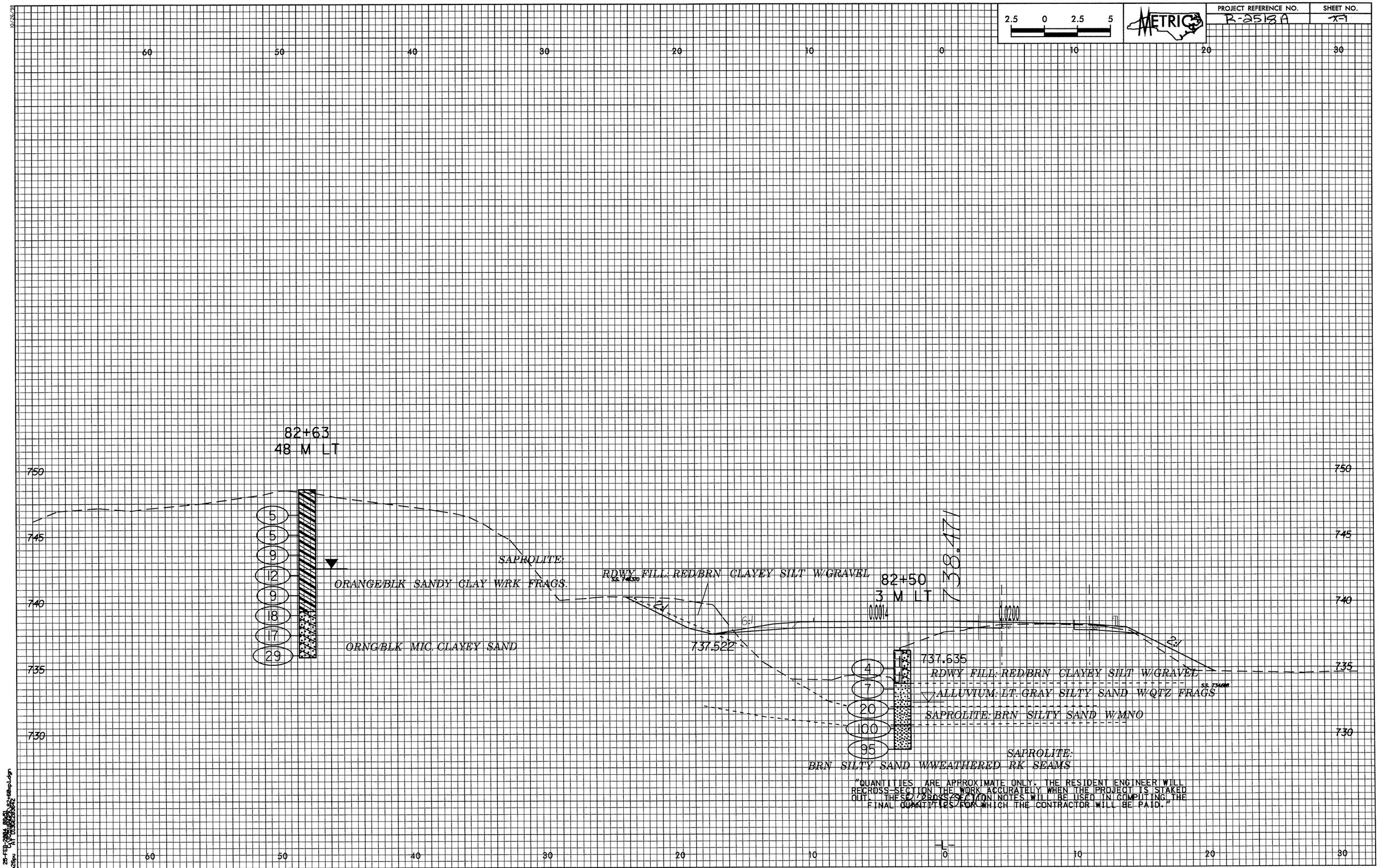


2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
228 of 368
50 40 30 20 10 0 10 20 30 40 50
745
740
735
735.432
0.0200
0.0200
5.01:1
2:1
Subgrade warped to Slopestake
S.S. 733270
734.468
81+20.00
734.954
5.39:1
S.S. 732920
734.072
81+00.00
734.476
5.57:1
S.S. 732494
733.580
80+80.00

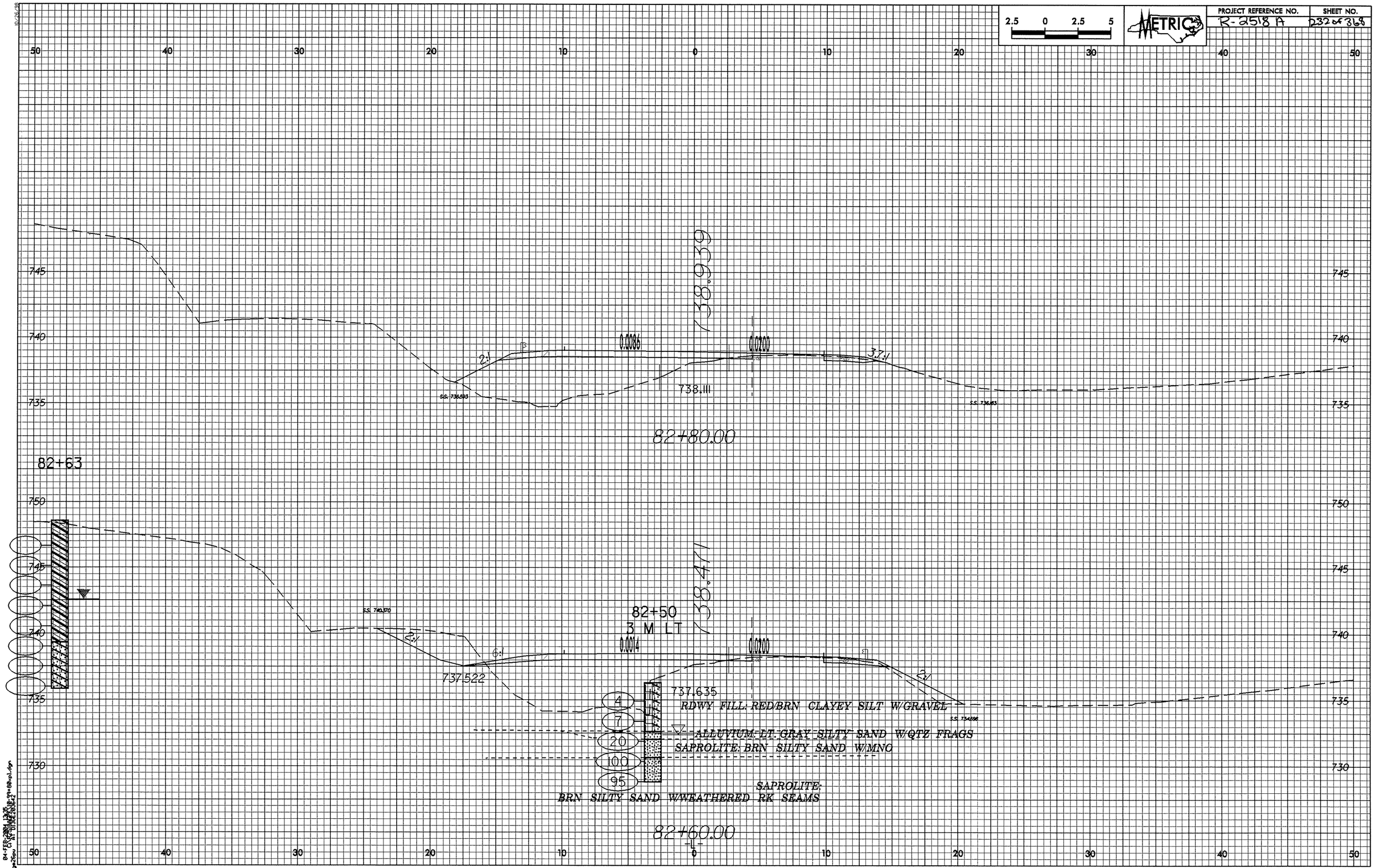


2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
229 of 368
736.862
0.0200
0.0200
2:1
6:1
Ditch Depth
735.984
735.730
81+80.00
736.389
81+58
40 M RT
4.23:1
735.389
735.257
ARTIFICIAL FIL
BRN/ORANGE/BLK MIC
7
20
81+60.00
735.910
81+45
15 M RT
4.66:1
81+35 10MLT
RDWY FILL
GRAVEL W/SOME BRN SAND
GRAVEL AND COBBLES W/SAND
ALLUVIUM: GRAVEL W/SAND
SAPROLITE: TAN/BRN SILTY SAND
8
100
12
100
38
81+40.00

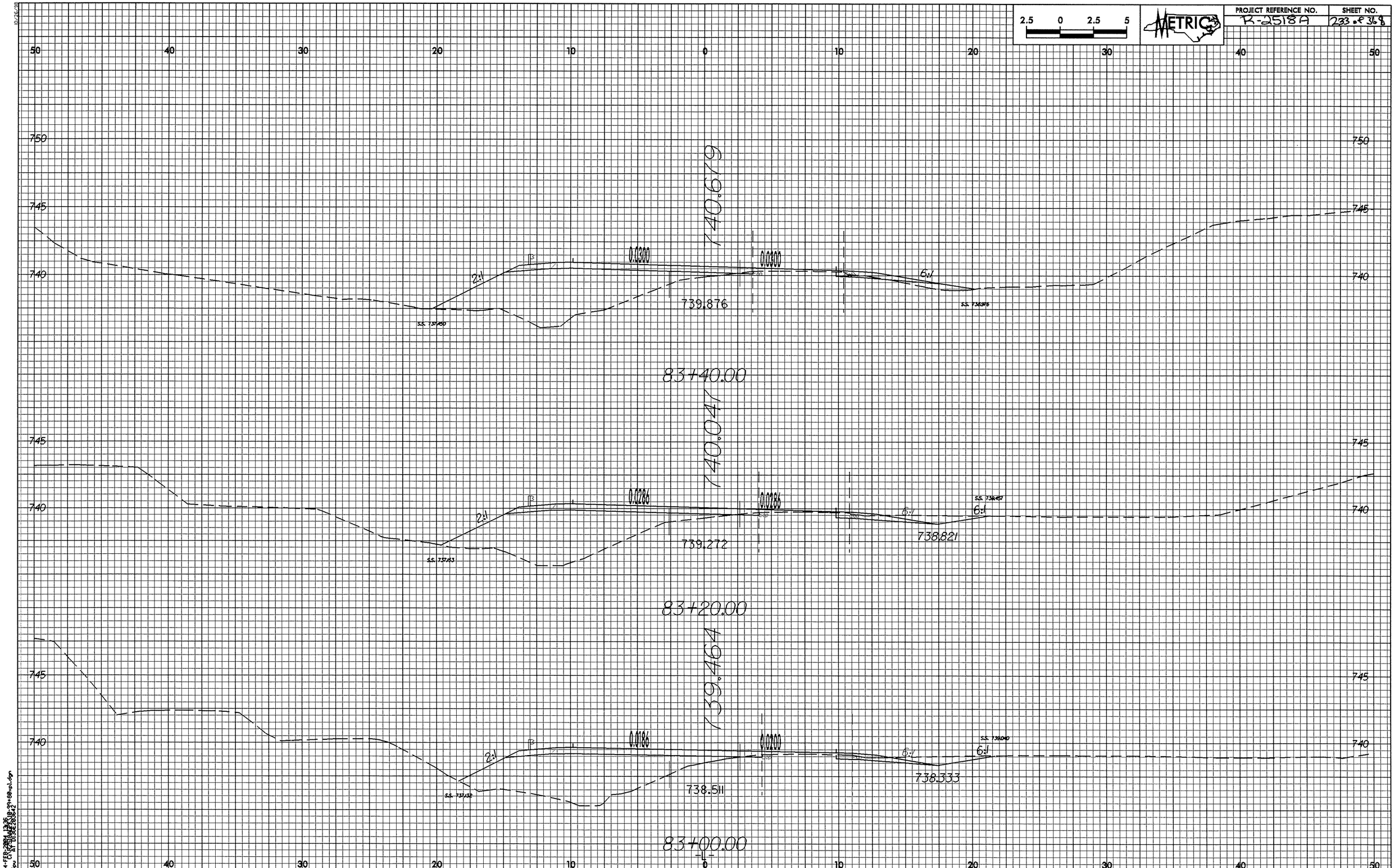
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
230 of 368
50 40 30 20 10 0 10 20 30 40 50
745
740
735
S.S. 744.230
2:1
6:1
0.0114
0.0200
738.060
737.013
737.521
S.S. 736.46
82+40.00
737.694
SHEAR TO -Y17-
S.S. 737.763
0.0200
0.0200
6:1
S.S. 737.085
737.551
736.482
82+20.00
737.298
82+07
17 M RT
0.0200
0.0200
2:1
6:1
S.S. 736.593
S.S. 735.056
736.167
8
11
BRN/BLK/ORANGE MIC. SILTY SAND
82+00.00
-L-



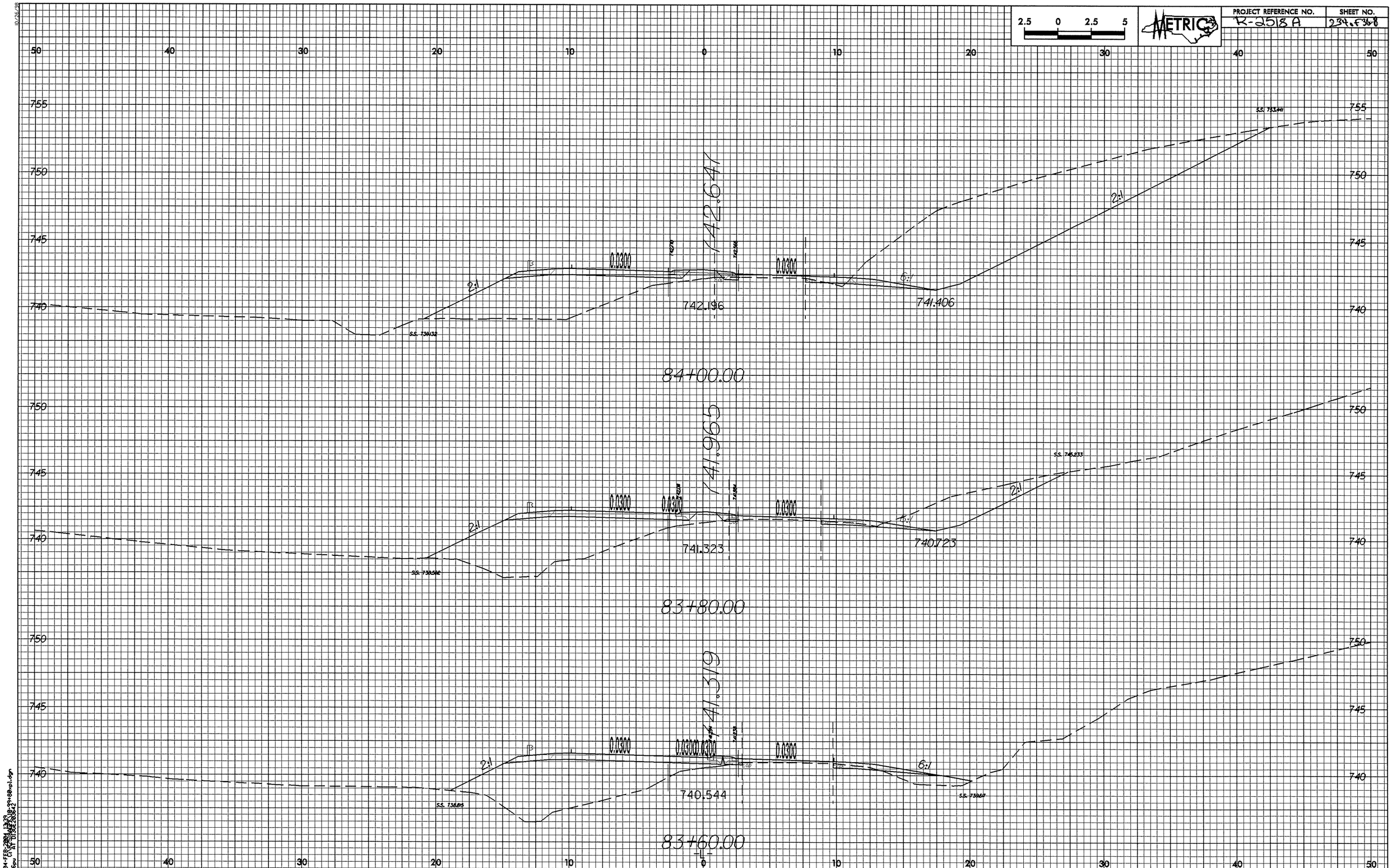
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
X-1
60 50 40 30 20 10 0 10 20 30
750 745 740 735 730
82+63
48 M LT
5
5
9
12
9
18
17
29
SAPROLITE:
ORANGE/BLK SANDY CLAY W/RK FRAGS.
ORNG/BLK MIC. CLAYEY SAND
RDWY FILL: RED/BRN CLAYEY SILT W/GRAVEL
2:1
6:1
737.522
82+50
3 M LT
738.471
0.0014
0.0200
2:1
737.635
4
7
20
100
95
RDWY FILL: RED/BRN CLAYEY SILT W/GRAVEL
ALLUVIUM: LT. GRAY SILTY SAND W/QTZ FRAGS
SAPROLITE: BRN SILTY SAND W/MNO
SAPROLITE:
BRN SILTY SAND W/WEATHERED RK SEAMS
"QUANTITIES ARE APPROXIMATE ONLY. THE RESIDENT ENGINEER WILL RECROSS-SECTION THE WORK ACCURATELY WHEN THE PROJECT IS STAKED OUT. THESE CROSS-SECTION NOTES WILL BE USED IN COMPUTING THE FINAL QUANTITIES FOR WHICH THE CONTRACTOR WILL BE PAID."
-L-



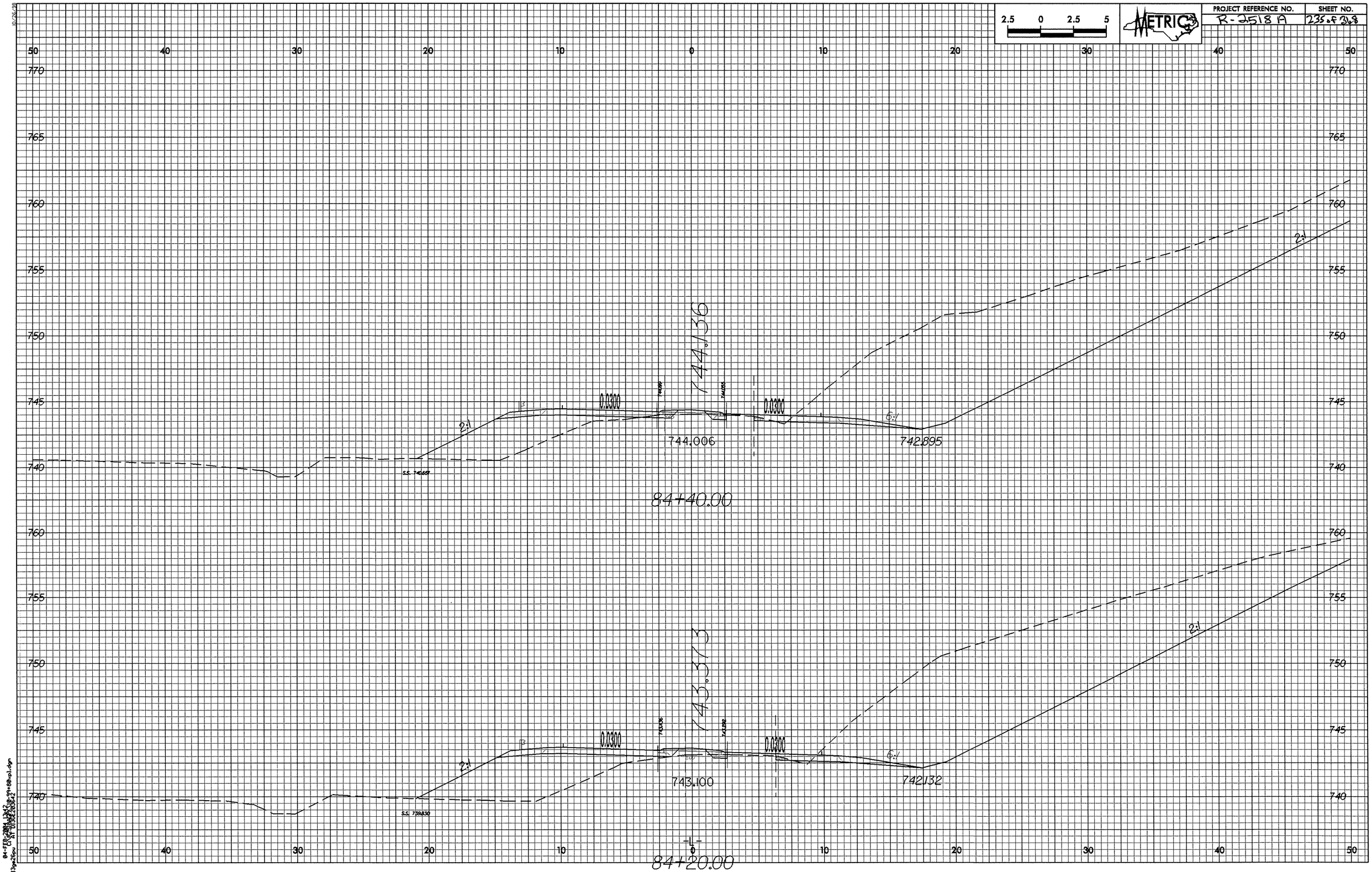
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
232 of 368
50 40 30 20 10 0 10 20 30 40 50
745
740
735
750
730
738.939
0.0086
0.0200
2:1
3.7:1
738.111
S.S. 736.593
S.S. 736.183
82+80.00
82+63
738.471
82+50
3 M LT
0.0014
0.0200
2:1
6:1
2:1
737.522
737.635
S.S. 740.370
S.S. 734.596
4
7
20
100
95
RDWY FILL: RED/BRN CLAYEY SILT W/GRAVEL
ALLUVIUM: LT. GRAY SILTY SAND W/QTZ FRAGS
SAPROLITE: BRN SILTY SAND W/MNO
SAPROLITE:
BRN SILTY SAND W/WEATHERED RK SEAMS
82+60.00
-L-



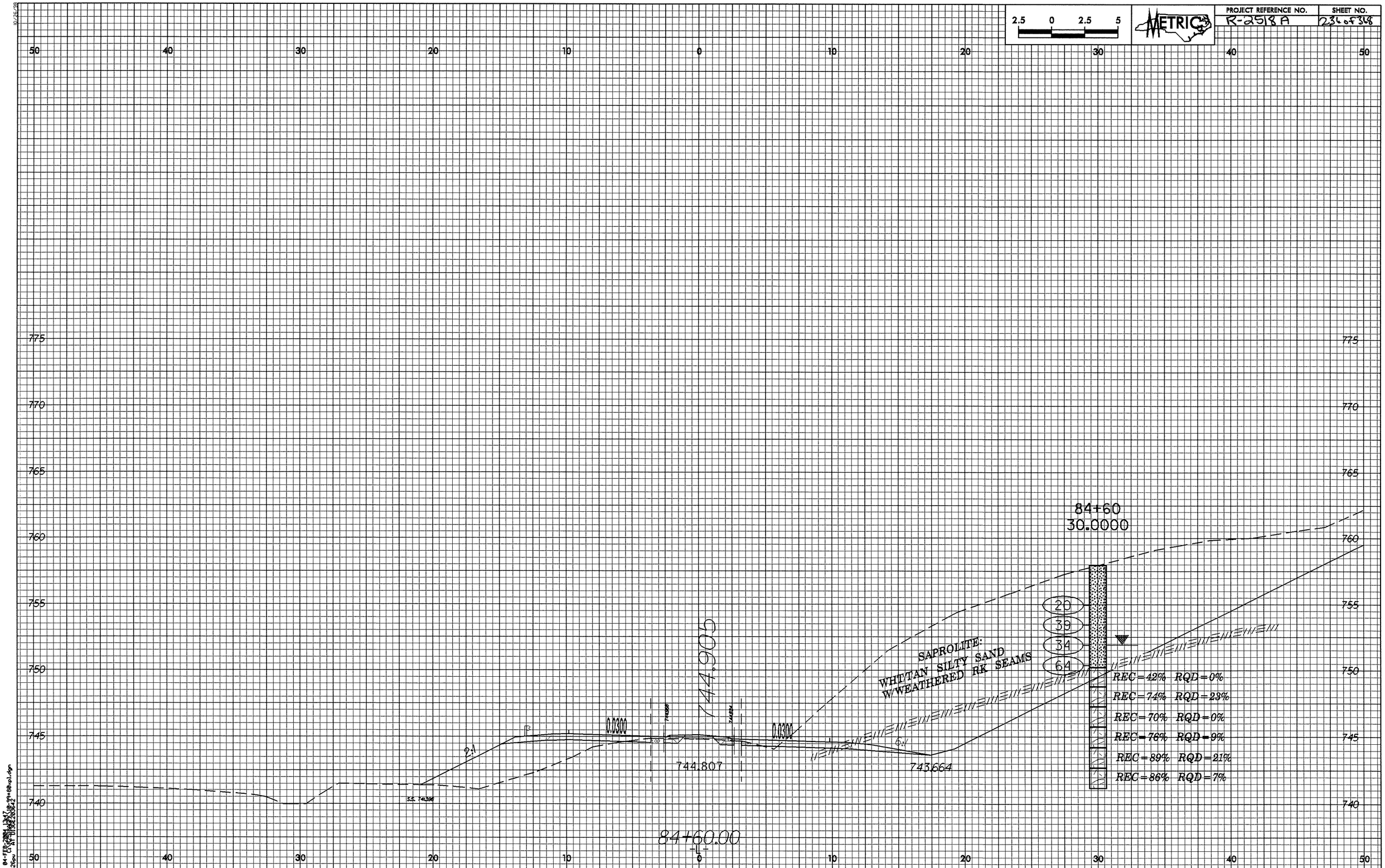
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
233 of 368
50 40 30 20 10 0 10 20 30 40 50
750
745
740
740.679
0.0300
0.0300
2:1
6:1
739.876
S.S. 737.450
S.S. 738.976
83+40.00
740.047
0.0286
0.0286
2:1
6:1
6:1
739.272
738.821
S.S. 737.153
S.S. 738.457
83+20.00
739.464
0.0186
0.0200
2:1
6:1
6:1
738.511
738.333
S.S. 737.132
S.S. 739.040
83+00.00



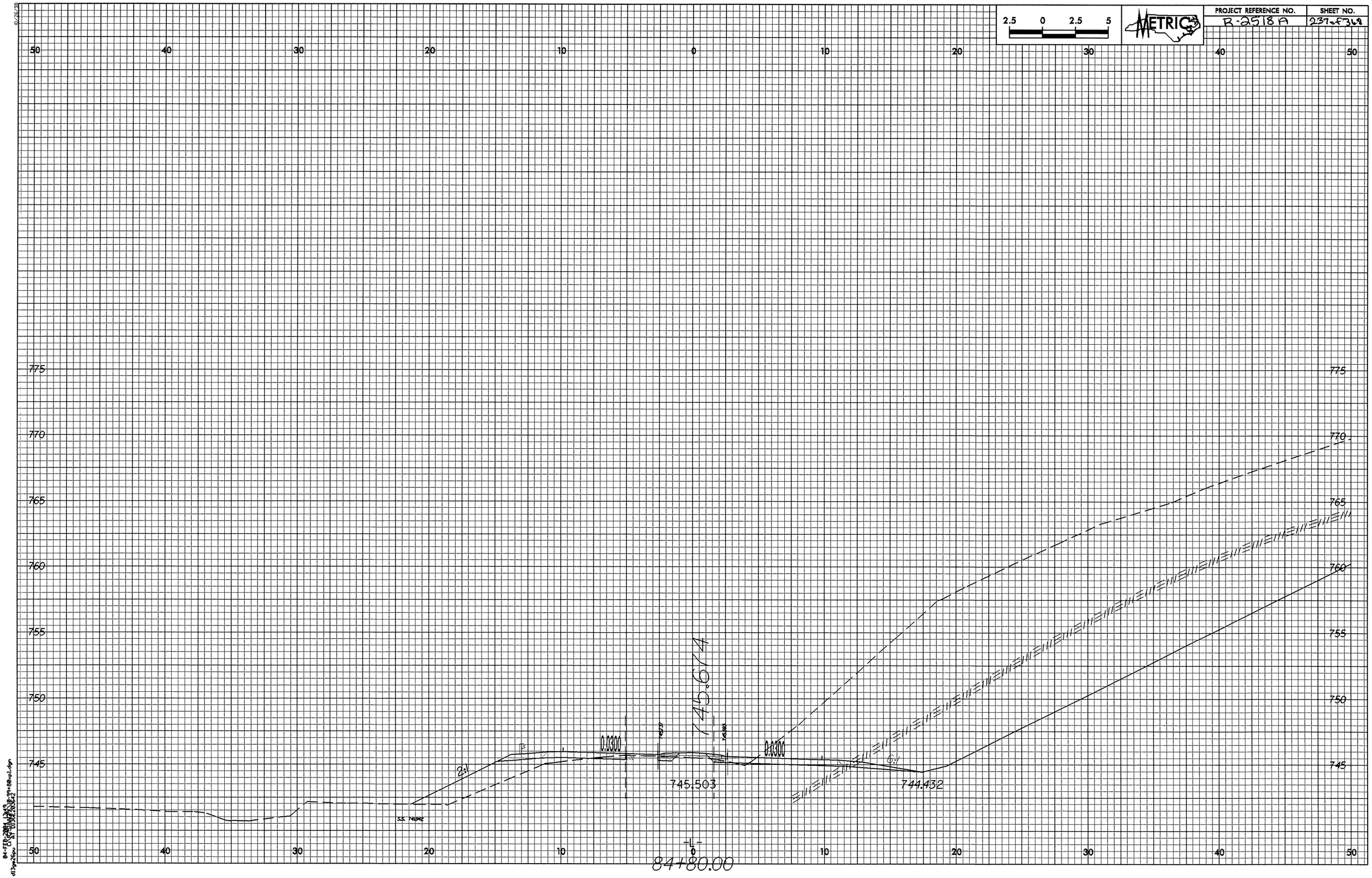
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
234.F368
742.647
742.196
741.406
0.0300
2:1
6:1
84+00.00
741.965
741.323
740.723
83+80.00
741.319
740.544
83+60.00



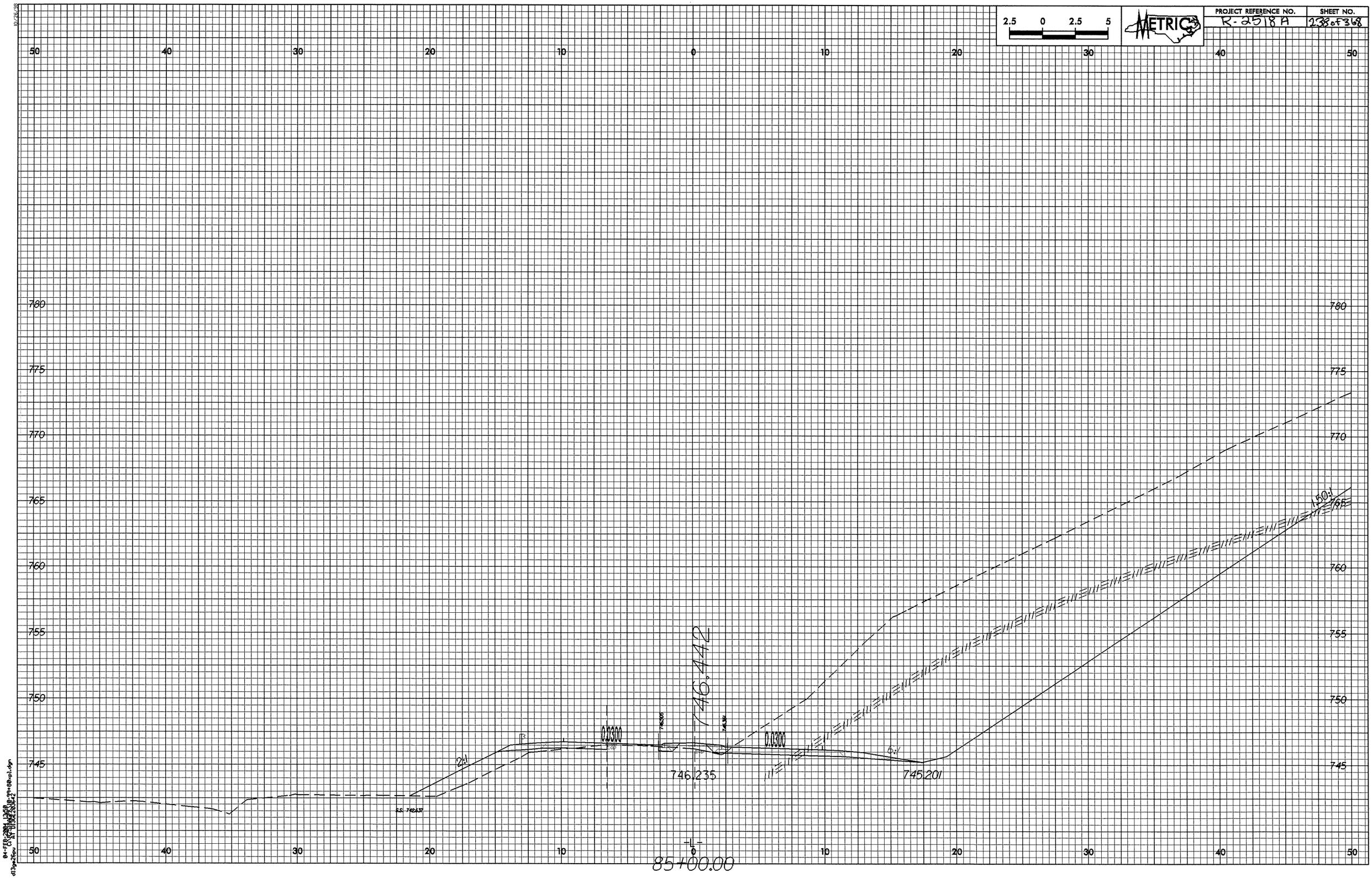
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
235 of 368
50 40 30 20 10 0 10 20 30 40 50
770 765 760 755 750 745 740
744.136
0.0300
0.0300
2:1
6:1
744.006
742.895
S.S. 740.657
84+40.00
743.373
0.0300
0.0300
2:1
6:1
743.100
742.132
S.S. 739.830
-L-
84+20.00



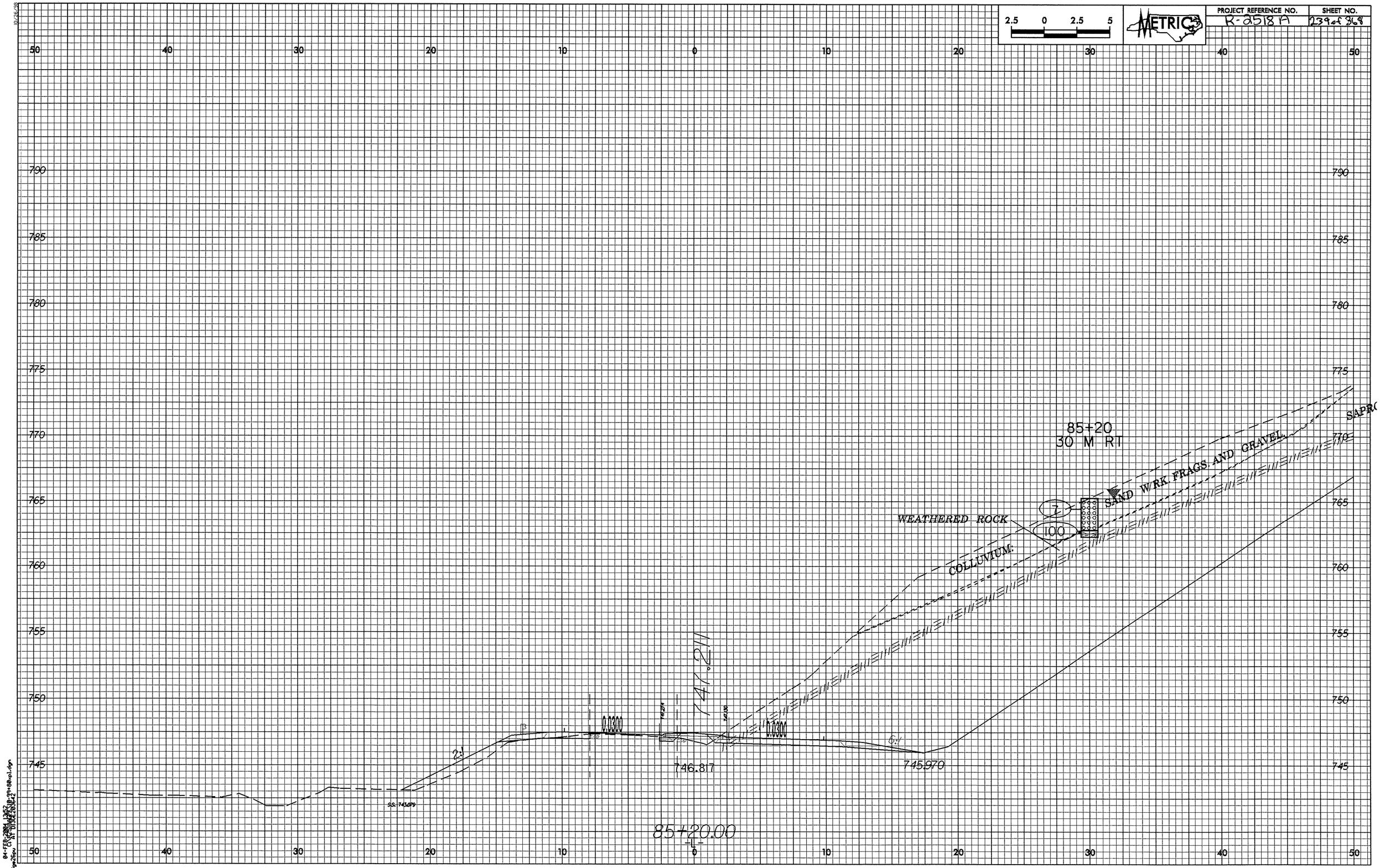
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
236 of 368
50 40 30 20 10 0 10 20 30 40 50
775
770
765
760
755
750
745
740
84+60
30.0000
20
39
34
64
SAPROLITE:
WHT/TAN SILTY SAND
W/WEATHERED RK SEAMS
REC=42% RQD=0%
REC=74% RQD=23%
REC=70% RQD=0%
REC=76% RQD=9%
REC=89% RQD=21%
REC=86% RQD=7%
744.905
0.0300
0.0300
2:1
6:1
744.807
743.664
84+60.00
-L-



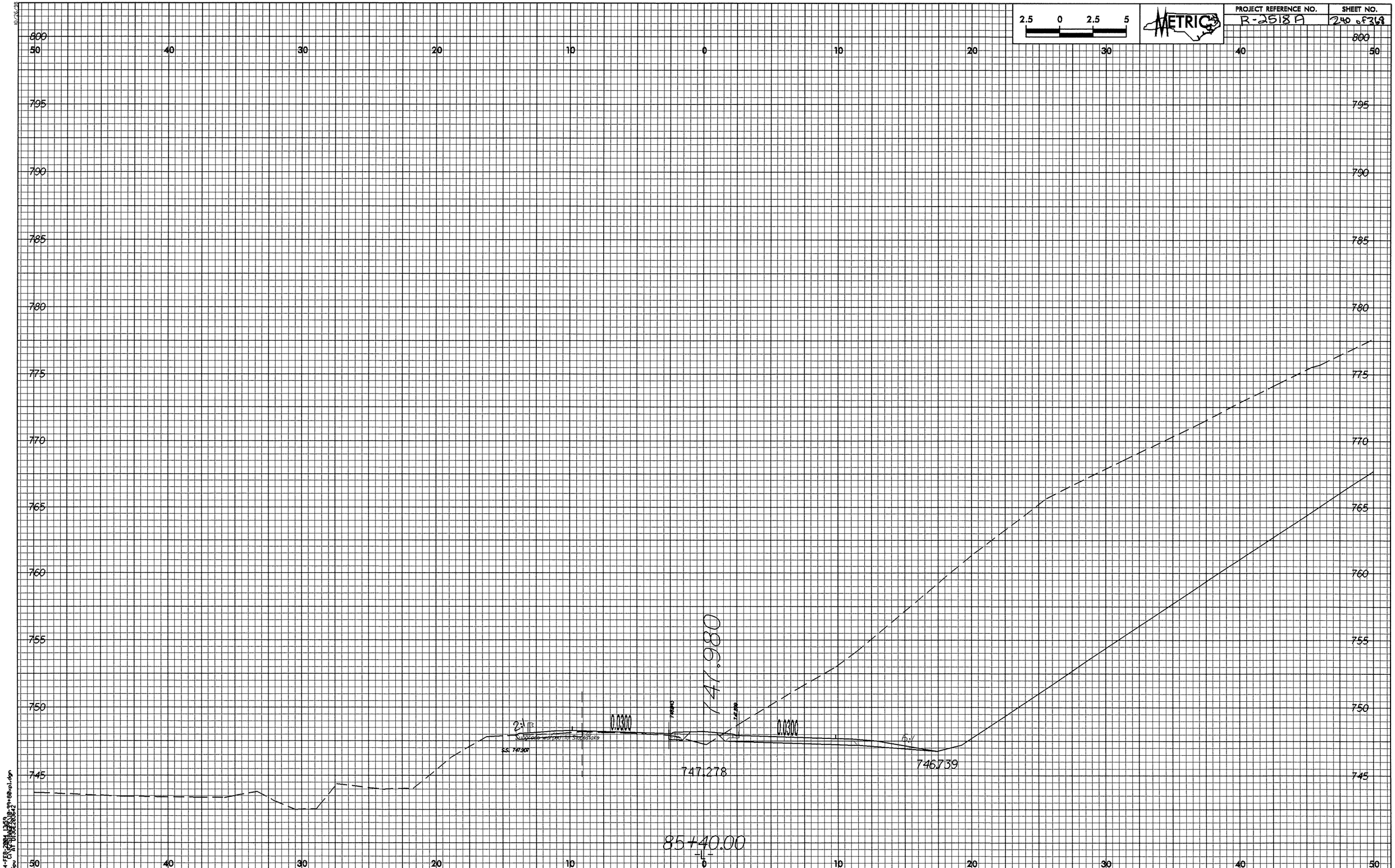
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
237 of 368
50 40 30 20 10 0 10 20 30 40 50
775
770
765
760
755
750
745
745.674
0.0300
0.0300
2:1
6:1
745.503
744.432
S.S. 741.942
-L-
84+80.00



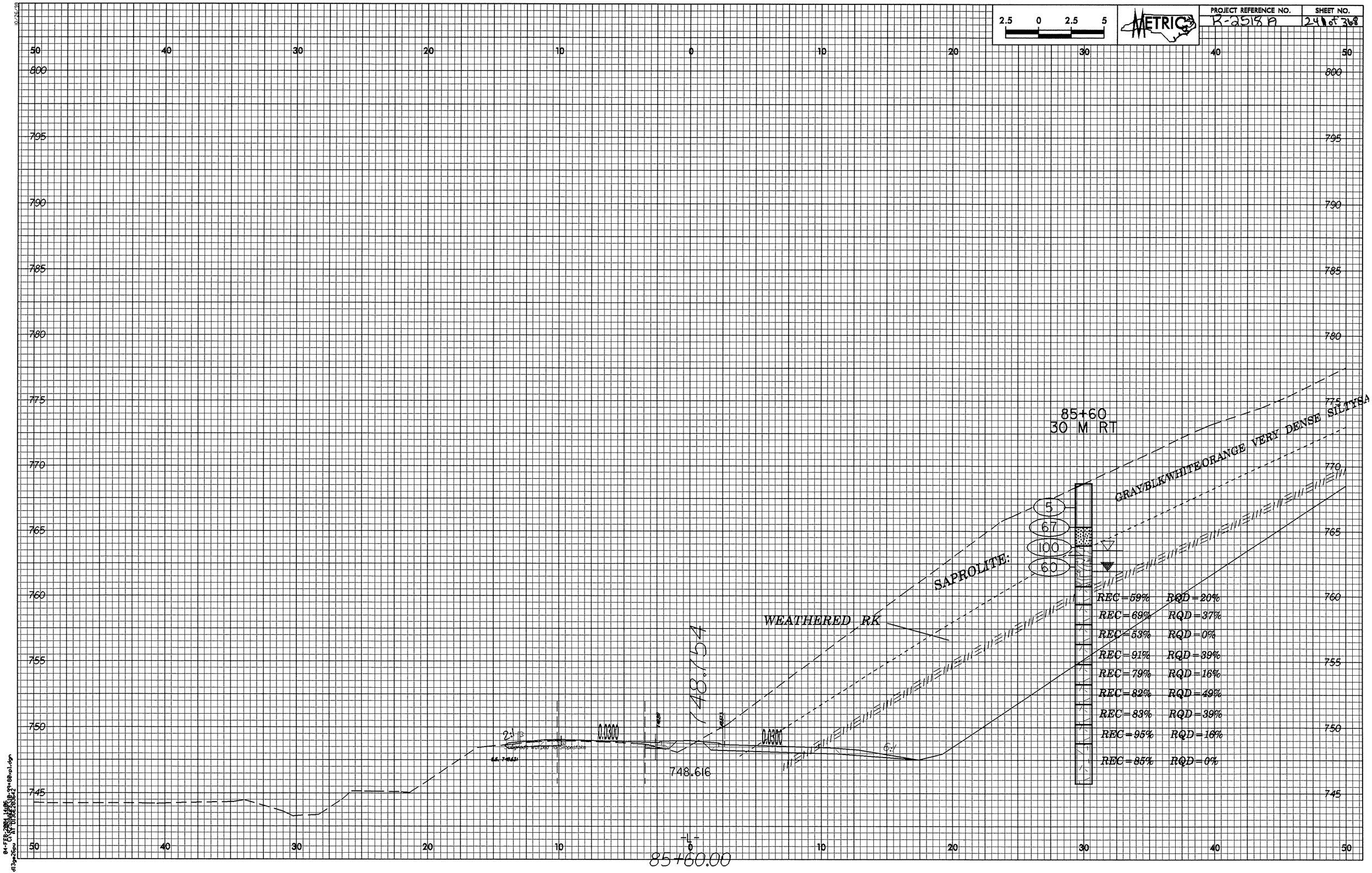
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
238 of 368
50 40 30 20 10 0 10 20 30 40 50
780 775 770 765 760 755 750 745
746.442
0.0300
0.0300
2:1
6:1
1.50:1
746.235
745.201
-L-
85+00.00



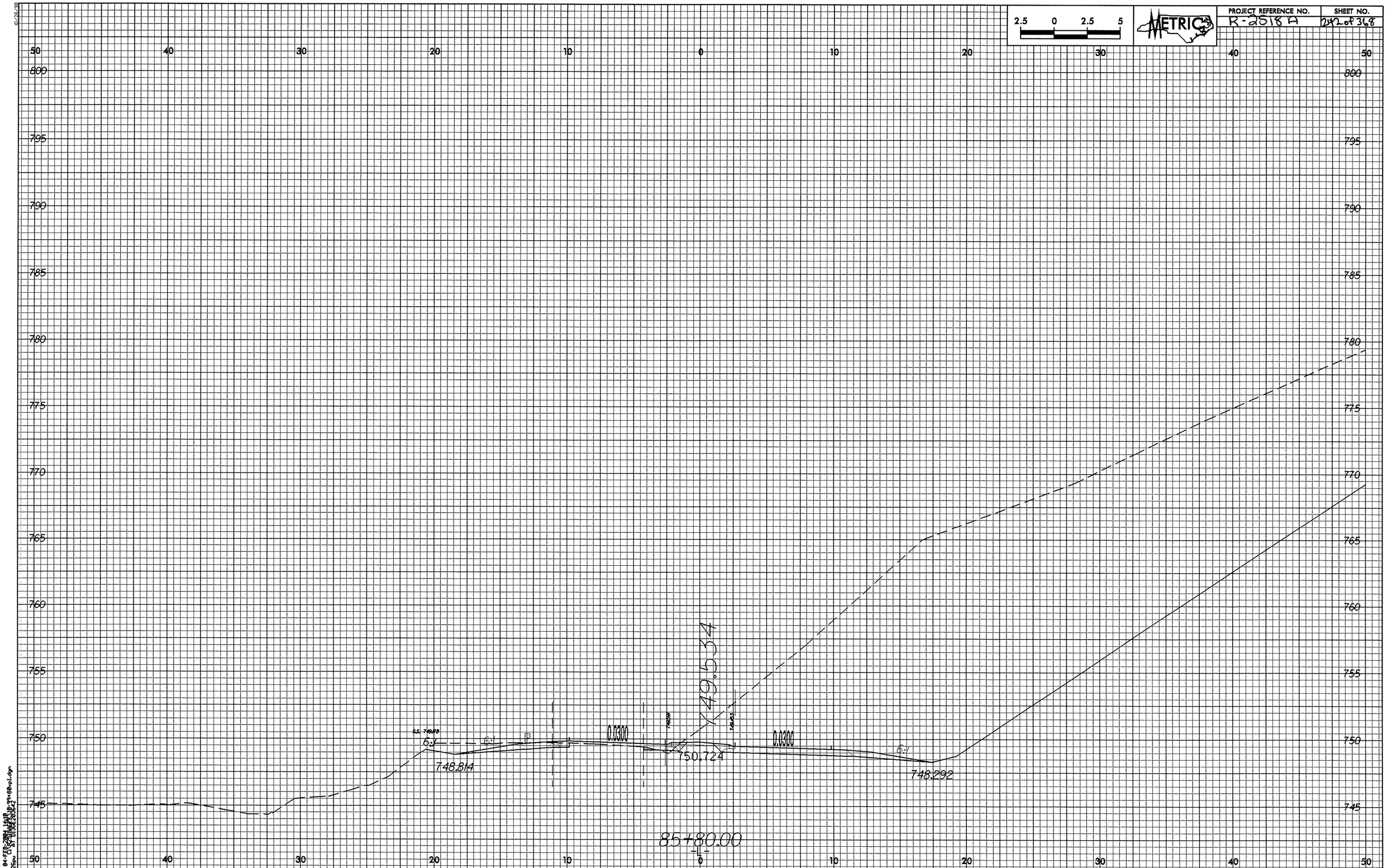
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
239 of 368
85+20
30 M RT
SAND W/RK FRAGS AND GRAVEL
WEATHERED ROCK
COLLUVIUM
7
100
747.211
0.0300
0.0300
2:1
6:1
746.817
745.970
85+20.00
-L-



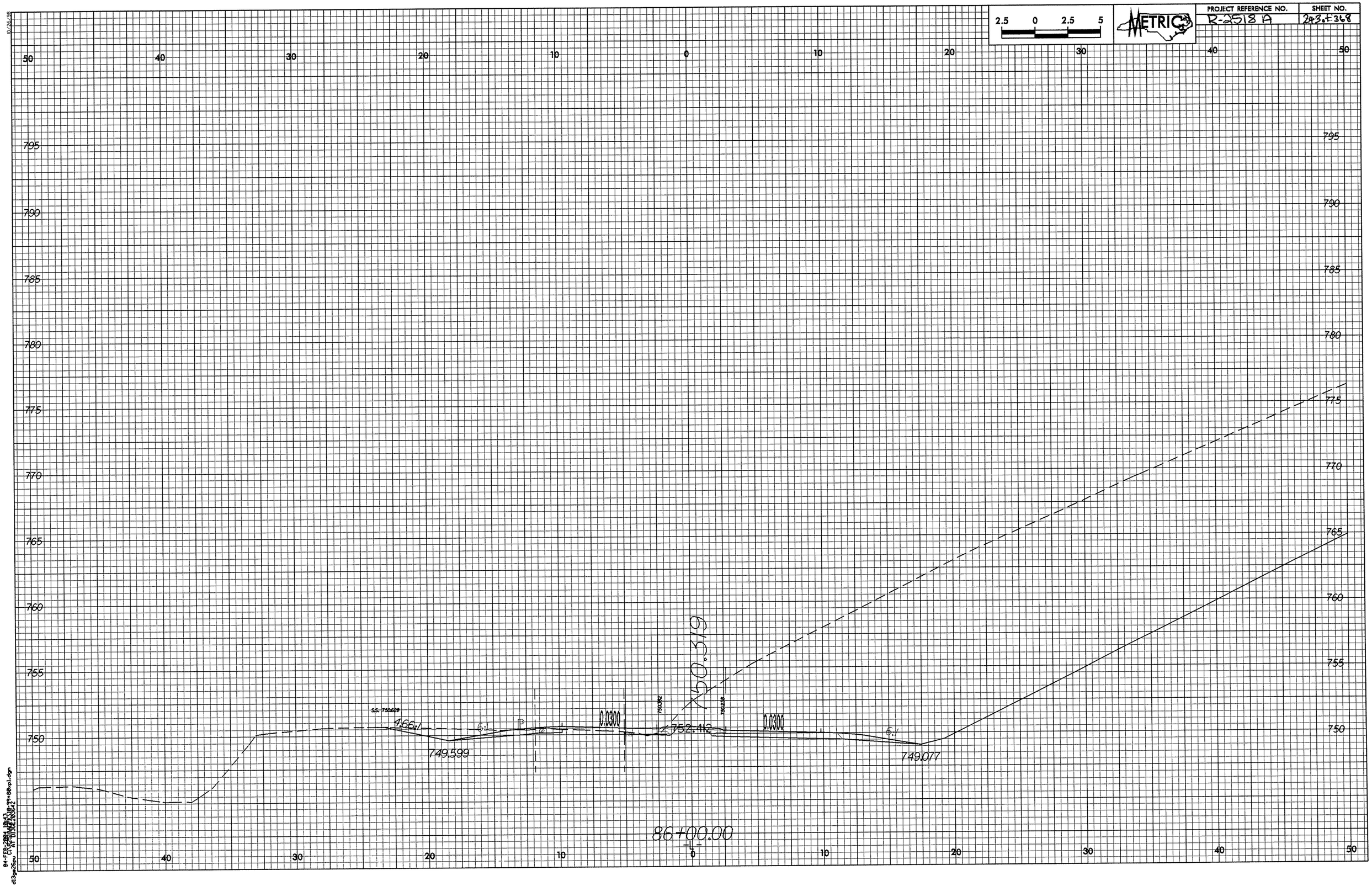
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
240 of 368
800
795
790
785
780
775
770
765
760
755
750
745
50 40 30 20 10 0 10 20 30 40 50
747.980
0.0300
0.0300
747.278
746.739
85+40.00
-L-



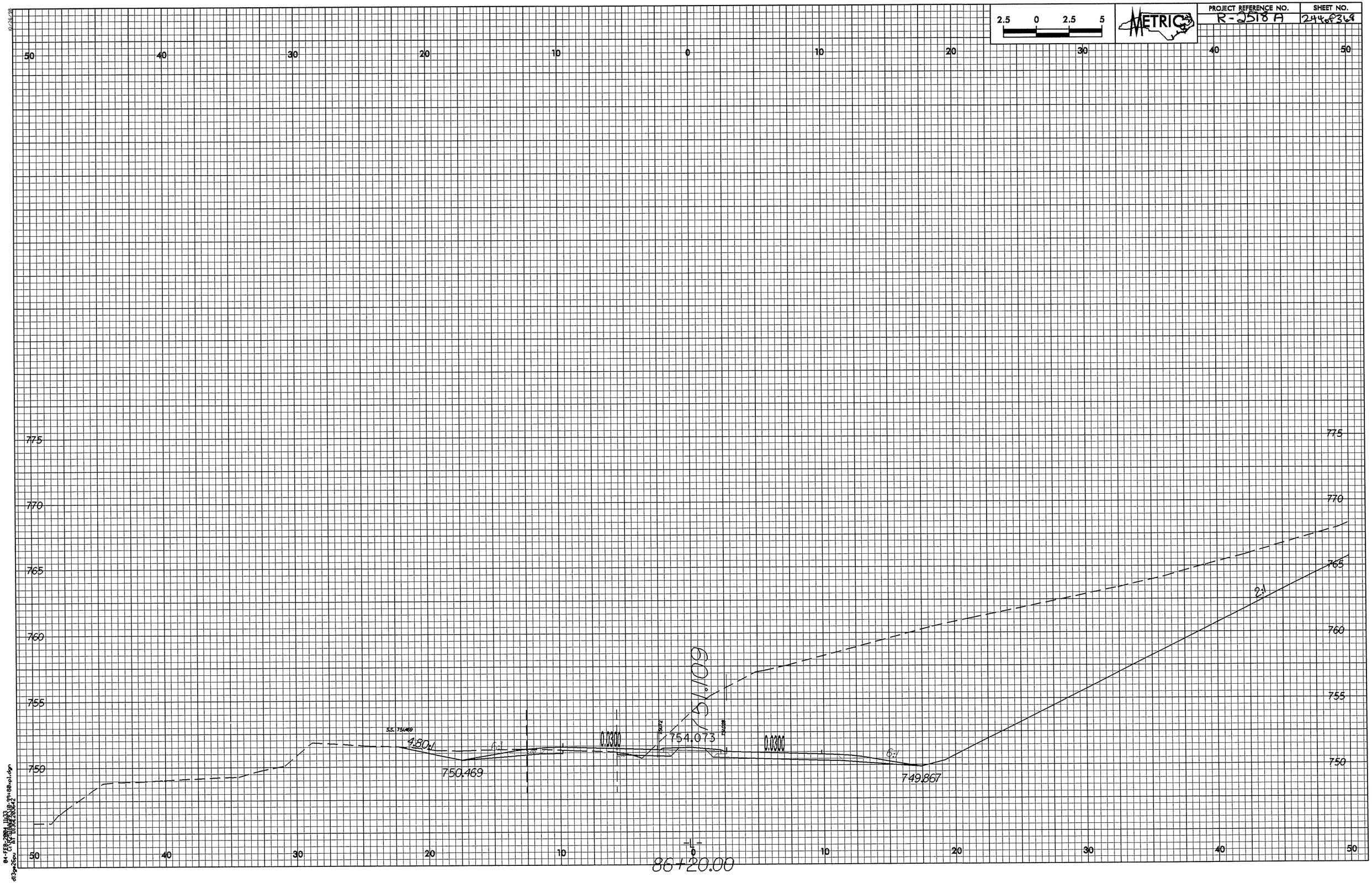
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
241 of 368
85+60
30 M RT
GRAY/BLK/WHITE/ORANGE VERY DENSE SILTYSA
SAPROLITE:
5
67
100
60
WEATHERED RK
REC=59% RQD=20%
REC=69% RQD=37%
REC=53% RQD=0%
REC=91% RQD=39%
REC=79% RQD=16%
REC=82% RQD=49%
REC=83% RQD=39%
REC=95% RQD=16%
REC=85% RQD=0%
748.754
748.616
0.0300
0.0300
2:1
6:1
-L-
85+60.00



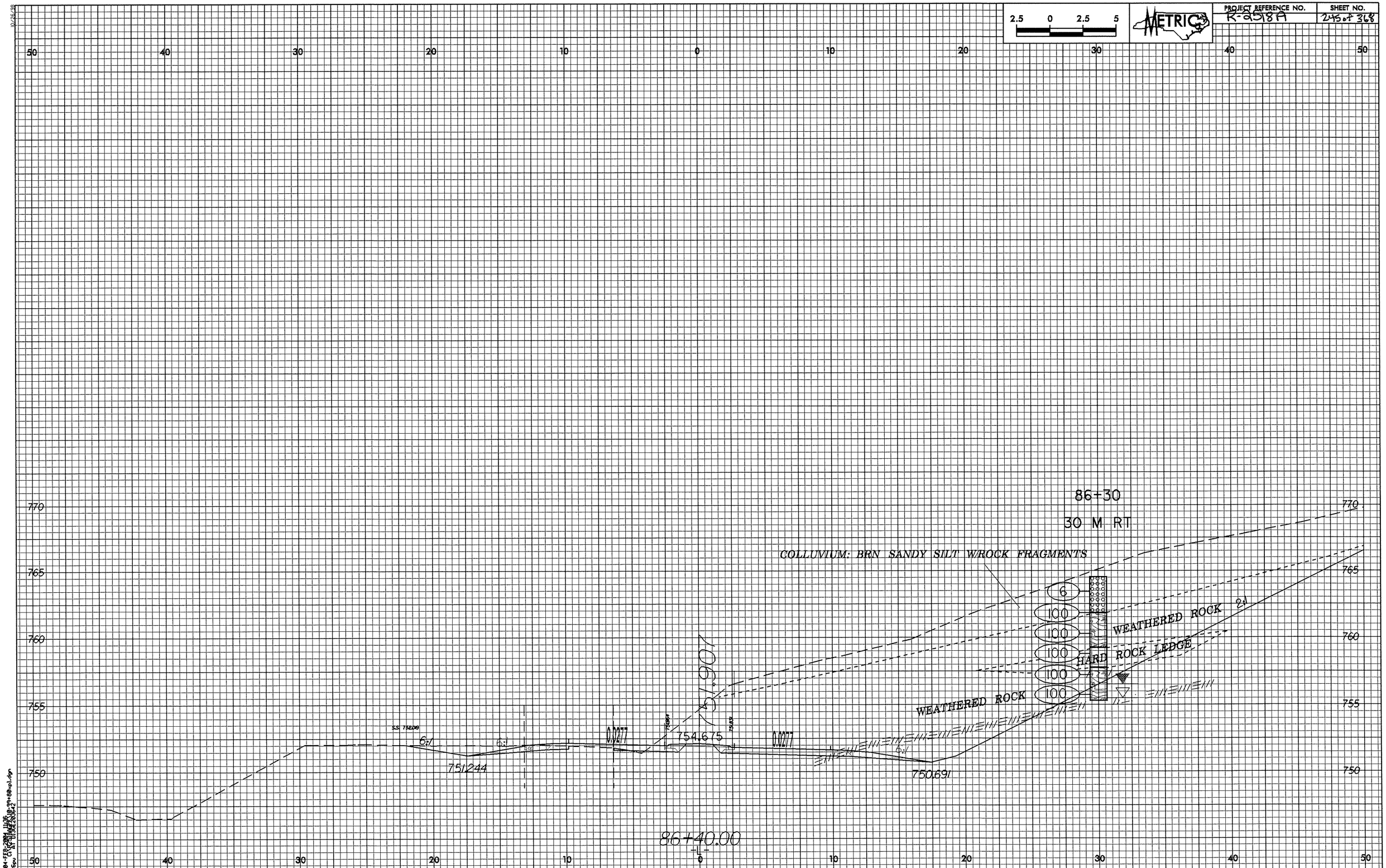
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
242 of 368
50 40 30 20 10 0 10 20 30 40 50
800
795
790
785
780
775
770
765
760
755
750
745
749.534
0.0300
0.0300
748.814
750.724
748.292
85+80.00



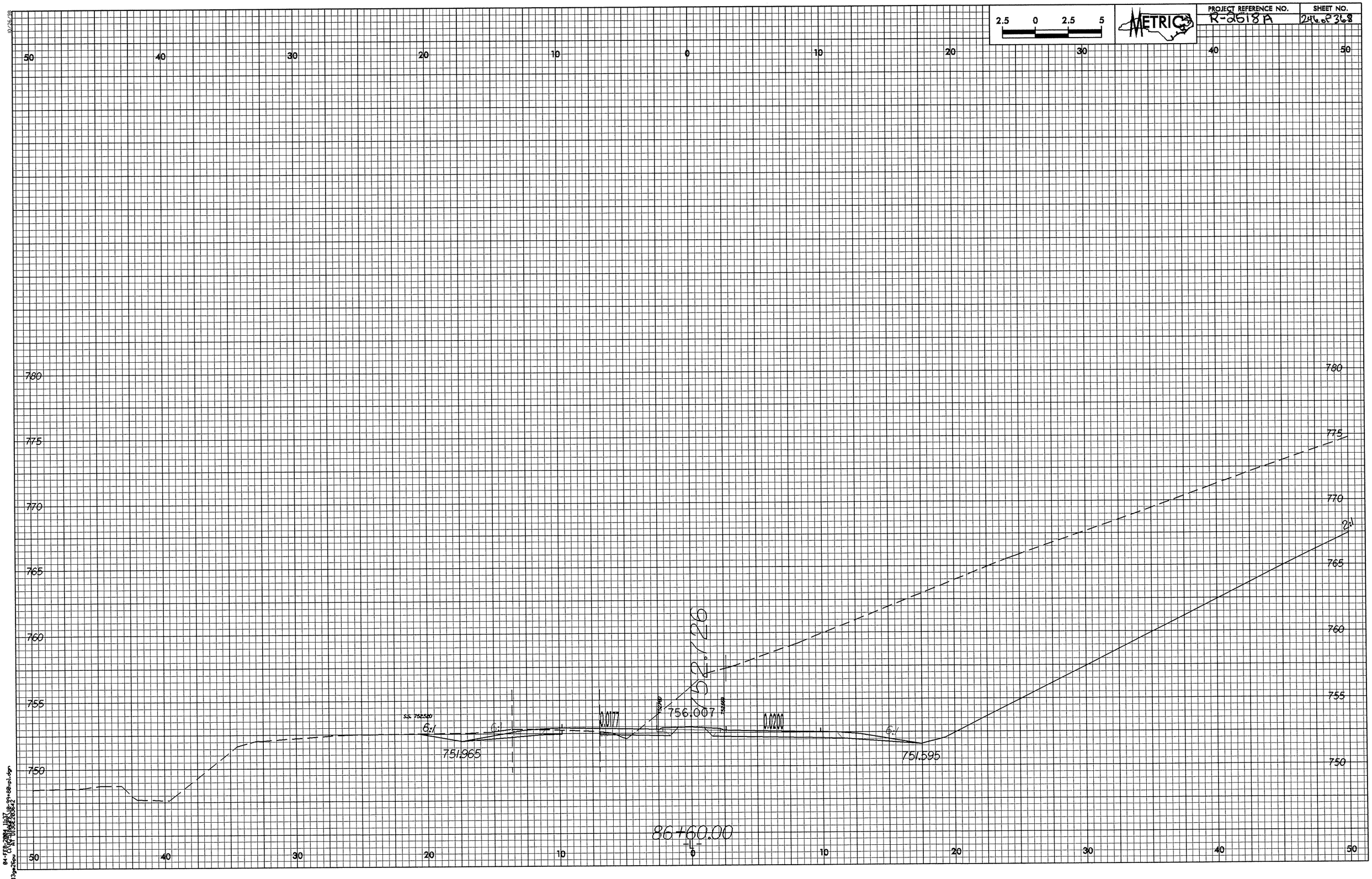
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
243 of 368
50 40 30 20 10 0 10 20 30 40 50
795 790 785 780 775 770 765 760 755 750
750.319
SS-750628
4.66:1
6:1
0.0300
752.412
0.0300
6:1
749.599
749.077
86+00.00



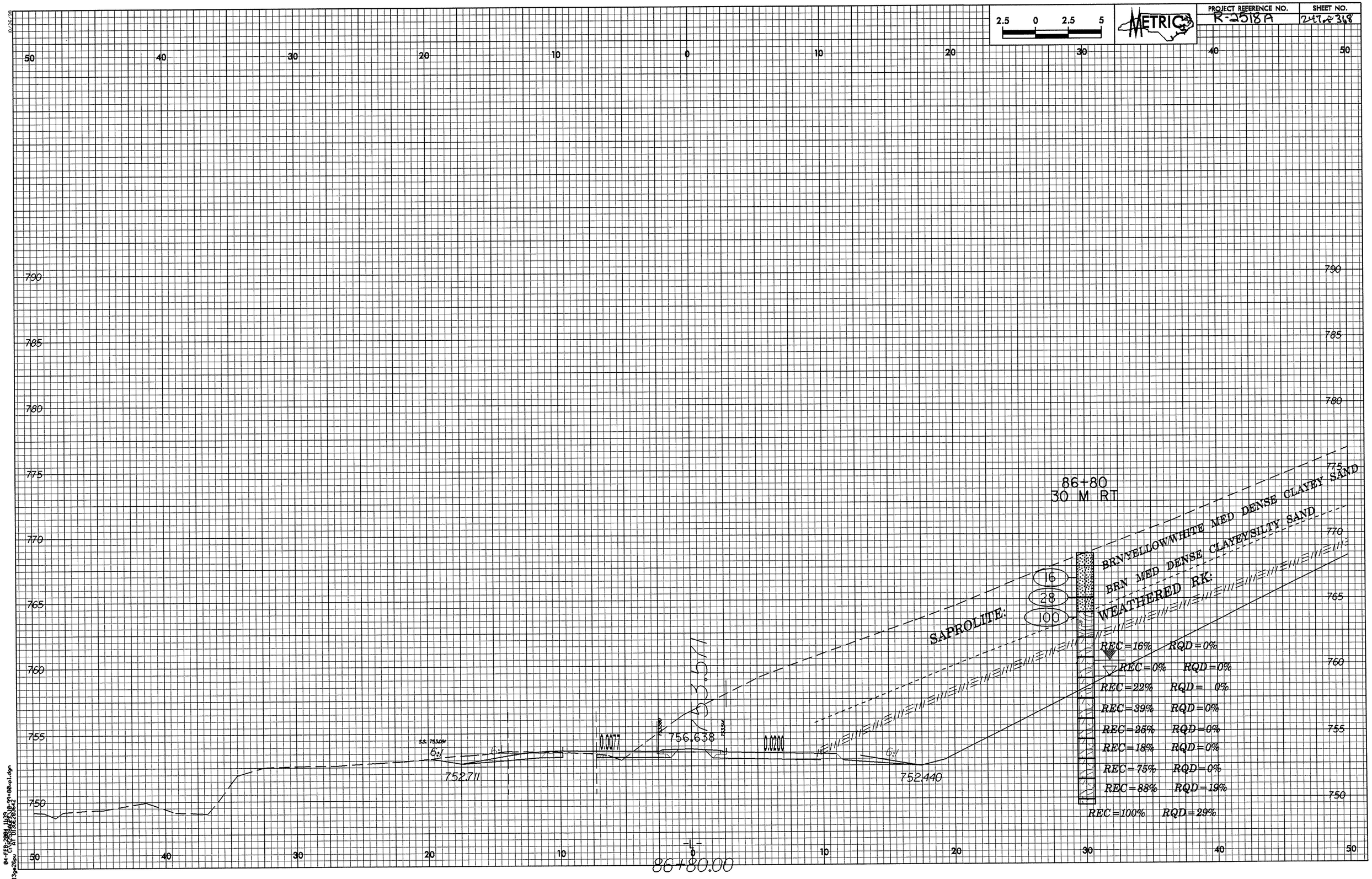
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
244 of 368
50 40 30 20 10 0 10 20 30 40 50
775
770
765
760
755
750
S.S. 750.469
4.80:1
6:1
0.0300
754.073
0.0300
6:1
2:1
750.469
749.867
-L-
86+20.00



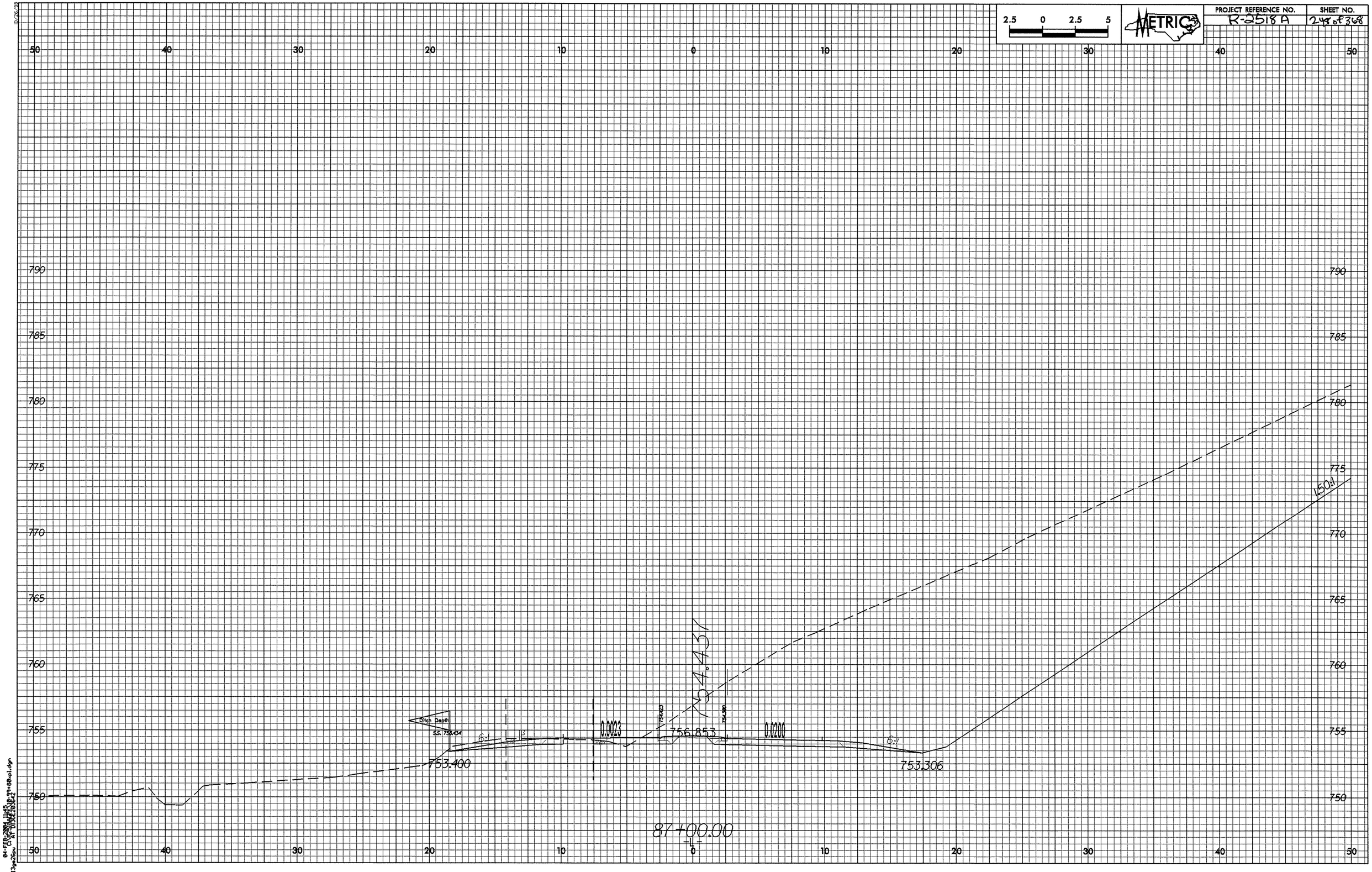
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
245 of 368
86+30
30 M RT
COLLUVIUM: BRN SANDY SILT W/ROCK FRAGMENTS
WEATHERED ROCK
HARD ROCK LEDGE
WEATHERED ROCK
6
100
100
100
100
100
751.907
751.244
754.675
750.691
0.0277
0.0277
6:1
6:1
6:1
86+40.00



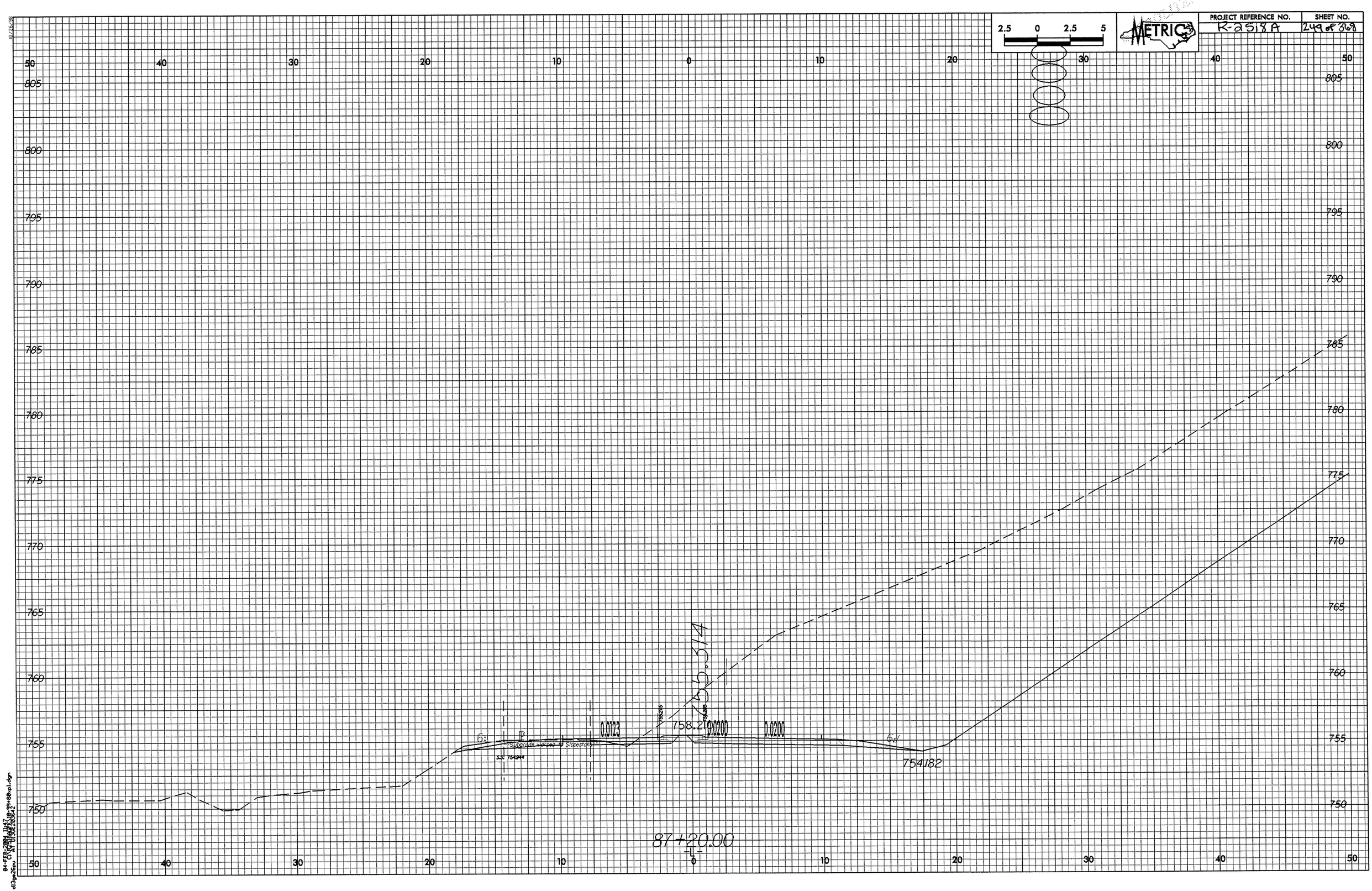
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
246 of 368
50 40 30 20 10 0 10 20 30 40 50
780
775
770
765
760
755
750
752.726
S.S. 752520
6:1
6:1
0.0177
756.007
0.0200
6:1
2:1
751.965
751.595
86+60.00
-L-



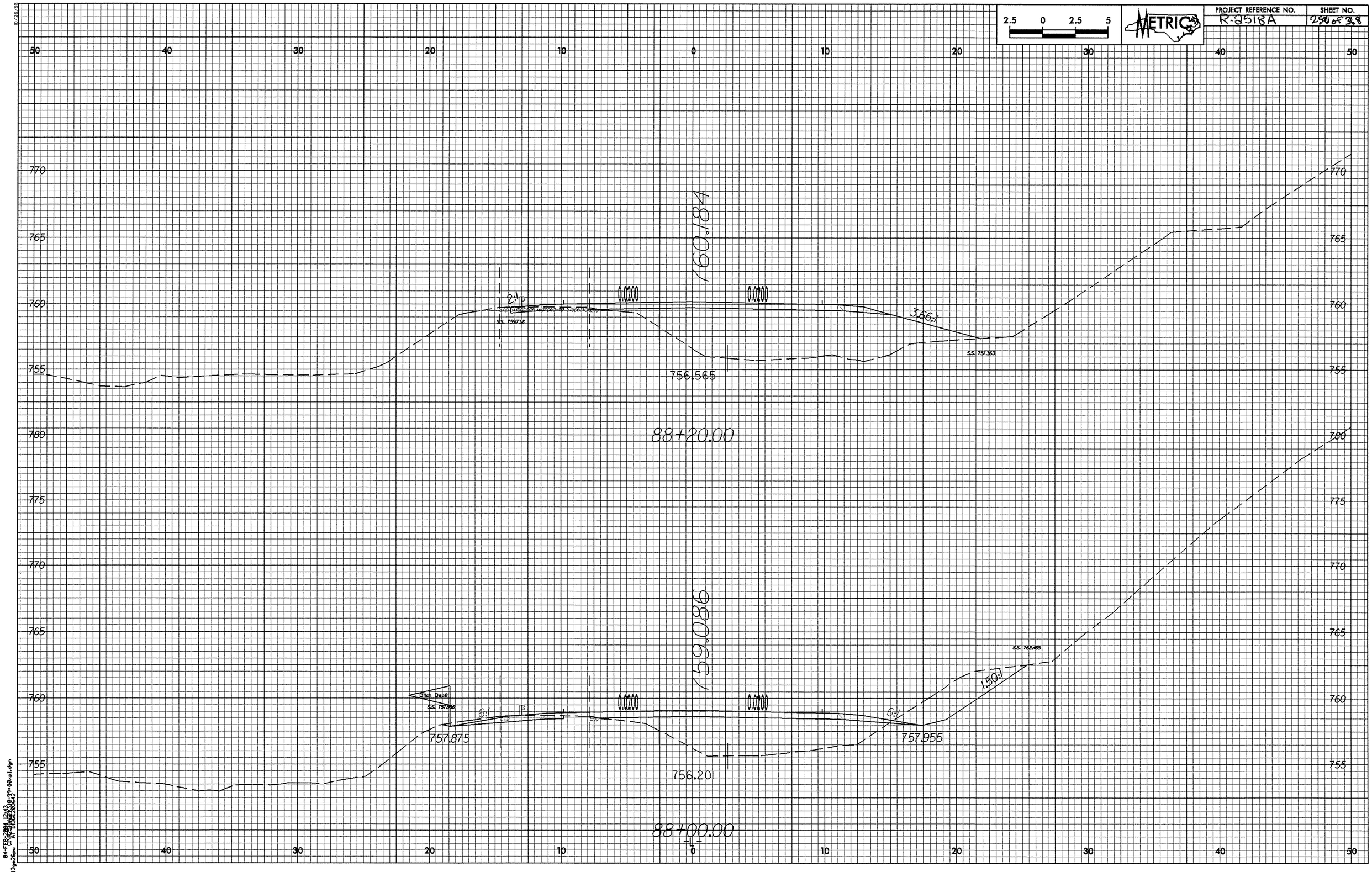
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
247 of 368
METRIC
2.5 0 2.5 5
86+80
30 M RT
BRN/YELLOW/WHITE MED DENSE CLAYEY SAND
BRN MED DENSE CLAYEY/SILTY SAND
SAPROLITE:
WEATHERED RK:
16
28
100
REC=16% RQD=0%
REC=0% RQD=0%
REC=22% RQD= 0%
REC=39% RQD=0%
REC=25% RQD=0%
REC=18% RQD=0%
REC=75% RQD=0%
REC=88% RQD=19%
REC=100% RQD=29%
753.571
756.638
752.711
752.440
0.0077
0.0200
6:1
86+80.00



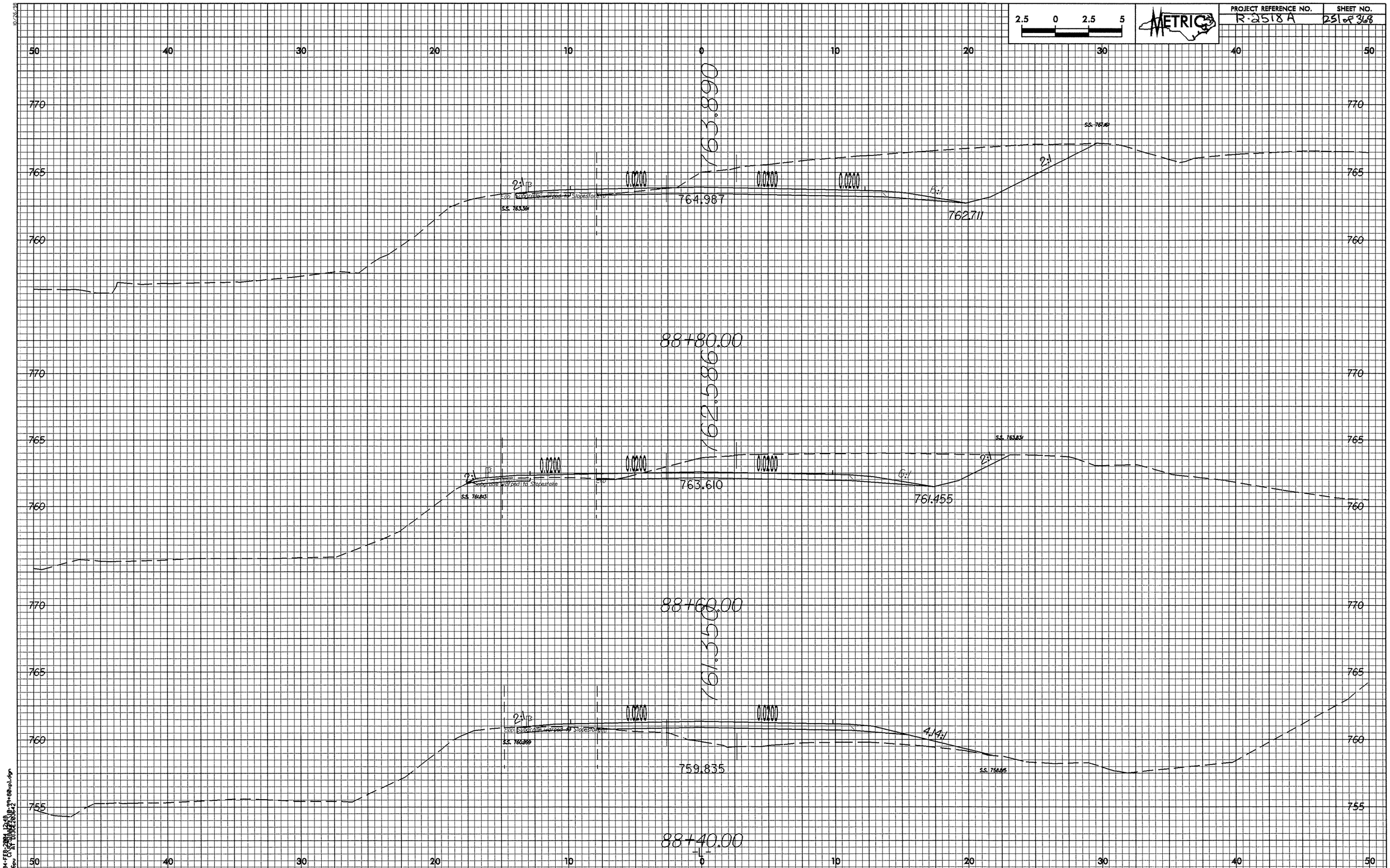
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
248 of 368
50 40 30 20 10 0 10 20 30 40 50
790 785 780 775 770 765 760 755 750
Ditch Depth
S.S. 755.434
6:1
0.0023
756.853
0.0200
754.437
753.400
753.306
1.50:1
87+00.00



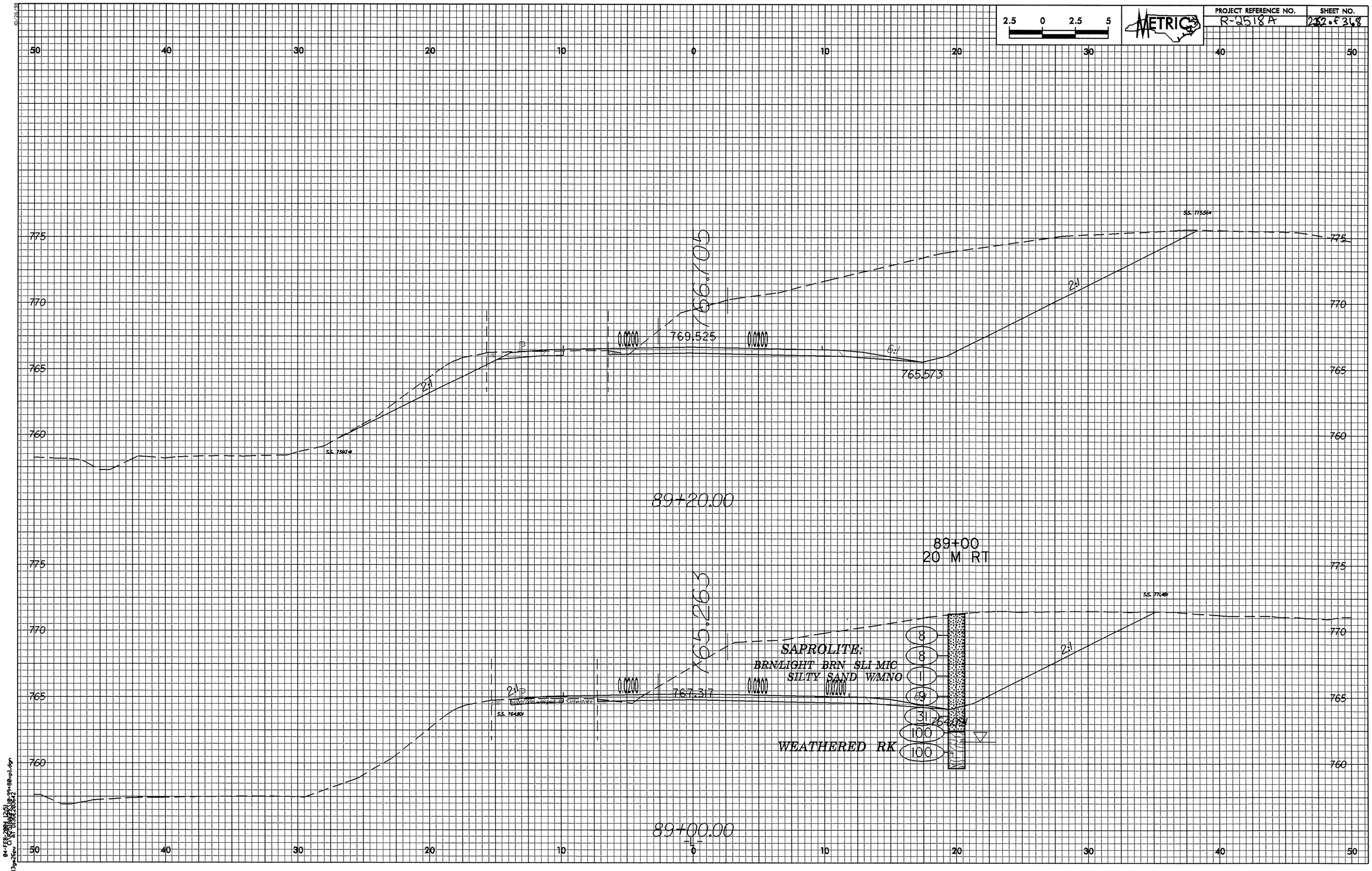
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
249 of 368
50 40 30 20 10 0 10 20 30 40 50
805
800
795
790
785
780
775
770
765
760
755
750
0.0123
758.21
0.0200
0.0200
755.314
754.182
87+20.00



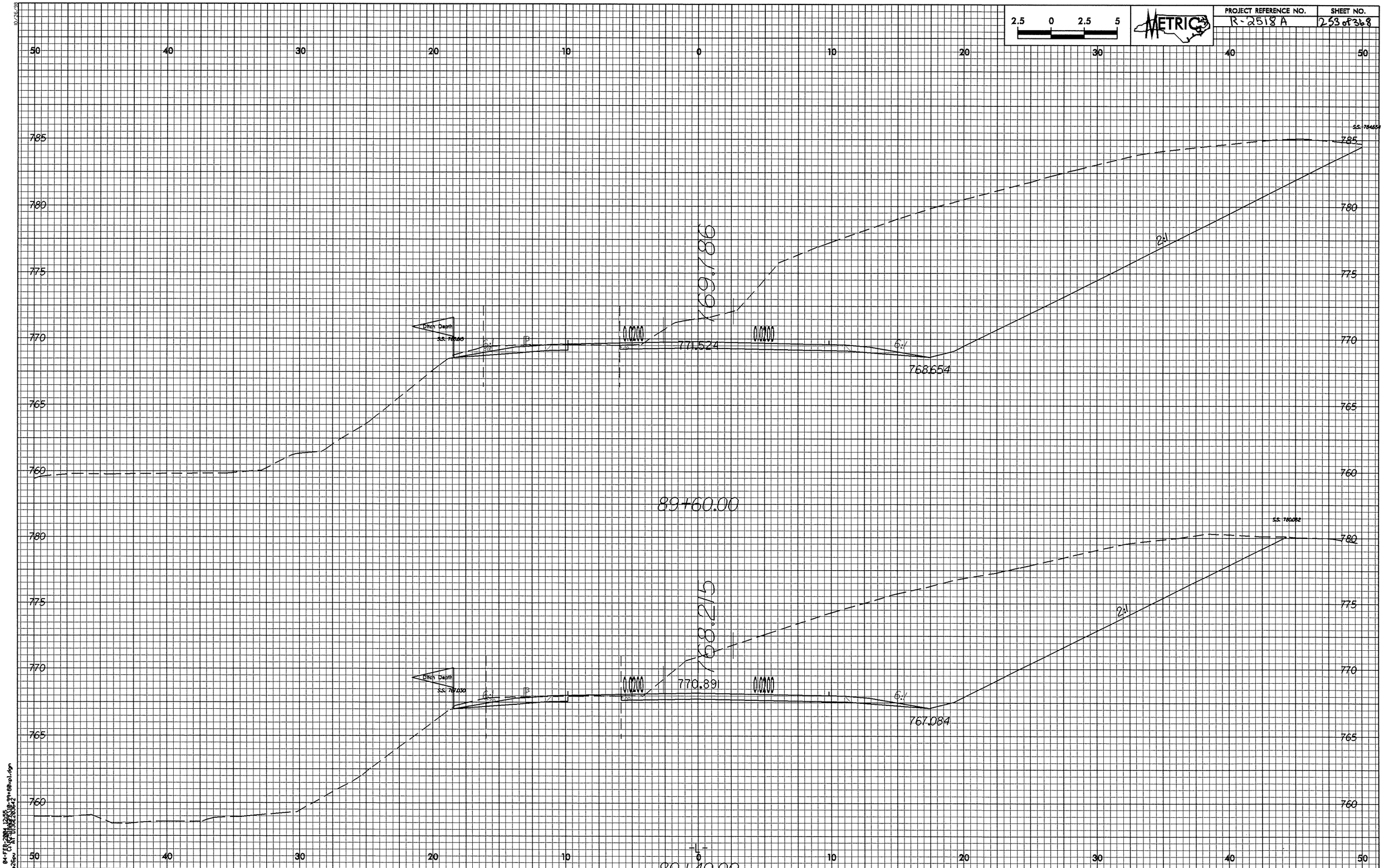
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
250 of 368
50 40 30 20 10 0 10 20 30 40 50
770
765
760
755
780
775
760.184
0.0200
0.0200
2:1
3.66:1
S.S. 757.363
756.565
88+20.00
759.086
Ditch Depth
S.S. 757.966
6:1
1.50:1
757.875
757.955
756.201
88+00.00
-L-



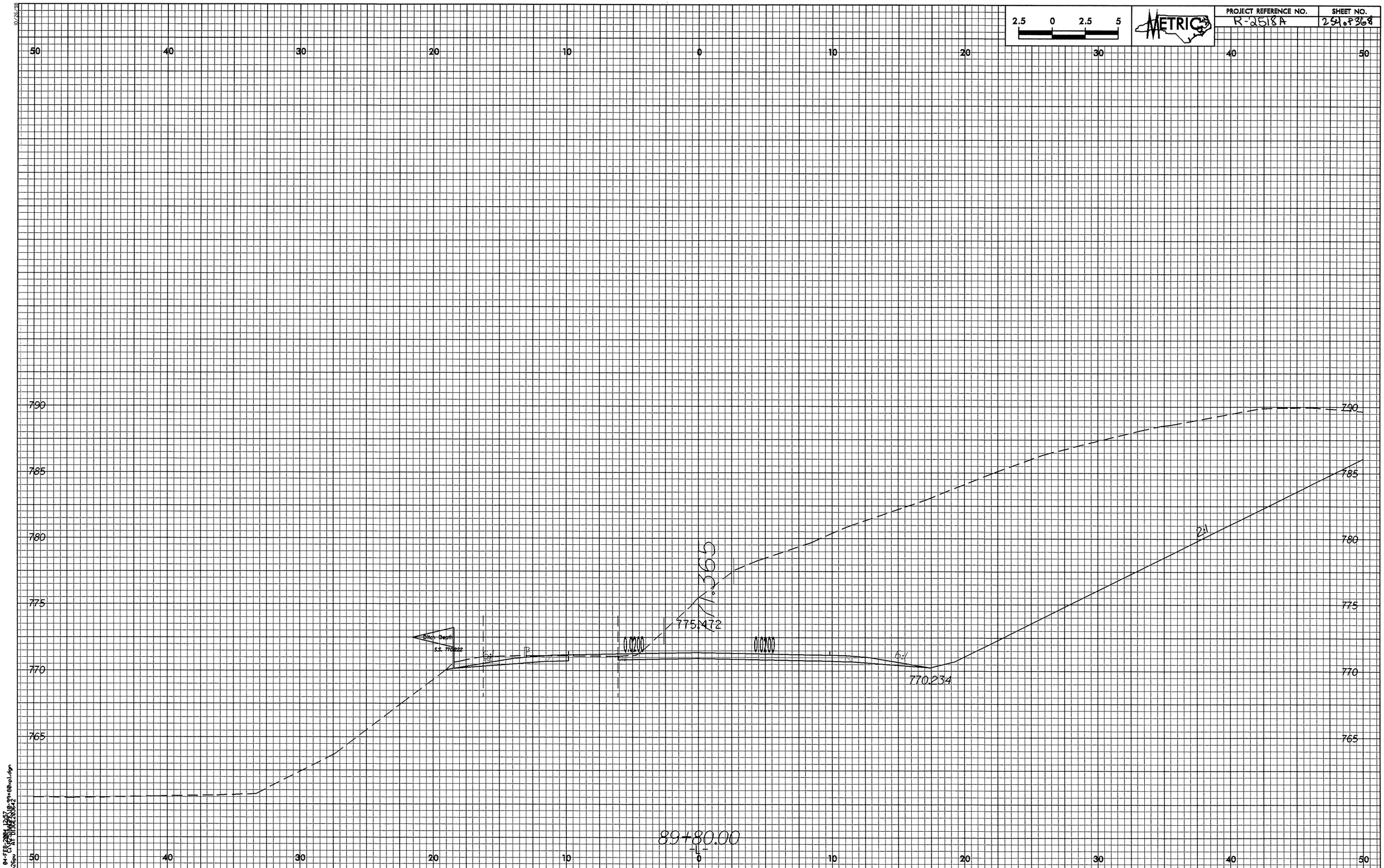
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
251 of 368
50 40 30 20 10 0 10 20 30 40 50
770
765
760
755
763.890
764.987
762.711
0.0200
2:1
6:1
88+80.00
762.586
763.610
761.455
88+60.00
761.350
759.835
4.14:1
88+40.00



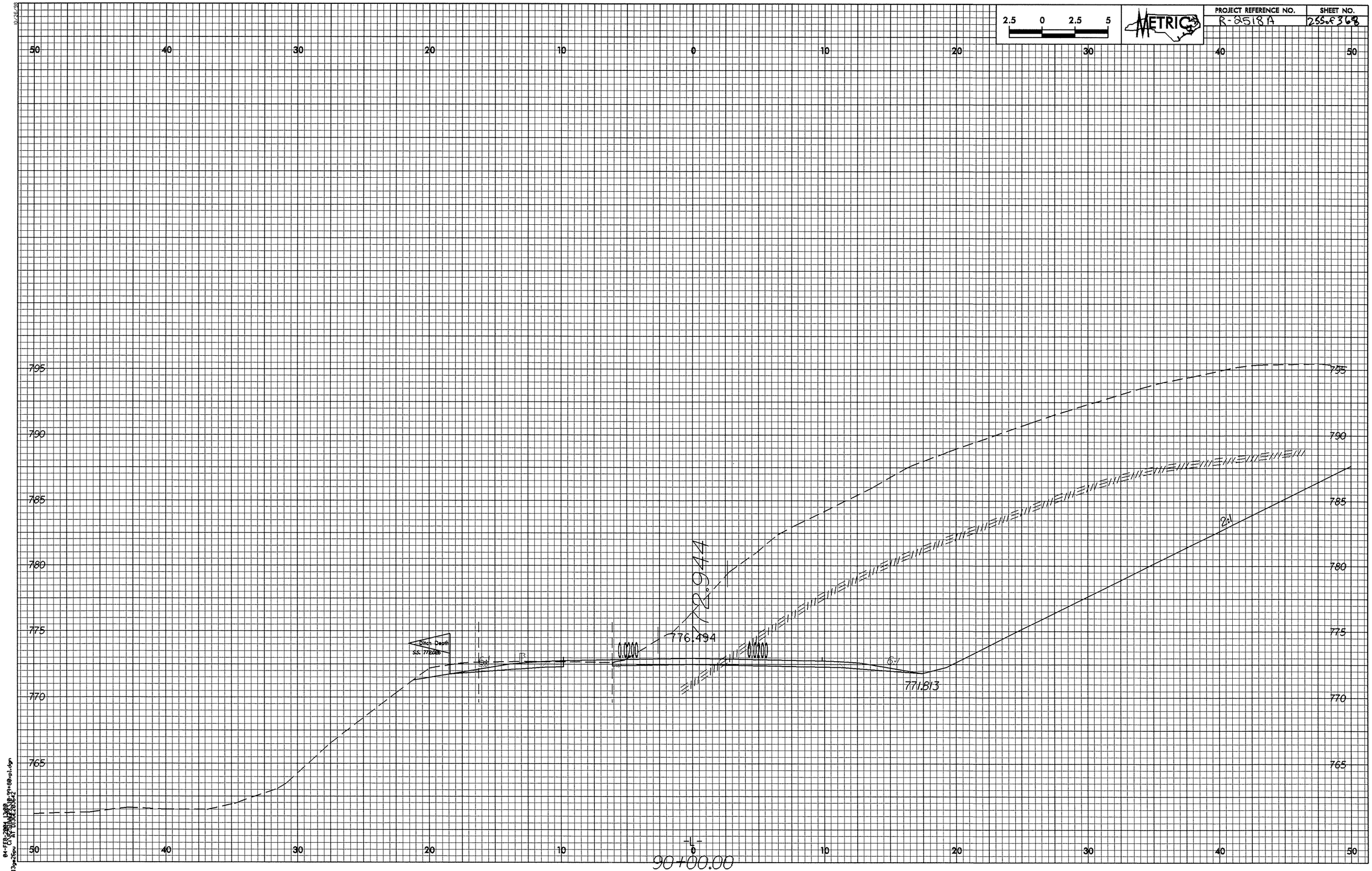
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
232 of 368
50 40 30 20 10 0 10 20 30 40 50
775
770
765
760
S.S. 775.564
766.705
769.525
0.0200
0.0200
2:1
6:1
765.573
2:1
S.S. 759.241
89+20.00
89+00
20 M RT
765.263
S.S. 771.481
SAPROLITE:
BRN/LIGHT BRN SLI MIC
SILTY SAND W/MNO
8
8
1
9
31
100
100
WEATHERED RK
2:1
767.317
0.0200
0.0200
0.0200
2:1
S.S. 764.801
89+00.00



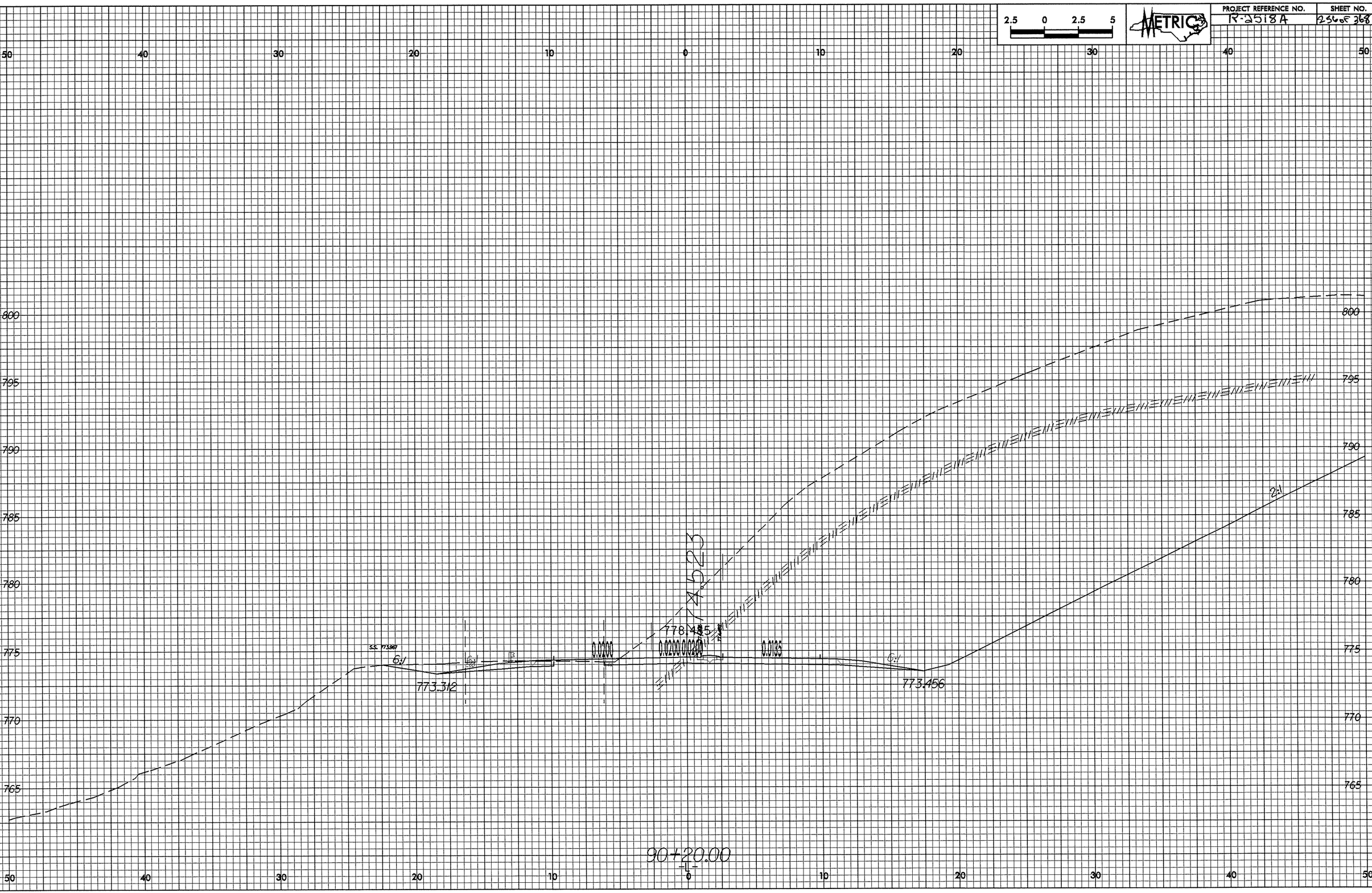
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
253 of 368
50 40 30 20 10 0 10 20 30 40 50
785
780
775
770
765
760
S.S. 784.654
Ditch Depth
S.S. 768.65
0.0200
771.524
768.654
2:1
89+60.00
S.S. 780.082
Ditch Depth
S.S. 767.030
0.0200
770.891
767.084
89+40.00



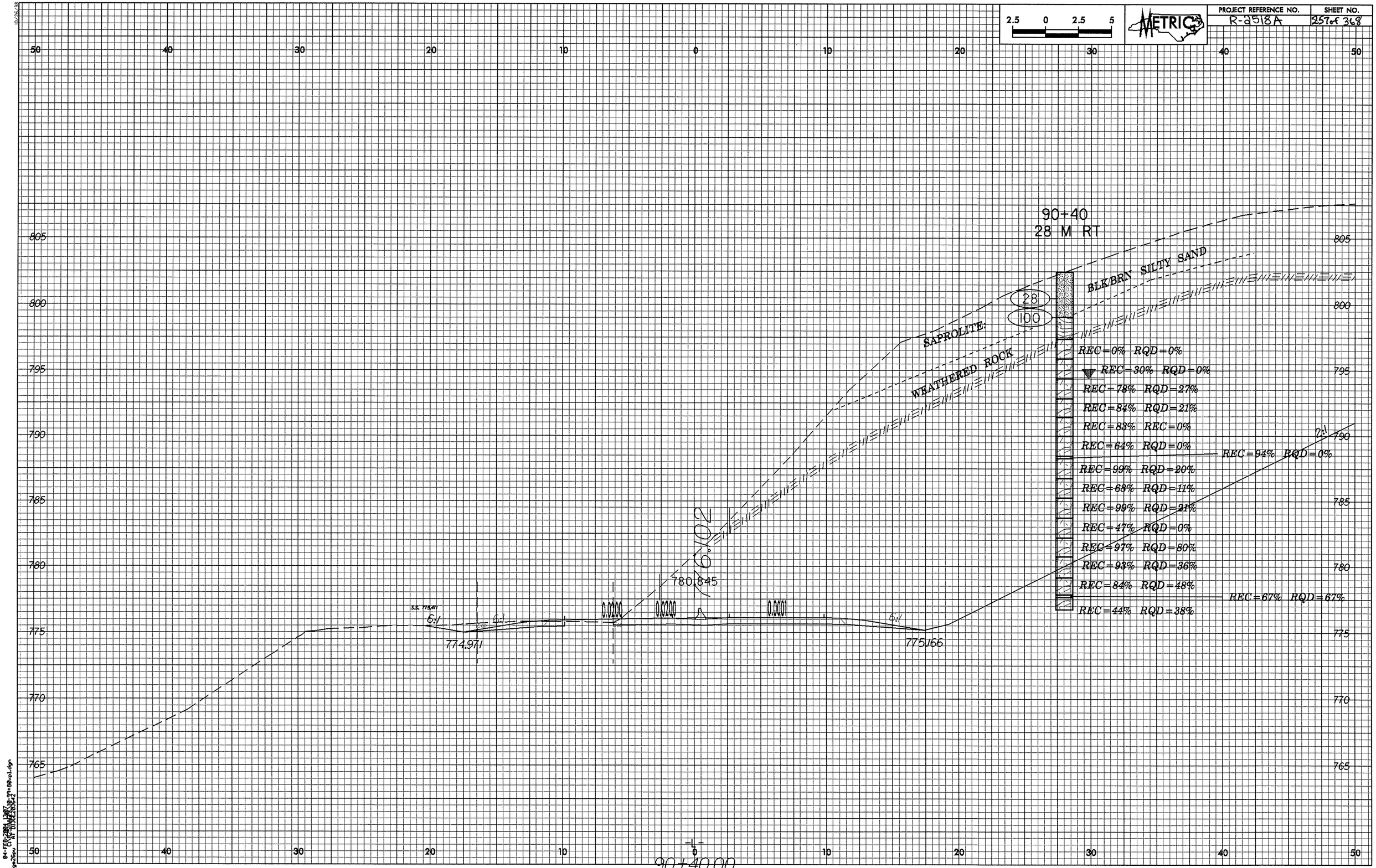
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
254 of 368
50 40 30 20 10 0 10 20 30 40 50
790
785
780
775
770
765
Ditch Depth
S.S. 770.222
6:1
0.0200
0.0200
775.472
770.234
2:1
89+80.00
-L-



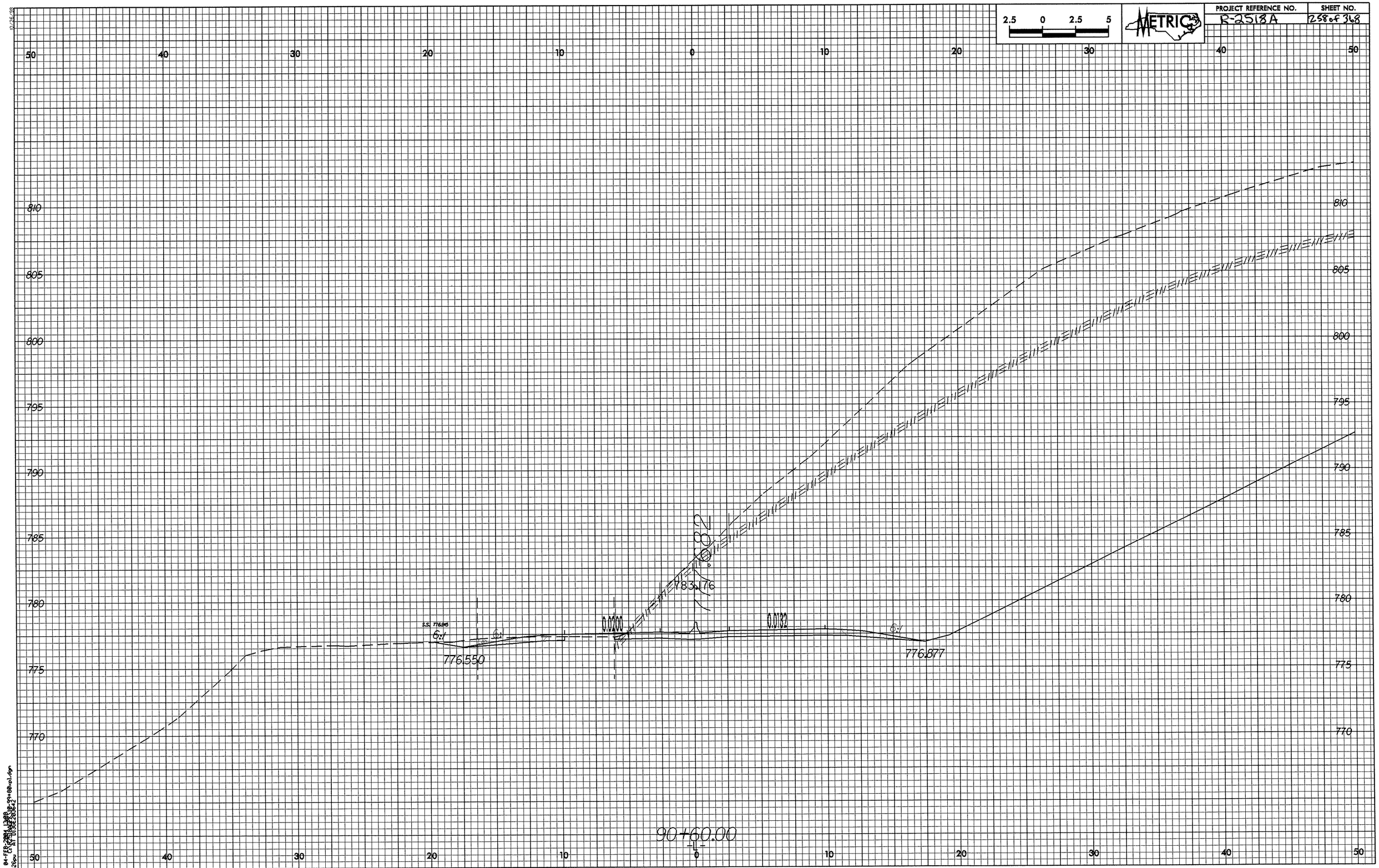
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
255 of 368
50 40 30 20 10 0 10 20 30 40 50
795
790
785
780
775
770
765
Ditch Depth
S.S. 772.028
0.0200
776.494
772.944
0.0200
6:1
771.813
2:1
-L-
90+00.00



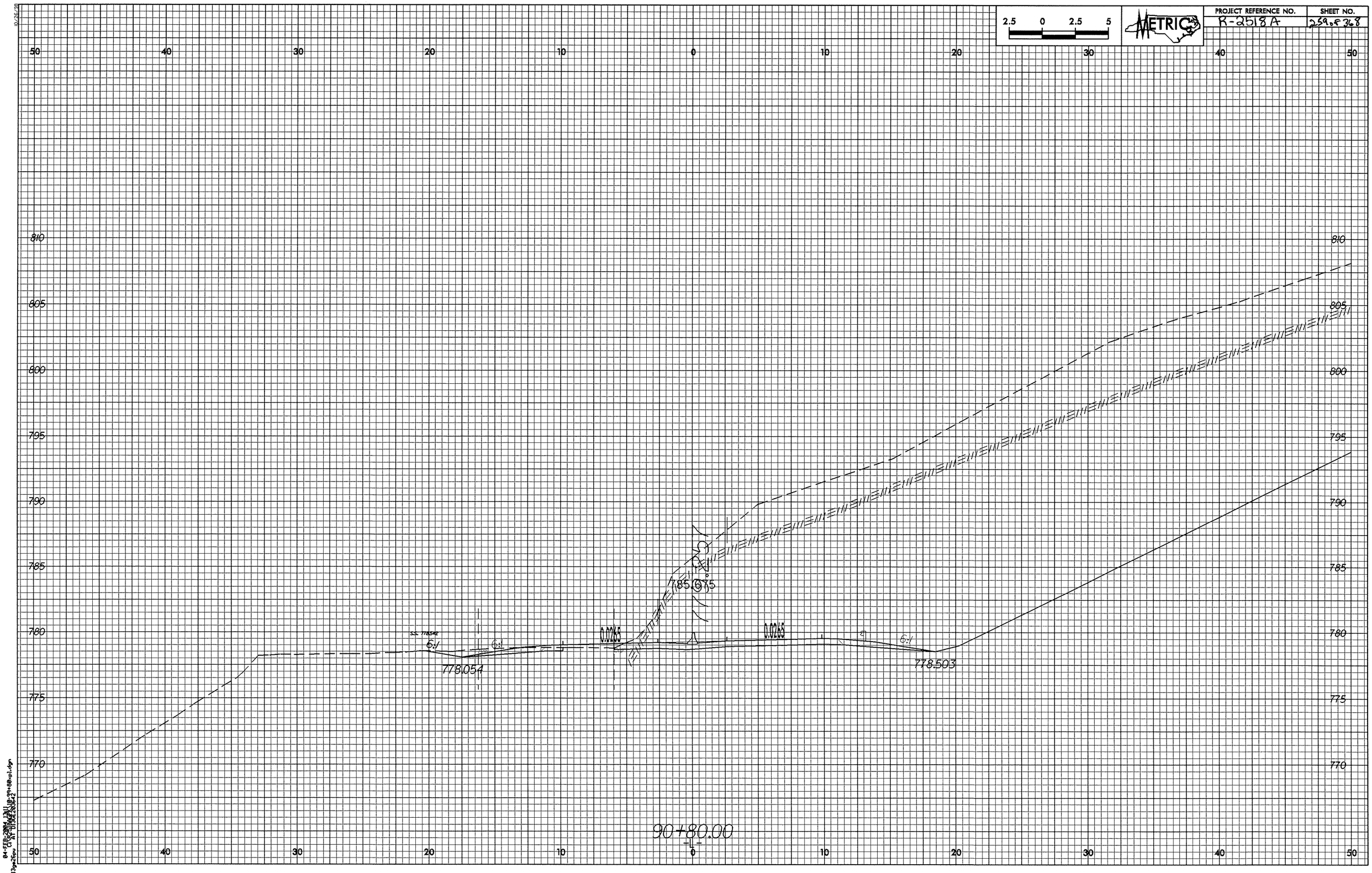
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
256 OF 368
50 40 30 20 10 0 10 20 30 40 50
800
795
790
785
780
775
770
765
S.S. 773.967
6:1
773.312
0.0200
778.485
0.0200 0.0200
0.0135
773.456
2:1
14523
90+20.00
-L-



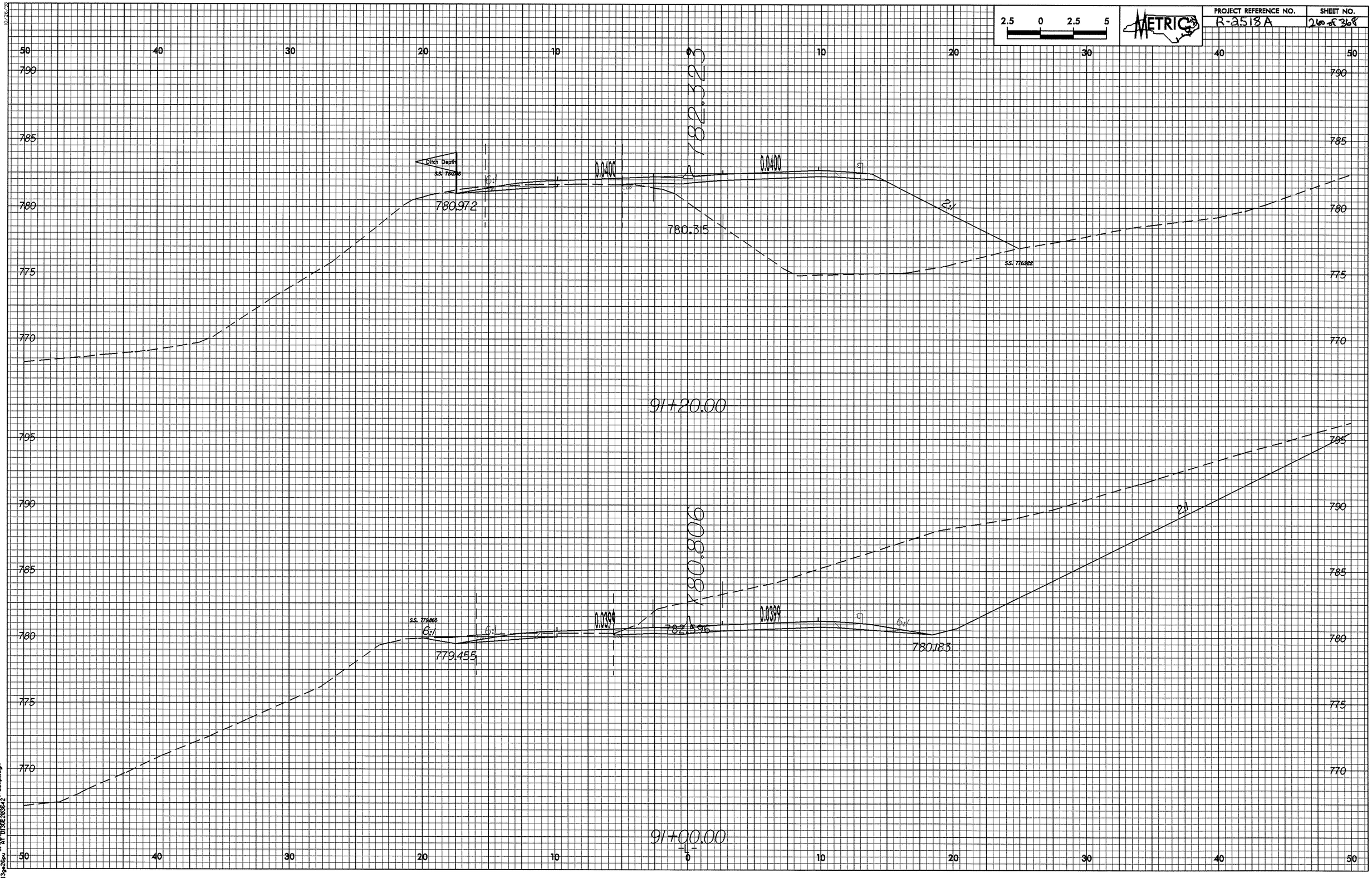
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
257 of 368
90+40
28 M RT
BLK/BRN SILTY SAND
SAPROLITE:
WEATHERED ROCK
28
100
REC=0% RQD=0%
REC=30% RQD=0%
REC=78% RQD=27%
REC=84% RQD=21%
REC=83% REC=0%
REC=64% RQD=0%
REC=94% RQD=0%
REC=99% RQD=20%
REC=68% RQD=11%
REC=99% RQD=21%
REC=47% RQD=0%
REC=97% RQD=80%
REC=93% RQD=36%
REC=84% RQD=48%
REC=67% RQD=67%
REC=44% RQD=38%
2:1
6:1
6:1
6:1
0.0200
0.0200
0.0001
780.845
776.102
774.971
775.166
-L-
90+40.00



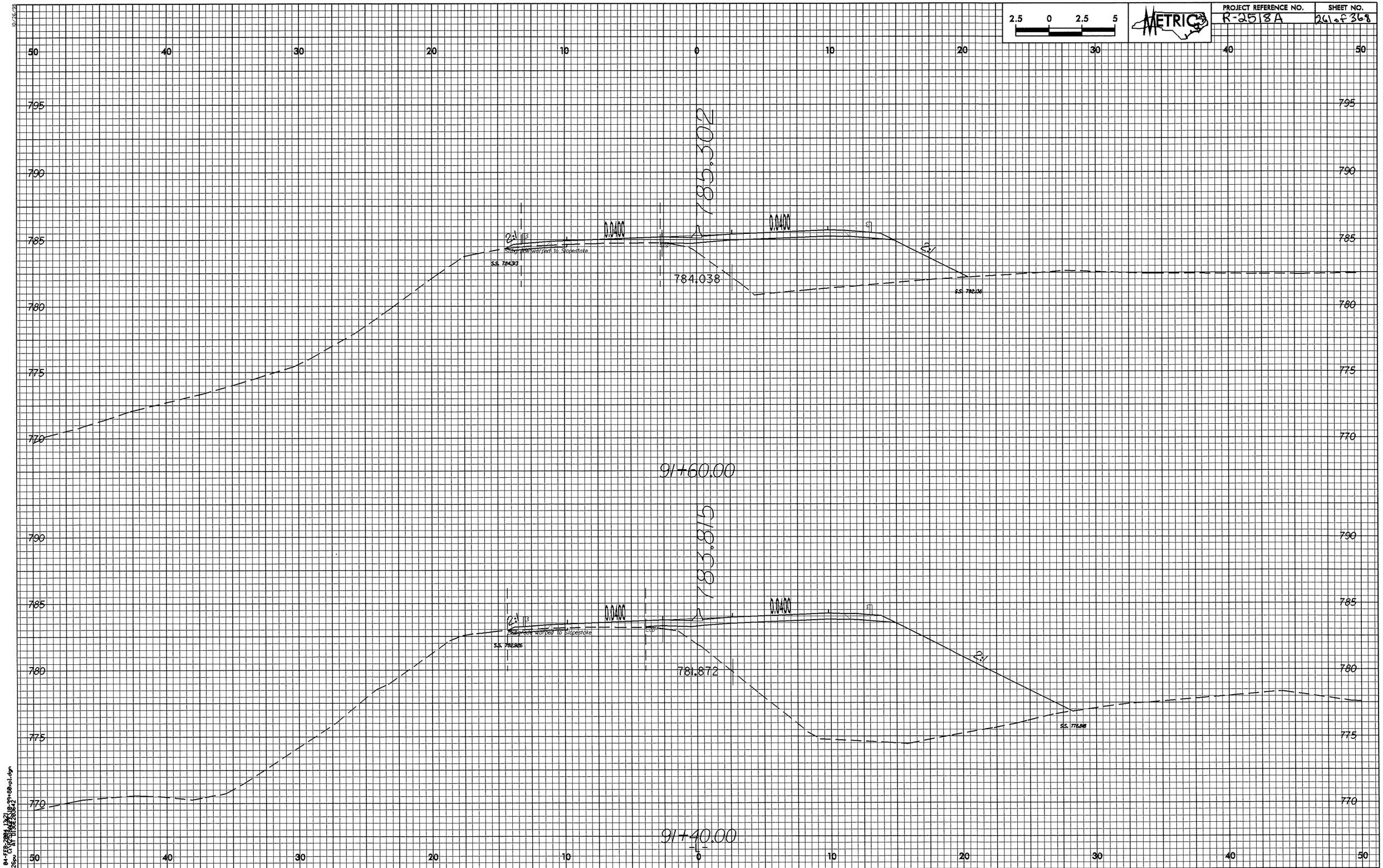
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
258 of 368
50 40 30 20 10 0 10 20 30 40 50
810
805
800
795
790
785
780
775
770
S.S. 776.915
6:1
6:1
6:1
0.0200
0.0182
783.176
776.550
776.877
90+60.00
-L-



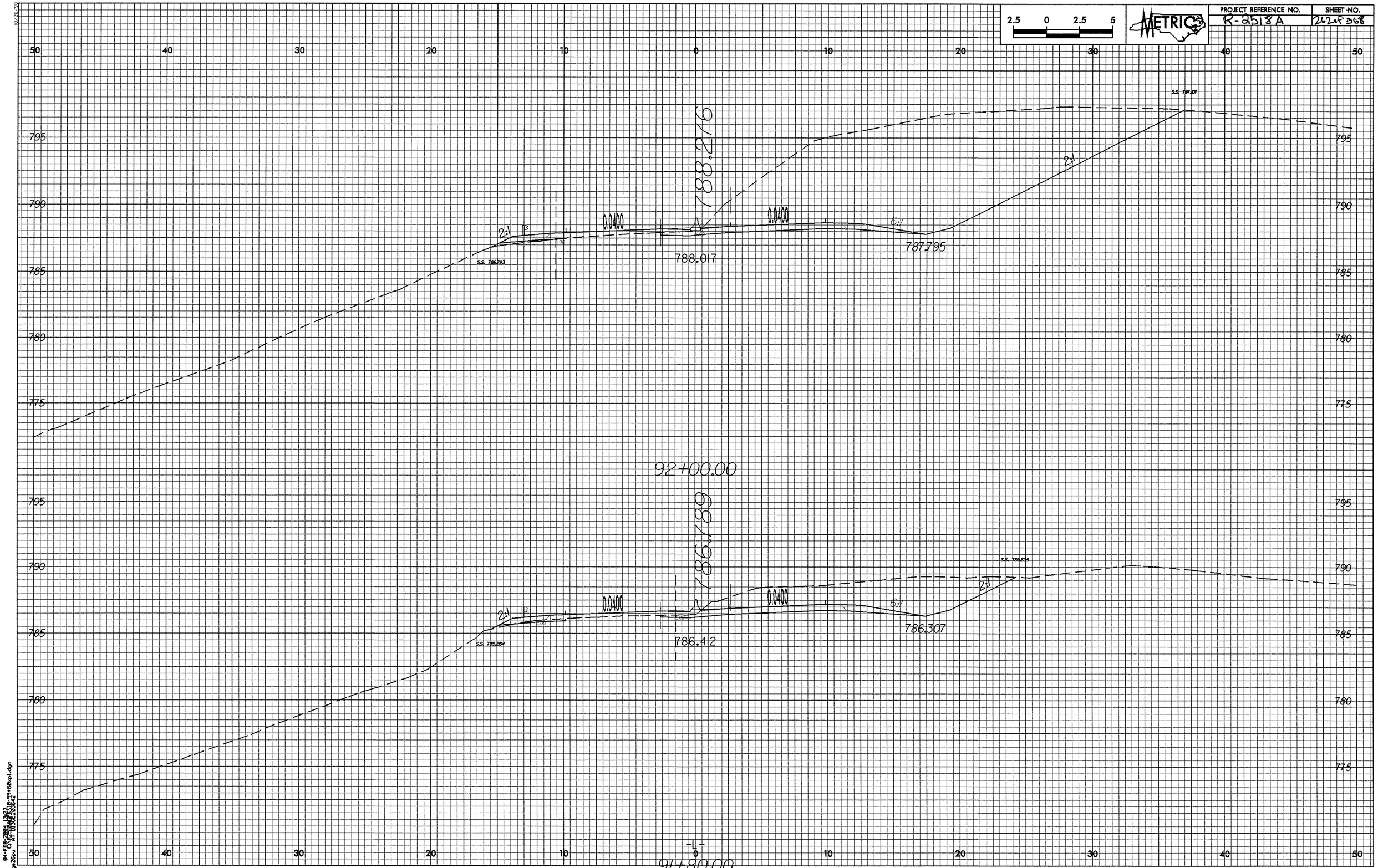
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
259 of 368
50 40 30 20 10 0 10 20 30 40 50
810
805
800
795
790
785
780
775
770
SS 778.542
6:1
6:1
0.0265
0.0265
6:1
778.054
778.503
90+80.00



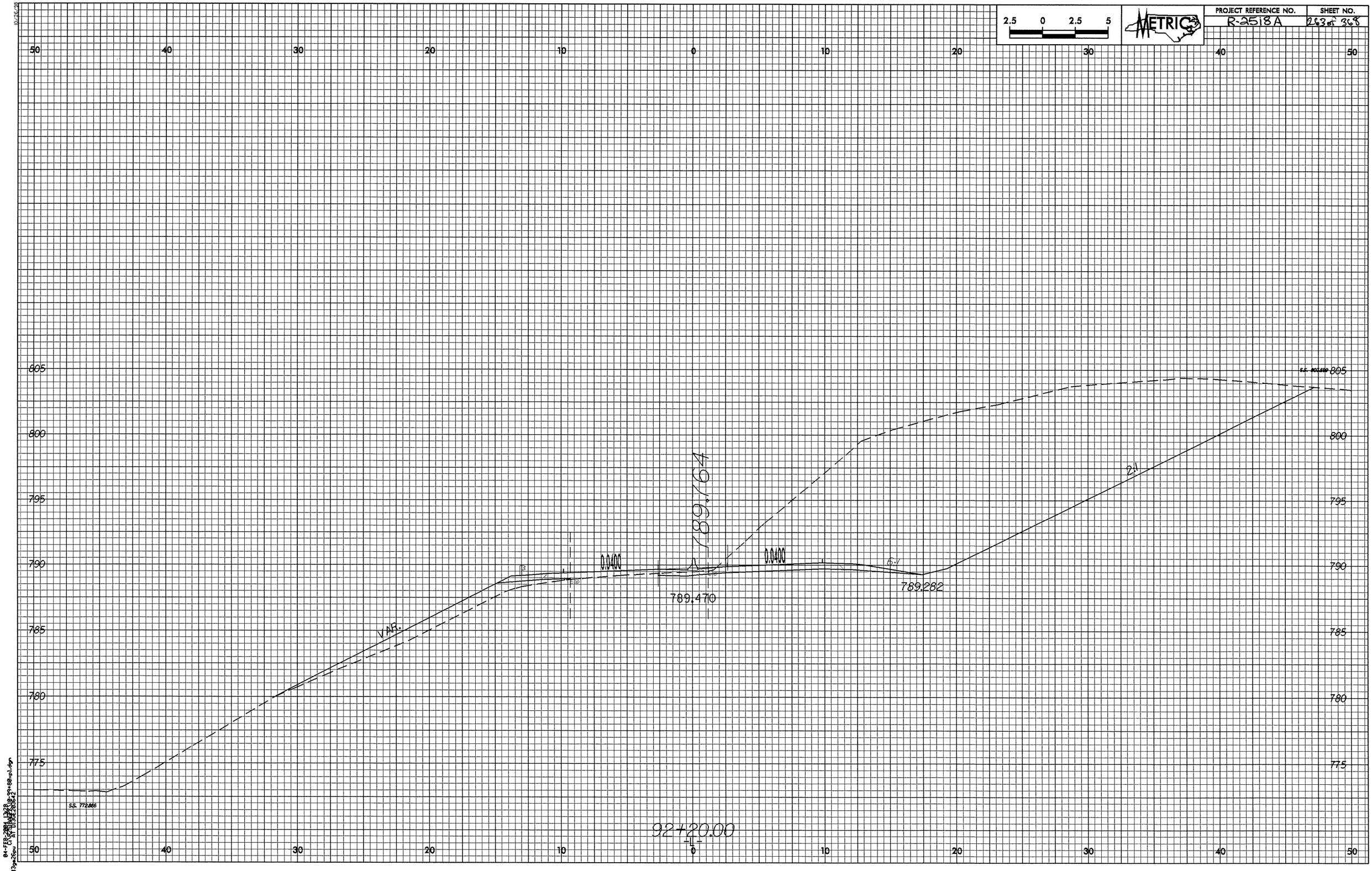
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
260 of 368
50 40 30 20 10 0 10 20 30 40 50
790 785 780 775 770 795
Ditch Depth
S.S. 780.96
6:1
0.0400
0.0400
782.323
780.972
780.315
2:1
S.S. 776.522
91+20.00
S.S. 779.865
6:1
6:1
0.0399
0.0399
780.806
782.596
6:1
779.455
780.183
2:1
91+00.00
-L-



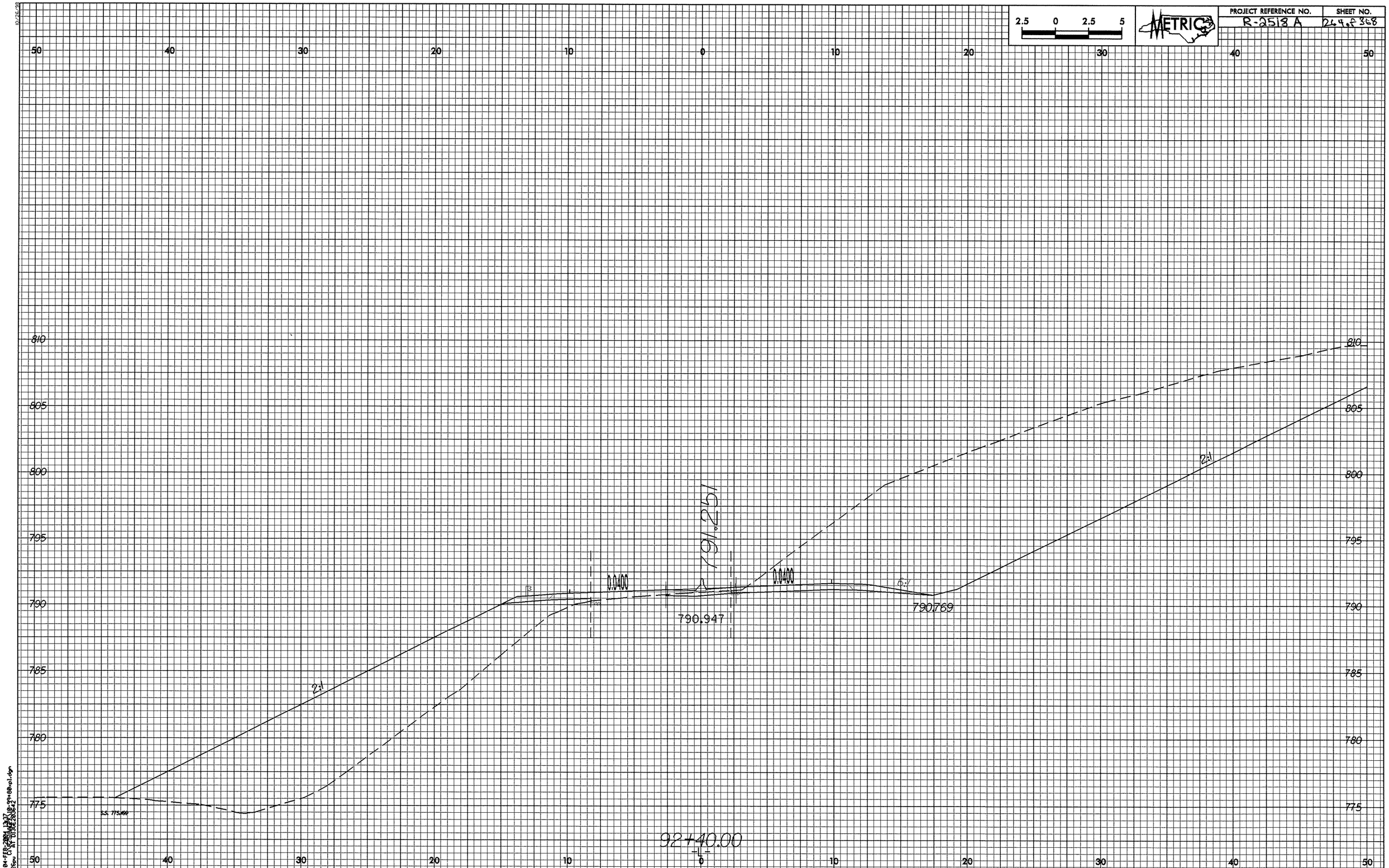
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
261 of 368
50 40 30 20 10 0 10 20 30 40 50
795 790 785 780 775 770
785.302
0.0400
0.0400
2:1
2:1
Subgrade warped to Slopestake
S.S. 784.393
784.038
S.S. 782.136
91+60.00
783.815
0.0400
0.0400
2:1
2:1
Subgrade warped to Slopestake
S.S. 782.926
781.872
S.S. 776.818
91+40.00
-L-



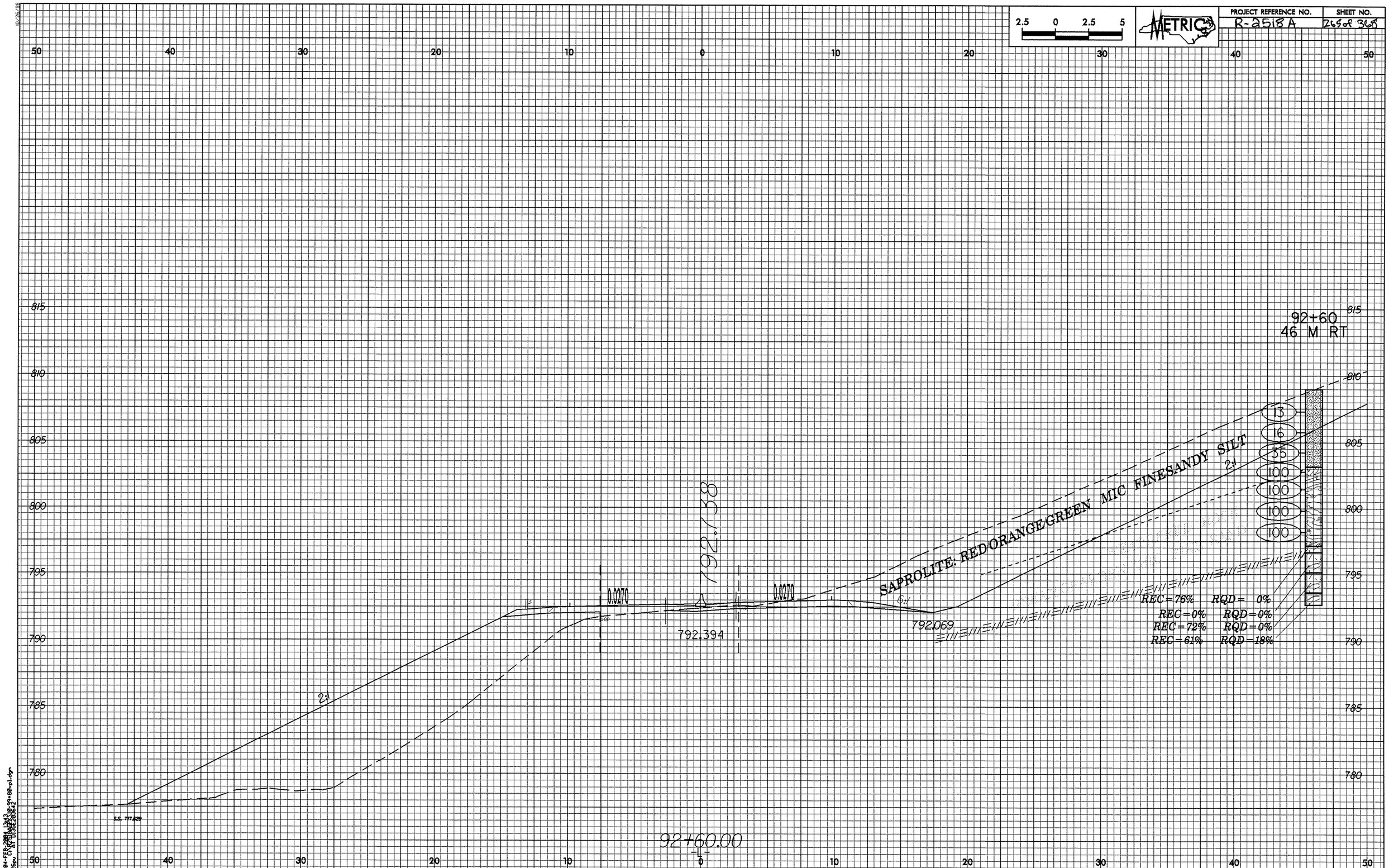
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
262 of 368
50 40 30 20 10 0 10 20 30 40 50
795 790 785 780 775
788.276
788.017
787.795
0.0400
0.0400
2:1
6:1
2:1
92+00.00
786.789
786.412
786.307
0.0400
0.0400
2:1
6:1
2:1
91+80.00



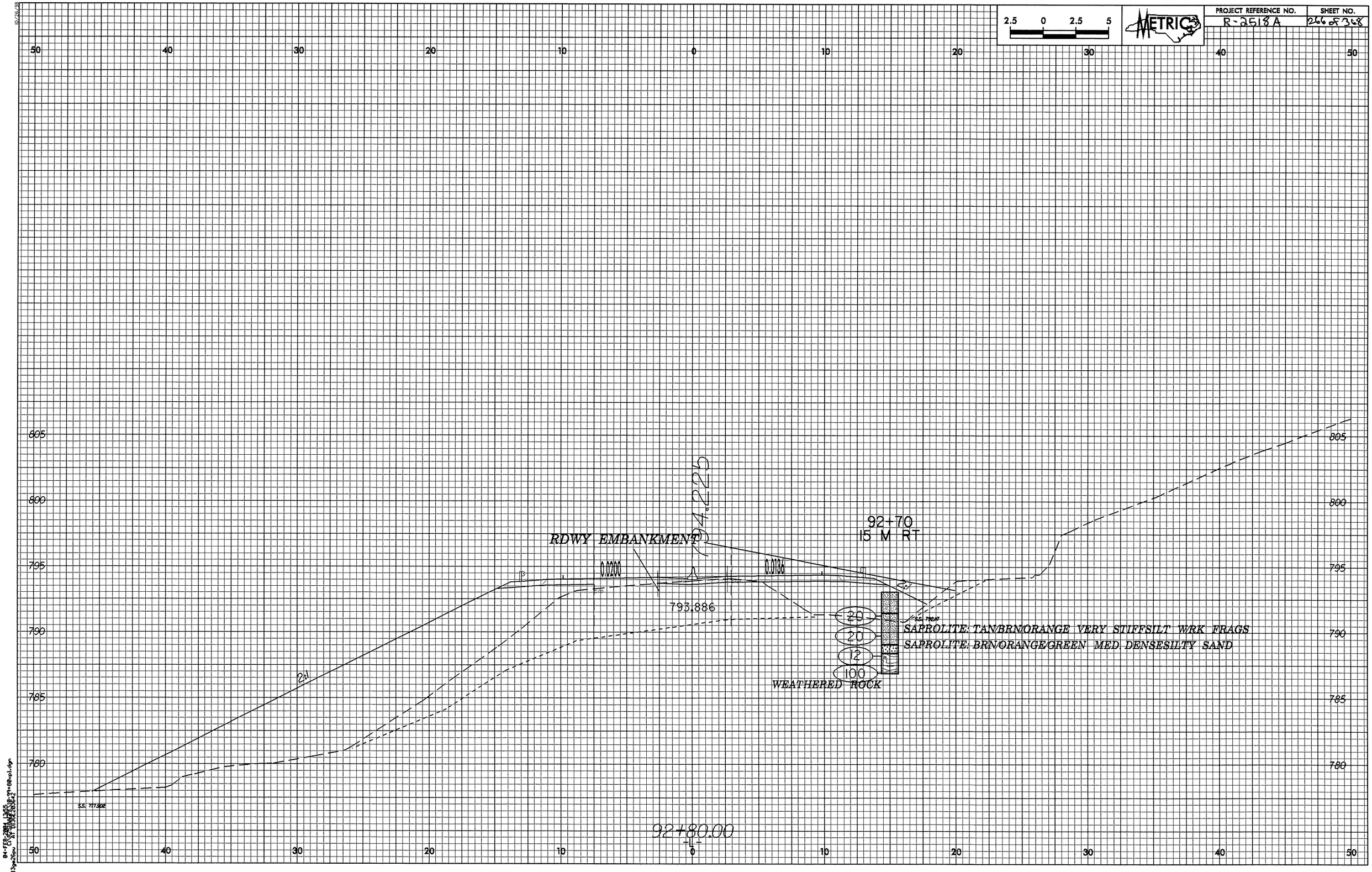
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
263 of 368
50 40 30 20 10 0 10 20 30 40 50
805
800
795
790
785
780
775
S.S. 772.866
S.S. 803.680
VAR.
0.0400
0.0400
789.164
789.470
789.282
2:1
6:1
92+20.00
-L-



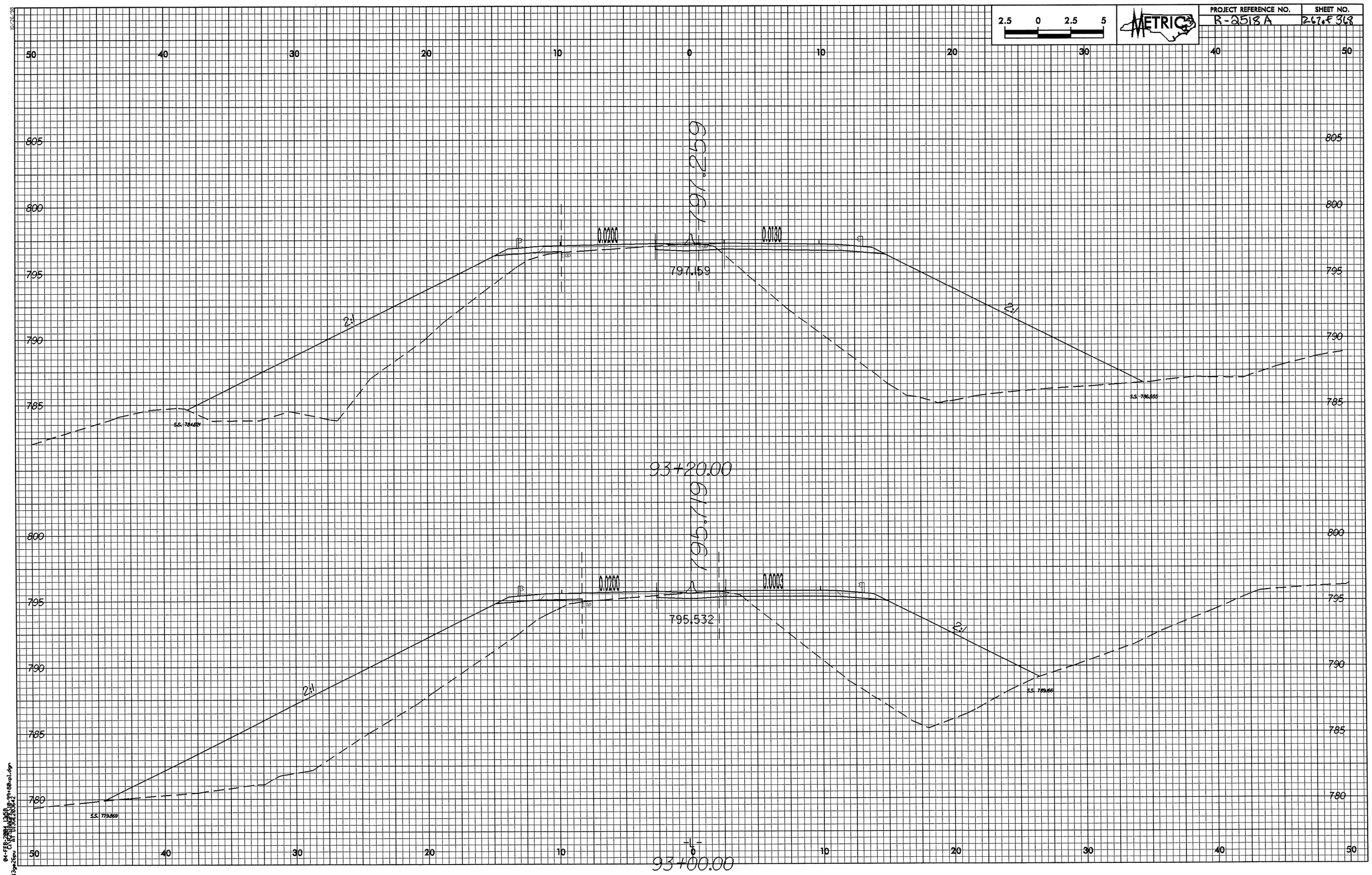
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
264 of 368
50 40 30 20 10 0 10 20 30 40 50
810
805
800
795
790
785
780
775
791.251
0.0400
0.0400
790.947
790.769
2:1
2:1
6:1
S.S. 775.499
92+40.00
-L-



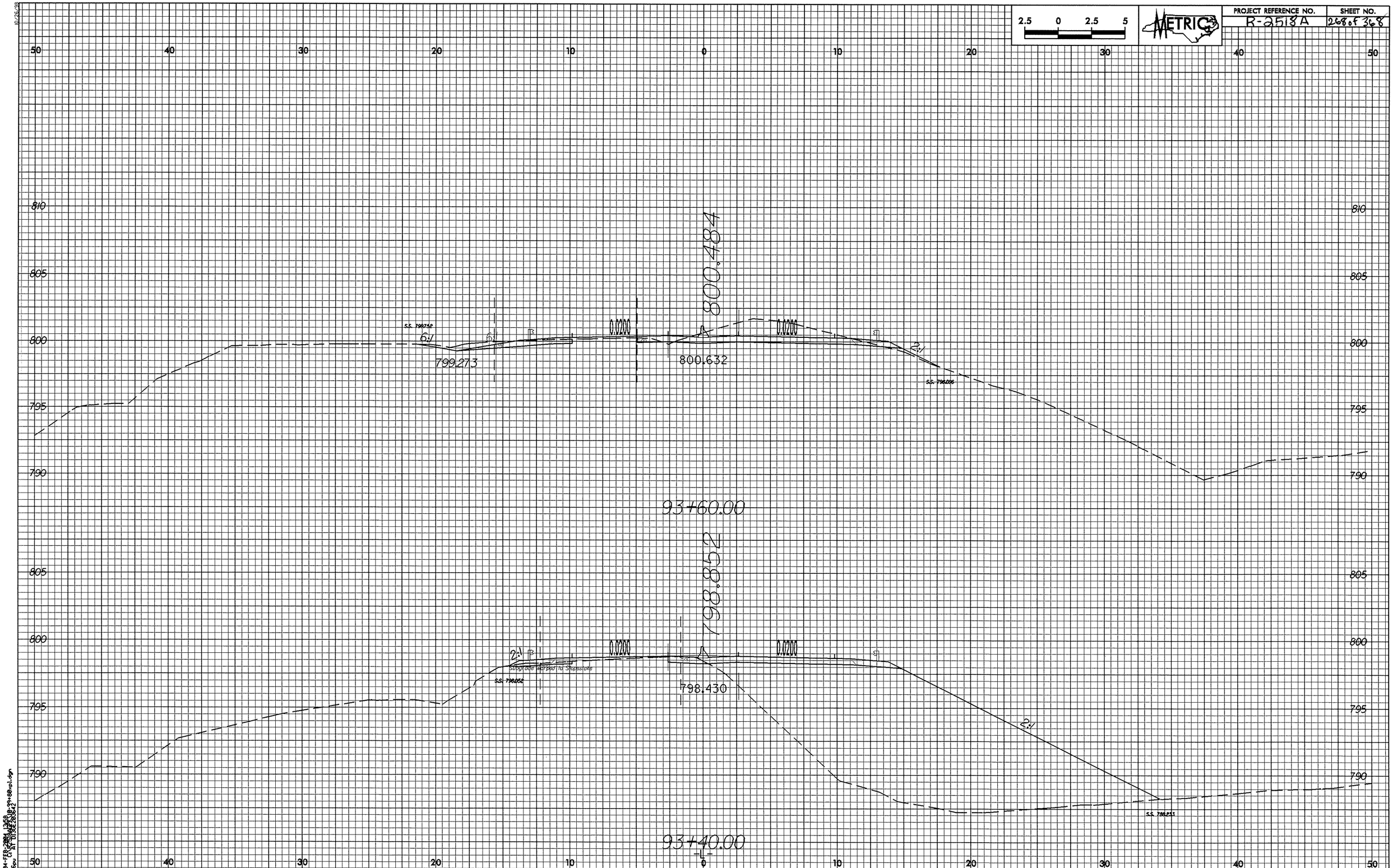
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
265 of 368
92+60
46 M RT
SAPROLITE: RED ORANGE GREEN MIC FINESANDY SILT
13
16
35
100
100
100
100
REC = 76% RQD = 0%
REC = 0% RQD = 0%
REC = 72% RQD = 0%
REC = 61% RQD = 18%
0.0270
0.0270
792.138
792.394
792.069
2:1
2:1
6:1
92+60.00
-L-



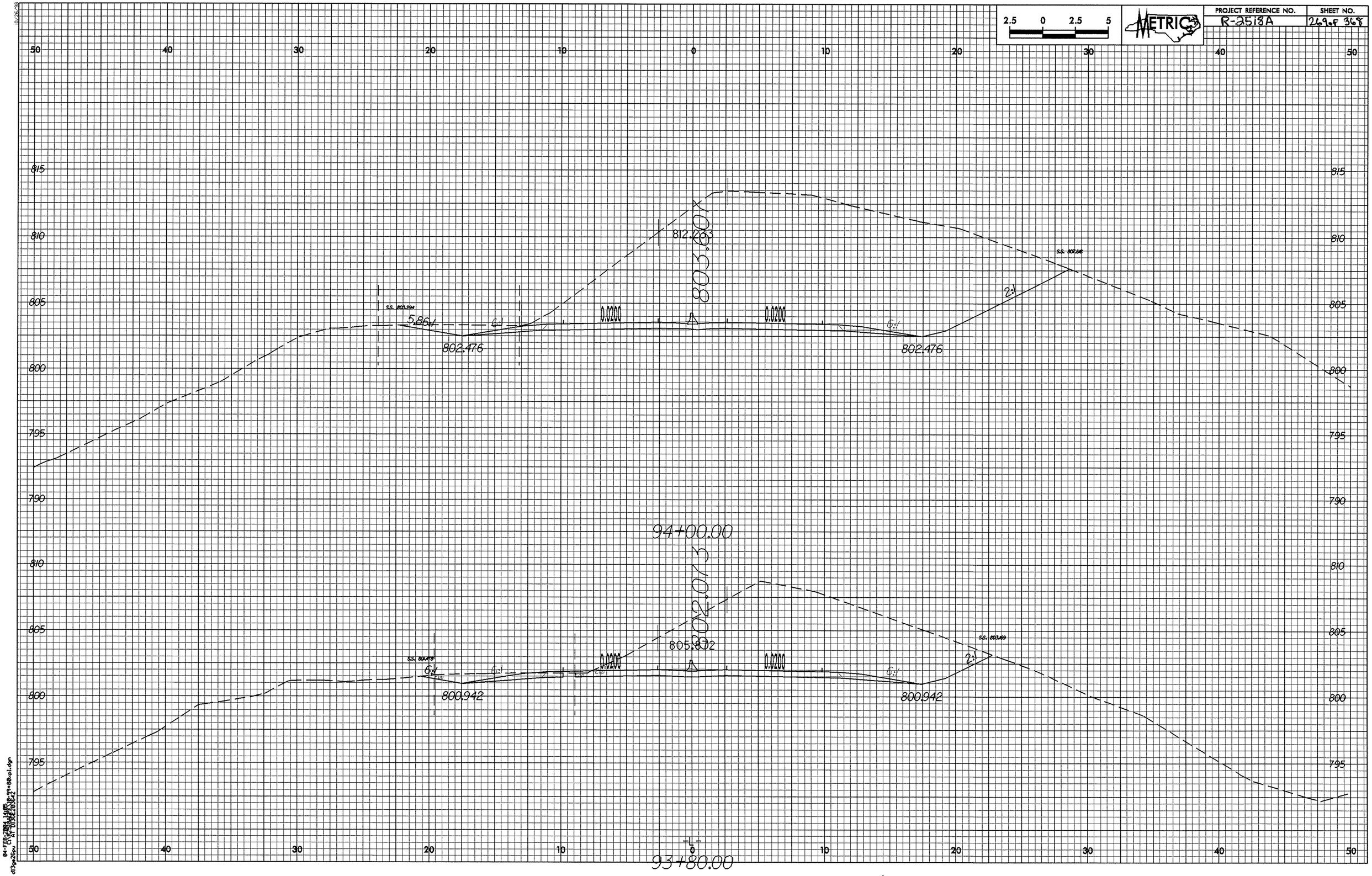
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
266 of 368
50 40 30 20 10 0 10 20 30 40 50
805
800
795
790
785
780
RDWY EMBANKMENT
794.225
92+70
15 M RT
0.0200
0.0136
793.886
2:1
20
20
12
100
WEATHERED ROCK
SAPROLITE: TAN/BRN/ORANGE VERY STIFFSILT WRK FRAGS
SAPROLITE: BRN/ORANGE/GREEN MED. DENSESILTY SAND
92+80.00



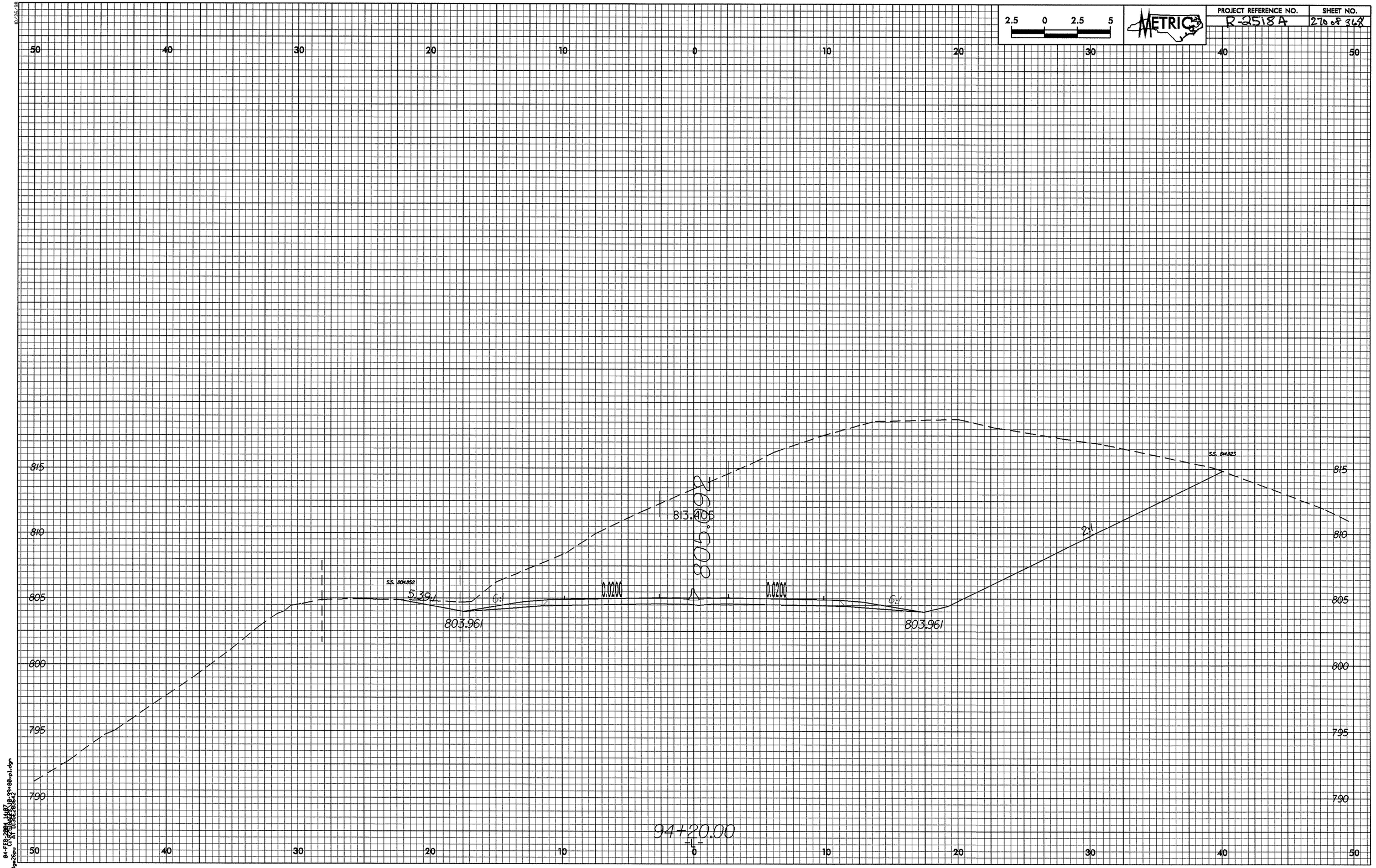
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
267 of 368
797.259
0.0200
0.0130
797.159
2:1
2:1
S.S. 784.621
S.S. 786.555
93+20.00
795.719
0.0200
0.0003
795.532
2:1
2:1
S.S. 779.869
S.S. 789.166
93+00.00



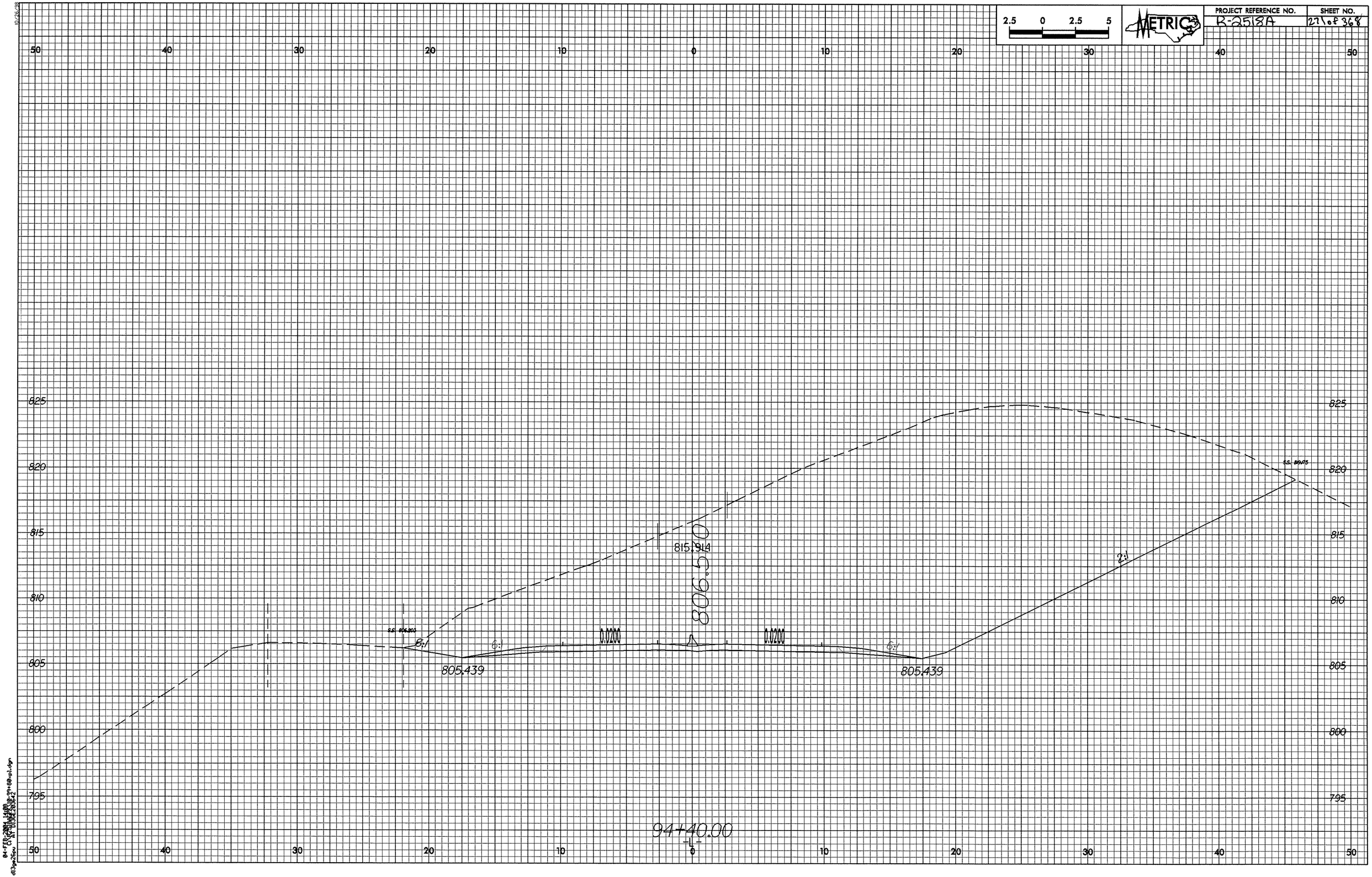
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
268 of 368
50 40 30 20 10 0 10 20 30 40 50
810
805
800
795
790
800.484
S.S. 799.752
6:1
6:1
0.0200
0.0200
799.273
800.632
2:1
S.S. 798.096
93+60.00
798.852
2:1
0.0200
0.0200
Subgrade Warped to Slopestake
S.S. 798.052
798.430
2:1
S.S. 798.233
93+40.00
-L-



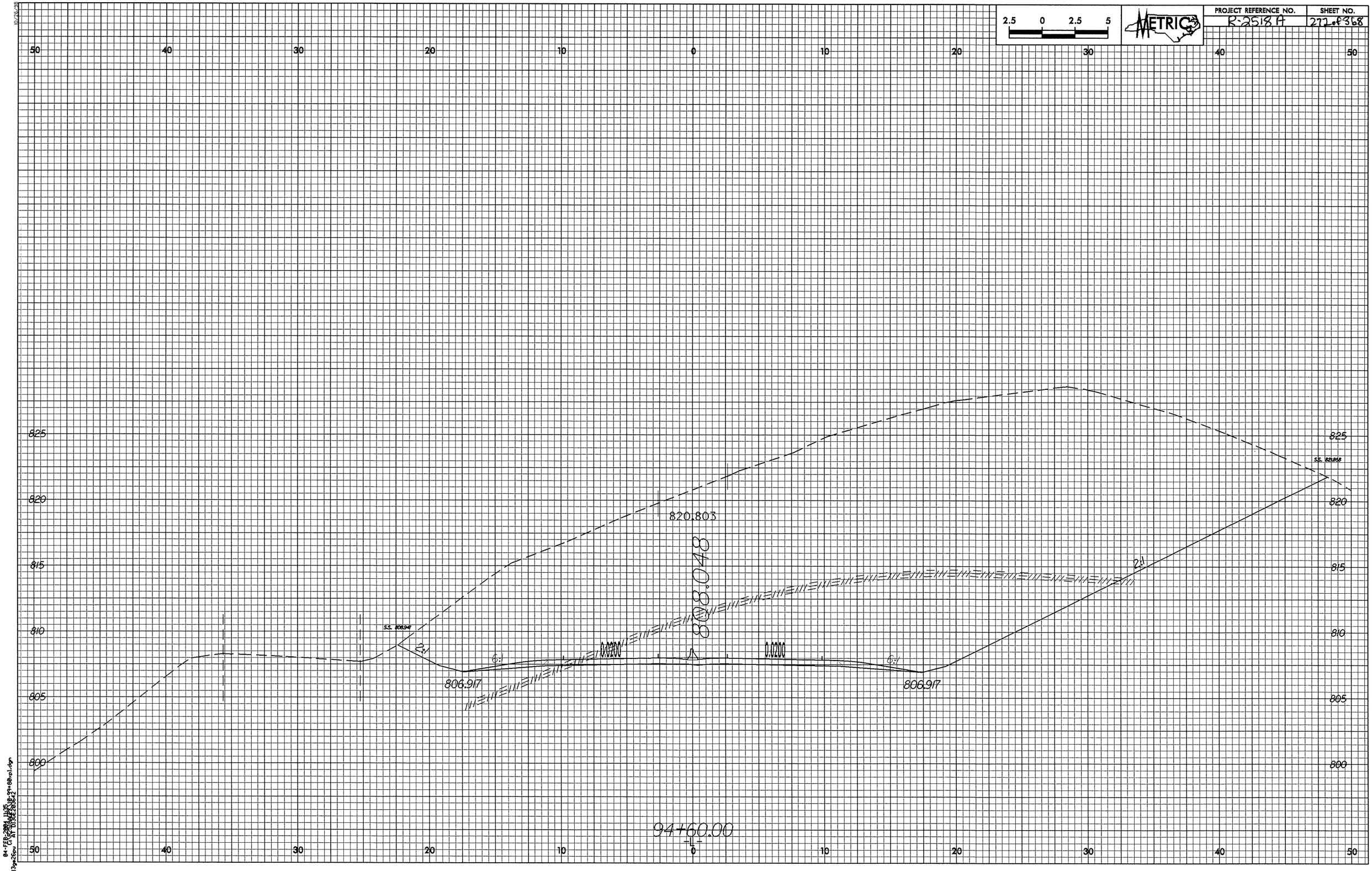
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
269 of 368
50 40 30 20 10 0 10 20 30 40 50
815
810
805
800
795
790
812.233
803.807
S.S. 803.294
5.86:1
6:1
0.0200
0.0200
6:1
2:1
802.476
802.476
94+00.00
802.073
805.872
S.S. 801.478
6:1
6:1
0.0200
0.0200
6:1
2:1
800.942
800.942
93+80.00



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
270 of 368
50 40 30 20 10 0 10 20 30 40 50
815
810
805
800
795
790
S.S. 804.852
5.39:1
6:1
0.0200
0.0200
6:1
803.961
803.961
813.406
805.092
2:1
S.S. 814.823
94+20.00
-L-



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
271 of 368
50 40 30 20 10 0 10 20 30 40 50
825
820
815
810
805
800
795
815.914
806.500
0.0200
0.0200
6:1
6:1
6:1
2:1
805.439
805.439
94+40.00
-L-



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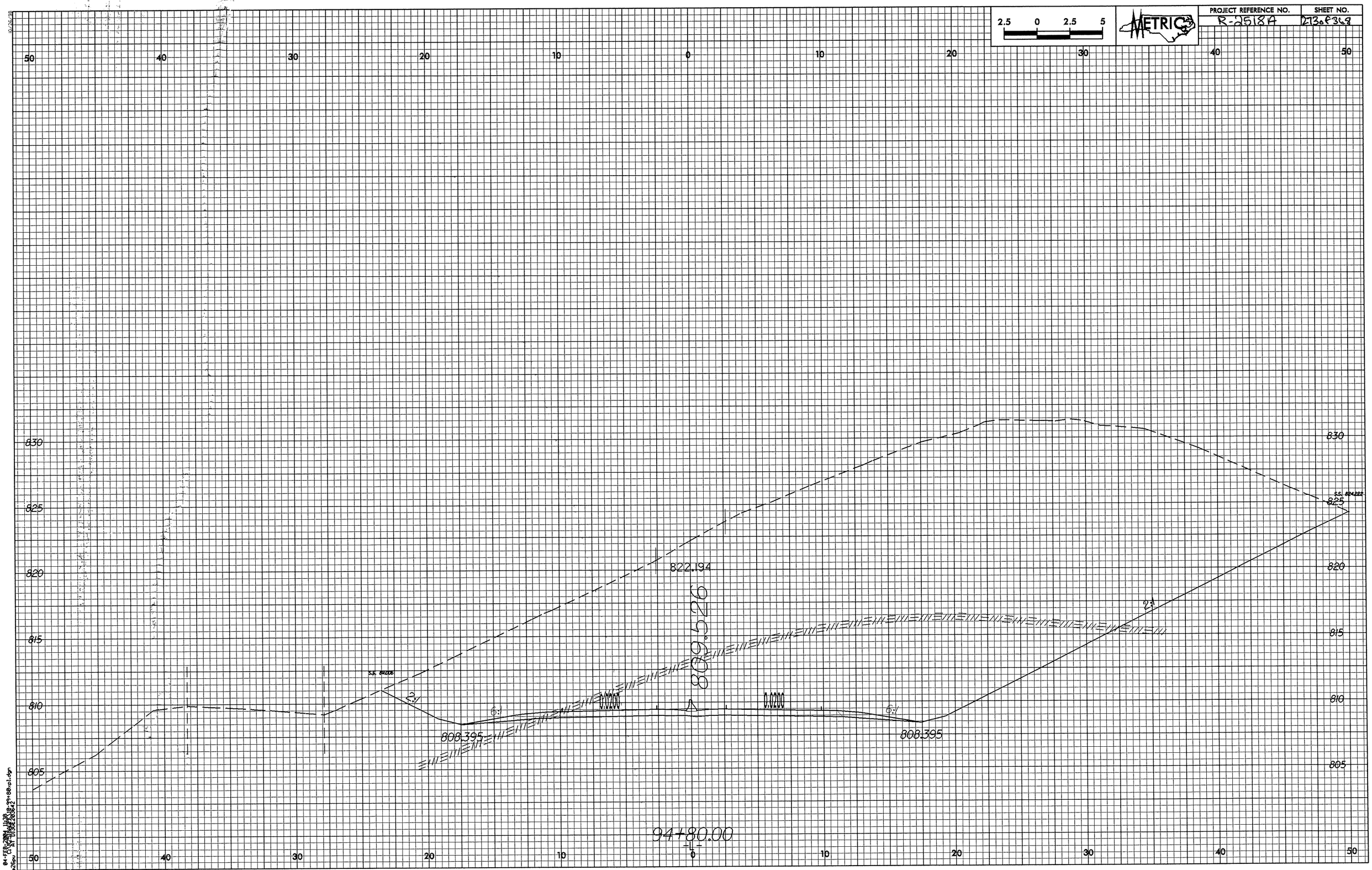
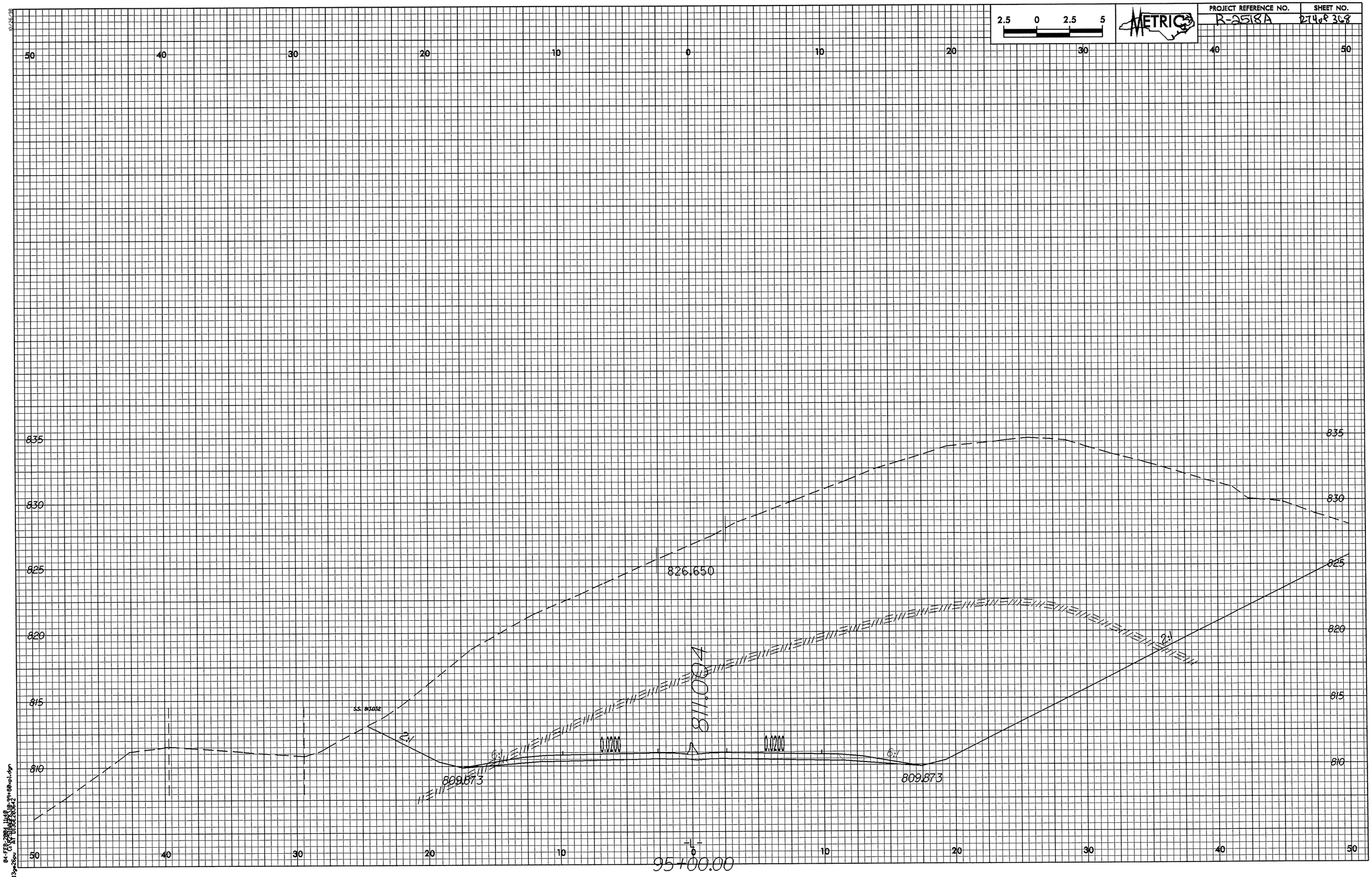
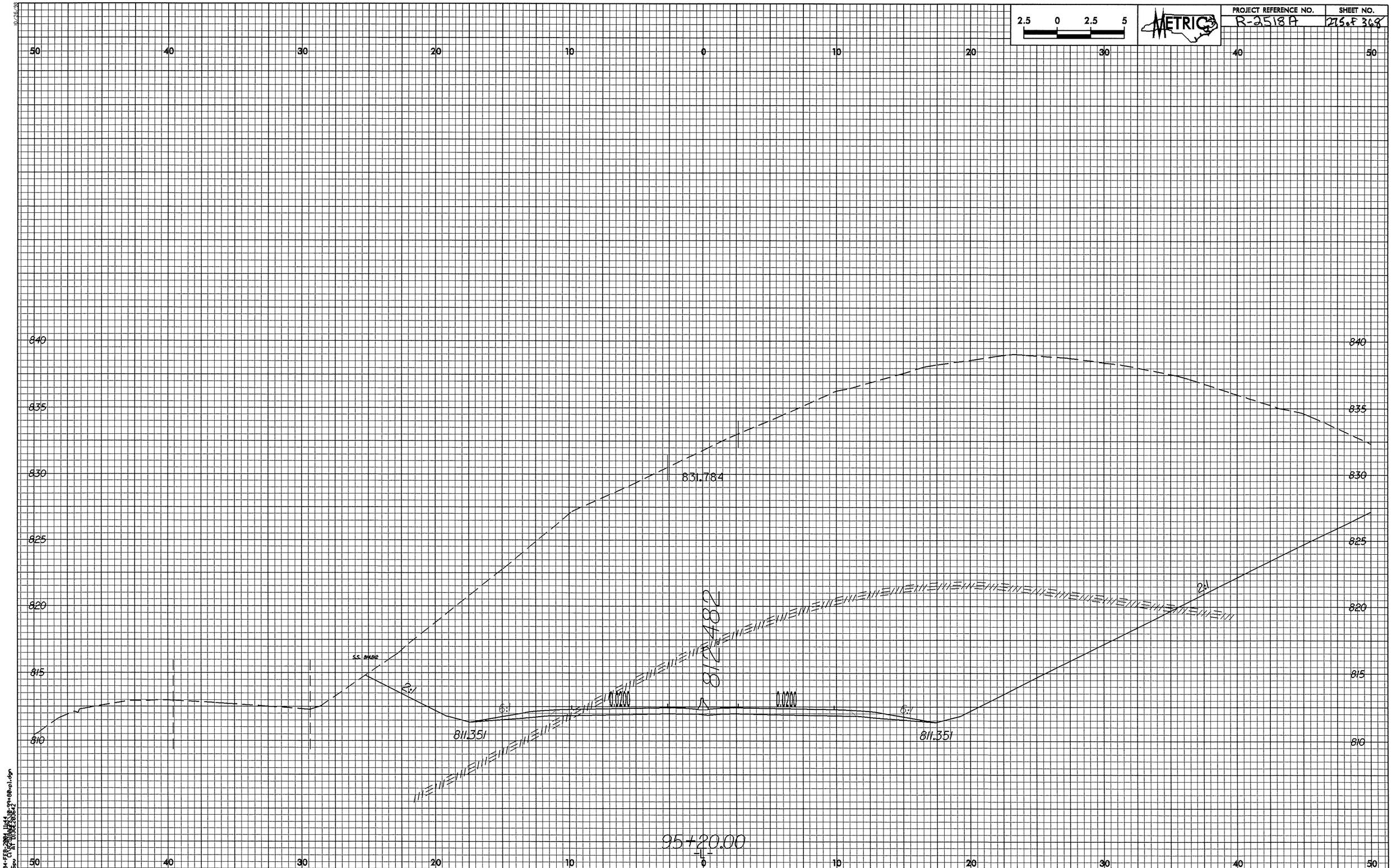
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
272 of 368
50 40 30 20 10 0 10 20 30 40 50
825
820
815
810
805
800
820.803
808.048
806.917
806.917
0.0200
0.0200
2:1
6:1
6:1
2:1
94+60.00
-L-



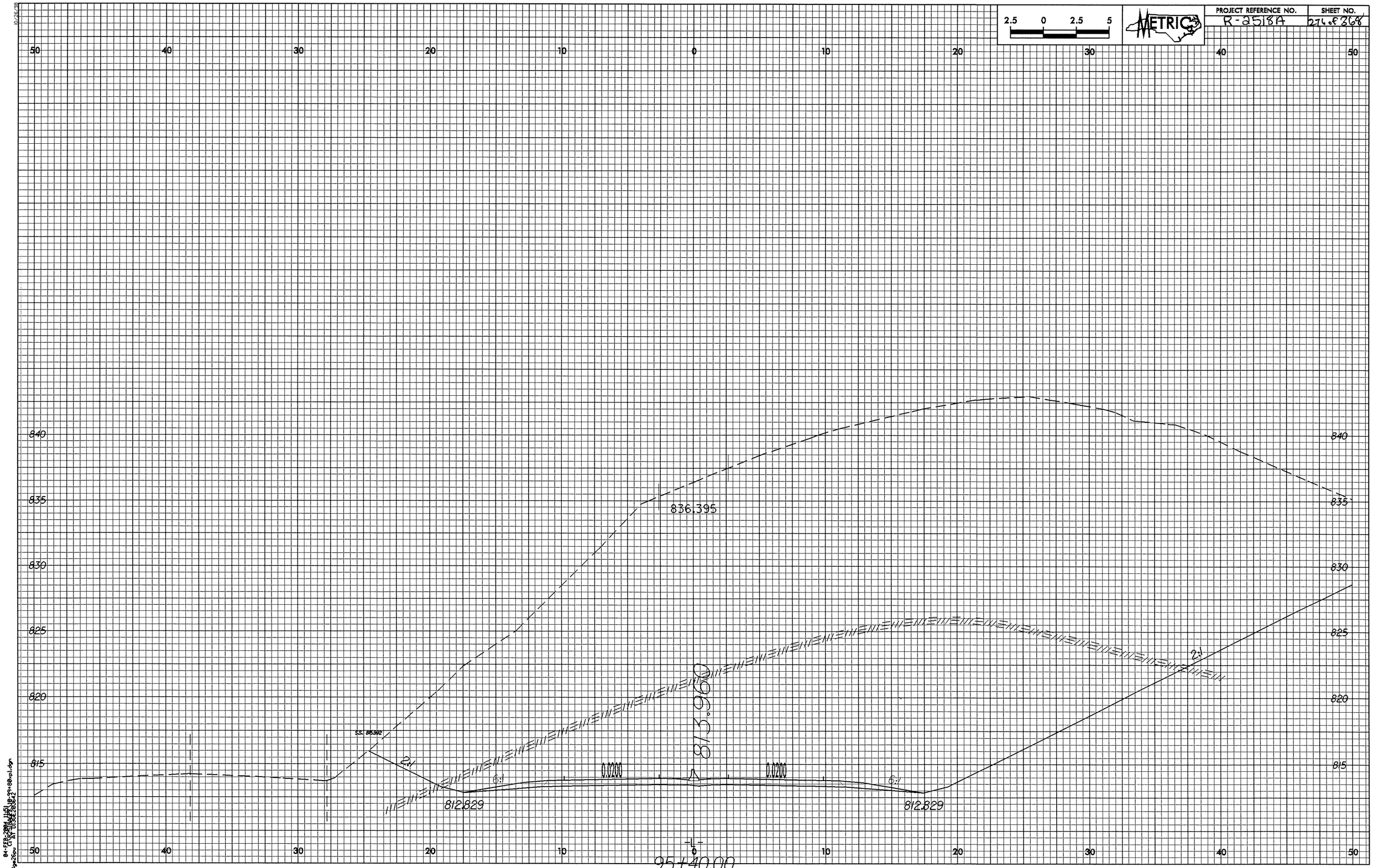
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
273 of 368
50 40 30 20 10 0 10 20 30 40 50
830
825
820
815
810
805
822.194
809.526
2:1
6:1
0.0200
0.0200
6:1
2:1
808.395
808.395
94+80.00
-L-



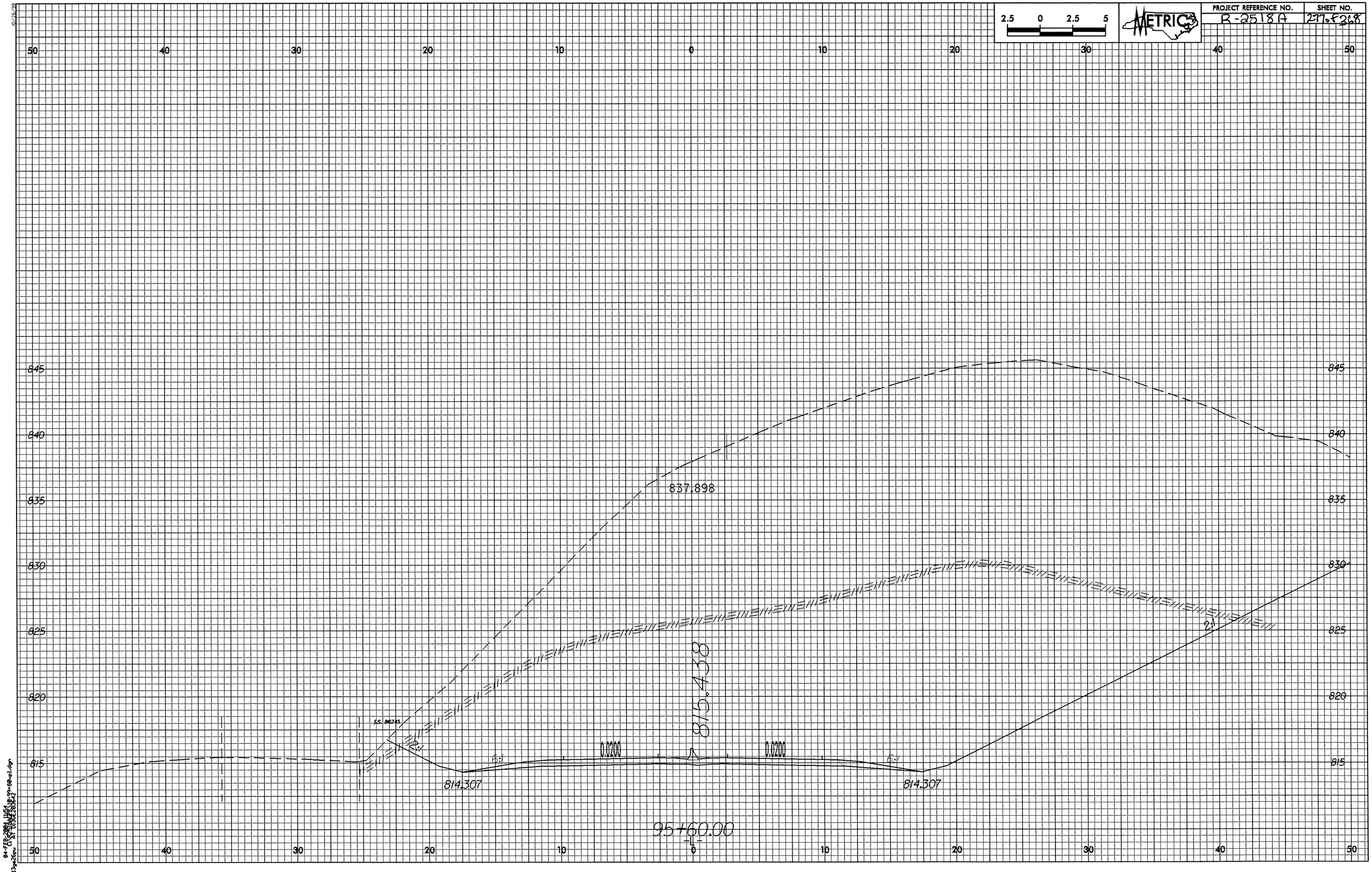
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
274 of 368
50 40 30 20 10 0 10 20 30 40 50
835
830
825
820
815
810
826.650
811.004
S.S. 813.032
2:1
6:1
0.0200
0.0200
6:1
2:1
809.873
809.873
-L-
95+00.00



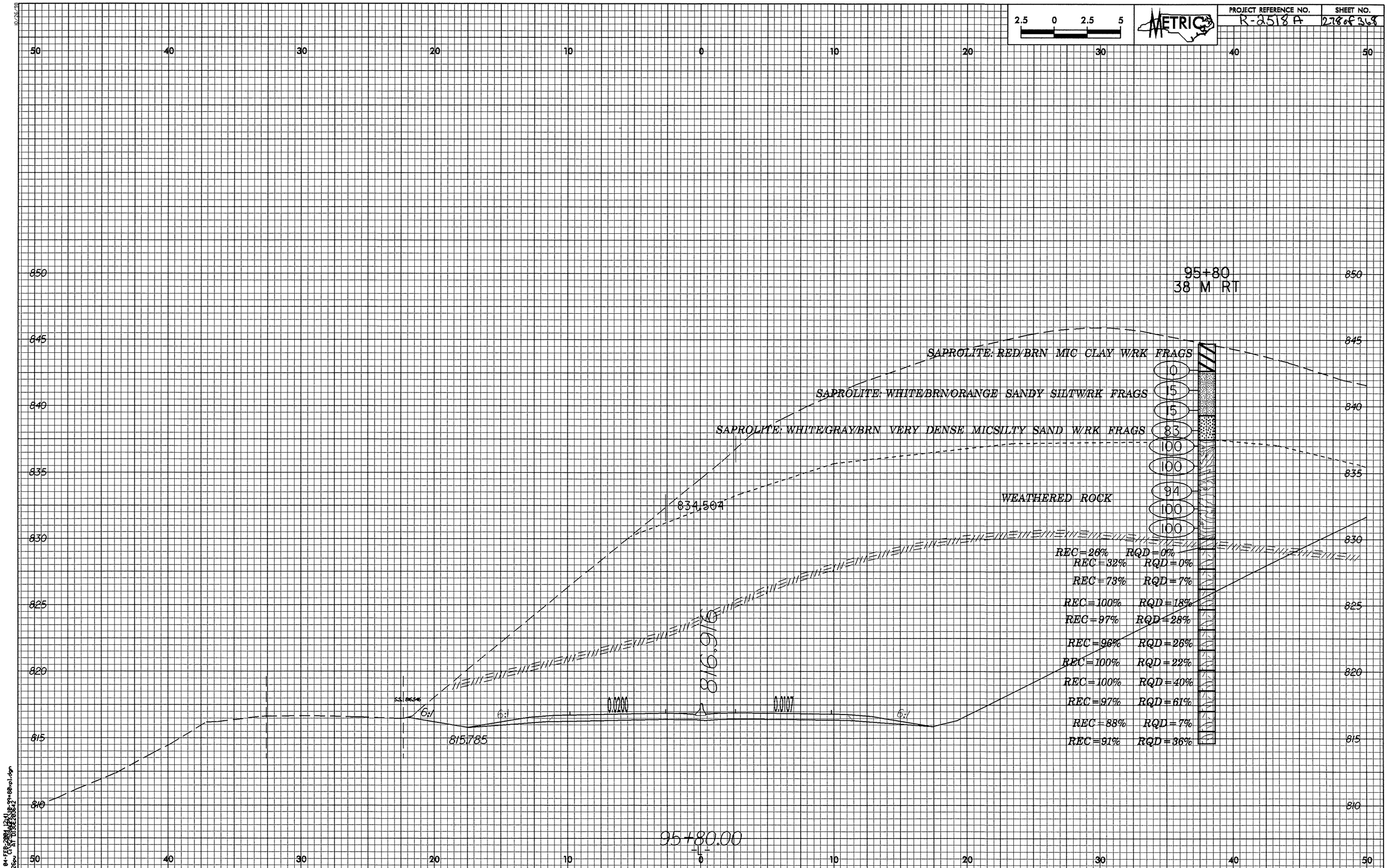
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
275 of 368
50 40 30 20 10 0 10 20 30 40 50
840
835
830
825
820
815
810
831.784
812482
S.S. 814.812
2:1
6:1
0.0200
0.0200
6:1
2:1
811.351
811.351
95+20.00



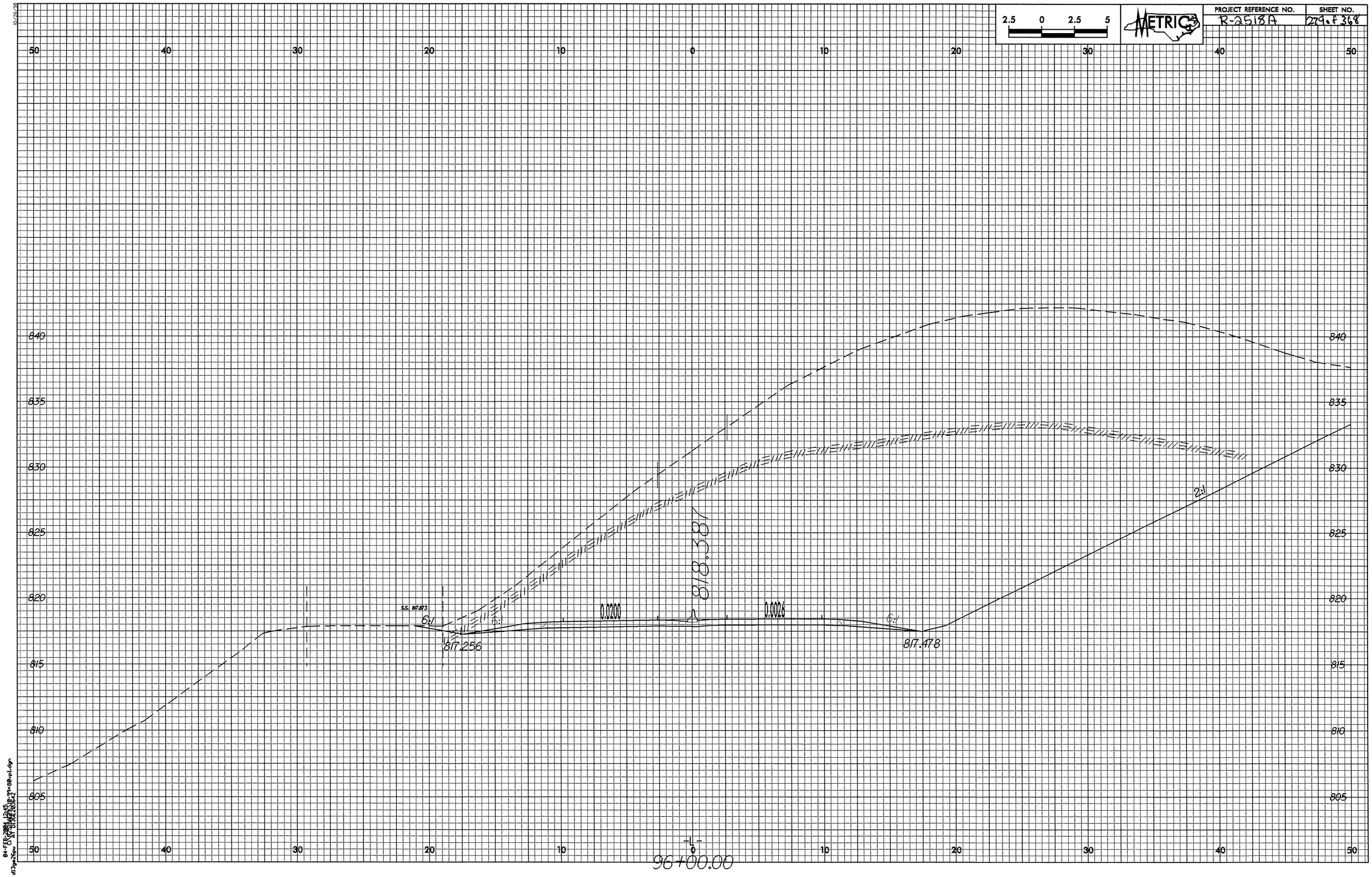
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
274 of 368
50 40 30 20 10 0 10 20 30 40 50
840
835
830
825
820
815
836.395
813.960
S.S. 815.992
2:1
6:1
0.0200
0.0200
6:1
2:1
812.829
812.829
-L-
95+40.00



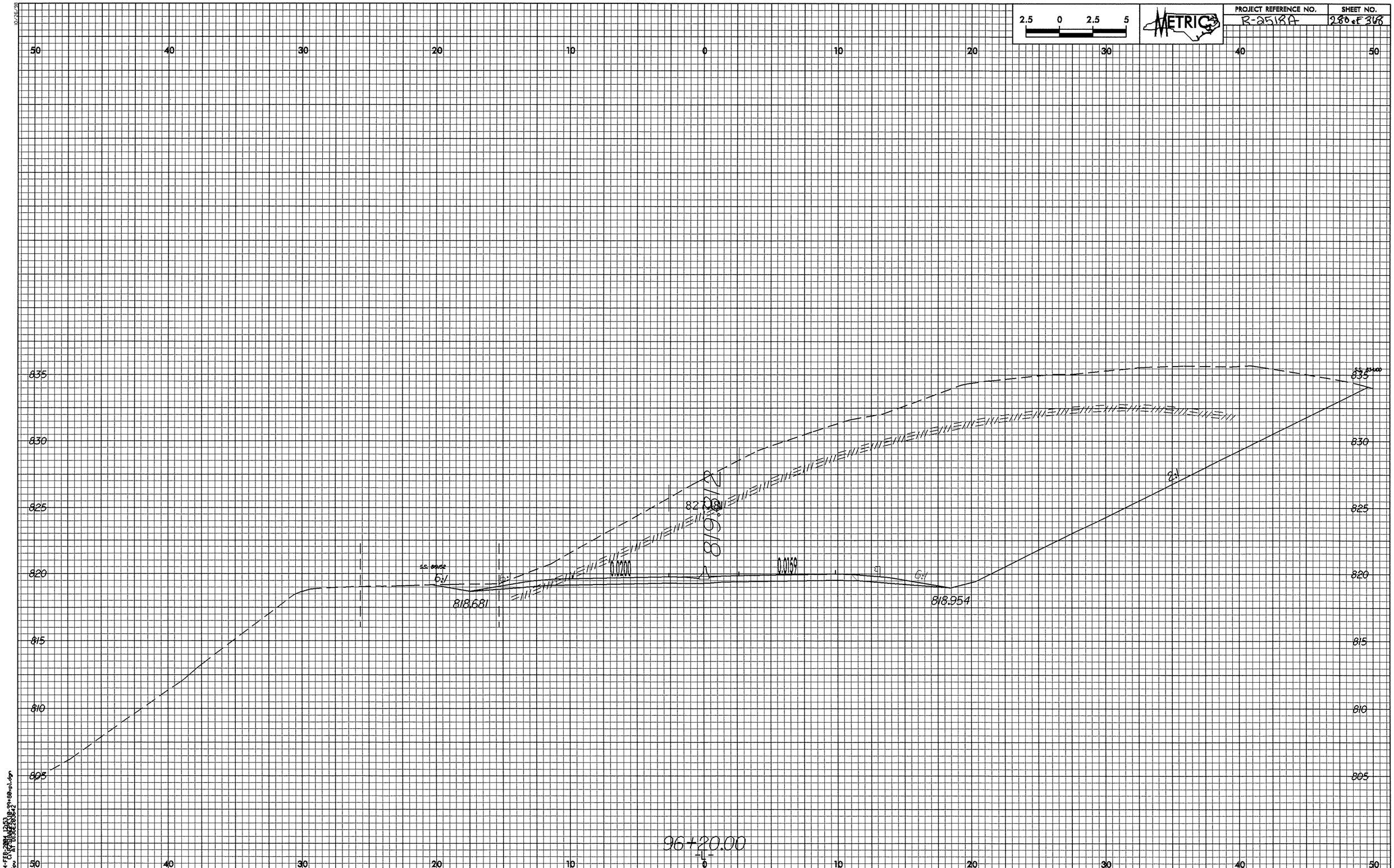
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
277 of 368
50 40 30 20 10 0 10 20 30 40 50
845
840
835
830
825
820
815
837.898
815.438
2:1
6:1
0.0200
0.0200
6:1
2:1
814.307
814.307
95+60.00
-L-



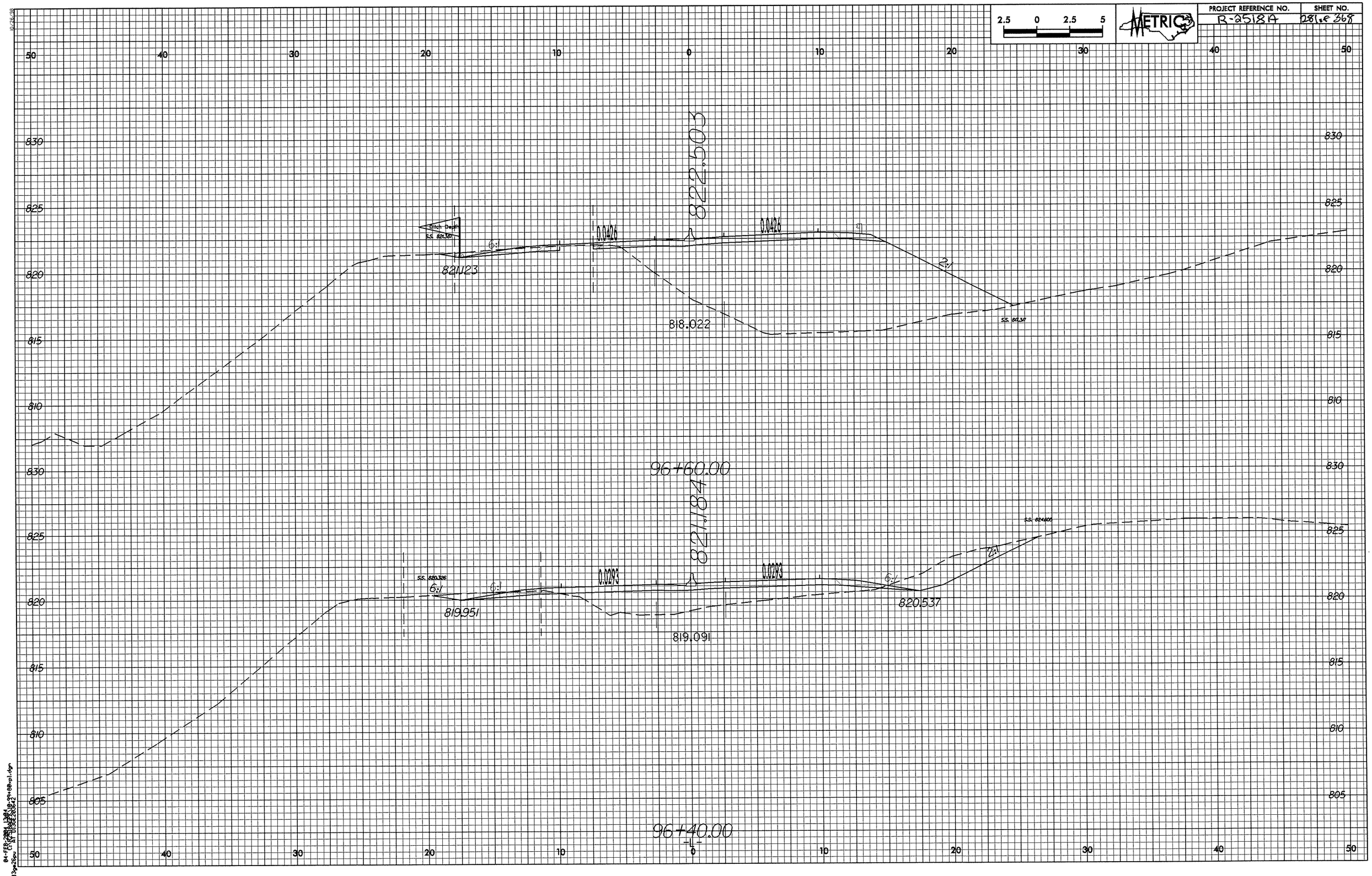
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
278 of 368
95+80
38 M RT
SAPROLITE: RED/BRN MIC CLAY W/RK FRAGS
SAPROLITE: WHITE/BRN/ORANGE SANDY SILT W/RK FRAGS
SAPROLITE: WHITE/GRAY/BRN VERY DENSE MICSILTY SAND W/RK FRAGS
WEATHERED ROCK
10
15
15
83
100
100
94
100
100
REC=26% RQD=0%
REC=32% RQD=0%
REC=73% RQD=7%
REC=100% RQD=18%
REC=97% RQD=28%
REC=96% RQD=26%
REC=100% RQD=22%
REC=100% RQD=40%
REC=97% RQD=61%
REC=88% RQD=7%
REC=91% RQD=36%
834.504
816.916
815.785
6:1
6:1
6:1
0.0200
0.0107
95+80.00



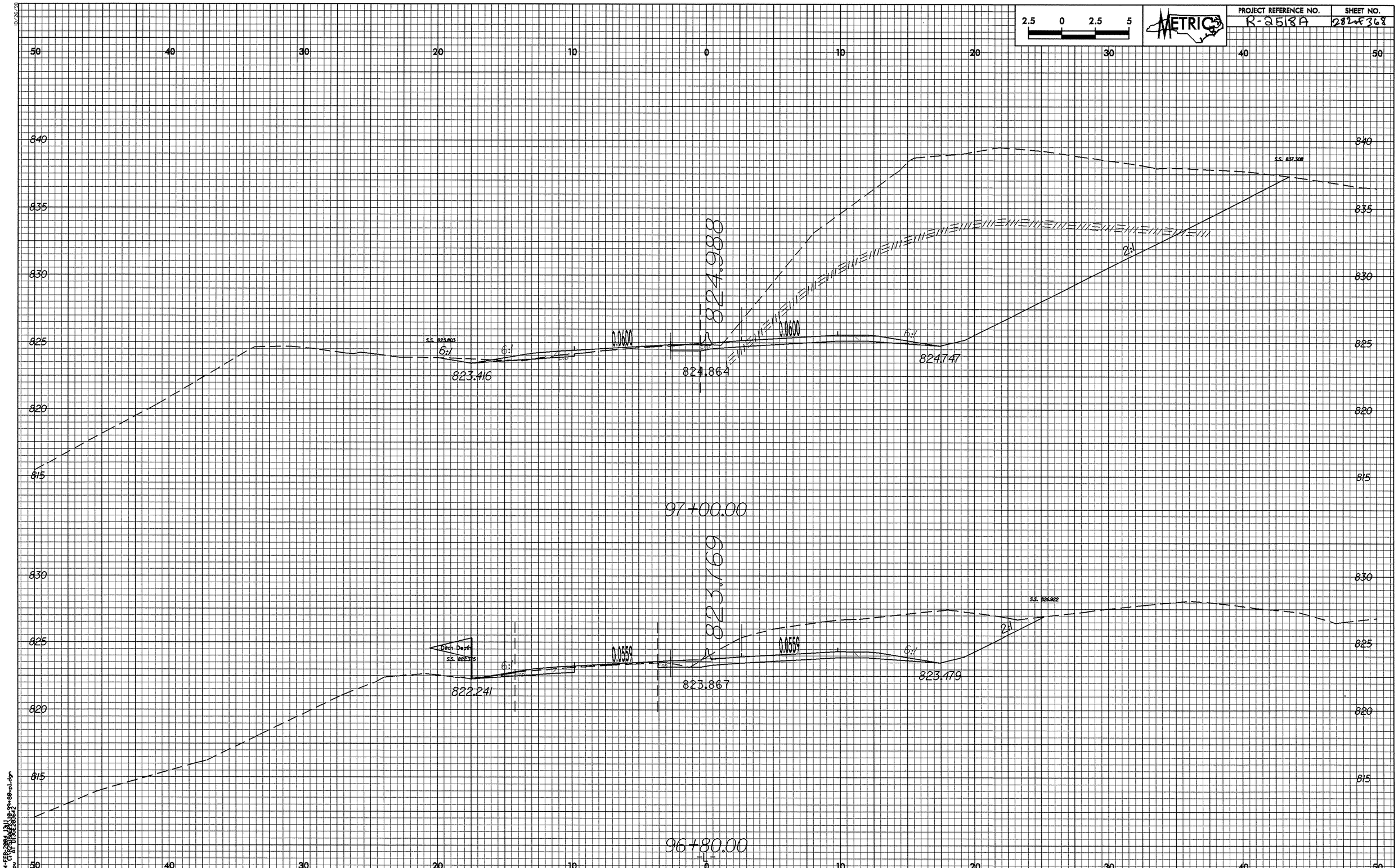
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
279 of 368
50 40 30 20 10 0 10 20 30 40 50
840 835 830 825 820 815 810 805
818.387
0.0200
0.0026
6:1
6:1
6:1
2:1
817.256
817.478
-L-
96+00.00



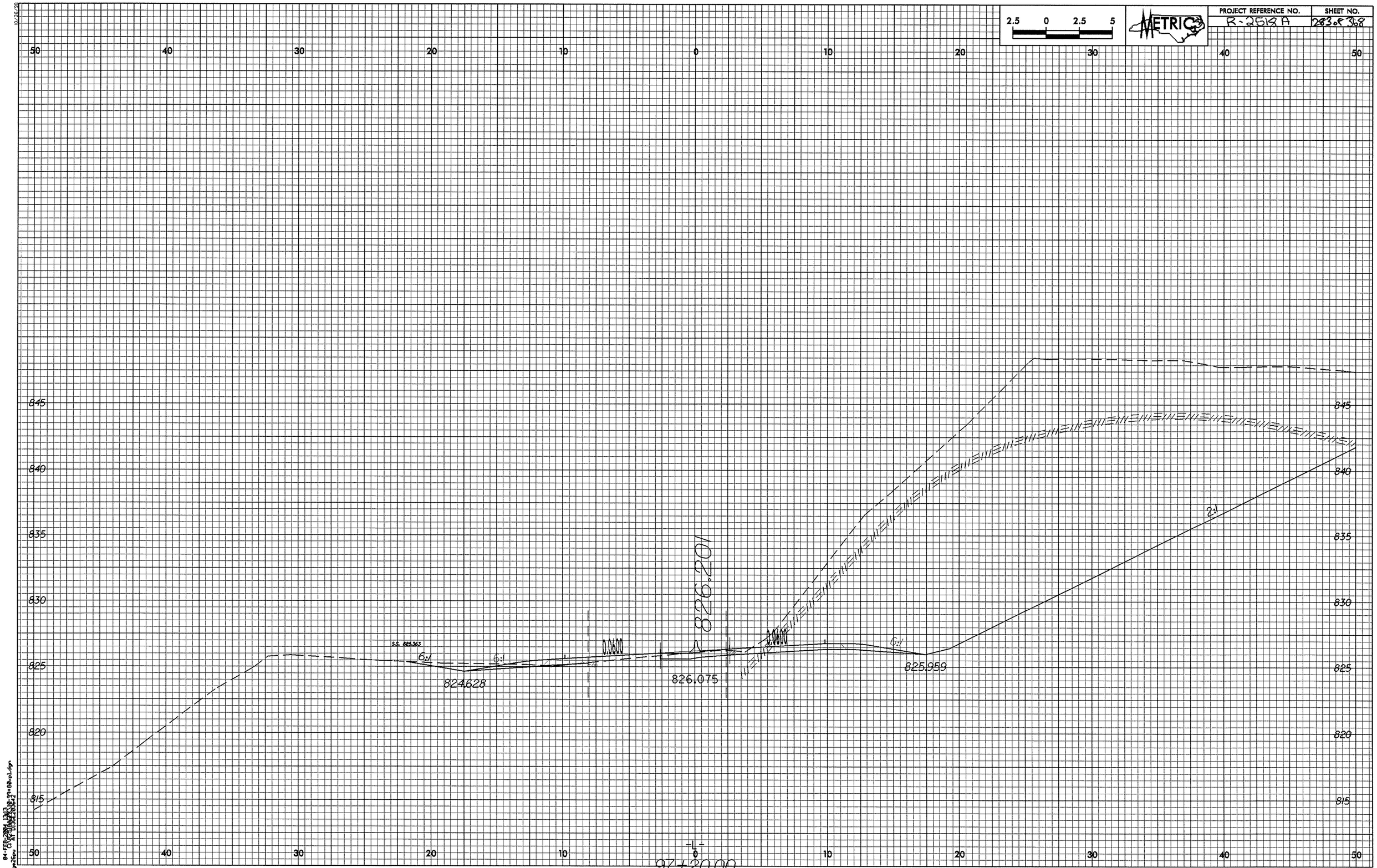
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
280 of 368
50 40 30 20 10 0 10 20 30 40 50
835
830
825
820
815
810
805
819.812
0.0200
0.0159
818.681
818.954
6:1
2:1
96+20.00



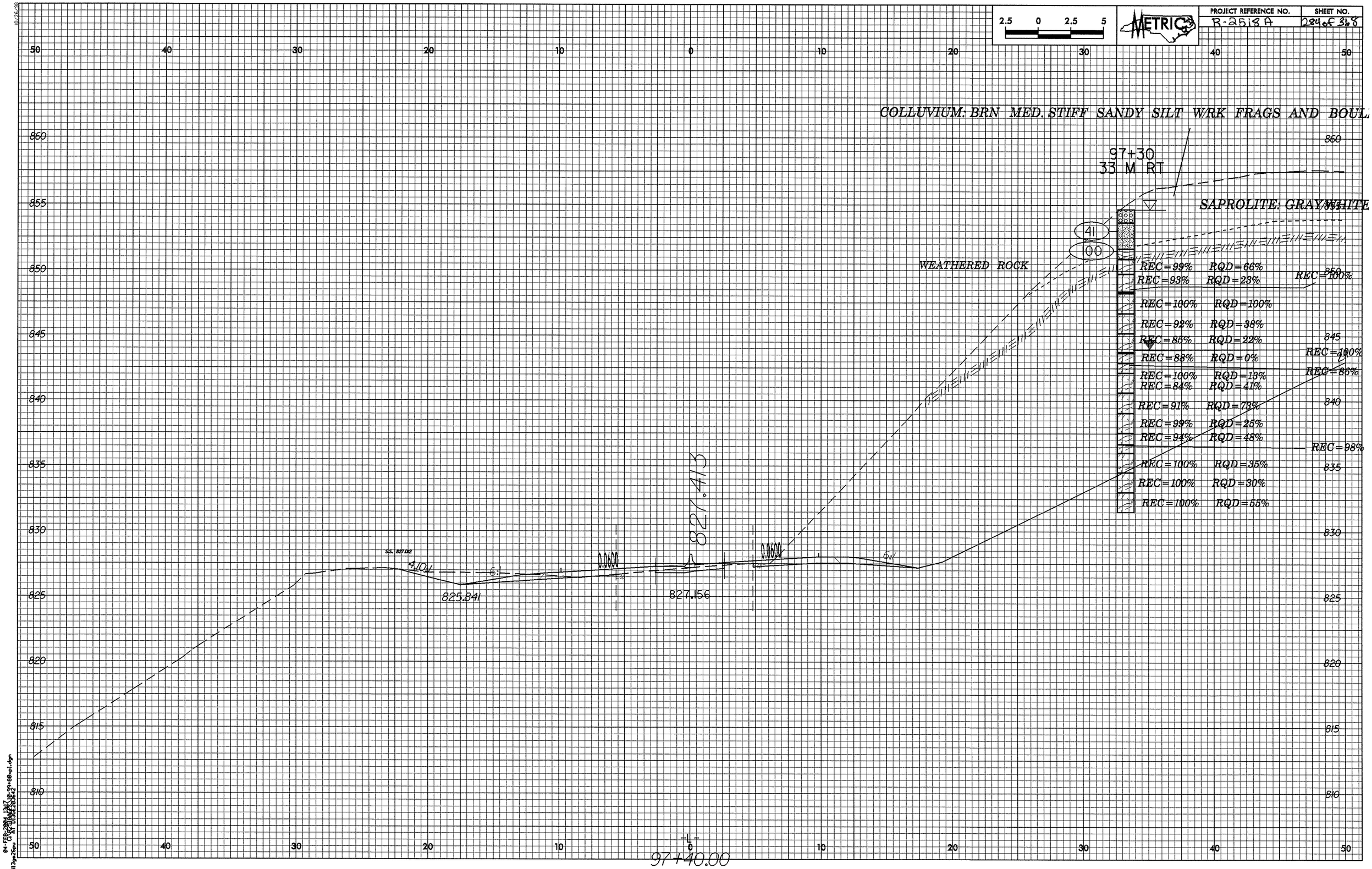
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
281 of 368
822.503
0.0426
0.0426
6:1
2:1
821.123
818.022
96+60.00
821.184
0.0293
0.0293
6:1
6:1
6:1
2:1
819.951
820.537
819.091
96+40.00
-L-



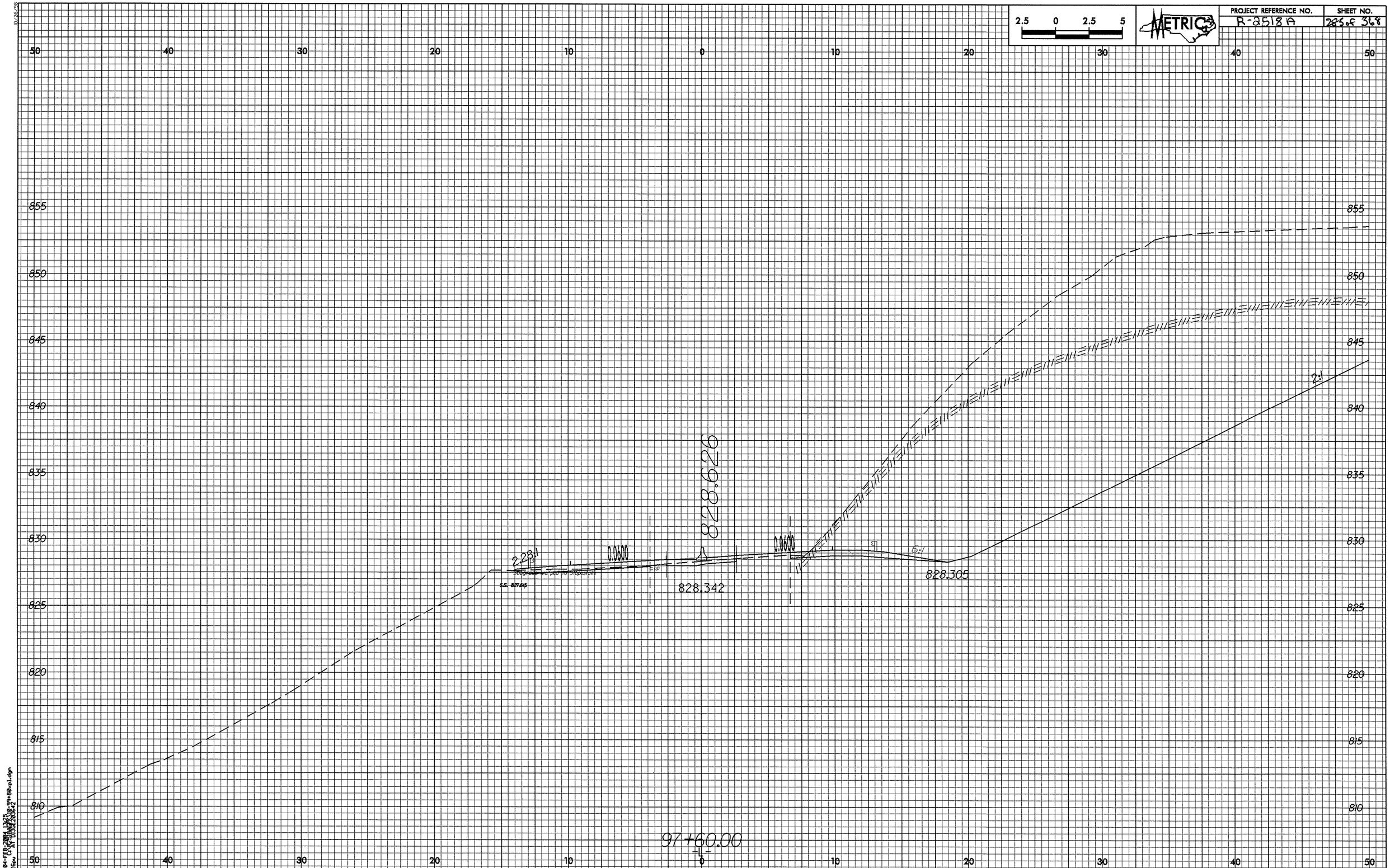
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
282 of 368
50 40 30 20 10 0 10 20 30 40 50
840 835 830 825 820 815
S.S. 823.803
6:1
6:1
0.0600
824.988
0.0600
6:1
2:1
S.S. 837.308
823.416
824.864
824.747
97+00.00
823.769
Ditch Depth
S.S. 822.375
6:1
0.0559
0.0559
6:1
2:1
S.S. 826.922
822.241
823.867
823.479
96+80.00
-L-



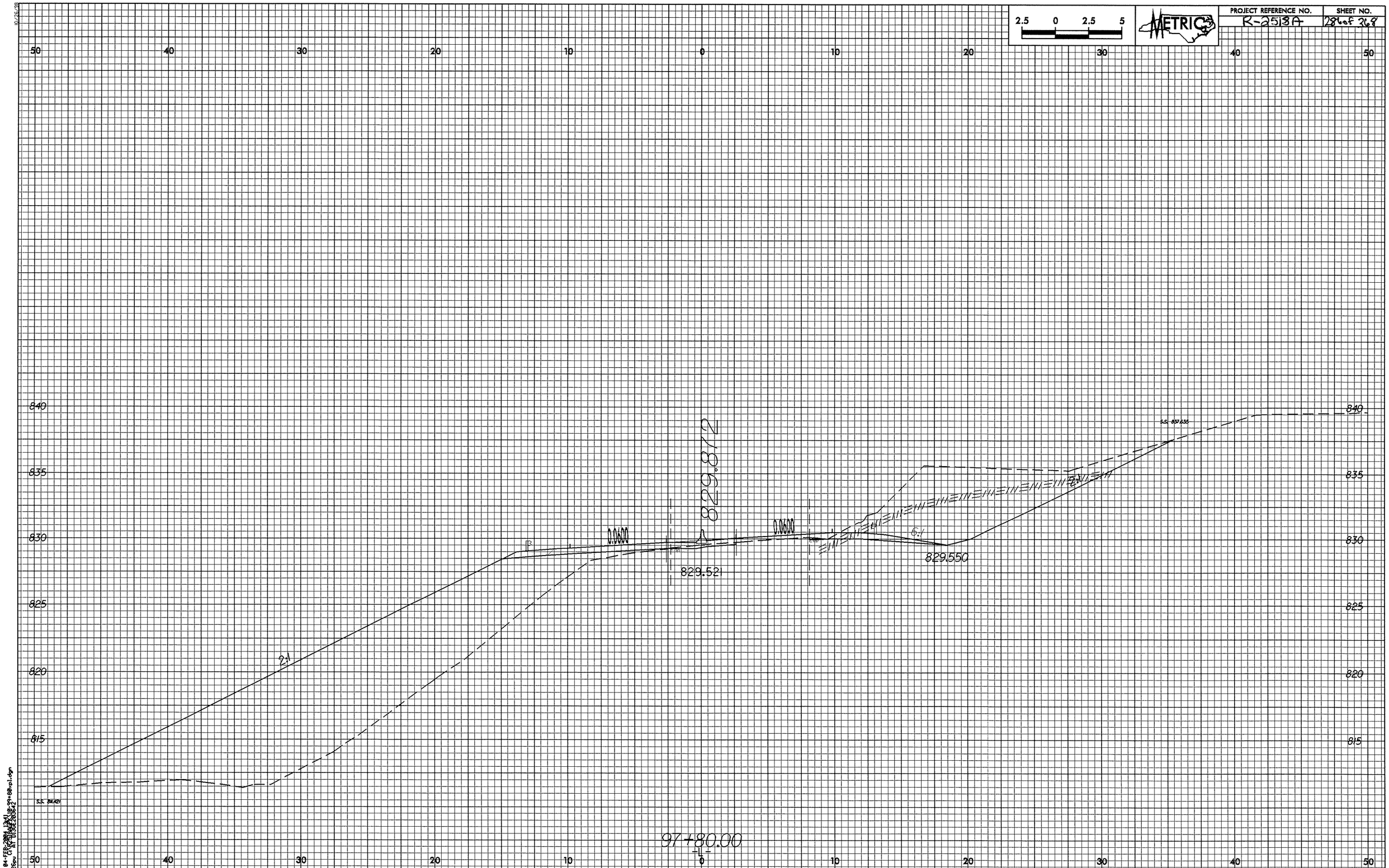
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
283 of 368
50 40 30 20 10 0 10 20 30 40 50
845 840 835 830 825 820 815
S.S. 825.363
6:1
6:1
0.0600
826.201
0.0600
6:1
2:1
824.628
826.075
825.959
-L-
97+20.00



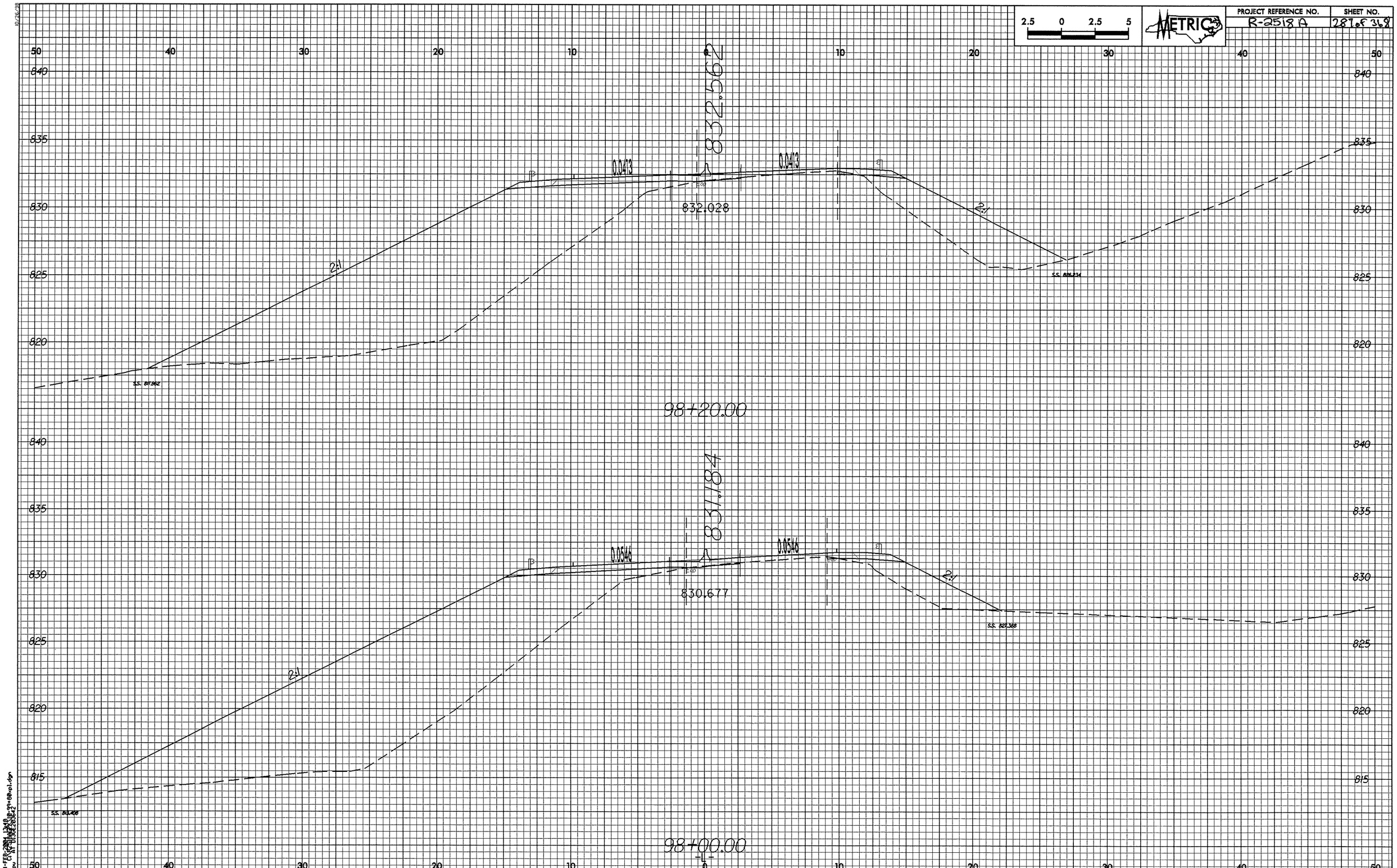
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
284 of 368
METRIC
2.5 0 2.5 5
COLLUVIUM: BRN MED. STIFF SANDY SILT W/RK FRAGS AND BOUL
97+30
33 M RT
SAPROLITE: GRAY/WHITE
WEATHERED ROCK
41
100
REC=99% RQD=66%
REC=93% RQD=23%
REC=100%
REC=100% RQD=100%
REC=92% RQD=38%
REC=85% RQD=22%
REC=88% RQD=0%
REC=100%
REC=100% RQD=13%
REC=84% RQD=41%
REC=86%
REC=91% RQD=73%
REC=99% RQD=25%
REC=94% RQD=48%
REC=98%
REC=100% RQD=35%
REC=100% RQD=30%
REC=100% RQD=55%
827.413
0.0600
0.0600
825.841
827.156
97+40.00



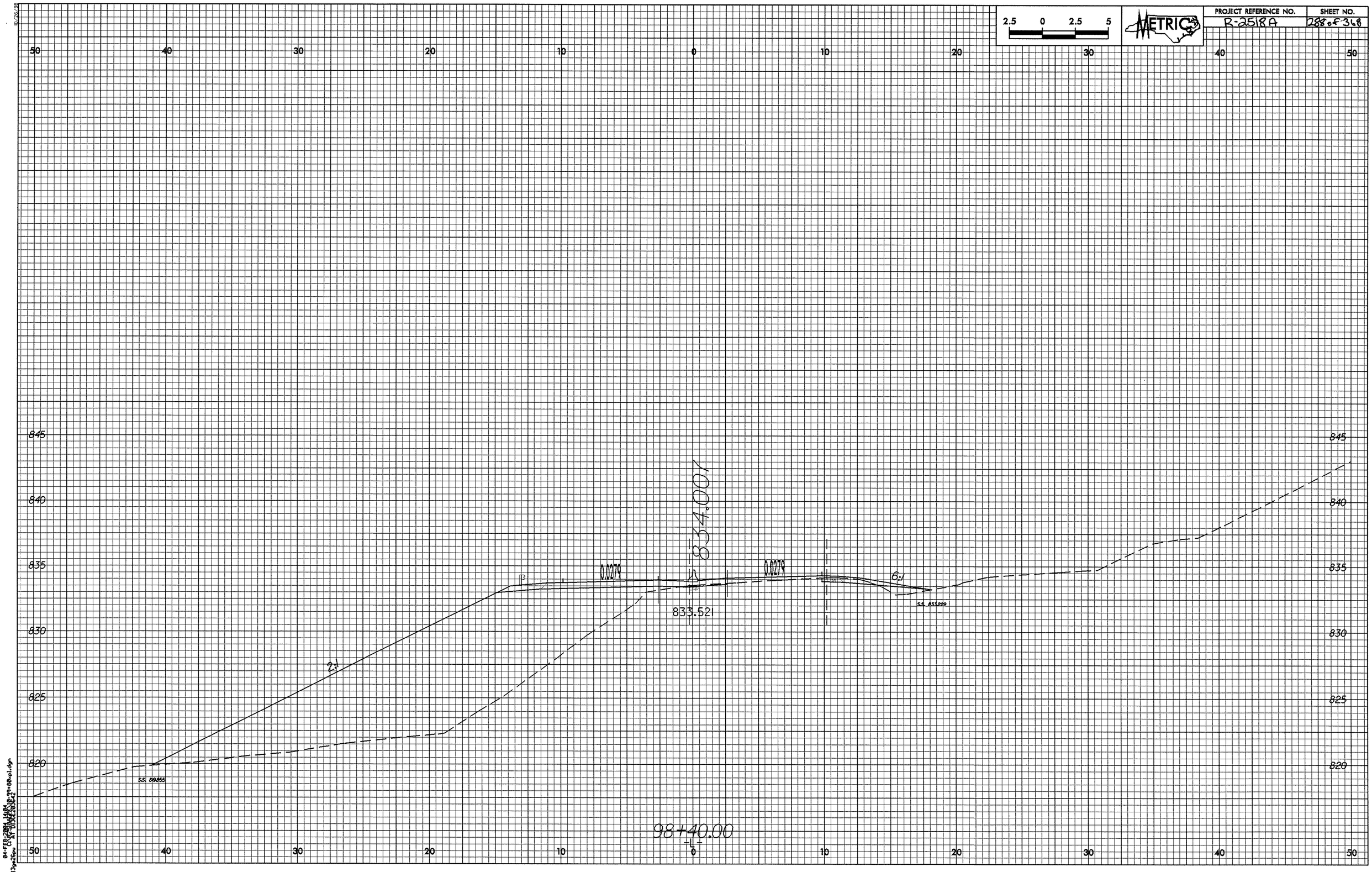
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
285 of 368
50 40 30 20 10 0 10 20 30 40 50
855 850 845 840 835 830 825 820 815 810
828.626
2:1
2.28:1
0.0600
0.0600
6:1
828.342
828.305
97+60.00



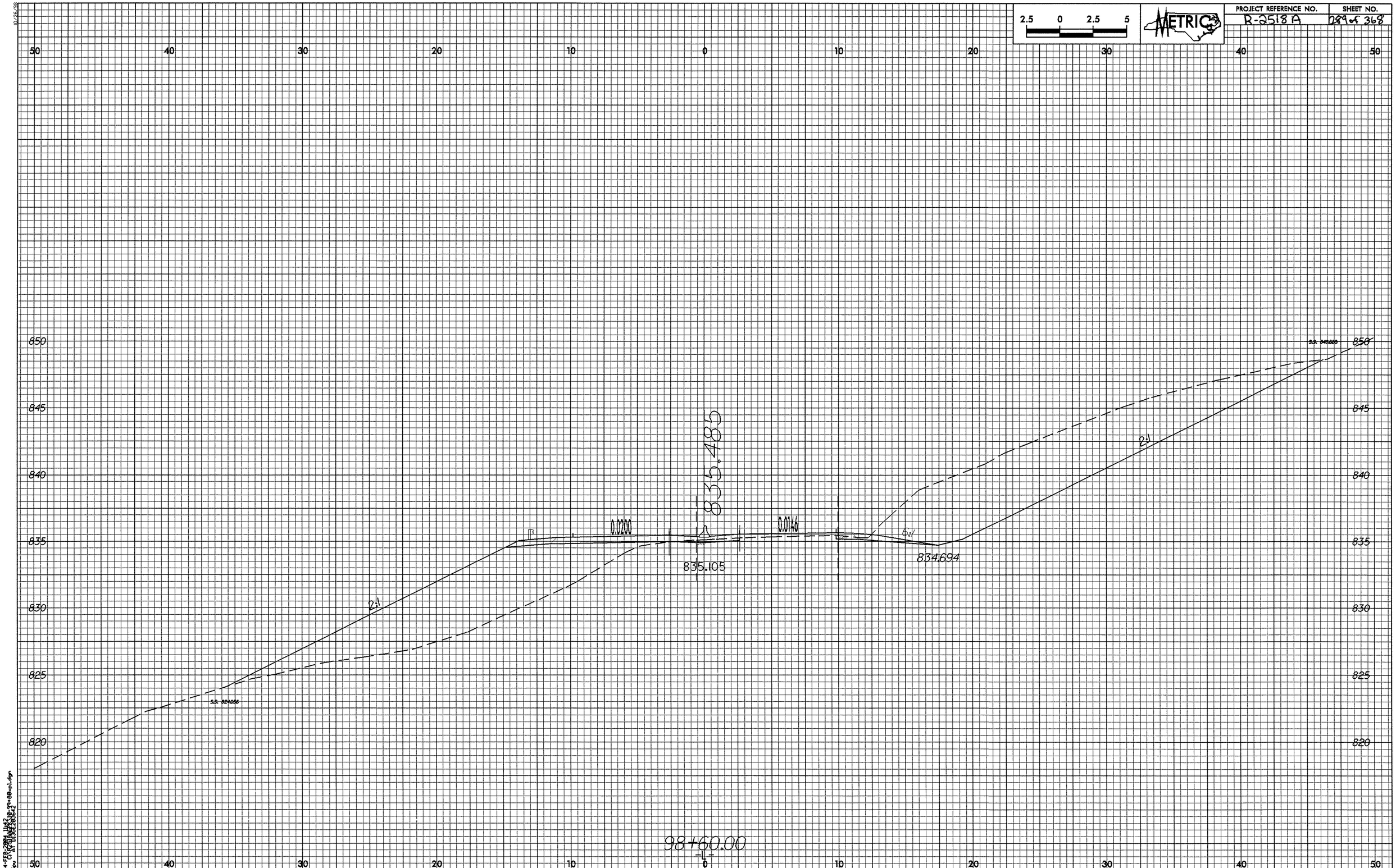
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
286 of 368
50 40 30 20 10 0 10 20 30 40 50
840
835
830
825
820
815
829.872
0.0600
0.0600
829.521
829.550
2:1
6:1
97+80.00



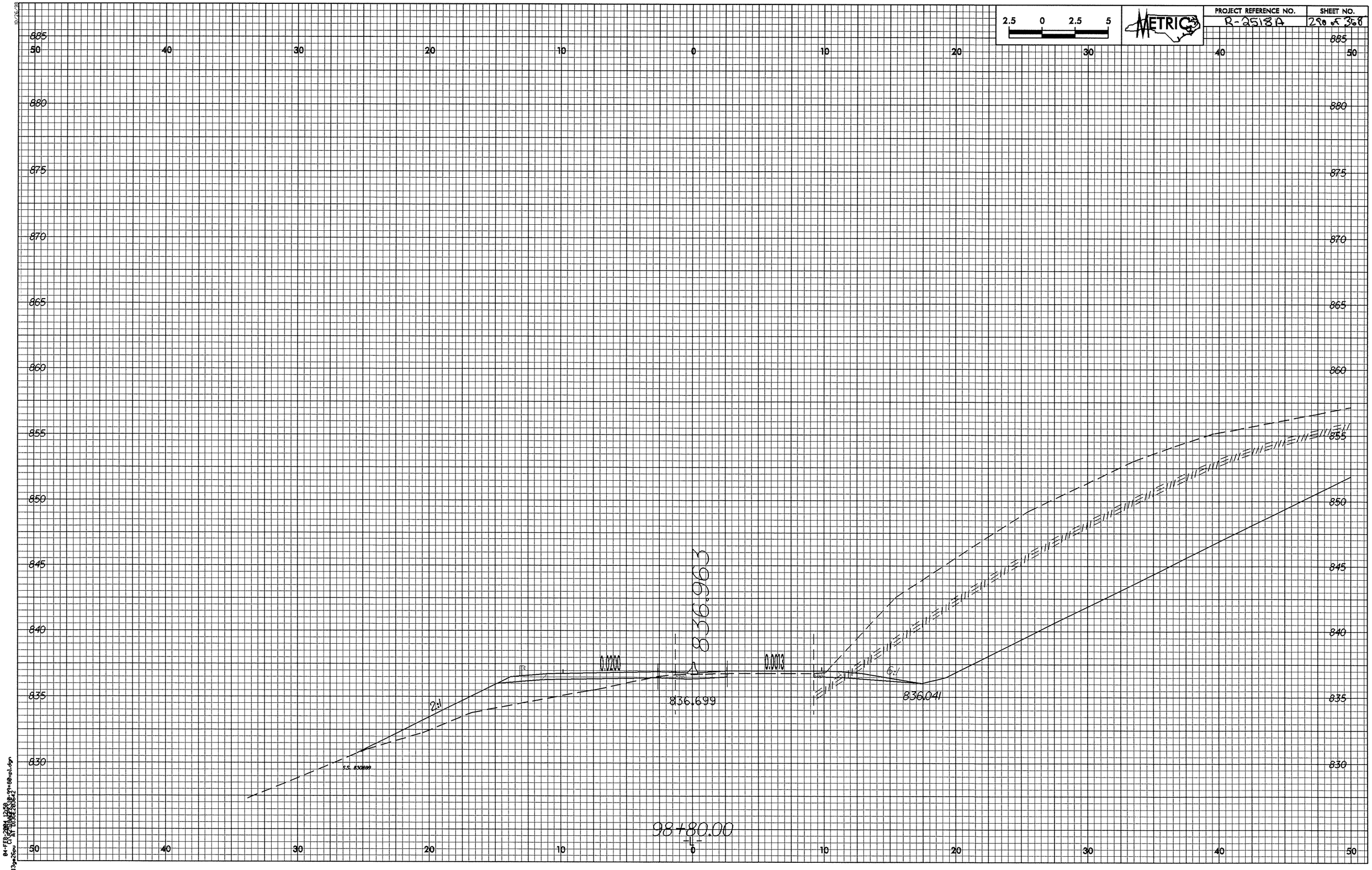
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
287 of 368
832.562
0.0413
0.0413
832.028
2:1
2:1
98+20.00
831.184
0.0546
0.0546
830.677
2:1
2:1
98+00.00
-L-



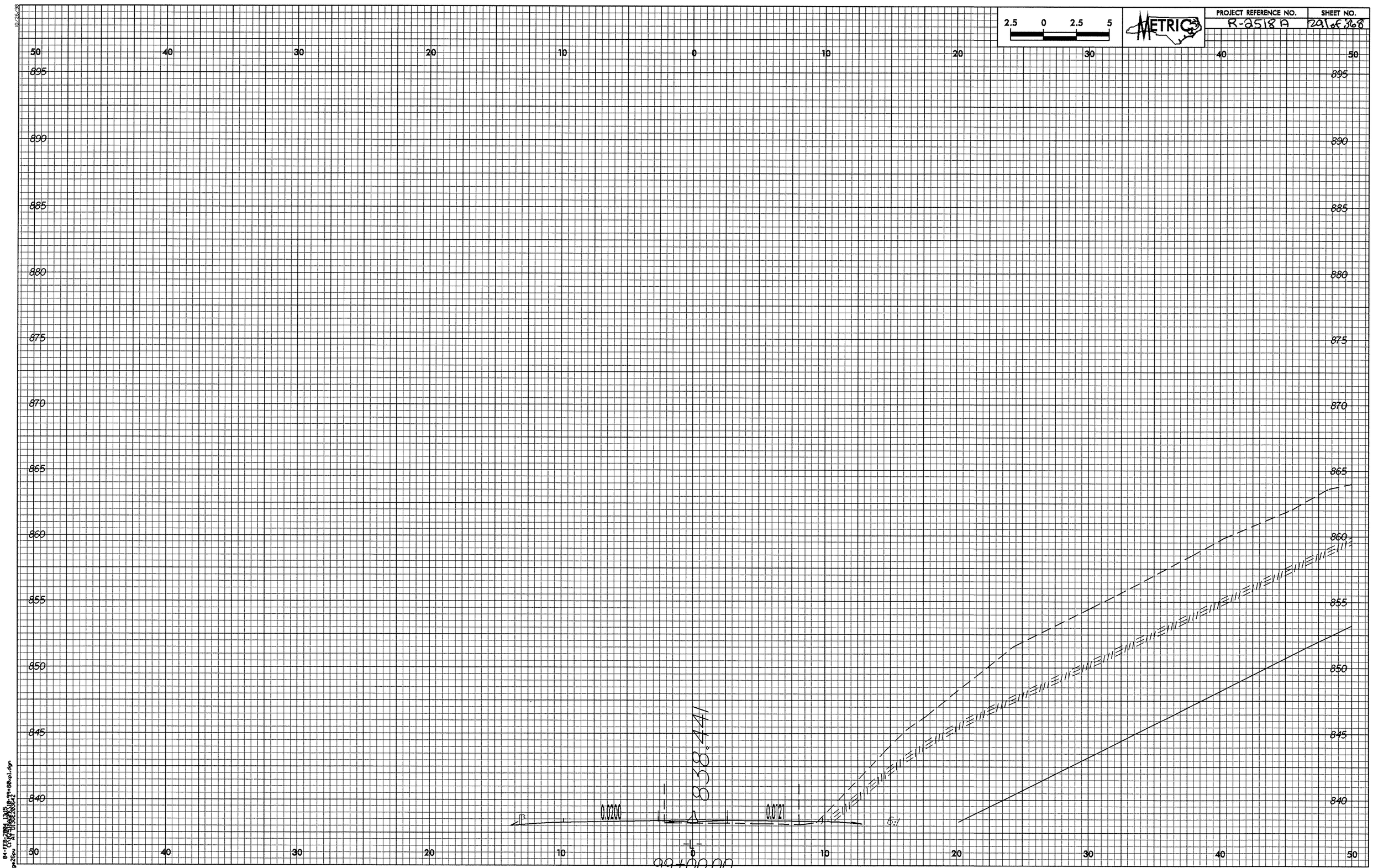
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
288 of 368
50 40 30 20 10 0 10 20 30 40 50
845
840
835
830
825
820
834.001
0.0279
0.0279
6:1
833.521
2:1
S.S. 833.229
S.S. 819.855
98+40.00
-L-



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
289 of 368
50 40 30 20 10 0 10 20 30 40 50
850 845 840 835 830 825 820
835.485
0.0200
0.0146
835.105
834.694
2:1
2:1
6:1
98+60.00



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
290 of 368
885
880
875
870
865
860
855
850
845
840
835
830
50 40 30 20 10 0 10 20 30 40 50
836.963
0.0200
0.0013
2:1
6:1
836.699
836.041
S.S. 830699
98+80.00
-L-



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
291 of 368
50 40 30 20 10 0 10 20 30 40 50
895 890 885 880 875 870 865 860 855 850 845 840
838.441
0.0200
0.0121
6:1
-L-
99+00.00

2.5 0 2.5 5 METRIC

99+20
50 M RT

COLLUVIUM. BOULDERS

REC=92% RQD= 90%
REC=100% RQD=89%
REC=79% RQD=56%
REC=100% RQD=96%
REC=100% RQD=62%
REC=97% RQD=95%
REC=99% RQD=81%
REC=96% RQD=21%
REC=100% RQD=78%
REC=99% RQD=99%
REC=100% RQD=96%
REC=94% RQD=53%

REC=100% RQD=0%

0.0200

0.0200

6:1

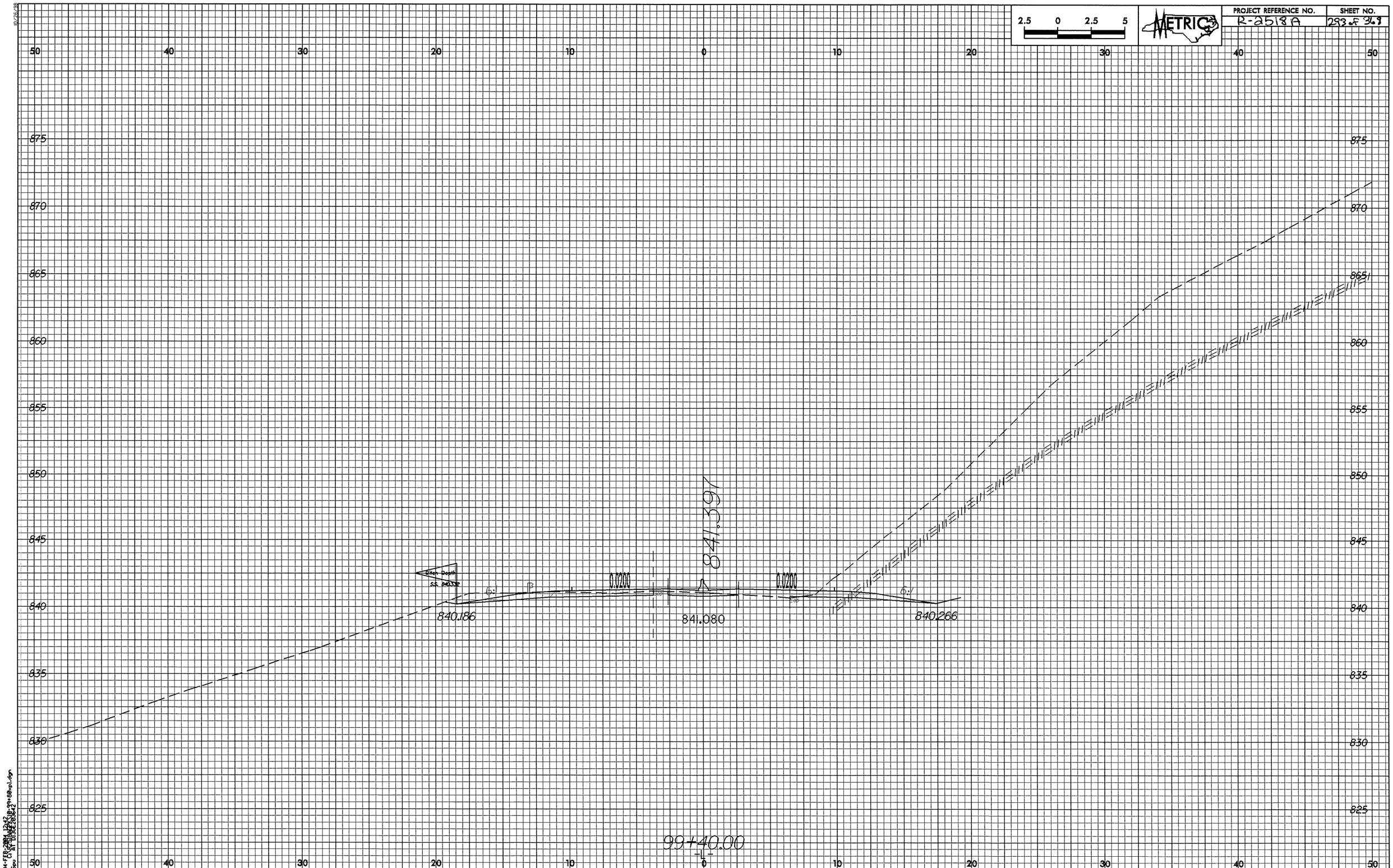
838.788

839.652

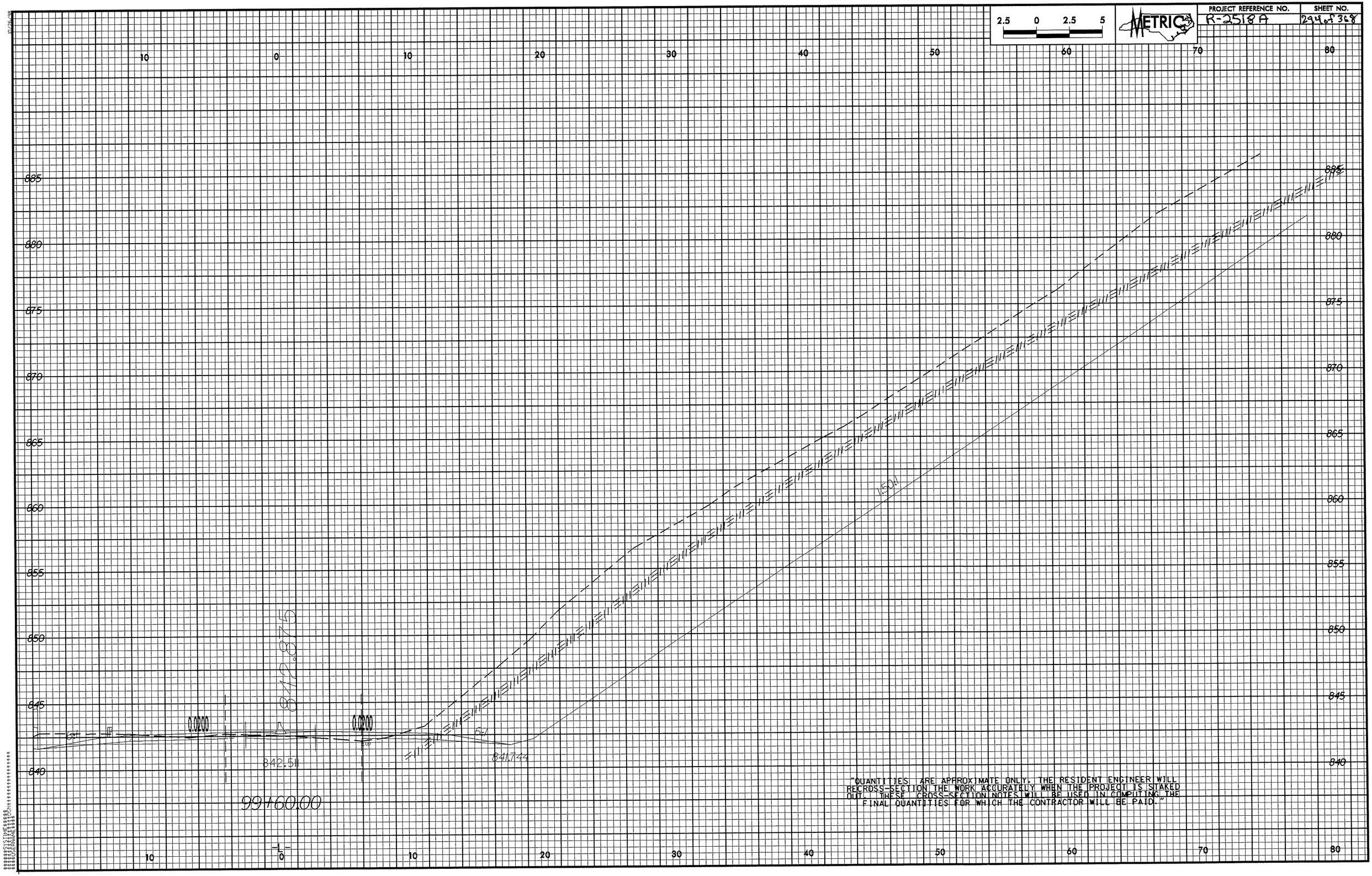
RDWY FILL

99+20.00

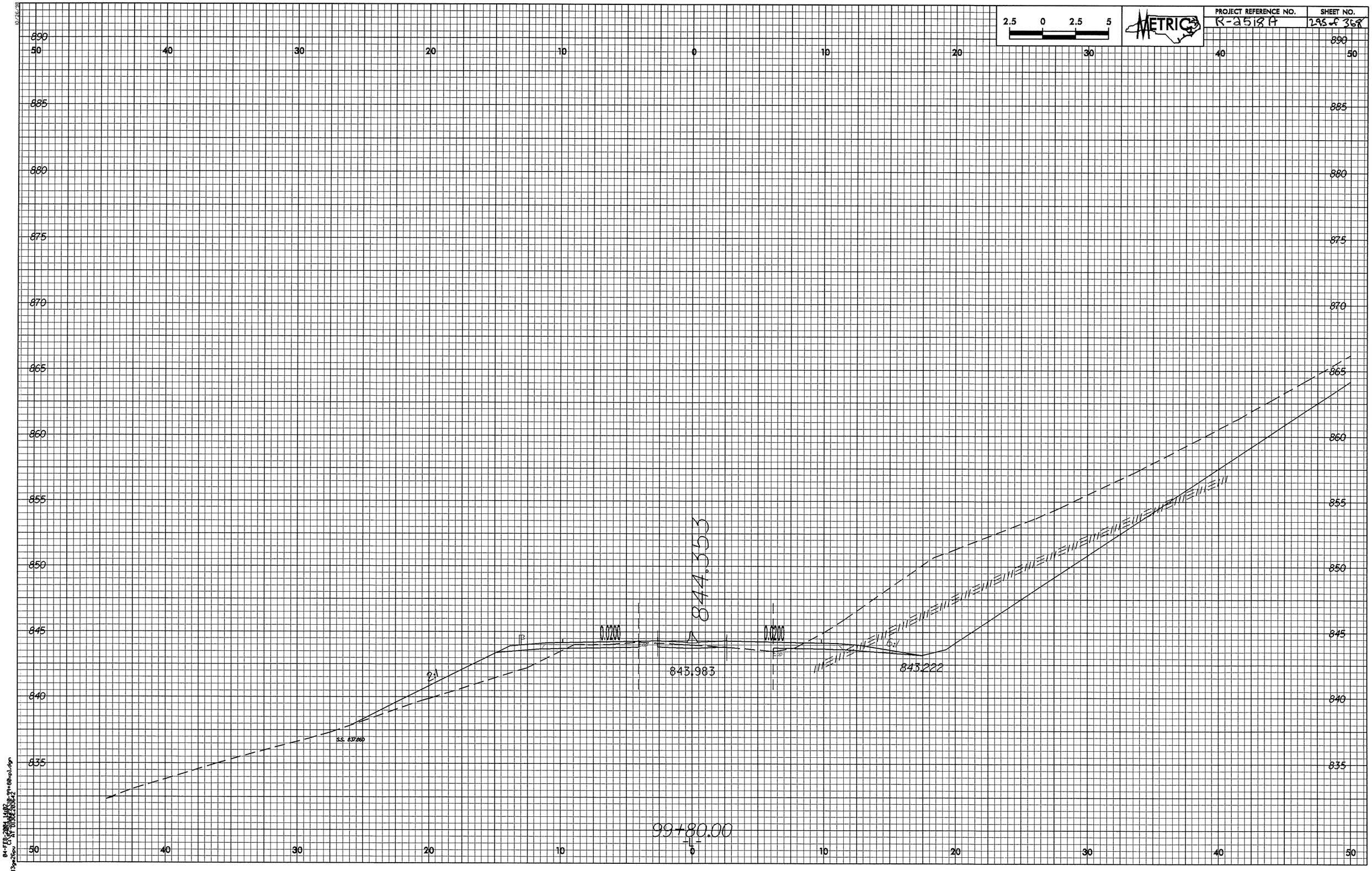
"QUANTITIES ARE APPROXIMATE ONLY. THE RESIDENT ENGINEER WILL RECROSS-SECTION THE WORK ACCURATELY WHEN THE PROJECT IS STAKED OUT. THESE CROSS-SECTION NOTES WILL BE USED IN COMPUTING THE FINAL QUANTITIES FOR WHICH THE CONTRACTOR WILL BE PAID."



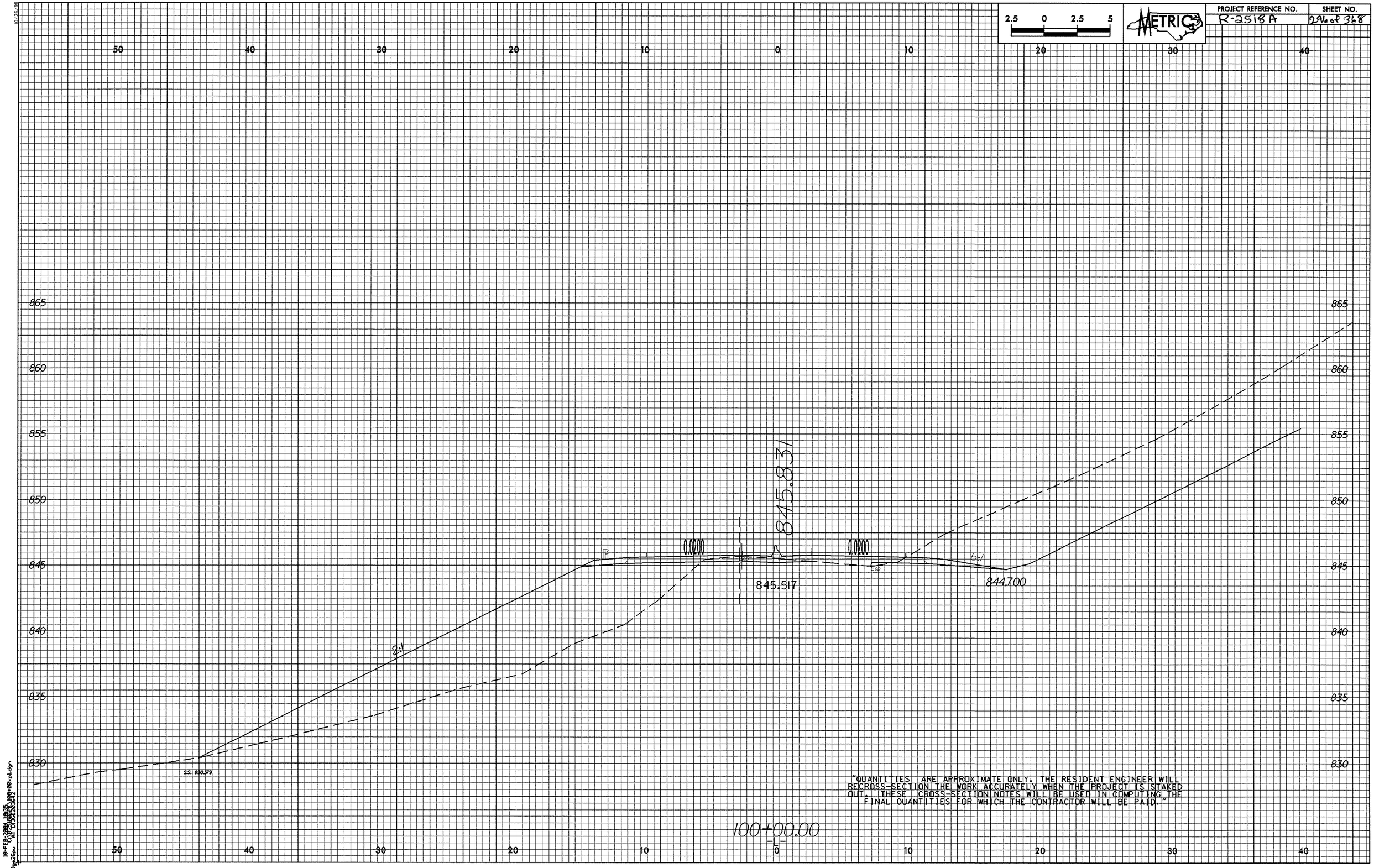
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
293 of 368
50 40 30 20 10 0 10 20 30 40 50
875 870 865 860 855 850 845 840 835 830 825
841.397
0.0200
0.0200
6:1
6:1
840.186
841.080
840.266
99+40.00
-L-



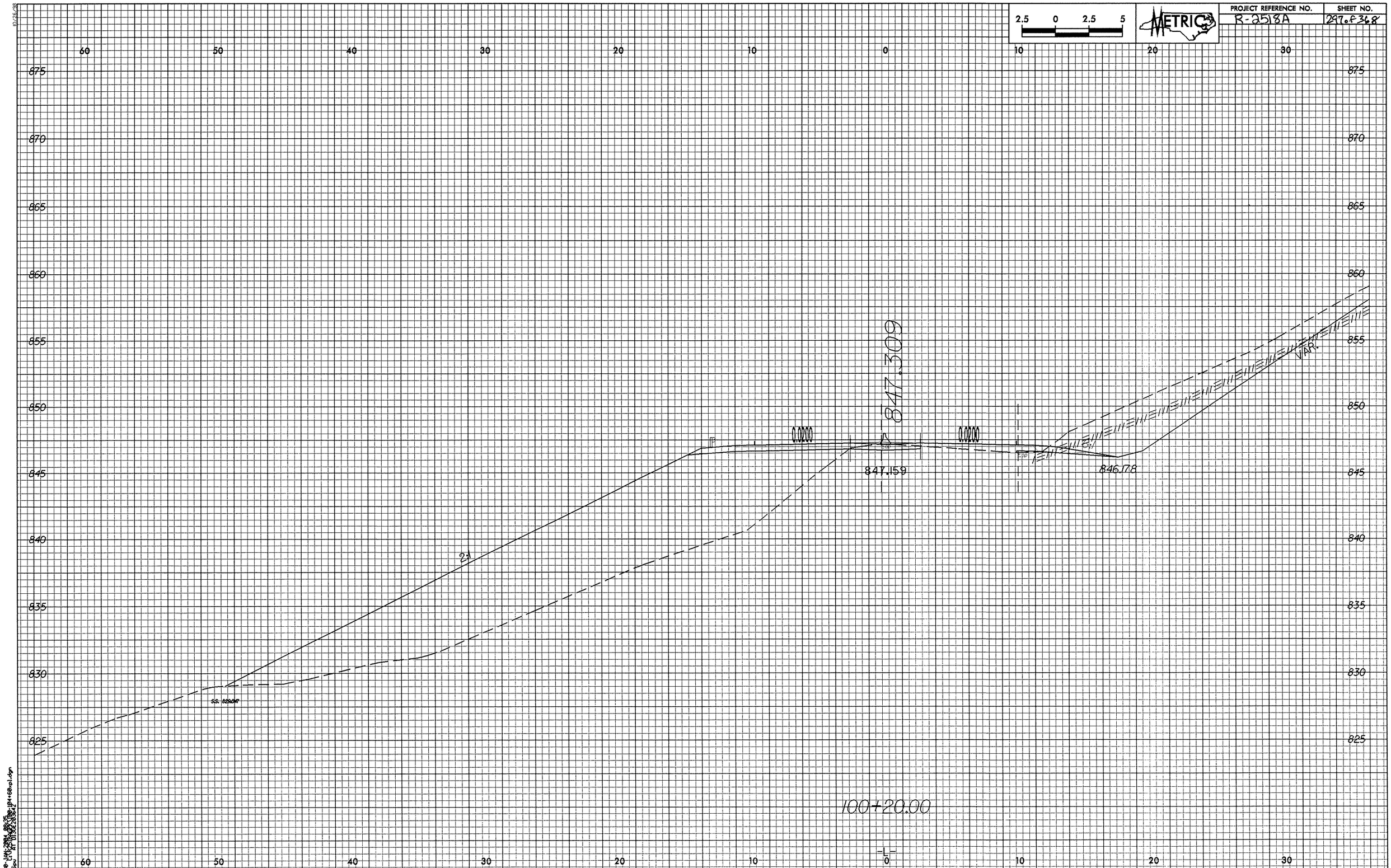
"QUANTITIES ARE APPROXIMATE ONLY. THE RESIDENT ENGINEER WILL RECROSS-SECTION THE WORK ACCURATELY WHEN THE PROJECT IS STAKED OUT. THESE CROSS-SECTION NOTES WILL BE USED IN COMPUTING THE FINAL QUANTITIES FOR WHICH THE CONTRACTOR WILL BE PAID."



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
295 of 368
890
885
880
875
870
865
860
855
850
845
840
835
50 40 30 20 10 0 10 20 30 40 50
844.353
0.0200
0.0200
843.983
843.222
2:1
6:1
S.S. 837.860
99+80.00
-L-

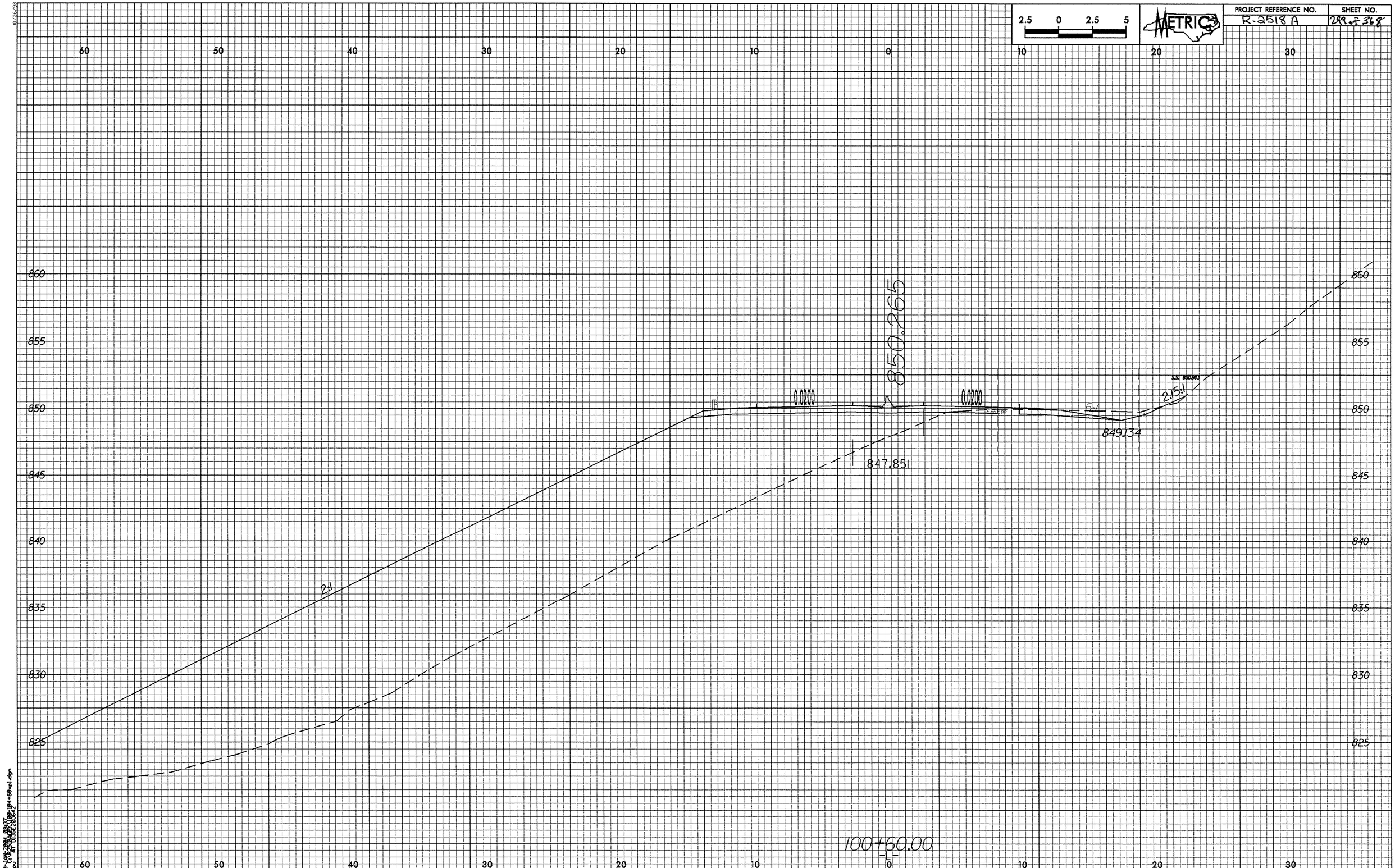


"QUANTITIES ARE APPROXIMATE ONLY. THE RESIDENT ENGINEER WILL RECROSS-SECTION THE WORK ACCURATELY WHEN THE PROJECT IS STAKED OUT. THESE CROSS-SECTION NOTES WILL BE USED IN COMPUTING THE FINAL QUANTITIES FOR WHICH THE CONTRACTOR WILL BE PAID."

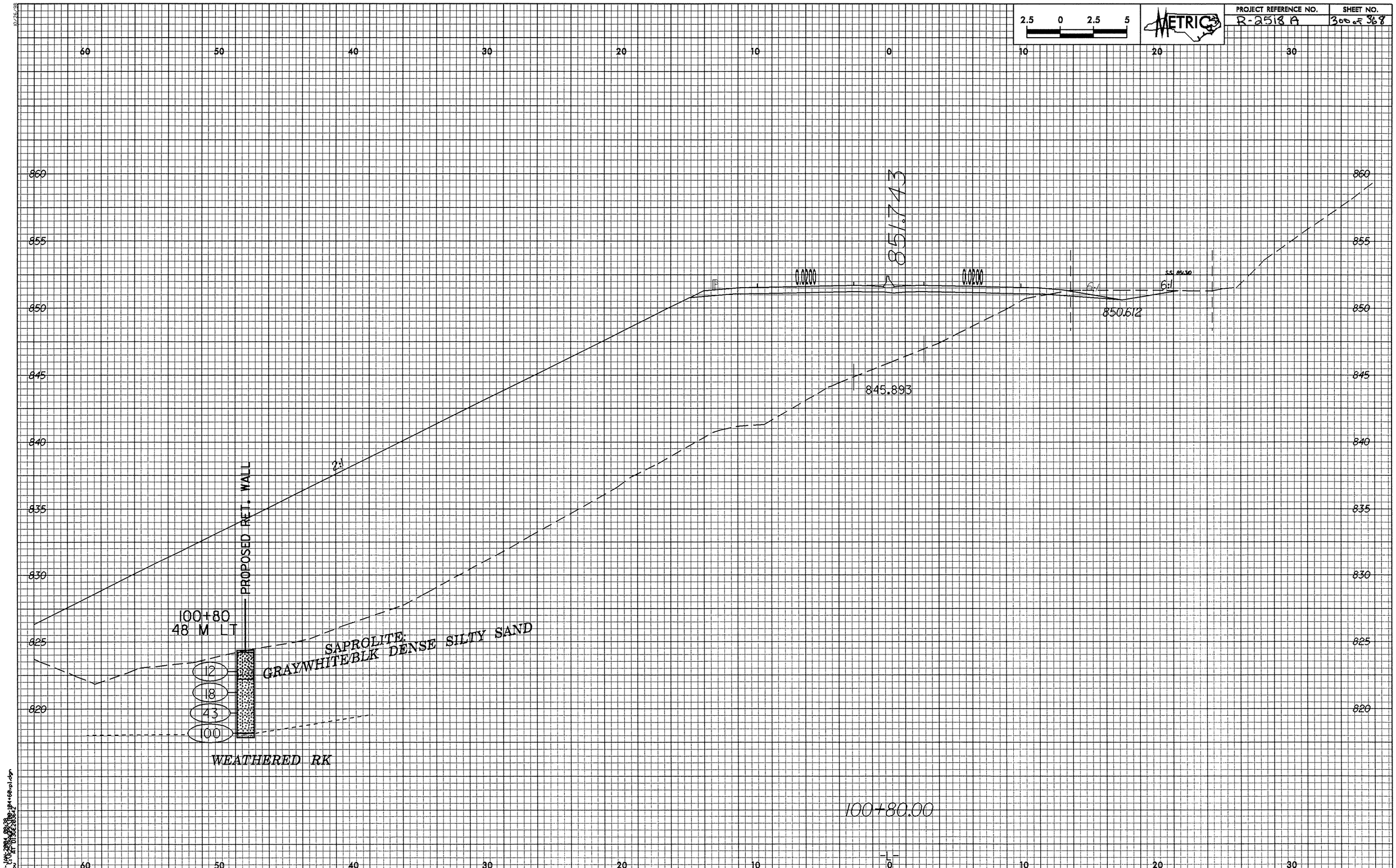


2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
297 of 368
60 50 40 30 20 10 0 10 20 30
875 870 865 860 855 850 845 840 835 830 825
847.309
0.0200
0.0200
847.159
846.178
2:1
VAR.
100+20.00
-L-

PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
298 of 368
2.5 0 2.5 5
METRIC
60 50 40 30 20 10 0 10 20 30
870
865
860
855
850
845
840
835
830
825
848.787
0.0200
0.0200
847.681
847.656
2:1
100+40.00
-L-
10/26/98



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
299 of 368
60 50 40 30 20 10 0 10 20 30
860 855 850 845 840 835 830 825
850.265
0.0200
0.0200
2.15:1
849.134
847.851
2:1
100+60.00
-L-



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
300 of 368
60 50 40 30 20 10 0 10 20 30
860 855 850 845 840 835 830 825 820
851.743
0.0200
0.0200
6:1
6:1
850.612
845.893
2:1
PROPOSED RET. WALL
100+80
48 M LT
SAPROLITE:
GRAY/WHITE/BLK DENSE SILTY SAND
12
18
43
100
WEATHERED RK
100+80.00
-L-

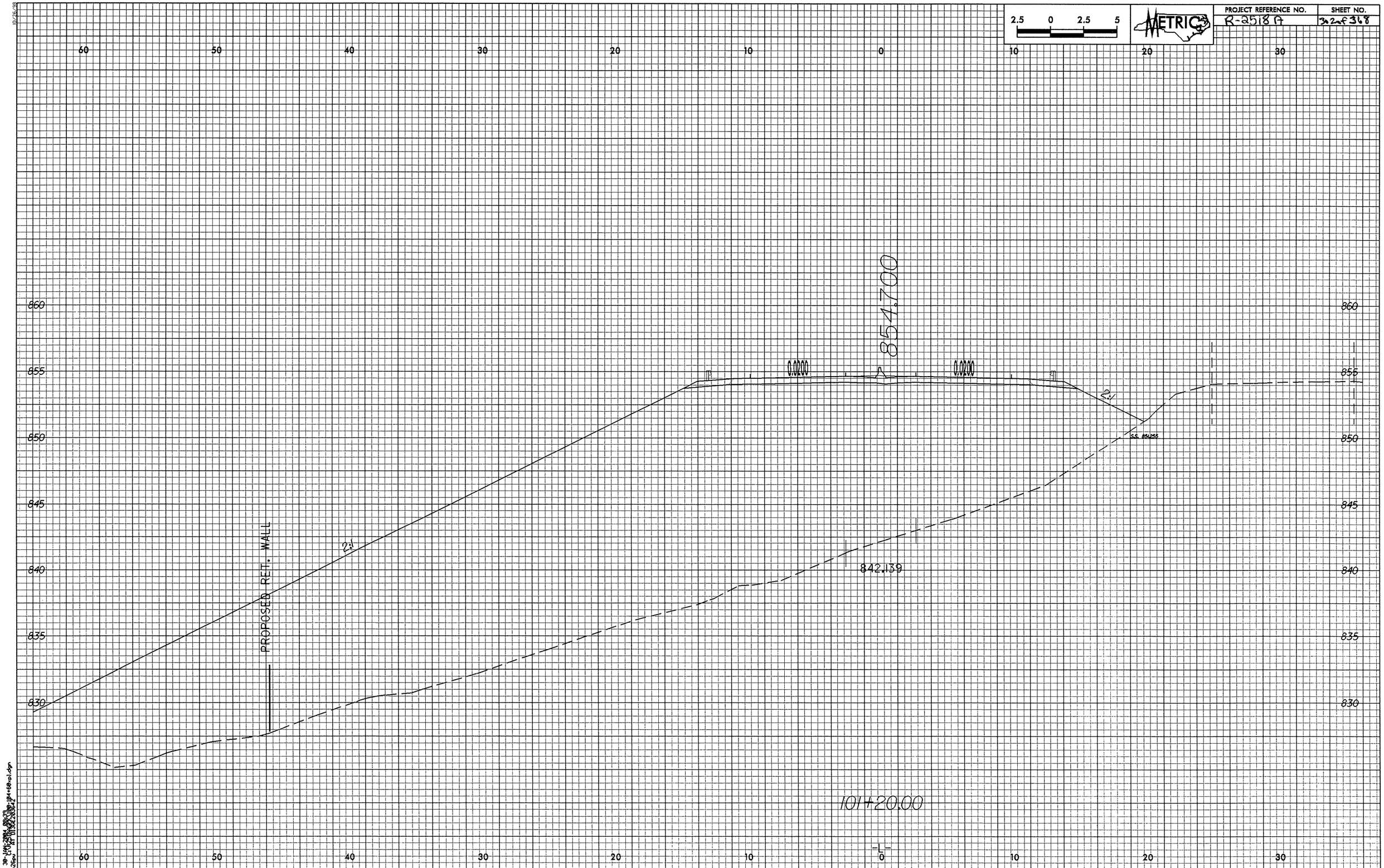
PROJECT REFERENCE NO. R-2518A

SHEET NO. 301 of 368

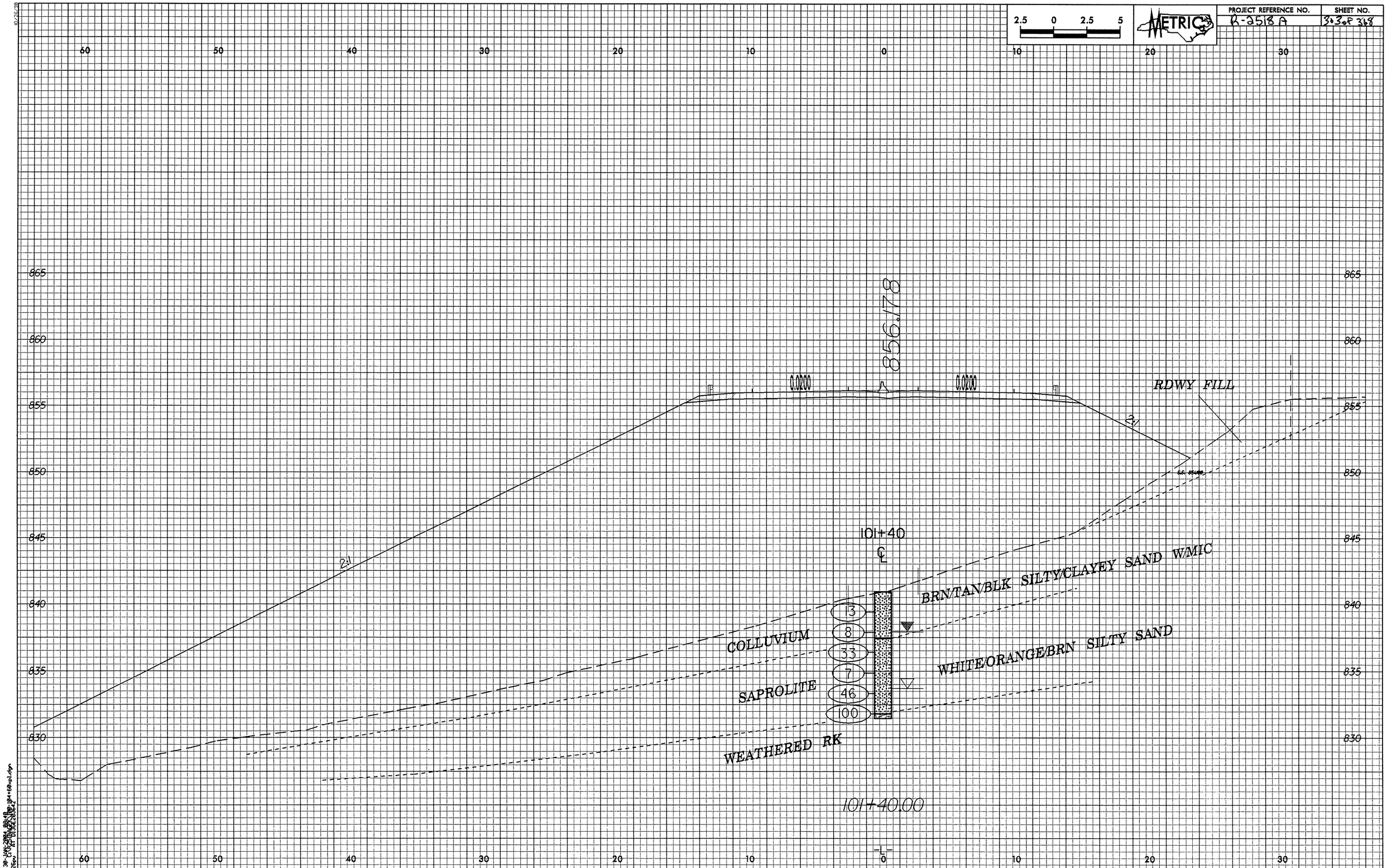
METRIC

10/26/98

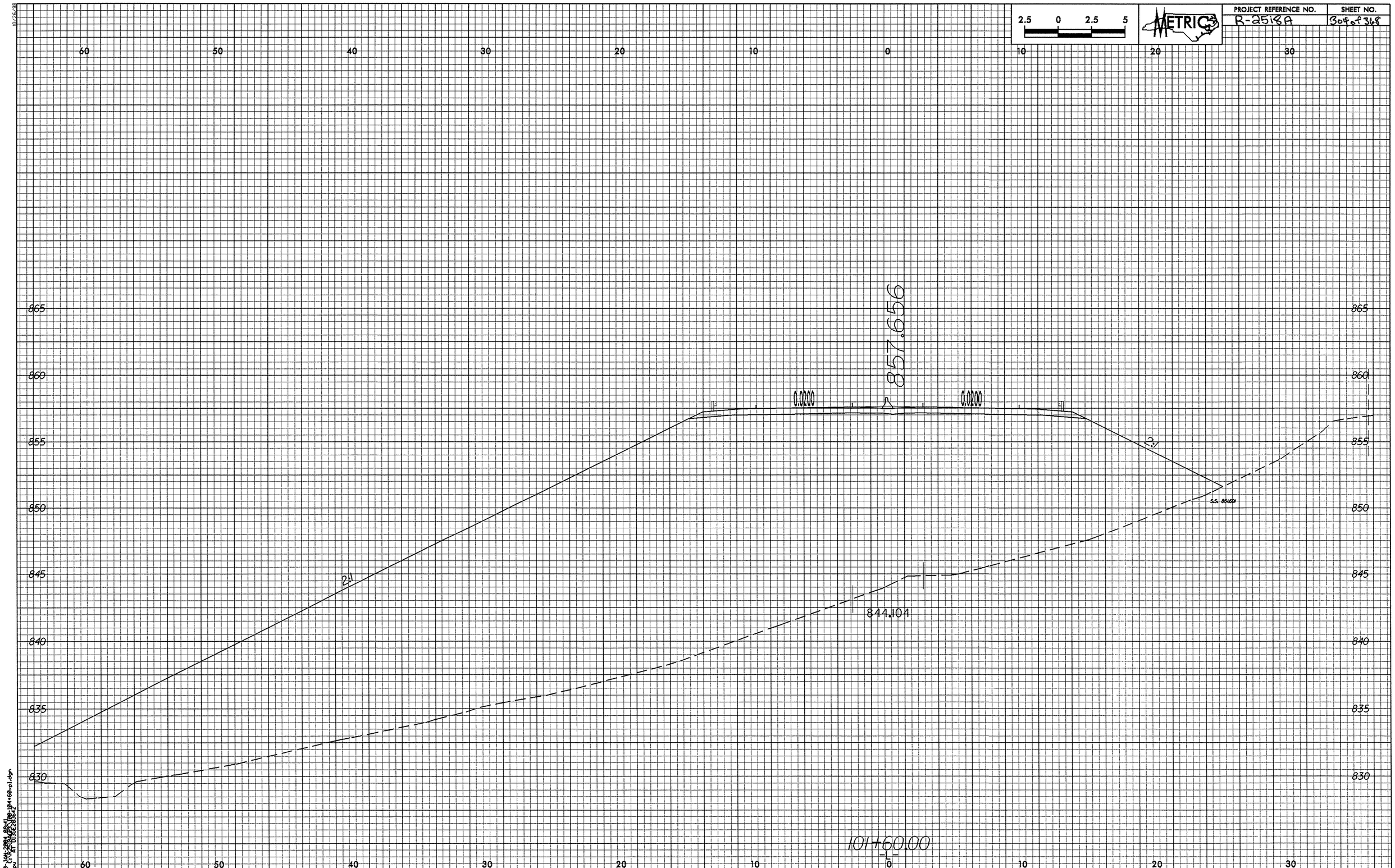
30-JAN-2004 08:38
d13ge25pu AT D13GE2036 4.2



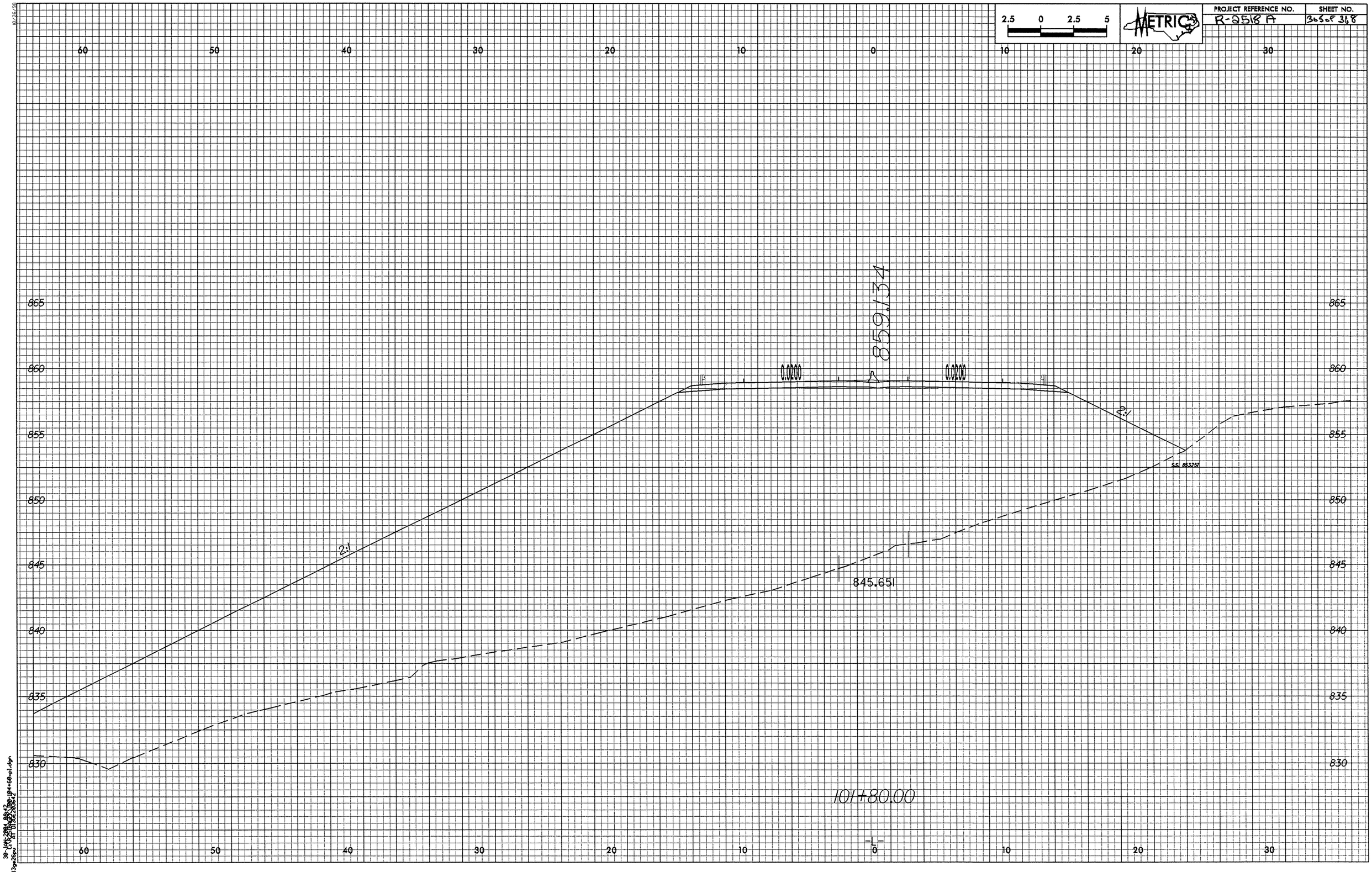
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
302 of 368
60 50 40 30 20 10 0 10 20 30
860 855 850 845 840 835 830
854.700
0.0200
0.0200
2:1
2:1
PROPOSED RET. WALL
842.139
101+20.00
-L-



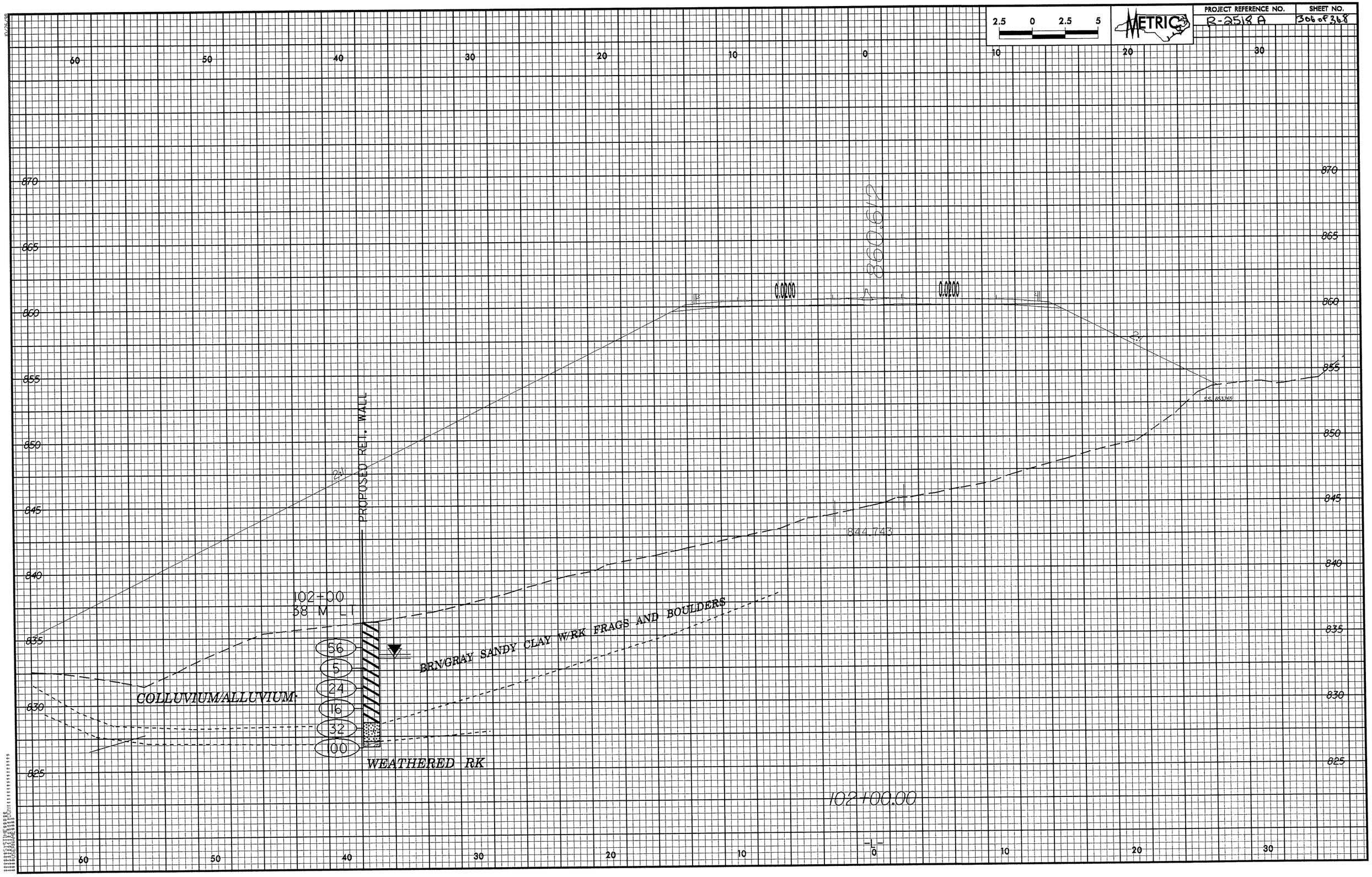
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
303 OF 368
60 50 40 30 20 10 0 10 20 30
865 860 855 850 845 840 835 830
856.178
0.0200
0.0200
RDWY FILL
2:1
2:1
101+40
℄
BRN/TAN/BLK SILTY/CLAYEY SAND W/MIC
COLLUVIUM
13
8
33
7
46
100
WHITE/ORANGE/BRN SILTY SAND
SAPROLITE
WEATHERED RK
101+40.00
-L-



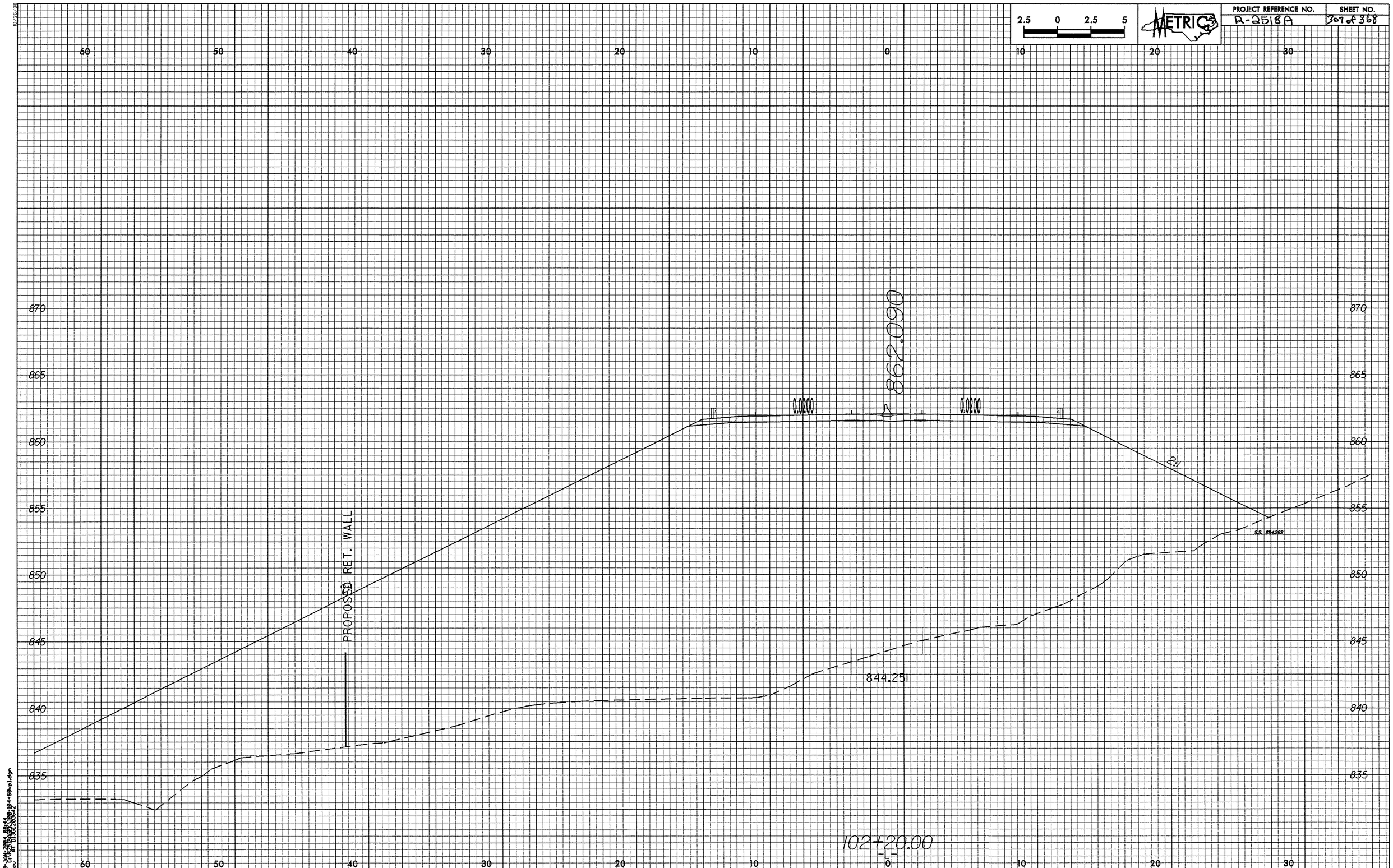
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
304 of 368
60 50 40 30 20 10 0 10 20 30
865 860 855 850 845 840 835 830
857.656
0.0200
0.0200
2:1
2:1
844.104
101+60.00
-L-



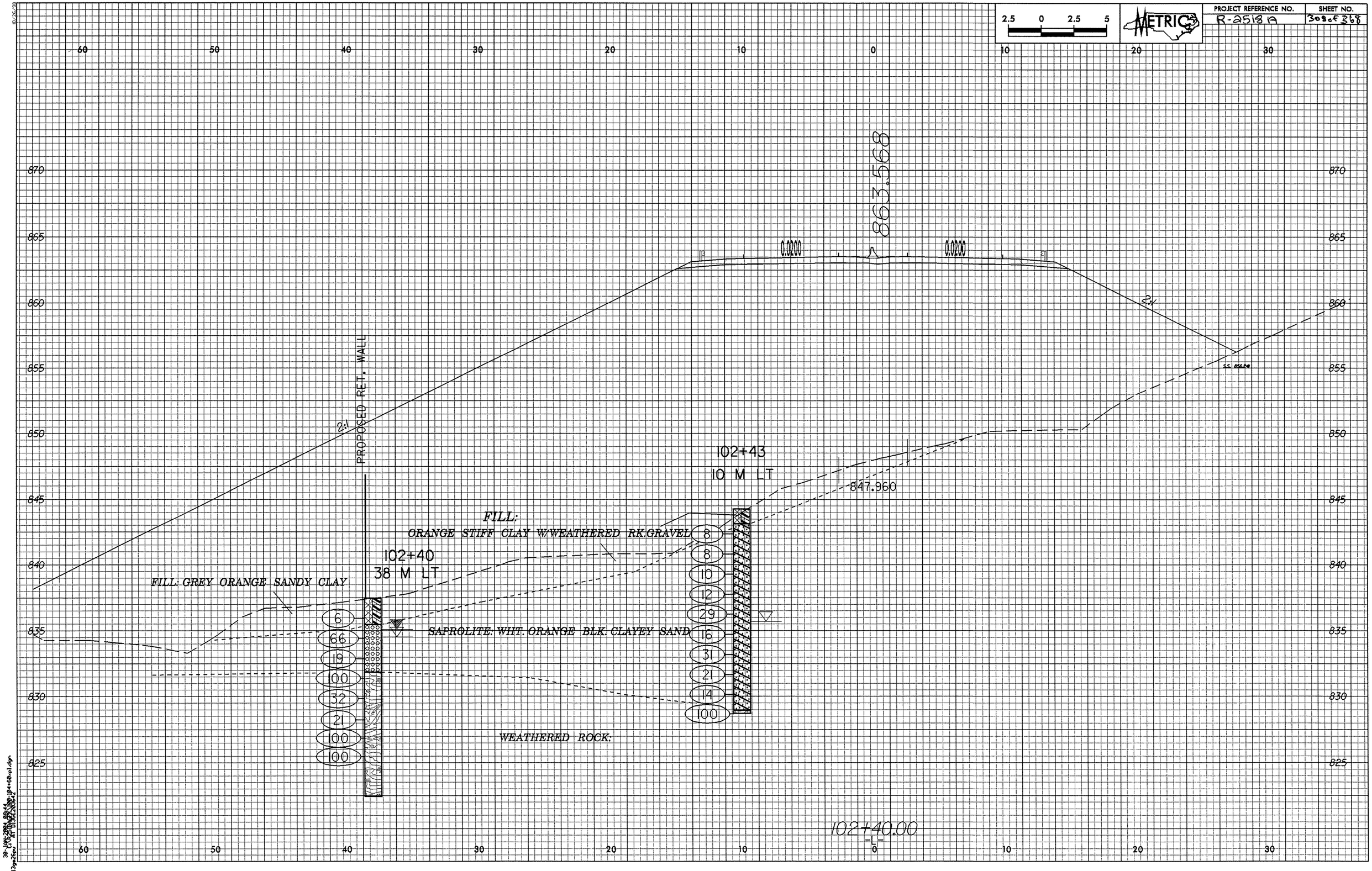
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
305 of 368
60 50 40 30 20 10 0 10 20 30
865 860 855 850 845 840 835 830
859.134
0.0200
0.0200
2:1
2:1
845.651
101+80.00
-L-



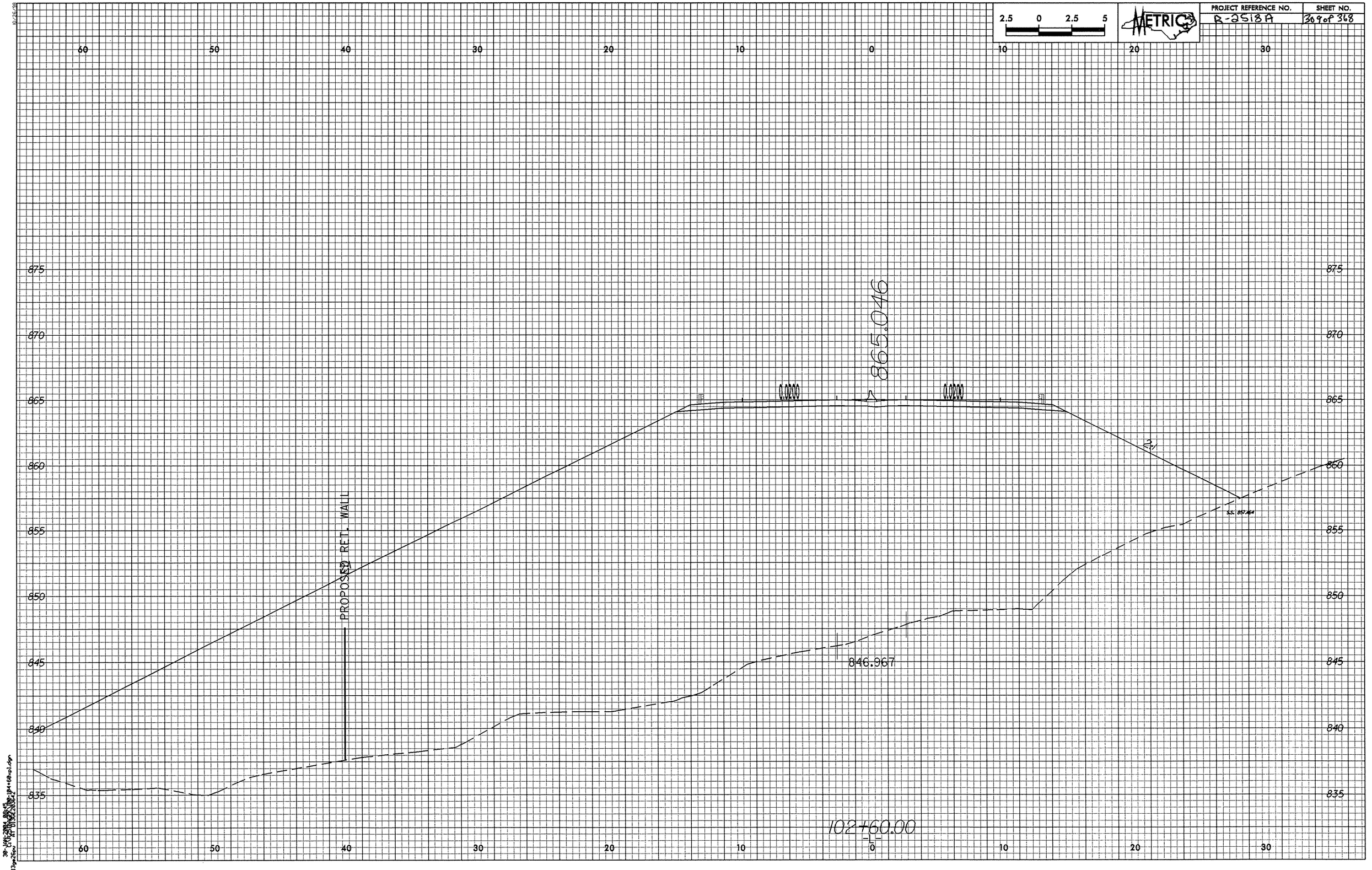
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
306 of 368
METRIC
2.5 0 2.5 5
60 50 40 30 20 10 0 10 20 30
870 865 860 855 850 845 840 835 830 825
860.612
0.0200
0.0200
2:1
2:1
PROPOSED RET. WALL
844.743
102+00
38 M LT
56
5
24
16
32
100
BRN/GRAY SANDY CLAY W/RK FRAGS AND BOULDERS
COLLUVIUM/ALLUVIUM
WEATHERED RK
102+00.00
-L-



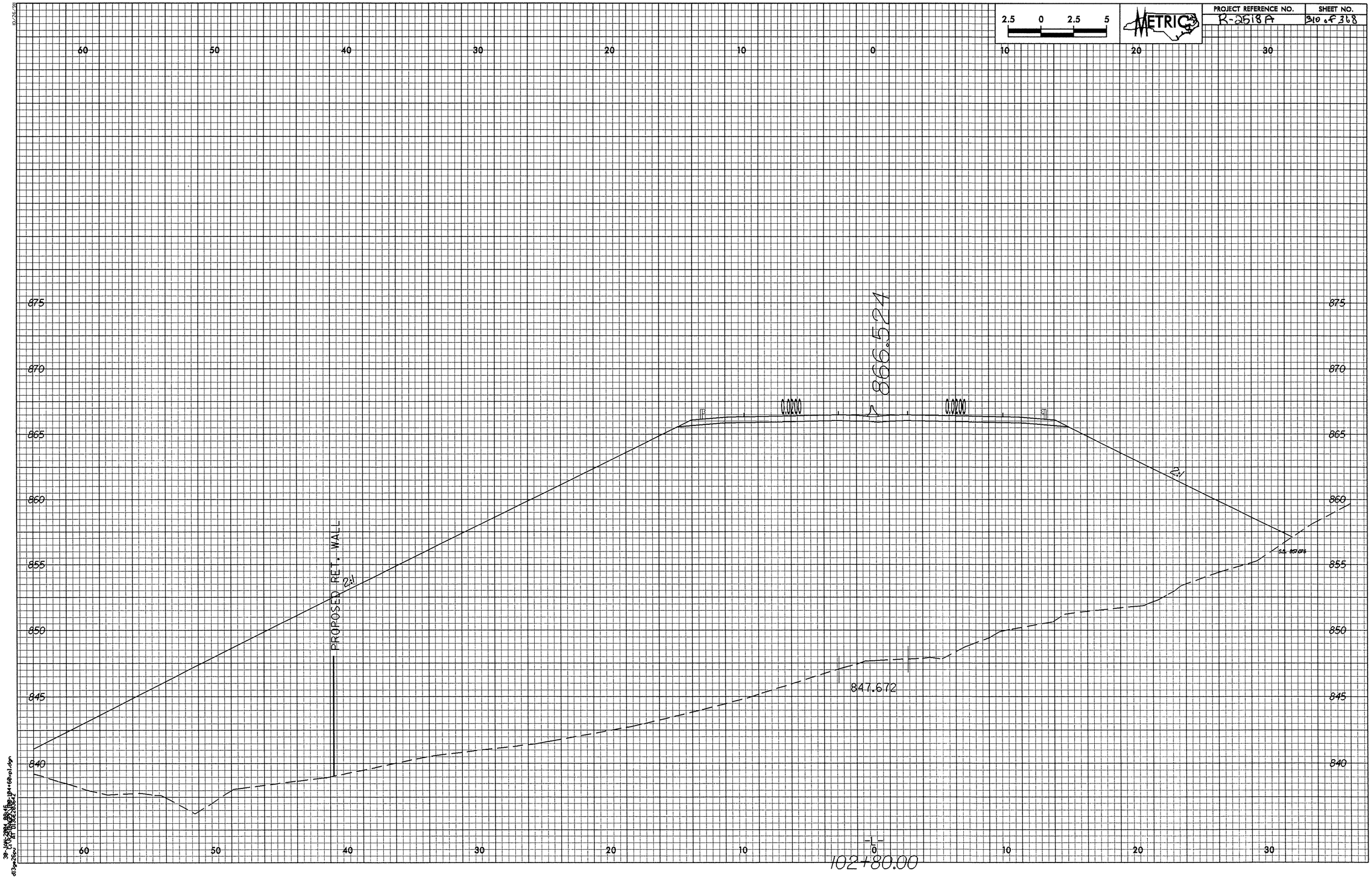
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
307 of 368
60 50 40 30 20 10 0 10 20 30
870
865
860
855
850
845
840
835
862.090
0.0200
0.0200
2:1
S.S. 854.262
PROPOSED RET. WALL
844.251
102+20.00
-L-



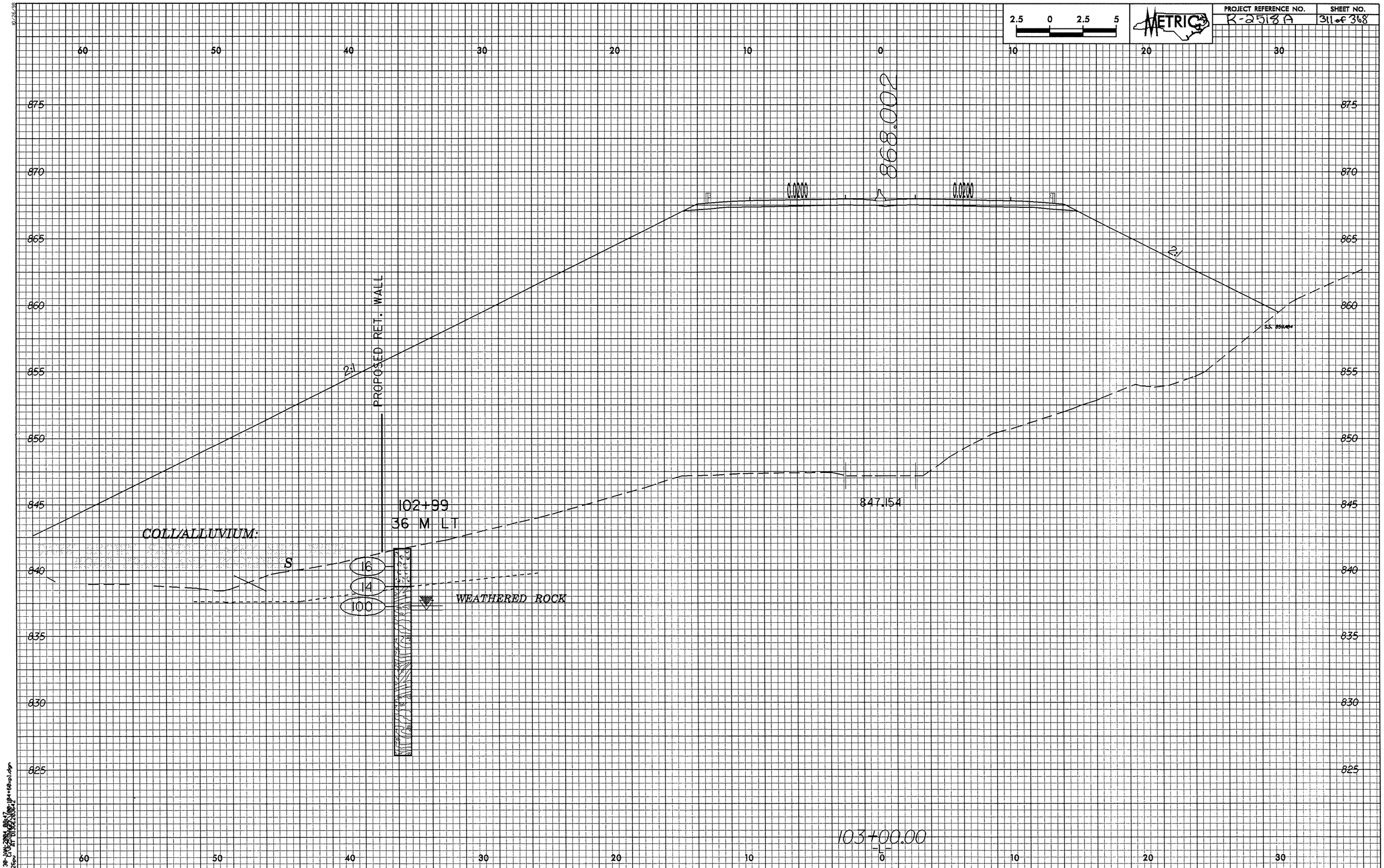
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
308 of 368
METRIC
2.5 0 2.5 5
863.568
0.0200
0.0200
2:1
2:1
PROPOSED RET. WALL
102+43
10 M LT
847.960
FILL:
ORANGE STIFF CLAY W/WEATHERED RK.GRAVEL
102+40
38 M LT
FILL: GREY ORANGE SANDY CLAY
SAPROLITE: WHT. ORANGE BLK. CLAYEY SAND
WEATHERED ROCK:
6
66
19
100
32
21
100
100
8
8
10
12
29
16
31
21
14
100
102+40.00
-L-



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
309 of 368
60 50 40 30 20 10 0 10 20 30
875
870
865
860
855
850
845
840
835
865.046
0.0200
0.0200
2:1
PROPOSED RET. WALL
846.967
102+60.00
-L-



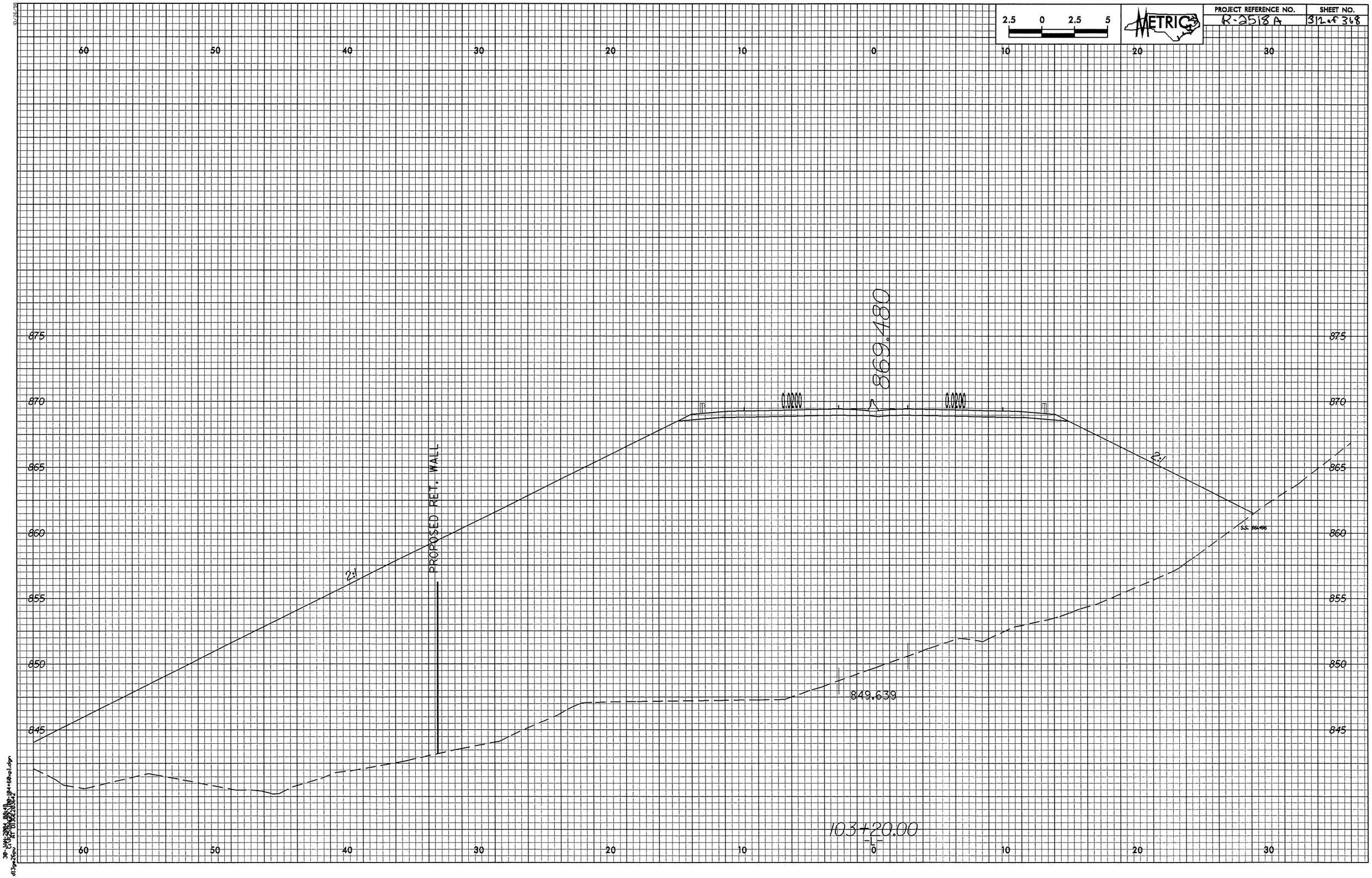
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
310 of 368
60 50 40 30 20 10 0 10 20 30
875
870
865
860
855
850
845
840
866.524
0.0200
0.0200
2:1
2:1
PROPOSED RET. WALL
847.672
-L-
102+80.00

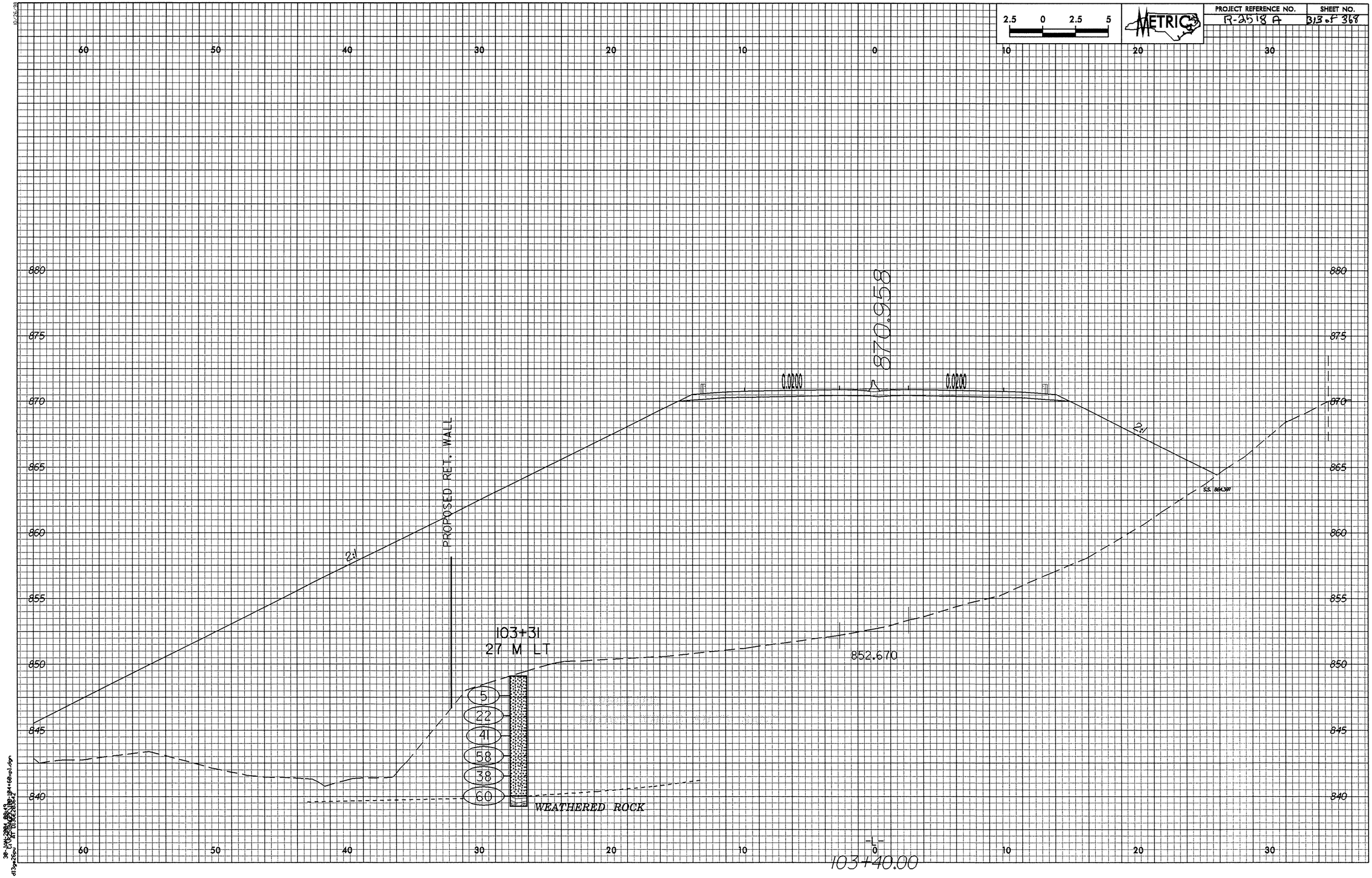


PROJECT REFERENCE NO.
R-2518A
SHEET NO.
311 of 368
METRIC
2.5 0 2.5 5
868.002
0.0200
0.0200
2:1
2:1
PROPOSED RET. WALL
102+99
36 M LT
847.154
COLL/ALLUVIUM:
S
16
14
100
WEATHERED ROCK
103+00.00
-L-
60 50 40 30 20 10 0 10 20 30
875 870 865 860 855 850 845 840 835 830 825

2.5 0 2.5 5

METRIC

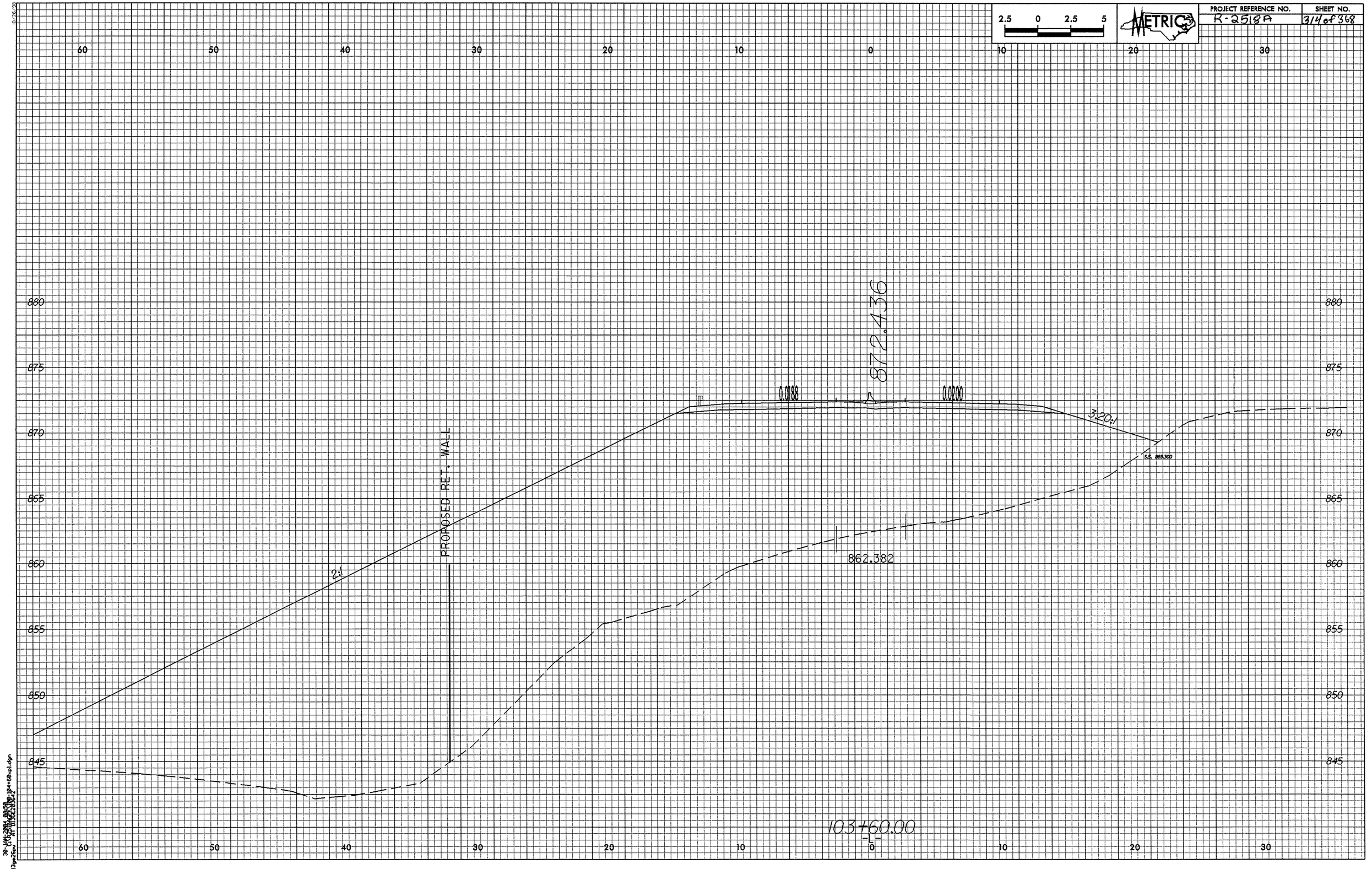


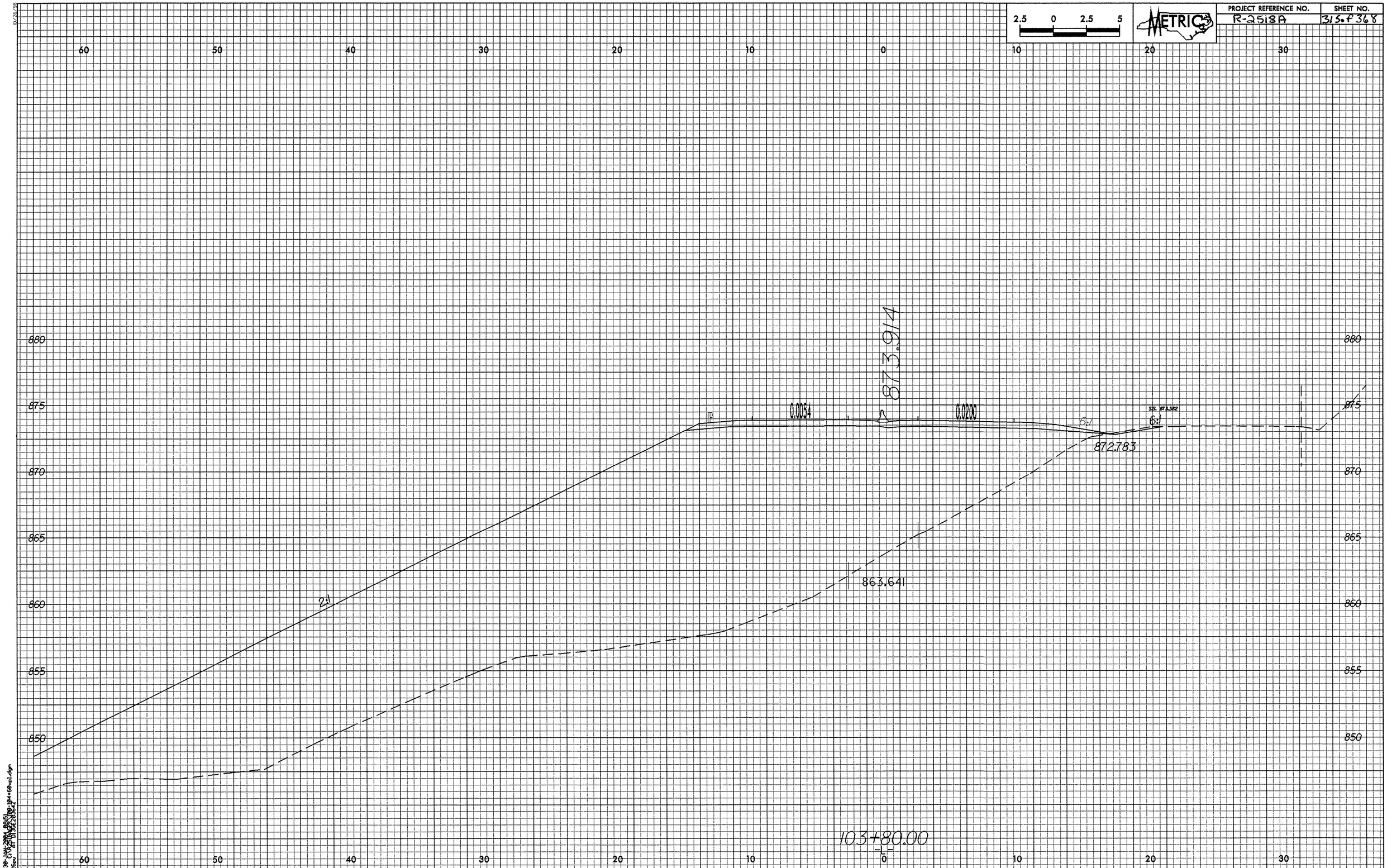


2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
313 of 368
60 50 40 30 20 10 0 10 20 30
880
875
870
865
860
855
850
845
840
870.958
0.0200
0.0200
2:1
2:1
PROPOSED RET. WALL
103+31
27 M LT
852.670
5
22
41
58
38
60
WEATHERED ROCK
-L-
103+40.00

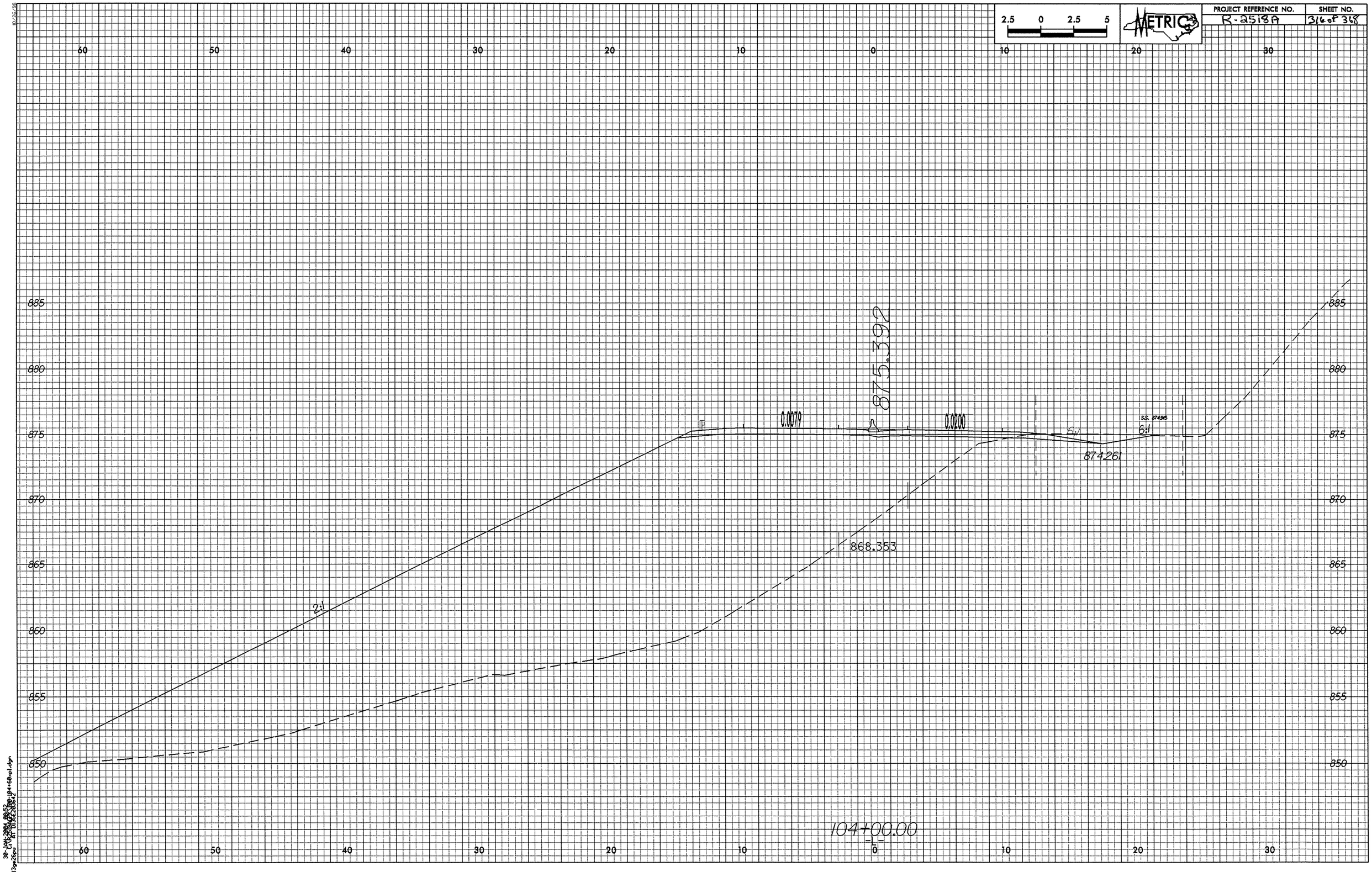
2.5 0 2.5 5

METRIC

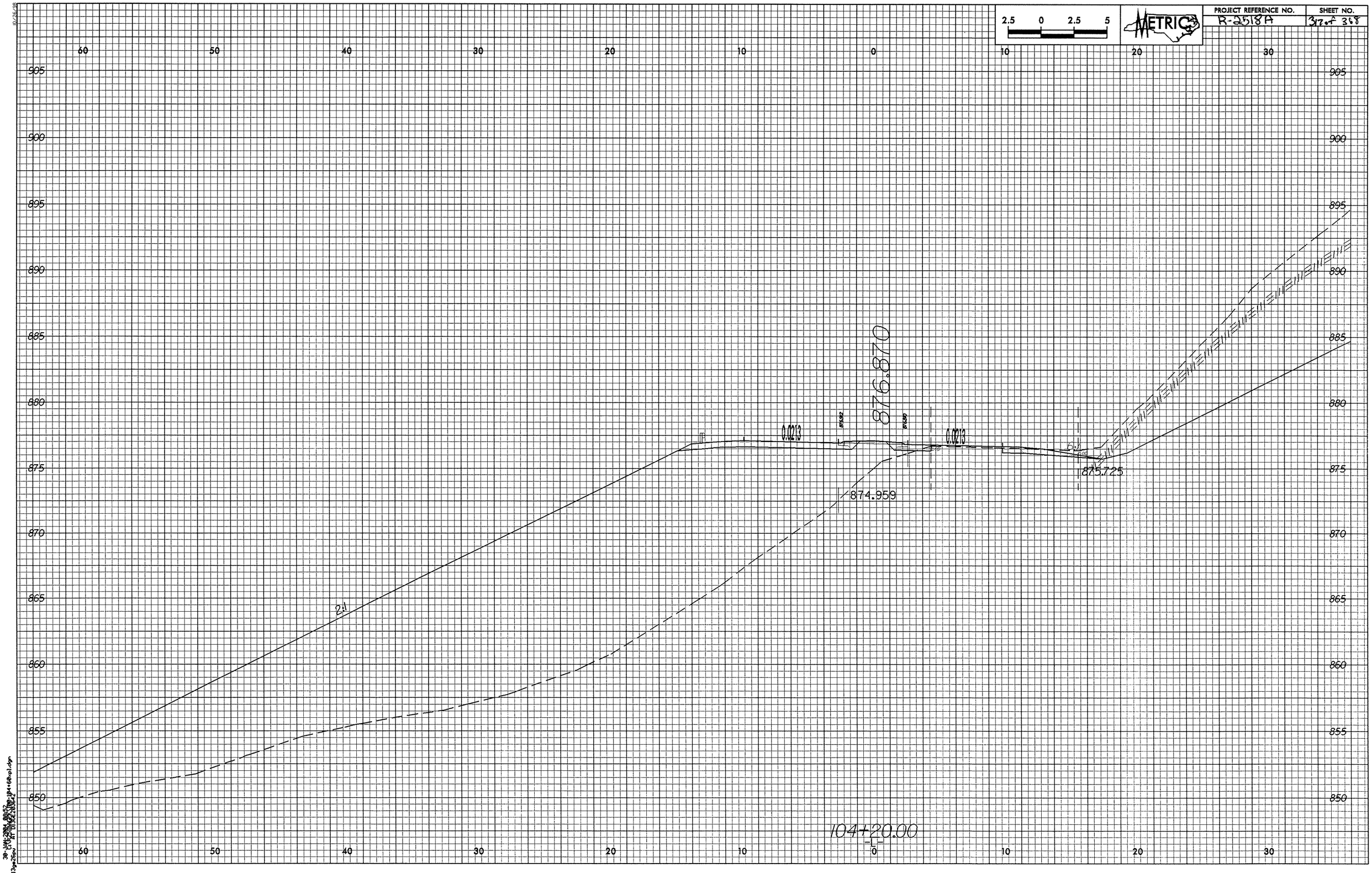




2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
315 of 368
60 50 40 30 20 10 0 10 20 30
880
875
870
865
860
855
850
873.914
0.0054
0.0200
6:1
872.783
863.641
2:1
103+80.00
-L-



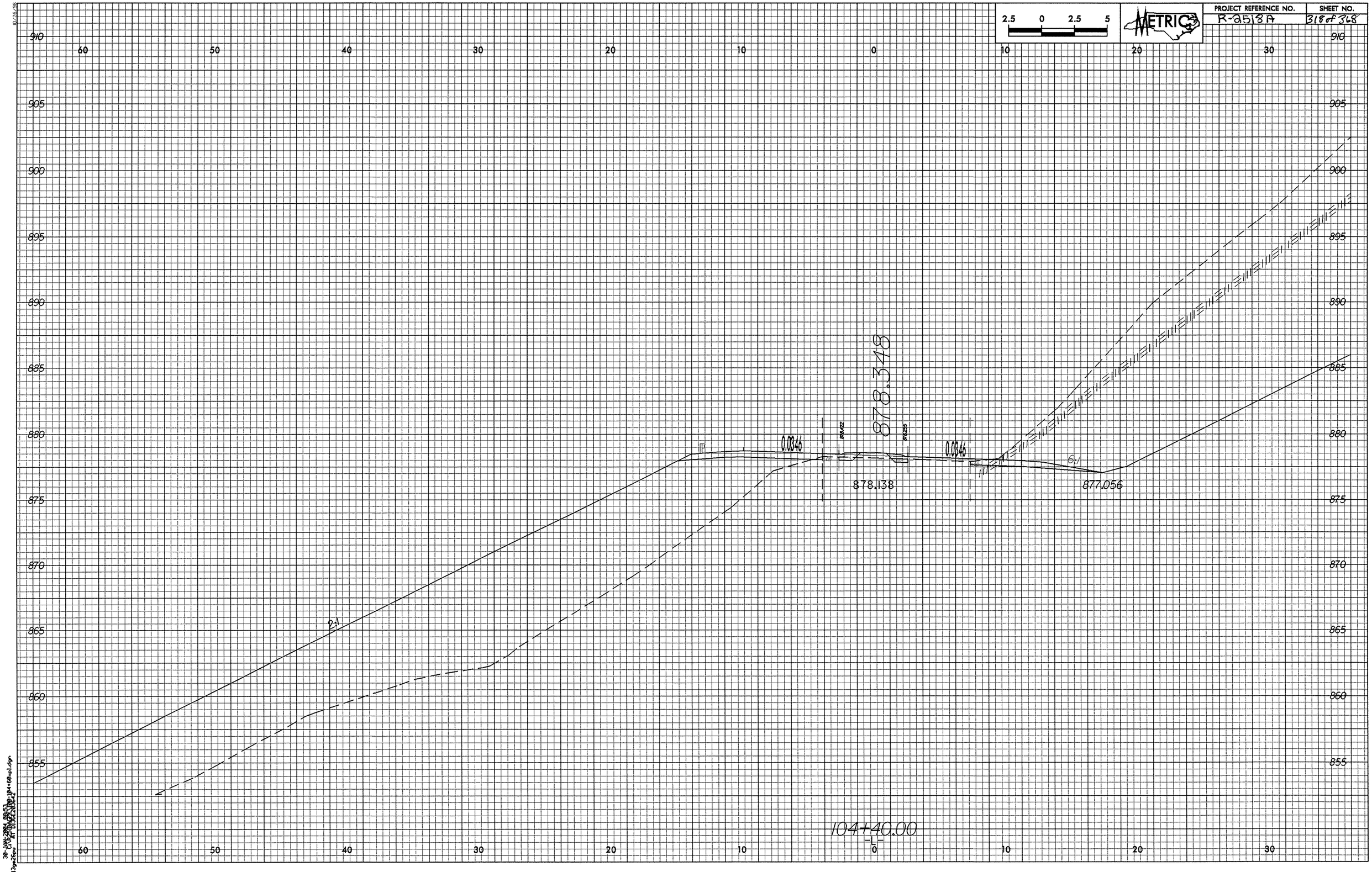
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
316 of 368
60 50 40 30 20 10 0 10 20 30
885 880 875 870 865 860 855 850
875.392
0.0079
0.0200
6:1
874.261
868.353
2:1
104+00.00
-L-

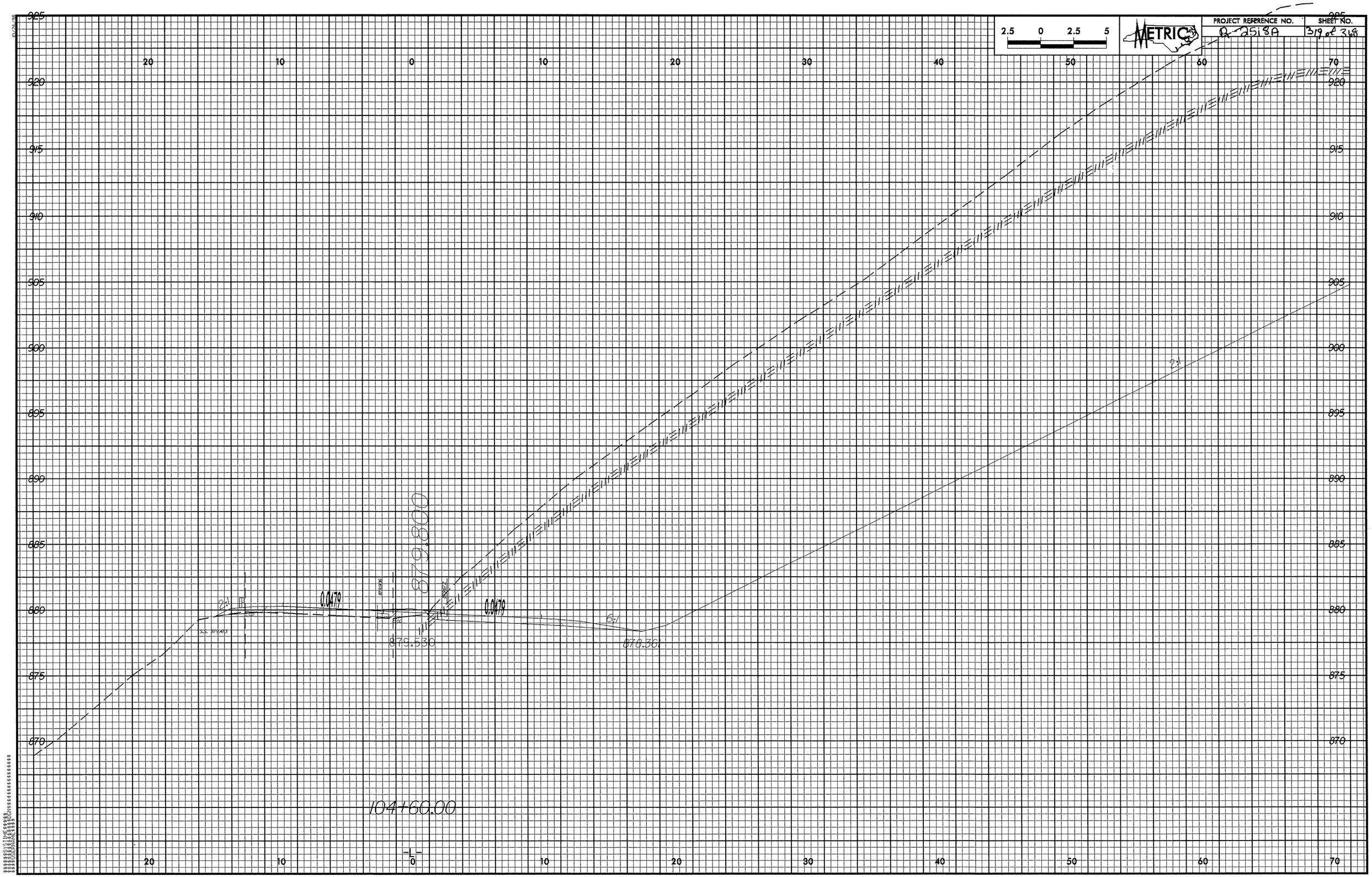


2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
317 of 368
60 50 40 30 20 10 0 10 20 30
905 900 895 890 885 880 875 870 865 860 855 850
876.870
0.0213
0.0213
874.959
875.725
2:1
104+20.00
-L-

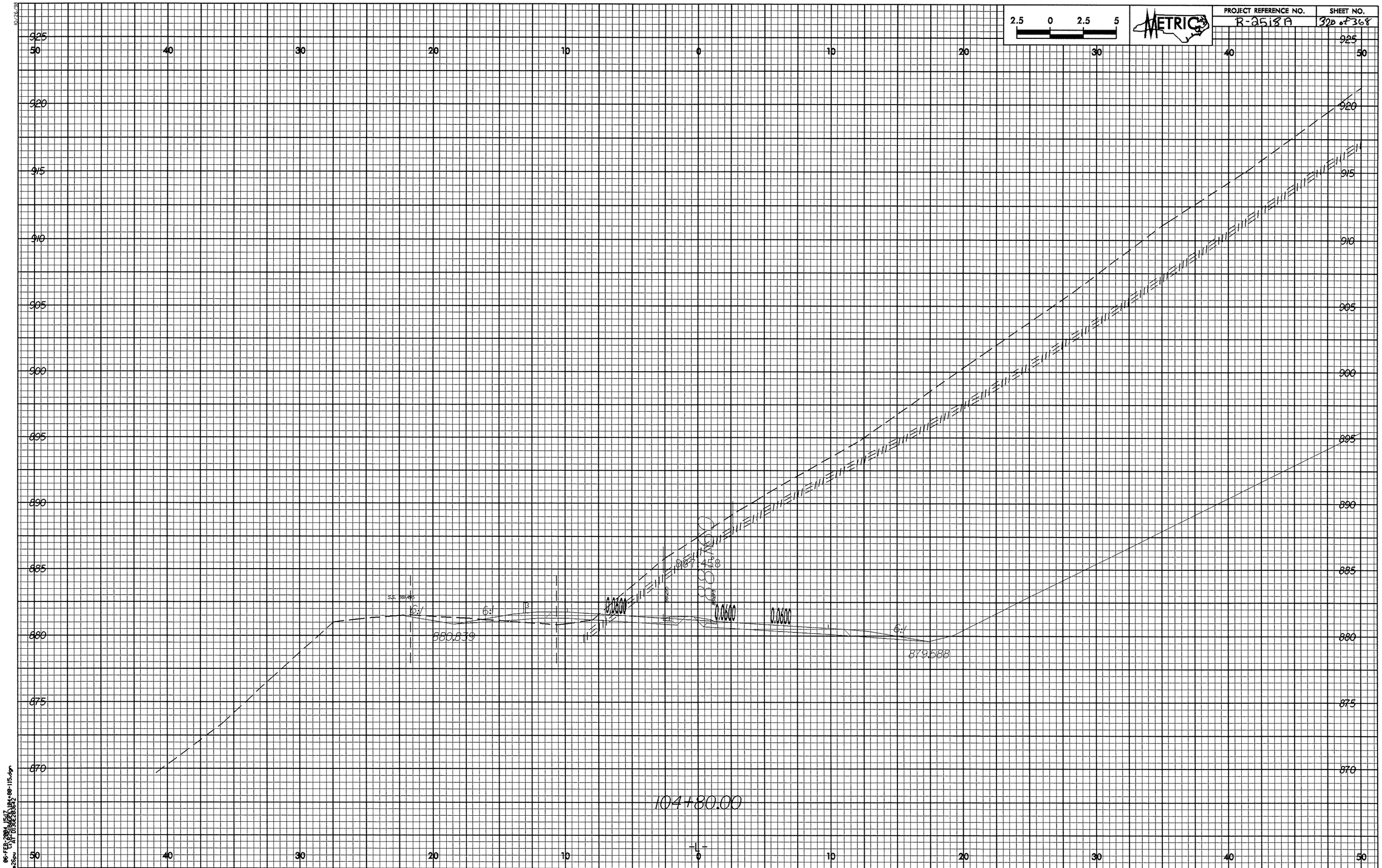
2.5 0 2.5 5

METRIC

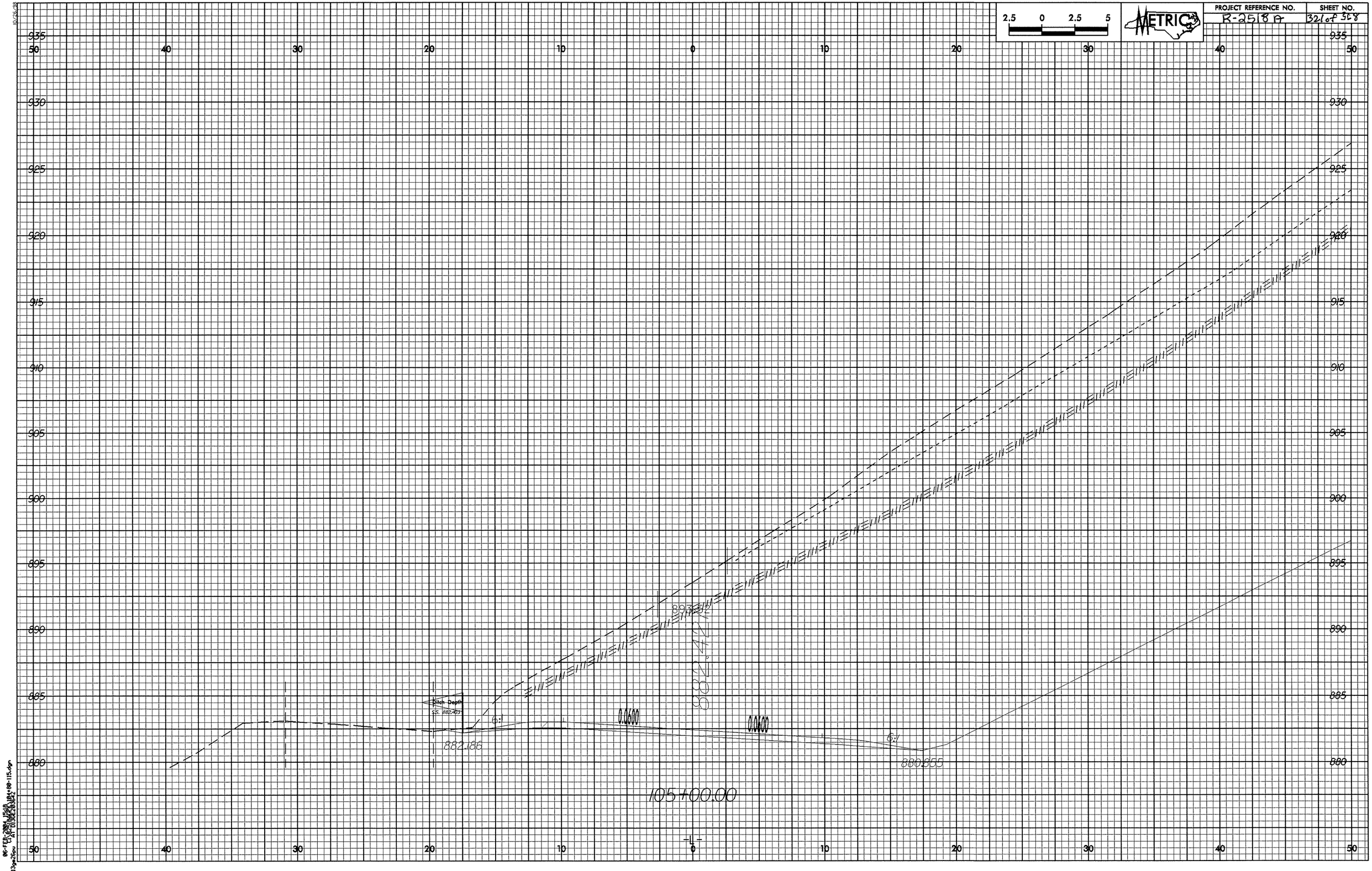




2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
319 of 368
925
920
915
910
905
900
895
890
885
880
875
870
20
10
0
10
20
30
40
50
60
70
2:1
0.0479
879.800
879.530
878.361
104+60.00
-L-



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
320 of 368
925
920
915
910
905
900
895
890
885
880
875
870
50 40 30 20 10 0 10 20 30 40 50
6:1
6:1
6:1
0.0600
0.0600
0.0600
880.839
879.588
104+80.00
-L-



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
321 of 368
935
930
925
920
915
910
905
900
895
890
885
880
50 40 30 20 10 0 10 20 30 40 50
Ditch Depth
S.S. 882.403
882.186
6:1
0.0600
0.0600
6:1
880.855
882.42
105+00.00
-L-

105+00
69 M RT

940
935
930
925
920
915
910
905
900
895
890

SAPROLITE: ORANGE BROWN AND BLACK CLAYEYSANDY SILT

24
100

WEATHERED ROCK

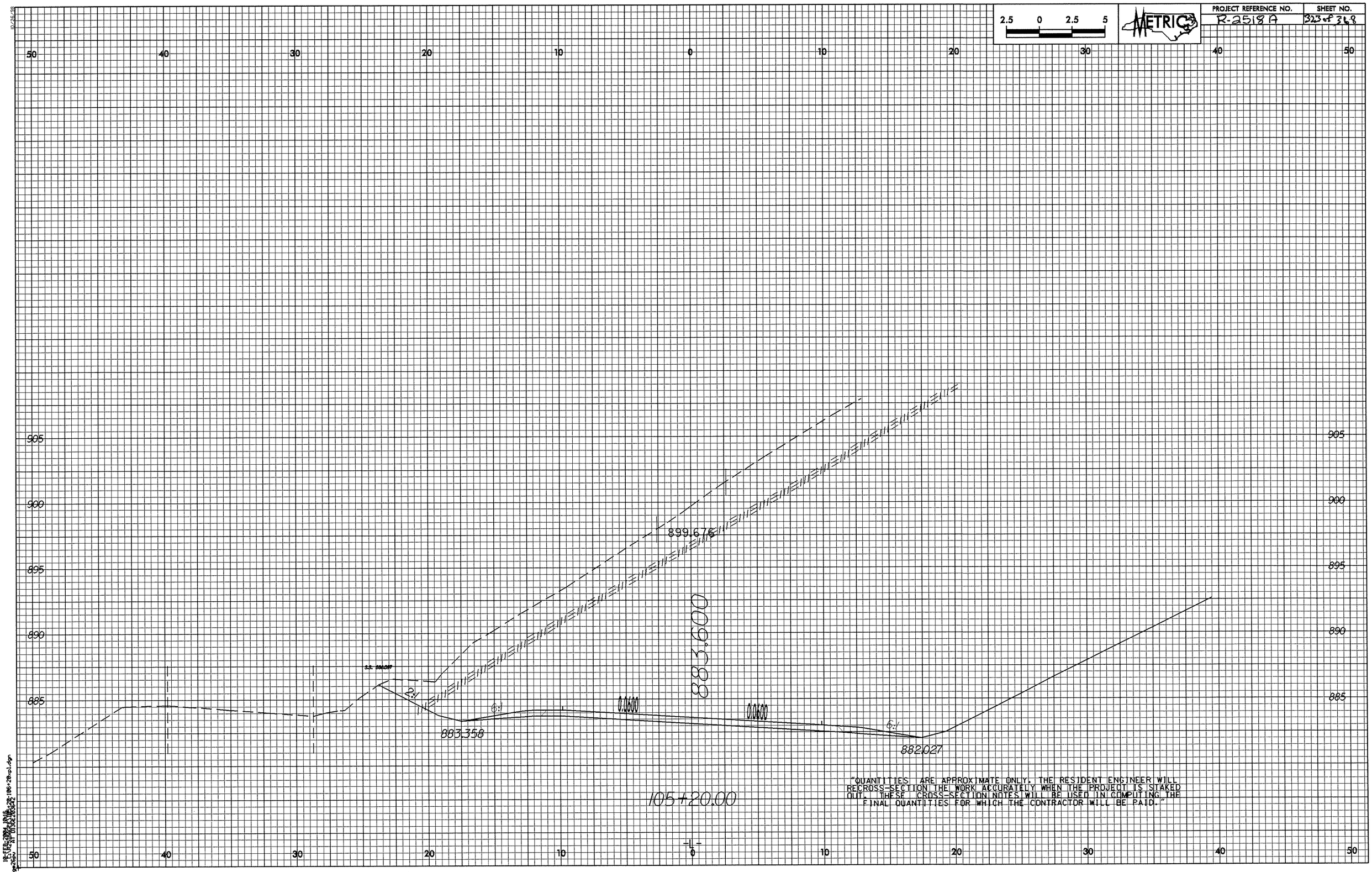
REC=83% RQD=12%
REC=98% RQD=8%
REC=75% RQD=24%
REC=91% RQD=14%
REC=86% RQD=0%

REC=97% RQD=36%
REC=99% RQD=0%
REC=99% RQD=7%
REC=100% RQD=8%
REC=98% RQD=10%
REC=96% RQD=23%
REC=97% RQD=23%
REC=100% RQD=11%
REC=99% RQD=0%
REC=93% RQD=22%
REC=99% RQD=24%
REC=100% RQD=47%
REC=93% RQD=29%
REC=93% RQD=29%
REC=98% RQD=10%
REC=100% RQD=32%
REC=99% RQD=8%
REC=95% RQD=22%
REC=96% RQD=30%
REC=88% RQD=20%
REC=106% RQD=27%

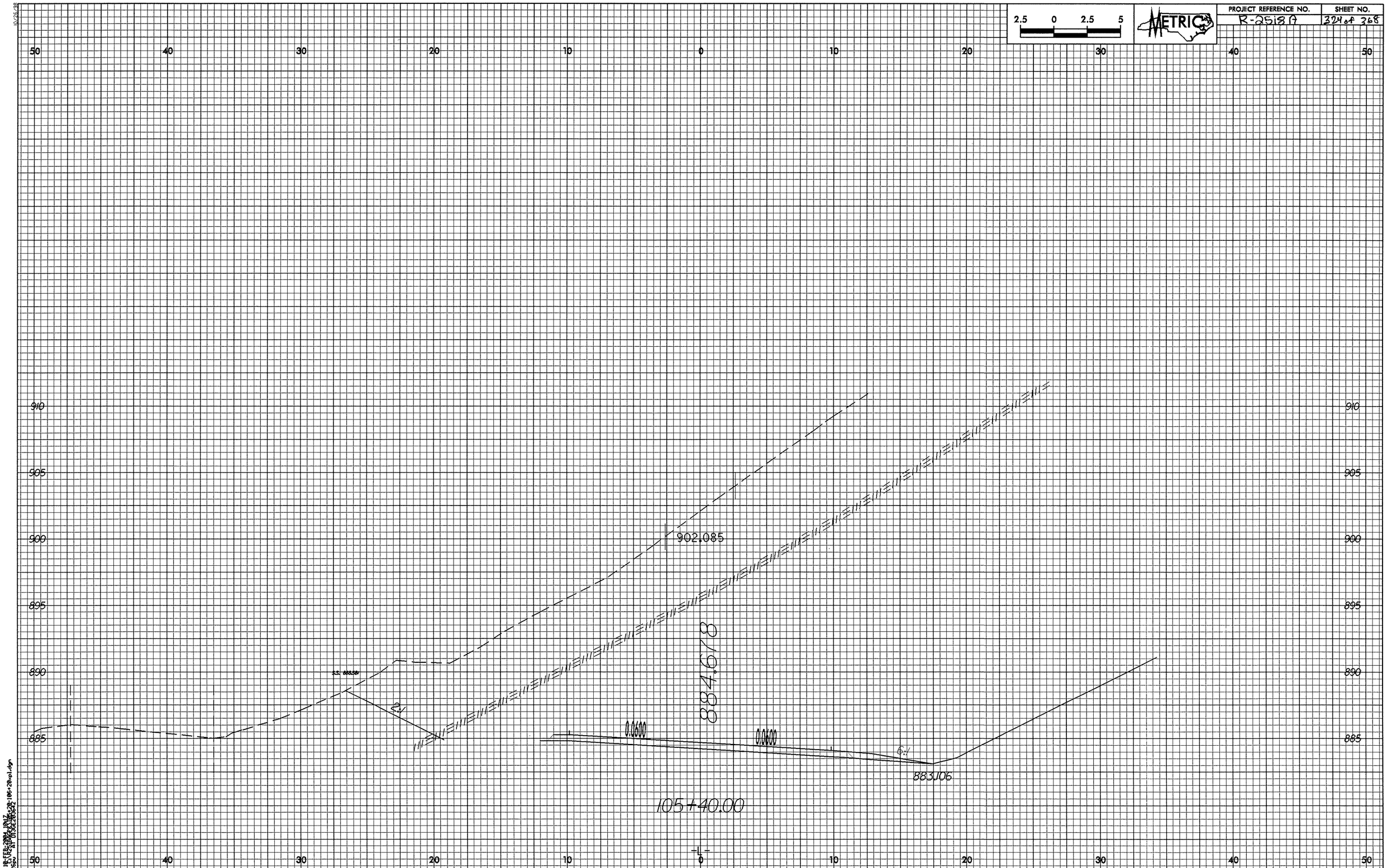
2:1

893.22

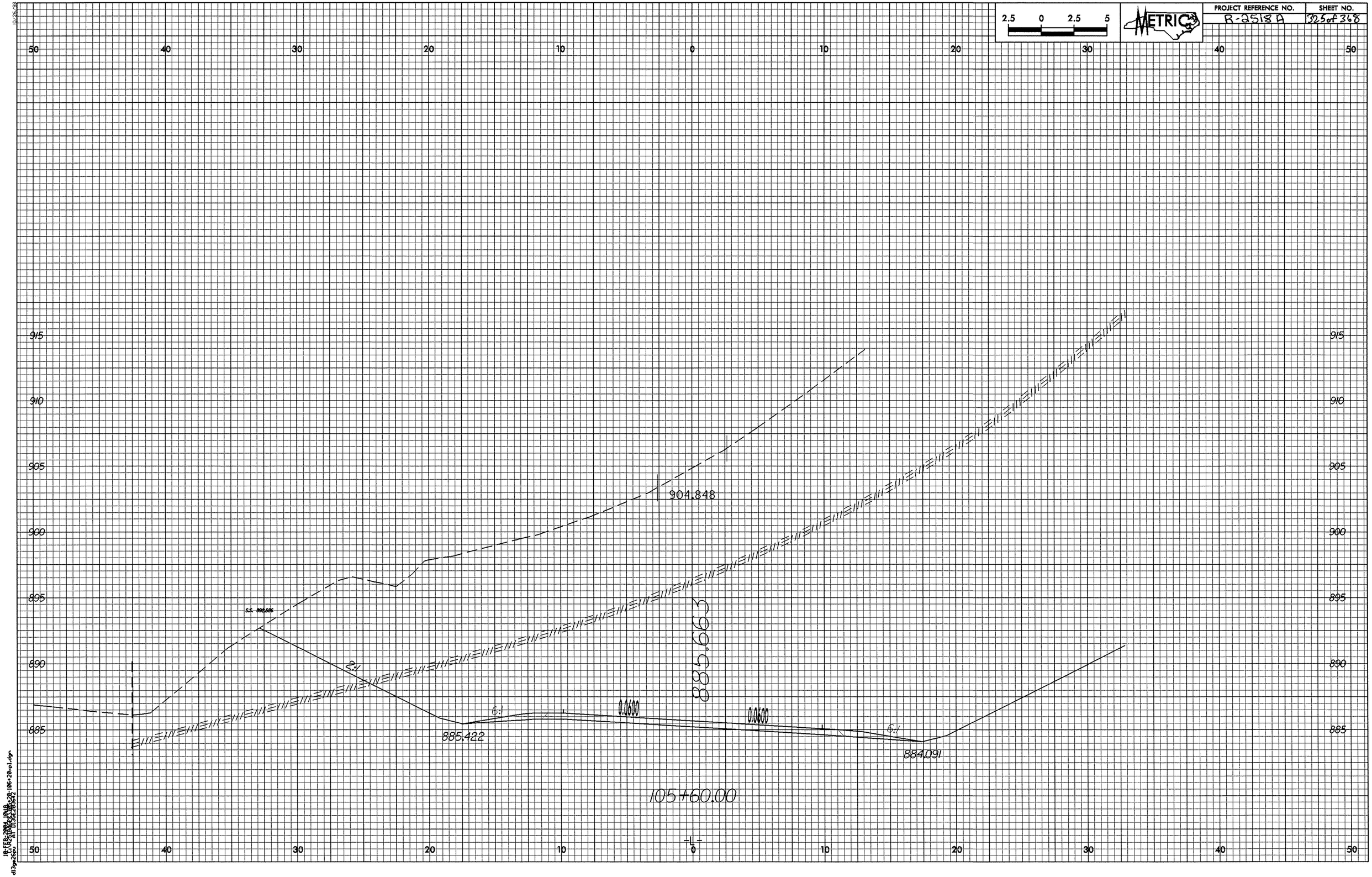
105+00.00



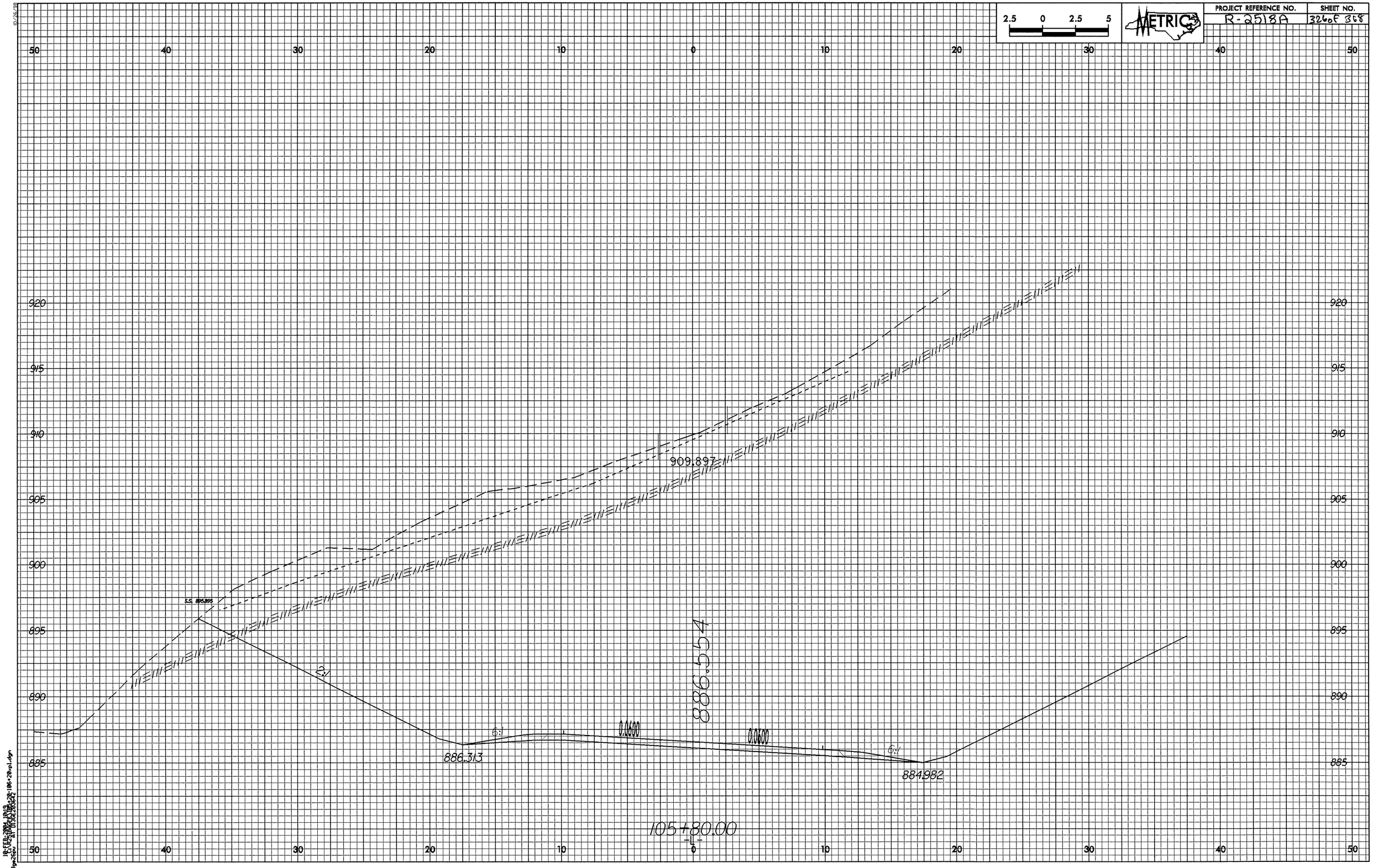
"QUANTITIES ARE APPROXIMATE ONLY. THE RESIDENT ENGINEER WILL RECROSS-SECTION THE WORK ACCURATELY WHEN THE PROJECT IS STAKED OUT. THESE CROSS-SECTION NOTES WILL BE USED IN COMPUTING THE FINAL QUANTITIES FOR WHICH THE CONTRACTOR WILL BE PAID."



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
324 of 368
50 40 30 20 10 0 10 20 30 40 50
910
905
900
895
890
885
902.085
884.678
2:1
0.0600
0.0600
6:1
883.106
105+40.00
-L-



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
325 of 368
50 40 30 20 10 0 10 20 30 40 50
915
910
905
900
895
890
885
904.848
885.663
2:1
6:1
0.0600
0.0600
6:1
885.422
884.091
105+60.00
-L-



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
326 of 368
50 40 30 20 10 0 10 20 30 40 50
920 915 910 905 900 895 890 885
909.897
S.S. 895.895
2:1
886.554
6:1
0.0600
0.0600
6:1
886.313
884.982
105+80.00
-L-

105+78
95 M RT

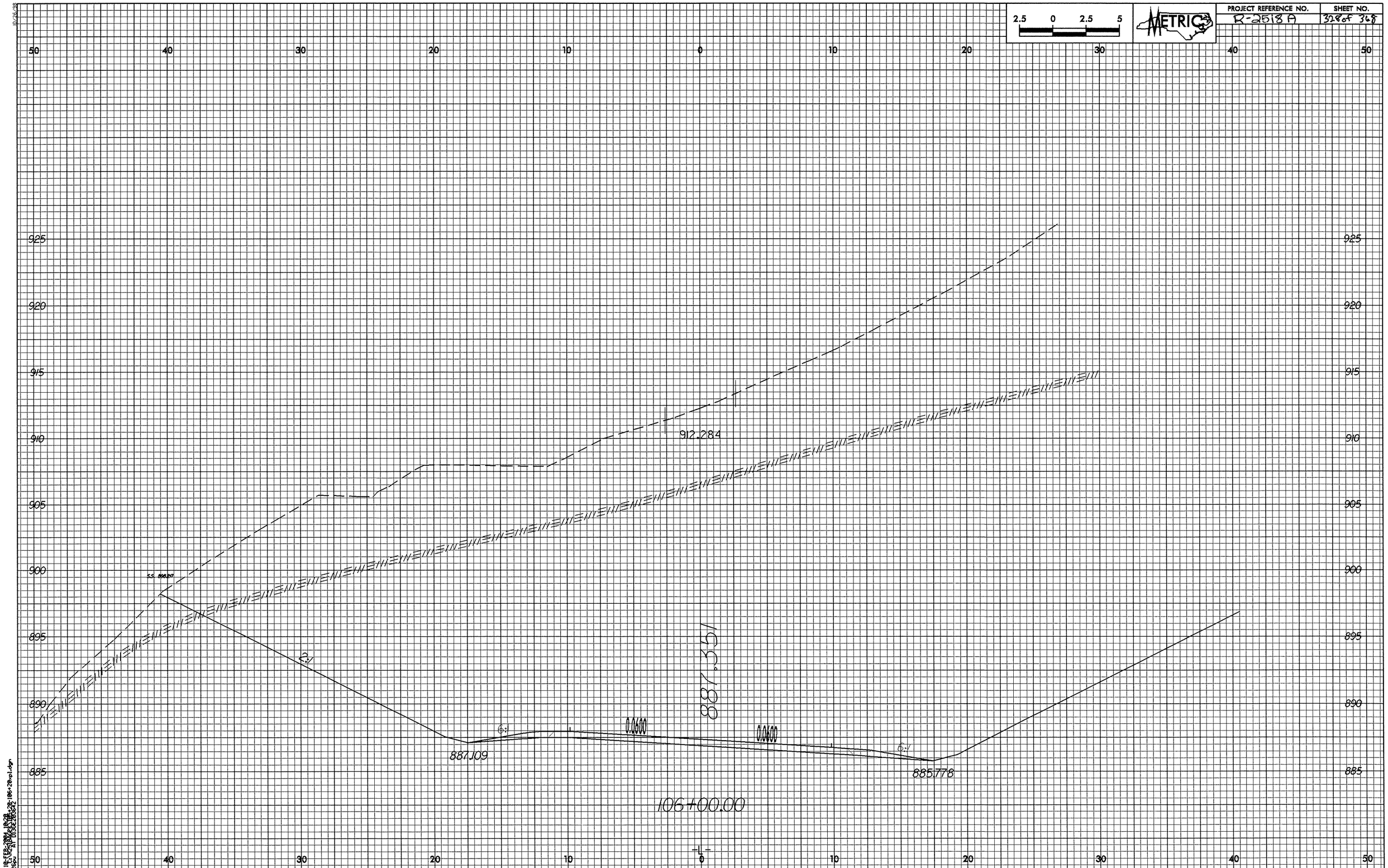
SAPROLITE: WHITE BRN. BLK SANDY SILT

WEATHERED ROCK

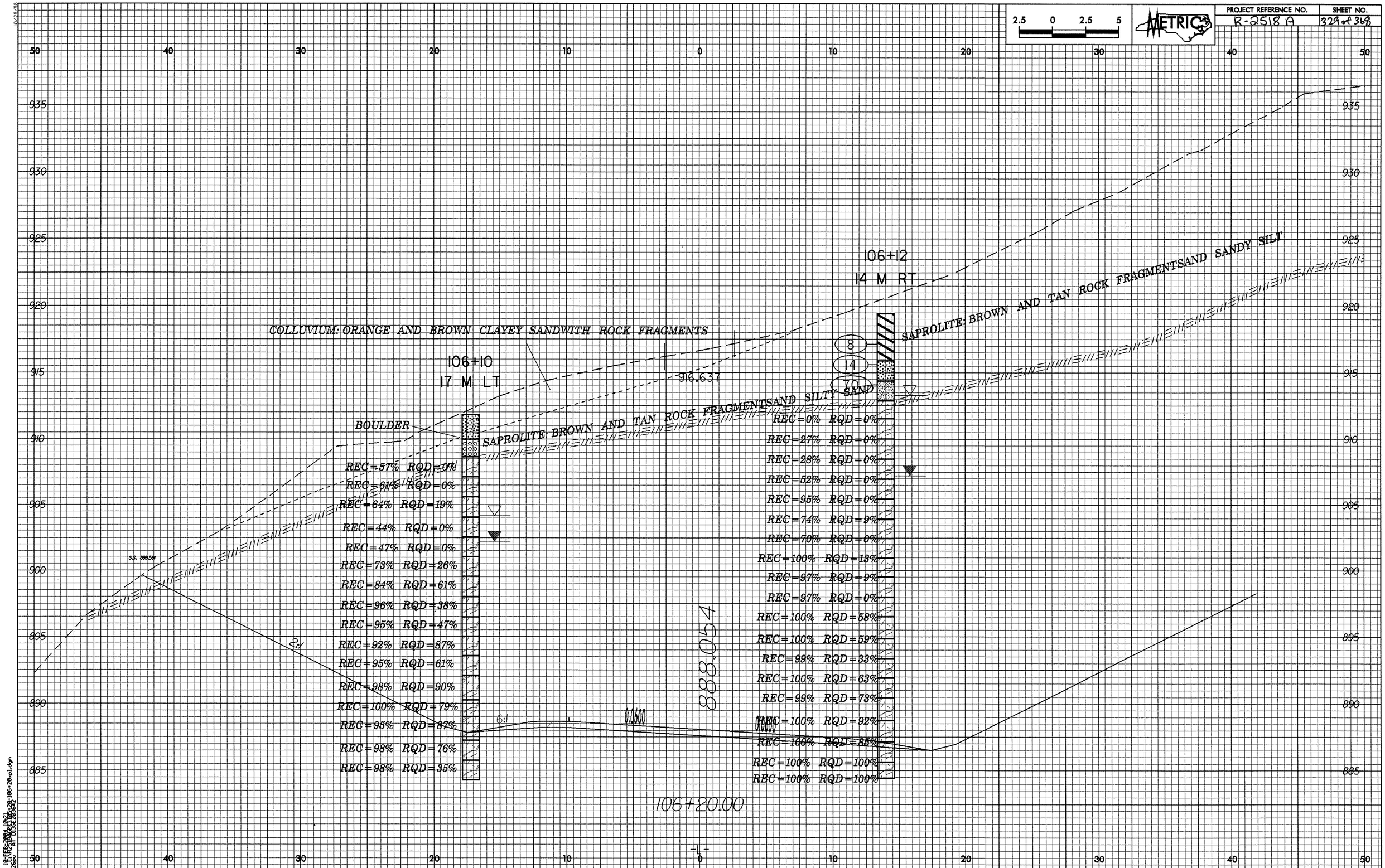
74
100

REC=10% RQD=0%
REC=25% RQD=0%
REC=14% RQD=0%
REC=48% RQD=10%
REC=83% RQD=20%
REC=55% RQD=0%
REC=74% RQD=10%
REC=60% RQD=14%
REC=91% RQD=10%
REC=70% RQD=0%
REC=62% RQD=0%
REC=68% RQD=0%
REC=89% RQD=0%
REC=84% RQD=0%
REC=95% RQD=0%
REC=84% RQD=23%
REC=98% RQD=8%
REC=82% RQD=0%
REC=67% RQD=17%
REC=97% RQD=7%
REC=98% RQD=17%
REC=100% RQD=0%
REC=98% RQD=18%
REC=100% RQD=19%
REC=93% RQD=16%
REC=100% RQD=36%
REC=96% RQD=33%
REC=98% RQD=24%
REC=100% RQD=31%
REC=99% RQD=57%
REC=97% RQD=68%
REC=95% RQD=53%
REC=100% RQD=38%

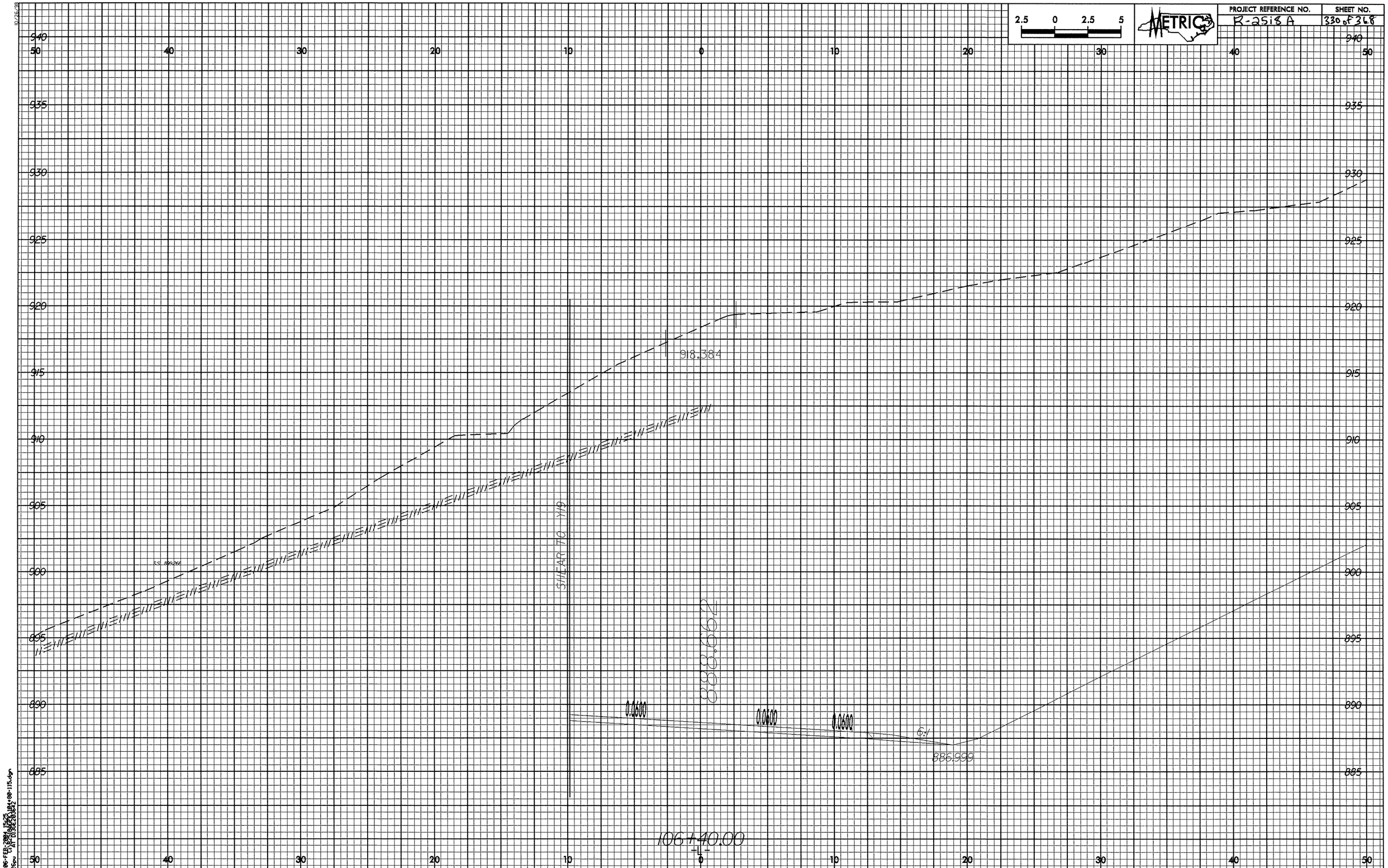
105+80.00



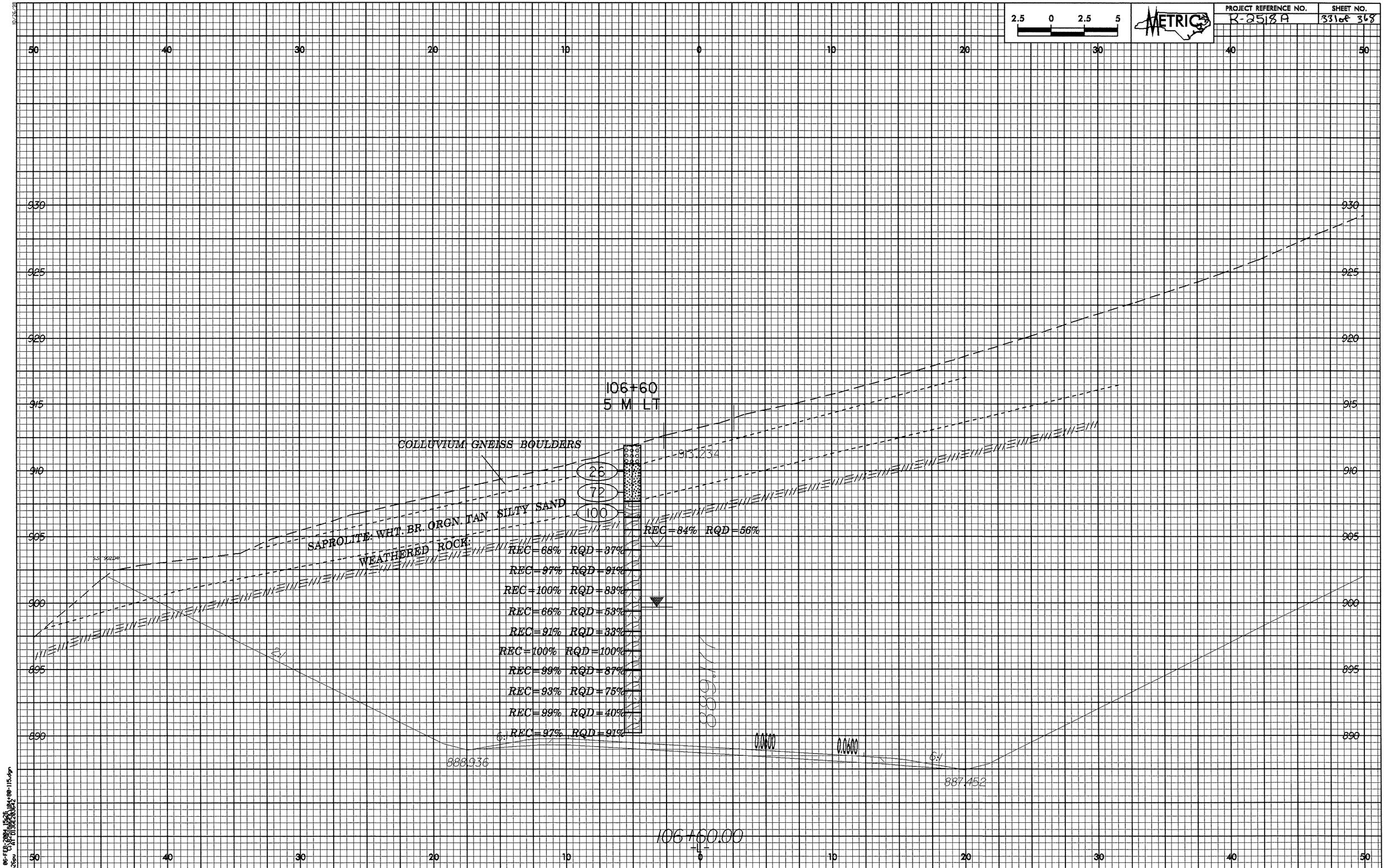
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
328 of 368
50 40 30 20 10 0 10 20 30 40 50
925
920
915
910
905
900
895
890
885
912.284
887.351
2:1
6:1
0.0600
0.0600
6:1
887.109
885.778
106+00.00
-L-



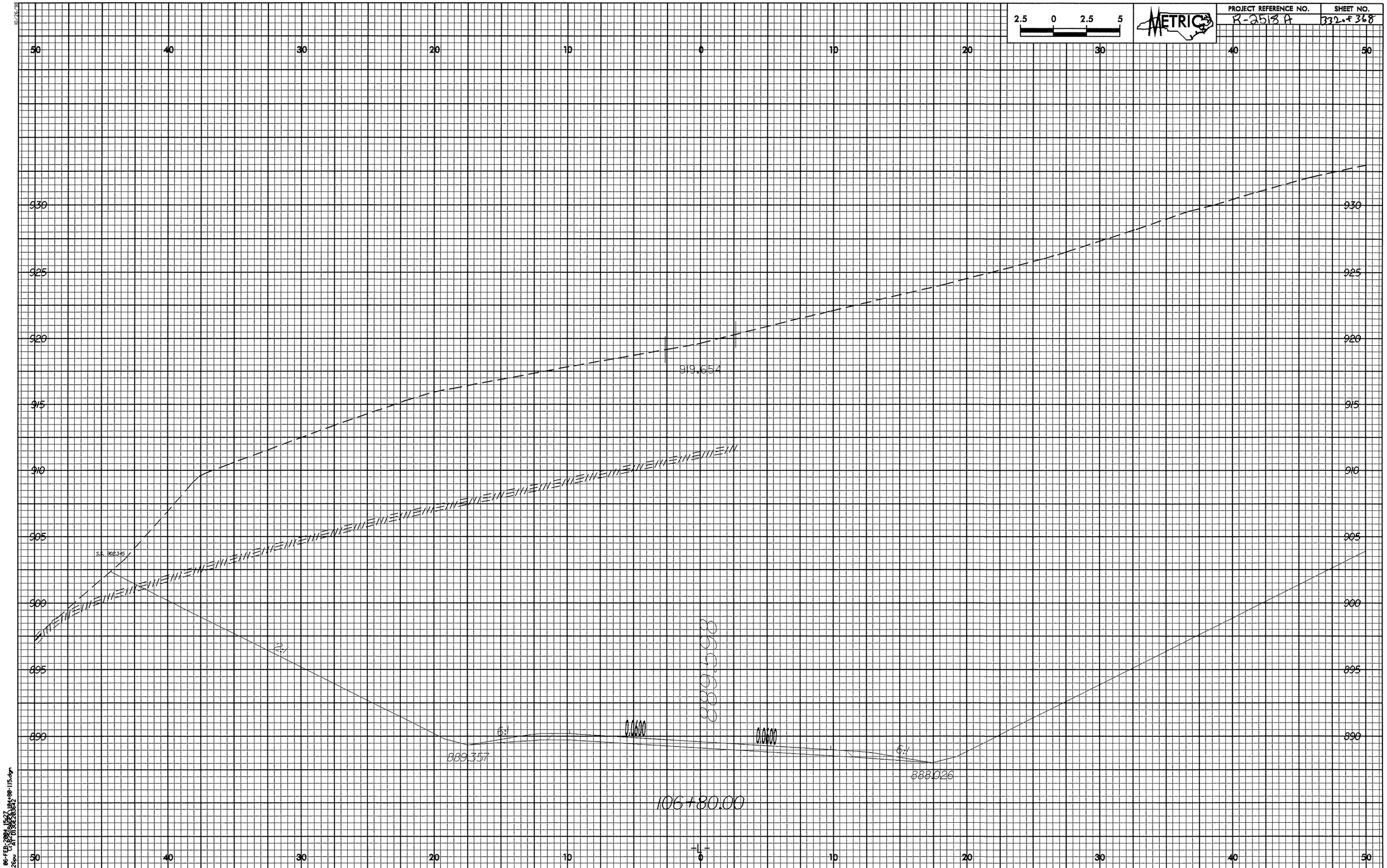
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
329 of 368
106+12
14 M RT
106+10
17 M LT
COLLUVIUM: ORANGE AND BROWN CLAYEY SANDWITH ROCK FRAGMENTS
SAPROLITE: BROWN AND TAN ROCK FRAGMENTSAND SANDY SILT
SAPROLITE: BROWN AND TAN ROCK FRAGMENTSAND SILTY SAND
BOULDER
916.637
8
14
70
REC=57% RQD=0%
REC=61% RQD=0%
REC=64% RQD=19%
REC=44% RQD=0%
REC=47% RQD=0%
REC=73% RQD=26%
REC=84% RQD=61%
REC=96% RQD=38%
REC=95% RQD=47%
REC=92% RQD=87%
REC=95% RQD=61%
REC=98% RQD=90%
REC=100% RQD=79%
REC=95% RQD=87%
REC=98% RQD=76%
REC=98% RQD=35%
REC=0% RQD=0%
REC=27% RQD=0%
REC=28% RQD=0%
REC=52% RQD=0%
REC=95% RQD=0%
REC=74% RQD=9%
REC=70% RQD=0%
REC=100% RQD=13%
REC=97% RQD=9%
REC=97% RQD=0%
REC=100% RQD=58%
REC=100% RQD=59%
REC=99% RQD=33%
REC=100% RQD=63%
REC=99% RQD=73%
REC=100% RQD=92%
REC=100% RQD=85%
REC=100% RQD=100%
REC=100% RQD=100%
2:1
6:1
0.0600
888.054
106+20.00
-L-



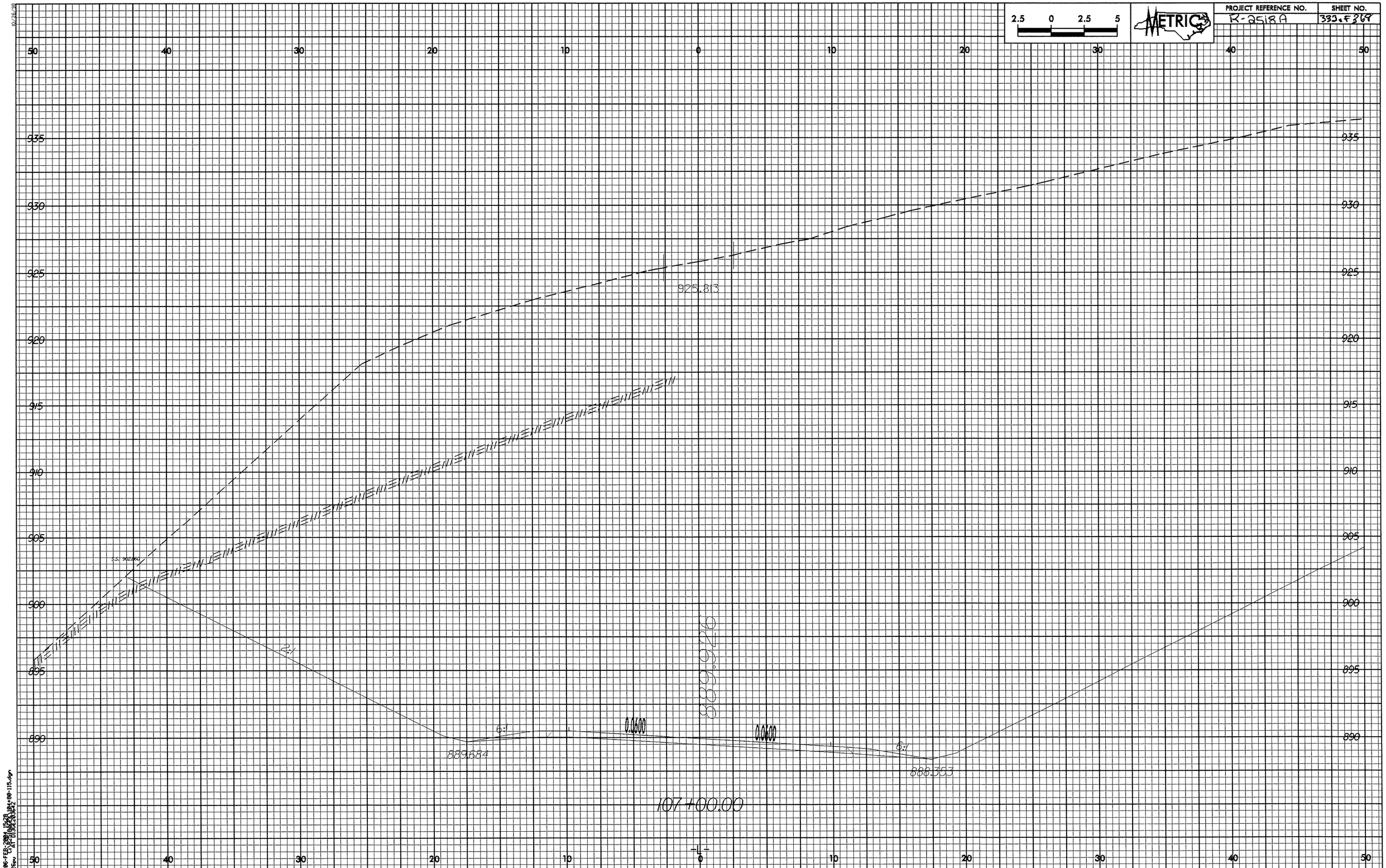
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
330 of 368
940
935
930
925
920
915
910
905
900
895
890
885
50 40 30 20 10 0 10 20 30 40 50
918.384
SHEAR TO Y19
888.662
0.0600
0.0600
0.0600
6:1
886.999
106+40.00
-L-



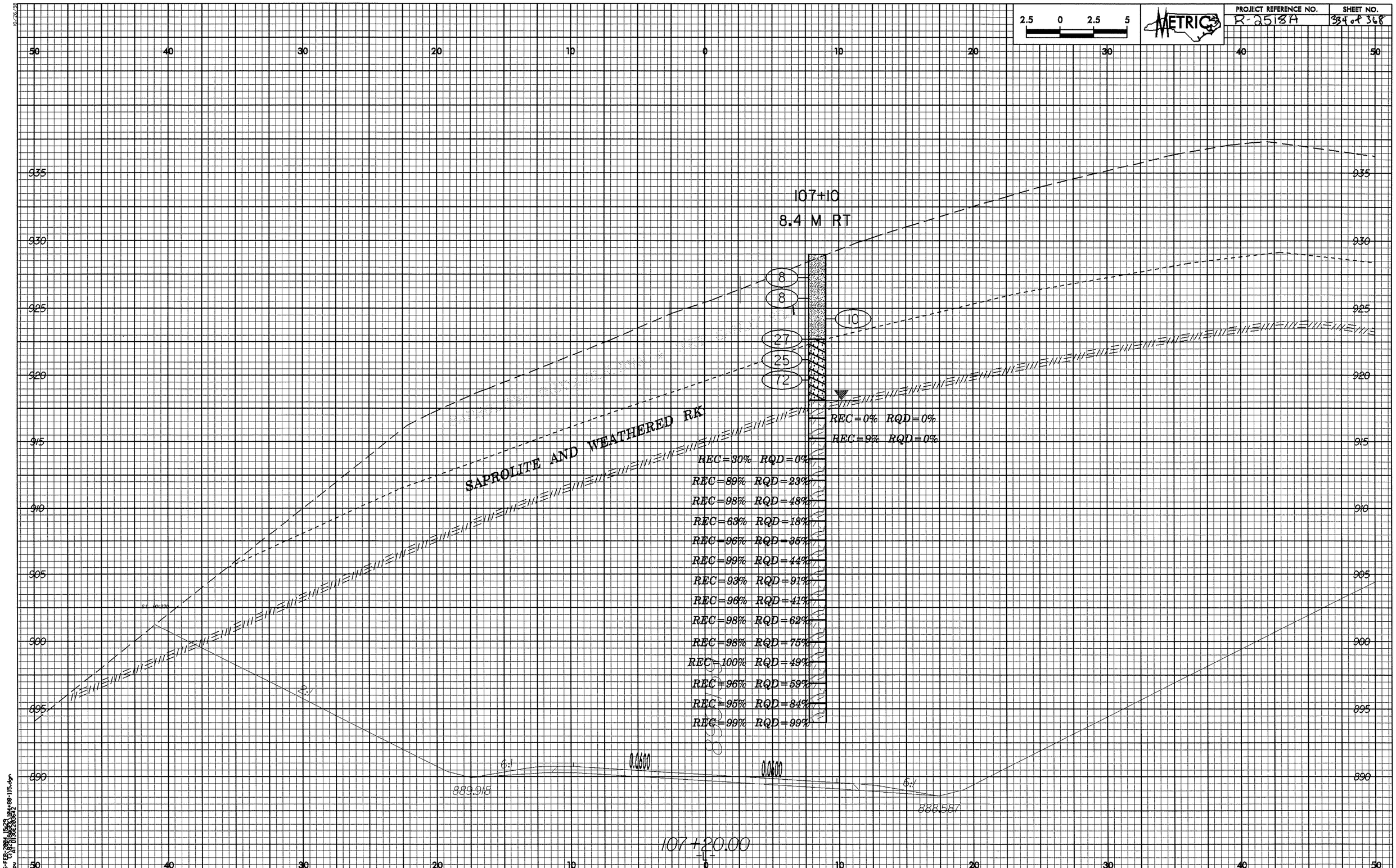
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
331 of 368
50 40 30 20 10 0 10 20 30 40 50
930 925 920 915 910 905 900 895 890
106+60
5 M LT
COLLUVIUM GNEISS BOULDERS
913.234
26
72
100
SAPROLITE: WHT. BR. ORGN. TAN SILTY SAND
WEATHERED ROCK:
REC=84% RQD=56%
REC=68% RQD=37%
REC=97% RQD=91%
REC=100% RQD=83%
REC=66% RQD=53%
REC=91% RQD=33%
REC=100% RQD=100%
REC=99% RQD=87%
REC=93% RQD=75%
REC=99% RQD=40%
REC=97% RQD=91%
2:1
6:1
888.936
889.177
0.0600
0.0600
6:1
887.452
106+60.00
-L-



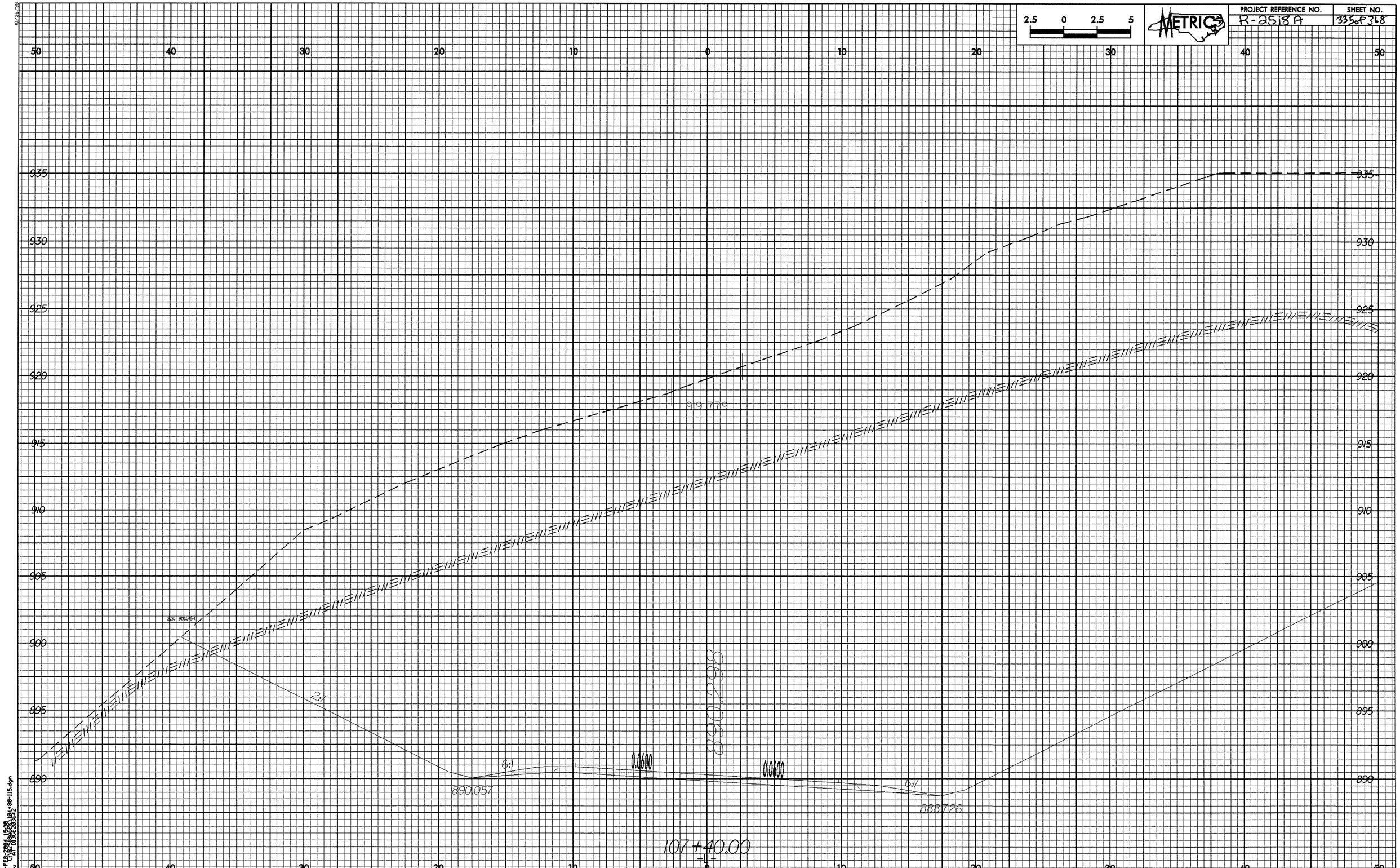
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
332 of 368
50 40 30 20 10 0 10 20 30 40 50
930 925 920 915 910 905 900 895 890
919.654
S.S. 902.345
2:1
889.598
6:1
0.0600
0.0600
6:1
889.357
888.026
106+80.00
-L-



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
333 of 368
50 40 30 20 10 0 10 20 30 40 50
935 930 925 920 915 910 905 900 895 890
925.813
889.926
889.684
888.353
6:1
0.0600
0.0600
6:1
107+00.00



PROJECT REFERENCE NO.
R-2518A
SHEET NO.
334 of 368
METRIC
2.5 0 2.5 5
107+10
8.4 M RT
8
8
10
27
25
72
REC=0% RQD=0%
REC=9% RQD=0%
REC=30% RQD=0%
REC=89% RQD=23%
REC=98% RQD=48%
REC=63% RQD=18%
REC=96% RQD=35%
REC=99% RQD=44%
REC=93% RQD=91%
REC=96% RQD=41%
REC=98% RQD=62%
REC=98% RQD=75%
REC=100% RQD=49%
REC=96% RQD=59%
REC=95% RQD=84%
REC=99% RQD=99%
SAPROLITE AND WEATHERED RK
2:1
6:1
0.0600
0.0600
6:1
889.918
888.587
107+20.00
-L-



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
335 of 368
50 40 30 20 10 0 10 20 30 40 50
935 930 925 920 915 910 905 900 895 890
919.779
S.S. 900.654
2:1
6:1
0.0600
0.0600
6:1
890.057
888.726
890.298
107+40.00
-L-

2.5 0 2.5 5

METRIC

107+60
48 M RT

RESIDUAL: ORNG. BRN. BL. GREY SILTY CLAY

5
5
13
9
100

WEATHERED ROCK

REC=28% RQD=0%
REC=24% RQD=5%
REC=0% RQD=0%
REC=20% RQD=0%
REC=61 RQD=0%
REC=4% RQD=0%
REC=93% RQD=0%
REC=93% RQD=0%
REC=96% RQD=31%
REC=99% RQD=19%
REC=97% RQD=53%
REC=100% RQD=44%
REC=90% RQD=21%
REC=98% RQD=27%
REC=95% RQD=76%
REC=97% RQD=65%

914.924

890.343

890.102

888.771

0.0600

0.0600

6:1

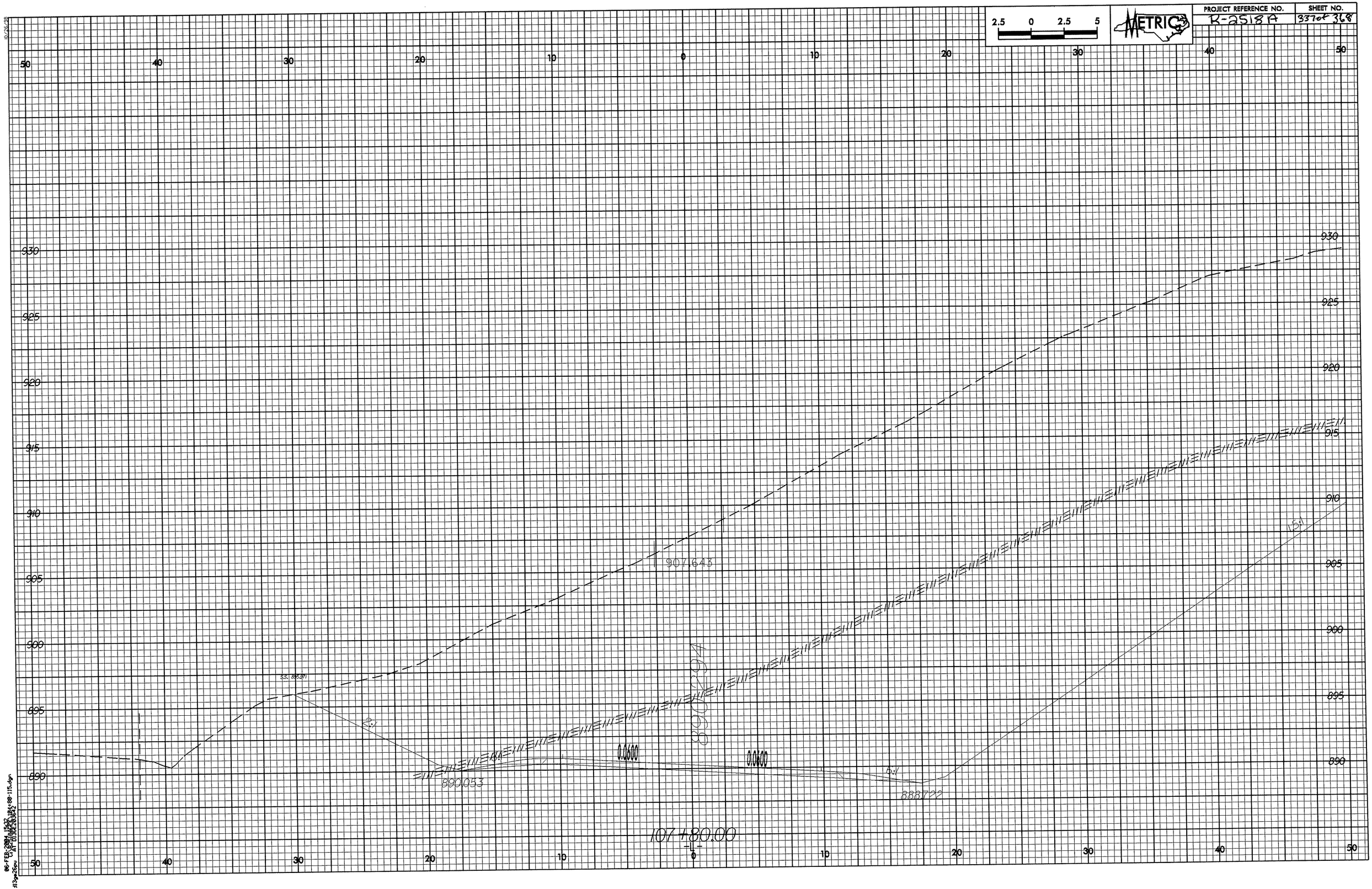
2:1

107+60.00

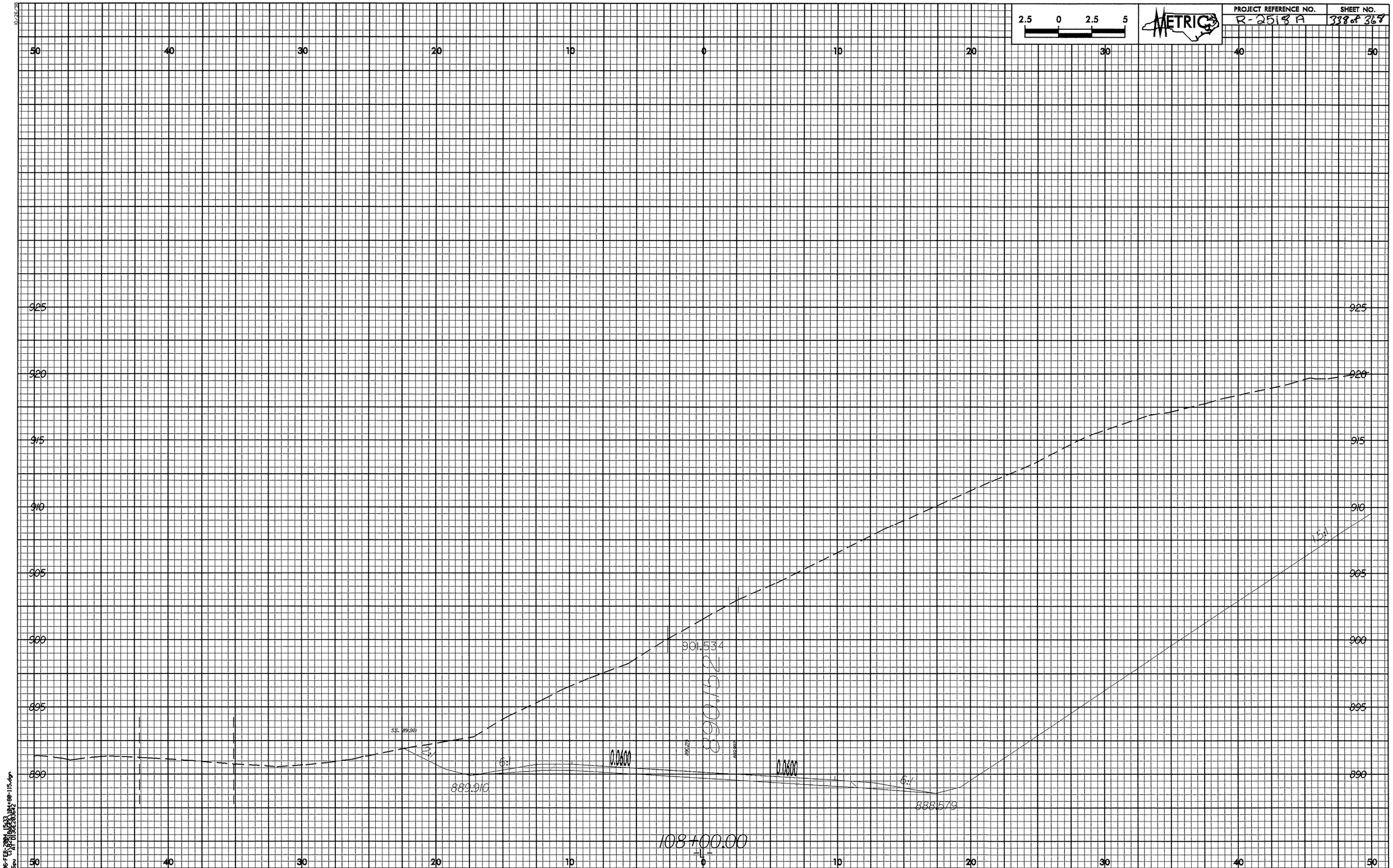
"QUANTITIES ARE APPROXIMATE ONLY. THE RESIDENT ENGINEER WILL RECROSS-SECTION THE WORK ACCURATELY WHEN THE PROJECT IS STAKED OUT. THESE CROSS-SECTION NOTES WILL BE USED IN COMPUTING THE FINAL QUANTITIES FOR WHICH THE CONTRACTOR WILL BE PAID."

30 20 10 0 10 20 30 40 50 60

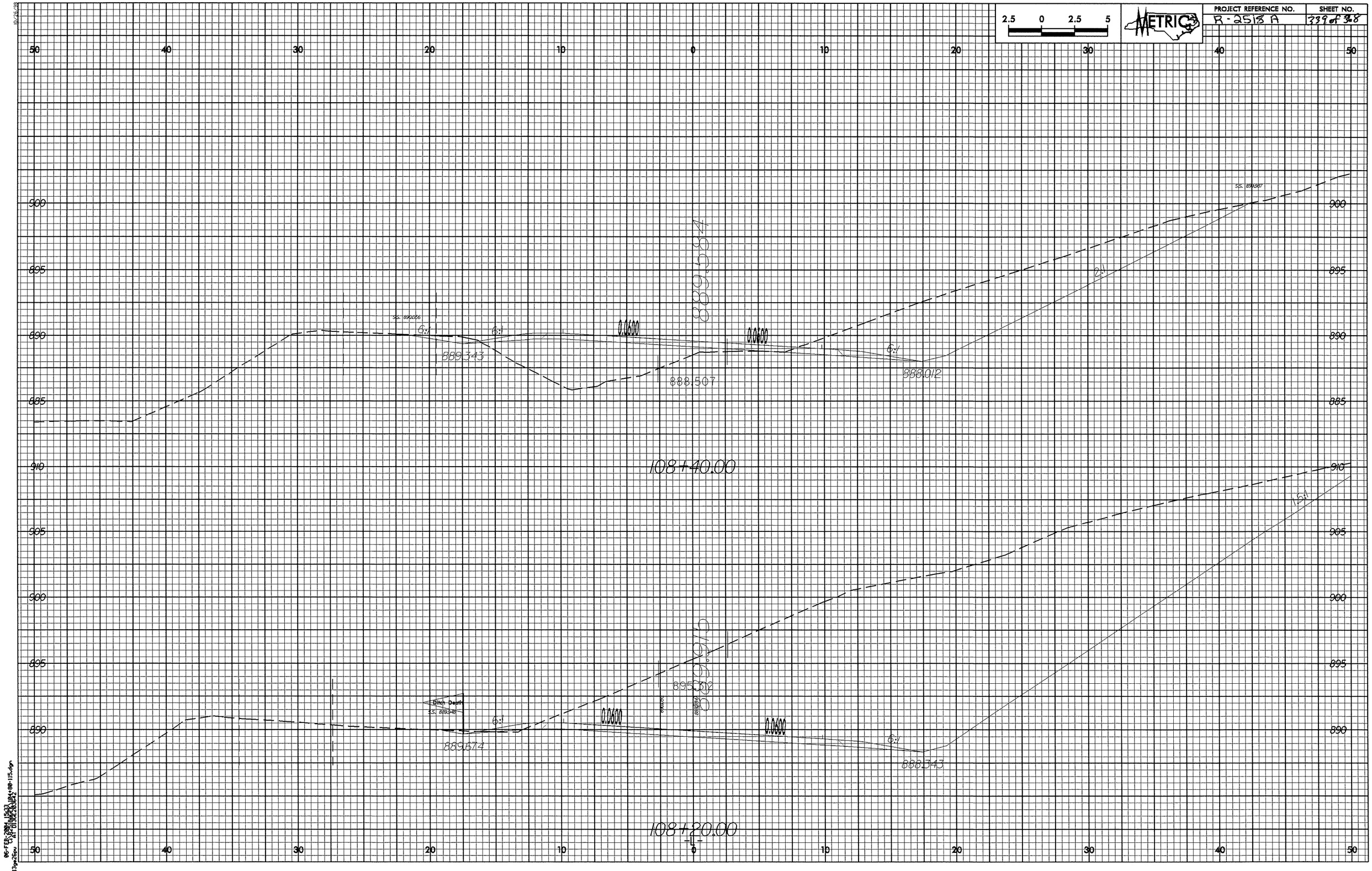
935 930 925 920 915 910 905 900 895 890



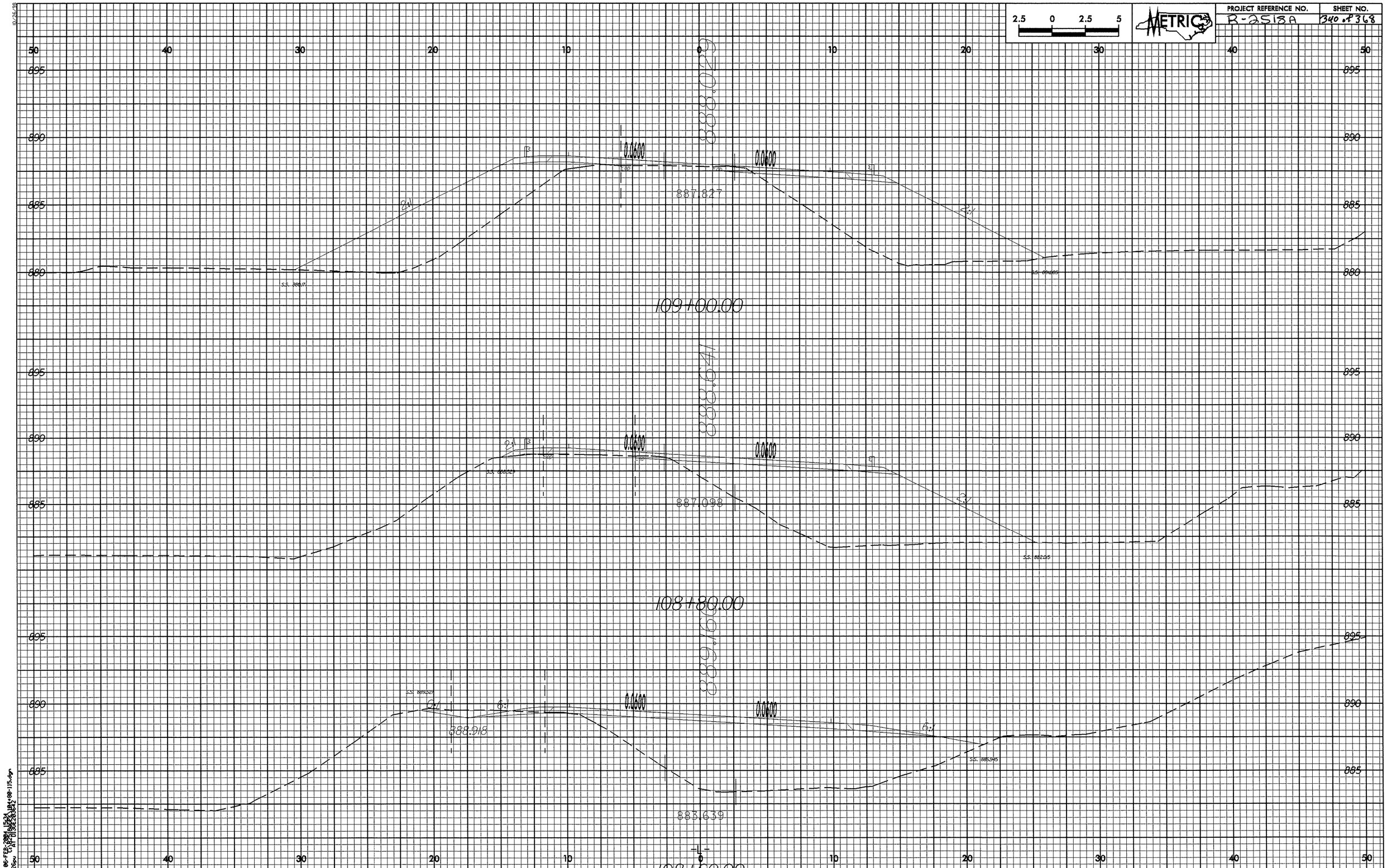
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
337 of 368
50 40 30 20 10 0 10 20 30 40 50
930
925
920
915
910
905
900
895
890
907.643
890.294
890.053
888.722
0.0600
0.0600
2:1
6:1
15:1
107+80.00
-L-



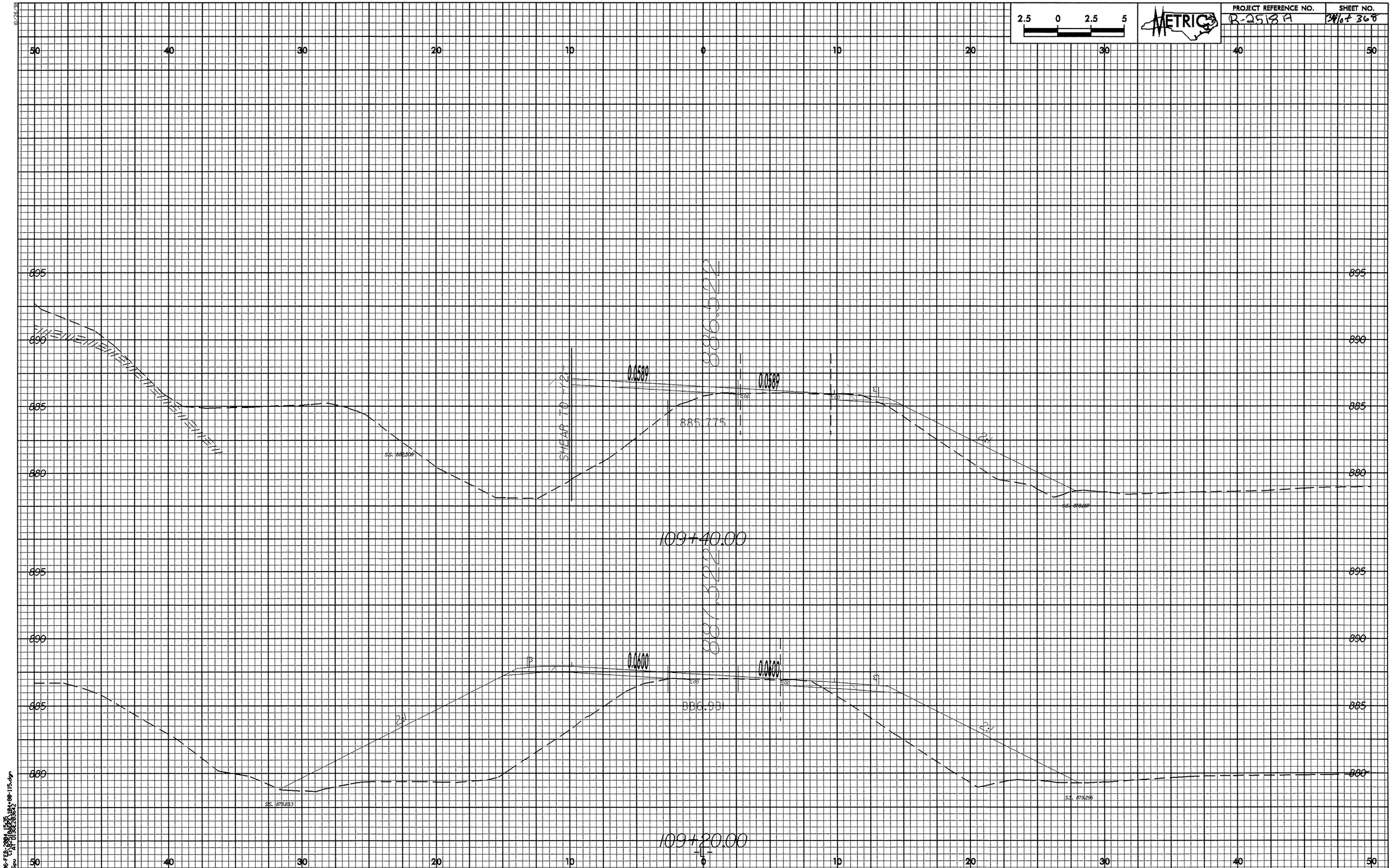
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
338 of 368
50 40 30 20 10 0 10 20 30 40 50
925
920
915
910
905
900
895
890
901.534
890.162
889.910
888.579
0.0600
0.0600
6:1
6:1
15:1
108+00.00
-L-



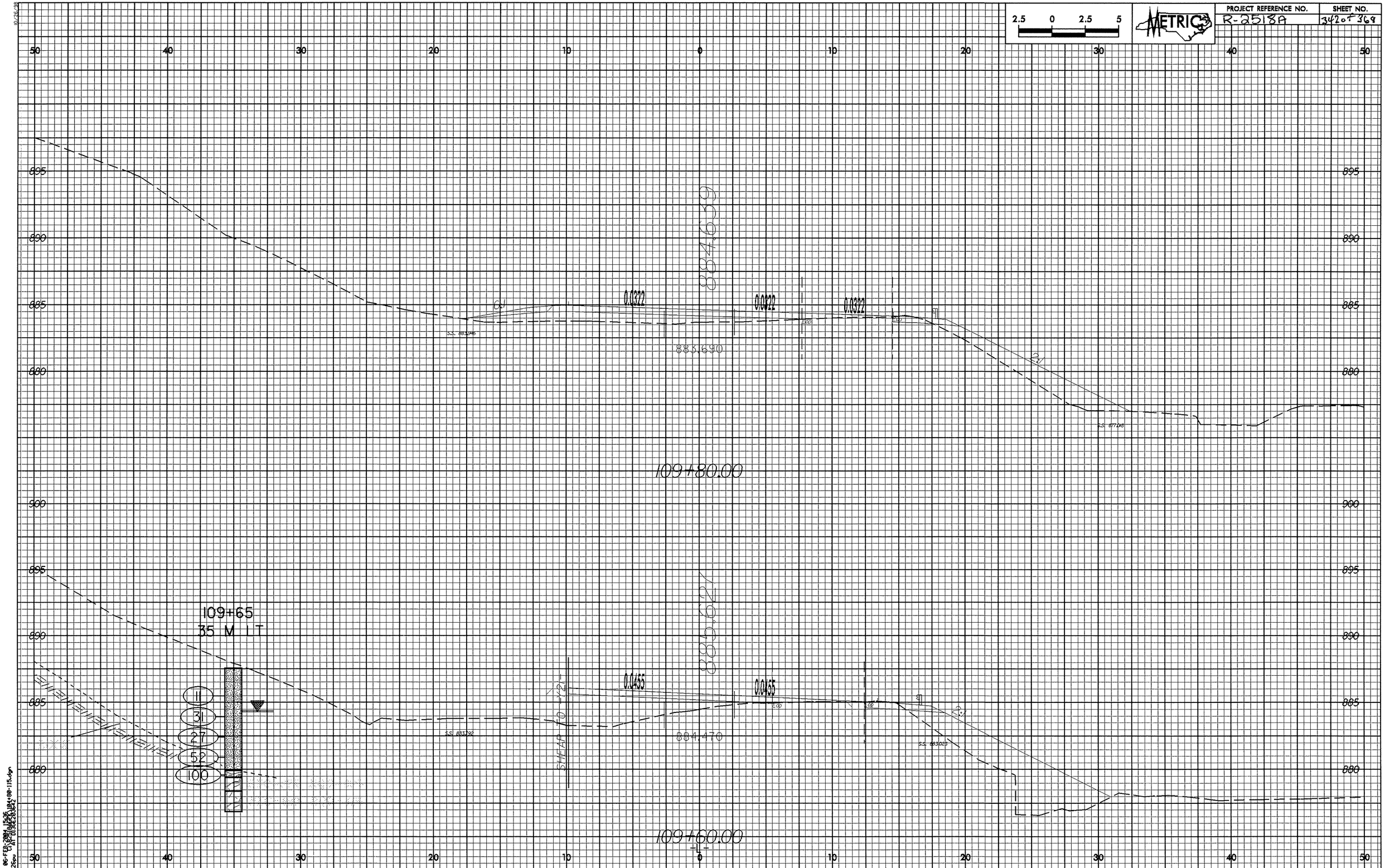
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
339 of 368
50 40 30 20 10 0 10 20 30 40 50
900
895
890
885
910
905
900
895
890
889.584
889.343
888.507
888.012
6:1
0.0600
2:1
108+40.00
889.916
895.312
889.674
888.343
15:1
Ditch Depth
108+20.00



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
340 of 368
50 40 30 20 10 0 10 20 30 40 50
895
890
885
880
888.029
0.0600
0.0600
887.827
2:1
2:1
109+00.00
888.641
0.0600
0.0600
887.098
2:1
2:1
108+80.00
889.160
0.0600
0.0600
888.918
6:1
6:1
883.639
108+60.00

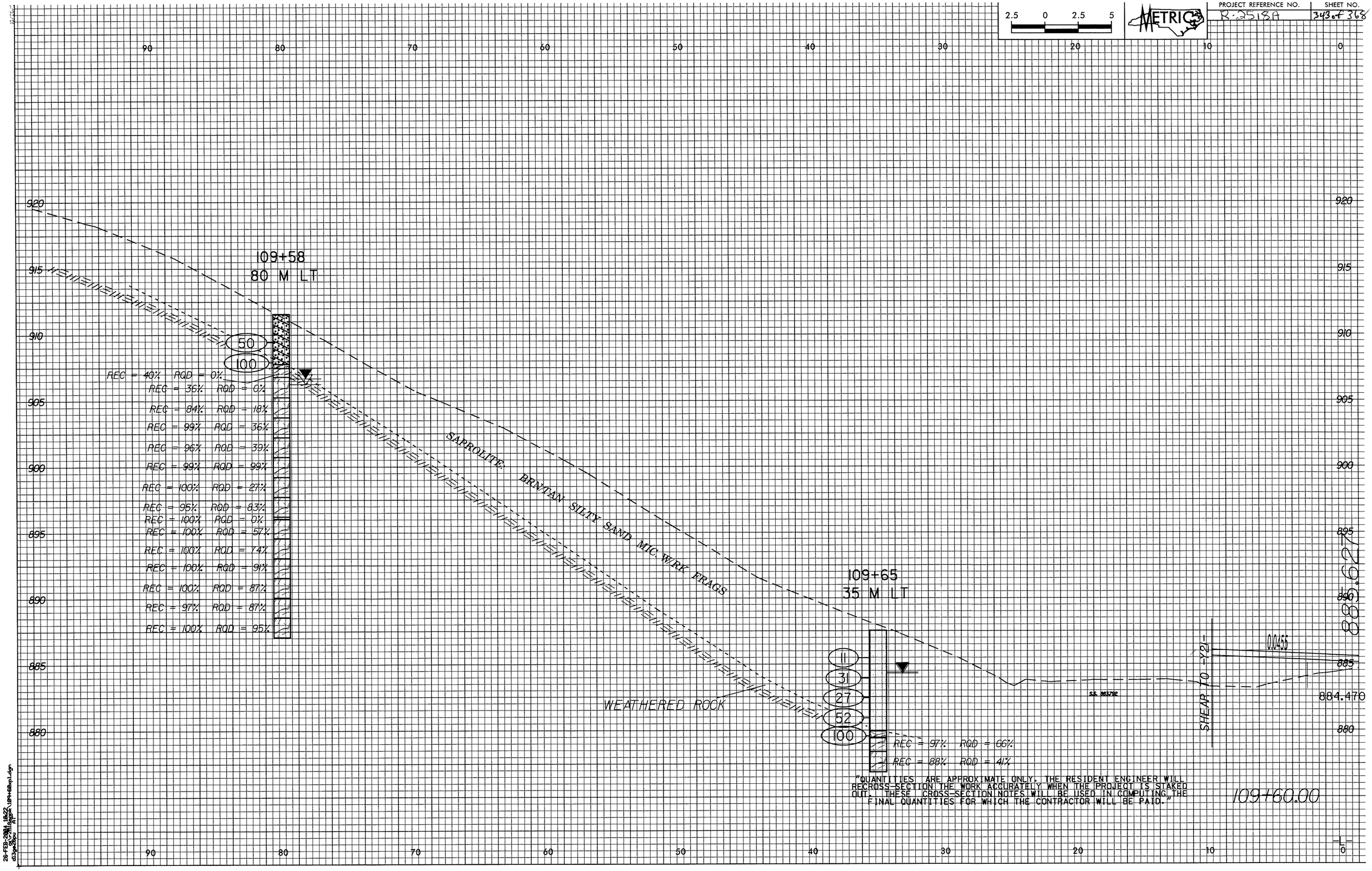


2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
34 of 368
50 40 30 20 10 0 10 20 30 40 50
895
890
885
880
886.522
0.0589
0.0589
885.775
SHEAR TO -Y2-
2:1
109+40.00
887.322
0.0600
0.0600
886.931
2:1
2:1
109+20.00

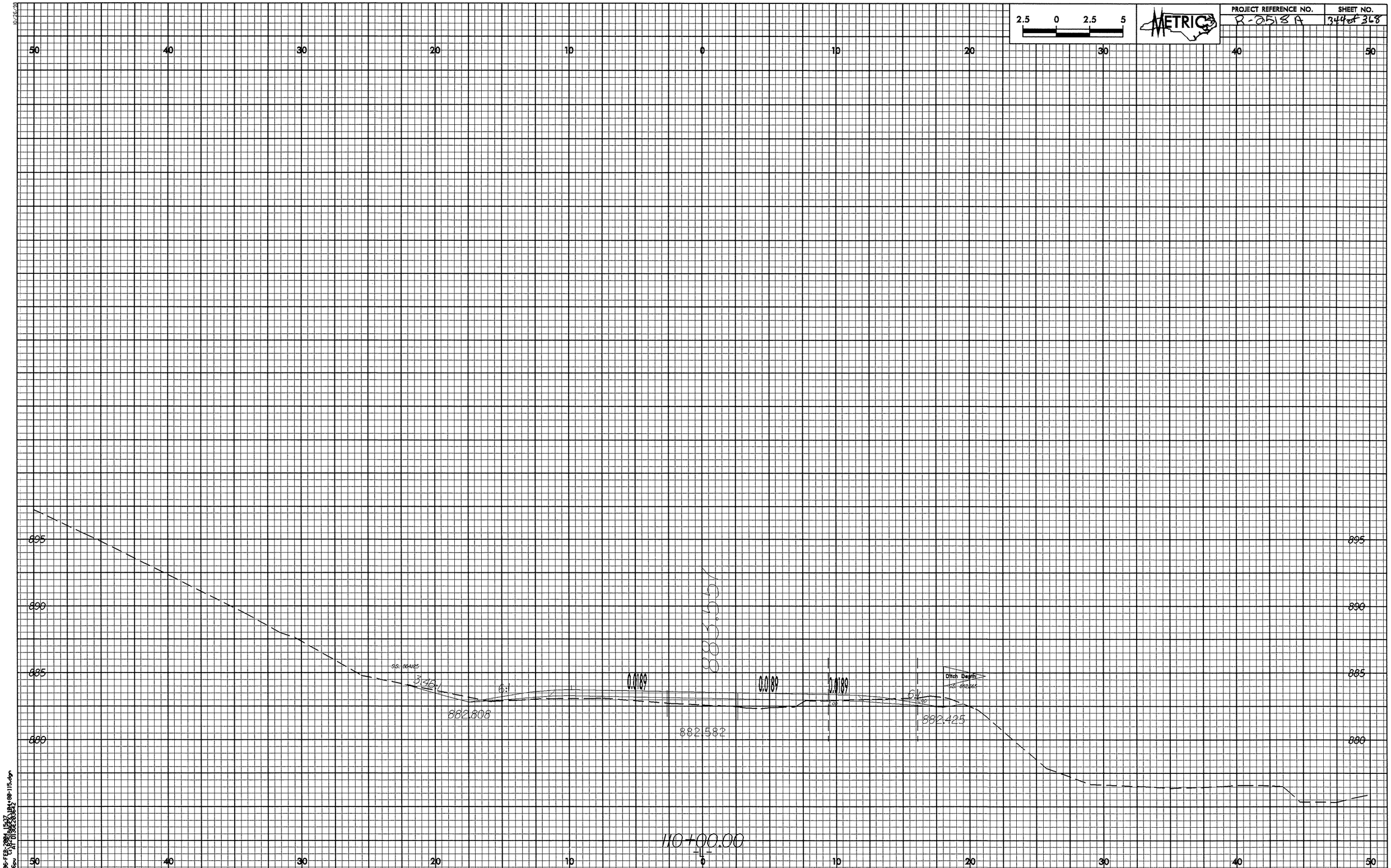


2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
342 of 368
50 40 30 20 10 0 10 20 30 40 50
895
890
885
880
900
884.639
0.0322
0.0322
0.0322
883.690
109+80.00
109+65
35 M LT
11
31
27
52
100
885.627
0.0455
0.0455
884.470
SHEAR TO -Y2-
109+60.00
-L-

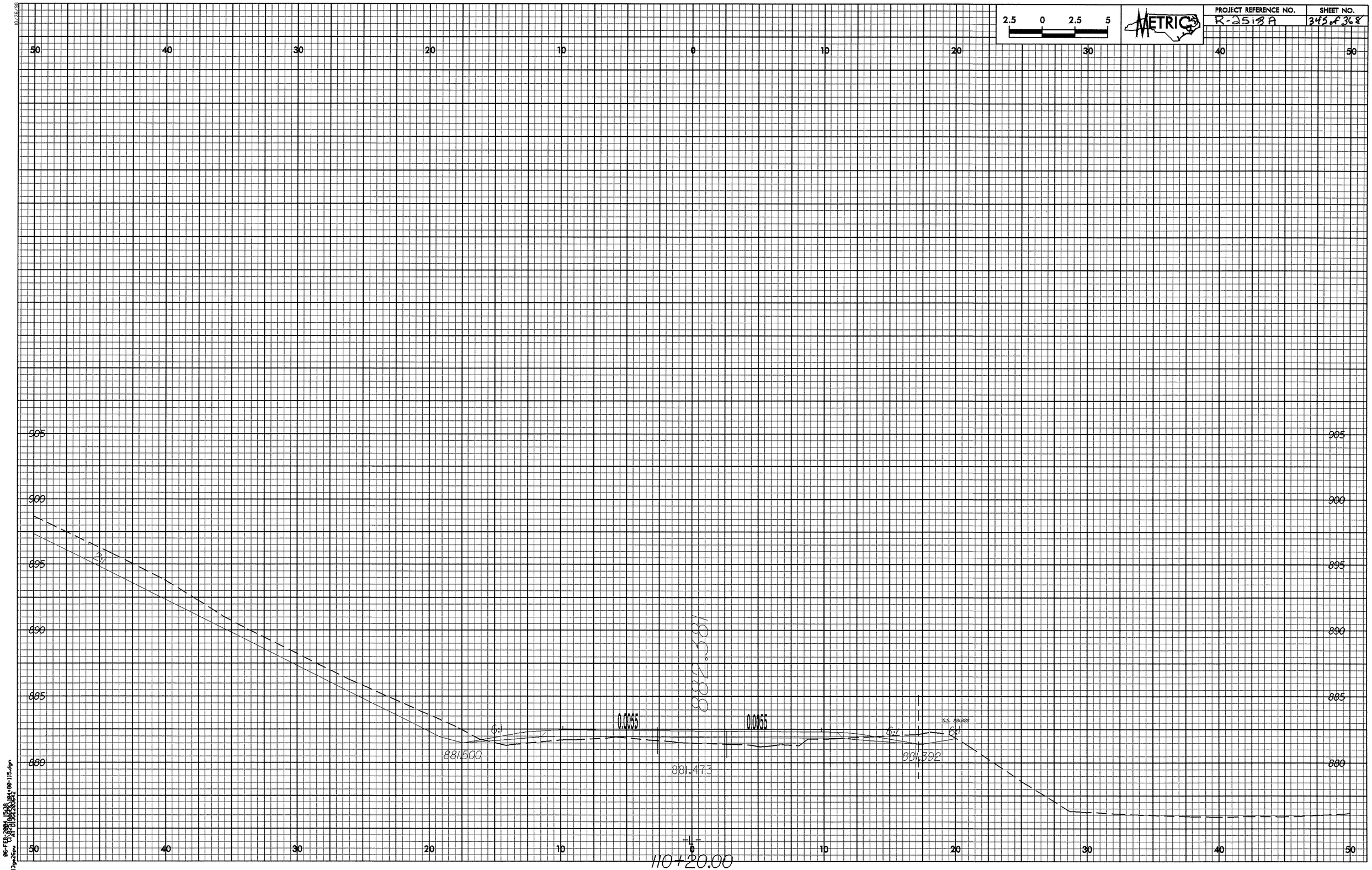
PROJECT REFERENCE NO. R-2518A
SHEET NO. 343 of 368



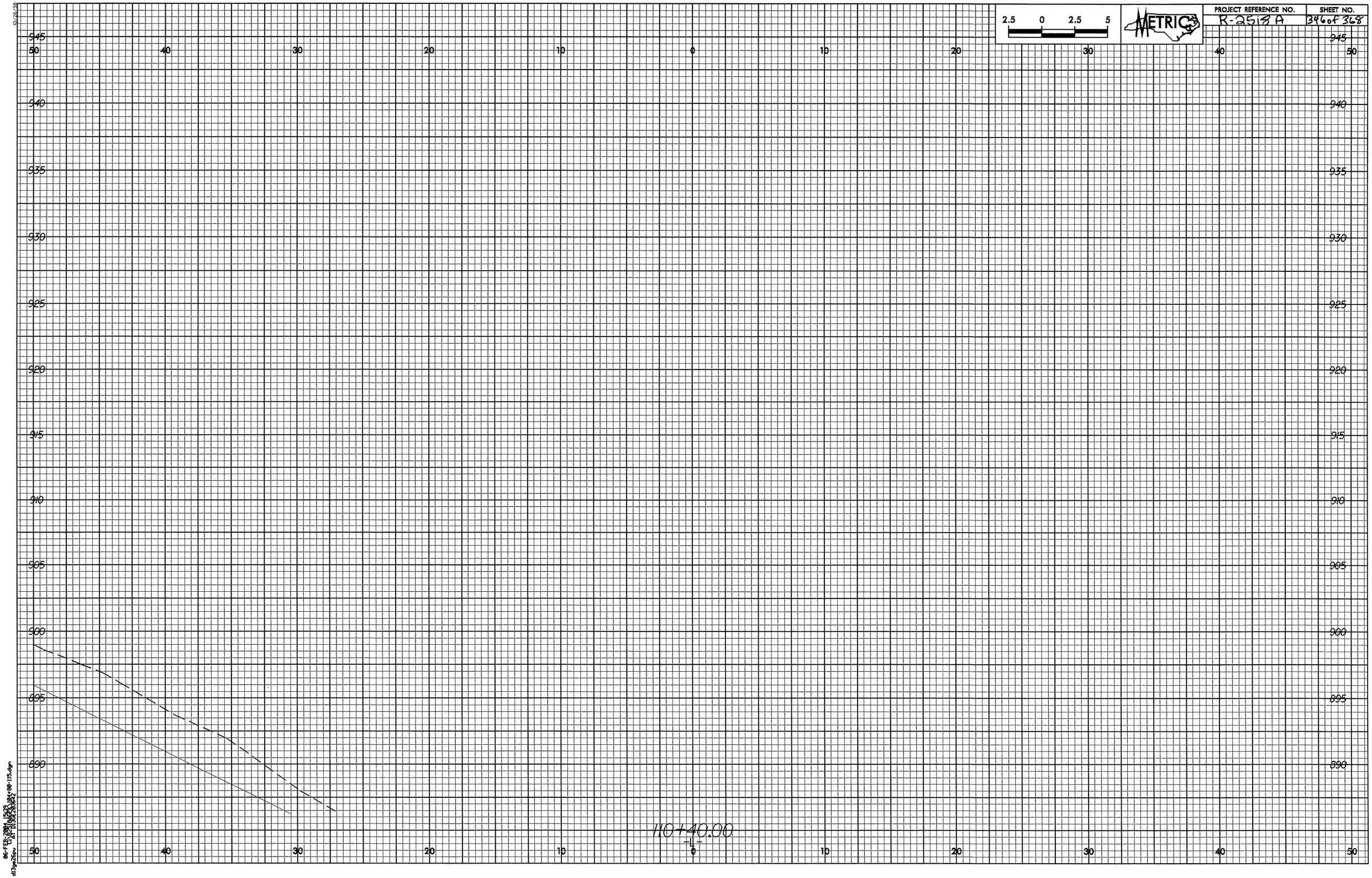
"QUANTITIES ARE APPROXIMATE ONLY. THE RESIDENT ENGINEER WILL RECROSS-SECTION THE WORK ACCURATELY WHEN THE PROJECT IS STAKED OUT. THESE CROSS-SECTION NOTES WILL BE USED IN COMPUTING THE FINAL QUANTITIES FOR WHICH THE CONTRACTOR WILL BE PAID."



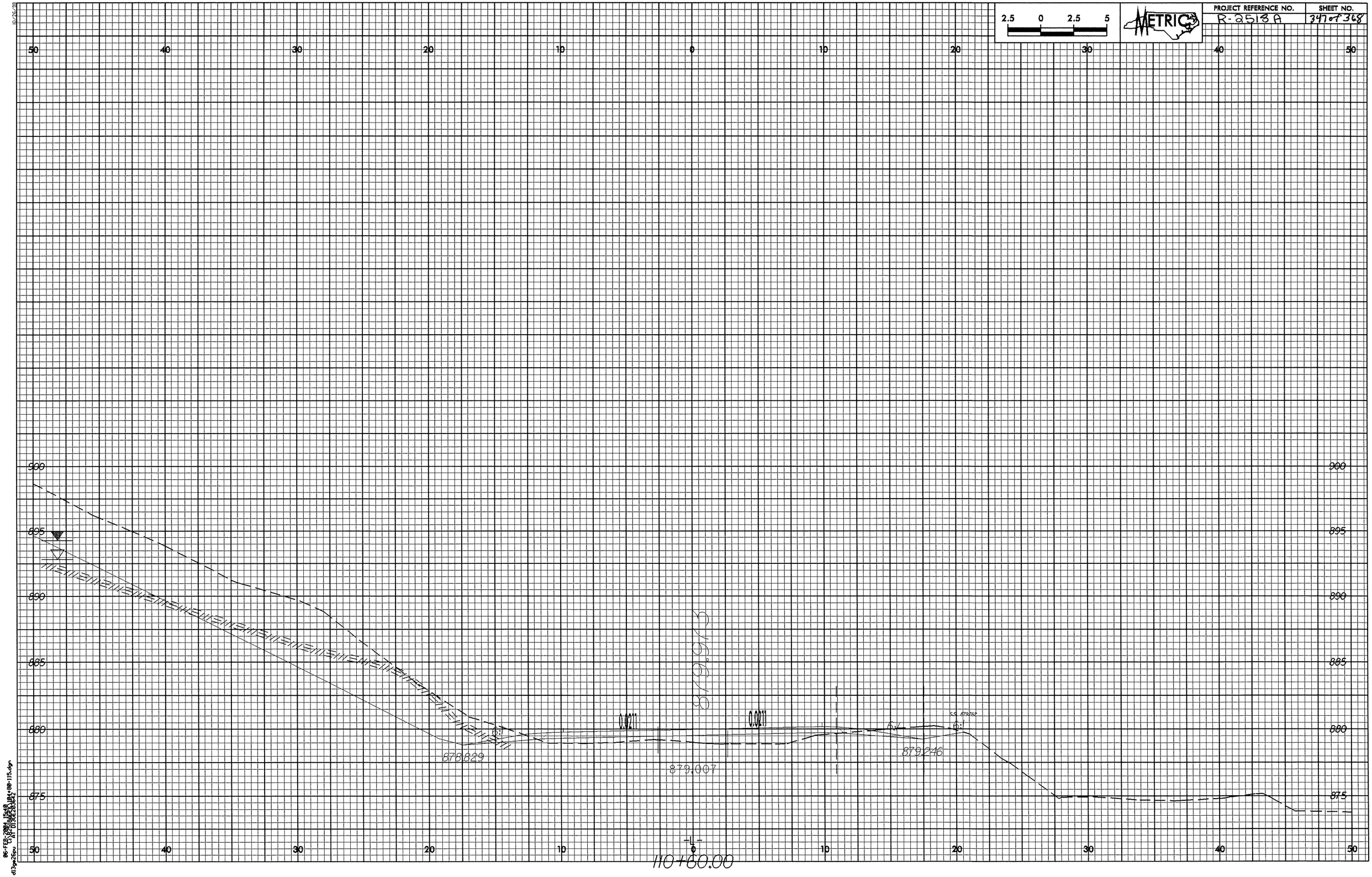
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
344 of 368
50 40 30 20 10 0 10 20 30 40 50
895
890
885
880
883.557
SS: 884125
3.46:1
6:1
0.0189
0.0189
0.0189
6:1
Ditch Depth
SS: 882565
882.808
882.582
882.425
110+00.00
-L-



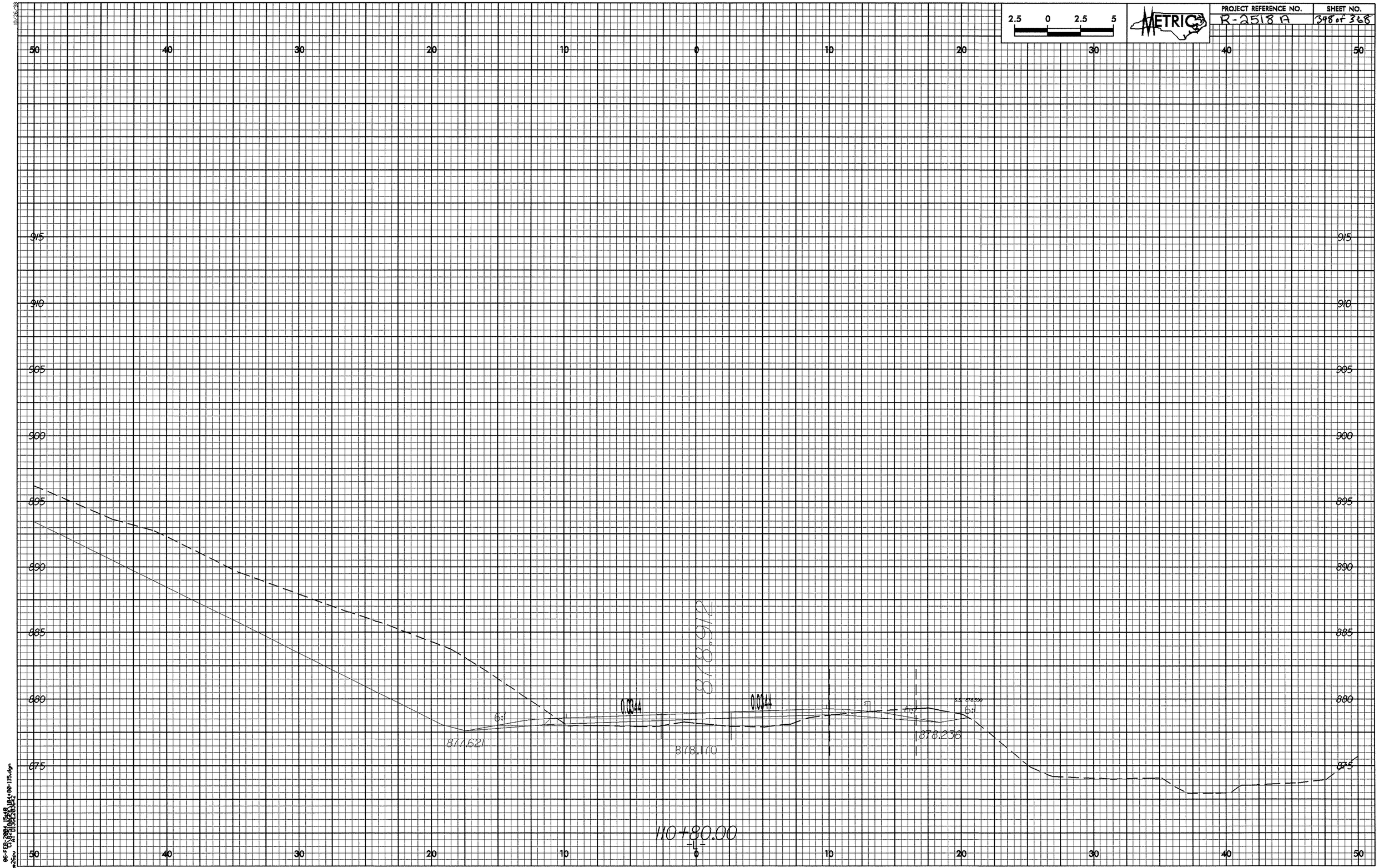
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
345 of 368
50 40 30 20 10 0 10 20 30 40 50
905
900
895
890
885
880
2:1
6:1
0.0055
0.0055
882.381
881.500
881.473
881.392
-L-
110+20.00



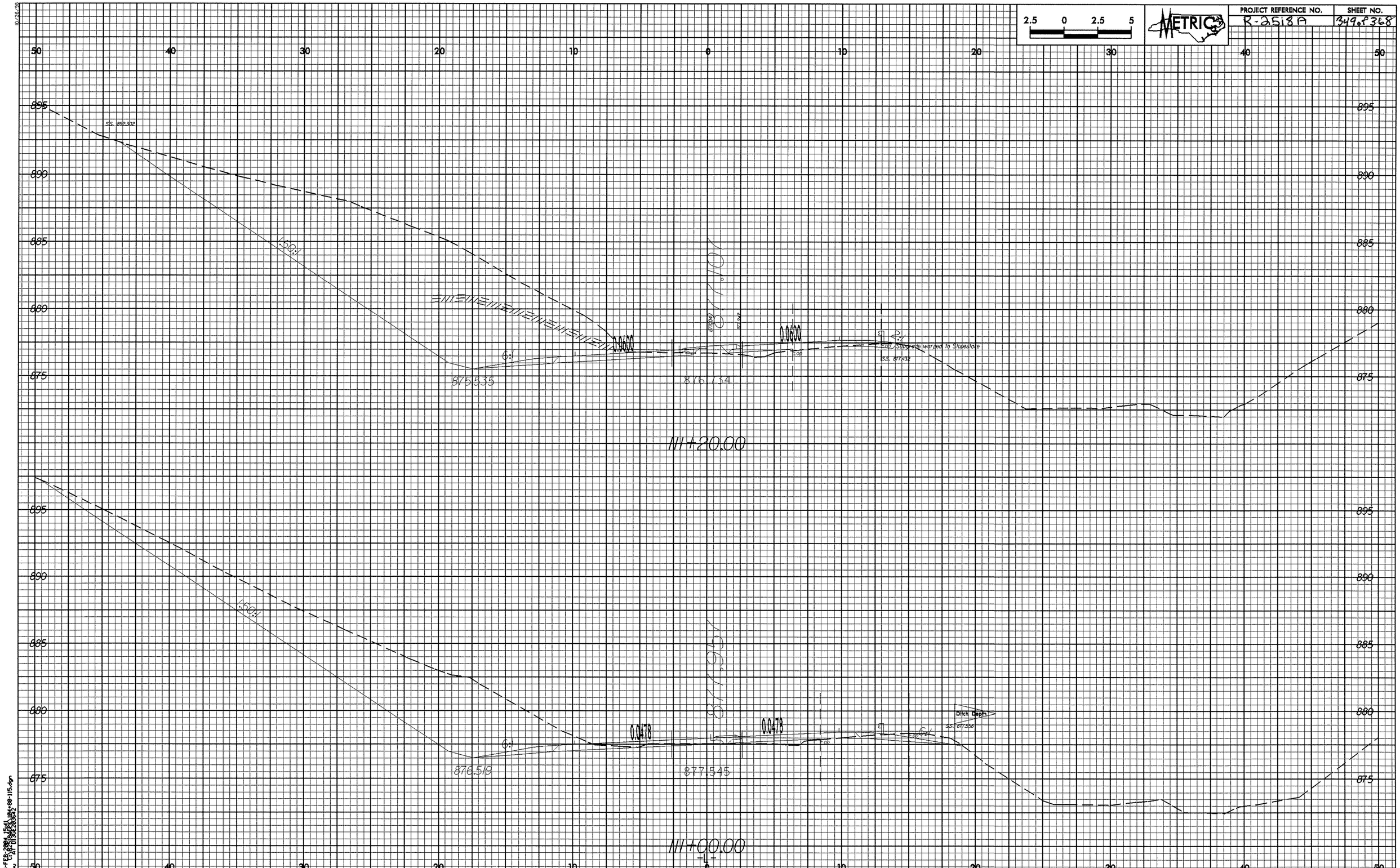
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
346 of 368
945
940
935
930
925
920
915
910
905
900
895
890
50 40 30 20 10 0 10 20 30 40 50
110+40.00
-L-



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
347 of 368
50 40 30 20 10 0 10 20 30 40 50
900
895
890
885
880
875
879.973
0.0211
0.0211
6:1
6:1
6:1
S.S. 879.762
878.829
879.007
879.246
-L-
110+60.00



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
348 of 368
50 40 30 20 10 0 10 20 30 40 50
915
910
905
900
895
890
885
880
875
878.912
0.0344
0.0344
6:1
6:1
6:1
877.621
878.170
878.236
110+80.00
-L-



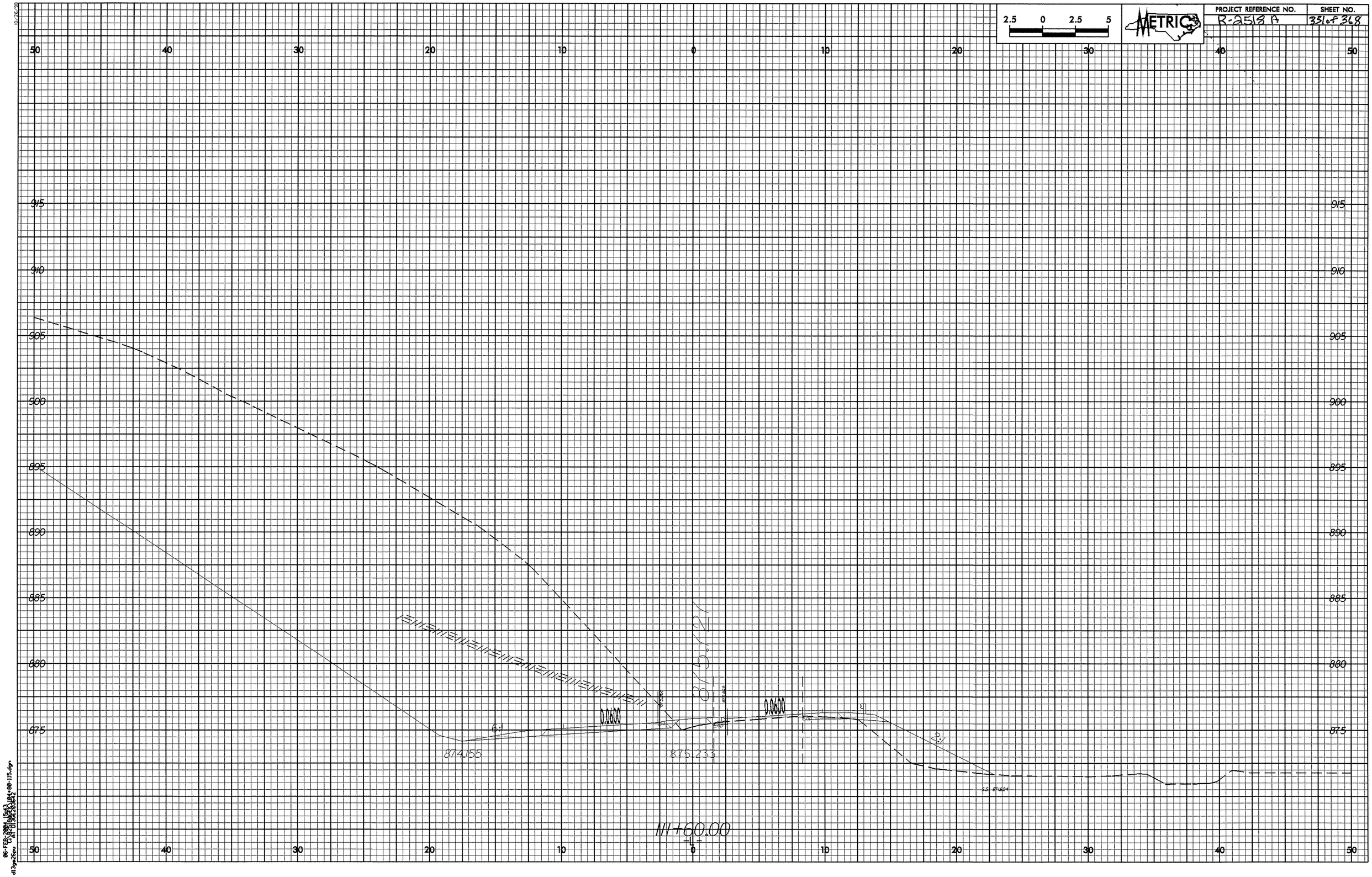
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
349 of 368
50 40 30 20 10 0 10 20 30 40 50
895
890
885
880
875
S.S. 892.302
1.50:1
0.0600
0.0600
6:1
2:1
Subgrade warped to Slopestake
S.S. 877.432
875.535
876.734
111+20.00
1.50:1
0.0478
0.0478
6:1
6:1
Ditch Depth
S.S. 877.558
876.519
877.545
111+00.00
-L-

PROJECT REFERENCE NO.	SHEET NO.
R-2518 A	350 of 368

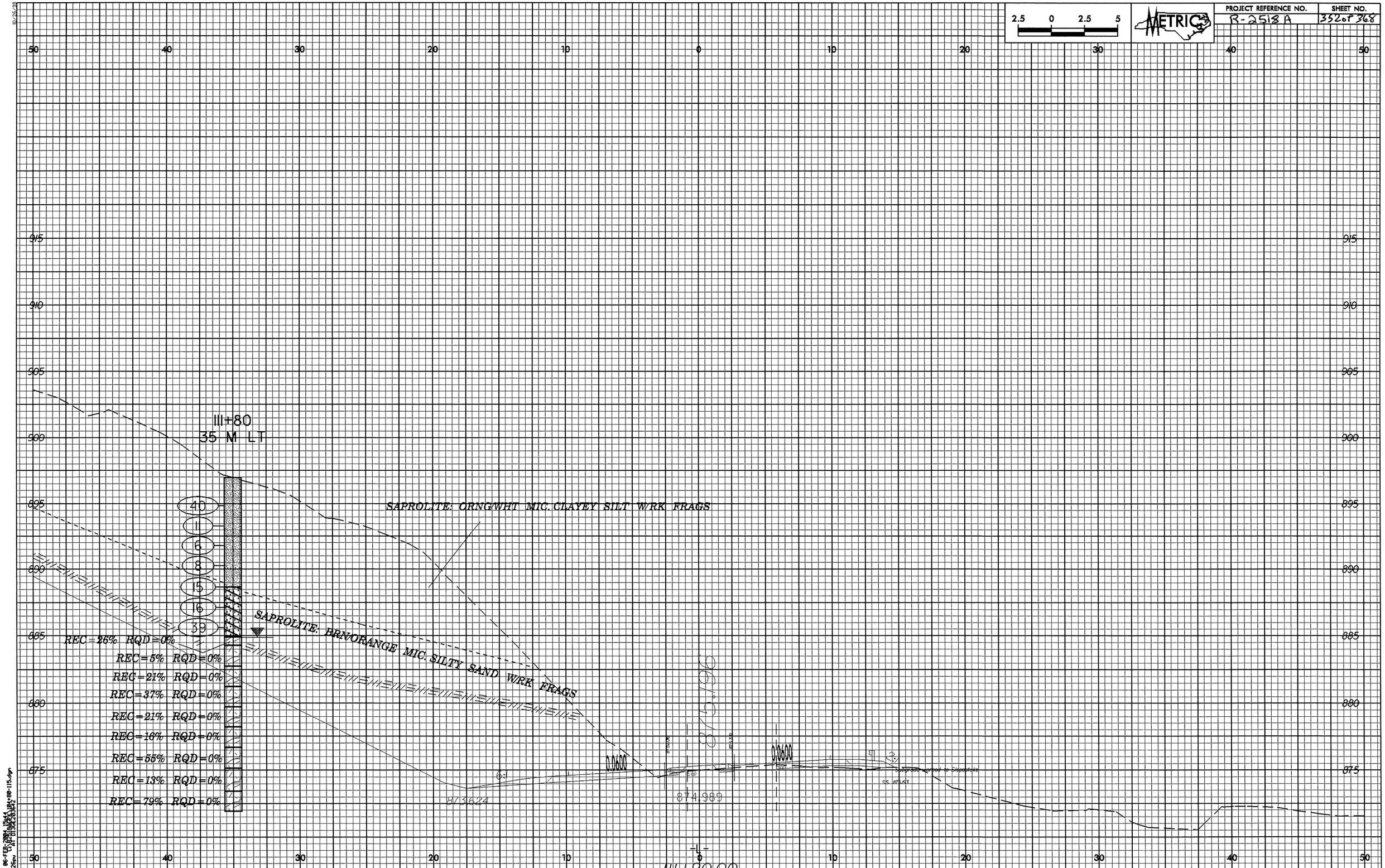
10/26/98

06-FEB-2004 15:42

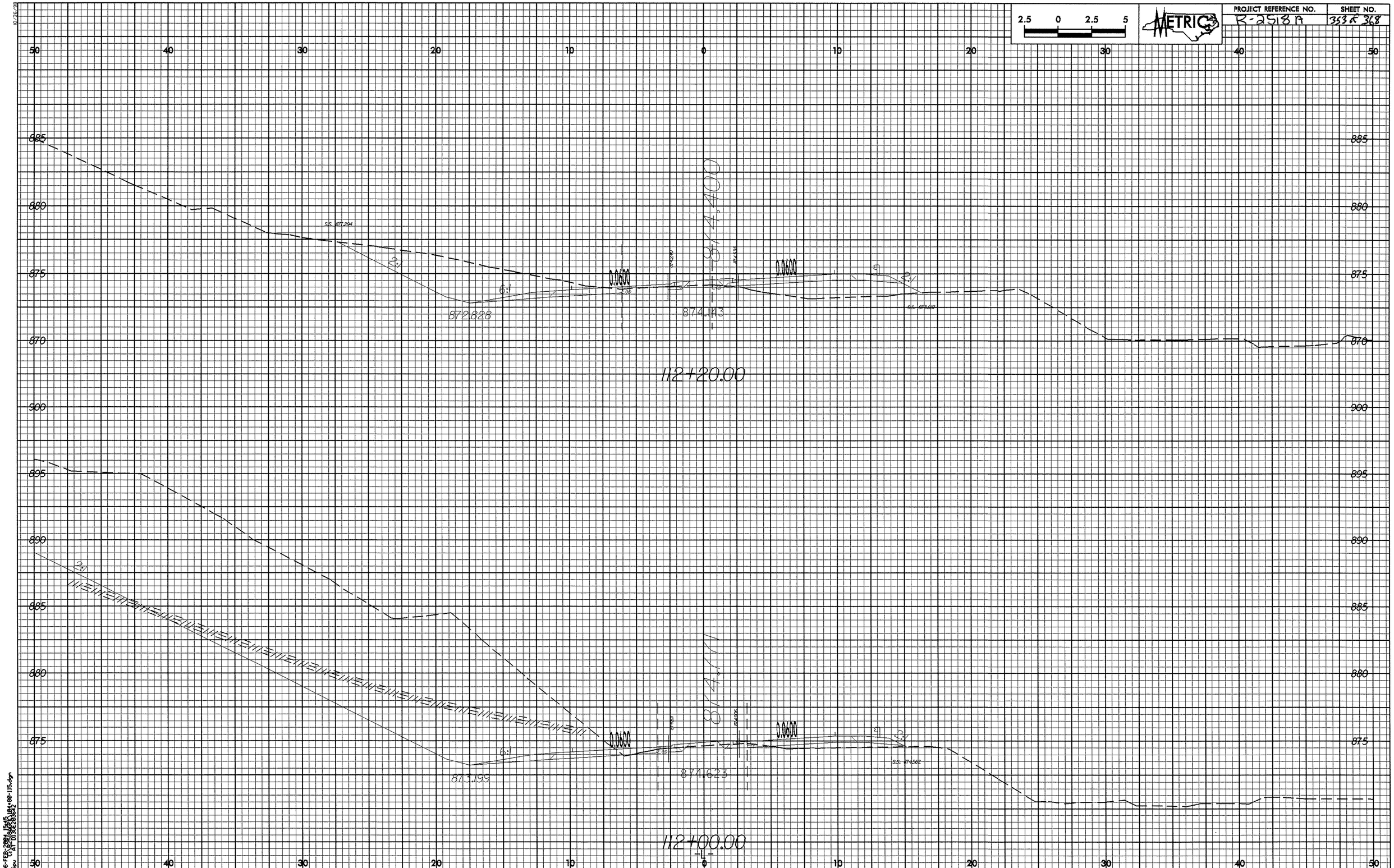
d13ge26pu



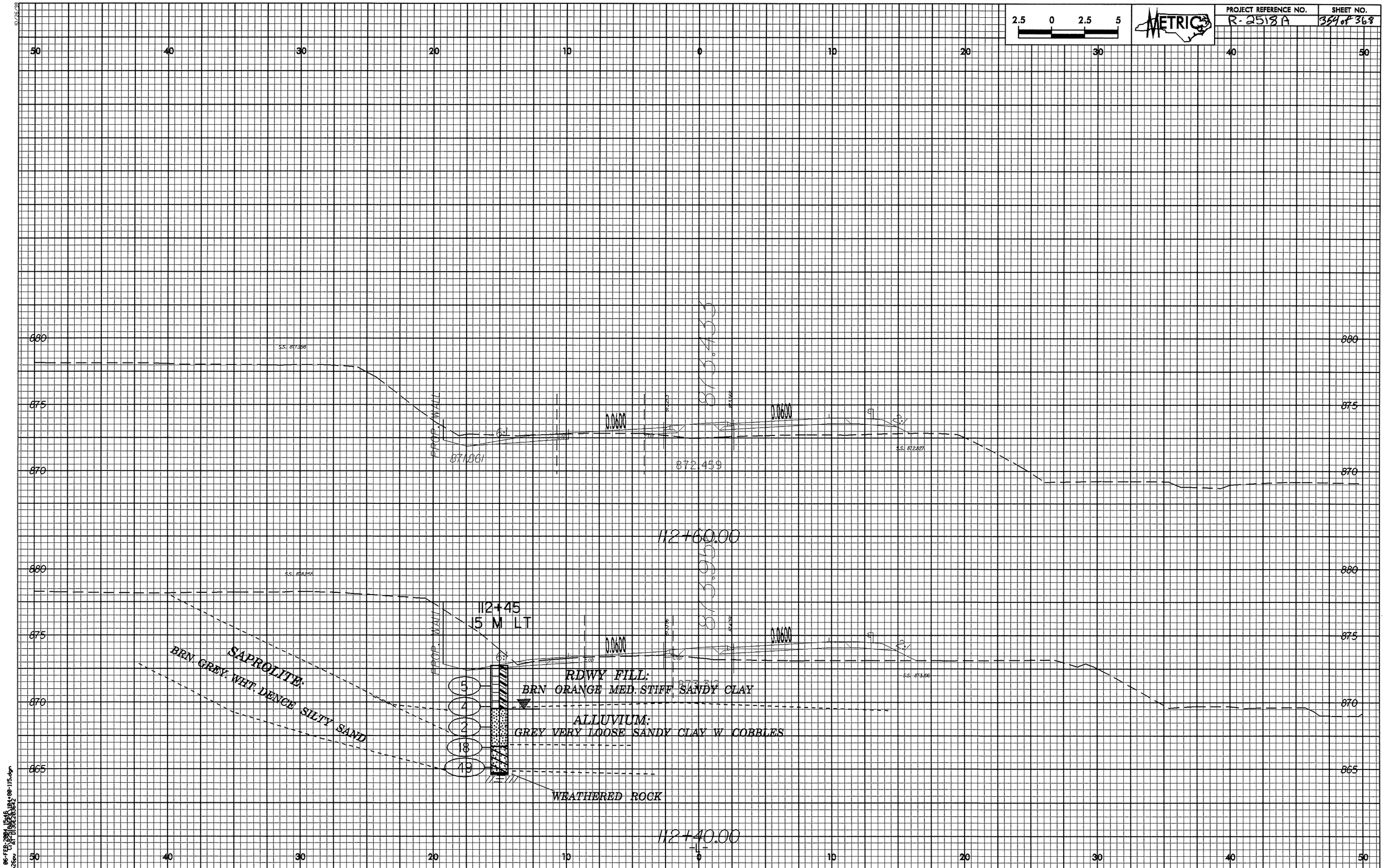
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
331 of 368
50 40 30 20 10 0 10 20 30 40 50
915
910
905
900
895
890
885
880
875
0.0600
0.0600
6:1
2:1
874.155
875.233
875.121
111+60.00
-L-



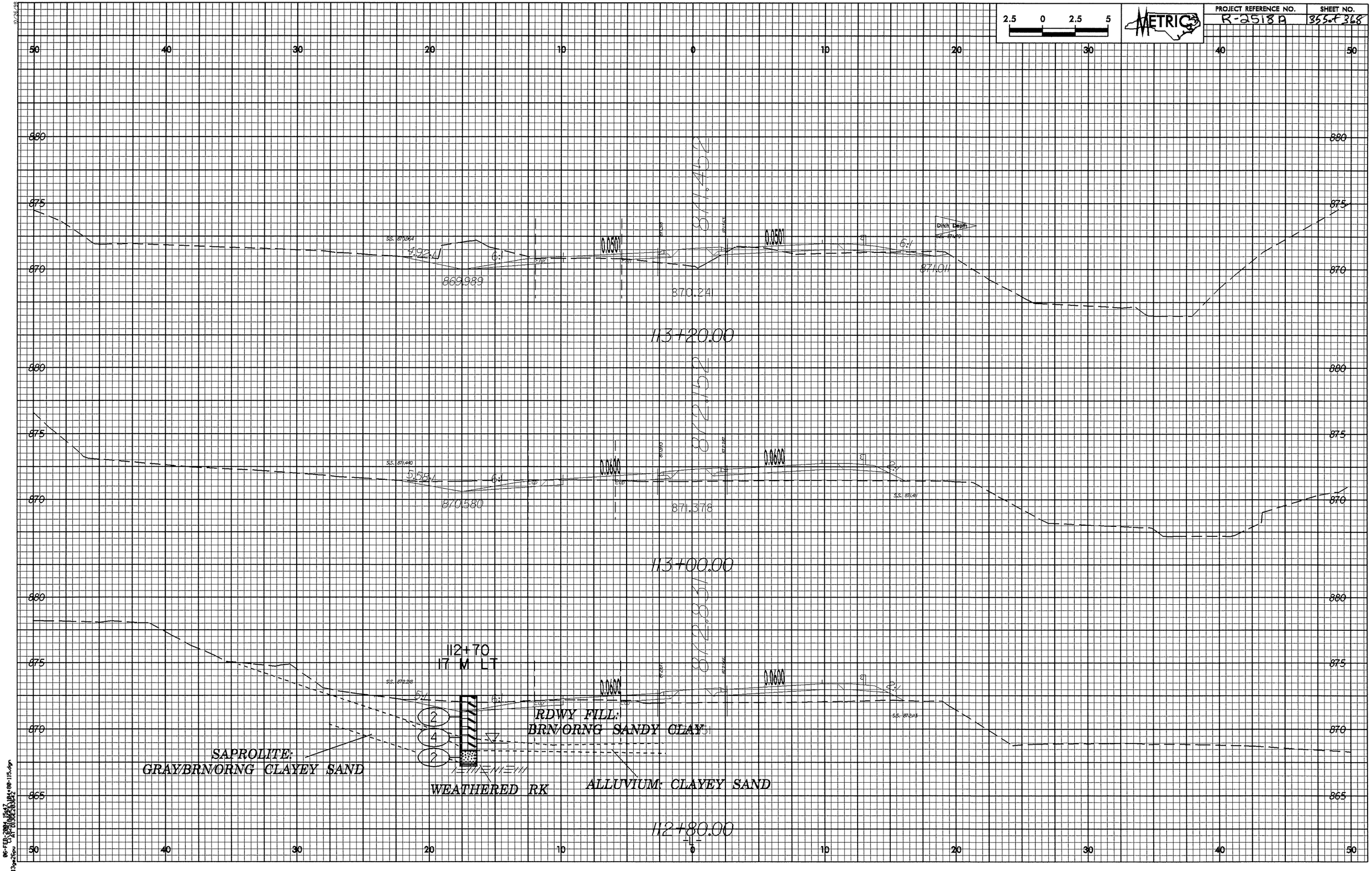
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
352 of 368
50 40 30 20 10 0 10 20 30 40 50
915
910
905
900
895
890
885
880
875
111+80
35 M LT
40
11
6
8
15
16
39
SAPROLITE: ORNG/WHT MIC. CLAYEY SILT W/RK FRAGS
SAPROLITE: BRN/ORANGE MIC. SILTY SAND W/RK FRAGS
REC=26% RQD=0%
REC=5% RQD=0%
REC=21% RQD=0%
REC=37% RQD=0%
REC=21% RQD=0%
REC=16% RQD=0%
REC=55% RQD=0%
REC=13% RQD=0%
REC=79% RQD=0%
0.0600
0.0600
873.624
874.989
875.196
111+80.00



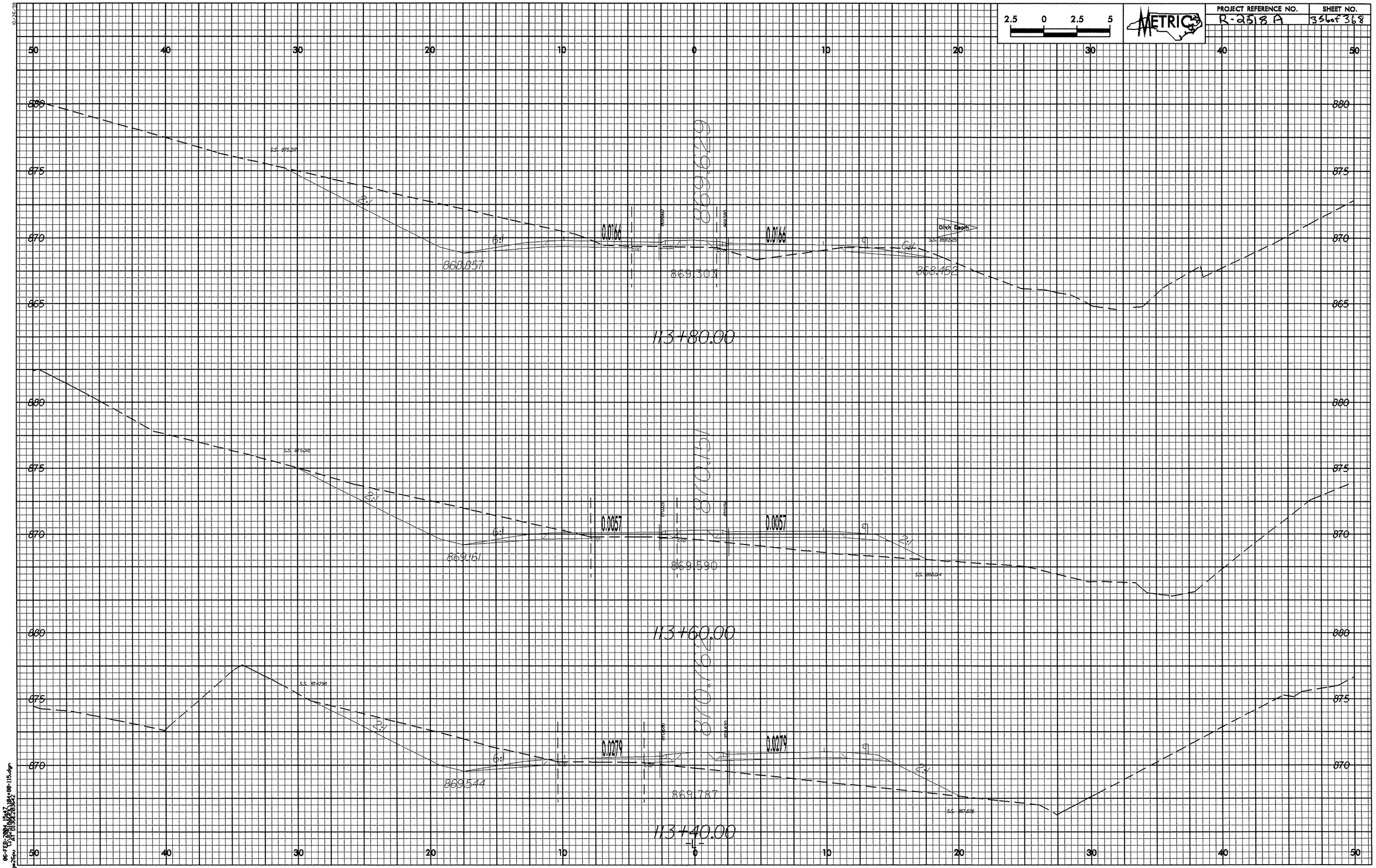
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
353 of 368
50 40 30 20 10 0 10 20 30 40 50
885 880 875 870 900 895 890 885 880 875
S.S. 877.294
2:1
6:1
0.0600
872.828
874.143
874.400
112+20.00
2:1
6:1
0.0600
873.199
874.623
874.171
112+00.00



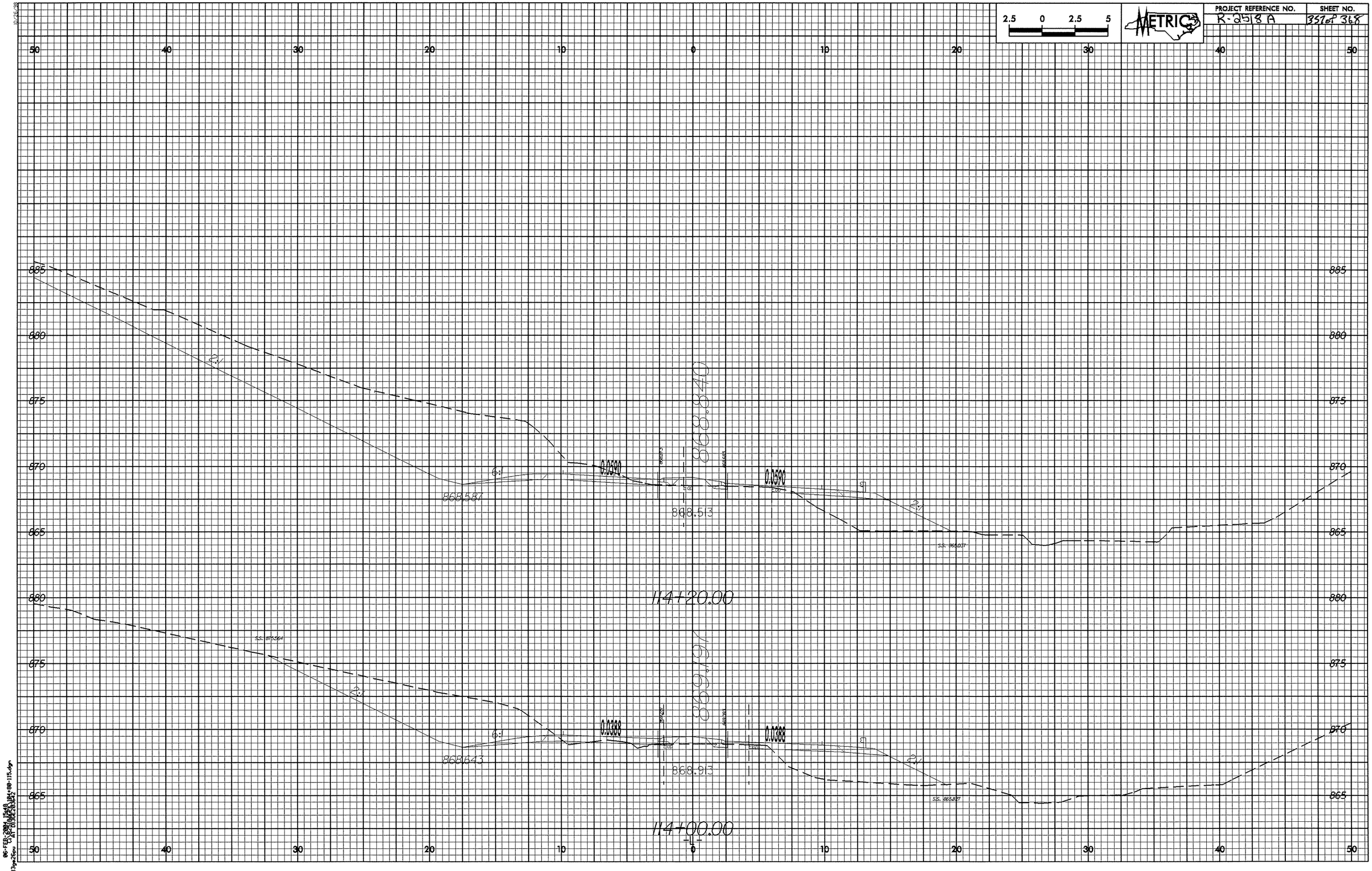
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
354 of 368
50 40 30 20 10 0 10 20 30 40 50
880
875
870
865
S.S. 877.398
PROP. WALL
871.861
872.459
873.433
0.0600
6:1
2:1
S.S. 872.827
112+60.00
873.950
S.S. 878.255
112+45
15 M LT
873.312
S.S. 873.106
SAPROLITE:
BRN. GREY. WHT. DENCE SILTY SAND
RDWY FILL:
BRN ORANGE MED. STIFF SANDY CLAY
ALLUVIUM:
GREY VERY LOOSE SANDY CLAY W COBBLES
WEATHERED ROCK
5
4
2
18
49
112+40.00
-L-



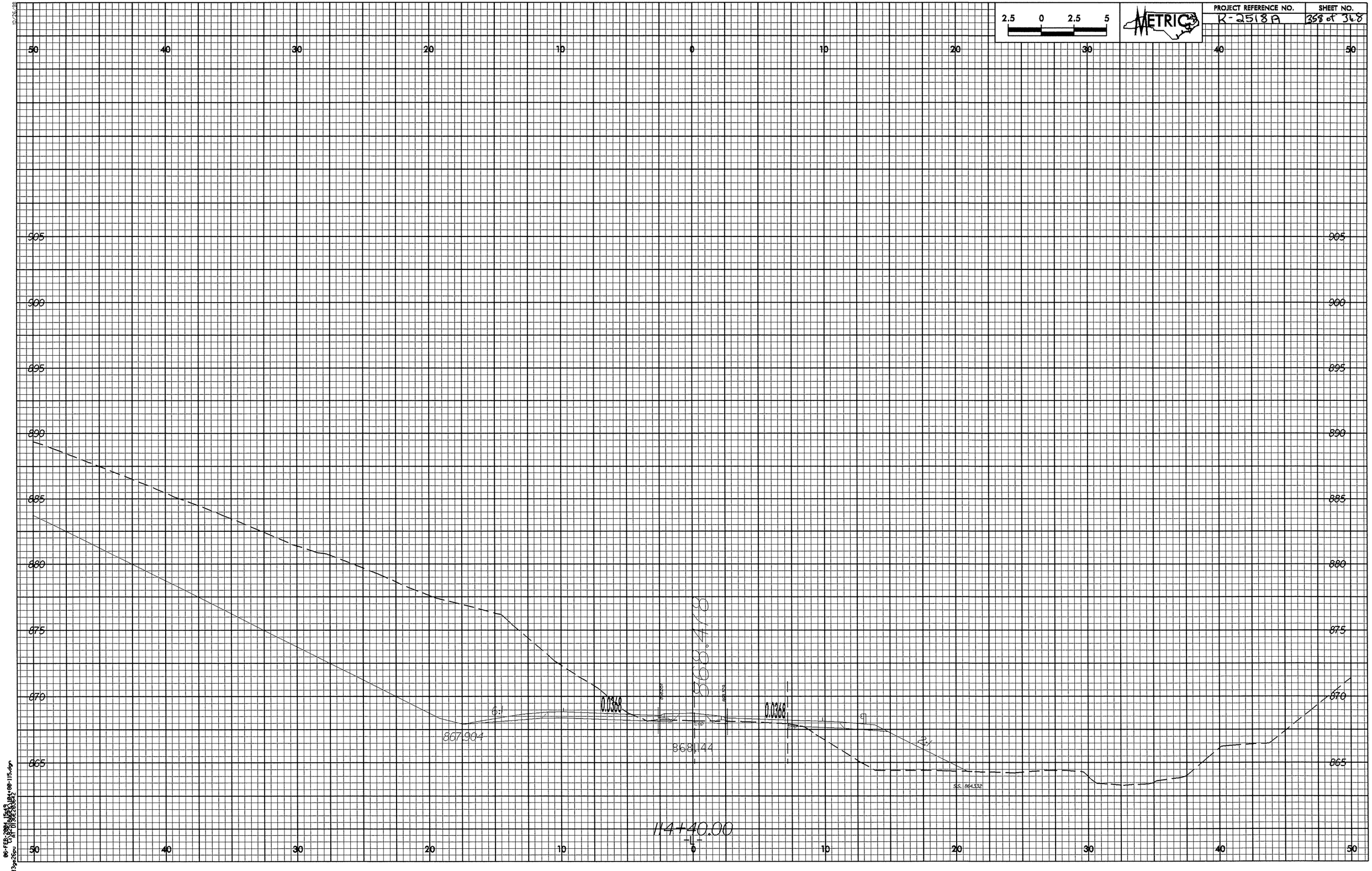
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
355 of 368
50 40 30 20 10 0 10 20 30 40 50
880
875
870
865
871.452
0.0501
0.0501
Ditch Depth
4.92:1
6:1
869.989
870.241
871.011
113+20.00
872.152
0.0600
0.0600
5.58:1
6:1
870.580
871.378
2:1
113+00.00
872.831
112+70
17 M LT
0.0600
0.0600
5:1
6:1
2:1
2
4
2
RDWY FILL:
BRN/ORNG SANDY CLAY
SAPROLITE:
GRAY/BRN/ORNG CLAYEY SAND
WEATHERED RK
ALLUVIUM: CLAYEY SAND
112+80.00



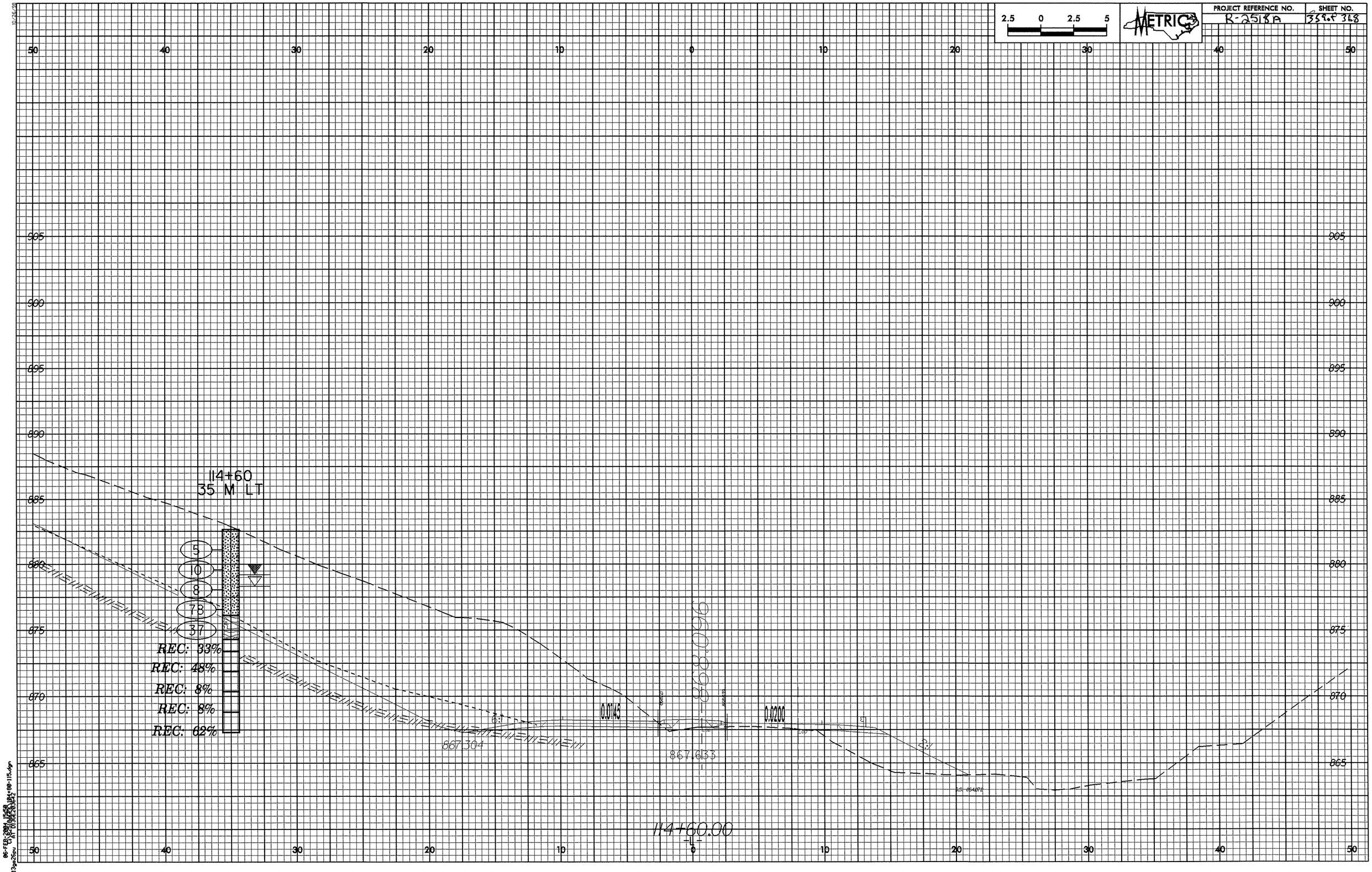
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
356 of 368
50 40 30 20 10 0 10 20 30 40 50
880
875
870
865
S.S. 875.217
2:1
6:1
0.0166
869.629
0.0166
Ditch Depth
S.S. 868.525
868.857
869.303
868.452
113+80.00
S.S. 875.012
0.0057
870.151
0.0057
869.161
869.590
S.S. 868.014
113+60.00
S.S. 874.798
0.0279
870.762
0.0279
869.544
869.787
S.S. 867.626
113+40.00



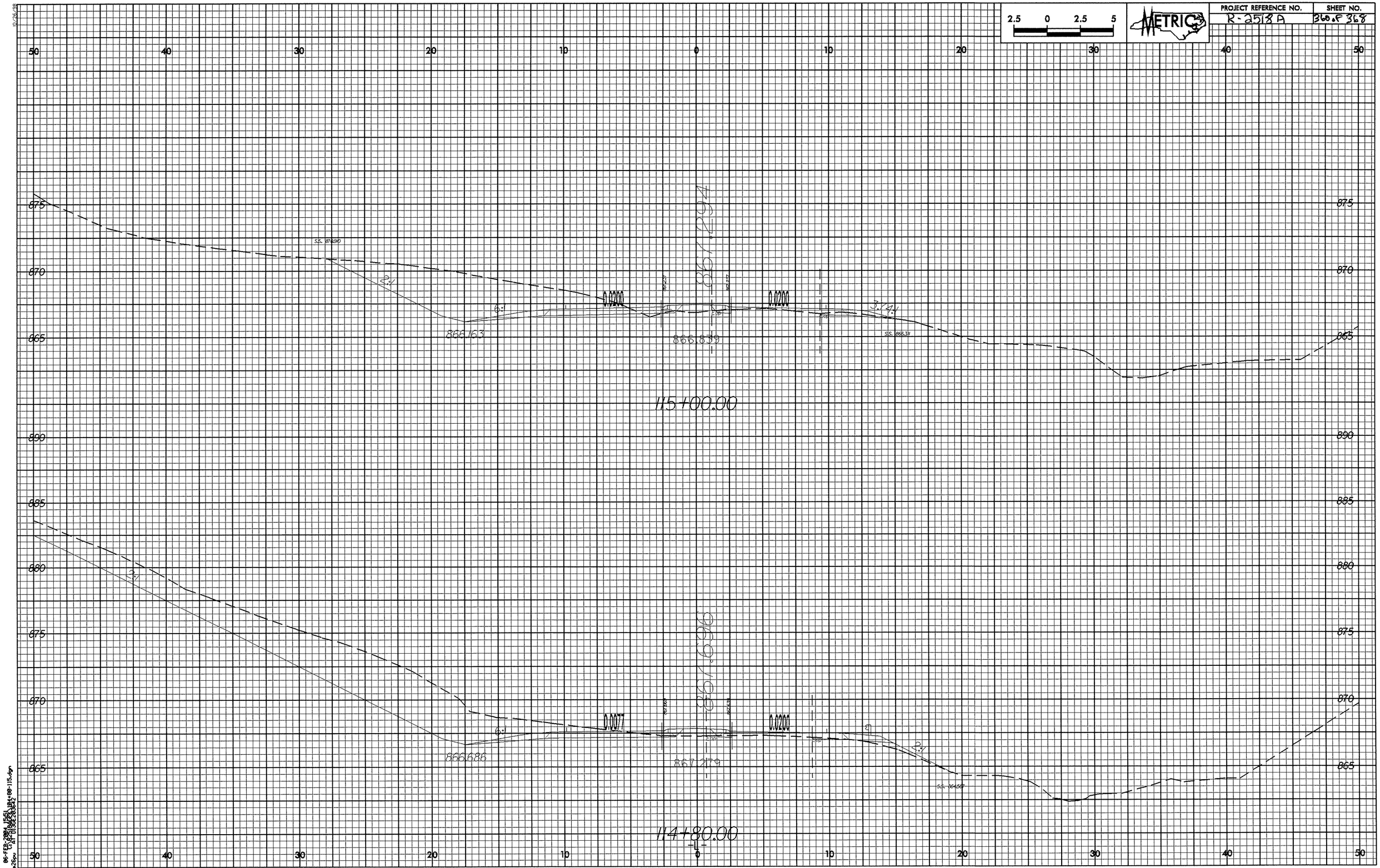
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518 A
SHEET NO.
357 of 368
50 40 30 20 10 0 10 20 30 40 50
885
880
875
870
865
2:1
6:1
0.0590
868.587
868.513
868.840
S.S. 865.037
114+20.00
S.S. 875.564
0.0388
868.643
868.913
869.197
S.S. 865.827
114+00.00
-L-



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
K-2518A
SHEET NO.
358 of 368
50 40 30 20 10 0 10 20 30 40 50
905
900
895
890
885
880
875
870
865
868.478
0.0368
0.0368
6:1
2:1
867.904
868.144
S.S. 864.332
114+40.00
-L-



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
359 of 368
50 40 30 20 10 0 10 20 30 40 50
905 900 895 890 885 880 875 870 865
114+60
35 M LT
5
10
8
78
37
REC: 33%
REC: 48%
REC: 8%
REC: 8%
REC: 62%
868.096
0.0145
0.0200
867.304
867.633
114+60.00
-L-



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2518A
SHEET NO.
360 of 368
50 40 30 20 10 0 10 20 30 40 50
875
870
865
890
885
880
875
870
865
S.S. 870.910
2:1
6:1
0.0200
867.294
866.163
866.839
3.74:1
S.S. 866.311
115+00.00
2:1
867.696
0.0077
0.0200
6:1
2:1
866.686
867.279
S.S. 864.587
114+80.00
-L-

JJL

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS-MATERIALS AND TESTS UNIT
SOILS TEST REPORT-SOILS LABORATORY

T.I.P. ID #:	--

REPORT ON SAMPLES OF:	Soils for Classification

PROJECT:	6.869005T	COUNTY:	Madison	Owner:	--
DATE SAMPLED:	5-29-03	DATE RECEIVED:	6-13-03	DATE REPORTED:	6-17-03
SAMPLED FROM:	Roadway	SAMPLED BY:	J. C. Kuhne		
SUBMITTED BY:	W. D. Frye		2002	STANDARD SPECIFICATION	
LABORATORY:	Asheville				

TEST RESULTS

Project Sample No.	SS-22	SS-23	SS-24	SS-29	SS-30	SS-33A	SS-33B	SS-39
Lab Sample No. A	141831	141832	141833	141834	141835	141836	141837	141838
HiCAMS Sample #	--	--	--	--	--	--	--	--
Retained #4 Sieve %	--	--	--	--	--	--	--	--
Passing #10 Sieve %	100	93	96	75	100	86	89	72
Passing #40 Sieve %	87	86	88	67	83	74	79	65
Passing #200 Sieve %	52	74	54	41	45	50	45	39

MINUS #10 FRACTION

Soil Mortar - 100%								
Coarse Sand -Ret. #60	24	15	16	18	28	21	18	18
Fine Sand - Ret. #270	35	43	46	41	39	28	51	46
Silt 0.05-0.005 mm %	33	34	32	25	25	23	23	26
Clay < 0.005 mm %	8	8	6	16	8	28	8	10
Passing # 40 Sieve %	--	--	--	--	--	--	--	--
Passing # 200 Sieve %	--	--	--	--	--	--	--	--

Liquid Limit	34	32	33	33	30	49	37	25
Plastic Index	NP	NP	NP	NP	NP	16	NP	NP
AASHTO Classification	A-4 (3)	A-4 (8)	A-4 (4)	A-4 (1)	A-4 (2)	A-7-6 (6)	A-4 (2)	A-4 (1)
Quantity								
Texture								
Station	92+60 RT	92+60 RT	92+60 RT	92+70 RT	92+70 RT	95+80 RT	95+80 RT	95+80 RT
Hole No.								
Depth (ft) From:	1.7	1.52	4.27	1.34	2.87	1.94	2.02	10.64
To:	1.7	1.52	4.72	1.61	3.32	1.94	2.02	11.09

Remarks:

A-141831 – A-141839

CC:

W. D. Frye	
J. J. Lail	
File	

SOILS ENGINEER:	

JJL

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS-MATERIALS AND TESTS UNIT
SOILS TEST REPORT-SOILS LABORATORY

T.I.P. ID #:	--

REPORT ON SAMPLES OF:	Soils for Classification

PROJECT:	6.869005T	COUNTY:	Madison	Owner:	--
DATE SAMPLED:	5-29-03	DATE RECEIVED:	6-13-03	DATE REPORTED:	6-17-03
SAMPLED FROM:	Roadway	SAMPLED BY:	J. C. Kuhne		
SUBMITTED BY:	W. D. Frye		2002	STANDARD SPECIFICATION	
LABORATORY:	Asheville				

TEST RESULTS

Project Sample No.	SS-42							
Lab Sample No. A	141839							
HiCAMS Sample #	--							
Retained #4 Sieve %	--							
Passing #10 Sieve %	100							
Passing #40 Sieve %	93							
Passing #200 Sieve %	40							

MINUS #10 FRACTION

Soil Mortar - 100%								
Coarse Sand -Ret. #60	19							
Fine Sand - Ret. #270	61							
Silt 0.05-0.005 mm %	14							
Clay < 0.005 mm %	6							
Passing # 40 Sieve %	--							
Passing # 200 Sieve %	--							

Liquid Limit	20							
Plastic Index	NP							
AASHTO Classification	A-4 (1)							
Quantity								
Texture								
Station	97+30 RT							
Hole No.								
Depth (ft) From:	1.49							
To:	1.94							

Remarks:

A-141831 – A-141839

CC:

W. D. Frye	
J. J. Lail	
File	

SOILS ENGINEER:	

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NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS-MATERIALS AND TESTS UNIT
SOILS TEST REPORT-SOILS LABORATORY

T.I.P. ID #:	

REPORT ON SAMPLES OF:	Soils for Classification

PROJECT:	R-2518A	COUNTY:		Owner:	--
DATE SAMPLED:	6-2-03	DATE RECEIVED:	7-2-03	DATE REPORTED:	7-22-03
SAMPLED FROM:	Rdw – -L-	SAMPLED BY:	J C Kuhne		
SUBMITTED BY:	W D Frye	2002	STANDARD SPECIFICATION		
LABORATORY:	Asheville				

TEST RESULTS

Project Sample No.	SS-45	SS-48	SS-49	SS-51	SS-52	SS-53	SS-57	SS-60
Lab Sample No. A-	142082	142083	142084	142085	142086	142087	142088	142089
HiCAMS Sample #	--	--	--	--	--	--	--	--
Retained #4 Sieve %	--	--	--	--	--	--	--	--
Passing #10 Sieve %	64	61	76	91	93	90	89	88
Passing #40 Sieve %	49	51	55	79	75	72	77	71
Passing #200 Sieve %	29	33	26	36	38	37	33	53

MINUS #10 FRACTION

Soil Mortar - 100%								
Coarse Sand -Ret. #60	34	26	40	26	29	33	26	25
Fine Sand - Ret. #270	30	27	36	45	41	36	47	9
Silt 0.05-0.005 mm %	24	28	16	21	22	23	19	27
Clay < 0.005 mm %	12	19	8	8	8	8	8	39
Passing # 40 Sieve %	--	--	--	--	--	--	--	--
Passing # 200 Sieve %	--	--	--	--	--	--	--	--

Liquid Limit	29	30	32	31	35	38	25	58
Plastic Index	4	9	NP	NP	NP	NP	NP	27
AASHTO Classification	A-2-4 (0)	A-2-4 (0)	A-2-4 (0)	A-4 (0)	A-4 (1)	A-4 (0)	A-2-4 (0)	A-7-5 (12)
Quantity								
Texture								
Station	87+45	86+80	86+80	90+40	107+10	107+10	107+10	106+12
Hole No.								
Depth (m) From:	3.05	1.89	--	2.04	1.71	3.23	9.31	1.98
To:	3.50	2.34	--	2.49	2.17	3.69	9.77	2.44

Remarks:

A-142082 through A-142091

CC:

W D Frye	
J J Lail	
File	

SOILS ENGINEER:	

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NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS-MATERIALS AND TESTS UNIT
SOILS TEST REPORT-SOILS LABORATORY

T.I.P. ID #:	

REPORT ON SAMPLES OF:	Soils for Classification

PROJECT:	R-2518A	COUNTY:		Owner:	--
DATE SAMPLED:	6-29-03	DATE RECEIVED:	7-2-03	DATE REPORTED:	7-22-03
SAMPLED FROM:	Rdw – -L-	SAMPLED BY:	J C Kuhne		
SUBMITTED BY:	W D Frye	2002	STANDARD SPECIFICATION		
LABORATORY:	Asheville				

TEST RESULTS

Project Sample No.	SS-61	SS-62						
Lab Sample No. A-	142090	142091						
HiCAMS Sample #	--	--						
Retained #4 Sieve %	--	--						
Passing #10 Sieve %	74	97						
Passing #40 Sieve %	55	82						
Passing #200 Sieve %	33	49						

MINUS #10 FRACTION

Soil Mortar - 100%								
Coarse Sand -Ret. #60	36	27						
Fine Sand - Ret. #270	26	32						
Silt 0.05-0.005 mm %	26	31						
Clay < 0.005 mm %	12	10						
Passing # 40 Sieve %	--	--						
Passing # 200 Sieve %	--	--						

Liquid Limit	35	32						
Plastic Index	NP	NP						
AASHTO Classification	A-2-4 (0)	A-4 (3)						
Quantity								
Texture								
Station	106+12	106+12						
Hole No.								
Depth (m) From:	3.50	5.02						
To:	3.96	5.48						

Remarks:

A-142082 through A-142091

CC:

W D Frye	
J J Lail	
File	

SOILS ENGINEER:	

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NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS-MATERIALS AND TESTS UNIT
SOILS TEST REPORT-SOILS LABORATORY

T.I.P. ID #:	R-2518A

REPORT ON SAMPLES OF:	Soil for Classification

PROJECT:	6.869005T	COUNTY:	--	Owner:	--
DATE SAMPLED:	7-10-03	DATE RECEIVED:	7-18-03	DATE REPORTED:	7-29-03
SAMPLED FROM:	Rdw	SAMPLED BY:	J C Kuhne		
SUBMITTED BY:	W D Frye	2002	STANDARD SPECIFICATION		
LABORATORY:	Asheville				

TEST RESULTS

Project Sample No.	SS-63	SS-64	SS-65	SS-66	SS-67	SS-68	SS-69	SS-70
Lab Sample No. A-	142250	142251	142252	142253	142254	142255	142256	142257
HiCAMS Sample #	--	--	--	--	--	--	--	--
Retained #4 Sieve %	--	--	--	--	-	--	--	--
Passing #10 Sieve %	100		100		100	100	80	99
Passing #40 Sieve %	90		85		95	94	58	80
Passing #200 Sieve %	54		54		55	67	20	44

MINUS #10 FRACTION

Soil Mortar - 100%								
Coarse Sand -Ret. #60	20		20		14	12	47	32
Fine Sand - Ret. #270	36		38		48	31	35	34
Silt 0.05-0.005 mm %	40		34		28	29	10	24
Clay < 0.005 mm %	4		8		10	28	8	10
Passing # 40 Sieve %	--		--		--	--	--	--
Passing # 200 Sieve %	--		--		--	--	--	--

Liquid Limit	25		29		35	37	22	30
Plastic Index	NP		NP		NP	10	NP	NP
AASHTO Classification	A-4 (4)		A-4 (4)		A-4 (4)	A-4 (7)	A-2-4 (0)	A-4 (2)
Quantity								
Texture								
Station	105+78 Rt		105+00 Rt		108+80 Rt	107+60 Rt	108+80	105+30 Lt
Hole No.								
Depth (m) From:	1.80		1.95		1.52	6.58	2.74	3.10
To:	2.26		2.41		1.98	7.04	3.20	3.56

Remarks:

Not enough material to properly test SS-64 and SS-66 A-142250 thru A-142258

CC:

W D Frye	
J J Lail	
File	

SOILS ENGINEER:	

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NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS-MATERIALS AND TESTS UNIT
SOILS TEST REPORT-SOILS LABORATORY

T.I.P. ID #:	R-2518A

REPORT ON SAMPLES OF:	Soil for Classification

PROJECT:	6.869005T	COUNTY:	--	Owner:	--
DATE SAMPLED:	7-9-03	DATE RECEIVED:	7-18-03	DATE REPORTED:	7-29-03
SAMPLED FROM:	Rdw	SAMPLED BY:	J C Kuhne		
SUBMITTED BY:	W D Frye	2002	STANDARD SPECIFICATION		
LABORATORY:	Asheville				

TEST RESULTS

Project Sample No.	SS-71							
Lab Sample No.	A-142258							
HiCAMS Sample #	--							
Retained #4 Sieve %	--							
Passing #10 Sieve %	94							
Passing #40 Sieve %	78							
Passing #200 Sieve %	37							

MINUS #10 FRACTION

Soil Mortar - 100%								
Coarse Sand -Ret. #60	31							
Fine Sand - Ret. #270	39							
Silt 0.05-0.005 mm %	20							
Clay < 0.005 mm %	10							
Passing # 40 Sieve %	--							
Passing # 200 Sieve %	--							

Liquid Limit	27							
Plastic Index	NP							
AASHTO Classification	A-4 (1)							
Quantity								
Texture								
Station	105+30 Lt							
Hole No.								
Depth (m) From:	4.62							
To:	5.08							

Remarks:

A-142250 thru A-152258

CC:

W D Frye	
J J Lail	
File	

SOILS ENGINEER:	

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NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS-MATERIALS AND TESTS UNIT
SOILS TEST REPORT-SOILS LABORATORY

T.I.P. ID #:	R-2518A

REPORT ON SAMPLES OF:	Soil for Classification

PROJECT:	6.869005T	COUNTY:	--	Owner	--
DATE SAMPLED:	7-25-03	DATE RECEIVED:	7-31-03	DATE REPORTED:	8-18-03
SAMPLED FROM:	Rdwy	SAMPLED BY:	J C Kuhne		
SUBMITTED BY:	W D Frye	2002	STANDARD SPECIFICATION		
LABORATORY:	Asheville				

TEST RESULTS

Project Sample No.	SS-72	SS-73	SS-74	SS-75	SS-76	SS-77	SS-78	SS-79
Lab Sample No. A-	142417	142418	142419	142420	142421	142422	142423	142424
HiCAMS Sample #	--	--	--	--	--	--	--	--
Retained #4 Sieve %	--	--	--	--	--	--	--	--
Passing #10 Sieve %	77	99	99	100	100	99	98	100
Passing #40 Sieve %	64	84	82	88	92	77	81	91
Passing #200 Sieve %	40	45	47	47	56	39	43	47

MINUS #10 FRACTION

Soil Mortar - 100%								
Coarse Sand -Ret. #60	25	28	25	21	14	32	29	16
Fine Sand - Ret. #270	35	38	36	43	45	36	37	52
Silt 0.05-0.005 mm %	32	26	31	30	33	24	28	28
Clay < 0.005 mm %	8	8	8	6	8	8	6	4
Passing # 40 Sieve %	--	--	--	--	--	--	--	--
Passing # 200 Sieve %	--	--	--	--	--	--	--	--

Liquid Limit	26	37	37	36	48	26	33	41
Plastic Index	NP	NP	NP	NP	NP	NP	NP	NP
AASHTO Classification	A-4 (1)	A-4 (2)	A-4 (2)	A-4 (2)	A-5 (5)	A-4 (1)	A-4 (2)	A-5 (3)
Quantity								
Texture								
Station	11+00 Y-21	111+80 Lt	111+80 Lt	111+80 Lt	110+57 Lt	11+32 Y-21	11+32 CL	114+60 Lt
Hole No.								
Depth (m) From:	2.13	2.10	3.63	6.75	1.52	3.29	6.03	1.52
To:	2.58	2.55	7.08	7.20	1.98	3.74	6.78	1.98

Remarks:

A-142417 thru A-142430

CC:

W D Frye	
J J Lail	
File	

SOILS ENGINEER:	

M&T 503E

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NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS-MATERIALS AND TESTS UNIT
SOILS TEST REPORT-SOILS LABORATORY

T.I.P. ID #:	R-2518A

REPORT ON SAMPLES OF:	Soil for Classification

PROJECT:	6.869005T	COUNTY:	--	Owner	--
DATE SAMPLED:	7-25-03	DATE RECEIVED:	7-31-03	DATE REPORTED:	8-18-03
SAMPLED FROM:	Rdwy	SAMPLED BY:	J C Kuhne		
SUBMITTED BY:	W D Frye	2002	STANDARD SPECIFICATION		
LABORATORY:	Asheville				

TEST RESULTS

Project Sample No.	SS-81	SS-82	SS-83	SS-84	SS-85	SS-86		
Lab Sample No. A-	142425	142426	142427	142428	142429	142430		
HiCAMS Sample #	--	--	--	--	--	--		
Retained #4 Sieve %	--	--	--	--	--	--		
Passing #10 Sieve %	77	96	98	99	98	100		
Passing #40 Sieve %	76	81	88	88	90	83		
Passing #200 Sieve %	49	53	55	55	47	41		

MINUS #10 FRACTION

Soil Mortar - 100%								
Coarse Sand -Ret. #60	28	24	19	16	19	31		
Fine Sand - Ret. #270	34	29	34	39	45	35		
Silt 0.05-0.005 mm %	32	27	27	29	32	24		
Clay < 0.005 mm %	6	20	20	16	4	10		
Passing # 40 Sieve %	--	--	--	--	--	--		
Passing # 200 Sieve %	--	--	--	--	--	--		

Liquid Limit	31	37	34	33	31	30		
Plastic Index	NP	9	8	8	NP	NP		
AASHTO Classification	A-4 (3)	A-4 (3)	A-4 (4)	A-4 (4)	A-4 (2)	A-4 (1)		
Quantity								
Texture								
Station	114+60 Lt	112+45 Lt	112+45 Lt	112+45 Lt	112+45 Lt	112+70 Lt		
Hole No.								
Depth (m) From:	7.62	3.04	4.56	6.10	7.62	4.56		
To:	8.08	3.49	5.01	6.55	8.08	5.01		

Remarks:

A-142417 thru A-142430

CC:

W D Frye	
J J Lail	
File	

SOILS ENGINEER:	

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NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS-MATERIALS AND TESTS UNIT
SOILS TEST REPORT-SOILS LABORATORY

T.I.P. ID #:	R-2518A

REPORT ON SAMPLES OF:	Soil for Classification

PROJECT:	6.869005	COUNTY:	--	Owner:	--		
DATE SAMPLED:	7-8-03	DATE RECEIVED:	8-11-03	DATE REPORTED:	8-19-03		
SAMPLED FROM:	Rdw Elevation	SAMPLED BY:	D P Murphy				
SUBMITTED BY:	W D Frye	2002	STANDARD SPECIFICATION				
LABORATORY:	Asheville						

TEST RESULTS

Project Sample No.	SS-101	SS-102	SS-103	SS-104	SS-105	SS-106	SS-107	SS-108
Lab Sample No. A-	142587	142588	142589	142590	142591	142592	142593	142594
HiCAMS Sample #	--	--	--	--	--	--	--	--
Retained #4 Sieve %	--	--	--	--	--	--	--	--
Passing #10 Sieve %	97	99	86	90	95	99	99	100
Passing #40 Sieve %	76	67	44	65	82	96	93	95
Passing #200 Sieve %	56	33	23	52	46	70	60	56

MINUS #10 FRACTION

Soil Mortar - 100%								
Coarse Sand -Ret. #60	31	46	61	34	24	5	12	10
Fine Sand - Ret. #270	12	21	13	9	37	30	42	51
Silt 0.05-0.005 mm %	21	25	20	31	21	33	36	33
Clay < 0.005 mm %	36	8	6	26	18	32	10	6
Passing # 40 Sieve %	--	--	--	--	--	--	--	--
Passing # 200 Sieve %	--	--	--	--	-	--	--	--

Liquid Limit	45	33	39	35	32	54	39	48
Plastic Index	29	NP	NP	15	8	14	3	NP
AASHTO Classification	A-7-6 (12)	A-2-4 (0)	A-1-b (0)	A-6 (5)	A-4 (2)	A-7-5 (11)	A-4 (5)	A-5 (5)
Quantity								
Texture								
Station	80+00 Rt	80+00 Rt	78+40 Lt	75+80 Rt	74+80 Rt	73+80 Rt	73+80 Rt	73+80 Rt
Hole No.	-L-	-L-	-L-					-L-
Depth (m) From:	1.13	2.65	3.95	0.97	1.00	0.94	3.98	7.02
To:	1.58	3.10	4.40	1.42	1.45	1.39	4.43	7.43

Remarks:

A-142587 thru A-142606

CC:

W D Frye	
J J Lail	
File	

SOILS ENGINEER:	

M&T 503E

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NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS-MATERIALS AND TESTS UNIT
SOILS TEST REPORT-SOILS LABORATORY

T.I.P. ID #:	R-2518A

REPORT ON SAMPLES OF:	Soil for Classification

PROJECT:	6.869005	COUNTY:	--	Owner:	--		
DATE SAMPLED:	7-8-03	DATE RECEIVED:	8-11-03	DATE REPORTED:	8-19-03		
SAMPLED FROM:	Rdw Elevation	SAMPLED BY:	D P Murphy				
SUBMITTED BY:	W D Frye	2002	STANDARD SPECIFICATION				
LABORATORY:	Asheville						

TEST RESULTS

Project Sample No.	SS-109	SS-110	SS-111	SS-112	SS-113	SS-114	SS-115	SS-116
Lab Sample No. A-	142595	142596	142597	142598	142599	142600	142601	142602
HiCAMS Sample #	--	--	--	--	--	--	--	--
Retained #4 Sieve %	--	--	--	--	--	--	--	--
Passing #10 Sieve %	96	100	95	100	99	91	98	91
Passing #40 Sieve %	91	91	84	97	90	72	85	75
Passing #200 Sieve %	55	54	40	57	43	34	40	42

MINUS #10 FRACTION

Soil Mortar - 100%								
Coarse Sand -Ret. #60	15	18	22	9	21	36	24	27
Fine Sand - Ret. #270	35	44	46	55	47	35	45	37
Silt 0.05-0.005 mm %	16	32	18	24	26	19	23	24
Clay < 0.005 mm %	34	6	14	12	6	10	8	12
Passing # 40 Sieve %	--	--	--	--	--	--	--	--
Passing # 200 Sieve %	--	--	--	--	-	--	--	--

Liquid Limit	47	38	32	43	36	33	29	33
Plastic Index	19	NP	NP	NP	NP	6	NP	NP
AASHTO Classification	A-7-6 (8)	A-4 (4)	A-4 (1)	A-5 (5)	A-4 (2)	A-2-4 (0)	A-4 (1)	A-4 (1)
Quantity								
Texture								
Station	75+40 Rt	70+80 Rt	69+80 Rt	68+60 Rt	67+80 Rt	67+80 Rt	67+20 kRt	67+20 Rt
Hole No.	-L-	-L-	-L-	-L-	-L-	-L-	-L-	-L-
Depth (m) From:	1.13	2.65	3.95	0.97	1.00	0.94	3.98	7.02
To:	1.58	3.10	4.40	1.42	1.45	1.39	4.43	7.43

Remarks:

A-142587 thru A-142606

CC:

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J J Lail	
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SOILS ENGINEER:	

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NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS-MATERIALS AND TESTS UNIT
SOILS TEST REPORT-SOILS LABORATORY

T.I.P. ID #:	R-2518A

REPORT ON SAMPLES OF:	Soil for Classification

PROJECT:	6.869005	COUNTY:	--	Owner:	--		
DATE SAMPLED:	7-8-03	DATE RECEIVED:	8-11-03	DATE REPORTED:	8-19-03		
SAMPLED FROM:	Rdw Elevation	SAMPLED BY:	D P Murphy				
SUBMITTED BY:	W D Frye	2002	STANDARD SPECIFICATION				
LABORATORY:	Asheville						

TEST RESULTS

Project Sample No.	SS-117	SS-118	SS-119	SS-120				
Lab Sample No. A-	142603	142604	142605	142606				
HiCAMS Sample #	--	--	--	--				
Retained #4 Sieve %	--	--	--	--				
Passing #10 Sieve %	100	76	94	84				
Passing #40 Sieve %	99	57	81	70				
Passing #200 Sieve %	75	31	43	44				

MINUS #10 FRACTION

Soil Mortar - 100%								
Coarse Sand -Ret. #60	2	37	24	25				
Fine Sand - Ret. #270	41	29	39	30				
Silt 0.05-0.005 mm %	35	20	21	23				
Clay < 0.005 mm %	22	14	16	22				
Passing # 40 Sieve %	--	--	--	--				
Passing # 200 Sieve %	--	--	--	--				
Liquid Limit	50	31	31	36				
Plastic Index	12	10	9	12				
AASHTO Classification	A-7-5 (11)	A-2-4 (0)	A-4 (2)	A-6 (2)				
Quantity								
Texture								
Station	66+20 Rt	64+50 Rt	60+60 Lt	61+20 Rt				
Hole No.	-L-	-L-	-L-	-L-				
Depth (m) From:	1.00	5.29	2.57	2.63				
To:	1.45	5.74	3.02	3.10				

Remarks:

A-142587 thru A-142606

CC:

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J J Lail	
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NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS-MATERIALS AND TESTS UNIT
SOILS TEST REPORT-SOILS LABORATORY

T.I.P. ID #:	

REPORT ON SAMPLES OF:	Soil for Classification

PROJECT:	6.869005	COUNTY:	Madison	Owner:	--		
DATE SAMPLED:	8-4-03	DATE RECEIVED:	8-25-03	DATE REPORTED:	9-3-03		
SAMPLED FROM:	Rdwy - CL	SAMPLED BY:	D P Murphy				
SUBMITTED BY:	W D Frye	2002	STANDARD SPECIFICATION				
LABORATORY:	Asheville						

TEST RESULTS

Project Sample No.	SS-121	SS-122	SS-123	SS-124	SS-125	SS-126	SS-127	SS-128
Lab Sample No. A-	142841	142842	142843	142844	142845	142846	142847	142848
HiCAMS Sample #	--	--	--	--	--	--	--	--
Retained #4 Sieve %	--	--	--	--	--	--	--	--
Passing #10 Sieve %	65	81	86	99	98	98	96	87
Passing #40 Sieve %	46	66	59	74	91	76	65	72
Passing #200 Sieve %	29	40	28	49	61	52	42	43

MINUS #10 FRACTION

Soil Mortar - 100%								
Coarse Sand -Ret. #60	38	25	43	35	14	30	38	23
Fine Sand - Ret. #270	27	31	32	21	40	23	24	42
Silt 0.05-0.005 mm %	29	24	19	22	34	21	28	31
Clay < 0.005 mm %	6	20	6	22	12	26	10	4
Passing # 40 Sieve %	--	--	--	--	--	--	--	--
Passing # 200 Sieve %	--	--	--	--	--	--	--	--
Liquid Limit	31	31	26	48	41	46	32	23
Plastic Index	NP	9	NP	13	NP	12	NP	NP
AASHTO Classification	A-2-4 (0)	A-4 (1)	A-2-4 (0)	A-7-5 (5)	A-5 (5)	A-7-5 (5)	A-4 (1)	A-4 (1)
Quantity								
Texture								
Station	59+00 Rt	55+60 Rt	54+60 Lt	52+40 Rt	52+40 Rt	53+00 Rt	53+00 Rt	49+00 Rt
Hole No.								
Depth (m) From:	2.47	1.00	4.19	0.90	2.42	0.91	3.95	2.56
To:	2.92	1.45	4.65	1.35	2.97	1.37	4.40	3.01

Remarks:

A-142841 thru A-142850

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NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS-MATERIALS AND TESTS UNIT
SOILS TEST REPORT-SOILS LABORATORY

T.I.P. ID #:	

REPORT ON SAMPLES OF:	Soil for Classification

PROJECT:	6.869005	COUNTY:	Madison	Owner:	--
DATE SAMPLED:	8-20-03	DATE RECEIVED:	8-25-03	DATE REPORTED:	9-3-03
SAMPLED FROM:	Rdwy - CL	SAMPLED BY:	D P Murphy		
SUBMITTED BY:	W D Frye		2002	STANDARD SPECIFICATION	
LABORATORY:	Asheville				

TEST RESULTS

Project Sample No.	SS-129	SS-130						
Lab Sample No. A-	142849	142850						
HiCAMS Sample #	--	--						
Retained #4 Sieve %	--	--						
Passing #10 Sieve %	99	78						
Passing #40 Sieve %	92	61						
Passing #200 Sieve %	30	37						

MINUS #10 FRACTION

Soil Mortar - 100%								
Coarse Sand -Ret. #60	17	30						
Fine Sand - Ret. #270	64	29						
Silt 0.05-0.005 mm %	15	23						
Clay < 0.005 mm %	4	18						
Passing # 40 Sieve %	--	--						
Passing # 200 Sieve %	--	--						
Liquid Limit	32	27						
Plastic Index	NP	4						
AASHTO Classification	A-2-4 (0)	A-4 (0)						
Quantity								
Texture								
Station	45+50 Rt	44+40 Rt						
Hole No.								
Depth (m) From:	2.45	2.79						
To:	2.90	3.24						

Remarks:

A-142841 thru A-142850

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NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS-MATERIALS AND TESTS UNIT
SOILS TEST REPORT-SOILS LABORATORY

T.I.P. ID #:	R-2518A

REPORT ON SAMPLES OF:	Soil for Classification

PROJECT:	6.869005	COUNTY:	--	Owner:	--
DATE SAMPLED:	9-3-03	DATE RECEIVED:	9-25-03	DATE REPORTED:	9-30-03
SAMPLED FROM:	Rdw Elevation –L-	SAMPLED BY:	D P Murphy		
SUBMITTED BY:	W D Frye		2002	STANDARD SPECIFICATION	
LABORATORY:	Asheville				

TEST RESULTS

Project Sample No.	SS-131	SS-132	SS-133	SS-134	SS-135	SS-136	SS-137	SS-138
Lab Sample No. A-	143248	143249	143250	143251	143252	143253	143254	143255
HiCAMS Sample #	--	--	--	--	--	--	--	--
Retained #4 Sieve %	--	--	--	--	--	--	--	--
Passing #10 Sieve %	99	94	99	98	93	100	88	65
Passing #40 Sieve %	83	89	96	86	86	95	71	52
Passing #200 Sieve %	47	53	59	49	54	50	36	29

MINUS #10 FRACTION

Soil Mortar - 100%								
Coarse Sand -Ret. #60	28	11	8	25	15	13	29	33
Fine Sand - Ret. #270	32	42	41	37	36	49	41	29
Silt 0.05-0.005 mm %	30	33	23	30	23	24	24	24
Clay < 0.005 mm %	10	14	28	8	26	14	6	14
Passing # 40 Sieve %	--	--	--	--	--	--	--	--
Passing # 200 Sieve %	--	--	--	--	--	--	--	--

Liquid Limit	33	40	34	44	43	46	30	31
Plastic Index	4	12	12	NP	9	9	NP	9
AASHTO Classification	A-4 (2)	A-6 (5)	A-6 (6)	A-5 (3)	A-5 (4)	A-5 (3)	A-4 (0)	A-2-4 (0)
Quantity								
Texture								
Station	41+40 Lt	41+40 Lt	39+00 Lt	54+20 Rt	35+80 Lt	35+60 Rt	44+00 Lt	43+00 Lt
Hole No.								
Depth (m) From:	1.10	2.62	0.98	2.62	1.05	2.69	8.57	0.97
To:	1.55	3.07	1.43	3.10	1.50	3.14	9.02	1.42

Remarks:

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DIVISION OF HIGHWAYS-MATERIALS AND TESTS UNIT
SOILS TEST REPORT-SOILS LABORATORY

T.I.P. ID #:	R2518A

REPORT ON SAMPLES OF:	Soil for Classification

PROJECT:	6.869005	COUNTY:	--	Owner:	--		
DATE SAMPLED:	10-7-03	DATE RECEIVED:	10-28-03	DATE REPORTED:	11-18-03		
SAMPLED FROM:	Rdw –L-	SAMPLED BY:	D Murphy				
SUBMITTED BY:	W D Frye	2002	STANDARD SPECIFICATION				
LABORATORY:	Assheville						

TEST RESULTS

Project Sample No.	SS-139	SS-140	SS-141	SS-142	SS-143	SS-144	SS-145	SS-146
Lab Sample No. A-	143616	143617	143618	143619	143620	143621	143622	143623
HiCAMS Sample #	--	--	--	--	--	--	--	--
Retained #4 Sieve %	--	--	--	--	--	--	--	--
Passing #10 Sieve %	99	100	96	98	94	94	98	100
Passing #40 Sieve %	88	93	81	84	82	83	92	88
Passing #200 Sieve %	49	63	47	50	53	62	74	46

MINUS #10 FRACTION

Soil Mortar - 100%								
Coarse Sand -Ret. #60	19	13	25	22	18	18	11	22
Fine Sand - Ret. #270	50	35	38	40	45	21	19	48
Silt 0.05-0.005 mm %	25	34	27	26	29	23	30	24
Clay < 0.005 mm %	6	18	10	12	8	38	40	6
Passing # 40 Sieve %	--	--	--	--	--	--	--	--
Passing # 200 Sieve %	--	--	--	--	--	--	--	--

Liquid Limit	33	43	33	49	45	46	50	45
Plastic Index	NP	10	NP	NP	NP	16	24	NP
AASHTO Classification	A-4 (3)	A-5 (6)	A-4 (2)	A-5 (4)	A-5 (4)	A-7-5 (8)	A-7-6 (15)	A-5 (2)
Quantity								
Texture								
Station	20+85 Rt	18+00 Lt	18+00 Rt	16+40 Lt	16+40 Lt	15+40 CL	14+00 Lt	13+60 Lt
Hole No.								
Depth (m) From:	4.19	8.73	0.91	2.71	8.79	5.50	0.94	5.63
To:	4.49	9.18	1.36	3.16	9.24	5.95	1.39	6.02

Remarks:

A-143616 thru A-143627

CC:

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DIVISION OF HIGHWAYS-MATERIALS AND TESTS UNIT
SOILS TEST REPORT-SOILS LABORATORY

T.I.P. ID #:	R2518A

REPORT ON SAMPLES OF:	Soil for Classification

PROJECT:	6.869005	COUNTY:	--	Owner:	--		
DATE SAMPLED:	10-7-03	DATE RECEIVED:	10-28-03	DATE REPORTED:	11-18-03		
SAMPLED FROM:	Rdw –L-	SAMPLED BY:	D Murphy				
SUBMITTED BY:	W D Frye	2002	STANDARD SPECIFICATION				
LABORATORY:	Assheville						

TEST RESULTS

Project Sample No.	SS-147	SS-148	SS-149	SS-150				
Lab Sample No. A-	143624	143625	143626	143627				
HiCAMS Sample #	--	--	--	--				
Retained #4 Sieve %	--	--	--	--				
Passing #10 Sieve %	100	93	99	95				
Passing #40 Sieve %	97	80	91	78				
Passing #200 Sieve %	67	50	61	46				

MINUS #10 FRACTION

Soil Mortar - 100%								
Coarse Sand -Ret. #60	10	19	14	27				
Fine Sand - Ret. #270	39	42	38	35				
Silt 0.05-0.005 mm %	43	27	32	26				
Clay < 0.005 mm %	8	12	16	12				
Passing # 40 Sieve %	--	--	--	--				
Passing # 200 Sieve %	--	--	--	--				
Liquid Limit	42	53	47	28				
Plastic Index	NP	NP	NP	NP				
AASHTO Classification	A-5 (7)	A-5 (4)	A-5 (6)	A-4 (2)				
Quantity								
Texture								
Station	13+60 Lt	13+70 Rt	13+00 Rt	13+00 Rt				
Hole No.								
Depth (m) From:	10.19	7.41	4.04	25.32				
To:	10.64	8.86	4.49	25.77				

Remarks:

A-143616 thru A-143627

CC: D Frye
J J Lail
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