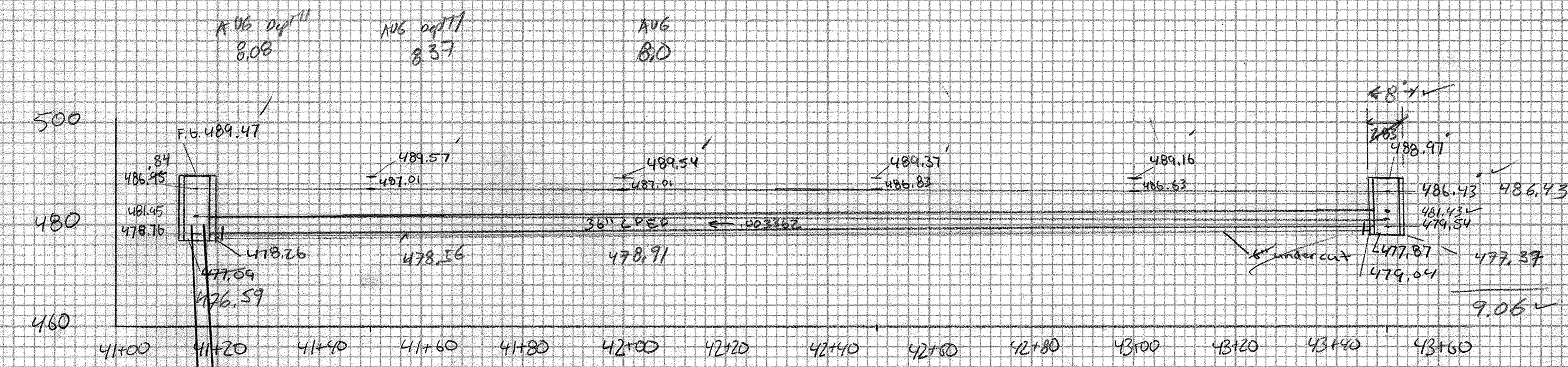


DR # 43+50.0 RT ~ 41+16.4 RT 36" CPEP 232'



DS-52A
 Exc. Trench Earth from Pipe

Area outlet (5x5.5) + (3.69x5.5x1.5) = 57.94
 Area inlet (5x5.5) + (2.39x5.5x1.5) = 47.22

Vol. (57.94 + 47.22) x 2.27 x 27 = 442.05 cy

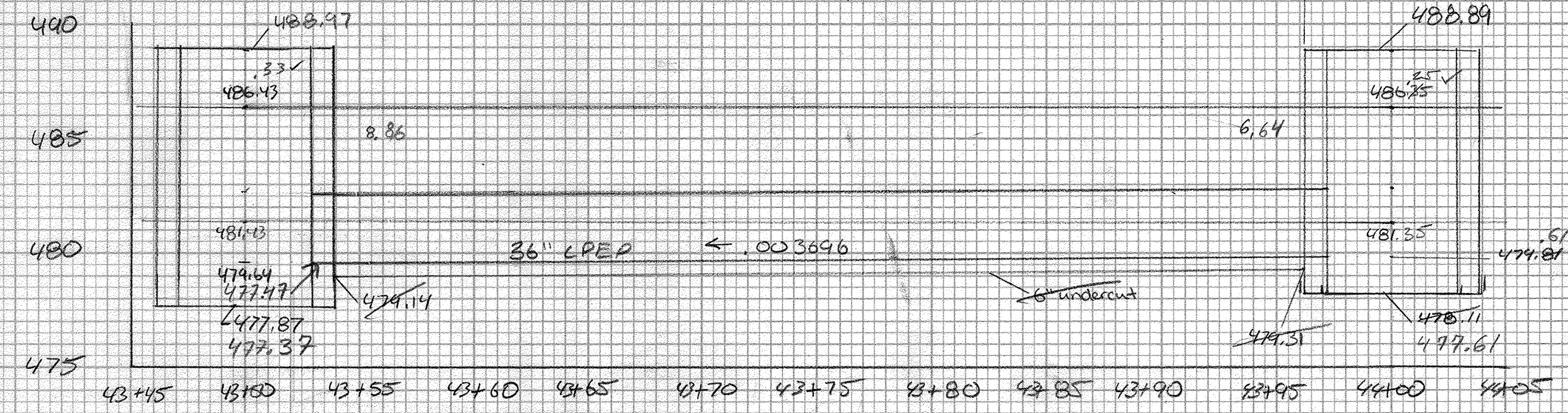
DI @ 43+50

Area (3.14 x 3.02^2) = 9.06

Vol. (9.06 x 5) + (48.25 x 3.56 x 1.5) = 20.64 cy

Granular Backfill
 Spring line of pipe 1.75' (3.14 x 1.75^2 x 227) = 2009.13 FT³
 1717.69 / 27 = 63.62 cy RD 6/26/07

DR # 44+00.0 RT ~ 43.50.0 RT 36" CPEP 46'



Exc. Trench Earth from Pipe

Area Outlet (5x5.5) + (2.24x5.5x1.5) = 46.54
 Area Inlet (5x5.5) + (2.09x5.5x1.5) = 34.35

Vol. (46.54 + 34.35) x 4.24 x 27 = 71.23 cy

DI @ 44+00

Area (3.14 x 3.02^2) = 9.06

Vol. (9.06 x 5) + (48.25 x 3.24 x 1.5) = 19.46 cy

Granular Backfill

5.5 x 2.15 x 42.4 = 524.70 FT³
 (3.14 x 1.75^2 x 42.4) = 203.86 FT³
 320.84 / 27 = 11.88 cy RD 6/26/07

* SEE SHEET # 20

12/13/07
 TBE 1-22-08

EYE CARE
 ADDED - DS-52A
 FLD MSE
 CPM 9/14/07

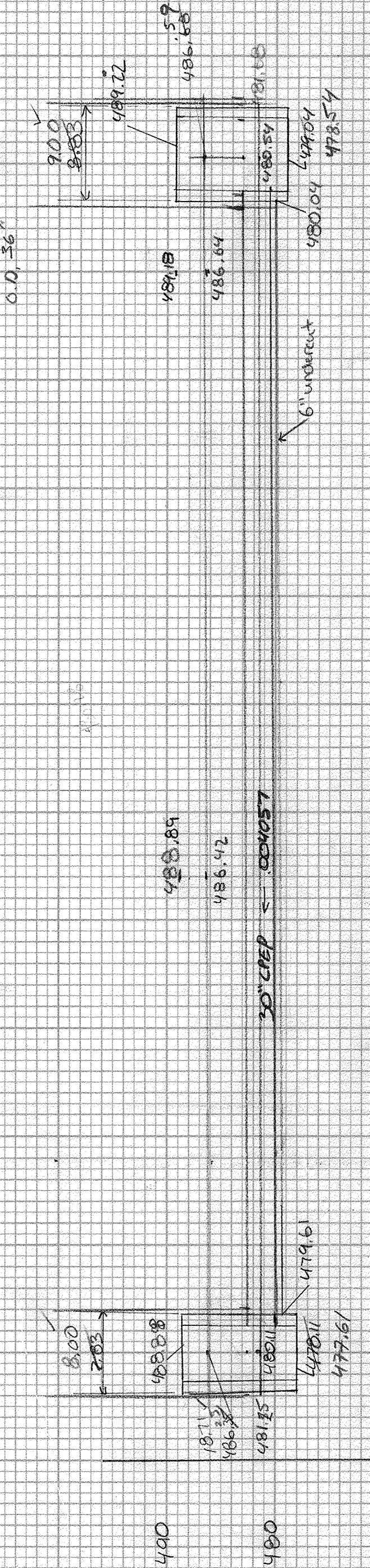
14 LF OF 18" CPEP
 T.E
 $4.65 \times 8.2 \times \frac{3.75}{27} = 5.29$
 $3.6 \times 3.2 \times \frac{3.75}{27} = 1.60$
 6.89 cy

GB 13' x .875 x 3.75 = 1.58 cy

13 KT (.875^2) / 27 = .58 cy

TBE

DR # 45+10.8 RT ~ 44+00.0 RT 30" CPEP 106'



Exc. Trench Earth from Pipe

Area Outlet (5x5) + (1.74x5x1.5) = 38.05
 Area Inlet (5x5) + (1.64x5x1.5) = 37.50

Vol. (38.05 + 37.50) x 1.05 x 127 = 144.00 cy + 20.36 cy = 164.36 cy RD 6/27/07

6' - DI @ 45+10.8

Granular Backfill
 15' 1040
 5 x 2 x 1040 = 10400 FT³
 (3.14 x 1.75^2 x 1040) = 391.85 FT³
 10400 - 391.85 = 10008.15 FT³
 10008.15 / 27 = 370.69 cy RD 12/18/07

Pipe Depth 488.88
 488.88 - 2.63 = 486.25
 486.25 - 480.31 = 5.94

DI 488.88
 488.88 - 2.63 = 486.25
 486.25 - 480.31 = 5.94

T.E Pipe (6.11 + 6.02 + 6.05) = 6.07
 1.5 x 107 x 5 x 101.5 = 814.51
 814.51 / 27 = 30.17 cy

106 LF
 106 LF x 101.5 = 10761
 10761 / 27 = 398.56 cy

2537.5
 814.51
 3352.01 / 27 = 124.15 cy

TBE 123/08 = 14670 cy

T.E 22.55 cy

T.E 124.15 cy

14670 cy

RD 1/11/07