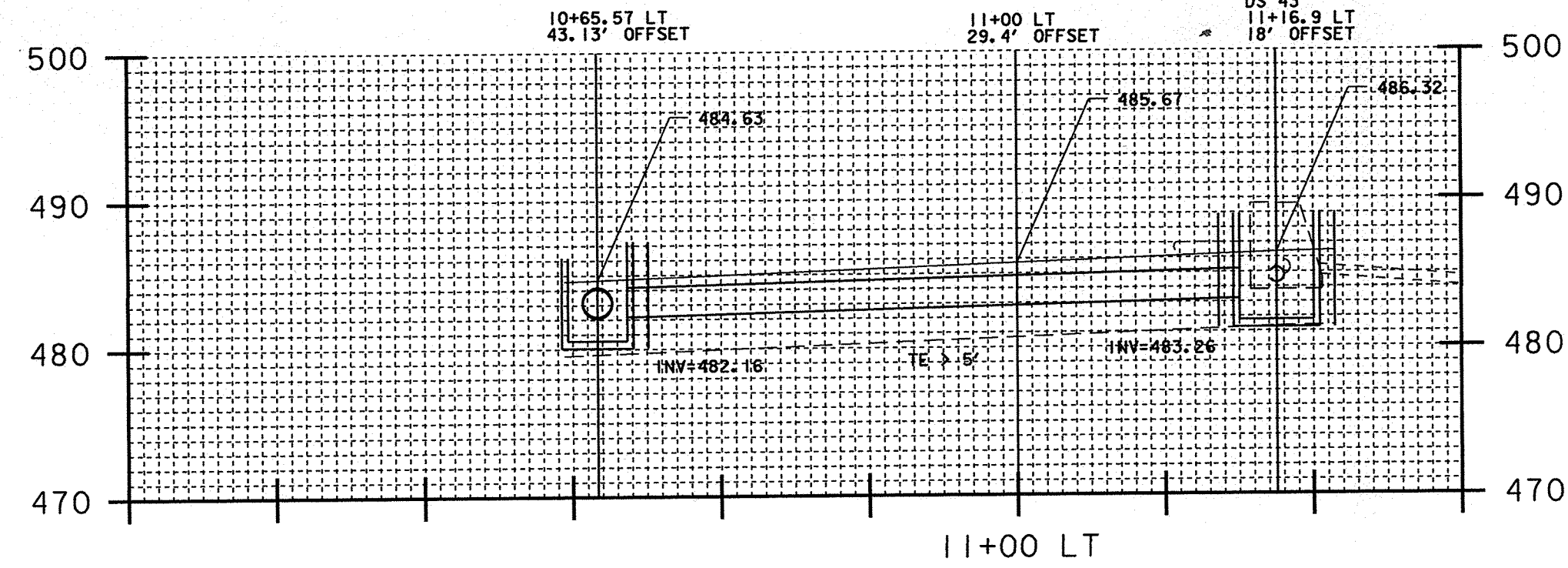


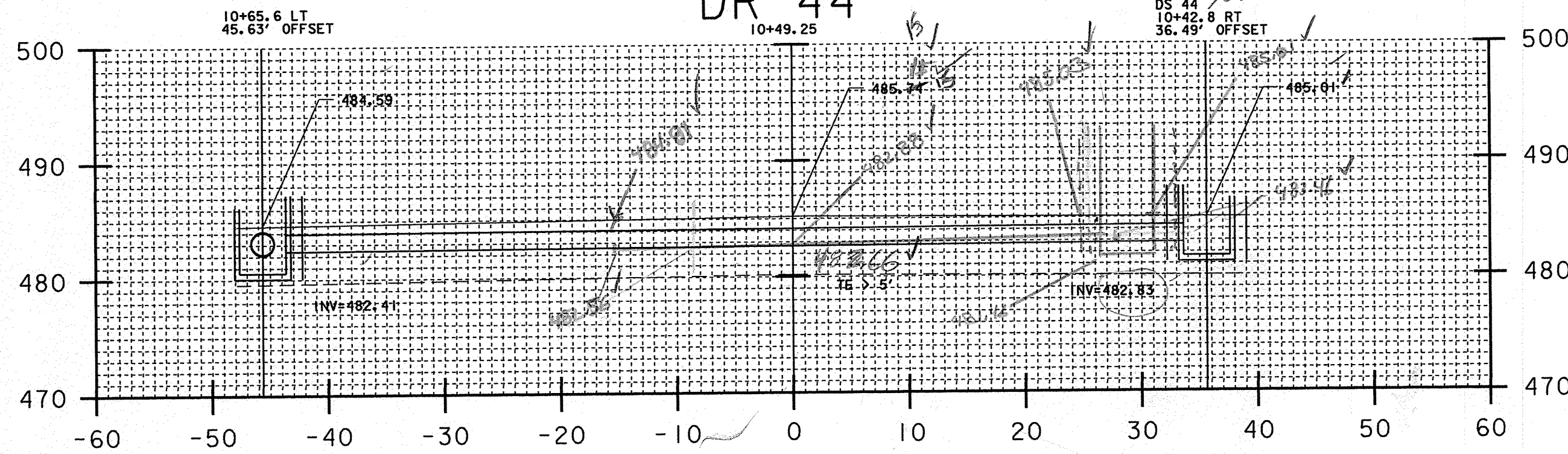
DR 43



CALCULATED AND DRAWN BY TBG 10/18/07
 ✓ CP# 01/09/08
 TBG 1/22/08

DR 43
 PIPE T.E. < 5' 4.33 461.53 17.10 cy ✓
 AREA (FROM CADD) = 106.59 SF * 4.1' = 437.01 CF/27 = 16.19 CY
 DS 43
 STRUCTURE T.E. < 5' 9.30 cy ✓
 5' * PI (4.42')² = 306.88 CF/27 = 11.37 CY
 DR 43 GRANULAR BACKFILL 1.12 ✓
 (4.1' * 1.0' * 40.50') - [(PI (1.0')²/2) * 40.50'] = 102.43 CF/27 = 3.79 CY
 4.33 1.17 ✓ 205.12 ✓ 85.86 ✓ 11.72 ✓ 4.42 CY ✓
 USED 43.67 LF OF 24" CPEP 44.0 LF ✓ 87.04 118.13 4.37 CY

DR 44



CALCULATED AND DRAWN BY TBG 11/8/07
 ✓ CP# 01/09/08
 TBG 1/22/08

DR 44
 PIPE T.E. < 5' 3.75 ✓ 25.50 cy ✓
 AREA (FROM CADD) = 183.58 SF * 3.6' = 660.89 CF/27 = 24.48 CY } 311.8 cy
 DS 44
 STRUCTURE T.E. < 5' 153.32 ✓ 5.68 cy ✓
 (3.87' * 3.84') / 2 * PI (3.42')² = 141.65 CF/27 = 5.25 CY
 DR 44 GRANULAR BACKFILL 9.96 ✓ 159.06 ✓ 5.89 cy ✓
 (3.6' * .8' * 76.50') - [(PI (.8')²/2) * 76.50'] = 143.41 CF/27 = 5.31 CY
 3.75 0.875 ✓ 87.5 ✓ 80 ✓ SLOPE = .0053

EXCAVATION TO REMOVE DI & PIPE (ALREADY PLACED)
 DI = 5.68 cy
 PIPE = 2.25
 485.15 - 482.60 = 2.55
 485.01 - 482.03 = 2.98
 $2.26 \times 15 \times 3.75 \times 1/27 = 4.92$
 $2.33 \times 32 \times 3.95 \times 1/27 = 10.36$
 15.28 cy
 + 5.68 DI
 20.96 cy
 CB# 02/04/10

DS 44
 42 - 1' - .42 = 40.58 + 1' FOR TRENCH = 41.58 ✓
 NEW SLOPE = .021
 TRENCH EXCAVATION DEPTH
 484.81 - 482.56 = 2.25 ✓ $2.24 \times 15 \times 3.75 \times 1/27 = 4.67 cy$
 485.11 - 482.88 = 2.23 ✓ $2.23 \times 32 \times 3.95 \times 1/27 = 11.68 cy$
 485.03 - 483.16 = 1.87 ✓ $1.9 \times 3.75 \times 26.58 \times 1/27 = 7.01 cy$
 EXCAVATION TO RESET DS 44
 485.01 - 481.46 = 3.54 ✓ $3.54 \times (7/2)^2 \times 1/27 = 5.05 cy$

TOTAL MATERIALS TO RELOCATE DUE TO SIGNAL FOUNDATION 5.05 + 11.68 cy = 16.73 cy
 + 20.96 = 37.69 cy
 + 31.18 cy
 68.87 cy
 RL 7/25/08
 CB# 02/04/10
 14.44 cy RWD 1/19/11
 WORK DONE 7/24/08
 3.75 (1.75/2)² * PI = -1.20
 3.75 3.75 x 1.8 = 6.75
 5.55 SF x (42 - .42) x 1/27 = 8.55 cy
 + 5.89 cy
 RL 7/25/08
 CB# 02/04/10

HIGHLAND AVENUE

PROJECT NAME:	HARTFORD
PROJECT NUMBER:	RS 0113(40)
FILE NAME:	\$\$\$FILENAME\$\$\$
PROJECT LEADER:	KEN UPMAL
DESIGNED BY:	K. ISHIKURA
	E. ATKINS
PLOT DATE:	04-JAN-2008
DRAWN BY:	E. ATKINS
CHECKED BY:	K. ISHIKURA
	E. ATKINS
SHEET	229 OF 239