



25+44.06
SAG

CALCULATED AND DRAWN BY TBG 2/1/08

DR 59
PIPE T.E. < 5'
AREA (FROM CADD) = 15.12 SF * 3.75' = 56.70 CF/27 = 2.10 CY
PIPE T.E. > 5'
AREA (FROM CADD) = 1.5 (0.59 SF * 3.75') = 3.32 CF/27 = 0.12 CY
TOT = 2.22 CY
DS 59
STRUCTURE T.E. < 5'
5' * PI (3.42')² = 183.73 CF/27 = 6.80 CY
STRUCTURE T.E. > 5'
1.5 [(2.71' + 1.96')/2] * PI (3.42')² = 128.70 CF/27 = 6.50 CY
← REMOVE EXIST
T.R. = (18.95 SF * 4')/27 + 1.5 (4-1T SF * 4')/27 = 3.72 CY
TOT = 6.50 CY + 6.80 CY - 3.72 CY = 9.58 CY
DR 59 GRANULAR BACKFILL
(3.75' * .88' * 5.6') - [(PI (.88')²/2) * 5.6'] = 11.67 CF/27 = 0.43 CY

DR 60
PIPE T.E. < 5'
AREA (FROM CADD) = 46.45 SF * 3.75' = 174.19 CF/27 = 6.45 CY
DS 60
STRUCTURE T.E. < 5'
(4.85' + 4.16' + 4.19')/3 * PI (3.42')² = 161.68 CF/27 = 5.99 CY
DR 60 GRANULAR BACKFILL
(3.75' * .88' * 20.7') - [(PI (.88')²/2) * 20.7'] = 43.13 CF/27 = 1.60 CY

DR 62
PIPE T.E. < 5'
AREA (FROM CADD) = 237.95 SF * 3.75' = 892.31 CF/27 = 33.05 CY
DS 62
STRUCTURE T.E. < 5'
5' * PI (3.42')² = 183.73 CF/27 = 6.80 CY
STRUCTURE T.E. > 5' (1.59)
1.5 [(0.57' + 0.50' + 0.57')/3] * PI (3.42')² = 30.13 CF/27 = 1.12 CY
TOT = 7.92 CY
DR 62 GRANULAR BACKFILL
(3.75' * .88' * 56.5') - [(PI (.88')²/2) * 56.5'] = 117.72 CF/27 = 4.36 CY

T.R.
4'x4'x5 = 80
4'x4'x.8 (1.5) = 19.2
99.2/27 = 3.67 cy

CPH
02/22/08

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CPH
02/22/08
SHEET # 29

PROJECT NAME:	HARTFORD	PLOT DATE:	01-FEB-2008
PROJECT NUMBER:	RS 0113(40)	DRAWN BY:	E. ATKINS
FILE NAME:	***\$FILENAME***	CHECKED BY:	K. ISHIKURA
PROJECT LEADER:	KEN UPMAL	SHEET	220 OF 239
DESIGNED BY:	K. ISHIKURA		
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