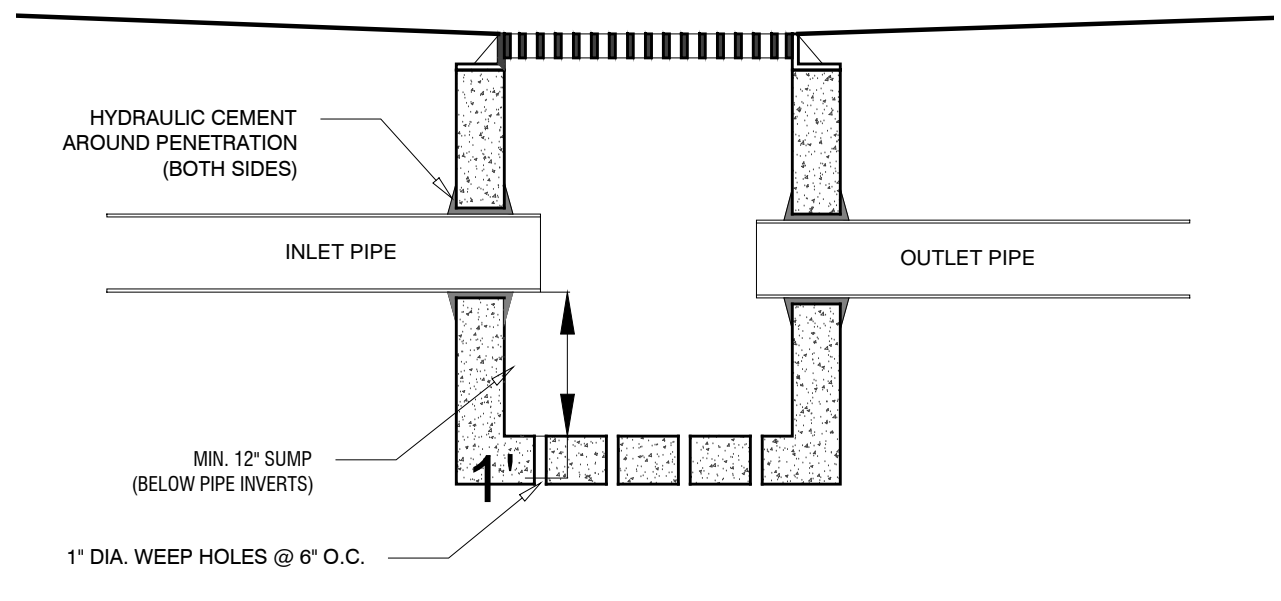
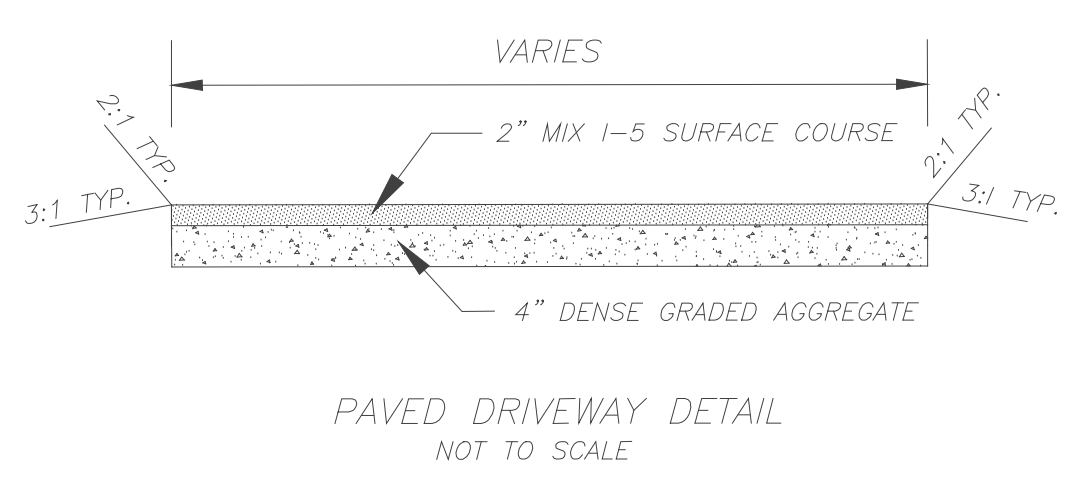
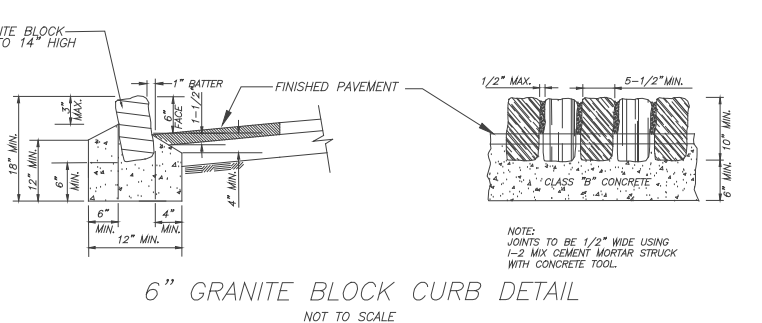
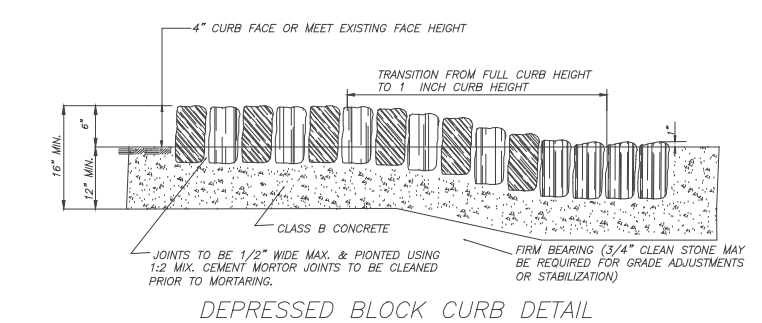


DRYWELL DETAIL
SCALE: 1/2" = 1' - 00"

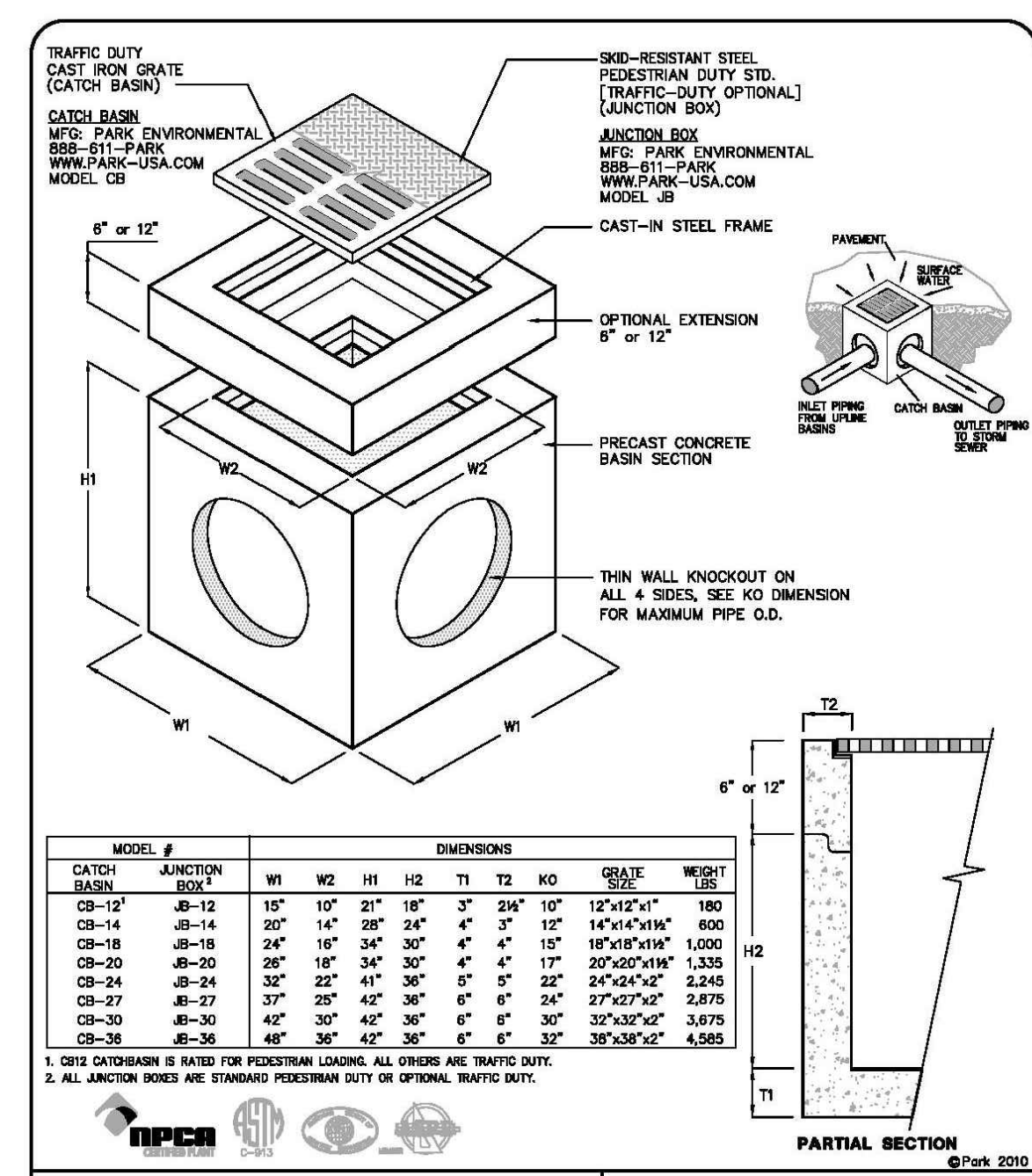
DRYWELL SYSTEM STORAGE VOLUME CALCULATIONS

STORAGE VOLUME CALCULATED TO PROVIDE STORAGE FOR A 3" STORM OVER A 24 HR PERIOD
 DRYWELL SYSTEM IS DESIGNED TO PROVIDE STORAGE FOR THE 3,510 SF. INCREASE OF IMPERVIOUS COVERAGE.
 TOTAL REQUIRED STORAGE = 877.5 FT³
 DRY WELL SYSTEM TO BE COMPOSED OF A 12' WIDE x 20' LONG x 10' DEEP CLEAN STONE BED WITH 2 - 6'-0" DIAMETER x 5'-6" DEEP (BELOW OVERFLOW) PRECAST CONCRETE SEEPAGE TANKS.

DISPLACEMENT VOLUME OF SEEPAGE TANKS:
 $3.14 \times R^2 \times H = 3.14 \times (3')^2 \times 6 = 169.56 \text{ FT}^3 \times 2 \text{ TANKS} = 339.12 \text{ FT}^3$
 STORAGE VOLUME OF SEEPAGE TANKS:
 $3.14 \times R^2 \times H = 3.14 \times (2.67')^2 \times 5.5 = 123.12 \text{ FT}^3 \times 2 \text{ TANKS} = 246.24 \text{ FT}^3$
 VOLUME OF STONE BED:
 $L \times W \times H = 20' \times 12' \times 10' = 2,400 \text{ FT}^3$
 STORAGE VOLUME OF STONE BED:
 (VOL. OF BED - DISP. VOL. OF TANKS) x 33% VOID RATIO
 $(2,400 \text{ FT}^3 - 339.12 \text{ FT}^3) \times .33 = 680.09 \text{ FT}^3$
 STORAGE VOLUME OF DRYWELL:
 STORAGE VOL. OF STONE BED + STORAGE VOL. OF TANKS
 $680.09 \text{ FT}^3 + 246.24 \text{ FT}^3 = 926.33 \text{ FT}^3$
 TOTAL STORAGE VOLUME REQUIRED = 877.5 FT³
 TOTAL STORAGE VOLUME PROVIDED = 926.33 FT³
 SURPLUS VOLUME 48.83 FT³



SUPPLEMENTARY PRECAST INLET DETAIL
SCALE: 3/4" = 1' - 00"

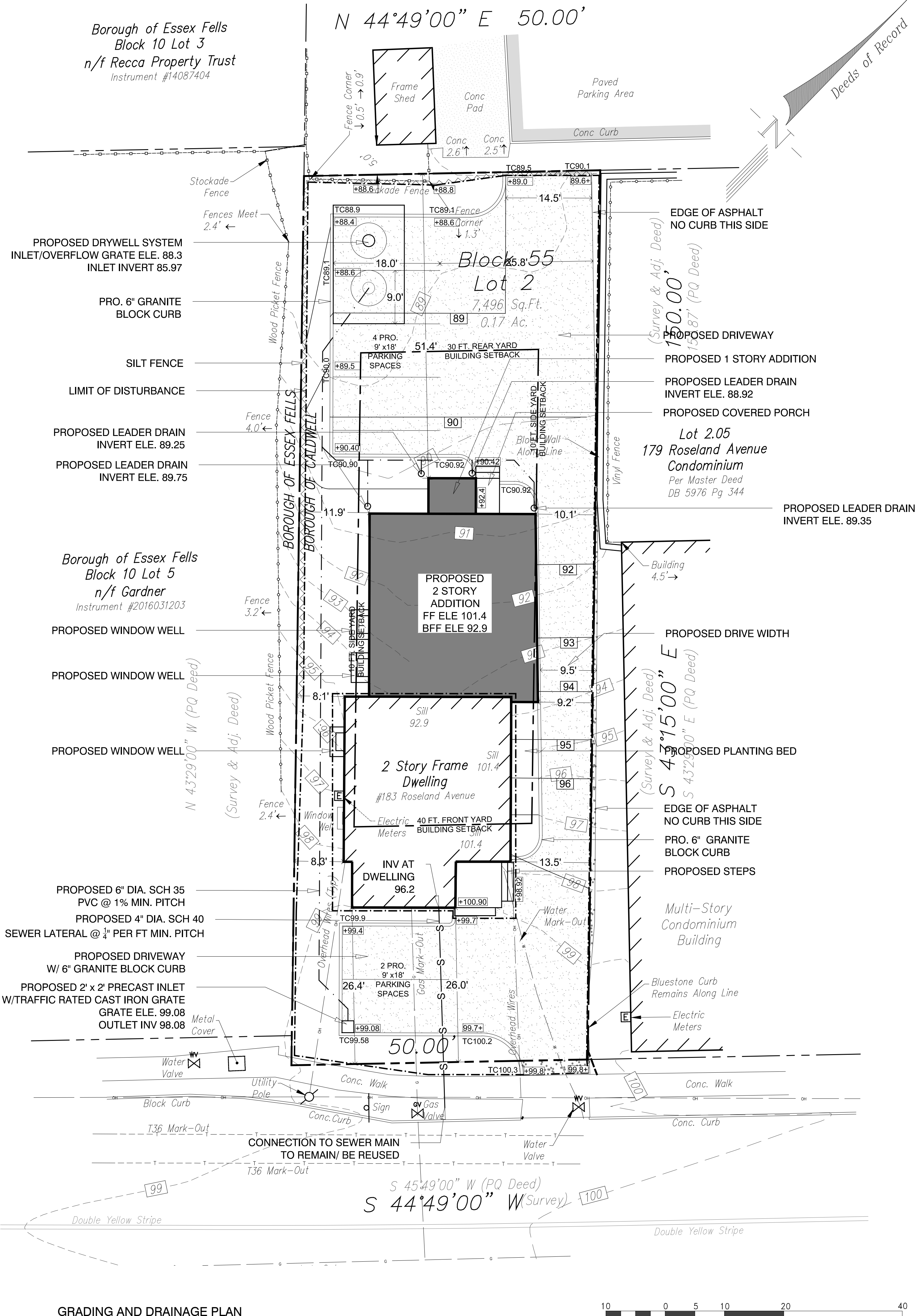


MODEL #	DIMENSIONS									
CATCH BASIN	INLET BOX	W1	W2	H1	H2	T1	T2	NO	ORATE	WEIGHT (LBS)
CB-12	JB-12	18"	24"	18"	3"	24"	10"	12"	12"x12"x1"	180
CB-14	JB-14	20"	28"	24"	4"	3"	12"	14"x14"x1"	600	
CB-18	JB-18	24"	36"	30"	4"	4"	15"	18"x18"x1"	1,000	
CB-20	JB-20	28"	36"	30"	4"	4"	17"	20"x20"x1"	1,350	
CB-24	JB-24	32"	41"	36"	6"	5"	22"	24"x24"x2"	2,240	
CB-27	JB-27	37"	45"	36"	6"	6"	24"	27"x27"x2"	2,875	
CB-30	JB-30	42"	50"	36"	6"	6"	30"	32"x32"x2"	3,675	
CB-36	JB-36	48"	56"	42"	6"	6"	37"	38"x38"x2"	4,560	

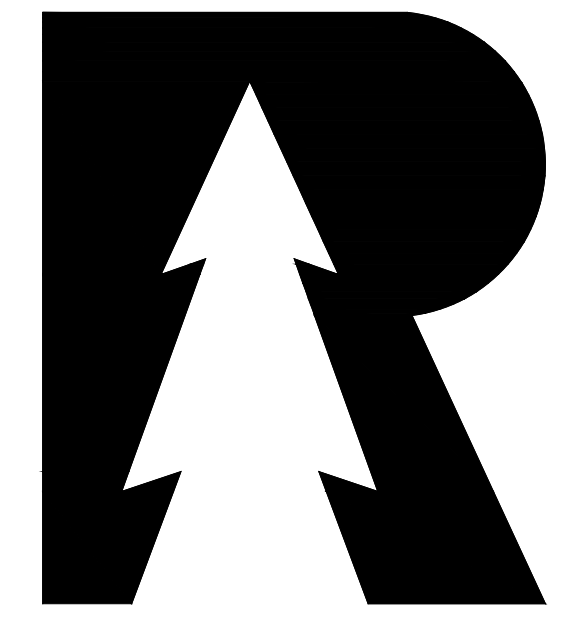
1. OVER DIMENSION IS BASED ON POSITIONING USING ALL OPENING ARE TRAFFIC DUTY.
 2. ALL JUNCTION BOXES ARE STANDARD PEDESTAL DUTY OR OPTIONAL TRAFFIC DUTY.

SPECIFICATIONS
 CONCRETE: Class II concrete with design strength of 4500 PSI at 28 days. Unit is of monolithic construction of floor and final slope of wall with sectional riser to required depth.
 REINFORCEMENT: Grade 60 reinforced. Steel rebar conforming to ASTM A615 on required centers or equal.
 CL. CASTINGS: Cast iron frames and grates are manufactured of gray cast iron conforming to ASTM A48-76 Class 35.

PARK ENVIRONMENTAL EQUIPMENT
 "Expect the Best"
 CATCH BASIN MODEL CB - 12" THRU 36"
 JUNCTION BOX MODEL JB - 12" THRU 36"
 SCALE: NONE
 DATE: 2010
 DWG. NO.: CBJB36
 REV.:



GRADING AND DRAINAGE PLAN
SCALE: 1" = 10' - 00"



RDH Design Group

Landscape Architecture
 Architecture
 Project Management &
 Engineering

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ISSUE

NO.	DATE	DESCRIPTION	INT.
1	7/28/22	ORIGINAL DOCUMENT	JP

REVISION

NO.	DATE	DESCRIPTION	INT.
1	6/29/23	REVISED PER REVIEW COMMENT	JP
2	8/30/23	REVISED PER ARCH REVIEW	JP
3	1/22/24	REVISED PER 12-5-23 LETTER	JP

BLOCK 55 LOT 2
PRIVATE RESIDENCE
 #183 ROSELAND AVENUE
 BOROUGH OF CALDWELL
 ESSEX COUNTY
 NEW JERSEY

Project Number: _____ Scale: 1" = 10' - 00"
 Drawn By: RH Approved By: RH

GRADING AND DRAINAGE PLAN

Drawing Number: _____

SI.2
 BRIAN M. HOARLE
 N.J. PE LIC. # 43521