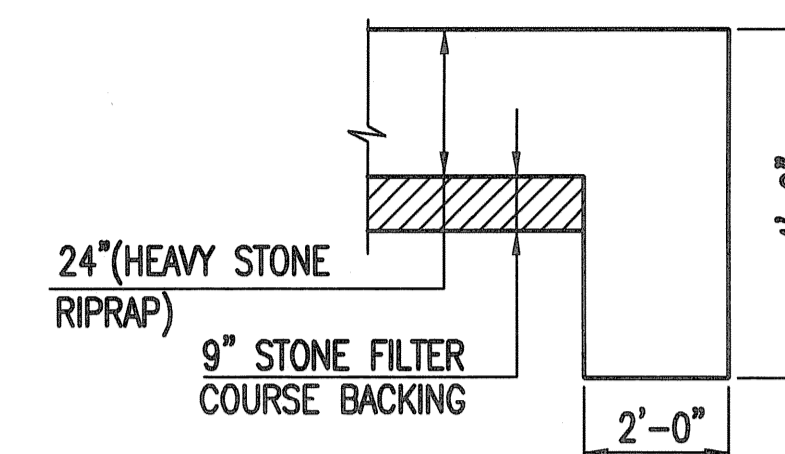


HEAVY DUTY (H.D.) COUPLER

NO SCALE

NOTES

1. BOLTS TO BE A-36 1 1/2" DIAMETER.
2. BOLTS, NUTS, WASHERS AND SLEEVES TO BE ZINC PLATED.
3. WASHERS TO BE 3 1/2" O.D. X 7 GAUGE.
4. SHIP WITH NUTS AND WASHERS PLACED ON BOLTS.



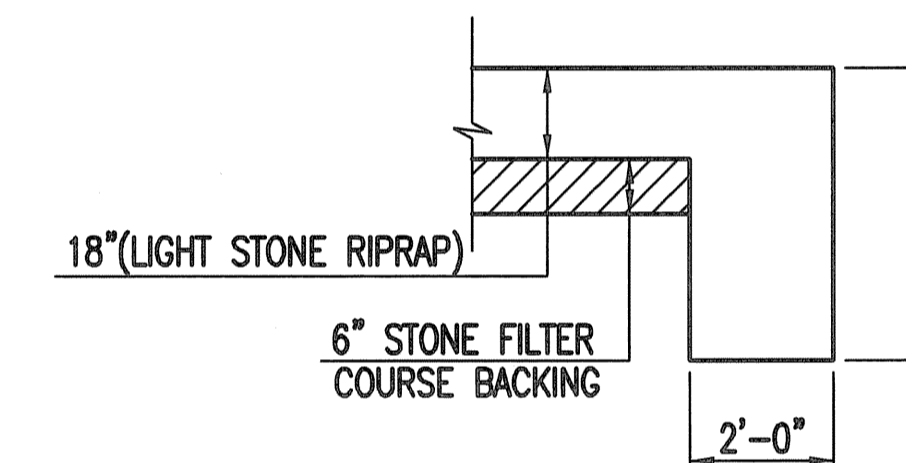
TYPICAL SECTION THRU TOEWALL

NO SCALE

NOTES

1. ALL RIPRAP FOR THIS PROJECT SHALL BE NATURAL STONE. NEITHER BROKEN CONCRETE, FABRIC ENVELOPE, NOR PREMIXED DRY PACKAGED CONCRETE BAG ALTERNATES WILL BE ALLOWED, UNLESS INDICATED OTHERWISE.
2. TOEWALLS SHALL BE INSTALLED ALONG ALL UNPROTECTED EDGES OF STONE RIPRAP.
3. GROUTING OF THE SURFACE OF THE RIPRAP SHALL NOT BE PERFORMED, UNLESS INDICATED OTHERWISE. GROUTING OF THE TOEWALLS SHALL BE PERFORMED PER CITY SPECIFICATIONS.

HEAVY STONE RIPRAP DETAILS



TYPICAL SECTION THRU TOEWALL

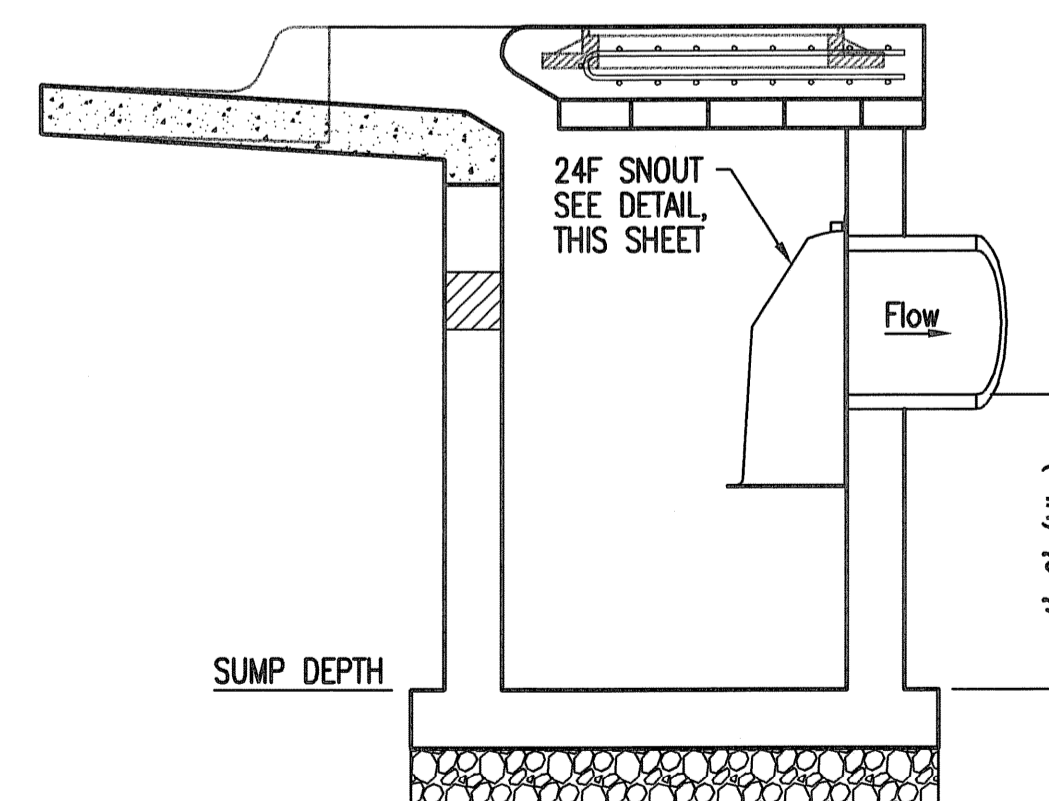
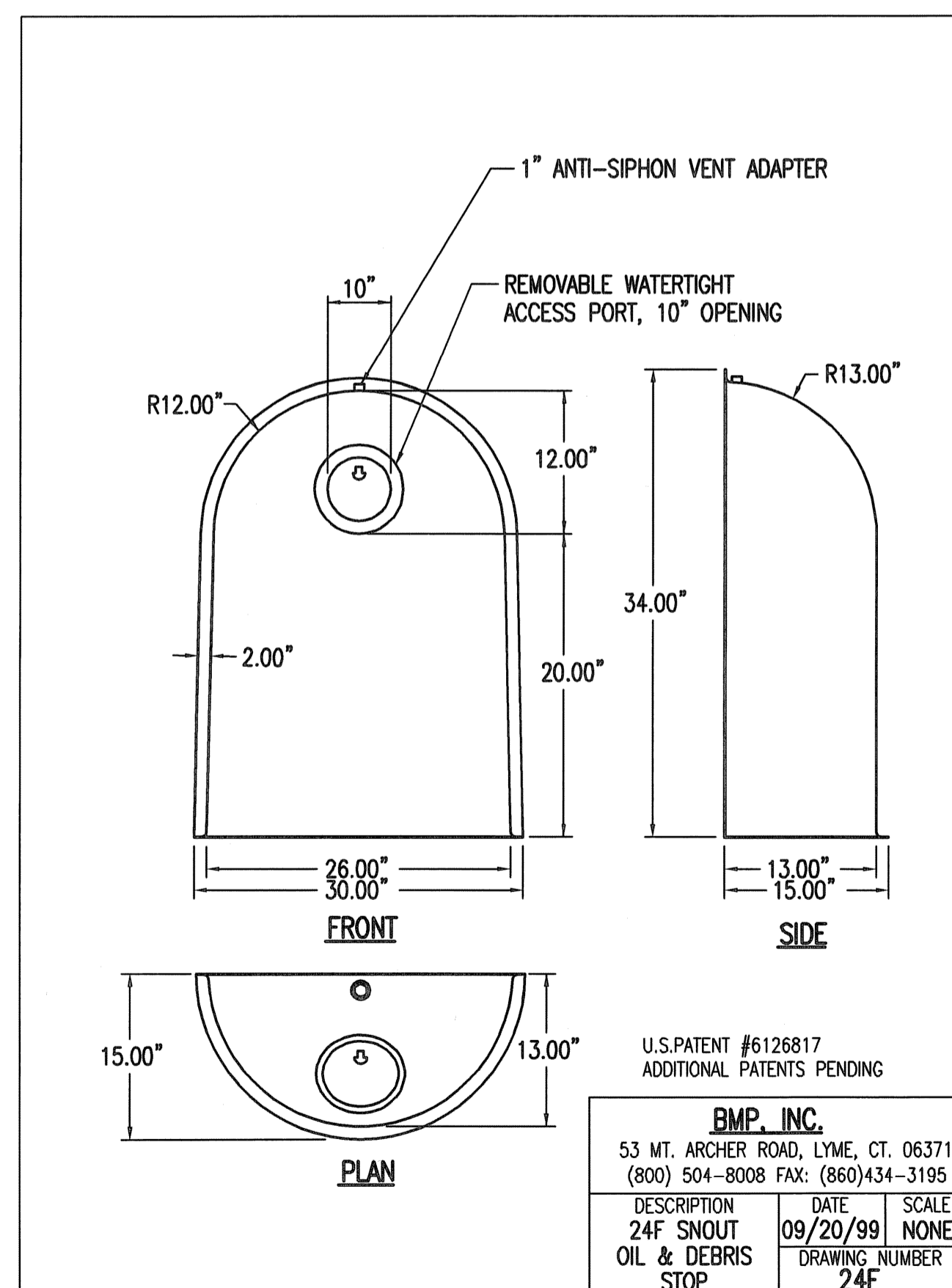
NO SCALE

NOTES

1. ALL RIPRAP FOR THIS PROJECT SHALL BE NATURAL STONE. NEITHER BROKEN CONCRETE, FABRIC ENVELOPE, NOR PREMIXED DRY PACKAGED CONCRETE BAG ALTERNATES WILL BE ALLOWED, UNLESS INDICATED OTHERWISE.
2. TOEWALLS SHALL BE INSTALLED ALONG ALL UNPROTECTED EDGES OF STONE RIPRAP.
3. GROUTING OF THE SURFACE OF THE RIPRAP SHALL NOT BE PERFORMED, UNLESS INDICATED OTHERWISE. GROUTING OF THE TOEWALLS SHALL BE PERFORMED PER CITY SPECIFICATIONS.

LIGHT STONE RIPRAP DETAILS

SIZE REQUIREMENTS FOR ROCK RIPRAP							
PERCENT HEAVIER THAN:							
	1/4 TON	250 LBS.	200 LBS.	180 LBS.	60 LBS.	10 LBS.	5 LBS.
HEAVY	0%		50%				90%
LIGHT		0%		5-15%	50-70%	85-100%	



"SNOUT" INSTALLATION FOR CURB INLET

U.S. PATENT #6126817
ADDITIONAL PATENTS PENDING

BMP, INC.
53 MT. ARCHER ROAD, LYME, CT, 06371
(800) 504-8008 FAX: (860) 434-3195

DESCRIPTION 24F SNOUT OIL & DEBRIS STOP	DATE 09/20/99	SCALE NONE
DRAWING NUMBER 24F		

Saved 12-17-2013 1:35:53 PM by BJS
 Plot Scale 1:1 12-17-2013 1:34:47 PM by BILL_SIXSON
 C:\2012\12288\0001_001\12288-001-286-Miscellaneous Details-Storm Sewer

	No.	Revision	By	Date
	MAIZE ROAD PAVING AND DRAINAGE IMPROVEMENTS LOT 1, BLOCK 1 NEWMARKET V ADDITION			
	MISCELLANEOUS DETAILS--STORM SEWER GARY JANZEN, P.E. - CITY ENGINEER CITY OF WICHITA PROJECT NO. 472-84607			
	PROFESSIONAL ENGINEERING CONSULTANTS, P.A. 303 SOUTH TOPEKA WICHITA, KS 67202 316-262-2691 www.pec1.com			
Designed by	CSB	Job No.	35-12568-000/001	Sht. 26 of 65
Drawn by	BJS	Date	September 2013	