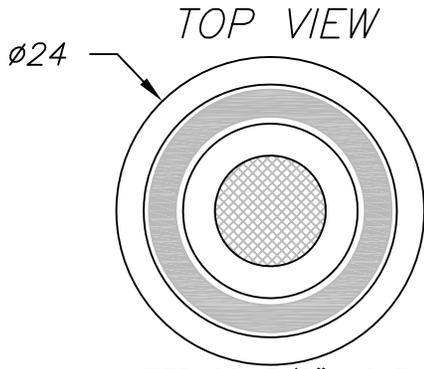


Part # GISB-24-24-RND MEDIA FILTER



FITS 20-3/8" HOLE

FLOW RATES per Basket				
$Q = SO * c_d * A \sqrt{2 * g * h}$ $c_d = \text{Coefficient of Discharge} = .67$				
	SO	A (in ²)	h (in)	Q (h ³ /s)
TOP SIDE	1	135.22	5.50	3.42
FILTER MEDIA PERLITE BioMediaGREEN	.4	253		.113

SCREEN TREATED FLOW 3.42 CFS	MEDIA TREATED FLOW .113 CFS
------------------------------	-----------------------------

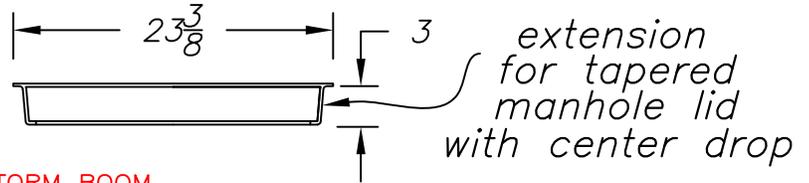
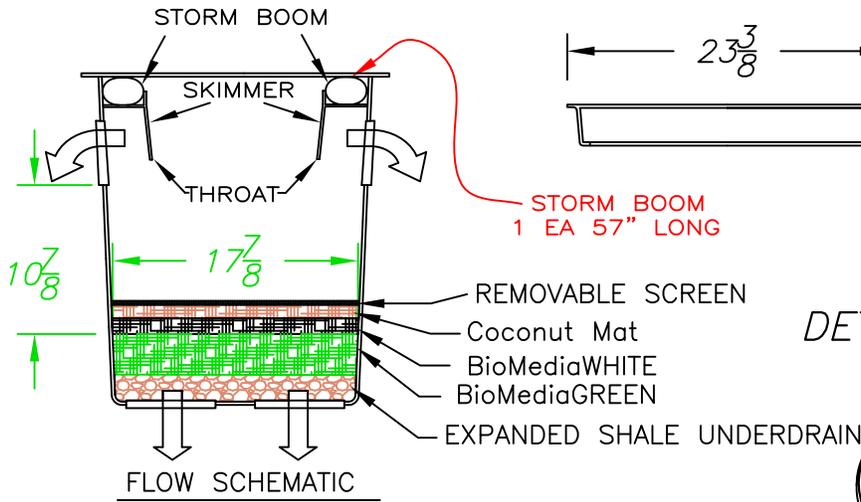
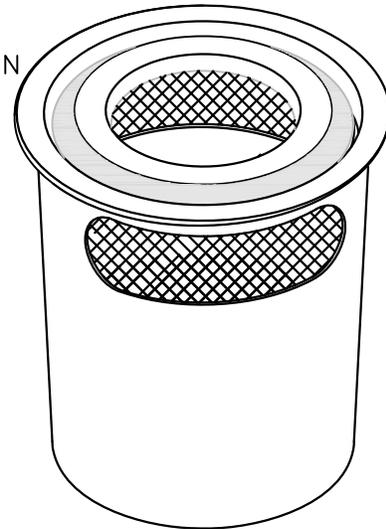
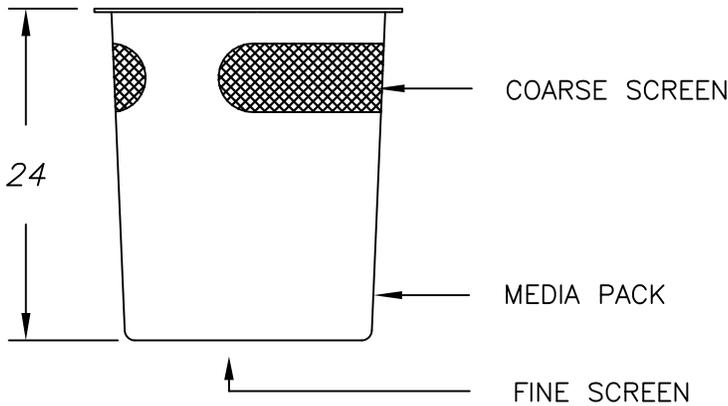


FIGURE 2
DETAIL OF INSTALLATION



SIDE VIEW

BioMediaGREEN REMOVAL EFFICIENCIES	
Total Suspended Solids "Sil-Co-Sil 106"	85%
Total Phosphorus	69%
Ortho Phosphorus	41%
Dissolved Copper	79%
Dissolved Lead	98%
Dissolved Zinc	78%
Fecal Coliform Bacteria	68%
TPH	99%

BOX MANUFACTURED FROM MARINE GRADE FIBERGLASS & GEL COATED FOR UV PROTECTION
5 YEAR MANUFACTURERS WARRANTY

PATENTED
ALL FILTER SCREENS ARE STAINLESS STEEL

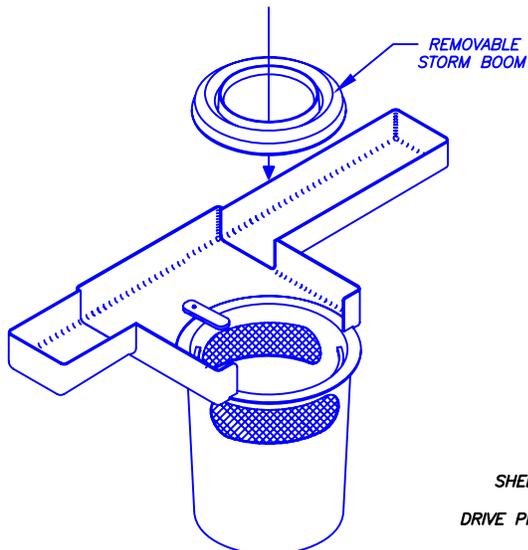
Email: info@biocleanenvironmental.net

SUNTREE QUALITY PRODUCTS ARE BUILT FOR EASY CLEANING AND ARE DESIGNED TO BE PERMANENT INFRASTRUCTURE AND SHOULD LAST FOR DECADES.

BIO CLEAN ENVIRONMENTAL SERVICE PO BOX 869 OCEANSIDE CA 92049 760-433-7640 FAX:760-433-3176		PROJECT:	
GRATE INLET SKIMMER BOX FOR MEDIA FILTER TYPE CATCH BASIN INSERT		REVISIONS:	DATE:
DATE: 01/11/05	SCALE: SF = 15	REVISIONS:	DATE:
DRAFTER: N.R.B.	UNITS = INCHES	REVISIONS:	DATE:

BIO CLEAN ROUND GISB MEDIA FILTER WITH EASY MAINTENANCE SHELF SYSTEM FOR USE IN CURB TYPE INLETS

ROUND GISB FOR MOUNTING UNDER MANHOLE



DETAIL OF PARTS
FIGURE 1

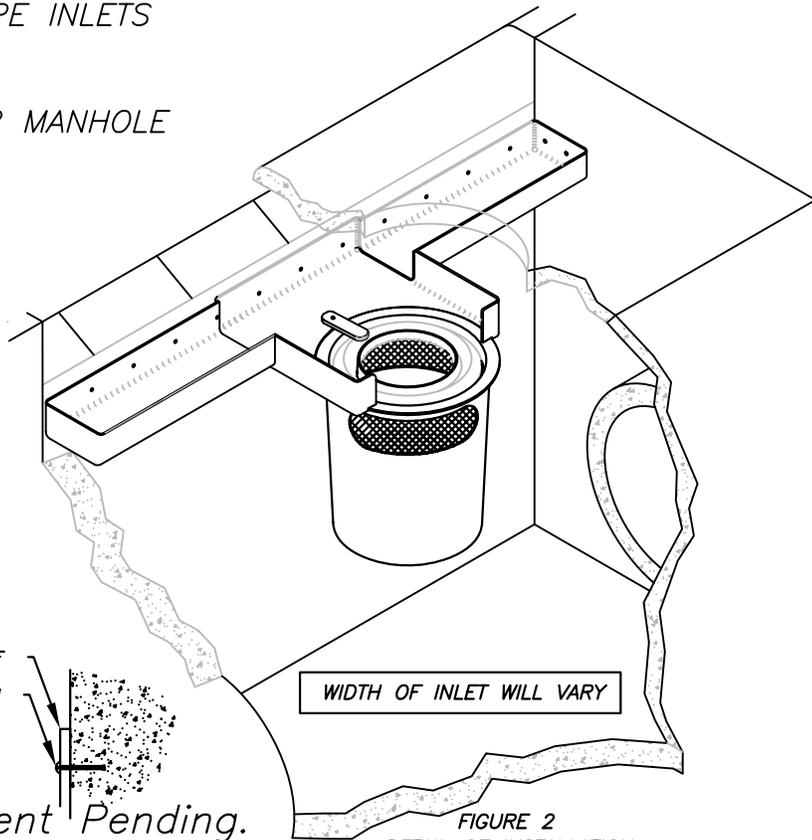


FIGURE 2
DETAIL OF INSTALLATION

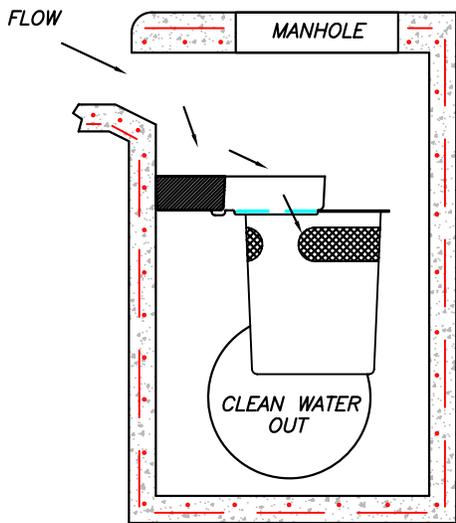


FIGURE 3
DETAIL OF PROCESS

REMOVABLE BASKET CATCHES EVERYTHING AND MAY BE REMOVED THROUGH MANHOLE WITHOUT ENTRY.

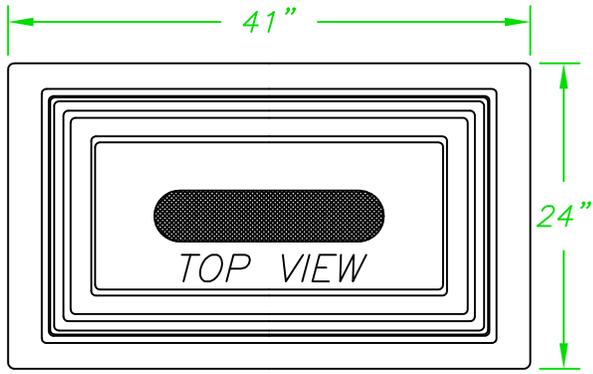
FLOW RATES per Basket				
$Q = 50 * c_d * A * \sqrt{2 * g * h}$ $c_d = \text{Coefficient of Discharge} = .67$				
	SO	A (in ²)	h (in)	Q (ft ³ /S)
TOP SIDE	1	135.22	5.50	3.42
MEDIA	.4	253		.113
THROAT FLOW RATE				2.4 CFS

NOTES:

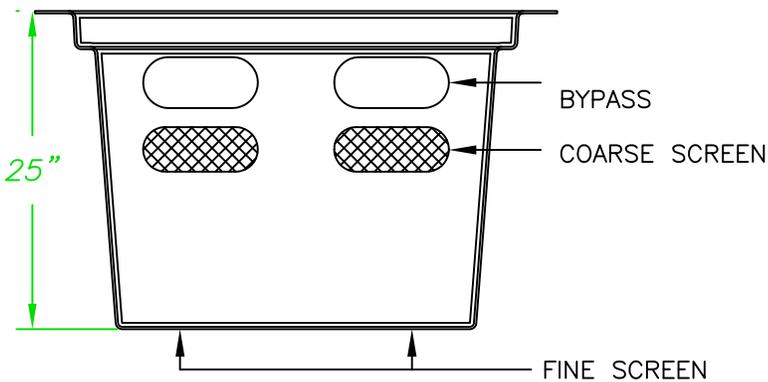
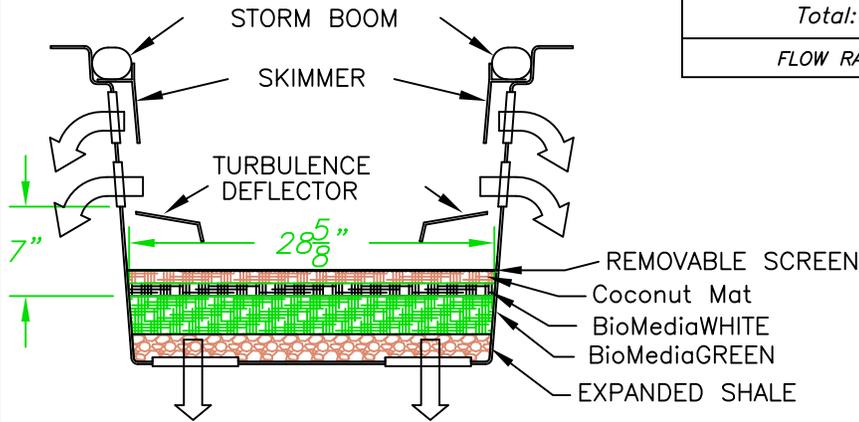
1. SHELF SYSTEM PROVIDES FOR ENTIRE COVERAGE OF INLET OPENING SO TO DIVERT ALL FLOW TO BASKET.
2. SHELF SYSTEM MANUFACTURED FROM MARINE GRADE FIBERGLASS, GEL COATED FOR UV PROTECTION.
3. SHELF SYSTEM ATTACHED TO THE CATCH BASIN WITH NON-CORROSIVE HARDWARE.
4. FILTRATION BASKET STRUCTURE MANUFACTURED OF MARINE GRADE FIBERGLASS, GEL COATED FOR UV PROTECTION.
5. FILTRATION BASKET FINE SCREEN AND COARSE CONTAINMENT SCREEN MANUFACTURED FROM STAINLESS STEEL.
6. FILTRATION BASKET HOLDS BOOM OF ABSORBENT MEDIA TO CAPTURE HYDROCARBONS. BOOM IS EASILY REPLACED WITHOUT REMOVING MOUNTING HARDWARE.
7. FILTRATION BASKET LOCATION IS DIRECTLY UNDER MANHOLE FOR EASY MAINTENANCE.

BIO CLEAN ENVIRONMENTAL SERVICE PO BOX 869 OCEANSIDE CA 92049 760-433-7640 FAX: 760-433-3176		PROJECT:	
GISB MF WITH SHELF		REVISIONS:	DATE:
DATE: 04/12/04	SCALE: SF = 15	REVISIONS:	DATE:
DRAFTER: N.R.B.	UNITS = INCHES	REVISIONS:	DATE:

Part # GISB MEDIA FILTER-24-41-25

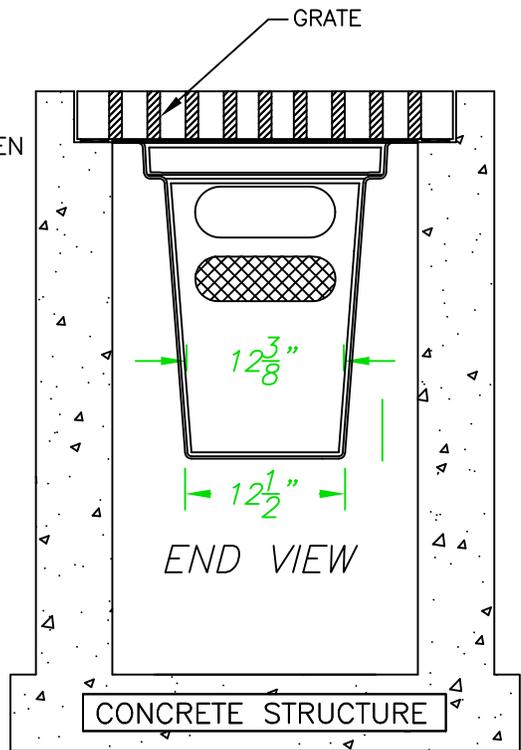


FLOW SCHEMATIC



SIDE VIEW

Description of filter opening	Percent Open Based on Screen Dimensions	Total Square Inches per Unit	Square Inches of Total Unobstructed Openings	Flow Rate (Cubic Feet per Second)
Skimmer protected By-Pass	100%	243.4	243.4	10.0 cfs
Coarse Screen 3/4" x 1-3/4" stainless steel flattened expanded	62%	215.2	133.4	6.4 cfs
PERLITE (granular) BioMediaGREEN (porous blocks)	40% 80%	354	N/A	50.7 gpm
SCREEN TREATED FLOW RATE Total: 6.4 cfs		MEDIA TREATED FLOW RATE Total: 50.7 gpm		
FLOW RATES BASED ON UNOBSTRUCTED OPENINGS				



Total Suspended Solids "Sil-Co-Sil 106"	85%
Total Phosphorus	69%
Ortho Phosphorus	41%
Dissolved Copper	79%
Dissolved Lead	98%
Dissolved Zinc	78%
Fecal Coliform Bacteria	68%
TPH	99%

SUNTREE QUALITY PRODUCTS ARE BUILT FOR EASY CLEANING AND ARE DESIGNED TO BE PERMANENT INFRASTRUCTURE AND SHOULD LAST FOR DECADES.

Email: info@biocleanenvironmental.net

BOX MANUFACTURED FROM MARINE GRADE FIBERGLASS & GEL COATED FOR UV PROTECTION
5 YEAR MANUFACTURERS WARRANTY

PATENTED
ALL FILTER SCREENS ARE STAINLESS STEEL

BIO CLEAN ENVIRONMENTAL SERVICE PO BOX 869 OCEANSIDE CA 92049 760-433-7640 FAX:760-433-3176		PROJECT:	
DATE: 04/12/04		REVISIONS:	DATE:
DRAFTER: N.R.B.		REVISIONS:	DATE:
SCALE: SF = 15		REVISIONS:	DATE:
UNITS = INCHES		REVISIONS:	DATE: