

BIO CLEAN ENVIRONMENTAL

MODEL NO. NSBB 4-8-84

FLOW, TREATMENT, & BYPASS SPECIFICATIONS FOR THE BIOMASS SEPARATING BASKET

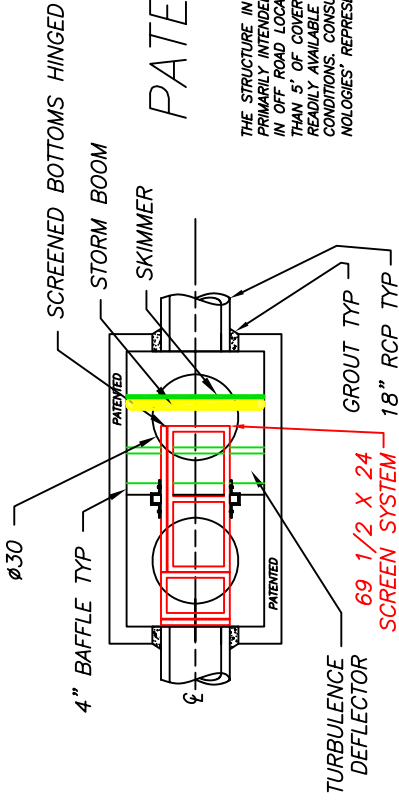
- 1. Inflow Pipe Area \_\_\_\_\_ 1.7 SQ.FT.
- 2. Open Orifice Area in Biomass Separating Basket \_\_\_\_\_ 19.0 SQ.FT.
- 3. Treatable Flow Area With No Blockage \_\_\_\_\_ 19.0 SQ.FT.
- 4. Treatable Flow Area With 50% Blockage \_\_\_\_\_ 9.5 SQ.FT.
- 5. Treatable Flow Area With 75% Blockage \_\_\_\_\_ 14.3 SQ.FT.
- 6. Minimum Bypass Available (With Basket 100% Full) \_\_\_\_\_ 5.2 SQ.FT.

BASKET STORAGE = 20.5 CU. FT. (.76 CU YD.)

SEDIMENT STORAGE

- Lower Front Chamber 46 CU. FT.
- Lower Rear Chamber 46 CU. FT.
- TOTAL 92 CU. FT. (3.4 CU YD.)

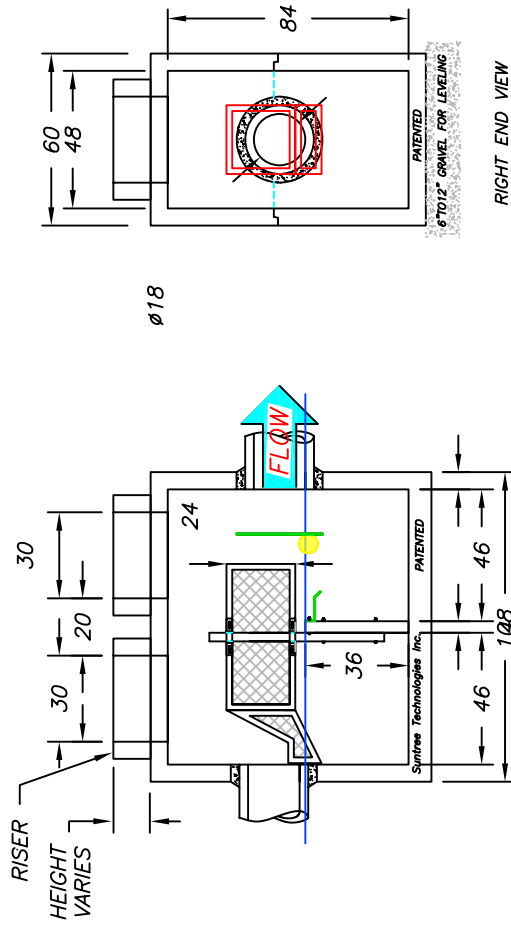
RECOMMENDED PIPE SIZES: 12" to 18"



PATENTED

THE STRUCTURE IN THIS DRAWING IS PRIMARILY INTENDED TO BE INSTALLED IN OFF ROAD LOCATIONS WITH LESS THAN 5' OF COVER. STRUCTURES ARE READILY AVAILABLE FOR ALL OTHER CONDITIONS. CONSULT SUNTFREE TECHNOLOGIES' REPRESENTATIVE FOR DETAILS.

PLAN VIEW



LEFT END VIEW

REAR VIEW

RIGHT END VIEW

NOTES:

1. CONCRETE 28 DAY COMPRESSIVE STRENGTH  $f_c$ =5,000 PSI.
2. REINFORCING: ASTM A-615, GRADE 60.
3. SUPPORTS AN H2O LOADING AS INDICATED BY AASHTO.
4. JOINT SEALANT: BUTYL RUBBER SS-S-00210
5. ALL WALLS, TOP + BOTTOM ARE 6" THICK.

PEAK DESIGN FLOW  
10.6 C.F.S.

(BASED ON 6 FT. PER SEC. FLOW MULTIPLIED BY THE MIN. BYPASS AVAILABLE.)

DISTRIBUTED BY:  
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PROJECT: SUNTFREE TECHNOLOGIES SPEC.	
REVISIONS: BASKET SYSTEM	DATE: 01/06/04
REVISIONS:	DATE:
REVISIONS:	DATE:
REVISIONS:	DATE:
SUNTFREE TECHNOLOGIES, INC. 798 CLEARLAKE RD SUITE #2 COCOA, FL 32922	
NUTRIENT SEPARATING BAFFLE BOX MODEL NO. NSBB 4-8-84	
DATE: 01/01/04	SCALE: SF = 72
DRAFTER: N.R.B.	UNITS = INCHES

work will be made 1 1/2" x 1 1/2" x 1/4" aluminum angle beam. The screen used to span the aluminum frame is described as follows: For the body of the screen system, flattened expanded stainless steel sheet 1/2" No. 16 F; Open area = 60%; Grade = 304 Stainless Steel. The screen will be attached to the screen system frame by sandwiching the screen to the aluminum frame between a series of 1" x 3/16" aluminum bars and welded in place.

12. A turbulence deflector will be attached near the top of each of the baffles with 1/2" stainless steel through bolts and stainless steel fender washers. The turbulence deflectors will be made from laminated fiberglass and measure a minimum of 1/4" in thickness. The turbulence deflectors will form a horizontal ledge that measures 8" from the downstream side of the first baffle and 6" from the downstream side of the second baffle, and span the full width of the baffle box.

13. The stormwater treatment system will be precast concrete. The concrete will be 28 day compressive strength  $f_c = 5,000$  psi. Steel reinforcing will be ASTM A - 615 Grade 60. Structure will support an H2O loading as indicated by AASHTO. The joint between the concrete sections will ship lap and the joint sealed with Ram-Nek or equal butyl rubber joint sealant.

14. For access into the stormwater treatment system, two to three holes will be cast into the top of the vault.

15. The inflow and outflow pipes will not intrude beyond flush with the inside surface of the Nutrient Separating Baffle Box. The space between the pipe holes in the ends of the stormwater treatment system and the outside surface of the pipe will be filled with non-shrink grout to form a water proof seal.

16. The nutrient separating screen system shall extend more than half way of the internal length of the stormwater treatment system. The nutrient separating screen system shall start at the inflow pipe not more than 4" from the wall of the inflow pipe.

17. The stormwater treatment system must have two separate reports verifying no scouring occurs at flows equal to or greater than the specified treatment flow rate for that particle size distribution.

18. The stormwater treatment system shall have a shallow sump, not more than 48" from invert of outflow pipe to bottom floor of the sump area.

19. The stormwater treatment system must have a minimum of two sediment chambers (sump areas) which are separated by a vertical pier that divides the chamber from the bottom of the sump to the invert of the outflow pipe. No openings are allowed at the bottom or coming up vertically along the pier. Or any other method that would connect the two chambers together such as orifices.