

SUNTREE TECHNOLOGIES MODEL NO. NSBB-10-16-125

FLOW & BY-PASS SPECIFICATIONS FOR BIOMASS SEPARATING SCREEN SYSTEM, SEDIMENT COLLECTION CHAMBERS, AND SKIMMER SPECIFICATIONS

1. Pipe inflow area (Drawn as 60" RCP) — 19.63 sq.ft.

SCREEN SPECIFICATIONS:

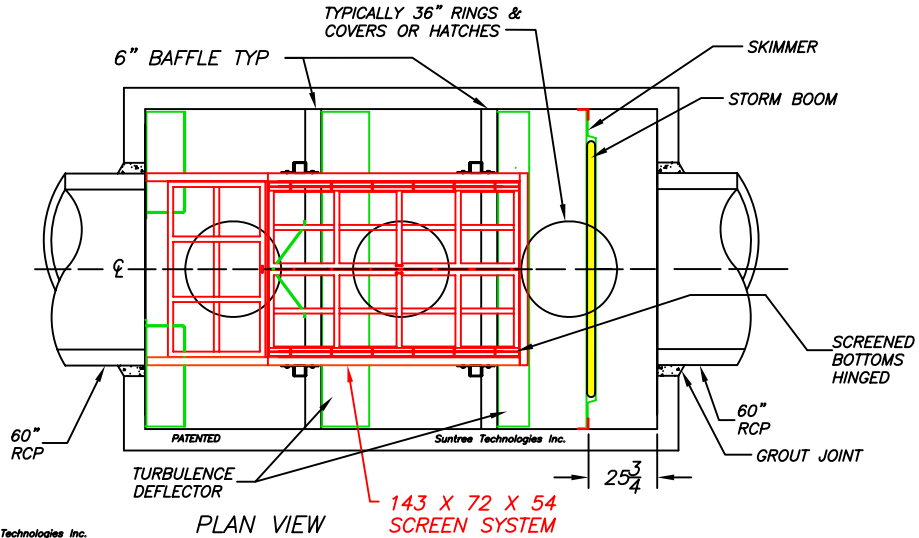
- 2. Open orifice area in screen system — 74.73 sq.ft.
- 3. Open orifice area in screen system with 50% blockage — 37.36 sq.ft.
- 4. Open orifice area in screen system with 75% blockage — 18.68 sq.ft.
- 5. Minimum by-pass through screen system below the top surface of the pipe — 36.52 sq.ft.
- 6. Minimum by-pass around screen system below the top surface of the pipe — 27.16 sq.ft.
- 7. Screen system storage volume — 235.72 cu.ft.

SEDIMENT STORAGE:

- 8. Volume of first sediment chamber — 190 cu.ft.
- 9. Volume of second sediment chamber — 190 cu.ft.
- 10. Volume of third sediment chamber — 190 cu.ft.
- 11. Total sediment volume — 570 cu.ft.

SKIMMER SPECIFICATIONS:

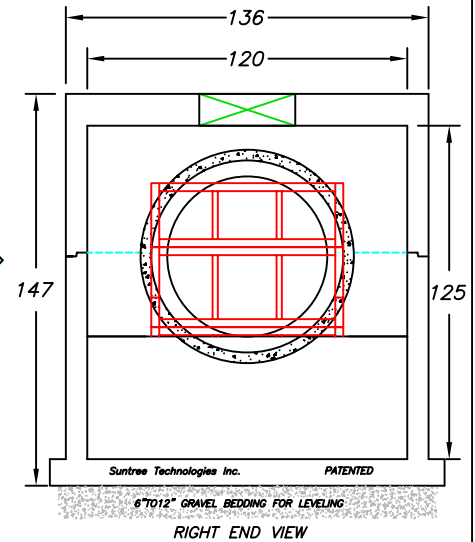
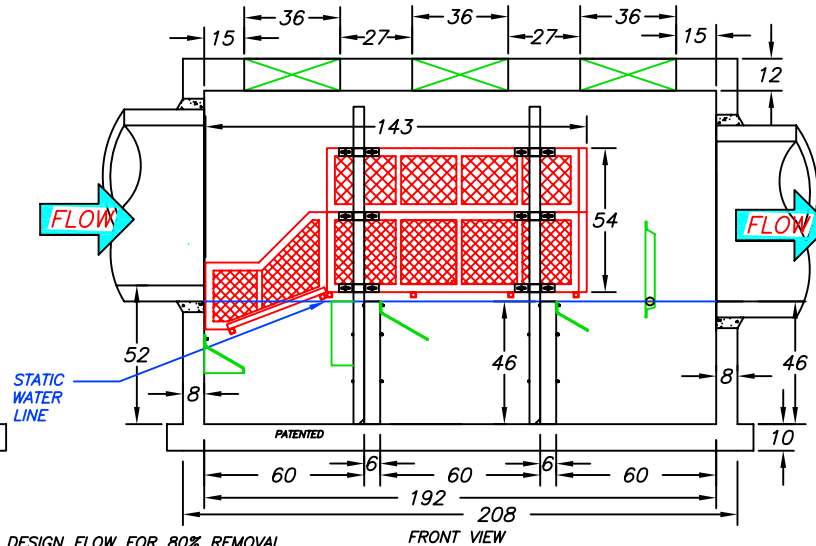
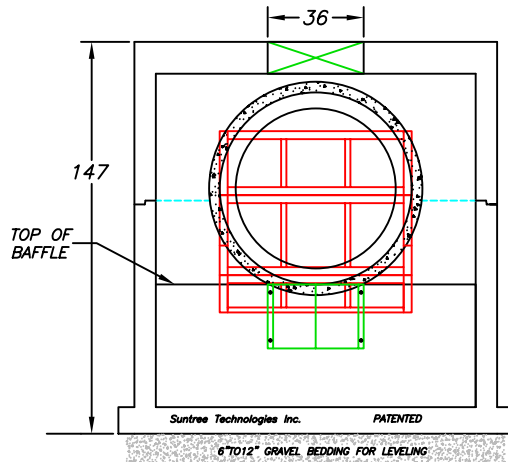
- 12. Flow area under skimmer — 19.58 sq.ft.
- 13. Area of pipe in line with skimmer — 9.82 sq.ft.
- 14. Area between the skimmer and the outflow pipe parallel with the surface of the pipe — 24.63 sq.ft.



**PATENTED
AND PATENTS PEND.**

- INSTALLATION NOTES:**
1. INFLOW AND OUTFLOW PIPES ARE TO BE FLUSH WITH THE INSIDE SURFACE OF THE CONCRETE STRUCTURE. (CAN NOT INTRUDE BEYOND FLUSH)
 2. INVERT OF OUTFLOW PIPE SHOULD BE EVEN WITH THE TOP OF THE BAFFLES.
 3. BAFFLES SHOULD BE SEALED WITH GROUT.
 4. THE BOTTOM OF THE SKIMMER SHOULD BE 6" BELOW THE INVERT OF THE OUTFLOW PIPE.
 5. INVERT OF THE INFLOW PIPE SHOULD NOT BE BELOW THE INVERT OF THE OUTFLOW PIPE.

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NOTES:

1. CONCRETE 28 DAY COMPRESSIVE STRENGTH FC=5000 PSI
2. REINFORCING: ASTM A-615 GRADE 60
3. SUPPORTS AN H20 LOADING AS INDICATED BY AASHTO.
4. JOINT SEALANT: BUTYL RUBBER SS-S-00210
5. ALL WALLS TO BE 8" THICK, BOTTOM TO BE 10" THICK, AND TOP TO BE 12" THICK.
6. TREATMENT DESIGN FLOW FOR 80% REMOVAL EFFICIENCY OF TSS IS 45 CFS.
7. INFLOW AND OUTFLOW PIPES ARE TO BE FLUSH WITH THE INSIDE SURFACE OF THE CONCRETE STRUCTURE. (CAN NOT INTRUDE BEYOND FLUSH)
8. BAFFLES ARE TO BE SEALED WITH GROUT TO FORM 3 WATER TIGHT CHAMBERS.

SUNTREE TECHNOLOGIES, INC. 798 CLEARLAKE RD, SUITE #2 COCOA, FL. 32922		PROJECT:	
NUTRIENT SEPARATING BAFFLE BOX MODEL NO. NSBB-10-16-125		DRAWING #: 2-03-06-08-06	
DATE: 02/18/08		SCALE: SF = 72	
DRAFTER: T.H.H.		UNITS = INCHES	
REVISIONS:		DATE:	
REVISIONS:		DATE:	