

# SUNTREE TECHNOLOGIES MODEL NO. NSBB-12-20-132

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

1. Pipe inflow area (Drawn as 66" RCP) — 23.75 sq.ft.

### SCREEN SPECIFICATIONS:

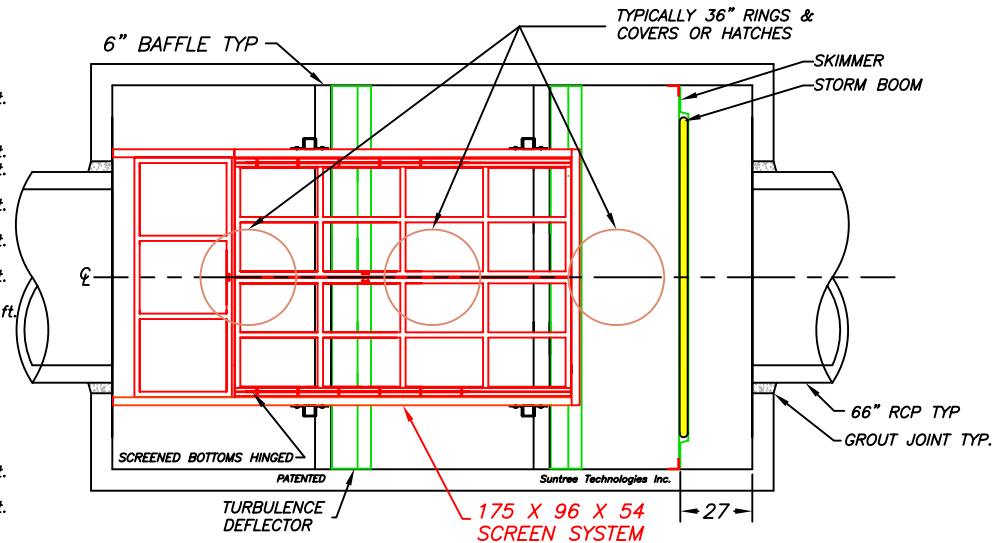
- 2. Open orifice area in screen system — 135.0 sq.ft.
- 3. Open orifice area in screen system with 50% blockage — 67.52 sq.ft.
- 4. Open orifice area in screen system with 75% blockage — 33.76 sq.ft.
- 5. Minimum by-pass through screen system below the top surface of the pipe — 37.78 sq.ft.
- 6. Minimum by-pass around screen system below the top surface of the pipe — 20.08 sq.ft.
- 7. Screen system storage volume — 419.36 cu.ft.

### SEDIMENT STORAGE:

- 8. Volume of first sediment chamber — 304 cu.ft.
- 9. Volume of second sediment chamber — 304 cu.ft.
- 10. Volume of third sediment chamber — 304 cu.ft.
- 11. Total sediment volume — 912 cu.ft.

### SKIMMER SPECIFICATIONS:

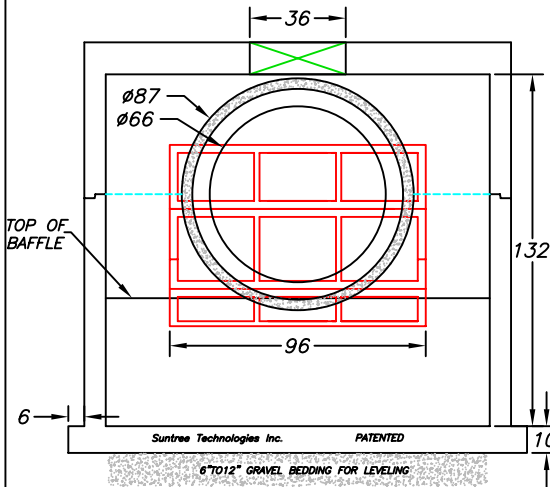
- 12. Flow area under skimmer — 19.16 sq.ft.
- 13. Area of pipe in line with skimmer — 9.82 sq.ft.
- 14. Area between the skimmer and the outflow pipe parallel with the surface of the pipe — 38.85 sq.ft.



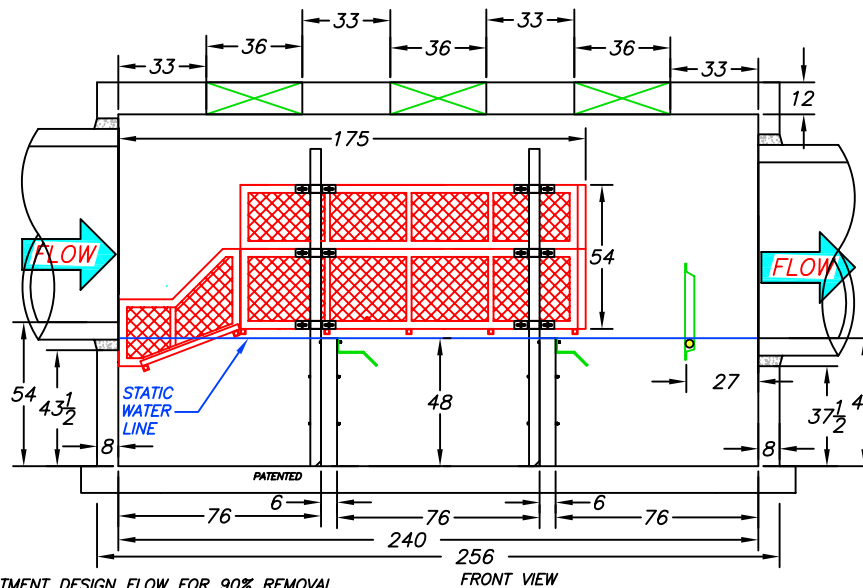
**PATENTED  
AND PATENTS PEND.**

INFLOW AND OUTFLOW PIPES ARE TO BE FLUSH WITH THE INSIDE SURFACE OF THE CONCRETE STRUCTURE. (CAN NOT INTRUDE BEYOND FLUSH)

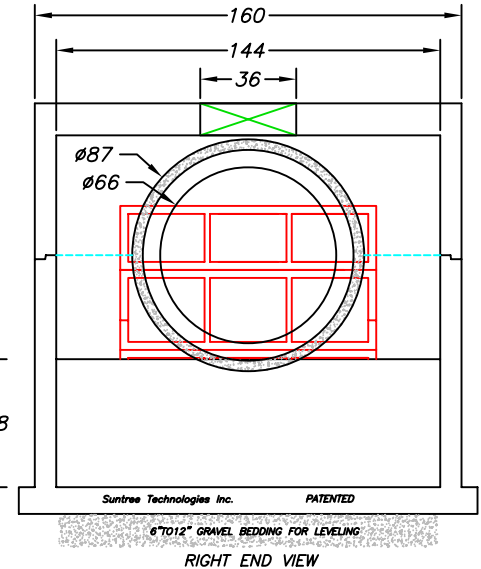
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LEFT END VIEW



FRONT VIEW



RIGHT END VIEW

**NOTES:**

- 1. CONCRETE 28 DAY COMPRESSIVE STRENGTH FC=5000 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 TO BE 8" THICK, BOTTOM TO BE 10" THICK, AND TOP TO BE 12" THICK.
- 6. TREATMENT DESIGN FLOW FOR 90% 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)

SUNTREE TECHNOLOGIES, INC. 798 CLEARLAKE RD, SUITE #2 COCOA, FL. 32922		PROJECT: MASTER DRAWING	
NUTRIENT SEPARATING BAFFLE BOX MODEL NO. NSBB-12-20-132		DRAWING #: 4-06-30-07-02	
DATE: 06/30/07		FILE NAME: NSBB-12-20-132	
SCALE: SF = 72		REVISIONS:	DATE:
DRAFTER: T.H.2.		REVISIONS:	DATE:
UNITS = INCHES			