# SUNTREE TECHNOLOGIES INC.™ NUTRIENT SEPARATING BAFFLE BOX™ MODEL NO: NSBB-3-6-70

PATENTED
AND PATENTS PEND.

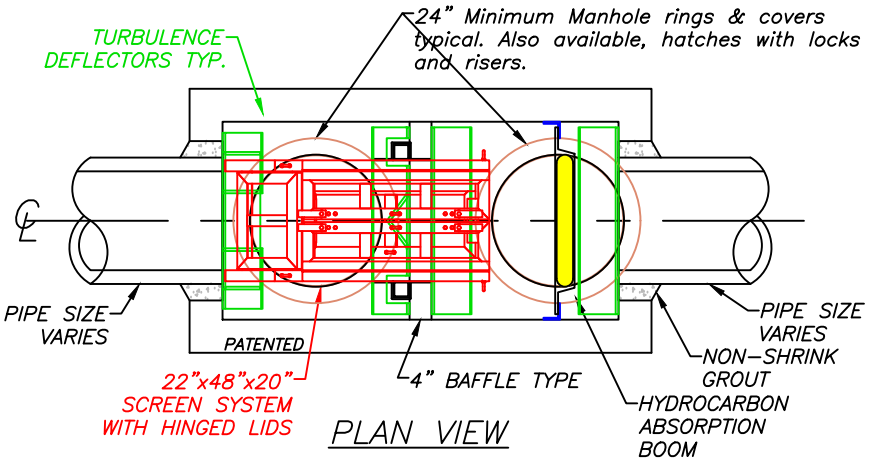
FLOW & BY-PASS SPECIFICATIONS FOR BIOMASS SEPARATING SCREEN SYSTEM, SEDIMENT COLLECTION CHAMBERS, AND SKIMMER SPECIFICATIONS

1. Inflow Pipe Area (18" RCP AS DRAWN) ——— 1.77 sq.ft.

SCREEN SPECIFICATIONS:
2. Open orifice area in screen system ——— 3.95 sq.ft.
3. Open orifice area in screen system with 50% blockage ——— 1.977 sq.ft.
4. Open orifice area in screen system with 75% blockage ——— 0.99 sq.ft.
5. By-pass through screen system below the ceiling of the pipe ——— 1.52 sq.ft.
6. Minimum by-pass around screen system below the ceiling of the pipe ——— 1.56 sq.ft.
7. Screen system storage volume ——— 7.25 cu.ft.

SEDIMENT STORAGE:
8. Volume of first chamber ——— 25.50 cu.ft.
9. Volume of second chamber ——— 25.50 cu.ft.
10. Volume of total sediment storage ——— 51.00 cu.ft.

SKIMMER SPECIFICATIONS:
11. Flow area under skimmer ——— 2.25 sq.ft.
12. Area of pipe in line with skimmer ——— 1.05 sq.ft.
13. Area between skimmer and outflow pipe parallel with the surface of the pipe ——— 2.93 sq.ft.




PLAN VIEW

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.

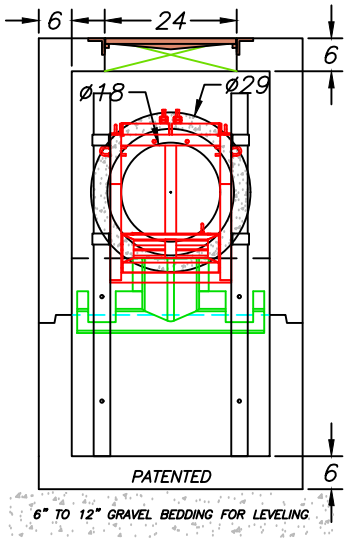
3. BAFFLES SHOULD BE SEALED WITH GROUT.

4. HEAVIEST PICK POINT TO BE TBD.

5. INVERT OF THE INFLOW PIPE SHOULD NOT BE BELOW THE INVERT OF THE OUTFLOW PIPE.

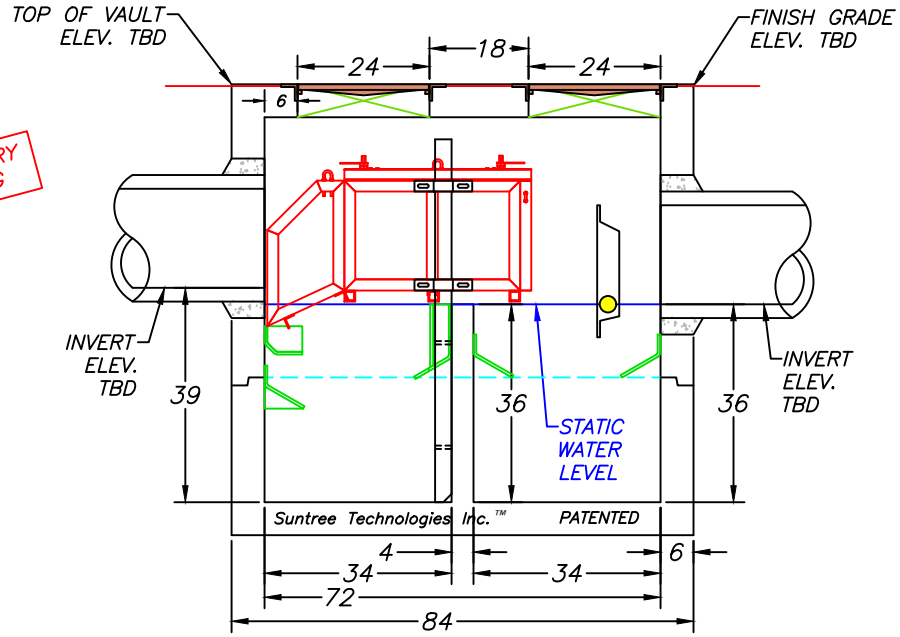

Suntree Technologies Inc.
798 Clearlake Road, Cocoa, Florida 32922
PH: 321-637-7552 Fax: 321-637-7554


PRELIMINARY DRAWING

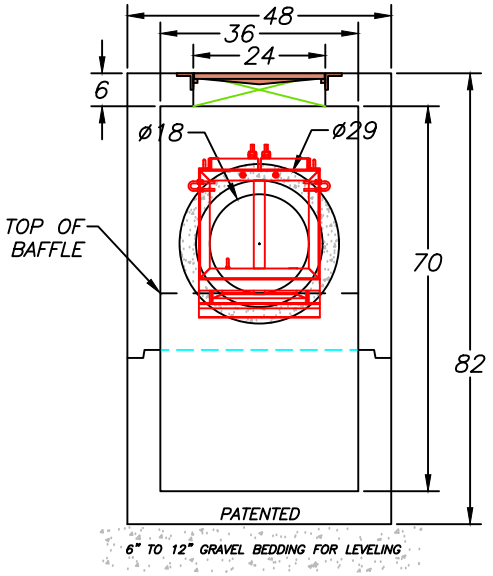



LEFT END VIEW

PRELIMINARY DRAWING




FRONT SIDE VIEW




RIGHT END VIEW

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 6" THICK, BOTTOM TO BE 6" THICK, AND TOP TO BE 6" THICK.
6. TREATMENT DESIGN FLOW FOR 80% REMOVAL EFFICIENCY OF TSS IS 8 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 2 WATER TIGHT CHAMBERS.

| | | | | | |
|---|---|---|---|---|---|
| SUNTREE TECHNOLOGIES INC.™<br>798 CLEARLAKE RD. SUITE #2<br>COCOA, FL. 32922 | | PROJECT LOC: | CAD | REVISIONS | DATE |
| NUTRIENT SEPARATING BAFFLE BOX<br>MODEL NO: NSBB-3-6-70 | | PROJECT NAME: | -.-.- | ------- | 00/00/00 |
| START DATE: 00/00/00 | SCALE: N/A | | | | |
| DRAFTER: -.-.-. | UNITS: INCHES | | | | |
| CHECKED BY: -.-.-. | PO #: 00000 | 03-09-21-15-04 | | | |

# SUNTREE TECHNOLOGIES INC.™ NUTRIENT SEPARATING BAFFLE BOX™ MODEL NO: NSBB–HVT–3–6–C

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

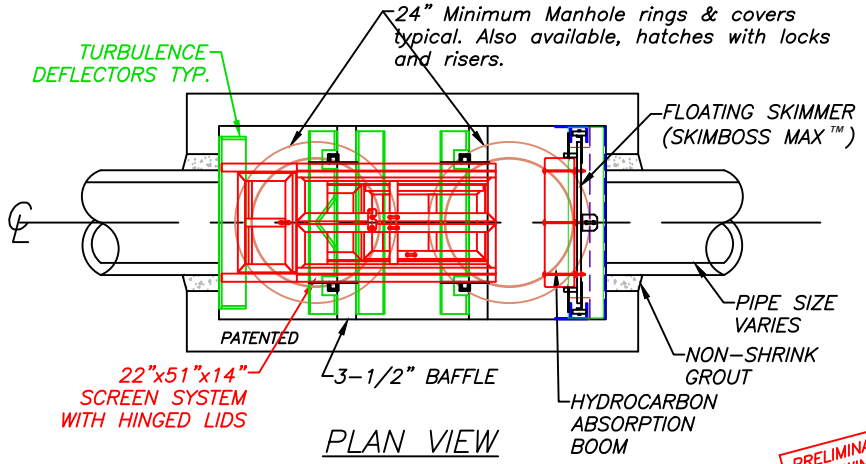
1. Inflow Pipe Area (15" RCP AS DRAWN) ——— 1.23 sq.ft.

SCREEN SPECIFICATIONS:

2. Open orifice area in screen system ——— 7.24 sq.ft.
3. Open orifice area in screen system with 50% blockage ——— 3.62 sq.ft.
4. Open orifice area in screen system with 75% blockage ——— 1.81 sq.ft.
5. By–pass through screen system below the ceiling of the pipe ——— 3.44 sq.ft.
6. Minimum by–pass around screen system below the ceiling of the pipe ——— 1.76 sq.ft.
7. Screen system storage volume ——— 6.77 cu.ft.

PATENTED
AND PATENTS PEND.

Suntree Technologies Inc.
798 Clearlake Road, Cocoa, Florida 32922
PH: 321–637–7552 Fax: 321–637–7554

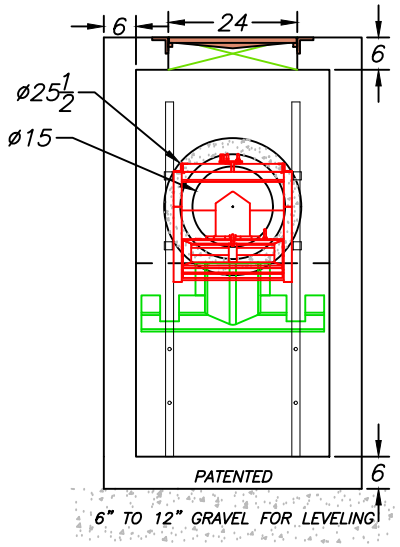



PLAN VIEW

PRELIMINARY DRAWING

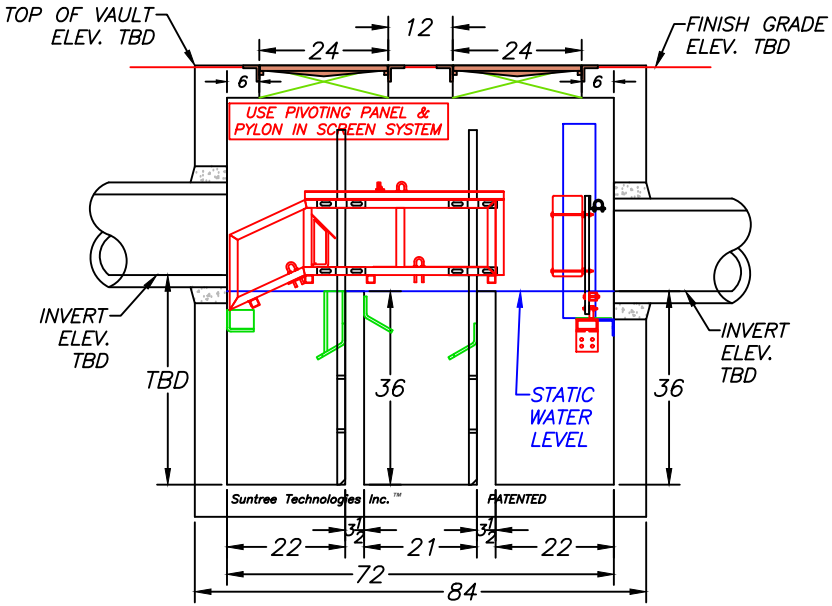
INSTALLATION NOTES:

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 5" BELOW THE INVERT OF THE OUTFLOW PIPE.
5. INVERT OF THE INFLOW PIPE SHOULD NOT BE BELOW THE INVERT OF THE OUTFLOW PIPE.

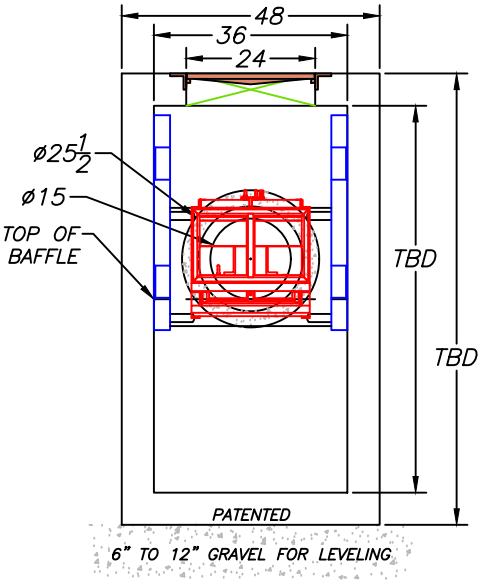



LEFT END VIEW

PRELIMINARY DRAWING




FRONT SIDE VIEW




RIGHT END VIEW

NOTES:

1. SUPPORTS AN H20 LOADING AS INDICATED BY AASHTO.
2. JOINT SEALANT: BUTYL RUBBER SS–S–00210
3. ALL WALLS TO BE 6" THICK, BOTTOM TO BE 6" THICK, AND TOP TO BE 6" THICK.
4. BAFFLE DEPTH SHOWN IS A MINIMUM REQUIREMENT, CAN BE MADE DEEPER FOR MORE STORAGE AS NEEDED.
5. BAFFLES ARE TO BE SEALED WITH GROUT TO FORM 3 WATER TIGHT CHAMBERS.
6. THE SHOWN NSBB IS WITH NO OPTIONS OR CUSTOM FEATURES
7. TREATMENT $MFR_{80}$ 1.35 CFS AND MAX 10–YR ON–LINE FLOW RATE 5.83 CFS.

DISTRIBUTED BY:
JEN–HILL
800–452–4435

| | | | | | |
|---|---|---|---|---|---|
| SUNTREE TECHNOLOGIES INC.™<br>798 CLEARLAKE RD. SUITE #2<br>COCOA, FL. 32922 | | PROJECT LOC: | CAD | REVISIONS | DATE |
| | | | A.B.1 | | 00/00/00 |
| NUTRIENT SEPARATING BAFFLE BOX<br>MODEL NO: NSBB–HVT–3–6–C | | PROJECT NAME: | | | |
| START DATE: 00/00/00 | SCALE: N/A | | | | |
| DRAFTER: A.B.1. | UNITS: INCHES | | | | |
| CHECKED BY: A.B.1. | PO #: 00000 | 03–09–21–15–04 | | | |