

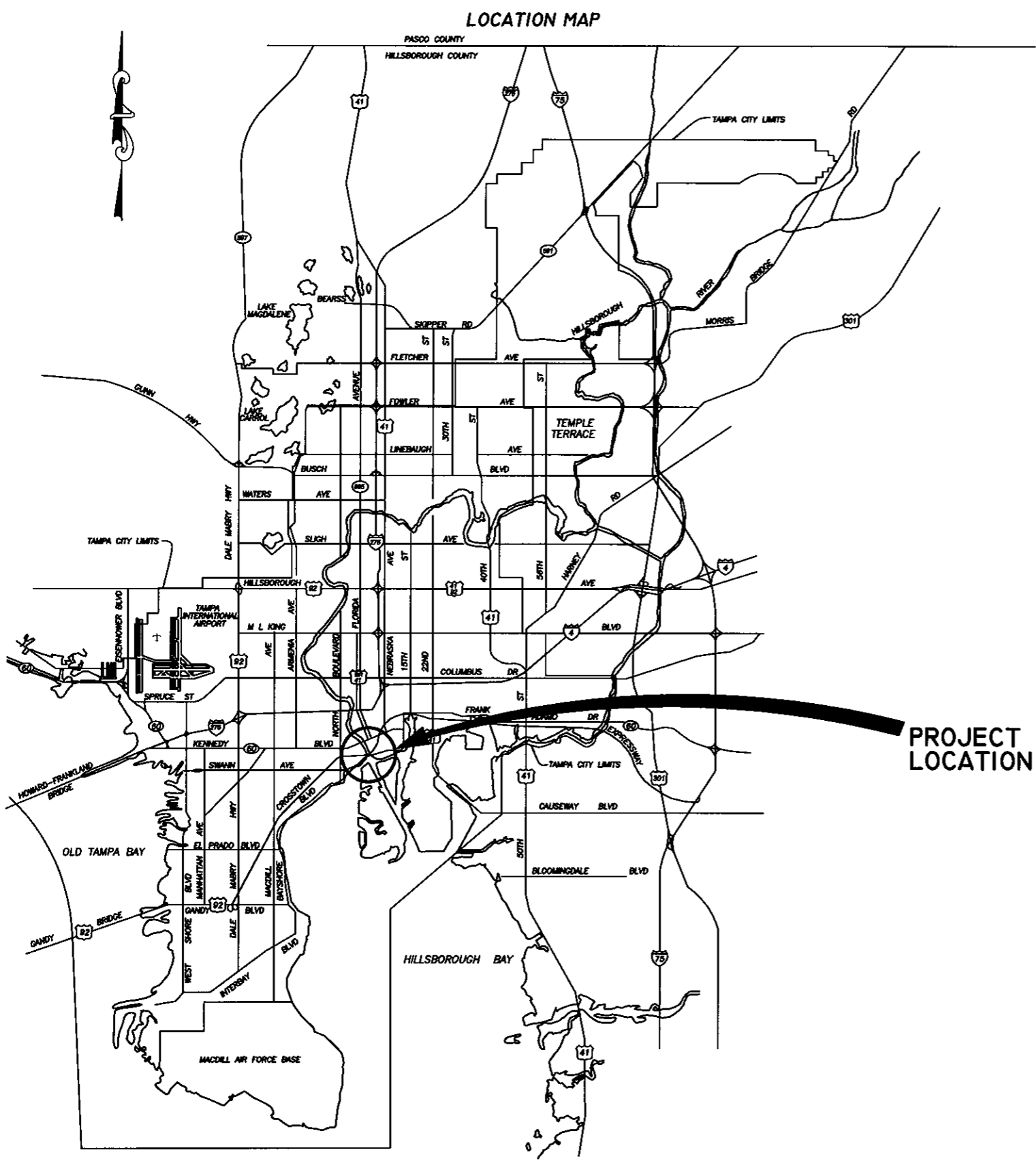
CITY of TAMPA



STORMWATER DEPARTMENT

PLANS FOR

RIVERWALK SEGMENT 10 -
 BROREIN ST. NUTRIENT SEPARATING BAFFLE BOX
 CONTRACT 9-C-00020



PROJECT
LOCATION

Richard Alfred Hoel
 RICHARD ALFRED HOEL, P.E. #41026
 DESIGN DIVISION HEAD
 STORMWATER DEPARTMENT

DES: YB	No.	DATE	REVISIONS
DRN: MP	3		
CKD:	2		
DATE:	1		

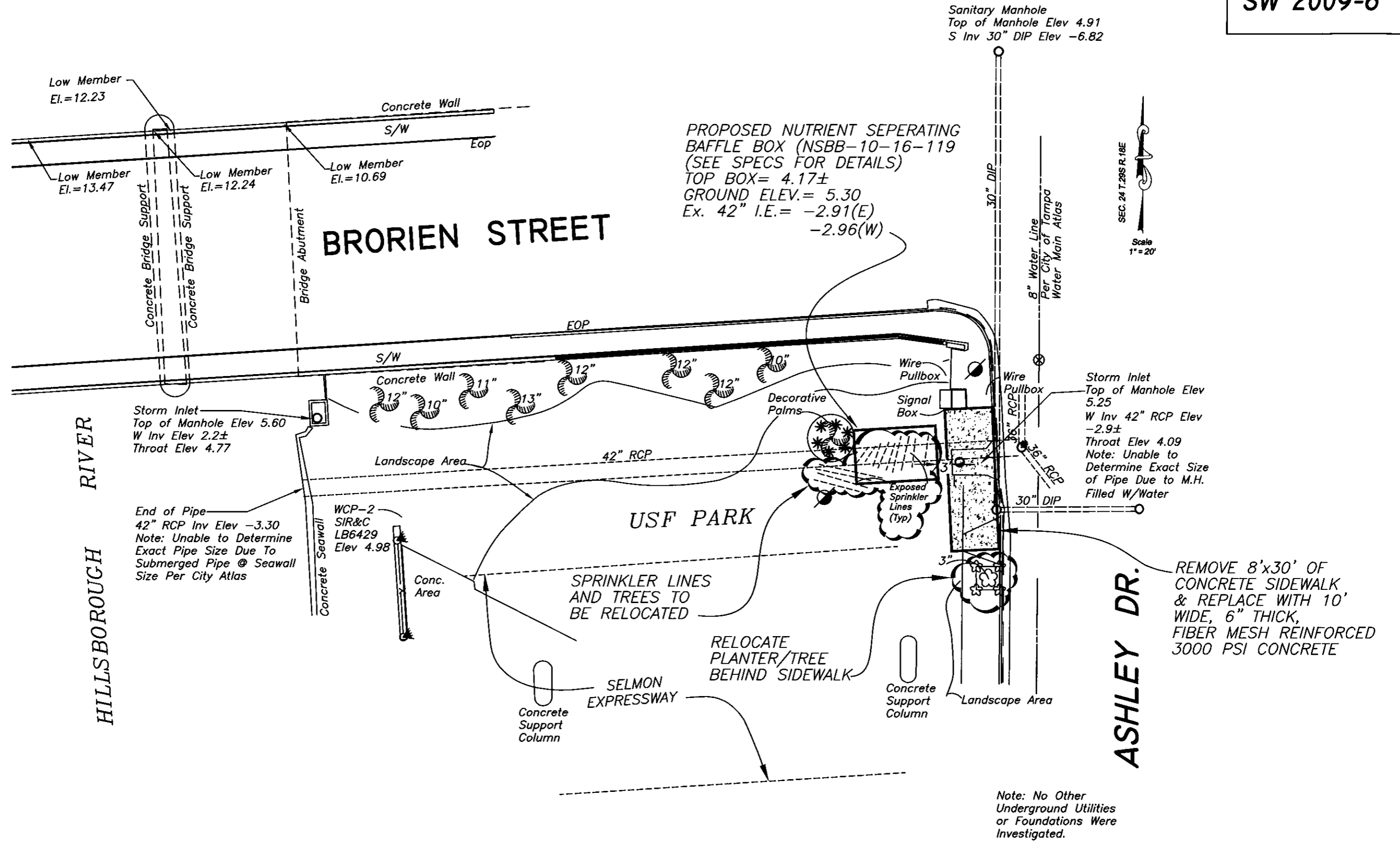
CITY of TAMPA
 STORMWATER DEPARTMENT

COVER SHEET

GENERAL NOTES: STORMWATER NUTRIENT SEPARATION BAFFLE BOX

1. LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN USING THE MOST RELIABLE INFORMATION AND RESPONSES FROM UTILITIES AT THE TIME OF THE DESIGN. VERIFY THE LOCATIONS AND DEPTHS OF ALL UTILITIES PRIOR TO CONSTRUCTION. NOTIFY SUNSHINE ONE-CALL AT LEAST 48 HOURS BEFORE BEGINNING CONSTRUCTION.
2. CONSTRUCT SUNTREE NUTRIENT SEPARATING BAFFLE BOX MODEL NSBB-10-16-119-BROREIN-1 PER SPECIFICATIONS AND MANUFACTURER'S RECOMMENDATIONS AS WELL AS SOIL BORING REPORT (TESTLAB) FOR FOUNDATION STABILIZATION.
3. ALL SPRINKLER LINES TO BE REPLACED AFTER THE INSTALLATION OF THE BOX IS COMPLETE.
4. TOP ELEVATIONS REFER TO THE TOP OF THE SEDIMENT TRAP STRUCTURE SLAB OR STRUCTURE RISER SLAB, DEPENDING ON THE CAPACITY (MODEL) OF THE SEDIMENT TRAP.
5. THE INVERTS AND OTHER GRADES SHOWN IN THE PLANS ARE BASED ON THE BEST AVAILABLE INFORMATION AT THE TIME OF DESIGN. ADJUST GRADES AT TOP OF STRUCTURE AS NECESSARY TO MATCH FIELD GRADES OF THE EXISTING PIPE SYSTEM TO BE RETROFITTED. IF REQUIRED, THE MANUFACTURER MAY BE REQUIRED TO ADJUST THE HEIGHT OF THE INTERNAL BYPASS WEIR WITHIN THE STRUCTURE TO ALLOW THE UNIT TO FUNCTION PROPERLY.
6. ACCESS RING AND COVER ELEVATIONS SHALL MATCH THE EXISTING GROUND OR PAVEMENT GRADE.
7. ALL DISTURBED CONCRETE PAVEMENT AREAS SHALL BE RESTORED WITH 6 INCHES OF REINFORCED CONCRETE.
8. DEWATERING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
9. BEDDING FOR THE SEDIMENT TRAP STRUCTURE SHALL MEET THE RECOMMENDATION OF THE MANUFACTURER AND AS NOTED IN THE SOIL BORING REPORT.
10. ALIGNMENT OF THE SEDIMENT TRAP TOP SLAB MUST MEET MANUFACTURER'S REQUIREMENTS FOR ACCESS OF INTERNAL COMPONENTS.
11. INTERMEDIATE PIPE BETWEEN IN-LINE STRUCTURES SHALL BE PROVIDED AS PART OF THE STRUCTURE.
12. A CERTIFIED ARBORIST WILL BE REQUIRED FOR PRUNING OF EXISTING PALM.
13. BACKFILL SHALL BE COMPACTED IN 12" LAYERS TO 98% MAXIMUM DRY DENSITY OF MODIFIED PROCTOR IN CONFORMANCE WITH AASHTO T-180, METHOD A. NO CLAY OR CLAYEY MATERIAL WILL BE USED IN THE BACKFILL.
14. IT IS THE INTENT OF THIS PROJECT TO MINIMIZE DISRUPTION TO THE AREA. PLEASE REFER TO THE CONTRACT DOCUMENTS AND SPECIFIC SUPPLIER INSTALL INSTRUCTIONS FOR SPECIFICS ON UNIT THAT IS SELECTED FOR THIS PROJECT.
15. RIGHT-OF-WAY PERMIT APPLICATIONS MUST BE SUBMITTED AT LEAST TWO WEEKS IN ADVANCE OF THE START OF CONSTRUCTION AND SHALL INCLUDE A MAINTENANCE OF TRAFFIC PLAN. PLEASE SUBMIT THE APPLICATION TO PJ CALLOWAY (813-630-3902) AT 3808 E. 26TH AVENUE.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING ALL EROSION/SILTATION/SEDIMENTATION PREVENTION CONTROL MEASUREMENTS DURING CONSTRUCTION.
17. NO ADDITIONAL PAYMENT WILL BE AUTHORIZED TO COMPLY WITH ANY OF THE ABOVE NOTES.

No.	DATE	REVISIONS	No.	DATE	REVISIONS	DES: YB	CITY of TAMPA STORMWATER DEPARTMENT	RIVERWALK SEGMENT 10 - BROREIN ST. NUTRIENT SEPARATING BAFFLE BOX	W.O. 5684
3			6			DRN: <i>MP</i>			SHEET
2			5			CKD: <i>MP</i>			2
1			4			DATE: <i>4-1-04</i>			OF 3



PROPOSED NUTRIENT SEPERATING
 BAFFLE BOX (NSBB-10-16-119
 (SEE SPECS FOR DETAILS)
 TOP BOX= 4.17±
 GROUND ELEV.= 5.30
 Ex. 42" I.E.= -2.91(E)
 -2.96(W)



Storm Inlet
 Top of Manhole Elev 5.25
 W Inv 42" RCP Elev
 -2.9±
 Throat Elev 4.09
 Note: Unable to
 Determine Exact Size
 of Pipe Due to M.H.
 Filled W/Water

REMOVE 8'x30' OF
 CONCRETE SIDEWALK,
 & REPLACE WITH 10'
 WIDE, 6" THICK,
 FIBER MESH REINFORCED
 3000 PSI CONCRETE

Note: No Other
 Underground Utilities
 or Foundations Were
 Investigated.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: YB
 DRN: MP
 CKD: A#
 DATE: 4-1-09

CITY of TAMPA
 STORMWATER DEPARTMENT

RIVERWALK SEGMENT 10 -
 BROREIN ST. NUTRIENT SEPARATING BAFFLE BOX

SUNTREE TECHNOLOGIES MODEL NO. NSBB-10-16-119-BRORIEN-1

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

1. Pipe inflow area (Drawn as 42" RCP) — 9.61 sq.ft.

SCREEN SPECIFICATIONS:

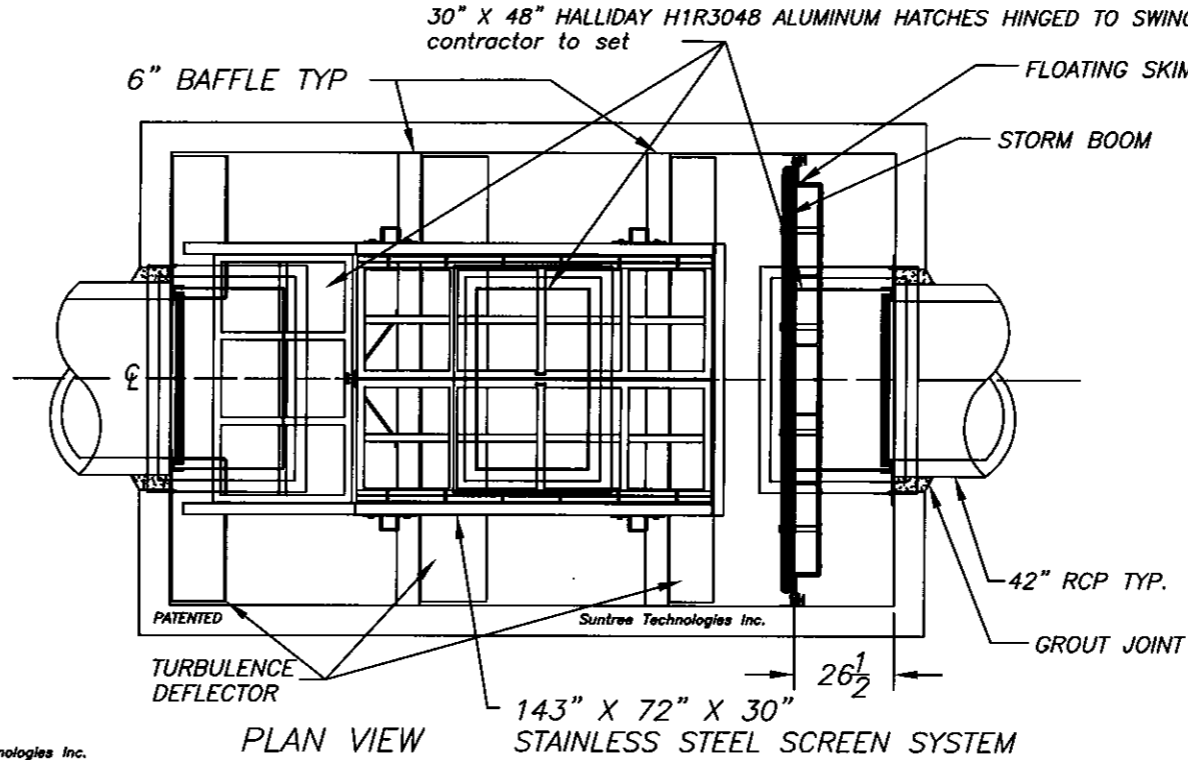
- 2. Open orifice area in screen system — 59.34 sq.ft.
- 3. Open orifice area in screen system with 50% blockage — 29.7 sq.ft.
- 4. Open orifice area in screen system with 75% blockage — 14.8 sq.ft.
- 5. Minimum by-pass through screen system below the top surface of the pipe — 5.27 sq.ft.
- 6. Minimum by-pass around screen system below the top surface of the pipe — 27.16 sq.ft.
- 7. Screen system storage volume — 154.44 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 — 6.59 sq.ft.
- 14. Area between the skimmer and the outflow pipe parallel with the surface of the pipe — 24.26 sq.ft.

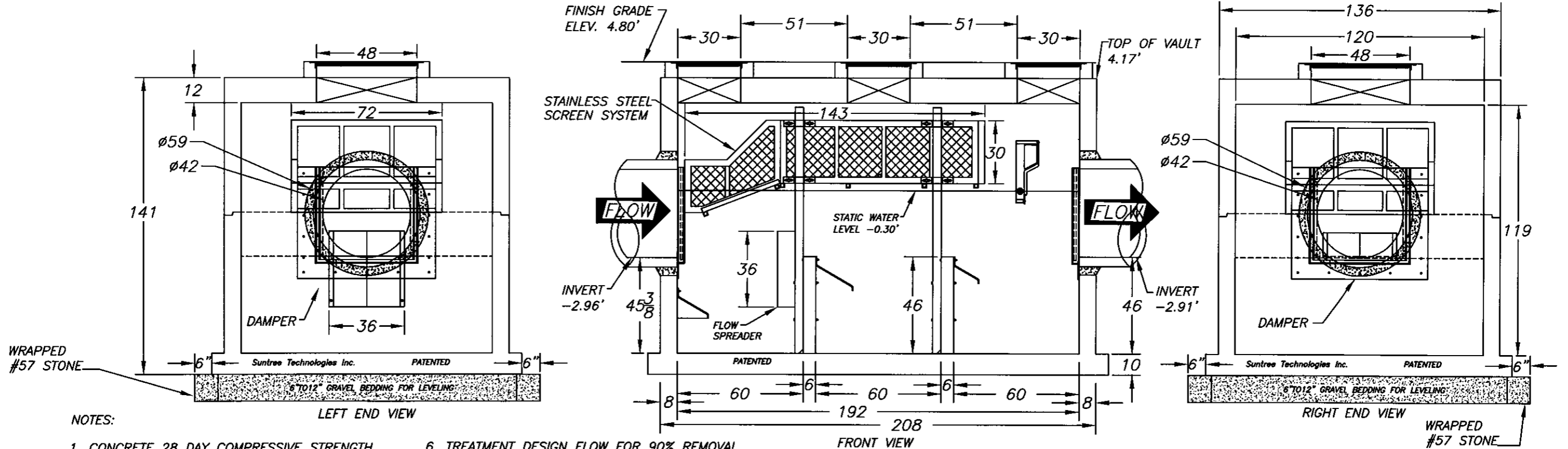


PATENTED
AND PATENTS PEND.

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.

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



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)
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: BRORIEN STREET	
SUNTREE NUTRIENT SEPARATING BAFFLE BOX MODEL NO. NSBB-10-16-119-BRORIEN-1		DRAWING #: 4-11-11-08-07	
DATE: 11/11/08 N.T.S.		FILE NAME: NSBB-10-16-119-BRORIEN-1	
DRAFTER: T.H.2. N.T.S.		REVISIONS: DATE:	
		REVISIONS: DATE:	