

INDEX OF SHEETS

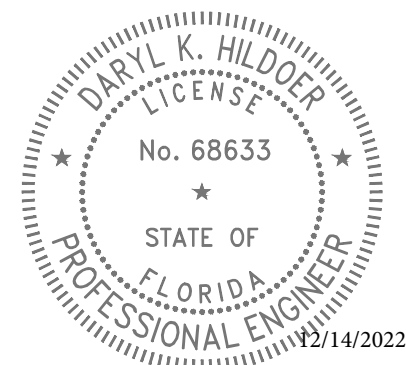
NOTE:

PREPARED BY



STEPHEN P. CLARK CENTER
111 NW 1 ST, SUITE 1510
MIAMI, FLORIDA 33128

THESE PLANS HAVE BEEN PREPARED IN ACCORDANCE WITH AND ARE GOVERNED BY THE MIAMI-DADE COUNTY PUBLIC WORKS DEPARTMENT STANDARDS AND SPECIFICATIONS PARTS 1, 2 AND 3. THE MANUAL OF UNIFORM MINIMUM STANDARDS FOR DESIGN, CONSTRUCTION AND MAINTENANCE FOR STREETS AND HIGHWAYS. THE FLORIDA DEPARTMENT OF TRANSPORTATION ROADWAY AND TRAFFIC DESIGN STANDARDS, AND THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, AS AMENDED BY CONTRACT DOCUMENTS.



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AND SEALED BY DARYL K. HILDOER, P.E.
ON THE DATE ADJACENT TO THE SEAL.

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DESIGN	I.N./I.R.	CHECK	F.G.
		DRAWN	F.C./H.S.
DATE	10-12-22	SHEET	1 OF 17

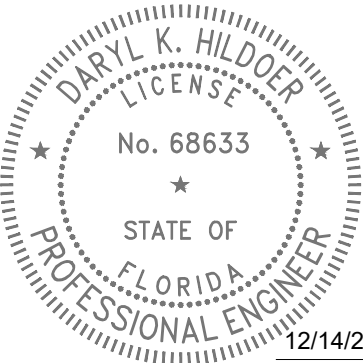
GENERAL NOTES:

1. ALL ELEVATIONS REFER TO THE MSL, 1929 NATIONAL GEODETIC VERTICAL DATUM (NGVD)
2. ALL DRAINAGE CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE PERMITTING REQUIREMENTS OF MIAMI DADE COUNTY REGULATORY AND ECONOMIC RESOURCES AND THE MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS.
3. IT IS THE INTENT THESE PLANS TO BE IN ACCORDANCE WITH APPLICABLE CODES AND AUTHORITIES HAVING JURISDICTION. ANY DISCREPANCIES BETWEEN THERE PLANS AND APPLICABLE CODES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER.
4. CATCH BASINS, SEEPAGE DRAINS, PAVEMENT RESTORATION AND PAVEMENT AROUND CATCH BASINS TO BE ACCORDING TO THE DETAILS AND APPLICABLE REQUIREMENTS OF THE MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS.
5. WHERE NEW PAVEMENT MEETS EXISTING, CONNECTION SHALL BE MADE IN A NEAT STRAIGHT LINE AND FLUSH WITH EXISTING PAVEMENT.
6. CONTRACTOR IS TO VERIFY THE EXACT LOCATION OF ALL EXISTING TREES, STRUCTURES, AND UTILITIES WITH MAY NOT BE SHOWN ON PLANS. ANY EXISTING STRUCTURE, PAVEMENT, TREES OR OTHER EXISTING IMPROVEMENT NOT SPECIFIED FOR REMOVAL WHICH IS TEMPORARLY DAMAGED, EXPOSED OR IN ANY WAY DISTURBED BY CONSTRUCTION PERFORMED UNDER THIS CONTRACT, SHALL BE REPAIRED, PATCHED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.
7. THE LOCATION AND SIZE OF ALL EXISTING UTILITIES SHOWN ON THESE DRAWINGS ARE APPROXIMATE; ADDITIONAL UTILITIES MAY EXIST WHICH ARE NOT SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITIES BY ELECTRONIC METHODS AND BY HAND EXCAVATION IN COORDINATION WITH ALL UTILITY COMPANIES. PRIOR TO BEGINNING ANY CONSTRUCTION OPERATION, ANY AND ALL CONFLICTS OF EXISTING UTILITIES WITH PROPOSED IMPROVEMENTS MUST BE RESOLVED BY THE ENGINEER AND THE OWNER. THIS WORK BY THE CONTRACTOR SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
8. CONTRACTOR SHALL CONTACT THE SUNSHINE STATE ONE CALL OF FLORIDA, INC. AT 1 (800) 432-4770 AT LEAST 48 HOURS PRIOR TO PERFORMING ANY DIGGING TO VERIFY THE EXACT LOCATION OF EXISTING UTILITIES.
9. EXISTING TREES SHALL BE REMOVED ONLY IF REQUIRED FOR CONSTRUCTION. THOSE TREES NOT INTERFERING WITH CONSTRUCTION SHALL BE PROTECTED IN PLACE. THE CONTRACTOR IS ADVISED THAT A TREE PERMIT MAY BE REQUIRED FOR TREE REMOVAL. CONTRACTOR SHALL NOTIFY REGULATORY AND ECONOMIC RESOURCES DEPARTEMENT AND MUNICIPALITIES WITH JURIDICITION PRIOR TO REMOVING ANY TREES.
10. EXISTING GRADES WERE TAKEN FROM THE BEST AVAILABLE DATA AND MAY NOT ACCURATELY REFLECT PRESENT CONDITIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH CURRENT SITE CONDITIONS, AND SHALL REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO STARTING WORK.
11. THE CONTRACTOR SHALL PREPARE AND SUBMIT SHOP DRAWINGS FOR ALL ITEMS LISTED IN PROJECT SPECIFICATION.
12. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR LEAVE EXCAVATED TRENCHES, OR PARTS OF, EXPOSED OR OPEN AT THE END OF THE WORKING DAY, WEEKENDS, HOLIDAYS OR OTHER TIMES. WHEN THE CONTRACTOR IS NOT WORKING, UNLESS OTHERWISE DETERMINED, ANY TRENCH SHALL BE COVERED, FIRMLY SECURED AND MARKED ACCORDINGLY FOR PEDESTRIAN TRAFFIC.
13. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL ADJACENT PROPERTIES AT ALL TIMES.
14. ALL EXCAVATED MATERIAL REMOVED FROM THIS PROJECT SHALL BE DISPOSED OF PROPERLY BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
15. CAST IRON PRODUCTS: HEAVY-DUTY CLASSIFICATION SUITABLE FOR HIGHWAY TRAFFIC LOADS, OR 16,000 LB. WHEEL LOADS.
16. STEEL GRATING AND COVERS: TRAFFIC CLASSIFICATION H-20 AASHTO H20: 16,000 LBS. OVER 8" X 20" AREA.
17. ALL STRUCTURES MUST BE CAPABLE OF SUSTAINING HEAVY TRAFFIC LOADS.
18. ALL GRASS AREAS AFFECTED BY CONSTRUCTION SHALL BE RE-SODDED.
19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROVISION, INSTALLATION AND MAINTENANCE OF ALL TRAFFIC CONTROL AND SAFETY DEVICES, IN ACCORDANCE WITH SPECIFICATIONS OUTLINED IN SECTION C2 AND SECTION R19 OF THE PUBLIC WORKS DEPARTMENT MANUAL. IN ADDITION, THE CONTRACTOR IS RESPONSIBLE FOR THE RESETTING OF ALL TRAFFIC CONTROL AND INFORMATION SIGNING REMOVED DURING CONSTRUCTION PERIOD.
20. EXCAVATED OR OTHER MATERIAL STORED ADJACENT TO OR PARTIALLY UPON A ROADWAY PAVEMENT SHALL BE ADEQUATELY MARKED FOR TRAFFIC SAFETY AT ALL TIMES.
21. TEMPORARY PATCH MATERIAL MUST BE ON THE JOB SITE WHENEVER PAVEMENT IS CUT, OR THE INSPECTOR WILL SHUT THE JOB DOWN.
22. CONTRACTOR SHALL MAINTAIN TRAFFIC ACCORDING TO CORRESPONDING TYPICAL CONTROL DETAIL AS OUTLINED IN MIAMI-DADE COUNTY PUBLIC WORKS MANUAL.
23. CONTRACTOR SHALL MAINTAIN AT LEAST THE FOLLOWING NUMBER OF TRAFFIC LANES FOR CORRESPONDING TIME PERIODS: MONDAY - FRIDAY 7-9 A.M. AND 4-6 P.M.; NO INTERRUPTION TO TRAFFIC IS PERMITTED. ALL OTHER TIMES:

A) MAINTAIN ONE LANE FOR TWO-WAY OPERATION WITH FLAGMEN.

B) MAINTAIN ONE LANE IN EACH DIRECTION FOR TRAFFIC.
24. CONTRACTOR MUST PROVIDE FLASHER ARROW BOARD FOR ANY LANE THAT IS CLOSED OR DIVERTED.
25. CONTRACTOR SHALL NOTIFY LAW ENFORCEMENT AND FIRE PROTECTION SERVICES TWENTY-FOUR (24) HOURS IN ADVANCE OF THE DETOUR IN ACCORDANCE WITH SECTION 336.07 OF FLORIDA STATUTES.
26. COMPLETE AS-BUILT INFORMATION RELATIVE TO LOCATION AND DEPTH OF PIPES, MANHOLES, ETC. SHALL BE ACCURATELY RECORDED BY THE CONTRACTOR. THREE (3) SETS LABELED "AS-BUILT" MUST BE SUBMITTED, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA, TO THE ENGINEER OF RECORD PRIOR TO FINAL ACCEPTANCE OF THE WORK.
27. IT IS RESPONSIBILITY OF THE CONTRACTOR TO SELECT AND OBTAIN THE APPROPRIATE PERMISSION FROM MIAMI-DADE COUNTY OR APPLICABLE AGENCY THAT HAS JURISDICTION ON THE "PROPOSED" STAGING AREAS.

28. DRAINAGE/UTILITY TRENCHES SHALL NOT BE LEFT OPEN OVERNIGHT. A TEMPORARY COVER WITH A CAPACITY OF H-20 LOADING SHALL BE PLACED AS DIRECTED BY THE ENGINEER AT NO EXTRA COST TO MIAMI-DADE COUNTY.
29. PROVIDE FLOWABLE FILL OVER PIPE AS COVER WHERE MINIMUM PIPE COVER OF 2 FEET CANNOT BE ACCOMPLISHED UNDER PAVED AREAS. HOWEVER, THE COVER WITH FLOWABLE FILL SHALL BE NO LESS THAN 12 INCHES.
30. ALL STATIONS AND OFFSETS REFER TO [CENTERLINE]/ [BASELINE] OF CONSTRUCTION, UNLESS OTHERWISE STATED.
31. CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE EPA AND THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES).
32. MIAMI-DADE WATER AND SEWER DEPARTMENT REQUIRES THAT ACCESS TO ALL WATER AND SEWER VALVES, SANITARY MANHOLES, AND OTHER CONTROL MECHANISMS BE MAINTAINED THROUGHOUT CONSTRUCTION IN THE EVENT OF AN EMERGENCY TO ENSURE THE PUBLIC HEALTH AND SAFETY. COVERING VALVE BOXES AND MANHOLES CAN BE CONSIDERED UNAUTHORIZED CONSTRUCTION OF AND TAMPERING WITH DEPARTMENT UTILITIES. ALL REQUESTS FOR UTILITY ADJUSTMENTS MUST BE MADE IN WRITING AT LEAST TWO (2) WEEKS IN ADVANCE. FOR MANHOLE AND VALVES, CONTACT UTILITY COORDINATOR PATRICK CHONG AT 786-268-5265. THE DEPARTMENT WILL MAKE ONE FINAL AND PERMANENT ADJUSTMENT AT NO COST TO THE REQUESTING AGENCY. FOR THE ADJUSTMENT OF WATER METERS, CONTACT THE CHIEF OF METER OPERATIONS AND MAINTENANCE: 786-268-5469. FOR ANY FIRE HYDRANTS THAT ARE DAMAGED OR BUMPED DURING CONSTRUCTION, CONTACT THE MDWASD HYDRANT SHOP AT 305-552-4926. BEFORE POURING CONCRETE FOR THE SIDEWALK. IN THE EVENT OF A WATER OR SEWER EMERGENCY, WASD EMERGENCY NUMBER 305-552-8901. THIS LINE IS OPEN 24 HOURS, 7 DAYS A WEEK.
33. THE CONTRACTOR IS ADVISED THAT PROPERTIES ADJACENT TO THE PROJECT HAVE ELECTRIC, TELEPHONE, GAS, WATER AND/OR SEWER SERVICE LATERALS WHICH MAY NOT BE SHOWN IN PLANS. THE CONTRACTOR MUST REQUEST THE LOCATION OF THESE LATERAL SERVICES FROM THE UTILITY COMPANIES. THE ADDITIONAL COST OF EXCAVATING, INSTALLING, BACKFILLING, AND COMPACTING AROUND THESE SERVICES MUST BE INCLUDED IN THE BID RELATED ITEM FOR THE WORK BEING DONE.
34. THE CONTRACTOR SHOULD TAKE SPECIAL NOTE OF SOIL CONDITIONS THROUGHOUT THIS PROJECT. ANY SPECIAL SHORING, SHEETING OR OTHER PROCEDURES NECESSARY TO PROTECT ADJACENT PROPERTY, PUBLIC OR PRIVATE, DURING THE EXCAVATION OF SUBSOIL MATERIAL AND EXFILTRATION TRENCH, OR FILLING OF ANY AREA, OR FOR ANY OPERATION DURING CONSTRUCTION, SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
35. IF SHEETING, SHORING OR DEWATERING, INCLUDING WELL POINTS ARE NECESSARY, THE CONTRACTOR MUST MONITOR AND CONTROL ALL WORK THAT MAY CAUSE CRACKING TO ANY ADJACENT BUILDING, STRUCTURE, OR PROPERTY AREA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES CAUSED BY THESE OPERATIONS. COST OF SHEETING, SHORING, OR DEWATERING, SHALL BE INCLUDED IN THE RELATED BID ITEM FOR THE WORK BEING DONE.
36. ALL DITCH EXCAVATIONS SHALL BE PERFORMED IN FULL COMPLIANCE WITH THE PROVISIONS OF THE TRENCH SAFETY ACT.
37. ANY KNOWN OR SUSPECTED HAZARDOUS MATERIAL FOUND ON THE PROJECT BY THE CONTRACTOR SHALL BE IMMEDIATELY REPORTED TO THE PROJECT ENGINEER, WHO SHALL DIRECT THE CONTRACTOR TO PROTECT THE AREA OF KNOWN OR SUSPECTED CONTAMINATION FROM FURTHER ACCESS. THE ENGINEER WILL ARRANGE FOR INVESTIGATION, IDENTIFICATION, AND REMEDIATION OF THE HAZARDOUS MATERIAL. THE CONTRACTOR SHALL NOT RETURN TO THE AREA OF CONTAMINATION UNTIL APPROVAL IS PROVIDED BY THE PROJECT ENGINEER.
38. THE CONTRACTOR SHALL USE A STREET SWEEPER (USING WATER) OR OTHER EQUIPMENT CAPABLE OF CONTROLLING AND REMOVING DUST. APPROVAL OF THE USE OF SUCH EQUIPMENT IS CONTINGENT UPON ITS DEMONSTRATED ABILITY TO DO THE WORK.
39. WHEN DISSIMILAR MATERIAL CONNECTIONS ARE MADE, SUCH AS CONCRETE TO METAL, THE DISSIMILAR MATERIAL SHALL BE SEPARATED BY COATING THE CONTACT SURFACE WITH BITUMASTIC MATERIAL.
40. PRIOR TO CONSTRUCTION THE CONTRACTOR WILL INSPECT ALL EXISTING STRUCTURES WHICH ARE TO REMAIN AND NOTIFY THE ENGINEER OF ANY OBVIOUS STRUCTURAL DEFICIENCIES.
41. WHERE CONNECTIONS TO EXISTING SIDEWALKS AND DRIVEWAYS ARE NOT INDICATED ON PLANS, PROPER CONNECTIONS ARE TO BE MADE AS DIRECTED BY THE ENGINEER. DROP CURB AND DRIVEWAY CONNECTIONS SHALL BE PROVIDED FOR ACCESS TO ALL PRIVATE PROPERTIES ADJACENT TO THE PROJECT. PAYMENT SHALL BE INCLUDED IN THE COST OF RELATED BID ITEMS.
42. CONTRACTOR TO INSTALL ½" PERFORMED EXPANSION JOINT WHEN PROPOSED SIDEWALK IMPROVEMENTS IS IMMEDIATELY ADJACENT TO EXISTING CONCRETE SLAB AND/OR BUILDING.
43. THE SIDEWALK AT DRIVEWAY TURNOUTS SHALL BE 6"CONCRETE.
44. ALL BUS STOP SIGNS TO BE FURNISHED BY MIAMI-DADE TRANSPORTATION AND PUBLIC WORKS DEPARTMENT. ENGINEER TO CONTACT MIAMI-DADE COUNTY TRANSPORTATION AND PUBLIC WORKS DEPARTMENT AT (305) 637-3753 ONE (1) WEEK PRIOR TO POURING SIDEWALKS AND COORDINATE THE REMOVAL AND REPLACEMENT OF BUS STOP SIGNS AND BENCHES.
45. THE INFORMATION PROVIDED IN THESE DRAWINGS IS SOLELY TO ASSIST THE CONTRACTOR IN ASSESSING THE NATURE AND EXTENT OF CONDITIONS WHICH WILL BE ENCOUNTERED DURING THE COURSE OF WORK. THE CONTRACTORS ARE DIRECTED, PRIOR TO BIDDING, TO CONDUCT WHATEVER INVESTIGATIONS THEY DEEM NECESSARY TO ARRIVE AT THEIR OWN CONCLUSION REGARDING THE ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED AND UPON WHICH BIDS WILL BE BASED.
46. ANY SURVEY MONUMENT, BENCH MARK, ETC., FOUND DURING CONSTRUCTION ACTIVITIES ARE TO BE RESTORED TO IT IS ORIGINAL LOCATION AND COORDINATES AS DEPICTED IN COUNTY RECORDS PLAT AND BOOK. RESTORATION WILL BE AT NO ADDITIONAL COST AND MUST BE SHOWN ON AS-BUILT PLANS.
47. FOR THE INSTALLATION OF SOD IN SWALE AREAS ADJACENT TO ROADWAYS, SIDEWALKS, DRIVEWAY APPROACHES OR ANY OTHER PAVED SURFACES, THE SWALE MUST BE RESTORED TO FORM A "V" SHAPE AS PER THE DETAILS INCLUDED IN THE MIAMI DADE COUNTY PUBLIC WORKS MANUAL. SPECIFICALLY, THE ELEVATION OF THE TOP OF THE SOD MUST MATCH THE ABUTTING AREAS (EDGE OF PAVEMENT, SIDEWALK OR DRIVEWAY APPROACH) AND THE CENTERLINE OF THE SWALE SHALL BE ON AVERAGE 3 INCHES BELOW THE ROADWAY EDGE OF PAVEMENT ELEVATION UNLESS OTHERWISE DIRECTED BY THE ENGINEER.



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REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

SNAPPER CREEK CANAL OUTFALL
RETROFIT ON SNAPPER CREEK DR.
FROM SW 100 AVE TO SW 97 CT

	NAME	DATE		NAME	DATE
DESIGNED BY	LN./LR.	10-12-22	DRAWN BY	F.C./H.S.	10-12-22
CHECKED BY	F.G.	10-12-22	CHECKED BY	LN./LR.	10-12-22
SUPERVISED BY:					



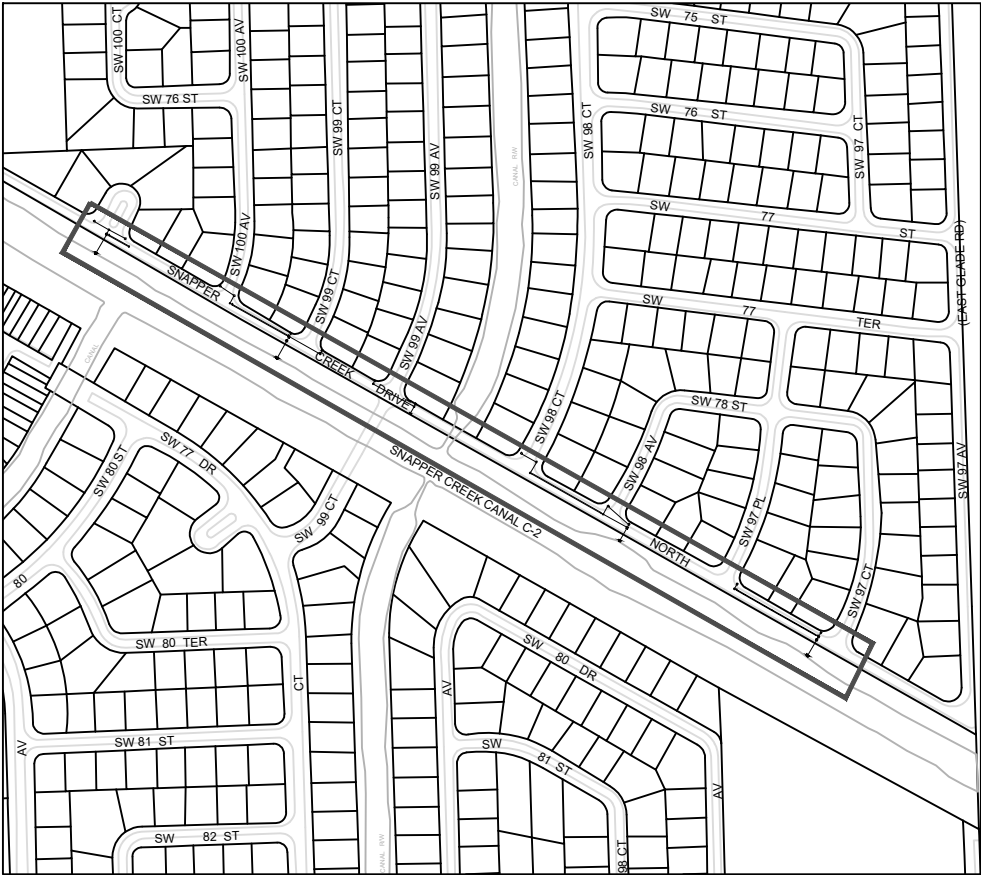
DEPARTMENT OF TRANSPORTATION
AND PUBLIC WORKS
ROADWAY ENGINEERING AND
RIGHT OF WAY DIVISION
STEPHEN P. CLARK, CENTER
1111 NW 1 ST
MIAMI, FLORIDA 33138

GENERAL NOTES

SURVEYOR'S NOTES:

-Survey performed by DTPW Survey Section.
-Survey Date:11/27/19
-Survey as per
F.B. 2932 Page16-51
-(OUTFALL SNAPPER CREEK CANAL C-2)
-The elevations are based on NGVD 1929, Miami Dade County
Name=SC-55
BM Elev=11.45'
N. SNAPPER CREEK DR = 154' SW of  
SW 99 AVE = 18' SOUTHEAST of  
Brass bar in SE Wingwall of Bridge over Snapper Creek
-Section 32, Township 52 , Range 40.
-Benchmark for vertical control information was recorded
by DTPW Survey Section.
-Right-of-Way Lines shown hereon as per existing plats.

LOCATION MAP
& KEY MAP



KEY SHEET
TRS 54-40-32

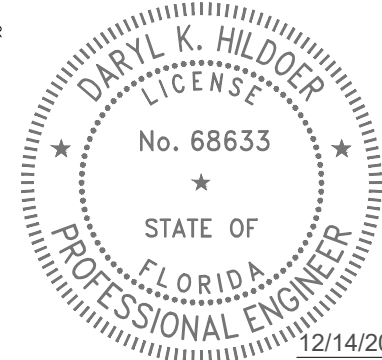
LEGEND AND
ABBREVIATIONS:

- (M) = MEASURES
- (P) = By PLAT
- F; Fd = FOUND
- CND = CONCRETE NAIL & DISK
- PKF = PK NAIL FOUND
- CNDF = CONCRETE NAIL & DISK FOUR
- CNF = CONCRETE NAIL & DISK FOUR
- CNC = CONCRETE NAIL CUT
- DHF = DRILL HOLE FOUND
- NF = NAIL FOUND
- PKDF = PK NAIL & DISK FOUND
- R/W = RIGHT OF WAY
- RBAC = ROCK BASE ASPHALT COMPOUND
- BL = BASE LINE
- CL = CENTER LINE
- R = RADIUS
- L = LENGTH OF CURVE
- C&G = CURB & GUTTER
- VG = VALLEY GUTTER
- E/P = EDGE OF PAVEMENT
- T/B = TOP OF BANK
- E/W = EDGE OF WATER
- PCP = PERMANENT CONTROL POINT
- RLS = REGISTERED LAND SURVEYOR
- PLS = PROFESSIONAL LAND SURVEYOR
- PS = STREET SIGN
- ALF = ALUM. FLASHING SCHOOL LIGHT
- MB = MAILBOX
- DL = DECORATIVE LIGHT POLE
- MLP = METAL LIGHT POLE
- MTLP = METAL TRAFFIC LIGHT POLE
- MPP = METAL POWER POLE
- CLP = CONCRETE LIGHT POLE
- CLPP = CONCRETE POWER POLE
- WLP = WOOD LIGHT POLE
- WPP = WOOD POWER POLE
- WTP = WOOD TELEPHONE POLE
- FLP = FIBERGLASS LIGHT POLE
- WMH = WATER MANHOLE
- SMH = SANITARY MANHOLE
- SSV = SANITARY SEWER VALVE (FM)
- CTP = CABLE TV PEDESTRIAN
- TVCB = TV CABLE RISER BOX
- TCB = TV CONTROL BOX
- CB = CABLE BOX
- TH = TELEPHONE HANDHOLE
- TMH = TELEPHONE MANHOLE
- TUB = TELEPHONE UTILITY BOX
- TRB = TELEPHONE RISER BOX
- TRC = TELEPHONE RISER CONTROL BOX
- TCB = TELEPHONE CONTROL BOX
- B = BOX
- C = CROSSING SIGN
- P = POST
- I = INTERCOM
- G = GAS VALVE
- P = PVC POST
- G = GUY WIRE
- S = SPRINKLE HEAD
- C = CENTRAL ANGLE OF CURVE
- M = MONITORING WELL
- P = PETROLEUM PIPELINE
- E = ELECTRIC HANDHOLE
- EMH = ELECTRIC MANHOLE
- FH = FIRE HYDRANT
- WV = WATER VALVE
- WM = WATER METER
- TSMH = TRAFFIC SIGH MANHOLE
- TSHH = TRAFFIC SIGH HANDHOLE
- TCB = TRAFFIC CONTROL BOX
- TSB = TRAFFIC SIGNAL BOX
- ECB = ELECTRICAL CONTROL BOX
- RRC = RAIL ROAD CROSSING (LIGHT)

- CONCRETE
- ASPHALT
- UNIMPROVED DRIVEWAY
- GRAVEL
- BRICK
- STAMPED CONCRETE
- CONCRETE BLOCK FENCE
- TREE DIAMETER
- EXISTING CATCH BASIN
- EXISTING STORMWATER MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED STORMWATER MANHOLE
- EXISTING SOLID PIPE
- EXISTING FRENCH DRAIN
- PROPOSED SOLID PIPE
- PROPOSED FRENCH DRAIN
- RIGHT-OF-WAY LINE
- WOOD FENCE
- CHAIN LINK FENCE
- IRON FENCE
- EXISTING SIDEWALK
- F.P.L. OVERHEAD
- F.P.L. UNDERGROUND
- WATER LINE MAIN
- GAS MAIN
- FORCE MAIN
- CABLE TV
- BELL SOUTH TELEPHONE CONDUIT
- BASELINE
- SANITARY SEWER

- AVOCADO TREE
- ARECA TREE
- AUST. PINE TREE
- ALMOND TREE
- BLACK OLIVE TREE
- BOTTLE BRUSH TREE
- BISMARCK PALM
- BUSH TREE
- BISCHOFIA TREE
- BOTTLE PALM
- BANANA TREE
- BANYAN TREE
- BRAZILIAN PEPPER
- CABBAGE TREE
- COCONUT TREE
- CLUSTER PALM
- CYPRESS TREE
- CANARY PALM
- COCOS PLUMOSA
- CACTUS
- DATE PALM
- FICUS TREE
- FLORIDA ORCHID TREE
- FOX TAIL TREE
- GUMBO LIMBO TREE
- HIBISCUS TREE
- IXORA TREE
- JUNIPER TREE
- JARACANDA TREE
- KAPOK TREE

- LIVE OAK TREE
- MAMEY TREE
- MULBERRY TREE
- MAHOGANY TREE
- MANGO TREE
- MANGROVE TREE
- NISPERO TREE
- NORFOLK TREE
- OAK TREE
- ORANGE GEIGER
- PINE TREE
- PALM TREE
- PHILODENDRON/RUBBER TREE
- QUEEN PALM TREE
- RHOBOLINI TREE
- ROYAL POINCIANA TREE
- ROSEWOOD TREE
- ROYAL PALM
- SOUR ORANGE TREE
- SEA GRAPE TREE
- SOLITARY PALM
- SILVER BUTTONWOOD TREE
- TABEULA TREE
- TRAVELER CLUSTER
- TAMARIND TREE
- UNKNOWN TREE
- UMBRELLA TREE
- WASHINGTON PALM
- ZAPODILLA TREE
- HEDGES



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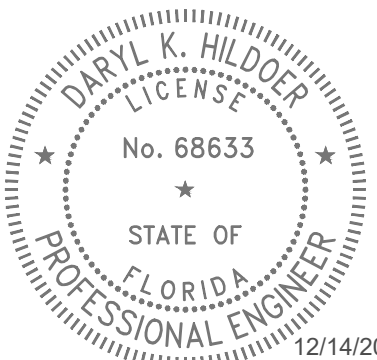
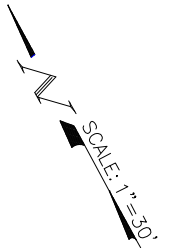
SNAPPER CREEK CANAL OUTFALL
RETROFIT ON SNAPPER CREEK DR.
FROM SW 100 AVE TO SW 97 CT

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DEPARTMENT OF TRANSPORTATION
AND PUBLIC WORKS
ROADWAY ENGINEERING AND
RIGHT OF WAY DIVISION
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SURVEYOR'S NOTES, KEY SHEET
LEGEND AND ABBREVIATIONS

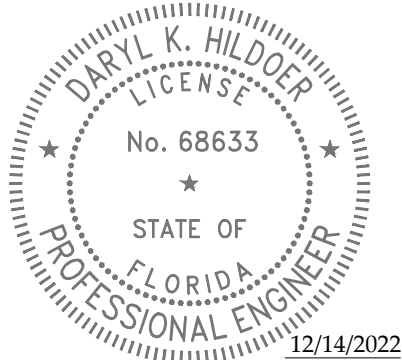
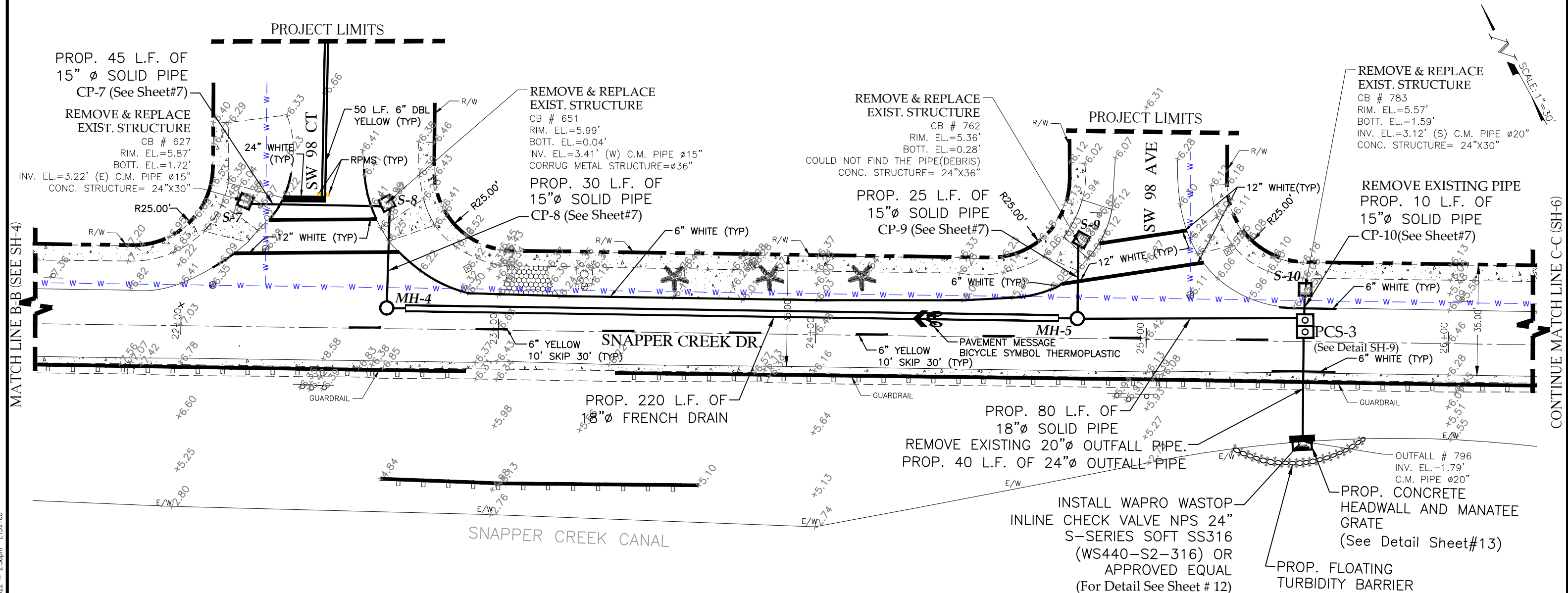


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SNAPPER CREEK CANAL OUTFALL
RETROFIT ON SNAPPER CREEK DR.
FROM SW 100 AVE TO SW 97 CT



DRAINAGE PLAN

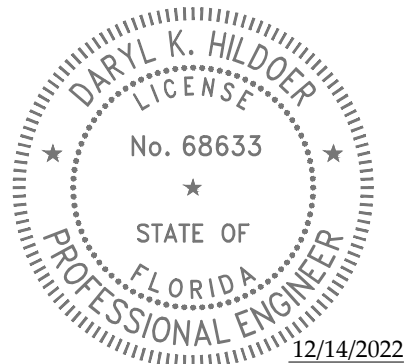
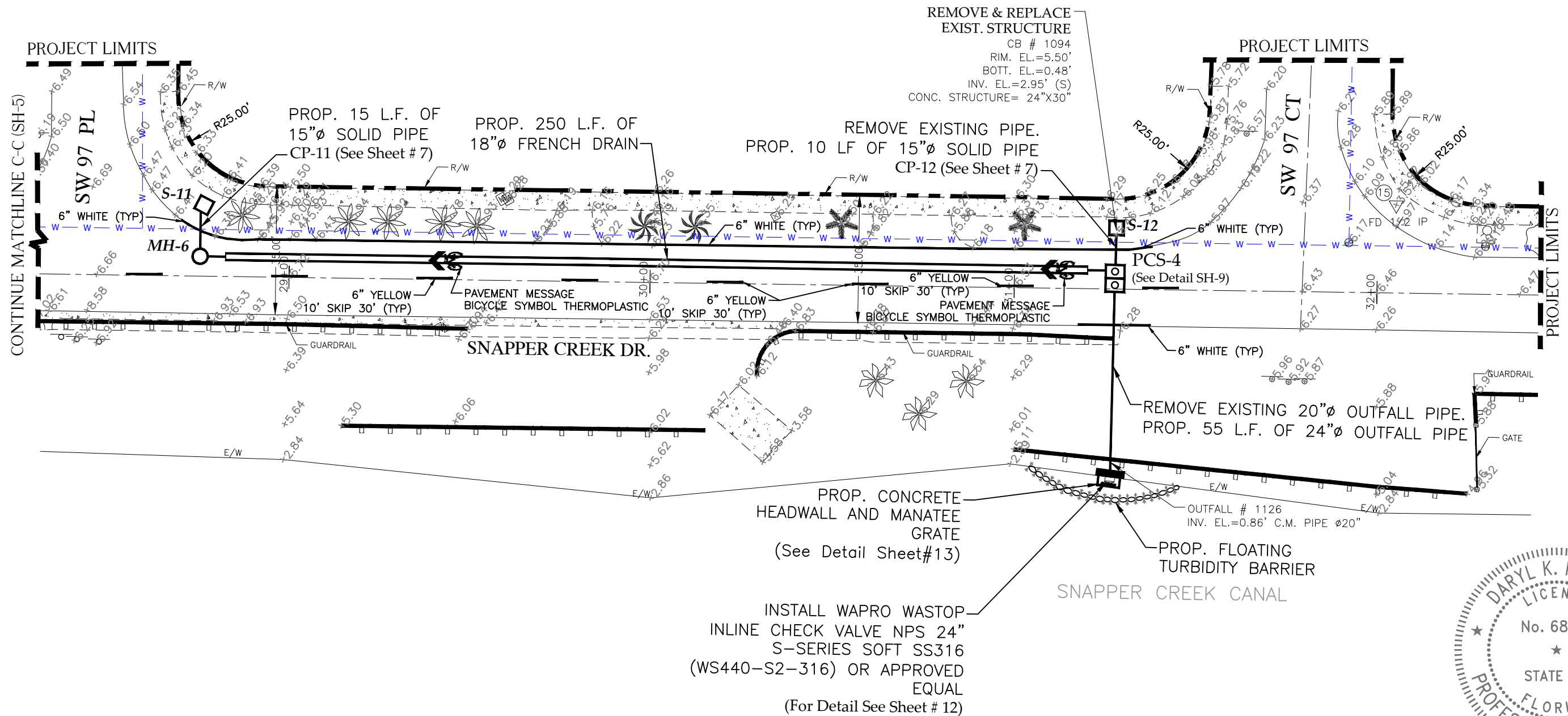
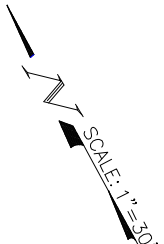


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REVISIONS									SNAPPER CREEK CANAL OUTFALL RETROFIT ON SNAPPER CREEK DR. FROM SW 100 AVE TO SW 97 CT						DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS ROADWAY ENGINEERING AND RIGHT OF WAY DIVISION STEPHEN P. GILKINSON REGISTERED PROFESSIONAL ENGINEER MIAMI, FLORIDA 33128		DRAINAGE PLAN	
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DESIGNED BY	NAME	DATE	DRAWN BY	NAME	DATE	MIAMI-DADE COUNTY			
									CHECKED BY	F.G.	10-12-22	CHECKED BY	LN./LR.	10-12-22				
									SUPERVISED BY:									



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AND SEALED BY DARYL K. HILDOER, P.E.
ON THE DATE ADJACENT TO THE SEAL.

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REVISIONS							
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY

SNAPPER CREEK CANAL OUTFALL
RETROFIT ON SNAPPER CREEK DR.
FROM SW 100 AVE TO SW 97 CT

NAME	DATE	NAME	DATE
DESIGNED BY LN./LR.	10-12-22	DRAWN BY F.C./H.S.	10-12-22
CHECKED BY F.G.	10-12-22	CHECKED BY LN./LR.	10-12-22
SUPERVISED BY:			



DEPARTMENT OF TRANSPORTATION
AND PUBLIC WORKS
ROADWAY ENGINEERING AND
RIGHT OF WAY DIVISION
STEPHEN P. CLARK, CENTER
111 NW 1 ST.
MIAMI, FLORIDA 33128

DRAINAGE PLAN

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C:\Users\el39108\AppData\Local\Temp\AcPublish_16320\SH-7 STRUCTURE TABLES.dwg Nov 15, 2022 - 5:02pm E139108

Summary of Quantities			
Item No.	Description	Unit	Quantity
102-74-1	Barricades (Temporary - Types I, II, VP and drum)	Ea/day	4,800
102-76A	Advance Warning Arrow Panel	Ea/day	240
104-10-3	Sediment Barrier	L.F.	100
104-18	Inlet Protection System	E.A.	12
104-11A	Floating Turbidity Barrier	L.F.	400
327-70-01	Milling, 1" Average Depth	S.Y.	530
331-72-10A-HMA	Roadway Pavement Restoration (Replace and match existing base thickness and asphalt course with 8" minimum, primed Limerock Base and 1" thick of HMA, Asphalt Work Category 3)	S.Y	937
331-72-10B-HMA	Inlet Pavement (Includes 6" Limerock Base and 1" thick of HMA, Asphalt Work Category 2)	S.Y	133
334-2-13-1	Hot Mix Asphalt, Traffic C, SP-9.5	Ton	70
350-1-1A	Driveway Pavement - Concrete	S.Y.	77
400-1-15	Class I Concrete (Miscellaneous) (Collar pipe plugs, structure plugs, etc.) (This item is contingent upon field conditions and may be increased, decreased or eliminated by the Engineer)]	C.Y.	5
400-1-1830	Concrete Headwall (Pipe Diameters 18" to 30" or Equivalent)	E.A.	4
425-1-1	Swale Inlet Type D-3 (36" Dia.) (Less than 10 feet deep)	E.A.	10
425-1-907A	Pollution Retardant Baffle (Any type) (Any Dimension)	E.A.	4
425-1-902	Swale Inlet Type P-10M (Any dimension) (Max 15' Deep)	Ea.	2
425-2-41	Manhole (Type P-7T, Any dimension, maximum 15' deep)	E.A.	6
425-31	Pollution Control Structure (Two Chambers with Weir or Baffle) (any Dimension) (maximum 15' deep)	E.A.	4
425-82	Modify Structure-Cut to enlarge opening as needed in order to accommodate pipe due to utility conflict(s), brick and mortar as needed	E.A.	5
430-171-115	Pipe Culvert - 15" Diameter (Round)	L.F.	320
430-171-118	Pipe Culvert - 18" Diameter (Round)	L.F.	225
430-171-124	Pipe Culvert - 24" Diameter (Round)	L.F.	160
430-880-2533	Check Valve (Pipe diameter 18" to 36" or equivalent)	E.A.	4
443-70-3-2	French Drain (18" diameter pipe, trench depth 10 ft bls)	L.F.	715
460-5-1830	Manatee Gate (Pipe Diameters 18" to 30" or Equivalent)	E.A.	4
520-1-10	Concrete Curb and Gutter (Type F) (6" Curb, 18" Gutter) (Includes cost of linerock base and subgrade)	L.F.	120
522-1(1)	Concrete Sidewalk (4" thick)(3000 P.S.I.)(Including pedestrian ramps and sidewalk curbs)	S.Y.	86
527-2	Detectable Warning on Walking Surface	S.F.	32
538-1	Remove and reset existing Guardrail (Complete installation including post and Hardware as required)	L.F.	140
575-2A	Sodding - St Augustine, or match existing, includes watering and maintenance. Contingent item based on field conditions, may be increased, or decreased by the engineer.	S.Y.	600
706-1-12	Reflective Pavement Markers (class B, mono or bi-directional , all colors)	E.A.	66
706-1-12	Pavement Message - Bicycle Symbol Thermoplastic	E.A.	4
711-11-121	Thermoplastic (White) (Solid) (6")	L.F.	120
711-11-241	Thermoplastic (Yellow) (Skip) (6")	L.F.	400

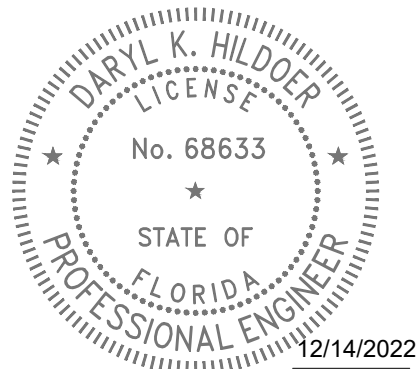
REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

SNAPPER CREEK CANAL OUTFALL RETROFIT ON SNAPPER CREEK DR. FROM SW 100 AVE TO SW 97 CT

CONFLICT TABLE				
Conflict Point	Drainage		Water	
	Invert Elevation	Pipe Dia.	Top of Pipe	Pipe Dia.
CP-1	+1.10	15"	A +3.00	2"
CP-2	+0.80	15"	A +3.05	6"
CP-3	+1.05	15"	A +3.30	6"
CP-4	+1.05	15"	A +3.30	6"
CP-5	+1.05	15"	A +3.30	6"
CP-6	+1.05	15"	A +3.30	6"
CP-7	+0.80	15"	A +3.00	6"
CP-8	+0.80	15"	A +3.30	6"
CP-9	+1.05	15"	A +3.30	6"
CP-10	+0.80	15"	A +3.00	6"
CP-11	+1.15	15"	A +3.40	6"
CP-12	+0.80	15"	A +3.00	6"
Elevations of pipes were not provided by the Utility Company, Assumed top and pipe diameter are preceded by an "(A)".				
Elevations on table are in NGVD.				

PROPOSED DRAINAGE STRUCTURE SCHEDULE										
Structure	Station	Type of Structure	Inside Dimensions	Rim Elevation	Bottom Elevation	Pipe Invert Elevation				Remarks
						N	S	E	W	
OUTFALL #1	S-1	9+58 (20.0' RT)	D-3	36" ϕ	5.80	-0.90		1.10		
	MH-1	9+98 (20.0' RT)	P-7T	42" ϕ	6.00	-1.20		0.80	2.40	1.10 Remove and Replace Exist. Structure
	S-2	10+43 (20.0' RT)	D-3	36" ϕ	5.70	0.40			2.40	
	PCS-1	9+98 (5.0' RT)	84"x42"		6.20	-1.50	0.80	2.00	1.70	Pollution control structure two chambers. Weir elev. 4.00 See detail on sheet 8
OUTFALL #2	S-3	13+25 (33.0' RT)	D-3	36" ϕ	5.60	-0.95		1.05		Remove and Replace Exist. Structure
	S-4	13+70 (30.0' RT)	P-10M	42 ϕ	5.80	-0.95		1.05	1.05	Remove and Replace Exist. Structure
	MH-2	13+70 (5.0' RT)	P-7T	42 ϕ	6.40	-0.95	1.05	1.90		
	PCS-2	15+50 (5.0' RT)	84"x48"		6.30	-1.50	1.05	2.00	1.90	Pollution control structure two chambers. Weir elev. 4.00 See detail on sheet 8
	S-5	15+50 (15.0' RT)	D-3	36" ϕ	5.55	-0.95		1.05		
	S-6	16+40 (15.0' RT)	D-3	36" ϕ	5.70	-0.95		1.05		
	MH-3	16+40 (5.0' RT)	P-7T	42 ϕ	6.40	-0.95	1.05		1.90	
OUTFALL #3	S-7	22+20 (40.0' RT)	D-3	36" ϕ	5.90	-1.20		0.80.		Remove and Replace Exist. Structure
	S-8	22+65 (40.0' RT)	P-10M	42 ϕ	6.00	-1.20		0.80	0.80	Remove and Replace Exist. Structure
	MH-4	22+65 (5.0' RT)	P-7T	42 ϕ	6.70	-1.20	0.80	1.90		
	MH-5	24+85 (5.0' RT)	P-7T	42 ϕ	6.40	-0.95	1.05	1.90	1.90	
	S-9	24+85 (30.0' RT)	D-3	36" ϕ	5.40	-0.95		1.05		Remove and Replace Exist. Structure
	S-10	25+65 (15.0' RT)	D-3	36" ϕ	5.60	-1.20		0.80		Remove and Replace Exist. Structure
	PCS-3	25+65 (5.0' RT)	84"x48"		6.30	-1.50	0.80	2.00	1.90	Pollution control structure two chambers. Weir elev. 4.00 See detail on sheet 9
OUTFALL #4	S-11	28+75 (20.0' RT)	D-3	36" ϕ	6.10	-0.85		1.15		
	MH-6	28+75 (5.0' RT)	P-7T	42 ϕ	6.60	-0.85	1.15	1.70		
	PCS-4	31+ 25 (5.0' RT)	84"x48"		6.20	-1.50	0.80	2.00	1.70	Pollution control structure two chambers. Weir elev. 4.00 See detail on sheet 9
	S-12	31+ 25 (15.0' RT)	D-3	36" ϕ	5.50	-1.20		0.80		Remove and Replace Exist. Structure

SNAPPER CREEK CANAL OUTFALL RETROFIT ON SNAPPER CREEK DR. FROM SW 100 AVE TO SW 97 CT DRAINAGE IMPROVEMENT PROJECT
PROJECT NO. 20200004, SHEET 7 OF 17



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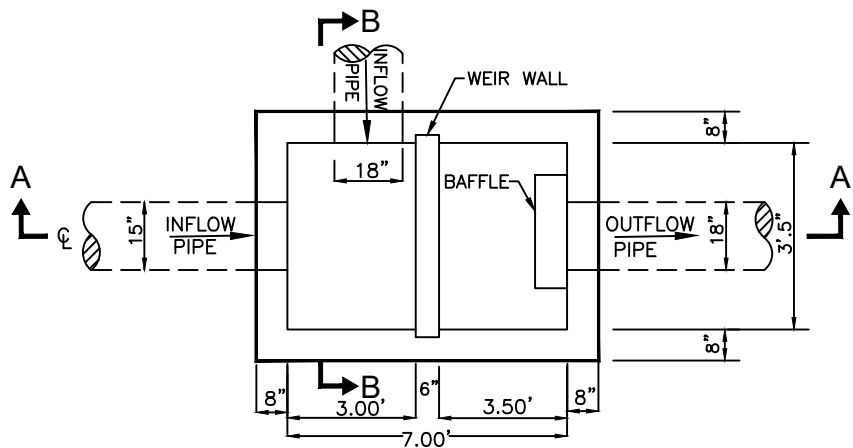
PROPOSED DRAINAGE, STRUCTURE TABLE, CONFLICT TABLE AND SUMMARY OF QUANTITIES

MIAMI-DADE COUNTY

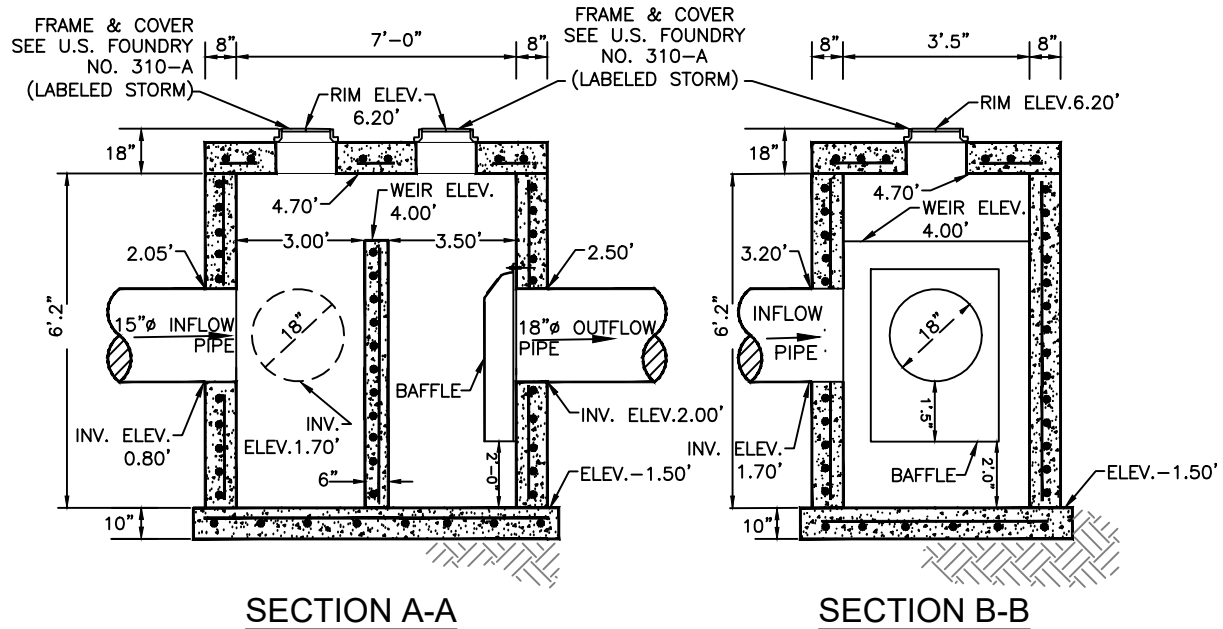
DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
ROADWAY ENGINEERING AND RIGHT OF WAY DIVISION
STEPHEN P. CLARK, CENTER
111 NW 1ST ST
MIAMI, FLORIDA 33128

DESIGNED BY	NAME	DATE	DRAWN BY	NAME	DATE
CHECKED BY	L.N./L.R.	10-12-22	CHECKED BY	F.C./H.S.	10-12-22
SUPERVISED BY:					

PCS-1



PLAN



SECTION A-A

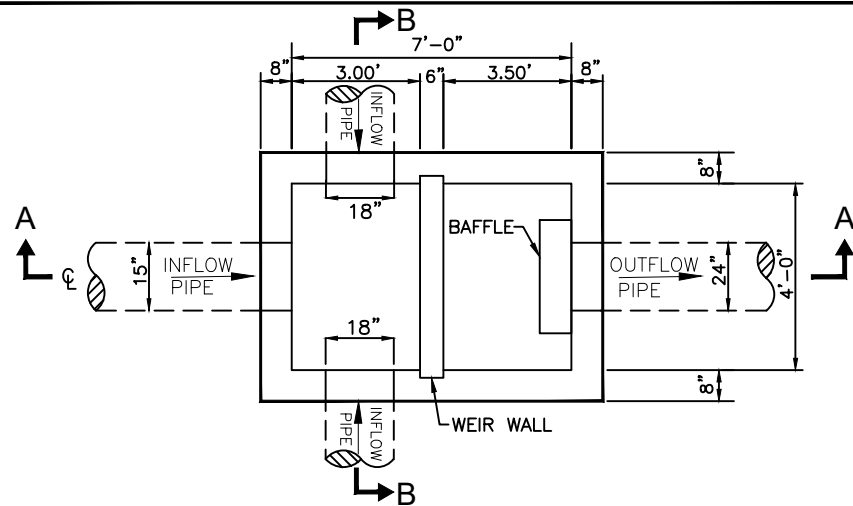
SECTION B-B

NOTES:

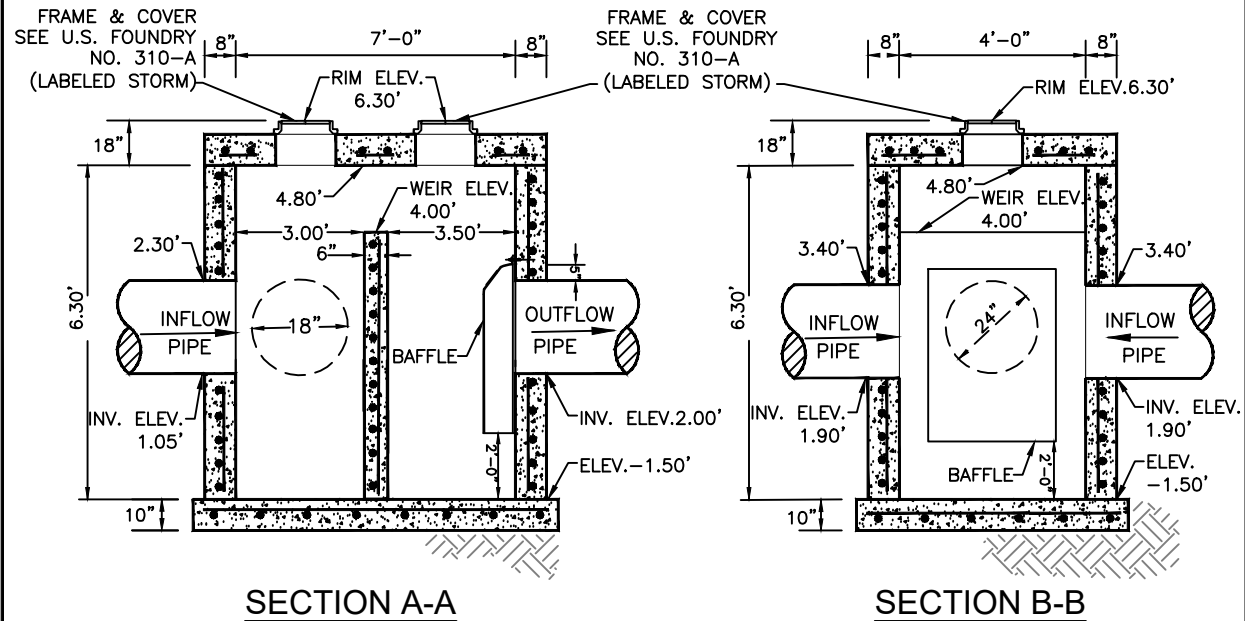
- 1.-CAST TOP SLAB TO FIT WALL USED.
- 2.-PIPES MAY EXTEND INTO CATCH BASIN A MAXIMUM OF 4".
- 3.-USE 3,000 psi CONCRETE. (MINIMUM)
- 4.-A SMOOTH LINE OF MORTAR 1/2" THICK INSIDE AND OUTSIDE.
- *.-BAFFLE TO BE MADE OF 42" C.M.P. PIPE CUT IN HALF

MIAMI-DADE COUNTY	APPROVED	REVISED	POLLUTION CONTROL STRUCTURE (TWO CHAMBERS WITH A WEIR WALL)	SD 2.9 SHEET 2 OF 3
DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS		9-27-2012 6-18-2014		

PCS-2



PLAN



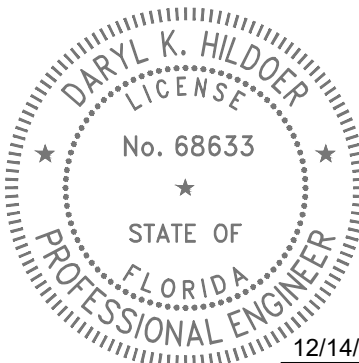
SECTION A-A

SECTION B-B

NOTES:

- 1.-CAST TOP SLAB TO FIT WALL USED.
- 2.-PIPES MAY EXTEND INTO CATCH BASIN A MAXIMUM OF 4".
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MIAMI-DADE COUNTY	APPROVED	REVISED	POLLUTION CONTROL STRUCTURE (TWO CHAMBERS WITH A WEIR WALL)	SD 2.9 SHEET 2 OF 3
DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS		9-27-2012 6-18-2014		



12/14/2022

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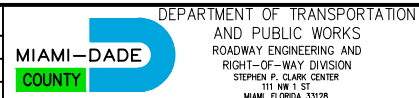
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REVISIONS

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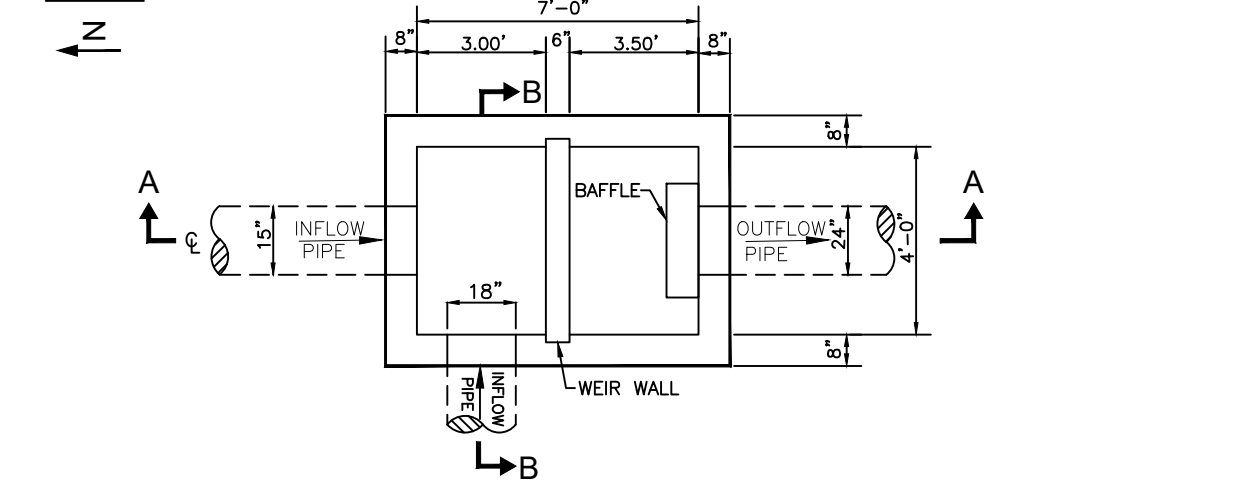
SNAPPER CREEK CANAL OUTFALL
RETROFIT ON SNAPPER CREEK DR.
FROM SW 100 AVE TO SW 97 CT

DESIGNED BY	NAME	DATE	DRAWN BY	NAME	DATE
	I.N./A.R.	10-12-22		F.C./H.S.	10-12-22
CHECKED BY	NAME	DATE	CHECKED BY	NAME	DATE
	F.G.	10-12-22		I.N./A.R.	10-12-22
SUPERVISED BY	NAME	DATE	SUPERVISED BY	NAME	DATE

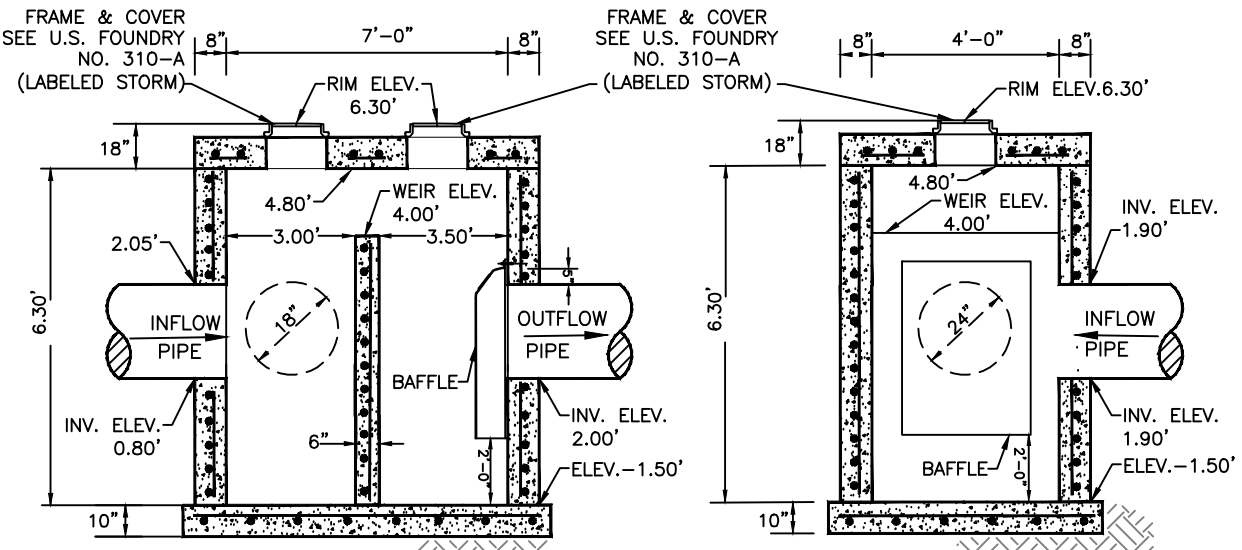


TWO CHAMBERS
POLLUTION CONTROL STRUCTURE
PCS-1 & PCS-2

PCS-3



PLAN



SECTION A-A

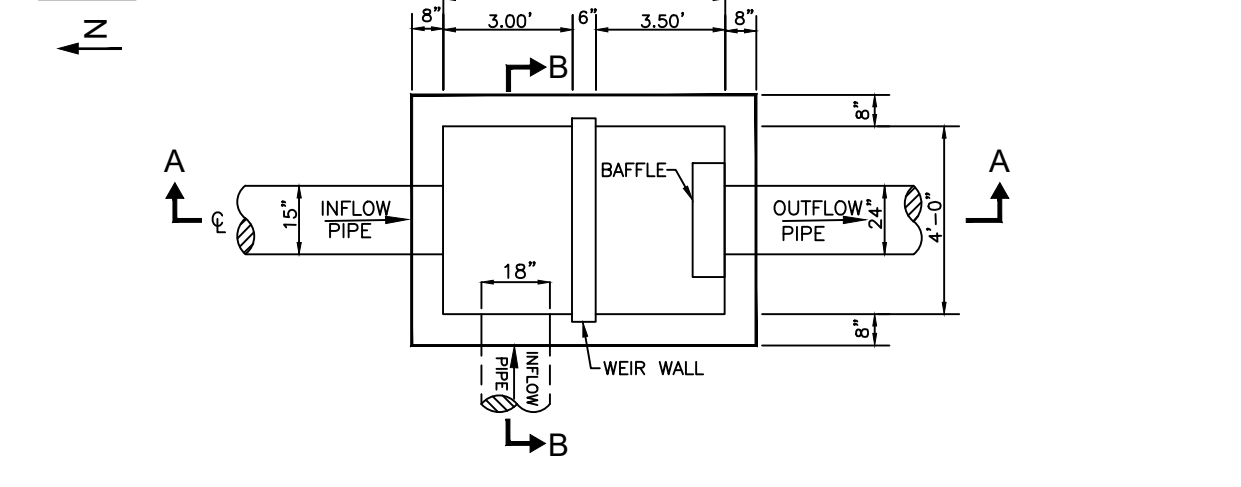
SECTION B-B

- NOTES:
- 1.-CAST TOP SLAB TO FIT WALL USED.
 - 2.-PIPES MAY EXTEND INTO CATCH BASIN A MAXIMUM OF 4".
 - 3.-USE 3,000 psi CONCRETE. (MINIMUM)
 - 4.-A SMOOTH LINE OF MORTAR 1/2" THICK INSIDE AND OUTSIDE.
 - *.-BAFFLE TO BE MADE OF 42" C.M.P. PIPE CUT IN HALF

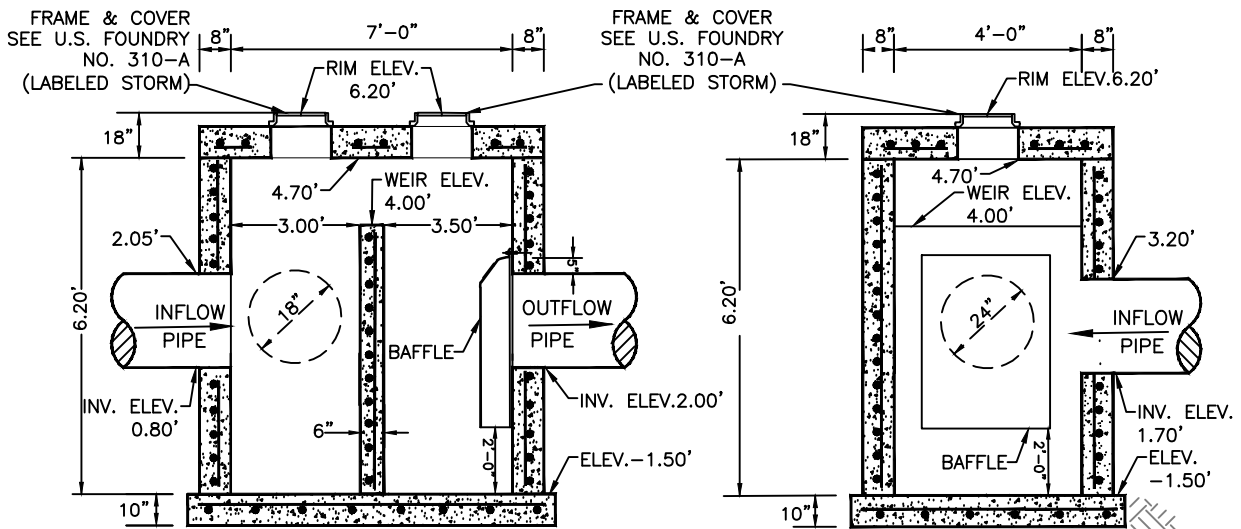
MIAMI-DADE COUNTY	APPROVED	REVISED	POLLUTION CONTROL STRUCTURE (TWO CHAMBERS WITH A WEIR WALL)	SD 2.9
DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS		9-27-2012		
		6-18-2014		

SHEET 2 OF 3

PCS-4



PLAN



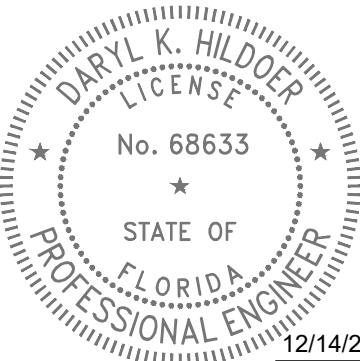
SECTION A-A

SECTION B-B

- NOTES:
- 1.-CAST TOP SLAB TO FIT WALL USED.
 - 2.-PIPES MAY EXTEND INTO CATCH BASIN A MAXIMUM OF 4".
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MIAMI-DADE COUNTY	APPROVED	REVISED	POLLUTION CONTROL STRUCTURE (TWO CHAMBERS WITH A WEIR WALL)	SD 2.9
DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS		9-27-2012		
		6-18-2014		

SHEET 2 OF 3



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TWO CHAMBERS
POLLUTION CONTROL STRUCTURE
PCS-3 & PCS-4

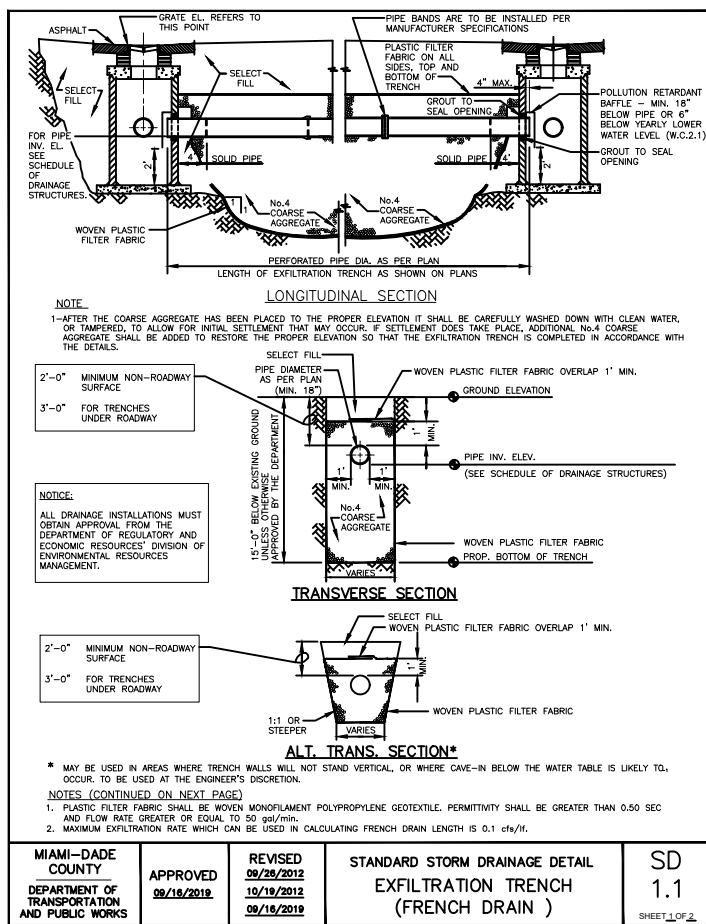
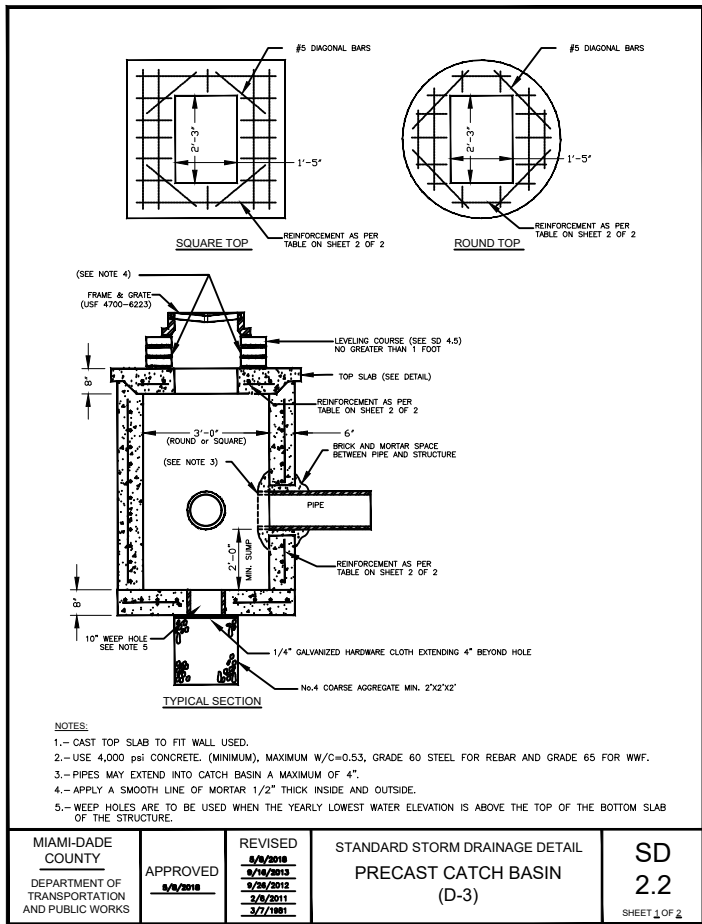
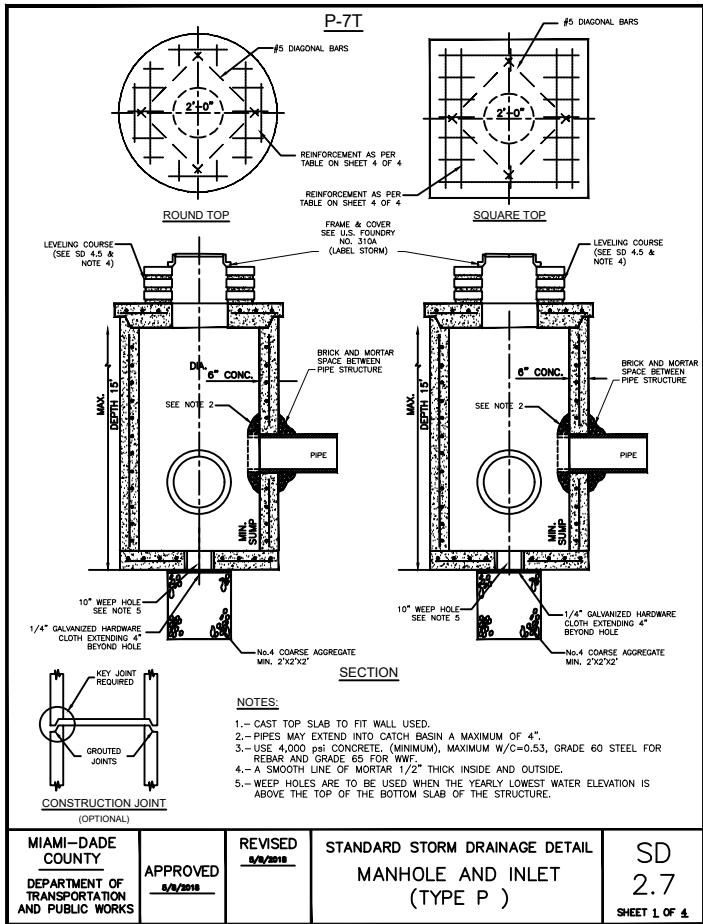
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REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

SNAPPER CREEK CANAL OUTFALL
RETROFIT ON SNAPPER CREEK DR.
FROM SW 100 AVE TO SW 97 CT

DESIGNED BY	NAME	DATE	DRAWN BY	NAME	DATE
IN./L.R.		10-12-22	F.C./H.S.		10-12-22
CHECKED BY	NAME	DATE	CHECKED BY	NAME	DATE
F.G.		10-12-22	IN./L.R.		10-12-22
SUPERVISED BY:					





SQUARE STRUCTURE									
Standard Detail	Width (ft)	Length (ft)	Height (ft)	Wall Thickness (in)	Wall Steel	Top Slab Thickness (in)	Top Slab Steel	Bottom Slab Thickness (in)	Bottom Slab Steel
2.7	3.5	3.5	0.0 - 5.0	6.0	#4@10"H #4@10"V	8.0	#4@7" E.W.	8.0	#4@10" E.W.
2.7	3.5	3.5	5.1 - 10.0	6.0	#4@9"H #4@10"V	8.0	#4@6" E.W.	8.0	#4@10" E.W.
2.7	3.5	3.5	10.1-15.0	6.0	#5@6"H #4@10"V	8.0	#4@6.5" E.W.	8.0	#4@10" E.W.

ROUND STRUCTURE									
Standard Detail	Dia. (ft) Min.	Dia. (ft) Max.	Height (ft)	Wall Thickness (in)	Wall Steel	Top Slab Thickness (in)	Top Slab Steel	Bottom Slab Thickness (in)	Bottom Slab Steel
2.7	3.5	4.0	0.0 - 5.0	6.0	8 x 8 W20 or #4@10"E.W.	8.0	#4@7" E.W.	8.0	#4@10" E.W.
2.7	3.5	4.0	5.1 - 10.0	6.0	8 x 8 W20 or #4@10"E.W.	8.0	#4@6" E.W.	8.0	#4@10" E.W.
2.7	3.5	4.0	10.1 - 15.0	6.0	8 x 8 W20 or #4@10"E.W.	8.0	#4@6.5" E.W.	8.0	#4@10" E.W.

MIAMI-DADE COUNTY
DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
APPROVED 5/5/2018
REVIS 5/5/2018
STANDARD STORM DRAINAGE DETAIL
MANHOLE AND INLET (TYPE P)
SD 2.7
SHEET 4 OF 4

SQUARE STRUCTURE									
Standard Detail	Width (ft)	Length (ft)	Height (ft)	Wall Thickness (in)	Wall Steel	Top Slab Thickness (in)	Top Slab Steel	Bottom Slab Thickness (in)	Bottom Slab Steel
2.2	3	3	0.0 - 5.0	6	#4@10"H	8	#4@5" E.W.	8	#4@10" E.W.
					#4@10"V				
2.2	3	3	5.1 - 10.0	6	#4@7.5"H	8	#4@5" E.W.	8	#4@10" E.W.
					#4@10"V				
2.2	3	3	10.1-15.0	6	#5@7.5"H	8	#4@5" E.W.	8	#4@10" E.W.
					#4@10"V				

ROUND STRUCTURE									
Standard Detail	Dia. (ft)	Height (ft)	Wall Thickness (in)	Wall Steel	Top Slab Thickness (in)	Top Slab Steel	Bottom Slab Thickness (in)	Bottom Slab Steel	
2.2	3	0.0 - 5.0	6	8 X 8 W20 #4@10"E.W.	8	#4@5" E.W.	8	#4@10" E.W.	
2.2	3	5.1 - 15.0	6	8 X 8 W20 #4@10"E.W.	8	#4@5" E.W.	8	#4@10" E.W.	

MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS	APPROVED <u>5/5/2018</u>	REVISED <u>5/5/2018</u>	STANDARD STORM DRAINAGE DETAIL PRECAST CATH BASIN (TYPE D-3)	SD 2.2 SHEET 2 OF 2
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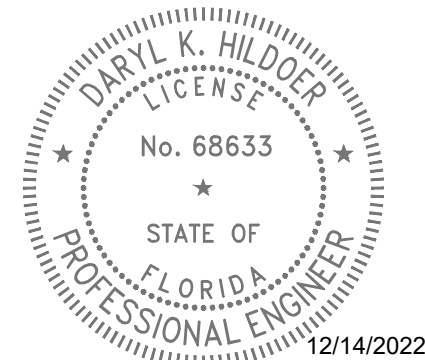
GENERAL NOTES FOR PIPE CULVERTS

CONTRACTOR HAS THE OPTION OF INSTALLING ANY PIPE MEETING THE REQUIREMENTS OF SECTION 443-2 OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AS LONG AS THE MANUFACTURER IS LISTED, AT THE TIME OF PIPE INSTALLATION, IN FDOT'S LIST OF PRODUCERS WITH ACCEPTED QUALITY CONTROL PROGRAMS. PIPES WITH LESS THAN A 100-YEAR CERTIFICATION CANNOT BE USED ON SECTION LINE, HALF SECTION LINE, COLLECTOR ROADWAYS, AND ARTERIALS. 50-YEAR PIPE CERTIFICATION REQUIRED FOR ALL OTHER MINOR/LOCAL ROADWAYS.

MINIMUM NUMBER OF PERFORATION IN PIPE CULVERTS		
PIPE DIAMETER (inches)	OUTER SHELL	
	No. of 3/8" Dia. Holes (PER LIN. FT. OF PIPE)	No. of 3/8" Dia. Holes (PER LIN. FT. OF PIPE)
15	100	50
18	120	60
24	160	80
30	200	100
36	240	120
42	275	140
48	315	150
54	355	180
60	395	200
72	470	235
84	550	275

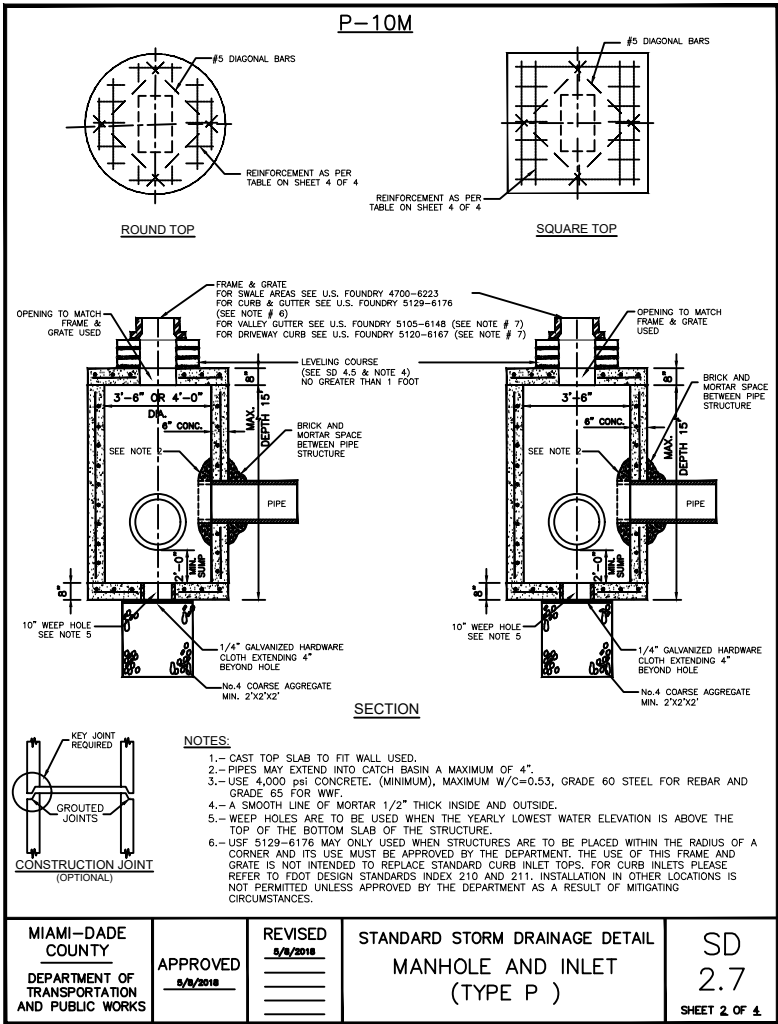
NOTE:
PERFORATIONS SHALL BE UNIFORMLY SPACED AROUND THE FULL PERIPHERY OF THE PIPE TO WITHIN 4" OF EACH END OF EACH LENGTH OF PIPE. THE NUMBER OF PERFORATIONS PER LINEAR FOOT OF PIPE AND THE DIAMETER OF THE PERFORATIONS SHALL BE AS SHOWN ON THE ABOVE TABLE.

MIAMI-DADE COUNTY
DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
APPROVED 09/18/2019
REVIS 08-04-88
STANDARD STORM DRAINAGE DETAIL
EXFILTRATION TRENCH (PIPE CULVERT NOTES)
SD 1.1
SHEET 2 OF 2



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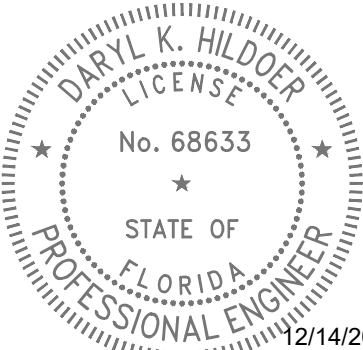
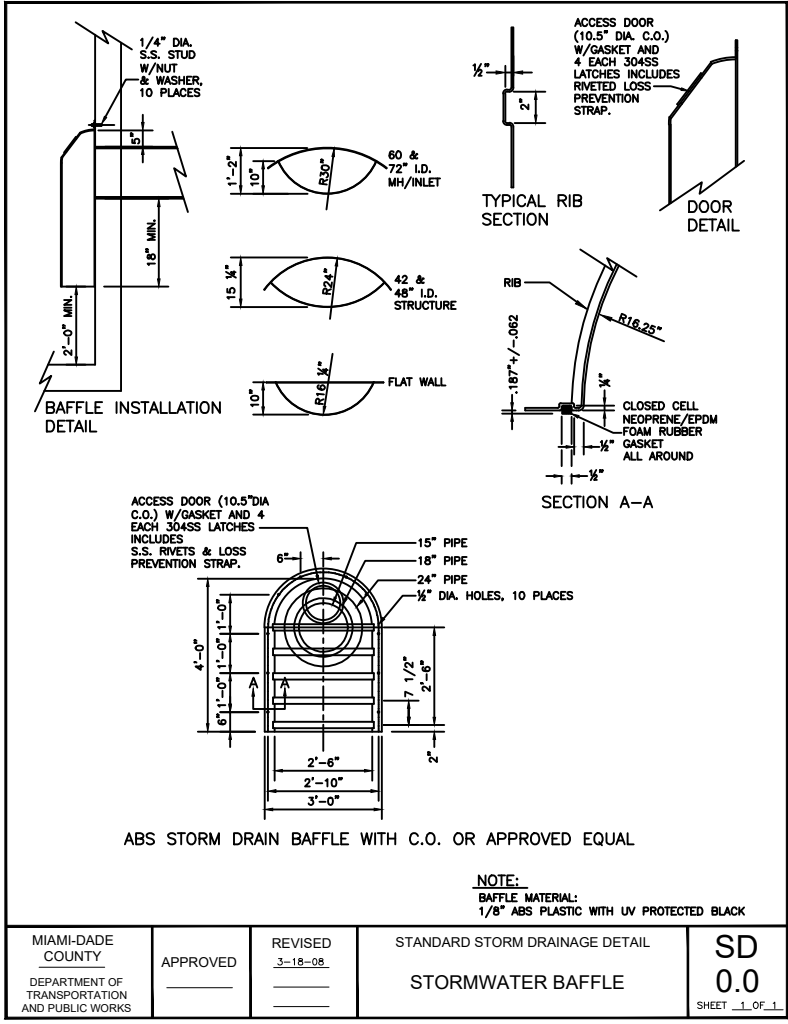
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SQUARE STRUCTURE									
Standard Detail	Width (ft)	Length (ft)	Height (ft)	Wall Thickness (in)	Wall Steel	Top Slab Thickness (in)	Top Slab Steel	Bottom Slab Thickness (in)	Bottom Slab Steel
2.7	3.5	3.5	0.0 - 5.0	6.0	#4@10"H #4@10"V	8.0	#4@7" E.W.	8.0	#4@10" E.W.
2.7	3.5	3.5	5.1 - 10.0	6.0	#4@9"H #4@10"V	8.0	#4@6" E.W.	8.0	#4@10" E.W.
2.7	3.5	3.5	10.1-15.0	6.0	#5@6"H #4@10"V	8.0	#4@6.5" E.W.	8.0	#4@10" E.W.

ROUND STRUCTURE									
Standard Detail	Dia. (ft) Min.	Dia. (ft) Max.	Height (ft)	Wall Thickness (in)	Wall Steel	Top Slab Thickness (in)	Top Slab Steel	Bottom Slab Thickness (in)	Bottom Slab Steel
2.7	3.5	4.0	0.0 - 5.0	6.0	8 x 8 W20 or #4@10"E.W.	8.0	#4@7" E.W.	8.0	#4@10" E.W.
2.7	3.5	4.0	5.1 - 10.0	6.0	8 x 8 W20 or #4@10"E.W.	8.0	#4@6" E.W.	8.0	#4@10" E.W.
2.7	3.5	4.0	10.1 - 15.0	6.0	8 x 8 W20 or #4@10"E.W.	8.0	#4@6.5" E.W.	8.0	#4@10" E.W.

MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS	APPROVED 5/9/2018	REVISED 5/9/2018	STANDARD STORM DRAINAGE DETAIL MANHOLE AND INLET (TYPE P)	SD 2.7 SHEET 4 OF 4
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12/14/2022

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REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

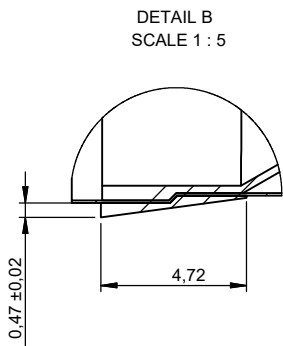
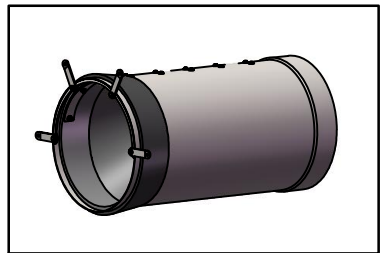
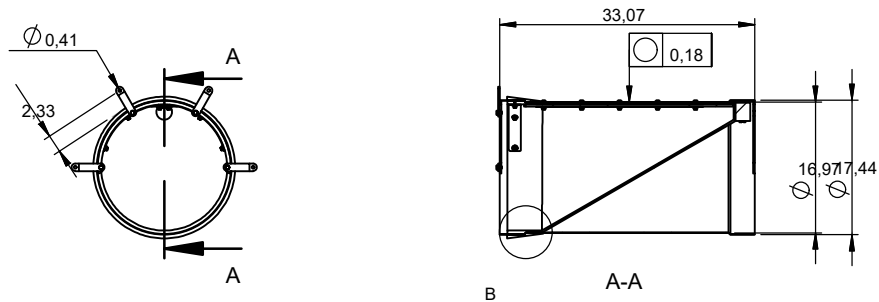
SNAPPER CREEK CANAL OUTFALL
RETROFIT ON SNAPPER CREEK DR.
FROM SW 100 AVE TO SW 97 CT

	NAME	DATE		NAME	DATE
DESIGNED BY	LN./L.R.	10-12-22	DRAWN BY	F.C./H.S.	10-12-22
CHECKED BY	F.G.	10-12-22	CHECKED BY	LN./L.R.	10-12-22
SUPERVISED BY:					



DEPARTMENT OF TRANSPORTATION
AND PUBLIC WORKS
ROADWAY ENGINEERING AND
RIGHT OF WAY DIVISION
STEPHEN P. CLARK CENTER
111 NW 1 ST
MIAMI, FLORIDA 33138

STANDARD DETAILS



WASTOP STANDARD RANGE DIMENSIONS

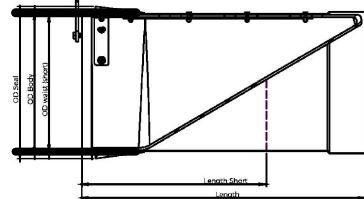
Long life-cycle is part of our DNA. It's part of our values. With this in mind we use the right materials for the right application. Stainless steel AISI 304 (EN1.4301) and AISI 316L (EN1.4404), and PVC/PE, along with a membrane material suited to the application.

WASTOP STANDARD - 304/316 STAINLESS STEEL

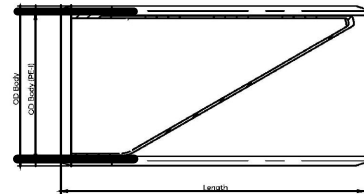
Model*	NPS	Length	Length (Short**)	OD seal	OD body	OD waist (OD Short)	Opening pressure standard***	Closing pressure standard	Weight
	[in]	[in]	[in]	[in]	[in]	[in]	[inH ₂ O]	[inH ₂ O]	[lbs]
WS97	4	8.3	6.3	4.0	3.8	3.7	7	3	1.5
WS101	4	8.5	6.5	4.1	3.9	3.8	7	2	1.8
WS116	5	9.1	6.3	4.7	4.5	4.4	10	4	2.0
WS146	6	11.8	7.9	6.3	5.7	5.5	9	3	5.2
WS183	8	15.2	10.6	7.9	7.1	6.8	10	5	9.3
WS193	8	15.6	10.8	8.3	7.5	7.2	8	4	10
WS215	9	17.7	11.8	9.3	8.5	8.1	9	5	12
WS230	10	18.9	12.6	9.8	9.1	8.7	8	5	14
WS240	10	20.5	13.8	10.2	9.4	9.1	7	4	15
WS283	12	23.6	15.7	11.9	11.1	10.8	9	4	22
WS290	12	23.6	15.7	12.2	11.4	11.0	9	6	22
WS340	14	27.6	19.7	13.9	13.4	12.9	14	9	40
WS370	15	28.7	19.7	15.5	14.6	14.1	9	6	44
WS390	16	29.5	19.7	16.3	15.4	14.9	12	7	53
WS440	18	33.1	22.0	18.4	17.4	17.0	8	6	62
WS490	20	35.4	23.6	19.9	19.3	18.7	11	7	64
WS590	24	47.2	31.5	23.7	23.1	22.3	15	9	106
WS690	28	51.2	34.3	28.0	27.2	26.4	11	7	139
WS750	30	55.1	37.4	30.3	29.5	28.6	15	9	165
WS790	32	59.1	39.4	31.9	31.1	30.2	14	9	194
WS885	36	66.9	-	36.0	34.8	33.7	16	11	256
WS985	40	70.9	-	40.0	38.8	37.6	15	10	311
WS1185	48	88.6	-	-	46.7	45.5	18	11	639
WS1385	56	102.4	-	-	54.5	53.1	21	14	970
WS1485	60	110.2	-	-	58.5	56.7	24	15	1415
WS1585	64	118.1	-	-	62.4	60.7	24	15	1543
WS1785	72	122.0	-	-	70.3	-	26	17	2028

*We have a standard set of sizes which can be customized, easily, to suit any application. Flanges on inlet, outlet or somewhere in between are all easily available. Quickly. **Customized extra short valves are available. *** Open air. Standard membrane. Lower and higher opening pressures available.

WASTOP STANDARD - STAINLESS



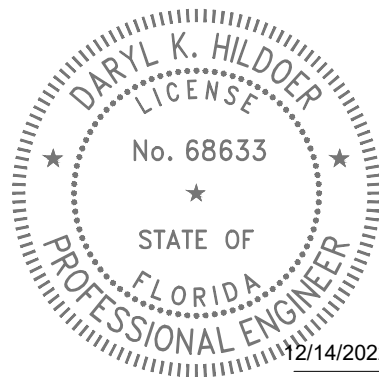
WASTOP STANDARD - PVC/PE



WASTOP STANDARD - PVC/PE

Model	NPS	L	OD body	Opening pressure standard	Closing pressure standard	Weight
	[in]	[in]	[in]	[inH ₂ O]	[inH ₂ O]	[lbs]
WS75PVC	3	4.9	3.0	7	3	0.6
WS110PVC	4	8.3	4.3	8	2	1.9
WS125PVC	5	9.4	4.9	7	3	2.6
WS160PVC	6	12.2	6.3	9	3	4.7
WS200PVC	8	15.7	7.9	7	4	9.0
WS250PE	10	18.9	9.8	9	5	14
WS250PE-I	10	18.9	9.3	9	6	10
WS315PE	12	23.6	12.4	9	6	28
WS315PE-I	12	23.6	11.6	9	7	18

WAPRO
www.wapro.com



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Designed By RB	Approved By RB	Created Date 2017-09-18	Units [inch]	General Tolerance SS-ISO 2768-1 m	Scale 1:20	Project Number
Material AISI 304 / AISI 316			Comments			
Weight [Lbs] 59		Box Volume [ft³] 5.8	Description WaStop NPS 18"			
Article Number WS440-S			Rev 2017-09-12	Sheet 1 (1)		

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

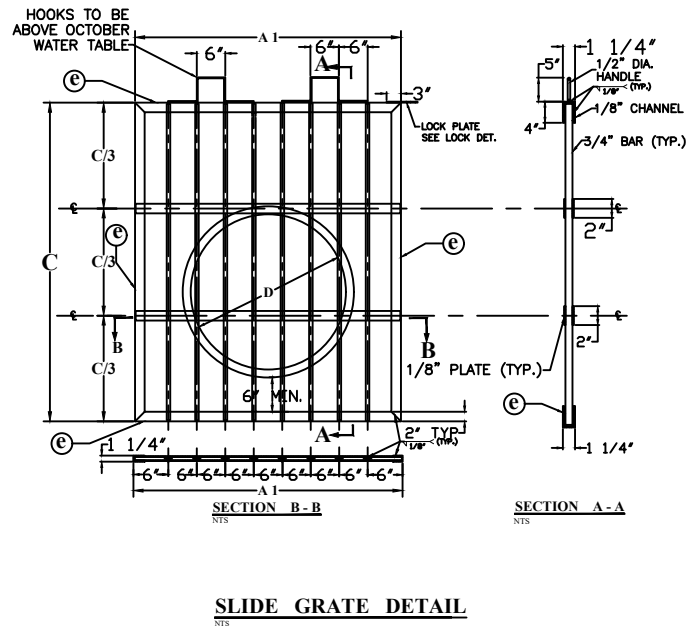
SNAPPER CREEK CANAL OUTFALL
RETROFIT ON SNAPPER CREEK DR.
FROM SW 100 AVE TO SW 97 CT

	NAME	DATE		NAME	DATE
DESIGNED BY	I.N./I.R.	10-12-22	DRAWN BY	F.C./H.S.	10-12-22
CHECKED BY	F.G.	10-12-22	CHECKED BY	I.N./I.R.	10-12-22
SUPERVISED BY:					

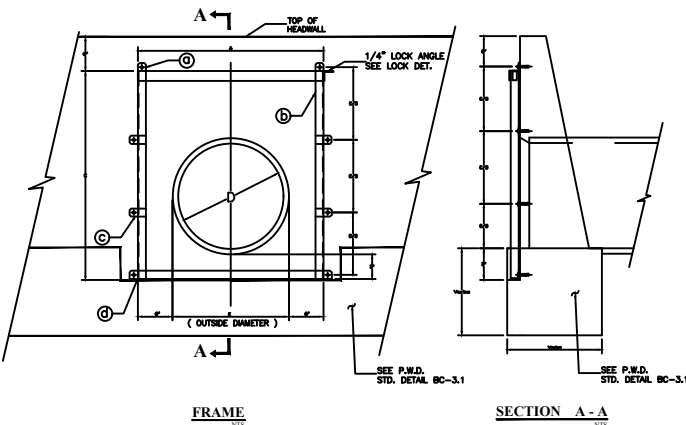


DEPARTMENT OF TRANSPORTATION
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ROADWAY ENGINEERING AND
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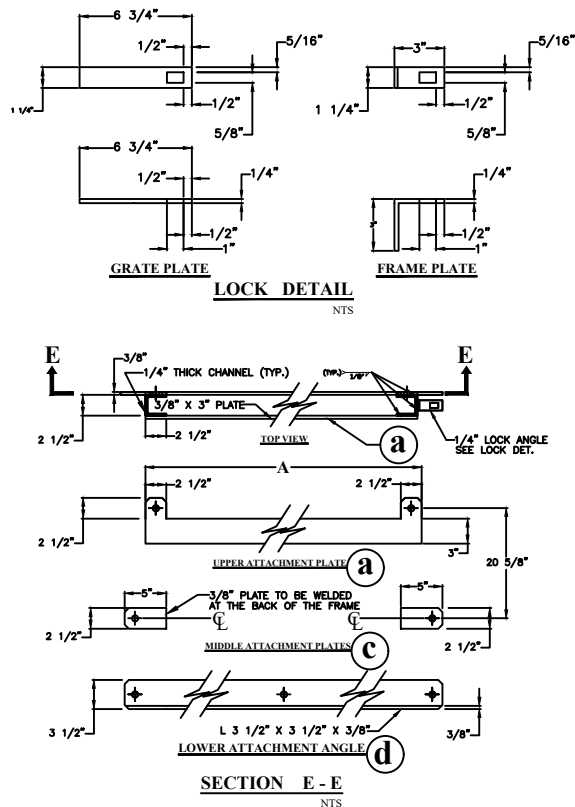
BACK FLOW PREVENTER CHECK VALVE
DETAIL



MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS	APPROVED 5/9/2018	REVISED 5/9/2018	STANDARD STORM DRAINAGE DETAIL MANATEE GRATE	SD 5.1 SHEET 1 OF 4
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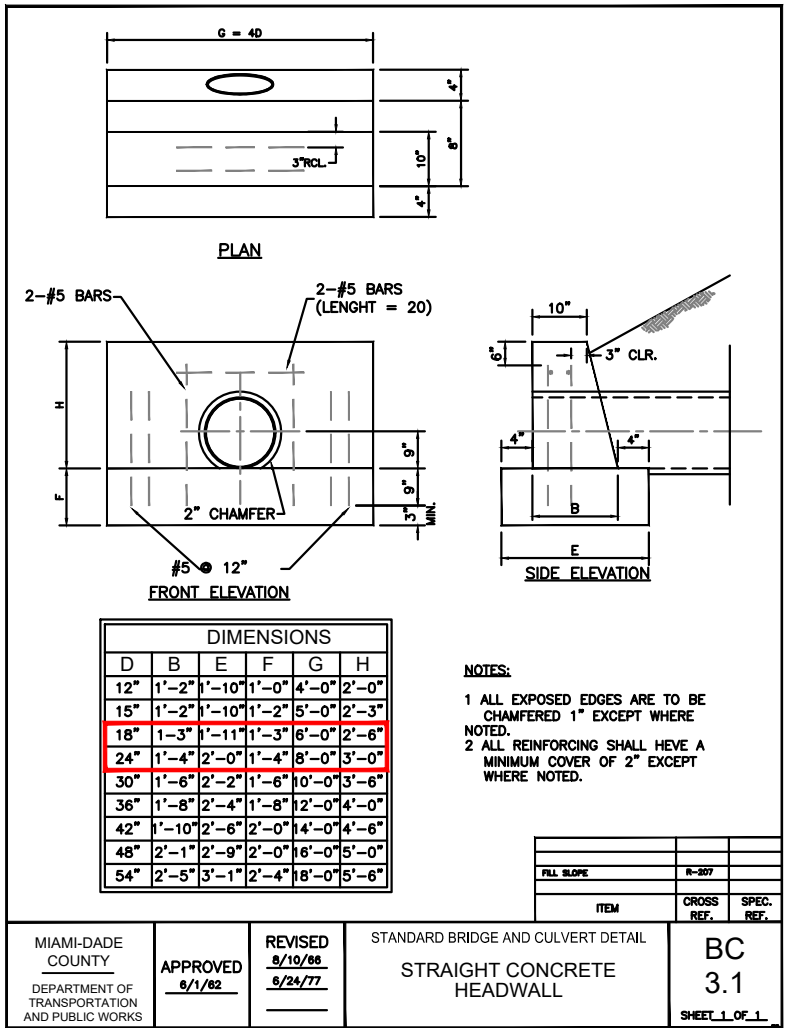
MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS	APPROVED 5/9/2018	REVISED 5/9/2018	STANDARD STORM DRAINAGE DETAIL MANATEE GRATE	SD 5.1 SHEET 2 OF 4
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MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS	APPROVED 5/9/2018	REVISED 5/9/2018	STANDARD STORM DRAINAGE DETAIL MANATEE GRATE	SD 5.1 SHEET 3 OF 4
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MANATEE GRATE TABLE										
D	A	C	E	A1	a	b	c	d	e	No. of Bars @ 6" o.c.
18	E+12"	VARIES	O.D.	A-1"	3/8" PLATE	C1/4"x2 1/2"x2 1/2"	3/8"x2 1/2"x5"	L3 1/2"x3 1/2"x3/8"	C1/8"x1 1/4"x3"	4
24	E+12"	VARIES	O.D.	A-1"	3/8" PLATE	C1/4"x2 1/2"x2 1/2"	3/8"x2 1/2"x5"	L3 1/2"x3 1/2"x3/8"	C1/8"x1 1/4"x3"	5
30	E+12"	VARIES	O.D.	A-1"	3/8" PLATE	C1/4"x2 1/2"x2 1/2"	3/8"x2 1/2"x5"	L3 1/2"x3 1/2"x3/8"	C1/8"x1 1/4"x3"	6
36	E+12"	VARIES	O.D.	A-1"	3/8" PLATE	C1/4"x2 1/2"x2 1/2"	3/8"x2 1/2"x5"	L3 1/2"x3 1/2"x3/8"	C1/8"x1 1/4"x4"	7
42	E+12"	VARIES	O.D.	A-1"	3/8" PLATE	C1/4"x2 1/2"x2 1/2"	3/8"x2 1/2"x5"	L3 1/2"x3 1/2"x3/8"	C1/8"x1 1/4"x4"	8
48	E+12"	VARIES	O.D.	A-1"	3/8" PLATE	C1/4"x2 1/2"x2 1/2"	3/8"x2 1/2"x5"	L3 1/2"x3 1/2"x3/8"	C1/8"x1 1/4"x4"	8
54	E+12"	VARIES	O.D.	A-1"	3/4" PLATE	C1/2"x2 1/2"x2 1/2"	3/4"x4 1/2"x10"	L3 1/2"x3 1/2"x1/2"	C1/8"x1 1/4"x4"	10
60	E+12"	VARIES	O.D.	A-1"	3/4" PLATE	C1/2"x2 1/2"x2 1/2"	3/4"x4 1/2"x10"	L3 1/2"x3 1/2"x1/2"	C1/8"x1 1/4"x4"	11

MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS	APPROVED 5/9/2018	REVISED 5/9/2018	STANDARD STORM DRAINAGE DETAIL MANATEE GRATE TABLE	SD 5.1 SHEET 4 OF 4
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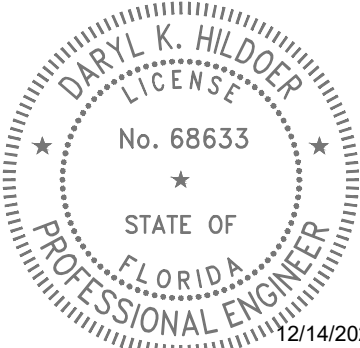


DIMENSIONS					
D	B	E	F	G	H
12"	1'-2"	1'-10"	1'-0"	4'-0"	2'-0"
15"	1'-2"	1'-10"	1'-2"	5'-0"	2'-3"
18"	1'-3"	1'-11"	1'-3"	6'-0"	2'-6"
24"	1'-4"	2'-0"	1'-4"	8'-0"	3'-0"
30"	1'-6"	2'-2"	1'-6"	10'-0"	3'-6"
36"	1'-8"	2'-4"	1'-8"	12'-0"	4'-0"
42"	1'-10"	2'-6"	2'-0"	14'-0"	4'-6"
48"	2'-1"	2'-9"	2'-0"	16'-0"	5'-0"
54"	2'-5"	3'-1"	2'-4"	18'-0"	5'-6"

- NOTES:
- 1 ALL EXPOSED EDGES ARE TO BE CHAMFERED 1" EXCEPT WHERE NOTED.
 - 2 ALL REINFORCING SHALL HAVE A MINIMUM COVER OF 2" EXCEPT WHERE NOTED.

ITEM	CROSS REF.	SPEC. REF.
FILL SLOPE	R-207	

MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS	APPROVED 6/1/02	REVISED 8/10/08 6/24/77	STANDARD BRIDGE AND CULVERT DETAIL STRAIGHT CONCRETE HEADWALL	BC 3.1 SHEET 1 OF 1
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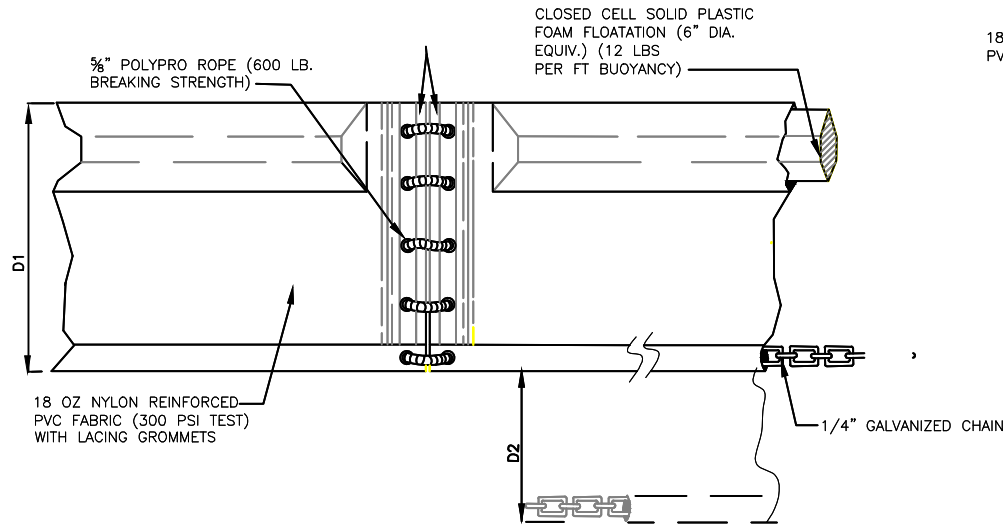
REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

SNAPPER CREEK CANAL OUTFALL RETROFIT ON SNAPPER CREEK DR. FROM SW 100 AVE TO SW 97 CT

NAME	DATE	NAME	DATE
DESIGNED BY LN./LR.	10-12-22	DRAWN BY F.C./H.S.	10-12-22
CHECKED BY F.G.	10-12-22	CHECKED BY LN./LR.	10-12-22
SUPERVISED BY:			

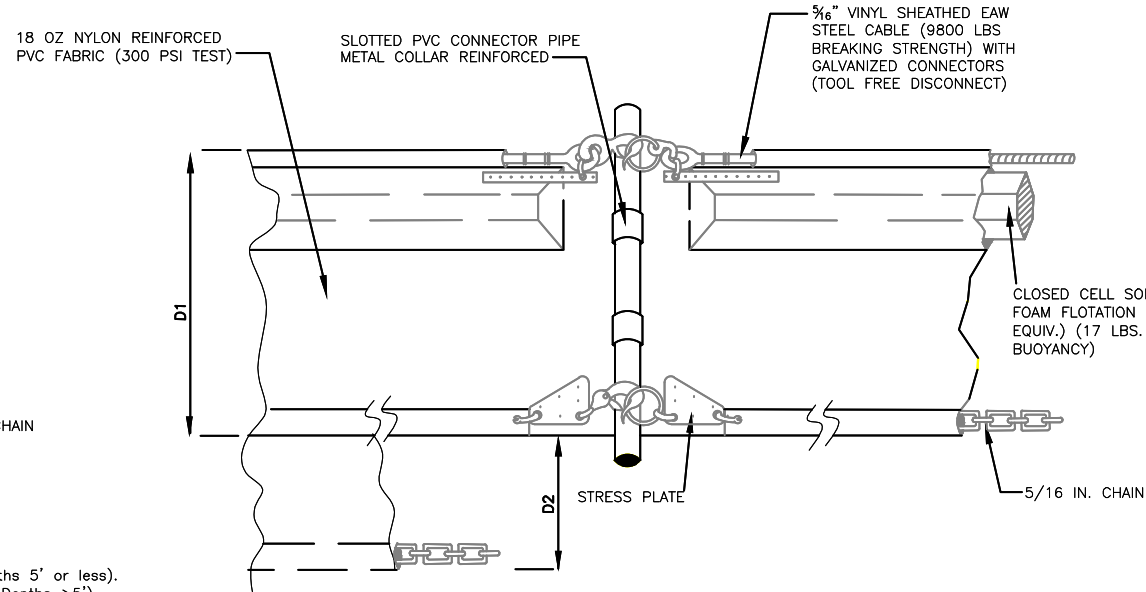
MIAMI-DADE COUNTY	DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS ROADWAY ENGINEERING AND RIGHT OF WAY DIVISION STEPHEN P. CLARK CENTER 111 NW 1 ST MIAMI, FLORIDA 33128
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MANATEE GRATE AND CONCRETE HEADWALL DETAILS

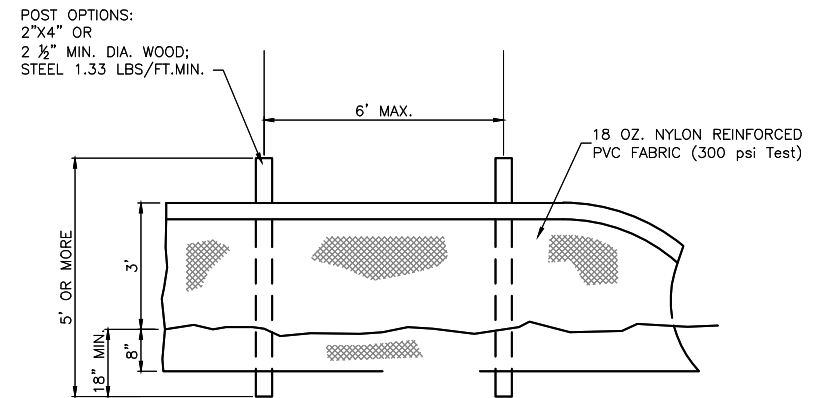


TYPE I

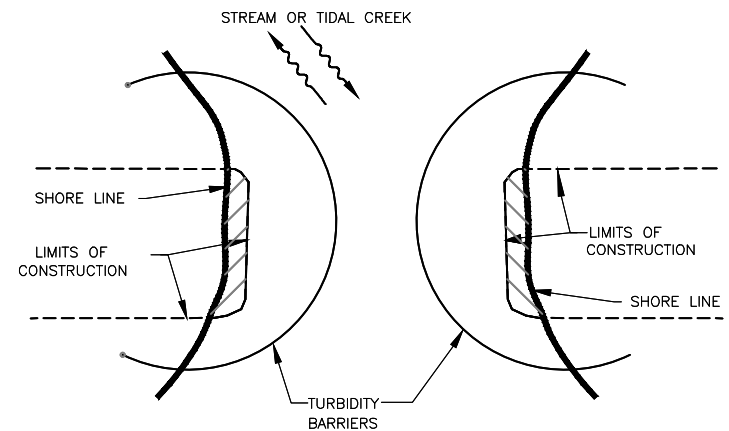
D1=5' Std (Single Panel For Depths 5' or less).
D2=5' Std. (Additional Panel For Depths >5').
Curtain To Reach bottom Up To Depths of 10 Feet.
Two (2) Panels to be used for depths greater than
10' unless special depth curtains are specifically
called for in the plans or as determined by the
Engineer.



TYPE II

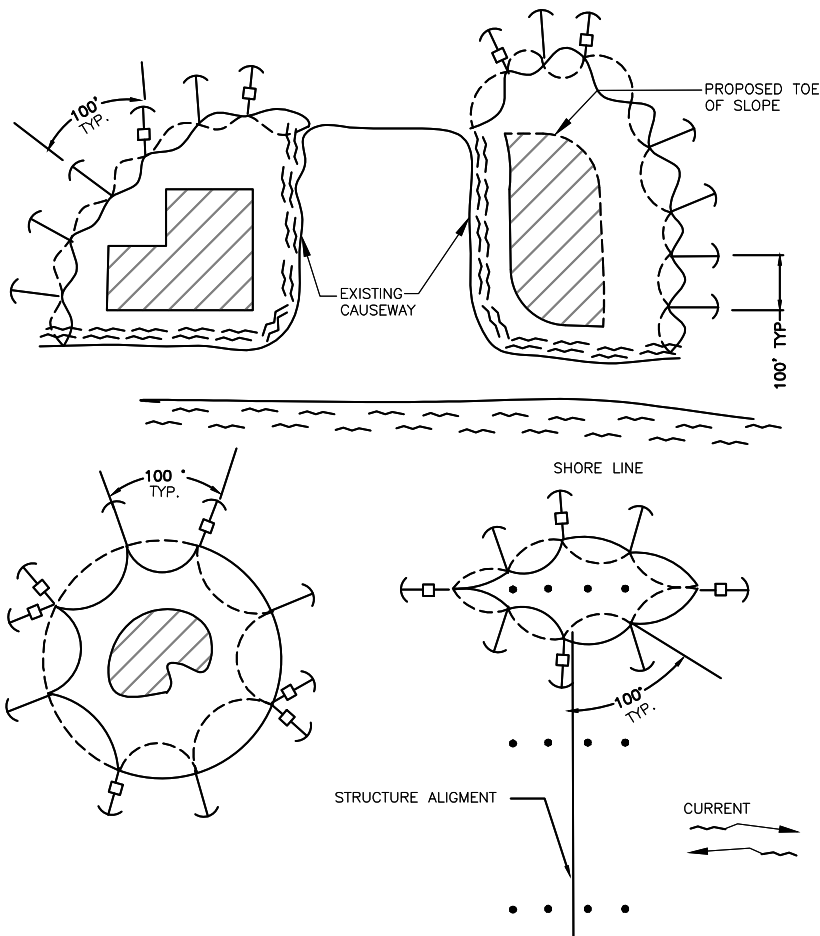


STAKED TURBIDITY BARRIER (TYP.)



NOTE:

TURBIDITY BARRIERS FOR FLOWING STREAMS AND TIDAL CREEKS MAY BE EITHER FLOATING, OR STAKED TYPES OR ANY COMBINATIONS OF TYPES THAT WILL SUIT SITE CONDITIONS AND MEET EROSION CONTROL AND WATER QUALITY REQUIREMENTS. THE BARRIER TYPES(S) WILL BE AT THE CONTRACTOR'S OPTION UNLESS OTHERWISE SPECIFIED IN THE PLANS, HOWEVER PAYMENT WILL BE UNDER THE PAY ITEMS(S) ESTABLISHED IN THE PLANS FOR FLOATING TURBIDITY BARRIER AND/OR STAKED TURBIDITY BARRIER. POSTS IN STAKED TURBIDITY BARRIERS IS TO BE INSTALLED IN VERTICAL POSITION UNLESS OTHERWISE DIRECTED BY THE ENGINEER.



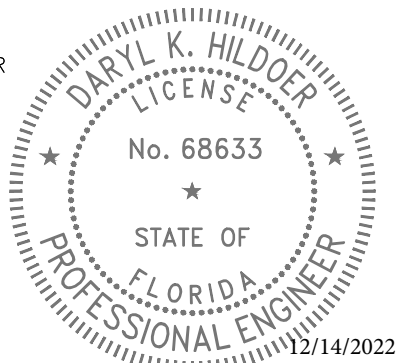
TURBIDITY BARRIER APPLICATIONS
FLOATING TURBIDITY BARRIERS (TYP.)

LEGEND:

- PILE LOCATIONS
- ▨ DREDGE OR FILL AREA
- MOORING BUOY W/ANCHOR
- ANCHOR
- BARRIER MOVEMENT DUE TO CURRENT ACTION

NOTES:

- 1- TURBIDITY BARRIERS ARE TO BE USED IN ALL PERMANENT BODIES OF WATER REGARDLESS OF WATER DEPTH.
- 2- NUMBER AND SPACING OF ANCHORS DEPENDENT ON CURRENT VELOCITIES.
- 3- DEPLOYMENT OF BARRIER AROUND PILE LOCATIONS MAY VARY TO ACCOMMODATE CONSTRUCTION OPERATIONS.
- 4- NAVIGATION MAY REQUIRE SEGMENTING BARRIER DURING CONSTRUCTION OPERATIONS.



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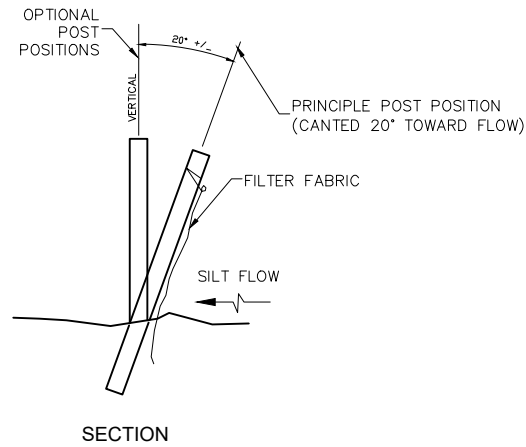
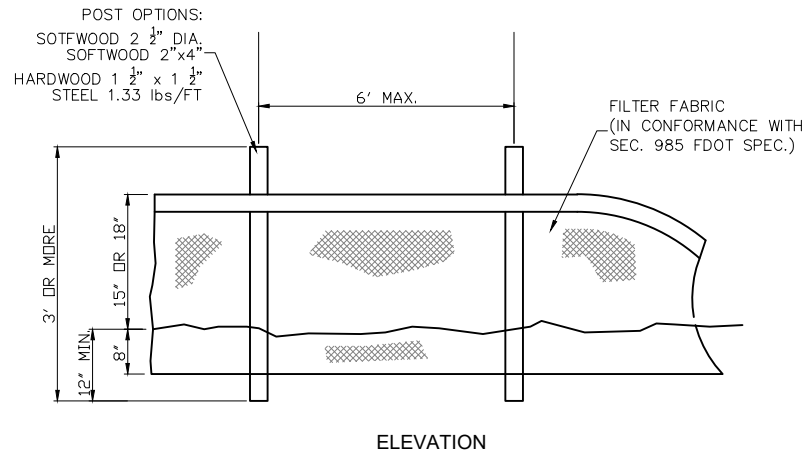
SNAPPER CREEK CANAL OUTFALL
RETROFIT ON SNAPPER CREEK DR.
FROM SW 100 AVE TO SW 97 CT

DESIGNED BY	NAME	DATE	DRAWN BY	NAME	DATE
	I.N./L.R.	10-12-22		F.C./H.S.	10-12-22
CHECKED BY	F.G.	10-12-22	CHECKED BY	I.N./L.R.	10-12-22
SUPERVISED BY:					

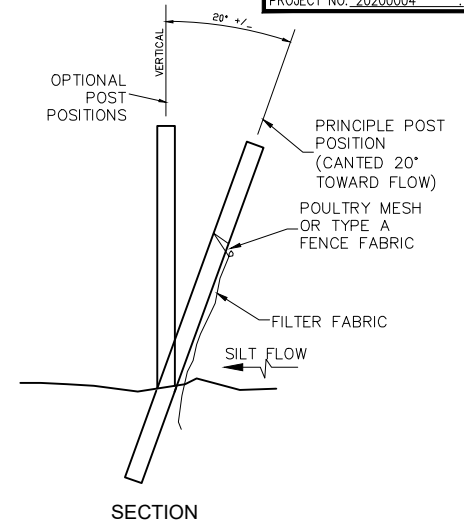
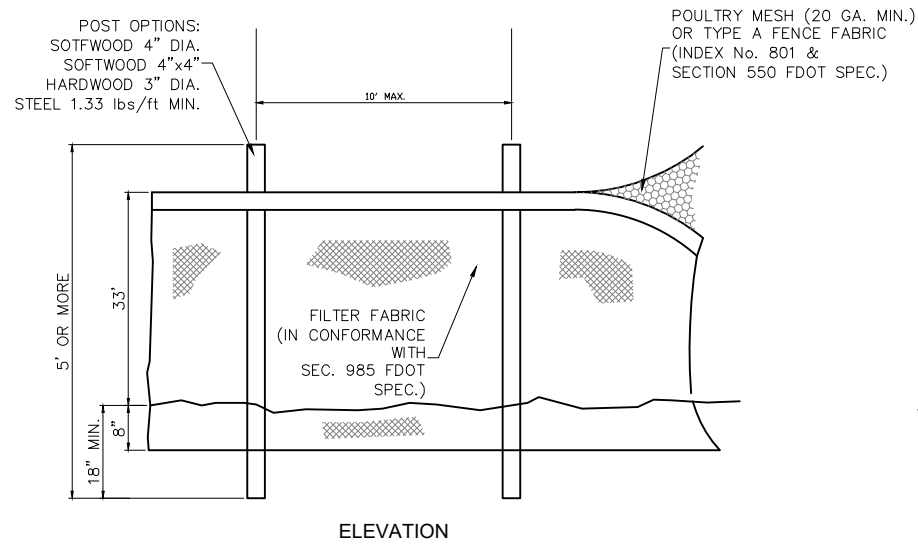


DEPARTMENT OF TRANSPORTATION
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ROADWAY ENGINEERING AND
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MIAMI, FLORIDA 33128

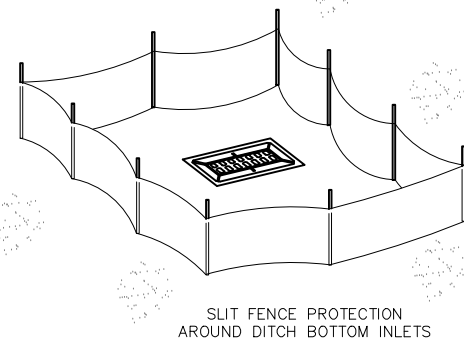
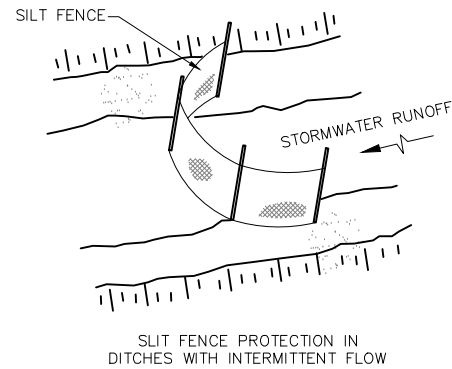
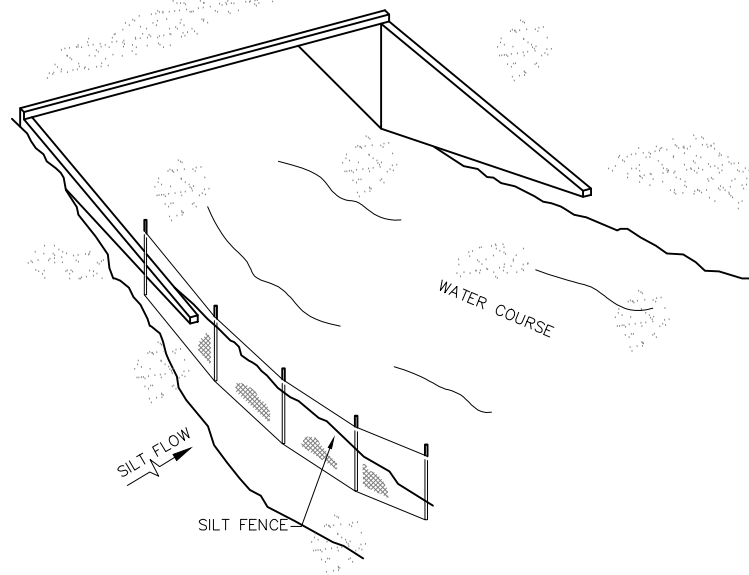
FLOATING TURBIDITY BARRIERS



TYPE III SILT FENCE (TYP.)



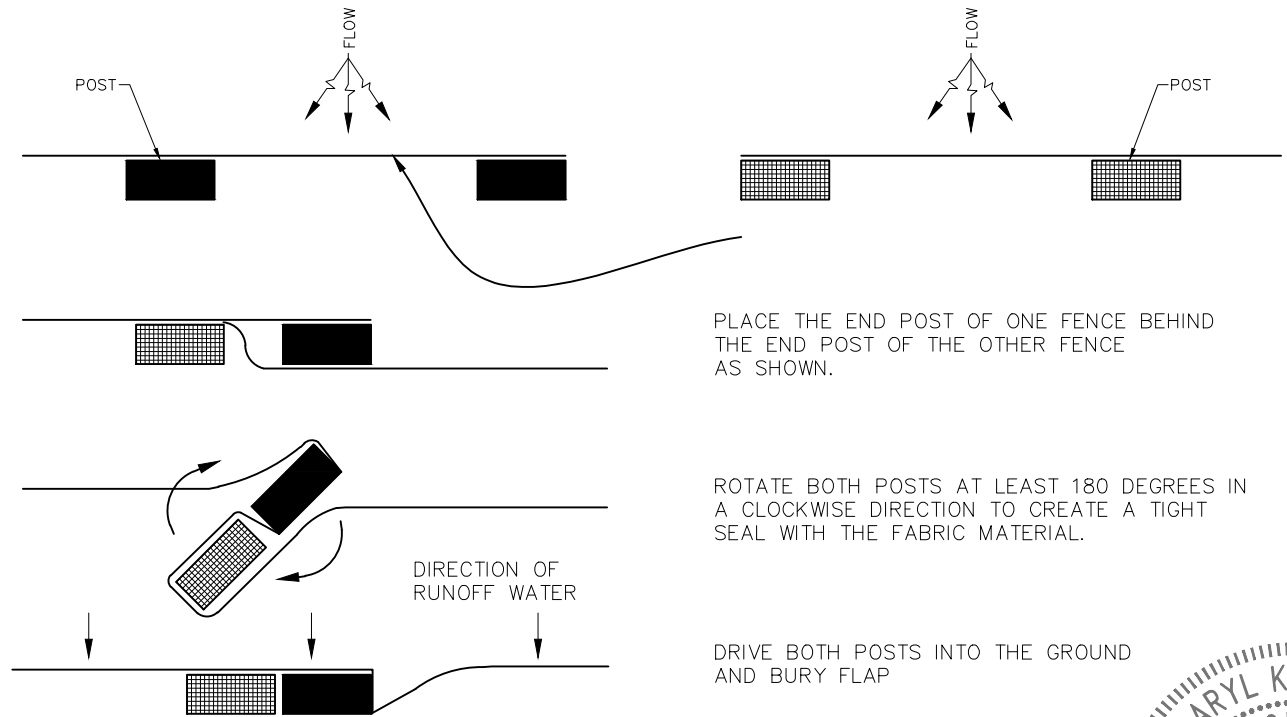
TYPE IV SILT FENCE (TYP.)



SILT FENCE APPLICATIONS (TYP.)

NOTES FOR SILT FENCES:

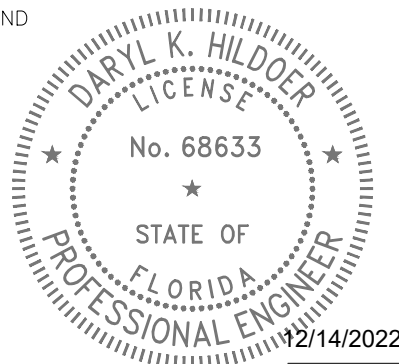
- 1- TYPE III SILT FENCE TO BE USED AT MOST LOCATIONS. WHERE USED IN DITCHES, THE SPACING FOR TYPE III SILT FENCE SHALL BE IN ACCORDANCE WITH CHART 1, SHEET 1 OF 2010 FDOT DESIGN STANDARDS INDEX 102.
- 2- TYPE IV SILT FENCE TO BE USED WHERE LARGE SEDIMENT LOADS ARE ANTICIPATED. SUGGESTED USE IS WHERE FILL SLOPE IS 1:2 OR STEEPER AND LENGTH OF SLOPE EXCEEDS 25 FEET. AVOID USE WHERE THE DETAINED WATER MAY BACK INTO TRAVEL LANES OR OFF THE RIGHT OF WAY.



PLANT VIEW

JOINING TWO SILT FENCES (TYP.)

- 3- DO NOT CONSTRUCT SILT FENCES ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.
- 4- WHERE USED AS SLOPE PROTECTION, SILT FENCE IS TO BE CONSTRUCTED ON 0% LONGITUDINAL GRADE TO AVOID CHANNELIZING RUNOFF ALONG THE LENGTH OF THE FENCE.



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ON THE DATE ADJACENT TO THE SEAL.

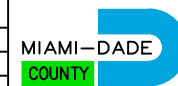
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SEDIMENT BARRIERS (TYP.)
OR APPROVED ALTERNATIVE

REVISIONS							
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY

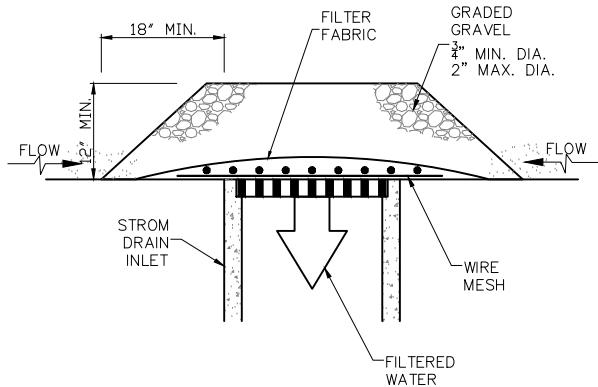
SNAPPER CREEK CANAL OUTFALL
RETROFIT ON SNAPPER CREEK DR.
FROM SW 100 AVE TO SW 97 CT

	NAME	DATE		NAME	DATE
DESIGNED BY	I.N./I.R.	10-12-22	DRAWN BY	F.C./H.S.	10-12-22
CHECKED BY	F.G.	10-12-22	CHECKED BY	I.N./I.R.	10-12-22
SUPERVISED BY:					

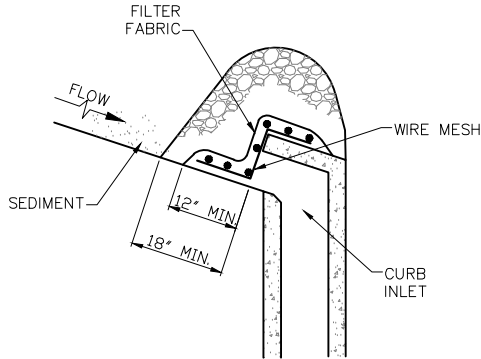


DEPARTMENT OF TRANSPORTATION
AND PUBLIC WORKS
ROADWAY ENGINEERING AND
RIGHT OF WAY DIVISION
STEPHEN P. CLARK, CENTER
111 NW 1 ST
MIAMI, FLORIDA 33128

SEDIMENT BARRIERS DETAILS



DROP INLET PROTECTION-GRAVEL



CURB INLET PROTECTION-GRAVEL

GRAVEL APPLICATIONS (TYP.)
OR APPROVED ALTERNATIVE

NOTES FOR INLET PROTECTION GRAVEL:

1- INSTALLATION/APPLICATION CRITERIA:

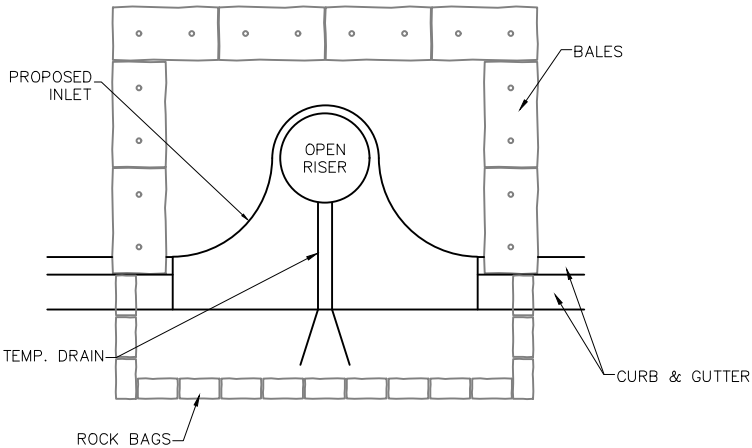
- PLACE WIRE MESH (WITH 1/2 INCH OPENINGS) OVER THE INLET GRATE EXTENDING ONE FOOT PAST THE GRATE IN ALL DIRECTIONS.
- PLACE FILTER FABRIC OVER THE MESH. FILTER FABRIC SHOULD BE SELECTED BASED ON SOIL TYPE.
- PLACE GRADED GRAVEL, TO A MINIMUM DEPTH OF 12 INCHES, OVER THE FILTER FABRIC AND EXTENDING 18 INCHES PAST THE GRATE IN ALL DIRECTIONS.

2- MAINTENANCE:

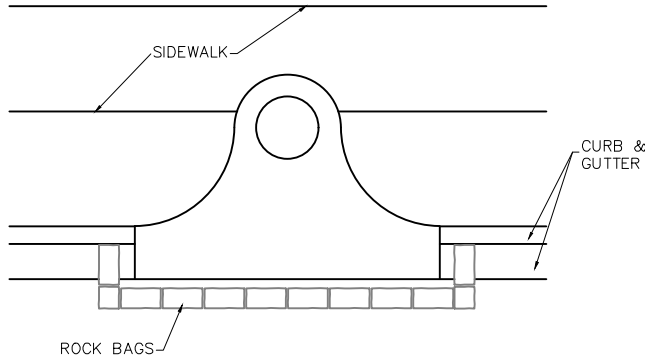
- INSPECT INLET PROTECTION AFTER EVERY LARGE STORM EVENT AND AT A MINIMUM OF ONCE MONTHLY.
- REMOVE SEDIMENT ACCUMULATED WHEN IT REACHES 4 INCHES IN DEPTH.
- REPLACE FILTER FABRIC AND CLEAN OR REPLACE GRAVEL IF CLOGGING IS APPARENT.

3- LIMITATIONS:

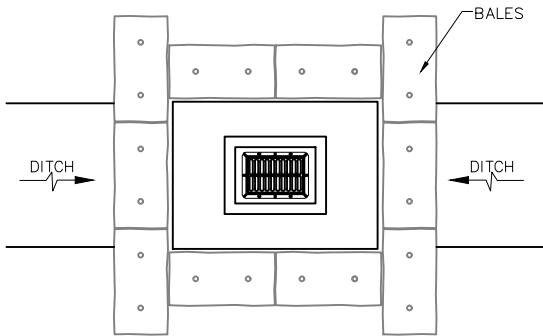
- RECOMMENDED FOR MAXIMUM DRAINAGE AREA OF ONE ACRE.
- EXCESS FLOWS MAY BYPASS THE INLET REQUIRING DOWN GRADIENT CONTROLS.
- PONDING WILL OCCUR AT INLET.



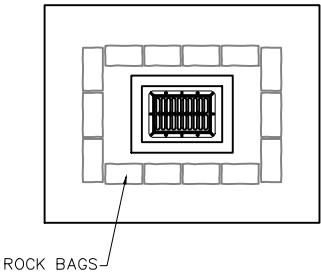
PARTIAL INLET



COMPLETED INLET



DITCH BOTTOM INLET



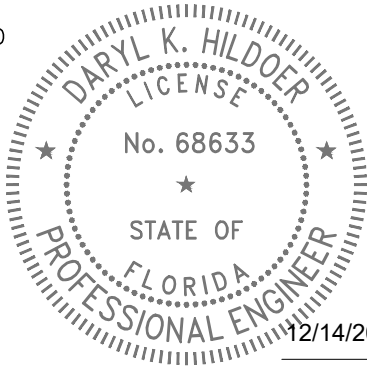
SWALE INLET

PROTECTION ALONG INLETS WITH ROCK BAGS BALES
OR APPROVED ALTERNATIVES

NOTES FOR SYNTHETIC BALES OR BALE TYPE BARRIERS:

- 1- TYPE I AND II SYNTHETIC BARRIER SHOULD BE SPACED IN ACCORDANCE WITH CHART 1, SHEET 1 OF 2010 FDOT DESIGN STANDARDS INDEX 102.
- 2- BALES SHALL BE ANCHORED WITH TWO (2) 1"x2" (or 1" dia.) x 4' WOOD STAKES. STAKES OF OTHER MATERIAL OR SHAPE PROVIDING EQUIVALENT STRENGTH MAY BE USED IF APPROVED BY THE ENGINEER. STAKES OTHER THAN WOOD SHALL BE REMOVED UPON COMPLETION OF THE PROJECT.
- 3- RAILS AND POSTS SHALL BE 2"x4" WOOD. OTHER MATERIALS PROVIDING EQUIVALENT STRENGTH MAYBE USED IF APPROVED BY THE ENGINEER.
- 4- ADJACENT BALES SHALL BE BUTTED FIRMLY TOGETHER.
- 5- WHERE USED IN CONJUNCTION WITH SILT FENCE, BALES SHALL BE PLACED ON THE UPSTREAM SIDE OF THE FENCE.

INLET PROTECTION SYSTEM (TYP.)
OR APPROVED ALTERNATIVE



12/14/2022

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SNAPPER CREEK CANAL OUTFALL
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SUPERVISED BY:					



DEPARTMENT OF TRANSPORTATION
AND PUBLIC WORKS
ROADWAY ENGINEERING AND
RIGHT OF WAY DIVISION
STEPHEN P. CLARK, CENTER
111 NW 1 ST
MIAMI, FLORIDA 33128

INLET PROTECTION SYSTEMS DETAILS

C:\Users\el39108\AppData\Local\Temp\AcPublish_13040\SH-17 Stormwater Pollution Prev Plan with sign WITH PERMIT.dwg Nov 02, 2022 - 4:46pm E139108

STORMWATER POLLUTION PREVENTION PLAN

Narrative Description

The Stormwater Pollution Prevention Plan (SWPPP) Narrative Description contains references to the Contract Documents, the State of Florida Erosion and Sediment Control Designer and Reviewer Manual (E&SC Manual), the FDOT Design Standards, and other sheets of these Construction Plans. The complete SWPPP is comprised of several items including: this narrative description, the documents referenced in this narrative, the Contractor's approved Erosion Control (ECP) prepared and submitted in accordance with the Contract Documents, and reports of inspections made during construction. All of which are complementary to the signed and certified SWPPP if one is provided by the Department. Contractor is required to maintain copies of the aforementioned items on site, including all applicable permits.

1. Site Description

- a. Nature of Construction Activities: The project consists of retrofitting of drainage infrastructure to a residential roadway.
- b. Sequence of Major Soil Disturbing Activities: The Contractor shall provide in the ECP a detailed sequence of construction for all construction activities. Each construction phase requires the installation of perimeter control, after clearing and grubbing as necessary for the installation of the controls, prior to beginning any work. The Contractor shall follow the sequence of major activities below, unless the Contractor proposes a different sequence that is equal or better at controlling erosion and trapping sediment and is approved by the Engineer.

- 1) Clearing and grubbing, earthwork, drainage improvements construction.
- 2) Final grading and landscaping where necessary.

c.Area Estimates (Acre)

- 1) Total Site Area: 7.60 A.C.
- 2) Total Area of the site that is expected to be disturbed: 0.80 A.C.

d. Existing data describing the soil or the quality of any discharge from the site and an estimate of the size of the drainage area for each discharge point:

- 1) Rational runoff coefficient
- a) Before: 0.71
- b) During: 0.78
- c) After construction: 0.71
- 2) Existing data describing the soil or the quality of discharge from the site: According to the United States Department of Agriculture Natural Resources Conservation Service Soil Survey Report of Dade County Area, Florida, the soil encountered on the project are of urban land Udorthents Association soil, which are categorized as moderately well drained.
- 3) The size of the drainage area for each outfall:
- S-1 To Outfall 1: 1.00 A.C
- S-2 To Outfall 2: 1.90 A.C
- S-3 To Outfall 3: 2.20 A.C
- S-4 To Outfall 4: 2.50 A.C
- 4) The location of each outfall is provided in item 1.f. below.

e. Site Map: The associated construction plan sheets will be used as the site map. Locations of the required information are described below.The sheet numbers for all items discussed are identified on the Cover Sheet of the construction plans.

- 1) Drainage patterns and approximate slopes anticipated after major grading activities: The slopes of the site can be seen on the construction plan sheets.
- 2) Areas of Soil Disturbance: The areas to be disturbed are indicated on the construction plan sheets. Any areas where permanent features are shown to be constructed above or below ground will be disturbed.
- 3) An outline of areas which may not be disturbed: These areas of the Project outside the clearing and grubbing and construction activities which comprised of those that are not subject to any soil disturbing activities.
- 4) The location of major structural and nonstructural controls identified in the plan:Temporary sediment control devices shall be installed all locations where disturbance of solids will occur. Additional measures may be required as necessary where stormwater runoff has the potential to reach surface waters or offsite stormwater collection facilities.
- 5) The location of areas where stabilization practices are expected to occur, surface waters, wetlands and locations where stormwater is discharged to a surface water or MS4: Areas of permanent stabilization are shown on the Construction Plan Sheets.

f. Discharge point(s): Consist of a Stormwater treatment structure (PCS-1, PCS2, PCS-3 and PCS-4) discharging into outfalls to Snapper Creek Canal.

Name/Description	Latitude	Longitude	Name of Receiving Waters
Pollution Control Structure (PCS-1)	N25°41'49.67"	W80°21'24.60"	Snapper Creek Canal
Pollution Control Structure (PCS-2)	N25°41'47.01"	W80°21'19.42"	Snapper Creek Canal
Pollution Control Structure (PCS-3)	N25°41'42.17"	W80°21'09.74"	Snapper Creek Canal
Pollution Control Structure (PCS-4)	N25°41'39.18"	W80°21'04.41"	Snapper Creek Canal

2. Controls

- a. Erosion and Sediment Controls: The Contractor shall describe in the ECP the proposed stabilization and structural practices. The Contractor may choose to accept the following guidelines or modify them in the ECP, subject to approval by the Engineer. As work progresses, the Contractor shall modify the plan to adapt to seasonal variation, changes in construction activities, and the need for better management practices. For each construction phase install perimeter controls after clearing and grubbing necessary for installation of controls but before beginning other work for the construction phase. Remove perimeter controls only after all upstream areas are stabilized. In addition :

. Furnish and place inlet protection systems to control erosion and siltation.

. Install soil tracking prevention devices (STPDs) at all common areas where construction vehicles will be entering and exiting the construction site.

. Sediment barriers shall be installed and at the toe of slope of embankments and at locations as described in the Erosion and Sediment Control Details and the E&SC Manual.

. Inlet protection systems shall be used for all existing and proposed inlets subject to sediment runoff.

. Clearing and grubbing operations will be controlled so as to minimize unprotected erodible areas exposed to weather. Areas outside the limits of construction shall not be disturbed.

. Excavated material shall not be deposited in locations where the material could be washed away by high water, rain or stormwater runoff. Stockpiles shall be covered or encircle with sediment barriers.

- 1) Stabilization Practices: In the ECP, the Contractor shall describe the stabilization practices proposed to control erosion. The Contractor shall initiate all stabilization measures as soon as practical, but in no case more than 7 days, in portions of the site where construction activities have temporarily or permanently ceased. The stabilization practices shall include at least the following, unless otherwise approved by the Engineer.

a) Temporary: Includes sod, mulch, and artificial coverings in accordance with the Contract Documents.

b) Permanent: Includes asphalt or concrete surface, sod, roadside swales, and endwalls in accordance with the Contract Documents.

- 2) Structural Practices: In the ECP, the Contractor shall describe the proposed structural practices to control trap sediment and otherwise prevent the discharge of pollutants from exposed areas of the site. Sediment controls shall be in place before disturbing soil upstream of the control. The structural practices shall include at least the following, unless otherwise approved by the Engineer.

a) Temporary: Includes inlet protection systems, sediment barriers, turbidity barriers and soil tracking prevention devices as per the ES&C Manual and the Contract Documents. See Erosion and Sediment Control Details for more information. All sediment controls shall be in place prior to any soil disturbing activity.

b) Permanent: Includes roadside swales.

b. Permanent Stormwater Management Controls: Stormwater runoff will be conveyed in a swale systems with inlets and French drains.

c. Control for Other Potential Pollutants: The Contractor shall practice good housekeeping by instituting a clean, orderly construction site. The following controls shall be implemented to further reduce pollution at the project site:

- 1) Waste Disposal: In the ECP, the Contractor shall describe the proposed methods to prevent the discharge of solid materials, including building materials, to waters of the United States. The proposed methods shall include at least the following, unless otherwise approved by the Engineer:

a) The Contractor shall demonstrate the proper disposal of all construction waste generated within the project limits. Waste may include, but not be limited to, vegetation from clearing and grubbing activities, packaging materials, scrap building materials, litter from traveling public, sewage from sanitary facilities, herbicides and pesticides and their containers, and hydrocarbon products. Contractor shall designate a waste collection area onsite and delineate the area on the SWPPP Site Map.

b) Sanitary/septic facilities shall be provided and maintained in a neat and sanitary condition, for the use of the Contractor's employees as necessary to comply with the requirements and regulations of the State and local boards of health. A licensed Sanitary Waste Management Contractor as required by State Regulations will collect all sanitary waste from portable units.

c) The Contractor will provide litter control and collection within the Project limits during construction activities. Contractor will provide an adequate number of litter containers with lids at the staging, stockpile and field office areas (as applicable). Waste collection will be scheduled so that containers are emptied prior to overflow. Spilled litter containers will be cleaned up immediately.

- 2) Off-Site Vehicle Tracking & Generation of Dust: In the ECP, the Contractor shall describe the proposed methods for minimizing offsite vehicle tracking of sediments and generating dust. The proposed methods shall include at least the following, unless otherwise approved by the Engineer.

a) Stabilizing construction entrances as necessary according to the E&SC Manual and the Contract Documents.

b) The Contractor shall take measures to insure the cleanup of sediments that have been tracked by vehicles or have been transported by wind or stormwater about the site or onto nearby roadways.

c) Removing excess dirt from roads daily.

d) Using roadway sweepers during dust generating activities such as excavation and milling operations.

e) Stabilized construction entrances and construction roads, if appropriate, shall be implemented in order to reduce off-site tracking.

f) Loaded haul trucks shall be covered with tarpaulin. Excess dirt on the road shall be removed daily.

- 3) State or Local Regulations: In the ECP, the Contractor shall describe the proposed procedures to comply with applicable State and local regulations for waste disposal, and sanitary sewer or septic systems.

4) Application of Fertilizer and Pesticides

a) The application and handling of herbicides and pesticides shall be in compliance with the manufacture recommended method and in accordance with FDOT Standard Specifications for Road and Bridge Construction as modified by the Contract Documents.

b) Herbicides and pesticides shall be stored onsite in their original containers with product label intact.

5) Toxic Substances and Materials

a) In the ECP, the contractor shall provide a list of toxic substances and materials that are likely to be used on the job and provide a plan addressing the generation, application, migration, storage, and disposal of these substances.

b) Contractor shall provide equipment necessary to contain and clean up spills of hazardous materials, including petroleum products. Spills shall be contained and cleaned up immediately after they occur. Spilled material and the equipment used to clean up the spill shall not come in contact with surface waters or be introduced into stormwater. Disposal of surplus product will be done according to manufacturer recommended method.

c) Contractor shall provide a project specific Hazardous Materials Spill Control Plan in order to address the handling of hydrocarbon and hazardous materials.

d) Petroleum products shall be stored in covered areas with secondary containment surrounding container.

e) Toxic/hazardous materials exposed during construction activities shall be handled per the FDOT Standard Specifications for Road and Bridge Construction as modified by the Contract Documents.

d. Approved State and Local Plans and Permits

- Class II Permit-R.E.R.
- S.F.W.M.D. Right of Way Permit
- S.F.W.M.D. Environmental Resource Permit.

3. Maintenance: In the ECP, the Contractor shall provide a plan for maintaining all erosion and sediment controls throughout construction. The maintenance plan shall at a minimum, comply with the following:

a. Sediment Barriers: Twelve (12) months, or as required, replacement interval in accordance with Contract's Specifications.

b. Inlet Protection Systems at inlets-Check after rainfall events. Clean if clogging occurs.

c. The maintenance of these devices shall occur until the Engineer has deemed an area permanently stabilized. It will be the responsibility of the Contractor to remove erosion and sediment control devices once they have served their purpose.

4. Inspection

a. The Contractor shall be required to conduct daily visual inspections of all temporary and permanent erosion control measures along the project corridor. The Contractor shall maintain, repair and/or replace these items as necessary.

b. The Engineer shall have an Inspector review the project's temporary and permanent erosion control measures for the items listed below at least once every seven (7) calendar days and/or within 24 hours of the end of a storm that is 0.5 inches or greater. A written inspection report (form attached) is required every seven calendar days or within 24 hours of the end of a storm that deposits 0.5 inches of rain or greater.

1) Outfalls into the waters of the United States

2) Points of discharge to municipal separated storm sewer systems

3) Disturbed areas of the site that have not been stabilized

4) Areas used for storage of materials that are exposed to precipitation

5) Structural controls

6) Stormwater management systems

7) Locations where vehicles enter or exit this site

8) Check that the approved or revised Erosion Control Plan is followed

9) Where sites have been stabilized, inspections shall be conducted at least once every month.

c. The Contractor shall initiate repairs within 24 hours of inspections that indicate items are not in good working order.

d. If inspections indicate that the installed stabilization and structural practices are not sufficient to minimize erosion, retain sediment, and prevent discharging pollutants, the Contractor shall provide additional measures, as approved by the Engineer.

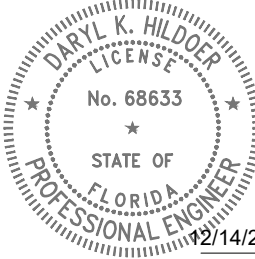
5. Non-Stormwater Discharges

a. In the ECP, the Contractor shall identify all anticipated non-stormwater discharges (except flows from fire fighting activities). The Contractor shall describe the proposed measures to prevent pollution from these non-stormwater discharges.

b. If contaminated soil or groundwater is encountered during construction, the Contractor is to cease operations in that area. The Contractor shall contact the Miami-Dade County Regulatory and Economic Resources Compliance Desk, at (305) 372-6955.

6. Contractor/subcontractor: Certification.

a. For each measure identified in the SWPPP, the Contractor and/or subcontractor(s) that will implement the measure must sign a copy of the certification statement, provide in Appendix A of the SWPPP, prior to conducting any construction activities at the Sites. (N/A)



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R E V I S I O N S								SNAPPER CREEK CANAL OUTFALL RETROFIT ON SNAPPER CREEK DR. FROM SW 100 AVE TO SW 97 CT	<table><tr><td></td><td>NAME</td><td>DATE</td><td></td><td>NAME</td><td>DATE</td></tr><tr><td>DESIGNED BY</td><td>I.N./I.R.</td><td>10-12-22</td><td>DRAWN BY</td><td>F.C./H.S.</td><td>10-12-22</td></tr><tr><td>CHECKED BY</td><td>F.G.</td><td>10-12-22</td><td>CHECKED BY</td><td>I.N./I.R.</td><td>10-12-22</td></tr><tr><td colspan="6">SUPERVISED BY:</td></tr></table>							NAME	DATE		NAME	DATE	DESIGNED BY	I.N./I.R.	10-12-22	DRAWN BY	F.C./H.S.	10-12-22	CHECKED BY	F.G.	10-12-22	CHECKED BY	I.N./I.R.	10-12-22	SUPERVISED BY:						MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS ROADWAY ENGINEERING AND RIGHT OF WAY DIVISION STEPHEN P. CLARK, CENTER 111 NW 1 ST MIAMI, FLORIDA 33128	STORMWATER POLLUTION PREVENTION PLAN
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