



ATTACHMENT "A"

Office of the Town Manager

Rafael G. Casals, CFM
Town Manager

Point Royale Section 5 Water Quality Improvement Project

Amount Requested: \$400,000 (70%)
Match funding available: \$170,980 (30%)
Total Project Cost: \$570,980

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Project Abstract:

The Town of Cutler Bay proposes Stormwater improvements in the 13.08 acre Point Royale Section 5 Drainage Sub-basin. The sub-basin is completely developed with single family residential land use. The proposed BMP's will reduce non-point source pollutant load to the Biscayne Canal (C-1). The first planned Stormwater improvement proposes to modify or reconstruct the existing catch basins as required to provide sediment tramps (sumps) and pollution retardant baffles to protect the French drains and weir structures prior to each outfall to restrict the discharge of pollutants to the Biscayne Canal (C-1). The second planned Stormwater improvement involves the addition of catch basins, French drains, and manholes to provide water quality and quantity treatment. These improvements are anticipated to reduce pollutant loadings to C1 Canal by 92.7% for total phosphorus, 89.5% for total nitrogen, and 90.6% for total suspended solids (TSS). Meetings will be held with neighborhood groups in the area prior to the start of construction. The purpose of the meetings will be to education the public about the proposed project specifically and Stormwater pollution and treatment in general.

Project Location:

Point Royale Section 5 is located in the northwestern corner of the town limits of Cutler Bay, east of South Dixie Highway, south of Quail Roost Drive (SW 186th Street), north of Broad Channel Drive and west of Lenaire Drive.

Watershed Name: Everglades
Latitude: 25.57516
Longitude: 80.34089
Hydrologic Unit Code (HUC): 03090202

Project Benefits:

Cutler Bay is bordered on the West by Biscayne Bay National Park and the Biscayne Bay Wetlands. In our efforts to protect the Bay, the Town has implemented a series of best management practices as it relates to stormwater treatment. The Town consistently educates the community about water pollution due to stormwater runoff and regularly maintains the Town’s streets and drainage systems. All Capital Improvement projects include improved treatment trains that will ultimately reduce pollutant loads to Biscayne Bay by 80% or greater. This particular project discharges into the Biscayne Bay C-1 Canal and ends in Biscayne Bay.

This chart displays the estimated pollutant load reduction provided by the proposed inlet traps, baffle boxes and exfiltration trenches. Impact was estimated using methodology similar to Harvey Harper’s Model and was accepted by the South Florida Water Management District.

Pollutant	Existing Load (kg/yr)	Reduction (kg/yr)	Proposed Load (kg/yr)	Percentage Reduction
Total Phosphorous (TP)	7.77	7.20	0.57	92.7%
Total Nitrogen (TN)	61.21	54.79	6.43	89.5%
Total Suspended Solids (TSS)	733.79	664.45	69.34	90.6%

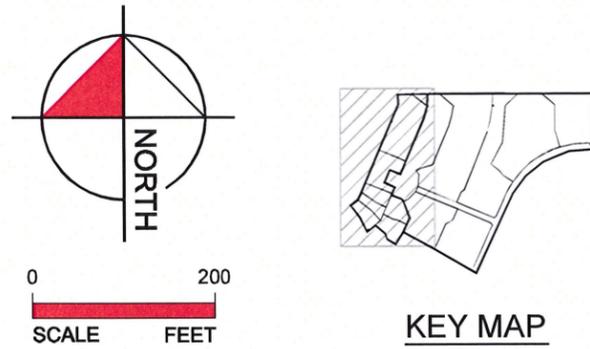
Match Funding Available:

The Town currently has a 5 year Interlocal Agreement with Miami-Dade County for Stormwater Utility. This was formally adopted and implemented by the Town of Cutler Bay via Resolution No. 12-39 on August 15, 2012. This has allowed the Town to budget \$170,980 (30%) of the total estimated cost of \$570,980. This funding is obtained through “Stormwater Utility Fees” in accordance with the Town’s adopted Stormwater Master Plan. This fee is assessed on the utility bill of each residential or commercial property. This fee has not been increased for the purpose of funding this project.



Attachment "A": Excerpt from the Town's Stormwater Master Plan adopted via Resolution #08-50. Map of Point Royal Sec 5 Improvements

Drawing name: H:\043145000-Cutler Bay Stormwater MP\CADD\CIVIL\CONCEPT\FIG 29 PORT ROYALE SEC-5 SUB-BASIN.dwg FIG 29 PORT ROYALE SEC 5 SUB-BASIN Feb 28, 2008 6:10pm by: jeiro.castro



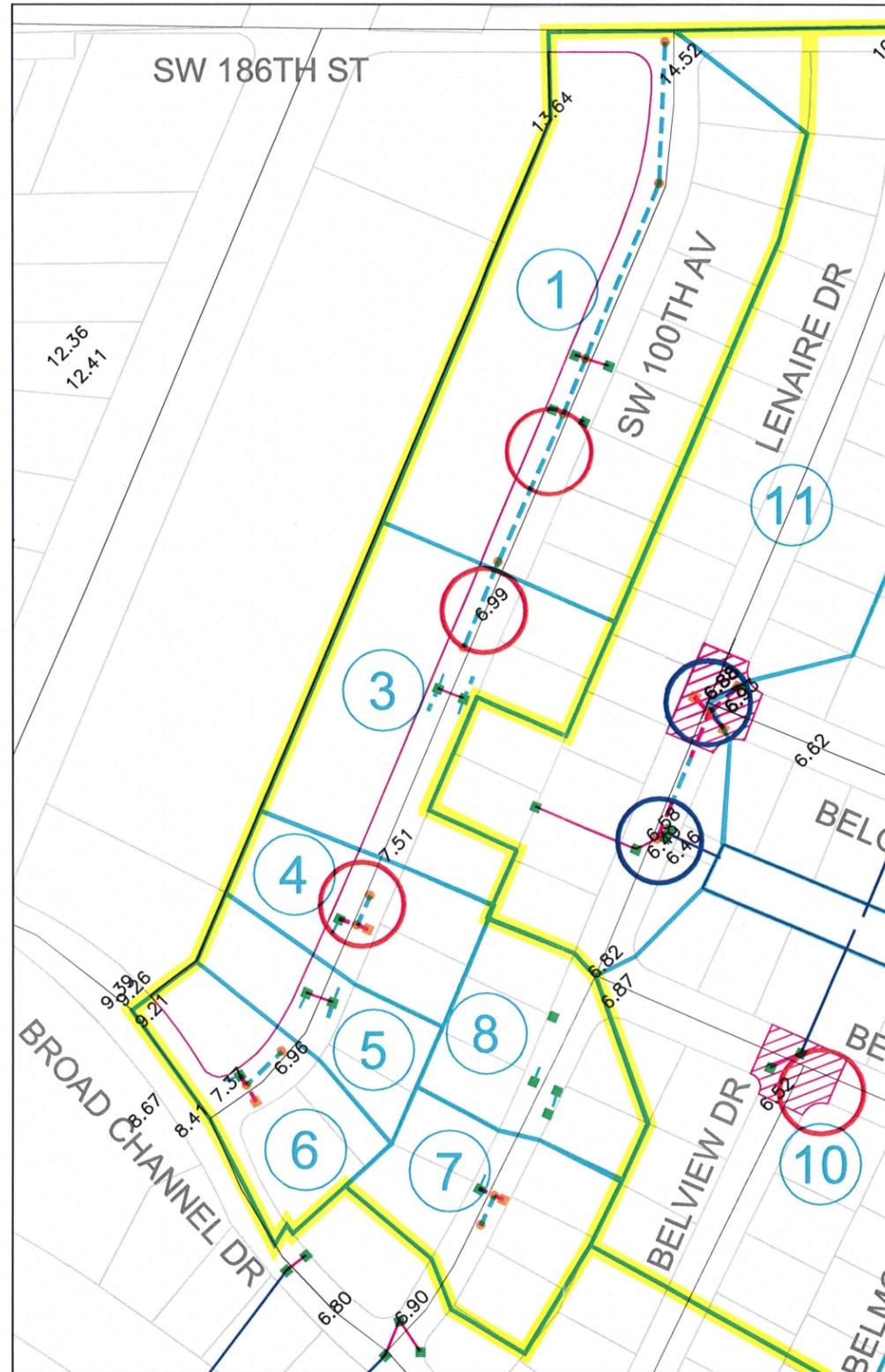
KEY MAP

LEGEND

- EXIST./PROP. OUTFALL PIPE
- EXIST./PROP. DRAINAGE PIPE
- EXIST./PROP. FRENCH DRAIN
- AREA DELINEATION
- SUB-BASIN GROUP
- EXIST./PROP. CATCH BASIN
- EXIST./PROP. MANHOLE
- PROP. REGRADING
- 6.56 EXISTING ELEVATIONS
- # AREA NUMBER
- KHA OBSERVED PONDING
- KHA OBSERVED FLOODING
- TOWN COMPLAINT LOCATIONS

SUMMARY OF PROPOSED MODIFICATIONS

- ADD 3 CATCH BASINS (2 CURB INLETS)
- ADD 18 CONCRETE APRON
- ADD 940 LF FRENCH DRAIN
- ADD 105 LF 18" PIPE
- ADD 12 MANHOLES
- CORE DRILL 3 EXISTING INLETS



AREA 1 PROPOSED MODIFICATIONS

- ADD 720 LF FRENCH DRAIN
- ADD 6 MANHOLES
- VERIFY LOW POINT LOCATED AT CATCH BASINS

AREA 3 PROPOSED MODIFICATIONS

- ADD 60 LF FRENCH DRAIN
- VERIFY LOW POINT LOCATED AT CATCH BASINS

AREA 4 PROPOSED MODIFICATIONS

- ADD 1 CATCH BASIN (CURB INLET)
- ADD 35 LF 18" PIPE
- CORE DRILL EXISTING INLET
- ADD 40 LF FRENCH DRAIN
- ADD 2 MANHOLES

AREA 5 PROPOSED MODIFICATIONS

- ADD 20 LF FRENCH DRAIN

AREA 6 PROPOSED MODIFICATIONS

- ADD 1 CATCH BASIN (CURB INLET)
- ADD 35 LF 18" PIPE
- ADD 60 LF FRENCH DRAIN
- ADD 2 MANHOLES

AREA 7 PROPOSED MODIFICATIONS

- ADD 1 CATCH BASIN
- ADD 1 CONCRETE APRON
- ADD 35 LF 18" PIPE
- CORE DRILL EXISTING INLET
- ADD 40 LF FRENCH DRAIN
- ADD 2 MANHOLE

AREA 8 PROPOSED MODIFICATIONS

- NO MODIFICATIONS REQUIRED



TOWN OF CUTLER BAY
STORMWATER MASTER PLAN

POINT ROYALE SEC 5
SUB-BASIN

FIGURE 29