

CCNA – Stormwater Committee Initial Monthly Report

1. Drainage Maintenance Dredging
2. Identification of flooding problem areas
3. Code requirements for Lot Drainage

City Projects proposed and submitted to the County for inclusion in Resilient SRQ Round 2

DREDGING PROJECTS

Priority	Project	CDBG-DR Request	Total Cost	Key Benefit Highlights
1	Hudson Bayou Dredging	\$13.7 M	\$15 M	Restores 100-yr LOS; eliminates flooding for ≈ 150 homes
2	Whitaker Bayou Dredging	\$10 M	\$20 M	Protects ≈ 210 homes; USACE §219 match; ends 8-hr road closures

INFRASTRUCTURE PROJECTS

Priority	Project	CDBG-DR Request	Total Cost	Key Benefit Highlights
1	St. Armands Resiliency & Flood Mitigation <i>City & Town of Longboat Key co-sponsored</i>	\$24.5 M	\$25 M	Keeps SR 789 evacuation route open; shields ≈ 120 buildings
2	Whitaker Bayou Resiliency & SW Mitigation	\$15.9 M	\$15.9 M	Removes ≈ 50 structures from 100-yr floodplain; upgrades ≈ 1,500 LF roadway
3	Sarasota Stormwater Resiliency Initiative	\$6.7 M	\$6.7 M	Addresses ≈ 5,500 LF chronic roadway flooding; reduces risk to 40+ homes

Dredging Projects proposed and submitted to the County for inclusion in Resilient SRQ Round 2

HUDSON BAYOU DREDGING FUNDING STRATEGY

Source	Amount	% of Total	Notes
City of Sarasota & Surtax Funds (Local)	\$ 1,300,000	8.7%	Covers design, permitting, and provides CDBG-DR leverage
Resilient SRQ – Round 2 (CDBG-DR)	\$ 13,700,000	91.3%	Funds dredging, disposal, stabilization, and monitoring
Total Project Cost	\$ 15,000,000	100%	Fully funded upon SRQ award approval

WHITAKER BAYOU DREDGING FUNDING STRATEGY

Source	Amount	% of Total	Notes
FY 2026 Section 219 Environmental Infrastructure	\$ 9,999,000	49.9 %	USACE: design review & construction oversight – City Secured through Federal appropriations.
Resilient SRQ – Round 2 (CDBG-DR)	\$ 10,001,000	50.1 %	Completes dredging, disposal & compliance
Total Project Cost	\$ 20,000,000	100 %	No local cash match (City/County in-kind)

Flood Protection Level of Service

Current Flood Protection Level of Service

No Structure Flooding
Above Finished Floor
Elevation



12"

Neighborhood
Roads &
Parking Areas



9"

Collector
Roads



6"

Arterials
Roads



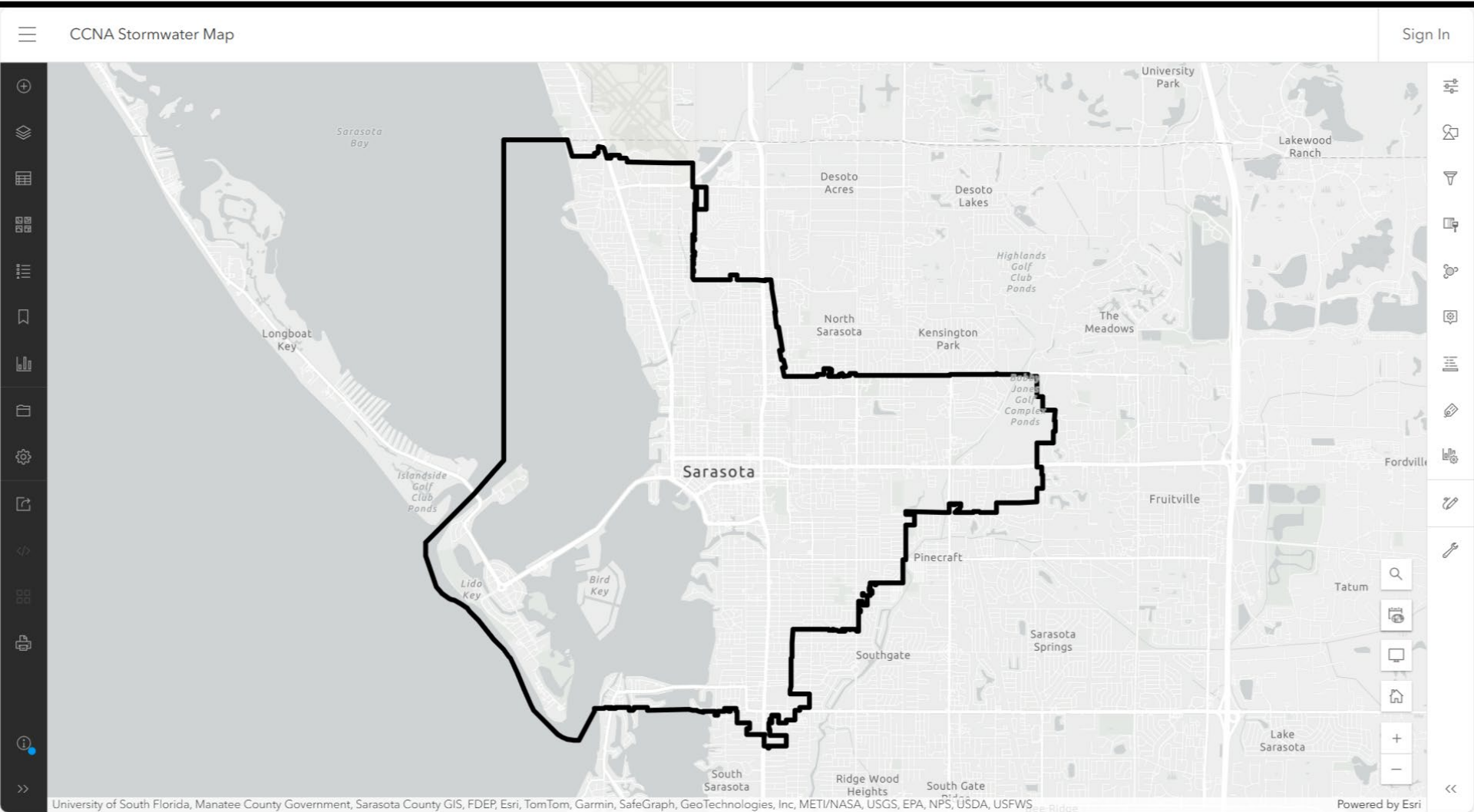
0"

Evacuation
Routes



CCNA Stormwater Map

(Thanks to Sarasota County SEU, Nikesh Patel, Andrew Neuhaus, and Will Rockwell)



CCNA Stormwater Map

The screenshot displays the CCNA Stormwater Map interface. On the left, a sidebar contains a 'Layers' panel with a list of map features: 'Street Flooding Submissions', 'Roadway Deficiencies', 'Structure Deficiencies', 'Neighborhoods (View Only)', 'CommunityFloodZone', 'FEMAFloodZone', and 'Municipal Boundary (View Only)'. The 'Neighborhoods (View Only)' layer is highlighted with a red circle. Above the map, a search bar is also highlighted with a red circle, containing the text 'Find address or place'. The map itself shows the city of Sarasota and surrounding areas, with various colored polygons representing different flood zones and neighborhoods. Labels on the map include 'Longboat Key', 'Islandside Golf Club Ponds', 'Lido Key', 'Bird Key', 'Sarasota', 'South Sarasota', 'Ridge Wood Heights', 'South Gate', 'Southgate', 'Pinecraft', 'Fruitville', 'Sarasota Springs', 'University Park', 'Desoto Acres', 'Desoto Lakes', 'Highlands Golf Club Ponds', 'The Meadows', and 'Kensington Park'. At the bottom, a footer lists the data sources: 'University of South Florida, Manatee County Government, Sarasota County GIS, FDEP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc., METI/NASA, USGS, EPA, NPS, USDA, USFWS' and notes it is 'Powered by Esri'.

CCNA Stormwater Map

Layers

- Street Flooding Submissions
- Roadway Deficiencies
- Structure Deficiencies
- Neighborhoods (View Only)
- CommunityFloodZone
- FEMAFloodZone
- Municipal Boundary (View Only)

Add

Search

Find address or place

Sarasota

Longboat Key

Islandside Golf Club Ponds

Lido Key

Bird Key

South Sarasota

Ridge Wood Heights

South Gate

Southgate

Pinecraft

Fruitville

Sarasota Springs

University Park

Desoto Acres

Desoto Lakes

Highlands Golf Club Ponds

The Meadows

Kensington Park

University of South Florida, Manatee County Government, Sarasota County GIS, FDEP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc., METI/NASA, USGS, EPA, NPS, USDA, USFWS Powered by Esri

CCNA Stormwater Map

CCNA Stormwater Map Sign In

Basemap

Current basemap
Imagery Hybrid

Imagery

Imagery Hybrid

Streets

Topographic

Navigation

Streets (Night)

Terrain with Labels

Change background color

State of Florida, Earthstar Geographics | University of South Florida, Manatee County Government, Sarasota County GIS, FDEP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc. M... Powered by Esri

CCNA Stormwater Map



CCNA Stormwater Map

CCNA Stormwater Map

Layers

- Street Flooding Submissions
- Roadway Deficiencies
- Structure Deficiencies
- Neighborhoods (View Only)
- CommunityFloodZone
- FEMAFloodZone
- Municipal Boundary (View Only)

Add

State of Florida, Maxar, Esri Community Maps Contributors, University of South Florida, Manatee County Government, Sarasota County GIS, FDEP, OpenStreetMap, Microsoft, Esri, TomTom

CCNA Stormwater Map



CCNA Stormwater Map

CCNA Stormwater Map

Sign In

Basemap

Current basemap
Topographic

Imagery

Imagery Hybrid

Streets

Topographic

Navigation

Streets (Night)

Terrain with Labels

Change background color

Esri, NASA, NGA, USGS, FEMA | Esri Community Maps Contributors, University of South Florida, Manatee County Government, Sarasota County GIS, FDEP, © OpenStreetMap, Microsoft, E... Powered by Esri

CCNA Stormwater Map

CCNA Stormwater Map

Sign In

Layers

Get started

You can explore maps, add layers, and more without signing in. To save your work, sign in before creating your map.

[Learn more about Map Viewer](#)

Street Flooding Submissions

Roadway Deficiencies

Structure Deficiencies

Neighborhoods (View Only)

CommunityFloodZone

FEMAFloodZone

Municipal Boundary (View Only)

Add

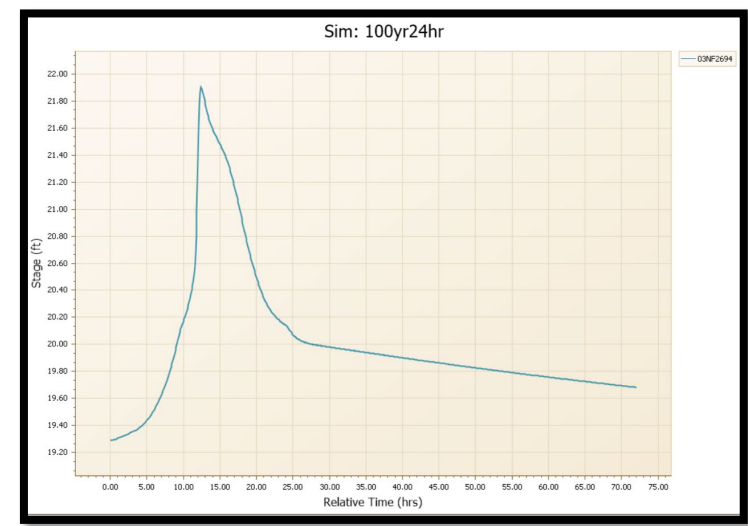
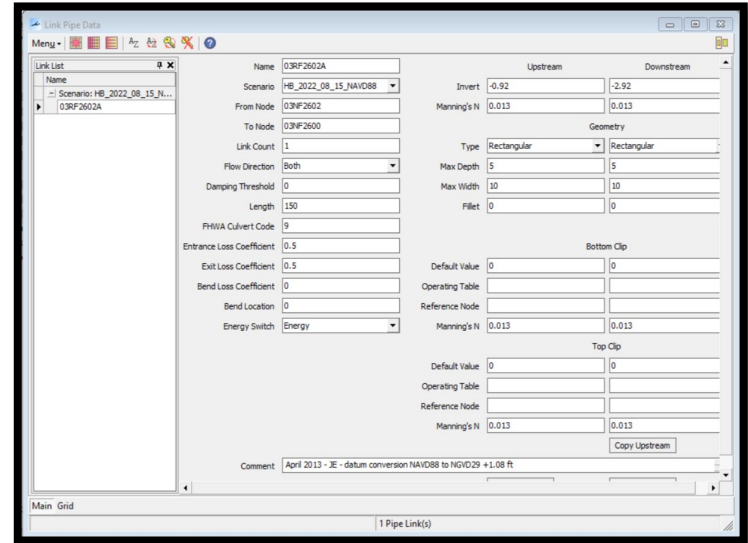
University of South Florida, Manatee County Government, Sarasota County GIS, FDEP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, USFWS Powered by Esri



Easier Fixes

Stormwater System Maintenance







Lot Drainage

Existing Zoning Code: SEC VI-102.(u)(4):

Drainage plan.

Purpose: The alteration of land elevation that often accompanies the construction of single-family dwellings, building additions, swimming pools or spas **often alters the historic drainage pattern from a parcel of land to the detriment of adjoining properties. The health, safety and welfare of the citizens of the city are promoted by requiring new residential construction to direct attendant stormwater drainage into public or private facilities rather than on to the land of adjoining properties.**

Drainage plan: The owner/applicant for a building permit to construct a new single-family dwelling or substantial improvements to a single-family dwelling **shall submit to the director of neighborhood and development services a stormwater drainage management plan showing drainage from the site discharging to either: on-site retention; or swales directed to adjacent public or private stormwater receptors; or a combination thereof. The director of neighborhood and development services may require, upon receiving the recommendation of the building official, a drainage plan prepared and sealed by a professional engineer meeting the requirements of this section. The site must be built to conform to the submitted drainage plan.** Such plan shall not be required for individual single-family dwellings when a master drainage plan for the development of which the single-family dwelling is a part has been submitted and approved.



Lot Drainage Solutions For Zoning Districts RTD-9 and RSM-9:

Existing Zoning Code: SEC VI-203.(i)(2)(g):

Where it is necessary to elevate a new building above grade, fill may not be used to elevate the lot above the grade of any adjacent lot. In such cases where the new building is elevated, a stem wall foundation (with or without a crawl space) **shall be used**. If there are opening beneath the structure the opening shall be screened with materials consistent with the design of the building.

Lot Drainage Solutions

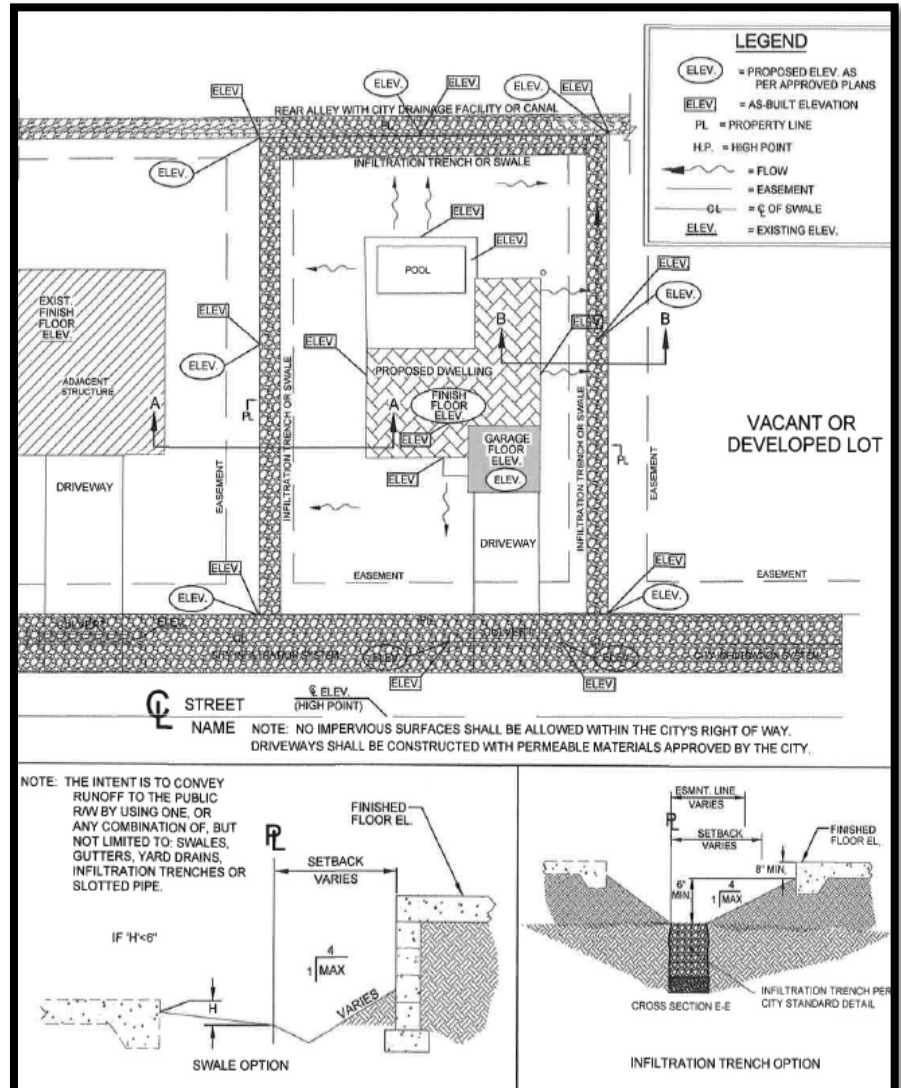
City of Holmes Beach Standards

CITY OF HOLMES BEACH

PUBLIC WORKS STANDARD DETAILS MANUAL

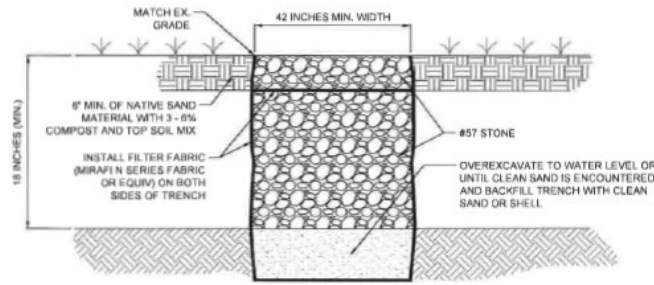


NOVEMBER 15, 2016
Revised: May 2023



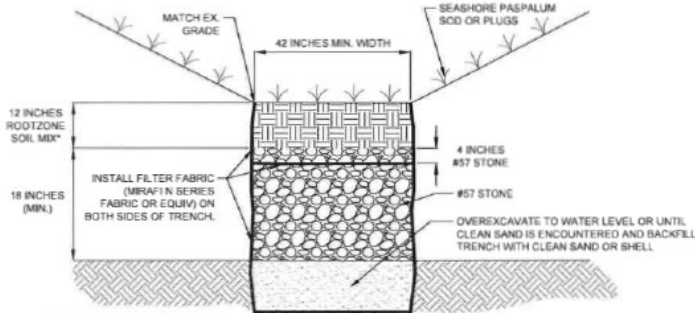
Lot Drainage Solutions

City of Holmes Beach Standards



TYPICAL INFILTRATION TRENCH (AGGREGATE COVERAGE)

N.T.S.

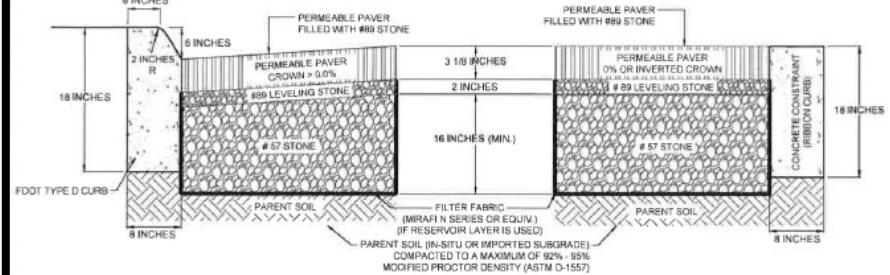


TYPICAL INFILTRATION TRENCH (GRASSED COVERAGE)

N.T.S.

RECOMMENDED PARTICLE DISTRIBUTION FOR ROOTZONE SOIL MIX			
PARTICLE	DIAMETER	SEIVE	% BY WEIGHT
Coarse gravel	> 4 mm	No. 5	0%
Fine gravel	2.0 - 3.4 mm	No. 10	≤ 3% gravel
Very coarse sand	1 - 2 mm	No. 18	≤ 10% combined in this range
Coarse sand	0.5 - 1.0 mm	No. 35	≥ 60% of particles in this range
Medium sand	0.25 - 0.5 mm	No. 60	
Fine sand	0.15 - 0.25 mm	No. 100	≤ 20%
Very fine sand	0.05 - 0.15 mm	No. 270	≤ 5%
Silt	0.002 - 0.05 mm		≤ 5%
Clay	< 0.002 mm		≤ 3%
Total fines	Very fine sand + silt + clay		≤ 10% combined
Coefficient of Uniformity (D60/D10)		1.8 - 3.5	Rootzone mixture with peat
		2.0 - 3.5	Rootzone mixtures with inorganic amendments
		2.0 - 3.5	Pure sand rootzone mixtures

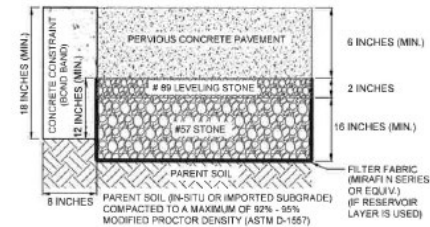
ROOTZONE AND GRAVEL PERFORMANCE FACTORS			
Bridging Factor	D15 (gravel)	≤ 8	
	D85 (rootzone)		
Permeability Factor	D15 (gravel)	≥ 5	
	D15 (rootzone)		
Uniformity Factors	D90 (gravel)	≤ 3	
	D15 (rootzone)		
	100% passing a 12 mm screen		
	≤ 10% passing a 2 mm screen		
	≤ 5% passing a 1 mm screen		



1. 8" POURED CONCRETE RIBBON CURB SHALL BE INSTALLED WITH 3/4" REVEAL AT EDGE OF TRAVEL WAY WHERE CURB IS NOT PRESENT.
2. 8" POURED CONCRETE RIBBON CURB SHALL BE INSTALLED ON ALL OUTSIDE EDGES WHERE NO EXISTING OR NEW SOLID STRUCTURE IS PRESENT TO HOLD PAVERS IN PLACE.
3. ALL PAVERS WITHIN TRAFFIC AREAS MUST BE TRAFFIC BEARING.
4. A RIGHT OF WAY USE PERMIT AND AN APPROVED LICENSE AGREEMENT MUST BE OBTAINED IF PAVERS ARE TO BE INSTALLED IN CITY RIGHT OF WAY.
5. PAVER INSTALLATION SPECIFICATIONS APPLY TO PUBLIC AND PRIVATE IMPROVEMENTS EXCEPT FOR NON-TRAFFIC BEARING SIDEWALKS CONSTRUCTED ENTIRELY ON PRIVATE PROPERTY.
6. DRIVEWAY REPAIRS DUE TO ANY FUTURE WORK IN RIGHT OF WAY ARE THE FULL RESPONSIBILITY OF THE OWNER.

PERMEABLE PAVER INSTALLATION DETAIL

N.T.S.



1. FOR USE IN PARKING AREAS AND LOW VOLUME ACCESSWAYS ONLY.
2. ENGINEER OF RECORD SHALL SUBMIT PERVIOUS PAVEMENT DESIGN AND SPECIFICATIONS BASED ON THE SITE SPECIFIC SOIL CONDITIONS, STORMWATER STORAGE REQUIREMENTS AND THE ANTICIPATED TRAFFIC LOADINGS.
3. PERVIOUS CONTRACTORS SHALL BE NRMCA CERTIFIED CRAFTSMAN.
4. PERVIOUS PRODUCERS/SUPPLIERS AND TESTING FIRMS SHALL USE NRMCA CERTIFIED TECHNICIANS.
5. POROUS ASPHALT MAY BE USED AS AN ALTERNATIVE MATERIAL AS DESIGNED BY THE ENGINEER OF RECORD.
6. DRIVEWAY REPAIRS DUE TO ANY FUTURE WORK IN RIGHT OF WAY ARE THE FULL RESPONSIBILITY OF THE OWNER.

PERVIOUS CONCRETE PAVEMENT DETAIL

N.T.S.

Lot Drainage Solutions



Applications accepted annually
from Oct. 1 through June 1.



<https://www.scgov.net/government/stormwater/raincheck>

Tool or BMP	Rebate Amounts
Treatment swales (bioswales)	Up to \$500
Rain gardens	Up to \$500
Modified downspout	Up to \$50
Downspout planter(s)	Up to \$1,000
Proposed alternative BMP	Up to \$5,000
Impervious replacement (driveways, sidewalks, etc.)	\$5 per square foot up to \$5,000



Lot Drainage Solutions

- 1. Better administer existing Lot Drainage Zoning Code Sec VI-102.(u)(4)**
2. Expand applicability of Zoning Code Sec VI-203.(i)(2)(g)
3. Incorporate and utilize successfully proven lot standards from other coastal communities like the City of Holmes Beach
4. Promote RainCheck Incentive Program