Summary of Public Works Permit Process for City Swale Areas:

Three most common scenarios for maintaining grass swale areas are as follows:

**Option 1 (Preferred Option): Grass**
Maintain grass in swales using proper turfgrass management practices. Within a 3-foot ring around street trees, property owners may plant non-woody (herbaceous), low growing plants of their choice as long as the plants are maintained at a maximum height of 24”.
- No permit is required.

**Option 2: Swale Plantings**
In heavily shaded areas, such as under Banyan trees, where proper turfgrass management is not a practical solution to maintain grass, up to 100% of the swale area may be planted with low 18”-24” tall non-woody (herbaceous) groundcover plants such as Wart Ferns with an approved Public Works permit. Swale plantings are intended as an alternative to grass where grass cannot grow.
- Public Works Permit is required - No Permit Fee.*  (County and State roads have additional requirements.)

**Option 3: Swale Plantings and Decorative Crushed Stone**
In locations where proper turfgrass management in heavily shaded areas and management of excessive parking are not practical solutions to grow grass in the swale, decorative crushed stone and low, non-woody landscape plants can be allowed with an approved Public Works permit, a Restrictive Covenant Agreement, and a Certificate of Liability Insurance naming the City of Coral Gables as an additional insured.
- Public Works Permit is required - No Permit Fee.*  (County and State roads have additional requirements.)
- Restrictive Covenant Agreement is required.
- Certificate of Liability Insurance naming the City of Coral Gables as an additional insured is required.

* Layout Plan Requirement for Permit Application:
A sketch or plan of the proposed layout is required as part of the Public Works Permit application for Option 2 and Option 3 above. Sketches and plans can be hand drawn or computer drawn. The following are some examples of potential sketch or plan options:
1. Use a copy of an existing property survey to draw by hand or computer the proposed layout with dimensions and materials indicated.
2. Modify by hand or computer the sample alternative swale diagrams provided as part of this informational package to show the proposed layout with dimensions and materials indicated.
3. Print a photograph of the swale on 8.5x11 copy paper and mark the layout, dimensions, and proposed materials by hand or by computer on the photograph.
4. Use upside down marking spray paint to mark your proposed layout on the exiting ground/grass in your swale area and then take photographs of the swale area with the painted lines. Print the photographs on 8.5x11 copy paper and mark the dimensions and proposed materials by hand or by computer.

**Option 4: Landscape Encroachment Review Committee for All Other Scenarios**
In locations where extensive landscape is being proposed or other factors require additional review or considerations, the applicant must submit a Landscape Encroachment Review Committee application.
- Landscape Encroachment Review Committee Application Required - Reviewing Fee $200 (Ordinance No. 2981)
- Public Works Permit is required - Permit fees typically apply.
- Restrictive Covenant Agreement is typically required.
- Certificate of Liability Insurance naming the City of Coral Gables as an additional insured is typically required.
Swale Planting

Growing Turfgrass in the Swale:

• **Sod type** - use shade tolerant grass such as Palmetto St. Augustine

• **Mowing** - increase the mowing height to 4” - for most rotary mowers use the highest setting. Also keep the mower blades sharp and well adjusted for a clean cut. No more than one third of the leaf blades should be removed with any mowing

• **Irrigation** - water on an “as-needed” basis (when leaf blades begin to fold up, wilt or when footprints remain visible after walking on the grass). Apply 1/2 inch to 3/4 inch of water per application. Also, make sure to water only on Wednesdays and Saturdays for odd addresses and Thursdays and Sundays for even address (after 5pm and before 10am)

• **Avoid parking** on the grass if possible. If not possible, then try not to park in the same spot each time. Alternating parking locations reduces tire damage and heat engine damage to the grass.

• **Pest Management** - be familiar with the signs and how to treat the number one pest of St. Augustine sod - the chinch bug.

• **Fertilization** - fertilize once or twice a year with a slow release fertilizer such as polymer coated 11-2-11. Or if palms are also in the swale use a slow release polymer coated 8-2-12.

• **Aeration** - soil compaction can be alleviated by loosening up the soil which allows more oxygen to reach the roots. Ponding water is the #1 sign of poor aeration. Aeration can be done by tilling up the soil before planting or by poking/drilling holes into the soil of the existing grass. In areas with particularly heavy compaction or a buildup of a thick sediment layer from water ponding, it is sometimes necessary to carefully remove the top few inches of soil, being careful to not damage the tree roots, and replace the topsoil with a free-draining soil mix composed of 70% silica sand and 30% muck.

• **Planting** – low, herbaceous (non-woody) planting material around parkway trees shall be allowed in a circular planting around base of trees without obtaining a permit from the City. This planting is allowed to extend approximately three feet from the base of the tree and must be maintained at a maximum height of two feet. A few common examples of shade-tolerant, herbaceous, low growing plant material are Wart Ferns, Philodendron ‘Burle Marx’, Liriope, Variegate Liriope, Flax Lily, and Red Congo.

Public Works Landscape Encroachment Permit for planting 100% of swale area:
In areas where conditions are impractical for growing grass such as deep shade or locations with heavy parking issues, a property owner may apply for a Public Works Landscape Encroachment Permit to plant up to 100% of the swale area with low 18”-24” tall non-woody (herbaceous) groundcover plants that are limited to Wart Ferns, Philodendron ‘Burle Marx’, Liriope, Variegate Liriope, Flax Lily, and Red Congo.

For additional information refer to the following:
“Growing Turfgrass in the Shade” http://edis.ifas.ufl.edu/ep072
“Minimizing Traffic Damage to Your Florida Lawn”
http://edis.ifas.ufl.edu/EP071
Alternative Swale Planting

Swale plantings are intended as an alternative to grass where grass cannot grow. As such, any plantings beyond a 3-foot ring around street trees are limited to a single plant type in the swale along each property. Within a 3-foot ring around street trees, residents will still be able to plant non-woody (herbaceous), low growing plants of their choice as long as the plants are maintained at a maximum height of 24”.

Allow 100% of the swale area to be planted with low 18”-24” tall non-woody (herbaceous) groundcover plants that are limited to Wart Ferns, Philodendron ‘Burle Marx’, Liriope, Variegate Liriope, Flax Lily, and Red Congo. Plantings must extend fully from the sidewalk (or property line where no sidewalk) to the edge of the road. Creating a hedge along the road or sidewalk is not permitted.

APPROVED PLANTS FOR SWALES

**Common Name - Botanical Name**

Liriope - *Liriope muscari* - Green and Variegated
Flax Lily - *Dianella tasmanica*

**IF YOU HAVE VISIBLE ROOTS...RECOMMENDED**
Wart Fern - *Microsorum scolopendrium*
Philodendron ‘Burle Marx’ - *Philodendron ‘Burle Marx’*

**IF YOU HAVE BANYON TREES....ONLY USE**
Red Congo - *Philodendron ‘Rojo Congo’*
Alternative Swale Planting
Sample Layouts

PROPERTY LINE

FRONT YARD

DRIVEWAY

PROPERTY LINE

GRASS

SIDEWALK

STREET

ONLY: Wart Ferns, Liriope, Variegated Liriope, Flax Lily, Philodendron ‘Burle Marx’ or Red Congo

PROPERTY LINE

FRONT YARD

DRIVEWAY

PROPERTY LINE

SIDEWALK

STREET

3'

WIDTH OF TREE

ONLY: Wart Ferns, Liriope, Variegated Liriope, Flax Lily, Philodendron ‘Burle Marx’ or Red Congo

Non-Woody Planting
Maximum Height 2 feet
Alternative Swale Options

CRUSHED STONE OR SHELL AND PLANTING
NOTE: If crushed stone or shell is used, plantings around trees is Required - See “Swale Planting” for options.

Residents have the option to cover part of their swale with an approved crushed stone or shell. They must complete a Public Works Landscape Encroachment in Right of Way Permit Application. Figures 1-3 of this package show some sample configurations of these areas. Each property is unique, so these guidelines should be used to draw a specific plan to be reviewed for permitting. The Details are organized according to the width (distance between street and sidewalk) of the swale area.

Swale plantings around trees will be required for all decorative crushed stone or shell installations and must extend from the sidewalk to the edge of the road and at least 3’ from the tree trunk on each side.

APPROVED CRUSHED STONE OR SHELL

Granite
3/8"

Oolite (Limestone)
2/1 oolite fine to rice rock

Coquina Shells
Florida Seashell Small

Sample installations of these materials can be viewed at the Coral Gables Public Library at 3443 Segovia Street (On the University Drive side)

PERMIT APPLICATION PROCESS

Step 1: Applicant submits a Public Works Landscape Encroachment in Right of Way Permit Application with proposed alternative swale materials and proposed layout.

Step 2: Public Works Staff Reviews and Processes Permit.

Conditions of all Public Works Encroachments in Right of Way Permits:
The adjacent property owner maintains the encroachment in good repair at all times and at the owner’s expense. The City of Coral Gables reserves the right to remove, add, maintain or have the owner remove any of the improvements within the right-of-way. The owner executes a Hold Harmless Restrictive Covenant Agreement.
Alternative Swale Options
Installation Detail for Crushed Stone/Shell

Filter Geotextile shall be a minimum 6-ounces per square yard (nominal) nonwoven needle punched synthetic fabric consisting of staple or continuous filament polyester or polypropylene manufactured. Geotextile shall be inert and unaffected by long-term exposure to chemicals or liquids with pH range from 3 to 10.
Filter Geotextile shall have a Survivability Class 1, 2 or 3 in accordance with AASHTO M288. Installation must follow fabricant instructions.

Listed Below are some of the Manufacturers of Products that meet these requirements.
TenCrate Miralfi - N-Series - 160 N
Us, Fabrics Inc. - US 200
Propex Geotextile Systems - GEOTEX 1001
Fiberweb - TYPAR 3501
Fibertex Geotextiles - F-25
Granite Environmental - 6 oz. Non-Woven

NOTE: WHERE TREE ROOTS ARE VISIBLE ABOVE GROUND, GEOTEXTILE FABRIC SHALL BE CUT TO EXPOSE ROOTS, BUT STONE/ SHELL MAY COVER ROOTS.
Alternative Swale Options
Sample Layouts

8 FOOT WIDE SWALE
(designate from sidewalk to street)

Single Family Home

Multi Family Homes and Commercial Properties
Alternative Swale Options

Sample Layouts

12 FOOT WIDE SWALE
(distance from sidewalk to street)

Single Family Home

Multi Family Homes and Commercial Properties
Alternative Swale Options
Sample Layouts

16 FOOT WIDE SWALE
(distance from sidewalk to street)

Single Family Home

Multi Family Homes and Commercial Properties
IN ADDITION TO THE APPLICATION, EACH HOMEOWNER IS ASKED TO COMPLETE THE DRAWING BELOW TO SHOW WHAT ALTERNATIVE TREATMENT THEY ARE PROPOSING FOR THEIR PROPERTY.

Show the following items on the drawing above:
See example below for how to show the items listed

☐ Location of Driveway - Choose one of the dashed locations and darken
☐ Width of Swale - Distance between sidewalk and street - write into the dimension line shown on the left.
☐ Locations of any trees in the swale
☐ Location of proposed crushed rock/shell and dimensions
☐ Location of proposed groundcovers and dimensions
The City of Coral Gables
PUBLIC WORKS
2800 SW 72 Avenue, Miami, Florida 33155
305-460-5025/5026

PERMIT APPLICATION

CONTACT PERSON/PHONE NO._______________________________________________________

DATE: _______________ PW PERMIT #: ________________________ COI:__ MOT:_____ SURVEY/CAD:____

ALL OF THE FOLLOWING MUST BE FILLED IN BY APPLICANT ACCORDING TO FS 713.35

Building Permit#____________________ Square Footage: ___________ Estimated Cost $______________

APPLICANT NAME: __________________________________________________________________________

(CONT/ENG/ARCH) LICENSE NUMBER:________________________________________________________

ADDRESS:_______________________________________________________________________________ PHONE NO.:__________________________

CITY:________________________ STATE: _______ ZIP CODE:__________

SITE ADDRESS:__________________________________________________________

WORK DESCRIPTION:______________________________________________________________

__________________________________________________________

The undersigned affirms that the applicant is familiar and agrees to conform to the standard specification of the City of Coral Gables and all regulations of the Department of Public Works concerning work to be performed in the public right-of-way.

OWNER’S AFFIDAVIT: I certified that all foregoing information is accurate and that all work be done in compliance with all applicable laws regulating construction and zoning.

__________________________________________________________

Print Name: OWNER

Signature: OWNER

The forgoing instrument was acknowledged before me this _____day of ___________ 20___ by ________________________________________ who has taken an oath and ( ) is personally known to me ( ) has produced a __________________________ as identification

__________________________________________________________

Print Name: NAME QUALIFIER/CONTRACTOR

Address: ______________________________________________________________________________

Signature: NAME QUALIFIER / CONTRACTOR

The forgoing instrument was acknowledged before me this _____day of ___________ 20___ by ________________________________________ who has taken an oath and ( ) is personally known to me ( ) has produced a __________________________ as identification

__________________________________________________________

NOTARY PUBLIC
My Commission Expires ____________

__________________________________________________________

NOTARY PUBLIC
My Commission Expires ____________
THE FOLLOWING MUST BE SUBMITTED, WHEN APPLICABLE WITH THE PERMIT APPLICATION

PERMIT:

Contractor must provide the following:

1. Certificate of insurance naming the City of Coral Gables as additional insured and certificate holder:

   City of Coral Gables
   Labor Relations and Risk Management
   2801 Salzedo Street
   Coral Gables, FL 33134

2. Site Specific maintenance of traffic plan (vehicular or pedestrian).

3. Contractor shall take before and after photos (or videos) of the project area and its vicinity to ensure proper restoration upon completion. Photos (or videos) shall be provided to Public Works staff upon request. Contractor will be responsible for the repair of all damages adjacent to their work area.

COASTAL:

1. For coastal permits the bond payment must be paid by the coastal contractors.

2. Coastal permits only issued to marine contractors.

SIDEWALK:

1. New Sidewalk must be 4” thick, at the approach sidewalk must be 6” thick with wire mesh.

2. Color must be “Coral Gables beige Lambert/Scoffield” as per City’s Specifications

Approved Concrete Vendors:

- Aronel Concrete
- Amanalto Concrete
- Barreiro Concrete
- Cemex Concrete
- South Florida Concrete
- Supermix
- Quickcrete Ready Mix
- Tarmac
- Central Supermix
- Superior Mix Concrete
- Interstar
City of Coral Gables Code

Sec. 62-88. - Bond or liability insurance by permittee.

Before any permit shall be issued under this division, the applicant shall furnish to the city evidence that the applicant is carrying public liability insurance, with the city named as an additional insured, with bodily injury liability limits of $500,000.00 for each person, $500,000.00 for each occurrence, and property damage liability limits of $250,000.00 for each occurrence, or bodily injury liability and/or property damage liability, single limit of $500,000.00 for each occurrence. No permit shall be issued to any applicant to perform work on, or cut into, the public right-of-way until a deposit has been made in a sufficient amount to the city to insure the repairs requested by the applicant, and such amount shall be determined by the director of public works; but in any event, the minimum amount of such bond shall be $150.00, and maximum amount of such bond shall be 125 percent of the cost of proper restoration of the public right-of-way, the bond being to guarantee compliance with terms of the permit and to be in force for at least six months after the approved completion date of the work.

A new online system called Interactive Notice of Intent (iNOI) is now available to the public. Applicants that use iNOI can complete, save, edit, pay for (using a credit card) and submit NPDES Stormwater applications online. The use of iNOI is encouraged but voluntary. Applicants can still submit paper notices. iNOI is available at www.dep.state.fl.us/water/stormwater/npdes/

5. If you complete a paper NOI, submit it along with the application fee, as indicated below, to the NPDES Stormwater Notices Center. Authorization is usually granted 48 hours after the date the complete NOI is post-marked to the Notices Center.

The fee is required by Rule 62-4.050(4)(d), F.A.C.. Make checks payable to the Florida Department of Environmental Protection.
Large Construction (disturbs 5 or more acres of land) is $400.
Small Construction (disturbs between 1 and 5 acres) is $250.

6. Re-apply for coverage every five years (if the construction activity extends beyond a 5-year period) or submit an NOT to terminate coverage.

Where Can I Find More Information?

DEP’s Web site provides more information on program - coverage and requirements, useful Web links, and electronic - versions of the CGP, all regulations and forms cited herein, - and SWPPP guidance. In addition, the NPDES Stormwater - Notices Center provides hardcopies of permits and forms. -

NPDES Stormwater Section
Florida Department of Environmental Protection -
2600 Blair Stone Road, MS #2500 -
Tallahassee, FL 32399-2400 -
(850) 245-7522 -
Email NPDES-stormwater@dep.state.fl.us -

iNOI
www.dep.state.fl.us/water/stormwater/npdes

NPDES Stormwater Notices Center
Florida Department of Environmental Protection -
2600 Blair Stone Road, MS #2510 -
Tallahassee, FL 32399-2400 -
(866) 336-6312 (toll free) or (850) 297-1232 -
What is Florida’s NPDES Stormwater Permitting Program for Construction Activity?

In October 2000, the U.S. Environmental Protection Agency (EPA) authorized the Florida Department of Environmental Protection (DEP) to implement the National Pollutant Discharge Elimination System (NPDES) stormwater permitting program in the State of Florida (with the exception of Indian Country lands). The program regulates point source discharges of stormwater runoff from certain construction sites and was developed by EPA in two phases: Phase I regulates “large” construction activity (disturbing 5 or more acres of total land area) and Phase II regulates “small” construction activity (disturbing between 1 and 5 acres of total land area).

The “operator” (i.e., the entity that owns or operates the project and has authority to ensure compliance) of regulated construction sites must obtain an NPDES stormwater permit and implement appropriate pollution prevention techniques to minimize erosion and sedimentation and properly manage stormwater. DEP adopted the Generic Permit for Stormwater Discharge from Large and Small Construction Activities (CGP) (DEP Document 62-621.300(4)(a)) which is applicable to Phase I large construction and Phase II small construction.

It is important to note that the permit required under DEP’s NPDES Stormwater permitting program is separate from the Environmental Resource Permit (ERP) required under Part IV, Chapter 373, F.S., a stormwater discharge permit required under Chapter 62-25, F.A.C., or any local government’s stormwater discharge permit for construction activity.

Which Construction Activities Are Regulated Under The Program?

DEP’s permitting program regulates construction activity that meets the following criteria:

- Contributes stormwater discharges to surface waters of the State or into a municipal separate storm sewer system (MS4).
- Disturbs one or more acres of land. Less than one acre also is included if the activity is part of a larger common plan of development or sale that will meet or exceed the one acre threshold. Disturbance includes clearing, grading and excavating.

What Does the CGP Require?

- **A CGP Notice of Intent** (NOI) (DEP Form 62-621.300(4)(b)) must be submitted to DEP.
- **A Stormwater Pollution Prevention Plan** (SWPPP). In part, the plan must include the following:
  - A site evaluation of how and where pollutants may be mobilized by stormwater
  - A site plan for managing stormwater runoff,
  - Identification of appropriate erosion and sediment controls
  - A Stormwater Pollution Prevention Plan (SWPPP) to reduce erosion, sedimentation, and stormwater pollution,
  - A maintenance and inspection schedule,
  - A recordkeeping process, and
  - Identification of stormwater exit areas.
- **A Notice of Termination** (NOT) (DEP Form 62-621.300(6)) must be submitted to DEP to discontinue permit coverage. An NOT may be submitted only when the site meets the eligibility requirements for termination specified in the CGP.

What Are Some Examples of BMPs?

A comprehensive SWPPP includes both structural and non-structural controls. Some commonly used controls follow:

### Structural Controls

- **Retention Ponds.** Permanent structures designed to allow time for sediments to settle and water to infiltrate the ground.
- **Temporary Sediment Basins.** Structures designed to detain sediment-laden runoff from disturbed areas long enough for sediments to settle out and control the release of stormwater.
- **Entrance/Exit Controls.** Temporary controls, such as gravel, used to stabilize the entrances/exits to the site to reduce the amount of soils transported onto paved roads by vehicles (known as “track-out”).
- **Silt Fencing.** A temporary erosion and sediment control used to prevent dirt from entering waterways before bare soil is stabilized with vegetation.
- **Berms.** A temporary erosion and sediment control that physically prevents polluted runoff from entering nearby storm drain inlets and waters.

### Non-Structural Controls

- **Stabilization.** Techniques such as sodding, seeding/mulching and stone cover, which reduce the erosion of exposed soils and steep grades.
- **Phased Construction.** Scheduling construction to occur during the dry season or to minimize the amount of land cleared at any one time.
- **Good Housekeeping.** Techniques such as oil and fuel containment, spill prevention and clean-up, and street sweeping of “tracked-out” soils, which help prevent the contamination of stormwater runoff.

How Do I Obtain Permit Coverage?

To obtain NPDES stormwater permit coverage, complete the following steps:

1. Obtain a copy of the CGP
2. Carefully read the permit language.
3. Develop and implement a SWPPP.
4. Complete an NOI in its entirety online using the iNOI system * or by submitting a paper NOI.

Visit DEP’s Web site at: www.dep.state.fl.us/water/stormwater/npdes/