CITY OF CORAL GABLES
PUBLIC WORKS DEPARTMENT
GREENSPACE MANAGEMENT DIVISION
(305) 460-5000
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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.

- No permit or restrictive covenant is required.

Option 2: Swale Plantings

Residents may plant up to 100% of the swale area with low groundcover plants to be maintained at a maximum height of 30" from grade, with an approved Public Works permit for swale planting.

- Public Works Permit is required - No Permit Fee.* (**County and State roads have additional requirements.**)
- Restrictive Covenant Agreement is required.

Option 3: Swale Plantings and Decorative Crushed Stone

In locations where proper turfgrass management is not feasible, such as in heavy shaded areas, or areas where there is excessive vehicle parking, decorative crushed stone (Grey granite 3/8") and low 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.

Crushed stone (Grey granite 3/8") can be used as a border material at the edge of roads where car traffic damages plantings and will be reviewed on a case-by-case basis.

- 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: Public Works Enroachment Review for All Other Scenarios

In locations where extensive landscape is being proposed or other factors require additional review or considerations, the applicant must submit an application to the Public Works Department for review of the proposal.

- 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 3"-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. Do not park closer than 6 feet from trees to protect tree roots.

- **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. Airspade is recommended for de-compacting soil around extensive surface roots.
- **Planting**:
  A Public Works Swale Planting Permit for planting other than plain grass is required and is useful 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 Swale Planting Permit to plant up to 100% of the swale area with low growing groundcover plants. See a list of suggested plants on the following page. Other plant species that can be maintained at 30" max height will be considered during the plan review process.

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



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Alternative Swale Planting

Swale planting can be comprised of a combination of low growing plant types in the swale. When planting 100% of the swale, plantings must extend fully from the sidewalk (or property line where no sidewalk exists) to the edge of the road. Creating a hedge along the road or sidewalk is not permitted. Plants must be maintained at a maximum 30" height or lower for visibility.

The following plants are suggested species for swale planting; however other appropriate species may be approved during the permit process.

SUGGESTED PLANTS FOR SWALES:

NATIVES:



Dune Sunflower
Helianthus debilis



Beach Creeper
Ernodea littoralis



Spider Lily
Hymenocallis latifolia



Boston Fern
Nephrolepis exaltata



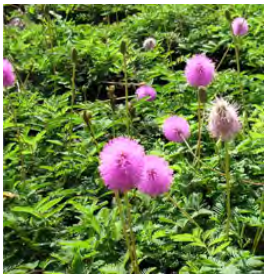
Peperomia
Peperomia obtusifolia



Blue Porterweed
Stachytarpheta urticifolia



Yellow Lantana
Lantana depressa



Sunshine Mimosa
Mimosa strigillosa



Indian Blanket Flower
Gaillardia pulchella



Frogfruit
Phyla nodiflora

NON-NATIVES:



Green/Variegated Liriope
Liriope muscari



Flax Lily
Dianella tasmanica



Burle Marx Philodendron
Philodendron 'Burle Marx'



Wart Fern
Microsorum scolopendium



Red Congo
Philodendron 'Rojo Congo'



Perennial Peanut
Arachis glabrata



Mondo Grass
Ophiopogon japonicus



Asiatic Jasmine
Trachelospermum asiaticum



Purple Queen
Tradescantia pallida

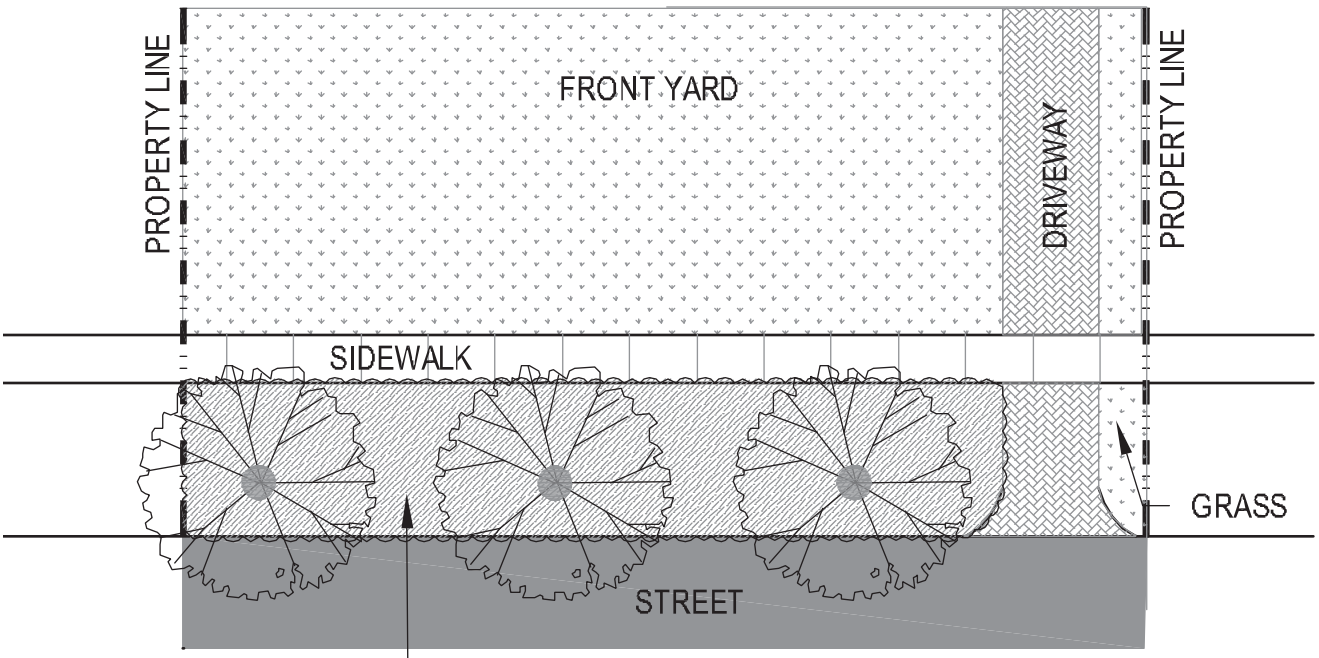


Pentas
Pentas lanceolata

Note: If you have visible roots, recommended species are Wart Fern and Philodendron 'Burle Marx'.
If you have Banyan Trees, use Philodendron 'Rojo Congo'.

Alternative Swale Planting

Sample Layouts



Proposed plant species
max. 30" HT or below

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Alternative Swale Options

GREY GRANITE CRUSHED STONE AND PLANTING
NOTE: If crushed grey granite is used, plantings around trees is Required - See “Swale Planting” for options.

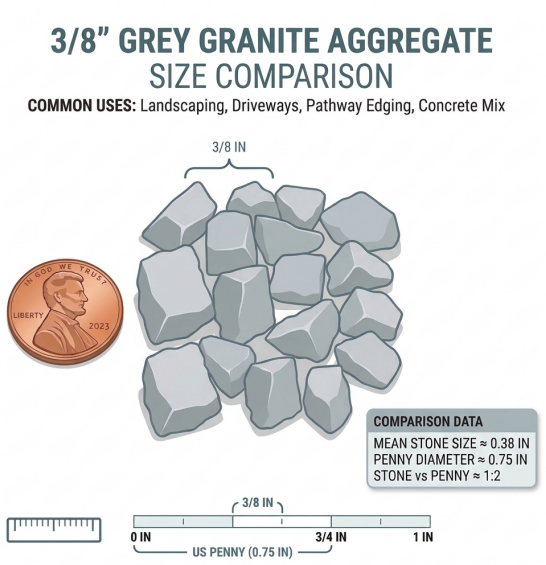
Residents can cover part of their swale with one option, grey granite 3/8" crushed stone . They must complete a Public Works Swale Planting Permit Application. Figure 1-3 of this package show some sample configurations of these areas. Each property is unique, so these guidelines should be used to draw 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. Swales incorporating 3/8" crushed grey granite must include complementary landscape plantings around the base of all street trees. Full coverage of the swale area using grey granite alone is strictly prohibited.

Swale plantings around trees will be required for all decorative grey granite 3/8"crushed stone installations and must extend from the sidewalk to the edge of the road. Compacted Grey granite 3/8"crushed stone can be used as a border material at the edge of roads where car traffic damages plantings and will be reviewed on a case-by-case basis. The crushed stone material allowed is limited to GREY GRANITE 3/8" ONLY.

APPROVED GREY GRANITE CRUSHED STONE



Grey Granite *3/8 inch size*



PERMIT APPLICATION PROCESS

Step 1: Applicant submits a Public Works Swale Planting Permit. The applications can be uploaded digitally through the digital plan review system, to include the application with proposed alternative swale materials and proposed layout, with the restrictive covenant signed and executed through the city attorney's office.

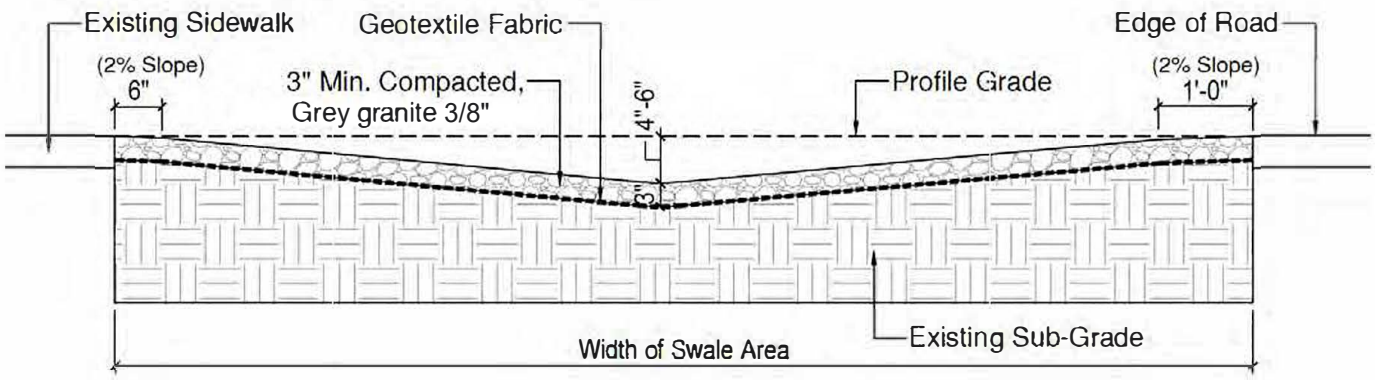
Step 2: Public Works Staff Reviews and Processes Permit.

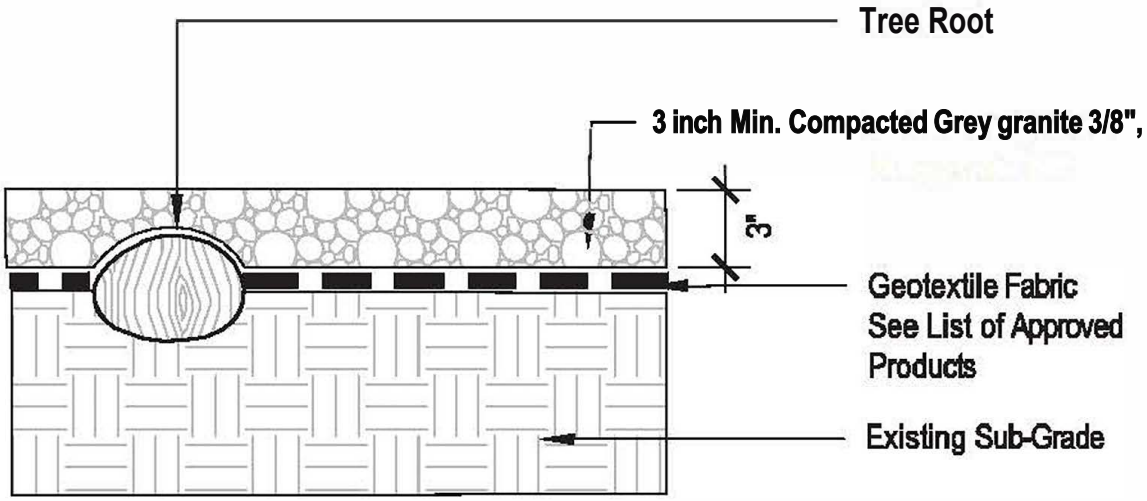
Conditions of all Public Works Encroachments in Right of Way Permits:
The adjacent property owner maintains the encroachment in good repair at all times and at the owner’s expense. The City of Coral Gables reserves the right to remove, add, maintain or have the owner remove any of the improvements within the right-of-way. The owner executes a Hold Harmless Restrictive Covenant Agreement through the city attorney's office as part of the application.

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Alternative Swale Options

Installation Detail for Grey granite 3/8"





NOTE: WHERE TREE ROOTS ARE VISIBLE ABOVE GROUND. GEOTEXTILE FABRIC SHALL BE CUT TO EXPOSED ROOTS. THE CRUSHED GREY GRANITE MAY COVER ROOTS.

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.

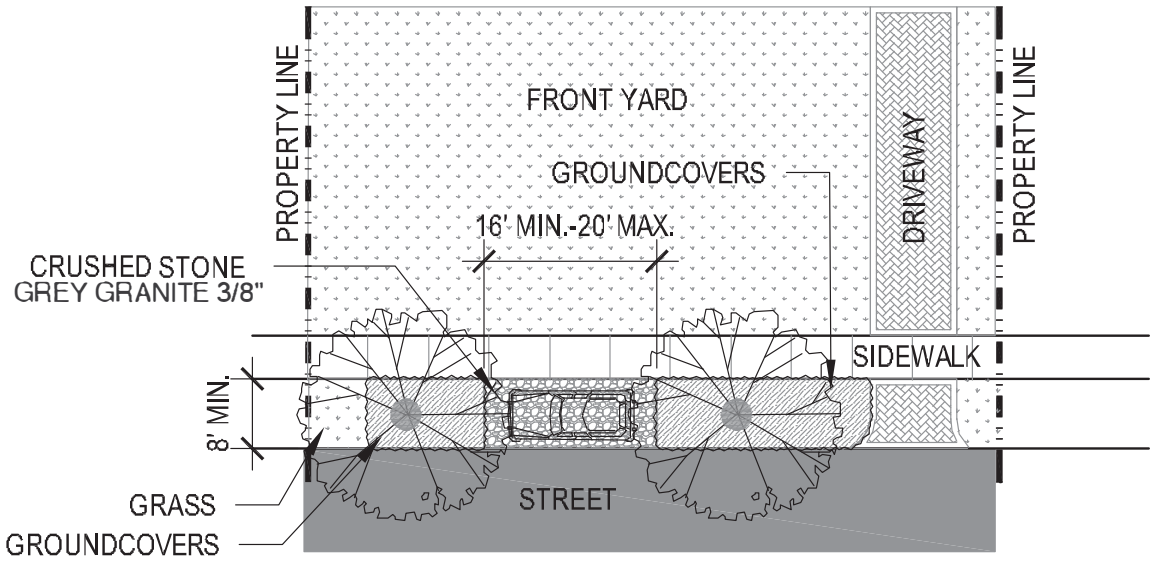
Listed Below are some of the Manufacturers of Products that meet these requirements. TenCrate Miralfi - N-Series - 160 N
Us, Fabrics Inc. - US 200
Propex Geotextile Systems - GEOTEX 1001
Fiberweb - TYPAR 3501
Fibertex Geotextiles - F-25
Granite Environmental - 6 oz. Non-Woven

Alternative Swale Options

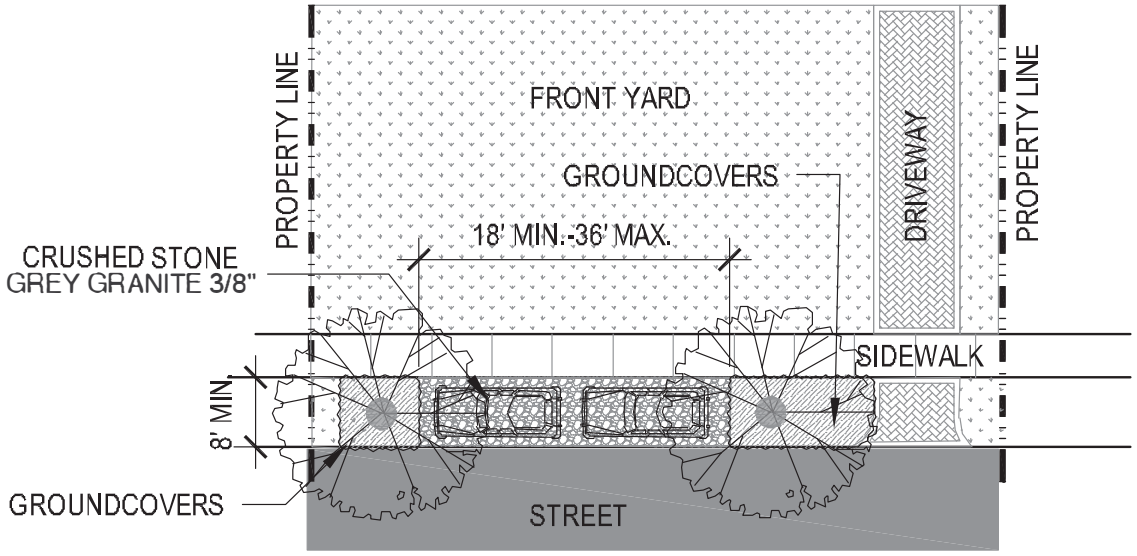
Sample Layouts

8 FOOT WIDE SWALE

(distance from sidewalk to street)



SingleFamily Home



Multi Family Homes and Commercial Properties

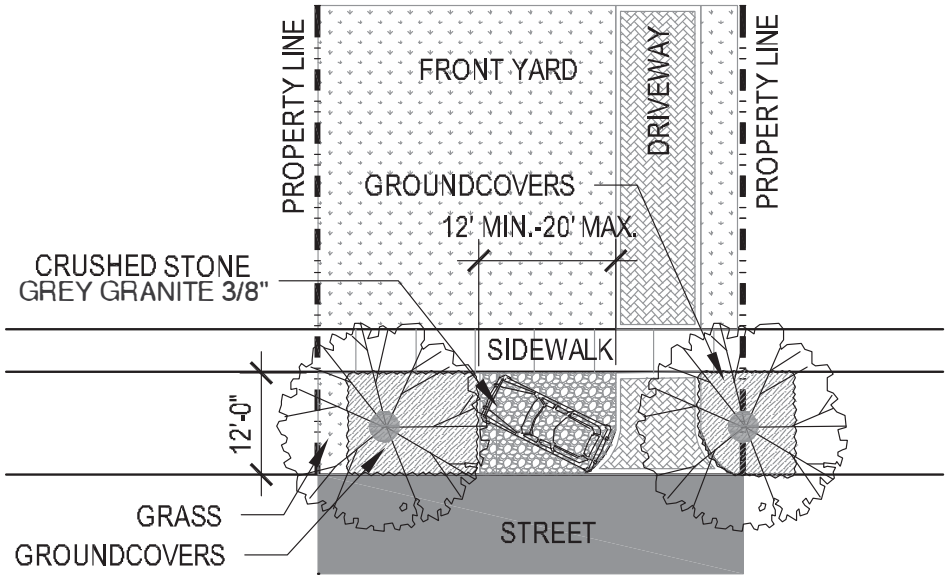
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Alternative Swale Options

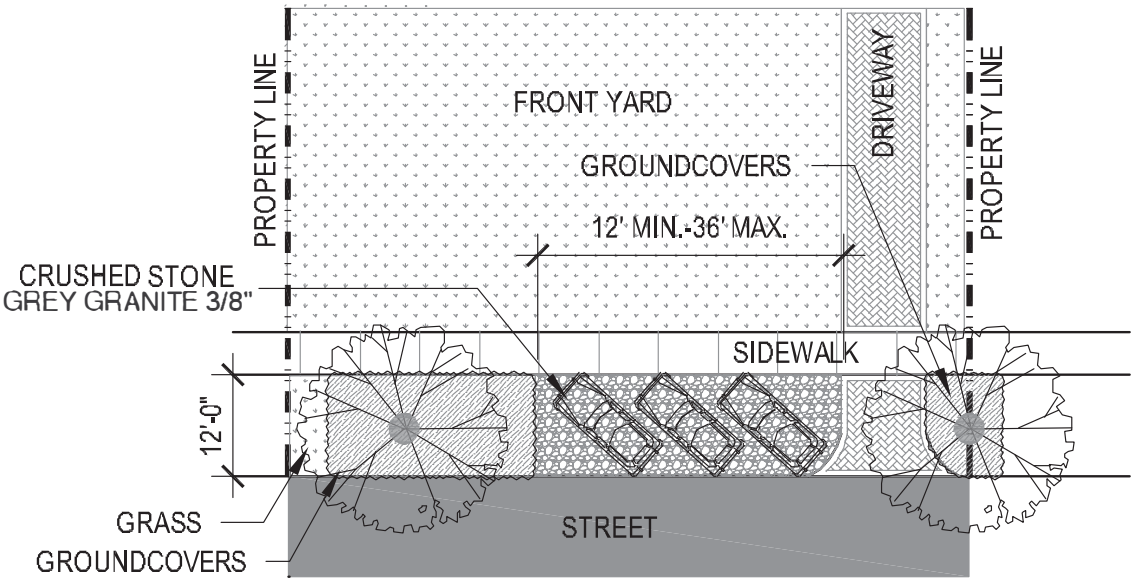
Sample Layouts

12 FOOT WIDE SWALE

(distance from sidewalk to street)



SingleFamily Home



Multi Family Homes and Commercial Properties

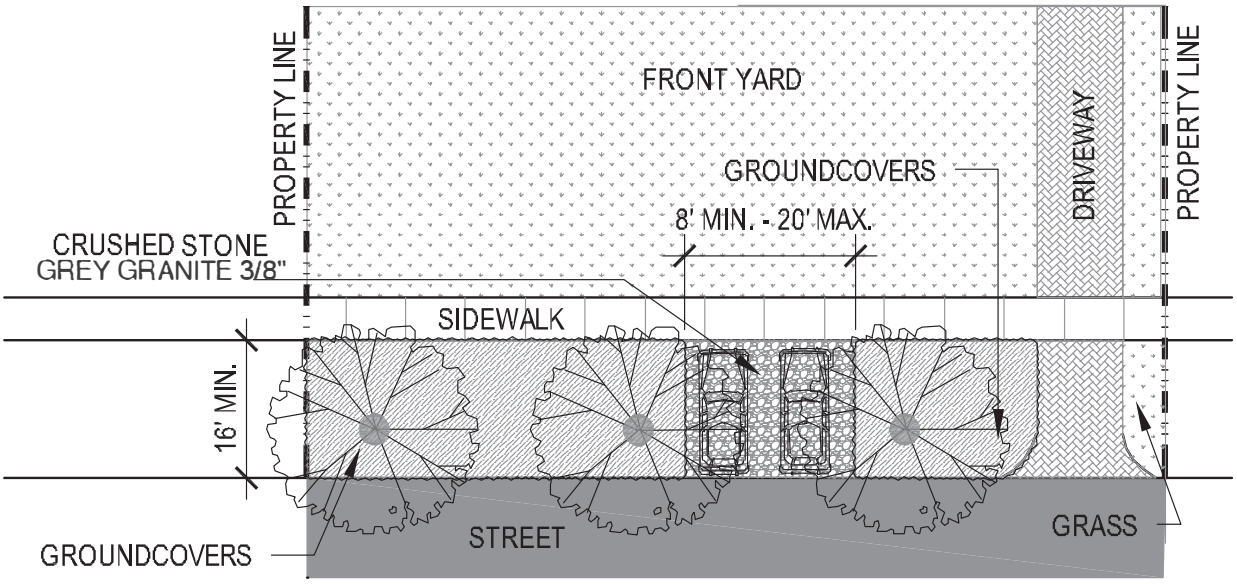
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Alternative Swale Options

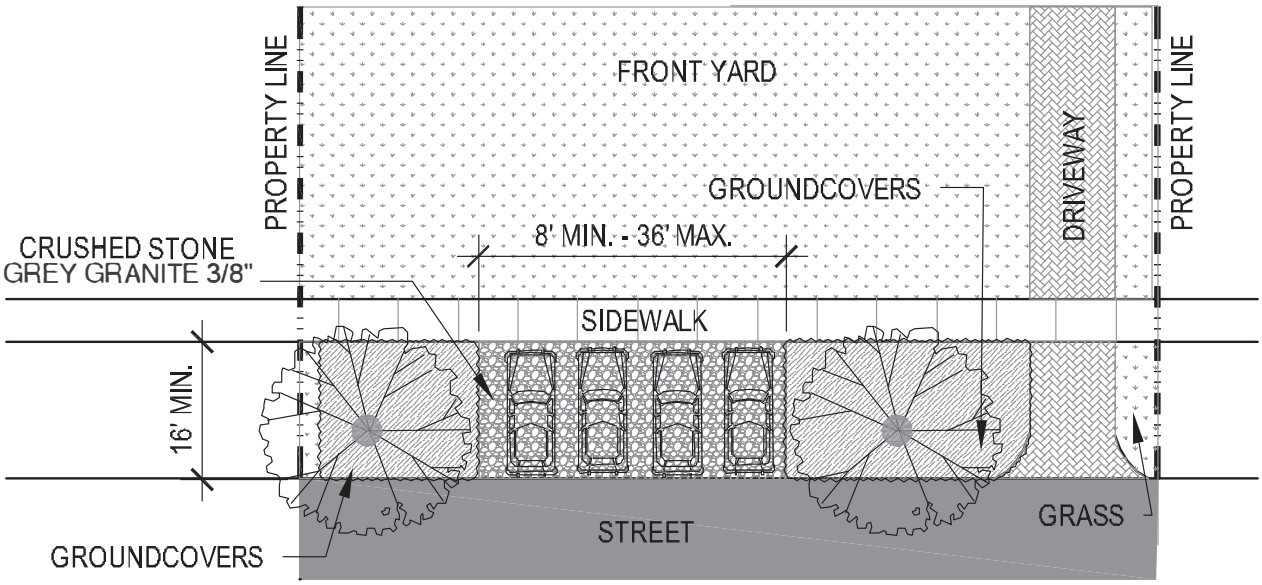
Sample Layouts

16 FOOT WIDE SWALE

(distance from sidewalk to street)



SingleFamily Home

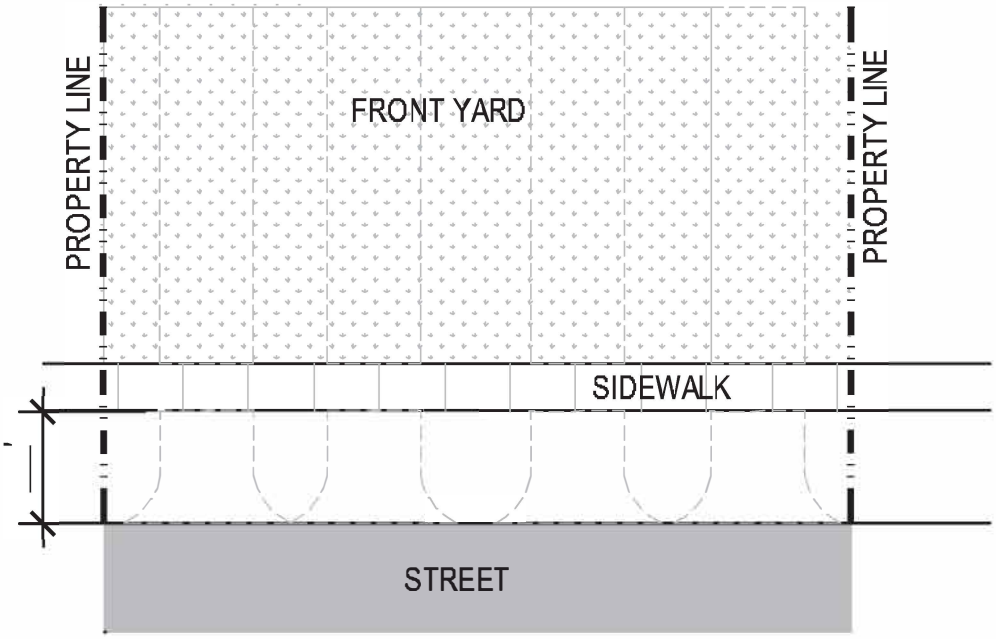


Multi Family Homes and Commercial Properties

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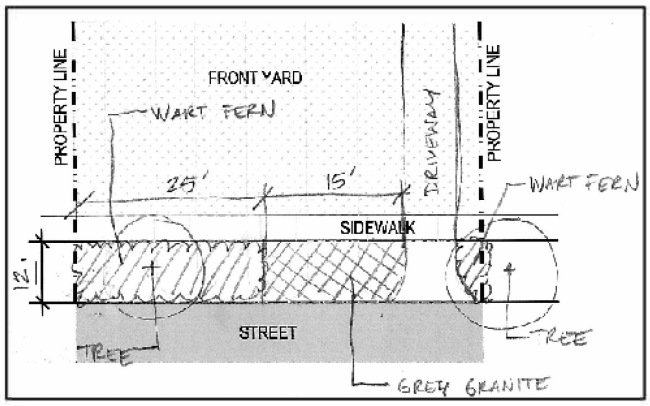
Alternative Swale Layout Worksheet

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.



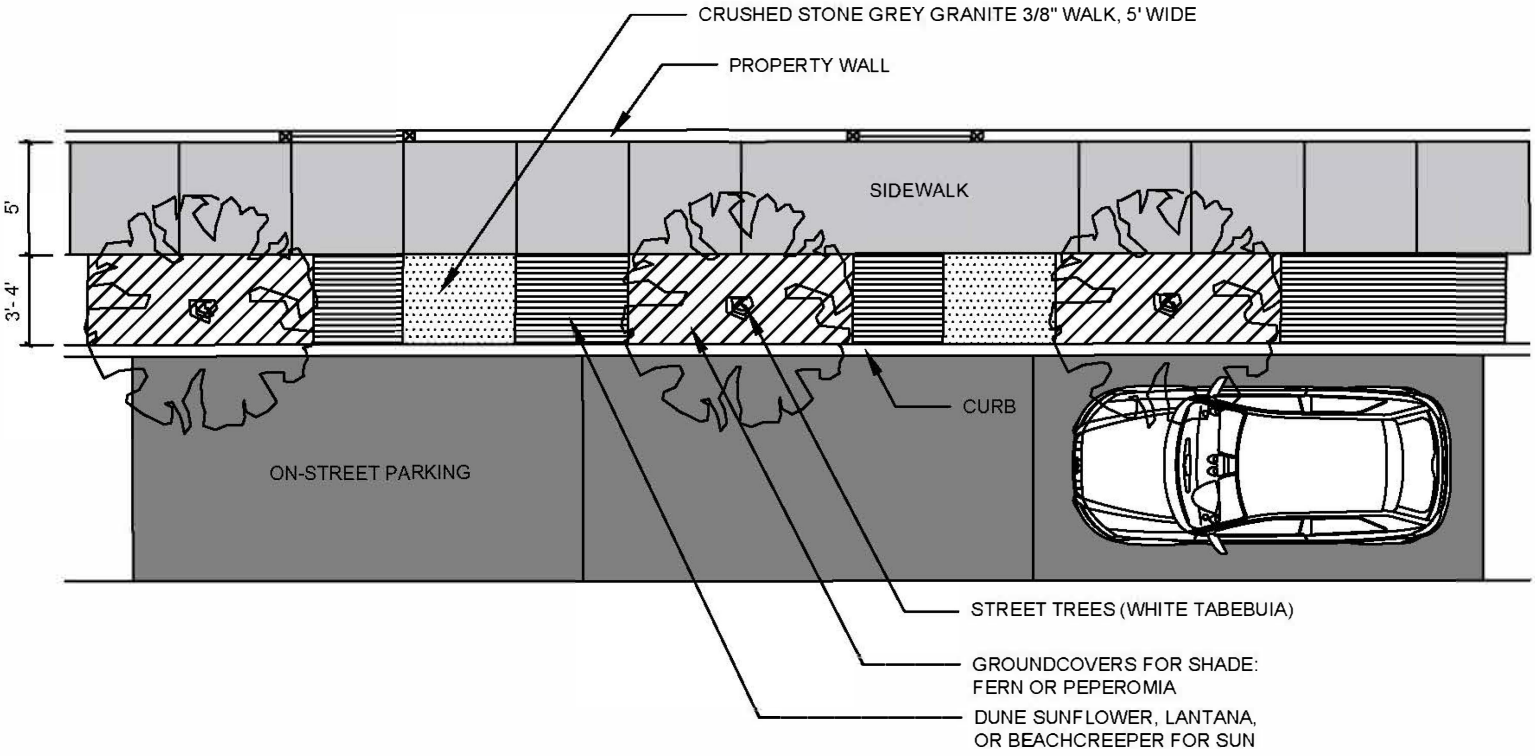
Show the following items on the drawing above:
See example below for how to show the items listed

- ☐ 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 grey granite and dimensions
- ☐ Location of proposed groundcovers and dimensions



SAMPLE

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EXAMPLE FOR NORTH GABLES NEIGHBORHOODS

NARROW SWALES FOR MULTI-FAMILY AND COMMERCIAL WITH ON STREET PARKING AND SIDEWALKS.