

## Pocket Park Maintenance Needs:

Monthly	Once-a-year
<ul style="list-style-type: none"> <li>Mow grass</li> <li>Remove trash and debris</li> </ul>	<ul style="list-style-type: none"> <li>Clear vegetation around inlets and outlets to prevent clogging</li> </ul>

Determine by Inspection:

- Reseed the pocket park to maintain dense turf.
- Remove accumulated sediment within the pocket park.



Well-established and functional pocket park



Well-established and functional forebay

## Forebay Maintenance Needs:

Monthly
<ul style="list-style-type: none"> <li>Remove trash and debris</li> </ul>

Determine by Inspection:

- Apply weed control if plant growth is choking the pond.
- Dredge the deepest portion of the forebay to maintain the permanently pooled area (suggested every 10 years).

## References and Additional Resources:

- Best Management Practice (BMP) Maintenance: [www.lakecountyil.gov/Stormwater/Publications/BestManagementPractices.htm](http://www.lakecountyil.gov/Stormwater/Publications/BestManagementPractices.htm)
- LID Maintenance: [www.crwa.org/projects/greenstreets/Maintenance.pdf](http://www.crwa.org/projects/greenstreets/Maintenance.pdf), [www.psparchives.com/publications/our\\_work/stormwater/lid/D\\_RevisedMaintenanceofLIDFacilities.pdf](http://www.psparchives.com/publications/our_work/stormwater/lid/D_RevisedMaintenanceofLIDFacilities.pdf)
- Pond Maintenance: [www.scdhec.gov/environment/ocrm/pubs/docs/ponds.pdf](http://www.scdhec.gov/environment/ocrm/pubs/docs/ponds.pdf)
- Bioretention Maintenance: [www.lid-stormwater.net/bio\\_maintain.htm](http://www.lid-stormwater.net/bio_maintain.htm), <http://www.mapc.org/search/node/bioretention%20maintenance>
- Pervious Paver Maintenance: [www.paversearch.com/permeable-pavers-maintenance.htm](http://www.paversearch.com/permeable-pavers-maintenance.htm), [www.lowimpactdevelopment.org/qapp/lid\\_design/permeable\\_pavers/permpavers\\_maintain.htm](http://www.lowimpactdevelopment.org/qapp/lid_design/permeable_pavers/permpavers_maintain.htm)
- Halfacre, A.C., D.R. Hitchcock, and J.A. Schuler. 2007. Community Associations and Stormwater Management: [www.urbanestuary.org](http://www.urbanestuary.org).
- Green Solutions to Pollution: Homeowner Practices for Managing Stormwater and Polluted Runoff. [www.dnr.sc.gov/marine/NERR/traininggarden.html](http://www.dnr.sc.gov/marine/NERR/traininggarden.html)
- Carolina Yards and Neighborhoods. [www.clemson.edu/extension/natural\\_resources/water/carolina\\_yards](http://www.clemson.edu/extension/natural_resources/water/carolina_yards)
- Carolina Clear. [www.clemson.edu/public/carolinaclear](http://www.clemson.edu/public/carolinaclear)
- Green Homes 101: [www.dnr.sc.gov/marine/NERR/traininggreenhomes.html](http://www.dnr.sc.gov/marine/NERR/traininggreenhomes.html)
- Clemson's Home and Garden Information Center. [www.clemson.edu/extension/hgic](http://www.clemson.edu/extension/hgic)
- Low Impact Development Center, Inc. [www.lowimpactdevelopment.org](http://www.lowimpactdevelopment.org)



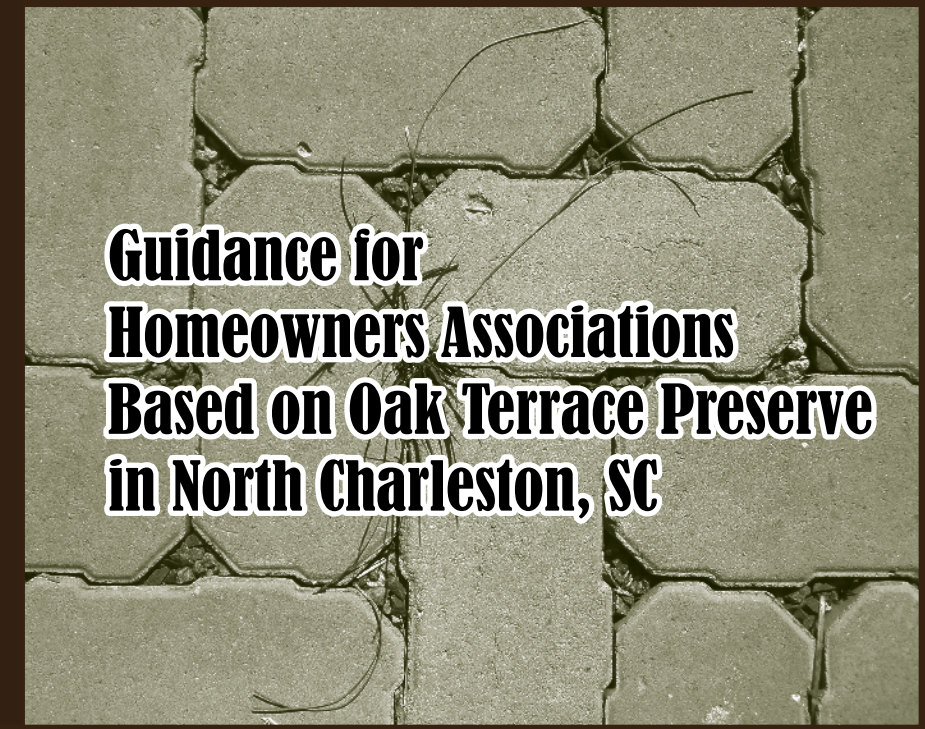
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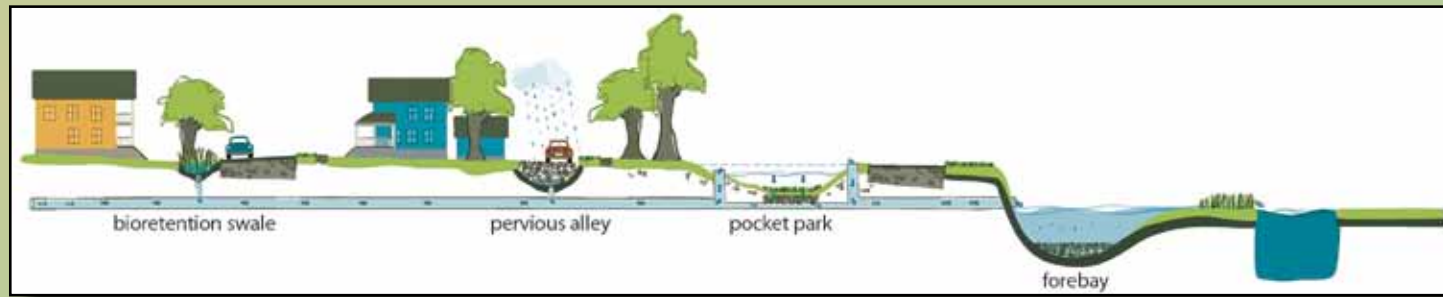
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# Maintenance of Low Impact Development (LID) Stormwater Practices



## Guidance for Homeowners Associations Based on Oak Terrace Preserve in North Charleston, SC



Courtesy of the City of North Charleston

## Oak Terrace Preserve LID Stormwater Practices

Oak Terrace Preserve, in North Charleston, S.C., uses a network of Low Impact Development (LID) practices designed to disperse stormwater throughout the development to promote infiltration and groundwater recharge. These LID practices include bioretention

swales, pervious alleys and walkways, pocket parks, and a forebay that are interconnected with perforated piping to continually promote infiltration and retention of stormwater on site, while also preventing flooding of adjacent properties.

## Maintenance of LID Stormwater Practices

LID practices use natural processes (e.g., detention and infiltration of stormwater) to manage the stormwater runoff from the neighborhood, and as such, their maintenance needs are fairly minimal. However, because they are utilized as a stormwater management facility, and therefore minimize downstream pollution and flooding, routine maintenance is necessary and it is also important to continually inspect these systems to ensure that they are functioning properly. The maintenance needs of the individual LID practices vary and may require the assistance of a trained professional (e.g., landscape firm, street sweeper, and/or consultation with the supplier), which should be determined up-front to assure the

appropriate maintenance of these practices. In addition, while a development is under construction, these practices should be inspected every month for maintenance needs (e.g., erosion, siltation, weeding, and watering). Following the completion and stabilization of a site, it will only need to be inspected on an annual basis.

*It is important to note that this document is based on the maintenance needs of the LID practices within Oak Terrace Preserve and these guidelines have been developed based on the information provided by the documents listed in the "References and Additional Resources" section.*

### Bioretention Swale Maintenance Needs:

Monthly	Twice-a-year	Once-a-year
<ul style="list-style-type: none"> <li>• Mow grass</li> <li>• Remove trash and debris</li> </ul>	<ul style="list-style-type: none"> <li>• Clean curb-cuts: remove debris from the gutter and entrance to swales</li> <li>• Remove and/or prune vegetation</li> <li>• Water plants</li> <li>• Weed</li> </ul>	<ul style="list-style-type: none"> <li>• Clear vegetation within one foot of inlets and outfalls</li> </ul>

#### Determine by Inspection:

- Check retention of stormwater. Ponding is normal and to be expected, but should not exceed 2-3 days.
- Replace soil and/or plant material for erosion control.
- Remove sediment to maintain plant growth and water storage capabilities of the bioretention swale.
- Clean under-drains by jet-cleaning or vacuuming.
- Replace or amend soil to maintain stormwater infiltration and pollutant removal capacity of the bioretention swale. Inspections are required (visual, infiltration tests, soil tests) to check for pollutants and organic material.
- Rebuild or reinforce hard structures (e.g., drop inlets, gutters, outlets).
- Re-grade or re-contour side slopes to maintain designed slope and storage area.



Eroding bioswale



Well-established functioning bioswale



Debris removal from curb-cut needed

### Pervious Alley and Walkway Maintenance Needs:

Monthly	Once-a-year
<ul style="list-style-type: none"> <li>• Remove trash and debris</li> </ul>	<ul style="list-style-type: none"> <li>• Maintain vegetated or mulched buffer along periphery of pervious materials. (During construction, silt-fencing should be used and maintained adjacent to pervious materials.)</li> <li>• Clean permeable materials (may be necessary up to 4 times-per-year); sweep and vacuum pervious pavers and apply top-coat to aggregate material if necessary; jet-spray walkways.</li> </ul> <p><i>* These maintenance needs are specific to pervious pavers and Flexi-pave®. If using a different type of pervious material consult with the manufacturer to determine the products maintenance needs.</i></p>

#### Determine by Inspection:

- Maintain the integrity of the infrastructure: replace broken pervious pavers and top-coat the pervious walkway if aggregate becomes loose.
- Remove plant growth among the pavers or walkways.
- Replace the aggregate in between the pavers to maintain the permeability of the alleys.



Fully-functional pervious pavers



Fully-functional Flexi-pave®



The construction site needs to be stabilized and the pervious pavers swept and vacuumed



Sediment-laden Flexi-pave® indicating a need to jet-spray



Loose aggregate that needs a top-coat applied