

The City of Lewes



**City of Lewes
Permeable Pavement/Materials
Design Standards**

DRAFT

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Background: This guide is to provide guidance when permeable pavement/materials are installed in the City. Intent and Utilization as defined by the Sussex Conservation District (SCD) and engineered specs. Prepared by an engineer to be reviewed by the City Engineer.

- Permeable pavement - Permeable pavement treatments are alternatives to traditional impervious pavement ground covers such as asphalt, concrete, or compact gravel. Three major types of permeable pavers are Porous Concrete, Permeable Asphalt, and Interlocking Engineered Permeable Pavers. The permeable pavement is

a method of paving that allows stormwater to seep into the ground as it falls rather than running off into storm drains or adjacent waterways.

- ex. permeable concrete pavers, grid pavement systems, pervious concrete, porous asphalt
 - For exposed driveway, patio, walkways, etc. that are open to the sky and not under roof shadow.
 - Shall be an engineered product.
 - Gravel, clamshell, etc. use shall be engineered.
 - Pavers to be installed shall be designed for driveway or roadway installation with porosity between pavers to capture (at a minimum) the rainfall that falls directly onto it. Further, it should have a minimum of 6" thick aggregate base for storage with enough storage to receive 3.2" of rainfall from the impervious area draining to the pavers, including the paver area.
 - A base reservoir layer of a clean, open graded, washed aggregate with a minimum porosity (n) of 30% (1.5" to 2" stone is preferred) shall be used below the paver surface. The base reservoir shall be of minimum thickness of 6" or a thickness to safely store the runoff from the 3.2" rainfall event from the areas draining to the paver area within the subbase stone strata, and installed per Manufacturer's recommendations, whichever is greater.
 - Filter cloth shall not be used between the base reservoir layer and uncompacted in-situ soil subgrade. If needed, a 12" layer of washed concrete sand or pea gravel ($\frac{1}{8}$ " to $\frac{3}{8}$ " stone) may be used to act as a bridging layer between the subbase reservoir and uncompacted, in-situ, subsurface soils.
 - The bottom of the base reservoir layer shall be level to enhance distribution and reduce ponding within the reservoir. A network of perforated pipes may be used to uniformly distribute runoff over the bed bottom if needed. Perforated pipes may also be used to connect structures (e.g., cleanouts, inlets) located within the permeable pavement section.