



## Fight the Flood: Private Property Adaptation Program

### PERMEABLE PAVER GUIDANCE

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#### 1. Purpose

To qualify for reimbursement under the Private Property Adaptation (PPA) program, permeable paver systems must 1) meet City of Miami Beach Resilience Code requirements and 2) meet the below technical specifications. The applicable definition in the City's Resilience Code is for "porous pavement". The requirements set out in the code for "porous pavement" must be met by permeable pavement projects. The definition is as follows:

*Porous pavement means a pavement material that allows for water to drain through the pavement surface into the ground. Such pavement shall have a minimum of 20 percent of air content, or voids to allow for the water to drain.*

Permeable paver systems consist of three main components: the paver, the aggregate, and the sub-base. The permeability of the system is defined by the aggregate and sub-base components, which create voids to allow for drainage of water. The manufacturer specifications must be correctly followed and will denote the appropriate aggregate and sub-base components.

The PPA program provides these guidelines to ensure that permeable paver projects are properly designed as flood mitigation. These standards ensure proper infiltration, protect groundwater, reduce runoff, and align with the City's elevation and drainage strategies. These systems are appropriate for stormwater management in driveways, walkways, patios, and similar low-traffic areas.

#### 2. Required Permits.

All permeable paver systems within the confines of the property shall require a building permit from the Building Department. Additionally, any paver material located within the public right of way, such as a swale, shall require a right of way permit from the Public Works Department.



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### 3. Infiltration Rate Requirement

Surface and bedding materials shall have a minimum infiltration rate of 600 inches per hour, certified by the manufacturer or verified by third-party laboratory testing. The bedding material contains voids to allow for drainage of water.

### 4. Minimum Groundwater Separation

To maintain system performance and prevent groundwater intrusion, the bottom of the sub-base layer shall be located at least 12 inches above the Mean Higher-High Water (MHHW) elevation or 18 inches above MHHW if constructed with an underdrain system.

### 5. Pavement Section Requirements

The system shall be constructed in accordance with manufacturer's specifications, with a minimum system depth of 12 inches, not including the thickness of the porous pavement or permeable paver layer.

### 6. Construction Requirements

- a. The finished surface slope of any permeable or porous system shall not exceed 5 percent.
- b. Edge restraints are required for the system to maintain structural integrity.
- c. All stone materials must be clean, washed, and angular to preserve void space and permeability.
- d. Geotextile separation fabric shall be required at the bottom or sides of the sub-base.

### 7. Maintenance Requirements for Proper Functioning

- a. Property owners shall maintain the system to remain free of sediment, debris, or overgrowth that may block infiltration.
- b. Systems shall not be sealed, paved over, or otherwise altered in a way that compromises permeability.
- c. Routine maintenance, such as vacuum sweeping or power washing, is necessary to maintain drainage performance. The PPA participant is responsible for the proper maintenance procedures.

### Contact Information

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