



# Sustainable Stormwater Solutions





## Structural and Environmental Benefits

The PaveDrain® system combines modern-day functionality with a structural concept used for centuries to create *the* revolutionary permeable paving solution. This system incorporates a patented arch design in the middle of an articulating concrete block to create an internal storage chamber that can be used as a reservoir for stormwater runoff, while simultaneously providing strength for heavy vehicular loads. The PaveDrain System is designed to be a critical component of Low Impact Development (LID) allowing for the infiltration of stormwater runoff.

The PaveDrain system is an aesthetically pleasing Permeable Articulating Concrete Block/ Mat (P-ACB/M)<sup>1</sup> that provides installation ease and flexibility to meet current and future stormwater management regulations. The PaveDrain system provides infiltration, storage, detention, conveyance and a paving surface all in one. When combined, these features allow for a reduction or elimination in stormwater infrastructure costs while minimizing environmental impact. The PaveDrain system works.

<sup>1</sup>P-ACB/M is a registered certification mark of ECS Solutions, LLC

## ASTM Standards & ADA Compliance

The PaveDrain system meets the requirements of ASTM D6684-04 and is recognized by the USEPA as a structural Best Management Practice (BMP) for stormwater infiltration. The Americans with Disabilities Act (ADA) Design Guidelines require that surface openings shall not exceed ½" and shall be firm, stable, and slip resistant. The PaveDrain System easily exceeds all these requirements by incorporating a 1/4" gap between individual PaveDrain blocks.

### Applications

- Parking Lots
- Low Speed Roadways
- Alley Ways
- Emergency Access Lanes
- Intersections
- Residential Driveways



### Why the PaveDrain System?

As part of the Clean Water Act, the EPS developed the National Pollution Discharge Elimination System (NPDES) to improve water quality by regulating point sources and non-point sources that discharge pollutants into waters of the U.S. PaveDrain captures and treats 100% of the surface water and allows you to route stormwater and control peak flows.





## Infiltration Report

The PaveDrain® system was tested in accordance with ASTM C1701/C1701M-09 by an independent third party engineering firm. The test was conducted on a PaveDrain project that had not been maintained for 18 months and still infiltrated in excess of 4,000 inches/hour per one foot diameter.

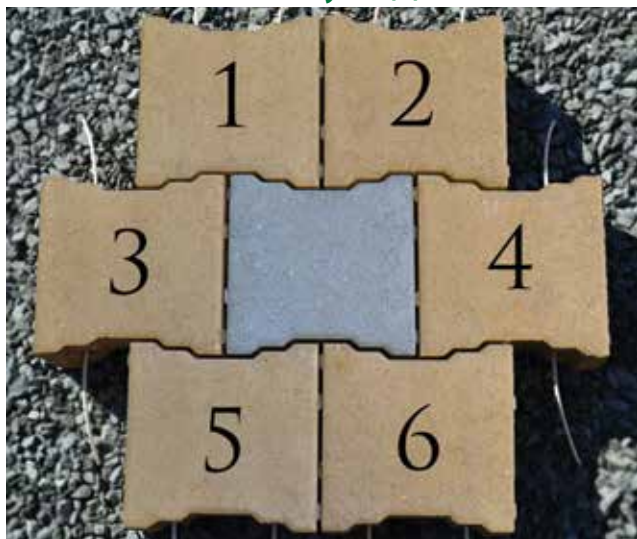
View the entire report by visiting our website at [www.pavedrain.com](http://www.pavedrain.com) and go to *How it Works* and then *Testing*.

	Test #1	Test #2
Inside Dia. of Infiltration Ring (in)	12.5	12.5
Elapsed Time of Test (sec)	7.3	7.8
Infiltration Rate (in/hr) ( $I=KM/(D^2*t)$ )	4,449	4,163
Avg. Infiltration Rate (in/hr)	<b>4,306</b>	

## PaveDrain® System Properties

Thickness.....	5.65" (+ 1/8")
Unit Dimensions.....	12.00" x 12.00"
Unit Weight.....	45-49 lbs
Unit.....	1 Sq. Ft. Nominal
Percentage Open Space: 7% Surface, 20% Storage Area	

**Each individual block is interlocked by six (6) units**

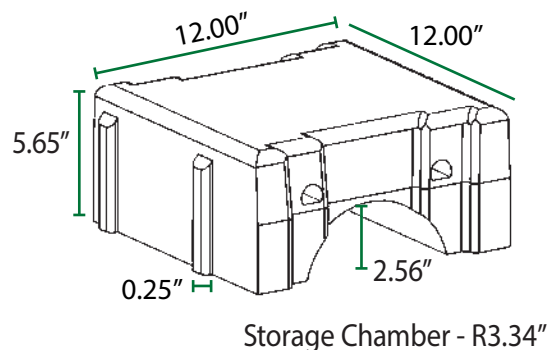


## PaveDrain® System Blocks End View Cross Section



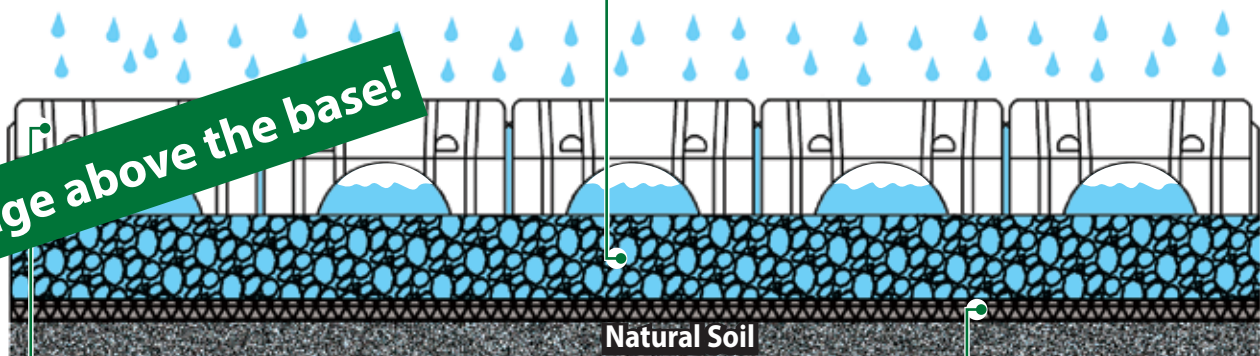
*Bladensburg, Maryland demonstration test  
Passes AASHTO HS-20 and H-20 load testing*

## Measurements



6" - 8" bedding stone  
(thickness determined by engineer).  
Stone to be 3/4" - 1" clean. No fines.

**Storage above the base!**



PaveDrain® System

Engineer approved  
geogrid or geotextile



## Maintenance and Repair

The PaveDrain System recommends an open joint concept between units. Existing installations have required little, if any maintenance over multiple years. IF the joints become filled or obstructed, maintenance is accomplished by using a conventional combination sewer vacuum truck and the PaveDrain Vac Head. If a significant amount of sediment accumulates in the aggregate bedding stone, PaveDrain can be removed allowing the subgrade to be cleaned and then the same product re-installed. Repair of individual PaveDrain blocks can be accomplished without removing the (mat) cables. For more detailed information on these topics go to [www.pavedrain.com](http://www.pavedrain.com) and select Installation & MAINTENANCE and then click on *repair*.



## Additional Benefits

- Up to 5 LEED Credits: Sustainable Sites; Credit 6.1, 6.2, 5.1, 5.7 & Materials & Resources: Credit 5.1.
- Initial installations show a drastic reduction in the use of deicing salts over traditional asphalt and concrete surfaces.
- Installed by hand or with conventional construction equipment in all types of weather for fast, economical installations.
- Available in multiple mat sizes for customized applications
- Available in several color options
- No seams to catch on steel snow plow blades.
- Increased skid resistance over traditional pavements.
- Solar Reflectance Index (SRI) range of 36 – 41 for lighter colored units.
- Unlike traditional catch basins, varmints cannot enter drainage system.
- Regional manufacturing supporting local economies.
- Adaptable to small areas (retrofits) where retention ponds are outdated or not practical.

Represented Locally By:

**Environmental Paving Solutions, LLC**  
204 North Beech Street  
Syracuse, New York. 13203

P: (315) 472-6902 E: [MoreInfo.EPS@gmail.com](mailto:MoreInfo.EPS@gmail.com)

### **PaveDrain, LLC**

Global Water Center  
247 Freshwater Way Milwaukee, WI 53204  
(888) 575-5339 Office  
[www.pavedrain.com](http://www.pavedrain.com)



©2011 PaveDrain, LLC All Rights Reserved.  
PaveDrain System is a registered trademark of PaveDrain, LLC

*The PaveDrain System is protected by the following U.S. and Canadian Patents; U.S. No. 8,251,607, No. D609,369, No. 8,366,343 & Canadian No. 133082. Additional patents pending.*