



March 23, 2012

Ernest Maier Inc.  
4700 Annapolis Road  
Bladensburg, Maryland 20710

Attn: Mr. Dan Bishop

Re: Infiltration Testing of PaveDrain

Gentlemen:

In response to your request, CNA has determined the field water infiltration rated of PaveDrain material in accordance with ASTM C1701/C1701M-09. The testing was performed March 9, 2012, at the Ernest Maier Block Company Store located at 4700 Annapolis Road in Bladensburg, Maryland.

Infiltration testing was performed on the PaveDrain material both prior to installation as well as material which had been in place for several months. The material tested prior to installation was fabricated as a "mock up", and the installed material had been in place since May 20, 2011. Test results are attached to this letter. It should be noted that variances between the test results were caused by turbulence of the water used in the test as well as potential variances in pouring rates due to human error. It is our opinion that these discrepancies likely produce a reported infiltration rate which is less than the true rate of the PaveDrain material.

Based on the test results, it is our opinion that the infiltration rate of PaveDrain material is a minimum of 4,000 inches per hour. CNA is available to discuss our results at your convenience. If you have any questions, please contact our office.



Sincerely,  
CNA, Inc.

Stephen K. Nolan, P.E.  
President

**Personal Certification:** I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 20467, Expiration Date: 6-1-2012.

SKN/pat

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**Infiltration Test Results of In Place Pervious Concrete  
ASTM C1701/C1701M-09**

**Job Name:** PaveDrain Analysis

**Job Number:** 11050

**Client:** Ernest Maier, Inc.

**Description:** Test on Mock Up of PaveDrain System

Test No.	1	2	3	4	5	6
Location	mock up	mock up				
Date	3/9/2011	3/9/2011				
Age of Pervious Concrete (months)	n/a	n/a				
Thickness of Pervious Concrete (in)	5.65	5.65				
Elapsed Time of Prewetting (sec)	13.6	*				
Amount of Rain During Last Rain Event (in)	n/a	n/a				
Weight of Infiltrated Water (lbs)	40.0	40.0				
Inside Diameter of Infiltration Ring (in)	12.5	12.5				
Elapsed Time of Test (sec)	7.3	7.8				
Infiltration Rate (in/hr) ( $I=KM/(D^2*t)$ )	4449.1	4163.9				

\* test was performed after earlier test. Prewetting not required

**Average Infiltration Rate** 4306.5

Test Results Reported By: 

Date: 3-23-12



**Infiltration Test Results of In Place Pervious Concrete  
ASTM C1701/C1701M-09**

**Job Name:** PaveDrain Analysis

**Job Number:** 11050

**Client:** Ernest Maier, Inc.

**Description:** Test on PaveDrain Installed May 20, 2011

Test No.	1	2	3	4	5	6
Location						
Date	3/9/2011	3/9/2011				
Age of Pervious Concrete (months)	9.5	9.5				
Thickness of Pervious Concrete (in)	5.65	5.65				
Elapsed Time of Prewetting (sec)	6.6	*				
Amount of Rain During Last Rain Event (in)	unknown	unknown				
Weight of Infiltrated Water (lbs)	40.0	40.0				
Inside Diameter of Infiltration Ring (in)	12.5	12.5				
Elapsed Time of Test (sec)	5.4	5.6				
Infiltration Rate (in/hr)	6014.6	5799.8				

\* test was performed after earlier test. Prewetting not required

**Average Infiltration Rate** 5907.2

Test Results Reported By: 

Date: 3-23-12