

# Rotational Penetrometer Surface Testing Report

**RESNA Surface – Section 1: Test Method for Firmness and Stability**

(Working Draft 2000-11-20)

Test Institution		Rotational Penetrometer	
Name	Beneficial Designs, Inc.	Manufacturer	Beneficial Designs, Inc.
Address	2240 Meridian Blvd., Suite C Minden, NV 89423	Serial number: BDRP-	034
Phone / Fax	ph 775.783.8822 / fax 783.8823	Date of last calibration	2008-03-03
Operator	B. Blythe	Tire pressure set at 36 psi. on	2008-10-02
Data recorder	B. Cline	by B. Blythe	Temp. °F 73
		Indentor position (A-H)	A

Date & Time of Test		Testing Conditions	
Date	2008-10-02	Temperature °F	73
Time	15:45	Relative Humidity %	35

If the temperature is more than 10 °F different than the temperature at the tire pressure check, re-inflate tire before starting to test.

Test Surface		Test Results			
Manufacturer	Invisible Structures, Inc.	Record readings to nearest hundredth of an inch (0.00)			
Name	Grasspave <sup>2</sup>	<b>Trial</b>	<b>Slope</b>	<b>Firmness</b>	<b>Stability</b>
Type	subsurface structure	1		0.35	0.43
Source	Invisible Structures, Inc.	2		0.47	0.55
Date of mfr	2008-05-27	3		0.39	0.47
Depth	9 in.	4		0.38	0.50
Water content	N/A	5		0.36	0.45
Location	822 Long Valley Rd. Gardnerville, NV	<b>Avg.</b>		<b>0.39</b>	<b>0.48</b>
		<b>SD</b>		<b>0.05</b>	<b>0.05</b>

Procedures used to install, compact and/or level prior to testing: A 6-inch layer of base course (#2 road base) was installed and compacted. One pound of Hydrogrow polymer-fertilizer mixture was sprinkled onto the base course and spread evenly by hand. The 1-inch Grasspave<sup>2</sup> ring and grid structure was then placed over the base course and Hydrogrow mix, ring side up. The Grasspave<sup>2</sup> was cut to fit the form, filled with sand and leveled. The sod was sprayed on the back side with water until about 0.25 inch of soil was left. A 2-inch layer of sod was laid over the base course, root side down and cut to fit the form. This layer was wetted and compacted using a hand tamper until the roots were pressed into the sand and then wetted again. The total depth of the installation was 9 inches. This was watered every day and mowed as needed. The grass was cut to a length of 1.25 inches above the soil.

Method of stabilizing the surface reference plates: The test operator stood on the surface reference plates.

## Summary of Results

Beneficial Designs, Inc. received a surfacing sample from **Invisible Structures, Inc.** with the brand name **Grasspave<sup>2</sup>**. This sample of **Grasspave<sup>2</sup>** had a **firmness of 0.39 in.** and **stability of 0.48 in.**

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30 October 2008  
Date