TURF DIAGNOSTICS & DESIGN
"Managing the Elements Through Science"

Furbish Company
Brad Garner
3430 2nd Street - Suite 100
Baltimore, MD 21225
PHONE: 443-874-7465

Date Received Sep-17-2013
Account No. 09134430
Revised Report Date Jan-29-2014
Facility EcoCline Green Roof System

ACCREDITED

Maximum Media Density for Dead Load Analysis of Green Roof Systems ‡

Lab ID#	Sample Name	Water Permeability (Saturated Hydraulic Conductivity) (in/hr)	(mm/min)	Initial Media Density (Application Density) (lb/ft^3)	(g/cm^3)	Maximum Media Density (Saturated Density) (lb/ft^3)	(g/cm^3)	Maximum Media Water Retention (%)	Dry Media Density (lb/ft^3)	(g/cm^3)
13090045-3	Media B1	117	49	86.4	1.39	92.2	1.48	24	77.4	1.24
13090045-4	Media B2	319	135	99.0	1.59	99.1	1.59	17	88.8	1.42

Lab ID#	Sample Name	Initial Sample Wt. (Kg)	Sample Volume (m^3)	Initial Sample Height (cm)	Final Sample Height (cm)	Sample Wt. After Draining (Kg)	Total Pore Space (%)	Air-filled Porosity‡‡ (%)	pH‡‡‡	Electrical Conductivity mmhos/cm	Organic Matter** (%)
13090045-3	Media B1	2.665	0.0019	10.6	10.6	2.8	53	29	8.2	0.3	2.0
13090045-4	Media B2	2.995	0.0019	10.4	10.4	3.0	47	30	7.5	0.0	1.2

Particle Size Evaluation*

Lab ID#	Sample Name	% Sand 2.0 - 0.063 mm	% Silt 0.063-0.002 mm	% Clay < 0.002mm	% Passing US sieve (mm) Gravel 3/8"	Gravel 1/8" (3.17)	Gravel 10 (2.0)	V. Coarse 18 (1.0)	Medium 60 (0.25)	V. Fine 230 (0.063)
13090045-3	Media B1	11.3	4.0	0.7	95.5	19.2	15.9	12.3	8.2	4.7
13090045-4	Media B2	7.7	2.7	0.4	94.5	14.5	10.9	8.0	5.1	3.2

‡ ASTM E2399 ‡‡At Maximum Media Density (Water-holding Capacity) ‡‡‡ASTM D4972 w $CaCl_2$ (not screened) *ASTM F1632 Method B **Ashed at 550° C (FLL Guidelines)

Samples were tested as received and comments pertain only to the samples shown.
This report may not be reproduced in part, but only in full.
Sample condition upon receipt was normal.
Samples were received with a transmittal letter.

Note: Change in spelling of EcoCline is the only revision to this report.

Reviewed by _____

613 E. 1st Street Linwood, Kansas 66052 ■ Phone: 913-723-3700 ■ Fax: 913-723-3701
E-mail: turfdiag@turfdiag.com ■ Website: http://www.turfdiag.com