



August 12, 2014

Marcus Dean
University of Kentucky
EJ Nutter Training Facility
136 Jerry Claiborne Way
Lexington, KY 40506-0277

RE: University of Kentucky Commonwealth Stadium - File #14080022

Dear Mr. Dean:

Enclosed are the results of the three core samples received by our laboratory on 8/6/14. The cores were cut open, observations made and photographs taken (see Table 1 and Figure 1). Testing was then performed on the various layers present in the cores.

Table 1: Core Sample Observations

Lab ID #	14080022-1	14080022-2	14080022-3
Sample Name	UK FB Stadium 1	UK FB Stadium 2	UK FB Stadium 3
Surface Layer	0 – 2.5"	0 – 2.25"	0 – 2.5"
Upper Rootzone Layer			2.5 – 4"
Lower Rootzone Layer	2.5 – 12"	2.25 – 10.25"	4 – 11.5"
Gravel Layer	Some present at 12".	Some present at 10.25".	11.5 – 12.25"
Subgrade			12.25 – 14"
Root Depth	5.25"	6"	6"
Notes	Stabilization fibers observed.		Stabilization fibers observed.

The particle size test results for the Lower Rootzone Layers meet the ASTM F2396 Guidelines for Sand Based Athletic Fields. Organic matter test results for the Lower Rootzone Layers range from 0.54% to 0.66%.

The particle size test results indicate that the Stadium 3 Upper Rootzone Layer and the Surface Layers have elevated silt and clay contents. Organic matter testing indicates the Surface Layers have high organic matter contents. Organic matter levels to 4" are higher than the Lower Rootzone layers.

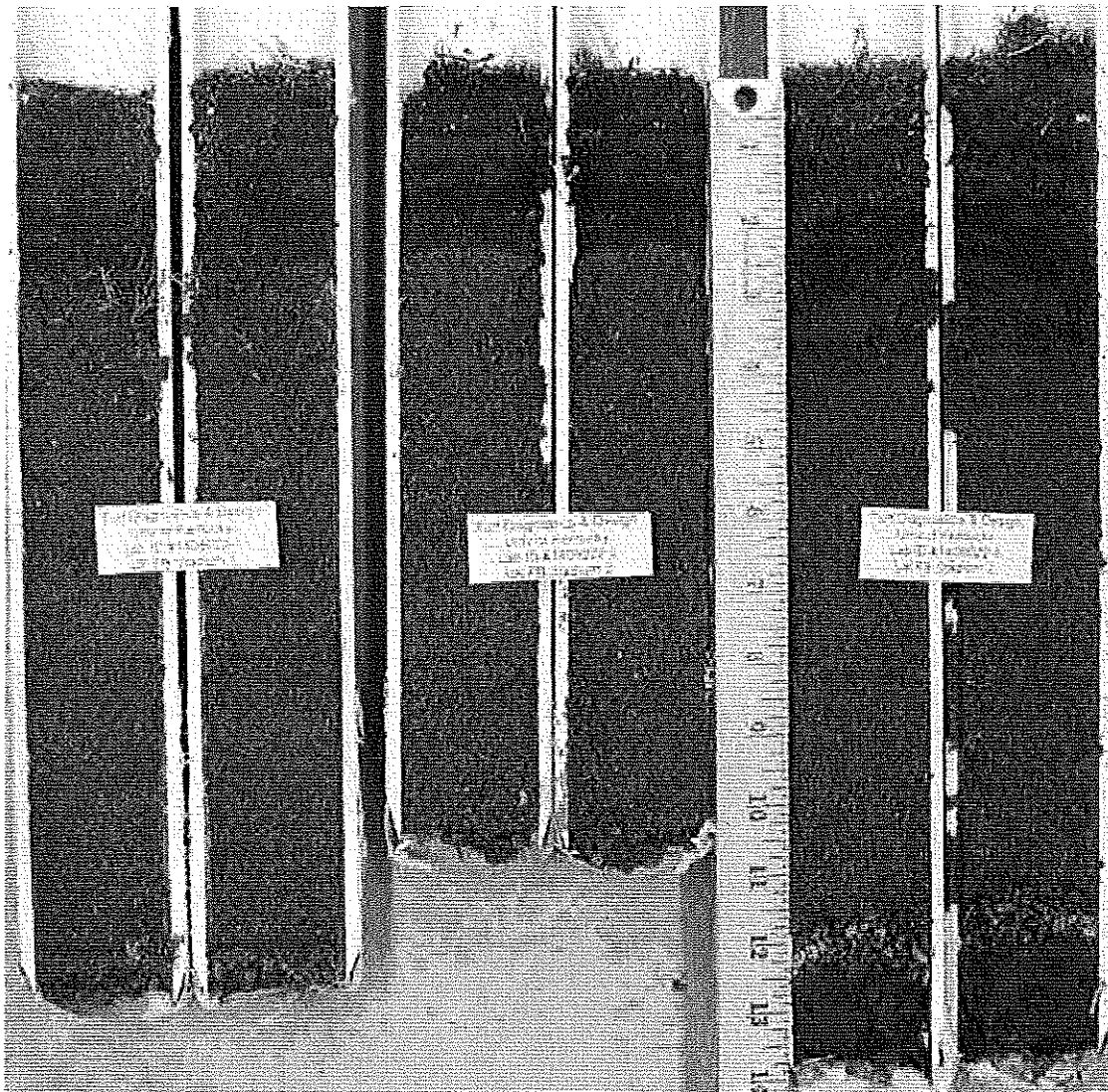


Figure 1: Core samples from the University of Kentucky Commonwealth Stadium. Core on the left is the UK FB Stadium 1 sample (Lab ID 14080022-1). Middle core is the UK FB Stadium 2 sample (Lab ID 14080022-2). Core on right is the UK FB Stadium 3 sample (Lab ID 14080022-3).

The test results for the three core samples are consistent with each other. There is, however, a difference in the depth of the rootzones. The UK FB Stadium 2 sample has a rootzone depth that is approximately 1.5" less than the other two samples.

It is our understanding that the natural turf field is to be replaced with a synthetic turf field. It is further our understanding that the synthetic turf field is to be placed over the existing soil. The test results suggest that the soil should be removed to a depth of at least four inches to remove the surface build up prior to installing the new turf.

If you have any questions or are in need of further assistance, please contact us. Samples are generally kept on the premises for 45 days after report date. Thank you for using Turf Diagnostics and Design, Inc.

Sincerely,

Digitally signed by Sam Ferro
DN: cn=Sam Ferro, o=Turf
Diagnostics & Design, Inc.,
email=sferro@turfdiag.com,
c=US
Date: 2014.08.17 16:27:16 -0500
Sam Ferro
President

Page 3 of 5



University of Kentucky
 Marcus Dean
 EJ Nutter Training Facility, 136 Jerry Claiborne Way
 Lexington, KY 40506-0277
 PHONE: 859-257-1451

Date received Aug-06-2014
 Account Number 02058590
 Date Reported Aug-12-2014
 Facility Commonwealth Stadium



Particle Size Evaluation*

Lab ID#	Sample Name	% Sand 2.0 - 0.05 mm	% Silt 0.05-0.002mm	% Clay < 0.002mm	Gravel 4.0 (5)	Gravel 2.0 (10)	% Retained mm (US sieve)				
							V. Coarse 1.0 (18)	Coarse 0.5 (35)	Medium 0.25 (60)	Fine 0.15 (100)	V. Fine 0.05 (270)
14080022-1	FB Stadium 1 (0 - 2.5")	87.7	8.5	3.5	0.0	0.3	3.4	21.7	45.2	12.8	4.6
14080022-1	FB Stadium 1 (2.5 - 3.5")										
14080022-1	FB Stadium 1 (3.5 - 12")	91.9	5.6	1.9	0.0	0.6	3.6	23.7	51.3	10.7	2.5
14080022-2	FB Stadium 2 (0 - 2.25")	85.5	8.9	3.8	0.7	1.1	4.0	21.0	42.4	13.3	4.9
14080022-2	FB Stadium 2 (2.25 - 3.25")										
14080022-2	FB Stadium 2 (3.25 - 10")	93.5	4.3	1.7	0.0	0.5	3.4	24.4	52.5	10.7	2.4
ASTM F2396 Athletic Field Guidelines		-	< 5%	< 3%		< 20%**	< 20%**	25 - 50%	> 25%	< 10%	< 5%

Lab ID#	Sample Name	Uniformity Coefficient Cu	D15 mm	D50 mm	D85 mm	Shape Angularity	Shape Sphericity	Acid Reaction	Combined Fractions < 0.15 mm	Combined Fractions < 0.25 mm	No. 270 V. Fines 0.05 (270)
14080022-1	FB Stadium 1 (2.5 - 3.5")										
14080022-1	FB Stadium 1 (3.5 - 12")	2.9	0.19	0.37	0.73	Angular to Sub-Rounded	Medium	Severe	10.1	20.7	0.8
14080022-2	FB Stadium 2 (0 - 2.25")	21.2	0.11	0.34	0.74	Angular to Sub-Rounded	Medium	Severe	17.6	30.9	1.9
14080022-2	FB Stadium 2 (2.25 - 3.25")										
14080022-2	FB Stadium 2 (3.25 - 10")	2.7	0.20	0.38	0.73	Sub-Rounded to Angular	Medium	Severe	8.5	19.2	0.8
ASTM F2396 Athletic Field Guidelines		2.5 - 4.5	-	-	-	-	-	-	-	< 15%	-

A2LA Testing Certificate Number 797-01

*ASTM F1632 Method B & Determination of Size Factors SOP

**Maximum of 30% combined on Gravel and Very Coarse Sand fractions.

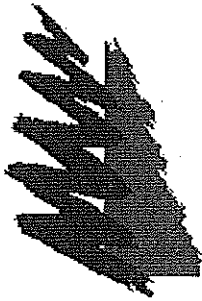
Samples were tested as received and comments pertain only to the samples shown.

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.

Reviewed by Sam Ferro



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Particle Size Evaluation*

Lab ID#	Sample Name	% Sand 2.0 - 0.05 mm	% Silt 0.05-0.002mm	% Clay < 0.002mm	% Retained mm (US sieve)				V. Coarse 1.0 (18)	Coarse 0.5 (35)	Medium 0.25 (60)	Fine 0.15 (100)	V. Fine 0.05 (270)
					Gravel 4.0 (5)	Gravel 2.0 (10)	Gravel 0.9	Gravel 0.8					
14080022-3	FB Stadium 3 (0 - 2.5")	86.4	8.9	3.5	0.3	0.9	0.8	3.2	20.0	46.7	12.8	3.8	
14080022-3	FB Stadium 3 (2.5 - 4")	86.4	8.7	4.1	0.1	0.8	0.4	4.4	24.3	42.5	10.6	4.6	
14080022-3	FB Stadium 3 (4 - 11.5")	91.7	5.9	2.0	0.0	0.4		3.6	23.9	50.1	10.9	3.0	
ASTM F2396	Athletic Field Guidelines	-	< 5%	< 3%		< 20%**	< 20%**	< 20%**	25 - 50%	> 25%	< 10%	< 5%	

Lab ID#	Sample Name	Uniformity Coefficient Cu	D15 mm	D50 mm	D85 mm	Shape		Shape Sphericity	Acid Reaction	Combined Fractions < 0.15 mm	Combined Fractions < 0.25 mm	No. 270 V. Fines 0.05 (270)
						Angularity	Sub-Angularity					
14080022-3	FB Stadium 3 (0 - 2.5")	17.9	0.12	0.34	0.69	Sub-Angular to Sub-Rounded	Medium	Severe	16.1	28.9	1.5	
14080022-3	FB Stadium 3 (2.5 - 4")	23.4	0.10	0.36	0.76	Sub-Angular to Sub-Rounded	Medium	Severe	17.4	28.0	2.1	
14080022-3	FB Stadium 3 (4 - 11.5")	3.5	0.18	0.37	0.73	Sub-Angular to Sub-Rounded	Medium	Severe	11.0	22.0	1.1	
ASTM F2396	Athletic Field Guidelines	2.5 - 4.5	-	-	-	-	-	-	-	-	< 15%	-

A2LA Testing Certificate Number 797-01 *ASTM F1632 Method B & Determination of Size Factors SOP

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