

To: United Brick & Tile
Division of Sioux City Brick & Tile Company
Attn: Kurt Hanson
PO Box 160
Adel, IA 50003

Date: June 16, 2008
Project: 3896802
Report No.: 3896802.3 rev2
Revised: July 7, 2008, July 14, 2008

Revision: Addition to "Marked" Section, Addition of Colors, Correction to Colors list

REPORT OF TESTS ON: 2008 General Testing
SUBMITTED BY: _____
MARKED: Red Colonial Utility – Utility Group
SAMPLED: _____
DATE RECEIVED: 06/02/2008
DATE TESTED: 06/04/2008 BY: MJ

The following brick have been selected for testing:

Utility Group:	Amherst*	(CS) Birchwood	Black Sand	Bordeaux Burgundy
	Brookfield	Brown*	Brown Frosty	Burgundy Tudor
	Cabernet Burgundy	Cambridge*	(CS) Cambridge	Canterbury*
	Chelsea Ironspot	Cinnamon Ironspot	Concord	Copper Ridge*
	Cordovan*	Cranberry*	Earth Blend	Granite Red*
	(CS) Hampton	Hearthside	Hematite	Inca Gold
	Lexington	Mesaba*	Misty Creek	Mocha*
	Napa Valley*	(CS) Old Heritage	Old Plantation	Parkridge*
	(CS) Parkridge	Providence	Plum*	Red*
	Red Desert	Red Frosty	Red Rock*	Red Sand
	Royal Burgundy	(CS) Sand Hills Red	Smoked Tudor	Smoky Mountain
	Sonoma Valley*	(CS) Stratford	Sunset Blend	Swiss Chalet
	(CS) Tudor	(CS) Wellington	Welsford Ironspot	Westport
	Wexford	Willow Creek	Yellowstone	

* denotes various textures

(CS) – Charleston (FBA) and Savannah (FBS) Textures

The above specimen was tested in accordance with Standard Methods of Testing Brick, ASTM C67-07a, for compliance with ASTM C-216-07a.

Compressive Strength:

Sample No.	Width, In.	Depth, In.	Gross Area, sq.in.	Gross Load, Lbs.	Compressive Strength	
					PSI	Mpa
11	3.62	11.60	41.99	417600	9950	68.57
12	3.60	11.61	41.80	414600	9920	68.39
13	3.64	11.60	42.22	517200	12250	84.45
14	3.73	11.61	43.31	466600	10780	74.29
15	3.64	11.62	42.30	447100	10570	72.88
Average	---	---	---	---	10690	73.72

Absorption:

Sample No.	Cold Water Immersion 24 Hr. % Absorption	% Absorption, 5 Hr. Boiling	Saturation Coefficient
1	2.9	4.9	0.58
2	3.8	6.1	0.62
3	3.5	5.7	0.62
4	3.4	5.7	0.61
5	3.6	5.7	0.63
Average	3.4	5.6	0.61

ASTM Efflorescence Test:

Sample No.	Sample Rating
6	Not Effloresced
7	Not Effloresced
8	Not Effloresced
9	Not Effloresced
10	Not Effloresced
Average	Not Effloresced

Initial Rate of Absorption (Suction):

Sample No.	Initial Rate of Absorption (Suction) Gain in Weight (gms) Corrected to Basis of 30 Sq. In. Flatwise Area (193.55 CM ²)
1	5.2
2	8.4
3	7.8
4	6.2
5	7.2
Average Open Area: 10.33 In. ² / (66.67 CM ²) – 24.4% of Gross Area	

Length:

Sample No.	Average Length		Deviation From Group Average	
	Inches	MM	Inches	MM
1	11.63	295.30	0.02	0.45
2	11.58	294.10	-0.03	-0.75
3	11.62	295.23	0.01	0.38
4	11.60	294.73	0.00	-0.12
5	11.62	295.05	0.01	0.20
11	11.60	294.53	-0.01	-0.32
12	11.61	294.83	0.00	-0.02
13	11.60	294.70	-0.01	-0.15
14	11.61	294.78	0.00	-0.07
15	11.62	295.25	0.02	0.40
Group Average	11.61	294.85	---	---

Width:

Sample No.	Average Width		Deviation From Group Average	
	Inches	MM	Inches	MM
1	3.65	92.78	0.01	0.16
2	3.65	92.60	0.00	-0.02
3	3.62	91.93	-0.03	-0.69
4	3.70	94.03	0.06	1.41
5	3.62	92.03	-0.02	-0.59
11	3.62	91.98	-0.03	-0.64
12	3.60	91.48	-0.04	-1.14
13	3.64	92.35	-0.01	-0.27
14	3.73	94.63	0.08	2.01
15	3.64	92.40	-0.01	-0.22
Group Average	3.65	92.62	---	---

Height:

Sample No.	Average Height		Deviation From Group Average	
	Inches	MM	Inches	MM
1	3.64	92.40	-0.02	-0.54
2	3.67	93.15	0.01	0.21
3	3.66	92.98	0.00	0.04
4	3.64	92.48	-0.02	-0.46
5	3.66	93.03	0.00	0.09
11	3.66	93.03	0.00	0.09
12	3.67	93.10	0.01	0.16
13	3.66	92.98	0.00	0.04
14	3.66	93.03	0.00	0.09
15	3.67	93.23	0.01	0.29
Group Average	3.66	92.94	---	---

Distortion (Warpage):

Sample No.	Maximum Distortion	
	Inches	MM
1	0.06	1.59
2	0.03	0.79
3	0.06	1.59
4	0.06	1.59
5	0.03	0.79
11	0.06	1.59
12	0.06	1.59
13	0.06	1.59
14	0.06	1.59
15	0.06	1.59

Out of Square:

Sample No.	Inches	MM
1	0.03	0.79
2	0.03	0.79
3	0.03	0.79
4	0.03	0.79
5	0.03	0.79
11	0.06	1.59
12	0.03	0.79
13	0.03	0.79
14	0.03	0.79
15	0.03	0.79

The above brick **comply** with the physical test requirements of ASTM C216-07a, Type FBX / Grade SW.

Respectfully submitted,
STORK Twin City Testing,

Michael D. Jordt
Senior Engineering Technician

MJ:lam
1 pc above