



March 21, 2005

Artistic Stone  
Mr. Todd Hamby  
9290 Matt Highway  
Ballground, Georgia 30107

Phone: 770-888-8278  
Fax: 770-888-8658

Subject: **Stone Veneer Testing**  
**MACTEC Project Number: 6136-04-0340**  
**MACTEC Laboratory Number: 04-236**

Dear Mr. Hamby,

MACTEC Engineering and Consulting, Inc. (MACTEC) has completed testing of stone veneer samples. The samples were prepared by representatives of Artistic Stone and delivered to our laboratory for testing. Our results are as follows.

### Compressive Strength

**Table 1 : Compressive strength of three by six-inch cylinders as per ASTM C 39**

<b>Cylinder No.</b>	<b>Age (days)</b>	<b>Compressive strength (psi)</b>
C-1	8	4590
C-2	8	4810
C-3	8	5330
C-4	8	4560
C-5	8	4730
<b>Average</b>		<b>4800</b>

### Absorption

**Table 2 : Absorption of three by six-inch cylinders as per UBC Standard 15-5**

<b>Cylinder No.</b>	<b>Absorption (%)</b>
A-1	15.8
A-2	15.6
A-3	15.3
A-4	15.7
A-5	15.9
<b>Average</b>	<b>15.7</b>

### Abrasion Resistance

**Table 3 : Abrasion resistance as per ASTM C 241**

Sample No.	Abrasion resistance
AR-1	20.5
AR-2	20.6
AR-3	20.7
<b>Average</b>	<b>20.6</b>

### Tensile Strength<sup>1)</sup>

**Table 4 : Tensile strength of hydraulic cement mortars as per ASTM C 190.**

Briquet No. <sup>1)</sup>	Age (days)	Tensile strength (psi)
1	39	245
2	39	250
3	39	275
4	39	220
<b>Average</b>		<b>250</b>

1) Samples were molded by MACTEC.

### Flexural Strength<sup>2)</sup>

**Table 5 : Flexural strength of hydraulic cement mortars as per ASTM C 348.**

Prism No. <sup>2)</sup>	Age (days)	Flexural strength (MPa)
1	39	3.1
2	39	3.2
3	39	3.6
4	39	2.7
<b>Average</b>		

2) Samples were molded by MACTEC.

### Freezing and Thawing

Samples subjected to the freeze thaw test procedure described in section 9 of ASTM C 67 passed.

### Efflorescence

Samples subjected to the test procedure described in section 11 of ASTM C 67 did not effloresce.

**Unit Weight**

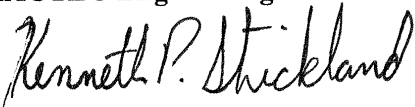
**Table 6 Oven-Dry Density as per ASTM C 567**

<b>Cylinder No.</b>	<b>SSD Mass (lbs)</b>	<b>Suspended Mass (lbs)</b>	<b>Oven-Dry Mass (lbs)</b>	<b>Unit Weight (lbs/ft<sup>3</sup>)</b>
D-1	2.24	0.74	1.94	80.57
D-2	2.28	0.76	1.97	80.74
D-3	2.18	0.73	1.89	81.20
D-4	2.25	0.75	1.95	80.99
D-5	2.26	0.75	1.95	80.45
<b>Average</b>	<b>2.24</b>	<b>0.75</b>	<b>1.94</b>	<b>80.79</b>

We appreciate the opportunity to provide our services to you on this project. Please contact Kenneth P. Strickland at 404-817-0254 if you have any questions regarding this report.

Sincerely,

**MACTEC Engineering and Consulting, Inc.**



Kenneth P. Strickland  
Technical Specialist



Jay Fagan  
Concrete Laboratory Manager