TRANSMITTAL LETTER

Leonard Masonry, Inc.

5925 Fee Fee Road
St. Louis, MO 63042

Transmittal # **945-01**

Date: 6/10/2016
Phone: (314) 731-5500
Fax: (314) 731-3366

Project Name: Webster University Interdisciplinary Science Building **Project #:** 945

To: Paric Corporation
Attn: Devin Gates
77 Westport Plaza Drive
Suite 250
St. Louis, MO 63146

SUBJECT: Submittal 945-01, Rev #0 Masonry materials

Phone: (636) 561-9500 **Fax:** (636) 561-9501

Items listed are being sent
- ☑ Enclosed
- ☐ Under Separate Cover
- ☐ Via

We are transmitting the following to you:
- ☑ Product Data
- ☐ Samples
- ☑ Submittals: Submittal 945-01, Rev #0 Masonry materials
- ☐ Shop Drawings
- ☐ O & M Manuals
- ☐ Plans
- ☐ Architectural Drawings
- ☐ Letters
- ☐ Specifications
- ☐ Prints
- ☐ Addenda
- ☐ Engineering Drawings
- ☐ Change Order Requests
- ☐

Submittal: Masonry materials - Rev#0

Code/Spec	Copies	For	Product #	Summary Item
	1	Approval		Face brick test report
	1	Approval		Type N mortar certification
	1	Approval		Mortar color product data
	1	Approval		Veneer anchor product data
	1	Approval		Weep vent product data
	1	Approval		Cavity drainage material product data
	1	Approval		Termination bar product data
	1	Approval		Cavity-wall insulation product data
	1	Approval		Masonry cleaner product data

Remarks:

COPIES TO:

By: Ken Westhoff
Project Manager

Received by: _____ Date: _____

S&ME

Dimensions, Absorption, and Compressive Strength of Facing Brick

ASTM C67-11 and ASTM C216-10

PROJECT:	Ragland Lab Testing	JOB NO:	1823071749
CLIENT:	Ragland Clay Products	MADE BY:	Client
GRADE:	SW	TYPE:	FBS
UNIT:	Select	DATE TESTED :	8/5/2011

Specimen No.	Oven Dry Weight (grams)*	Dimensions - L x W x H (inches)*	24 Hour Cold Water Absorption (%)	24 Hour Cold Water Absorption Requirement (%)
2A	1710.5	7.75 x 2.81 x 2.75	4.5	≤8
2B	1701.3	7.75 x 2.88 x 2.75	4.0	≤8
2C	1692.9	7.75 x 2.81 x 2.75	5.2	≤8
2D	1697.3	7.75 x 2.88 x 2.75	4.9	≤8
2E	1671.6	7.88 x 2.81 x 2.75	5.1	≤8
Average	1694.7			

Specimen No.	Tested Size L x W (inches)	Area (inches)	Maximum Load (lbs)	Compressive Strength (psi)	Compressive Strength Requirement (psi)
2A	4.04 x 2.85	11.51	96966	8420	2500
2B	3.85 x 2.89	11.13	90425	8130	2500
2C	3.91 x 2.87	11.22	85398	7610	2500
2D	3.89 x 2.86	11.13	87198	7840	2500
2E	3.95 x 2.85	11.26	89201	7920	2500
Average				7980	3000

Remarks: *Measurements taken on whole units. The absorption and compressive strength tests were performed on half units.

Product Certification Letter

KEEP GOING. KEEP MOVING. KEEP WORKING.™

SPEC MIX®

May 14, 2013

Product Description: 80 lb. SPEC MIX® Portland Lime & Sand Mortar / Type N
3000 lb. Mix 204 N (PLN)
Item Number: 19008
SR20001
Manufacturing Plant: QUIKRETE® - St. Louis (Valley Park)

To: Whom It May Concern

This letter certifies that SPEC MIX Portland Lime & Sand Mortar / Type N as referenced above meets the requirements of ASTM C 1714 and the *property* specifications for an ASTM C 270, *Standard Specification for Mortar for Unit Masonry*, Type N Mortar. Please reference the Material Test Report for Item Number SR20001 for test results of the design.

The raw materials used in this product formulation meeting the standard specifications include: Type I/II Portland Cement meeting ASTM C 150, *Standard Specification for Portland Cement*, Hydrated Lime Type S meeting ASTM C 207, *Standard Specification for Hydrated Lime for Masonry Purposes,* and Mason Sand meeting ASTM C 144, *Standard Specification for Aggregate for Masonry Mortar.*

It is available as a standard gray, as well as in a variety of standard and custom colors. For custom colors, or versions with integral water repellent, the finished product item number will vary from the base design item number above depending upon the integral water repellent and / or specific pigment. These versions will also meet the specifications described above.

Mortar property characteristics including compressive strength are specified according to ASTM C 270 with laboratory testing. ASTM C 270 (property specification) is not for use to specify minimum compressive strengths to be achieved by field mixed mortars. Field mixed mortar may be tested according to ASTM C 780 to evaluate mortar properties such as mortar water content or consistency. As defined in ASTM C 1586, compressive strength values determined through ASTM C 780 in the field are **not expected nor required** to achieve the compressive strengths of laboratory tested ASTM C 270 specification mortars.

We are pleased to be of service to you. If you have any questions, please let us know.

Wendy Henry
Quality Assurance Manager

WMH: JKS

THE QUIKRETE® COMPANIES Inc.
Technical and Engineering Center
500 Marathon Parkway
Lawrenceville, GA 30046
770.216.9580 • www.quikrete.com
651.994.7120 • www.specmix.com

Material Test Report

SPEC MIX

Item # and Product Description: SR20001, Mix 204 N (PLN)

Manufacturing Plant: QUIKRETE® - St. Louis (Valley Park)

Sample Identification

Test Date:	12/26/2013
Lab Code:	PR-5431-2

Initial Testing

Test	Specification	Results
Water (%)	As required	18.9
Consistency	105 - 115 @ 25d	107
Unit Weight	Measure	128.6
Set Time		
Air (%)		

Strength Testing

Test	Compressive Strength (psi)		Flexural Strength (psi)	
Age	**Specification**	**Result**	**Specification**	**Result**
1 day				
3 day				
7 day	Measure	1940		
28 day	750	2370		

Other Testing

Test	Specification	Test Results
Water Retention	>= 75%	93.5

Certified by:

Wendy Henry

Wendy Henry
Quality Assurance Manager

THE QUIKRETE® COMPANIES Inc.
Technical and Engineering Center
500 Marathon Parkway
Lawrenceville, GA 30046
770.216.9580 • www.quikrete.com
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Holcim

Material Certification Report

Material:	Portland Cement	Test Period:	01-May-2014
Type:	I-II	To:	31-May-2014

Certification

This Holcim cement meets the specifications of ASTM C150 for Type I-II cement, and complies with AASHTO M85 specifications for Type I-II cement.

General Information

Supplier:	Holcim (US) Inc.	Source Location:	Ste. Genevieve Plant
Address:	2942 US Highway 61 Bloomsdale, MO 63627		2942 US Highway 61 Bloomsdale, MO 63627
Telephone:	636-524-8155	Contact:	Erin Watson
Date Issued:	16-Jun-2014		

The following information is based on average test data during the test period.
The data is typical of cement shipped by Holcim; individual shipments may vary.

Tests Data on ASTM Standard Requirements

Chemical			Physical		
Item	Limit[A]	Result	Item	Limit[A]	Result
SiO_2 (%)	-	19.7	Air Content (%)	12 max	7
Al_2O_3 (%)	6.0 max	4.5	Blaine Fineness (m^2/kg)	260 min	380
Fe_2O_3 (%)	6.0 max	3.2			
CaO (%)	-	64.3			
MgO (%)	6.0 max	2.5	Autoclave Expansion (%) (C151)	0.80 max	0.06
SO_3 (%)	3.0 max[B]	3.5	Compressive Strength MPa (psi)		
Loss on Ignition (%)	3.0 max	2.6			
Insoluble Residue (%)	0.75 max	0.36	3 days	12.0 (1740) min	29.9 (4340)
CO_2 (%)	-	1.3	7 days	19.0 (2760) min	36.7 (5320)
Limestone (%)	5.0 max	3.3			
$CaCO_3$ in Limestone (%)	70 min	89	Initial Vical (minutes)	45-375	83
Inorganic Processing Addition (%)	5.0 max	0.0			
Potential Phase Compositions[C]			Mortar Bar Expansion (%) (C1038)	-	0.012
C_3S (%)	-	62			
C_2S (%)	-	7			
C_3A (%)	8 max	6			
C_4AF (%)	-	9			
$C_3S + 4.75C_3A$ (%)	-	91.5			

Tests Data on ASTM Optional Requirements

Chemical			Physical		
Item	Limit[A]	Result	Item	Limit[A]	Result
Equivalent Alkalies (%)	0.60 max	0.53	False Set (%)	50 min	77

Notes

[A] Dashes in the limit / result columns mean Not Applicable.

[B] It is permissible to exceed the specification limit provided that ASTM C1038 Mortar Bar Expansion does not exceed 0.020 % at 14 days.

[C] Adjusted per Annex A1.6 of ASTM C150 and AASHTO M85.

[D] Test result represents most recent value and is provided for information only. Analysis of Heat of Hydration has been carried out by CTLGroup, Skokie IL.
Equavalent Alkalies (%) Minimum = 0.51, Maximum = 0.55
This data may have been reported on previous mill certificates.

Additional Data

Inorganic Processing Addition Data		Base Cement Phase Composition	
Item	Result[A]	Item	Result
Type	-	C_3S (%)	64
Amount (%)	-	C_2S (%)	7
SiO_2 (%)	-	C_3A (%)	6
Al_2O_3 (%)	-	C_4AF (%)	10
Fe_2O3 (%)	-		
CaO (%)	-		
SO_3 (%)	-		

By , Quality Manager

WesternLime
P.O. BOX 57, WEST BEND, WI 53095

DATE: 10-17-12

LOT: 101712

CERTIFICATE OF ANALYSIS
Dolomitic Type S Masons Lime

CaO	44.98%
MgO	28.02%

PASSING 30 MESH	99.49%
100 MESH	97.97%
200 MESH	96.21%
FREE MOISTURE	25
PLASTICITY	536.96

SOLOMON COLORS, INC.

BRICKFORM

Legacy DECORATIVE CONCRETE SYSTEMS

www.solomoncolors.com

IRON OXIDE PIGMENTS FOR THE CONSTRUCTION INDUSTRY

CONCRETE COLORS • MORTAR COLORS • COLOR ADMIXTURES • DISPENSING EQUIPMENT • READY MIX COLORS • DECORATIVE CONCRETE SYSTEMS

February 29, 2012

To Whom it may Concern:

This letter is to certify that all Iron Oxide, Chromium Oxide, Cobalt Mixed Metal Oxides and Titanium Dioxide Pigments supplied by Solomon Pigments comply with all requirements set forth by ASTM C979-10.

Please do not hesitate to contact me for further assistance.

Best regards,

John C Ciente
Technical Sales Manager
Solomon Colors

647.224.4461
jciente@solomoncolors.com

CANNONDESIGN

SUBMITTAL IDENTIFICATION SHEET

To be completed by Contractor/CM

WEBSTER UNIVERSITY ISB
PROJECT NAME

8274 BIG BEND BLVD
ADDRESS

NUMBER

WEBSTER UNIVERSITY
OWNER

CANNON DESIGN
ARCHITECT / ENGINEER

Joe Voypick
SUBMITTED BY

044300-007
CONTRACTOR / CM SUBMITTAL NO.

CANNON DESIGN SUBMITTAL NO.

DRAWING / DETAIL REFERENCE

044300
SPECIFICATION SECTION / PARAGRAPH

Leonard Masonry
MANUFACTURER / SUPPLIER

ITEM / PRODUCT ID

REQUIRED DATE

PRIORITY

◯ CRITICAL

ITEM BEING SUBMITTED (check only one)

- ◉ Shop Drawings
- ◯ Samples (_____ copies)
- ◯ LEED Submittal
- ◯ Certification / Qualifications
- ◯ Record Documents
- ◯ Product Data
- ◯ Coordination Drawing
- ◯ Calculations
- ◯ Schedules
- ◯ O&M Manuals
- ◯ Other _____

ITEM BEING SUBMITTED FOR (check only one)

◉ Action ◯ Information Only ◯ Record

REMARKS OR DEVIATIONS

CONTRACTOR / CM CERTIFICATION
(SUBMITTALS NOT CERTIFIED WILL BE RETURNED WITHOUT REVIEW)

PARIC

PARIC CORPORATION
SUBMITTAL STAMP

THIS SHOP DRAWING HAS BEEN REVIEWED BY PARIC CORPORATION

Subcontractor remains responsible for dimensions, quantities, coordination with other trades and compliance with contract documents.

By:
Devin D. Gates

Joe Voypick
REVIEWED BY

6/13/16
DATE

To be completed by Reviewer

04 4300-007
CANNON DESIGN SUBMITTAL NUMBER

6/13/16
RECEIVED DATE

- ◯ A. No Exceptions Taken
  No further review of submittal is required.
- ◯ B. Make Corrections Noted
  Incorporate corrections in work; resubmission is not required.
- ◉ C. Revise and Resubmit
  Revise as noted, and resubmit for review.
- ◯ D. Rejected
  Submittal is not in compliance with Contract Documents; provide new submittal.
- ◯ E. For Record / Information Only
  Submittal was reviewed for Record / Information purposes only.
- ◯ F. Not Required for Review
  Submittal is not required by Contract Documents and has not been reviewed.

Review is for conformance with the design concept of this project and for general compliance with contract documents. Contractor is responsible for quantities, dimensions and compliance with contract documents and for information that pertains to fabrication processes, construction techniques and coordination of this work with all trades which will be affected thereby. This review is null and void if submittal deviates from contract documents and does not indicate or note deviations.

A/E COMMENTS ◯ See attached sheet(s) for additional comments

1. Please flag correct item submitted and reference correct specification number 04 20 00.
2. Please carefully review specification section 04 20 00 and submit manufacturer's product documentation, samples, certifications and accessories as one package.

REVIEWED BY

6/15/16
DATE

77 Westport Plaza
Suite 250
St. Louis, MO 63146

TRANSMITTAL

No. 15051-0081

Paric Corporation

PROJECT: 15051-Webster University Interdisciplinary Science Building

DATE: 06/13/2016

TO: Cannon Design
1100 Clark Ave
St Louis MO 63102

RE: Masonry product data

ATTN: Kelvin Patel

JOB: 15051

WE ARE SENDING:	SUBMITTED FOR:	ACTION TAKEN:
☑ Shop Drawings	☑ Approval	☑ Approved as Submitted
☐ Letter	☐ Your Use	☐ Approved as Noted
☐ Prints	☐ As Requested	☐ Returned After Loan
☐ Change Order	☐ Review and Comment	☐ Resubmit
☐ Plans		☐ Submit
☐ Samples	**SENT VIA:**	☐ Returned
☐ Specifications	☐ Attached	☐ Returned for Corrections
☐ Other:	☐ Separate Cover Via:	☐ Due Date:

Item	*Package*	*Code*	*Rev.*	*Copies*	*Date*	*Description*	*Status*
Submittal		044300-007	1		06/13/2016	Masonry product data	Submitted

NOTES:

CC: Paric Corporation, Kathy Bathe

Project Coordinator: Paric Corporation, Kathy Bathe

Signed: _____
Devin Gates