

Giles Engineering Associates, Inc.

GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS
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Report of Tests on Concrete Masonry Units

CLIENT: County Materials Corp.-Corporate Office
205 North Street / P.O. Box 100
Marathon, Wisconsin

PROJECT: WCMA Certification 2007

DATE: February 8, 2007

PROJ. NO.: 1M-0611004

Nominal Size & Type: 12-inch Sound Cell - Lightweight Concrete Block, Two Cell
12 by 8 by 16

Lab No.: B-06198

Date Received: 10/12/2006

Units Manufactured by: County Materials, Corp. - Milwaukee

Date Made:

Units sampled by: client

Material: Expanded Clay or Shale

Sampled from: plant stock

Dimensional Analysis

Unit ID	Dimensions (in)			Area (in ²)		Volume (ft ³)	
	Width	Height	Length	Net	Gross	Net	Gross
198B	10.68	7.65	15.55	86.21	165.94	0.3814	0.73
198E	10.68	7.61	15.52	86.24	165.62	0.3798	0.73
198F	10.72	7.60	15.53	86.60	166.48	0.3806	0.73
Average	10.69	7.62	15.53	86.35	166.02	0.3806	0.73

Minimum Average Face Shell Thickness (in): 1.50

Equivalent Thickness (in): 5.6

Minimum Average Web Thickness (in): 1.23

Equivalent Web Thickness (in): 2.9

Average Cell Space (%): 47.98

Absorption Analysis

Unit ID	Block Weights (lbs)				Absorption pcf	Absorption %	Moisture Content (%)	Density (pcf)
	Received	Immersed	Wet (24hr)	Oven Dry				
198B	41.80	20.65	44.45	40.00	11.7	11.1	40.4	104.9
198E	41.35	20.50	44.20	39.80	11.6	11.1	35.2	104.8
198F	41.40	20.50	44.25	39.95	11.3	10.8	33.7	105.0
Average	41.52	20.55	44.30	39.92	11.5	11.0	36.5	104.9

**Absorption Specifications
(Maximum Limits)**

Individual	
Average	18

Compressive Strength Analysis

Unit ID	Test Date	Test Age (days)	Maximum Load (lbs)	Net Area (sq in)	Compressive Strength (psi)	Fracture Type	Remark
198A	11/15/2006		276695	86.21	3210		
198C	11/15/2006		277885	85.70	3240		
198D	11/15/2006		279075	86.60	3220		
Average			277885	86.17	3223		

**ASTM Specified Minimum
Compressive Strength**

Individual	1700
Average	1900

Test Method Used: ASTM C 140

Specification Used: ASTM C 90

Comment: Units meet or exceed specifications according to ASTM C 90 'Loadbearing Concrete Masonry Units' for dimensional tolerance, absorption, and compressive strength.

Reviewing Engineer: Charles S. Gresser, P.E.