

**City of Newburyport Planning Board**  
**Application for a DOD SPECIAL PERMIT**

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Petitioner: Bert Baldarelli/Wilson Holdings LLC.  
Address: 124 High St. Newburyport, MA 01950  
Phone: (774) 276-5008  
Email: bbaldarelli@wilsonlanguage.com  
Owner: Wilson Holdings LLC.  
Address: 47 Old Webster Rd.; Oxford, MA 01540  
Phone: (508) 368-6627

Site Address: 124 High St.; Newburyport, MA 01950

Assessor's Map and Lot(s): 013-023A thru 013-023G Zoning District: DOD/R3

Book and Page #: 26764/0365, 2674/0361, 22735/0361, 22735/0364  
27964/0028, 26500/0460 or Certificate of Title: \_\_\_\_\_

The applicant is requesting a Special Permit under Section XXVII – Downtown Overlay District (DOD) for the following request:

To replace existing exterior brick steps with new brick, granite treads, and granite landing.

The following information was submitted to the Newburyport Historical Commission at least 21 days prior to submission to the Planning Board:

- A copy of the District Data Sheet or the MHC survey form for the subject property that was prepared in connection with the Newburyport Historic District: <http://www.cityofnewburyport.com/historical-commission/pages/historic-property-surveys>
- Copies of historic (if any) and current photographs of the relevant elevations, exterior architectural features, and structural members.
- Architectural plans, elevations, or renderings depicting the proposed new construction, demolition, or alteration.
- Photos of adjacent structures or setting.

Petitioner and Landowner signature(s):

Signature



Print or type above name(s) here Bert M. Baldarelli

CITY OF NEWBURYPORT, MA  
ZONING REVIEW (BUILDING PERMIT DENIAL)

APR# 2018-053

Name: Bert Balderelli/Wilson Holding Company LLC

Address: 124 High Street Zoning District(s): DOD/R3

Request: Replace existing brick entry stair with new brick stair with granite treads and landing in same location and of same dimensions as existing.

ZONING BOARD REVIEW REQUIRED

Variance

- Use Regulations (V)
- Dimensional Controls (VI)
  - \_\_\_ Lot Area      \_\_\_ Open Space      \_\_\_ Front Yard
  - \_\_\_ Lot Frontage      \_\_\_ Height      \_\_\_ Side Yard
  - \_\_\_ Lot Coverage      \_\_\_ Lot Width      \_\_\_ Rear Yard

Parking (VII)

Sign Variance

- Signs (VIII)
  - \_\_\_ Type      \_\_\_ Size
  - \_\_\_ Lighting      \_\_\_ Location

Special Permit for Non-Conformities

- Extension or Alteration (IX.B.2)
  - \_\_\_ Parking      \_\_\_ Rear Yard
  - \_\_\_ Upward Extension      \_\_\_ Lot Coverage
  - \_\_\_ Open Space      \_\_\_ Side Yard
  - \_\_\_ Height      \_\_\_ Lot Frontage
  - \_\_\_ Lot Area      \_\_\_ Front Yard
- Over 500 sf. increase (IX.B.3.c)
- Plum Island Overlay District (XXI-G-3)
  - \_\_\_ FAR      \_\_\_ Height
  - \_\_\_ Lot Coverage      \_\_\_ Setbacks
  - \_\_\_ Open Space

Special Permit

- Table of Use Regulations (V.D) #: \_\_\_\_\_
- Spacing (VI.D)
- In-Law Apartment (XIIA)
- Bonus for Multifamily Developments (XVI)
- Personal Wireless Communication Services (XX)
- Demolition Control Overlay District (XXVIII)\*
- Wind Energy Conversion Facilities (XXVI)
- Other \_\_\_\_\_

PLANNING BOARD REVIEW REQUIRED

Special Permit

- Table of Use Regulations (V-D) # \_\_\_\_\_
- One residential structure per lot (VI.C)
- Open Space Residential Development (XIV)
- Water Resource Protection District (XIX)
- Federal Street Overlay District (XXII)
- Courts and Lanes (XXIII)
- Waterfront West Overlay District (XXIV)
- Towle Complex Redev. Overlay District (XXV)
- Downtown Overlay District (XXVII)\*
- Other \_\_\_\_\_

Special Permit for Non-Conformities

- Extension or Alteration (IX.B.2)
  - \_\_\_ Parking      \_\_\_ Rear Yard
  - \_\_\_ Upward Extension      \_\_\_ Lot Coverage
  - \_\_\_ Open Space      \_\_\_ Side Yard
  - \_\_\_ Height      \_\_\_ Lot Frontage
  - \_\_\_ Lot Area      \_\_\_ Front Yard
- Over 500 sf. increase (IX.B.3.c)

Site Plan Review (XV)

- Major       Minor

Smart Growth District (XXIX)

- Plan Approval

HISTORICAL COMMISSION REVIEW REQUIRED

- Demo. Delay       \*Advisory Review

CONSERVATION COMMISSION REVIEW REQUIRED

CITY COUNCIL REVIEW REQUIRED (X.H.9)

*Joseph Balderelli* 7/19/18  
 \_\_\_\_\_  
 Newburyport Zoning Administrator      Date

CURRENT OWNER		TOPO.	UTILITIES	STRT./ROAD	LOCATION	CURRENT ASSESSMENT	
WILSON HOLDINGS LLC	47 OLD WEBSTER RD					Code	Appraised Value
OXFORD, MA 01540 Additional Owners:						1021	435,100
Other ID: 13-23-A/G		SUPPLEMENTAL DATA					
SUB-DIV CONDO CV; FY04		INLAW Y/N:					
PHOTO LOT SPLIT:		40B HSNB:					
WARD		ASSOC PID#					
TITLE #:		251326 950996					
ATT 1/2 HSE:							
GIS ID: M_251326 950996							

RECORD OF OWNERSHIP		BK-VOL/PAGE	SALE DATE	q/u	v/i	SALE PRICE	V.C.
WILSON HOLDINGS LLC	26500/0460	01/23/2007	Q	I	400,000	00	
DICKIE LESLEY A	222318/0032	01/23/2004	Q	I	392,000	00	
INGALLS YVONNE L TRUSTEE	18828/0281	06/18/2002	U	I	IP		

EXEMPTIONS		Amount	Code	Description	Number	Amount	Comm. Int.
Total:		435,100				435,100	

**OTHER ASSESSMENTS**

ASSESSING NEIGHBORHOOD		Year	Type	Description	Code	Amount	Comm. Int.
Total:		2018			1021	416,700	

NOTES		Year	Type	Description	Code	Amount	Comm. Int.
UNIT-RESIDENTIAL TWO							
CONVERTED FY03							
ELEVATOR IN BUILDING							
Total:		2018			1021	416,700	

BUILDING PERMIT RECORD		Permit ID	Issue Date	Type	Description	Amount	Insp. Date	% Comp.	Date Comp.	Comments	Date	Type	IS	ID	Cd.	Purpose/Result
Total:											01/04/2007	MM	02	MM	02	Measur+2 Visits

LAND LINE VALUATION SECTION		Zone	D	Front	Depth	Units	Unit Price	Acres	I. Factor	S.A. Disc.	C. Factor	ST. Idx	Adj.	Notes-Adj	Special Pricing	S Adj	Fact Adj.	Unit Price	Land Value
1	1021 CONDO	R3				0 SF	0.01	1.0000	0	1.0000	1.00		0.00			.00		0.01	0

TOTAL CARD LAND UNITS:		0.00	AC	Parcel Total Land Area:	0	AC	Total Land Value:	0
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**APPRAISED VALUE SUMMARY**

Appraised Bldg. Value (Card)	417,400
Appraised XF (B) Value (Bldg)	17,700
Appraised OB (L) Value (Bldg)	0
Appraised Land Value (Bldg)	0
Special Land Value	0
Total Appraised Parcel Value	435,100
Valuation Method:	C
Adjustment:	0
Net Total Appraised Parcel Value	435,100

**VISIT/ CHANGE HISTORY**

Permit ID	Issue Date	Type	Description	Amount	Insp. Date	% Comp.	Date Comp.	Comments
					01/04/2007			

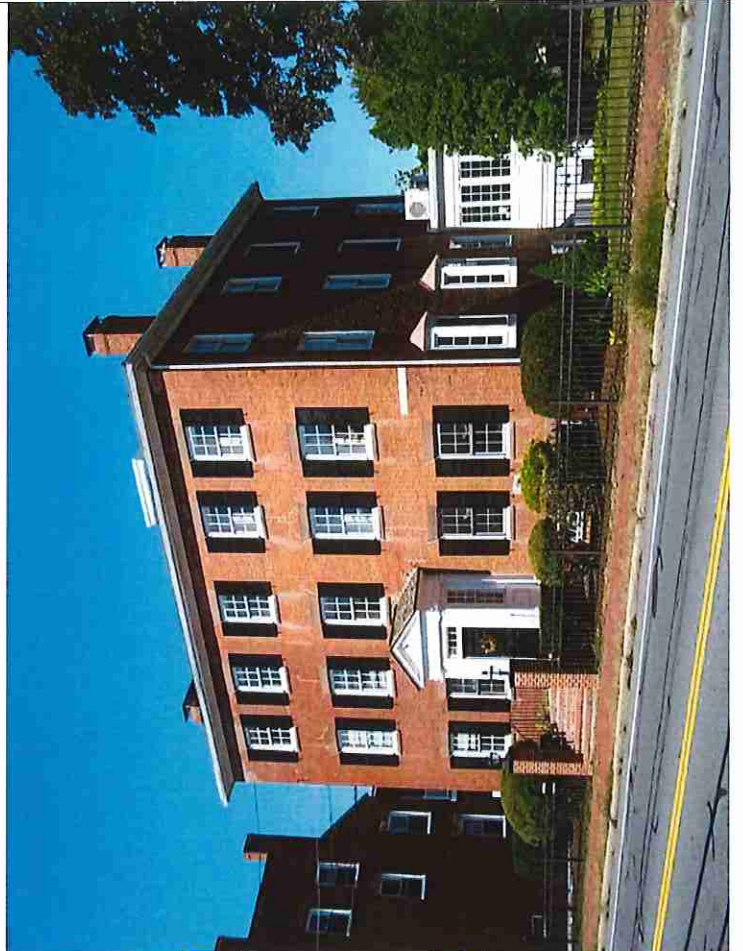
**LAND LINE VALUATION SECTION**

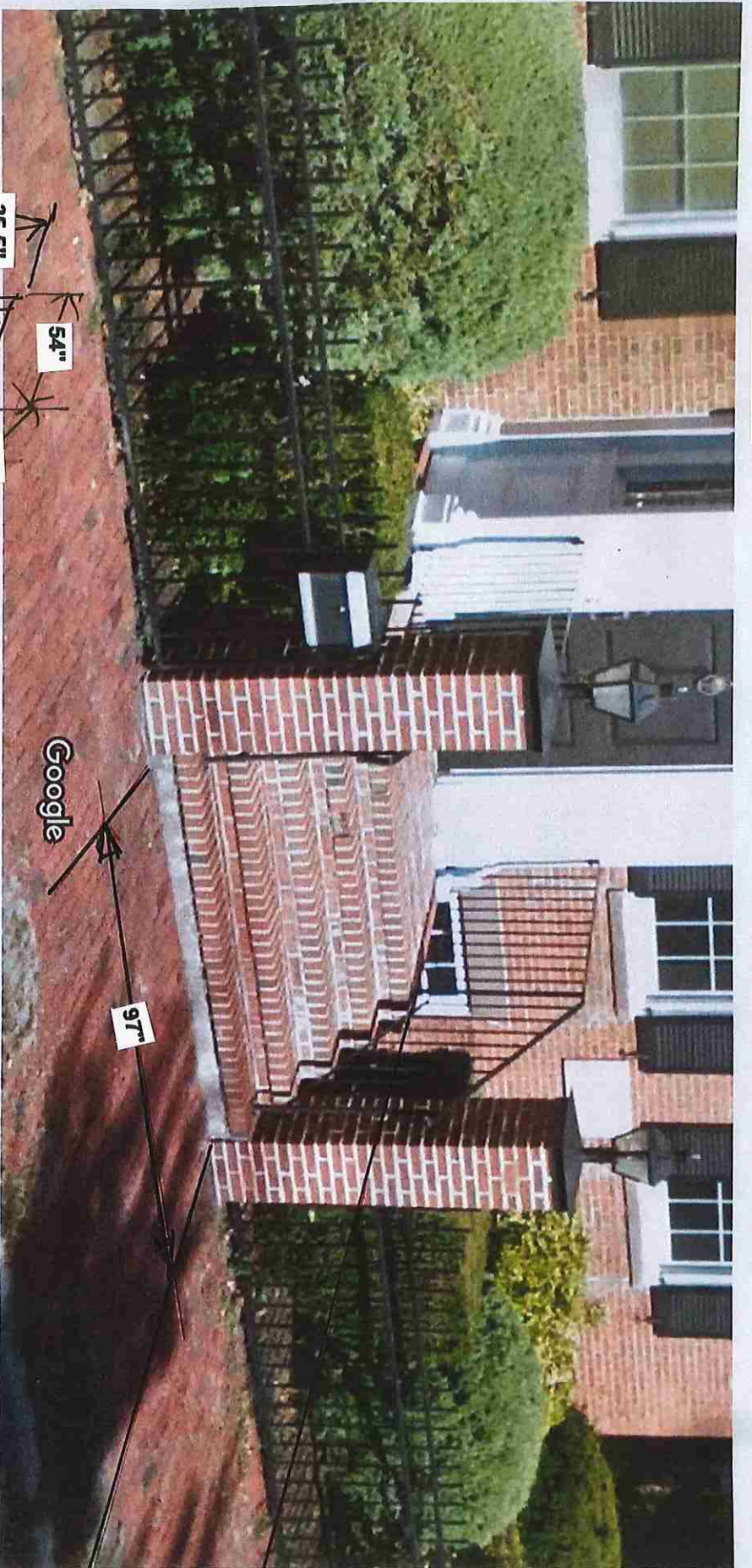
B	Use Code	Use Description	Zone	D	Front	Depth	Units	Unit Price	Acres	I. Factor	S.A. Disc.	C. Factor	ST. Idx	Adj.	Notes-Adj	Special Pricing	S Adj	Fact Adj.	Unit Price	Land Value
1	1021	CONDO	R3				0 SF	0.01	1.0000	0	1.0000	1.00		0.00			.00		0.01	0

TOTAL CARD LAND UNITS:		0.00	AC	Parcel Total Land Area:	0	AC	Total Land Value:	0
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CONSTRUCTION DETAIL		CONSTRUCTION DETAIL (CONTINUED)								
Element	Cd.	Ch.	Description							
Style	55		Condominium							
Model	05		Res Condo							
Grade	07		Above Avg +10							
Stories	2		2 Stories							
Occupancy	1									
Interior Wall 1	05		Drywall/Sheet							
Interior Wall 2	14		Carpet							
Interior Floor 1	03		Gas							
Interior Floor 2	05		Hot Water							
Heat Fuel	03		Central							
Heat Type	02		2 Bedrooms							
AC Type	1		1 Full							
Ttl Bedrooms	5		5 Rooms							
Ttl Bathrms	02		Average							
Ttl Half Bths	02		Average							
Xtra Fixtres										
Total Rooms										
Bath Style										
Kitchen Style										
<b>CONDO DATA</b>										
Cmplx Acct# 102913		ID 3380	% Own 32.6							
Cmplx Name 124 High		B# 1	S# 1							
Adjust Type	Code	Description	Factor %							
Unit Type	01	complex adj	108							
Unit Loen										
<b>COST/MARKET VALUATION</b>										
Adj. Base Rate: 352.87										
Replace Cost 458,727										
AYB 2001										
EYB 2008										
Dep Code A										
Remodel Rating 9										
Year Remodeled 0										
Dep % 0										
Functional Obslnc 0										
External Obslnc 0										
Cost Trend Factor 1										
Condition 1										
% Complete 91										
Overall % Cond 417,400										
Apprais Val 0										
Dep % Ovr 0										
Dep Ovr Comment 0										
Misc Imp Ovr 0										
Misc Imp Ovr Comment 0										
Cost to Cure Ovr 0										
Cost to Cure Ovr Comment 0										
<b>OB-OUTBUILDING &amp; YARD ITEMS(L) / XF-BUILDING EXTRA FEATURES(B)</b>										
Code	Description	Sub	Units	Unit Price	Yr	Gde	Dp Rt	Cnd	%Cnd	Apr Value
FPL3	FIREPLACE 2	B	1	4,400.00	2008	1		1	100	4,000
ELV1	ELEVATOR R	B	1	15,000.00	2008	1		1	100	13,700
<b>BUILDING SUB-AREA SUMMARY SECTION</b>										
Code	Description	Living Area	Gross Area	Eff. Area	Unit Cost	Undeprc. Value				
BAS	First Floor	640	640	640	352.87	225,835				
FUS	Upper Story, Finished Deck, Wood	646	646	646	352.87	227,952				
WDK		0	140	14	35.29	4,940				
TH Gross Liv/Lense Area:		1,286	1,426	1,300		458,727				

BAS[640]  
 FUS[646]  
 WDK[140]





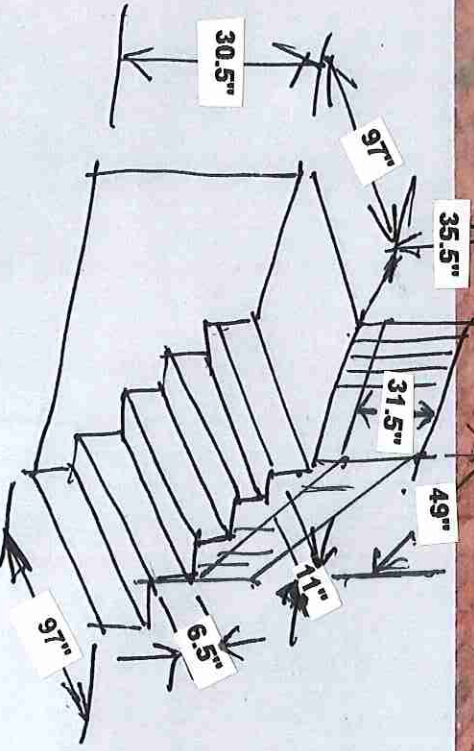
Google

Image capture: Oct 2017 © 2018 Google

Newburyport, Massachusetts

Google, Inc.

Street View - Oct 2017



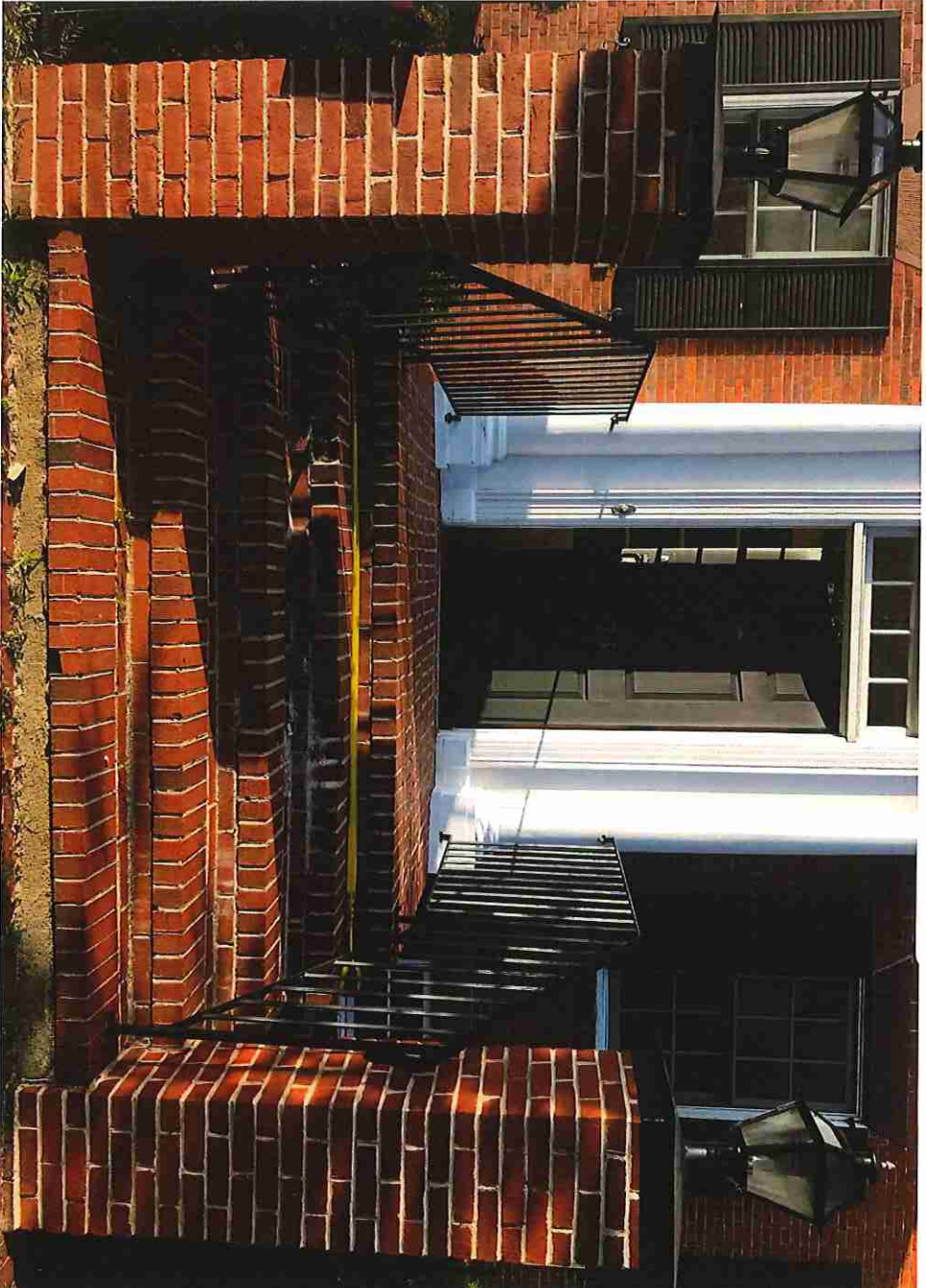
# District Data Sheet

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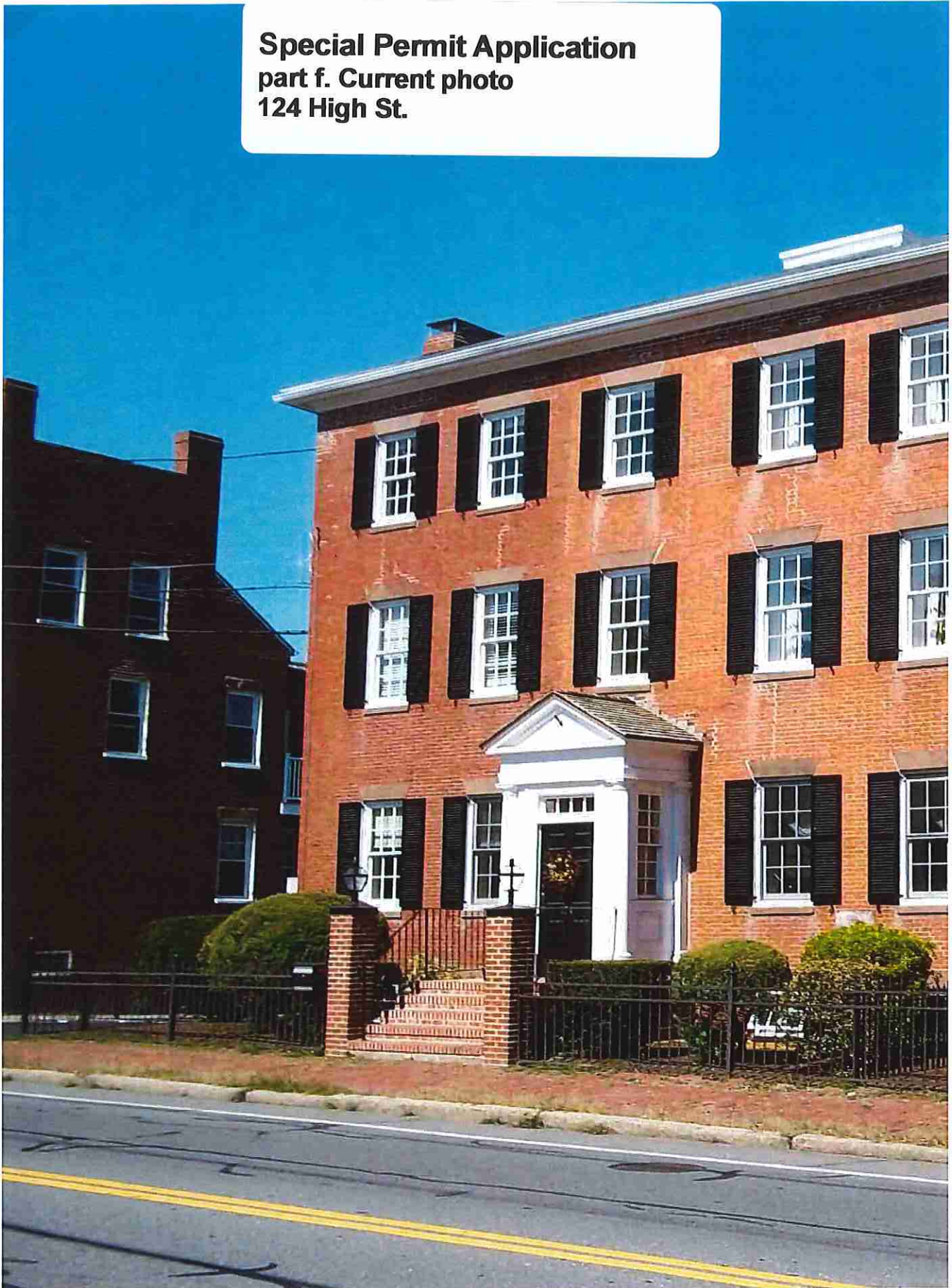
		House & Carriage			
70	18-3		Ca 1900	Queen Anne/Colonial Revival	C
72	18-2		Ca 1870	Italianate	C
74	18-1		Ca 1895	Queen Anne	C
76	18-80		Ca 1895	Queen Anne	C
78	15-17	Davenport-Greeley House & Carriage House	1808	Federalist	C
80	15-16		Ca 1870	Italianate; Second Empire/House & Carriage House	C
82	15-15		Ca 1870	Italianate	C
84-86	15-14		Ca 1875	Italianate/Victorian Gothic	C
88	15-3	William Hervey House	Ca 1865	Second Empire	C
90	15-2		Ca 1800	Federalist	C
96	15-1	Nelson-Wheelwright House	1801	Federalist	C
98	14-52	Cushing House	1808	Federalist	C
100	14-51		Ca 1900	Queen Anne	C
102	14-50	Tenny-Noyes Double House	1807	Federalist	C
104	14-49	Tenny-Noyes Double House	1807	Federalist	C
106-108	14-48		Ca 1850	Greek Revival	C
110	14-47	Pope-Moseley House	Ca 1855; 1895	Early Victorian; Colonial Revival	C
112	14-46	Pope-Moseley House	Ca 1855; 1895	Early Victorian; Colonial Revival	C
114	13-26	John Buntin House	Ca 1870	Italianate/Second Empire	C
116-118	13-25	Charles Coffin Row House	Ca 1845-1850	Greek Revival	C
120-122	13-24	Charles Coffin Row House	Ca 1845-1850	Greek Revival	C
124	13-23	Sewall Place	Ca 1814; ca 1890	Federalist; Federalist Revival	C
126	13-22		Ca 1845	Greek Revival/Double House	C
128	13-21		Ca 1845	Greek Revival/Double House	C
130	13-20		Ca 1845	Sidehall Greek Revival	C
132	13-19		Ca 1855; ca 1895	Italianate; Queen Anne	C
134-136	13-18		Ca 1845; 1910	Astylistic	C
138-140	13-17		Ca 1845; 1920	Astylistic	MC
140	46-1	Convent-Church of the Immac. Conception	Ca 1940	Colonial Revival	INT
146	46-6	Richard Brown House	1842	Greek Revival	C
148	46-7	Adams-Toppan House	1808	Federalist	C
152	46-43		Ca 1870	Italianate	C



**Special Permit Application**  
**part f. Current photo**  
**124 High St.**

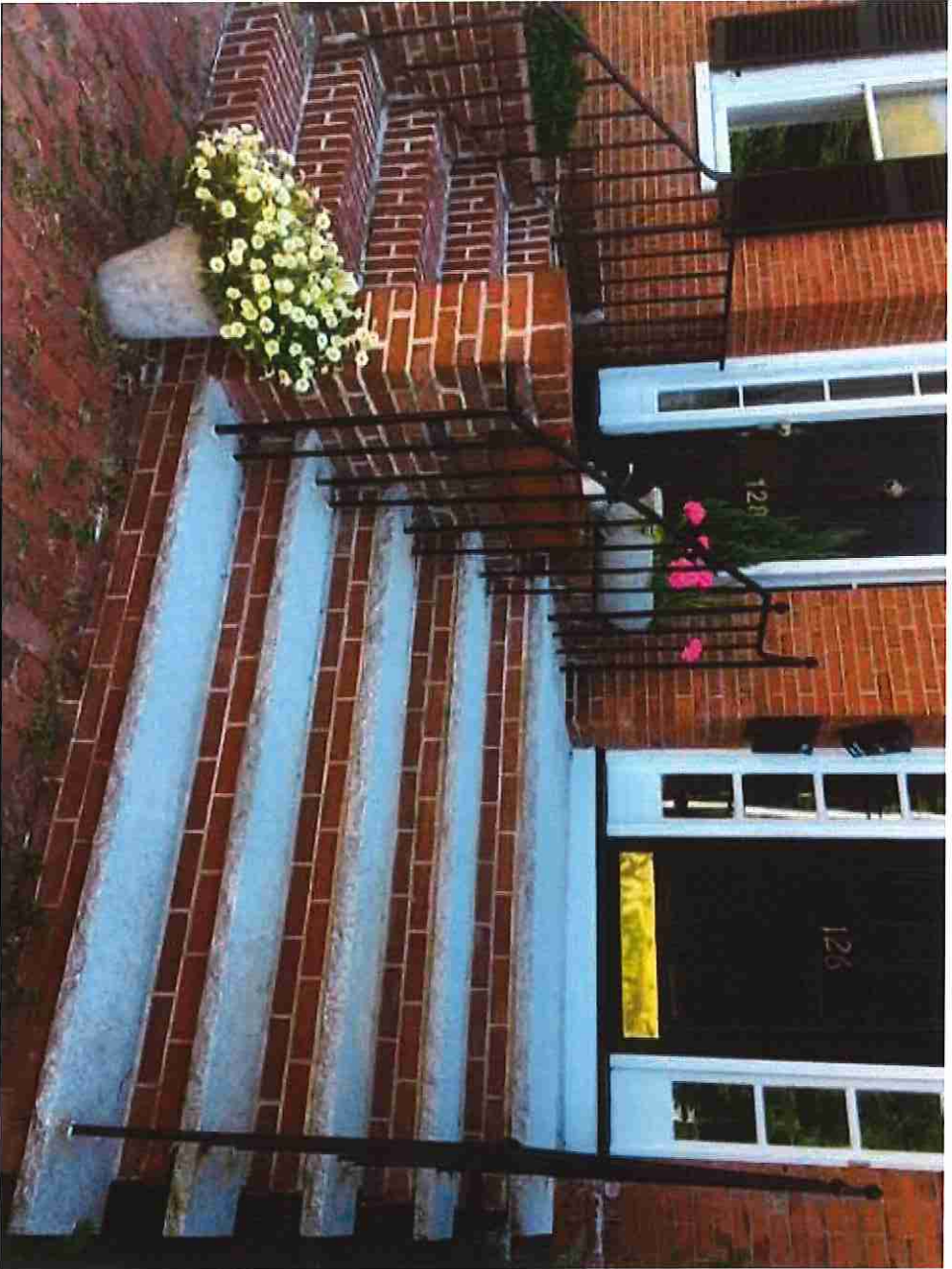


**Special Permit Application  
part f. Current photo  
124 High St.**





**Special Permit Application  
part g. Adjacent Structures  
126 High St.**



DOD Special Permit Application  
Section h – Supplemental Information

Granite Specifications  
Used for Stair Treads and Landing

ROCK OF AGES  
P.O. Box 482  
Barre, Vermont 05641-0482  
Tel.: 802-476-3115



**GRANITE PRODUCTS**

Quarry Blocks  
Granite Memorials  
Industrial Granites  
Architectural Granites

# MATERIAL SAFETY DATA SHEET

Granite products as shipped present no fire, explosion, inhalation, ingestion or contact health hazard under normal conditions of use, storage or transportation. Subsequent finishing operations, such as sawing, drilling, grinding, polishing, thermaling, abrasive blasting, etc. which generate granite dusts, may present health hazards.

### HAZARDOUS INGREDIENTS\* (components % by volume)

Granite Color	Quartz-Silica 14808-60-7	mica, feldspar, etc. (nuisance dust, no CAS number)
Grays	15 - 35	65 - 85
Blacks	0 - 15	85 - 100
Pinks/Reds	25 - 55	45 - 75
Whites	25 - 45	55 - 75

### PEL (OSHA) / TLV (ACGIH)

	<u>30 mg/m<sup>3</sup></u>	15 mg/m <sup>3</sup> (PEL)
total dust	% qrtz + 3	10 mg/m <sup>3</sup> (TLV)
	<u>10 mg/m<sup>3</sup></u>	
respirable dust	% resp. qrtz + 2	5 mg/m <sup>3</sup>

(note: use PEL/TLV for nuisance dust only if airborne sample contains less than 1% quartz)

### PHYSICAL/CHEMICAL CHARACTERISTICS\*

boiling point: n/a  
vapor pressure: n/a  
vapor density: n/a  
solubility in water: negligible  
appearance & odor: hard, solid naturally occurring rock. Fine to medium grain, uniform colors (gray, pinks, reds, whites or blacks) - no odor  
specific gravity (H<sub>2</sub>O=1): 2.58 to 2.98  
melting point: n/a  
evaporation rate: n/a

### FIRE AND EXPLOSION HAZARD DATA\*

flash point: n/a flammable limits: n/a extinguishing media: n/a  
special fire fighting procedure: n/a unusual fire & exploding hazards: n/a

### REACTIVITY DATA\*

stable/conditions to avoid: none known  
incompatibility, materials to avoid: none known  
hazardous polymerization will not occur/conditions to avoid: none known

target organ: lungs  
routes of entry - **inhalation:** yes **skin:** n/a **ingestion:** not recommended  
**health hazards - acute:** difficulty breathing, respiratory irritation with massive exposure  
**chronic:** pneumoconosis, fibrosis, silicosis, reduced lung function and lung capacity  
**carcinogenicity:** IARC classifies as a carcinogen  
**signs and symptoms of exposure:** cough, wheezing, shortness of breath, difficulty breathing, reduced pulmonary function, abnormal chest x-ray with heavy exposure  
**medical conditions generally aggravated by exposure:** respiratory conditions such as bronchitis, asthma, etc. may be aggravated by exposure to dusts  
**emergency and first aid procedures:** n/a

PRECAUTIONS FOR SAFE HANDLING AND USE\*

**steps to be taken in case material is released or spilled:** Take steps to control dust, keep wet, dusts and small chips may be swept. Wear gloves when handling rough granite to avoid cuts and abrasions.  
**waste disposal method:** not classified by EPA as a hazardous waste. Transport large pieces and chips to approved solid waste landfill in accordance with Federal, State and Local regulations. Granite dusts and sludge may be contaminated by materials used in finishing/processing, dispose of in accordance with Federal, State and Local regulations.  
**environmental fate:** inert, stable **environmental persistence:** indefinite **precautions to be taken in handling and storage:** none known  
**other precautions:** none known

CONTROL MEASURES\*

**engineering controls:** wet processing, local ventilation, general ventilation as required to control dust exposure.  
**respiratory protection:** NIOSH/MSHA approved respirators until engineering controls are instituted.  
**protective gloves:** optional only to protect against mechanical injury.  
**eye protection:** as needed to protect against mechanical injury from dust and flying objects  
**other protective clothing or equipment:** none required  
**work/hygenic practices:** normal hygenic practices, wash hands before eating, keep work clothes clean to prevent dust build-up.

\*refer to Material Safety Data Sheets and applicable OSHA, MSHA, EPA and other Federal, State and Local regulations related to specific hazardous Ingredients, Physical/Chemical Characteristics, Fire and Explosion Hazards, Reactivity, Health Hazards, Precautions for Safe Use and Handling, and Control Measures for your specific finishing operations, materials and equipment.

DISCLAIMER: This MSDS is intended for use solely in safety and environmental health education and not for specification purposes. The information in this MSDS was obtained from usually reliable sources and is provided without any representation or warranty, express or implied regarding the accuracy and correctness. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. Rock of Ages assumes no responsibility and expressly disclaims liability or loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.

ASTM 880

CLIENT: NEW ENGLAND STONE INDUSTRIES, INC.

PROJECT: WOODBURY GRANITE - TEST SAMPLES

SUBJECT: PHYSICAL TESTING

PAGE 4

SAMPLE DATA &amp; TEST RESULTS: FLEXURAL STRENGTH (ASTM C880)

## LOADING PARALLEL TO THE RIFT

SAMPLE CODE	WGT (LBS) AS REC.	LGTH (IN)	WDTH (IN)	DEPTH (IN)	TOP SPAN (IN)	BTM. SPAN (IN)	TEST CONDITION	TOTAL LOAD (LBS)	FLEXURAL STRENGTH (PSI)
NES-FLEX-W1	1.78	12	1 7/16	1 1/16	5 5/16	10 5/8	WET	220	1080
NES-FLEX-W2	1.83	12	1 1/2	1 1/16	5 5/16	10 5/8	WET	235	1106
NES-FLEX-W3	1.85	12	1 1/2	1 1/16	5 5/16	10 5/8	WET	240	1129
NES-FLEX-W4	1.80	12	1 7/16	1 1/16	5 5/16	10 5/8	WET	240	1179
NES-FLEX-W5	1.78	12	1 7/16	1 1/16	5 5/16	10 5/8	WET	230	1129

AVERAGE:

1125 PSI

NES-FLEX-D1	1.81	12	1 1/2	1 1/16	5 5/16	10 5/8	DRY	240	1129
NES-FLEX-D2	1.82	12	1 1/2	1 1/16	5 5/16	10 5/8	DRY	250	1177
NES-FLEX-D3	1.82	12	1 1/2	1 1/16	5 5/16	10 5/8	DRY	250	1177
NES-FLEX-D4	1.76	12	1 7/16	1 1/16	5 5/16	10 5/8	DRY	275	1350
NES-FLEX-D5	1.77	12	1 1/2	1 1/16	5 5/16	10 5/8	DRY	275	1294

AVERAGE:

1225 PSI

## LOADING PERPENDICULAR TO THE RIFT

SAMPLE CODE	WGT (LBS) AS REC.	LGTH (IN)	WDTH (IN)	DEPTH (IN)	TOP SPAN (IN)	BTM. SPAN (IN)	TEST CONDITION	TOTAL LOAD (LBS)	FLEXURAL STRENGTH (PSI)
NES-FLEX-W6	1.84	12	1 1/2	1 1/16	5 5/16	10 5/8	WET	240	1129
NES-FLEX-W7	1.83	12	1 1/2	1 1/16	5 5/16	10 5/8	WET	260	1224
NES-FLEX-W8	1.80	12	1 1/2	1 1/16	5 5/16	10 5/8	WET	230	1082
NES-FLEX-W9	1.78	12	1 7/16	1 1/16	5 5/16	10 5/8	WET	230	1129
NES-FLEX-W10	1.76	12	1 7/16	1 1/16	5 5/16	10 5/8	WET	250	1228

AVERAGE:

1158 PSI

NES-FLEX-D6	1.78	12	1 1/2	1 1/16	5 5/16	10 5/8	DRY	300	1412
NES-FLEX-D7	1.83	12	1 1/2	1 1/16	5 5/16	10 5/8	DRY	280	1318
NES-FLEX-D8	1.83	12	1 1/2	1 1/16	5 5/16	10 5/8	DRY	280	1318
NES-FLEX-D9	1.86	12	1 1/2	1 1/16	5 5/16	10 5/8	DRY	290	1365
NES-FLEX-D10	1.83	12	1 1/2	1 1/16	5 5/16	10 5/8	DRY	310	1459

AVERAGE:

1374 PSI

REMARKS: All samples submitted were tested in the specific manner requested, in accordance with the A.S.T.M. Standard Designations.

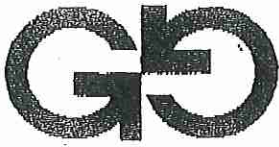
Certified Correct,

GEISSER ENGINEERING CORPORATION

Alan F. Card

AFC/rac

# ASTM 241



RECEIVED

MAR 22 1995

NEW ENGLAND  
STONE INDUSTRIES, INC.

Geisser Engineering Corporation  
Consulting Engineers

227 Wampanoag Trail  
P.O. Box 4480  
Riverside, R.I. 02915  
(401) 438-7711

Client New England Stone Industries, Inc.

Project Woodbury Granite - Test Samples

Subject Abrasion Resistance of Stone

Project No. L-851 P. O. No. 4114 Date March 20, 1995.

SAMPLE: Four (4) 2" x 2" x 1" granite stone specimens, cut and prepared in client's facility, Esmond, RI, quarry source reported as "Woodbury"; labeled AD-1 to AD-4;

SAMPLED AND DELIVERED BY: New England Stone Industries, Inc.

DATE RECEIVED: January 19, 1995

TESTING REQUESTED: Abrasion Resistance of Stone subjected to foot traffic as per A.S.T.M. Designation C241.

PREPARATION PERIOD: February 1995 (Procure No. 60 Abrasive Grit, and build new track apparatus for test)

TESTING PERIOD: March 1 - 15, 1995

TEST RESULTS:

SAMPLE CODE	ACT. SIZE L"xW"xD"	ORIGINAL WGT(gr.)	LOSS OF WGT gr. DURING GRINDING	BULK SPECIFIC GRAVITY	DENSITY (PCF)	RESIST. TO ABRASION
AD-1	2 x 2 x 1	180.39	1.38	2.662	166.11	21.02
AD-2	2 x 2 x 1	178.68	1.38	2.669	166.54	21.06
AD-3	2 x 2 x 1	180.43	1.39	2.663	166.17	20.88
AD-4	2 x 2 x 1	181.02	1.36	2.662	166.11	21.34
AVERAGE:				2.664	166.23	21.075

REMARKS: Samples tested were subjected to a power-driven grinding lap, 10 in. in diameter, using a No. 60 Alundum Abrasive Treatment and Superimposed Loads of 2000 gr. for the prescribed 225 revolutions, as A.S.T.M. Standard C241 designates.

Certified Correct,  
GEISSER ENGINEERING CORPORATION  
Alan F. Card

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**Pittsburgh  
Testing  
Laboratory**

*ASTM  
99*

# REPORT

ORDER NO PPS-305

REPORT NO 856533

DATE October 29, 1984

850 POPLAR STREET - PITTSBURGH, PA 15220  
(412) 922-4000 • TELEX. PTL PGM 866733

P.O. No. 21226

REPORT OF: Modulus of Rupture of Granite.

REPORT TO: Rock of Ages Corporation  
P.O. Box 482  
Barre, Vermont 05641

We received three (3) samples identified as Woodbury Granite for Modulus of Rupture test per ASTM C99-52.

The following are the test results:

(L) Span = 7"

Sample A

<u>Sample Number</u>	<u>Width Inches b</u>	<u>Depth Inches d</u>	<u>Maximum Load Pounds</u>	<u>Modulus of Rupture PSI</u>
1	4.01	2.24	3,020	1,575
2	3.98	2.25	3,250	1,695
3	3.99	2.21	2,900	<u>1,565</u>

AVERAGE: 1,610

$$S = 3WL/2bd^2$$

PITTSBURGH TESTING LABORATORY

Earl Gallagher, Manager  
Physical Testing Department

cc: 3-Client  
Attn: J. Parrott

jlg



ASTM 170

CLIENT: NEW ENGLAND STONE INDUSTRIES, INC.PROJECT: WOODBURY GRANITE - TEST SAMPLESSUBJECT: PHYSICAL TESTING

Page 2

SAMPLE DATA &amp; TEST RESULTS: COMPRESSIVE STRENGTH (ASTM C170)

LOADING PARALLEL TO THE RIFT

SAMPLE CODE	WGT (LBS) AS REC.	LGTH (IN)	WDTH (IN)	DPTH (IN)	AREA (IN) <sup>2</sup>	TEST CONDITION	TOTAL LOAD (LBS)	UNIT LOAD (PSI)
NES-COM-W1	0.79	2	2	2	4.000	WET	54000	13500
NES-COM-W2	0.75	1 15/16	2	2	3.875	WET	50000	12903
NES-COM-W3	0.78	2 1/16	2	2	4.125	WET	52000	12606
NES-COM-W4	0.77	2	1 15/16	1 15/16	3.875	WET	49000	12645
NES-COM-W5	0.76	2	2	2	4.000	WET	54000	13500
AVERAGE:								13031 PSI
NES-COM-D1	0.79	2 1/16	2	2	4.125	DRY	72500	17576
NES-COM-D2	0.77	2	1 15/16	2	3.875	DRY	63000	16258
NES-COM-D3	0.77	2	1 15/16	2	3.875	DRY	63000	16258
NES-COM-D4	0.80	2 1/16	2 1/16	2	4.254	DRY	73500	17278
NES-COM-D5	0.77	2	1 15/16	2	3.875	DRY	67000	17290
AVERAGE:								16932 PSI

LOADING PERPENDICULAR TO THE RIFT

SAMPLE CODE	WGT (LBS) AS REC.	LGTH (IN)	WDTH (IN)	DPTH (IN)	AREA (IN) <sup>2</sup>	TEST CONDITION	TOTAL LOAD (LBS)	UNIT LOAD (PSI)
NES-COM-W6	0.79	2	2 1/16	2 1/16	4.125	WET	51000	12364
NES-COM-W7	0.77	2	2 15/16	1 15/16	3.875	WET	49000	12645
NES-COM-W8	0.79	2 1/16	2	2	4.125	WET	48500	11758
NES-COM-W9	0.77	2 1/16	2	2	4.125	WET	53000	12848
NES-COM-W10	0.79	2 1/16	2	2	4.125	WET	49500	12000
AVERAGE:								12323 PSI
NES-COM-D6	0.78	2	2 1/16	2	4.125	DRY	79500	19875
NES-COM-D7	0.77	2	1 15/16	2	3.875	DRY	66500	17161
NES-COM-D8	0.78	2	2	2	4.125	DRY	68000	17000
NES-COM-D9	0.78	2	2	2	4.125	DRY	69500	17375
NES-COM-D10	0.79	2 1/16	2	2	4.125	DRY	79000	19152
AVERAGE:								18113 PSI

ASTM  
99

CLIENT: NEW ENGLAND STONE INDUSTRIES, INC.

PROJECT: WOODBURY GRANITE - TEST SAMPLES

SUBJECT: PHYSICAL TESTING

Page 3

SAMPLE DATA & TEST RESULTS: MODULUS OF RUPTURE (ASTM C99)

LOADING PARALLEL TO THE RIFT

<u>SAMPLE CODE</u>	<u>WGT (LBS) AS REC.</u>	<u>LGTH (IN)</u>	<u>WDTH (IN)</u>	<u>DPTH (IN)</u>	<u>SPAN (IN)</u>	<u>TEST CONDITION</u>	<u>TOTAL LOAD (LBS)</u>	<u>MODULUS OF RUPTURE (PSI)</u>
NES-MOR-W1	7.29	8	4	2 1/4	7	WET	1900	985
NES-MOR-W2	7.23	8	4	2 1/4	7	WET	2040	1058
NES-MOR-W3	7.30	8	4	2 1/4	7	WET	2320	1203
NES-MOR-W4	7.17	8	4	2 1/4	7	WET	1940	1006
NES-MOR-W5	7.25	8	4	2 1/4	7	WET	1900	985

AVERAGE:

1047 PSI

NES-MOR-D1	7.07	8	4	2 1/4	7	DRY	2600	1348
NES-MOR-D2	6.99	8	4	2 1/4	7	DRY	2550	1322
NES-MOR-D3	7.25	8	4	2 5/16	7	DRY	3050	1497
NES-MOR-D4	7.00	8	4	2 1/4	7	DRY	2650	1374
NES-MOR-D5	7.25	8	4	2 5/16	7	DRY	3000	1473

AVERAGE:

1403 PSI

LOADING PERPENDICULAR TO THE RIFT

<u>SAMPLE CODE</u>	<u>WGT (LBS) AS REC.</u>	<u>LGTH (IN)</u>	<u>WDTH (IN)</u>	<u>DPTH (IN)</u>	<u>SPAN (IN)</u>	<u>TEST CONDITION</u>	<u>TOTAL LOAD (LBS)</u>	<u>MODULUS OF RUPTURE (PSI)</u>
NES-MOR-W6	7.05	8	4	2 1/4	7	WET	2560	1327
NES-MOR-W7	7.09	8	4	2 1/4	7	WET	2600	1348
NES-MOR-W8	7.09	8	4	2 1/4	7	WET	2680	1390
NES-MOR-W9	7.09	8	4	2 1/4	7	WET	2600	1348
NES-MOR-W10	7.08	8	4	2 1/4	7	WET	2700	1400

AVERAGE:

1363 PSI

NES-MOR-D6	7.01	8	4	2 1/4	7	DRY	3200	1659
NES-MOR-D7	7.05	8	4	2 1/4	7	DRY	3250	1685
NES-MOR-D8	7.09	8	4	2 1/4	7	DRY	3650	1893
NES-MOR-D9	7.08	8	4	2 1/4	7	DRY	3700	1919
NES-MOR-D10	7.05	8	4	2 1/4	7	DRY	3650	1893

AVERAGE:

1810 PSI

# THE PENNSYLVANIA STATE UNIVERSITY

104 MINERAL SCIENCES BUILDING  
UNIVERSITY PARK, PENNSYLVANIA 16802

College of Earth and Mineral Sciences  
Department of Mineral Engineering

Area Code 814  
865-3437

November 30, 1984

TO WHOM IT MAY CONCERN

ASTM  
99

Woodbury Vermont Gray Granite - Test Series No. 2

SUBJECT: Test for Modulus of Rupture on Woodbury Vermont gray granite supplied by Rock of Ages Corporation, Barre, Vermont. Suitable test specimens approximately 4" x 8" x 1-1/4" were shipped to the Department of Mineral Engineering by the above named company for these tests. The Modulus of Rupture was determined under dry conditions for each specimen according to ASTM designation C99-52\*. The results were as follows:

Specimen No. 1 = 1630 psi

Specimen No. 2 = 1710 psi

Specimen No. 3 = 1510 psi

Average = 1617 psi

The tests were performed by Departmental Graduate Assistants in the Rock Mechanics Laboratory of the Department of Mineral Engineering.

Dr. H. Reginald Hardy, Jr.  
Professor and Director,  
Rock Mechanics Laboratory

HRH/blg



\* Test series No. 2 involved the use of test specimens thinner than those specified in C99-52. All other test conditions remained the same.

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8 of 16

# THE PENNSYLVANIA STATE UNIVERSITY

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UNIVERSITY PARK, PENNSYLVANIA 16802

College of Earth and Mineral Sciences  
Department of Mineral Engineering

Area Code 814  
865-3437

November 30, 1984

TO WHOM IT MAY CONCERN

Woodbury Vermont Grey Granite - Test Series No. 3

SUBJECT: Test for Modulus of Rupture on Woodbury Vermont grey granite supplied by Rock of Ages Corporation, Barre, Vermont. Suitable test specimens approximately 4" x 8" x 1-1/4" were shipped to the Department of Mineral Engineering by the above named company for these tests. The Modulus of Rupture was determined under dry conditions for each specimen according to ASTM designation C99-52\*. The results were as follows:

Specimen No. 1 = 1510 psi

Specimen No. 2 = 1610 psi

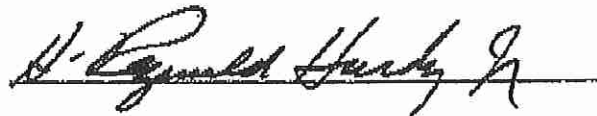
Specimen No. 3 = 1570 psi

Average = 1563 psi

The tests were performed by Departmental Graduate Assistants in the Rock Mechanics Laboratory of the Department of Mineral Engineering.

Dr. H. Reginald Hardy, Jr.  
Professor and Director,  
Rock Mechanics Laboratory

HRH/blg



\* Test Series No. 3 involved the use of test specimens thinner than those specified in C99-52, furthermore the upper surface of these specimens was rough (thermal finish). All other test conditions remained the same.

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NEW ENGLAND  
STONE INDUSTRIES, INC.

GEISSER ENGINEERING CORPORATION  
Consulting Engineers

227 Wampanoag Trail  
Riverside, RI 02915  
(401) 438-7711  
(401) 438-0281 Fax.

ASTM  
99

CLIENT: NEW ENGLAND STONE INDUSTRIES, INC.

PROJECT: WOODBURY GRANITE - TEST SAMPLES

SUBJECT: PHYSICAL TESTING

PROJECT NO. L-851 (P.O. NO. 4114) DATE: MARCH 7, 1995

SAMPLE: Six-four (64) samples of stone designated by client as "Woodbury" source, reportedly removed from an initial block and submitted to laboratory for testing with rift direction selected and cut by client as follows:

1. Four (4) cubes 3" x 3" x 3" labeled "NES" by lab, for absorption and density testing.
2. Twenty (20) compressive strength samples 2" x 2" x 2" labeled "COM", saw-cut for loading both parallel and perpendicular to the rift (5 wet condition and 5 dry condition for each direction).
3. Twenty (20) modulus of rupture samples 4" x 8" x 2 1/4" labeled "MOR", saw-cut for loading both parallel and perpendicular to the rift (5 wet condition and 5 dry condition for each direction).
4. Twenty (20) flexural strength samples 12" x 1 1/2" x 1 1/16" labeled "FLEX", saw-cut for loading both parallel and perpendicular to the rift (5 wet condition and 5 dry condition for each direction).

SAMPLED BY: New England Stone Industries, Inc.

DELIVERED BY: Mr. John Guilmette of New England Stone Industries

DATE DELIVERED: Late January 1995.

TESTING REQUIRED: Absorption and Density (ASTM C97) on 4 samples; Compressive Strength (ASTM C170) on 20 samples; Modulus of Rupture (ASTM C99) on 20 samples; and Flexural Strength (ASTM C880) on 20 samples, all as directed by New England Stone Industries Memo of 1/19/95.

SAMPLE DATA & TEST RESULTS: ABSORPTION AND DENSITY (ASTM C97)

SAMPLE CODE	WEIGHT (LBS) AS REC.	ABSORPTION (%)	BULK SPECIFIC GRAVITY	DENSITY (PCF)
NES-1	2.61	0.263	2.667	166.42
NES-2	2.62	0.260	2.667	166.42
NES-3	2.57	0.269	2.663	166.17
NES-4	2.61	0.277	2.669	166.54
AVERAGE:		0.267%	2.666	166.39 PCF

# THE PENNSYLVANIA STATE UNIVERSITY

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UNIVERSITY PARK, PENNSYLVANIA 16802

College of Earth and Mineral Sciences  
Department of Mineral Engineering

ASTM  
99

Area Code 814  
865-3437

November 30, 1984

TO WHOM IT MAY CONCERN

SUBJECT: Test for Abrasion Resistance on Woodbury Vermont grey granite supplied by Rock of Ages Corporation, Barre, Vermont. Three specimens, approximately 2" x 2" x 1", were shipped to the Department of Mineral Engineering by the above named company for an abrasion test. The bulk specific gravity was determined for each specimen according to ASTM designation: C97-47. The results were:

Specimen No. 1 = 2.657

Specimen No. 2 = 2.654

Specimen No. 3 = 2.654

Average = 2.655

The three specimens were tested for abrasion resistance according to ASTM designation: G241-51 with the following results:

Specimen No. 1 = 29.32

Specimen No. 2 = 26.42

Specimen No. 3 = 28.78

Average = 28.17

The ASTM test and National Bureau of Standards suggested test procedure in report BMS-98 are almost identical. Thus, the following can be certified:  
Ha = 28.2

The tests were performed in the Rock Mechanics Laboratory of the Department of Mineral Engineering using the Kessler Abrasion Testing Machine located therein. The tests were conducted by Departmental Research Assistants.

Dr. H. Reginald Hardy, Jr.  
Professor and Director,  
Rock Mechanics Laboratory

HRH/blg



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11 OF 16



REPORT OF:

TESTING OF WOODBURY GRANITE

**CHEMICAL  
COMP.**

Petrographic Mineral and Chemical Composition

Point Count Technique

The point count technique is a method for determining mineral mode using polarizing light microscopy. The oxide weight percents were then calculated from the observed mineral modes.

Test Results:

<u>Minerals</u>	<u>Weight, %</u>
Orthoclase	12.1
Albite	29.2
Arorthite	7.7
Quartz	40.2
Biotite	9.0
Muscovite	1.9

<u>Oxides</u>	<u>Weight, %</u>
Potassium Oxide (K <sub>2</sub> O)	4.6
Aluminum Oxide (Al <sub>2</sub> O <sub>3</sub> )	14.0
Sodium Oxide (Na <sub>2</sub> O)	2.3
Calcium Oxide (CaO)	1.6
Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> )	3.3
Magnesium Oxide (MgO)	0.8
Water	0.5
Silica (SiO <sub>2</sub> )	73.7

Chemical Composition -

The test procedures are as follows:

1. Moisture - determined by drying the sample at 103°C
2. L.O.I. - determined by muffle furnace at 750°C
3. Sulfur Trioxide - determined by Leco induction furnace, a portion of the sample was faced with Lithium Metaborate
4. Silicon Dioxide, Calcium Oxide, Magnesium Oxide, Aluminum Oxide, Iron Oxide, Sodium Oxide, Potassium Oxide and Titanium Oxide - determined by flame atomic absorption

Test Results:

<u>Constituent</u>	<u>Sample, %</u>
Moisture	0.1
Loss on Ignition	0.3
Silicon Dioxide (SiO <sub>2</sub> )	78.6
Calcium Oxide (CaO)	2.9
Magnesium Oxide (MgO)	0.8
Aluminum Oxide (Al <sub>2</sub> O <sub>3</sub> )	12.6
Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> )	1.6
Sulfur Trioxide (SO <sub>3</sub> )	0.1
Sodium Oxide (Na <sub>2</sub> O)	4.0
Potassium Oxide (K <sub>2</sub> O)	5.0
Titanium Oxide (TiO <sub>2</sub> )	0.3

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The thermal coefficient of expansion, water vapor transmission and shear strength results will follow upon receipt of samples and testing.

**COPY**

AB4



**Pittsburgh  
Testing  
Laboratory**

820 POPLAR STREET, PITTSBURGH, PA 15220  
PH: 822-4000 • TELEX: PTL PGM 066735  
P.O. No. 21226

**REPORT**

ORDER NO PPS-305

REPORT NO 856533

DATE October 29, 1984

REPORT OF: Modulus of Rupture of Granite.

REPORT TO: Rock of Ages Corporation  
P.O. Box 482  
Barre, Vermont 05641

We received three (3) samples identified as Woodbury Granite for Modulus of Rupture test per ASTM C99-52.

The following are the test results:

(L) Span = 7"

Sample A

Sample Number	Width Inches <u>b</u>	Depth Inches <u>d</u>	Maximum Load Pounds	Modulus of Rupture PSI
1	4.01	2.24	3,020	1,575
2	3.98	2.25	3,250	1,695
3	3.99	2.21	2,900	<u>1,565</u>
AVERAGE:				1,610

$S = 3WL/2bd^2$

PITTSBURGH TESTING LABORATORY

Earl Gallagher, Manager  
Physical Testing Department

cc: 3-Client  
Attn: J. Parrott

jlg

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REPORT OF: TESTING OF WOODBURY GRANITE

Petrographic Mineral and Chemical Composition  
Point Count Technique

The point count technique is a method for determining mineral mode using polarizing light microscopy. The oxide weight percents were then calculated from the observed mineral modes.

Test Results:

<u>Minerals</u>	<u>Weight, %</u>
Orthoclase	12.1
Albite	29.2
Anorthite	7.7
Quartz	40.2
Biotite	9.0
Muscovite	1.9

<u>Oxides</u>	<u>Weight, %</u>
Potassium Oxide (K <sub>2</sub> O)	4.6
Aluminum Oxide (Al <sub>2</sub> O <sub>3</sub> )	14.0
Sodium Oxide (Na <sub>2</sub> O)	2.3
Calcium Oxide (CaO)	1.6
Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> )	3.3
Magnesium Oxide (MgO)	0.8
Water	0.5
Silica (SiO <sub>2</sub> )	73.7

Chemical Composition -

The test procedures are as follows:

1. Moisture - determined by drying the sample at 103°C
2. L.O.I. - determined by muffle furnace at 750°C
3. Sulfur Trioxide - determined by Leco induction furnace, a portion of the sample was faced with Lithium Metaborate
4. Silicon Dioxide, Calcium Oxide, Magnesium Oxide, Aluminum Oxide, Iron Oxide, Sodium Oxide, Potassium Oxide and Titanium Oxide - determined by flame atomic absorption

Test Results:

<u>Constituent</u>	<u>Sample, %</u>
Moisture	0.1
Loss on Ignition	0.3
Silicon Dioxide (SiO <sub>2</sub> )	78.6
Calcium Oxide (CaO)	2.9
Magnesium Oxide (MgO)	0.8
Aluminum Oxide (Al <sub>2</sub> O <sub>3</sub> )	12.6
Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> )	1.6
Sulfur Trioxide (SO <sub>3</sub> )	0.1
Sodium Oxide (Na <sub>2</sub> O)	4.0
Potassium Oxide (K <sub>2</sub> O)	5.0
Titanium Oxide (TiO <sub>2</sub> )	0.3

The thermal coefficient of expansion, water vapor transmission and shear strength



NEW ENGLAND  
STONE INDUSTRIES, INC.

GEISSER ENGINEERING CORPORATION  
Consulting Engineers

227 Wampanoag Trail  
Riverside, RI 02915  
(401) 438-7711  
(401) 438-0281 Fax.

CLIENT: NEW ENGLAND STONE INDUSTRIES, INC.  
PROJECT: WOODBURY GRANITE - TEST SAMPLES  
SUBJECT: PHYSICAL TESTING  
PROJECT NO. L-851 (P.O. NO. 4114) DATE: MARCH 7, 1995

SAMPLE: Six-four (64) samples of stone designated by client as "WOODBURY" QUARRIE, reportedly removed from an initial block and submitted to laboratory for testing with rift direction selected and cut by client as follows:

1. Four (4) cubes 3" x 3" x 3" labeled "NES" by lab, for absorption and density testing.
2. Twenty (20) compressive strength samples 2" x 2" x 2" labeled "COM", saw-cut for loading both parallel and perpendicular to the rift (5 wet condition and 5 dry condition for each direction).
3. Twenty (20) modulus of rupture samples 4" x 8" x 2 1/4" labeled "MOR", saw-cut for loading both parallel and perpendicular to the rift (5 wet condition and 5 dry condition for each direction).
4. Twenty (20) flexural strength samples 12" x 1 1/2" x 1 1/16" labeled "FLEX", saw-cut for loading both parallel and perpendicular to the rift (5 wet condition and 5 dry condition for each direction).

SAMPLED BY: New England Stone Industries, Inc.

DELIVERED BY: Mr. John Guilmette of New England Stone Industries

DATE DELIVERED: Late January 1995.

TESTING REQUIRED: Absorption and Density (ASTM C97) on 4 samples, Compressive Strength (ASTM C170) on 20 samples, Modulus of Rupture (ASTM C99) on 20 samples; and Flexural Strength (ASTM C980) on 20 samples, all as directed by New England Stone Industries memo of 1/19/95.

SAMPLE DATA & TEST RESULTS: ABSORPTION AND DENSITY (ASTM C97)

SAMPLE CODE	WEIGHT (LBS) AS REC.	ABSORPTION (%)	BULK SPECIFIC GRAVITY	DENSITY (PCF)
NES-1	2.51	0.263	2.667	166.42
NES-2	2.52	0.260	2.667	166.42
NES-3	2.57	0.269	2.663	166.17
NES-4	2.61	0.277	2.669	166.54
AVERAGE:		0.267%	2.666	166.39 PCF

CLIENT: NEW ENGLAND STONE INDUSTRIES, INC.

PROJECT: WOODBURY GRANITE - TEST SAMPLES

SUBJECT: PHYSICAL TESTING

Page 2

SAMPLE DATA &amp; TEST RESULTS: COMPRESSIVE STRENGTH (ASTM C170)

LOADING PARALLEL TO THE RIFT

SAMPLE CODE	WGT (LBS) AS REC.	LGTH (IN)	WDTH (IN)	DPTH (IN)	AREA (IN) <sup>2</sup>	TEST CONDITION	TOTAL LOAD (LBS)	UNIT LOAD (PSI)
NES-COM-W1	0.79	2	2	2	4.000	WET	95000	13500
NES-COM-W2	0.75	1 15/16	2	2	3.875	WET	90000	12903
NES-COM-W3	0.78	2 1/16	2	2	4.125	WET	82000	12606
NES-COM-W4	0.77	2	1 15/16	1 15/16	3.875	WET	40000	12648
NES-COM-W5	0.76	2	2	2	4.000	WET	40000	13500
AVERAGE:								13031 PSI
NES-COM-D1	0.79	2 1/16	2	2	4.125	DRY	78500	17576
NES-COM-D2	0.77	2	1 15/16	2	3.875	DRY	60000	16258
NES-COM-D3	0.77	2	1 15/16	2	3.875	DRY	63000	16258
NES-COM-D4	0.80	2 1/16	2 1/16	2	4.254	DRY	73500	17278
NES-COM-D5	0.77	2	1 15/16	2	3.875	DRY	67000	17286
AVERAGE:								16932 PSI

LOADING PERPENDICULAR TO THE RIFT

SAMPLE CODE	WGT (LBS) AS REC.	LGTH (IN)	WDTH (IN)	DPTH (IN)	AREA (IN) <sup>2</sup>	TEST CONDITION	TOTAL LOAD (LBS)	UNIT LOAD (PSI)
NES-COM-W6	0.79	2	2 1/16	2 1/16	4.125	WET	51000	12464
NES-COM-W7	0.77	2	2 15/16	1 15/16	3.875	WET	49000	12645
NES-COM-W8	0.79	2 1/16	2	2	4.125	WET	48500	11758
NES-COM-W9	0.77	2 1/16	2	2	4.125	WET	63000	12048
NES-COM-W10	0.79	2 1/16	2	2	4.125	WET	40500	12000
AVERAGE:								12323 PSI
NES-COM-D6	0.78	2	2 1/16	2	4.125	DRY	78500	19875
NES-COM-D7	0.77	2	1 15/16	2	3.875	DRY	60500	17161
NES-COM-D8	0.78	2	2	2	4.125	DRY	68000	17000
NES-COM-D9	0.78	2	2	2	4.125	DRY	69500	17175
NES-COM-D10	0.79	2 1/16	2	2	4.125	DRY	70000	19152
AVERAGE:								18113 PSI

## Brick Sealer Specifications

Used to seal the stairs against the weather

# SILOXANE WB



**SILOXANE WB** is a clear, water based, deep penetrating water repellent designed to be applied over untreated concrete pavers, brick, block, concrete, stucco, flagstone, granite, natural stone, limestone and bluestone. Breathable, protects without forming a film or leaving a sheen.

- Breathable, does not form a film or leave a sheen
- Dries clear on most substrates maintaining the natural appearance
- Easily applied by brush, roller or low pressure pump sprayer
- Protects against repeated freeze thaw cycles
- UV light resistant
- Reduces efflorescence
- VOC compliant
- One coat coverage for most applications
- Exterior or interior use

Water Repellent	May be applied by brush, roller or low pressure pump sprayer
Packaging	1G can (4/case,108/pallet) 5G pail (36/pallet), 55G drum
Coverage per gallon	Concrete = 120-220 ft <sup>2</sup> Block/Brick = 80-150 ft <sup>2</sup> Split Rib Block = 50-100 ft <sup>2</sup>
Application Temperature	Ambient & surface temperature must be 40°F or above and will not fall below that for 48 hours
Mixing	Stir well. Not to be thinned.
Dry Time	12-24 hours at 70°F, 50% RH
Recoat Time	If second coat is required, must be applied wet-on-wet



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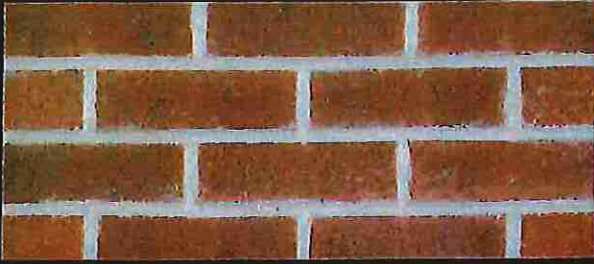
Brick Specifications  
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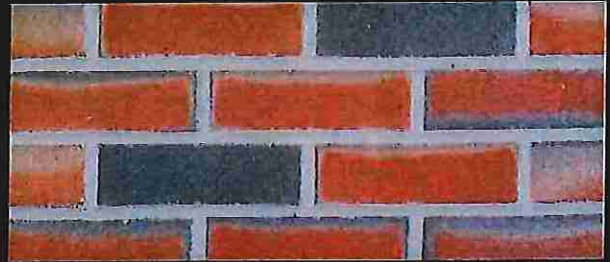
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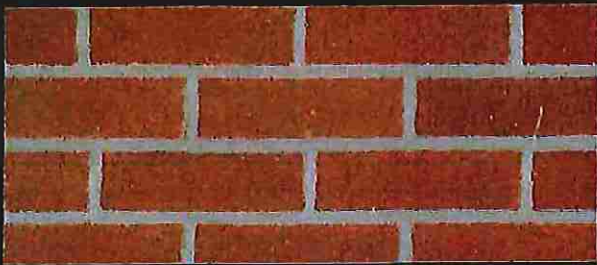


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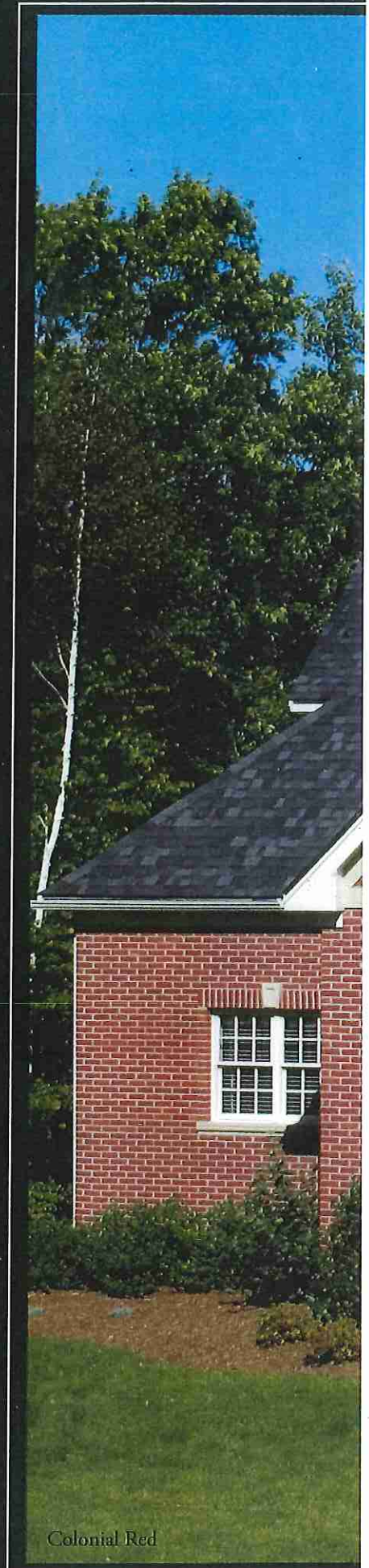
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