

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK CITY OF PORTLAND

Please Read Application And Notes, If Any, Attached

BUILDING DEPARTMENT

PERMIT

Permit Number: 071493

This is to certify that GREG'S PROPERTIES WA 6 WASHINGTON AVE LLC works Build W/R

has permission to New roof structure only

JAN 2 2008

AT 6 WASHINGTON AVE 013 G007001

provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statutes of Maine and of the ordinances of the City of Portland regulating the construction, maintenance and use of buildings and structures, and of the application on file in this department.

Apply to Public Works for street line and grade if nature of work requires such information.

Notification of inspection must be given and when permission is procured before this building or part thereof is started or closed-in. **24 HOUR NOTICE IS REQUIRED.**

A certificate of occupancy must be procured by owner before this building or part thereof is occupied.

OTHER REQUIRED APPROVALS

Fire Dept. Greg Cuss

Health Dept. _____

Appeal Board _____

Other _____
Department Name

J. Amy Bonke 12/31/07
Director - Building & Inspection Services

PENALTY FOR REMOVING THIS CARD

City of Portland, Maine - Building or Use Permit Application

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No: 07-1493	Issue Date:	CBL: 013 G007001
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Location of Construction: 6 WASHINGTON AVE	Owner Name: GREG'S PROPERTIES WASHAV	Owner Address: 26 VILLAGE BROOK RD	Phone:
Business Name:	Contractor Name: Homeworks Builders / Ron Milley	Contractor Address: 1039 Riverside St Suite 5 Portland	Phone 2076507435
Lessee/Buyer's Name	Phone:	Permit Type: <i>Alterations</i> Additions - Commercial	Zone: <i>B2b</i>

Past Use: Commercial/ Residential	Proposed Use: Commercial/ Residential - New roof structure only	Permit Fee: \$200.00	Cost of Work: \$18,000.00	CEO District: 1
		FIRE DEPT: <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied	INSPECTION: Use Group: <i>A/R-2/2</i> Type: <i>SB</i> <i>FBC-2003</i>	

Proposed Project Description: New roof structure only	Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i> 12/31/07
PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)		
Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied		
Signature: _____ Date: _____		

Permit Taken By: Idobson	Date Applied For: 12/11/2007	Zoning Approval
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<p>1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.</p> <p>2. Building permits do not include plumbing, septic or electrical work.</p> <p>3. Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work..</p> <p style="text-align: center;">JAN 2 2008</p>	<p>Special Zone or Reviews</p> <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetland <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input type="checkbox"/> Site Plan Maj <input type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/> <i>ok with conditions</i> Date: <i>12/12/07</i>	<p>Zoning Appeal</p> <input type="checkbox"/> Variance <input type="checkbox"/> Miscellaneous <input type="checkbox"/> Conditional Use <input type="checkbox"/> Interpretation <input type="checkbox"/> Approved <input type="checkbox"/> Denied Date: _____	<p>Historic Preservation</p> <input checked="" type="checkbox"/> Not in District or Landmark <input type="checkbox"/> Does Not Require Review <input type="checkbox"/> Requires Review <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied Date: _____
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CERTIFICATION

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT	ADDRESS	DATE	PHONE
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE		DATE	PHONE

BUILDING PERMIT INSPECTION PROCEDURES

Please call 874-8703 or 874-8693 (ONLY)

to schedule your inspections as agreed upon

Permits expire in 6 months, if the project is not started or ceases for 6 months.

The Owner or their designee is required to notify the inspections office for the following inspections and provide adequate notice. Notice must be called in 48-72 hours in advance in order to schedule an inspection:

By initializing at each inspection time, you are agreeing that you understand the inspection procedure and additional fees from a "Stop Work Order" and "Stop Work Order Release" will be incurred if the procedure is not followed as stated below.

A Pre-construction Meeting will take place upon receipt of your building permit.

- N/A Footing/Building Location Inspection: Prior to pouring concrete
- N/A Re-Bar Schedule Inspection: Prior to pouring concrete
- N/A Foundation Inspection: Prior to placing ANY backfill
- Call Framing/Rough Plumbing/Electrical: Prior to any insulating or drywalling
- Call Final/Certificate of Occupancy: Prior to any occupancy of the structure or use. NOTE: There is a \$75.00 fee per inspection at this point.

Certificate of Occupancy is not required for certain projects. Your inspector can advise you if your project requires a Certificate of Occupancy. All projects **DO** require a final inspection

_____ If any of the inspections do not occur, the project cannot go on to the next phase, REGARDLESS OF THE NOTICE OR CIRCUMSTANCES.

_____ CERIFICATE OF OCCUPANICES MUST BE ISSUED AND PAID FOR, BEFORE THE SPACE MAY BE OCCUPIED

Bonita Deryle
Signature of Applicant/Designee

Jan F. Smith
Signature of Inspections Official

1/2/08
Date

1/2/08
Date

CBL: 0136007 Building Permit #: 071493

City of Portland, Maine - Building or Use Permit

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No: 07-1493	Date Applied For: 12/11/2007	CBL: 013 G007001
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Location of Construction: 6 WASHINGTON AVE	Owner Name: GREG'S PROPERTIES WASHAVE	Owner Address: 26 VILLAGE BROOK RD	Phone:
Business Name:	Contractor Name: Homeworks Builders / Ron Milley	Contractor Address: 1039 Riverside St Suite 5 Portland	Phone (207) 650-7435
Lessee/Buyer's Name	Phone:	Permit Type: Additions - Commercial	

Proposed Use: Commercial/ Residential - New roof structure only	Proposed Project Description: New roof structure only
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Dept: Zoning **Status:** Approved with Conditions **Reviewer:** Marge Schmuckal **Approval Date:** 12/12/2007

Note: **Ok to Issue:**

- 1) Separate permits shall be required for the change of use and interior work that is to be done after this work.
- 2) This permit is being approved on the basis of plans submitted. Any deviations shall require a separate approval before starting that work.
- 3) Separate permits shall be required for any new signage.

Dept: Building **Status:** Approved with Conditions **Reviewer:** Jeanine Bourke **Approval Date:** 12/31/2007

Note: **Ok to Issue:**

- 1) This approval permits the roof construction only, separate permit required for future construction
- 2) The roof finishing is not detailed on this plan. Future permits shall include this detail. Roof will be temporarily covered to be weathertight

Dept: Fire **Status:** Approved **Reviewer:** Capt Greg Cass **Approval Date:** 12/13/2007

Note: **Ok to Issue:**

From: Alex Jaegerman
To: Barbara Barhydt; Marge Schmuckal; Shukria Wiar
Date: 12/12/2007 5:20:44 PM
Subject: Re: 6 Washington Ave. -permit #07-1493

We have resolved the building rehab issue. We can go ahead with the roof permit now. The full development permit also if all performance guarantees and conditions of approve are met, which Shukria can advise upon.

>>> Marge Schmuckal 12/12/2007 4:42:23 PM >>>

Shukria,

We have a building permit application to add a new roof structure only. I just want to check with you folks one more time. Can this permit be issued, pending meeting building & fire codes?

Marge

CC: Jeanie Bourke

From: Marge Schmuckal
To: ALEX JAEGERMAN; Barbara Barhydt ; Shukria Wiar
Date: 12/12/2007 4:42:33 PM
Subject: 6 Washington Ave. -permit #07-1493

Shukria,

We have a building permit application to add a new roof structure only. I just want to check with you folks one more time. Can this permit be issued, pending meeting building & fire codes?

Marge

CC: Jeanie Bourke



General Building Permit Application

If you or the property owner owes real estate or personal property taxes or user charges on any property within the City, payment arrangements must be made before permits of any kind are accepted.

Location/Address of Construction: <u>G WASHINGTON AVE</u>		
Total Square Footage of Proposed Structure/Area <u>1400 SF NEW ROOF CONSTRUCTION</u>		Square Footage of Lot <u>7518</u>
Tax Assessor's Chart, Block & Lot Chart# Block# Lot# <u>13 G 12</u> <u>73 G 7</u> <u>13 G 5</u>		Applicant * must be owner, Lessee or Buyer* Name <u>GREG'S PROPERTIES WASHAVE LLC</u> Address <u>26 VILLAGE BILCO RD</u> City, State & Zip <u>YARMOUTH ME 04096</u>
Telephone: <u>347-6072</u>		
Lessee/DBA (If Applicable)	Owner (if different from Applicant) Name Address City, State & Zip	Cost Of Work: \$ <u>18,000.00</u> C of O Fee: \$ _____ Total Fee: \$ <u>200.00</u>
Current legal use (i.e. single family) <u>VACANT</u> If vacant, what was the previous use? <u>COMMERCIAL & RESIDENTIAL</u> Proposed Specific use: <u>RESTAURANT & RESIDENTIAL</u> Is property part of a subdivision? <u>N</u> If yes, please name _____ Project description: <u>EXISTING ROOF HAS BEEN REMOVED. PLANS DEPICT NEW ROOF STRUCTURE ONLY.</u>		
Contractor's name: <u>HOMWORKS BUILDERS C/O RON MILLEY</u> Address: <u>1039 RIVERSIDE ST SUITE 5</u> City, State & Zip <u>PORTLAND, ME 04103</u> Telephone: <u>878-6521</u> Who should we contact when the permit is ready: <u>ARON WILSON</u> Telephone: _____ Mailing address: <u>ADP ENGINEERING 80 LEIGHTON RD FARMOUTH ME 04105</u>		

Please submit all of the information outlined on the applicable Checklist. Failure to do so will result in the automatic denial of your permit.

In order to be sure the City fully understands the full scope of the project, the Planning and Development Department may request additional information prior to the issuance of a permit. For further information or to download copies of this form and other applications visit the Inspections Division on-line at www.portlandmaine.gov, or stop by the Inspections Division office, room 315 City Hall or call 874-8703.

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Code Official's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

Signature: [Signature] Date: 12/10/07

DEC 11 2007

This is not a permit; you may not commence ANY work until the permit is issue

FROM DESIGNER: ASSOCIATE DESIGN PARTNERS, INC
 DATE: 10/12/07
 Job Name: 6 WASHINGTON AVE - BINGHAM WINGERS
 Address of Construction: "

2003 International Building Code

Construction project was designed according to the building code criteria listed below:

Building Code and Year IBC 2003 Use Group Classification(s) ASSEMBLY, OFFICE STORAGE, RESIDENTIAL
 Type of Construction WOOD FRAMED
 Will the Structure have a Fire suppression system in Accordance with Section 903.3.1 of the 2003 IRC Y
 Is the Structure mixed use? Y if yes, separated or non separated (see Section 302.3) S
 Supervisory alarm system? Y Geotechnical/Soils report required? (See Section 1802.2) N

STRUCTURAL DESIGN CALCULATIONS

Submitted for all structural members (106.1, 106.1.1) Y

DESIGN LOADS ON CONSTRUCTION DOCUMENTS (1603)

Uniformly distributed floor live loads (1603.1.1, 1607)

Floor Area Use	Loads Shown
<u>ASSEMBLY</u>	<u>100 PSF</u>
<u>OFFICE</u>	<u>50 PSF</u>
<u>RESIDENTIAL</u>	<u>40 PSF</u>
<u>STORAGE</u>	<u>60 PSF</u>

Live load reduction (1603.1.7, 1607.8, 1607.10) Y
 Roof live loads (1603.1.2, 1607.11) 20 PSF
 Roof snow loads (1603.1.8, 1608) 60 PSF
 Ground snow load, P_g (1608.2) 42 PSF
 If $P_g > 10$ psf, flat-roof snow load, P_f (1608.3) 1.0
 If $P_g > 10$ psf, snow exposure factor, C_e (Table 1608.3.1) 1.0
 If $P_g > 10$ psf, snow load importance factor, I_s (Table 1604.5) 1.0
 Roof thermal factor, C_t (Table 1608.3.2) 1.0
 Sloped roof snowload, P_s (1608.4) -

Wind loads (1603.1.4, 1609)

SIMPLIFIED Design option utilized (1608.1.1, 1609.6)
100 Basic wind speed (1609.3)
1.0 Building category and wind importance factor, I_w (Table 1604.5, 1609.5)
C Wind exposure category (1609.4)
~~NOT USED~~ W/ SIMPLIFIED METHOD internal pressure coefficient (ASCE 7)
SEE ATTACHED Component and cladding pressures (1609.1.1, 1609.5.2.2)
SEE ATTACHED Main force wind pressures (1609.1.1, 1609.5.2.1)

B Seismic design category (1612.3)
O.R.M.S.W Basic seismic-force-resisting system (Table 1617.8.2)
2.0/1.75 Response modification coefficient, R , and deflection amplification factor, C_d (Table 1617.8.2)
E.L.F. Analysis procedure (1616.6, 1617.5)
46 K Design base shear (1617.4, 1617.5.1)

Flood loads (1603.1.8, 1612)

Flood hazard area (1612.3) -
 Elevation of structure 81.3'

Other loads

Concentrated loads (1607.4) -
 Partition loads (1607.6) -
 Impact loads (1607.8) -
 Misc. loads (Table 1607.6, 1607.6.1, 1607.7, 1607.12, 1607.13, 1610, 1611, 2404) -

Earthquake design data (1603.1.5, 1614 - 1623)

S Design option utilized (1614.1)
II Seismic use group ("Category") (Table 1604.5, 1616.2)
0.314/10.125 Spectral response coefficients, S_{DS} & S_{D1} (1616.1)
D Site class (1616.1.5)



Certificate of Design

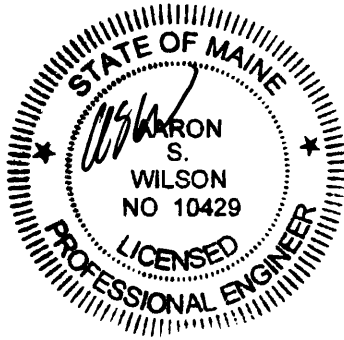
Date: 12/10/07

From: ARON S. WILSON

These plans and / or specifications covering construction work on:

ROOF FRAMING ONLY, 6 WASHINGTON AVE
EXISTING BUILDING

Have been designed and drawn up by the undersigned, a Maine registered Architect / Engineer according to the *2003 International Building Code* and local amendments.



(SEAL)

Signature: Aron S. Wilson

Title: STRUCTURAL ENGINEER

Firm: ASSOCIATED DESIGN PARTNERS, INC

Address: 80 LEGATION RD
FALMOUTH ME 04105

Phone: 878-1751

For more information or to download this form and other permit applications visit the Inspections Division on our website at www.portlandmaine.gov

Transmittal Note

No: 4

To:
Jeannie Bourke
 Inspection Division Manager
 389 Congress Street
 Portland, Maine 04101

Reply to:
Associated Design Partners, Inc
 80 Leighton Road
 Falmouth, Maine 04105
 tel. (207) 878-1751 fax. (207) 878-1788
 email. adp@adpengineering.com

These documents are issued to you for:

Progress	
Comment	
Approval	
Information	
Construction	
Permitting	X
As noted	
Revision Purposes	
Progress	
Review	
Bidding	

Job Title: **6 Washington Ave**

ADP Job # **06202**

Remarks:

Drawing / Document No.	Revision	No. of Copies		Date	Title / Description	Comments	
		Prints	Repros				
S205		4			Roof Framing Plan		
S302		4			Structural Details		

Copies have been forwarded for information as follows:

Complete Sets	No.	Transmittal Note Only

Issued By:
Aaron Wilson/bonita

Date
12/10/2007

Components and Cladding – Method 1		h ≤ 60 ft.
Figure 6-3 (cont'd)	Net Design Wind Pressures	Walls & Roofs
Enclosed Buildings		

Net Design Wind Pressure, p_{net30} (psf) (Exposure B at $h = 30$ ft. with $I = 1.0$ and $K_{zt} = 1.0$)

	Zone	Effective wind area (sf)	Basic Wind Speed V (mph)											
			85	90	100	105	110	120						
Roof 0 to 7 degrees	1	10	5.3	-13.0	5.9	-14.6	7.3	-18.0	8.1	-19.8	8.9	-21.8	10.5	-25.9
	1	20	5.0	-12.7	5.6	-14.2	6.9	-17.5	7.6	-19.3	8.3	-21.2	9.9	-25.2
	1	50	4.5	-12.2	5.1	-13.7	6.3	-16.9	6.9	-18.7	7.6	-20.5	9.0	-24.4
	1	100	4.2	-11.9	4.7	-13.3	5.8	-16.5	6.4	-18.2	7.0	-19.9	8.3	-23.7
	2	10	5.3	-21.8	5.9	-24.4	7.3	-30.2	8.1	-33.3	8.9	-36.5	10.5	-43.5
	2	20	5.0	-19.5	5.6	-21.8	6.9	-27.0	7.6	-29.7	8.3	-32.6	9.9	-38.8
	2	50	4.5	-16.4	5.1	-18.4	6.3	-22.7	6.9	-25.1	7.6	-27.5	9.0	-32.7
	2	100	4.2	-14.1	4.7	-15.8	5.8	-19.5	6.4	-21.5	7.0	-23.6	8.3	-28.1
	3	10	5.3	-32.8	5.9	-36.8	7.3	-45.4	8.1	-50.1	8.9	-55.0	10.5	-65.4
	3	20	5.0	-27.2	5.6	-30.5	6.9	-37.6	7.6	-41.5	8.3	-45.5	9.9	-54.2
	3	50	4.5	-19.7	5.1	-22.1	6.3	-27.3	6.9	-30.1	7.6	-33.1	9.0	-39.3
	3	100	4.2	-14.1	4.7	-15.8	5.8	-19.5	6.4	-21.5	7.0	-23.6	8.3	-28.1
Roof > 7 to 27 degrees	1	10	7.5	-11.9	8.4	-13.3	10.4	-16.5	11.4	-18.2	12.5	-19.9	14.9	-23.7
	1	20	6.8	-11.6	7.7	-13.0	9.4	-16.0	10.4	-17.6	11.4	-19.4	13.6	-23.0
	1	50	6.0	-11.1	6.7	-12.5	8.2	-15.4	9.1	-17.0	10.0	-18.6	11.9	-22.2
	1	100	5.3	-10.8	5.9	-12.1	7.3	-14.9	8.1	-16.5	8.9	-18.1	10.5	-21.5
	2	10	7.5	-20.7	8.4	-23.2	10.4	-28.7	11.4	-31.6	12.5	-34.7	14.9	-41.3
	2	20	6.8	-19.0	7.7	-21.4	9.4	-26.4	10.4	-29.1	11.4	-31.9	13.6	-38.0
	2	50	6.0	-16.9	6.7	-18.9	8.2	-23.3	9.1	-25.7	10.0	-28.2	11.9	-33.6
	2	100	5.3	-15.2	5.9	-17.0	7.3	-21.0	8.1	-23.2	8.9	-25.5	10.5	-30.3
	3	10	7.5	-30.6	8.4	-34.3	10.4	-42.4	11.4	-46.7	12.5	-51.3	14.9	-61.0
	3	20	6.8	-28.6	7.7	-32.1	9.4	-39.6	10.4	-43.7	11.4	-47.9	13.6	-57.1
	3	50	6.0	-26.0	6.7	-29.1	8.2	-36.0	9.1	-39.7	10.0	-43.5	11.9	-51.8
	3	100	5.3	-24.0	5.9	-26.9	7.3	-33.2	8.1	-36.6	8.9	-40.2	10.5	-47.9
Roof > 27 to 45 degrees	1	10	11.9	-13.0	13.3	-14.6	16.5	-18.0	18.2	-19.8	19.9	-21.8	23.7	-25.9
	1	20	11.6	-12.3	13.0	-13.8	16.0	-17.1	17.6	-18.8	19.4	-20.7	23.0	-24.6
	1	50	11.1	-11.5	12.5	-12.8	15.4	-15.9	17.0	-17.5	18.6	-19.2	22.2	-22.8
	1	100	10.8	-10.8	12.1	-12.1	14.9	-14.9	16.5	-16.5	18.1	-18.1	21.5	-21.5
	2	10	11.9	-15.2	13.3	-17.0	16.5	-21.0	18.2	-23.2	19.9	-25.5	23.7	-30.3
	2	20	11.6	-14.5	13.0	-16.3	16.0	-20.1	17.6	-22.2	19.4	-24.3	23.0	-29.0
	2	50	11.1	-13.7	12.5	-15.3	15.4	-18.9	17.0	-20.8	18.6	-22.9	22.2	-27.2
	2	100	10.8	-13.0	12.1	-14.6	14.9	-18.0	16.5	-19.8	18.1	-21.8	21.5	-25.9
	3	10	11.9	-15.2	13.3	-17.0	16.5	-21.0	18.2	-23.2	19.9	-25.5	23.7	-30.3
	3	20	11.6	-14.5	13.0	-16.3	16.0	-20.1	17.6	-22.2	19.4	-24.3	23.0	-29.0
	3	50	11.1	-13.7	12.5	-15.3	15.4	-18.9	17.0	-20.8	18.6	-22.9	22.2	-27.2
	3	100	10.8	-13.0	12.1	-14.6	14.9	-18.0	16.5	-19.8	18.1	-21.8	21.5	-25.9
Wall	4	10	13.0	-14.1	14.6	-15.8	18.0	-19.5	19.8	-21.5	21.8	-23.6	25.9	-28.1
	4	20	12.4	-13.5	13.9	-15.1	17.2	-18.7	18.9	-20.6	20.8	-22.6	24.7	-26.9
	4	50	11.6	-12.7	13.0	-14.3	16.1	-17.6	17.8	-19.4	19.5	-21.3	23.2	-25.4
	4	100	11.1	-12.2	12.4	-13.6	15.3	-16.8	16.9	-18.5	18.5	-20.4	22.0	-24.2
	4	500	9.7	-10.8	10.9	-12.1	13.4	-14.9	14.8	-16.5	16.2	-18.1	19.3	-21.5
	5	10	13.0	-17.4	14.6	-19.5	18.0	-24.1	19.8	-26.6	21.8	-29.1	25.9	-34.7
	5	20	12.4	-16.2	13.9	-18.2	17.2	-22.5	18.9	-24.8	20.8	-27.2	24.7	-32.4
	5	50	11.6	-14.7	13.0	-16.5	16.1	-20.3	17.8	-22.4	19.5	-24.6	23.2	-29.3
	5	100	11.1	-13.5	12.4	-15.1	15.3	-18.7	16.9	-20.6	18.5	-22.6	22.0	-26.9
	5	500	9.7	-10.8	10.9	-12.1	13.4	-14.9	14.8	-16.5	16.2	-18.1	19.3	-21.5

Unit Conversions – 1.0 ft = 0.3048 m; 1.0 psf = 0.0479 kN/m²

$\lambda = 1.53$

9.6 -25.0

4.8 -34.7

7.0 -41.8

24.9 -27

5.0 -31

Components and Cladding – Method 1		h ≤ 60 ft.
Figure 6-3 (cont'd)	Net Design Wind Pressures	Walls & Roofs
Enclosed Buildings		

Roof Overhang Net Design Wind Pressure , p_{net30} (psf)

(Exposure B at h = 30 ft. with I = 1.0)

	Zone	Effective Wind Area (sf)	Basic Wind Speed V (mph)							
			90	100	110	120	130	140	150	170
Roof 0 to 7 degrees	2	10	-21.0	-25.9	-31.4	-37.3	-43.8	-50.8	-58.3	-74.9
	2	20	-20.6	-25.5	-30.8	-36.7	-43.0	-49.9	-57.3	-73.6
	2	50	-20.1	-24.9	-30.1	-35.8	-42.0	-48.7	-55.9	-71.8
	2	100	-19.8	-24.4	-29.5	-35.1	-41.2	-47.8	-54.9	-70.5
	3	10	-34.6	-42.7	-51.6	-61.5	-72.1	-83.7	-96.0	-123.4
	3	20	-27.1	-33.5	-40.5	-48.3	-56.6	-65.7	-75.4	-96.8
	3	50	-17.3	-21.4	-25.9	-30.8	-36.1	-41.9	-48.1	-61.8
	3	100	-10.0	-12.2	-14.8	-17.6	-20.6	-23.9	-27.4	-35.2
Roof > 7 to 27 degrees	2	10	-27.2	-33.5	-40.6	-48.3	-56.7	-65.7	-75.5	-96.9
	2	20	-27.2	-33.5	-40.6	-48.3	-56.7	-65.7	-75.5	-96.9
	2	50	-27.2	-33.5	-40.6	-48.3	-56.7	-65.7	-75.5	-96.9
	2	100	-27.2	-33.5	-40.6	-48.3	-56.7	-65.7	-75.5	-96.9
	3	10	-45.7	-56.4	-68.3	-81.2	-95.3	-110.6	-126.9	-163.0
	3	20	-41.2	-50.9	-61.6	-73.3	-86.0	-99.8	-114.5	-147.1
	3	50	-35.3	-43.6	-52.8	-62.8	-73.7	-85.5	-98.1	-126.1
	3	100	-30.9	-38.1	-46.1	-54.9	-64.4	-74.7	-85.8	-110.1
Roof > 27 to 45 degrees	2	10	-24.7	-30.5	-36.9	-43.9	-51.5	-59.8	-68.6	-88.1
	2	20	-24.0	-29.6	-35.8	-42.6	-50.0	-58.0	-66.5	-85.5
	2	50	-23.0	-28.4	-34.3	-40.8	-47.9	-55.6	-63.8	-82.0
	2	100	-22.2	-27.4	-33.2	-39.5	-46.4	-53.8	-61.7	-79.3
	3	10	-24.7	-30.5	-36.9	-43.9	-51.5	-59.8	-68.6	-88.1
	3	20	-24.0	-29.6	-35.8	-42.6	-50.0	-58.0	-66.5	-85.5
	3	50	-23.0	-28.4	-34.3	-40.8	-47.9	-55.6	-63.8	-82.0
	3	100	-22.2	-27.4	-33.2	-39.5	-46.4	-53.8	-61.7	-79.3

**Adjustment Factor
for Building Height and Exposure, λ**

Mean roof height (ft)	Exposure		
	B	C	D
15	1.00	1.21	1.47
20	1.00	1.29	1.55
25	1.00	1.35	1.61
30	1.00	1.40	1.66
35	1.05	1.45	1.70
40	1.09	1.49	1.74
45	1.12	1.53	1.78
50	1.16	1.56	1.81
55	1.19	1.59	1.84
60	1.22	1.62	1.87

Unit Conversions – 1.0 ft = 0.3048 m; 1.0 sf = 0.0929 m²; 1.0 psf = 0.0479 kN/m

Main Wind Force Resisting System – Method 1		h ≤ 60 ft.
Figure 6-2 (cont'd)	Design Wind Pressures	Walls & Roofs
Enclosed Buildings		

Simplified Design Wind Pressure, p_{s30} (psf) (Exposure B at h = 30 ft. with I = 1.0)

Basic Wind Speed (mph)	Roof Angle (degrees)	Load Case	Zones									
			Horizontal Pressures				Vertical Pressures				Overhangs	
			A	B	C	D	E	F	G	H	EOH	GOH
85	0 to 5°	1	11.5	-5.9	7.6	-3.5	-13.8	-7.8	-9.6	-6.1	-19.3	-15.1
	10°	1	12.9	-5.4	8.6	-3.1	-13.8	-8.4	-9.6	-6.5	-19.3	-15.1
	15°	1	14.4	-4.8	9.6	-2.7	-13.8	-9.0	-9.6	-6.9	-19.3	-15.1
	20°	1	15.9	-4.2	10.6	-2.3	-13.8	-9.6	-9.6	-7.3	-19.3	-15.1
	25°	1	14.4	2.3	10.4	2.4	-6.4	-8.7	-4.6	-7.0	-11.9	-10.1
		2	-----	-----	-----	-----	-2.4	-4.7	-0.7	-3.0	-----	-----
	30 to 45	1	12.9	8.8	10.2	7.0	1.0	-7.8	0.3	-6.7	-4.5	-5.2
	2	12.9	8.8	10.2	7.0	5.0	-3.9	4.3	-2.8	-4.5	-5.2	
90	0 to 5°	1	12.8	-6.7	8.5	-4.0	-15.4	-8.8	-10.7	-6.8	-21.6	-16.9
	10°	1	14.5	-6.0	9.6	-3.5	-15.4	-9.4	-10.7	-7.2	-21.6	-16.9
	15°	1	16.1	-5.4	10.7	-3.0	-15.4	-10.1	-10.7	-7.7	-21.6	-16.9
	20°	1	17.8	-4.7	11.9	-2.6	-15.4	-10.7	-10.7	-8.1	-21.6	-16.9
	25°	1	16.1	2.6	11.7	2.7	-7.2	-9.8	-5.2	-7.8	-13.3	-11.4
		2	-----	-----	-----	-----	-2.7	-5.3	-0.7	-3.4	-----	-----
	30 to 45	1	14.4	9.9	11.5	7.9	1.1	-8.8	0.4	-7.5	-5.1	-5.8
	2	14.4	9.9	11.5	7.9	5.6	-4.3	4.8	-3.1	-5.1	-5.8	
100	0 to 5°	1	15.9	-8.2	10.5	-4.9	-19.1	-10.8	-13.3	-8.4	-26.7	-20.9
	10°	1	17.9	-7.4	11.9	-4.3	-19.1	-11.6	-13.3	-8.9	-26.7	-20.9
	15°	1	19.9	-6.6	13.3	-3.8	-19.1	-12.4	-13.3	-9.5	-26.7	-20.9
	20°	1	22.0	-5.8	14.6	-3.2	-19.1	-13.3	-13.3	-10.1	-26.7	-20.9
	25°	1	19.9	3.2	14.4	3.3	-8.8	-12.0	-6.4	-9.7	-16.5	-14.0
		2	-----	-----	-----	-----	-3.4	-6.6	-0.9	-4.2	-----	-----
	30 to 45	1	17.8	12.2	14.2	9.8	1.4	-10.8	0.5	-9.3	-6.3	-7.2
	2	17.8	12.2	14.2	9.8	6.9	-5.3	5.9	-3.8	-6.3	-7.2	
110	0 to 5°	1	19.2	-10.0	12.7	-5.9	-23.1	-13.1	-16.0	-10.1	-32.3	-25.3
	10°	1	21.6	-9.0	14.4	-5.2	-23.1	-14.1	-16.0	-10.8	-32.3	-25.3
	15°	1	24.1	-8.0	16.0	-4.6	-23.1	-15.1	-16.0	-11.5	-32.3	-25.3
	20°	1	26.6	-7.0	17.7	-3.9	-23.1	-16.0	-16.0	-12.2	-32.3	-25.3
	25°	1	24.1	3.9	17.4	4.0	-10.7	-14.6	-7.7	-11.7	-19.9	-17.0
		2	-----	-----	-----	-----	-4.1	-7.9	-1.1	-5.1	-----	-----
	30 to 45	1	21.6	14.8	17.2	11.8	1.7	-13.1	0.6	-11.3	-7.6	-8.7
	2	21.6	14.8	17.2	11.8	8.3	-6.5	7.2	-4.6	-7.6	-8.7	
120	0 to 5°	1	22.8	-11.9	15.1	-7.0	-27.4	-15.6	-19.1	-12.1	-38.4	-30.1
	10°	1	25.8	-10.7	17.1	-6.2	-27.4	-16.8	-19.1	-12.9	-38.4	-30.1
	15°	1	28.7	-9.5	19.1	-5.4	-27.4	-17.9	-19.1	-13.7	-38.4	-30.1
	20°	1	31.6	-8.3	21.1	-4.6	-27.4	-19.1	-19.1	-14.5	-38.4	-30.1
	25°	1	28.6	4.6	20.7	4.7	-12.7	-17.3	-9.2	-13.9	-23.7	-20.2
		2	-----	-----	-----	-----	-4.8	-9.4	-1.3	-6.0	-----	-----
	30 to 45	1	25.7	17.6	20.4	14.0	2.0	-15.6	0.7	-13.4	-9.0	-10.3
	2	25.7	17.6	20.4	14.0	9.9	-7.7	8.6	-5.5	-9.0	-10.3	
	0 to 5°	1	26.8	-13.9	17.8	-8.2	-32.2	-18.3	-22.4	-14.2	-45.1	-35.3

Horiz. Pressures:

Zone A = $1.53 \cdot 16 = 25 \text{ psf}$
 Zone B = $-8.2 \cdot 1.53 = 13 \text{ psf}$
 Zone C = $10.5 \cdot 1.53 = 16 \text{ psf}$
 Zone D = $-4.9 \cdot 1.53 = 8 \text{ psf}$

Vertical Pressures:

Zone E = $-19.1 \cdot 1.53 = 29 \text{ psf}$
 Zone F = $-10.8 \cdot 1.53 = 17 \text{ psf}$
 Zone G = $-13.3 \cdot 1.53 = 20 \text{ psf}$
 Zone H = $-8.4 \cdot 1.53 = 13 \text{ psf}$

Overhangs

$E_{OH} = -7.6 \cdot 1.53 = 11 \text{ psf}$
 $G_{OH} = -20.7 \cdot 1.53 = 32 \text{ psf}$

Main Wind Force Resisting System – Method 1

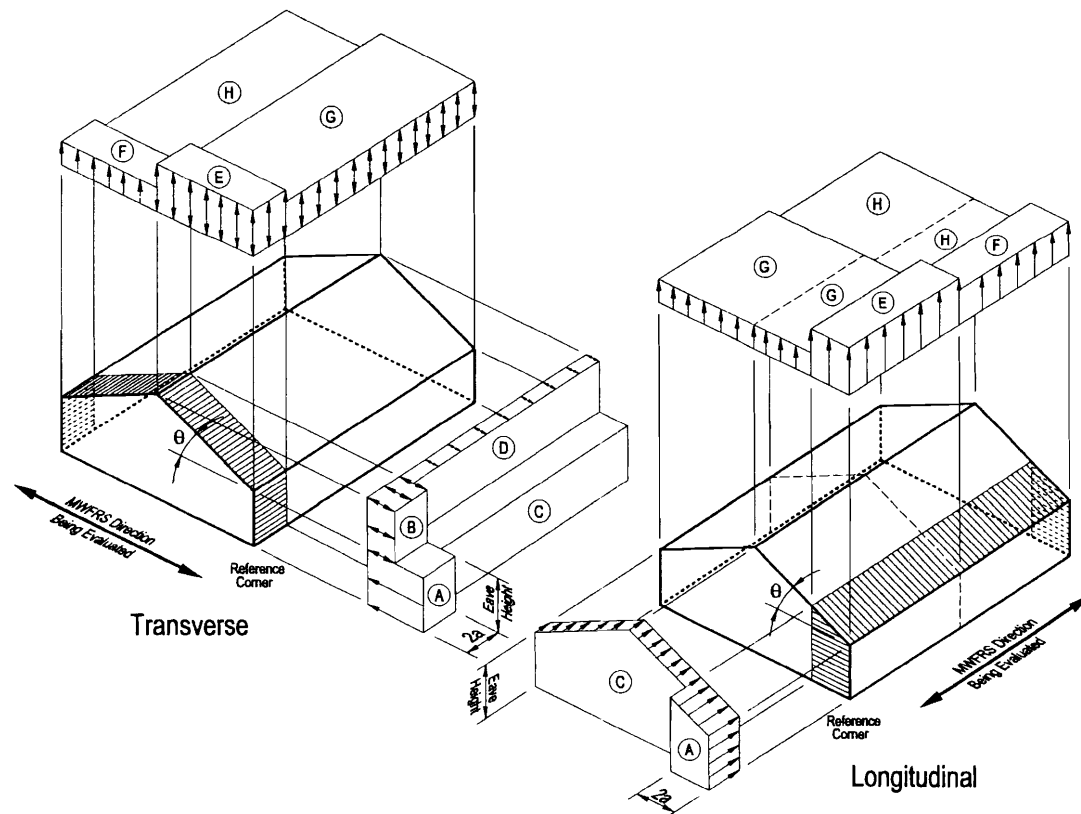
$h \leq 60$ ft.

Figure 6-2

Design Wind Pressures

Enclosed Buildings

Walls & Roofs



Notes:

1. Pressures shown are applied to the horizontal and vertical projections, for exposure B, at $h=30$ ft (9.1 m), for $I=1.0$. Adjust to other exposures and heights with adjustment factor λ .
2. The load patterns shown shall be applied to each corner of the building in turn as the reference corner. (See Figure 6-10)
3. For the design of the longitudinal MWFRS use $\theta = 0^\circ$, and locate the zone E/F, G/H boundary at the mid-length of the building.
4. Load cases 1 and 2 must be checked for $25^\circ < \theta \leq 45^\circ$. Load case 2 at 25° is provided only for interpolation between 25° to 30° .
5. Plus and minus signs signify pressures acting toward and away from the projected surfaces, respectively.
6. For roof slopes other than those shown, linear interpolation is permitted.
7. The total horizontal load shall not be less than that determined by assuming $p_s = 0$ in zones B & D.
8. The zone pressures represent the following:

Horizontal pressure zones – Sum of the windward and leeward net (sum of internal and external) pressures on vertical projection of:

- | | |
|----------------------|---------------------------|
| A - End zone of wall | C - Interior zone of wall |
| B - End zone of roof | D - Interior zone of roof |

Vertical pressure zones – Net (sum of internal and external) pressures on horizontal projection of:



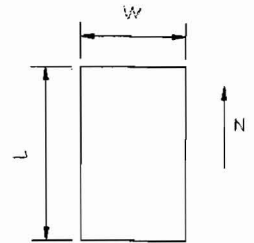
Seismic Code Study

Based on ASCE 7-05 Design Guidelines - Simplified Method

Job:	6 Washington Ave - 06202	Date:	10/12/2007
Loc:	Portland, ME	By:	ASW

Building Design Information

Stories	4	Building Interior SF	1316 sf
Width	25.5 ft	Second Floor DL	15 psf
Length	61.5 ft	Third Floor DL	15 psf
2nd Floor Elevation	11.5 ft	Fourth Floor DL	15 psf
3rd Floor Elevation	23 ft	Roof DL	15 psf
4th Floor Elevation	34.5	Roof SL	42 psf
Mean Roof Elevation	44 ft	Partition Load	10 psf
Wall Weight	15 psf		



Input condition of building "New" or "Exg" - - - **New**

Code Sec.				
11.4.1	$S_s =$	0.31		F. 22-1
	$S_1 =$	0.078		F 22-2
11.4.2	Site Class	d	Stiff Soil	Assumed
11.4.3	$F_a =$	1.52		T. 11.4-1
	$F_v =$	2.4		T. 11.4-2
	$S_{ms} =$	0.47		Eq. 11.4-1
	$S_{m1} =$	0.19		Eq. 11.4-2
11.4.4	$S_{DS} =$	0.314		Eq. 11.4-3
	$S_{D1} =$	0.125		Eq. 11.4-4
11.5.1	Occupancy Category	II		T1-1
	I =	1.00		
11.6	SDC =	B		
12.14	Simplified Procedure	R =	2 Ordinary Reinforced Masonry Shearwalls	

12.14.3

Seismic Load Effect

$$E = E_h \pm E_v$$

$$E_h = Q_e$$

$$E_v = 0.2 \cdot S_{DS} \cdot D$$

$Q_e =$ Seismic Base Shear
 $V = (F \cdot S_{ds} \cdot W_t) / R$
 $F = 1.2$
 $W_t = 244,359$ Total weight of all levels of building above ground (lbs)
 $V = 46,052$ lbs Seismic Base Shear

		E-W Event	N-S event	
Roof Diaph. Design force	$Q_{e_r} =$	7,456	6,489	lbs
At floor level 2	$Q_{e_2} =$	10,200	7,860	lbs
At floor level 3	$Q_{e_3} =$	10,200	7,860	lbs
At floor level 4	$Q_{e_3} =$	9,853	7,715	lbs

Main Wind Force Resisting System – Method 1						h ≤ 60 ft.						
Figure 6-2 (cont'd)		Design Wind Pressures				Walls & Roofs						
Enclosed Buildings												
Simplified Design Wind Pressure, p _{s30} (psf) (Exposure B at h = 30 ft., K _z = 1.0, with I = 1.0)												
Basic Wind Speed (mph)	Roof Angle (degrees)	Load Case	Zones									
			Horizontal Pressures				Vertical Pressures				Overhangs	
			A	B	C	D	E	F	G	H	EoH	GoH
85	0 to 5°	1	11.5	-5.9	7.6	-3.5	-13.8	-7.8	-9.6	-6.1	-19.3	-15.1
	10°	1	12.9	-5.4	8.6	-3.1	-13.8	-8.4	-9.6	-6.5	-19.3	-15.1
	15°	1	14.4	-4.8	9.6	-2.7	-13.8	-9.0	-9.6	-6.9	-19.3	-15.1
	20°	1	15.9	-4.2	10.6	-2.3	-13.8	-9.6	-9.6	-7.3	-19.3	-15.1
	25°	1	14.4	2.3	10.4	2.4	-6.4	-8.7	-4.6	-7.0	-11.9	-10.1
		2	-----	-----	-----	-----	-2.4	-4.7	-0.7	-3.0	-----	-----
	30 to 45	1	12.9	8.8	10.2	7.0	1.0	-7.8	0.3	-6.7	-4.5	-5.2
		2	12.9	8.8	10.2	7.0	5.0	-3.9	4.3	-2.8	-4.5	-5.2
90	0 to 5°	1	12.8	-6.7	8.5	-4.0	-15.4	-8.8	-10.7	-6.8	-21.6	-16.9
	10°	1	14.5	-6.0	9.6	-3.5	-15.4	-9.4	-10.7	-7.2	-21.6	-16.9
	15°	1	16.1	-5.4	10.7	-3.0	-15.4	-10.1	-10.7	-7.7	-21.6	-16.9
	20°	1	17.8	-4.7	11.9	-2.6	-15.4	-10.7	-10.7	-8.1	-21.6	-16.9
	25°	1	16.1	2.6	11.7	2.7	-7.2	-9.8	-5.2	-7.8	-13.3	-11.4
		2	-----	-----	-----	-----	-2.7	-5.3	-0.7	-3.4	-----	-----
	30 to 45	1	14.4	9.9	11.5	7.9	1.1	-8.8	0.4	-7.5	-5.1	-5.8
		2	14.4	9.9	11.5	7.9	5.6	-4.3	4.8	-3.1	-5.1	-5.8
100	0 to 5°	1	15.9	-8.2	10.5	-4.9	-19.1	-10.8	-13.3	-8.4	-26.7	-20.9
	10°	1	17.9	-7.4	11.9	-4.3	-19.1	-11.6	-13.3	-8.9	-26.7	-20.9
	15°	1	19.9	-6.6	13.3	-3.8	-19.1	-12.4	-13.3	-9.5	-26.7	-20.9
	20°	1	22.0	-5.8	14.6	-3.2	-19.1	-13.3	-13.3	-10.1	-26.7	-20.9
	25°	1	19.9	3.2	14.4	3.3	-8.8	-12.0	-6.4	-9.7	-16.5	-14.0
		2	-----	-----	-----	-----	-3.4	-6.6	-0.9	-4.2	-----	-----
	30 to 45	1	17.8	12.2	14.2	9.8	1.4	-10.8	0.5	-9.3	-6.3	-7.2
		2	17.8	12.2	14.2	9.8	6.9	-5.3	5.9	-3.8	-6.3	-7.2
105	0 to 5°	1	17.5	-9.0	11.6	-5.4	-21.1	-11.9	-14.7	-9.3	-29.4	-23.0
	10°	1	19.7	-8.2	13.1	-4.7	-21.1	-12.8	-14.7	-9.8	-29.4	-23.0
	15°	1	21.9	-7.3	14.7	-4.2	-21.1	-13.7	-14.7	-10.5	-29.4	-23.0
	20°	1	24.3	-8.4	16.1	-3.5	-21.1	-14.7	-14.7	-11.1	-29.4	-23.0
	25°	1	21.9	3.5	15.9	3.5	-9.7	-13.2	-7.1	-10.7	-18.2	-15.4
		2	-----	-----	-----	-----	-3.7	-7.3	-1.0	-4.6	-----	-----
	30 to 45	1	19.6	13.5	15.7	10.8	1.5	-11.9	0.6	-10.3	-6.9	-7.9
		2	19.6	13.5	15.7	10.8	7.6	-5.8	6.5	-4.2	-6.9	-7.9
110	0 to 5°	1	19.2	-10.0	12.7	-5.9	-23.1	-13.1	-16.0	-10.1	-32.3	-25.3
	10°	1	21.6	-9.0	14.4	-5.2	-23.1	-14.1	-16.0	-10.8	-32.3	-25.3
	15°	1	24.1	-8.0	16.0	-4.6	-23.1	-15.1	-16.0	-11.5	-32.3	-25.3
	20°	1	26.6	-7.0	17.7	-3.9	-23.1	-16.0	-16.0	-12.2	-32.3	-25.3
	25°	1	24.1	3.9	17.4	4.0	-10.7	-14.6	-7.7	-11.7	-19.9	-17.0
		2	-----	-----	-----	-----	-4.1	-7.9	-1.1	-5.1	-----	-----
	30 to 45	1	21.6	14.8	17.2	11.8	1.7	-13.1	0.6	-11.3	-7.6	-8.7
		2	21.6	14.8	17.2	11.8	8.3	-6.5	7.2	-4.6	-7.6	-8.7
120	0 to 5°	1	22.8	-11.9	15.1	-7.0	-27.4	-15.6	-19.1	-12.1	-38.4	-30.1
	10°	1	25.8	-10.7	17.1	-6.2	-27.4	-16.8	-19.1	-12.9	-38.4	-30.1
	15°	1	28.7	-9.5	19.1	-5.4	-27.4	-17.9	-19.1	-13.7	-38.4	-30.1
	20°	1	31.6	-8.3	21.1	-4.6	-27.4	-19.1	-19.1	-14.5	-38.4	-30.1
	25°	1	28.6	4.6	20.7	4.7	-12.7	-17.3	-9.2	-13.9	-23.7	-20.2
		2	-----	-----	-----	-----	-4.8	-9.4	-1.3	-6.0	-----	-----
	30 to 45	1	25.7	17.6	20.4	14.0	2.0	-15.6	0.7	-13.4	-9.0	-10.3
		2	25.7	17.6	20.4	14.0	9.9	-7.7	8.6	-5.5	-9.0	-10.3

Unit Conversions—1.0 ft = 0.3048 m; 1.0 psf = 0.0479 kN/m²

Main Wind Force Resisting System – Method 1		$h \leq 60$ ft.
Figure 6-2 (cont'd)	Design Wind Pressures	Walls & Roofs
Enclosed Buildings		

Adjustment Factor for Building Height and Exposure, λ			
Mean roof height (ft)	Exposure		
	B	C	D
15	1.00	1.21	1.47
20	1.00	1.29	1.55
25	1.00	1.35	1.61
30	1.00	1.40	1.66
35	1.05	1.45	1.70
40	1.09	1.49	1.74
45	1.12	1.53	1.78
50	1.16	1.56	1.81
55	1.19	1.59	1.84
60	1.22	1.62	1.87