

## Lincoln/Haney Engineering Associates, Inc.

Structural Engineering Consultants

Michael A. Cunningham, P.E., LEED AP Peter L. Lincoln, P.E. William D. Haney, P.E.

October 28, 2014

Abigail Ingraham 180 High Street, Unit 60 Portland, Maine 04101

Re: Review of structural impact from increasing wall openings

Dear Abigail:

As requested, I have reviewed the layout of load-bearing walls at your condominium in order to assess the impact of the widening of openings in walls that is planned for renovations. Attached is a sketch of the planned renovations with the new, widened openings identified as #1, #2, and #3.

The roof framing and supporting walls could be clearly seen from an access hatch in the stairwell leading to the roof. That access hatch opens to a crawl space, with height a little over 2 feet clear. From that hatch, the roof framing and walls that support the roof structure can be seen. The repetitive roof framing elements are timber joists, measuring 2" x 8-1/2" at 16" on center. The joists are supported on bearing walls that extend through the crawl space from walls below the ceiling. One of the interesting aspects of the framing support layout is that all of the load bearing lines that I could observe are not continuous across the building. For instance, the wall that contains openings #1 and #2 extends for the entire length of the condominium. But the portion that supports roof framing only extends for about 19 feet from the exterior wall. Other bearing lines appear to be similarly discontinuous. Another interesting aspect is that the joists are not necessarily spliced over the supports. This condition occurs at the portion of the bearing portion of the wall that contains openings #1 and #2. Ceiling joists at the area in question frame in the same direction as the roof rafters, with the same points of bearing.

Regarding the planned renovations, the load-bearing portion of the wall that contains openings #1 and #2 does not extend to opening #1. It does extend about 3' into the widened 6' opening #2. However, since the joists are continuous over the top of the wall without splices and the spans on either side of the wall are only 3'-6" and 5'-6", it is not necessary to provide temporary support for the roof construction during demolition. This assumes that the demolition and reconstruction can occur when there is not a significant snow load on the roof. I do recommend that the header utilized to span the new 6 foot opening consist of 2-2x8 members of #2 Spruce-Pine-Fir, or better. The wall that contains opening #3 is parallel with framing members and, therefore, is not load-bearing.

To summarize, I find that openings #1 and #3 do not occur in load-bearing walls. Standard details for framed openings in a non-bearing partition may be utilized. At opening #2, approximately ½ of the opening is within a load-bearing portion of the wall. But because the rafters above are continuous over the wall with short spans on both sides of the wall, shoring of the roof construction is not required during construction unless that construction is delayed to



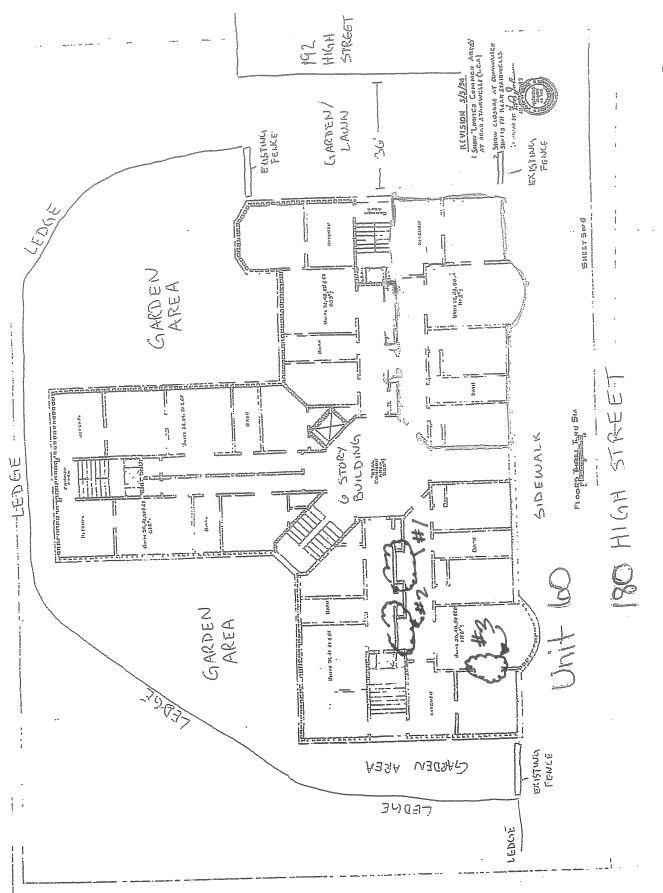
coincide with a period of heavy snow accumulation. Over opening #2, a lintel should be used with a minimum size of 2-2x8 of lumber #2 grade and Spruce-Pine-Fir species graded under NLGA rules, or better.

I trust that this letter serves your current needs for this project. If you need further assistance or clarification regarding this letter, please call or email.

Sincerely,

Michael A. Cunningham, P.E., LEED AP

Lincoln/Haney Engineering Associates, Inc. 6 Federal Street Brunswick, Maine 04011 Phone 729-1061 Fax 729-2941 MICHAEL ALANGUM CUMUMAN CUMUMA



Reviewed for Code Compliance Inspections Division Approved with Conditions 01/20/15

### Portland, Maine



### Yes. Life's good here.

Reviewed for Code Campliance Inspections Division Approved with Conditions 01/20/15

Jeff Levine, AICP, Director Planning & Urban Development Department

Tammy Munson, Director Inspections Division

## Electronic Signature and Fee Payment Confirmation

Notice: Your electronic signature is considered a legal signature per state law.

By digitally signing the attached document(s), you are signifying your understanding this is a legal document and your electronic signature is considered a *legal signature* per Maine state law. You are also signifying your intent on paying your fees by the opportunities below.

I, the undersigned, intend and acknowledge that no permit application can be reviewed until payment of appropriate permit fees are *paid in full* to the Inspections Office, City of Portland Maine by method noted below:

Within 24-48 hours, once my complete permit application and corresponding paperwork has been electronically delivered, I intend to call the Inspections Office at 207-874-8703 and speak to an administrative representative and provide a credit/debit card over the phone.

Within 24-48 hours, once my permit application and corresponding paperwork has been electronically delivered, I intend to **hand deliver** a payment method to the Inspections Office, Room 315, Portland City Hall.

I intend to deliver a payment method through the U.S. Postal Service mail once my permit paperwork has been electronically delivered.

Applicant Signature:

rate: 100

I have provided digital copies and sent them on:

Date:

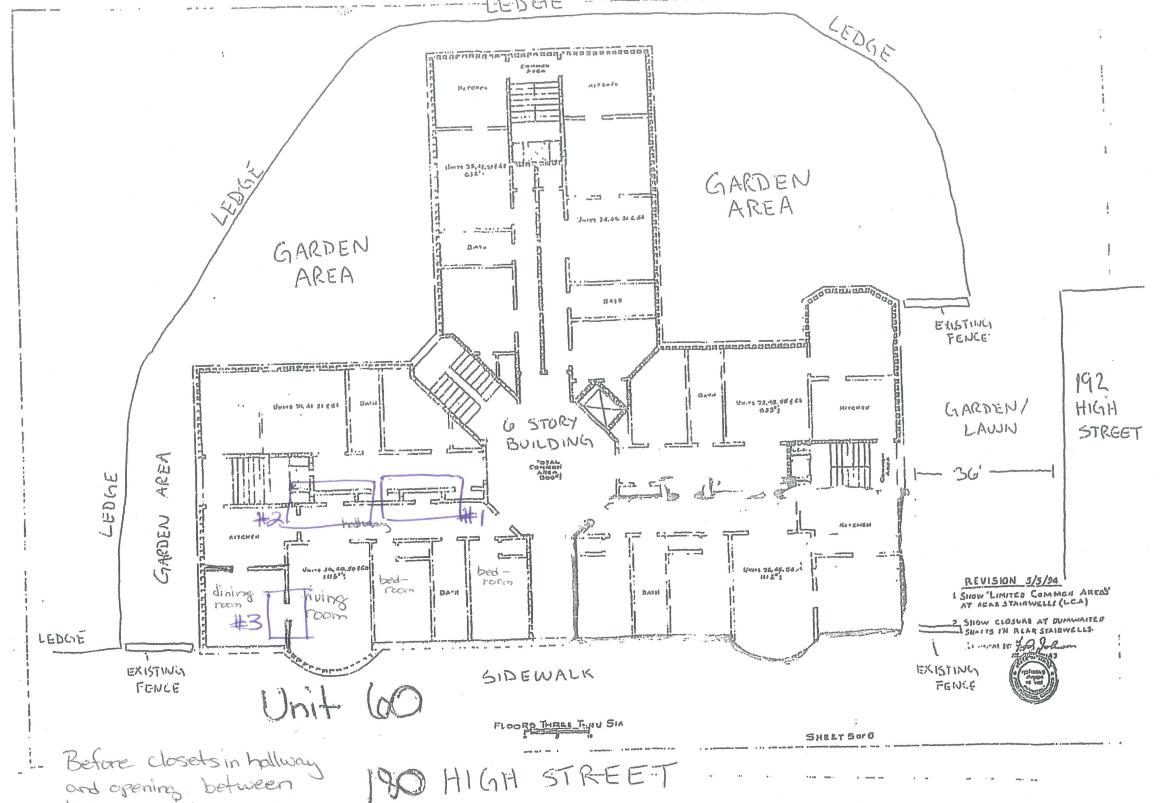
NOTE: All electronic paperwork must be delivered to <u>buildinginspections@portlandmaine.gov</u> or by physical means ie; a thumb drive or CD to the office.

Dining Rm into Living Rm Opening (#3 on floor plan) - after \_ before -2 × 4 header 2x4 header existing studs existing 32 opening 64 opening Scale: 4"/square note: non-foad bearing

Hallway Closets (opening #15 proposed opening # plan for both doorways in hall gloonplan) (new frame) - current opening Inspections Division
Approved with Conditions
01/20/15 Oper header 2"×8" w/phywood Filling section

> Unit 60 180 High 86. Portland, ME

Notes: Scale 4"/square Walls: opening #1 is partial loadbearing opening #2 is non-loadbearing



Before closets in hallway and opening between dining and living are widened



scale: 4"/square

doset configuration before widening (#1+#2, on floorplan)

Unit 60 180 High St. Portland, ME





# General Building Permit Application

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

Address/Location of Construction: /	80 High St. Cept 60 Portland MF	
Total Square Footage of Proposed Struc	ture:	
NIA		
Tax Assessor's Chart, Block & Lot	Applicant Name: Abigay Telephone:	
Chart# Block# Lot#	70011108-0842	
046-3014060	180 High St. Opt 60 Email:	7 6
0 14 13011 0-0	City, State & Zip	59
	Portland ME 04101 hot mail. com	
Lessee/Owner Name: Christoper	Contractor Name: JW Reno Cost Of Work:	
(if different than applicant)	(ii different from Applicant)	
Address:	Address:	
180 thigh 8t. Opt 60	12 Field Point Lane Cof O Fee: \$ 05.00	
City, State & Zip:	City, State & Zip:	
Portland, ME	Kennehunkport, Mistoric Rev \$ 50,00	
Telephone 207-350-9313	Telephone 110 114501 04046	
- 1 11011	207-749-4691 Total Fees:\$ 75.00	
E-mail: Chrishall Otherwater ne	1. E-mail: 103/10/11/11/11/11/11/11/11/11/11/11/11/11/	
Current use (i.e. single family) 3\ \times	nit condominium	
If vacant, what was the previous use?	U/A	
Proposed Specific use:		
Is property part of a subdivision? NOIf ye	es, please name	
Project description: Widening	opening of a hallway closets.	1
Home 34 while to 12 will	a using on white your some. Also wide	1169
opening between dining	2 Rm and living Rm from 32" to 64!	
Who should we contact when the permit is		
Address: 180 High St. Cy	pt 60 )	
City, State & Zip: Part and , M	F 04101 11	
E-mail Address: Writerfor he	586 hotmail. Com	
Telephone: 704 488 084	3 (cell)	
Please submit all of the information	outlined on the applicable absolutes Esilver to 1	

Please submit all of the information outlined on the applicable checklist. Failure to do so causes an automatic permit denial.

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 <a href="http://www.portlandmaine.gov/754/Applications-Fees">http://www.portlandmaine.gov/754/Applications-Fees</a> 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.

/		~	-		7	,					4	
Signature:	1		20	nah	am		Date:	11/	7/	12/		*
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			- ( )						- 1			

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

### Portland, Maine

One (1) complete set of construction drawings must include:



## Yes. Life's good here.



Jeff Levine, AICP, Director Planning & Urban Development Department

Tammy Munson, Director Inspections Division

# Residential Additions/Alterations Permit Application Checklist

All of the following information is required and must be submitted. Checking off each item as you prepare your application package will ensure your package is complete and will help to expedite the permitting process.

The Maine Home Construction Contracts Act requires that any home construction or repair work for more than \$3000. in materials or labor must be based on a written contract unless the parties agree to exempt themselves. A sample contract is available on the City's website at <a href="https://www.portlandmaine.gov">www.portlandmaine.gov</a>, in the Inspection Office, Room 315 of Portland City Hall or call (207)874-8703 to have one mailed to you.

	Cross sections w/framing details Floor plans and elevations existing & proposed Detail removal of all partitions & any new structural beams Detail any new walls or permanent partitions Stair details including dimensions of: rise/run, head room, guards/handrails, baluster spacing Window and door schedules Foundation plans w/required drainage and damp proofing (if applicable) Detail egress requirements and fire separation/sound transmission ratings (if applicable) Insulation R-factors of walls, ceilings & floors & U-factors of windows per the IEEC 2009 Deck construction including: pier layout, framing, fastenings, guards, stair dimensions Electronic files in pdf format are also required Proof of ownership is required if it is inconsistent with the assessors records
	mits are required for internal & external plumbing, HVAC, and electrical installations.
structures or	ny additions to the footprint or volume of the structure, any new or rebuilt, accessory detached structures a plot plan is required. A plot must include:
NA	The shape and dimension of the lot, footprint of the existing and proposed structure and the distance from the actual property lines. Structures include decks, porches; bow windows, cantilever sections and roof overhangs, sheds, pools, garages and any other accessory structures must be shown with dimensions if not to scale.  Location and dimensions of parking areas and driveways  A change of use may require a site plan exemption application to be filed.
Please subincomplete	mit all of the information outlined in this application checklist. If the application is e, the application may be refused.
In order to be s	sure the City fully understands the full scope of the project, the Planning and Development

Permit Fee: \$25.00 for the first \$1000.00 construction cost, \$11.00 per additional \$1000.00 cost This is not a Permit; you may not commence any work until the Permit is issued.

Department may request additional information prior to the issuance of a permit. For further information visit us on-

line at www.portlandmaine.gov, stop by the Building Inspections office, room 315 City Hall or call 874-8703.



Hallway Closets and Dining-Living room Doorway Widening Project 180 High Street, Apt 60, Portland, ME

### Hallway Closets

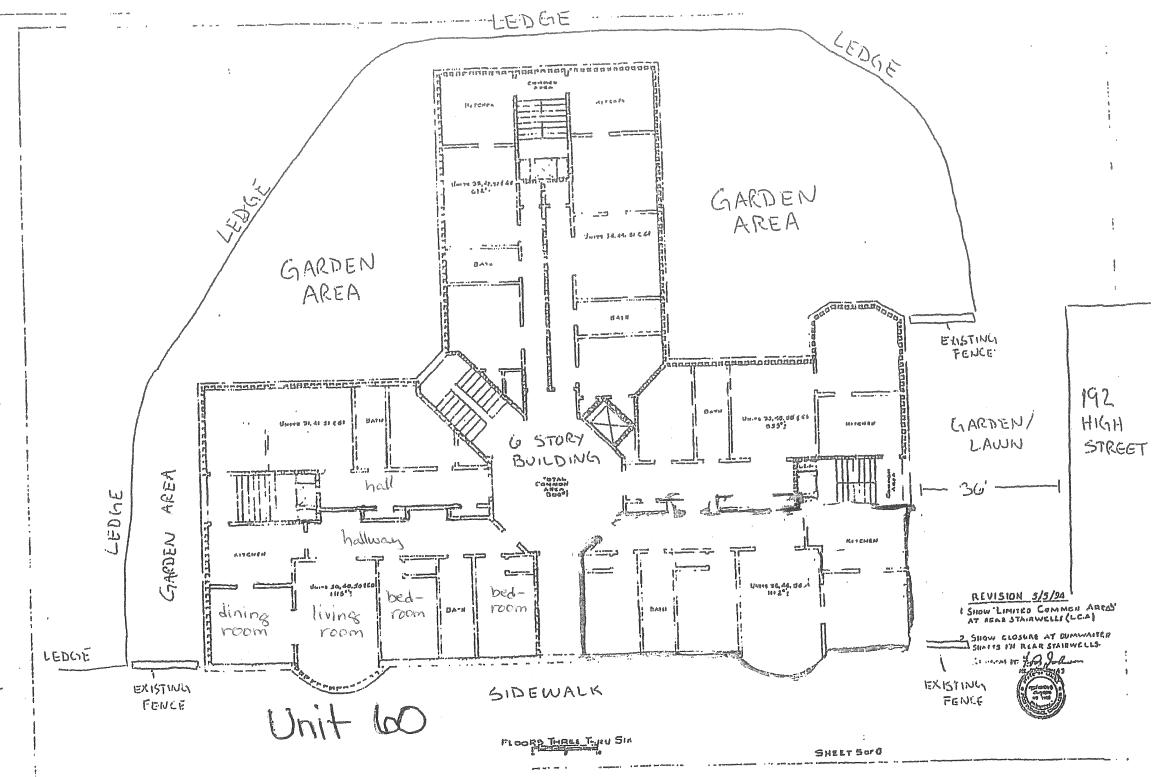
#### Actions:

- 1) Remove door, trim and threshold from door opening
- 2) Remove plaster and horizontal wood slats to enlarge access to existing void space on each side of existing door from 36" to 72"
- 3) Add 2 loose 2"X6"s between floor and ceiling under header on either side to carry possible load while studs are removed
- 4) Remove door frame and vertical studs that block the desired opening into existing void space on both sides of present door opening
- 5) Install new frame with 2"X4" studs and 2"X8" with plywood as new opening header (see cross section drawing, above)
- 6) Install 32" high base cabinet unit with attached 4 bookshelf unit inside new opening

#### Dining room - Living Room:

#### Actions:

- 1) Remove trim and threshold from opening
- 2) Remove plaster and wood slats to enlarge opening from existing 32" to 64"
- 3) Remove frame and vertical studs
- 4) Install new frame with 2"X4" studs and 2"X8" with plywood as new opening header (see cross section drawing, above)
- 5) Install new matching trim and threshold



After closets in hallway 180 HIGH STREET and opening between dining and living are widened



# **Specific Power of Attorney**

BE IT ACKNOWLEDGED that I, CHRISTOPHER GEORGE LONGOEN HALL
Full Name  CRR-64-1268 the undersigned do hereby grant a limited and
Full Name  social security number specific power of attorney to  ABIGAIL ASHTON KEENE INGRAHAM,  Full Name  of 184 HIGH STREET, APARTMENT 60, PORTLAND ME CHICA (257) 253-5080  Address  Phone
of 180 HIGH STREET, APARTMENT 60 PERTLAND NECHOL (257) 253-5080
as my attorney-in-fact.
Said attorney-in-fact shall have full power and authority to undertake and perform only the following acts on my behalf:
1. OBTAIN APPROVAUS FROM THE MARKBORGUER ASSOCIATION BOARD, 2. CONTRACT WITH CONTRACTORS, WORKMEN AND VENDORS, AND 3. PURCHASE SUPPLIES, FUNDISHINGS AND EQUIPMENT WHICH I WILL REMBURSE AND EQUIPMENT WHICH I WILL REMBURSE THE authority herein shall include such incidental acts as are reasonably required to carry out and perform the specific authorities granted herein.
My attorney-in-fact agrees to accept this appointment subject to its terms, and agrees to act and perform in said fiduciary capacity consistent with my best interest, as my attorney-in-fact in its discretion deems advisable.
This power of attorney is effective upon execution. This power of attorney may be revoked by me at any time, and shall automatically be revoked upon my death, provided any person relying on this power of attorney shall have full rights to accept and reply upon the authority of my attorney-in-fact until in receipt of actual notice of revocation.
Signed this