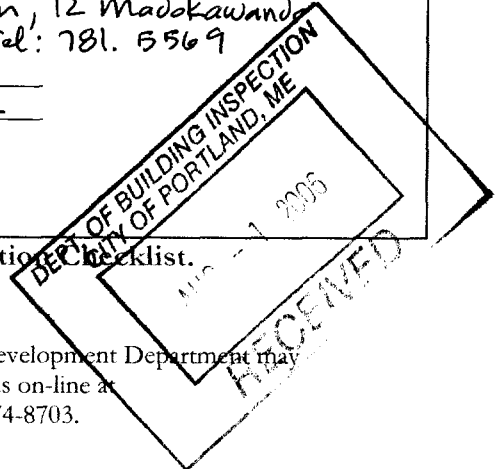




# General Building Permit Application

If you or the property owner owes red 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>138 Beacon Street, Portland, ME</u>   |  |  |   |
| Total Square Footage of Proposed Structure<br><u>Porch = 200 SF ; "LINK" = 91 SF</u>   |  | Square Footage of Lot<br><u>9,450 SF</u>   |   |
| Tax Assessor's Chart, Block & Lot<br>Chart#      Block#      Lot#<br><u>12A          C          13</u>   |  | Owner:<br><u>Nancy L. Barba</u><br><u>Cynthia Wheelock</u>   | Telephone:<br><u>207.775.1005</u>   |
| Lessee/Buyer's Name (If Applicable)<br><br><u>NA</u>   |  | Applicant name, address & telephone:<br><u>Nancy L. Barba</u><br><u>Cynthia Wheelock</u><br><u>138 Beacon St.</u><br><u>Portland, ME 04103</u> | Cost Of Work: \$ <u>25,000</u><br><br>Fee: \$ <u>270.00</u><br><br>C of O Fee: \$ <u>NA</u> |
| Current Specific use: <u>Residence / Barn (Home and Storage)</u><br>If vacant, what was the previous use? _____<br>Proposed Specific use: <u>Residence and Storage</u> |  |  |   |
| Project description: <u>Link addition to correct roofing problem between house and barn. Porch addition.</u>   |  |  |   |
| Contractor's name, address & telephone: <u>Ben Weigel, Weigel Construction, 12 Maddokawand Landing, Falmouth, ME 04105 Tel: 781. 656 9</u>                             |  |  |   |
| Who should we contact when the permit is ready: <u>Nancy L. Barba</u>  |  | Mailing address: _____<br>Phone: <u>207.233.2722</u>   |   |



Please submit all of the information outlined in the Commercial Application 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 visit us on-line at [www.portlandmaine.gov](http://www.portlandmaine.gov), stop by the Building Inspections 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 of applicant: <u>MM</u> | Date: <u>1 Aug '06</u> |
|-----------------------------------|------------------------|

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

ARCHITECTURE  
PRESERVATION  
DESIGN

Date: 1 August 2006

To: Mike Nugent  
Code Enforcement Officer, City of Portland  
Portland, ME 04101

From: Nancy L. Barba, AIA

Re: 138 Beacon Street – Structural Link and Porch Addition

- Small addition to second floor and porch (approximate value \$25,000)

Enclosed: Project Code Summary  
Project Specifications, Architectural and Structural  
Door Schedule  
Window Schedule

24x36 Sheets

L1.0 Landscape Plan  
S1.0 Structural Plan  
A1.0 First Floor Demo Plan and New Work Plan  
A1.1 Second Floor Plan  
A1.2 Roof Plan  
A2.0 Existing Elevations  
A2.1 Proposed Elevations  
A3.0 Transverse Sections  
A3.1 Longitudinal Section

~~11x17 Sheets~~

All drawings listed above

PDF on disc

Comments:

The work for the “Link” and Porch Project at 138 Beacon Street takes place at a small wedge between the existing house and barn. The two buildings sit 1'-4" apart and overlap by approximately 10'-0". An earlier addition (by previous owner) connected the two on the first floor only and created a first floor level mudroom, a “link” between the kitchen in the house and the first floor of the barn. This space is insulated and fire rated, as is the house, but the barn is currently uninsulated space. This project will extend the second floor of the house into the second floor of the barn, over the existing link. The new space is designed to meet minimum structural framing requirements in the roof to allow dimensional matching with the old. This will allow for R38 in the ceiling and R21 in the walls. The walls and ceilings will be fire rated.

500 CONGRESS STREET

PORTLAND, MAINE 04101

FAX 207.772-3667

TEL 207.772-2722

Because of existing rooflines of the house and the barn, the desire is to match rooflines and key dimensions of the existing structures, and match the pitch of the **link** roof to the pitch of the existing barn roof. The new porch off the front of the barn will serve as a **link** between the house and the side yard which is currently inaccessible from the north side of the house.

**In** addition to the work described above, we are undertaking a roofing replacement project that does not require permitting. The price of the new **link** roof only is included in the value of the job stated above. Sheet A1.2 includes notes to the roofer which are beyond the scope of the project for which is being permitted.

**138 Beacon Street, Portland, ME**  
**Building Code Summary**  
**August 2006**  
The City Portland Maine utilizes the IRC 2003

|                        | <b>IRC 2003</b>  |
|------------------------|--|
| <b>Reviewer:</b>       | Mike Nugent, Portland CEO Phone: <b>874-8300</b>   |
| <b>Egress Windows</b>  | <i>R310</i>  |
| Min. Net Clear Opening | <b>5.7 SF</b>  |
|                        | <b>5 SF</b> (ground floor)   |
| Height                 | <b>24"</b> min.  |
| Width                  | <b>20"</b> min.  |
|                        |  |
| <b>Stairways</b>       | <i>Sec. R311.5.3</i>   |
| Maximum Riser          | 7-3/4"   |
| Minimum Tread          | 10"  |
| Minimum Width          | 36"  |
| Dimensional Uniformity | 3/8" Tolerance   |
| Headroom               | 80"  |
| Existing Structures    | Alteration or replacement of existing stairway in existing structure shall not be required to comply with requirements of new stairway as outlined in Section 1009. ( <i>Sec. 3403.4, p. 567</i> ) |
| <b>Handrails</b>       | <i>R311.5.6</i>  |
|                        | One side of each continuous run of 4 or more treads  |
| Height                 | 34" – 38" above surface of treads on one side of stairway  |
| <b>Landings</b>        | <i>R311.5.4</i>  |
|                        | There shall be a landing at the top and at the bottom of each stairway   |
| <b>Guardrails</b>      | <i>R312</i>  |
|                        | Porches, balconies or raised floor surfaces located more than 30" above the floor or grade below shall have a guard not less than 36" in height.   |
|                        | Open sides of stairs with a total rise of more than 30" above the floor or grade shall have guards not less than 34" in height measure vertically from the nosing.                                 |
| <b>Limitations</b>     | (must have)... intermediate rails or enclosures which do not allow passage of a sphere 4" or more in diameter.   |
| <b>Insulation</b>      | <i>Chapter 11, Cumberland County is Zone 15</i>  |
| Ceilings               | R49 (R38 if construction technique allows for framing over top of wall plate)  |
| Walls                  | R21  |

ARCHITECTURE  
PRESERVATION  
DESIGN

Date: 1 August 2006

## General Materials Specification, 138 Beacon Street, Portland, Maine

### 01 General

- Standard

### 02 Site

- Some regrading will be required around the area of the porch – some new topsoil and shade grown sod should be allowed for.
- Dry-laid fieldstone retaining wall at location of proposed porch will need to be moved and rebuilt – some additional stone may be required.

### 03 Concrete

- Concrete sonotube footings and big foot to support new porch.

### 04 Masonry

- See 'Site' above.
- Repoint existing brick foundation of house at East and West sides of North cross gable where settled. Paint to seal exterior surface in water-damaged area adjacent to proposed porch to reduce water infiltration and inhibit further damage to the foundation.
- Examine, propose and execute any repair necessary to existing barn and 'connector' foundation in areas adjacent to new work, as the project proceeds (upon consent of the Owner).

### 05 Metals

- All hangers at new porch to be ZMAX/HDG (A653/G185) and meet current requirements for contact with pressure-treated lumber.
- All screws, nails and other applicable fasteners for trim, decking and other exterior elements that will be exposed to the weather shall be stainless steel.
- All hanger nails, lag bolts, carriage bolts, threaded rod, anchor bolts or other applicable fasteners for structural elements that will be exposed to moisture shall be Hot-Dipped Galvanized in accordance with ASTM A153.

## 06 Wood and Plastics

- Standard framing and sheathing. Use products with formaldehyde-free adhesives where applicable and available.
- Porch roof to have T+G V-Groove sheathing as indicated on the plans.
- Porch and stair decking material T.B.D. by owner – please include pricing options for both wood and composite decking. Please also provide pricing for TimberSIL decking (contact Hancock Lumber for information).
- FC PWD as noted on plans stands for Fire-Code Plywood that is to be 1-hour fire-rate for fire-separation of building structures.
- Deck frame to be non-Pressure-Treated wood, except for posts. Please provide alternate pricing for framing members as Sodium Sulfate-Treated products (see TimberSIL).

## 07 Thermal and Moisture

- Closed-cell urethane spray-applied foam insulation to be installed as indicated on plans to fill framing cavities and at **minimum**, achieve R-Value ratings as follows:
  - Roof - R49 (R38 if roof is framed over top plate)
  - Walls - R21
  - Floors - R21
- Investigate possible use of a bio-based spray-applied foam (see <http://www.biobased.net/>)
- Provide alternate price for cellulose insulation where applicable (this will not achieve R-value requirements in the depth of the ceiling, but works elsewhere).
- At locations where gypsum wall-board and paint are to be applied, provide an air-tight assembly that can stand in lieu of a polyethylene vapor-barrier when used in conjunction with either urethane spray-applied foam insulation or cellulose insulation. In all other situations, a polyethylene vapor-barrier must be applied to the warm-side of the insulating wall in order to achieve code-compliance.

## 08 Doors and Windows

- See door and window schedule.
- Porch screens to be fiberglass mesh, charcoal color.
- New dog door to fit existing opening.

## 09 Finishes

- Provide samples of stain applied to decking material prior to application – color by Owner.
- Provide samples of all exterior and interior paint, stain, and clear coat finishes prior to application – colors and specifications to be provided by Owner.
- 5/8" Gwb, Type "X"

## 15 Mechanical

- Extend existing baseboard hot-water system into new conditioned spaces; additional load on existing system to be carefully considered. Any potential mechanical issues to be brought to the attention of the Owner.

## 16 Electrical

- Assume standard electrical outlet requirements for residential structures, including applicable power for equipment shown in plans, such as washer and dryer.
- Allow for switched outlets and lighting fixtures to be arranged in conjunction with Owner's requirements.

## GENERAL STRUCTURAL NOTES

**138 Beacon Street  
Portland, Maine**

### DESIGN LIVE LOADS:

|          |                               |
|----------|-------------------------------|
|          | 2003 IBC, U.O.N.              |
| * Snow   | 50 psf, (Pg)                  |
| * Wind   | 100 mph, exp B, 3 second gust |
| * Floors | 40 psf                        |

### CONCRETE AND REINFORCEMENT:

- Concrete shall conform to applicable provisions of ACI-301 and 318.  
Minimum 28 day compressive strength (F<sub>c</sub>)  
UNO: 3,000 psi  
Exterior Slabs: 4,000 psi w/ Fibermesh
- \* Cement Type: 1/11
  - \* Deformed reinforcement: ASTM A615 grade 60, except bars specified to be field-bent, stirrups, and ties which shall be grade 40.
  - \* Fibermesh: 100% virgin polypropylene, fibrillated fibers as manufactured by Fibermesh Co. per ASTM C-1116 type 111 4.1.3 and ASTM C-1116 performance level one, 1.5 lb. per cubic yard.
  - \* Reinforcement shall be fabricated and placed per ACI Manual of Standard Practice (ACI-315). At splices, lap bars 50 diameters unless noted otherwise.
  - \* Concrete cover over reinforcing: 1 1/2" for concrete placed against forms; 3" for concrete placed against earth. See also drawings.
  - \* Keep reinforcement clean and free of dirt, oil, and scale. Oil forms prior to placing reinforcement.

### WOOD FRAMING:

- \* Dimension Lumber is designed and shall be supplied using BASE VALUES Design Criteria. Spruce-Pine-Fir #2 and better (Maximum Moisture Content 19%) U.O.N.  
Sill plates: Pressure Treated SPF or Southern Pine:  
"**Pressure treated lumber**" shall be framing material of the specified species which has been pressure treated with a decay and insect resistant solution, meeting all current standards for wood in contact with concrete or earth.  
Sill plates in contact with masonry or concrete foundations, footings or slabs may be treated Timber Strand LSL (zinc borate treatment). Sodium borate treatment may also be acceptable for sill plate applications when protected from weather.  
Acceptable treatment mediums for wood in contact with earth or in exterior applications include ACQ-C and ACQ-D (Alkaline Copper Quaternary) and copper azole (CBA-A and CBA-B).  
**DO NOT USE WOODS WHICH HAVE BEEN TREATED WITH AMMONIA BASED CARRIERS.**  
All connectors shall meet the recommendations of the pressure treated wood manufacturer, but shall be not less than Hot Dipped Galvanized meeting requirements of ASTM A653, such as Simpson ZMAX. (G185). All screws, nails and bolts shall match hangers and other connectors, and shall meet ASTM A123 for individual connectors and ASTM A153 for fasteners.  
For durability, it is our recommendation that connectors used in exposed conditions with treated lumber be stainless steel.  
Do not mix galvanized and stainless products.  
Do not allow aluminum to contact treated wood.

Top and Bottom Plates: SPF

SPF Studs U.O.N: 2 x 4 and 2 x 6 to 8'-0": stud grade  
2 x 4 over 8'-0": standard and better  
2 x 6 over 8'-0": No. 2 and better

Floor Joists: SPF, No 2 and better

- \* Rafters: SPF, No. 2 and better

Laminated Veneer Lumber (LVL): Manufactured 1 3/4" wide Microllams (ML) by Trus Joist or equivalent.

- \* F<sub>b</sub>=2,600 psi, E=1,900,000 psi, F<sub>v</sub>=285 psi, depth noted on plans.

All plywood and oriented strand board (OSB) sheathing shall be engineered grades with APA grade stamp indicating appropriate maximum spacing of supports.

Floor sheathing: nominal 3/4", APA Sturd-I-floor "24" tongue & groove glued and nailed.

Roof sheathing: minimum 5/8" CDX plywood, or 19/32" OSB, APA 40/20, nailed.

Wall sheathing: 1/2" CDX plywood or 7/16" OSB, APA 24/16, blocked and nailed.



\* **SHEATH ALL EXTERIOR WALLS**

- \* Nail wall sheathing with 8d commons at 6" o.c. at panel edges, and 12" o.c. intermediate framing U.N.O. **BLOCK AND NAIL ALL EDGES BETWEEN STUDS.** Sheathing shall be continuous from bottom plate to top plate. Cut in "L" and "T" shapes around openings. Lap sheathing over rim joists min. 4" at all floors to tie upper and lower stud walls together. Minimum height of sheathing panels shall be 16" to assure that plates are tied to studs. Use minimum 3-8d per stud and nail plates with edge nail spacing.
- \* Sole plate at all perimeter walls and at designated shear walls shall be nailed as for braced panels with 3-16d x 3 1/2" long box nails (coated or deformed shank) per 16". 12d nails are not acceptable.
- \* Minimum nailing shall comply with IBC Table 2304.9.1 except where more or larger nailing shown on drawings.
- \* All roof rafters, joists, and beams shall be anchored to supports with metal framing anchors.
- \* Double joists under partitions where joists are parallel to partitions.
- \* Provide continuous wall studs each side of wall openings equal to one half or greater of number of studs interrupted by openings.
- \* All wall studs shall be continuous from floor to floor or from floor to roof.
- \* Cross bridge all dimension lumber roof and floor joists at midspan and provide solid blocking or rim joists at all joist supports and joist ends.
- \* Solid block between rafters at bearings.
- \* Metal connectors: Simpson Strong Tie unless otherwise noted, installed with number and type of nails to achieve maximum rated capacity. Note that heavy duty and skewed hangers may require special order.
- \* All beams shall be braced against rotation at points of bearing.
- \* Unless otherwise indicated, install two lengths of solid blocking x joist depth x 12 inches long in floor framing under column loads. Columns must have a continuous load path to foundation.
- \* Lead holes for lag bolts shall be 60% to 70% of lag shank diameter in compliance with AITC criteria.

**STRUCTURAL ERECTION AND BRACING REQUIREMENTS**

- \* The structural drawings illustrate the completed structure with all elements in their final positions, properly supported and braced, The contractor, in the proper sequence, shall provide proper shoring and bracing as may be required to achieve the final completed structure.
- \* These plans have been engineered for construction at one specific building site. Builder assumes ALL responsibility for use of these plans at Any Other building site. Plans shall not be used for construction at any other building site without specific review by the engineer.
- \* All slabs on grade shall be separated from adjacent structural and finish elements to allow free movement of the slab, unless specifically shown and noted otherwise.

**FRAMING NOTES:**

- \* T = Header Trimmer  
K = King Stud
- \* One trimmer and one king stud each side of openings in stud walls U.O.N.  
Header sizes shown are minimum. Headers may be standardized at largest size at contractors option.  
(If not indicated, min. Header is 3 - 2X6 for 2x6 stud walls, or 2-2x8 for 2x4 stud walls)
- \* At main floor columns and at opening jambs wider than 5'-0, install 2 - 1 3/4" x joist depth x 1'-0  
Microlam block. See also plans for exceptions.
- \* All stud bearing walls shall be thickness indicated with studs at 16" o.c. Non-bearing partitions may be light gauge steel studs or dimension lumber at owner's option.

Barba Wheelock Residence  
138 Beacon Street  
Portland, Maine 04101

Window Schedule

| BARBA-WHEELOCK RESIDENCE WINDOW SCHEDULE |          |             |              |        |                         |          |                                     |
|--|----------|-------------|--------------|--------|-------------------------|----------|-------------------------------------|
| WINDOW                                   | TYPE     | MANUFACTUER | MODEL #      | EGRESS | UNIT WIDTH              | UNIT HT. | COMMENTS                            |
| A  | CIRCULAR | ANDERSEN    | W-RT27 1-3/4 | NO     | 37'-3/4" DIAMETER FRAME |          | ROUND OPERABLE WINDOW<br>W/36" SASH |
| NOTES:                                   |          |             |              |        |                         |          |                                     |

Barba Wheelock Residence  
 138 Beacon Street  
 Portland, Maine 04101

Door Schedule

| BARBA-WHEELLOCK RESIDENCE DOOR SCHEDULE - 138 BEACON ST. |              |              |      |            |       |       |        |              |           |                     |
|--|--------------|--------------|------|------------|-------|-------|--------|--------------|-----------|---------------------|
| NO.  | DOOR         |              |      |            | SIZE  |       |        | MANUFACTURER |           | NOTES               |
|  | FROM ROOM    | TO ROOM      | TYPE | MATERIAL   | WIDTH | HT.   | THICK. | MFR.         | MODEL #   |                     |
| 101  | LAUNDRY      | BARN         |      | HOLLOW MTL |       |       |        |              |           | REUSE EXISTING DOOR |
| 102a   | LAUNDRY      | SCREEN PORCH |      | WD         | 3'-0" | 6'-8" | 1 3/4" | SIMPSON      | 7601 I.G. |                     |
| 102b   | SCREEN PORCH | LAUNDRY      |      | WD         | "     | "     | "      | MORGAN       | TBD       | SCREEN/STORM COMBO  |
| 103  | SCREEN PORCH | STAIRS       |      | WD         | 3'-0" | 6'-8" | 1 3/4" |              | CUSTOM    | SCREEN              |