

GENERAL STRUCTURAL NOTES

12-0010
Renovation
727 Congress Street
Portland, ME

- DESIGN LIVE LOADS:** 2009 IBC/IRC, MUEBC
- * Snow 50 psf (Pg), used for drifting
 - * Wind 100 mph, exp C, 3 second gust
 - * Floor 40 psf
 - * Exterior Decks 60 psf

WOOD FRAMING:

- * Dimension Lumber is designed and shall be supplied using BASE VALUES Design Criteria.
- * SPF #2 and better (Maximum Moisture Content 19%) U.O.N.
Plates: 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 No 2 and better
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
2x 6 over 8'-0": No. 2 and better

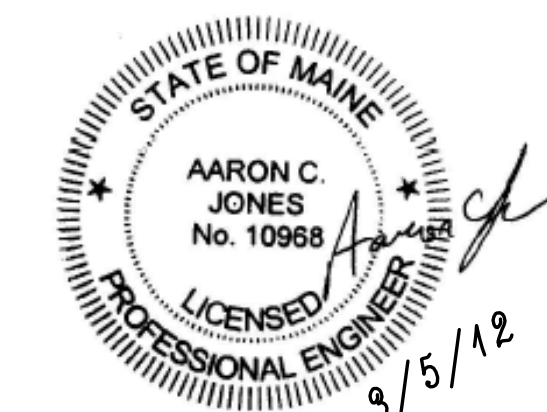
- * Laminated Veneer Lumber (LVL): Manufactured 1 3/4" wide Microlams (ML) by Ilevel/Trus Joist or equivalent.
Fb=2,600 psi, E=1,900,000 psi, Fv=285 psi, depth noted on plans.
- * All plywood and oriented strand board (OSB) sheathing shall be engineered grades with APA grade stamp indicating appropriate maximum spacing of supports.
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.
- * 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. SHEATH ALL EXTERIOR WALLS.
- * Minimum nailing shall comply with IBC Table 2304.9.1 except where more or larger nailing shown on drawings.
- * All roof rafters, joists, trusses, 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.
- * All prefabricated plywood Web I-type joists shall be installed per the manufacturer's recommendations. Do not cut or notch chords in any manner. Holes in webs shall not exceed manufacturer's published limit criteria.

- * 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.
- * Drypack grout all beam pockets full after beams are set.
- * 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.
- * Observations of framing required by the owner, lender, insurer, building department or any other party will be accomplished by the engineer at the owner's expense. At least 24 hours advance notice is requested.

Structural Drawing Index	
S1.00	General Notes, Etc.
S1.01	Foundation and Main Level Framing Plan
S1.02	Roof/ Fourth Floor Framing Plan and Sections



Structural Integrity
Consulting Engineers, Inc.

77 Oak Street
Portland, ME, 04101
p. 207-774-4614
f. 866-793-7835
www.structuralinteg.com

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	Prepared For: LONGFELLOW PLACE, LLC		Portland, Maine
Consulting Engineer: Structural Integrity	77 Oak Street (207) 772-6022	Portland, Maine 04101 Fax (207) 772-4056	
Architect: ARCHETYPE architects	48 Union Wharf (207) 772-6022	Portland, Maine 04101 Fax (207) 772-4056	
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