

90 MORNING STREET, PORTLAND, ME

BUILDING PERMIT APPLICATION

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APPLICANT/OWNER

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CODE REVIEW - RENOVATIONS

SCOPE OF WORK

- Conversion of existing attic space to provide master bedroom, bath, sitting room and porch for 3rd floor unit in three-family building.
- Installation of NPFA 13R sprinkler system throughout the building.
- Design-build permits for plumbing, fire suppression, electrical & fire alarm to be submitted separately.

APPLICABLE ZONING

City of Portland Zoning Ordinance and Map

ZONING DISTRICT: R6 – Multi-family

Chapter 14

14-136 Permitted Uses

Allowable Use: Residential, Multifamily Dwellings

Existing Use: 3 Family Dwelling Proposed Use: 3 Family Dwelling

Parking: per Division 20

14-139 Dimensional Requirements

Dimension	Requirement	Existing	Proposed
Minimum Lot Size	2,000 SF	42 x 80= 3360 SF	No change
Min Lot Area/Dwelling Unit	3 x 725/unit = 2175 SF	3360 SF	No change
Min. Front Yard Setback	5 ft. or average depth of adjacent front yards	10 feet	no change
Min. Rear Yard Setback	10 ft.	1' - 6" existing condition	No change
Min. Side Yard Setback	5 ft., except that a side yard in R-6 zone may be reduced to 0, provided that the cumulative side yard setbacks are not less than 10 ft.	North side = 2'-0" South side = 13'-5" Existing condition	No change
Structure Stepbacks	Portions of structure above 35 ft. shall be no closer than 10 ft. from the side property line and no closer than 15 ft. from the rear property line when such a property line abuts a residential zone	See notes above re setbacks. Existing building is set in a hillside. Eaveline ranges from 31'-3" above grade at the rear to 36'8" at the front. Average height is thus 33'-10"	
Maximum Lot Coverage	60%	1858/3360 = 55%	No change
Minimum Lot Width	20 ft.	42 feet	No change
Maximum Height	45 feet	42'-8" above grade to midpoint of hipped roof at front (downhill side) No change	No change
Landscaped Open Space	20%. Shall not include parking areas or other impervious surfaces	Gardens 360 SF = 10.7% wood porches over dirt 360 SF = 9.4% Brick open joint pavers on sand base driveway 700 SF = 20%	No change

Dimension	Requirement	Existing	Proposed
Maximum garage opening		Not applicable	

14-436 Building extensions.

“Existing non-residential and residential principal structures which are nonconforming as to any area and/or yard requirements may be enlarged within the existing footprint subject to the following provisions:

“(b) For residential principal structures conforming as to land area per dwelling unit as of July 19, 1988, but lawfully nonconforming as to any yard setback or nonresidential principal structures that are lawfully nonconforming as to any yard setback: **The floor area of the expansion shall be limited to no more than eighty (80) percent of the first floor footprint. The additional floor area shall be created by raising the existing roof configuration the minimum amount required to create an additional story of habitable space, or by the use of dormers, turrets or similar structures. “**

Existing First Floor Footprint	1212 SF
North & East Dormer	320 SF
South Dormer	80 SF
Open Porch	Not included
Porch	400 SF 33% first floor area

APPLICABLE BUILDING CODES

- 2009 International Residential Code (IRC)
- 2009 International Building Code (IBC)
- 2009 International Existing Building Code (IEBC)
- 2009 International Energy Conservation Code (IECC)
- ASHRAE 62.2 – 2007 Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings

2009 INTERNATIONAL EXISTING BUILDING CODE – LEVEL 2 WORK

Chapter 4 Classification of Work: Level 2 (less than 50% of the aggregate area of the building)

Chapter 7 Alterations—Level 2

701.3, Compliance. All new construction elements, components, systems and spaces shall comply with the requirements of the IBC.
Exceptions: [none applicable]

703 Building Elements and Materials

703.2.1 Existing vertical openings. Exceptions:

703.2.1.11.0 “In Group R-2 occupancies, a minimum 30-minute enclosure shall be provided to protect all vertical openings not exceeding three stories. **This enclosure, or the enclosure specified in Section 703.2.1, shall NOT be required in the following locations:**

703.2.1.11.2 Buildings protected throughout by an approved automatic sprinkler system.”

Section 705 Means of Egress

705.2 General. The means of egress shall comply with the requirements of this section. Exception. **Means of egress conforming to the requirements of the IBC under which the building was constructed shall be considered compliant means of egress if, in the opinion of the code official, they do not constitute a distinct hazard to life.”**

705.5.1 Corridor doors. ...All dwelling or sleeping unit corridor doors in work areas in buildings of Group R-2...shall be at least 1-3/8 inch solid core wood or approved equivalent and shall not have any glass panels, other than approved wire glass or other approved glazing material in metal frames. All ...shall be equipped with approved door closers. All replacement doors shall be 1-3/4” solid bonded wood core or approved equivalent, unless the existing frame will accommodate only a 1-3/8” door.

Exceptions:

705.5.1.3. “Existing doors in buildings protected throughout with an approved automatic sprinkler system shall be required only to resist smoke, be reasonably tight-fitting and shall not contain louvers.”

Section 705.9 Handrails.

705.9.1 Minimum requirement allows for handrails on only one side of the stair.

705.10 Guards.

705.10.1 Minimum Requirement. "Every open portion of a stair, landing or balcony that is more than 30 inches above the floor or grade and is not provided with guards, shall be provided with guards....designed in accordance with the IBC."

Section 707 Structural. All structural work shall take place per the code.

Section 708 Electrical. All electrical work shall take place per the code.

Section 709 Mechanical. All mechanical work shall take place per the code.

Section 710 Plumbing. All plumbing work shall take place per the code.

2009 INTERNATIONAL BUILDING CODE

Chapter 3 - Use & Occupancy Classification: R 2

Chapter 4 - Detailed Requirements based on Use and Occupancy

420 Groups R-2

The building is Type V-A Construction and will be fully sprinklered. Type V-A Construction fully sprinklered requires a 1/2 hour fire rating for floor separations between residential units. The existing plaster and lath construction provides the 1/2 hour rating required. The last use of the 3rd floor is R2 Residential and that use remains in place so that any separation required would not exceed 1/2 hour.

Chapter 5 – General Building Heights & Area

Table 503 Allowable Building Heights and Areas

R2 Use Type V-A Construction

Parameter	Maximum With approved automatic sprinkler system	Actual/proposed
Building Height Limit	50 + 20 = 60 feet	45 feet
Stories Above Grade Plane	3 + 1 stories = 4	4
Building Area per Story	12,000	1,860

Chapter 6 – Types of Construction

Construction Type: V-A

Fire Resistance Ratings for Building Elements (Table 601)

Component	Fire Rating in Hours assuming fully compliant Sprinkler System
Structural Frame	0
Exterior Walls	0 (per Table 602)
Interior Bearing Walls	0
Exterior Non-Bearing Walls	NA
Interior Non-Bearing Walls	0
Floor Construction	0
Roof Construction	0

Given footnote d, the sprinkler exception cannot be used in this case as it already had been used for a height increase. Give this is being reviewed as a V-B construction type, please revise in code analysis.

Chapter 7 -- Fire and Smoke Protection Features

Section 709 Fire Partitions. (Walls separating dwelling units in the same building per 420.2)

709.3 Fire Resistance rating.

709.3.2 Dwelling and sleeping unit separations in buildings of Type IIB, IIIB and VB construction shall have fire resistance ratings of not less than ½-hour in buildings equipped throughout with an automatic sprinkler system.

Chapter 10 – Means of Egress

1004 Occupant Load Calculation

All dwellings within the work area are under the maximum occupant loads for the occupancies listed above and therefore only require 1 exit.

1016 Exit Access Travel Distance (Table 1015.1 with sprinkler system)

Occupancy Max Travel Distance Required R2: 250 feet

Actual Travel Distance Provided: less than 50 feet

NFPA 101: Life Safety Code, §§ 10-1--10-15 2009 Edition

Ch. 6 Classification of Occupancy: Apartment Building (3 or more dwelling units)

Ch. 7 Means of Egress

All units are provided with two remote means of egress which discharge directly to the exterior (first floor) or into a common front or rear stair.
All sleeping rooms have egress windows.

Ch 31 Existing Apartment Buildings

No issues.