

2007 ASHRAE 62.1 - Ventilation for Acceptable Indoor Air Quality 2007 ASHRAE 62.2 - Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings 2007 ASHRAE 90.1 - Energy Standard for Buildings except Low Rise Residential Buildings w/out addenda 2006 E-1465 Standard Practice for Radon Control Options for the Design and Construction of New Low-Rise Residential Buildings CODE REVIEW SUMMARY: Portland ORDINANCE REVIEW: REQUIREMENTS Minimum Lot Size 2,000 sq ft/ 750 sq ft per dwelling Minimum Street Frontage Minimum Side Street Yard Minimum Rear Yard Setback 0 in R-6 (otherwise 1 space per unit) Maximum Building Footprint 60%/ 1,873.2 sq ft Minimum Landscaped Open 20%/ 624.4 sq ft Space (not parking) Maximum Building Height Structure Setbacks apply to side yards on side streets <u> 2 Residential - Apartment</u> R-2 Residential - Apartments R-2 Residential - Apartments CONSTRUCTION TYPE & GENERAL BUILDING HEIGHT AND AREA LIMITATIONS Area Limitation: Group R-2 Table 503 R-2: V-A 12,000 sq ft per story and 506.3

Table 503 V-A - 3 stories, increase up to 4 stories and 504.2 w/ sprinkler and 1- hour rated Exterior leight Limitation: Group R-2 Table 503 V-A - 40 ft, increase up to 60 ft w/ and 504.2 sprii

BUILDING SEPARATION & EXPOSURE PROTECTION Exterior Walls: Load Bearing & Table 602 Rear Wall is 5' to 10' from property line so wall shall =1 hr. Separation of Occupancies Table 508.4 R2 - no fire separation requirements FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS ratings for Exterior and Interior Load-Bearing walls, Floor Construction and of construction Fire-Resistant Rating: Dwelling and leeping unit separations in buildings with type VA construction shall have re-resistance rating of not less than nour in buildings equipped throughout rith an 13R automatic sprinkler system. FIRE AND SMOKE PROTECTION FEATURES matic Sprinkler Systems 903/903.2.8 Sprinkler system required for Group R hour w/ No Reduction for 13 R Syster 420.2/709.3 1 hr required, if Units are adjacent to Sleeping Unit Separation resistance rating of not less than 1- hou 200 sq ft gross per floor/ 1,404 s.f. = 7 per floor for 3- Floors, Plus a 256 s.f. Roof Deck = 2 People. Total Occupant Egress Width per Occupant .3" per person Stairways x 7= 2 .2" per Person Horizontal= 1.4" 32" Minimum Clear Width Minimum Door Widths Common Path of Travel 1014.3 R-2: 75 ft or 125 ft w/ sprinkle able 1016.1 R: 200 Feet or 250 Feet with sprinkler Spaces w/ 1 exit Access Table 1015.1 R2 - maximum Occupant load 10. R-2 and 1015.1.1 one means of egress permitted from individual dwelling units w/ maximur ccupant Load of 20 w/ sprinkler. 44" min when occupancy > 50 36" min when occupancy < 50 20 Feet or 50 Feet with sprinkler system Exception 4. Group R-2 occupancy is allowed 1 means of egress if occupant load per floor is less than or equal to 20 Exits shall discharge directly to the Emergency Egrees and One egress allowed if sprinkled and emergency escape and rescue openings have been provided. Max. Area Ext. Wall open.s Table 2 based on fire separation distance and degree of STAIRWAYS (IN AREAS OF NEV 44" Min (36" min. for <50 Occupants) 2.2.2.1.2 44" Min (36" min. for <50 Occupants) All Stairways serve less than 50occ 80" min headroom clearance 4" min < Riser < 7" max
 7.2.2.2.1.1(a)
 80" min headroom clearance

 7.2.2.2.1.1(a)
 4" min < Riser < 7" max</td>
 1" min tread Risers shall be solid
Required at top and bottom. Width and distance in direction of travel equal to or greater than stair width " max vertical rise between floors or Handrails required on both sides

34" min and 36" max above stair tread Must comply with Type must extend 12" beyond top riser and depth of 1 tread beyond bottom riser Required on landings > 30" high

CITY OF PORTLAND, MAINE CODE OF ORDINANCES **ACTUAL** 122 sq ft (4 units allowable) 0 ft and 21 ft ft - Nonconforming ,565 sq ft (not including street side deck & steps) 0% - Nonconforming 32'-2" grade to bottom of cornice Above 35'- 10' from side property line, 15' from rear property line when abuts residential zone. Does not sidential- Apartment Building No Change in Use Residential- Apartment Building No Change in Use Residential- Apartment Building No Change in Use No Change in Use Table A.8.2.1.2 Type V (000) (Existing) No Change of Use, Construction Type shown for compliance with current standards
Existing gross floor area= 1,420 s.f. NFPA 5000 not adopted by the Maine State Fire Marshal's Office NFPA 5000 NFPA 5000 not adopted by the Maine State Fire Marshal's Office All Exterior Walls will have a 1 hr. rating, UL Design U330 Door Openings that are required shall be self-closing /4 hour. See Exterior Elevation 5/ A-0.1 alls, Floor Construction and roof construction shall be Condition 7 for Single Exit requires min. 1-Hour Horizontal Assemblies Provided between ground and second floors and second and third floors Option #4: Buildings Protected Throughout by an Approved Automatic Sprinkler kit Access Corridors due noit exist in this project because Unit Doors are directly adjacent to a Rated Stair Enclosure Not Required: Apartments are made-up of an entire

floor and are not adjacent to each other.

" + provided due to Occupant Load of 23

ded at all doors for egress passage in new work

Common Path of Travel is 0'-0" because Unit Doors are

directly adjacent to a Rated Stair Enclosure. Furthest ravel Distance Outside Units is from roof deck to

Additional roof deck proposed, but the only access

will be within the third floor unit. NFPA Condiitions 1-7

o new or existing dead end corrdior exceeds 50'-0'

IBC-Occupant load is 7- per floor and 2- for roof deck NFPA 101- All 7 conditions shall be met with the

renovations. See section 5.0 Fire and Smoke Protectio

All Bedrooms shall have either an egress window or a

oposed Stair is 9'-6" Floor to floor and 10'-6" floor to

uardrails meet requirements

Guardrails meet requirements Guardrails meet requirement

eatures for rating of Exit Enclosure.

Exit discharges directly to the exterior

door that leads directly to a deck.

All corridors serve less than 50 persons, min 36"

Exit stairway requires walls with 1-hour fire Exit Stair enclosure shall have 1-hour walls and 1-hour

200 sq ft gross per floor/ 1,404 s.f. = 7 per | Actual Occupant load is anticipated at 3-4 per floor

Within Apartment using Option 4= 125'-0" Max. Distance within Apartment= 66'-0". Furthest travel max. Max Distance other than Units= 250'-Distance Outside Units is from roof deck to Exterior 0" in Buildings protected through-out by

Total number of stories not to exceed 4 Existing 3- Story Aparment building to Remain.

Exterior Door = 125'-0"

provided throughout

separation and a 1-hour opening self-closing doors.

floor for 3- Ffloors, Plus a 256 s.f. Roof

3" per person Stairways x 7= 2.

2" per Person Horizontal= 1.4" 32" Minimum Clear Width

w/ sprinkler system.

onditions are met

11" min tread

Landing size can not decrease in the

path of travel. Distance in direction of

travel equal to or greater than stair width

12' max vertical rise between floors or

Handrails required on both sides
34" min and 36" max above stair tread

must extend 12" beyond top riser and

depth of 1 tread beyond bottom riser

44" min when occupancy > 50

36" min when occupancy < 50

Number of Exits: One allowed if all 7

Exits shall discharge directly to the

Deck = 2 People. Total Occupant Load=

n approved automatic sprinkler system

oper landing at roof deck interior landing r Handrail extensions meet requirement