2021 Washington State Energy Code – Residential Prescriptive Energy Code Compliance for All Climate Zones in Washington Multifamily – New & Additions (effective March 15, 2024)

PRMU2024169)5
City of Puyallup	



Authorized Representative

Permit#			
	Address or Lo	t & Block	
501 2nd Street NE			
		145	
City	Puyallup	Zip	98372

Date 10-31-24

These requirements apply to all Dwelling units serving Group R-2 occupancies. See Section R401.1 and residential building in Section R202 for Group R-2 scope.

Instructions:

This multifamily project uses the requirements of the Prescriptive Path below to incorporate the minimum values listed, additional credits must be selected by the permit applicant.

Provide all information from the following tables in the building permit drawings: Table R402.1.2 - Insulation and Fenestration Requirements by Component, Table R406.2 - Energy Equalization Credits and R406.3 - Energy Credits.

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	Signature	ICMS, Puls	Date 10-31-24		
170		All Climate Zones Table 402.1.3			
		R-Value ^a	U-Factor ^a		
Fen	estration U-Factor b, j	N/A	0.30		
	ight U-Factor ^b	N/A	0.50		
	ing ^e	60	N/A		
$\overline{}$	od Frame Wall ^{g,i}	20+5 or 13+10	N/A		
Floo		30	N/A		
Belo	ow Grade Wall ^{c,h}	10/15/21 int + 5TB	N/A		
Slab	o d,f R-Value & Depth	10, 4 ft	N/A		
а	thickness of the insulation, th in the table	ctors and SHGC are maximums. When insulation is installe e compressed R-value of the insulation from Appendix Ta	d in a cavity which is less than the label or design ble A101.4 shall not be less than the R-value specified		
b	The fenestration U-factor colu				
с	"10/15/21 +5TB" means R-10 continuous insulation on the exterior of the wall, or R-15 continuous insulation on the interior of the wall, or R-21 cavity insulation plus a thermal break between the slab and the basement wall at the interior of the basement wall. "10/15/21 +5TB" shall be permitted to be met with R-13 cavity insulation on the interior of the basement wall plus R-5 continuous insulation on the interior or exterior of the wall. "5TB" means R-5 thermal break between floor slab and basement wall.				
d	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				
е	exterior wall.	ted ceilings, the insulation may be reduced to R-38 if the f			
f	R-7.5 continuous insulation in to existing slabs complying winding plastics.	istalled over an existing slab is deemed to be equivalent to ith Section R503.1.1. If foam plastic is used, it shall meet t	o the required perimeter slab insulation when applied he requirements for thermal barriers protecting foam		
g	5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 -				
h	78 percent of the wall cavity i	enotes framing and insulation as described in Section A10: insulated and headers insulated with a minimum of R-10 i	nsulation.		
ji	The first value is cavity insulation plus R-10 continuo	tion, the second value is continuous insulation. Therefore, us insulation	, as an example, "R13+10" means R-13 cavity		
j	A maximum U-factor of 0.32	shall apply to vertical fenestration products installed in bu regions where protection of openings is required under So	uildings located above 4000 feet in elevation above sea ection R301.2.1.2 of the International Residential		



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Each dwelling unit *in a residential building* shall comply with sufficient options from Table R406.2 (Energy Equalization Credits/Options) and Table 406.3 (energy credits) to achieve the following minimum number of credits. To claim this credit, the building permit drawings shall specify the option selected and the maximum tested building air leakage, and show the qualifying ventilation system and its control sequence of operation.

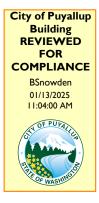
- 4. Dwelling units serving Group R-2 occupancies: 6.5 credits
 Section R401.1 and residential building Section R202 for Group R-2.

The drawings included with the building permit application shall identify which options have been selected and the point value of each option, regardless of whether separate mechanical, plumbing, electrical, or other permits are utilized for the project

Before selecting your credits on this Summary table, review the details in Table 406.3 (Multifamily Family), on page 4.

Table R406.2 ENERGY EQUALIZATION CREDITS				
System Type			Credits - select ONE system type	
1	For combustion heating equipment meeting minimum federal efficiency standards for the equipment listed in Table C403.3.2(5) or C403.3.2(6)	0		
2	For an initial heating system using a heat pump that meets federal standards for the equipment listed in Table C403.3.2(2) and supplemental heating provided by electric resistance or a combustion furnace meeting minimum standards listed in Table C403.3.2(5)b found in the 2021 WSEC- COMMERCIAL ENERGY CODE	0		
3	For heating system based on electric resistance only (either forced air or Zonal)	-0.5		
4 ^c	For heating system using a heat pump that meets federal standards for the equipment listed in Table C403.3.2(2) or C403.3.2(9) or Air to water heat pump units that are configured to provide both heating and cooling and are rated in accordance with AHRI 550/590	2.0		
5	For heating system based on electric resistance with: 1. Inverter-driven ductless mini-split heat pump system installed in the largest zone in the dwelling, or 2. With 2kW or less total installed heating capacity per dwelling	0	•	

- a. See Section R401.1 and residential building in Section R202 for Group R-2 scope.
- b. The gas back-up furnace will operate as fan-only when the heat pump is operating. The heat pump shall operate at all temperatures above 38°F (3.3°C) (or lower). Below that "changeover" temperature, the heat pump would not operate to provide space heating. The gas furnace provides heating below 38°F (3.3°C) (or lower).
- c. Additional points for the HVAC system are included in Table R406.3.



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	Summar	y of Table	R406.3	
Options		Credits - limited to one energy option from each category d		Comments:
		0.5	•	
1.2	Efficient Building Envelope	1.0		
1.3	Efficient Building Envelope	1.5		
1.4	Efficient Building Envelope	2.0		
2.1	Air Leakage Control and Efficient Ventilation	1.0		Principle, NASS 1857
2.2	Air Leakage Control and Efficient Ventilation	1.5		
2.3	Air Leakage Control and Efficient Ventilation	2.0		
3.1ª	High Efficiency HVAC	1.0		
3.2 ª	High Efficiency HVAC	0.5		
3.3ª,c,d	High Efficiency HVAC	0		
3.4ª,d	High Efficiency HVAC	1.0		
3.5 ^d	High Efficiency HVAC	2.0	•	
3.6ª	High Efficiency HVAC	0		
3.7a,d,e	High Efficiency HVAC	3.0		
3.8a,d	High Efficiency HVAC	0		
3.9°	High Efficiency HVAC	1.5		
3.10	High Efficiency HVAC	2.5		
3.11	High Efficiency HVAC	0.5		
4.1	High Efficiency HVAC Distribution System	0		
5.1 ^d	Efficient Water Heating	0.5		
5.2	Efficient Water Heating	0.5		
5.3	Efficient Water Heating	0.5		
5.4	Efficient Water Heating	1.0		
5.5	Efficient Water Heating	1.5		
5.6	Efficient Water Heating	2.5	•	THE PARTY OF THE PARTY OF THE
5.7	Efficient Water Heating	3.0	- T	
5.8	Efficient Water Heating		āt	
	Renewable Electric Energy (4.5 credits max)	0.5-4.5		
6.1 ^e 7.1	Appliance Package	1.5		

a. An alternative heating source sized at a maximum of 0.5 Watts/ft2 (equivalent) of heated floor area or 500 Watts, whichever is bigger, may be installed in the dwelling unit.

b. See Section R401.1 and residential building in Section R202 for Group R-2 scope.

c. Option 3.11 can only be taken with Options 3.1 and 3.3. To qualify to claim Option 3.11 with 3.3, the system shall be a 1-2 speed heat pump system. Variable capacity heat pumps are ineligible from claiming this option.

d. This option may only be claimed if serving System Type 4 or 5 from Table R406.2.

e. Primary living areas include living, dining, kitchen, family rooms, and similar areas.

f. Option 3.11 may only be taken with Efficient Water Heating Options 5.1 or 5,2. Equipment sizing for space heating shall be calculated as provided in Section R403,7 with increased capacity to provide a minimum of 75 percent of peak hot water demand or shall be sized in accordance with approved manufacturer's specifications or guidance. Supplementary heat for water heating system shall be in accordance with Section R403.5.7.