



Local Climatic Design Criteria

For Roanoke City, Roanoke County,
The Town of Vinton, & Salem



Residential 1 & 2 Family Dwelling Construction Design Parameters								
	GROUND SNOW LOAD	WIND DESIGN Speed (mph)	SEISMIC DESIGN CATEGORY	Subject to Damage from			WINTER DESIGN TEMP	ICE BARRIER UNDERLAYMENT REQUIRED
				Weathering	Frost line depth	Termite		
Roanoke City	30 psf	115 Note 1	B	Severe	18"	Moderate to heavy	16° F	No
Roanoke County, Town of Vinton, & Salem	30 psf	115 Note1	B	Severe	24"	Moderate to heavy	16° F	No
Commercial Construction Design Parameters								
	GROUND SNOW LOAD	WIND DESIGN Speed (mph)	Earthquake Design Data		Frost line depth	Weathering		
			Mapped spectral response acceleration S_s & S_1	Risk Category				
Roanoke City	30 psf	115 Note 1	seismicmaps.org/ Note2	II	18"	Severe		
Roanoke County, Town of Vinton, & Salem	30 psf	115 Note 1	seismicmaps.org/ Note 2	II	24"	Severe		

Note 1: Wind speeds based on ASCE 7-10 or ASCE 7-16, go to hazards.atcouncil.org/#/, then enter address

Note 2: For site specific seismic design data, go to link and enter address

Flood Hazards				Additional Data
	National Flood Insurance Program (NFIP) Entry	Effective Flood Study & Flood Insurance Rate Map (FIRM) Date	Community No.	
Roanoke City	05/03/1974	09/28/2007	510130	<ul style="list-style-type: none"> • Heating Degree Days - 2,365 • Cooling Degree Days - 2,227 • Climate Zone - 4 • Mean Annual Temperature - 58.1° F • Air Freezing Index - 1500 or less • Latitude: ~37.2° N, Longitude: ~79.9° W • Soil Class: SC, ML, CL, & Inorganic CL 60 • 1500 psf Shrink/Swell
Roanoke County	09/13/1974	09/28/2007	510190	
Town of Vinton	07/19/1974	09/28/2007	510131	
Salem	04/12/1974	09/28/2007	510141	

Contact information		
Roanoke City	Roanoke County & The Town of Vinton	Salem
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This information is provided for use by builders and designers, and is in accordance with the following adopted code editions:

- 2018 Virginia Uniform Statewide Building Code (USBC)
- 2018 International Building Code (IBC)
- 2018 International Plumbing Code
- 2018 International Mechanical Code
- 2018 International Fuel Gas Code
- 2018 International Energy Conservation Code
- 2018 International Residential Code (IRC)
- 2018 International Existing Building Code
- 2018 International Fire Code
- 2009 ANSI A117.1 Accessible & Usable Buildings & Facilities
- 2016 NFPA 13 Standard for the Installation of Sprinklers
- 2016 NFPA 72 National Fire Alarm Code
- 2017 NFPA 70 National Electrical Code

*Updated Aug. 2023