

CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA

The City of St. George uses the following design criteria when reviewing a project or development within the corporate limits of the City of St. George.

SNOW			WIND	
Ground Snow Load	Roof Snow Load	Minimum Roof Live Load shall comply with IBC 1607.11	Wind Speed (mph)	Exposure
(P _g) = 21 psf	(P _f) = 15 psf			90 mph, 3-second wind gust

SEISMIC	
Seismic Design Category	Because ground motions tend to vary substantially throughout the city, the mapped spectral accelerations (S _S & S ₁) should be obtained by inputting the site-specific latitude and longitude values rather than the zip code of the site.
Site Specific. Typically C or D	

FLOOD
<ul style="list-style-type: none"> ➤ Date of jurisdiction's entry into the national Flood Insurance program <ul style="list-style-type: none"> — 11/15/1984 ➤ Adoption of the first code or ordinance for management of flood hazard areas <ul style="list-style-type: none"> — 11/15/1984 ➤ Currently effective: <ul style="list-style-type: none"> — F.I.R.M. January 7, 1998 — F.B.F.M. January 7, 1998 — Flood hazard map adopted August 19, 1997

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SOILS

➤ All projects require a site-specific soils report meeting the requirements of IBC 1802.

Frost Depth	Soil Sulfate Content	<u>Table 4.3.1 of ACI 318-05 requires concrete in contact with “severe” concentrations of sulfate to meet the following durability requirements:</u>
12 inches	Severe (unless stated otherwise in the project specific soils report).	<ul style="list-style-type: none"> ➤ Type V cement required ➤ 4,500 psi minimum concrete compressive strength ➤ 0.45 maximum water-cement ratio

➤ ***All soils reports submitted for permit issuance must be dated no later than two years from the application date of the building permit. Outdated reports must be accompanied by a letter from a qualified geotechnical engineer stating that the report requirements are still valid, or stating what items may have changed. All building code references must be updated to the current code adopted by the State of Utah.***

➤ If the soils report or the Utah Geologic Survey (UGS) Washington County Fault map shows a known fault traversing the project site, a special hazard study must be performed in accordance with the UGS “Guidelines for Evaluating Surface-Fault-Rupture Hazards in Utah. A report of this study must be submitted to the city for review. To learn more please visit the UGS website (<http://geology.utah.gov/>).

Addition IRC Criteria (Table 301.2(1))

			Design Temperatures		
			Winter	Summer	
Weathering	Termite	Decay	Temperature	Dry Bulb 2.5%	Wet bulb 2.5%
Moderate	Moderate	None	26°F	102°F	70°F
Elevation 2,750' Washington County Climate Zone — 3					

I.S.O Rating: 4