



# Fire Protection System Requirements

City of Grand Junction and Grand Junction Rural Fire Protection District

IFC 2018

Occupancy	Examples include but are not limited to:	Fire Sprinkler System Requirements
All Occupancies		Buildings with floor level $\geq$ 55 feet above or below fire department vehicle access Occupant load $\geq$ 30. <b>Exception:</b> open parking structures (F-2) (903.2.11.3)
A-1	Theaters, Concert halls	Fire area $>$ 12,000 sq. ft. ( $1115\text{ m}^2$ ) Occupant load $\geq$ 300 Fire area on floor other then exit discharge Multitheater complex (A-1) (903.2.1.1)
A-2	Banquet halls, Night clubs, Restaurants, Taverns and bars	Fire area $>$ 5,000 sq. ft. ( $464\text{ m}^2$ ) Occupant load $\geq$ 100 Fire area on floor other then exit discharge (903.2.1.2)
A-3	Community halls, Dance halls, Museums, Funeral parlors	Fire area $>$ 12,000 sq. ft. ( $1115\text{ m}^2$ ) Occupant load $\geq$ 300
A-4	Arenas, Skating rinks, Swimming pools	Fire area on floor other then exit discharge (903.2.1.3, 903.2.1.4)
A-5	Bleachers, Grandstands, Stadiums	Accessory areas $>$ 1,000 sq. ft. ( $93\text{ m}^2$ ) Enclosed spaces under grandstands or bleachers $\leq$ 1,000 sq. ft. and not constructed in accordance with Section 1029.1.1.1 or $>$ 1000 sq. ft. (903.2.1.5)
(B)	Ambulatory Care Facility	$\geq$ 4 care recipients incapable of self-preservation or any care recipients incapable of self-preservation above or below level of exit discharge. <b>Exception:</b> floors classified as an open parking garage (903.2.2)
E	6 $\leq$ persons through 12th grade, day care $>$ 5 persons but over 2 1/2 years old	Fire area $>$ 12,000 sq. ft. ( $1115\text{ m}^2$ ) Occupant load $\geq$ 300 Fire area on floor other then exit discharge <b>Exception:</b> Every classroom has not fewer than one exterior exit door at ground level, an automatic sprinkler system is not required in any area below the lowest level of exit discharge serving that area. (903.2.3)
F-1	Moderate Hazard - Aircraft, Bakeries, Electronics, Engines, Laundries	Fire area $>$ 12,000 sq. ft. ( $1115\text{ m}^2$ ) Fire area located $>$ 3 stories above grade Combined fire area $>$ 24,000 sq. ft. $\text{m}^2$ Wood working $>$ 2,500 sq. ft. $\text{m}^2$ Manufacture of upholstered furniture $>$ 2,500 sq. ft. $\text{m}^2$ (903.2.4)
H-1	High Hazard – materials posing a <i>detonation</i> hazard	<b>All</b> (903.2.5.1- 903.2.5.3)
H-2	High Hazard – materials posing a <i>deflagration</i> hazard	
H-3	High Hazard – materials posing a <i>physical</i> hazard	
H-4	High Hazard – materials posing a <i>health</i> hazard	
H-5	Semiconductor Facilities	
I-1	Assisted living facilities, Group Homes, Alcohol and drug centers	<b>All</b>  <b>Exception:</b> Day care at level of exit discharge and each classroom has exterior exit door (903.2.6)
I-2	Hospitals, Nursing homes, Foster Care 24hr $>$ 5 persons	
I-3	Prisons, Correctional centers	
I-4	Day Care facility any age $<$ 24 hr care with $>$ 5 persons	



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M	Department stores, Markets, Retail sales	Fire area > 12,000 sq. ft. (1115 m <sup>2</sup> ) Fire area located > 3 stories above grade Combined fire area > 24,000 Sq. ft. (2230 m <sup>2</sup> ) Display and sale of upholstered furniture > 5,000 sq. ft (464 m <sup>2</sup> ) (903.2.7)
R-1	Hotels, Motels, Boarding houses (transient)	
R-2	Apartment houses, Dormitories, Hotels (nontransient)	
R-3	One/two family dwellings, Adult/Child care ≤5 persons for <24 hr	All (903.2.8)
R-4	Residential care for > 5 ≤ 16 persons	
S-1	General, Repair Garages	Fire area > 12,000 sq. ft. (1115 m <sup>2</sup> ) Fire area located > 3 stories above grade Combined fire area > 24,000 sq. ft. (2230 m <sup>2</sup> ) ≥ 2 stories above grade with >10,000 sq. ft. (929 m <sup>2</sup> ) Servicing vehicles parked in basement Servicing commercial vehicles > 5,000 sq. ft. (464 m <sup>2</sup> ) (903.2.9)
S-1	Storage	Storage > 2,500 sq. ft. (232 m <sup>2</sup> ) of upholstered furniture or mattresses (903.2.9) Bulk storage of tires >20,000 cu. ft. (903.2.9.1)
S-1	Parking Garages	Commercial motor vehicles parking area > 5,000 sq. ft. (464 m <sup>2</sup> ) (903.2.9)
S-2	Parking Garage	Fire area of >12,000 sq. ft. (1115 m <sup>2</sup> ) Enclosed garages beneath other use groups Commercial vehicle garage > 5,000 sq. ft. <u>Exception:</u> Not beneath R-3 (903.2.10)
Misc	Covered and Open Malls (914.2.1)	All <u>Exception:</u> attached open parking structures (914.2.1)
Misc	High-Rises (914.3.1)	All, <u>Exception:</u> Open garages; certain telecommunications equipment buildings (914.3.1)
Misc	Unlimited Area Buildings (IBC 507)	A-3, A-4, B, F, M, S: one story. B, F, M, S: two story. <u>Exception:</u> one story F-2 or S-2 (IBC 507)

For SI: 1 foot = 304.8mm, 1 square foot = 0.0929m<sup>2</sup>

**Disclaimer:** The information contained therein is based on the International Fire Code (2018 edition) as amended. This matrix has been provided for informational purposes only and is not an all-inclusive list. The information provided is not intended to address all code requirements. Consult the code for more details where needed. **For additional required suppression systems see Section 903 and 904 in the IFC (2018).**