

**TABLE 5-14 STRUCTURAL SYSTEMS (IBC TABLE 23-O)**

Basic structural system <sup>a</sup>	Lateral load-resisting system description	R <sub>w</sub> <sup>b</sup>	H <sup>c</sup>	
A. Bearing-wall system	1. Light-framed walls with shear panels	8	65	
	a. Plywood walls for structures of three stories or less			
	b. All other light-framed walls	6	65	
	2. Shear walls			
	a. Concrete	6	160	
	b. Masonry	6	160	
	3. Light steel-framed bearing walls with tension-only bracing	4	65	
	4. Braced frames where bracing carries gravity loads			
	a. Steel	6	160	
	b. Concrete <sup>d</sup>	4	—	
	c. Heavy timber	4	65	
	B. Building-frame system	1. Steel eccentrically braced frame (EBF)	10	240
		2. Light-framed walls with shear panels		
		a. Plywood walls for structures of three stories or less	9	65
b. All other light-framed walls		7	65	
3. Shear walls				
a. Concrete		8	240	
b. Masonry		8	160	
4. Concentrically braced frames				
a. Steel		8	160	
b. Concrete <sup>d</sup>		8	—	
c. Heavy timber		8	65	
C. Moment-resisting frame system		1. Special moment-resisting frames (SMRF) <sup>f</sup>	12	N.L. <sup>e</sup>
		a. Steel	12	N.L.
		b. Concrete	8	—
	2. Concrete intermediate moment-resisting frames (IMRF) <sup>g</sup>			
	3. Ordinary moment-resisting frames (OMRF)			
	a. Steel	6	160	
	b. Concrete <sup>h</sup>	5	—	
	D. Dual systems	1. Shear walls		
		a. Concrete with SMRF	12	N.L.
		b. Concrete with steel OMRF	6	160
		c. Concrete with concrete IMRF <sup>i</sup>	9	160
		d. Masonry with SMRF	8	160
		e. Masonry with steel OMRF	6	160
		f. Masonry with concrete IMRF <sup>i</sup>	7	—
2. Steel EBF				
a. With steel SMRF		12	N.L.	
b. With steel OMRF		6	160	
3. Concentrically braced frames				
a. Steel with steel SMRF		10	N.L.	
b. Steel with steel OMRF		6	160	
c. Concrete with concrete SMRF <sup>j</sup>		9	—	
d. Concrete with concrete IMRF <sup>i</sup>	6	—		
E. Undefined systems	See Sections 2333(h)3 and 2333(i)2	—	—	

<sup>a</sup>Basic structural systems are defined in Section 2333(f).

<sup>b</sup>See Section 2334(c) for combination of structural system.

<sup>c</sup>Height limit applicable to seismic zones 3 and 4. See Section 2333(g).

<sup>d</sup>Prohibited in seismic zones 3 and 4.

<sup>e</sup>N.L., no limit.

<sup>f</sup>Prohibited in seismic zones 3 and 4, except as permitted in Section 2338(b).

<sup>g</sup>Prohibited in seismic zones 2, 3, and 4.

**TABLE 1.1 Occupancy Category of Buildings and Other Structures**

Nature of Occupancy	Category
Agriculture, temporary structures, storage	I
All buildings and structures except classified as I, III, and IV	II
Buildings and other structures that can cause a substantial economic impact and/or mass disruption of day-to-day civil lives, including the following: More than 300 people congregation Day care with more than 150 School with more than 250 and college with more than 500 Resident health care with 50 or more	III
Jail Power generation, water treatment, wastewater treatment, telecommunication centers Essential facilities, including the following: Hospitals Fire, police, ambulance Emergency shelters Facilities need in emergency	IV

Source: Courtesy of American Society of Civil Engineers, Reston, VA.

**TABLE 5.5 Importance Factor for Seismic Coefficient**

Occupancy Category	Importance Factor
I and II	1.0
III	1.25
IV	1.5

**TABLE 5-13 SEISMIC ZONE FACTOR Z (IBC TABLE 23-I)**

Zone	1	2A	2B	3	4
Z	0.075	0.15	0.20	0.30	0.40

The zone shall be determined from the seismic zone map in Figure No. 23-2.