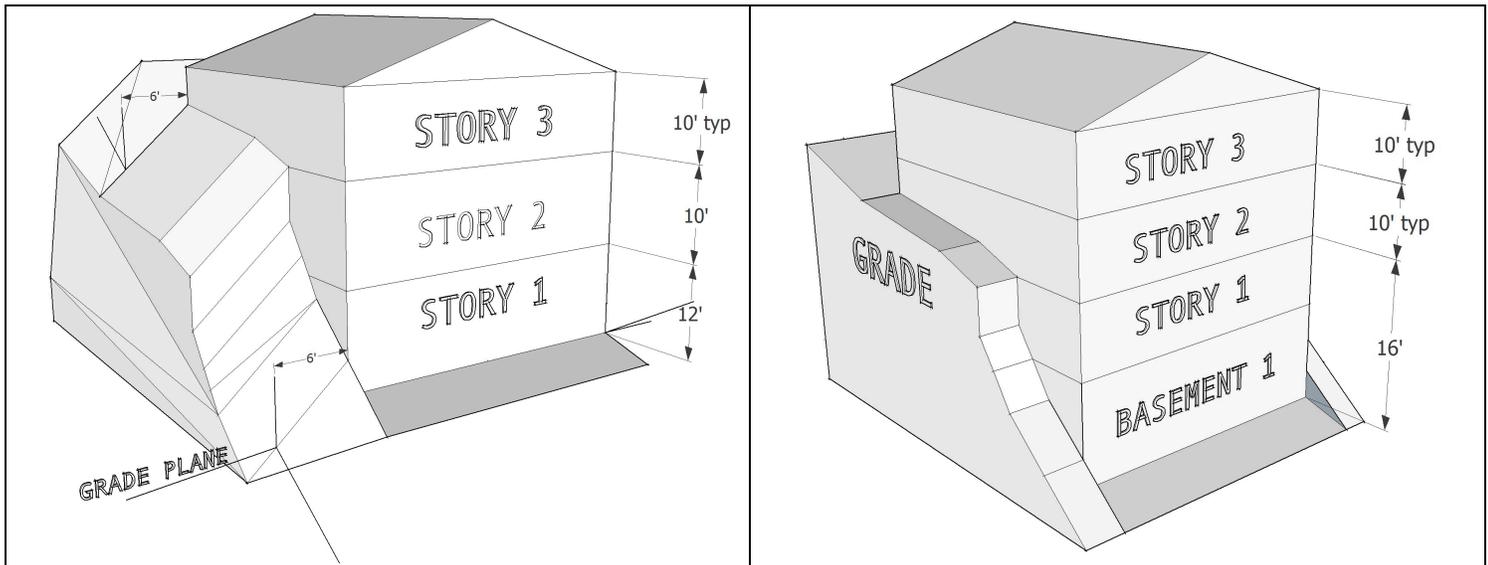


	Definition	
Grade Plane	A reference plane representing the average of finished ground level adjoining the building at <i>exterior walls</i> . Where the finished ground level slopes away from the <i>exterior walls</i> , the reference plane shall be established by the lowest points within the area between the building and the <i>lot line</i> or, where the <i>lot line</i> is more than 6 feet from the building, between the building and a point 6 feet from the building.	
	<p>The grade elevation that is used in determining the Grade Plane elevations is 487.5'</p>	
<i>Determination of grade plane where grade slopes away from the exterior wall</i>		
Story Above Grade Plane	Any <i>story</i> having its finished floor surface entirely above <i>grade plane</i> , or in which the finished surface of the floor next above is:	
	1	More than 6 feet above <i>grade plane</i> ; or
	2	More than 12 feet above the finished ground level at any point.
	<p>Grade line is represented by cross line on basement front elevation. Grade Plane line is the average between lowest and higher elevation points.</p>	
<i>Determination of grade plane and basement based on exterior wall average elevations</i>		
Story	That portion of a building included between the upper surface of a floor and the upper surface of the floor or roof next above. It is measured as the vertical distance from top to top of two successive tiers of beams or finished floor surfaces and, for the topmost <i>story</i> , from the top of the floor finish to the top of the ceiling joists or, where there is not a ceiling, to the top of the roof rafters.	
Basement	A <i>story</i> that is not a <i>story above grade plane</i>	



Site conditions may define all level as Stories regardless of how much the building is considered to be underground

Story 1 is a Story above Grade Plane because the floor of the story is above 12' above finished level at any point. (rules regarding underground percent areas no longer apply)

R305.1.1	Portions of <i>basements</i> that do not contain <i>habitable space</i> , hallways, bathrooms, toilet rooms and laundry rooms shall have a ceiling height of not less than 6 feet 8 inches. Exception: Beams, girders, ducts or other obstructions may project to within 6 feet 4 inches of the finished floor.
OMC amendment	15.04.1030 - Section R303.1 amended. Replace 7 feet with "7 feet 6 inches in habitable spaces, 7 feet in non-habitable spaces,"
Story Height R301.3	For wood wall framing, the laterally unsupported bearing wall stud height permitted by Table R602.3 (5) (=10') plus a height of floor framing not to exceed 16 inches. Exception: For wood framed wall buildings with bracing in accordance with Tables R602.10.1.2 (1) and R602.10.1.2(2), the wall stud clear height used to determine the maximum permitted <i>story height</i> may be increased to 12 feet without requiring an engineered design for the building wind and seismic force resisting systems provided that the length of bracing required by Table R602.10.1.2 (1) is increased by multiplying by a factor of 1.10 and the length of bracing required by Table R602.10.1.2 (2) is increased by multiplying by a factor of 1.20. Wall studs are still subject to the requirements of this section.
Building Height	The vertical distance from <i>grade plane</i> to the average height of the highest roof surface.
Height Limitations	Wood framed buildings shall be limited to three stories above <i>grade</i> or the limits given in Table R602.10.1.2(2).
Mezzanine	A <i>mezzanine</i> shall be considered a portion of the <i>story</i> in which it is contained. Such <i>mezzanines</i> shall not contribute to either the <i>building area</i> or number of <i>stories</i> as regulated by Section 503.1. The clear height above and below the <i>mezzanine</i> floor construction shall not be less than 7 feet. CBC 505.2 Area limitation. The aggregate area of a <i>mezzanine</i> or <i>mezzanines</i> within a room shall not exceed one-third of the floor area of that room or space in which they are located. The enclosed portion of a room shall not be included in a determination of the floor area of the room in which the <i>mezzanine</i> is located. In determining the allowable <i>mezzanine</i> area, the area of the <i>mezzanine</i> shall not be included in the floor area of the room.

LEVEL	EGRESS	AREA
2 nd and above	Sleeping rooms	5.7 sqft
1 st	Sleeping rooms	5.0 sqft
Basement	If Over 200 sqft and not used only for mechanical equipment R310.1	5.7 sqft
	Window wells required if sill is lower than grade	9sqft and 36" wide
	Ladder or steps if well is lower than 44"	12" wide x 3" projection from wall & 18" o.c.

**TABLE R602.3(5)
SIZE, HEIGHT AND SPACING OF WOOD STUDS***

STUD SIZE (inches)	BEARING WALLS					NONBEARING WALLS	
	Laterally unsupported stud height* (feet)	Maximum spacing when supporting a roof-ceiling assembly or a habitable attic assembly, only (inches)	Maximum spacing when supporting one floor, plus a roof-ceiling assembly or a habitable attic assembly (inches)	Maximum spacing when supporting two floors, plus a roof-ceiling assembly or a habitable attic assembly (inches)	Maximum spacing when supporting one floor height* (feet)	Laterally unsupported stud height* (feet)	Maximum spacing (inches)
							
2 x 3 ^b	—	—	—	—	—	10	16
2 x 4	10	24 ^c	16 ^c	—	24	14	24
3 x 4	10	24	24	16	24	14	24
2 x 5	10	24	24	—	24	16	24
2 x 6	10	24	24	16	24	20	24

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 square foot = 0.093 m².

- Listed heights are distances between points of lateral support placed perpendicular to the plane of the wall. Increases in unsupported height are permitted where justified by analysis.
- Shall not be used in exterior walls.
- A habitable attic assembly supported by 2x4 studs is limited to a roof span of 32 feet. Where the roof span exceeds 32 feet, the wall studs shall be increased to 2x6 or the studs shall be designed in accordance with accepted engineering practice.

**TABLE R602.10.1.2(2)^{a, b, c}
BRACING REQUIREMENTS BASED ON SEISMIC DESIGN CATEGORY
(AS A FUNCTION OF BRACED WALL LINE LENGTH)**

SOIL CLASS D ⁰ WALL HEIGHT = 10 FT 10 PSF FLOOR DEAD LOAD 15 PSF ROOF/CEILING DEAD LOAD BRACED WALL LINE SPACING ≤ 25 FT			MINIMUM TOTAL LENGTH (feet) OF BRACED WALL PANELS REQUIRED ALONG EACH BRACED WALL LINE			
Seismic Design Category (SDC)	Story Location	Braced Wall Line Length	Method LIB	Methods DWB, SFB, GB, PBS, PCP, HPS	Method WSP	Continuous Sheathing
SDC A and B and Detached Dwellings in C			Exempt from Seismic Requirements Use Table R602.10.1.2(1) for Bracing Requirements			
SDC C		10	2.5	2.5	1.6	1.4
		20	5.0	5.0	3.2	2.7
		30	7.5	7.5	4.8	4.1
		40	10.0	10.0	6.4	5.4
		50	12.5	12.5	8.0	6.8
		10	NP	4.5	3.0	2.6
		20	NP	9.0	6.0	5.1
		30	NP	13.5	9.0	7.7
		40	NP	18.0	12.0	10.2
		50	NP	22.5	15.0	12.8
		10	NP	6.0	4.5	3.8
		20	NP	12.0	9.0	7.7
		30	NP	18.0	13.5	11.5
		40	NP	24.0	18.0	15.3
		50	NP	30.0	22.5	19.1
SDC D ₀ or D ₁		10	NP	3.0	2.0	1.7
		20	NP	6.0	4.0	3.4
		30	NP	9.0	6.0	5.1
		40	NP	12.0	8.0	6.8
		50	NP	15.0	10.0	8.5
		10	NP	6.0	4.5	3.8
		20	NP	12.0	9.0	7.7
		30	NP	18.0	13.5	11.5
		40	NP	24.0	18.0	15.3
		50	NP	30.0	22.5	19.1
		10	NP	8.5	6.0	5.1
		20	NP	17.0	12.0	10.2
		30	NP	25.5	18.0	15.3
		40	NP	34.0	24.0	20.4
		50	NP	42.5	30.0	25.5