

# GUIDE TO BUILDING HEIGHT

This brochure is a general guideline for single family and duplex dwelling building plans. Refer to the zoning bylaw for exact regulations.

**Height** is the vertical height of a building or structure.

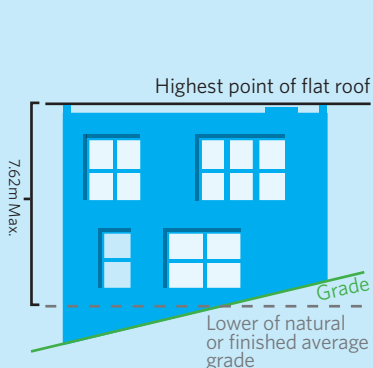
**Average natural grade** is measured around the perimeter of the building or structure at, or directly above or below the outermost projection of the exterior walls or the posts of carports.

**Average finished grade** is the average of the final ground surface after development.

**Maximum building height** is 7.62m for all Single Family (RS) Zones (except RS6, where the allowable height is 8.0m) and the RD1 Duplex Zone, measured from the lower of average natural or average finished grade, to:

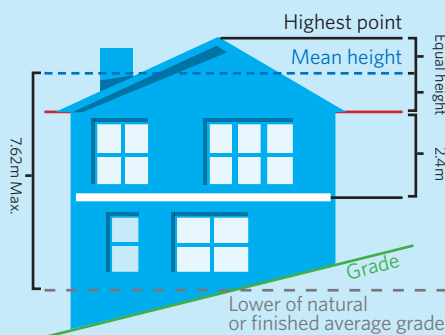
## FLAT ROOF

**1** Highest point of a building with a flat roof, parapet or roof deck railing. Roof slope must be must be 2/12 or less.



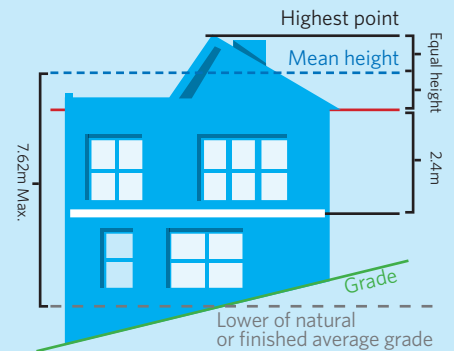
## PITCHED ROOF

**2** The mean height line between the peak and a point 2.4m above the immediate floor below for buildings with pitched roofs greater than 2/12.



## COMBINATION

**3** For roofs composed of a combination of pitched and flat elements, to the highest point of the flat roof OR to the midpoint of the "projected" peak of the pitched roof, whichever is higher.



\*RD2 zoned properties height is measured from the average finished grade along either the front or rear wall, whichever grade is higher, to the highest point of the roof.

\*Skylights, mechanical equipment and enclosures over 0.6m in height or 3.0m in width are included in height calculations (as per a pitched roof). Chimneys less than 1.8m in horizontal length and vent pipes shall not be included.

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Grade calculations are to be submitted using one unit of measurement.

**Example:** to calculate finished grade elevation:

	Elevation	X	Length	TOTAL
<b>A</b>	$(105.6+106.3) \div 2$	X	20.5'	=2171.98
<b>B</b>	$(106.3+106.0) \div 2$	X	16.3'	=1730.25
<b>C</b>	$(106.0+98.5) \div 2$	X	7.7'	=787.33
<b>D</b>	$(98.5+98.5) \div 2$	X	5.0'	=492.50
<b>E</b>	$(107.0+106.4) \div 2$	X	6.0'	=640.20
<b>F</b>	$(106.4+106.4) \div 2$	X	8.4'	=893.76
<b>G</b>	$(106.4+105.9) \div 2$	X	6.3'	=668.75
<b>H</b>	$(105.9+105.6) \div 2$	X	9.2'	=972.90
<b>TOTAL</b>			<b>79.4'</b>	<b>=8357.67</b>

Average finished grade =  $8357.67 \div 79.4' = 105.26'$

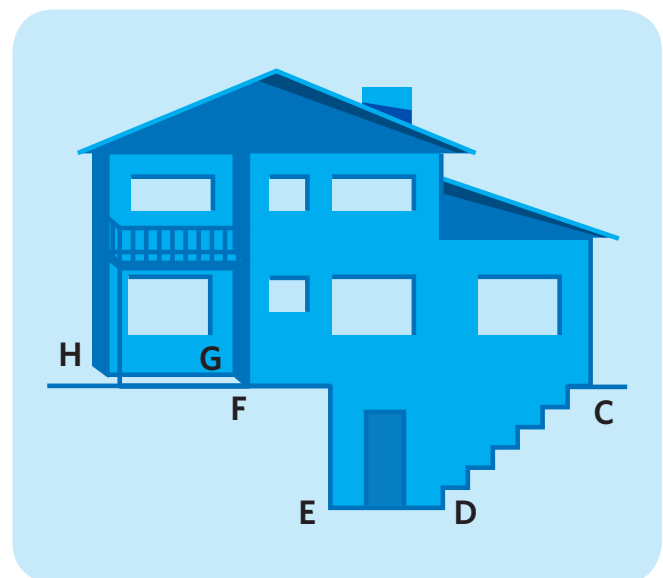
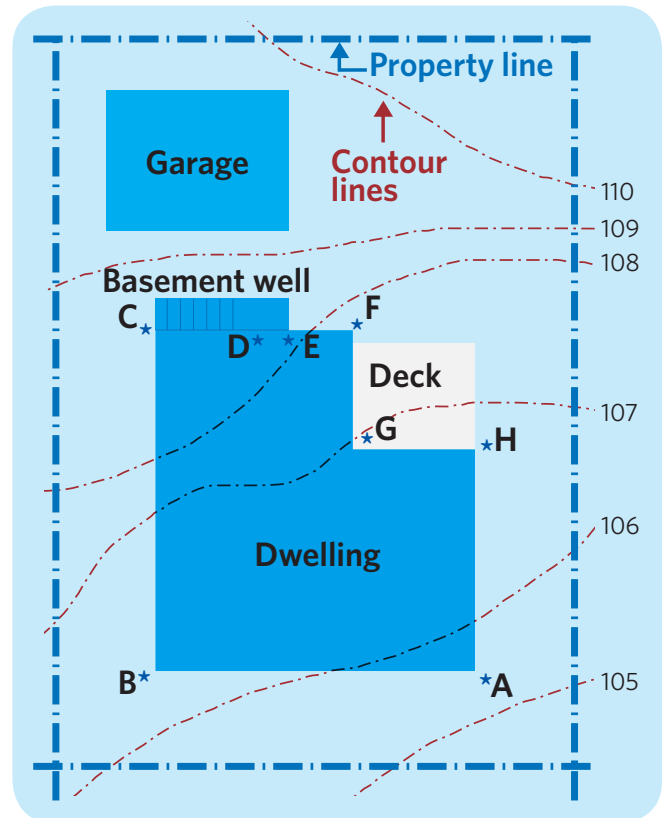
Calculations for **both** finished and natural grade are required. The **lower** of these will be used in building height and floor area ratio calculations. Average grades will differ between finished and natural.

**Interpolated grades will not be accepted for grade calculations.**

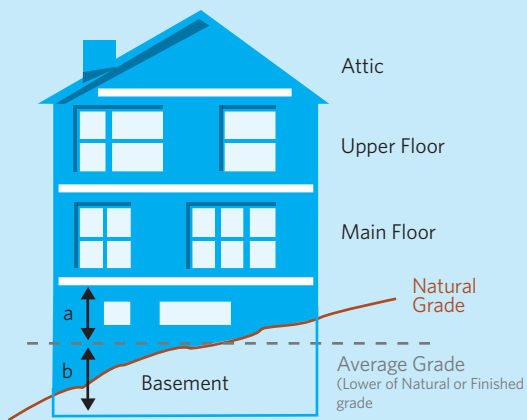
**Example:** to calculate natural grade elevation:

	Elevation	X	Length	TOTAL
<b>A</b>	$(105.7+106.7) \div 2$	X	20.5'	=2177.10
<b>B</b>	$(106.7+108.5) \div 2$	X	16.3'	=1753.88
<b>C</b>	$(108.5+108.3) \div 2$	X	7.7'	=834.68
<b>D</b>	$(108.3+108.2) \div 2$	X	5.0'	=541.25
<b>E</b>	$(108.2+107.8) \div 2$	X	6.0'	=648.00
<b>F</b>	$(107.8+106.7) \div 2$	X	8.4'	=900.90
<b>G</b>	$(106.7+106.7) \div 2$	X	6.3'	=672.21
<b>H</b>	$(106.7+105.7) \div 2$	X	9.2'	=977.04
<b>TOTAL</b>			<b>79.4'</b>	<b>=8505.06</b>

Average natural grade =  $8505.06 \div 79.4' = 107.12'$



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If 'b' is less than 0.3 m, then the storey is not a basement, but is considered the first storey.

**Number of storeys:** A **storey** is the space between two floors or between the floor and the roof above, and is often referred to as a "level" (the upper level), or a "floor" (the main floor). All single family and duplex zoned properties permit a principal building of two storeys plus a basement.

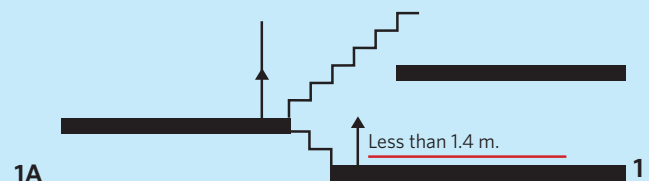
You can only count one storey of your house as being a basement. To be defined as a **basement**, the floor of the storey must be at least 0.3m below the lower of average natural or finished grade. If the distance from the top of the floor to the average grade level is less than 0.3m, then the storey is not a basement, but is considered the "first storey".

A **crawl space** is the space under a habitable structural slab or floor joist spaced at 0.6m maximum which has a vertical height of 1.8 metres or less. \*For other than RS zoning, refer to the by-law for the specific zone.

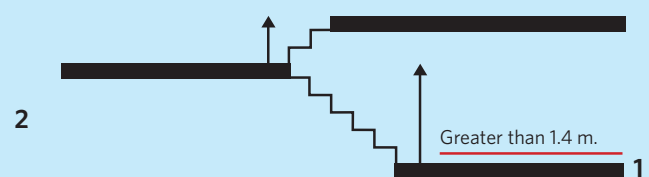
An **attic** is not considered a storey if it is inaccessible and is obstructed with permanent structural members such as roof trusses, or if it has a height from floor or top of ceiling joist to the exterior roof surface of less than 1.7m over all of its area.

**Split-level designs** can be considered a single storey if the floor levels are within 1.4m vertical distance of each another. If the height difference between the floor levels is greater than 1.4m, the levels are considered separate storeys.

\* **Caulfeild land use contract area:** specific provisions apply to height in this area. For regulations and a description of how to calculate height, refer to Schedule "B" of the contract.



This is considered one storey because the height difference is 1.4 metres or less.



This is considered two storeys because the height difference is greater than 1.4 metres.

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## **Average grade calculations:**

Average grade calculations are required in order to determine:

- height of a building (except in the RD2 zone), and
- percentage of basement area to be included in floor area ratio calculations.

To determine average grade, calculate the average natural and the average finished grade elevations as measured around the perimeter of the building or structure at, or directly above or below the exterior walls (excluding accessory buildings, exterior decks, patios, planters less than 1.2m in depth or soil mounding, uncovered swimming pools and on grade stairs).

**The lower of average natural or average finished grade will be used in calculations.**

## **The following information is required for your building permit application submission:**

- original British Columbia Land Survey (B.C.L.S) topography plans for our records
- a prepared topography plan showing ground levels around the proposed building(s) and proposed dwelling, to scale (see illustration on back page of brochure)
- finished and natural grades at all building corners and changes of slope on both the site plan and elevation drawings
- calculate both average natural and finished grade
- average grade elevations and permitted maximum height elevations on all building sections and facades, and
- all floor, upper ceiling height and top of roof elevations on section(s), using the same datum as the submitted survey.