



# Planning & Economic Development

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## MEASURING HEIGHT

### WHAT IS THE DEFINITION OF HEIGHT?

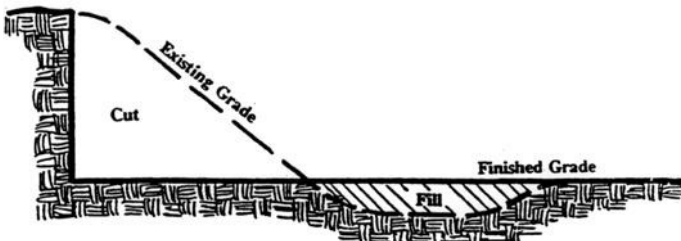
*Building Height* is the vertical distance measured from the average elevation of the finished grade at an exterior building wall or *building segment* to the highest point of the building wall or building segment. The overall building height shall be calculated as the **average** of all building sides. (Note: See page 2 for how to measure height in the C-1 zoning district or the Shoreline Jurisdiction).

### WHAT IS GRADE/FINISHED GRADE?

For the purposes of measuring building height, *Grade* is defined as the average elevation of the finished surface of the ground or paving where it touches the building per building wall or segment. *Finished Grade* means grade following development. The term “finished grade” may also mean existing grade when no terrain alteration is proposed (Figure 1).

Fill which is not necessary to achieve positive drainage or slope stabilization, or which is otherwise proposed clearly to raise the finished floor elevation(s) for any other purpose, shall not be considered finished grade.

Figure 1. Existing and Finished Grade.



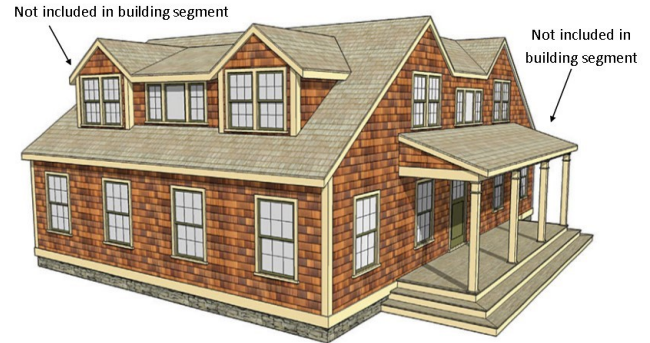
### WHAT IS A BUILDING SEGMENT?

A *building segment* is when a break in the roof line, change in number of stories, or break in finished grade occurs of at least four feet. “Roof line” means the uppermost line of the roof of a building or, in the case of an extended or mansard facade, the uppermost height of said facade.

Only the primary building walls at its highest point is of relevance for the height calculation. The **primary building wall** means the wall on the side of the building which served as the essential or principal wall, in which all other walls or architectural features may be appended to or extended from.

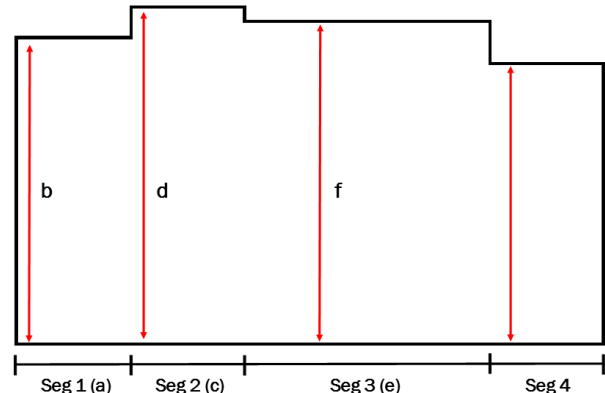
- An appendage to a primary building wall, such as a shed or dormer, with a different roofline are not considered a building segment.
- A canopy, building overhang, building articulation, or drive-through structures, are not considered as a building segment (Figure 2).

Figure 2. Appended to or Extended Features.



For calculation of average building wall height, no more than 3 segments per building wall shall be used, even if there are more than 3 breaks in stories, rooflines, or finished grade. **The three highest segment height per building wall shall be used.** See Figure 3.

Figure 3. Walls with Multiple Segments.



Segment 4 is not included in the calculation of average height of this building wall.

For buildings consisting of **multiple wings**, the average building height shall be calculated for each wing separately. An overall average building height of each wing is calculated based on the average of each wing. Each wing is considered stand alone and must meet the maximum building height requirement (Figure 4).

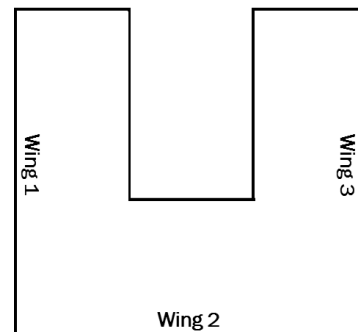


Figure 4. Building with Multiple Wings.

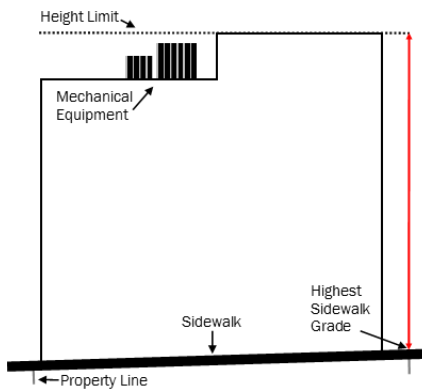
## WHAT IS MY HEIGHT LIMIT?

In all zones the height limit is 35 feet, except as follows:

*In the C-1/downtown:*

1. The height limit on 3<sup>rd</sup> Ave NE between Moe St NE and NE Hostmark St shall be 25 feet as measured from the highest sidewalk grade of 3<sup>rd</sup> Ave NE adjacent to the property line.
2. In the [Shopfront Overlay](#) the height limit on west side of Front St NE shall be 25 feet and on east side of Front St NE shall be 35 feet as measured from the highest sidewalk grade of Front St NE adjacent to the property line.
3. Highest sidewalk grade means the highest elevation of the sidewalk parallel to the building frontage (Figure 5).
4. The height limits described above in 1 and 2 shall also apply to rooftop appurtenances, such as those identified in [PMC 18.310.010 B](#).

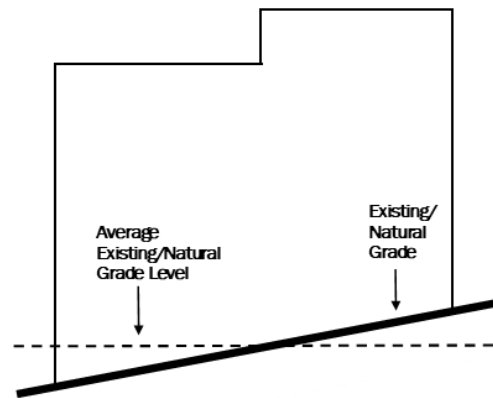
Figure 5. Highest Sidewalk Grade.



*In the Shoreline Jurisdiction:*

1. SR-1 environment: 35 feet for primary structure; 20 feet for accessory detached structure.
2. SR-2: 35 feet for primary structure.
3. HI: 25 feet w/in 125 feet of the OHWM; 35 feet other areas.
4. UC: 25 feet w/in 125 feet of the OHWM; 35 feet in other areas; 20 feet for accessory detached structures.
5. Natural: 15 feet.
6. Aquatic: 15 feet for floating structure; 20 feet above the mean high-water elevation for nonfloating structures .
7. Height is measured from average grade level to the highest point of a structure (Figure 6); television antennas, chimneys, and similar appurtenances shall not be used in calculating height except in the C-1 zoning district.
8. Average grade level means the average of the *natural and existing topography* of the portion of the lot, parcel, or tract of real property that will be directly under the proposed building or structure. In the case of structure to be built over water, average grade level shall be the elevation of the OHWM.
9. Calculation of the average grade level shall be made by averaging the ground elevations at the midpoint of all exterior walls of the proposed building or structure.

Figure 6. Average Existing/Natural Elevation.



## UNDERBUILDING PARKING EXCEPTION

Per [PMC 18.130.010 C](#), when a structure is proposed to include underbuilding parking in the RM, RH, C-2, C-3, C-4, OCI, BP and LI zoning districts, the building height limit may be increased by 10 feet. The increased height shall be reviewed for bulk, scale and compatibility to surrounding structures, and may not be allowed if impacts cannot be adequately mitigated. The gross square footage of the building area allowed by the increased height shall be equal to or less than the gross square footage of the underbuilding parking.

## ARE ANY BUILDING FEATURES EXCLUDED FROM THE HEIGHT CALCULATIONS?

Per [PMC 18.310.010](#), height limitations do not apply to the following: chimneys, church spires, belfries, cupolas, smokestacks, flagpoles, cooling towers, monuments, firehouse towers, masts, aerials, and other similar projections, wireless communication facilities, and outdoor theater screens; provided, said screens contain no advertising matter other than the name of the theater.

In addition, HVAC or other roof-mounted mechanical equipment and necessary screening, stairwell enclosures that provide rooftop access, elevator shafts, may extend up to 10 feet above the maximum building height limit as follows:

1. The combined total coverage of all features shall not exceed 15 percent of the roof area; and
2. Stairwell enclosures and elevator shafts shall be setback at least 15 feet from the all roof edges on street facing facades.

## WHEN ARE HEIGHT CALCULATIONS NEEDED?

All permit applications for new buildings or additions that alter the height must have complete height calculations. The height calculations should be embedded in the plan set.

## WHEN ARE SURVEYS REQUIRED?

If the height of the building is within one (1) foot of the maximum building height, surveys are required from a professional land surveyor.

## HOW DO I DETERMINE HEIGHT?

**STEP 1:** Determine the number of outside building walls (see Fig. 7).

**STEP 2:** Calculate the height of each primary building wall.

- A. Determine the average elevation for each building wall (see Fig. 8).
- B. Measure the wall height from the average elevation for each building wall.

*If a primary wall contains segments:*

- A. Determine appropriate segments for the primary wall.
- B. Determine the highest point of each segment by measuring from the average elevation of that building wall to the highest point of the segment.
- C. Calculate the buildings walls average height by determining the average of the segments height (see Fig. 9).

Figure 7. Number of Building Walls

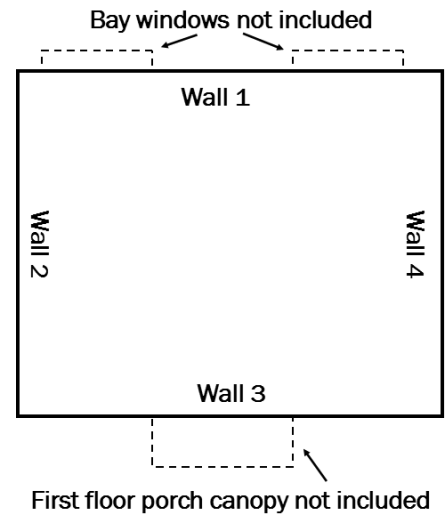


Figure 8. Determining Average Elevation

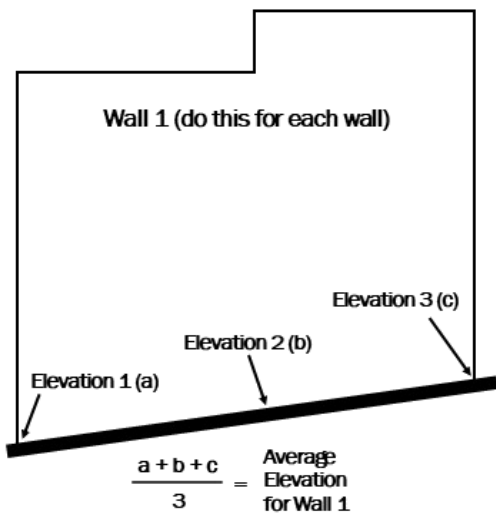
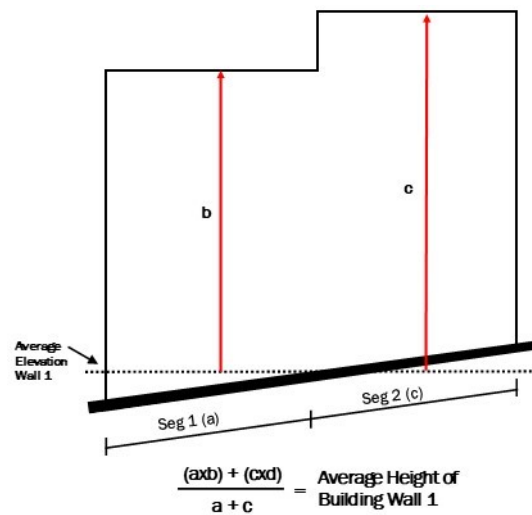


Figure 9. Average Height of Building Wall



**STEP 3:** Calculate average height of building.

Once each primary building wall's height has been calculated, the overall building height is determined as an average of all building walls.

*For example:*

- Wall 1 = 44 feet
- Wall 2 = 28 feet (average after calculating segments)
- Wall 3 = 35 feet
- Wall 4 = 32 feet (average after calculating segments)
- $44' + 28' + 35' + 32' = 139/4 = 34.75$  feet
- $34.75 < 35'$  maximum allowed height - OK!

Disclaimer: this handout should not be used as a substitute for codes and regulations. The applicant/property owner is responsible for compliance with all code and rule requirements, whether or not described here. Please see the City of Poulsville Municipal Code for complete text and requirements.

