

Town of Friday Harbor Building Height Calculations

Procedure for determining building height calculations:

1. Stake the corner locations of the footprint of the proposed building prior to any ground excavation.
2. Establish a 0.0' elevation point at an original ground level location on a corner of the building footprint. Calculating building height is simplified if you make this point at the lowest corner of the building.
3. Establish a benchmark on the subject property. With a transit, calculate the elevation difference between the benchmark and the lowest corner of the building. Then calculate the elevation at each corner around the perimeter of the building as measured from the lowest building corner.
4. Draw a building elevation site plan showing the benchmark location, and the elevation differences between the lowest corner of the building, and each corner around the perimeter of the building.
5. Dimension the wall lengths on each section of wall around the entire perimeter of the building on the building elevation site plan.
6. Compute or scale the elevation difference between the lowest building corner, and the highest point on the building, exclusive of chimneys or antennae, and note this on the building elevation site plan.
7. Average the elevations on the corners on each wall length and divide by the length of that wall to determine the factor of that wall. Do this calculation for each wall length around the perimeter of the building.
8. Add all of these wall length factors and divide by the sum of all the wall lengths (i.e. the perimeter of the building). This number is the calculated average grade elevation of the building footprint.
9. The maximum building height allowed within the Town is 27 feet as measured from the calculated average grade elevation to the highest point anywhere on the building, (except chimneys, antennae or other approved appurtenances).
10. Properties located within the Towns Designated Historical District may qualify for special height allowances.

Town of Friday Harbor Building Height Calculation

Example

Corner	Elev. + Elev. / 2 X Wall Length	= Factor
1.	$(0.0 + 0.0) / 2 \times 24'$	= 0.0
2.	$(0.0 + 6.5) / 2 \times 30'$	= 97.5
3.	$(6.5 + 7.0) / 2 \times 12'$	= 81.0
4.	$(7.0 + 8.5) / 2 \times 14'$	= 108.5
5.	$(8.5 + 9.0) / 2 \times 12'$	= 105.0
6.	$(9.0 + 0.0) / 2 \times 44'$	= 198.0
	<u>136.0'</u>	<u>590.0</u>

The factor divided by the total of all of the sides gives the weighted mean or average grade elevation of the building.

$$590.0 / 136.0 = 4.34'$$

This would be the calculated average grade elevation.

27.0 feet above the average grade elevation is the standard maximum height allowed.

$$4.34 + 27.0 = 31.34'$$

