

## Building Height Requirements

Many lake front properties are located on sloping terrain. As a result, the average elevation of the ground for each face of the building must be considered to determine the average height of the building.

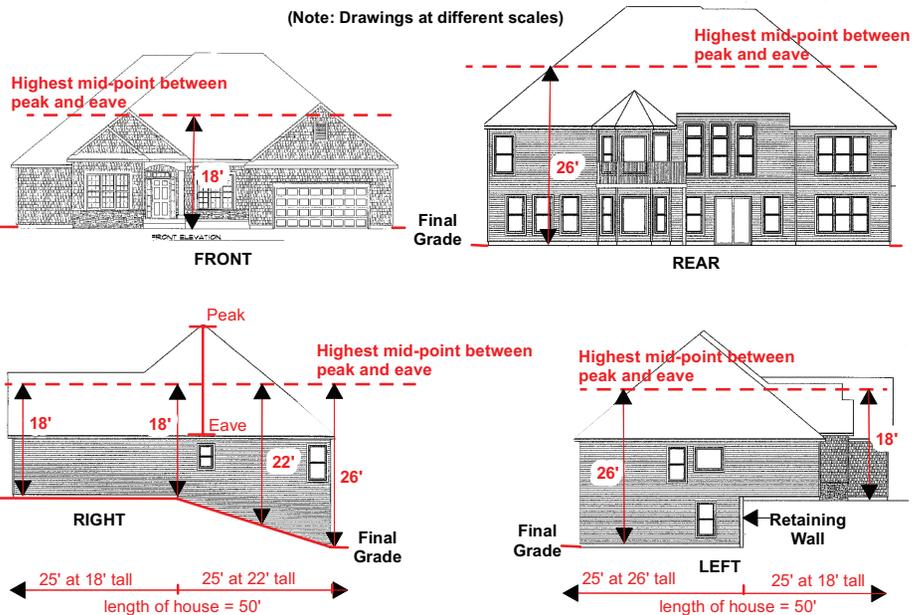
The maximum building height permitted in a single-family residential zoning district involving a lot less than 80 feet in width is 25 feet<sup>2</sup>. Applicable Zoning Code definitions include:

- ◆ **Building Height:** Vertical distance measured from the established grade to the highest point of the roof surface for flat roofs, to the deck line of mansard roofs and to the average height between the eave and ridge for gable, hip and gambrel roofs. If a building is located on sloping terrain, the height will be measured from the average grade.
- ◆ **Average Grade:** If the ground adjacent to the walls of the building is not entirely level, the average grade is determined by averaging the elevation of the ground for each face of the building.

The illustration below provides an example of how to calculate the average height of a building on sloping terrain.

$$\text{Average Height} = (\text{Front } 18' + \text{Rear } 26' + \text{Right } 20' + \text{Left } 22') / 4 = 21.5'$$

(Note: Drawings at different scales)



# Guide to Residential Lakefront Construction



City of Portage

7900 South Westnedge Avenue • Portage, Michigan 49002

[www.portagemi.gov](http://www.portagemi.gov)

<sup>2</sup> Building height on a lot 80 feet in width or more is regulated by the adopted Residential Building Code.

This guide has been developed to assist residential builders and property owners with the unique characteristics associated with site and building construction activities on lake front properties. This guide supplements information provided in the following brochures available in the Department of Community Development and on the city website:

- ◆ How to Obtain a Residential Building Permit
- ◆ One-Family Residential Zoning District Regulations
- ◆ Guidelines for Accessory Buildings on Residential Property

### Plot Plan Requirements for Lake Front Property

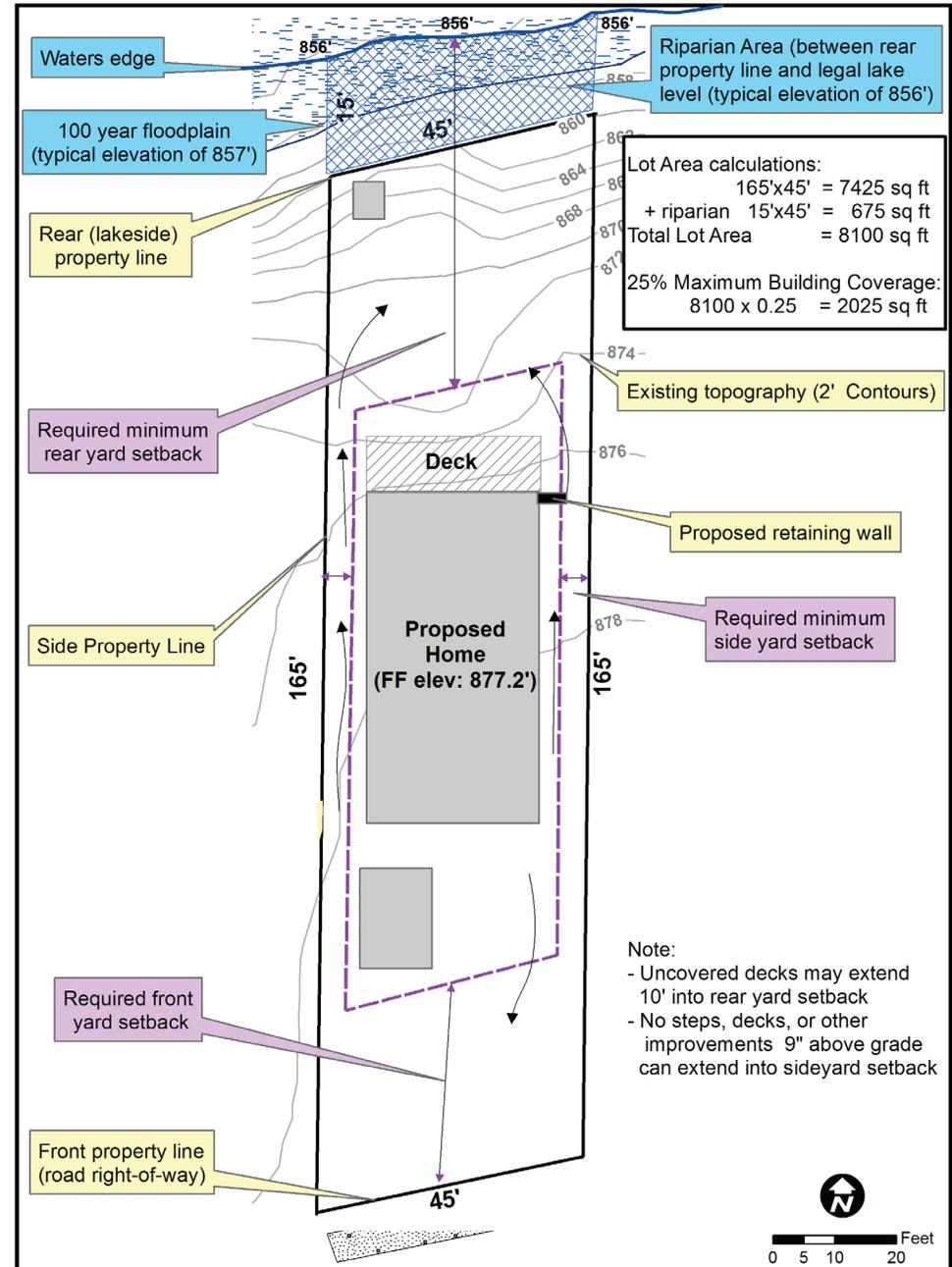
Residential construction projects require a Plot Plan drawn to scale that illustrates all existing and proposed improvements. For the construction of a new house or addition on property with frontage on a lake or within 500 feet of a lake or water body, the following additional information is needed:

- ◆ Existing grade or topography shown in two-foot contours.
- ◆ Existing and proposed grade or topography illustrated by site elevations based on either the GPS (NAVD88) or USGS (NGVD29) datum for the following:
  - Property corners
  - Floodplain elevation
  - Building corners
  - Finished floor elevation
  - Legal lake level (also referred to as ordinary high water mark)<sup>1</sup>
- ◆ If the rear/lakeside property line does not extend to the shoreline or water's edge, include on the plot plan at least three spot elevations that illustrate the location of the legal lake level/elevation, with a line that connects the spot elevations. The following additional information is also needed:
  - Distance between the rear/lakeside property corners and legal lake level/elevation. The line that connects the legal lake level/elevations will be used for the purposes of measuring the required rear yard building setback.
  - Area of the land (in square feet) between the rear/lakeside property line and the legal lake level/elevation line. This area is also referred to as the "Riparian Area" and is shown on the drawing to the right. The Riparian Area will be added to the property area for the purposes of determining maximum building lot cover.
  - NOTE: If a public beach, promenade or other public right-of-way or walkway exists between the rear/lakeside property line and the shoreline or waters edge, the rear setback is measured from the rear/lakeside property line, and the property can not include additional Riparian Area for the purposes of calculating maximum building lot cover.
- ◆ Location and height of existing and proposed retaining walls.
- ◆ On-site drainage provisions (including arrows showing drainage direction).

In addition, a soil erosion permit is required for all lake front construction projects.

<sup>1</sup>Contact the Department of Community Development for assistance regarding the legal lake level elevation.

### Sample Plot Plan



Please contact the Department of Community Development at (269) 329-4477 with questions or comments.