



LAND DIVISION INFORMATION GUIDE

Density and Lot Dimensions in Single-Dwelling Zones, Ch.33.610&33.611

How is density calculated in single-dwelling zones?

Density is a measurement of the number of dwelling units on a site in relation to its size. The Portland Zoning Code contains both maximum and minimum density standards, which must be met when land is divided to create additional lots or parcels. Density should not be confused with minimum lot size standards. Both density and lot size standards must be met when land is divided.

Step 1 – Collect necessary information

To determine the maximum and minimum density standards for your property, you will first need to answer the following questions:

- What is the property zoned?
- What is the square footage of the property?
- Will a street be created or extended as part of the land division?
- Does the site include an Environmental Overlay zone (identified by a “p” or “c” in the zoning designation), a Potential Landslide Hazard Area or a Flood Hazard Area? If so, you will need to know the square footage of the site with these features.

Step 2 – Calculate maximum and minimum number of lots

Use the formulas below to calculate the maximum and minimum number of lots for the site:

If no street is created

- Maximum number of lots = Square footage of site ÷ Maximum density^[1]
- Minimum number of lots in RF - R5 zones = (Square footage of site - Square footage of site within an Environmental Overlay zone, Landslide Hazard Area or Flood Hazard Area) x 0.80 ÷ Maximum density^[1]
- Minimum number of lots in R2.5 zone = (Square footage of site - Square footage of site within an Environmental Overlay zone, Landslide Hazard Area or Flood Hazard Area) x 0.80 ÷ 5,000.

[1] The area required per unit for maximum density in Table 610-1 (see page 2).

If a street is created

- Maximum number of lots = (Square footage of site x 0.85) ÷ Maximum density^[1]
- Minimum number of lots in RF - R5 zones = (Square footage of site - Square footage of site within an Environmental Overlay zone, Landslide Hazard Area or Flood Hazard Area) x 0.68 ÷ Maximum density^[1]
- Minimum number of lots in R2.5 zone = (Square footage of site - Square footage of site within an Environmental Overlay zone, Landslide Hazard Area or Flood Hazard Area) x 0.68 ÷ 5,000.

[1] The area required per unit for maximum density in Table 610-1 (see page 2).

Step 3 - Round Fractions

The Portland Zoning Code contains special rules for rounding fractions when they involve density calculations. Below is a summary of the rules (see Zoning Code section 33.930.020):

- All fractions are truncated at two numbers past the decimal (e.g. 3.4289 becomes 3.42).
- If your calculation for *minimum density* results in a fraction that is .50 or greater, the fraction is rounded up to the nearest whole number. A fraction less than .50 is rounded down.
- The rule for rounding fractions that result from a *maximum density* calculation depends on the total number of units allowed. See the table below.

Rounding Rule for Maximum Density Calculations Summary of Zoning Code Section 33.930.020.B

Maximum # of Lots	Fraction is	Round
1.01 to 3.99	Less than .90	Down
	.90 or greater	Up
4.01 to 10.99	Less than .75	Down
	.75 or greater	Up
11.01 or larger	Less than .50	Down
	.50 or greater	Up

Examples of Density Calculations

40,000 square foot site in R5 zone; no street created and no site constraints

Maximum # of lots: $40,000 \div 5,000 = 8$

Minimum # of lots: $40,000 \times .80 = 32,000$
 $32,000 \div 5,000 = 6.4$; round down to 6

40,000 square foot site in R5 zone; new street created and 10,000 square feet in environmental overlay zones

Maximum # of lots: $40,000 \times .85 = 34,000$
 $34,000 \div 5,000 = 6.8$; round up to 7

Minimum # of lots: $40,000 - 10,000 = 30,000$
 $30,000 \times .68 = 20,400$
 $20,400 \div 5,000 = 4.08$; round down to 4

Are there any exceptions to the minimum density requirements?

Exceptions to minimum density requirements are allowed only in the following circumstances:

- If minimum density is equal to maximum density, then the minimum required density is reduced by one (see Zoning Code sections 33.610.100.E and 33.611.100.E).
- If minimum density is larger than maximum density, then the minimum required density is reduced to one less than the maximum.
- Minimum density may be reduced through the land division review to better meet the tree preservation requirements (see Zoning Code section 33.630.400).
- If there is a stream, spring or seep on a site that is **not** within an Environmental Overlay zone, the minimum density requirement may be waived to better meet the standards of Chapter 33.640, Streams, Springs, and Seeps.
- The portion of the site that has a Conditional Use or Conditional Use Master Plan is exempt from minimum density.

Table 610-1 and Chapter 33.611, Maximum Density Standards

	RF	R20	R10	R7	R5	R2.5
Maximum Density	1 unit per 87,120 sq. ft.	1 unit per 20,000 sq. ft.	1 unit per 10,000 sq. ft.	1 unit per 7,000 sq. ft.	1 unit per 5,000 sq. ft.	1 unit per 2,500 sq. ft.

Do lots have to be a certain size or shape?

Lots created through a land division must meet all of the dimensional standards for the zone in which the site is located. See the standards in the tables below (from Zoning Code sections 33.610.200 & 33.611.200):

Table 610-2 and Chapter 33.611, Lot Dimension Standards

	RF	R20	R10	R7	R5	R2.5
Minimum Lot Area	52,000 sq. ft.	12,000 sq. ft.	6,000 sq. ft.	4,200 sq. ft.	3,000 sq. ft.	1,600 sq. ft.
Maximum Lot Area	151,000 sq. ft.	34,500 sq. ft.	17,000 sq. ft.	12,000 sq. ft.	8,500 sq. ft.	none
Minimum Lot Width	60 ft.[1]	60 ft.[1]	50 ft.[1]	40 ft.[1]	36 ft.[1]	36 ft. [1]
Minimum Front Lot Line	30 ft.	30 ft.	30 ft.	30 ft.	30 ft.	30 ft.
Minimum Lot Depth	60 ft.	60 ft.	60 ft.	55 ft.	50 ft.	40 ft.

Note:

[1] See alternatives to minimum lot width standard in 33.610.200.D and 33.611.200.C, and the Informational Guide for Housing on Narrow Lots.

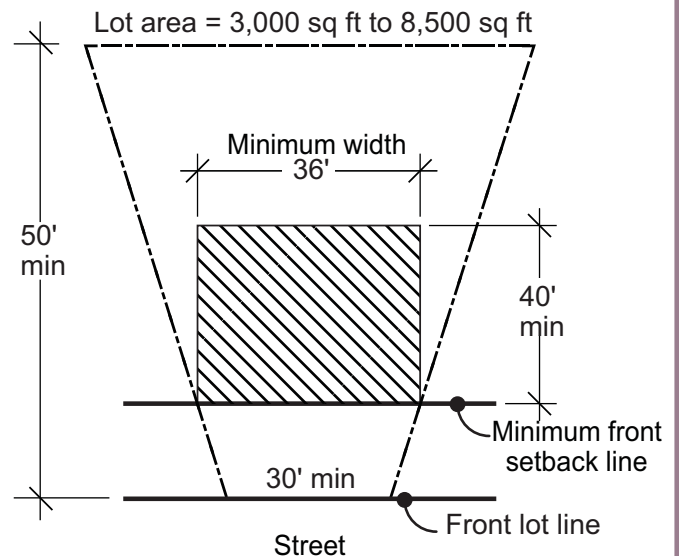
Lot area – Individual lots may vary in size provided they stay within the minimum and maximum lot area range of Table 610-2.

Minimum lot width – Lot width is measured by placing a rectangle along the minimum front building setback line. The rectangle must have a minimum width specified for the zone and a minimum depth of 40 feet. The rectangle must fit entirely within the lot. See 33.930.100 for more information. The minimum lot width standard may be modified if the regulations in section 33.610.200.D.2 or 33.611.200.C.2 are met.

Minimum front lot line – This standard regulates the amount of frontage that a lot has on a street. If the lot is on a corner, the front lot line is the shorter of the two lot lines that abut a street. If the two lot lines are the same length, the applicant may choose the front lot line. The front lot line may be reduced to the width of the lot if the lot width is reduced under the provisions of section 33.610.200.D.2. or 33.611.200.C.2.

Minimum lot depth – Lot depth is measured at the mid-point of opposite lot lines.

Minimum Lot Dimensions R5 Zone



Non-Standards Lots –

Through lots – Lots that have frontage on two streets, but not on a corner, are allowed only where both front lot lines are on local service streets. The minimum front lot line and minimum width standards apply to one frontage of the through lot (see Zoning Code section 33.610.300 & 611.300).

Flag lots – Lots that are located behind other lots and have access to a street through a narrow strip of land, are allowed only in certain circumstances and have special dimensional requirements. See Zoning Code section 33.610.400 or 611.400 and the Flag Lot handout for more information.

Frequently asked questions

Q What is the purpose of density standards?

A Density standards match housing density with the availability of services and with the carrying capacity of the land. Maximum densities ensure that the number of lots created does not exceed the intensity planned for the area, while minimum densities ensure that enough dwelling units can be developed to meet the projected need for housing.

Q Can I request an adjustment to the minimum and maximum density requirements?

A No. Adjustments to density are prohibited in Single-dwelling zones. The only exceptions are those listed above.

Q Can I request an adjustment to lot dimension standards?

A Adjustments to most of the lot dimension standards are prohibited in Single-dwelling zones. The one exception is the maximum lot size standard. More flexibility is available through the Planned Development process. See the Planned Development handout and Chapters 33.638 and 33.665 of the Portland Zoning Code for more information. Lot dimension standards may also be modified through environmental review, see Zoning Code Section 33.430.280.

Q What is the minimum density requirement if the site is entirely within a Potential Landslide Hazard Area or Environmental Overlay zone?

A Zero. There would be no minimum density requirement.

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Q What is the minimum square footage needed to divide property?

A The table below shows the minimum square footage necessary to comply with maximum density standards in the single-dwelling zones. The square footage shown is based on the rounding rule for maximum density calculations: a fraction of .9 or greater is rounded up (1.9 = 2 lots; 2.9 = 3 lots). However, additional square footage may be necessary to provide vehicular access or meet other development standards. Remember, Adjustments to density requirements are prohibited in Single-dwelling zones.

	RF	R20	R10	R7	R5	R2.5
2 parcels	165,528 sq. ft.	38,000 sq. ft.	19,000 sq. ft.	13,300 sq. ft.	9,500 sq. ft.	4,750 sq. ft.
3 parcels	252,648 sq. ft.	58,000 sq. ft.	29,000 sq. ft.	20,300 sq. ft.	14,500 sq. ft.	7,250 sq. ft.

Note: Smaller sites may be dividable in certain situations, such as corner lots or lots in the "a" overlay zone.

Table 110-3, Summary of Development standards in Single-Dwelling zones

Standard	RF	R20	R10	R7	R5	R2.5	
						detached	attached
Maximum Height (33.110.215)	30 ft.	30 ft.	30 ft.	30 ft.	30 ft.	35 ft.	35 ft.
Minimum Setbacks (33.110.220)							
• Front building	20 ft.	20 ft.	20 ft.	15 ft.	10 ft.	10 ft.	10 ft.
• Side building	10 ft.	10 ft.	10 ft.	5 ft.	5 ft.	5 ft.	0/5 ft. ^[1]
• Rear building	10 ft.	10 ft.	10 ft.	5 ft.	5 ft.	5 ft.	5 ft.
• Garage entrance	18 ft.	18 ft.	18 ft.	18 ft.	18 ft.	18 ft.	18 ft.
Required Outdoor Area (33.110.235)							
• Minimum area	250 sq. ft.	250 sq. ft.	250 sq. ft.	250 sq. ft.	250 sq. ft.	250 sq. ft.	200 sq. ft.
• Minimum dimension ^[4]	12' x 12'	12' x 12'	12' x 12'	12' x 12'	12' x 12'	12' x 12'	10' x 10'

Notes:

- [1] Per 33.110.240.C, the side building setback on the side containing the common wall is reduced to zero.
- [2] No side, rear, or garage entrance setback is required from a lot line abutting an alley.
- [3] The lot in front of a flag lot may reduce its side building setback along the flag pole lot line to 3 feet.
- [4] The shape of the outdoor area must be such that a square of the stated dimension will fit entirely in the outdoor area.

Table 110-4 Maximum building coverage allowed in the RF through R2.5 Zones ^{[1][2]}	
Lot size	Maximum building coverage
Less than 3,000 sq. ft	50% of lot area
3,000 sq. ft. or more but less than 5,000 sq. ft.	1,500 sq. ft. + 37.5% of lot area over 3,000 sq. ft.
5,000 sq. ft. or more but less than 20,000 sq. ft.	2,250 sq. ft + 15% of lot area over 5,000 sq. ft.
20,000 sq. ft. or more	4,500 sq. ft + 7.5% of lot area over 20,000 sq. ft.

Notes:

- [1] Group Living uses are subject to the maximum building coverage for institutional development stated in Table 110-5.
- [2] Only the flag portion of a flag lot is considered when calculating building coverage.

For more information visit or call the Planning and Zoning staff at the Development Services Center at 1900 SW 4th Avenue, Suite 1500, 503-823-7526
For current Portland Zoning Code visit www.portlandonline.com/zoningcode