



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 lots allowed based on site 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 or River Environmental Overlay zone (identified by a “p”, “c” or “e” 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.
- What type of housing is proposed? Lots for attached houses meeting certain criteria have additional density allowances (density standard A).
- Other density provisions may apply if your site is within an overlay or plan district.

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

[1] The area required per lot for maximum density in Table 610-1 and 611-1 (see page 2).

If a street is created

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

[1] The area required per lot for maximum density in Table 610-1 and 611-1 (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 lots 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 Standard B 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).
- Minimum density may be reduced through the land division review to reduce the risk of landslide (Zoning Code Chapter 33.632) or to protect streams, springs, seeps or wetlands (Zoning Code Chapter 33.640).
- The portion of the site that has a Conditional Use or Conditional Use Master Plan is exempt from minimum density.

**Table 610-1 and 611-1, Maximum Density Standard B
Lots for all housing types, except Attached Houses**

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

**Table 610-1 and 611-1, Maximum Density Standard A
Lots for Attached Houses**

	RF	R20	R10	R7	R5	R2.5
Maximum Density	NA	1 lot per 5,000 sq. ft.	1 lot per 2,500 sq. ft.	1 lot per 1,750 sq. ft.	1 lot per 1,500 sq. ft.	1 lot per 1,500 sq. ft.

In order to use maximum density standard A, the following must be met:

- Lots must be developed with attached houses;
- Lots must be located outside the Constrained Sites “v” overlay zone; and
- Lots must have frontage on a maintained street, a private street that connects to a maintained street, or a self-contained pedestrian connection created solely for pedestrians and bicycles.
- The site being divided must qualify for a primary structure in conformance with 33.110.202, When Primary Structures are Allowed.

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):

	RF	R20	R10	R7	R5	R2.5
Minimum Lot Area						
Attached house lots [1]	NA	1,500 sq. ft.	1,500 sq. ft.	1,500 sq. ft.	1,500 sq. ft.	1,500 sq. ft.
All other lots	52,000 sq. ft.	12,000 sq. ft.	6,000 sq. ft.	4,200 sq. ft.	3,000 sq. ft.	1,500 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 [2]						
Attached house lots [1]	NA	15 ft.	15 ft.	15 ft.	15 ft.	15 ft.
All other lots	60 ft.[1]	60 ft.[1]	50 ft.[1]	40 ft.[1]	36 ft.[1]	36 ft. [1]
Minimum Front Lot Line						
Attached house lots [1]	NA	15 ft.	15 ft.	15 ft.	15 ft.	15 ft.
All other lots	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] In the R20-R5 zones, the dimensional standards for attached house lots is only allowed for lots that are located entirely outside the Constrained Sites overlay zone, have frontage on a maintained street or a private street that connects to a maintained street or a self-contained pedestrian connection created solely for pedestrians and bicycles, and will be developed with attached houses.
- [2] See alternatives to minimum lot width standard in 33.610.200.D and 33.611.200.C, described below

Lot area – Individual lots may vary in size provided they stay within the minimum and maximum lot area range of Table 610-2 and 33.611.

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 reduced if the regulations in section 33.610.200.D.2 or 33.611.200.C.2 are met. See Narrow Lots below.

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 midpoint of opposite lot lines.

Minimum Lot Dimensions R5 Zone

Lot area = 3,000 sq ft to 8,500 sq ft

- Regular lot lines** - As far as is practical, all lot lines must be straight and the side lot lines of a lot or parcel must be at right angles to the street on which it fronts, or be radial to the curve of a curved street (33.610.200 and 33.611.200.F).
- 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.

Narrow lots –

RF - R5 zones: Minimum lot width may be reduced below the standard stated in 610-2 if the regulations of 33.610.200.D are met, which include demonstrating the lot(s) have dimensions consistent with the purpose of Lot Dimension Regulations and the minimum lot width for a detached house may not be less than 26 feet.

R2.5 zone: Minimum lot width may be reduced below the standard of 33.611.200.C.1 in the following circumstances:

- Minimum lot width may be reduced to 26 feet if an existing dwelling unit or garage precludes creation of a standard lot or the side lot line of a lot less than 36 feet wide will not abut the side lot line of any other lot within the land division site.
- Minimum lot width may be reduced to 15 feet for a lot that will be developed with an attached house.

See Additional Development Standards for Narrow Lots (lots less than 32 feet wide) under 33.110.260.

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 33.270 and 33.854 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.

Q What is the minimum square footage needed to divide property using Density Standard B?

A The table below shows the minimum square footage necessary to comply with maximum density standards in the single-dwelling zones for lots other than attached houses. 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. See the information above for requirements to divide for attached houses (density standard A).

	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.

For more information, call the Planning and Zoning staff at 503-823-7526 or schedule a free 15-minute appointment:
www.portland.gov/bds/early-assistance/15-minute-appointments
 For current Portland Zoning Code visit www.portland.gov/code/33

Information is subject to change