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SINGLE FAMILY RESIDENTIAL AND R-2 ZONING DISTRICTS

FLOOR AREA LIMIT, BUILDING COVERAGE, DAYLIGHT PLANE, AND BALCONY RESTRICTIONS

The regulations contained in this handout apply to the R-E (Residential Estate), R-E-S (Residential Estate Suburban), R-1-S (Single Family Suburban Residential), R-1-S (FG) (Single Family Suburban Residential, Felton Gables), R-1-U (Single Family Urban Residential) and R-2 (Low Density Apartment) zoning districts. This handout is the supplemental guideline information referred to in the Zoning District Summary Sheet. For complete verbiage of the ordinances regarding floor area limit, building coverage, daylight plane, and balcony restrictions, please refer to the Zoning Ordinance.

This handout does NOT apply to the R-1-U (LM) (Single Family Urban Residential, Lorelei Manor) zoning district. Please refer to the Zoning Ordinance for more details.

FAL – Floor Area Limit (p. 3-6)

- What is FAL?
- How do I determine the FAL for my property?
 - Single family residential
 - Single family residential, Felton Gables
 - R-2
 - Second floor limits
- How is FAL measured?
 - One Story Homes
 - Two Story Homes
- Are there items not counted in FAL?

Building Coverage (p. 7-8)

- What is building coverage?
- How does building coverage differ from FAL?
- Are there items not counted in building coverage?
- How do I determine the building coverage for my property?

FAL and Building Coverage Summary Graphic (p. 8)

Daylight Plane Restrictions (p. 9-13)

What is a daylight plane?

How is daylight plane measured?

Are there any exceptions to the daylight plane rule?

Balcony Restrictions (p. 14-15)

How is a balcony defined?

Do balconies have special restrictions?

Construction of single family residences must comply with the floor area limit, building coverage, daylight plane, and balcony restriction ordinances. Plans for construction must be accurately drawn and floor area limit calculations, building coverage, and daylight plane notation must be shown on the plans.

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FAL – Floor Area Limit

What is FAL?

FAL (Floor Area Limit) is the maximum amount of gross square footage you are allowed to build on your property.

How do I determine the FAL for my property?

The FAL for any specific property is based on the size of the property. When determining the size of your property, neither the panhandle extension of a panhandle lot, nor a private driveway or access easement across another panhandle lot, shall be included as part of the property.

The methods to calculate FAL for properties located in the R-E, R-E-S, R-1-S and the R-1-U zoning districts are described below, followed by the method to calculate FAL for the R-1-S (Felton Gables) zoning district.

1. The FAL for the R-E, R-E-S, R-1-S, and R-1-U zoning districts is calculated as follows:

For **lots under 5,000 square feet**, there is no established FAL. The FAL will be determined by the Planning Commission through the review of a use permit.

For single family **lots between 5,000 and 7,000 square feet**, the FAL is 2,800 square feet.

For **all other single family residential zoned lots**, except R-1-S (FG), the FAL is determined by the following formula:

$$2,800 \text{ square feet} + 25\% (\text{lot area} - 7,000 \text{ square feet}) = \text{FAL}$$

EXAMPLE -- If a lot is 10,000 square feet, then the FAL is equal to:

$$\begin{aligned} 2,800 \text{ square feet} + 25\% (10,000 - 7,000 \text{ square feet}) &= \text{FAL} \\ 2,800 \text{ square feet} + 25\% (3,000 \text{ square feet}) &= \text{FAL} \\ 2,800 \text{ square feet} + 750 \text{ square feet} &= \mathbf{3,550 \text{ square feet}} \text{ (FAL)} \end{aligned}$$

The maximum allowed FAL for a 10,000 square foot lot is **3,550 square feet**.

2. The FAL for the R-1-S (Felton Gables) zoning district is calculated as follows:

$$2,800 \text{ square feet} + \mathbf{20\%} (\text{lot area} - 7,000 \text{ square feet}) = \text{FAL}$$

EXAMPLE--If a lot is 10,000 square feet, then the FAL is equal to:

$$\begin{aligned} 2,800 \text{ square feet} + 20\% (10,000 - 7,000 \text{ square feet}) &= \text{FAL} \\ 2,800 \text{ square feet} + 20\% (3,000 \text{ square feet}) &= \text{FAL} \\ 2,800 \text{ square feet} + 600 \text{ square feet} &= \mathbf{3,400 \text{ square feet}} \text{ (FAL)} \end{aligned}$$

The maximum allowed FAL for a 10,000 square foot lot zoned R-1-S (FG) is **3,400 square feet**.

FAL – Floor Area Limit (continued)

3. **For R-2 lots**, the floor area of all buildings on the lot shall not exceed 40% of the square footage of the lot.

EXAMPLE--If a lot is 10,000 square feet, then the floor area is equal to:

$$\begin{aligned} 40\% (10,000 \text{ square feet}) &= \text{floor area} \\ 4,000 \text{ square feet} &= \text{floor area} \end{aligned}$$

4. **Are there limits on the size of a second floor?**

YES. Limits on the size of the second floor are the same for all single family residential zoning districts, including the R-1-S (Felton Gables) zoning district. The maximum FAL allowed for second stories is limited to 50% of the FAL for the entire property. In addition, the interior spaces which have a ceiling height greater than 12 feet count once, or at 100%, toward the allowed second floor FAL. Attic space does not count toward the allowed second floor FAL.

EXAMPLE--Given a 10,000 square foot lot, with an FAL of 3,550 square feet, the maximum second story area allowed would be fifty percent (50%) of 3,550 square feet, or 1,775 square feet.

The 50% limit on the second floor FAL does not apply on the lots where the length of the lot is more than twice the width. In these cases, the allowable second story may be determined in two ways. The greater FAL of the two will apply. The first limit is established at 1,400 square feet. The second limit is determined by the following formula:

$$\frac{\text{lot width (measured at front setback)}}{\text{length of lot (average of both sides)}} \times \text{FAL}$$

Please note: these definitions of lot width and length differ from the definitions of "minimum lot width" and "minimum lot depth" used to determine whether a lot is standard or substandard.

EXAMPLE--Your lot is 50 feet wide by 150 feet in length which totals 7,500 square feet in area. Since the length is more than twice the width, you must apply the formula to see if you will be allowed more than 1,400 square feet on the second story.

$$\frac{50 \text{ ft. width}}{150 \text{ ft. length}} \times \text{FAL } (2,800 + 25\% [7,500 - 7,000]) = 2,925 \text{ square feet}$$

$$\left(\frac{50 \text{ ft.}}{150 \text{ ft.}} \right) \times 2,925 \text{ square feet or } (33.3\% \times 2,925) = 974 \text{ square feet}$$

Since 1,400 square feet is greater than 974 square feet, the 1,400 square foot limit would apply.

For R-2 lots, the floor area of the second stories of all buildings on the lot shall not exceed 15% of the square footage of the lot.

EXAMPLE--Given an 8,000 square foot lot:

$$\begin{aligned} 15\% (8,000 \text{ square feet}) &= \text{maximum size of second floor} \\ 1,200 \text{ square feet} &= \text{maximum size of second floor} \end{aligned}$$

FAL – Floor Area Limit (continued)

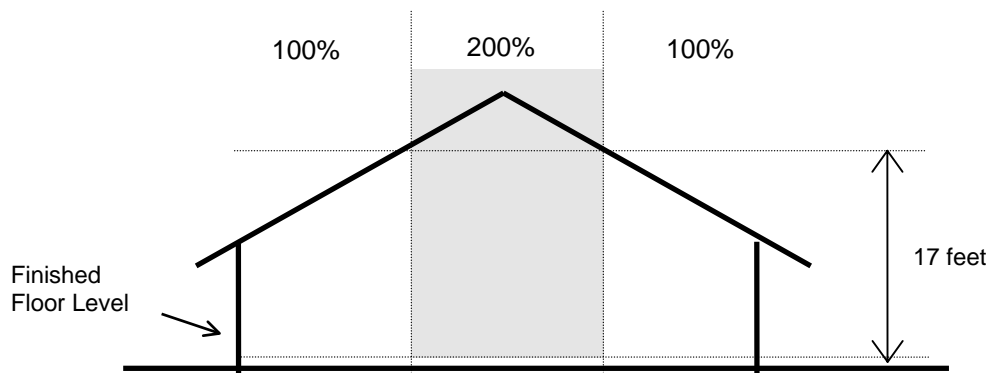
How is FAL measured?

FAL is the square footage of all structures with a solid roof, which are taller than 6 feet in height above the *grade* of the property. **Grade** is defined as the average of the highest and lowest points of the natural grade of the portion of the lot covered by the structure.

Square footage of all levels of the house and accessory buildings, as well as all garages and carports, are included in FAL whether they are located above or below grade. The “Are there items not counted in FAL?” section of this handout describes items excluded from FAL calculations.

One Story Homes

In single story homes, all floor area where the distance between the finished floor and the roof directly above it measures 17 feet or more, shall be counted at 200% floor area. See diagram below.



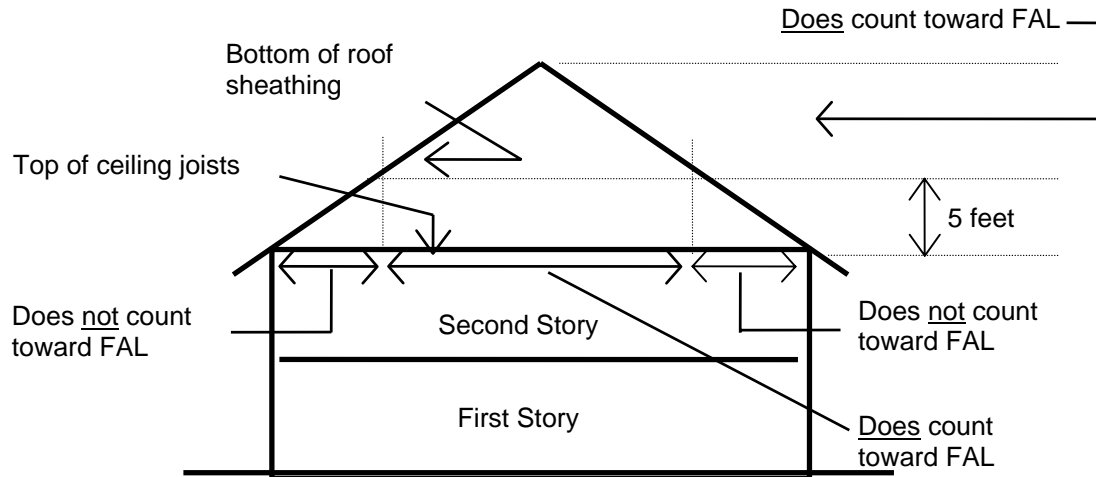
In calculating the floor area, the finished floor level of the ground floor of any home shall be the lesser of the actual finished floor level or a point which is 18 inches above grade.

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FAL – Floor Area Limit (continued)

Two Story Homes

In two-story homes, the square footage of all attic space where the distance between the top of the ceiling joist and the bottom of the roof sheathing measures 5 feet or more, shall count as additional floor area. **Attic** is defined as a space in a building that is immediately above the top of the ceiling joist and immediately below the roof sheathing, including all roof framing. Attic height is determined by measuring from the bottom of the roof sheathing to the top of the ceiling joists. See diagram below.



The main floor level of a split-level residence is defined as the level with the largest floor area.

In two-story homes, interior space which has a ceiling height greater than 12 feet from finished floor level, other than the stairwells, shall be counted at 200% floor area. This same area shall also be counted at 100% toward the maximum allowed second floor square footage.

Are there items not counted in the FAL?

YES. For single-family and R-2 zoning districts, there are several items that are not counted in the FAL. These are listed below:

- basements under structures with a main floor level of 30 inches or less above grade;
- garden structures, such as arbors and trellises with a semi-solid roof;
- covered porches and patios structurally attached to the exterior of the main residence, provided that one end is open and faces out from the residence;
- interior attic space less than 5 feet in height in two-story homes (**Attic** is defined as a space in a building that is immediately above the top of the ceiling joists and immediately below the roof sheathing, including all roof framing.);
- bay window protrusions which do not provide foundation and which are no more than 7 feet in length;
- chimneys and fireboxes or fireplaces;
- eave overhangs.

Building Coverage

What is building coverage?

Building coverage is that percentage of the building site permitted to be covered by buildings, as measured from the ground upward, exclusive of any eave not in excess of six feet. Building coverage can be considered the footprint of all buildings on the site. Building coverage includes **all** structures with roofs, including semi-solid roofs such as trellises and arbors. Check with the Planning Division first, if you are unsure whether a certain feature would count towards building coverage.

How does building coverage differ from FAL?

Building coverage does not include any second-floor or attic areas; it looks only at what is happening at the ground level. However, it is often not simply the same as the ground-floor FAL. Many additional ground-floor areas, such as covered porches and trellises, do not count toward FAL, but **do** count toward building coverage.

Are there items not counted in building coverage?

YES. Eaves that are less than six (6) feet in length do not count towards building coverage. Note, however, that eaves are unsupported; if a roof extension is connected to the ground by a post, it is considered to be a covered porch and is counted as building coverage.

How do I determine the building coverage for my property?

Building coverage can vary, depending on whether the development is single-story, or two or more stories. For single-story development, it can also vary, depending on the lot size.

Single-Story Development

R-E, R-E-S, R-1-S, R-1-U Zoning Districts

Building coverage for lots with an area of 7,000 square feet or less shall be 40 percent. Building coverage for lots with an area of between 7,000 and 10,500 square feet shall decrease on an even gradient from 40 percent for a lot of 7,000 square feet to 35 percent for a lot with 10,500 square feet, consistent with the maximum allowed Floor Area Limit (FAL) for the property. Building coverage for lots with an area greater than 10,500 square feet shall be 35 percent.

These guidelines are summarized below, with several examples. If you need assistance calculating your precise building coverage, please contact the Planning Division.

lot area	<= 7,000	7,500	8,000	8,500	9,000	9,500	10,000	>= 10,500
percentage	40.0%	39.3%	38.6%	37.9%	37.1%	36.4%	35.7%	35.0%

R-1-S (FG), R-2 Zoning Districts

The maximum building coverage is 35%.

Building Coverage (continued)

Development of Two or More Stories

R-E, R-E-S Zoning Districts

The maximum building coverage is 30%.

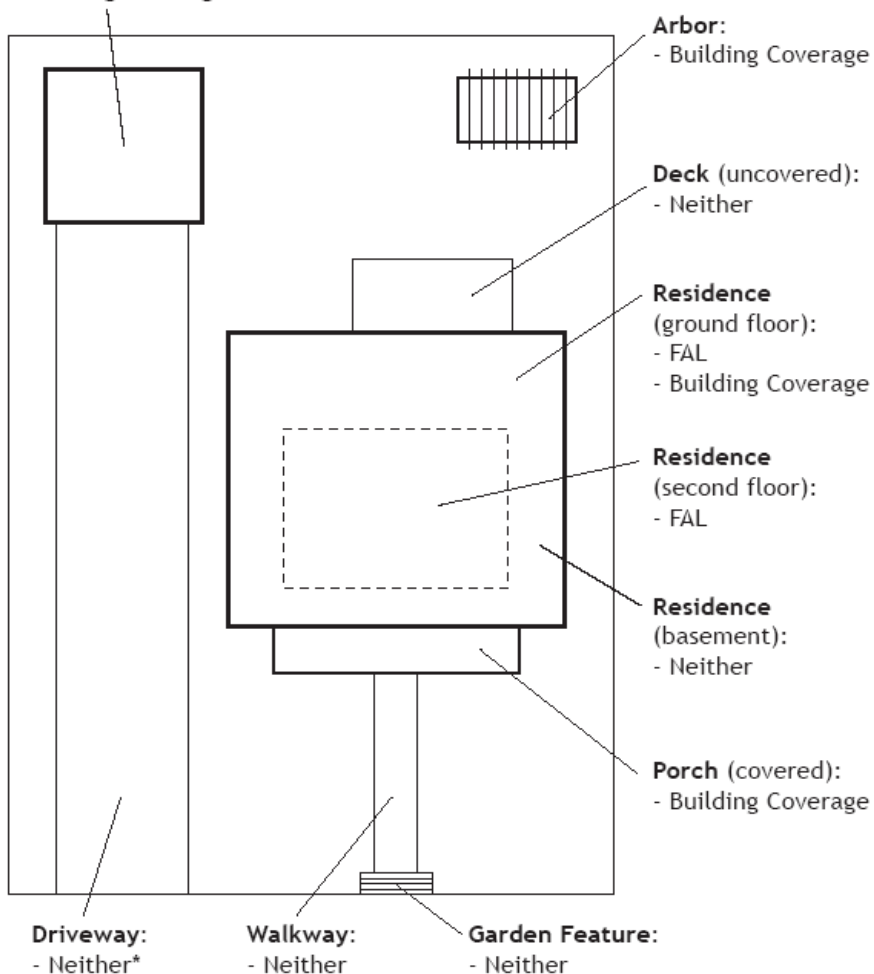
R-1-S, R-1-S (FG), R-1-U, R-2 Zoning Districts

The maximum building coverage is 35%.

FAL and Building Coverage Summary Graphic

Garage (attached or detached):

- FAL
- Building Coverage



*In the R-2 zoning district, driveways do not count as FAL or Building Coverage, but they must be excluded from Landscaping.

Daylight Plane Restrictions

What is a daylight plane?

A daylight plane is a two-dimensional space that sits on the property. The residence must fit completely within this designated space.

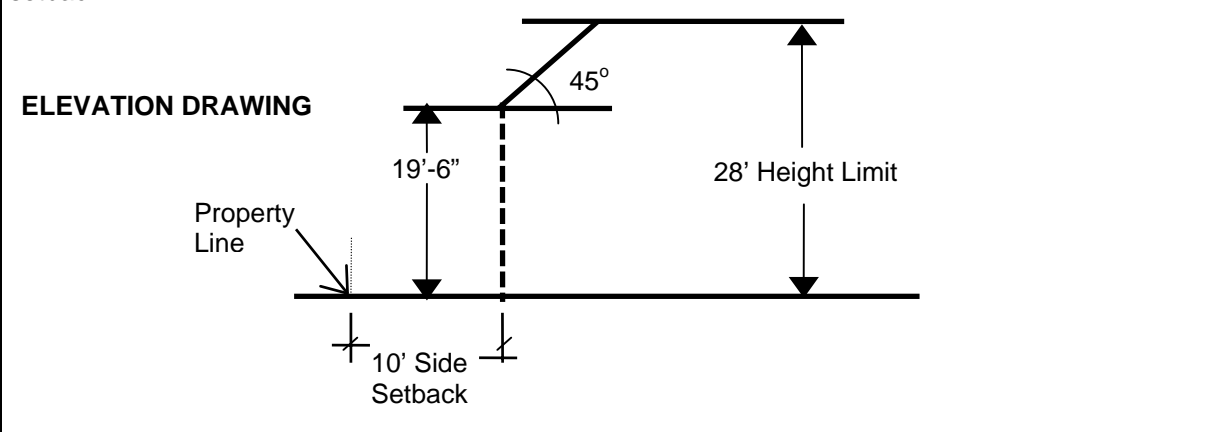
How is daylight plane measured?

The method for measuring the daylight plane is dependant on the zoning district the property is located in and, in some cases, whether the residence is a one-story or two-story design. The various methods used in the different zoning districts are described below.

The daylight plane for the R-E, R-E-S and R-2 zoning districts is as follows:

The daylight plane is measured at the required side setbacks, at average grade, up a distance of 19 feet 6 inches and inward toward the center of the property at an angle of 45 degrees.

EXAMPLE--The following diagram shows the daylight plane for a lot with a required 10 foot side setback.



The daylight plane for an addition to an existing structure may be determined differently in order to give lee-way for the existing foundation and existing floor level.

The distance above the minimum side setback before angling inward at 45 degrees for existing structures shall be the higher of the values obtained from either 1 or 2 listed below:

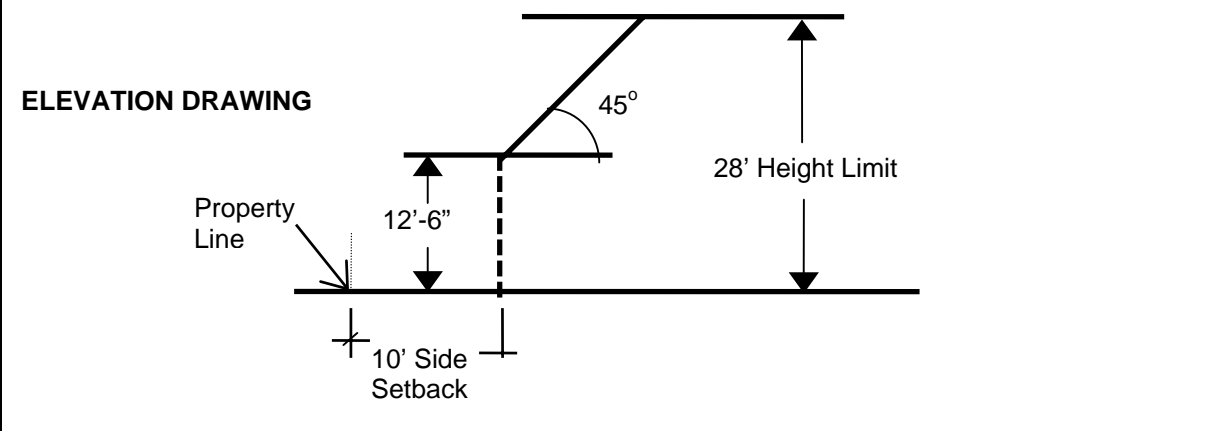
1. 19 feet 6 inches above the grade of the side setback; **OR**
2. The **lower** of:
 - 18 feet above the underside of the actual first floor, measured at the side wall; or
 - 20 feet 6 inches above the grade of the side wall.

Daylight Plane Restrictions (continued)

The daylight plane for the R-1-S and R-1-U zoning districts is dependant on whether the residence is a one-story or two-story design. The daylight plane for each is described below.

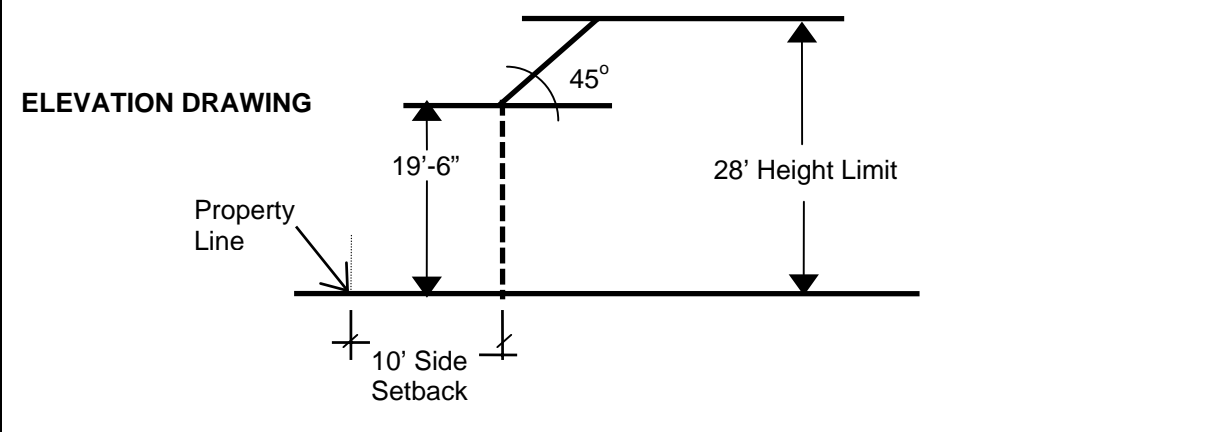
One-story designs: The daylight plane is measured at the required side setbacks, at average grade, up a distance of 12 feet 6 inches and inward toward the center of the property at an angle of 45 degrees.

EXAMPLE--The following diagram shows the daylight plane for a lot with a required 10 foot side setback.



Two-story designs: The daylight plane is measured at the required side setbacks, at average grade, up a distance of 19 feet 6 inches and inward toward the center of the property at an angle of 45 degrees.

EXAMPLE--The following diagram shows the daylight plane for a lot with a required 10 foot side setback.



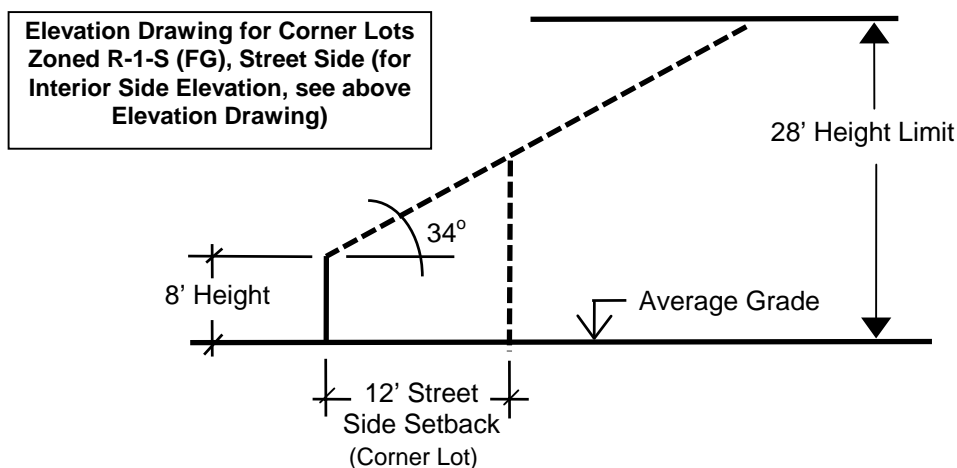
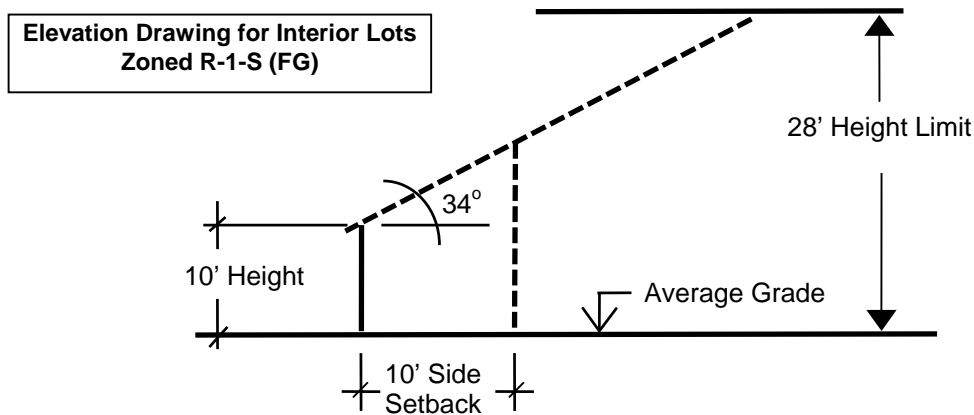
Daylight Plane Restrictions (continued)

In two-story designs, the daylight plane for an addition to an existing structure may be determined differently in order to give lee-way for the existing foundation and existing floor level.

The distance above the minimum side setback before angling inward at 45 degrees for existing structures shall be the higher of the values obtained from either 1 or 2 listed below:

1. 19 feet 6 inches above the grade of the side setback; **OR**
2. The **lower** of:
 - 18 feet above the underside of the actual first floor, measured at the side wall; or
 - 20 feet 6 inches above the grade of the side wall.

The daylight plane for the R-1-S (FG) zoning district shall begin at a horizontal line at a certain distance directly above the natural grade of each side property line of each single family residential lot and shall slope inward toward the interior of the lot at a 34° angle. The natural grade of a side property line is the average grade of the highest and lowest points of the natural grade of the lot at the side property line. The distance between the side property line and the horizontal line directly above it shall be 10 feet for interior sides and 8 feet for the street side of corner lots. See diagrams below:



Daylight Plane Restrictions (continued)

Are there any exceptions to the daylight plane rule?

YES. For all zoning districts, chimneys, vents, flues, and solar collectors are allowed to intrude into the daylight plane. These are the only allowed intrusions for one-story designs in the R-1-S and R-1-U zoning districts.

For the R-E, R-E-S and R-2 zoning districts, and for two-story designs in the R-1-S and R-1-U districts, gables and dormers are also allowed to intrude in accordance with the regulations listed below:

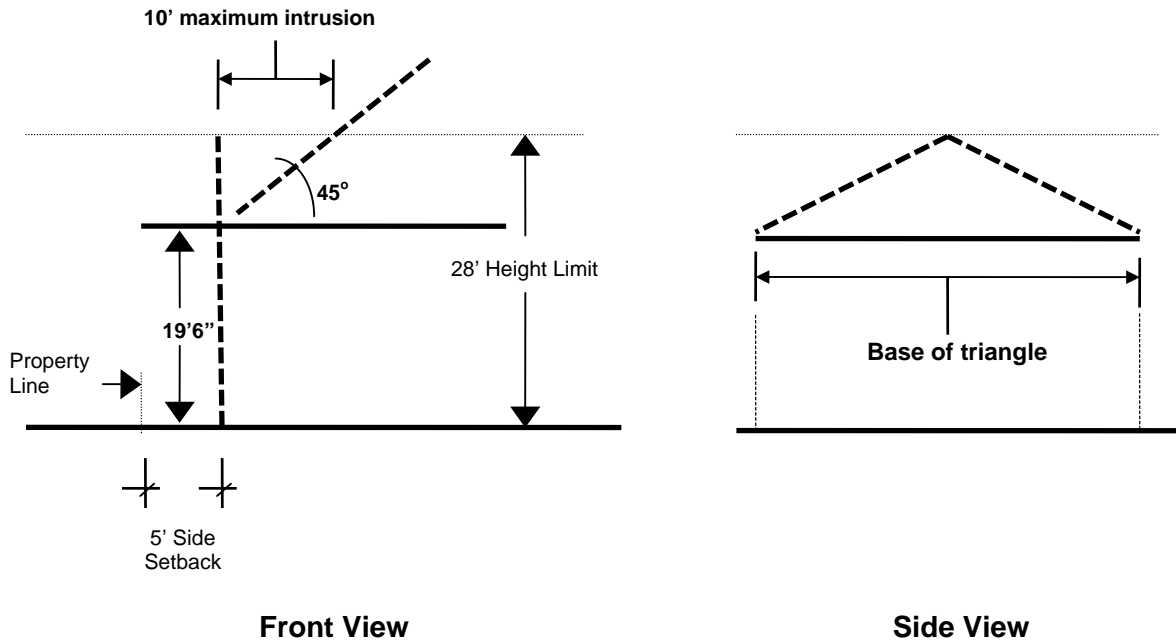
1. Intrusions are permitted **ONLY on lots of 10,000 square feet or less**.
2. The intrusion shall occur on **one side only**.
3. The intrusion must be **within the maximum height limit**.
4. The intrusion must be **within a triangle, the base** of which is formed by the intersection of the building wall with the daylight plane and the **aggregate length of which does not exceed 30 feet**. See example under 5., this section.
5. The **maximum amount** of intrusion of gables and dormers allowed is **determined by the amount of the required side setback**. The following chart lists the allowed intrusions:

Required Side Yard Setback	Permitted Intrusion
5' 0"	10' 0"*
5' 3"	9' 2"
5' 6"	8' 4"
5' 9"	7' 6"
6' 0"	6' 8"
6' 3"	5' 10"
6' 6"	5' 0"
6' 9"	4' 2"
7' 0"	3' 4"
7' 3"	2' 6"
7' 6"	1' 8"
7' 9"	10"
8' or above	0"

**See the following example.*

Daylight Plane Restrictions (continued)

EXAMPLE--The following diagram shows the daylight plane exception for a lot with a required 5 foot side setback.



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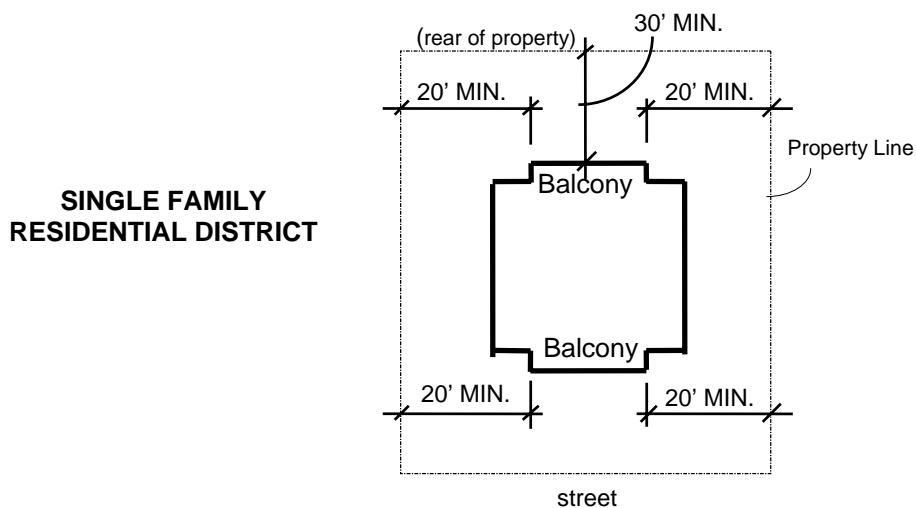
Balcony Restrictions

How is a balcony defined and what differentiates it from a deck?

A **balcony** is a platform which projects more than 18 inches from the wall of a building and which is required by law to be surrounded by railing. A **deck** is a platform where the finish floor line is more than 12 inches above the average grade, either free-standing or built as part of a building which may be covered or uncovered, and which may or may not include a railing, depending on its height above the adjacent grade.

Do balconies have special restrictions?

YES. In the single family residential districts, **including R-1-S (Felton Gables)**, balconies and/or decks above the first floor shall be located 20 feet or more from the side property lines and 30 feet or more from the rear property line. Please refer to the diagram below :

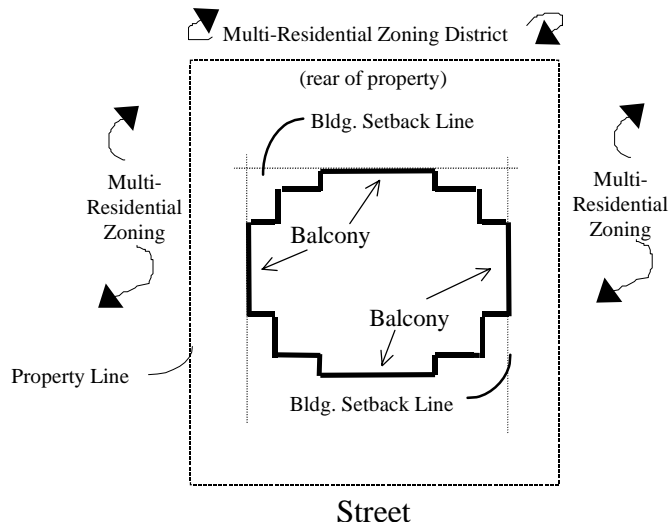


In the **R-2 zoning district**, balconies and/or decks above the first floor may be located at the building setback line, except when abutting a single family residential district. In such a case, balconies and/or decks above the first floor on any side directly abutting a single family district shall be located 20 feet or more from the side property lines and 30 feet or more from the rear property line. Please refer to the diagrams below:

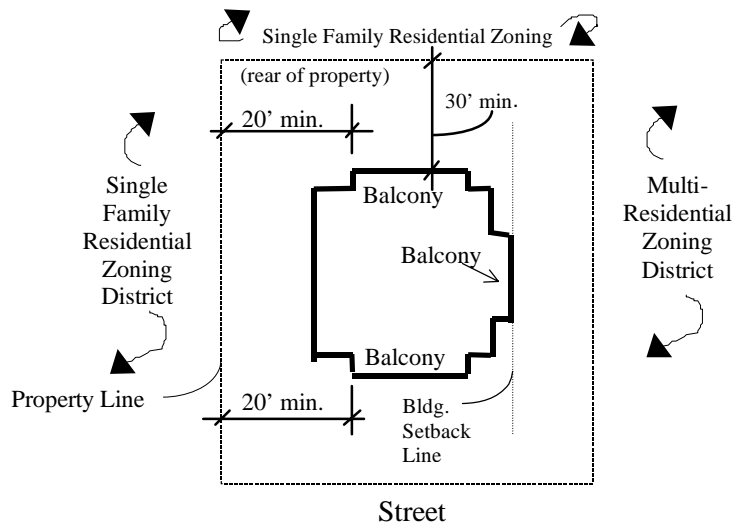
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Balcony Restrictions (cont'd.)

R-2 Parcel Abutting Other Multi-Family Zoning Districts



R-2 Parcel Abutting Single-Family Zoning Districts



However, in the R-2 zoning district, balconies and/or decks may be located at the building setback lines, subject to obtaining a use permit.