

CHAPTER

4



IN THIS CHAPTER:

4.1	Purpose	137
4.2	Rules of Calculating Measurement	137
4.3	Calculating Zoning District Area	137
4.4	Calculating Lot and Project Site Dimensions	137
4.5	Setbacks	141
4.6	Height	147
4.7	Visibility at Intersections - Sight Triangle	150



4.1 PURPOSE

The intent of this chapter is to provide clear direction on how to apply and interpret dimensional requirements associated with site design and development standards established in these regulations.

4.2 RULES OF CALCULATING MEASUREMENT

Calculations resulting in fractions shall be rounded up to the next whole number unless otherwise stated in these regulations.

4.3 CALCULATING ZONING DISTRICT AREA

District area shall be calculated as the total amount of land classified in a subject zoning district.

4.4 CALCULATING LOT AND PROJECT SITE DIMENSIONS

The following establishes a methodology for calculating area, density, and interpreting measurements by lot or project site to ensure consistency.

A) Lots. When determining the area and dimensions of a lot, the following methodology shall be used:

1. The area of a lot shall include all land within the established property boundary, calculated as square feet or acreage.
2. A lot's width is measured as the horizontal distance between the side property lines measured at the point of minimum front setback. Where an irregularly-shaped lot exists, the side property lines from which this measurement shall be taken are the two side property lines that connect to the established front property line. Where side property lines are not immediately apparent (e.g., a curvilinear lot), the Zoning Officer shall determine the appropriate method of measurement.
3. The depth of a lot is calculated as the average length of the two side property boundaries, measured as the distance between the front property line and rear property line. Where side property lines are not immediately apparent (e.g., a curvilinear lot), the Zoning Officer shall determine the appropriate method of measurement.
4. Where a flag lot exists, lot width shall be measured as the distance between the side property lines measured at the lot's widest point. Flag lot depth shall be measured from the mid-point of the front and rear property lines.
5. Lot coverage is calculated by adding the area (in square feet) covered by any building or structure, both principal and accessory, and including impervious surfaces such as walkways, driveways, roads, uncovered porches, patios, and decks, swimming pools, parking areas, steps, terraces, and roof overhangs of two or more feet. When there are multiple principal uses on the property, the largest lot coverage allowance is applied.
6. Density is calculated by adding the total number of homes on a lot or parcel, divided by the lot or parcel area in acres. In determining gross density, all land area associated with the home, including road rights-of-way and easements, shall be included in the calculation. Net density calculations do not include land area in road rights-of-way, road easements, parks, common areas, etc., outside the lot or parcel boundary. To calculate the potential number of homes allowed on a lot per the allowable homes per acre of a zoning district, multiply the maximum density by the lot size in gross acres.

FIG. 1 Lot Calculations

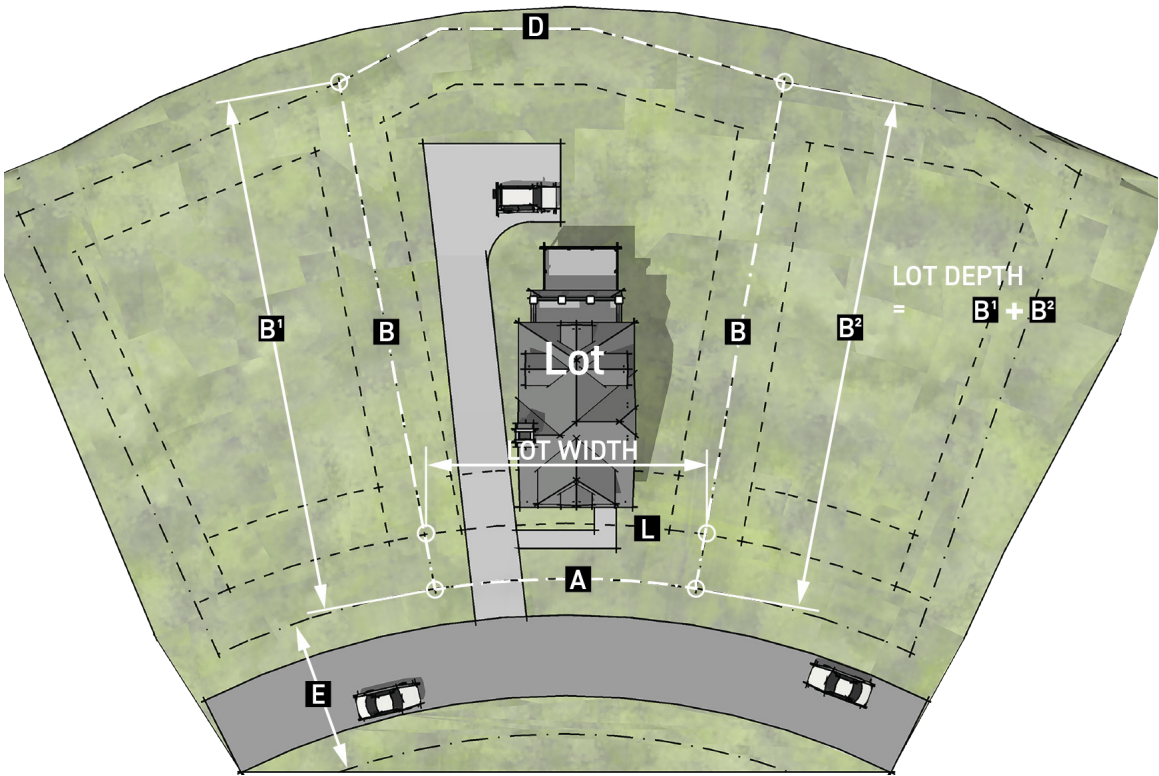


FIG. 2 Lot Dimensions

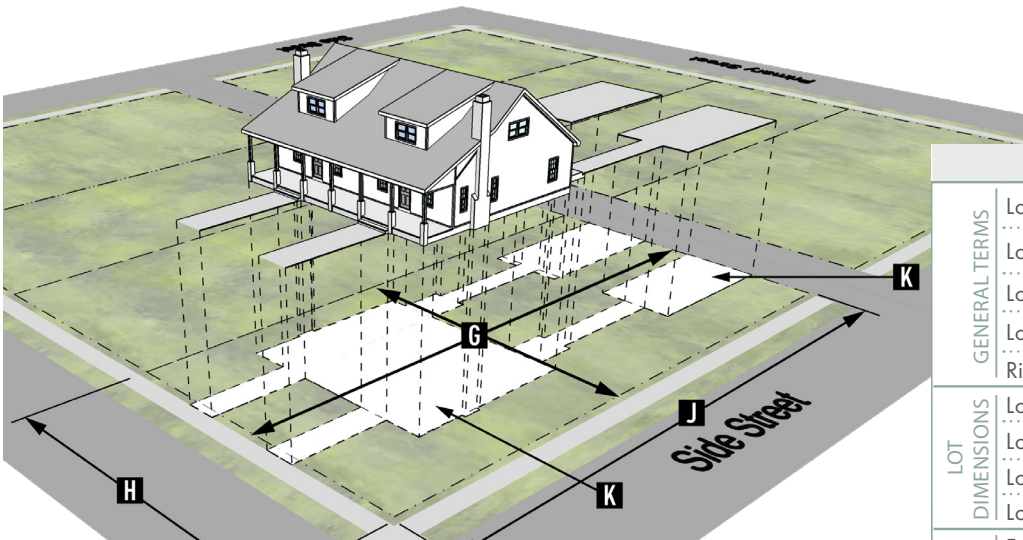


FIGURE LEGEND		Key
GENERAL TERMS	Lot Line (Front)	A
	Lot Line (Side - Interior)	B
	Lot Line (Side - Street)	C
	Lot Line (Rear)	D
	Right-of-Way	E
LOT DIMENSIONS	Lot Area	G
	Lot Width	H
	Lot Depth	J
	Lot Coverage	K
BUILDING PLACEMENT	Front Setback	L
	Side (Interior) Setback	M
	Side (Street) Setback	N
	Rear Setback	P
	Alley Setback	Q
	Front Build-to-Zone	R
	Side (Street) Build-to-Zone	S
	% Front Facade required in BTZ	T



- B) Project Sites.** A project site shall refer to the total land area when multiple parcels are proposed for development. When determining the area and dimensions of a project site, the following methodology shall be used:
1. The area of a project site shall be calculated as the cumulative area of all contiguous parcels.
 2. The width of a project site shall be calculated using the cumulative width of all contiguous parcels that comprise the site, as measured according to 4.4.A.2.
 3. Project site depth shall be calculated by adding together the depths of all contiguous parcels, as measured according to 4.4.A.3. and dividing by the total number of parcels that comprise the project site.
 4. Project site density shall be calculated by dividing the number of homes proposed by the total area of the project site established under 4.4.B.1.

FIG. 3 Project Site Calculations

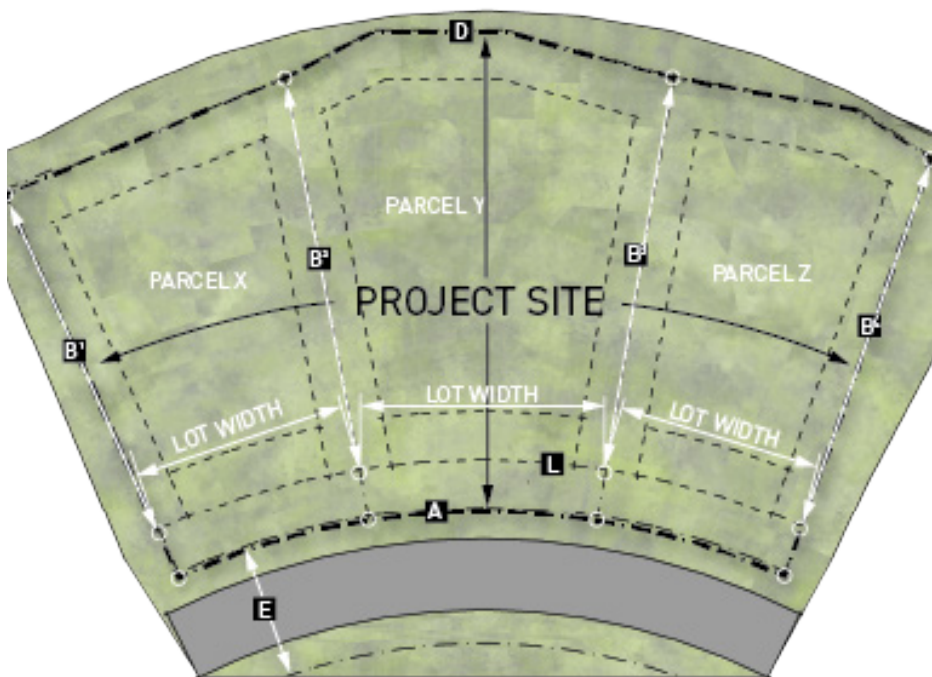


FIGURE LEGEND		Key
GENERAL TERMS	Lot Line (Front)	A
	Lot Line (Side - Interior)	B
	Lot Line (Side - Street)	C
	Lot Line (Rear)	D
	Right-of-Way	E
LOT DIMENSIONS	Lot Area	G
	Lot Width	H
	Lot Depth	J
	Lot Coverage	K
BUILDING PLACEMENT	Front Setback	L
	Side (Interior) Setback	M
	Side (Street) Setback	N
	Rear Setback	P
	Alley Setback	Q
	Front Build-to-Zone	R
	Side (Street) Build-to-Zone	S
	% Front Facade required in BTZ	T
	% Street-Facing Facade required in BTZ	U

C) Minimum Homes Per Acre Calculation.

1. **Applicability.** Minimum homes per acre calculations are applied to most residential building types in RM, NR, NC, and CC zones. See Section 4.4.C.3. for exceptions.
2. **Procedures**
 - a. Minimum homes per acre is calculated using gross density calculations in 4.4.A.6.
 - b. When only a portion of a lot or project site is being developed for residential

purposes, only the residential portion of the lot or project site is used for the minimum homes per acre calculations. The residential portion of the project site includes any portion of the lot or project site dedicated to buildings, parking, landscaping, and other requirements necessary to be in compliance with these regulations for the residential use, not including land area in road rights-of-way, road easements, parks, common areas, etc.

- c. Compliance with minimum home per acre calculations is required at the time of Zoning Compliance Permit.
- d. Subdivisions and townhome exempt developments pursuant to Section 9.10 that are required to meet minimum homes per acre calculations must demonstrate compliance with minimum home per acre calculations as a part of the respective application processes.

3. Exceptions

a. General

- i. Minimum homes per acre calculations do not apply to lots less than 10,000 square feet in existence prior to the effective date of these regulations.
- ii. Accessory Dwelling Units do not contribute to the minimum homes per acre.
- iii. Minimum homes per acre calculations do not apply to the enlargement of one and

two household dwellings.

- iv. Minimum homes per acre calculations do not apply to the remodeling of any residential building or reconstruction of any residential building destroyed by fire or natural hazards as long as the number of homes in the building is unchanged.
 - v. Minimum homes per acre calculations do not apply to the portion of lots located in a regulatory floodplain, riparian resource buffer or protected area, or in areas with slopes 10% or greater.
 - vi. Minimum homes per acre calculations do not apply to the use of the condominium or townhome exemptions when those exemptions are used to convert ownership types in residential buildings built prior to the effective date of these regulations.
 - vii. Minimum homes per acre calculations do not apply to vertically mixed-use buildings with both a commercial and a residential component.
- b. The Zoning Officer may determine that a parcel is exempt from the minimum homes per acre calculation when it meets all of the following:
 - i. The parcel was created prior to the adoption of these regulations;



- ii. Both publicly available water and sewer availability is greater than 500 feet from the subject property;
- iii. The parcel is not within a Special Improvement District, Water District, or Sewer District with the expressed purpose of extending services to the subject parcel; and,
- iv. When a parcel qualifies for this exemption, the Zoning Officer may require the building or use to be located in a corner of the property leaving the greatest possible area available to future development.

4.5 SETBACKS

A) Setbacks Established. There are four types of setbacks: front, street-side, side interior, and rear (see Figure 4 for detail). Setbacks apply to both principal and accessory buildings and structures except where these regulations explicitly state otherwise. Where a property line falls within a public or private road access easement, setbacks shall be measured from the edge of the easement.

1. **Front setback.** The front setback is measured at a right angle from either the front property line, or the right-of-way line or edge of easement (whichever is closer) to the closest point of a building or structure.
 - a. The front property line is usually adjacent to the primary street frontage and typically parallel to the alley that serves the lot, where one exists. Where no alley exists, the Zoning Officer is authorized to establish the front property line from which the setback will be measured.
 - b. On through-lots, the front setback applies to both opposing sides of the lot, on all frontages adjacent to streets in the case of more than two street frontages.
 - c. Where a zoning district splits a lot, the front setback requirements apply based on the district in which the front property line is located.
2. **Rear setback.** The rear setback is measured at a right angle from the rear property line, or from the rear right-of-way or easement line where an alley is present, to the closest point of a building or structure.
 - a. The rear property line is often that which is adjacent to the alley. Where no alley exists, the Zoning Officer is authorized to establish the rear property line from which the setback will be measured.
3. **Side setback.** Side setbacks are measured from the established side property line to the closest point of a building or structure.
 - a. **Street-Side.** On corner parcels, the street-side property line is the property line adjacent to a street that is not the primary street frontage and typically perpendicular to the alley right-of-way or easement lines, where one exists. When no alley exists, the Zoning Officer is authorized to establish the street side property line from which the setback will be measured.

- b. Interior Side. Property lines not established as front, rear, or street-side are considered interior side property lines for the purpose of measuring setbacks. Interior side setbacks are measured at a right angle from the side property line.

FIG. 4 Setbacks

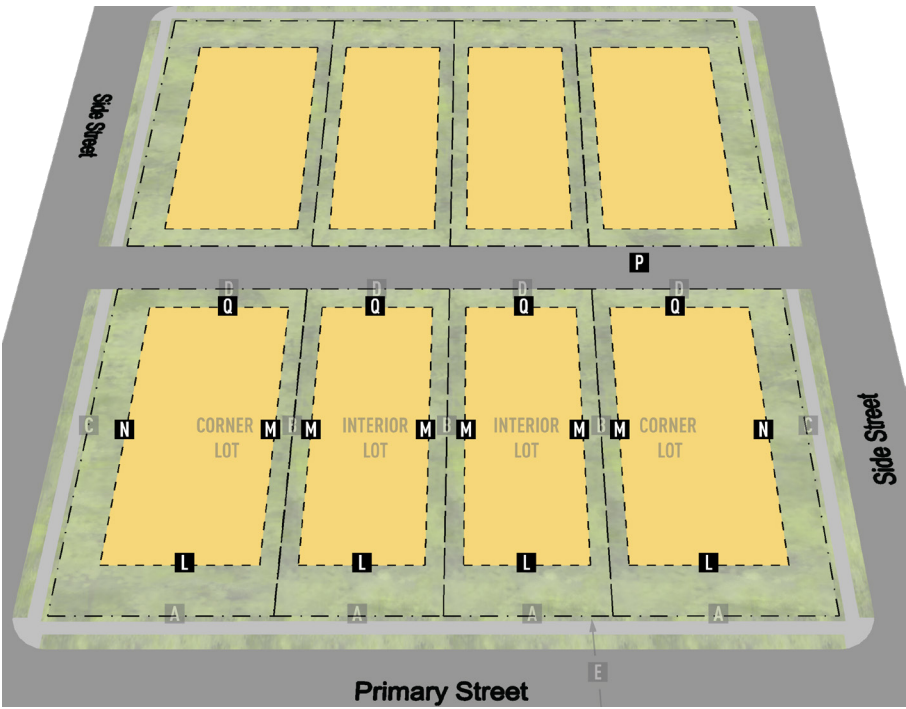


FIGURE LEGEND		Key
GENERAL TERMS	Lot Line (Front)	A
	Lot Line (Side - Interior)	B
	Lot Line (Side - Street)	C
	Lot Line (Rear)	D
	Right-of-Way	E
LOT DIMENSIONS	Lot Area	G
	Lot Width	H
	Lot Depth	J
	Lot Coverage	K
BUILDING PLACEMENT	Front Setback	L
	Side (Interior) Setback	M
	Side (Street) Setback	N
	Rear Setback	P
	Alley Setback	Q
	Front Build-to-Zone	R
	Side (Street) Build-to-Zone	S
	% Front Facade required in BTZ	T
	% Street-Facing Facade required in BTZ	U

4. **Street frontage.** Primary and secondary street frontage may be used to determine property boundaries and setbacks where the Zoning Officer has been given discretion as follows.
- Where a lot abuts only one street, this shall be considered the primary street frontage.
 - Where a lot has multiple street frontages, the primary street frontage shall be determined as having one or more of the following characteristics:
 - The lot takes its address from the street.
 - The street has the highest roadway classification.
 - The established orientation of the block favors the street.
 - The street is parallel to an alley within the block.
 - The pedestrian orientation of adjacent or abutting development favors the street.



B) Build-To Zone.

1. Where build-to zones have been identified, the percentage of the principal structure(s) façade required within the zone shall be measured as a minimum and maximum setback range from the edge of the right-of-way or property line, whichever is closer to the structure (see Figure 5 for detail).
2. The percentage of the building façade required to be located within the build-to zone shall be measured using the width of the building divided by the lot's width.
3. On a corner lot, the build-to zone shall extend along both primary and secondary street frontages. The building facade must be located within the build-to zone portion that extends a minimum of 30 feet along each street frontage from the block corner, measured from the intersection of the two lot lines.
4. Unless otherwise stated, all buildings, structures, and uses (including signage, parking, and outdoor dining) permitted on a property are allowed within the build-to zone, subject to the site design and use-specific requirements of these regulations.
5. Compliance with build-to zones is required only along frontages which abut a road right-of-way or easement.
6. Compliance with the build-to zone on irregularly-shaped lots may be modified or eliminated through a minor waiver to a non-numeric standard. An example of an irregularly-shaped lot that would qualify for consideration of a build-to zone minor waiver is a flag lot.
7. Only one of the two parallel street frontages is required to meet build-to zone setbacks on through-lots where build-to zones have been identified.
8. Agriculture buildings except for those associated with a high-impact agricultural use are not subject to build-to zone requirements.

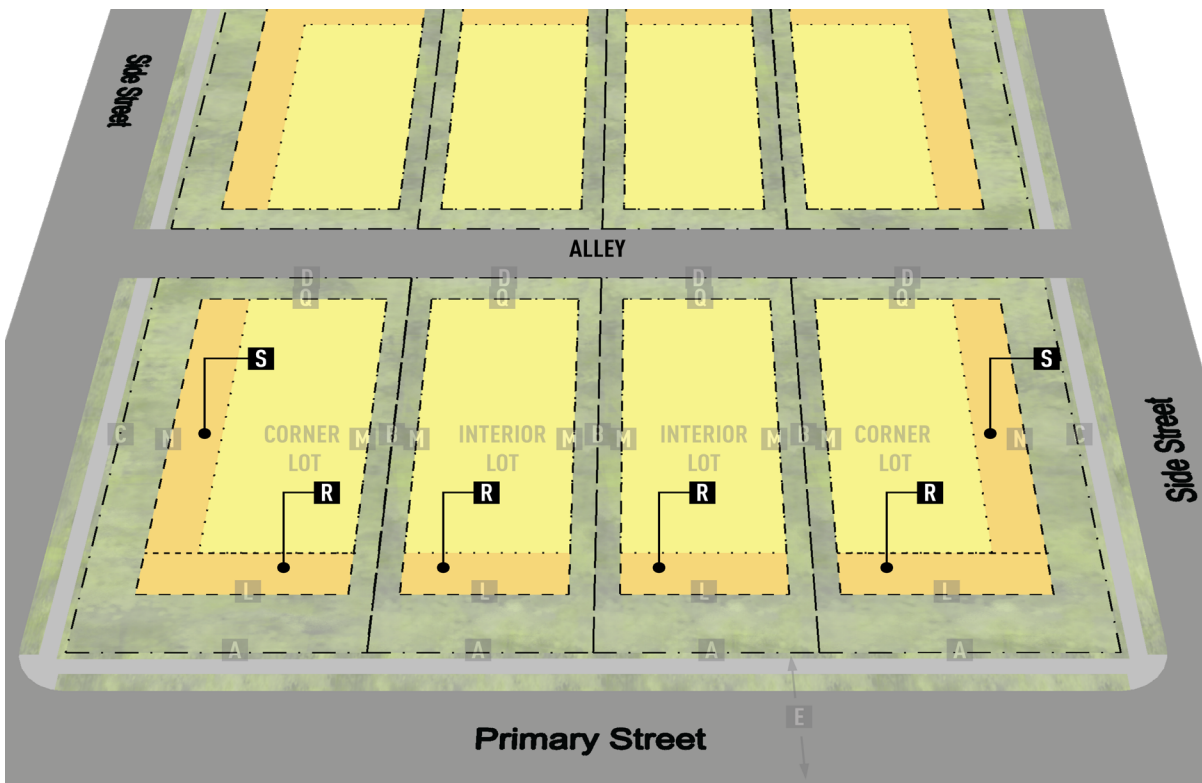


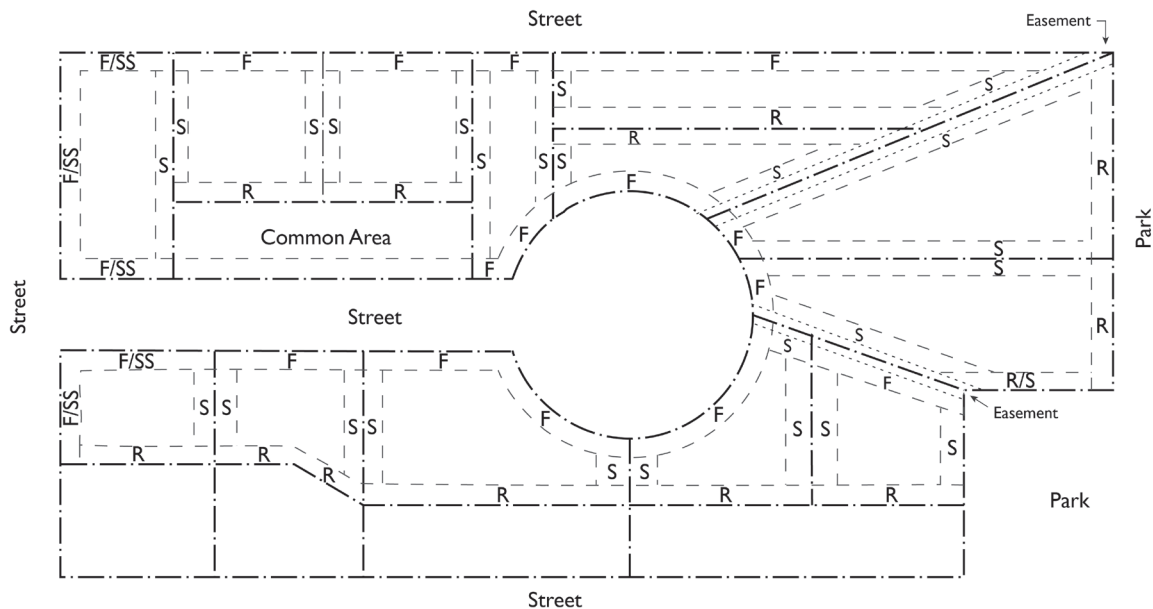
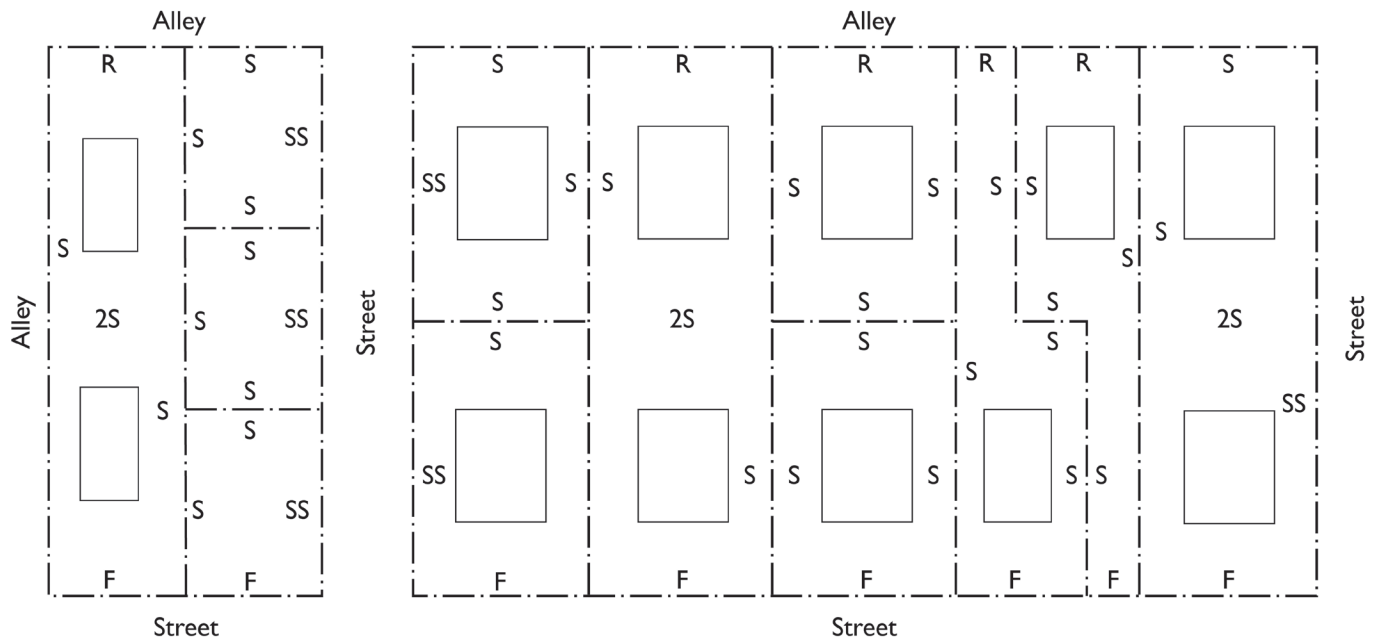
FIG. 5 Build-To Zones

C) Standards Applicable to All Setbacks.

1. The Zoning Officer will determine yard types and setback for irregularly shaped properties. Irregularly-shaped properties are lots with more or less than 4 sides, contain an arc, or are bounded by 3 or more streets.
2. If two principal residential buildings are located on the same lot, there shall be a minimum separation between the two buildings equal to the sum of the required interior side setbacks.
3. For lots with severe floodplain or topographic limitations, the Zoning Officer may reduce required setbacks by one-half (1/2).
4. For buildings and structures constructed across internal lot lines on a parcel comprised of multiple tracts under the same ownership, no setbacks are required from the internal lot lines; otherwise, setbacks from internal lot lines must be met.
5. For legal nonconforming lots which are smaller than the minimum size required of the district in which they are located, the Zoning Officer may apply lot dimensions, building placement, and building scale standards where the minimum lot size nearly equals that of the nonconforming lot.



FIG. 6 Yard Diagrams



Legend

F = Front

S = Side

R = Rear

SS = Street Side

2S = Side x2

Property Line

Setbacks

Easements

D) Exceptions Permitted.

1. Any encroachment into setbacks not listed below, and any encroachment not sufficiently similar to that listed, as determined by the Zoning Officer, is prohibited.
2. Setback exceptions may not be used in conjunction with height exceptions.
3. All buildings and structures must be located at or behind the required setbacks except as defined in this section below.
4. Unless expressly stated in these regulations, no building or structure may extend into an easement or right-of-way without first obtaining approval from the authorizing agency.
5. **Building features.**
 - a. When a legal nonconforming residential dwelling encroaches into the interior side or rear yard setback, additions to that home may also encroach, but no further than does the existing structure.
 - b. Porches and stoops, including steps, may project into a front or street side setback but shall be a minimum of five feet from the vertical plane of any property line or right-of-way, whichever is closer to the structure.
 - c. Uncovered patios, decks, stoops, or terraces may project into an interior side or rear setback, provided that such extension is at least two feet from the vertical plane of any right-of-way or property line, whichever is closer to the structure.
 - d. Balconies, awnings and canopies may project up to five feet into a front or street-side setback.
 - e. Wheelchair lifts and ramps that meet federal, state, and local accessibility standards may project into a required setback.
 - f. Building eaves, roof overhangs, gutters, downspouts, light shelves, bay windows and oriels less than ten feet wide, cornices, belt courses, sills, or other similar architectural features may project up to three feet into a required setback, provided that such extension is at least two feet from the vertical plane of any property or right-of-way line, whichever is closer to the structure and at least two feet above grade.
 - g. Chimneys or flues may project up to four feet into a side (street or interior) or rear setback, provided that such extension is at least two feet from the vertical plane of any property line or right-of-way line, whichever is closer to the structure.
 - h. Fire escapes or fireproof outdoor stairwells required by applicable building code may project up to five feet into any setback.
 - i. Window wells that are not

COMMENT: Wheelchair lifts and ramps require a building permit.



part of the foundation wall may project into the setback, provided they do not extend more than 30 inches above the finished grade.

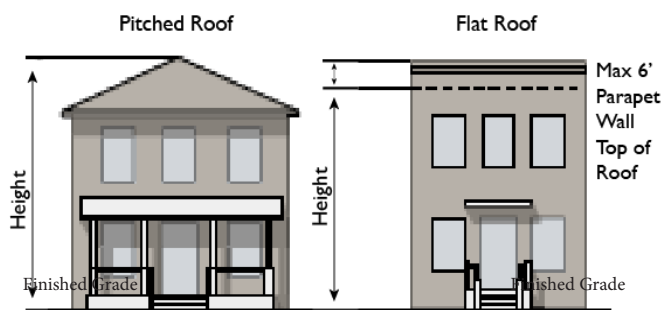
6. **Site features.** The following features may project into a required setback.
 - a. Fences and walls
 - b. Sidewalks and driveways
 - c. Forecourts and non-structural outdoor amenity areas
 - d. Flagpoles, arbors, pergolas, gazebos and trellises
 - e. Low-impact stormwater features, including:
 - i. Cisterns or rain barrels less than six feet in height
 - ii. Planter boxes
 - iii. Bioretention areas
 - iv. Similar features (as determined by the Zoning Officer)
 - f. Recreational equipment (e.g., swing sets and basketball hoops)
7. **Mechanical equipment and utilities.** Equipment and utilities may project into a required setback as follows:
 - a. Satellite dish antennas that do not exceed one meter (40 inches) in diameter.
 - b. Minor structures accessory to utilities, such as hydrants, manholes, transformers, and related fences.
 - c. Mechanical equipment

associated with residential uses, such as HVAC units, ground-mounted small-scale solar energy installations, swimming pool pumps or filters, may project into an interior side or rear setback provided that such extension is at least two feet from the vertical plane of any property line or right-of-way, whichever is closer. Wind energy systems may require a greater setback than required by the zoning district. See Section 5.29.B.1.c.i. for setbacks for wind energy systems.

4.6 HEIGHT

- A) **Building Height.** The height of a building or structure is measured from finished grade to the highest point of the building, structure, or portion thereof.

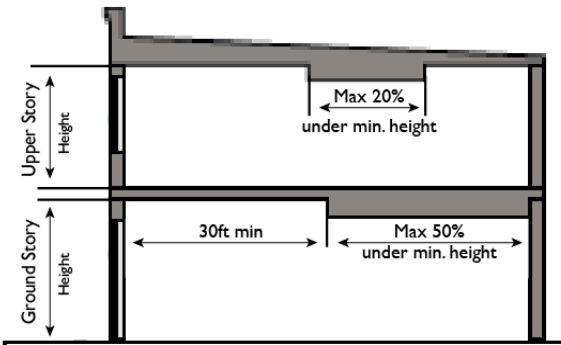
FIG. 7 Building Height



- B) **Story Height.** The height of an individual story is measured from the top of the finished floor to the ceiling above.
 1. Minimum ground story height requirements only apply to multiplex (large), apartments, mixed-use/industrial, and miscellaneous building types.

2. Minimum ground story height applies to the first 30 feet of the building measured inward from the primary street-facing façade's interior wall surface.

FIG. 8 Story Height



C) Exceptions Permitted. The following features may exceed maximum height allowances. Any feature not listed below, or not sufficiently similar as determined by the Zoning Officer, is expressly prohibited. Height exceptions may not be used in conjunction with setback exceptions.

1. Grain elevators.
2. Building features such as a spire, steeple, belfry, cupola, dome, or other similar feature, provided it is not intended for human occupancy.
3. Wireless communication facility lighting rods, provided they do not project more than 20 feet above the maximum height of the zoning district.
4. Non-commercial radio antennas and wireless towers for amateur radios, provided they do not project more than 20' above the maximum height of the zoning district.
5. Small wind energy systems, provided they do not project more than 20 feet above the maximum height of the zoning district. Large wind energy systems may project up to 50 feet beyond the maximum height of the zone.
6. Ground-mounted solar panels, provided they do not project more than 10 feet above the maximum height of the zoning district.
7. The following may exceed the established height limit of the district provided they do not exceed the maximum height by more than six feet:
 - a. Chimney, flue, or vent stack
 - b. Rooftop fencing and guardrails
 - c. Flagpoles
 - d. Skylights
 - e. Parapet walls
 - f. Rainwater collection systems
8. The following rooftop appurtenances may exceed the established height limits provided they do not exceed the maximum building height by more than ten feet and are set back at least ten feet from the edge of the roof:
 - a. Rooftop deck, patio, or shade structure.
 - b. Elevator or stairway access to the roof.
 - c. Mechanical equipment, including roof-mounted small-scale renewable energy systems.
9. Exceptions to height limits may



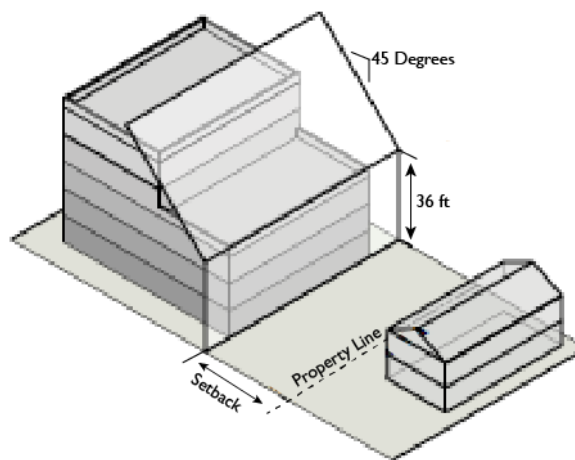
be prohibited, and height may be reduced in any zone for any use within the Airport Influence Area if the building or structure height conflicts with height allowances in Federal Air Regulations, Part 77.

10. Special considerations.

- a. Exposed foundation walls may not exceed eight feet in height and shall be measured as the vertical distance between the lowest point where the building line meets finished grade and the lowest floor line of habitable space.
- b. No portion of the walking surface of a deck or porch with visible supporting columns, posts, or piers may exceed a height of 12 feet above finished grade measured from the furthest projecting point of the deck or porch.
- c. The height of historic buildings meeting the designation criteria in Section 9.8.B. "applicability," shall be considered legal non-conforming, and any building additions in compliance with the historic designation may exceed the maximum height allowance of the zone by the same amount as the existing structure.
- d. Vegetation is not subject to height limitations, except as regulated by Section 4.7 "Visibility at Intersection Sight Triangle."
- e. The height exceptions

permitted in this section may be combined with height bonus awards authorized by Section 9.11. "Development Incentives and Bonuses."

FIG. 9 Height Plane

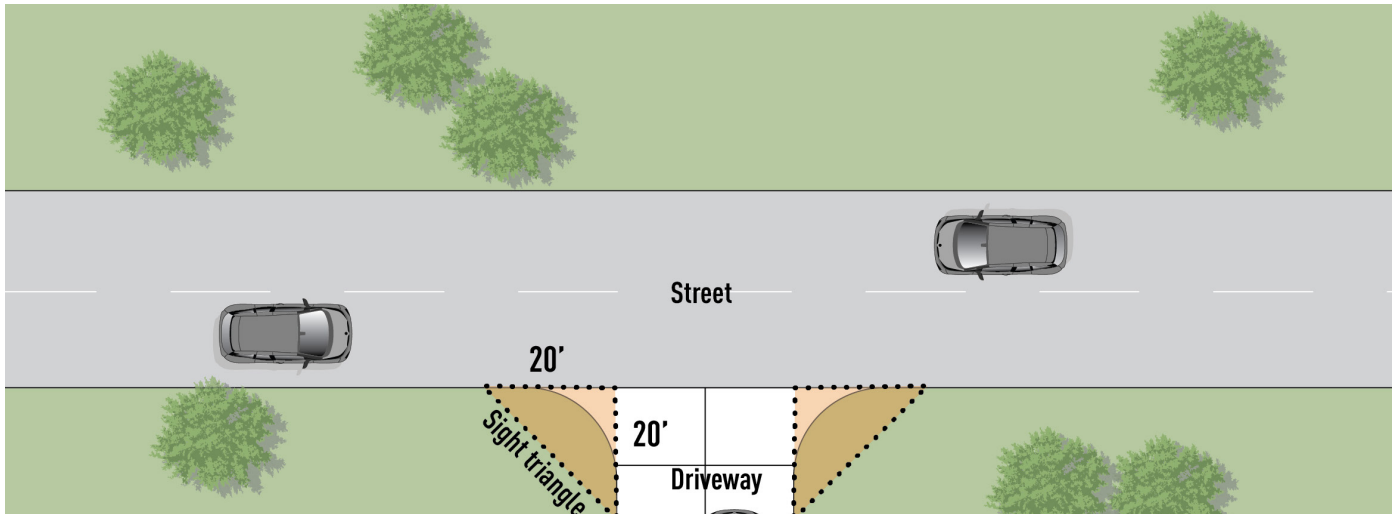


11. **Height plane.** A height plane is required for all structures in Industrial and Mixed-use zoning districts when directly adjacent to a Residential district. Where adjacent to a Residential district, building types cannot extend into a 45-degree angular plane projecting over the subject property measured from a height of 36 feet at the side interior or rear setback line. One foot of additional setback is required for every foot of height above 36 feet until the maximum height of the district is reached.

4.7 VISIBILITY AT INTERSECTIONS - SIGHT TRIANGLE

- A) No planting shall be placed or maintained and no fence, building, wall or other structure shall be constructed in such a manner as to obstruct visibility between a height of two and a half feet and ten feet measured from the upper face of the nearest curb or road surface where no curb exists within any required sight triangle.

FIG. 10 Driveway Sight Triangle



- B) Visibility and site distance at intersections shall be maintained as set forth below:
1. **Street Intersections.** Sight triangles shall be defined according to the Missoula County Public Work Standards.
 2. **Street and Driveway Intersections.** Sight triangles shall be maintained where driveways intersect streets. These sight triangles shall be defined as a 20-by-20-foot triangle bounded on one side by the edge the street, on a second side by the edge of the driveway, and on the third side by a straight line connecting the endpoints of the other two sides (see Figure 9 for detail).
- C) **Exceptions.**
1. Sight distance requirements for properties in Mixed-use districts shall be established along with other dimensional requirements on a project-by-project basis.
 2. Clearing of sight triangles shall be the responsibility of the individual property owner where clearing is required by these regulations, and no clearing shall extend beyond the parcel boundary without the adjacent owner's consent.

