

Chapter 135. Planning

ARTICLE 7. MEASUREMENTS AND DEFINITIONS

135-7.1	MEASUREMENT OF BUILDING TYPE REQUIREMENTS	135-7-2
7.1.1	Minimum Primary Frontage or Front Lot Line Coverage.	135-7-2
7.1.2	Build-to Zone	135-7-2
7.1.3	Front Setback Average.....	135-7-3
7.1.4	Building Width	135-7-3
7.1.5	Building and Site Coverage	135-7-3
7.1.6	Overall Minimum and Maximum Height.....	135-7-3
7.1.7	Minimum Required Transparency.	135-7-4
7.1.8	Minimum Number of Required Entrances.	135-7-6
135-7.2	DEFINITIONS.....	135-7-7
7.2.1	General.....	135-7-7
7.2.2	Use Definitions	135-7-7
7.2.3	Measurement-Related Terms.....	135-7-7
7.2.4	Terms Beginning with "A"	135-7-7
7.2.5	Terms Beginning with "B"	135-7-7
7.2.6	Terms Beginning with "C"	135-7-7
7.2.7	Terms Beginning with "D"	135-7-8
7.2.8	Terms Beginning with "E"	135-7-8
7.2.9	Terms Beginning with "F"	135-7-8
7.2.10	Terms Beginning with "G"	135-7-8
7.2.11	Terms Beginning with "H"	135-7-8
7.2.12	Terms Beginning with "I"	135-7-8
7.2.13	Terms Beginning with "J"	135-7-8
7.2.14	Terms Beginning with "K"	135-7-8
7.2.15	Terms Beginning with "L"	135-7-8
7.2.16	Terms Beginning with "M"	135-7-9
7.2.17	Terms Beginning with "N"	135-7-9
7.2.18	Terms Beginning with "O"	135-7-9
7.2.19	Terms Beginning with "P"	135-7-9
7.2.20	Terms Beginning with "Q"	135-7-10
7.2.21	Terms Beginning with "R"	135-7-10
7.2.22	Terms Beginning with "S"	135-7-10
7.2.23	Terms Beginning with "T"	135-7-10
7.2.24	Terms Beginning with "U"	135-7-10
7.2.25	Terms Beginning with "V"	135-7-10
7.2.26	Terms Beginning with "W"	135-7-11
7.2.27	Terms Beginning with "X"	135-7-11
7.2.28	Terms Beginning with "Y"	135-7-11
7.2.29	Terms Beginning with "Z"	135-7-11

7. MEASUREMENTS AND DEFINITIONS

DRAFT

Measurement of Building Type Requirements

135-7.1 Measurement of Building Type Requirements

The building type requirements outlined in the tables in [135-1.3](#) through [135-1.12](#) shall be measured and calculated consistent with the following standards:

7.1.1 MINIMUM PRIMARY FRONTAGE OR FRONT LOT LINE COVERAGE

The minimum percentage of building facade along the primary frontage of a lot is measured as follows:

A. Measurement. The minimum primary frontage or front lot line coverage shall, at a minimum, equal the width of the principal structures, as measured within the build-to zone along the frontage edge, divided by the length of the lot line parallel to the primary street minus side setbacks. Refer to [Figure 7.1-A](#).

B. Courtyards. For some building types, courtyards located along the facade in the build-to zone count towards the minimum coverage. Refer to building type requirements of [135-1.3](#) through [135-1.12](#).

7.1.2 BUILD-TO ZONE

The build-to zone shall be calculated and measured as follows. Refer to [Figure 7.1-B](#).

A. Measurement. If no additional pedestrian area is required, the build-to zone is measured from the right-of-way line into the lot perpendicular to the frontage.

B. Additional Pedestrian Area. When additional pedestrian area is required per the building type notes, the build-to zone is measured from the edge

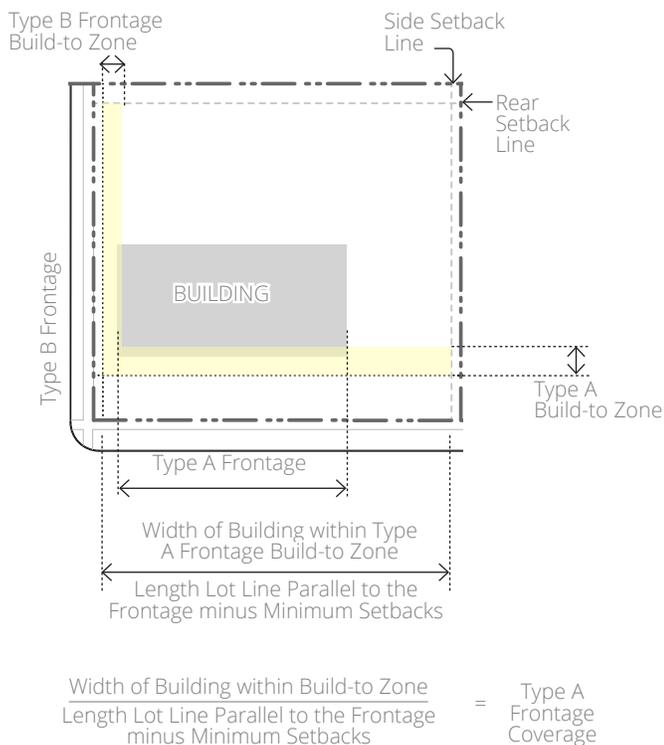


Figure 7.1-A. Minimum Primary Frontage Coverage

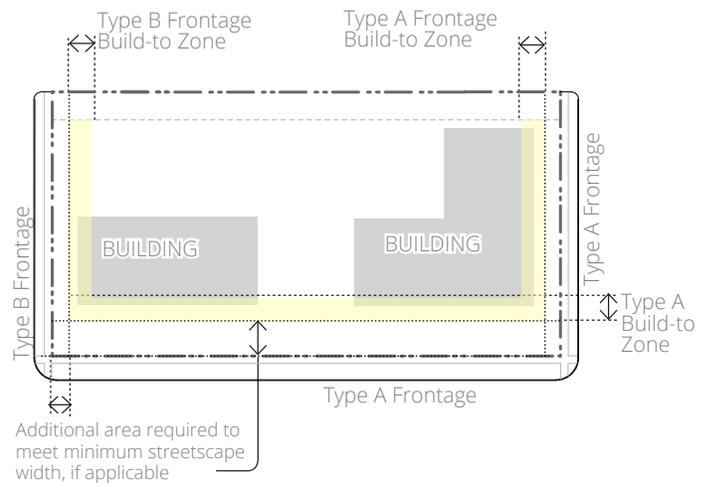


Figure 7.1-B. Build-to Zones

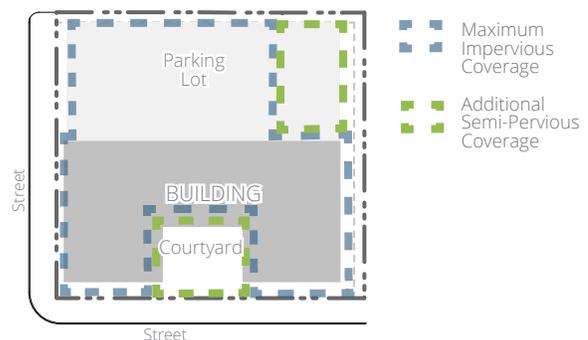


Figure 7.1-C. Site Impervious and Semi-Pervious Coverage

7. MEASUREMENTS AND DEFINITIONS

Measurement of Building Type Requirements

of the new pedestrian area public easement into the lot.

- C. Height.** All building facades located within the build-to zone shall meet the required minimum building height.
- D. Recessed Balconies.** Upper story recessed balcony facades are not required to be located within the build-to zone.
- E. Encroachments.** Awnings, steps, porches, balconies, and building mounted signage may extend beyond the build-to zone/ into any yard area, but shall not extend into the street right-of-way unless approved subject to chapter 102 of the municipal code.

7.1.3 FRONT SETBACK AVERAGE

The front setback average shall be calculated as follows.

- A. Measurement.** The average of the front yard depths of the next two buildings on either side of the lot on the same side of the street.
- B. Corner Lots.** For corner lots, the average of the front yard depths of the next two buildings adjacent to the lot on the same side of the street.
- C. Specific Ranges.** For lots in the Sherman Hills neighborhood, refer to XXX¹ for allowable build-to zones by street.

7.1.4 BUILDING WIDTH

Minimum and maximum building width applies to all facades parallel and facing the front lot line and is measured horizontally across those facades.

7.1.5 BUILDING AND SITE COVERAGE

Building coverage, site impervious, and additional semi-pervious coverage shall be calculated and measured as follows. Refer to [Figure 7.1-C](#).

- A. Maximum Building Coverage.** The maximum building coverage is the maximum percentage of a lot permitted to be covered by principal and accessory buildings.
- B. Maximum Site Impervious Coverage.** The maximum site impervious coverage is the maximum percentage of a lot permitted to be covered by structures, pavement, and other impervious surfaces.
- C. Additional Semi-Pervious Coverage.** In addition to the allowable impervious coverage on a site, a maximum amount of additional semi-pervious coverage is permitted.

¹ Add pages to this section or keep on file at the city.

7.1.6 OVERALL MINIMUM AND MAXIMUM HEIGHT

Refer to [Figure 7.1-D](#).

- A. Minimum Overall Height.** Each building type requires a minimum number of stories. The building must meet the minimum required height along all primary frontage facades and measured a minimum of 30 feet deep into the building.
- B. Maximum Overall Height.** Maximum heights are specified in number of stories. This requirement applies to the entire building.
- C. Towers.** Where specifically allowed in the building type tables, [135-1.3](#) through [135-1.12](#), towers may exceed the overall maximum height of the building type per [135-1.17.6](#).
- D. Roof Type.** Where specified in [135-1.17.6](#), certain roof types may allow additional height.
- E. Two Half Stories.** If a building has both a half story within the roof and a half story that is partially above and partially below grade, the combined height of the two half stories shall be considered one full story.

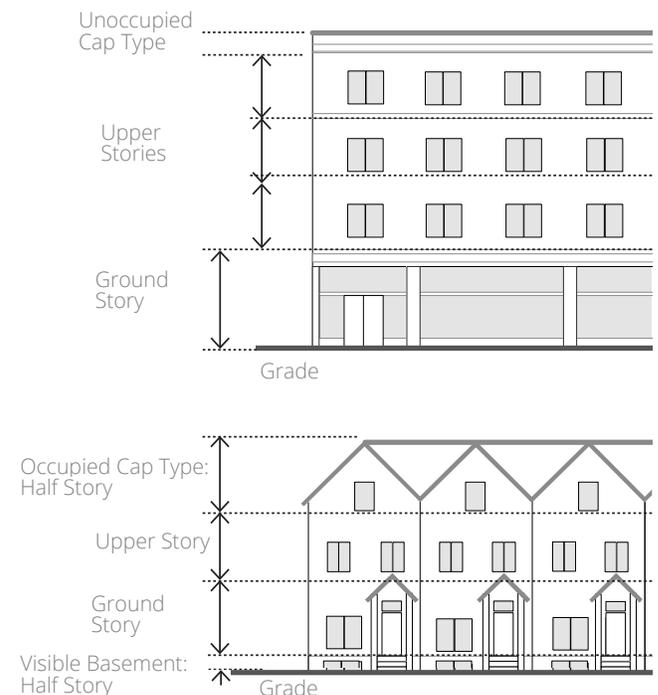


Figure 7.1-D. Measuring Stories with Floor-to-Floor Height

7. MEASUREMENTS AND DEFINITIONS

DRAFT

Measurement of Building Type Requirements

F. Minimum and Maximum Height per Story. Each story is measured with a range of permitted floor-to-floor heights. Refer to [Figure 7.1-D](#).

1. Measurement. All story heights shall be measured in feet between the floor of a story to the floor of the story above it. Minimum and maximum floor-to-floor heights are required to be met along facades for a minimum of 80% of each story.
2. Primary Frontage Ground Story. Where noted as a separate height range, the primary frontage ground story height shall extend from the primary frontage facade into the building a minimum of 30 feet. The remainder of the ground story may meet either the primary frontage ground story heights or the height range permitted for all stories.
3. Single Story Buildings and Top Story Measurement. For single story buildings and the uppermost story of a multiple story building, the minimum floor-to-floor height shall be measured from the floor of the story to the ceiling.¹
4. Mezzanines. Mezzanines may be included within the floor-to-floor height of any story. Mezzanines occupying more than 30 percent of the floor area below and extending above the story's allowable floor-to-floor height shall count as an additional story and shall meet transparency requirements per building type.
5. Taller Spaces. Spaces exceeding the allowable floor-to-floor heights of the building type are not permitted on primary frontage facades.

7.1.7 MINIMUM REQUIRED TRANSPARENCY.

Per the requirements of each building type, a minimum amount of transparency is required on all stories of street, courtyard, and public way facades.

A. Definition of Transparency. For the purposes of this chapter, transparency is the measurement of the percentage of a facade that contains highly transparent, low reflectance glass.

1. Storefront. Where transparency is required separately for primary street ground story facades, glass shall be a minimum of 60 percent transmittance factor and a reflectance factor of not greater than 0.25.
2. All Other Windows. Transparency for all window and door glass other storefront glass shall be a

¹ Need to verify floor to floor heights of ranch style and cottages in field

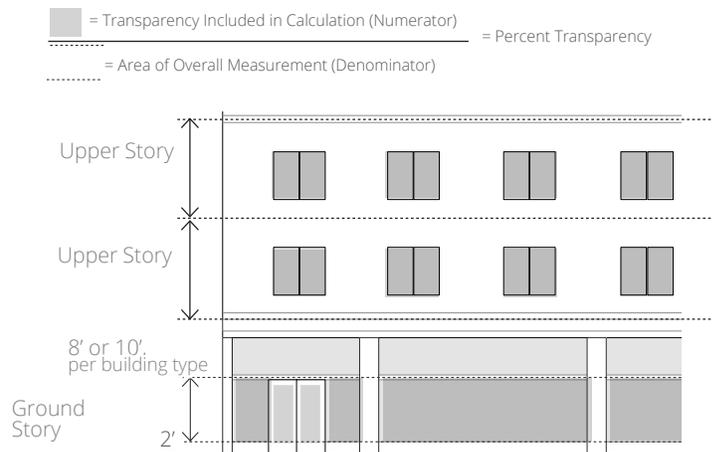


Figure 7.1-E. Measuring Minimum Facade Transparency

Examples of rectangular areas measured per story on a building facade, measuring less than 30% of the story and meeting the blank wall limitation requirement

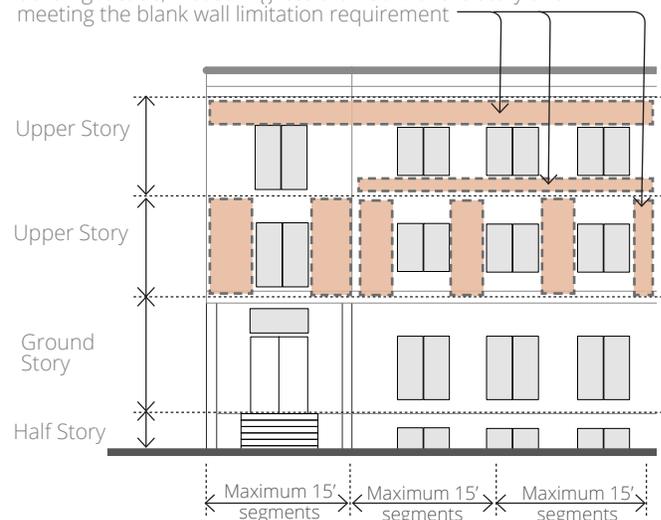


Figure 7.1-F. Measuring Blank Wall Limitations

7. MEASUREMENTS AND DEFINITIONS

Measurement of Building Type Requirements

minimum of 50 percent transmittance factor and a reflectance factor of not greater than 0.25.

B. Measurement. Minimum facade transparency is measured from floor-to-floor of each story separately, except for required minimum ground story transparency as defined below. Refer to [Figure 7.1-E](#). Transparency requirements shall be met with windows or glass in doors meeting the standards for transparency as defined in [A](#), above. The measurement may include the frame, mullions, and muntins, but shall not include trim or casing.

C. Blank Wall Segments. No rectangular area greater than 30 percent of the story's facade, as measured floor to floor, shall be without transparency. Additionally, no horizontal segment of a story's facade greater than 15 feet in width shall be without transparency. Refer to [Figure 7.1-F](#).

D. Exception.² When the facade of any story is located less than 6 feet from another parallel building facade, no minimum transparency is required for that story.

E. Minimum Ground Story Transparency. When a separate minimum ground story transparency is required per the building types requirements of [135-1.3](#) through [135-1.12](#), the following applies:

1. Ground story transparency shall be measured between 2 feet and either 8 or 10 feet, as specified per building type, from the average grade at the base of the facade.
2. The minimum ground story transparency requirements supersedes the minimum transparency required per story for the building type. The facade design shall fulfill that requirement in addition to a minimum of transparency for the remainder of the ground story.

F. Mezzanines. Mezzanines shall be treated as a separate story and include the required upper story transparency amounts.

G. Tall Stories. Stories that are 18 feet or taller in height shall include additional transparency consistent with the following standards. Refer to [Figure 7.1-G](#).

1. Separate Ground Story Transparency Required. When a separate minimum ground story transparency is required per the building types requirements of [135-1.3](#) through [135-1.12](#), the facade design shall fulfill that requirement in

² Only needed if transparency is required for facades other than public way facades.

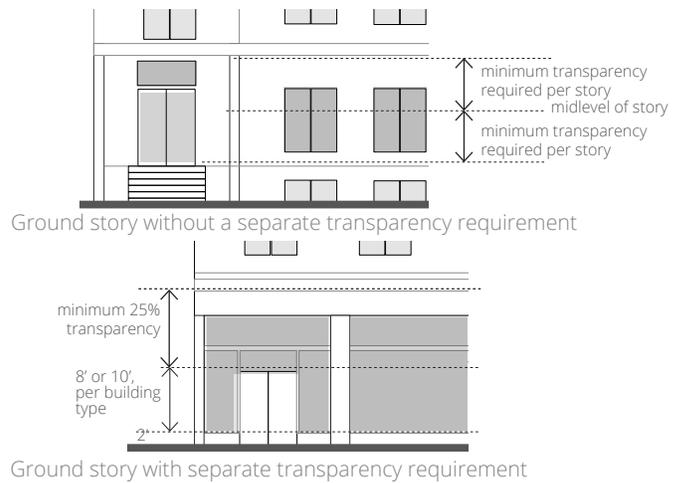


Figure 7.1-G. Transparency on Tall Stories

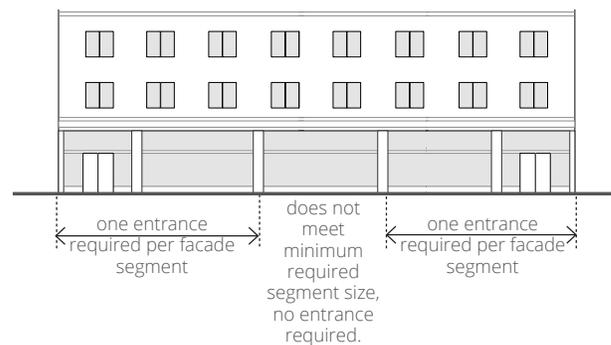


Figure 7.1-H. Number of Required Entrances

7. MEASUREMENTS AND DEFINITIONS

Measurement of Building Type Requirements

addition to the minimum transparency for the remainder of the ground story.

2. No Separate Ground Story Transparency Required. Except on a ground story facade to which a primary frontage ground story facade transparency requirement applies, a tall story shall be treated as 2 separate stories, divided in half horizontally, with the minimum transparency per story applied to each half.

H. Half Stories. All half stories located within the roof structure and within visible basements are required to meet the minimum required transparency.

7.1.8 MINIMUM NUMBER OF REQUIRED ENTRANCES.

Entrances shall be provided consistent with the entrance location and number requirements established for the building type and consistent with [Figure 7.1-H](#).

135-7.2 Definitions¹

7.2.1 GENERAL

Words and terms expressly defined in this zoning ordinance have the specific meanings assigned unless the context clearly indicates another meaning. Words and terms that are not expressly defined in this zoning ordinance have the meaning given in the latest edition of *Merriam-Webster's Unabridged Dictionary*.

7.2.2 USE DEFINITIONS

See [Chapter 134, Article 3](#) for an explanation of the use categorization system used in this zoning code and for use type definitions.

7.2.3 MEASUREMENT-RELATED TERMS

See [135-7.1](#) for an explanation of various lot and building regulation terms, such as "lot area," "building height," "setbacks" and "build-to zone."

7.2.4 TERMS BEGINNING WITH "A"

Abut (or abutting): to touch or share a contiguous boundary or border.

Accessory building: refer to [134-9.4](#)

Accessory use: refer to [134-9.4](#).

Adjacent: lying near or in the immediate vicinity

Alley: a public or private way, other than street, 20 feet or less in width through approximately the center of a block, with at least two access points and affording access to abutting lots.

Applicant: refer to [134-9.4](#)

Awning: refer to [134-9.4](#)

7.2.5 TERMS BEGINNING WITH "B"

Basement: a story having part but not more than one-half of its height below grade.

Basement, Visible: A half story partially below grade and partially exposed above with required transparency on any street facade.

Building: refer to [134-9.5](#)

Build-to Zone: An area in which the front and street side facade of a building must be placed. Build-to zone requirements establish minimum and maximum setbacks from street lot lines. See [135-7.1.2](#).

Building: any structure designed or intended for the support, enclosure, shelter or protection of persons,

animals or property, but not including signs or billboards.

Building frontage: that wall or side of a building which is adjacent and most nearly parallel to a street.

7.2.6 TERMS BEGINNING WITH "C"

Canopy: refer to [134-9.6](#)

Carport: a roofed structure providing space for the parking of motor vehicles and enclosed on not more than two sides. A carport attached to a principal building is considered a part of the principal building and subject to all yard requirements in this chapter.

Car-share Program: a system in which a fleet of cars (or other motor vehicles) is made available for use by members of the car-share program and that exhibit all of the following characteristics:

1. Members are permitted to use vehicles from the car-share program fleet on an hourly basis;
2. Car-share vehicles are generally available 24 hours a day and 7 days a week to members in parking spaces at dispersed locations or facilities; and
3. No separate written agreement is required each time a member reserves and uses a car-share vehicle.

Car-share Vehicle: a motor vehicle from a car-share program fleet.

Court or Courtyard: An outdoor area enclosed by building on at least 3 sides, open from the ground to the sky, and the 4th side is open to a public way, street, or open space/park.

7.2.7 TERMS BEGINNING WITH "D"

Dwelling: refer to [134-9.7](#)

Dwelling unit: refer to [134-9.7](#)

Dormer: a roof projection no wider than 8 feet from an attic space containing a window.

7.2.8 TERMS BEGINNING WITH "E"

Electric Vehicle: any vehicle that is licensed and registered for operation on public and private highways, roads, and streets; either partially or exclusively, on electrical energy from the grid or an off-board source, that is stored on-board via a battery. "Electric vehicle" includes: (1) battery electric vehicles; and (2) plug-in hybrid electric vehicles.

Electric Vehicle (EV) Charging Station: a public or private parking space that is served by battery charging station equipment.

¹ Section needs more revision

7. MEASUREMENTS AND DEFINITIONS

DRAFT

Definitions

Electric Vehicle Parking Space: any parking space that is clearly identified to be used exclusively for the parking of an electric vehicle.

7.2.9 TERMS BEGINNING WITH “F”

7.2.10 TERMS BEGINNING WITH “G”

Garage, private: an enclosed structure intended for and used for the parking of the private motor vehicles of the families resident upon the premises.

7.2.11 TERMS BEGINNING WITH “H”

RESERVED

7.2.12 TERMS BEGINNING WITH “I”

Impervious Surface (or Cover): any surface that cannot effectively absorb or infiltrate rainfall, including driveways, sidewalks, patios, swimming pools, and areas of a site covered by buildings.

7.2.13 TERMS BEGINNING WITH “J”

RESERVED

7.2.14 TERMS BEGINNING WITH “K”

RESERVED

7.2.15 TERMS BEGINNING WITH “L”

Lot: refer to [134-9.15](#)

Lot, corner: a lot abutting upon two or more streets at their intersection.

Lot, depth: the mean horizontal distance between the front and rear lot lines.

Lot, double frontage: a lot having a frontage on two nonintersecting streets, as distinguished from a corner lot.

Lot, Flag: a lot with only enough width along the street for a driveway and full lot width behind another lot.

Lot frontage: the portion of a lot which abuts a public street. Each side of a lot so abutting a public street shall be considered as separate lot frontage.

Lot, interior: a lot other than a corner lot.

Lot lines: refer to [134-9.15](#)

Lot of record: refer to [134-9.15](#)

Lot width: the width of a lot measured at the required front yard setback line and at right angles to its depth. The minimum lot width shall be maintained from the required front yard setback line to the front of the principal building.

7.2.16 TERMS BEGINNING WITH “M”

Manufactured home: refer to [134-9.16](#)

Mobile home: refer to [134-9.16](#)

Mobile home park or trailer park: refer to [134-9.16](#)

Modular home: refer to [134-9.16](#)

7.2.17 TERMS BEGINNING WITH “N”

RESERVED

7.2.18 TERMS BEGINNING WITH “O”

Occupied space: interior floor space within a building that is regularly occupied by building users. Occupied space does not include storage areas, utility space, or parking areas.

Off-street parking and loading area: any portion of a property used for parking of employee, customer or resident vehicles; storage, parking and display of any commercial vehicles, commercial equipment or contractor’s equipment; and/or storage or placement of any merchandise.

7.2.19 TERMS BEGINNING WITH “P”

Parking lot: any portion of a property used for parking of employee, customer, or resident vehicles; storage, parking or display of any commercial vehicles, commercial equipment or contractor’s equipment;

Parking lot, main: any set of parking aisles and lanes with more than 60 percent of the parking for the building on the lot.

Parking space: a permanently surfaced area which includes the parking stall plus the maneuvering space required for the parking of motor vehicles. Space for maneuvering, incidental to parking or unparking, shall not encroach upon any public right-of-way, except as permitted by the city engineer.

Patio: a paved and landscaped area on a lot for the gathering of people, not vehicles. Seating, eating and drinking, or retail sales may occur on a patio as permitted by the district.

Pedestrian way: a pathway designed for use by pedestrians; it can be located mid-block allowing pedestrian movement from one street to another without traveling along the block’s perimeter.

Person: an individual, group of individuals, partnership, association, corporation, or any other business unit or legal entity.

Pervious surface (or cover): any surface that allows for the absorption or infiltration of rainwater into the ground or into plant material, including vegetated roofs.

Porch: a roofed projection which has no more than 50 percent of each outside wall area enclosed by a building or siding material other than meshed screens.

Porch, enclosed: a roofed projection which has no more than 50 percent of each outside wall area enclosed by a building or siding material other than meshed screens.

Primary frontage: the portion of a lot abutting a primary street right-of-way. See [135-1.1.6](#).

Primary street: a street that receives priority over other streets in terms of setting front lot lines and locating building entrances. See [135-1.1.6](#) and [135-3.3.1](#).

Principal use: refer to [134-9.19](#)

Public way: a street that receives priority over other streets in terms

7.2.20 TERMS BEGINNING WITH “Q”

RESERVED

7.2.21 TERMS BEGINNING WITH “R”

RESERVED

7.2.22 TERMS BEGINNING WITH “S”

Semi-pervious surface (or cover): a material that allows for at least 40% rainfall to be absorbed into the ground or plant material. Typical examples include pervious pavers, permeable asphalt, permeable concrete, and gravel.

Shadow line: An architectural feature consisting of a decorative, 3-dimensional, horizontal or vertical linear element that protrudes or is recessed at least 2 inches from the exterior facade of a building, casting a shadow to reinforce the feature. Shadow lines typically delineate the top or bottom of floors in a building through the use of cornices, pilasters, or stepped brick coursing.

Story: that portion of a building included between the surface of any floor and the surface of the floor next above it or, if there is no floor above it, the space between the floor and the ceiling or roof next above it.

Story, ground: the first full story of a building as measured from the front or primary lot line.

Story, half: a story located either in the base of the building, partially below grade and above grade, between 2.5 feet and 1/2 the height of a full story (see “basement, visible”), or a space under a sloping roof where the intersection of roof decking and wall face is not more than 4 feet above floor level.

Story, upper: the floors in a building located above the

ground story of the building. Also referred to as upper floor.

Street facade or street-facing facade: the facade of a building that faces a street right-of-way.

Street line: refer to [134-9.22](#).

Street, major: for the purposes of Chapter 135, major streets includes Merle Hay Road, Martin Luther King Jr, Beaver Avenue, 6th Avenue, E 14th Street, Hubbell Avenue, Easton Boulevard, SE 14th Street, SW 9th Street, Fleur Drive, Douglas Avenue, Euclid Avenue, Hickman Road, University Avenue, Ingersoll Avenue, Grand Avenue, NE 23rd Ave, E Martin Luther King Jr. Parkway, E Army Post Road, and any other street similar in scale, speed, and character as determined by the community development director.²

Street, minor: for the purposes of Chapter 135, minor streets includes Lower Beaver Road, Urbandale Avenue, Forest Avenue, 2nd Avenue, Polk Boulevard, 42nd Street, Ea 30th Street, Park and E Park Avenue, Indianola Avenue, Watrous Avenue, McKinley and E McKinley Avenue and any other street similar in scale, speed, and character as determined by the community development director.³

Street, private: any private way meeting the base street requirements in [135-3.2.2](#) and approved by the city council after recommendation by the plan and zoning commission.

Street, public: any thoroughfare or public way not less than 30 feet in width, which has been dedicated to the public or deeded to the city for street purposes; and also any such public way as may be created after the effective date of the ordinance from which this chapter derives, provided it is 40 feet or more in width.

Structural alteration: refer to [134-9.22](#)

Structure: refer to [134-9.22](#)

7.2.23 TERMS BEGINNING WITH “T”

Trailer park: See Mobile home park.

Transparency: See [135-7.1.7](#).

7.2.24 TERMS BEGINNING WITH “U”

RESERVED

7.2.25 TERMS BEGINNING WITH “V”

Vision clearance triangle: at street intersections, a triangular area as required by section 114-14 of this

² Needs further coordination in articles 1 and 3, then will need revision upon adoption of the TMP

³ Needs further coordination in articles 1 and 3, then will need revision upon adoption of the TMP

7. MEASUREMENTS AND DEFINITIONS

DRAFT

Definitions

Code.

7.2.26 TERMS BEGINNING WITH "W"

RESERVED

7.2.27 TERMS BEGINNING WITH "X"

RESERVED

7.2.28 TERMS BEGINNING WITH "Y"

Yard: the unoccupied and unobstructed space that exists between a building and a lot line.

Yard, front: a yard extending from the front facade of the principal building along the full length of the front or primary lot line, between the side lot lines or, on a corner lot, between the side and street-side lot lines.

Yard, rear: a yard extending from the rear building facade along the rear lot line between the side yards or, on a corner lot, the street side and side yards.

Yard, side: a yard extending from the side building facade along the side lot line between the front yard and rear lot line.

Yard, street-side: a side yard abutting a street lot line.

7.2.29 TERMS BEGINNING WITH "Z"

RESERVED