

Chapter 135. Planning and Design

ARTICLE 7. LANDSCAPE AND STREETScape

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135-7.1 General

7.1.1 INTENT

The landscape and streetscape regulations of this article are intended to provide the following.

- A. To protect property values and the appearance of neighborhoods and commercial districts through appropriate landscape and fencing.
- B. To provide for healthy, long-lived trees within all public ways to improve the appearance of streets and create a buffer between pedestrian and vehicular travel lanes.
- C. To increase the urban tree canopy throughout the city.
- D. To increase the compatibility of adjacent uses and minimize the adverse impacts created by adjoining or neighboring uses.
- E. To promote the prudent use of water through sustainable, functional landscapes.
- F. To reduce energy demands through the shading of buildings and pavement, reducing the urban heat island effects.

7.1.2 APPLICABILITY

- A. **General.** The landscape and streetscape regulations shall be provided and followed in accordance with the provisions of this article. Unless otherwise expressly stated, the regulations apply to all zoning districts and uses.
- B. **New Uses and Development.** The landscape and streetscape regulations of this article apply to all new buildings constructed and all new uses established in all zoning districts.
- C. **Discontinued Uses, Change of Use.** If the use of a property is discontinued for a period of more than six months, or if a new or amended site plan is required by a change of use on the premises, the landscape and streetscape regulations of this article shall apply.
- D. **Enlargements and Expansions**
 - 1. **Structures.** The landscape and streetscape regulations of this article apply whenever a building is enlarged by over 50% of the existing building gross floor area, or when renovations to an existing building, including a building addition, have an estimated cost for building permit purposes that exceeds 50% of the value of the existing building. Estimated building permit valuation is cumulative from March 22,

2004, using all building permits issued by the city's permit and development center, county assessor's records, insurance records if no assessor's records are available, and other documentation as determined by the community development director.

- 2. **Parking Lots.** The landscape and streetscape regulations of this article shall be fulfilled as follows:
 - a. When any existing surface parking lot is reconfigured or reconstructed, the lot shall comply with this article.
 - b. When any existing surface parking lot is expanded in area or number of stalls by less than 50% of the original lot area, the area of expansion shall comply with this article.
 - c. When any existing surface parking lot is expanded in area or number of stalls by 50% or more of the original lot area, the original lot area and the area of expansion shall comply with this article.
 - d. When compliance is triggered for existing parking lots, landscape improvements shall take precedence over parking requirements of this chapter.
- E. **Vacant Buildings.** If a building or parking lot is vacant for six months or longer, the landscape and streetscape regulations of this article shall apply.
- F. **Maintenance.** Landscape and streetscape required by this article shall be maintained for the life of the principal use. Damaged or dead streetscape and landscape shall be replaced or repaired so that the requirements of this article are met at all times.
- G. **Buffer Exceptions.** Landscape buffers are required according to the provisions in this article with the following exceptions.
 - 1. **Shared Driveways.** Buffers shall not be required along a property line where a curb cut or aisle is shared between two adjoining lots.
 - 2. **Points of Access.** Buffering is not required at driveways or other points of access to a lot, unless otherwise addressed by these regulations of this article.
- H. **Temporary Uses.** This article does not apply to temporary uses, unless determined otherwise by the community development director.
- I. **Council-Approved Streetscape.** For all developments which are located within a streetscape corridor as approved by city council prior to the

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General Landscape Installation and Maintenance Requirements

effective date of this chapter, compliance with the council-approved streetscape standards shall be required. At the discretion of the community development director, any properties which are contiguous or in close proximity to such council-approved streetscape corridors may also be required to comply with the council-approved streetscape standards.

- J. Increased Setbacks.** Increased setbacks or build-to zones may be required when additional right-of-way or street widening is planned, as determined by the community development director or city engineer.

7.1.3 OTHER REGULATIONS

- A.** Refer to chapter 22 of this code for additional information regarding treatment of landscape.
- B.** All design must meet vision clearance triangle and clear zone requirements of the city engineer.
- C.** Refer to section 102-2 of this code for maintenance of border areas.

TABLE 135-7.2-1. PLANT MATERIAL SIZE AT INSTALLATION

Plant Material Type	Minimum Size
Street Tree	1.5 inch caliper and 8 ft in height
Shade/Overstory Tree	1.5 inch caliper and 8 ft in height
Ornamental/Understory Tree	1.5 inch caliper and 6 ft in height
Evergreen/Coniferous Tree	6 ft in height
Shrubs - Deciduous	3 gallon container or 15-18 inch balled & burlapped; and 18-24 inches high x 15-18 inches wide
Shrubs - Evergreen	3 gallon container or 15-18 inch balled & burlapped; and 18-24 inches high x 15-18 inches wide
Ornamental Grasses	3 gallon container or 15-18 inch balled & burlapped; and 18-24 inches high x 15-18 inches wide
Groundcover	1 gallon container and 3 inches high by 12 inches wide

135-7.2 General Landscape Installation and Maintenance Requirements

7.2.1 INTENT

The following provisions aid in ensuring that all required landscaping is installed and maintained properly.

7.2.2 APPLICABILITY

These provisions apply to landscape installation as required by this article.

7.2.3 GENERAL INSTALLATION REQUIREMENTS

The installation of landscaping shall adhere to the following standards.

- A. National Standards.** Best management practices and procedures according to the nationally accepted standards shall be practiced. All landscaping and trees shall be installed in conformance with the practices and procedures established by the most recent edition of the American Standard for Nursery Stock (ANSI Z60.1) as published by the American Association of Nurserymen.

- B. Installation.** Landscaping shall be fully installed prior to the issuance of a certificate of occupancy. If seasonal conditions preclude the complete installation, a temporary certificate of occupancy may be issued as follows:

1. For temporary certificates of occupancy issued between October 1 and April 30, all remaining landscape required shall be installed by the following June 1.
2. For temporary certificates of occupancy issued between May 1 and September 30, all remaining landscape required shall be installed by the following October 30.

C. Tree Measurement.

1. Caliper is the measured diameter in inches of the tree trunk as follows:
 - a. Four inch caliper and smaller. Caliper measurement of the trunk shall be taken six inches above the trunk or root flare up to and including four inch caliper size.
 - b. Greater than four inch caliper. If the caliper at six inches above the ground exceeds four inches, the caliper shall be measured at 12 inches above the trunk or root flare.
2. For trees measured in height only, the measurement shall be taken from the root flare to the tip of foliage.

D. Plant Size Requirements. Plant material shall be sized according to Table 135-7.2-1 of this article unless otherwise noted in this article.

E. Condition and Selection of Planting Materials. The plant materials used shall be free from visible signs of disease, infestation, or physical defect at the time of planting. Plant materials shall:

1. Be appropriate for the conditions of the location, including sun and wind exposure, air quality, salt exposure, soil type, expected moisture content of soil, and slope.
2. Not be an invasive or a potentially invasive species.
3. Be, wherever possible, native or naturalized to the Des Moines region.

F. Compost and Organic Matter. Compost and organic matter shall be utilized within the soil mix to reduce the need for fertilizers and increase water retention.

G. Establishment. All installed plant material shall be fully maintained until established, including watering, mulching, fertilizing, and replacement as necessary.

7.2.4 GENERAL LANDSCAPE MAINTENANCE REQUIREMENTS

All landscaping shall be maintained in good condition at all times to ensure a healthy and orderly appearance.

A. Applicability

All required landscape shall be maintained to adhere to all requirements of this article, vision clearance triangle and clear zone requirements of the city engineer, and border area requirements of this code.

B. Replacing Unhealthy Landscaping

Unhealthy landscaping shall be replaced with healthy, live plants by the end of the next applicable growing season. This includes all plant material that shows dead branches over a minimum of 25% of the normal branching pattern.

C. Maintenance Responsibility

The owner is responsible for the maintenance, repair, and replacement of all landscaping.

D. Maintain Quality and Quantity.

Maintenance shall preserve at least the same quantity, quality, and screening effectiveness as initially installed.

E. City Inspection. All landscaped areas regulated by this ordinance may be inspected by the city.

7.2.5 EXISTING TREE PROTECTION, REMOVAL AND MITIGATION

A. Intent

It is the city's intent to preserve canopied areas and mature trees on private land during development activity. When mature trees cannot be saved, mitigation plans shall be approved as part of the development review process.

B. Protection of Existing Trees

No damage to any trees or shrubs which are not part of a removal plan shall occur whether installation of protection measures is required or not. Protection of existing trees or shrubs shall be accomplished through compliance with the Supplemental Specification for Tree Protection as amended from time to time.

C. Tree Removal and Mitigation. Preservation of or mitigation for the removal of trees on private land during the development process shall comply with chapter 42, article X of this code.

135-7.3 Ground Vegetation

All unpaved areas of the site shall be covered by one of the following.

7.3.1 PLANTING BEDS

- A. Planting beds may include shrubs, ornamental grasses, ground cover, vines, annuals, or perennials.
- B. A minimum of 60% of the bed area shall be covered in plant material at maturity. The remaining portion of the bed shall be covered with non-living permeable materials, such as mulch, and not including rock.
- C. Annual beds shall be maintained seasonally, replanting as necessary.

7.3.2 GRASS

Seeded, plugged, or sodded grass may be planted throughout landscaped areas. Grass shall be established within 90 days of planting or the area shall be reseeded, replugged, or re-sodded.

7.3.3 RIGHT-OF-WAY RESTORATION.

Non-required paving in the right-of-way must be removed, curbs restored, and the area seeded, plugged or sodded. Grass shall be established within 90 days of planting or the area shall be reseeded, replugged, or re-sodded.

135-7.4 Site Trees

7.4.1 REQUIRED QUANTITY OF TREES

- A. Intent.** Sufficient trees shall be retained or planted on a lot so that the square footage of vegetative canopy of such trees, when mature, creates a significant canopy over the city.
- B. Quantity of Trees by Canopy Coverage.** In all zoning districts, a minimum 15% of lot area of each lot shall have a mature canopy coverage as shown in Table 135-7.4.2 of this article and comprised of a mixture of plantings.
- C. Measurement.** The total canopy coverage for a lot is the sum of the canopy, at maturity, of the individual trees located on the lot as shown in Table 135-7.4.2 of this article.
1. Street trees located in the public right-of-way directly adjacent to the property line of the lot may be counted toward the canopy coverage for the lot.
 2. For developments that encompass more than one lot, the percentage shall be calculated for the total canopy for the total area of all of the lots.
 3. For developments that span multiple blocks, the percentage required shall be calculated separately for each contiguous area of the development within a block.
- D. Credit for Existing Trees.** Additional credit for canopy coverage may be granted for retaining healthy trees of appropriate species and location, subject to the approval of the city forester, as shown in Table 135-7.4.3 of this article.
- E. Alternative Compliance.** Where existing conditions or other provisions of this article make it impracticable to meet the canopy coverage requirement on or adjacent to the site, the applicant shall plant sufficient trees to make up the shortfall with the location to be determined by the city forester.

7.4.2 TREE TYPES

- A. Permitted Tree List.** A list of permitted tree types is available from the department of public works forestry division. Exceptions to this list may be approved by the city forester.
- B. Mix of Species.** Planted trees shall be a diverse combination of permitted species, where possible.

7.4.3 TREE SPACING

Trees shall be spaced as shown in Table 135-7.4.4 of this article.

7.4.4 TREE MAINTENANCE

Tree trimming, fertilization, and other similar work shall be performed by or under the management of an ISA certified arborist.

7.4.5 PERMEABLE SURFACE

For each tree preserved or planted, a minimum amount of permeable surface area is required as shown in Table 135-7.4.5 of this article, unless otherwise stated in this code, and pursuant to section 135-7.3 of this article for allowed surface materials.

7.4.6 MODULAR PAVEMENT SUPPORT SYSTEM

A modular pavement support system is a system of modular units, assembled to form a grid that supports pavement and traffic loads above while maintaining non-compacted soil beneath for tree root growth.

- A. Intent.** Modular pavement support systems are intended to provide additional root growth area for urban trees located within sidewalks or paved areas. The goal of the system is increase the life and health of trees.
- B. Requirement.** Modular pavement support systems are required for planting of trees that do not meet the soil volumes and permeable area per tree

TABLE 135-7.4.2. CANOPY COVERAGE BY TREE SIZE AT MATURITY

Tree Size	Canopy Size
Shade or Overstory	1,000 square ft
Ornamental or Understory Tree	700 square ft
Evergreen or Coniferous Tree	300 square ft

TABLE 135-7.4.3. EXISTING TREE CANOPY CREDITS

Tree Diameter at 4.5 Ft	Additional Canopy Credit
≥ 10 inches	300 square ft
≥ 20 inches	700 square ft
≥ 30 inches	1,000 square ft

shown in Table 135-7.4.5 of this article.

C. Submittals. Samples and specifications shall be submitted and the modular pavement support system shall be approved by the city forester prior to installation.

D. Design Alternative. The city forester may approve an alternate system of support for trees that do not meet the requirements in Table 135-7.4.5 of this article through the Type 1 design alternative process.

135-7.5 Street Trees

A street tree is any tree lining a street in an intentional manner in order to achieve the purpose described in the following intent and which otherwise meets the requirements of this section.

7.5.1 INTENT

To line all streets of appropriate typology and function with a consistent and appropriate planting of trees to establish tree canopy for environmental and aesthetic benefits for all streets.

7.5.2 APPLICABILITY

The requirements of this section apply to tree planting along all new streets, realignments of existing streets, major renovations of sidewalks, any new construction of principal structures, and any redevelopment or expansion requiring site plan review.

7.5.3 MINIMUM STREET TREE REQUIREMENTS

The following standards apply to the installation of street trees:

A. Clear Branch Height. The clear branch height of a street tree is the distance between the ground plane and the lowest branch of the street tree at maturity. Minimum clear branch height is eight feet for the portion of street trees overhanging sidewalks and

15 feet for the portions of street trees overhanging streets.

B. Street Tree Type. All street tree types shall conform to the city's approved tree species list and shall be single trunk.

C. Street Tree Locations and Spacing. Street trees shall be planted as follows:

1. Minimum per Street Frontage. Each lot is required to have one tree for every 30 feet of street frontage, with a minimum of one street tree per street frontage.
2. Location. Street trees shall be located within the parkway of the street type pursuant to the city's most recent transportation master plan.
3. Intersections; Street Lights. Street trees shall be located a minimum distance from the intersection of two streets per the vision clearance triangle and clear zone requirements of the city engineer, and shall be located a minimum of 15 feet, or as otherwise required by the city engineer, from street lights.
4. Proximity to Paving. Street trees shall be located a minimum of two feet from any permanently paved edge or surface, unless otherwise regulated by Iowa Department of Transportation regulations for arterial streets.
5. Limited Space. The requirement to provide street trees may be waived by the community development director for existing streets, subject to the following:
 - a. In the DX districts, where there is no combination of public or private land sufficient to provide a minimum six-foot sidewalk with a minimum four-foot parkway.
 - b. In all districts except the DX districts, where

TABLE 135-7.4.4. MINIMUM TREE SPACING

Tree Size	Minimum Spacing
Street Tree	30 feet
Shade or Overstory Tree	30 feet
Ornamental or Understory Tree	15 feet
Evergreen or Coniferous Tree	10 feet

TABLE 135-7.4.5. SOIL VOLUMES & PERMEABLE AREA

Tree Size	Permeable Surface Area Requirement (minimum)	Soil Volume (minimum)	Minimum Typical Soil Measurements with 3-foot Soil Depth
Street, Shade, or Overstory Tree	50 square feet (e.g. 5' x 10'); trees shall be no closer than 2 feet to any concrete edge/surface	1000 cubic feet	12 feet wide x 28 feet long
Small	50 square feet (e.g. 5' x 10'); trees shall be no closer than 2 feet to any concrete edge/surface	400 cubic feet	12 feet wide x 11 feet long

Streetscape Requirements

there is no combination of public or private land sufficient to provide a minimum five-foot sidewalk with a minimum four-foot parkway.

- c. In areas deemed not appropriate by city engineer based upon typology and function of street per the transportation master plan.

D. Permeable Surface and Modular Pavement

Support System. The permeable surface and modular pavement support system requirements in sections 135-7.4.5 of this article and 135-7.4.6 of this article shall be met for all street trees.

135-7.6 Streetscape Requirements

7.6.1 INTENT

To establish attractive, contiguous streetscape with amenities along all mixed use corridors and other streets throughout the city.

7.6.2 APPLICABILITY

The requirements of this section apply to all new streets, realignments of existing streets, major renovations of sidewalks, and new streets.

A. Applicable Districts. For all developments in DX, MX, RX, CX, EX, I, and P districts, and any NX district on a neighborhood residential, community residential, community mixed-use, regional residential, regional mixed-use or industrial business park street typology as identified in the city's transportation master plan, the following streetscape is required to be installed by the applicant for all new streets and existing streets, unless otherwise stated.

7.6.3 GENERAL

A. Streetscape Location. Streetscape occupies the full pedestrian area of any street right-of-way, from the back of curb to edge of street right-of-way, and the front yard of all developments as defined by the type of streetscape pursuant to section 135-7.6.4 of this article.

B. Proposed Streetscapes. Proposed streetscape designs shall be considered when determining the applicable area and design elements.

C. Streetscape Design Continuation. The approved streetscape design for each street may be required by the city for the extension of any street outside the development to provide district continuity.

7.6.4 STREETSCAPE TYPES

A. Planted Parkway Streetscape. For all residential

and office developments without storefronts in applicable districts, except the DX districts, the following minimum landscape is required on all street frontages:

1. Parkway Planting. The parkway area between the back of curb and the sidewalk shall be planted with street trees and ground vegetation pursuant to section 135-7.3 of this article. Stormwater accommodations may be located in this area, as approved by the community development director and city engineer.
2. Street Yards. The front and street-side yard areas shall be planted with a minimum of 30% planting bed. The remaining area may be grass or patio area as permitted by the building type.
3. Alternate Design. In these locations, the community development director may approve the use of full pavement with tree beds as defined below, based upon the context of the area.

B. Full Pavement with Tree Beds. For all developments with storefront on the front facade in applicable districts and all developments in the DX districts, the following streetscape and landscape is required along all street frontages.

1. Pedestrian Realm. The entire area from edge of the right-of-way to back of curb shall be designed as a combination of hardscape, tree beds or planting bed areas, and necessary traffic control elements.
2. Street Yards.
 - a. The front and street-side yard areas shall be designed in conjunction with the pedestrian realm to create a cohesive streetscape.
 - b. Outdoor dining may be incorporated into the street yards based upon the following:
 - i. DX districts. In the DX district, a Type 1 design alternative is required for outdoor dining located in any street yard. A six-foot sidewalk width must be clear and there shall be no alternative location for outdoor dining. A sidewalk cafe permit or lease is required if the outdoor dining extends into the right-of-way.
 - ii. Other districts. In all districts other than the DX districts, outdoor dining is permitted in the right-of-way if a five-foot sidewalk width remains clear. A sidewalk cafe permit or lease is

required if the outdoor dining extends into the right-of-way.

3. Tree Bed Size and Spacing

- a. Minimum Bed Area. Tree beds shall be a minimum of four feet wide, measured perpendicular to the curb.
- b. Minimum Bed Length. Tree beds shall be a minimum of eight feet in length, measured parallel to the curb.
- c. Pass-Through Area. A minimum 15-foot wide space shall be provided between tree beds to allow pedestrian pass-through and furnishings locations.

7.6.5 STREETSCAPE DESIGN

A. Standard Specifications. Streetscape shall meet any standards defined by the city for sidewalk, curb, access, and parkway construction.

1. Full compliance with chapter 102 and any other applicable provisions of this code is required.
2. The community development director may request additional requirements or waive any requirements.

B. Streetscape Design. At a minimum, the streetscape design shall include the following:

1. Street Trees. Trees meeting the minimum requirements of section 135-7.5 of this article, shall be included in the streetscape design, with details related to tree beds and tree planting.
2. Pavement Design. Paving materials and pattern is required for each street. Pavement design shall include the minimum sidewalk widths required by the city and any extension of the sidewalk to the back of curb included on the private lot.
3. Street Furnishings. For a full block development, benches or seatwalls, planters, planter fences, sidewalk grates, tree guards, and trash receptacles shall be specified and quantities and locations listed for each street.
 - a. For each block face, a minimum of two benches and one trash receptacle is required.
 - b. Location of furnishings to be coordinated with the community development director, with the preferred location on private property. Furnishings located in the public right-of-way are subject to chapter 102 of this code and maintenance is the responsibility of the directly adjacent

property owner, a self-supported municipal improvement district (SSMID), or other entity as determined by the city.

4. Bicycle Racks. Bicycle racks shall be supplied to meet the minimum bicycle parking requirements of the blockface uses per section 135-6.3 of this chapter for required bicycle parking spaces. If rear bicycle parking is utilized, a minimum of 50% of the required ground floor use bicycle parking shall be supplied within the streetscape, coordinated with the community development director.
5. Landscape Design. Ground vegetation per section 135-7.3 of this article shall be designated for any landscape bed areas, planter areas, and open tree wells.
6. Lighting. Pedestrian and vehicular lighting shall be specified and locations and quantities noted. All lighting shall meet any requirements of the department of engineering and samples shall be submitted upon request of the community development director.

135-7.7 Frontage Buffer

7.7.1 INTENT AND APPLICABILITY

A. Intent. To lessen the visual impact of on-site vehicular parking, loading, and other activities from the street or open space.

B. Applicability. Applies to lots in all districts where the following occurs:

1. Off-street surface parking and maneuvering areas located adjacent to a street right-of-way or open space, except:
 - a. Parking areas along alleys except when located across an alley from an N or NX district.
 - b. Parking for House A, B, C, and D building types utilized for one or two units.
2. Transportation and utility facilities defined in article 3 of chapter 134 of this code.
3. Outdoor display and outdoor storage defined in article 3 of chapter 134 of this code.

C. Requirement. Either the fence frontage buffer pursuant to section 135-7.7.2 of this article or the berm frontage buffer pursuant to section 135-7.7.3 of this article shall be installed the length of the area to be screened, with the following exceptions:

1. Drives and Walks. The buffer may allow for the perpendicular crossing of driveways and walkways.
2. Vehicle Sales. Vehicle sales lots are required to install a frontage buffer, except that the fence is not required in a fence frontage buffer.
3. Parking Lots Larger than One Acre. Parking lots with a paved area one acre or larger in size shall utilize the berm frontage buffer.
4. Design Alternative. Alternative frontage buffer designs, fulfilling the intent and general level of screening of these types, may be submitted for a Type 1 design alternative.

7.7.2 FENCE FRONTAGE BUFFER

Refer to Figure 135-7.7-A of this article for illustration of the fence frontage buffer requirements.

A. Buffer Depth. The required buffer area shall be a minimum seven feet in depth, measured from the street-facing lot line. When a building is located on the lot adjacent to the vehicular area, the buffer depth shall be measured seven feet from the street facade of the rear building wall.

B. Fence. The following apply within the buffer:

1. Fence Location. A continuous fence is required, located two feet from the back of curb or edge of the vehicular area into the buffer. One pedestrian opening, maximum four feet in width, is permitted for every 30 linear feet of fence.
2. Fence Materials. The fence shall be black, gray, or dark green steel. Masonry columns up to a maximum 2.5 feet in width and base up to a maximum 18 inches in height are permitted. Other fence materials may be submitted for a Type 1 design alternative.
3. Fence Height. The fence shall be three feet in height. A Type 1 design alternative may be approved for a fence height up to six feet.
4. Fence Opacity. The fence shall have a minimum opacity of 30%.

C. Buffer Landscape. The following landscape is required within the buffer:

1. Shade Trees. Shade trees are required at one shade tree for every 40 linear feet of frontage buffer. Where feasible, spacing of the buffer trees shall alternate with street trees.
2. Shrubs. A continuous shrub planting is required on the street side of the fence. Ornamental grasses may be used when screening is not a required effect. The shrub planting shall consist of a single row of shrubs with a minimum mature width of 24 inches each, spaced no more than 36 inches on center, and height maintained no more than 48 inches within one year of installation.
3. Existing Vegetation. Existing vegetation may be credited toward buffer requirements as approved by the community development director.

7.7.3 BERM FRONTAGE BUFFER

Refer to Figure 135-7.8-A of this article for illustration of the berm frontage buffer requirements.

A. Buffer Depth. The required buffer area shall be a minimum 12 feet in depth, measured from the street-facing lot line.

B. Berm. The following apply within the buffer:

1. Retaining Wall. A minimum 2.5-foot tall, continuous retaining wall, faced in or constructed of brick or stone is required, located two feet from the back of curb or edge of the vehicular area into the buffer. One pedestrian opening,

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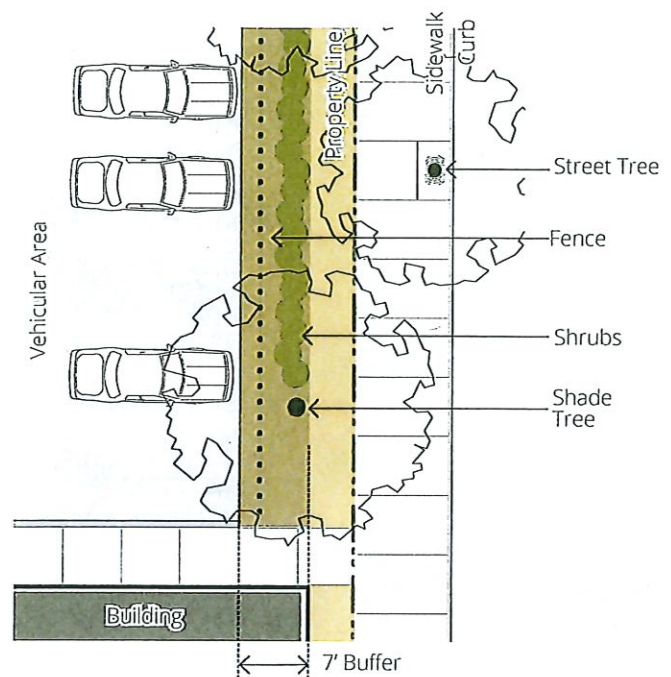
Frontage Buffer

maximum four feet in width, is permitted for every 30 feet of fence.

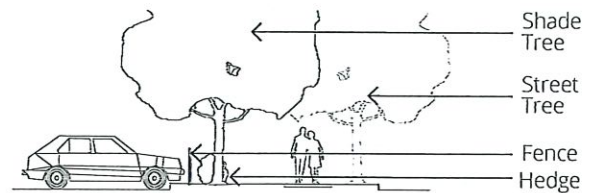
2. **Berm.** A berm shall be located on the street-side of the retaining wall. The berm shall have maximum 3:1 slopes, retained on the vehicular area side by the retaining wall.
3. **Ground Vegetation.** The berm shall be grassed or landscaped per section 135-7.3 of this article.

C. Buffer Landscape. The following landscape is required within the buffer:

1. **Shade Trees.** Shade trees are required at a minimum of 40 linear feet on center, with at least one shade tree required for each segment of buffer. Where feasible, spacing of the buffer trees shall alternate with street trees.
2. **Shrubs.** Shrubs are required on the street-side of the berm. Shrubs shall have a minimum mature width of 24 inches each, spaced no more than 36 inches on center, and height maintained no more than 48 inches, within one year of installation. Ornamental grasses may be used.
3. **Existing Vegetation.** Existing vegetation may be credited toward buffer requirements as approved by the community development director.



Frontage Buffer Plan



Frontage Buffer Section

Figure 135-7.7-A. Fence Frontage Buffer Plan & Section

Side and Rear Buffer

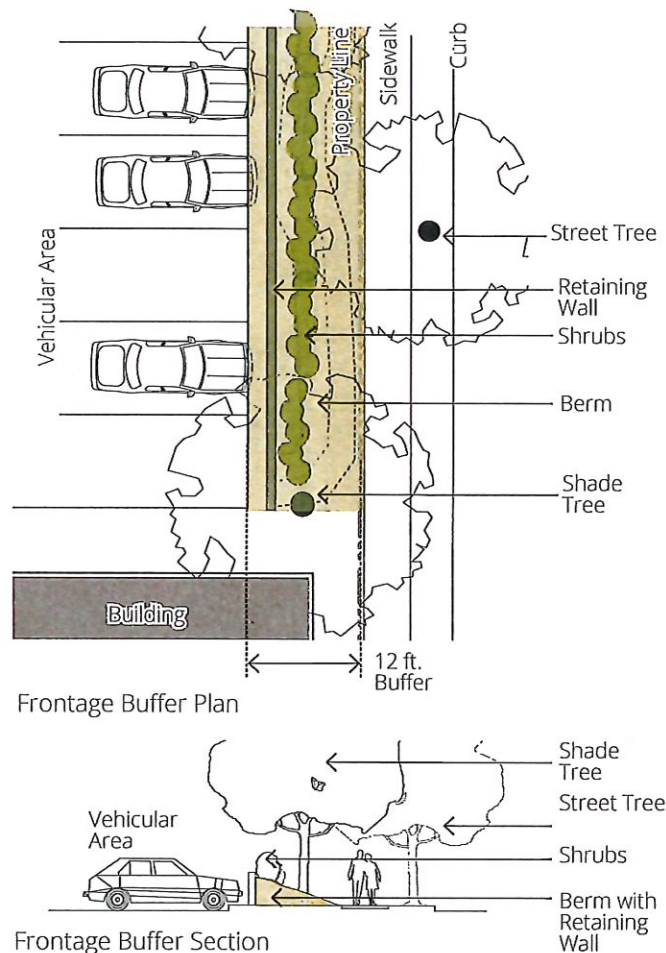


Figure 135-7.8-A. Berm Frontage Buffer Plan and Section

135-7.8 Side and Rear Buffer

7.8.1 INTENT AND APPLICABILITY

A. Intent. To minimize the impact that one zoning district may have on a neighboring district and to provide a transition between districts.

B. Applicability. The side and rear buffer is required of lots in the following districts:

1. Any MX, RX, CX, EX, I, or P districts abutting or adjacent to N or A districts.
2. NX3 district abutting or adjacent to N1, N2, N3, N4, N5 districts.
3. NM districts abutting N1, N2, N3, N4, N5 districts.

C. Location. The side and rear buffer shall be located along the applicable rear or side lot line within the rear or side yard of the lot.

D. Topography. When terrain contours exceed the minimum required screening height at the property line, either on private property in question or on the adjoining parcel, no screening is required subject to the community development director's approval

7.8.2 LIGHT BUFFER

Refer to Figure 135-7.8-B of this article for illustration of these requirements.

A. Application. The light buffer is required for the following:

1. All parking lots located abutting alleys across from any N or A district.
2. P districts abutting N or A districts.

B. Buffer Depth and Location. The buffer shall be located along the lot line, a minimum five feet in depth, measured from the lot line. The buffer may be interrupted to allow for the perpendicular crossing of driveways and walkways.

C. Buffer Landscape.

1. **Shade Trees.** One shade tree for every 40 linear feet of buffer.
2. **Shrubs.** A continuous shrub planting is required, consisting of a single row of shrubs with a minimum mature width of 24 inches each, spaced no more than 36 inches on center, and height maintained no more than 48 inches within one year of installation.
3. **Existing Vegetation.** Existing vegetation may be credited toward buffer requirements as approved by the community development director.

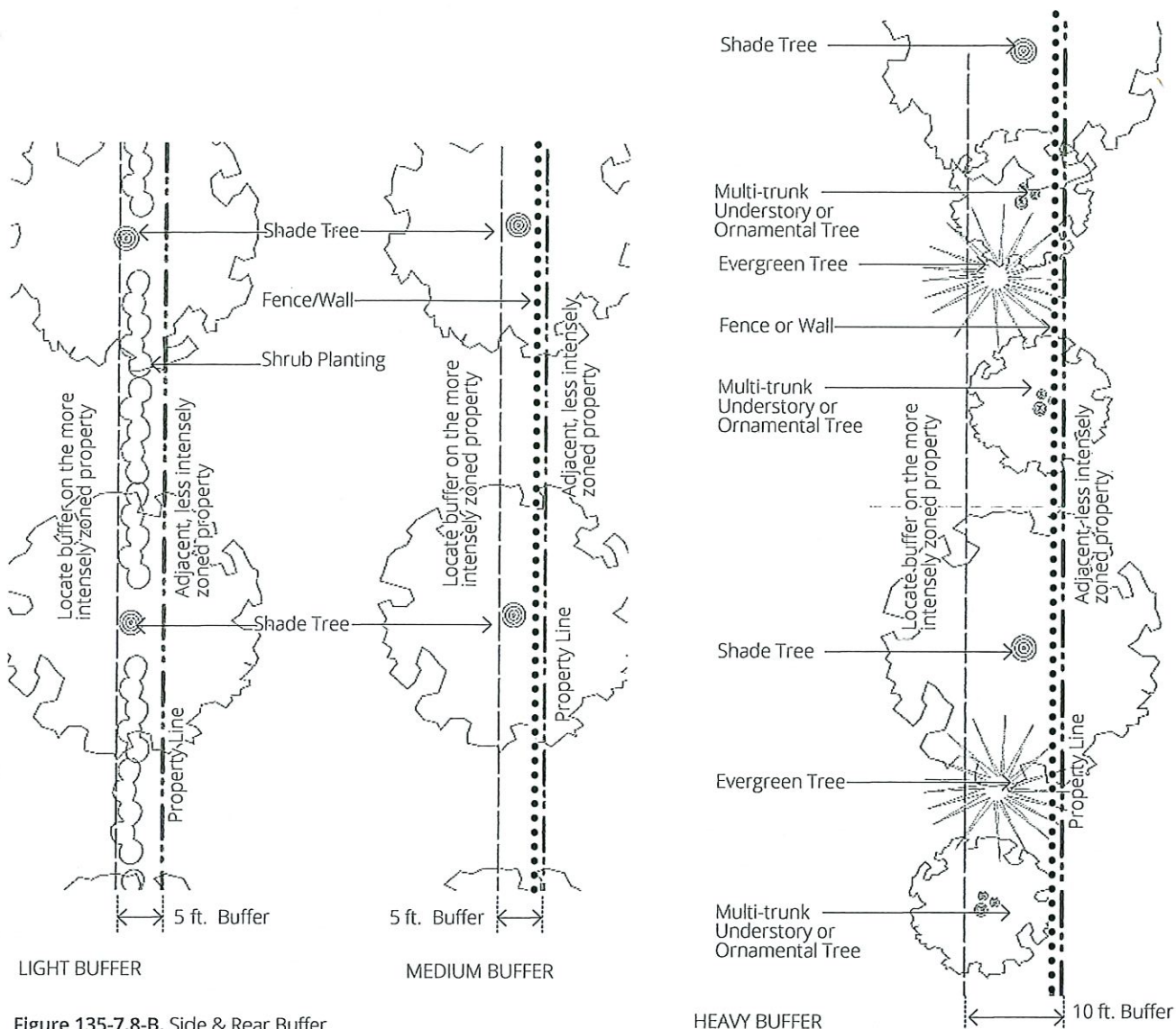


Figure 135-7.8-B. Side & Rear Buffer

7.8.3 MEDIUM BUFFER

Refer to Figure 135-7.8-B of this article for illustration of these requirements.

A. Application. The medium buffer is required for all MX1, MX2, RX1, RX2, NX3, and IX district lots abutting any N or A district.

B. Buffer Depth and Location. The buffer shall be located along the lot line, a minimum five feet in depth, measured from the lot line. The buffer may be interrupted to allow for the perpendicular crossing of driveways and walkways.

C. Fence or Wall. A continuous fence or wall is required along the length of the buffer.

1. Height. The fence or wall shall be six feet in

height, measured per the fence requirements in section 135-7.11 of this article.

2. Material. A fence shall be constructed of wood, vinyl, or a combination of wood and metal. A wall shall be faced or constructed of either brick or stone. Other fence materials may be approved with a Type 1 design alternative per section 135-9.2 of this chapter.
3. Opacity. The fence or wall shall be a minimum of 80% opaque.
4. A landscape hedge may be permitted through a Type 1 design alternative with agreement from the abutting property owner in writing. The landscape hedge shall provide the same level of

135-7. LANDSCAPE AND STREETScape

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Side and Rear Buffer

opacity as a fence within one year of installation.

5. Existing Vegetation and Topography. Existing vegetation and topography may be credited toward buffer requirements as approved by the community development director.

D. Buffer Landscape.

1. Shade Tree. One shade tree for every 40 linear feet of buffer.
2. Existing Vegetation. Existing vegetation may be credited toward buffer requirements as approved by the community development director.

7.8.4 HEAVY BUFFER

Refer to [Figure 135-7.8-B of this article](#) for illustration of these requirements.

A. Application. The heavy buffer is required for all MX3, CX, and I district lots abutting any N or A district.

B. Buffer Depth and Location. The buffer shall be located along the lot line, a minimum 10 feet in depth, measured from the lot line. The buffer may be interrupted to allow for the perpendicular crossing of driveways and walkways.

C. Fence or Wall. A continuous fence or wall is required along the length of the buffer.

1. Height. The fence shall be a minimum of six feet in height, measured per the fence requirements in section 135-7.11 of this article.
2. Material. A fence shall be constructed of wood or a combination of wood and metal. A wall shall be faced or constructed of either brick or stone.
3. Opacity. The fence or wall shall be a minimum of 80% opaque.
4. A landscape hedge may be permitted through a Type 1 design alternative with agreement from the abutting property owner in writing. The landscape hedge shall provide the same level of opacity as a fence within one year of installation.

D. Buffer Landscape.

1. Trees. Two shade trees and an equal mix of a minimum of six ornamental or understory trees are required for every 100 linear feet of buffer. Multi-trunk trees are encouraged.
2. Existing Vegetation. Existing vegetation may be credited toward buffer requirements as approved by the community development director.

135-7.9 Interior Parking Lot Landscape

Parking lot interior is defined as the area dedicated to parking on a given parcel as measured from edge of pavement to edge of pavement, and including any islands or medians.

7.9.1 INTENT AND APPLICABILITY

A. Intent. To provide shading and screening, and to improve the appearance of parking lots.

B. Applicability. All off-street surface parking lots in all districts with more than 10 spaces or more than one drive aisle.

C. Existing Vegetation. Existing vegetation may be credited toward these requirements as approved by the community development director.

7.9.2 REQUIREMENTS

Refer to [Figure 135-7.9-A of this article](#) for illustration of these requirements.

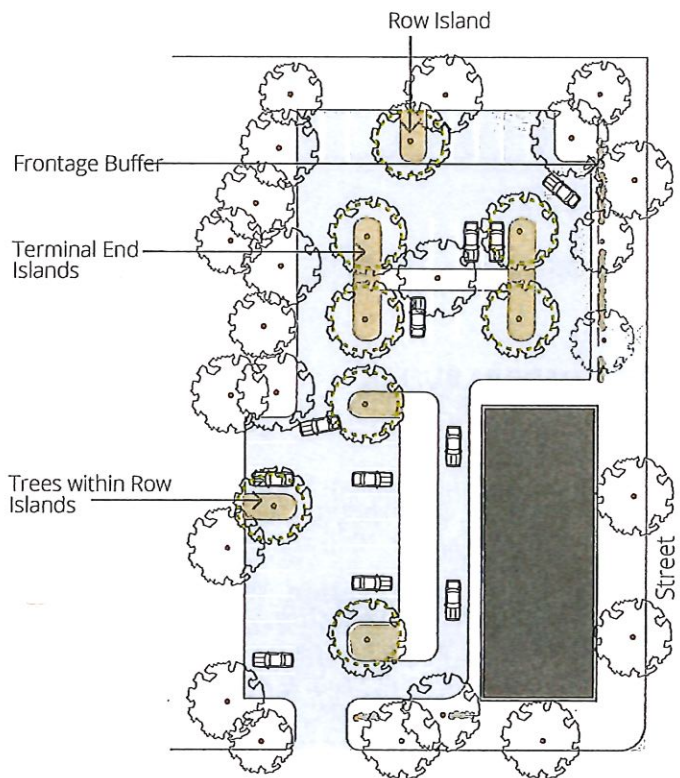


Figure 135-7.9-A. Interior Parking Lot Landscaping.

A. Required Landscape Islands

1. Terminal End Islands. Landscape islands are required at the terminal ends of freestanding rows or bays of parking. Freestanding rows or bays of parking are those not abutting the parking lot perimeter or building face, and may have a single or double row of parking.
2. Row Islands. For rows of parking with more than eight spaces, a landscape island is required for every ninth parking space with result of no more than eight continuous parking spaces in a row without a landscape island.
3. Island Size. The minimum width for an island is five feet and minimum length is 17 feet.
 - a. Islands shall accommodate the minimum tree requirements of Table 135-7.4.5 of this article.
 - b. Islands that do not meet the requirements of Table 135-7.4.5 of this article may be required to install an aeration system and utilize permeable paving as approved by the city forester.
4. Required Island Trees. A minimum of one single-trunk, shade tree is required within each island.

B. Tree Requirements

1. Fifty-foot Rule. Each parking space shall be located within 50 feet of a tree planted within the parking lot interior.
2. Five-Space Rule. For parking lots with more than 40 spaces, a minimum of one shade tree for every five parking spaces shall be planted within the parking lot interior or within four feet of the parking lot's edge.
3. Buffer Trees. Trees within any required buffer area may not be utilized to meet these requirements.
4. Shading Requirement. At maturity, tree canopies shall shade a minimum of 30% of the interior of the parking lot. Refer to Table 135-7.4.2 of this article for mature canopy sizes.

C. Sidewalk Requirements

1. A minimum five-foot wide, continuous sidewalk shall connect the public sidewalk along all street frontage to all public doors of the building.
2. Crossings at vehicular areas may count as continuing the sidewalk as long as the sidewalk material shall continue through the vehicular area to signal pedestrian priority.

135-7.10 Screening of Necessary Appurtenances**7.10.1 INTENT**

To reduce the visibility of open storage, refuse and recycling areas, loading, and utility appurtenances from public areas and adjacent properties.

7.10.2 APPLICABILITY

All dumpsters, loading areas, refuse and recycling areas, mechanical equipment, and utility appurtenances in all districts shall be screened as follows.

7.10.3 GENERAL

A. Location on Site. The location of refuse and recycling loading areas, general loading, and utility appurtenances are defined by building type in article 2 of this chapter and in the design requirements of article 4 of this chapter.

B. Concrete Pad. For all loading, refuse, and utility appurtenances, a concrete pad is required.

7.10.4 LOADING, REFUSE AND RECYCLING AREAS**A. Opaque Screen**

1. Screen Wall. An opaque screen wall is required per the following:
 - a. The wall shall enclose the area around at least three sides.
 - b. The screen wall shall be masonry construction matching any masonry from the building's street facade design.
2. Height. The height of the screen wall shall be tall enough to screen the use inside, and a minimum of six feet. The community development director may request additional height as needed for complete screening.
3. Pedestrian Entrances. A pedestrian entrance shall be required. Pedestrian entrances shall not allow interior refuse or recycling areas to be visible.
4. Access Gates. Access gates shall be constructed of minimum 18-gauge metal panel or other durable material and to a height compatible to the screen walls.
5. Design Alternative. A Type 1 design alternative per section 135-9.2 of this chapter may be approved for alternative materials.

Screening of Necessary Appurtenances

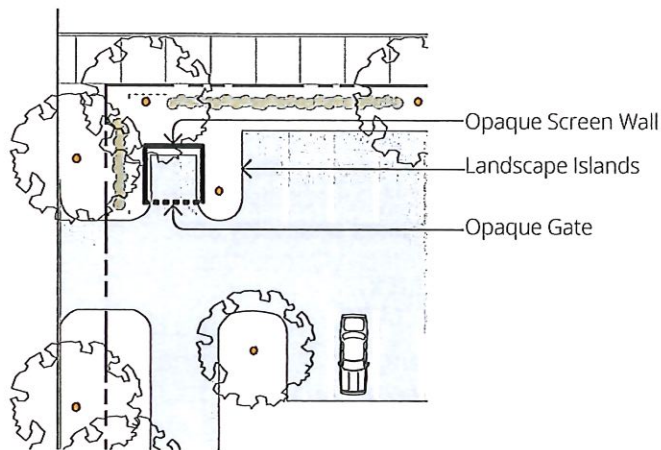


Figure 6.12-A Screening of Open Storage and Refuse Areas.

B. Landscape. If the area is located within a larger paved area, such as a parking lot, the following applies:

1. Landscape Area. A landscape buffer at least five feet in depth shall be located along all 3 sides.
2. One shade tree shall be provided within the landscape buffer.
3. The shade tree shall be located per the island width requirements in section [135-7.9.2 A of this article](#). This tree may be utilized to meet the minimum interior parking lot requirements, if located as such.
4. Ornamental grasses, shrubs, or similar landscape material shall cover a minimum of 50% of the buffer area.

7.10.5 MECHANICAL EQUIPMENT AND UTILITY APPURTENANCES

Mechanical equipment and utility appurtenances shall be located as defined in section [135-4.5 of this chapter](#). When visible from any street or adjacent property, the equipment and appurtenances shall be screened from view unless the community development director finds that such screening conflicts with the function of the equipment.

A. General. The form, material, and color of the screening for all equipment and appurtenances shall meet all of the following criteria:

1. Screening, other than landscaping, shall be consistent with the building design, colors, and materials.
2. The height of any screen is the minimum appropriate to adequately screen the mechanical

equipment.

3. Screening does not increase the apparent height of the walls of the building.
4. The equipment is a neutral color, such as tan, green, or silver.

B. Large Private Mechanical Equipment. Large private mechanical equipment includes ground-mounted equipment at least four feet in height.

1. Screen Wall. An opaque screen wall is required per the following:
 - a. The wall shall enclose the area around at least three sides.
 - b. The screen wall shall be masonry construction matching any masonry from the building's street facade design.
2. Height. The height of the screen wall shall be tall enough to screen the use inside. The community development director may request additional height as needed for complete screening.
3. Visible Openings. Openings visible from the public way or adjacent properties shall include opaque gates.

C. Small Private Mechanical Equipment. Small private mechanical equipment includes ground-mounted equipment less than four feet in height.

1. Screening. Landscape screening with shrubs or ornamental grasses spaced no more than 30 inches on center shall be utilized, and the equipment shall be fully screened by the plants within two years.
2. The community development director may request additional screening as needed to ensure the view of small private mechanical equipment is fully screened from the public right-of-way.

135-7.11 Fence and Wall Requirements**7.11.1 GENERAL**

- A. Intent.** To reduce the negative impacts of fences and protect the economic and aesthetic values within the city.
- B. Applicability.** The following applies to all fencing in any district.
- C. Sight Clearance at Intersections.** Any fence or wall shall conform to the vision clearance triangle and clear zone requirements of the city engineer.
- D. Permit Required.** No fence shall be erected until a permit has been approved from the building official, except the following:
 1. Chain link and wire fences four feet or less in height located outside the front yard.
 2. All other fences three feet or less in height.

7.11.2 LOCATION AND PLACEMENT

- A. Front Yards.** Fences in any zoning district may be constructed in a front yard up to a front property line. No solid fence may be located in any front yard in the NX or N districts, or on any property used for residential purposes.
- B. Side Yards.** Fences in any zoning district may be constructed in a side yard up to a side property line.
- C. Rear Yards.** Fences in any zoning district may be constructed in a rear yard up to a rear property line.
- D. Face Direction.** All fences shall be erected with the "good," "decorative," or "finished" side facing outward.
- E. Unauthorized Placement Prohibited.** It is unlawful for any person to place or maintain any post, rail, fence, wires or other similar obstruction upon any street, sidewalk or public right-of-way in the city, except as otherwise expressly provided in these regulations or approved by the city for outdoor dining or seating or by lease, license or similar agreement.

7.11.3 HEIGHT

- A. Front Yards.** No fence more than three feet high shall be constructed in any front yard in any district except fencing required for buffers pursuant to section 135-7.7 of this article.
- B. Side, Street-Side, and Rear Yards.**
 1. In the I1, I2, and CX districts, the maximum height of side and rear yard fences is eight feet except as follows:
 - a. The allowed height of any fence in an I district may be increased by one foot for each two feet that the fence is set back from the adjoining property line, provided such fence does not exceed 15 feet in height, is constructed of flat or raised seam metal panels, treated wood or other durable materials approved by the community development director, and is maintained in good condition with a uniform earth-tone color.
 2. In all other districts, the maximum height of any fence in a rear, side, or street-side yard is six feet except the following:
 - a. Fences required for frontage buffers are defined in section 135-7.7 of this article.
 - b. Where the interior side yard in an N district is less than five feet in width, the maximum height of the fence is four feet, when adjacent to a primary structure.
 - c. In rear yards in N districts, where the lot abuts any MX, CX, EX or I district, the maximum height of the fence is eight feet.

7.11.4 TYPES AND MATERIALS

- A.** No fence shall be constructed of barbed wire, concertina wire, razor wire or ribbon, or any other similar type of wire, except in the I districts or for the confinement of agricultural animals lawfully kept in conformance with chapter 18 of this code or with a Type 1 design alternative for special circumstances such as an airport or public utilities.
- B.** No fence shall be electrified, unless all of the following is met:
 1. The fence is electrified by a device approved by a nationally recognized testing laboratory as meeting the standard for safety of electric fence controllers, and bears a certificate stated as such.
 2. The fence is used in accordance with the manufacturer's suggested installation instructions.
 3. The fence is used to confine agricultural animals lawfully kept in compliance with the requirements of chapter 18 of this code.
- C.** Chain link and wire fencing is prohibited in any

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Fence and Wall Requirements

front yard in any district, except in the P1 district for sports fields and playgrounds.

- D. Chain link fencing used in an N district developed as a large scale development shall have black vinyl-cladding.

7.11.5 MAINTENANCE

Fences shall be kept in good repair and replaced if they become prone to collapse or visual deterioration. Fences shall be free of rust, flaking paint, and graffiti.

7.11.6 DESIGN ALTERNATIVES

A Type 1 design alternative pursuant to section 135-9.2 of this chapter may be approved for fence and wall requirements.