

Chapter 29-4 Form and Development Controls⁵²²

29-4.1 Dimensional Summary Table

(a) General Dimensional Standards

The following Tables 4.1-1 to 4.1-3 state the dimensional standards for residential, mixed use, and special purpose districts contained in Article 2 (Zoning Districts). In case of a conflict between the dimensions shown in this Section 4.1 and the dimensions shown for individual zone districts in Article 2, the provisions of this Section 4.1 shall apply. In each table, a blank cell indicates that there is no standard for that dimension or measurement. (See Section 29-4.6(c) (Stream Buffer Standards), for additional required building setbacks from stream corridors. See Section 29-4(b)(2) (Solar Orientation Density Bonus) and Section 29-4.1(b)(3) (Rural Cluster Density Bonus), for additional information related to dimensional standard reductions and bonuses.)⁵²³

Standard	District				
	R-1	R-2 [1]		R-MF [2] ⁵²⁴	R-MH ⁵²⁵
		Current	Cottage		
Lots					
Minimum Lot Area (sq. ft.)					
One-Family Dwelling	7,000	5,000	3,000	5,000 ⁵²⁶	3,750 ⁵²⁷
One-Family Attached Dwelling		3,500	3,000	5,000	
Two-Family Dwelling		7,000 ⁵²⁸		7,000	
Multiple Family Dwelling				2,500 per du ⁵²⁹	
Sorority or Fraternity				7,500 sq.ft.	

Comment [PRZ85]: ½ two-family lot area. Each unit is on its own lot

Comment [PRZ86]: Added for clarification

⁵²² This section includes existing development controls in Chapter 29 (Zoning), Chapter 25 (Subdivision), Chapter 23 (Signage), and most of Chapter 12A (Land Preservation). Minimum dwelling unit floor area requirements were deleted in order to allow market flexibility, and because building codes address safe levels of building occupancy. Chapter 12A sections included are the definitions in Article 1 (General), Article III (Tree Preservation and Landscaping Requirements), Article IV (Erosion Control Requirements) Article V (Stormwater Management), and Article X (Stream Buffer Requirements). The following articles have not been incorporated and will remain in 12A: Article VII (Clean Fill), Article VIII (Stormwater Utility), and Article IX (Detection and Elimination of Illicit Stormwater Discharges, which includes Nuisances) because they are better regulated by Public Works.

⁵²³ Cross-reference to density bonus provisions added since Module 3.

⁵²⁴ In response to multiple public comments since prior draft, table has been revised to retain R-3 standards as basic development standards in R-MF, and to treat pre-existing R-4 developments as conforming

⁵²⁵ Module 1 commits to reducing min. manufactured home size and widths.

⁵²⁶ Reduced from 7,000 sf to match R-2 standard.

⁵²⁷ Reduced from current 4,050 sf to promote efficient land use and affordability.

⁵²⁸ This lot size permits duplexes, but not attached single-family homes under the current definition of "Dwelling, single-family attached" which requires a side lot separating the attached homes.

⁵²⁹ Current code requires 2,500 sq. ft. in R-3 and 1,500 sq. ft. for R-4. In response to multiple public comments, compromise of 2,000 sq. ft. included in prior draft was replaced by existing R-3 standard. The transitional standards in Section 29-4.5(f) protect adjacent R-1 districts through height and buffering controls.

Table 4.1-1: Dimensional Standards for Residential Districts					
Standard	R-1	R-2 [1]		District	
		Current	Cottage	R-MF [2] ⁵²⁴	R-MH ⁵²⁵
CRCC				No min, but max density 17 du/ac	
Lot area if no public or community sewer [5]	15,000 ⁵³⁰	15,000	15,000		
Minimum Lot Width (ft.) (detached)	60	60	30	60	45
Minimum Lot Width (ft.) (attached) – per lot		30			
Maximum size of contiguous parcel (ac.)			1/2		
Minimum Setbacks (ft.)					
Front Yard					
Front Yard Depth	25	25	10	25	20
Front lot line to garage depth (if applicable)	25 ⁵³¹	25	20		
Side Yard					
Side Yard	6	6	6	10	10
Side Yard – Corner Lot Street Side ⁵³²	25	25	10	15	
Distance between mobile dwelling units					20
Rear Yard	Lesser of 30% lot depth or 25	Lesser of 25% lot depth or 25	10	25	10
Maximum Height (ft.)					
Primary Residential Building See also Sec 29-4.9 Neighborhood Protection Standards	35[3]	35[3]	35	35 ⁵³³	35
Primary Non-residential Building [4] ⁵³⁴ See also Sec 29-4.9 Neighborhood Protection Standards	75	75		75	

- Comment [PRZ87]:** To be removed. Cottage development in areas with sewer only.
- Comment [PRZ88]:** Matches attached single-family
- Comment [PRZ89]:** New category to address attached single-family dwellings
- Comment [PRZ90]:** Acreage requirement to be moved to “use-specific” standard (a)

Comment [PRZ91]: Believed to be too low. Consider 45 feet

⁵³⁰ New standard to address a gap in current ordinance.

⁵³¹ New standard to regulate detached garages.

⁵³² Standards for R-1, R-2, and R-MF added since prior draft to clarify that second frontages on corner lots are subject to front yard setback requirements.

⁵³³ Current code has 35 ft. for R-3 and 45 ft. for R-4. Revised from 45 and 35ft. in prior draft in response to public comments.

⁵³⁴ Current code applies this to “public and semi-public buildings”. A Primary Non-residential Building is a new term in the Code definitions.

Table 4.1-1: Dimensional Standards for Residential Districts

Standard	District				
	R-1	R-2 [1]		R-MF [2] ⁵²⁴	R-MH ⁵²⁵
		Current	Cottage		
[1] All R-2 lands are subject to Current Standards until they request application of the Cottage Standards, and that request is approved under Sec. 29.4(l).					
[2] Multifamily structures constructed before January 1, 2014, with building height up to 45 ft. and lot area of at least 1,500 sq. ft. per dwelling unit are conforming structures. ⁵³⁵					
[3] Or 45 ft. if two side yards at least 15 ft. in width are provided.					
[4] Provided that each building setback is increased one (1) foot above the zone district residential building minimum for each one (1) foot of additional building height above the residential building maximum.					
[5] The minimum lot area for on-site septic is subject to Health Department approval based, in part, on distances between the lot and existing public sewer mains. This lot area could be greater, conditional, or denied on a case-by-case basis.					

Table 4.1-2: Dimensional Standards for Mixed Use Districts⁵³⁶

Standard	District						
	M-OF	M-N [1]		M-C [2]		M-BP	M-DT
		Current	Pedestrian	Current	Transit		
Lots							
Minimum Lot Area (sq. ft.)							
Lot Area	0	0	0	0	0	0	
Lot Width at Building Line	0	0	0	0	0	0	
Building Setbacks (ft.)							
Front Yard							
General	Min. 25	Min. 25	Min. 0 Max. 10 [3]	Min. 25	Min. 0 Max. 10 [3]	Min. 15	
From Arterial and Collector Streets	Min. 25	Min. 25	Min. 0 Max. 10 [3]	Min. 25	Min. 0 Max. 10 [3]	Min. 25	
Side Yard							
General ⁵³⁷	Min. 0	Min. 0	Min. 0	Min. 0	Min. 0	Min. 0	
Corner Lot Street Side	Min. 15	Min. 15	Min. 0	Min. 15	Min. 10	Min. 20	
Adjacent to R District ⁵³⁸	Min. 10	Min. 10	Min. 10	Min. 20	Min. 20	Min. 20	
Corner Lot with Frontage on Arterial or Collector Street	Min. 15	Min. 15	Min. 0	Min. 15	Min. 10	Min. 25	
Corner Lot with Frontage on Other Streets	Min. 15	Min. 15	Min. 0	Min. 15	Min. 10	Min. 20	
Rear Yard							
General	Min. 25	Min. 0	Min. 0	Min. 0	Min. 0	Min. 0	
Adjacent to R District ⁵³⁹		Min. 10	Min. 10	Min. 20	Min. 20	Min. 20	
Maximum Height (ft.)							

See Section 29-4.2 for M-DT Dimensional Standards

Comment [PRZ92]: Zeros added for clarity

Comment [PRZ93]: Zeros added fro clarity

Comment [PRZ94]: Added for consistency

Comment [PRZ95]: Duplicative

Comment [PRZ96]: Added for clarity

Comment [PRZ97]: Added requirements

Comment [PRZ98]: Added for Clarity

Comment [PRZ99]: Added requirements

⁵³⁵ New provisions. In response to multiple public comment, R-MF standards match current R-3 standards, but prior R-4 properties are made conforming.

⁵³⁶ M-N Pedestrian and M-C Transit standards are new. Other changes as noted.

⁵³⁷ Although the minimum general side yard setbacks are all 0 ft., this line item is included for consistency with the other categories in this table.

⁵³⁸ M-C and B-P side yards increased from 10 to 20 feet to provide additional buffering for R districts.

⁵³⁹ M-C and B-P rear yards increased from 10 to 20 feet to provide additional buffering for R districts.

Table 4.1-2: Dimensional Standards for Mixed Use Districts⁵³⁶

Standard	District						
	M-OF	M-N [1]		M-C [2]		M-BP	M-DT
		Current	Pedestrian	Current	Transit		
Primary Building See also Sec 29-4.9 Neighborhood Protection Standards	45 ⁵⁴⁰	35	35	45	55	45	
[1] All M-N lands are subject to Current Standards until they request application of the Pedestrian Standards and that request is approved under Sec 29-5.4(l). [2] All M-C lands are subject to Current Standards until they request application of the Transit Standards, and that request is approved under Sec. 29-5.4(l). [3] 75% of building frontage width must be located between minimum and maximum setback distances.							

Table 4.1-3: Dimensional Standards for Special Districts

Standard	District		
	IG ⁵⁴¹	A ⁵⁴²	O ⁵⁴³
Lots			
Minimum Lot Area (ac.)		2.5	2.5
Minimum Lot Area For Non-Agricultural Uses (sq. ft.)			
Minimum Lot Width at Building Line (ft.)			
Minimum Setbacks (ft.)			
Front Yard	25	25	25
Side Yard – General	0	25	25
Side Yard – Adjacent to R District	20 ⁵⁴⁴		
Rear Yard – General	10	25	25
Rear Yard – Adjacent to R District	20 ⁵⁴⁵		
Maximum Height (ft.)			
Primary Building See also Sec 29-4.9 Neighborhood Protection Standards		35	35

(b) Special Dimensional Standards or Measurements⁵⁴⁶

(i) Median Front Yard for Multiple Lots⁵⁴⁷

⁵⁴⁰ Provision allowing O-P heights to increase to 75 ft. with additional setbacks was not carried over. Office districts are generally located near residential areas, where additional height is a potential issue.

⁵⁴¹ As noted in Module 1, minimum project size of 22,000 sf and minimum lot width of 100 ft. from current M-C district were not carried over. Minimum front setback of 30 ft., rear setback of 30 ft., and side setbacks of 15 ft. from the current M-C district were also not carried over.

⁵⁴² Minimum building floor area of 650 sf and min. lot area of 7,000 sf for non-agricultural uses has been deleted.

⁵⁴³ O is a new district, and all dimensional standards are new.

⁵⁴⁴ Increased from 10 feet in current code to improve protection for residential areas.

⁵⁴⁵ New standard.

⁵⁴⁶ Carries forward and reorganizes (with more heading) special dimensional standards in current Sec. 29-26 (Height and Area Exceptions).

⁵⁴⁷ Current Sec. 29-26(b)(1); wording clarified.

- (i) In the R-1, R-2, and R-MF districts, where the nearest lots on either side of a residential lot have been developed with residential structures, the median of the front yards of such residential buildings shall establish the minimum front yard depth for the subject lot.⁵⁴⁸
- (ii) Where a recorded plat has been filed showing a setback line that otherwise complies with the requirements of this UDO, but is less than the established setback for the block as provided above, the setback line shown on the plat shall apply.

Comment [PRZ100]: Removed "chapter" added UDO for clarity

(2) Solar Orientation Density Bonus

- (i) A subdivision in the R-1 or R-2 zone districts in which at least seventy-five (75) percent of lots are created on blocks where the longer dimension of the block is oriented within fifteen (15) degrees of true east-west in order to increase potential solar gain, the maximum number of single-family or two-family lots permitted on the parcel under Table 4.3-1 shall be increased by ten (10) percent above the number of lots permitted, and the minimum size and width of each lot shall be reduced by fifteen (15) percent below the minimum lot size and width required, if streets had not been so aligned.⁵⁴⁹
- (ii) In a subdivision that meets the requirements of subsection (i) the minimum lot size and lot width in the R-1 or R-2 zone districts shall be adjusted to allow the parcel to contain ten (10) percent more lots than if the streets had not been so aligned.

(3) Rural Cluster Density Bonus

- (i) A subdivision in the R-1 or R-2 zone districts that preserves at least fifty (50) percent of the gross land area of the parcel in open space protected from future development shall be allowed to include ten (10) percent more residential lots than if such land had not been designated for protection.
- (ii) In order to earn a density bonus, the lands protected from development shall meet the following requirements:
 - (A) The calculation of protected open space shall not include any lands designated as floodway or flood fringe in the FP-O Floodplain overlay;
 - (B) The protected lands shall include any lands designated as sensitive lands on the Land Analysis Map required by Section 29-4.3(b)(1) to the greatest degree practicable;
 - (C) The protected lands shall be designed to be contiguous to any protected lands on adjacent subdivided lands to the greatest degree practicable;
 - (D) The applicant shall record in the real property records of Boone County a restrictive covenant, in a form acceptable to the City Counsel, preventing future development of the protected lands in perpetuity, and demonstrating that a homeowners association or other entity has accepted responsibility for maintenance and management of the protected lands and has legal authority to collect funds from

⁵⁴⁸ Replaced R-3 and R-4 with R-MF. Revised to simplify process by requiring alignment with nearest two occupied structures, rather than calculation of median setback on the entire lot.

⁵⁴⁹ New provision to increase solar gain potential. Revised since Module 3 to confirm that minimum lot sizes and widths may decrease to allow the bonus lots to be accommodated.

homeowners or others adequate to pay the expenses of such maintenance and management.

- (iii) In a clustered subdivision that meets the requirements of this Section 29-4.1(b)(3), the minimum lot size and lot width in the R-1 or R-2 zone shall be adjusted to allow the parcel to contain ten (10) percent more lots than if fifty (50) percent of the gross land area had not been protected from development.
- (iv) This density bonus may not be combined with the Solar Access Density Bonus in Section 29-4.1(b)(2).

(4) Rear Yards⁵⁵⁰

- (i) No rear yard shall be required in any nonresidential district on any lot of which the rear lot line adjoins a railway right-of-way or which has a rear railway track connection.
- (ii) In computing the depth of a rear yard for any building where such yard abuts an alley, one-half of such alley may be assumed to be a portion of the rear yard.
- (iii) Standards in Subsections (i) and (ii) do not apply in the M-DT district, which has separate provisions for measuring building rear setbacks.

(5) Official Plan⁵⁵¹

Where a line on the Major Roadway Plan (MRP) indicates that street widening has been planned and programmed for capital investment within five (5) years, right-of-way shall be reserved for future widening or opening of a street upon which a lot abuts, and the depth or width of a yard shall be measured from the MRP line to the nearest line of the building.⁵⁵²

(6) Detached Accessory Structure⁵⁵³

- (i) In any residential district, a detached customary accessory structure shall not:
 - (A) Exceed twenty-four (24) feet in height;
 - (B) Be higher than the main building; or
 - (C) Occupy more than thirty (30) percent of a rear yard.
- (ii) A detached accessory structure may be connected with the main building by a breezeway,⁵⁵⁴ open on each side, not more than six (6) feet wide inside, the roof of which is not more than twelve (12) feet high at its highest point, and is not an extension of the roof of the main building.

(7) Higher Education Institution Buildings⁵⁵⁵

Buildings constructed on the campus of an institution of higher learning, and that have been included as part of a development plan approved by the Council, need not comply with the

⁵⁵⁰ Current Sec. 29-26(b)(7-8).

⁵⁵¹ Current Sec. 29-26(b)(2).

⁵⁵² Clarification made since Module 3 to qualify when ROW needs to be dedicated for future roadways.

⁵⁵³ Current Sec. 29-26(b)(6). Revised to align with defined term – “customary accessory structure”.

⁵⁵⁴ Clarification made since Module 3.

⁵⁵⁵ Current Sec. 29-26(b)(9)

yard requirements of the district in which they are located, but shall comply with the following requirements:

- (i) Minimum distance between the building and a street line is twenty-five (25) feet;⁵⁵⁶ and
- (ii) Minimum distance to a property line other than a street is fifteen (15) feet for buildings thirty-five (35) feet or less in height, and five (5) additional feet for each additional ten (10) feet or part thereof in height.

(c) Exceptions and Encroachments⁵⁵⁷

(i) Height⁵⁵⁸

Table 4.1-4 identifies exceptions to those height limits shown in Section 4.1(a) and (b) above.

Table 4.1 – 4: Height Exceptions		
Structure, Feature, or Use	Maximum Height (ft.)	Conditions or Limits
Elementary/Secondary Schools in R-MF district ⁵⁵⁹	100	
<ul style="list-style-type: none"> ▪ Parapet walls ▪ False mansards ▪ Flagpoles ▪ Chimneys ▪ Finial cooling towers ▪ Elevator bulkheads ▪ Penthouses ▪ Stacks ▪ Cupolas ▪ Antennas ▪ Spires, and ▪ Rooftop solar energy equipment⁵⁶⁰ ▪ Rooftop HVAC equipment screened by parapet wall⁵⁶¹ 	6 feet above maximum height limit of zone district	
Rooftop or yard mounted WECs equipment in B-P or IG	30 ft. above maximum	

⁵⁵⁶ Additional text reading “except that where there is a building existing at the time of the passage of this section, with less than a twenty-foot setback on the same side of the street and within one hundred (100) feet on either side of the proposed building, such building may be located not less than twenty (20) feet from the street line”, was not carried forward; standard nonconformity provisions should apply.

⁵⁵⁷ Carries forward additional height and yard exceptions in Sec. 29-26 in tabular form, allowing for the elimination of unnecessary text and better readability.

⁵⁵⁸ Current Sec. 29-26(a)(Height) with noted revisions.

⁵⁵⁹ Text stating that there are no additional setbacks has been deleted.

⁵⁶⁰ Rooftop solar energy equipment has been added to this list.

⁵⁶¹ New provision.

Structure, Feature, or Use	Maximum Height (ft.)	Conditions or Limits
district ⁵⁶²	height limit in zone district	
Agricultural uses (e.g. silos, windmills, barns, etc.) in A-1	75 feet	
Radio and television antenna (private, noncommercial) in Residential districts ⁵⁶³	45 feet	Must not be located in front yard, and must comply with all other applicable laws and ordinances.

(2) Yard Areas⁵⁶⁴

Table 4.1-5 identifies exceptions and encroachments to required yard areas. Except for permitted exceptions in the table, every part of a required yard or court shall be open and unobstructed from its lowest point to the sky.

Structure, Feature, or Use	Yard Encroachment (maximum)	Conditions or Limits
Building sills, belt courses, cornices, chimneys, buttresses, ornamental features, eaves, and rain barrels ⁵⁶⁶	2 ft. into a yard	
Canopies or open porches ⁵⁶⁷	6 feet into front or rear yard	Roof area limited to 60 sf or less; Porch cannot be enclosed
Driveways ⁵⁶⁸ Single- and Two-Family Residential	Up to a 2-car garage Permitted to a maximum width of 20 ft. in any front, rear, side, or corner side yard	Single- and two-family residential driveways shall maintain a setback of 5 ft. from the side property line and shall not occupy more than 50% of the lot width.

⁵⁶² WECS have been added to this table.

⁵⁶³ Sec. 29-26(a)(6).

⁵⁶⁴ Carries forward the yard exceptions in current Sec. 29-26(b).

⁵⁶⁵ Revised since Module 3 to delete unnecessary reference to terrace garages.

⁵⁶⁶ Current Sec. 29-26(b)(3). Reference to rain barrels added.

⁵⁶⁷ Current Sec. 29-26(b)(3). Reference to rear yards added.

⁵⁶⁸ Driveway standards revised since Modules 2 and 3 based on public and staff comments. 20 foot maximum driveway width has been tailored based on the size and occupancy of residential units. Current maximum width for a 3-car driveway is 30 ft. and for a shared duplex driveway is 40 ft. Current maximum multi-family, commercial, and mixed-use driveway widths (for a two-way driveway) were reduced from 42 to 36 feet to encourage walkability.

Table 4.1-5: Yard Area Exceptions⁵⁶⁵

Structure, Feature, or Use		Yard Encroachment (maximum)		Conditions or Limits
		3-car garage	Permitted to a maximum width of 28 ft. in any front, rear, side, or corner side yard	
		Shared duplex driveway	Permitted to a maximum width of 36 ft. in any front, rear, side, or corner side yard	
	Multi-Family, Commercial, and Mixed-Use	Permitted to a maximum width of 24 ft. (one-way, in or out), and 36 ft. (combined, in and out) in any front, rear, side, or corner side yard		Multi-family, commercial, and mixed-use driveways shall maintain a setback of 10 ft. from any side property line adjacent to a Residential district, or as determined by the required driveway radius.
Lot boundary fences, walls, and retaining walls⁵⁶⁹		Permitted up to lot line		May not encroach on public right-of-way or adjacent property without consent of owner
Open fire escape⁵⁷⁰		Into side yard, by no more than ½ the side yard width		Cannot extend more than 4 feet from the building
Open paved terraces⁵⁷¹		10 feet into front or rear yard		
Solar or geothermal energy equipment⁵⁷²		Permitted in a side or rear yard		Not within 2 feet of a side or rear property line

29-4.2 M – DT Form-based Controls⁵⁷³

⁵⁶⁹ Added since Module 2.

⁵⁷⁰ Current Sec. 29-26(b)(4).

⁵⁷¹ Current Sec. 29-26(b)(3).

⁵⁷² Solar energy limit of 2 feet encroachment into yards replaced by limit of 2 feet from property line. Geothermal energy reference added.

⁵⁷³ New form-based controls prepared by Ferrell-Madden for the M-DT district, which replaces the current C-2 district.

29-4.3 Subdivision Standards⁶⁰⁶

(a) Applicability

- (1) The standards in this section 29-4.3 shall apply to land in all zone districts except the M-DT district whenever land is subdivided or re-subdivided to create, change, or establish the boundaries of parcels for development or redevelopment, unless this Code provides an exception.
- (2) In the M-DT zone district, all subdivisions shall comply with the requirements of the Regulating Plan and other applicable standards in Section 29-4, including but not limited to requirements for blocks, through connectivity, intersections, terminating streets, alleys, and sidewalks, and shall comply with the M-DT recommended street cross-sections in Appendix A to the greatest degree practicable. If the requirements of Section 29-4.2 conflict with the provisions of this Section 29-4.3, the provisions of Section 29-4.2 shall apply. If the provisions of Section 29-4.2 are silent on a topic addressed by this Section 29-4.3, the provisions of this Section 29-4.3 shall apply.⁶⁰⁷

Comment [PRZ101]: This provision added to clarify that plats containing one lot to create a "legal lot" are subject to these provisions

(b) Avoidance of Sensitive Areas⁶⁰⁸

Land shall be neither subdivided nor developed, except under appropriate special safeguards, where the commission finds that a proposed subdivision or development poses a potential or existing threat to the safety, health and general welfare of inhabitants of the land or surrounding areas due to flooding, improper drainage, steep slopes, rock formations, adverse earth formations, topography, utility easements or other adverse conditions. Portions of the proposed subdivision or development that cannot be prepared properly for the development shall be set aside for such use as shall not pose an undue hazard to life and property.⁶⁰⁹

(1) Land Analysis Map

- (i) Each application for subdivision or re-subdivision of a land area of five (5) acres or more – either alone or contiguous with another subdivision by the same applicant, shall first prepare a Land Analysis Map identifying sensitive lands to be protected from development. Such map shall be provided at the time of concept review for property proposed to be preliminarily platted regardless of the parcel size. In preparing such maps, those areas shown on the Future Land Use Map of the City's Comprehensive Plan as "sensitive" shall be identified as well as other areas known to be sensitive.

Comment [PRZ102]: Added to specify that map required at "concept review" and to specify that Comprehensive Plan is to be used as basis for "sensitive" lands identification.

⁶⁰⁶ This section carries forward, with revisions as noted, the development standards in current Chapter 25 (Subdivisions). Sections that have been repealed, and some materials have been relocated to other sections of this new Chapter 29-4 for better integration with similar standards applicable to both subdivisions and other types of development approvals have been removed. Exceptions to allow development and redevelopment in the M-DT district to comply with the form-based controls in Section 29-4.2 have been included throughout this section. Environmental avoidance, clustering, rural street standards (curbless, swales).

⁶⁰⁷ New provision to align with new form-based standards for the M-DT area.

⁶⁰⁸ New section to help implement "Columbia Imagined" by encouraging sustainable development practices. This text replaces the more general criteria in current Sec. 25-39 (Natural Features).

⁶⁰⁹ Inserted from current Sec. 25-38 (Character of the Land) since previous draft.

- (ii) The Land Analysis Map shall identify as sensitive lands to be protected from development all of the following:
 - (A) Stream corridors, which shall include all land from top-of-bank to top-of-bank of any waterway that shown as a solid blue or dashed blue line on the corresponding USGS 7.5minute quadrangle map;
 - (B) Steep slopes, which shall include all land with an average vertical slope of fifteen (15) percent or more, measured from top-of-slope to foot-of-slope;
 - (C) Any lands identified as Bentonite soils or designated by the state or a governmental agency as unsuitable for development;
 - (D) Any lands designated as floodway or lands contained within the FP-O Floodplain Overlay district; and
 - (E) Any lands identified as habitat for species listed as threatened or endangered by the state or federal governments.
 - (F) Any areas not covered in the above items that are identified within the City's Comprehensive Plan including, but not limited to views, cultural and/or historical features, burial mounds, wildlife habitat, wildlife corridor.

Comment [PRZ103]: Added for clarity

Comment [PRZ104]: Revised from 25% to match current 12A requirements

Comment [PRZ105]: Provision added for simplification. Will include upper 1 square mile as well as flood plain areas

Comment [PRZ106]: Added to increase connection to Comprehensive Plan

(2) Avoidance of Sensitive Lands

The applicant shall lay out the subdivision or re-subdivision so that:

- (i) No lot intended for development includes land designated as sensitive lands on the Land Analysis Map to the greatest degree practicable; and
- (ii) If any lot intended for development does include designated sensitive lands, the subdivision plat shall restrict construction of permanent structures to a designated building envelope area on that lot which does not include any designated sensitive land areas. Such sensitive lands shall be permanently protected by designation within a preservation easement; and
- (iii) Street crossings of sensitive land areas are minimized to the maximum extent practicable.

Comment [PRZ107]: Added for clarity

Comment [S108]: This needs to be enforceable. Consider providing additional language to clarify.

Comment [PRZ109]: Added for clarity

Comment [PRZ110]: New provision. "preservation easement" needs to be defined which would be slightly less restrictive to development than existing greenspace conservation easement. Areas identified as "common lots" would be included under such definition.

Comment [PRZ111]: This provision may require the submission of a separate development plan to determine what was possible. This could become burdensome and ineffective.

Comment [PRZ112]: Reduced from 25% to ensure no lot is less than 50-foot wide or less than 5,000 sq.ft in area

(3) Adjustment of Minimum Lot Sizes⁶¹⁰

If the avoidance of sensitive lands designated other than floodways and flood fringe areas results in the subdivision containing fewer buildable parcels than it would have if sensitive lands were not avoided, the applicant may adjust the minimum lot size or lot width in the subdivision by up to fifteen (15) percent in order to include as many lots as would have been possible if sensitive lands were not avoided. No adjustment of minimum lot sizes or widths shall be made for avoidance of floodway or flood fringe areas.

⁶¹⁰ These adjustments will be reviewed through the regular subdivision approval process, as they are now.

(c) Streets⁶¹¹

(1) Street Improvements Generally⁶¹²

- (i) Streets and curbs and gutters shall be improved to comply with the standards in this Code, the adopted City street and storm sewer specifications and design standards, and all design standards and specifications promulgated by the Director of Public Works or adopted by the Council, in accordance with the final construction plans required to be approved prior to final plat approval.
- (ii) Notwithstanding any provisions of this Code or standards listed in subsection (i), if land is subdivided in the R-1 zone district or subdivided for single-family residential development in a PD zone district, and the minimum size of each lot is two (2) acres or more in size:
 - (A) The subdivision shall not be required to install sidewalks along roadways classified below collector status, or curbs or gutters, but may manage street-related stormwater through the use of bioswales or natural areas designed to allow infiltration of stormwater into the soil, rather than transmitting it to a piped stormwater system.
 - (B) The Director of Public Works may approve alternative construction standards for road surfaces and lane widths to reflect anticipated low traffic volumes and preserve rural character while protecting traffic safety and emergency service access.

Comment [PRZ113]: Added provision for clarity to ensure collector or higher roadways install sidewalks. A design modification could be submitted to obtain waiver under specific conditions.

Responsibility for Improvements Costs⁶¹³

The costs of required improvements shall be paid by the applicant, with the following exception. It is the policy of the City to participate in or contribute only to certain additional costs of construction of major thoroughfares over and above the normal costs of local standard streets, when streets are designated at higher standards by the City. Such participation, and its timing, is solely at the election of the Council, according to the needs of the community.

Comment [PRZ114]: This provision could be removed. City always has option to participate when appropriate.

(3) Connectivity⁶¹⁴

(i) Streets

Streets shall comply with the following standards.⁶¹⁵

⁶¹¹ Carries forward current Article IV, except for Sec. 25-41 (Street names and numbers) and other technical street standards that have been relocated to Appendix A.

⁶¹² Carries forward introductory paragraph in Current Sec. 25-42 with new provisions for green infrastructure.

⁶¹³ Carries forward Current Sec. 25-42(1).

⁶¹⁴ New Section that carries forward Secs. 25-42(2)(Arrangement) and 25-42(3)(Blocks).

⁶¹⁵ New text to improve connectivity. Current text reading "streets shall be located properly with respect to extending existing and platted streets, to traffic generators, to population densities, and to the pattern of existing and proposed land uses" was deleted as too vague to give clear guidance as to desired patterns. Text reading "Local streets with connections to arterial and collector streets shall be designed to avoid cut-through traffic. Curvilinear streets are encouraged to minimize speeding and the amount of grading" were also deleted.

- (A) Local streets shall be designed to provide convenient and safe access to all properties and to permit efficient drainage and utility systems.
- (B) Through streets shall be designed as shown in the Figure 4.3-1. The street alignment shall be determined at the time of platting, but the plat shall include at least the number of direct connections between arterials or collectors as shown in these figures. If the provisions of Section 29-3(c)(1)(ii) regarding large lot residential development apply, then only the provisions of Figure 4.3-1 applicable to Arterial and Collector streets apply.

Comment [PRZ115]: Reinforce the figure with textual standards.

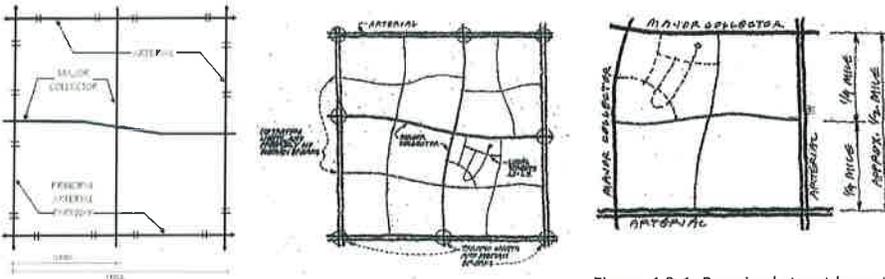


Figure 4.3-1. Required street layouts

- (C) As an alternative to complying with the through street requirements of subsection (B) above, the applicant may prepare connectivity index calculation that divides the number of street segments within the plat (i.e. sections of streets between intersecting streets) by the number of intersections within and at the boundaries of the plat to achieve a connectivity index of 1.65 or more. An example of a connectivity index calculation is shown in Figure 4.3-2 below.⁶¹⁶
- (D) Straight streets more than eight hundred (800) feet long shall be avoided to discourage speeding, unless approved by the Director because a shorter street is impracticable due to terrain or site constraints.
- (E) Individual local residential street segments should serve no more than thirty (30) dwelling units without additional street connections unless otherwise permitted for by this Code.

Comment [PRZ116]: Revised for consistency with Section 29-4.3(f)(2)

Comment [PRZ117]: Added for clarity and to indicate options exist for modification.

⁶¹⁶ Text reading: "Interconnection of adjacent subdivisions with compatible land uses shall be encouraged" was deleted.

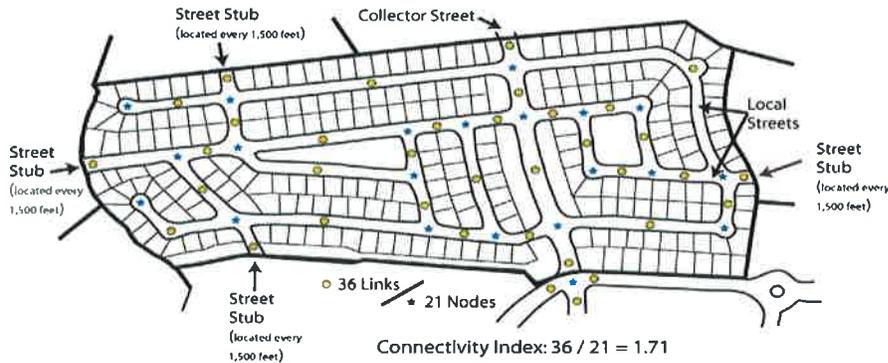


Figure 4.3-2 Connectivity Index

- (F) Cul-de-sacs and loop (U-shaped) streets should not exceed three hundred (300) feet in length but may be appropriate to avoid steep slopes, major creeks, floodplains, wetlands and other sensitive environmental areas.⁶¹⁷
- (G) Where a subdivision abuts or contains an existing arterial street or highway having limited access, lots abutting such roadways shall be arranged such that their rear yards abutting the major street, or access to such lots is provided from a frontage roads, or other street design necessary to provide for adequate protection of residential properties, to afford separation of through and local traffic, and to provide for suitable access to the property involved.
- (H) When a new subdivision adjoins unplatted or undeveloped land, the new streets shall be carried to the boundaries of such land unless vehicular access is unnecessary or inappropriate due to existing or proposed development with incompatible traffic generation on the adjacent platted or unplatted lands. A temporary turnaround approved by the Director of Public Works shall be installed at this point, except when the terminus of the street is less than one hundred fifty (150) feet from an intersecting street right-of-way.⁶¹⁸
- (I) Where street connections to adjoining land are not provided and there is a need for non-vehicular public access to a school, park, trail or other area or use, the City may require the dedication and improvement of a green space access easement or green space trail easement to serve the needs of the proposed development. Whenever such public improvements are required and the landowner conveys fee title in lieu of an easement, the City shall accept ownership and maintenance.⁶¹⁹

Comment [PRZ118]: This length is preferred. No cul-de-sac or loop street shall exceed 750 feet per item "J" below.

Comment [PRZ119]: Revised for clarity

⁶¹⁷ Revised to insert objective length standard.

⁶¹⁸ Distance revised from 300 ft. to 150 ft.

⁶¹⁹ Text reading "private drives may be allowed only to provide internal circulation within a single lot or parcel, except when approved in conjunction with a planned district" was deleted as obsolete.

- (J) Permanent terminal streets shall not be longer than seven hundred fifty (750) feet, measured from the center of any cul-de-sac to the right-of-way line of the nearest through street from which it derives.⁶²⁰

(ii) Blocks⁶²¹

Streets shall intersect at intervals not exceeding six hundred (600) feet or less than two hundred fifty (250) feet. Blocks shall have sufficient depth to provide for two (2) tiers of lots of appropriate depth. The Director may approve exceptions to this prescribed block depth when blocks are adjacent to major streets, railroads, waterways, or other environmentally constrained areas (e.g., steep slopes).

(4) Widths⁶²²

- (i) The right-of-way width required to be dedicated and the pavement width required to be constructed for streets shall comply with the standards in Appendix A for each street classification.
- (ii) Proposed subdivisions that include existing street rights-of-way narrower than required by Appendix A shall provide for dedication of appropriate additional width along one (1) or both sides of the street. Proposed subdivisions abutting only one (1) side of such streets shall provide for dedication of additional width to constitute one-half (½) of the right-of-way required.

Comment [PRZ120]: Evaluate street widths less than 20 feet for existing subdivisions.

Comment [PRZ121]: Alternative provisions may be necessary to address historically narrow streets in established neighborhoods. Current process would require design modification to waive compliance

(5) Grades⁶²³

- (i) The grades of streets shall comply with the standards in Appendix A.
- (ii) Where it is impracticable to comply with these standards, a written approval to deviate therefrom must be obtained from the Director of Public Works, who shall make a determination as to whether a deviation is consistent with protection of public and traffic safety.

(6) Curves⁶²⁴

Curves shall comply with the design criteria in Appendix A unless the Director of Public Works determines that a more restrictive requirement is necessary to safeguard the public health, safety and general welfare from potentially hazardous street design.

⁶²⁰ Relocated since prior draft.

⁶²¹ Revised from current standards of 1000 foot maximum and 400 foot minimum to encourage greater connectivity and walkability similar to the older platted areas of the City.

⁶²² Current Sec. 25-43. Detailed street width requirements are being relocated to Appendix A or an administrative manual. Provision allowing a reduced residential street width (28 ft. rather than 30 ft.) has been deleted as obsolete because standard residential street width has already been revised to 28 ft. The "Local, nonresidential, central traffic zone" street type has been deleted because it was never defined. New M-DT street widths are shown in Appendix A. New streets in M-DT are not likely, but improvements to existing streets should be designed and built in accordance with the recommended street types when practicable.

⁶²³ Current Sec. 25-44. Standards to guide the director's decision were added. Existing table containing street grade design standards will be relocated to Appendix A.

⁶²⁴ Current Sec. 25-45 relocated to Appendix A.

(7) Intersections⁶²⁵

Intersections shall comply with the standards in Appendix A unless the Director of Public Works determines that a more restrictive requirement is necessary to safeguard the public health, safety and general welfare from potentially hazardous street design.⁶²⁶

(8) Alleys⁶²⁷

- (i) Residential alleys shall be permitted in all Residential districts.⁶²⁸
- (ii) Nonresidential alleys shall be provided in Mixed Use and Special districts when off-street loading and parking are not otherwise provided.
- (iii) The right-of-way width of an alley shall be twenty (20) feet and the pavement width shall be sixteen (16) feet, except in the M-DT district, where alley improvements and new alleys should be designed in accordance with the M-DT Alley cross-section in Appendix A, when feasible.
- (iv) When alleys intersect, the intersection right-of-way lines shall be rounded by a curve with a radius of five (5) feet in length.

(d) Sidewalks⁶²⁹

(i) Applicability

- (i) The following standards apply to any subdivision that receives final plat approval after the effective date of this Code and any subdivision platted before 2001 that is less than twenty (25) percent built-out. Any subdivision platted before 2001 and built-out by twenty-five (25) percent or more shall complete construction in accordance with the sidewalk standards in place at the time of final plat approval.⁶³⁰
- (ii) Undeveloped lots shown on subdivision plats that received final approval before January 1, 2001 shall install sidewalks in compliance with the City street and storm sewer specifications and design standards now applicable or later issued by the Director of Public Works or adopted by the Council, along their respective street frontage(s), unless otherwise specified in this Chapter.

Comment [S122]: This section may require additional revisions following preparation of a comprehensive pedestrian plan.

⁶²⁵ Current Sec. 25-46 relocated to Appendix A or an Administrative Manual.

⁶²⁶ Prohibition on more than two streets coming together was deleted. Creative and environmentally sensitive site design may require this to happen, and traffic circles are increasingly used.

⁶²⁷ New section that includes alley standards from existing Sec. 25-47.

⁶²⁸ Revised from residential areas to residential districts.

⁶²⁹ Carries forward current Article VI (Sidewalks), with revisions as noted, to implement the 2013 sidewalk master plan, and reference additional sidewalk requirements contained in Chapter 24 (Public streets, sidewalks, and public spaces). Current Section 25-48 (Sidewalks generally, plats approved before Jan. 1, 2001) has been deleted because if these areas are replatted they would need to meet the new standards. Current Sec. 25-48.1 (Sidewalks generally, plats approved after Jan. 1, 2001) is broken down with additional headings for readability and Chapter 24 requirements have been incorporated. Provisions for waiver or variance of sidewalk standards by Council have been deleted, because these issues can be addressed by the Planning Commission in the same way it addresses other subdivision design issues.

⁶³⁰ New provision to balance the elimination of Sec. 24-48 (plats approved before Jan. 1, 2001) acknowledging that the City has some unbuilt subdivisions that should be treated differently than partially built subdivisions.

(2) Standard Requirements⁶³¹

- (i) No permit shall be issued for the construction of a new building or additions to buildings on property located on an arterial or collector street unless:
 - (A) A sidewalk exists adjacent to the property along the arterial or collector street; or
 - (B) The plans for the building provide for the construction of such a sidewalk; or
 - (C) Otherwise specified as a note on the plat or in a performance contract between the developer and the City.⁶³²
- (ii) The requirements of subsection (i) do not apply to construction of accessory buildings.
- (iii) No certificate of occupancy shall be issued for any building described in subsection (i) if the building plans provide for construction of a sidewalk along an arterial or collector street unless the sidewalk has been constructed or the property owner has provided a bond, letter of credit or other instrument acceptable to the Director of Public Works guaranteeing construction of the sidewalk within six (6) months of issuance of the certificate of occupancy.
- (iv) Sidewalks are not required along streets classified as freeways.⁶³³
- (v) Sidewalks shall be required on both sides of expressways and frontage roads unless the Council determines that potential or existing pedestrian volumes do not necessitate sidewalks to safeguard the public health, safety and general welfare.⁶³⁴
- (vi) Sidewalks shall be constructed within all pedestrian easements and on both sides of all internal streets and on the abutting side of any adjacent street unless otherwise specified in this UDO.⁶³⁵
- (vii) A sidewalk shall not be required along a residential access street that is less than two hundred-fifty (250) feet in length and terminates in a cul-de-sac. Sidewalks shall be a minimum of five (5) feet in width along all other streets.⁶³⁶
- (viii) Where a final plat creates a common lot or a non-buildable lot, a sidewalk shall be constructed along the portion of each street abutting the lot at the same time the abutting street is constructed or within 3 years of such lot being created when such lots abut an existing street. No street shall be accepted for public maintenance upon which a common lot or non-buildable lot fronts without first having such sidewalk located adjacent to such lot being installed. This subsection shall not apply to any subdivision that received final plat approval before January 1, 2006.⁶³⁷

Comment [PRZ123]: Added to ensure enhanced sidewalk installation on high-volume streets

Comment [PRZ124]: Removed limited use list to ensure that "all" types of construction require installation of sidewalk unless the exceptions apply

Comment [PRZ125]: Provisions added for clarity.

⁶³¹ Integrates materials from this topic from Chapters 24 and 25. Provisions regarding sidewalks are obsolete and were deleted.

⁶³² Provisions 1 and 2 are from chapter 24; provision 3 is from current Sec. 25-48.1(d).

⁶³³ Current Sec. 25-50.

⁶³⁴ Current Sec. 25-51.

⁶³⁵ Part of Current Sec. 25-48.1(a).

⁶³⁶ Part of Current Sec. 25-48.1(a).

⁶³⁷ Similar provision allowing sidewalk construction one year after final plat approval has been deleted as inconsistent and unnecessary.

- (ix) Sidewalks shall be constructed to comply with the standards contained in this Section 29-4.3(b)(2) and with the City design standards and specifications established by the Director of Public Works or adopted by the Council.
- (x) Whenever a permit is issued to construct, reconstruct, repair, alter or grade any sidewalk curb, curb cut, driveway or street, handicapped ramps shall be required to be installed in accordance with design standards included in the City's standard plan and specifications at all curb and driveway crossings to be constructed, reconstructed, repaired or altered; provided, that the Director of Public Works may waive said requirement if he determines that requirement of handicapped ramps is impractical under all the circumstances.
- (xi) The Council may require a sidewalk to be constructed to standards higher than the minimum standards of this section 29-4.3(d)(2) provided that the City compensate the property owner for the additional cost of constructing the sidewalk.⁶³⁸

(e) Bike Lanes and Pedways⁶³⁹

Bicycle lanes and pedways shall be designed and constructed in accordance with Appendix A - "Design Standards for Streets, Sidewalks and Bikeways" and all applicable design standards and specifications promulgated by the Director of Public Works or adopted by Council.⁶⁴⁰

(f) Lots⁶⁴¹

(1) Lot Arrangement⁶⁴²

Lots shall be arranged to comply with building permit requirements of this Code as to minimum size and width in the zone district where the property is located, as well as access, relation to topography, provision of utility service, or other conditions specified in this Code or in other standards and specifications adopted by the City. Lots in subdivisions that qualify for the Solar Access Density Bonus in Section 29-4.1(b)(2) or the Cluster Subdivision Density Bonus in Section 29-4.1(b)(3), and lots that are organized to avoid sensitive lands as described in Section 29-4.3(b) shall comply with the minimum lot size and width in the zone districts where the lots are located, as adjusted by the provisions of those Sections of this Code.⁶⁴³

(i) Corner lots

Corner lots shall have sufficient width for compliance with front and side yard building setback requirements of the zoning ordinance.

Comment [PRZ126]: Location of such facilities at time of development are often uncertain. Consistent location requirements need to be developed. Potentially through reference to CATSO LRTP.

⁶³⁸ Current sec. 25-48.1(b).

⁶³⁹ Current Sec. 25-52.

⁶⁴⁰ In accordance with § 2 of Ord. No. 18097, "A copy of Appendix A shall be on file in the office of planning and development and in the office of the City clerk" was also deleted as unnecessary.

⁶⁴¹ Carries forward Article VII (Lots), with reorganization and rewording for clarity.

⁶⁴² Current Sec. 25-53. The intent behind this provision is restated in subsection 2 (Lot access) below.

⁶⁴³ Revised to reflect new bonuses and sensitive lands avoidance.

(ii) Side lot lines

Side lot lines should generally be at right angles to straight streets and radial to curved streets.

(iii) Tier lots

The Commission may allow tier lots on previously unplatted land when the following criteria are met:

- (A) Tier lot design is the only feasible means to access lots due to extreme topographic conditions;
- (B) The stem of a tier lot, that is, the portion of the lot which connects its required yard area and its buildable area with its public access, shall not be less than twenty (20) feet nor more than fifty-nine (59) feet in width and not shorter than twenty-five (25) feet nor longer than two hundred fifty (250) feet in length and may not be included within any required yard area under the zoning ordinance.
- (C) The allowance of tier lots will not endanger the public health, safety and general welfare.

Comment [S127]: Definition is needed

(iv) Frontage⁶⁴⁴

- (A) Except as otherwise provided and specifically authorized under this Code, all lots, tracts or parcels shall have actual frontage upon a street, which provides direct vehicular access to the lot.⁶⁴⁵ In context sensitive situations (e.g., topography, existing or proposed development patterns) where actual street frontage is not feasible, the Director may permit a lot with an irrevocable access easement suitable to the City Counsellor's office⁶⁴⁶ rather than actual street frontage, if the public health, safety, and general welfare is not compromised.
- (B) Common lots for the purposes of storm water management features may be created without having actual street frontage provided that such lots have an established means of ingress/egress by an irrevocable access easement suitable to the City Counsellor's office.
- (C) Common lots created for recreational purposes (active or passive) shall have a minimum of 20-feet of street frontage. Such frontage may be actual lot frontage or provided through an irrevocable access easement suitable to the City Counsellor's office.

Comment [PRZ128]: Added for clarity

Comment [PRZ129]: Provision added to clarify that isolated storm water parcels can be created

Comment [PRZ130]: Provision created to clarify 2-ways of providing access to a standard "common" lot

(v) Shape

Lots in Mixed Use or Special zone districts shall not be created with protrusions, extensions or stems of less than thirty (30) feet in width.⁶⁴⁷

⁶⁴⁴ Revised to allow for accessible rather than actual street frontage in context sensitive situations.

⁶⁴⁵ Current Sec. 25-54.

⁶⁴⁶ Since Module 3, reference to "major streets" replaced by "arterial or collector".

⁶⁴⁷ Current Sec. 25-54.2.

(2) Lot Access⁶⁴⁸

- (i) Each lot shall have access allowing vehicles, pedestrians, and bicycles to pass from a public street directly onto the lot, or from a public street to the lot over an irrevocable access easement suitable to the City Counsellor's office.⁶⁴⁹
- (ii) A maximum of thirty (30) lots or units shall be permitted to be accessed from a single point of ingress/egress unless otherwise specified by the most current adopted edition of the International Fire Code or authorized by the City of Columbia Fire Department.⁶⁵⁰
- (iii) Private residential driveways are prohibited on arterial or collector streets unless the Director determines that no alternative access is practicable.⁶⁵¹
- (iv) Streets that dead-end or "stub" into property that is adjacent to the property being subdivided shall not count as a second access until such time as the dead-end or "stub" street is connected to a through street and constructed to City standards.

(g) Public Improvements⁶⁵²

(1) Standards and Specifications⁶⁵³

All required public improvements, including but not limited to streets and utilities, shall be installed or constructed in accordance with the procedural requirements in Section 29-5 (Procedures and Enforcement), or in related public improvements standard specifications or policies established by the City department or other entity responsible for the design, operation, or maintenance of that type of improvement.⁶⁵⁴

(2) Drainage and Storm Sewers⁶⁵⁵

(i) Flood-prone areas

Any portion of land being subdivided that is located within the limits of maximum flooding of the one hundred (100) year flood, as determined by the Boone County Digital Flood Insurance Rate Map (DFIRM), released March 17, 2011, and amendments to that map on file with the Director of Community Development⁶⁵⁶ shall be

Comment [PRZ131]: Corrected for consistency

⁶⁴⁸ Current Sec. 25-54.1 renamed and reorganized for readability.

⁶⁴⁹ New provision.

⁶⁵⁰ New provision, per staff and fire department request, replacing existing table identifying maximum numbers of lots per access type for each zone district.

⁶⁵¹ Since Module 3, reference to "accessible street frontage" replace by reference to easement for parallel structure with other similar sections of the Code. New provision that generally prohibits residential driveway access on major streets, rather than listing the streets on which this access is prohibited.

⁶⁵² Carries forward provisions in Article VIII (Public Improvement) on design and construction of public improvements.

⁶⁵³ Carries forward Sec. 25-60 (a)(Improvements required) only. The other subsections have been relocated to Chapter 5 (Procedures and Enforcement).

⁶⁵⁴ Existing provision revised to refer to procedural requirements because existing Sections 25-27 to 33 provide preliminary and final plat review procedures.

⁶⁵⁵ Current Sec. 25-55.

⁶⁵⁶ Revised to reference the latest DFIRM.

developed so as not to endanger the health, safety and general welfare of the inhabitants of the City,⁶⁵⁷ and in compliance with the provisions of this Code.

(ii) Storm sewers

Storm sewers with curbs and gutters shall be provided for lots unless the Director of Public Works approves open channels with design features, such as vegetated swales and check dams to reduce runoff velocity and allow infiltration. Sidewalks and pedways shall not be located between the street and open channel. Improvements shall conform to standards contained in the City street and storm sewer specifications and design standards, and the City storm drainage standards, and all applicable design standards and specifications promulgated by the Director of Public Works or adopted by the Council.

(iii) Driveways across drainage features

Driveways that cross drainageways or ditches, to connect to public streets, shall be constructed as required by the Director of Public Works to protect traffic safety and avoid traffic congestion.⁶⁵⁸

(iv) Streets crossing streams

Streets that cross streams shall be designed and constructed to minimize the disruption to the stream channel and buffer zone. Streams should be crossed only when necessary to connect the street network.

(3) Street Trees

Notwithstanding the provisions of Section 29-4.5(b), installation of street trees all shall comply with the provisions of Section 29-4.5(d)(ii).

(4) Utilities⁶⁵⁹

Utilities, including but not limited to water, sewer, natural gas, electric and telephone lines, and fire hydrants, shall be provided to lots in accordance with standards and specifications governing the construction and installation of such utilities adopted by Council or promulgated by the City departments or utility companies responsible for those utilities.

Easements for public and private utilities shall be provided adjacent to all street right-of-way and in other locations in accordance with facility requirements and design standards. To the maximum extent feasible, utilities shall be located in designated easements and not in the street right-of-way.

Comment [PRZ132]: For enhanced usability provide list of service provider contacts

29-4.4 Parking and Loading⁶⁶⁰

⁶⁵⁷ Reference to "inhabitants thereof" was changed to cover all City residents.

⁶⁵⁸ Existing Sec. 25-55(c).

⁶⁵⁹ Current Sec. 25-56.

⁶⁶⁰ Carries forward current Sec. 29-30(Off-street parking and loading regulations) as base text, with substantial revisions as noted.

- (1) This section is not intended to prevent the use of a material or method of construction not prescribed specifically by this section, especially whenever a stream, natural rock formation or other physiographic condition exists; provided that any such alternate material or method has been approved in writing or in plan and its use authorized by the Director as providing at least equivalent quality, effectiveness, durability, hardness, and performance to the specific requirements of subsections (a) through (g) above.
- (2) The Director may modify the Property Edge Buffering standards of Section 29-4.5(e) by up to ten (10) percent (increase or decrease in width and height) if necessary to provide adequate buffering of impacts or to respond to specific site conditions.
- (3) The Director may modify the Property Edge Buffering standards of Section 29-4.5(e) if the Director determines that the design, height, location of uses, massing, and landscaping of the applicant's project mitigates potential adverse impacts on surrounding properties.
- (4) The Director may modify the Street Frontage Landscaping standards of Section 29-4.5(d) for properties involving outdoor sales of vehicles or equipment if the Director determines that strict application of these standards will significantly reduce visibility of the goods being sold from the fronting public street.
- (5) Where the requirements of this section are applied to a redevelopment or reconstruction project, rather than a new development, the Director may authorize a reduction of minimum off-street parking requirements established in Section 29-4.4, by up to ten (10) percent, if necessary to accommodate street frontage landscaping required by subsection (d) above or the parking area landscaping required by subsection (f) above.

~~(5)~~(6) Where the requirements of this Section 29-4.5 are applied to a redevelopment or reconstruction project, rather than a new development, the scope of compliance shall be commensurate with the scope of redevelopment.

Comment [D191]: Suggested addition to clarify that a minor reconstruction of a small portion of a large site does NOT obligate the entire site to come into compliance.

29-4.6 Stormwater and Natural Resources⁸³⁰

(a) Stormwater Management⁸³¹

(1) Purpose⁸³²

The purpose of this Section 29-4.6(a) is to establish minimum stormwater management requirements and controls to protect and safeguard the general health, safety and welfare of the public. This article is intended to meet that purpose through the following objectives:

⁸²⁹ Subsection 1 is current Sec. 29-25(h). Subsection 4 replaces current Sec. 29-25(i), which is very complex for its limited applicability to only two specific uses. Subsections 2, 3 and 5 are new.

⁸³⁰ New section that integrates stormwater and natural resource protection development standards in Ch. 12A (Land Preservation) into the Code. Current code requires the design of "a drainage system . . . to minimize the possibility of soil erosion and flood damage" in all existing zoning districts, except for the residential districts and requires a stormwater management plan in accordance with Ch. 12A for planned district rezoning and development plan approval. Other than that, stormwater, drainage, and erosion control is not addressed in existing Code.

⁸³¹ Current Ch. 12A, Article V. Legislative findings in 12A-85 were removed.

⁸³² Current Sec. 12A-86.

- (i) Minimize increases in stormwater runoff from any development in order to reduce flooding, siltation and stream bank erosion and stream channel degradation;
- (ii) Minimize increases in non-point source pollution caused by stormwater runoff from development which would otherwise degrade local water quality;
- (iii) Minimize the total annual volume of surface water runoff which flows from any specific site during and following development to not exceed the predevelopment hydrologic regime to the maximum extent practicable; and
- (iv) Reduce stormwater runoff rates and volumes, soil erosion and non-point source pollution, wherever possible, through stormwater management controls and to ensure that these management controls are properly maintained and pose no threat to public safety.

(2) Applicability⁸³³

- (i) This Section 29-4.6(a) shall apply to all developments that alter the surface of the land with the following exceptions and exemptions:
 - (A) Attached and detached single-family residences, farmland and domestic gardens are exempt from the provisions of this Section.
 - (B) The following exceptions apply when the development of the site results in a land disturbance of less than one (1) acre and is not a part of a larger common plan of development or sale that would disturb one (1) acre or more:
 - 1) Lots within an approved preliminary plat or final plat used for single-family and two-family residences and land disturbance on an individual residential building lot;
 - 2) Land disturbances of less than ten thousand (10,000) square feet that do not create more than five hundred (500) square feet of additional impervious surface;
 - 3) Maintenance and repair of impervious surface, including gravel and stone impervious surfaces; and
 - 4) Redevelopment of a site less than one (1) acre.
- (ii) Partial exemptions available
 - (A) Redevelopment on a site of one (1) acre or more, or that is a highly impervious surface site, is eligible for partial exceptions from the requirements of this Section 29-4.6(a), as set out in the stormwater manual, if the redevelopment, or highly impervious surface site:
 - 1) Does not have an adverse impact on any mapped critical downstream location;
 - 2) Incorporates water quality protection; and
 - 3) Does not reduce any Best Management Practices (BMPs) or stormwater management controls that includes performance standards, effective level of service, and runoff rates and volumes; and

⁸³³ Current Sec. 12A-87.

- 4) Increases water quality and performance standards with each development over time.
- (B) The Director of Public Works shall track, map, add and remove known critical downstream locations and make this information available to the public.
- (C) The Director of Public Works shall set forth criteria in the stormwater manual that details the partial exemption under this subsection.
- (iii) Stormwater management shall be provided in accordance with the conceptual stormwater management plan in the previous PUD, O-P, C-P, M-P and M-R zone districts⁸³⁴ for which a conceptual stormwater management plan was approved before September 4, 2007, or land in any other zoning district for which a site plan was approved before September 4, 2007, unless a revision to the plan for the site is requested which adversely impacts the stormwater discharge from the site. An "adverse impact" is one that significantly increases the volume of stormwater discharge from the site, decreases the water quality of the stormwater discharge, or redirects the stormwater discharge in a manner that results in downstream stormwater drainage impacts that would not have occurred with the original plan. Approvals for stormwater plans in the previous PUD, O-P, C-P, M-P, and M-R districts approved before September 4, 2012 shall expire on January 1, 2016, for sites on which the planned work has not commenced. Approval of all stormwater plans in the previous PUD, O-P, C-P, M-P, and M-R districts approved on or after September 4, 2012, shall expire seven (7) years after the date of approval if the planned work has not commenced. If work has commenced on a site under any of the approved stormwater plan scenarios indicated above, but development of the site is less than 25% complete one year after the start of construction, additional work is subject to any revisions to the stormwater standards in this Section during the remaining life of the approved stormwater plan.

(3) Required Plans⁸³⁵

(i) Stormwater management plan required

A stormwater management plan meeting all applicable requirements of the City is required for all development and redevelopment projects subject to this Section 29-4.6(a).⁸³⁶

(ii) Stormwater pollution prevention plan required⁸³⁷

If a proposed development includes activities with higher potential pollutant loadings, the Director of Public Works may require the developer to submit a stormwater pollution prevention plan. The Director of Public Works should be consulted before plan preparation if the applicant suspects additional stormwater management requirements would be necessary in order to address specific pollutants.

⁸³⁴ Old district names remain because this clause only relates to approvals before the new Code is adopted.

⁸³⁵ This section alerts readers to the Sec. 12A-88 stormwater management plan and Sec. 12A-89 stormwater pollution prevention plan requirements. Plan requirements will be included in an administrative manual.

⁸³⁶ Revised since Module 2 draft. Specific application requirements have been deleted from the Ordinance and will appear in an administrative manual.

⁸³⁷ Current Sec. 12A-89.

(4) Performance Standards⁸³⁸

The preparation of stormwater management plans shall comply with the following standards:

- (A) Best Management Practices (BMPs) shall be used to control the peak flow rates of stormwater discharge associated with specified design storms and to reduce the generation of stormwater runoff. These practices must use pervious areas to treat stormwater and to infiltrate stormwater runoff from driveways, sidewalks, roof tops and parking lots to the maximum extent practicable in order to improve water quality and reduce the quantity of stormwater runoff.
- (B) Annual groundwater recharge rates shall be maintained to the maximum extent practicable, by promoting infiltration by the use of structural and nonstructural methods. Annual recharge from the post-development sites should mimic the annual recharge from pre-development site conditions.
- (C) Structural stormwater facilities shall remove eighty (80) percent of the annual post-development total suspended solids load. It is presumed that facilities comply with this performance standard if they are:
 - 1) Sized to capture the prescribed water quality volume;
 - 2) Designed in accordance with the specific requirements and level of service criteria set out in the Stormwater Management and Water Quality Manual; and
 - 3) Constructed properly and maintained regularly.

(5) Stormwater Management and Water Quality Manual⁸³⁹

- (i) The Council has approved the Stormwater Management and Water Quality Manual prepared by the public works department dated January, 2007. The Director of Public Works is authorized to revise the Water Quality Manual periodically as advances in stormwater control practices evolve. All such revisions must be consistent with the provisions of this Section 29-4.5(a).
- (ii) The Director of Public Works is authorized to allow alternate and equivalent best management practices when using the level of service method outlined in the Water Quality Manual. The director shall consider alternate designs of best management practices when it is fully demonstrated that the alternate designs are equal to or better than designs contained in the Water Quality Manual.
- (iii) Any person who constructs, reconstructs, alters or repairs a stormwater management facility for which a permit is required shall conduct such work in accordance with the Water Quality Manual.

⁸³⁸ Current Sec. 12A-90.

⁸³⁹ Current Sec. 12A-91.

(b) Clearing of Trees⁸⁴⁰

- (1) The mechanized clearing of trees, logging of trees or clear-cutting of trees by any means on tracts of land of one (1) acre or more be unlawful unless done in compliance with a land disturbance permit pursuant to Chapter 12A in the City's Code of Ordinances and Chapter 29-5 of this UDO.
- (2) A minimum of twenty-five (25) percent of any climax forest area on any tract of land, one (1) acre in size or greater, is subject to land preservation requirements and shall remain undeveloped as one (1) continuous stand of timber and be platted as a separate lot. When the tract of land includes a stream buffer, none of the required tree/land preservation shall be within the stream buffer. Trees retained will count toward screening requirements contained in Section 24-4.5 (Landscaping and Screening).⁸⁴¹
- (3) When logging is to occur prior to approval of a tree preservation plan or on property not otherwise subject to land disturbance requirements, a logging plan demonstrating compliance with tree preservation requirements must be submitted to the City Arborist.⁸⁴² This logging plan will include the area in square feet of forest land, the area in square feet of climax forest, and demonstrate that twenty-five (25) percent of the area of climax forest will be preserved after logging. Each logging operation on the same site will require a separate land disturbance permit. Under no circumstance shall successive logging remove greater than seventy-five (75) percent of the climax forest present upon the site before logging.⁸⁴³
- (4) An approved Tree Protection and Preservation Plan shall be required prior to issuance of a land disturbance permit and during the activities associated with the land disturbance permit in accordance with administrative standards promulgated and enforced by the Director of Public Works, but under no circumstances shall activities with the potential of causing damage to the root systems of trees be allowed within the perimeter of the drip line of the trees being preserved, protected or planted as part of the landscaping plan.
- (5) Any land owner requesting annexation into the City shall abide by the tree preservation ordinance. Any land that did not follow the tree preservation ordinance must wait five (5) years before they are able to develop.

Comment [PRZ192]: Added for clarity

Comment [PRZ193]: Added to ensure preservation of timbered area

Comment [D194]: Removed 20% credit for timber within required buffer area.

Comment [PRZ195]: Revised for consistency

Comment [PRZ196]: Potential conflict between other protective standards. Will need to be verified

Comment [D197]: This provision recommended by Tree Task Force and the Environmental and Energy Commission.

(c) Stream Buffer Standards⁸⁴⁴

(1) Purpose⁸⁴⁵

The purpose of this Section 29-4.6(c) is to protect streams in the City by establishing minimum stream buffer requirements to assist in:

- (i) Restoring and maintaining the chemical, physical and biological integrity of streams;

⁸⁴⁰ Provisions from current Sec. 12A-49.

⁸⁴¹ Revised to indicate that this applies only to land areas one acre in size or greater and to require that no more than 20% of the required preservation area may be in stream corridors.

⁸⁴² Revised from Director of Public Works.

⁸⁴³ Current Sec. 12A-49(c).

⁸⁴⁴ Like current Ch. 12A, this section applies to redevelopment, including redevelopment of the new M-DT.

⁸⁴⁵ Current Sec. 12A-231. Findings restated as purposes.

- (ii) Removing pollutants delivered in urban stormwater;
- (iii) Reducing erosion and controlling sedimentation;
- (iv) Stabilizing stream banks;
- (v) Providing infiltration of stormwater runoff;
- (vi) Maintaining base flow of streams;
- (vii) Contributing organic matter needed by the aquatic ecosystem for food and energy;
- (viii) Providing tree canopy to shade streams and promote desirable aquatic organisms;
- (ix) Providing riparian wildlife habitat;
- (x) Furnishing scenic value and recreational opportunity;
- (xi) Protecting the public from flooding, property damage and loss; and
- (xii) Providing sustainable, natural vegetation.

(2) Applicability⁸⁴⁶

This Section 29-4.6(c) applies to all land in the City except the following:

- (i) Land used for agriculture or urban agriculture uses⁸⁴⁷ covered by an approved Natural Resources Conservation Services (NRCS) conservation plan that includes the application of Best Management Practices (BMPs).
- (ii) Land included in a preliminary or final plat approved before January 2, 2007.
- (iii) The portion of land for which a valid, unexpired building permit has been issued or for which application for a building permit is pending on January 2, 2007.
- (iv) Land used for surface mining operations that is operating in compliance with a state-approved surface mining permit.

(3) No Land Disturbance in Stream Buffer Before Plan Approved.⁸⁴⁸

It is unlawful for any person to clear, grade, disturb vegetation or build a structure on any land subject to this article that is located within one hundred (100) feet of a Type I Stream, fifty (50) feet of a Type II Stream or thirty (30) feet of a Type III Stream, as measured in section 12A-236(b), before the Director of Public Works has approved a stream buffer plan for the land, pursuant to Chapter 12A in the City's Code of Ordinances in accordance with Chapter 29.5 of this Code.

(4) Design Standards for Stream Buffers⁸⁴⁹

- (i) An adequate buffer for a stream system shall consist of a predominantly undisturbed strip of land extending along both sides of a stream and its adjacent wetlands, floodplains or slopes. The buffer width may be adjusted to include contiguous sensitive

⁸⁴⁶ Current Sec. 12A-232.

⁸⁴⁷ Replaced "farming activities" with "agriculture and urban agriculture" to align with revised definitions.

⁸⁴⁸ Current Sec. 12A-234. Measurements for determining stream type have not been carried over.

⁸⁴⁹ Current Sec. 12A-236.

areas, such as steep slopes or erodible soils, where disturbance may adversely affect water quality, streams, wetlands, or other water bodies. Buffer design shall meet the standards in this subsection (4). Where the provisions of this section indicate that deviations from those standards are possible, the determination to approve a deviation shall be made by the Director of Public Works based on considerations of public safety and protection of the stream environment.⁸⁵⁰

- (ii) The buffer shall begin and be measured from the ordinary high water mark of the channel during base flows.
- (iii) The required base width for all stream buffers is shown in Table 4.6-1.

Waterway Type	Required Width (each side)
Type I	100 feet
Type II	50 feet
Type III	30 feet

- (iv) Stream buffer width shall be increased where there are steep slopes in close proximity to the stream that drain into the stream system as set forth in Table 4.6-2.

Width Based on Slope	
Percent Slope	Width of Buffer
0—14%	No Change
15%—25%	add 25 feet
Greater than 25%	add 50 feet

- (v) The stream buffer width may be relaxed and the buffer permitted to become narrower at some points as long as the average width of the buffer meets the minimum requirement. This averaging of the buffer may be used to allow for the presence of an existing structure or to recover a lost lot, as long as the streamside zone (Zone I) is not narrowed by the averaging.

(5) Stream Buffer Function, Vegetation and Uses⁸⁵¹

- (i) The stream buffer shall be composed of two (2) distinct zones, each having its own function, allowed vegetation and permitted uses as set forth in this section and as summarized in Table 4.6-3. The streamside zone will begin and be measured as set forth in Section 29-4.6(c)(4)(ii) and extend away from the ordinary high water mark a distance as shown in Table 4.6-3. The outer zone will begin at the outside edge of the streamside zone and extend outward, away from the streamside zone the distances shown in Table 4.6-3.

⁸⁵⁰ Final sentence is new, to clarify who makes these decisions and based on what criteria.

⁸⁵¹ Current Sec. 12A-237.

Table 4.6-3: Stream Buffers

Streamside Zone				Outer Zone			
	Type I Waterway	Type II Waterway	Type III Waterway		Type I Waterway	Type II Waterway	Type III Waterway
Width	50	25	15	Width	50	25	15
Vegetation	Indigenous Vegetation			Vegetation	Type I - Indigenous Vegetation Type II - Managed Lawns Permissible Type III - Managed Lawns Permissible		
Uses	Flood control, footpaths, road crossings, utility corridors			Uses	Biking/hiking paths, flood control, detention/retention structures, utility corridors, stormwater BMPs, residential yards, landscaped areas		
Function	Protect the physical and ecological integrity of the stream ecosystem			Function	Protect key components of the stream and filter and slow velocity of water runoff		

- (ii) The width of the streamside zone is set forth in Table 4.6-3. The normal width of the outer zone is set forth in Table 4.6-3 but will vary if the stream buffer is increased or decreased on an approved stream buffer plan.
- (iii) The function of the streamside zone is to protect the physical, biological and ecological integrity of the stream ecosystem. The function of the outer zone is to prevent encroachment into the streamside zone and to filter runoff from residential and commercial development.
- (iv) Indigenous vegetation must be preserved in the streamside zone and in the outer zone of Type I Streams. Managed lawns are permitted in the outer zone of Type II and Type III Streams although landowners are encouraged to preserve or plant indigenous vegetation in order to increase the filtering capability of the buffering system.
- (v) The structures, practices and activities permitted in the streamside zone of the buffer are limited to the following:
 - (A) Roads and bridges;
 - (B) Utilities where no practical alternative exists;
 - (C) Paths and recreation trails (but use of the outer zone is preferred);
 - (D) Removal of diseased or dead trees, brush and trash;
 - (E) Removal of debris which could cause flooding;
 - (F) Selective (spot) spraying of noxious or other vegetation consistent with recommendations from the City arborist or the Missouri Department of Conservation;

- (G) Water quality monitoring and stream gauging;
 - (H) Maintenance of City-approved bank stabilization measures;
 - (I) Maintenance of all City-approved improvements, including utilities.
- (vi) The following practices and activities are specifically prohibited within the streamside zone of the stream buffer, except by the City:
- (A) Clearing of existing vegetation.
 - (B) Soil disturbance by grading, stripping, or other practices;
 - (C) Filling or dumping;
 - (D) Drainage by ditching, underdrains, or other systems;
 - (E) Use, storage, or application of pesticides, except as provided for in subsection (v)(F) above;
 - (F) Storage or operation of motorized vehicles, except for maintenance and emergency use approved by the City;
 - (G) Housing, grazing, or other maintenance of livestock.
- (vii) The structures, practices and activities permitted in the outer zone of the buffer are limited to the following:
- (A) All uses permitted in the streamside zone;
 - (B) Flood control structures;
 - (C) Detention and retention structures;
 - (D) Utility corridors;
 - (E) Stormwater BMPs;
 - (F) Managed lawns (Type II and III Streams only); and
 - (G) Landscaped areas.
- (viii) There shall be no septic systems, permanent structures or impervious cover, with the exception of foot paths, roads, bridges and utilities within the outer zone.
- (ix) The following activities are specifically prohibited within the outer zone of the stream buffer of Type I Streams, except by the City:
- (A) Clearing of existing vegetation;
 - (B) Soil disturbance by grading, stripping, or other practices.
 - (C) Filling or dumping.

(6) Additional Land Use Restriction Near Streams⁸⁵²

The following land uses and activities are potential water pollution hazards and must be set back from any stream or waterbody by the distance indicated in Table 4.6-4 below:

Land Use	Setback (ft.)
Storage and use of hazardous substances	300
Above- or below-ground petroleum storage facilities	300
Drain fields from on-site sewage disposal and treatment systems	200
Raised septic systems	200
Salvage yards or automobile recyclers	600
Confined animal feedlot operations	500
Tilled land (for crops)	200

(7) Temporary Boundary Markers⁸⁵³

Temporary boundary markers shall be installed by the applicant before clearing and grading operations begin and shall be maintained throughout the development activities. The markers will be placed on the outside edge of the buffer zone before the start of any activity adjacent to the buffer zone. Markers shall be clearly visible and shall be spaced at a maximum of one hundred (100) feet. The markers shall be joined by marking tape or fencing.

(d) Erosion Control Requirements⁸⁵⁴

(1) Erosion Control Plan

A soil erosion control plan shall accompany all applications for land disturbance permits. The purpose of the plan is to clearly establish what measures will be taken to prevent erosion and off site sedimentation during and after development. The erosion control plan shall consist of two parts, a site grading and drainage plan and a narrative report describing the nature and scope of the work. The plan shall be prepared and certified by a registered professional engineer, licensed in the State of Missouri.

(2) Design

- (i) Erosion and sedimentation control measures must be designed to provide protection from the runoff from a ten (10) year return frequency, 24-hour duration storm.
- (ii) All surfaces must be stable and non-erosive within the lesser of thirty (30) working days or one hundred twenty (120) calendar days after completion of the work authorized by the land disturbance permit. When such work is associated with the construction of a building, no certificate of occupancy shall be issued until such surfaces are stable and

⁸⁵² Current Sec. 12A-238.

⁸⁵³ Current Sec. 12A-239.

⁸⁵⁴ Current Sec.12A-66.

non-erosive. If completion of the work or building is at such time of the year that stabilization with ground cover is not possible, a performance bond or other acceptable financial instrument for completion of the work may be accepted to allow the issuance of a certificate of occupancy.

(3) Stockpiles of Soil⁸⁵⁵

- (i) A single stockpile of soil shall not exceed forty (40) feet in height or three (3) acres in area.
- (ii) The maximum allowed height of a stockpile of soil is determined by the minimum distance from each of the categories in Table 4.6-5:

Table 4.6-5: Setbacks Based on Maximum Height of Stockpiled Soil

Stockpile Height	Minimum Distance From			
	A Permitted Structure	An "Exterior"* Public Right-of-Way	An "Exterior"* Lot Line	Stream Buffer Outer Zone of Type I and II Streams
≥30 feet—40 feet	300 feet	200 feet	100 feet	100 feet
≥20 feet <30 feet	300 feet	150 feet	100 feet	100 feet
≥10 feet <20 feet	100 feet	100 feet	100 feet	100 feet
0 feet <10 feet	10 feet	10 feet	10 feet	10 feet

[1] "Exterior" refers to the perimeter of the subdivision or development. The minimum distances in the chart do not apply to the internal roads and lot lines within a subdivision or development.

- (iii) The side slope of a stockpile of soil shall not exceed a 3:1 ratio.
- (iv) Stockpiles of soil are not permitted in a stream buffer.
- (v) Stockpiles of soil shall be temporarily seeded in accordance with the Erosion and Sediment Control Manual issued by the director. The working face of the stockpile, however, need not be seeded.
- (vi) Stockpiles of soil that meet the requirements of this section may remain in place for up to three (3) years after issuance of a land disturbance permit. For good cause, the director may extend this time limit for intervals of up to three (3) years. At least sixty (60) days before the time limit expires, the applicant for such an extension must submit a letter to the director explaining the reason for the requested extension. The letter must be accompanied by a list of the names and addresses of the owners of all land within lines drawn parallel to and one hundred eighty-five (185) feet from the boundaries of the property on which the stockpile is located. The applicant shall send a copy of the letter to each of the property owners. If the director grants an extension, the director shall notify each of the property owners of the decision and advise the property owners of their right to appeal the decision to the Board under article VI.
- (vii) When the time limit for a stockpile of soil has expired, and no extension has been granted, the property owner must either remove the stockpile or grade it to a slope of

⁸⁵⁵ Current Sec. 12A-71.

no greater than a 4:1 ratio and permanently seed it in accordance with the Erosion and Sediment Control Manual issued by the director.

- (viii) Subsections (i) through (v) shall not apply to stockpiles of soil existing on November 1, 2010; provided that all such stockpiles must be removed no later than November 1, 2013 unless an extension is granted under subsection (6).
- (ix) This section shall not apply to soil stockpiled in connection with any street construction project.

29-4.7 Exterior Lighting⁸⁵⁶

(a) Purpose

The purpose of this Section 29-4.7 is to enhance the attractiveness and livability of the community for its citizens, both during the day and at night without compromising the safety, security, and well-being of persons engaged in outdoor nighttime activities. It is the intent of this section to control the obtrusive aspects of excessive and careless outdoor lighting usage while preserving, protecting, and enhancing the lawful nighttime use and enjoyment of property. Intended outcomes include:

- (1) Insuring that parking areas, public gathering places, approaches to buildings, and other areas active at night have adequate outdoor illumination.
- (2) Minimizing the adverse impacts on public safety and comfort due to excessive glare.
- (3) Providing minimum and maximum light levels and establishing standards of lighting uniformity to enhance night vision and security.
- (4) Minimizing spillage of light on adjacent or nearby property.
- (5) Minimizing the effects of skyglow.
- (6) Encouraging energy conservation through the use of efficient lighting technologies.

(b) IESNA Standards and Interpretations

The standards in this Section 29-4.7 are based on the standards in the IESNA Lighting Handbook, 9th Edition and "Lighting for Exterior Environments: An IESNA Recommended Practice," RP-33-99 both published by the Illuminating Engineering Society of North America. These publications shall be used in interpreting undefined terms and unclear provisions of this section. When new editions of these publications are available, the Environment and Energy Commission shall prepare a report to the Council setting forth any recommended changes in the standards of this section.

(c) Conformance with Applicable Codes

⁸⁵⁶ Carries forward Current Sec. 29-30.1(Outdoor lighting regulations), with revisions focused on energy efficiency, glare reduction, and community safety, as noted. Current Sec. 29-30.1(g)(3)(Maximum height for parking illumination in a planned district) was deleted as unnecessary, and a 500 foot distance requirement is excessive.

The maximum footcandles allowed on adjacent property is one (1.0) footcandle on residential properties and four (4.0) footcandles on non-residential properties.

(m) Private Street Lighting

Private street lighting is permitted provided the fixtures, wattage and output, fixture height, and spacing are comparable to the public street lighting standards set forth in Chapter 27 (Utilities) Sections 27-146 through 27-151 (Street Lighting) of the City's Municipal Code.

(n) Security Lighting

Security lighting shall comply with the following standards:

- (1) All security lighting fixtures shall be shielded and aimed so that illumination is directed only to the designated area and not cast on other areas. Lighting shall not be directed above a horizontal plane through the top of the lighting fixture, and the fixture shall include shields that prevent the light source or lens from being visible from adjacent roadways and properties. The use of general floodlighting fixtures is prohibited.
- (2) The maximum footcandles allowed on adjacent property is one-half (0.5) for residential and two (2.0) for non-residential.

(o) Sign Lighting

Illumination of signs shall conform to Section 29-4.10 (Sign Standards) of this Code. Location of illuminated signs and any lighting fixtures external to the signs shall be included on a lighting plan.

29-4.8 Design Standards and Guidelines⁸⁶⁶

(a) Intent

The intent of this section is to:

- (1) Allow full development of properties consistent with the dimensional standards established in Chapter 2 and Section 29-4.1 while establishing baseline requirements for building and site features that will create stable residential neighborhoods, mixed use, commercial, and industrial areas.
- (2) Enhance the public realm.
- (3) Reduce conflicts between existing and new structures.
- (4) Encourage effective development of street frontages and other public elements that enable new projects to add value to existing communities.

⁸⁶⁶ New section per the Detailed Outline to help Columbia encourage the quality and style of development it desires without applying form-based controls to all lots and blocks and use specific standards to all types of uses. In reviewing the new form-based standards in Section 29-4.2, the City should consider if any of those controls should apply to development outside of M-DT.

- (5) Encourage creative and sustainable design responses to contemporary opportunities.
- (6) Improve the overall design quality of the City through the use of objective standards that can be administered by the Community Development Department without the need for individualized design review of projects.

(b) Applicability

- (1) The standards of this section shall apply to all new development in any zone district except:
 - (i) Development or redevelopment in the M-DT district.
 - (ii) Structures in which the principal use is one of the following use categories or subcategories as shown in Permitted Use Table 29-3.1.
 - (A) One-family Detached residential;
 - (B) One-family Attached residential;
 - (C) Two-family residential;
 - (D) Park or Playground;
 - (E) Utilities;
 - (F) Parking Lot or Structure (primary use);
 - (G) Urban Agriculture;
 - (H) Farmer’s Market; ~~or~~
 - (I) Industrial (except Artisan Industry)
 - (iii) A change in the principal use of an existing structure that does not alter the exterior of the structure, or only affects the signage on the exterior of the structure.
- (2) In the case of a conflict between the design standards in this section and design standards applicable to a particular project because of its location in an overlay district listed in Section 29-2.3 (Overlay Zoning Districts), or because of a use-specific standard in Section 29-3.3 (Use-Specific Standards), the provisions of the overlay district or use-specific standard shall govern.

Comment [PRZ198]: Removed Heavy Commercial Services – It needs to comply

(c) Design Standards and Guidelines

Comment [PRZ199]: Revised for clarity

(1) Entries

Each principal building shall have one or more operating entry doors facing and visible from an adjacent public street. The location of the entry on the building façade shall be emphasized by the use of different materials, wall articulation around the entry, or foundation plantings around the entry.

(2) Transparency

- (i) When the primary use of the ground floor frontage of a structure categorized as Food and Beverage Service, Office, Personal Services, or Retail in Table 29-3.1, a minimum of

twenty (20) percent of each facade area that faces a public street shall be composed of transparent materials.

- (ii) At least one-half of this amount shall be provided so that the lowest edge of the transparent materials is no higher than four (4) feet above the street level.
- (iii) If the Director determines that transparent materials are not practical for security reasons or based on the nature of the permitted ground floor use, an alternative treatment providing equivalent or better visual interest may be approved.

(3) Wall Plane Articulation

When the primary use of the building is not categorized as Industrial in Table 29-3.1, each facade greater than one hundred (100) feet in length abutting a public street shall incorporate architectural features such as wall plane projections, recesses, or other building material treatments and textures that visually interrupt the wall plane. No uninterrupted length of any facade shall exceed one hundred (100) horizontal feet.

(4) Roof Shape

- (i) When the primary use of the building is not categorized as Industrial in Table 29-3.1, and the building has a sloping roof, at least one projecting gable, hip feature, or other break in the horizontal line of the roof ridgeline shall be incorporated for each one hundred (100) lineal feet of roof.
- (ii) When the primary use of the building is not categorized as Industrial in Table 29-3.1 and the building has a flat roof, the design or height of the parapet shall include at least one change in setback or height of at least three feet along each one hundred (100) lineal feet of façade.

(5) Canopies and Awnings

All canopies and awnings shall be mounted with a minimum vertical clearance of seven (7) feet between sidewalk grade and the bottom edge of the canopy or awning.

(6) Loading Dock and Delivery Areas⁸⁶⁷

Loading dock doors and delivery areas shall be located at the rear of buildings to separate customer and employee traffic from loading and service vehicles, unless the Director determines that such location is impracticable given the function and operating needs of the building.

29-4.9 Neighborhood Protection Standards⁸⁶⁸

(a) Intent

This section is intended to preserve the residential neighborhood character of established homes within multi-family districts and adjacent to Mixed Use or Special zoning districts.

⁸⁶⁷ New standard in response to public comment.

⁸⁶⁸ New section.

(b) Applicability

These standards apply:

- (1) To all lots in the R-MF district that contain a principle use other than a single- or two-family dwelling; and
- To all lots located in any zone district other than the R-1 and R-2 districts that shares a side or rear lot line with a lot in the R-1 or R-2 district.

Comment [PRZ200]: Use drives when NP standards apply. If not developing a SF or 2-Fam you have to comply with NP standards

Comment [PRZ201]: Zone district of developing parcel drives compliance with NP standards. If developing parcel is not in R-1 or R-2 and adjacent to R-1 or R-2 NP standards apply

(c) Building Height⁸⁶⁹

Buildings constructed after the effective date of this Code with a height greater than twenty-four (24) feet shall reduce the perceived height of the building when viewed from abutting lots by using at least one (1) of the following techniques.

A transitions graphic will be included in the Final Integrated Draft.

- (1) "Stepping down" building height of any portion of the building within twenty-five (25) feet of the side and rear lot lines to a maximum of twenty-four (24) feet.
- (2) Increasing the side yard and rear yard setbacks a minimum of ten (10) feet beyond that otherwise required in the zone district where the property is located.

Comment [PRZ202]: Revised from 30 feet. Generally corresponds to a 2-story structure

Comment [PRZ203]: Removed "adjacent" for clarity

Comment [PRZ204]: Replaced 100 feet. Original considered excessive and impractical

Comment [PRZ205]: Reduced to match above

(d) Screening and Buffering

The standards of Section 29-4.5(e) apply. In addition, when the standards of that Section require the construction of an opaque wall or fence, the following applies:

- (1) If the applicant's property is in the R-MF district, the required landscaping shall be installed on the side of the fence or wall facing towards the adjacent lot with a single- or two- family dwelling; and
- (2) If the applicant's property is in any other district except the R-1 or R-2 districts, the required landscaping shall be installed on the side of the fence or wall facing towards the R-1 or R-2 district.

(e) Parking, Loading, and Circulation⁸⁷⁰

- (1) No parking area, drive-through lane, or vehicle circulation driveway shall be located between a principal structure on a lot containing a use other than a single- or two-family use and any side property line abutting a lot containing a single- or two-family dwelling.⁸⁷¹

Comment [PRZ206]: Added for consistency

⁸⁶⁹ New standard. This replaces the current code requirements for a 10 foot side yard where O-1 & 2, C-1 & 3, and M-1 districts abut residential districts.

⁸⁷⁰ Carries forward and clarifies existing standards and introduces a new provision.

⁸⁷¹ New provision. Sec. 29-30(h)(1) prohibiting parking within 6 feet of an adjoining lot in a residential district has been deleted because subsection (c) already adopts a larger setback standards. The Director may adjust the standards if compliance would make site development impracticable.

- (2) If the context of a site makes subsection (1) above impractical, the Director may approve a parking lot design that locates a parking area, drive-through lane, vehicle circulation driveway, or a combination of these three site planning elements, in the area described in subsection (1) above, provided all of those three site planning elements are located at least six (6) feet from an adjacent lot containing a single- or two-family dwelling.

(f) Lighting Height⁸⁷²

The maximum height of any lighting pole within fifty (50) feet of the side or rear lot lines shall be 20 feet.⁸⁷³

29-4.10 Sign Standards⁸⁷⁴

(a) Purpose⁸⁷⁵

The purposes of these sign regulations are:

- (1) To allow the effective use of signs as a means of communication in the City;
- (2) To maintain and enhance the City's ability to attract sources of economic development and growth;
- (3) To improve pedestrian and traffic safety;
- (4) To minimize possible adverse effects of signs on nearby property;
- (5) To bring all signs into compliance with adopted regulations;
- (6) To enable the fair and consistent enforcement of these sign regulations.
- (7) To maintain and enhance the appearance of the community.
- (8) To comply with all applicable federal and state laws regarding the First Amendment and free speech.

(b) Applicability⁸⁷⁶

The standards of this Section 29-4.10 apply to the erection of any sign of any type within the City, unless specifically exempted or excluded by a provision of this Code. In addition to the provisions of this Section 29-4.10, all properties must comply with any sign regulations contained in any Use-specific Standard in Section 29-3.3 applicable to the property. In the event

⁸⁷² New section that is also referenced in Sec. 29-4.7(g)(3)(iii).

⁸⁷³ New provision.

⁸⁷⁴ Integrates Ch. 23 (Signs) of the City's municipal ordinance into this Code. Current sign development standards are integrated into this Chapter 29-4. Sign definitions have been included in Chapter 1. Changes are minimal and footnoted. While legal action challenging content-based sign regulations are rare and generally unsuccessful, these regulations have been generally reviewed for content-based material.

⁸⁷⁵ Current Sec. 23-0.5.

⁸⁷⁶ New section.