

Chapter 10	Tree Canopy, Landscaping and Open Space		
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The intent of this Part is to protect, conserve and replace trees in order to enhance community character, provide wildlife habitat, maintain air and water quality, prevent soil erosion, provide noise buffers, and enhance property values. This Part is also intended to provide several alternative means to the Planning Commission to further the goals and objectives of the Comprehensive Plan by providing for flexible tree canopy requirements subject, however, to specified standards and findings. Tree canopy standards shall be met on site to the maximum extent feasible and tree preservation is the preferred means of accomplishing canopy objectives. Where neither preservation nor replacement on site is practical due to the specifics of the development site and/or the general nature of the development, it is intended that tree canopy not provided on site be required to be placed on an appropriate alternative site within the city and/or county.

*The following terms relating to Tree Canopy are included in the Definitions (Chapter 1 Part 2): **Caliper, Dripline, Tree Canopy, Tree, Type A, Tree, Type B, Tree, Type C***

10.1.1 Relationship to the Comprehensive Plan

The tree canopy regulations prescribed by this Part are intended to implement the following Cornerstone 2020 Comprehensive Plan Goals and Plan Elements.

Goals	Plan Elements
Livability Strategy Goals F2; F3; F4; G4	Guidelines 3, 10, 13

10.1.2 Applicability and Basis of Calculation

- A. The requirements of this Part shall apply to all new residential subdivisions creating more than five (5) buildable lots and to all new multi-family and nonresidential development. New single-family residential construction shall provide tree(s) in accordance with the residential design standards found within chapter 5.
- B. Expansion or reconstruction of an existing nonresidential building or development shall be subject to the requirements of this Part as follows:
 - 1. Any development site on which there is an increase in building area or impervious surface area by **more than fifty (50) percent** or where a structure has been demolished and a new structure has been built in its place shall fully comply with the tree canopy requirements set forth in this Part.
 - 2. Any development site on which there is an increase in building area or impervious surface area by **more than twenty (20) percent and less than fifty (50) percent** shall provide one-half (1/2) the tree canopy required by this Part.

3. Any development site on which there is an increase in building area or impervious surface area by twenty (20) percent or less shall not be required to provide the tree canopy required by this Part.
- C. The requirements of this Part shall apply to the entire area shown on a development plan and the required canopy may be equally distributed throughout that area or be concentrated in certain parts or portions of that area.

Note: This provision (10.1.2, C) allows residential subdivisions and multi-lot commercial developments to group trees in clusters throughout the development rather than meeting the canopy requirements on a lot-by-lot basis.

10.1.3 Alternatives for Compliance

The tree canopy requirements of this Part may be satisfied at the applicant's discretion by any combination of the following means.

- A. Preservation of existing trees or tree stands on the development site.
- B. Planting new trees on the development site or as street trees on adjacent rights-of-way.
- C. Planting new trees on an alternative site approved by the Planning Commission, at the applicant's expense.

The Planning Commission may approve an alternative site for the planting of an equivalent number/amount of trees that meets any one of the following criteria: (1) a site within a public park approved by the Metropolitan Parks Department; (2) a site on a public road right-of-way, not adjacent to the development site, approved by the Director of Works or by the appropriate state or federal official in the event that the site is on a state or federal road; (3) a privately developed site upon which affordable housing has been constructed or is to be constructed; and (4) a site of existing development where the Planning Commission finds that additional tree canopy would be in the public interest. In any such case, the Planning Commission may condition its approval of an alternative site upon the agreement of the applicant to plant a tree or trees of a type that is deemed appropriate for the site. It should be noted that using an alternative site to meet the tree canopy requirements is an option available to developers that must be approved by the Planning Commission. In no case shall the Planning Commission require the off-site planting of trees to meet the requirements of this Part.

10.1.4 Tree Canopy Standards

- A. The tree canopy on a development site shall meet the applicable standards according to the site's form district, proposed land use and the amount of tree preservation, as set forth in Tables 10.1.1 and 10.1.2, below. (Percentages refer to the relation of tree canopy to gross site area in square feet.)

Table 10.1.1 Tree Canopy Categories by Form District

Land Use	Form District			
	Downtown, Traditional Marketplace Corridor, Traditional Workplace	Traditional Neighborhood	Regional Center, Town Center, Suburban Marketplace Corridor, Neighborhood, Suburban Workplace, Campus	Village
Single-Family Residential	Class A	Class B	Class C*	Class D
Multi-Family and Office	Class A	Class B	Class C	Class D
Institutional	Class A	Class B	Class C	Class D
Commercial	Class A	Class A	Class C	Class C
Industrial	Class A	Class A	Class B	Class C

* Docket No. 9-26-03; see website for adoption status outside Louisville Metro

Table 10.1.2 Minimum Tree Canopy Coverage

Class Canopy Requirement per Table 10.1.1	Preserved Tree Canopy Coverage Area	New Tree Canopy Coverage Area	Total Tree Canopy Coverage Area Required
Class A	5%	0%	5%
	4%	2%	6%
	3%	4%	7%
	2%	6%	8%
	1%	8%	9%
	0%	10%	10%
Class B	10%	0%	10%
	8%	3%	11%
	6%	6%	12%
	4%	9%	13%
	2%	12%	14%
	0%	15%	15%
Class C	15%	0%	15%
	12%	4%	16%
	9%	8%	17%
	6%	12%	18%
	3%	16%	19%
	0%	20%	20%
Class D	20%	0%	20%
	15%	6%	21%
	10%	12%	22%
	5%	18%	23%
	0%	24%	24%

B. Developments shall be entitled to a reduction in the tree canopy requirement prescribed in Tables 10.1.1 and 10.1.2 as follows:

1. Any residential subdivision receiving at least 3.5 points for the provision of diversity housing in accordance with **Chapter 4 Part 5** (Alternative Development Incentives) of the Land Development Code shall receive a 33% reduction.
2. Any development located in the Downtown, Traditional Marketplace Corridor, Traditional Workplace and Traditional Neighborhood Form Districts shall receive reductions as follows:

a. Tree Canopy Reduction for Nonresidential Development:

Development Floor Area Ratio (FAR)	Total Tree Canopy Reduction
FAR 0.29 or Less	No Reduction
FAR 0.30 to 0.49	33% Reduction
FAR 0.50 to 0.99	66% Reduction
FAR 1.0 and Greater	100% Reduction

b. Tree Canopy Reduction for Multi-Family Residential Development:

Development Density (Dwelling Units per Acre)	Total Tree Canopy Reduction
12.00 Du/Acre or Less	No Reduction
12.01 to 16.00 Du/Acre	33% Reduction
16.01 to 22.00 Du/Acre	66% Reduction
22.01 Du/Acre and Greater	100% Reduction

c. Tree Canopy Reductions for Single Family Residential Developments:

Development Density (Dwelling Units per Acre)	Total Tree Canopy Reduction
4.4 Du/Acre or Less	No Reduction
4.41 to 5.5 Du/Acre	33% Reduction
5.51 Du/Acre and Greater	66% Reduction

Note: All reductions shall be based on the total square feet of tree canopy needed on a site to meet the requirements of Tables 10.1.1 and 10.1.2.

NOTE: These reductions in the tree canopy requirements have been created in an effort to support a more compact and efficient urban form and to support infill development opportunities.

Note: Any trees or tree stands that are being preserved to meet the minimum requirements of this Part shall also be subject to the requirements of **Chapter 10 Part 4 (Implementation)** of the Land Development Code.

- C. Preservation of existing tree canopy in excess of the cover specified in Tables 10.1.1 and 10.1.2 and retention of trees in sensitive natural areas are encouraged. However, removal of existing tree canopy that covers a greater percentage of the site than stipulated in the minimum standards set forth above is permissible unless restricted by an approved development or subdivision plan or by other applicable provisions of this Land Development Code.
- D. Any tree preserved or planted to meet the minimum requirements of this Part shall be maintained in healthy condition and shall be replaced if it becomes diseased or dies.
- E. The Planning Director may require that any trees and/or tree stands preserved to meet the requirements of this Part be inspected and found to be healthy and free of disease by a certified arborist or registered landscape architect if, upon inspection of the site, he/she or his/her designee sees evidence that indicates that some or all of said trees may be unhealthy and may not be appropriate for preservation.
- F. All new trees proposed to meet the requirements of this Part shall be planted within six months of the completion of the development. When a development is to be completed in phases, trees shall be provided for each phase as determined appropriate by the Planning Director.
- G. When trees are planted off-site or on private property to meet the requirements of this Part, the applicant shall provide the Planning Director with documentation that sufficient measures have been taken to ensure the preservation and, when necessary, the replacement of said trees. Examples of such measures would include, but not be limited to, including preservation and replacement provisions in a subdivision's deed of restrictions or within a development's binding elements or by placing all of the required trees within a conservation easement or a Woodland Protection Area (WPA).

10.1.5 Calculation

- A. Any development site greater than two acres in size shall be permitted to determine the area of existing tree canopy coverage to be preserved by ground checking, aerial analysis, or any other method determined to be accurate by DPDS staff. If ground checking is utilized, then each individual tree (i.e. a tree not grouped with other trees or a part of a tree stand) intended to be retained and used to meet the tree canopy requirements herein shall be measured to determine its caliper and the credit given for that tree shall be in accordance with Table 10.1.3, below.
- B. For any development site two acres or less in size the area of tree canopy coverage for any group of trees to be retained in order to meet the tree canopy requirements of this Part shall be determined by ground checking. Credit for existing trees intended to be retained may be calculated in either of two ways:

1. measurement of the trunk to determine its caliper and the credit given for that tree shall be in accordance with Table 10.1.3, below; or
 2. the dripline may be plotted on the site plan and tree canopy credit given for the percentage of the site within the dripline.
- C. New trees planted to meet the requirements of this Part shall be given credit in accordance with Table 10.1.3, below. Such trees must meet the standards of **Chapter 10 Part 4** at the time of planting.
- D. Street trees planted in accordance with **Section 10.2.8** shall qualify for a 25% bonus in the amount of credit listed in Table 10.1.3. This credit shall apply to street trees that are mandated as well as those planted on a voluntary basis.
- E. In calculating the required number of trees, fractions less than .5 shall be dropped and greater than or equal to .5 shall be rounded up.

NOTE: *Street tree bonus: for example, a development that provides three Type A trees two inches in caliper shall receive credit for 2,250 sq ft of tree canopy.*

Note: *Table 10.1.3 gives credit for 50% of the mature canopy size when a 1 3/4" – 3" caliper tree is planted.*

Table 10.1.3 Tree Canopy Credit

Chapter 1 Caliper	Chapter 2 Tree Type**	Chapter 3 Amount of Credit (per tree)
10 inches or greater	Type A	1,200 sq. ft. (100% mature canopy size)
	Type B	720 sq. ft. (100% mature canopy size)
	Type C	177 sq. ft. (100% mature canopy size)
Greater than or equal to 3 inches and less than 10 inches	Type A	960 sq. ft. (80% mature canopy size)
	Type B	576 sq. ft. (80% mature canopy size)
	Type C	142 sq. ft. (80% mature canopy size)
Greater than or equal to 1 3/4 inches and less than 3 inches	Type A	720 sq. ft. (60% mature canopy size)
	Type B	432 sq. ft. (60% mature canopy size)
	Type C	106 sq. ft. (60% mature canopy size)
Greater than or equal to 1 inch and less than 1 3/4 inches*	Type A	600 sq. ft. (50% mature canopy size)
	Type B	360 sq. ft. (50% mature canopy size)
	Type C	89 sq. ft. (50% mature canopy size)

“Caliper” - *The diameter of a tree trunk, measured 6 inches above the ground for newly installed trees and at 4 feet-6 inches above the ground (breast height) for existing trees.*

* See Chapter 10, Part 4 for criteria to plant trees less than 1 3/4 inch caliper.

** Tree are categorized as A, B and C—Large, Medium and Small; refer to Appendix 10A for species that fall within each category.

10.1.6 Tree Preservation Plan Requirement

All applicants for development proposals which seek credit for existing tree canopy to attain the minimum canopy coverage specified in this Part shall submit a Tree Canopy Preservation plan. The content of such a plan is dependent upon the means by which the existing tree canopy is to be calculated as follows:

NOTE: Refer to 10.4.8 for requirements relating to tree protection during construction.

- A. If no ground checking is used to determine the existing tree canopy, then the plan shall depict the location of existing stands of trees on the site and adjacent public rights-of-way that are proposed to be retained and those that are proposed to be removed, if any.
- B. If ground checking is used to determine the existing tree canopy, then the plan shall depict the location, species and size (caliper) of any individual existing tree that is proposed to be retained to meet the requirements of this Part. The location of existing stands of trees on the site that are proposed to be retained and those that are proposed to be removed shall also be provided.
- C. Standards for Tree Canopy Preservation Areas
 1. Tree Canopy Preservation Areas (TCPA) are those areas where tree preservation has been provided to meet the tree canopy requirements of this part.
 2. The site shall be developed in accordance with the Tree Canopy Preservation Plan. The location of the TCPA boundary delineates the limit of disturbance associated with the TCPA. The limit of disturbance shall indicate the location of the tree protection fencing.
 3. No clearing, grading, construction or other land disturbing activity shall take place within the TCPA beyond pruning to improve the general health of the tree or to remove dead or declining trees that may pose a public health and safety threat. As trees are lost through natural causes, new trees shall be planted in order to maintain minimum tree canopy as specified in this part. Exception: Single Family residential development may remove trees from the TCPA as long as they are replaced with trees of a similar type (e.g. A, B or C).
 4. Location of Structures and Parking
 - a. no structure shall be closer than 15 feet to the Limit of Disturbance (Tree Protection Fence).
 - b. No vehicle use area (VUA) shall be closer than 10 feet to the Limit of Disturbance (Tree Protection Fence).

5. During all construction activity (includes clearing, grading, building construction and VUA construction) a copy of the approved Tree Canopy Preservation Plan shall be on-site.

10.1.7 Landscape / Buffer Credit

Any existing trees on a site or street trees planted on an adjacent right-of-way that are used to meet the requirements of this Part shall be credited towards fulfillment of any landscaping, screening, or buffering provisions of this Chapter.

10.1.8 Waivers

- A. The Planning Commission shall have the authority to grant waivers or modifications of the tree canopy requirements contained in this Part in accordance with Chapter 11 Part 8 of the Land Development Code.
- B. The Planning Commission's designee may waive the requirement for a public hearing and take action on requests for reduction of five (5) or fewer trees or a reduction constituting less than ten (10) percent of the total tree canopy requirement, whichever is greater. Notice shall be sent in accordance with Chapter 11 Part 8 stating that a waiver request has been filed and that the Planning Commission's designee may waive the public hearing requirements and take action on the request.
- C. Required Findings; In granting a waiver the Planning Commission's designee must find that:
 1. The waiver is in compliance with the Comprehensive Plan.
 2. The applicant made a good faith effort to provide as many trees as possible on the site, on the adjacent right of way, or on an alternative site as specified in 10.1.3; and
 3. There are other mitigating circumstances affecting this site which do not generally apply to sites developed for the same use and in the same form district.

A well designed landscape, when made an integral part of a development plan, provides aesthetic appeal and makes an important contribution to the health, safety, and general welfare of the community by:

- A. Reducing noise pollution, air pollution, and visual pollution;
- B. Lowering air temperatures and glare associated with heat islands, large impervious surfaces and reflected sunlight;
- C. Improving the appearance of *vehicular use areas* (VUAs) and property abutting public rights-of way, and;
- D. Preserving, protecting, and promoting the aesthetic appeal, character, and value of surrounding properties

Open space and Landscape Buffer Areas (LBA) are one of several options to provide needed relief from the effects of urbanization and make an important contribution to the health, safety, and general welfare of the community by:

- A. Creating suitable transitions where varying forms of development adjoin;
- B. Minimizing the negative impacts resulting from adjoining incompatible land uses;
- C. Decreasing storm water run off volumes and velocities associated with impervious surfaces, and;
- D. Filtering air borne and water borne pollutants.

10.2.1 Relationship to the Comprehensive Plan

The landscape design regulations proscribed by this Part are intended to implement the following Cornerstone 2020 Comprehensive Plan Goals and Plan Elements.

Goals	Plan Elements
Community Form Goals C4; D4; E4; F4; G4; H4; J4	Guidelines 1, 2, 3, 13
Livability Strategy Goal F2	

10.2.2 Applicability

NEW DEVELOPMENT - No site development, building or structure shall hereafter be constructed nor vehicular use area (VUA) created unless landscaping is provided as required by the provisions of this part. Any building, structure or VUA that in its entirety is removed and reconstructed, or relocated to a new on-site location, shall be considered new development for purposes of this part. Any VUA that in its entirety is changed from gravel, stone or similar material to asphalt or concrete pavement shall be considered new development for purposes of this part.

- A. Existing Development is subject to this part as defined below:
1. Any increase/expansion of an existing building/structure's square footage by 20% or more
 2. Any expansion of an existing VUA square footage by 20% or more or a change of 20% or more of VUA surface from gravel, stone, or similar material to asphalt or concrete pavement (semi-pervious pavers exempted)
 3. Any increase in the combined square footage of building/structure and VUA (as described in #2) of 20% or more of the combined square footage.
- B. When such improvements are made, the following landscape provisions shall be required:
1. Expansion by greater than 20% and less than 50% - only the area of new improvements shall be subject to the requirements of this part.
 2. Expansion by 50% or greater - the entire site shall be subject to the requirements of this part.
- C. Small Sites (development which in its entirety occupies a site measuring no more than 10,000 square feet):
1. Expansion by greater than 20% and less than 50% - no landscaping required.
 2. Expansion by greater than 50% - only the area of new improvements shall be subject to the requirements of this part..

CHANGE OF USE - Change in the use of property, from a use not required to provide landscaping and buffering to a use that is regulated by this part, shall necessitate the provision of landscaping and buffering as required by this part.

NON-CONFORMANCE – No changes shall be made to sites that do not conform to this Part of Chapter 10 that would increase the non-conformance with this part. Existing Landscape Buffer Areas, screening, and plant material on non-conforming sites that partially meet the requirements of this part shall be retained.

Planting and Buffering required in this Part can count towards requirements in other parts of this regulation. However, compliance with **Chapter 10 Part 2** does not substitute for compliance with other applicable Parts of this regulation.

10.2.3 Landscape Buffer Area Requirements

Landscape Buffer Areas minimize the potential for nuisances created when zoning districts or land uses of varying intensities abut, and shall be required for all new construction subject to these regulations. Landscape Buffer Area requirements shall be applied along property or right-of-way lines and at the perimeter of Vehicular Use Areas. Landscape Buffer Areas shall also be applied adjacent to designated Parkways and Scenic Corridors.

Landscape Buffer Areas shall be provided on the site of the more intense use or zoning district except when the more intense use was present prior to the effective date of this regulation. When more than one Landscape Buffer Area requirement applies, the more restrictive standards shall be used.

10.2.4 Property Perimeter Landscape Buffer Areas

- A. General Requirements: Property Perimeter Landscape Buffer Areas shall be applied along all property boundaries of sites affected by this ordinance except for those boundaries adjacent to streets.

Zoning Districts and their associated land uses have been grouped into the following five intensity classes for the purpose of applying property perimeter Landscape Buffer Area requirements; refer to Table 10.2.1.

Table 10.2.1 Intensity Classes and Zoning Districts

INTENSITY CLASS	ZONING DISTRICTS
1	R-R, R-E, R-1, R-2, R-3, R-4, R-5, PRD, R-5B, PVD
2	R-5A, R-6, U-N, TNZD
3	R-7, R-8A, OR, OR-1, OR-2, OR-3, OTF, C-R
4	C-N, C-1, C-2, M-1, C-M, PTD, PEC ¹ , PRO ¹
5	M-2, M-3, EZ-1, utility substations, landfills, treatment plants or similar uses

STEP 1

Determine intensity class for the proposed use and adjacent sites.

¹-These Zoning Districts have additional landscape and buffering requirements.

CUP sites located in a residential zoning district shall provide buffering as per the requirements for uses permitted in the C-1 Zoning District, or alternative buffering and landscaping as approved by the Board of Zoning Adjustment.

Exceptions to the buffering requirements can be found in [Section 10.2.5](#)

All development subject to this Part, as defined in **Section 10.2.2**, shall provide Landscape Buffer Areas and plantings as defined in Tables 10.2.2, 10.2.3 and 10.2.4. Associated with each Landscape Buffer Area requirement is a planting density requirement. The planting density requirement indicates the minimum amount of landscape material to be provided within each Landscape Buffer Area to ensure an appropriate screen.

Step 2

Based on intensity class of proposed and adjacent uses, determine applicable entries in Tables 10.2.3 and 10.2.4.

Table 10.2.2 LBA Size and Planting Requirements

Intensity Class of Adjacent Site	Proposed Use			
	2	3	4	5
1	B.2**	B.3	C.4	D.4
2		A.2	C.4	D.4
3			B.4	C.4
4				A.1

** - Letter entries in this table reference Table 10.2.3; numbers refer to requirements of Table 10.2.4.

Table 10.2.3 Property Perimeter Landscape Buffer Areas

Landscape Buffer Area Type	Width Options (in feet)	Planting Density Multiplier ²
A	5 ¹	2
	10	1.5
	15	1
B	10 ¹	1.5
	15	1.5
	20	1
C	15 ¹	1.5
	25	1.5
	35	1
D	25 ¹	1.5
	35	1.5
	50	1

STEP 3

Select Buffer Yard width option and associated planting multiplier.

¹ This option is only available in the Traditional Neighborhood, Traditional Workplace and Traditional Marketplace Corridor Form Districts.

² The Planting Density Multiplier allows for a reduction in the size of Landscape Buffer Areas with a provision of an increased number of trees to offset the reduction in buffer width. (A "2" multiplier requires twice the number of trees to be planted as required in Table 10.2.4.)

Table 10.2.4 Planting Density and Screening

Planting Density Requirement Categories (per 100 linear feet)			
1	2	3	4
2 Large (Type A), Medium (Type B) or Small (Type C) tree + 3 foot screen	2 Large (Type A) or Medium (Type B) trees + 6 foot screen	3 Large (Type A) or Medium (Type B) (min. 50% Large (Type A)) trees + 6 foot screen	3 Large (Type A) or Medium (Type B) (min. 75% Large) (Type A)) trees + 8 foot screen

Step 4

Identify required plantings and screening

Example: In the Neighborhood Form District, construction of a C-1 retail establishment (Intensity Class 4) is proposed adjacent to the R-4 district (Intensity Class 1). A "C.4" buffer is required. A 35 foot buffer strip, 8 foot screening fence and 3 large trees per 100 feet of perimeter are required. The developer has the option of decreasing the buffer to 25 feet, and increasing the number of trees to 4.5 per 100 feet of common boundary with the R-4 property. If the site were in the Traditional Neighborhood Form, the developer would have the option of a 15 foot buffer, with 4.5 trees per 100 feet.

Appendix 10A classifies tree species as type A, B, or C

- B. Explanatory Text and Exceptions: Property perimeter Landscape Buffer Areas may contain walks, trails, or other similar elements, provided that the required plant material (as defined in the part to follow) is not eliminated and the Landscape Buffer Area is at least 25 feet wide. Property perimeter Landscape Buffer Areas shall be free from all other development including buildings, parking, driveways or other structures except those attendant to public utility service within a dedicated *easement*. Outdoor storage or stockpiling of materials is not permitted within property perimeter Landscape Buffer Areas.

Utility easements (e.g., drainage, sewer, gas/electric) are allowed to encroach into as much as 50% of the required width of property perimeter Landscape Buffer Areas provided the required screening can still be achieved and the design of such facilities is compatible with the purpose of the Landscape Buffer Area. If work is required within the easements causing removal or damage of landscape materials (including any required fences, walls or berms), the property owner shall be responsible for replacement of materials according to the approved landscape plan. Type 'C' trees may be planted under overhead utility lines at a minimum spacing of 1 tree per 30 feet of lineal boundary with approval of utility company to meet perimeter tree planting requirement.

The landscape material and buffer area required generally shall be provided by the property owner of the higher intensity activity. If the higher intensity use is already developed and the landscape material and buffer area, required in Chapter 10 has not been provided, the lower intensity use shall provide the required landscaping. If the requirements of this chapter have been fully complied with on an adjoining property, the property owner is not required to duplicate them along the common boundary.

Property perimeter Landscape Buffer Area requirements for schools, fire stations, and other similar community facilities structures shall be determined, as part of a Community Facility Review, and will be based on the form district, size (square feet), height, and location relative to adjacent land uses.

Private schools and churches are to be considered the same as Intensity Class 3 for the purposes of screening in accordance with this part.

Sites with a Conditional Use Permit that are located in a residential zoning district shall be considered the same as a C-1 Commercial use for the purposes of application of Chapter 10, sites located in non-residential districts will follow the landscaping requirements for the zoning district that they are in, unless the Board of Zoning Adjustment deems a different classification is appropriate.

Screens specified in Table 10.2.4 shall consist of shrubs, fences, berms or walls, individually or in combination, that meet the requirements outlined in Part 4, Implementation Standards. Evergreen tree plantings can be substituted for landscape material specified in Table 10.2.4, placement and species to be approved by Planning Commission staff to ensure an effective screen. The planting density multiplier (Table 10.2.3) does not apply to the minimum screen height established in Table 10.2.4.

In the PEC and PRO Zoning Districts (except for C-1 uses in the City of Jeffersontown): Unless a larger Landscape Buffer Area is required, a 15-ft wide Landscape Buffer Area shall be maintained at all side and rear property lines. The landscape strip shall be planted with a number of Large (Type A) or Medium (Type B) trees equal to 1 tree/75 Lineal feet of boundary. Trees do not have to be evenly spaced. Instead, tree placement should be based on site characteristics and compatibility with other landscaping.

Property perimeter Landscape Buffer Areas, unless specifically prohibited, may also count toward other yard, or setback requirements found elsewhere in these regulations. Property perimeter Landscape Buffer Areas may count towards open space requirements in accordance with Chapter 10 Part 5.

Exceptions to Landscape Buffer Area requirements are as follows:

1. Property perimeter Landscape Buffer Areas are not required in the Downtown Form District.
2. Property perimeter Landscape Buffer Areas separating differing land uses within a Planned Development Zoning District shall not be required to meet the standards set forth in this Part but shall adhere to the Approved Master Plan for each development.
3. Landscape Buffer Area requirements are waived when a property boundary separates shared parking (as defined in Chapter 9) and may be reduced to Type A between parking when adjoining zoning districts are no more than 1 intensity category apart.
4. If property in intensity class 2 is developed as patio or town homes with a maximum of 6 units per building and no more than 2 stories, six foot high screening of adjacent single-family property is not required. (Landscaping for attached housing using the ADI regulations can be found in [Chapter 4 Part 5](#).)
5. When offsite buffering and plantings exist on adjoining property, they may be applied toward the sites landscape buffer planting requirements if the adjacent property owner agrees in writing to preserve the planting materials.

“Type A” in part 3 refers to landscape buffer area in Table 10.2.3

NOTE:
Paragraph 4 exemption applies only to screening; trees specified in Table 10.2.4 are required.

10.2.5 Property Perimeter Planting

Planting within property perimeter Landscape Buffer Areas will serve a number of functions including screening, naturalizing, softening edges, and unifying architectural elements. Planting density requirements, as outlined in Table 10.2.4, have been established to allow for flexible design solutions while reinforcing the site design standards of each form district.

In situations where a property perimeter Landscape Buffer Area slopes, the required plantings shall be located where the staff of the Planning Commission determines they will most effectively screen the more intensive uses.

Existing landscape material which is proposed to be used to fulfill landscape requirements shall be shown on the required plan, and any plant material in satisfactory condition may be used to satisfy these requirements in whole or in part when, as determined by the staff of the Planning Commission or the agency to whom it delegates authority such materials meet the requirements and achieves the objectives of this article. Existing healthy trees may be substituted for trees required for property or Vehicular Use Area perimeter landscaping, or for interior landscaping by using the following criteria: a 6 inches to 12 inches caliper tree surrounded by a minimum of 150 square feet of landscape area may be substituted for two (2) new trees of the required minimum size; a 12 inches to 24 inches caliper tree surrounded by a minimum of 250 square feet of landscape area may be substituted for three (3) new trees of the required minimum size; a 24 inches or greater caliper tree surrounded by a minimum of 300 square feet of landscape area may be substituted for four (4) new trees of the required minimum size.

10.2.6 Other Uses And Structures Requiring Screening

Screening shall be provided around all service structures (e.g., propane tanks, dumpsters, heating/air conditioning units, electrical transformers, telecommunications boxes) that exceed 42 inches in height and 42 inches in width or are visible from adjoining property when located on roofs. Loading docks and outdoor storage or maintenance yards shall also be screened when adjacent to any right-of-way or residential use or zone.

No landscape material shall be planted closer than 5 feet from the sides of any electric transformer box and all landscape material shall be planted a minimum of 10 feet from the door of such boxes.

Screening shall consist of a continuous fence, wall, berm, evergreen planting, or combination thereof designed to blend in with the architecture (when roof mounted) or character of the area. (Evergreen plantings are not permitted for dumpster screening.) Planting beds, when provided for screening material, shall be at least 6 feet wide. The mature height of the screening material shall be one foot greater than the height of the enclosed service structure, but shall not be required to exceed eight feet in height.

10.2.7 Expressway/Railroad Landscape Buffer Areas and Perimeter Plantings

Buffers have been established to protect and enhance visual quality and to reduce the impacts from high traffic/high speed roadways and railroads. Right-of-way buffer areas shall be provided for each zoning intensity class as indicated in Table 10.2.5.

Table 10.2.5 Right-of-Way Landscape Buffer Area Requirements

(See Table 10.2.1 for Zoning Intensity Classes, Table 10.2.4 for Planting Density and Table 10.2.3 for Buffer Standards)

Roadway Class	Zoning Intensity Classes				
	1	2	3	4	5
Expressway	D.4	D.4	C.3	B.3	B.3
Railroads	C.4	C.4	B.2	na	na

10.2.8 Street Trees

- A. Mandatory: Street trees are required for residentially zoned property along collector and arterial level roadways, as specified in the applicable form district. Street trees shall be provided in the public right-of-way, with permission of the agency having jurisdiction over the right-of-way. If the Public Works Department or Kentucky Transportation Cabinet refuses to allow plantings in the right-of way, street trees shall be provided adjacent to the right-of-way, in a minimum 6 foot wide planting area. All street trees shall conform to the minimum requirements of the Streetscape Master Plan Manual. If a streetscape master plan has been approved for a specific street, all street trees shall be planted in accordance with the approved master plan. Street trees shall be regularly spaced and planted at a ratio of no less than 1 Large (Type A) tree per 50 lineal feet of right-of-way, or 1 Medium (Type B) tree per 40 lineal feet, or 1 Small (Type C) tree per 30 lineal feet. Small trees are permitted only where utility lines or other site constraints will not allow installation of Large or Medium trees.
- B. Voluntary: Street trees may be provided adjacent to non-residentially zoned property, as well as residential sites abutting local streets or private access easements providing the principal means of access.
- C. Tree Canopy Bonus: Street tree plantings shall qualify for a 25% bonus in calculating compliance with tree canopy requirements refer to 10.1.5.D.

NOTE: See Appendix 10A for listing of Type A, B and C trees.

10.2.9 Vehicular Use Area Landscape Buffer Areas

Landscape Buffer Areas have been established to reduce the visual impact of Vehicular Use Areas including parking lots, loading docks and service areas. VUA Landscape Buffer Area requirements have been established for each form district based on intensity. These Landscape Buffer Areas shall be provided between any lot containing a VUA and a roadway; and between any lot containing a VUA and any lot zoned for residential use. A five foot LBA shall be provided (containing a 6 foot continuous screen and 1 type A tree per 50 feet of lineal distance) between any lot containing a VUA and a non-residentially zoned lot with a first floor residential use.

Table 10.2.6
VUA Landscape Buffer Area Requirements

Area of VUA (sf)	Form District	Form District
	Downtown, Village, Traditional Neighborhood, Traditional Marketplace Corridor, Traditional Workplace	Regional Center, Town Center, Suburban Marketplace Corridor, Neighborhood, Suburban Workplace, Campus
up to 10,000	5-FT	5-FT
10,001-30,000	5-FT	10-FT
>30,000	10-FT	15-FT

Loading areas/docks are not required to be screened from adjacent industrial uses.

Landscape Buffer Areas shall be placed at the edge of pavement (or back of curb if present) when the elevation of the VUA is equal to or higher than the adjacent property. When the VUA is constructed at a lower elevation than the adjacent property, the buffer shall be placed at the common property line.

10.2.10 Vehicular Use Area Perimeter Planting

The equivalent of 1 Large (Type A) tree per 50 linear feet of boundary (or fraction thereof) shall be provided in all VUA perimeter Landscape Buffer Areas. Tree requirements may be deferred, if an equivalent number of street trees are present in the right-of-way, until such time that the street trees are removed to allow for roadway widening or other improvements. Additional landscape requirements shall vary relative to adjacent land uses and proximity to common property lines as follows:

Table 10.2.7 VUA Perimeter Screening Requirements

Land Use	Distance From Property Line		
	Less than or equal to 30 feet	Greater than 30 feet and less than 50 feet	Greater than or equal to 50 feet
VUA (except loading area) adjacent to any residential use	6 foot continuous screen	3 foot continuous screen	3 foot screen for at least 50% of VUA
VUA is a loading area adjacent to any residential use	8 foot continuous screen	6 foot continuous screen	6 foot continuous screen if adjacent to residential
VUA adjacent to a ROW	3 foot continuous screen	3 foot continuous screen	NA

The 3-foot or 6-foot screen requirement can be met using shrubs, evergreen trees, berms, or fencing individually or in combination. Continuous screens may be broken and staggered for visual interest provided the result is a visually continuous screen. The 3-foot screen requirement may be reduced to 18 inches when adjacent to financial institutions, nursing homes, or other uses where security is determined to be a factor.

All screening material including plants, fencing, walls, and berms used to satisfy these requirements shall conform to the standards found in [Chapter 10, Part 4, Implementation Standards](#).

Landscape material in buffer areas shall be protected by the use of curbs, wheel stops, fencing, or planted at least 4 feet from the edge of pavement when sufficient buffer area exists.

10.2.11 Vehicular Use Area Interior Landscape Areas

Landscape areas shall be provided within all Vehicular Use Areas to break up large impervious areas and allow for a greater distribution of tree canopy coverage. Dimensional requirements have been established to insure that interior landscape areas serve the intended goals and provide enough ground area to support required plant material. Interior landscape areas shall not be required for enclosed VUAs that are secured from access by a fence, wall or similar barrier at least 3.5 feet in height and used for storage, loading docks or their associated maneuvering areas, or for loading, unloading, and storage areas in an industrial zone C-M, M-1, M-2, M-3, PEC & EZ-1 or in loading dock & truck maneuvering areas in Commercial and Office zones.

ILA shall be provided that in total area equals or exceeds the applicable minimum percentage of the vehicular use area, as specified in the following table:

<u>VUA Size</u>	<u>ILA Area</u>
--under 6,000 sq. ft. or containing < 10 parking spaces	0%
--6,000 - 12,000 sq. ft. or up to 20 parking spaces --if in a Traditional or Downtown Form District	5% (2.5%)
--12,000 - 30,000 sq. ft. or up to 100 parking spaces -- if in a Traditional or Downtown Form District	7.5% (5%)
--over 30,000 sq. ft. or 100 parking spaces	7.5%

Any landscape area surrounded by or projecting into a Vehicular Use Area can be used to meet interior landscape area requirements provided they are no less than 133 sq. ft in area and no less than 8 feet in either dimension. Smaller interior landscape areas are not prohibited, but will not count toward interior landscape area requirements.

The maximum distance between interior landscape areas shall apply as follows:

- A. VUAs under 12,000 sq. ft. or less than 20 parking spaces - no maximum
- B. VUAs of 12,000 sq. ft. or over or 20 or more parking spaces - 120 feet

The maximum distance shall be determined by measuring both:

- A. radially from the closest perimeter landscaping area curb edge, and
- B. lineally in each row of parking spaces from the closest curb edge of each ILA.

10.2.12 VUA Interior Landscape Area Planting Requirements

When interior landscape areas are required, one Medium or Large deciduous tree shall be provided for every 4,000 square feet of vehicular use area. The ground plane of all interior landscape areas shall be planted using either shrubs, ground cover, or turf. All plant material used to satisfy these requirements shall conform to the standards found in **Chapter 10, Part 5, Implementation Standards**.

Light poles, sidewalks, benches or other landscape design elements are permitted in the interior landscape areas provided they do not occupy more than 25% of any one interior landscape area or reduce the width of any planted area to less than 4 feet. Provision of such facilities does not reduce the number of required trees.

10.2.13 Alternative Landscape Plans

It is not the intent of this article to discourage innovative, aesthetically pleasing landscaping design. Thus, the developer may, at his/her option, submit a landscape plan which conforms to the spirit and intent of this article while varying from its specific requirements. The plan presented must be deemed a substantial improvement over the minimum requirements of this article by the Planning Commission or the agency responsible for plan review.

10.2.14 Landscape Architect Seal Requirement

Landscape plans with vehicle use area (VUA) 30,000 square feet in area or larger shall be required to have a landscape architect seal on the landscape plan.

When choosing plant materials, refer to the **Louisville and Jefferson County Preferred Plant List (Appendix 10 A)** for species that are either native to Jefferson County or that perform particularly well in the area, and to the **Louisville and Jefferson County Prohibited Plant List (Appendix 10 B)** for species that will not be accepted to meet the requirements of this code.

The following terms relating to Landscape Design are included in the Definitions (Chapter 1 Part 2):

Vehicle Use Area (VUA), Landscape Buffer Area (LBA), Interior Landscape Area Buffer Area (ILA), Tree, Type A, Tree, Type B, Tree, Type C.

The intent of this Part is to provide for the designation of *Parkways*, *Olmsted Parkways*, *Scenic Corridors* and the *Gene Snyder Freeway* and for the creation of development standards applicable to developments adjacent to those corridors in an effort to protect existing scenic and aesthetic qualities, to ensure a quality visual experience on developing corridors and to protect and improve the visual experience on established corridors.

10.3.1 Relationship to the Comprehensive Plan

The standards prescribed by this Part are intended to implement the following Cornerstone 2020 Comprehensive Plan Goals and Plan Elements.

Goals	Plan Elements
Mobility Strategy Goals C1; D1	Guidelines 3, 8, 13
Livability Strategy Goals F2; F4; H3; J4	

10.3.2 Applicability

The requirements of this Part shall apply to all new development, the demolition and reconstruction of an existing building, and the expansion of an existing building or vehicle use area by more than fifty (50) percent that is adjacent to the *Gene Snyder Freeway* or any corridor designated as a *Parkway*, *Olmsted Parkway* or *Scenic Corridor*.

10.3.3 Designation

- A. **Parkways** and **Scenic Corridors** are established through nomination and legislative approval. A roadway may be nominated as a Parkway or Scenic Corridor by resolution of the legislative body(ies) or by resolution of the Planning Commission. The Planning Commission shall conduct a public hearing and recommend candidates for designation to the legislative body(ies) with jurisdictional control which, if approved, are placed on the official *Parkway*, *Olmsted Parkway*, *Scenic Corridor* and *Gene Snyder Freeway Maps* included in **Appendix 10C**, which is incorporated herein by reference.

- B. **Olmsted Parkways** are part of the Louisville and Jefferson County Parks system and are listed as a historic district on the National Register of Historic Places. They are the original parkways that were established by Fredrick Law Olmsted to provide linkages between the community's parks and open spaces and are depicted on the official *Parkway*, *Olmsted Parkway*, *Scenic Corridor* and *Gene Snyder Freeway Maps* included in **Appendix 10C**, which is incorporated herein by reference. Any addition and/ or modification to the existing Olmsted Parkway network shall require the same nomination and legislative approval process as described in (A) of this Section, above.

- C. The **Gene Snyder Freeway** is an expressway that was developed along the eastern and southern outskirts of the county and is depicted on the official *Parkway, Olmsted Parkway, Scenic Corridor and Gene Snyder Freeway Maps* included in **Appendix 10C**, which is incorporated herein by reference. Any extension or modification to the Gene Snyder Freeway designation shall require the same nomination and legislative approval process as described in (A) of this Section, above.

10.3.4 Landscape Plan Requirement

Any development that requires any vegetation to be planted and maintained to meet the requirements of this Part shall have a landscape plan approved prior to receiving a building permit..

10.3.5 Parkway Development Standards

All new development and expansion of existing developments as prescribed in **Section 10.3.2**, above, shall meet the following requirements.

A. Parkway Setbacks, Buffering and Landscaping Requirements

1. Parkway setbacks, buffering and landscaping shall be required in accordance with Table 10.3.1, below.

Table 10.3.1

Type of Development	Required Setback	Required Buffer Area	Required Landscaping
Single Family Residential	75 feet	50 feet	1 Type A tree for each 40 feet of road frontage.
Multi-family Residential	75 feet	50 feet	1 Type A tree for each 40 feet of road frontage and a visually continuous berm as needed to screen the vehicle use area with an average height of at least 3 feet and shrub massings on or fronting the berm with at least 1/3 of the frontage length planted.
Nonresidential	30 feet	30 feet	1 Type A tree for each 40 feet of road frontage and a visually continuous berm as needed to screen the vehicle use area with an average height of at least 3 feet and shrub massings on or fronting the berm with at least 1/3 of the frontage length planted.

*Note:
The Required Buffer Area is located within and is part of the Required Setback.*

2. When the requirements of this Part specify the use of Type A trees in areas where existing overhead utility lines make the use of Type A trees impractical, Type B trees may be substituted at a rate of one tree for each thirty (30) linear feet of road frontage and Type C trees at a rate of one tree for each fifteen (15) feet of road frontage.
3. A fifteen (15) foot parkway buffer area and its corresponding required landscaping shall be required for the first one hundred (100) linear feet of any street intersecting a Parkway unless that street is a designated Olmsted Parkway, Scenic Corridor or the Gene Snyder Freeway, in which case the specific buffering and landscaping requirements for those corridors shall be applicable.
4. The average height of the required berm may be increased by up to three additional feet (up to six feet in total height) upon a finding by the Planning Director that a taller berm is necessary to effectively screen the vehicle use area due to the site's topography in relation to the roadway. The required berm may be replaced by a continuous fence, wall or hedge when the Planning Director finds that the proposed modification is in character with nearby developments or allows for tree preservation that would not be possible if a berm was provided.
5. All parkway setbacks and buffer areas shall be measured from the property line adjacent to the right-of-way of the Parkway.
6. Required plantings shall consist of a mix of deciduous and evergreen trees so as to provide for the corridor's visual interests on a year round basis. A minimum 10% of the required trees shall be evergreen.
7. No tree clearing, construction, or re-grading shall take place within one hundred (100) feet of the right-of-way prior to landscape plan approval, except that utility maintenance and landscape maintenance required for public health and activities ordinarily associated with surveying and similar preliminary site analysis shall be permitted.
8. Parkway buffer areas shall be set aside to accommodate the required landscape and buffering materials. No vehicle use areas, except for necessary driveway crossings, or buildings or structures, except for fences, walls and structures attendant to public utility services, shall be permitted within a required parkway buffer area. Freestanding signs shall be permitted within a required parkway buffer area. Retention or detention basins may occupy no more than 50% of the required width of any parkway buffer area.
9. Required parkway setbacks shall apply to buildings, excluding accessory structures less than one hundred (100) square feet in area. They shall not apply to vehicle use areas.

B. Signage

All signage shall be in accordance with **Chapter 8** "Sign Regulations" and with all other applicable provisions of the Land Development Code.

10.3.6 Scenic Corridor Development Standards

All new development and expansion of existing developments as prescribed in **Section 10.3.2**, above, shall meet the following requirements.

A. **Scenic Corridor Setbacks, Buffering and Landscaping Requirements**

1. Scenic corridor setbacks, buffering and landscaping shall be required in accordance with Table 10.3.2, below, except that any scenic corridor located within a Special District that has scenic corridor development standards created specifically for that Special District shall adhere to the standards applicable to that Special District.

Table 10.3.2

Type of Development		Required Setback	Required Buffer Area	Required Landscaping
Residential	Major Subdivisions and Multi-Family <i>(a developer shall have the option of choosing between the 50 or 200 foot buffer areas and their corresponding planting areas and landscaping.)</i>	50 feet	30 feet*	Any combination of preserved vegetation, newly installed trees and shrubs and berms that will create a continuous visual barrier to a height of 6 feet upon maturity. At least one Type A tree must be provided for every 40 feet of buffer length. *The 30 foot required buffer area may be reduced to 20 feet if a privacy fence, at least 6 feet in height, is provided at the rear of the buffer area (the side not adjacent to the right-of-way) and some combination of preserved vegetation and newly installed trees and shrubs is provided so that at least 75% of the surface area of the fence is screened upon maturity as seen from the scenic corridor. At least one Type A tree must be provided for every 40 feet of buffer length.
		200 feet	None	1 Type B or C tree for each 25 feet of building façade visible from the scenic corridor (to be located between the scenic corridor and the structure) and 1 Type A tree for each 50 feet of scenic corridor road frontage (street trees) to be located within 15 feet of the right-of-way
	Single Family Residences on Preexisting or Minor Platted Lots	50 feet	None	1 Type B or C tree for each 25 feet of building façade visible from the scenic corridor (to be located between the scenic corridor and the structure) and 1 Type A tree for each 50 feet of scenic corridor road frontage (street trees) to be located within 15 feet of the right-of-way
Nonresidential		40 feet	25 feet	1 Type A tree for each 40 feet of scenic corridor road frontage and a visually continuous berm as needed to screen the vehicle use area with an average height of at least 3 feet and shrub massings on or fronting the berm with at least 1/3 of the frontage length planted.

2. When the requirements of this Part specify the use of Type A trees in areas where existing overhead utility lines make the use of Type A trees impractical, Type B trees may be substituted at a rate of one tree for each thirty (30) linear feet of road frontage and Type C trees at a rate of one tree for each fifteen (15) feet of road frontage.
3. All scenic corridor setbacks and buffer areas shall be measured from the property line adjacent to the right-of-way of the scenic corridor.
4. All scenic corridor buffer areas and landscaping requirements shall be applicable to the first fifty (50) linear feet of any intersecting street unless that street is a designated Parkway, Olmsted Parkway or the Gene Snyder Freeway, in which case the specific buffering and landscaping requirements for those corridors shall be applicable.
5. All required landscaping shall be located within the required buffer area except where explicitly stated otherwise.
6. The berm required to screen the vehicle use area of non-residential developments may be replaced by a continuous fence, wall or hedge when the Planning Director finds that the proposed modification is in character with nearby developments or allows for tree preservation that would not be possible if a berm was provided.
7. Plantings shall consist of a mix of deciduous and evergreen trees so as to provide for the corridor's visual interests, whether it be screening or creating a filtered view from the roadway, on a year round basis.
8. No tree clearing, construction, or re-grading shall take place within forty (40) feet of the right-of-way prior to landscape plan approval, except that utility maintenance and landscape maintenance required for public health and activities ordinarily associated with surveying and similar preliminary site analysis shall be permitted.
9. Scenic corridor buffer areas shall be set aside to accommodate the required landscape and buffering materials. No vehicle use areas, except for necessary driveway crossings, or buildings or structures, except for fences permitted by this Section and structures attendant to public utility services, shall be permitted within a required scenic corridor buffer area. Freestanding signs shall be permitted within a required scenic corridor buffer area. . Retention or detention basins may occupy no more than 50% of the required width of any scenic corridor buffer area.
10. Required scenic corridor setbacks shall apply to buildings, excluding accessory structures less than one hundred (100) square feet in area. They shall not apply to vehicle use areas.

B. Signage

All signage shall be in accordance with **Chapter 8** "Sign Regulations" and with all other applicable provisions of the Land Development Code.

***Note:** For the purposes of this Part "privacy fence" shall mean any fence made of wood or other material whose primary purpose is to block or substantially reduce or obstruct visibility. This definition includes stone and masonry walls, except as provided in C.3. of this Section.*

C. Fences

1. Chain-link fences shall not be permitted within the scenic corridor buffer area.
2. Privacy fences shall only be permitted within the scenic corridor buffer area as explicitly permitted in Table 10.3.2.
3. Three and four board wood fences, sometimes called "horse fences", wire fences traditionally used to secure livestock, and stone or masonry fences less than four feet in height shall be permitted within the scenic corridor buffer area.

D. Road Improvements

As development occurs adjacent to the community's scenic corridors, road improvements may be required to provide for the safety of those facilities. As these improvements occur, special consideration shall be given to preserving / maintaining the existing character of the corridor. The following aspects shall be considered when making such improvements.

1. Limiting land disturbance to only those areas necessary for road improvements to occur. This may require the use of construction fencing to protect existing trees located in the right-of-way and on private property.
2. Maintaining the existing streetscape of the corridor. This may require applying for an encroachment permit to establish vegetation in the right-of-way and locating pedestrian facilities so as to maximize tree preservation. Meandering sidewalks are specifically permitted and encouraged.

10.3.7 Gene Snyder Freeway Development Standards

All new development and expansion of existing developments as prescribed in **Section 10.3.2**, above, shall meet the following requirements.

A. Gene Snyder Freeway Setbacks, Buffering and Landscaping Requirements

1. Gene Snyder Freeway setbacks, buffering and landscaping shall be required in accordance with Table 10.3.3, below.

Table 10.3.3

Type of Development	Required Setback	Required Buffer Area	Required Landscaping
All Development	See Chapter 5 Part 1 (Form District Regulations) for residential Setback requirements.	50 feet	1 Type A or B tree for each 30 feet of road frontage and 1 large shrub for each 20 feet of road frontage

1. All Gene Snyder Freeway setbacks and buffer areas shall be measured from the property line adjacent to the right-of-way of the Freeway.
2. At least seventy-five (75) percent of the trees and shrubs being planted to meet the requirements of this Part shall be native to this area. DPDS staff shall provide applicants/developers with guidance as to which vegetative species are appropriate to be used to meet this requirement.
4. Plantings may be grouped together so as to be natural in style and are intended to partially screen the buildings from the Freeway in an effort to provide for the visual interest of the corridor.
5. At least twenty-five (25) percent of the trees required by this Part shall be evergreen trees so as to partially screen development from the Freeway on a year round basis.
6. No tree clearing, construction, or re-grading shall take place within fifty (50) feet of the right-of-way prior to landscape plan approval, except that utility maintenance and landscape maintenance required for public health and activities ordinarily associated with surveying and similar preliminary site analysis shall be permitted.
7. Preservation of existing vegetation is the preferred means of meeting the screening objective. When preservation occurs, the applicant shall provide as part of the tree preservation plan an existing tree survey that depicts the general location, species mix, and typical size of existing stands of trees that are proposed to be retained. Photographs showing the general quality of the buffer area's existing vegetation shall also be provided.
8. In those instances that because of a site's topography in relation to the freeway vegetation alone will not provide for effective screening between a development and the Freeway, the Planning Commission or its designee may require a berm or other screening measures in addition to the plantings required by this Section.

9. All required setbacks, buffer areas and vegetation applicable to the Gene Snyder Freeway shall also be applicable to all Gene Snyder Freeway access ramps.
10. Gene Snyder Freeway buffer areas shall be set aside to accommodate the required landscape and buffering materials. No vehicle use areas, buildings or structures, except for fences or walls permitted by this Section and structures attendant to public utility services, shall be permitted within a required Gene Snyder Freeway buffer area. . Retention or detention basins may occupy no more than 50% of the required width of the Freeway buffer area.

B. Signage

All signage shall be in accordance with **Chapter 8** "Sign Regulations" and with all other applicable provisions of the Land Development Code.

C. Fences

1. All privacy fences shall be setback at least thirty (30) feet from the right-of-way line of the Freeway and all of the required plantings shall be located between the Freeway and the fence.
2. Where conditions permit, any fences or walls constructed to mitigate noise levels on adjacent or nearby properties shall provide the required trees and shrubs between the Freeway right-of-way and the fence or wall.

10.3.8 Olmsted Parkway Development Standards (RESERVED)

10.3.9 Alternative Landscape Designs

It is not the intent of this Part to discourage innovative, aesthetically pleasing landscape buffer area designs. Thus, the developer may choose to submit a landscape plan depicting buffering materials/plantings that conform to the spirit and intent of this Part, while varying from the specific planting requirements. The alternative buffering materials/plantings may be permitted if the Planning Director finds that said deviations are a substantial improvement over the minimum requirements of this Part.

10.3.10 Modifications

The Planning Commission may modify or waive the buffering and planting requirements of this Part upon making the findings specified in **Chapter 11 Part 8** of the Land Development Code.

10.4.1 Plant Species

Any proposed new plant material used to satisfy the requirements of this development code shall be of a species other than those listed in the current version of the Louisville and Jefferson County Prohibited Plant List adopted by the Planning Commission. To the greatest extent possible, new plant material should be selected from species included in the current version of the Louisville and Jefferson County Preferred Plant List adopted by the Planning Commission. This list consists of species that are either native to Jefferson County or that perform particularly well in the area, or both.

Over-dependence on a single genus may result in extensive loss due to disease, insects or other pests. To ensure a diversity of species within Louisville and Jefferson County's forests the mix of required trees for all development proposals shall conform to the following diversification formula:

50% maximum of any single species (e.g., *Quercus rubrum*)

Exceptions to the diversification formula shall be allowed for:

- A. Sites of less than two acres, if required plantings are chosen from the Preferred Plant List
- B. Sites located within a Neighborhood Study or Corridor Study approved by the Planning Commission with street tree or landscape guidelines or sites containing a streetscape master plan approved by the Planning Commission;
- C. A Planned Development or General Development Plan containing a planting plan approved prior to the effective date of this code

10.4.2 Plant Quality

All plant materials shall be living plants (artificial plants are prohibited.) Plant materials shall conform to the standards of the American Association of Nurserymen and shall have passed any inspections required under state regulations. Bare root plants, with the exception of vines and groundcovers shall be prohibited.

10.4.3 Plant Sizes

All required plant material shall meet the following size criteria at time of installation:

Evergreen Trees	6 feet high
Shrubs (when required for 6-8 feet screening)	36 inches high
Shrubs (when required for 3 feet screening)	18 inches high
Grasses or Ground Cover	N/A

Size criteria for deciduous tree species shall be determined based on its Size Type as described in [Chapter 1 Part 2](#) (Definitions) of the Land Development Code. Installation criteria for each Size Type is as follows:

Small Tree (under 25 feet in height at maturity)	6 feet high
Medium Tree (25 feet-50 feet in height at maturity)	1 ¾ inch caliper
Large Tree (over 50 feet in height at maturity)	1 ¾ inch caliper

When planting Medium or Large Trees, Small Sites (as defined in 10.2.2(C) and Single Family Residential sites shall be required to install such trees at a minimum size of 1 inch caliper.

All minimum size requirements shall conform to the characteristics set forth in the American Standard for Nursery Stock, latest addition.

Any existing trees on a site or street trees planted on an adjacent right-of-way that are used to meet the Tree Canopy Regulations (Chapter 10 Part 1) may be credited towards fulfillment of any landscaping, screening, or buffering provisions of this Chapter. The following criteria shall be used where existing healthy trees are being preserved and substituted for newly planted trees:

- A. An existing 6 inch-12 inch caliper tree, surrounded by a minimum of 133 square feet of landscape area, may be substituted for two (2) new trees of the required minimum size
- B. An existing 12 inch-24 inch caliper tree, surrounded by a minimum of 250 square feet of landscape area, may be substituted for three (3) new trees of the required minimum size
- C. An existing tree greater than 24 inch caliper, surrounded by a minimum of 300 square feet of landscape area, may be substituted for four (4) new trees of the required minimum size

10.4.4 Spacing

No newly planted trees may be planted closer together than 10 feet for small trees, 25 feet for medium trees, and 30 feet for large trees. When planting new trees near existing mature trees, leave a minimum distance of half of the new tree's mature spread between the new tree and the existing trees. Planning Commission staff can authorize a closer spacing of trees in special circumstances.

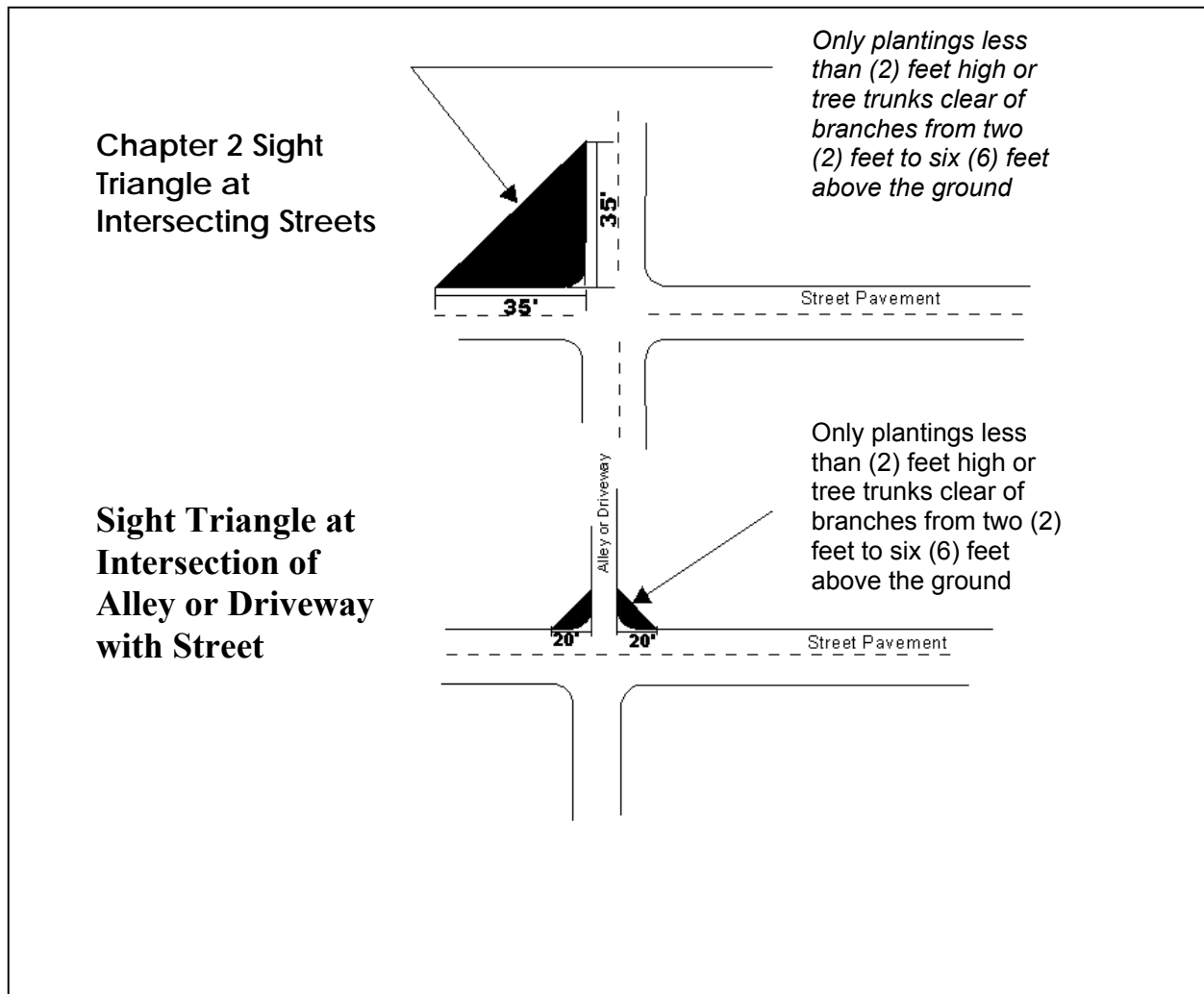
Table 10.4.1

TREE SPACING GUIDE AGAINST BUILDINGS	
Tree Height	Minimum Spacing from Building Edge
Up to 25 feet (small tree)	10 feet
25 feet-50 feet (medium tree)	15 feet
50 feet+ (large tree)	15 feet

No tree shall be planted in a space less than 3 feet in width. Only small trees shall be planted in spaces less than 4 feet in width.

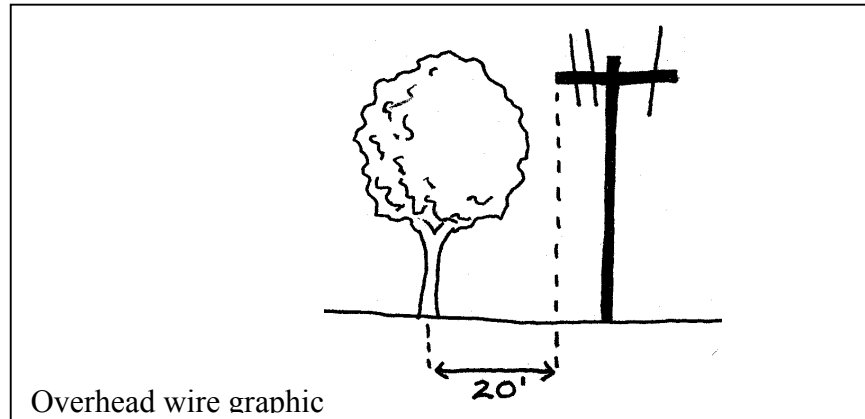
Trees shall be located to provide shade over impervious surfaces to the maximum extent possible.

Figure 10 4 1



No tree shall be planted closer than 5 feet to any fireplug, utility pole, or similar utility structure. Large or medium trees shall not be located beneath overhead wires, and shall be planted at least 20 feet from any easement or right-of-way in which overhead wires are located. With approval from the appropriate utility company Type C trees planted 30 feet on center may be planted beneath overhead utility lines to meet perimeter tree planting requirement.

No landscape material shall be planted closer than 5 feet from the sides of any electric transformer box and all landscape material shall be planted a minimum of 10 feet from the door of such boxes.



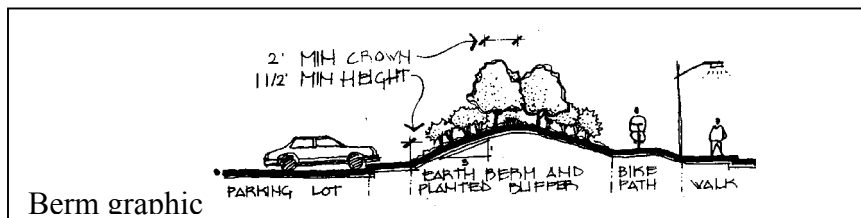
To assure that landscape materials do not constitute a driving hazard, a “sight triangle” will be observed at all street intersections including street intersections and intersections of alleys or driveways as illustrated below. The sight triangle shall be measured from edge of pavement to edge of pavement.

10.4.5 Planting Details

Any plant material introduced to meet the requirements of this Development Code shall be installed in accordance with sound planting guidelines adequate to sustain vigorous and healthy growth.

10.4.6 Berms

Any *berm* built to satisfy the requirements contained in this regulation shall be constructed as follows: a minimum height of 1 1/2 feet, and a minimum crown of 2 feet measured on a horizontal plane. Berms with side slopes greater than 3:1 shall be planted with ground cover that does not require mowing. Berms over 3 feet in height planted with woody plant material shall be permitted if the applicant demonstrates to satisfaction of Planning Commission staff that adequate measures will be taken to allow the proposed plants to thrive. Landscape plans shall indicate, by a detail drawing, or by specification in a note on the plan, the type and location of irrigation system to be used. Plans should be specific enough to show that adequate irrigation will be provided to all required plant materials.

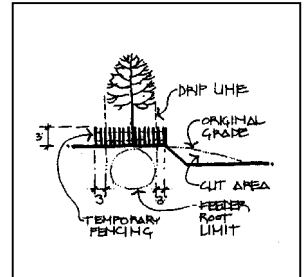


10.4.7 Transplanting

Any tree that is not nursery stock and is to be moved in order to meet requirements of this regulation shall be transplanted in accordance with sound planting guidelines adequate to sustain vigorous and healthy growth.

10.4.8 Protection During Construction

A durable and visible barrier at least 3 feet in height and approved by the Planning Director or designee shall be erected around all Tree Canopy Protection Areas prior to any clearing or land disturbing activities requiring a Land Disturbance Permit. All barriers shall be located at the edge of the area to be preserved, which is at least 3 feet beyond the drip line of the protected tree, and shall remain in place until all construction is completed.

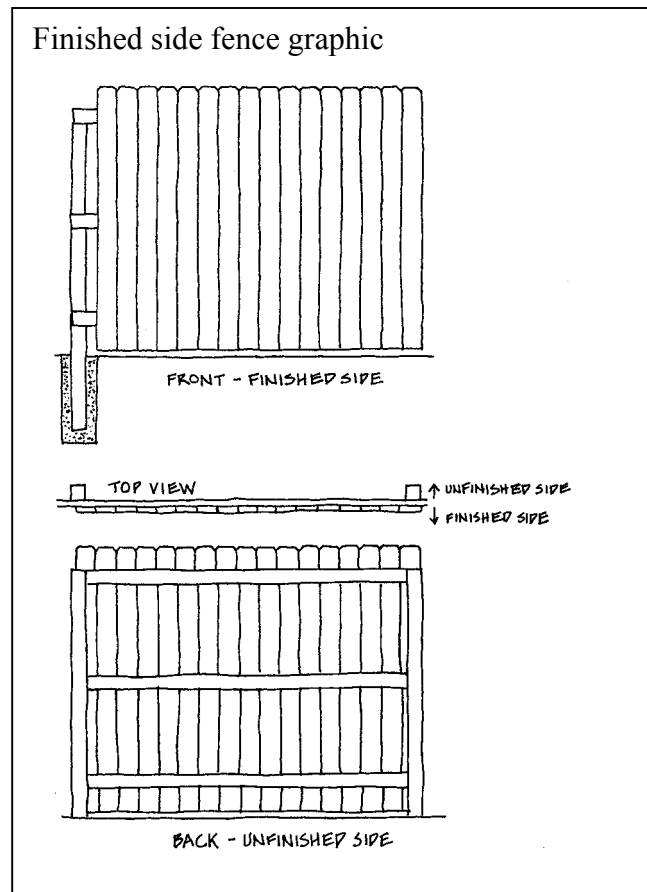


No clearing, grading or other land disturbing activities shall be allowed within the area enclosed by the tree protection barrier. No equipment, materials, or vehicles shall be stored or placed within the area enclosed by the tree protection fence.

To prevent compaction of the soil or root system, no parking, material storage, or construction activities are permitted within the boundaries of the constructed barrier or vegetative buffers, beyond that allowed for preliminary site investigation work,

10.4.9 Walls And Fences

Walls and fences built to satisfy the requirements of the Land Development Code shall meet the following standards. Walls shall be constructed of natural stone, brick, or other weatherproof materials approved by the Commission Director or designee. Fences shall be constructed of wood or other weatherproof, durable materials intended for exterior use and approved by the Commission Director or designee. Walls or fences used to satisfy screening requirements shall be at least 80% opaque. Fences shall provide a finished side facing the lower intensity use. Chain link fencing may not, under any circumstances be used to meet any screening requirements of this regulation, nor shall slats installed as part of a chain link fence be allowed to satisfy screening requirements. However, chain link fencing may be installed for other purposes within the required buffer area if it is used in addition to plants, berms or other allowable screening material and is not otherwise restricted by the form district regulation or other applicable parts of this Code. Walls and fences allowed to meet the requirements of this regulation shall not be used to display or support any sign or other advertising device.



10.4.10 Lighting

Any lights used to illuminate landscaping must be shown on the landscape plan.

10.4.11 Land Clearing

Selective Clearing - Selective clearing of trees, shrubs and underbrush may be necessary or desirable in certain instances. Trees along the edge of a preservation area may be susceptible to off site impact and non-construction impacts (such as when a newly created woodland edge is formed increasing exposure to higher winds and temperatures). Selective clearing may be an appropriate management technique within Woodland Preservation Areas after development to encourage new growth or longevity. Selective clearing may also be necessary for individual trees that may be in danger of falling on structures, roadways or other vehicular use areas, or into open sections of yard where outdoor activities are likely to take place.

Selective clearing will be limited to areas identified to allow such clearing on an approved Development Plan, Tree Canopy Plan or Landscape Plan and may only take place after the development is complete.

10.4.12 Maintenance

- A. For any tree located on public or private property as a requirement of an approved Landscape or Tree Preservation Plan, the following activities are prohibited:
 - 1. Attachment of rope, wire, nails, advertising posters, or other contrivances.
 - 2. Deposition, placement, or storage of stone, brick, sand, concrete, or other materials which may impede the free passage of water, air, fertilizer to the root system.
- B. It will be the responsibility of the property owner to perpetually maintain all landscape areas and associated plant material required under these regulations. The property owner shall also be responsible for maintaining the verge and associated trees within the verge unless the agency having jurisdiction over that verge assumes that responsibility.
- C. All unhealthy or dead plant material shall be replaced within one year, or by the next planting period, whichever comes first, while other defective plant material shall be replaced or repaired within three (3) months.
- D. An authorized inspector shall have the right to enter onto any property to inspect the health and general condition of plant material that is:
 - 1. Located within the ROW
 - 2. Part of an approved development/landscape plan or
 - 3. Reported as a public hazard

10.4.13 Protection of Public Property

No person shall plant or intentionally damage, transplant, or remove any tree within any street right-of-way or on any municipal-owned property without approval by the agency having jurisdiction for that right-of-way. Any person or property owner acting without prior approval can be subject to the cost associated with any remedial measures necessary to correct an improper action.

10.4.14 Tree Service Contractors (*Reserved*)

The intent of this Part is to provide for the appropriate location, use, design and composition of open space areas provided to meet a requirement or incentive of the Land Development Code. As such, the standards prescribed by this Part shall be applicable to any open space intended to satisfy an open space requirement of the Campus Form District, Village Form District and the Planned Residential Development District or as an incentive in accordance with Alternative Development Incentives.

The following terms relating to Open Space are included in the Definitions (Chapter 1 Part 2) Conservation Easement, Green, Greenway, Holder, Meadow, Open Space, Open Space, Common, Open Space, Private, Open Space, Public, Park, Pedestrian and Bicycle Corridor, Playground, Plaza, Sports Fields, Square

10.5.1 Relationship to the Comprehensive Plan

The open space standards prescribed by this Part are intended to implement the following Cornerstone 2020 Comprehensive Plan Goals and Plan Elements.

Goals	Plan Elements
Mobility Strategy Goals C1; H2	Guidelines 3, 4, 5, 10, 11, 12, 13
Marketplace Strategy Goal D2	
Livability Strategy Goals A1; B1; B2; B3; B4; E1; E2; E3; E4; F1; F2; F3; F4; G1; G2; G3; G4; H1; H2; H3; H4; H5; I2; J4	

10.5.2 Types of Open Space

There can be a wide variety of purposes and applications of open space within a specific development site, neighborhood or community. As such, the following general types of open space have been identified with examples of each provided. These categories shall not be considered mutually exclusive as an open space can serve more than one purpose.

A. Open Space for Outdoor Recreation

The following are examples of open space consistent with this type.

1. Parks, greens, squares, plazas
2. Playgrounds, sports fields, outdoor pools and horse riding facilities
3. Pedestrian and bicycle corridors and facilities
4. Golf courses

B. Open Space for Natural Resource Protection / Public Health and Safety

The following are examples of open space consistent with this type.

1. Woodland conservation/protection areas
2. Areas managed for the protection of habitat, native vegetation, and/or threatened or endangered species (e.g. nature preserves)
3. Jurisdictional and non-jurisdictional wetlands
4. Designated greenways
5. Stormwater detention and retention basins
6. Regulatory floodplains and conveyance zones
7. Required stream buffers located outside the regulatory floodplain and conveyance zone
8. Lands with slopes over 20%
9. Areas with karst (sinkhole) geology
10. Lands with unstable soils

C. Open Space for Aesthetic, Design Compatibility, Cultural and Educational Purposes

The following are examples of open space consistent with this type.

1. Visual resources such as providing substantial landscape buffer areas or providing a setback in excess of that required so as to maintain the integrity of a scenic corridor
2. Designated or recognized cultural, historic or archaeological sites
3. Landscaped roadway medians at least 30 feet in width that add to the community's improved visual appearance
4. Meadows

D. Open Space for the Managed Production of Resources

The following are examples of open space consistent with this type.

1. Agricultural lands and activities
2. Woodlands managed for forestry production
3. Community gardens

10.5.3 Amount of Open Space Credit

The amount of credit provided towards the fulfillment of an open space requirement or incentive for the various forms of open space depends upon its level of accessibility to the public and the development potential of the land itself. When calculating the amount of credit a particular open space area should be given the following shall apply.

- A. Credit equal to 125% of the open space area shall be given for any open space area that is permanently preserved as Public Open Space, except as prescribed in (D) of this Section.
- B. Credit equal to 100% of the open space area shall be given for any open space area that is permanently preserved as Common Open Space, except as prescribed in (D) of this Section.
- C. Credit equal to 75% of the open space area shall be given for any open space area that is permanently preserved as Private Open Space, except as prescribed in (D) of this Section and except that no credit shall be given for private open space areas where easements or development rights have been purchased or acquired through the use of public funds.
- D. Requirements of this paragraph D. shall only apply to sites that are developed in accordance with [Section 2.7.3](#) (Planned Residential Development District) or [Chapter 4 Part 5](#) (Alternative Development Incentives). Open space that is located in an area in which development is prohibited or is significantly restricted due to environmental constraints or other conditions shall be given partial open space credit in an effort to ensure their permanent preservation. These areas and the open space credit they shall receive are prescribed below.
 - 1. Conveyance zones (50% credit)
 - 2. Jurisdictional wetlands (50% credit)

In order for any of the areas mentioned above to qualify as open space and receive the open space credit prescribed herein, they must meet the open space standards set forth in Section 10.5.4. When an open space credit is prescribed by (D) of this Section, the amount of credit provided shall be calculated by multiplying the open space area by the credit (%) provided in (D) and then by multiplying that total by the credit (%) provided for the various types of preservation (e.g. public, common or private).

Note: *Partial credit for open space as specified in 10.5.3.D is not applicable to any required open space (e.g., Campus, Village form districts.)*

10.5.4 Open Space Standards

Because of the variety in the types and functions of open space demonstrated in **Section 10.5.2**, specific requirements are needed that permit the location, design and use of open space to be consistent with its intended purpose. As such the following standards have been developed for specific open space types and uses. Any area designated as open space shall be categorized and labeled on the face of the applicable plan (e.g. preliminary subdivision, development plan, final site plan, or landscape plan) according to the type of open space and the standards for that type of open space shall be applicable.

A. Standards for All Types of Open Space

1. Any area covered by or contained within any of the following shall not be considered as open space unless specifically permitted: buildings, streets, public or private rights-of-way, parking areas, utility rights-of-way (except where all utilities are required to be underground).
2. Parking lots may not be used to meet an open space requirement or incentive unless they are designed as part of the open space and are intended primarily for users of the open space (e.g., parking for sports field, greenway or park users). Semi-pervious paving systems shall be required when any parking lot proposed to be used as open space contains more than 20 parking spaces.
3. All parklands or other open space intended for dedication to public use must be approved as to location and design by the public entity proposed to be responsible for managing the open space prior to plan approval by the Planning Commission or DPDS.
4. All open space areas other than those provided for developments in the Downtown Form District shall have a minimum dimension of 30 feet and contain at least 6,000 square feet of contiguous area. A minimum dimension of no less than 15 feet may be permitted for pedestrian facilities that connect other open space areas within a site. When a site's open space requirement is less than 6,000 square feet the minimum area may be reduced to equal that requirement.
5. When an area is preserved as **private open space**, prior to the recording of a plat or the issuance of a building permit, whichever occurs first, the developer and recipient entity shall submit a copy of the recorded conservation easement assuring the permanent protection, preservation and maintenance of the proposed open space. If such documents are not provided, the open space area shall not be considered for the purposes of meeting required open space nor shall it be used to calculate any potential open space credit provided by the Land Development Code.

6. When an area is preserved as **common open space**, prior to the recording of a plat or the issuance of a building permit, whichever occurs first, the developer and, where applicable, recipient entity shall submit a copy of the recorded documents assuring the permanent protection, preservation and maintenance of the proposed open space. If such documents are not provided, the open space area shall not be considered for the purposes of meeting required open space nor shall it be used to calculate any potential open space credit provided by the Land Development Code. (See **Chapter 1** for specific maintenance requirements for common open space and common facilities.)
 7. When an area is preserved as **public open space**, the Planning Director shall review the proposed open space and determine, upon consultation with the Parks Director, if it is accessible by and a benefit to the general public. Prior to the recording of a plat or the issuance of a building permit, whichever occurs first, the developer shall permanently dedicate the open space to public use in a manner acceptable to the Planning Commission and the recipient entity.
- B. Standards for Outdoor Recreation
1. All open space for outdoor recreation shall be preserved as either common or public open space.
 2. All open space located within a site shall be integrated and connected with any part of an adjacent and designated park, open space or greenway.
 3. Squares and greens shall not be located behind dwellings. The Planning Director may allow exceptions to this standard upon determining that topography, existing street layout, or other features make this restriction impractical.
 4. All pedestrian and bicycle corridors used to meet an open space requirement or incentive may not be located in a public right-of-way, shall be at least 30 feet in width, and the paths and trails located within them must be designed to the standards contained or incorporated by reference in the *KIPDA Regional Pedestrian and Bicycle Plan*.
- C. Standards for Natural Resource Protection / Public Health and Safety Purposes
1. Greenways designated within and meeting the design standards of a legislatively adopted greenways plan or subsequent watershed master plan may be utilized to meet an open space requirement or incentive.

Note: *Open space should be integrated and connected within the site to the greatest extent practical.*

2. Jurisdictional and non-jurisdictional wetlands and their buffers may be used to satisfy an open space requirement or incentive if the hydrologic and vegetative character of the wetland is maintained in a pre-development condition. This shall not preclude increasing the volume of water or rate in which it passes through the wetland when the wetland is being used as a water quality filter and said modifications would not degrade the quality of the existing wetland. It shall also not preclude increasing the size of the wetland or enhancing its existing vegetation.
 3. Detention and retention basins may be counted towards an open space requirement or incentive as follows.
 - a. Retention basins designed to hold water at least five feet in depth on a continuous basis throughout the year may be used to meet an open space requirement or incentive if its banks are vegetated and landscaping is provided around the basin's perimeter in an effort to make it a visual amenity for the development and the basin is accessible by the provision of walking paths or other pedestrian facilities.
 - b. Detention basins may be used to meet an open space requirement or incentive if some form of outdoor recreation is incorporated into its design (e.g., walking paths, tennis courts, basketball courts and similar facilities within the basin). The frequency and duration of standing water in these basins shall not be such that proposed outdoor recreation use is practically restricted on a regular basis. The applicant shall address provision of maintenance necessary to allow the use of these areas. Landscaping should be provided around the basin's perimeter in an effort to make it a visual amenity for the development and its banks should be vegetated. The basins should also be accessible by the provision of walking paths or other pedestrian facilities. When access is provided within a basin the maximum grade of the pedestrian facilities shall be 12.5%.
 4. Areas with significant karst geology may be used to satisfy an open space requirement or incentive if sufficient area, inclusive of buffers, is preserved as open space in order to protect the geologic, hydrologic or vegetative character of the area.
 5. Unstable soils as depicted by *Core Graphic 5: "Environmental Constraints"* may be utilized to meet an open space requirement or incentive.
- D. Standards for Aesthetic, Design Compatibility, Cultural, Educational Purposes

1. Any roadway median that is intended to be used to satisfy an open space requirement or incentive shall be at least 30 feet in width and provide a landscape treatment including at least one large Type A tree per 50 linear feet of road frontage and some combination of shrubs and ground cover. Where pedestrian facilities/crossings are provided, they shall be designed and installed in accordance with current Public Works standards.
2. Cultural, historic or archaeological sites proposed to satisfy an open space requirement or incentive must be either locally designated as a Historic Landmarks Preservation District, must be located within the National Register Historic District, or be listed on or eligible for the National Register of Historic Places. The sites must be permanently preserved through easement or other form of dedication, and provisions agreed upon to secure the permanent maintenance and preservation of the sites. Open space credit provided in accordance with this provision shall not include any building or structure.
3. When a structure or group of structures are proposed adjacent to a designated scenic corridor, open space shall be credited for providing a structure setback from the scenic corridor at least 50% greater than that required. Upon providing the additional setback the entire setback, including that which is required, may be credited as open space as long as that area is permanently preserved as open space.
4. Landscape Buffer Areas (LBA's) required by this Land Development Code that exceed 40 feet in depth and that are permanently protected as open space may be used in their entirety to meet an open space requirement or qualify for an open space incentive.

Note: If a 30' buffer area is required, it must be supplemented by 10 additional feet in order to receive credit as open space.

E. Standards for the Managed Production of Resources

1. A maximum of 75% of any open space requirement or incentive may be satisfied by lands that are permanently preserved for Managed Production of Resources.

10.5.5 Transfer of Open Space Provisions

Where a portion of this Land Development Code requires open space or allows an incentive for the provision of open space and specifically allows for the transfer of that open space, then the owner/developer may choose to transfer a portion of an open space requirement or incentive to an off-site location subject to final approval by the Planning Commission or its designee. Any transfer will be subject to the following conditions and limitations.

- A. The following limitations shall apply to the amount of an open space requirement or incentive that may be transferred.

1. Residential Development Sites Greater than or Equal to Five Acres and Less than 50 Acres.....40%
 2. Residential Development Sites Greater than or Equal to 50 Acres and Less than 150 Acres.....25%
 3. Residential Development Sites Greater than or Equal to 150 Acres.....10%
 4. Non-Residential Development Sites Greater than or Equal to 25 Acres.....40%
- B. The minimum increment of open space to be transferred shall be one acre.
- C. The transfer of open space must be made to an off-site location that is within two miles of the site from which it is being transferred unless said open space is public open space, in which case the off-site location must be within either (1) two miles of the site from which it is being transferred or (2) the same *Recreation Planning Service Area* (as defined by the *Parks and Open Space Master Plan*). In any case the transfer of open space shall be subject to final approval by the Planning Commission or its designee.
- D. The transfer of open space must be provided in the form of a conservation easement owned or managed by a qualified holder or by dedication to the Parks Department or other governmental entity.
- E. A preliminary letter of interest on behalf of a qualified holder, the Parks Department, or other governmental entity must be completed and submitted concurrently with any application for plan review that would trigger the open space requirement or incentive. A legally created transfer agreement must be finalized and executed, and a copy provided to DPDS, within 90 days of any final approval of a plan submittal. The Planning Commission or its designee may grant up to two thirty-day extensions for the execution of said transfer agreement. Failure to execute the agreement or provide the copy may render the final approval of a subdivision plan or district development plan null and void.

10.6.1 Intent and Applicability

This document presents the review process and design guidelines for streetscape master plans. A streetscape master plan designation provides for the implementation of streetscape design standards to enhance the visual quality and the livability of street corridors for pedestrians.

10.6.2 Relationship to the Comprehensive Plan

The streetscape master plan review process and design manual implement the following objectives and policies of the comprehensive plan: Objectives C2.5, D2.4, E2.4, F2.4, G2.4, and H2.5, and Policies 8.4 and 8.12.

10.6.3 Designation Process

Any legislative body with zoning authority or the Louisville Metro Planning Commission may designate and create a streetscape master plan subject to review and recommendation by the Planning Commission and final approval subject to legislative body action. The proposed Streetscape Master Plan design standards shall be created in accordance with the layout and general requirements as listed in the Streetscape Master Plan Manual (Appendix 10D). The Planning Commission review process shall include reviews by appropriate public agencies and utilities. A public hearing with notice to property owners adjacent to the proposed master plan corridor and to registered neighborhood groups shall take place. Notice shall be given at least 30 calendar days prior to the public hearing.

10.6.4 Landscape Plan Requirement

Any development within the area of an approved streetscape master plan shall have a landscape plan approved prior to requesting a building permit. The landscape plan shall conform to the standards of the streetscape master plan.

10.6.5 Streetscape Maintenance Requirement

Property owners shall be responsible for maintenance of streetscape elements as required by an approved streetscape master plan. Dead or diseased planting materials shall be replaced, and the requirements of [Section 10.4.12](#) shall be met. Other streetscape elements shall be kept in good repair and clear of all obnoxious substances and rubbish.

PREFERRED TREES AND SHRUBS

(Suitable for the Louisville area and hardy in zones 5-7)

Contributed by: John A. Swintosky, ASLA, Metro Parks

TREES

SCIENTIFIC NAME	COMMON NAME	TREE TYPE
<i>Acer rubrum</i> (straight species)	Red Maple	A
<i>Acer saccharum</i> ssp. <i>nigrum</i>	Black Maple	A
<i>Acer sacharum</i> (straight species)	Sugar Maple	A
<i>Aesculus flava</i> (octandra)	Yellow Buckeye	A
<i>Aesculus glabra</i>	Ohio Buckeye	B
<i>Aesculus pavia</i>	Red Buckeye	C
<i>Alnus serrulata</i>	Alder	C
<i>Amelanchier laevis</i>	Serviceberry	C
<i>Asimina triloba</i>	Pawpaw	C
<i>Betula lenta</i>	Sweet Birch	A
<i>Betula nigra</i>	River Birch	A
<i>Carpinus caroliniana</i>	American Hornbeam	B
<i>Carya</i> (species)	Hickory	A
<i>Catalpa bignoniaceae</i>	Catalpa	A
<i>Celtis</i> (species)	Hackberry	A
<i>Cercis canadensis</i>	Redbud	C
<i>Chionanthus virginicus</i>	Fringe Tree	C
<i>Cladrastis kentukea</i>	Yellowwood	B
<i>Cornus alternifolia</i>	Pagoda Dogwood	C
<i>Cornus amomum</i>	Silky Dogwood	C
<i>Cornus florida</i>	Flowering Dogwood	C
<i>Cornus racemosa</i>	Gray Dogwood	C
<i>Crataegus</i> species	Hawthorn	C
<i>Diospyros virginiana</i>	Persimmon	B
<i>Fagus grandifolia</i>	American beech	A
<i>Franklinia alatamaha</i>	Franklinia	C
<i>Fraxinus americana</i>	White Ash	A
<i>Fraxinus pennsylvanica</i>	Green Ash	A
<i>Fraxinus quadrangulata</i>	Blue Ash	A
<i>Gymnocladus dioicus</i> (male only)	Kentucky Coffee Tree	A
<i>Halesia carolina</i>	Carolina Silverbell	B
<i>Halesia diptera</i>	Two-wing Silverbell	C
<i>Ilex opaca</i>	American Holly	A
<i>Juglans cinerea</i>	Butternut	A
<i>Juglans nigra</i>	Walnut	A
<i>Juniperus virginiana</i>	Eastern Red Cedar	B

Note: "Tree Type A" designates large trees, B type trees are medium and C trees are small for the purposes of applying the Land Development Code. See Table 10.1.3 and Tree Types A,B,C for further information for using this appendix

TREES

SCIENTIFIC NAME	COMMON NAME	TREE TYPE
<i>Liquidambar styraciflua</i>	Sweetgum	A
<i>Liriodendron tulipifera</i>	Tulip Tree	A
<i>Magnolia acuminata</i>	Cucumbertree Magnolia	A
<i>Magnolia macrophylla</i>	Bigleaf Magnolia	B
<i>Magnolia tripetala</i>	Umbrella Magnolia	B
<i>Magnolia virginiana</i>	Sweetbay Magnolia	C
<i>Nyssa sylvatica</i>	Blackgum	B
<i>Osmanthus americanus</i>	Devilwood	C
<i>Ostrya virginiana</i>	Hophornbeam	B
<i>Oxydendrum arboreum</i>	Sourwood	B
<i>Pinus echinata</i>	Shortleaf Pine	A
<i>Pinus flexilis</i>	Limber Pine	B
<i>Pinus strobus</i>	White Pine	A
<i>Pinus virginiana</i>	Virginia Pine	B
<i>Platanus occidentalis</i>	Sycamore	A
<i>Prunus serotina</i>	Black Cherry	A
<i>Ptelea trifoliata</i>	Hop Tree, Wafer Ash	C
<i>Quercus alba</i>	White Oak	A
<i>Quercus bicolor</i>	Swamp white Oak	A
<i>Quercus coccinea</i>	Scarlet Oak	A
<i>Quercus falcata</i> var. <i>pagodifolia</i>	Cherrybark Oak	A
<i>Quercus imbricaria</i>	Shingle Oak	A
<i>Quercus lyrata</i>	Overcup Oak	B
<i>Quercus macrocarpa</i>	Bur Oak	A
<i>Quercus marilandica</i>	Blackjack Oak	B
<i>Quercus michauxii</i>	Swamp chestnut Oak	B
<i>Quercus muehlenbergii</i>	Chinkapin Oak	B
<i>Quercus palustris</i>	Pin Oak	A
<i>Quercus phellos</i>	Willow Oak	A
<i>Quercus rubra</i> (borealis)	Red Oak	A
<i>Quercus shumardii</i>	Shumard Oak	A
<i>Quercus stellata</i>	Post Oak	B
<i>Quercus velutina</i>	Black Oak	A
<i>Robinia pseudoacacia</i>	Black Locust	B
<i>Salix nigra</i>	Black Willow	B
<i>Sassafras albidum</i>	Sassafras	B
<i>Stewartia monadelphica</i> ; <i>ovata</i>	Tall Stewartia; Mountain Stewartia	C
<i>Taxodium ascendens</i>	Pond Cypress	A
<i>Taxodium distichum</i>	Bald cypress	A
<i>Tilia americana</i>	American Linden, Basswood	A

TREES

SCIENTIFIC NAME	COMMON NAME	TREE TYPE
<i>Tsuga canadensis</i>	Eastern Hemlock	A
<i>Ulmus alata</i>	Winged Elm	B
<i>Ulmus americana</i>	American Elm	A
<i>Ulmus rubra</i>	Slippery Elm	A
<i>Viburnum lentago</i>	Nannyberry Viburnum	C
<i>Viburnum prunifolium</i>	Blackhaw Viburnum	C
<i>Viburnum rufidulum</i>	Rusty Blackhaw Viburnum	C
<i>Zelkova serrata</i>	Zelkova	A

SHRUBS

SCIENTIFIC NAME	COMMON NAME
<i>Aesculus parviflora</i>	Bottlebrush Buckeye
<i>Amorpha fruticosa</i>	Indigo Bush
<i>Aralia spinosa</i>	Devil's Walking Stick
<i>Aronia arbutifolia</i>	Red Chokeberry
<i>Aronia melanocarpa</i>	Black Chokeberry
<i>Arundinaria gigantea</i>	Cane
<i>Callicarpa americana</i>	Beautyberry
<i>Calycanthus floridus</i>	Sweet Shrub, Carolina Allspice
<i>Ceanothus americanus</i>	New Jersey Tea
<i>Cephalanthus occidentalis</i>	Buttonbush
<i>Clethra acuminata</i>	Cinnamon Clethra
<i>Clethra alnifolia</i>	Summersweet
<i>Corylus americana</i>	American Hazel
<i>Dirca palustris</i>	Leatherwood
<i>Euonymus americanus</i>	Strawberry Bush
<i>Euonymus atropurpureus</i>	Eastern Wahoo
<i>Fothergilla gardenii</i>	Dwarf Fothergilla
<i>Hamamelis vernalis</i>	Vernal Witchhazel
<i>Hamamelis virginiana</i>	Common Witchhazel
<i>Hydrangea arborescens</i>	Smooth Hydrangea
<i>Hydrangea quercifolia</i>	Oakleaf Hydrangea
<i>Hypericum</i> (species)	Saint John's Wort
<i>Ilex decidua</i>	Possumhaw
<i>Ilex verticillata</i>	Winterberry
<i>Itea virginica</i>	Virginia Sweetspire
<i>Lindera benzoin</i>	Spicebush
<i>Myrica pensylvanica</i>	Bayberry

SHRUBS

SCIENTIFIC NAME	COMMON NAME
<i>Philadelphus</i> (species)	Mockorange
<i>Physocarpus opulifolius</i>	Eastern Ninebark
<i>Prunus americana</i>	Wild Plum
<i>Rhamnus caroliniana</i>	Carolina Buckthorn
<i>Rhus aromatica</i>	Fragrant Sumac
<i>Rhus copallina</i>	Shining Sumac
<i>Rhus glabra</i>	Smooth Sumac
<i>Rhus typhina</i>	Staghorn Sumac
<i>Rosa carolina</i>	Carolina Rose
<i>Rosa setigera</i>	Prairie Rose
<i>Salix discolor</i>	Pussy Willow
<i>Sambucus canadensis</i>	Elderberry
<i>Spiraea alba</i>	Meadowsweet Spirea
<i>Spiraea tomentosa</i>	Steeplebush
<i>Staphylea trifolia</i>	Bladdernut
<i>Symphoricarpos orbiculatus</i>	Coralberry, Indian Currant, Buckberry
<i>Vaccinium stamineum</i>	Deerberry
<i>Viburnum acerifolium</i>	Mapleleaf Viburnum
<i>Viburnum cassinoides</i>	Witherod Viburnum
<i>Viburnum dentatum</i>	Arrowwood Viburnum
<i>Viburnum nudum</i>	Smooth Witherod
<i>Xanthorhiza simplicissima</i>	Yellowroot

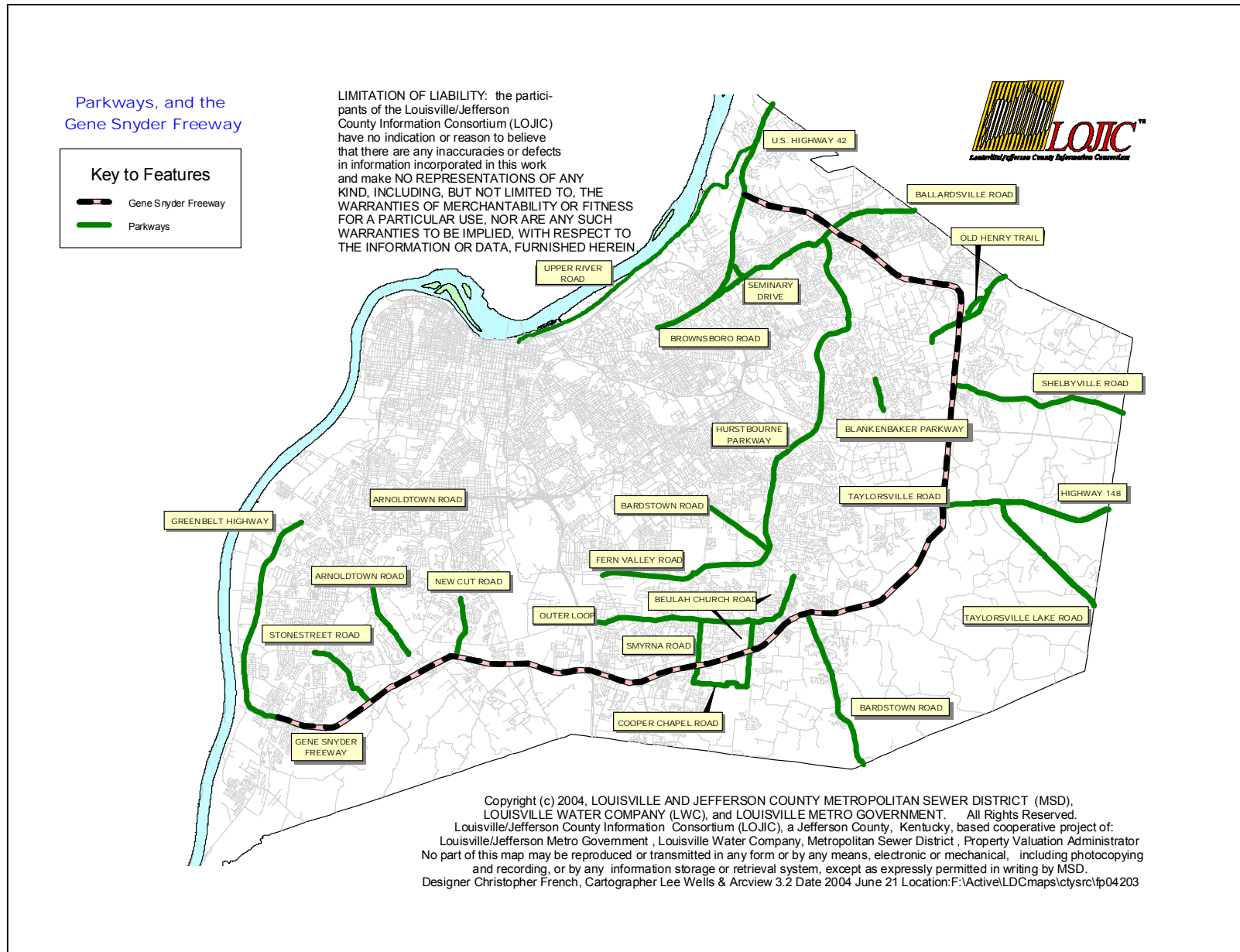
VINES

SCIENTIFIC NAME	COMMON NAME
<i>Bignonia capreolata</i>	Crossvine
<i>Campsis radicans</i>	Trumpet Vine
<i>Celastrus scandens</i>	Bittersweet
<i>Clematis virginiana</i>	Virgin's Bower
<i>Lonicera sempervirens</i>	Trumpet Honeysuckle
<i>Pachysandra procumbens</i>	Allegheny Pachysandra
<i>Parthenocissus quinquefolia</i>	Virginia Creeper
<i>Smilax glauca</i>	Cat Greenbrier
<i>Smilax rotundifolia</i>	Common Greenbrier
<i>Wisteria macrostachya</i> (frutescens)	Kentucky Wisteria

PLANT TYPE	SCIENTIFIC NAME	COMMON NAME 'CULTIVAR'	COMMENTS
A	<i>Ailanthus altissima</i>	Tree of Heaven	This tree is a highly invasive exotic, is weak wooded and of poor quality.
A	<i>Betula papyrifera</i>	Paper Birch	Susceptible to Bronze Birch Borer. Life expectancy in a site with some stress (i.e. street tree) is short in an urban area.
A	<i>Betula pendula</i>	European White Birch	This tree is highly susceptible to leaf miner and Bronze Birch Borer. This tree is also intolerant of urban stress and short lived.
A	<i>Diospyros virginiana</i> (female)	Persimmon (females only)	The fleshy fruit makes this a messy tree for pedestrian and parking environments.
A	<i>Ginkgo biloba</i> (female)	Ginkgo (females only)	The female of this species is unacceptable because of its fruit. The fleshy seed is extremely messy and malodorous.
A	<i>Gleditsia triacanthos</i>	Common Honey Locust	This tree is too thorny for use in the urban environment and especially for meeting ordinance requirements.
A	<i>Gymnocladus dioica</i> (female)	KY Coffee Tree (females only)	This tree produces six inch long leathery pods with sticky pulp which produce a messy condition unacceptable for urban situations.
A	<i>Morus alba</i>	Asian White Mulberry	This tree is a highly invasive exotic, made even more unacceptable because of the messy fruit.
A	<i>Populus</i> (all)	Poplars (all) 'White Poplars' 'Lombardy Poplar' 'Quaking Aspen'	All the listed poplars are unacceptable because they are disease prone, weak wooded and their roots will clog drain tiles, and storm and sanitary sewer lines.
A	<i>Populus deltoides</i>	Eastern Cottonwood	
A	<i>Ulmus carpiniflora</i>	Smoothleaf Elm	These trees are of poor quality and weak wooded with frequent wind damage. The plants also have disease and insect problems.
A	<i>Ulmus fulva</i>	Red Elm	
A	<i>Ulmus pumila</i>	Siberian Elm	
B	<i>Acer negundo</i>	Box Elder	This tree is of poor quality and weak wooded with frequent wind damage. The plant is disease and insect susceptible.
B	<i>Albizia julibrissin</i>	Mimosa Tree	The mimosa is an invasive exotic noxious species. This tree is weak wooded, and the seed pods are messy, with seed pods littering the ground. It is not very disease and insect tolerant.

PLANT TYPE	SCIENTIFIC NAME	COMMON NAME 'CULTIVAR'	COMMENTS
B	Maclura promifera (female)	Osage Orange (females only)	The large fruit, 3-4" diameter, makes this plant unacceptable to meet code.
B	Malus pumila	Common Apple	This tree is weedy and its fruit is too large to warrant the use of this tree to meet ordinance requirements. Some varieties are susceptible to disease.
B	Paulownia tomentosa	Princess Tree	This tree has a long leaf drop period, messy seed pods, and huge leaves, which make it unsuitable to meet ordinance requirements.
B	Pyrus calleryana	Callery Pear 'Bradford'	This tree exhibits severe structural problems with main trunks splitting apart and has some serious disease problems.
B	Pyrus communis	Common Pear	This tree is extremely susceptible to fireblight and its large fruit makes this tree unsuitable for urban use.
B	Salix babylonica	Weeping Willow	Messy (always dropping small branches), weak wooded, susceptible to canker (disease), taps sewer and water lines.
B	Sorbus (species)	Mountain Ash (species)	These trees are susceptible to a host of diseases and pests. This tree is not recommended as a street tree because it is not urban tolerant and it has 1/2" fleshy seed pods. Best used in open lawn areas for private use.
C	Elaeagnus umbellata	Autumn Olive	This plant is a highly invasive exotic, and is short lived.
C	Elaeagnus angustifolia	Russian Olive	This plant is a highly invasive exotic, and is short lived.
C	Euonymus alatus	Winged Euonymus	This plant is an invasive exotic in natural areas.
C	Euonymus kiautschovicus	Spreading Euonymus	Susceptible to severe, annual winter damage or death.
C	Hibiscus syriacus	Rose of Sharon	This exotic species seeds itself aggressively; therefore, it is unacceptable to meet long term landscaping needs.
C	Laburnum x watereri	Golden Chain Tree	This plant is not reliably hardy in this zone. Seeds are poisonous.
C	Ligustrum (all)	Privets (all)	These trees are of poor quality and weak wooded with frequent wind damage. The plants also have disease and insect problems.
C	Lonicera maackii	Honeysuckle	This species is a highly invasive exotic.
C	Lonicera morrowii	Honeysuckle	This species is a highly invasive exotic.

PLANT TYPE	SCIENTIFIC NAME	COMMON NAME 'CULTIVAR'	COMMENTS
C	Lonicera tatarica	Tatarian Honeysuckle	These species are highly invasive exotics.
C	Malus (selected)	Crabapples (as shown) Almey', 'Corovaria' Dorothea', 'Eley', 'Hopa' Ioensis', 'Red Silver' Radiant', 'Sylvestris'	Many of the old varieties of crabapples are susceptible to disease and insects. There are many new clones which are highly resistant to the four major crabapple diseases
C	Prunus cerasifera (Straight Species)	Cherry Plum (Straight Species)	Both of these trees have serious disease problems and are pollution sensitive.
C	Prunus persica	Peach	
C	Rhamnus cathartica	Common Buckthorn	This species is a highly invasive exotic.
C	Rhamnus frangula	Glossy Buckthorn	This shrub experiences serious disease problems and can be a highly invasive exotic. It also has problems surviving in areas with heavy traffic, because of soil compaction.
D	Ilex cornuta	Chinese Holly	The plant is susceptible to severe winter damage or death, and is not hardy in this zone.
D	Philadelphus coronarius	Sweet Mockorange	The open habit of this plant does not meet code.
D	Photinia x fraseri	Fraser Photinia or Red Tip	This plant is not completely hardy in this region.
D	Photinia villosa	Oriental Photinia	The plant has problems with disease, which limits its use to meet landscaping requirements.
D	Prunus glandulosa	Dwarf Flowering Almond	The open habit of this plant does not meet code.
D	Pyracantha coccinea	Scarlet Firethorn	This species fruit is very susceptible to scab (disease). Superior clones of Pyracantha are available and should be used instead of the species.
E	Rosa multiflora	Japanese Rose	This species is a highly invasive exotic.
F	Euonymus fortunei	Wintercreeper Euonymus	This groundcover is an aggressive invasive exotic species.
F	Polygonum cuspidatum	Japanese Knotweed	This groundcover is an aggressive invasive exotic species.



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Louisville/Jefferson County Information Consortium (LOJIC), a Jefferson County, Kentucky, based cooperative project of:

Louisville/Jefferson Metro Government
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Metropolitan Sewer District
Property Valuation Administrator

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