

LANDSCAPING LDC SUB-COMMITTEE
FINAL RECOMMENDATIONS

LAND ITEM #1

Section 10.1.2 Applicability and Basis of Calculation

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- 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 **footprint** 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 **footprint** 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.

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LAND ITEM #2

Section 10.1.2 Applicability and Basis of Calculation

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- B. Expansion or reconstruction of an existing nonresidential building or development shall be subject to the requirements of this Part as follows:
3. Any development site on which there is an increase in building area **footprint** or impervious surface area by twenty (20) percent or less shall not be required to provide the tree canopy required by this Part.

LAND ITEM #3

10.1.3 Alternatives Methods for of Compliance

A. The tree canopy requirements of this Part may be satisfied **at in the following order of preference: the applicant's discretion by any combination of the following means.**

1. **A.** Preservation of existing trees or tree stands on the development site.
2. **B.** **If existing trees or tree stands cannot be preserved on the development site, planting new trees on the development site or as street trees on adjacent rights-of-way may satisfy the tree canopy requirements.**
3. **C.** **If a development site cannot meet the tree canopy requirements through preservation or the planting of new trees, then the applicant may come into compliance by planting new trees on an alternative site approved by the Planning Commission, at the applicant's expense under the following requirements:**

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.

- a. **A written agreement between the applicant and property owner regarding the planting and maintenance of the trees must be submitted.**
- b. **The plantings must be provided and installed at the applicant's expense unless otherwise stated.**
- c. **The Planning Director or designee Planning Commission may approve determine 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 **Public** 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 Director or designee** finds that additional tree canopy would be in the public interest.
- 5. In any such case, The Planning **Commission Director or designee** 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.~~**

- 4. If one of the above methods of compliance cannot be met for the development site then the applicant may pay a fee in lieu in an amount as determined by the Planning Director or designee and Urban Forestry Coordinator (or comparable position), to a designated tree account per 1 3/4" caliper tree required to meet a sites tree canopy requirement. These tree funds will be administered and tracked by the Urban Forestry Coordinator for the planting and maintenance of trees pursuant to the City's most recent tree canopy study or at sites determined by the Planning Director or designee and the Urban Forestry Coordinator.**

LAND ITEM #4

Section 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.)
- B. Tree Canopy Credit Areas (TCCA) and Woodland Preserved Areas (WPA) can be used to satisfy tree canopy requirements while Temporary Tree Protection Areas (TTPA) may not be used to satisfy tree canopy requirements.**

LAND ITEM #5

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.)

(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.

Land Use	Form District			
	Downtown, Traditional Marketplace Corridor, Traditional Workplace, <u>Town Center</u>	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 C	Class C

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

LAND ITEM #7

Section 10.1.4

- 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 <u>and Greater</u>	66% Reduction
- FAR 1.0 and Greater <u>in Downtown Form District only</u>	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 <u>and Greater</u>	66% Reduction
- 22.01 Du/Acre and Greater <u>in Downtown Form District only</u>	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.

LAND ITEM #9

Section 10.1.4

- D. **As required by Section 10.4.13** 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.

LAND ITEM #10

Section 10.1.4

- 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~~ **the Planning Director** 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.

LAND ITEM #11

Section 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, **credit for existing trees intended to be retained may be calculated in either of two ways:**
 1. **Measurement of the trunk of** ~~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;~~ **or**
 2. **The dripline may be plotted on the site plan and tree canopy credit given for the square footage of the site within the dripline.**

LAND ITEM #12

Section 10.1.5 Calculation

- 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~~ **square footage** of the site within the dripline.

LAND ITEM #13

Section 10.1.5 Calculation

Table 10.1.3 Deciduous Tree Canopy Credit

Caliper	Tree Type**	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)

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

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

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

NOTE: Upon approval by the Planning Director, or designee, other reputable tree information sources, such as the Manual of Woody Landscape Plants by Michael Dirr, may be used in lieu of or in addition to Table 10.1.3.

NOTE: For particularly mature trees, ground checking may yield larger credits than those based on this table.

NOTE: Canopy credit for evergreen trees to be determined by the Planning Director, or designee, in working with the applicant, using a reputable tree information source such as the Manual of Woody Landscape Plants by Michael Dirr or other similar publication.

Table 10.1.4 Evergreen Tree Canopy Credit

Height	Tree Type*	Amount of Credit (per tree)
15 feet and 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 9 feet and less than 15 feet	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 6 feet and less than 9 feet	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)

LAND ITEM #14

Section 10.1.6 Tree Preservation Protection Plan Requirement

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

A. **All Temporary Tree Protection, Tree Canopy Credit, and Woodland Preserved areas shall be identified, protected and/or preserved in accordance with Chapter 10 Part 4 and the Tree Preservation Policies of Louisville Metro Planning and Design Services (Appendix 10D).** 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 **protection** plan. All tree preservation, tree canopy protection and woodland protection areas shall be in accordance with the Tree Preservation Policies of Louisville Metro Planning and Design Services.

1. The content of such a plan is dependent upon the means by which the existing tree canopy is to be calculated, as follows:
1. ~~A tree inventory will be required for plans that show Tree Canopy Preservation Areas. The tree inventory shall be submitted as part of the tree preservation plan review process and shall be only for the trees shown in the TCPA. The tree inventory shall include but not be limited to the following information: Date of inventory, person(s) preparing the inventory, location of trunk and drip line, size, CRZ, health, and species of all existing trees on the property for all trees 4"~~

- diameter and greater. A completed tree inventory list shall accompany the plan documenting all existing trees located on the inventory.
- ~~2. Sites that are preserving more than one acre of continuous TCPA shall inventory a 50' X 50' sample area or 2,500 sf area. The applicant shall work with staff on choosing a sample area representative of the species distribution found in the TCPA. Dead, diseased, or dying trees may not be included as part of the inventory. For enforcement purposes the sample area will be used to determine tree replacement regardless of where the tree removal actually occurred.~~
 2. **Any modification of the tree preservation plan requested by the applicant may be approved by the Planning Director, or designee, if the changes are in keeping with the intent of the approved development plan.**

LAND ITEM #15

- B. Standards for Tree Canopy Preservation Credit Areas
1. Tree Canopy Preservation Credit Areas (TCPA) **(TCCA) and Woodland Preserved Areas (WPA)** 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 **TCCA/WPA** boundary delineates the limit of disturbance associated with the TCPA **TCCA/WPA**. 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 **TCCA/WPA** 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. **Underbrush is permitted to be removed within a TCCA.**
 4. Location of Structures and Parking
 - a. no structure (exception: fences, walls, retaining walls) 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).
 - c. No retaining walls shall be closer than 10 feet to the Limit of Disturbance (Tree Protection Fence) except for retaining walls approved by PDS staff to be used in the preservation of existing trees.
 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.
 6. **Modification of Woodland Preserved Areas shown on approved development plans shall require the approval of the Planning Commission or authorized committee after the notification requirements as listed for detailed district development plans in Section 11.4.7.F.1 have been fulfilled.**
 7. **Woodland Preserved Areas will generally be protected by easement or other mechanism shown on the approved development plan or described in binding elements/ conditions of approval for a development plan. Subdivision deeds of restriction are used as one tool to inform future property owners of clearing restrictions.**
 - ~~6-8.~~ For sites larger than two acres, tree preservation plans shall be stamped **approved** by a KY licensed landscape architect or a certified arborist.
 - ~~7-9.~~ Establishment of the Critical Root Zone – The LDC requires that proposed developments demonstrate that trees are preserved to the maximum extent reasonable and feasible. Tree preservation is effectively defined as root system preservation; a Critical Root Zone Area (CRZ) will be assigned to each tree, based on trunk diameter size. In order to be considered as TCPA **TCCA/WPA**, a minimum of 50% **75% of the innermost portion of the radius** of the CRZ is required to be left undisturbed around the tree. **CRZs** Trees are to be depicted on **the tree inventory and tree preservation plan wherever planned improvements fall within proposed TCCAs/WPAs, with a CRZ circle centered on the tree base location (i.e. a twenty inch diameter tree is represented by a 40 foot diameter circle).** The formula is: Tree in inches X 2, then convert to feet = CRZ diameter. **CRZs shall be determined by survey of the dripline or based on circle twice the diameter of the tree. (i.e. a twenty inch diameter tree is represented by a 40 foot diameter circle).** **Sufficient dimensions** The CRZ circles will be shown on the tree inventory and tree preservation plan so that review staff can discern the extent of disturbance proposed near existing trees **to the CRZ.**

LAND ITEM #16

Section 10.1.6

- C. ~~TCPA~~ **TCCA** Exceptions – Sites which present unique development constraints will have opportunities to preserve existing trees as ~~TCPA~~ **TCCA** as determined by the Planning Director or designee. Such situations are described below.
1. Utilities - A proposed development which requires underground utilities shall avoid the installation of said utilities within the drip line and critical root zone of existing trees whenever possible. In the event that this is unavoidable, all trenching shall be done by directional boring taking extreme caution to avoid damage to the root structure. (*Note: LWC contractors are trained to use directional boring where applicable*)
 2. Trunk Protection (Limited Application) - Tree trunk protection shall be provided in accordance with detail. Tree trunk protection shall consist of any 2 x 4-inch or 2 x 6-inch planking or plastic strapping
 3. Tree Wells for Raised Grades - When existing grades are raised by more than 6 inches **25% of the CRZ radius**, the tree root system shall be protected by the installation of tree wells in accordance with detail (to be provided). ~~Building materials (brick, stone, timber, etc.) similar to those utilized on site shall be used for the separator wall of the well and PVC conforming to ASTM D-2729, SDR-35 shall be used for the aeration systems in fill areas.~~
 4. Cutting and Filling Around Trees - ~~When the depth of an excavation or embankment exceeds 6 inches within the drip line or CRZ of any tree with a diameter greater than 4 inches, a tree well shall be constructed to protect the tree as indicated on the tree preservation plan.~~ **A tree will not be considered toward meeting tree canopy requirements when existing grades are raised or lowered over more than 50% of the CRZ (25% of the radius) unless a tree well is constructed to protect the tree. Building materials (brick stone timber etc.) similar to those utilized on site shall be used for the separator wall of the well and PVC conforming to ASTM D-2729, SDR-35 shall be used for the aeration systems in fill areas.**
 5. Paving Around Trees - Where paving within the drip line of any tree greater than a 4 inch diameter is necessary, a permeable pavement and aeration system must be installed as indicated on the tree preservation plan, except for street construction. Permeable segmented pavers in conjunction with PVC pipe aeration system or concrete on gravel base with cored holes shall be used to protect existing tree root zones.
 6. Other techniques as described by applicant and approved by the Planning Director or designee.

LAND ITEM #17

Section 10.1.6

- D. Percent change in ~~TCPA~~ **TCAA**- A threshold of change from development plan to construction plan will be considered as there are many unknowns at development plan stage (unforeseen site constraints, rock, utilities etc.). Percentage of change must be in keeping with the original intent of the ~~TCPA~~ **TCAA** shown on the plan. ~~Percent of change from development plan to construction plan shall be no more than 10%~~ **may be approved by the Planning Director or designee, provided the minimum tree canopy requirements are still being met.** ~~of the original TCPA shown on the approved development plan.~~ A change greater than 40% **20%** will require Planning Commission or designee approval.

LAND ITEM #18

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 less**. 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~~ **another alternative method of compliance** 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.

LAND ITEM #19

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. **Expansion or reconstruction of an Existing multi-family residential building, nonresidential building, or development is shall be subject to this part as defined below the requirements of this Part as follows:**

1. ~~Any increase/expansion of an existing building/structure's square footage by 20% or more~~ **Any development site on which there is an increase in building footprint 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 landscape requirements set forth in this part.**
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)~~ **Any development site on which there is an increase in building footprint or impervious surface area by more than twenty (20) percent and less than fifty (50) percent- only the area of new improvements shall be subject to the requirements of this part.**
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.~~ **Any development site on which there is an increase in building footprint or impervious surface area by twenty (20) percent or less shall not be required to provide the landscaping required by this Part.**

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.~~

LAND ITEM #20

Section 10.2.3 Landscape Buffer Area Requirements

- A. 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.

- B. 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. **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.**

LAND ITEM #21

Section 10.2.4 Property Perimeter Landscape Buffer Areas

- A. **General Requirements:** Property Perimeter Landscape Buffer Areas shall be applied along all property **applicable zoning** boundaries, **as required by the Land Development Code**, 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.

LAND ITEM #22

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, PD (single family residential use)
2	R-5A, R-6, R-7, U-N, TNZD, Institutional Uses, PD (multi-family residential use)
3	R-8A, OR, OR-1, OR-2, OR-3, OTF, C-R, W-1 residential use), W-2 (residential use), PD (office use)
4	C-N, C-1, C-2, M-1, C-M, PTD, W-1 (commercial use), W-2 (commercial use), PD (commercial use), PEC PEC (commercial use) ¹ , PRO ¹
5	M-2, M-3, EZ-1, PD (industrial use), PEC (industrial uses), W-1 (industrial use), W-2 (industrial use), <u>W-3</u> , utility substations, landfills, treatment plants or similar uses, <u>cell towers</u>

STEP 1

Determine intensity class for the proposed use and adjacent sites.

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

Landscape buffer areas between C-3 zones (outside of Downtown Form District) could be added per the Planning Director as appropriate based on compatibility with surrounding uses.

~~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.

These requirements may be modified as long as the area within the property perimeter landscape buffer contains an MSD approved Green Management Practice (GMP). In such a case, refer to Chapter 13: Native Revegetation in the MSD Design Manual (a link to document found in Appendix 10A) for planting requirements. These modifications shall be approved by Planning Commission staff Landscape Architect.

LAND ITEM #23

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 **and Town Center** 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.)

LAND ITEM #24

Section 10.2.4.B Explanatory Text and Exceptions

- i. 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 15 feet wide, and that there is a continuous 10 foot buffer.** 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.

NOTE: Retaining walls are not permitted within a required landscape buffer area unless the retaining wall is 4' or under and the LBA is at least 25 feet wide.

LAND ITEM #25

Section 10.2.4.B Explanatory Text and Exceptions

- iii. 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. **Above ground utilities and easements such as overhead utility lines, access easements, and drainage easements for ditch and detention basins etc. may overlap more than 50% as long as the buffer width and the screening and planting requirements are met.** 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. **Plantings that may interfere with overhead electric transmission lines may not be planted directly underneath or adjacent to said transmission lines.**

LAND ITEM #26

Section 10.2.4.B Explanatory Text and Exceptions

- ~~iv. 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 as long as the adjacent property owner commits in writing to preserving the screening/planting devices on their property.

LAND ITEM #27

Section 10.2.4.B Explanatory Text and Exceptions

- ~~v.~~ 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.

LAND ITEM #28

Section 10.2.4.B Explanatory Text and Exceptions

- ~~vi.~~iv. Private schools and churches are to be considered the same as Intensity Class 3 for the purposes of screening in accordance with this part.
- ~~vii.~~v. 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.
- ~~viii.~~vi. 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 **Chapter 10** 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.
- ~~ix.~~vii. 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.~~
- ~~x.~~viii. 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.
- ~~xi.~~ Cellular towers are considered the same as utility substations for the purposes of screening in accordance with this part.

LAND ITEM #29

Section 10.2.4.B Explanatory Text and Exceptions

- ~~xii.~~ix. 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 a Type A **buffer as indicated in Table 10.2.3** between parking when adjoining zoning districts are no more than 1 intensity category apart.
NOTE: "Type A" in part 3 refers to landscape buffer area in Table 10.2.3
 4. If property in intensity class 2 is developed as patio or town homes with a maximum of **6 4** 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.)
NOTE: Paragraph 4 exemption applies only to screening; trees specified in Table 10.2.4 are required.

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.
6. Perimeter property landscape buffers are not required between a multi-family residential zone and a single-family residential zone when the multi-family residential property is developed as a single-family residential use.
7. **When non-residential uses are adjacent to each other, the screening is not required. The buffer width and tree requirements are still required per Tables 10.2.3 and 10.2.4.**
8. **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.**
9. **Landscaping for attached housing using the ADI regulations can be found in Chapter 4 Part 5.**
10. **Landscape Buffer Areas can be variable as long as they were not reduced to a width less than 5', that there was no net loss of greenspace, and that the width was not varied more than 25% of the required width.**

LAND ITEM #30

Section 10.2.5 Property Perimeter Planting

- A. 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.
- B. In situations where a property perimeter Landscape Buffer Area slopes **has an elevation change**, the required plantings **screening** shall be located where the **Planning Director or designated staff** ~~staff of the Planning Commission~~ determines they will most effectively screen the more intensive uses.
- C. 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~~ **Planning Director or designated staff** ~~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 Table 10.4.1 Credit for Existing Trees being Preserved.

LAND ITEM #31

Section 10.2.6 Other Uses And Structures Requiring Screening

- A. Screening shall be provided around all service structures (e.g., propane tanks, refuse disposal containers or 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.~~
- B. 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.
- C. **Loading docks and outdoor storage or maintenance yards shall also be screened when adjacent to any right-of-way or residential use or zone. Loading areas/docks are not required to be screened from adjacent industrial uses.**
- D. 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.
- E. See Section 4.4.9 for refuse disposal container location and screening requirements.

LAND ITEM #32

Section 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. **Street trees are required along all streets and for all uses within the Downtown Form District.** 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 (**EXCEPTION: Refer to Chapter 3 for Floyds Fork Overlay information.**) In the event that an MSD approved Green Management Practice (GMP) is being proposed within the right of way or along the edge of the property, the street tree(s) shall be chosen from Chapter 13: Native Revegetation from the MSD Design Manual (a link to document found in Appendix 10A).
- 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.
- D. **Please refer to Chapter 10 Part 6 for Streetscape Master Plans.**

LAND ITEM #33

Section 10.2.9 Riparian Trees

- A. Suburban Form Districts. A tree canopy bonus shall be given for tree plantings meeting the minimum requirements of chapter 10 of the LDC. These bonuses shall be given for plantings within the middle and outer areas of the waterway buffer required for solid blue-line streams as outlined within Chapter 4, Part 8 of the LDC for buffers with little or no existing vegetation. The tree canopy bonuses are outlined below:
 - 1. Middle Buffer – 10%
 - 2. Outer Buffer – 5%
- B. Traditional Form Districts. A tree canopy bonus of 10% may be obtained for additional tree plantings meeting the minimum requirements of chapter 10 of the LDC and approved by MSD to occur within the 25 foot buffer required adjacent to blue line streams. This bonus is applicable to new plantings within buffer areas with little or no existing vegetation. New tree plantings within 100 feet of the top of bank of the blue line stream and within an open space area may be approved at the discretion of the **Planning Director or designated staff landscape architect** for a 5% bonus for tree canopy calculations.

LAND ITEM #34

Section 10.2.10 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
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	Downtown, Village Center, Traditional Neighborhood, Traditional Marketplace Corridor, Traditional Workplace, <u>Town Center</u>	Regional Center, Town Center, Suburban Marketplace Corridor, Neighborhood, Suburban Workplace, Campus, <u>Village Outlying</u>
up to 10,000	5-FT	5-FT
10,001-30,000	5-FT	10-FT
>30,000	10-FT	15-FT

A. 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.

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

B. 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.

LAND ITEM #36

Section 10.2.12 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 and to provide the opportunity to capture parking lot stormwater runoff, thus increasing water quality and retaining greater amounts of storm water on site through infiltration. 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 PD (industrial uses), 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:

VUA Size	ILA Area
--under 6,000 sq. ft. or containing < 10 parking spaces	0%
--6,000 - 12,000 sq. ft. or up to 20 parking spaces	5%
--if in a Traditional or Downtown Form District	(2.5%)
--12,000 1 - 30,000 sq. ft. or up to 100 parking spaces	7.5%
-- if in a Traditional or Downtown Form District	(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 ~~433~~ **290** 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~~ **20 spaces**

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.

LAND ITEM #37

Section 10.2.13 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 4, 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.

For sites utilizing bio-retention areas as ILA's, the required ILA trees may be relocated adjacent to an impervious surface on the site. However, the number of relocated ILA trees shall not exceed 25% (1 A/B type tree per every 4,000 sf) from what is required in this part. Plantings shall be per the MSD Green Management Practice Manual.

A 10% reduction in required parking is allowable if the VUA exceeds 6,000 Sq. Ft. and 25% of the required ILA is depressed bio-retention areas and is utilized for stormwater management. Depressed bio-retention areas can be used to meet the MSD Design Standards stormwater pretreatment requirements.

NOTE: the following requirement of Chapter 9, Part 1 may require additional interior landscape area:

Developments that provide more than fifty (50) off-street parking spaces and exceed the minimum number of parking spaces required by this Part shall either:

- a. ~~Surface a portion of its total parking area proportional to the extent to which the minimum number of parking spaces is exceeded using concrete; or~~
- b. ~~Surface the parking spaces in excess of the minimum using semi-pervious paving systems, or locate those parking spaces in excess of the minimum within parking structures or elevator parking systems; or~~

~~Provide 25% more trees within the required Interior Landscape Area (ILA) than is otherwise required by Chapter 10 of the Land Development Code for the site's entire parking area. **An additional tree shall be provided for every four (4) parking spaces above the minimum number of parking spaces required by this Part, up to 25% more trees than would otherwise be required.** The trees provided shall be Type A trees that maximize the amount of shade that is provided within the parking area. Additionally, the ILA's shall be designed to maximize their ability to absorb the site's stormwater runoff in an effort to improve the water quality of the stormwater runoff and to provide an adequate water supply to ensure the long term health of the canopy trees. The Planning Commission may modify this requirement if the applicant demonstrates that an alternative site design, surfacing material or facility type offers greater environmental benefits than those associated with the requirements in this Part.~~

The Planning Commission may modify this requirement if the applicant demonstrates that an alternative site design, surfacing material or facility type offers greater environmental benefits.

LAND ITEM #38

Section 10.2.16 Form District Specific Landscape Requirements

The following form district specific landscape requirements apply regardless of the applicability of general chapter 10 requirements.

1. See Section 7.1.84 for new single family residential subdivisions within a Suburban Workplace Form District.
2. Per Chapter 5 Part 5 regardless of the applicability of Chapter 10 requirements the following shall apply. When a property is located in the Suburban Workplace Form District. Industrial uses, including structures, loading and truck parking areas, and outdoor storage located within 200 feet of and having a common lot line with residentially used or zoned parcels shall include a 50 foot landscape buffer area with a 6 foot **screen (e.g. fence, hedge, berm, wall, etc.)** and canopy trees as required by planting density 1. ~~In cases where trees are to be preserved within the 50-foot landscape buffer, staff landscape architect may waive the need for the six-foot berm and replace it with another acceptable continuous screening landscape element (e.g. fence, hedge, etc.).~~
3. See Section 5.4.2.B.1.b for additional landscape buffer requirement in Suburban Form Districts.
4. In the Town Center Form District perimeter masonry walls or a combination of masonry wall and landscaping between residential uses may be substituted for the required property perimeter buffer yard to promote a more compact pattern of development.

LAND ITEM #39

Section 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 impervious surface 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*.

LAND ITEM #40

Section 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 <u>adjacent to</u> the vehicle use area with an average height of at least 3 feet and shrub massings on or fronting the berm <u>screening device</u> with at least 1/3 of the frontage length planted.
Nonresidential & Mixed-Use	30 feet	30 feet	1 Type A tree for each 40 feet of road frontage and a visually continuous berm as needed to screen <u>adjacent to</u> the vehicle use area with an average height of at least 3 feet and shrub massings on or fronting the berm <u>screening device</u> 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~~ **required setback** 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.
10. Parkway plantings must be installed within 6 months or next available planting season per PDS staff, from the issuance of the site disturbance/clearing and grading permit.

LAND ITEM #41

Section 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 (**e.g. See Chapter 3 Floyds Fork DRO**).

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.
		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

Nonresidential			screen the <u>adjacent to the</u> vehicle use area with an average height of at least 3 feet and shrub massings on or fronting the berm <u>screening device</u> with at least 1/3 of the frontage length planted.
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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~~ the required setback 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~~ required setback. 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.
11. Scenic corridor plantings must be installed within 6 months or next available planting season per PDS staff, from the issuance of the site disturbance/clearing and grading permit.

LAND ITEM #42

Section 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

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.

LAND ITEM #43

~~Section 10.3.8 Olmsted Parkway Development Standards (RESERVED)~~

LAND ITEM #44

Section 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, at his/her option, ~~choose to submit a landscape plan depicting buffering materials/plantings that~~ which conforms to the spirit and intent of this Part, while varying from the its specific planting requirements. ~~The alternative buffering materials/plantings may be permitted if the Planning Director finds that said deviations are~~ plan presented must be deemed a substantial improvement over the minimum requirements of this Part by the Planning Commission or the agency responsible for plan review.

LAND ITEM #45

Section 10.4.1 Plant Species

- A. 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. For areas where bio-retention or constructed wetlands are proposed, plants must be chosen from Chapter 13: Native Revegetation from the MSD Design Manual (a link to document found in Appendix 10A) except as indicated in Part 3 of this Chapter.
- B. 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 and shrubs for all development proposals shall conform to the following diversification formula:
 - 50% maximum of any single genus (e.g., Quercus, meaning Oak)**
 - ~~50~~**25%** maximum of any single species (e.g., Quercus rubrum, meaning Red Oak)
 - ~~25%~~ maximum of any single species within bio-retention, wetlands or other GMP planting areas provided the area is over 200 s.f.
- C. Exceptions to the diversification formula shall be allowed for:
 - 1. Sites of less than two acres, if required plantings are chosen from the Preferred Plant List
 - 2. 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;
 - 3. A Planned Development or General Development Plan containing a planting plan approved prior to the effective date of this code

LAND ITEM #46

Section 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~~ **American Standard for Nursery Stock** and shall have passed any inspections required under state regulations. Bare root plants, with the exception of vines and groundcovers and bio-retention plants shall be prohibited.

LAND ITEM #47

Section 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
Shrubs within GMP planting area	18 inches high

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
Bio-retention area tree found in Ch. 13 of MSD Design Manual but not in Appendix 10A preferred plant list	1 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 4 1 3/4" inch caliper.

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

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 chart indicates the credit applied for each existing preserved tree. The credit for the existing tree can be used toward landscape buffer area planting requirements.

Table 10.4.1 Credit for Existing Trees being Preserved for Buffer Requirements

Diameter Size of Existing Tree	Minimum Square Footage of Greenspace	New Tree Equivalent
6" or less	150	1 medium tree (Type B)
>6" – 9"	150	2 medium tree (Type B)
>9"	250	Each additional 3" diameter increment above 9" counts as an additional medium tree (Type B)

LAND ITEM #48

Section 10.4.4 Spacing

...
~~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~~ **overhead wires (see graphic)**. 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. **Landscaping near a fireplug must comply with the most recent edition of the applicable fire ordinance.**
 ...

LAND ITEM #49

Section 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. **For more information refer to the latest edition of ANSI A300 which are the generally accepted industry standards for tree care practices developed by the American National Standards Institute.**

Section 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. **For more information refer to the latest edition of ANSI A300 which are the generally accepted industry standards for tree care practices developed by the American National Standards Institute.**

LAND ITEM #50

Section 10.4.8 Protection During Construction

- A.** All tree preservation **Temporary Tree Protection**, tree canopy protection **Tree Canopy Credit**, and woodland protection **Woodland Preserved** Areas shall be identified, protected and preserved in accordance with Tree Preservation Policies of Louisville Metro Planning and Design Services.
- B.** Tree Protection Fencing – Protection fencing is designated as the materials used to protect the critical root zone of trees as illustrated below. Three basic types of protective fencing materials are allowed by the LDC. Type A and Type B are typical applications to be installed on sites two acres or less. Type C

shall be installed on sites greater than two acres. Where type C is used signs shall be posted every 50 linear feet. The specific type of protective fencing shall be indicated on the tree preservation plan. Type C fencing shall be replaced by Type A or Type B fencing if it is deemed necessary by PDS staff upon site inspection and tree preservation plan review. **All tree preservation and protection measures for tree canopy credit and woodland preserved areas shall not be removed before issuance of Certificate of Occupancy or as indicated in the Tree Preservation Policies of Louisville Metro Planning and Design Services.**

1. Type A: Chain link fence (Typical Application – sites two acres or less). Type A protective fencing shall be installed in accordance with the approved construction detail and shall consist of a minimum five foot high chain link fencing with tubular steel support poles or “T” posts.
2. Type B: Wood Fence (Typical Application – sites two acres or less). Type B protective fencing shall be installed in accordance with approved construction detail and shall consist of any vertical planking attached to 2x4 inch horizontal stringers which are supported by 2x4 inch intermediate vertical supports and a 4x4 inch at every fourth vertical support.
3. Type C Other Materials (Typical Application – sites over two acres). Type C protective fencing shall be installed in accordance with approved construction detail. Signs shall be posted every 50 lineal feet. The material of the fencing may include high visibility plastic construction fencing or other approved equivalent restraining material. The fencing materials identified above shall be supported by steel pipe, tee posts, U posts or 2” x 4” timber posts that are a minimum of 5 ½ feet in height and spaced no more than eight feet (2.44 meters) on center.

LAND ITEM #51

Section 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~~ **Planning and Design Services Director or designated staff.** Fences shall be constructed of wood or other weatherproof, durable materials intended for exterior use and approved by the ~~Commission Director or designee~~ **Planning and Design Services Director or designated staff.** 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.

LAND ITEM #52

Section 10.4.10 Landscape Lighting

~~Any lights used to illuminate landscaping must be shown on the landscape plan.~~ **All lighting shall meet Chapter 4 lighting requirements.**

LAND ITEM #53

Section 10.4.11 Land Selective Clearing

~~Selective Clearing~~ – Selective clearing **removal** 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 offsite 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.~~ **Planning and Design Services Director or designated staff may approve the selective removal of trees, shrubs, and underbrush as necessary.**

~~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.~~

LAND ITEM #54

Section 10.4.13 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, tree protection plan or
 - 3. Reported as a public hazard
- E. In addition to these maintenance requirements, area designated as bio-retention or other MSD approved GMP planting areas shall be per MSD requirements.
- F. Replacement requirements and standards of plant material in areas defined as bio-retention or other MSD approved GMP plant areas shall be per MSD maintenance standards.

LAND ITEM #55

Section 10.4.14 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. (~~Rationale: Ensure landscaping is installed on-site, survives on-site and that it is replaced when needed on-site.~~)

LAND ITEM #56

Section 10.4.15 Tree Service Contractors (*Reserved*)

LAND ITEM #57

Section 10.4.16 Enforcement

- A. If a site is found in violation of the tree preservation policies and applicable Code requirements related to required landscaping, mitigation measures will be enforced by the appropriate code enforcement agency. (Additional penalties for violations shall be determined by the Planning Commission or its designee.)
- B. Removal of trees shown to be preserved shall constitute a violation of binding elements and/or conditions of approval as applicable. Penalties and mitigation measures for removal of existing trees shown to be otherwise permanently preserved and removal of landscaping required by the LDC shall be determined by the Planning Commission or its designee.
- C. The replacement requirement is inches per inch. 3" caliper minimum trees from the preferred tree list may be used to add up to the number of inches removed. For example, if a 9" caliper tree is removed, 9" must be replaced. This can be accomplished by using three (3) 3" caliper replacement trees. Trees that are larger than 3" caliper also may be used.
- D. The Tree Replacement Chart below will apply when Tree Canopy Preservation Areas have been removed, which were intended to remain. ~~The tree inventory shall be used to determine the number and sizes of replacement trees required.~~
- E. Replacement trees shall be planted within six (6) months or next planting season after action taken by Planning Commission or designee.

NOTE: ~~Inventory of outer edge of TCPA: The first 10 feet will serve as the inventory of area of disturbance.~~

LAND ITEM #59

Chapter 10, Part 5 Open Space Standards

[Remove in its entirety and place in Chapter 5, Part 11, as shown below]

Chapter 10 Part 6 5 Streetscape Master Plan

[Renumber "Part 6" only]

2.7.3 Planned Residential Development (PRD) District¹

- G. Special Requirements.
 - 5. Open Space.
 - b. Open space as required by paragraph 5a. shall meet the general standards and standards for "open space for outdoor recreation" or "open space for natural resource protection/public health and safety" as established in Part 40-5-4 5.11.4 of the LDC.

5.4.1 Traditional Form Districts (except for DFD)

- G. Multi-family development.
 - 1. Noninfill Context: Multi-family developments that do not maintain the four areas of the traditional neighborhood site design pattern may use alternative site designs that meet the following:
 - a. Front setback/build-to lines meet requirements in Table 5.2.2;
 - b. Parking is in the rear of the lot, takes access from the alley if there is an alley, and is screened from the street by a building or street wall; and
 - c. The site plan complies with the standards of Section 5-11-4 5.11.9.

Chapter 5, Part 11 Form District Open Space Standards

~~Chapter 10, Part 5 Open Space Standards~~

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

5.11.1 ~~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	

5.11.2 ~~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

5.11.3 ~~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~~ 5.11.3.D is not applicable to any required open space (e.g., Campus, Village form districts.)*

5.11.4 ~~10-5-4~~ Open Space Standards

Because of the variety in the types and functions of open space demonstrated in Section ~~10-5-2~~ 5.11.2, 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.

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

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.
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.

5.11.5 40.5.5 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.

5.11.6 5.11.1 Downtown Form District Open Space Standards

- A. Open space standards have been developed to promote a pattern of open space consistent with the district and provide accessibility to public open spaces.
 1. When development includes a residential component consisting of 50% or more of the total square footage of the project, open space shall be provided to include one or a combination of the following outdoor amenities:
 - a. Pedestrian plaza or patio area (min. square foot equal to 1% of building foot print) with seating
 - b. Landscaped green area (min. square foot equal to 1% of building foot print) with seating
 - c. Approved public art or water feature
 2. When an outdoor amenity is provided in the streetscape zone, sufficient width shall be given to accommodate the entire outdoor amenity.

3. Outdoor seating, when provided, shall be at a rate of not less than 1 seat per 200 square feet of outdoor amenity area.
 4. Balconies, where provided for every dwelling unit, or roof terraces provided as common space may be counted for up to 50% of the required open space.
- B. Open space lots shall be located at least 50 feet from the corner of two intersecting streets, unless the required Street Wall can be maintained as part of the open space design.
 - C. When new development is constructed adjacent to or directly across the street from an existing public open space, one primary building façade shall be oriented toward the existing open space.

NOTE: ~~Chapter 10 Part 5~~ **Section 5.11.4.A** specifies permanent preservation measures for public, private and common open space.

5.11.7 ~~5.11.2~~ Village Form District – Village Outlying Areas Open Space Standards

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5.11.8 ~~5.11.3~~ Campus Form District Open Space Standards

- A. Development sites that are not subject to the special design requirements established in Chapter 5 Part 12 of this section shall conform to the following standards:
 1. Quantity – A minimum of 10% of the gross area of the site shall be preserved as common open space. The applicant may determine which type of open space, as defined in Section ~~40.5.2~~ **5.11.2** will be provided. Open space shall meet the requirements of Section ~~40.5.4~~ **5.11.4** applicable to the type of for common open space selected, and the designated area shall be retained as open space for the duration of the campus use. Outdoor amenities, such as pedestrian plazas, outdoor dining areas, water features, landscaped areas with seating, and sport/exercise facilities shall be provided within the open space.

5.11.9 ~~5.11.4~~ Multi-Family Residential Open Space Standards

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7.11.8 Dedication of Conservation Areas for Public Use.

Applicants shall comply with relevant standards in ~~Chapter 10.5.4~~ **Section 5.11.4** of the LDC pertaining to dedicating a portion of the development site for public recreational use.

