
Chapter 106 – Article II. Landscaping Regulations.

I. *General Administration.*

A. *Purpose and Intent.* It is the purpose of this section to establish certain regulations pertaining to landscaping within the Town of Little Elm. The Town recognizes that landscaping can be a significant expense to businesses and residents. At the same time, landscaping improves the livability of residential neighborhoods, enhances the appearance and customer attraction of commercial areas, increases property values, improves the compatibility of adjacent uses, screens undesirable views, and can reduce air and noise pollution. Furthermore, these regulations provide standards and criteria for new landscaping which are intended to promote the value of property, enhance the welfare, and improve the physical appearance of the Town.

B. *Scope.*

1. The standards and criteria contained within this section are deemed to be minimum standards and shall apply to all new development and existing developments that are expanding or redeveloping thirty percent (30%) or more of that development. In addition, any project authorized as a Planned Development (PD) must comply with the standards set forth in the PD. In unique situations, the Director shall have the ability to review and modify the applicability of these standards to proposed development.
2. The official Tree Board for the Town of Little Elm shall be the Planning and Zoning Commission.

C. *Enforcement.* The provision of this section shall be administered and enforced by the Director. If, at any time after the issuance of a Certificate of Occupancy (CO), the approved landscaping is found to be in nonconformance to the standards and criteria of this section or to the approved landscape plan, the Director shall issue notice to the owner, citing the violation and describing what action is required to comply with this section. The owner, tenant, or agent shall have thirty (30) days from the date of said notice to restore the landscaping as required. If the landscaping is not restored within the allotted time, such person shall be in violation of this ordinance and is subject to fines and the loss of the CO.

D. *Permits.*

1. Prior to the issuance of a building, paving, or construction permit for any use other than single family dwellings, a Landscape Plan shall be submitted to and approved by the Community Development Department. In the event that the proposed development requires an approved site

plan, or master development plan, final approval shall not be granted until a landscape plan is submitted and approved.

2. Prior to the issuance of a CO for any building or structure, all screening and landscaping shall be in place in accordance with the landscape plan required this section.
3. In any case in which a CO is sought at a time in which the Director determines that it would be impractical to plant trees, shrubs or grass, or to lay turf, a CO may be issued notwithstanding the fact that the landscaping required by the landscape plan has not been completed provided the applicant deposits cash in an escrow account in the amount of the estimated cost of landscaping that complies with this Article. Such escrow deposit shall be conditioned upon the installation of all required landscaping within six (6) months of the date of the application and shall give the Town the right to draw upon the escrow deposit to complete the said landscaping if the applicant fails to do so.

II. *Definitions.*

Berm. An earthen mound designed to provide visual interest, screen undesirable views and/or decrease noise levels.

Buffer. The use of landscaping (other than grass on flat terrain), either alone or in conjunction with berms, walls or decorative fences that at least partially and periodically obstruct the view from the street, in a continuous manner, of vehicular use areas, parking lots and their parked cars, and detention ponds.

Caliper. The diameter of a tree trunk measured twelve inches (12") above ground level. The caliper of a Multi-trunk tree is determined by the full caliper of the largest trunk plus half the caliper of the other trunks. This measurement used for newly planted trees.

Critical Root Zone. The area of undisturbed natural soil around a tree defined by a concentric circle with a radius equal to the distance from the trunk to the outermost portion of the drip line.

DBH. Diameter-at-breast-height (caliper) is calculated by measuring the tree trunk diameter in inches at a height of four and a half feet (4.5') above the ground. If a tree splits into multiple trunks below 4.5 feet, the tree shall be measured in two (2) places, the narrowest point beneath the split and sum of the calipers of the trunks immediately above the split. Whichever is the greater measurement is to be the measurement applied. This measurement is used for existing trees.

Director. The Director of Community Development of the Town of Little Elm and includes his or her designee.

Drip Line. A vertical line run through the outermost portion of the canopy of a tree and extending to the ground.

Drought Tolerant/Low Water Demand Plant. The ability of a plant to be drought tolerant is primarily due to the plant's ability to limit water loss through the leaves and acquire more water through the roots. Plants have developed several mechanisms to reduce water loss, many of which can be recognized in native and cultivated plants. Characteristics of drought tolerant plants include: small, narrow, or pinnate leaves; fuzzy surfaces; resinous surfaces; leathery leaves; and/or succulence.

Green. An open space, available for unstructured recreation. A Green may be spatially defined by streets, landscaping, and/or building frontages. Its landscape shall consist of lawn and trees.

Ground Cover: Low growing plants, deciduous or evergreen species that cover the ground, used instead of turf. Plants that generally do not exceed eighteen (18) inches in height are classified as groundcover.

Impervious. A substance that does not allow the passage of water through it.

Irrigation System: An automatic watering system designed for watering landscaping and landscaped areas for a specified amount of time at a specified time of day. Irrigation systems are typically used to conserve water and time. All irrigation systems shall be equipped with an approved backflow prevention device to protect the water supply (if connected to Little Elm water supply) and a freeze and rain sensor.

Landscaping. Any live plant material such as trees, shrubs, ground cover, and grass used in spaces void of any impervious material or building structure and areas left in their natural state.

Landscaped Area. The area within the boundaries of a given lot or where applicable, the adjoining street right-of-way, which is devoted to and consists of plant material, including but not limited to grass, trees, shrubs, flowers, vines and other groundcover, native plant materials, planters, brick, stone, natural forms, water forms, aggregate and other landscape features.

Large Canopy Tree. Sometimes evergreen, usually deciduous tree planted for its high crown of foliage or overhead canopy, a large woody perennial having one or more self supporting stems and numerous branches reaching a mature height of at least thirty feet (30') and a mature spread of at least

twenty-five feet (25'). See the Recommended Plant Materials chart for a listing of acceptable Large Canopy Tree varieties.

Low water use irrigation system. The term low water use irrigation system is used to describe any low pressure system that applies water in a controlled area. The most important feature of these systems is that it applies water very slowly and allows the water to be absorbed fully into the soil.

Ornamental Grasses: A grass that is generally considered in the landscaping industry to have ornamental qualities, and which is typically grown in a flower garden. Typically grows to a height of between six inches (6") and thirty-six inches (36") and does not tolerate being cut below six inches (6"). These said grasses are usually used as an accent grass and not the main coverage of the front yard. Most commonly they are grown for display of their flowers and may contain a variety of colors depending on the season.

Parkway. The area of public right-of-way located between the curb or edge of pavement and the property line.

Protective Fencing. Snow fencing, chain link fence, orange vinyl construction fencing, or other similar fencing which is approximately four feet (4') in height.

Screening. A technique used to protect and separate uses and site functions from one another for the purpose of decreasing adverse noise, wind, or visual impacts and to provide privacy (e.g., walls, fences, berms, landscaping).

Shrub. A self-supporting woody perennial plant of low to medium height characterized by multiple stems and branches continuous from the base, usually not more than ten feet (10') in height at maturity.

Sight triangle (Visibility triangle) means the area of visibility required on a corner to allow for the safe operation of vehicles, pedestrians, and cyclists in the proximity of intersecting streets and sidewalks.

Small Ornamental Tree. A relatively low growing tree at least seven feet (7') at planting, that may grow to a mature height of up to twenty-five feet (25') and a mature spread of up to twenty-five feet (25') and provide color due to its fruit (berries), flowers or leaves. See the Recommended Plant Materials chart for a listing of acceptable Small Ornamental Tree varieties.

Square. An open space available for unstructured recreation and civic purposes. A square is spatially defined by building frontages or streets. Its landscape shall consist of paths, lawns, and trees, formally disposed. Squares shall be located at the intersection of important thoroughfares.

Topsoil. Topsoil is the surface layer of soil containing partly decomposed organic debris, and which is usually high in nutrients. This term may also apply to good quality soil sold at nurseries and garden centers.

Tree, protected. Any tree that has a trunk DBH of six inches (6") or greater at a height of four and a half feet (4.5') above the ground or which is otherwise noteworthy because of species, age, size, or rarity.

Tree Valuation. An established value set by the National Arborist Association per the Tree Valuation Schedule, set forth here within to be used for all purposes of this Article.

Turf grass. Grass commonly used in regularly-cut lawns or play areas, such as, but not limited to Bermuda, St. Augustine, Fescue, and Ryegrass blends.

Plaza. An open space available for civic purposes and commercial activities. A Plaza shall be spatially defined by building frontages. Its landscape shall consist primarily of pavement, but include shade in the form of planters with Small Ornamental trees or structure. Plazas should be located at the intersection of important streets.

Urban Tree. A tree specifically selected for its ability to withstand harsh urban conditions, its relatively low maintenance, its suitability for use in the streetscape through its non-invasive root system and upright branching habit, and its associated imagery and overtones. See the Recommended Plant Materials chart for a listing of acceptable Urban Tree varieties.

Weeds. Vegetation that because of its height is objectionable, unsightly or unsanitary; this term specifically excludes ornamental grasses, shrubs, bushes and trees, cultivated flowers and cultivated crops.

Xeriscaping. A method of landscaping that emphasizes water conservation, accomplished by following sound horticultural and landscaping practices, such as planning and design, soil improvement, limited turf areas, use of mulches, use of low-water demand plants, efficient irrigation practices and appropriate maintenance.

Yard, Front. The area extending across the front of a lot between the side lot lines and the minimum horizontal distance between the street, the main building or any projections thereof other than the projections of uncovered steps, balconies, or porches. On corner lots, the front yard shall face the street on which the lot has the shortest dimension.

Yard, Rear. The area extending across the rear of a lot and being the required minimum horizontal distance between the rear lot line and the rear of

the main building or any projections thereof other than the projections of uncovered steps, unenclosed balconies, or unenclosed porches.

Yard, Side. The area between the main building and the side line of the lot, and extending from the required front yard to the required rear yard and being the minimum horizontal distance between a side lot line and the side of the main buildings or any projections thereof.

III. *Landscape Plans.*

- A. Landscape plans shall be submitted to the Planning Department as a part of the Site Plan submittal. The Director shall review such plans for compliance with the criteria of these regulations. If the plans are not in accord, they shall be disapproved and shall be accompanied by a written statement setting forth the changes necessary for compliance.
- B. Landscape Plans must be prepared and sealed by a registered Landscape Architect and shall contain the following information:
 - 1. Minimum scale of one inch equals fifty feet (50');
 - 2. A mark indicating North;
 - 3. A tree survey with the location, size, and species of all on-site trees; or a note indicating that no protected trees exist on-site;
 - 4. Location of all plant and landscaping material to be used including plants, paving, benches, screens, fountains, statues, or other landscape features;
 - 5. The species, size, spacing, and quantities of all plant material to be used in a tabular form (shall be from the Recommended Plant Materials list);
 - 6. A list of all plant material proposed to be used that does not come from the Recommended Plant Materials list. This plant material must also be specifically designated on the landscape plan;
 - 7. The date of the landscape plan, including any revision dates;
 - 8. Layout and description of irrigation systems including placement of water sources. A Texas license irrigation seal is necessary on all irrigation plans;
 - 9. Description of detention & retention facilities (if applicable);
 - 10. Description of maintenance provision for the landscape plan;

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11. Person(s) responsible for the preparation of landscape plan, including the Landscape Architect's seal;
 12. Dimensions of all required landscape setbacks;
 13. Description of any hardscape features;
 14. Parking lot layout with location of dumpster(s) and dumpster screen(s);
 15. An analysis table of ordinance requirements and the associated landscaping (including point requirements, interior, and perimeter landscaping);
 16. Indication that all landscaped areas, including parkways and medians, will have a minimum of six inches (6") of topsoil;
 17. Additional information as deemed necessary to adequately evaluate the landscape plan.

IV. *Standard Notations Regarding Maintenance and Irrigation.* The following standard notations shall be placed on all landscape plans:

- A. The owner, tenant, and their agent, if any, shall be jointly and severally responsible for the maintenance of all landscaping. All required landscaping shall be maintained in a neat and orderly manner at all times. This shall include mowing, edging, pruning, fertilizing, watering, weeding, and such activities common to the maintenance of landscaping.
- B. Landscape areas shall be kept free of trash, litter, weeds and other such material or plants not a part of the landscaping.
- C. No substitutions for plant materials is allowed, without written and stamped approval by the Director on a revised landscape plan.
- D. The right-of-way adjacent to required landscape areas shall be maintained by the adjacent property owner in the same manner as the required landscape area. All driveways will maintain visibility as approved by the Director. All plantings intended for erosion control will be maintained. The Town may require revegetation to prevent erosion or slippage.
- E. All plant material shall be maintained in a healthy and growing condition as is appropriate for the season of the year. Plant materials which die shall be replaced with plant material of similar variety and size, within thirty (30) days or a date approved by the Director, based on current seasons and weather conditions (i.e. drought or freeze).

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- F. When power lines are present, trees shall not be planted underneath and should be oriented in a manner to avoid conflict. Substitution of plant material is not allowed without prior written authorization from the Director.
 - G. All required landscape areas shall be provided with an automatic underground irrigation system with rain and freeze sensors and evapotranspiration (ET) weather based controllers and said irrigation system shall be designed by a qualified professional and installed by a licensed irrigator.
 - H. Required landscaped open areas and disturbed soil areas shall be completely covered with living plant material, per the Landscape Ordinance.
 - I. All streetscape furniture (benches, bollards, lampposts, trash receptacles, patio furniture, bike racks, etc) shall be a chip and flake resistant metal, decorative, and generally black "storm cloud" in color.

V. *General Standards.*

- A. *Quality.* Plant materials used in conformance with the provisions of this ordinance shall conform to the standards of the American Standard for Nursery Stock, or equal thereto. Grass seed, sod and other material shall be clean and reasonably free of weeds and noxious pests and insects.
- B. *Quantity.* The quantity of plant material required by this Ordinance must equal or exceed the minimum number of plants required by this Ordinance. Unless otherwise noted on the approved Landscape Plan, required plant material can be placed in groupings or utilized in appropriate planting designs that are proposed by the Landscape Architect and approved by the Town. All required landscaped open areas shall be completely covered with living plant material. Mulch and rock can be used in conjunction with shrub and tree plantings in smaller areas.
- C. *Trees.* Trees required by this ordinance shall be from the Recommended Plant Materials list or a species recommended by the Landscape Architect and approved on the landscape plan. All required trees shall be common to this area of Texas, and shall have a single trunk limbed up to 6 feet. Trees shall be of a minimum of two and a half (2.5) to three (3) caliper inches when measured twelve (12) inches above ground at time of planting. When the type of tree required is unclear, it is assumed that a Large Canopy tree is required, unless otherwise approved by the Director.
 - 1. No more than twenty-five (25%) percent of the required trees shall be of the same species for any tree type (Large, Small, Urban) in order to discourage monocultures.

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2. Three (3) trees from the Small Ornamental tree list may be substituted for one (1) Large Canopy tree, not to exceed twenty-five (25) percent of the required large trees.
 3. Large Canopy trees must be planted four feet (4') or greater from curbs, sidewalks, utility lines, screening walls and/or other structures. Small trees can be placed closer than four feet (4'), with approval on landscape plan. Utility installation that includes common trench and conduit banks is exempt from the Large Canopy tree planting distance requirements.
 4. Trees and shrubs shall not overhang or encroach upon walkways, drives, parking areas, and traffic signs to the extent that they interfere with the intended use of these facilities.
 5. Tree wells shall be a minimum 20 square feet in size with generally similar lengths and widths.
 6. No landscaping shall be required for the interior of structured parking facilities.
- D. *Shrubs and Hedges.* Evergreen screening plants shall be at least twenty-four inches (24") high at time of planting and shall be a type and species on the recommended plant list that will attain a minimum height of three feet (3') within eighteen (18) months of planting and will form a continuous hedge. Sporadic breaks in the hedge row may be approved to achieve unique designs.
- E. *Vines.* Vines shall be a minimum of two feet (2') in height immediately after planting and may be used in conjunction with fences, screens, or walls to meet screening requirements as specified.
- F. *Ground cover.* Ground covers used in lieu of grass in whole and in part shall be planted in such a manner as to present a finished appearance and reasonably complete coverage within one year of planting.
- G. *Lawn grass.* Grass areas shall be sodded, except that large, expansive lawn areas may be hydromulched, plugged, sprigged, or seeded with approval from the Director, as long as the edges, adjacent to the curb, are sodded.
- H. *Hardscape.* Horizontal hardscape elements, where required, should utilize smooth cobble river stone, where appropriate.
- I. *Credit for existing trees.* Any protected trees preserved on a site meeting the herein specifications shall be credited toward meeting the tree requirement of landscaping provisions that apply to the area where the tree is preserved. Trees of exceptional quality due to size, large canopy cover, trunk diameter,

rareness, age or species may, at the discretion of the Director, be credited as two trees under the minimum Landscape Area requirements.

- J. *Compliance Letter.* Prior to issuance of a CO, a letter must be submitted to the Director from the Landscape Architect indicating the site is in compliance with the approved landscape plan.
- K. *Detention/Retention Ponds.* Stormwater control devices, such as detention/retention basins and ponds, shall be landscaped to reduce their visual impacts. Such landscaping shall not negatively impact the operation of such devices, but may include suitable planting materials that will control siltation and erosion, and in all cases shall be sodded. Ponds shall be designed in one of the following ways, subject to review and approval by the Town Engineer:
1. **Basic (dry) Ponds** shall have a decorative retaining wall or slopes no greater than 4:1, shall provide a Large Canopy tree each 30 linear feet of the perimeter, and shall provide a minimum 4' high black tubular metal (wrought iron style) fence around the perimeter with evergreen screening;
 2. **Amenity Detention (dry) Ponds** shall be designed in a manner to be an amenity to the development by providing a gentle 6:1 slope (a partial decorative stone retaining wall may be allowed), a Large Canopy tree for each 30 linear feet of the perimeter (which may be clustered), benches, and trash receptacles.
 3. **Amenity Retention (wet) Ponds** shall be designed in a manner to be an amenity to the development by providing a gentle 6:1 slope (a partial decorative stone retaining wall may be allowed), a Large Canopy tree for each 30 linear feet of the perimeter (which may be clustered), benches, and trash receptacles. Such ponds shall include aeration to ensure water quality.

VI. *Landscape Area Requirements.*

A. *Single-Family Requirements.*

1. Landscape plans and automatic irrigation systems are not required for detached single family homes or duplexes; however, the following standards must be met:
 - i. *Trees:* The list below sets forth the minimum number of large trees, per lot, which shall be planted prior to the issuance of a CO permit for the dwelling. The large trees may be placed in the front or rear of a residential lot, with at least one (1) Large Canopy tree planted in the front yard. Three (3) Small Ornamental trees may be substituted for

one required large tree. Trees may not be planted in the area between the sidewalk and the road. The following minimum standards apply.

Zoning	No. of Required Large Trees
A-1	2
A-2	2
SF-1	2
SF-2	2
SF-3	2
SF-4	2
SF-RE	4
MH-1	1
MF-1	1 per unit
PH	1

- ii. *Yard:* All residential lawns under 20,000 square feet and all other disturbed soil areas must be covered with vegetation, including sodded grass, living ground cover, mulch, and/or decorative stone, in order to help hold the soil in place and prevent erosion. Mulch, living ground cover, gravel, rock gardens, and decorative stone may be used for patterns, beds, erosion control, and in other limited application; however their use shall not be the predominant ground cover.

B. Multi-Family Requirements.

1. Properties developed prior to November 20th, 2007, will not be required to conform to these landscape requirements until there is a thirty percent (30%) or more increase in the size of the development.
2. Each lot or parcel of land used for multiple-family residences shall provide on the same lot or parcel of land usable open space, in accordance with the table below:

Number of Bedrooms*:	Open Space Required:
One (1)	400 square feet
Each additional bedroom over 1	Additional 300 square feet

* Each manufactured home site in the MH-2 District will be calculated as a two bedroom unit for the open space requirement.

3. Each open space area shall have a minimum dimension of not less than thirty feet (30') in area.

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4. No less than fifteen percent (15%) of the required open space shall be arranged or located as a contiguous mass. This contiguous mass must be located within the required open space.
 5. In meeting this requirements, a credit of three (3) square feet may be applied for each square foot utilized for: swimming pools and adjacent decks, patios, or lounge areas within ten (10) feet of a pool; developed and equipped children's play areas; usable portions of recreational buildings; and private balconies and enclosed patios with a minimum dimension of five (5) square feet. Tennis courts are specifically excluded from this credit allowance. At the time of site plan approval, the Planning and Zoning Commission and Town Council may allow a credit not to exceed ten percent (10%) of the total required usable open space for adjacent and immediately accessible public parks. The combined credit for areas calculated at a three to one (3 to 1) basis and for public parks shall not exceed fifty percent (50%) of the total usable open space for an individual lot or parcel of land.
 6. One (1) large canopy tree shall be provided per two thousand five hundred (2,500) square feet of required open space.
 7. At the time of site plan approval, the Planning and Zoning Commission and/or Town Council may give full or partial credit for open areas that exceed the maximum slope, if it is determined that such areas are environmentally significant and that their preservation would enhance the development.

C. Townhouse and Mixed-Use Building Requirements.

1. Townhouse frontages shall be required to landscape a minimum of six (6) feet between the edges of the sidewalk and the primary building façade, excluding access to sidewalks, stairs, stoops, porches, and patios. This area shall be landscaped with ground cover, low shrubs, and a Small Ornamental tree.
2. Open Space and Landscaping for Mixed-Use Buildings:
 - i. On Mixed-Use Building developments where residential is included, a Green, Square, or Plaza shall be provided and approved as part of the site plan.
 - ii. A minimum area equal to 15% of the mixed-use building's footprint shall be provided as open space.

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- iii. At least one large canopy tree shall be provided for each 1,600 square feet of area in open space. Four hundred square feet of shade structure may replace the requirement for a shade tree.

D. Non-Residential Requirements.

1. Interior Landscape Requirements:

- i. A minimum of ten percent (10%) of the gross vehicular use area shall be devoted to living landscape which includes grass, ground cover, plants, shrubs and trees. This is to be measured from the edge of the parking and/or driveway paving and sidewalks.
- ii. There shall be a minimum of one (1) Large Canopy tree planted for each four hundred (400) square feet or fraction thereof of required interior landscape area. Three (3) Small Ornamental trees, minimum six feet (6') in height and three inches (3") in diameter, may be substituted for one (1) required Large Canopy tree not to exceed twenty-five percent (25%) of the required Large Canopy trees.
- iii. Interior areas of parking lots shall contain planting islands located so as to best relieve the expanse of paving. Such islands shall contain at least one (1) Large Canopy tree, and shall be located at the terminus of all parking rows. The remainder of the island space shall be landscaped with shrubs, lawn, and living ground cover not to exceed three feet in height. Any trees located within a planting island may be counted towards the required number of interior trees. The minimum total area of such islands shall be nine feet (9') by eighteen feet (18'), but may design their radii to facilitate traffic maneuverability.
- iv. Planting islands shall not be spaced greater than every twelve (12) spaces unless approved on the landscape plan in order to preserve existing trees and natural features or due to unique site features. In all cases, the total area requirements for landscaped islands for the respective parking areas shall be satisfied.
- v. Big Boxes may, in lieu of providing a tree every 12 spaces, choose to provide a minimum 10' wide continuous landscape island every 8 single rows of parking, with a Large Canopy tree each 30 linear feet, subject to review and approval by the Director. This does not waive the requirement for terminus islands and trees on parking rows.
- vi. In retail developments of 15,000 square feet or more, an Urban Tree shall be placed in a tree grate or tree well each thirty (30) feet on center within a minimum twelve (12) foot wide sidewalk along active storefronts and mixed use building fronts. Trees may be clustered so

not to block the main vestibule. Façade trees are not required in areas with an architectural arcade.

- vii. A Small Ornamental tree is required along Major Access Lanes each 25 linear feet within a development where reasonable, subject to review and approval by the Director.
- viii. An Urban Tree is required along internal pedestrian connections for each 30 linear feet.
- ix. All landscaped areas will be protected by a raised six inch (6") concrete curb or wheel stop. Wheel stops are required for all perimeter parking spaces. Pavement will not be placed closer than four feet (4') from the trunk of a tree unless approved by the Director.
- x. The applicant is also encouraged to plant a variety of ornamental trees, shrubs, and flowers in addition to the required plantings. Any permeable surface not occupied by trees, shrubs, planting beds, signs or other permitted fixtures shall be planted with turf or other living ground cover.
- xi. Industrial uses shall be exempt from the Interior Landscape requirements, subject to review and approval by the Director.

2. Perimeter Landscape Requirements:

- i All vehicular use areas shall be screened from all abutting properties and the public right-of-way with a wall, fence, evergreen hedge, berm or other durable landscape barrier. Plants and shrubs used in living barriers shall be at least twenty-four inches (24") high at time of planting and shall be a type and species from the recommended plant list that will attain a minimum height of three feet (3') within eighteen (18) months of planting and will form a continuous hedge. Sporadic breaks in the hedge row may be approved to achieve unique designs. Any landscape barrier not containing live plants or trees shall be a minimum of three feet (3') high at time of installation.
- ii For all nonresidential and multiple family parcels, a minimum twenty (20) foot landscape buffer adjacent to the right-of-way is required.
- iii For all non-residential and multifamily parcels located at the intersection of two dedicated public streets (rights-of-way), a twenty (20) foot landscape buffer shall be provided parallel to the corner clip right-of-way dedication.

- iv Landscape buffers adjacent to the public right-of-way shall contain at least one (1) Large Canopy tree each thirty (30) linear feet or fraction thereof of street frontage, inclusive of driveways. Trees may be grouped or clustered to facilitate site design.
- v A perimeter landscape buffer of at least ten (10) feet in width shall be maintained between adjacent properties. This landscaping can be reduced to five feet (5') when abutting property of the same zoning. Access ways between lots may be permitted through all perimeter landscape areas.
- vi Perimeter landscape buffers not adjacent to the public right-of-way shall contain at least one (1) Large Canopy tree each fifty (50) linear feet or fraction thereof when adjacent to another commercial use, and at least one (1) Large Canopy tree each 30 linear feet when adjacent to residential uses or zoning. Trees may be grouped or clustered to facilitate site design and shall be appropriately staggered when adjacent to property of the same zoning.
- vii For every five (5) large canopy trees or fraction thereof required along the street frontage and perimeter, one (1) Small Ornamental tree shall also be provided.

3. Landscape Point System:

- i. Landscape Plans must show a minimum number of points in order to obtain approval. Landscape Points are determined by the size of the lot being developed. These requirements are in addition to the Interior and Perimeter landscaping requirements.

Site Size	Minimum Number of Points Required
< 3 acres	20 points
Between 3 and 15 acres	25 Points
> 15 acres	30 Points

- ii. The following is a list of landscape elements and their associated point value, subject to review and approval by the Director:
 - a) Enhanced Entranceway Paving (using pavers, cobble, or different colored-stamped concrete): 5 points
 - b) Enhanced Hardscape (stamped crosswalks, decorative cobble walkways, meandering sidewalks, etc): 5 points

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- c) Enhanced Landscaping (within development and at the entranceways of the development): 5 points
 - d) Enhanced Site Canopy (planting perimeter trees one per 30 feet AND locating a parking island every 10 spaces): 5 points
 - e) Enhanced Streetscape Elements (i.e. decorative lampposts, benches, receptacles, decorative bollards, etc): 5 points
 - f) Enhanced Buffers: (providing a landscape buffer 5' more than what is required adjacent to street frontage and perimeter): 5 points
 - g) Open Space provision greater than what is required (20 to 30% over requirement): 5 points
 - h) Buffer Berms (providing three (3) foot high berms along the street frontage): 5 points
 - i) Public Art (obelisks, sculptures, statues, clock towers, water fountains, etc): Small: 5 points; Large: 10 points
 - j) Amenity Detention Pond (dry): 5 points, Amenity Retention Pond (wet): 10 points
 - k) Use of shaded and decorative outdoor seating areas (benches, outdoor dining, etc): 5 points
 - l) Use of masonry planters with irrigation (minimum 4): 5 points
 - m) Foundation plantings along 75% of the building's primary facade: 5 points
 - n) Decorative entrance including a landscaped median entry which is a minimum 8 (eight) feet in width and 60 (sixty) feet long. 5 points
 - o) Other (a Developer may propose a non-listed landscape element if it meets the spirit and intent of the ordinance, subject to review and approval by the Director): 5 points
- iii. The Developer may use any combination of the aforementioned landscape elements to obtain the necessary number of points required for the development. Different lots and landscapes will lend themselves to different types of designs. These regulations

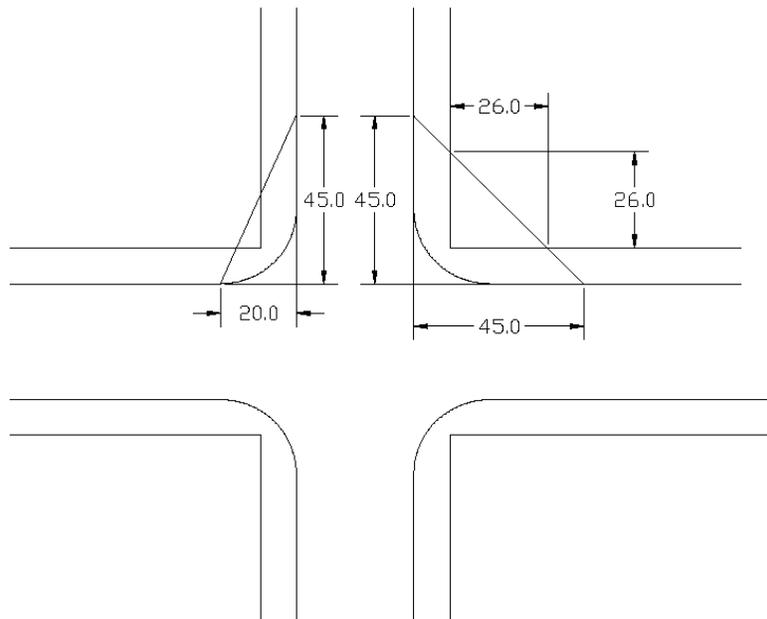
attempt to encourage creativity, diversity, and water conservation in landscaping.

- iv. Elements, both in terms of quantity and quality, should be in scale with the development, as determined by the Director. Excessive compliance with an element can be awarded extra points, as determined by the Director.

VII. *Xeriscaping and Sight Distance.*

- A. Texas has an abundance of native plants which are naturally adapted to the region. Most native or adapted plants are drought tolerant or have lower water demands, and by combining Texas natives with well adapted exotic plants, water is conserved. The use of Xeriscape can:
 - 1. Reduce landscape water and maintenance use by sixty percent (60%) or more, which helps extend limited water supplies and conserve water resources;
 - 2. Provide an enhanced regional identity for Little Elm;
 - 3. Lower pest problems and require less fertilizer needs than many non-adapted, exotic plants brought into Texas landscapes. By eradicating weeds, competition for available water resources is diminished;
 - 4. Lower monthly water bills for users;
 - 5. Reduce run-off through the plants root system, which helps water percolate into the soil, reducing erosion and runoff, improving water quality.
- B. In order to promote prudent use of the Town's water resources and reduce the need for additional water system infrastructure, additional water resources and water purification systems, and to help ensure viability of required plantings during periods of drought, all required landscaping shall comply with the following requirements designed to reduce water usage:
 - 1. All landscaping shall be from the Recommended Plant Material List, which is comprised of native and adapted vegetation, unless alternate plant materials are approved through the landscape plan.
 - 2. For maximum reduction in water usage, xeriscape plants shall not be interspersed in plant massings with plants requiring higher water usage.
 - 3. Irrigation systems shall be designed to provide the appropriate amount of water without over watering.

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- 4. Lawn or turf is not permitted in areas with a dimension of less than eight (8) square feet.
- C. In complying with the landscaping requirements set forth herein, no landscaping shall be permitted or allowed to cause visibility obstructions and/or blind corners at intersections.
 - D. Whenever an access way intersects with a public right-of-way or when the subject property abuts the intersection of two or more public right-of-ways a triangular visibility area, as described below in subsection (3) of this Section, is created. Landscaping within the triangular visibility area shall be designed to provide unobstructed cross-visibility at a level between three feet (3') and six feet (6') in height. Trees may be permitted in this area provided they are trimmed in a manner that prevent limbs or foliage from extending into the triangular visibility area.
 - E. All sight/visibility triangle distances herein shall be measured from the intersection edges of the curb or, where there is no curb, from the end of the pavement or gravel, unless otherwise specified.
 - 1. Street Intersections – each such intersection shall have a sight triangle of forty-five feet (45') on each leg from the point of intersection.
 - 2. Driveway – each driveway intersection shall have a sight triangle of forty-five feet (45') along the street and twenty feet (20') along the driveway from the point of intersection.



Example shown above represents (right) an intersection with a fifty foot (50') ROW with thirty-one foot (31') streets and (left) an intersection of a driveway and a street.

- F. Landscaping, except required grass and low ground covers, shall not be located closer than three feet from the edge of any access way pavement.
- G. In the event other visibility obstructions are apparent in the proposed landscape plan, as determined by the Director, the minimum landscape area requirements set forth herein may be reduced to the extent to remove the conflict.

Tree Preservation.

I. Purpose and Intent.

- A. The purpose of this section is to encourage the preservation of mature trees which once removed cannot be replaced by equivalent trees, to preserve protected trees during construction, and to control the removal of protected trees when necessary. It is the intent of this section to achieve the following:
 - 1. Prohibit the indiscriminate clearing of property.
 - 2. Protect and increase the value of residential and commercial properties within the Town.
 - 3. Maintain and enhance a positive image for the attraction of new business enterprises to the Town.
 - 4. Protect healthy quality trees and promote the natural ecological environmental and aesthetic qualities of the Town.
 - 5. Help provide needed shaded areas in order to provide relief from the heat by reducing the ambient temperature.

II. Administration & Procedures.

- A. Definitions: Applicable definitions are located in the Landscaping Regulations of the Little Elm Code of Ordinances.
- B. Prohibition: Prior to the removal or the critical alteration of any Protected Tree in the Town, an application for Tree Removal Permit must be submitted and approved, unless otherwise exempt under a provision of this ordinance
- C. Tree Survey Required: All grading permits, building permits, tree removal permits, and any other development and construction permits shall contain a Tree Survey of the subject property, or a note on the landscape plan stating that no protected trees are located on site.
- D. Tree Removal Permit: Any tree survey proposing the removal of protected trees shall be accompanied by a tree removal application. The burden shall be upon the applicant to show the necessity for any and all trees being removed.
- E. Fees: All tree removal applications shall be accompanied by a check made payable to the Town of Little Elm in the amount specified by Town Council.

- F. Authority for Review: The Director shall be responsible for the review and approval of all requests for tree removal permits submitted in accordance with the requirements specified herein.
- G. Appeals: Any decision made may be appealed to the Planning and Zoning Commission. All decisions made by the Commission shall be final and binding.
- H. Permit Expiration: Permits for tree removal issued in connection with a building permit shall be valid for the period of that building permit's life. Permit(s) for tree removal not issued in connection with a building permit shall become void one hundred eighty (180) days after the issue date on the permit.
- I. Inventory Requirements: Tree Surveys shall:
1. Include all individual trees which have a DBH of six inches (6") or greater or which are otherwise noteworthy because of species, age, size, or rarity.
 2. Contain a tree location map identifying each tree by its caliper size (DBH), common name, scientific species information, whether the tree is located in a flood plain or not, and whether the tree is proposed to be removed, transplanted/relocated, or preserved.
 3. Illustrate the location of all buildings, structures, flood plains, pools, and other existing or proposed improvements for the site, including the limits of construction line, if applicable.
 4. The name and phone number of arborist, licensed surveyor, or landscape architect that prepared the survey.
 5. These requirements may be modified by the Director as needed to administer this ordinance. Upon prior approval by the Director, the map exhibit may be limited only to the applicable portion of the site. An aerial photograph may be allowed if it clearly meets these requirements.
- J. Denial: The Director shall deny a tree removal application if it is determined that:
1. Removal of the tree is not reasonably required in order to conduct anticipated activities; or
 2. A reasonable accommodation can be made to preserve the tree; or
 3. The purpose and intent of this ordinance is not being met by the Applicant.

III. Exceptions.

- A. No person, directly or indirectly, shall cut down, destroy, remove or move, or effectively destroy through damaging or other means, any protected tree situated on property regulated by this ordinance without first obtaining a tree removal permit unless otherwise specified in this ordinance.
- B. A tree removal permit and tree mitigation requirements shall not be required under any of the following circumstances:
 - 1. *Private Property.* An individually platted parcel zoned for residential uses and used as a homestead shall be exempt from the tree protection and replacement requirements of this ordinance as it pertains to that residential property, until such time as the property is no longer used as a single-family residence.
 - 2. *Damaged/Diseased Trees.* The tree is dead, diseased, damaged beyond the point of recovery, in danger of falling, or endangers the public health, welfare or safety as determined by the Director. This would include removal of a diseased tree by the Town to reduce the chance of spreading the disease to adjacent healthy trees. This exception does not apply to newly planted trees that have died that are part of landscape plan, nor native trees that have short shelf lives.
 - 3. *Public Infrastructure.* Rights-of-way, capital improvement projects, bridges, and other activity conducted by a municipal entity, whether leased or owned, excluding property used for administration offices or functions.
 - 4. *Utility Service Interruption.* The tree has disrupted a public utility service due to a tornado, storm, flood, or other act of God. Removal shall be limited to the portion of the tree reasonably necessary to reestablish and maintain reliable utility service.
 - 5. *Business Interests.* The following business ventures shall be exempt from the requirements specified herein as follows:
 - a) *Landscape Nursery:* All licensed plant or tree nurseries shall be exempt from the tree protection and replacement requirements and from the tree removal permit requirements only in relation to those trees planted and growing on the premises which are so planted and growing for the sale to the general public.
 - b) *Golf Course:* Golf courses shall be exempt from the tree protection and replacement requirements and from the tree removal permit requirements for removal of protected trees within areas designated as

tee boxes, fairways or greens. All other areas shall be subject to these requirements.

IV. Tree Protection & Construction Regulations.

A. General:

1. **Tree Pruning Restrictions:** No protected tree shall be pruned in such a manner which significantly disfigures the tree or in a manner which would reasonably lead to the death of a tree, except where such pruning is necessary for the safety of the public and to maintain utility service. Utility companies may prune trees as necessary to re-establish disrupted utility service. The practice of "topping" trees, either ornamental or canopy, is absolutely prohibited except when necessary for utility provision, public safety, or some other official nuisance.
2. **Fill and Grading:** The area within the drip line of a protected tree shall not be filled or graded.
3. **Maintenance After Development.** If any of the trees required to be retained or trees planted as a part of this ordinance should die within a period of one (1) year after completion of the activities associated with construction, the owner of the property shall replace the trees within six months at a ratio of three-to-one (3:1) with an approved large canopy tree from the Recommended Plant Materials chart, which is the same size as the tree removed.

B. Prior to Construction:

1. **Tree Flagging:** All protected trees on the subject property within forty feet (40') of a construction area or surface improvements such as driveway, walks, etc. shall be flagged with bright fluorescent orange vinyl tape wrapped around the main trunk at a height of four feet (4') or more such that the tape is highly visible to workers operating construction equipment. This shall not include the flagging of protected trees adjacent to ROW within approved residential subdivisions during the construction of the roadway.
2. **Protective Fencing:** Protective fencing will be located at the drip lines of all protected trees that border the limits of construction. In situations where a protected tree is located within the immediate area of intended construction, protective fencing will be located at the drip line.

C. During Construction:

1. **Prohibited Activities:** The following activities shall be prohibited within the

limits of the critical root zone of any protected tree, subject to the requirements of this ordinance:

- a) **Material Storage:** No materials intended for use in construction or waste materials accumulated due to excavation or demolition shall be placed within the limits of the critical root zone of any protected tree.
- b) **Equipment Cleaning/Liquid Disposal:** No equipment shall be cleaned or other liquids deposited or allowed to flow overland within the limits of the critical root zone of a protected tree. This would include paint, oil, solvents, asphalt, concrete, mortar or similar materials.
- c) **Tree Attachments:** No signs, wires or other attachments, other than those of a protective nature shall be attached to any protected tree.
- d) **Vehicular Traffic:** No vehicular and/or construction equipment traffic or parking shall take place within the limits of the critical root zone of any protected tree other than on an existing street pavement. This restriction does not apply to single incident access within a critical root zone for purposes of clearing underbrush, emergency restoration of utility service, or routine mowing operations.
- e) **Grade Changes:** No grade changes (cut or fill) shall be allowed within the limits of the critical root zone of any protected tree unless adequate construction methods are approved by the Director.
- f) **Impervious Paving:** No paving with asphalt, concrete or other impervious materials in a manner which may reasonably be expected to kill a tree shall be placed within the limits of the critical root zone of a protected tree.

D. Permanent Construction Methods:

1. **Boring:** Boring of utilities under protected trees may be required in certain circumstances. When required, the length of the bore shall be the width of the critical root zone at a minimum and shall be a minimum depth of forty-eight inches (48”).
2. **Trenching:** All trenching where possible shall be designed to avoid trenching across the critical root zone of any protected tree. This shall not inhibit the placement of necessary underground services such as electric, telephone, gas, etc.
3. **Root Pruning:** It is recommended that all roots two inches (2”) or larger in diameter which are exposed as a result of benching or other excavation be cut off square with a sharp medium tooth saw and covered with pruning

compound within two (2) hours of initial exposure.

V. Tree Mitigation.

- A. **General Rule:** In the event that it is necessary to remove a protected tree, the applicant shall be required to replace the protected tree being removed with a large canopy tree from the Recommended Plant Materials chart, or pay into the Town's Tree Fund.
- B. **Replacement Trees:** Trees shall be replaced at a ratio determined by the Tree Valuation Schedule (for every one (1) inch removed, "X" inches must be replaced). If any replacement tree cannot be properly located on the subject property, the applicant may plant the replacement tree(s) on property owned by the Town and/or common area open space, subject to review and approval by the Director.
- C. **Mitigation:** If the tree(s) is not replaced on site, or other Town-approved location, fees must be paid to the Town based on the Tree Valuation Schedule and the Tree Valuation Formula of this ordinance. This fee shall be paid in addition to any tree removal permit fee and shall be held in a separate account (Tree Fund) to be used exclusively for future installation of trees within public lands owned by the Town.
- D. **Landscape Plan:** All replacement trees shall be shown with their caliper size and common name on an approved landscape plan.
- E. **Replacement Restriction:** Any required replacement tree shall not be planted within an area such that the mature canopy of the tree will interfere with overhead utility lines, or that the mature root zone of the tree interferes with underground public utility lines.
- F. **Landscaping Limitation:** Trees required to be added to the development per the landscaping requirements in the Zoning Ordinance or by virtue of deed restrictions shall not be considered or credited as replacement trees.

VI. Enforcement.

- A. Any person, firm, corporation, agent or employee thereof who violates any of the provisions of this ordinance shall be deemed guilty of a misdemeanor and upon conviction hereof shall be fined a penalty of a sum not to exceed Five Hundred Dollars (\$500.00) for each offense and a separate offense shall be deemed committed on each day during or on which a violation occurs. The unlawful destruction or removal of each protected tree shall be considered a separate offense and each offense subjects the violator to the maximum penalty of \$500.00 per tree for each day that the tree is not replaced. Unless otherwise specifically set forth herein, or in state law as adopted, allegation

and evidence of culpable mental state are not required for the proof of an offense defined by this Article.

- B. No acceptance of public improvements shall be authorized until all fines for violations of this ordinance have been paid to the Town.
- C. No Certificate of Occupancy shall be issued until all fines for violations of this ordinance have been paid to the Town.
- D. No building permit shall be issued unless the applicant signs an application or permit request which states that all construction activities shall meet the requirements of the tree preservation ordinance. The Building Official shall make available to the applicant a copy of the tree preservation ordinance.

VII. Tree Valuation.

- A. The following charts shall be used in interpreting the provisions of this ordinance:

TREE VALUATION SCHEDULE

CLASS NO. 1 100% Value 5:1 Ratio	CLASS NO. 2 80% Value 4:1 Ratio	CLASS NO. 3 60% Value 3:1 Ratio	CLASS NO. 4 40% Value 2:1 Ratio	CLASS NO. 5 20% Value 1:1 Ratio
Floodplain Trees * ALL Oaks Pecan American Beech American Holly Yaupon Holly Sweet Gum Magnolia Ginkgo Chinese Pistache Bald Cypress (* All trees in the floodplain, regardless of species)	ALL Ashes ALL Elms ALL Maples Hickories Black Walnut Persimmon Chittamwood Golden Raintree	ALL Pines Blue Spruce Junipers, Cedar Honey Locust Honey Mesquite Western Soapberry River Birch Redbud Eve's Necklace	Crepe Myrtle Dogwood Plums / Pears Common Hackberry Sugarberry Bois D'Arc Cottonwoods Poplars Loquat Siberian Elm Silver Maple	Other Fruit Trees Other Ornamentals Boxelder Tree of Heaven Mulberry Trees Chinaberry Catalpa Jujube Tallows Willows

TREE VALUATION FORMULA

DIAMETERS $0.7854 \times D = \text{CROSS SECTION} \times \text{VALUE/SQ.IN} = \text{TREE VALUE}$

6"	$0.7854 \times 36 =$	28.3×22.00	$=$	\$622.60
7"	$0.7854 \times 49 =$	38.5×22.00	$=$	\$847.00
8"	$0.7854 \times 64 =$	50.3×22.00	$=$	\$1,106.60
9"	$0.7854 \times 81 =$	63.6×22.00	$=$	\$1,399.20
10"	$0.7854 \times 100 =$	78.54×22.00	$=$	\$1,727.88
11"	$0.7854 \times 121 =$	95.0×22.00	$=$	\$2,090.00
12"	$0.7854 \times 144 =$	113.1×22.00	$=$	\$2,488.20
13"	$0.7854 \times 169 =$	133.0×22.00	$=$	\$2,928.00
14"	$0.7854 \times 196 =$	154.0×22.00	$=$	\$3,388.00
15"	$0.7854 \times 225 =$	177.0×22.00	$=$	\$3,894.00
16"	$0.7854 \times 256 =$	201.1×22.00	$=$	\$4,424.20
17"	$0.7854 \times 289 =$	227.0×22.00	$=$	\$4,994.00
18"	$0.7854 \times 324 =$	254.5×22.00	$=$	\$5,599.00
19"	$0.7854 \times 361 =$	284.0×22.00	$=$	\$6,248.00
20"	$0.7854 \times 400 =$	314.2×22.00	$=$	\$6,912.40
21"	$0.7854 \times 441 =$	346.4×22.00	$=$	\$7,620.80
22"	$0.7854 \times 484 =$	380.0×22.00	$=$	\$8,360.00
23"	$0.7854 \times 529 =$	415.5×22.00	$=$	\$9,141.00
24"	$0.7854 \times 576 =$	452.4×22.00	$=$	\$9,952.80
25"	$0.7854 \times 625 =$	491.0×22.00	$=$	\$10,802.00
26"	$0.7854 \times 676 =$	531.0×22.00	$=$	\$11,682.00
27"	$0.7854 \times 729 =$	573.0×22.00	$=$	\$12,606.00
28"	$0.7854 \times 784 =$	616.0×22.00	$=$	\$13,552.00
29"	$0.7854 \times 841 =$	661.0×22.00	$=$	\$14,542.00
30"	$0.7854 \times 900 =$	707.0×22.00	$=$	\$16,554.00

NOTE: Values of trees greater than 30' will be determined by a Tree Expert retained by the Contractor and approved by the Owner and architect.

NOTE: Diameter measured 4 1/2 feet above the ground.

(Reference: National Arborist Association)

Recommended Plant Materials List

- I. Plant Material: All required plant material, including required residential trees, shall be from the following list unless alternate plant materials are approved through the landscape plan.

Large Canopy Trees

Bald Cypress	Bigtooth Maple	Burr Oak
Caddo Maple	Cedar Elm	Chinquapin Oak
Chinese Pistache	Dawn Redwood	Ginkgo
Homestead Elm	Italian Stone Pine	Lacebark Elm
Live Oak	Montezuma Cypress	Pecan
Pond Cypress	Red Oak	Shantung Maple
Southern Magnolia	Texas Ash	Trident Red Maple
Urbanite Ash		

Small Ornamental Trees

American Smoketree	Carolina Buckthorn	Crepe Myrtle (tree form)
Desert Willow	Dogwood	Eve's Necklace
Flameleaf Sumac	Golden Raintree	Italian Cypress
Japanese Maple	Lacey Oak	Mexican Buckeye
Possumhaw Holly	Redbud	Savannah Holly
Teddy Bear Magnolia	Viburnum	Vitex
Wax Myrtle	Yaupon Holly	

Urban Trees

Allee (Lacebark) Elm	Chinese Pistache	Ginkgo
Homestead Elm	Lacey Oak	Pond Cypress
Shantung Maple	Teddy Bear Magnolia	Urbanite Ash

Evergreen Screening Shrubs (low < 5')

Agarito	Boxwood	Dwarf Abelia
Dwarf Burford Holly	Elaeagnus (Silverberry)	Euonymus
Grayleaf Cotoneaster	Indian Hawthorn	Juniper (several varieties)
Nandina	Texas Sage	

Evergreen Screening Plants (high > 5')

Austrian Black Pine	Cleyera	Eastern Red Cedar
Foster Holly	Leyland Cypress	Little Gem Magnolia
Nelly R. Steven's Holly	Sweet Viburnum	Waxleaf Ligustrum

Other Shrubs

American Beautyberry	Apache Plume	Aralia
Aucuba	Autumn Sage	Azalea
Barberry	Black Dalea	Burning Bush
Chinese Fringe Flower	Desert Spoon	Dwarf Crepe Myrtle
Flowering Quince	Holly (multiple varieties)	Horizontal Cotoneaster
Leatherleaf Mahonia	Pampas Grass	Red Yucca
Rose (shrub form)	Spirea	Turk's Cap

Vines:

Boston Ivy	Carolina Jasmine	Confederate Star Jasmine
Coral Honeysuckle	Crossvine	English Ivy
Japanese Honeysuckle	Rose (climbing variety)	Trumpet Vine
Virginia Creeper		

Groundcover

Ajuga	Asian Jasmine	Bermuda Grass
Buffalo Grass	Creeping Juniper	Fountain Grass
Liriope (Monkey Grass)	Mondo Grass	Purple Wintercreeper
St. Augustine	Tall Fescue	Zoysia

Prohibited Plant Material

Bois D' Arc	Bradford Pear	Catalpa
Cottonwood	Hackberry	Lombardy Poplar
Mesquite	Mimosa	Mulberry
Red Tip Photinia	Siberian Elm	Silver Maple