

SECTION 18: LANDSCAPING

Section 18.1: Purpose and Scope

The purpose of this Section is to establish landscaping standards and guidelines in order to maintain and enhance the environmental qualities of the County; to mitigate the impacts of adjacent uses; and to enhance the quality and appearance of new or existing development in the County. By requiring adequate and environmentally compatible landscaping, the visual quality of the environment will be enhanced, and other environmental qualities will be improved by promoting conservation of water used for landscaping, addressing wildfire safety concerns, providing erosion and storm water runoff control, providing control of noxious weeds and invasive plants, requiring native and/or drought tolerant plants, and encouraging the preservation of existing trees and vegetation.

Section 18.2 Conflicting Regulations

- A. In the event of conflict between the regulations set forth in this Section and any other regulations applicable to the same area, the more stringent requirement shall govern.

Section 18.3 Definitions

As used in this Ordinance, unless the context clearly indicates otherwise, certain words and phrases shall mean the following:

CALIPER shall mean the diameter of a tree trunk measured four and one-half (4 ½) feet above the ground. Also known as Diameter at Breast Height (DBH).

CONIFER shall mean a plant that produces cones such as a plant belonging to the family Coniferae, such as Pines, Cypressess, Junipers and Cedars.

DECIDUOUS shall mean a plant that loses its leaves annually at the end of the growing season

DEFENSIBLE SPACE shall mean that area between a structure and a potential oncoming wildfire where the vegetation has been modified to reduce the wildfire threat and which provides an opportunity to effectively defend the structure. This is also known as Survivable Space.

DRIP LINE shall mean an area around the tree trunk that generally includes the spread of the tree branches. It also may refer to that area around a structure that is beneath the roof overhang.

DROUGHT TOLERANT shall mean non-native species that can survive extended periods of time with little or no water, and that are appropriate for a particular site without posing a threat of invasiveness or possessing characteristics of invasive species or noxious weeds.

EVERGREEN shall mean a plant that retains its needles or leaves all year long, although losing some of the older leaves regularly throughout the year.

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GROUND COVER shall mean low growing plant materials intended to spread over the ground, and which typically grow to a height of 2 ½' or less. Also, organic or inorganic materials such as bark, crushed rock, cinders, or other similar materials typically use in landscaped areas between plantings.

INVASIVE SPECIES shall mean an alien (non-native) species whose introduction does or is likely to cause economic or environmental harm or harm to human health and which tend to disrupt natural ecosystems by displacing native species.

LANDSCAPE AREA shall mean that part of the property exclusively set aside for living plant materials and associated non-living ornamental materials such as mulch, fencing, walls or decorative rock.

NATIVE PLANTS shall mean plant species occurring naturally and native to a given ecosystem or plant community.

NOXIOUS WEEDS shall mean plant species designated as such by the Secretary of Agriculture, Secretary of the Interior, or by State law or regulation. Generally, noxious weeds will possess one or more of the characteristics of being aggressive and difficult to manage, parasitic, a carrier or host of serious insects or disease, and being non-native or new to or not common to the United States or parts thereof. Noxious weed species have extensive and costly impacts on human health, safety, commerce, recreation, and general well-being. Noxious weeds can adversely affect food production, wilderness values, wildlife habitat, visual quality, forage production, reforestation, recreational opportunities, natural wildfire regimes, and land values.

PLANT UNIT shall mean a method of identifying landscaping requirements. Alternative plant units are set forth in Section 18.7.

Section 18.4 General Provisions

- A. All landscaped areas shall be permanently maintained in a neat and orderly manner and all plants shall be maintained in a healthy, living condition. Dead plants, weeds, and non-plant materials must be removed and replaced as necessary.
- B. All landscaped areas shall be provided with a permanent means of irrigation pursuant to Section 18.5.A.5.
- C. In all areas of the County the preferred landscaping materials are native plants as defined by the Native Plants for Northern Arizona Landscapes compiled by The Arboretum at Flagstaff. The use of specifically identified invasive species and noxious weeds is prohibited. Some non-native species, which meet the definition of drought tolerant, may be used.
- D. All portions of a site where existing vegetative cover is damaged or removed, or consists primarily of weeds, and are not otherwise covered with new improvements, must be successfully revegetated with a substantial mix of native and/or drought tolerant grasses and ground covers. The density of the re-established vegetation must be adequate to prevent soil erosion and invasion of weeds after one growing season.

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- E. All required landscaping must be located on the property it serves. Elements such as plants, walls, fences, buffering and screening located on adjacent properties or public rights-of-way shall not count toward the landscaping requirements.
- F. Additional landscaping may be established in public rights-of-way with the approval of the appropriate jurisdiction (i.e. ADOT or County Public Works).
- G. Retention of existing native vegetation and natural features is encouraged. Special consideration may be given to developments which retain existing trees, vegetation, and natural features of the site where possible and which are replaced and enhanced when necessary.
- H. All landscape design shall take into consideration the need for defensible space.
- I. Lighting used in the landscape plan must comply with the provisions of Section 17 of this Ordinance.

Section 18.5 Landscape Plan Requirements

- A. Landscape Plan required: An approved landscape plan is required prior to any site clearing for any use other than single family residential. A landscape plan designed in accordance with this Section shall be provided for all new development and redevelopment, except for single family residential. The landscape plan shall be prepared by a landscape architect, a professional landscape designer, or a plant nursery, unless a waiver is approved by the Director of Community Development. Additions to an existing building, or substantial improvements comprising 25% of the value of the building prior to the improvements, as determined by the Chief Building Official, shall prompt compliance with these requirements for that portion of the site affected by the improvements. Additions to an existing building, or substantial improvements comprising over 50% of the value of the building prior to the improvements, as determined by the Chief Building Official, shall prompt compliance with these requirements for the entire site.

The plan shall include the following:

1. A site plan providing sufficient detail to evaluate the features of landscaping and irrigation required by this Section. The site plan shall show the location of property lines, proposed contours, drainage structures, existing and proposed development including all buildings, parking, pedestrian, and circulation areas. If phased development is proposed, the phasing plan shall be identified. The plan shall show the location of all proposed landscaped areas, and the dimensions and total area (in square feet) for each interior parking lot landscaped area.
2. The location, design and materials of all landscape areas including planting strips along all streets, earth berms, retaining walls, fences, water features, retention areas, trash enclosures, lighting, and paved areas. Where fencing is used for required screening, a scaled elevation drawing of the fence must be included.
3. The location, size, and type of all proposed plant and non-plant materials, including any existing vegetation to be retained and existing trees over 6" caliper proposed to be removed.

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4. A chart comparing the landscaping requirements to the proposed materials and area covered, including, but not limited to, the following information:
 - a. Total parking lot and circulation areas, including interior drives and driveways (in square feet);
 - b. Total number of parking stalls required and total provided;
 - c. Total parking lot landscaped area required and total provided (in square feet);
 - d. Total buffer and screen landscaped area required and total provided (in square feet);
 - e. Total site landscaped area required and total provided (in square feet);
 - f. Total quantity and size of plant material required and the total provided;
 - g. Size, type, and quantity of non-plant material to be provided;
 - h. Any other information as the Community Development Director may determine is necessary to ensure compliance with this Ordinance.

5. All landscape plans must provide an irrigation plan. Irrigation systems shall be designed to maximize efficient water use and minimize the waste of water. An automatic irrigation system designed to provide efficient irrigation coverage is required.
 - a. The irrigation system should be designed to correlate to the organization of plants into zones with similar watering requirements.
 - b. The use of treated effluent, a collection system to capture runoff, and other alternatives for irrigation purposes are encouraged.
 - c. A waiver from the automatic irrigation system requirement may be approved by the Director of Community Development. If an alternative means of watering is proposed a specific plan must be provided.

B. Preferred Materials

1. All landscape plans must use native and/or drought tolerant plant materials appropriate for their location. Invasive plants and noxious weeds are prohibited. Preferred landscaping materials are native plants as defined by the Native Plants for Northern Arizona Landscapes compiled by The Arboretum at Flagstaff. A detailed plant list shall be included with all plans. The list shall include both the botanical and common names.

2. If turf areas are included, they must use a sod or seed mix specifically cultivated to thrive in the conditions present at the particular site. The use of non-native and/or high water consumptive turf such as Kentucky Blue Grass is discouraged. The applicant must provide information regarding the composition of a sod or seed mix as part of the detailed plant list as required.

3. Rock material used in landscaping shall be subordinate to and not a substitute for plant material. When used, rock material must be compatible and appropriate.

4. The use of artificial trees, shrubs, turf, or plants shall not be permitted as landscaping.

C. Design

1. Plants should be grouped in strategic areas and not spread thinly around the site.

2. Trees must be planted to allow for maximum growth in height and shape without the need for pruning in excess of that required to maintain the health of the plant.

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3. New vegetation shall be selected, planted, and maintained so that at maturity it will not interfere with utility lines, snow storage areas, vehicular parking, pedestrian circulation, traffic sight visibility at driveways and street intersections, and will not cause damage and upheaval of sidewalks and pavement.
 4. All landscape designs shall take into consideration the need for defensible space.
 5. All landscaped areas shall incorporate a ground cover to tie the landscaping together and to discourage weed growth.
 6. A mix of deciduous and evergreen plant materials shall be used to provide a year-round effect.
 7. A clear sight triangle shall be maintained at all street intersections and driveway entrances. Such clear sight triangle shall be determined by measuring 25' along each property line at street intersections, and along the property line and the driveway for driveway entrances. Landscape materials in this area shall have a clear trunk height of six (6) feet from grade level; mature shrubs, groundcover, or other materials shall not exceed three (3) feet in height from grade level.
- D. If the Community Development Director determines that the proposed landscaping does not comply with this Ordinance, the plan will not be approved.

Section 18.6 Preservation of Existing Vegetation

- A. The preservation of healthy existing trees and shrubs shall be provided wherever possible. These trees and shrubs must be shown on the landscape plan and labeled as "existing." They must also be listed on the plant list with their current size shown.
- B. All landscape plans must identify methods for protecting existing vegetation that will remain. Construction materials and debris may not be stockpiled within 1 ½ times the drip line perimeter outside the drip line of all trees and shrubs being retained. This protection area must be clearly marked with temporary fencing or similar material.

Section 18.7 Standard Plant Units

- A. All landscaping requirements are stated in terms of the number of standard plant units required. This Section defines 3 alternative plant units. All landscaping shall conform to one or more of the plant unit alternatives of this Section.
- B. The following table specifies plant unit alternatives. In general, the three alternative plant mixes are interchangeable. In some instances, the Director of Community Development may require the use of a specific plant unit to achieve a particular result.

Plant Unit Alternatives	Quantity Required	Type and Size at Time of Installation
Alternative A	3	8' high evergreen trees
	10	2' high shrubs (or 5 gal min.)
Alternative B	2	6' high evergreen trees
	1	3" caliper deciduous tree (min 10-12' height)*
	4	2' high shrubs (or 5 gal min.)
Alternative C	1	3" caliper deciduous tree (min 8-10' height)
	2	1 1/2" caliper deciduous trees (min 6'-8' height)
	14	2' high shrubs (or 5 gallon minimum)

* Clump or cluster planting which will achieve a total diameter of 4" may be considered in lieu of a 3" caliper tree.

When applied through the Ordinance, and where the resulting number of required plant units is expressed in a fraction, the required number of plant units shall be rounded off to the nearest whole number (rounding is done at the end of calculations).

Section 18.8 Parking Lot Landscaping

- A. Landscaping shall be proportionally distributed throughout parking and driveway areas, including the perimeter and interior of the parking area. Where islands are required or provided, they shall be landscaped.
- B. Parking lot landscaping shall be provided according to the following table.

1. Parking Spaces	Minimum Landscaped Area Required	Min. Plant Units
0-5	none	none
6-20	324 sq. ft.	1 unit
21-32	27 sq. ft./space	2 units
33-44	27 sq. ft./space	3 units
45+	40 sq. ft./space	3+units ¹

Note 1-The number of plant units required shall be pro-rated for parking lots over 44 spaces at the rate of one plant unit per 324 square feet of landscaped area.

- 2. Where parking lots are adjacent to side or rear property lines, a minimum 5' wide perimeter strip of landscaping shall be provided.
- 3. All landscaped areas adjacent to vehicular parking and access shall be protected by 6" vertical concrete curbing, 6" bumper stops, or similar materials in order to control storm water flows and minimize damage by vehicular traffic.

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4. The curb or barrier around landscaped areas may be utilized as a wheel stop provided the area of vehicle overhang does not exceed 2 ½ feet and does not damage or interfere with the landscaping. A minimum five (5) foot wide planter is required for a single vehicle overhang and an 8 foot wide planter for a double vehicle overhang.
5. Parking, buildings, and display or storage of equipment of vehicles is not permitted in required landscaped areas.
6. To ensure that landscape materials do not constitute a driving hazard, trees used to landscape parking islands shall have a clear trunk height of six (6) feet from grade level; mature shrubs, groundcover, or other landscaping material shall not exceed three (3) feet in height from grade level.

Section 18.9 Buffer and Screen Landscaping

- A. All required front and street side landscape areas shall be fully landscaped in accordance with a minimum of 1 plant unit for every 100 lineal feet of frontage. In areas where greater buffer or screening is desirable additional plant units may be required by the Planning and Zoning Commission.
- B. Where detention basins and/or drainageways are constructed partially or entirely within setback areas or other high-visibility areas on sites, they must be adequately landscaped. A minimum of two (2) plant units shall be required for every 100 feet of the perimeter of the basin, measured at the top of the basin. All detention basin surfaces shall be treated with a native groundcover seed mix or lawn mix as required. river rock or similar non-plant alternative may be allowed subject to the approval of the Director of Community Development.
- C. Screening
 1. Where landscape screening is required by the Ordinance or through Commission or Board action, such landscaping shall be in addition to the general landscaping requirements.
 2. Required fences and walls adjacent to County roads or State Highways shall have a unifying theme and provide variation by using changes in height, different material combinations, offset angles, articulation, and/or plant materials.

Section 18.10 Site Landscaping

- A. In addition to the required buffer and screen landscaping, and parking lot landscaping, the building site shall include landscaping designed to visually integrate the structure(s) with the site.
 1. The site landscaping shall include one plant unit for every 100 lineal feet of perimeter of the building foot print, and located within 50 feet of, and adjacent to, the perimeter of the building. In situations where the use or building design makes planting within 50 feet impractical, such as mini storage warehousing, it may be permitted to place some or all of their on-site building landscaping beyond the 50 foot limit, subject to the approval of the Director of Community Development.

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2. If phasing is proposed, or if only a portion of the parcel is being developed, the undeveloped area shall be maintained in existing native plants. If the area has been disturbed or the existing vegetation consists primarily of weeds, the area must be successfully revegetated with a substantial mix of native and/or drought tolerant grasses and ground covers. The density of the re-established vegetation must be adequate to prevent soil erosion and invasion of weeds after one growing season.
- B. For Manufactured Home Parks or Multi Family Developments, one plant unit per single residential unit or lot is required.

Section 18.11 Installation and Maintenance

- A. Landscaping and irrigation devices shall be installed in accordance with the approved landscape plan prior to issuance of a Certificate of Occupancy or commencement of the use. If approved landscaping and irrigation cannot be installed prior to occupancy or commencement of the use, a temporary Certificate of Occupancy may be issued upon posting of an approved financial assurance based on a contractor's estimate for completing the work, plus 10% contingency. The work shall be completed prior to the end of the next planting season.
- B. It is the responsibility of the property and/or business owner to maintain the site as approved and provide for replacement of plant materials that have died or otherwise been damaged or removed, and maintenance of all landscape materials including, but not limited to fencing, paving, rocks, and retaining walls.

Section 18.12 Modification to Landscaping Standards

- A. The Director of Community Development may grant minor modifications to the standards set forth in this Section if it is determined that:
1. The strict application of these standards is not possible due to existing physical conditions; and
 2. The modification is consistent with the purpose of this Section; and
 3. The modification is the minimum modification that would afford relief and would be the least modification of the applicable provisions of this Section.