

# City of Colorado Springs

## LANDSCAPE CODE AND POLICY MANUAL



EFFECTIVE JANUARY 2026



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## 7.4.9 INTRODUCTION

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Colorado Springs is situated in a semiarid region of the American West between the western edge of the Great Plains and the Front Range of the Rocky Mountains. Due to the changes in elevation within the City limits, which ranges from approximately 5,500 feet to 7,500 feet above sea level, this setting provides distinctive topographic features and rich ecological diversity. The widely varied local plant communities are indicators of that diversity.

In order to provide a framework for understanding the local natural environment and to facilitate landscape design that references and reinforces our regional character, this manual contains policies, procedures, standards for Landscape and Irrigation installation, explanatory graphics, and required plant lists. The manual supplements the Landscape Code in the current UDC and should serve as a catalyst for innovative approaches to landscape and irrigation design.

The 2023 Landscape Code and Policy Manual is reflective of the 2023 UDC. The community objectives of water conservation, landscape sustainability and the protection of regional character can be accomplished through preservation of landforms and indigenous plant communities; and through the development of

landscapes that evoke the qualities of our regional character, and yet provide the benefits valued in urban settings.

The Landscape Code & Policy Manual contains references to the current Landscape Code and all policies regarding required landscaping and irrigation of applicable public and private property, and public rights-of-way. The principles and standards included are valid for all landscape design.

## Document Layout

This manual contains the language from the City of Colorado Springs' Unified Development Code (UDC) Part 7.4.9 Landscaping and Green Space. The landscape and irrigation manual policies, procedures, standards for each item or site category are designated by Policy Numbers that correspond with the UDC Part 7.4.9 Landscaping and Green Space. Appendices are located at the end of the manual with additional information and requirements.

## Definitions

**As-built plans:** Revised plans reflecting the actual conditions of a landscape or irrigation system installation.

**Berm:** An earthen mound designed to provide visual interest on a site, screening of undesirable views, noise reduction, etc.

**Canopy (also known as overstory):** The upper vegetative cover of a tree or plant grouping.

**Certified Irrigation Designer:** A person who has completed the Certified Irrigation Designer Program of The Irrigation Association and has an active certification from the association.

**Compact Lot:** Lots developed with or designed to be developed with Single-family Detached, Single-family Attached, or Two-Family Dwellings on an individually platted lot in the R-Flex Medium or R-Flex High zone districts, or lots in residential developments or portions of residential developments in the PDZ district with development densities equivalent to those permitted in the R-Flex Medium or R-Flex High zone districts.

**Critical root zone:** The ground area around a tree trunk determined by a radius of one foot (1') for each one inch (1") of trunk diameter.

**Deciduous:** A plant with foliage that is shed annually.

**Double frontage lot:** A lot having frontage on two (2) parallel or approximately parallel streets.

**Dripline:** A vertical line extending from the tips of the outermost branches of a tree to the ground.

**Driveway, Commercial:** Primary access, that may be private or public, off of a public right-of-way into a commercial or mixed-use developed site.

**Ecosystem:** A characteristic assemblage of plant and animal life within a specific physical environment, and all interactions among species, and between species and their environment.

**Evergreen:** A plant with foliage that persists and remains green year-round.

**Green Space, Active:** Private common areas inclusive of grass, trees, or other vegetation set aside for recreational purposes. This can include, but is not limited to, dog parks, outdoor swimming pools, playgrounds, athletic fields and courts, trail systems and seating areas along trail systems, and plazas.

**Green Space, Non-Activated:** Private common areas inclusive of grass, trees, or other vegetation set aside for aesthetic purposes.

**Greenway Oriented Unit:** An attached or detached dwelling unit with the entry façade facing a common green space and garage fronting an alley in a development.

**Ground cover:** Plants, other than turf grass, normally reaching an average maximum height of not more than twenty-four inches (24") at maturity.

**Evapotranspiration (ET):** A measure of water depletion from the soil due to evaporation from the soil surface and transpiration through plant foliage.

**High Water Use Turfgrass:** A continuous plant coverage consisting of cool season grasses that requires regular weekly watering to survive, such as Kentucky Bluegrass.

**Historically adapted plant:** A self-propagating species that is not indigenous to the regional native plant community it occupies but was likely introduced by early settlers and is now so prevalent as to appear indigenous.

**Hydrozone:** A portion of a landscape area having plants with similar water needs that are either not irrigated or irrigated by a circuit or circuits with the same schedule.

**Hydrozoning:** The design practice of grouping plants by similar water requirements to maximize potential efficiency of irrigation.

**Introduced plant:** A plant that is not indigenous to Colorado Springs but is used in landscaping due to its adaptable qualities. It is generally a nursery trade cultivar or variety, or a native to the region, but does not naturally occur in the City limits.

**Irrigation plan:** A two-dimensional plan drawn to scale that shows the layout of irrigation components, component specifications, and hydrozones. Layout of pipes may be depicted diagram, but location of irrigation heads and irrigation schedules is specified.

**Irrigation system:** A permanent, artificial watering system designed to transport and distribute water to landscape plants.

**Landscape:** Any combination of living plants, such as trees, shrubs, vines, ground covers, flowers, or grass; natural features such as land and water forms, rock, stone, bark chips, or shavings; and structural features, including but not limited to fountains, reflecting pools, outdoor artwork, screen walls, fences, or benches.

**Landscape buffer:** Land area with landscape plantings and other components used to visibly separate one use from another or to shield or block noise, lights, or other nuisances.

**Landscape Policy Manual:** A document containing policies, procedures, standards, maps, and plant lists necessary to implement the landscape standards and regulations of this UDC.

**Landscape setback:** A required landscape planting area on private property that is adjacent to a street right-of-way and includes the parkway; or that is adjacent to a non-street boundary of a zone district.

**Landscape plan:** A plan drawn to scale that shows the layout of all landscape components and their specifications for a development site.

**Licensed Architect:** A person who is currently licensed by any state government of the United States to practice the profession of architecture.

**Licensed Landscape Architect:** A person who is currently licensed by any state government of the United States to practice the profession of landscape architecture and has an active license.



**Low-water-use plants:** Plants that require less than thirty percent (30%) of reference evapotranspiration to maintain optimum appearance.

**Microclimate:** The climate of a specific place within a given area.

**Parking Lot:** An area where motor vehicles are parked or displayed, including parking lots, vehicular display lots, rental lots, depots, and stacking lanes, but not including parking garages.

**Mulch:** Nonliving organic and synthetic materials customarily used in landscape design to retard erosion and retain moisture, and that provide a protective covering around plants to reduce weed growth and to maintain even temperatures around plant roots.

**Native grass:** A drought tolerant native grass species that requires reduced or no supplemental irrigation to survive. Also referenced as Native Seed.

**Native plant community:** A natural association of vegetation that is indigenous within the Colorado Springs City limits.

**Non-potable water:** Water that has not been treated to make it safe for drinking.

**Open space:** A tract of land that is kept in its natural state in perpetuity for public use. Vacant land that may be subject to future development is not considered open space. There is no specified size range for open space, other than the minimum area needed to conserve a significant natural feature.

**Ornamental tree:** A tree planted primarily for its decorative value, or for screening and that typically does not exceed a height of thirty feet (30') in Colorado Springs.

**Parkway:** That portion of the public right-of-way typically located between the curb and private property line for which the adjacent property owner has a legal responsibility to maintain for the public good. Also referred to as a tree lawn.

**Rain sensor or rain shutoff device:** A device connected to an irrigation controller that overrides scheduled irrigation when significant precipitation has been detected.

**Reclaimed water:** Treated, recycled water.

**Registered Professional Engineer:** A person who is currently registered by any state government of the United States as a professional engineer.

**Restrictive covenant:** A limitation of the use of land usually set forth in the deed or other recorded instrument.

**Right-of-Way or Street Right-of-Way:** The area of land designated for streets, sidewalks, utilities, and public use.

**Screening:** A method of visually shielding or obscuring one abutting or nearby structure or use from another by fencing, walls, densely planted vegetation, or berms.

**Selected Plants for Colorado Springs:** The plant list located in Appendix B of the Landscape Policy Manual

**Semiarid climate:** A climate characterized by ten to twenty inches (10" - 20") of annual precipitation.

**Shade tree:** A deciduous (or rarely, an evergreen) tree planted primarily for its high crown of foliage or overhead canopy. A major shade tree at maturity reaches a height of at least fifty feet (50').

**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 twelve feet (12') in height at its maturity. It may be evergreen or deciduous.

**Significant vegetation:** A plant or plants recommended for retention by the City Forester because of size, indigenous character, species type(s), unique environmental benefits, or because it is difficult to provide comparable replacement vegetation.

**Site Distance Line:** The triangular area at the intersection of the curb lines of two (2) streets or a railroad right-of-way line and a street curb line with dimensions from such curb lines necessary to protect required minimum horizontal and vertical sight distances as shown in the Engineering Criteria or as otherwise required by the City Engineer based on considerations of traffic, bicycle, and pedestrian safety.

**Site plan:** A two-dimensional representation, drawn to scale, of the total area of a development project, including building footprints, roadways, and parking areas.

**Soil amendment:** Organic and inorganic materials added to soil to improve texture, nutrients, moisture holding capacity, and infiltration rates.

**Street tree:** A tree planted in the street right-of-way (parkway) between the curb or edge of road and the adjoining property line to provide shade, spatial definition, and human scale, and to enhance the street environment.

**Street Oriented Unit:** A Single-family Detached or Single-family Attached dwelling unit with a garage fronting on a public or private street.

**Streetscape:** The landscape treatment of a street edge, including vegetation, sidewalks, streetlights, fencing, signs, utilities, etc.

**Sustainability, horticultural:** A characteristic of landscapes adapted to local soil and climatic conditions that results in the healthy growth and longevity of installed plant materials.

**Tree:** A large, woody plant having one or several self-supporting stems or trunks and numerous branches. It may be classified as deciduous or evergreen.

**Turf/turfgrass:** Continuous plant coverage consisting of hybridized grasses that, when regularly mowed, form a dense growth of leaf blades and roots.

**Understory:** Assemblages of natural low-level woody, herbaceous, and ground cover plant species that exist in the area below the canopy of trees.

**Vegetation:** Plants in general or the sum total of plant life in an area.

**Water harvesting:** Design for capturing and using water runoff from natural or artificial, on-site precipitation.

**Xeriscape:** A water efficient landscape adapted to the local environment.

**Xeriscape principles:** Methods of professional landscaping that include: planning and design, soil analysis, efficient irrigation, appropriate plant selection, practical turf areas, use of mulches, and proper maintenance.

For any definitions not included in this Manual, please reference the current UDC Section 7.6.301, "Definitions".

### 7.4.901 Purpose

The purpose of this Part 7.4.9 is to establish requirements for the design, installation, and maintenance of landscapes that contribute ecologically and aesthetically to the growth and economic prosperity of the City; that achieve healthy, attractive, and safe environments according to recognized water conservation principles; and that conserve, protect, and promote the unique natural identity and environment of the City; and to establish standards that:

- A. Protect and efficiently use limited water resources through water conservation including the use of xeriscape principles, standards for the selection, installation, and maintenance of organic soil amendments and plant materials, and the conservation of indigenous plant communities;
- B. Enhance the aesthetics of the City, through enhanced streetscapes, the incorporation of native and compatible introduced plants, plant communities, and ecosystems into landscape design, the screening of parking lots and objectionable uses and activities, and the incorporation of green space in ways that harmonize and enhance the natural and built environment;
- C. Improve environmental quality by reducing the urban heat island effect, conserving native plant communities and vegetation, reducing soil erosion, reducing air, water, and noise pollution by reducing the mowing and fertilization requirements of limited turf areas, and preserving ecological diversity and species habitat;
- D. Support the installation of landscapes suited to local soil, climate, water supply, and on-site conditions for improved plant growth and survivability;
- E. Protect existing vegetation, including natural plant communities, to mitigate the effects of development on the natural environment;
- F. Make the City more attractive through the physical and psychological benefits of landscaping that soften the visual harshness of urban development, by stimulating pride in the City's natural heritage, and by protecting the public health, safety, and general welfare;
- G. Safeguard and enhance the value of land and public and private investment through incorporation of landscaping into development; and retain and enhance the City's natural beauty, which is an important factor in attracting economic development;
- H. Control certain exotic plant species that have a negative effect on public health or degrade native ecosystems; and
- I. If the property is located within the WUI-O district, provides for reduced wildfire risks through the City of Colorado Springs Fire Prevention Code and Standards landscaping requirements.



## 7.4.902 Applicability

### A. General Standards

Except as otherwise provided by Subsection B below, the requirements of this Part 7.4.9 shall apply to all land when the following activities take place:

1. All new construction of primary structures;
2. All construction projects that increase the gross floor area of any primary structure on the lot by fifty (50) percent or more, measured cumulatively with any other activities that increased gross floor area of primary structures on the lot in the previous five (5) years;
3. If a site has sixty (60) percent or more impervious area, any site alteration that increases impervious surface area by ten (10) percent through any change other than an increase in the gross floor area of any primary structure, unless the property as a whole complies with the standards in Subsection [7.4.202A](#) (Sustainability and Resilient Development Incentive);
4. Any change of use that results in the conversion of an attached or detached single-family or two-family dwelling to multi-family or nonresidential use;
5. The conversion of vacant land to nonresidential use that does not involve the construction of a primary structure;
6. The total redevelopment (demolition and new construction) of any primary structure on a lot; and
7. All government and utility service property zoned PF (Public Facilities);
8. Any alteration or reconfiguration of fifty (50) percent or more of existing developed landscape areas; and
9. A project that seeks a Major Modification to an approved Development Plan, including a change of use.

Policy 7.4.902.A.1: To determine the applicability of the Manual to the activities outlined above, this section is interpreted to mean that each of the listed activities is separate and distinct from the others and is subject to the requirements in this Manual.

### B. Exemptions

Except as provided in Subsection D below, the following are exempt from the requirements of this Part 7.4.9:

1. An individual detached single-family or two-family dwelling on its own lot;
2. Any valid, unexpired Development Plan approved prior to November 1, 1998, for which there is neither a change of use nor a major amendment to the plan;
3. Any temporary event approved in accordance with this UDC;
4. Any construction projects that increase the gross floor area of any primary structure on the lot by less than fifty (50) percent, measured cumulatively with any other activities that increased gross floor area of primary structures on the lot in the previous five (5) years;
5. Bona fide agricultural activities;
6. Currently approved Development Plans that are changed by a Minor Modification after the Effective Date of the UDC;

7. Master planned public parks, zoned PK, in conformance with Section 7.2.406 (PK: Public Parks); and
8. Medians in arterial street rights-of-way approved by the Park and Recreation Advisory Board.

**C. Land in WUI-O District**

Projects in the WUI-O district shall comply with additional requirements in Section 7.2.604 (WUI-O: Wildland Urban Interface Overlay) and related City of Colorado Springs Fire Prevention Code and Standards requirements.

**D. Land in the SS-O District**

Projects in the SS-O district shall comply with additional requirements in Section 7.2.603(SS-O: Streamside Overlay).

Policy 7.4.902.D.1: All tree species planted within the SS-O Streamside Overlay shall be an approved species as shown in the current Selected Plants for Colorado Springs in Appendix A.

Policy 7.4.902.D.2: Landscaping part of stream bank stabilization should be selected with the following traits: deep root systems, fibrous root systems, legumes with deep roots and nitrogen fixing capabilities, tall/leafy crowns, and/or low spreading plants.

Policy 7.4.902.D.3: All information required on the most current Landscape Check Lists located on the City of Colorado Spring Website for all SS-O Streamside Overlay requirements shall be provided.

**E. Special Requirements**

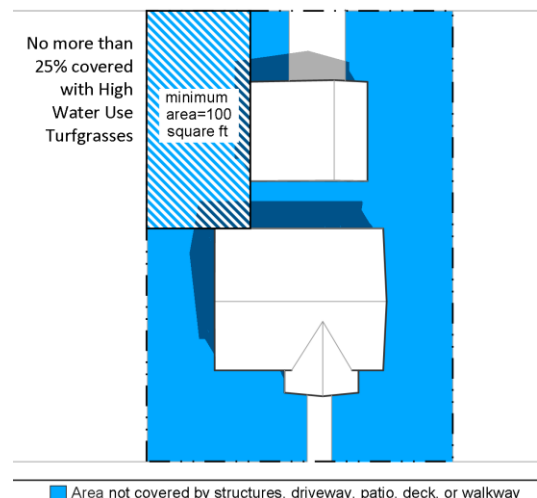
The following requirements shall apply to attached or detached single-family or two-family dwelling residential projects:

**1. Maximum High-Water Use Turfgrass**

To reduce the use of the City's limited water resources for outdoor irrigation:

- a. No more than twenty-five (25) percent of the portion of a lot not covered by a primary or accessory structure or a driveway, patio, deck, or walkway, and no contiguous area less than one hundred (100) square feet in area, shall be planted with High Water Use Turfgrass. The one hundred (100) square foot limit shall not apply to the Parkway.

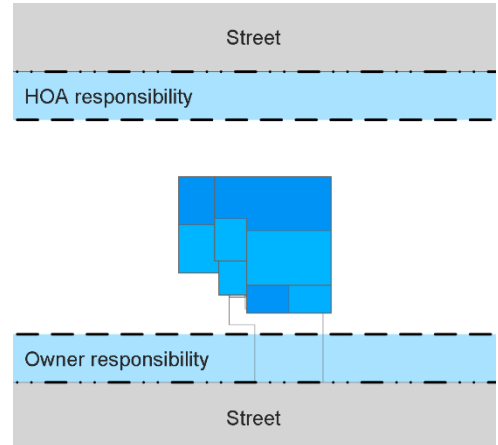
Policy 7.4.902.E.1.a.1: All proposed new attached or detached single-family or two-family dwelling residential projects that are part of a Development Plan shall follow requirements shown in Appendix C.



- b. The irrigation water service connection shall be sized appropriately to accommodate irrigation during the hours and days outlined in the Water Shortage Ordinance, Chapter 12, Article 4, Part 13 of the Code of the City of Colorado Springs. All irrigation water shall be metered and have appropriate backflow prevention as identified by Colorado Springs Utilities Water Line Extension and Service Standards.
- c. Any restrictive covenant that becomes effective on or after November 1, 1998, shall not require the use of High Water Use Turfgrass. This provision shall not restrict the individual and voluntary use of High Water Use Turfgrass.

## 2. **Double Frontage Lot Streetscape**

- a. Where double frontage lots are approved as part of a Subdivision Plat, Land Use Plan, or Development Plan, installation of landscape is required in all adjacent tracts and right-of-way areas. This includes any proposed landscape improvements including irrigation system, plant material, fence, and sidewalk along the secondary frontage (generally that facing an arterial or collector street not providing access to the lot). Installation shall be the responsibility of the developer.
- b. Maintenance shall be the responsibility of a homeowners' association or other special district or association acceptable to the City, and shall be so noted on the Subdivision Plat, Land Use Plan, or Development Plan. Establishment of a landscape easement with individual lot owner responsibility is not acceptable and a creation of a landscape tract to be maintained by an entity acceptable to the Manager may be required.



## 3. **Common Areas**

Landscaped common areas, such as green space tracts, entrances, medians, and roundabouts in attached or detached single-family or two-family dwelling residential projects shall be installed by the developer. Responsibility for maintenance of all such common areas shall be given to a homeowners' association or other special district or association acceptable to the City, and shall be so noted on the Development Plan, Subdivision Plat, or Land Use Plan.

Policy 7.4.902.E.3.1: All proposed common areas shall follow requirements shown in Appendices C and E.

## 4. **Dissolved Homeowners' Association or Other Special District**

Where a homeowners' association or other special district or association that is responsible for maintenance of landscaped common areas dissolves or is no longer in existence, the current owner of the landscaped common areas shall be responsible for maintenance.

## **F. Preservation Areas**

1. Subdivision Plats or Land Use Plans may designate areas of land or water as preservation areas in which the following activities are prohibited unless specifically permitted by the approved Subdivision Plat or Land Use Plan.

- a. Construction or placing of buildings, roads, signs, billboards or other advertising, utilities, or other structures on or above the ground;
- b. Dumping or placing of soil or other substance or material as landfill, or dumping or placing of trash, waste or unsightly or offensive materials;
- c. Removal or destruction of trees, shrubs, or other vegetation;
- d. Excavation, dredging or removal of loam, gravel, soil, rock, or other mineral substance in such manner to affect the surface;
- e. Activities detrimental to drainage, flood control, erosion control or soil conservation; or
- f. Other acts or uses detrimental to such retention of land or water areas.

2. Some preservation areas may be further designated as “Oasis” plant communities in which indigenous plant communities are retained in their entirety, with canopy trees, understory plants and ground covers left intact and undisturbed as credit toward required landscaping on Development Plans.

## **G. FBZ Regulating Plans**

Alternate landscaping standards may be included as a part of an FBZ regulating plan. In case of a conflict between the provisions of this Part 7.4.9, and the landscaping standards included in an FBZ regulating plan, the standards included in an FBZ regulating plan shall apply.

Policy 7.4.902.G.1: All Plans in FBZ Zone Districts requiring a Landscape or Irrigation Plan shall provide all applicable items currently shown on the most current landscape and irrigation checklists provided on the City of Colorado Springs website.

Policy 7.4.902.G.2: All Plans in FBZ Zone Districts shall use the approved tree and screening shrub species shown in Appendix A.

Policy 7.4.902.G.3: All Plans in FBZ Zone Districts providing street trees within urban areas should utilize the following recommendations:

- a. The minimum dimensions of the planting area around the street tree are 5'x 8' area and utilize a raised curb and planting area perimeter.
- b. Consider the use of a subgrade tree root zone planting system to promote healthy urban trees. This would include “silva-cell” system or at a minimum “CU Structural Soil” in planting beds to assist with the long-term health of the proposed street trees. Some root zone planting systems in the public right-of-way may require a formal maintenance agreement to address long term infrastructure considerations.
- c. Based on overall health of urban trees and long-term maintenance costs, tree grates are not recommended to be used. Tree grates may be considered in urban areas with limited sidewalk width and significant pedestrian volume.

#### **7.4.903 Landscape Policy Manual**

A. The Planning Department is authorized to adopt, and as necessary make revisions to, a Landscape Policy Manual containing provisions that implement and supplement the provisions of this Part 7.4.9, Section 7.5.524 (Administrative Adjustment), Section 7.5.803 (Nonconforming Site Features), and Chapter 7 of this Code, and other City regulations and standards as they relate to landscaping, irrigation, buffering, screening, fences, grading, and walls.

B. The Landscape Policy Manual includes information about policies, procedures, standards, and maps relevant to this Part 7.4.9. In particular, the manual provides specific information on permitted and prohibited species; guides to xeriscape, Landscapes, irrigation and other water-conserving forms of landscaping that are highly adapted to the microclimates of the City; information about preservation of trees including preservation areas, the Oasis landscaping concept, available credit for preservation of existing vegetation; and submission requirements for the landscape plan, irrigation plan, and other materials required to be filed with the City.

C. Specifications, plans, and construction practices regarding the irrigation system and Total Landscape Water Budget Methodology shall comply with the Landscape Policy Manual.

Policy 7.4.903.C.1: All proposed new projects shall follow requirements shown in Appendices D and E.

D. The provisions of the Landscape Policy Manual shall supplement but not supersede the requirements of this UDC. If there is a conflict between the standards in this Part 7.4.9 and the provisions of the Landscape Policy Manual, the provisions of this Part 7.4.9 shall apply. If the Manual addresses a topic related to landscaping, irrigation, buffering, screening, grading, fences, and walls that does not conflict with this UDC, the applicant shall comply with all provisions, policies, and standards in the Landscape Policy Manual to the maximum extent feasible.

#### **7.4.904 General Landscape and Green Space Requirements**

##### **A. Required Plans and Documents**

1. When Landscape and Irrigation Plans are required as part of the applications described below:

- a. A Preliminary Landscape Plan, with applicable supporting material, shall be approved concurrently with the Development Plan review if a Final Landscape Plan is not submitted.

Policy 7.4.904.A.1.a.1: The Preliminary Landscape Plan shall consist of all the information required on the most current Preliminary Landscape Check List located on the City of Colorado Springs Website.

- b. A Final Landscape Plan, with applicable supporting material, shall be submitted with the Development Plan or at time of Building Permit application and shall be approved before any Building Permit approval, any landscape construction, and issuance of a Certificate of Occupancy. Development within the WUI-O district shall submit the Final Landscape Plan concurrent with the Development Plan review, and the Fire Code Official shall give approval prior to any landscape installation and issuance of a Certificate of Occupancy.

Policy 7.4.904.A.1.b.1: The Final Landscape Plan shall consist of all the information required on the most current Final Landscape Check List located on the City of Colorado Springs Website.

Policy 7.4.904.A.1.b.2: Depending on the overall size and complexity of the Final Landscape Plan, the Manager may require a smaller size scale be used for the plans.



- c. An Irrigation Plan, with applicable supporting material,

Policy 7.4.904.A.1.c.1: The Irrigation Plan shall consist of all the information required on the most current Irrigation Check List located on the City of Colorado Springs Website and all requirements shown in Appendix E.

Policy 7.4.904.A.1.c.2 The Irrigation Plan shall be submitted concurrently with or after approval of a Final Landscape Plan.

(1) Shall be submitted with the Development Plan or at the time of Building Permit application and shall be approved before any Building Permit approval, irrigation construction, and issuance of a Certificate of Occupancy; or

(2) Upon request by the applicant, the irrigation plan can be submitted ninety (90) days subsequent to a Building Permit issuance and approved prior to any irrigation construction and issuance of a Certificate of Occupancy. Specifications, plans, and construction practices regarding the irrigation system shall comply with the Landscape Policy Manual.

- d. For commercial projects less than one (1) acre in size, the Manager may require that the Final Landscape and Irrigation Plan, with applicable support material, be submitted and approved concurrent with the Development Plan review.

- e. In the case of the conversion of land requiring a Development Plan that does not involve the construction of a structure, a Final Landscape and Irrigation Plan, with applicable support material, shall be submitted and approved concurrent with the Development Plan review.

2. Documents shall clearly and completely describe the design and any techniques and features provided to implement the design and meet the requirements of this Part and the current approved Landscape Policy Manual.

3. A Landscape Architect licensed by the State of Colorado shall prepare all required landscape plans and supporting material.

Policy 7.4.904.A.3.1: The licensed Landscape Architect shall have a current unexpired certification and no active discipline or board actions against them.

4. A Landscape Architect licensed by the State of Colorado, or a Certified Irrigation Designer shall prepare all required irrigation plans and supporting material.

Policy 7.4.904.A.4.1: The Certified Irrigation Designer shall have a current unexpired certification and no active discipline or board actions against them.

## **B. Site Category Areas Required to be Landscaped**

1. The following areas of each lot or contiguous lots in a common development are required to be landscaped in accordance with the requirements of this Part 7.4.9:

- a. Street frontages and parkways, and double frontage lot streetscapes (see Section Article 7.17.4.905 (Street Frontage and Street Trees));
- b. Property edge landscape buffers (see Section Article 7.17.4.906 (Property Edge Landscape Buffers));
- c. Parking lots (see Section Article 7.17.4.907 (Parking Lot Landscaping));
- d. The interior of the development (see Section Article 7.17.4.908 (Additional Interior Landscaping)); and
- e. Screening (see Subsection Article 7.17.4.908D.7 (Location of Landscaping)).

2. The locations and quantities of plants shall comply with the requirements established for the various category areas to be landscape as listed in Subsection B above. The site category minimum number of trees are cumulative. Areas or trees provided to meet each site category requirement may not consist of areas or trees that are proposed to meet the minimum requirements of other site categories.

Policy 7.4.904.B.2.1: All required information for site category areas shall follow the format shown in Appendix F.

Policy 7.4.904.B.2.2: All city-required notes shall be provided on the plans as shown in Appendix F.

C. Any calculation of a landscaping requirement that results in a fractional number shall follow Section 7.6.202 (Fractions).

Policy 7.4.904.C.1: Pursuant to UDC Section 7.6.202, when a calculation of a landscaping requirement results in a fractional number, the requirements shall be considered the next greatest whole number.

## **D. Plant Materials**

### **1. General**

- a. All trees and vegetation shall comply with the Landscape Policy Manual and all other standards of the Manual. Alternative or new species may be approved by the Manager provided they comply with the intent of this Part and the Landscape Policy Manual.

Policy 7.4.904.D.1.a.1: All-proposed trees and vegetation shall follow all requirements and allowable species as shown in Appendices A and G.

Policy 7.4.904.D.1.a.2: A minimum of seventy percent (70%) of the chosen plants for each project within the City shall be from the Current Selected Plants for Colorado Springs as shown in Appendix A.

Policy 7.4.904.D.1.a.3: All plant characteristics (water usage/exposure/ tolerance/mature height and width) should follow the Current Selected Plants for Colorado Springs as shown in Appendix A.

Policy 7.4.904.D.1.a.4: All plants shall meet or exceed standards established by the Colorado Nursery Act and the American Standard of Nursery Stock. All plants shall be typical of their species, healthy, free of disease, insect pests and mechanical injuries,

have adequate root systems, and otherwise be consistent with the intent of the Landscape Code and Landscape Policy Manual.

Policy 7.4.904.D.1.a.5: Installation of all plants shall be in accordance with the planting details located on the cities web page with regard to planting hole depth, size and shape, root ball preparation, construction of drip irrigation, appropriate staking and guying, mulching, and watering.

Policy 7.4.904.D.1.a.6: Each plant shall be shown on the landscape plan within the range of mature size indicated in Appendix A.

Policy 7.4.904.D.1.a.7: Plant materials shall be listed on the plan in conformance with Appendix G.

Policy 7.4.904.D.1.a.8: All tree spacing shall conform to the range of average mature spread for each respective species in Appendix A. Design flexibility is allowed for the spacing of trees on private property that results in a twenty percent (20%) reduction in spacing.

Policy 7.4.904.D.1.a.9: In all cases, the natural form of planting (tree/shrub) shall be accommodated when planting near paved areas such as streets, sidewalks, driveways, and parking lots. This will normally require a minimum five-foot (5') setback for deciduous trees and an eight to fifteen (8'-15') setback for evergreen trees, depending on the species and variety selected. For trees located within parkways/tree lawns, the tree should be placed in the middle between the detached walk and curb.

Policy 7.4.904.D.1.a.10: The Manger may allow the use of #1 container size ornamental grasses for plant material requirements if the proposed grass species has limited availability and is classified as a xeric or low water use ornamental grass in the current Selected Plants for Colorado Springs (Appendix A)

Policy 7.4.904.D.1.a.11: The Manger may require that if different construction phasing is planned for the project, all proposed landscaping/groundcover be shown in separate tables with totals (square feet/number of plants) for each different phase.

Policy 7.4.904.D.1.a.12: Tree stakes shall be removed from the site within 12 to 18 months of planting.

Policy 7.4.904.D.1.a.13: Minor revisions to an approved final landscape plan may be requested due to the lack of plant availability. Substitutions may be permitted, and following criteria shall be followed:

- The quantities of the provided plants are not reduced;
- The size of the plant material and location is not altered. (minor plant relocations due to site constraints may be allowed);
- The replacement plant material is equal to the plant being substituted in terms of the current landscape manual requirements; and
- The replacement plant material is hardy and adaptable to site-specific conditions and chosen from Appendix A or otherwise approved by the Manger.

- b. Trees shall be spaced to allow for mature growth of trees, in accordance with the Landscape Policy Manual, without interfering with maintenance or use of overhead power lines, underground utility infrastructure, structures, walks, or drives.
- c. The minimum planting or installation sizes of plant materials shall comply with Table 7.4.9-A.

<b>Table 7.4.9-A</b>	<b>Plant Material Requirements</b>
<b>Plant Type</b>	<b>Minimum Planting or Installation Size</b>
Deciduous shade tree	1.5 inch caliper measured 6 inches above ground
Deciduous ornamental tree	1 inch caliper measured 6 inches above ground; or Multi-stemmed clump form with minimum height of 4 feet
Evergreen tree	6 feet height
Evergreen and deciduous shrubs	#5 container size
Ornamental grasses	#3 or #5 container size
Ground covers and vines	2.25 or 4 inch flat-type container, #1 or #5 container size

- d. To promote species diversity, on sites with twelve (12) or more trees, no more than thirty-five (35) percent of the trees used on a site may be from a single tree species.
- e. At least forty (40) percent of site trees shall be trees that will exceed thirty (30) feet in height at maturity.
- f. Tree species with invasive roots and brittle branches shall be planted at least twenty-five (25) feet from public wastewater, water, and stormwater lines, streets, curbs, and sidewalks. These species include Elder (*Sambucus*), Willow (*Salix*) and Cottonwood (*Populus*).

Policy 7.4.904.D.1.f.1: All current prohibited right-of-way (ROW) trees as defined by City Forestry shall not be planted within the public ROW or private property within the City. With approval, some of these prohibited species may be planted for SS-O Streamside Overlay tree requirements but must follow the current minimum 25' distance requirement listed above and be shown in Appendix A as permitted for SS-O Streamside Overlay properties.

- g. Plants with similar water needs within each site microclimate (i.e., shade, west facing, toe of slope, etc.) shall be zoned or grouped together for efficiency of water application, to prevent water waste, and to provide optimum application of water to the plants.

Policy 7.4.904.D.1.g.1: All proposed trees and vegetation shall follow all requirements and allowable species as shown in Appendices A, D, and E for similar water needs and irrigation requirements.

Policy 7.4.904.D.1.g.2: All proposed trees located within low water use areas shall use only low water use species as listed in Appendix A. In some cases, trees planted within SS-O Streamside Overlay areas could be exempted but would be approved on case-by-case review.

Policy 7.4.904.D.1.g.3: All proposed trees located within high water use areas shall use only medium to high water use species as listed in Appendix A.

## 2. High Water Use Turfgrass

- a. High Water Use Turfgrass shall be hydrozoned and irrigated separately because of its unique water demand.
- b. High Water Use Turfgrass cannot be used as an infill material and should be used as a planned amenity or element, as defined in the Landscape Manual, in the designed landscape.

Policy 7.4.904.D.2.b.1: The following areas would be considered an amenity/element which would allow the use of High-Water Use Turfgrass. These areas will be determined and approved by the Manager.

- Designed Active Green Space which shows that the space will be used as amenity and has pre-determined benefit for users and/or the city.
  - Play fields and high use play areas designed for the benefit for users/or the city.
- c. High Water Use Turfgrass shall not comprise more than twenty-five (25) percent of the total green space area of the site, and shall not:

Policy 7.4.904.D.2.c.1: – High Water Use Turfgrass shall be calculated as shown in Appendix D.

- (1) Be used on slopes greater than 5:1;
- (2) Be used in medians, parking lot islands, or parking lot planters;

Policy 7.4.904.D.2.b.(2).1: – High Water Use Turfgrass is not permitted within roundabouts located within a public or private ROW.

- (3) Be used in any configuration that cannot be efficiently irrigated;
- (4) Be used in street right-of-way between curb and sidewalk or on other locations on a site that are less than seven (7) feet wide; and
- (5) Be used in areas with a contiguous area less than one hundred (100) square feet.

## 3. Ground Cover

All landscaped areas shall consist of one hundred (100) percent ground plane coverage in living vegetation, organic mulch, or, to a limited extent, ornamental paving or rock mulch as follows:

- a. At least seventy-five (75) percent of all proposed shrub bed areas shall initially consist of plants and include organic mulch, cobble, or rock.
- b. Ornamental paving (excluding sidewalks) or rock/cobble mulch without vegetation shall not exceed twenty-five (25) percent of any site category area.
- c. Organic mulch shall be installed around each tree in shrub beds with rock or cobble mulch. In shrub beds with slopes greater than 3:1, angular rock or cobble is required.
- d. At least seventy-five (75) percent of each landscape category area shall be covered by vegetation within three (3) years of planting.
- e. Vegetative cover shall consist of ground covers, perennials, shrubs, native ornamental grasses, bulbs, and native grass mixes, or High-Water Use Turfgrasses.

Policy 7.4.904.D.3.e.1: All proposed perennials, bulbs, and annual flower areas shall use organic mulch.



- f. The foliage crown of trees shall not be counted in the seventy-five (75) percent calculation of vegetative cover.
- g. Specifications, plans, and construction practices regarding native seed vegetation shall comply with City Engineering, Stormwater and Landscape Policy Manual Standards, and shall comply with requirements of the Fire Code Official if the development is located in the WUI-O district.

Policy 7.4.904.D.3.g.1: All proposed native seed vegetation shall follow all requirements and allowable species as shown in Appendix B.

- h. Native seed establishment shall meet uniform coverage and gap (six (6) inch by six (6) inch) criteria with low weed content (eighty (80) percent Native Grasses to twenty (20) percent weeds, or better).
- i. Up to ten (10) percent of the area not required to be covered by living material may be covered by artificial turf if the Manager determines that the inclusions of such material will not compromise the visual appearance of the required landscape area or is necessary because of the difficult of maintaining other types of non-living material due to site conditions.

Policy 7.4.904.D.3.i.1: All proposed artificial turf locations shall be located and designed as a program element/amenity for project.

Policy 7.4.904.D.3.i.2: All proposed artificial turf shall be rated for commercial use and installed according to the manufacturer's specifications. A detail shall be provided showing proposed type, material, drainage, edge treatment, and construction. Installing artificial turf directly on top of concrete/asphalt is prohibited.

Policy 7.4.904.D.3.i.3: Installation of artificial turf within public rights-of-way or adjacent to private road/driveway is prohibited.

Policy 7.4.904.D.3.i.4: Artificial turf shall consist of materials that appear natural in appearance and color. The use of indoor/outdoor plastic or nylon carpeting as an installation of artificial turf is prohibited.

Policy 7.4.904.D.3.i.5: Artificial turf shall be maintained in a fadeless condition and shall be kept free of dirt, mud, stains, weeds, debris, tears, holes, and impressions. Maintenance shall include, but not be limited to: cleaning, brushing, debris removal; repairing of depressions and ruts to maintain a visually-level surface; elimination of any odors, flat or matted areas, weeds, and evasive roots; and all edges of the artificial turf shall not be loose and must be maintained with appropriate edging or stakes.

Policy 7.4.904.D.3.i.6: Artificial turf must be replaced if it falls into disrepair with fading, holes, or loose areas. Replacement and repairs shall be done with like materials from the same manufacturer and done so in a manner that results in a repair that blends in with the existing artificial turf.

Policy 7.4.904.D.3.i.7: If Artificial turf is proposed within a dog park area the Manager may require the installation of a sprinkler or wash-down system to minimize pet waste and odor. Design of these systems must be included on a plan's facility sheet to document relationship with stormwater or wastewater systems.

## **E. Fire Safety and Utility Constraints**

### **1. Fire Department Constraints**

Within three (3) feet of the circumference of a fire hydrant, plantings shall be limited to eight (8) inch mature height. Landscaping shall not restrict the use of or obscure the view of any fire hydrant, Fire Department connection, outside horn/strobe, required signage, or other safety features. Access roadways used by the Fire Department shall remain clear and unobstructed to a minimum height of fourteen (14) feet with widths as individually prescribed for the development to protect public health and safety.

### **2. Utility Constraints**

- a. Landscaping shall not interfere with the general function, safety, or accessibility of any gas, electric, water, sewer, telephone, or stormwater facilities, or other drainage or utility easements.
- b. All landscaping adjacent to, above, or beneath utilities shall comply with standards of the respective governing utility and the Landscape Policy Manual.
- c. All improvements, including landscaping, must comply with all applicable requirements of the Colorado Springs Utilities Line Extension and Service Standards, the National Electrical Code, the National Electrical Safety Code, and the "Use of Electric Line Rights-of-Way by Other Parties" prepared by the CSU Electric Utility.
- d. All trees shall be planted at least six (6) feet from fire hydrants, valve boxes, curb stop boxes, underground utility vaults/structures, gas lines, stormwater infrastructure utility poles, street light standards, and above-ground utility structures such as transformer enclosures.
- e. Trees shall be planted at least six (6) feet from underground utilities and comply with all Colorado Springs Utilities regulations regarding wet and dry utilities and tree distances.

Policy 7.4.904.A.E.2.e.1: Trees shall be planted at least fifteen feet (15') from underground water and wastewater utilities and comply with current Colorado Springs Utilities Standards and Regulations.
- f. When a tree is placed under overhead utility lines, its height range at maturity shall not exceed twenty-five (25) feet and the tree species must be selected from the City Forester's "Approved Street Tree List for Colorado Springs."

Policy 7.4.904.A.E.2.f.1: All proposed trees located under high-power transmission lines shall follow current Colorado Springs Utilities Standards and Regulations.
- g. Water service connections for all irrigated areas shall be consistent with all Colorado Springs Utilities regulations.
- h. All irrigation water shall be metered and have appropriate backflow prevention as identified by Colorado Springs Utilities Water Line Extension and Service Standards.
- i. The irrigation water service connection shall be sized appropriately to accommodate irrigation during the hours and days outlined in the Water Shortage Ordinance, Chapter 12, Article 4, Part 13 of the City Code of Colorado Springs.

## **F. Conservation of Soil and Drainage**

### **1. Soil Conservation**

Topsoil shall be stockpiled during construction for use in landscape areas prior to planting. At minimum, enough topsoil must be stripped and stored to provide for at least four (4) inches of spread topsoil in new landscape areas. Stripped topsoil must be stored in an area away from machinery and construction operations and care must be taken to protect the topsoil as a valuable commodity. Topsoil shall be stored in piles or rows no more than four (4) feet deep where possible; to keep soil organisms alive until the topsoil is reinstalled.

Policy 7.4.902.F.1.a: The Final Landscape Plan shall show proposed topsoil storage areas on plans.

### **2. Soil Analysis**

- a. In order to develop a planting plan suited to the site, an existing soil analysis report shall be conducted by an established soil analysis laboratory and be submitted with the Final Landscape Plan. The Soil analysis report shall provide at the minimum, the soil texture, percentage of organic matter, pH, total soluble salts and recommended amounts of soil amendments and fertilizers where appropriate. A report shall be provided for each type of proposed new landscape type (sod, shrub beds, and native seed).
- b. In some certain situations the existing Soil Analysis Report and amendment/fertilizer recommendations may be submitted and approved with the Irrigation Plan submittal if the Manager determines the delay will have no adverse impact on the selection or survival of required landscaping. The applicant shall request the deferral with the Final Landscape Plan and if approved by the Planning Department, all required information shall be submitted with the Irrigation Plan.
- c. A written request for waiver of the soil analysis may be approved by the City where landscape improvements are minimal and the applicant demonstrates sufficient measures will be undertaken to amend the existing soil to provide an acceptable growing medium.

Policy 7.4.902.F.2.c.1: Minimum amount of soil amendments shall be used as listed below for all approved waivers for soil testing and be shown on the landscape plan.:

- All high-water turf areas – 4 CU YDs per 1000 SF
- All shrub bed areas – 3 CU Yds per 1000 SF
- All native seed areas – 2 CU Yds per 1000 SF

### **3. Soil Amendments and Preparation**

Soil amendments to improve water drainage, moisture penetration or retention, and nutrient availability shall be provided as determined by the soil analysis. Tilling of the soil to incorporate amendments and counter any compaction or soil consolidation shall be required for all landscape planting areas. Soil preparation shall be consistent with the cultural needs of the plant species proposed for each site category and meeting Colorado Springs Utilities soil amendment requirements for establishing new plant material.

Policy 7.4.902.F.3.1: The soil amendments and fertilizer recommendations are required to be applied to correct deficiencies per the soils report. Soil amendments and fertilizer recommendations shall be shown on the Approved Final Landscape Plan and should follow all requirements in Appendix G.

Policy 7.4.902.F.3.2: The soil amendment mix shall be chosen from one of current Colorado Springs Utilities Approved Soil Amendment Suppliers. The proposed soil amendment mix for the project shall be included in this list and may be found at the link:

- <https://www.csu.org/Documents/SoilAmendments.pdf>

#### 4. **Drainage**

All drainage within landscaped areas, including the use of swales, shall comply with this UDC, the Landscape Policy Manual, and Engineering Criteria. Where existing native plant communities are to be retained, drainage patterns shall not be altered so as to be detrimental to the viability of the plants.

Policy 7.4.902.F.4.1: The Preliminary and Final Landscape Plan shall provide all the information listed below and shown on the most current Landscape Check Lists located on the City of Colorado Springs Website. The grading information shall provide all information necessary to clearly indicate existing and proposed grading for the site.

- Existing (dashed) and proposed (solid) grading (including contour intervals).
- Proposed slopes and swales with slope percentage amounts provided on the plans.
- Label all retaining walls and include general heights (top and bottom of wall information may be required).
- Providing adequate drainage for survival of plant material.
- The mitigation of slopes that are difficult to vegetate or irrigate or would result in water runoff onto paved surfaces.
- Aesthetically and functionally placed berms that provide general contouring of the ground plan that are aesthetically pleasing and contribute to the intent of the landscape design.
- Any other applicable grading information needed for the review.

Policy 7.4.902.F.4.2: The following standards shall be met for slopes and berms.

- Planting areas shall be sloped to allow installation and long-term health of tree and shrub species. This would include planting the root ball at grade and providing a saucer rim on the downhill side. A short retaining wall/boulders may be needed to provide the planting area on a slope.
- Slopes shall provide for adequate drainage.
- All planting areas shall have a minimum slope of two percent (2%).
- Slopes shall ensure positive drainage away from structures.
- Slopes that cause irrigation runoff onto pave areas are prohibited.
- No slope shall exceed 2:1 without terraces or retaining walls.
- Slopes adjacent to conservation areas shall not significantly alter historic drainage patterns or create additional runoff.
- Slopes to be planted shall have rough or scarified surface to slow runoff and collect moisture for plants.

- Ground plane plantings for slopes with a gradient greater than 4:1 shall consist of ground covers, native grasses and/or shrubs.
- Revegetated slopes greater than 3:1 shall require a mix of plant species with deep, variable rooting systems.
- Berms shall be graded to have naturalistic forms and the slope shall not exceed 3:1.
- Top of the berm shall be at least three feet (3') wide for any berm steeper than 4:1.
- Toe of berm shall have a minimum three-foot (3') landing to mitigate water runoff. Landing gradient shall not exceed 6:1.

Policy 7.4.902.F.4.3: The Landscape Plans shall provide all the information listed on the most current Landscape Check Lists located on the City of Colorado Springs Website for required City Green Infrastructure improvements and should follow all requirements in Appendix H.

## **G. Maintenance**

1. Landscaping, screening, and buffers shall be maintained in compliance with the standards of this Part.
2. The owner is responsible for the maintenance, repair, and replacement of all required landscaping, screening, and curbing unless maintenance is assigned through covenants to another party (e.g., a homeowners' or property owners' association) with the City's approval.
3. All landscaped areas shall be maintained with a neat and orderly appearance, which includes pruning, removal, and replacement of dead or diseased plants and trees, disposal of litter, repair of damaged walls and hard surface areas, and upkeep of irrigation systems.

Policy 7.4.902.G.3.1: All above ground temporary irrigation components (main/lateral lines/valves and wires/sprinkler heads/etc.) shall be removed and disposed of by the site's responsible landscape maintenance party and/or owner at time of conclusion of temporary watering for the site. At no time should visible unused/broken temporary irrigation components be left on the site.

Policy 7.4.902.G.3.2: Apply fertilizer only on an as-need basis and avoid excess application of fertilizer on turf and plants.

Policy 7.4.902.G.3.3: Eliminate plant pests including weeds, harmful insects, and diseases.

4. Landscaped areas that lose required vegetation shall be re-vegetated and re-mulched to avoid erosion.
5. Where landscaping was installed pursuant to a Land Use Plan, Development Plan, or Landscape Plan, the landscaping shall be replaced according to any landscaping and maintenance plan associated with that approval.
6. Trees or plants that die shall be replaced by the owner as expeditiously as possible. All plant material that is in poor health or not living shall be replaced with equivalent vegetation and maintained in good health throughout the life of the project.
7. Street trees shall be maintained and kept alive and healthy. Maintaining, removing, and replacing existing street trees or other trees planted in the public right-of-way shall be the responsibility of adjacent property owners.



8. Fences, walls, and other barriers shall be maintained in good repair. All barriers that are damaged, broken, or with failing paint shall be repaired, replaced, or refinished.
9. For double frontage lots, when a tract is not platted, street rights-of-way or parkways between a property line and curb or street pavement adjoining the property shall be maintained by the adjacent landowner.
10. Stumps of removed trees and shrubs shall be ground out to four (4) inches below existing grade located on the site and rights-of-way.
11. Vegetation shall be maintained so as to inhibit the spread of noxious weeds, and to mitigate hazards, such as the spread of wildfires, slope failures, soil erosion, and increased flooding.
12. Native seed shall be maintained and provide the necessary maintenance practices to aid in the growth of the approved native seed mix and long term goal of naturalization. This includes weed control, overseeding, irrigation (if installed), and correct mowing schedules. The approved native seed mix will determine the height of the native seed grasses and should be allowed to grow and establish new seed heads and repopulate the growing area.
13. Vegetation on residential properties in the WUI-O district shall be maintained in accordance with the City of Colorado Springs Fire Prevention Code and Standards.
14. Vegetation adjacent to public sidewalks or that extend over a public or private street or alley shall be maintained with eight (8) feet of clear space between the existing grade and lowest limb for pedestrian safety.

## 7.4.905 Street Frontage and Street Trees

### A. Purpose

The purpose of this Section Article 7.17.4.905 is to establish landscape planting areas parallel to and including adjacent street rights-of-way. The standards of this Section are intended to require plantings of trees and other vegetation to provide a pleasing continuation of vegetation along the streetscape.

### B. Landscaped Setbacks and Trees Required

#### 1. Landscape Setback Requirements

- a. Except as provided in Subsection 0 below, the street frontage of each property subject to this Part 7.4.9 shall provide landscaping as shown in the table below.

Table 7.4.9-B Landscape Setback and Tree Requirements			
Street Type	Front and Corner Street Frontage Landscape Setback Width, Min. (ft.) [1]	Secondary Frontage on Double Frontage Lot Landscape Setback Width, Min. (ft.)	Tree Planting Requirements
Freeway or Expressway	25	25	1 per 20 linear ft.
Principal Arterial	25	15	1 per 20 linear ft.
Minor Arterial Street	20	10	1 per 25 linear ft.
Non-Arterial Street	10	6	1 per 30 linear ft.

Table 7.4.9-B NOTES:

[1] For up to one-half (1/2) of the site frontage, the Manager may approve a reduced landscape setback if the average depth complies with the standards of this table.

Policy 7.4.905.B.1.1: The following setback standards apply to following street classifications:

- Major Arterial streets shall follow the Principal Arterial standards in Table 7.4.9-B.
- Collector, Residential or Industrial streets shall follow the Non-Arterial Street standards in Table 7.4.9-B.

- b. The following exceptions apply to the landscape setback requirement:

- (1) Commercial driveways and sidewalks to afford limited access may cross the landscape setback.
- (2) Parking lots and loading areas shall not be located in the required landscape setback.

Policy 7.4.905.B.1.(2).1: Internal site driveways, drive-thrus, or access roads should not be located within the required landscape setback areas.

- (3) Public sidewalks may enter into a required landscaped setback or double frontage lot streetscape area if sufficient landscaping is provided and maintained in the right-of-way to adequately compensate for the resulting loss of landscaping in the setback or streetscape area.

## 2. **Tree Requirements**

Trees or alternate vegetation shall be planted in the landscape setback and shall comply with the following standards:

Policy 7.4.905.B.2.1: Upright juniper species may only be used to meet tree requirements when site constraints limit or prevent the planting of a tree. Some examples would be utilities, easements, and available planting space. If permitted by the Manager, the upright juniper shall meet all current evergreen tree requirements in Table 7.4.9-A.

### a. **General**

(1) To the greatest extent possible, trees shall be planted on center, in alignment with any similar street frontage or landscaping on adjacent lots, and within fifty (50) feet of the property line adjacent to the street.

Policy 7.4.905.B.2.(1).1: Trees should be placed along the total required length of the setback area next to the roadway and not bunched or massed in just a few areas adjacent to the roadway.

(2) Trees may be located in adjacent right-of-way if:

- (a) Existing development bars placing street trees in the landscaped setback area;
- (b) For a City street, the City Forester's street tree standards are met;
- (c) For a state highway, CDOT and City Forester's street tree standards are met;
- (d) There are no conflicts with utility easements, drainage facilities, or other easements; and
- (e) Street widening is not anticipated.

(3) A maximum of twenty-five (25) percent of required setback or streetscape trees may be substituted with shrubs or ornamental grasses as follows:

- (a) Ten (10) shrubs with a minimum #5 container size may substitute for each tree; and
- (b) Two (2) ornamental grass clumps with a minimum #3 container size, may substitute for each shrub.
- (c) In the streetscape, all substituted shrubs located within the right-of-way shall be low-water-use plants or plants adaptable to low-water-use conditions.
- (4) In the rear yard of a double-frontage lot:
  - (a) Up to twenty-five (25) percent of the streetscape trees may be placed in the rear yard behind the fence or wall.
  - (b) Any substituted shrubs or ornamental grasses shall be planted in the streetscape.
  - (c) In the streetscape, all shrubs shall be low-water-use plants or plants adaptable to low-water-use conditions.

### b. **Street-Oriented Lots**

When individual lots for attached and detached single-family and two-family dwellings are platted with frontage on a public or private street, at least one (1) tree per lot shall be located in tree lawn that is at least seven (7) feet wide, or within the front yard of each lot.

Policy 7.4.905.B.2.4.(c).b.1: Required Street-Oriented Lot trees shall be only applicable to Compact Lot Projects.

### **3. Walls and Fences in Street Frontage Areas**

- a. Walls and fences that comply with the standards of Section 7.4.910 (Fences and Walls) may be placed in the landscape setback if they comply with the following standards:

(1) Opaque portions of fences and walls visible from a public or private street shall not exceed a height of three (3) feet above existing grade at the base of the fence or wall, unless otherwise provided in this Subsection (3).

(2) The Manager may allow a retaining wall higher than three (3) feet if required due to special grading conditions, provided that the wall is visually softened by plantings of trees or shrubs and allowance is made for the efficient operation and maintenance of utility infrastructure.

Policy 7.4.905.B.3.(2).1: Upright shrub species shall be used and at least fifty percent (50%) of these plantings shall be evergreen/broadleaf and be shown on the current Selected Plants for Colorado Springs in Appendix A as allowable for this use. The proposed grading at the base of the wall shall be designed to provide an adequate planting area for the required vegetation.

(3) The Manager may require the installation of an opaque sound barrier between three (3) feet and eight (8) feet in height, or an applicant may propose and the Manager may approve the installation of an opaque sound barrier between three (3) feet and eight (8) feet in height, when property is located adjacent to a major street and the Manager determines that the sound barrier is necessary to mitigate adverse impacts of traffic noise on a residential or mixed-use development.

(4) Opaque walls and fences higher than three (3) feet shall be located outside of the required landscaped setback unless the Manager determines that location within a required landscaped setback is necessary in order for the wall or fence to serve its intended purpose.

(5) Walls and fences shall complement the architectural components of the site and be sufficiently low or open to permit views for security and safety.

- b. A seven (7) foot opaque wall or fence that complies with the standards of Section 7.4.910 (Fences and Walls) shall be established in the landscape setback of the rear of a double frontage lot.

### **C. Street Trees In Parkways**

Street trees are permitted in parkways adjacent to property subject to this Part 7.4.9, subject to the following conditions:

1. A permit shall be obtained from the City Forester prior to planting any tree in the public right-of-way unless that planting is included as part of an approved Development Plan;

2. Street trees shall be selected from “Approved Street Tree List for Colorado Springs” list provided by the City Forester, or as otherwise permitted by the City Forester;

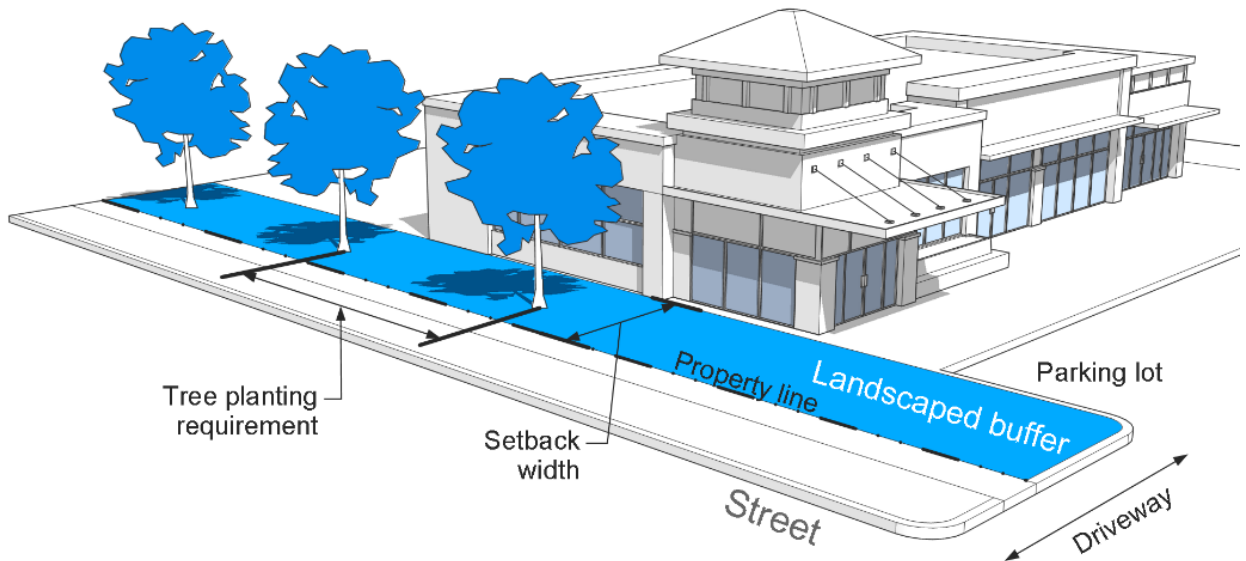
3. The planting area shall be at least seven (7) feet wide. In a section of a planting area that is less than seven (7) feet wide, rock, ground cover plantings, or decorative pavers may be used;

4. A permit shall be obtained from the City Forester prior to planting any tree in the public right-of-way unless that planting is included as part of an approved Development Plan;

5. Street trees shall be selected from “Approved Street Tree List for Colorado Springs” list provided by the City Forester, or as otherwise permitted by the City Forester;

6. The planting area shall be at least seven (7) feet wide. In a section of a planting area that is less than that is less than seven (7) feet wide, rock, ground cover, or decorative pavers may be used.

7. Street trees included as part of a Development Plan approved after March 11, 1986, shall be maintained by the owner of the adjacent property;
8. Trees shall be planted and maintained:
- a. At least five (5) feet from:
    - Policy 7.4.905.C.5.a.1: For all parkways/tree lawns less than 10 feet (10') wide, all ROW trees shall be placed in the middle between the detached walk and curb.
  - (1) The face of a curb along arterial roads on the City Major Thoroughfare Plan;
  - (2) An attached sidewalk; and
  - (3) Any driveway.
  - b. Within the center of the planting area, except as necessary to comply with the distance requirement of Subsection a above;
9. No plantings or landscape elements within the Sight Distance Line may exceed thirty (30) inches in height. Deciduous trees may be located within these areas but branches shall be trimmed so that the lowest branch is a minimum of six (6) feet above ground.
- Policy 7.4.905.C.6.1: No evergreen trees may be located within the Sight Distance Line.
10. To avoid Site Distance Line obstructions, new trees shall not be planted closer than forty (40) feet from any street corner.



#### D. Medians

All medians must comply with standards in the Landscape Policy Manual.

Policy 7.4.905.D.1: All trees and shrubs located within medians shall be low-water-use plants or plants adaptable to low-water-use conditions. All species shall be shown on the current Selected Plants for Colorado Springs in Appendix A as allowable for planting in medians.

Policy 7.4.905.D.2: Proposed native seed shall use the approved seed mixes as shown in Appendix B.



Policy 7.4.905.D.3: Installation and maintenance of proposed medians shall follow UDC Subsection 7.4.902.E.3.

Policy 7.4.905.D.4: Permanent in-ground irrigation is required for all medians with vegetation, and all shall follow all requirements as shown in Appendices D and E.

## **7.4.906 Property Edge Landscape Buffers**

### **A. Purpose**

The purpose of this Section Article 7.17.4.906 is to buffer existing development from adjacent new development of different types, scales, or intensities by providing visual barriers between those land uses, providing more privacy, and protecting adjacent existing uses from potential wind, dust, noise, traffic, glare, visual disorder, and harmful or noxious effects of the new development.

### **B. Property Edge Buffer Standards**

New development shall provide property edge buffering along rear and interior side lot lines with adjacent properties in the following situations, regardless of whether the new development is larger or smaller or more or less intensive than the existing adjacent use.

Policy 7.4.906.B.1: A Buffer 2 is required along the common property line between a nonresidential or multi-family use and a property zoned PK (Public Park) or an existing property with city park land use.

Policy 7.4.906.B.2: A Buffer 2 is required along the common property line between a mixed-used zoned property proposing nonresidential or multi-family use(s) and a property with existing attached/detached single-family and two-family dwellings use.

### **1. Buffers Required**

- a. A landscape buffer that complies with the standards of this Section 7.4.906 is required as indicated in Table 7.4.9-C, based on the applicant's proposed use of the subject property and the existing or designated use of the adjacent property and the following types of buffers, measured from the property line.

Policy 7.4.906.B.1.a.1: Mixed-used zoned property shall follow the proposed designated use for the project (residential/ multi-family/ commercial/ industrial) to determine the required buffer.

Policy 7.4.906.B.1.a.2: The "designated use" of an adjacent property means that the adjacent property has a future use identified on a land use plan, master plan, concept plan, or similar entitlement outlining future use of the property.

### **(1) Buffer 1**

Landscape strip meeting the standards for trees, shrubs, and vegetative cover in the Landscape Policy Manual and at least ten (10) feet in width incorporating a fence or wall meeting the standards of Section Article 7.17.4.910 (Fences and Walls) and up to seven (7) feet in height provided there are no conflicts with public utilities.

Policy 7.4.906.B.1.(1).1: All required buffer fence/walls shall be a minimum of six (6) feet in height.

(2) **Buffer 2**

Landscape strip meeting the standards for trees, shrubs, and vegetative cover in the Landscape Policy Manual at least fifteen (15) feet in width and incorporating a wall or fence meeting the standards of Section Article 7.17.4.910 (Fences and Walls) and seven (7) feet in height provided there are no conflicts with public utilities.

Policy 7.4.906.B.1.(2).1: All required buffer fence/walls shall be a minimum of six (6) feet in height.

Table 7.4.9-C	Landscape Buffer Screening Requirements				
Adjacent Use	Applicant's Use				
	Attached and Detached Single-Family and Two-Family Dwelling	Multi-Family Dwelling	Mixed-Use	Commercial	Industrial
Attached and Detached Single-Family and Two-Family Dwelling	N/A	2	1	2	2
Multi-Family Dwelling	2	N/A	1	2	2
Mixed-Use	1	1	N/A	1	2
Commercial	2	2	1	N/A	2
Industrial	2	2	2	2	N/A

2. **Tree Requirements**

Trees or alternate vegetation shall be planted in the landscape buffer and shall comply with the following standards:

- a. One (1) tree shall be planted for every twenty (20) linear feet of buffer length or fraction thereof;

Policy 7.4.906.B.2.a.1: Trees should be placed along the total required length of the buffer area next to property line (in or near the buffer) and not bunched or massed in a few areas adjacent to the property line.

- b. At least fifty (50) percent of the plantings shall be evergreen; and
- c. A maximum of fifty (50) percent of required buffer trees may be substituted with shrubs or ornamental grasses as follows:

Policy 7.4.906.B.2.c.1: All tree and shrub species shall be shown on the current Selected Plants for Colorado Springs (Appendix A) as allowable for meeting buffer vegetation requirements.

Policy 7.4.906.B.2.c.2: Upright juniper species may only be used to meet tree requirements when site constraints limit or prevent the planting of a tree. Some examples would be utilities, easements, and available planting space. If permitted by the Manager, the upright juniper shall meet all current evergreen tree requirements in Table 7.4.9-A.

- (1) Ten (10) shrubs with a minimum #5 container size may substitute for each tree; and
- (2) Two (2) ornamental grass clumps with a minimum #3 container size may substitute for each shrub.

### 3. **Additional Requirements**

- a. This Section 7.4.906 shall not require the demolition, alteration, or removal of any existing structures or utility infrastructure. However, if a structure occupying a required property edge buffer is demolished or removed, the buffer standards of this Section 7.4.906 shall be applied to the space so vacated.
- b. All buffers and screening required by this Section 7.4.906 shall be located on the lot where the development occurs.
- c. If adjacent development includes a buffer and required plantings that meet the standards of this Section 7.4.906, the applicant is only required to provide the additional buffer and/or required plantings (if any) necessary to meet the required screening standards in this Section 7.4.906. If the existing landscaping on adjacent property meets the standards in this Section as applied to the proposed use of the applicant's property, no additional buffer needs to be installed by the applicant.

Policy 7.4.906.B.3.c.1: All existing vegetation being used to meet buffer requirements need to meet UDC Section 7.4.911 (Conservation of On-Site Trees and Shrubs).

Policy 7.4.906.B.3.c.2: All existing fencing shall meet UDC Section 7.4.910 (Fences and Walls) and be a minimum of six (6) feet in height and be in good condition.

Policy 7.4.906.B.3.c.3: All existing vegetation and fencing shall be clearly shown and labeled (including type/ size/ condition/ ownership/maintenance responsibility) on the landscape plan.

- d. A Buffer 2 is required along the common property line between an adjacent nonresidential use and a vacant residentially zoned property.
- e. In the WUI-O district, buffering on residential properties shall comply with the requirements of the City of Colorado Springs Fire Prevention Code and Standards.

## **7.4.907      Parking Lot Landscaping**

### **A.      Purpose**

The purpose of this Section Article 7.17.4.907 is to provide landscaping areas internal to surface parking lots that provide shade, visual screening of parked cars, avoid large expanses of uninterrupted pavement, and screen adjacent properties and rights-of-way and walkways from potential headlight glare, pollution, and noise from the parking lot.

### **B.      Minimum Required Plantings**

Policy 7.4.907.B.1: All required parking lot shade trees must be shown as an allowable tree species in the current Selected Plants for Colorado Springs (Appendix A). These medium to large deciduous species have a horizontal growth habit which provides shade and minimize heat island effect.

#### **1.      Interior Lot Plantings**

Shade trees shall be provided in every parking lot with fifteen (15) or more surface vehicular parking spaces at a ratio of one shade tree for every fifteen (15) parking spaces or fraction thereof, and shall comply with the following standards:

- a. Required trees shall be planted in a dispersed configuration to spread shade throughout the parking lot. On each side of each parking aisle, no more than fifteen (15) adjacent parking spaces shall be located without at least one (1) of the required trees.
- b. Required trees shall be planted so that no more than fifteen (15) adjacent parking spaces (on one side of a parking aisle) are located without at least one of the required shade trees.
- c. A planter used for tree planting shall meet the following standards:

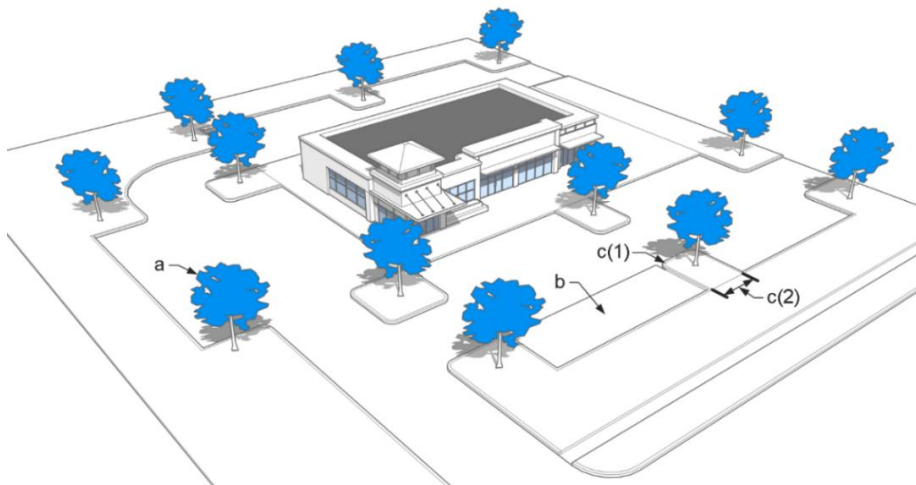
(1) Each tree planting space shall be at least three hundred (300) square feet in size and shall provide at least one hundred and fifty (150) square feet of planter space (or the equivalent soil rooting volume) for each planted tree.

(2) Each planter shall be at least ten (10) feet in width from curb to curb.

Policy 7.4.907.B.1.(2).1: On a case-by-case review, the Manager may allow a reduction in planter width if a subgrade tree root zone planting system is incorporated into the parking island design. Examples would include “Silva-Cell” system or “CU Structural Soil”. These would need to be installed per manufacturer’s recommendations and detailed on the approved plans.

(3) If soil in the parking lot has been compacted by grading operations, the soil within the planter shall be tilled, or removed to a depth of thirty (30) inches and replaced with an acceptable growing medium for the species being installed.

- d. When these standards are applied to the Heavy Vehicle and Equipment Sales and Rental use or the Automobile and Light Vehicle Sales and Rental use, each two hundred and fifty (250) square feet (or fraction thereof) of vehicle or equipment display or storage area shall be counted as the equivalent of one parking space.



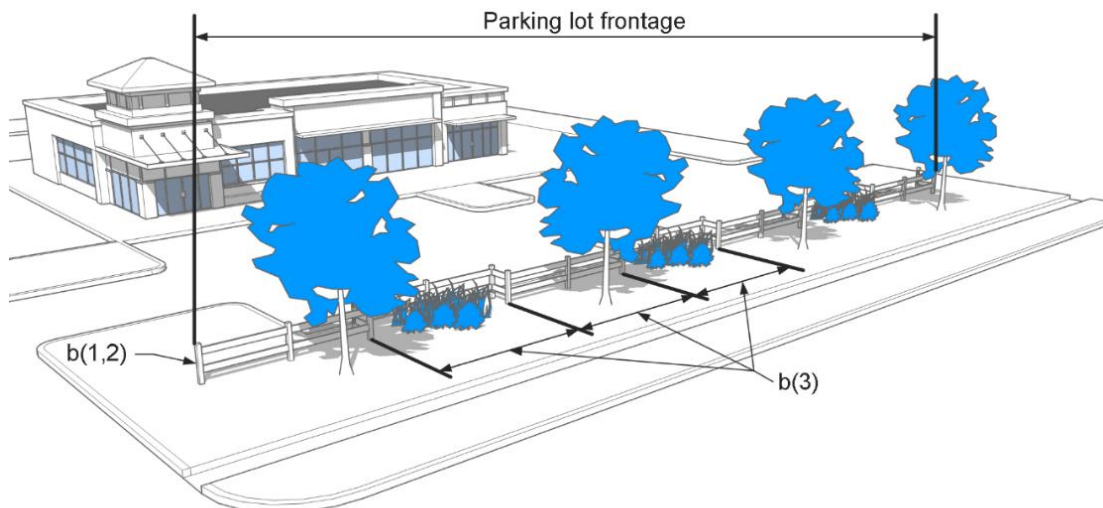
## 2. Perimeter Screening Plantings

The following additional standards shall apply to screen the view of parked vehicles when viewed from public rights-of-way or adjacent properties unless the Manager determines that landscaping installed pursuant to Sections Article 7.17.4.905 (Street Frontage and Street Trees) or Article 7.17.4.906 (Property Edge Landscape Buffers), provides equal or better screening of parked vehicles when viewed from those locations.

- a. At least two-thirds (2/3) of the frontage of any applicable parking lot (exclusive of the width of any vehicular access points) when viewed from a public right-of-way or adjacent property shall be screened from view with screening that complies with the Subsection b below.
- b. The screening shall consist of a fence or wall between three (3) feet and four (4) feet in height, measured from the surface of the parking spaces that are to be screened, and that comply with the following standards.

- (1) The fence or wall meets the standards of Section 7.4.910 (Fences and Walls);
- (2) The fence or wall attractively complements the vegetation and berms;
- (3) The structures include architectural articulation or visual variety when viewed from adjacent lots or rights-of-way through changes in materials, wall or fence height, or the horizontal alignment of the wall or fence, or through the planting of vines, shrubs, or trees, and those instances of articulation or variety occur at least once for each twenty (20) linear feet of wall or fence length; and
- (4) As an alternative to Subsections (1) through (3) above, at the applicant's option, the screening may consist of vegetation or combination of plantings and berms with an eventual height of three (3) feet or more, with vegetation being needled or broad-leaved evergreen plants.

Policy 7.4.907.B.2.(4).1: All shrub and tree species shall be shown on the current Selected Plants for Colorado Springs in Appendix A as allowable for meeting perimeter screening plant requirements.



### C. Corner Visibility

No required planting shall interfere with visibility in the Sight Distance Line.

Policy 7.4.907.C.1: All proposed plantings located within corner visibility areas shall follow UDC Subsection 7.4.905.C and deciduous trees may be located within these areas, but branches shall be trimmed so that the lowest branch is a minimum of eight (8) feet above ground. Evergreen trees are not allowed within a sight distance line.

## 7.4.908 Additional Interior Landscaping

### A. Purpose

The purpose of the interior landscaping requirements is to ensure that each new multi-family residential development and nonresidential development achieves at least a minimum amount of total landscaped area, to separate building areas from parking lots, through landscaping that is adapted to the site, reflects the varying microclimates and respective building facade orientations, and visually ties the buildings and motor vehicle parking, storage, and display areas to the site and to the larger regional context.

### B. Amount of Landscaping and Green Space

Interior landscaping shall include green space that meets the following standard to enhance residential and non-residential development, in addition to other required landscaping and buffering:

#### 1. General

- a. In addition to the landscaping and buffering required by Sections Article 7.17.4.905 (Street Frontage and Street Trees), Article 7.17.4.906 (Property Edge Landscape Buffers), and Article 7.17.4.907 (Parking Lot Landscaping), residential and nonresidential development shall install the following amounts of landscaping on the interior of the site.

(1) All multi-family projects shall provide a minimum of fifteen (15) percent total green space. Of the fifteen (15) percent, ten (10) percent shall be active green space and five (5) percent shall be non-activated green space. If multiple residential structures are located on one lot, the requirement shall apply to the lot as a whole, and not to any defined space occupied by a single residential building.

Policy 7.4.908.B.1.(1).1: Active and Non-Active green space areas shall be defined as shown in UDC Section 7.6.301 (Definitions).

Policy 7.4.908.B.1.(1).2: Active and Non-Active green space areas shall be shown and labeled on the landscaping plan and clearly showing that the required percentages are being met. Additional information (including details) may be required and shown on the plans to confirm this requirement is being met.

Policy 7.4.908.B.1.(1).3: A trail corridor may be counted as active green space which includes the trail tread plus six feet on either side for the shoulder, drainage, and grading.

(2) All nonresidential development projects shall provide a minimum non-activated green space area equal to five (5) percent of the gross site area.

- b. On heavy industrial projects where internal landscaping may be inappropriate due to the necessary configuration and use of the site, the Manager may allow some or all of the required additional interior landscaping to be relocated to the main property entrances or office areas or outside of the wall or fence on the perimeter of the property.
- c. Paved plazas may account for up to fifty (50) percent of the required landscaping area if they contain trees that provide visual relief to building elevations that form major public views of the project. Sidewalks that provide basic pedestrian circulation only shall not be credited towards the minimum internal landscaping area requirement.



## 2. **Compact Development Lots**

The following additional standards shall apply to Compact Lots:

- a. Each development shall provide a minimum green space area equal to ten (10) percent of the gross site area. Of the total area, fifty (50) percent shall be contiguous active green space.
- b. The Manager may consider up to a twenty-five (25) percent relief to the minimum green space requirement when the development is within six hundred and sixty (660) feet of a park that is accessible by a trail.

## C. **Type of Landscaping**

1. One (1) tree shall be planted for every five hundred (500) square feet of required minimum internal green space area.

2. All required trees in nonresidential projects and fifty (50) percent of the required trees in multi-family projects may be substituted by shrubs as follows:

- a. Ten (10) shrubs, with a minimum #5 container size may be substituted for one (1) tree.
- b. Two (2) ornamental grass clumps, with a minimum #3 container size, may be substituted for one (1) shrub.

Policy 7.4.908.C.2.b.1: Upright juniper species may only be used to meet tree requirements when site constraints limit or prevent the planting of a tree. Some examples would be utilities, easements, and available planting space. If permitted by the Manager, the upright juniper shall meet all current evergreen tree requirements in Table 7.4.9-A.

3. In the WUI-O district, landscaping on residential properties shall comply with the requirements of the City of Colorado Springs Fire Prevention Code and Standards.

## D. **Location of Landscaping**

Landscaping installed in accordance with this Subsection Article 7.17.4.908D shall be placed in the following locations:

1. Adjacent to building elevations facing adjacent public rights-of-way and private streets;
2. Within a plaza or courtyard between buildings or portions of buildings;

Policy 7.4.908.D.2.1: Soil preparation and amendments shall be provided for all planting areas located within a plaza/courtyard area. A detail shall be provided showing the proposed installation in these areas.

3. In a space provided to separate building areas from parking areas;
4. As a buffer at the edge of a private stormwater water quality and/or detention facility on the same lot;
5. In an “oasis” area of the site with intensive plantings near building entrances, pedestrian gathering places, or parking lots;
6. In a similar location of the site that substantially conforms to the stated purposed of the required internal landscape area and approved by the Manager; or
7. In the WUI-O district, landscaping on residential properties shall be placed in accordance with the requirements of the City of Colorado Springs Fire Prevention Code and Standards.

## 7.4.909 Screening

### A. Purpose

The purpose of this Section 7.4.909 is to ensure that development establishes vegetative screening or walls and fences to shield loading, storage, and service areas from view from adjoining properties, public rights-of-way, and private streets.

### B. Applicability and Exceptions

The standards in this Section 7.4.909 apply to all development except the following:

1. Attached and detached single-family and two-family dwellings in a single structure located on a single lot; or
2. Along property lines between adjacent properties in the LI or GI zone districts.

### C. Required Screening

#### 1. Areas to be Screened

Screening that meets the standards of this Subsection 7.4.909.C is required in the following areas to screen them view from adjacent properties and public or private streets or walkways:

- a. Around any refuse or recycling collection areas, including trash bins;
- b. Around any loading or utility service area, drive-throughs, vehicle repair bay, or vehicle fueling area;
- c. Around any stormwater water quality and/or detention facility in a residential zone district or a residential component of a mixed-use development or PDZ district; and
- d. Within ten (10) feet of any ground floor façade of a parking garage that is not occupied by a non-parking ground floor use and is visible from an adjacent property or public or private street

Policy 7.4.909.C.1.d.1: Dog parks may be required to include screening or buffering with screen walls or landscape plantings to provide positive relationships and screening with surrounding land uses.

Policy 7.4.909.C.1.d.2: Proposed AC units located within landscape areas shall be screened with either landscaping plantings or a screening wall.

Policy 7.4.909.C.1.d.3: Consistent with the language in City Code Section 7.4.909.A, this section is interpreted to require screening for storage areas.

#### 2. Screening Standards

The required screening shall meet the following standards:

- a. All refuse collection areas adjacent to streets and properties shall have an opaque screen fence or wall and vegetative screen plants at least seven (7) feet in height.

Policy 7.4.909C.2.a.1: Storage areas shall have an opaque screen fence or wall and vegetative screen plants at least seven (7) feet in height.
- b. All loading or utility service area, drive-throughs, vehicle repair bay, or vehicle fueling areas shall be screened with a vegetative screen.

- c. If a vegetative screen is installed, plants shall be a fastigiated form of plant species and shall comply with all applicable standards in the Landscape Policy Manual.  

Policy 7.4.909.C.2.c.1: All shrub and tree species shall be shown on the current Selected Plants for Colorado Springs in Appendix A as allowable for meeting screening plant requirements and at least fifty (50) percent of the plantings shall be evergreen.
- d. A fence or wall shall comply with the standards of Section Article 7.17.4.910 (Fences and Walls).
- e. Required foundation plantings along facades of parking garages shall comply with Section Article 7.17.4.906 (Property Edge Landscape Buffers).

## **7.4.910 Fences and Walls**

### **A. Purpose**

The purpose of this Section Article 7.17.4.910 is to provide aesthetic and location standards for fences and walls to improve the beauty of the City and ensure that fences and walls are not located where they could be safety hazards.

Policy 7.4.910.A.1: For all proposed retaining walls located adjacent to street frontage ROWs outside landscape setbacks and adjacent properties that are higher than 6 feet tall, the Manager may require that upright shrub species and/or trees to be planted along the base of the wall to help screen the wall. At least fifty percent (50%) of these plantings shall be evergreen/broadleaf and be shown on the current Selected Plants for Colorado Springs (Appendix A) as allowable for this use. The proposed grading at the base of the wall shall be designed to provide an adequate planting area for the required vegetation.

Policy 7.4.910.A.2: For all proposed retaining walls located adjacent to street frontage ROWs and adjacent properties that are higher than 8 feet tall, the Manager may require that additional wall articulation be provided to help soften the wall elevation. This could include use of variety of block colors, textures, and sizes.

Policy 7.4.910.A.3: All proposed retaining walls shall be shown and labeled with general heights on the plans. A detail(s) shall also be provided on the plans showing proposed materials and construction. The Manager may require top and bottom wall elevations to be included for walls on the landscape plans.

Policy 7.4.910.A.4: All proposed fencing/screening walls shall be shown and labeled on the plans. A detail(s) shall also be provided on the plans showing proposed materials and construction. Elevations/sections may also be required based on the proposed size and height of the wall.

Policy 7.4.910.A.5: All proposed site retaining walls that are not subject to review by Pikes Peak Regional Building Department (i.e., located more than 5 feet from an accessible entrance to a building) and that have a fall of 30" (thirty inches) or greater adjacent to a high use pedestrian area (sidewalk/parking lot/etc.) shall provide fall protection (guardrail/fencing/etc.) on top of the proposed wall(s). These should be shown and labeled on the landscape plan and a detail provided.

### **B. Location and Maximum Height**

Except in the HS-O district or otherwise stated in this Section Article 7.17.4.910, fences or walls less than seven (7) feet in height may be placed anywhere on a property, provided the fence complies with the following additional standards:

1. Fences shall not block access to electric or gas meters, fire hydrants, Fire Department connections, and other fire protection appurtenances.
2. Fences located between the front façade of a primary structure and any lot frontage adjacent to a public or private street may not exceed four (4) feet in height.
3. Fences located between the front façade of a primary structure and any lot frontage adjacent to a public or private street may not exceed four (4) feet in height.
4. Opaque fences on corner lots shall not extend beyond the established front yard setback.
5. Fences over thirty (30) inches in height are prohibited in any Sight Distance Line.
6. Fences and walls may only be located within preservation areas in accordance with the terms of an approved Development Plan.
7. Fences taller than the maximum heights permitted in this Subsection Article 7.17.4.910B are considered to be accessory structures and shall meet the setback and height requirements for accessory structures in Part 7.4.2 (Dimensional Standards).
8. Fences may be located adjacent to or on top of retaining walls provided that the height of the fence material, excluding the retaining wall, does not exceed the maximum permitted height of a permitted fence in that location.

**C. Measurement of Fence Height**

Fence height shall be measured in accord with Subsection 7.6.204B (Fence Height).

**D. Fence and Wall Materials**

1. Fences and walls may include masonry walls, solid wood fencing, chain-link fencing with permahedge inserts, or chain-link fencing with opaque slats. The specific type of screening materials shall be determined in conjunction with the review of a Development Plan where one is required. Examples of acceptable fencing types are shown below.
2. Exterior use of tarps, plastic sheeting, polypropylene, or other similar materials as flexible or inflexible screening or fencing is prohibited when visible from beyond the property boundaries, except for City-installed or maintained snow fence or as part of active construction or remodeling project or as illustrated as part of a City-approved construction or grading and erosion control plan.
3. The use of barbed wire, razor wire, or electric shock fencing shall be prohibited except as shown below:
  - a. Commercial or Industrial Uses  
Barbed wire or razor wire is permitted at a height six (6) feet or higher above existing grade.
  - b. Residential Uses
    - (1) Barbed wire and electric shock fencing may not be located along public rights-of-way, public sidewalks, or public open spaces. Where barbed wire or electric shock fencing are permitted, they may not extend into the required front yard setback.
    - (2) Razor wire is prohibited.
  - c. Agricultural Uses
    - (1) Electric shock fencing consisting of direct current shall be permitted in association with an agricultural use involving the control or containment of animals only.
    - (2) Barbed wire shall be allowed except in connection with a residential use of the property.

## 7.4.911 Conservation of On-Site Trees and Shrubs

### A. Purpose

The purpose of this Section 7.4.911 is to provide credit for the conservation of existing natural, healthy vegetation on development sites, which helps to preserve natural ecosystems.

### B. Credit

1. An applicant required to install landscaping pursuant to this Part 7.4.9 shall receive credit for preserving existing significant trees and vegetation against all tree planting requirements that would otherwise apply in this Part.

2. Trees and existing vegetation that the applicant proposes to retain shall be indicated on the landscape plan.

3. Existing trees and vegetation shall not be invasive and not be dead or dying. They shall be credited towards required landscaping as follows:

Policy 7.4.911.3.1: No invasive or problematic species may be considered per City Forestry current prohibited tree list. With approval, some of these prohibited species may be planted/approved for Streamside tree requirements but must follow the current minimum 25' distance requirement listed above and be shown in Appendix A as permitted for streamside areas.

Policy 7.4.911.3.2: Pursuant to UDC Section 7.2.603 (Streamside Overlay), all trees being used to meet Streamside Inner and Outer requirements shall be a minimum of two (2) to four (4) inches in caliper DBH (Diameter at Breast Height) to be qualified as one existing tree.

#### a. Deciduous Trees

A credit of one (1) tree per every one-and-one-half (1 ½) inch in caliper DBH (Diameter at Breast Height) of an existing qualified deciduous or ornamental tree.

Policy 7.4.911.3.a.1: Credit will only be applied for one existing deciduous tree meeting one required deciduous tree and meeting the minimum diameter size.

#### b. Evergreen Trees

A credit of one tree per every six (6) feet in height of an existing qualified evergreen tree.

Policy 7.4.911.3.b.1: Credit will only be applied for one existing evergreen tree meeting one required evergreen tree and meeting the minimum height size.

#### c. Shrubs

A credit of one shrub for each existing qualified shrub.

### C. Tree Retention Standards

Specifications, plans, and construction practices regarding the retention of significant vegetation on development sites shall comply with the standards in the Landscape Policy Manual.

Policy 7.4.911.3.C.1: All existing vegetation shall be clearly shown and labeled (including size and species) on the landscape plan. Provide protection methods (details/notes) to be used. Additional information (elevations/notes/etc.) also may be required.

## **7.4.912 Landscape Installation, Verification, and Deferral**

### **A. Landscape and Irrigation Installation and Verification Requirement**

1. Except as provided in Subsection B below, all landscaping, irrigation systems, and other site work shown on the approved Landscape Plan and Irrigation Plan shall be properly installed and stabilized against soil erosion or financially assured as follows:

- a. In the case of a double frontage lot streetscape requirement or common area, installation and stabilization shall occur, or assurance shall be provided, before a Building Permit is issued;
- b. In the case of a conversion of vacant land to a nonresidential use that does not involve the construction of a structure, assurance shall be provided before a final Development Plan is approved; or
- c. For all other development, installation and stabilization shall occur, or assurance shall be provided, before a Certificate of Occupancy is issued;

Policy 7.4.912.A.1.c.1: Before the release of a Certificate of Occupancy for any development which all the required landscaping and irrigation has been installed, the owner or developer shall provide current signed and executed landscape and irrigation affidavits and soil receipts showing installed soil amendments. All landscape policy items listed in UDC Subsection 7.4.912.B.3.a would also apply.

2. In the WUI-O district, each lot containing a residential use shall complete a fire inspection before a Certificate of Occupancy may be issued.

### **B. Deferral of Landscape or Irrigation Installation**

When all or some portion of the required landscaping, irrigation system, or other site work cannot be installed due to seasonal conditions that would jeopardize the health of plant materials or prohibit the installation of the irrigation system or plant materials, or due to the unavailability of plant material or construction activities, the owner or developer may make the following arrangements in order to secure a Certificate of Occupancy:

1. An acceptable assurance shall be posted with the Manager. Acceptable assurances shall include cash; cashier's checks, certified, company, or personal checks; certificates of deposit; irrevocable letters of credit, and/or subdivision bonds. The assurance shall be accompanied by a description of the uncompleted landscaping, irrigation system (including dedicated irrigation meter if required), and/or any required private site improvement(s) identified by the Manager, plus labor charge. A cost estimate or contractor's executed bid of the cost required to complete the work shall be provided. The assurance shall be an amount equal to the cost estimate.

Policy 7.4.912.B.1.a: Where native seed is proposed, it shall be financially assured, and the assurance shall not be released until the native seeding is meeting all city establishment requirements (this can take up to 3 years).

2. The owner or developer shall agree in writing that the owner or developer and any successors or assign, shall complete the required landscaping, irrigation system, and/or site work within one (1) year or less from the date of issuance of the Certificate of Occupancy.

3. The owner or developer agree that the assurance will not be released until all of the required landscaping, irrigation system, and/or site work has been installed and verified by City staff to comply with this Part 7.4.9. The following standards must be met:



- a. The owner or developer shall provide current signed and executed landscape and irrigation affidavits and soil receipts showing installed soil amendments.
  - Policy 7.4.912.B.3.a.1: Required site inspection(s) and executed landscape and irrigation affidavits shall be completed and dated during the years active growing season that the Financial Assurances or Certificate of Occupancy is requested to be released. The active growing season shall be determined per UDC Subsection 7.4.912.B.3.b.
  - Policy 7.4.912.B.3.a.2: Only the most current landscape and irrigation affidavits located on the City of Colorado Springs website will be accepted.
  - Section 7.4.912.B.3.a.3: Affidavits/inspections dated outside the current active growing season will not be accepted.
  - Policy 7.4.912.B.3.a.4: The Colorado Licensed Landscape Architect and/or Certified Irrigation Designer of record for the project shall complete the site inspection and certify that the project was installed and in compliance with the approved Final Landscape and Irrigation Plan on file in City Planning.
  - Policy 7.4.912.B.3.a.5: If the Colorado Licensed Landscape Architect and/or Certified Irrigation Designer of record states that the site is not in compliance with the approved Final Landscape and Irrigation Plan, the missing items/work/etc. shall be remediated and corrected before submitting the certified landscape and irrigation affidavits to the city. Manager's verification and site inspection will not take place until complete and certified affidavits are submitted and approved.
  - Policy 7.4.912.B.3.a.6: With approval by Manager, if the original Colorado Licensed Landscape Architect and/or Certified Irrigation Designer of record is no longer available (retired/deceased/etc.), a current Colorado licensed Landscape Architect and/or Certified Irrigation Designer may be allowed to complete the required site inspection(s) and certify that the project was installed and in compliance with the approved Final Landscape and Irrigation Plan on file in City Planning.
- b. The City staff's verification shall occur during the active growing season. The Manager shall determine the dates when inspections will stop for the year and start the following spring.

#### 7.4.913 Alternatives and Adjustments

A. The Manager may approve alternative types or designs of landscaping, buffering, and screening requirements, unless specifically prohibited for that type of property, building, or use in this UDC, if the Manager determines that the alternative provide at least equivalent quality, visual appeal, screening, effectiveness, durability, hardiness, and performance to the specific requirements of this Part 0 the proposed alternatives and/or adjustments are consistent with requirements and guidance and requirements listed in the Landscape Policy Manual.

Policy 7.4.913.A.1: Alternative proposed landscape adjustments shall follow the listed general standards below.

- Alternative landscape adjustment shall apply only to the specific site for which it is requested and shall not establish a precedent for approval of other requests.
- The request for landscape adjustments shall be submitted at time of Development Plan submittal and follow all requirements in Appendix F.
- City planning recognizes that the specific landscape requirements in the UDC and Landscape Policy Manual cannot and do not anticipate all possible landscape situations.
- Alternative landscape adjustment is a procedure that enables a development to occur where the intent of Code is met through an alternative landscape design. It is not a waiver of regulations, rather it permits a site-specific plan that results in a better design, while meeting the intent of the Landscape Code.

Policy 7.4.913.A.2: The Manger shall decide whether to approve, approve with conditions, or deny a request for alternative landscape adjustments pursuant to all the criteria listed below. If approved or approved with conditions, the approved alternative landscape adjustments shall be noted on the approved landscape plan.

- The alternative landscape adjustment proposal meets the objectives of the current UDC and Landscape Manual equal to or better than compliance with the regulations contained in the UDC and Landscape Manual.
- The request includes sufficient explanation and justification by both written and graphic means.
- The design shall provide alternative landscape design which includes compensation. Some examples of compensation but not limited to would be additional plantings (trees/shrubs), screen wall(s) and overall site enhancements not currently required by current Code for the site.
- The granting of the alternative landscape design will not result in an adverse impact on the surrounding properties.
- If the Manager finds that the application has not met the above criteria, the applicant may request that the request be forwarded to the City Planning Commission as an application for a Non-Use Variance. This request must be processed during the Development Plan submittal.

B. On residential lots in the WUI-O district, all alternatives and adjustments to landscaping shall be approved by the Fire Code Official.

## Appendix A. Selected Plants for Colorado Springs

The purpose for selected plants for Colorado Springs is to improve the quality of landscapes within the City and create a framework for successful landscapes which are uniquely tailored to Colorado Springs. Plant selection should demonstrate the following characteristics, water-efficient, horticulturally sustainable, and balanced diversity.

Based on the City's geographic location approximately 5,500 to 7,500 feet above sea level with varied topographic features and a rich ecological diversity, appropriate plant selections are needed when selecting plant species for a given site and purpose. Selecting plant species for a site should follow all listed requirements in the current UDC and Landscape Code and Policy Manual. Plant material listed in the approved Selected Plant List include allowable species for specific site requirements and other important information which should be used when creating the landscape plan.

The following legend items listed below apply for the following plant list:

**Botanical Name/Common Name** – Plants are categorized as Deciduous Trees, Ornamental Trees, Evergreen Trees, Deciduous Shrubs, Evergreen Shrubs and Ornamental Grasses. A plant genus that offers many species and cultivars is noted as spp. and cvs.

**Water Use**– The water needed for species once established. Categories of water use include: Xeric (water twice per month or less), Low (water once per week), Medium (water twice per week), and High (water three days or more per week) after establishment. Actual plant water needs could vary based on weather conditions, soil type, sun exposure, root depth, wind and elevation.

**Sun Exposure** – Indicates the range of a plant's shade tolerance, Full Sun, Part Sun and Shade. Plants should not be located contradictory to the plant's exposure type. Example, using a full sun species in full shade.

**USDA Hardiness Zone** – Ratings are only a general guide to winter hardiness. Zones are numbered and divided according to average annual minimum temperatures. In Colorado Springs, zones range from 3 to 6. These ranges are based on the current USDA Plant Hardiness Zone Map.

**Mature Height and Width** – Mature height and width reflect the range of expected size at maturity in Colorado Springs and the provided sizes should be used when designing the plant material on the plans.

**Meets Current Code Requirements** – If indicated on the plant list, these plants meet the following requirements:

- **SCREEN** – Indicates if this tree or shrub is approved to be used to meet screening requirements.
- **WALL/TRASH** – Indicates if this tree or shrub is approved to be used to meet screening requirements for trash enclosures and retaining walls.
- **PARK** – Indicates if this tree may be used to meet parking lot tree requirements.
- **ROW** – Indicates if this tree is approved by City Forestry for planting in public street rights-of-way.
- **STREAM** – Indicates if this tree is allowed to be planted within City Streamside areas.
- **RESTRICTED** – Indicates that this tree or shrub can only be planted in certain areas within the city.

**Comments** – Additional information about the plan

## Selected Plants for Colorado Springs

## DECIDUOUS TREES

Botanical/Common Name	Water Use	Sun Exposure	USDA Hardiness Zone	Mature Height/Width/Growth	Code Requirements	Comments
<i>Acer freemanii</i> Maple, Autumn (cvs)	Med	Full	5	50'-60'/30'-40' mod to fast	PARK/ROW	Chlorotic in alkaline soils, 40' spacing, not allowed in low water use areas
<i>Acer x grandidentatum</i> Maple, Bigtooth	Low-Med	Full	4	30'-40'/30'-40' moderate	PARK/ROW/STREAM/ MEDIAN	Single stem only in ROW, 30 foot spacing
<i>Acer platanoides</i> Maple, Norway (cvs)	Med	Full	4	30'-45'/25'-30' moderate	PARK/ROW	Leaf scorch, aphids, 30' spacing, prefers acidic soil, not allowed in low water use areas
<i>Acer negundo</i> Boxelder, Sensation	Low-Med	Full	2	30'-50'/20'-30' fast	RESTRICTED – STREAM ONLY	Suckers, self-sows, only allowed in Streamside areas
<i>Acer rubrum</i> Maple, Red	Med-High	Full	3	30'-40'/30'-40' moderate	PARK/ROW	Chlorotic in alkaline soils, 30' spacing, not allowed in low water use areas
<i>Acer saccharum</i> Maple, Sugar (cvs)	Med	Full - Part	4	40'-60'/30'-40' slow	PARK/ROW	Chlorotic in alkaline Soils, do not use plant in compacted soil/ low water area areas
<i>Aesculus glabra</i> Buckeye, Ohio	Med	Part	4	30'-50'/15'-20' slow	ROW	Fruit and seed litter, seeds poisonous, 30' spacing, not allowed in low water use areas
<i>Betula occidentalis</i> Birch, Rocky Mountain	Med-High	Full	4	20'-30'/15'-20' moderate	RESTRICTED - STREAM ONLY	Bronze birch borer, high water use, locate in inter buffer area
<i>Catalpa Speciosa</i> Catalpa, Western	Low-Med	Full - Part	4	40'-60'/20'-40' slow	ROW/MEDIAN/ STREAM	Fruit and seed liter, 40 foot spacing
<i>Celtis occidentalis</i> Hackberry, Common	Low-Med	Full-Part	3	30'-40'/30'-40' slow to mod	PARK/ROW/MEDIAN/ STREAM	Seed litter, 40 foot spacing
<i>Corylus colurna</i> Filbert, Turkish	Low - Med	Full - Part	4	30'-40'/20'-30' slow	PARK/ROW/MEDIANS	Drought tolerant

## Selected Plants for Colorado Springs

**DECIDUOUS TREES***Botanical/Common Name****Ginkgo biloba****Ginkgo/Maidenhair****Gleditsia triacanthos****Honeylocust (cvs)****Gymnocladus dioica* ‘Espresso’***Coffeetree, Kentucky****Kocdreuteria paniculate****Tree, Golden Rain****Malus* ‘Prairiefire’***Prairiefire Crabapple****Malus* ‘Royal Raindrops’***Royal Raindrops Crabapple****Malus* ‘Spring Snow’***Spring Snow Crabapple****Morus alba* (seedless only)***Mulberry****Phellodendron amurense****Corktree, Amur****Platanus x acerifolia* ‘Bloodgood’***Planetree, London****Populus acuminata****Cottonwood, Lanceleaf*

Water Use	Sun Exposure	USDA Hardiness Zone	Mature Height/Width/Growth	Code Requirements	Comments
Med	Full	3	30'-50'/15'-30' slow	ROW	Male only, slow growing,
Low-Med	Full	4	30'-50'/30'-50' slow to mod	PARK/ROW/MEDIAN	Overplanted, thornless/seedless varieties only, thyronecrista cankers
Low-Med	Full	5	40'-50'/30'-40' slow	PARK/ROW/MEDIAN/ STREAM	Seedless variety only, leaves out late
Low	Full	5	20'-30'/20'-30' moderate	ROW/MEDIAN/STREAM	Seed liter, re-seeds prolifically
Low	Full	4	20' / 20' moderate	ROW/MEDIAN/ STREAM	Maroon-green foliage, pink flowers, orange-red fall color, persistent fruit
Low	Full	4	15' / 12' moderate	ROW/MEDIAN/ STREAM	Purple leaves turn red-orange fall color, persistent fruit
Low	Full	4	20' / 20' moderate	ROW/MEDIAN/ STREAM	White early blooms, no fruit. Sensitive to apple scab.
Med	Shade-Full	5	35'-40'/35'-40'	ROW	Male version only, can be planted in full shade locations, not allowed in low water use areas
Low-Med	Full	4	25'-30'/15'-20' slow	ROW/MEDIAN/STREAM	Male version only
Med-High	Full	5	50'-80'/50'-80'	ROW	Anthrachnose, needs a protected site, not allowed in low water use areas
Low-Med	Full	3	40'-50'/30'-40' mod-fast	RESTRICTED – STREAM/ LARGE OPEN AREA	Use only in large native areas

## Selected Plants for Colorado Springs

**DECIDUOUS TREES***Botanical/Common Name*

	Water Use	Sun Exposure	USDA Hardiness Zone	Mature Height/Width/Growth	Code Requirements	Comments
<b><i>Populus angustifolia</i></b> <i>Cottonwood, Narrowleaf</i>	Low-Med	Full	3	40'-80'/50'-60' mod-fast	RESTRICTED – STREAM/ LARGE OPEN AREA	Vigorous suckering, use only in large native areas
<b><i>Populus sargentii</i></b> <i>Cottonwood, Plains</i>	Med-High	Full	2	40'-80'/20'-80' fast	RESTRICTED – STREAM/ LARGE OPEN AREA	Use only in large native areas
<b><i>Quercus bicolor</i></b> <i>Oak, Swamp White</i>	Low-Med	Full	4	25'-30'/25'-30'	PARK/ROW/MEDIAN/ STREAM	Chlorotic in alkaline soils
<b><i>Quercus buckleyi</i></b> <i>Oak, Texas Red</i>	Low	Full	5	30'-45'/30'-40' moderate	PARK/ROW/MEDIAN/ STREAM	Not predictably hardy
<b><i>Quercus palustris</i></b> <i>Oak, Pin</i>	Med	Full	5	50'-60'/40'-50' slow	PARK/ROW	Chlorotic in alkaline soils, not allowed in low use water use areas
<b><i>Quercus macrocarpa</i></b> <i>Oak, Bur</i>	Low-Med	Full	4	50'-60'/35'-50' slow	PARK/ROW/MEDIAN/ STREAM	Acorns
<b><i>Quercus muehlenbergii</i></b> <i>Oak, Chinkapin</i>	Low-Med	Full	4	50'-60'-/50'-60' slow	PARK/ROW/MEDIAN/ STREAM	Tolerate alkaline soils
<b><i>Quercus robur</i></b> <i>Oak, English</i>	Low-Med	Full	5	50'-80'/50'-80' slow	ROW/MEDIAN/STREAM	Acorns
<b><i>Quercus rubra</i></b> <i>Oak, Red</i>	Med	Full	5	50'-80'/40'-60' slow	ROW	Chlorotic in alkaline soils, not allowed in low water use areas
<b><i>Quercus spp. 'Fastigiata'</i></b> <i>Oak, Columnar</i>	Low-Med	Full	5	50'-60'/15'-20' slow	PARK/ROW/MEDIAN	Narrow, upright form
<b><i>Quercus shumard</i></b> <i>Oak, Shumard</i>	Low-Med	Full	5	40'-60'/40'-60' moderate	PARK/ROW/MEDIAN/ STREAM	Acorns
<b><i>Salix amygdaloides</i></b> <i>Willow, Peachleaf</i>	Med-High	Full	5	30'-40'/25'-35' fast	RESTRICTED – STREAM ONLY	Aphids and cankers



## Selected Plants for Colorado Springs

**DECIDUOUS TREES***Botanical/Common Name****Sorbus aucuparia****Ash, Mountain****Styphnolobium japonicum****Pagoda tree, Japanese****Syringa reticulata 'Ivory Silk'****Tree Lilac, Japanese****Tilia americana****Linden, American (cvs)****Tilia cordata****Linden, Littleleaf****Tilia tomentosa****Linden, Silverleaf****Ulmus spp.****Elm, Hybrid (cvs)****Zelkova serrata****Zelkova, Japanese*

Water Use	Sun Exposure	USDA Hardiness Zone	Mature Height/Width/Growth	Code Requirements	Comments
Med	Full	3	15'-30'/15'-20'	ROW	Fireblight, not allowed in low use water areas
Med	Full	4	50'-60'/40'-50' moderate	PARK/ROW/STREAM	Needs protected site, not allowed in low water use areas
Med	Full	4	20'-30'/15'-25' moderate	ROW/STREAM	Needs protected site, not allowed in low water use areas
Med	Full-Part	3	50'-70'/25'-30' slow-mod	ROW	Not tolerant of road salts, not allowed in low water use areas
Med	Full	4	30'-50'/15'-20' moderate	ROW	Not tolerant of road salts, not allowed in low water use areas
Med	Full	4	50'-70'/25'-30' moderate	ROW	Not tolerant of road salts, not allowed in low water use areas
Low-Med	Full	4	50'-60'/40'-50' moderate	ROW/MEDIAN	Use disease resistant varieties only
Med	Full	3	50'-75'/30'-40' mod-fast	PARK	Tolerant of a variety of soil conditions, not allowed in low water use areas

## Selected Plants for Colorado Springs

## ORNAMENTAL TREES

Botanical/Common Name	Water Use	Sun Exposure	USDA Hardiness Zone	Mature Height/Width/Growth	Code Requirements	Comments
<b><i>Acer ginnala</i></b> <i>Maple, Ginnala/Amur</i> (cvs)	Low-Med	Full-Part	2	15'-25'/15'-20' slow	ROW/MEDIANS	Chlorotic in Alkaline Soils, wide spreading growth habit
<b><i>Acer tataricum</i></b> <i>Maple, Tataricum</i>	Low-Med	Full-Part	4	15'-20'/15'-20' Slow-mod	ROW/MEDIANS	Wide spreading growth habit
<b><i>Amelanchier canadensis</i></b> <i>Serviceberry, Shadblow</i>	Low-Med	Ful-Part	3	12'-25'/15'-20' slow	STREAM	Best used as a multi-stem, suckering habit, very hardy
<b><i>Cercis canadensis</i></b> <i>Redbud, Eastern</i>	High	Full-Part	5	20'-30'/20'-30' slow-mod	ROW	Single stem only, needs protected site, very salt sensitive, not allowed in low water use areas
<b><i>Crataegus spp. (thornless only)</i></b> <i>Hawthorn (cvs)</i>	Low-Med	Full	4	20'-30'/20'-30' slow	ROW/MEDAINS	Wide spreading growth habit
<b><i>Prunus cerasifera</i></b> <i>Plum, Newport</i>	Med	Full-Part	4	15'-30'/15'-25' fast	ROW/MEDAINS	Typically fruitless, short lived, borers, not allowed in low water use areas
<b><i>Prunus maackii</i></b> <i>Chokecherry, Amur</i>	Low-Med	Full	2	20'-30'/15'-20' moderate	ROW/MEDAINS	Sensitive to overwatering
<b><i>Prunus nigra</i></b> <i>Plum, 'Princess Kay'</i>	Med	Full	2	20'-30'/10'-20' moderate	ROW	Typically fruitless, prone to suckering, not allowed in low water use areas
<b><i>Prunus x virginiana</i></b> <i>Chokecherry, Common</i>	Low-Med	Full	2	20'-25'/10'-15' mod to fast	ROW	Single trunk only, other varieties prone to suckering

## Selected Plants for Colorado Springs

<i>Pyrus calleryana</i> (fruitless only) <i>Pear, Callery (cvs)</i>	Med	Full	5	30'-40'/20'-30' moderate	ROW	None-fruiting varieties only, fireblight, not allowed in low water use areas
<i>Pyrus ussuriensis</i> (fruitless only) <i>Pear, Ussuriensis (cvs)</i>	Low-Med	Full	4	25'-35'/25'-35' moderate	ROW/MEDAINS	None-fruiting varieties only, fireblight

## EVERGREEN TREES

Botanical/Common Name	Water Use	Sun Exposure	USDA Hardiness Zone	Mature Height/Width/Growth	Code Requirements	Comments
<i>Abies concolor</i> <i>Fir, White</i>	Med	Full-Part-Shade	4	50'-70'/15'-25' slow	SCREEN/WALL/TRASH	Needs moisture and well drained soils, chlorosis, not allowed in low water use areas
<i>Juniperus monosperma</i> <i>Juniper, One-Seed</i>	Low	Full	4	10'-25'/10'-25' Slow	SCREEN/WALL/TRASH	Needs a dry site, extremely drought tolerant
<i>Juniperus scopulorum</i> <i>Juniper, Rocky Mountain</i>	Low	Full	4	15'-25'/8'-15' slow	SCREEN/WALL/TRASH	Extremely drought tolerant, low maintenance
<i>Juniperus virginiana</i> <i>Juniper, Eastern Redcedar</i>	Low-Med	Full	3	Varies slow	SCREEN/WALL/TRASH	Not tolerant a windy site
<i>Picea glauca</i> 'Densata' <i>Spruce, Black Hills</i>	Med	Full	2	30'-40'/10'-15' slow	SCREEN/WALL/TRASH	Pyramidal growth habit, low maintenance, not allowed in low water use areas
<i>Picea pungens</i> <i>Spruce, Colorado</i>	Med	Full-Part	2	50'-60'/20-30' slow	SCREEN/WALL/TRASH	Provide adequate space for planting, nuisance pests, not allowed in low water use areas
<i>Picea pungens</i> 'Baby blue eyes' <i>Spruce, Baby Blue Eyes</i>	Med	Full-Part	2	15'-30'/10'-15' slow	SCREEN/WALL/TRASH	Possible IPS issues, not allowed in low water use areas
<i>Pinus aristata</i> <i>Pine, Bristlecone</i>	Low-Med	Full	4	20'-40'/10'-20' slow	SCREEN/WALL/TRASH	Slow growing, do not plant in high water use lawn

## Selected Plants for Colorado Springs

**EVERGREEN TREES**

<i>Botanical/Common Name</i>	Water Use	Sun Exposure	USDA Hardiness Zone	Mature Height/Width/Growth	Code Requirements	Comments
<b><i>Pinus edulis</i></b> <i>Pine, Pinyon</i>	Low	Full	4	10'-25'/10'-25' slow	SCREEN/WALL/ TRASH	Drought-tolerant, do not plant in high water use lawn
<b><i>Pinus flexilis</i></b> <i>Pine, Vanderwolf's Pyramid</i>	Low-Med	Full-Part	2	20'-40'/10'-25' moderate	SCREEN/WALL/ TRASH	Moderate grow habit and unique appearance
<b><i>Pinus heldreichii</i></b> <i>Pine, Bosnian</i>	Low-Med	Full-Part	5	20'-25'/10'-15' slow	SCREEN/WALL/ TRASH	Not as dense as other evergreens.
<b><i>Pinus nigra</i></b> <i>Pine, Austrian</i>	Med	Full	4	40'-60'/20'-35' moderate	SCREEN/WALL/ TRASH	Provide adequate space for planting, needle litter, not allowed in low water use areas
<b><i>Pinus ponderosa</i></b> <i>Pine, Ponderosa</i>	Low	Full	3	50'-60'/20'-30' moderate	ROW/MEDAINS/WALL/ SCREEN/TRASH	Only evergreen tree allowed in ROW, needle litter, Provide adequate space for planting
<b><i>Pinus strobiformis</i></b> <i>Pine, Southwestern White</i>	Low-Med	Full	5	40'-50'/20'-30' moderate	SCREEN/WALL/ TRASH	May be hard to find in the trade
<b><i>Pinus sylvestris</i></b> <i>Pine, Scotch</i>	Med	Full	2	40'-50'/25'-35' moderate	SCREEN/WALL/ TRASH	Mountain Pine Beetle, fast growth rate, not allowed in low water use areas

## Selected Plants for Colorado Springs

## DECIDUOUS SHRUBS

Botanical/Common Name	Water Use	Sun Exposure	USDA Hardiness Zone	Mature Height/Width/Growth	Code Requirements	Comments
<b><i>Accer ginnala</i></b> <i>Maple, Ginnala (cvs)</i>	Low-Med	Full-Part-Shade	2	15'-20'/15'-20' slow	STREAM	Hardy, fall color, poor in heavy clay soils
<b><i>Acer glabrum</i></b> <i>Maple, Rocky Mountain</i>	Med	Full	2	Varies slow	STREAM	Native near streams, needs well drained soil and moisture
<b><i>Amelanchier alnifolia</i></b> <i>Serviceberry, Western</i>	Low	Full-Part	4	8'-12'/8'-12' moderate	WALL	Large multi-stemmed native shrub, edible fruit persists into winter
<b><i>Amelanchier canadensis</i></b> <i>Serviceberry, Shadblow</i>	Med	Full-Part	3	15'-20'/8'-15' slow	STREAM	Large multi-stemmed, upright growth habit, hardy
<b><i>Amorpha canescens</i></b> <i>Leadplant</i>	Xeric	Full	3	2'-3'/3'-4' moderate	-	Excellent small xeric shrub, native to Colorado
<b><i>Amorpha fruticosa</i></b> <i>Desert Indigo Bush</i>	Xeric	Full	3	4'-10'/8'-10' slow	STREAM/WALL	Hardy, low water use, difficult to remove after establishment
<b><i>Aronia arbutifolia</i></b> <i>Chokeberry, Brilliant Red</i>	Med	Full to Shade	4	6'/4-6' slow-mod	SCREEN/WALL	Multi-stemmed and upright growth habit, sucker in wetter areas, fruit
<b><i>Aronia melanocarpa</i></b> <i>Chokeberry, Black</i>	Low	Full to Shade	4	6'/6' slow-mod	SCREEN/WALL	Multi-stemmed and upright growth habit, sucker in wetter areas, fruit
<b><i>Atriplex canescens</i></b> <i>Saltbush, Four-wing</i>	Xeric	Full	4	3'-4'/3'-4' slow-mod	-	Very drought-tolerant
<b><i>Berberis thunbergii</i></b> <i>Barberry, Japanese (cvs)</i>	Med	Full	4	4'-5'/4'-5' moderate	SCREEN/WALL	Leafs out early spring, spiney thorns, deer resistant
<b><i>Caragana arborescens</i></b> <i>Peashrub, Siberian</i>	Xeric	Full-Part	2	6'-10'/6'-8' moderate	WALL/SCREEN/TRASH	Upright oval shape shrub, hardy, thorns, drought-tolerant, can re-seed
<b><i>Caragana microphylla 'Tidy'</i></b> <i>Tidy Littleleaf, Peashrub</i>	Low	Full	4	8'-10'/5'-7' moderate	-	Drought-tolerant

## Selected Plants for Colorado Springs

## DECIDUOUS SHRUBS

<i>Botanical/Common Name</i>	Water Use	Sun Exposure	USDA Hardiness Zone	Mature Height/Width/Growth	Code Requirements	Comments
<b><i>Chamaebatiari millefolium</i></b> <i>Fernbush</i>	Xeric	Full	4	4'-6'/4'-6' slow	SCREEN	Drought-tolerant, pleasant aroma, semi-evergreen
<b><i>Cotinus coggygia 'Royal Purple'</i></b> <i>Purple Smoke bush</i>	Low	Full	5	6'-8'/6'-8' moderate	-	Upright rounded growth habit, winter dieback, needs protected site
<b><i>Cotoneaster acutifolius</i></b> <i>Cotoneaster, Peking</i>	Low	Full-Part	4	6'-8'/6'-8' moderate	WALL/SCREEN/ TRASH	Low-maintenance dense medium-size shrub
<b><i>Cotoneaster apiculatus</i></b> <i>Cotoneaster, Cranberry</i>	Low	Full-Part	5	3'/3'-6' moderate	-	Low-maintenance small dense sized shrub, nice foliage and fruit
<b><i>Ericameria nauseosus</i></b> <i>Rabbitbrush, Tall</i>	Xeric	Full	2	3'-6'/4'-6' slow	SCREEN/WALL	Medium size mounding form, low-maintenance, drought-tolerant
<b><i>Ericameria nauseosus 'Baby blue'</i></b> <i>Rabbitbrush, Baby Blue/Dwarf</i>	Xeric	Full-Part	4	1'-3'/2'-3' slow	-	Small mounding form, low-maintenance, drought-tolerant
<b><i>Fallugia paradoxa</i></b> <i>Apache Plume</i>	Xeric	Full	4	4'-6'/4'-6' moderate	SCREEN/WALL	Drought-tolerant native shrub, long bloom period, four season interest
<b><i>Forestiera pubescens</i></b> <i>Privet, New Mexican</i>	Xeric	Full-Part	4	8'-12'/8'-12' slow	SCREEN/SCREEN/ TRASH	Upright growth habit, early bloom
<b><i>Holodiscus dumosus</i></b> <i>Spirea, Rock</i>	Xeric	Full	4	4'-6'/4'-6' moderate	SCREEN/WALL	Drought-tolerant native shrub, prolific flowers
<b><i>Lonicera korolkowii</i></b> <b><i>'Floribunda'</i></b> <i>Blue Velvet, Honeysuckle</i>	Low-Med	Full	4	8'-12'/8'-10' moderate	WALL	Drought-tolerant, confirm the location based on size of plant
<b><i>Physocarpus opulifolius</i></b> <i>Ninebark (cvs)</i>	Low-Med	Sun-Part	3	varies moderate	SCREEN	Confirm cultivar is sized for the space
<b><i>Prunus besseyi 'P011S'</i></b> <i>Sand Cherry, Pawnee Buttes</i>	Xeric	Sun-Part	3	15"-18"/4'-5' slow	-	Native low-growing ground cover shrub, nice fall color



## Selected Plants for Colorado Springs

**DECIDUOUS SHRUBS**

<i>Botanical/Common Name</i>	Water Use	Sun Exposure	USDA Hardiness Zone	Mature Height/Width/Growth	Code Requirements	Comments
<b><i>Prunus tomentosa</i></b> <i>Cherry, Nanking</i>	Low	Full	3	6'-10'/10'-15' mod-fast	WALL/TRASH	Large drought-tolerant shrub, confirm location and size
<b><i>Quercus gambelii</i></b> <i>Oak, Scrub (Gambel)</i>	Xeric	Full	4	8'-20'/10'-15' slow	STREAM	Difficult to transplant, poor availability, do not over water
<b><i>Rhamnus frangula 'Columnaris'</i></b> <i>Buckthorn, Tallhedge Columnar</i>	Low-Med	Full	3	8'-10'/3'-4'	WALL/TRASH/ SCREEN	Upright columnar shrub, thornless
<b><i>Rhamnus frangula 'Ron Williams'</i></b> <i>Buckthorn, Fine Line</i>	Med	Full	3	6'-10'/3' moderate	WALL/TRASH/ SCREEN	Upright columnar shrub, thornless
<b><i>Rhus trilobata</i></b> <i>Sumac, Threeleaf</i>	Xeric	Full	3	5'-6'/5'-6' moderate	SCREEN/WALL	drought-tolerant shrub, perform well in hot dry sunny areas
<b><i>Rhus trilobata 'Autumn Amber'</i></b> <i>Sumac, Autumn Amber</i>	Xeric	Full	3	6"-12"/6'-8' moderate	-	drought-tolerant shrub, perform well in hot dry sunny areas
<b><i>Rhus trilobata 'Gro-Low'</i></b> <i>Sumac, Grow Low</i>	Xeric	Full	3	2'-3'/6'-8' moderate	-	drought-tolerant shrub, perform well in hot dry sunny areas
<b><i>Ribes alpinum</i></b> <i>Currant, Alpine</i>	Low	Full to Shade	2	3'-6'/3'-6' moderate	-	Medium drought-tolerant shrub, perform well in shade sites
<b><i>Ribes alpinum "Green Mound"</i></b> <i>Currant, Green Mound Alpine</i>	Low	Full-Part	3	2'-4'/2'-4' moderate	-	Small globe-shape drought-tolerant shrub
<b><i>Rosa foetida 'Bicolor'</i></b> <i>Rose, Austrian Copper</i>	Low	Full	3	6'-8'/5'-7' moderate	WALL	Upright arching growth habit, red-yellow flower color
<b><i>Rosa 'Radrazz'</i></b> <i>Rose, Knock Out</i>	Mod	Full	3	3'-4'/3'-4' moderate	-	Disease resistant red shrub rose, long bloom time
<b><i>Spirea japonica</i></b> <i>Spirea (cvs)</i>	Mod	Full-Part	4	2'-3'/3'-4' moderate	-	Small mounding shrub, many cultivars,

## Selected Plants for Colorado Springs

<i>Symphoricarpos albus</i> Snowberry, Common	Low	Full to Shade	3	3'-5'/3'-5' moderate	SCREEN	Medium drought-tolerant shrub, good in shady areas
<i>Symphoricarpos x chenaultii</i> "Hancock" Coralberry, Hancock	Low	Full-Part	4	2'-3'/5'-10' moderate	-	Low-growing spreading shrub, good for erosion control
<i>Syringa meyeri 'Palibin'</i> Lilac, Dwarf Korean	Low	Full	3	4'-6'/4'-6' moderate	SCREEN/WALL	Medium drought-tolerant shrub, dense, broadly rounded shape
<i>Syringa pubescens 'Miss Kim'</i> Lilac, Miss Kim Dwarf	Low	Full	3	4'-6'/4'-6' moderate	SCREEN/WALL	Medium drought-tolerant shrub, dense, broadly rounded shape
<i>Viburnum x juddii</i> Viburnum, Judd	Low	Full to Shade	5	4'-6'/4'-6' moderate	SCREEN/WALL	Medium drought-tolerant shrub, dense, gray-green leaves

## EVERGREEN SHRUBS

Botanical/Common Name	Water Use	Sun Exposure	USDA Hardiness Zone	Mature Height/Width/Growth	Code Requirements	Comments
<i>Arctostaphylos uva-ursi</i> Kinnikinnick	Low	Full to Shade	2	4"-6"/2'-6' slow	-	Low growing ground cover shrub, good under Ponderosa Pines
<i>Arctostaphylos x coloradoensis 'Chieftan'</i> Manzanita, Chieftan	Low-Med	Full-Part	5	18"-36"/5'-8' Slow	-	Low growing ground cover shrub
<i>Arctostaphylos x coloradoensis 'Panchito'</i> Manzanita, Panchito	Low	Full-Part	4	10"-18"/24"-36" slow	-	Low growing drought tolerant ground cover shrub
<i>Artemisia tridentata</i> Sagebrush, Western	Xeric	Full	4	4'-6'/3'-6' slow	SCREEN	Medium size drought tolerant shrub
<i>Cercocarpus intricatus</i> Mahogany, Littleleaf Mountain	Xeric	Full	3	3'-5'/2'-3' slow	SCREEN	Medium size drought tolerant shrub

## Selected Plants for Colorado Springs

**EVERGREEN SHRUBS**

<i>Botanical/Common Name</i>	Water Use	Sun Exposure	USDA Hardiness Zone	Mature Height/Width/Growth	Code Requirements	Comments
<b><i>Cercocarpus montanus</i></b> <i>Mahogany, Mountain</i>	Xeric	Full	2	6'-10'/4'-6' slow	WALL/TRASH	Provide adequate space for planting, drought tolerant shrub
<b><i>Ephedra equisetina</i></b> <i>Fir, Bluestem Joint</i>	Xeric	Full-Part	4	4'-6'/3'-8' slow	SCREEN/WALL/TRASH	Drought-tolerant, exceptional plant for winter interest
<b><i>Juniperus chinensis 'Armstrong'</i></b> <i>Juniper, Armstrong</i>	Low	Full	4	4'-5'/4'-5' moderate	SCREEN/WALL	Medium size drought tolerant shrub, hardy
<b><i>Juniperus chinensis 'Spartan'</i></b> <i>Juniper, Spartan</i>	Low	Full	4	10'-15'/4'-5' fast	SCREEN/WALL/TRASH	Upright columnar shrub, up to 7,000 feet elevation
<b><i>Juniperus horizontalis 'Blue Chip'</i></b> <i>Juniper, Blue Chip Creeping</i>	Low	Full	3	10"-12"/6'-8' moderate	-	Low growing drought tolerant ground cover shrub
<b><i>Juniperus sabina 'Arcadia'</i></b> <i>Juniper, Arcadia</i>	Low	Full	3	18"-24"/4'-6' moderate	-	Low spreading groundcover shrub
<b><i>Juniperus sabina 'Buffalo'</i></b> <i>Juniper, Buffalo</i>	Low	Full	2	12"-18"/6'-8' moderate	-	Low growing drought tolerant ground cover shrub
<b><i>Juniperus x media 'Pfizerana Compact'</i></b> <i>Juniper, Compact Pfizer</i>	Low	Full	4	4'-5'/4'-5' moderate	SCREEN/WALL	Medium size drought tolerant shrub, hardy, Salt tolerance
<b><i>Juniperus sabina 'Tamariscifolia'</i></b> <i>Juniper, Tammy</i>	Low	Full	5	3'-4'/6'-8' moderate	SCREEN	Medium size drought tolerant shrub
<b><i>Juniperus scopulorum 'Cologreen'</i></b> <i>Juniper, Cologreen</i>	Low	Full	3	15'-20'/5'-8' moderate	SCREEN/WALL/TRASH	Upright columnar shrub, up to 7,500 feet elevation

## Selected Plants for Colorado Springs

**EVERGREEN SHRUBS**

<i>Botanical/Common Name</i>	Water Use	Sun Exposure	USDA Hardiness Zone	Mature Height/Width/Growth	Code Requirements	Comments
<i>Juniperus scopulorum</i> <b>'Moonglow'</b> <i>Juniper, Moonglow</i>	Low	Full	3	15'-20'/5'-8' moderate	SCREEN/WALL/ TRASH	Upright columnar shrub, up to 8,500 feet elevation
<i>Juniperus scopulorum</i> <b>'Woodward'</b> <i>Juniper, Woodward</i>	Low	Full	3	15'-20'/4'-5' moderate	SCREEN/WALL/ TRASH	Upright columnar shrub, up to 8,500 feet elevation
<i>Juniperus virginiana</i> <b>'Blue Arrow'</b> <i>Juniper, Blue Arrow</i>	Low	Full	4	8'-12'/2'-3' moderate	SCREEN/WALL/ TRASH	Upright columnar shrub, up to 7,000 feet elevation
<i>Juniperus virginiana</i> <b>'Skyrocket'</b> <i>Juniper, Skyrocket</i>	Low	Full	4	15'-20'/4'-5' moderate	SCREEN/WALL/ TRASH	Upright columnar shrub, up to 7,000 feet elevation
<i>Picea abies</i> <b>'Nidiformis'</b> <i>Spruce, Birds Nest</i>	Mod	Full	3	3'-5'/3'-5' slow	-	Mediun size drought tolerant shrub
<i>Pinus mugo</i> <b>'Maps'</b> <i>Pine, Mops Dwarf Mugo</i>	Low	Full	2	2'-3'/2'-3' slow	-	Small size drought tolerant shrub
<i>Pinus sylvestris</i> <b>'Hillside Creeper'</b> <i>Pine, Hillside Creeper</i>	Low	Full	3	2'-4'/6'-8' slow	-	drought tolerant shrub
<i>Yucca glauca</i> <i>Soapweed</i>	Xeric	Full	4	1'-3'/1'-3' moderate	-	Plant it away from walkways/ pedestrians due to its sharp spines

## Selected Plants for Colorado Springs

## ORNAMENTAL GRASSES

Botanical/Common Name	Water Use	Sun Exposure	USDA Hardiness Zone	Mature Height/Width/Growth	Code Requirements	Comments
<i>Andropogon gerardii</i> Bluestem, Big	Xeric	Full	3	3'-6'/2'-3' moderate	SCREEN/WALL	Confirm location, can grow up to 6' tall
<i>Bouteloua curtipendula</i> Grama, Sideoats	Xeric	Full	4	18"-24"/18"-24" moderate	-	Warm season grass, tolerant of clay and alkaline soils
<i>Bouteloua gracilis</i> 'Blonde Ambition' Blue Grama, Blonde Ambition	Xeric	Full	4	2'-3'/2'-3' moderate	-	Warm season grass
<i>Calamagrostis brachytricha</i> Grass, Korean Feather Reed	Med	Full-Shade	4	2'-3'/1'-2' moderate	-	Does not tolerate drought well, needs regular moisture to grow
<i>Calamagrostis x acutiflora</i> 'Karl Foerster' Grass, Feather Reed	Med	Full-Part	4	3'-4'/1'-2' moderate	SCREEN	Over planted, needs regular moisture to thrive
<i>Helictotrichon sempevirens</i> Grass, Blue Oat	Low	Full-Part	4	2'-4'/2'-4' moderate	SCREEN	Reliable ornamental grass, highly adaptable
<i>Miscanthus sinensis</i> Miscanthus (cvs)	Med	Full	4	2'-3'/2'-3' moderate	-	Compact growth habit

## Selected Plants for Colorado Springs

## ORNAMENTAL GRASSES

Botanical/Common Name	Water Use	Sun Exposure	USDA Hardiness Zone	Mature Height/Width/Growth	Code Requirements	Comments
<b><i>Muhlenbergia reverchonii</i></b> <b>'Undaunted'</b> <i>Grass, Undaunted Ruby Muhly</i>	Low	Full-Part	5	2'-4'/2'-4' moderate	-	Reliable ornamental grass, highly adaptable
<b><i>Nassella tenuissima</i></b> <i>Grass, Mexican Feather</i>	Low	Full	5	2'-3'/3'-3' moderate	-	Small drought-tolerant grass
<b><i>Panicum virgatum</i></b> <i>Switchgrass (cvs)</i>	Low	Full	4	3'-5'/1'-2' moderate	SCREEN	Warm season grass, upright growth habit, good for screening
<b><i>Schizachyrium scoparium</i></b> <i>Bluestem (cvs)</i>	Xeric	Full	4	2'-3'/1'-2' moderate	-	Drought-tolerant native grass, tolerate a range of low water situations
<b><i>Sporobolus heterolepis</i></b> <i>Dropseed, Prairie</i>	Low	Full	4	24"-30"/18"-24" moderate	-	Small Drought-tolerant native grass
<b><i>Sporobolus wrightii</i></b> <i>Sacaton, Giant</i>	Xeric	Full	5	5'-7'/3'-5' moderate	SCREEN/WALL	Confirm location, can grow up to 7' tall



## Appendix B. Selected Native Seed Mixes for Colorado Springs

### A. General Standards

1. The Colorado Guide to Native and Water Wise Grass Installation and Maintenance Manual is incorporated into this manual by reference. The manual was created by the Colorado Native Grass Working Group and describes best practices for installing and maintaining native seed vegetation. It is available by visiting <https://coloradonativegrass.org/>.
2. The use of native and water wise seed mixes within the City of Colorado Springs provide the following benefits and are required for open space areas which are disturbed due to construction and disturbance activities and not designed with other types of landscape improvements.
  - Significant water savings, often ranging from 25-75% compared to traditional turfgrass. Native seed mixes should have a low irrigation requirement (8-10 inches of supplemental irrigation per growing season).
  - Most native and water wise grasses require less mowing and fertilization and maximize maintenance savings.
  - Native grasses provide valuable habitat and food sources for insects, birds, and wildlife.
  - Including native grasses in urban landscapes can improve water and air quality, sequester carbon, manage stormwater, and moderate urban heat.
  - Native and water wise grass projects can contribute to a project/organization's sustainability goals.

### B. Overall Design Standards

1. When determining native seed locations for a project, the following characteristics should be followed and applied to the overall landscape design.
  - Have full sun conditions, at least six or more hours of sun per day. Most native and water wise grass species require full sun conditions to grow well.
  - Locate in low-traffic areas. Many native and water wise grasses cannot withstand consistent foot traffic from people or pets.
  - Do not locate within a snow pile holding location. Native grasses can be killed by concentrated salts. Don't plant native grasses in areas where plowed snow with salt or sand will be piled.
  - Choose the proper species for the proposed location and use during the design stage. Example, for stormwater detention and infiltration, consider selecting species that can tolerate periodic flooding. Required native seed mixes for different areas are included in this Appendix.
  - Steep slopes and swales with stormwater may need species with rhizomes or deep roots to withstand erosion. In addition, these areas may need soil stabilization measures, like erosion blankets, during the establishment phase and may be required by the Manager.
2. The following seed mixes listed below in this Appendix must be used unless a custom grass seed mix is approved. The seeding rates must match the amounts shown in the seed mixes below based on installation method and irrigation.
3. The following prohibited species crested wheatgrass (*Agropyron cristatum*) or smooth brome (*Bromus inermis*) may not be planted within the city.

4. Irrigation shall be provided to ensure germination, establishment, and long term care of native seed areas. Permanent in-ground irrigation is required for all native seed areas located next to road frontages and in highly visible areas.
5. Temporary irrigation may be proposed where allowed to support native seed vegetation but design techniques for water re-use must be exemplified such as grading (depressions or swales) to direct water and supplying soil moisture to support vegetation. Temporary irrigating during the establishment phase will dramatically improve the likelihood of good seed germination, seedling growth, and soil cover. Projects with no irrigation may take five to ten years to establish because of variations in natural rainfall and weather conditions.
6. Non-irrigated native seed areas may be proposed but should be located away from highly visible areas/public ROW and will be approved by City staff on case-by-case review. Timing and best installation practices should be followed to ensure germination. Non-irrigated projects are not guaranteed to be successful in Colorado Springs climate where precipitation is erratic and unpredictable.
7. Native seed installation timing shall be included on the plans which can vary based on the type of grasses being installed and if irrigated. Following standards should be followed:
  - Seeding single species projects with irrigation (warm season species are best planted from June 1 to August 1 and cool season species can be seeded from April 1 to June 15, or August 1 to September 15)
  - Seeding mixes of cool and warm season species with irrigation (Seed mixes are best planted between May 1 and September 1)
  - Seeding non-irrigated projects (Seed is best planted between Nov. 1 and May 1)
8. General initial installation and long-term maintenance native seed notes shall be included on the plans that outlines irrigation scheduling, mowing frequency, mowing height, fertilizer timing, weed control, and recommended equipment to be used to ensure the project goals and grass health are achieved. See the Colorado Guide to Native and Water Wise Grass Installation and Maintenance Manual for more information on best practices for your project ([www.coloradonativegrass.org](http://www.coloradonativegrass.org)).

## C. Stormwater Detention Native Seed Area(s) Design Standards

1. For all proposed Stormwater Pond Facilities, the El Paso County Conservation District All-Purpose is required to be used. See Table A below for this required mix.
2. Table A shall be included on the Final Landscape Plan and include all the information currently shown in this table. The proposed installation method and irrigation type shall also be shown and required Seeding Rate (lbs PLS/acre) provided.
3. Due to the overall growth habit and height, this seed mix is not recommended in most other open space areas outside stormwater detention areas (use the El Paso County Low Grow Mix shown in Table B). If you are looking for a taller growth habit, this mix can be used but should be strategically placed on the site.
4. The El Paso County Conservation District All-Purpose native seed mix shall not be used in highly visible small landscape spaces (under 8 feet wide) or in areas with consistent foot traffic from people or pets.

5. For portions of facilities located near or on the bottom or where wet soil conditions occur. Planting of potted nursery stock wetland plants 2-foot on-center is recommended for sites with wetland hydrology.
6. The use of wildflowers or shrubs (potted plants or seeds) at time of grass seeding is allowed for El Paso County Conservation District All-Purpose Mix and can be a benefit for pollinators if broadleaf herbicides will not be broadcast across the site.
7. Allow this native seed to grow to species height and keep seedheads for winter interest and reseed for the following year. This mix is a good choice for areas where irrigation will be turned off long-term and a groundcover being used for ecological restoration.

**Table A. El Paso County Conservation District All-Purpose Mix for Upland, Transition and Pond Areas**

Common Name	Scientific Name	Growth Season/Form	% of Mix	<u>Pounds PLS/acre</u> • Irrigated broadcast • Irrigated hydroseeded (80 seeds/sq ft)	<u>Pounds PLS/acre</u> • non-irrigated/ broadcast • non-irrigated/ hydroseeded • irrigated drilled (40 seeds/sq ft)	<u>Pounds PLS/acre</u> • non-irrigated drilled (20 seeds/sq ft)
Big Bluestem	<i>Andropogon gerardii</i>	Warm, sod	20	4.4	2.2	1.1
Blue Grama	<i>Bouteloua gracilis</i>	Warm, bunch	10	0.5	0.25	0.13
Green Needlegrass (1)	<i>Nassella viridula</i>	Cool, bunch	10	2.0	1.0	0.5
Western Wheatgrass	<i>Pascopyrum smithii</i>	Cool, sod	20	6.4	3.2	1.6
Sideoats Grama	<i>Bouteloua curtipendula</i>	Warm, bunch	10	2.0	1.0	0.5
Switchgrass (1)	<i>Panicum virgatum</i>	Warm, bunch/sod	10	0.8	0.4	0.2
Prairie Sandreed	<i>Calimovilfa longifolia</i>	Warm, sod	10	1.2	0.6	0.3
Yellow Indiangrass (1)	<i>Sorghastrum nutans</i>	Warm, sod	10	2.0	1.0	0.5
Seed rate (lbs PLS/acre); (1) Species marked that will do well in the bottom of Pond Areas				19.3	9.7	4.8

#### D. All-Purpose Low Grow Native Seed Area Design Standards

1. Based on growth habit and height characteristics, this mix is recommended to be used for all proposed open space native seed areas outside of detention pond areas.
2. Table B shall be included on the Final Landscape Plan and include all the information currently shown in this table. The proposed installation method and irrigation type shall also be shown and required Seeding Rate (lbs PLS/acre) provided.
3. The El Paso County All-Purpose Low Grow native seed mix shall not be used in highly visible small landscape spaces (under 8 feet wide) or in areas with consistent foot traffic from people or pets.
4. The use of wildflowers or shrubs (potted plants or seeds) at time of grass seeding is allowed for El Paso County All-Purpose Low Grow Mix and can be a benefit for pollinators if broadleaf herbicides will not be broadcast across the site.

**Table B. El Paso County All-Purpose Low Grow Mix for Upland and Transition Areas**

Common Name	Scientific Name	Growth Season/Form	% of Mix	<u>Pounds PLS</u> • Irrigated broadcast • Irrigated hydroseeded (80 seeds/sq ft)	<u>Pounds PLS</u> • non-irrigated broadcast • non-irrigated hydroseeded • irrigated drilled (40 seeds/sq ft)	<u>Pounds PLS</u> • non-irrigated drilled (20 seeds/sq ft)
Buffalograss	<i>Buchloe dactyloides</i>	Warm, sod	25	9.6	4.8	2.4
Blue Grama	<i>Bouteloua gracilis</i>	Warm, bunch	20	10.8	5.4	2.7
Sideoats Grama	<i>Bouteloua curtipendula</i>	Warm, bunch	29	5.6	2.8	1.4
Green Needlegrass	<i>Nassella viridula</i>	Cool, bunch	5	3.2	1.6	0.8
Western Wheatgrass	<i>Pascopyrum smithii</i>	Cool, sod	20	12.0	6.0	3.0
Sand Dropseed	<i>Sporobolus cryptandrus</i>	Warm, bunch	1	0.8	0.4	0.2
Seed rate (lbs PLS/acre)				42.0	21.0	10.3

## E. Custom Native Seed Mix Design Standards

1. Projects requesting a custom grass seed mix should contain at least 90% native species and should not include the prohibited species crested wheatgrass (*Agropyron cristatum*) or smooth brome (*Bromus inermis*). A species will be considered native if it is listed as a species native to Colorado in the USDA Plants Database ([plants.usda.gov](https://plants.usda.gov)). The custom grass seed mix should be made after consultation with a qualified revegetation specialist and submitted to the Stormwater Enterprise (if applicable) and City Planning for review and approval.

## F. Custom Manicured Native Seed Types and Design Standards

1. Buffalograss – This short grass is a good ground cover replacement for high-water turf grass for low to moderate traffic areas. This short grass grows 3 inches to 6 inch tall and the spreading habit makes it valuable for stabilizing slopes and tolerating moderate traffic. The following site considerations should be measured before selecting this type of native seed grass.
  - Not suitable for very sandy soils, very shady locations, and saline soils
  - Is actively growing and green from late May to September and it goes dormant (turns brown) with the first hard frost in the fall.
  - Best for full-sun sites up to 6,800 ft in elevation with clay content in the soil.
  - Permanent in-ground irrigation is required.
  - Active weed management before planting, during establishment, and as a long-term maintenance practice is critical for success. Weed management is very important for the installation and long-term maintenance of buffalograss.
2. Blue Grama – This short grass is a good ground cover replacement for high-water turf grass for only low traffic areas. This short grass grows 6 inches to 18 inch tall (with seedheads) and is tolerant of many soil types and growing conditions. The following site considerations should be measured before selecting this type of native seed grass. See the Native and Water Wise Grass Installation and Maintenance Manual Addendum I for more information.
  - Best for full-sun sites up to 8,500 ft in elevation.
  - Grows best when mowed three times per year or less
  - Is actively growing and green from mid-May to early October and it goes dormant (turns brown) with the first hard frost in the fall.
  - Permanent in-ground irrigation is required.
3. Buffalograss/Blue Grama mix– This short grass mix is a good ground cover replacement for high-water turf grass for low traffic areas. This short grass grows 6 inches to 18 inch tall (with seedheads) and has a more uniform appearance than the El Paso County All-Purpose Low Grow Mix mixture. The following site considerations should be measured before selecting this type of native seed mix.
  - Best for full-sun sites up to 7,000 ft in elevation.
  - Can be mowed, or left un-mowed for a more natural look; moderate traffic tolerance.
  - Green from mid-May to early October and it goes dormant (turns brown) with the first hard frost in the fall. Permanent in-ground irrigation is required.

Table C. Native Seed Selection Chart

Grass Species or Mix	Desirable/Required Areas	Limitations
El Paso County Conservation District All Purpose Mix (Table A above)	<ul style="list-style-type: none"> <li>Stormwater ponds or detention structures (required).</li> <li>Open space where taller species are suitable (should be strategically sited, not recommend in most locations).</li> </ul>	Not for use in highly-visible locations, narrow areas less than 8 feet wide, or where taller grasses are not desired.
El Paso County All-Purpose Low Grow Mix (Table B above)	<ul style="list-style-type: none"> <li>Open space areas.</li> </ul>	Narrow areas less than 8 feet wide, or high-traffic areas.
Custom Native Seed Mix	<ul style="list-style-type: none"> <li>For specialized site conditions or ecological functions.</li> <li>Requires City approval.</li> </ul>	Requires at least 90% native species and cannot contain smooth brome or crested wheatgrass.
Buffalograss	<ul style="list-style-type: none"> <li>Highly visible locations and areas less than 8 feet wide where a more uniform, manicured appearance is desired.</li> <li>Can be mowed for a traditional lawn appearance.</li> </ul>	Not for high-traffic areas.
Blue Grama Grass	<ul style="list-style-type: none"> <li>Highly visible locations and areas less than 8 feet wide where a more uniform appearance is desired.</li> </ul>	Will be taller than a traditional turfgrass lawn. Grows best when mowed one to four times per year. Not for high-traffic areas.
Buffalo/Blue Grama Grass Mix	<ul style="list-style-type: none"> <li>Highly visible locations and areas less than 8 feet wide where a more uniform, manicured appearance is desired.</li> </ul>	Not for high-traffic areas.

### G. Wildland-Urban Interface (WUI) and Native Seed

1. Projects in the WUI-O district shall comply with additional requirements in Section 7.2.604 (WUI-O: Wildland Urban Interface Overlay) and related City of Colorado Springs Fire Prevention Code and Standards requirements. (UDC 7.4.902.C)
2. See the latest version of the Ignition Resistant Construction Design Manual published by Colorado Springs Fire Department regarding both legal requirements and recommended guidance for Wildland-Urban Interface areas within the City. This guidance document can be found on the City of Colorado Springs Fire Department Website under Fire Code Resources - [www.coloradosprings.gov/WUI](http://www.coloradosprings.gov/WUI)



## Appendix C. New Single and Two-Family Residential Water Use Typical(s)

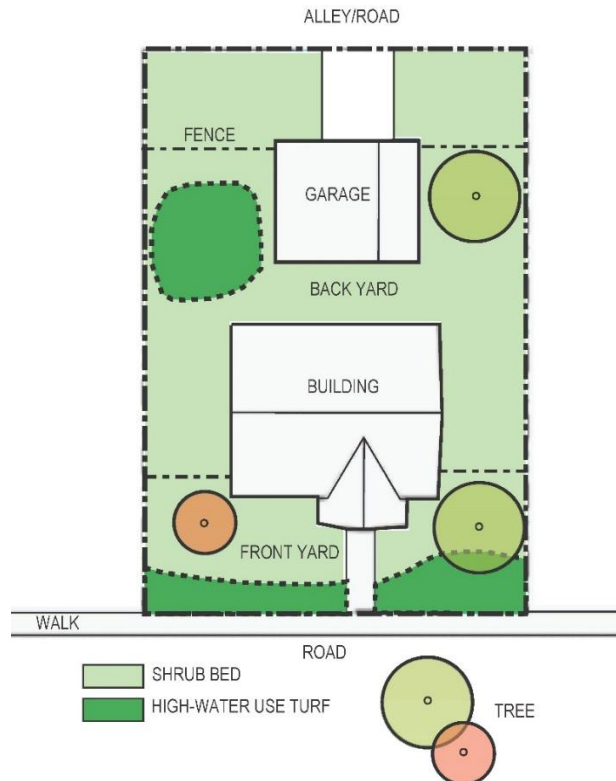
### A. General Standards

1. For all proposed single and two-family residential projects, a lot landscape typical(s) shall be provided with the preliminary and final landscape plans. These typical(s) shall show how the development is meeting the current requirements for these projects listed in City UCD section 7.4.902.E.
2. A typical shall be provided for each proposed lot type size including corner lots. Based on the number of lots, sizes and configurations, an average lot size(s)/typical(s) may be used but will be determined and approved by the Manager during the City's plan review.
3. All proposed open space landscape areas/tracts located within the limits of the project (outside individual residential lots) shall follow the Hydrozone Diagram shown in Appendix D.
4. The irrigation water service connection shall be sized appropriately to accommodate irrigation during the hours and days outlined in the Water Shortage Ordinance, Chapter 12, Article 4, Part 13 of the Code of the City of Colorado Springs for all individual lot irrigation system(s). All irrigation water shall be metered and have appropriate backflow prevention as identified by Colorado Springs Utilities Water Line Extension and Service Standards.
5. No more than twenty-five (25) percent of the portion of a lot not covered by a primary or accessory structure or a driveway, patio, deck, or walkway shall be planted with High Water Use Turfgrass.
6. No contiguous High-Water Use Turfgrass area shall be less than one hundred (100) square feet in area. The one hundred (100) square foot limit shall not apply to the Parkway/Tree Lawn area located within City ROW.
7. Any proposed ROW landscaping (tree lawn) located between a detached walk/property line and curb shall be included in the overall open space area.
8. All Compact Lot projects with street-oriented lots shall provide one (1) tree per lot and be in either a tree lawn that is at least seven (7) feet wide, or within the front yard of each lot per City UCD Section 7.4.905.B.2.(4c). These trees shall be shown and labeled on the landscape typical(s).
9. For all Compact Lot projects, a recommended tree species list shall be provided with the typical(s) and chosen from the current Forestry City Approved Street Tree List.
10. The Maximum High-Water Use Turfgrass requirement for single and two-family residential water use shall follow the current applicability standards of the UDC Section 7.1.104.

### B. Landscape Typical Standards

1. The typical(s) shall show the following:
  - Be at scale and provide drawing scale.
  - All street linework (curb/gutter/alley/etc.) and property lines.
  - All proposed attached/detached sidewalks and driveways including widths.
  - All proposed building/garage footprints or building envelope(s) (general locations).
  - All proposed fencing (general locations).
  - Show landscape areas (sod/shrub beds/native seed/rock areas/etc.) with hatches.
  - Provide total amounts in Square Feet (SF) and material type for each.
  - Proposed tree locations (compact lots).
  - Easements, building setbacks and ROW widths.
  - Utility (wet/dry) connections for each lot.

2. The following calculations shall be provided in a chart for each of the typical(s):
  - Total amount of open space areas in Square Feet (SF) including ROW areas.
  - Total amount of each proposed landscape area (high-water use turfgrass/med-water use shrub beds and low-water use native seed) in Square Feet (SF).
  - Show that the 25% limit for turf is being met.
  - Provide totals for all lots for the site as outlined above.
3. Example Typical below



	Typical Total	Overall Totals (84 Lots)
Open Space –	4,300 SF	361,200 SF
High-Water Use Turfgrass –	1,075 SF (25%)	90,300 SF (25%)
Med-Water Shrub beds -	3,225 SF (75%)	270,900 SF (75%)

4. The following notes shall be included with the landscape typical(s):
  - “All Trees located within City ROW are to be chosen from the current Forestry City Approved Street Tree List.”
  - “All required Compact Lot trees shall be installed by the developer/builder. Long term maintenance responsibility and irrigation for trees will be provided by \_\_\_\_\_ “ (applicant to provide)
  - “All required Compact Lot trees shall have an automatic irrigation system (drip/sod irrigation/etc.) which provides watering at time of planting.”

## Appendix D. HydroZone Diagram Format

### H. Hydrozone Diagram Standards

- A. A Hydrozone Diagram shall be provided with the Preliminary and Final Landscape Plan. This diagram shall show how the development is meeting overall water use per City UCD section 7.4.902.E.1 and 7.4.903.C.
- B. To calculate the total amount of allowable High-Water Use Turfgrass, the Hydrozone diagram shall show the total amount of designed irrigated green space landscape areas and include the total for the following, High (High-water turf/sod), Medium (shrub beds with plantings) and Low (native seed). Based on this total amount, a maximum of 25% of this area may be High-Water use Turfgrass.
- C. Before City approval of Final Landscape Plan, the applicant shall complete the online Irrigated Landscape Area Reporting System from Colorado Springs Utilities. Once this has been completed, an automatic email will be sent to the applicant and City Planning for confirmation. Enter the hydrozone totals and irrigation types from the Final Landscape Plan at the following link:
  - <https://forms.office.com/Pages/ResponsePage.aspx?id=zqe0Sp8HRkOyt4FfDUce7Ls1wrAGGhFDm1mAWBm4JJVUQTBTvjITNTdXRFpUUDAwOVpPWVE0VFpYMi4u>
- D. The Diagram shall show the following:
  - All site linework (streets/sidewalks/property lines/hardscape areas/driveways/etc.).
  - All proposed structures (buildings/garages/park features/etc.).
  - Show proposed water use areas (High/Medium/Low) with hatches. The landscape types are High (High-water turf/sod), Medium (shrub beds with plantings) and Low (native seed).
  - The proposed Hydrozone Diagram should match the proposed landscape design.
  - Provide labels on the plans for High/Medium/Low water use areas.
  - Provide total amounts in Square Feet (SF) for proposed area and overall total.

## E. Example of a Hydrozone Diagram below

### HYDROZONE DIAGRAM



## Appendix E. Irrigation Plan Requirements and Formats

### A. General Standards

The Following requirements shall apply to all irrigation plans for the City.

1. A Landscape Architect licensed by the State of Colorado, or a Certified Irrigation Designer shall prepare all required irrigation plans and supporting material. The licensed LA or Certified designer shall have a current unexpired certification and no active discipline or board actions against them.
2. As-built irrigation plans are required when the installation of the irrigation system does not comply with the approved irrigation plan. The Manger may require that the as-built irrigation plans be prepared by either a Landscape Architect licensed by the State of Colorado or a Certified Irrigation Designer.
3. Due to the semiarid climate, drying winds, and lack of consistent natural precipitation in Colorado Springs, supplemental irrigation is required for all proposed landscaping within the city.
4. Irrigation shall be provided to ensure germination, establishment, and long care of native seed areas. Permanent in-ground irrigation is required for all native seed areas located next to road frontages and in highly visible areas.
5. Temporary irrigation may be proposed where allowed to support native seed vegetation establishment but design techniques for water re-use must be exemplified such as grading (depressions or swales) to direct water and supplying soil moisture to support vegetation.
6. The Irrigation Plan shall consist of all the information required on the most current Irrigation Check List located on the City of Colorado Springs Web Site. The Irrigation Plan shall be submitted concurrently or after approval of a Final Landscape Plan.
7. The irrigation plan shall graphically and through notes/details depict a water-efficient design consistent with the approved Final Landscape Plan and Hydro Diagram. This would include separate irrigation zones for all hydrozone areas (low, moderate and high) and the irrigation design should work with proposed landscape plantings, slopes, microclimates, environment factors and available water pressure. System shall be designed in conformance with manufacturer's recommendations for water efficiency.
8. The irrigation system design shall be designed to prevent runoff, overspray, low-head drainage, and other similar conditions where irrigation water flows or sprays onto areas not intended for irrigation.
9. The irrigation system shall be designed to apply water at a rate not exceeding the infiltration rate of the soil.
10. Irrigation systems served with non-potable water must comply with current Colorado Springs Utilities Water Line Extension & Service Standards.
11. All above ground temporary irrigation components (main/lateral lines/valves and wires/sprinkler heads/etc.) shall be removed and disposed of by the sites responsible landscape maintenance party and/or owner at time of conclusion of temporary watering for the site. At no time should visible unused/broken temporary irrigation components be left on the property.
12. The required water service (point of connection) shall be installed and be operational as required to coincide with planting installation.
13. The irrigation system shall be properly winterized each season.
14. The irrigation system shall be properly maintained which would include but not limited to inspection, testing and repair, adjusting sprinkler patterns and drip components, calibration of equipment and system controller programing.



15. Water service connections for all irrigated areas shall be consistent with all Colorado Springs Utilities regulations (7.4.904.A.E.2.g)
16. All irrigation water shall be metered and have appropriate backflow prevention as identified by Colorado Springs Utilities Water Line extension and Service Standards. (7.4.904.A.E.2.h)
17. Per current Colorado Springs Utilities standards, no accessible access (drain/filter access/blow out port/ect.) can be located before the backflow unit. The backflow unit shall be located a maximum of ten feet (10') away from the proposed main water source.
18. The proposed irrigation water service connection (Meter/Tap) shall be sized appropriately to accommodate irrigation during the hours and days outlined in the Water Shortage Ordinance, Chapter 12, Article 4, Part 13 of the City Code of Colorado Springs (7.4.904.A.E.2.i).
19. For all design irrigation systems, if more than three days a week are required to provide required coverage with spray/rotor stations/valves, a Water Allocation Plan is required from Colorado Springs Utilities.
20. If a Water Allocation Plan is required/requested from Colorado Springs Utilities, additional information will be needed and shown on the irrigation plan before plan approval.

## B. Plan Standards

1. The plans shall include a plan, general irrigation notes, details and any other items that may be necessary by Planning Staff. All proposed components shall have their equipment sized.
2. An irrigation legend shall be included which identifies all symbols and indicates the manufacturer, precipitation rate, g.p.m's, radii of each head type and detail reference call out as well as any pertinent information about the equipment used including P.O.C and meter sizes.
3. All points of connection (P.O.C.) and water meters shall be noted, and sizes called out on the plans and include the proposed type of connection (dedicated irrigation meter, domestic connection, sub-metered). The point of connection(s) shall also indicate the type of water source (potable/non-potable) and the static water pressure.
4. Per current CSU standards, a PRV will be installed before the meter by Colorado Springs Utilities staff and a maximum of 80 PSI will be allowed after this valve for all city meter locations.
5. The sites' water pressure shall be noted on the irrigation plans and include existing and required minimum. If needed, booster pump information shall be included on the plans. Actual on-site pressure may vary based on water system demand at the time of the pressure test, subsequent development placing additional demand on the water system.
6. All irrigation equipment installed flush with grade for safety.
7. All existing non-irrigated plant communities to remain onsite shall preserve existing drainage patterns and are not to be irrigated.
8. The plans shall illustrate the location, type, and size of all components of the irrigation system including the following requirements:
  - a. **Main and lateral lines**
    - Proposed pipe sizes shall be indicated numerically (i.e. 1/2", 3/4", 1" etc.).
    - Locations shall work with all utilities and underground improvements.
    - The proposed main line pressure (pressure per square inch) shown on the plans. The irrigation design shall consider minimum and maximum allowable mainline pressures.
    - Total Required operating pressure for each control valve/zone.
    - Provide quick coupling valves where needed for the project and connected to an irrigation main line.

- Water pressure regulated with valves (PRV) as needed for the system and prevent water hammer within the system. All mainline and lateral pipe sizes shall be designed large enough to provide adequate water supply to worst case scenario stations without exceeding 5 feet per second.
- Sleeving shall be provided for all main and lateral lines as required.

## **b. Drip Lines and systems**

- All drip line shall be staked to the ground and covered by mulch. No exposed drip lines shall be visible after installation and for the life of the project.
- All proposed trees or shrubs located within native seed areas shall be on a dedicated drip control valve connected to the automatic system controller.
- Each proposed planting type and size shall include the number of required drip emitters and be installed per manufacturer's recommendations.
- A flush point is required at the end of all proposed drip lines and shall be located within a valve box.
- Sleeving shall be provided for all drip lines as needed.

## **c. Control Valves**

- Each station shall have proposed valve size and station number given.
- Provide gallon per minute for each valve.
- Provide a manual shutoff valve for each valve within the valve box.
- Additional manual shutoff valves shall be installed between the control valve(s) and the main water supply as needed.

## **d. Sprinkler heads**

- Sprinkler heads shall have matched precipitation rates within each control valve circuit and head types shall not be mixed within the circuit.
- Low volume and low trajectory spray nozzles shall be used.
- A minimum 6-inch sprinkler/rotor body shall be used for all proposed high-water use turf and native seed locations.
- Pooling and flowing of water is not allowed.

## **e. System controllers**

- Automatic controlled utilizing non-volatile memory.
- Capable of dual or multiple programming.
- Must have multiple cycle start capacity and a flexible calendar program.
- Equipped to use a rain shut-off (weather-based system or soil/air moisture detection).
- Long term power source provided for all controllers.

## **f. Rain sensors**

- All irrigation designs shall include a rain sensor that prevent the system from running during a rainfall/freeze event and is installed to automatically shut down the irrigation system.

9. Provide a calculated annual irrigation water use table for the site, this would include the proposed amount of high water (sod), medium (shrub beds) and low (native seed) use landscape areas. The amount of square feet and gallons should be provided for each type of landscape area and an overall irrigated amount for square feet and gallons should be included.



10. An irrigation schedule shall be included in the plan set and include the following information for each proposed valve/station: P.O.C number (if more than 1), Controller number (if more than 1), station/valve number, proposed plant material, irrigation type (pop-up/rotor/drip/etc.), design operating pressure (pressure per square inch), application rate (inches per hour), flow rate (gallons per minute), run time per station (min), number of cycles, number of irrigation days a week and estimated water usage (gal/wk). The schedule should also show how the Water Wise Rules irrigation schedule requirements will be met.
11. For all systems having 7 or more spray valves (turf/native seed areas), a critical calculation (worst case) shall be provided on the plans and each piece of equipment shall be listed in the calculation along with the associated loss and minimum required pressure needed. The calculation shall include the total pressure loss of all equipment used in the system to the point of connection. This is recommended for all irrigation systems.
12. The following notes shall be included on the irrigation plans and be listed in a section called

**“Standard City of Colorado Springs Irrigation Notes”:**

- “The City has adopted permanent water-wise regulations as of January 1, 2020, which will affect the overall operation of the irrigation system. From May 1 to October 15, sprinklers can be operated before 10 a.m. and after 6 p.m. Watering is limited to three days a week (Drip irrigation is allowed at any time). Establishment permits are required from Colorado Springs Utilities for customers who need to temporarily water more than three days a week to establish new landscapes. Allocation plans are available for customers who need more watering schedule flexibility from Colorado Springs Utilities.”
- “For all design irrigation systems, if more than three days a week are required to provide required coverage with spray/rotor stations/valves, a Water Allocation Plan is required from Colorado Springs Utilities.”
- “City Affidavit Note – The design professional of record is to complete the irrigation inspection affidavit based on approved Irrigation Plan. This should require limited construction observation visits and a functional test of the irrigation system shall be performed to accurately complete the affidavit. Final CO or financial assurances release shall not be processed until an executed and approved affidavit is submitted to City Staff. When ready to call for inspection and submit affidavits, first contact the city planner of record for the project (719-385-5905) and as necessary our DRE office (719-385-5982)”.

## Appendix F. Site Category Format, Alternative Landscape Adjustment and Site Notes

## A. Site Category Calculation Format General Standards

1. All projects shall include the applicable Site Category Calculation Charts as shown below.
2. If alternative landscape adjustment is requested and approved, each site category item requesting a change shall have a star (\*) located next to change and the following note be provided below the chart "Alternative Landscape Adjustment Requested".
3. If existing trees are being used to meet site requirements, each site category shall include the number of existing trees being used and the following note be provided below the chart "All existing trees being used to meet site landscape requirements shall be replaced if not in a healthy condition."

**LANDSCAPE SETBACKS (7.4.905)**

Street name	Street Classification	Width Req./Prov.	Linear Footage	Tree/Feet Required	No. of Trees Required/Provided
<b>JONES DRIVE</b>	Principal arterial	25'/25'	350'	1 per 20'	18/15 (shrub substitutes)
<b>SCOTT LANE</b>	Non-arterial	10'/8'*	200'	1 per 30'	7/7 (3 existing)
<b>SHRUB SUBSTITUTES REQUIRED/PROVIDED</b>	Ornamental grass subs Required/provided	Plan symbol abbreviation	Percent ground coverage Required/provided		
<b>30/20</b>	20/20	JD	75%/75%		
n/a	n/a	SD	75%/75%		

\*Alternative Landscape Adjustment Requested (if applicable).

All existing trees being used to meet site landscape requirements shall be replaced if not in a healthy condition.

**PROPERTY EDGE LANDSCAPE BUFFERS (7.4.906)**

Property line	Width Req./Prov.	Linear Footage	Tree/Feet Required	No. of Trees Required/Provided	Evergreen Trees Required/Provided
<b>WEST PROPERTY LINE</b>	15'/15'	200'	1 per 20'	10/10	5/10
<b>EAST PROPERTY LINE</b>	10'/8'*	80'	1 per 20'	4/4 (2 existing)	2/2
<b>Shrub substitutes Required/provided</b>	Ornamental grass subs Required/provided	Plan symbol abbreviation	Percent ground coverage Required/provided		Length of 6' tall fence req./prov.
n/a	n/a	WB	75%/75%		200'/200'
n/a	n/a	EB	75%/75%		80' (existing)

\*Alternative Landscape Adjustment Requested (if applicable).

All existing trees being used to meet site landscape requirements shall be replaced if not in a healthy condition.

**PARKING LOT LANDSCAPING (7.4.907)**

No. Of vehicle spaces	Shade Trees (1 per 15) Req./Prov.	Parking Lot Footage	Length of frontage (Excluding entry access)	2/3 Length of frontage
<b>120</b>	8/8	Jones Drive	200'	133
		Scott Lane	80'	53
<b>No. Of 3' tall screening plants</b>	<b>Evergreen Plants (min. 50 percent) Provided</b>	<b>Plan Symbol Abbreviation</b>	<b>Percent ground coverage Required/Provided</b>	<b>Length of screening wall/fence/berm</b>
<b>60</b>	30	PL	75%/75%	60' Fence
<b>40</b>	20	PL	75%/75%	n/a

## INTERIOR LANDSCAPING (7.4.908)

Gross site area (sf)	Percent Minimum Internal Area (%) Required	Internal Area (SF) Required/Provided	Internal Trees (1 per 500 SF) Required/Provided
75,000 sf	15% (MF)	11,250 SF/20,000 SF	23/16 + shrubs
Shrub substitutes Required/provided	Ornamental Grass subs Required/Provided	Plan Symbol Abbreviation	Percent ground coverage Required/Provided
70/60	20/20	IL	75%/75%
Green space required (yes/no)	Active Green Space Percent/SF Required/Provided	Non-Active Green Space Percent/SF Required/Provided	Active Green Space Design Elements
Yes	10% (7,500 SF)/ 10% (7,500 SF)	5% (3,750 SF)/ 5% (3,750 SF)	Playground and Outdoor Swimming Pool

## COMPACT LOT LANDSCAPING (7.4.905 AND 7.4.908)

Gross site area (sf)	Percent Minimum Internal Area (%)	Internal Area (SF) Required/Provided	Internal Trees (1 per 500 SF) Required/Provided
100,000 sf	10%	10,000 SF/20,000 SF	20/16 + shrubs
Shrub substitutes Required/provided	Ornamental Grass subs Required/Provided	Plan Symbol Abbreviation	Percent ground coverage Required/Provided
40/30	20/20	IL	75%/75%
Green space required (yes/no)	Active Green Space Percent/SF Required/Provided	Non-Active Green Space Percent/SF Required/Provided	Active Green Space Design Elements
Yes	5% (5,000 SF)/ (5,000 SF) 5%	5% (5,000 SF)/ (5,000 SF) 5%	Dog Park and Plaza Areas
Street oriented lots (yes/no)	Number of Street Oriented Lots	Number of Trees (1 per lot) Required/Provided	
Yes	156	156/156	

### B. Alternative Landscape Adjustment Format General Standards

- All projects requesting Alternative Landscape Adjustment shall include the following information listed below in text form below the Site Category Calculation Charts for each request.
  - Separate request numbers and information (if multiple adjustments are requested)
  - Code section and requirement that is being affected by the request.
  - Justification for adjustment and how we are meeting the intent of the landscape code.
  - Proposal for alternative landscape design including compensation as needed.
- Example Request:
  - Code Section – 7.4.905
  - Requirement – 25' wide landscape setback
  - Justification – Due to site and utility constraints, a reduction of five (5) feet is requested along Jones Drive and provide a 20' landscape setback along this street.
  - Proposal - Additional tree and shrub plantings will be provided within this setback area which will substantially exceed the setback planting requirements and help screen the proposed development from the adjacent existing properties.

### C. Required Landscape Site Notes

1. The following landscape notes shall be provided on all Preliminary and Final Landscape plans and be listed in a section called “Standard City of Colorado Springs Landscape Notes”.
  - “A Final Landscape and Irrigation Plan, with applicable supporting material, shall be submitted at time of Building Permit application and shall be approved before any Building Permit approval, any landscape or irrigation construction, and issuance of a Certificate of Occupancy.”
  - “All proposed landscaping shall be watered by an automatic irrigation system which will provide drip irrigation to all shrub beds and trees within native seed areas and spray irrigation to all high-water use turf and native seed areas.”
  - “The Owner or Developer is required to provide inspection affidavits executed by the Colorado Licensed Landscape Architect or Certified Irrigation Designer of record for the project, which certifies that the project was installed and in compliance with the approved Final Landscape and Irrigation Plan on file in City Planning. This should require limited construction observation visits to accurately complete the affidavits. When ready to call for inspection and submit affidavits, first contact the city planner of record for the project (719-385-5905) and as necessary our DRE office (719-385-5982).”
  - “Copies of receipts/delivery tickets for soil amendments installed on the project are required to be provided with the inspection affidavits.”
  - “If soil in the parking lot has been compacted by grading operations, the soil within the planter shall be tilled, or removed to a depth of thirty (30) inches and replaced with an acceptable growing medium for the species being installed.”
  - “Tilling of the existing soil to incorporate amendments and counter any compaction or soil consolidation shall be required for all landscape planting areas.”
  - “Accessible routes, including ramps and sidewalks, within the public right-of-way shall be per city engineering standard drawings and specifications. engineering development review division inspector will have the final authority on accepting the public improvements.” (Note – this note is only for urban downtown projects within the city)
2. The following landscape notes shall be provided on the cover sheet of all Development Plans and be included in the general note section. If a different party (Metro District/HOA/etc.) is responsible for long term maintenance other than the property Owner, update these notes to reflect this.
  - “Landscape improvements and maintenance shall be the responsibility of Owner, and/or their assigns”.
  - “All street trees and streetscape improvements located in the ROW will be maintained by the abutting property owner.”

## Appendix G. Plant Schedule and Soil Amendment Fertilizer Recommendations Format

### A. Plant Schedule Format General Standards

1. All Final Landscape Plans shall include a plant schedule on the plans as shown below.
2. Preliminary Landscape Plans can include conceptual planting schedule which includes the following just for trees: Tree Abbreviations, Quantities, Botanical Name and Common Name.

Deciduous trees							
ABBREVIATION	Qty.	Botanical Name	Common Name	Mature Ht. & Width	Planting Size	Code Requirements	Notes
HAC	4	Celtis occidentalis	Hackberry	35'x35'	1.5 Cal	Park/ROW/Stream	B&B
HAW	3	Crataegus crus-galli inermis	Cockspur Hawthorn	25'x30'	1.0 Cal	ROW/Stream/Green	B&B
CRB	5	Malus 'Spring Snow'	Spring Snow Crabapple	25'x25'	1.0 Cal	ROW/Stream/Green	B&B
OAK	7	Quercus macrocarpa	Bur Oak	60'x50'	1.5 Cal	Park/ROW/Stream/Green	B&B
Evergreen trees							
FIR	3	Abies concolor	White Fir	50'x20'	6' Ht.	Screen/Wall/Trash	B&B
AUS	8	Pinus nigra	Austrian Pine	50'x30'	6' Ht.	Screen/Wall/Trash	B&B
PON	4	Pinus ponderosa	Ponderosa Pine	50'x25'	6' Ht.	Screen/Wall/Trash	B&B
	34	TOTAL NUMBER OF TREES (100% Selected Species - Minimum 70%)					
Deciduous & evergreen shrubs							
LEA	31	Amorpha canescens	Leadplant	3'x3'	5 gal.	Median	Cont.
SGB	19	Cytisus purgans	Spanish Gold Broom	4'x4'	5 gal.	Screen/Median/Stream	Cont.
GGJ	13	Juniperus scopulorum	Gray Gleam Juniper	12'x5'	5 gal.	Screen/Wall/Trash	Cont.
	63	TOTAL NUMBER OF SHRUBS (79% Selected Species - Minimum 70%)					
Ornamental grasses							
KFG	27	Calamagrostis brachytricha	Korean Feather Grass	3'x3'	5 gal.	Screen/Median/Green	Cont.
BAG	16	Helictotrichon sempervirens	Blue Avena Grass	3'x3'	3 gal.	Median/Green	Cont.
PDG	11	Sporobolus heterolepis	Prairie Dropseed	2'x2'	3 gal.	Green	Cont.
	54	TOTAL NUMBER OF ORNAMENTAL GRASSES (100% Selected Species - Minimum 70%)					

## B. Soil Amendment and Fertilizer Recommendation General Standards

1. All Final Landscape Plans shall include a chart on the plans outlining soil amendments and fertilizer amounts and provide all the information shown below including the notes below the chart. These recommendations shall be based on the required soil analysis report (horticulture). An example of the required chart is shown below.
2. Per UDC section 7.4.904.A.F.2.B, the required Soil Amendment and Fertilizer Chart may be submitted with the irrigation plan if approved by the Manager.
3. Per UDC Section 7.4.902.F.3 Policy 2, The soil amendment mix shall be chosen from one of current Colorado Springs Utilities Approved Soil Amendment Suppliers. The proposed soil amendment mix for the project shall be included in this list and may be found at the link below.
  - <https://www.csu.org/Documents/SoilAmendments.pdf>
4. The use of Biosolids as a replacement for Class 1 soil amendments in the city are not allowed due to possible heavy metal content, pathogen levels and high salt levels.

Required soil amendments & fertilizers		Site soil type – sandy loam / organic material amount – 2.0%					
Ground plane treatment	Class 1 OM Soil Amendment	Nitrogen (15 to 20 ppm)	Phosphorus (10 to 15 ppm)	Potassium (50 to 200 ppm)	Other (K,Zn,Fe, Mn, B,Cu & Biosol )	E.C., Salt or PH Treatment	RotoTill Depth
Sod turfgrass	4 CU. YD. per 1000 SF	1.5 lb. per 1000 SF	0.5 lb. per 1000 SF	1.0 lb. per 1000 SF	4 oz FE per 1000 SF	n/a	6-8" Min
Shrub beds	3 CU. YD. per 1000 SF	1.5 lb. per 1000 SF	0.5 lb. per 1000 SF	1.0 lb. per 1000 SF	4 oz FE per 1000 SF	n/a	6-8" Min
Native seed	2 CU. YD. per 1000 SF	n/a	n/a	n/a	Biosol: 20 lbs per 1000 SF	n/a	6-8" Min

1. Provide the proposed soil amendment mix and local supplier. The proposed mix shall be chosen from the current Colorado Springs Utilities Approved Soil Amendment Suppliers.
2. Slow-release fertilizers are required for sandy soils.
3. Any other required soil amendment/fertilizer recommendations notes based on the soil testing lab report.

## Appendix H. City Green Infrastructure Requirements

### A. Plant Schedule Format General Standards

1. All proposed PIA's (Planned Infiltration Areas) should be shown and labeled on the landscape plan and should match the Drainage Report, Preliminary Grading and/or Site plan sheet(s) showing these locations. These areas should be shown with a solid light color hatch on the landscape sheet.
2. Show and label all proposed PIA swales with flow arrows on the landscape plan. Proposed trees should not be located at the bottom of any proposed swale.
3. High-Water use turf is not allowed for PIA areas located in medians, roundabouts, parking lot islands or parking lot planters.
4. Native seed is not allowed for PIA areas in highly visible small landscape spaces (under 8 feet wide) or in areas with consistent foot traffic from people or pets.